Ion Ratio Report

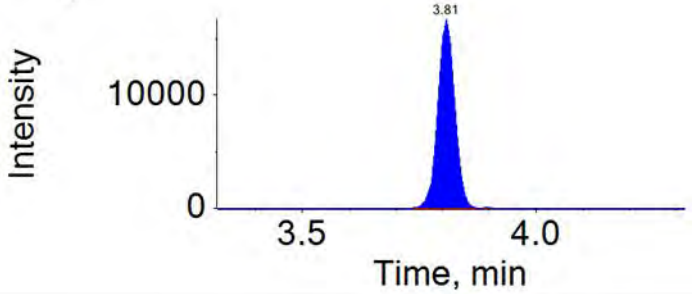
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-05.wiff

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	41984.3	A	N/A	1.0000			
PFBS_2	3.81	1.00	15769.1	A	N/A	0.3756	3	50	
4:2-FTS	4.12	1.00	9629.9	M	N/A	1.0000			
4:2 FTS_2	4.12	1.00	7594.0	A	N/A	0.7886		#NA!	
PFHxA	4.16	1.00	96444.0	A	N/A	1.0000			
PFHxA_2	4.16	1.00	1277.6	A	N/A	0.0132	13	50	
PFPeS	4.18	1.10	22297.9	A	N/A	1.0000			
PFPeS_2	4.18	1.10	10707.8	A	N/A	0.4802	-8	50	
PFHpA	4.55	1.00	93659.5	A	N/A	1.0000			
PFHpA_2	4.55	1.00	4377.9	A	N/A	0.0467	-17	50	
PFHxS	4.55	1.00	34111.0	M	N/A	1.0000			
PFHxS_2	4.54	1.00	11982.0	A	N/A	0.3513	16	50	
6:2-FTS	4.90	1.00	9221.0	M	N/A	1.0000			
6:2 FTS_2	4.91	1.00	4725.6	A	N/A	0.5125		#NA!	
PFHpS	4.91	1.08	30798.1	A	N/A	1.0000			
PFHpS_2	4.91	1.08	13327.9	A	N/A	0.4328	6	50	
PFOA	4.92	1.00	100905.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	5004.1	A	N/A	0.0496	-13	50	
PFOS	5.24	1.00	34555.4	M	N/A	1.0000			
PFOS_2	5.24	1.00	9315.9	M	N/A	0.2696	4	50	
PFNA	5.26	1.00	70400.6	A	N/A	1.0000			
PFNA_2	5.25	1.00	1189.7	A	N/A	0.0169	-26	50	
PFNS	5.54	1.06	17583.2	A	N/A	1.0000			
PFNS_2	5.54	1.06	8054.2	A	N/A	0.4581	-4	50	
PFDA	5.56	1.00	68441.3	A	N/A	1.0000			
PFDA_2	5.56	1.00	425.8	M	N/A	0.0062	-22	50	
8:2-FTS	5.56	1.00	5551.6	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	3895.7	A	N/A	0.7017		#NA!	
NMeFOSAA	5.71	1.00	7238.6	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	1290.9	A	N/A	0.1783	-16	50	
PFDS	5.80	1.11	14746.9	A	N/A	1.0000			
PFDS_2	5.79	1.11	7890.7	A	N/A	0.5351	5	50	
PFUnDA	5.82	1.00	55065.8	A	N/A	1.0000			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	5.84	1.00	8391.3	M	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	4219.2	A	N/A	0.5028	-13	50	
PFDoDA	6.05	1.00	63306.6	A	N/A	1.0000			
PFDoDA_2	6.06	1.00	973.7	A	N/A	0.0154	-6	50	
10:2-FTS	6.07	1.09	4315.1	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	3603.0	A	N/A	0.8350		#NA!	
PFTrDA	6.25	1.03	52911.8	M	N/A	1.0000			
PFTrDA_2	6.25	1.03	567.3	A	N/A	0.0107	16	50	
PFTeDA	6.43	1.00	38686.6	A	N/A	1.0000			
PFTeDA_2	6.43	1.00	380.7	M	N/A	0.0098	54	50	OOS
PFHxDA	6.73	1.05	18605.8	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1083.6	A	N/A	0.0582	-14	50	
PFODA	6.99	1.09	15935.1	A	N/A	1.0000			
PFODA_2	6.99	1.09	437.9	A	N/A	0.0275	2	50	

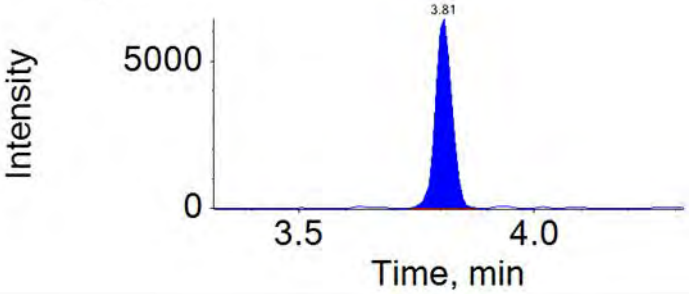
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

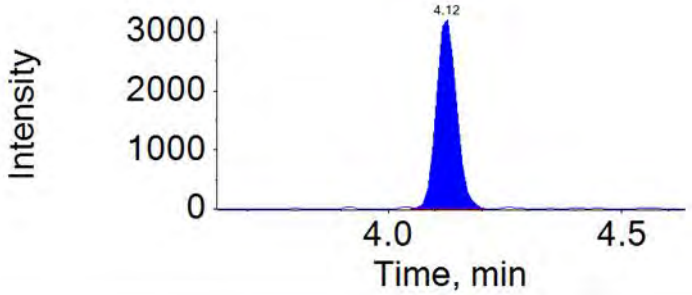
Component: PFBS
Primary Mass: 299.0 / 80.0



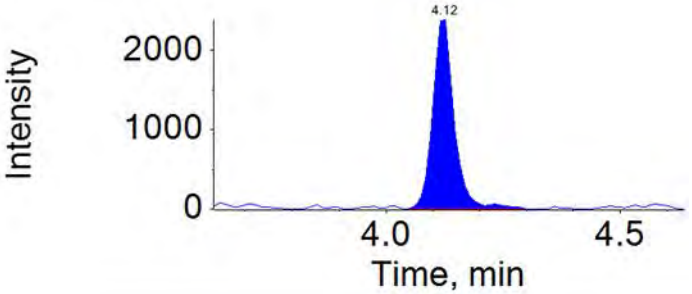
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



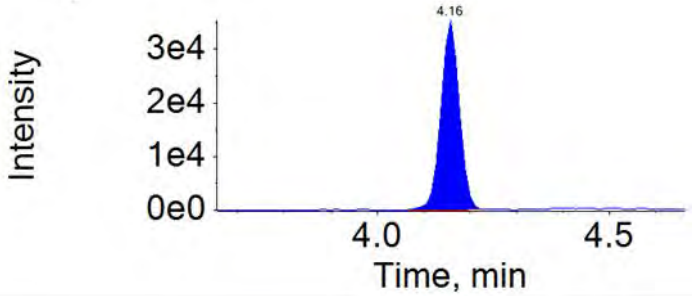
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



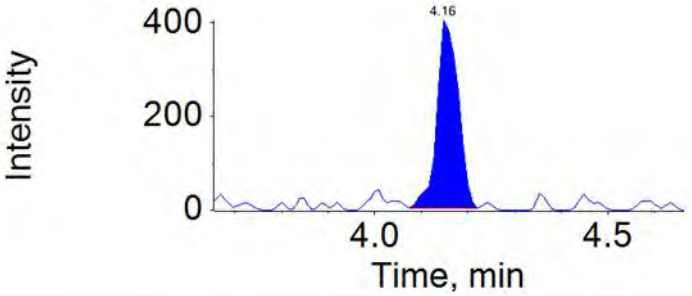
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



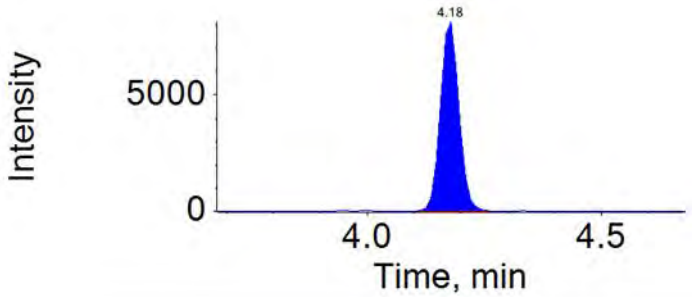
Component: PFHxA
Primary Mass: 313.0 / 269.0



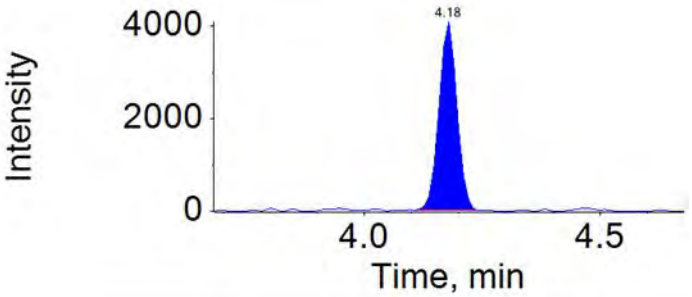
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



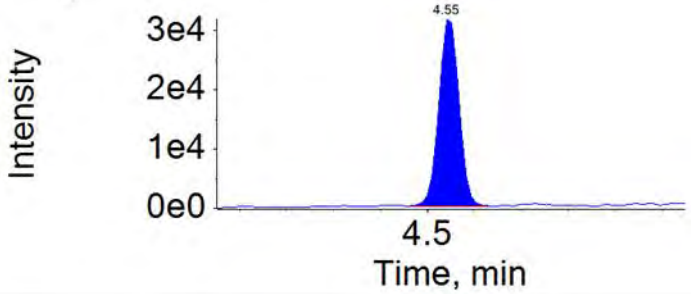
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



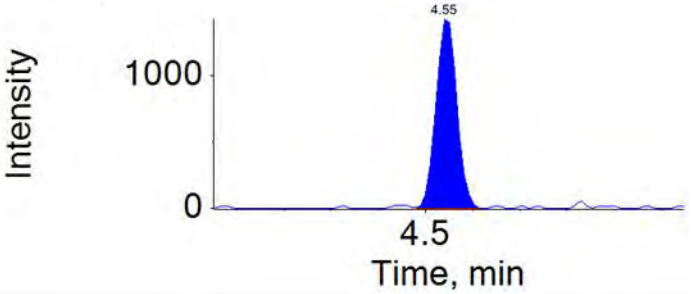
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

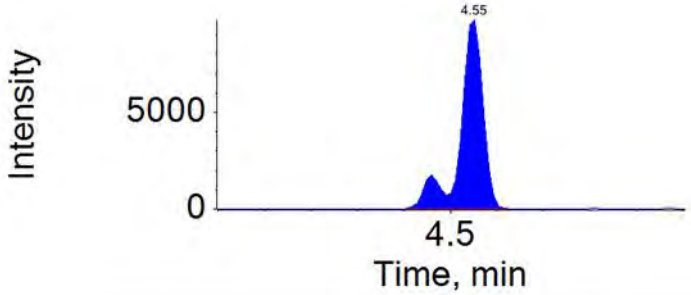
Component: PFHpA
Primary Mass: 363.0 / 319.0



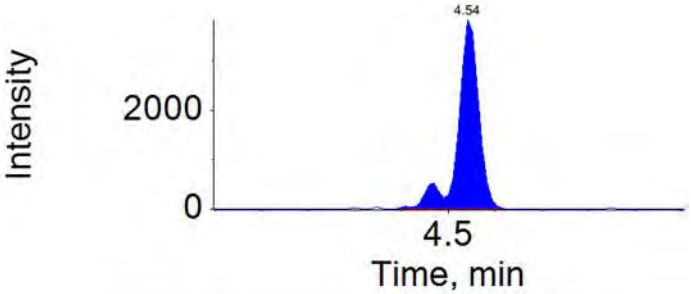
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



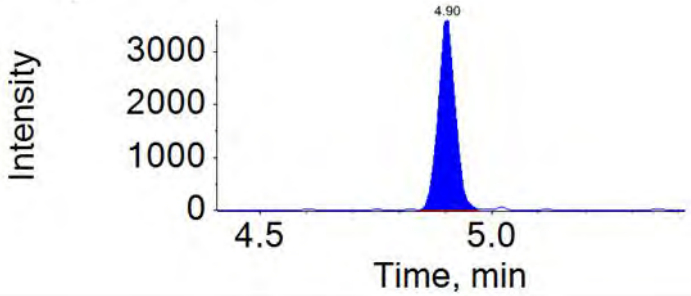
Component: PFHxS
Primary Mass: 399.0 / 80.0



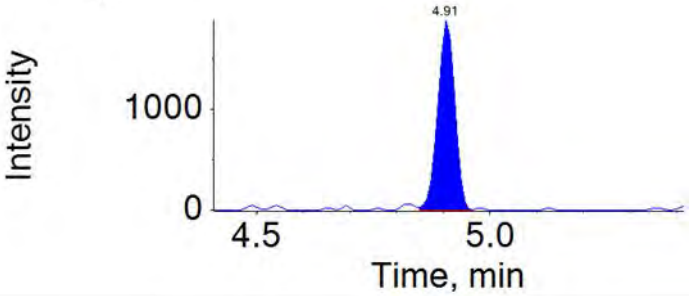
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



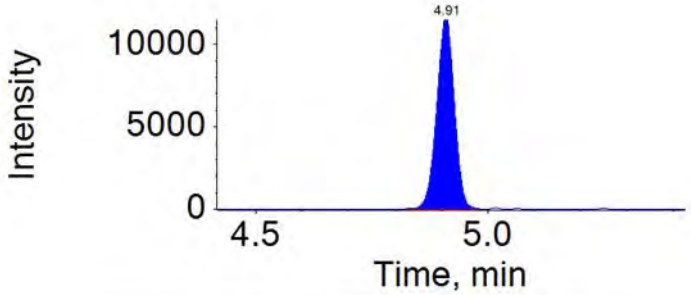
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



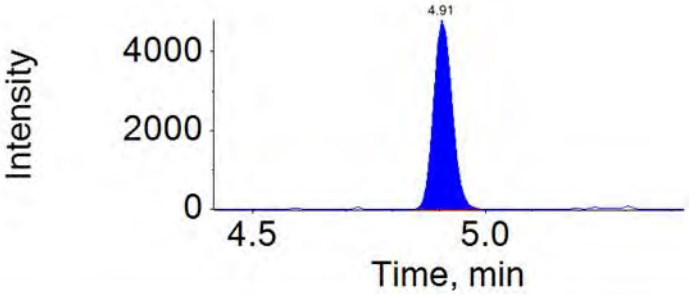
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



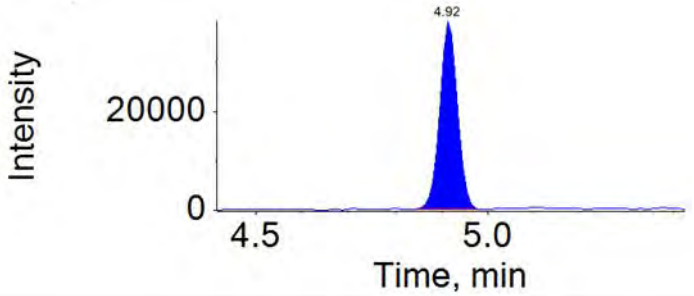
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



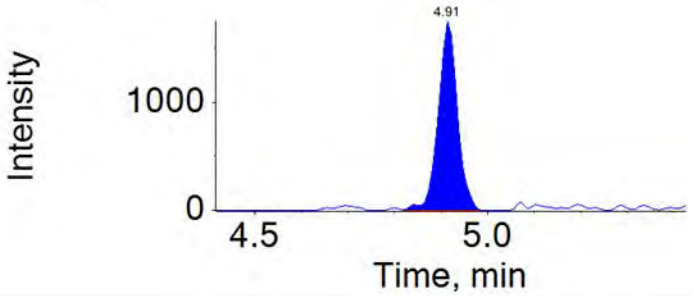
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

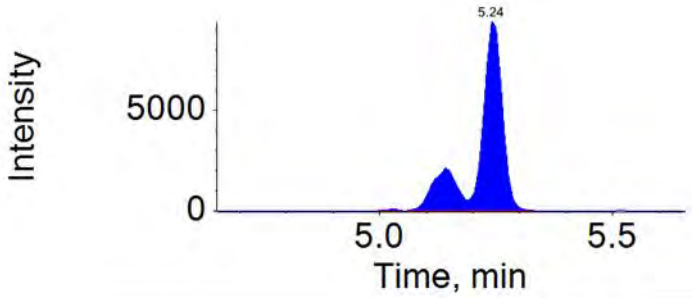
Component: PFOA
Primary Mass: 413.0 / 369.0



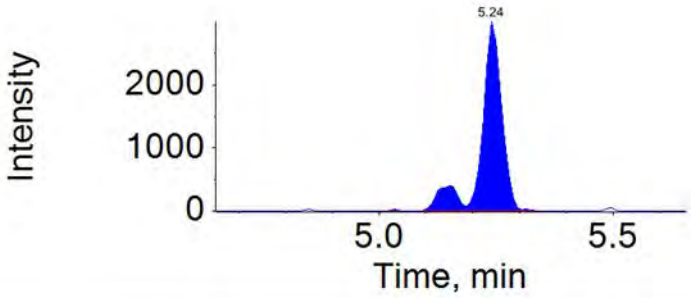
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



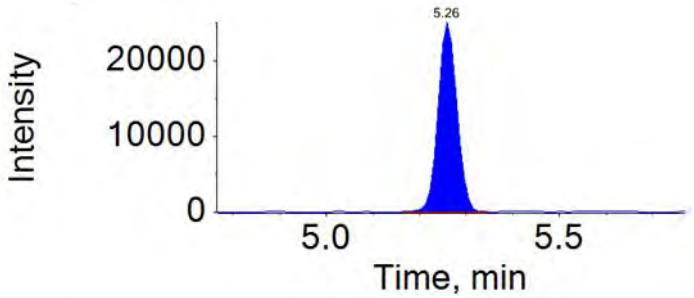
Component: PFOS
Primary Mass: 499.0 / 80.0



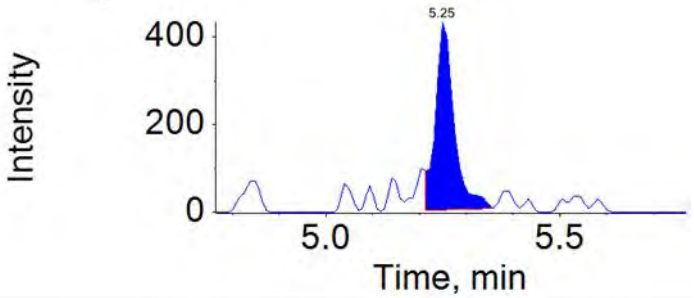
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



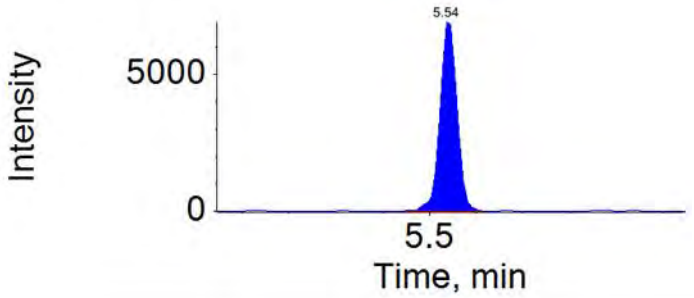
Component: PFNA
Primary Mass: 463.0 / 419.0



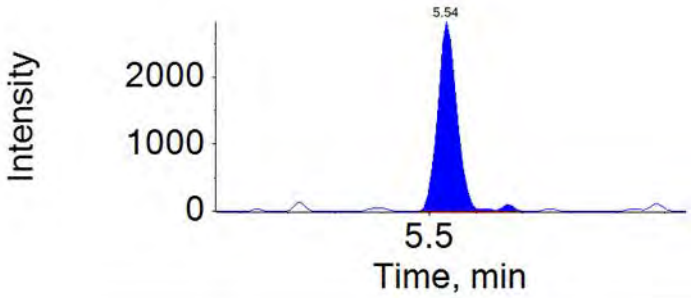
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



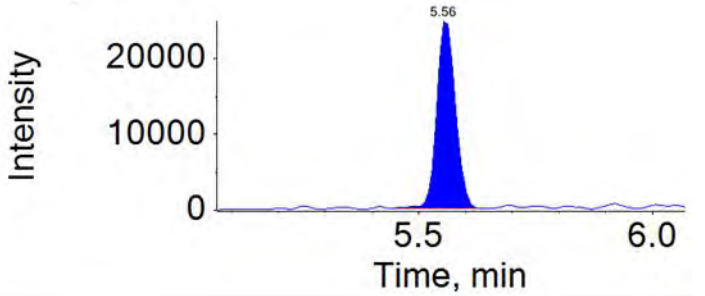
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



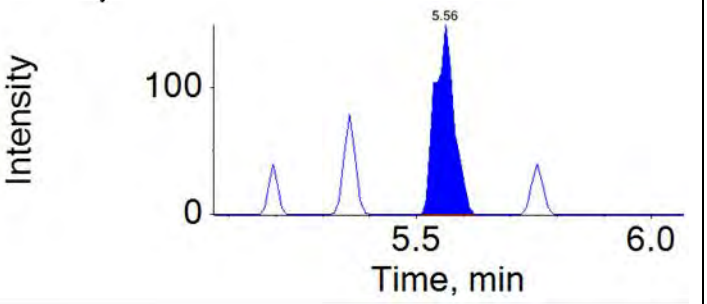
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

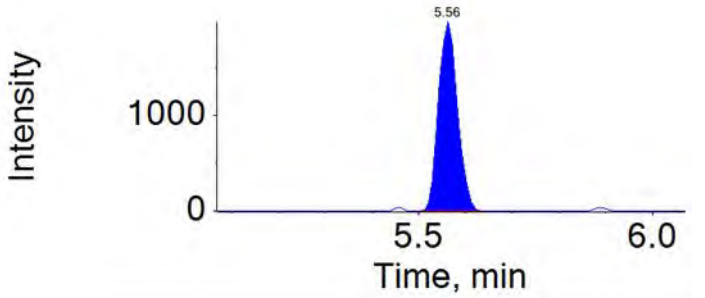
Component: PFDA
Primary Mass: 513.0 / 469.0



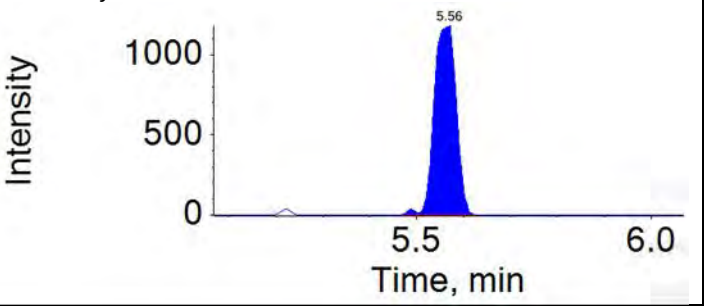
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



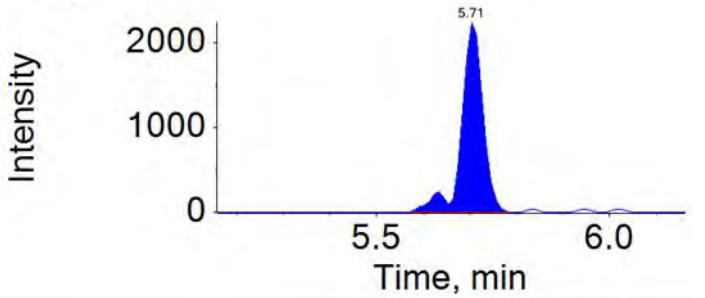
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



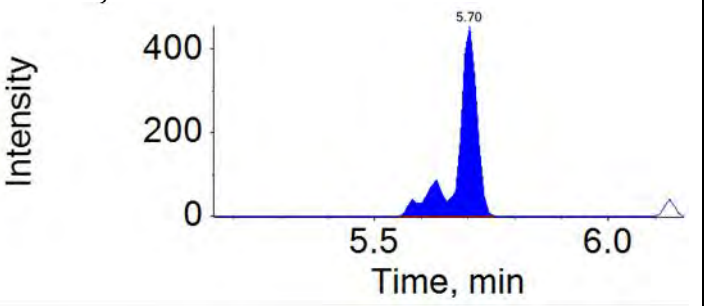
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



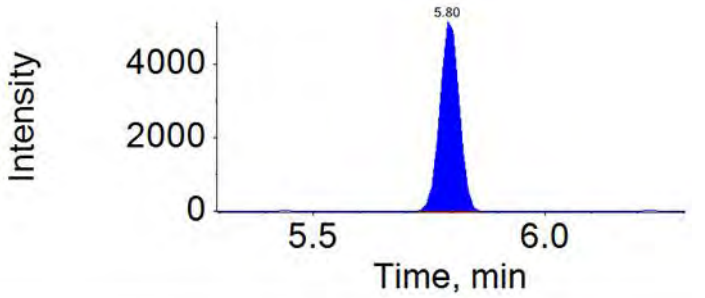
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



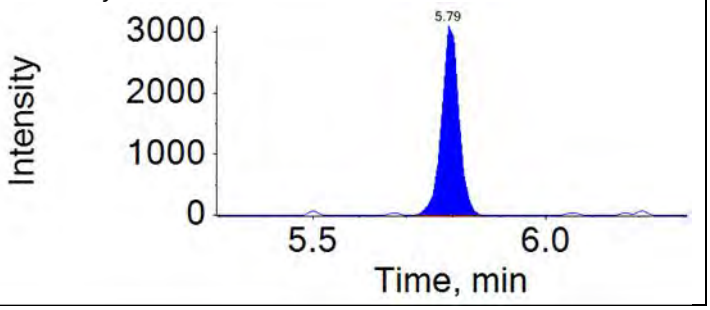
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



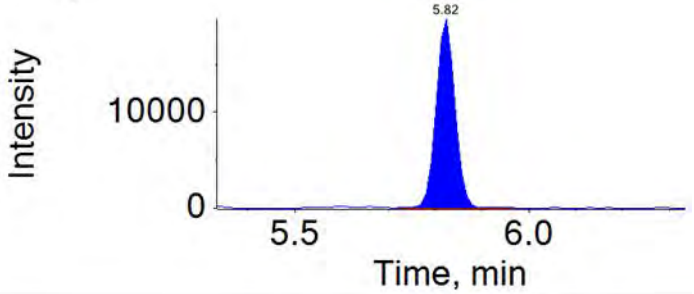
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



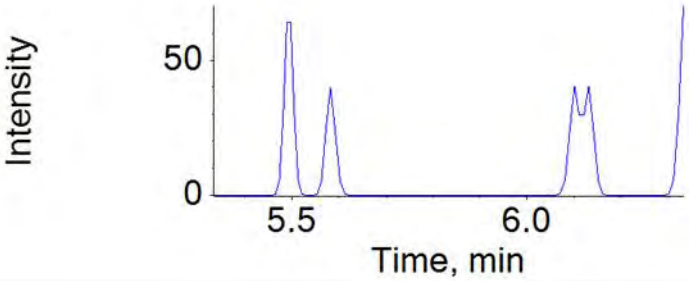
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

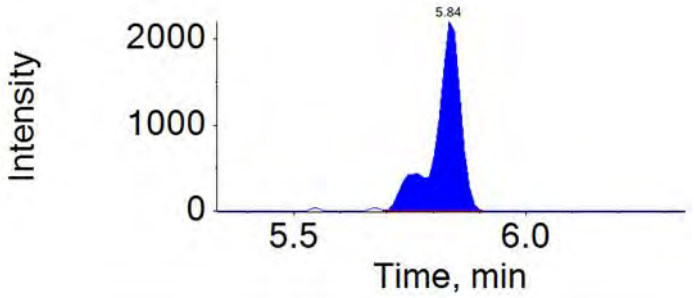
Component: PFUnDA
Primary Mass: 563.0 / 519.0



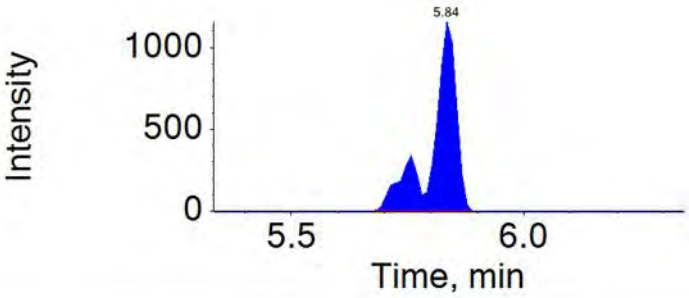
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



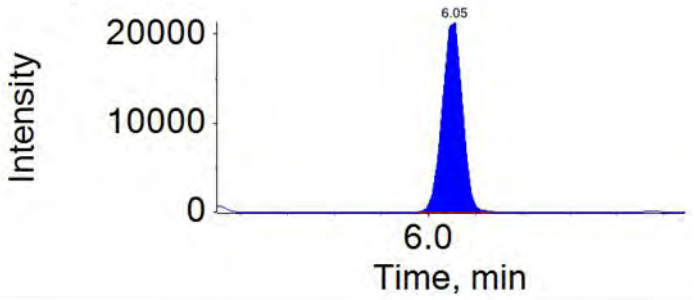
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



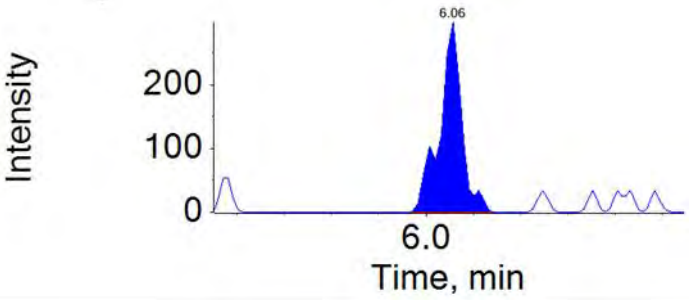
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



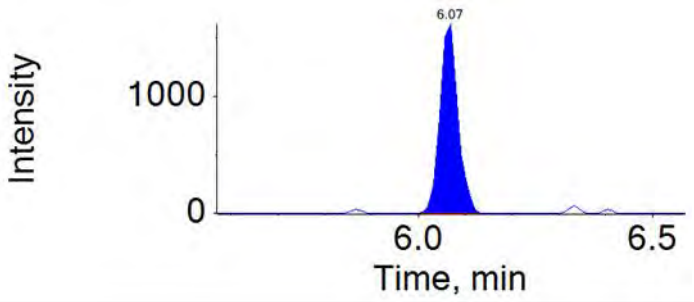
Component: PFDoDA
Primary Mass: 613.0 / 569.0



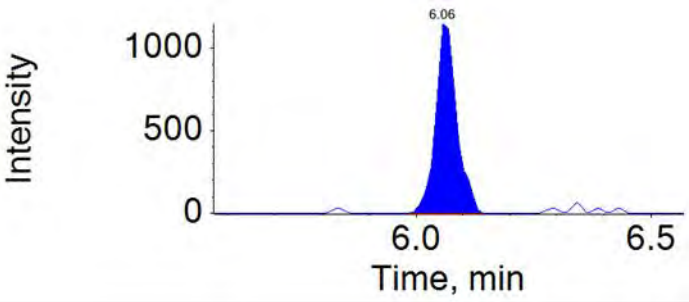
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



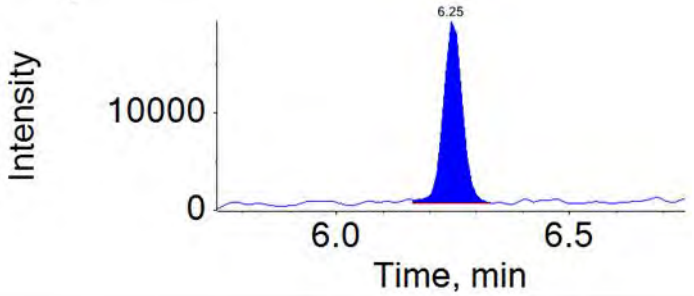
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



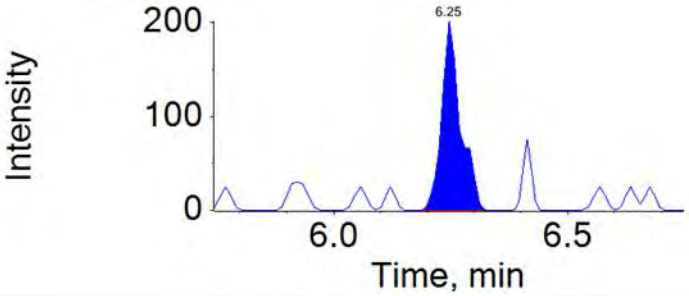
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

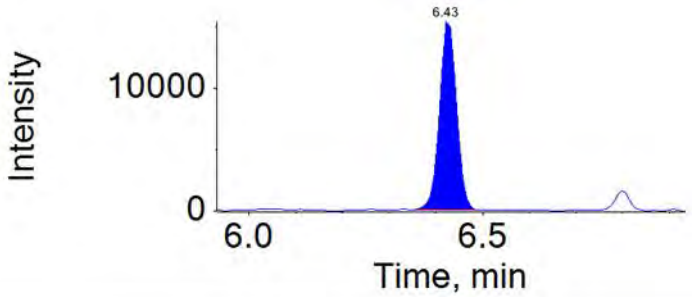
Component: PFTrDA
Primary Mass: 663.0 / 619.0



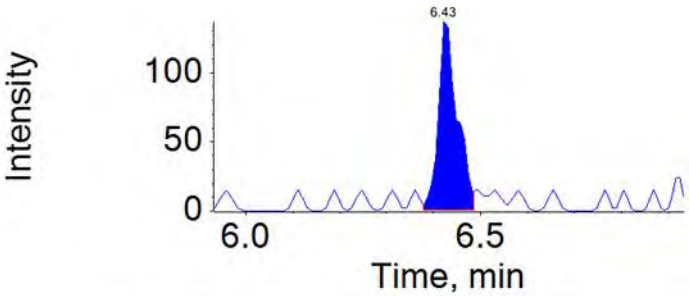
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



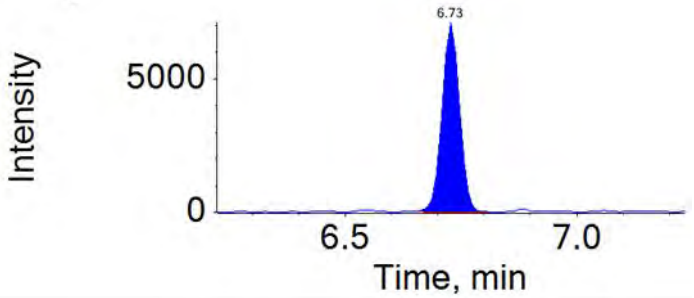
Component: PFTeDA
Primary Mass: 713.0 / 669.0



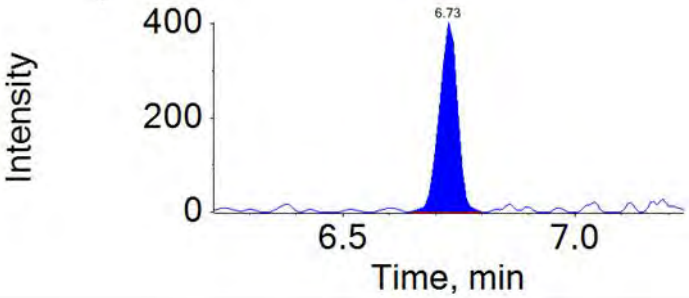
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



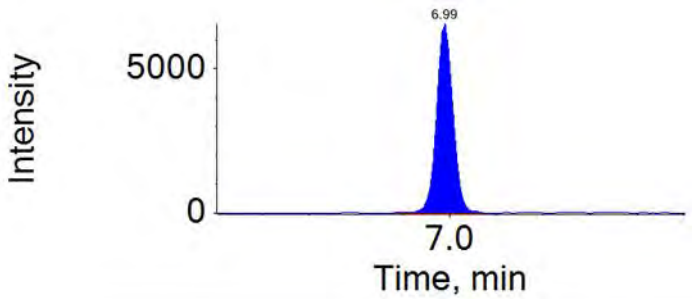
Component: PFHxDA
Primary Mass: 813.0 / 769.0



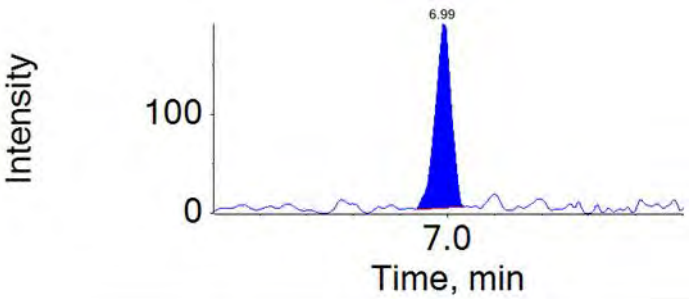
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By HMK at 1:48 pm, 11/14/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	INBLK			**Data File:**		18NOV13D-06.wiff
Sample ID:	methanol + labels			**Acquis Date:**		2018-11-13T09:53:05
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV1-4
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: 18NOV13D-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	712182.6	661126.9	8	50	
13C2-PFOA	5.0	517114.2	466902.6	11	50	
13C4-PFOS	4.8	271947.8	247446.9	10	50	
13C2-PFDA	5.0	309024.7	295381.6	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	788556.3	13C3-PFBA	712182.6	1.107	5.000	4.964	99	70-130	
E13C5-PFPeA	789796.7	13C3-PFBA	712182.6	1.109	5.000	4.974	99	70-130	
E13C3-PFBS	465118.9	13C3-PFBA	712182.6	0.653	4.650	4.610	99	70-130	
E13C2-4:2-FTS	56775.7	13C2-PFOA	517114.2	0.110	4.670	4.890	105	70-130	
E13C5-PFHxA	691160.9	13C2-PFOA	517114.2	1.337	5.000	4.828	97	70-130	
E13C3-PFHxS	343877.9	13C2-PFOA	517114.2	0.665	4.730	4.563	96	70-130	
E13C4-PFHpA	573094.5	13C2-PFOA	517114.2	1.108	5.000	4.993	100	70-130	
E13C2-6:2-FTS	40405.9	13C2-PFOA	517114.2	0.078	4.750	5.228	110	70-130	
E13C8-PFOA	989330.5	13C2-PFOA	517114.2	1.913	5.000	5.271	105	70-130	
E13C8-PFOS	288721.3	13C4-PFOS	271947.8	1.062	4.780	4.704	98	70-130	
E13C9-PFNA	496672.5	13C4-PFOS	271947.8	1.826	5.000	5.092	102	70-130	
E13C6-PFDA	675627.9	13C2-PFDA	309024.7	2.186	5.000	5.102	102	70-130	
E13C2-8:2-FTS	30302.5	13C2-PFDA	309024.7	0.098	4.790	4.890	102	70-130	
E13C8-PFOSA	662561.8	13C2-PFDA	309024.7	2.144	5.000	4.753	95	70-130	
Ed3-NMeFOSAA	77164.8	13C2-PFDA	309024.7	0.250	5.000	4.507	90	70-130	
E13C7-PFUnDA	282164.2	13C2-PFDA	309024.7	0.913	5.000	5.301	106	70-130	
Ed5-NEtFOSAA	63151.8	13C2-PFDA	309024.7	0.204	5.000	4.323	86	70-130	
E13C2-PFDoDA	647992.1	13C2-PFDA	309024.7	2.097	5.000	5.444	109	70-130	
Ed7-NMePFOSAE	342687.6	13C2-PFDA	309024.7	1.109	5.000	4.799	96	70-130	
Ed3-NMePFOSA	79550.6	13C2-PFDA	309024.7	0.257	5.000	4.677	94	70-130	
Ed9-NEtPFOSAE	282226.0	13C2-PFDA	309024.7	0.913	5.000	4.750	95	70-130	
Ed5-NEtPFOSA	62508.0	13C2-PFDA	309024.7	0.202	5.000	4.745	95	70-130	
E13C2-PFTeDA	434458.5	13C2-PFDA	309024.7	1.406	5.000	4.936	99	70-130	

APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

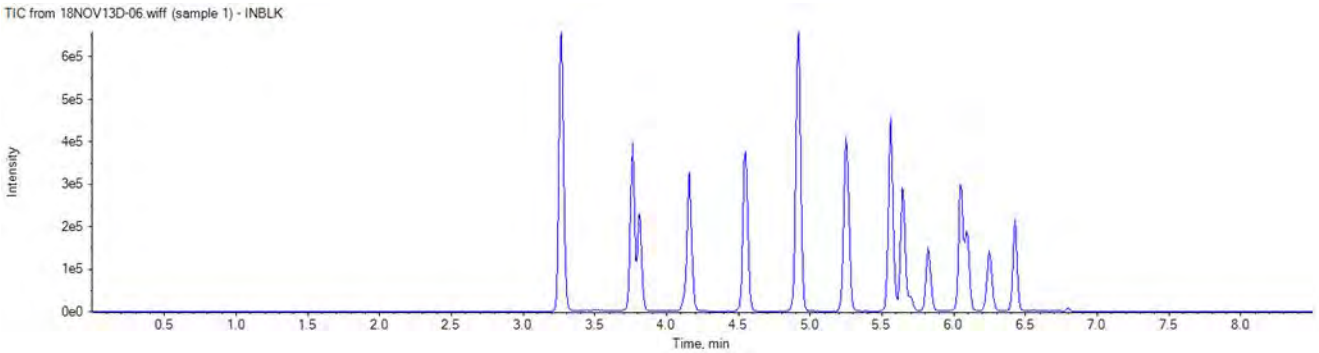
Analyte Quantitation Peak Table

Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV13D-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	3.26	788556.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	789796.7	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	465118.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	56775.7	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	691160.9	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	465118.9	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	573094.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	343877.9	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	40405.9	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	343877.9	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	989330.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	288721.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	496672.5	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	288721.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	675627.9	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30302.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	662561.8	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	77164.8	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	288721.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	282164.2	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	63151.8	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	647992.1	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30302.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	342687.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	79550.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	288721.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	282226.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	62508.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	647992.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	434458.5	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	434458.5	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	434458.5	N/A	

Total Ion Chromatogram

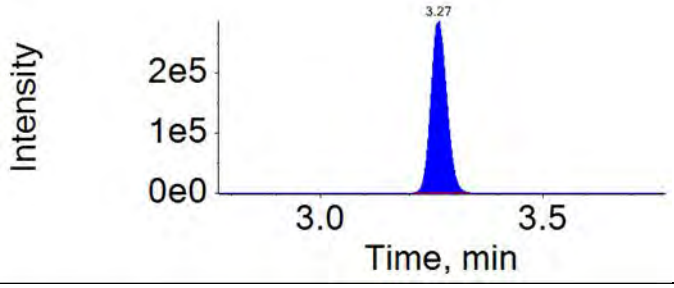


APPROVED
By JPT at 4:33 pm, 11/13/18

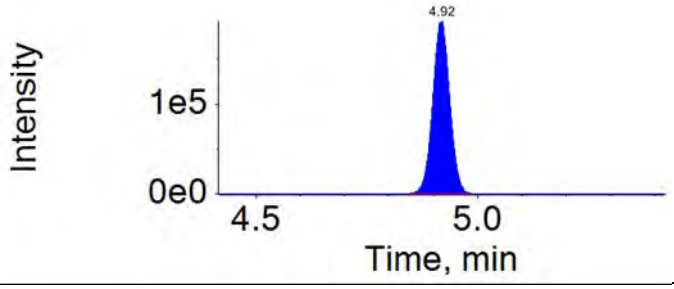
REVIEWED
By umar at 5:40 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

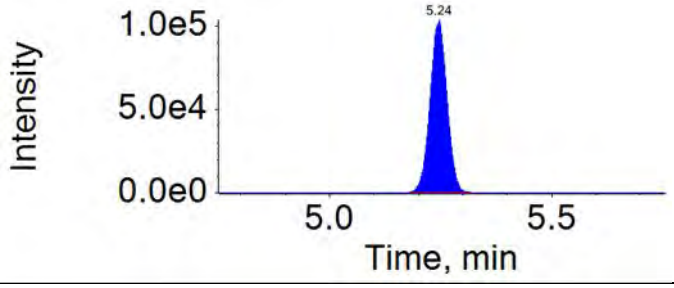
Injection Standard: 13C3-PFBA
216.0 / 172.0



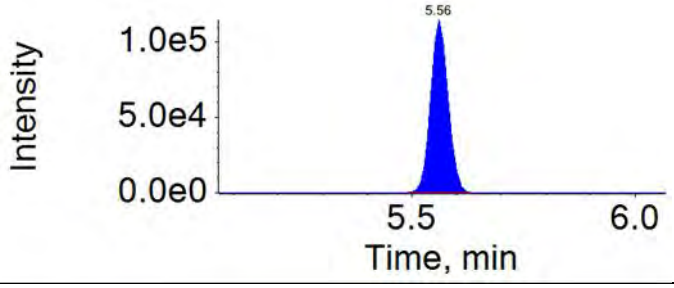
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



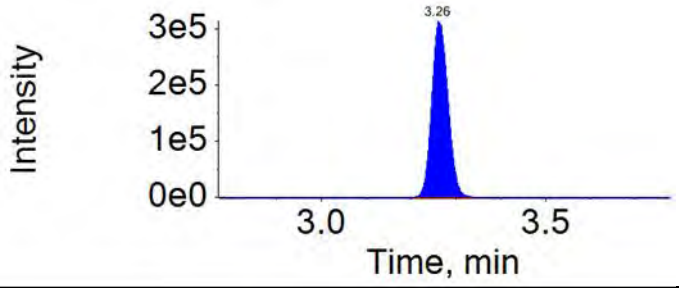
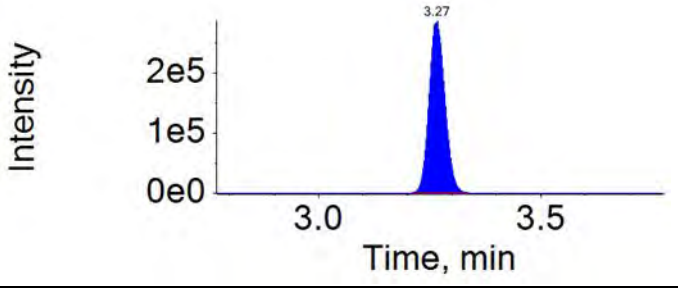
Injection Standard: 13C2-PFDA
515.0 / 470.0

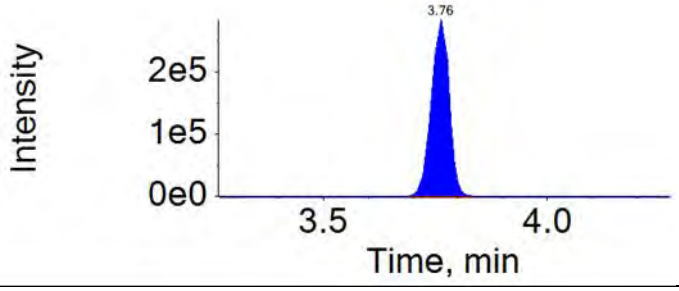
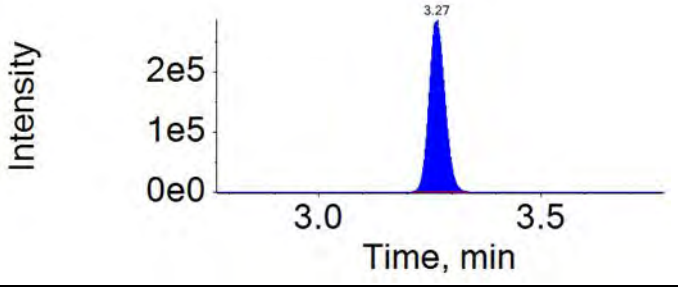


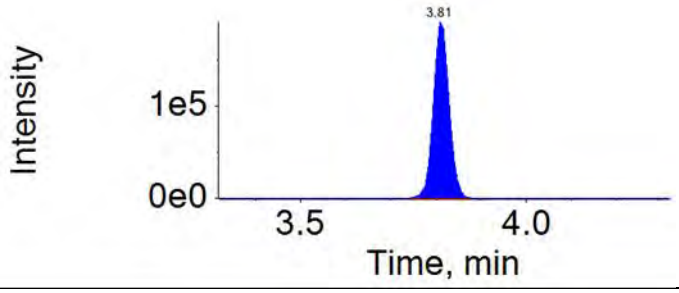
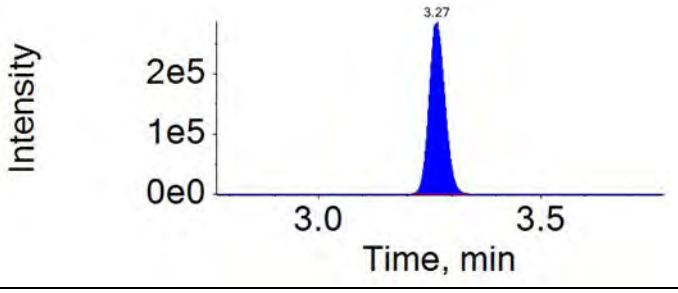
APPROVED
By JPT at 4:33 pm, 11/13/18

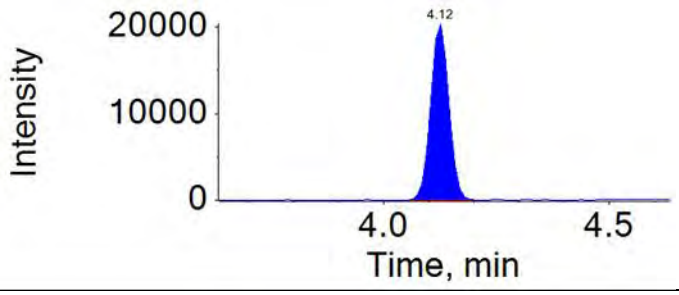
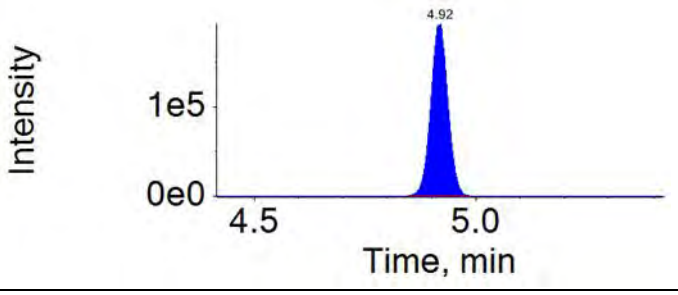
REVIEWED
By umar at 5:40 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

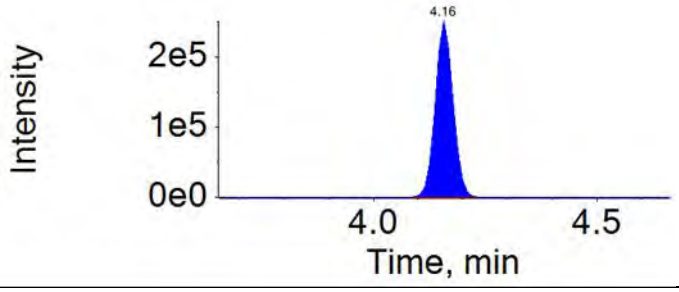
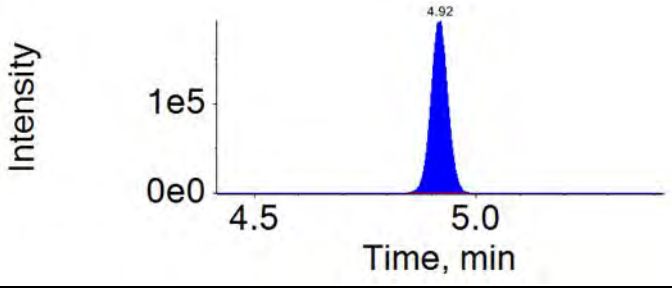
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

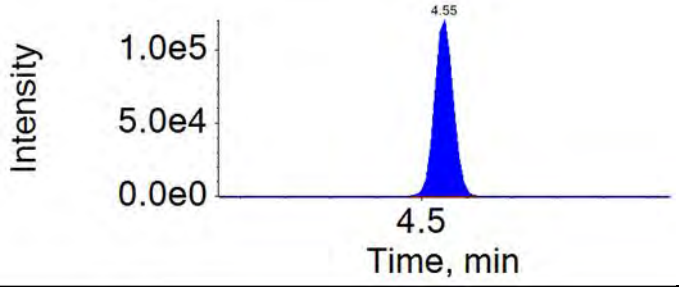
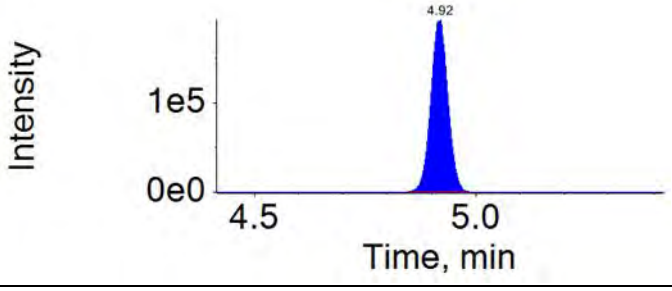
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

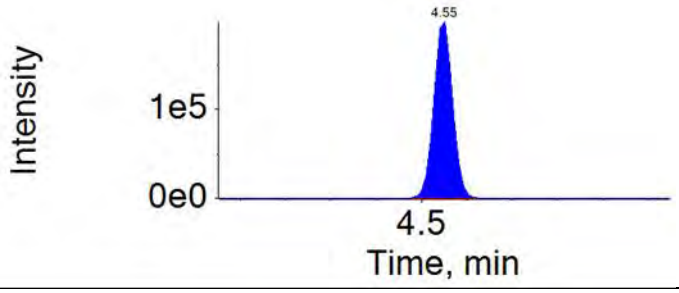
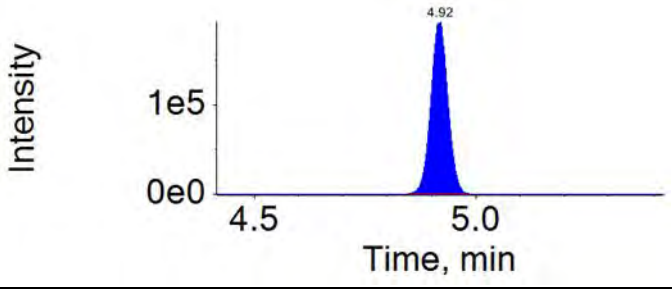
APPROVED
By JPT at 4:33 pm, 11/13/18

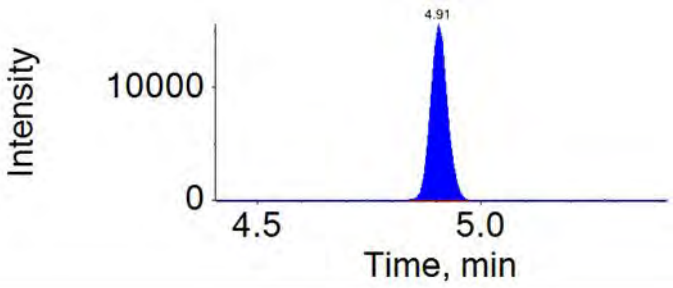
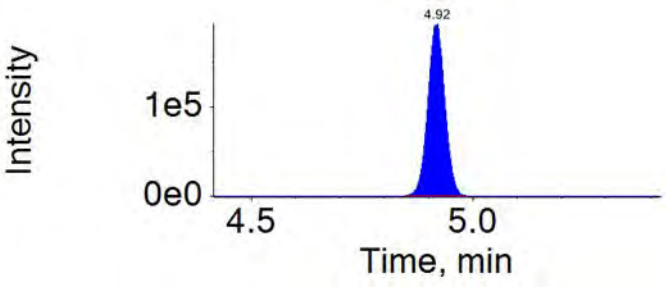
REVIEWED
By umar at 5:40 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

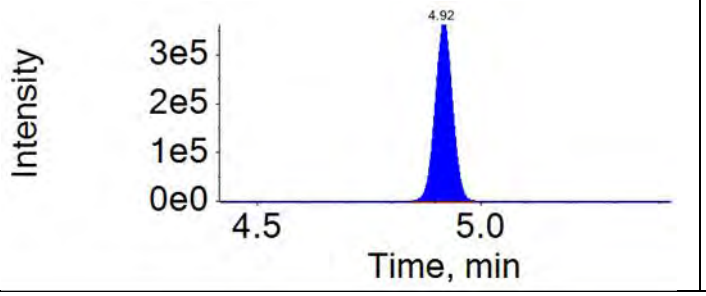
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

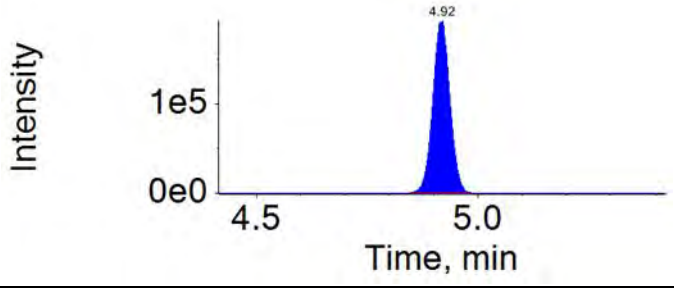
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

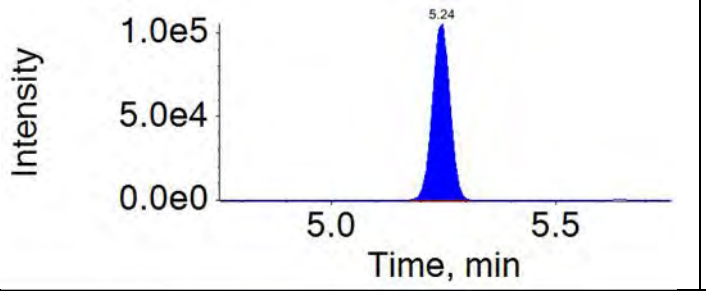
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

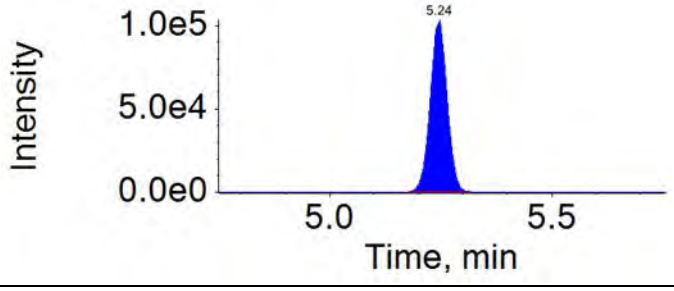
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



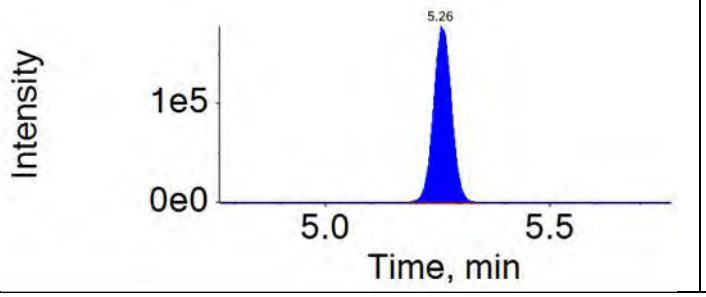


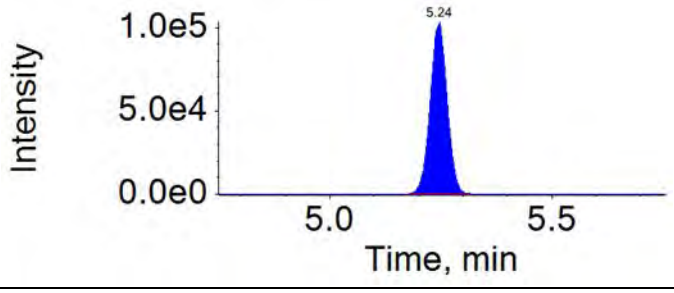
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



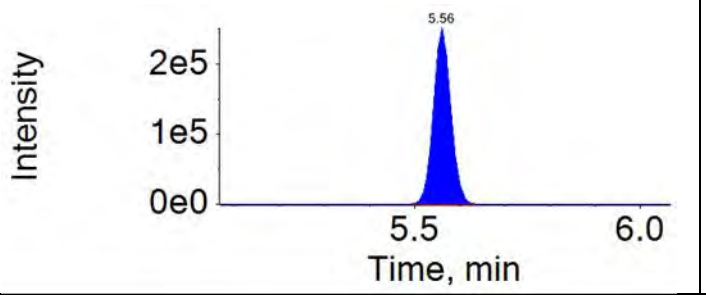


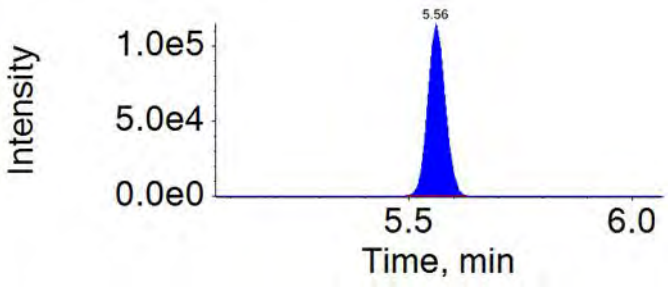
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

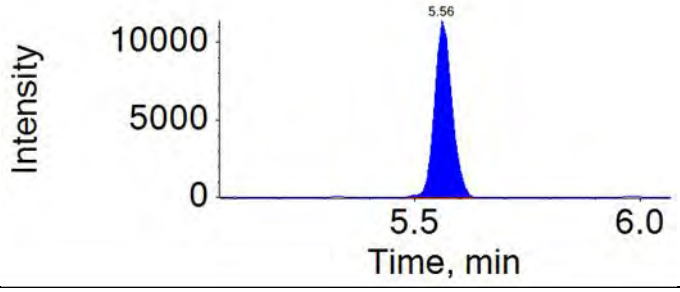
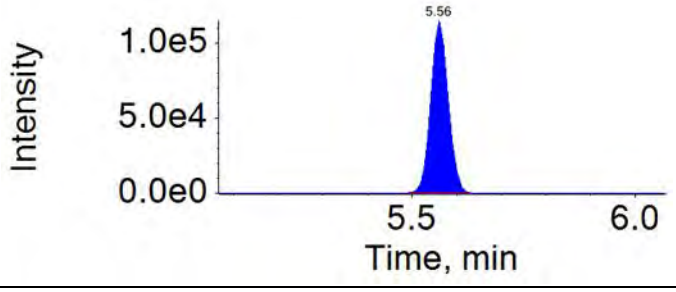


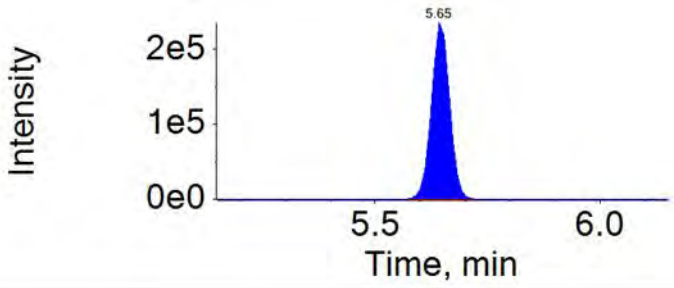
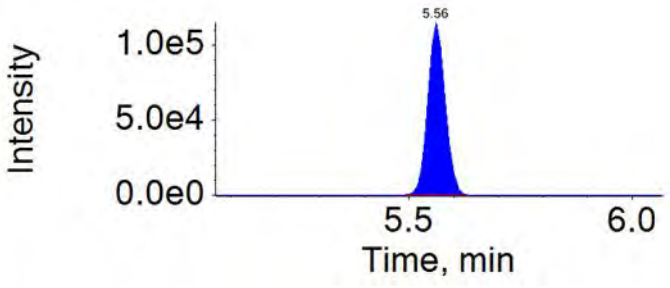


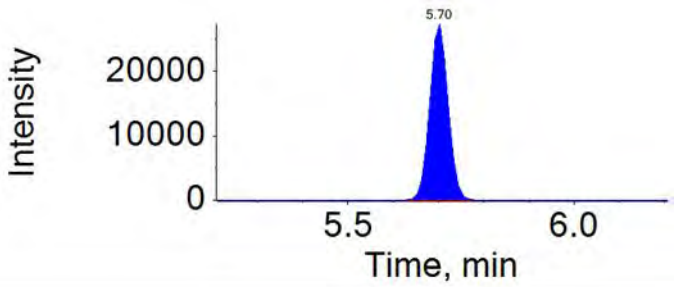
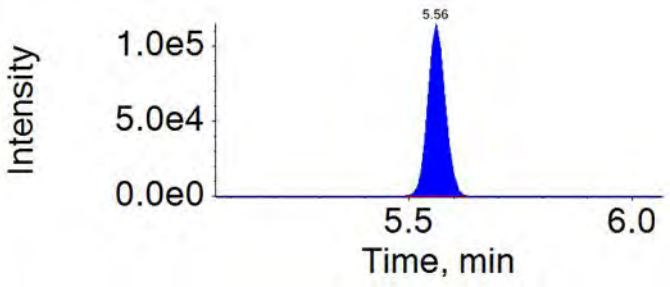
APPROVED
By JPT at 4:33 pm, 11/13/18

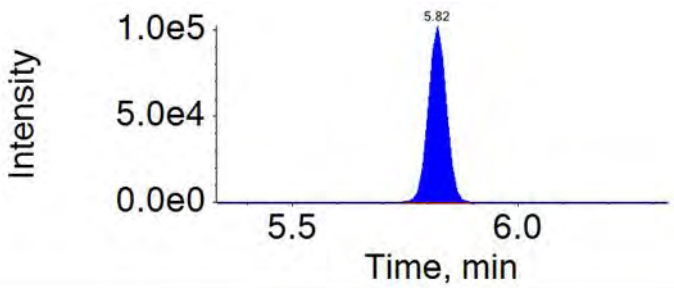
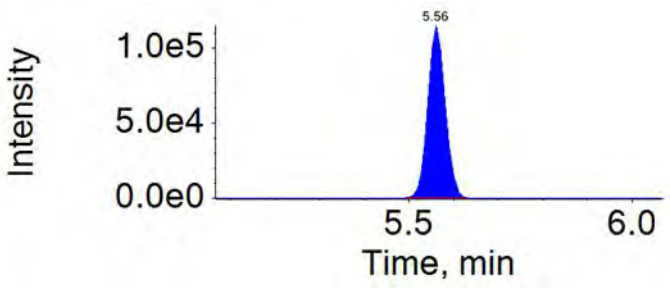
REVIEWED
By umar at 5:40 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

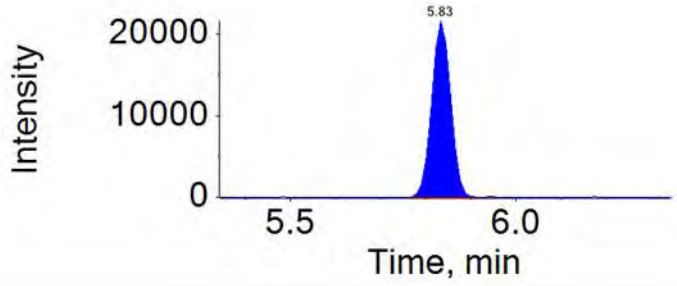
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

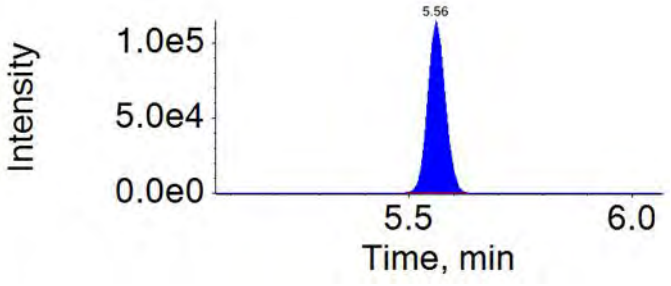
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

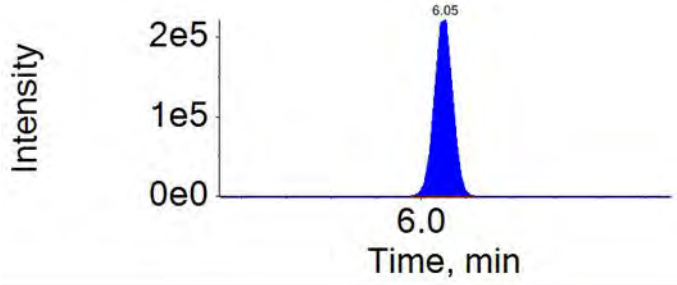
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

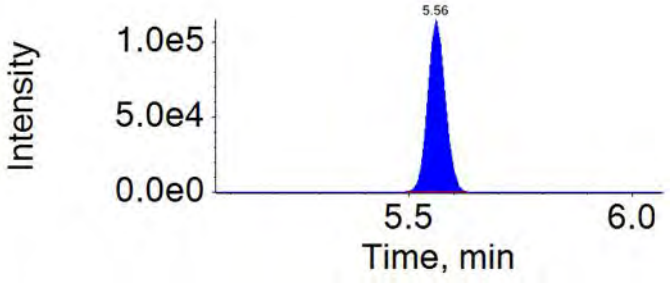
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



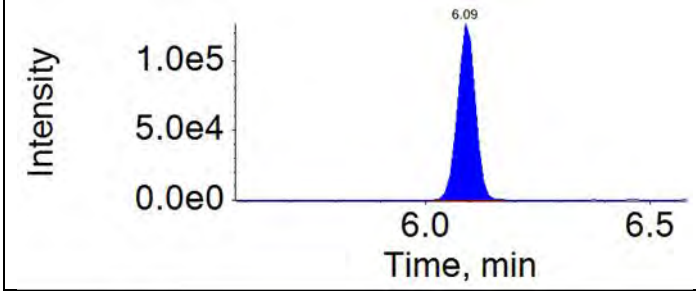


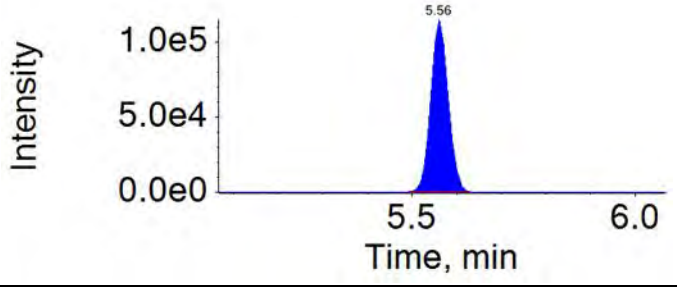
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



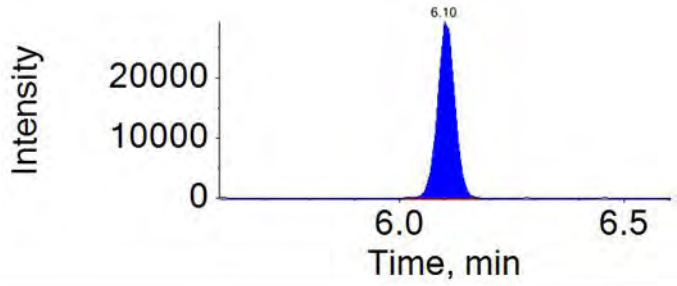


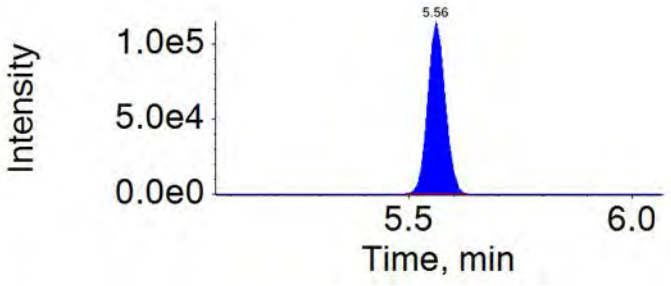
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



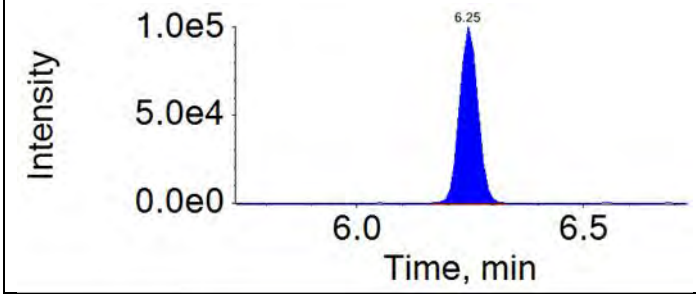


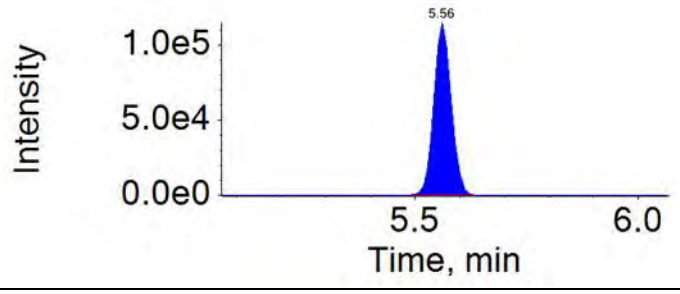
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

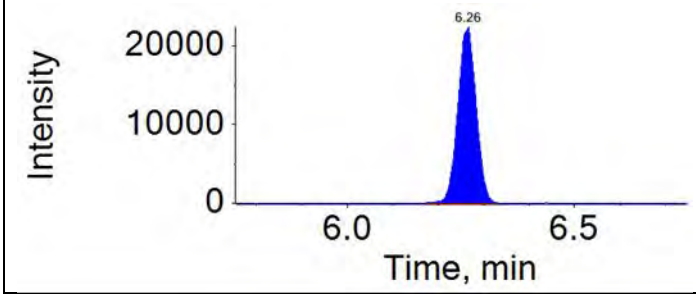
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

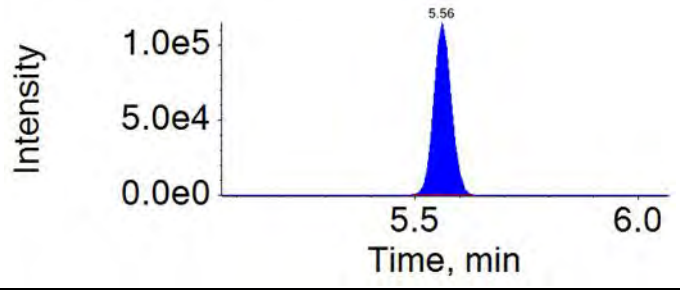
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



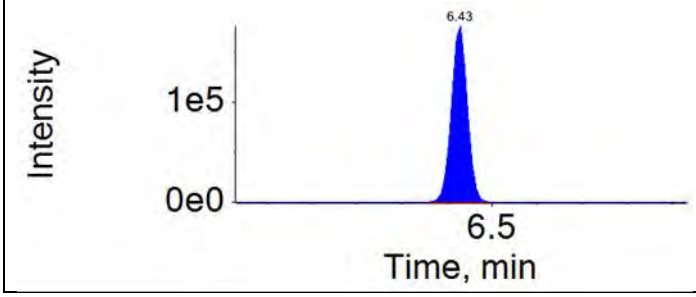


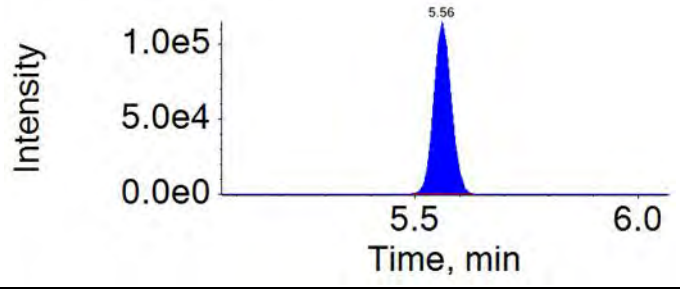
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





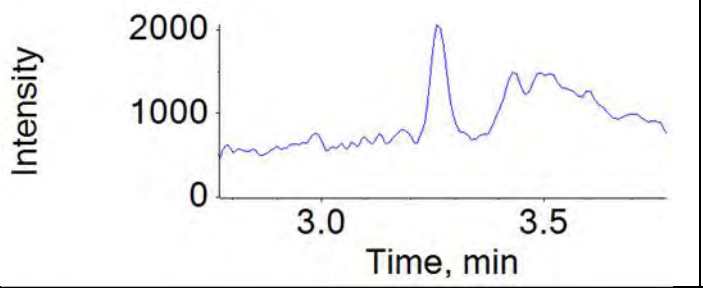
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

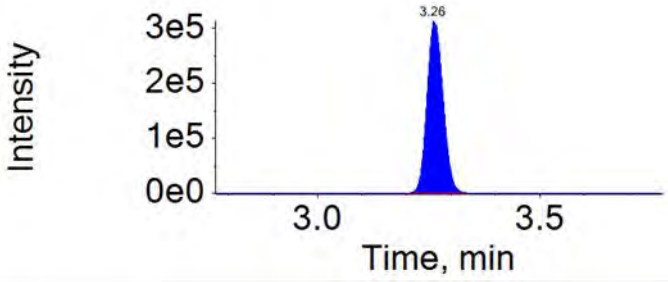




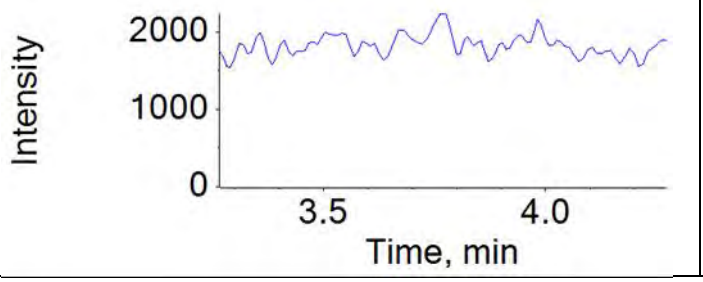
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

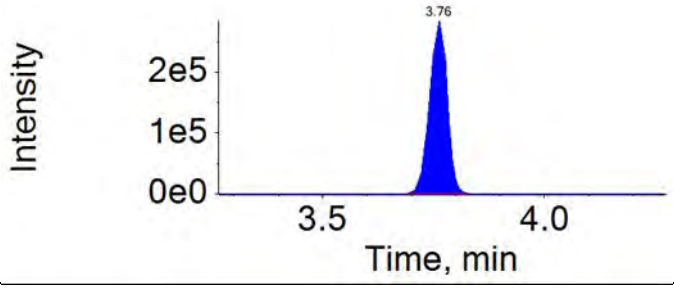
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



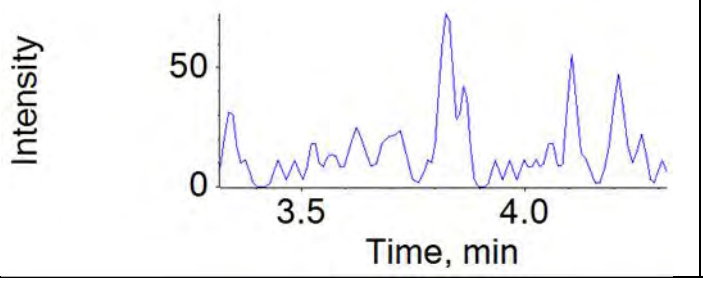


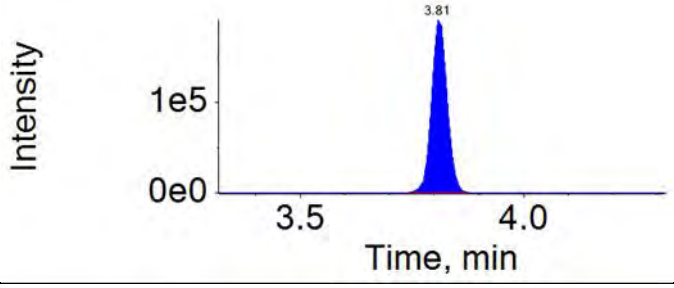
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



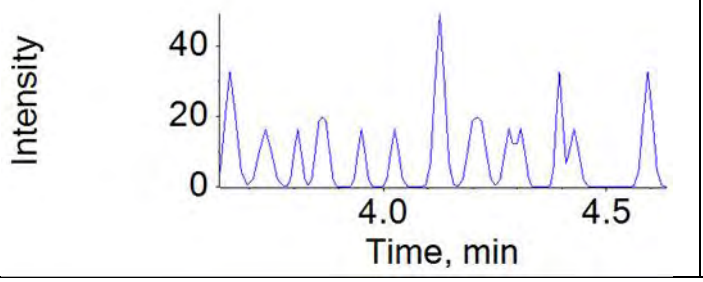


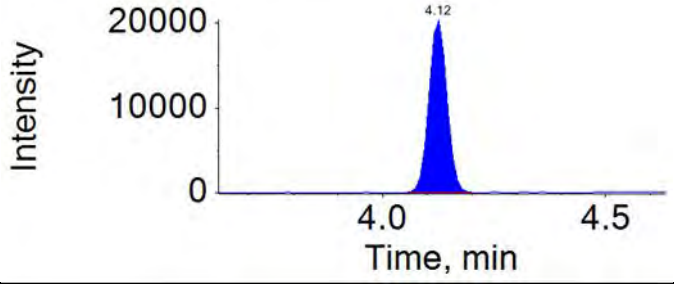
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



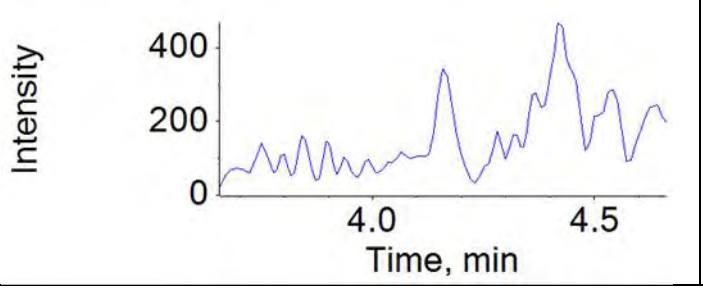


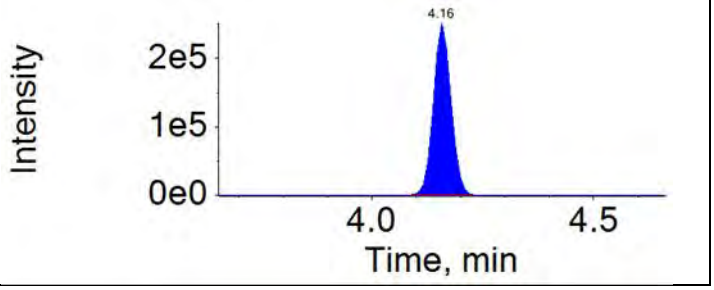
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

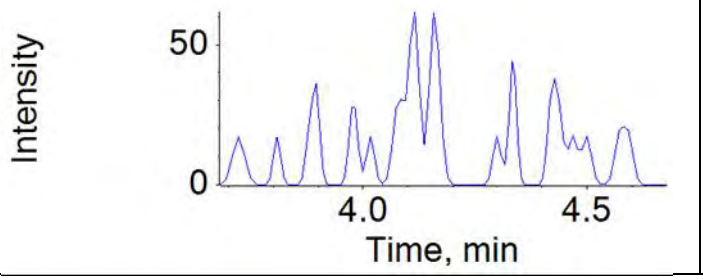
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

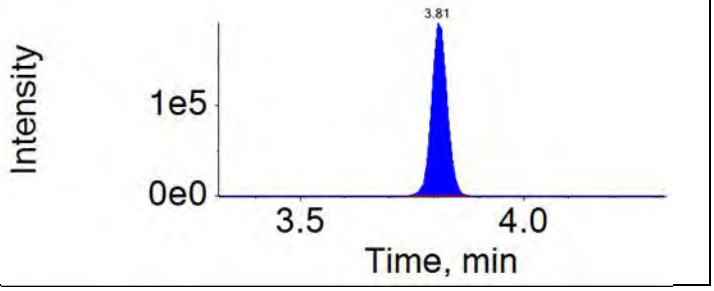
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



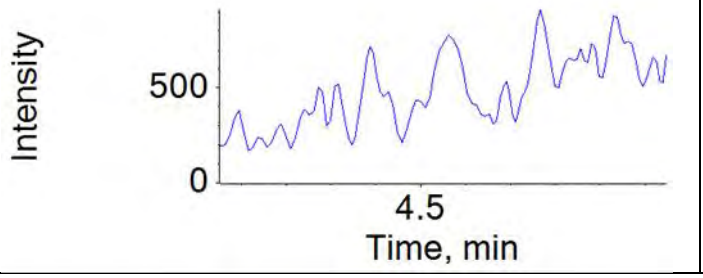


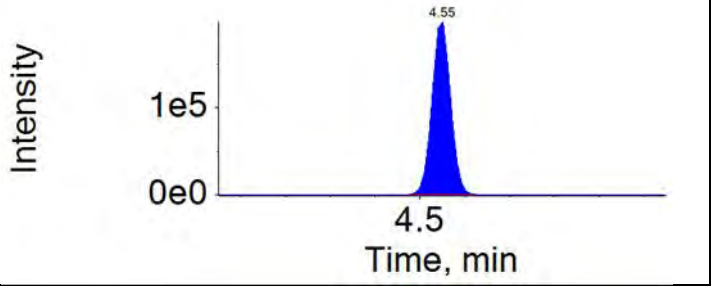
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



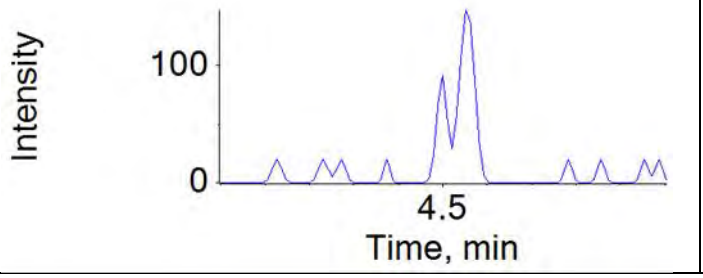


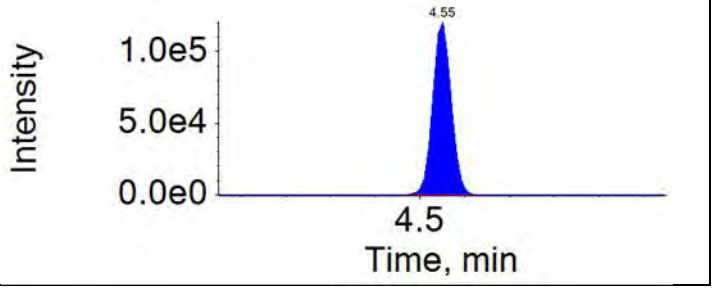
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





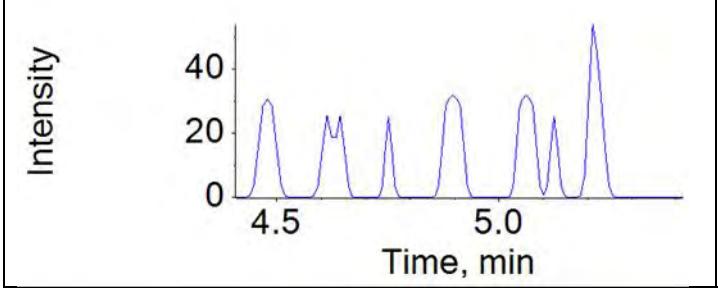
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

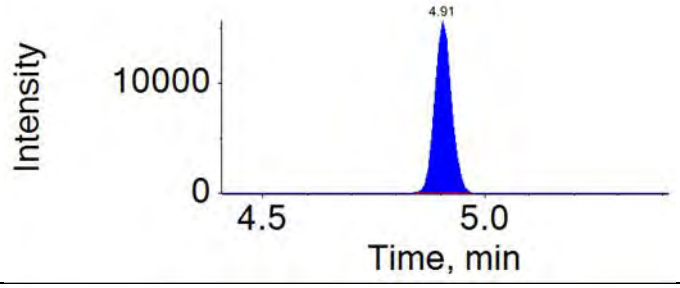




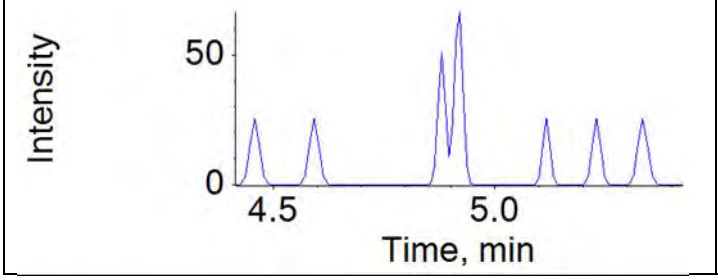
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

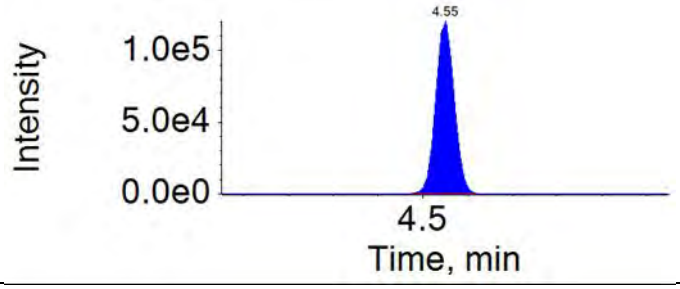
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



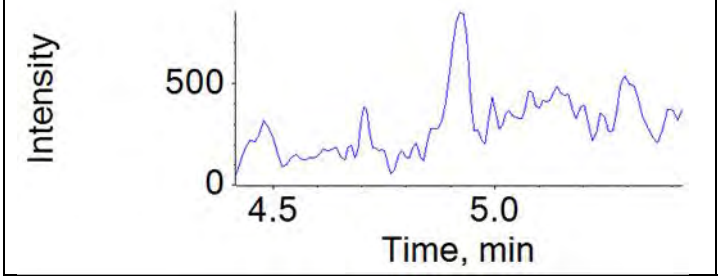


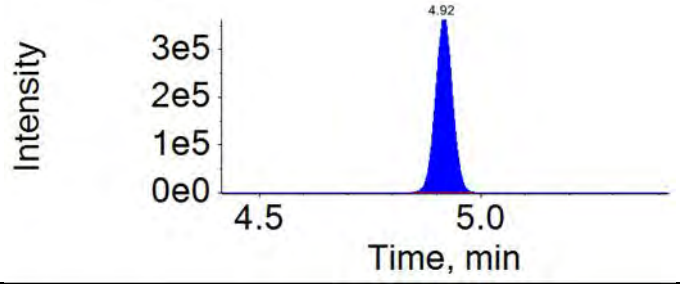
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



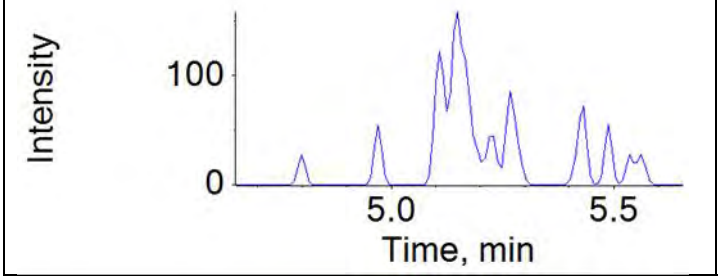


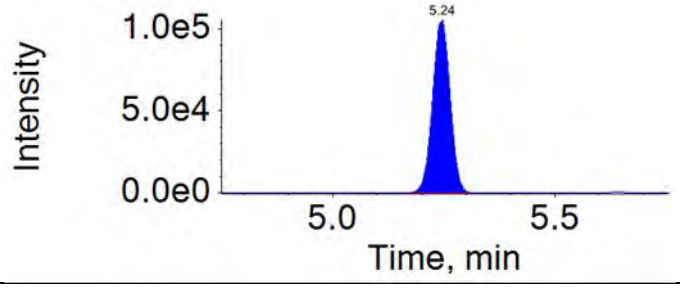
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



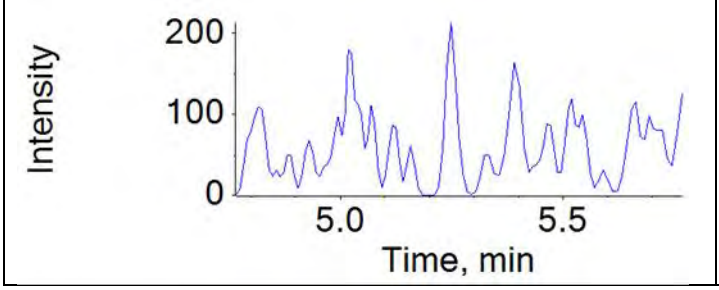


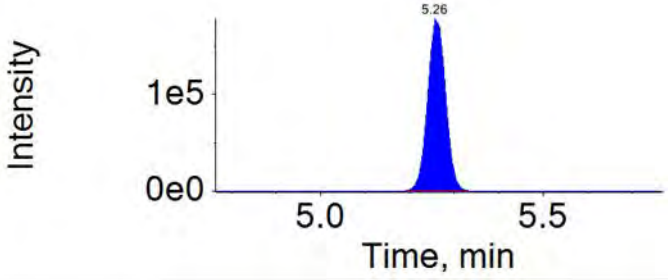
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

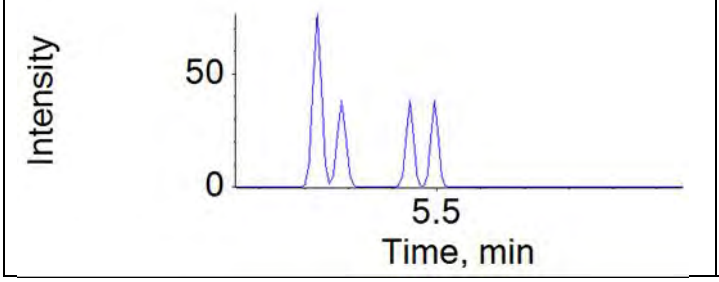
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

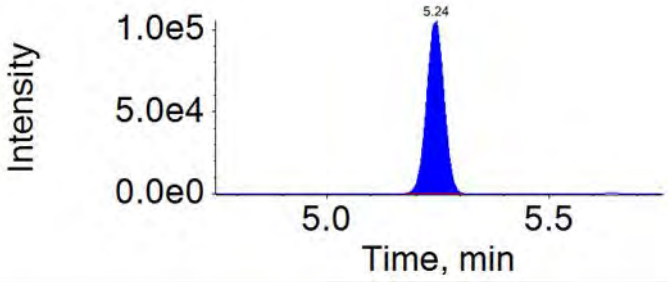
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



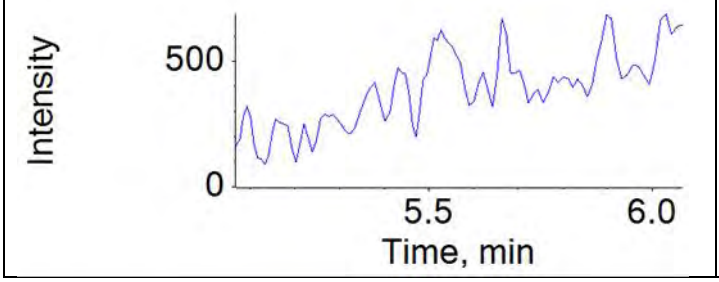


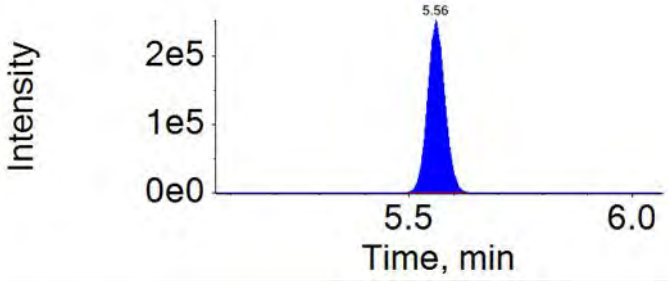
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



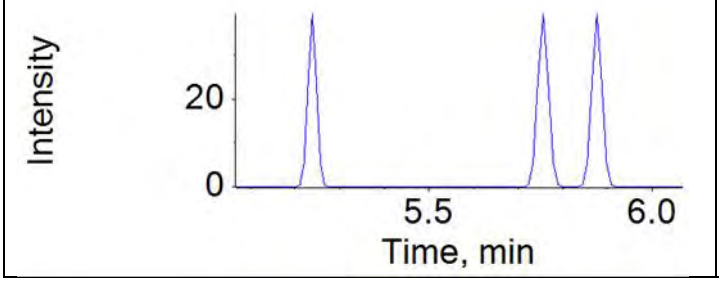


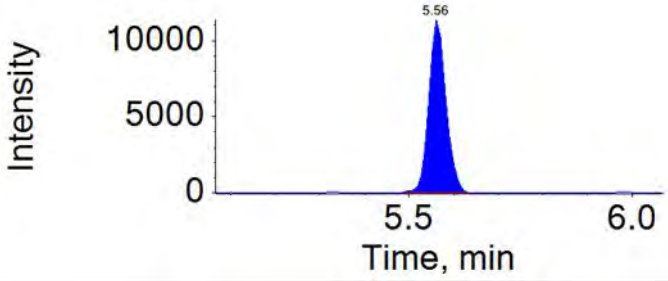
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



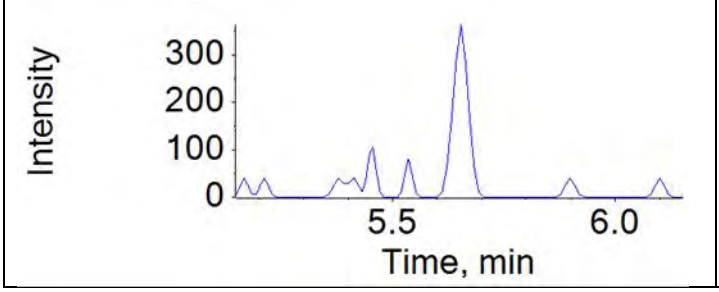


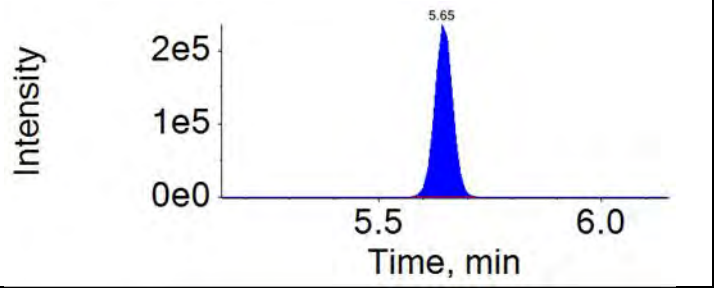
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

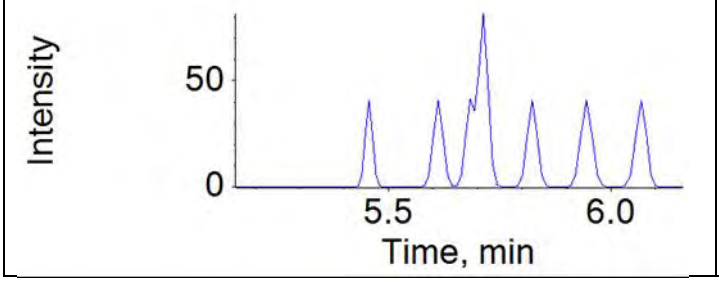
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

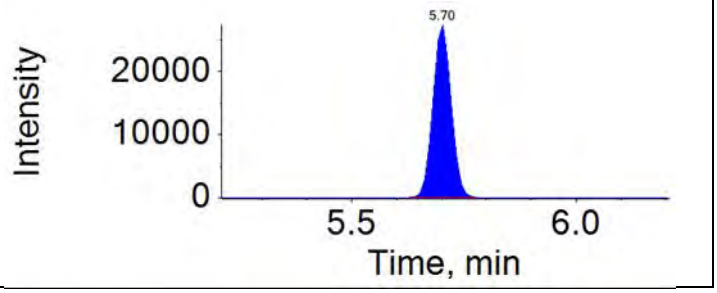
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



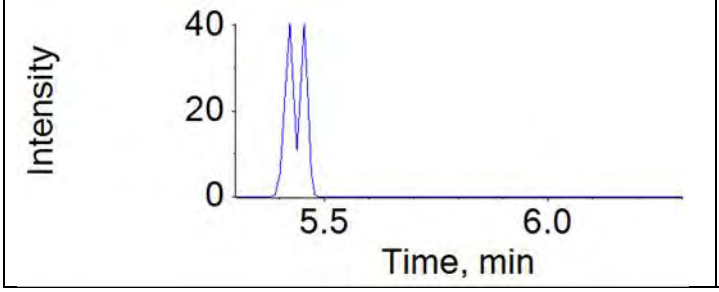


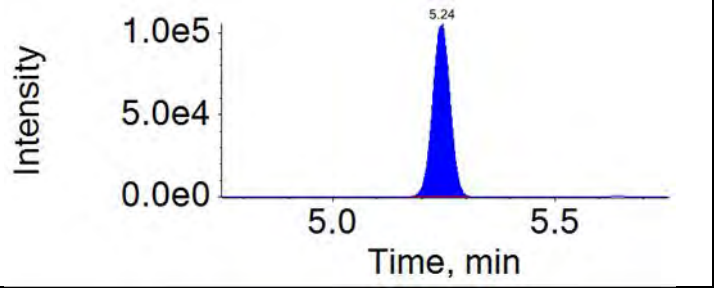
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



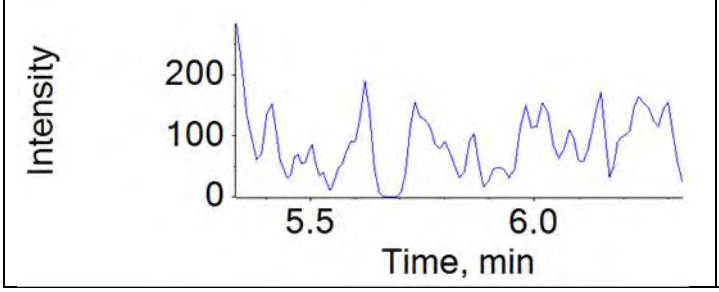


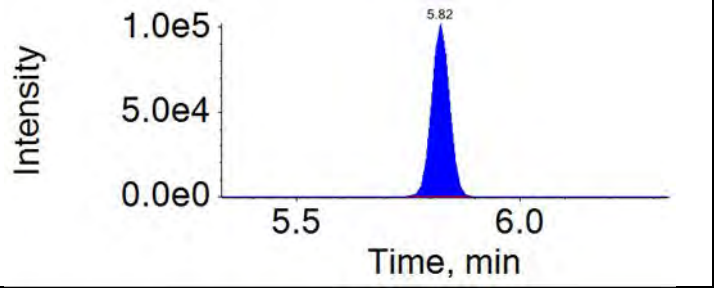
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



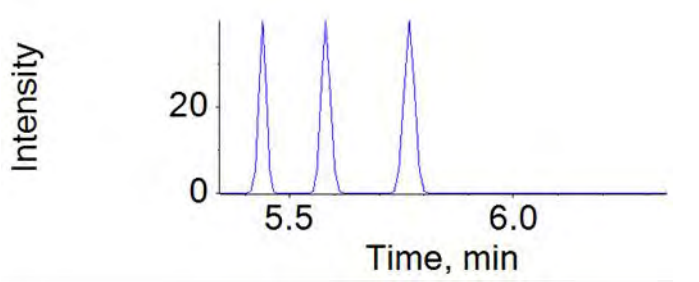


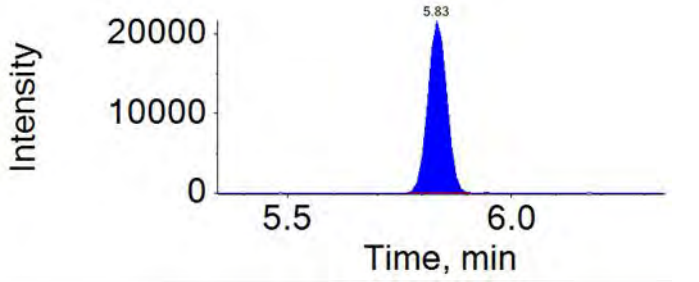
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

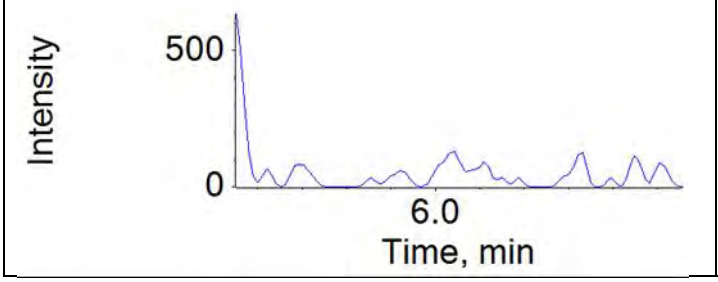
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

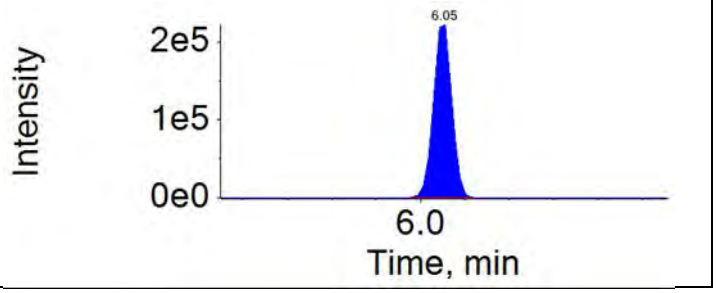
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



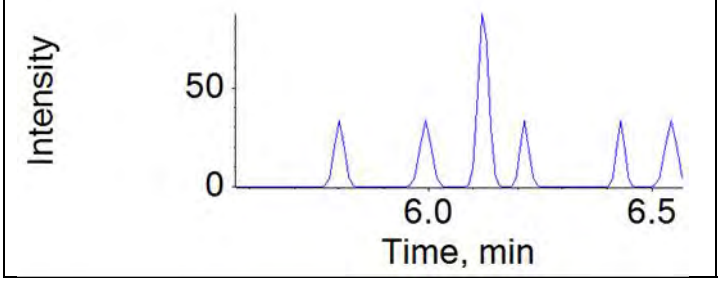


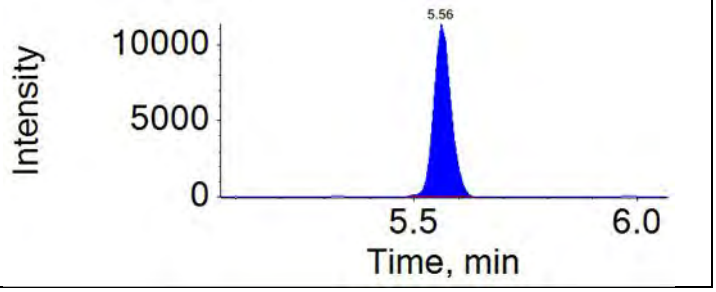
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



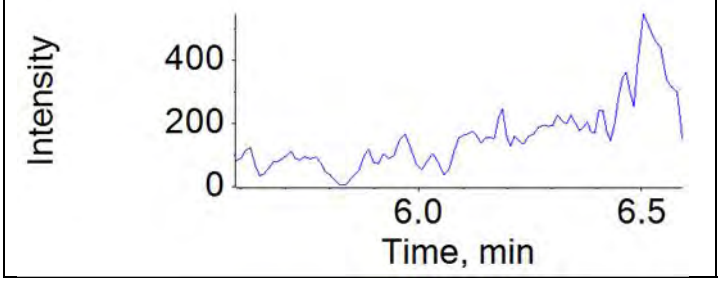


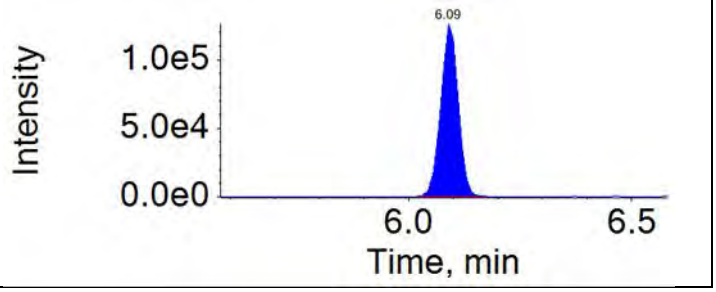
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



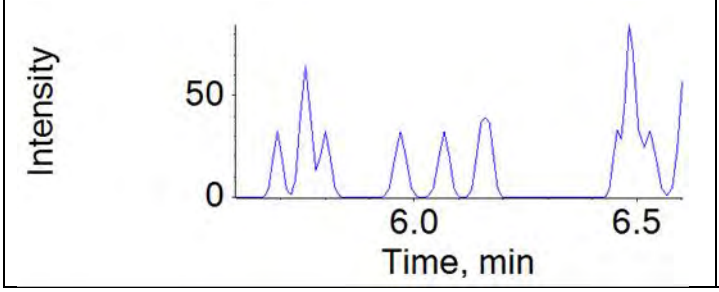


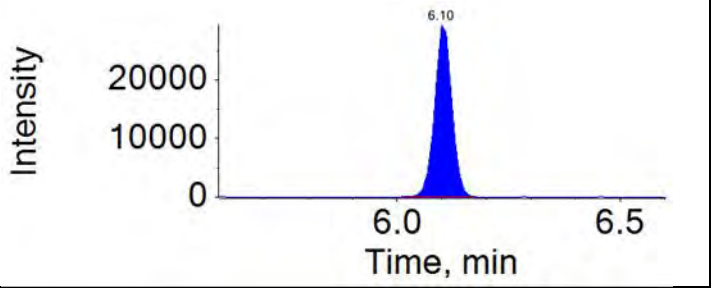
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

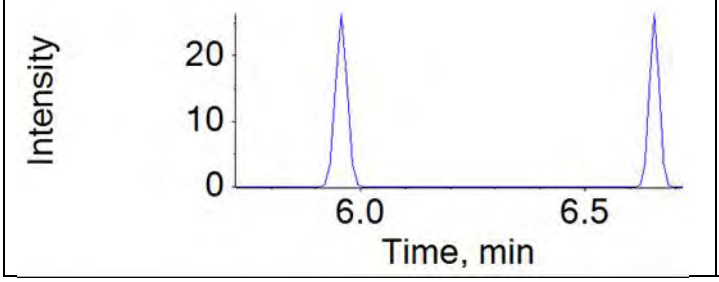
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

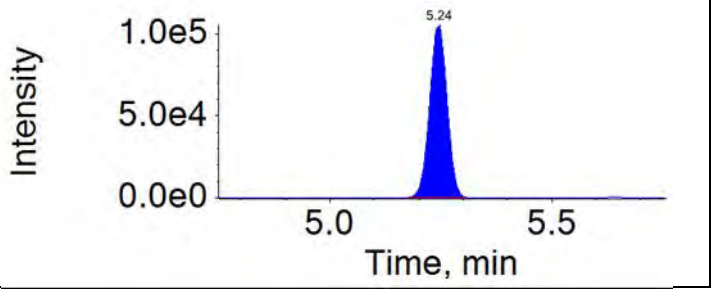
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



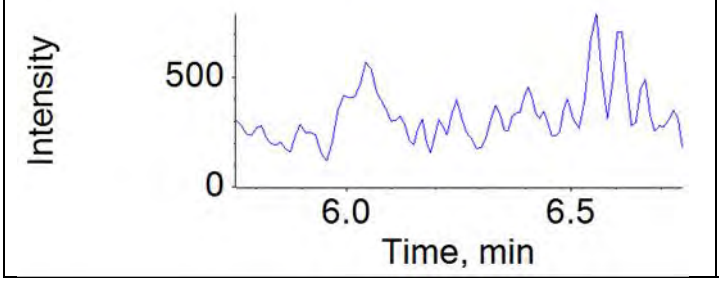


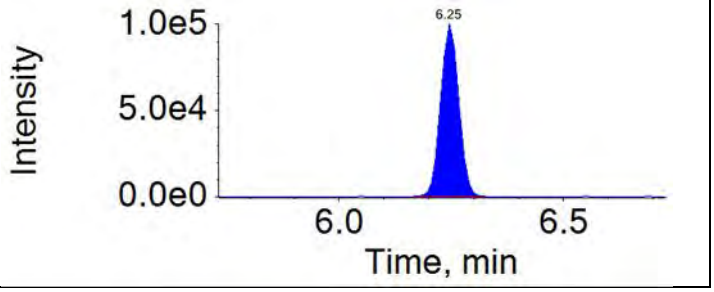
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



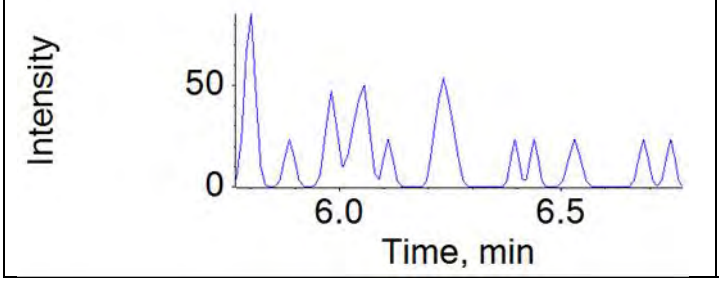


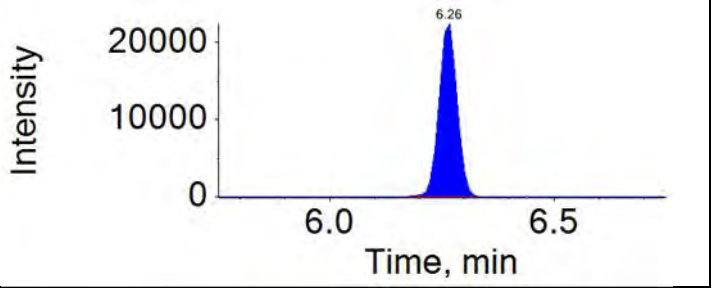
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





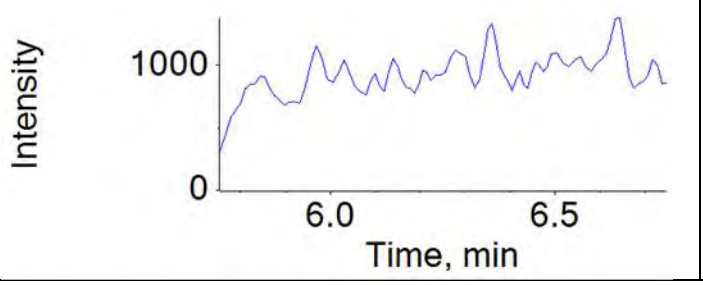
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

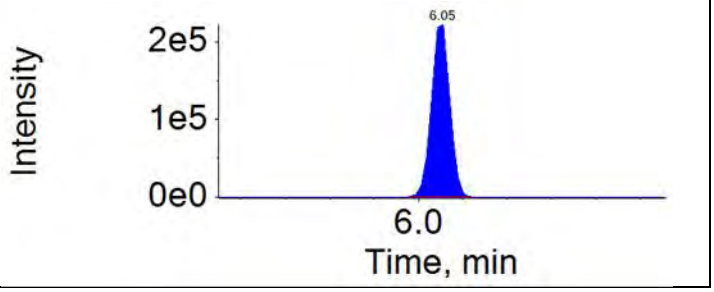




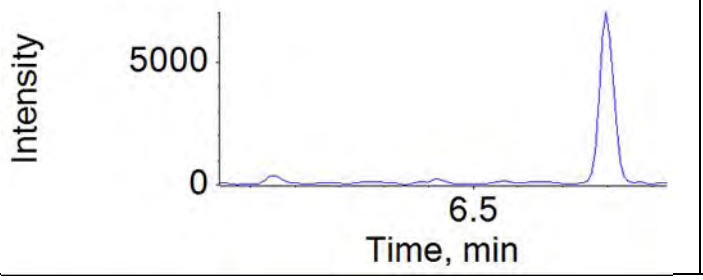
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

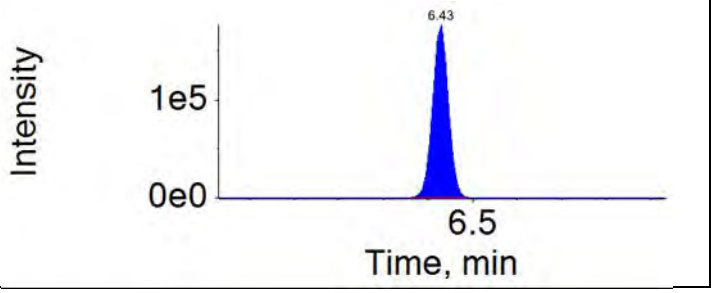
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



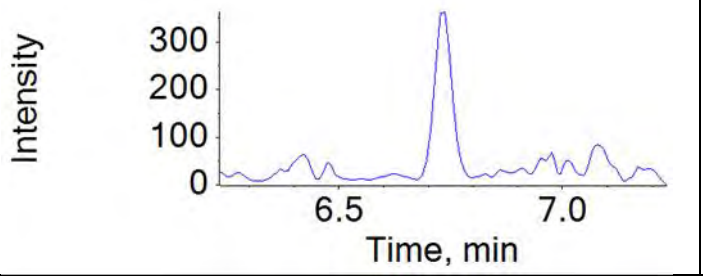


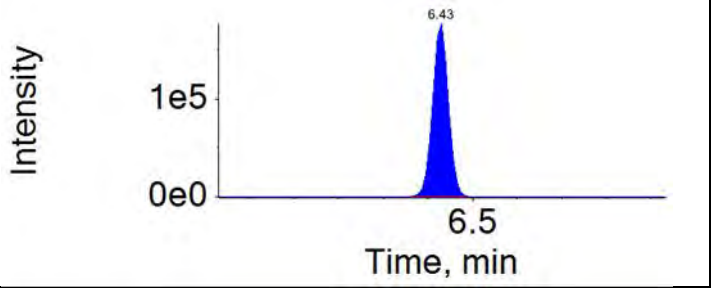
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



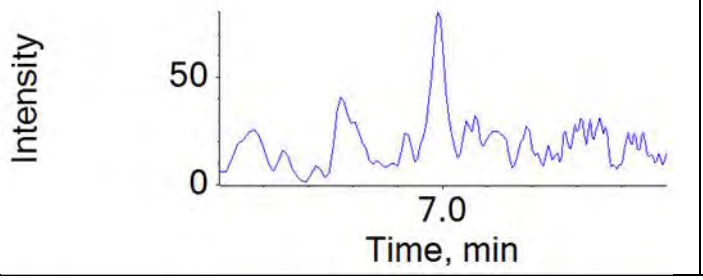


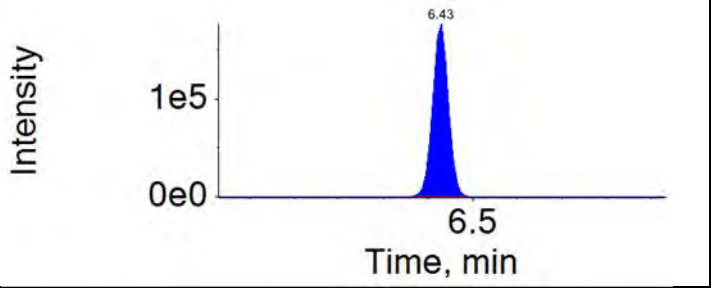
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

Ion Ratio Report

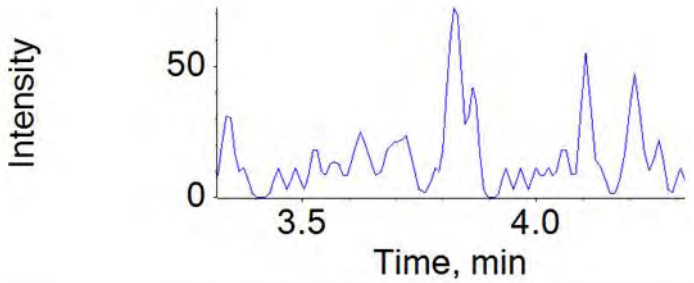
Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV13D-06.wiff

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!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

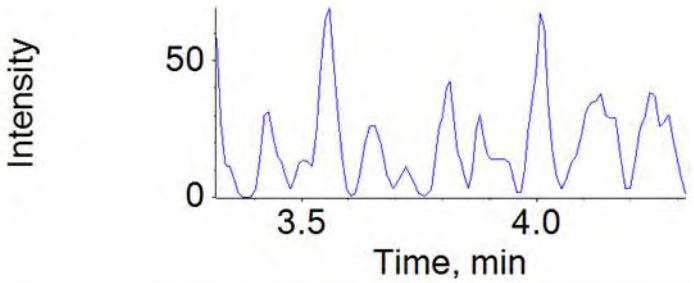
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

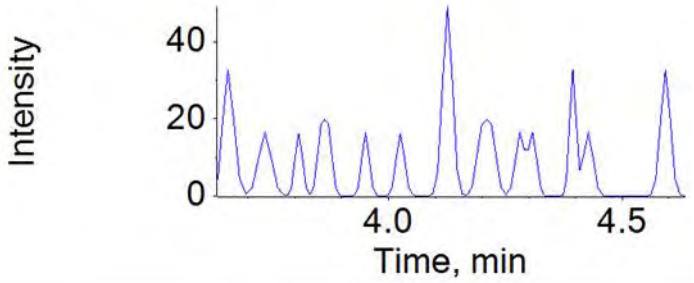
Component: PFBS
Primary Mass: 299.0 / 80.0



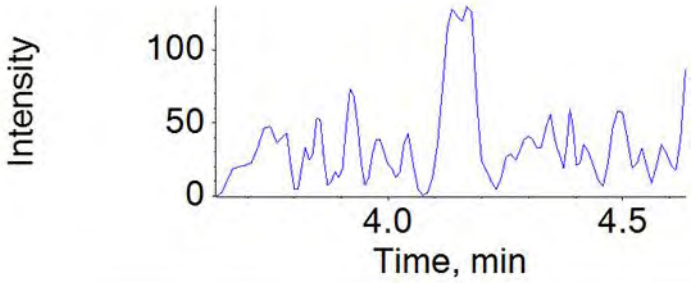
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



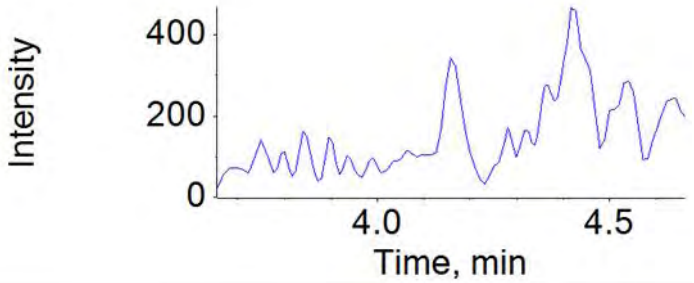
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



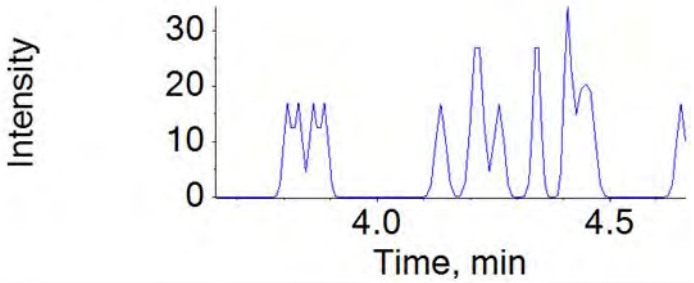
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



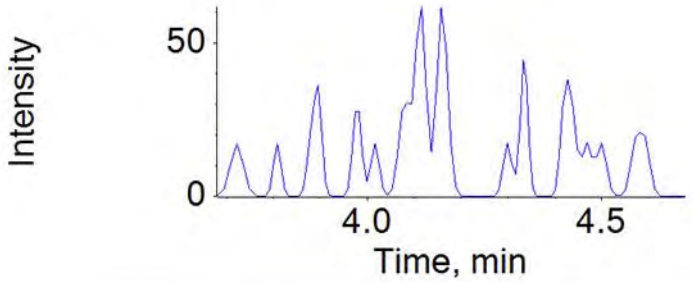
Component: PFHxA
Primary Mass: 313.0 / 269.0



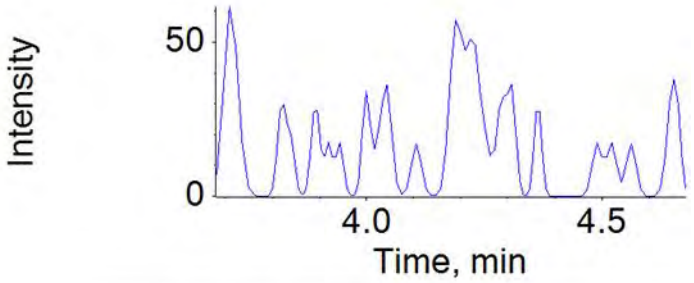
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



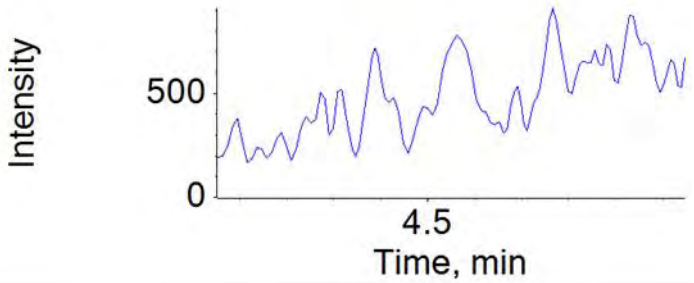
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



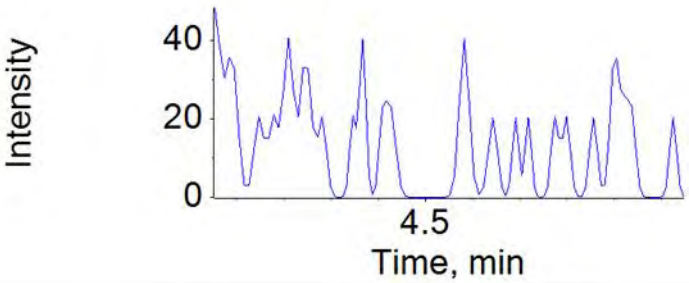
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

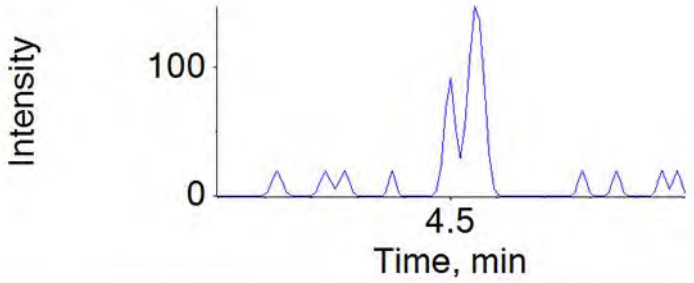
Component: PFHpA
Primary Mass: 363.0 / 319.0



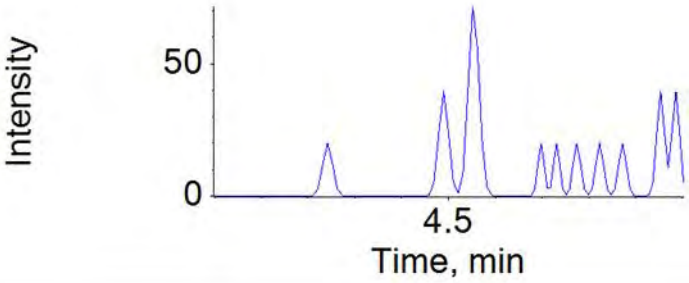
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



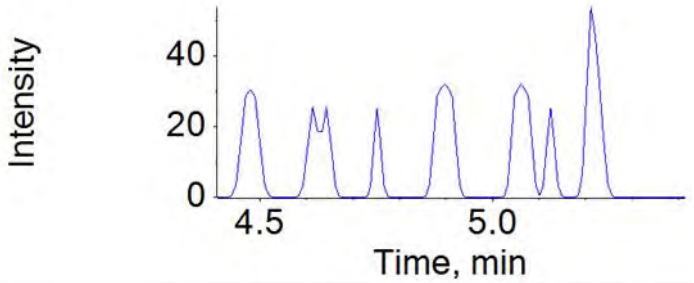
Component: PFHxS
Primary Mass: 399.0 / 80.0



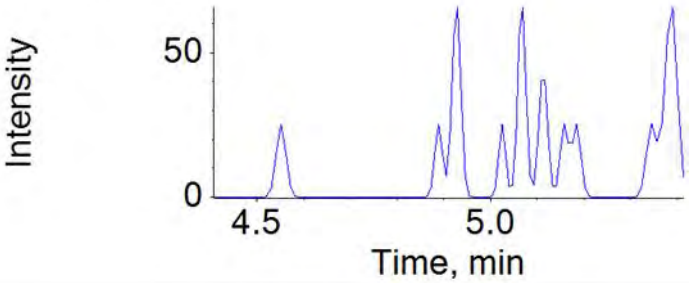
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



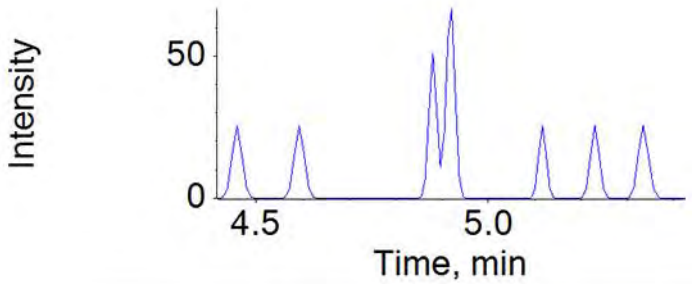
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



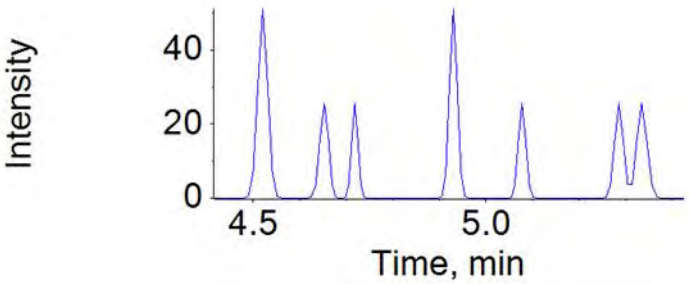
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



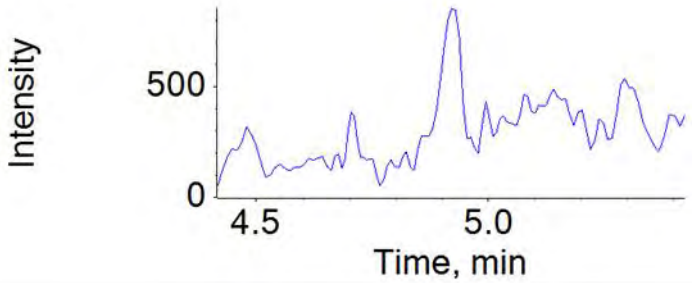
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



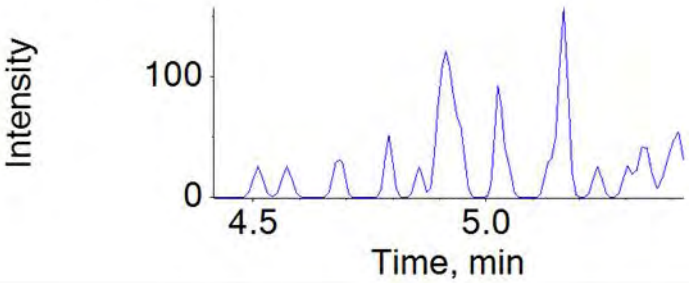
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

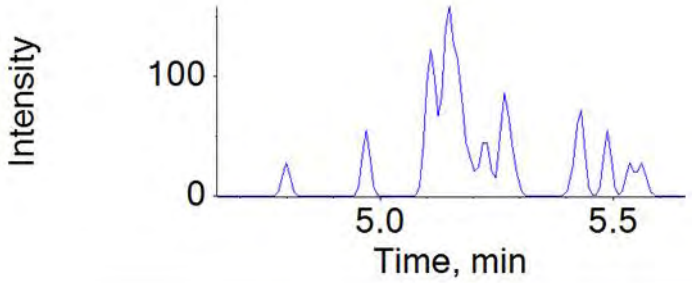
Component: PFOA
Primary Mass: 413.0 / 369.0



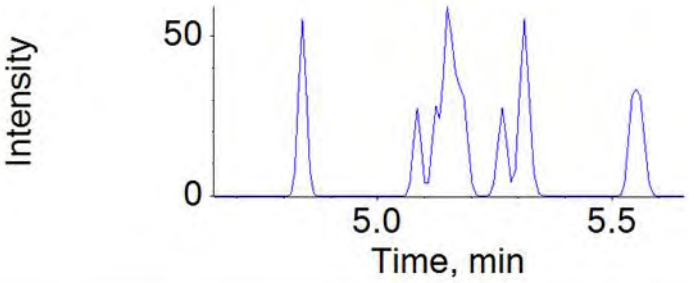
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



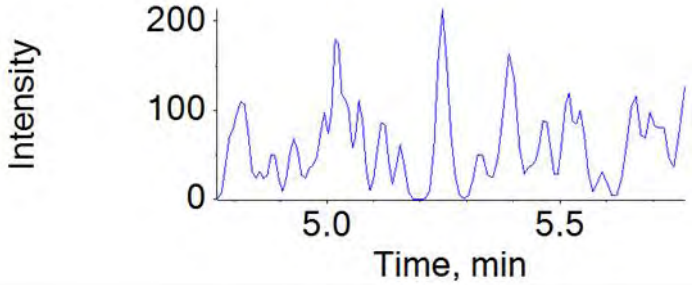
Component: PFOS
Primary Mass: 499.0 / 80.0



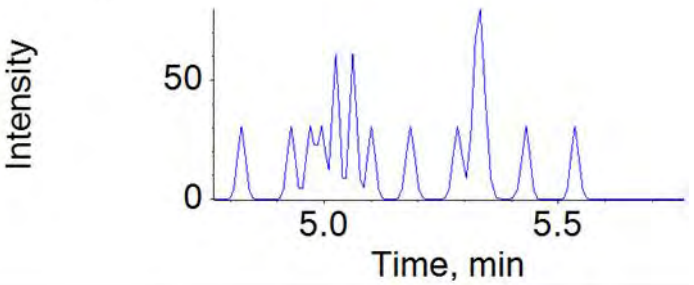
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



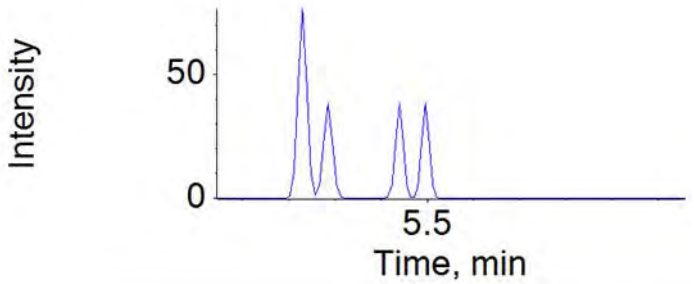
Component: PFNA
Primary Mass: 463.0 / 419.0



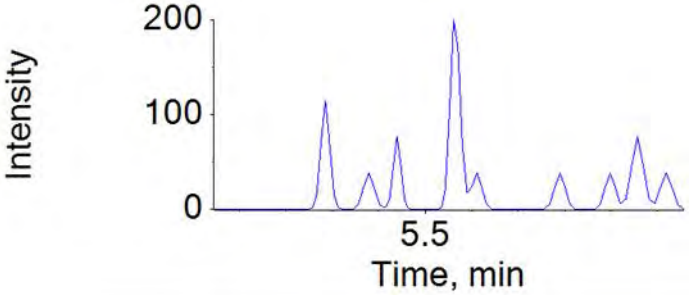
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



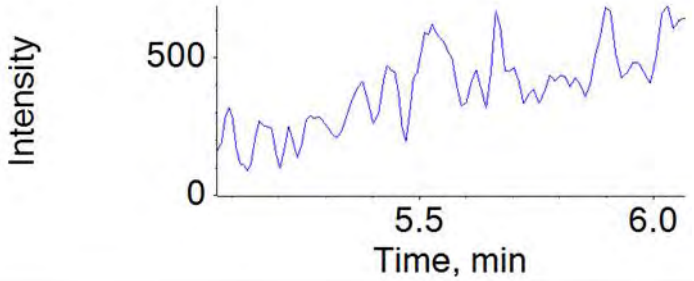
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



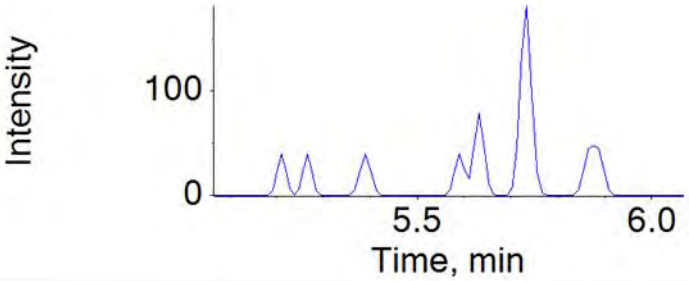
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

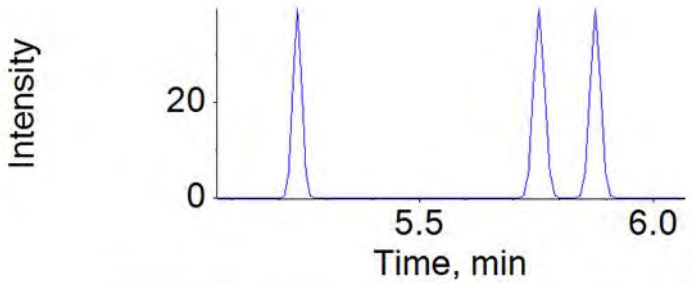
Component: PFDA
Primary Mass: 513.0 / 469.0



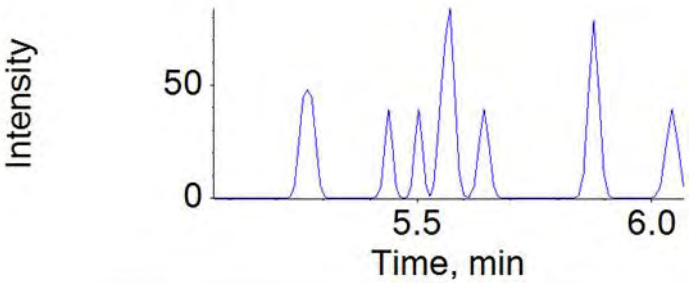
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



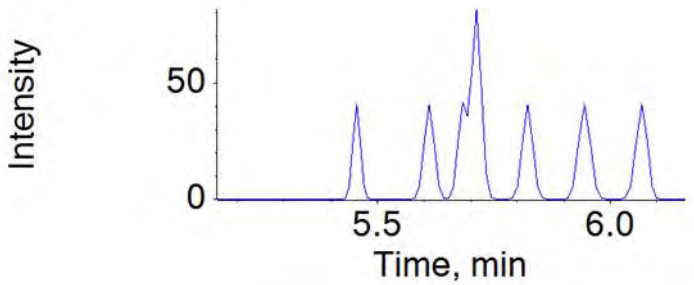
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



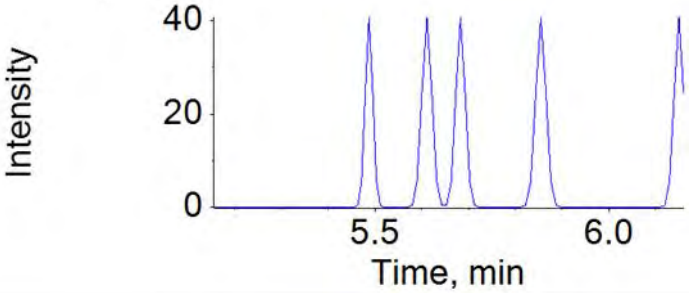
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



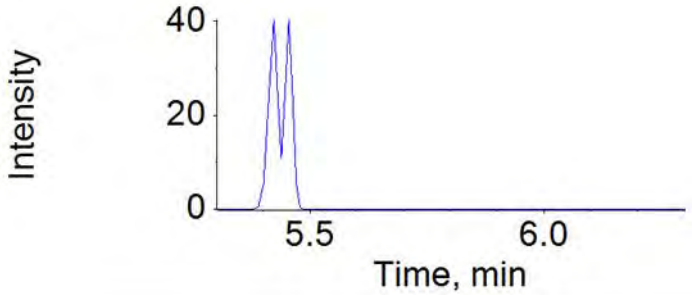
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



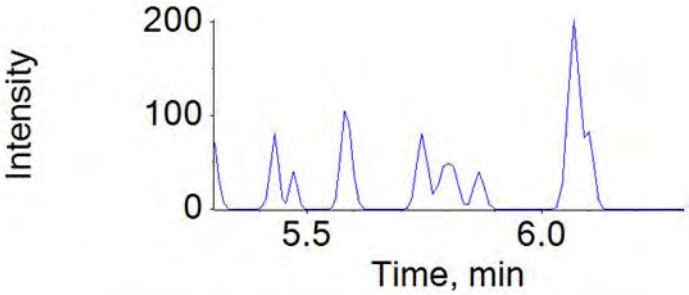
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



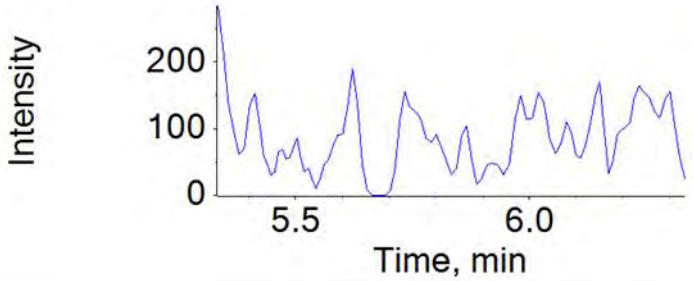
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



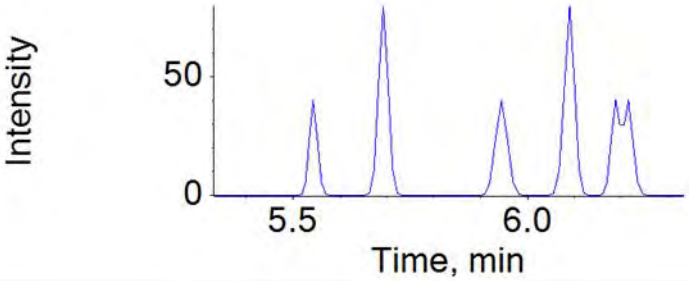
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

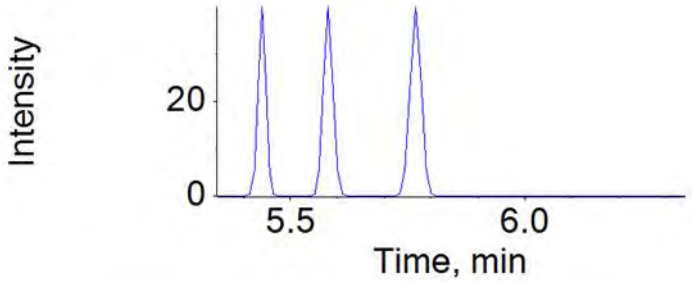
Component: PFUnDA
Primary Mass: 563.0 / 519.0



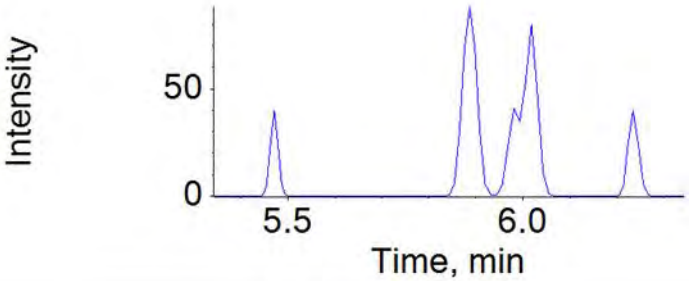
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



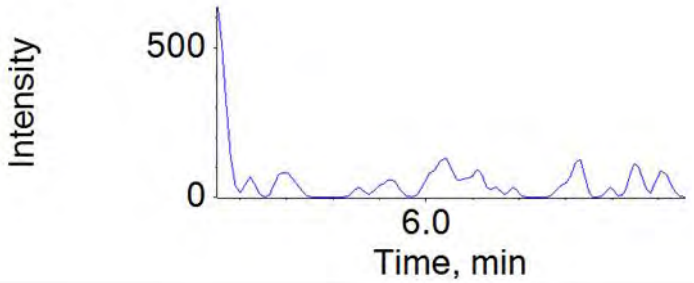
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



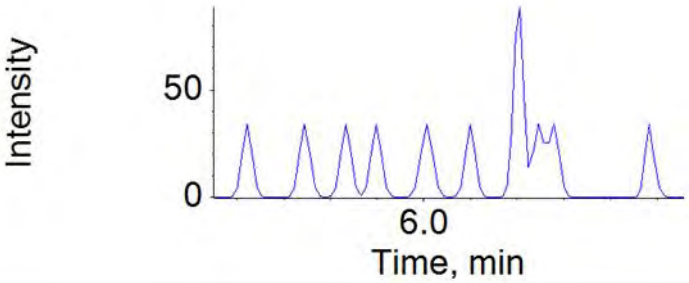
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



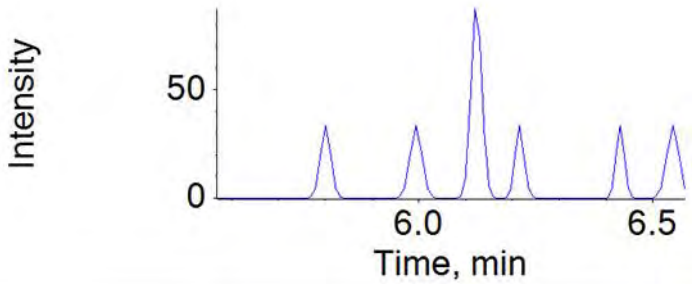
Component: PFDoDA
Primary Mass: 613.0 / 569.0



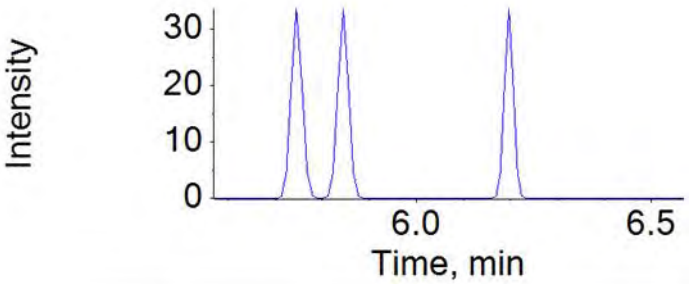
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



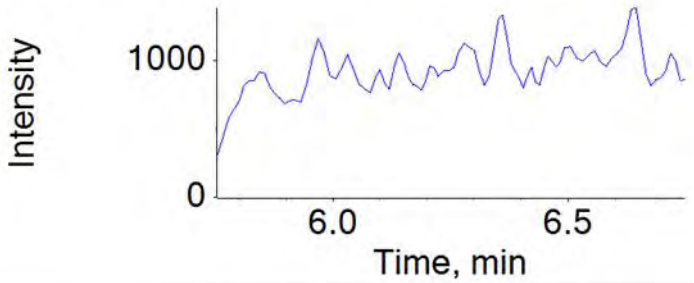
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



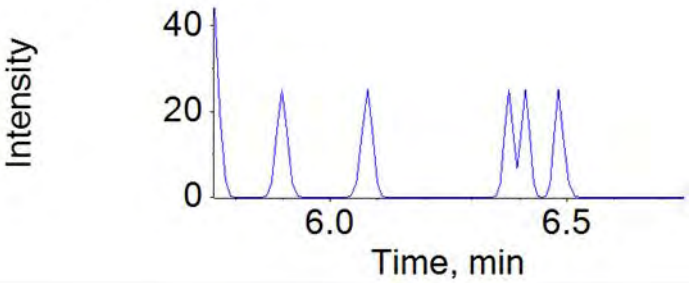
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

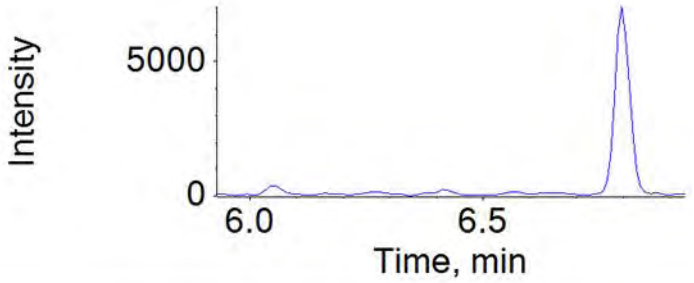
Component: PFTrDA
Primary Mass: 663.0 / 619.0



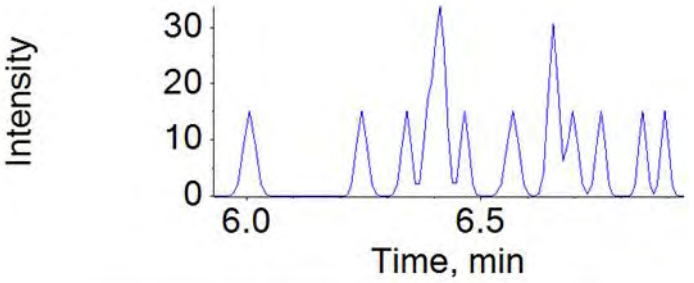
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



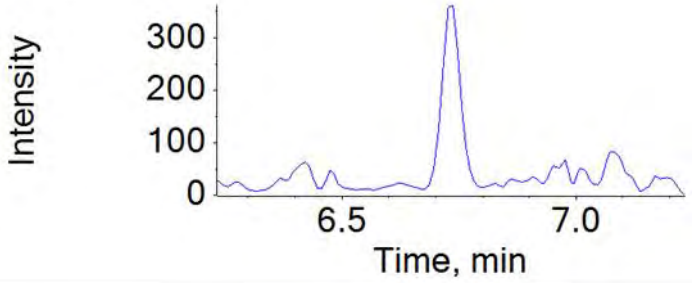
Component: PFTeDA
Primary Mass: 713.0 / 669.0



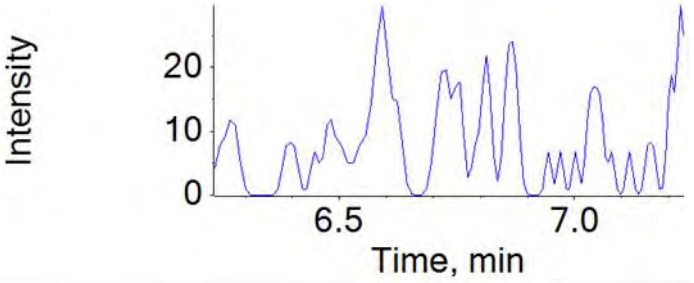
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



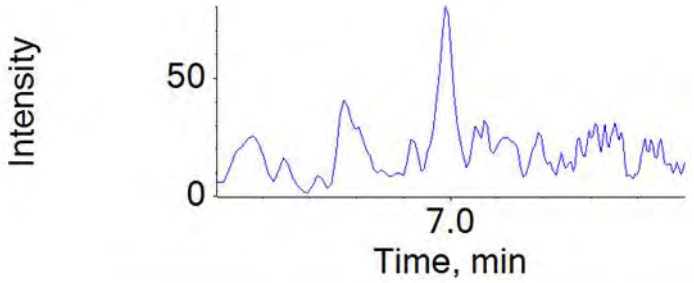
Component: PFHxDA
Primary Mass: 813.0 / 769.0



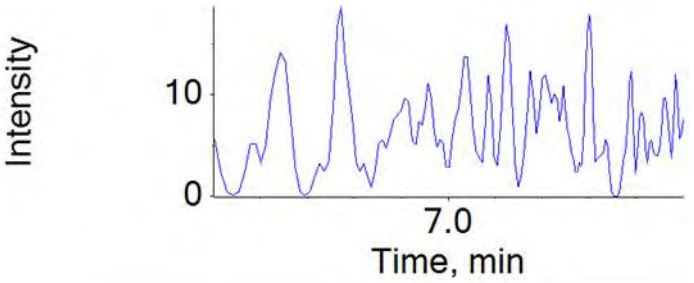
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



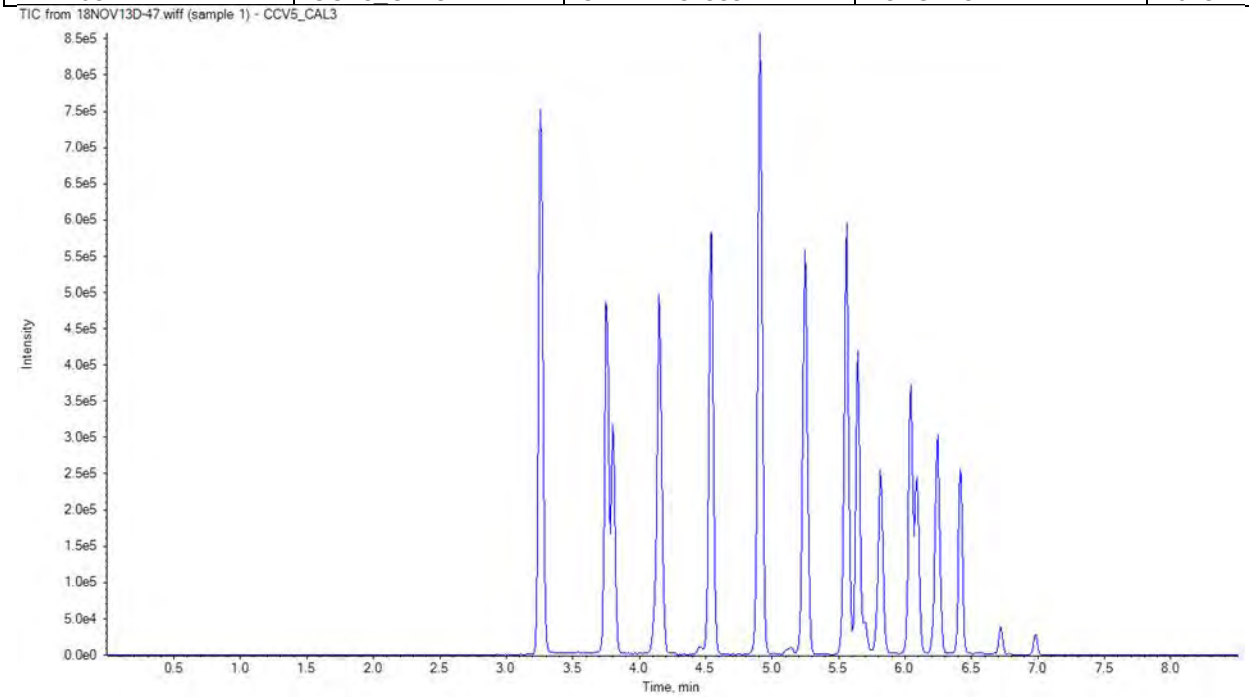
APPROVED
By JPT at 4:33 pm, 11/13/18

REVIEWED
By umar at 5:40 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV13D-47.wiff	2018-11-13T16:38:29



Injection Standard Area Reference File: 18NOV13D-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	658776.2	661126.9	0	50	
13C2-PFOA	5.0	461523.7	466902.6	-1	50	
13C4-PFOS	4.8	249261.5	247446.9	1	50	
13C2-PFDA	5.0	278804.3	295381.6	-6	50	

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV13D-47.wiff	2018-11-13T16:38:29

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	307991.5	10	13C4-PFBA	752496.6	5.0	0.409	3.26	1.000	2.000	2.267	13	30	
PFPeA	295604.4	11	13C5-PFPeA	743769.5	5.0	0.397	3.76	1.000	2.000	2.301	15	30	
PFBS	173380.5	11	13C3-PFBS	423188.1	4.7	0.410	3.80	1.000	1.770	1.949	10	30	
4:2-FTS	39454.2	12	13C2-4:2-FTS	45745.2	4.7	0.862	4.12	1.000	1.870	2.342	25	30	
PFHxA	359338.4	11	13C5-PFHxA	670326.8	5.0	0.536	4.15	1.000	2.000	2.238	12	30	
PFPeS	86328.6	11	13C3-PFBS	423188.1	4.7	0.204	4.17	1.100	1.880	1.980	5	30	
PFHpA	366823.7	12	13C4-PFHpA	522354.9	5.0	0.702	4.54	1.000	2.000	2.328	16	30	
PFHxS	129050.1	18	13C3-PFHxS	314815.3	4.7	0.410	4.54	1.000	1.820	1.988	9	30	
6:2-FTS	28406.1	11	13C2-6:2-FTS	34309.0	4.8	0.828	4.90	1.000	1.900	2.004	5	30	
PFHpS	120412.1	11	13C3-PFHxS	314815.3	4.7	0.382	4.90	1.080	1.900	2.013	6	30	
PFOA	386893.4	11	13C8-PFOA	884816.5	5.0	0.437	4.91	1.000	2.000	2.335	17	30	
PFOS	124584.3	22	13C8-PFOS	257886.0	4.8	0.483	5.24	1.000	1.850	2.113	14	30	
PFNA	306064.7	11	13C9-PFNA	455726.4	5.0	0.672	5.25	1.000	2.000	2.422	21	30	
PFNS	81247.8	11	13C8-PFOS	257886.0	4.8	0.315	5.54	1.060	1.920	2.204	15	30	
PFDA	262885.4	11	13C6-PFDA	630322.1	5.0	0.417	5.56	1.000	2.000	2.211	11	30	
8:2-FTS	26997.8	11	13C2-8:2-FTS	26954.4	4.8	1.002	5.56	1.000	1.920	2.335	22	30	
PFOSA	277186.5	11	13C8-PFOSA	633039.8	5.0	0.438	5.64	1.000	2.000	2.139	7	30	
NMeFOSAA	26509.8	19	d3-NMeFOSAA	70625.2	5.0	0.375	5.70	1.000	2.000	2.121	6	30	
PFDS	57377.5	11	13C8-PFOS	257886.0	4.8	0.222	5.79	1.110	1.930	2.016	4	30	
PFUnDA	206119.4	11	13C7-PFUnDA	249545.0	5.0	0.826	5.82	1.000	2.000	2.159	8	30	
NEtFOSAA	24747.7	22	d5-NEtFOSAA	70781.7	5.0	0.350	5.83	1.000	2.000	1.833	-8	30	
PFDoDA	244015.0	12	13C2-PFDoDA	544733.3	5.0	0.448	6.04	1.000	2.000	2.281	14	30	
10:2-FTS	17038.2	12	13C2-8:2-FTS	26954.4	4.8	0.632	6.06	1.090	1.930	2.105	9	30	
NMePFOSAE	169972.6	11	d7-NMePFOSAE	305460.2	5.0	0.556	6.09	1.000	2.000	2.316	16	30	
NMePFOSA	31410.7	11	d3-NMePFOSA	76278.4	5.0	0.412	6.10	1.000	2.000	2.031	2	30	
PFDoS	28874.2	11	13C8-PFOS	257886.0	4.8	0.112	6.21	1.190	1.940	1.961	1	30	
NEtPFOSAE	179928.9	11	d9-NEtPFOSAE	263429.6	5.0	0.683	6.25	1.000	2.000	2.191	10	30	
NEtPFOSA	26596.2	11	d5-NEtPFOSA	59536.9	5.0	0.447	6.26	1.000	2.000	2.052	3	30	
PFTrDA	189964.3	11	13C2-PFDoDA	544733.3	5.0	0.349	6.24	1.030	2.000	2.201	10	30	
PFTeDA	156391.7	11	13C2-PFTeDA	396961.1	5.0	0.394	6.42	1.000	2.000	2.208	10	30	
PFHxDA	72132.1	11	13C2-PFTeDA	396961.1	5.0	0.182	6.72	1.050	2.000	2.165	8	30	
PFODA	59386.3	10	13C2-PFTeDA	396961.1	5.0	0.150	6.98	1.090	2.000	2.084	4	30	

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV13DCCV5 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV5_CAL3			**Data File:**		18NOV13D-47.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		11/13/2018 4:38:29 PM
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV5
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: 18NOV13D-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	658776.2	661126.9	0	50	
13C2-PFOA	5.0	461523.7	466902.6	-1	50	
13C4-PFOS	4.8	249261.5	247446.9	1	50	
13C2-PFDA	5.0	278804.3	295381.6	-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	752496.6	13C3-PFBA	658776.2	1.142	5.000	5.121	102	70-130	
E13C5-PFPeA	743769.5	13C3-PFBA	658776.2	1.129	5.000	5.064	101	70-130	
E13C3-PFBS	423188.1	13C3-PFBA	658776.2	0.642	4.650	4.535	98	70-130	
E13C2-4:2-FTS	45745.2	13C2-PFOA	461523.7	0.099	4.670	4.415	95	70-130	
E13C5-PFHxA	670326.8	13C2-PFOA	461523.7	1.452	5.000	5.247	105	70-130	
E13C3-PFHxS	314815.3	13C2-PFOA	461523.7	0.682	4.730	4.681	99	70-130	
E13C4-PFHpA	522354.9	13C2-PFOA	461523.7	1.132	5.000	5.099	102	70-130	
E13C2-6:2-FTS	34309.0	13C2-PFOA	461523.7	0.074	4.750	4.974	105	70-130	
E13C8-PFOA	884816.5	13C2-PFOA	461523.7	1.917	5.000	5.282	106	70-130	
E13C8-PFOS	257886.0	13C4-PFOS	249261.5	1.035	4.780	4.584	96	70-130	
E13C9-PFNA	455726.4	13C4-PFOS	249261.5	1.828	5.000	5.098	102	70-130	
E13C6-PFDA	630322.1	13C2-PFDA	278804.3	2.261	5.000	5.276	106	70-130	
E13C2-8:2-FTS	26954.4	13C2-PFDA	278804.3	0.097	4.790	4.821	101	70-130	
E13C8-PFOSA	633039.8	13C2-PFDA	278804.3	2.271	5.000	5.034	101	70-130	
Ed3-NMeFOSAA	70625.1	13C2-PFDA	278804.3	0.253	5.000	4.572	91	70-130	
E13C7-PFUnDA	249545.0	13C2-PFDA	278804.3	0.895	5.000	5.197	104	70-130	
Ed5-NEtFOSAA	70781.7	13C2-PFDA	278804.3	0.254	5.000	5.371	107	70-130	
E13C2-PFDoDA	544733.3	13C2-PFDA	278804.3	1.954	5.000	5.073	101	70-130	
Ed7-NMePFOSAE	305460.2	13C2-PFDA	278804.3	1.096	5.000	4.741	95	70-130	
Ed3-NMePFOSA	76278.4	13C2-PFDA	278804.3	0.274	5.000	4.971	99	70-130	
Ed9-NEtPFOSAE	263429.6	13C2-PFDA	278804.3	0.945	5.000	4.914	98	70-130	
Ed5-NEtPFOSA	59536.9	13C2-PFDA	278804.3	0.214	5.000	5.009	100	70-130	
E13C2-PFTeDA	396961.1	13C2-PFDA	278804.3	1.424	5.000	4.999	100	70-130	

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

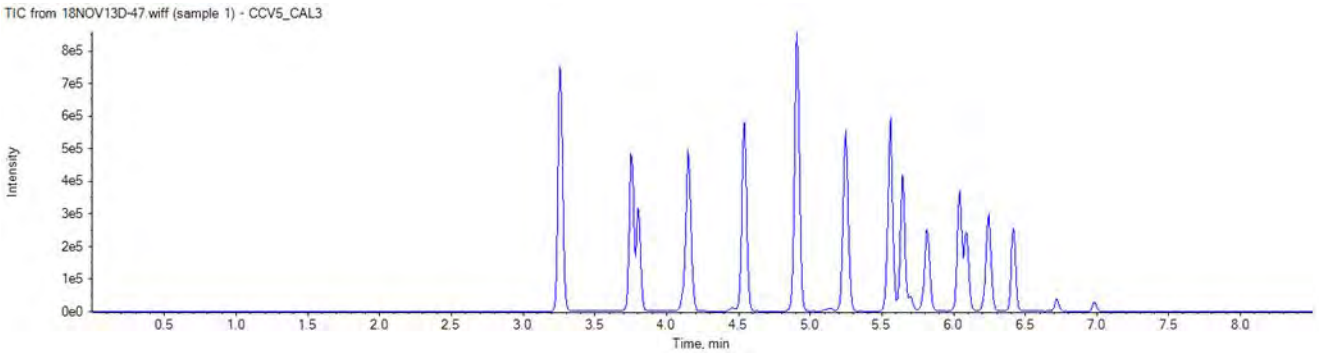
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV13D-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	307991.5		A	13C4-PFBA	3.26	752496.6	0.409	2.267
PFPeA	3.76	1.000	295604.4		A	13C5-PFPeA	3.76	743769.5	0.397	2.301
PFBS	3.80	1.000	173380.5		A	13C3-PFBS	3.80	423188.1	0.410	1.949
4:2-FTS	4.12	1.000	39454.2		A	13C2-4:2-FTS	4.12	45745.2	0.862	2.342
PFHxA	4.15	1.000	359338.4		A	13C5-PFHxA	4.15	670326.8	0.536	2.238
PFPeS	4.17	1.100	86328.6		A	13C3-PFBS	3.80	423188.1	0.204	1.980
PFHpA	4.54	1.000	366823.7		A	13C4-PFHpA	4.54	522354.9	0.702	2.328
PFHxS	4.54	1.000	129050.1		M	13C3-PFHxS	4.54	314815.3	0.410	1.988
6:2-FTS	4.90	1.000	28406.1		A	13C2-6:2-FTS	4.90	34309.0	0.828	2.004
PFHpS	4.90	1.080	120412.1		A	13C3-PFHxS	4.54	314815.3	0.382	2.013
PFOA	4.91	1.000	386893.4		A	13C8-PFOA	4.91	884816.5	0.437	2.335
PFOS	5.24	1.000	124584.3		M	13C8-PFOS	5.24	257886.0	0.483	2.113
PFNA	5.25	1.000	306064.7		A	13C9-PFNA	5.25	455726.4	0.672	2.422
PFNS	5.54	1.060	81247.8		A	13C8-PFOS	5.24	257886.0	0.315	2.204
PFDA	5.56	1.000	262885.4		A	13C6-PFDA	5.56	630322.1	0.417	2.211
8:2-FTS	5.56	1.000	26997.8		M	13C2-8:2-FTS	5.56	26954.4	1.002	2.335
PFOSA	5.64	1.000	277186.5		A	13C8-PFOSA	5.64	633039.8	0.438	2.139
NMeFOSAA	5.70	1.000	26509.8		M	d3-NMeFOSAA	5.70	70625.2	0.375	2.121
PFDS	5.79	1.110	57377.5		A	13C8-PFOS	5.24	257886.0	0.222	2.016
PFUnDA	5.82	1.000	206119.4		A	13C7-PFUnDA	5.82	249545.0	0.826	2.159
NEtFOSAA	5.83	1.000	24747.7		M	d5-NEtFOSAA	5.83	70781.7	0.350	1.833
PFDoDA	6.04	1.000	244015.0		A	13C2-PFDoDA	6.04	544733.3	0.448	2.281
10:2-FTS	6.06	1.090	17038.2		A	13C2-8:2-FTS	5.56	26954.4	0.632	2.105
NMePFOSAE	6.09	1.000	169972.6		A	d7-NMePFOSAE	6.08	305460.2	0.556	2.316
NMePFOSA	6.10	1.000	31410.7		A	d3-NMePFOSA	6.10	76278.4	0.412	2.031
PFDoS	6.21	1.190	28874.2		A	13C8-PFOS	5.24	257886.0	0.112	1.961
NEtPFOSAE	6.25	1.000	179928.9		A	d9-NEtPFOSAE	6.24	263429.6	0.683	2.191
NEtPFOSA	6.26	1.000	26596.2		A	d5-NEtPFOSA	6.26	59536.9	0.447	2.052
PFTrDA	6.24	1.030	189964.3		A	13C2-PFDoDA	6.04	544733.3	0.349	2.201
PFTeDA	6.42	1.000	156391.7		A	13C2-PFTeDA	6.42	396961.1	0.394	2.208
PFHxDA	6.72	1.050	72132.1		A	13C2-PFTeDA	6.42	396961.1	0.182	2.165
PFODA	6.98	1.090	59386.3		A	13C2-PFTeDA	6.42	396961.1	0.150	2.084

Total Ion Chromatogram

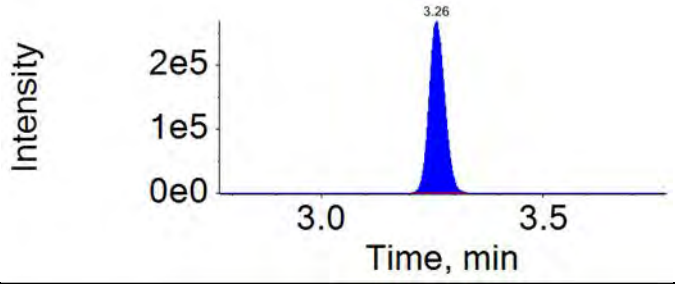


APPROVED
By JPT at 5:00 pm, 11/13/18

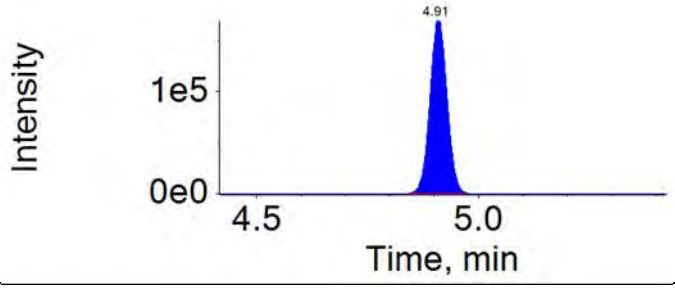
REVIEWED
By umar at 5:42 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

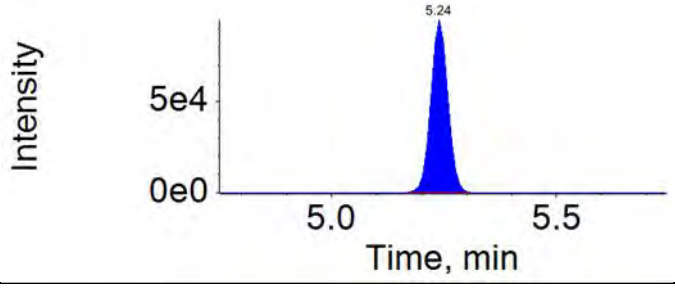
Injection Standard: 13C3-PFBA
216.0 / 172.0



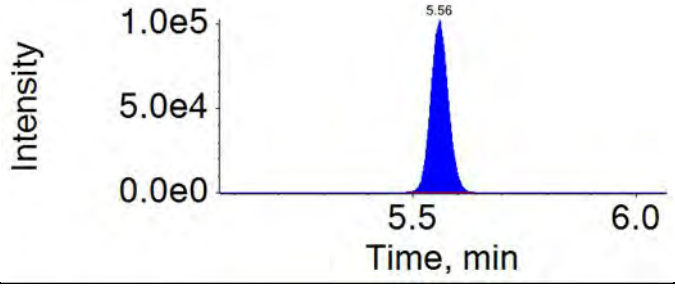
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

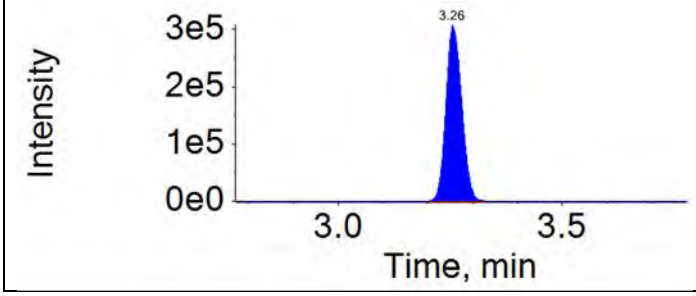


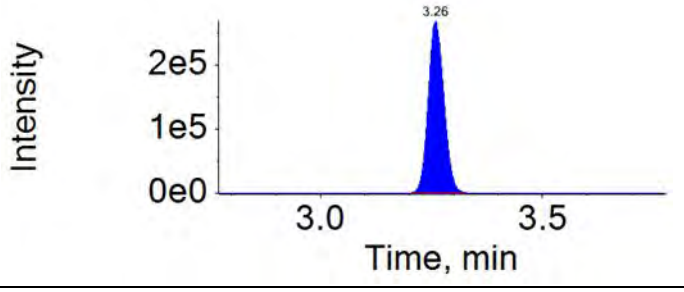
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

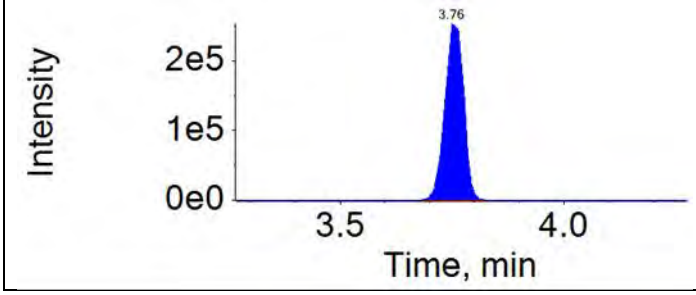
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

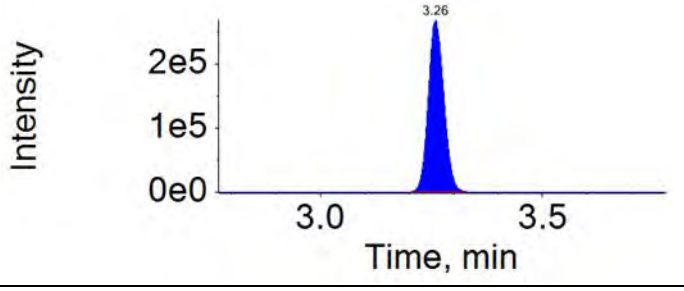
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



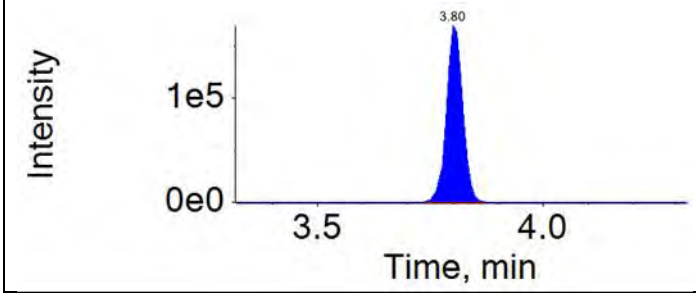


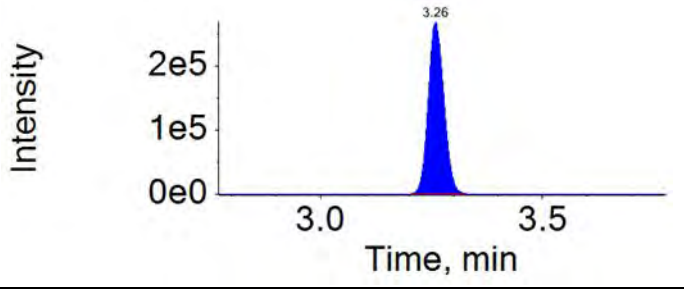
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



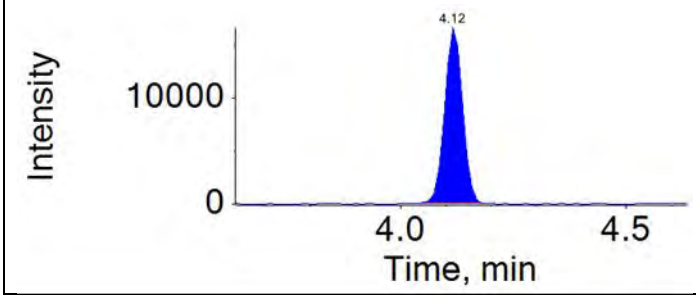


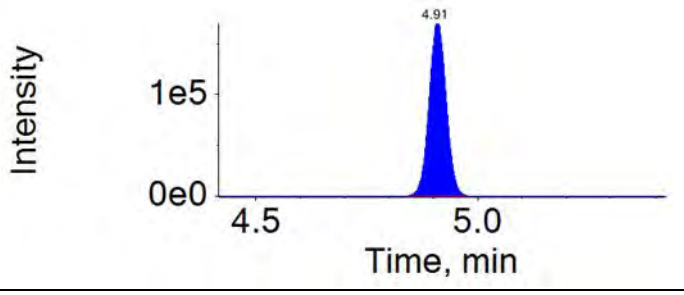
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





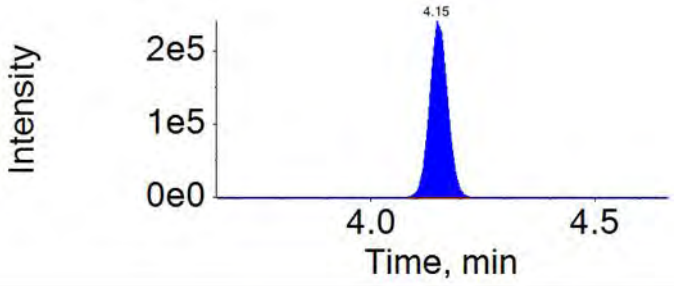
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

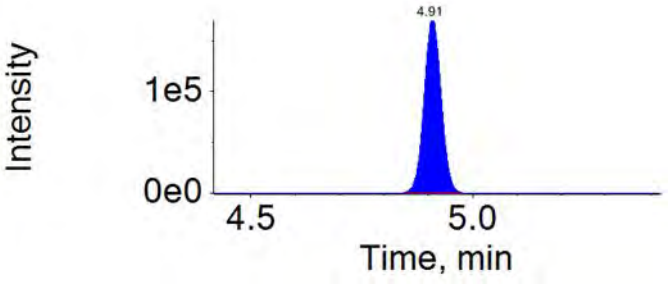




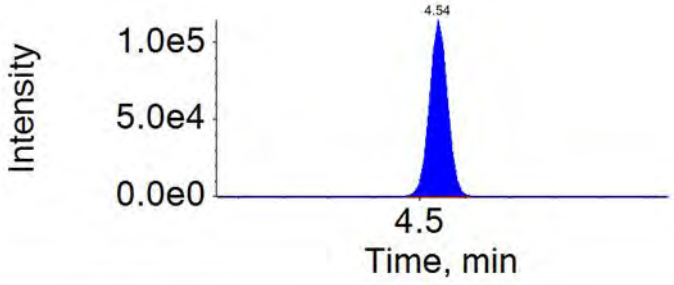
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

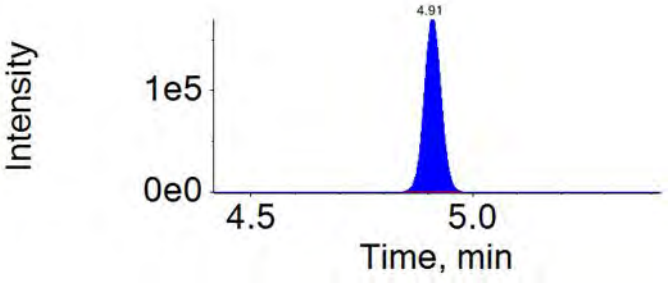
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



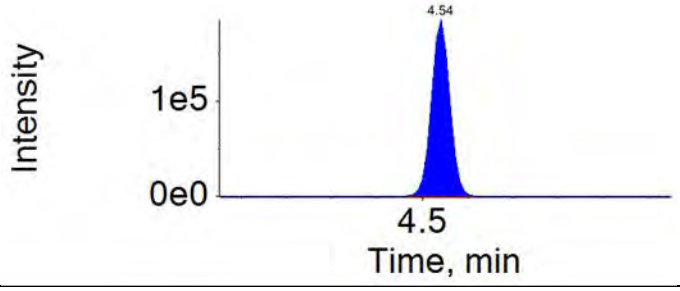


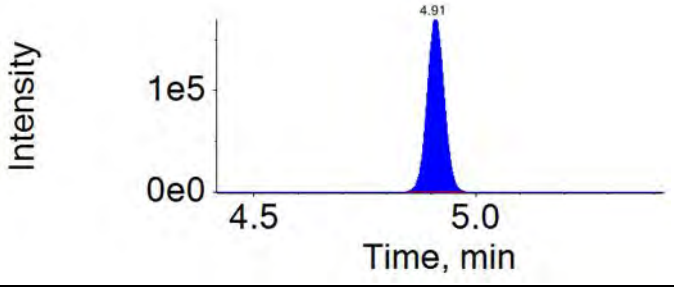
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



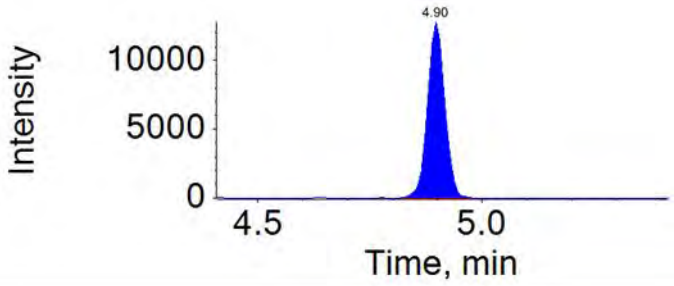


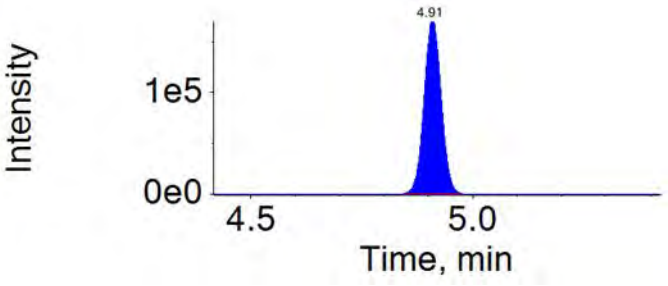
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

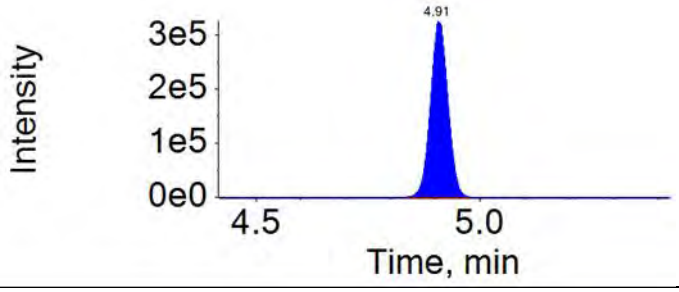
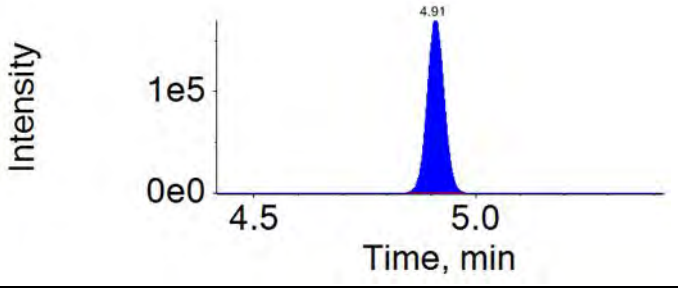


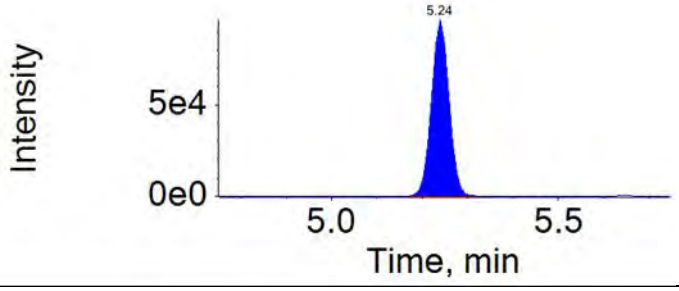
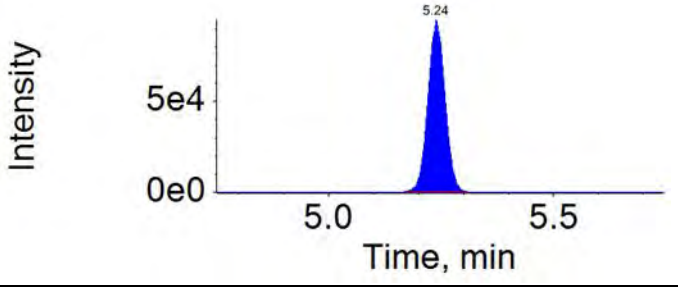


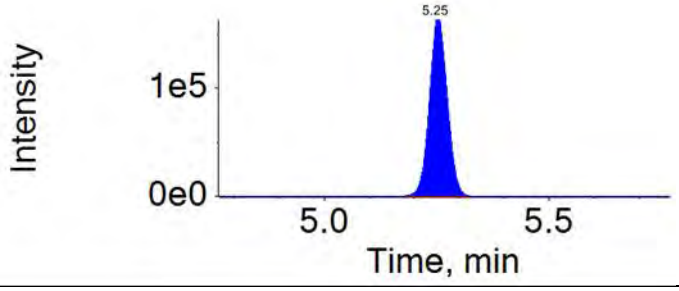
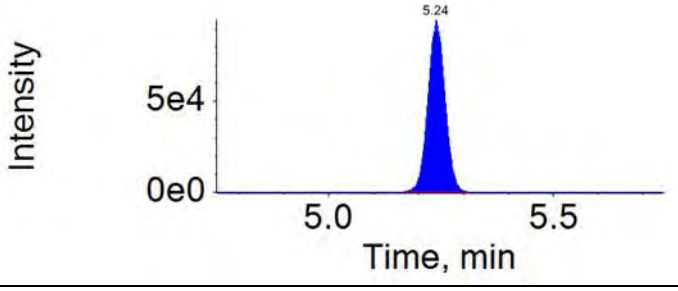
APPROVED
By JPT at 5:00 pm, 11/13/18

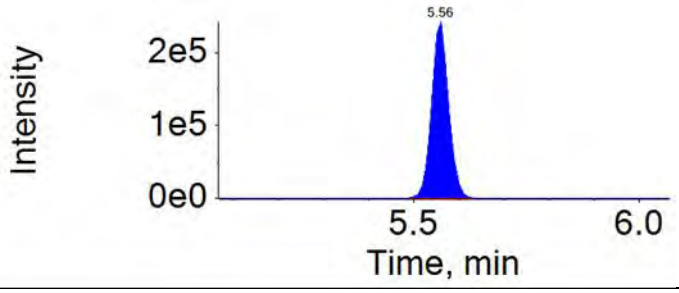
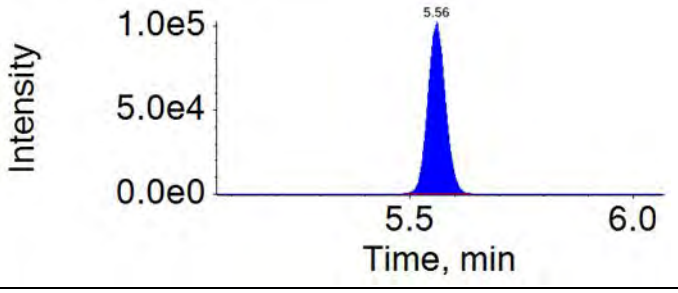
REVIEWED
By umar at 5:42 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

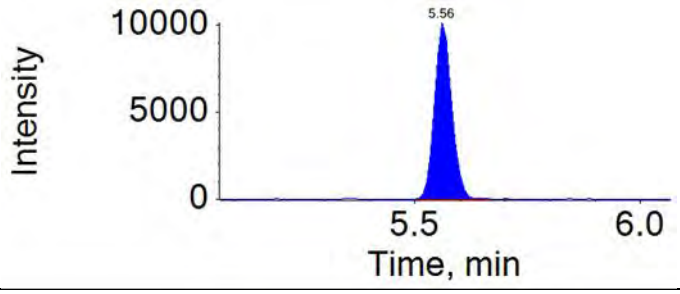
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

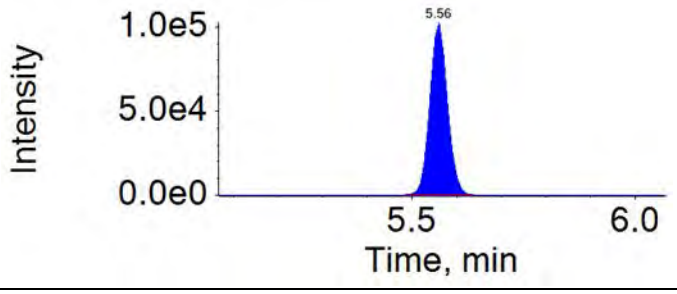
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

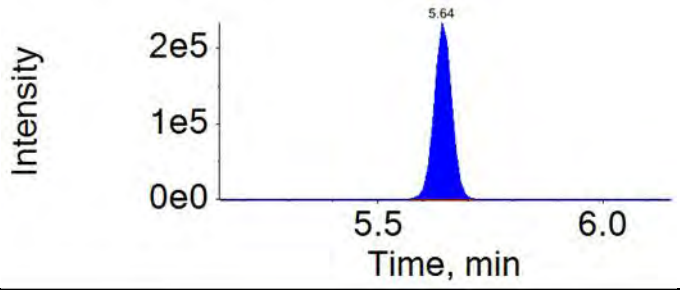
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

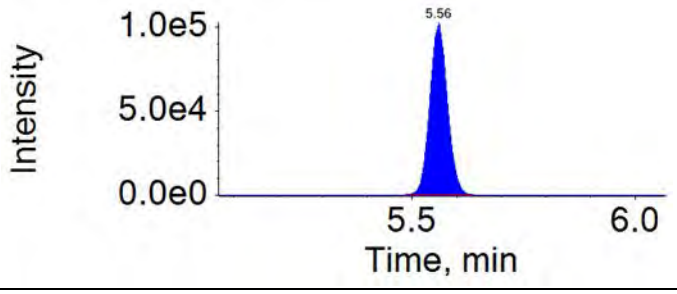
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



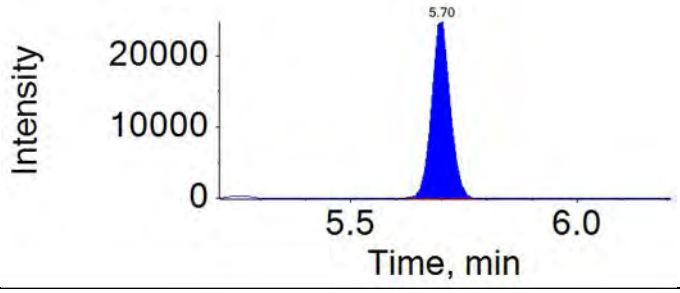


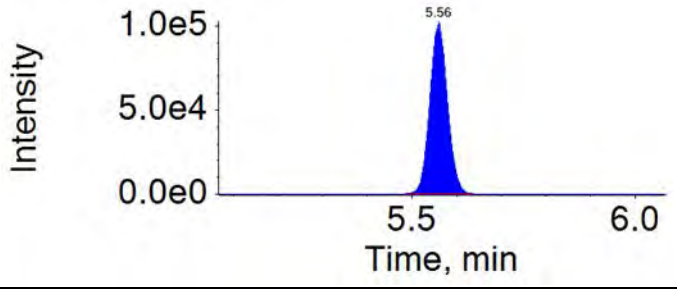
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



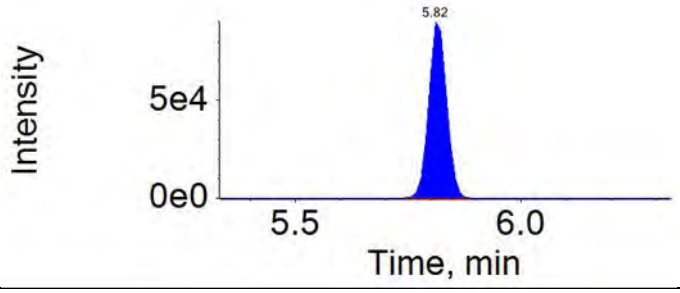


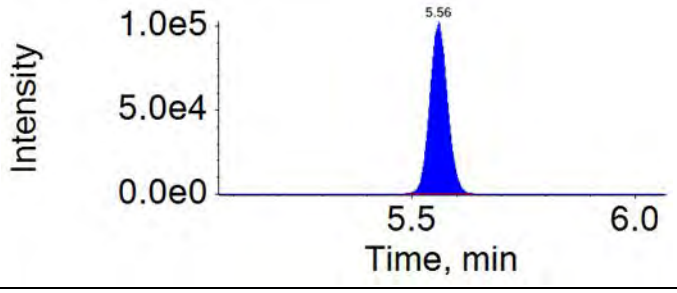
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



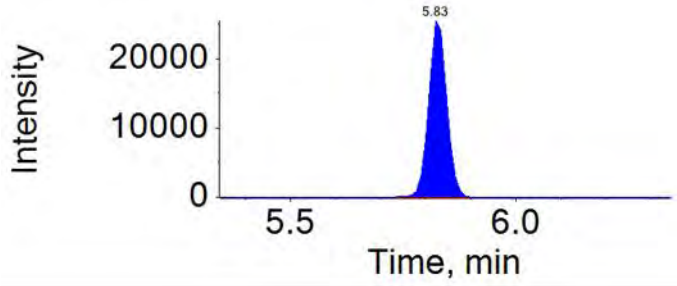


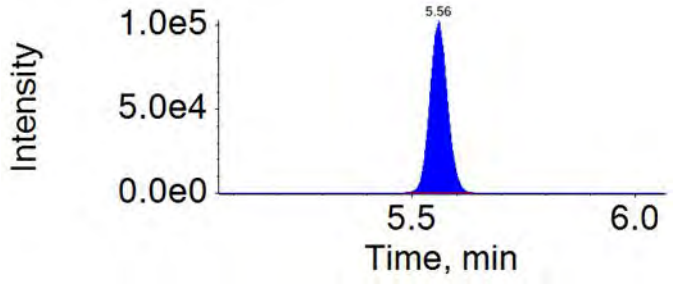
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

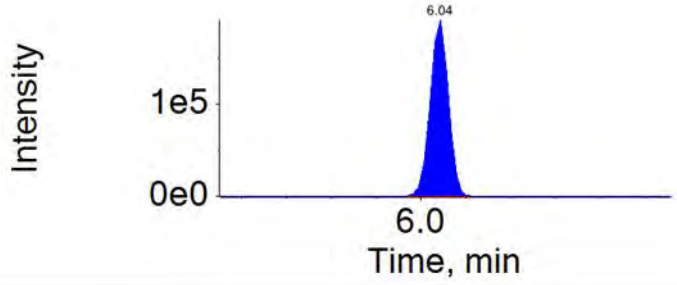
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

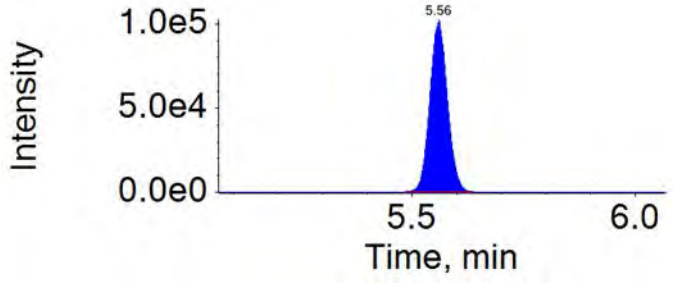
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



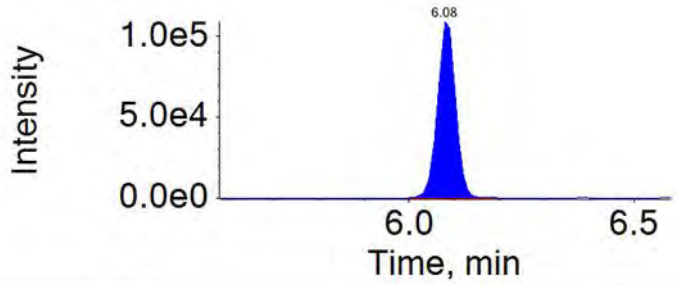


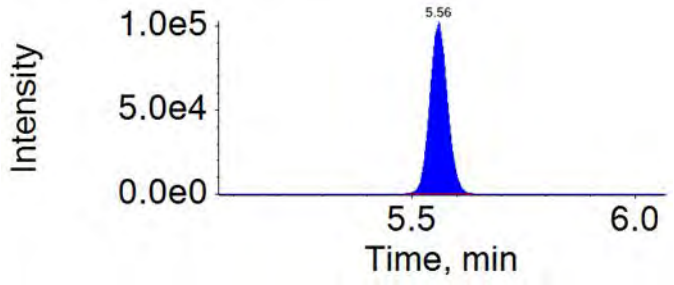
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



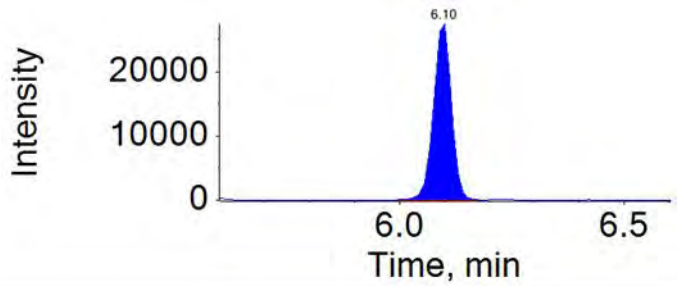


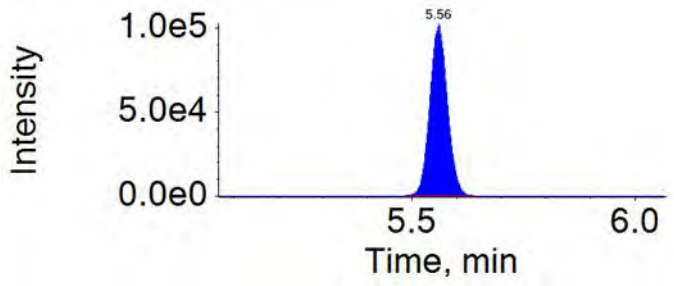
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





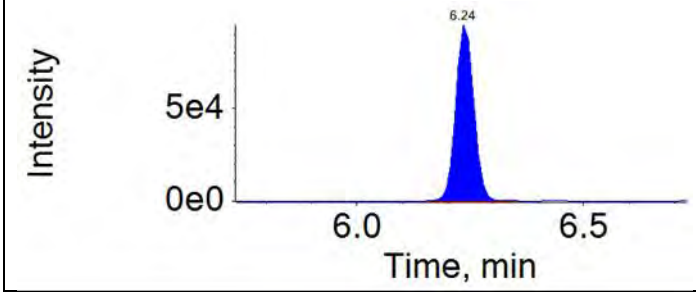
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

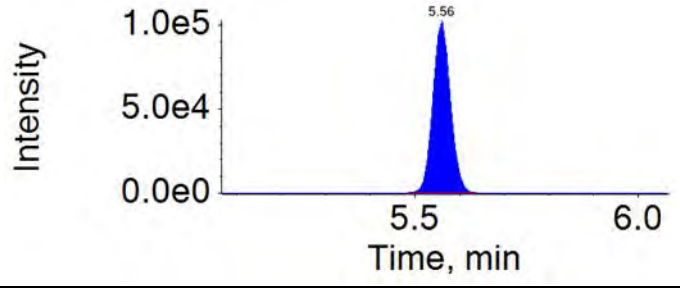




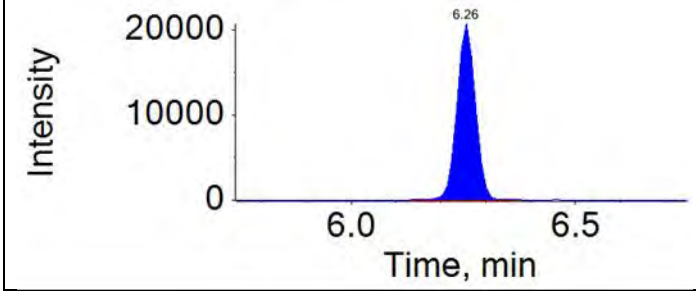
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

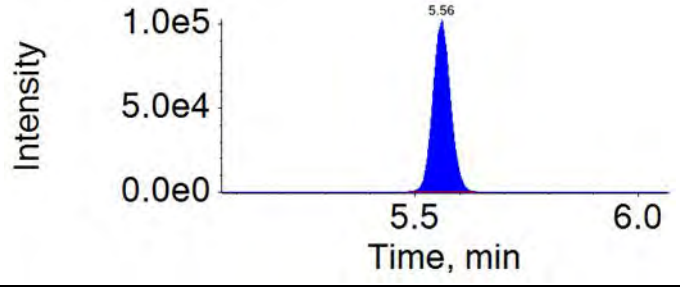
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



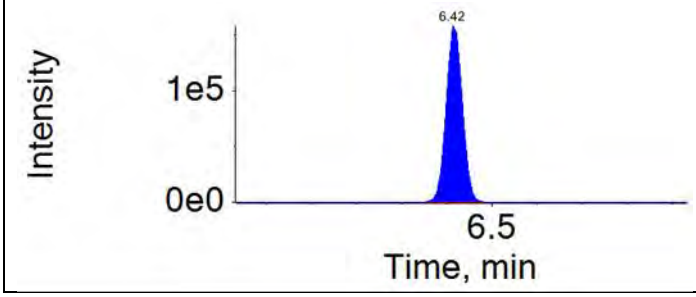


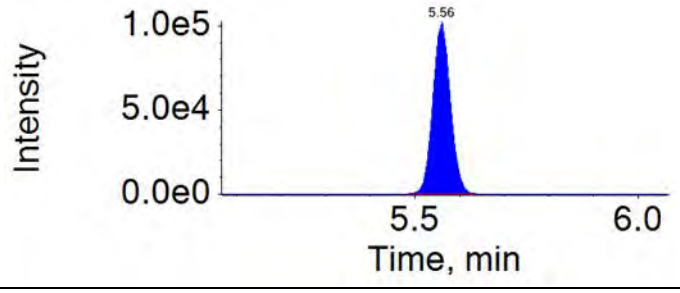
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



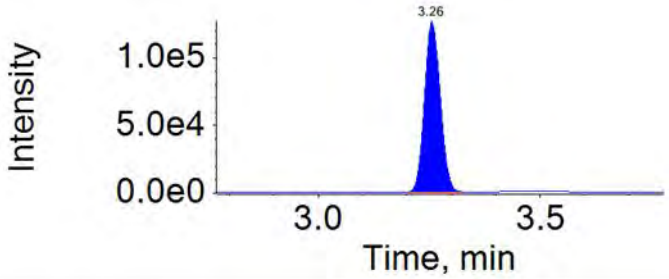


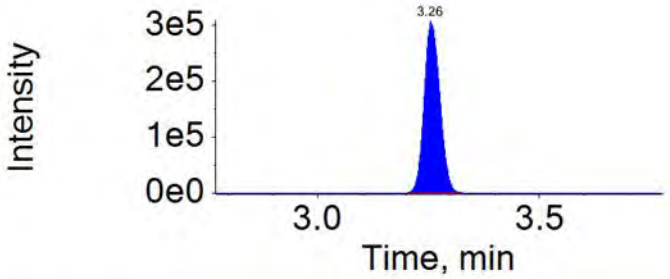
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

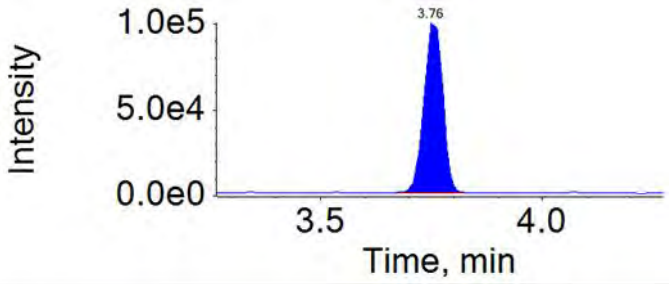
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

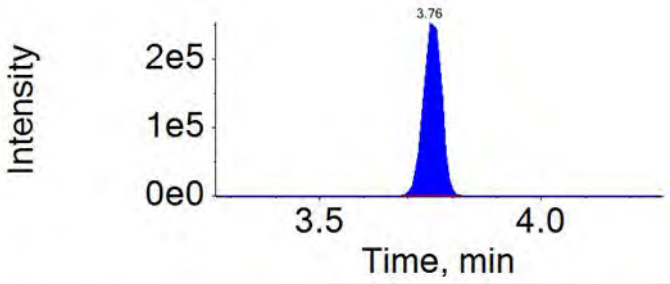
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



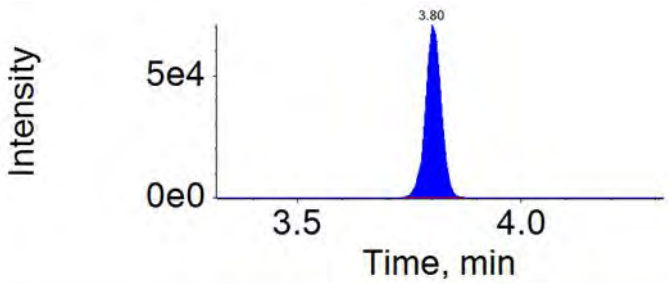


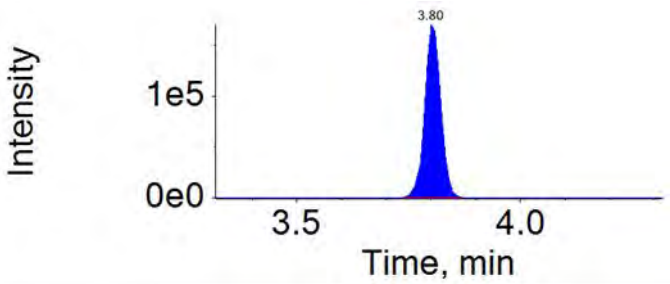
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



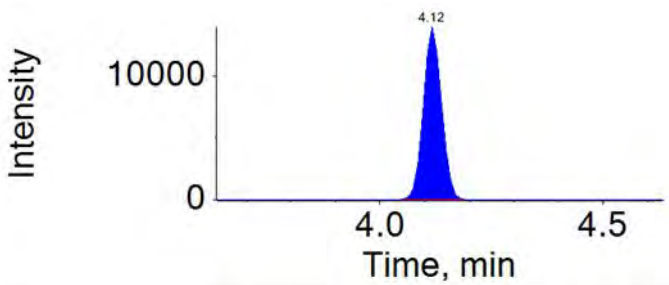


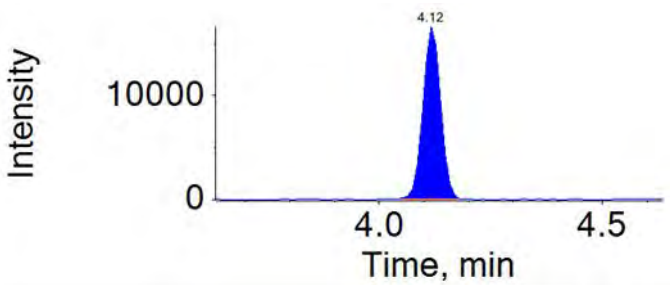
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



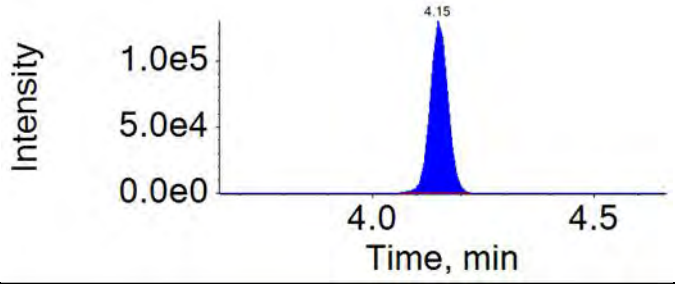


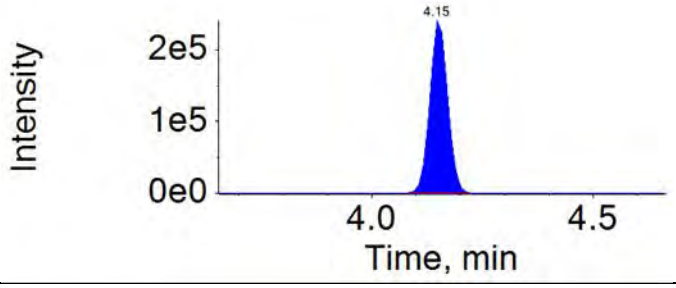
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

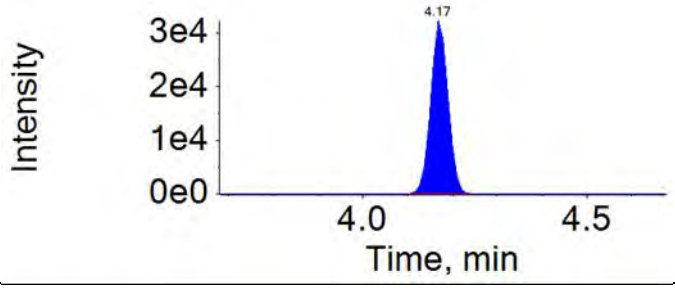
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

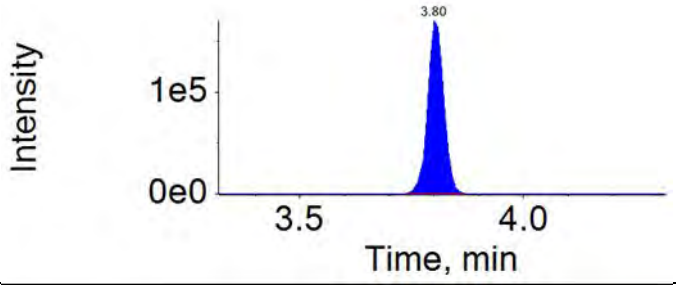
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



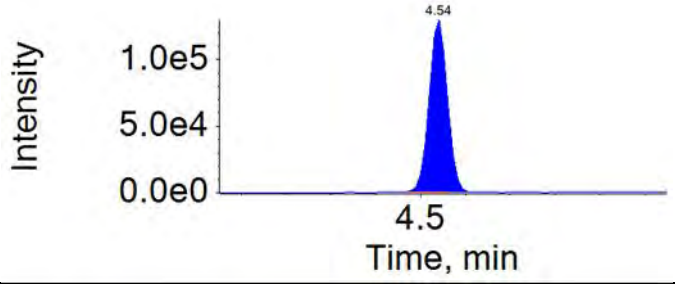


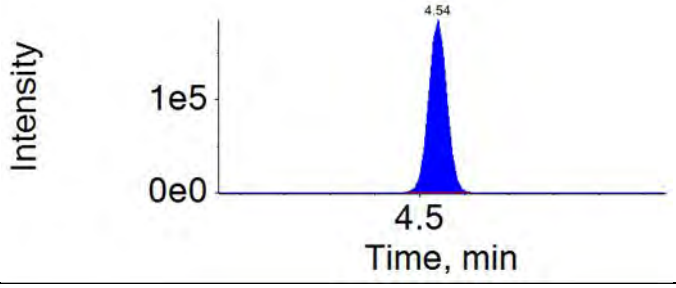
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



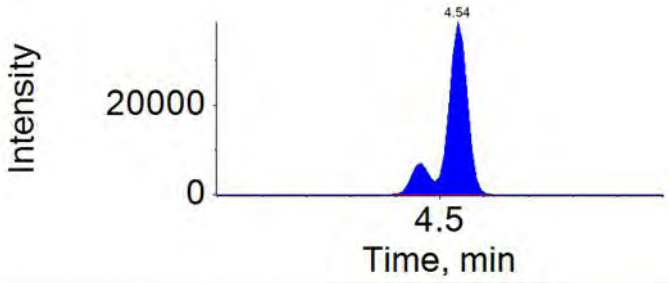


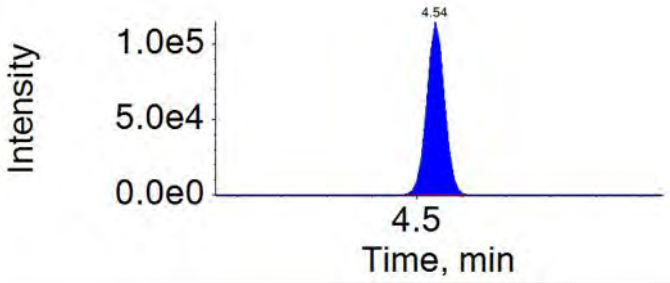
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

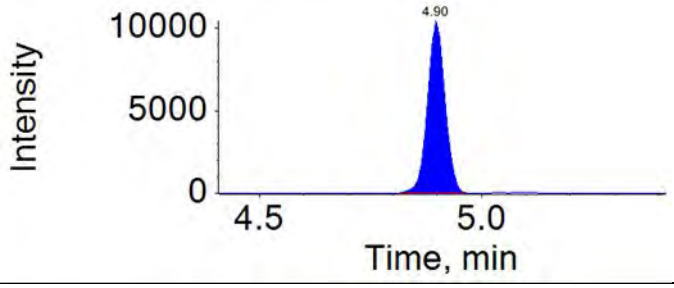
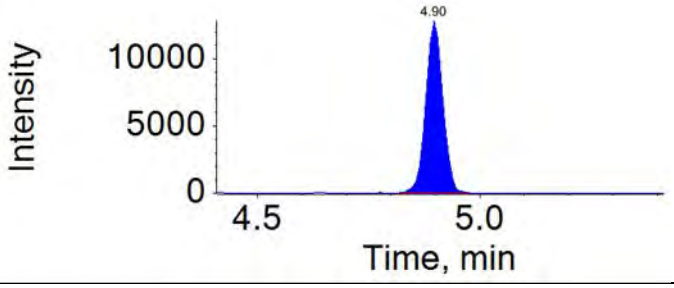


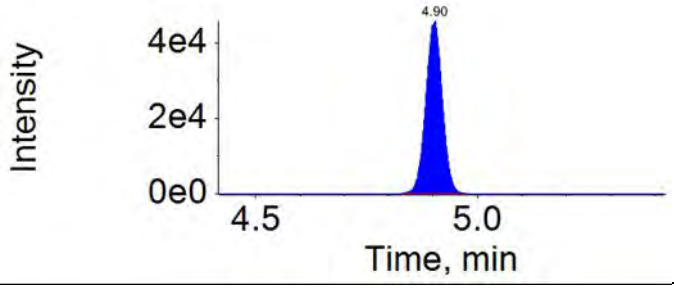
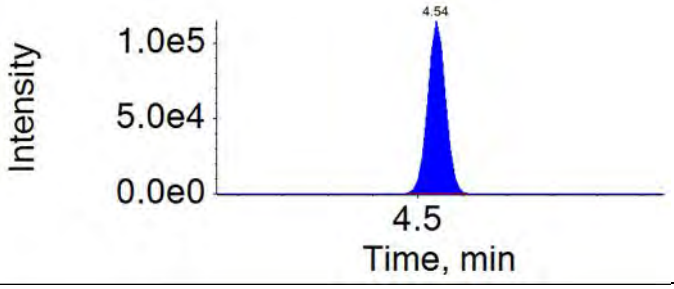


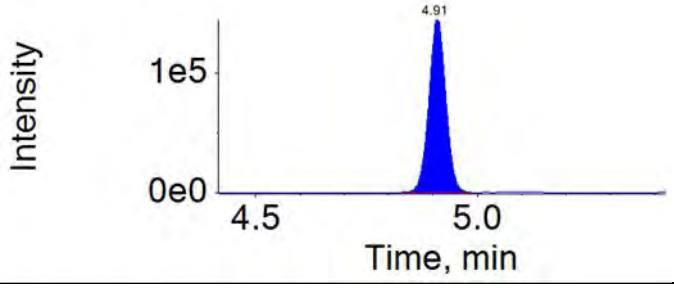
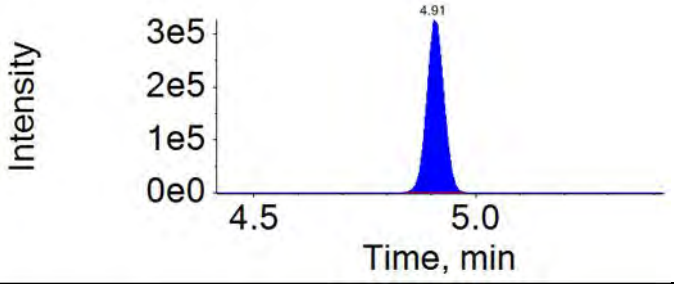
APPROVED
By JPT at 5:00 pm, 11/13/18

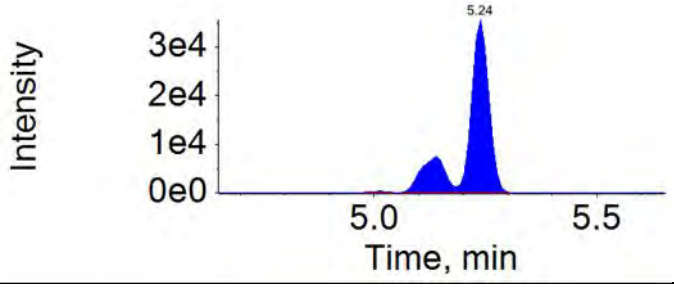
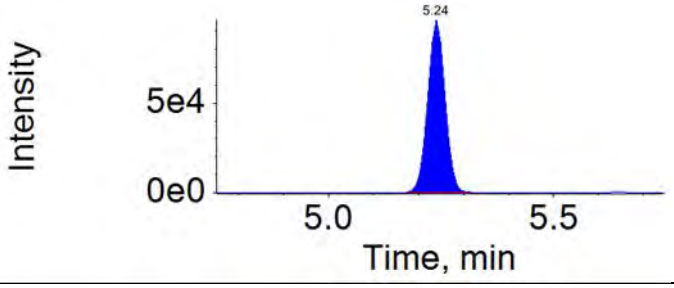
REVIEWED
By umar at 5:42 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

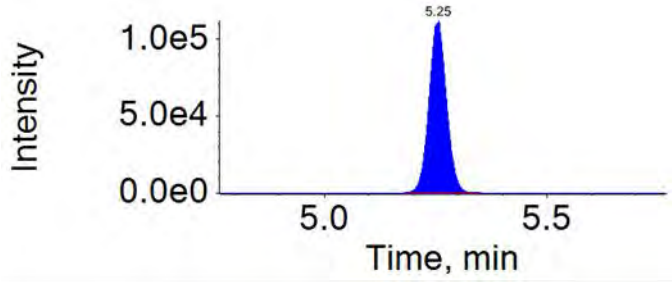
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

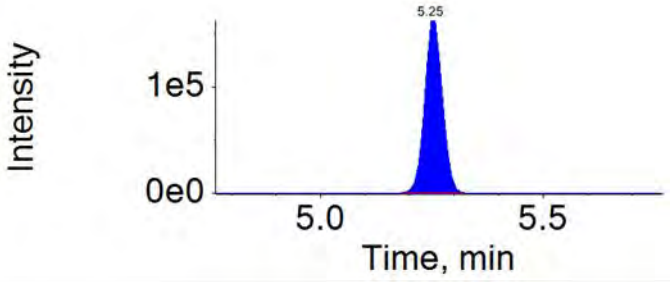
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

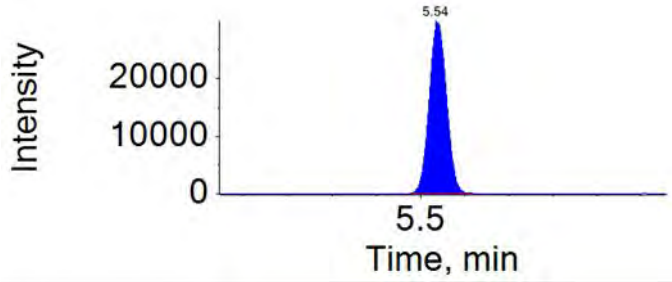
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

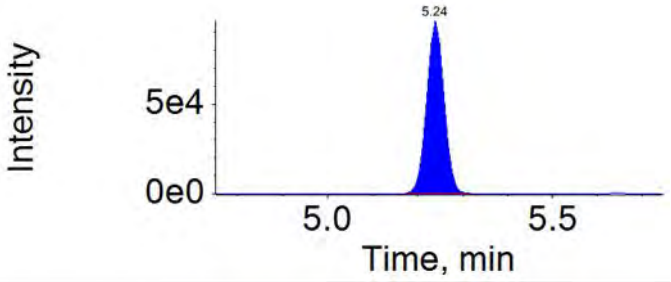
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



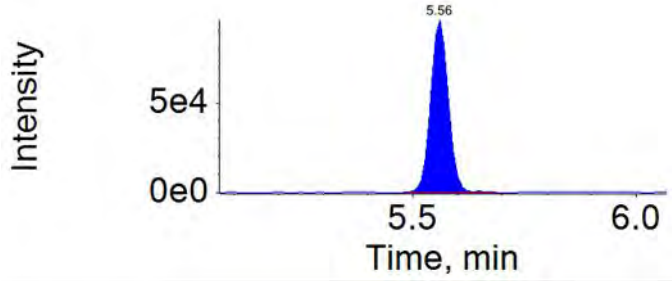


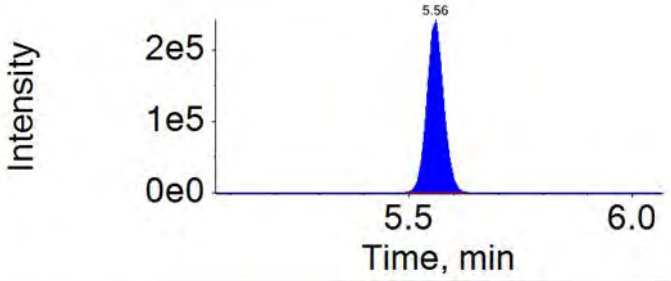
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



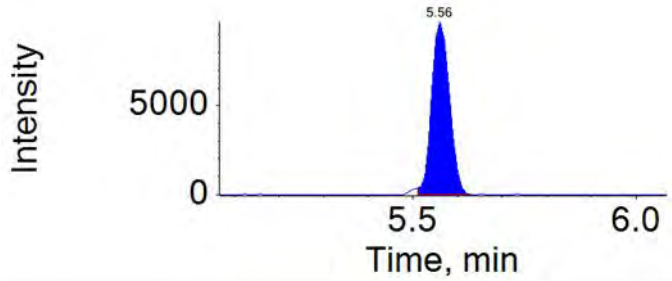


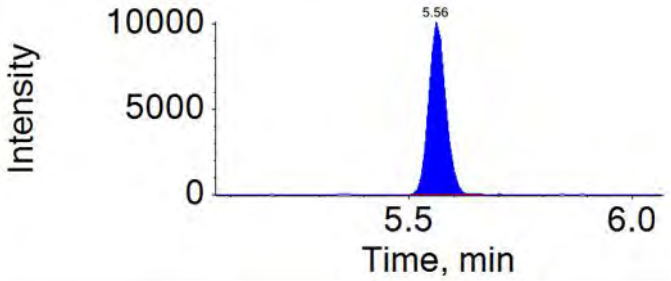
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



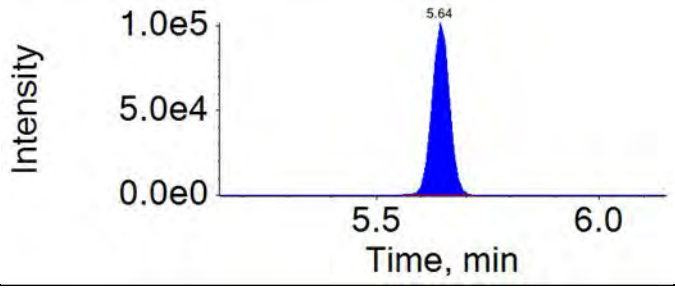


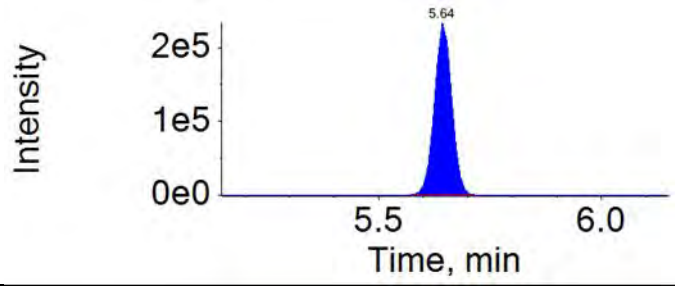
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

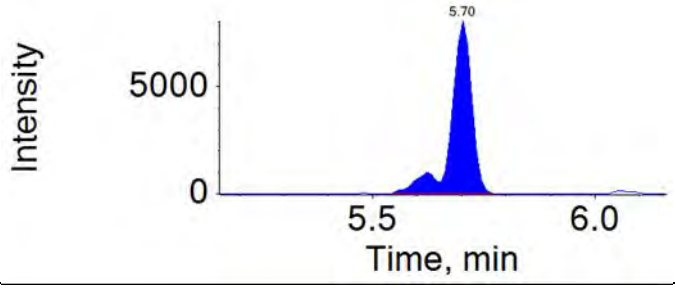
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

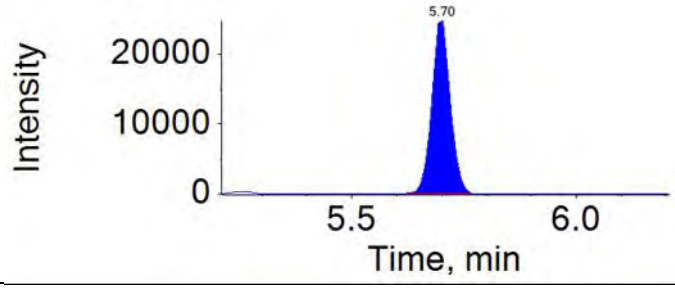
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



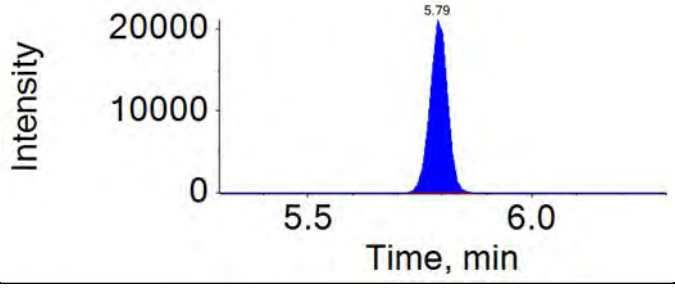


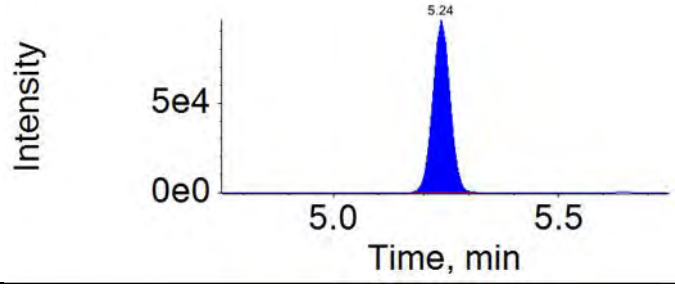
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



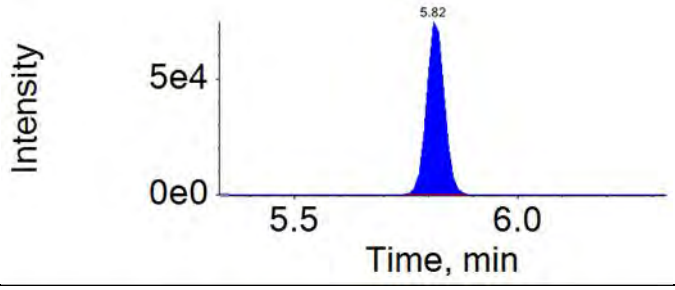


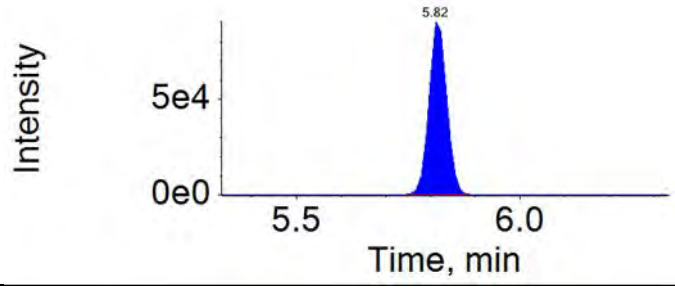
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



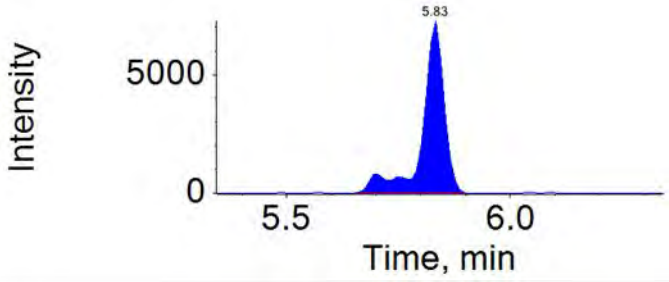


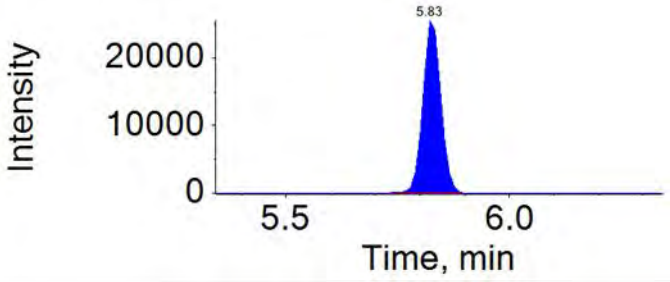
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

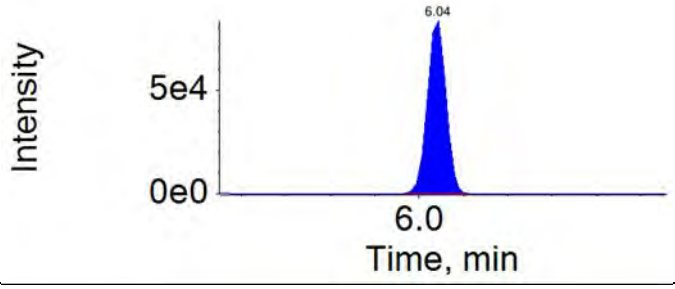
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

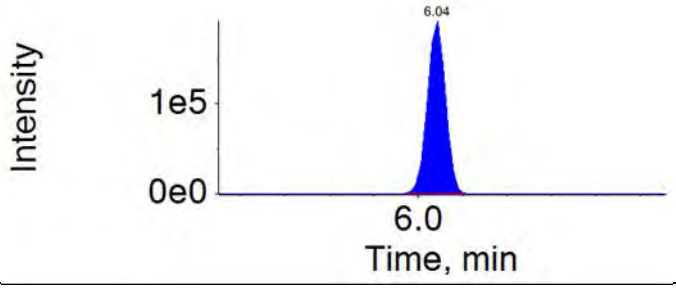
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



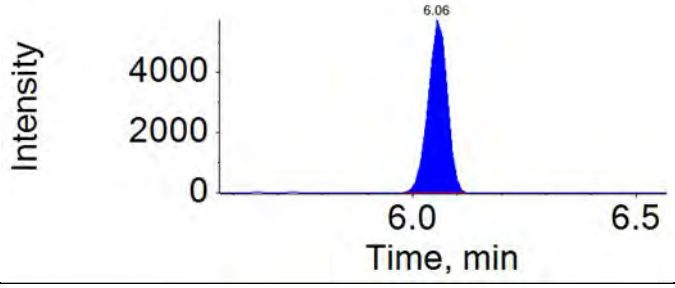


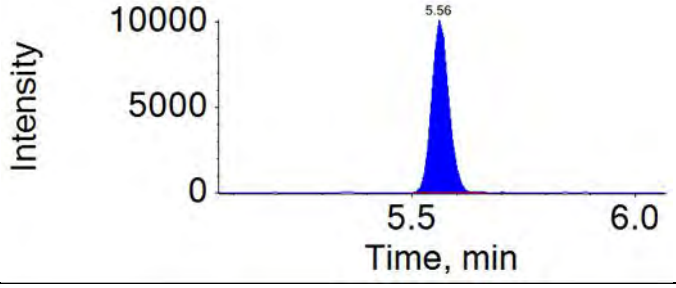
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



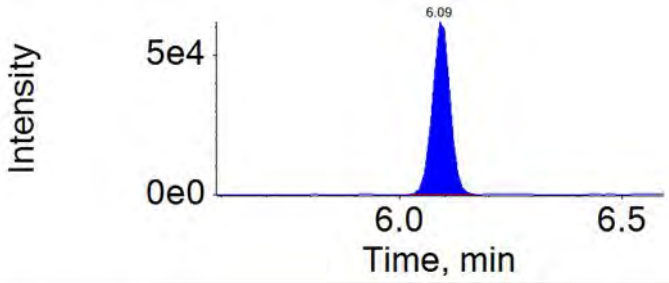


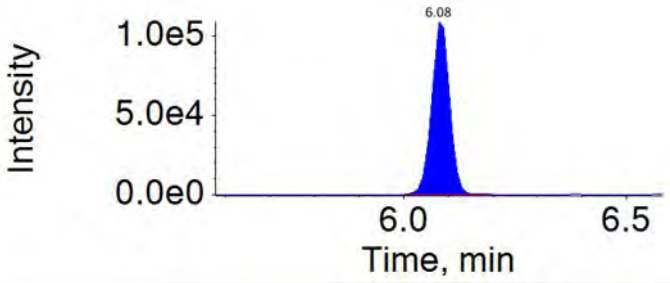
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



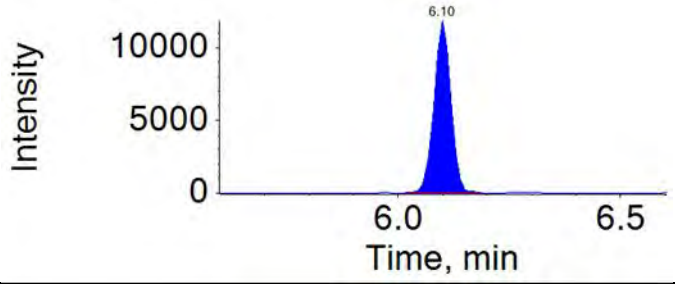


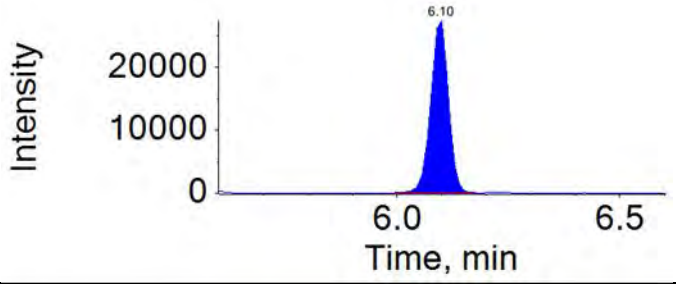
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

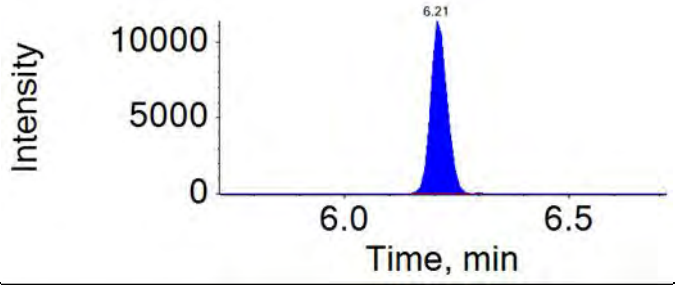
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

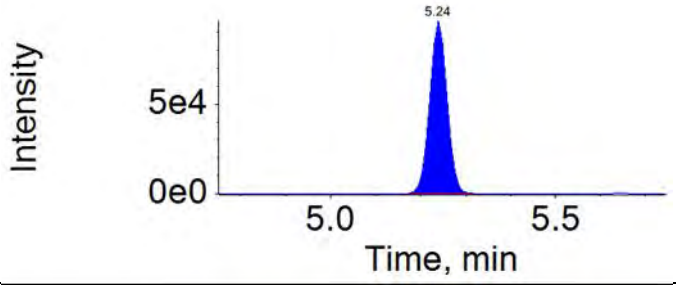
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



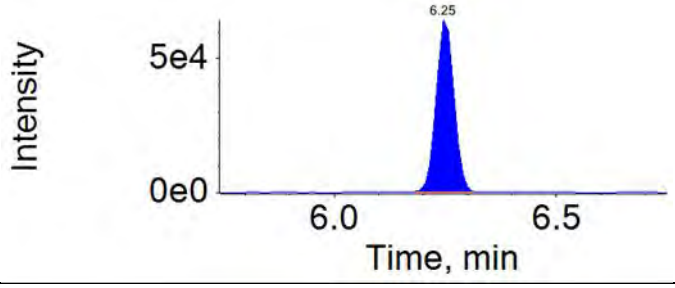


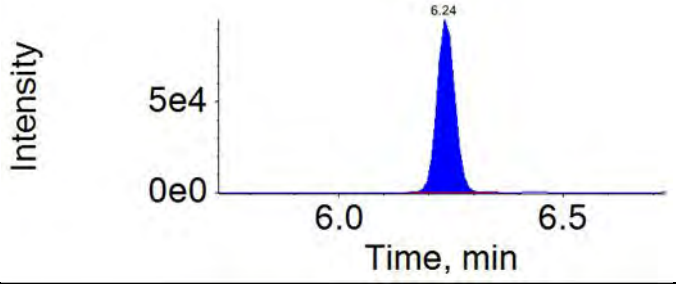
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



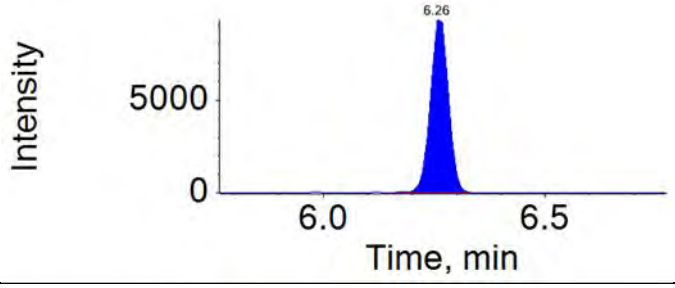


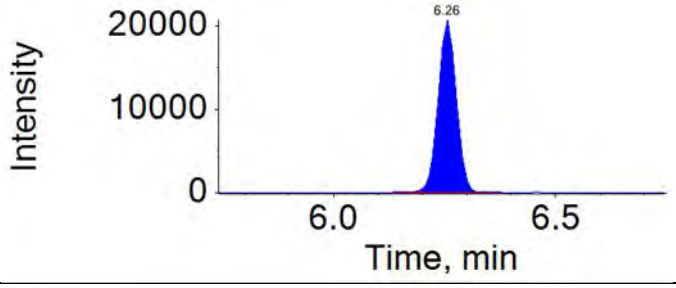
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



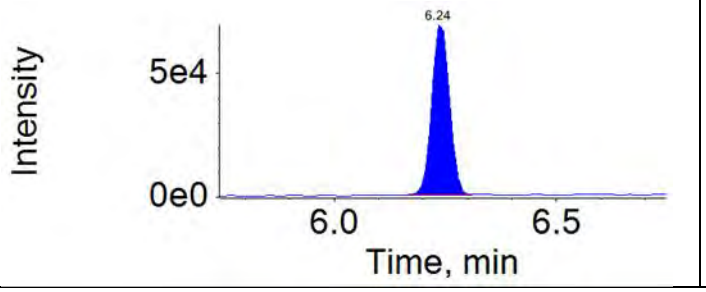


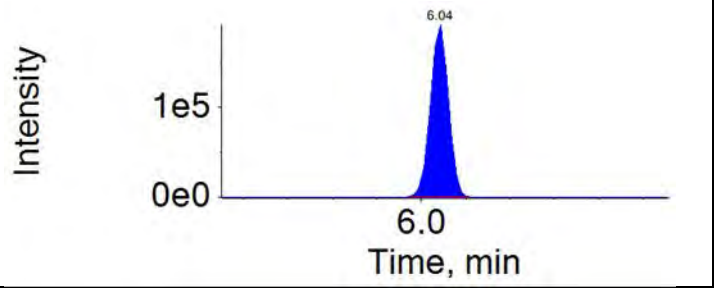
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

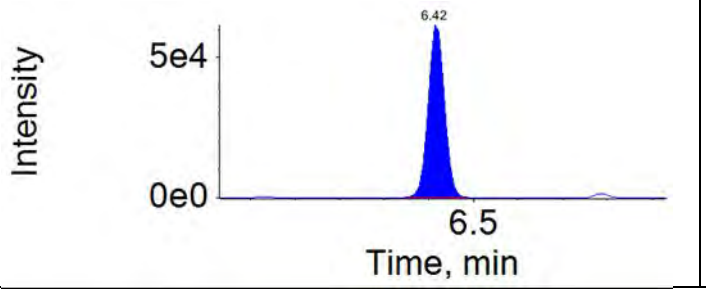
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

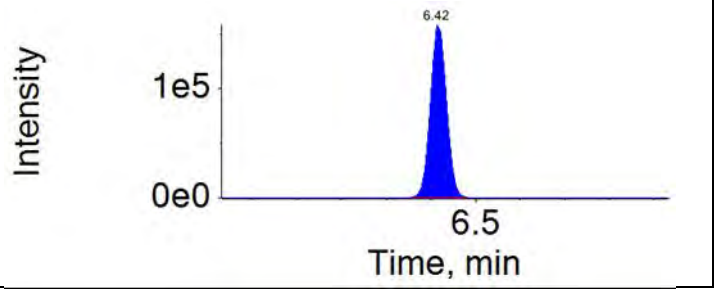
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



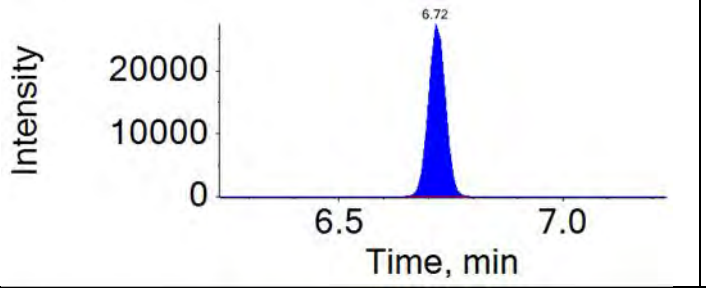


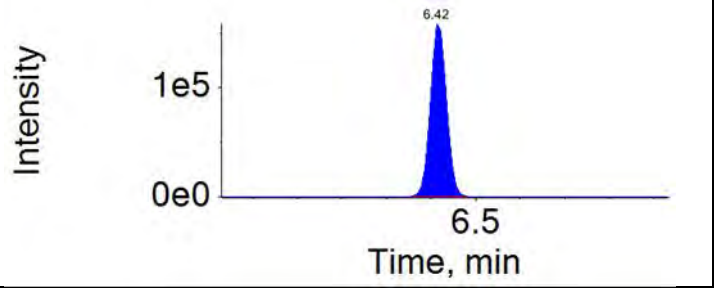
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



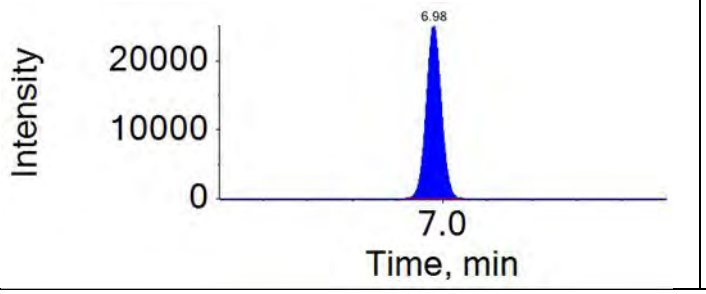


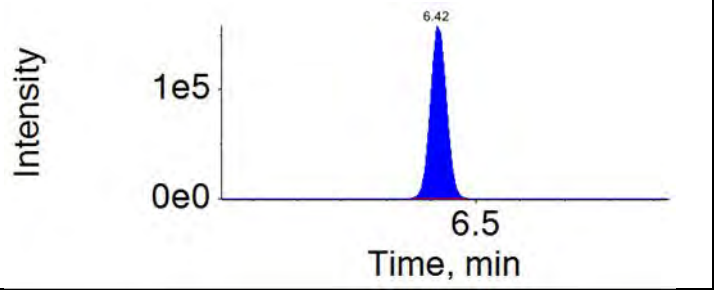
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



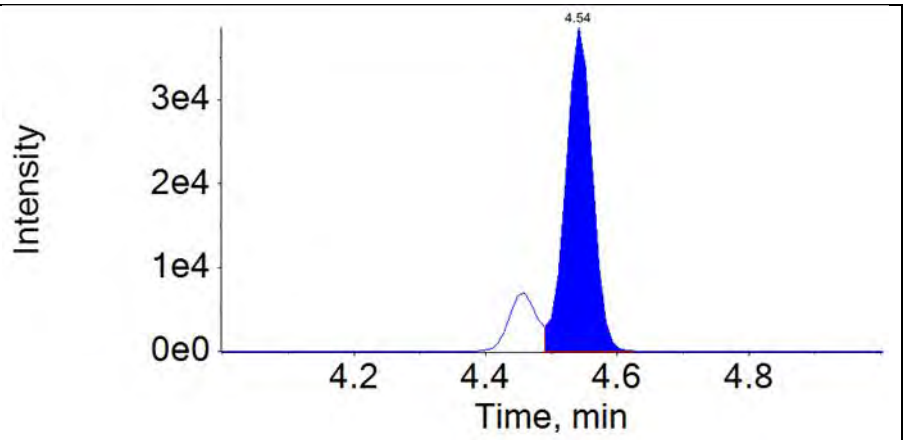


APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

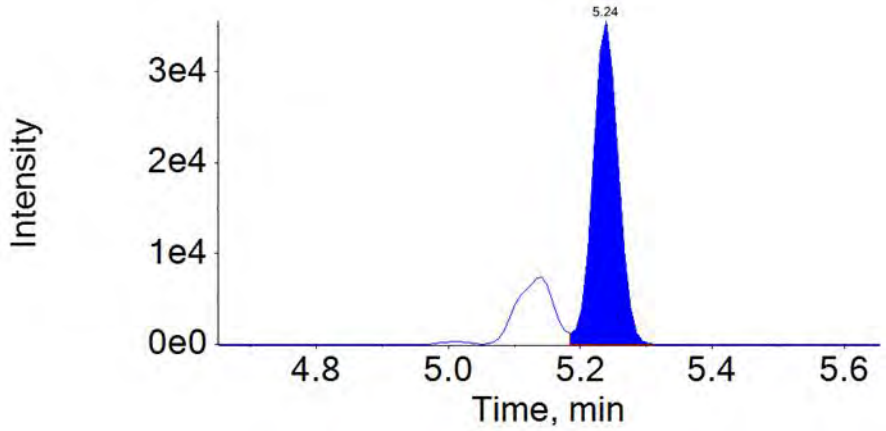
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
108769.4
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



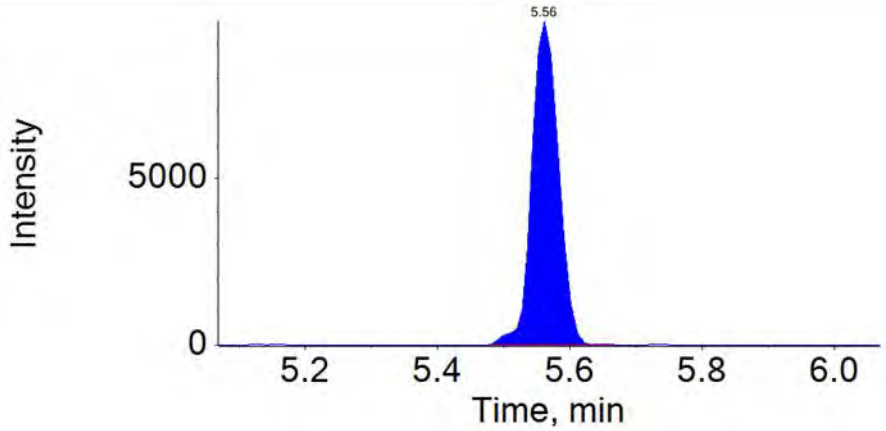
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
94626.0
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
8:2-FTS
RT (min.):
5.56
Peak Area:
27504.4
Mass Range:
527.0 / 507.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



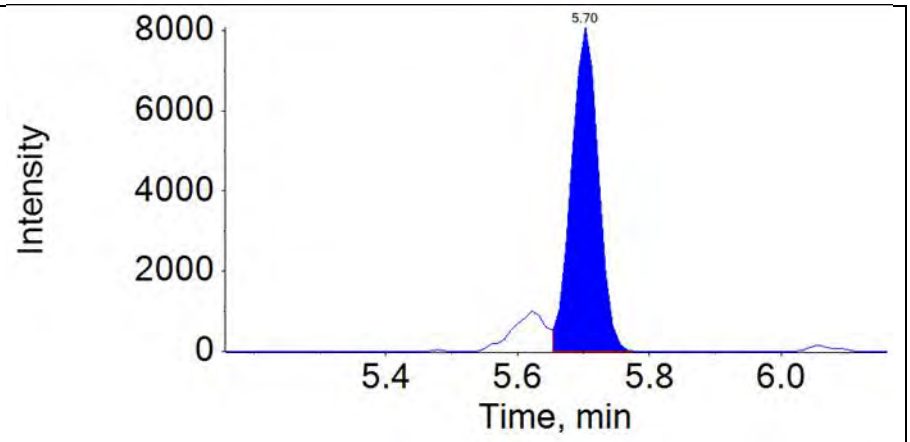
Integration Comment: incorrect integration

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

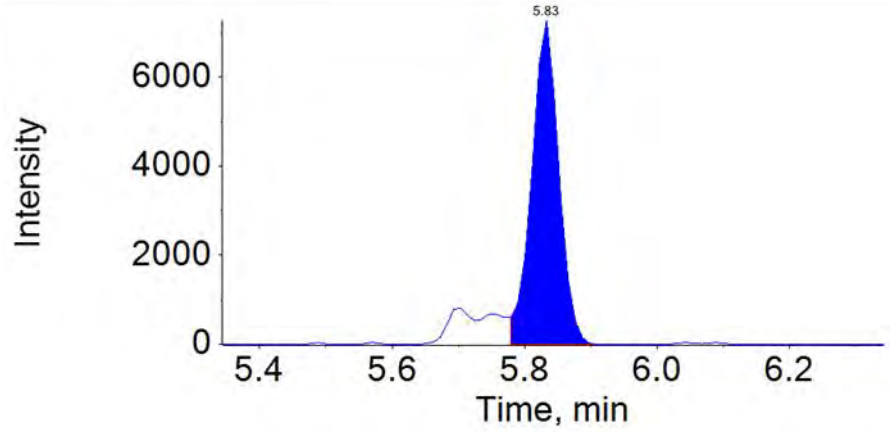
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
22968.6
Mass Range:
570.0 / 419.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



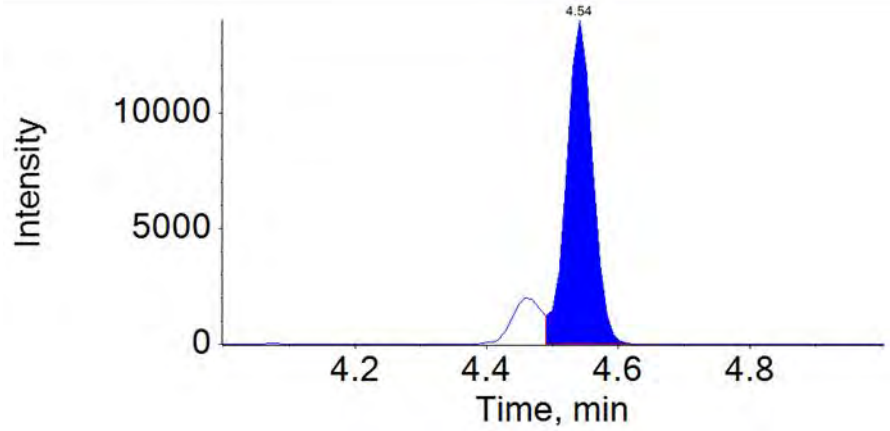
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.83
Peak Area:
20716.3
Mass Range:
584.0 / 419.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
38766.8
Mass Range:
399.0 / 99.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



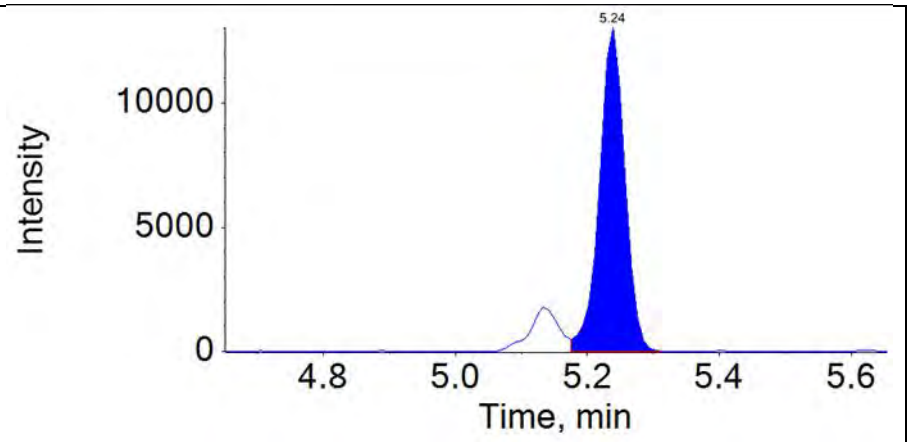
Integration Comment: incorrect integration

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

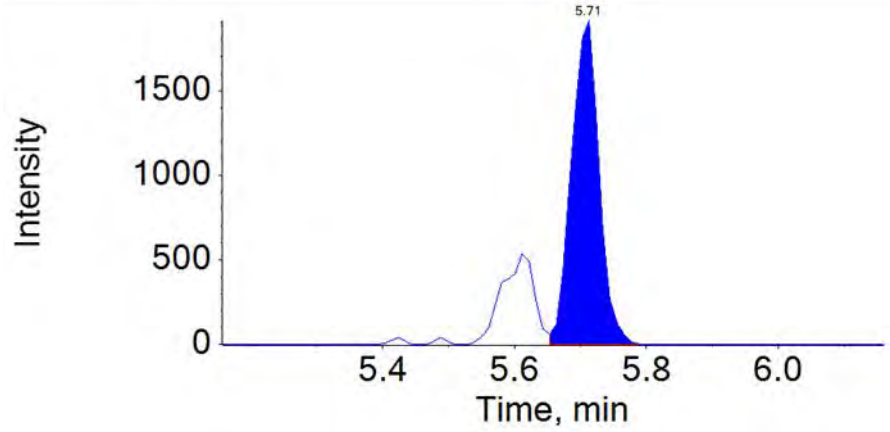
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
34981.3
Mass Range:
499.0 / 99.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



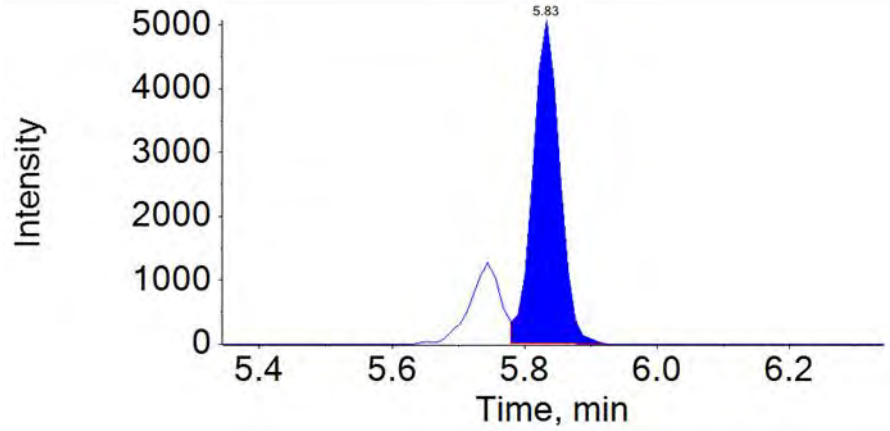
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
5588.4
Mass Range:
570.0 / 483.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
14264.5
Mass Range:
584.0 / 526.0
File Name:
18NOV13D-47.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM

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

Ion Ratio Report

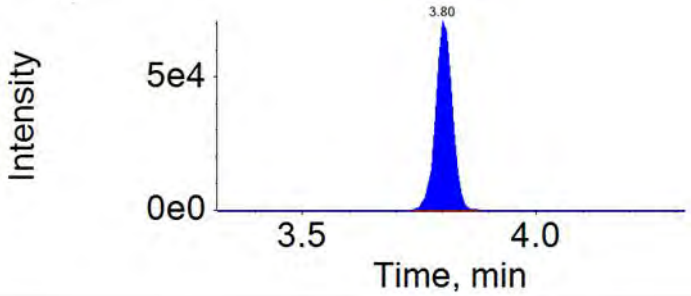
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV13D-47.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	173380.5	A	N/A	1.0000			
PFBS_2	3.80	1.00	61512.5	A	N/A	0.3548	-3	50	
4:2-FTS	4.12	1.00	39454.2	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	23650.9	A	N/A	0.5995		#NA!	
PFHxA	4.15	1.00	359338.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4198.0	A	N/A	0.0117	-1	50	
PFPeS	4.17	1.10	86328.6	A	N/A	1.0000			
PFPeS_2	4.17	1.10	44335.6	A	N/A	0.5136	-1	50	
PFHpA	4.54	1.00	366823.7	A	N/A	1.0000			
PFHpA_2	4.54	1.00	21736.9	A	N/A	0.0593	5	50	
PFHxS	4.54	1.00	129050.1	M	N/A	1.0000			
PFHxS_2	4.54	1.00	44840.4	M	N/A	0.3475	14	50	
6:2-FTS	4.90	1.00	28406.1	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	18809.6	A	N/A	0.6622		#NA!	
PFHpS	4.90	1.08	120412.1	A	N/A	1.0000			
PFHpS_2	4.90	1.08	52184.3	A	N/A	0.4334	7	50	
PFOA	4.91	1.00	386893.4	A	N/A	1.0000			
PFOA_2	4.91	1.00	22543.1	A	N/A	0.0583	2	50	
PFOS	5.24	1.00	124584.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	40408.3	M	N/A	0.3243	25	50	
PFNA	5.25	1.00	306064.7	A	N/A	1.0000			
PFNA_2	5.25	1.00	6242.3	A	N/A	0.0204	-11	50	
PFNS	5.54	1.06	81247.8	A	N/A	1.0000			
PFNS_2	5.54	1.06	36368.0	A	N/A	0.4476	-6	50	
PFDA	5.56	1.00	262885.4	A	N/A	1.0000			
PFDA_2	5.56	1.00	2149.2	A	N/A	0.0082	3	50	
8:2-FTS	5.56	1.00	26997.8	M	N/A	1.0000			
8:2 FTS_2	5.56	1.00	16168.3	A	N/A	0.5989		#NA!	
NMeFOSAA	5.70	1.00	26509.8	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	7430.7	M	N/A	0.2803	32	50	
PFDS	5.79	1.11	57377.5	A	N/A	1.0000			
PFDS_2	5.79	1.11	32258.4	A	N/A	0.5622	10	50	
PFUnDA	5.82	1.00	206119.4	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	715.1	A	N/A	0.0035	-17	50	
NEtFOSAA	5.83	1.00	24747.7	M	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	18439.9	M	N/A	0.7451	28	50	
PFDoDA	6.04	1.00	244015.0	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	4086.0	A	N/A	0.0167	3	50	
10:2-FTS	6.06	1.09	17038.2	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	12887.4	A	N/A	0.7564		#NA!	
PFTrDA	6.24	1.03	189964.3	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1890.9	A	N/A	0.0100	8	50	
PFTeDA	6.42	1.00	156391.7	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	1243.6	A	N/A	0.0080	24	50	
PFHxDA	6.72	1.05	72132.1	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4816.8	A	N/A	0.0668	-1	50	
PFODA	6.98	1.09	59386.3	A	N/A	1.0000			
PFODA_2	6.98	1.09	1490.9	A	N/A	0.0251	-7	50	

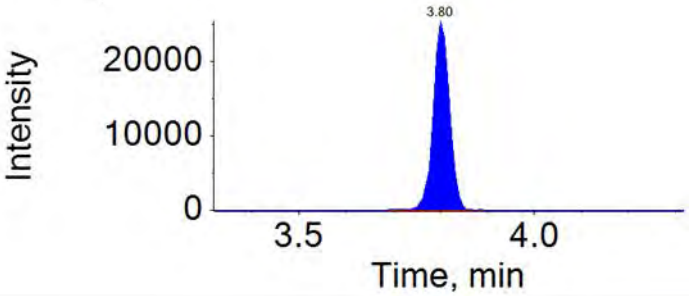
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

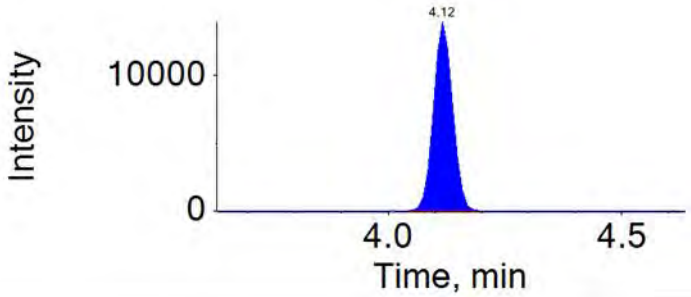
Component: PFBS
Primary Mass: 299.0 / 80.0



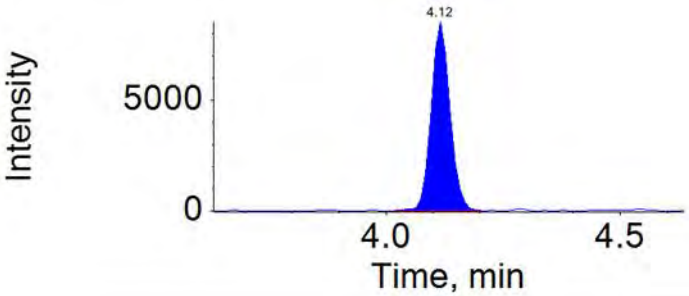
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



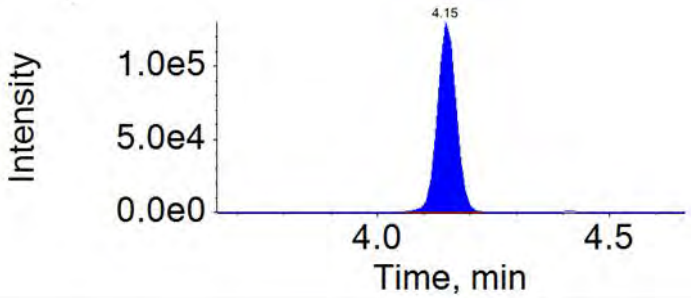
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



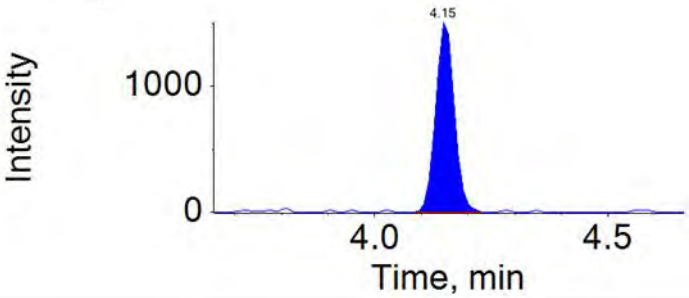
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



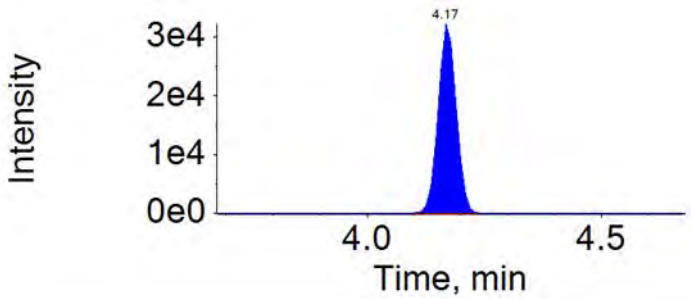
Component: PFHxA
Primary Mass: 313.0 / 269.0



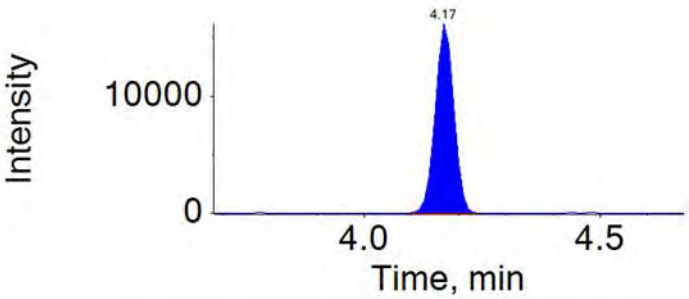
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



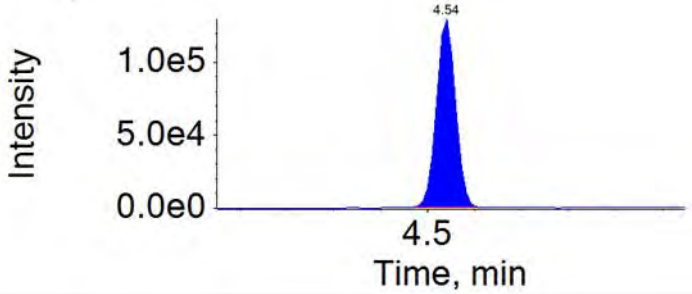
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



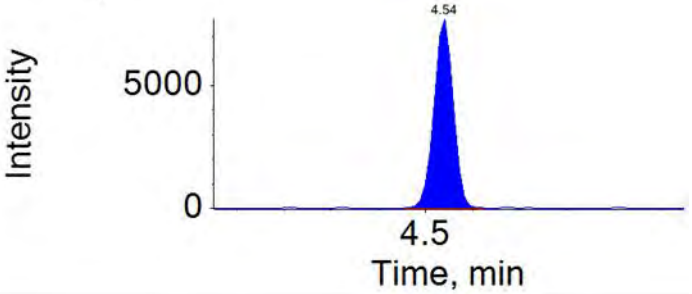
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

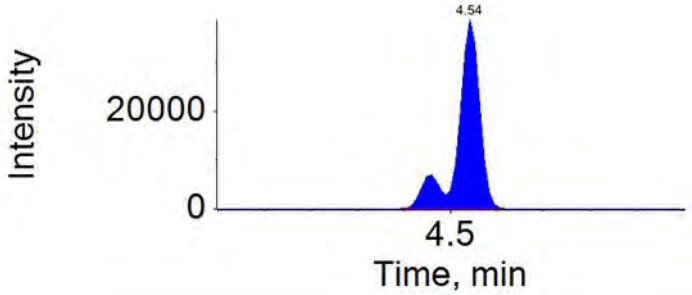
Component: PFHpA
Primary Mass: 363.0 / 319.0



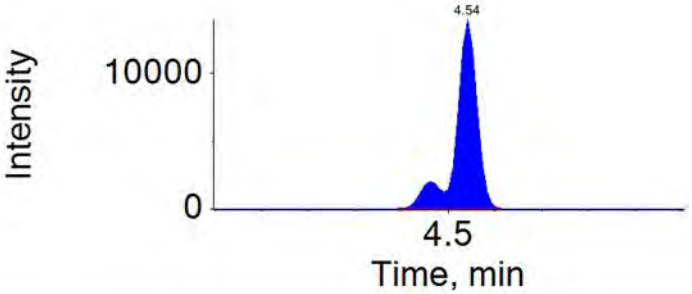
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



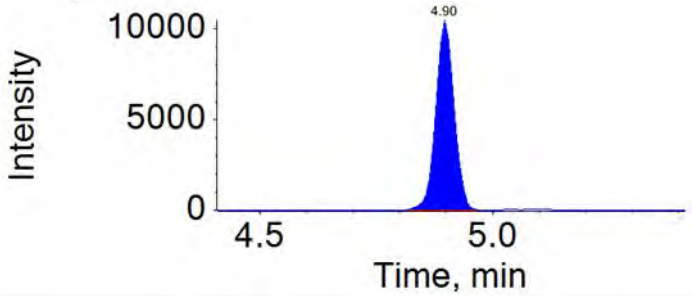
Component: PFHxS
Primary Mass: 399.0 / 80.0



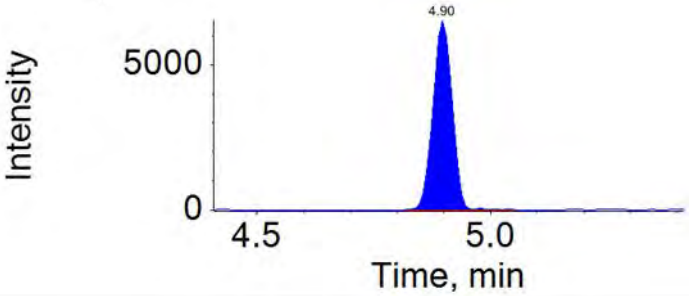
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



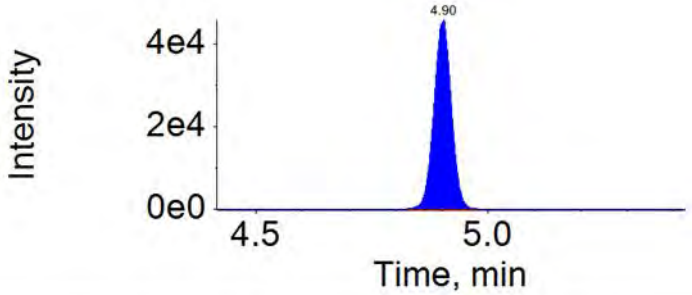
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



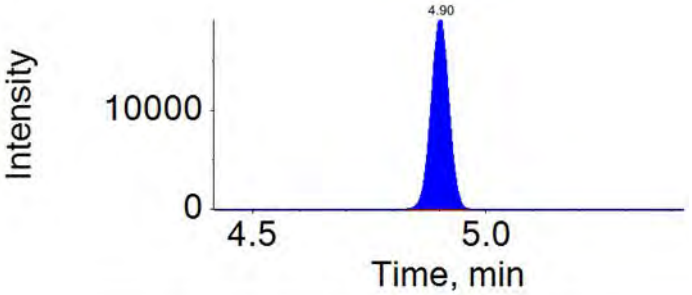
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



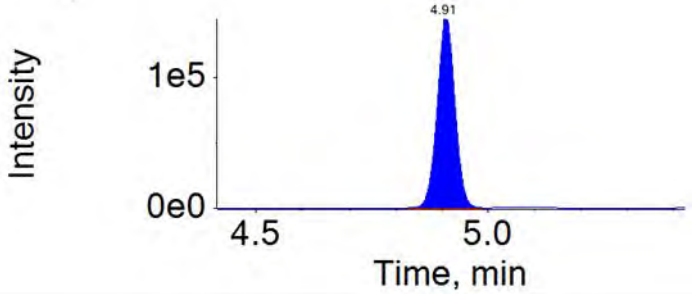
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



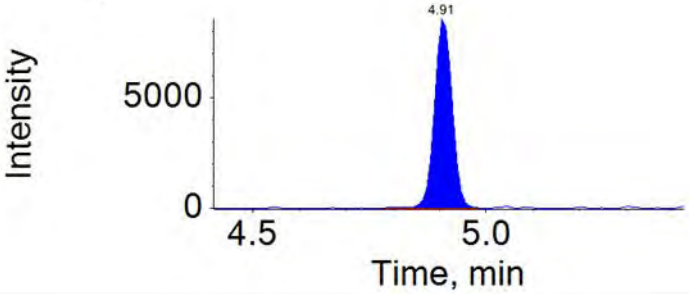
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

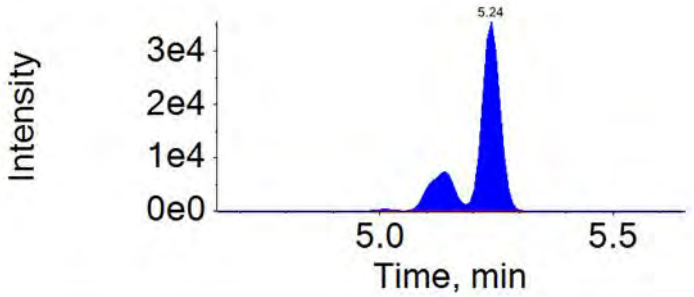
Component: PFOA
Primary Mass: 413.0 / 369.0



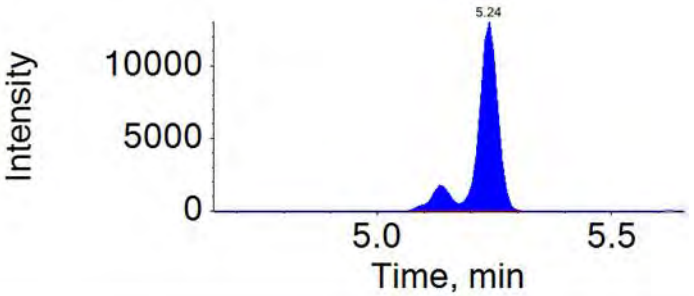
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



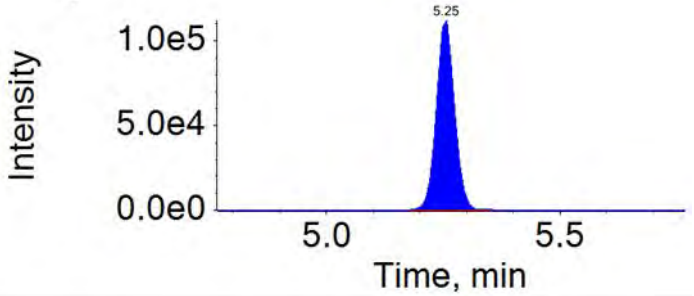
Component: PFOS
Primary Mass: 499.0 / 80.0



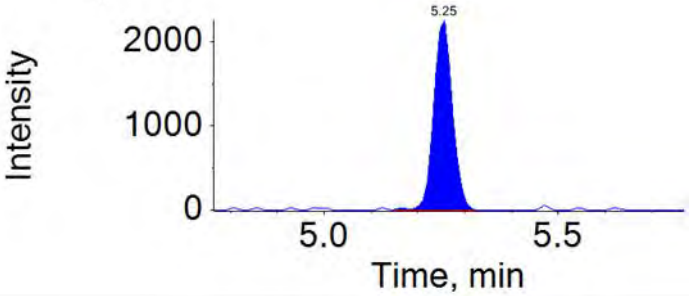
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



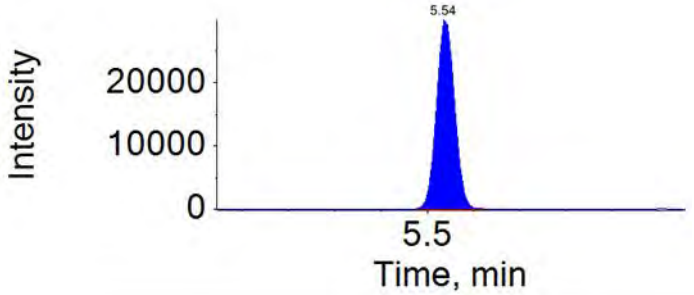
Component: PFNA
Primary Mass: 463.0 / 419.0



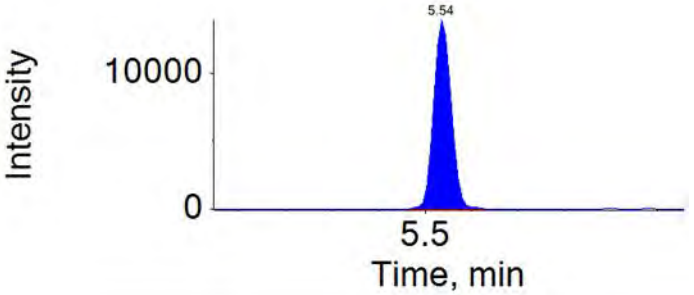
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



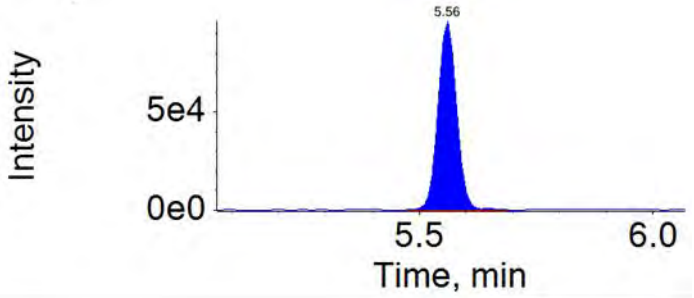
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



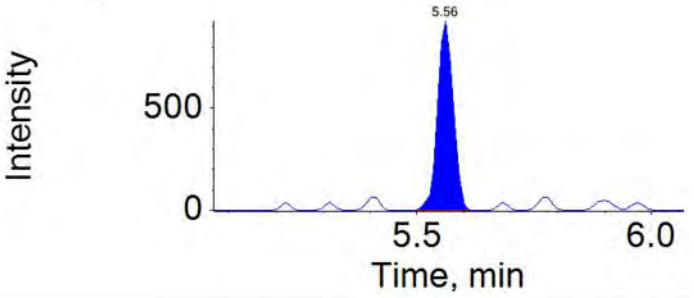
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

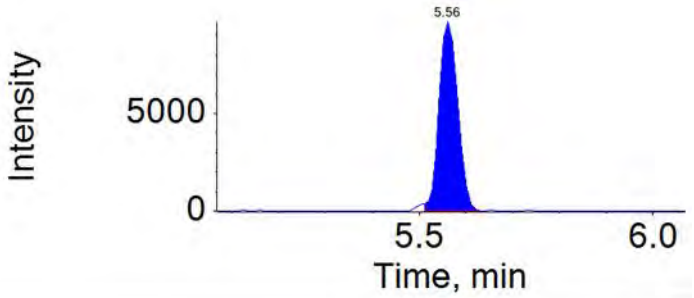
Component: PFDA
Primary Mass: 513.0 / 469.0



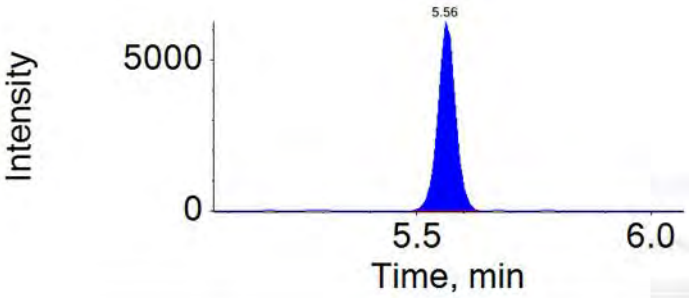
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



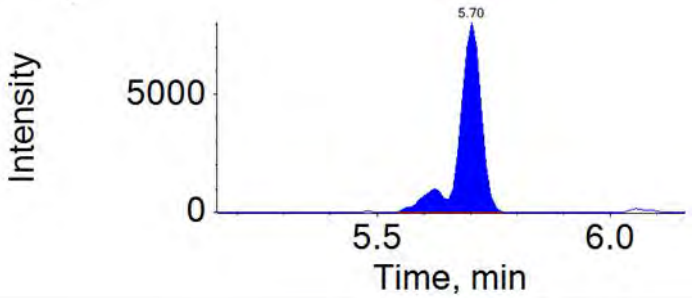
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



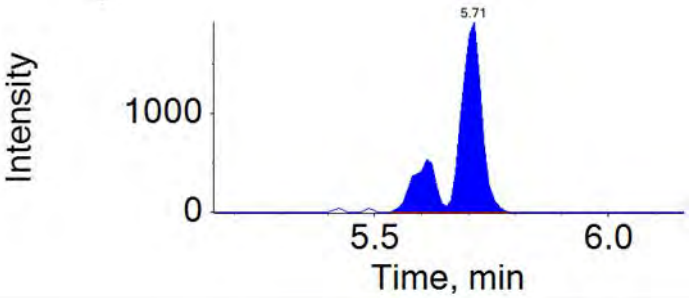
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



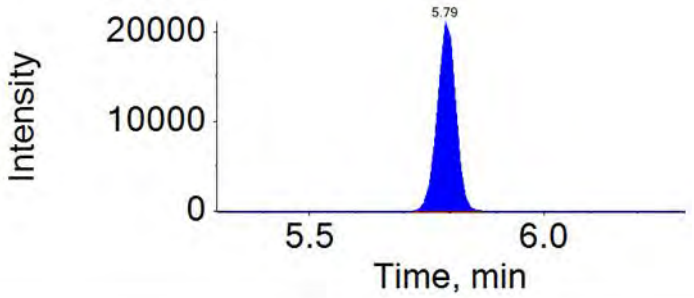
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



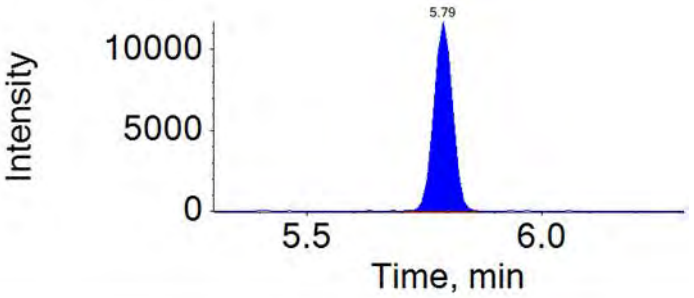
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



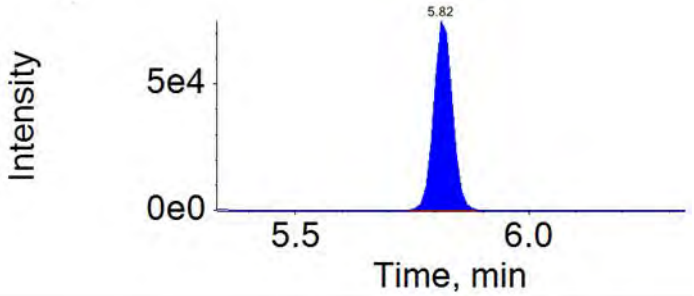
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



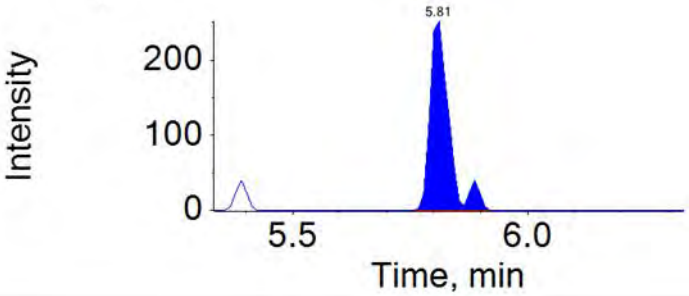
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

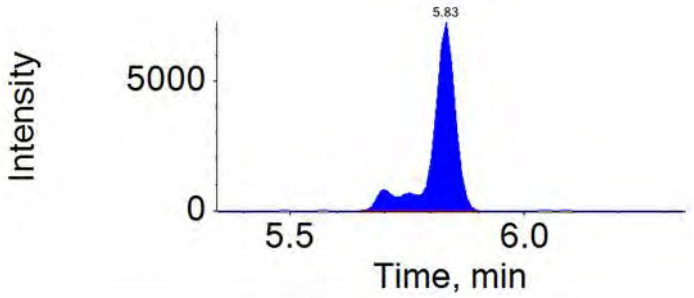
Component: PFUnDA
Primary Mass: 563.0 / 519.0



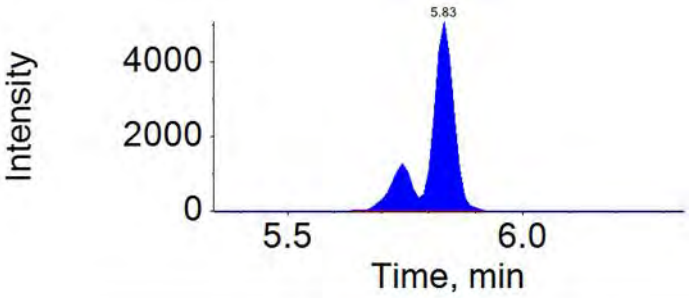
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



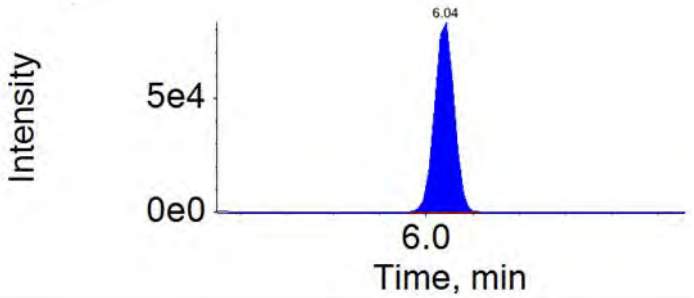
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



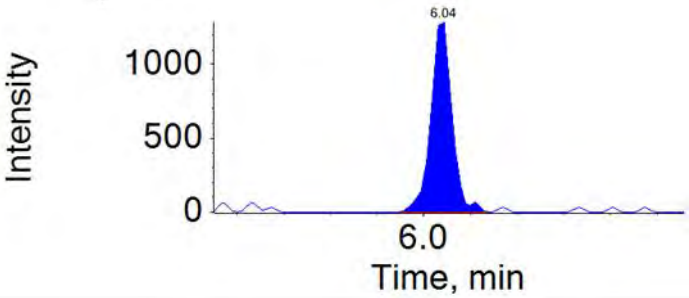
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



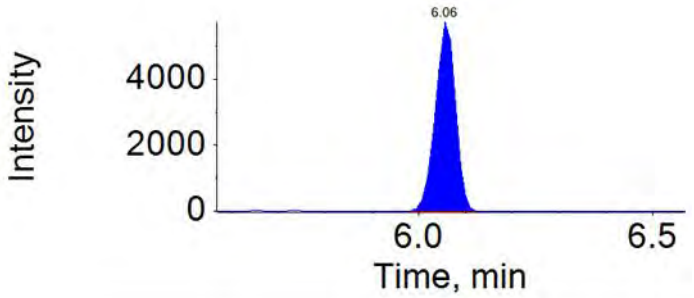
Component: PFDoDA
Primary Mass: 613.0 / 569.0



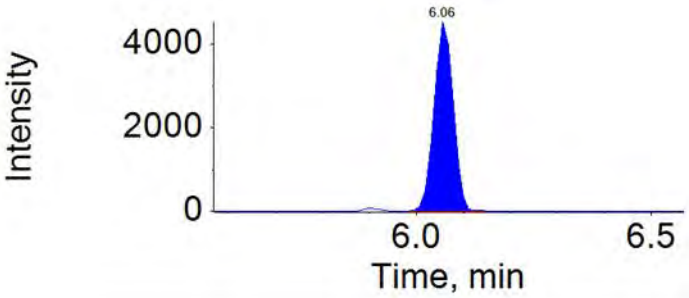
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



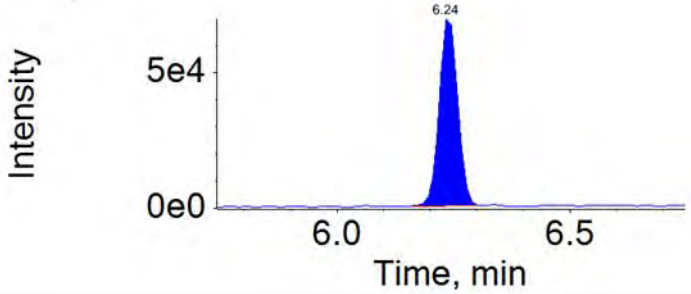
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



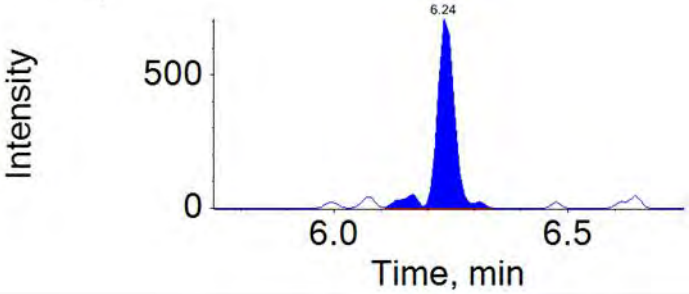
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

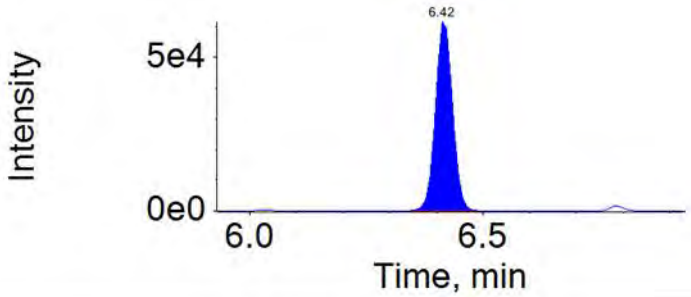
Component: PFTrDA
Primary Mass: 663.0 / 619.0



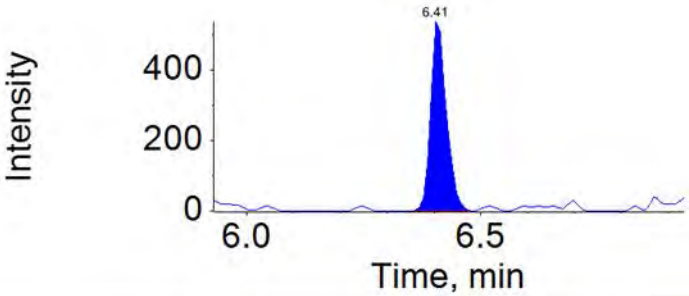
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



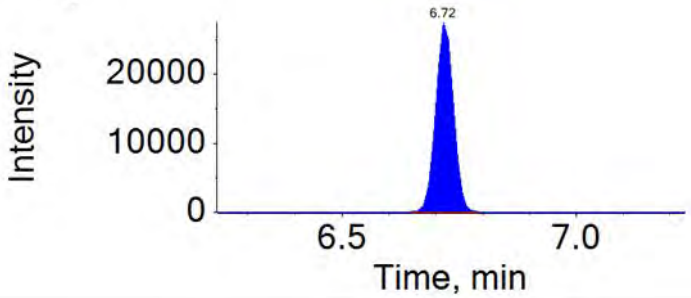
Component: PFTeDA
Primary Mass: 713.0 / 669.0



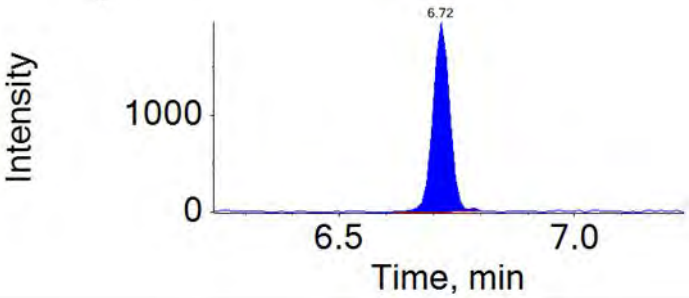
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



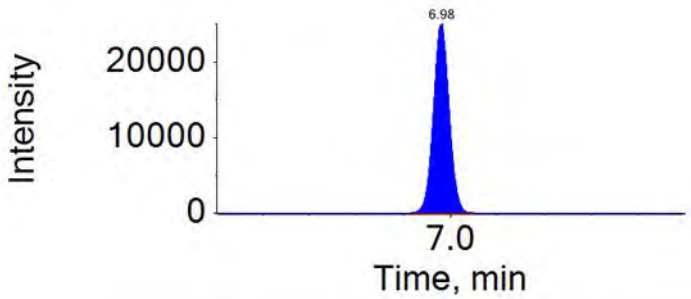
Component: PFHxDA
Primary Mass: 813.0 / 769.0



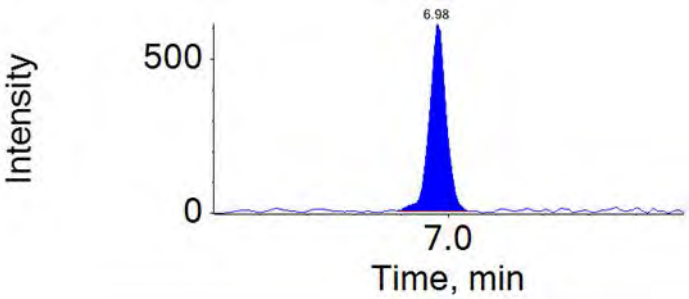
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



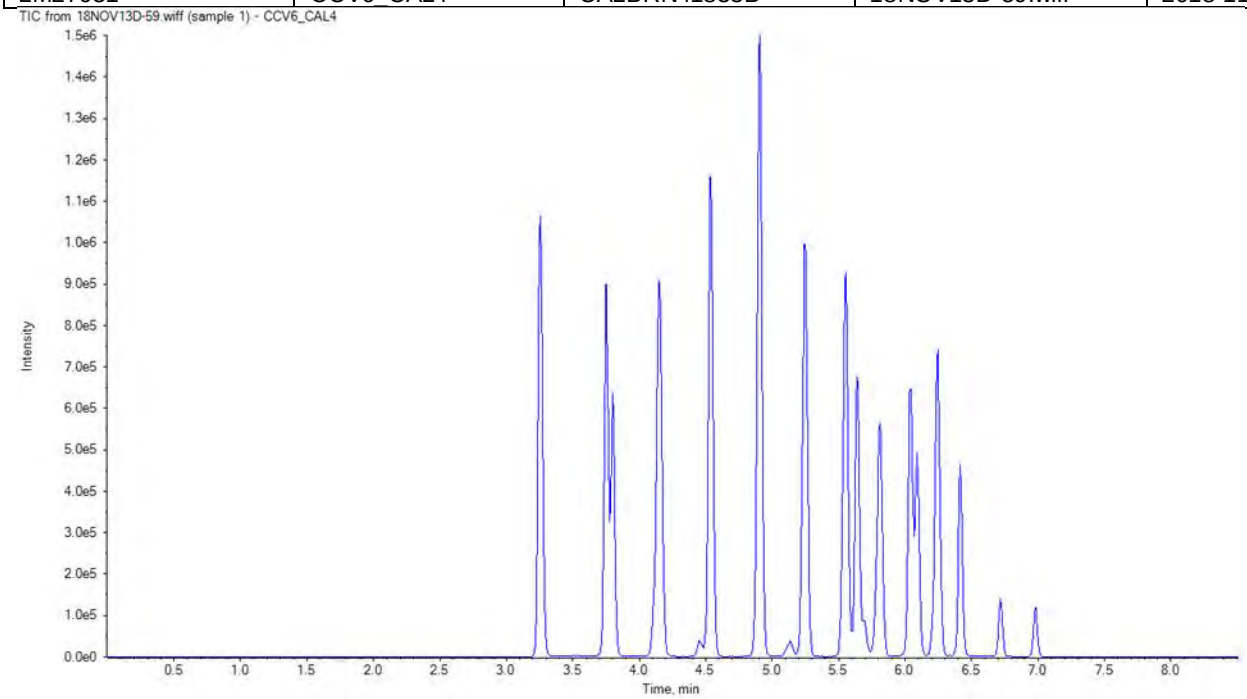
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV13D-59.wiff	2018-11-13T18:26:35



Injection Standard Area Reference File: 18NOV13D-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	689002.2	661126.9	4	50	
13C2-PFOA	5.0	488195.5	466902.6	5	50	
13C4-PFOS	4.8	262087.6	247446.9	6	50	
13C2-PFDA	5.0	298931.2	295381.6	1	50	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV13D-59.wiff	2018-11-13T18:26:35

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	1076242.9	10	13C4-PFBA	739348.8	5.0	1.456	3.25	1.000	8.000	8.064	1	30	
PFPeA	1084131.0	11	13C5-PFPeA	751308.4	5.0	1.443	3.75	1.000	8.000	8.353	4	30	
PFBS	640798.3	11	13C3-PFBS	430870.9	4.7	1.487	3.80	1.000	7.080	7.074	0	30	
4:2-FTS	136241.9	11	13C2-4:2-FTS	44628.3	4.7	3.053	4.11	1.000	7.470	8.288	11	30	
PFHxA	1308040.4	12	13C5-PFHxA	654393.1	5.0	1.999	4.15	1.000	8.000	8.346	4	30	
PFPeS	317036.6	11	13C3-PFBS	430870.9	4.7	0.736	4.17	1.100	7.500	7.144	-5	30	
PFHpA	1363723.9	12	13C4-PFHpA	519596.7	5.0	2.625	4.54	1.000	8.000	8.700	9	30	
PFHxS	455335.5	19	13C3-PFHxS	304253.5	4.7	1.497	4.54	1.000	7.300	7.256	-1	30	
6:2-FTS	104080.7	11	13C2-6:2-FTS	30823.2	4.8	3.377	4.89	1.000	7.580	8.171	8	30	
PFHpS	430779.1	11	13C3-PFHxS	304253.5	4.7	1.416	4.90	1.080	7.610	7.453	-2	30	
PFOA	1332914.9	11	13C8-PFOA	902430.4	5.0	1.477	4.91	1.000	8.000	7.889	-1	30	
PFOS	448218.9	22	13C8-PFOS	279354.2	4.8	1.604	5.24	1.000	7.400	7.017	-5	30	
PFNA	1116186.2	11	13C9-PFNA	458195.1	5.0	2.436	5.25	1.000	8.000	8.784	10	30	
PFNS	284997.7	11	13C8-PFOS	279354.2	4.8	1.020	5.53	1.060	7.680	7.138	-7	30	
PFDA	921516.9	11	13C6-PFDA	614251.8	5.0	1.500	5.55	1.000	8.000	7.953	-1	30	
8:2-FTS	84403.2	11	13C2-8:2-FTS	28156.0	4.8	2.998	5.56	1.000	7.660	6.989	-9	30	
PFOSA	986012.7	11	13C8-PFOSA	596077.7	5.0	1.654	5.64	1.000	8.000	8.080	1	30	
NMeFOSAA	105636.9	18	d3-NMeFOSAA	70909.1	5.0	1.490	5.70	1.000	8.000	8.420	5	30	
PFDS	224576.1	11	13C8-PFOS	279354.2	4.8	0.804	5.79	1.110	7.700	7.284	-5	30	
PFUnDA	818489.4	11	13C7-PFUnDA	248641.1	5.0	3.292	5.81	1.000	8.000	8.606	8	30	
NEtFOSAA	94592.3	22	d5-NEtFOSAA	66568.4	5.0	1.421	5.83	1.000	8.000	7.449	-7	30	
PFDoDA	868518.8	12	13C2-PFDoDA	558914.6	5.0	1.554	6.04	1.000	8.000	7.913	-1	30	
10:2-FTS	65963.7	11	13C2-8:2-FTS	28156.0	4.8	2.343	6.06	1.090	7.710	7.803	1	30	
NMePFOSAE	625058.6	11	d7-NMePFOSAE	323005.4	5.0	1.935	6.09	1.000	8.000	8.054	1	30	
NMePFOSA	111739.5	11	d3-NMePFOSA	76792.7	5.0	1.455	6.10	1.000	8.000	7.178	-10	30	
PFDoS	113317.4	11	13C8-PFOS	279354.2	4.8	0.406	6.21	1.190	7.740	7.105	-8	30	
NEtPFOSAE	663058.5	11	d9-NEtPFOSAE	264184.7	5.0	2.510	6.25	1.000	8.000	8.052	1	30	
NEtPFOSA	99586.1	11	d5-NEtPFOSA	58317.7	5.0	1.708	6.26	1.000	8.000	7.842	-2	30	
PFTrDA	725189.3	11	13C2-PFDoDA	558914.6	5.0	1.297	6.24	1.030	8.000	8.189	2	30	
PFTeDA	584375.2	10	13C2-PFTeDA	391231.2	5.0	1.494	6.42	1.000	8.000	8.373	5	30	
PFHxDA	270067.9	11	13C2-PFTeDA	391231.2	5.0	0.690	6.72	1.050	8.000	8.224	3	30	
PFODA	242463.9	10	13C2-PFTeDA	391231.2	5.0	0.620	6.98	1.090	8.000	8.631	8	30	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV13D-59.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-13T18:26:35
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV6-10
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: 18NOV13D-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	689002.2	661126.9	4	50	
13C2-PFOA	5.0	488195.5	466902.6	5	50	
13C4-PFOS	4.8	262087.6	247446.9	6	50	
13C2-PFDA	5.0	298931.2	295381.6	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	739348.8	13C3-PFBA	689002.2	1.073	5.000	4.811	96	70-130	
E13C5-PFPeA	751308.4	13C3-PFBA	689002.2	1.090	5.000	4.891	98	70-130	
E13C3-PFBS	430870.9	13C3-PFBA	689002.2	0.625	4.650	4.414	95	70-130	
E13C2-4:2-FTS	44628.3	13C2-PFOA	488195.5	0.091	4.670	4.071	87	70-130	
E13C5-PFHxA	654393.1	13C2-PFOA	488195.5	1.340	5.000	4.842	97	70-130	
E13C3-PFHxS	304253.5	13C2-PFOA	488195.5	0.623	4.730	4.276	90	70-130	
E13C4-PFHpA	519596.7	13C2-PFOA	488195.5	1.064	5.000	4.795	96	70-130	
E13C2-6:2-FTS	30823.2	13C2-PFOA	488195.5	0.063	4.750	4.224	89	70-130	
E13C8-PFOA	902430.4	13C2-PFOA	488195.5	1.849	5.000	5.093	102	70-130	
E13C8-PFOS	279354.2	13C4-PFOS	262087.6	1.066	4.780	4.723	99	70-130	
E13C9-PFNA	458195.1	13C4-PFOS	262087.6	1.748	5.000	4.874	97	70-130	
E13C6-PFDA	614251.8	13C2-PFDA	298931.2	2.055	5.000	4.795	96	70-130	
E13C2-8:2-FTS	28156.0	13C2-PFDA	298931.2	0.094	4.790	4.697	98	70-130	
E13C8-PFOSA	596077.7	13C2-PFDA	298931.2	1.994	5.000	4.421	88	70-130	
Ed3-NMeFOSAA	70909.1	13C2-PFDA	298931.2	0.237	5.000	4.282	86	70-130	
E13C7-PFUnDA	248641.1	13C2-PFDA	298931.2	0.832	5.000	4.829	97	70-130	
Ed5-NEtFOSAA	66568.4	13C2-PFDA	298931.2	0.223	5.000	4.711	94	70-130	
E13C2-PFDoDA	558914.6	13C2-PFDA	298931.2	1.870	5.000	4.854	97	70-130	
Ed7-NMePFOSAE	323005.4	13C2-PFDA	298931.2	1.081	5.000	4.676	94	70-130	
Ed3-NMePFOSA	76792.7	13C2-PFDA	298931.2	0.257	5.000	4.667	93	70-130	
Ed9-NEtPFOSAE	264184.7	13C2-PFDA	298931.2	0.884	5.000	4.597	92	70-130	
Ed5-NEtPFOSA	58317.7	13C2-PFDA	298931.2	0.195	5.000	4.576	92	70-130	
E13C2-PFTeDA	391231.2	13C2-PFDA	298931.2	1.309	5.000	4.595	92	70-130	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

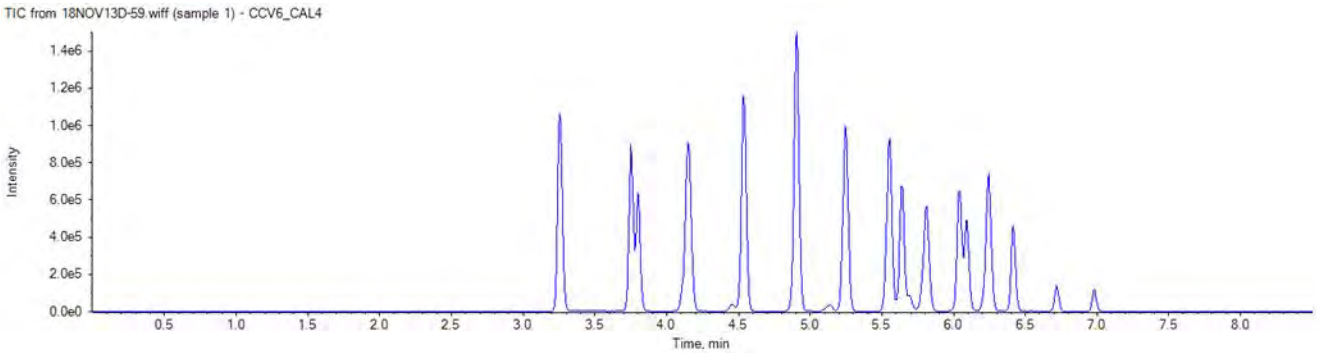
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV13D-59.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	1076242.9		A	13C4-PFBA	3.25	739348.8	1.456	8.064
PFPeA	3.75	1.000	1084131.0		A	13C5-PFPeA	3.75	751308.4	1.443	8.353
PFBS	3.80	1.000	640798.3		A	13C3-PFBS	3.80	430870.9	1.487	7.074
4:2-FTS	4.11	1.000	136241.9		A	13C2-4:2-FTS	4.12	44628.3	3.053	8.288
PFHxA	4.15	1.000	1308040.4		A	13C5-PFHxA	4.15	654393.1	1.999	8.346
PFPeS	4.17	1.100	317036.6		A	13C3-PFBS	3.80	430870.9	0.736	7.144
PFHpA	4.54	1.000	1363723.9		A	13C4-PFHpA	4.54	519596.7	2.625	8.700
PFHxS	4.54	1.000	455335.5		M	13C3-PFHxS	4.54	304253.5	1.497	7.256
6:2-FTS	4.89	1.000	104080.7		A	13C2-6:2-FTS	4.90	30823.2	3.377	8.171
PFHpS	4.90	1.080	430779.1		A	13C3-PFHxS	4.54	304253.5	1.416	7.453
PFOA	4.91	1.000	1332914.9		A	13C8-PFOA	4.91	902430.4	1.477	7.889
PFOS	5.24	1.000	448218.9		M	13C8-PFOS	5.24	279354.2	1.604	7.017
PFNA	5.25	1.000	1116186.2		A	13C9-PFNA	5.25	458195.1	2.436	8.784
PFNS	5.53	1.060	284997.7		A	13C8-PFOS	5.24	279354.2	1.020	7.138
PFDA	5.55	1.000	921516.9		A	13C6-PFDA	5.55	614251.8	1.500	7.953
8:2-FTS	5.56	1.000	84403.2		A	13C2-8:2-FTS	5.56	28156.0	2.998	6.989
PFOSA	5.64	1.000	986012.7		A	13C8-PFOSA	5.64	596077.7	1.654	8.080
NMeFOSAA	5.70	1.000	105636.9		M	d3-NMeFOSAA	5.69	70909.1	1.490	8.420
PFDS	5.79	1.110	224576.1		A	13C8-PFOS	5.24	279354.2	0.804	7.284
PFUnDA	5.81	1.000	818489.4		A	13C7-PFUnDA	5.81	248641.1	3.292	8.606
NEtFOSAA	5.83	1.000	94592.3		A	d5-NEtFOSAA	5.82	66568.4	1.421	7.449
PFDoDA	6.04	1.000	868518.8		A	13C2-PFDoDA	6.04	558914.6	1.554	7.913
10:2-FTS	6.06	1.090	65963.7		A	13C2-8:2-FTS	5.56	28156.0	2.343	7.803
NMePFOSAE	6.09	1.000	625058.6		A	d7-NMePFOSAE	6.08	323005.4	1.935	8.054
NMePFOSA	6.10	1.000	111739.5		A	d3-NMePFOSA	6.10	76792.7	1.455	7.178
PFDoS	6.21	1.190	113317.4		A	13C8-PFOS	5.24	279354.2	0.406	7.105
NEtPFOSAE	6.25	1.000	663058.5		A	d9-NEtPFOSAE	6.24	264184.7	2.510	8.052
NEtPFOSA	6.26	1.000	99586.1		A	d5-NEtPFOSA	6.26	58317.7	1.708	7.842
PFTrDA	6.24	1.030	725189.3		A	13C2-PFDoDA	6.04	558914.6	1.297	8.189
PFTeDA	6.42	1.000	584375.2		A	13C2-PFTeDA	6.42	391231.2	1.494	8.373
PFHxDA	6.72	1.050	270067.9		A	13C2-PFTeDA	6.42	391231.2	0.690	8.224
PFODA	6.98	1.090	242463.9		A	13C2-PFTeDA	6.42	391231.2	0.620	8.631

Total Ion Chromatogram

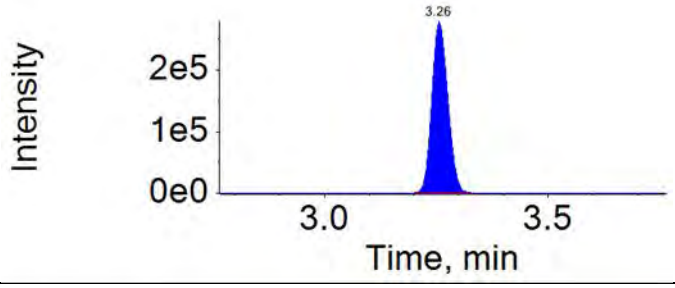


APPROVED
By JPT at 10:19 am, 11/14/18

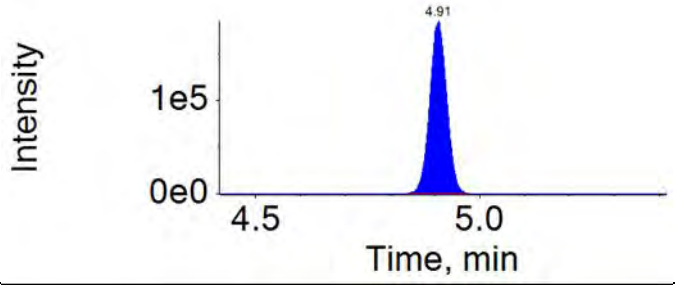
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

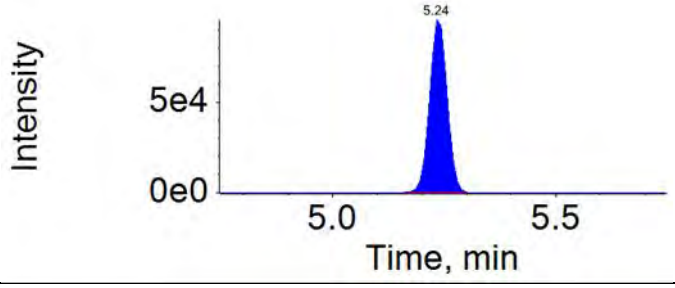
Injection Standard: 13C3-PFBA
216.0 / 172.0



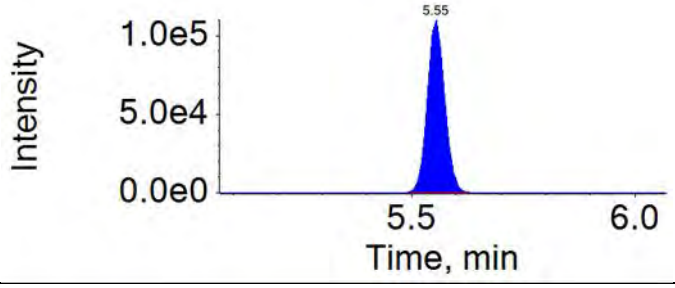
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

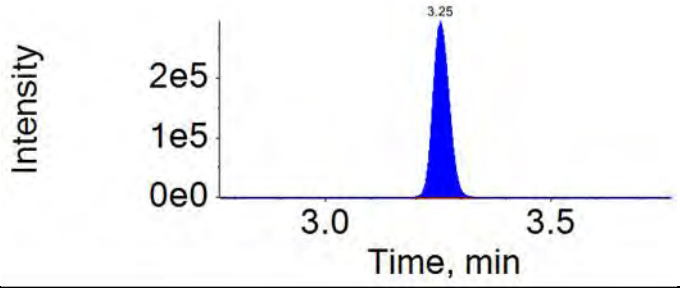


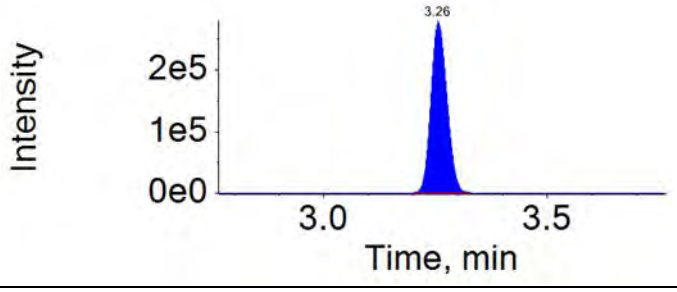
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

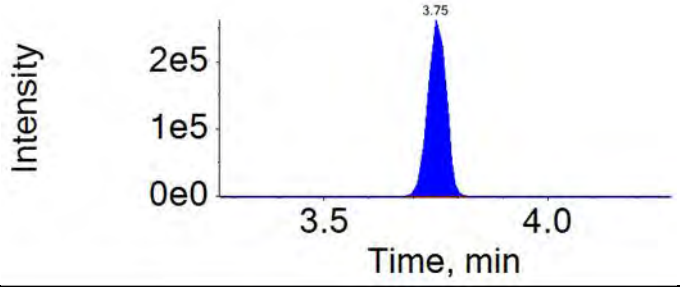
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

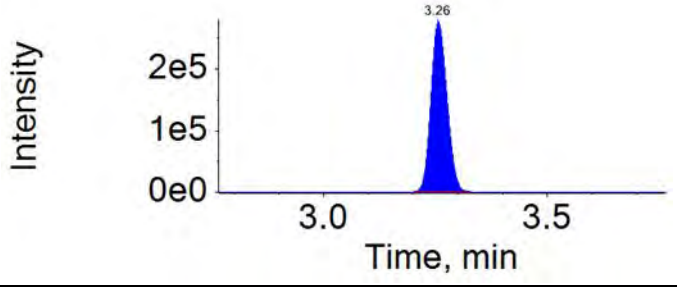
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



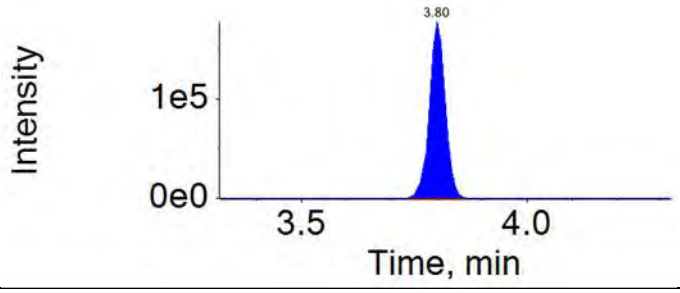


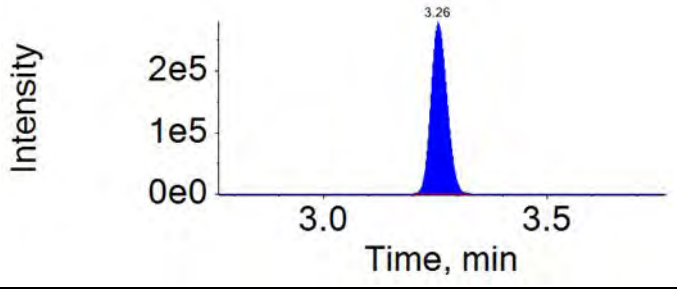
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



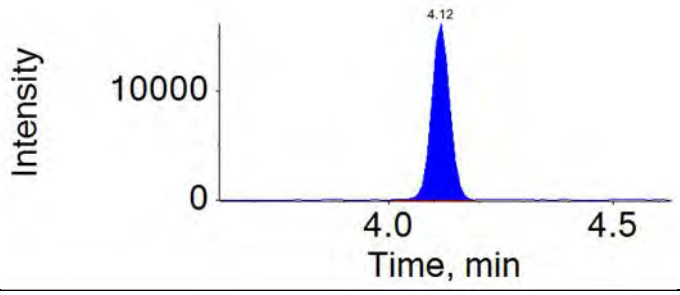


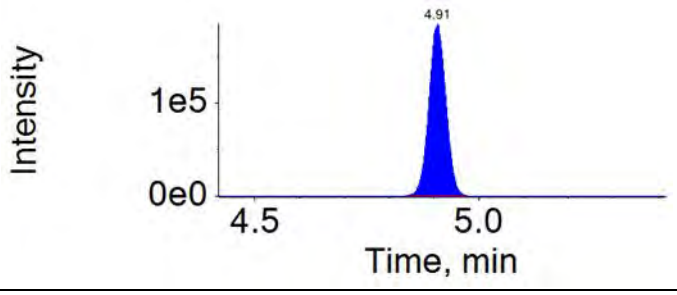
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





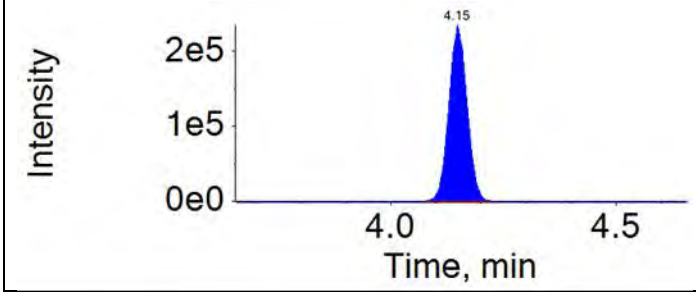
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

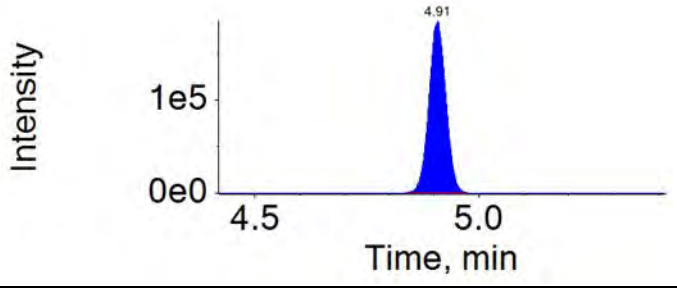




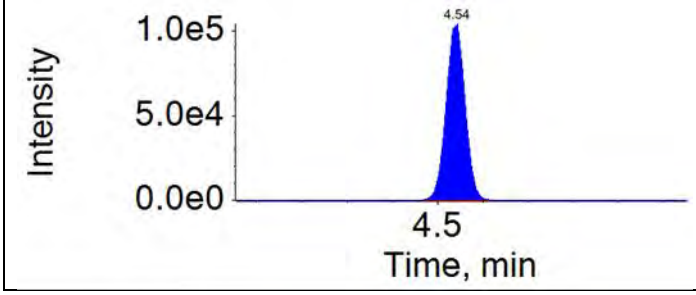
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

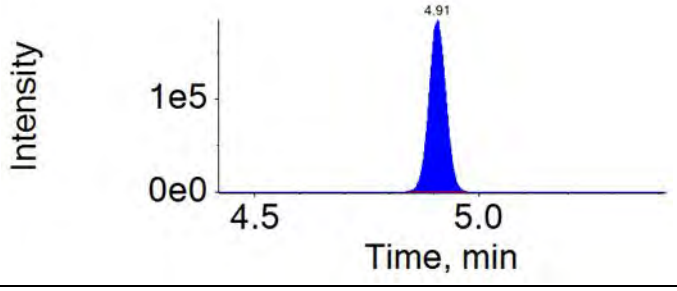
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



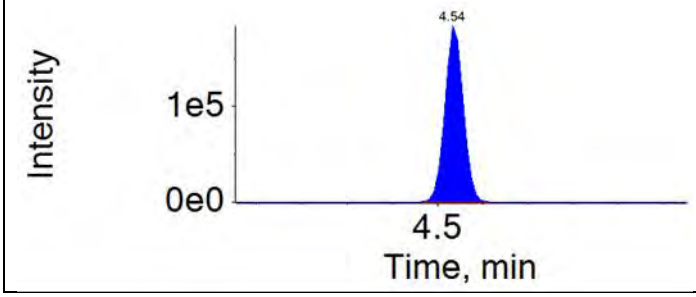


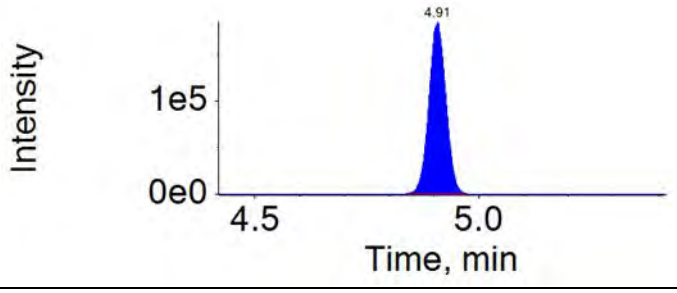
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



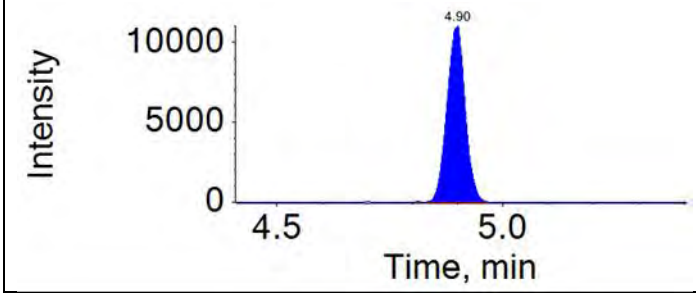


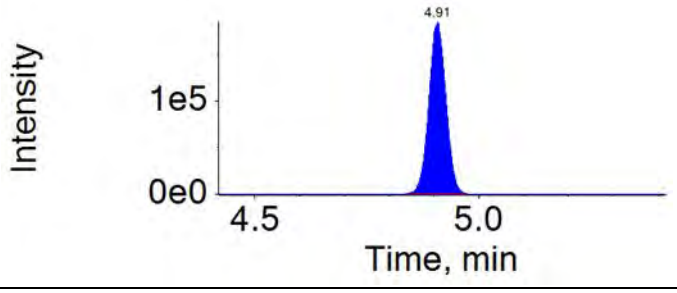
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

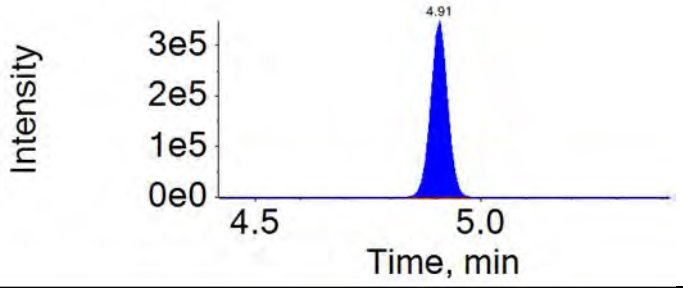
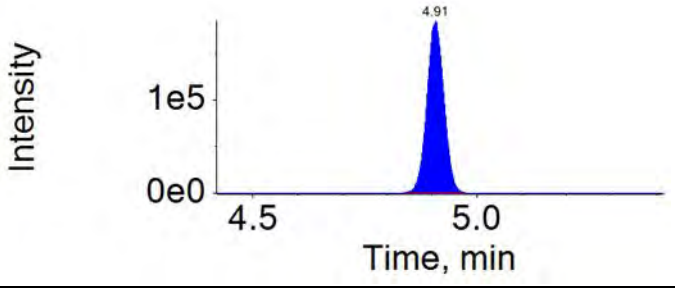


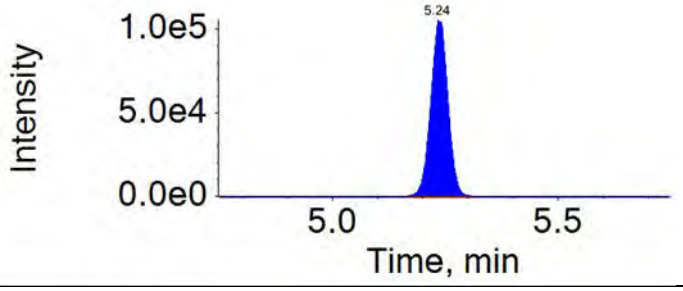
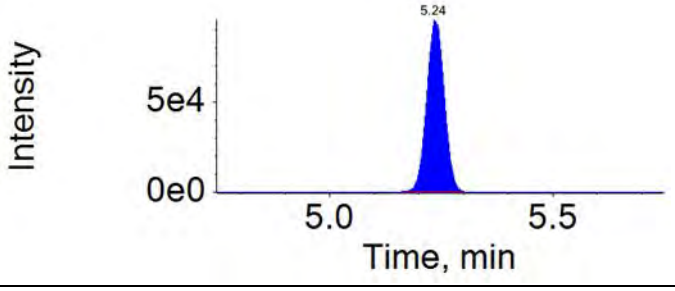


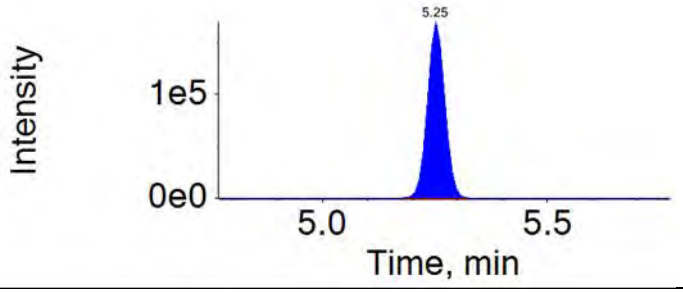
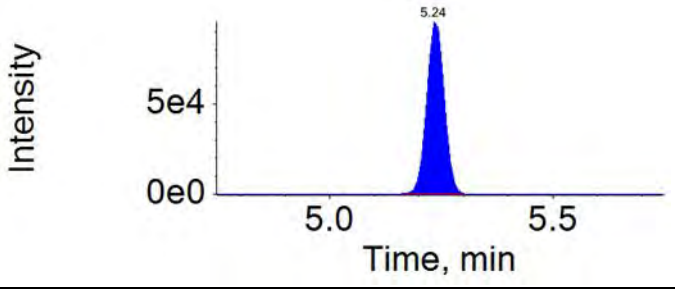
APPROVED
By JPT at 10:19 am, 11/14/18

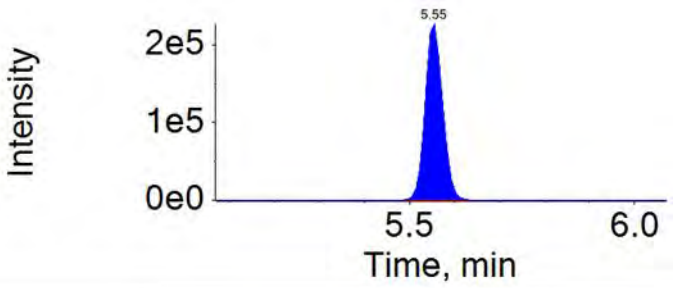
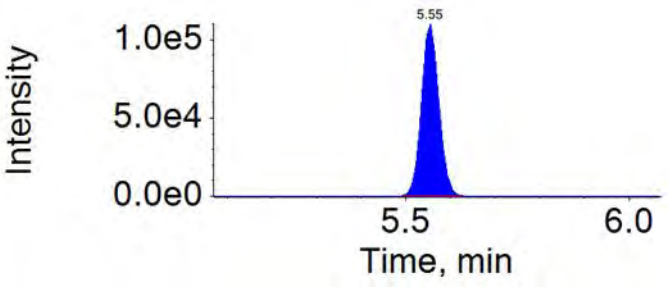
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

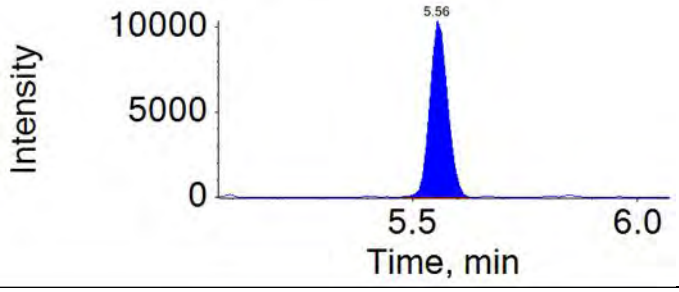
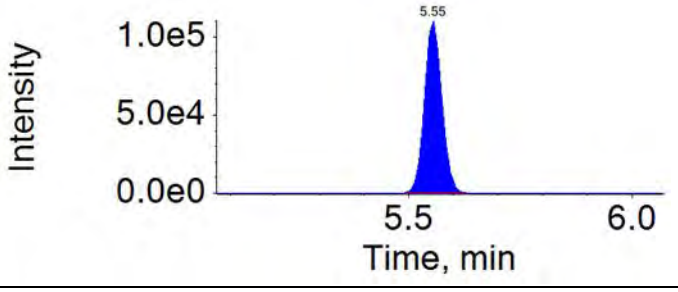
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

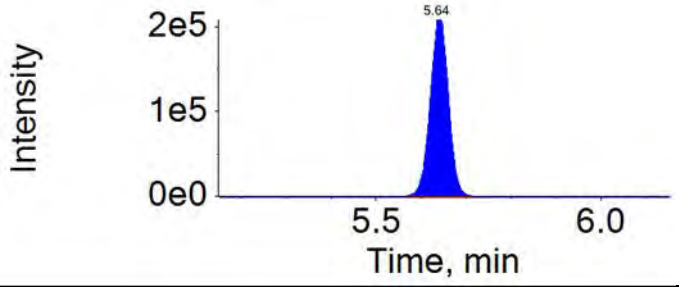
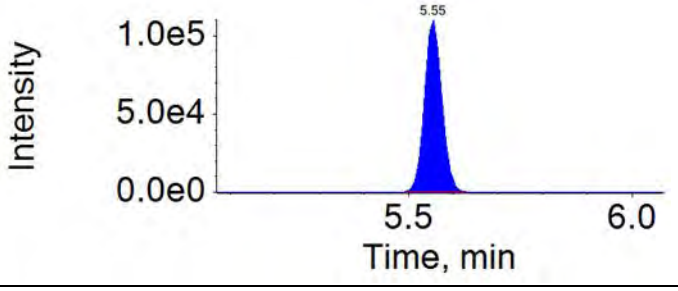
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

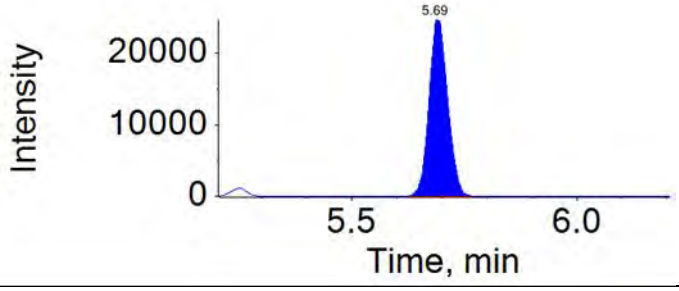
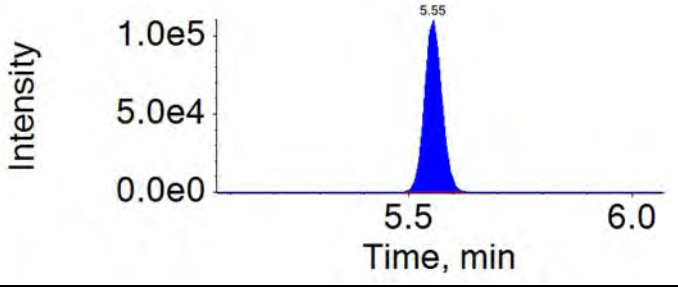
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

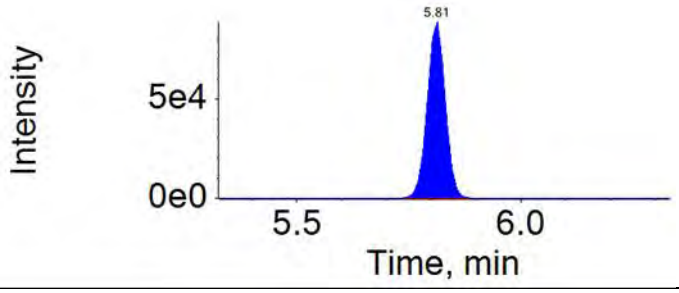
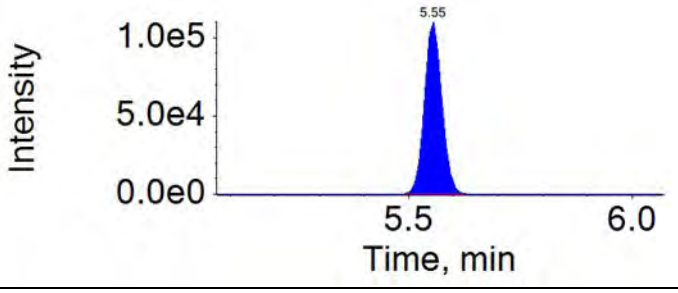
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

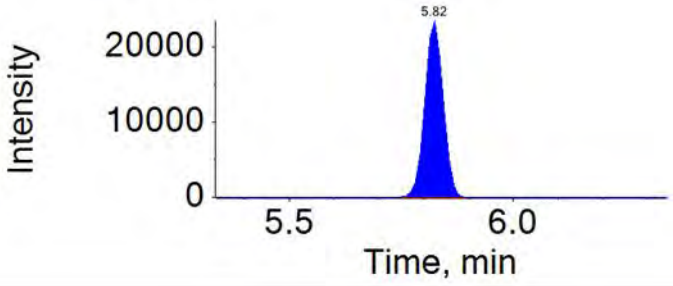
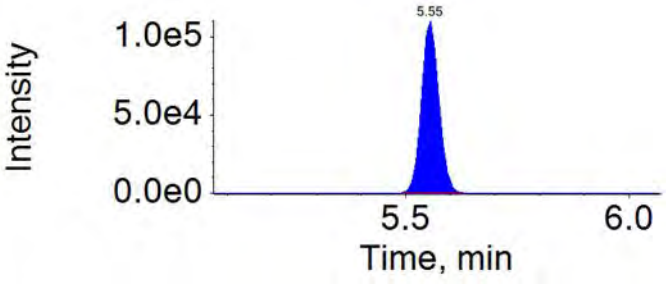
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

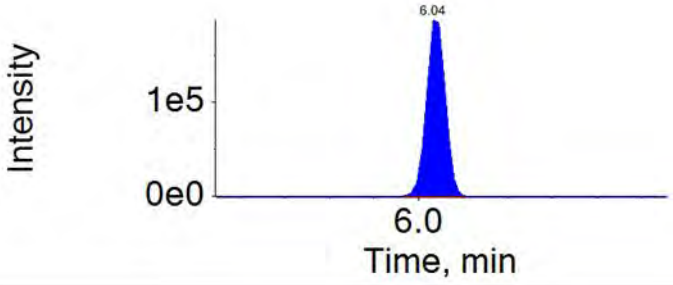
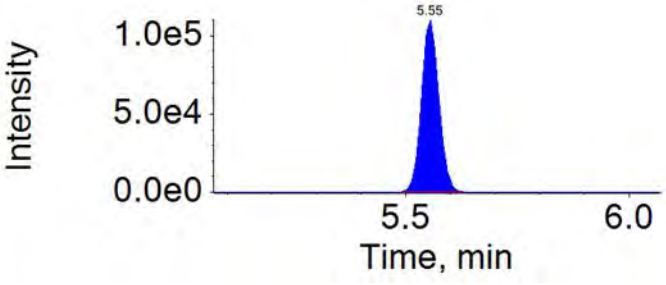
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

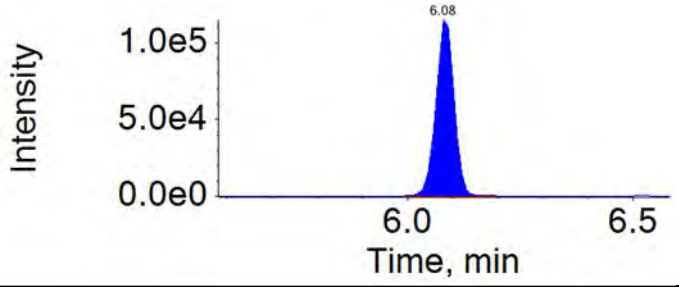
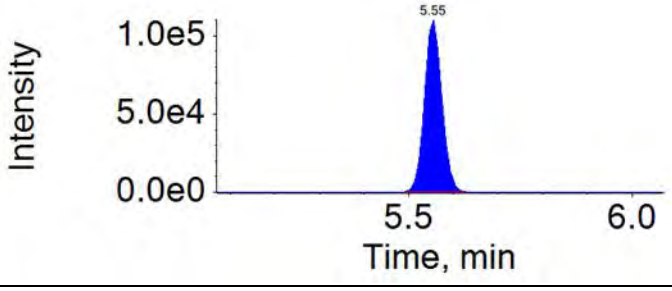
APPROVED
By JPT at 10:19 am, 11/14/18

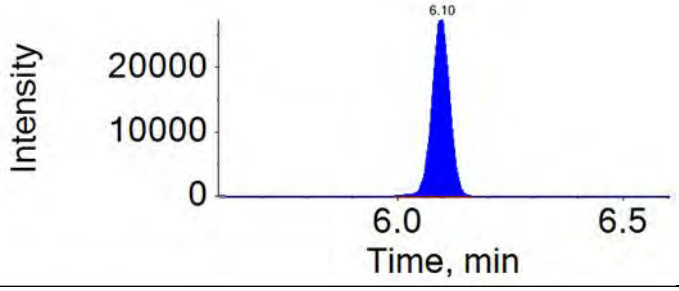
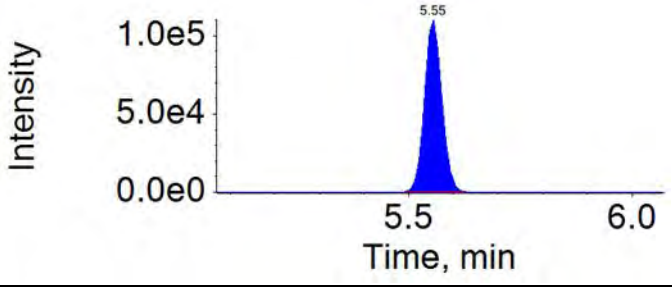
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

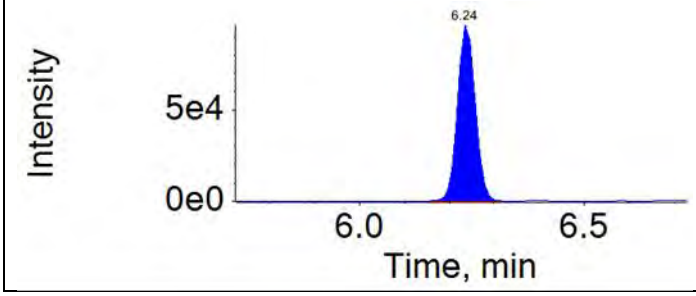
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

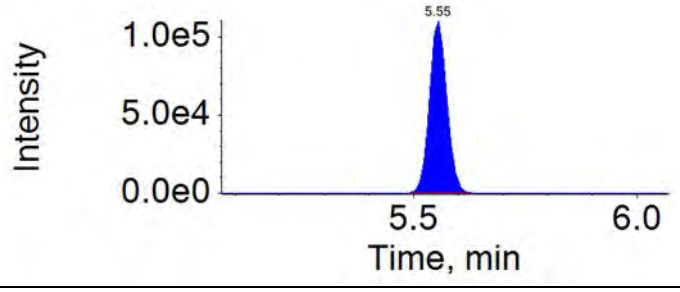
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

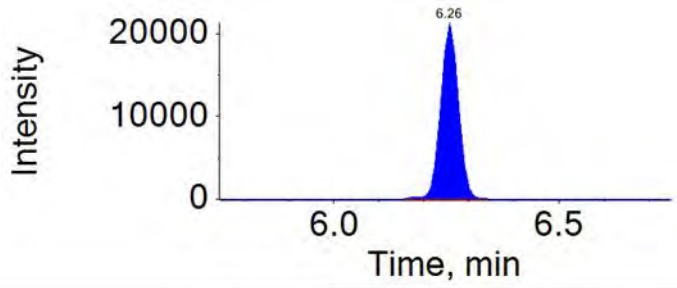
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

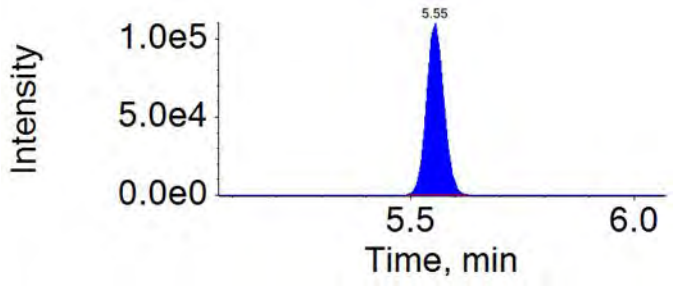
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



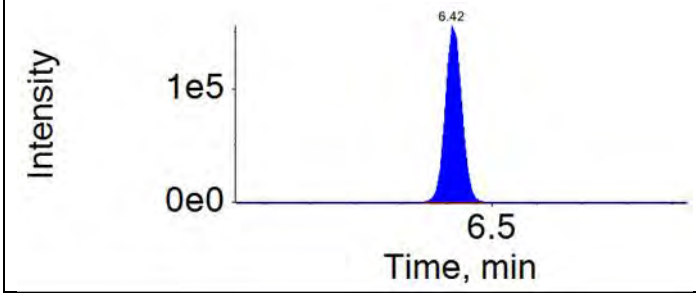


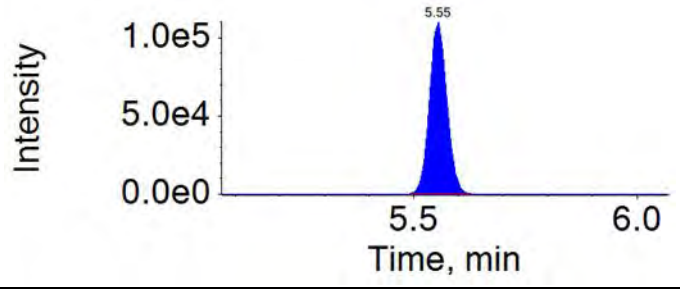
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



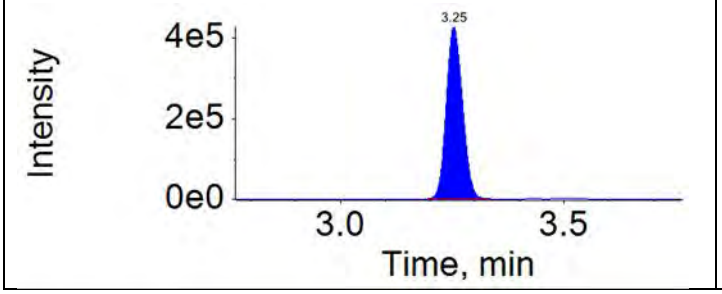


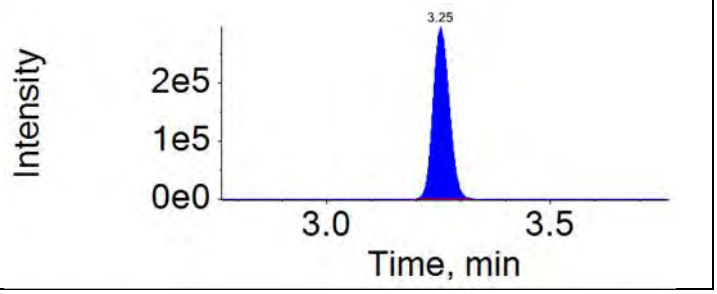
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

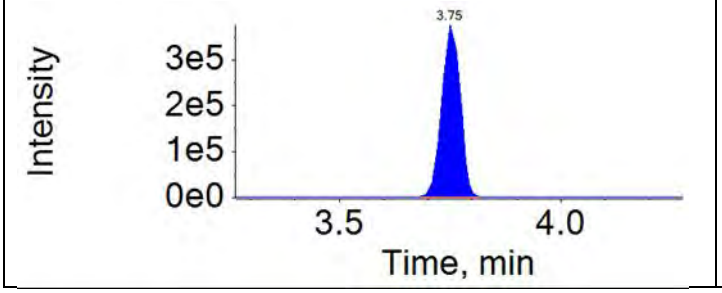
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

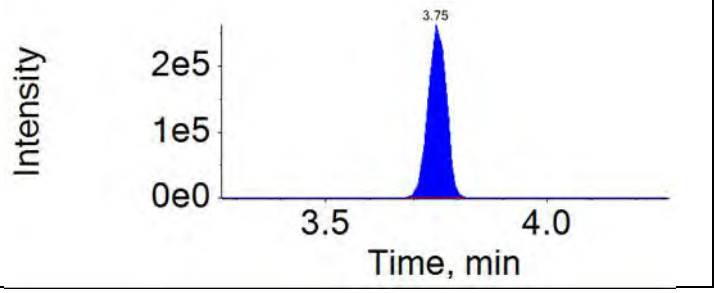
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



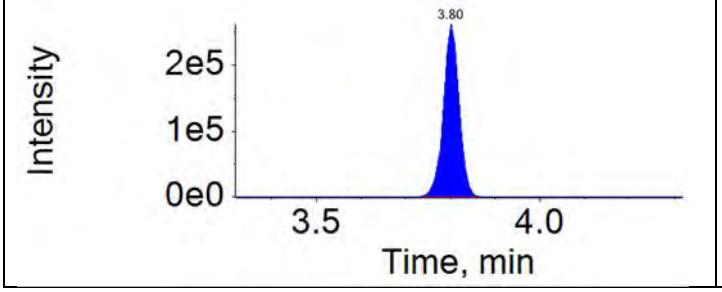


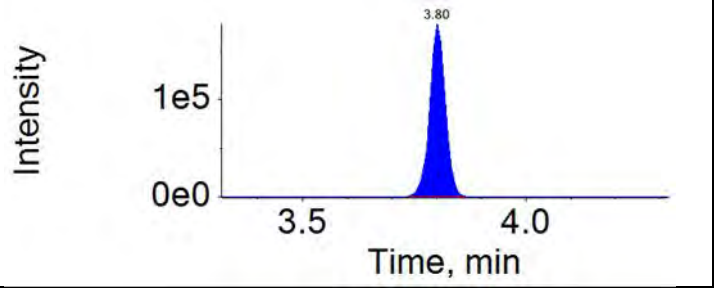
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



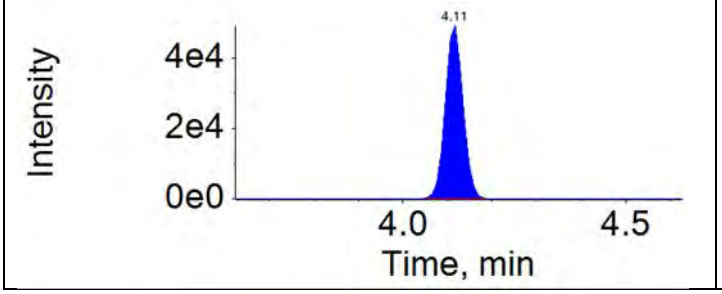


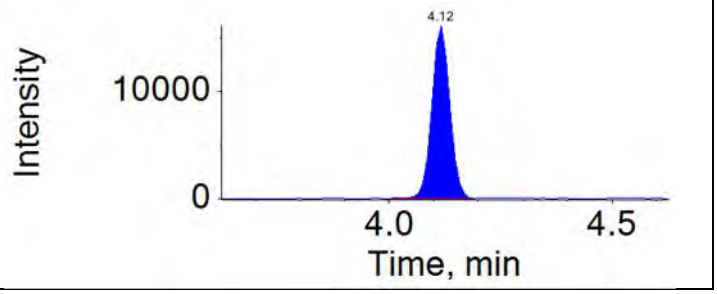
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



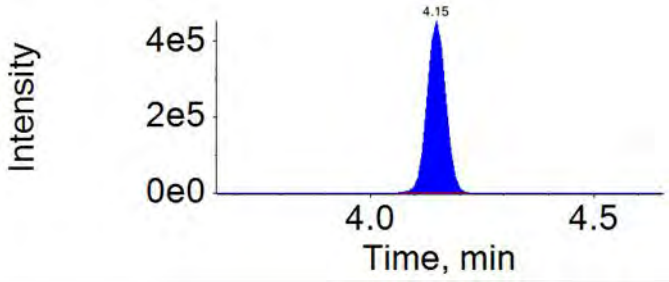


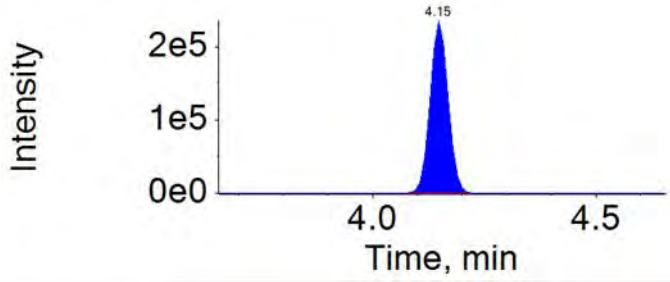
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

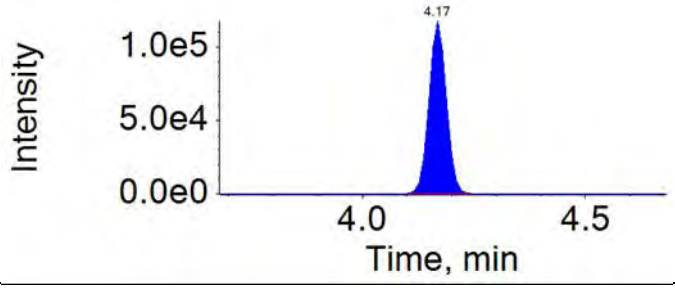
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

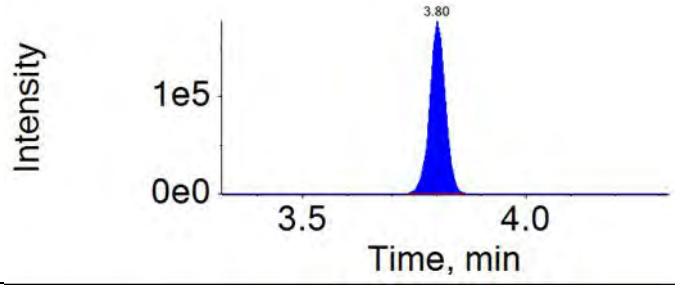
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



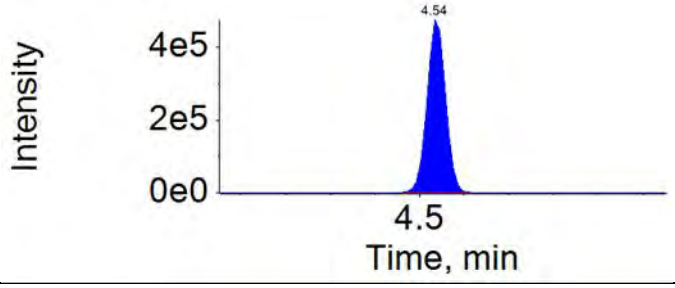


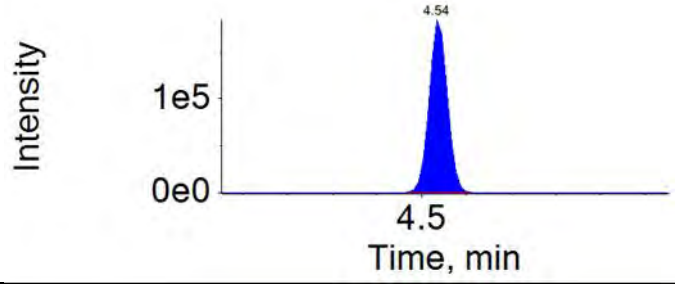
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



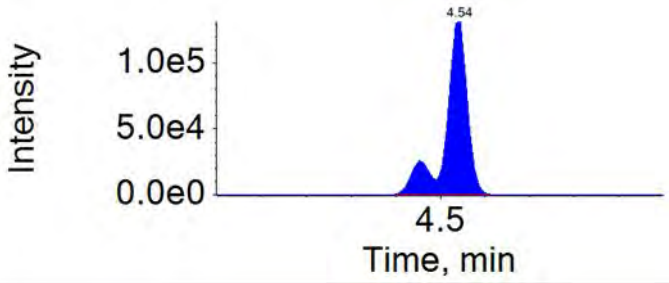


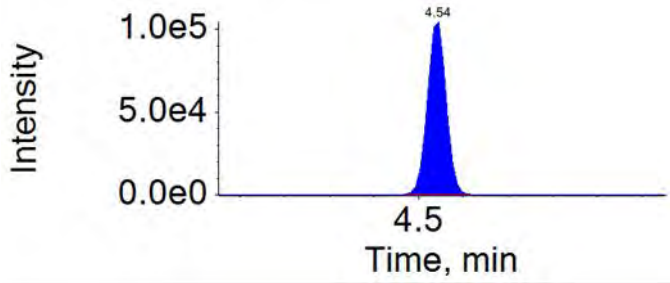
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



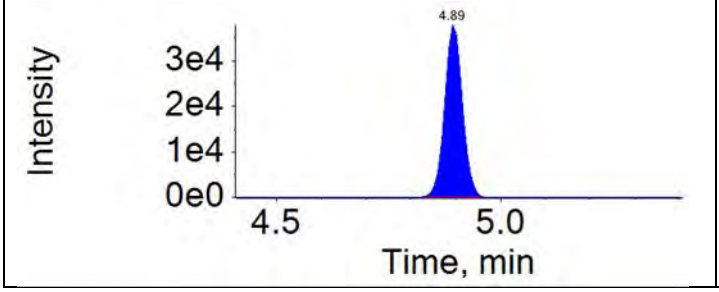


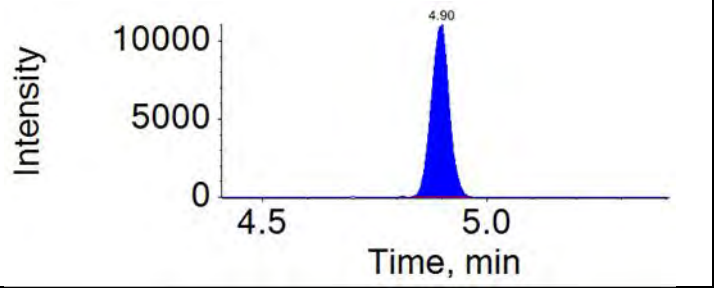
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

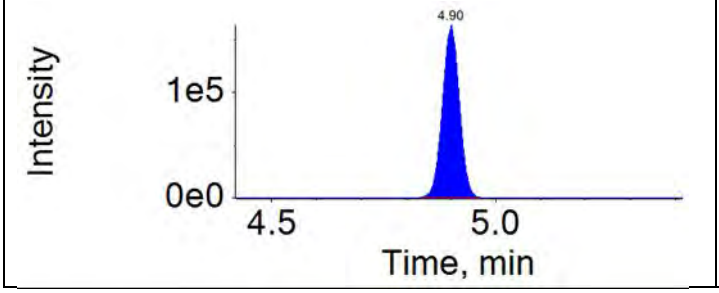
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

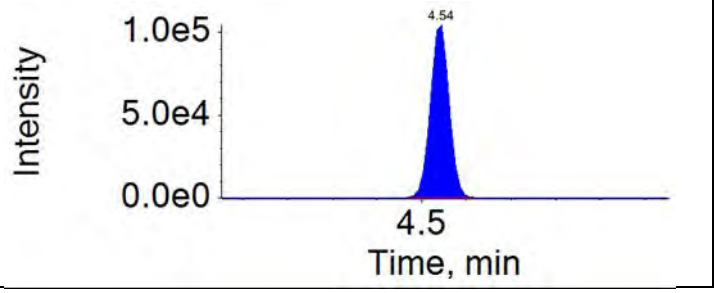
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



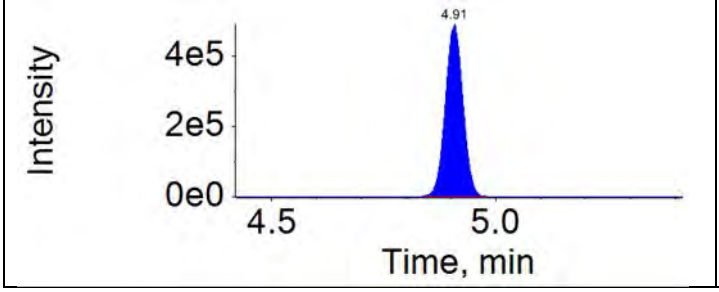


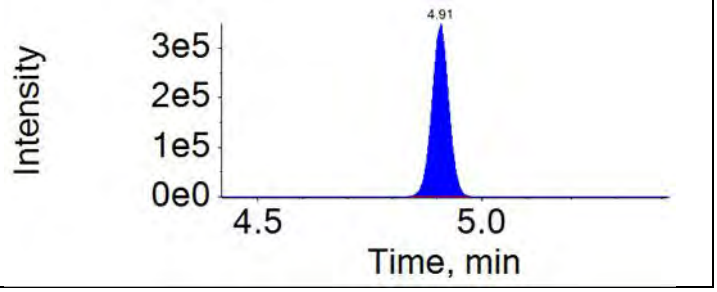
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



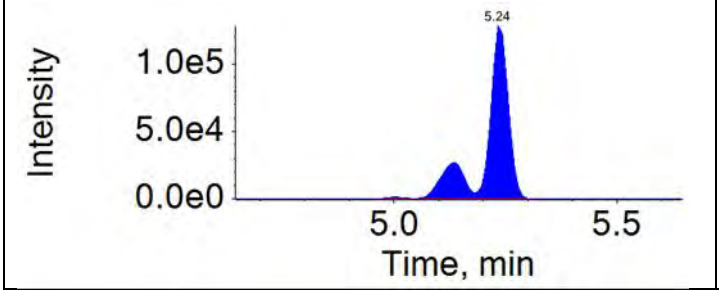


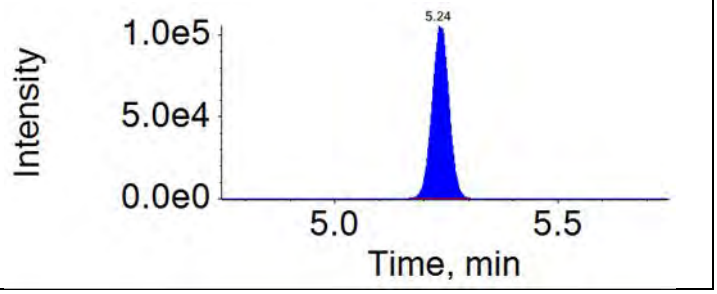
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



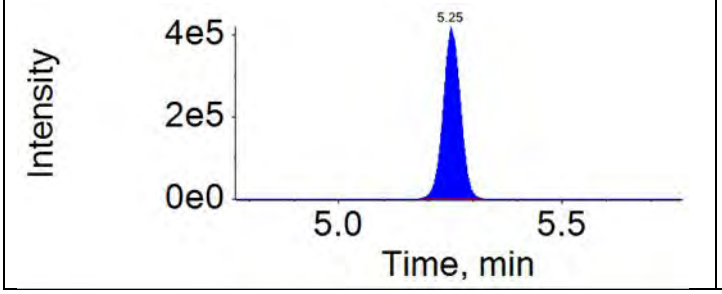


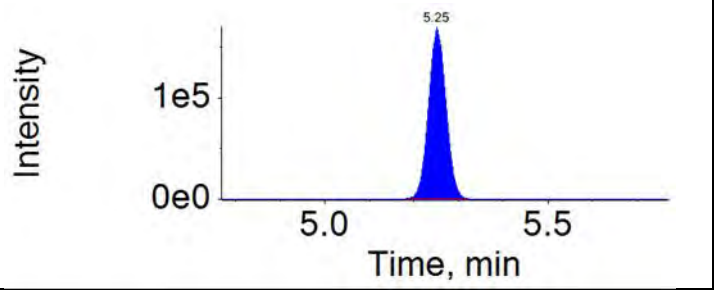
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

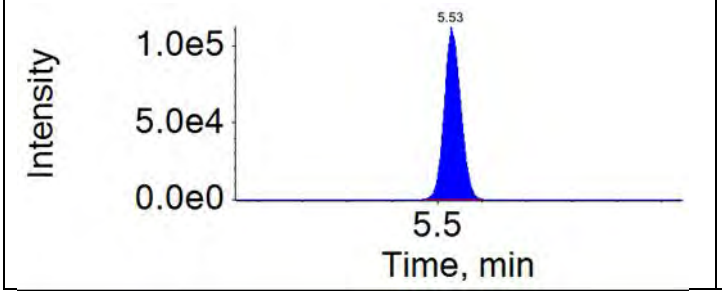
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

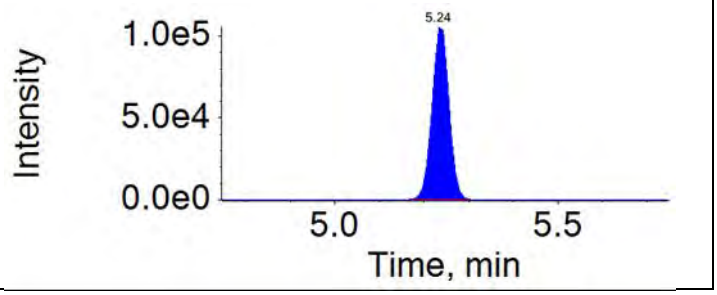
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



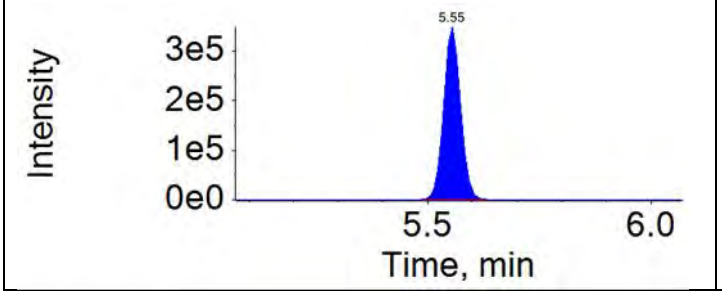


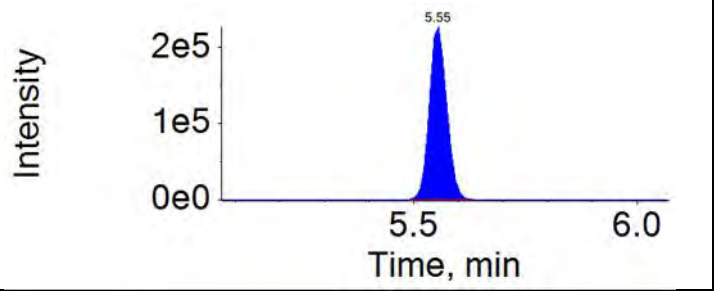
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



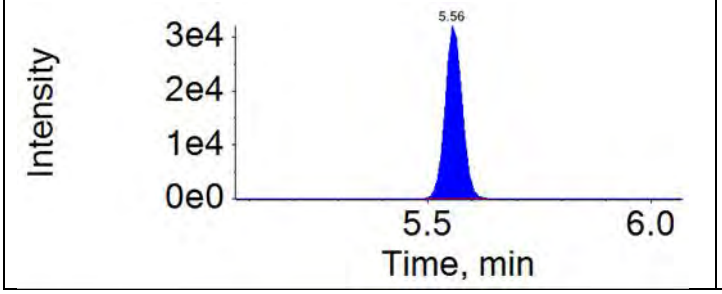


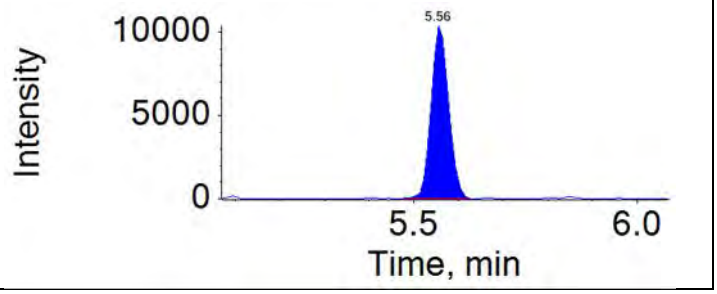
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



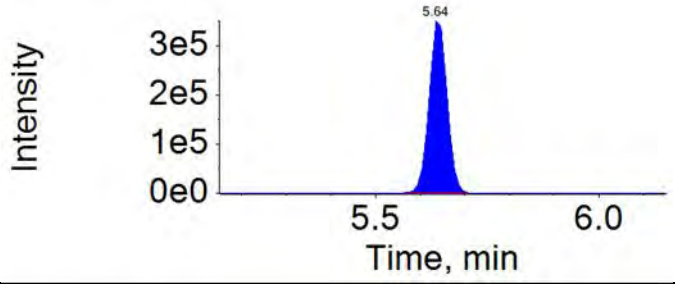


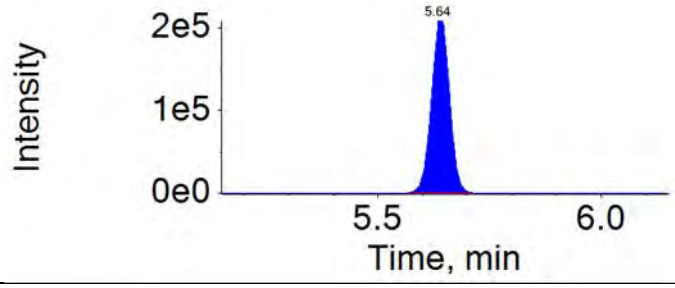
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

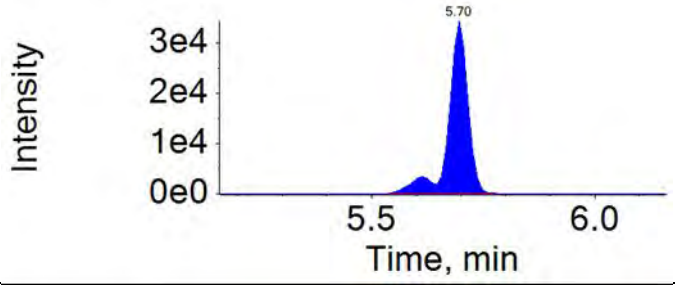
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

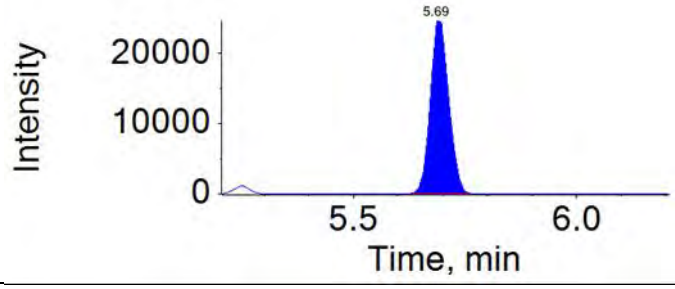
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



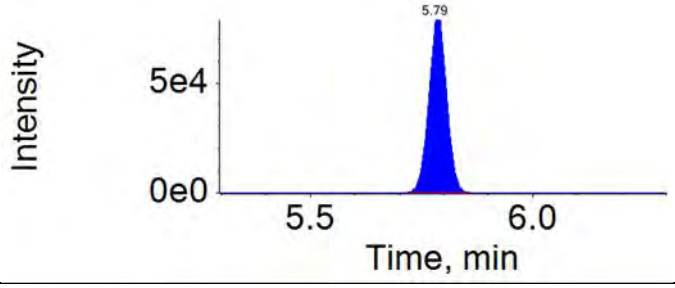


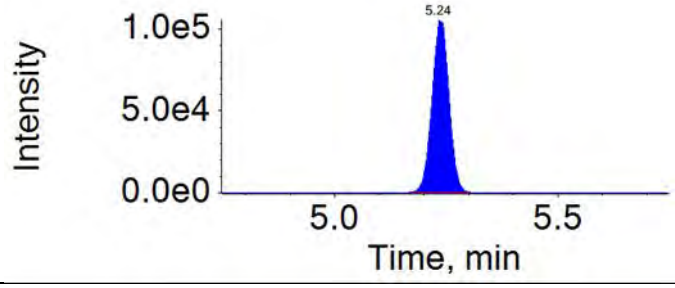
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



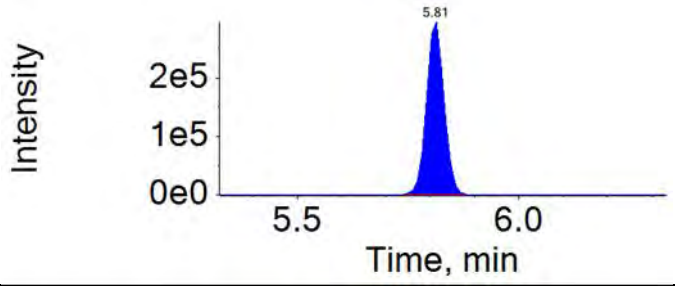


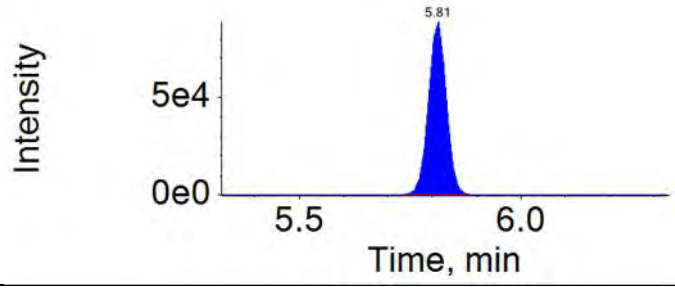
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



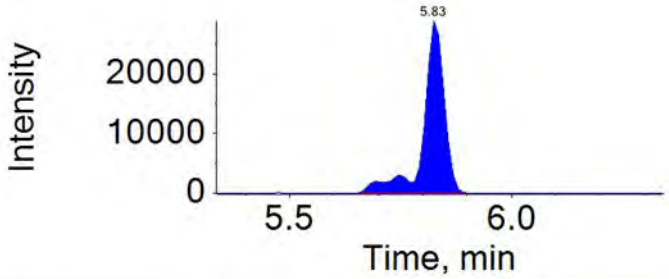


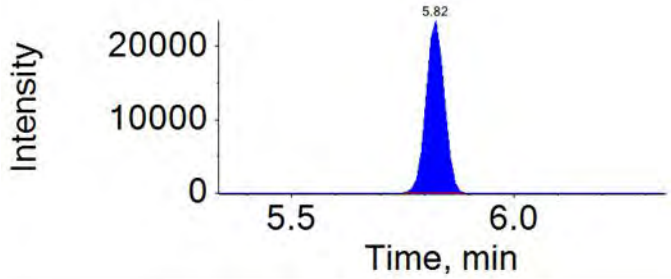
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

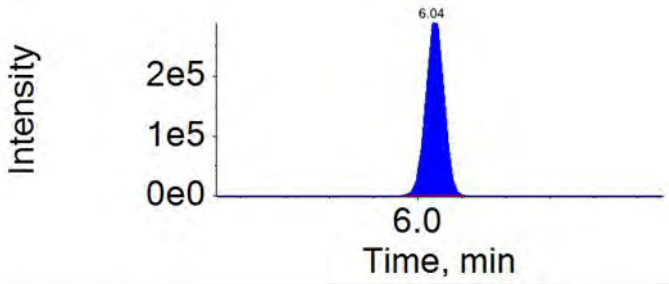
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

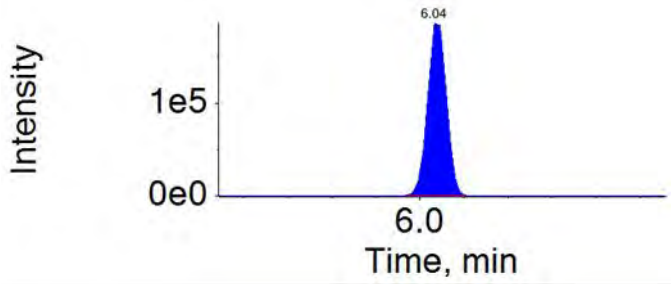
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



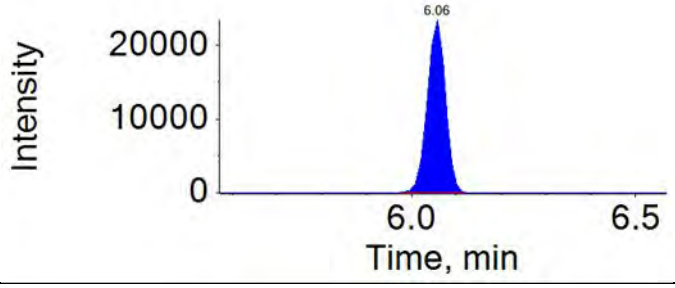


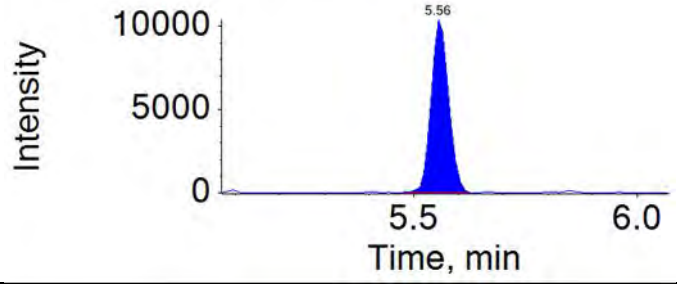
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



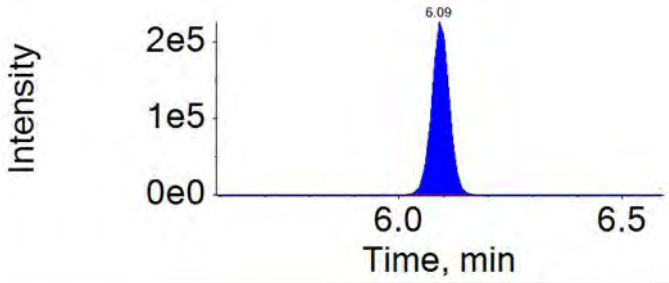


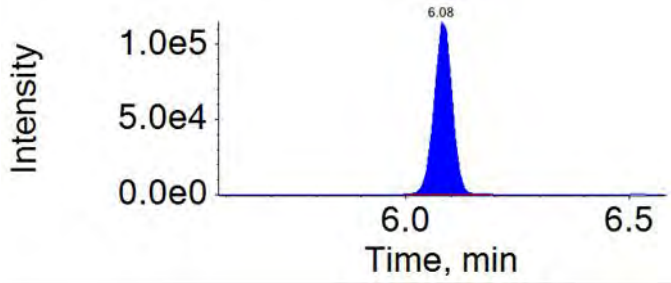
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



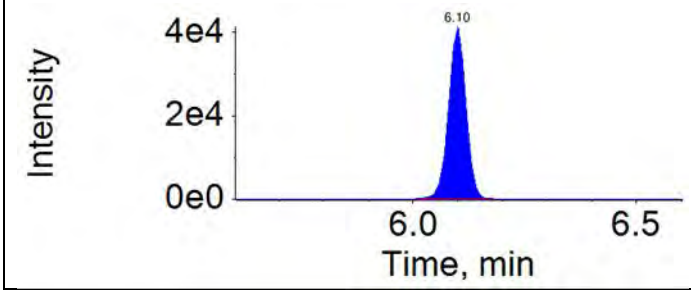


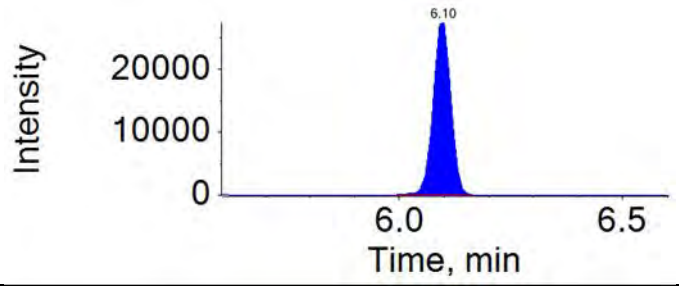
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

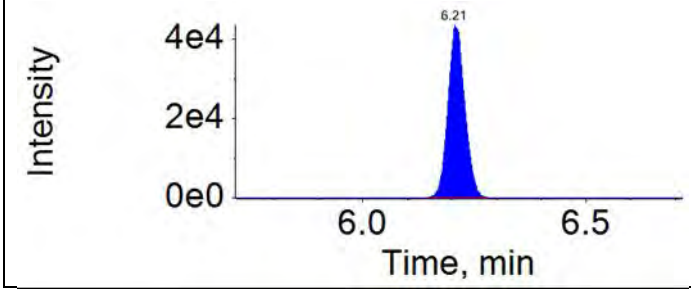
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

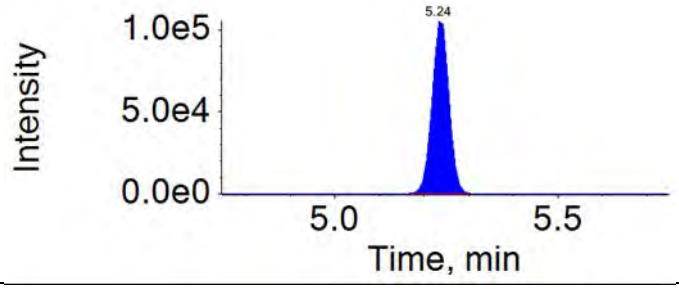
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



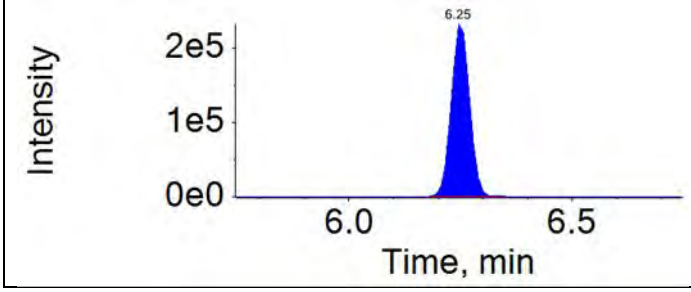


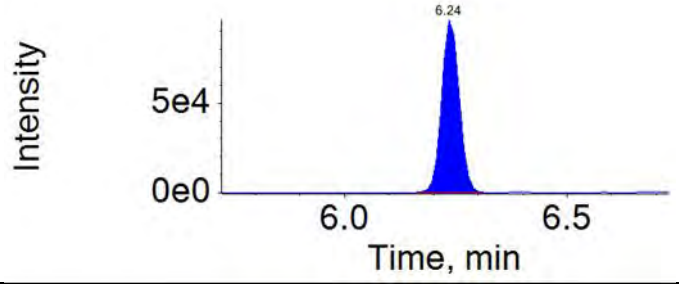
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



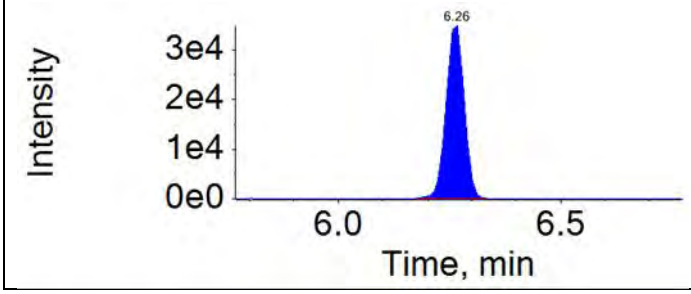


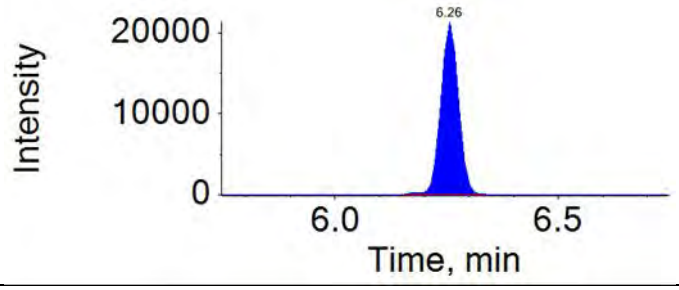
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

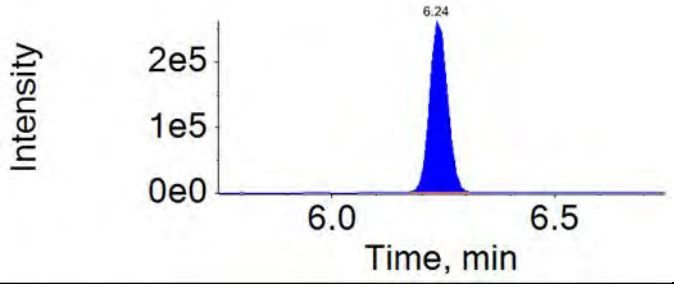
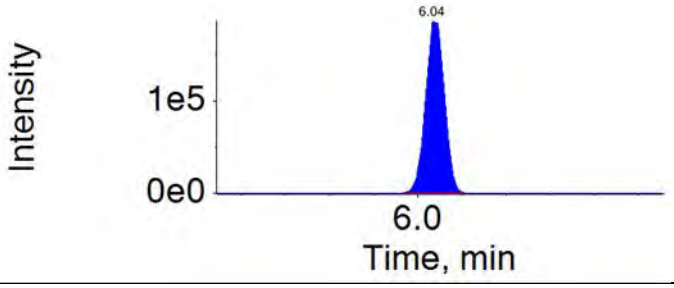


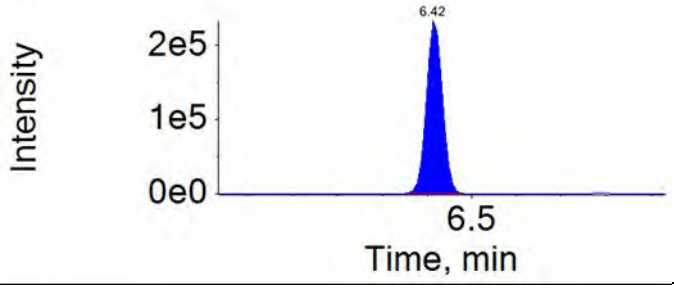
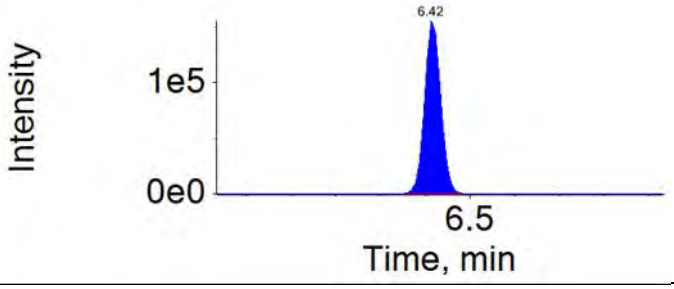


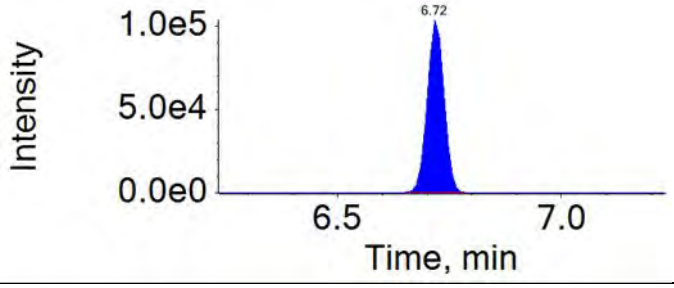
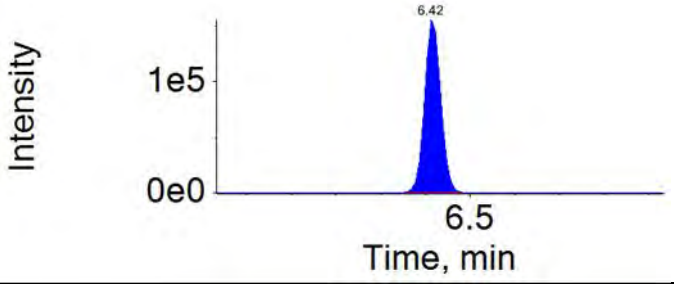
APPROVED
By JPT at 10:19 am, 11/14/18

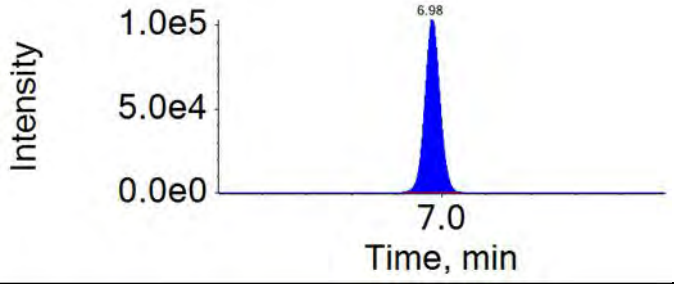
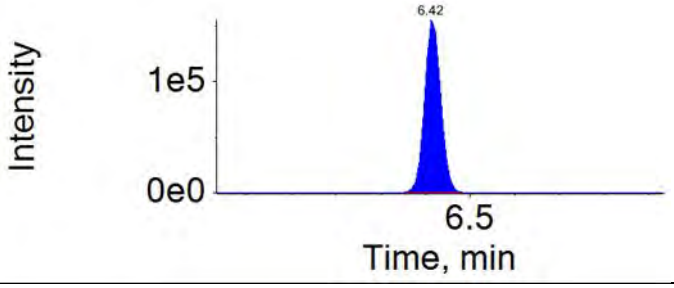
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

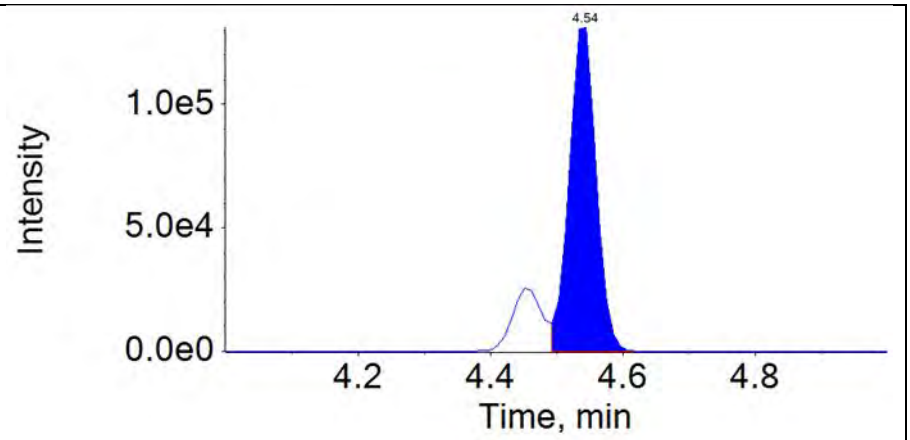
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

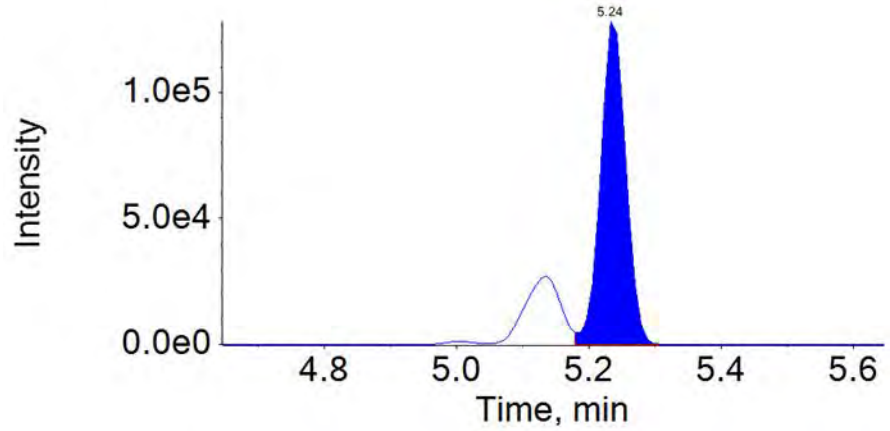
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
374699.4
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



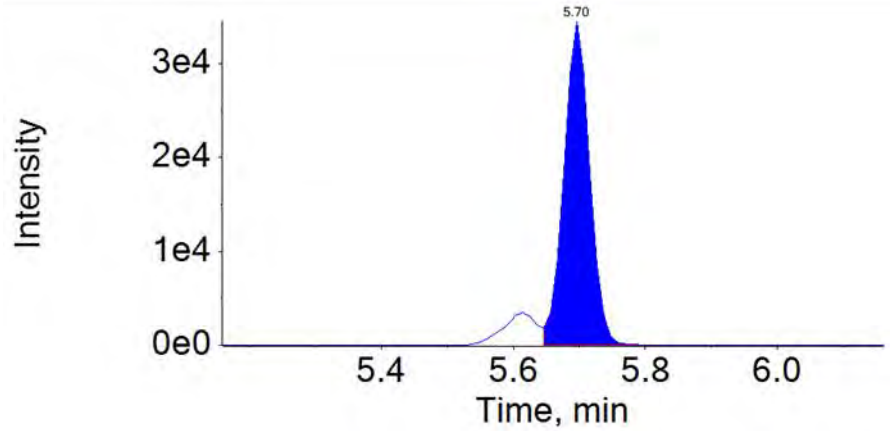
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
342796.1
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
93372.4
Mass Range:
570.0 / 419.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



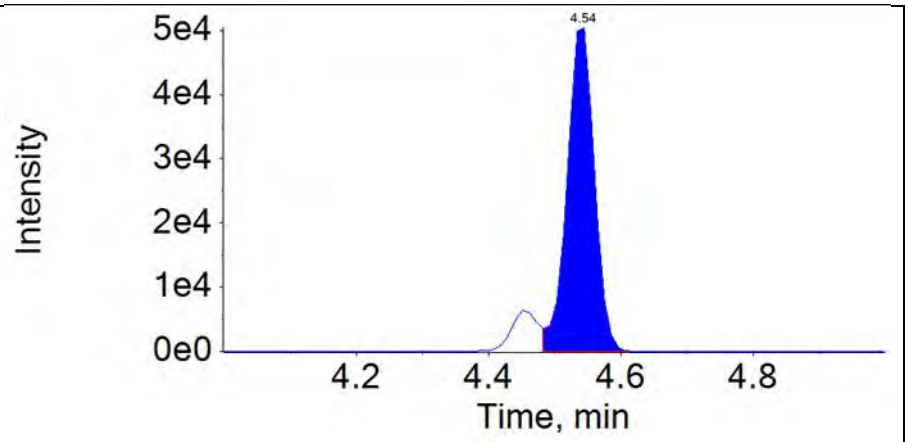
Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

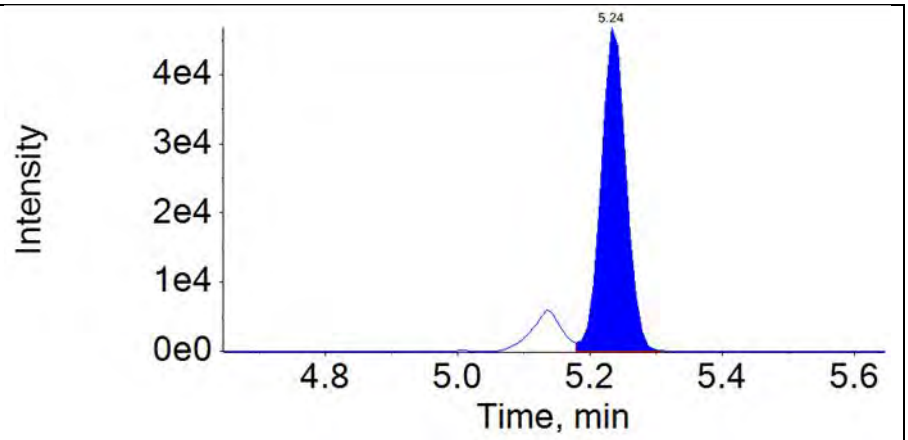
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
145898.6
Mass Range:
399.0 / 99.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



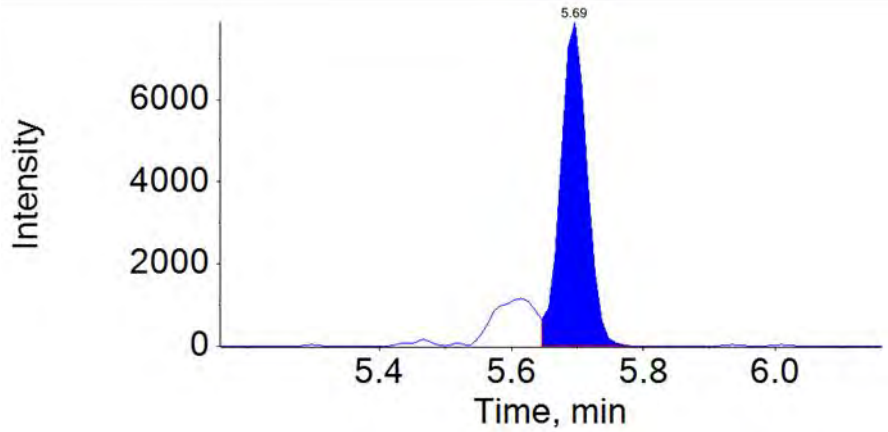
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
123075.4
Mass Range:
499.0 / 99.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.69
Peak Area:
21804.6
Mass Range:
570.0 / 483.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



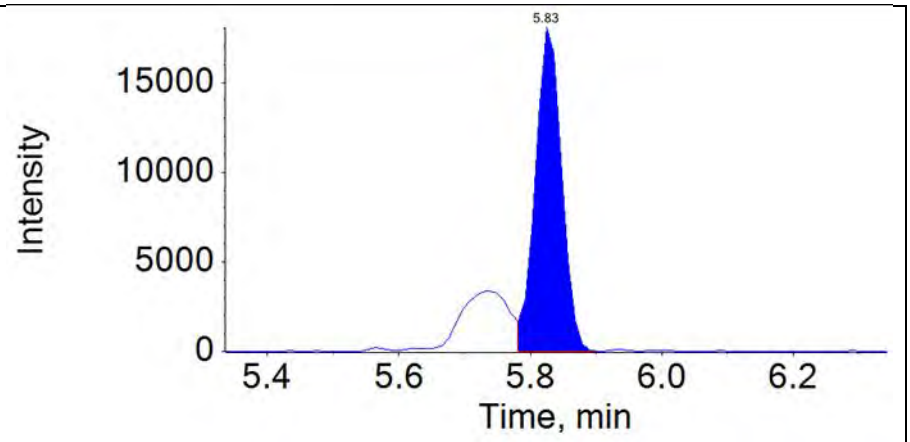
Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
49988.2
Mass Range:
584.0 / 526.0
File Name:
18NOV13D-59.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM

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

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Ion Ratio Report

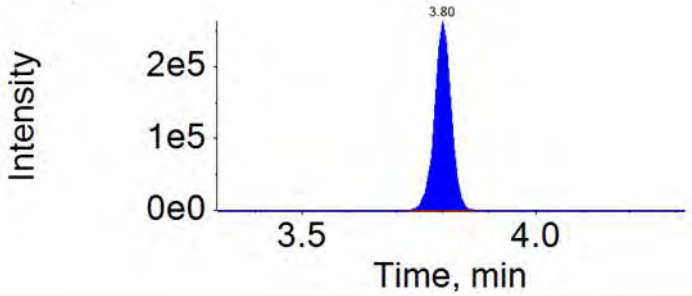
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV13D-59.wiff

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	640798.3	A	N/A	1.0000			
PFBS_2	3.80	1.00	236343.5	A	N/A	0.3688	1	50	
4:2-FTS	4.11	1.00	136241.9	A	N/A	1.0000			
4:2-FTS_2	4.11	1.00	84707.8	A	N/A	0.6217	-7	50	
PFHxA	4.15	1.00	1308040.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	13454.0	A	N/A	0.0103	-13	50	
PFPeS	4.17	1.10	317036.6	A	N/A	1.0000			
PFPeS_2	4.17	1.10	169995.6	A	N/A	0.5362	3	50	
PFHpA	4.54	1.00	1363723.9	A	N/A	1.0000			
PFHpA_2	4.54	1.00	73775.5	A	N/A	0.0541	-4	50	
PFHxS	4.54	1.00	455335.5	M	N/A	1.0000			
PFHxS_2	4.54	1.00	163623.6	M	N/A	0.3593	18	50	
6:2-FTS	4.89	1.00	104080.7	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	64783.3	A	N/A	0.6224	-5	50	
PFHpS	4.90	1.08	430779.1	A	N/A	1.0000			
PFHpS_2	4.90	1.08	186686.6	A	N/A	0.4334	7	50	
PFOA	4.91	1.00	1332914.9	A	N/A	1.0000			
PFOA_2	4.91	1.00	75816.1	A	N/A	0.0569	0	50	
PFOS	5.24	1.00	448218.9	M	N/A	1.0000			
PFOS_2	5.24	1.00	142290.9	M	N/A	0.3175	23	50	
PFNA	5.25	1.00	1116186.2	A	N/A	1.0000			
PFNA_2	5.25	1.00	21032.6	A	N/A	0.0188	-18	50	
PFNS	5.53	1.06	284997.7	A	N/A	1.0000			
PFNS_2	5.53	1.06	133766.5	A	N/A	0.4694	-2	50	
PFDA	5.55	1.00	921516.9	A	N/A	1.0000			
PFDA_2	5.55	1.00	5496.3	A	N/A	0.0060	-25	50	
8:2-FTS	5.56	1.00	84403.2	A	N/A	1.0000			
8:2-FTS_2	5.56	1.00	51614.2	A	N/A	0.6115	-8	50	
NMeFOSAA	5.70	1.00	105636.9	M	N/A	1.0000			
NMeFOSAA_2	5.69	1.00	27030.7	M	N/A	0.2559	20	50	
PFDS	5.79	1.11	224576.1	A	N/A	1.0000			
PFDS_2	5.79	1.10	111631.1	A	N/A	0.4971	-2	50	
PFUnDA	5.81	1.00	818489.4	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	2795.4	A	N/A	0.0034	-18	50	
NEtFOSAA	5.83	1.00	94592.3	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	67537.4	M	N/A	0.7140	23	50	
PFDoDA	6.04	1.00	868518.8	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	10806.1	A	N/A	0.0124	-24	50	
10:2-FTS	6.06	1.09	65963.7	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	43156.1	A	N/A	0.6542	1	50	
PFTrDA	6.24	1.03	725189.3	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	6699.6	A	N/A	0.0092	0	50	
PFTeDA	6.42	1.00	584375.2	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	3497.9	A	N/A	0.0060	-7	50	
PFHxDA	6.72	1.05	270067.9	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	16619.2	A	N/A	0.0615	-9	50	
PFODA	6.98	1.09	242463.9	A	N/A	1.0000			
PFODA_2	6.98	1.09	6179.9	A	N/A	0.0255	-6	50	

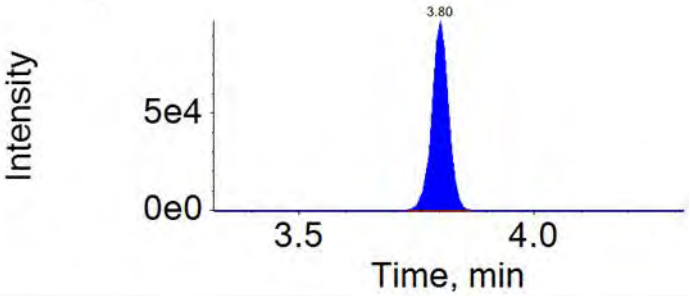
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

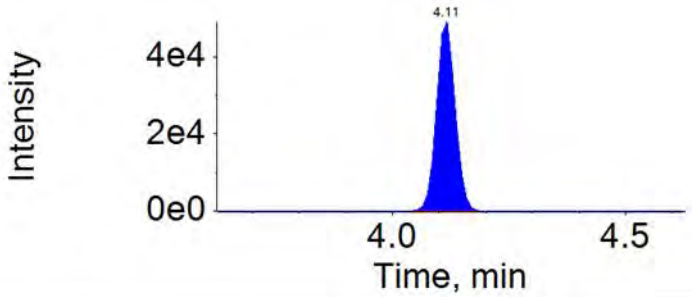
Component: PFBS
Primary Mass: 299.0 / 80.0



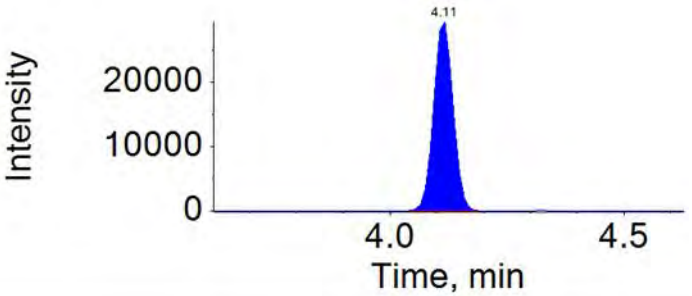
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



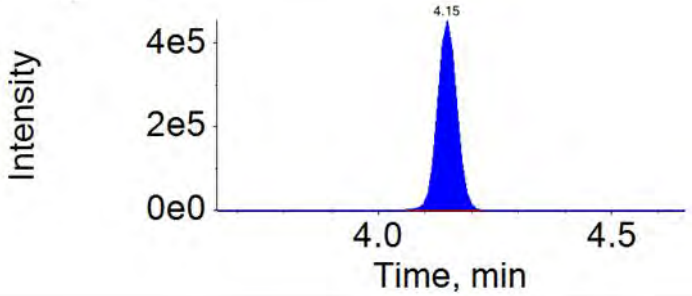
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



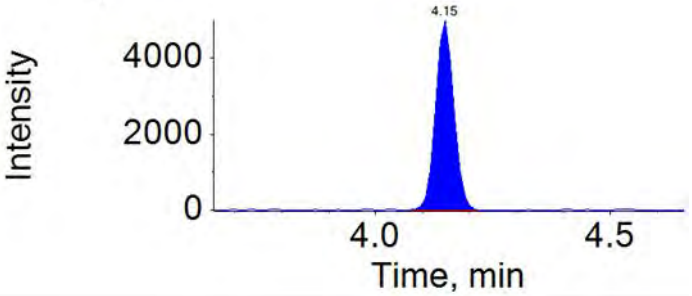
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



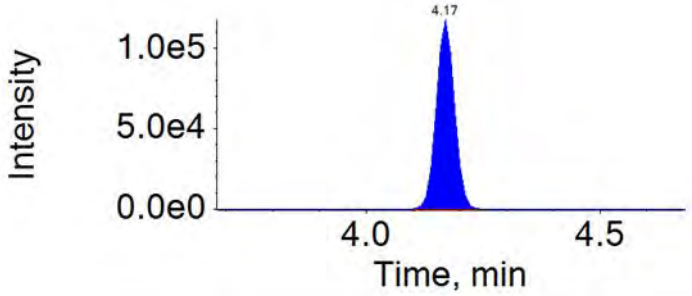
Component: PFHxA
Primary Mass: 313.0 / 269.0



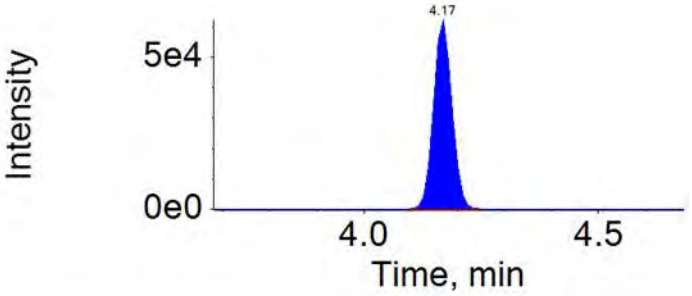
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



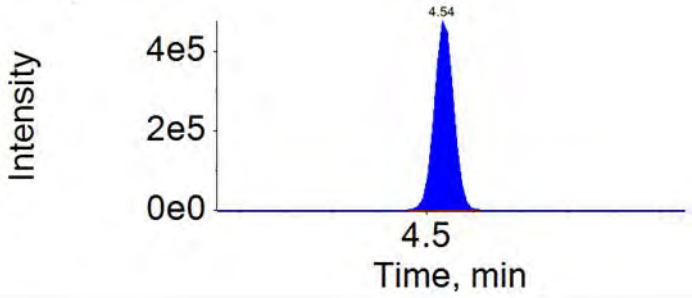
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



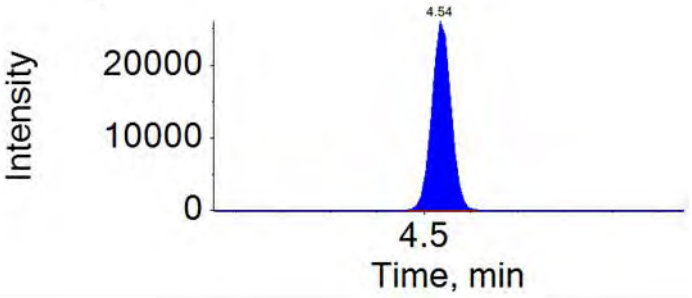
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

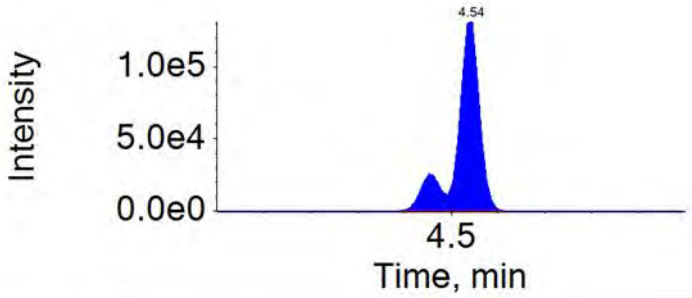
Component: PFHpA
Primary Mass: 363.0 / 319.0



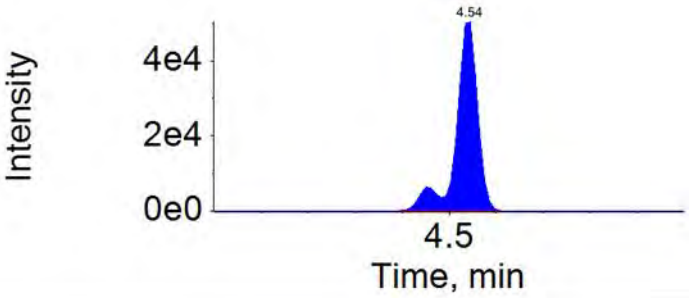
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



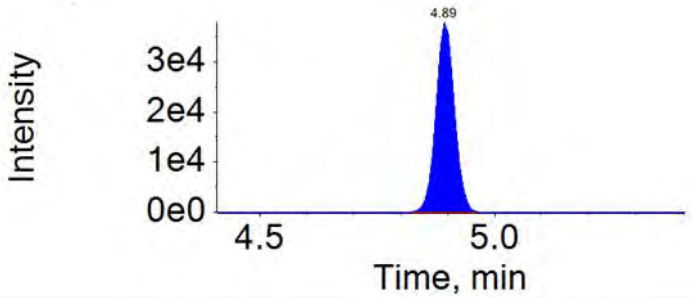
Component: PFHxS
Primary Mass: 399.0 / 80.0



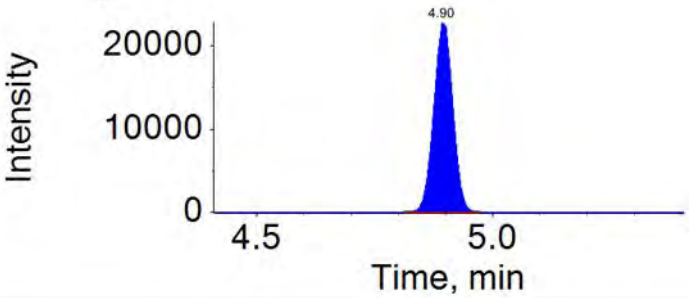
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



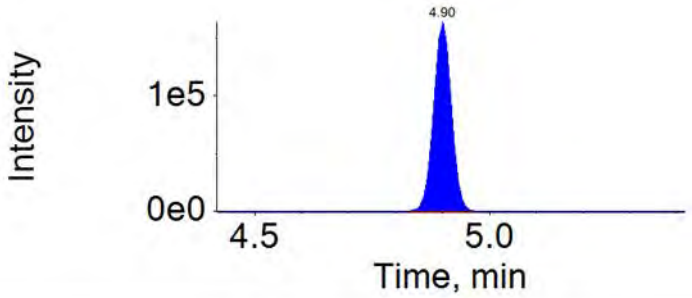
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



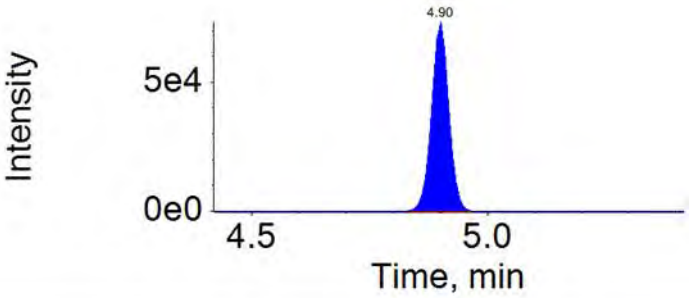
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



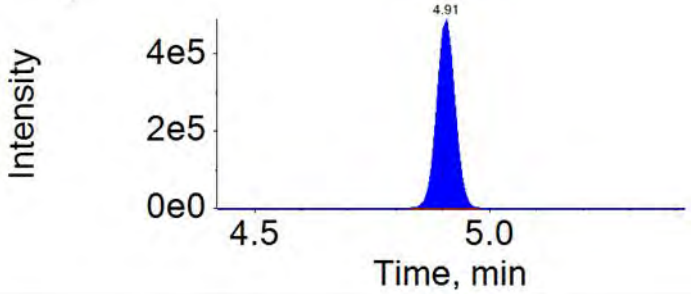
Component: PFHpS
Primary Mass: 449.0 / 80.0



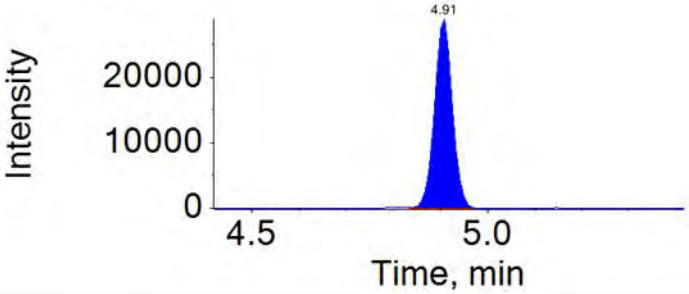
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



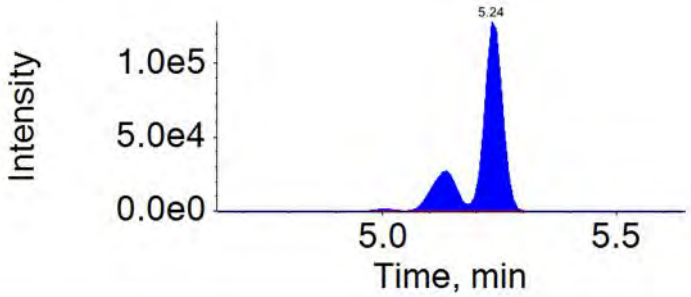
Component: PFOA
Primary Mass: 413.0 / 369.0



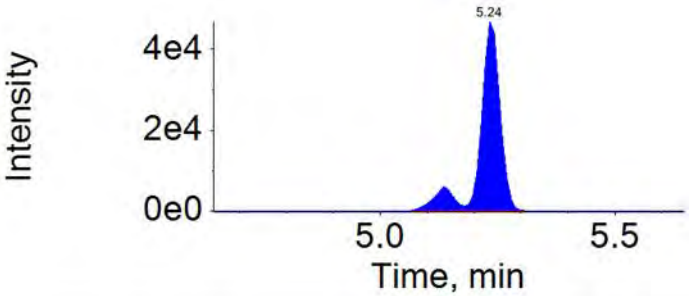
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



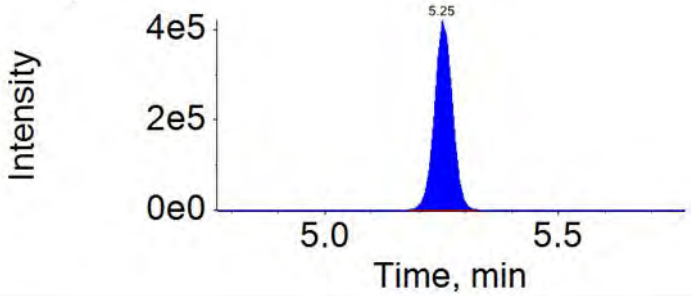
Component: PFOS
Primary Mass: 499.0 / 80.0



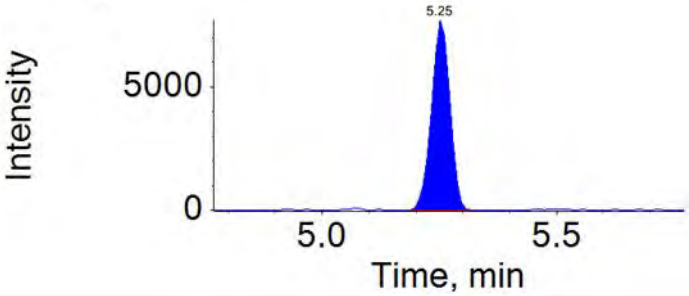
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



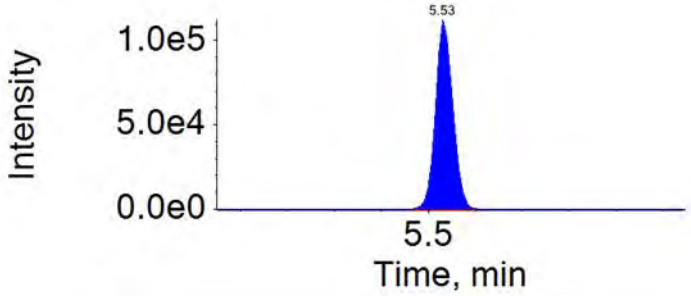
Component: PFNA
Primary Mass: 463.0 / 419.0



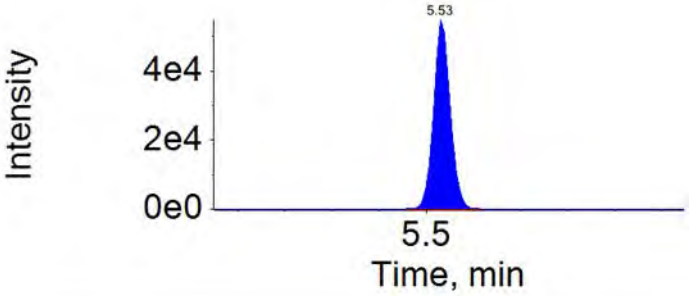
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



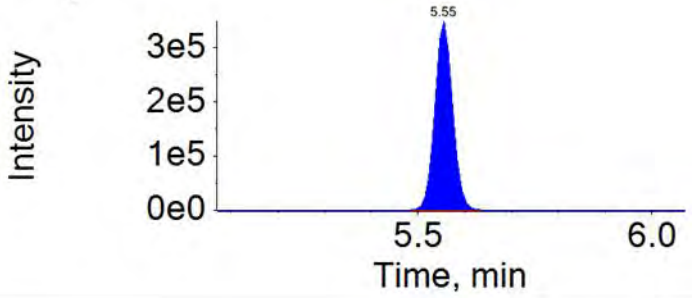
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



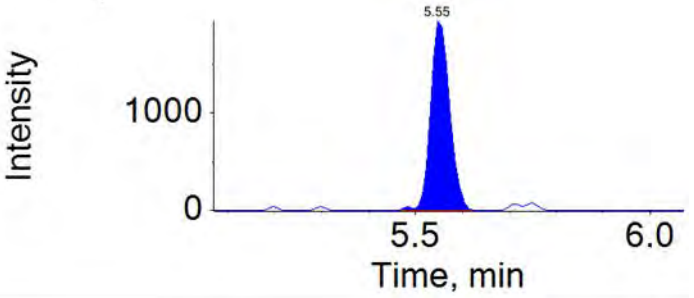
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

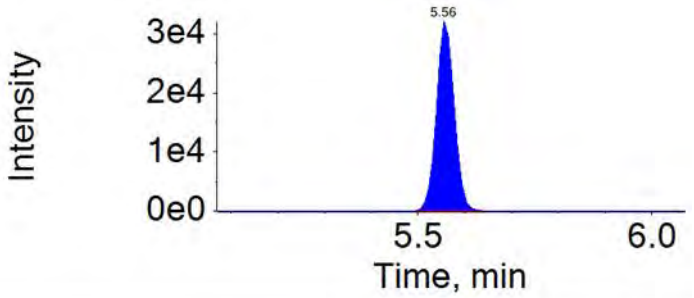
Component: PFDA
Primary Mass: 513.0 / 469.0



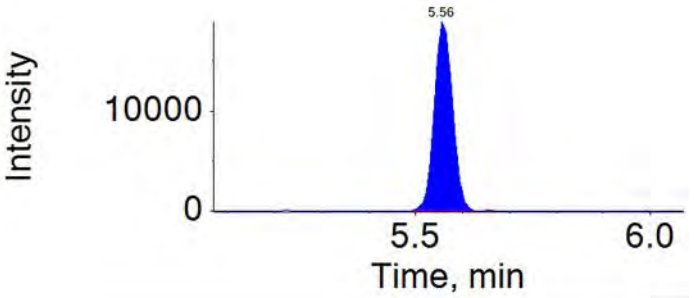
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



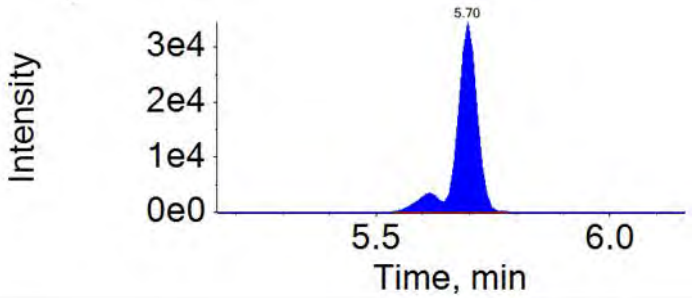
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



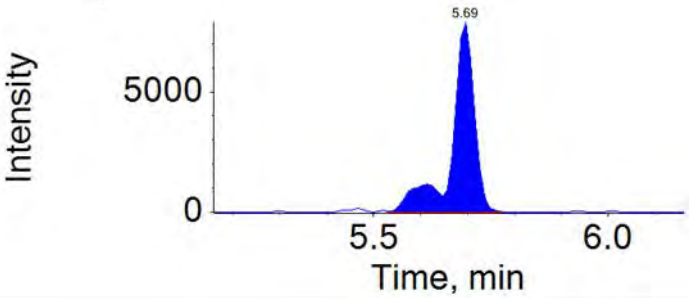
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



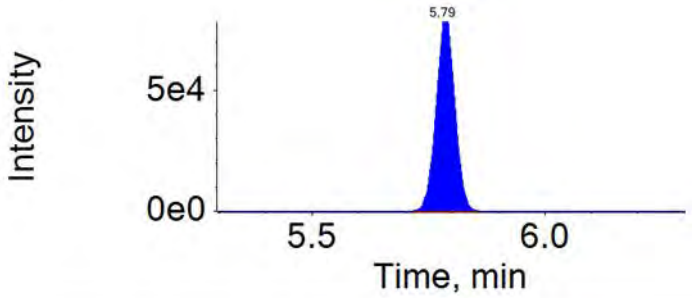
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



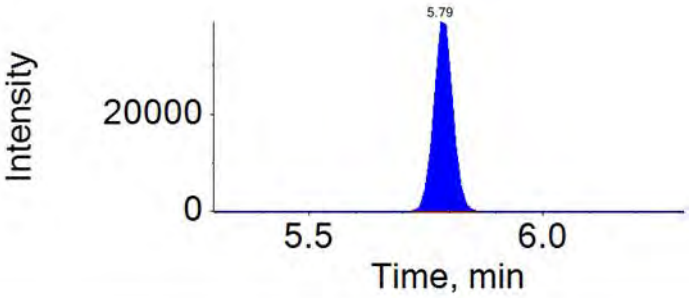
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



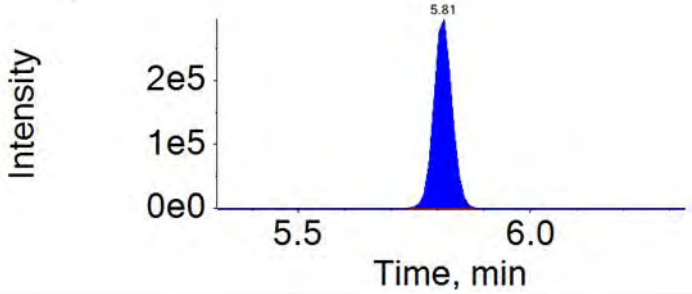
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



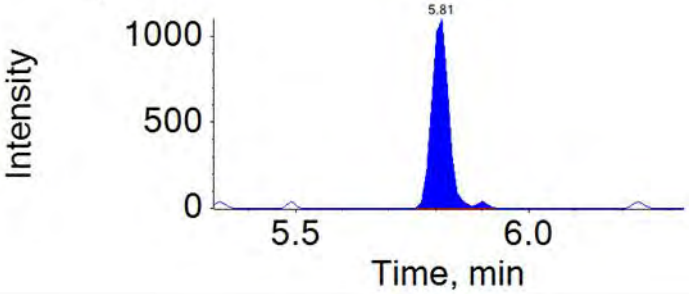
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

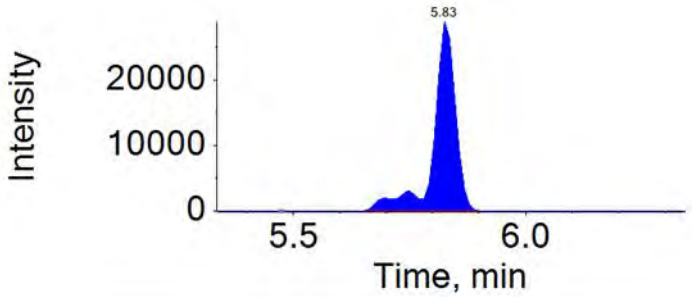
Component: PFUnDA
Primary Mass: 563.0 / 519.0



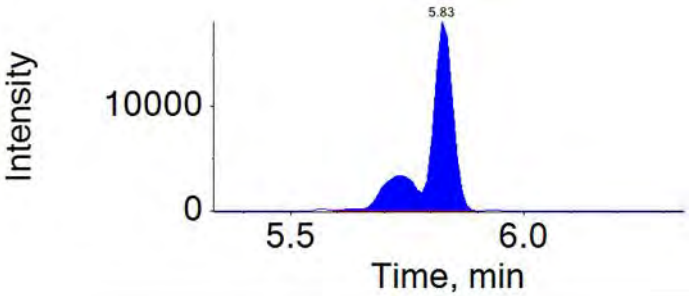
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



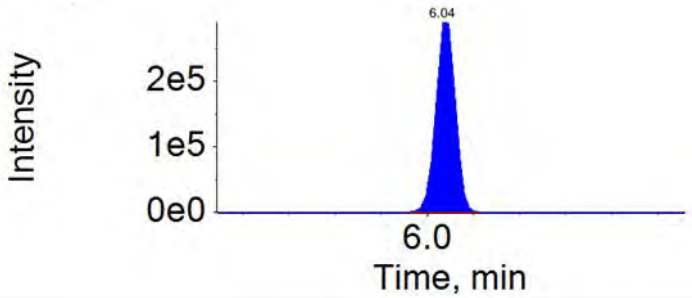
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



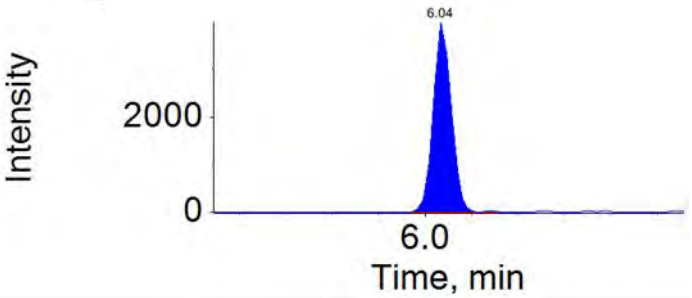
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



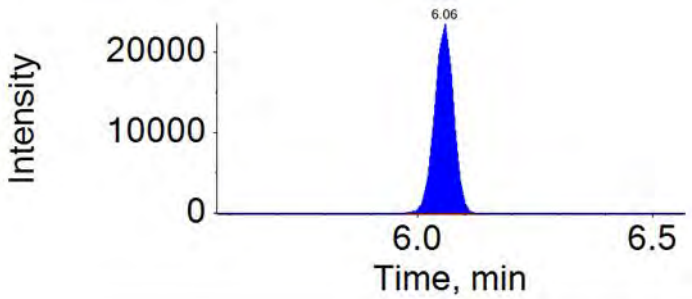
Component: PFDoDA
Primary Mass: 613.0 / 569.0



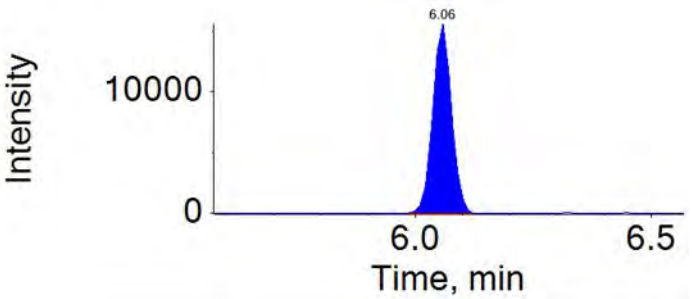
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



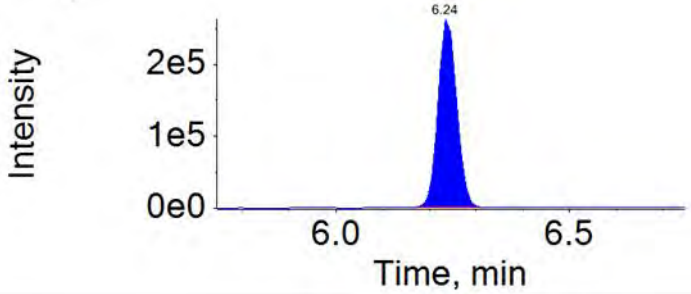
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



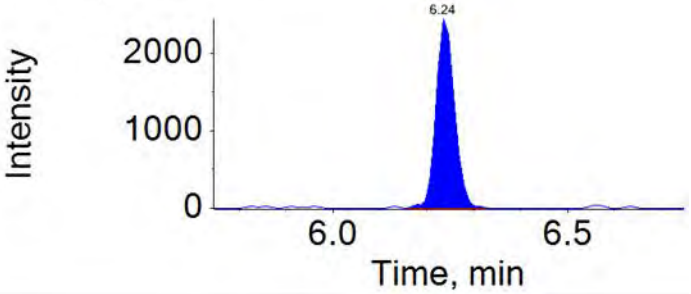
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

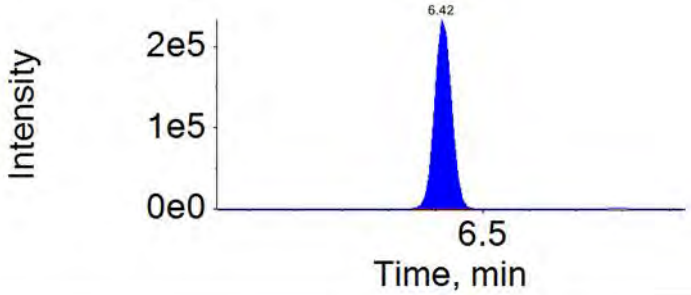
Component: PFTrDA
Primary Mass: 663.0 / 619.0



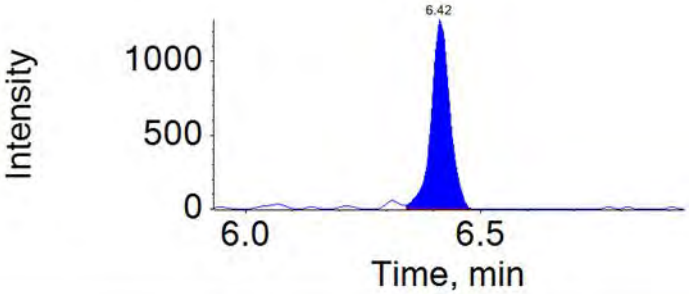
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



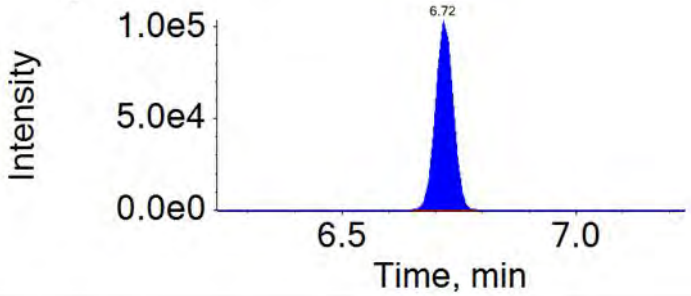
Component: PFTeDA
Primary Mass: 713.0 / 669.0



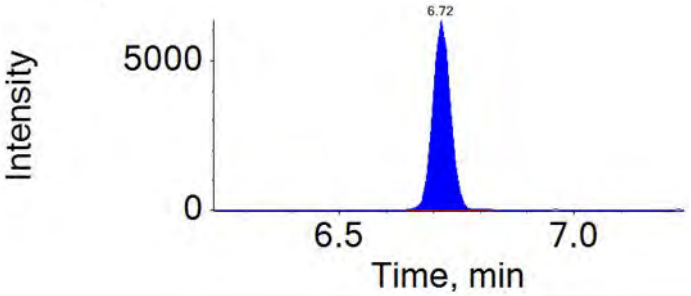
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



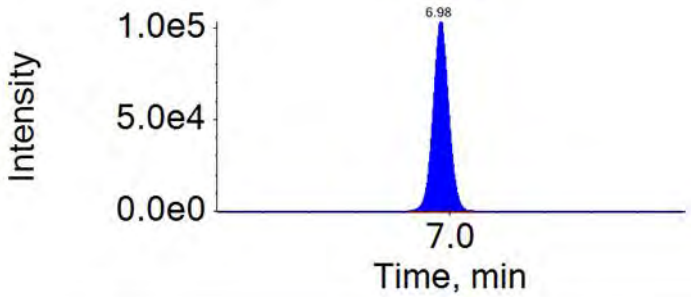
Component: PFHxDA
Primary Mass: 813.0 / 769.0



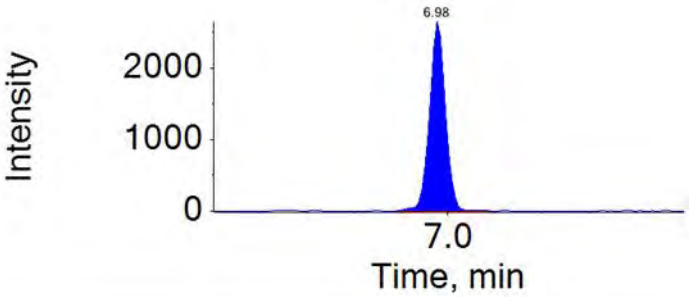
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



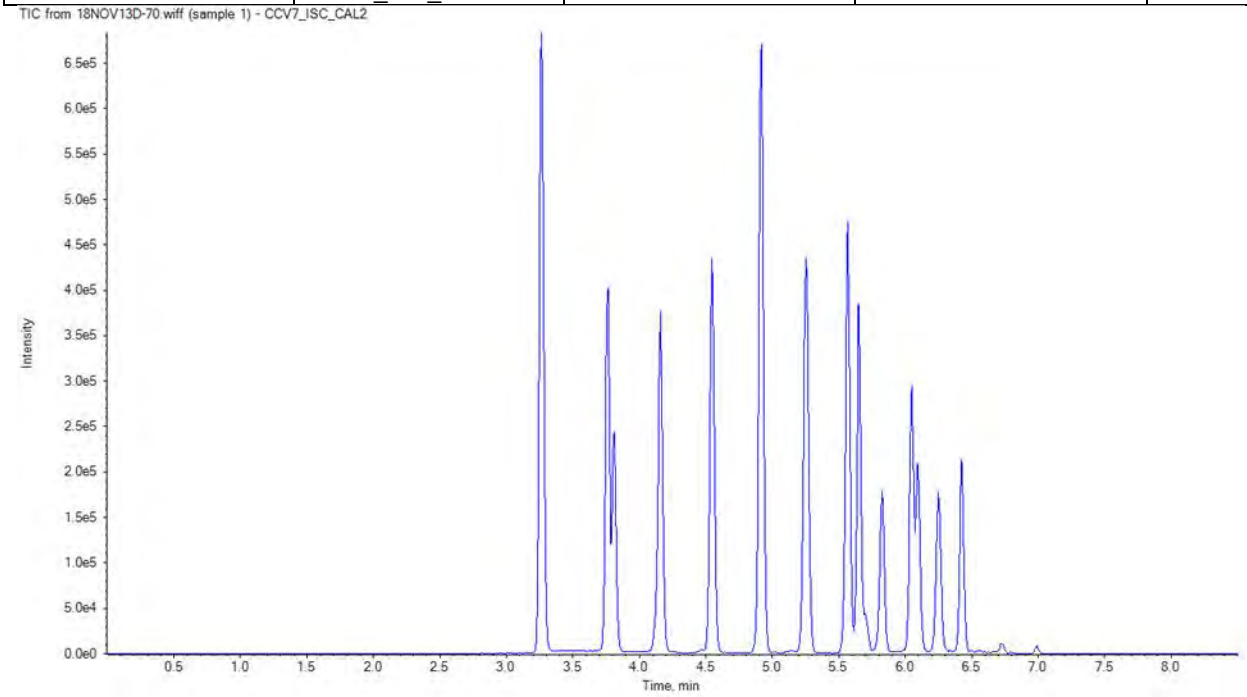
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV13D-70.wiff	2018-11-13T20:05:50



Injection Standard Area Reference File: 18NOV13D-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	694207.9	661126.9	5	50	
13C2-PFOA	5.0	459941.7	466902.6	-1	50	
13C4-PFOS	4.8	255750.7	247446.9	3	50	
13C2-PFDA	5.0	290128.8	295381.6	-2	50	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV13D-70.wiff	2018-11-13T20:05:50

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	82822.6	10	13C4-PFBA	794083.3	5.0	0.104	3.26	1.000	0.600	0.578	-4	30	
PFPeA	81055.9	12	13C5-PFPeA	792572.2	5.0	0.102	3.76	1.000	0.600	0.592	-1	30	
PFBS	44748.4	10	13C3-PFBS	444339.4	4.7	0.101	3.81	1.000	0.531	0.479	-10	30	
4:2-FTS	10227.9	11	13C2-4:2-FTS	48673.4	4.7	0.210	4.12	1.000	0.560	0.571	2	30	
PFHxA	99315.8	12	13C5-PFHxA	688417.1	5.0	0.144	4.16	1.000	0.600	0.602	0	30	
PFPeS	20643.5	11	13C3-PFBS	444339.4	4.7	0.046	4.18	1.100	0.563	0.451	-20	30	
PFHpA	100331.5	12	13C4-PFHpA	550411.8	5.0	0.182	4.55	1.000	0.600	0.604	1	30	
PFHxS	31708.2	19	13C3-PFHxS	324046.0	4.7	0.098	4.55	1.000	0.547	0.474	-13	30	
6:2-FTS	7892.9	11	13C2-6:2-FTS	37193.2	4.8	0.212	4.91	1.000	0.569	0.514	-10	30	
PFHpS	33549.6	11	13C3-PFHxS	324046.0	4.7	0.104	4.91	1.080	0.571	0.545	-5	30	
PFOA	99271.9	11	13C8-PFOA	929694.9	5.0	0.107	4.92	1.000	0.600	0.570	-5	30	
PFOS	31066.6	22	13C8-PFOS	300516.6	4.8	0.103	5.25	1.000	0.555	0.452	-19	30	
PFNA	76669.8	11	13C9-PFNA	494743.8	5.0	0.155	5.26	1.000	0.600	0.559	-7	30	
PFNS	20590.8	11	13C8-PFOS	300516.6	4.8	0.069	5.54	1.060	0.576	0.479	-17	30	
PFDA	68910.7	11	13C6-PFDA	651463.7	5.0	0.106	5.57	1.000	0.600	0.561	-7	30	
8:2-FTS	6302.1	11	13C2-8:2-FTS	27557.4	4.8	0.229	5.57	1.000	0.575	0.533	-7	30	
PFOSA	68001.2	11	13C8-PFOSA	708843.9	5.0	0.096	5.65	1.000	0.600	0.469	-22	30	
NMeFOSAA	7189.6	18	d3-NMeFOSAA	79139.2	5.0	0.091	5.71	1.000	0.600	0.513	-14	30	
PFDS	15267.4	12	13C8-PFOS	300516.6	4.8	0.051	5.80	1.110	0.578	0.460	-20	30	
PFUnDA	57084.2	11	13C7-PFUnDA	270143.6	5.0	0.211	5.82	1.000	0.600	0.552	-8	30	
NEtFOSAA	8326.9	25	d5-NEtFOSAA	69023.8	5.0	0.121	5.84	1.000	0.600	0.632	5	30	
PFDoDA	56287.6	11	13C2-PFDoDA	570187.4	5.0	0.099	6.05	1.000	0.600	0.503	-16	30	
10:2-FTS	4746.6	13	13C2-8:2-FTS	27557.4	4.8	0.172	6.07	1.090	0.578	0.574	-1	30	
NMePFOSAE	49314.1	12	d7-NMePFOSAE	343581.8	5.0	0.144	6.10	1.000	0.600	0.597	0	30	
NMePFOSA	7849.7	12	d3-NMePFOSA	77880.3	5.0	0.101	6.11	1.000	0.600	0.497	-17	30	
PFDoS	8763.7	11	13C8-PFOS	300516.6	4.8	0.029	6.22	1.190	0.581	0.511	-12	30	
NEtPFOSAE	48120.8	11	d9-NEtPFOSAE	267333.3	5.0	0.180	6.26	1.000	0.600	0.578	-4	30	
NEtPFOSA	6805.8	12	d5-NEtPFOSA	65391.1	5.0	0.104	6.27	1.000	0.600	0.478	-20	30	
PFTrDA	51310.9	12	13C2-PFDoDA	570187.4	5.0	0.090	6.25	1.030	0.600	0.568	-5	30	
PFTeDA	40355.1	10	13C2-PFTeDA	402549.8	5.0	0.100	6.42	1.000	0.600	0.562	-6	30	
PFHxDA	19659.8	11	13C2-PFTeDA	402549.8	5.0	0.049	6.73	1.050	0.600	0.582	-3	30	
PFODA	16393.2	10	13C2-PFTeDA	402549.8	5.0	0.041	6.99	1.090	0.600	0.567	-5	30	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV13D-70.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T20:05:50
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV6-10
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: 18NOV13D-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	694207.9	661126.9	5	50	
13C2-PFOA	5.0	459941.7	466902.6	-1	50	
13C4-PFOS	4.8	255750.7	247446.9	3	50	
13C2-PFDA	5.0	290128.8	295381.6	-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	794083.3	13C3-PFBA	694207.9	1.144	5.000	5.128	103	70-130	
E13C5-PFPeA	792572.2	13C3-PFBA	694207.9	1.142	5.000	5.121	102	70-130	
E13C3-PFBS	444339.4	13C3-PFBA	694207.9	0.640	4.650	4.518	97	70-130	
E13C2-4:2-FTS	48673.4	13C2-PFOA	459941.7	0.106	4.670	4.713	101	70-130	
E13C5-PFHxA	688417.1	13C2-PFOA	459941.7	1.497	5.000	5.407	108	70-130	
E13C3-PFHxS	324046.0	13C2-PFOA	459941.7	0.705	4.730	4.834	102	70-130	
E13C4-PFHpA	550411.8	13C2-PFOA	459941.7	1.197	5.000	5.391	108	70-130	
E13C2-6:2-FTS	37193.2	13C2-PFOA	459941.7	0.081	4.750	5.410	114	70-130	
E13C8-PFOA	929694.9	13C2-PFOA	459941.7	2.021	5.000	5.569	111	70-130	
E13C8-PFOS	300516.6	13C4-PFOS	255750.7	1.175	4.780	5.206	109	70-130	
E13C9-PFNA	494743.8	13C4-PFOS	255750.7	1.934	5.000	5.394	108	70-130	
E13C6-PFDA	651463.7	13C2-PFDA	290128.8	2.245	5.000	5.240	105	70-130	
E13C2-8:2-FTS	27557.4	13C2-PFDA	290128.8	0.095	4.790	4.737	99	70-130	
E13C8-PFOSA	708843.9	13C2-PFDA	290128.8	2.443	5.000	5.417	108	70-130	
Ed3-NMeFOSAA	79139.2	13C2-PFDA	290128.8	0.273	5.000	4.924	98	70-130	
E13C7-PFUnDA	270143.6	13C2-PFDA	290128.8	0.931	5.000	5.406	108	70-130	
Ed5-NEtFOSAA	69023.8	13C2-PFDA	290128.8	0.238	5.000	5.033	101	70-130	
E13C2-PFDoDA	570187.4	13C2-PFDA	290128.8	1.965	5.000	5.103	102	70-130	
Ed7-NMePFOSAE	343581.8	13C2-PFDA	290128.8	1.184	5.000	5.125	102	70-130	
Ed3-NMePFOSA	77880.3	13C2-PFDA	290128.8	0.268	5.000	4.877	98	70-130	
Ed9-NEtPFOSAE	267333.3	13C2-PFDA	290128.8	0.921	5.000	4.792	96	70-130	
Ed5-NEtPFOSA	65391.1	13C2-PFDA	290128.8	0.225	5.000	5.287	106	70-130	
E13C2-PFTeDA	402549.8	13C2-PFDA	290128.8	1.387	5.000	4.871	97	70-130	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

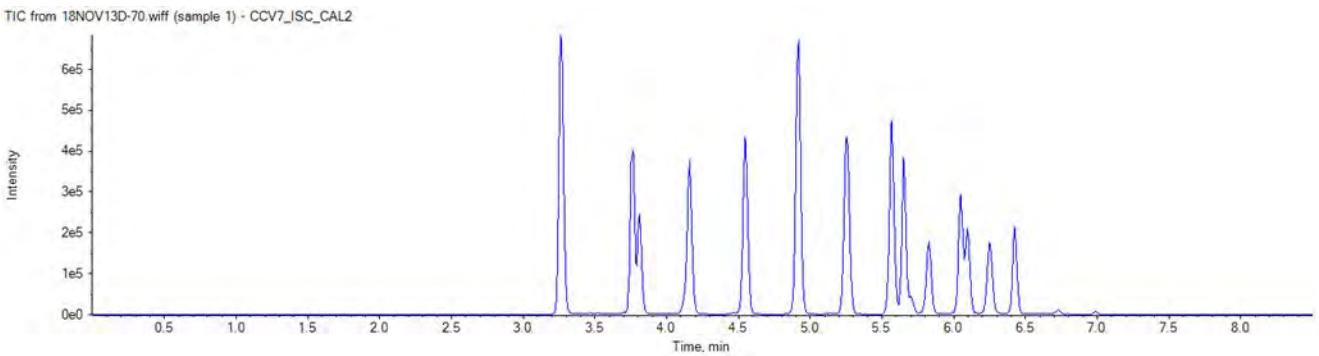
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-70.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	82822.6		A	13C4-PFBA	3.26	794083.3	0.104	0.578
PFPeA	3.76	1.000	81055.9		A	13C5-PFPeA	3.76	792572.2	0.102	0.592
PFBS	3.81	1.000	44748.4		A	13C3-PFBS	3.81	444339.4	0.101	0.479
4:2-FTS	4.12	1.000	10227.9		A	13C2-4:2-FTS	4.12	48673.4	0.210	0.571
PFHxA	4.16	1.000	99315.8		A	13C5-PFHxA	4.16	688417.1	0.144	0.602
PFPeS	4.18	1.100	20643.5		A	13C3-PFBS	3.81	444339.4	0.046	0.451
PFHpA	4.55	1.000	100331.5		A	13C4-PFHpA	4.55	550411.8	0.182	0.604
PFHxS	4.55	1.000	31708.2		M	13C3-PFHxS	4.55	324046.0	0.098	0.474
6:2-FTS	4.91	1.000	7892.9		A	13C2-6:2-FTS	4.90	37193.2	0.212	0.514
PFHpS	4.91	1.080	33549.6		A	13C3-PFHxS	4.55	324046.0	0.104	0.545
PFOA	4.92	1.000	99271.9		A	13C8-PFOA	4.92	929694.9	0.107	0.570
PFOS	5.25	1.000	31066.6		M	13C8-PFOS	5.25	300516.6	0.103	0.452
PFNA	5.26	1.000	76669.8		A	13C9-PFNA	5.26	494743.8	0.155	0.559
PFNS	5.54	1.060	20590.8		A	13C8-PFOS	5.25	300516.6	0.069	0.479
PFDA	5.57	1.000	68910.7		A	13C6-PFDA	5.57	651463.7	0.106	0.561
8:2-FTS	5.57	1.000	6302.1		A	13C2-8:2-FTS	5.57	27557.4	0.229	0.533
PFOSA	5.65	1.000	68001.2		A	13C8-PFOSA	5.65	708843.9	0.096	0.469
NMeFOSAA	5.71	1.000	7189.6		M	d3-NMeFOSAA	5.71	79139.2	0.091	0.513
PFDS	5.80	1.110	15267.4		M	13C8-PFOS	5.25	300516.6	0.051	0.460
PFUnDA	5.82	1.000	57084.2		A	13C7-PFUnDA	5.82	270143.6	0.211	0.552
NEtFOSAA	5.84	1.000	8326.9		M	d5-NEtFOSAA	5.83	69023.8	0.121	0.632
PFDoDA	6.05	1.000	56287.6		A	13C2-PFDoDA	6.05	570187.4	0.099	0.503
10:2-FTS	6.07	1.090	4746.6		M	13C2-8:2-FTS	5.57	27557.4	0.172	0.574
NMePFOSAE	6.10	1.000	49314.1		A	d7-NMePFOSAE	6.09	343581.8	0.144	0.597
NMePFOSA	6.11	1.000	7849.7		A	d3-NMePFOSA	6.10	77880.3	0.101	0.497
PFDoS	6.22	1.190	8763.7		A	13C8-PFOS	5.25	300516.6	0.029	0.511
NEtPFOSAE	6.26	1.000	48120.8		A	d9-NEtPFOSAE	6.25	267333.3	0.180	0.578
NEtPFOSA	6.27	1.000	6805.8		A	d5-NEtPFOSA	6.27	65391.1	0.104	0.478
PFTrDA	6.25	1.030	51310.9		M	13C2-PFDoDA	6.05	570187.4	0.090	0.568
PFTeDA	6.42	1.000	40355.1		A	13C2-PFTeDA	6.43	402549.8	0.100	0.562
PFHxDA	6.73	1.050	19659.8		A	13C2-PFTeDA	6.43	402549.8	0.049	0.582
PFODA	6.99	1.090	16393.2		A	13C2-PFTeDA	6.43	402549.8	0.041	0.567

Total Ion Chromatogram

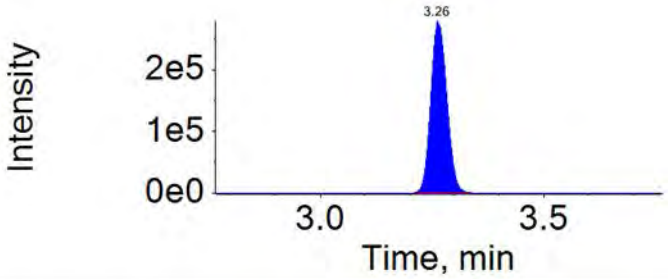


APPROVED
By JPT at 10:19 am, 11/14/18

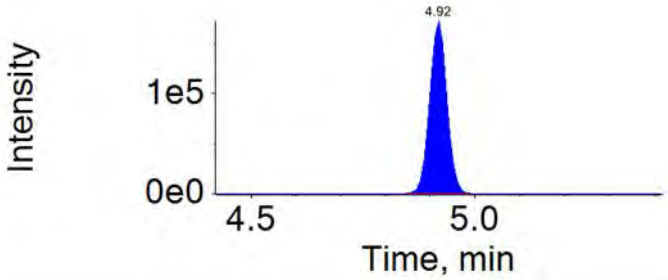
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

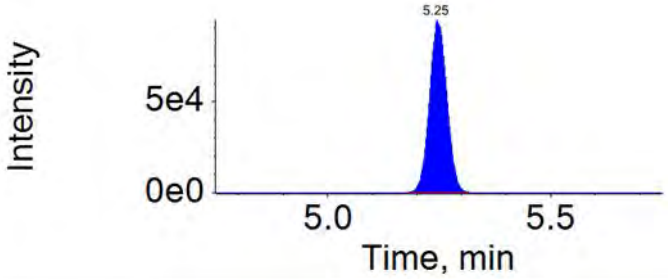
Injection Standard: 13C3-PFBA
216.0 / 172.0



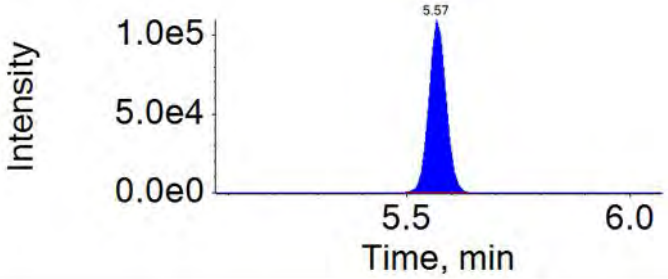
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



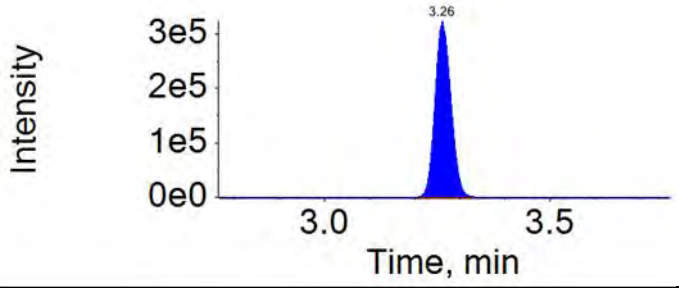
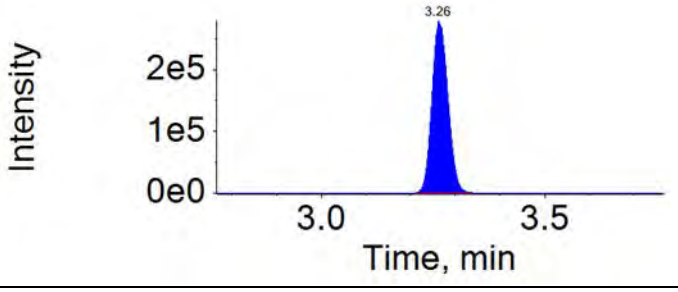
Injection Standard: 13C2-PFDA
515.0 / 470.0

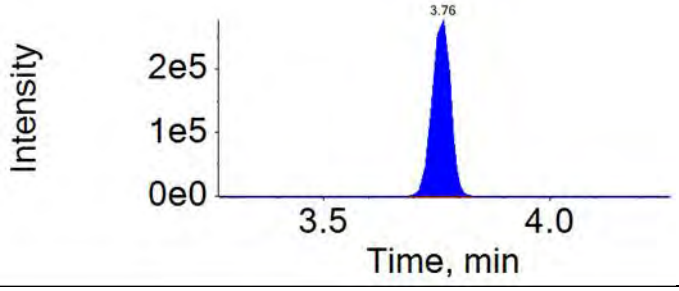
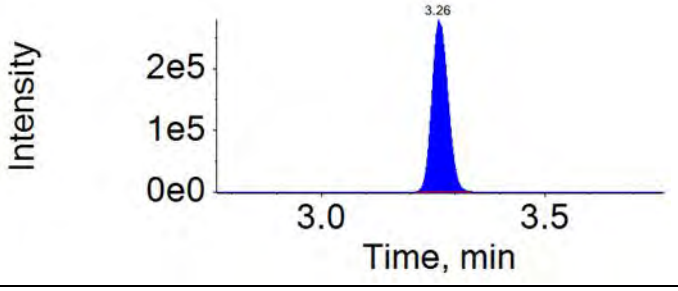


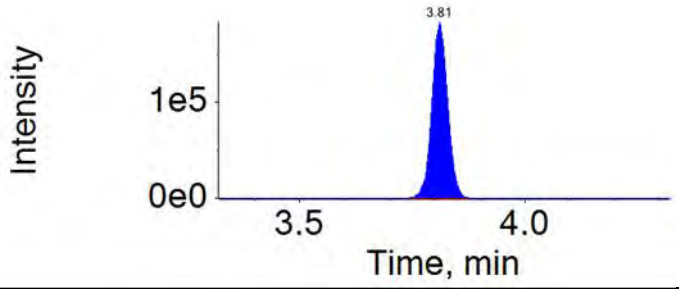
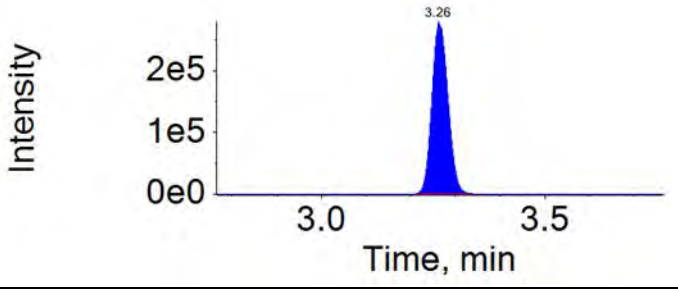
APPROVED
By JPT at 10:19 am, 11/14/18

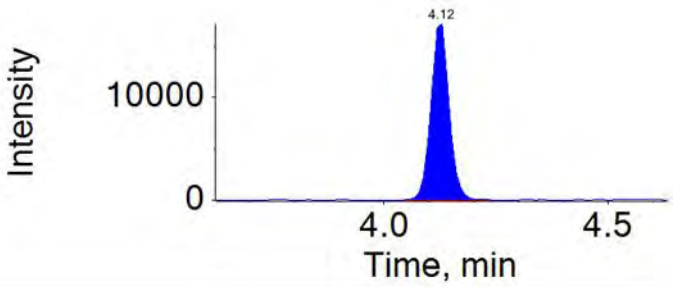
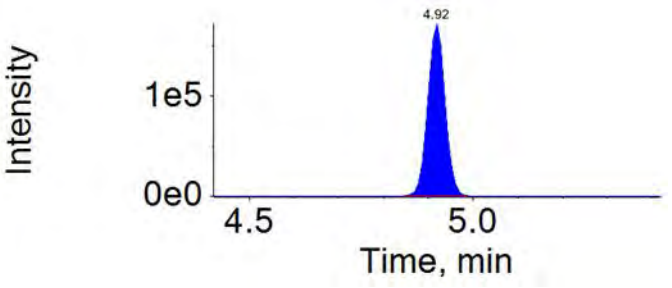
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

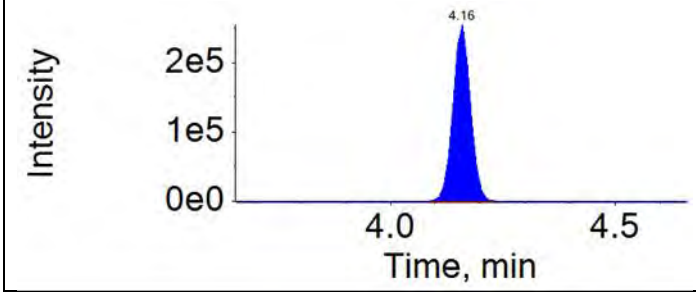
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

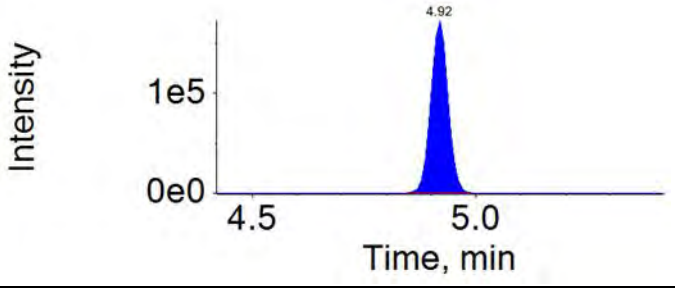
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

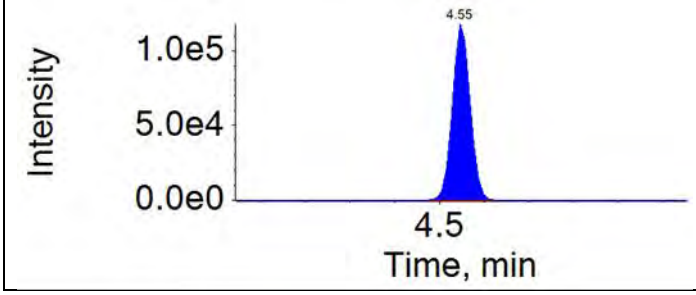
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

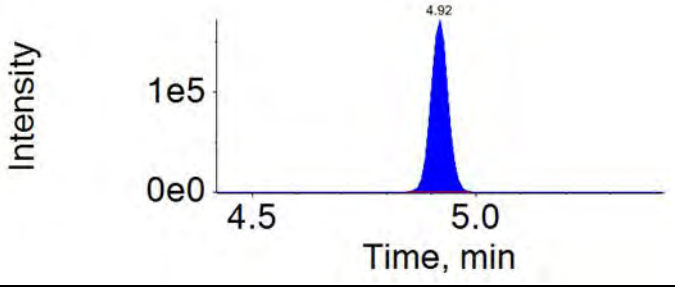
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



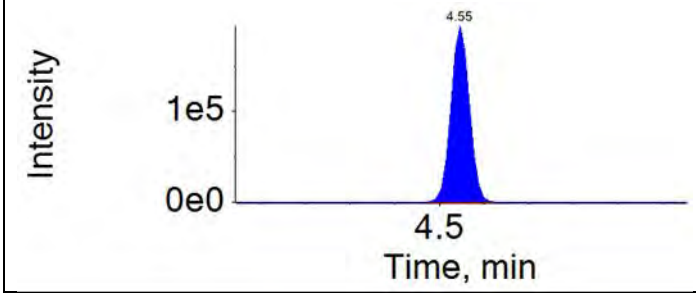


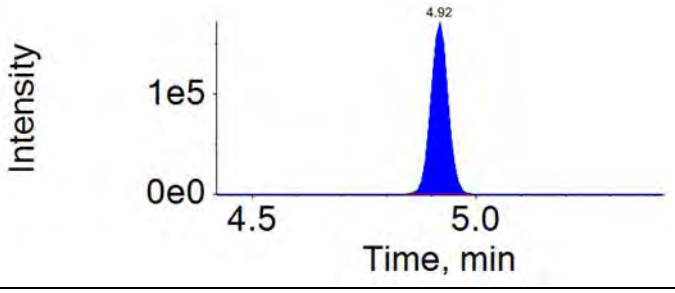
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



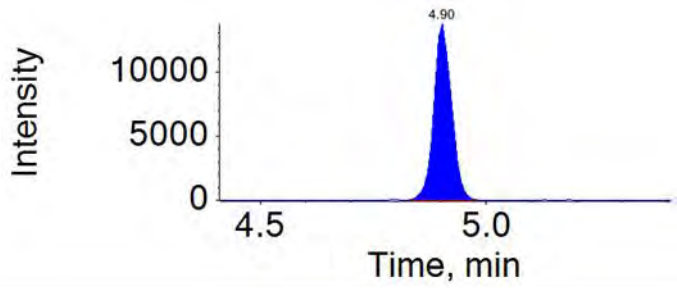


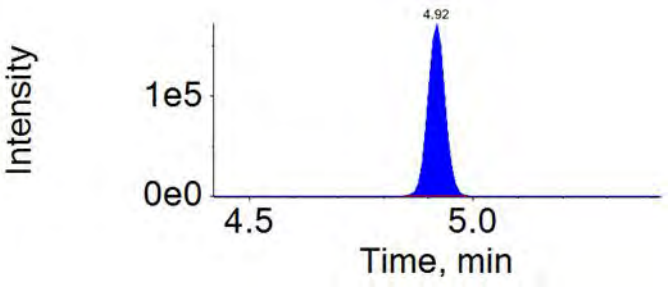
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

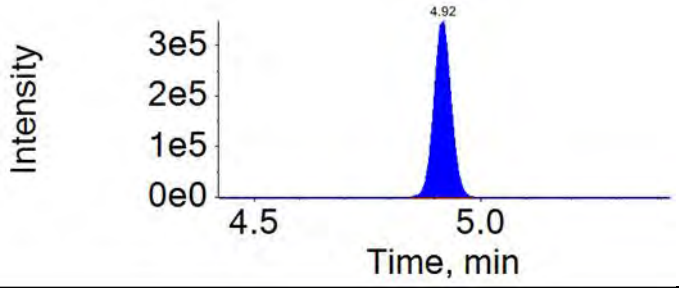
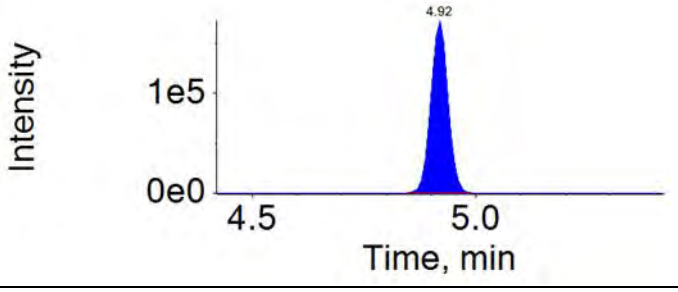


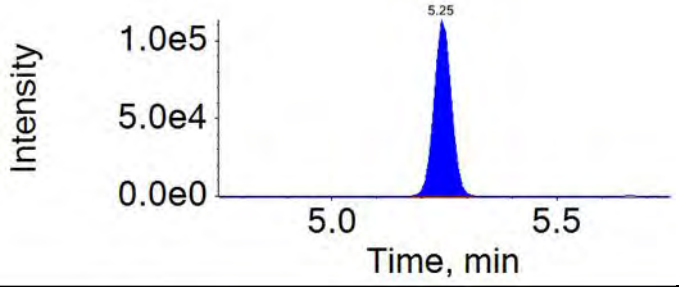
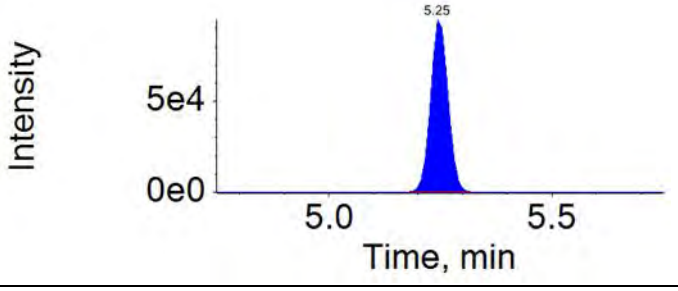


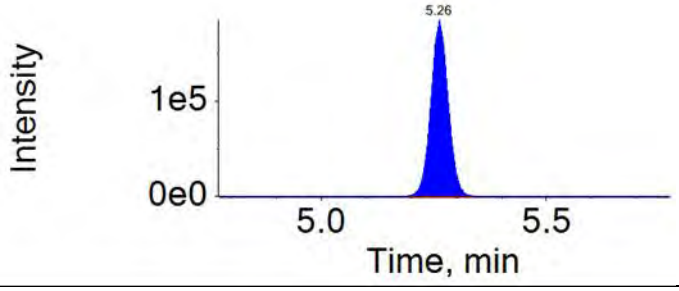
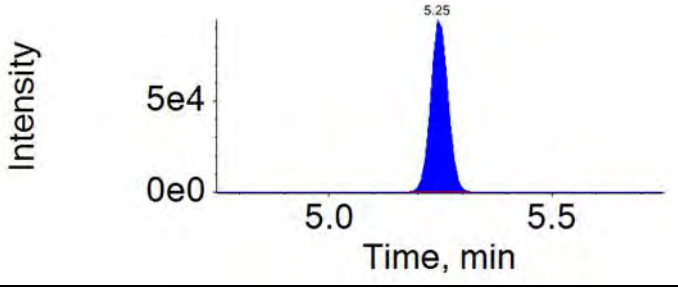
APPROVED
By JPT at 10:19 am, 11/14/18

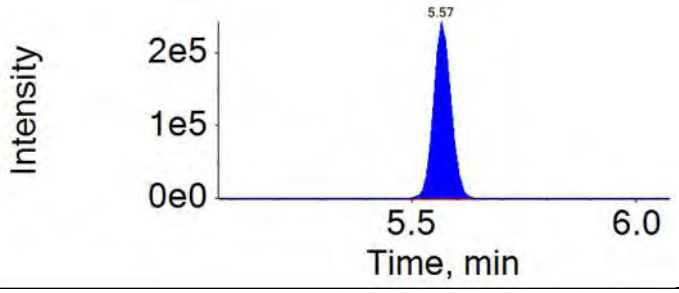
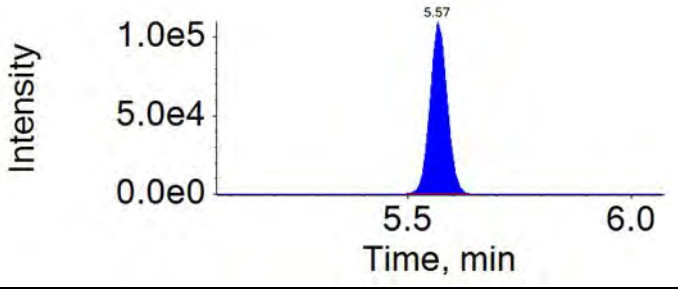
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

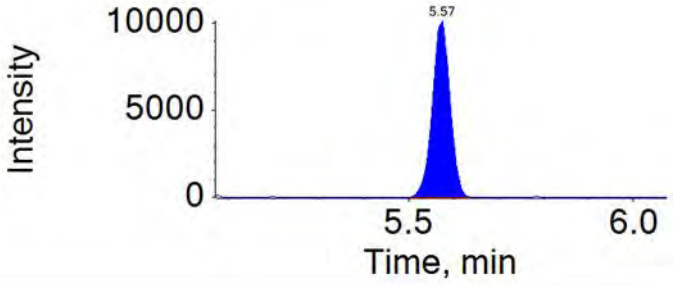
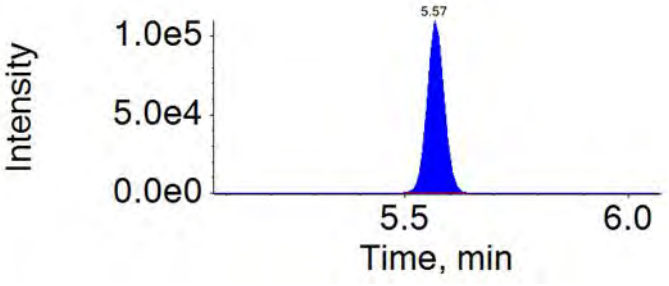
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

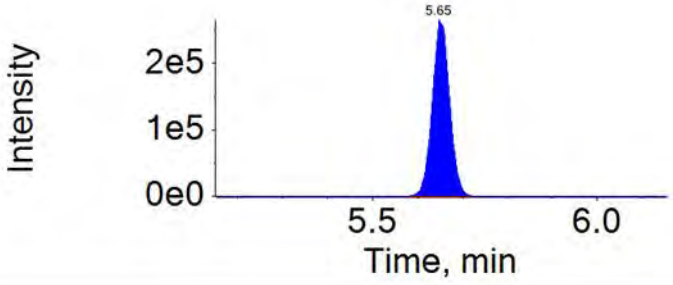
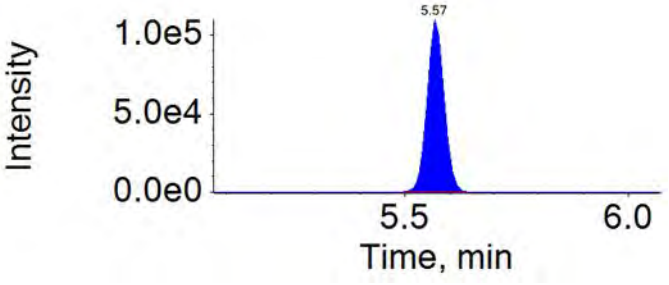
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

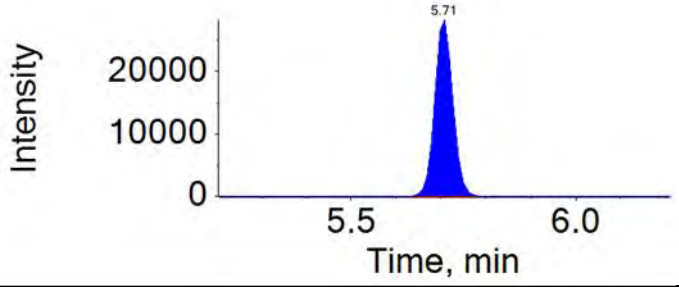
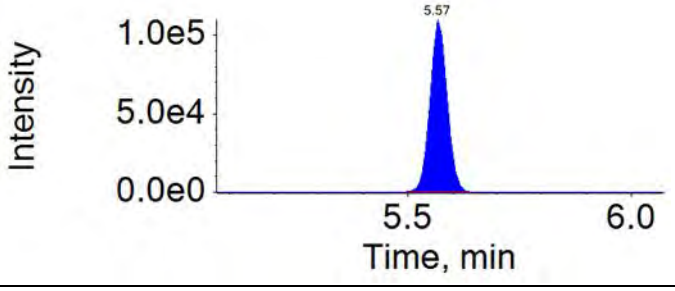
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

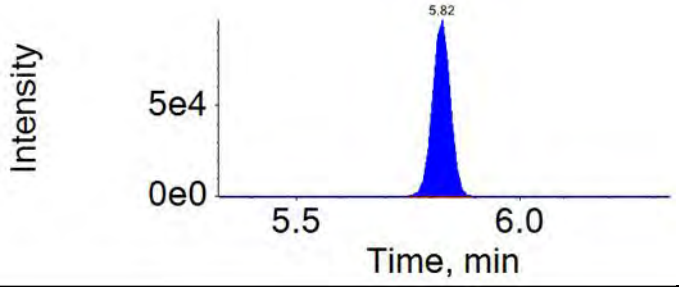
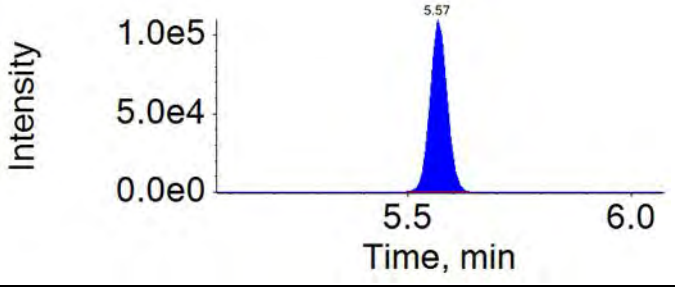
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

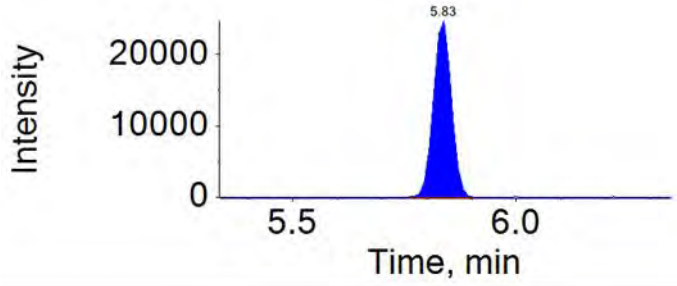
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

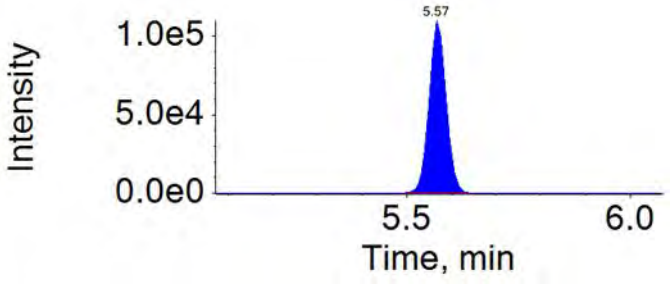
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

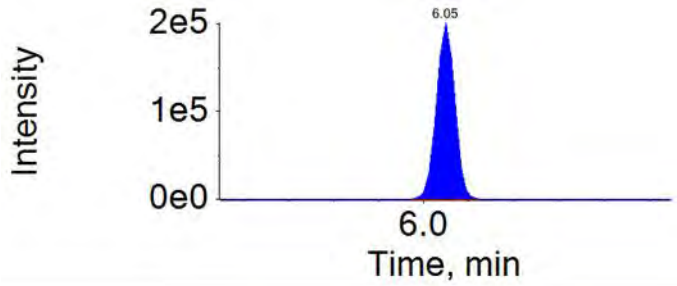
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

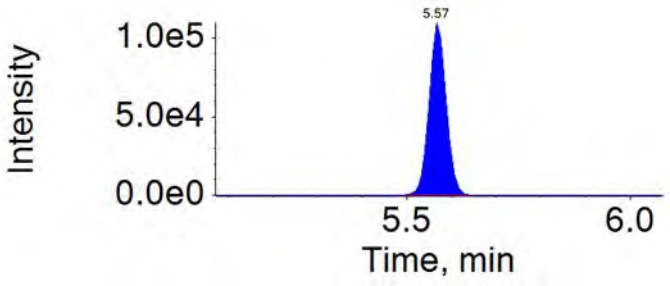
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



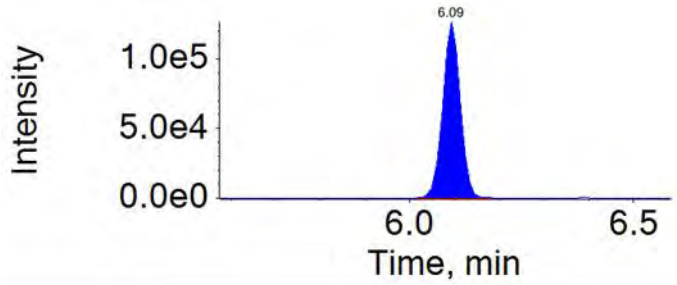


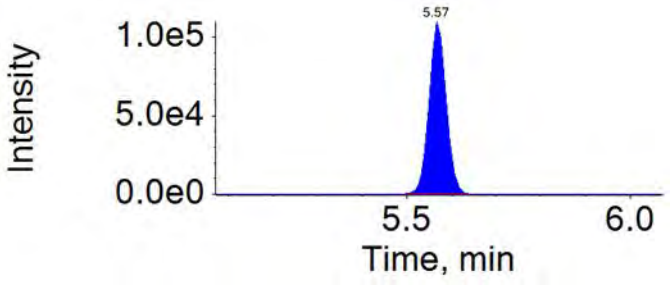
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



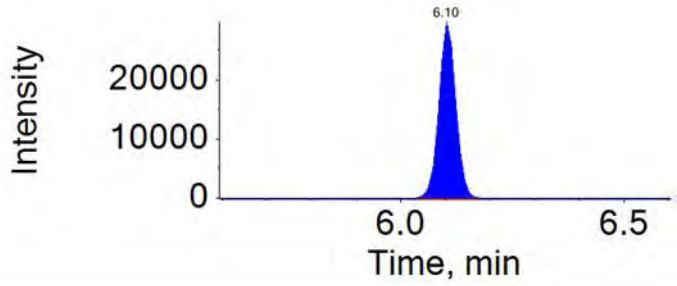


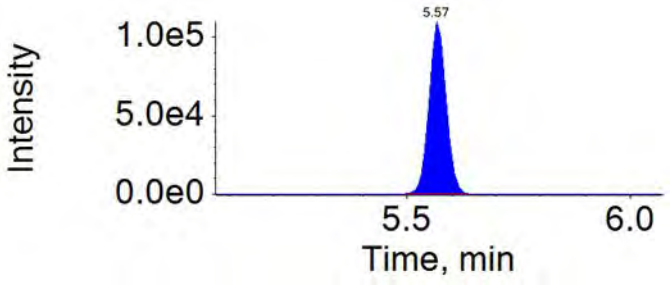
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



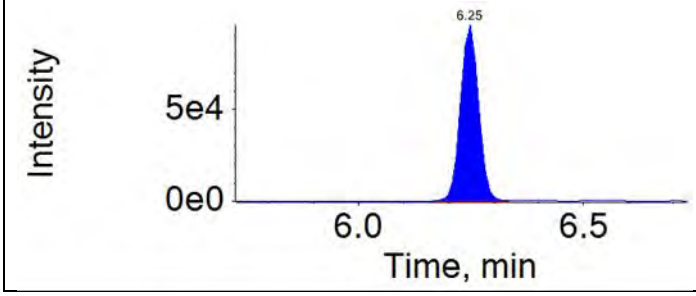


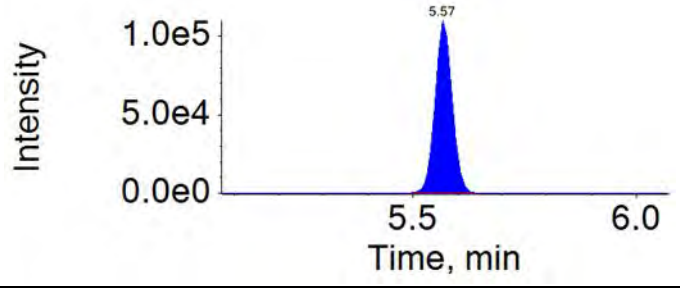
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

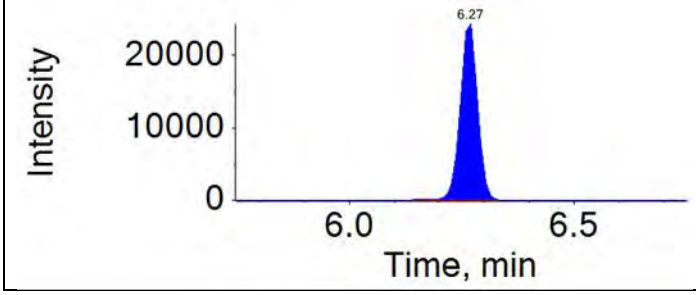
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

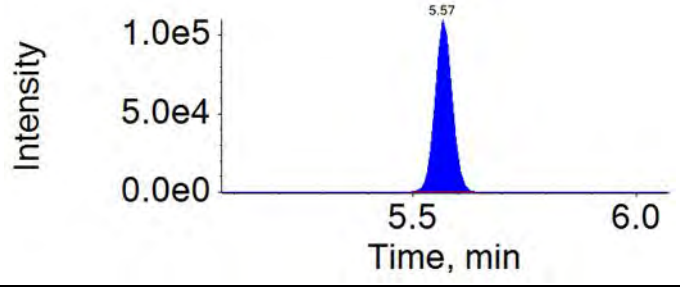
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



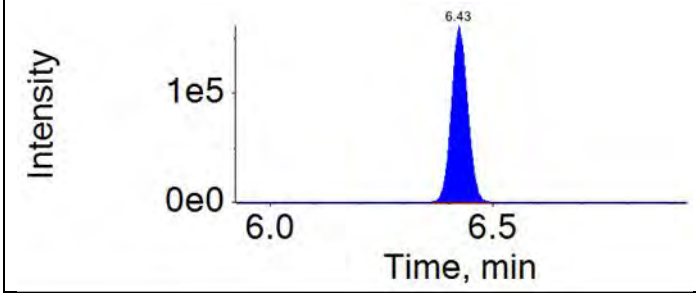


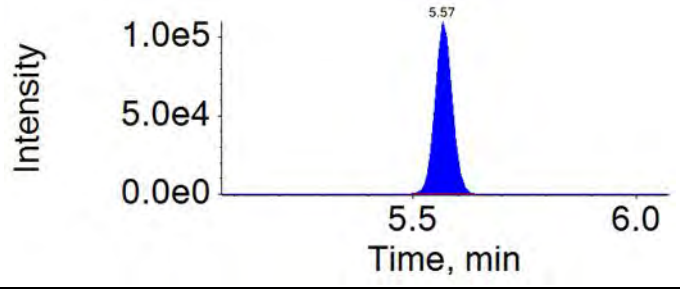
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



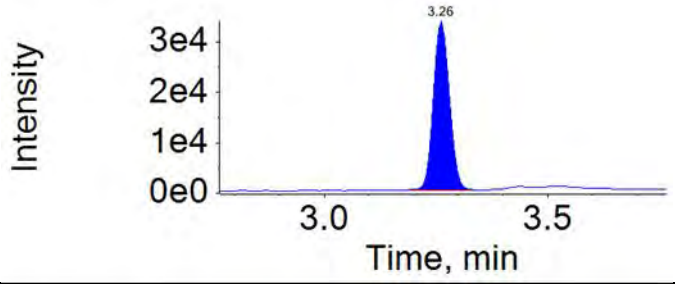


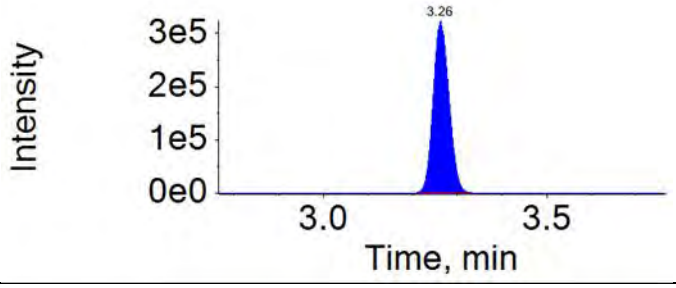
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

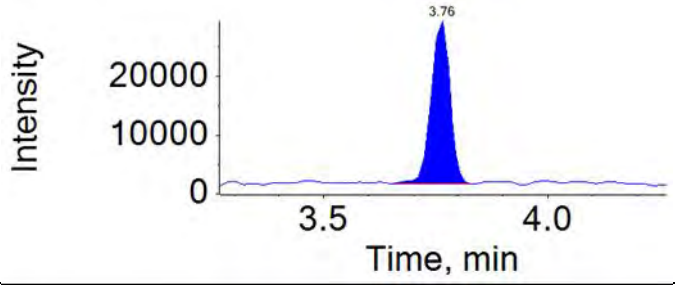
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

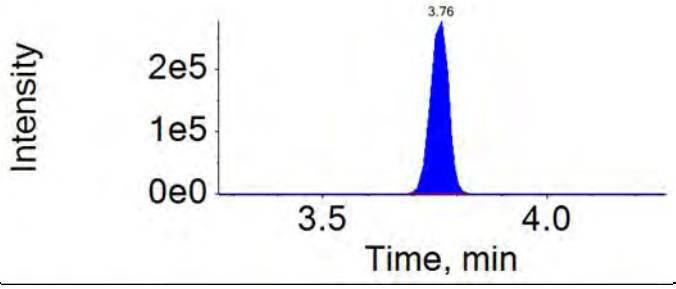
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



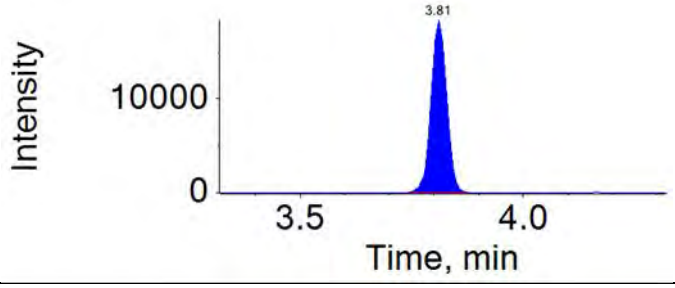


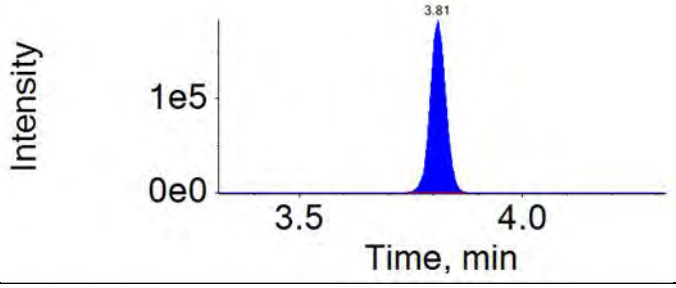
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



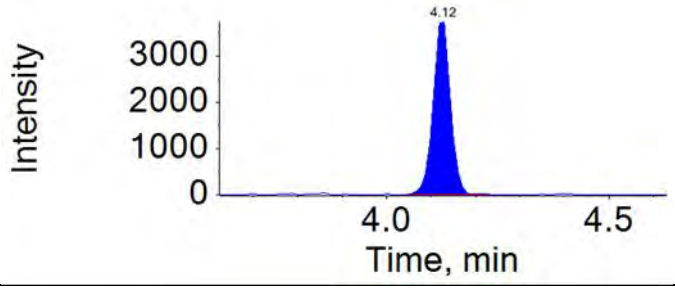


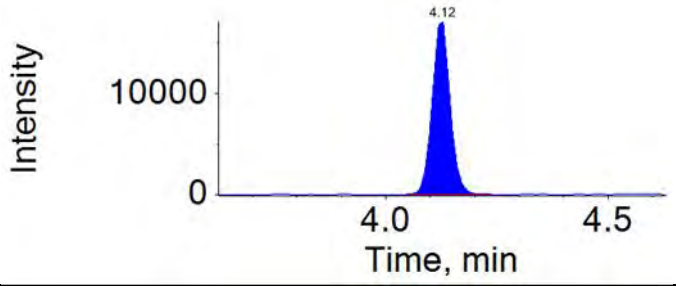
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



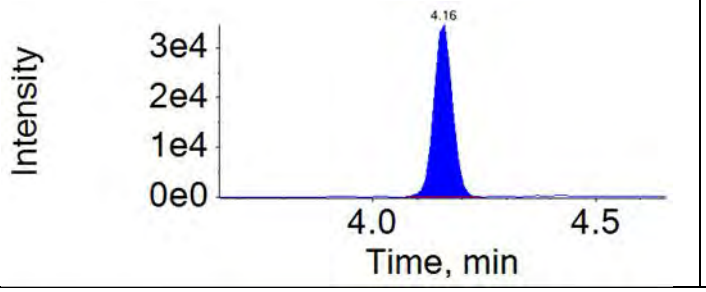


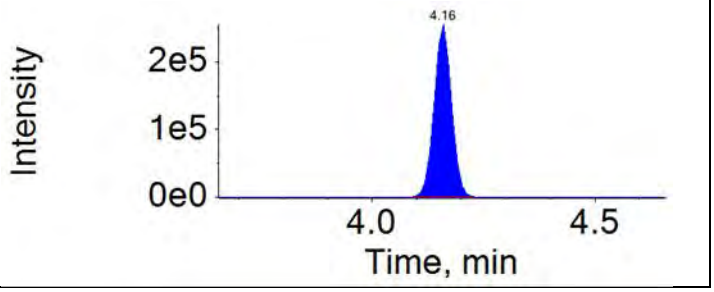
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

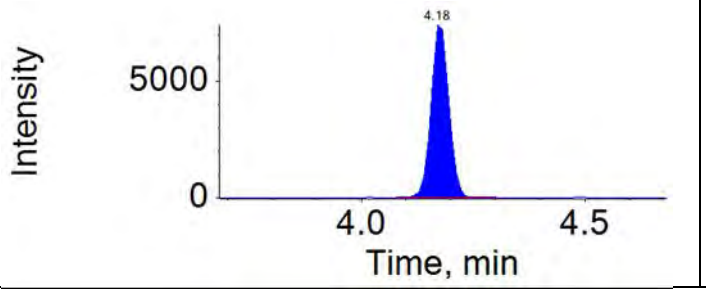
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

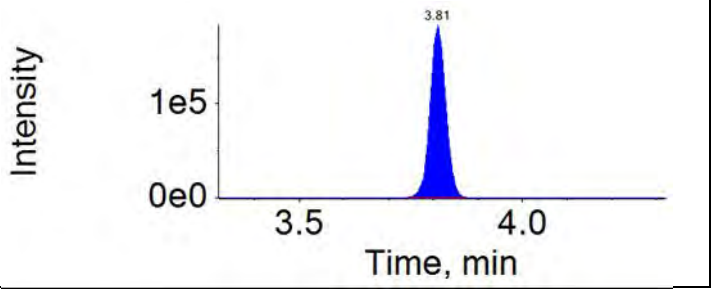
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



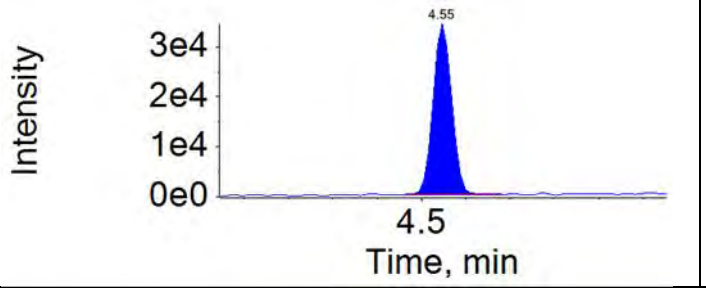


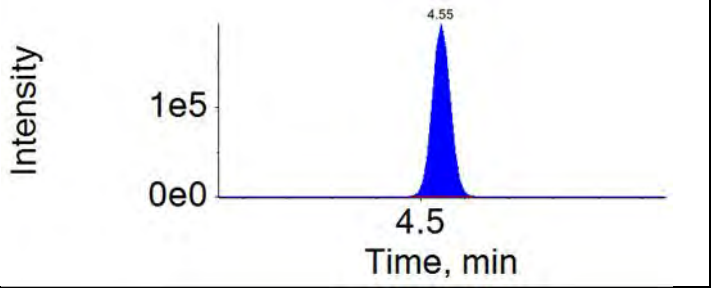
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



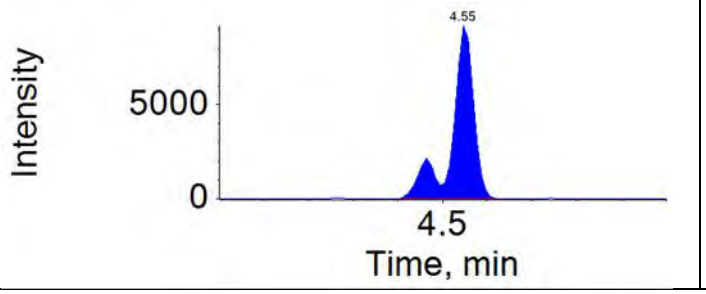


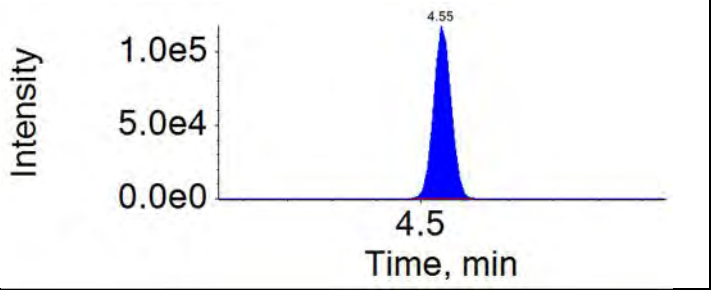
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

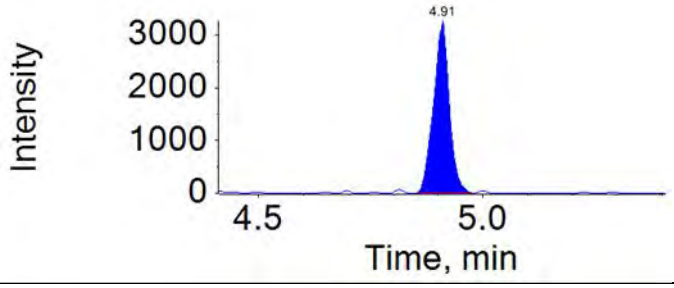
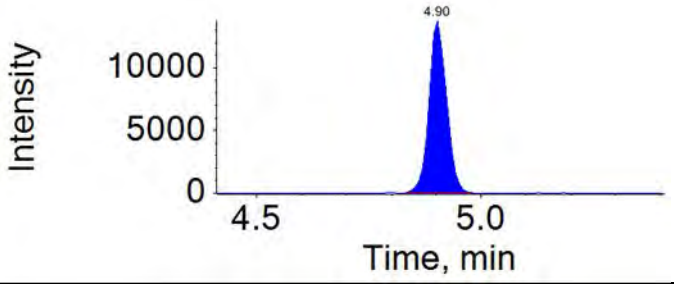


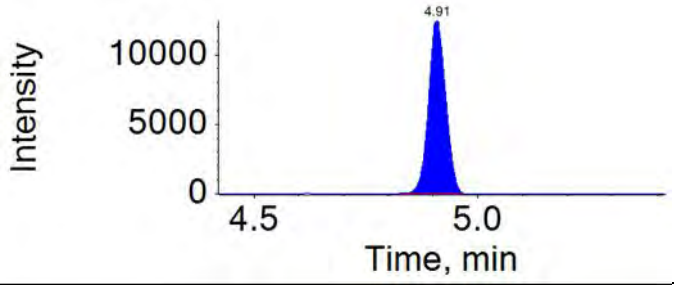
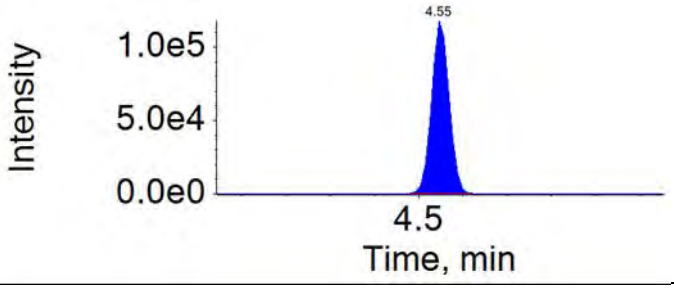


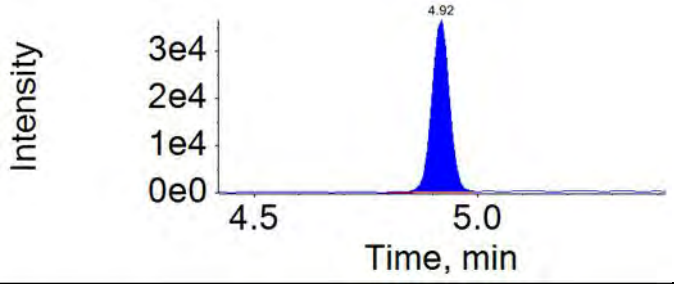
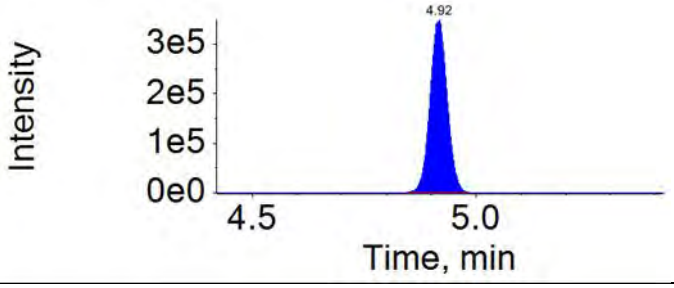
APPROVED
By JPT at 10:19 am, 11/14/18

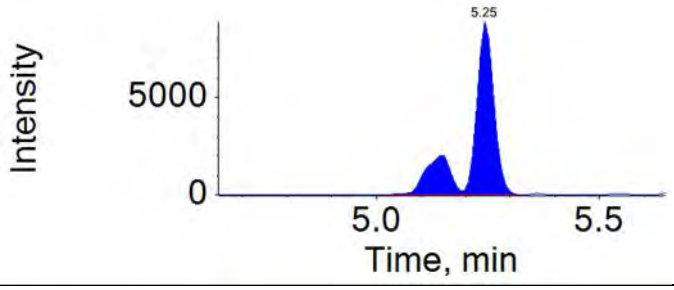
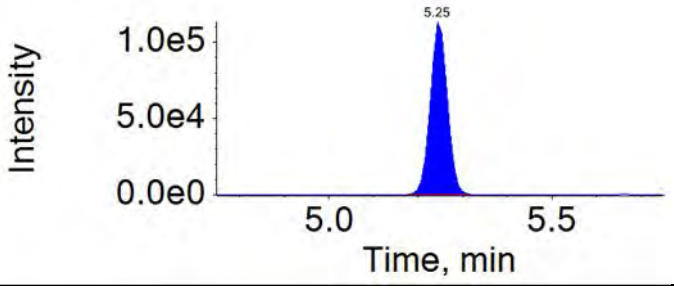
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

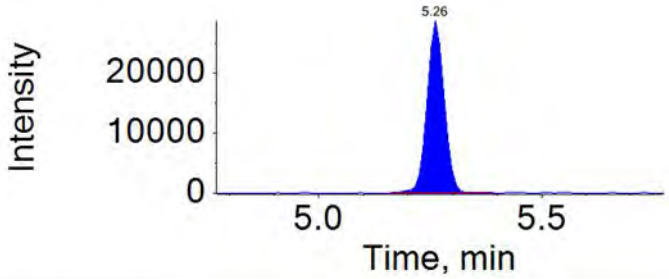
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

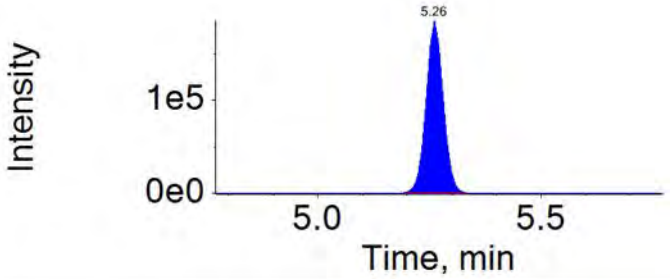
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

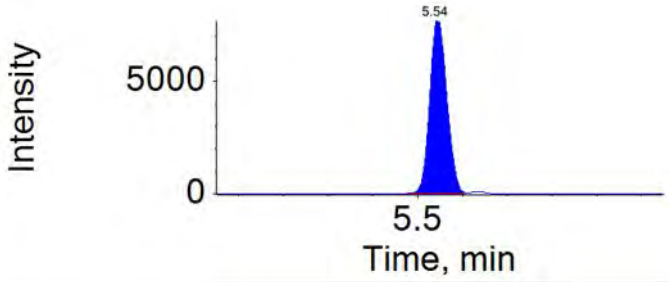
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

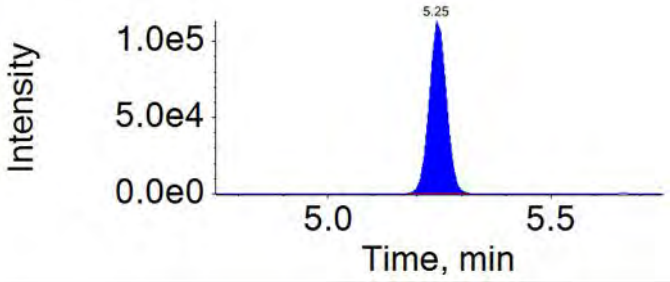
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



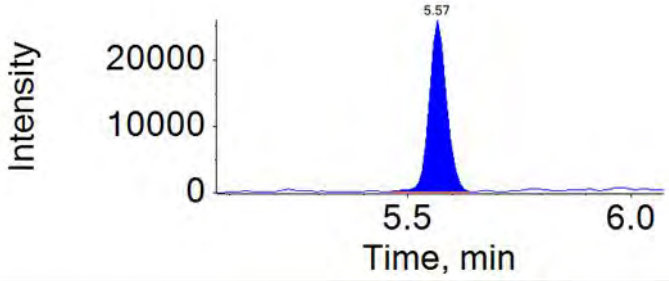


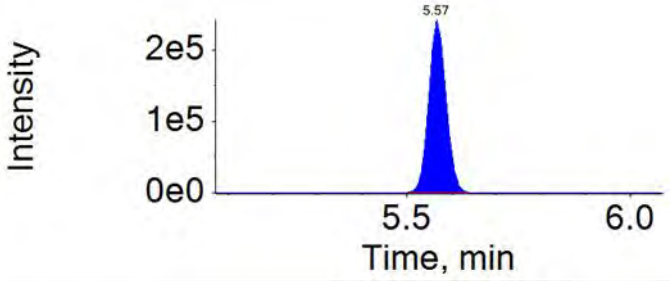
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



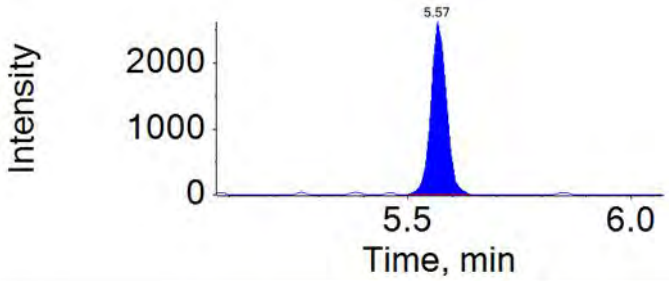


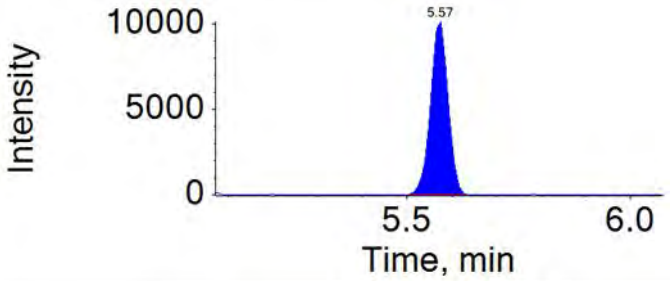
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



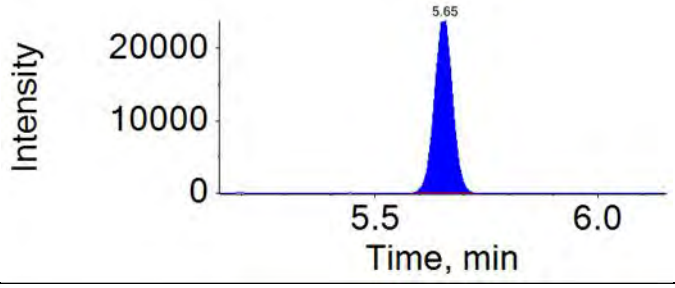


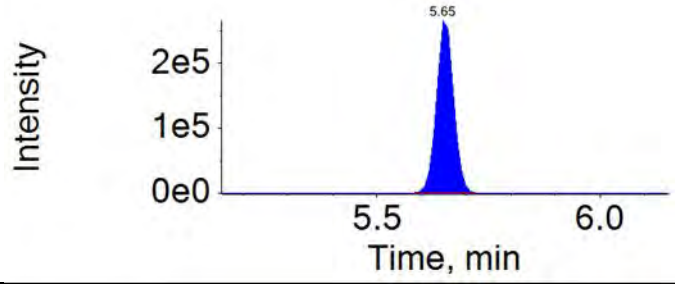
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

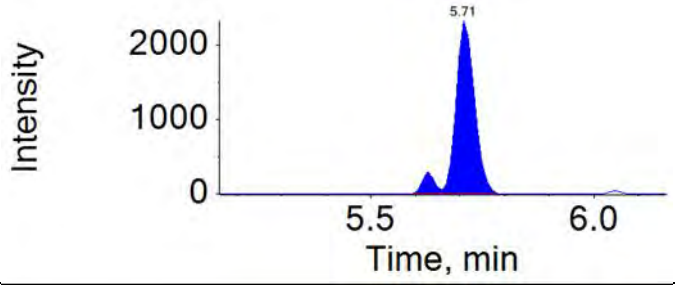
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

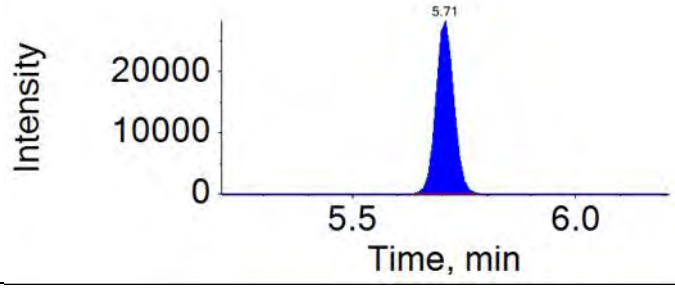
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



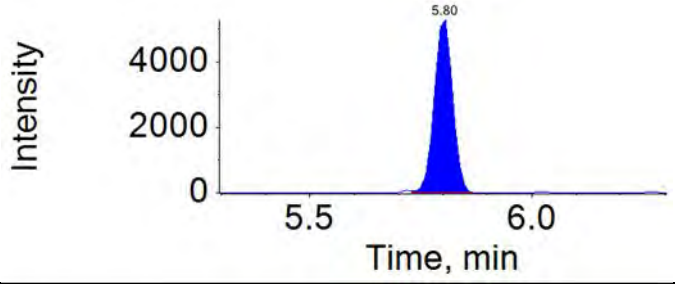


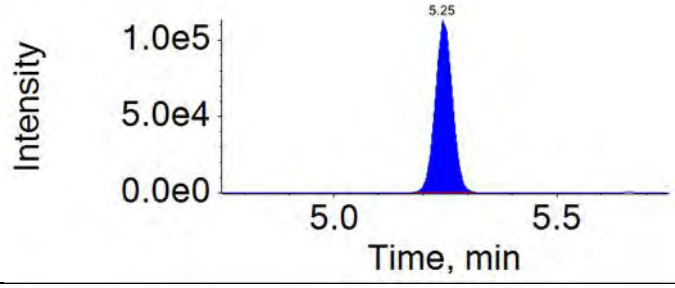
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



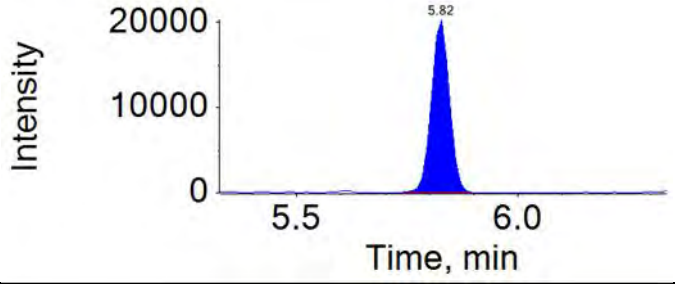


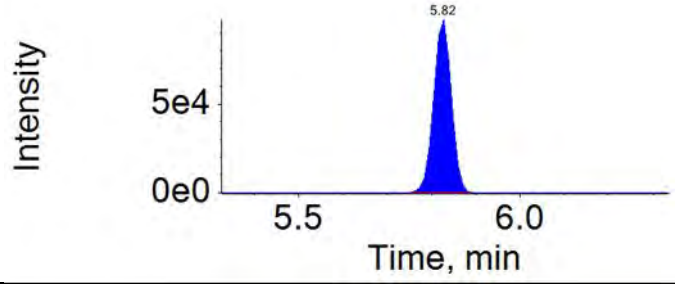
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



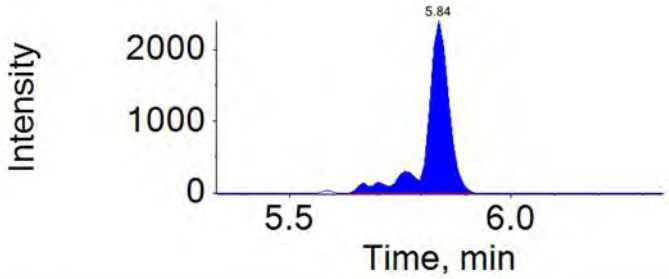


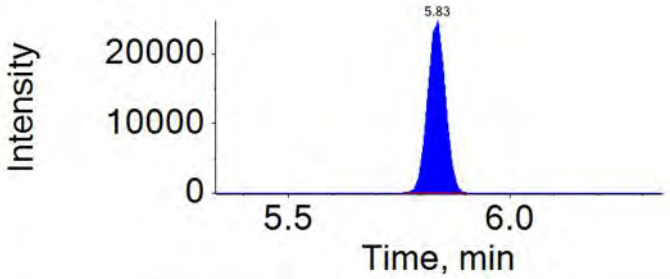
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

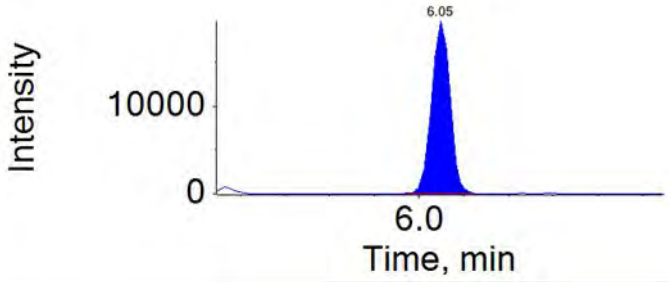
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

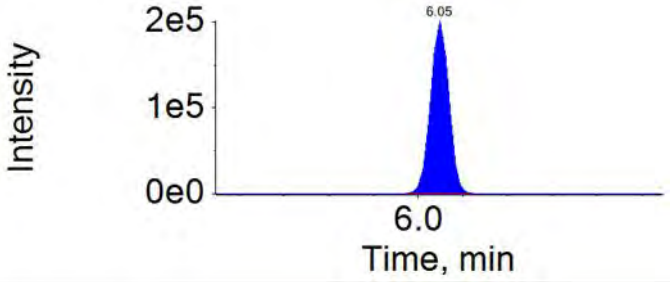
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



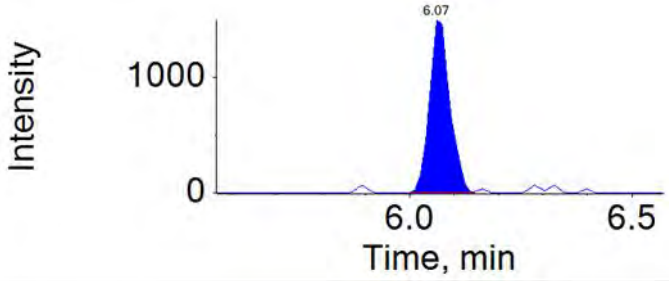


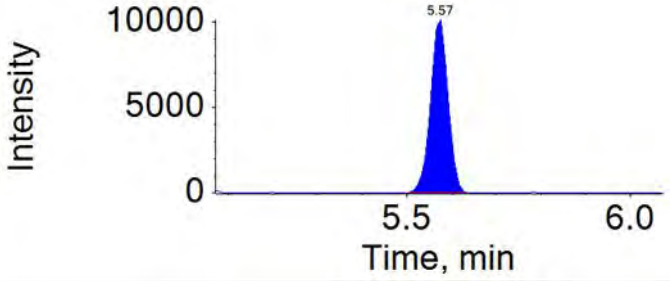
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



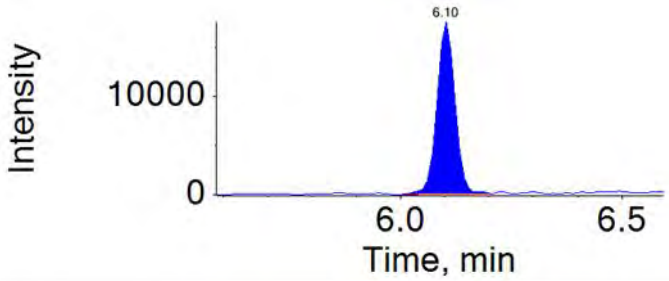


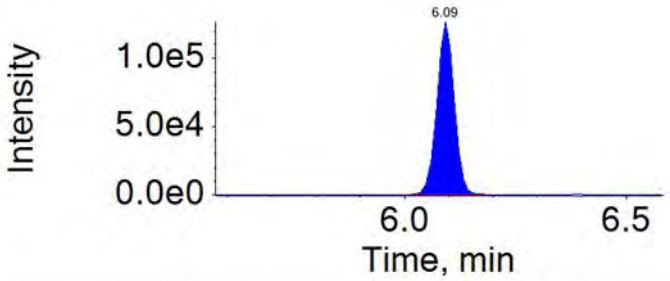
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



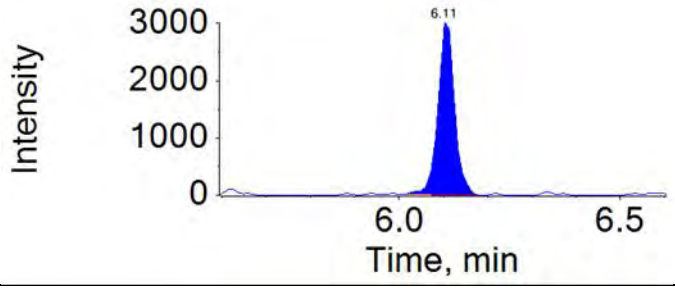


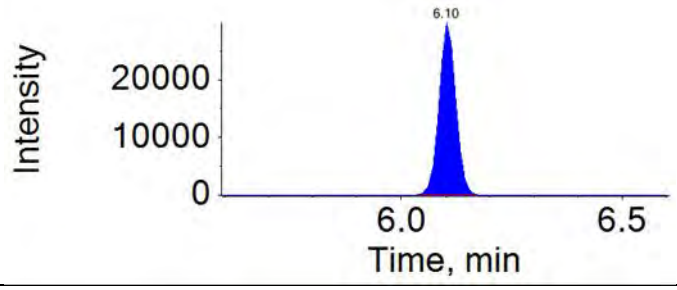
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

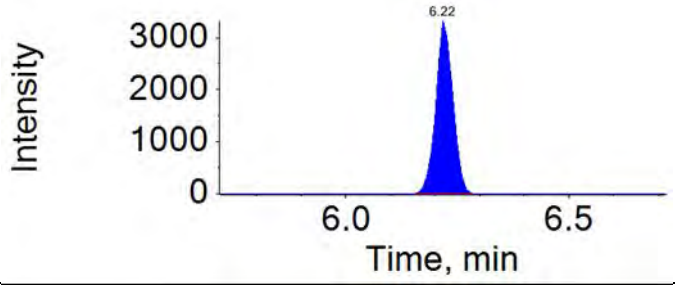
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

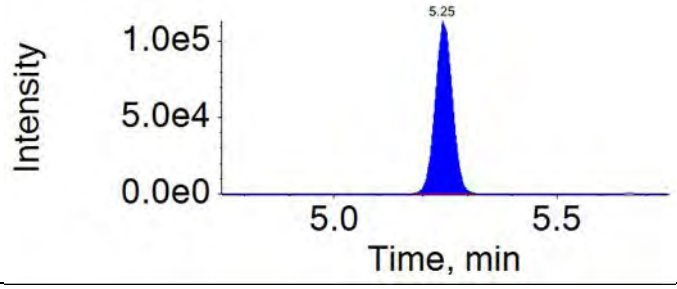
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



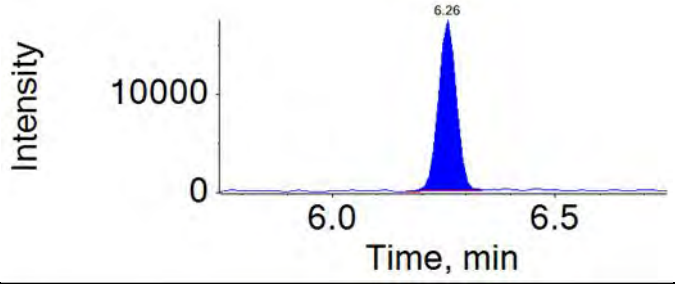


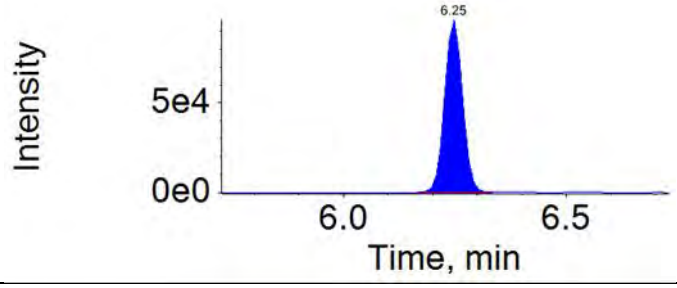
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



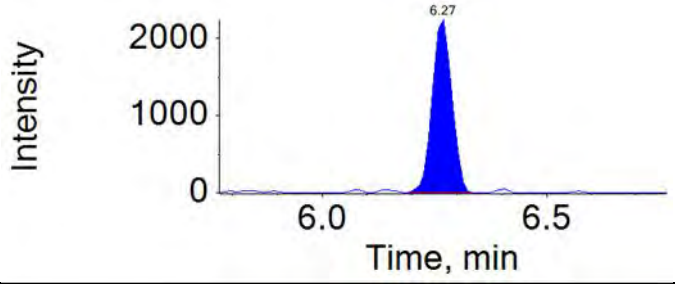


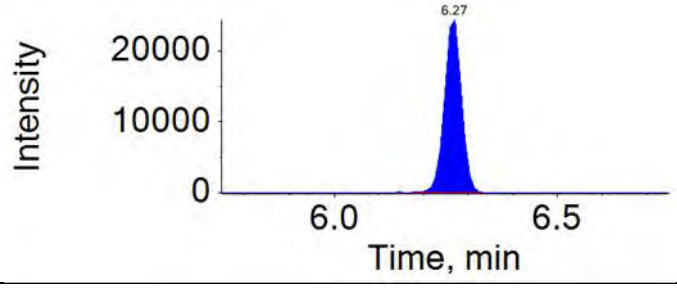
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



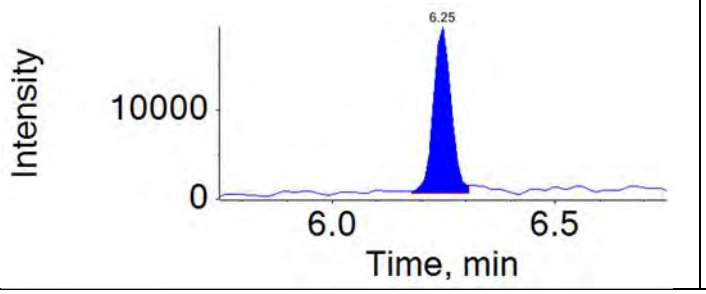


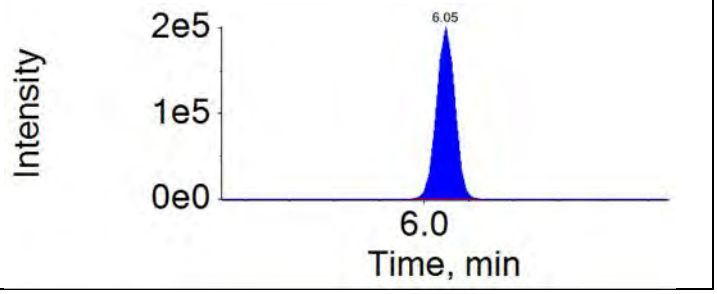
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

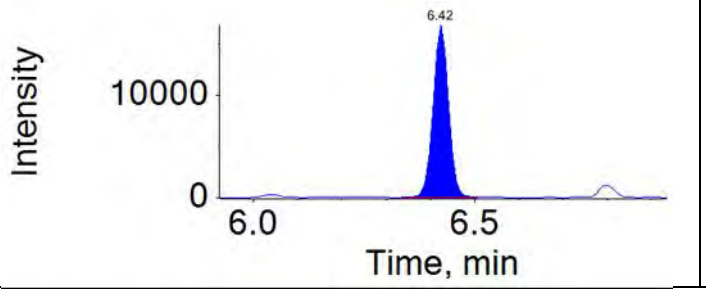
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

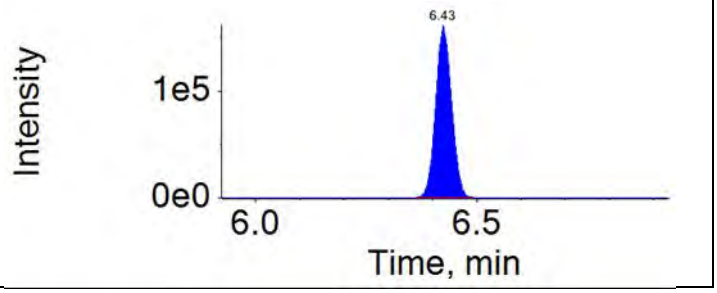
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



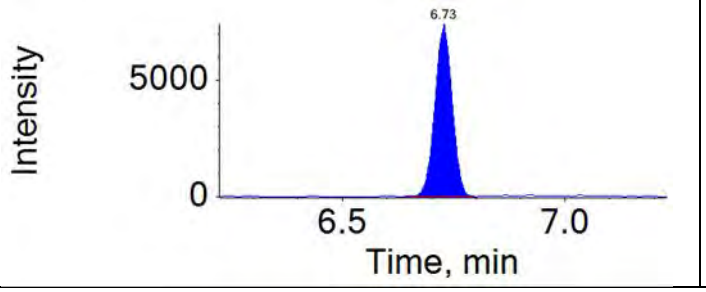


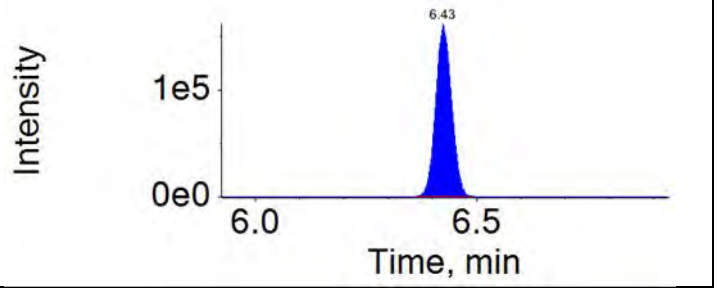
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



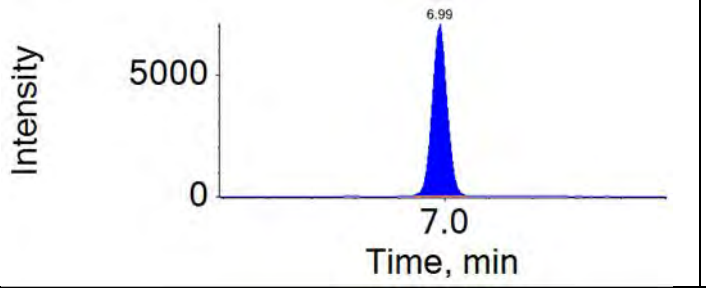


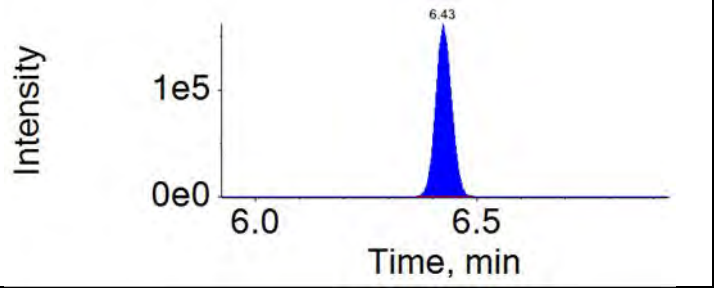
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



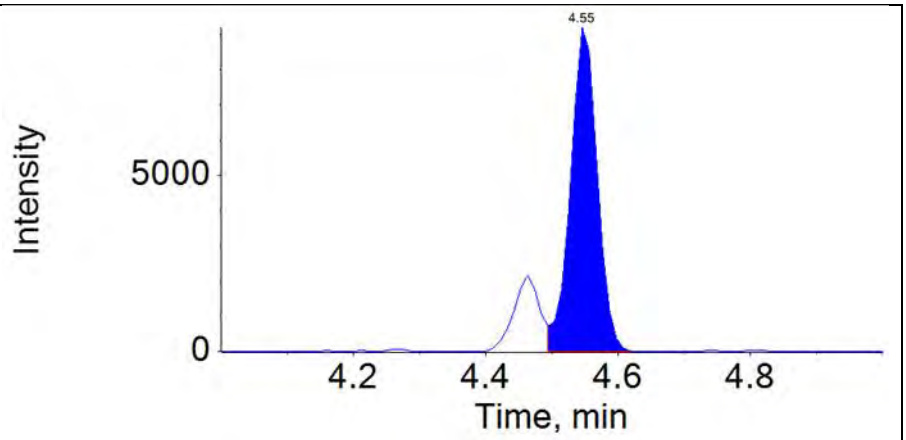


APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

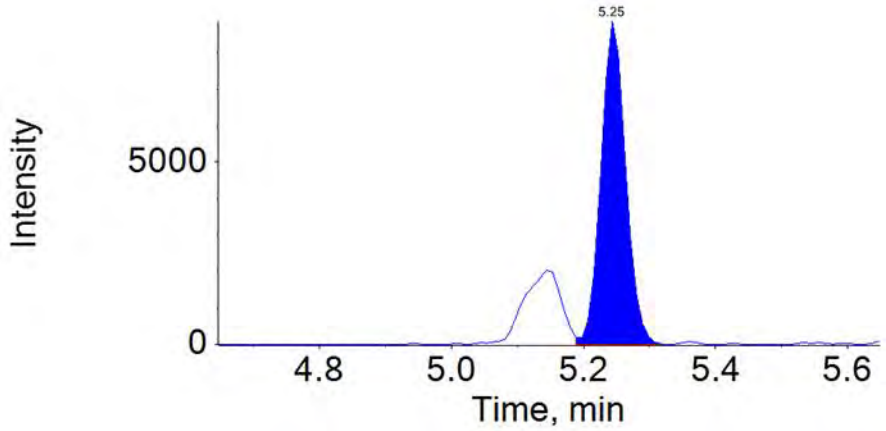
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
25923.5
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



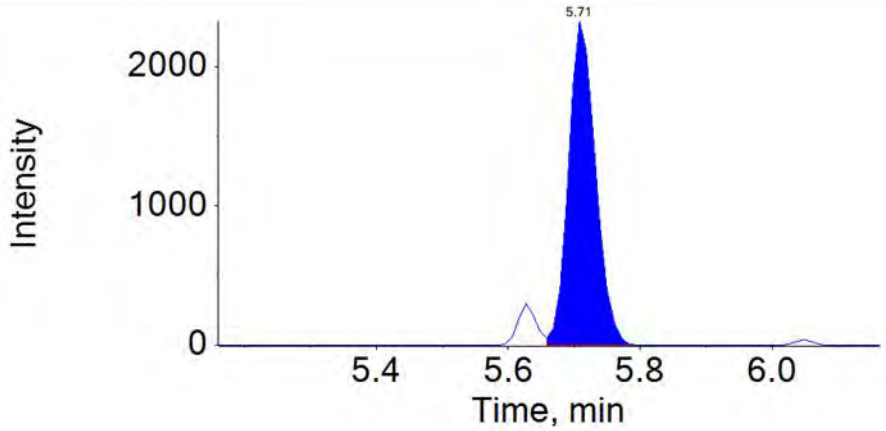
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
23087.5
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
6618.0
Mass Range:
570.0 / 419.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



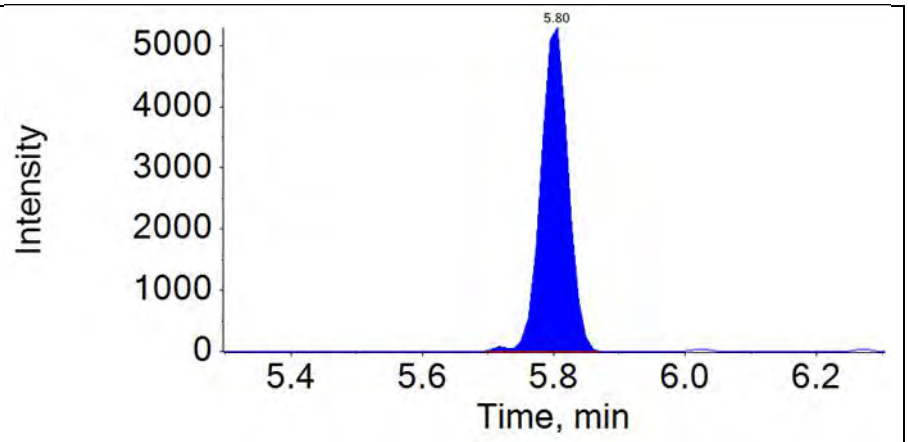
Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

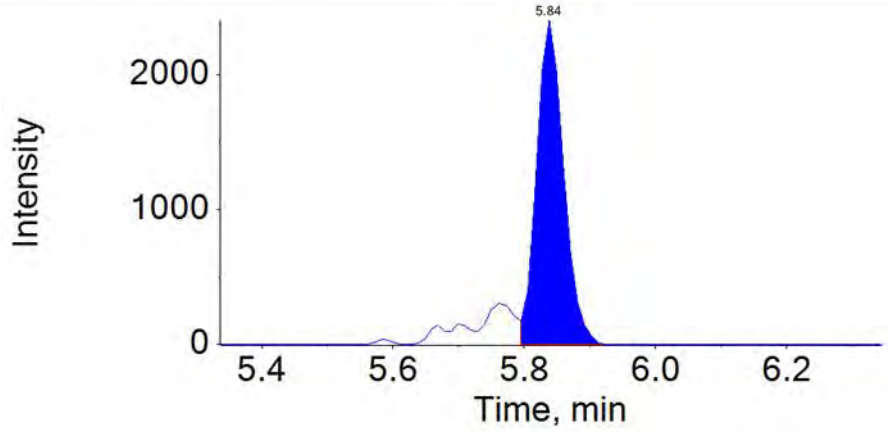
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDS
RT (min.):
5.80
Peak Area:
15376.9
Mass Range:
599.0 / 80.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



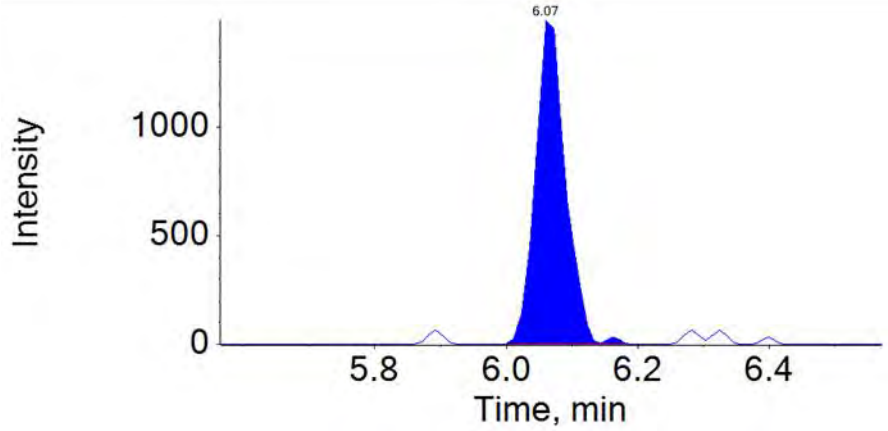
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
6862.7
Mass Range:
584.0 / 419.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
10:2-FTS
RT (min.):
6.07
Peak Area:
4792.1
Mass Range:
627.0 / 607.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



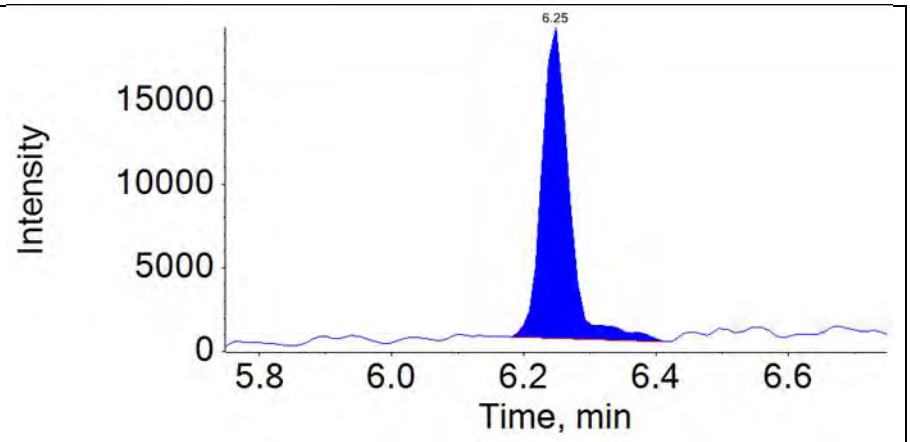
Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

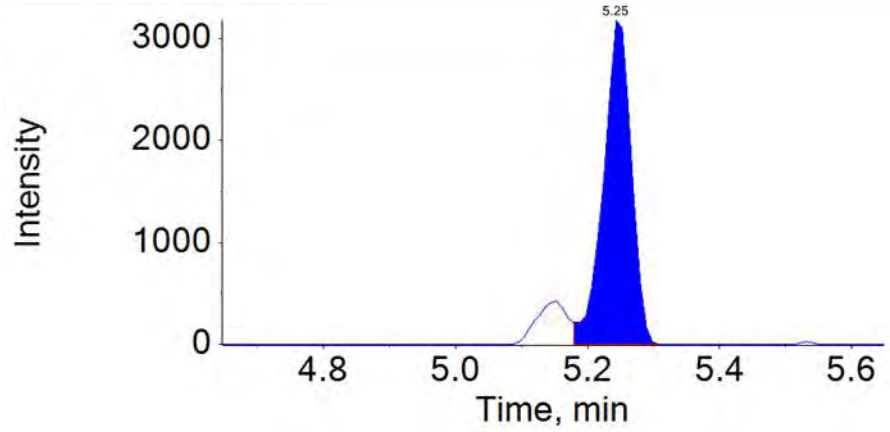
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA
RT (min.):
6.25
Peak Area:
54052.6
Mass Range:
663.0 / 619.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



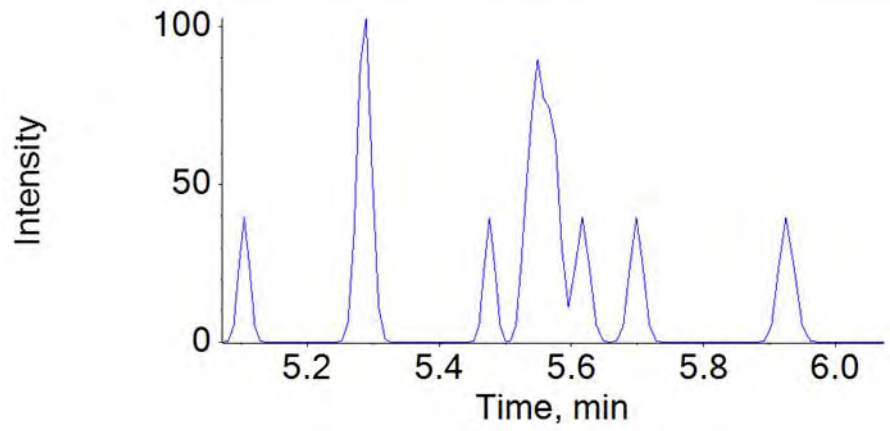
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
9405.7
Mass Range:
499.0 / 99.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
513.0 / 169.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



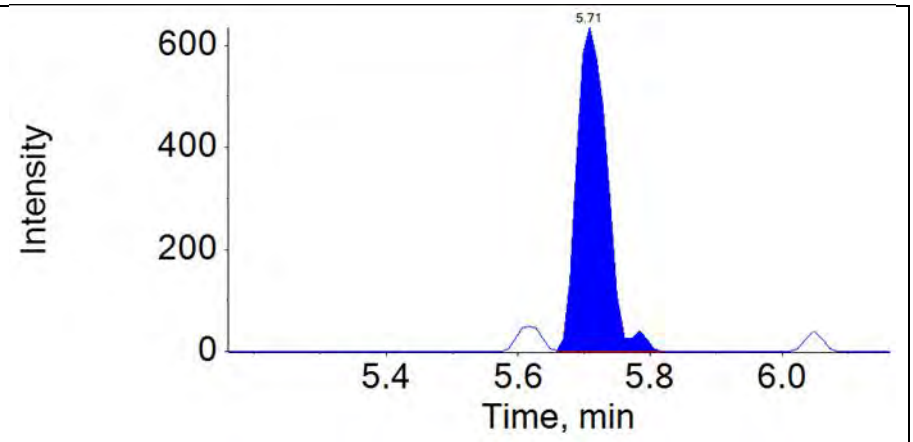
Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

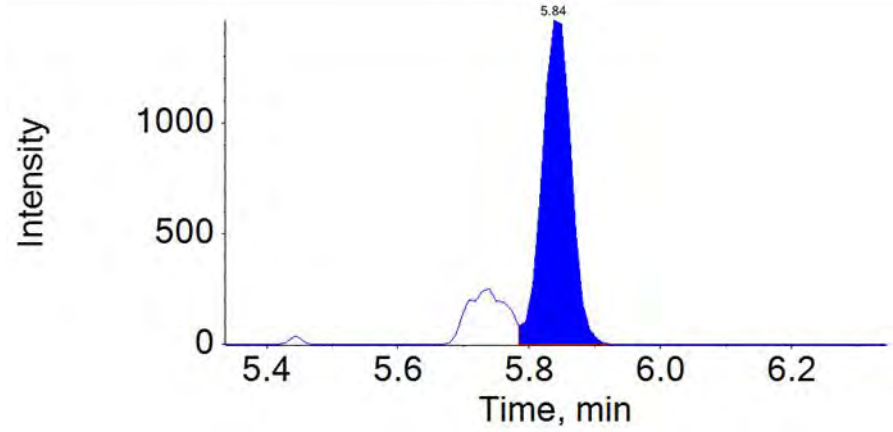
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
2040.2
Mass Range:
570.0 / 483.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



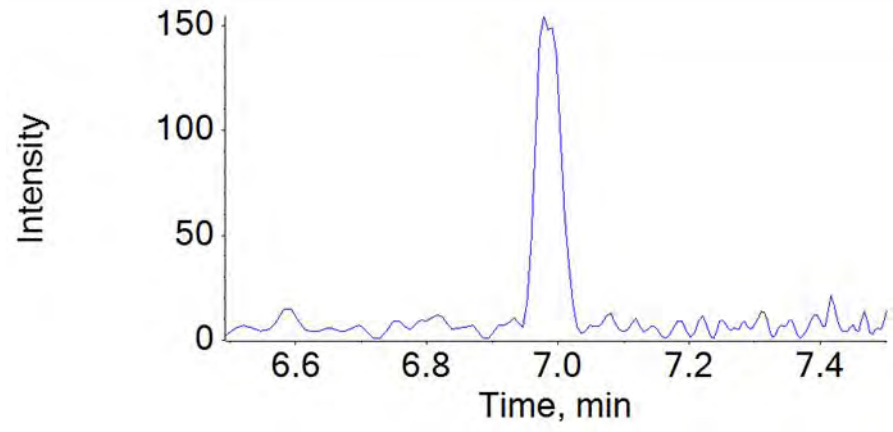
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
4549.6
Mass Range:
584.0 / 526.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFODA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
913.0 / 169.0
File Name:
18NOV13D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM

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

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Ion Ratio Report

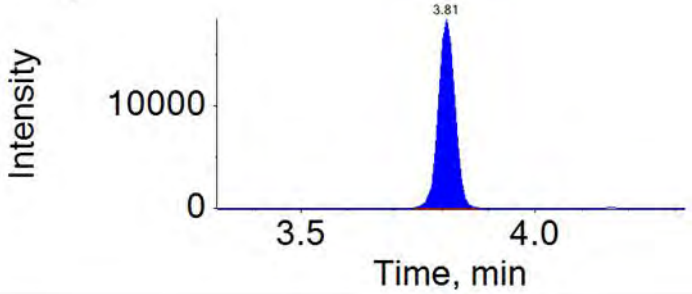
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-70.wiff

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	44748.4	A	N/A	1.0000			
PFBS_2	3.81	1.00	17621.4	A	N/A	0.3938	8	50	
4:2-FTS	4.12	1.00	10227.9	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	6541.6	A	N/A	0.6396	-4	50	
PFHxA	4.16	1.00	99315.8	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1080.0	A	N/A	0.0109	-8	50	
PFPeS	4.18	1.10	20643.5	A	N/A	1.0000			
PFPeS_2	4.18	1.10	11156.2	A	N/A	0.5404	4	50	
PFHpA	4.55	1.00	100331.5	A	N/A	1.0000			
PFHpA_2	4.55	1.00	4955.0	A	N/A	0.0494	-12	50	
PFHxS	4.55	1.00	31708.2	M	N/A	1.0000			
PFHxS_2	4.55	1.00	10583.6	A	N/A	0.3338	10	50	
6:2-FTS	4.91	1.00	7892.9	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	5118.0	A	N/A	0.6484	-1	50	
PFHpS	4.91	1.08	33549.6	A	N/A	1.0000			
PFHpS_2	4.91	1.08	13576.8	A	N/A	0.4047	0	50	
PFOA	4.92	1.00	99271.9	A	N/A	1.0000			
PFOA_2	4.91	1.00	5171.9	A	N/A	0.0521	-8	50	
PFOS	5.25	1.00	31066.6	M	N/A	1.0000			
PFOS_2	5.25	1.00	10777.6	M	N/A	0.3469	34	50	
PFNA	5.26	1.00	76669.8	A	N/A	1.0000			
PFNA_2	5.26	1.00	2211.6	A	N/A	0.0288	26	50	
PFNS	5.54	1.06	20590.8	A	N/A	1.0000			
PFNS_2	5.55	1.06	9151.7	A	N/A	0.4445	-7	50	
PFDA	5.57	1.00	68910.7	A	N/A	1.0000			
PFDA_2	5.56	1.00	259.0	M	N/A	0.0038	-53	50	OOS
8:2-FTS	5.57	1.00	6302.1	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	2753.9	A	N/A	0.4370	-35	50	
NMeFOSAA	5.71	1.00	7189.6	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	2103.2	M	N/A	0.2925	38	50	
PFDS	5.80	1.11	15267.4	M	N/A	1.0000			
PFDS_2	5.80	1.11	6667.0	A	N/A	0.4367	-14	50	
PFUnDA	5.82	1.00	57084.2	A	N/A	1.0000			
PFUnDA_2	5.84	1.00	584.1	A	N/A	0.0102	146	50	OOS
NEtFOSAA	5.84	1.00	8326.9	M	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	5605.2	M	N/A	0.6731	16	50	
PFDoDA	6.05	1.00	56287.6	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	1236.4	A	N/A	0.0220	34	50	
10:2-FTS	6.07	1.09	4746.6	M	N/A	1.0000			
10:2-FTS_2	6.07	1.09	3956.4	A	N/A	0.8335	29	50	
PFTrDA	6.25	1.03	51310.9	M	N/A	1.0000			
PFTrDA_2	6.25	1.03	755.8	A	N/A	0.0147	60	50	OOS
PFTeDA	6.42	1.00	40355.1	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	381.4	A	N/A	0.0095	47	50	
PFHxDA	6.73	1.05	19659.8	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1092.3	A	N/A	0.0556	-18	50	
PFODA	6.99	1.09	16393.2	A	N/A	1.0000			
PFODA_2	6.98	1.09	424.7	M	N/A	0.0259	-4	50	

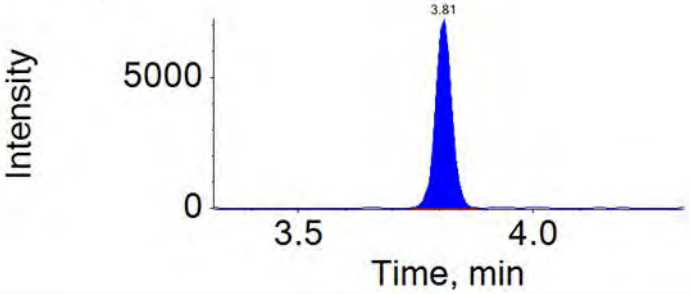
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

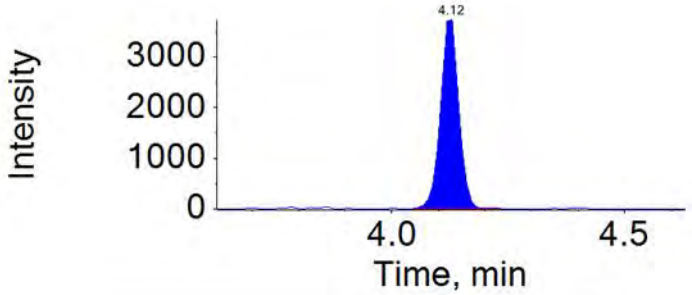
Component: PFBS
Primary Mass: 299.0 / 80.0



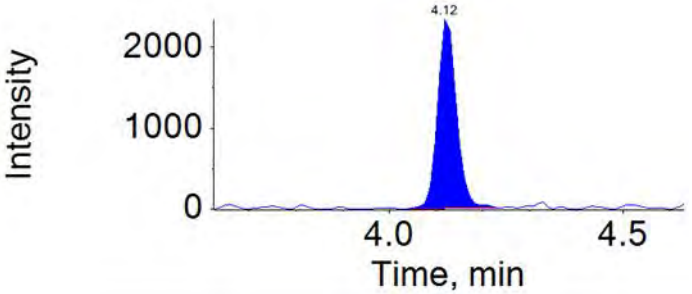
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



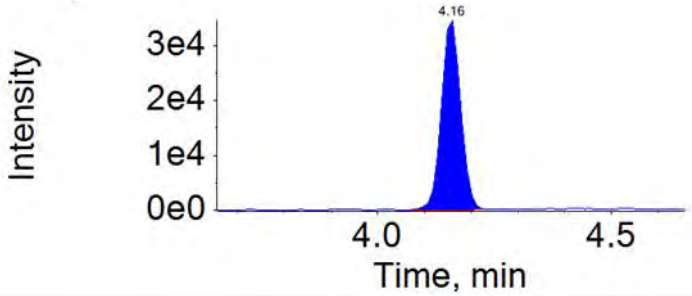
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



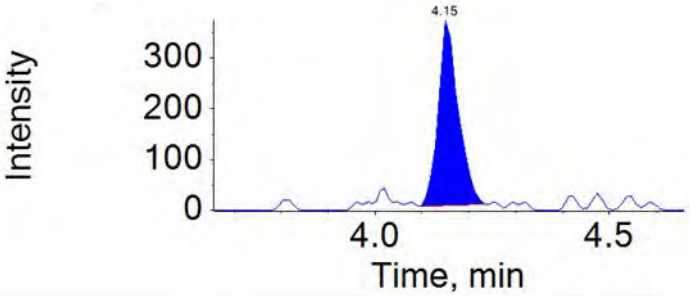
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



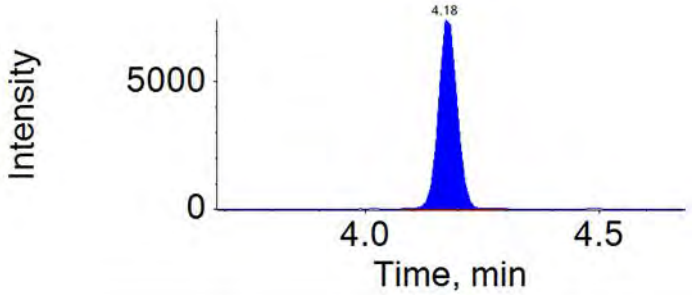
Component: PFHxA
Primary Mass: 313.0 / 269.0



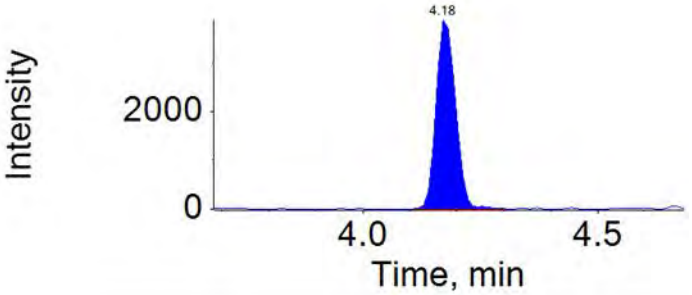
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



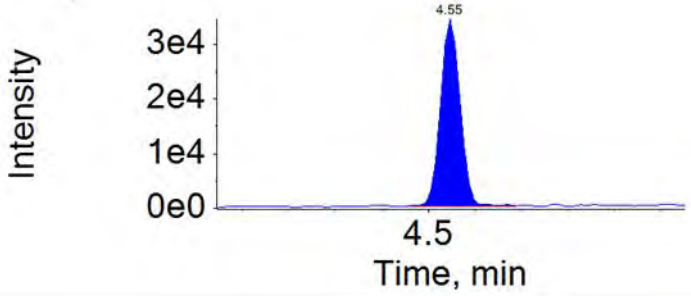
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



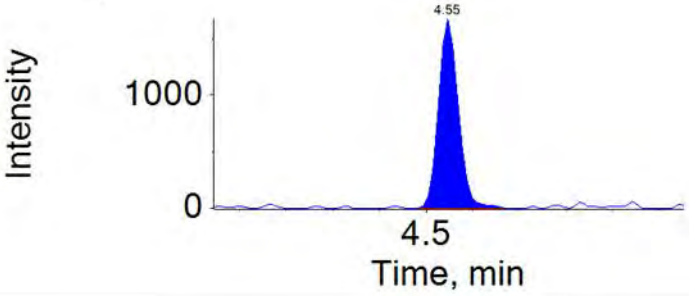
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

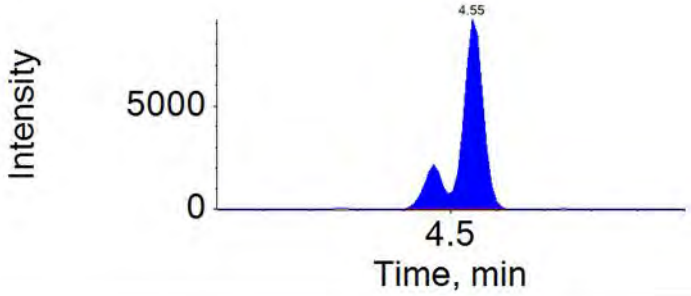
Component: PFHpA
Primary Mass: 363.0 / 319.0



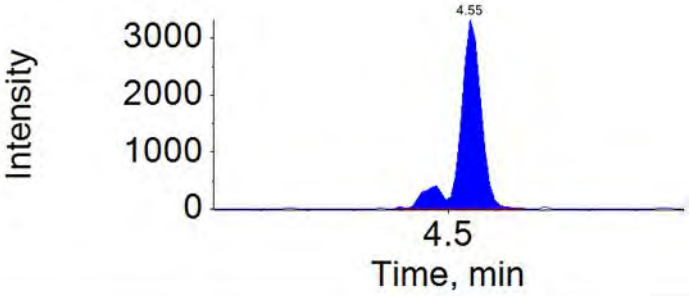
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



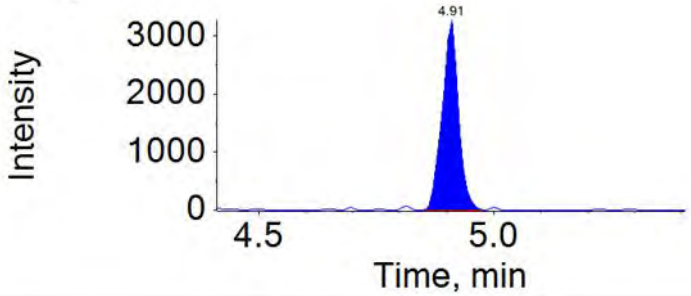
Component: PFHxS
Primary Mass: 399.0 / 80.0



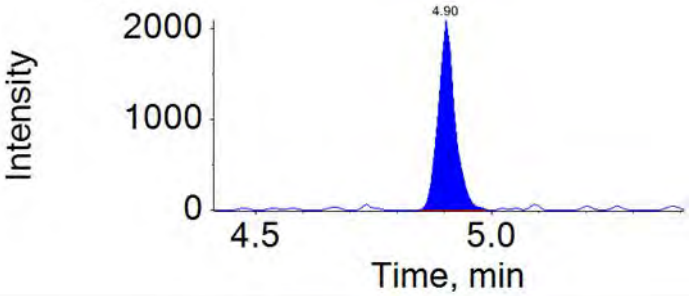
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



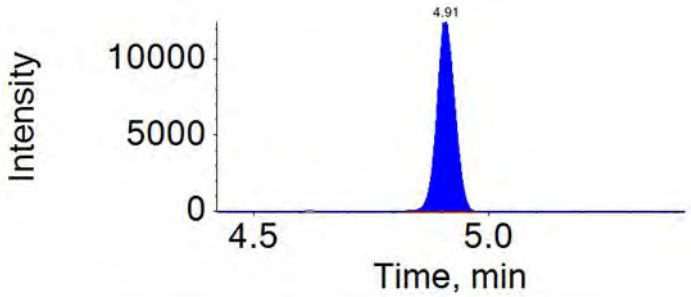
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



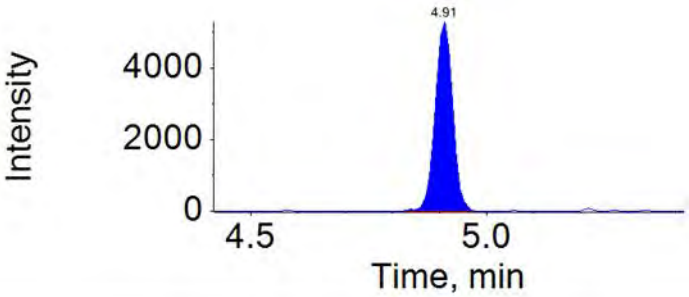
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



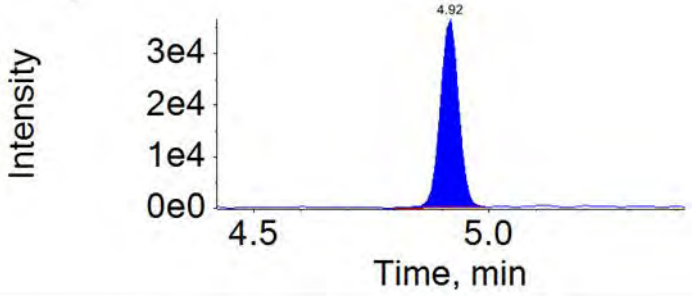
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



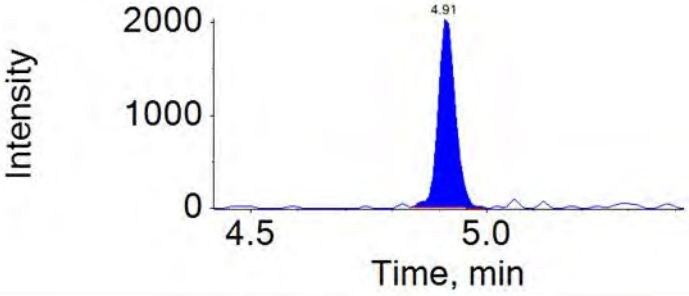
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

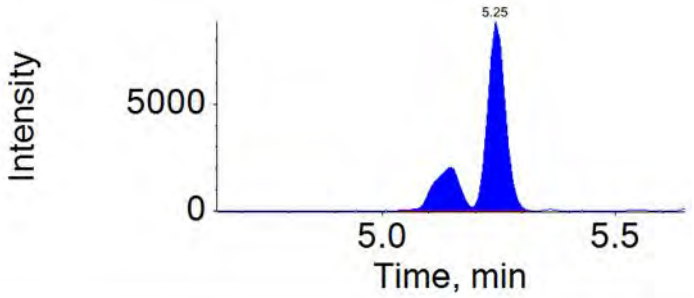
Component: PFOA
Primary Mass: 413.0 / 369.0



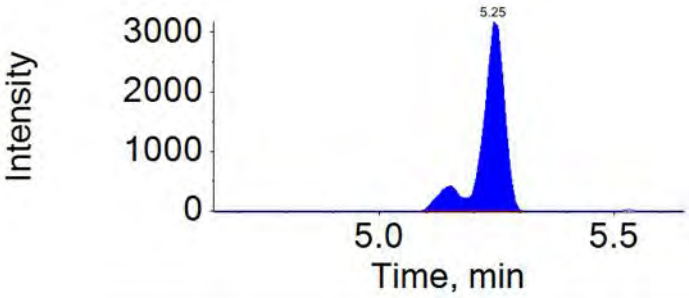
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



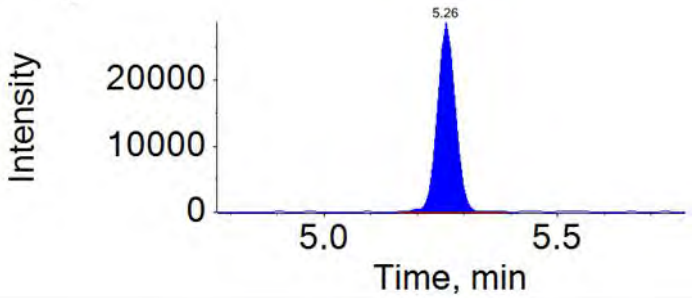
Component: PFOS
Primary Mass: 499.0 / 80.0



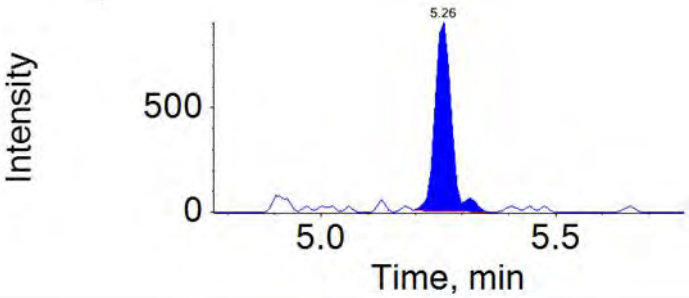
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



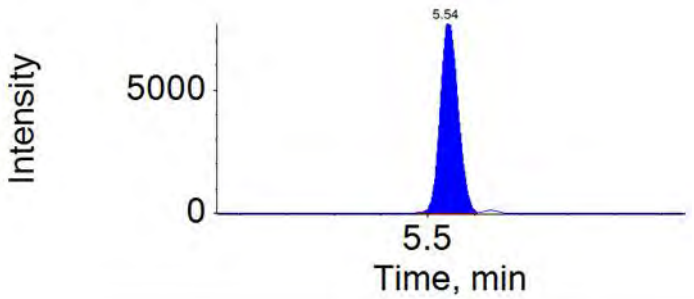
Component: PFNA
Primary Mass: 463.0 / 419.0



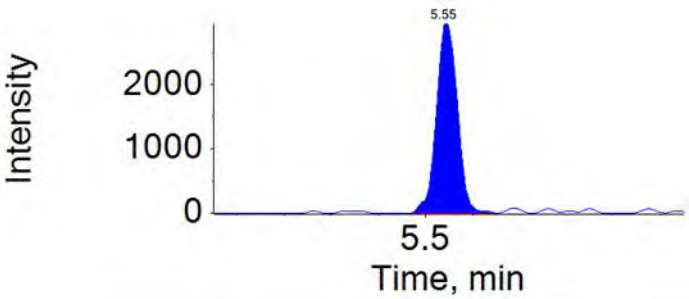
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



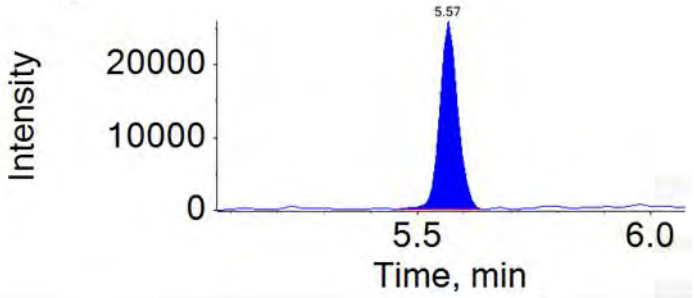
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



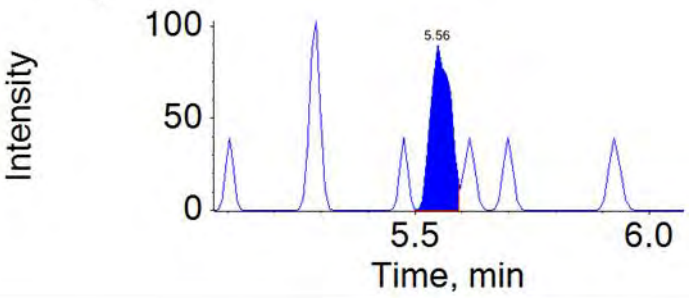
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

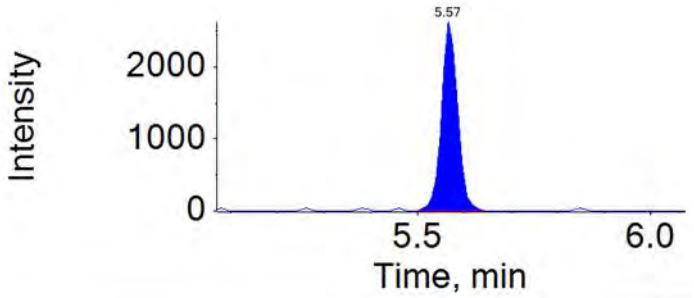
Component: PFDA
Primary Mass: 513.0 / 469.0



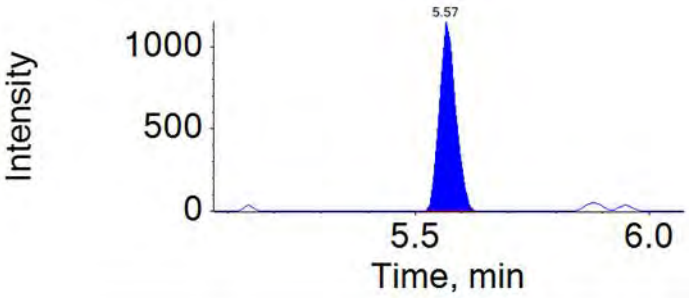
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



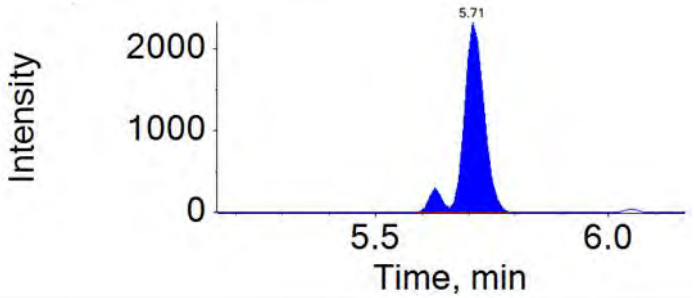
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



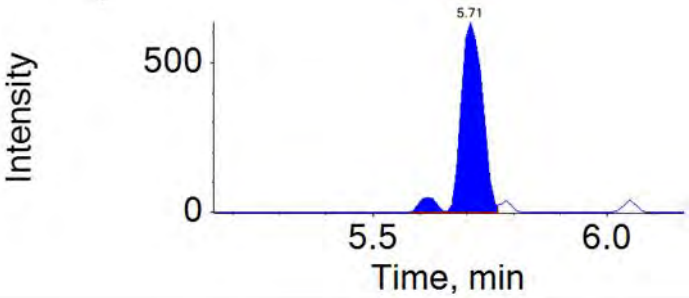
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



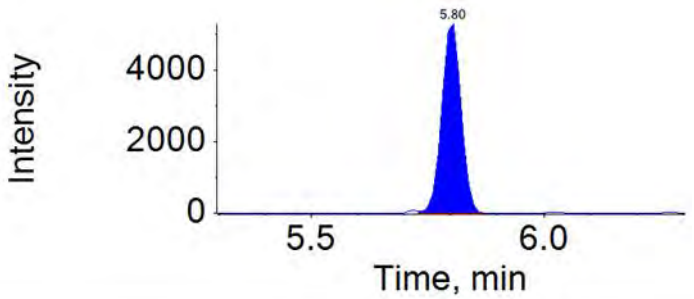
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



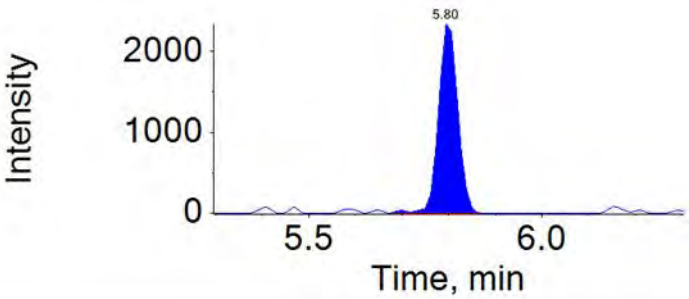
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



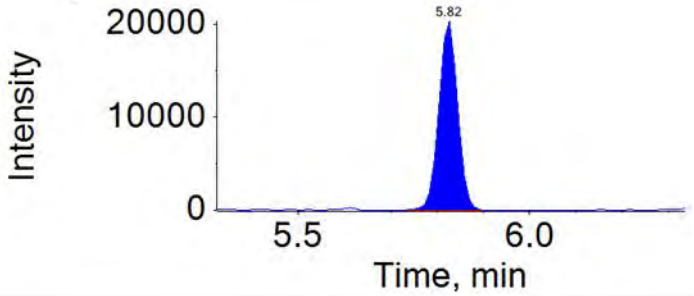
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



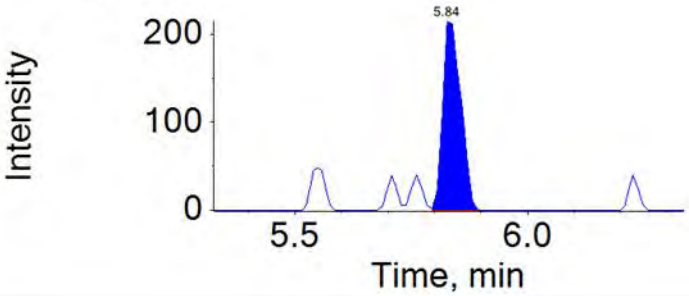
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

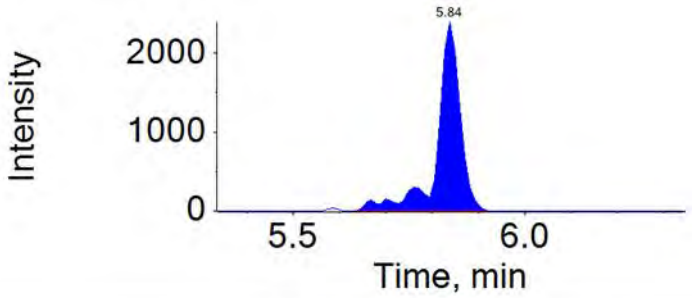
Component: PFUnDA
Primary Mass: 563.0 / 519.0



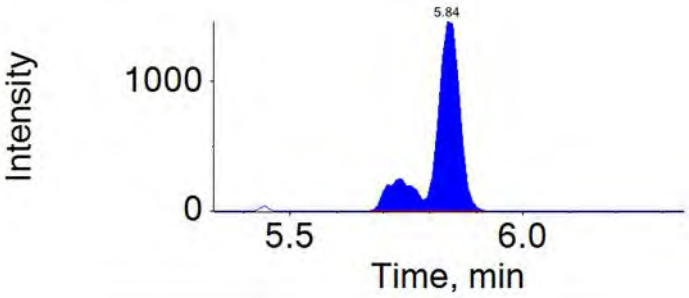
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



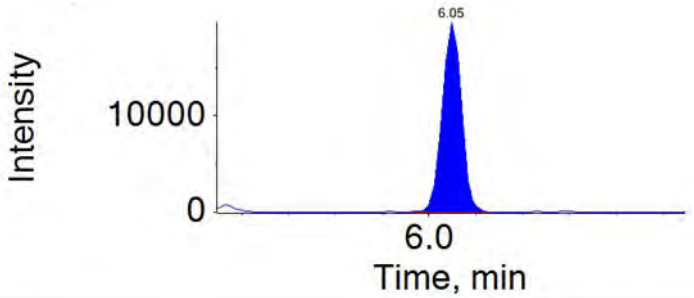
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



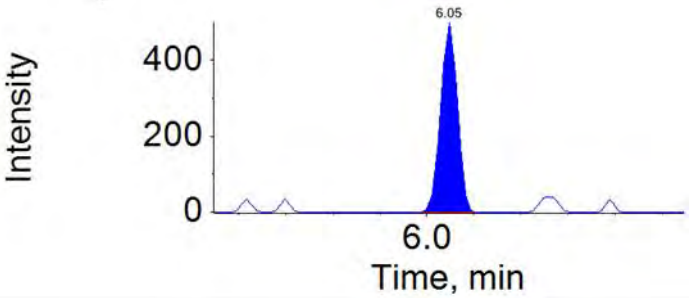
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



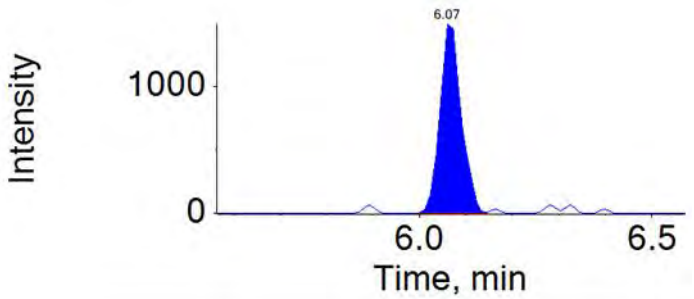
Component: PFDoDA
Primary Mass: 613.0 / 569.0



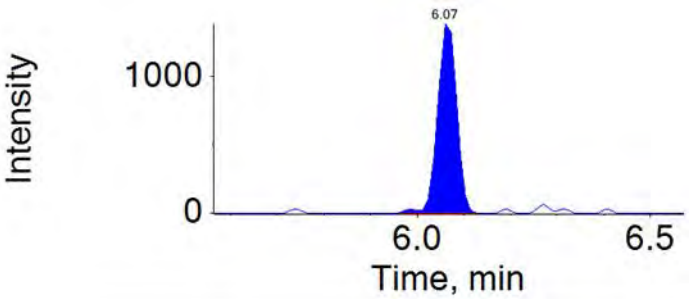
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



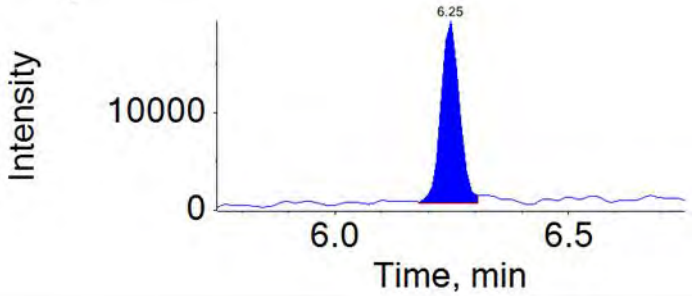
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



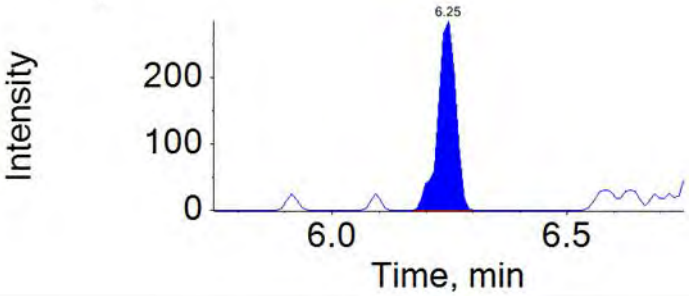
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

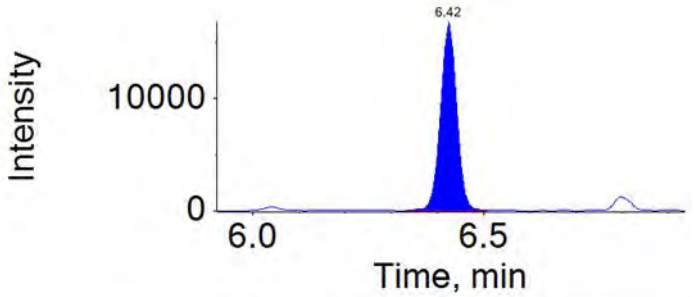
Component: PFTrDA
Primary Mass: 663.0 / 619.0



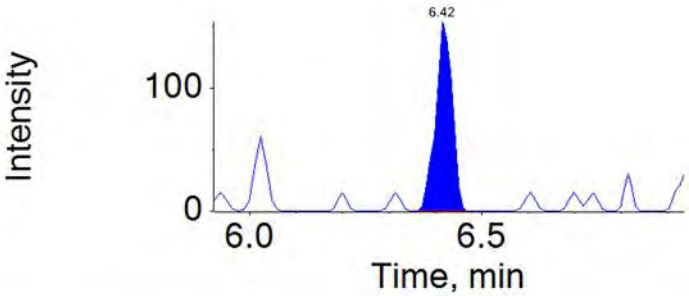
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



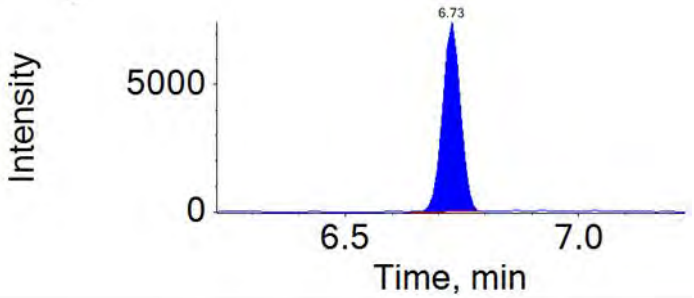
Component: PFTeDA
Primary Mass: 713.0 / 669.0



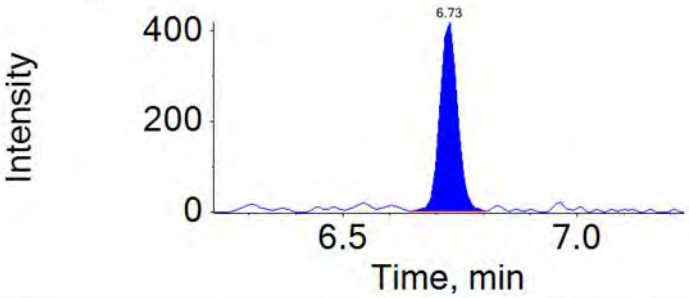
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



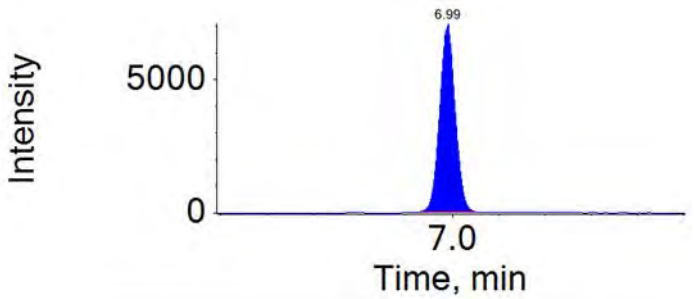
Component: PFHxDA
Primary Mass: 813.0 / 769.0



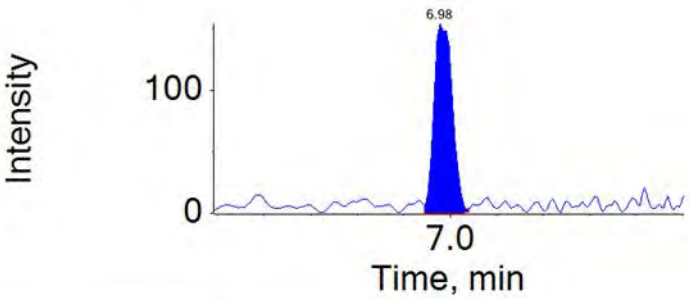
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



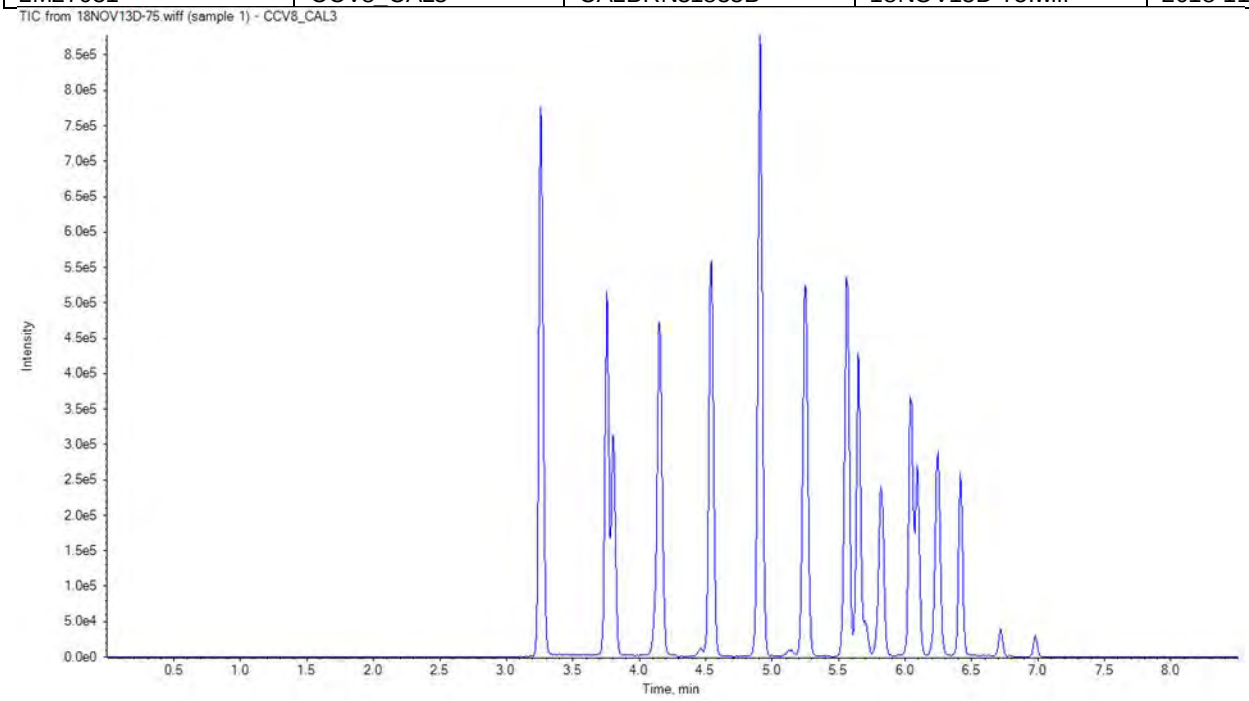
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALBRN31833B	18NOV13D-75.wiff	2018-11-13T20:50:50



Injection Standard Area Reference File: 18NOV13D-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	677236.0	661126.9	2	50	
13C2-PFOA	5.0	476188.5	466902.6	2	50	
13C4-PFOS	4.8	249425.9	247446.9	1	50	
13C2-PFDA	5.0	301134.4	295381.6	2	50	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV8_CAL3	CALBRN31833B	18NOV13D-75.wiff	2018-11-13T20:50:50

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	313571.3	10	13C4-PFBA	763653.2	5.0	0.411	3.26	1.000	2.000	2.275	14	30	
PFPeA	300703.6	11	13C5-PFPeA	724132.2	5.0	0.415	3.76	1.000	2.000	2.404	20	30	
PFBS	163827.3	10	13C3-PFBS	424378.7	4.7	0.386	3.81	1.000	1.770	1.836	4	30	
4:2-FTS	36732.1	11	13C2-4:2-FTS	45759.0	4.7	0.803	4.12	1.000	1.870	2.179	17	30	
PFHxA	368369.9	11	13C5-PFHxA	667148.2	5.0	0.552	4.15	1.000	2.000	2.305	15	30	
PFPeS	86830.0	11	13C3-PFBS	424378.7	4.7	0.205	4.17	1.100	1.880	1.986	6	30	
PFHpA	381648.1	12	13C4-PFHpA	524487.4	5.0	0.728	4.54	1.000	2.000	2.412	21	30	
PFHxS	120620.0	18	13C3-PFHxS	305119.8	4.7	0.395	4.54	1.000	1.820	1.917	5	30	
6:2-FTS	29955.6	11	13C2-6:2-FTS	33996.9	4.8	0.881	4.90	1.000	1.900	2.132	12	30	
PFHpS	124978.6	11	13C3-PFHxS	305119.8	4.7	0.410	4.90	1.080	1.900	2.156	13	30	
PFOA	370871.7	11	13C8-PFOA	896019.1	5.0	0.414	4.91	1.000	2.000	2.211	11	30	
PFOS	121266.0	22	13C8-PFOS	262452.5	4.8	0.462	5.24	1.000	1.850	2.021	9	30	
PFNA	316299.3	11	13C9-PFNA	461195.7	5.0	0.686	5.26	1.000	2.000	2.473	24	30	
PFNS	80029.9	10	13C8-PFOS	262452.5	4.8	0.305	5.54	1.060	1.920	2.133	11	30	
PFDA	256216.2	11	13C6-PFDA	617444.2	5.0	0.415	5.56	1.000	2.000	2.200	10	30	
8:2-FTS	28382.5	11	13C2-8:2-FTS	24989.9	4.8	1.136	5.57	1.000	1.920	2.648	38	30	OOS
PFOSA	263789.6	11	13C8-PFOSA	655783.7	5.0	0.402	5.65	1.000	2.000	1.965	-2	30	
NMeFOSAA	31495.4	18	d3-NMeFOSAA	74750.7	5.0	0.421	5.70	1.000	2.000	2.381	19	30	
PFDS	65705.8	11	13C8-PFOS	262452.5	4.8	0.250	5.80	1.110	1.930	2.268	18	30	
PFUnDA	213158.1	11	13C7-PFUnDA	252074.1	5.0	0.846	5.82	1.000	2.000	2.211	11	30	
NEtFOSAA	24925.7	20	d5-NEtFOSAA	65513.1	5.0	0.380	5.83	1.000	2.000	1.994	0	30	
PFDoDA	240882.2	12	13C2-PFDoDA	557852.9	5.0	0.432	6.04	1.000	2.000	2.199	10	30	
10:2-FTS	15993.2	12	13C2-8:2-FTS	24989.9	4.8	0.640	6.06	1.090	1.930	2.132	10	30	
NMePFOSAE	174650.7	11	d7-NMePFOSAE	338752.5	5.0	0.516	6.10	1.000	2.000	2.146	7	30	
NMePFOSA	33001.3	11	d3-NMePFOSA	79440.5	5.0	0.415	6.10	1.000	2.000	2.049	2	30	
PFDoS	30782.0	11	13C8-PFOS	262452.5	4.8	0.117	6.21	1.180	1.940	2.054	6	30	
NEtPFOSAE	183746.8	11	d9-NEtPFOSAE	272078.0	5.0	0.675	6.25	1.000	2.000	2.167	8	30	
NEtPFOSA	28072.1	11	d5-NEtPFOSA	60072.5	5.0	0.467	6.26	1.000	2.000	2.146	7	30	
PFTrDA	193853.2	11	13C2-PFDoDA	557852.9	5.0	0.347	6.24	1.030	2.000	2.193	10	30	
PFTeDA	160382.3	10	13C2-PFTeDA	387501.6	5.0	0.414	6.42	1.000	2.000	2.320	16	30	
PFHxDA	74288.2	11	13C2-PFTeDA	387501.6	5.0	0.192	6.72	1.050	2.000	2.284	14	30	
PFODA	61455.0	10	13C2-PFTeDA	387501.6	5.0	0.159	6.98	1.090	2.000	2.209	10	30	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV8_CAL3			**Data File:**		18NOV13D-75.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-13T20:50:50
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV13DCCV6-10
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: 18NOV13D-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	677236.0	661126.9	2	50	
13C2-PFOA	5.0	476188.5	466902.6	2	50	
13C4-PFOS	4.8	249425.9	247446.9	1	50	
13C2-PFDA	5.0	301134.4	295381.6	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	763653.2	13C3-PFBA	677236.0	1.128	5.000	5.055	101	70-130	
E13C5-PFPeA	724132.2	13C3-PFBA	677236.0	1.069	5.000	4.796	96	70-130	
E13C3-PFBS	424378.7	13C3-PFBA	677236.0	0.627	4.650	4.424	95	70-130	
E13C2-4:2-FTS	45759.0	13C2-PFOA	476188.5	0.096	4.670	4.280	92	70-130	
E13C5-PFHxA	667148.2	13C2-PFOA	476188.5	1.401	5.000	5.061	101	70-130	
E13C3-PFHxS	305119.8	13C2-PFOA	476188.5	0.641	4.730	4.397	93	70-130	
E13C4-PFHpA	524487.4	13C2-PFOA	476188.5	1.101	5.000	4.962	99	70-130	
E13C2-6:2-FTS	33996.9	13C2-PFOA	476188.5	0.071	4.750	4.777	101	70-130	
E13C8-PFOA	896019.1	13C2-PFOA	476188.5	1.882	5.000	5.184	104	70-130	
E13C8-PFOS	262452.5	13C4-PFOS	249425.9	1.052	4.780	4.662	98	70-130	
E13C9-PFNA	461195.7	13C4-PFOS	249425.9	1.849	5.000	5.155	103	70-130	
E13C6-PFDA	617444.2	13C2-PFDA	301134.4	2.050	5.000	4.785	96	70-130	
E13C2-8:2-FTS	24989.9	13C2-PFDA	301134.4	0.083	4.790	4.139	86	70-130	
E13C8-PFOSA	655783.7	13C2-PFDA	301134.4	2.178	5.000	4.828	97	70-130	
Ed3-NMeFOSAA	74750.7	13C2-PFDA	301134.4	0.248	5.000	4.481	90	70-130	
E13C7-PFUnDA	252074.1	13C2-PFDA	301134.4	0.837	5.000	4.860	97	70-130	
Ed5-NEtFOSAA	65513.1	13C2-PFDA	301134.4	0.218	5.000	4.603	92	70-130	
E13C2-PFDoDA	557852.9	13C2-PFDA	301134.4	1.853	5.000	4.810	96	70-130	
Ed7-NMePFOSAE	338752.5	13C2-PFDA	301134.4	1.125	5.000	4.868	97	70-130	
Ed3-NMePFOSA	79440.5	13C2-PFDA	301134.4	0.264	5.000	4.793	96	70-130	
Ed9-NEtPFOSAE	272078.0	13C2-PFDA	301134.4	0.904	5.000	4.699	94	70-130	
Ed5-NEtPFOSA	60072.5	13C2-PFDA	301134.4	0.199	5.000	4.680	94	70-130	
E13C2-PFTeDA	387501.6	13C2-PFDA	301134.4	1.287	5.000	4.518	90	70-130	

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

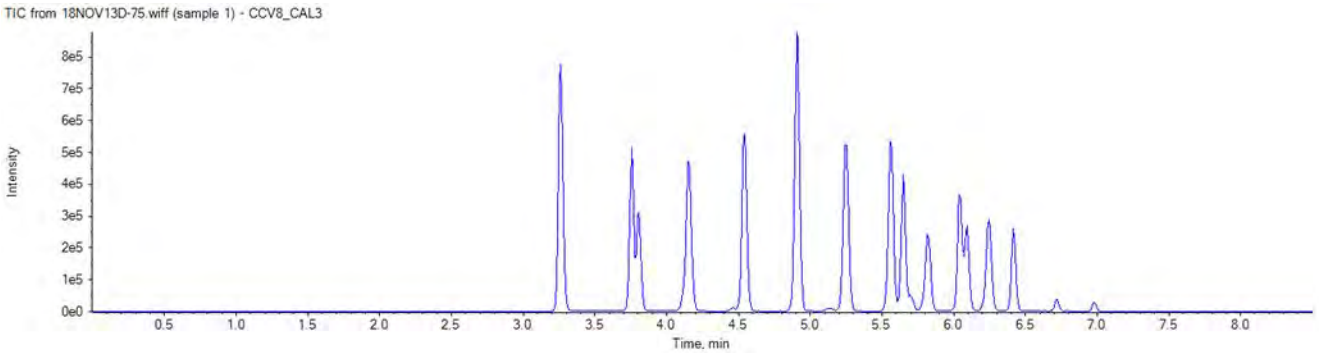
Analyte Quantitation Peak Table

Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV13D-75.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	313571.3		A	13C4-PFBA	3.26	763653.2	0.411	2.275
PFPeA	3.76	1.000	300703.6		A	13C5-PFPeA	3.76	724132.2	0.415	2.404
PFBS	3.81	1.000	163827.3		A	13C3-PFBS	3.81	424378.7	0.386	1.836
4:2-FTS	4.12	1.000	36732.1		A	13C2-4:2-FTS	4.12	45759.0	0.803	2.179
PFHxA	4.15	1.000	368369.9		A	13C5-PFHxA	4.15	667148.2	0.552	2.305
PFPeS	4.17	1.100	86830.0		A	13C3-PFBS	3.81	424378.7	0.205	1.986
PFHpA	4.54	1.000	381648.1		A	13C4-PFHpA	4.54	524487.4	0.728	2.412
PFHxS	4.54	1.000	120620.0		M	13C3-PFHxS	4.54	305119.8	0.395	1.917
6:2-FTS	4.90	1.000	29955.6		A	13C2-6:2-FTS	4.90	33996.9	0.881	2.132
PFHpS	4.90	1.080	124978.6		A	13C3-PFHxS	4.54	305119.8	0.410	2.156
PFOA	4.91	1.000	370871.7		A	13C8-PFOA	4.91	896019.1	0.414	2.211
PFOS	5.24	1.000	121266.0		M	13C8-PFOS	5.24	262452.5	0.462	2.021
PFNA	5.26	1.000	316299.3		A	13C9-PFNA	5.26	461195.7	0.686	2.473
PFNS	5.54	1.060	80029.9		A	13C8-PFOS	5.24	262452.5	0.305	2.133
PFDA	5.56	1.000	256216.2		A	13C6-PFDA	5.56	617444.2	0.415	2.200
8:2-FTS	5.57	1.000	28382.5		A	13C2-8:2-FTS	5.57	24989.9	1.136	2.648
PFOSA	5.65	1.000	263789.6		A	13C8-PFOSA	5.65	655783.7	0.402	1.965
NMeFOSAA	5.70	1.000	31495.4		M	d3-NMeFOSAA	5.70	74750.7	0.421	2.381
PFDS	5.80	1.110	65705.8		A	13C8-PFOS	5.24	262452.5	0.250	2.268
PFUnDA	5.82	1.000	213158.1		A	13C7-PFUnDA	5.82	252074.1	0.846	2.211
NEtFOSAA	5.83	1.000	24925.7		A	d5-NEtFOSAA	5.83	65513.1	0.380	1.994
PFDoDA	6.04	1.000	240882.2		A	13C2-PFDoDA	6.04	557852.9	0.432	2.199
10:2-FTS	6.06	1.090	15993.2		A	13C2-8:2-FTS	5.57	24989.9	0.640	2.132
NMePFOSAE	6.10	1.000	174650.7		A	d7-NMePFOSAE	6.09	338752.5	0.516	2.146
NMePFOSA	6.10	1.000	33001.3		A	d3-NMePFOSA	6.10	79440.5	0.415	2.049
PFDoS	6.21	1.180	30782.0		A	13C8-PFOS	5.24	262452.5	0.117	2.054
NEtPFOSAE	6.25	1.000	183746.8		A	d9-NEtPFOSAE	6.24	272078.0	0.675	2.167
NEtPFOSA	6.26	1.000	28072.1		A	d5-NEtPFOSA	6.26	60072.5	0.467	2.146
PFTrDA	6.24	1.030	193853.2		A	13C2-PFDoDA	6.04	557852.9	0.347	2.193
PFTeDA	6.42	1.000	160382.3		A	13C2-PFTeDA	6.42	387501.6	0.414	2.320
PFHxDA	6.72	1.050	74288.2		A	13C2-PFTeDA	6.42	387501.6	0.192	2.284
PFODA	6.98	1.090	61455.0		A	13C2-PFTeDA	6.42	387501.6	0.159	2.209

Total Ion Chromatogram

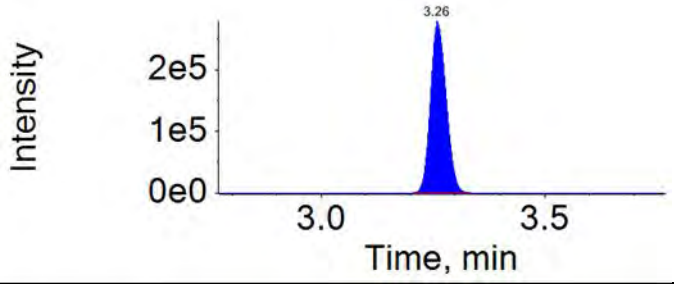


APPROVED
By JPT at 10:19 am, 11/14/18

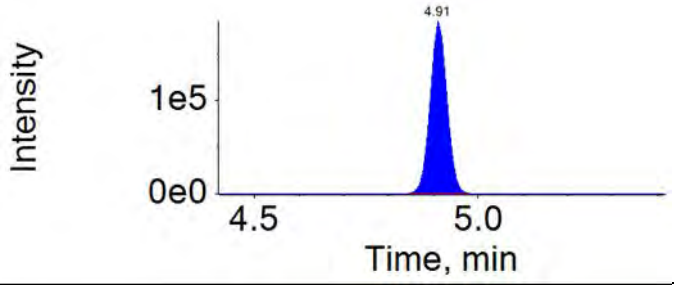
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

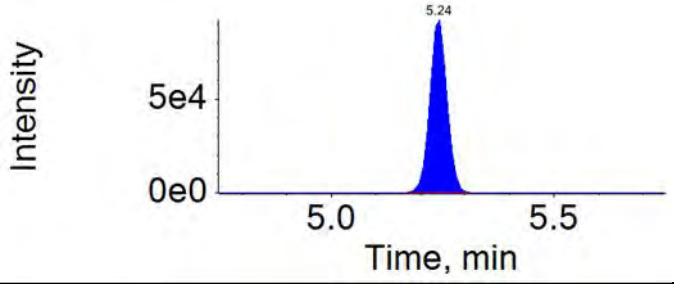
Injection Standard: 13C3-PFBA
216.0 / 172.0



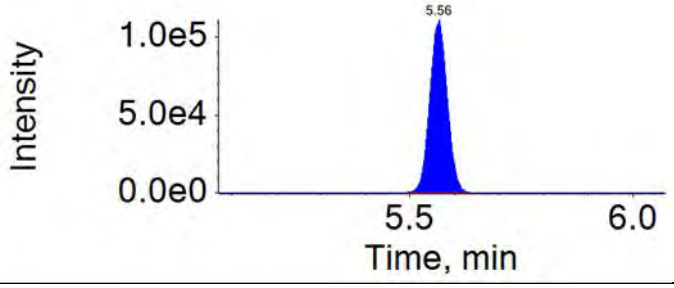
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

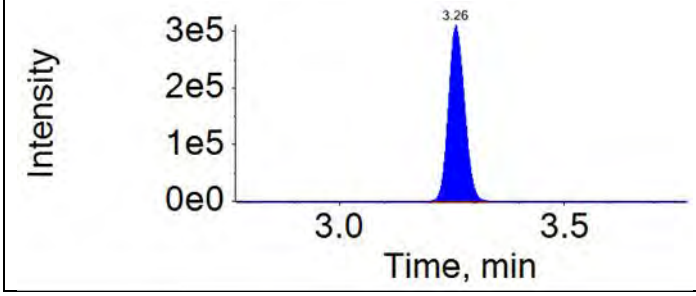


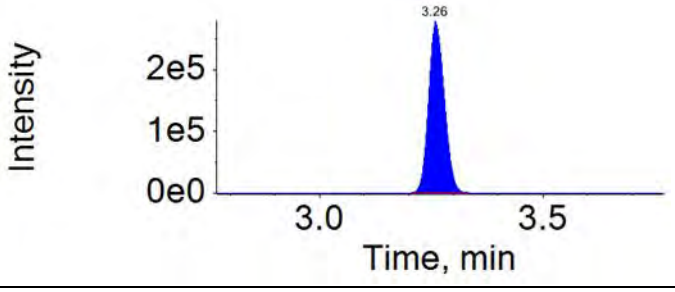
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

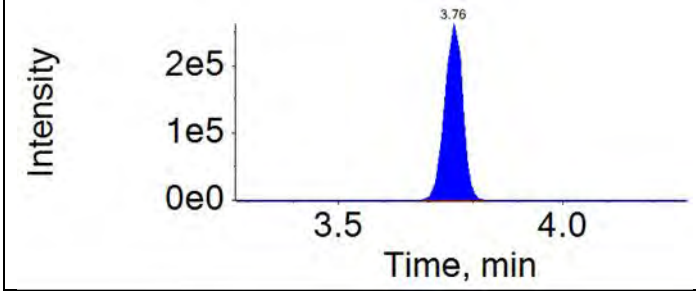
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

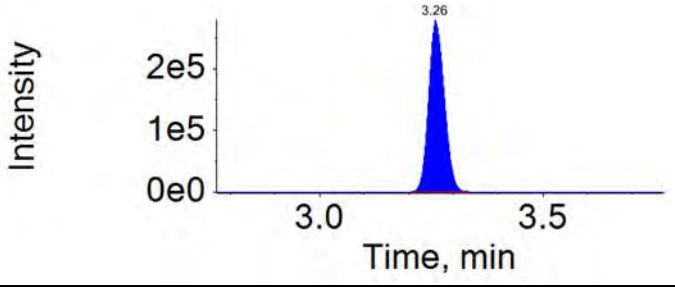
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



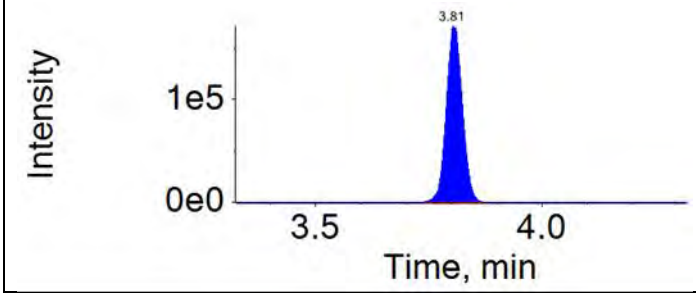


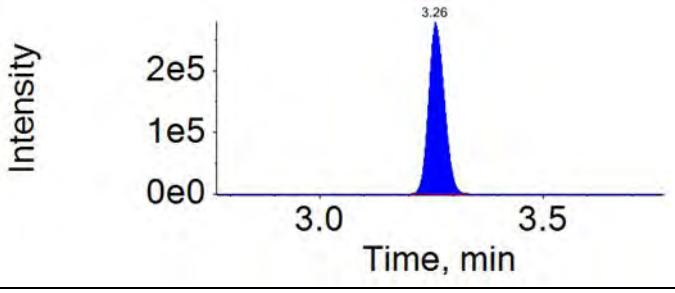
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



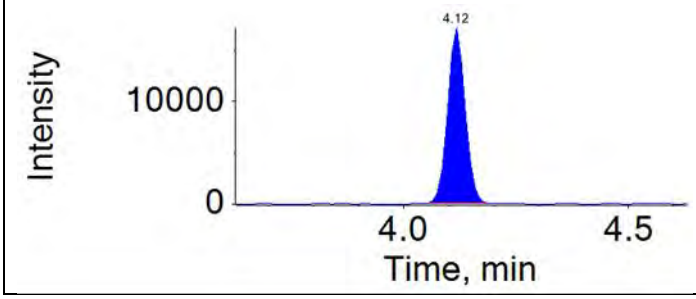


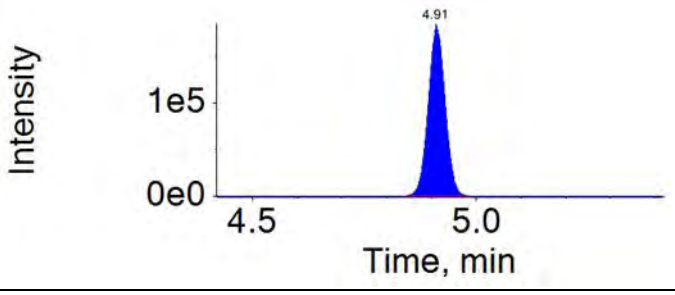
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





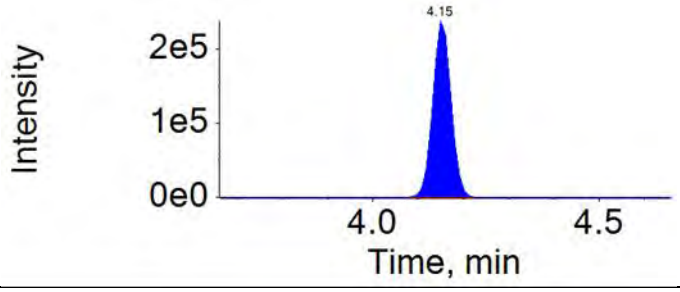
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

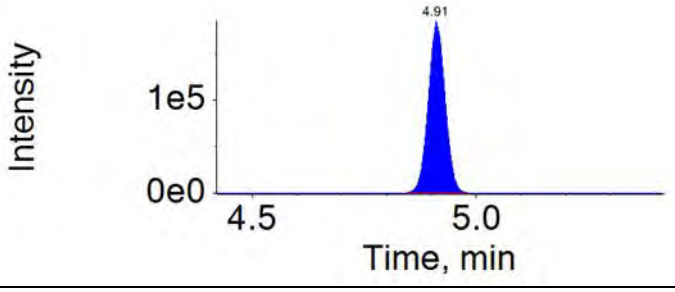




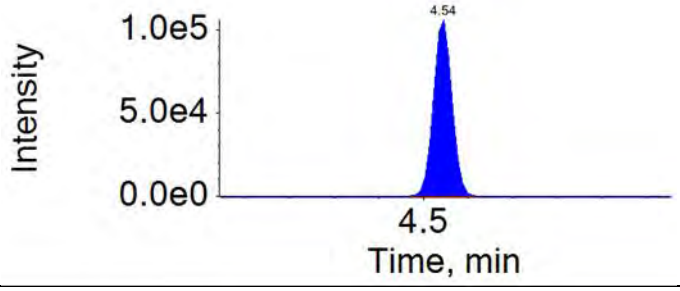
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

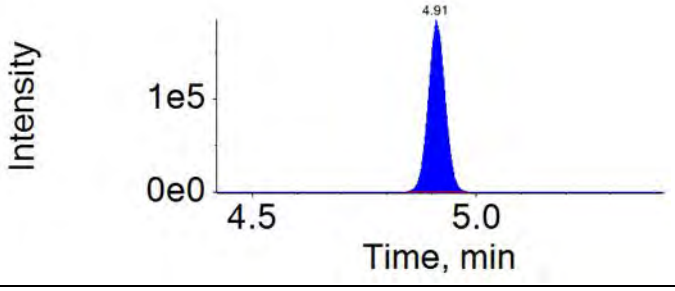
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



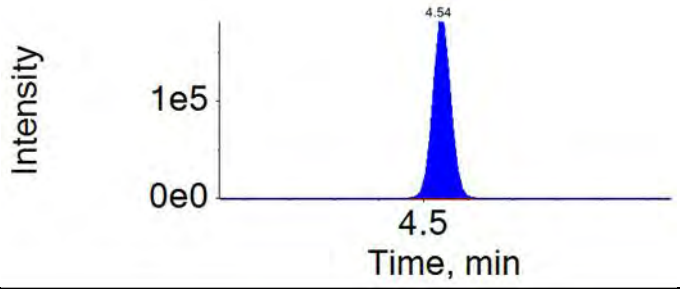


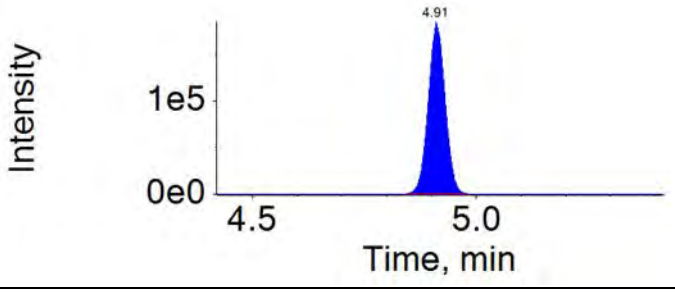
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



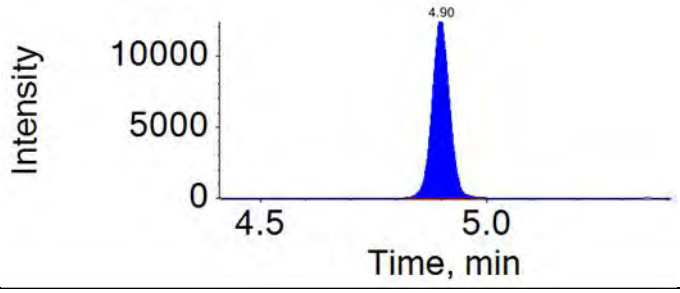


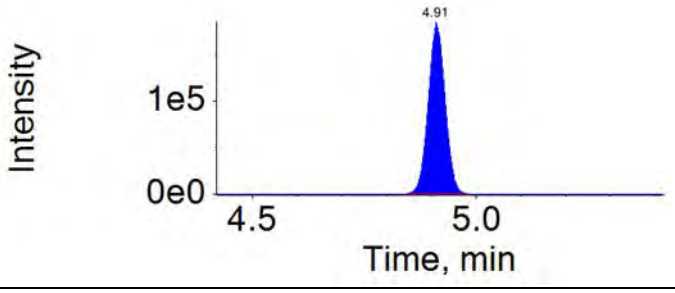
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

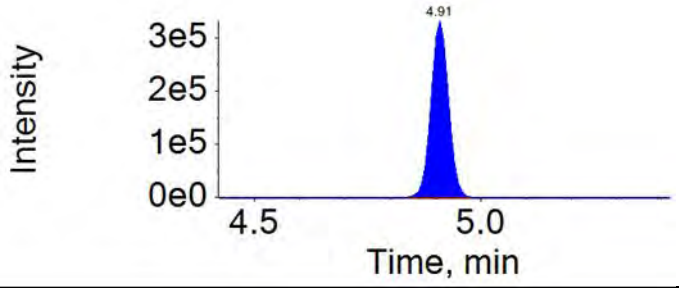
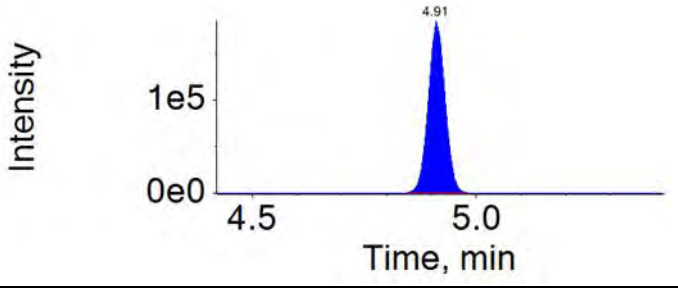


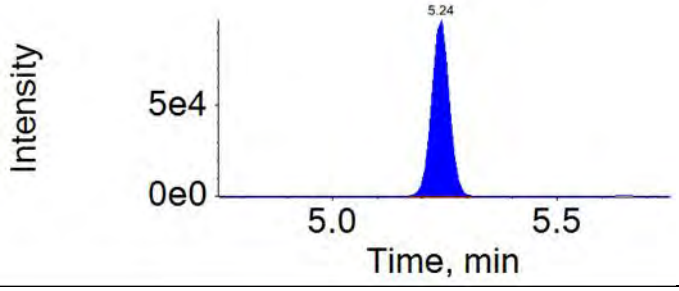
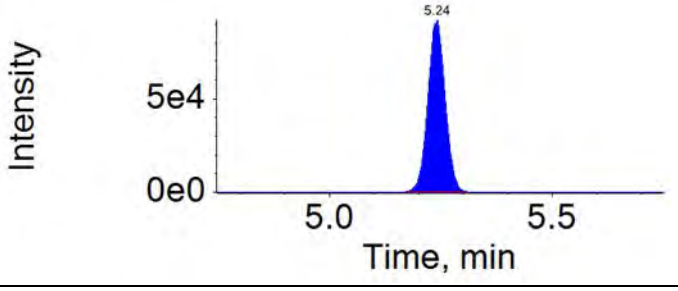


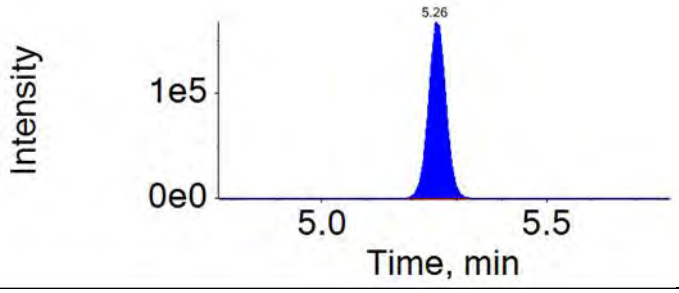
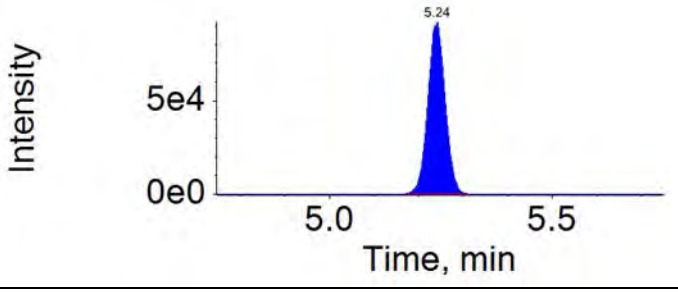
APPROVED
By JPT at 10:19 am, 11/14/18

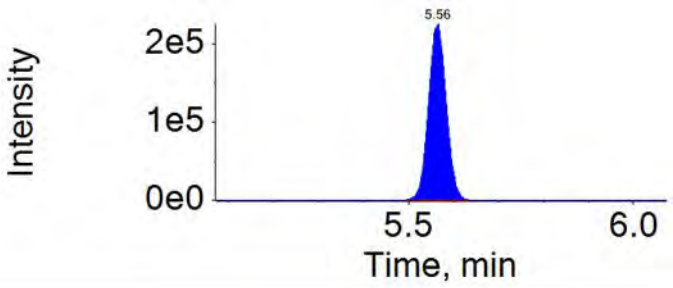
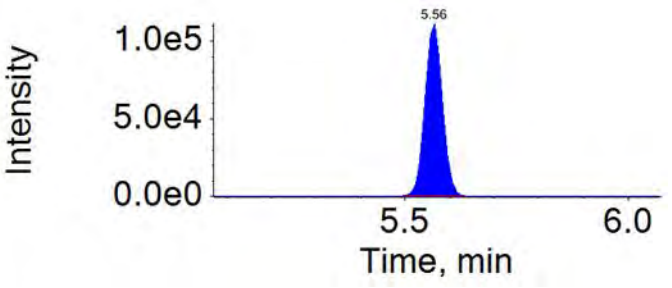
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

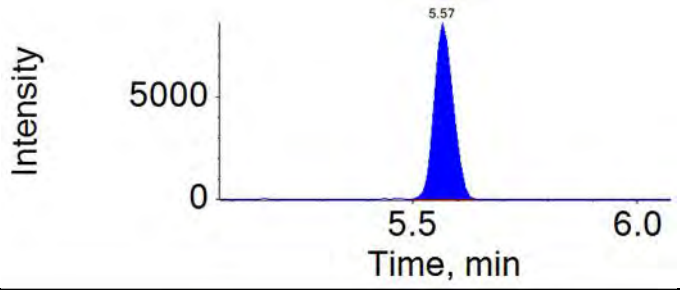
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

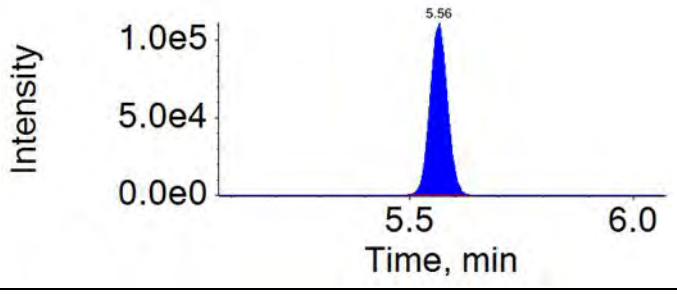
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

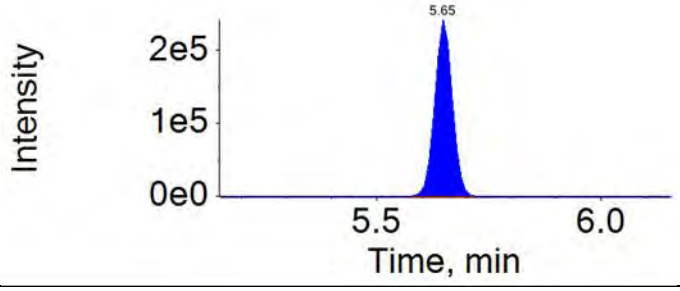
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

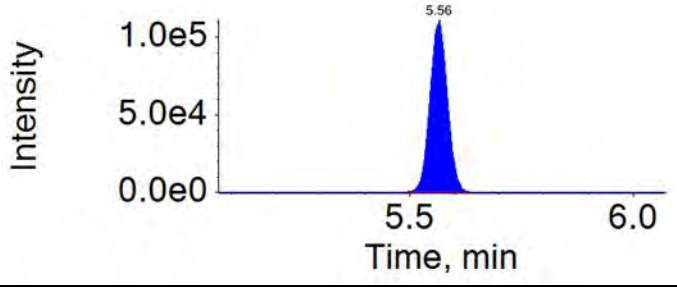
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



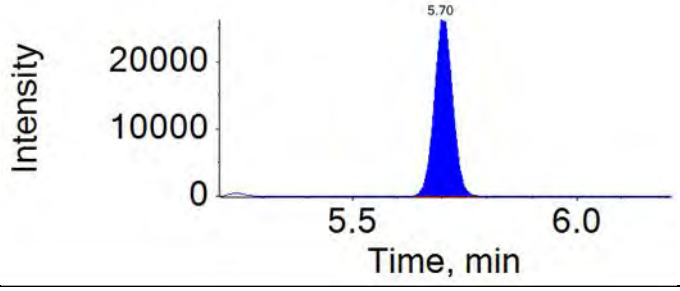


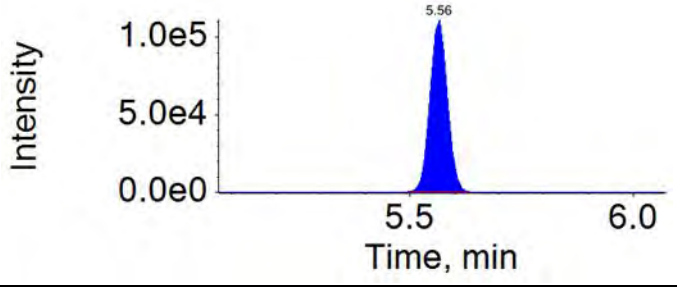
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



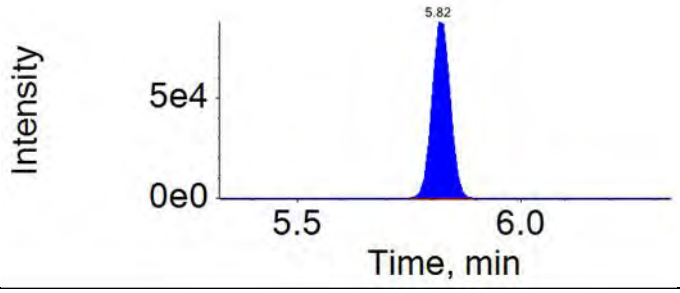


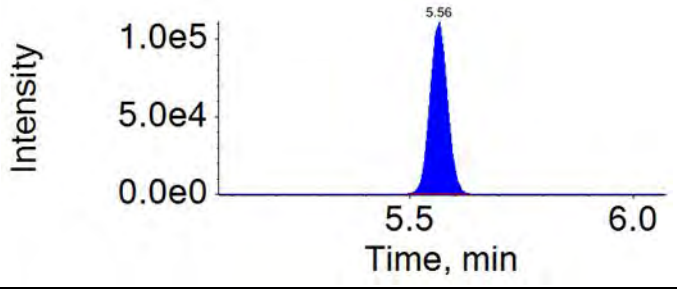
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



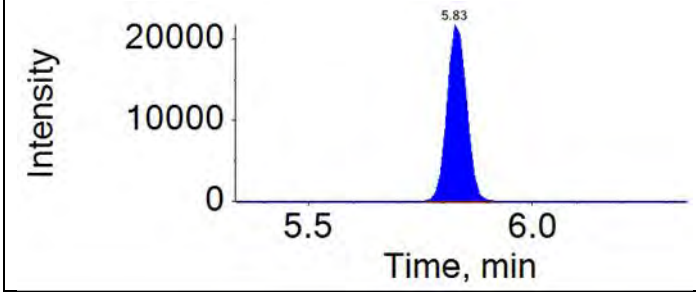


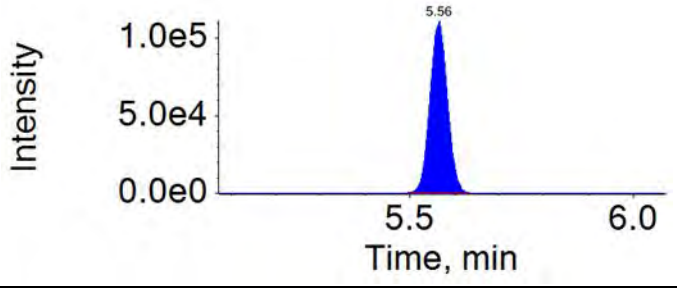
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

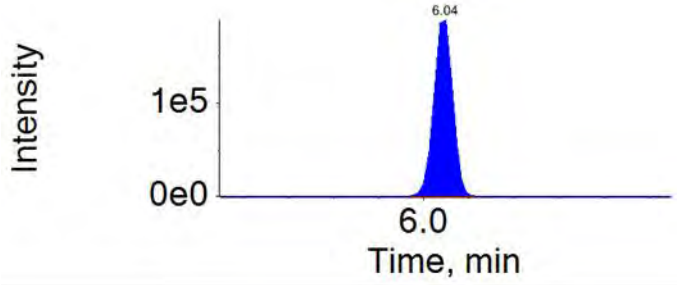
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

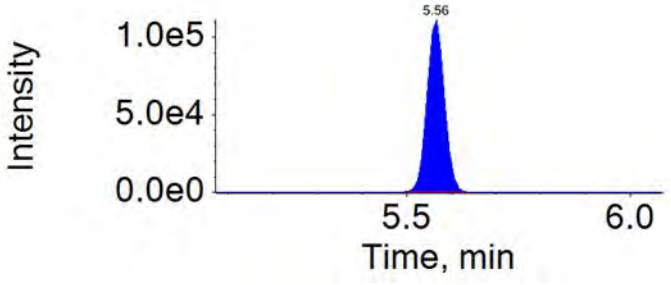
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



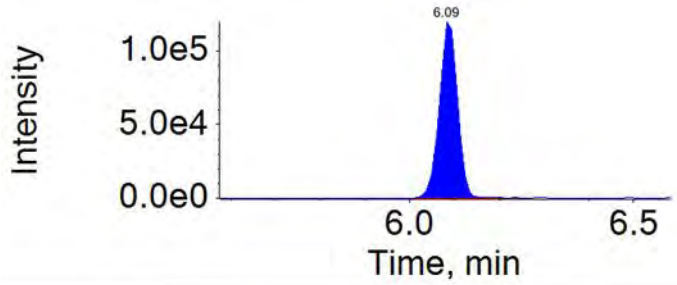


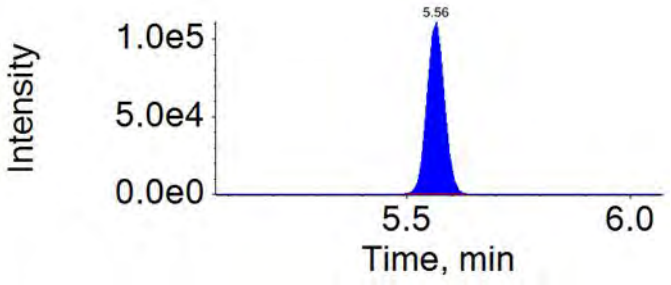
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



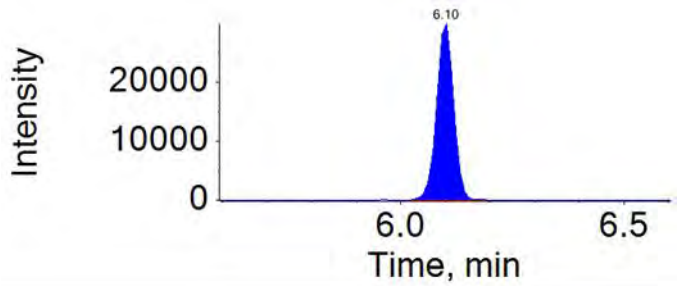


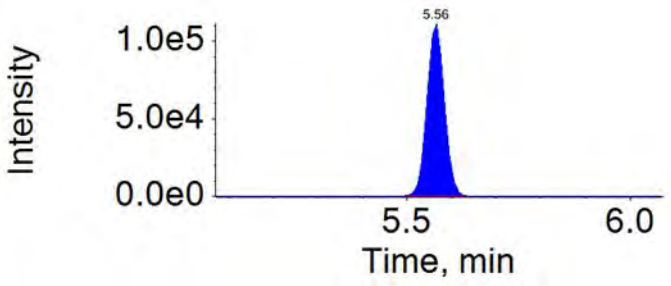
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



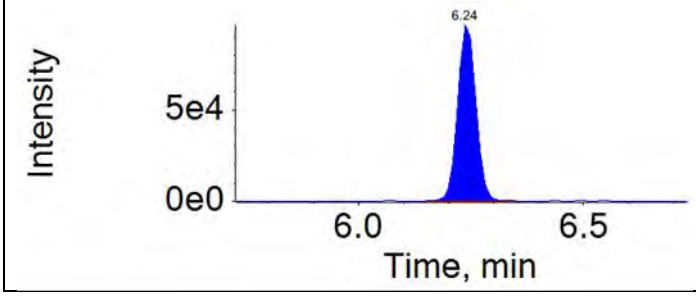


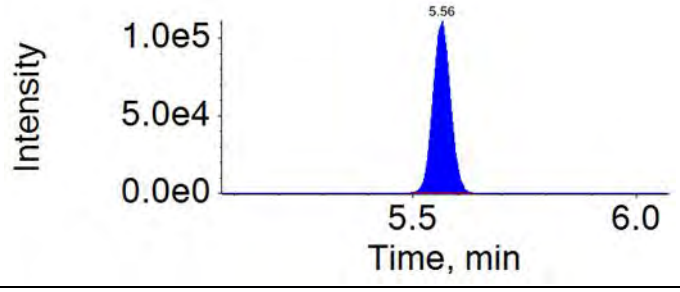
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

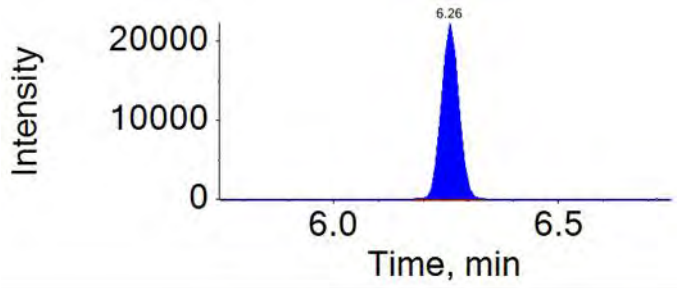
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

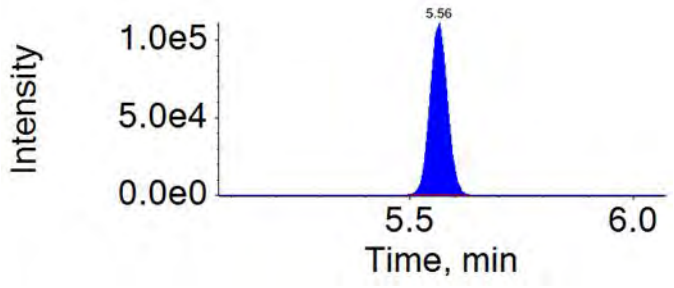
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



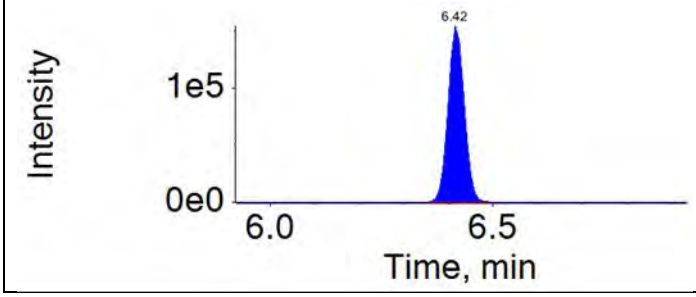


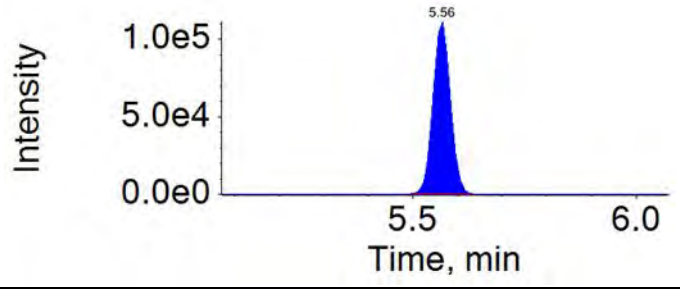
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



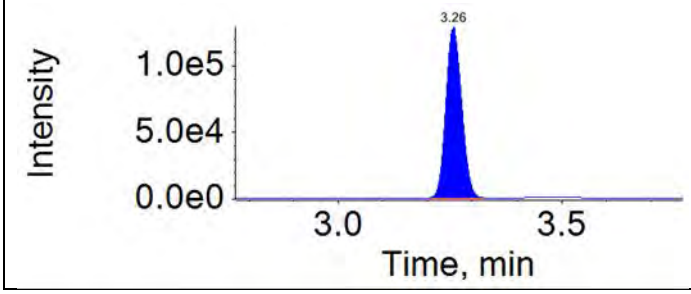


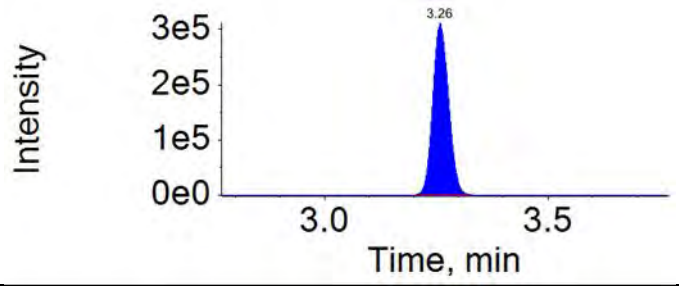
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

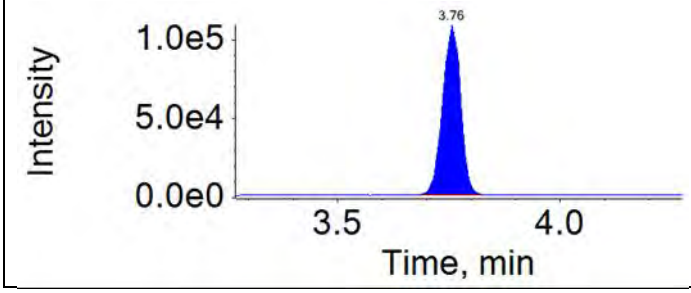
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

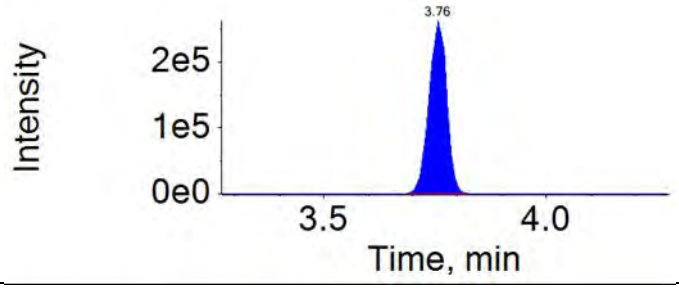
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



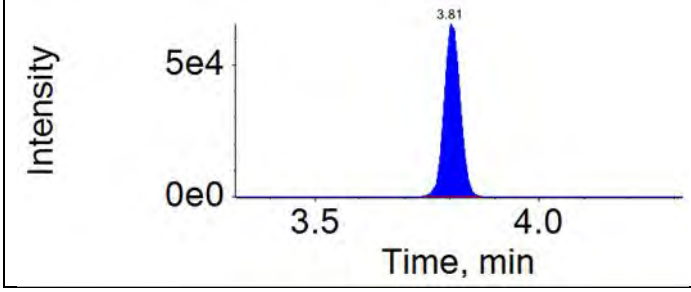


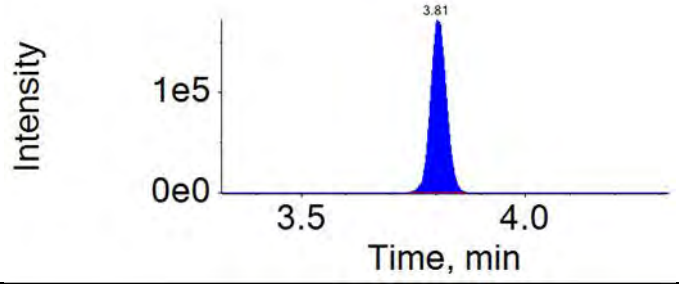
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



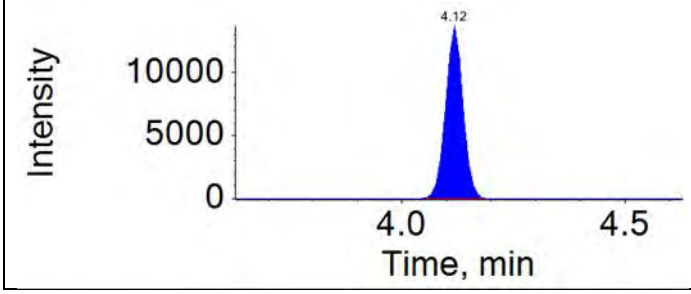


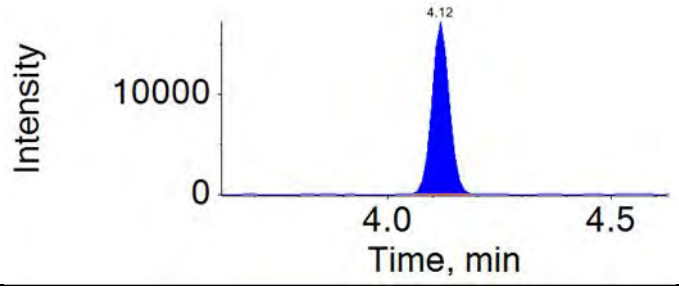
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



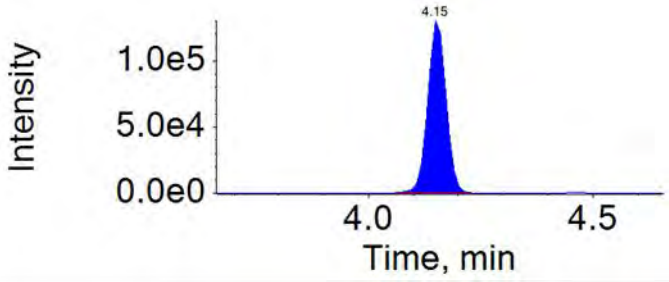


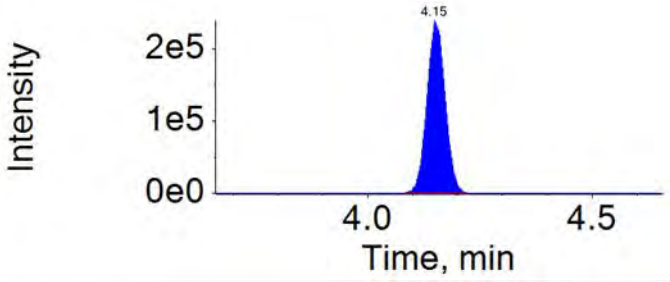
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

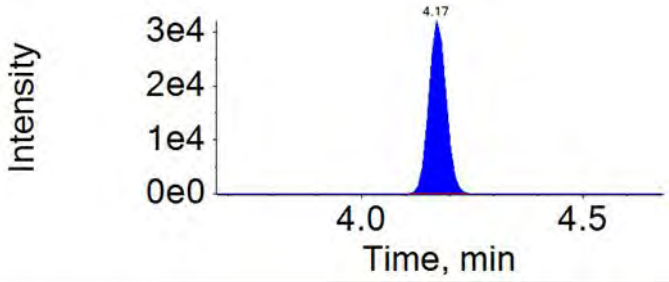
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

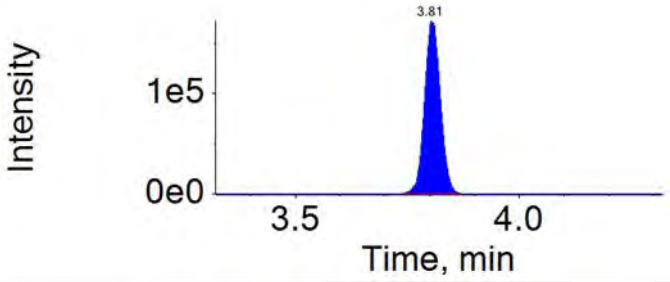
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



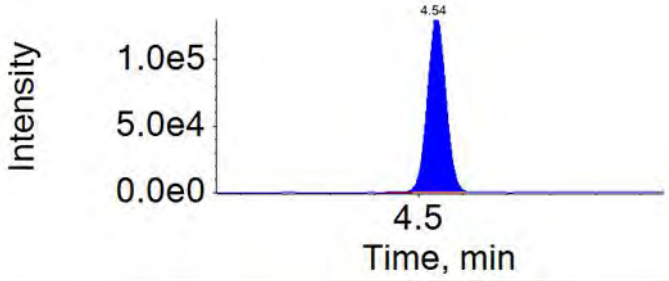


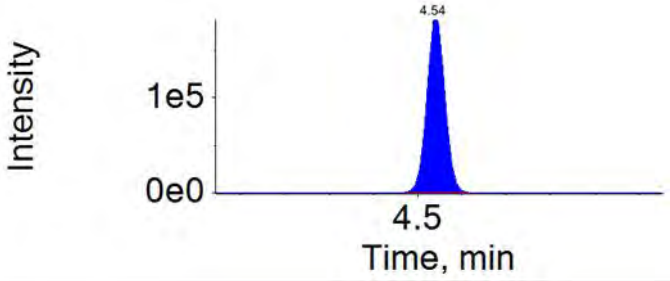
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



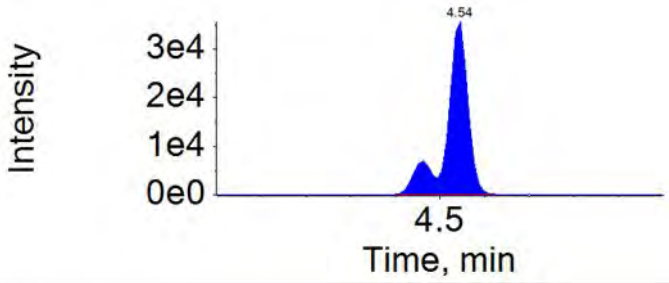


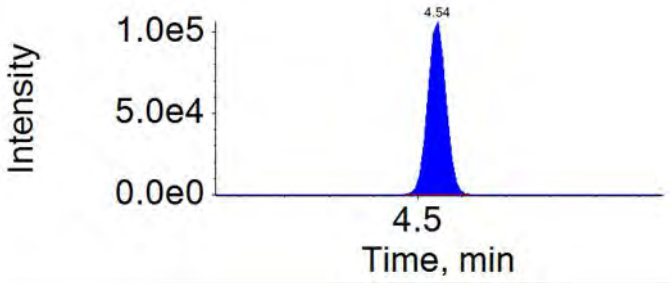
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





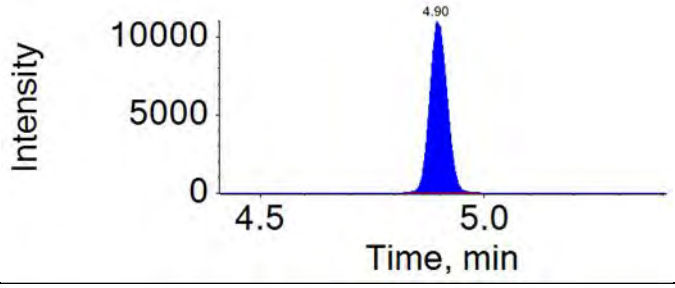
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

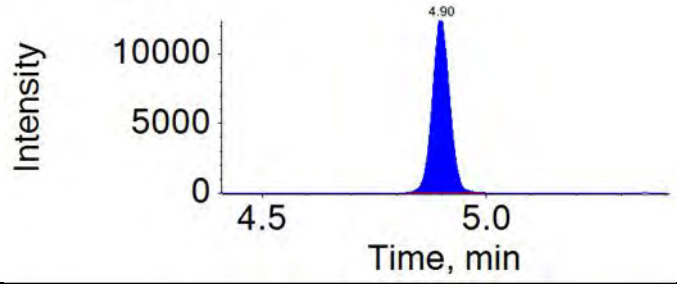




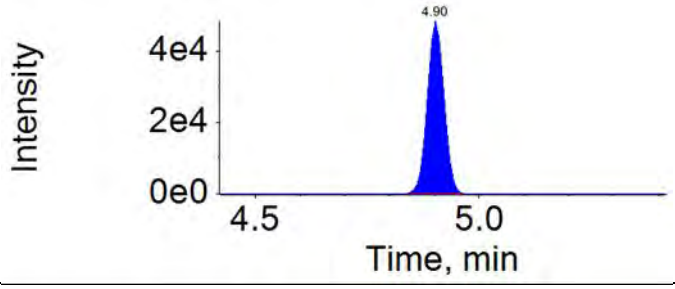
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

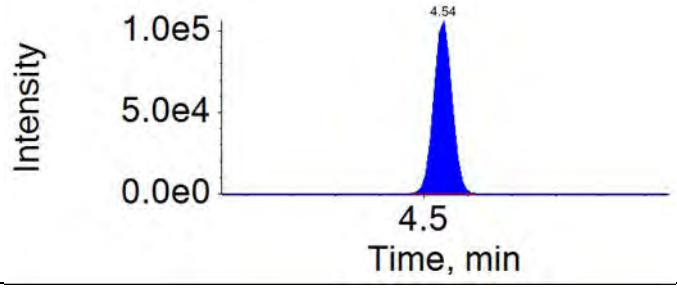
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



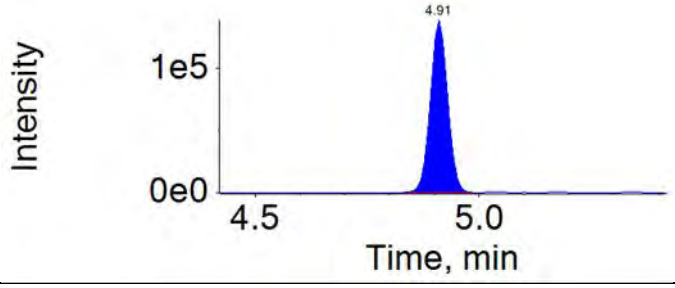


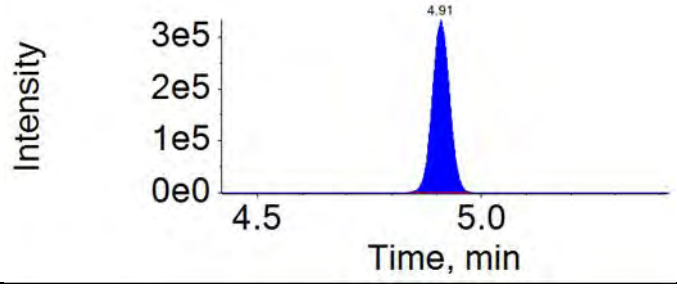
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



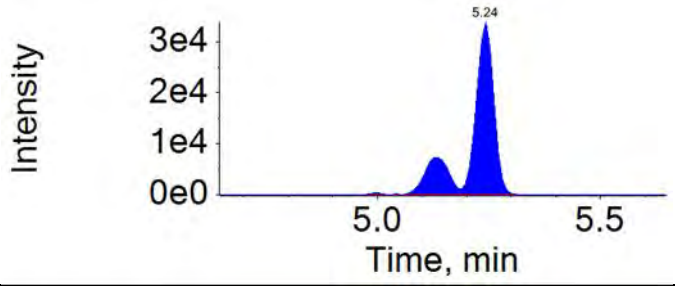


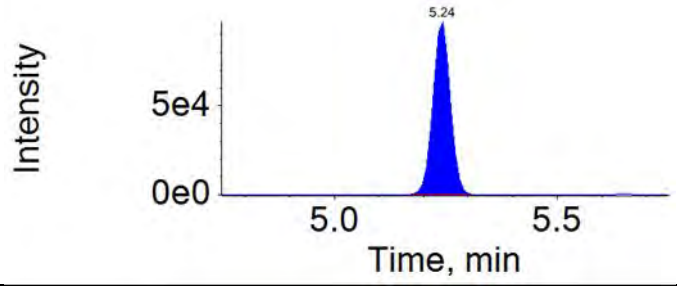
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





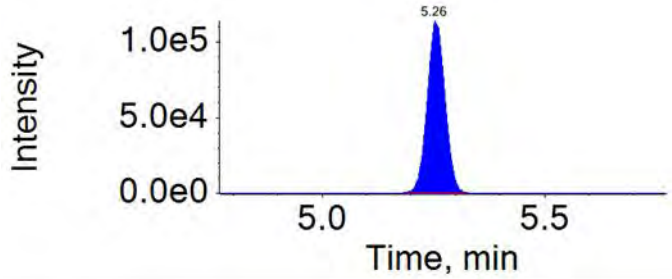
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

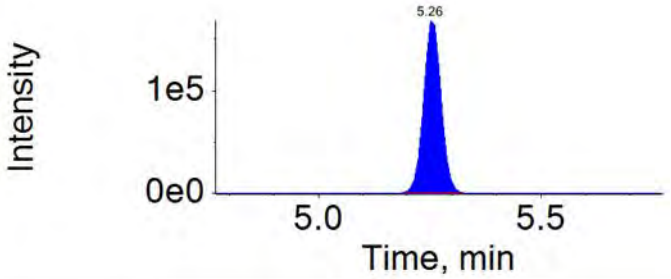




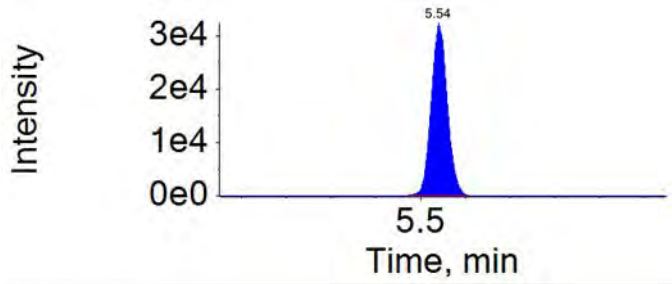
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

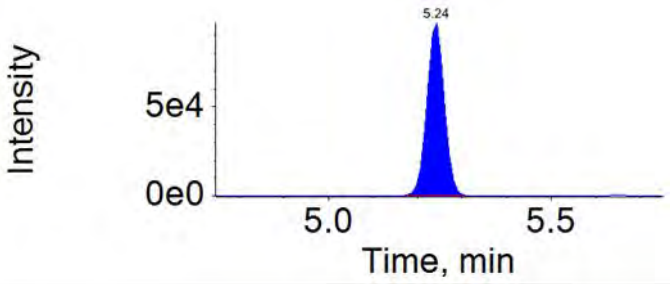
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



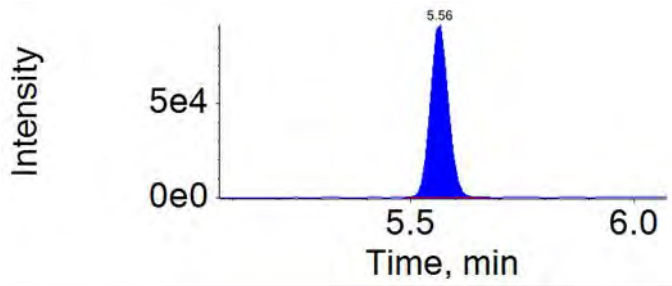


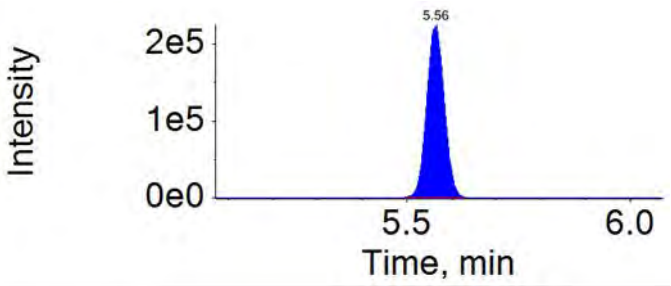
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



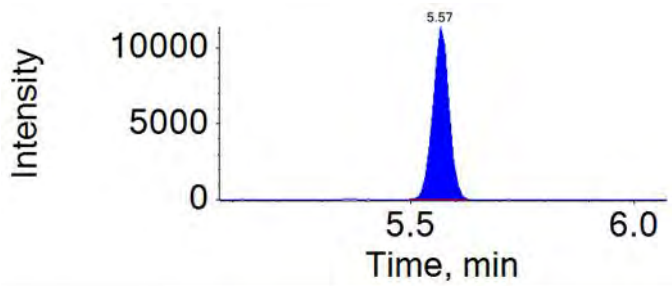


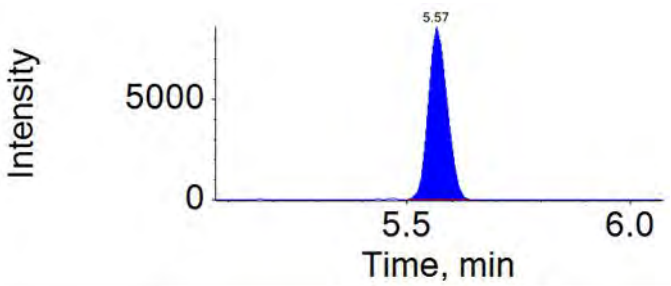
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

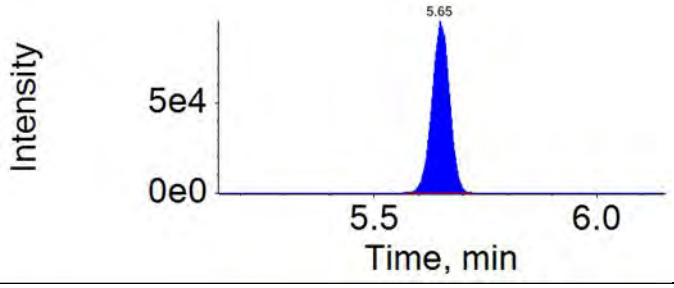
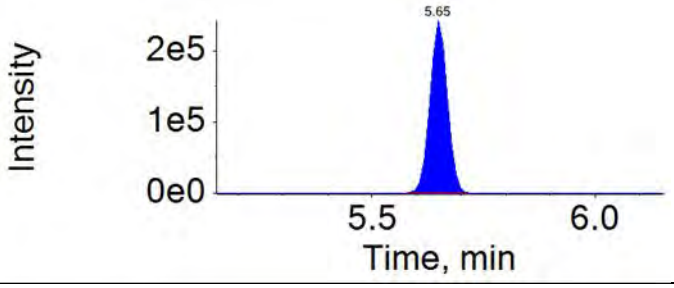


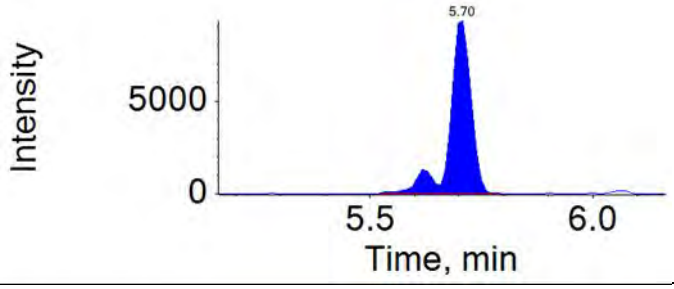
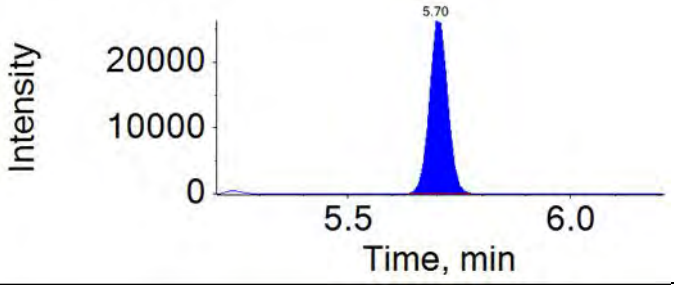


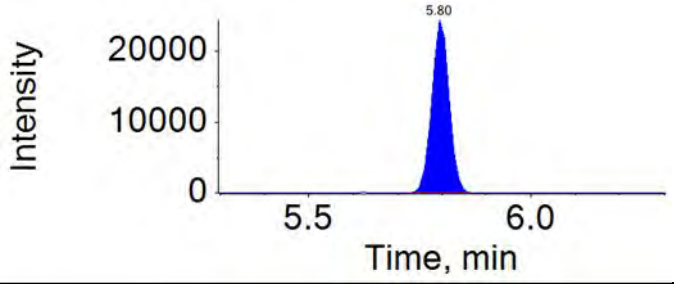
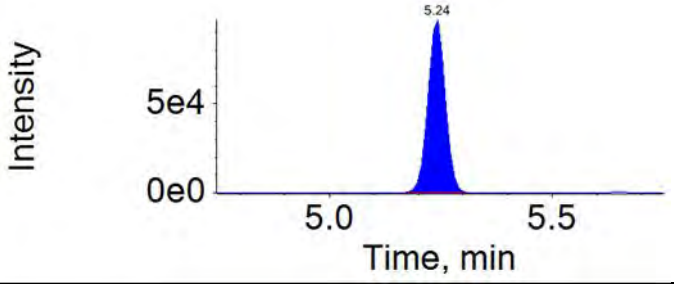
APPROVED
By JPT at 10:19 am, 11/14/18

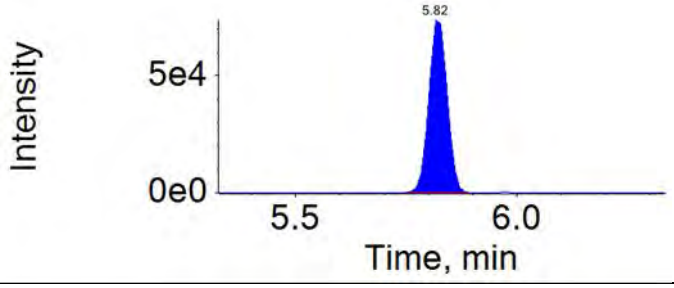
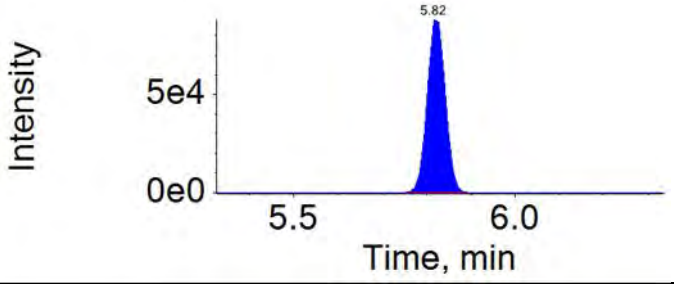
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

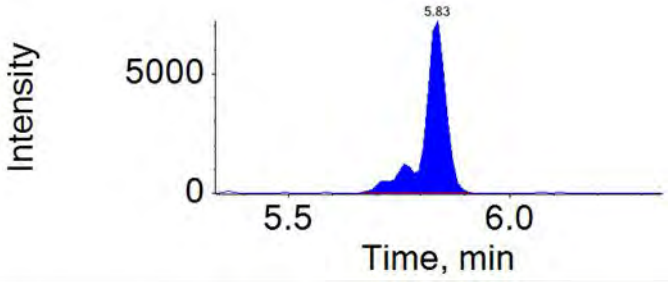
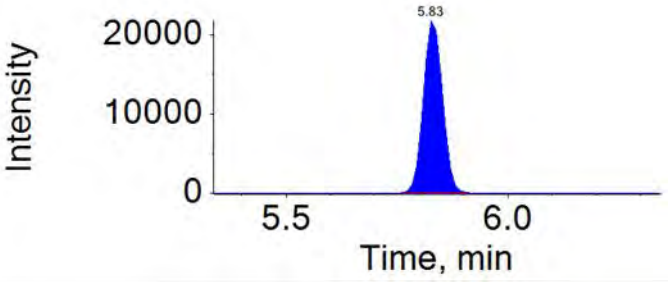
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

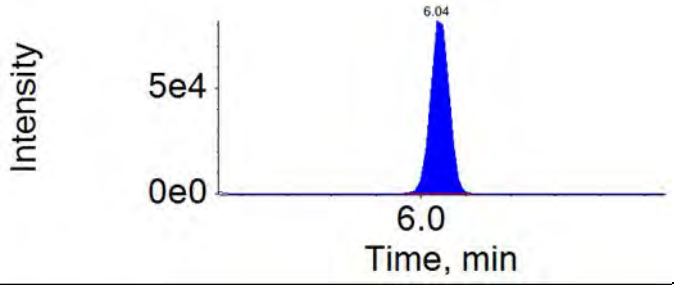
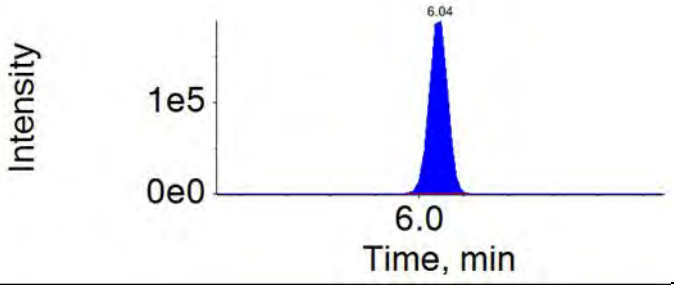
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

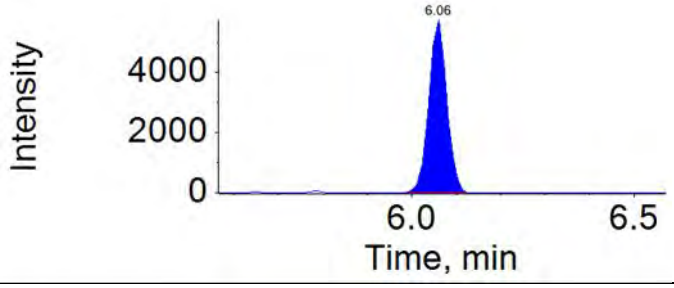
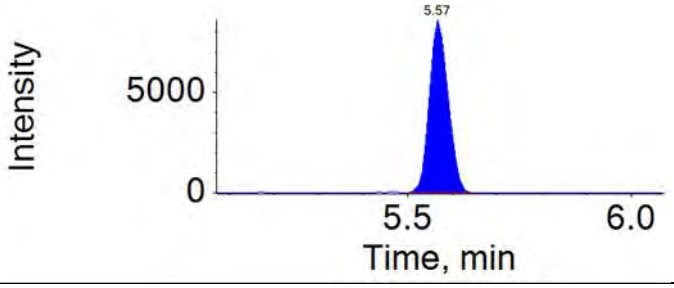
APPROVED
By JPT at 10:19 am, 11/14/18

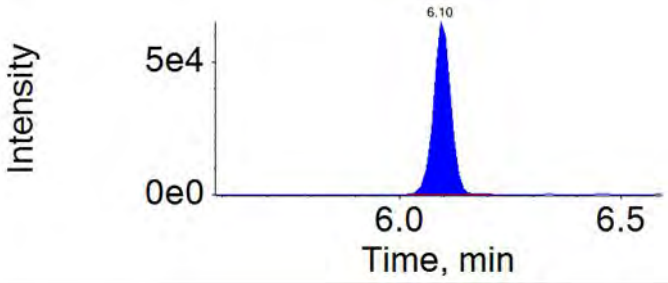
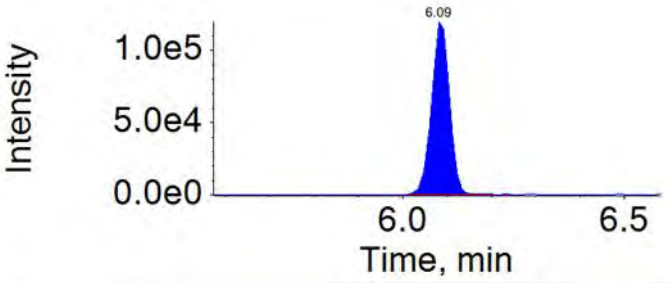
REVIEWED
By HMK at 12:08 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

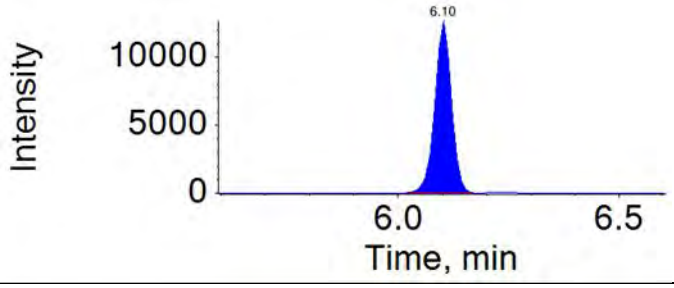
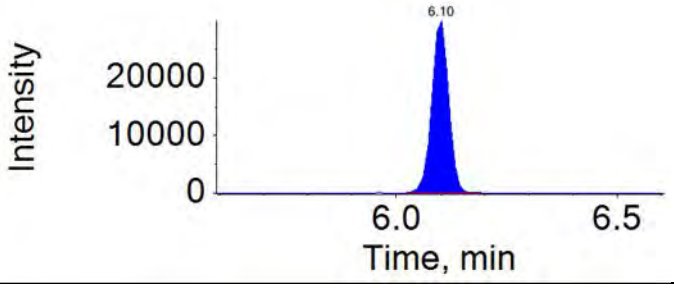
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

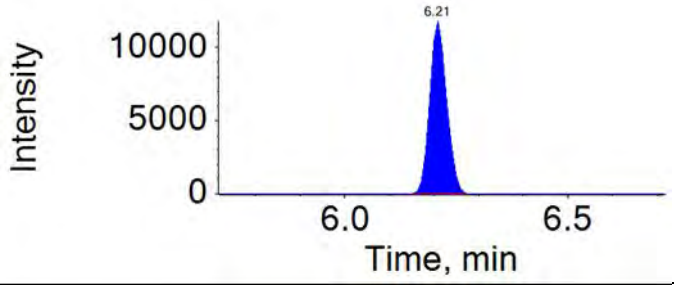
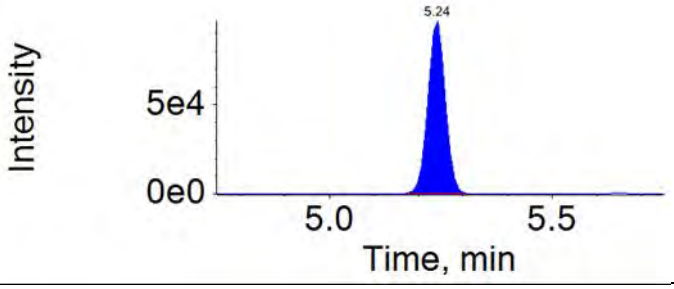
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

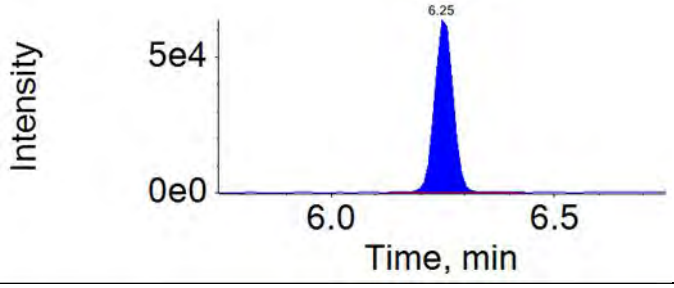
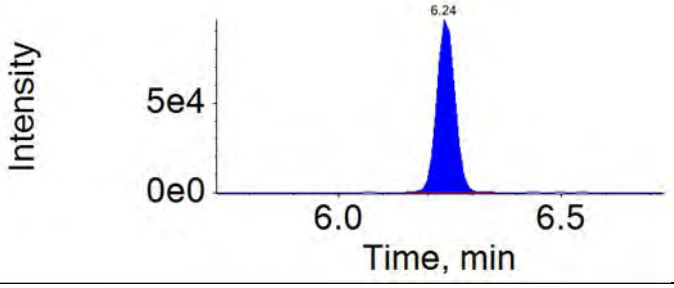
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

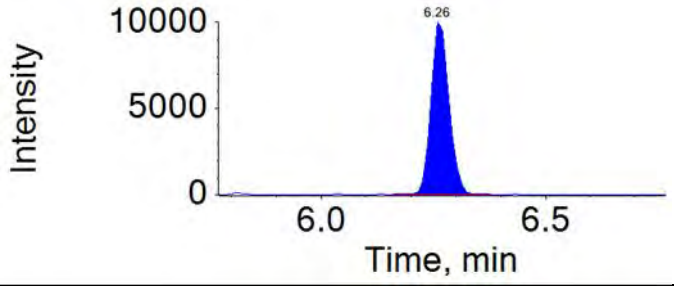
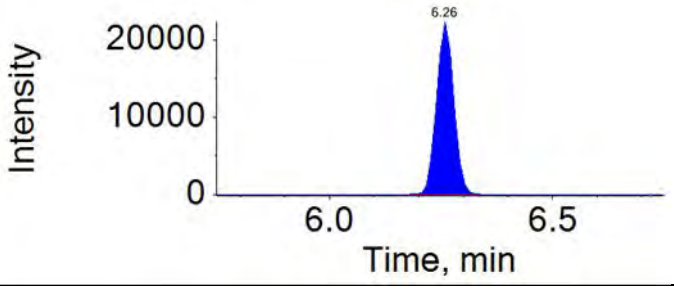
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0
	

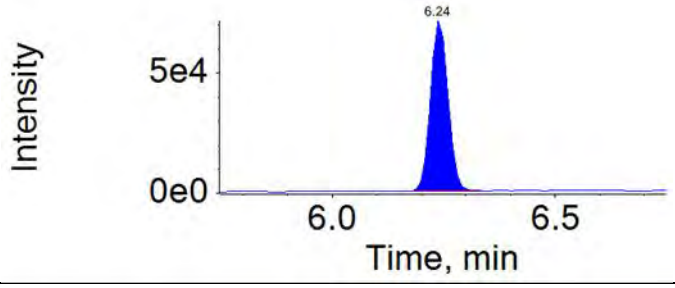
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0
	

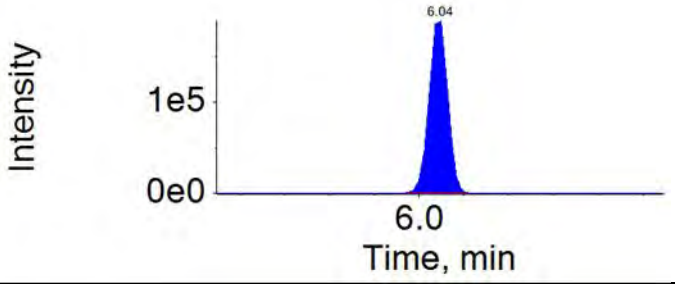
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0
	

Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0
	

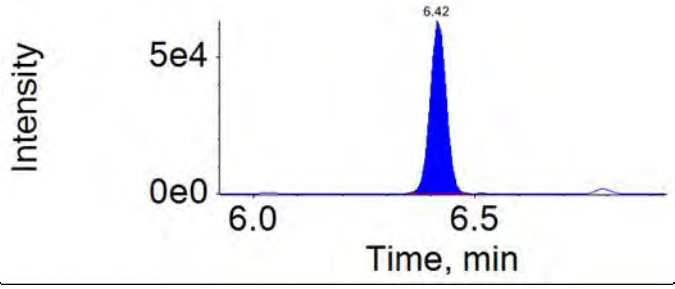
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV6-10 11/14/2018 9:23:22 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

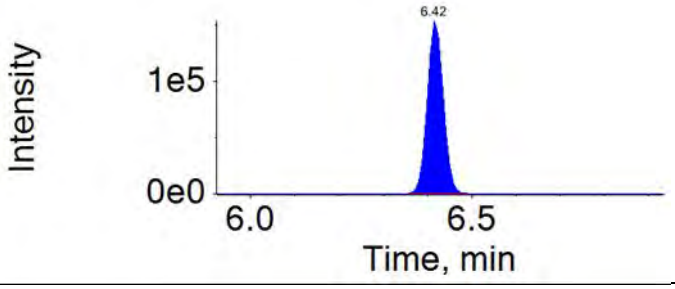
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



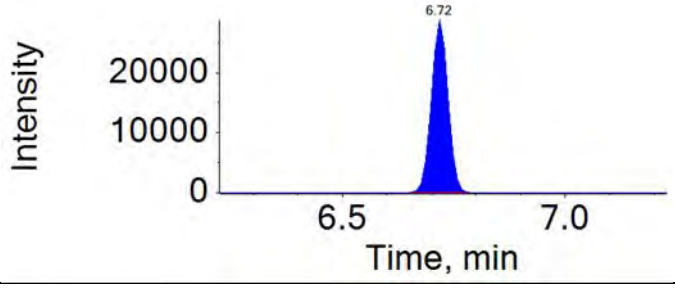


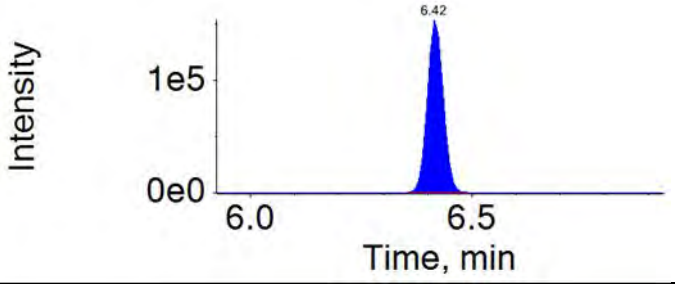
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



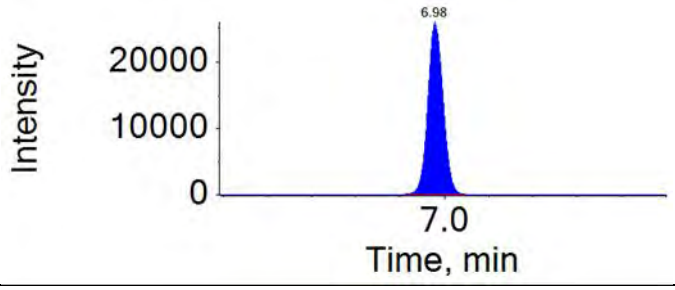


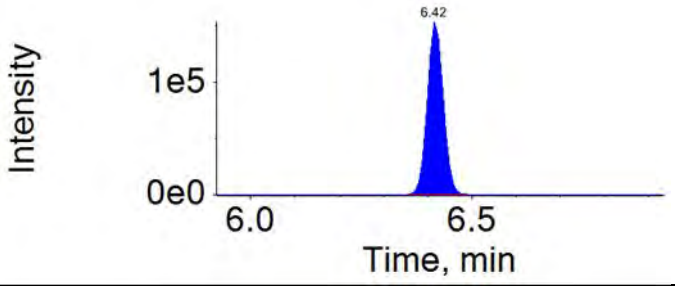
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



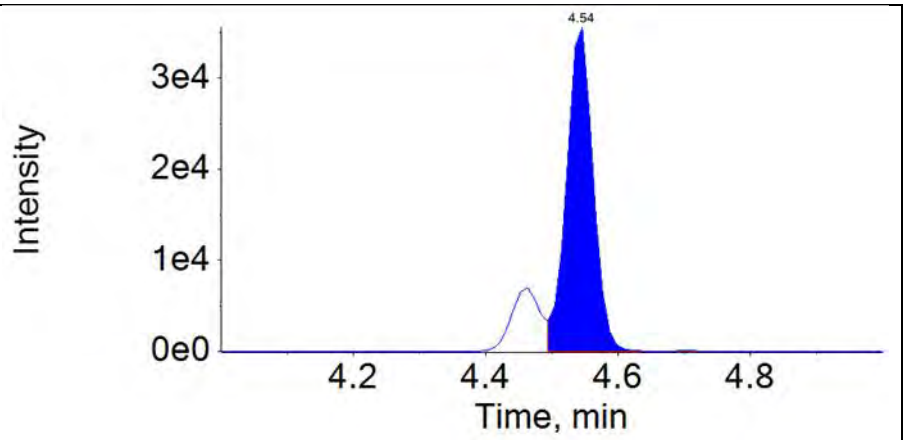


APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

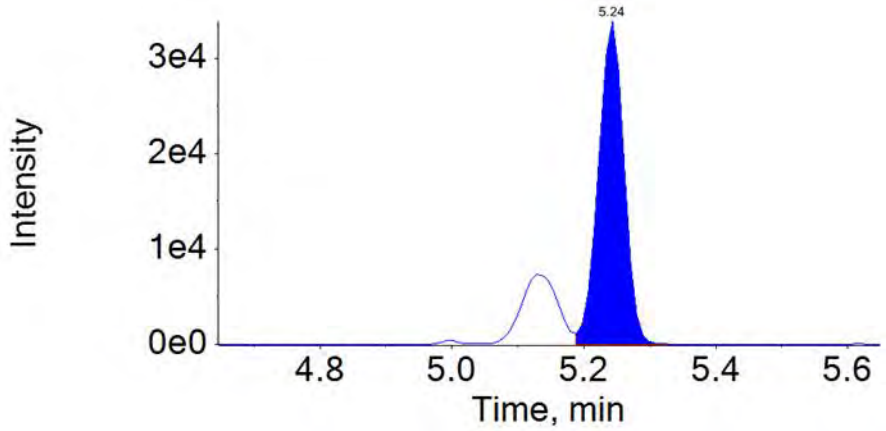
Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
99768.5
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-75.wiff
Sample Name:
CCV8_CAL3



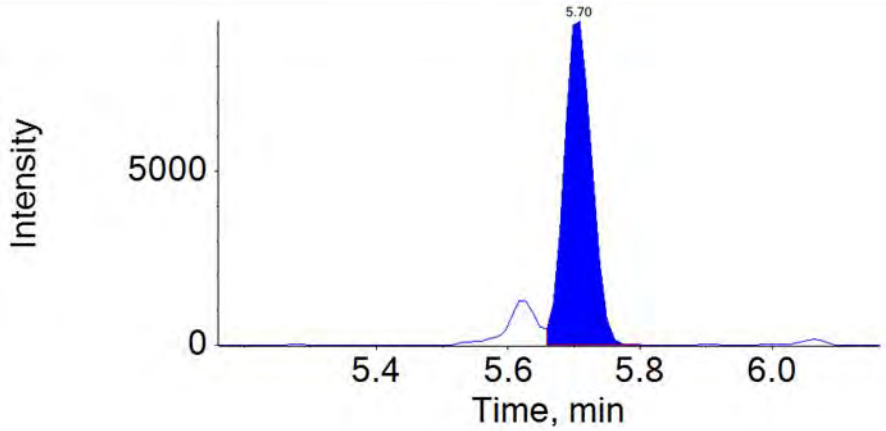
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
91682.6
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-75.wiff
Sample Name:
CCV8_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
27428.2
Mass Range:
570.0 / 419.0
File Name:
18NOV13D-75.wiff
Sample Name:
CCV8_CAL3

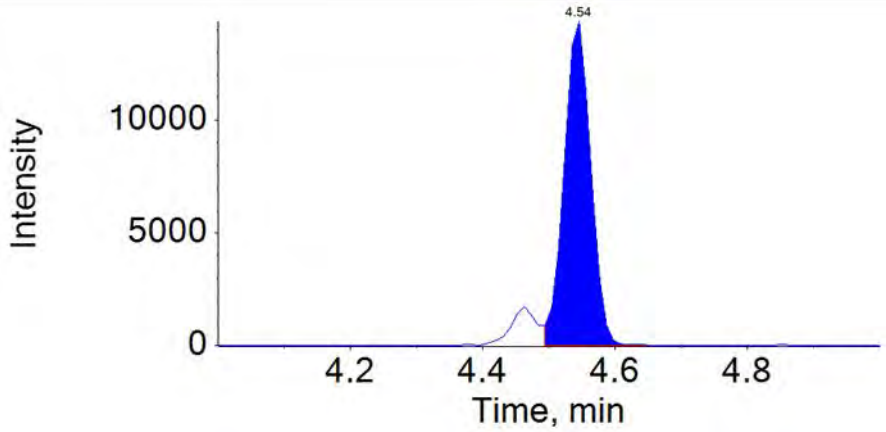


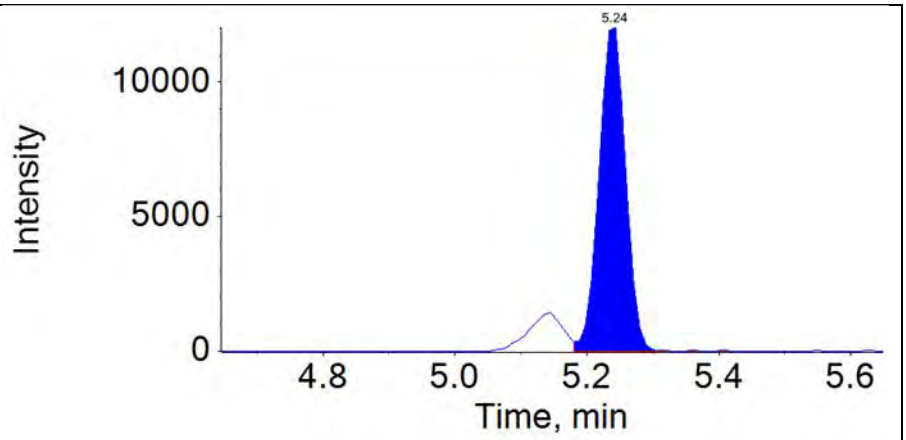
Integration Comment: incorrect integration

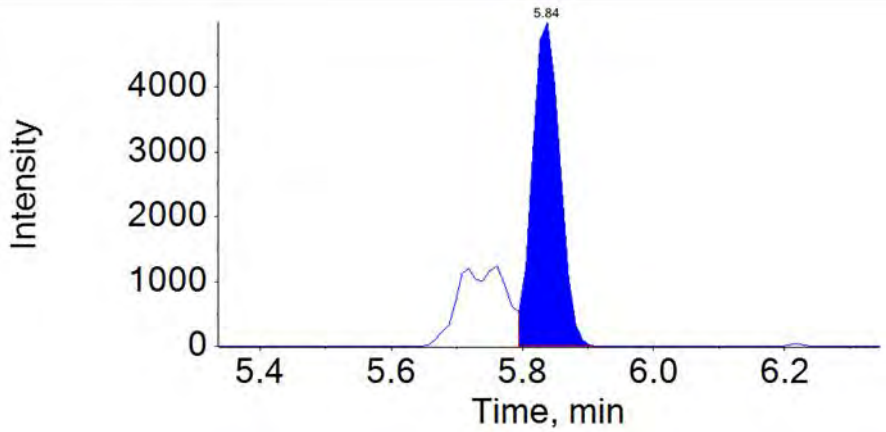
APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 40321.5 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV13D-75.wiff **Sample Name:** CCV8_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 33990.2 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV13D-75.wiff **Sample Name:** CCV8_CAL3	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 14522.0 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV13D-75.wiff **Sample Name:** CCV8_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

Results Table Name: 18NOV13DCCV6-10
Results Table Date: 11/14/2018 9:23:22 AM

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

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By HMK at 12:08 pm, 11/15/18

Ion Ratio Report

Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV13D-75.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	163827.3	A	N/A	1.0000			
PFBS_2	3.81	1.00	60373.0	A	N/A	0.3685	1	50	
4:2-FTS	4.12	1.00	36732.1	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	23250.0	A	N/A	0.6330	-5	50	
PFHxA	4.15	1.00	368369.9	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4248.8	A	N/A	0.0115	-2	50	
PFPeS	4.17	1.10	86830.0	A	N/A	1.0000			
PFPeS_2	4.17	1.10	45953.4	A	N/A	0.5292	2	50	
PFHpA	4.54	1.00	381648.1	A	N/A	1.0000			
PFHpA_2	4.54	1.00	18749.7	A	N/A	0.0491	-13	50	
PFHxS	4.54	1.00	120620.0	M	N/A	1.0000			
PFHxS_2	4.54	1.00	44988.2	M	N/A	0.3730	23	50	
6:2-FTS	4.90	1.00	29955.6	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	21994.6	A	N/A	0.7342	12	50	
PFHpS	4.90	1.08	124978.6	A	N/A	1.0000			
PFHpS_2	4.90	1.08	50847.1	A	N/A	0.4068	0	50	
PFOA	4.91	1.00	370871.7	A	N/A	1.0000			
PFOA_2	4.91	1.00	20675.2	A	N/A	0.0557	-2	50	
PFOS	5.24	1.00	121266.0	M	N/A	1.0000			
PFOS_2	5.24	1.00	39061.1	M	N/A	0.3221	25	50	
PFNA	5.26	1.00	316299.3	A	N/A	1.0000			
PFNA_2	5.26	1.00	6057.3	A	N/A	0.0192	-17	50	
PFNS	5.54	1.06	80029.9	A	N/A	1.0000			
PFNS_2	5.54	1.06	37067.0	A	N/A	0.4632	-3	50	
PFDA	5.56	1.00	256216.2	A	N/A	1.0000			
PFDA_2	5.56	1.00	1458.0	A	N/A	0.0057	-28	50	
8:2-FTS	5.57	1.00	28382.5	A	N/A	1.0000			
8:2-FTS_2	5.56	1.00	11972.4	A	N/A	0.4218	-37	50	
NMeFOSAA	5.70	1.00	31495.4	M	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	7762.9	A	N/A	0.2465	16	50	
PFDS	5.80	1.11	65705.8	A	N/A	1.0000			
PFDS_2	5.80	1.11	28381.3	A	N/A	0.4319	-15	50	
PFUnDA	5.82	1.00	213158.1	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	843.7	A	N/A	0.0040	-5	50	
NEtFOSAA	5.83	1.00	24925.7	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	20917.8	M	N/A	0.8392	45	50	
PFDoDA	6.04	1.00	240882.2	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	2117.4	A	N/A	0.0088	-46	50	
10:2-FTS	6.06	1.09	15993.2	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	12912.6	A	N/A	0.8074	25	50	
PFTrDA	6.24	1.03	193853.2	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1588.7	A	N/A	0.0082	-11	50	
PFTeDA	6.42	1.00	160382.3	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	954.2	A	N/A	0.0059	-7	50	
PFHxDA	6.72	1.05	74288.2	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4804.5	A	N/A	0.0647	-4	50	
PFODA	6.98	1.09	61455.0	A	N/A	1.0000			
PFODA_2	6.98	1.09	1528.5	A	N/A	0.0249	-8	50	

APPROVED
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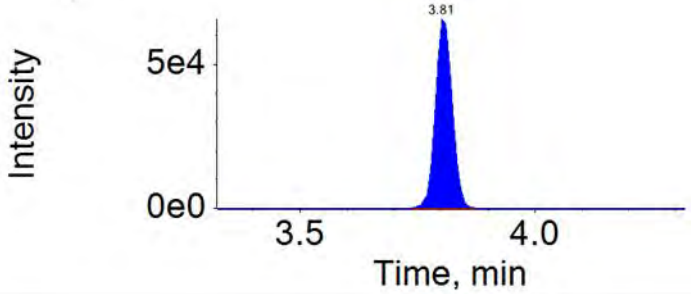
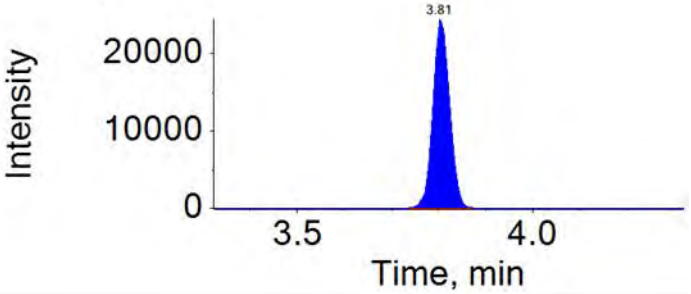
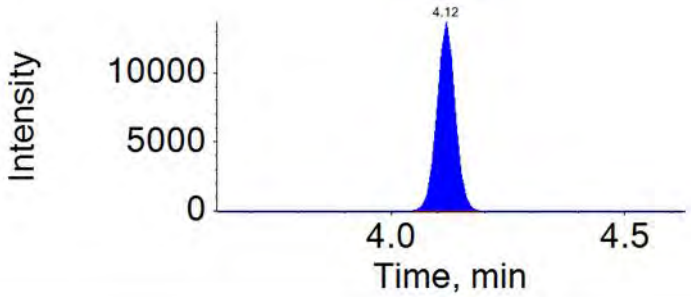
Component: PFBS
Primary Mass: 299.0 / 80.0



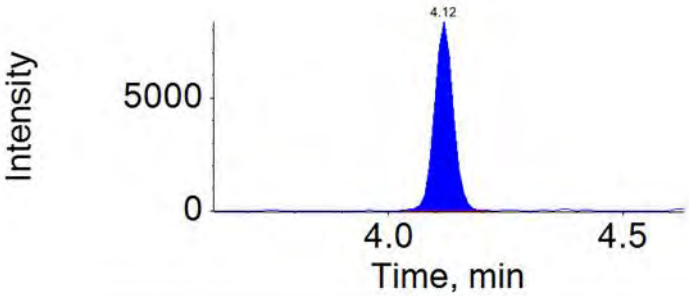
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



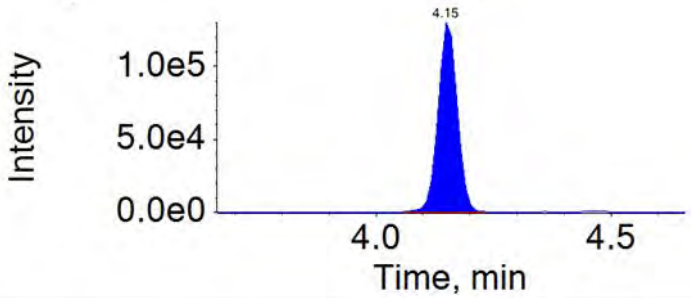
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



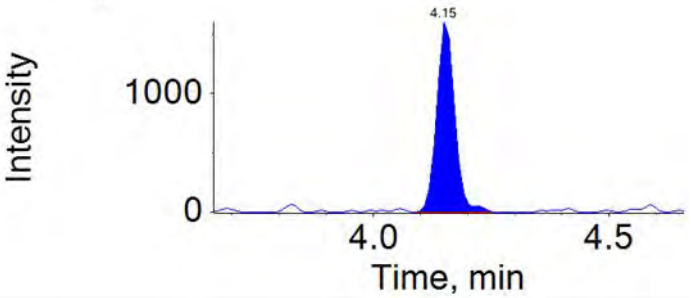
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



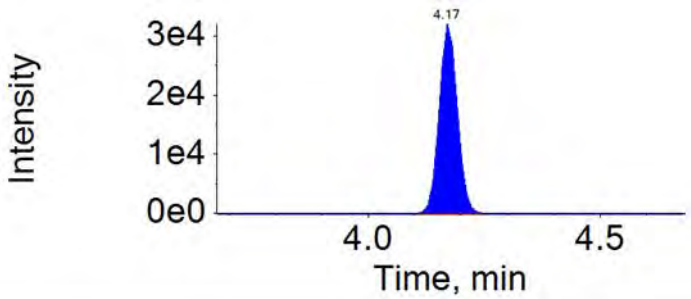
Component: PFHxA
Primary Mass: 313.0 / 269.0



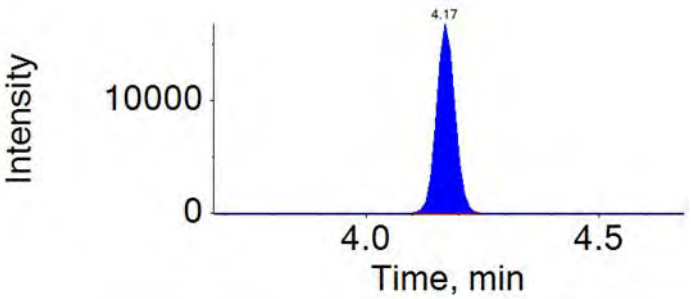
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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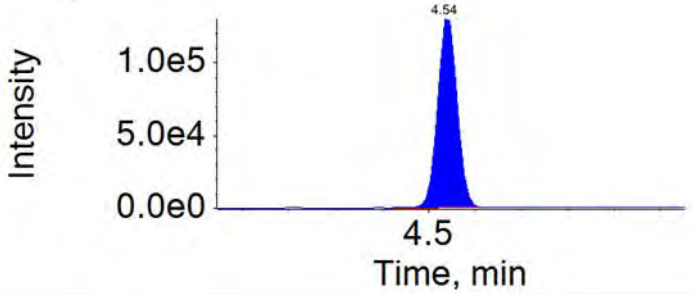
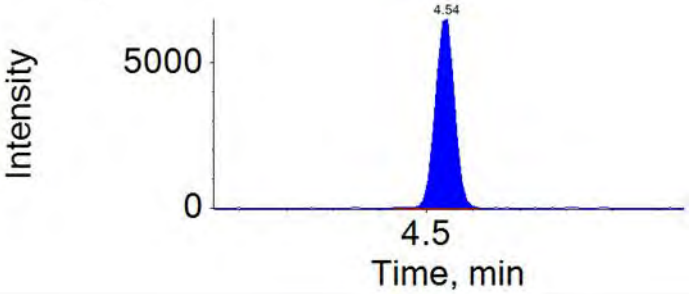
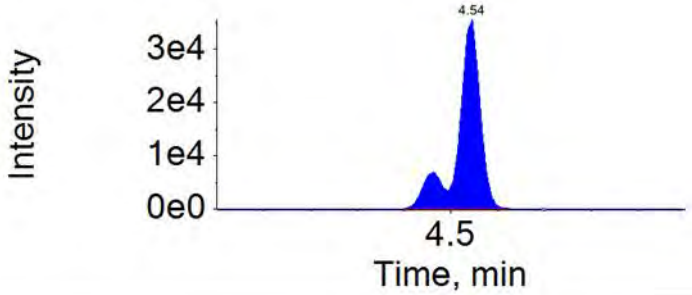
Component: PFHpA
Primary Mass: 363.0 / 319.0



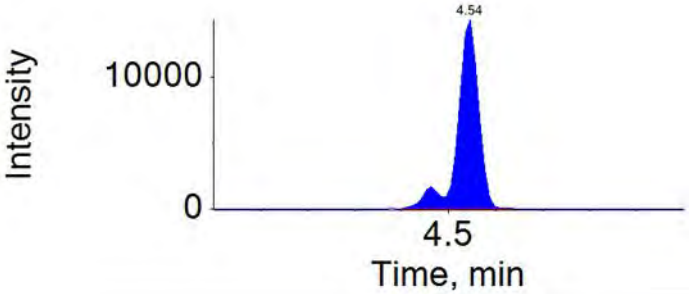
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



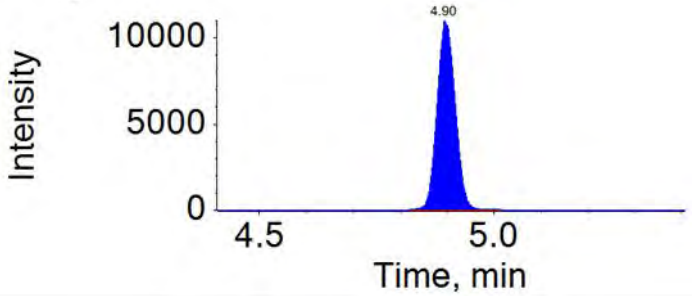
Component: PFHxS
Primary Mass: 399.0 / 80.0



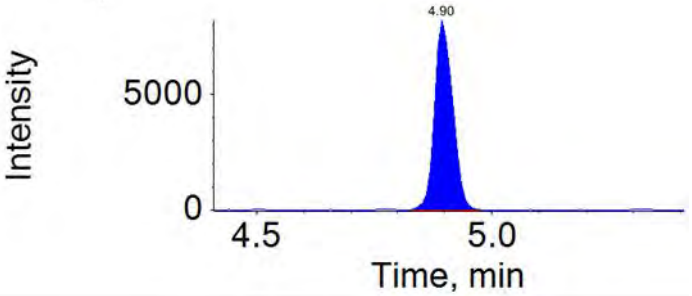
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



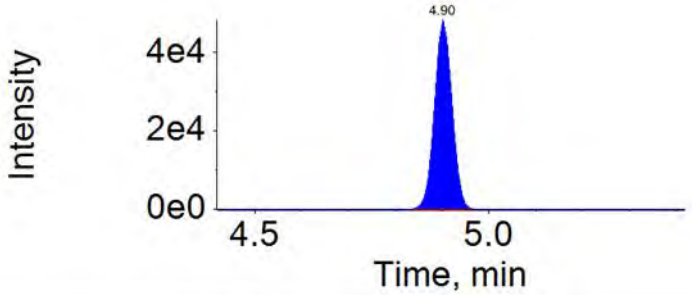
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



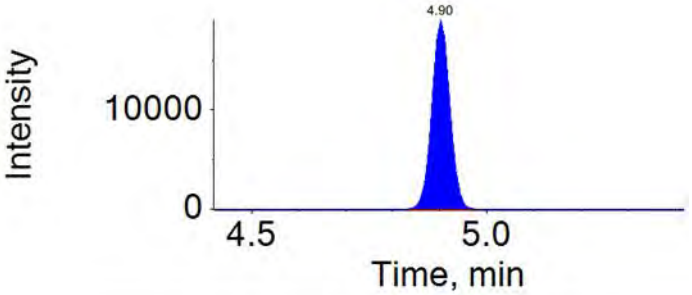
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By JPT at 10:19 am, 11/14/18

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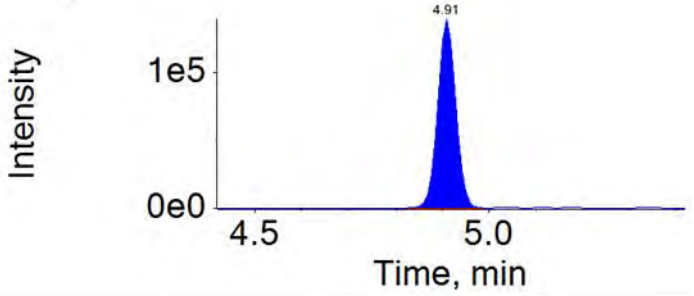
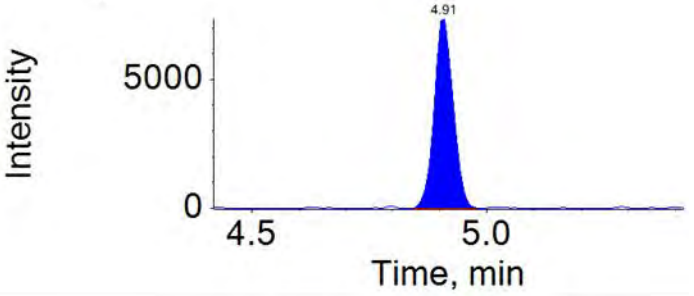
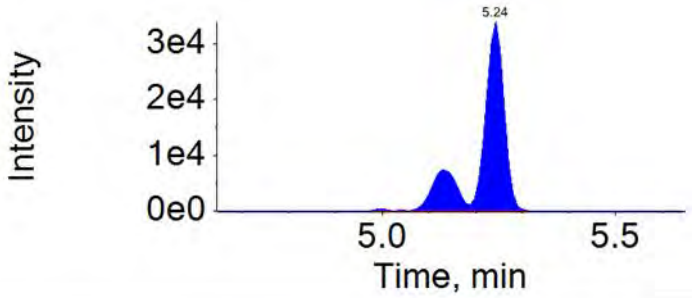
Component: PFOA
Primary Mass: 413.0 / 369.0



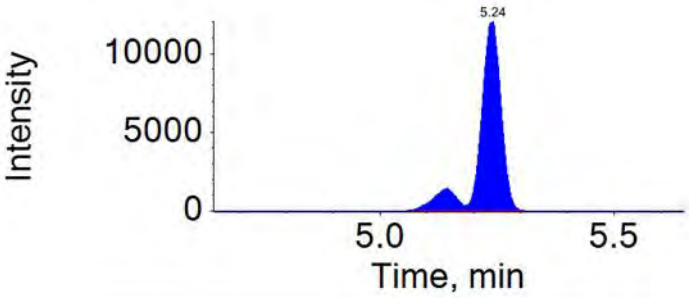
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



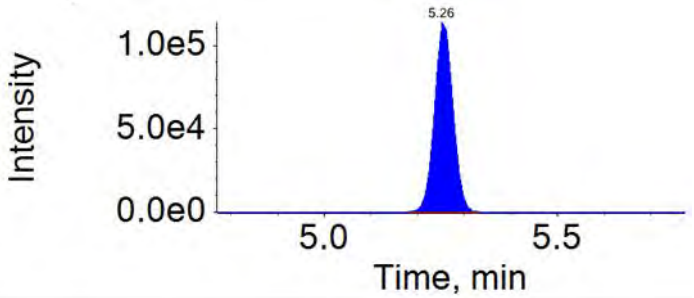
Component: PFOS
Primary Mass: 499.0 / 80.0



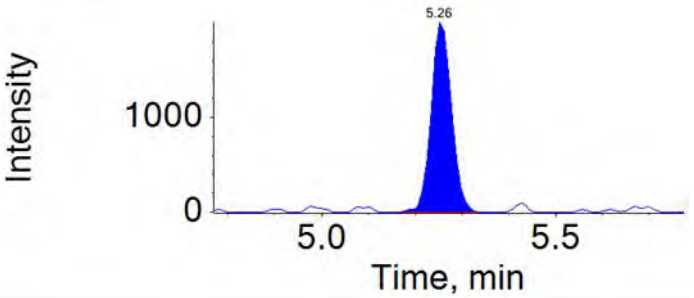
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



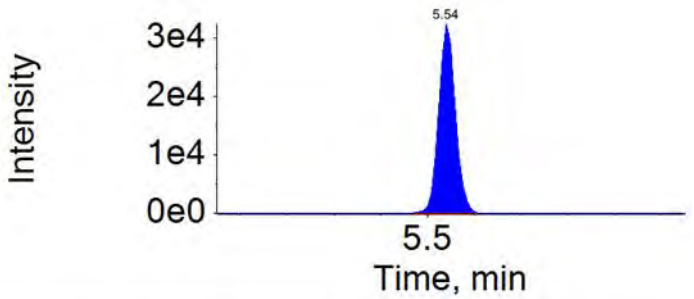
Component: PFNA
Primary Mass: 463.0 / 419.0



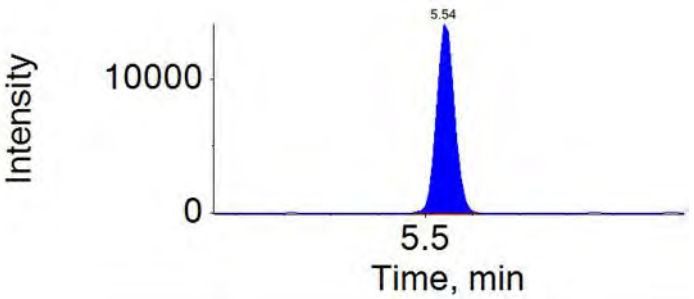
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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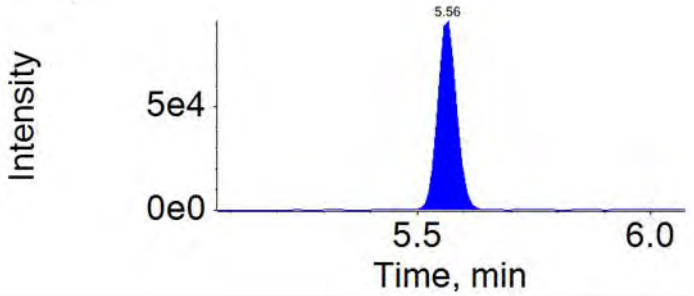
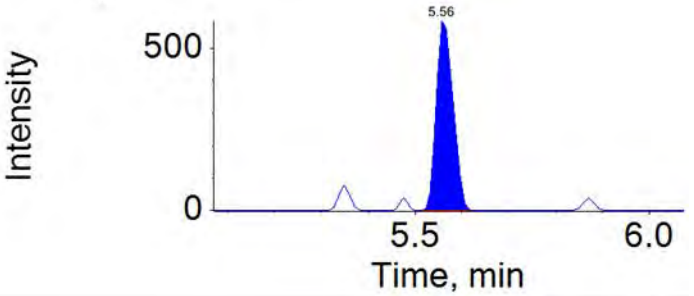
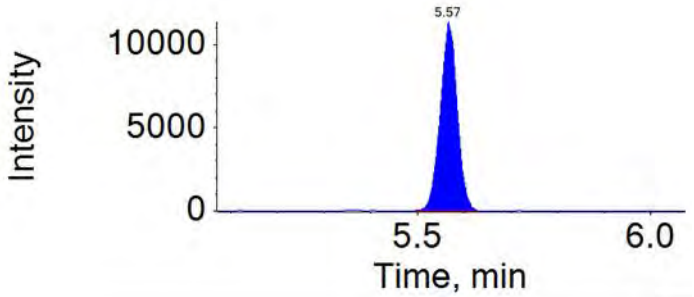
Component: PFDA
Primary Mass: 513.0 / 469.0



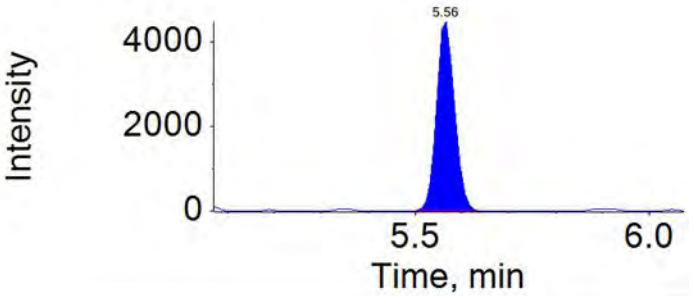
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



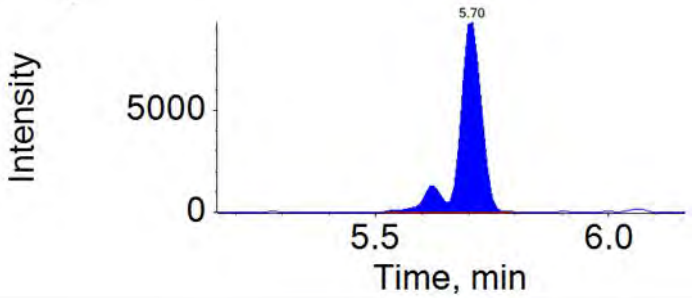
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



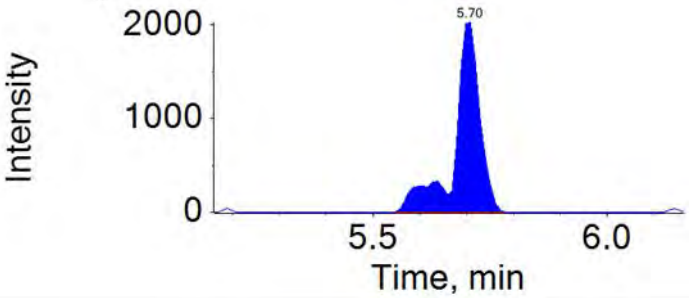
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



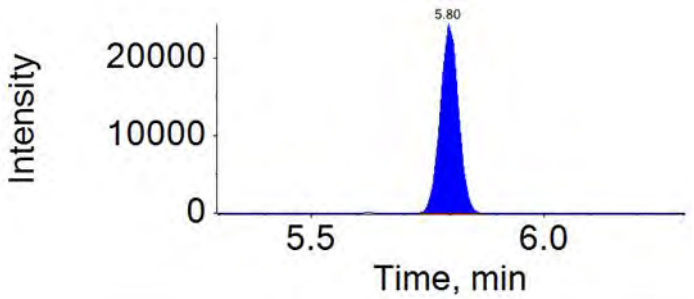
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



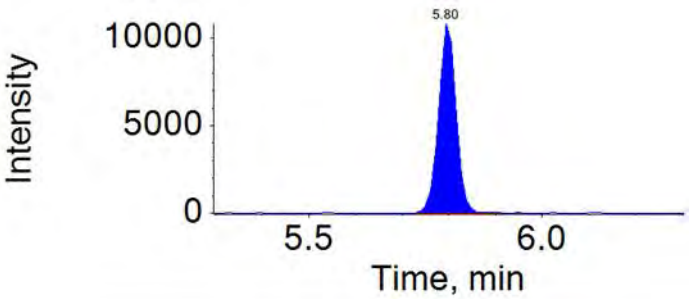
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



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By JPT at 10:19 am, 11/14/18

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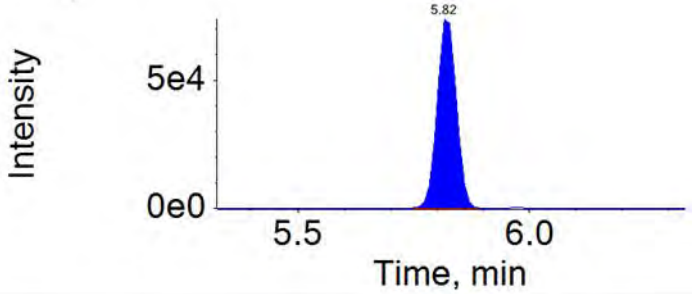
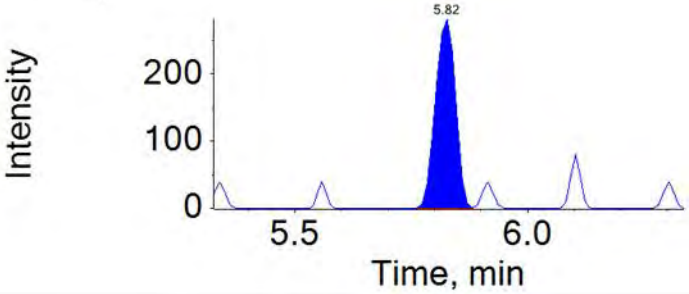
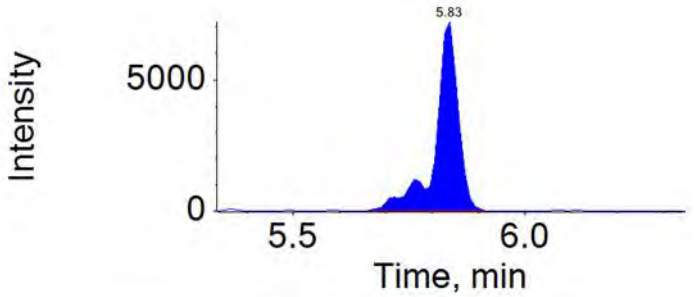
Component: PFUnDA
Primary Mass: 563.0 / 519.0



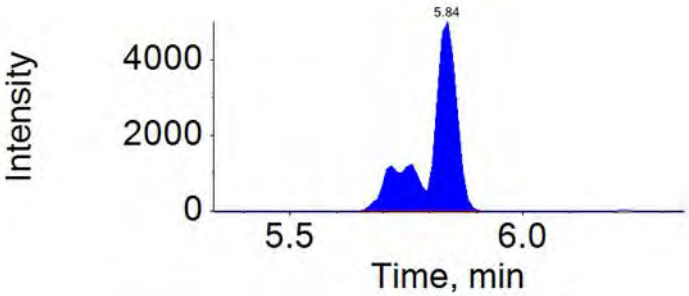
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



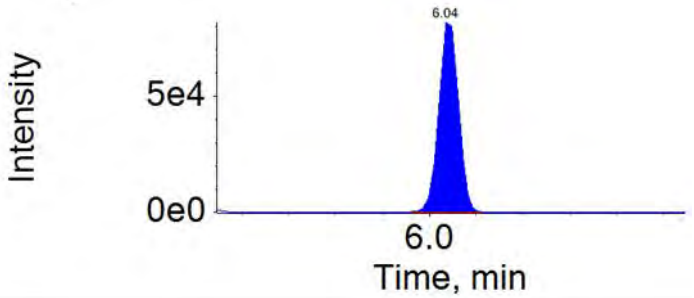
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



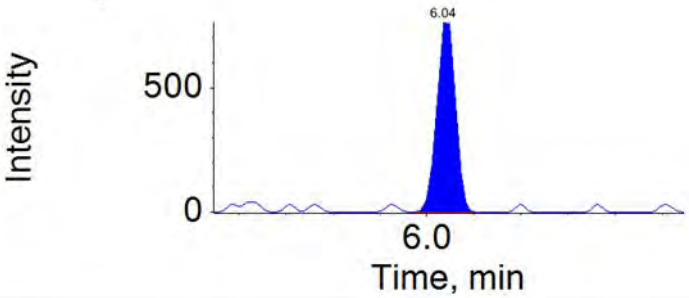
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



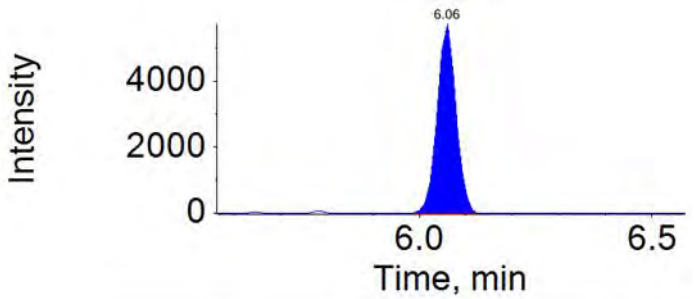
Component: PFDoDA
Primary Mass: 613.0 / 569.0



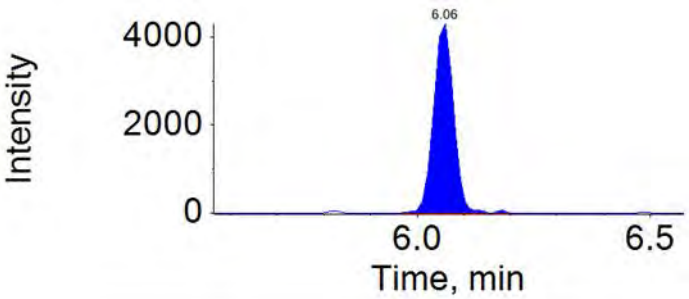
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



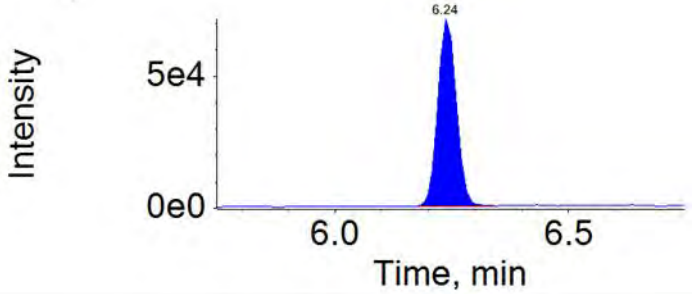
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



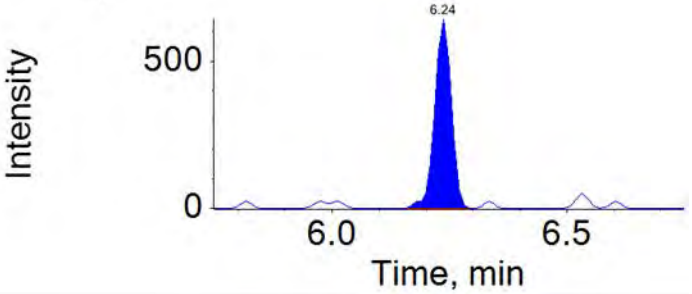
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



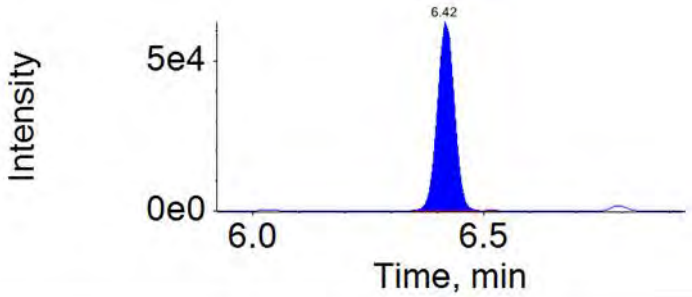
Component: PFTrDA
Primary Mass: 663.0 / 619.0



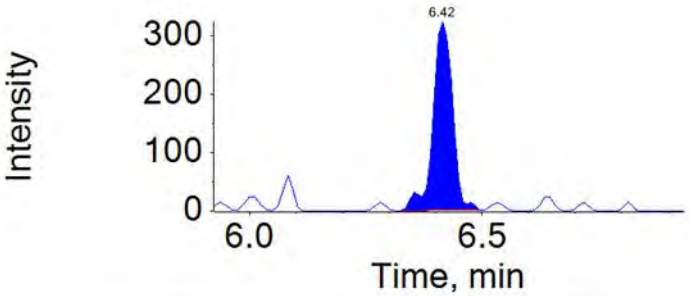
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



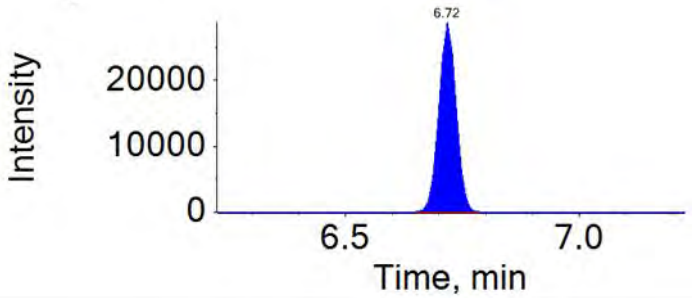
Component: PFTeDA
Primary Mass: 713.0 / 669.0



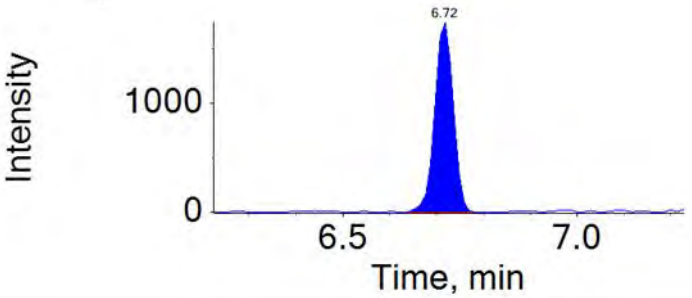
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



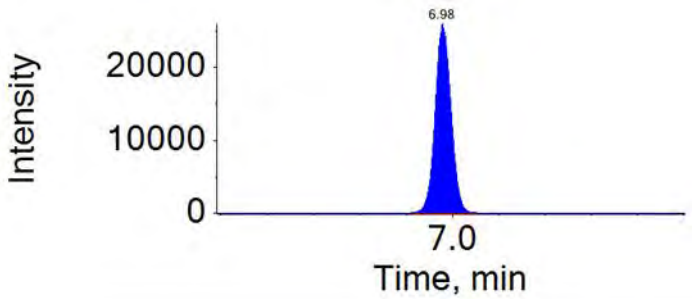
Component: PFHxDA
Primary Mass: 813.0 / 769.0



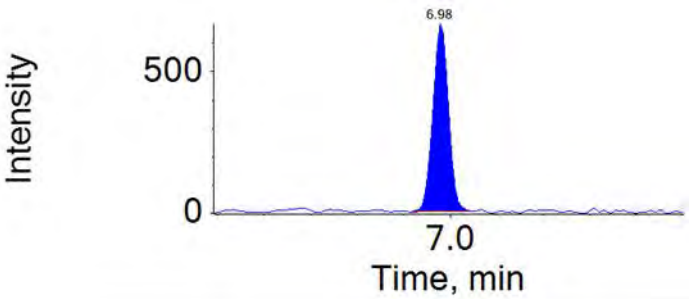
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 10:19 am, 11/14/18

REVIEWED
By HMK at 12:08 pm, 11/15/18

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

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

Response Factor Table

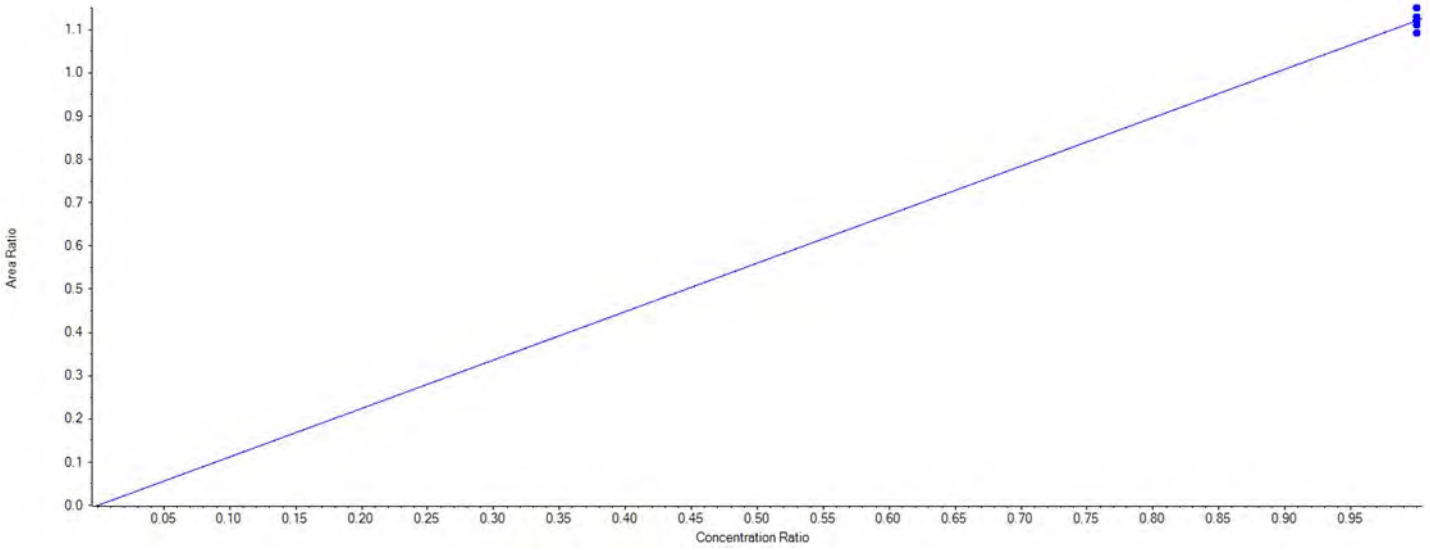
Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r^2	OOS
PFBA	1.080	0.888	1.015	0.915	0.953	0.891	N/A	7	20		0.999	
PFPeA	1.146	0.858	1.164	0.972	1.027	N/A	N/A	11	20		0.997	
PFBS	1.048	0.856	1.054	0.915	0.956	0.951	0.964	7	20		1.000	
4:2-FTS	1.863	1.681	1.998	1.784	1.847	1.760	1.708	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	
PFTrDA	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

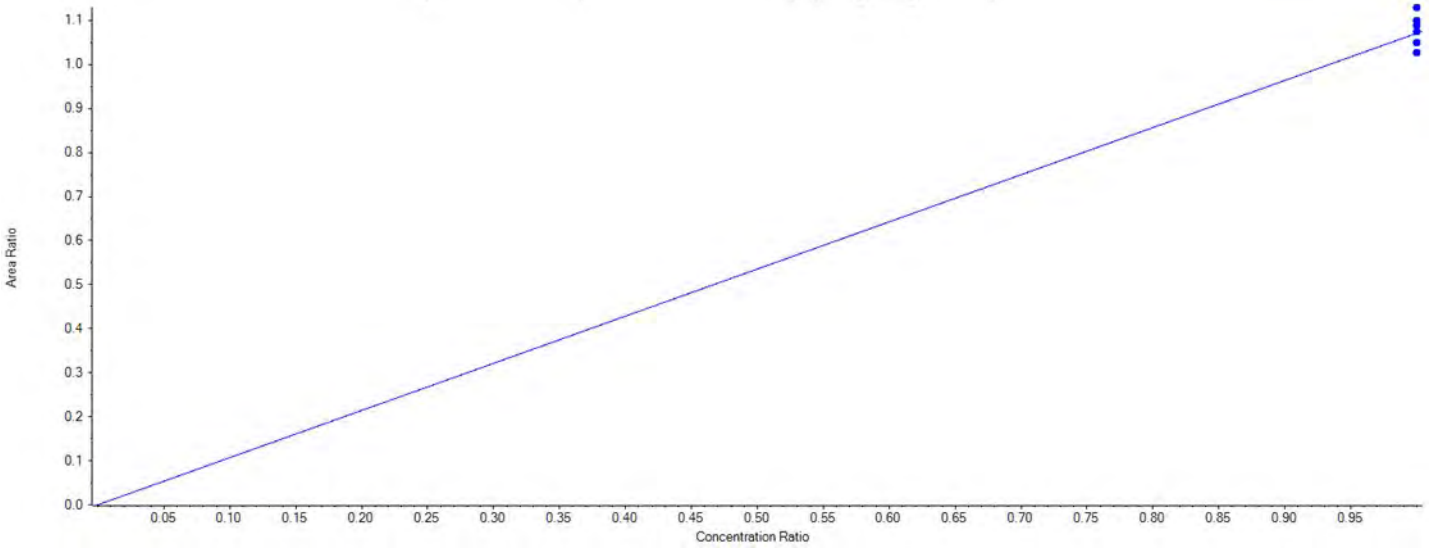
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

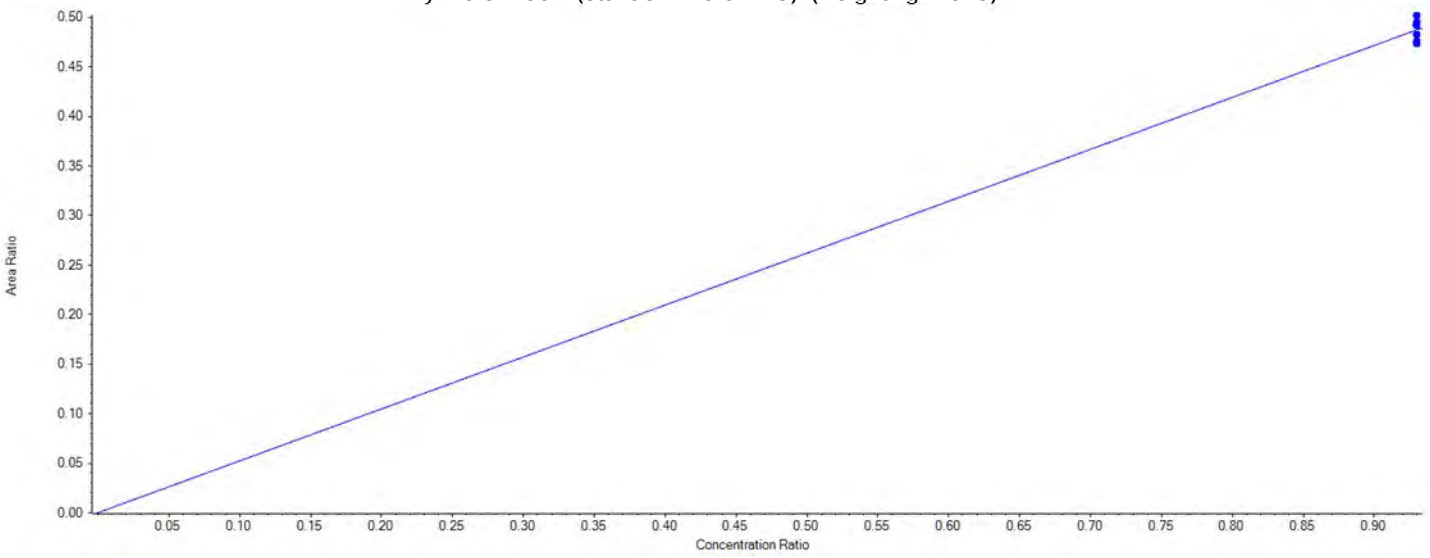
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

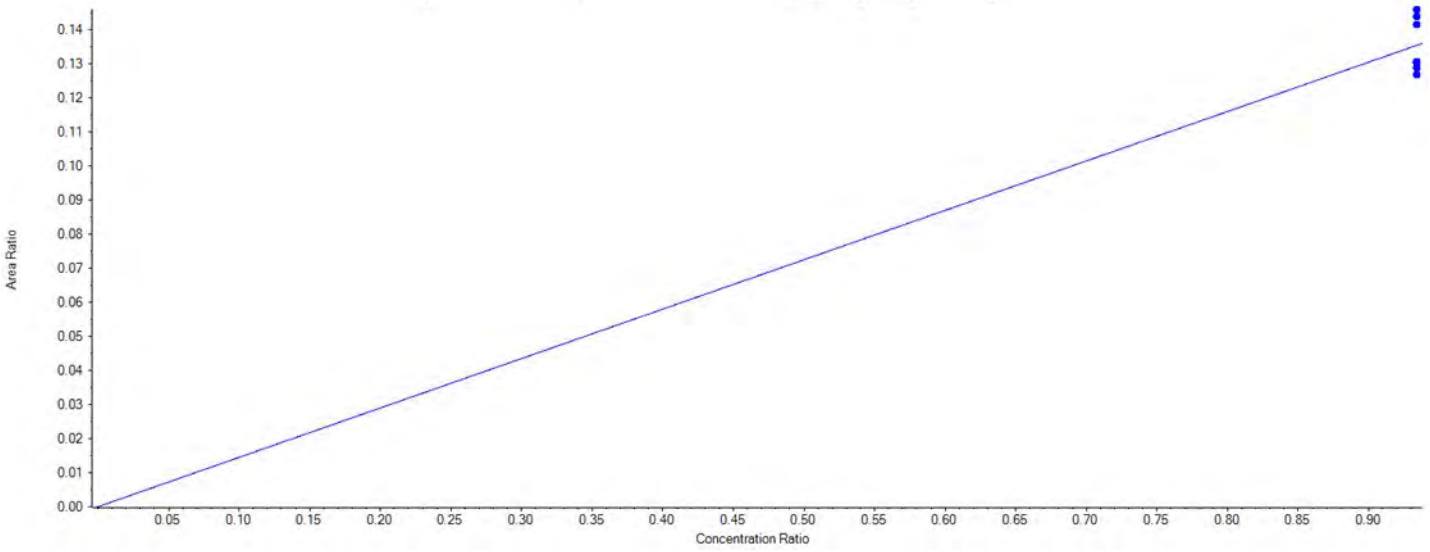
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C2-4:2-FTS

y = 0.14509 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

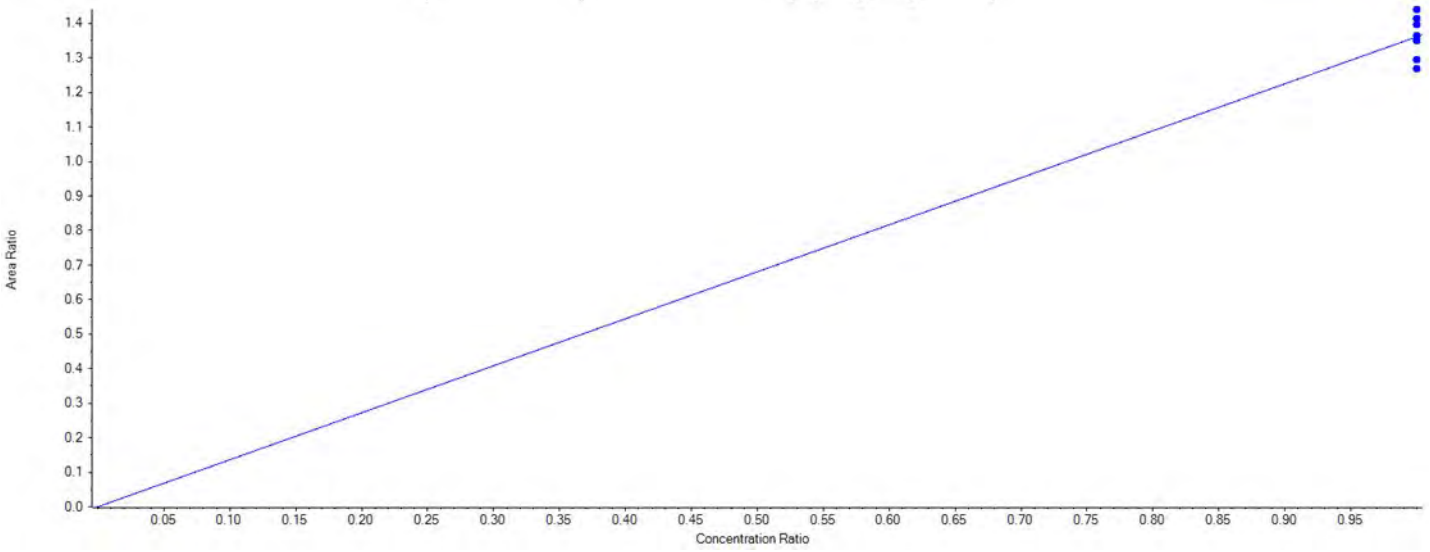
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C5-PFHxA

y = 1.36129 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

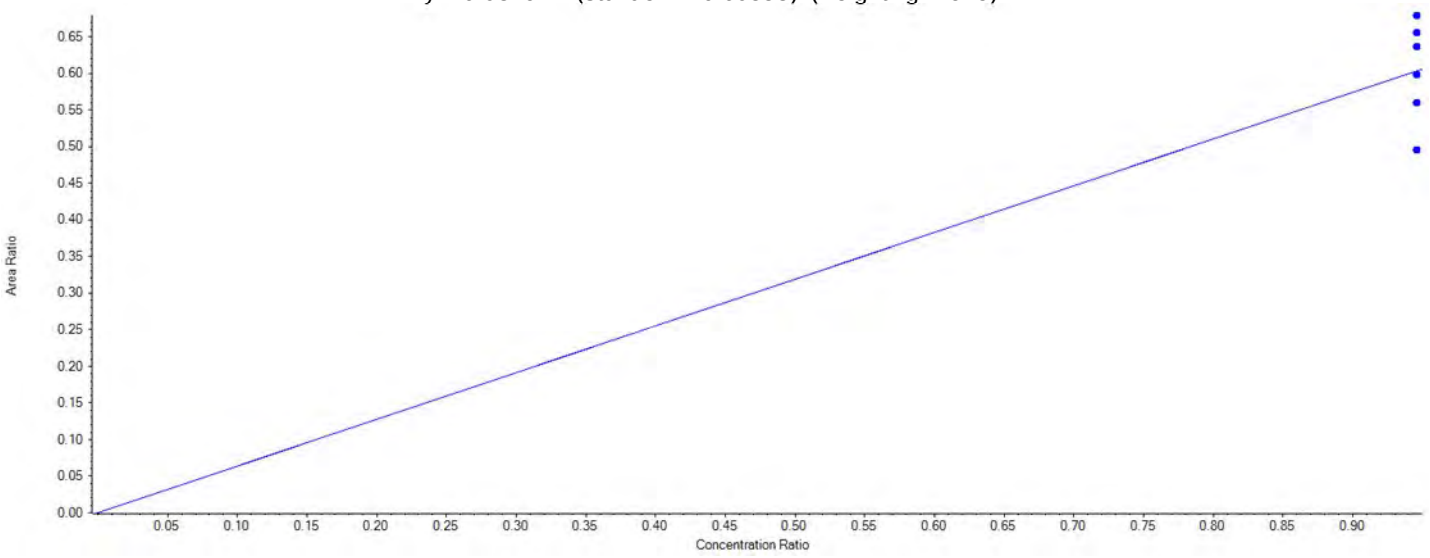
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

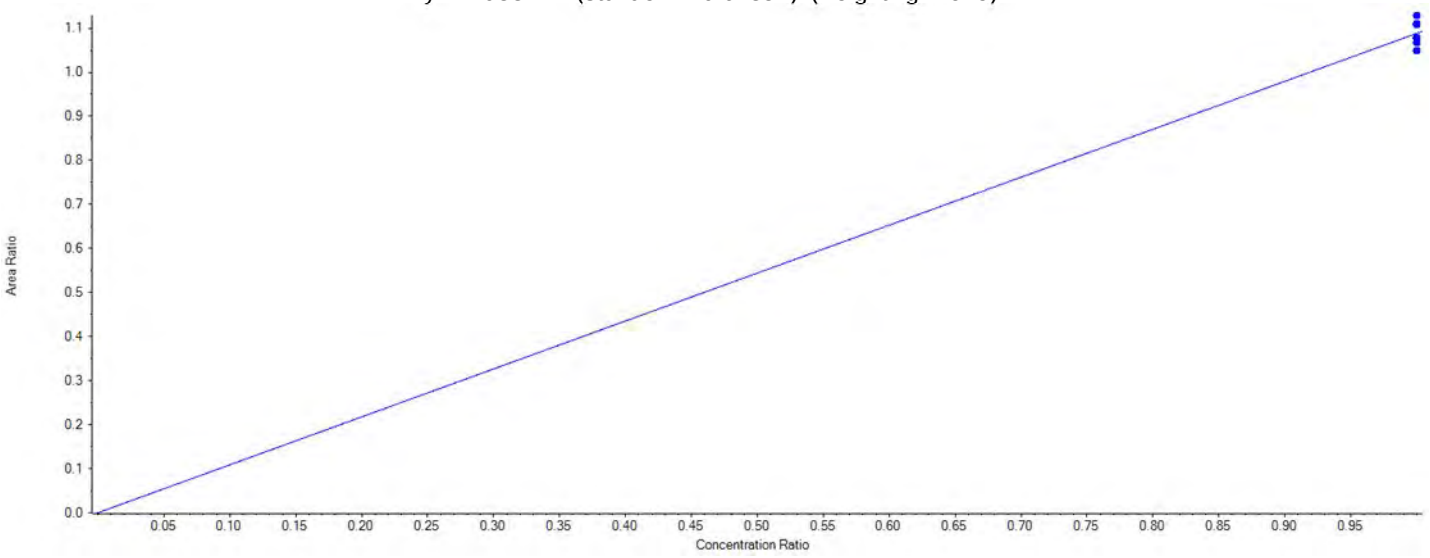
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C4-PFHpA

y = 1.08817 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

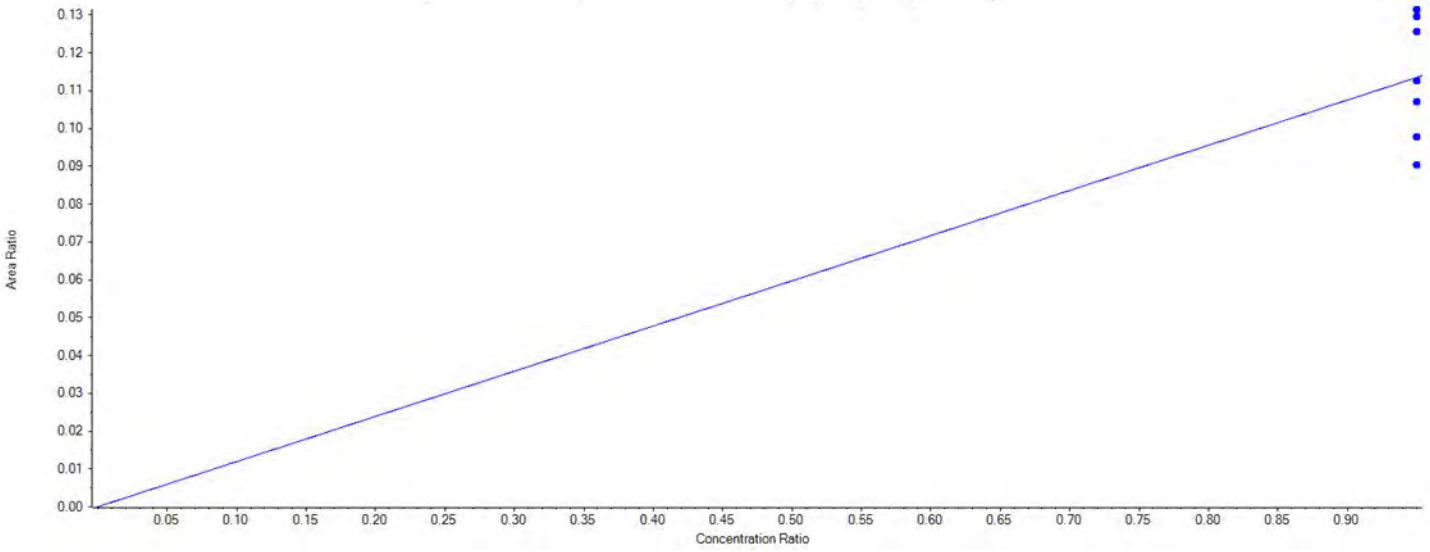
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

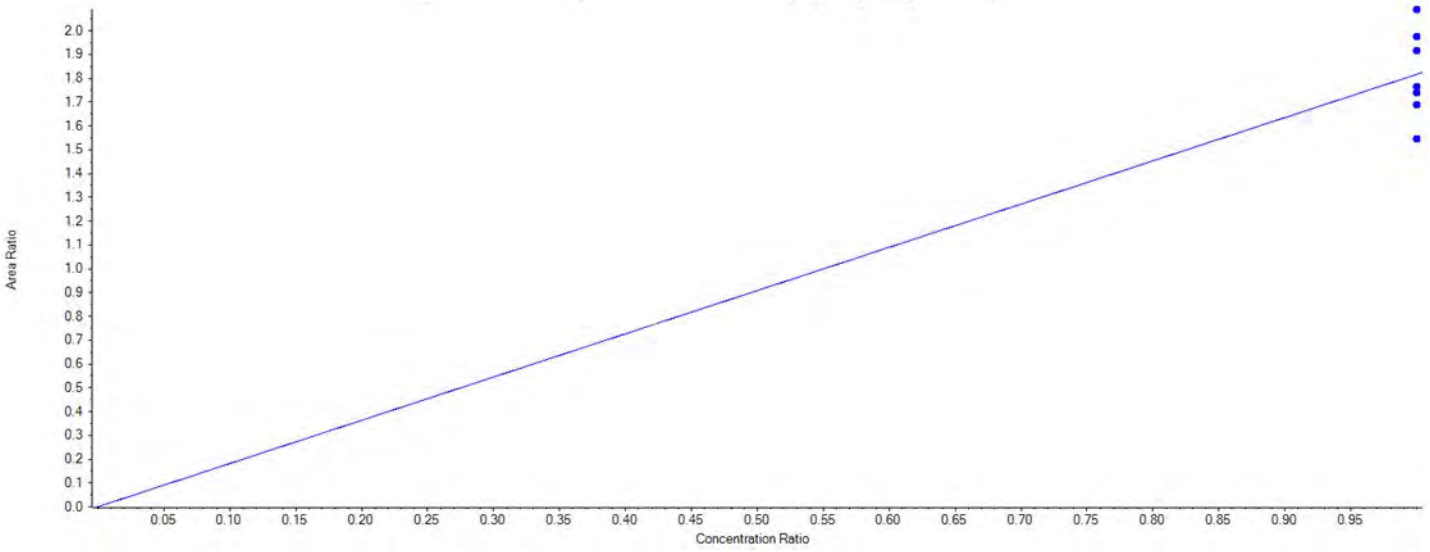
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

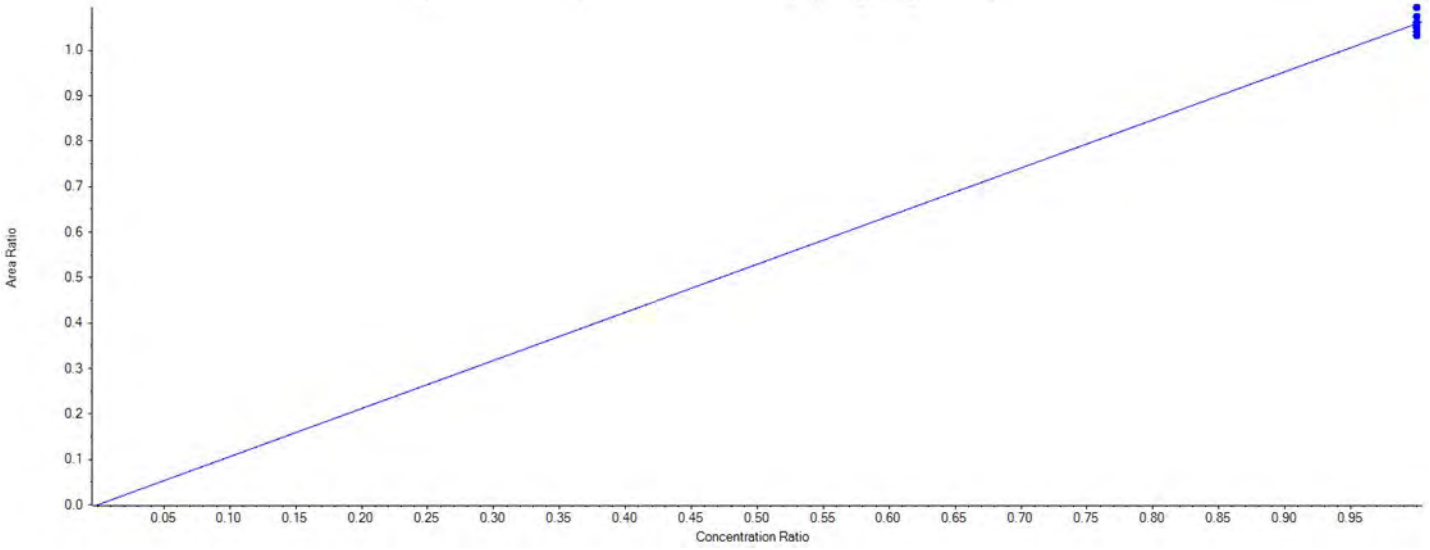
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C8-PFOS

y = 1.05888 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

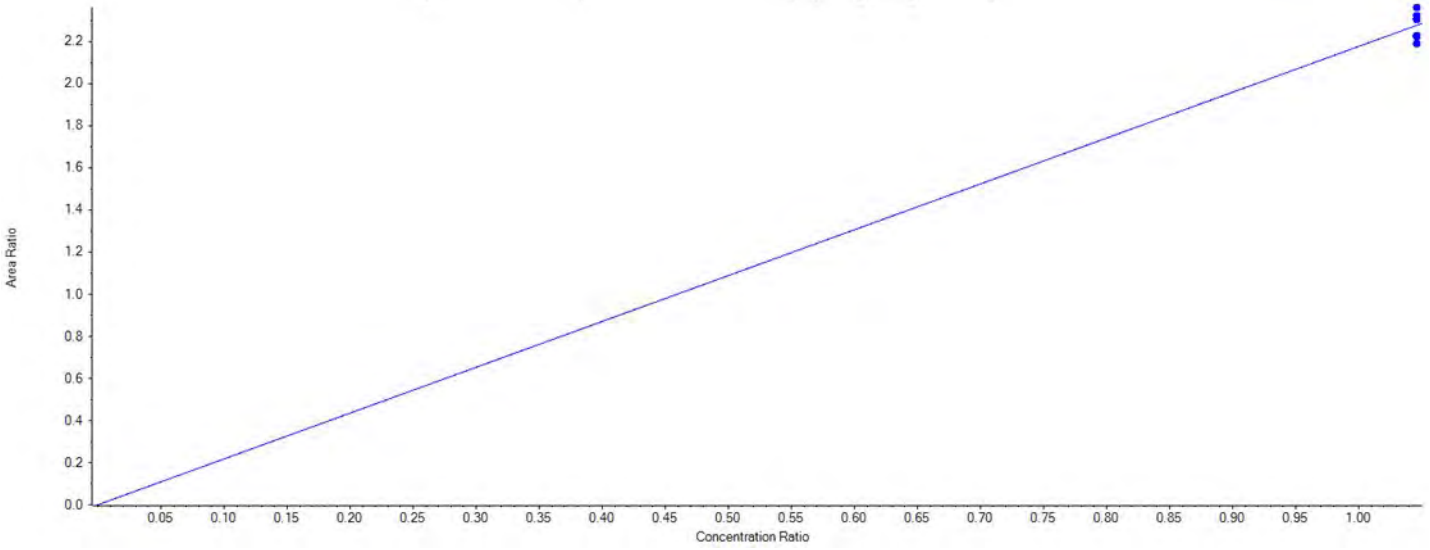
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

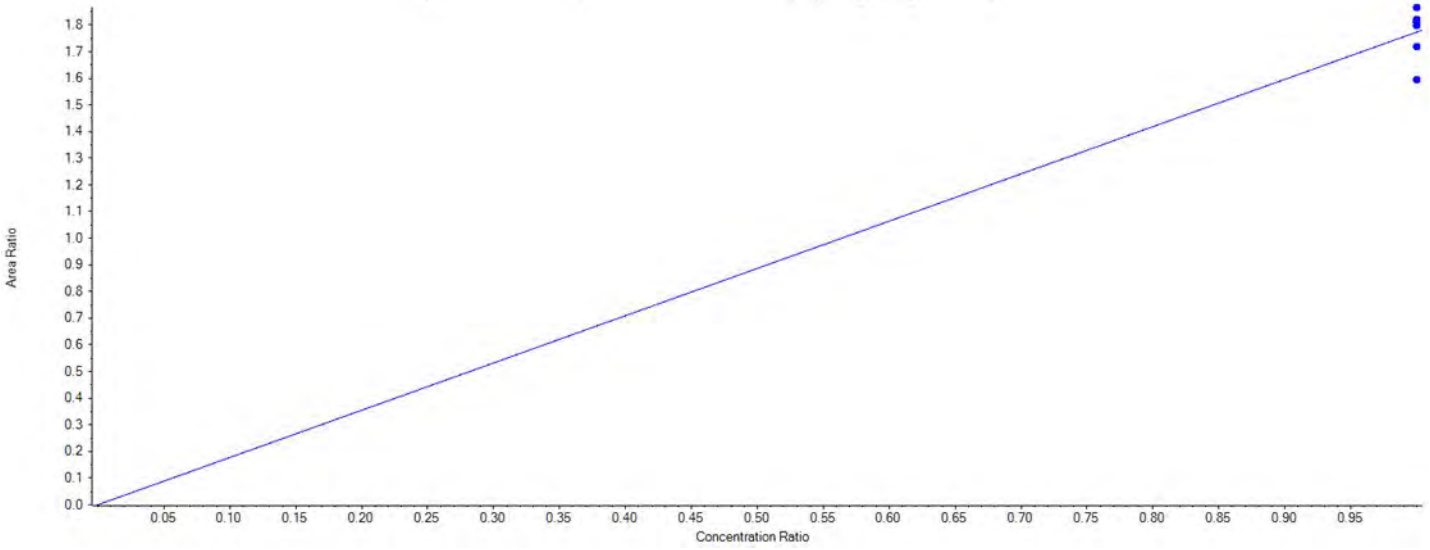
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

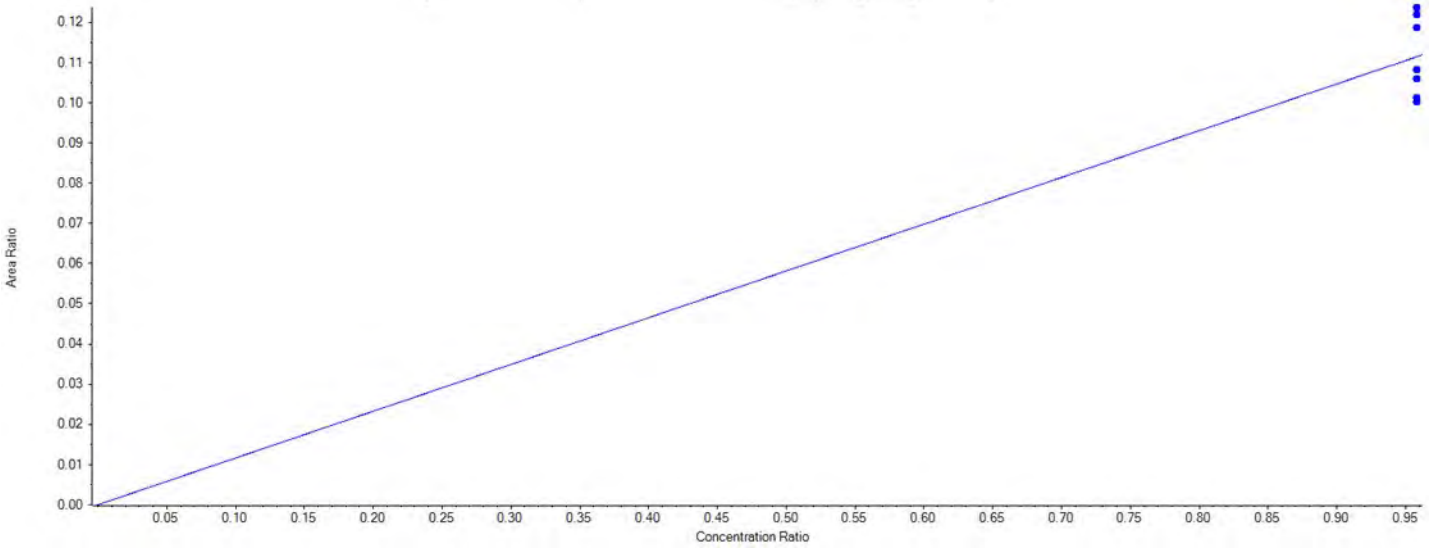
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

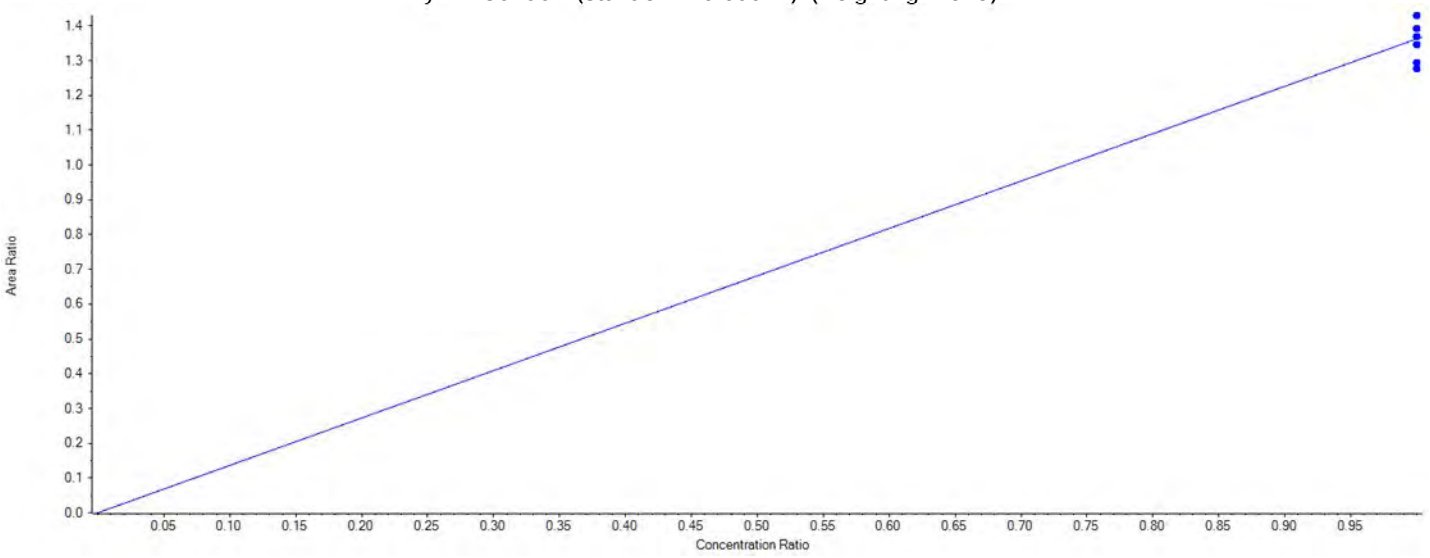
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

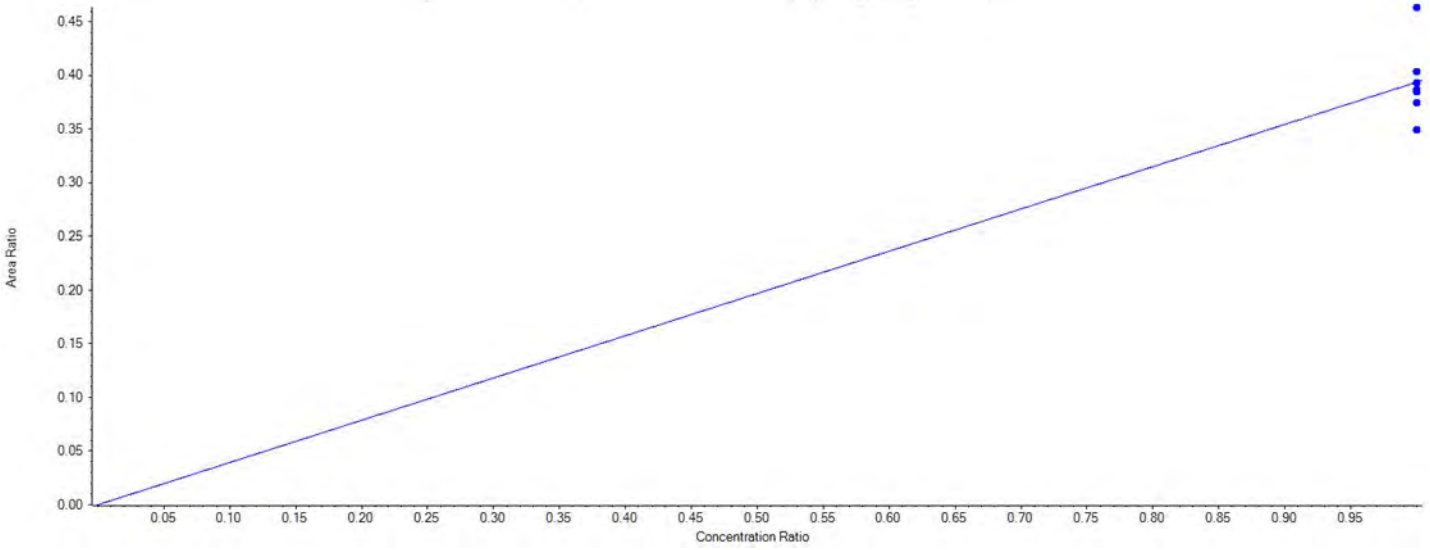
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

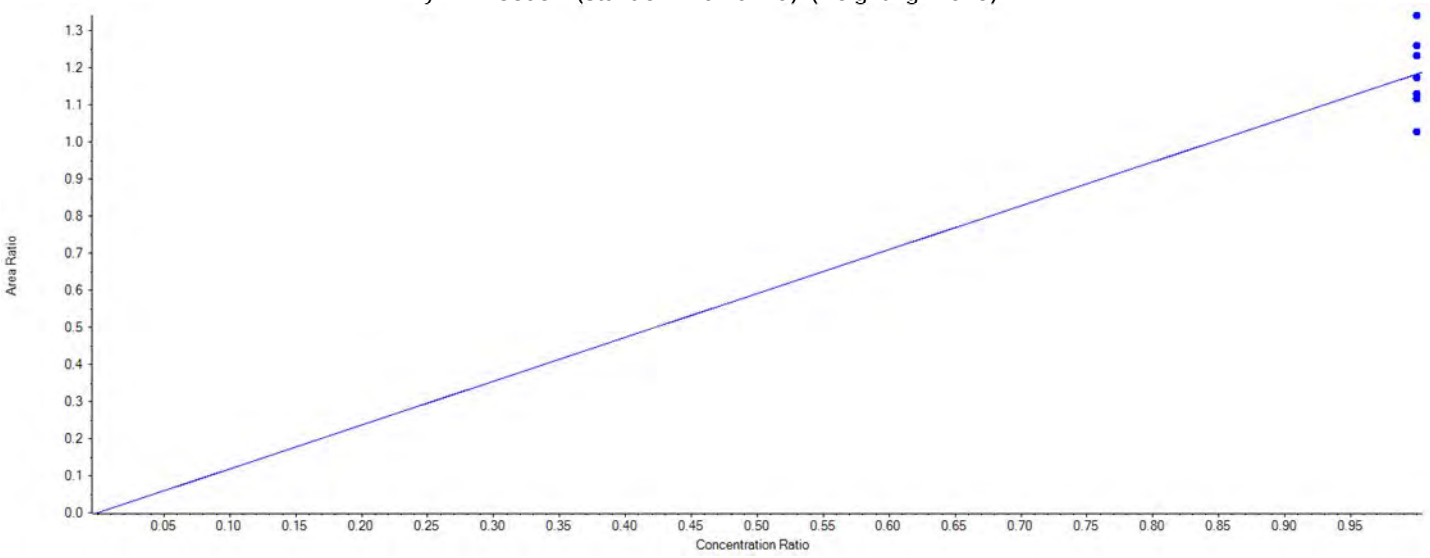
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

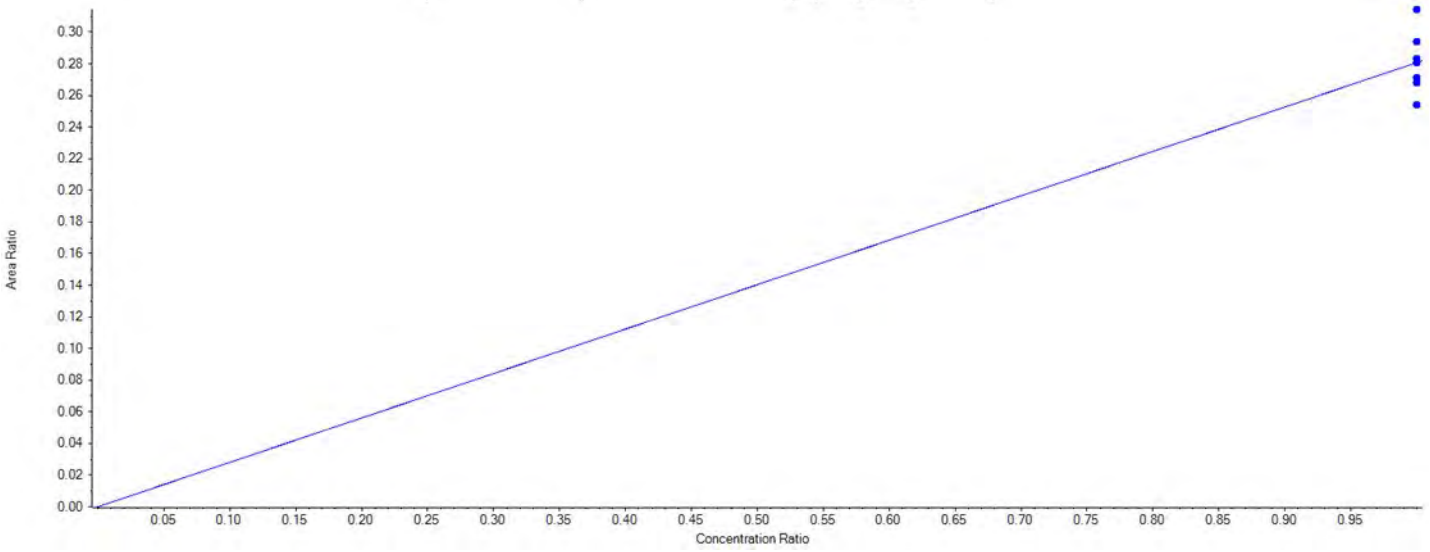
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

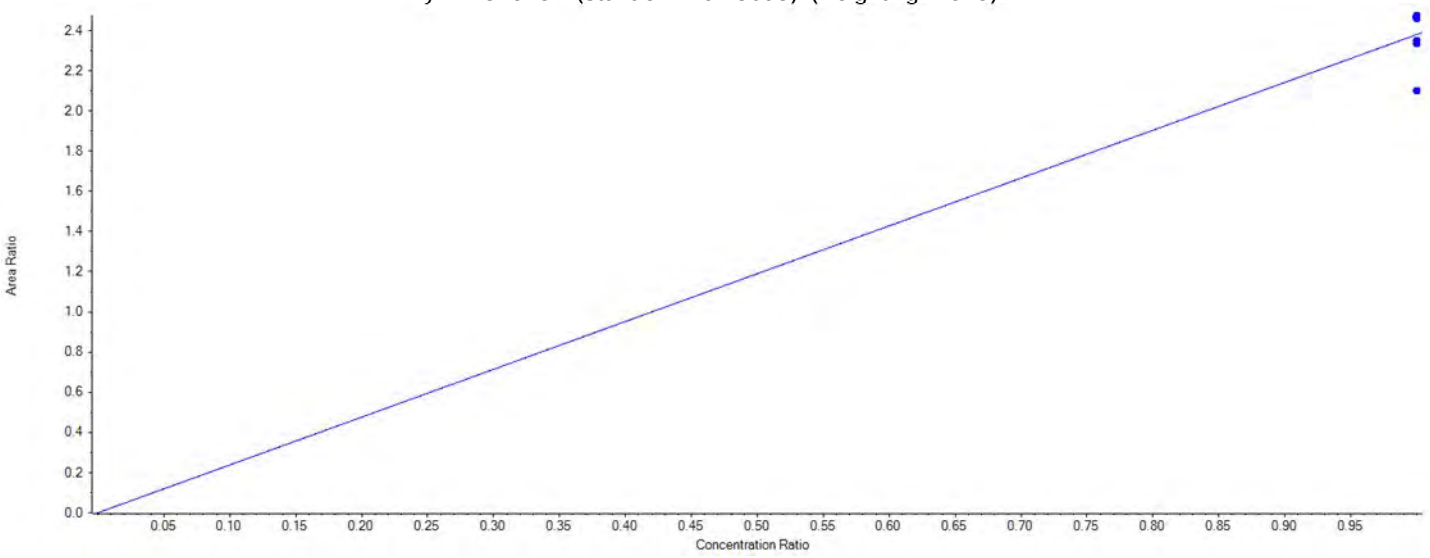
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C2-PFDoDA

y = 2.37975 x (std. dev. = 0.13603) (weighting: None)



Extraction Standard Calibration Verification

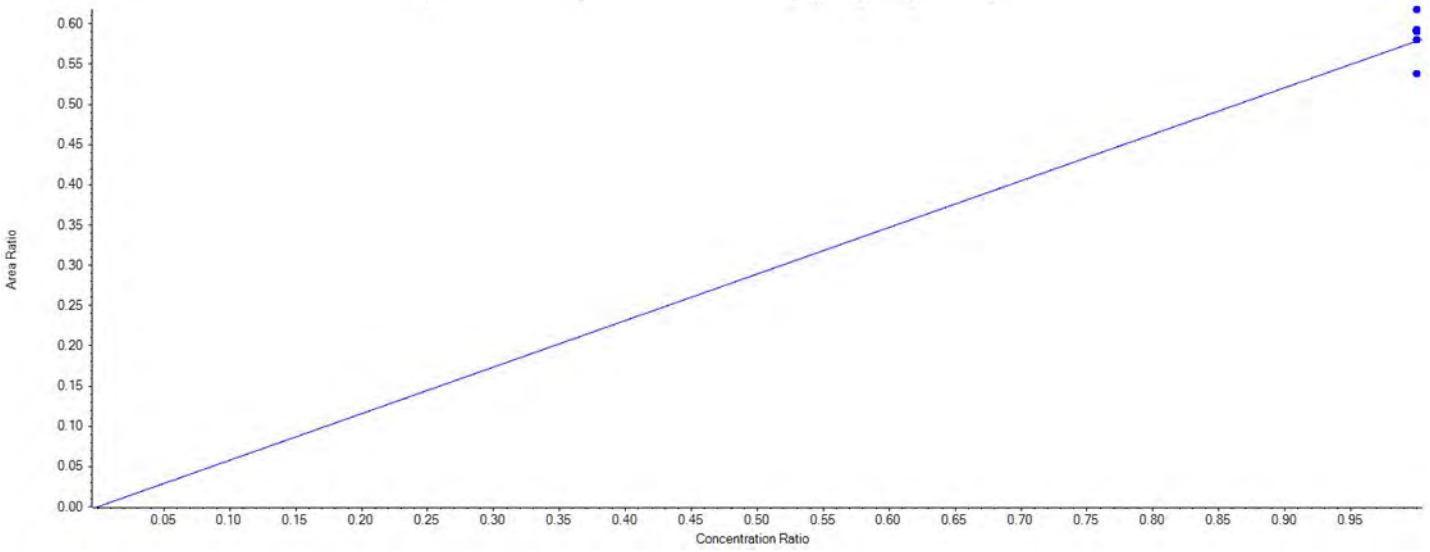
Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1173339.1	476146.560	True	5.00	2.464	6.06	1.090	5.000	5.178	4	30	
CAL2	1140522.3	460926.236	True	5.00	2.474	6.05	1.090	5.000	5.199	4	30	
CAL3	1091194.9	441790.617	True	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-NMePFOSAE 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	

APPROVED
By MCD at 3:40 pm, 1/10/19

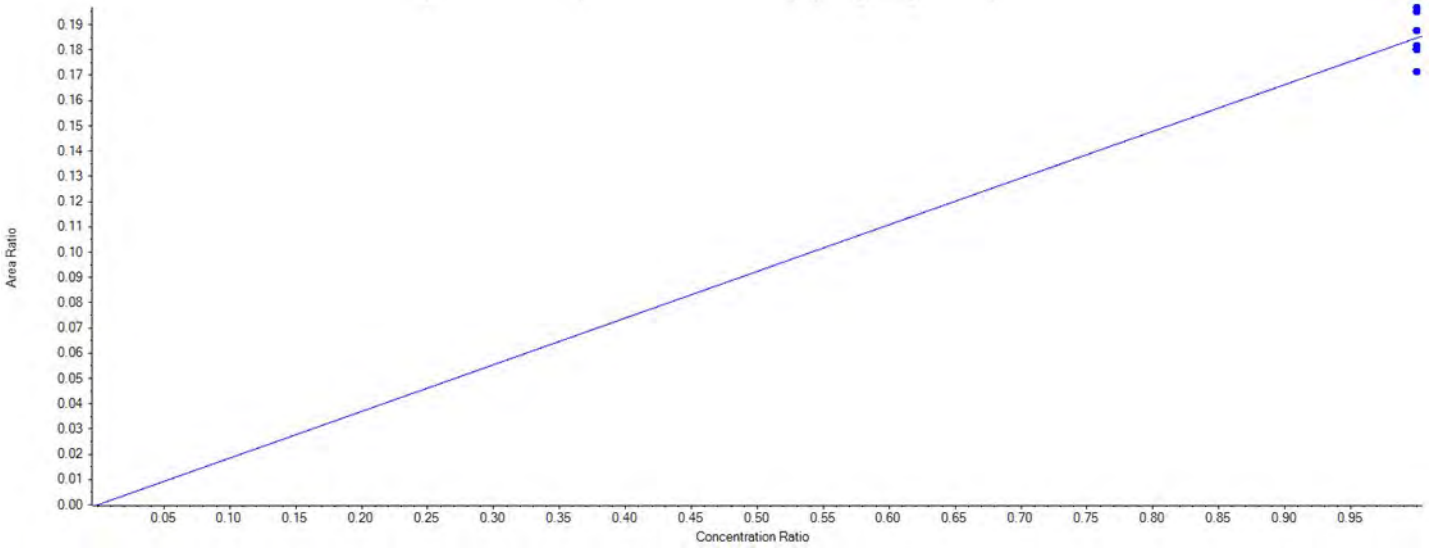
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

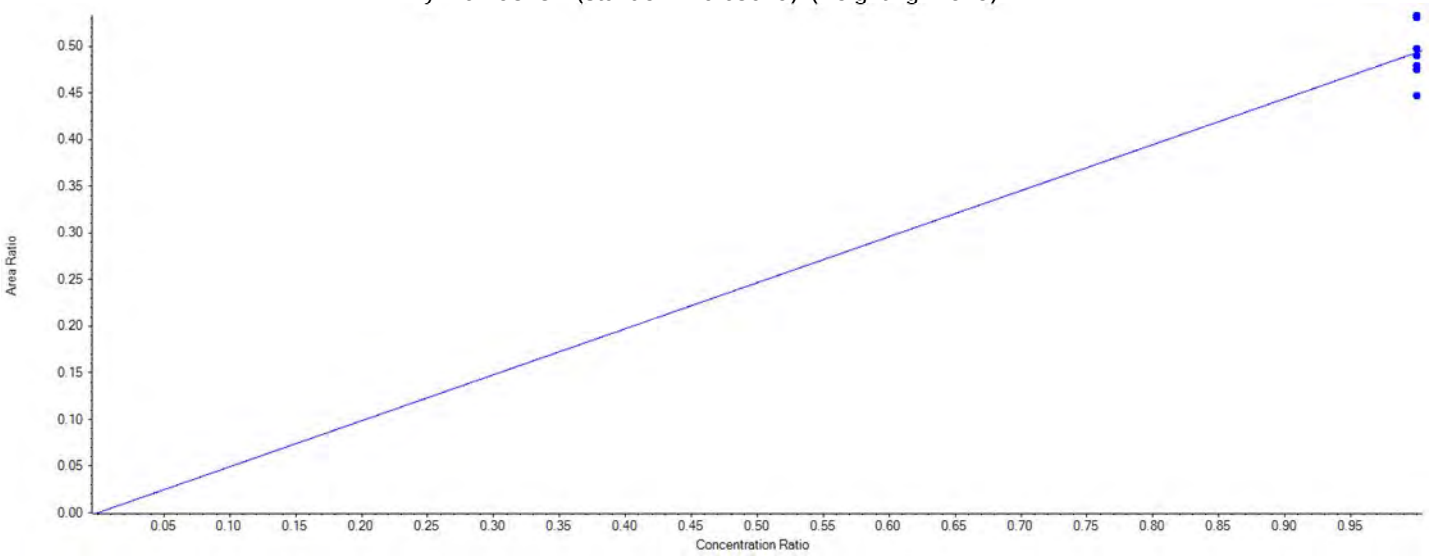
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

Ed9-NEtPFOSAE

y = 0.49318 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

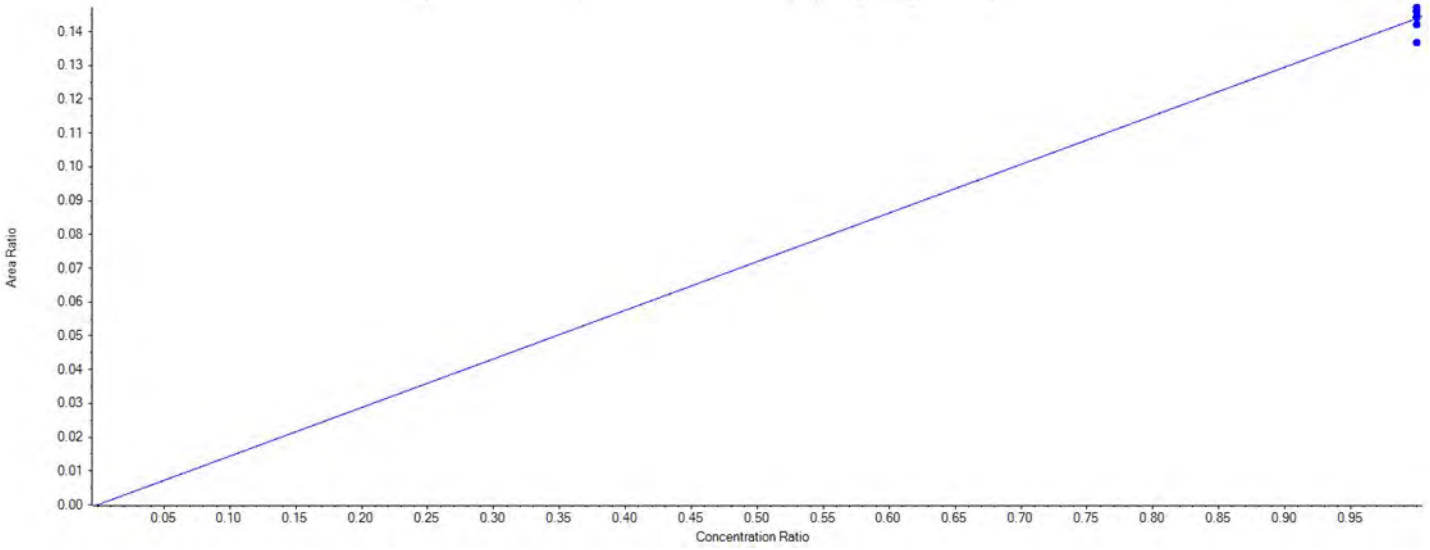
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

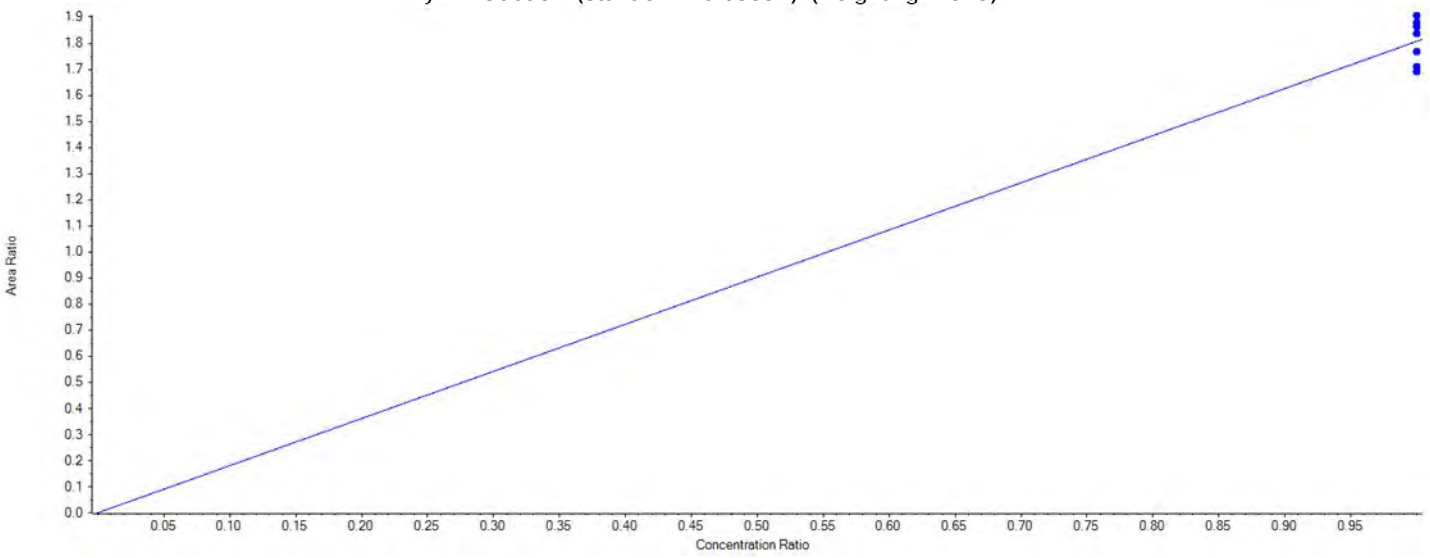
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

E13C2-PFTeDA

y = 1.80693 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

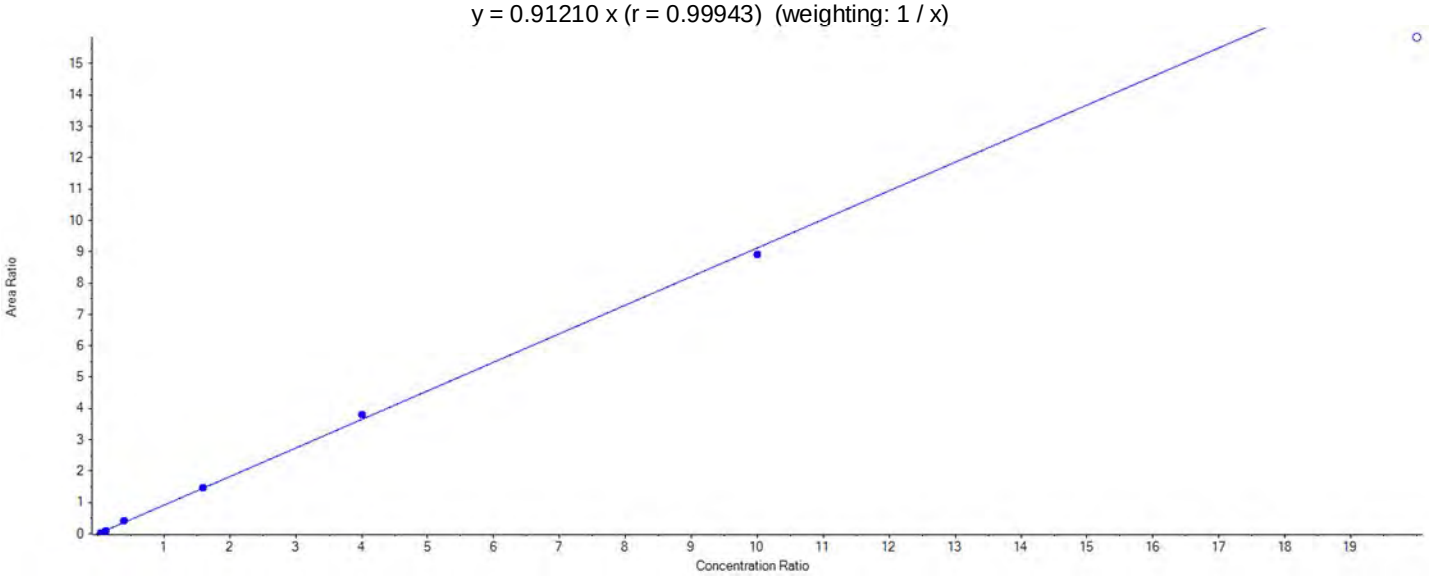
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFBA

y = 0.91210 x (r = 0.99943) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

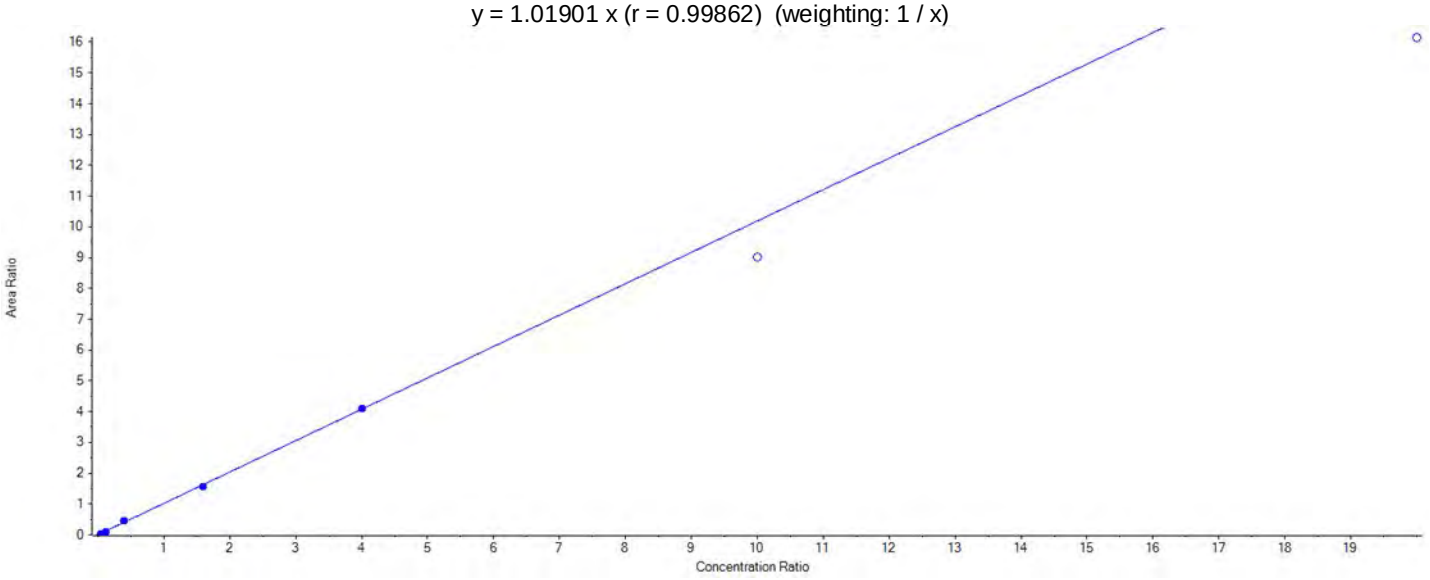
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFPeA

y = 1.01901 x (r = 0.99862) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

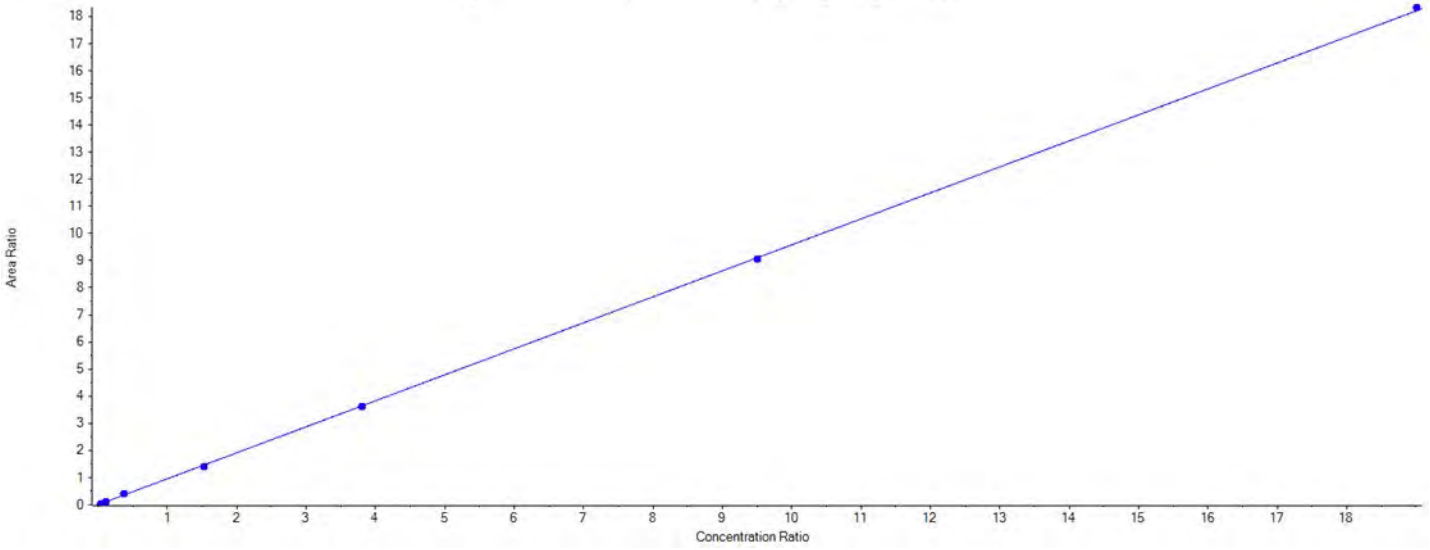
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFBS

y = 0.95795 x (r = 0.99985) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

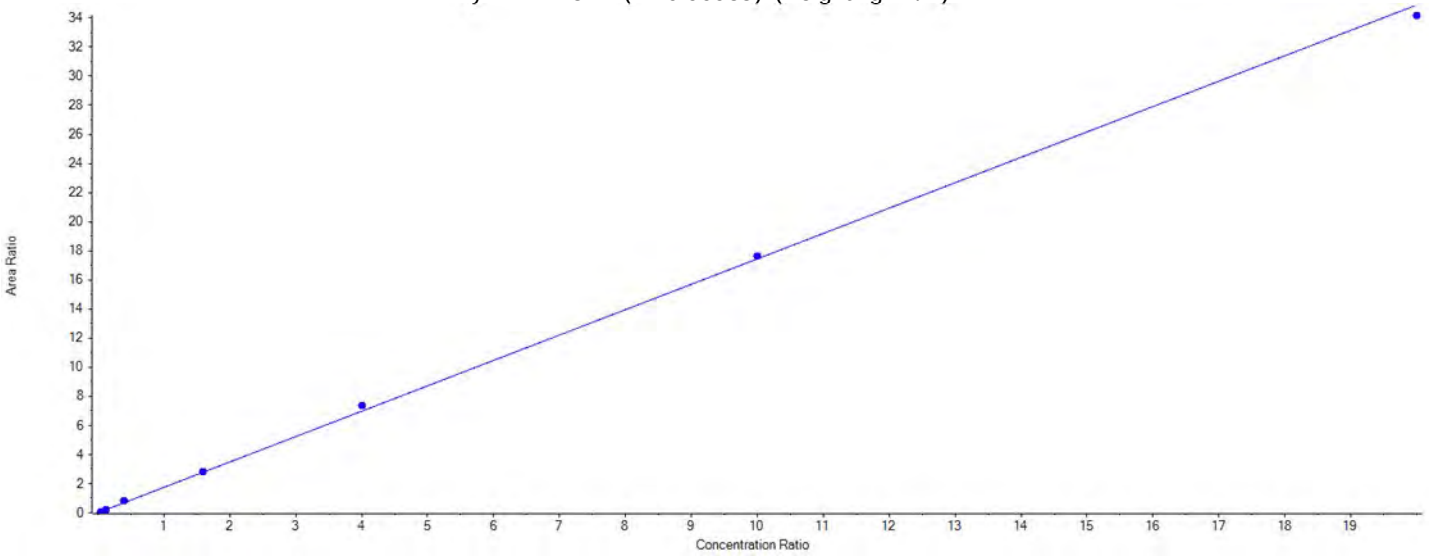
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

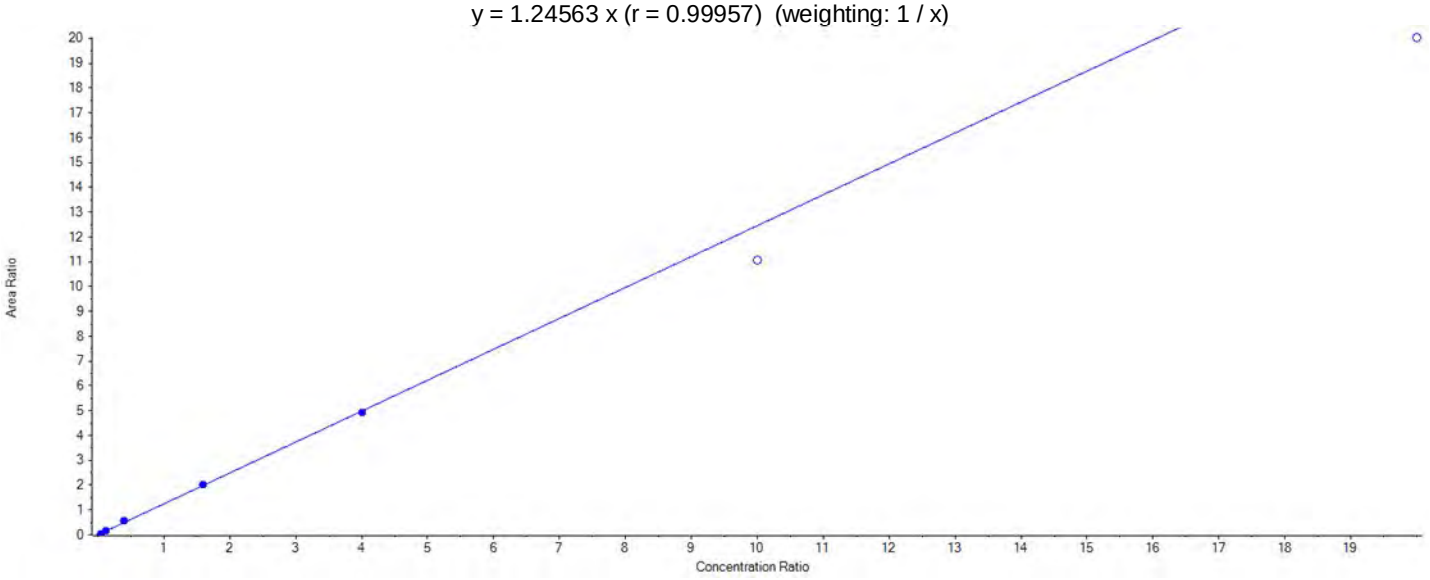
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFHxA

y = 1.24563 x (r = 0.99957) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

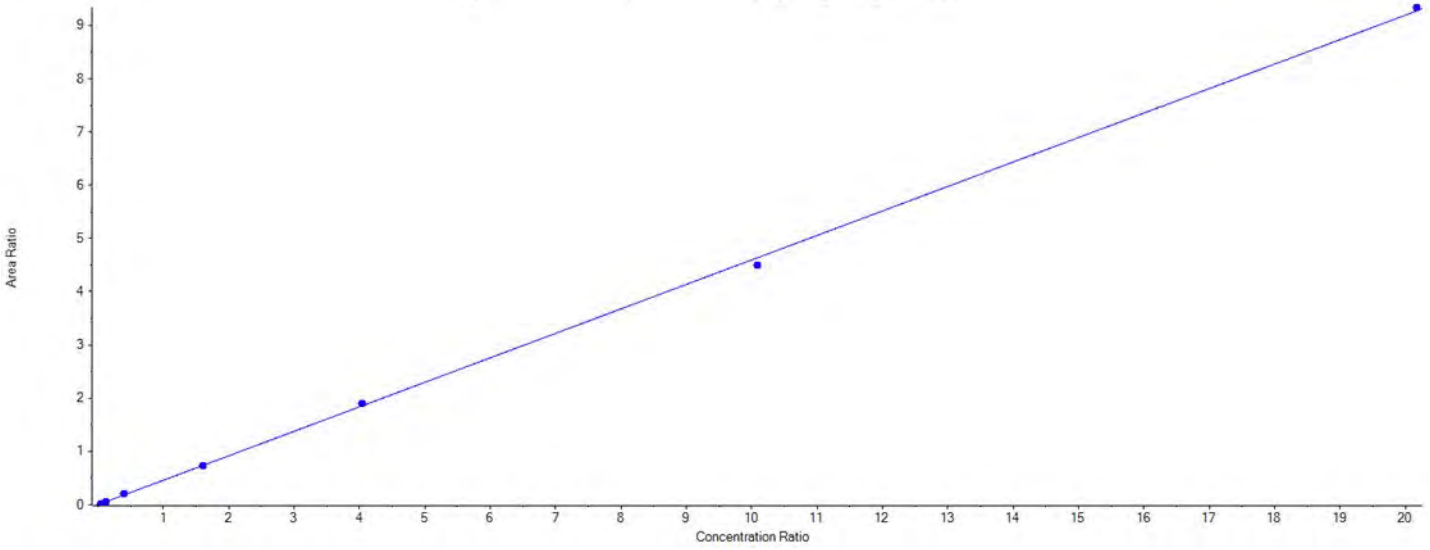
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFPeS

y = 0.45971 x (r = 0.99971) (weighting: 1 / x)



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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

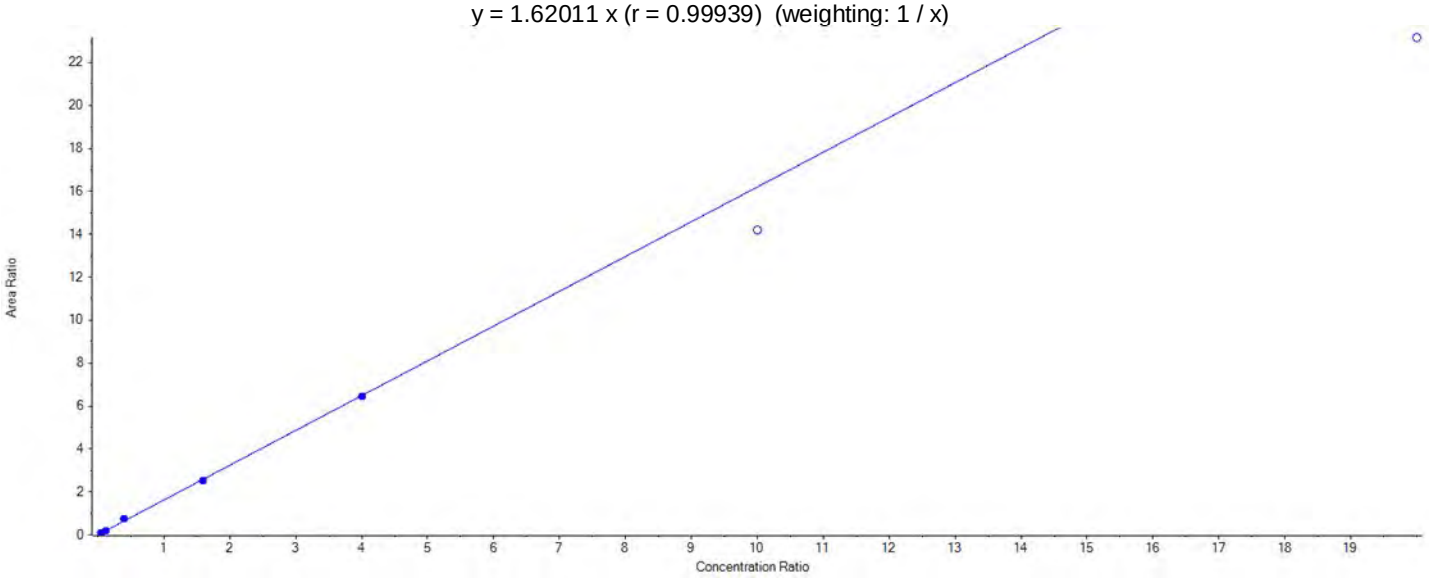
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFHpA

y = 1.62011 x (r = 0.99939) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

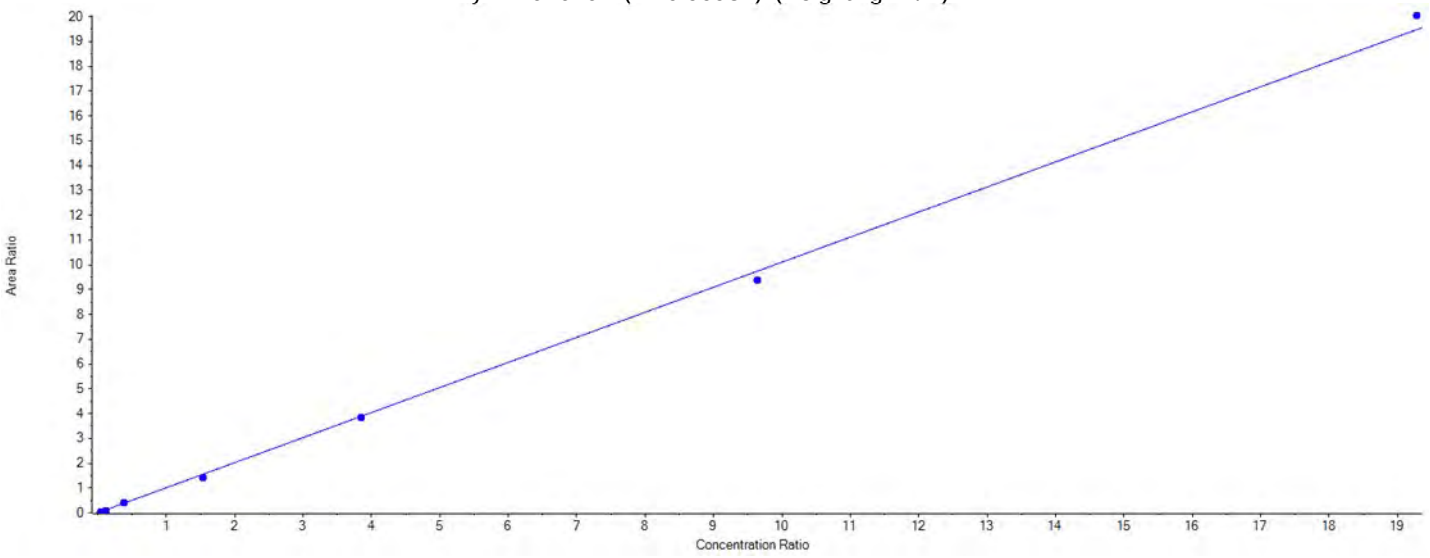
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFHxS

y = 1.01020 x (r = 0.99931) (weighting: 1 / x)



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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

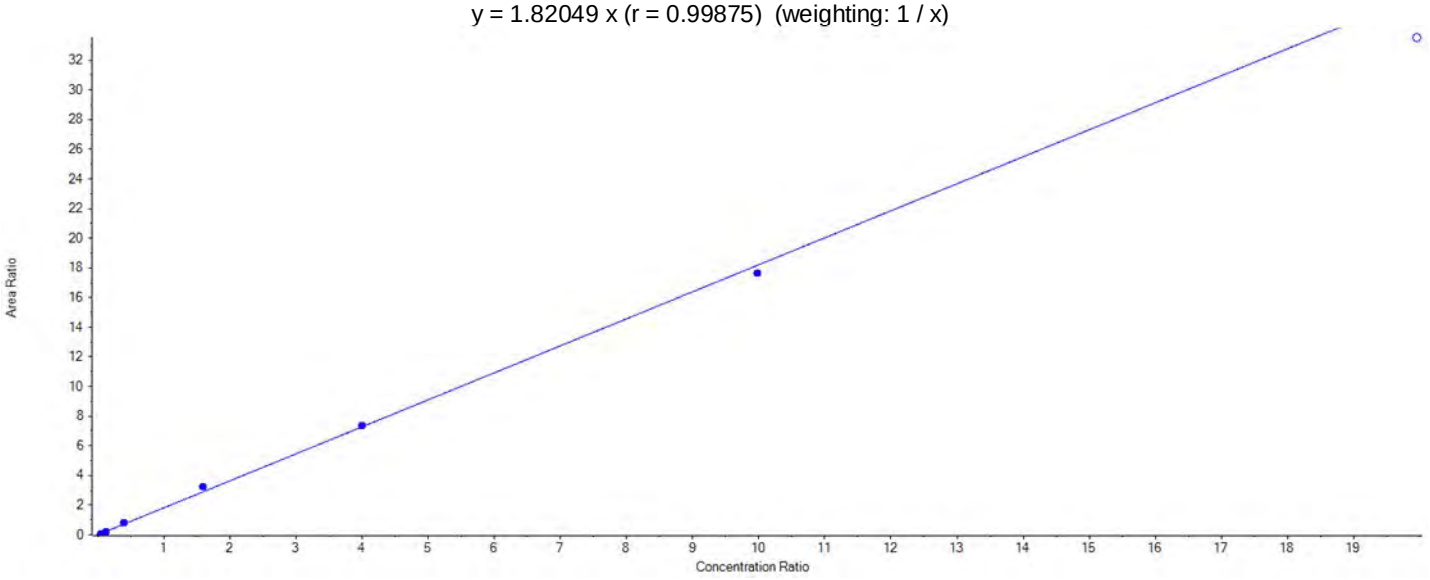
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

6:2-FTS

y = 1.82049 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

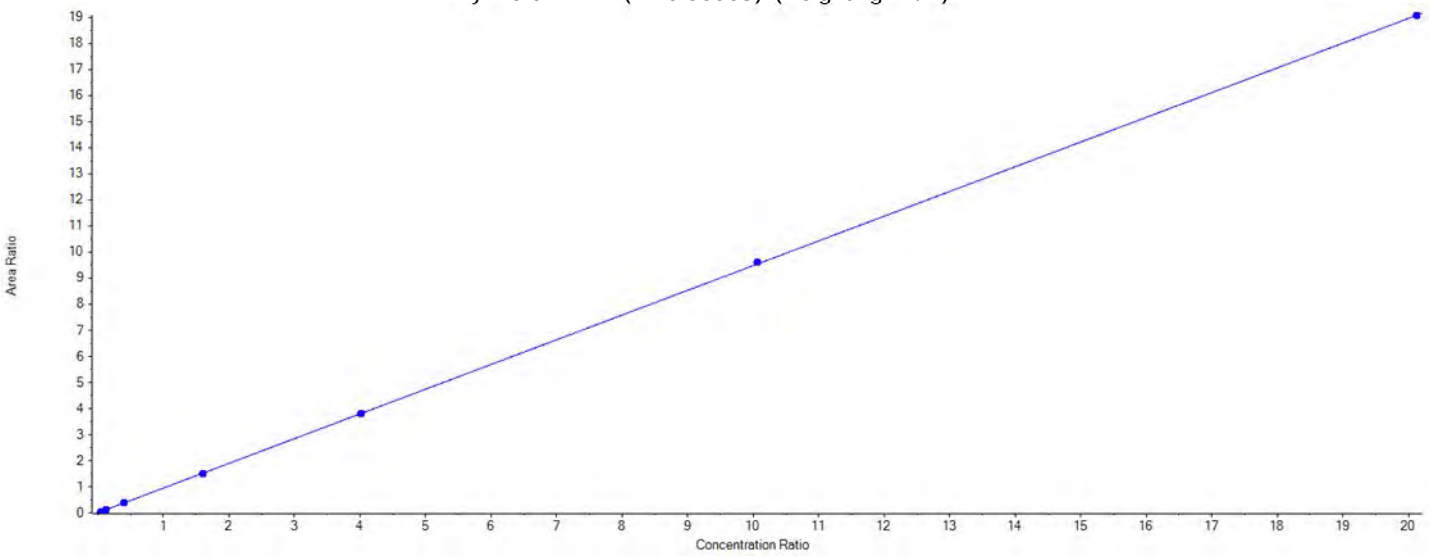
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFHpS

y = 0.94774 x (r = 0.99993) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

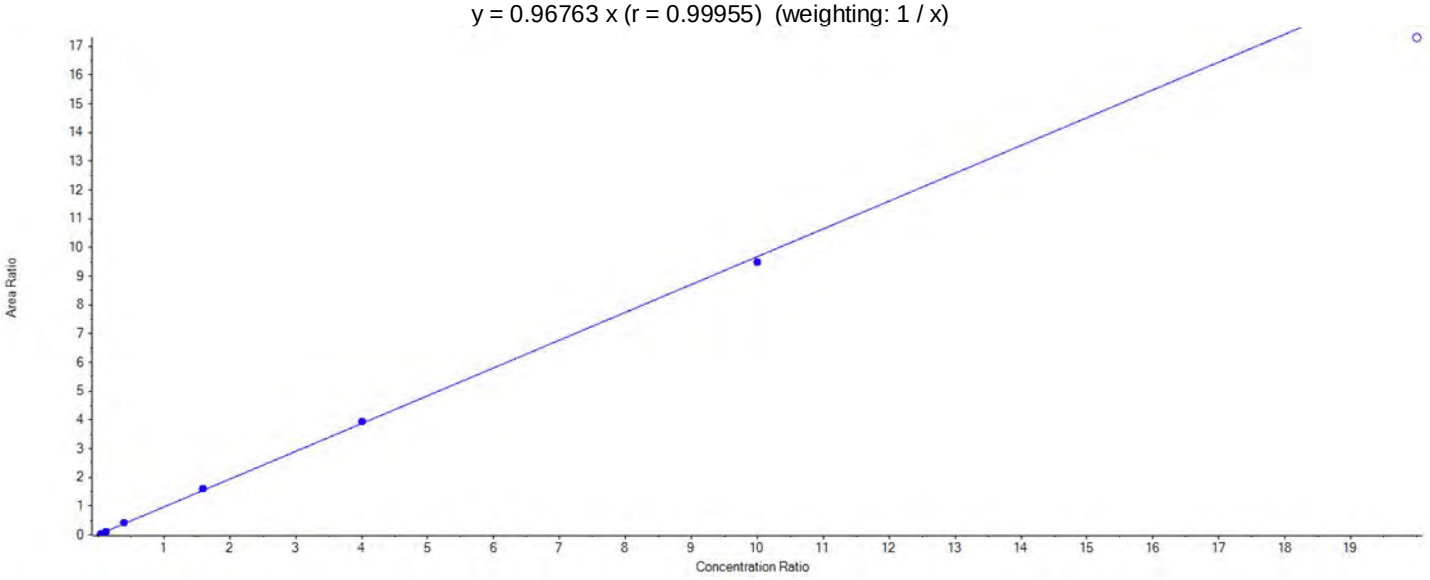
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFOA

y = 0.96763 x (r = 0.99955) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

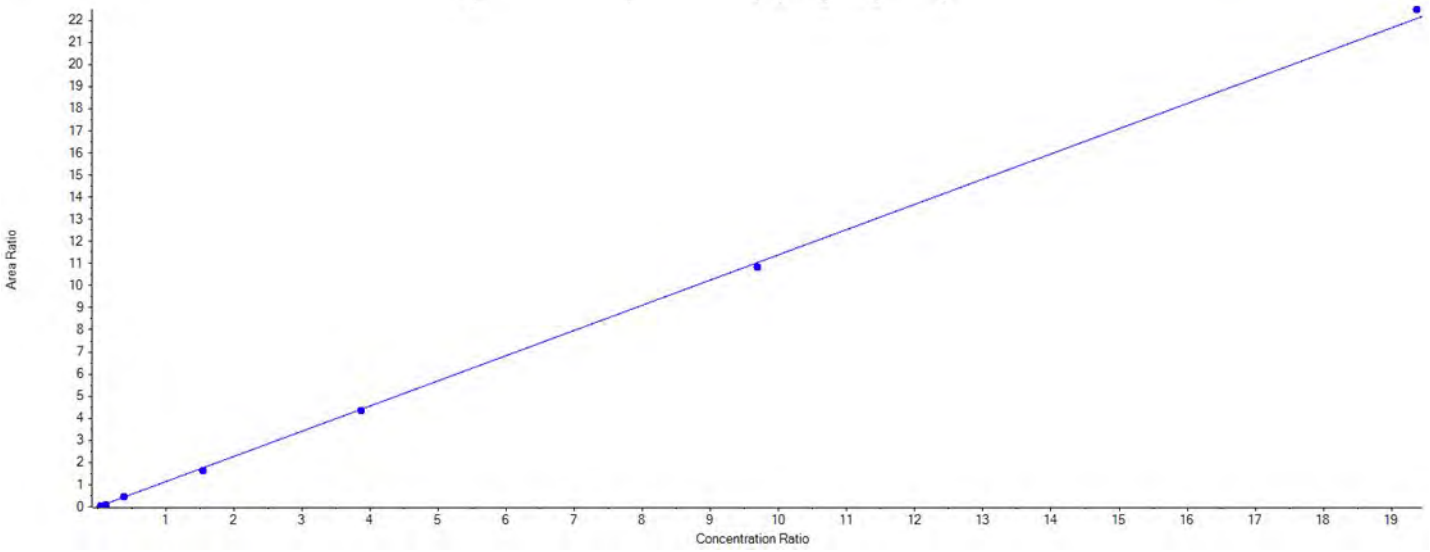
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFOS

y = 1.13953 x (r = 0.99969) (weighting: 1 / x)



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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

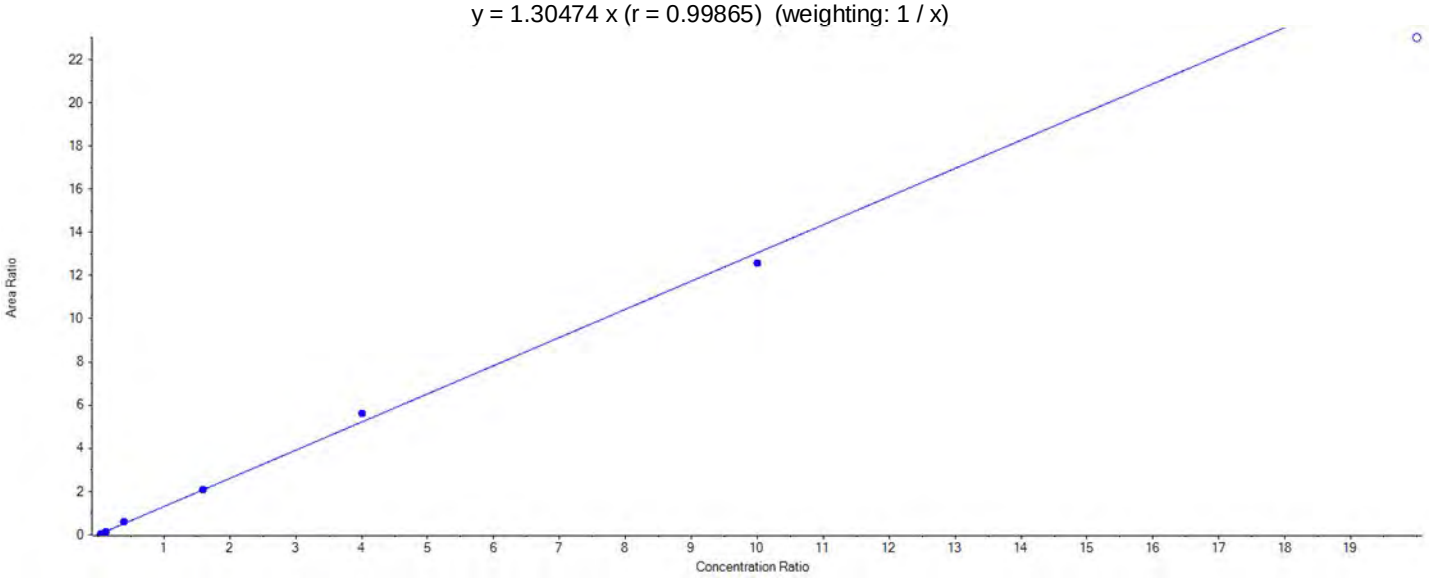
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFNA

y = 1.30474 x (r = 0.99865) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

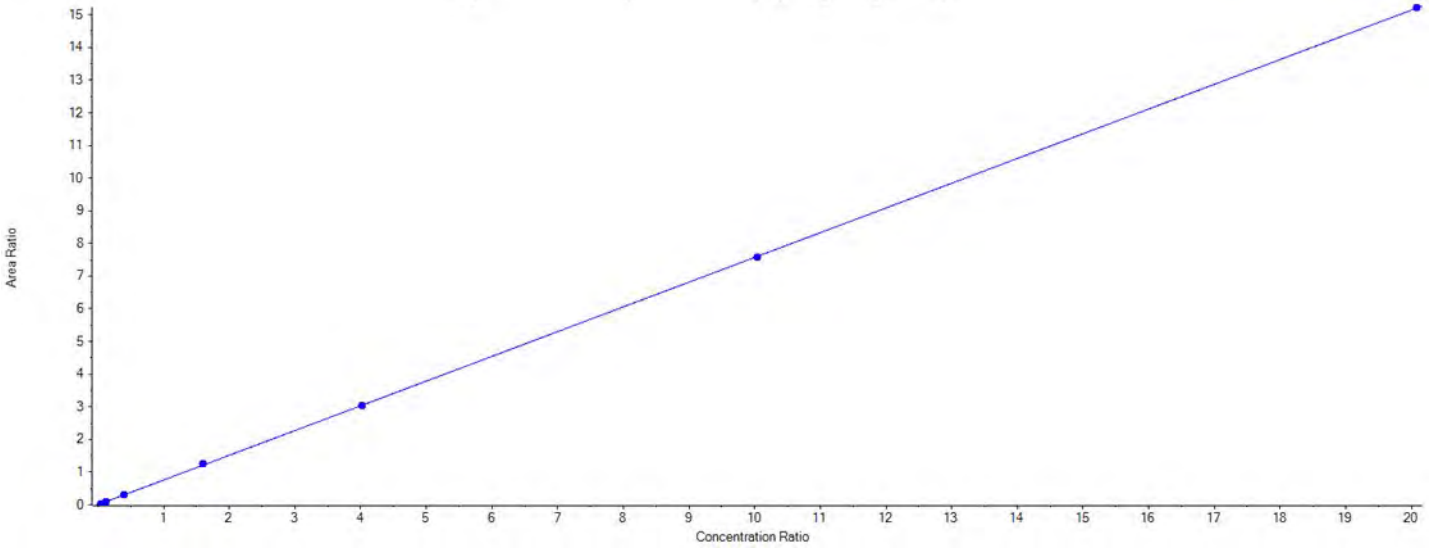
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFNS

y = 0.75705 x (r = 0.99994) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

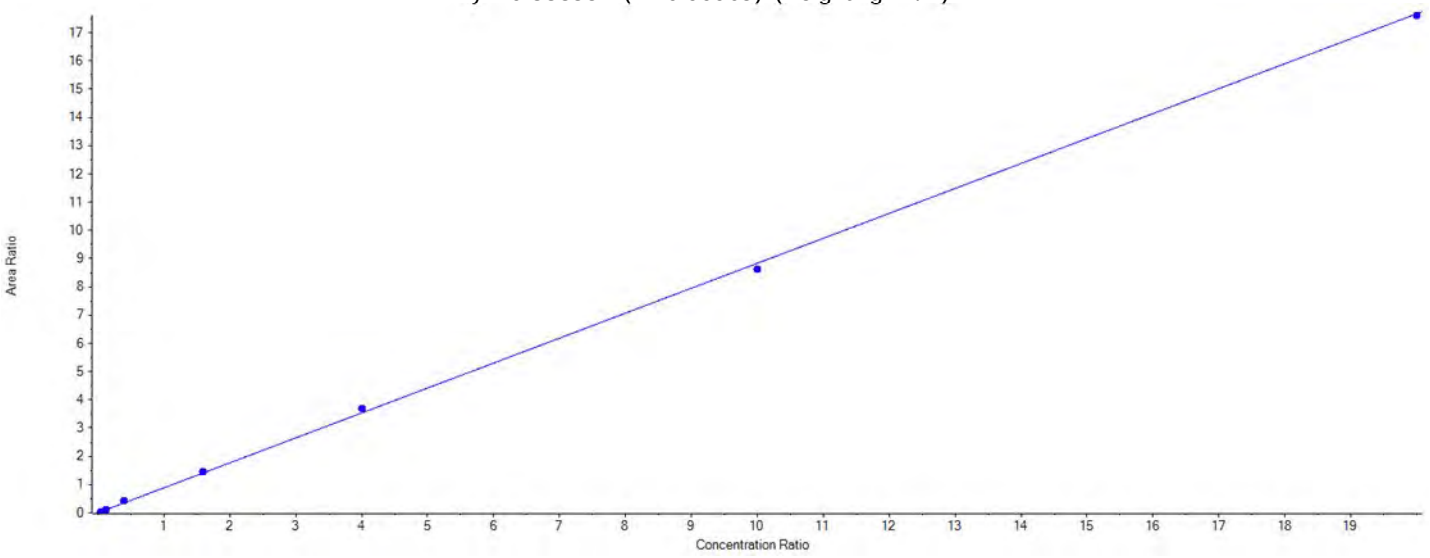
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFDA

y = 0.88335 x (r = 0.99965) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

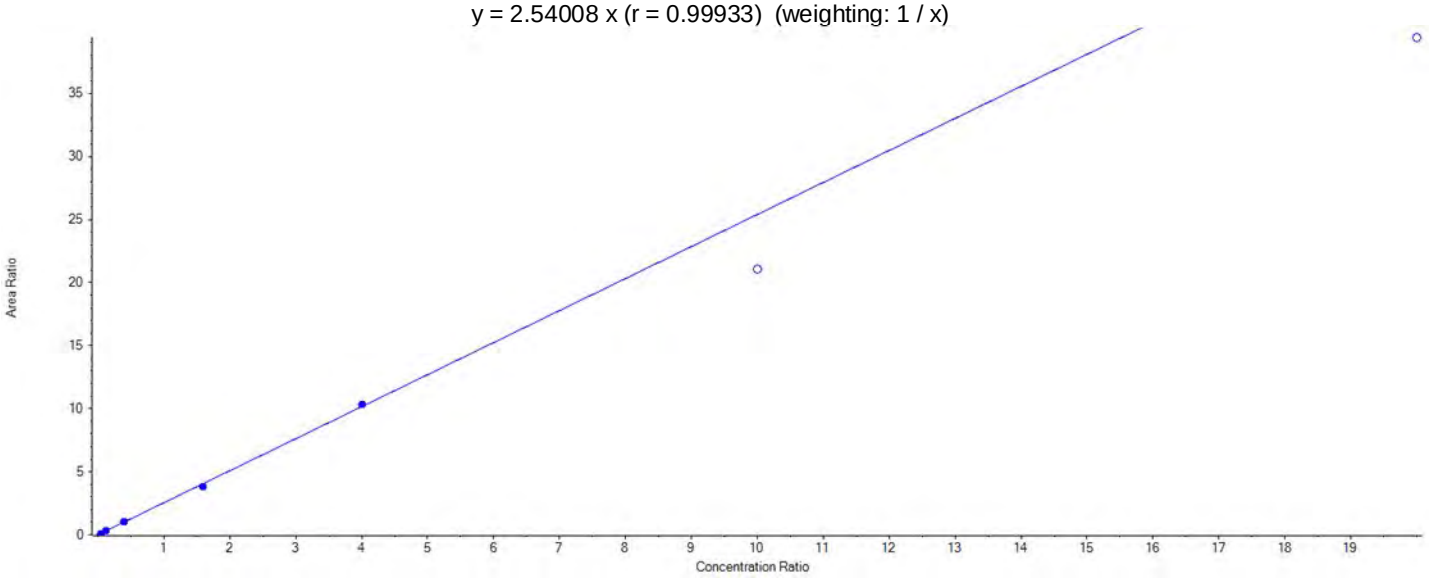
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

8:2-FTS

y = 2.54008 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

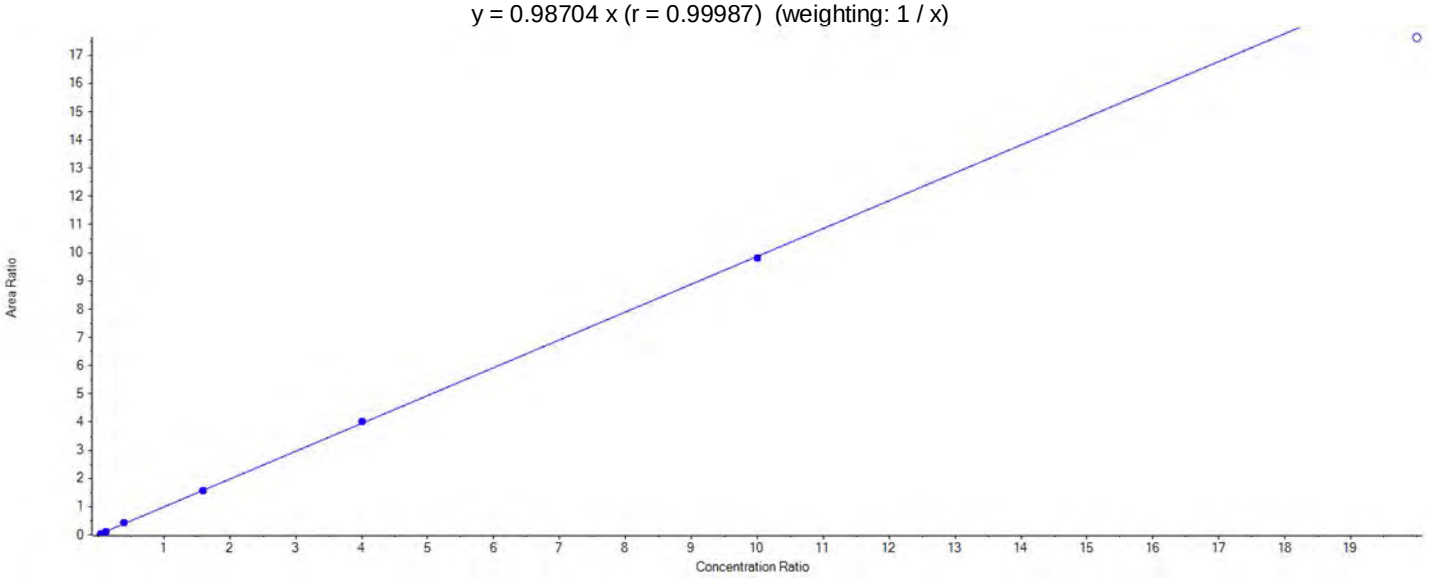
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFOSA

y = 0.98704 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

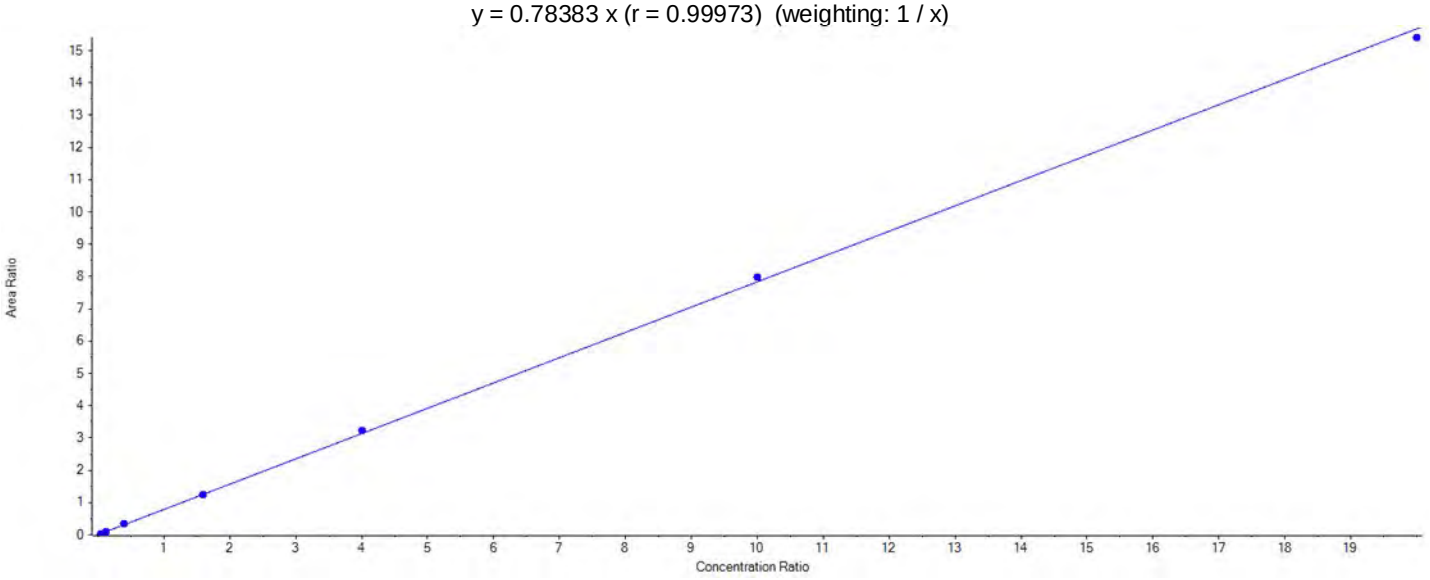
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

NMeFOSAA

y = 0.78383 x (r = 0.99973) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

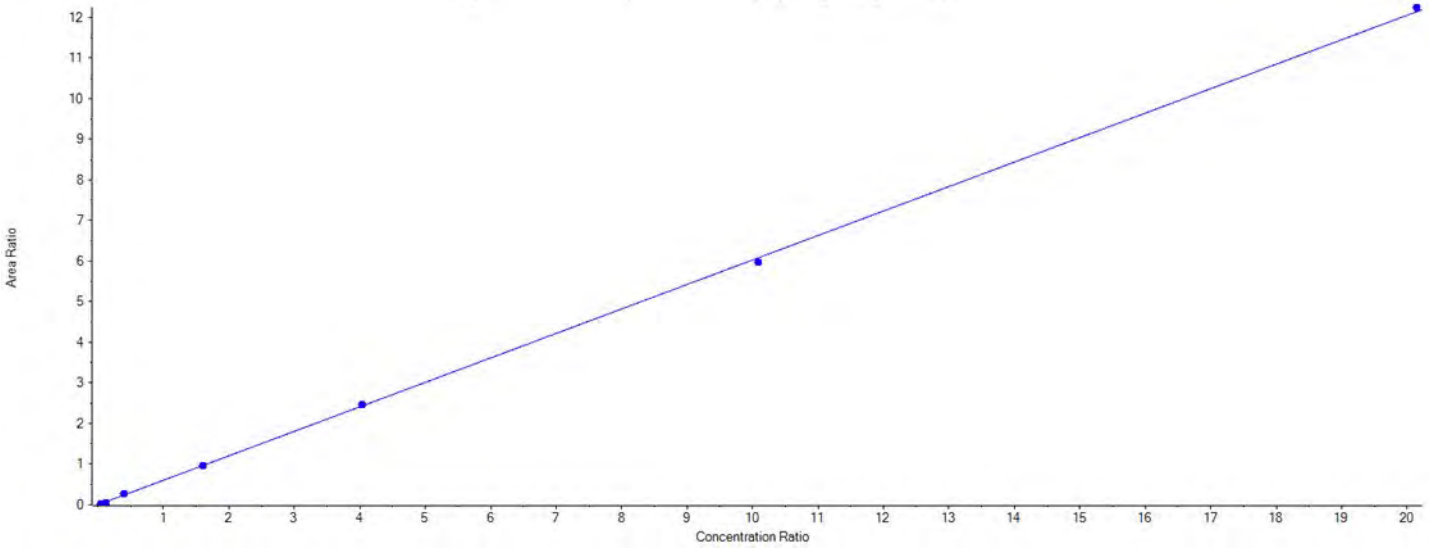
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFDS

y = 0.60287 x (r = 0.99985) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

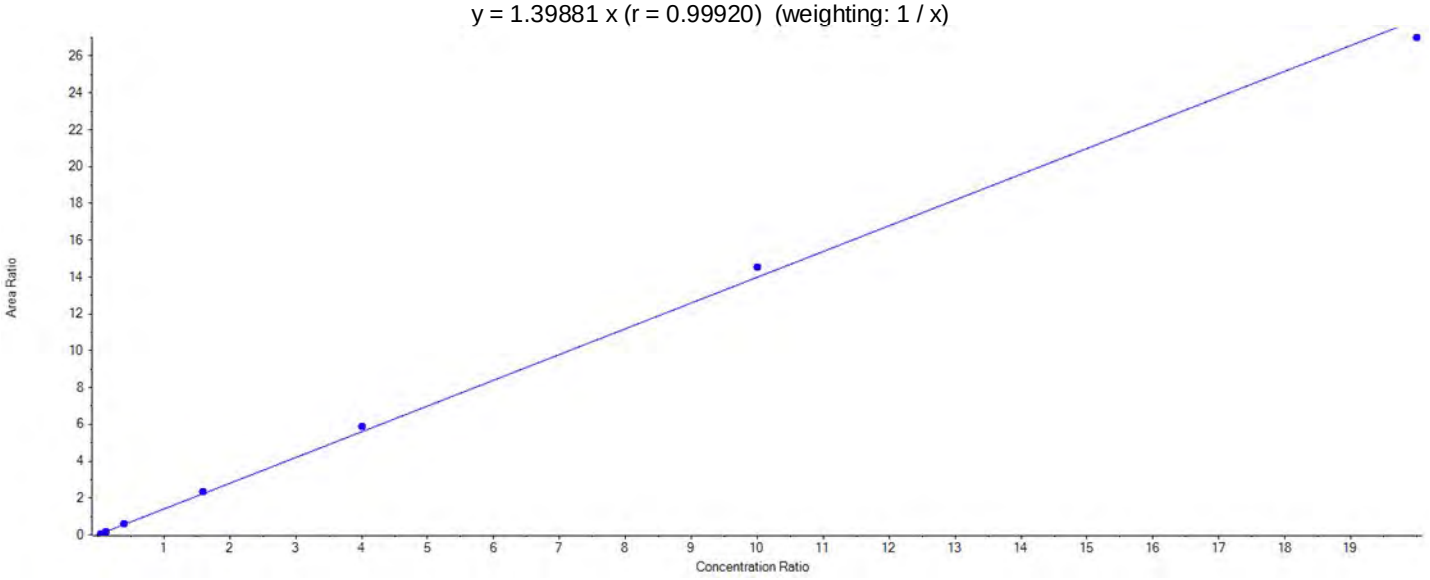
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFUnDA

y = 1.39881 x (r = 0.99920) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

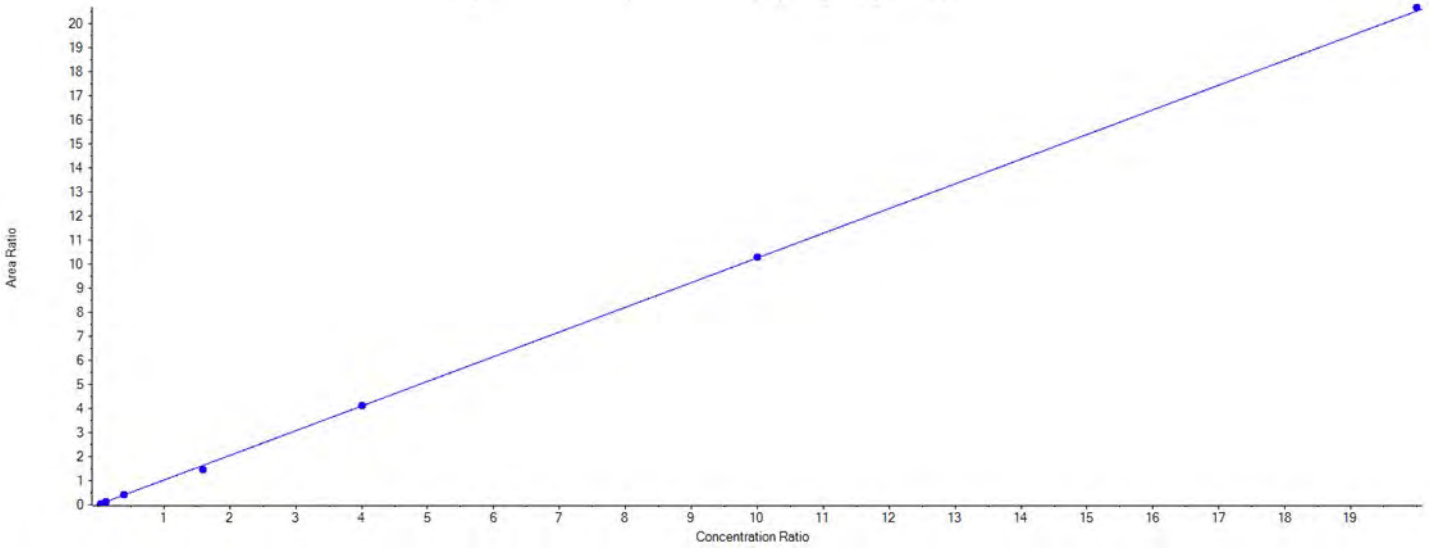
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

NEtFOSAA

y = 1.02663 x (r = 0.99975) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

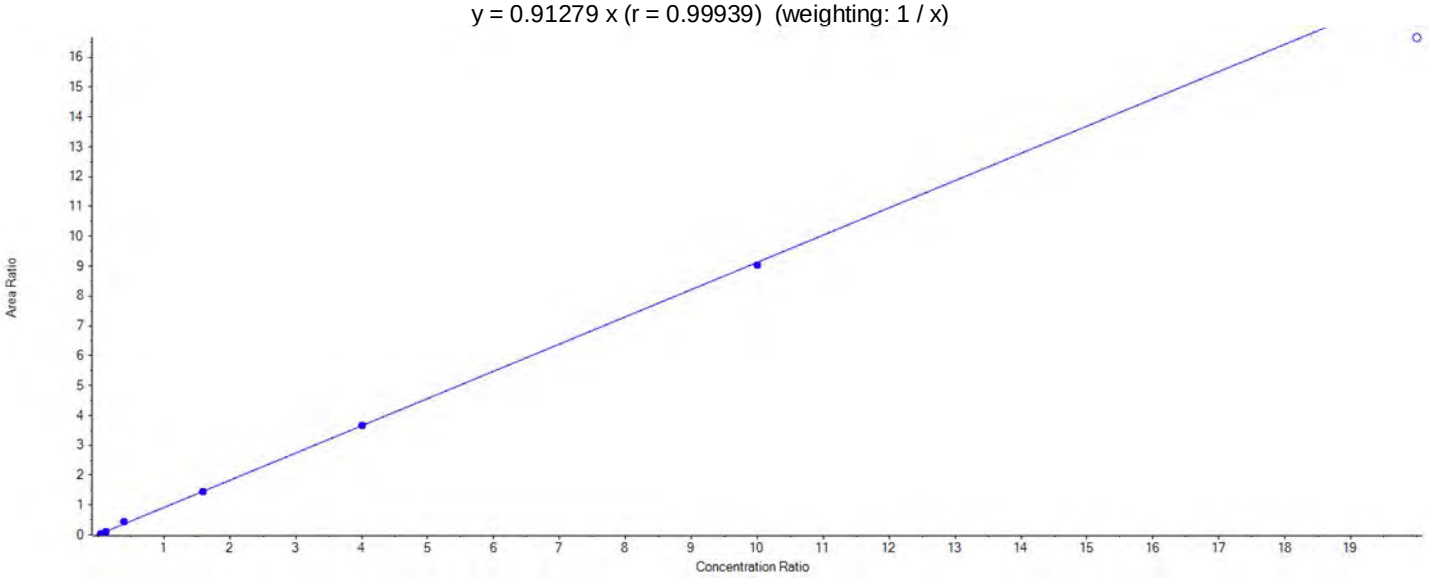
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFDoDA

y = 0.91279 x (r = 0.99939) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoDA Area	S/N	13C2-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	

APPROVED
By MCD at 3:40 pm, 1/10/19

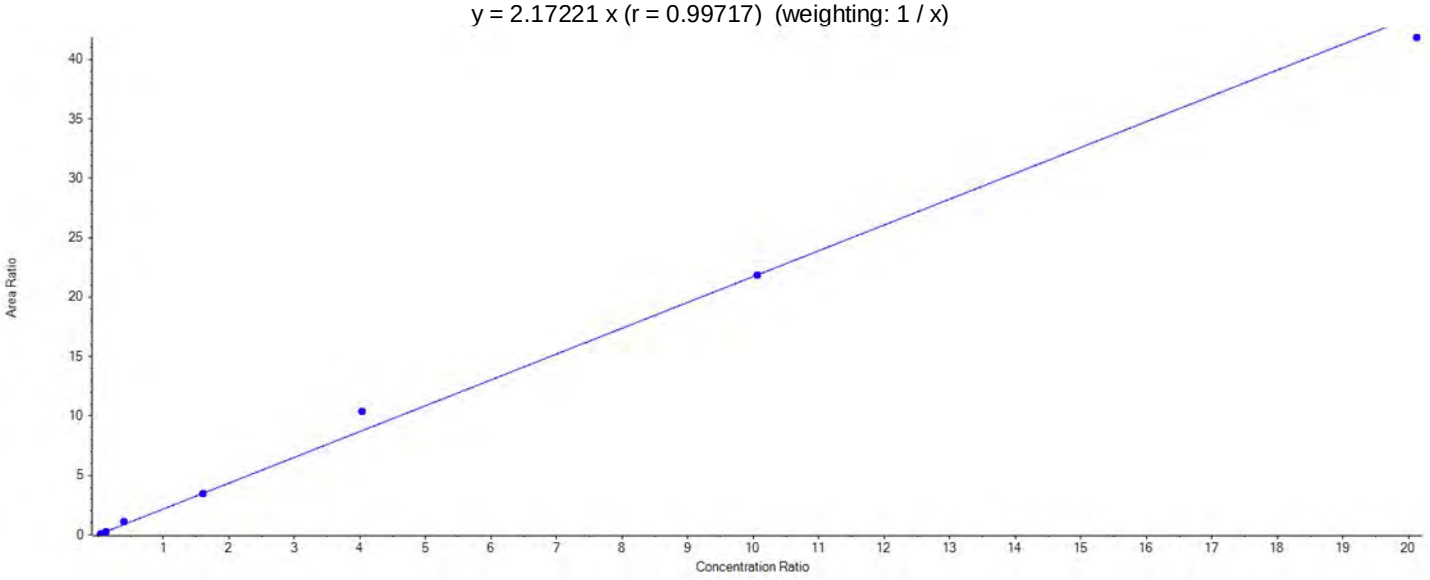
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

10:2-FTS

y = 2.17221 x (r = 0.99717) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

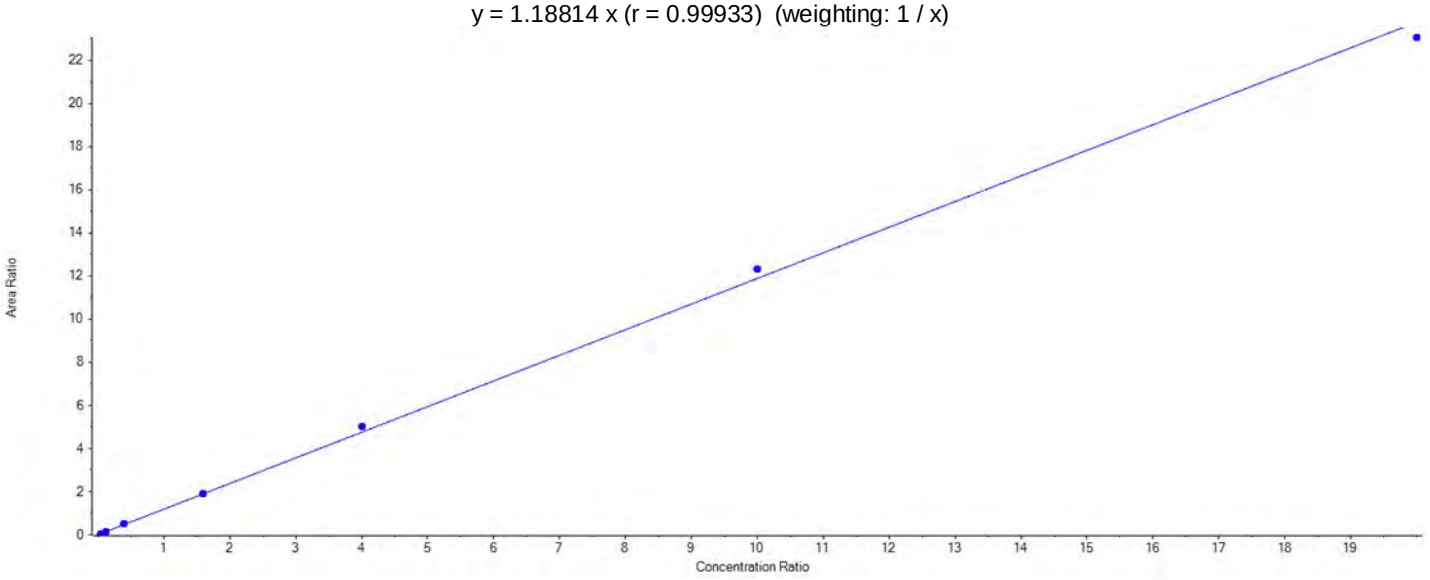
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

NMePFOSAE

y = 1.18814 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

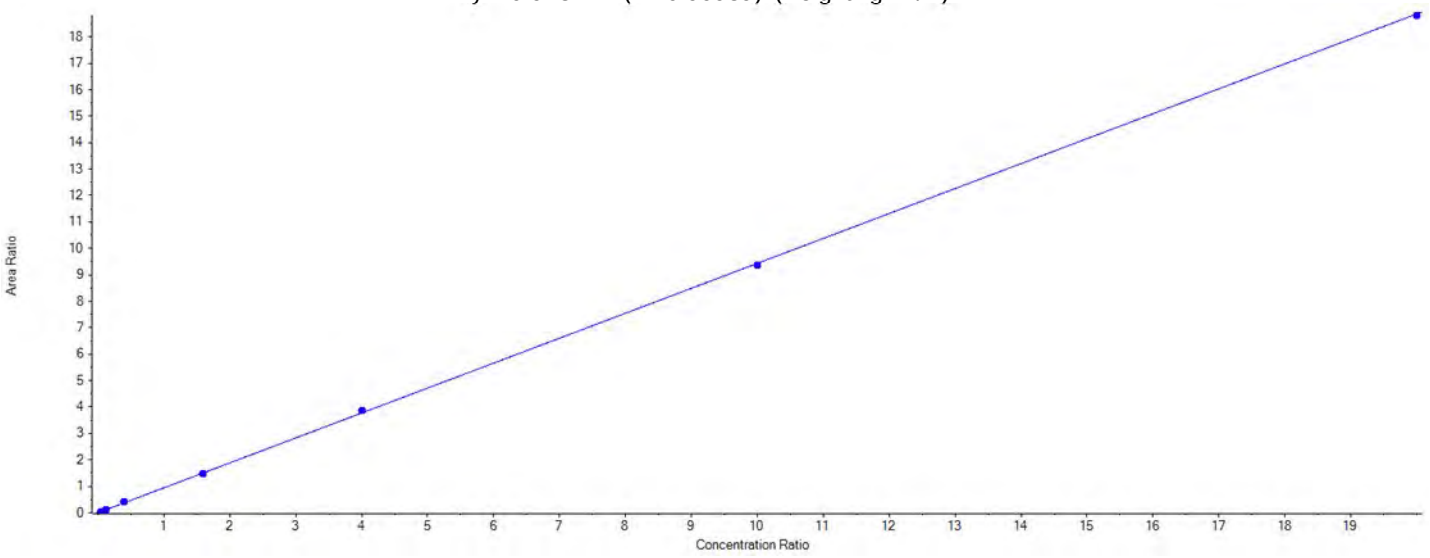
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

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	

APPROVED
By MCD at 3:40 pm, 1/10/19

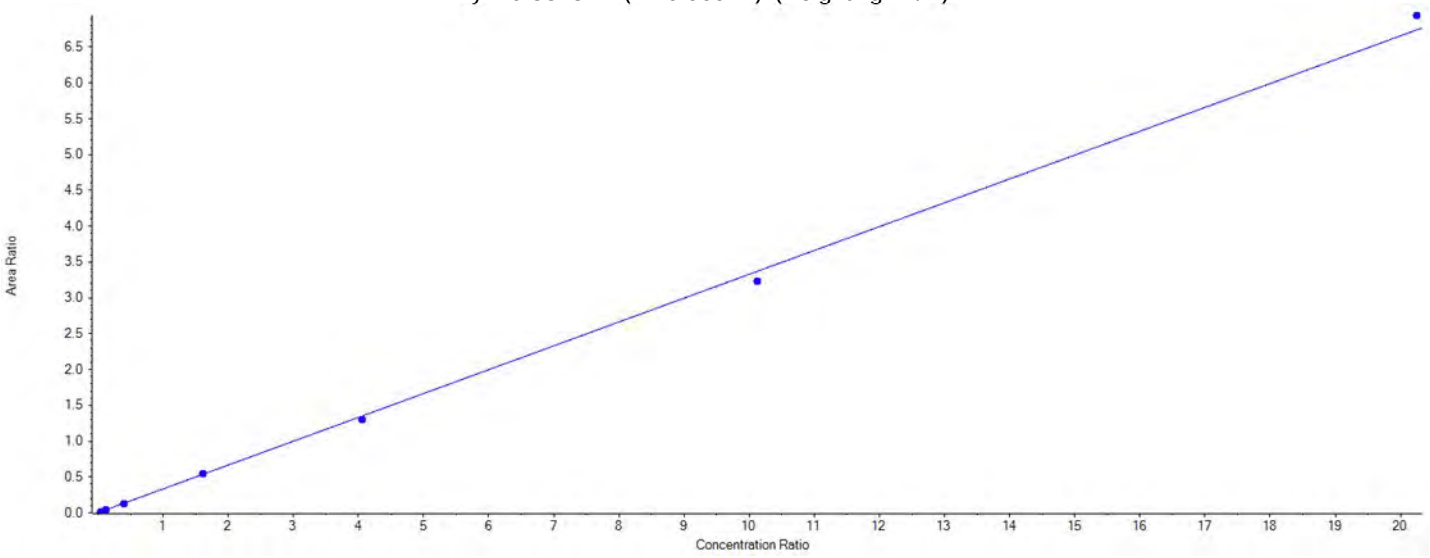
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFDoS

y = 0.33284 x (r = 0.99942) (weighting: 1 / x)



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	

APPROVED
By MCD at 3:40 pm, 1/10/19

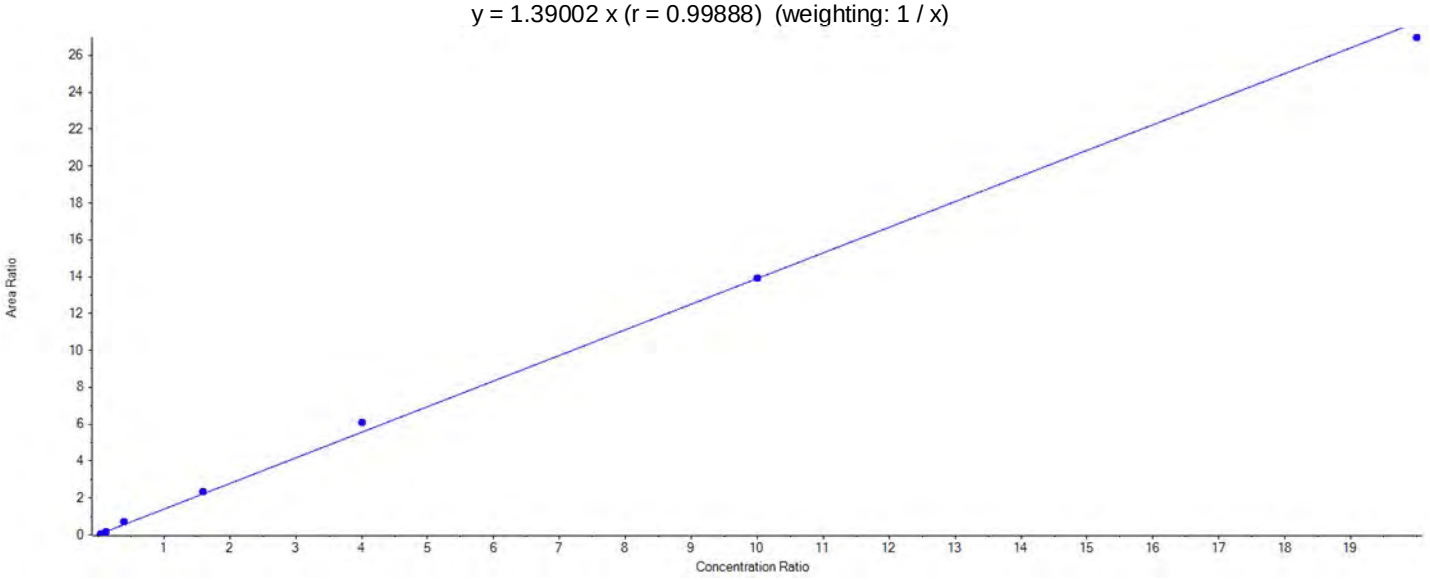
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

NEtPFOSAE

y = 1.39002 x (r = 0.99888) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

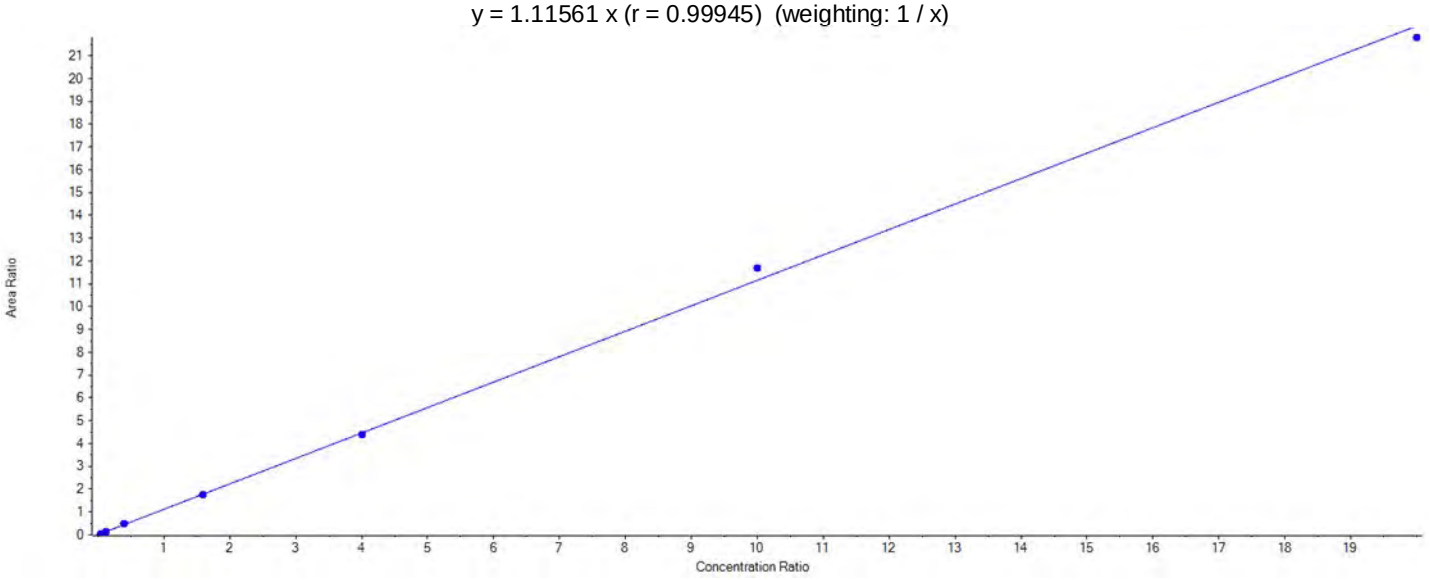
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

NEtPFOSA

y = 1.11561 x (r = 0.99945) (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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

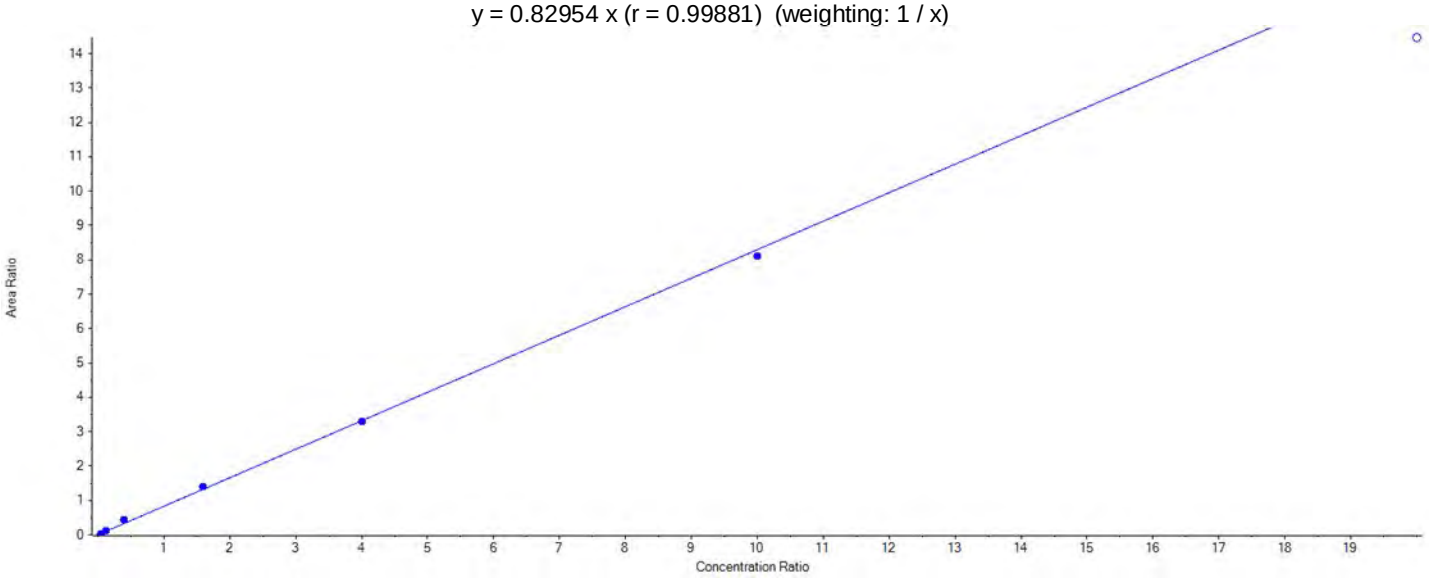
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFTrDA

y = 0.82954 x (r = 0.99881) (weighting: 1 / x)



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	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	

APPROVED
By MCD at 3:40 pm, 1/10/19

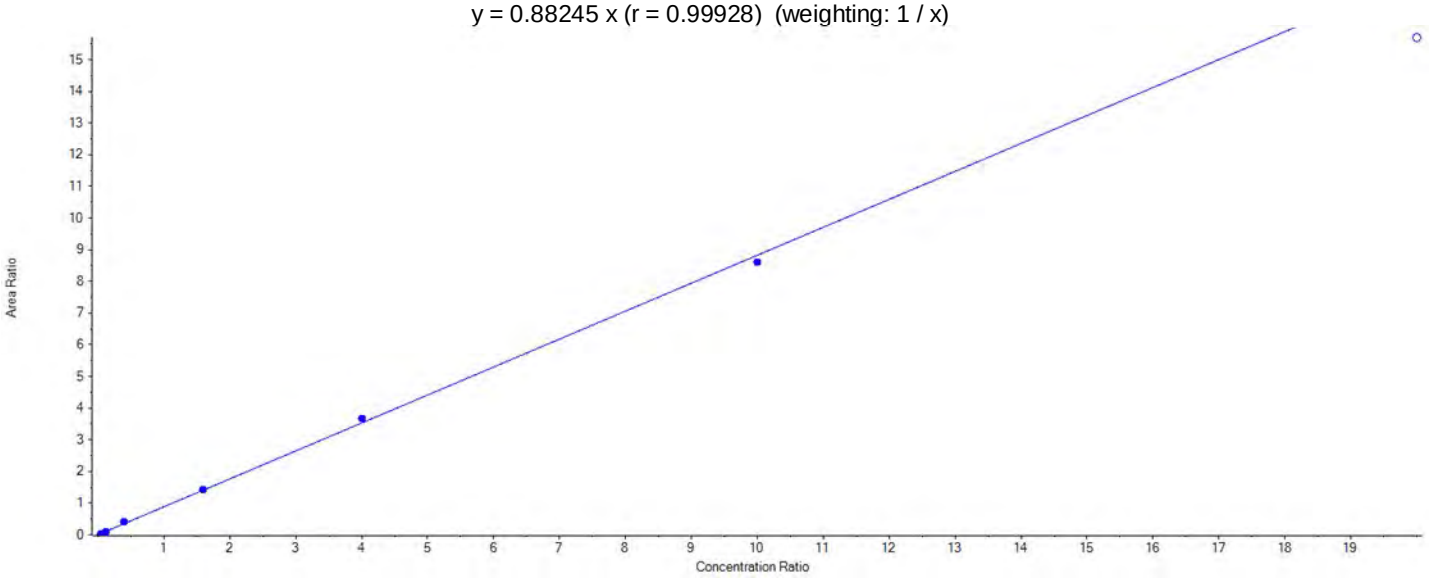
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFTeDA

y = 0.88245 x (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	

APPROVED
By MCD at 3:40 pm, 1/10/19

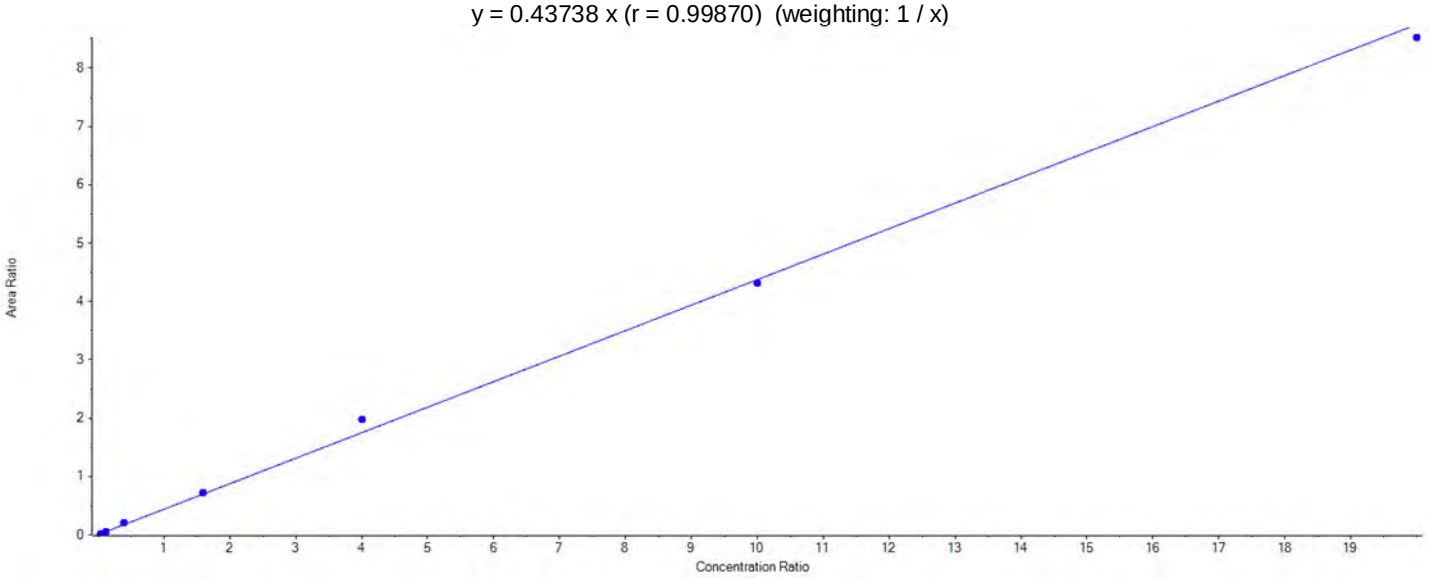
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFHxDA

y = 0.43738 x (r = 0.99870) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	13C2-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	

APPROVED
By MCD at 3:40 pm, 1/10/19

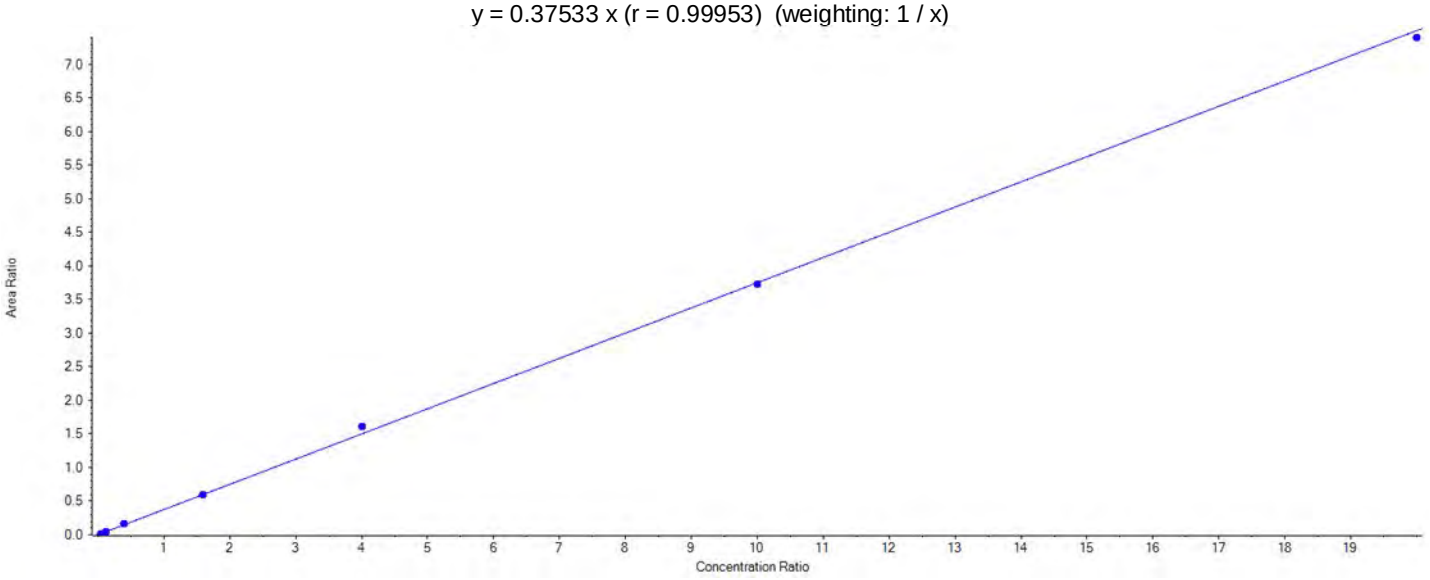
REVIEWED
By UCMR at 7:00 pm, 1/21/19

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

PFODA

y = 0.37533 x (r = 0.99953) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFODA Area	S/N	13C2-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	

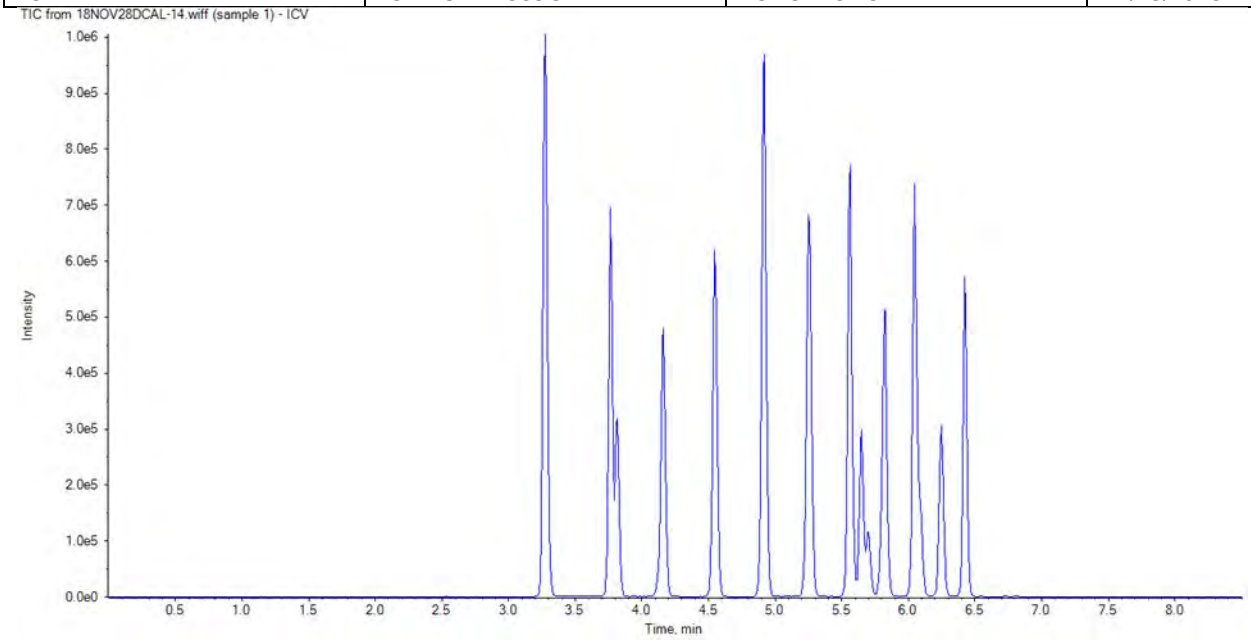
APPROVED
By MCD at 3:40 pm, 1/10/19

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



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	

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

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

PFTrDA	416758.4	13C2-PFDoDA	1134142.098	5.00	0.367	6.25	1.03	2.000	2.215	11	30	
PFTeDA	312632.1	13C2-PFTeDA	820071.667	5.00	0.381	6.42	1.00	2.000	2.160	8	30	
PFHxDA	N/A	13C2-PFTeDA	820071.667	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	820071.667	5.00	N/A	N/A	N/A	0.000	N/A		30	

APPROVED
By MCD at 3:40 pm, 1/10/19

REVIEWED
By UCMR at 7:00 pm, 1/21/19

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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 **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

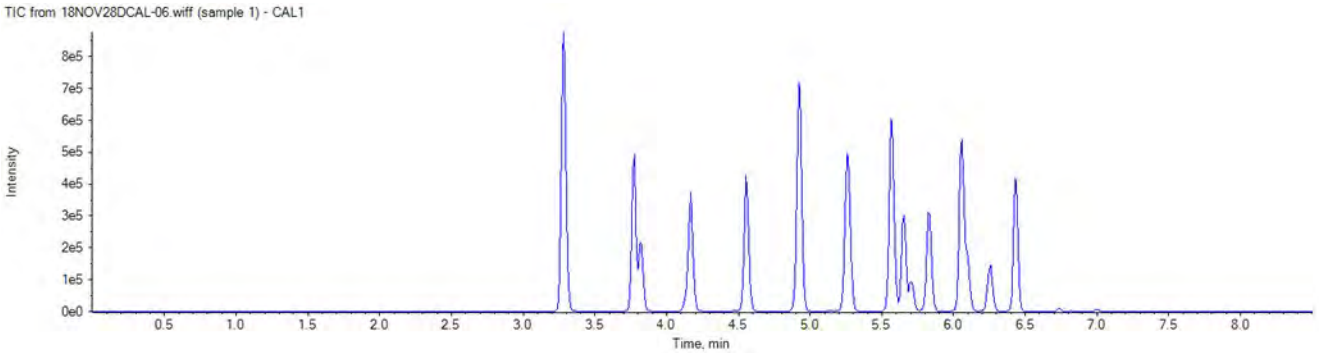
Analyte Quantitation Peak Table

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

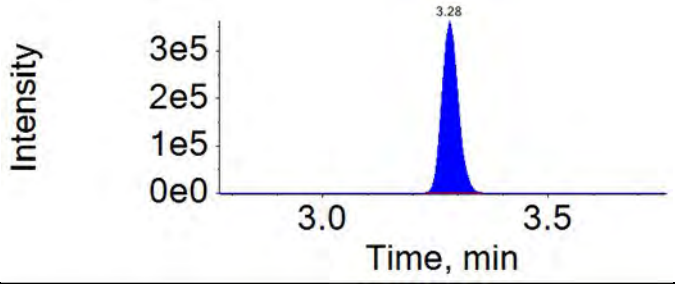


APPROVED
By MCD at 5:00 pm, 11/28/18

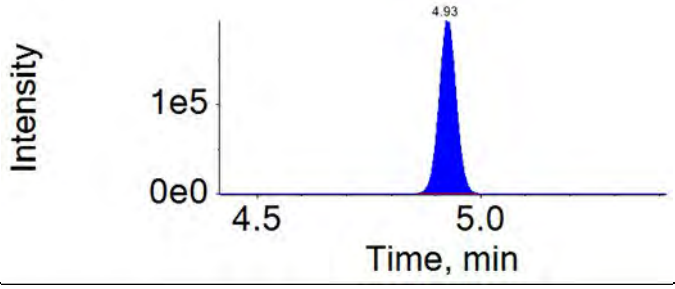
REVIEWED
By HMK at 12:21 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

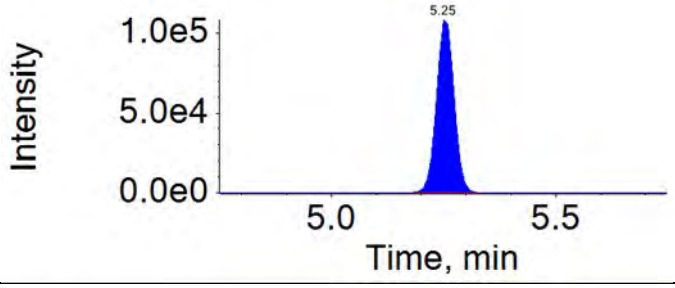
Injection Standard: 13C3-PFBA
216.0 / 172.0



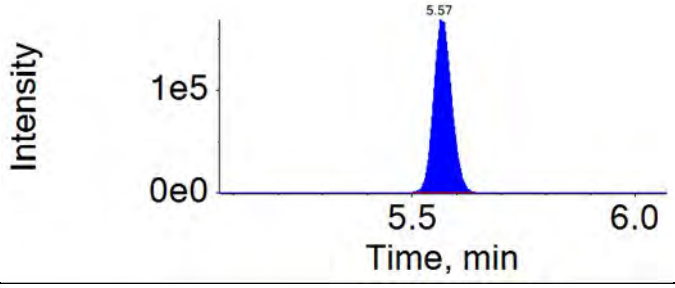
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

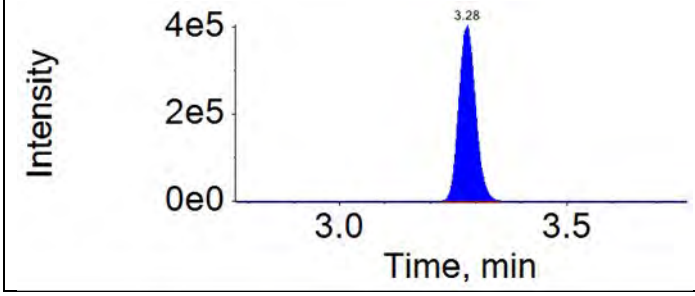


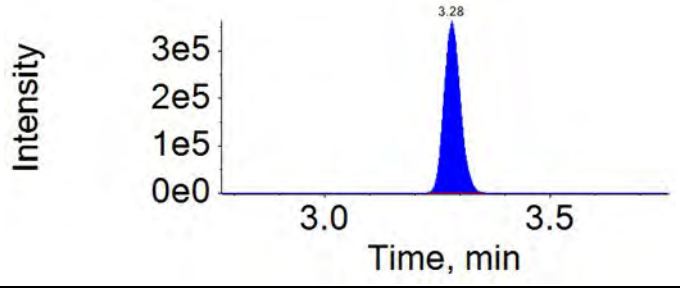
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:21 pm, 11/29/18

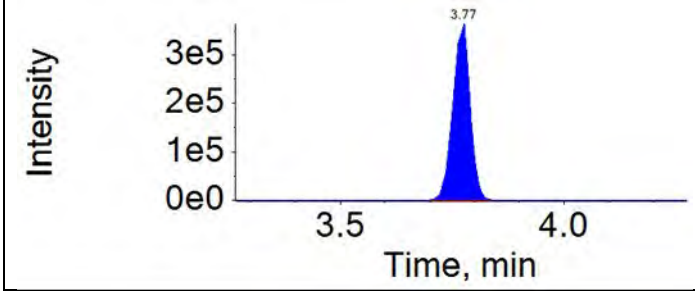
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

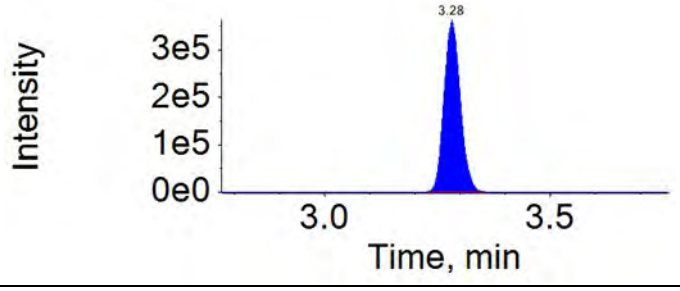
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



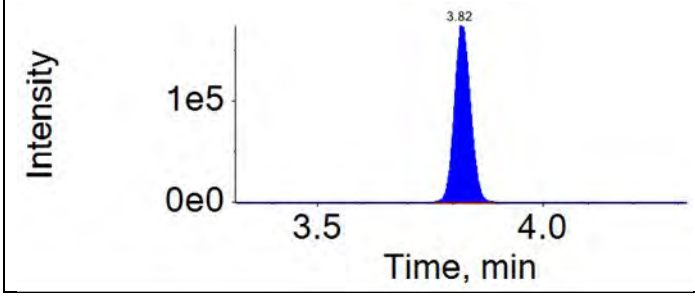


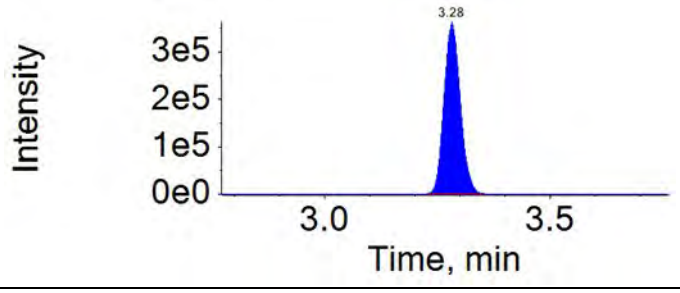
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



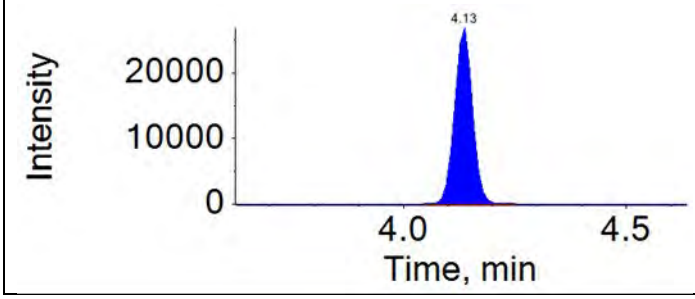


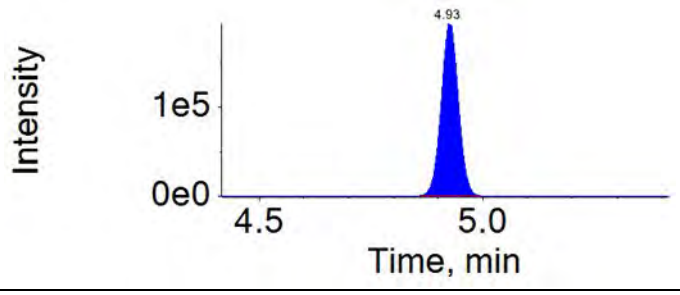
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





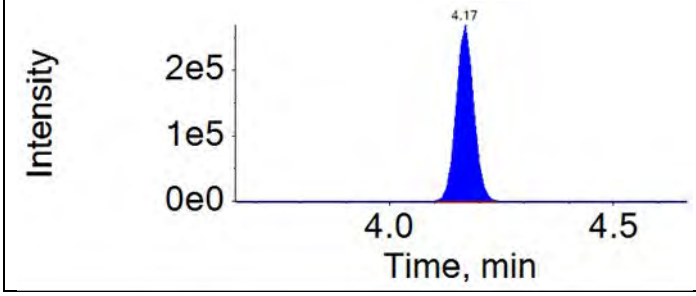
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

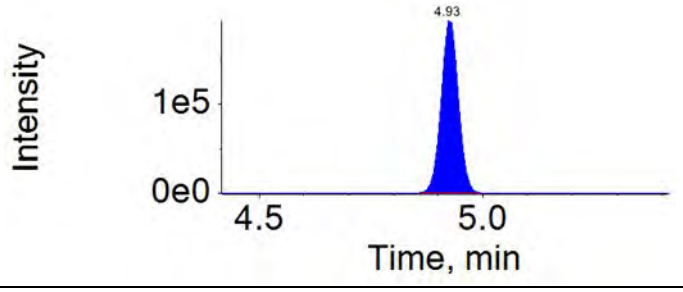




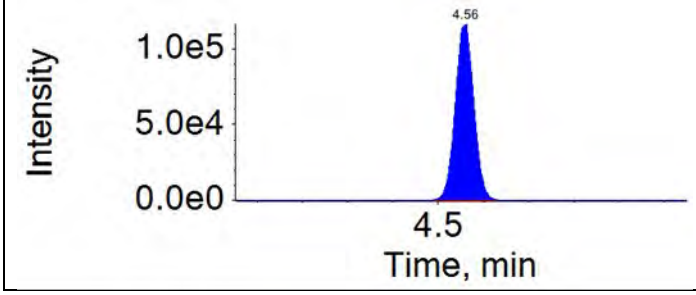
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

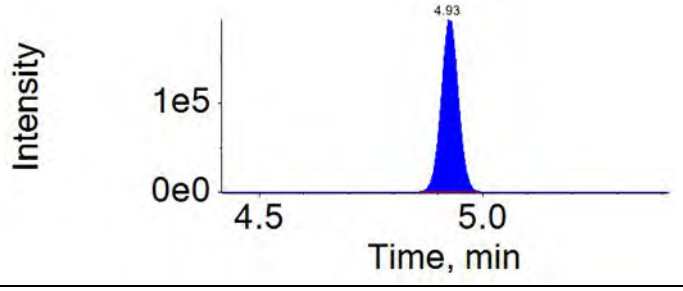
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



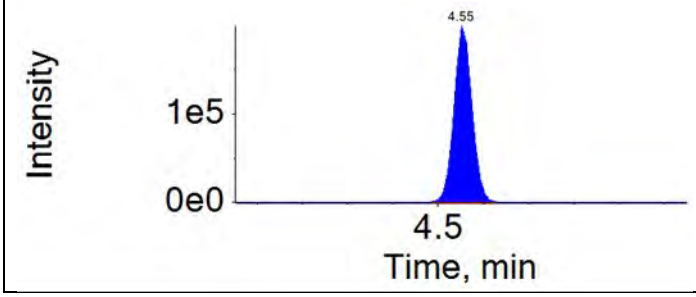


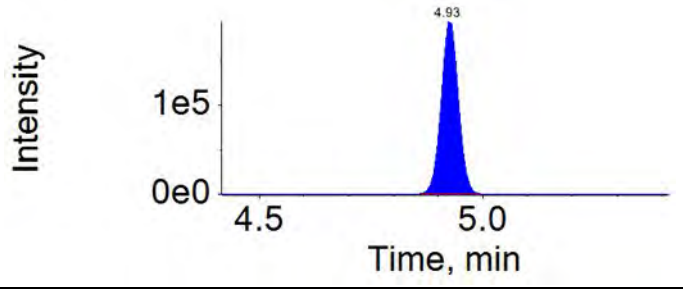
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



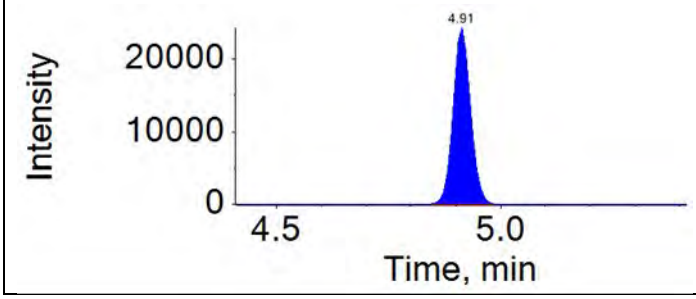


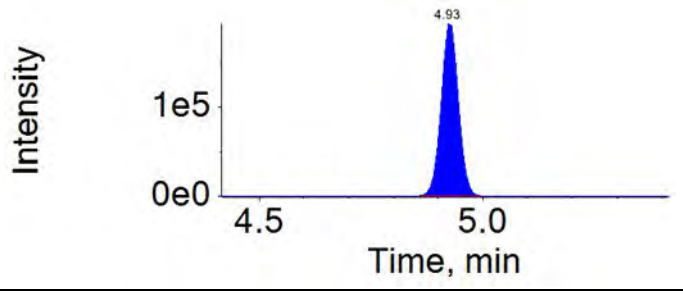
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

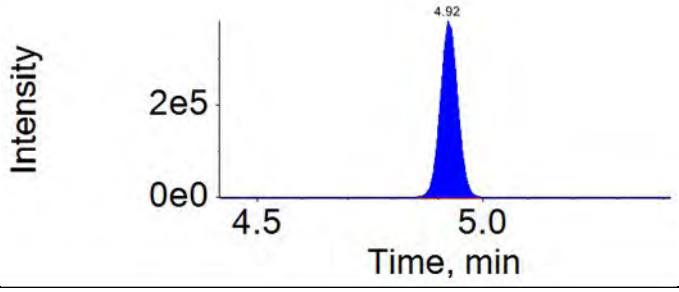
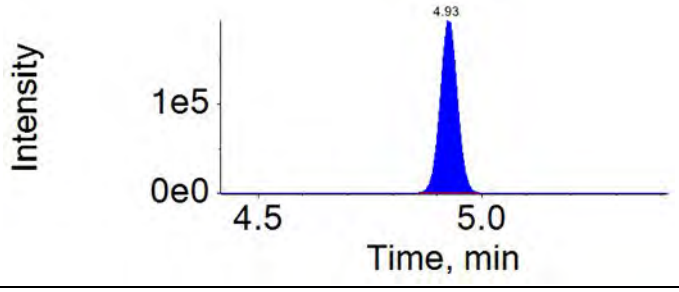


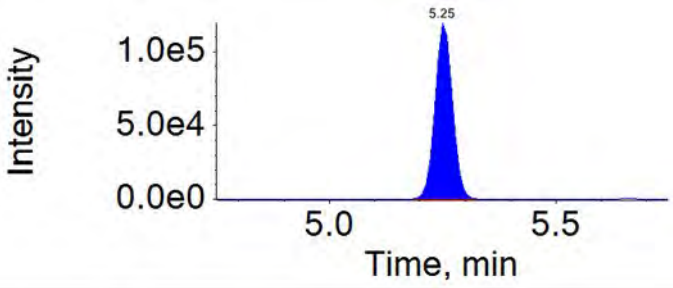
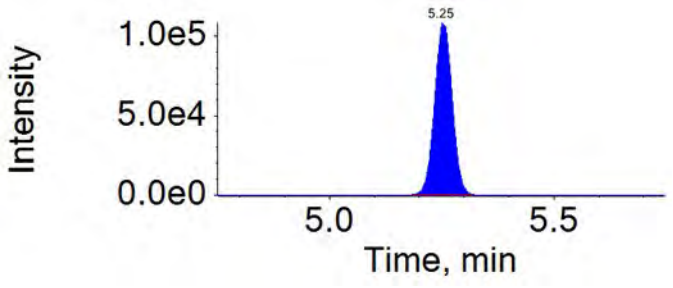


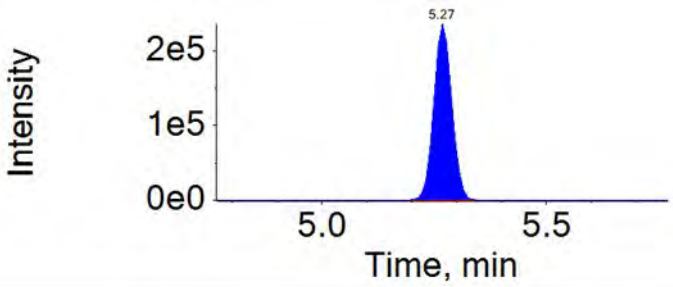
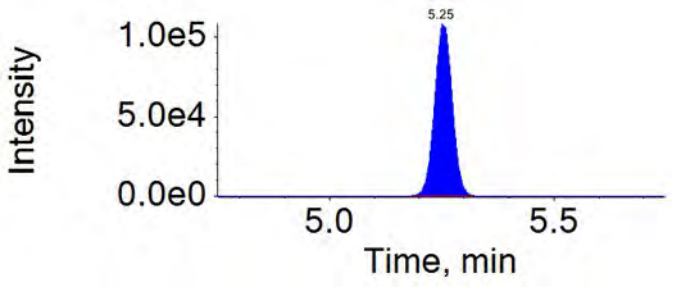
APPROVED
By MCD at 5:00 pm, 11/28/18

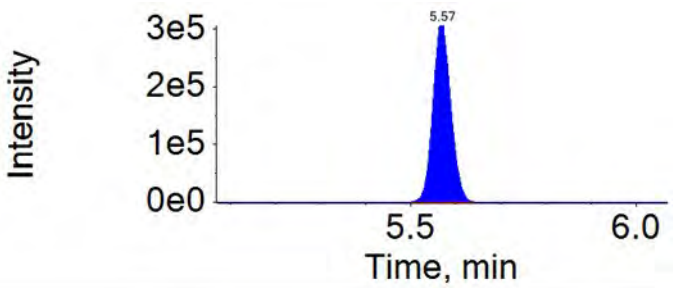
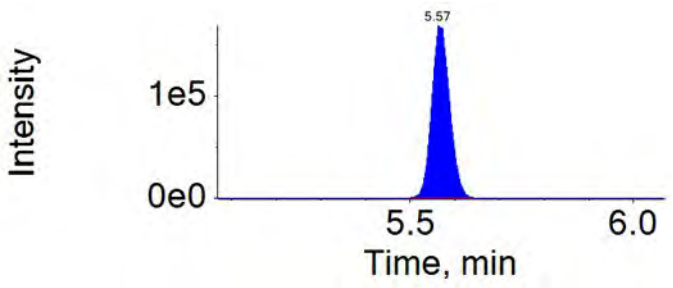
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

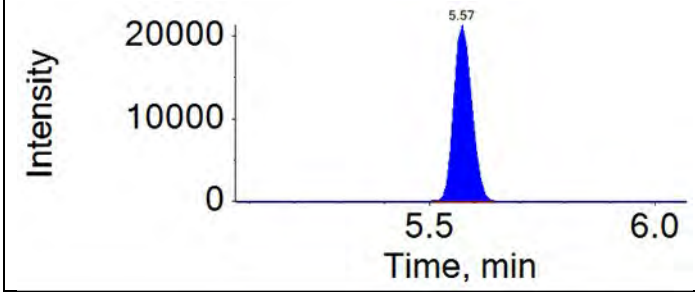
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

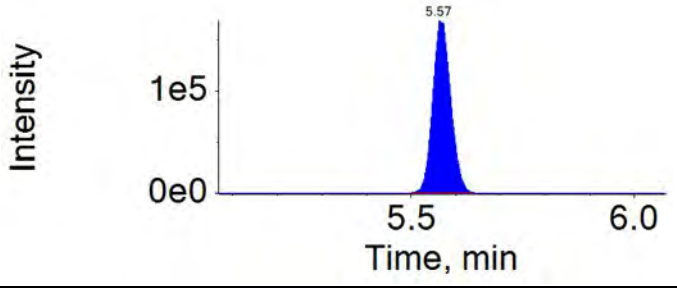
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

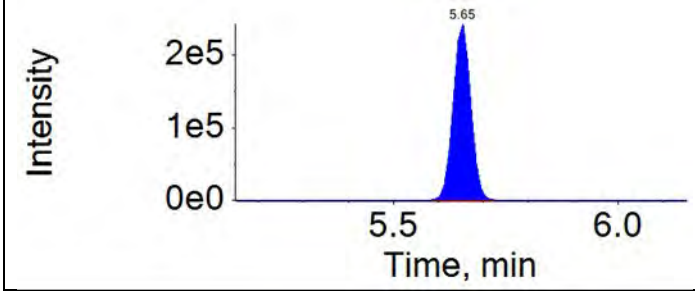
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

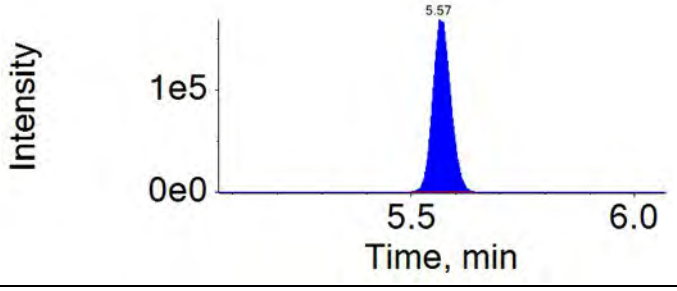
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



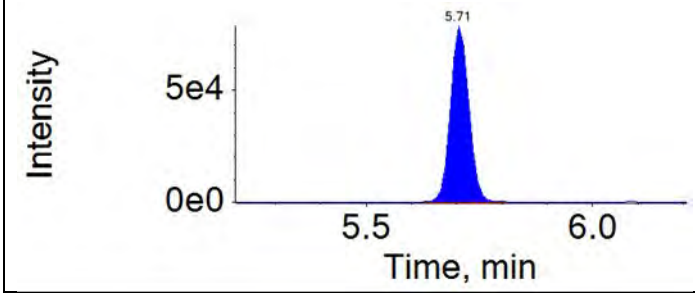


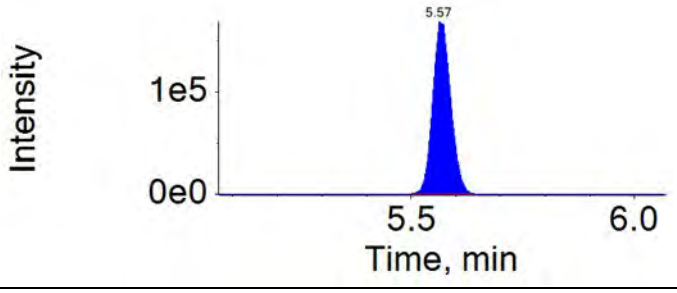
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



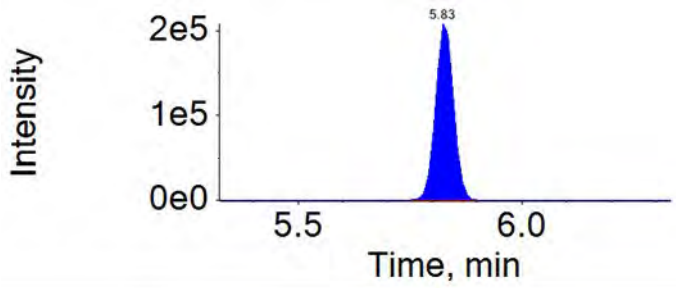


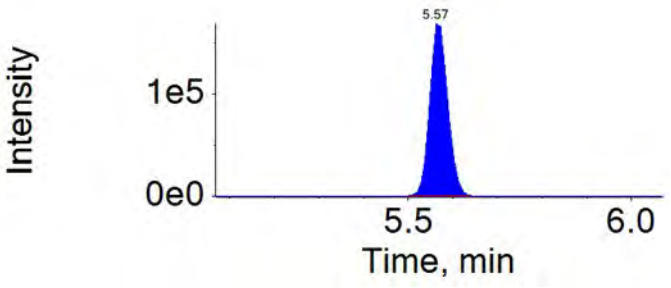
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



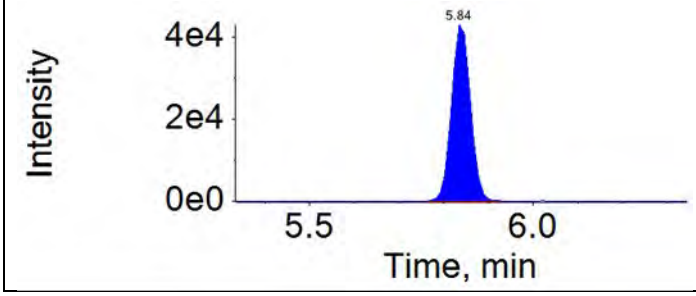


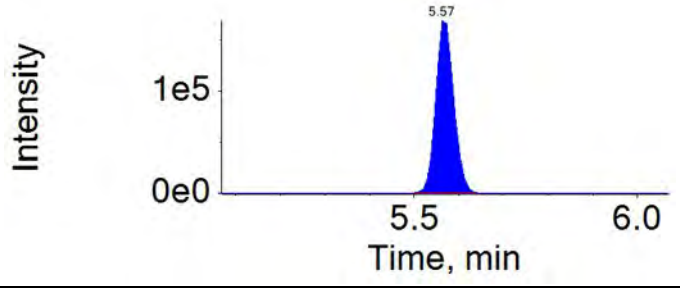
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

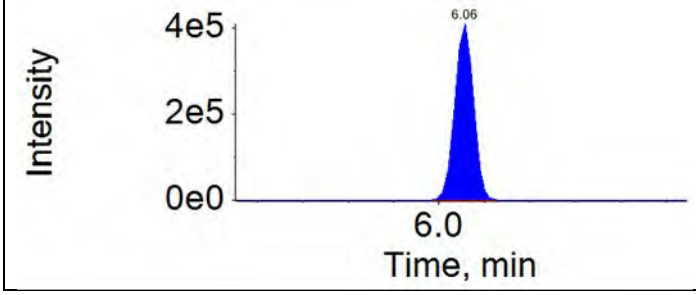
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

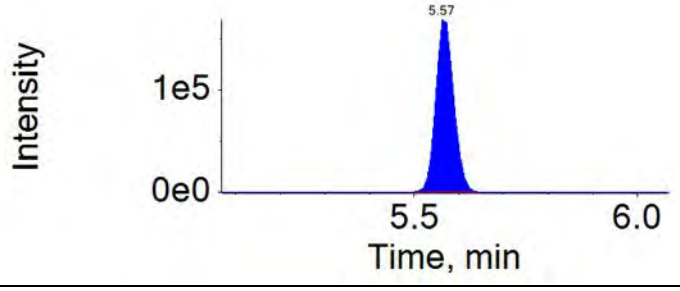
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



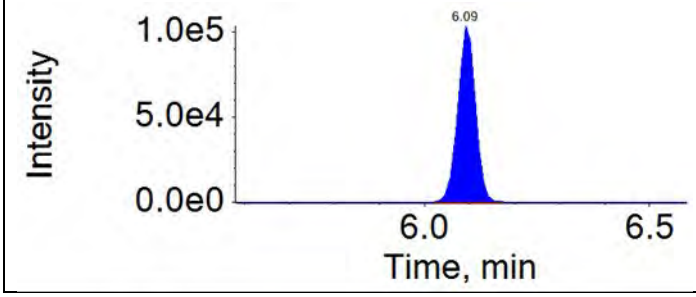


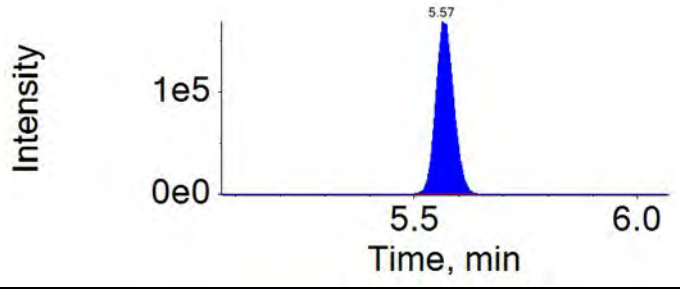
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



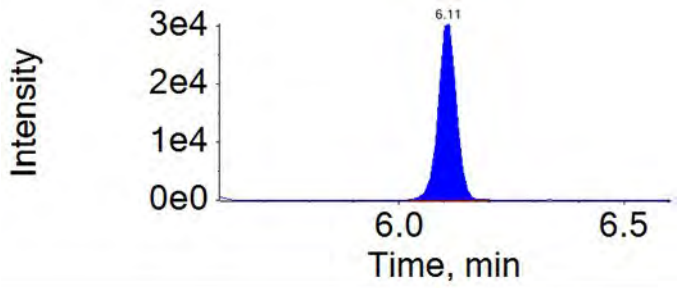


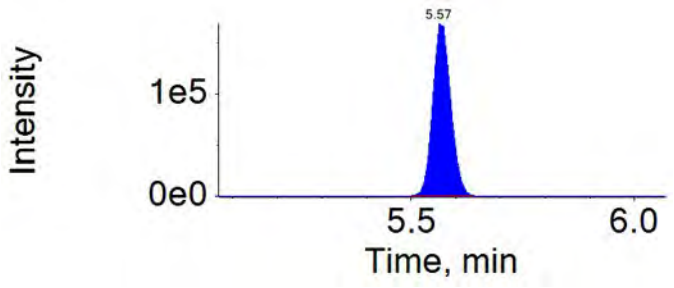
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



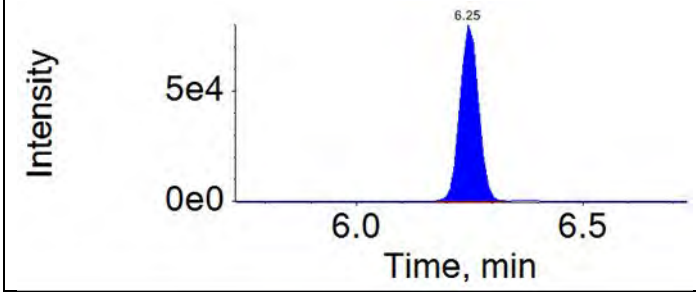


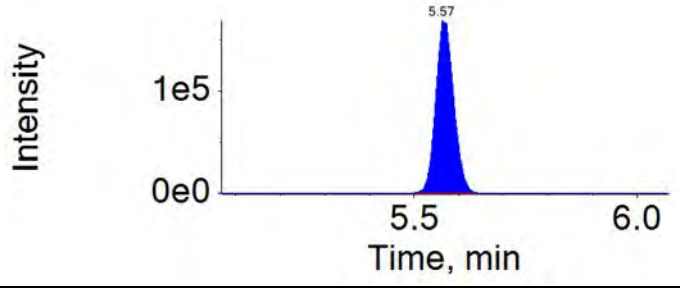
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

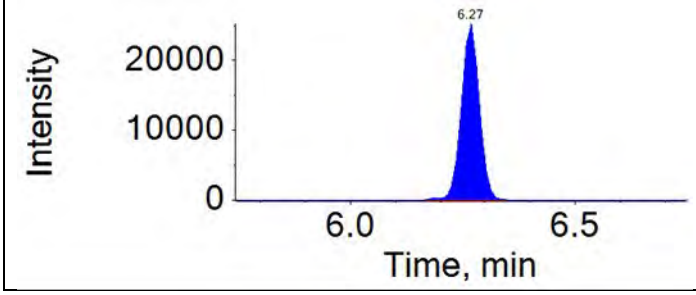
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

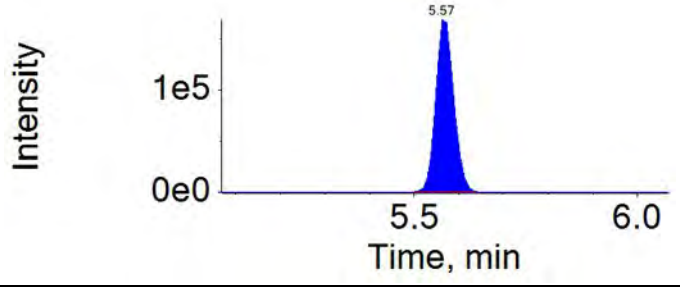
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



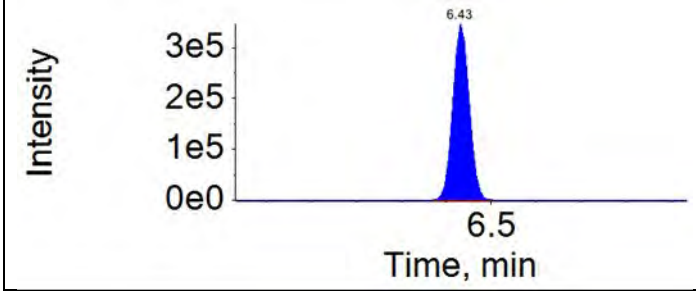


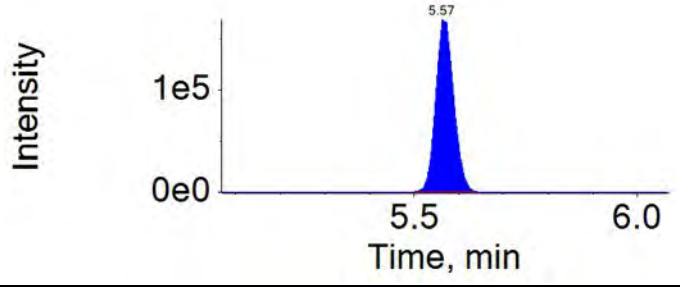
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



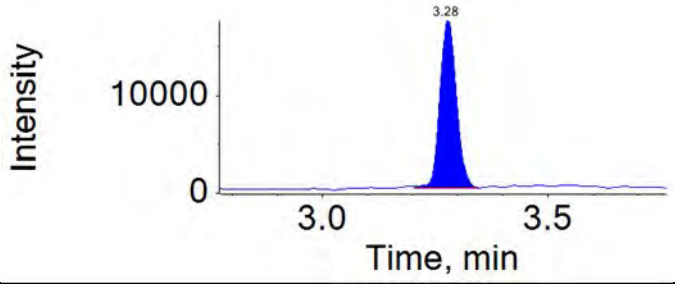


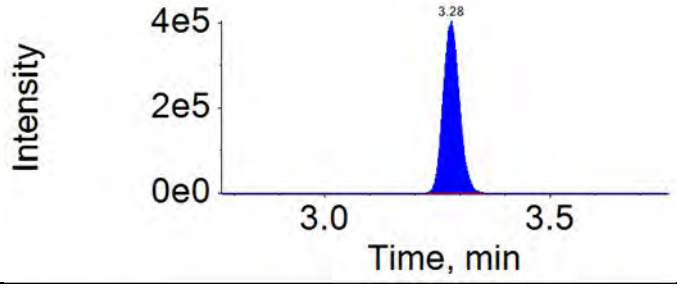
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

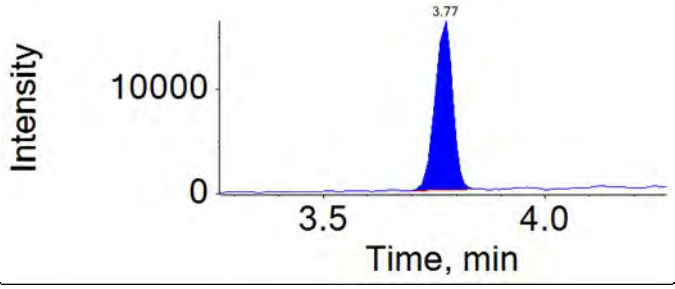
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

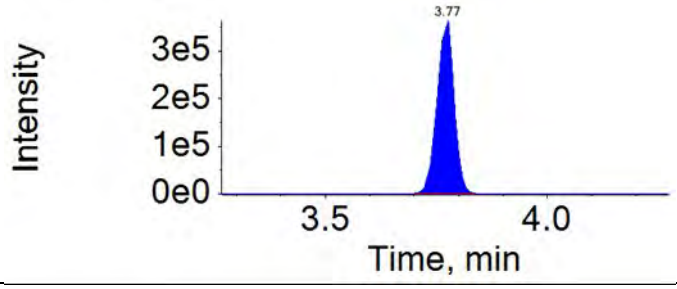
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



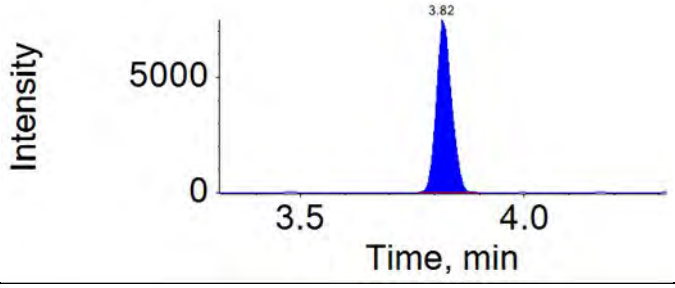


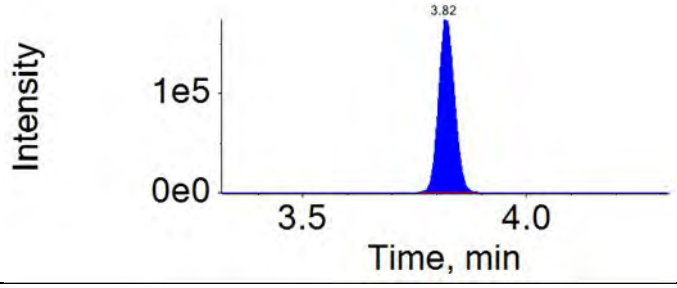
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



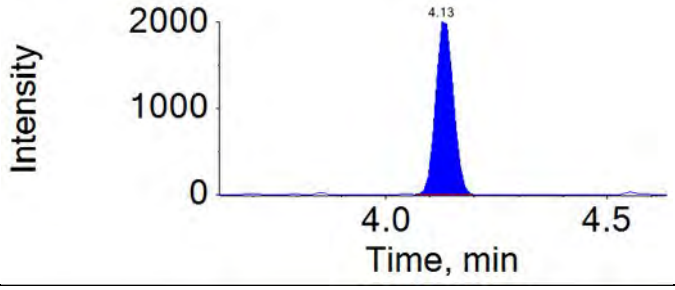


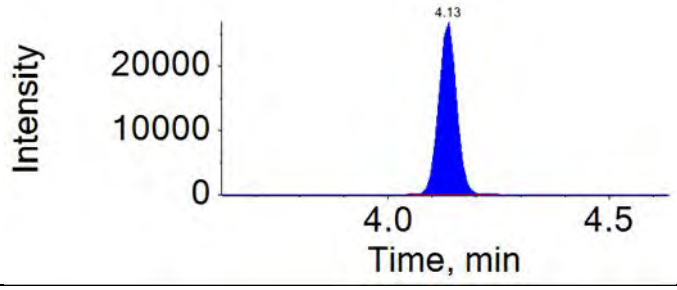
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



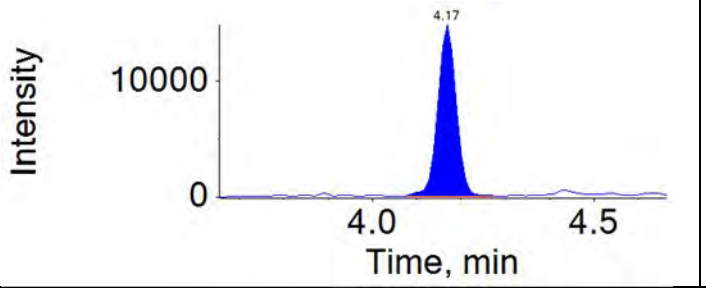


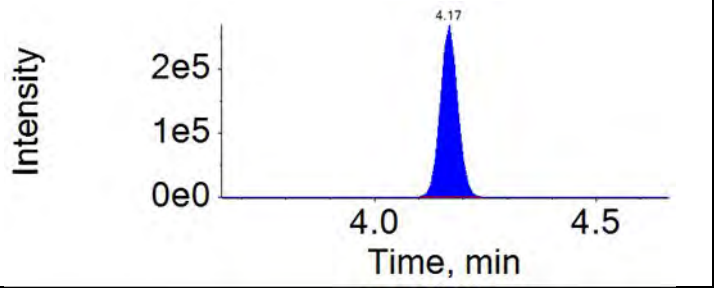
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

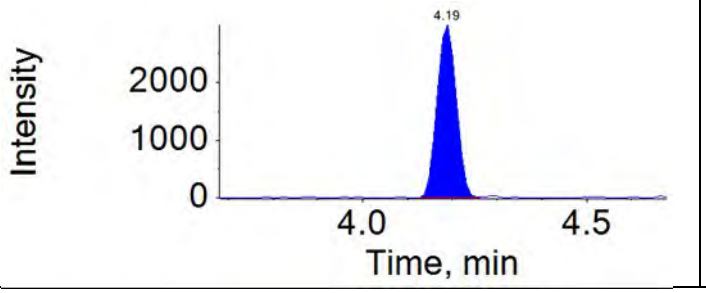
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

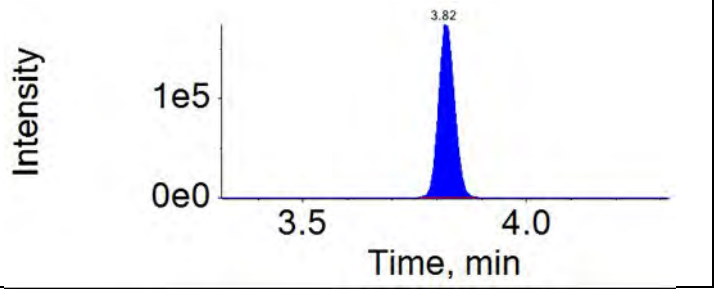
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



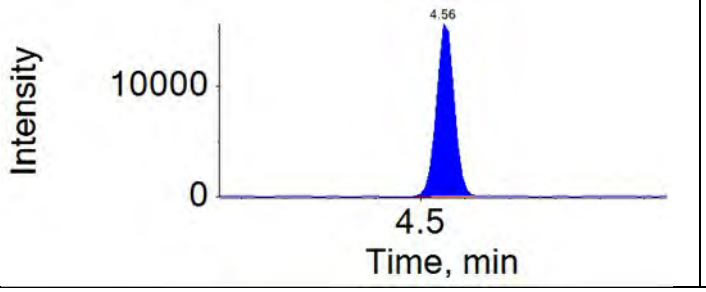


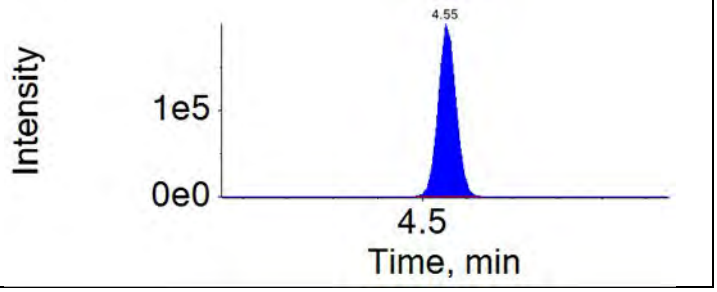
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



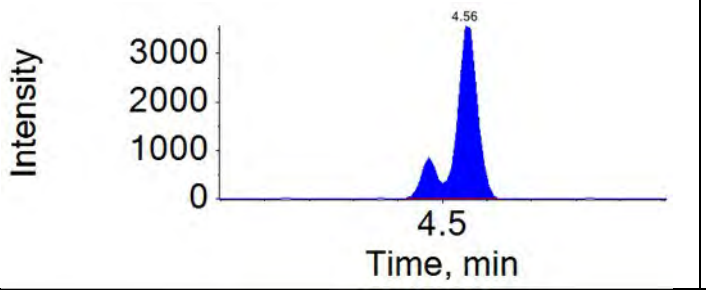


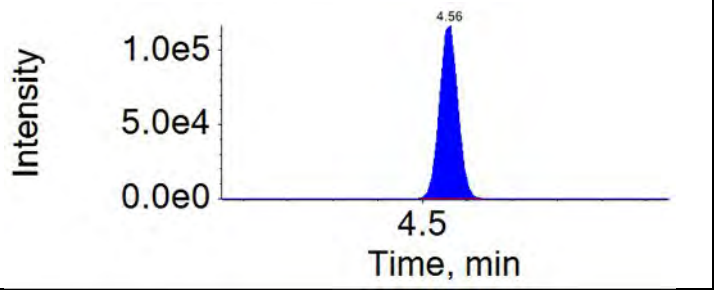
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

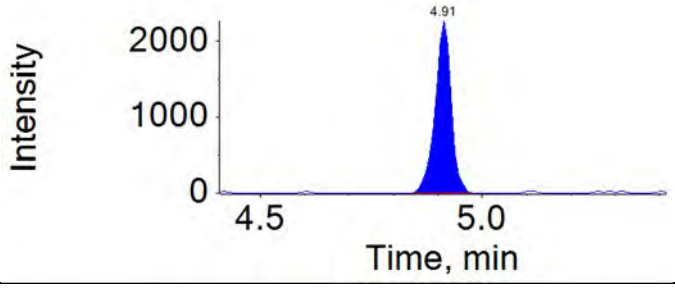
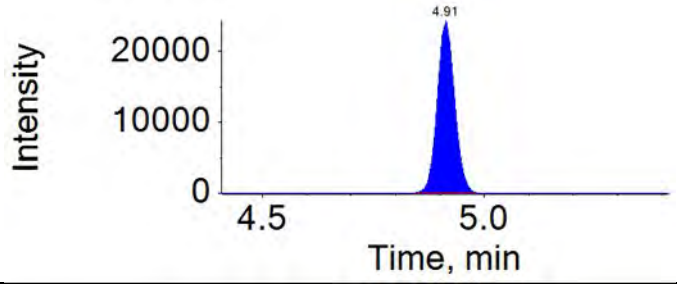


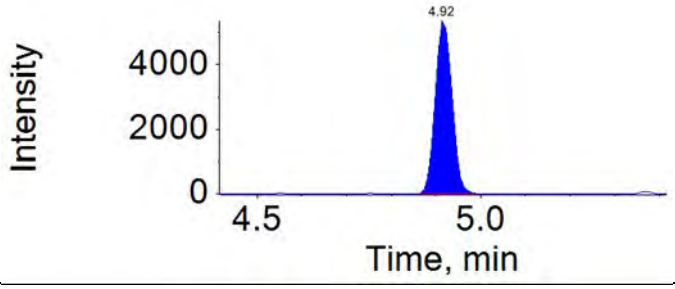
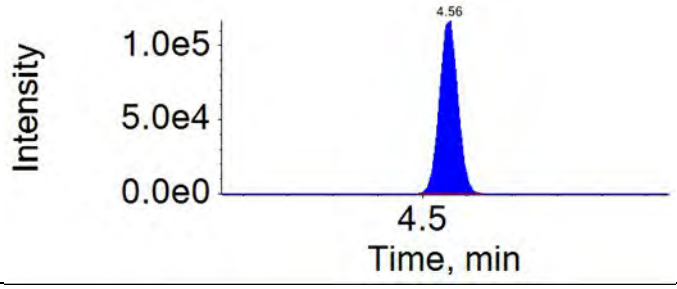


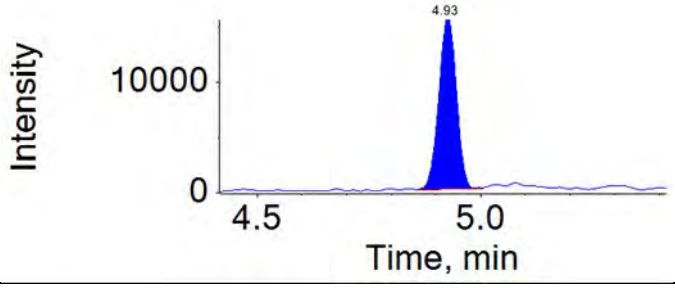
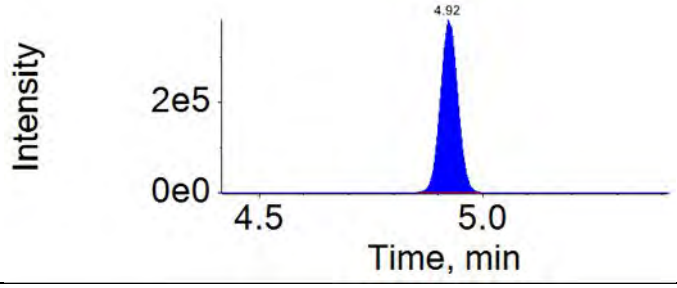
APPROVED
By MCD at 5:00 pm, 11/28/18

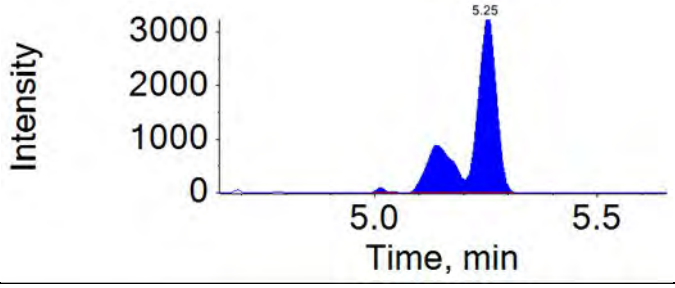
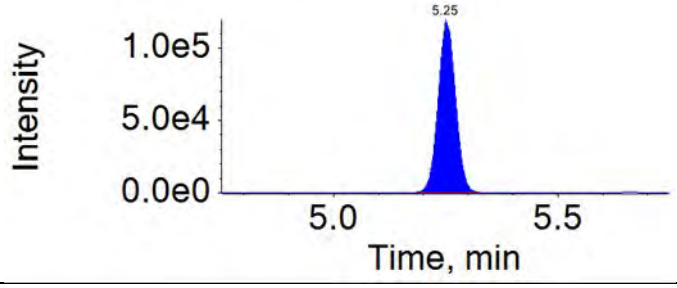
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

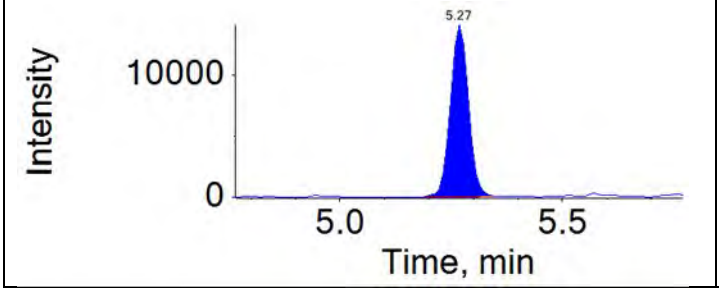
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

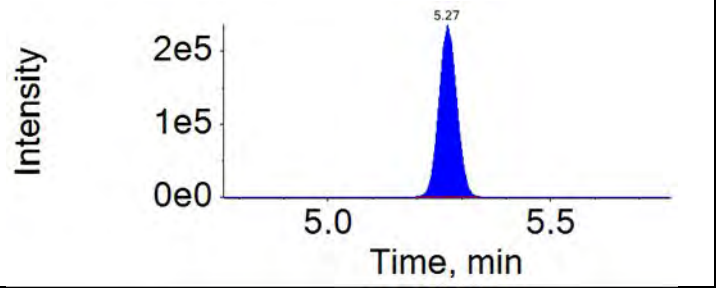
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

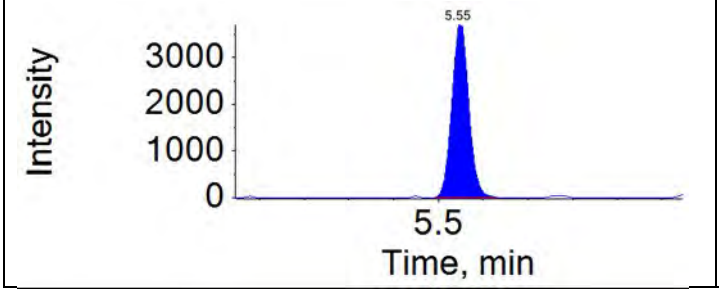
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

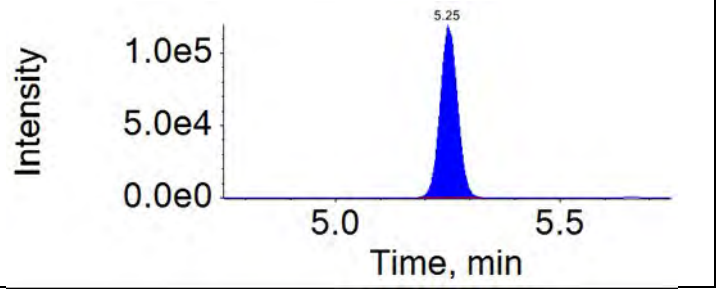
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



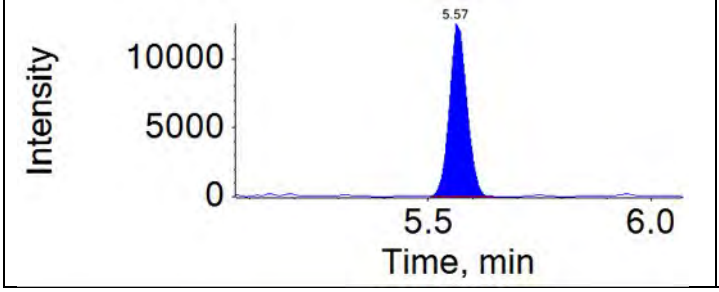


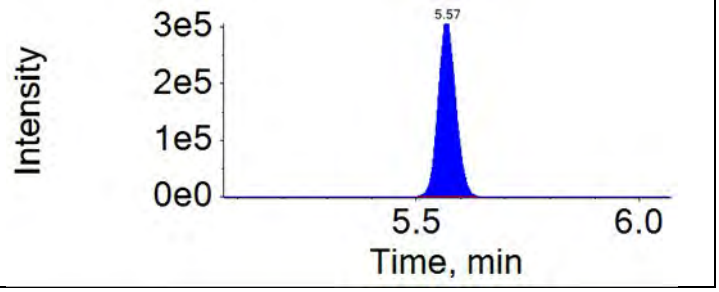
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



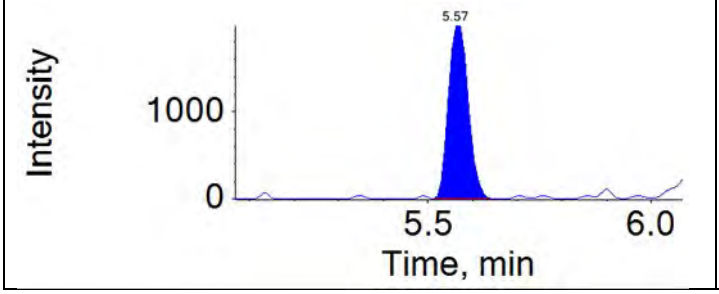


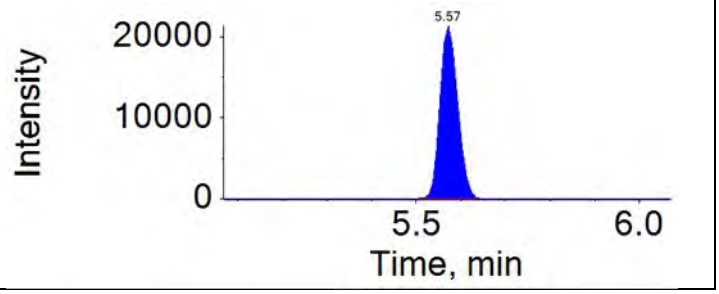
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



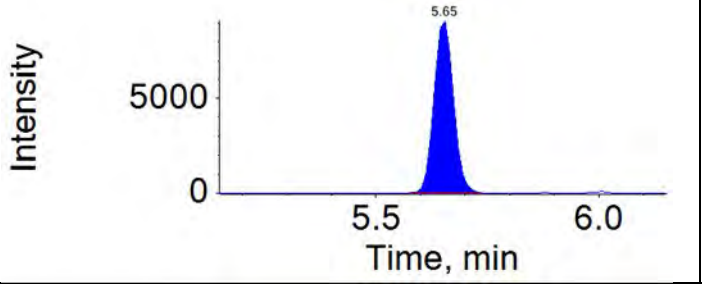


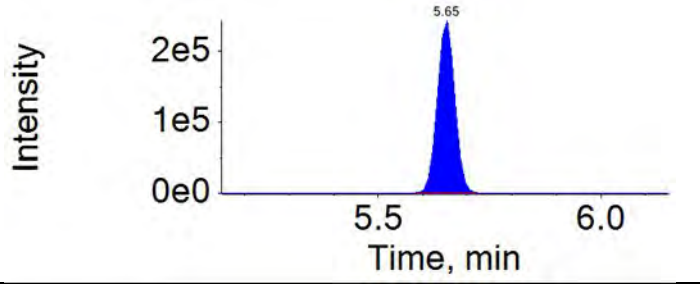
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

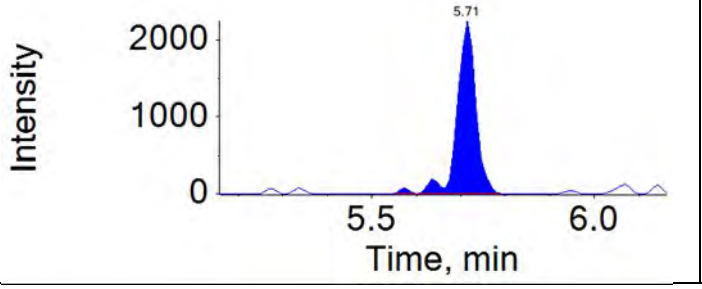
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

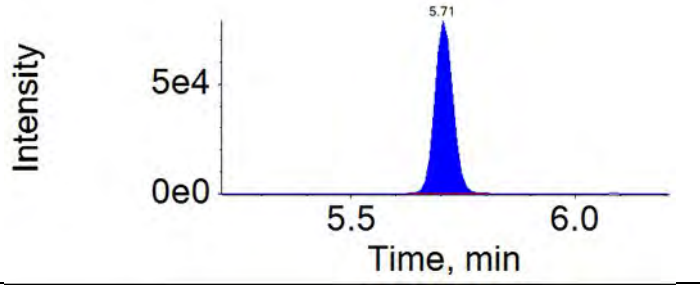
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



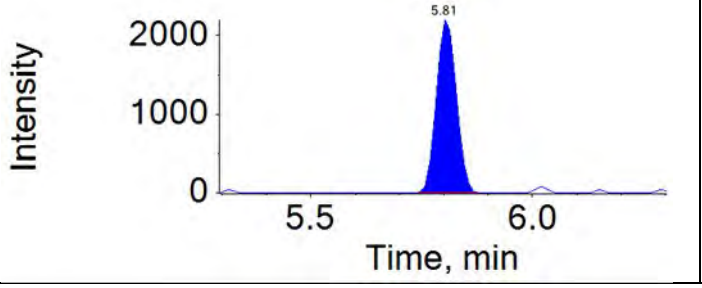


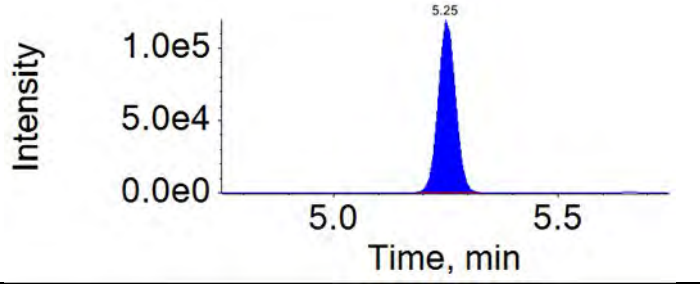
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



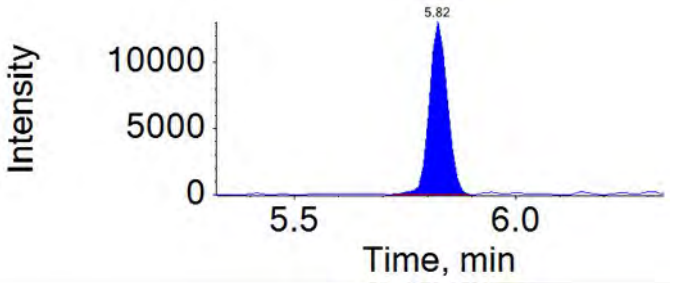


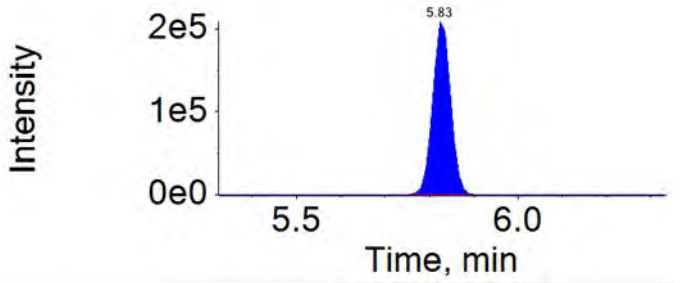
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



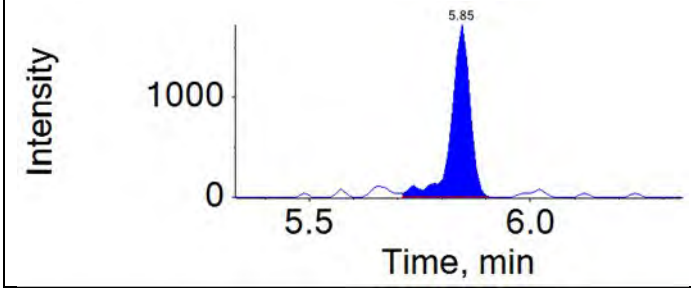


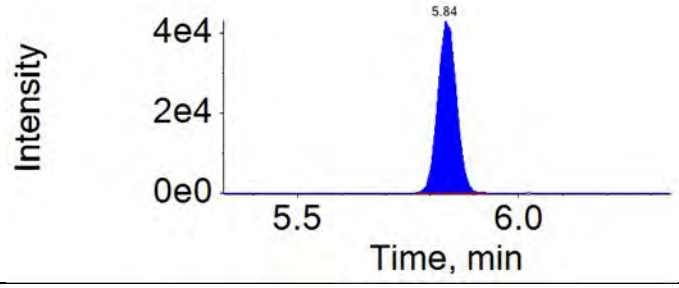
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

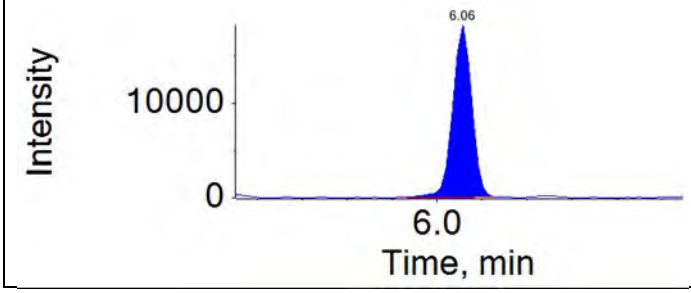
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

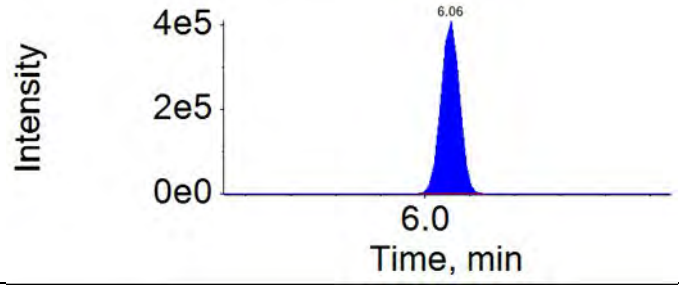
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



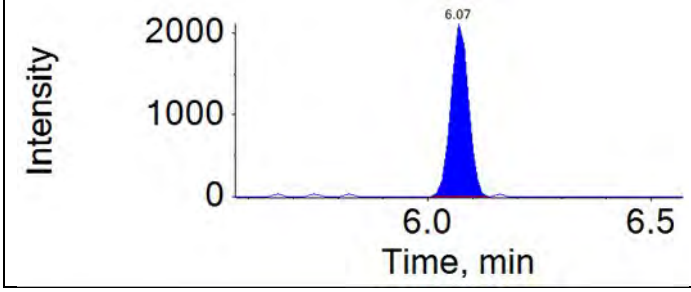


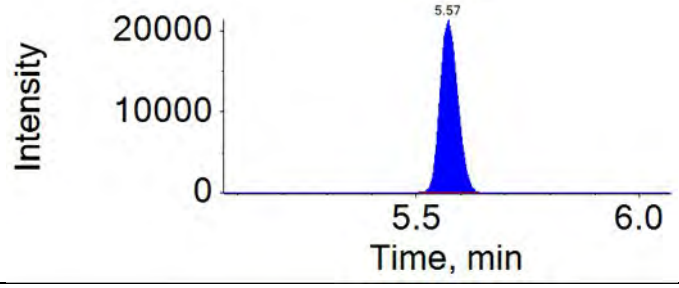
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



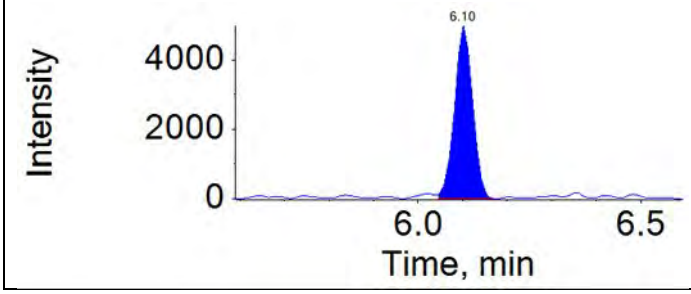


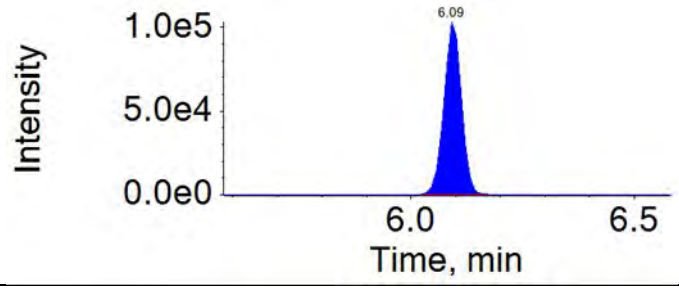
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



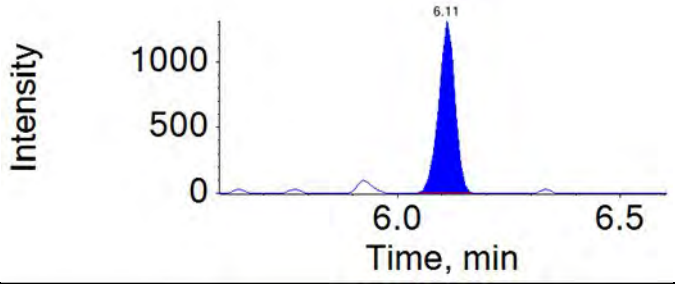


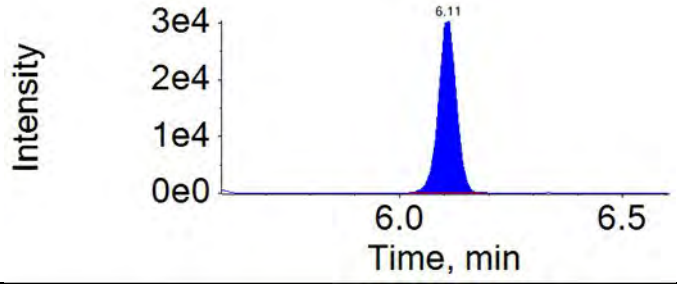
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

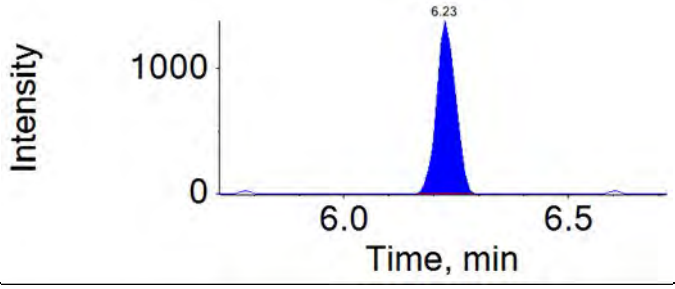
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

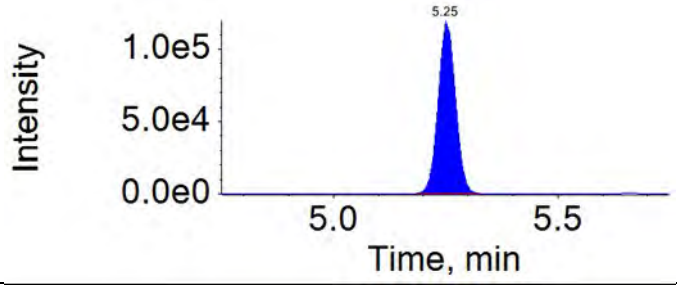
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



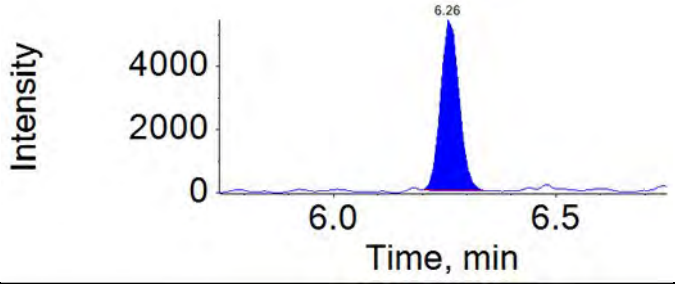


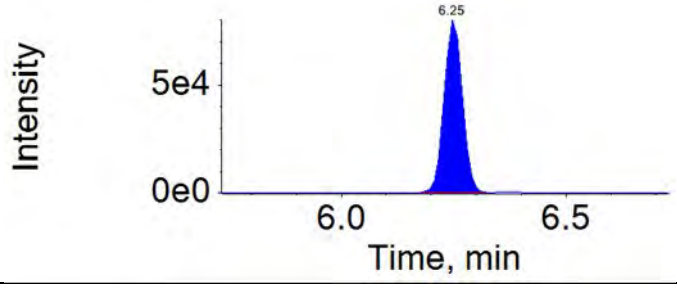
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



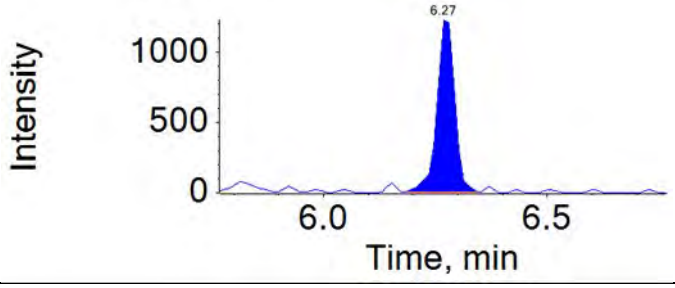


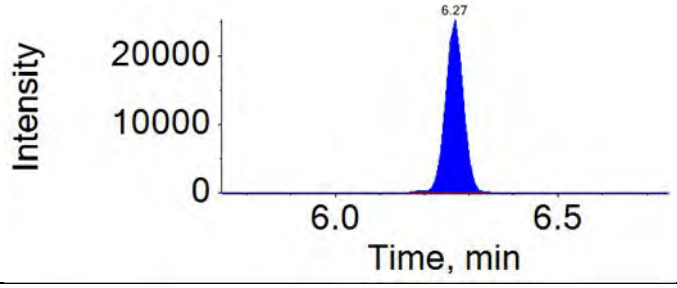
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



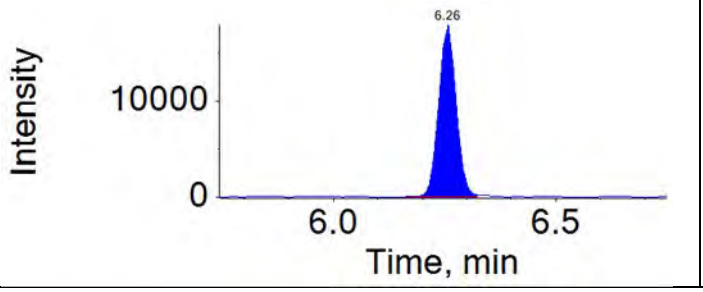


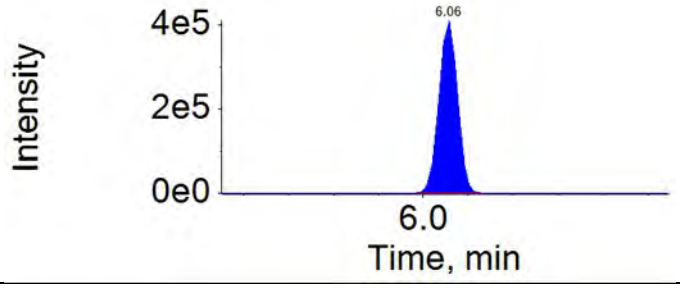
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

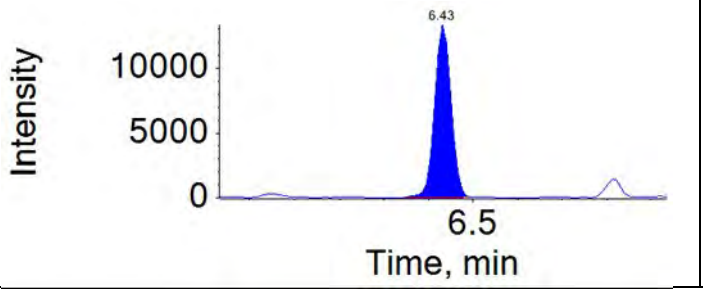
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

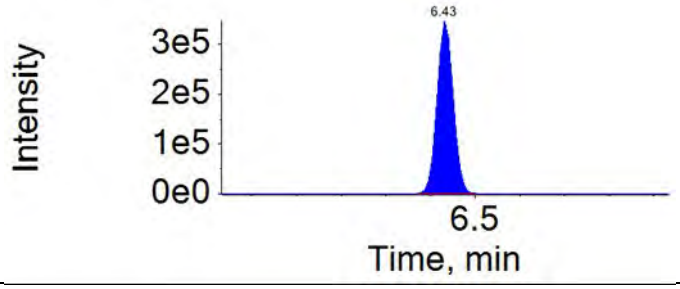
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



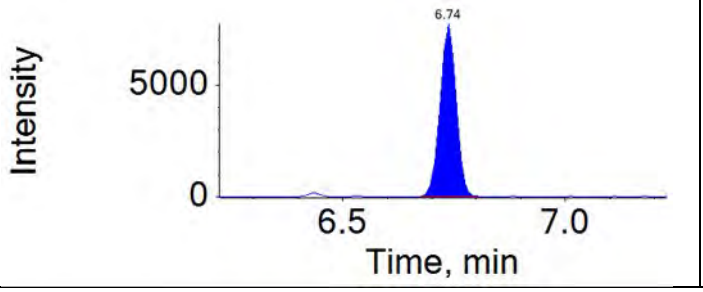


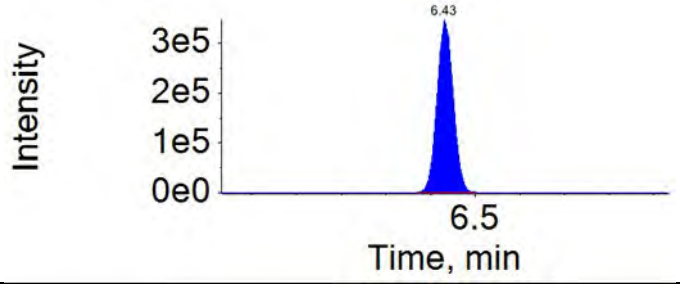
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



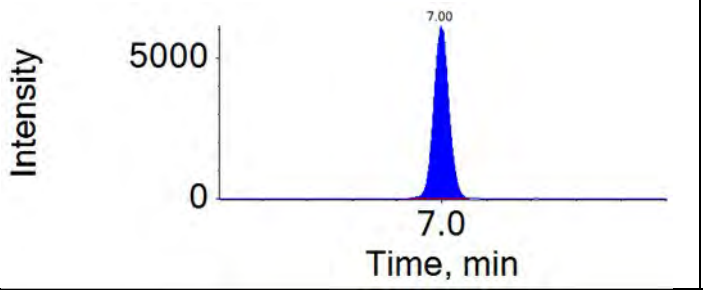


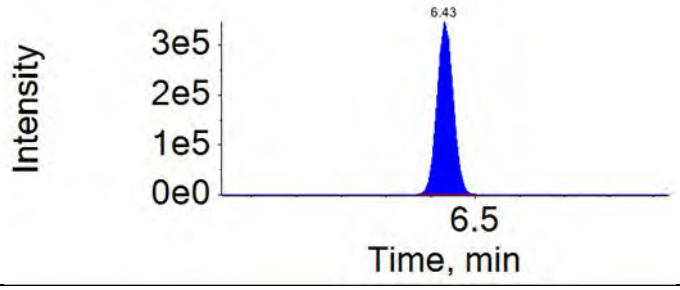
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



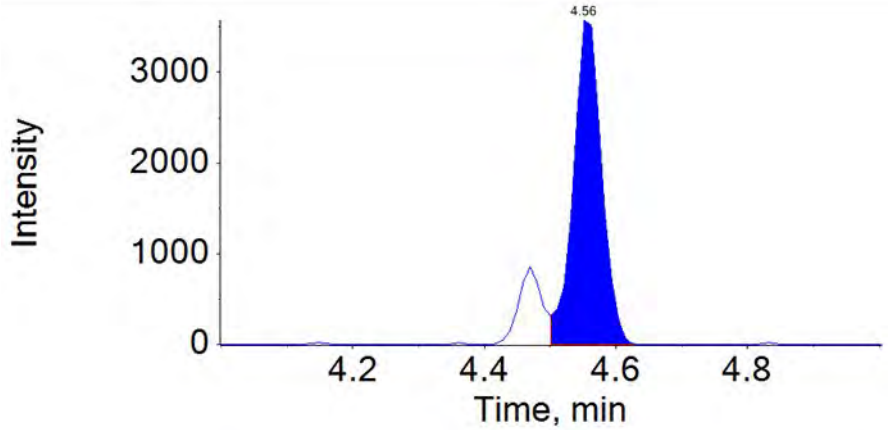


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

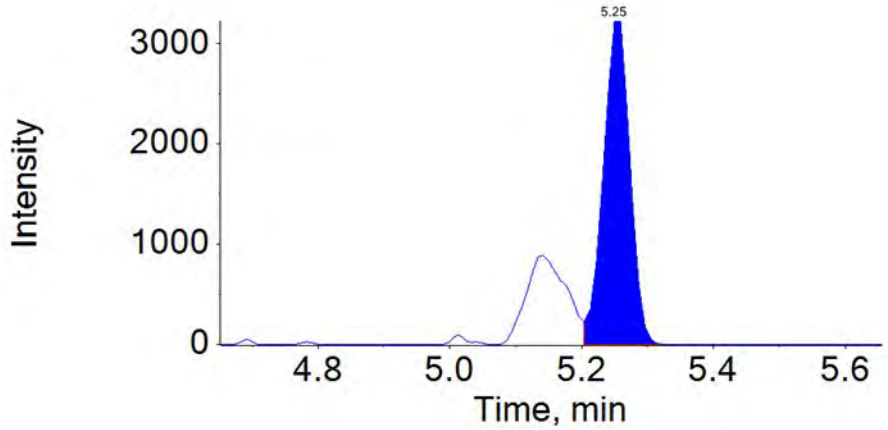
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



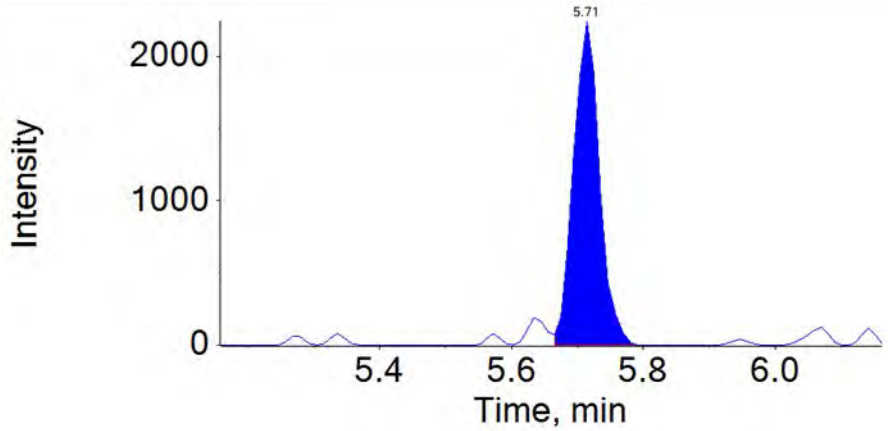
Integration Comment: incorrect integration

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



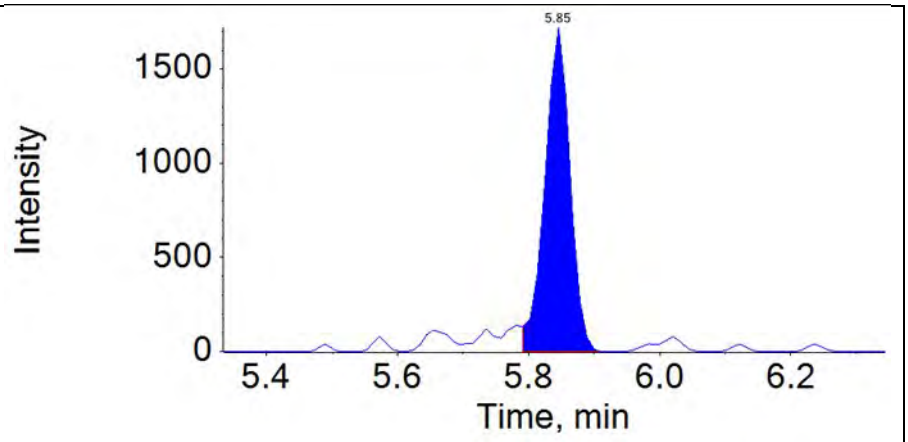
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

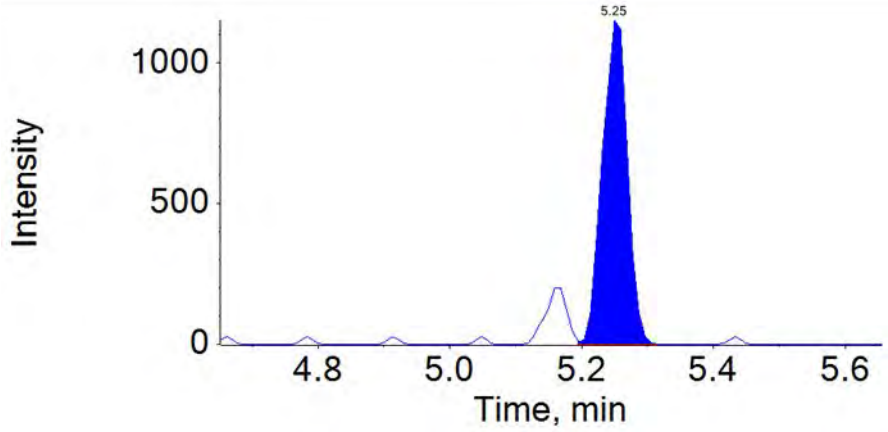
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



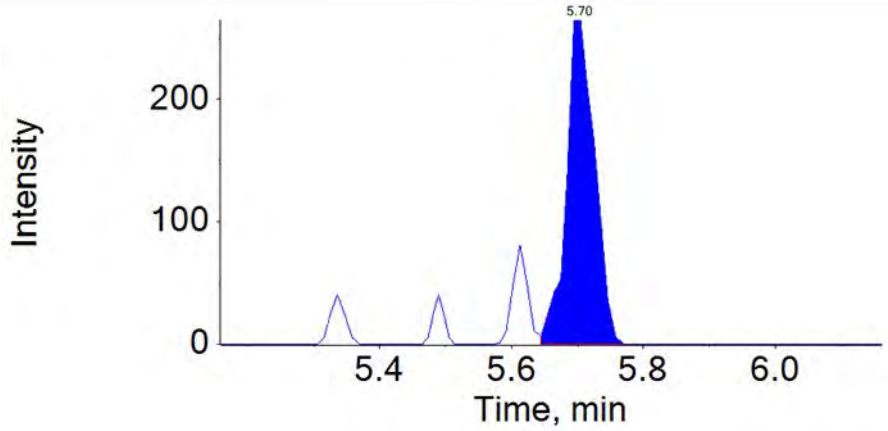
Integration Comment: incorrect integration

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



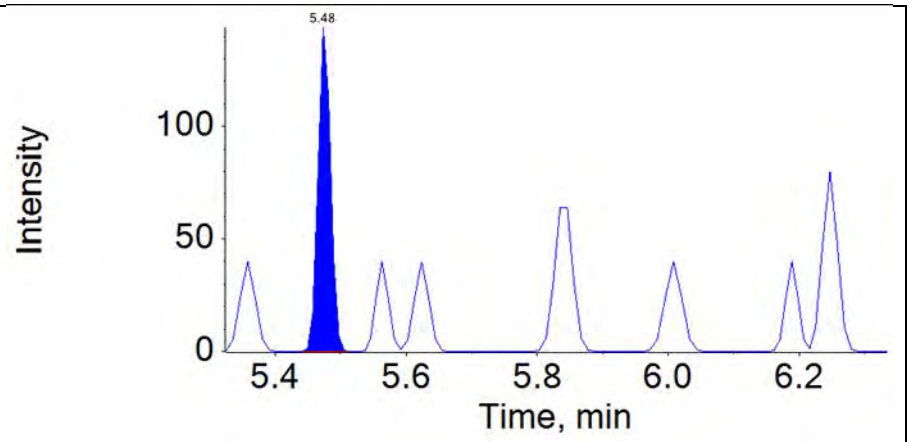
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

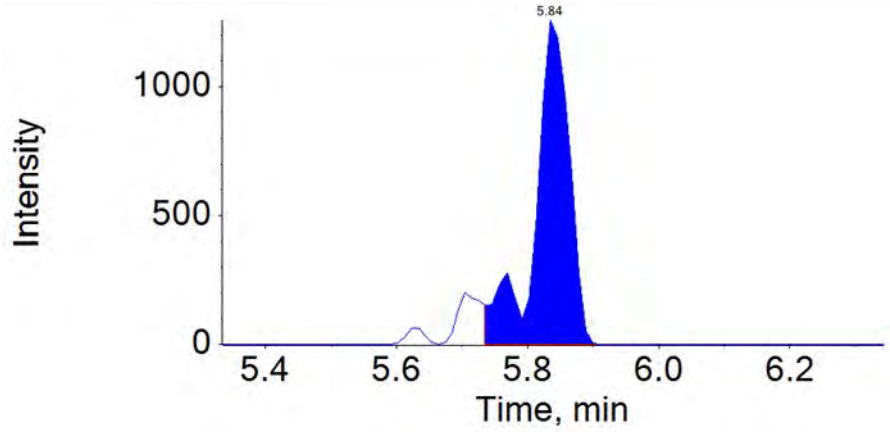
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



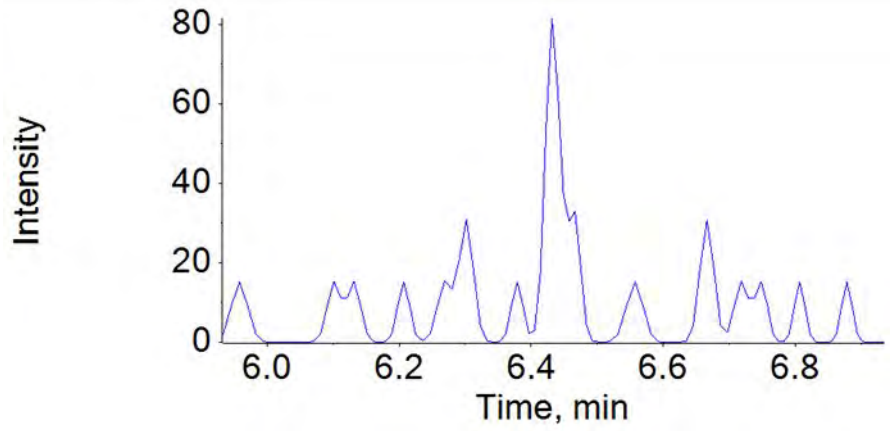
Integration Comment: incorrect integration

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

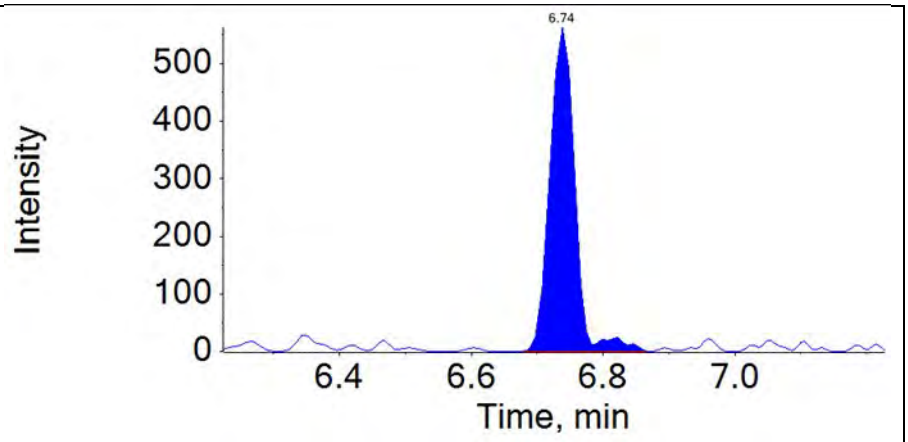
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

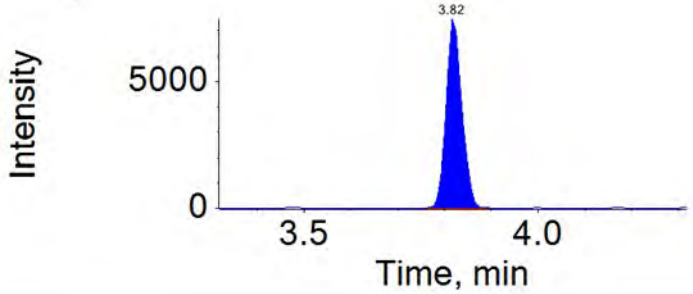
Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-06.wiff

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	
PFTrDA	6.26	1.03	48537.57	A	0.0090	0.0125			
PFTrDA_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	

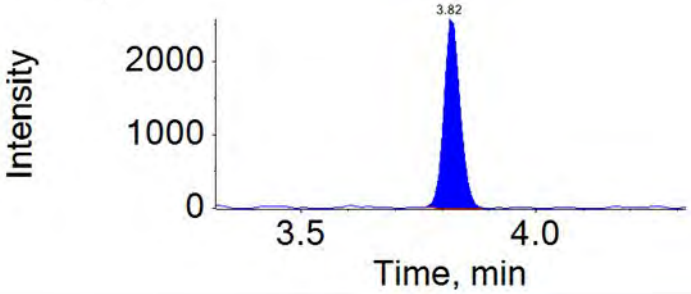
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

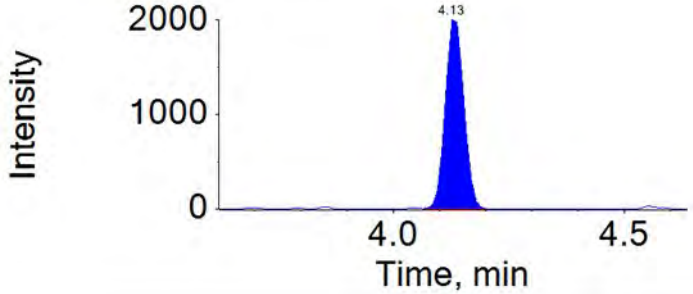
Component: PFBS
Primary Mass: 299.0 / 80.0



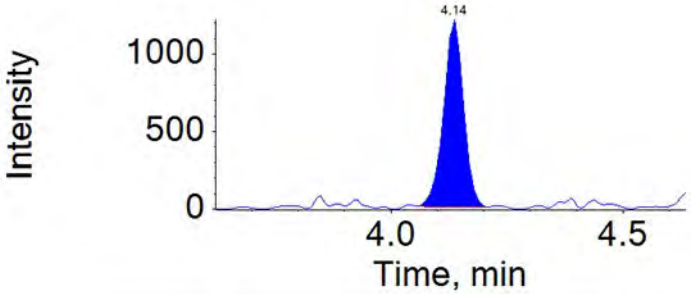
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



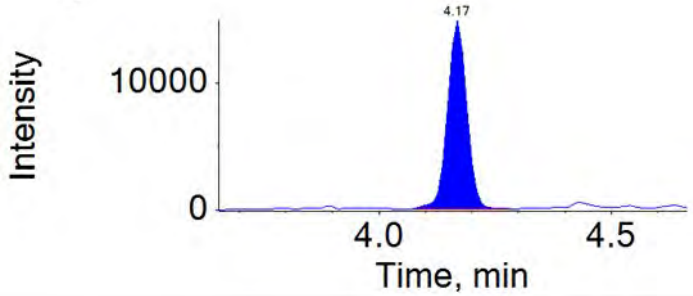
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



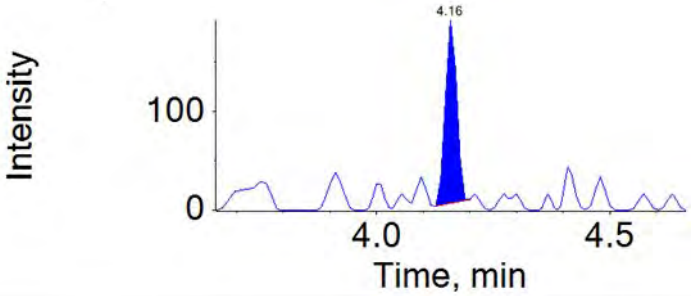
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



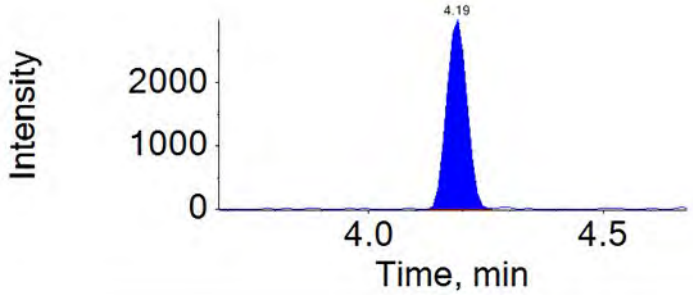
Component: PFHxA
Primary Mass: 313.0 / 269.0



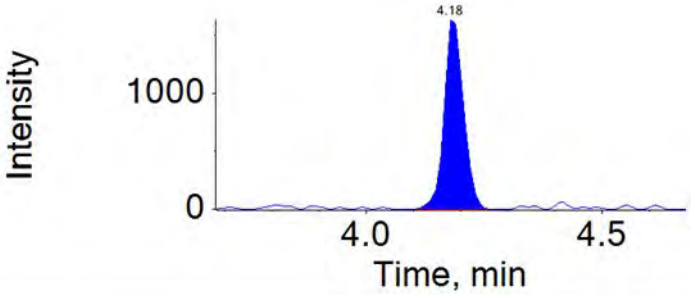
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



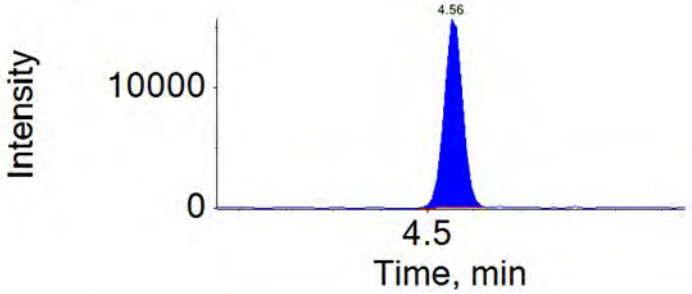
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



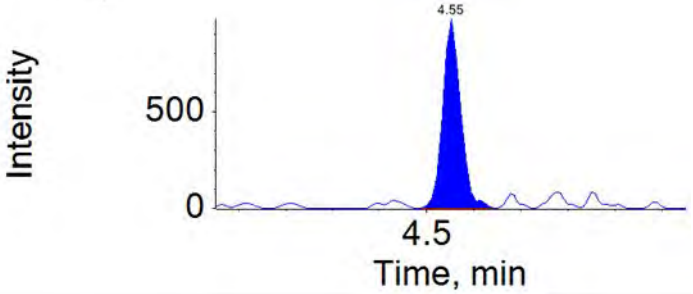
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

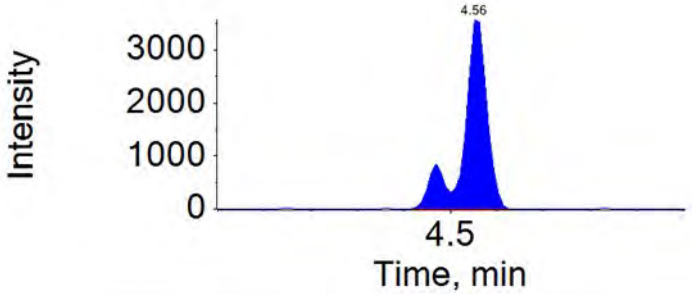
Component: PFHpA
Primary Mass: 363.0 / 319.0



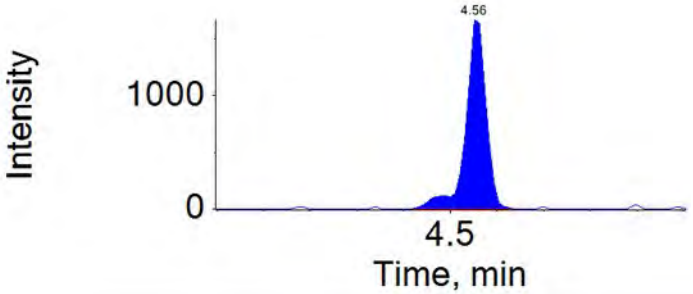
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



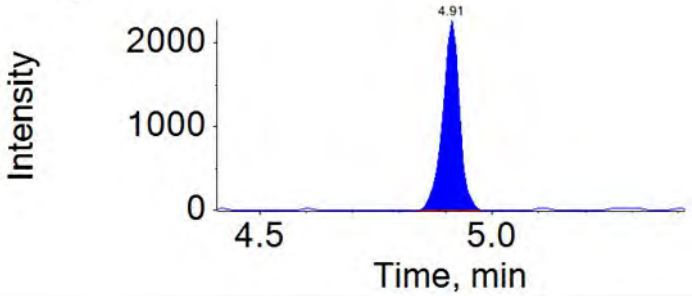
Component: PFHxS
Primary Mass: 399.0 / 80.0



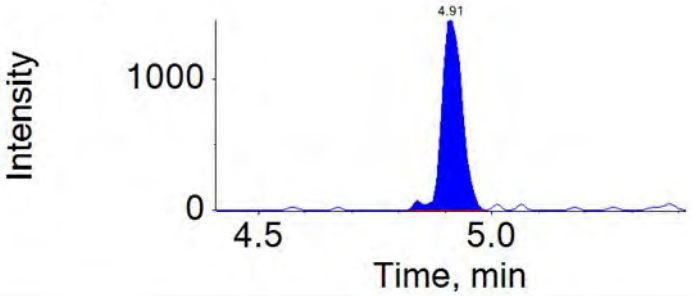
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



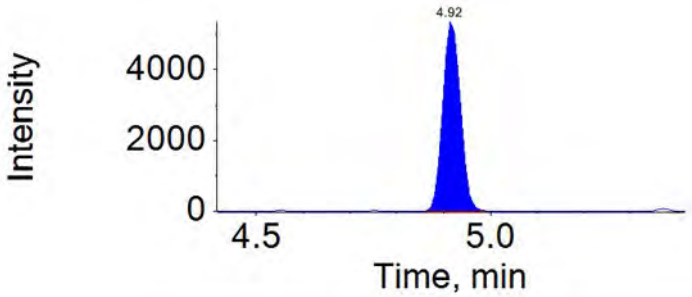
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



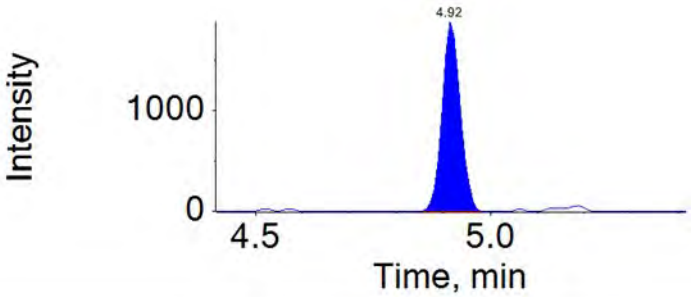
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



APPROVED
By MCD at 5:00 pm, 11/28/18

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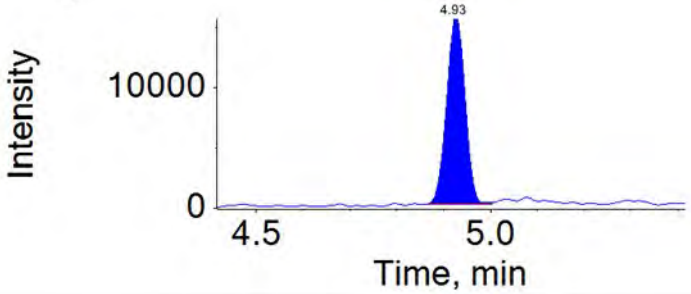
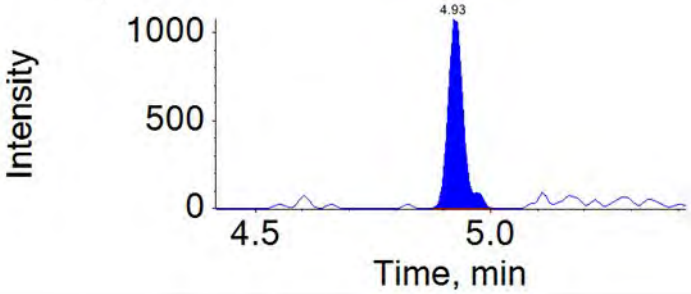
By HMK at 12:22 pm, 11/29/18

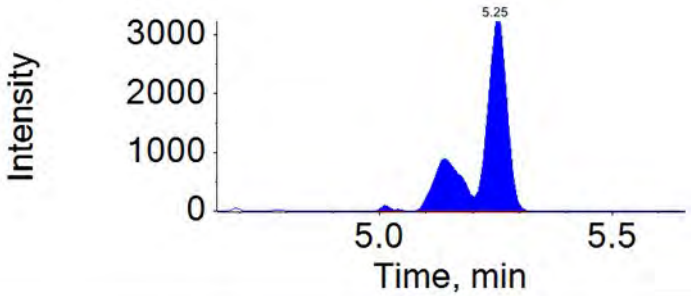
Component: PFOA
Primary Mass: 413.0 / 369.0



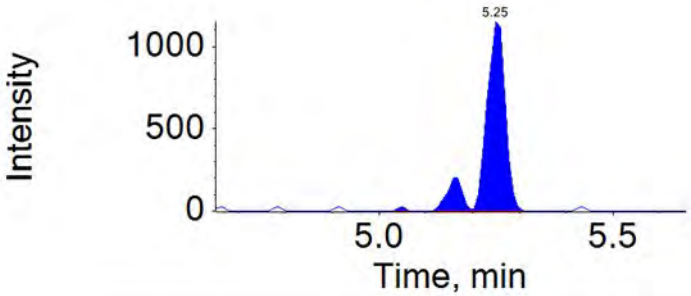
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



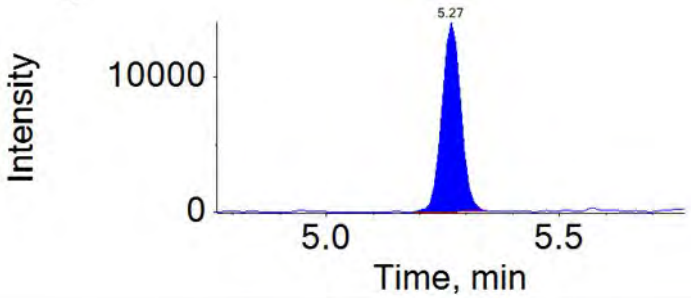
Component: PFOS
Primary Mass: 499.0 / 80.0



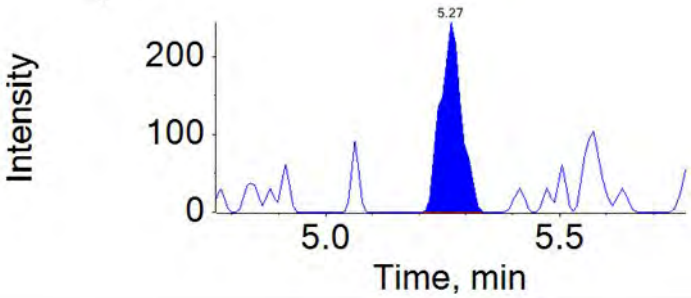
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



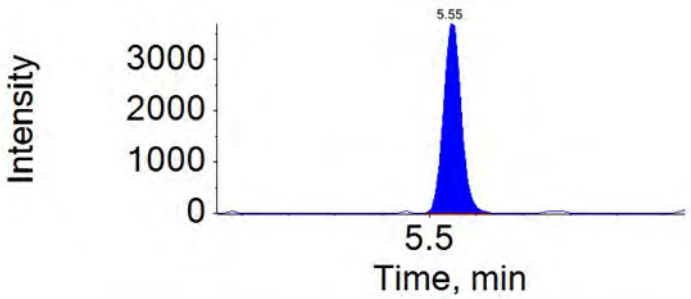
Component: PFNA
Primary Mass: 463.0 / 419.0



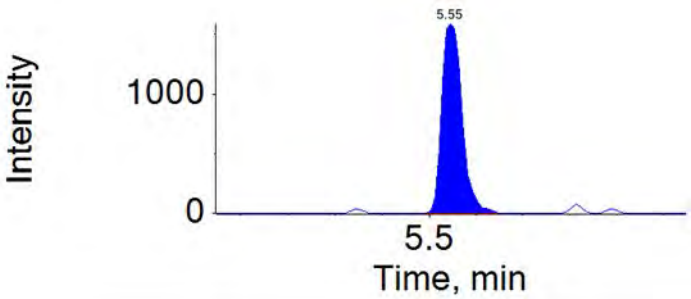
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



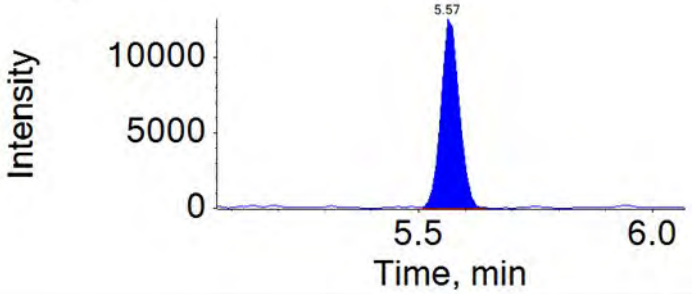
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



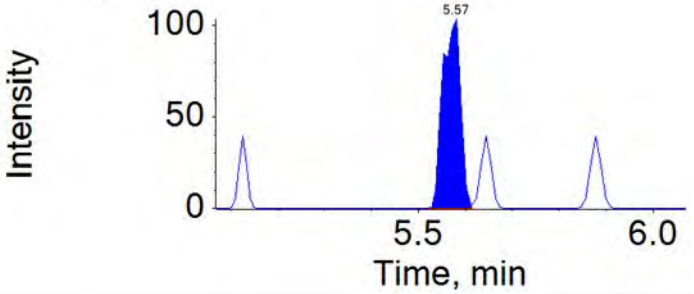
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

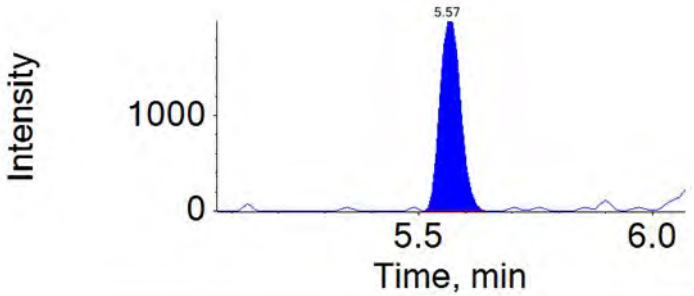
Component: PFDA
Primary Mass: 513.0 / 469.0



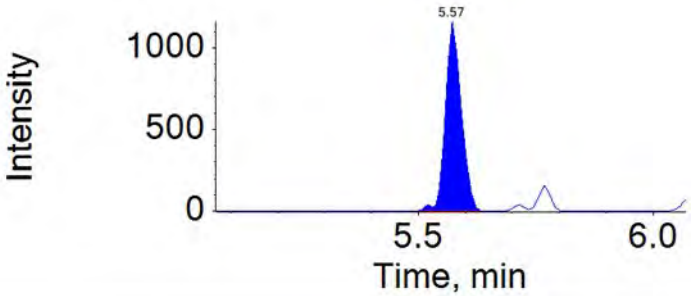
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



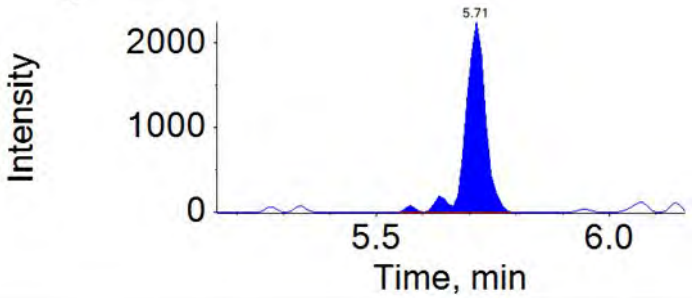
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



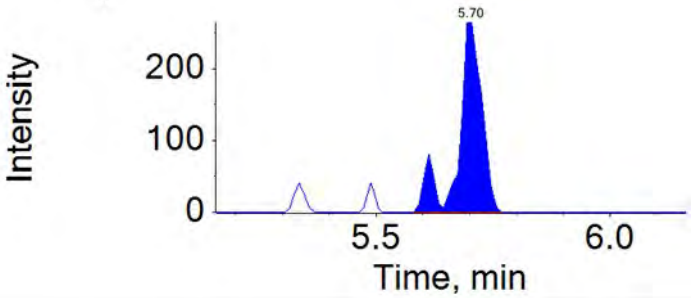
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



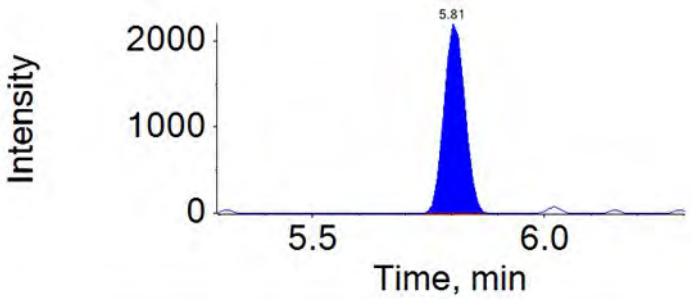
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



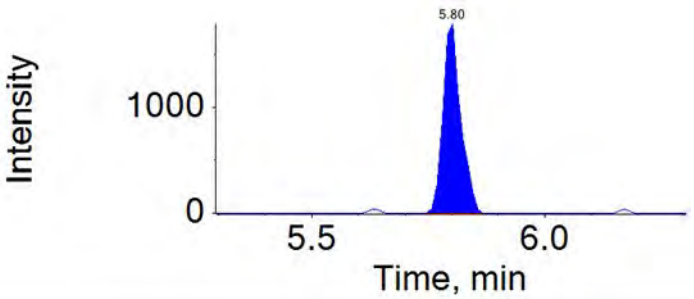
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



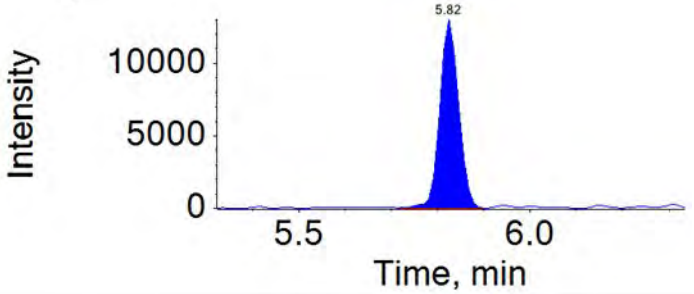
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



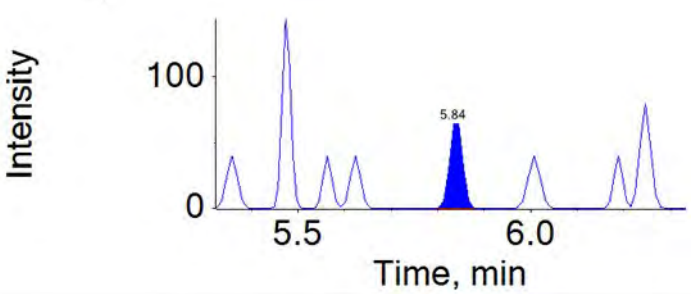
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

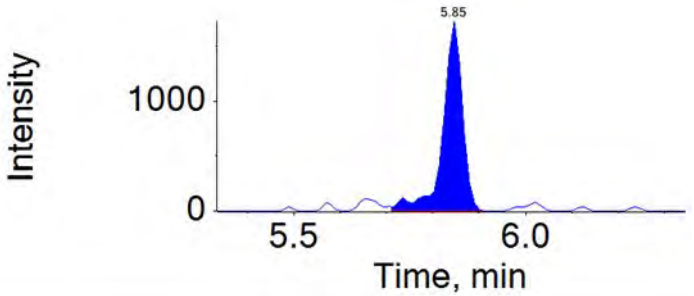
Component: PFUnDA
Primary Mass: 563.0 / 519.0



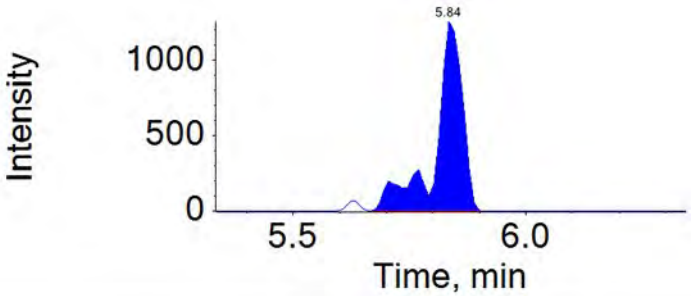
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



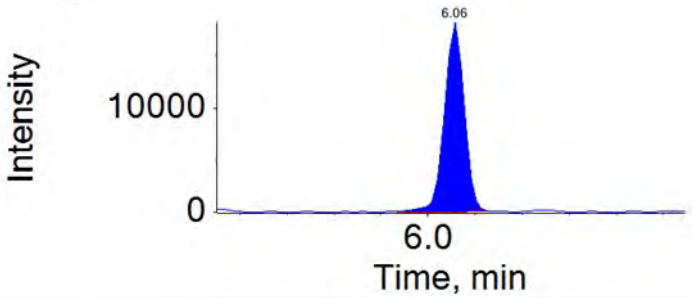
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



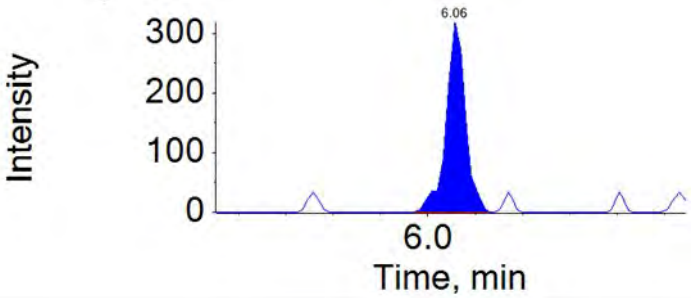
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



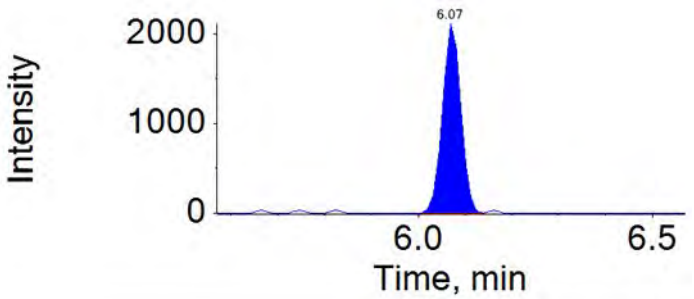
Component: PFDoDA
Primary Mass: 613.0 / 569.0



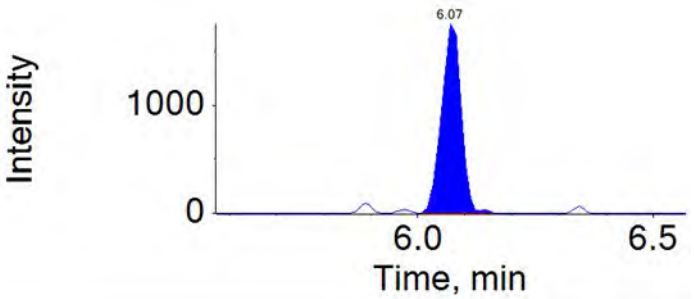
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



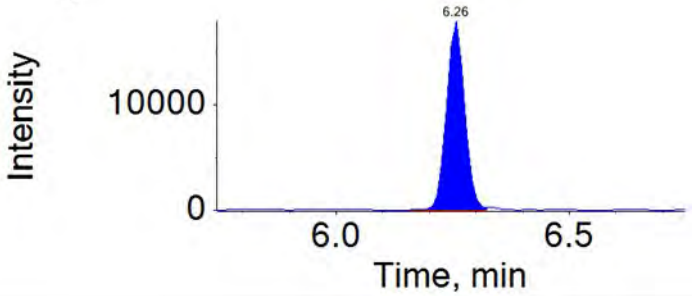
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



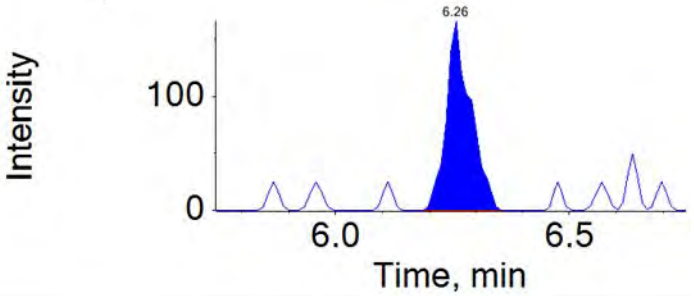
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



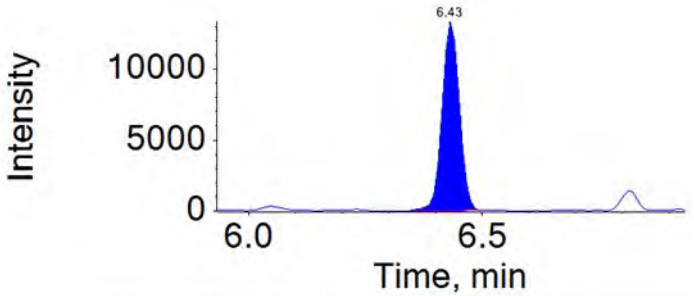
Component: PFTrDA
Primary Mass: 663.0 / 619.0



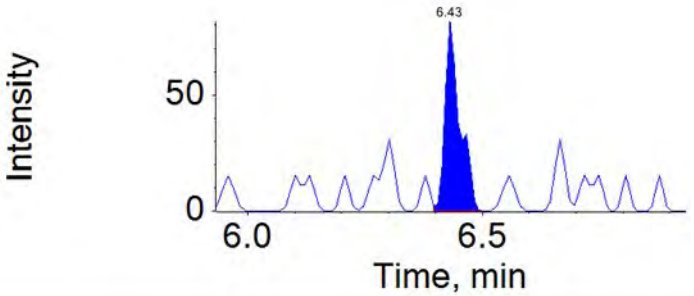
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



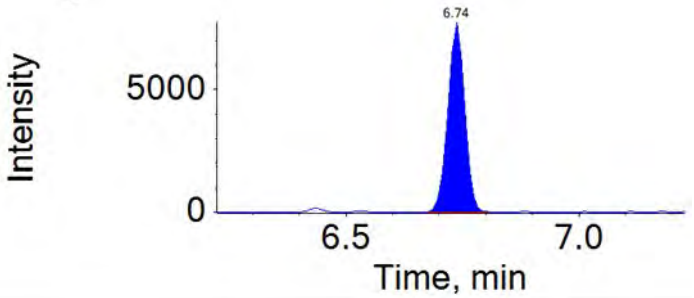
Component: PFTeDA
Primary Mass: 713.0 / 669.0



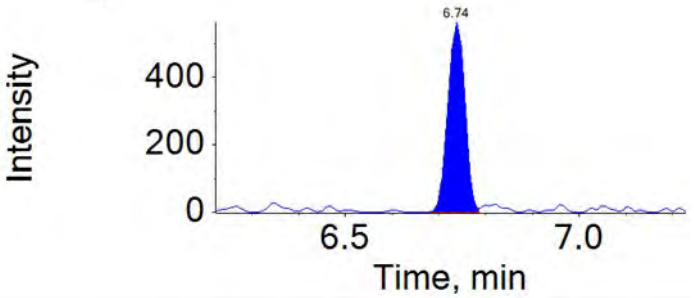
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



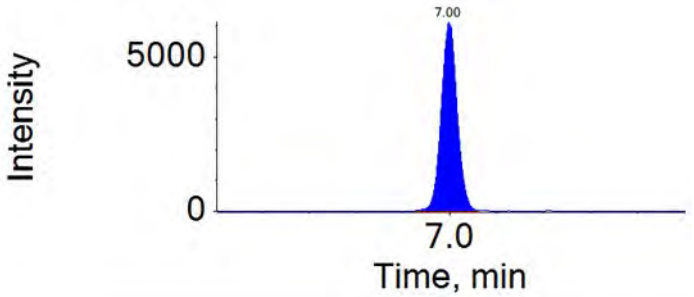
Component: PFHxDA
Primary Mass: 813.0 / 769.0



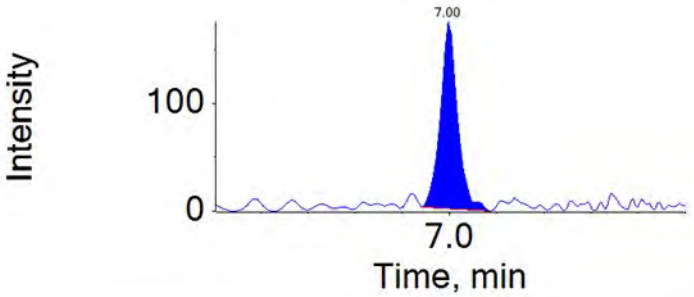
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

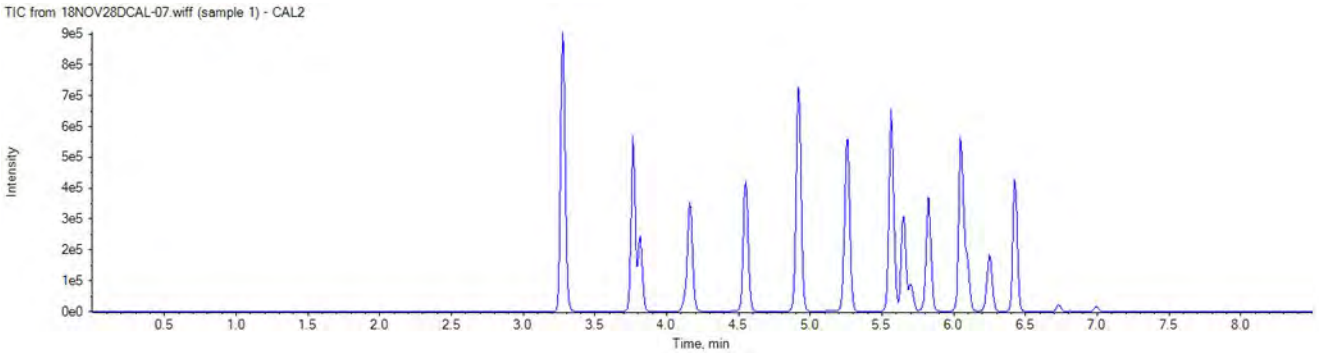
Analyte Quantitation Peak Table

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
PFTrDA	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

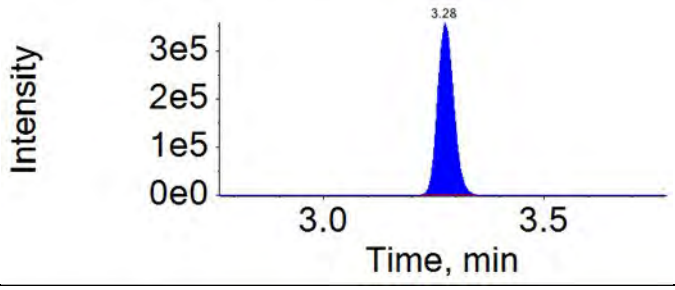


APPROVED
By MCD at 5:00 pm, 11/28/18

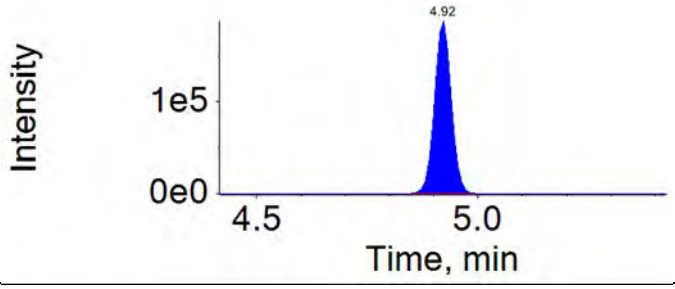
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

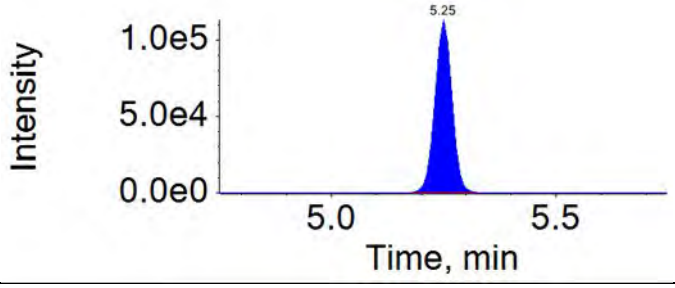
Injection Standard: 13C3-PFBA
216.0 / 172.0



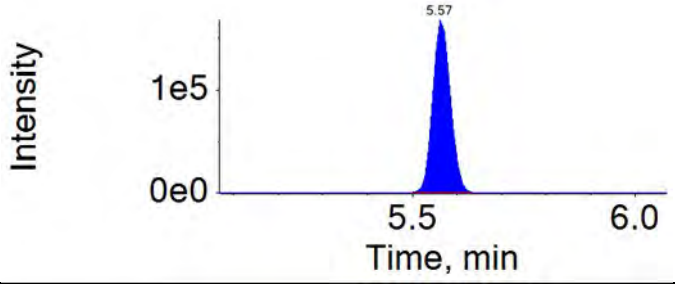
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

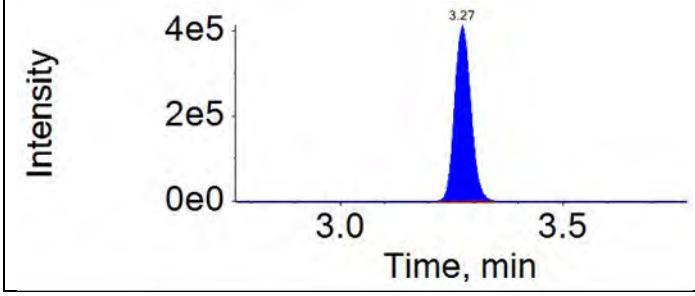


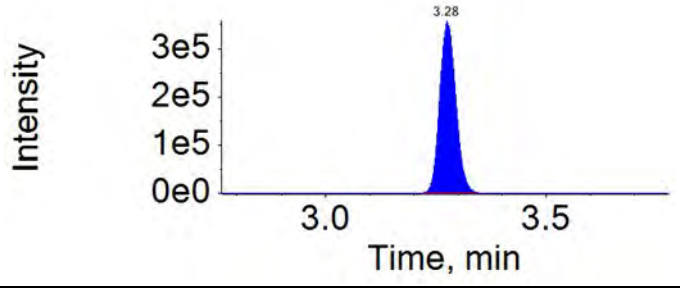
Injection Standard: 13C2-PFDA
515.0 / 470.0



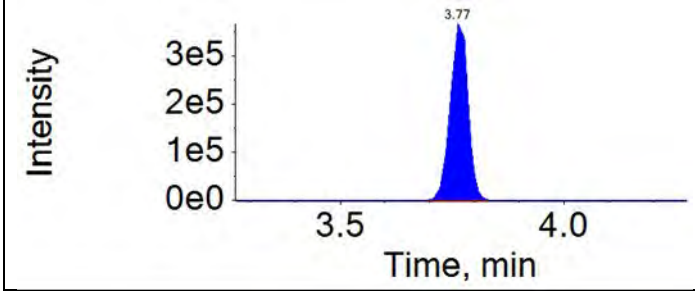
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

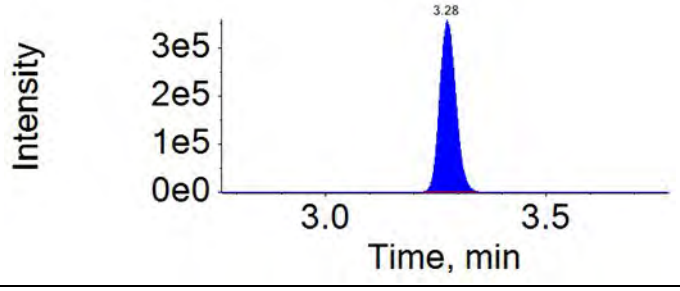
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



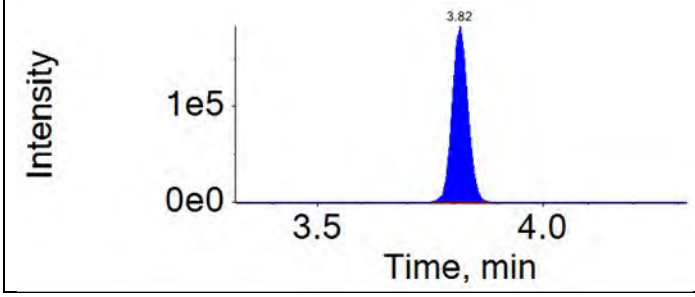


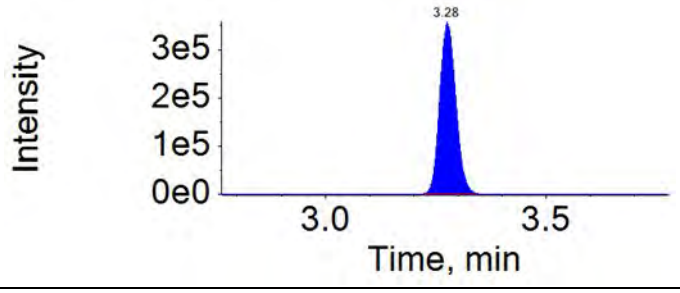
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



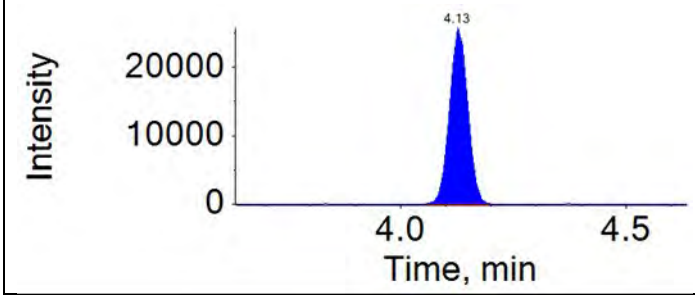


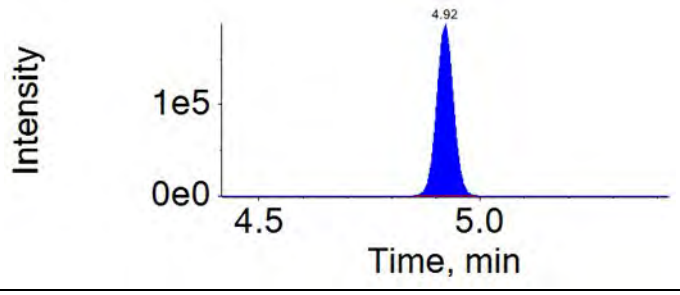
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





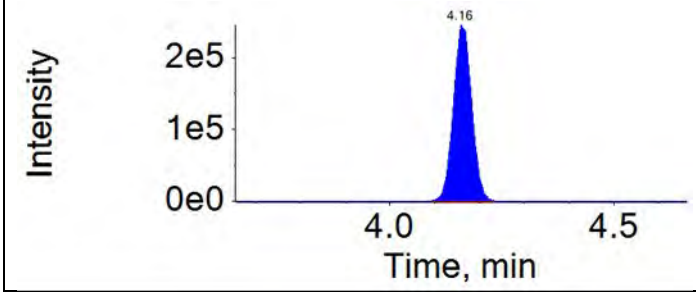
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

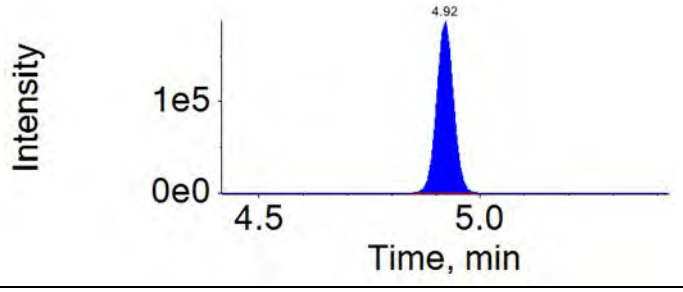




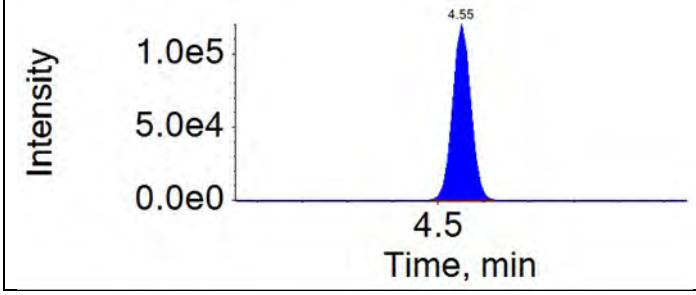
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

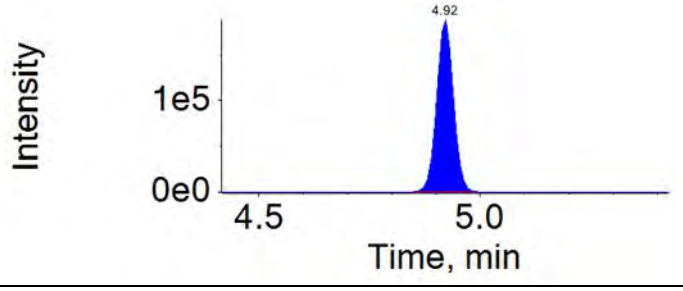
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



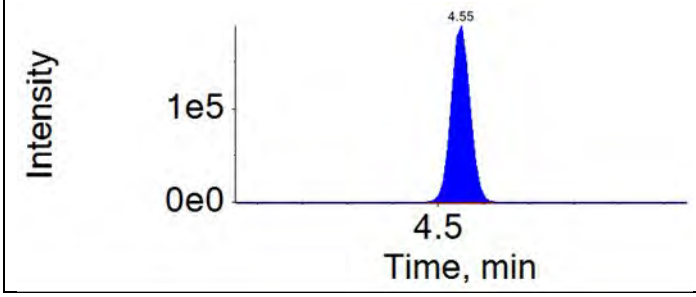


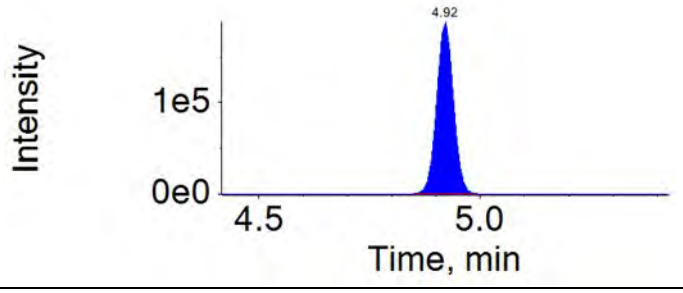
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



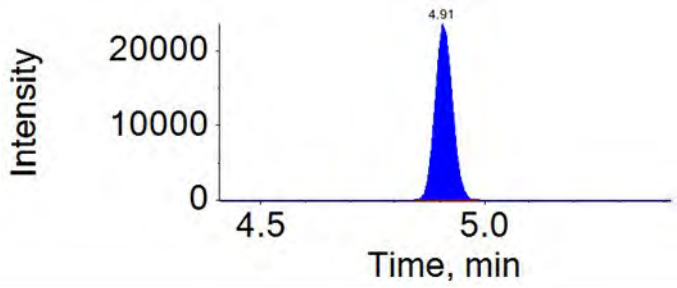


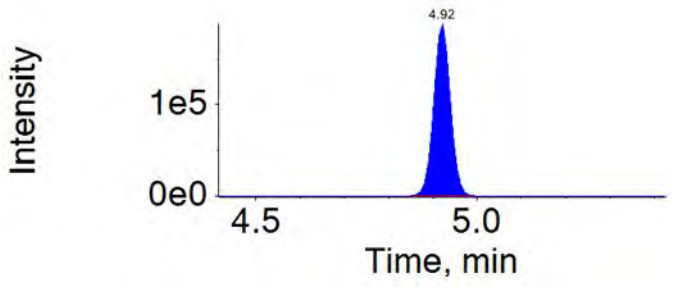
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



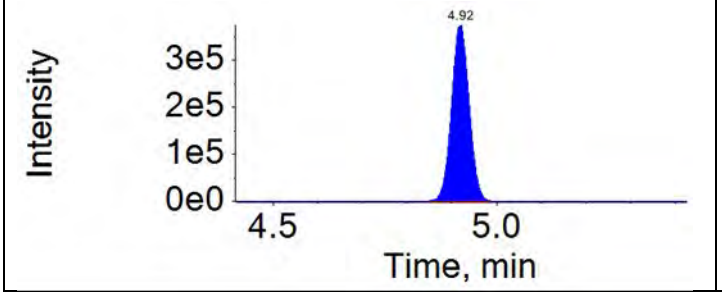


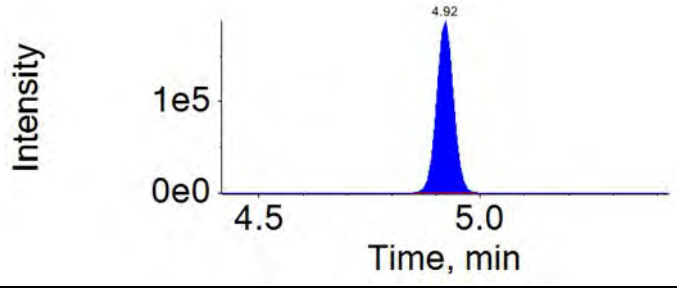
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

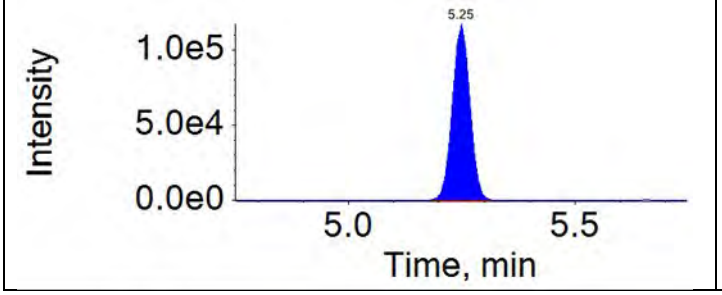
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

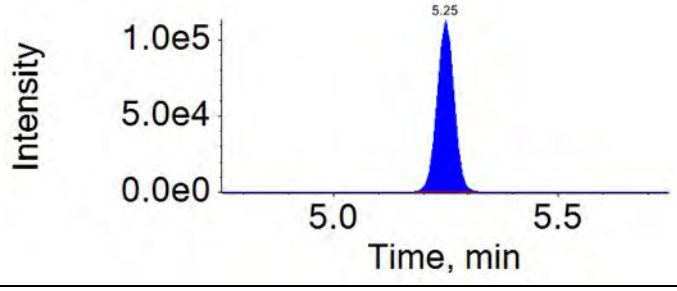
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



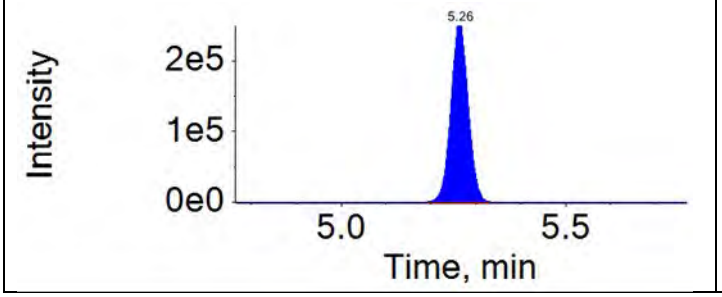


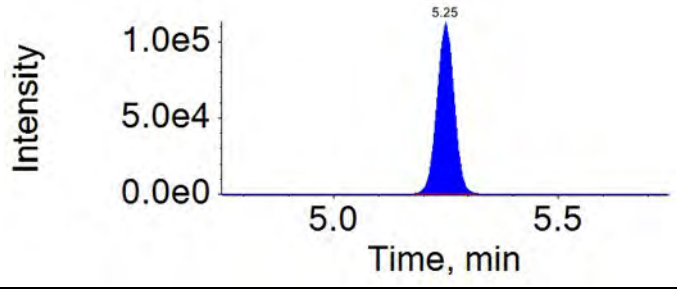
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



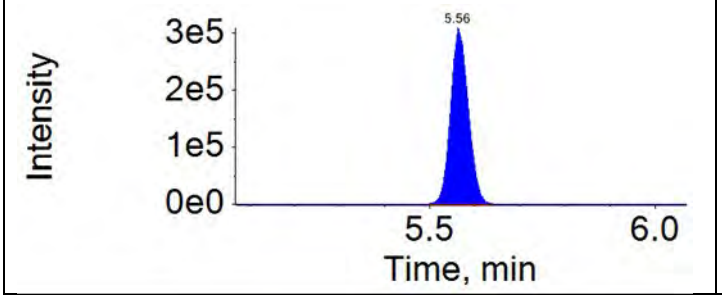


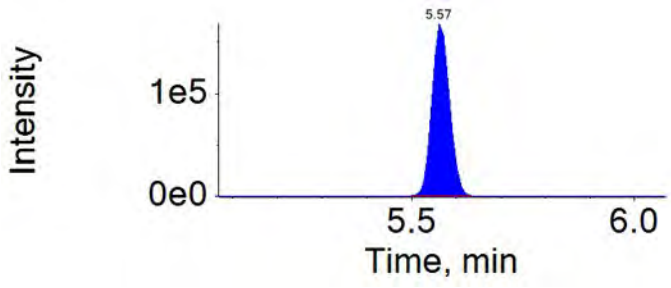
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



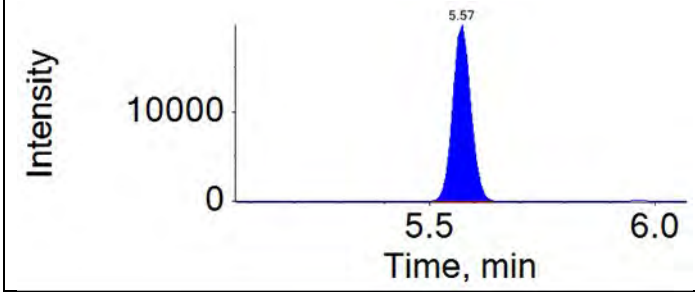


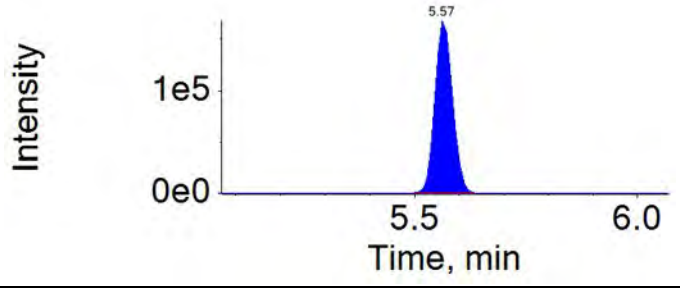
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

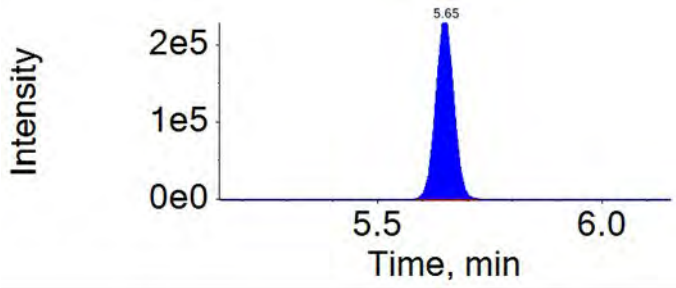
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

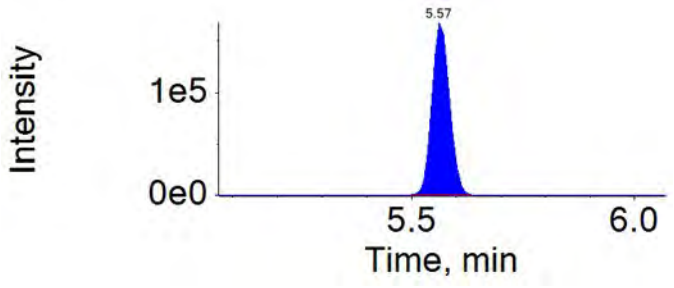
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



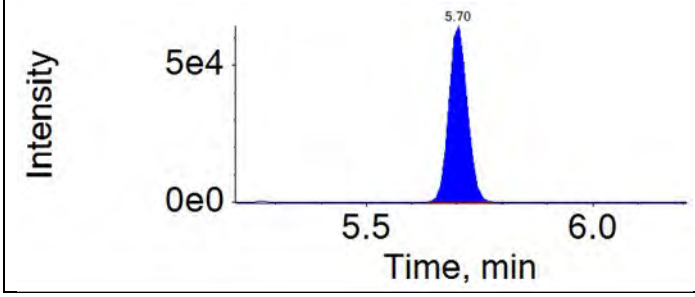


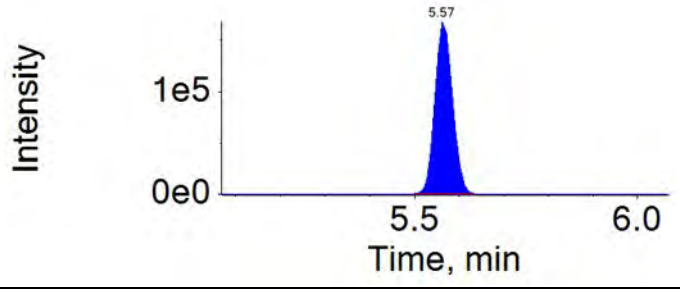
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



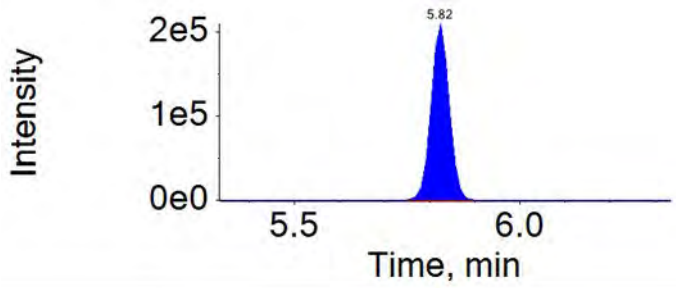


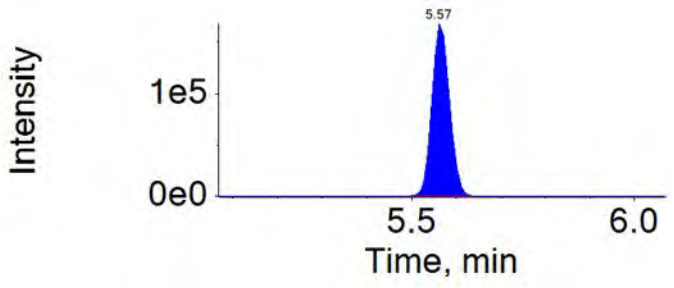
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



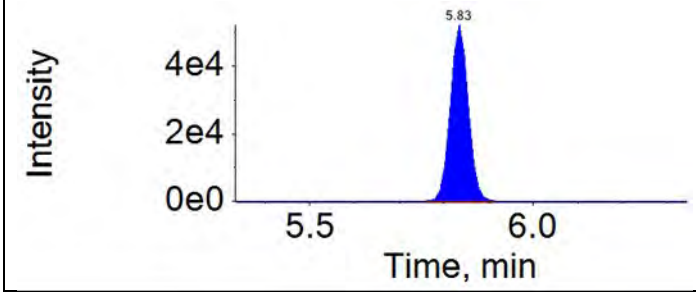


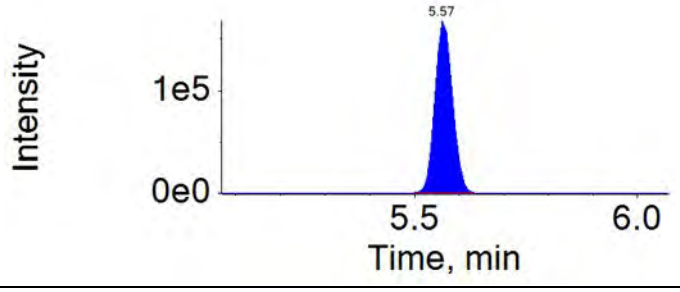
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

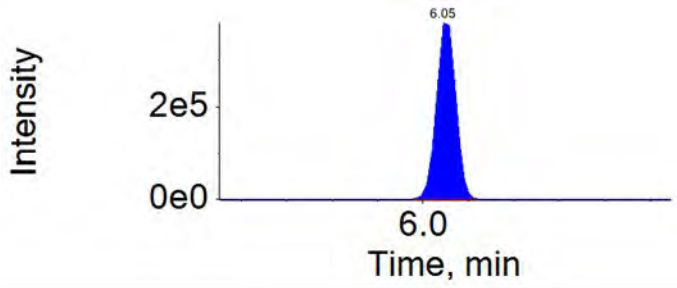
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

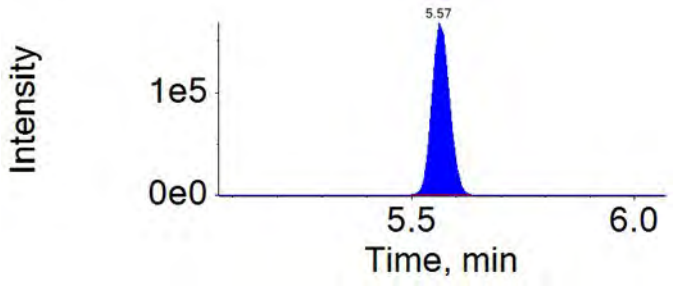
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



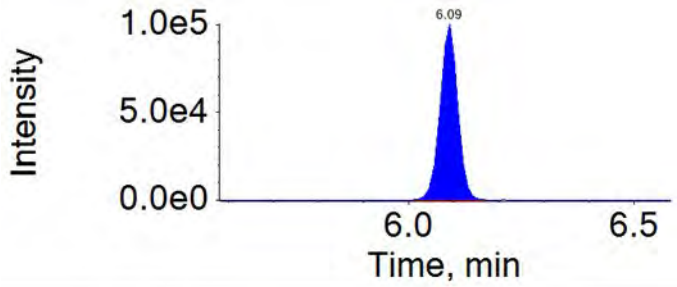


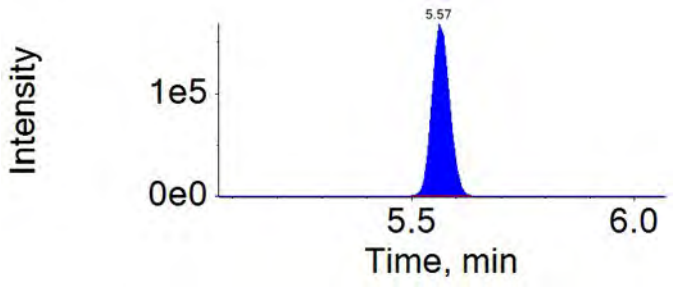
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



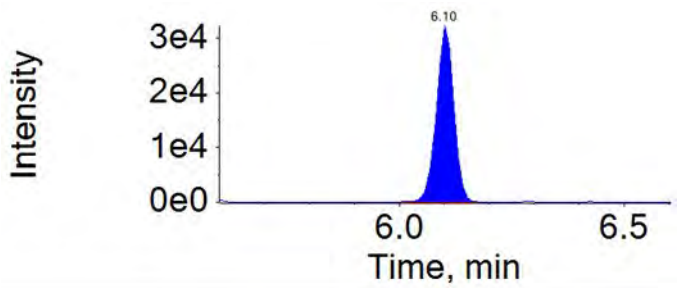


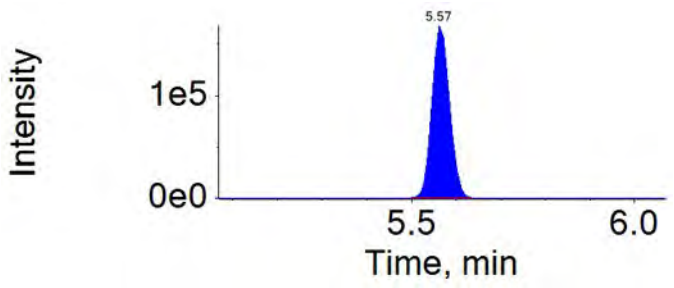
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



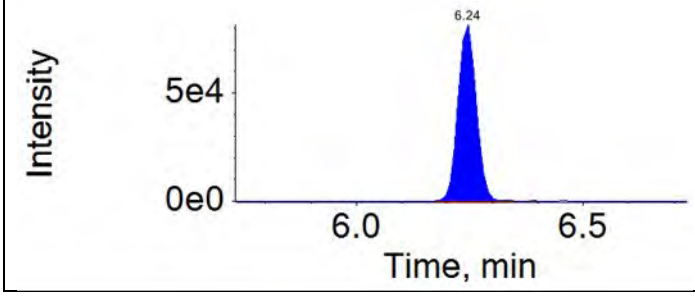


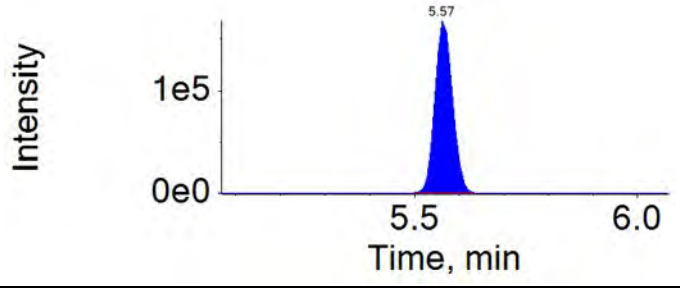
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

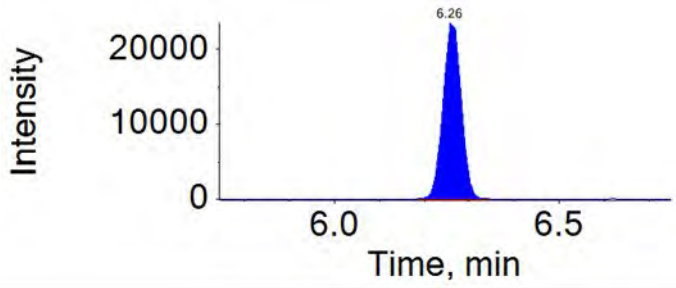
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

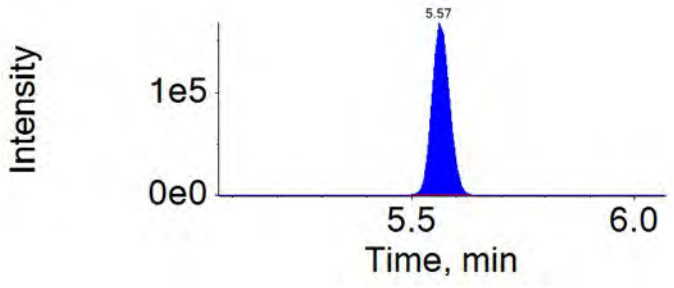
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



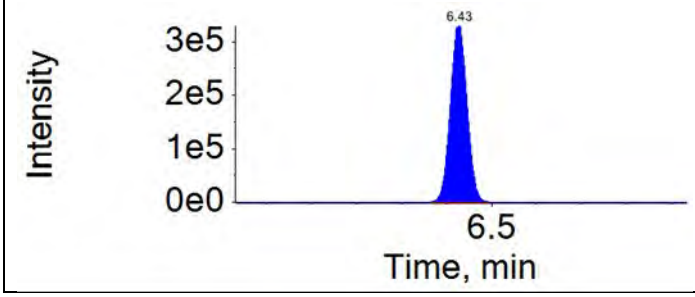


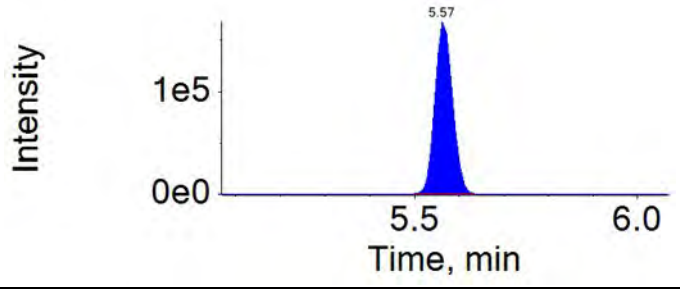
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



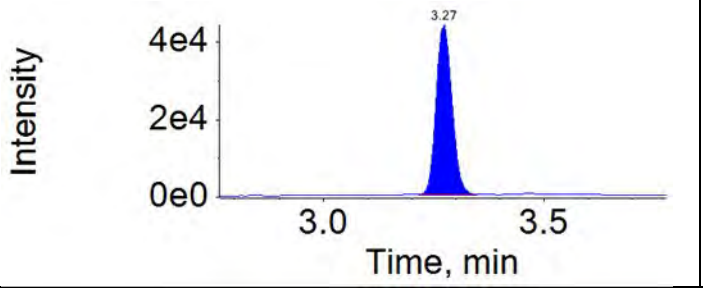


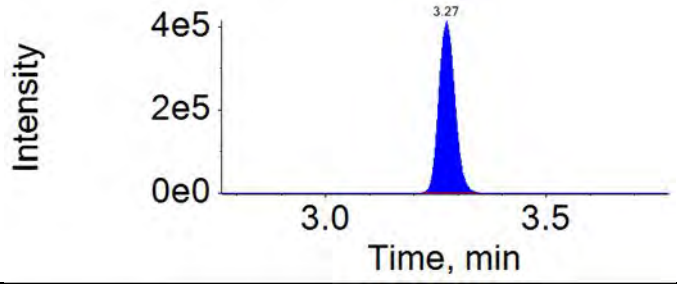
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

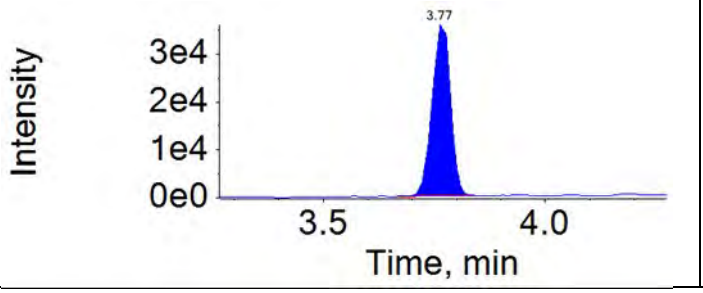
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

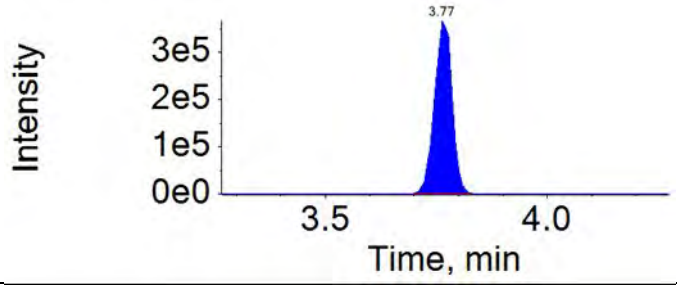
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



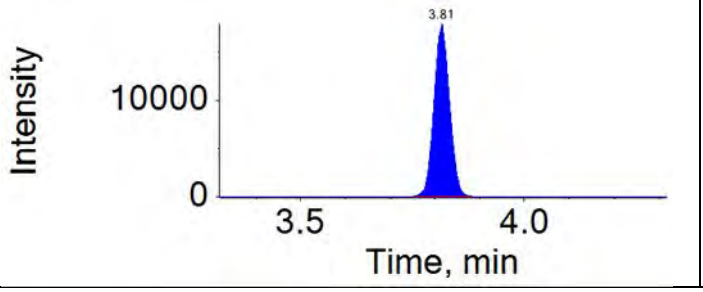


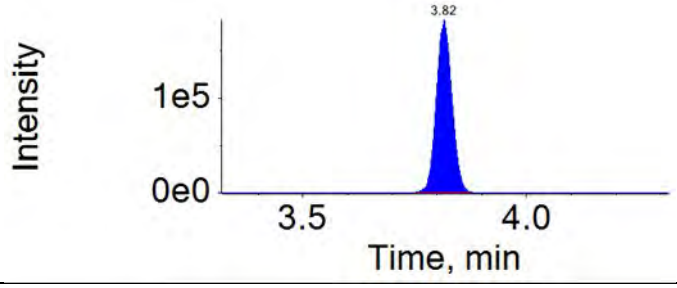
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



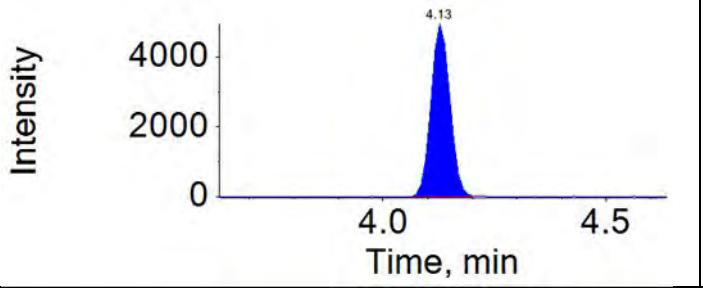


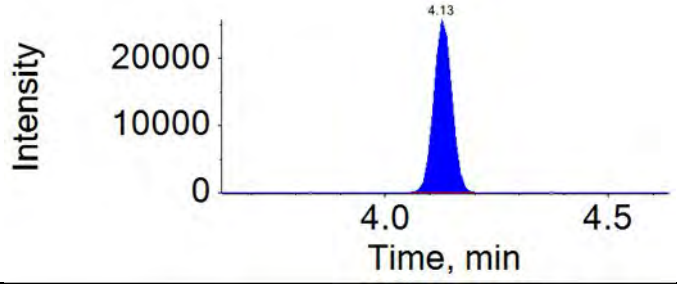
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



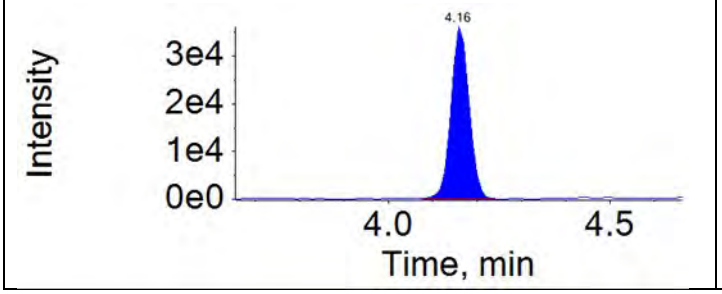


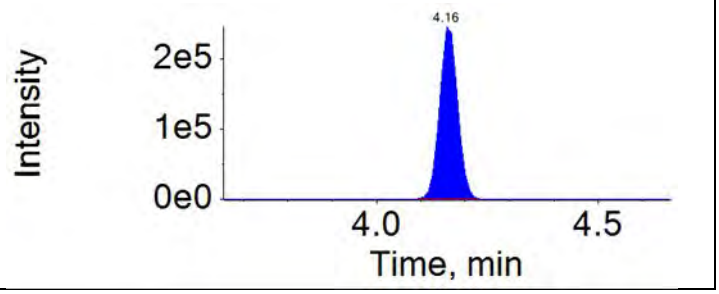
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

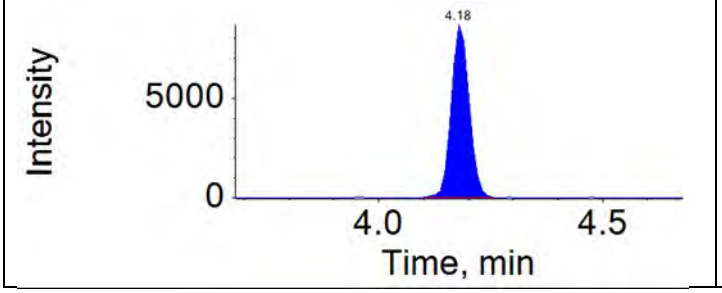
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

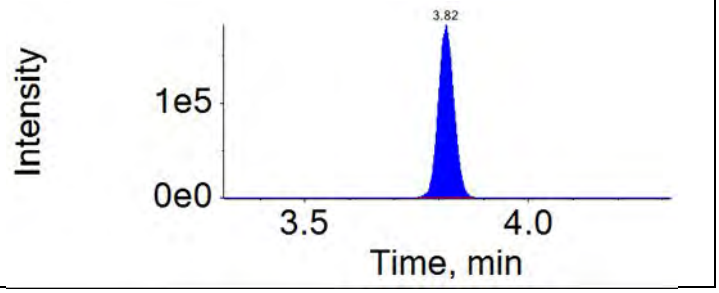
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



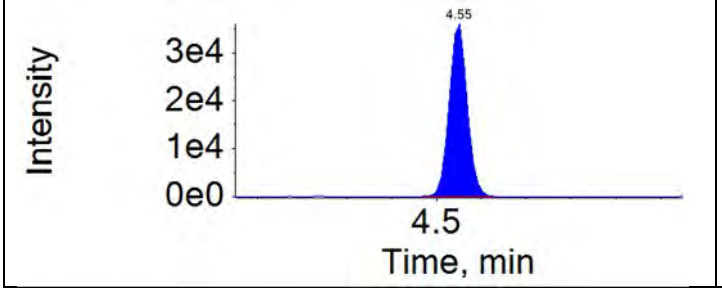


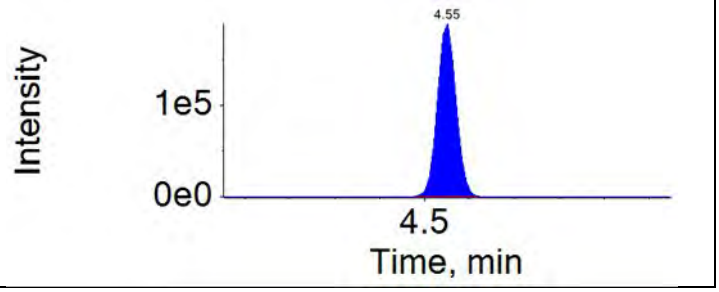
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



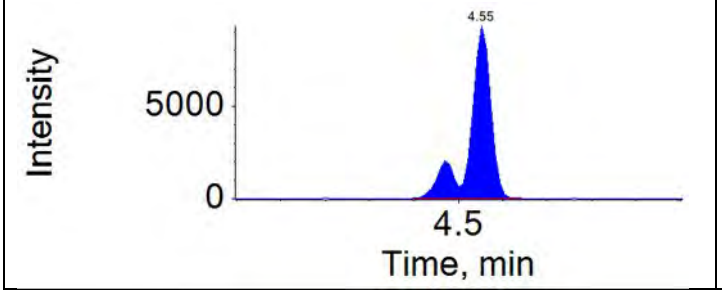


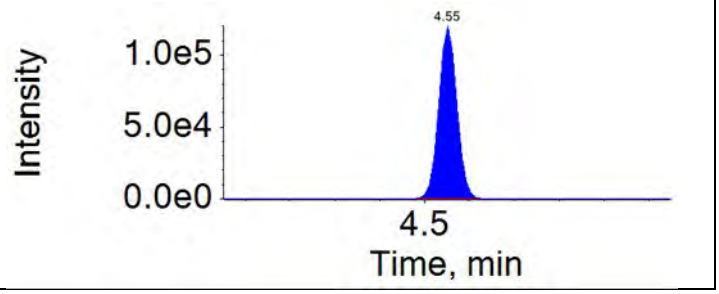
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



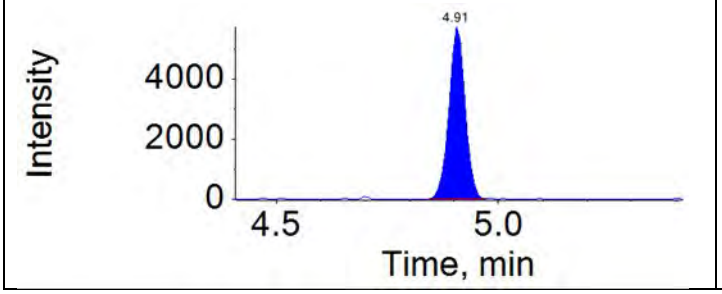


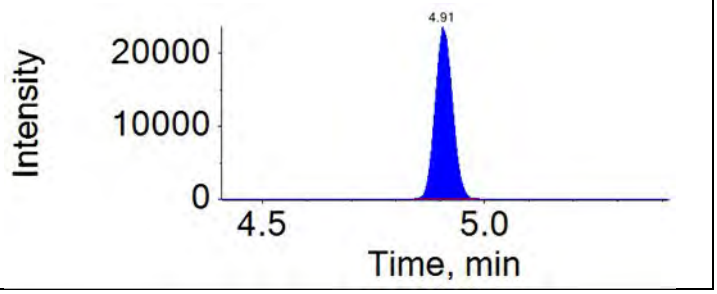
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

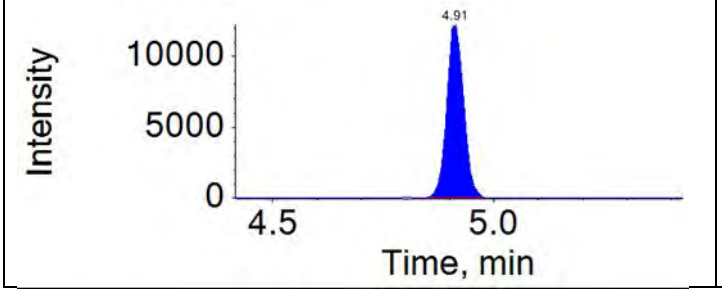
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

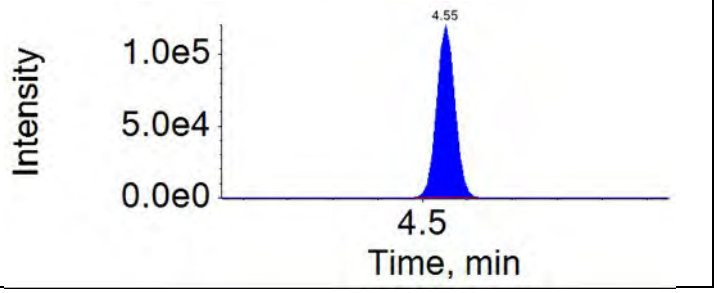
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



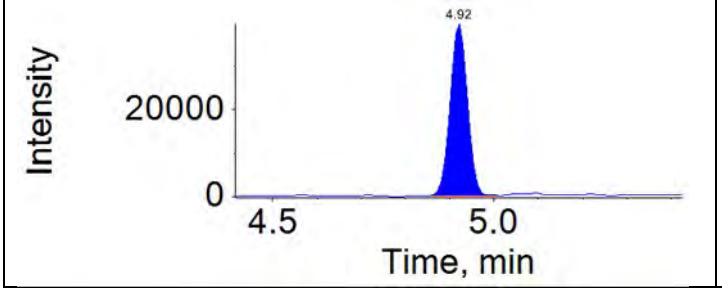


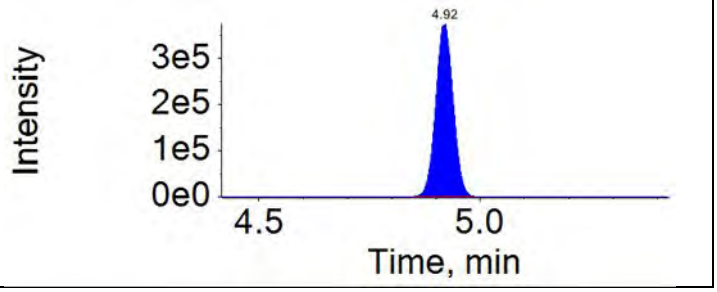
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



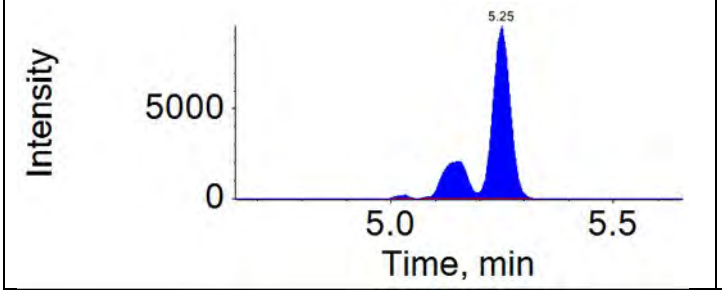


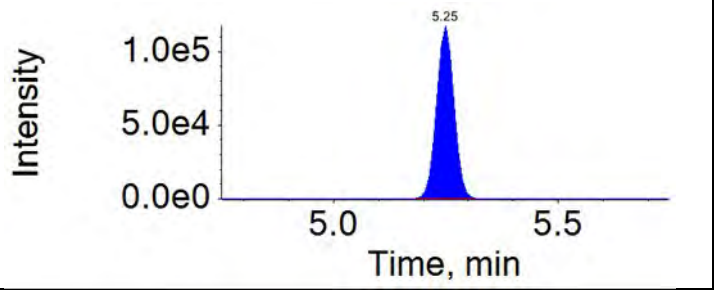
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





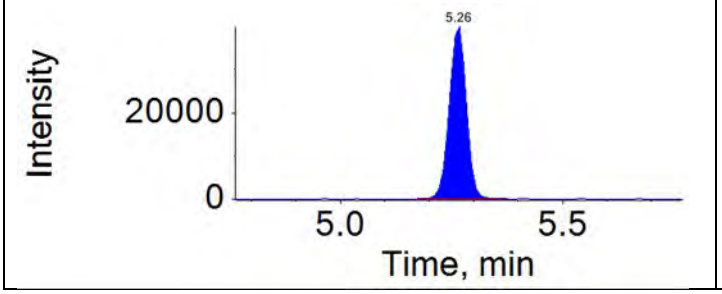
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

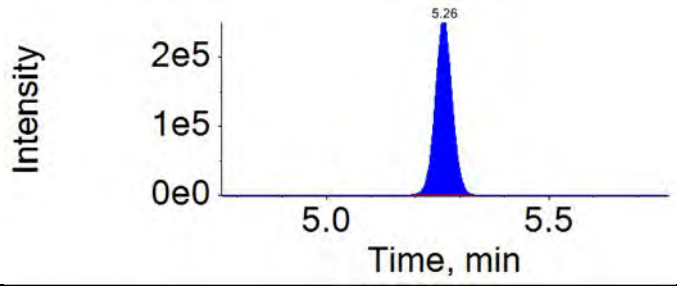




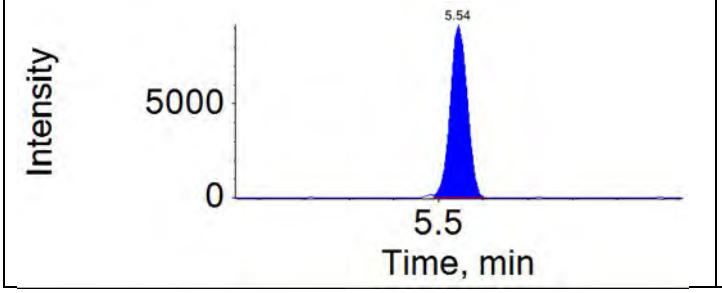
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

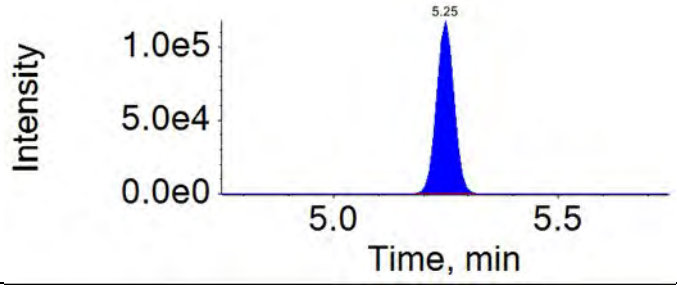
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



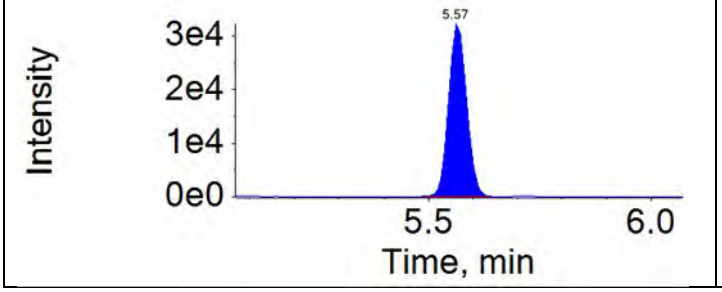


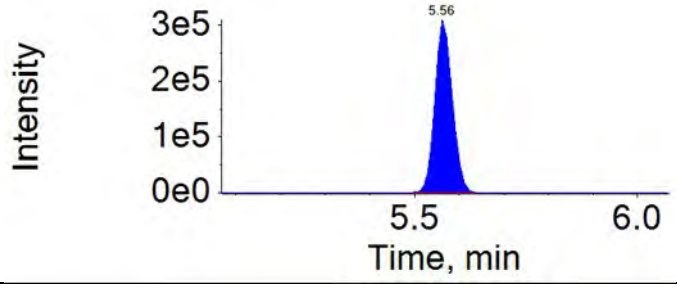
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



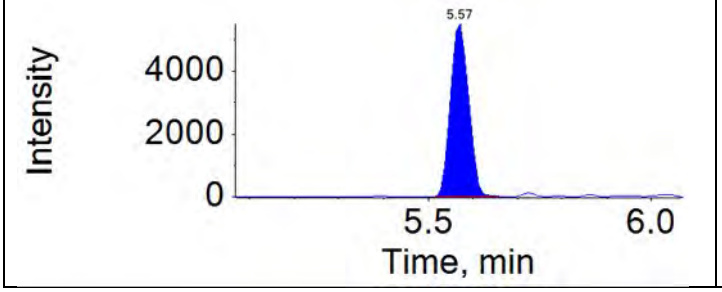


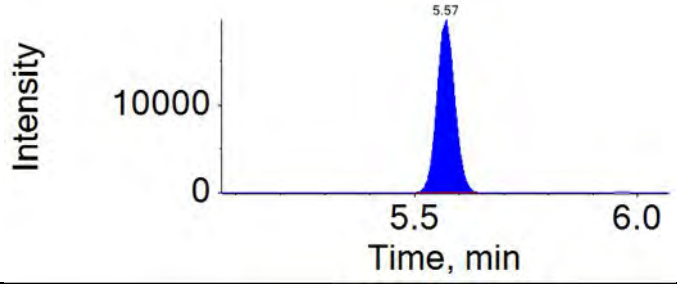
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



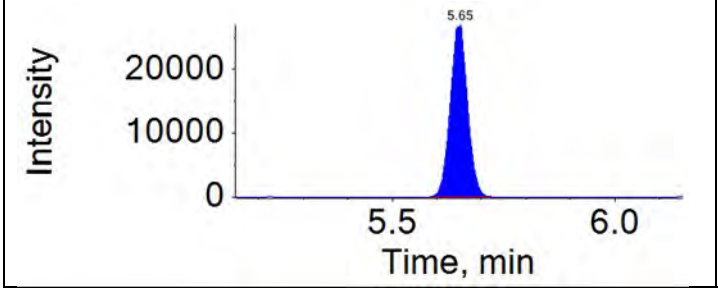


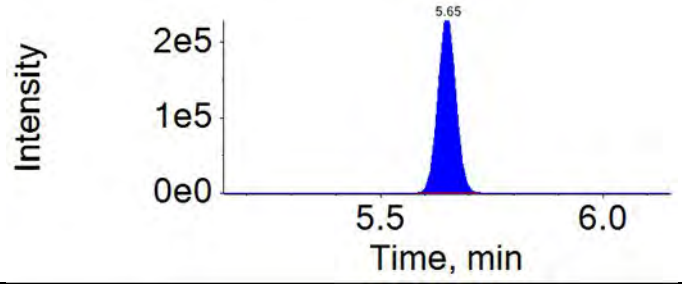
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

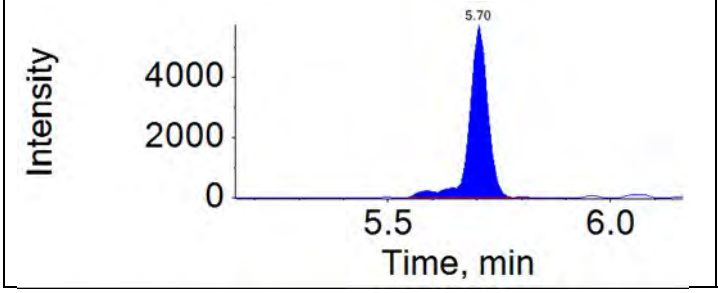
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

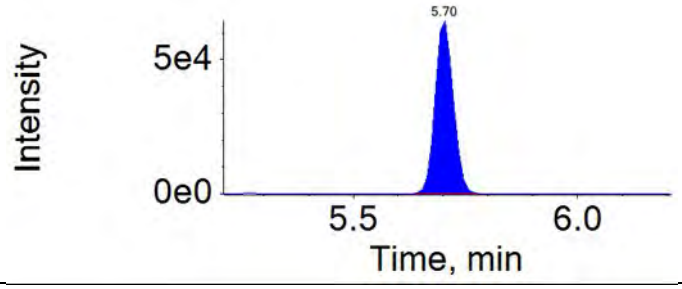
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



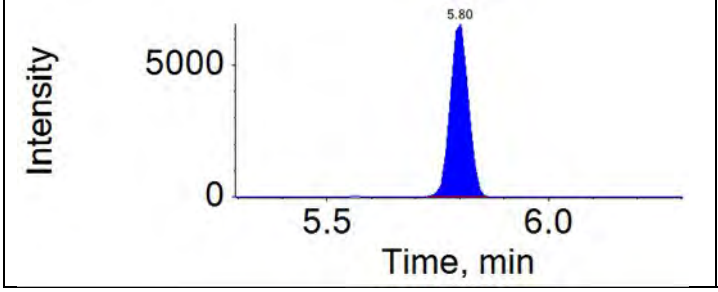


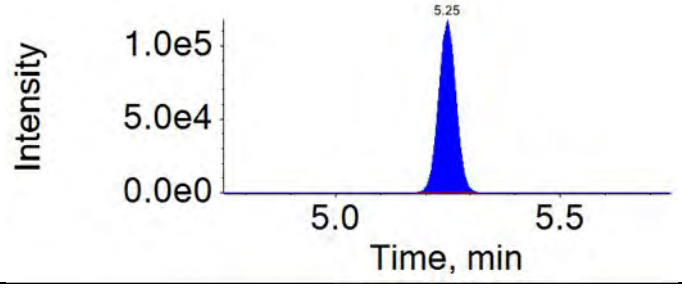
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



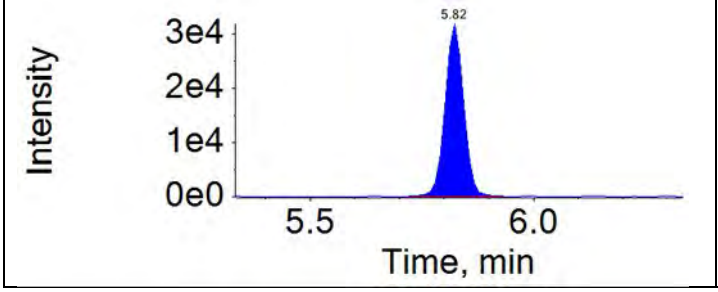


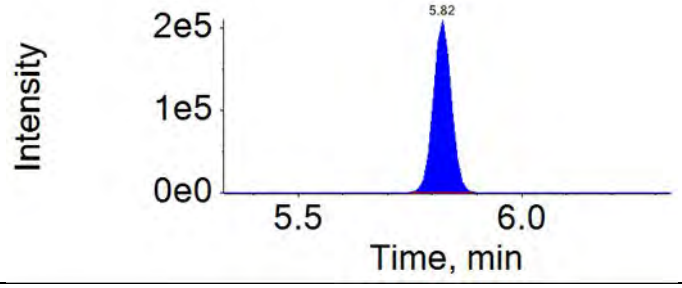
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



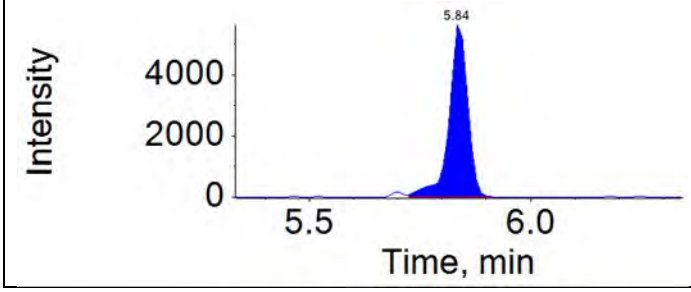


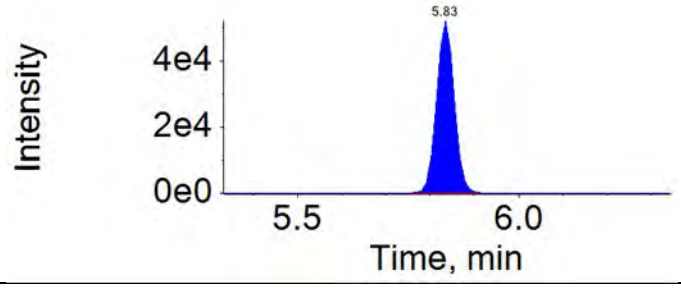
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

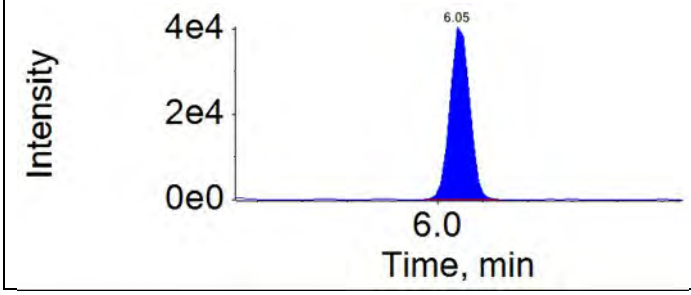
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

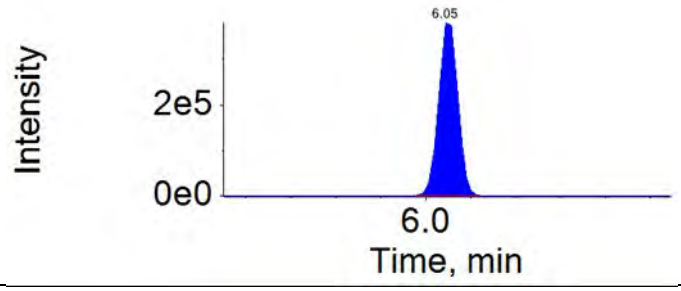
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



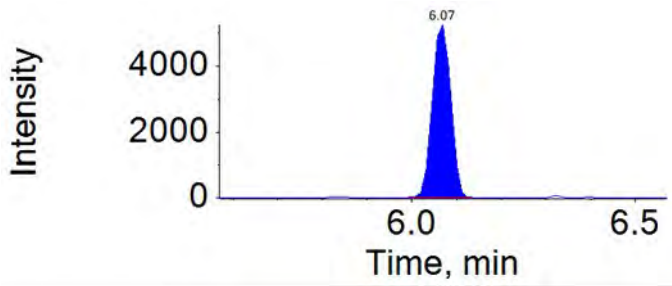


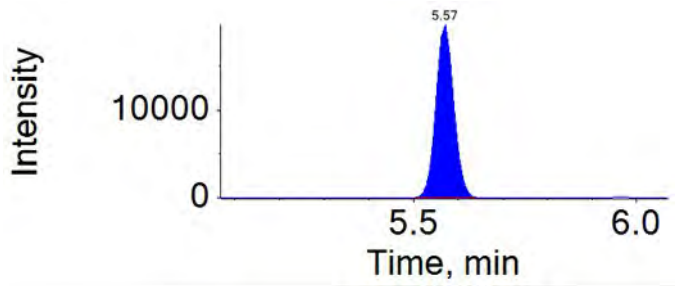
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



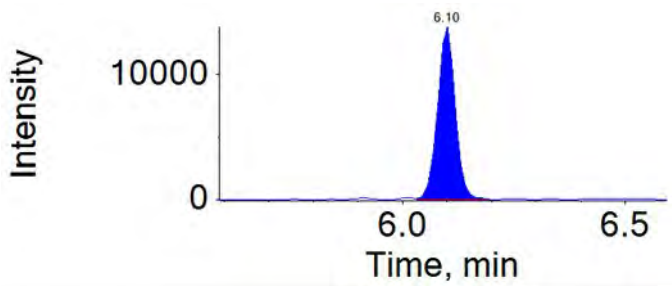


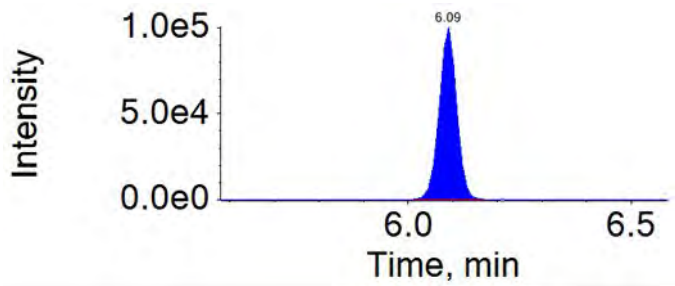
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



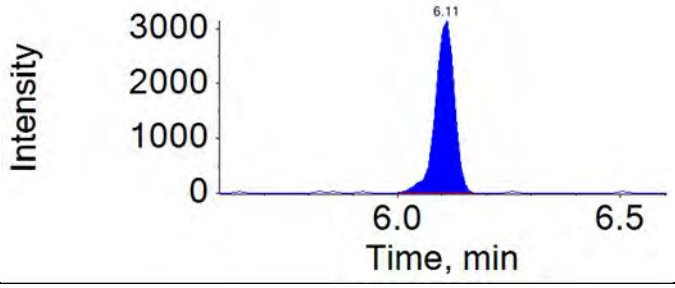


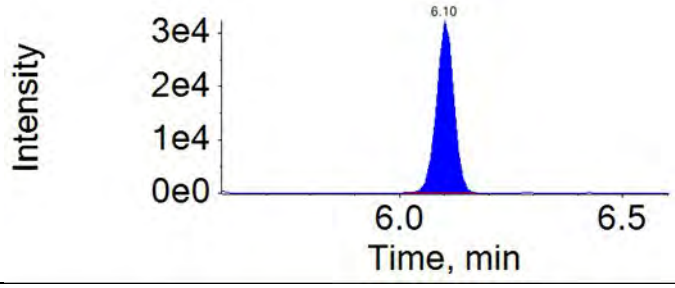
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

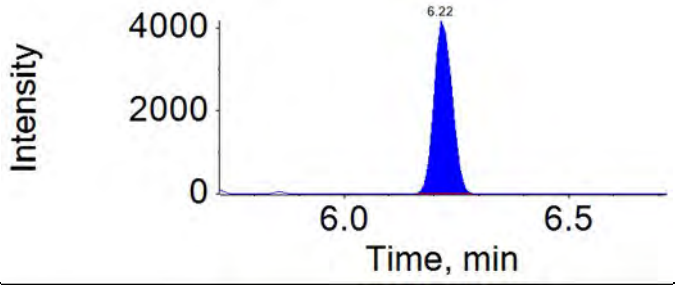
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

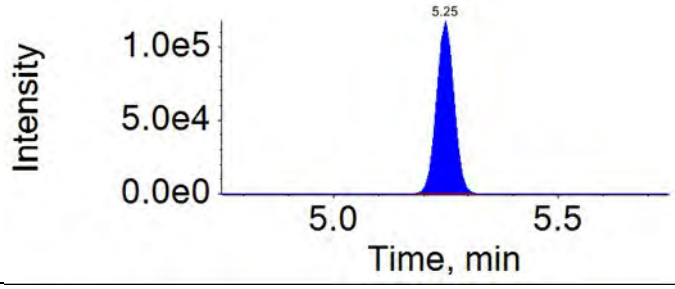
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



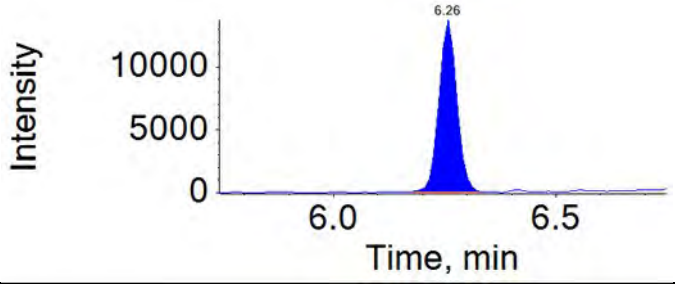


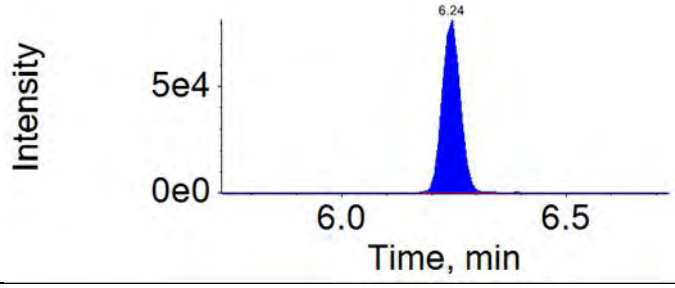
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



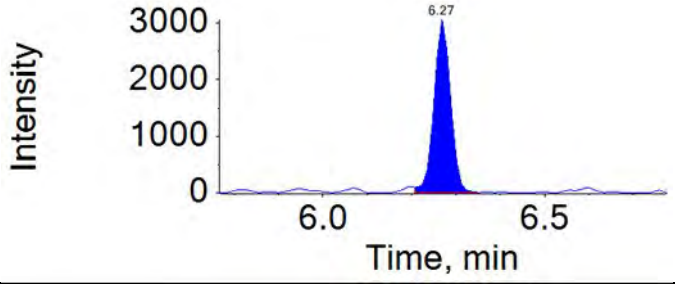


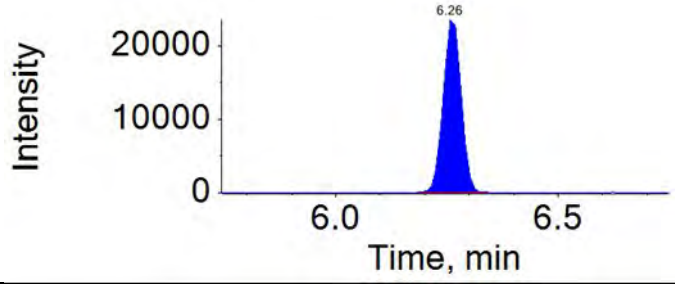
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



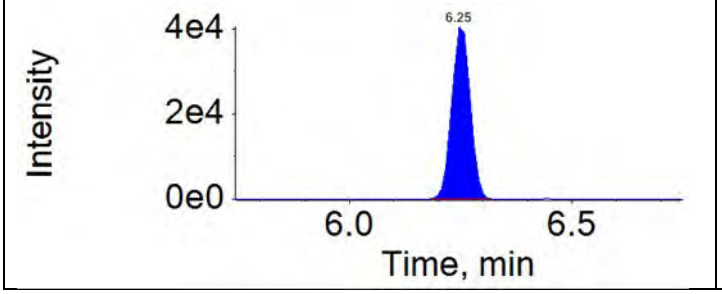


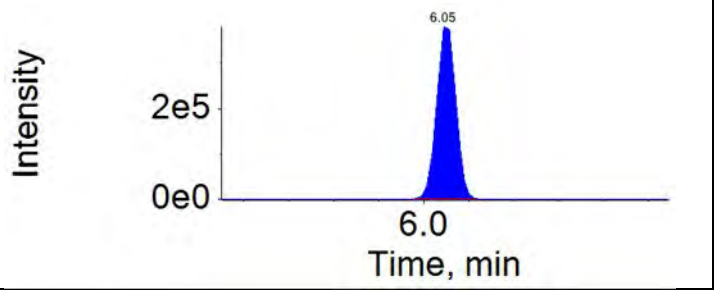
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

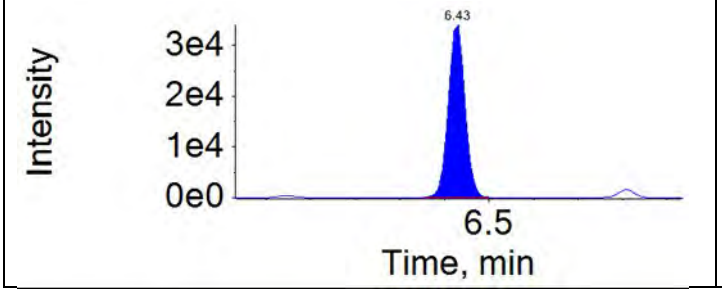
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

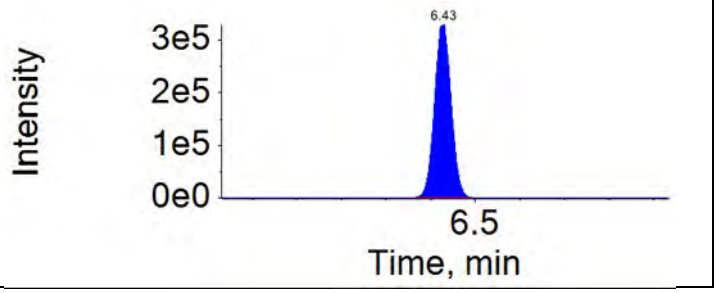
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



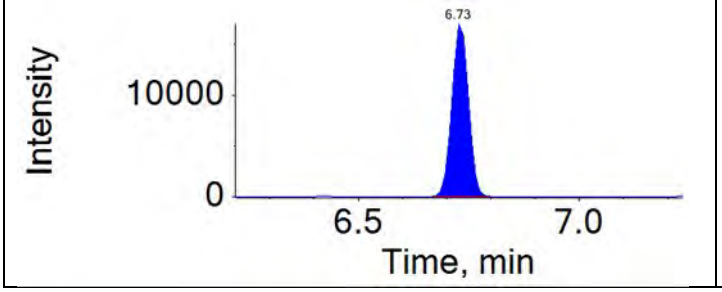


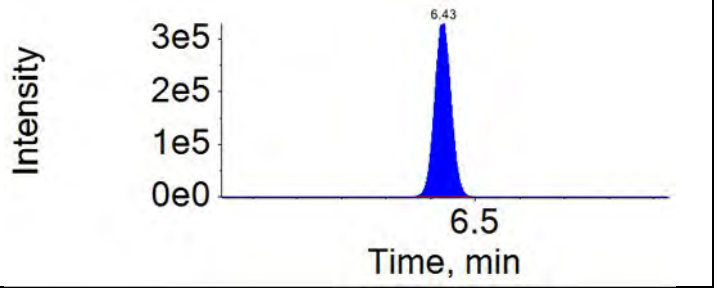
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



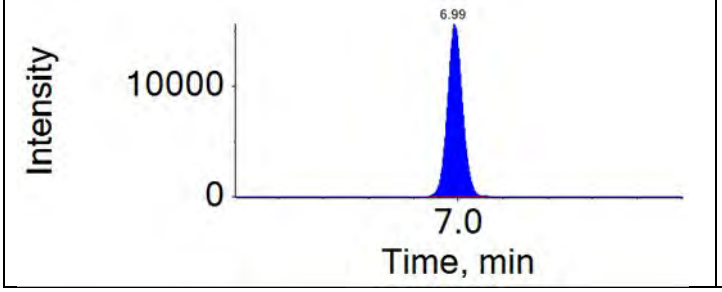


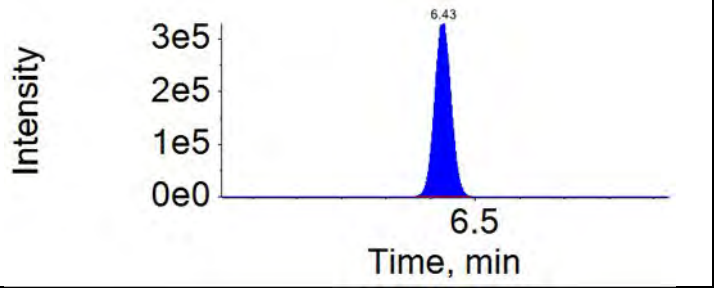
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



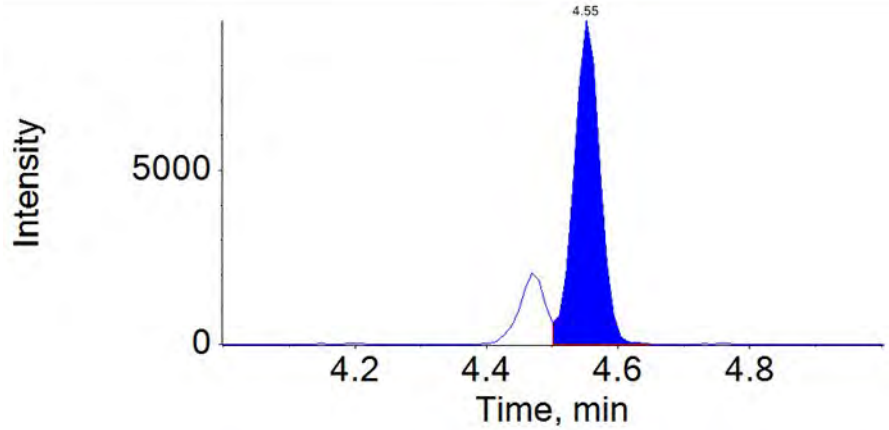


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

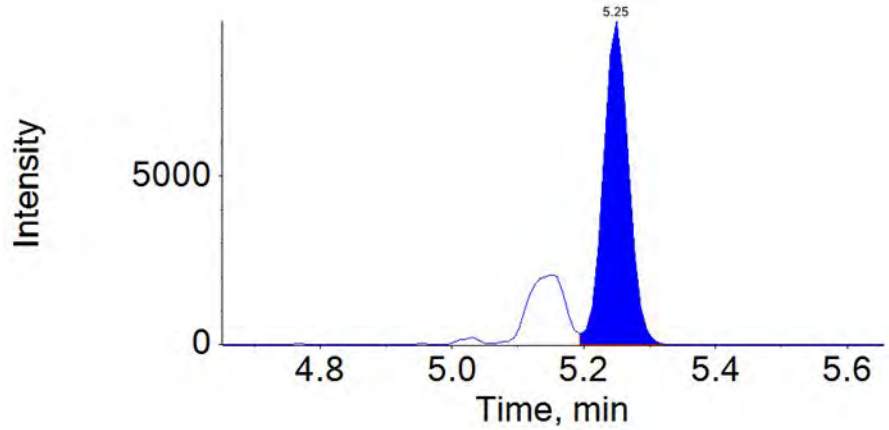
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



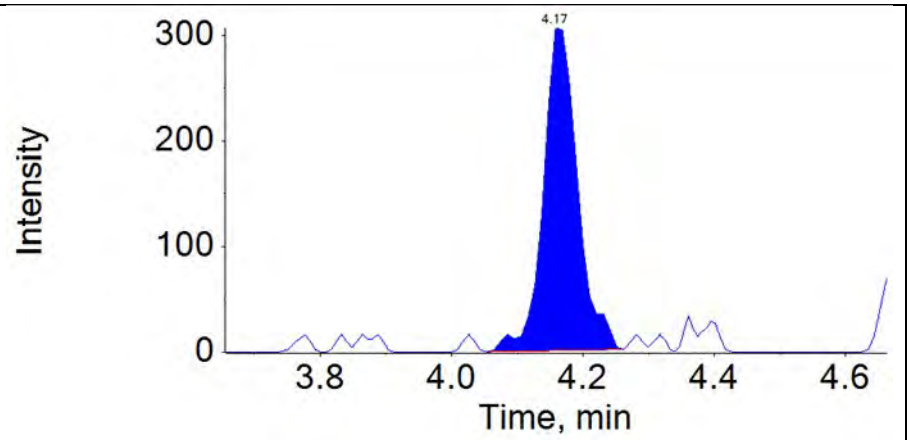
Integration Comment: incorrect integration

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:
313.0 / 119.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



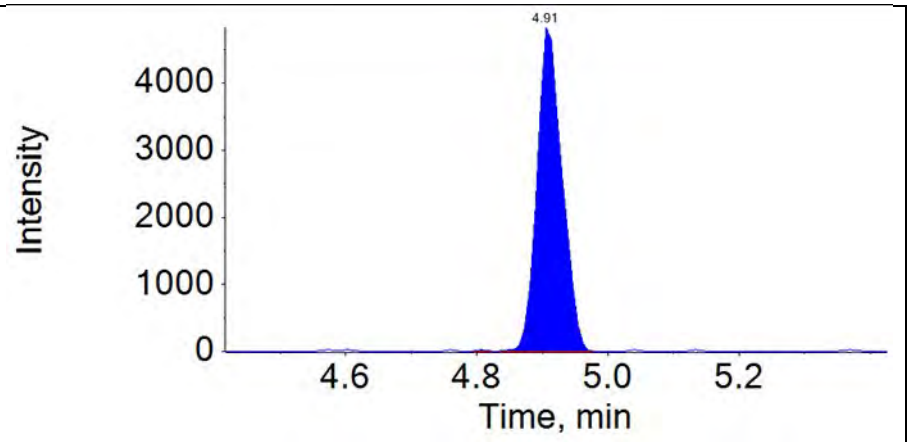
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

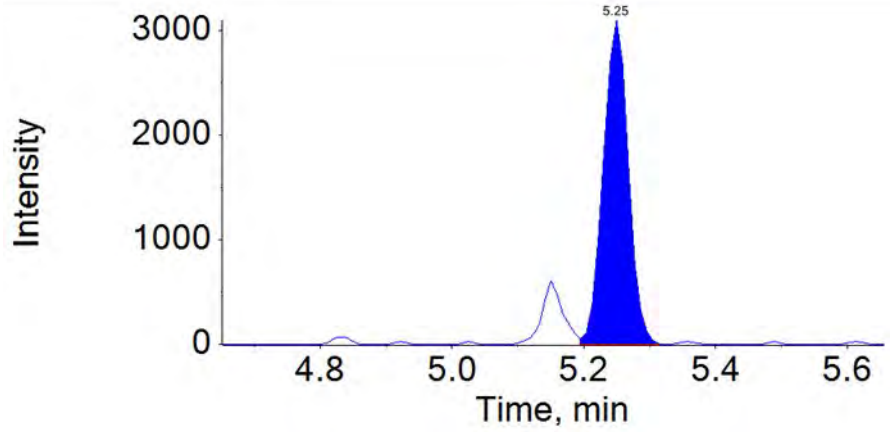
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



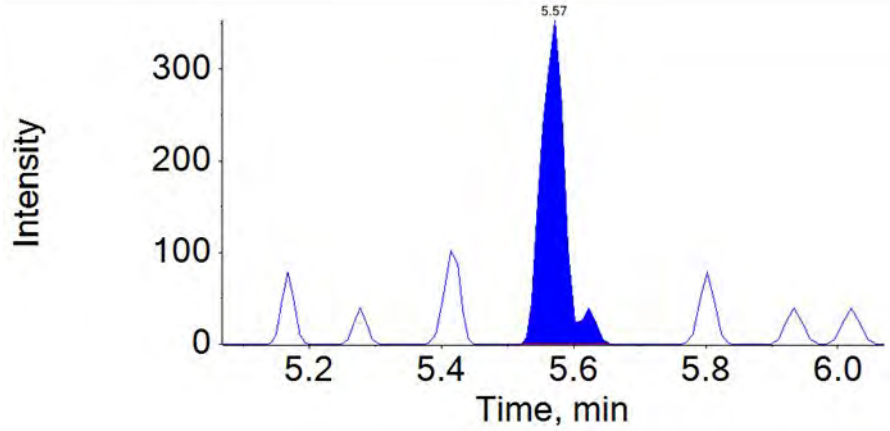
Integration Comment: incorrect integration

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



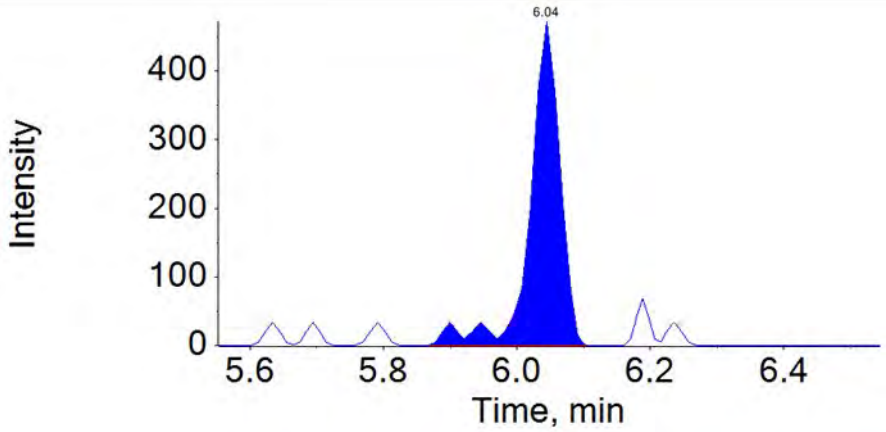
Integration Comment: incorrect integration

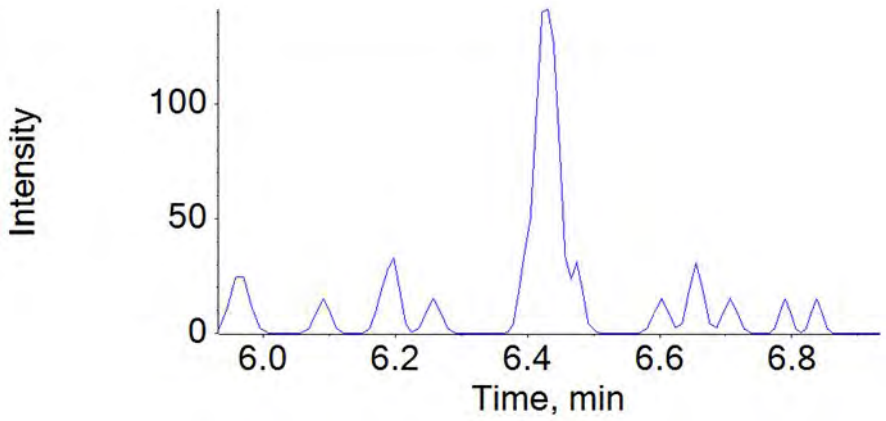
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

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REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-07.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	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	
PFTrDA	6.25	1.03	117562.28	A	0.0090	0.0079			
PFTrDA_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	

APPROVED
By MCD at 5:00 pm, 11/28/18

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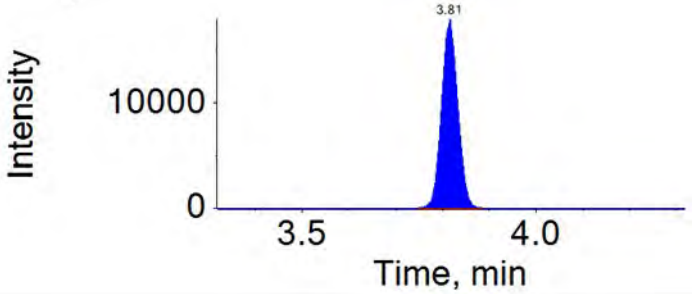
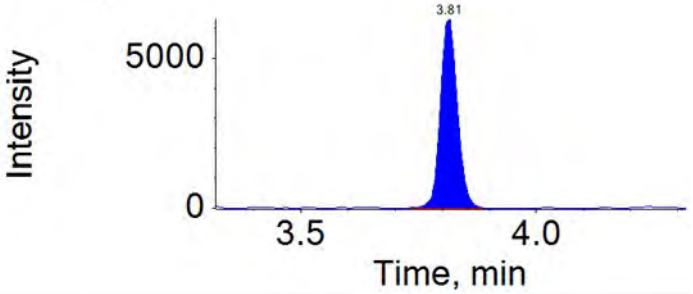
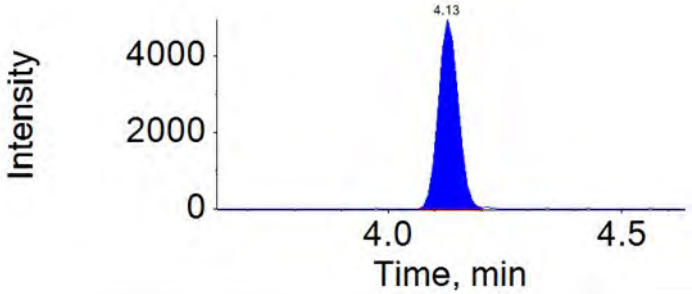
Component: PFBS
Primary Mass: 299.0 / 80.0



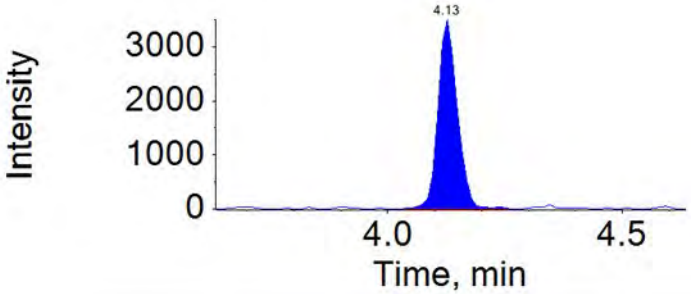
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



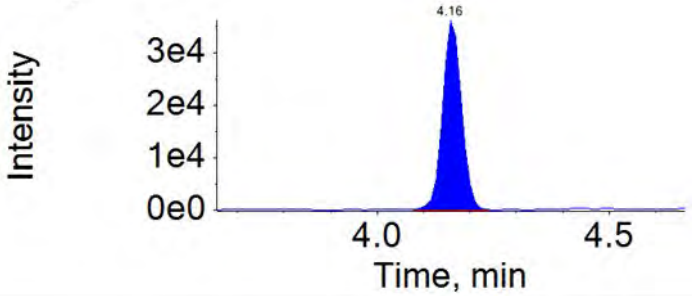
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



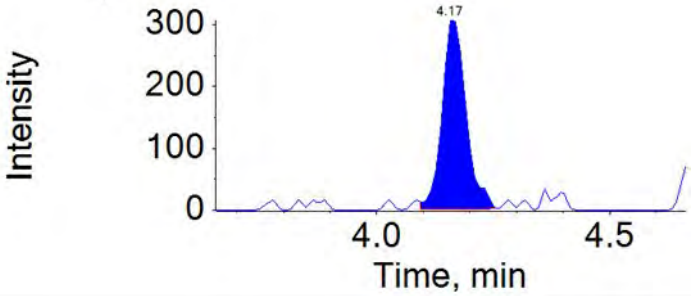
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



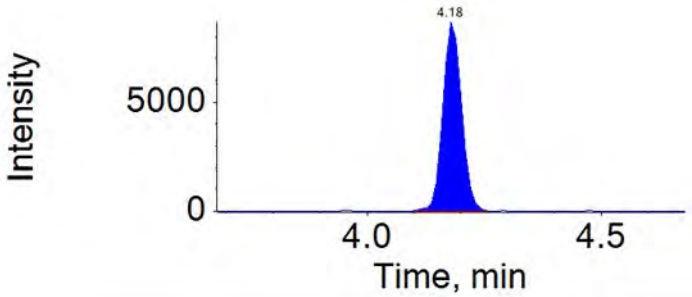
Component: PFHxA
Primary Mass: 313.0 / 269.0



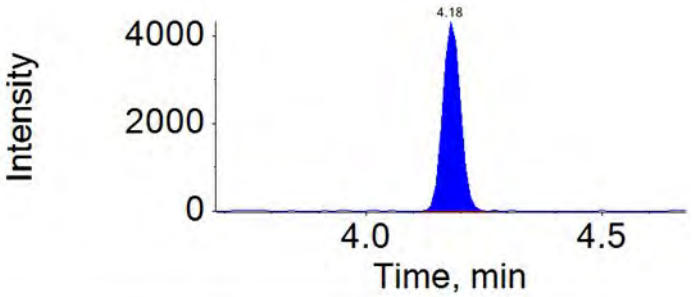
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 5:00 pm, 11/28/18

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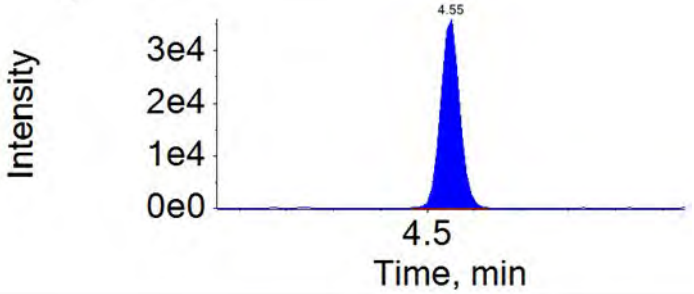
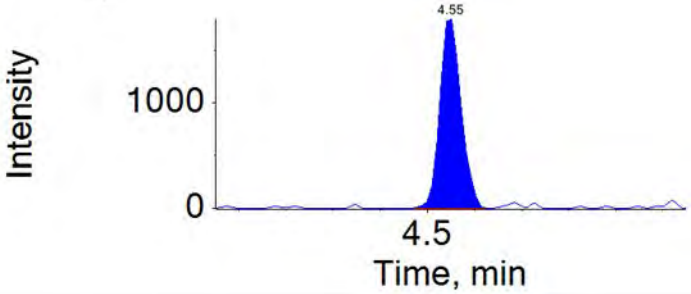
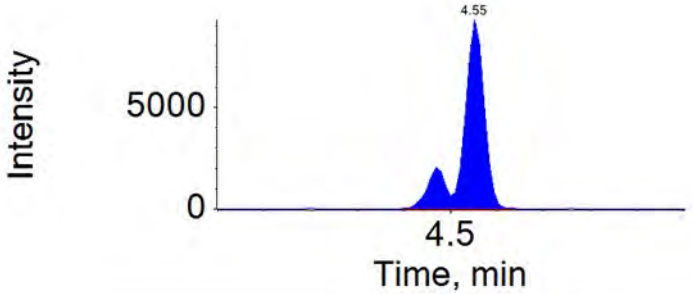
Component: PFHpA
Primary Mass: 363.0 / 319.0



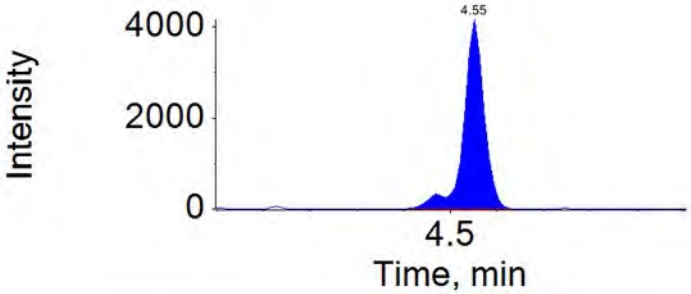
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



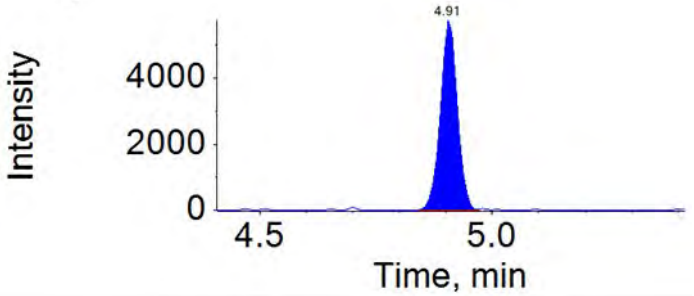
Component: PFHxS
Primary Mass: 399.0 / 80.0



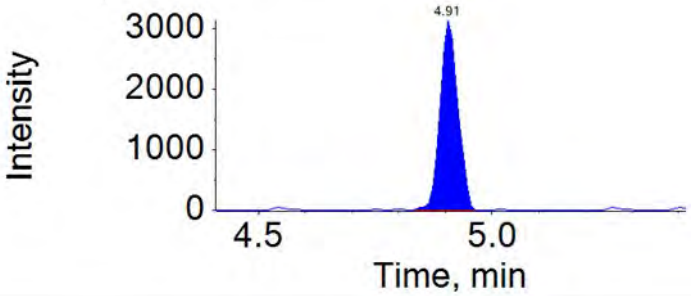
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



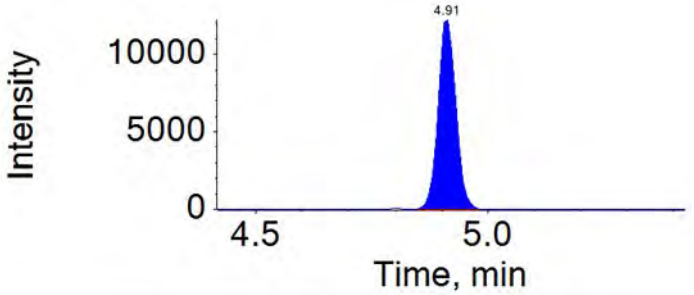
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



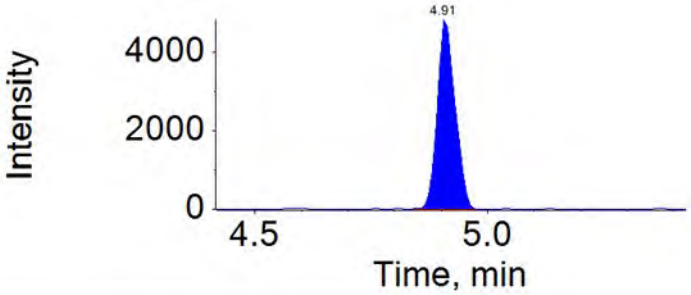
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By MCD at 5:00 pm, 11/28/18

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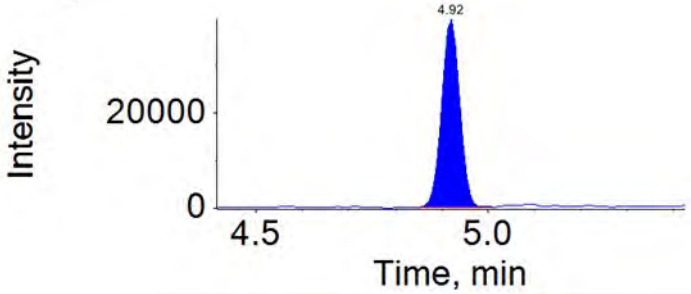
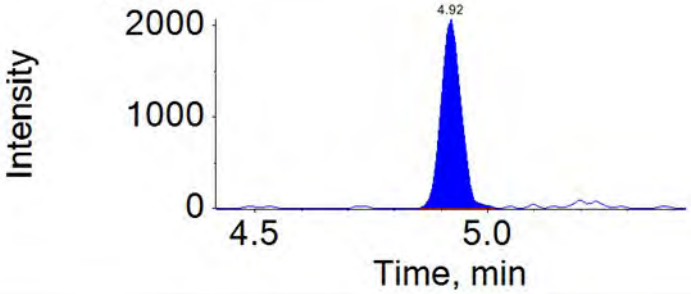
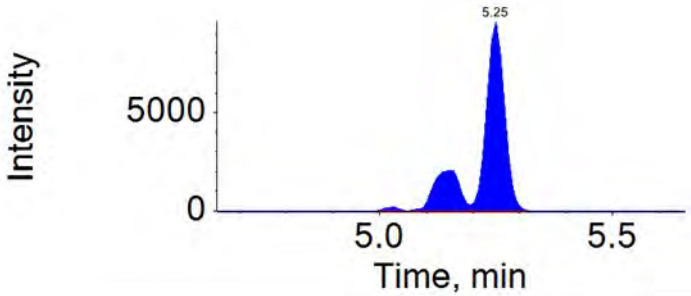
Component: PFOA
Primary Mass: 413.0 / 369.0



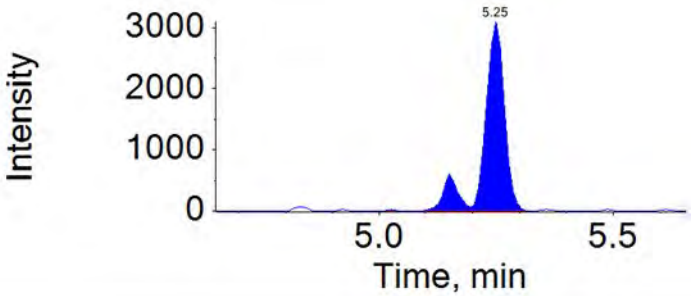
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



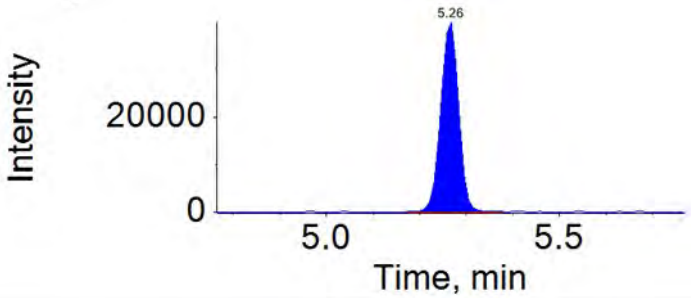
Component: PFOS
Primary Mass: 499.0 / 80.0



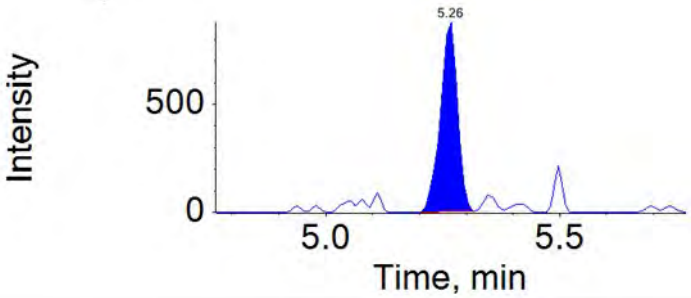
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



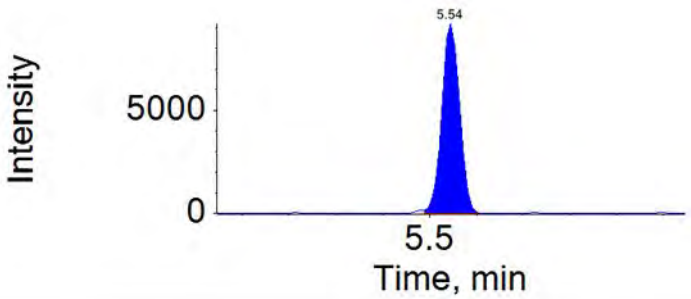
Component: PFNA
Primary Mass: 463.0 / 419.0



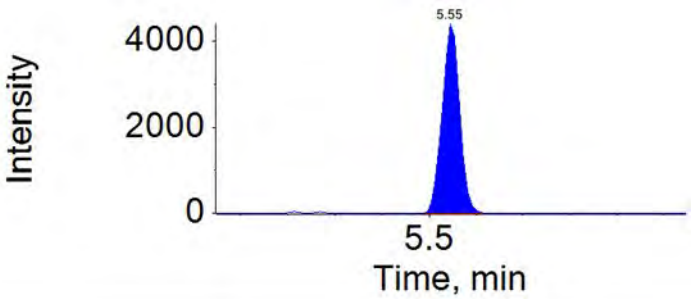
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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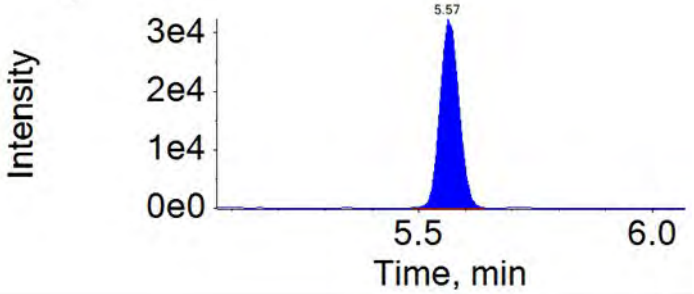
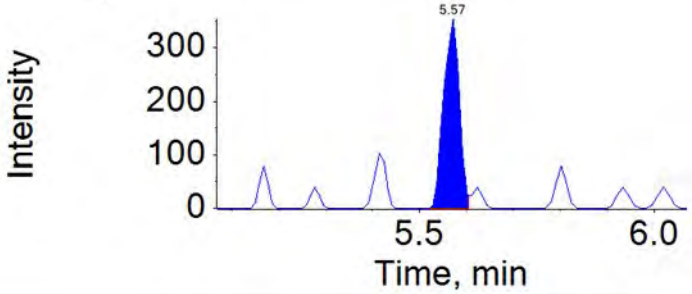
REVIEWED
By HMK at 12:22 pm, 11/29/18

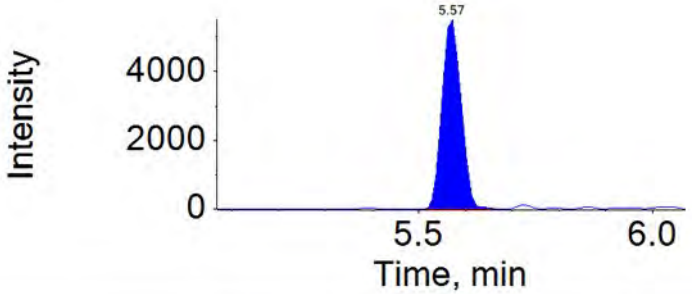
Component: PFDA
Primary Mass: 513.0 / 469.0



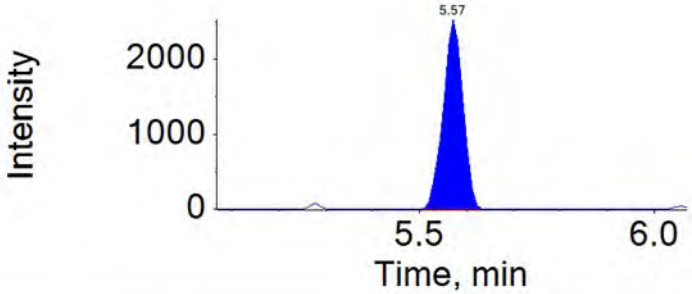
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



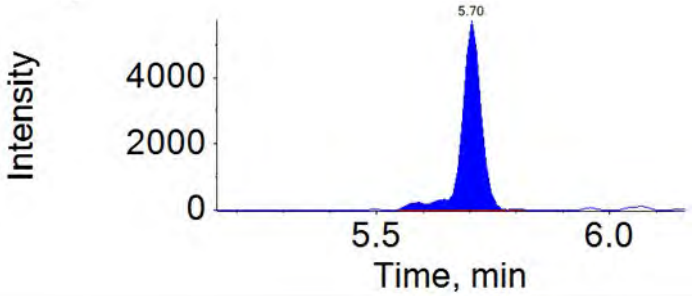
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



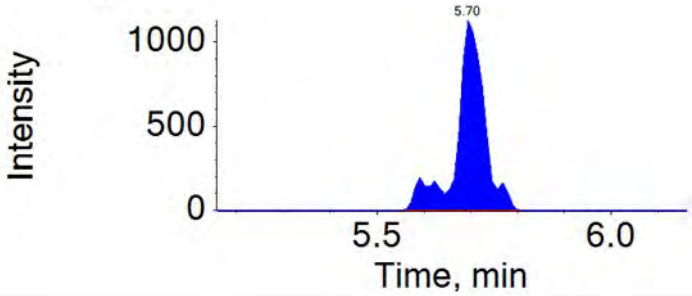
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



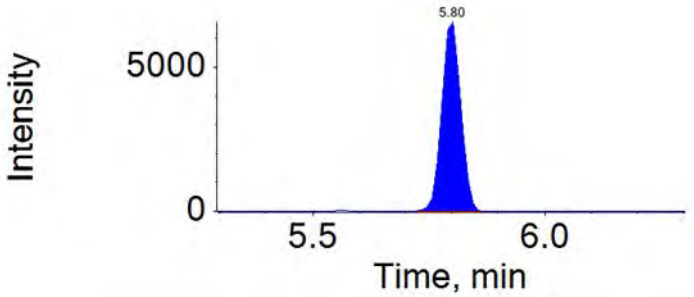
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



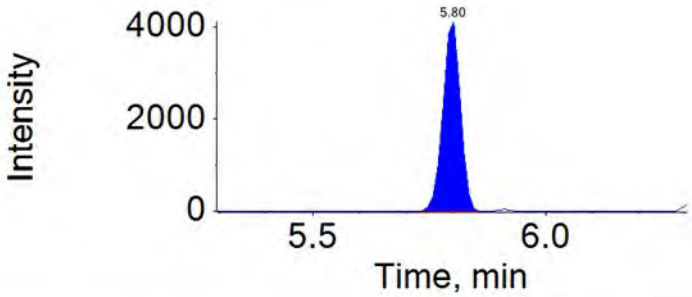
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



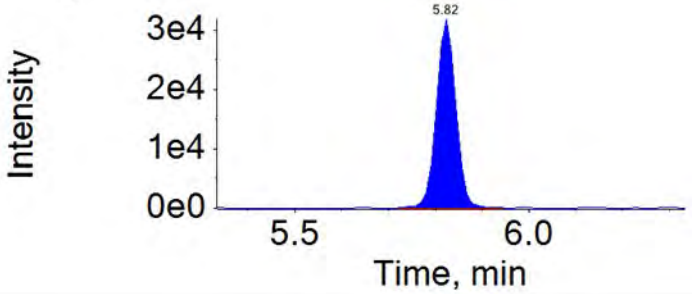
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



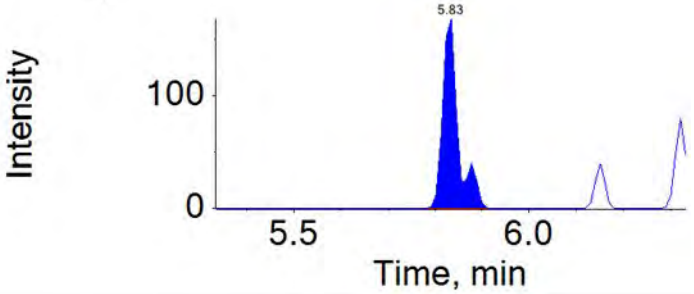
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

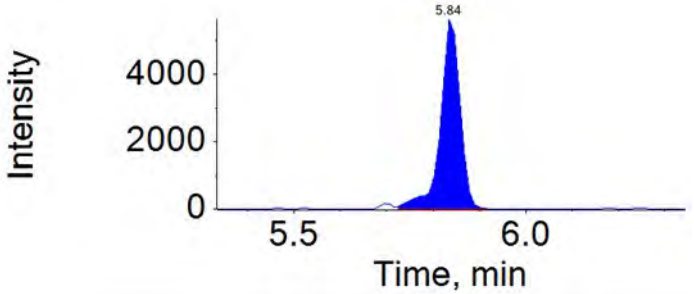
Component: PFUnDA
Primary Mass: 563.0 / 519.0



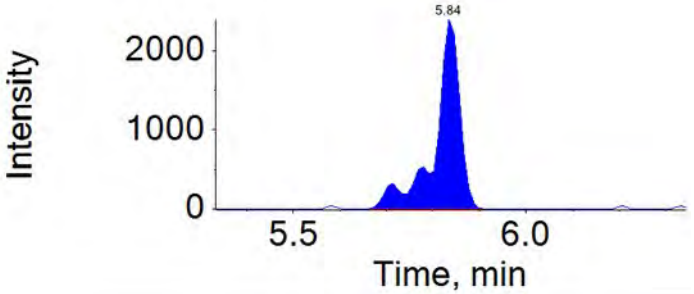
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



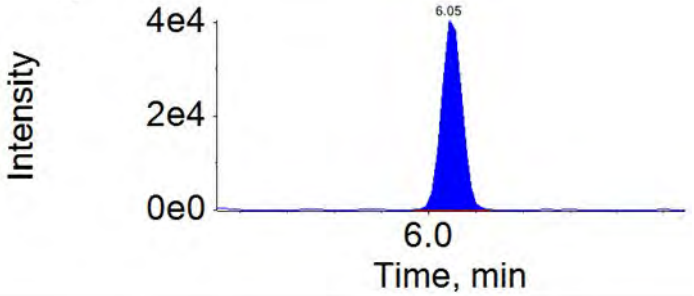
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



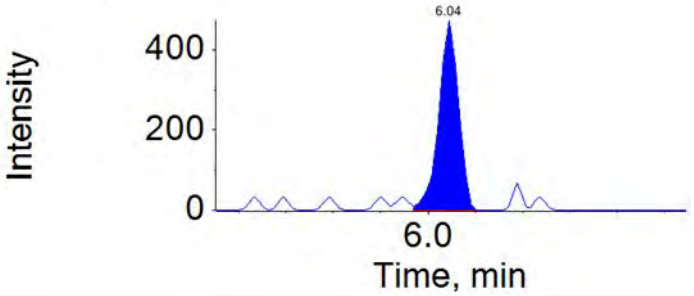
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



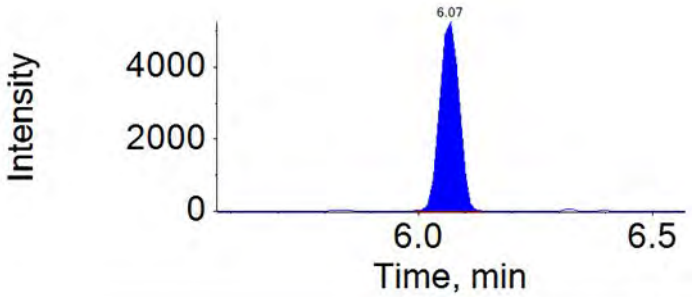
Component: PFDoDA
Primary Mass: 613.0 / 569.0



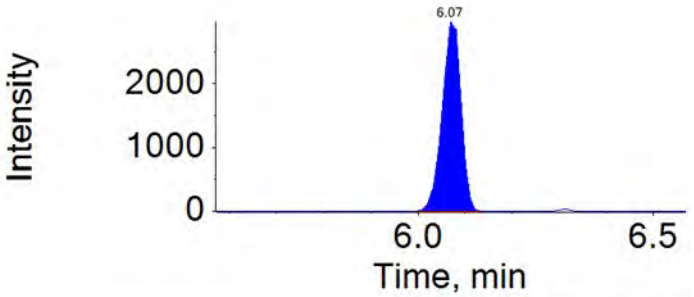
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



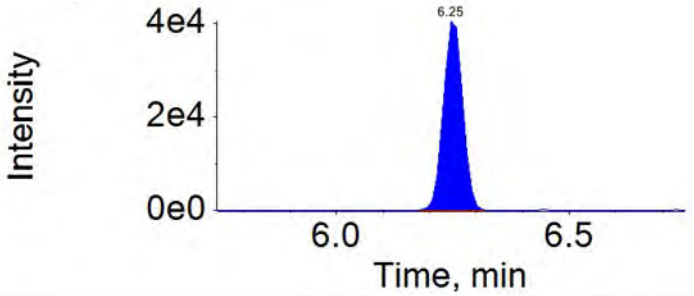
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



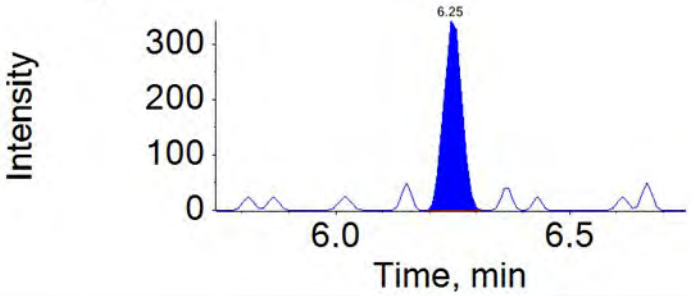
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

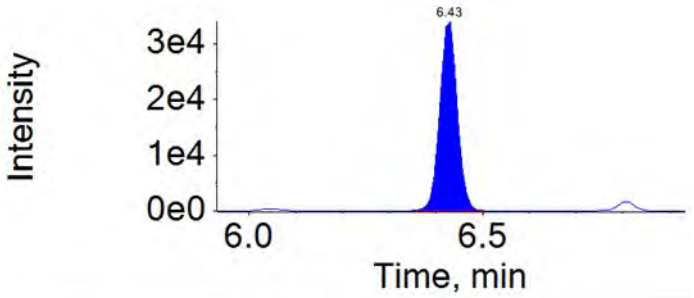
Component: PFTrDA
Primary Mass: 663.0 / 619.0



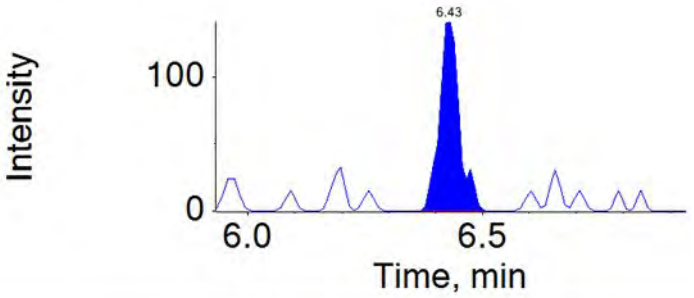
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



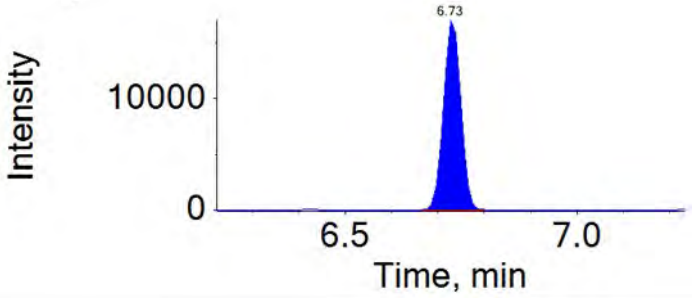
Component: PFTeDA
Primary Mass: 713.0 / 669.0



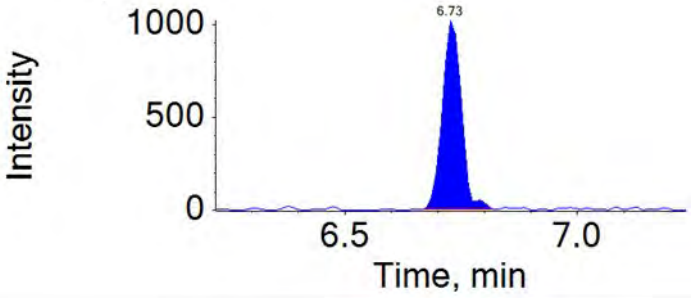
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



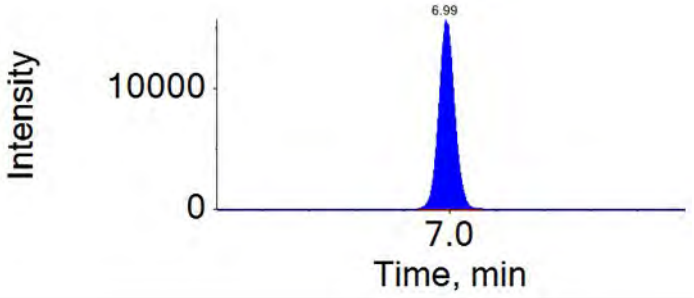
Component: PFHxDA
Primary Mass: 813.0 / 769.0



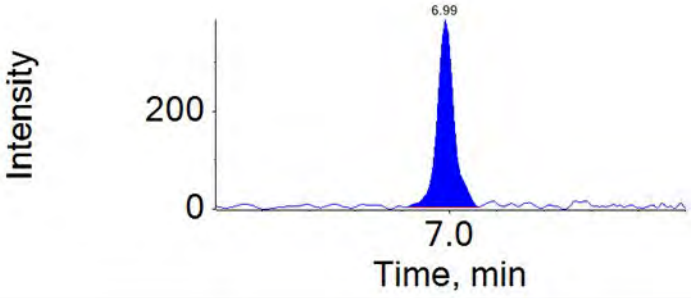
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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 **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

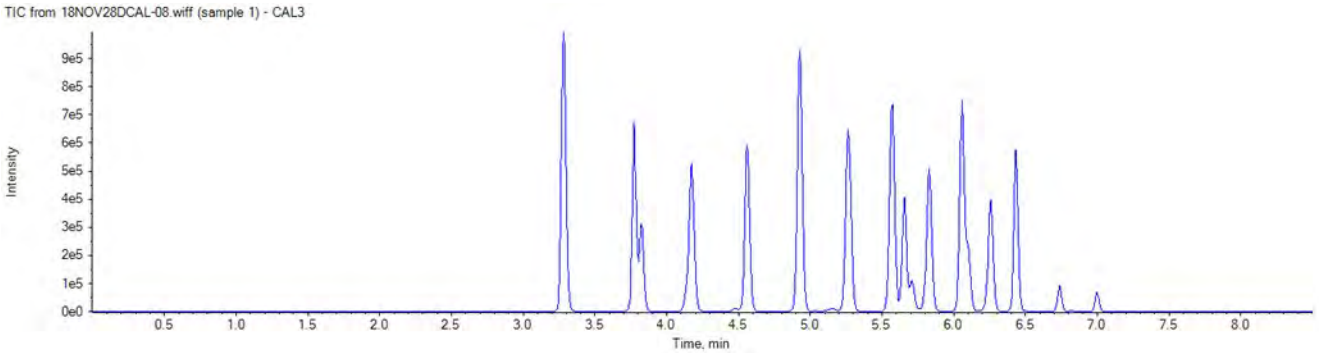
Analyte Quantitation Peak Table

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
PFTrDA	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

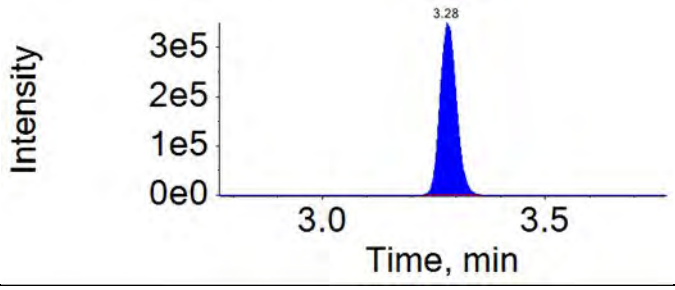


APPROVED
By MCD at 5:00 pm, 11/28/18

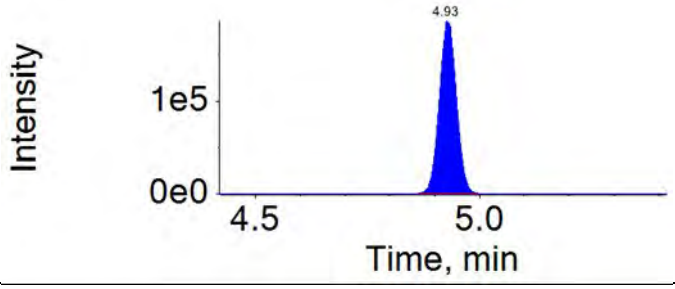
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

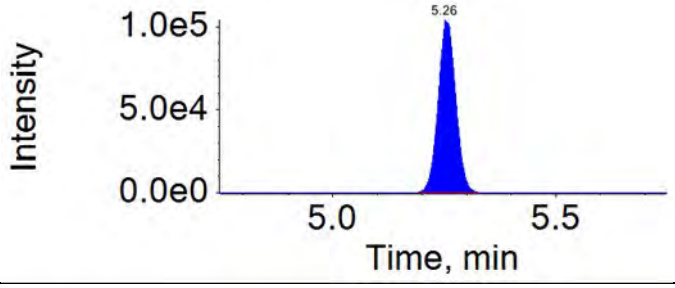
Injection Standard: 13C3-PFBA
216.0 / 172.0



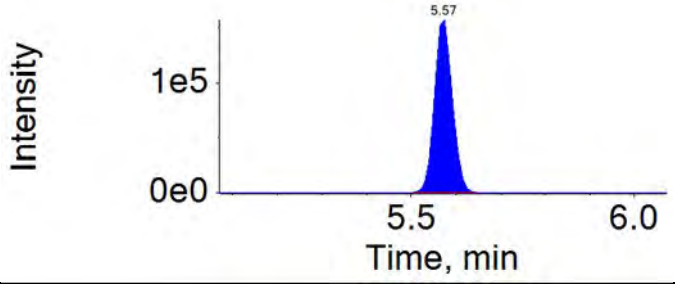
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

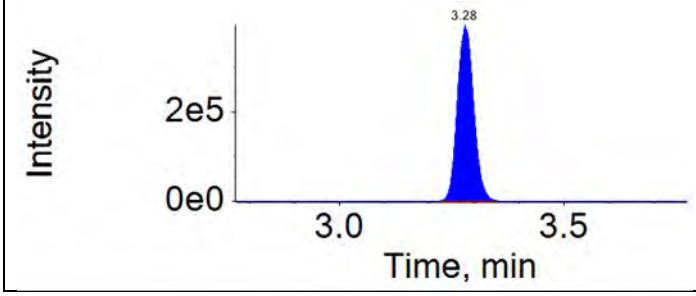


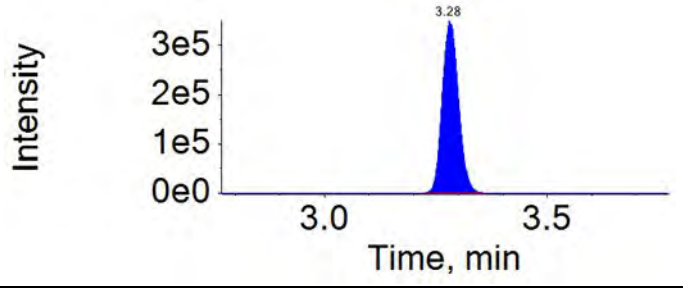
Injection Standard: 13C2-PFDA
515.0 / 470.0



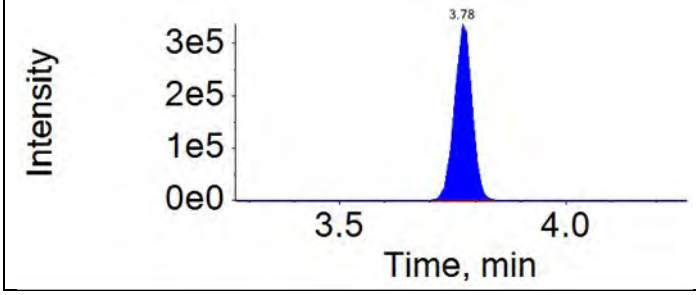
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

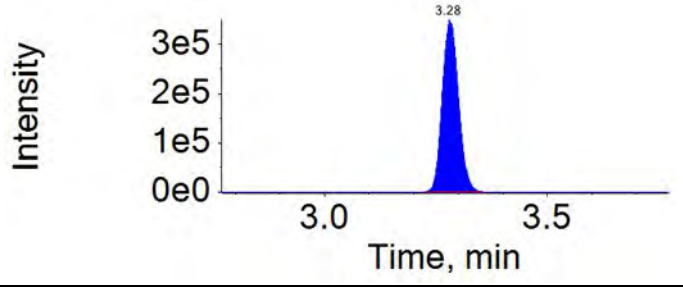
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



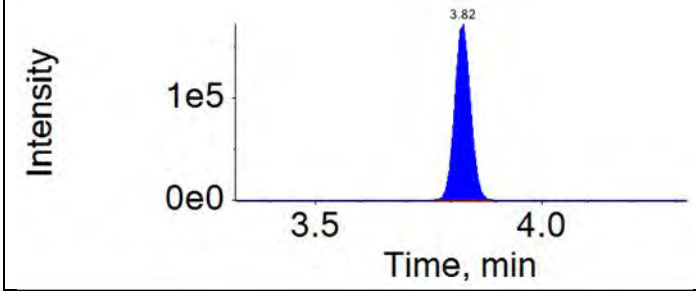


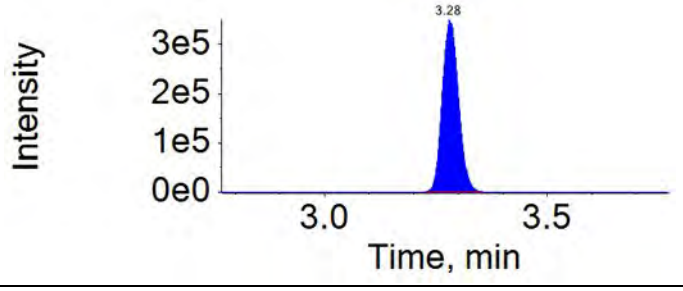
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



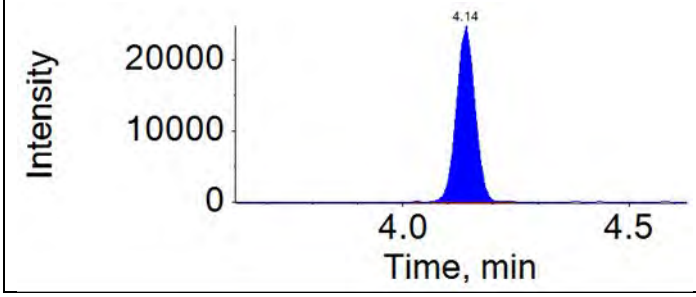


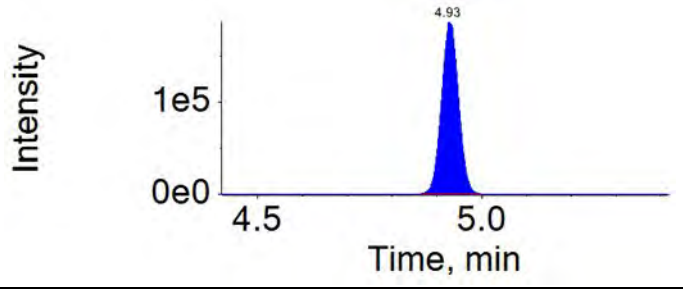
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



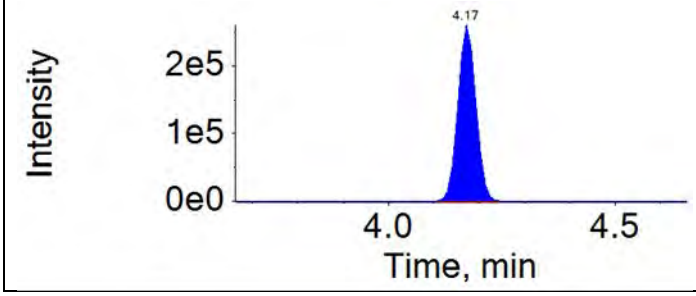


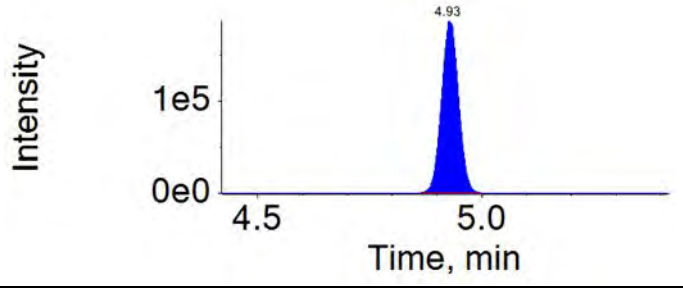
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

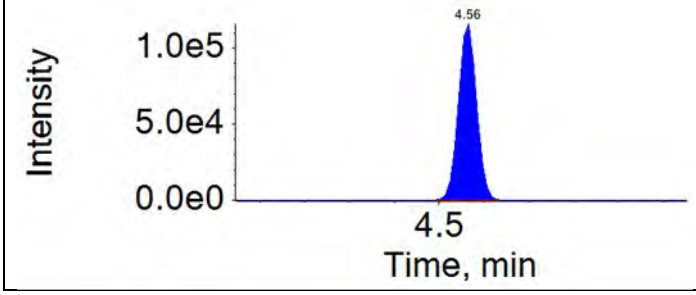
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

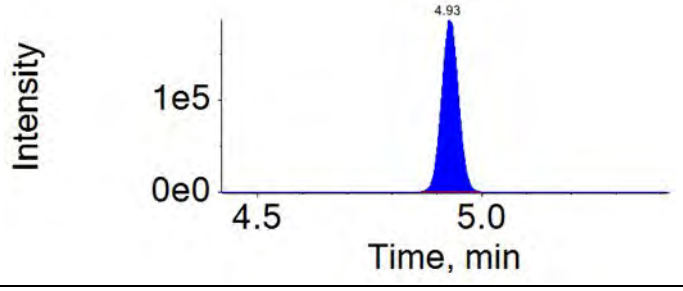
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



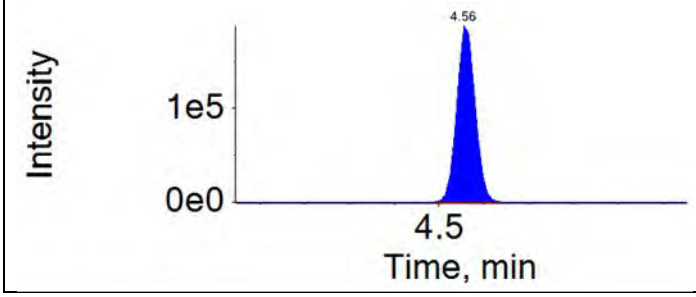


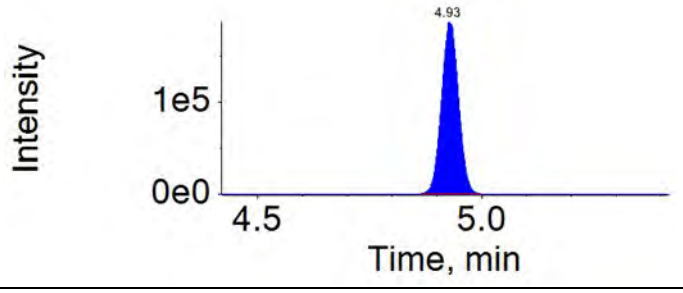
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



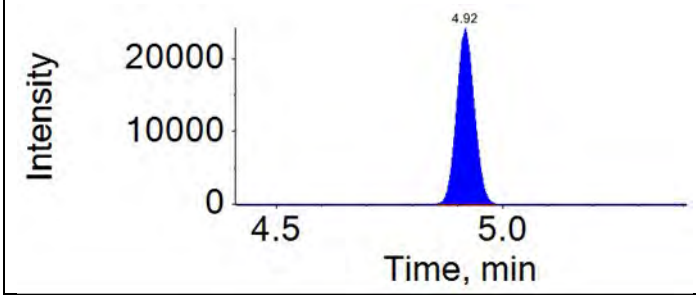


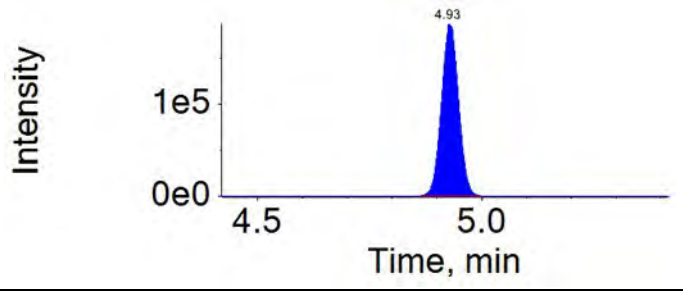
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



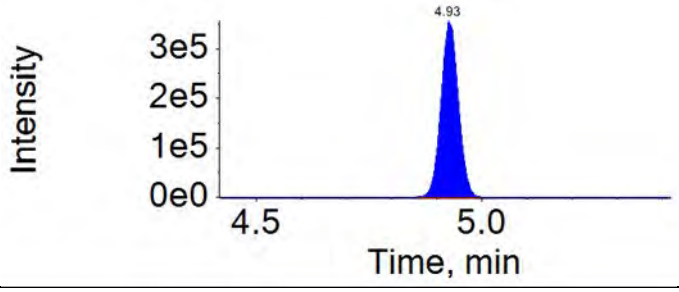


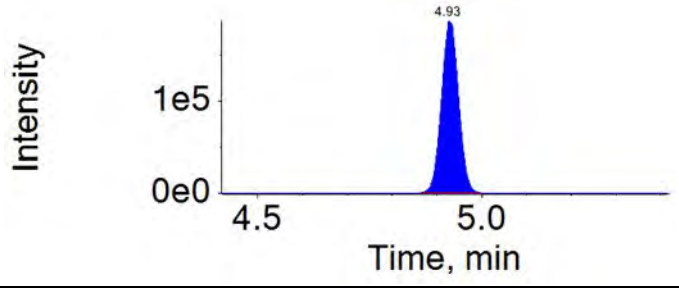
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

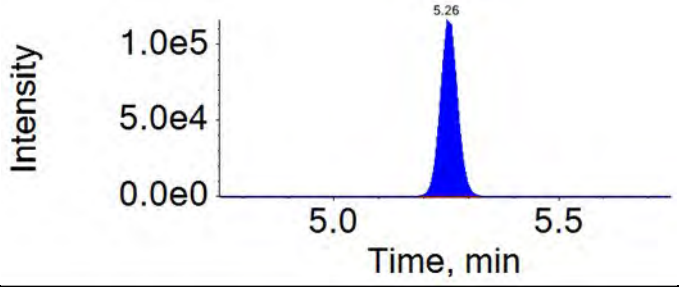
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

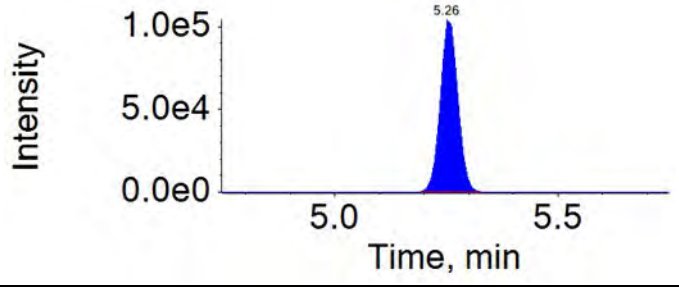
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



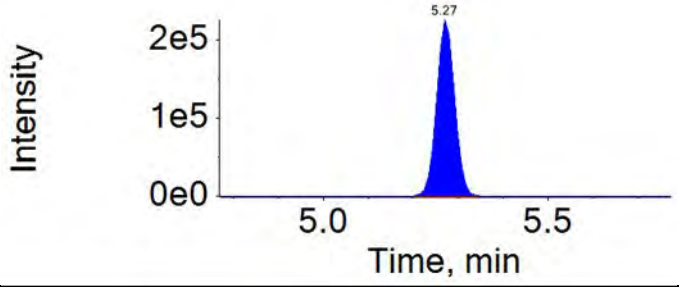


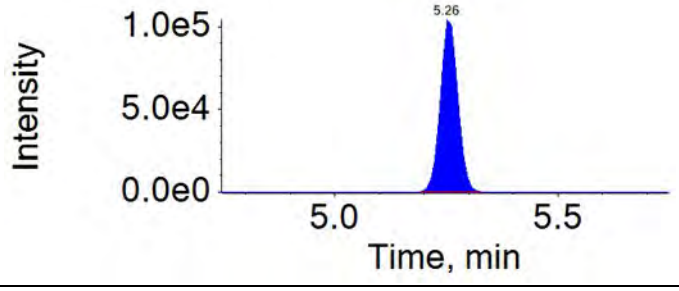
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



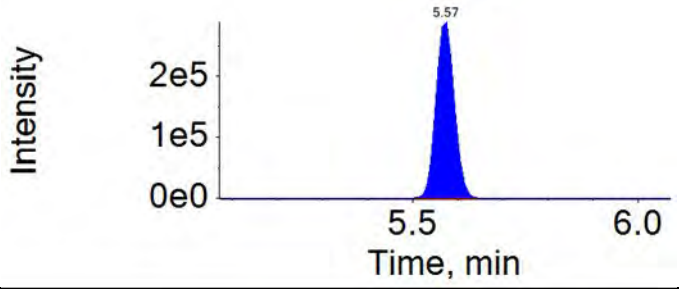


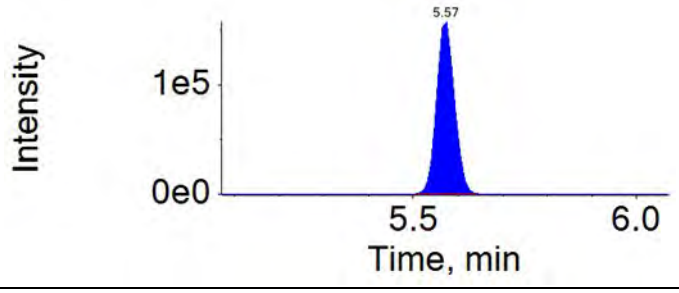
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



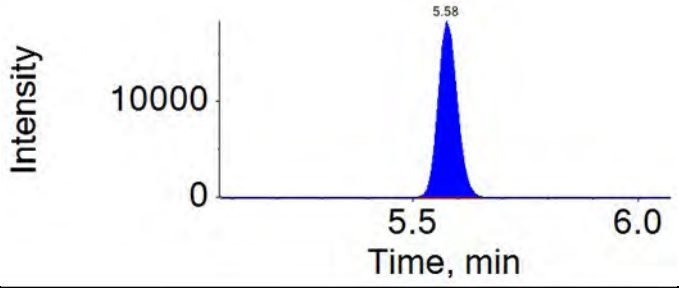


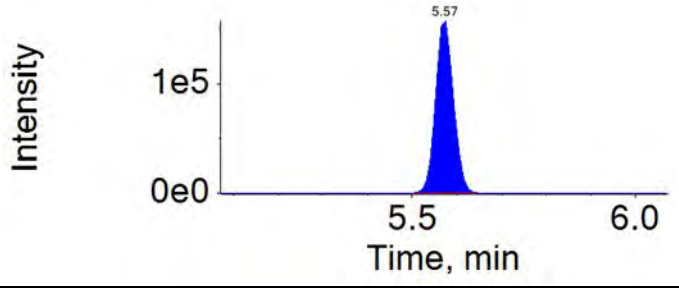
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

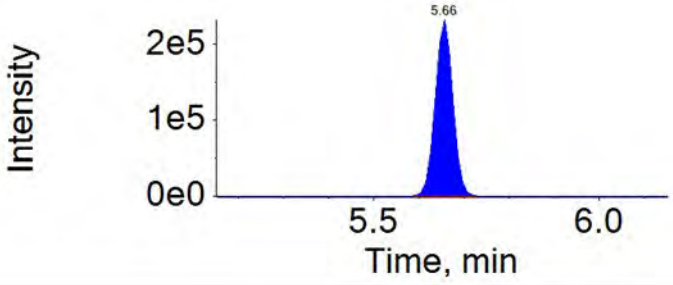
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

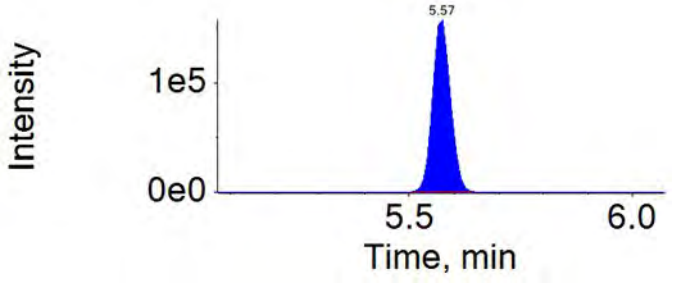
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



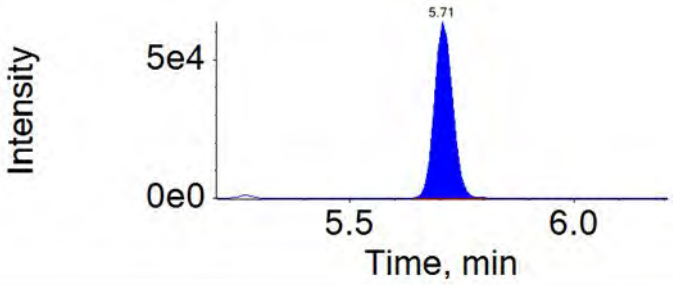


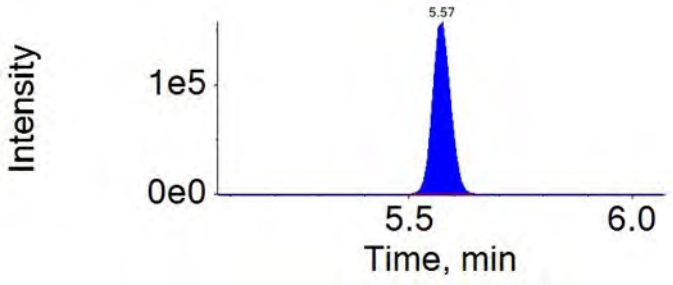
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



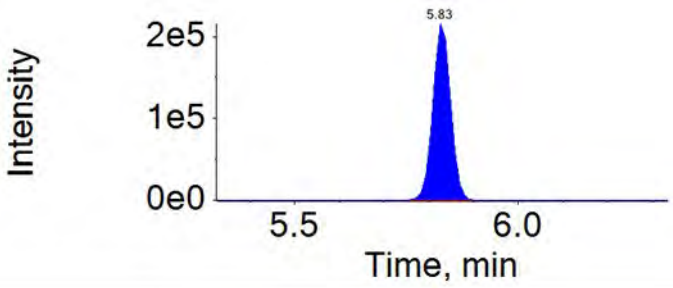


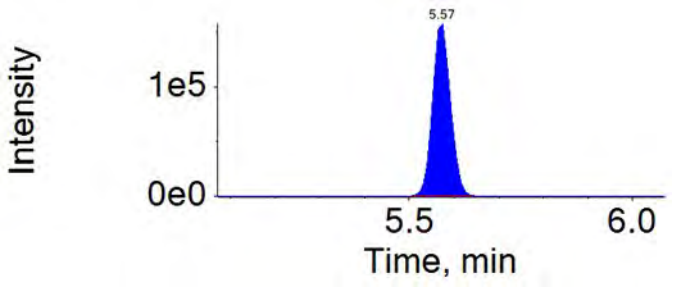
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



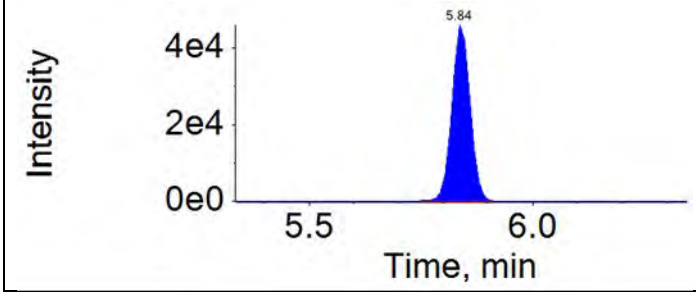


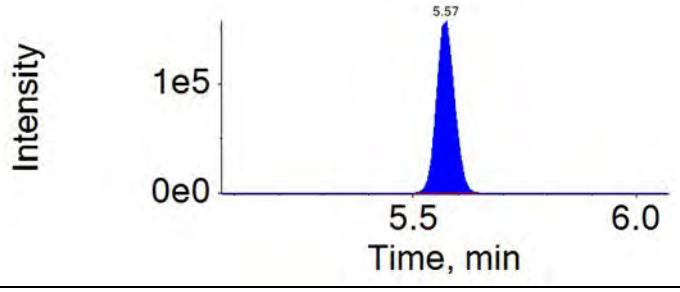
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

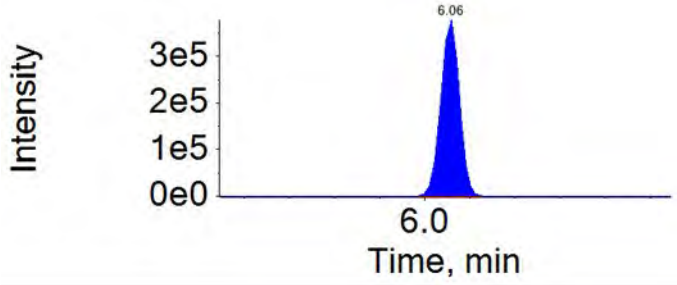
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

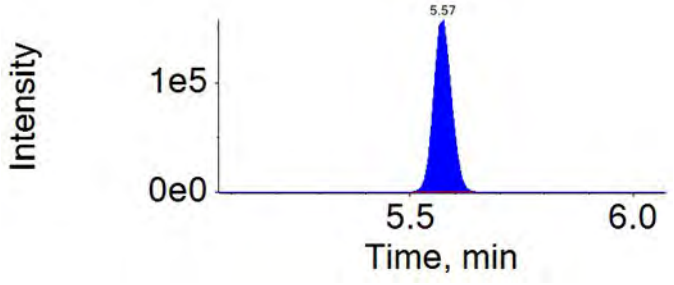
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



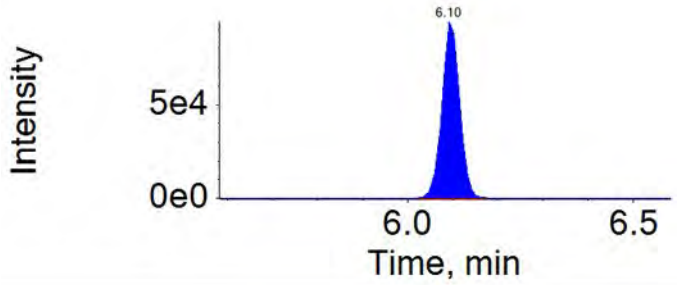


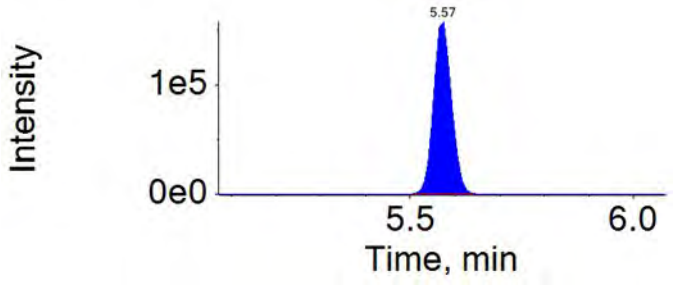
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



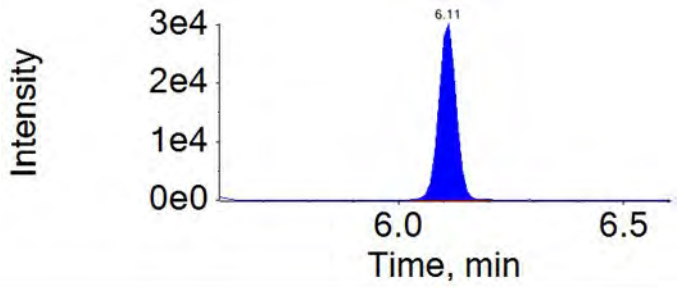


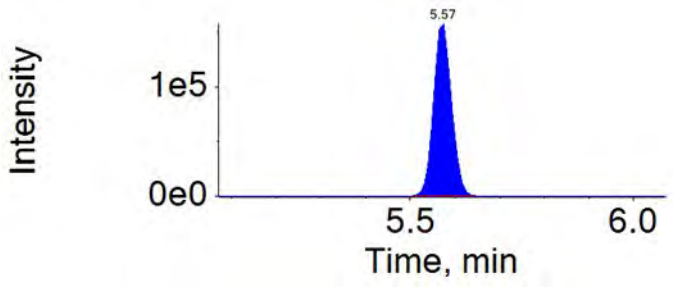
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



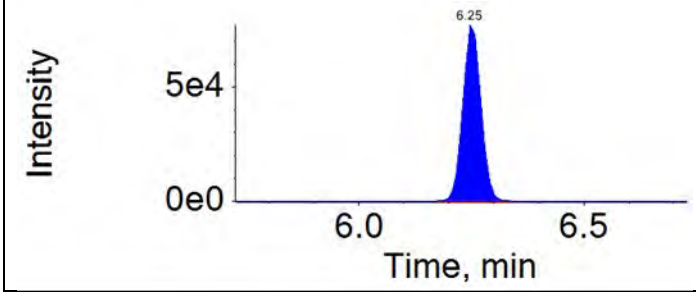


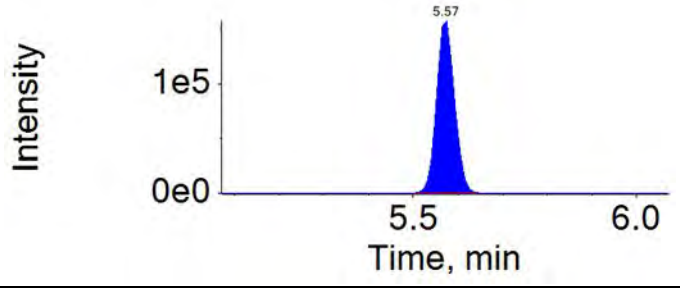
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

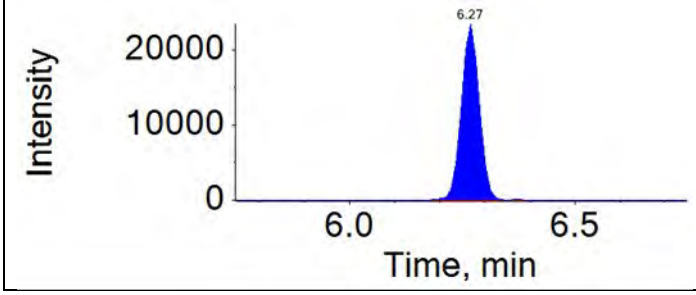
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

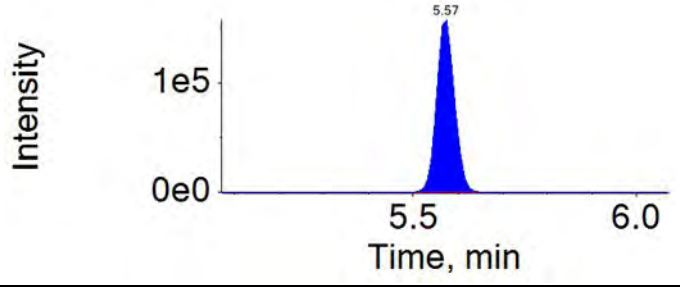
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



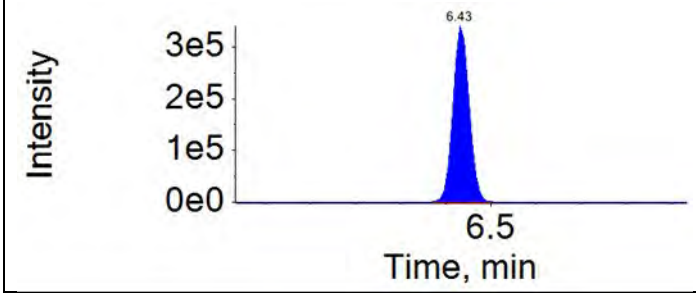


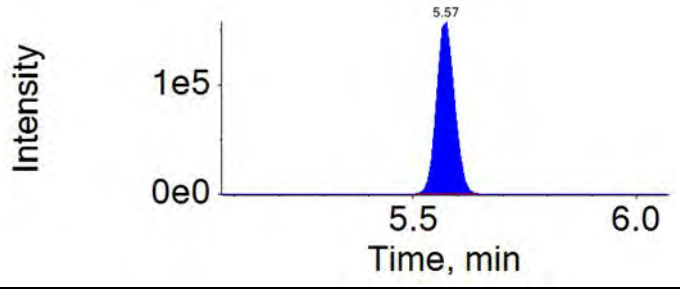
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



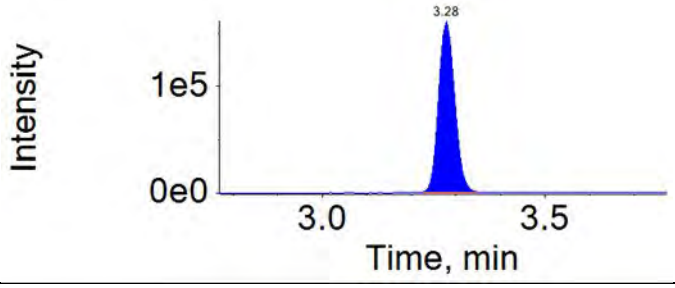


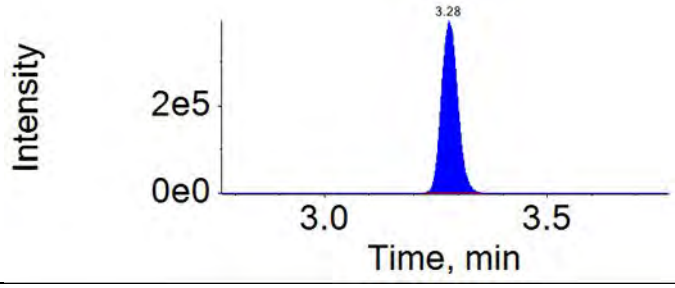
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

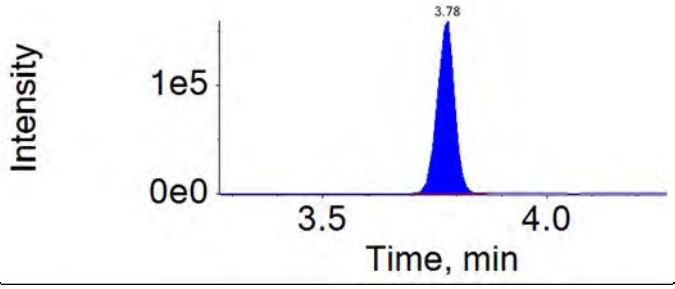
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

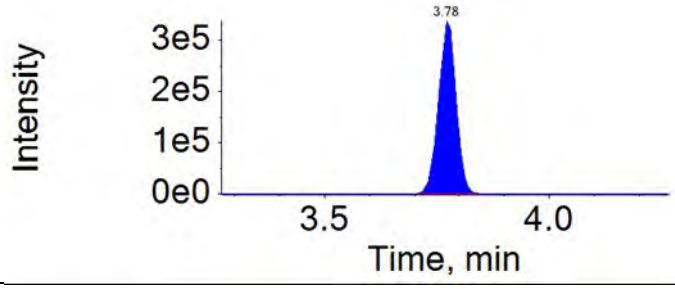
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



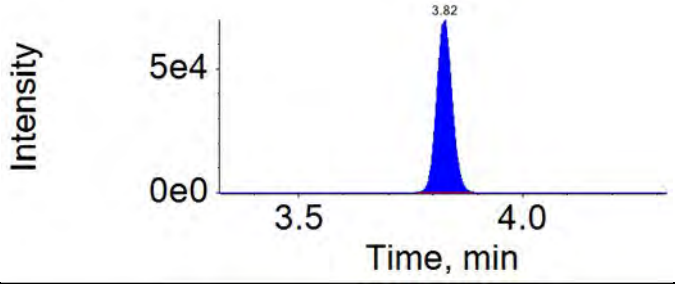


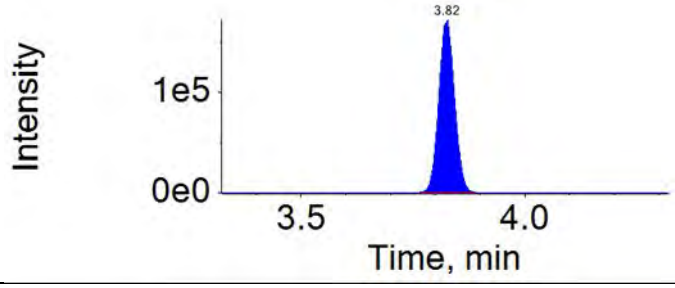
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



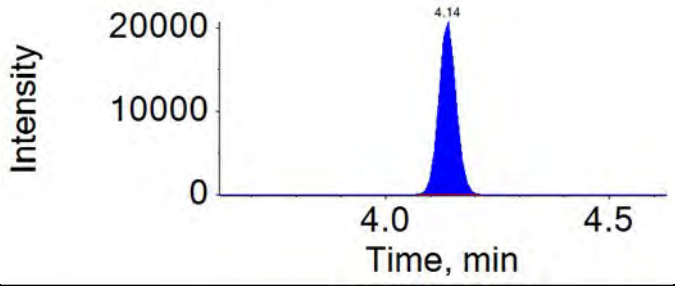


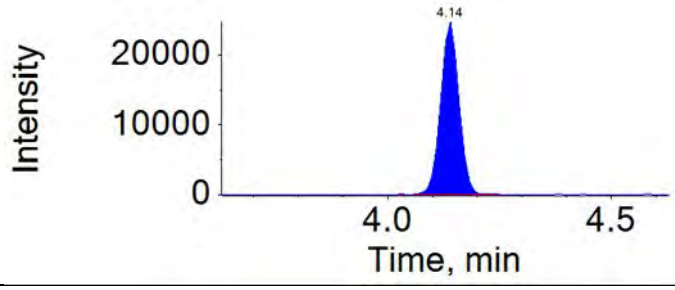
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



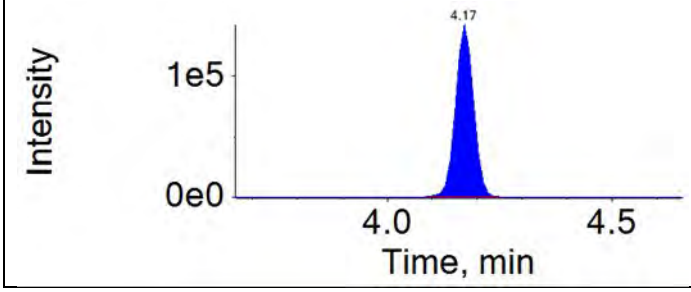


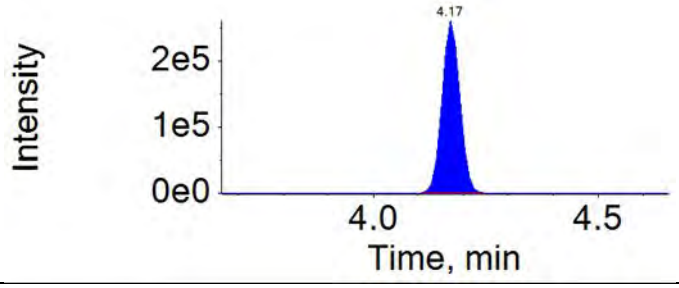
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

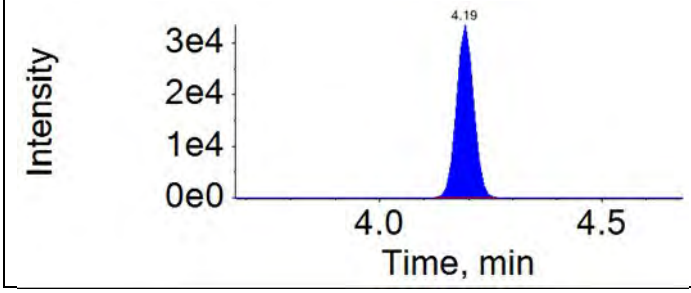
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

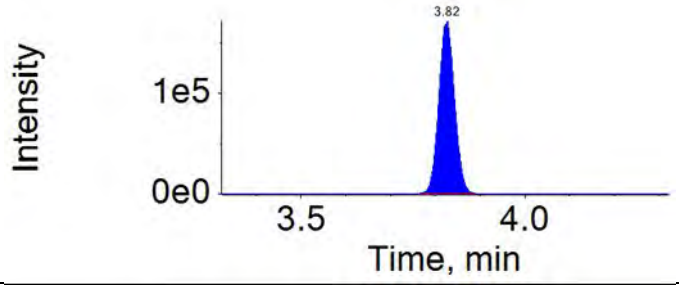
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



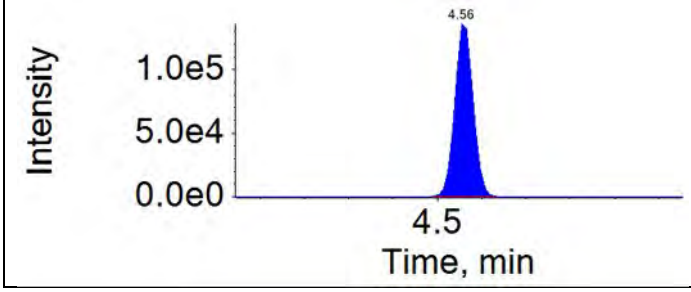


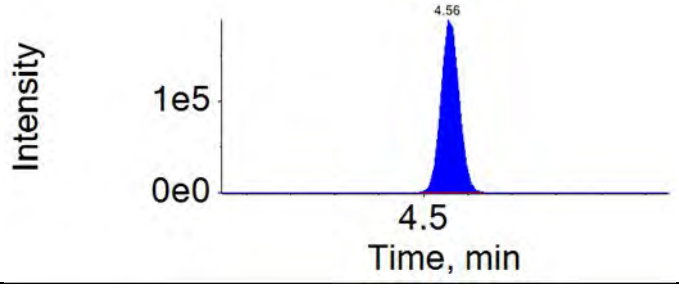
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



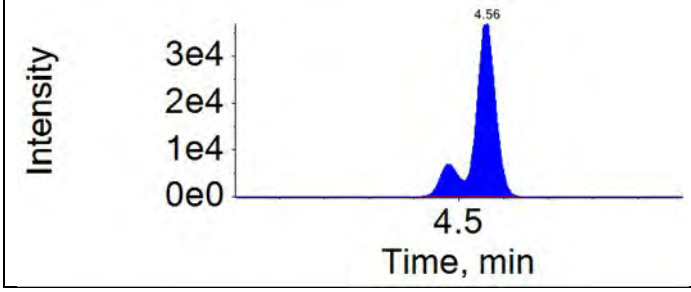


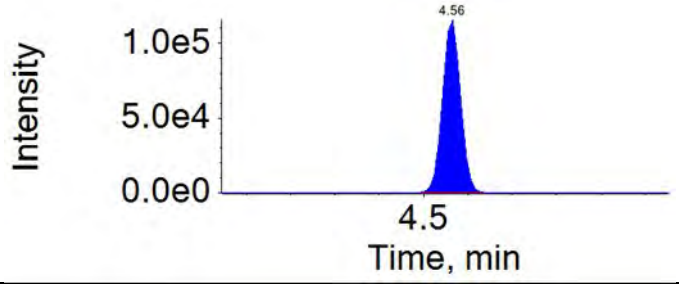
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

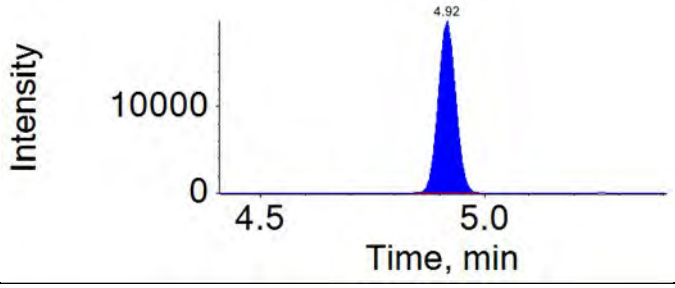
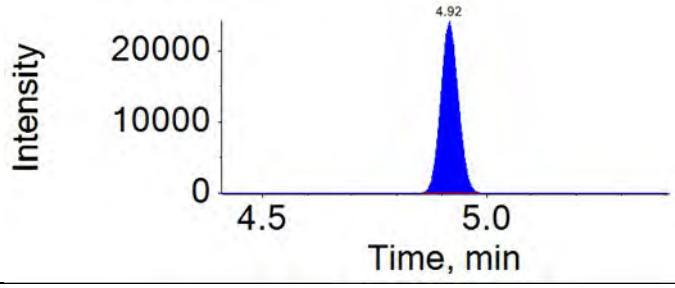


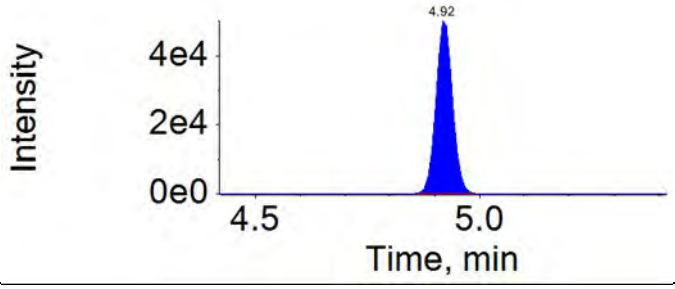
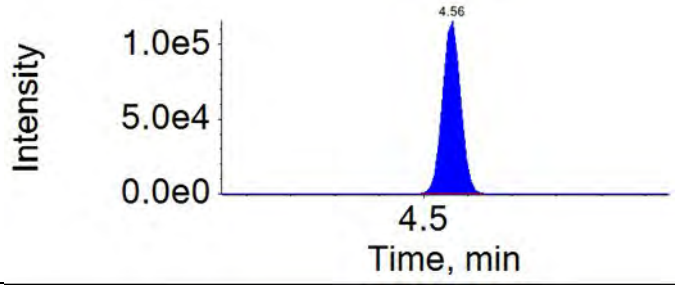


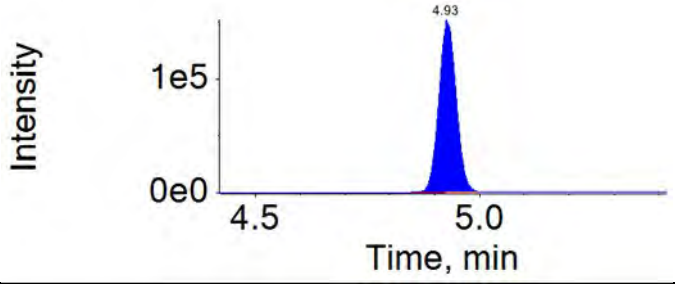
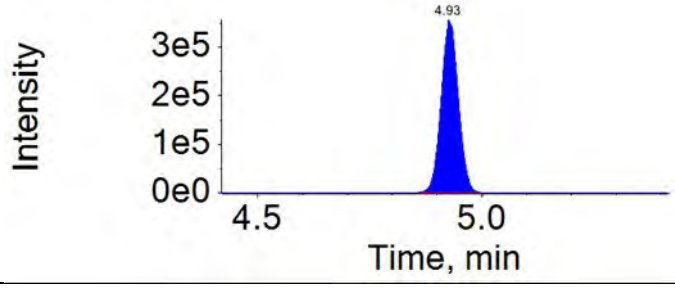
APPROVED
By MCD at 5:00 pm, 11/28/18

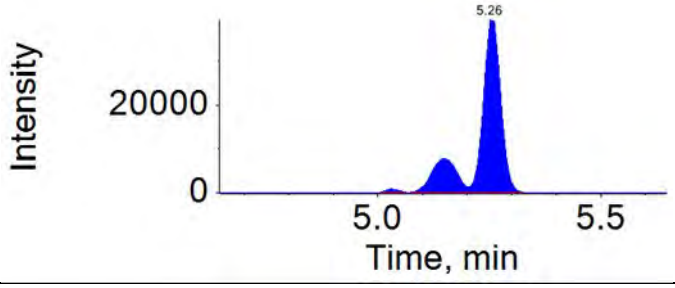
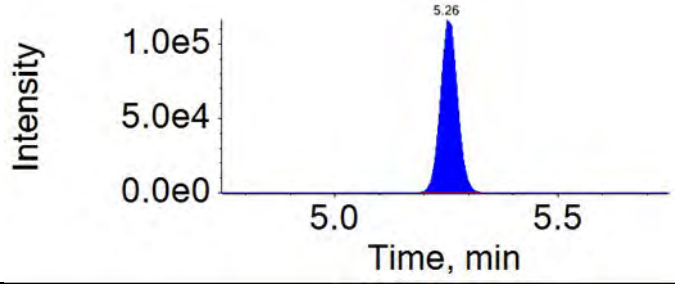
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

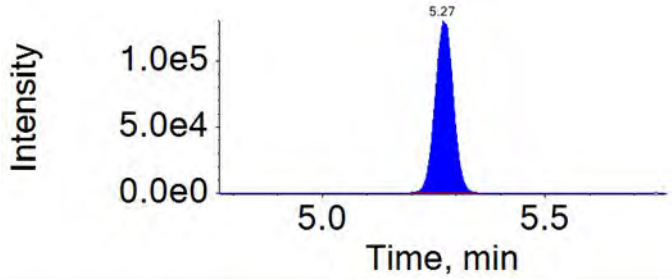
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

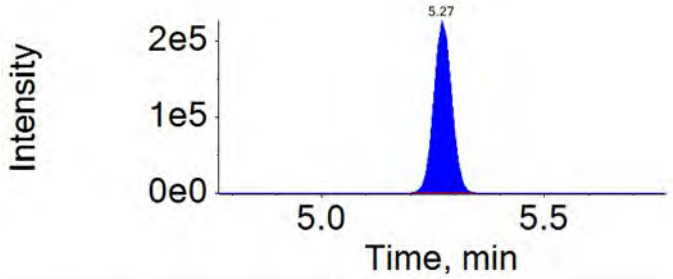
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

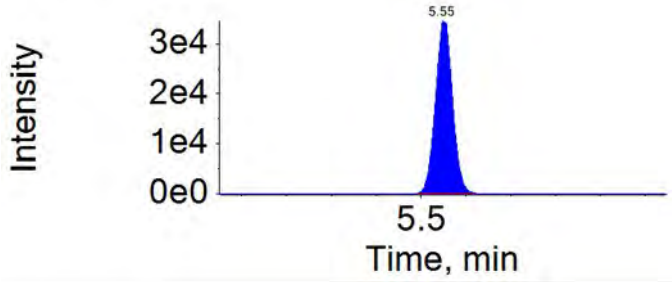
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

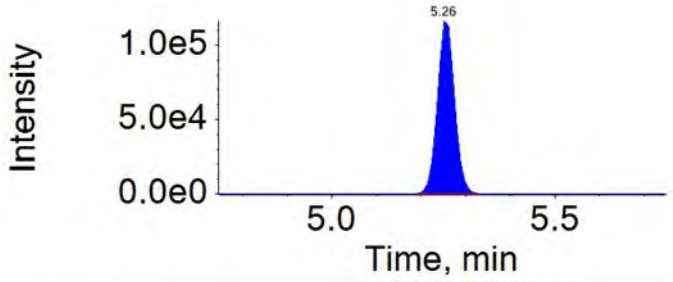
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



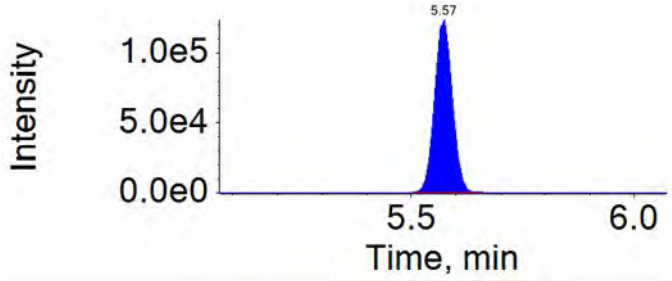


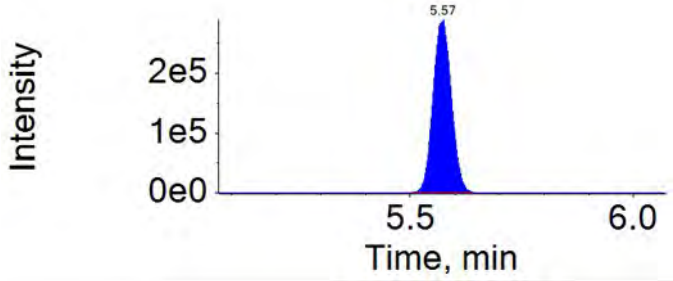
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



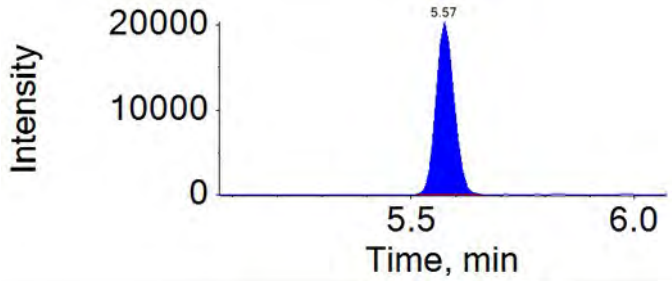


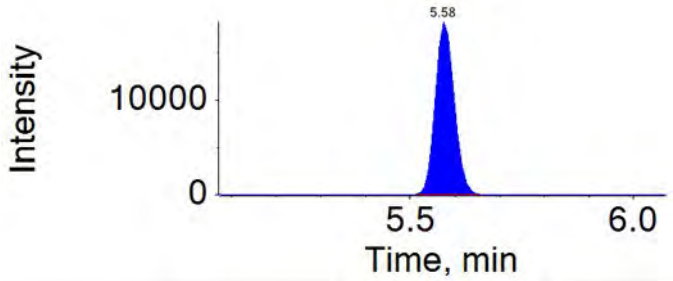
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



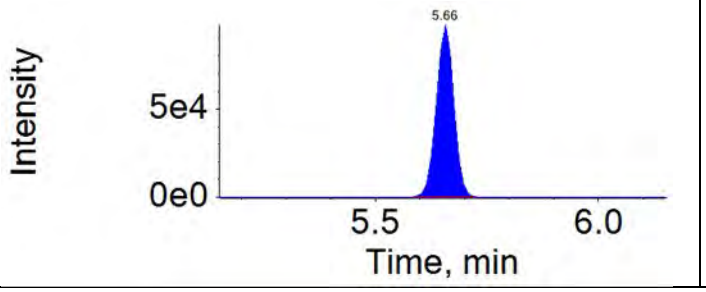


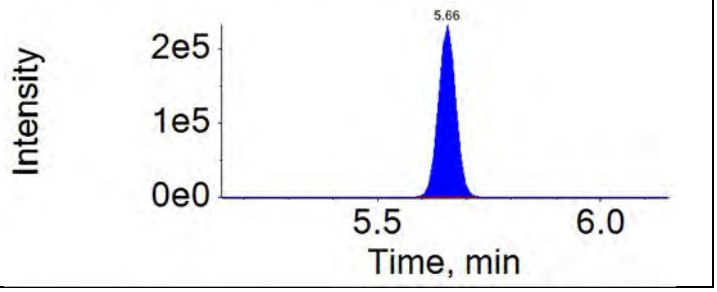
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

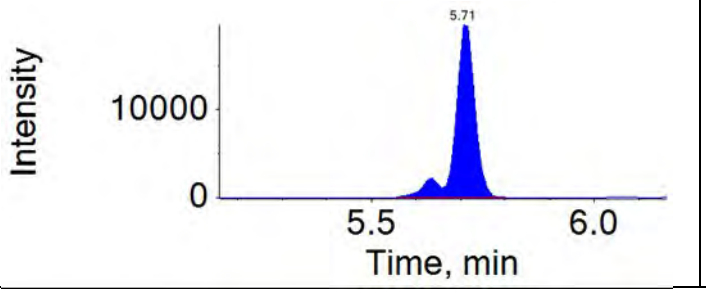
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

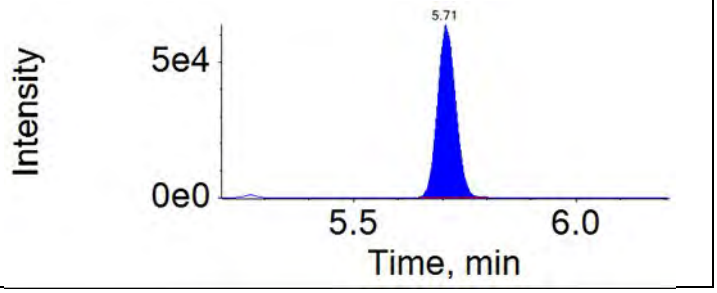
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



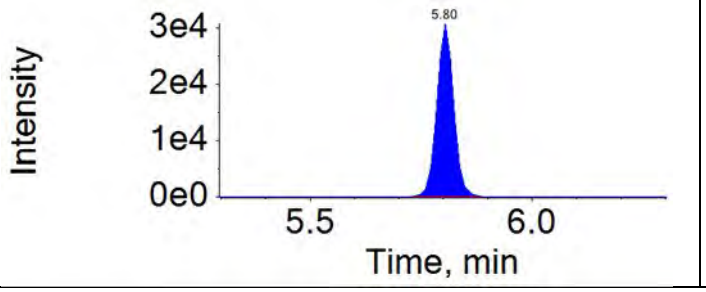


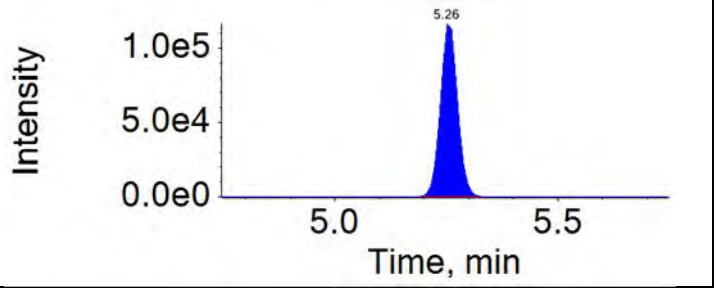
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



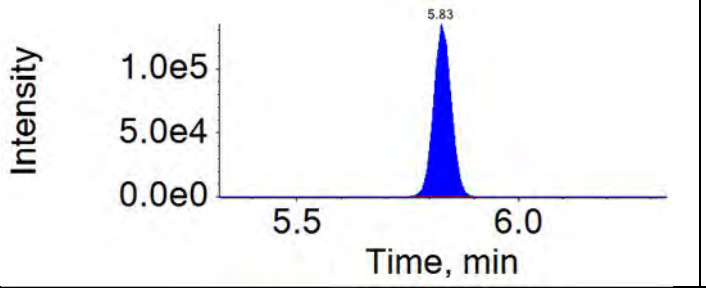


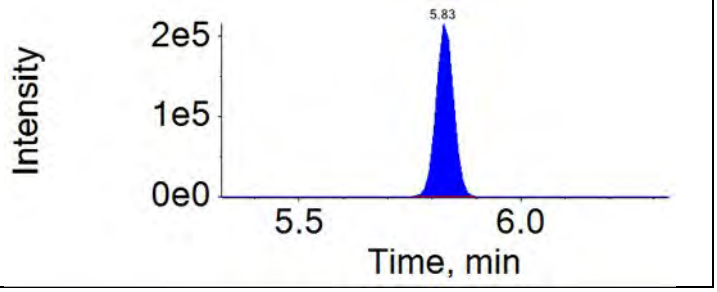
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



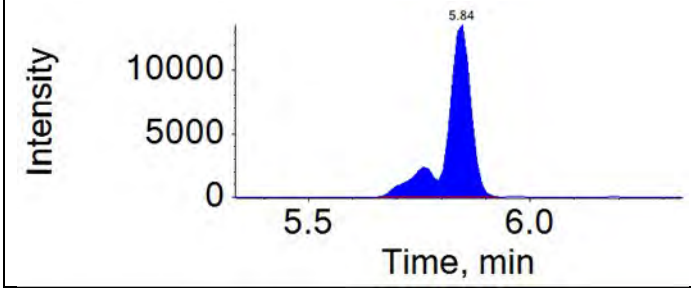


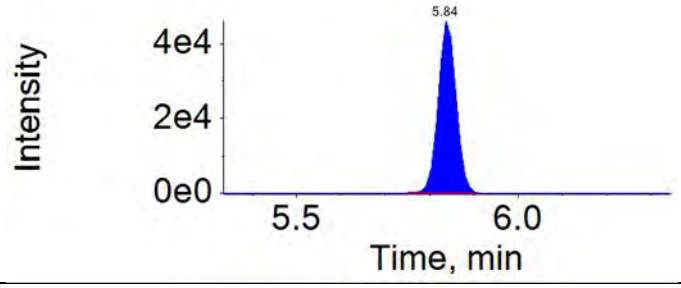
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

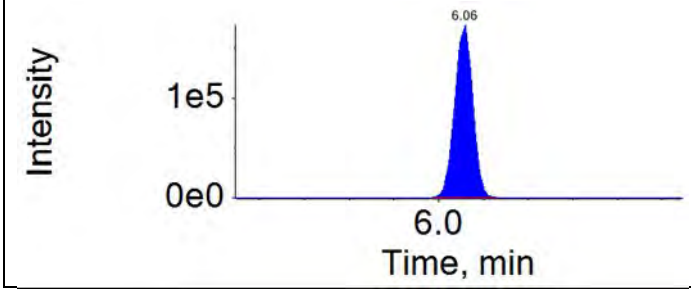
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

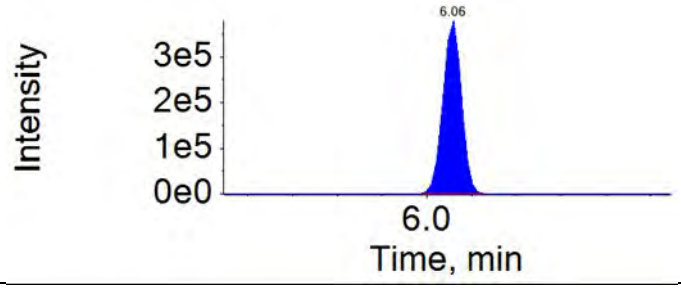
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



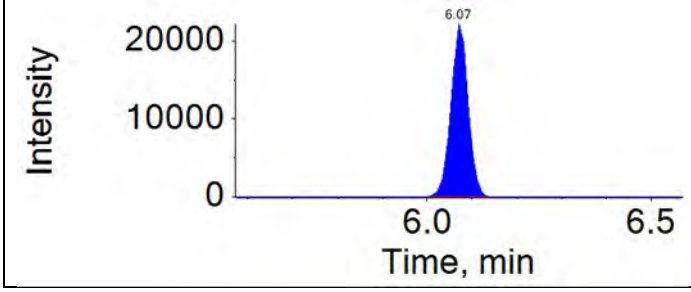


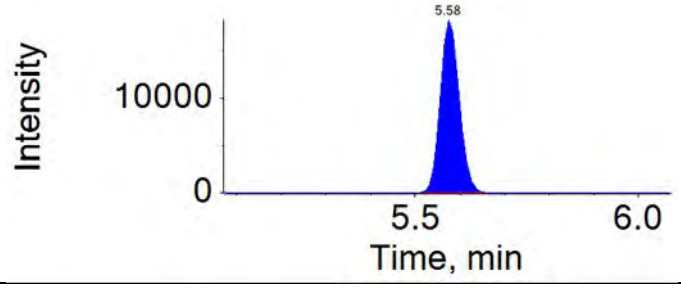
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



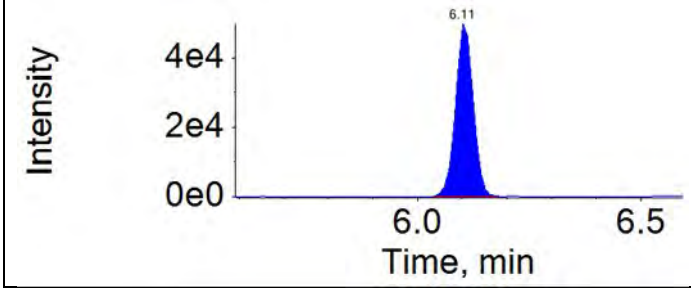


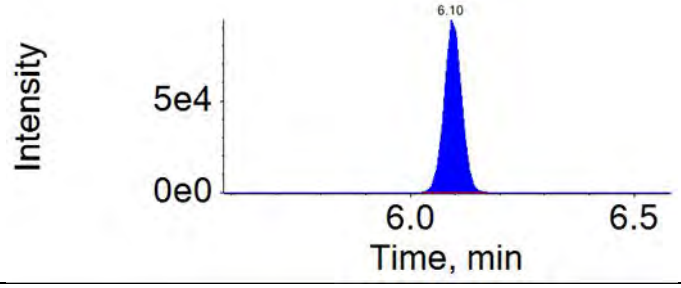
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



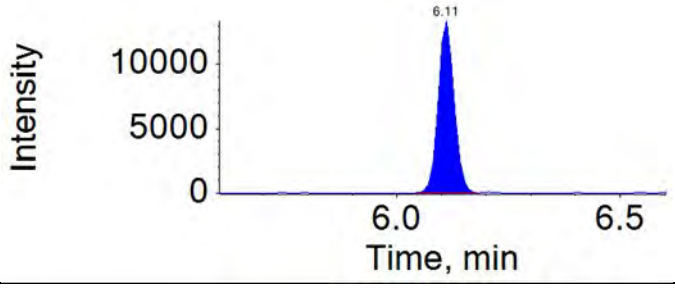


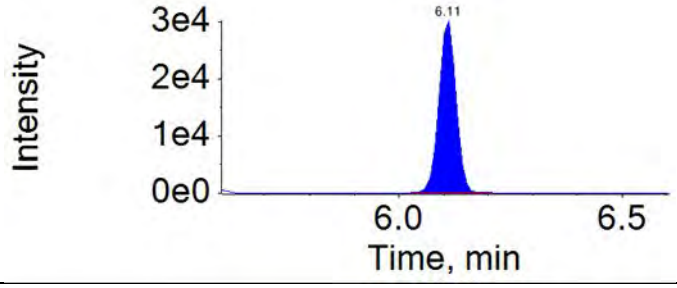
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

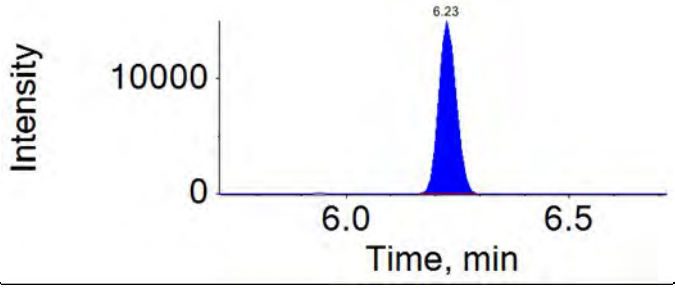
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

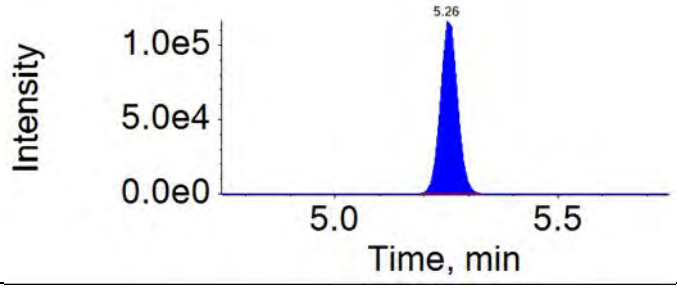
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



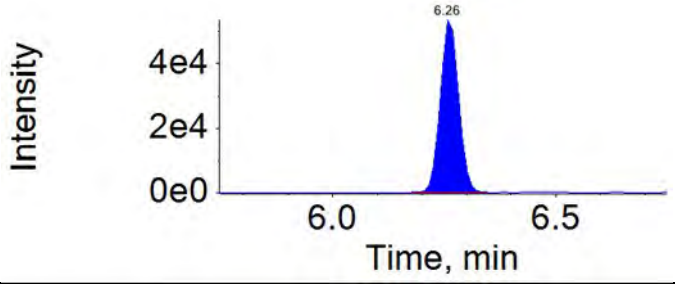


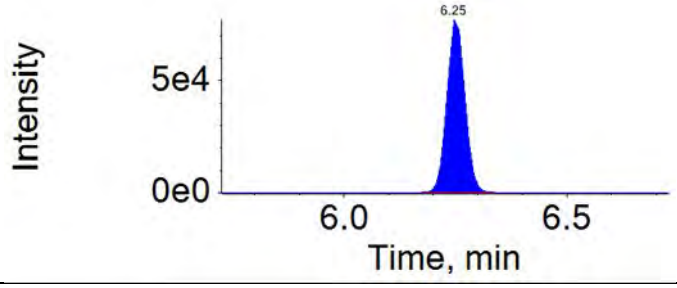
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



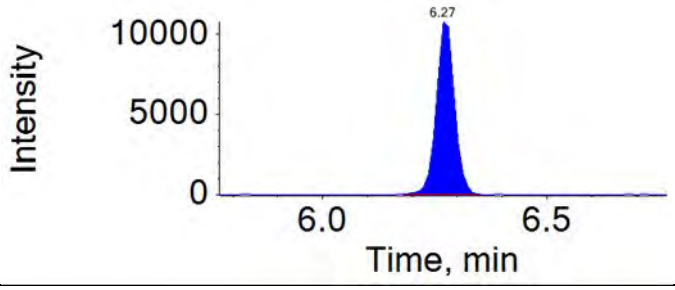


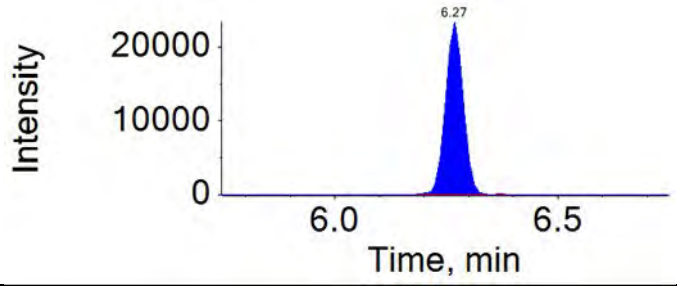
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



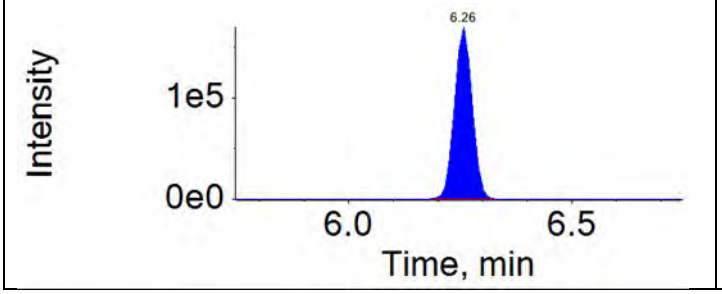


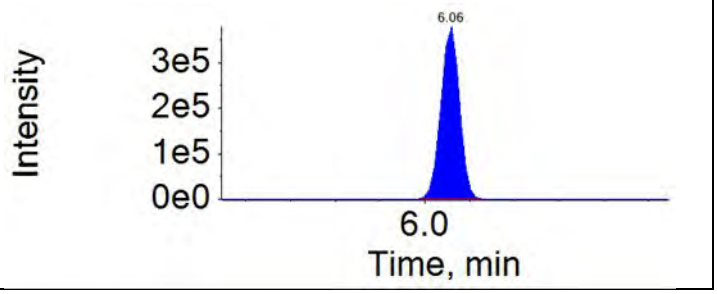
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

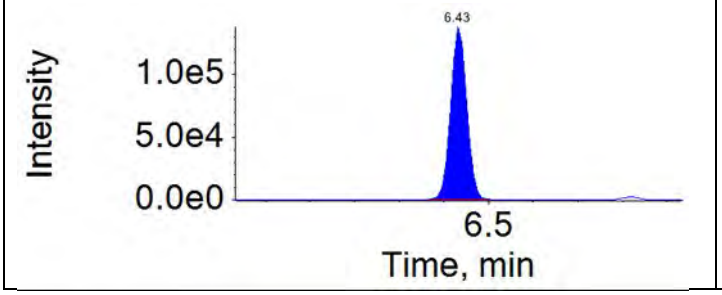
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

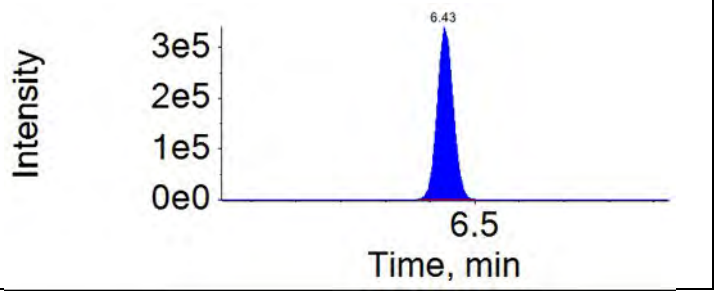
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



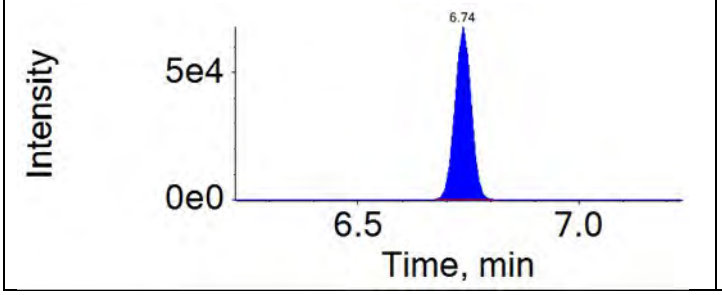


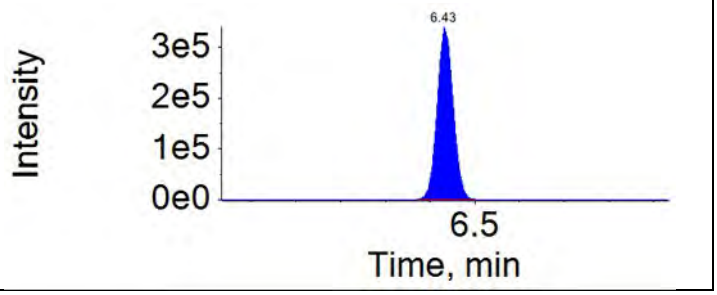
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



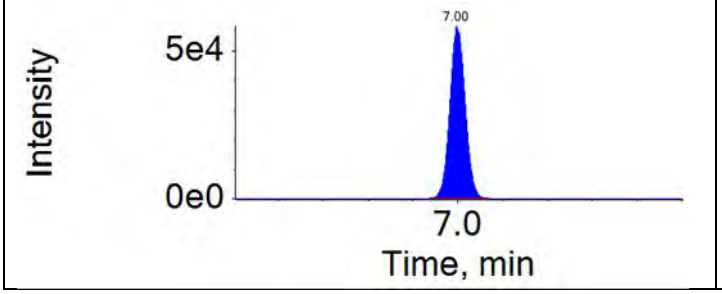


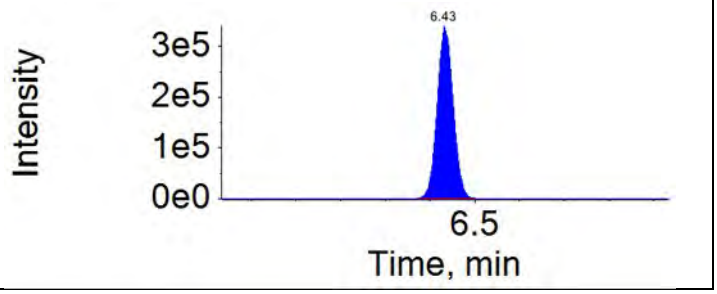
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



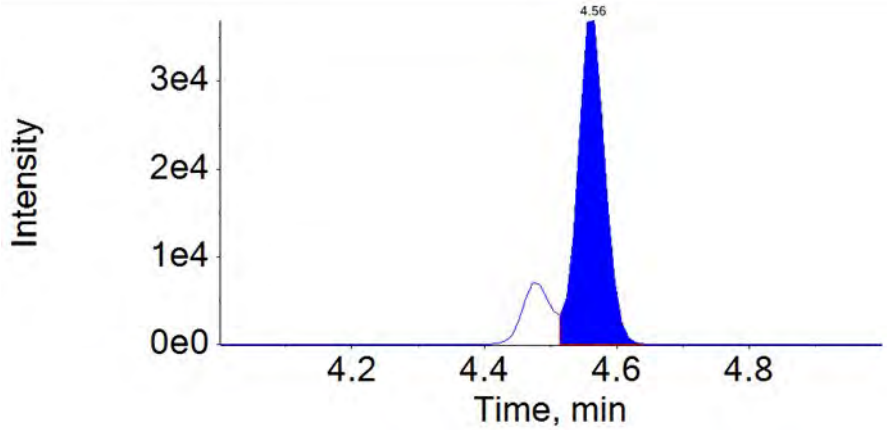


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

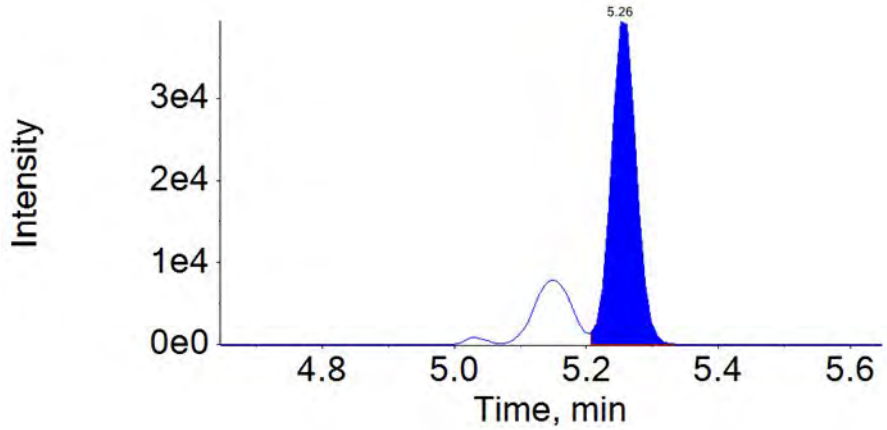
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
106597.62
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



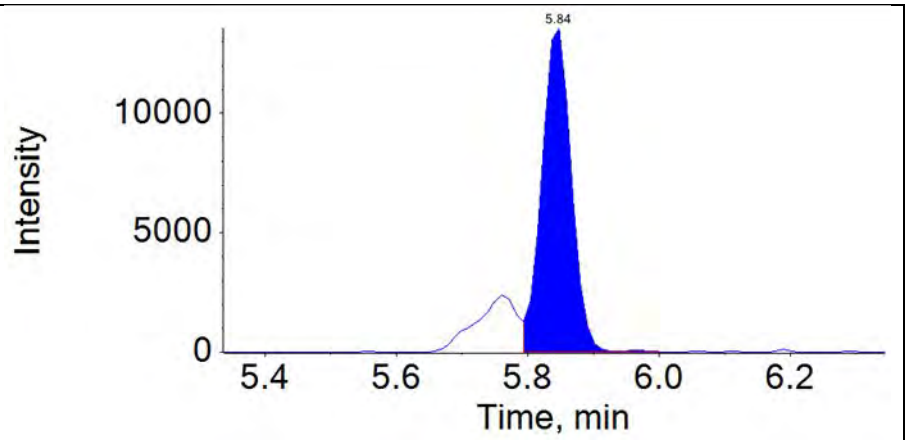
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.26
Peak Area:
105925.26
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
42641.99
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



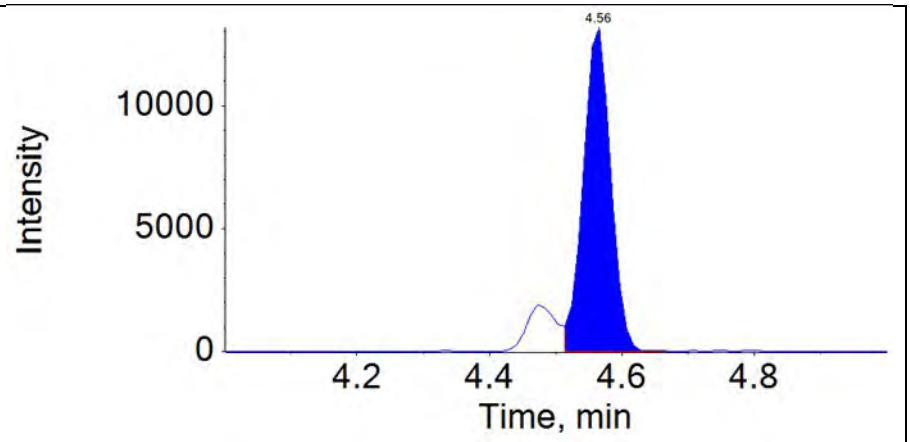
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

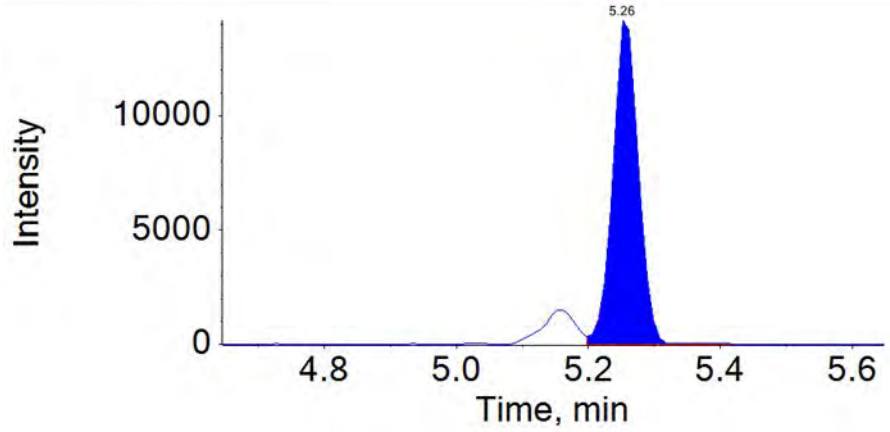
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
37946.39
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



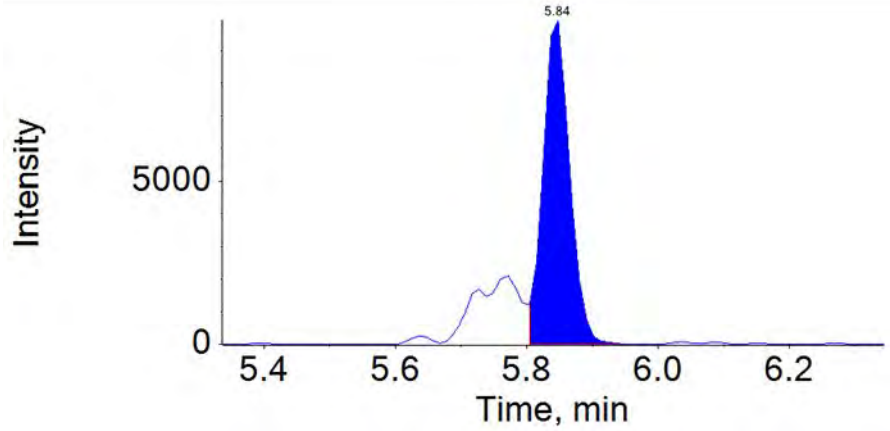
Integration Comment: incorrect integration

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

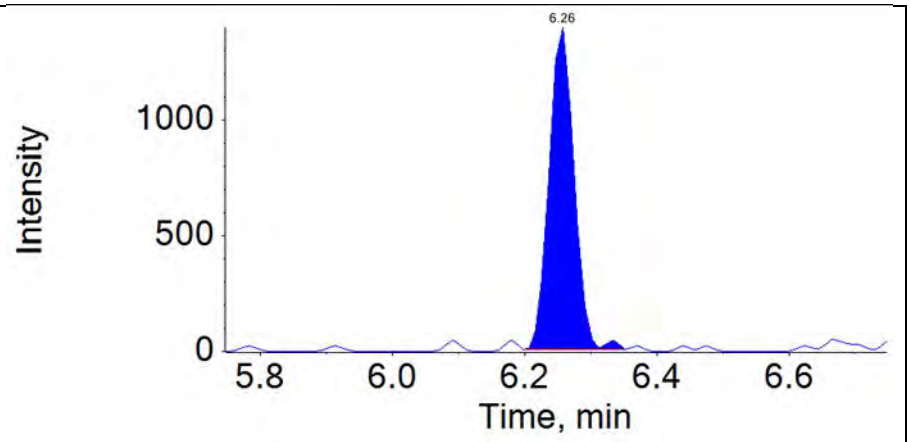
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

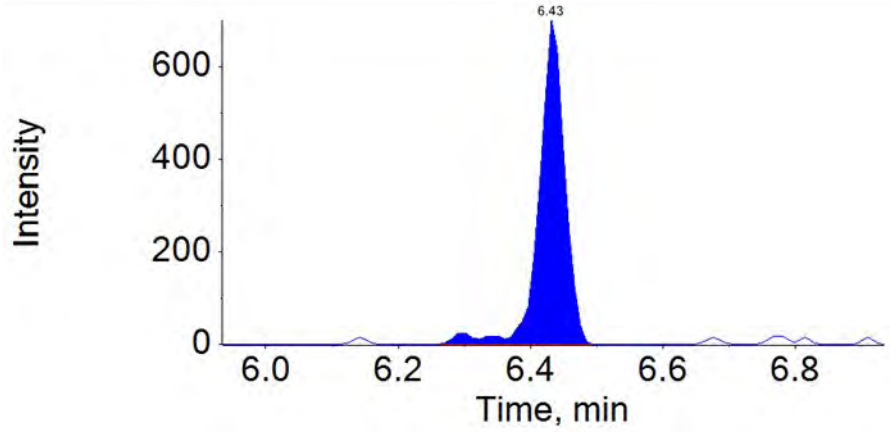
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.26
Peak Area:
3672.17
Mass Range:
663.0 / 169.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFTeDA_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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

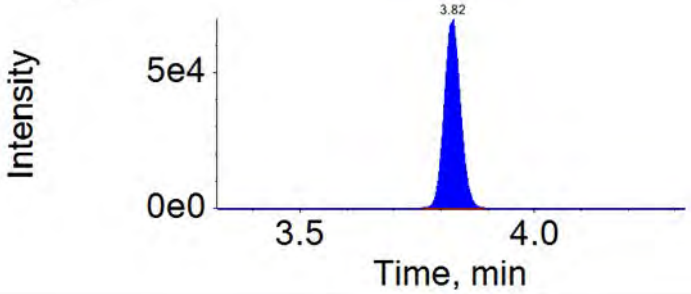
Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-08.wiff

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	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	
PFTrDA	6.26	1.03	466266.85	A	0.0090	0.0078			
PFTrDA_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	

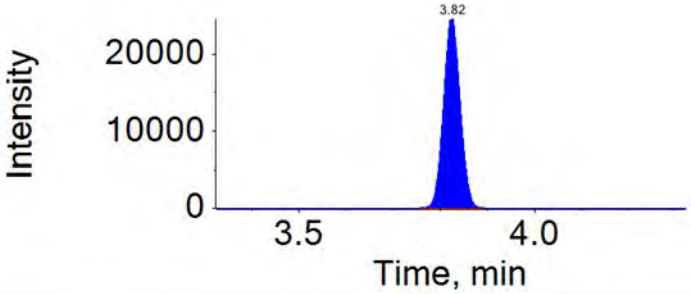
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

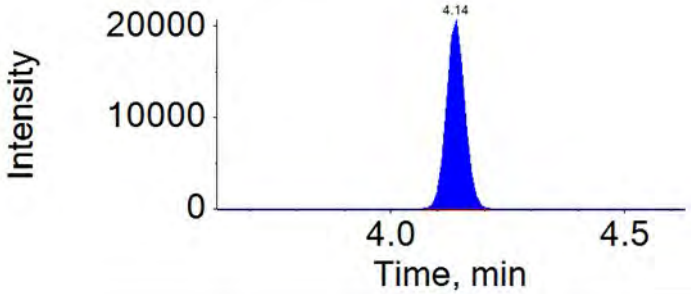
Component: PFBS
Primary Mass: 299.0 / 80.0



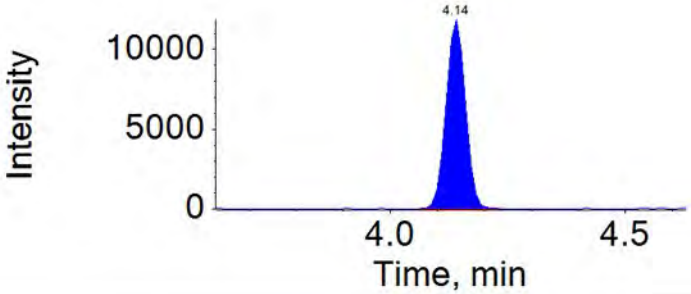
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



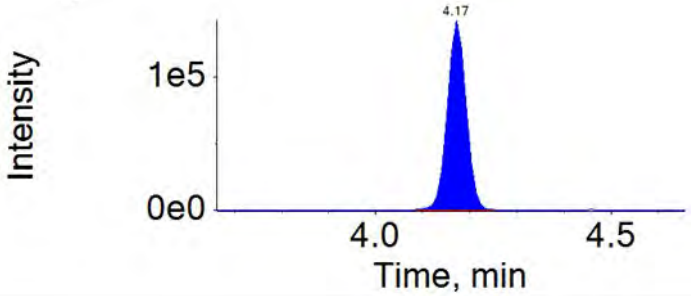
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



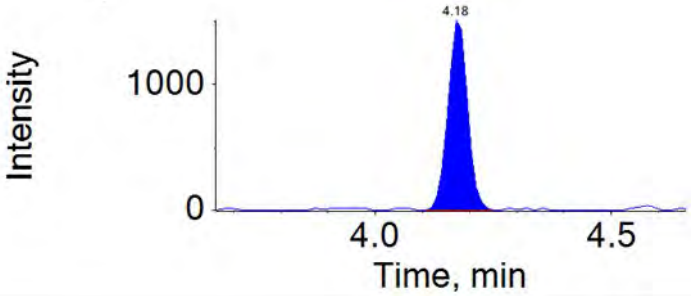
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



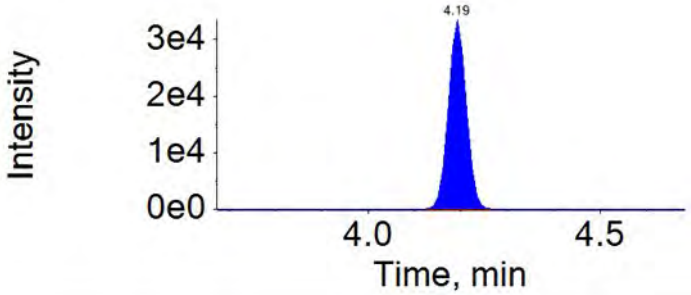
Component: PFHxA
Primary Mass: 313.0 / 269.0



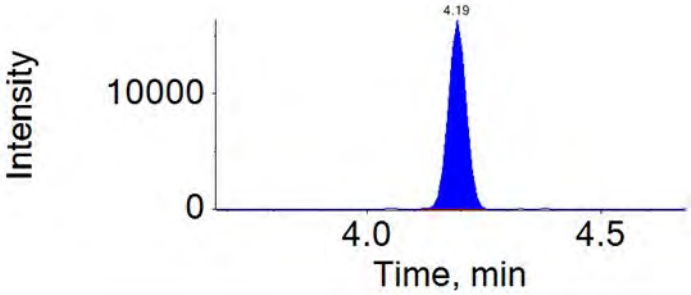
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



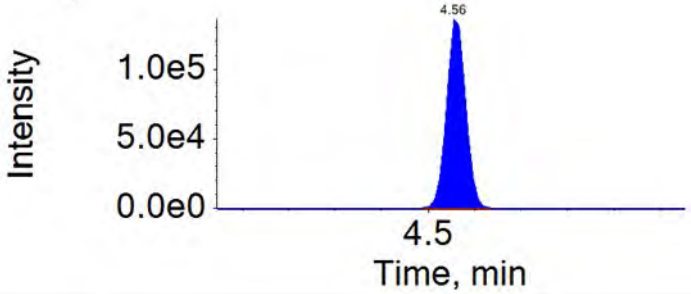
Component: PFPeS
Primary Mass: 349.0 / 80.0



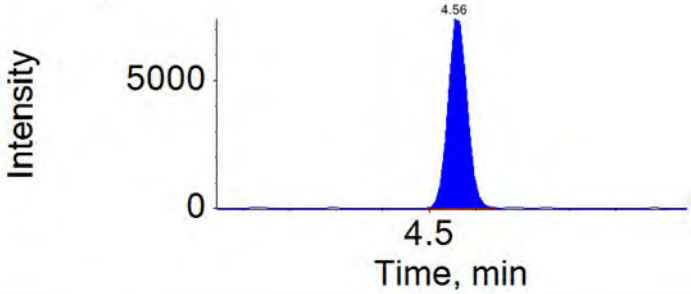
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



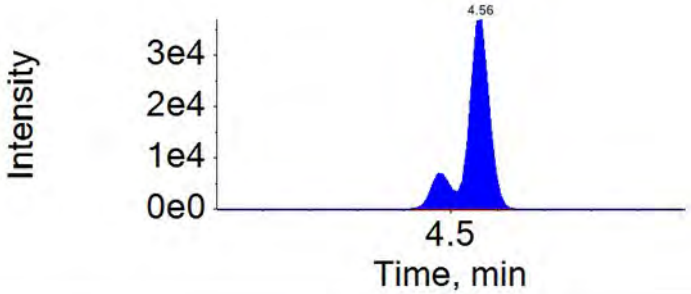
Component: PFHpA
Primary Mass: 363.0 / 319.0



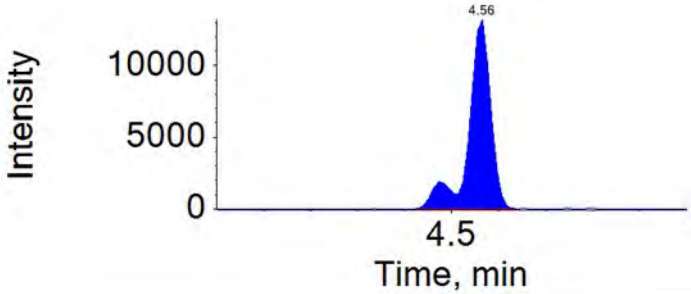
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



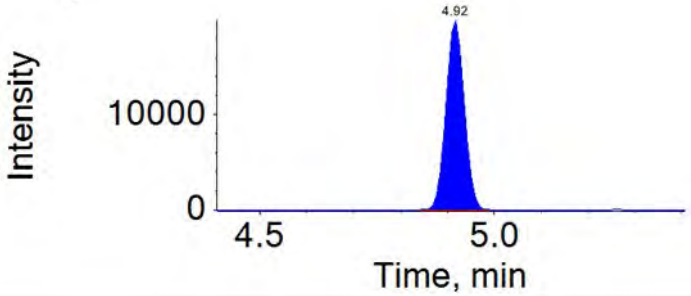
Component: PFHxS
Primary Mass: 399.0 / 80.0



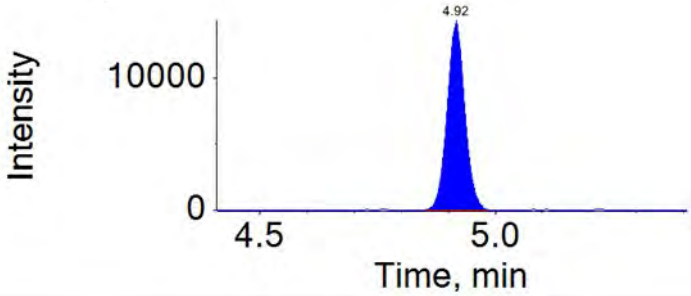
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



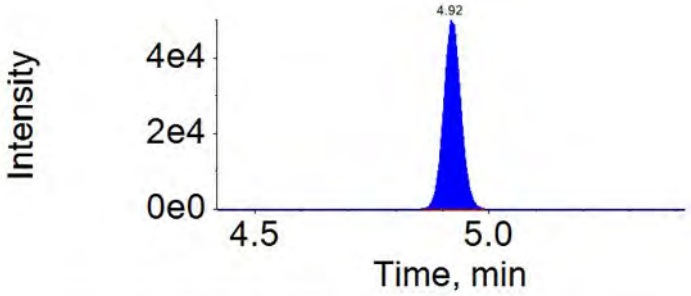
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



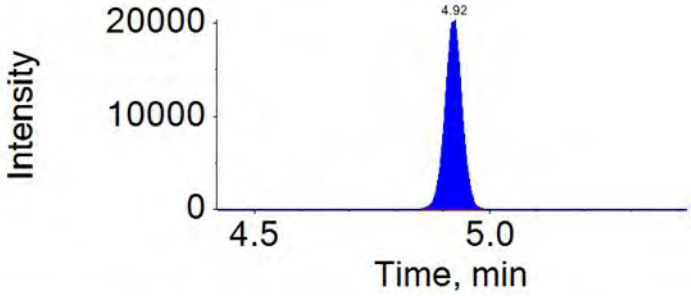
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



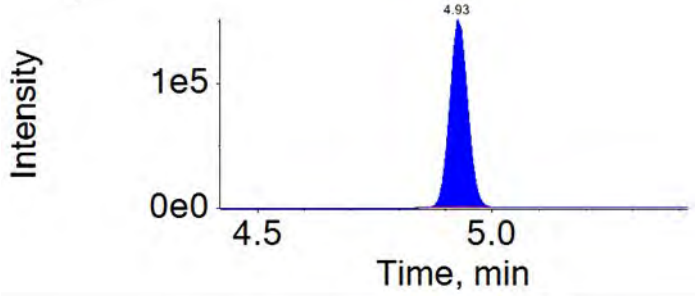
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



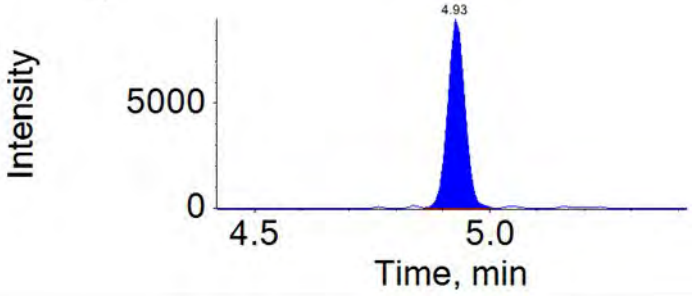
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

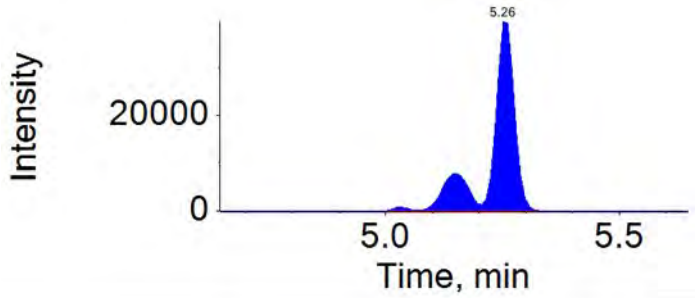
Component: PFOA
Primary Mass: 413.0 / 369.0



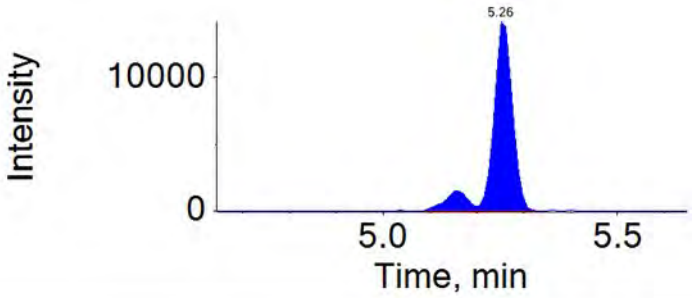
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



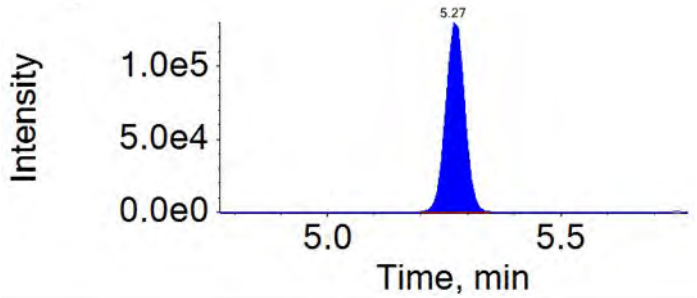
Component: PFOS
Primary Mass: 499.0 / 80.0



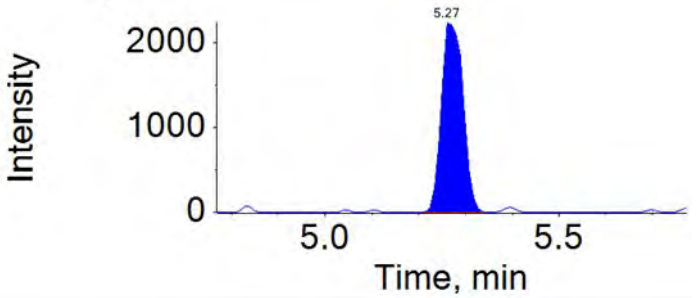
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



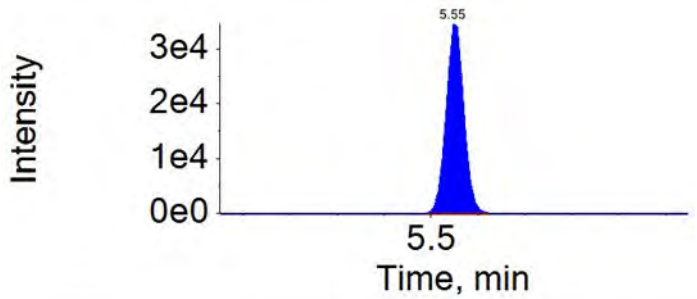
Component: PFNA
Primary Mass: 463.0 / 419.0



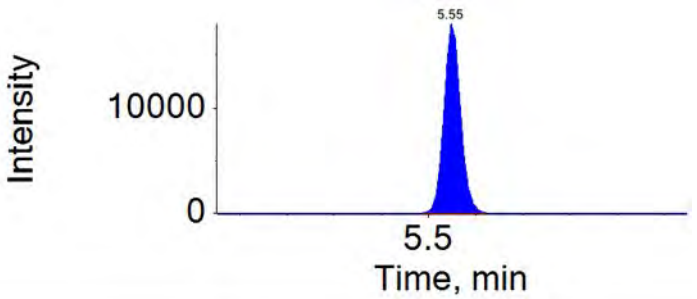
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



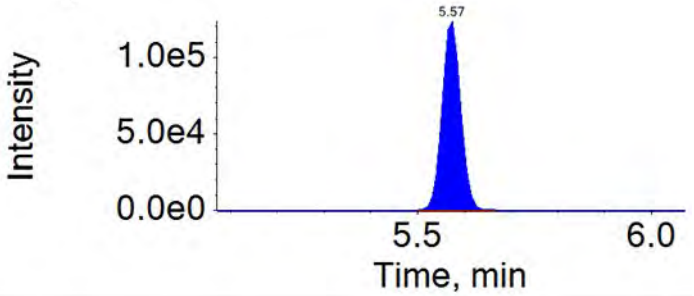
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



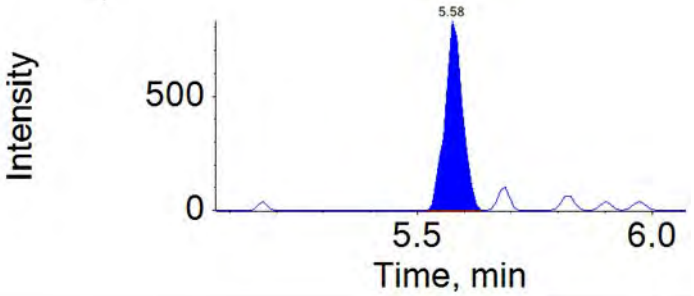
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

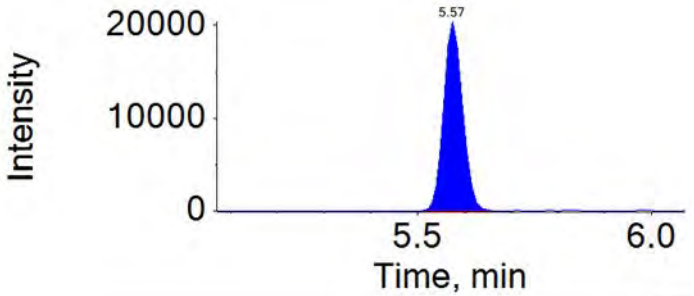
Component: PFDA
Primary Mass: 513.0 / 469.0



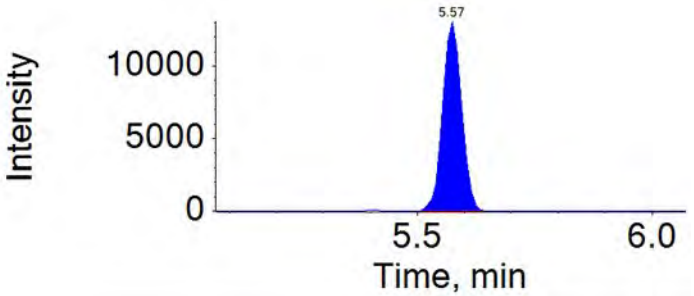
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



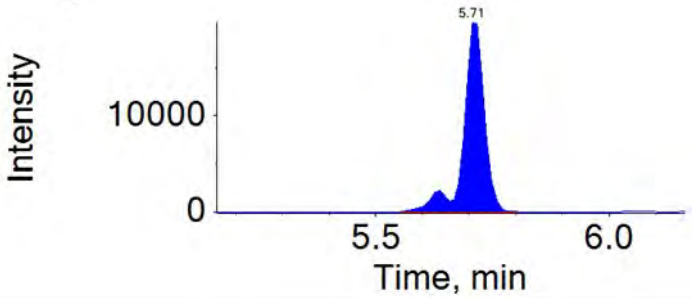
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



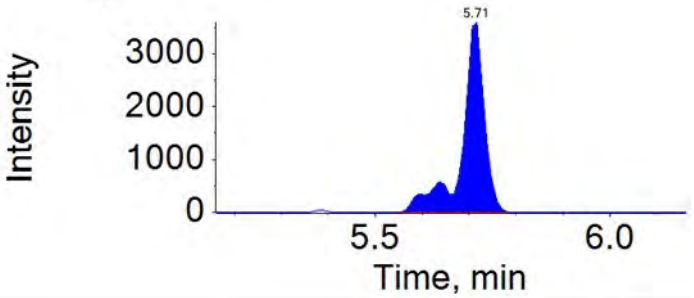
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



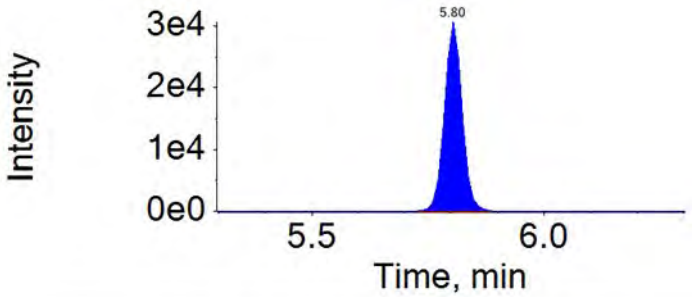
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



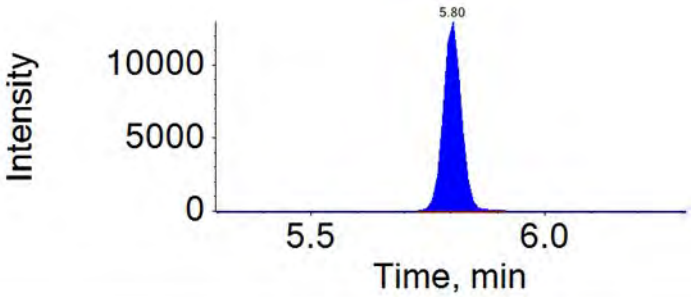
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



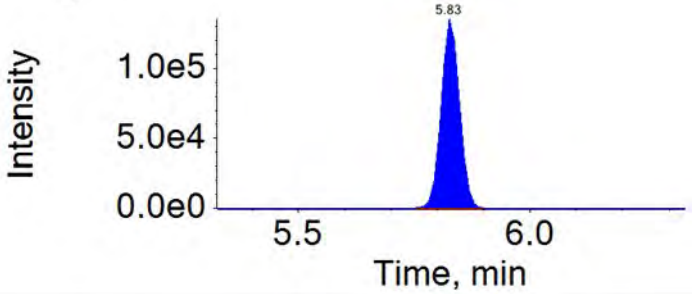
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



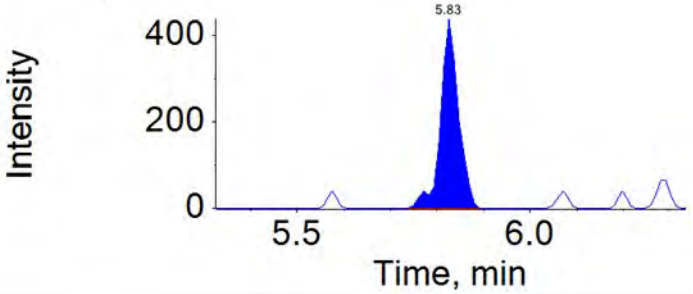
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

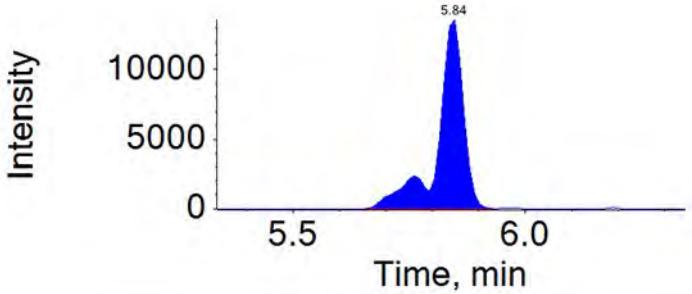
Component: PFUnDA
Primary Mass: 563.0 / 519.0



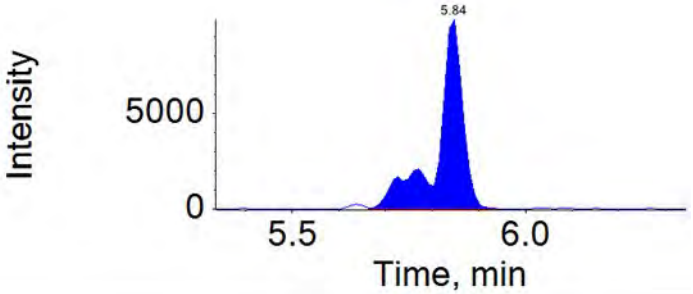
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



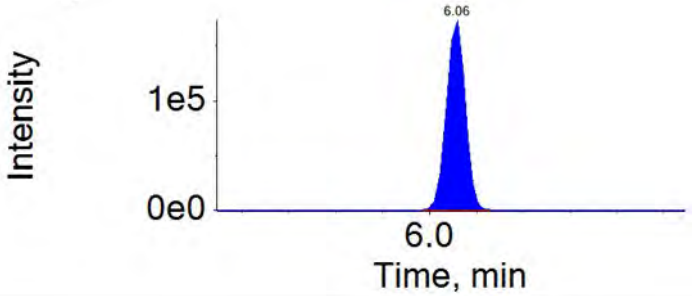
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



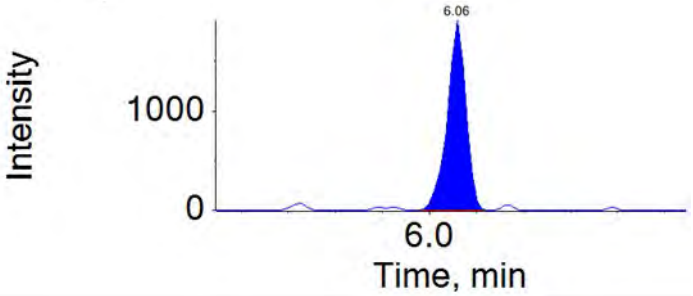
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



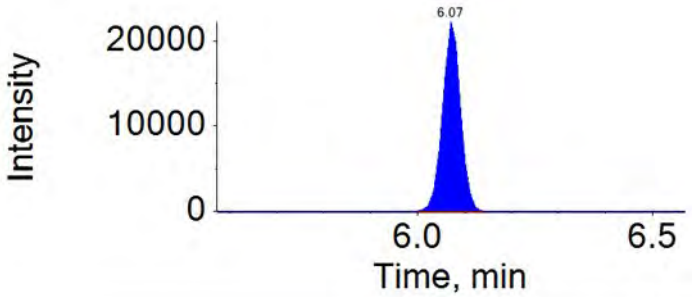
Component: PFDoDA
Primary Mass: 613.0 / 569.0



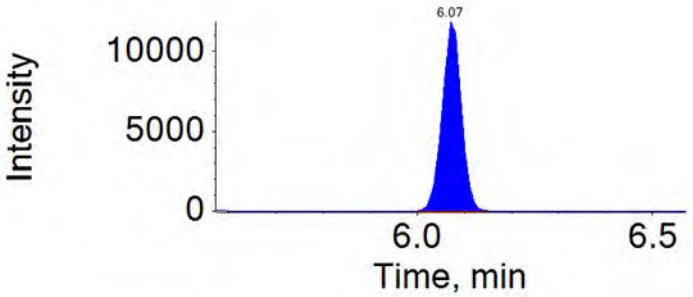
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



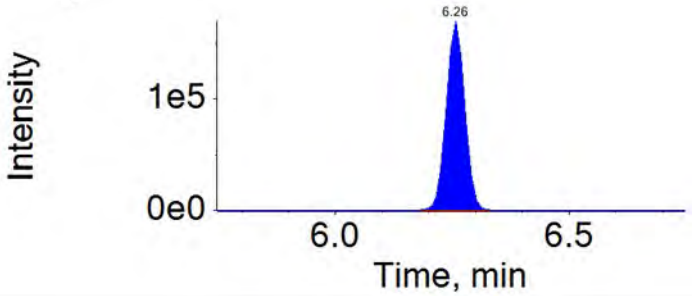
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



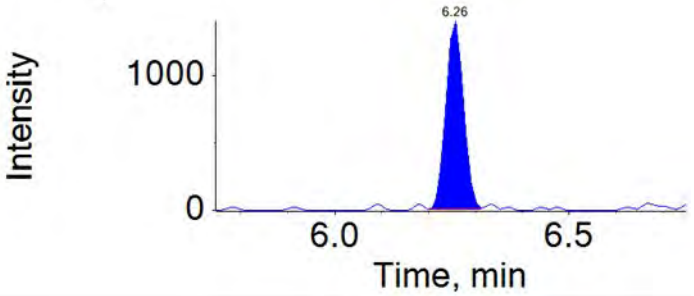
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



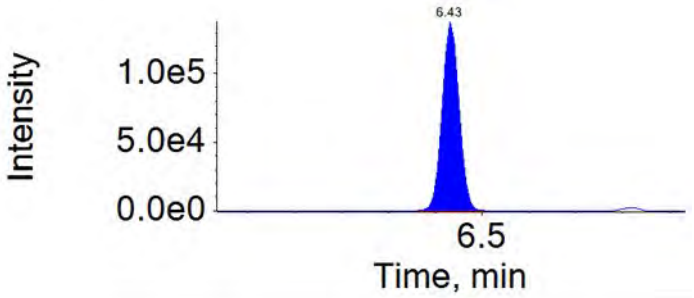
Component: PFTrDA
Primary Mass: 663.0 / 619.0



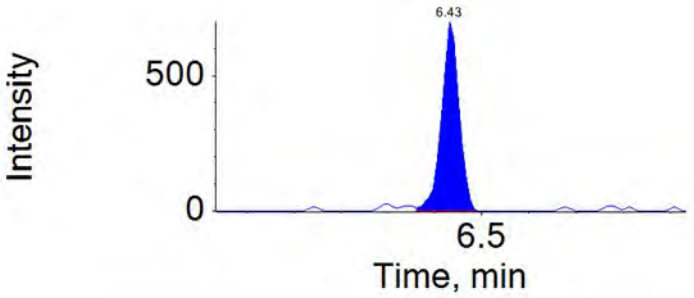
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



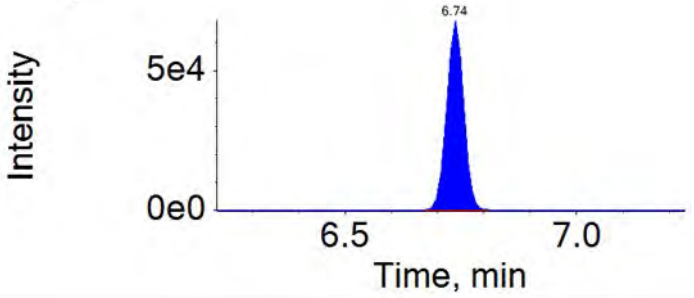
Component: PFTeDA
Primary Mass: 713.0 / 669.0



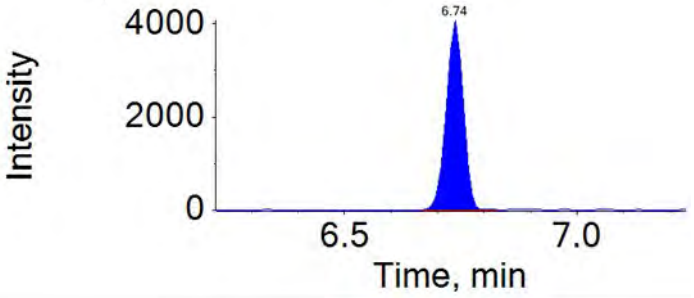
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



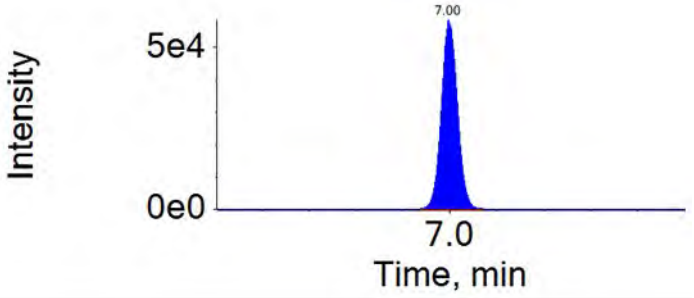
Component: PFHxDA
Primary Mass: 813.0 / 769.0



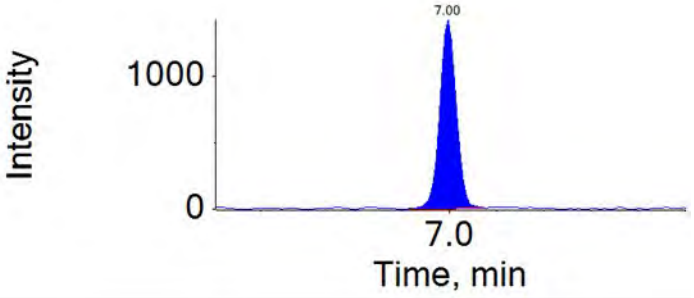
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

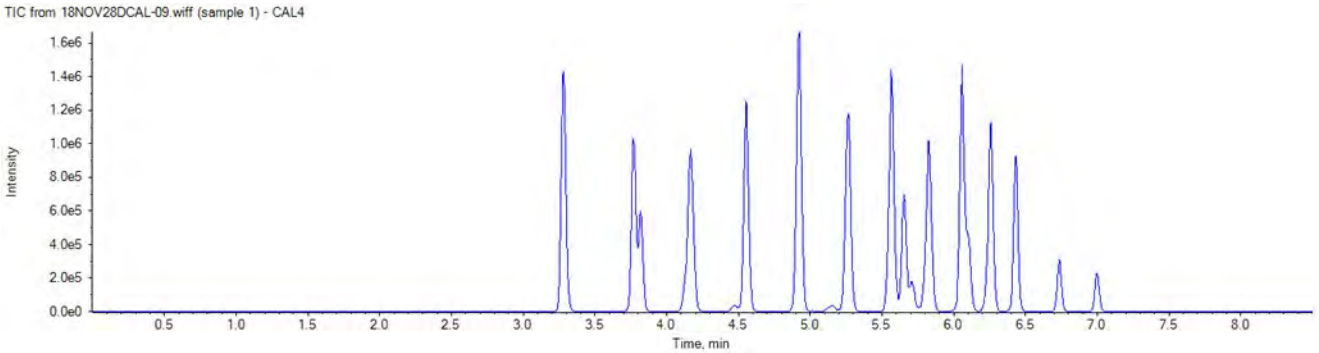
Analyte Quantitation Peak Table

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
PFTrDA	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

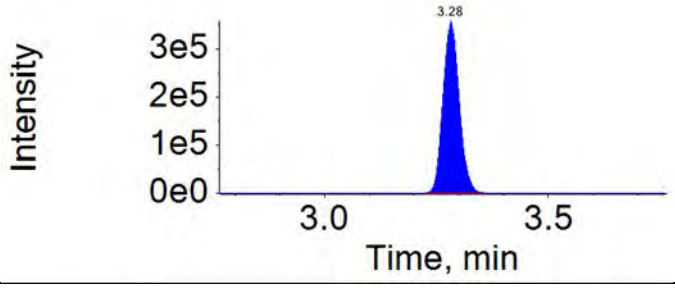


APPROVED
By MCD at 5:00 pm, 11/28/18

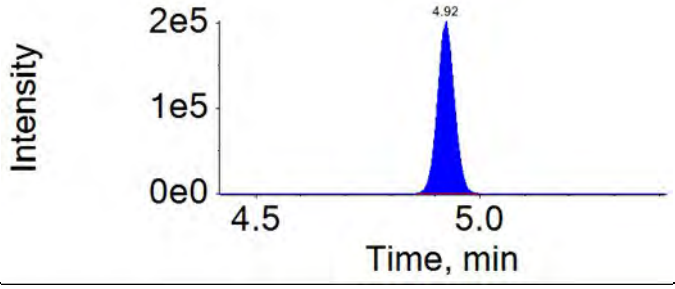
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

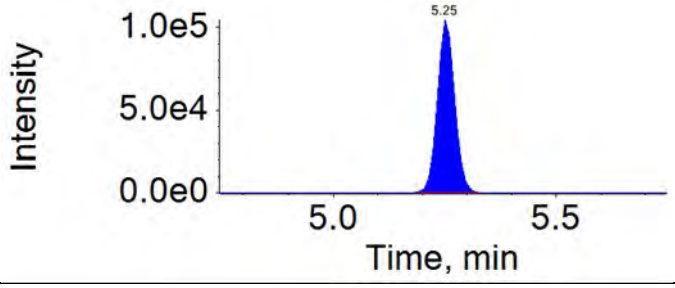
Injection Standard: 13C3-PFBA
216.0 / 172.0



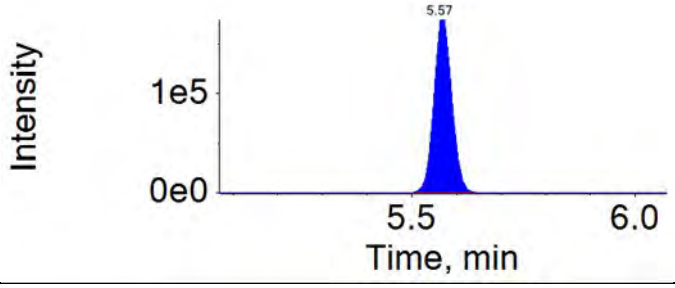
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



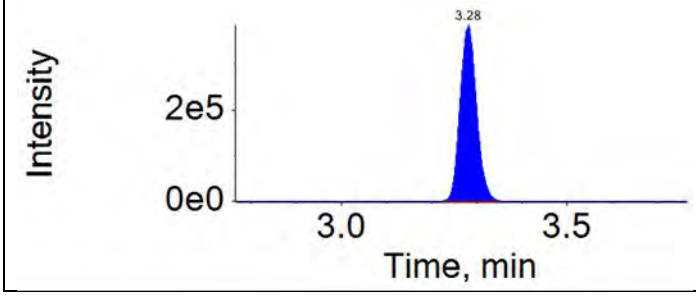
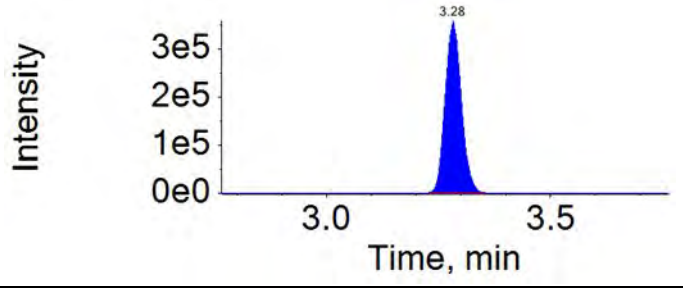
Injection Standard: 13C2-PFDA
515.0 / 470.0

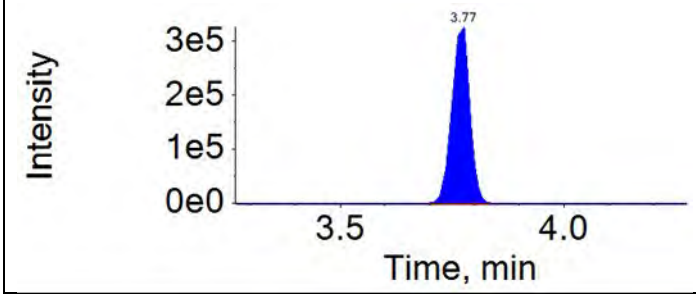
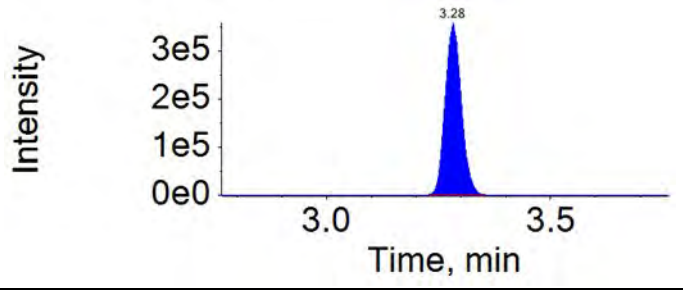


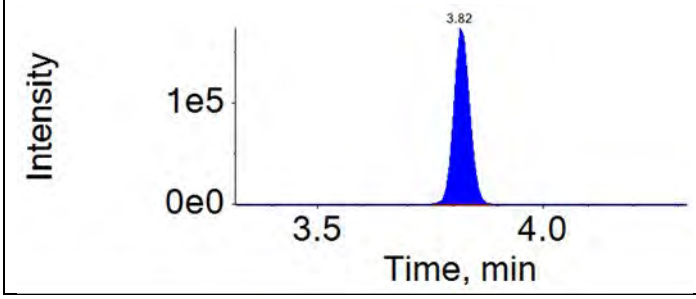
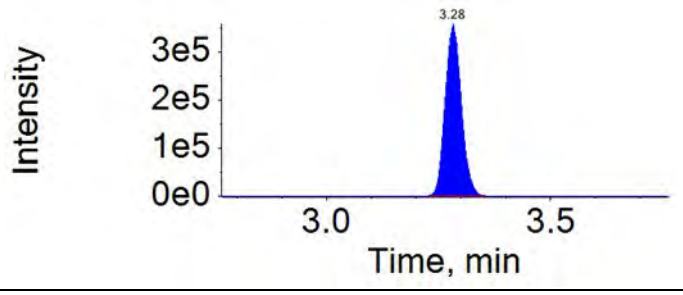
APPROVED
By MCD at 5:00 pm, 11/28/18

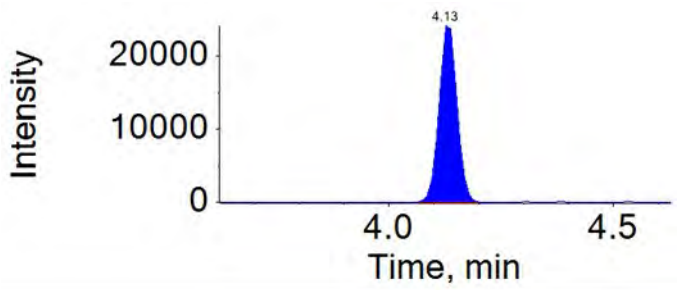
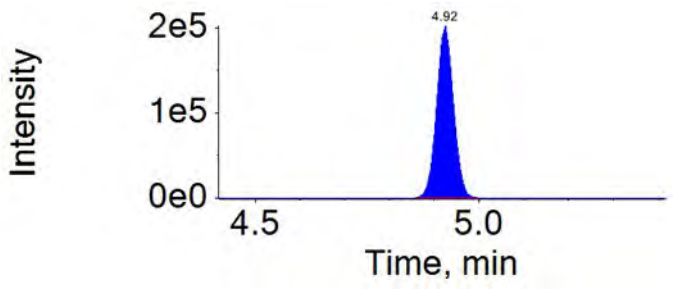
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

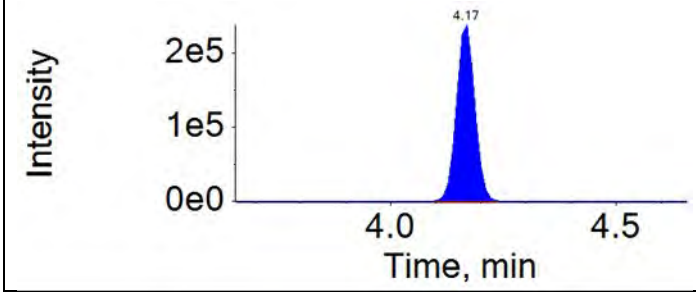
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

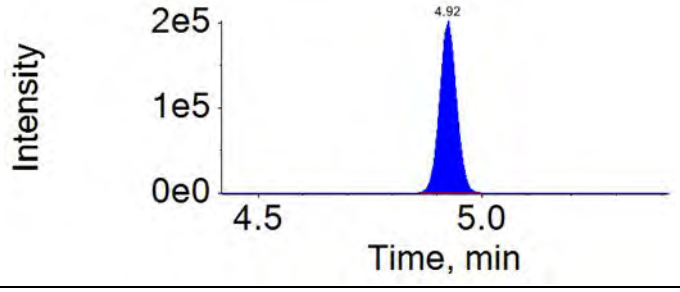
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

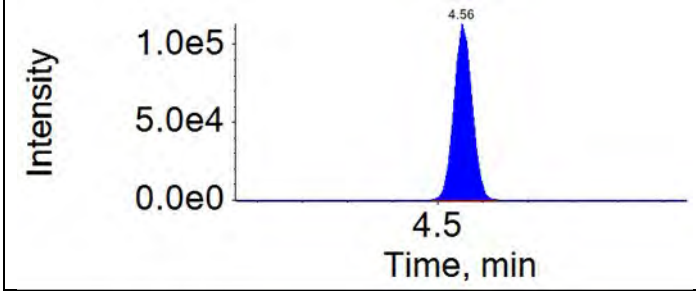
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

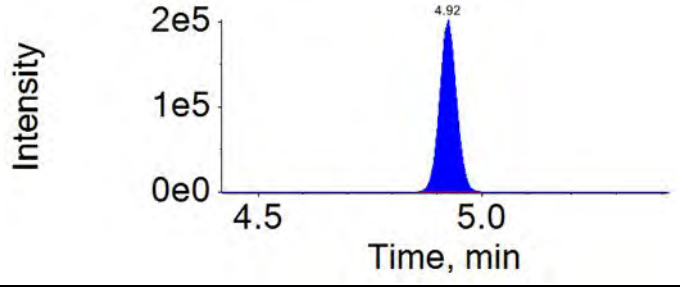
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



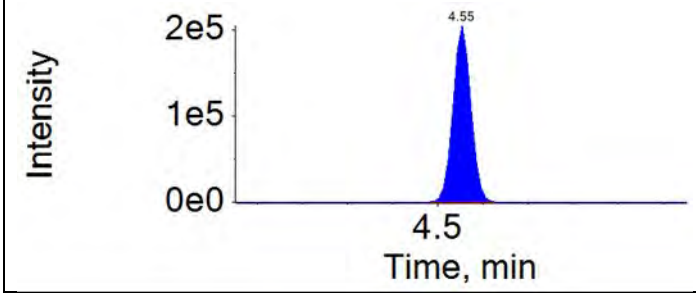


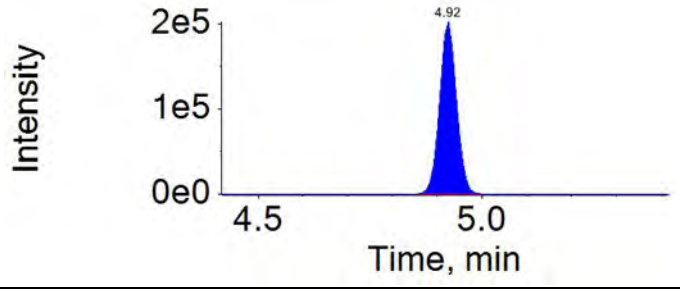
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



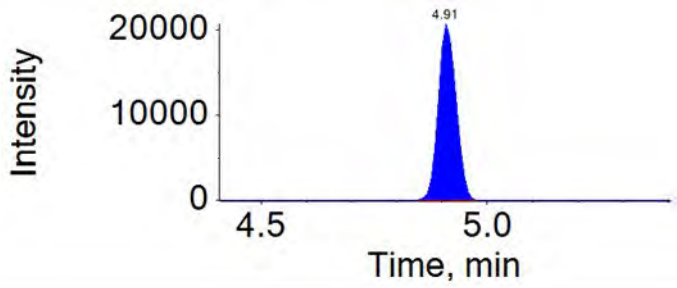


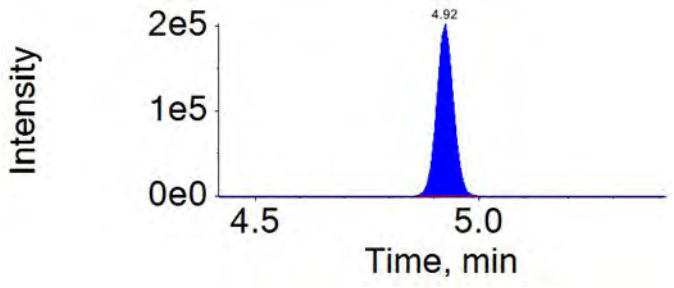
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



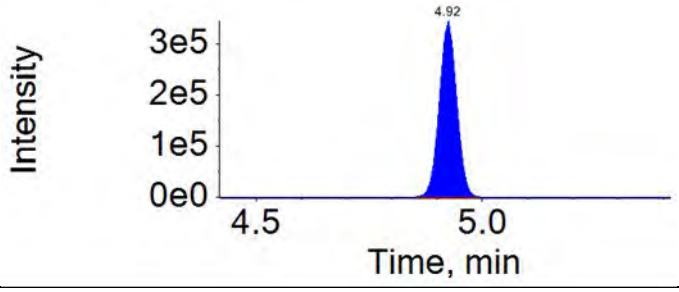


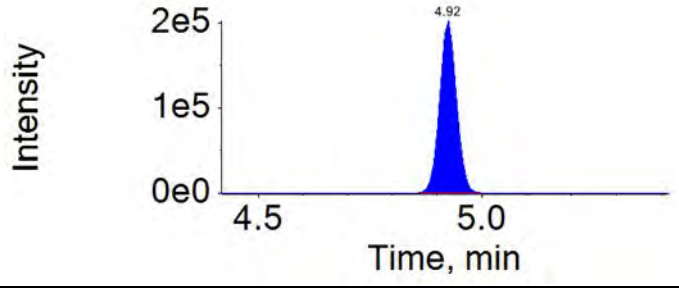
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

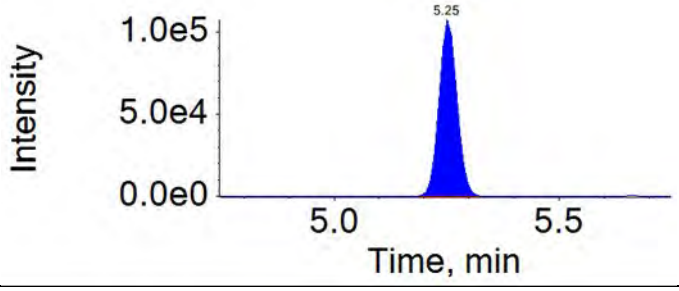
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

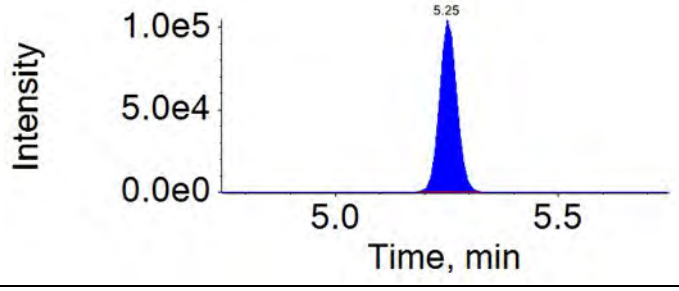
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



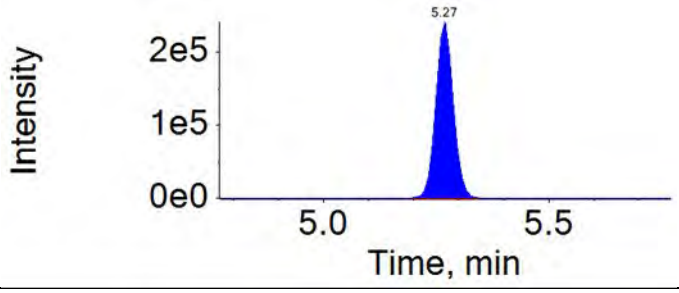


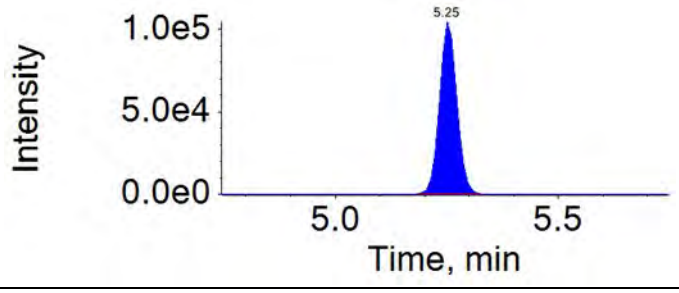
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



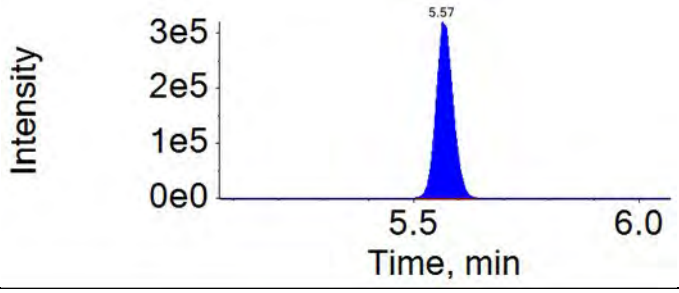


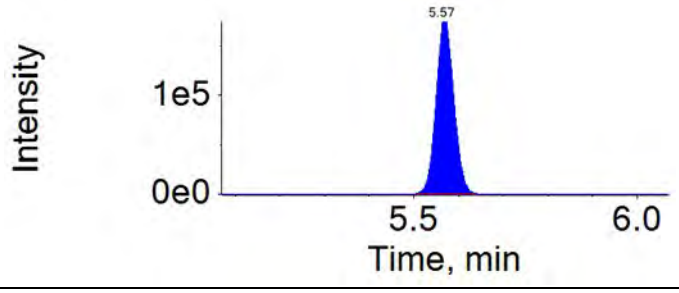
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

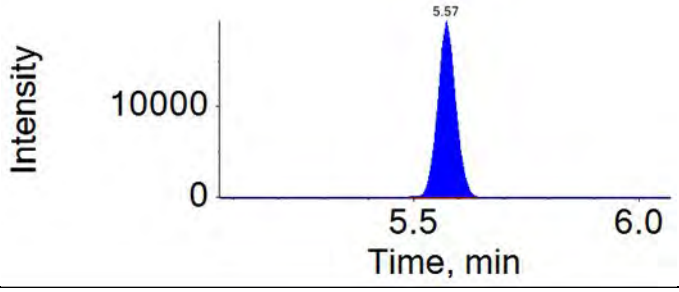
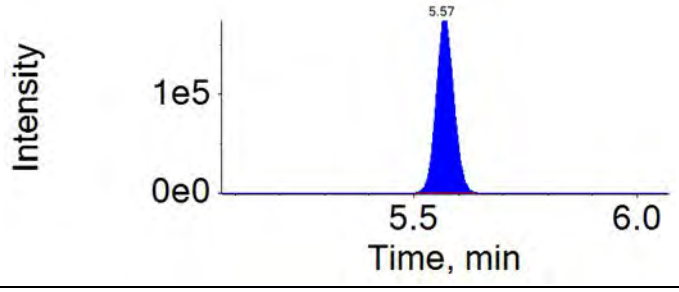


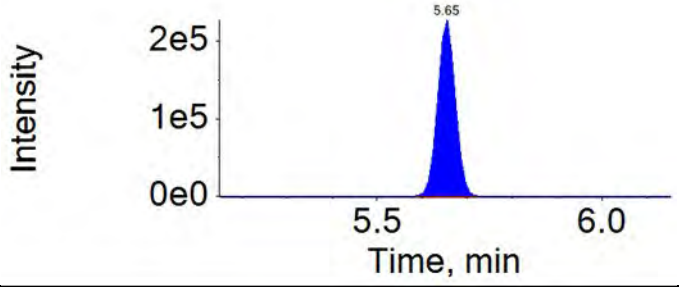
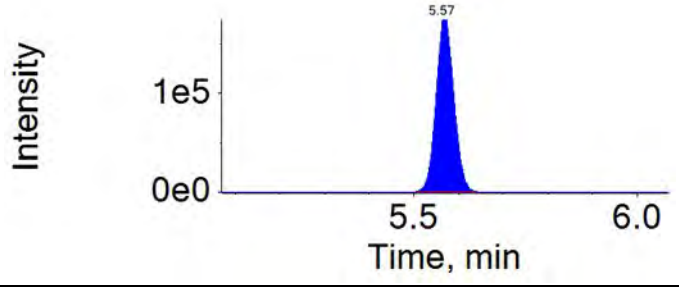


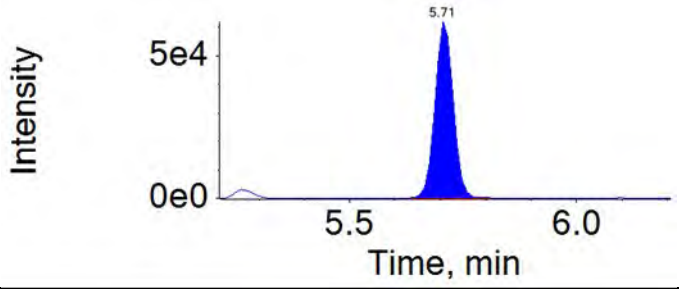
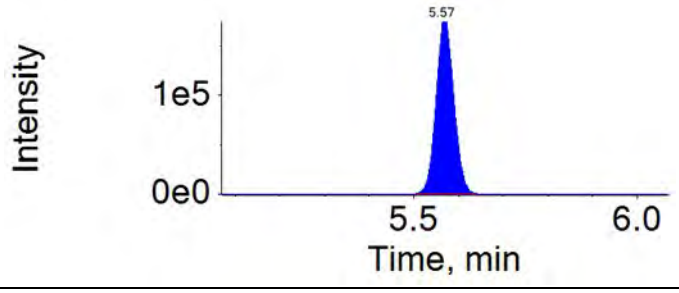
APPROVED
By MCD at 5:00 pm, 11/28/18

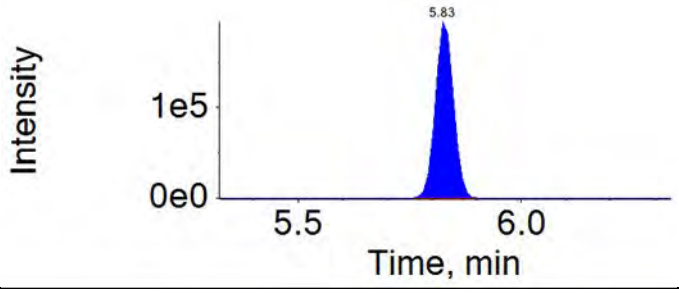
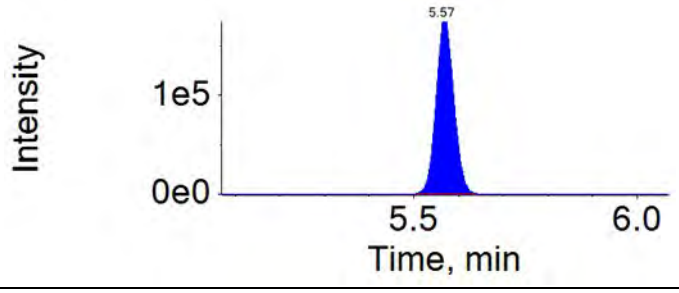
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

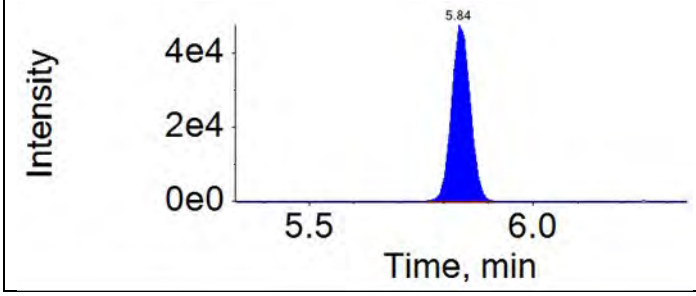
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

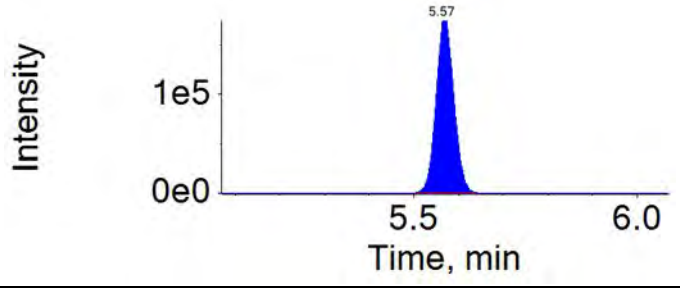
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

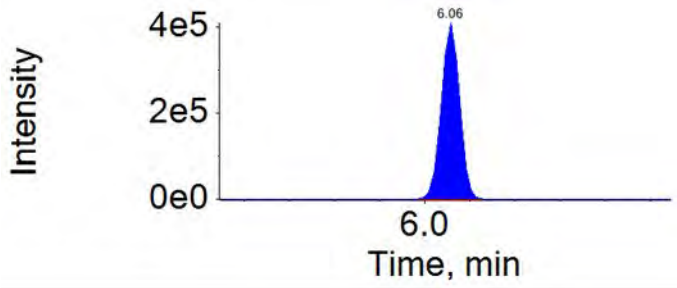
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

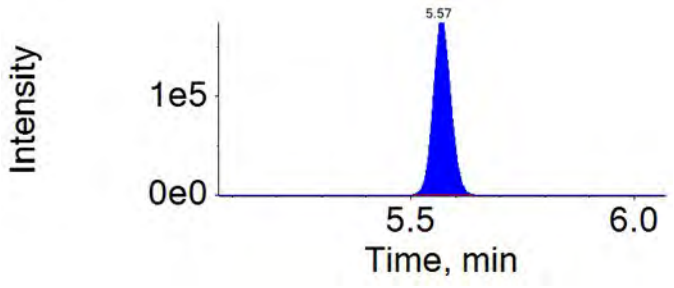
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



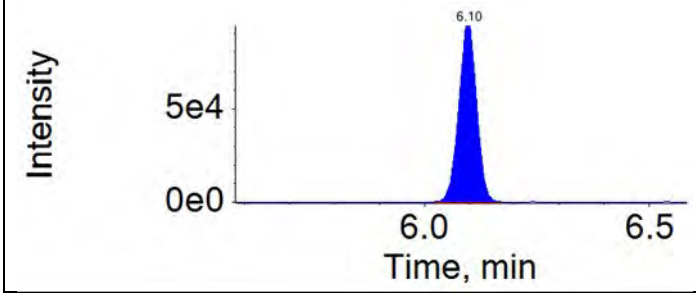


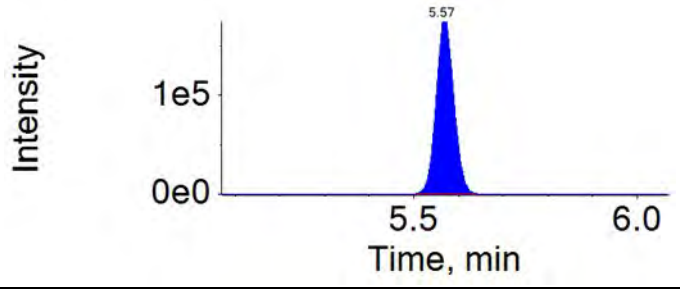
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



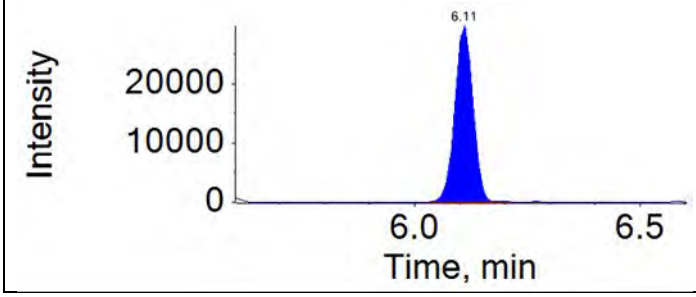


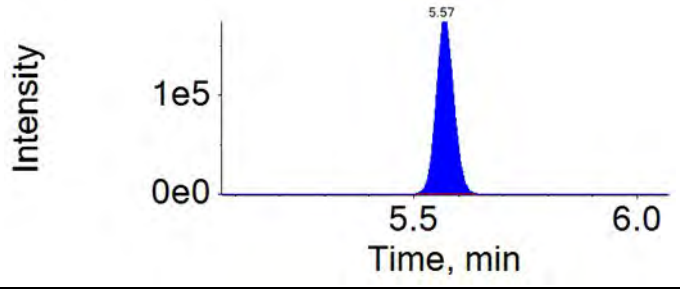
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



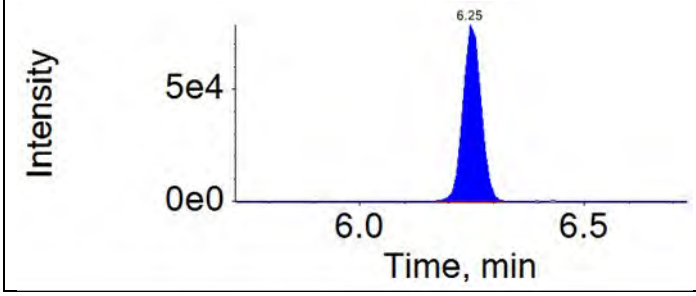


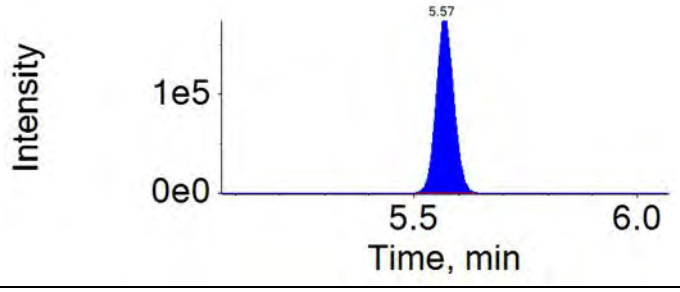
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

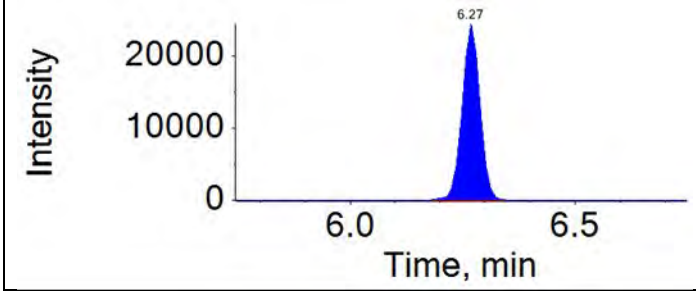
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

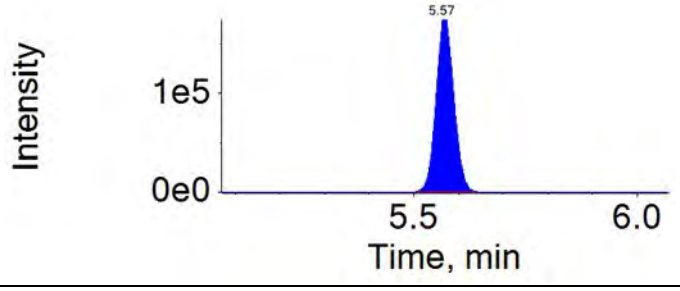
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



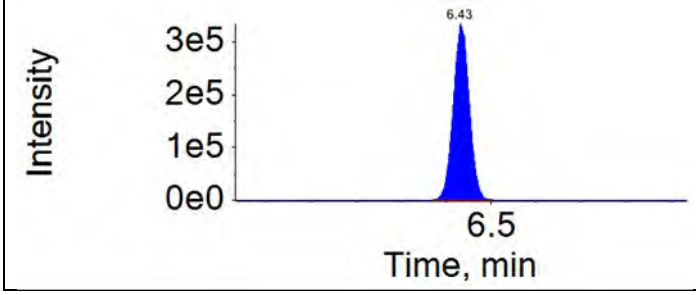


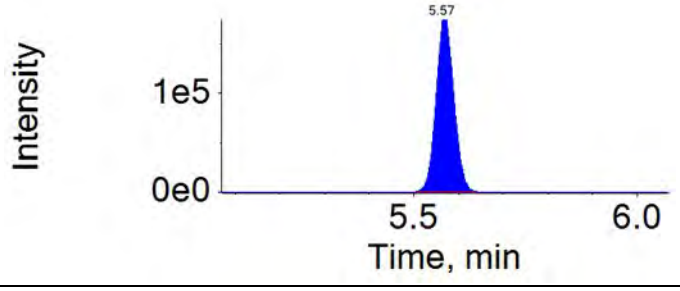
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



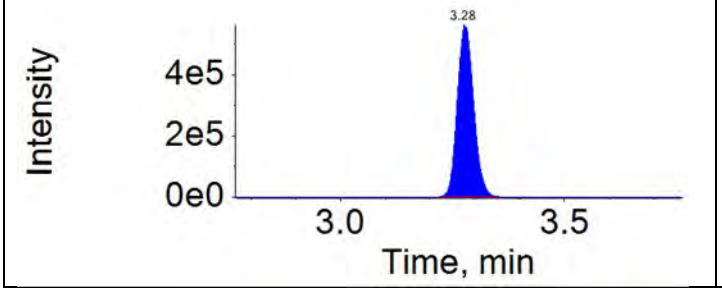


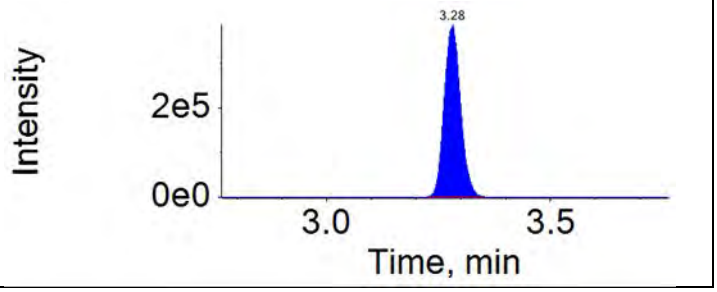
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

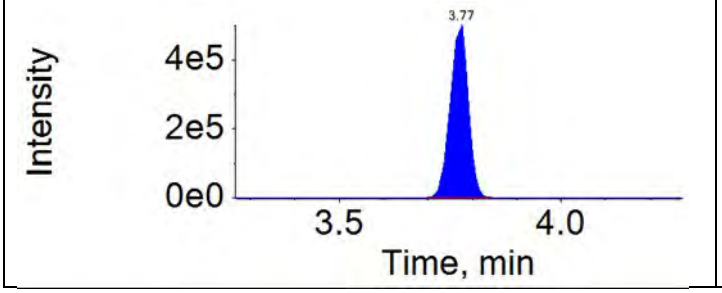
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

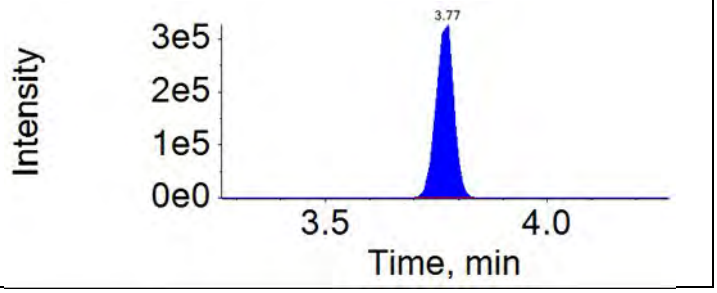
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



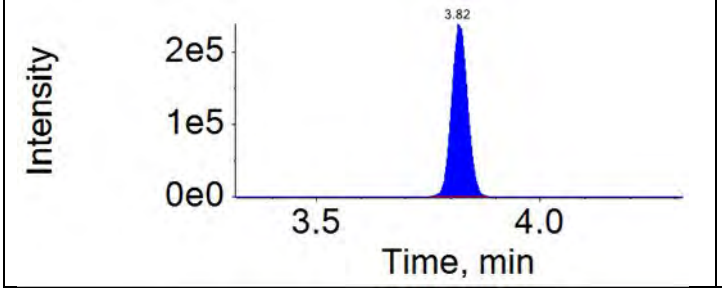


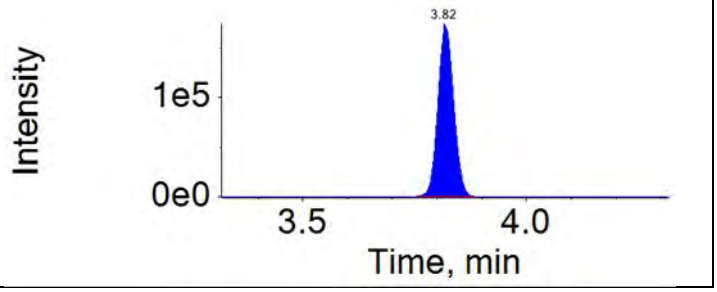
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



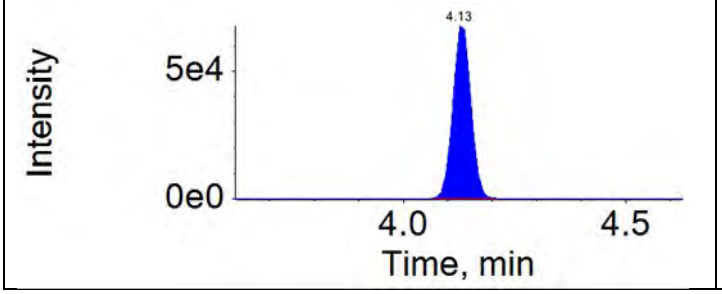


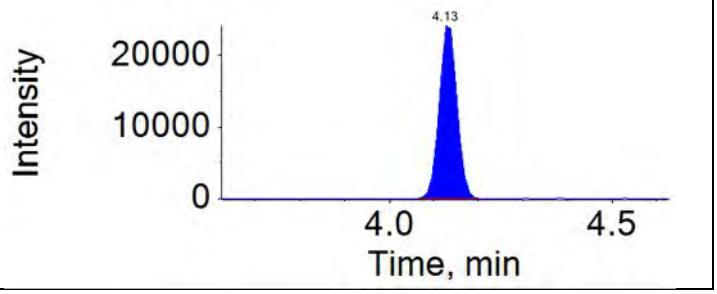
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



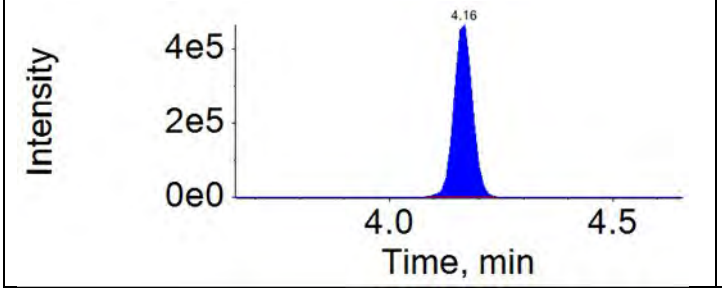


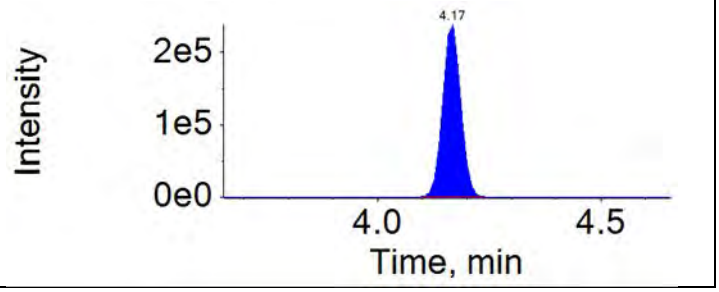
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

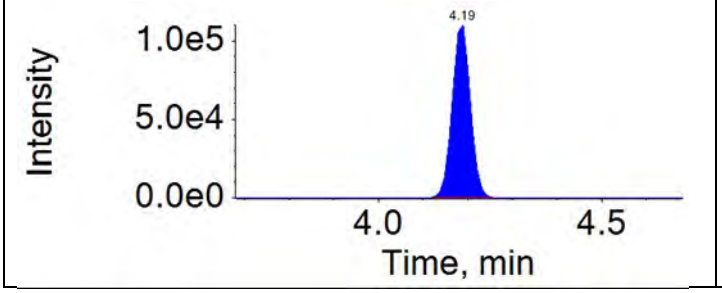
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

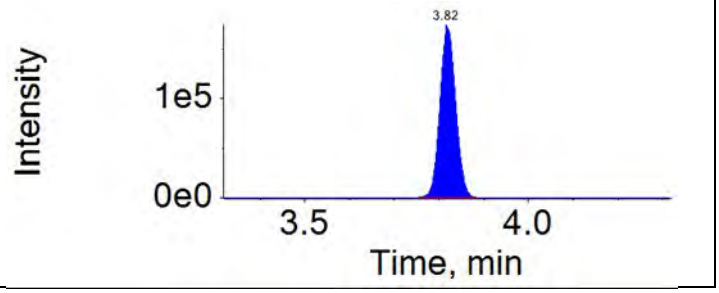
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



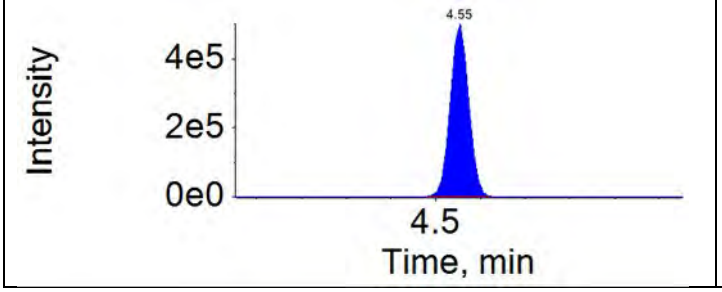


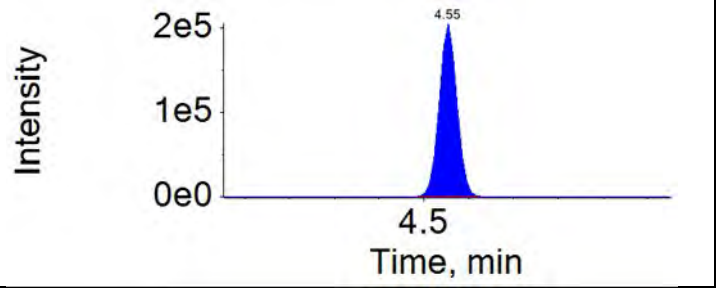
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



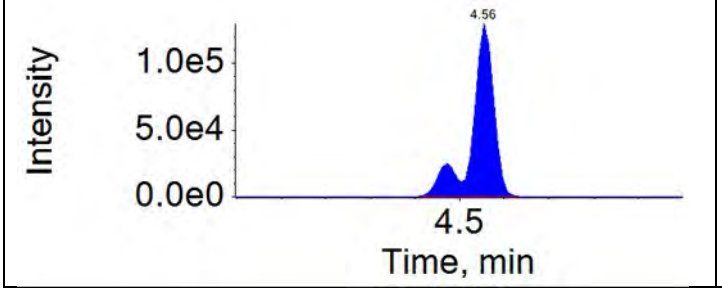


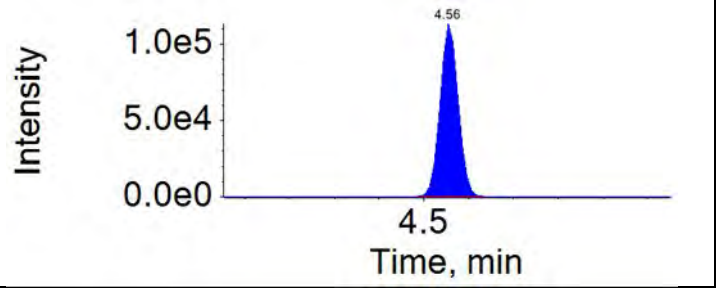
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

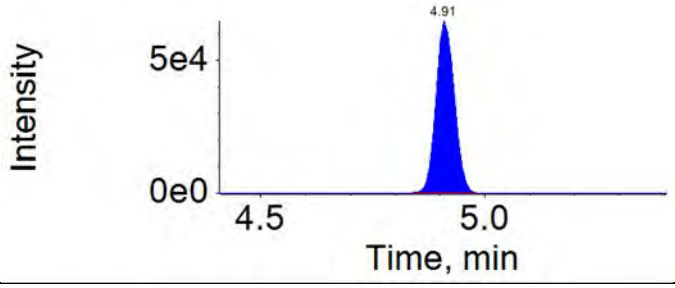
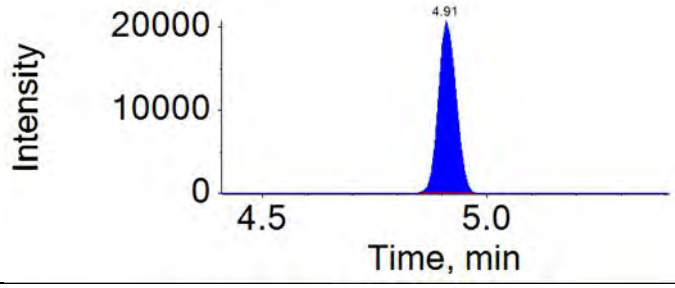


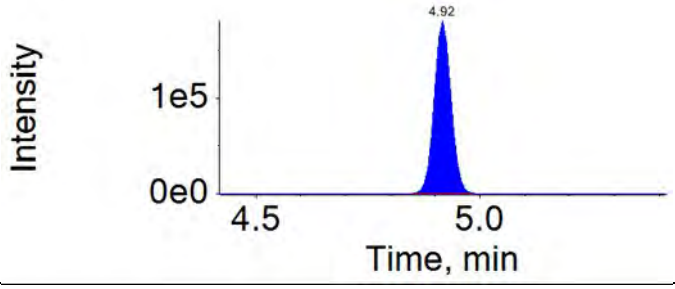
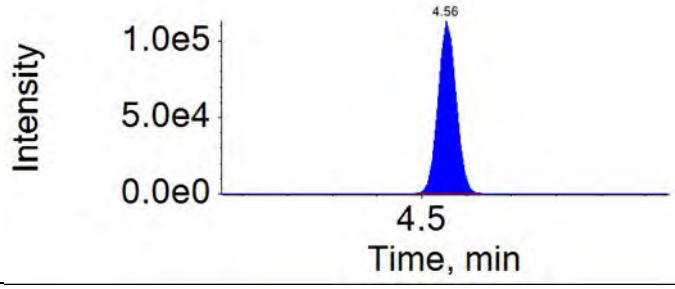


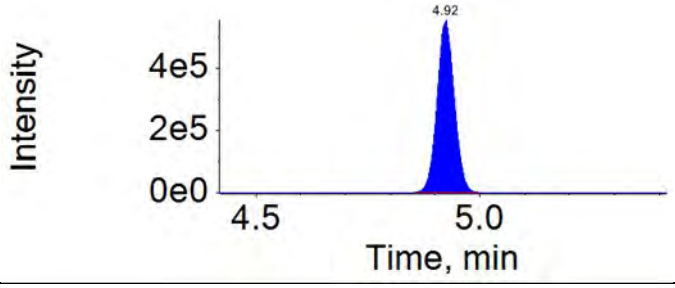
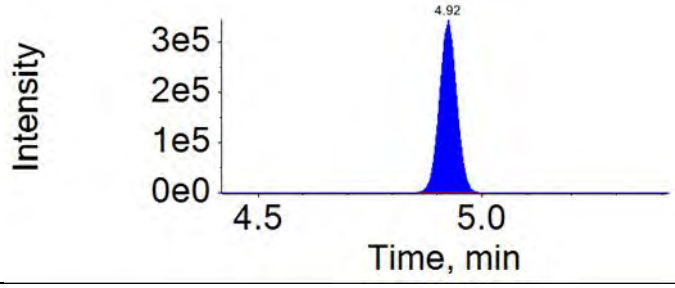
APPROVED
By MCD at 5:00 pm, 11/28/18

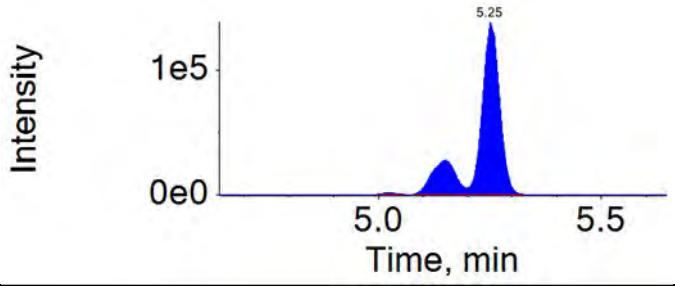
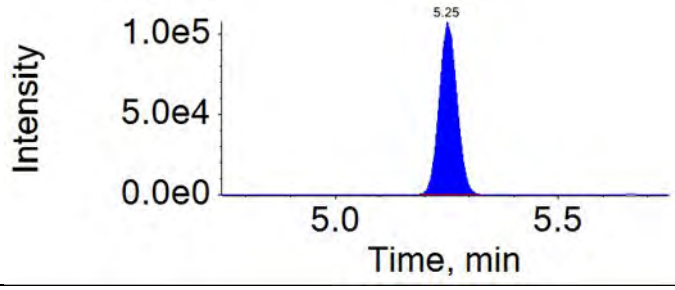
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

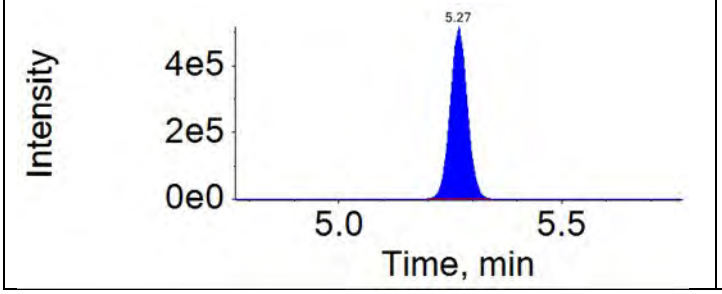
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

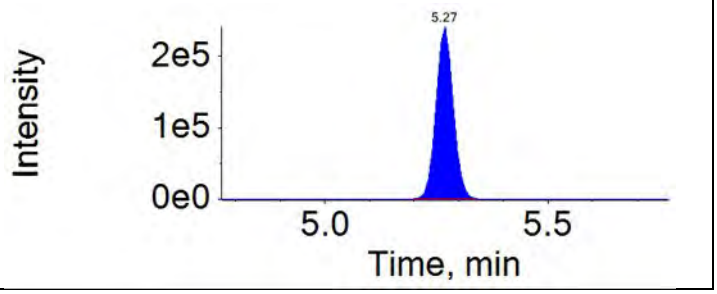
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

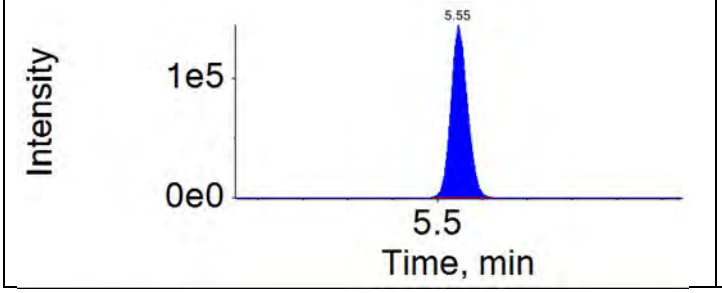
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

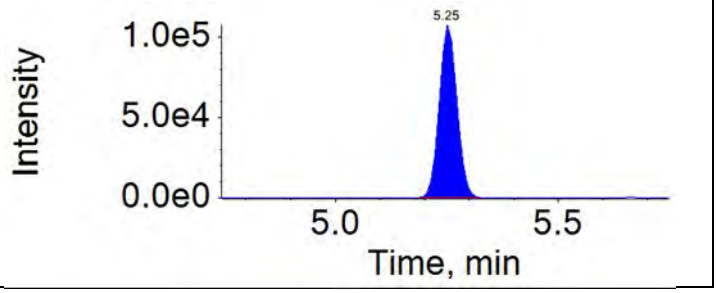
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



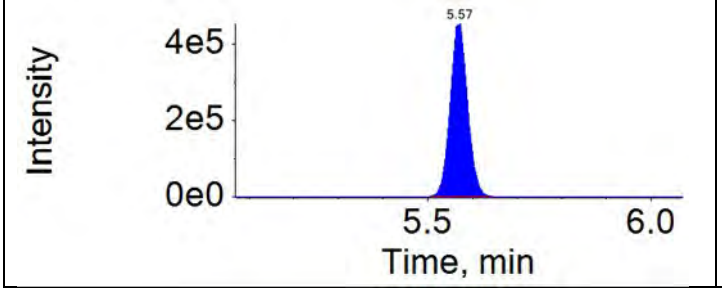


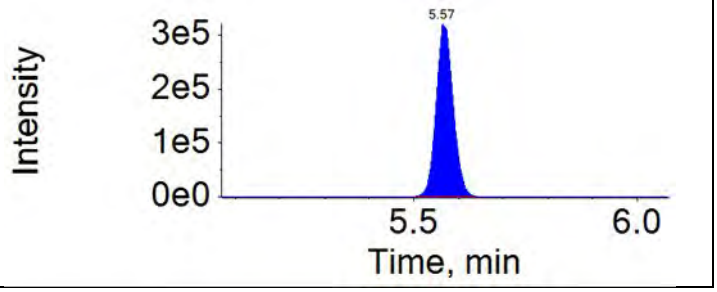
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



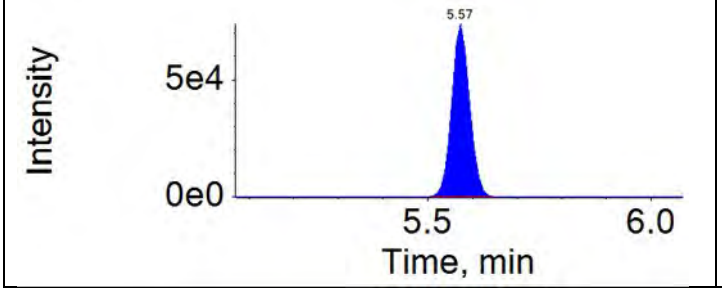


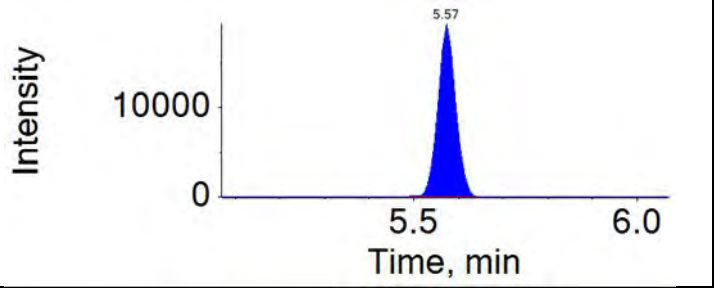
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



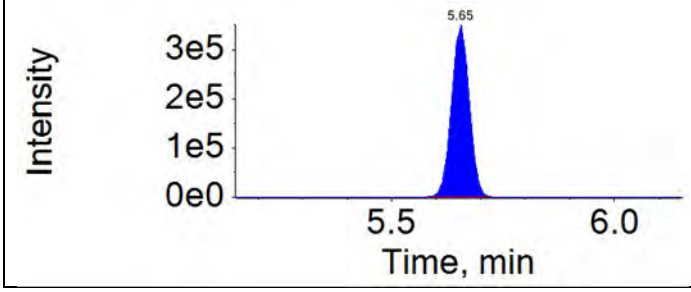


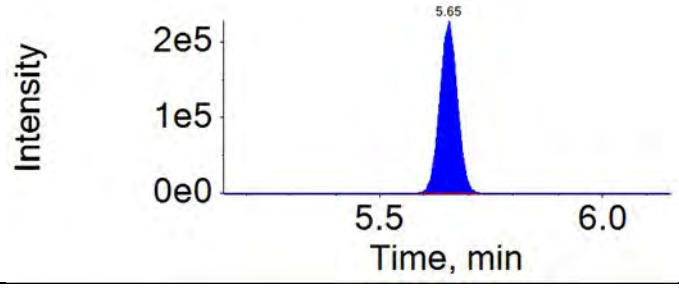
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

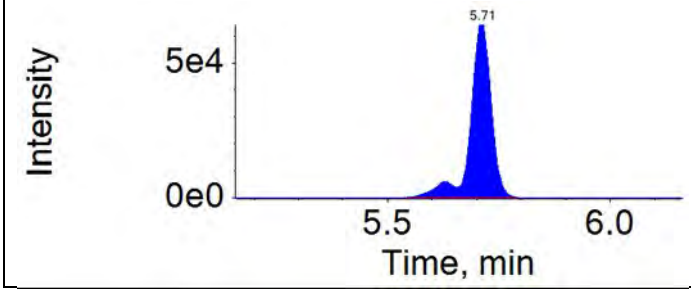
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

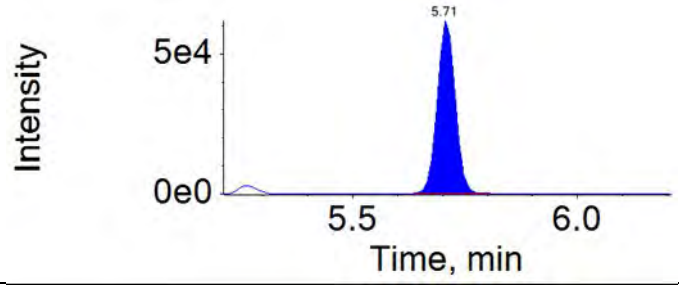
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



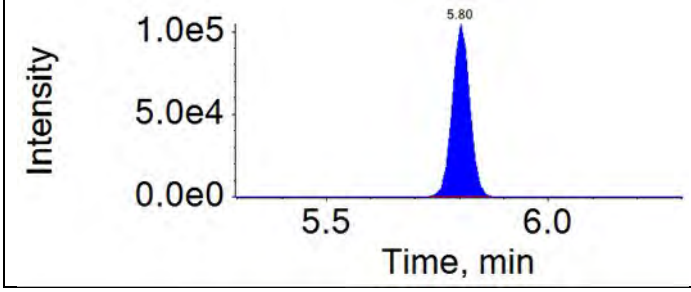


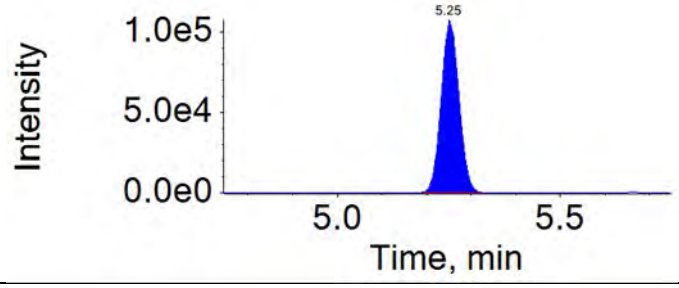
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



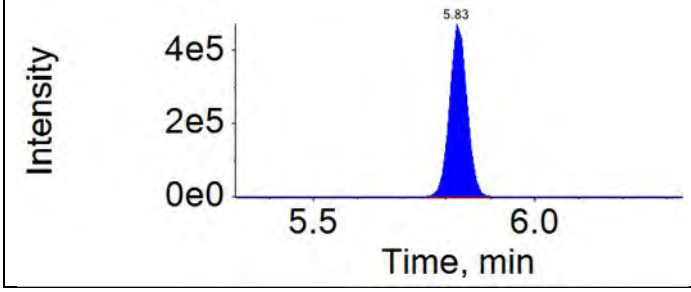


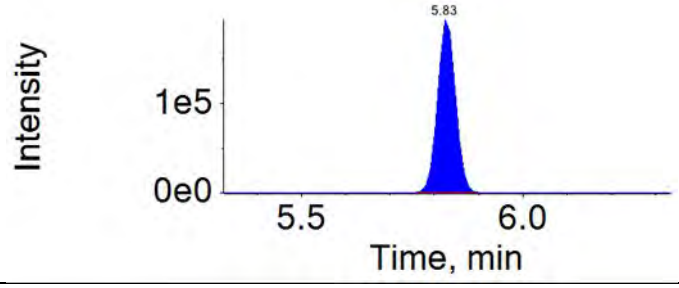
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



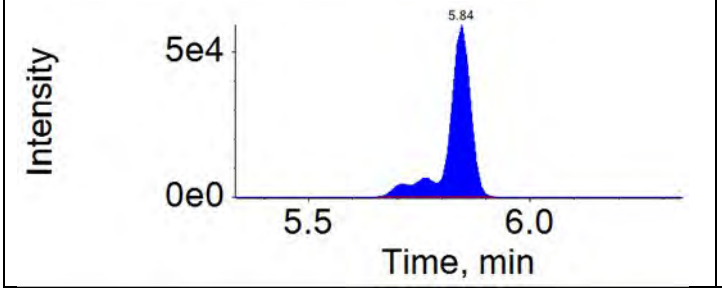


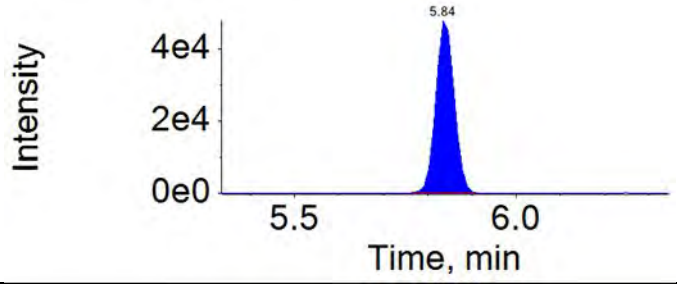
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

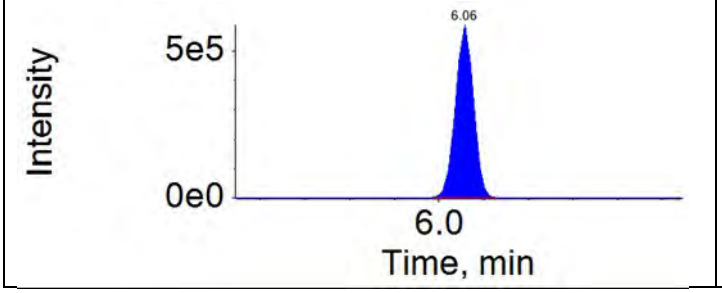
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

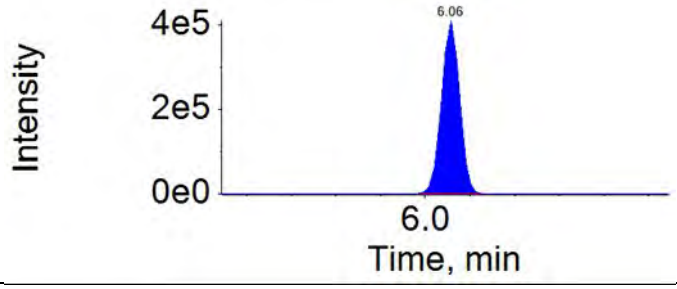
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



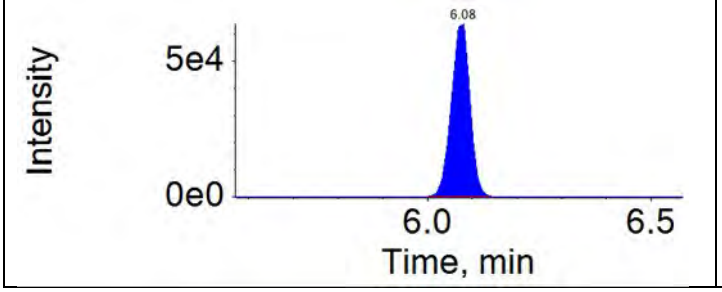


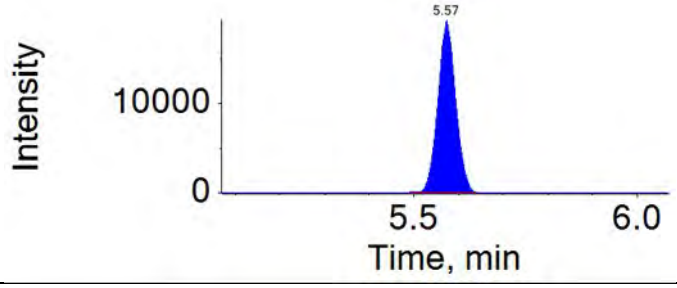
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



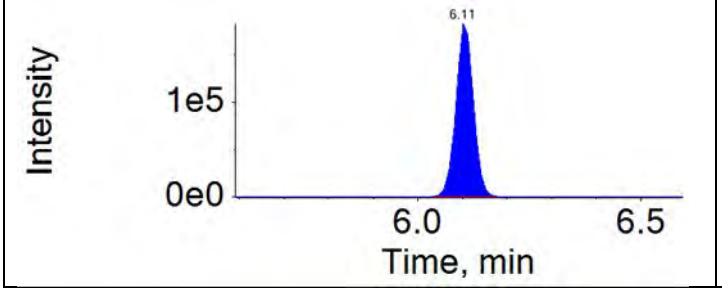


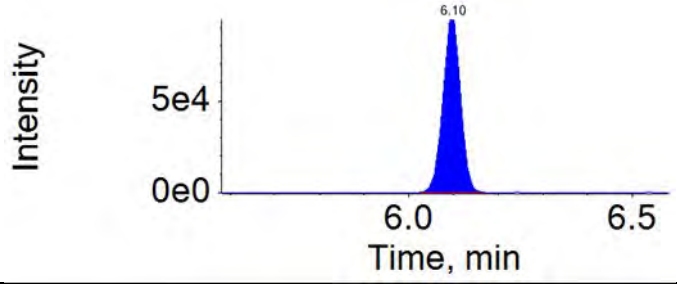
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



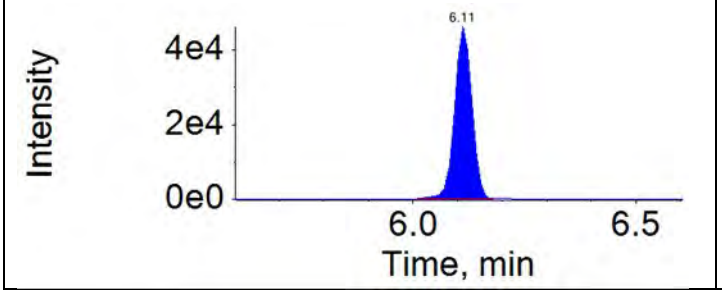


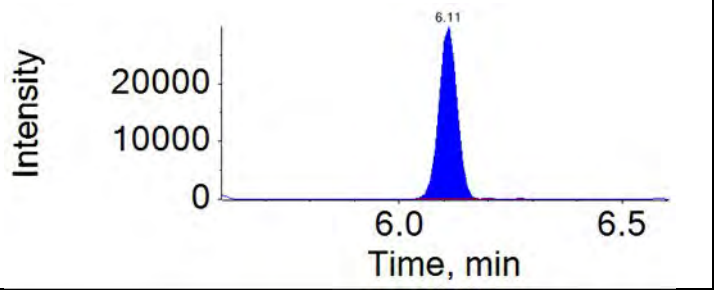
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

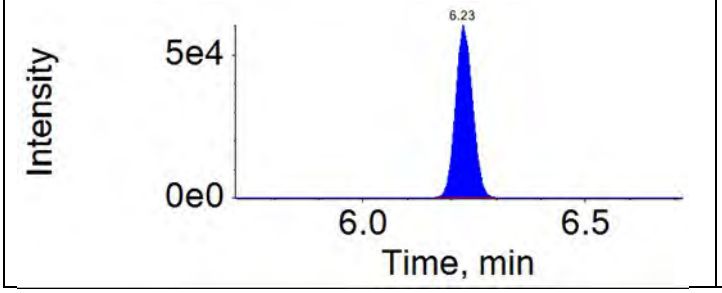
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

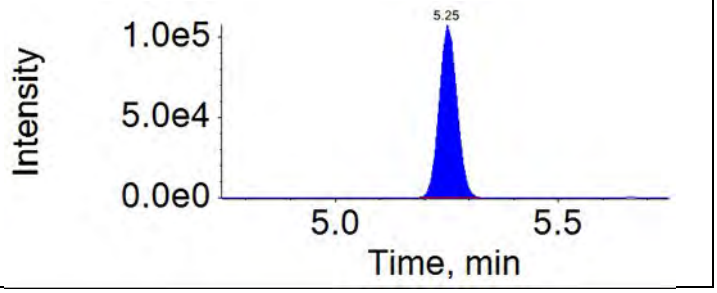
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



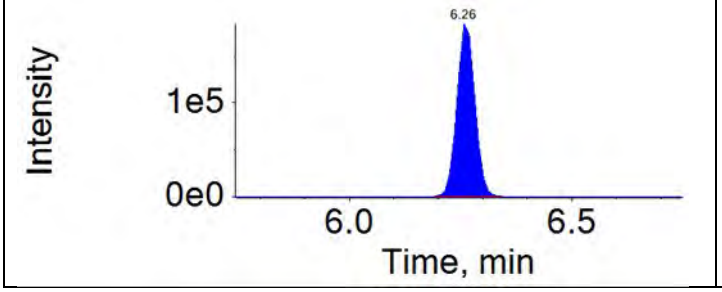


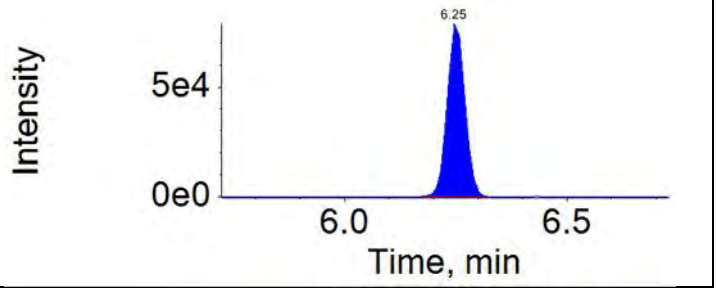
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



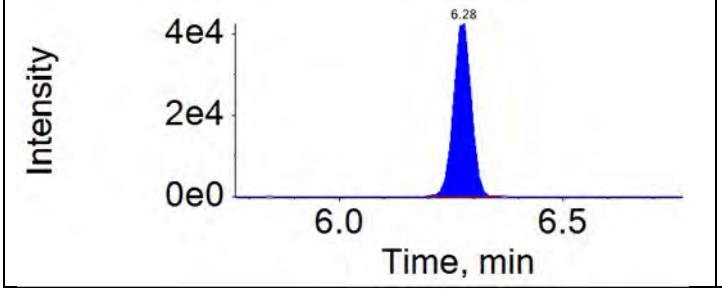


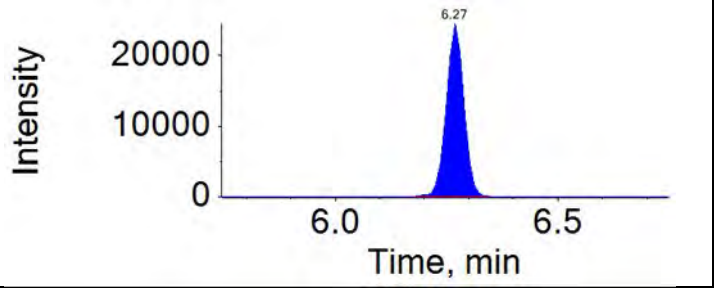
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



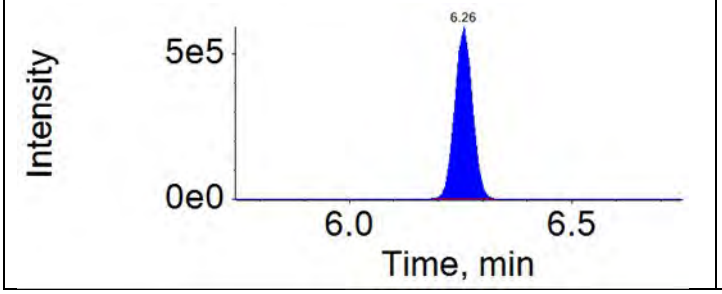


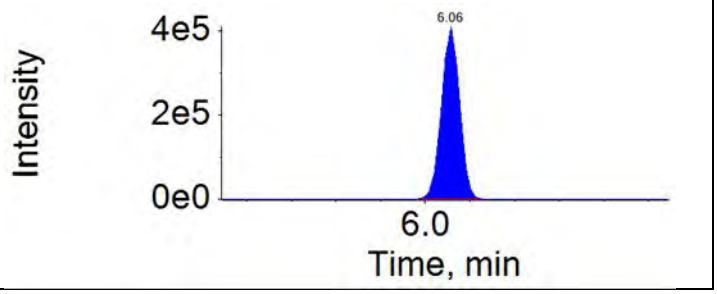
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

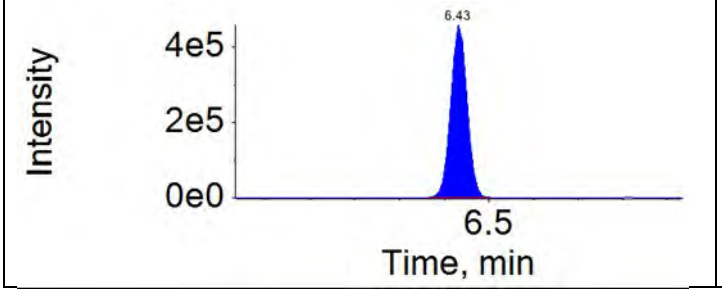
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

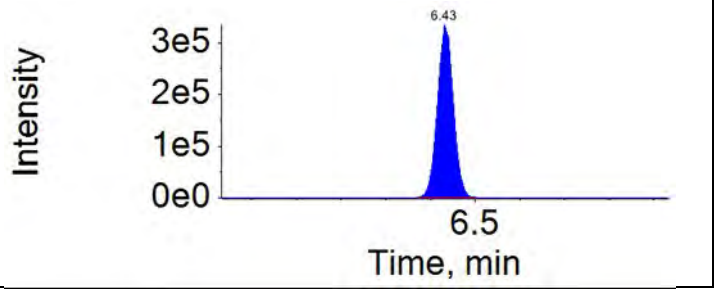
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



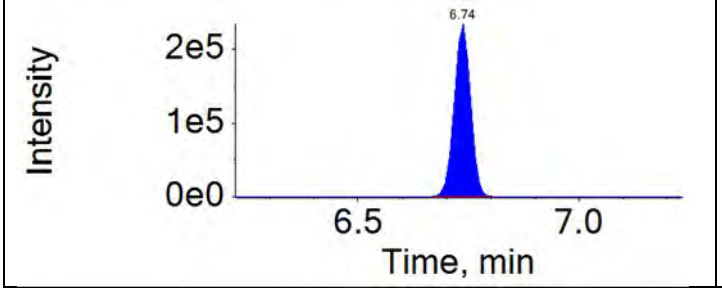


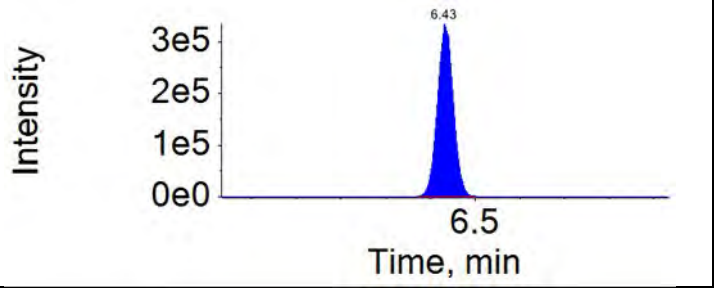
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



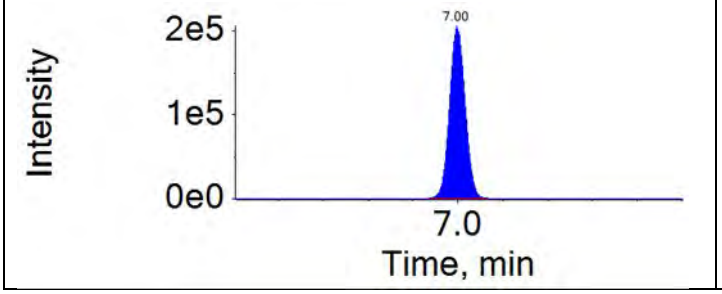


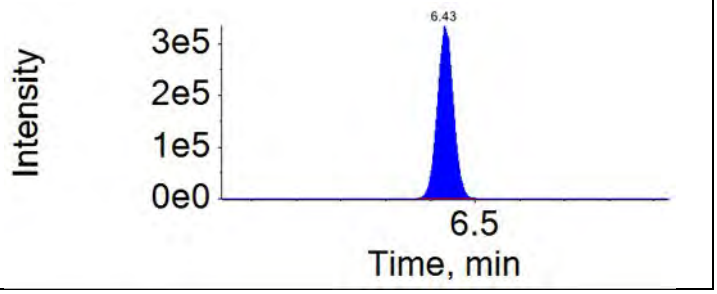
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



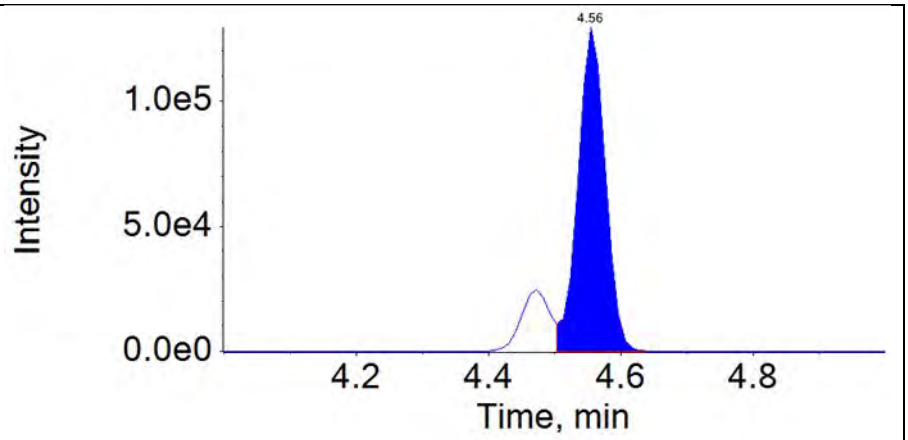


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

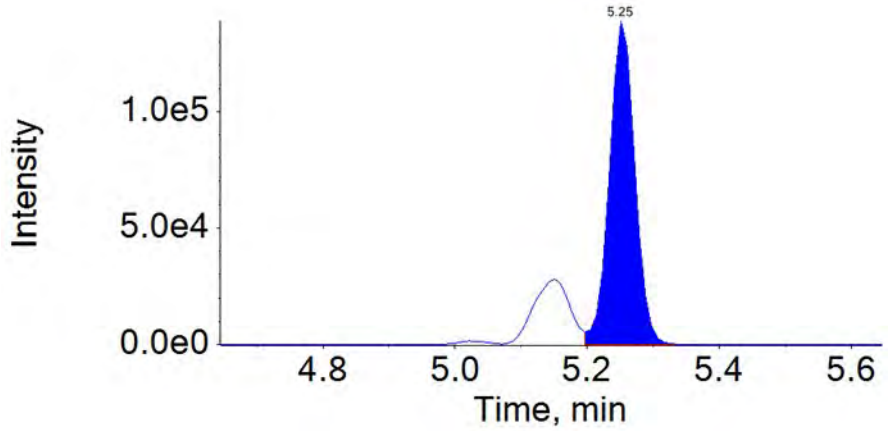
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



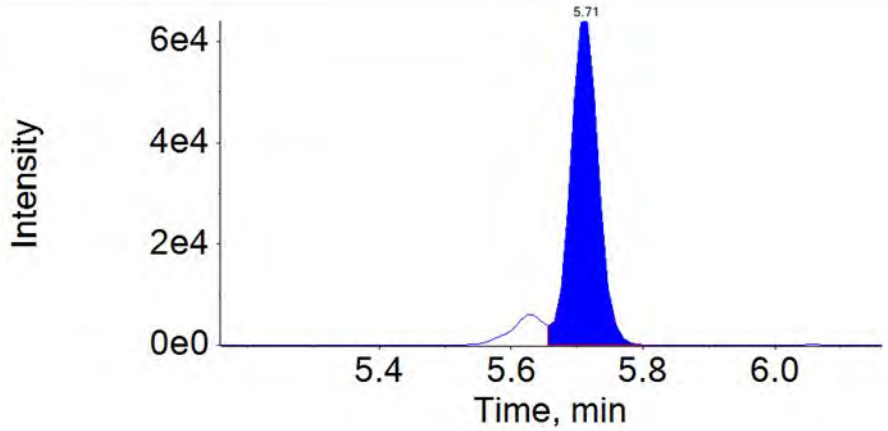
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
370801.21
Mass Range:
499.0 / 80.0
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:
570.0 / 419.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4

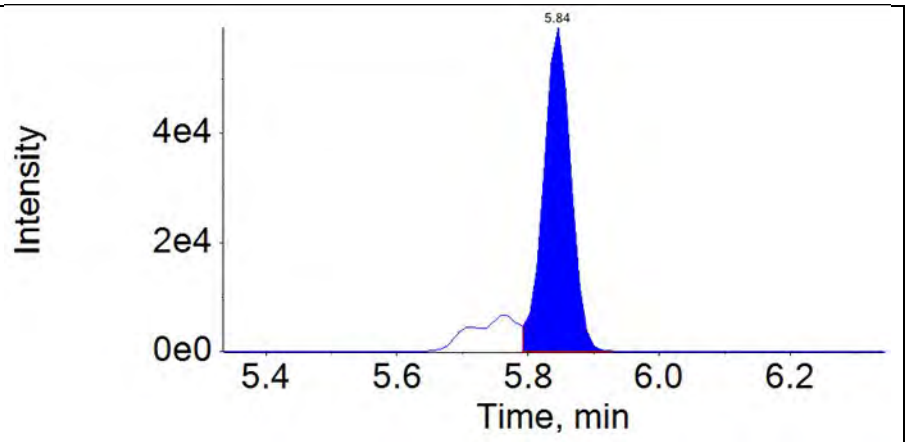


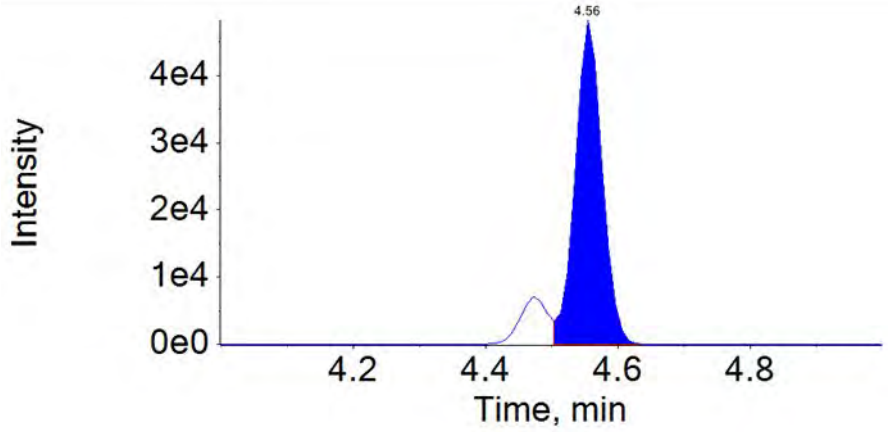
Integration Comment: incorrect integration

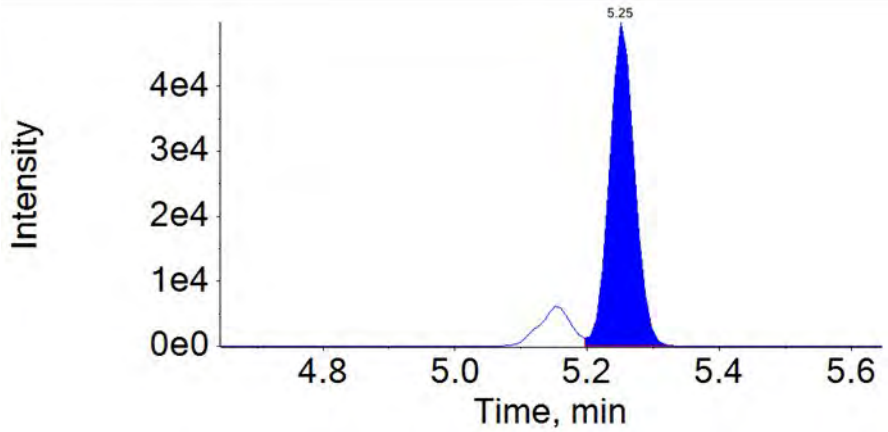
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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.):** 5.84 **Peak Area:** 171264.64 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV28DCAL-09.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

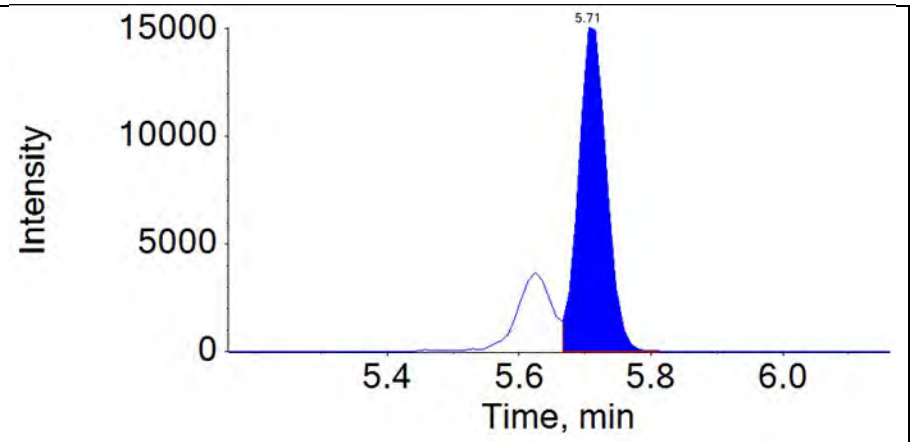
Component Name: PFHxS_2 **RT (min.):** 4.56 **Peak Area:** 136580.68 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV28DCAL-09.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

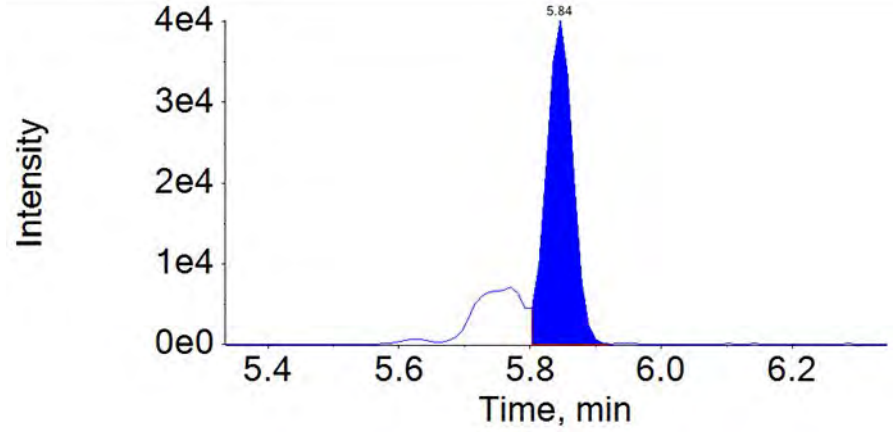
Component Name: PFOS_2 **RT (min.):** 5.25 **Peak Area:** 131435.94 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV28DCAL-09.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2 **RT (min.):** 5.71 **Peak Area:** 44801.82 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV28DCAL-09.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.84 **Peak Area:** 112154.28 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV28DCAL-09.wiff **Sample Name:** CAL4	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

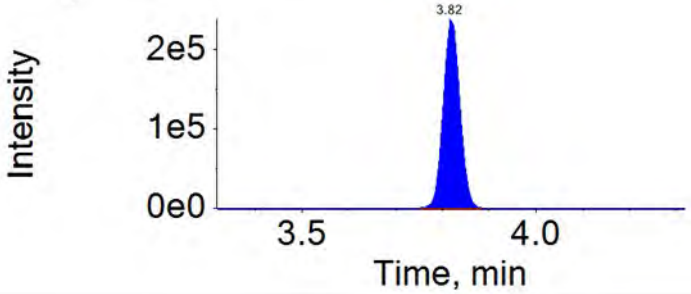
Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-09.wiff

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	590590.25	A	0.3655	0.3782			
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	
PFTrDA	6.26	1.03	1622977.68	A	0.0090	0.0088			
PFTrDA_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	

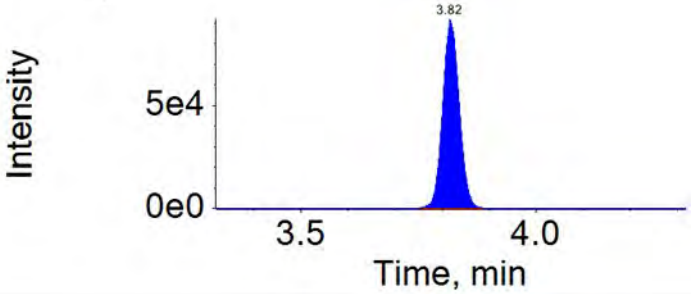
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

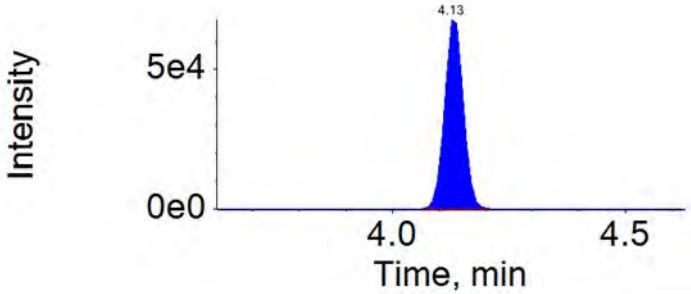
Component: PFBS
Primary Mass: 299.0 / 80.0



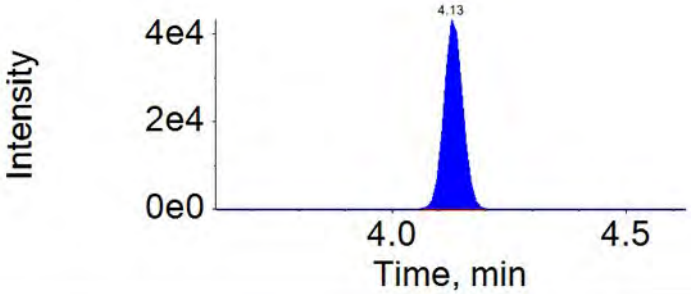
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



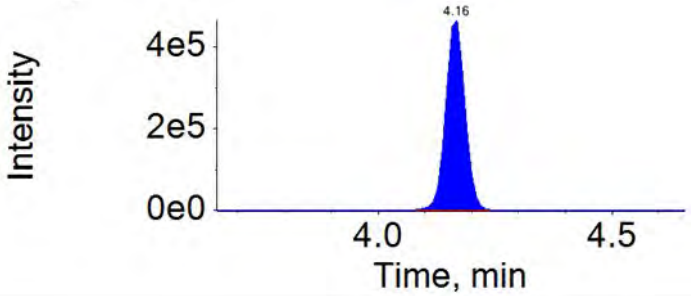
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



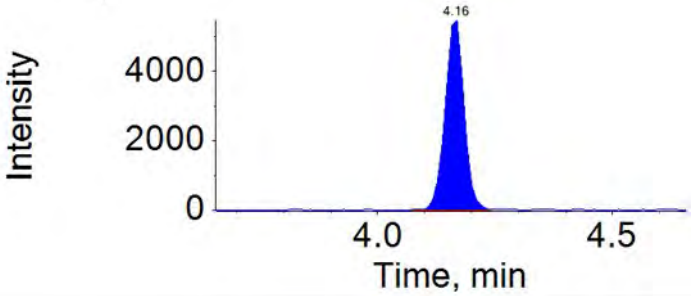
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



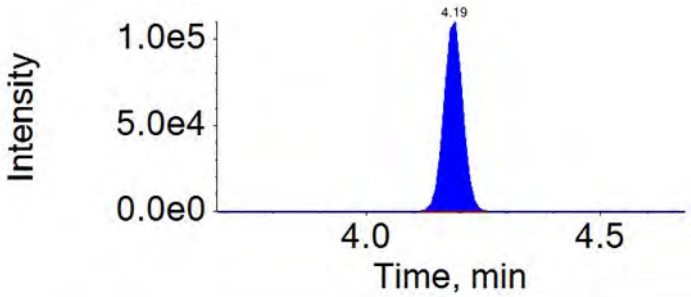
Component: PFHxA
Primary Mass: 313.0 / 269.0



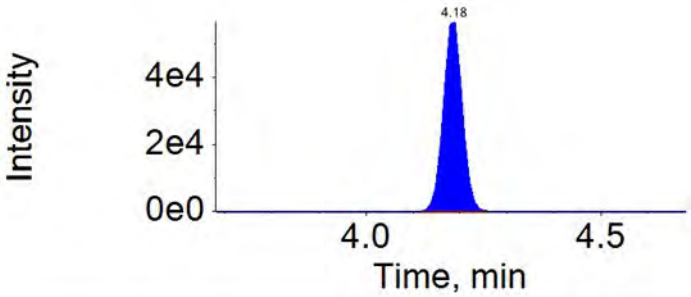
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



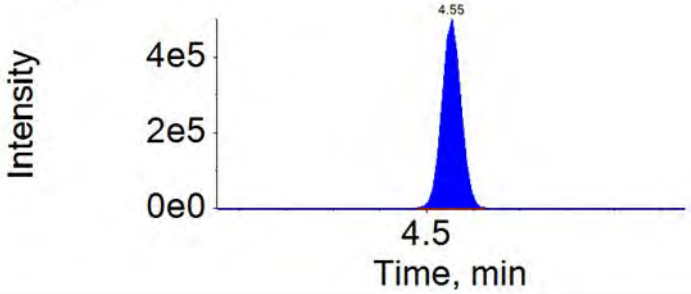
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



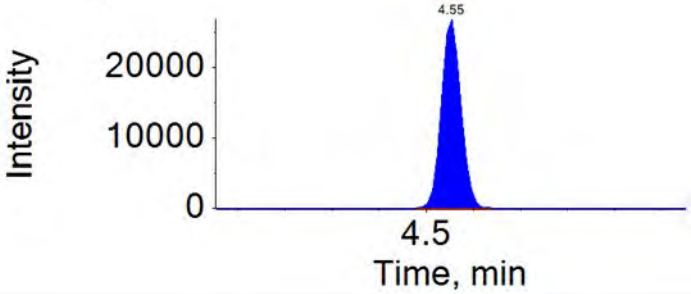
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

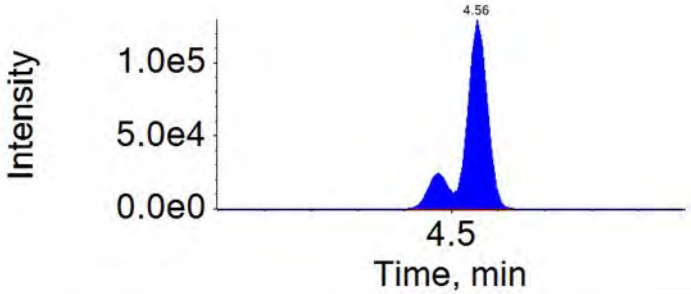
Component: PFHpA
Primary Mass: 363.0 / 319.0



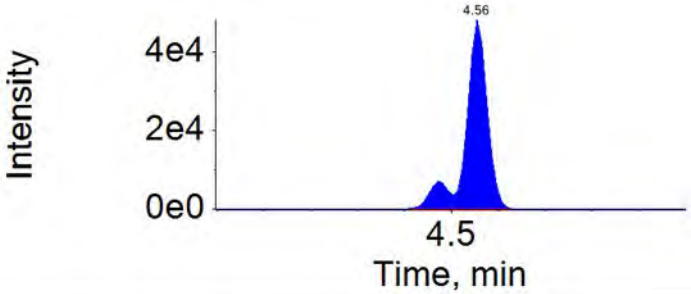
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



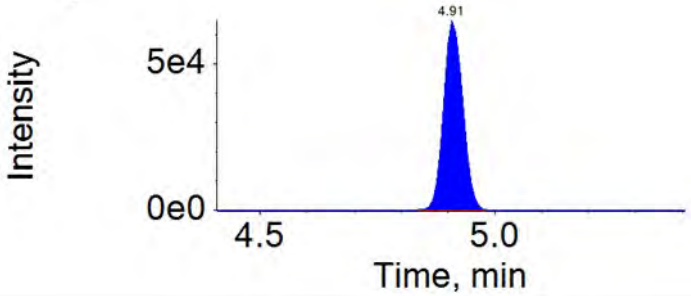
Component: PFHxS
Primary Mass: 399.0 / 80.0



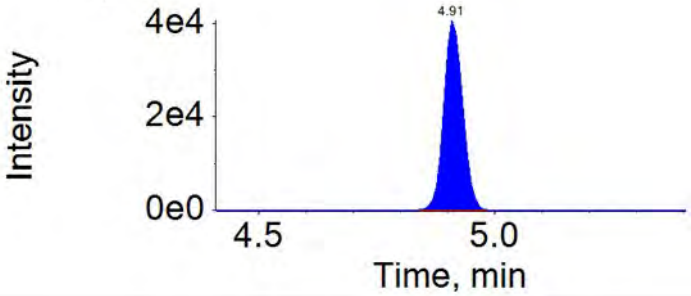
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



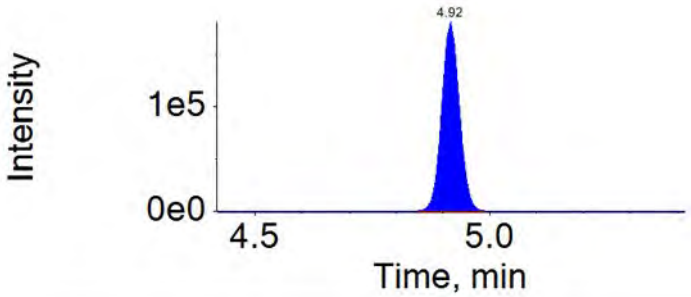
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



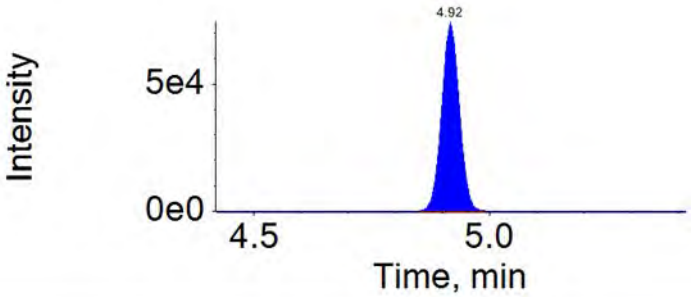
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



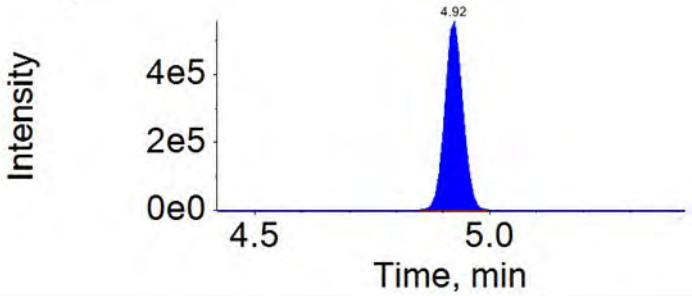
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



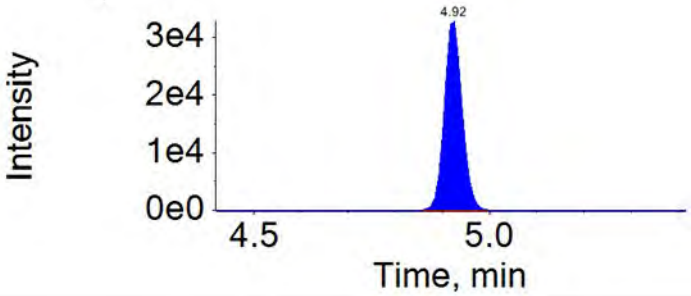
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

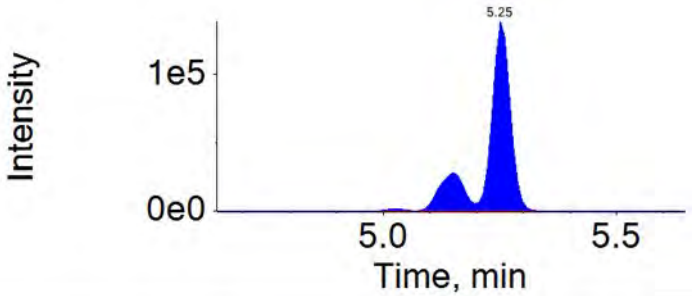
Component: PFOA
Primary Mass: 413.0 / 369.0



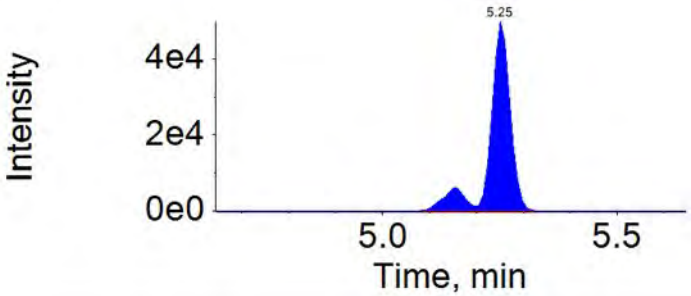
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



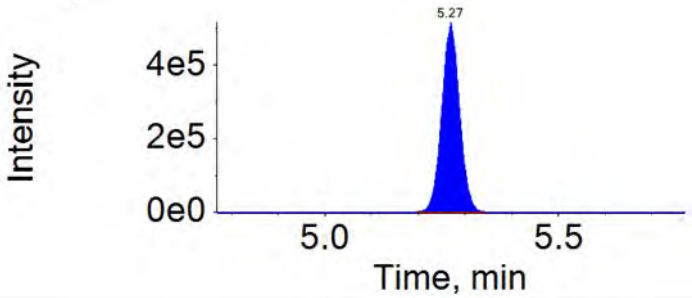
Component: PFOS
Primary Mass: 499.0 / 80.0



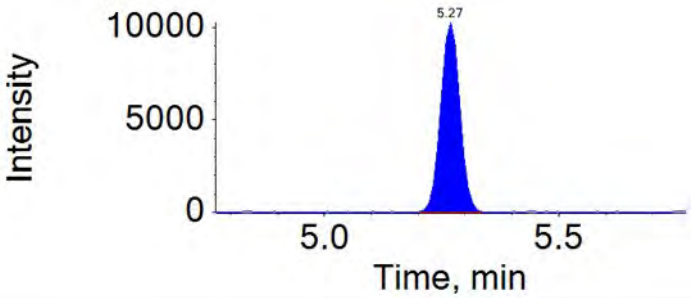
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



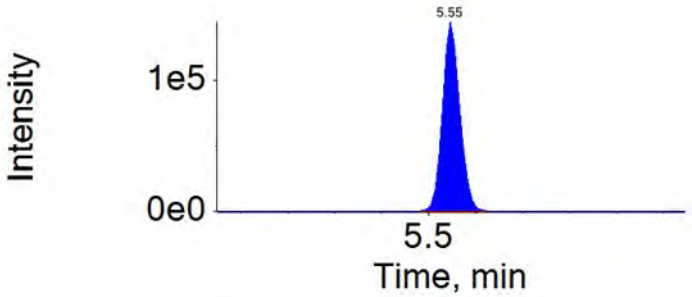
Component: PFNA
Primary Mass: 463.0 / 419.0



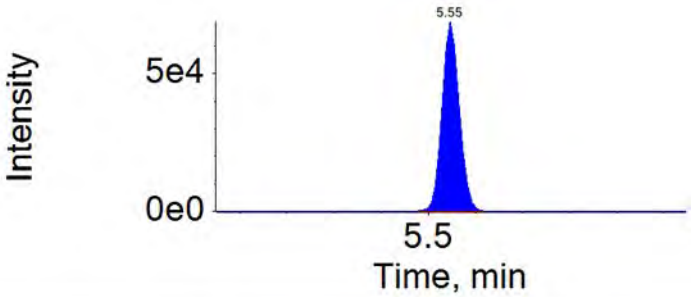
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



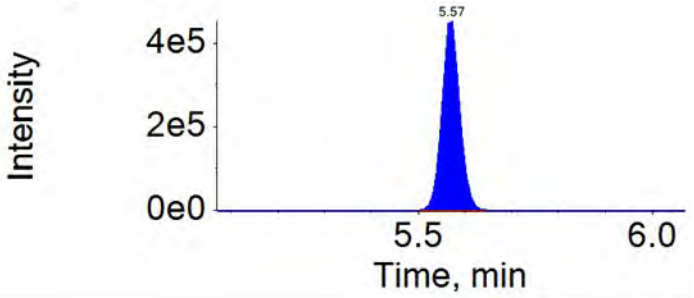
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



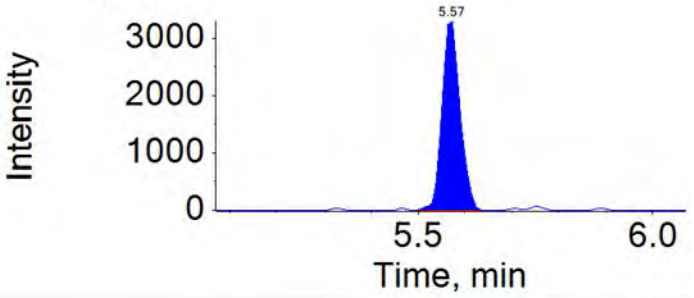
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

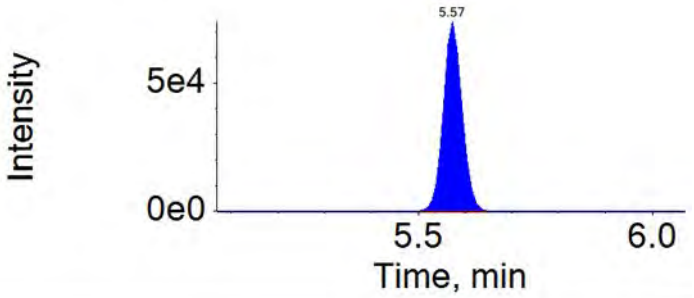
Component: PFDA
Primary Mass: 513.0 / 469.0



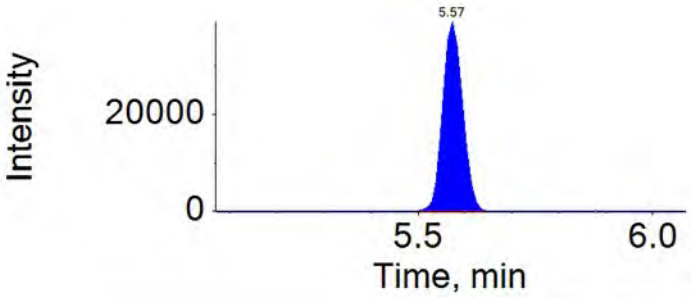
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



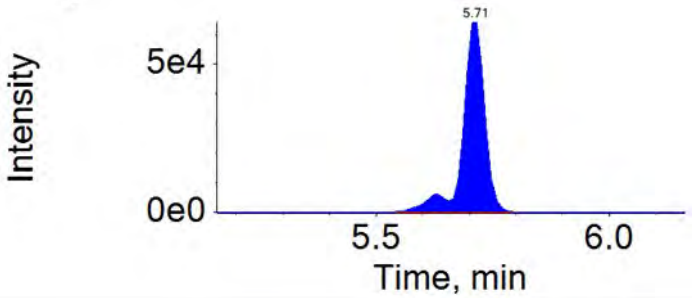
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



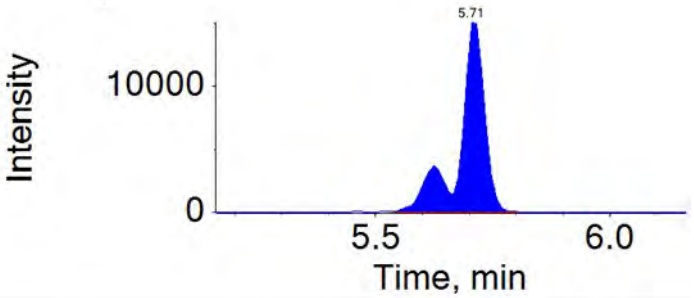
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



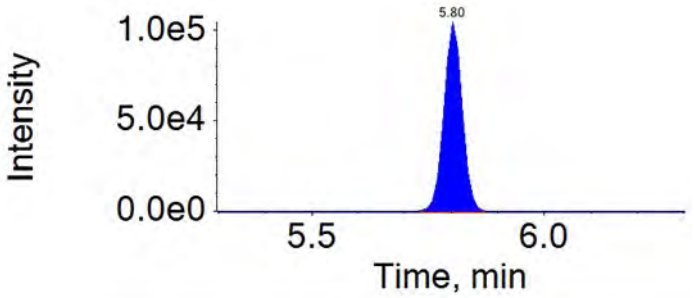
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



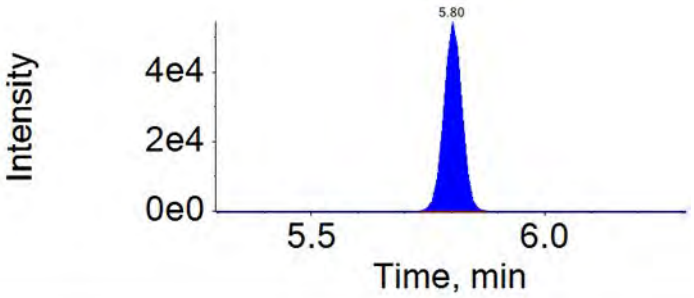
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



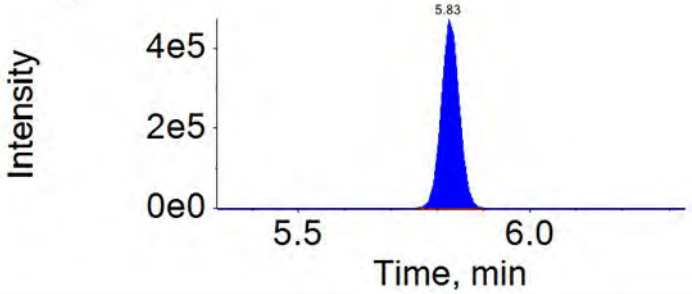
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



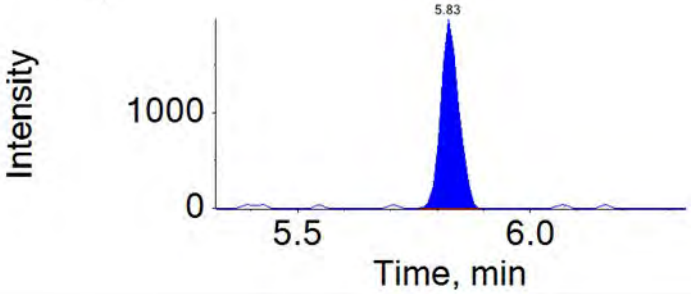
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

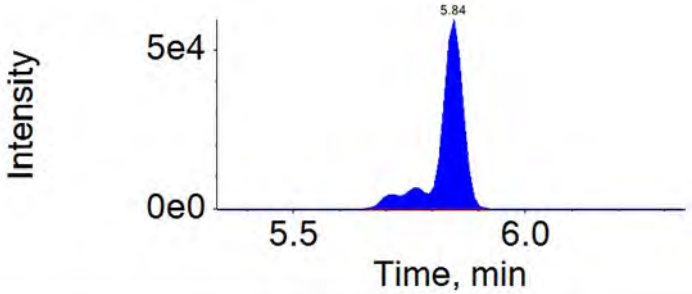
Component: PFUnDA
Primary Mass: 563.0 / 519.0



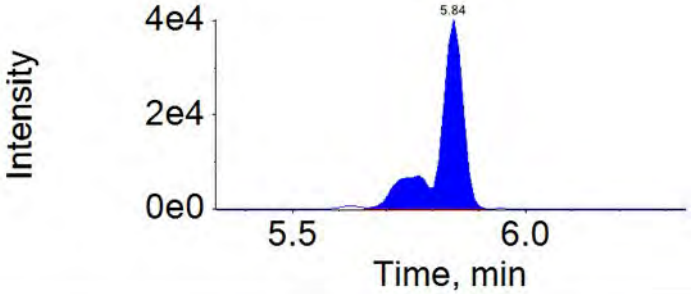
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



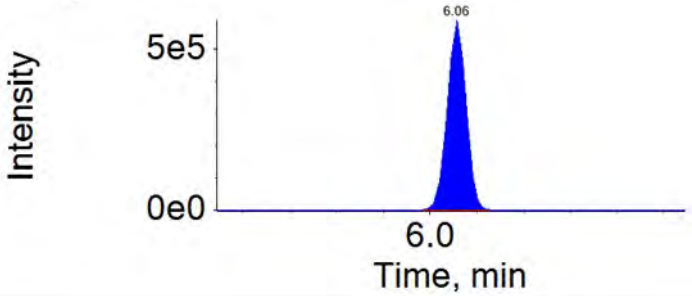
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



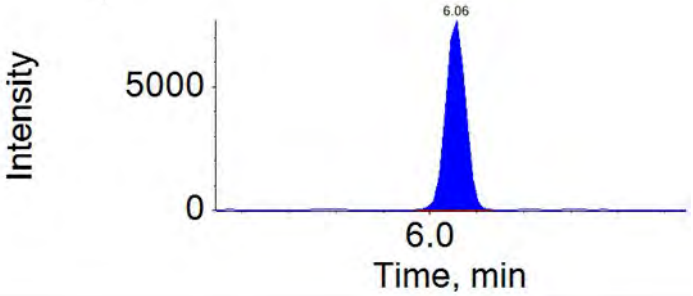
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



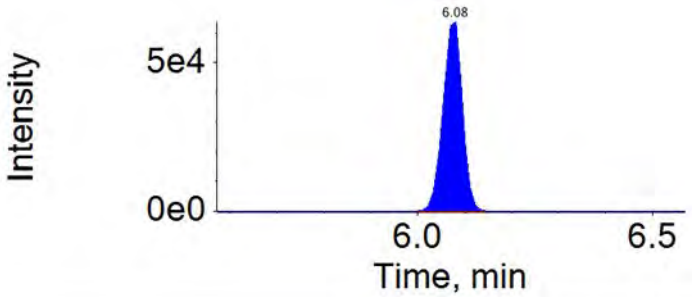
Component: PFDoDA
Primary Mass: 613.0 / 569.0



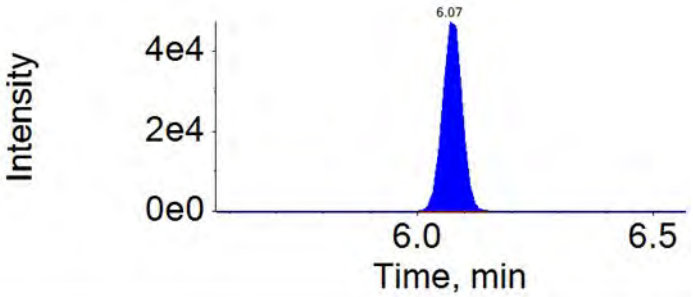
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



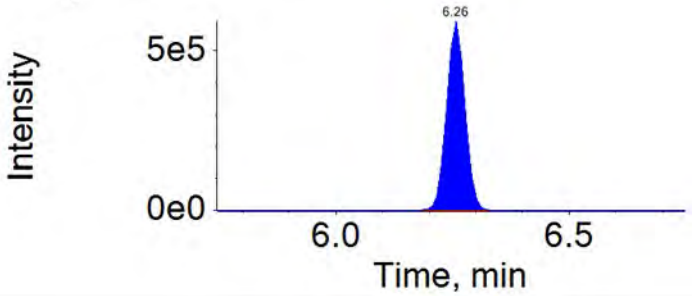
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



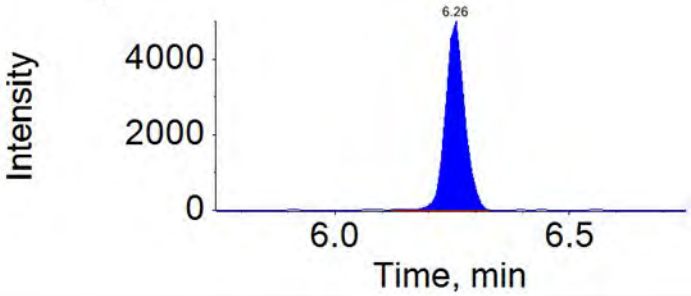
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



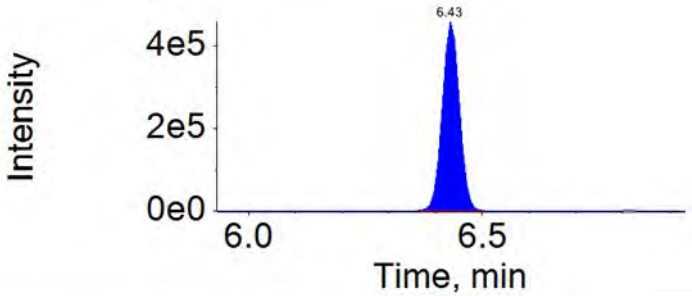
Component: PFTrDA
Primary Mass: 663.0 / 619.0



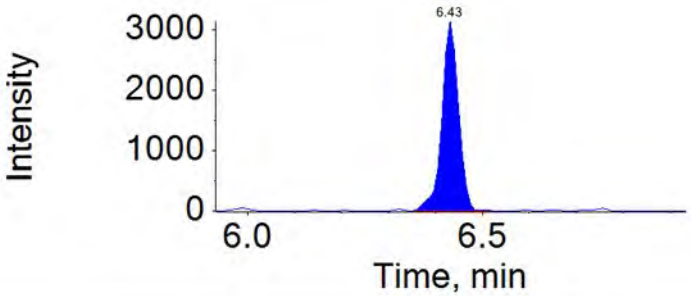
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



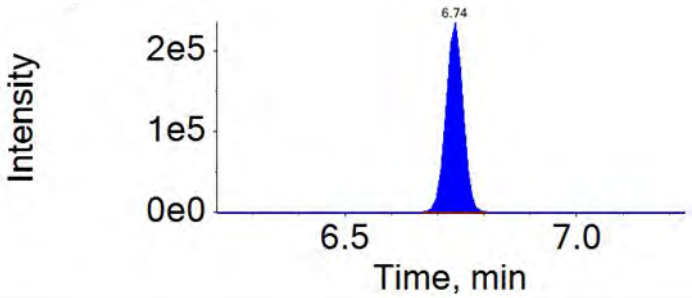
Component: PFTeDA
Primary Mass: 713.0 / 669.0



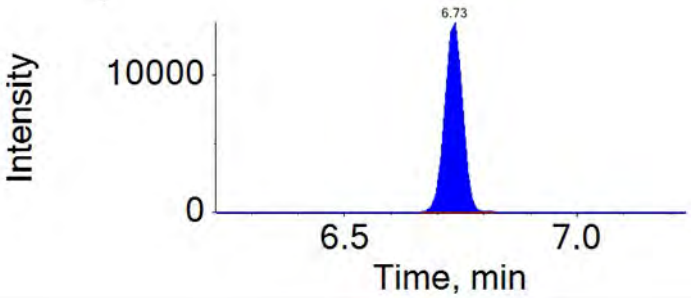
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



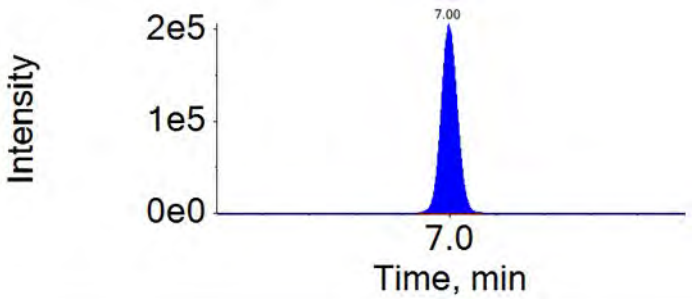
Component: PFHxDA
Primary Mass: 813.0 / 769.0



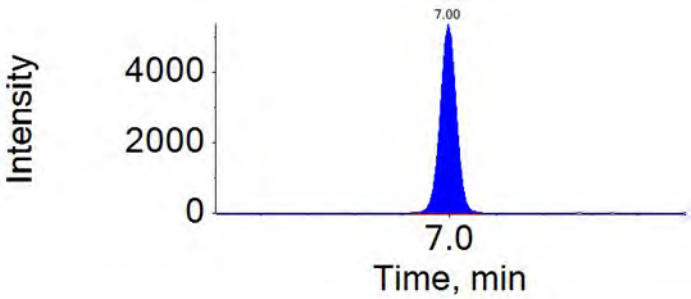
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

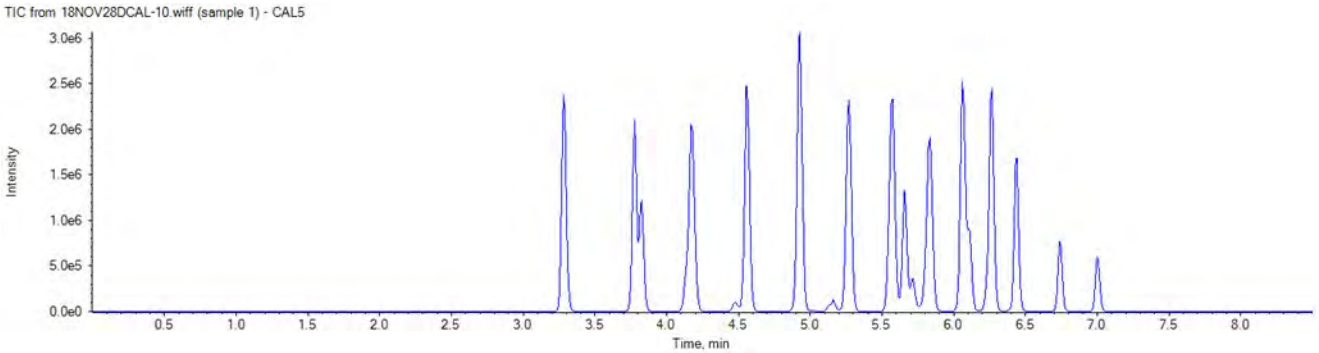
Analyte Quantitation Peak Table

Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-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	3.28	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
PFTrDA	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

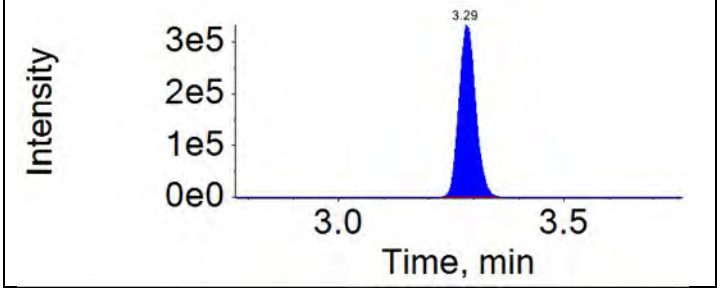


APPROVED
By MCD at 5:00 pm, 11/28/18

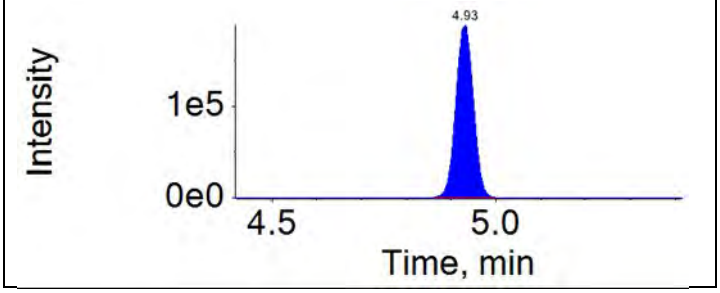
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

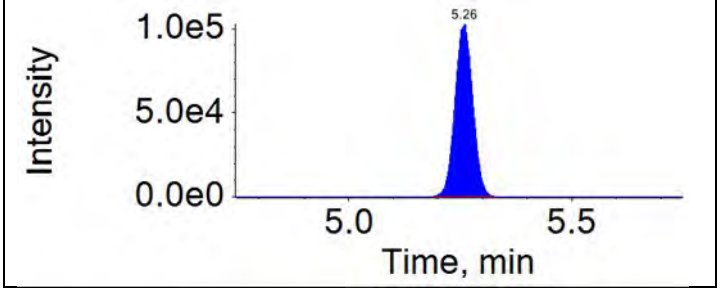
Injection Standard: 13C3-PFBA
216.0 / 172.0



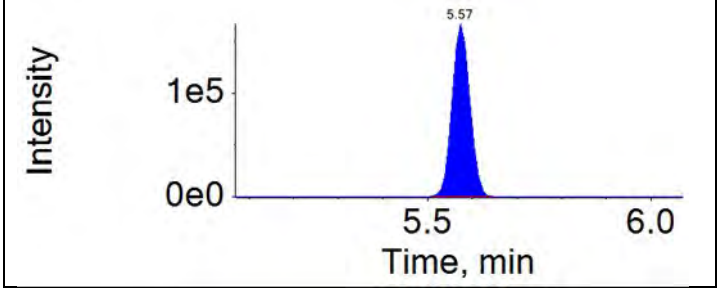
Injection Standard: 13C2-PFOA
415.0 / 370.0



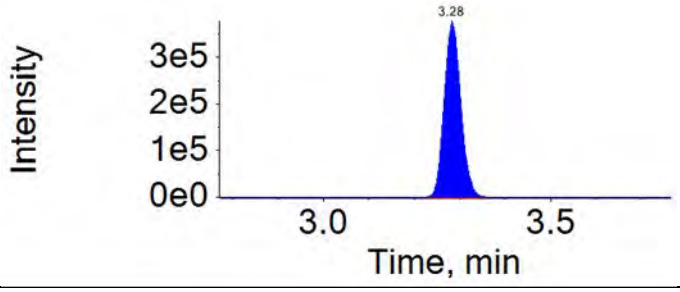
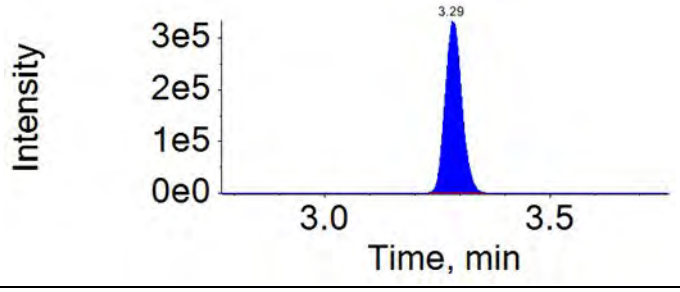
Injection Standard: 13C4-PFOS
503.0 / 80.0

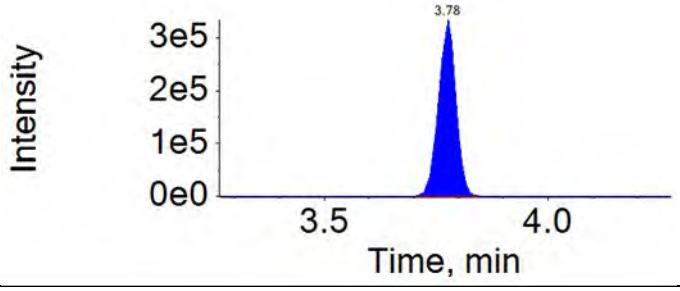
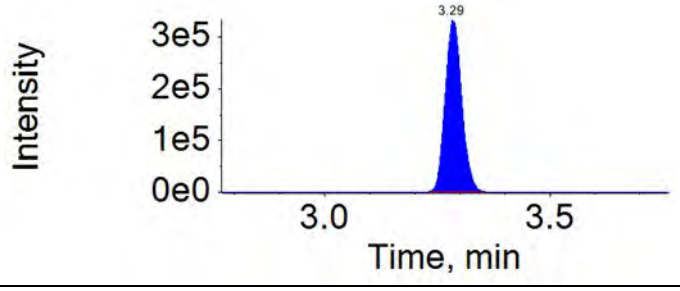


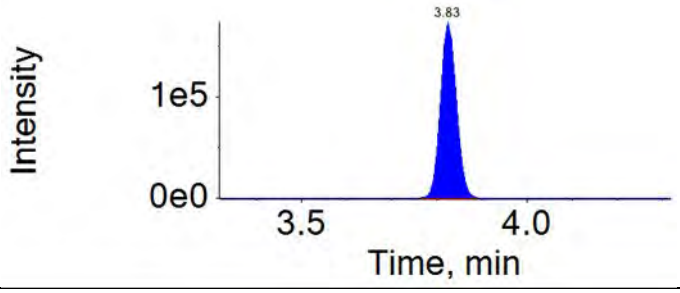
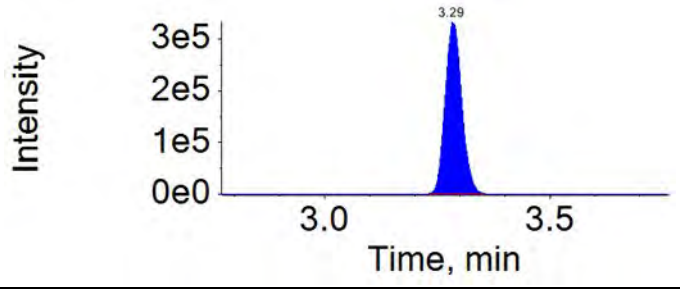
Injection Standard: 13C2-PFDA
515.0 / 470.0

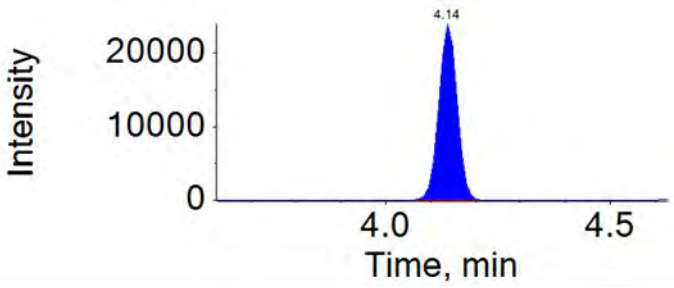
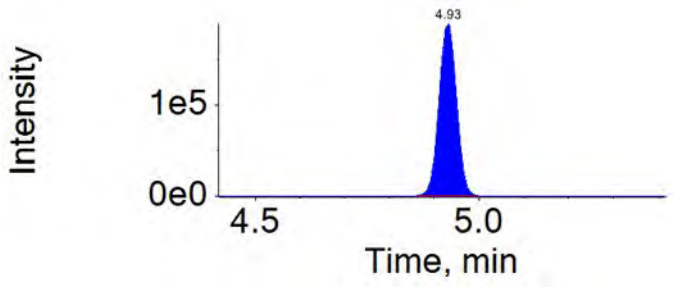


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

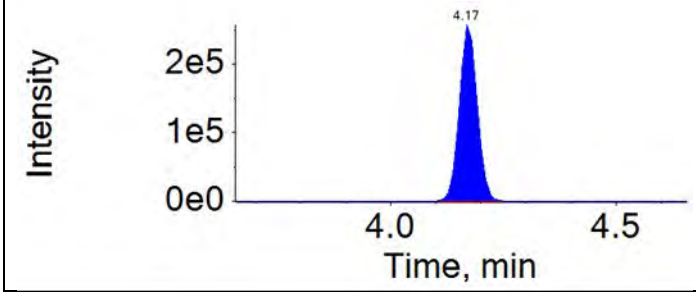
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

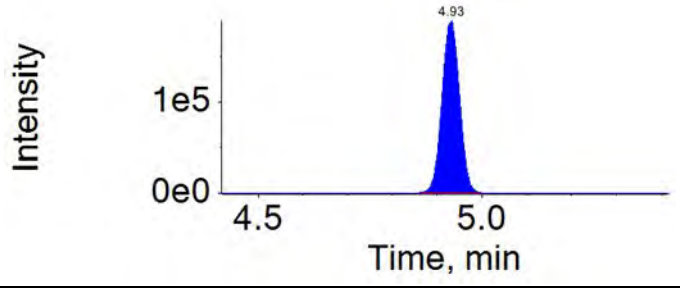
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

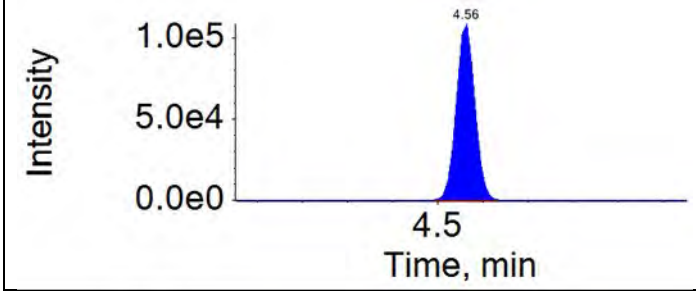
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

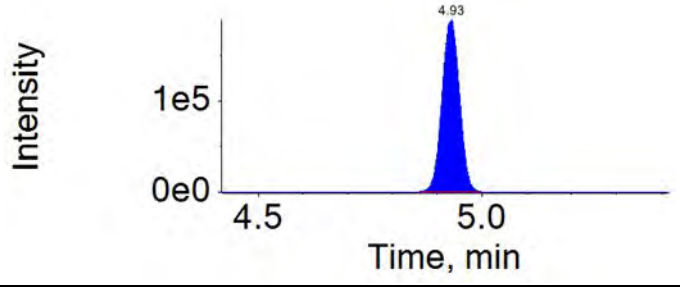
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



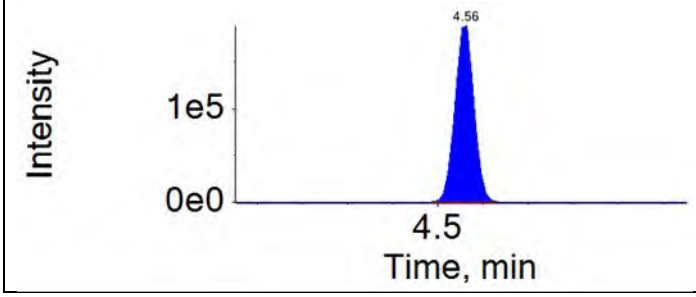


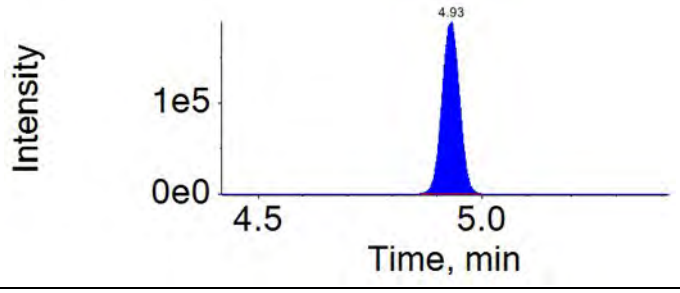
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



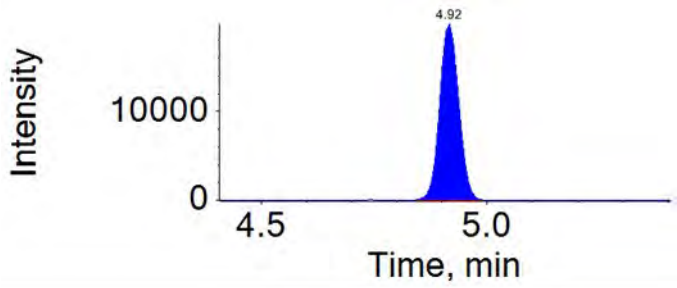


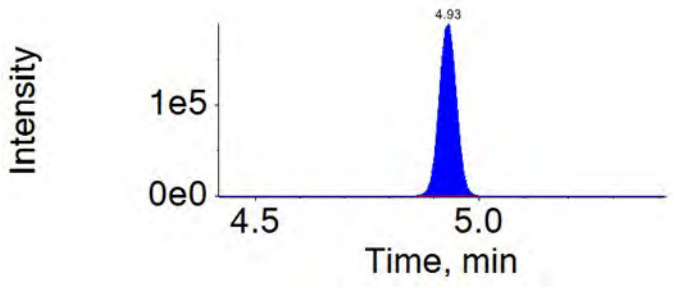
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



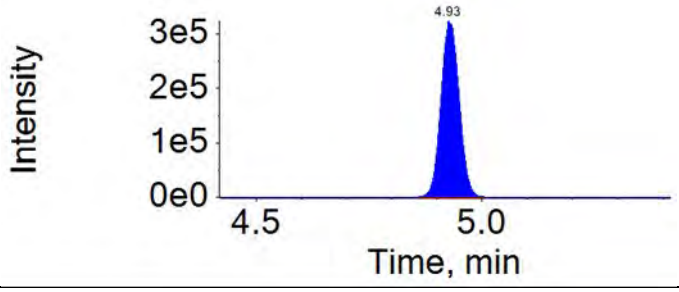


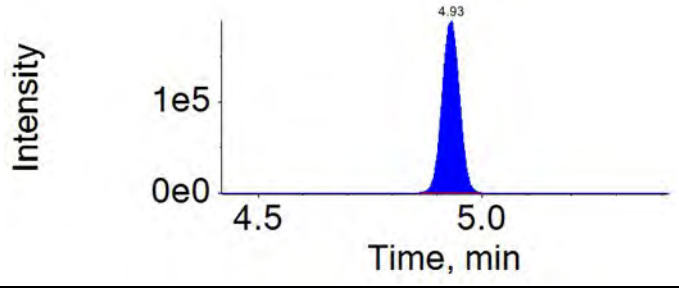
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

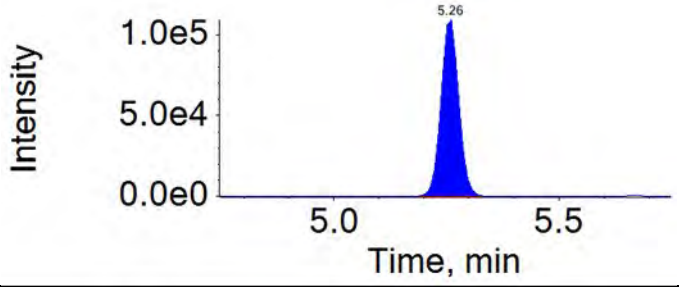
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

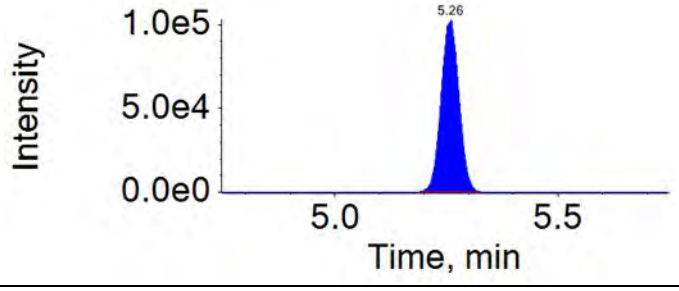
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



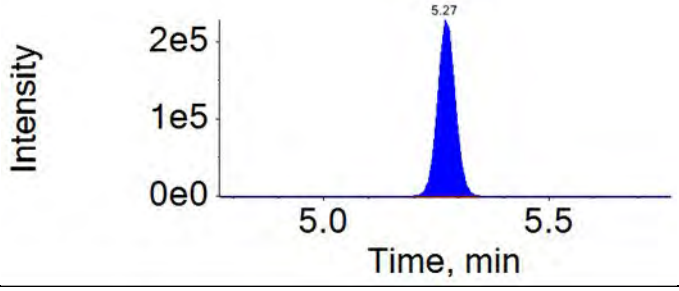


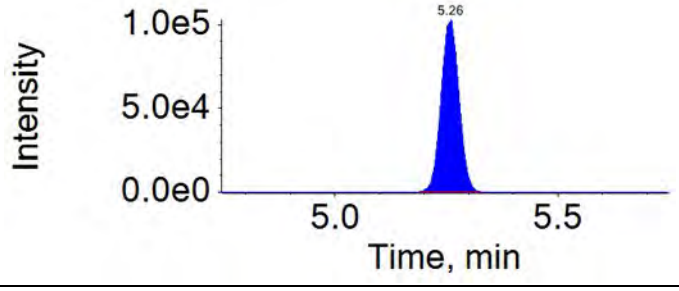
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



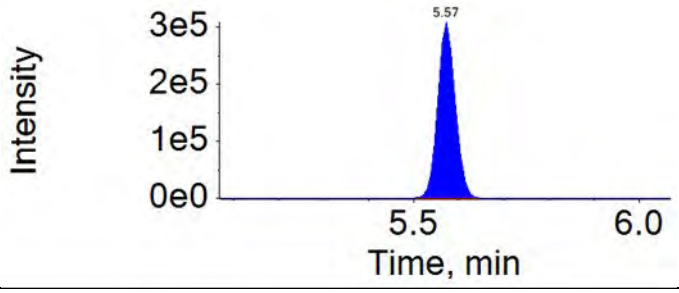


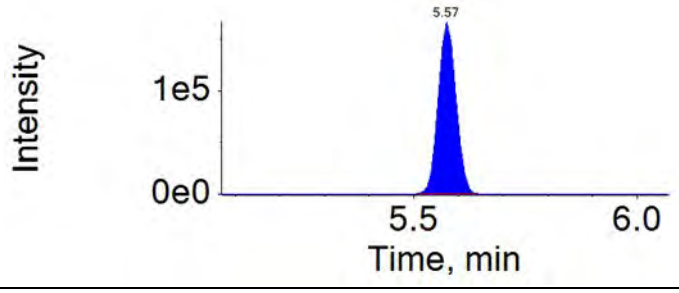
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



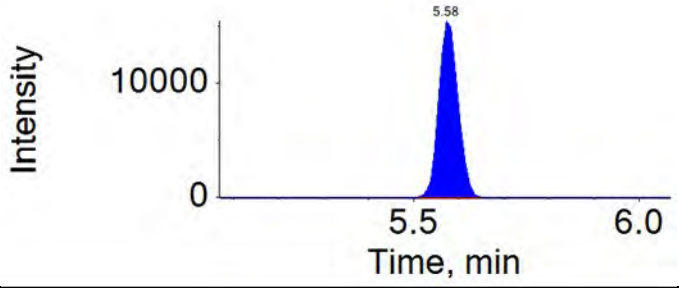


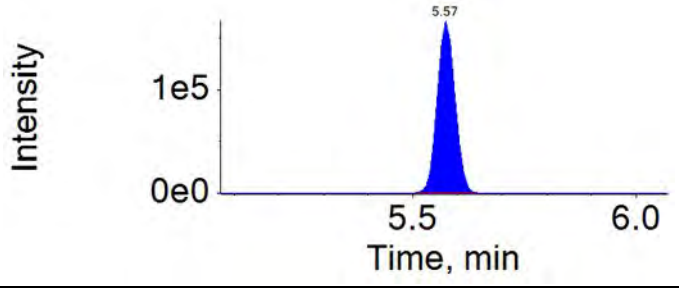
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

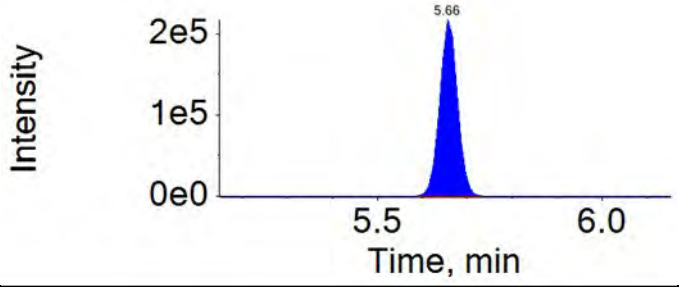
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

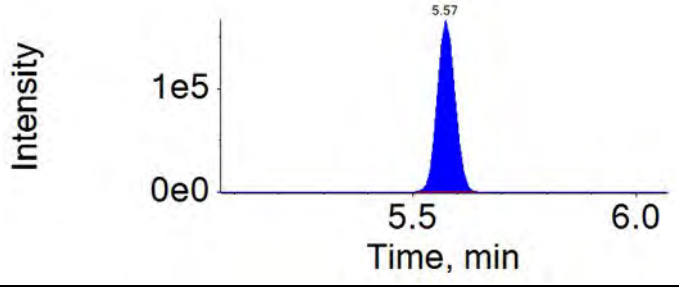
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



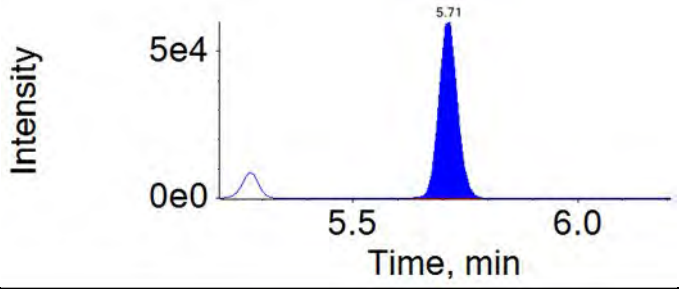


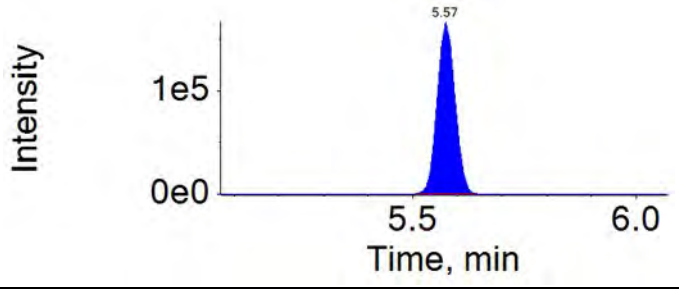
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



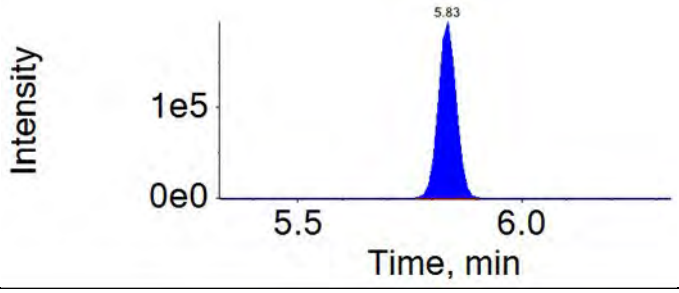


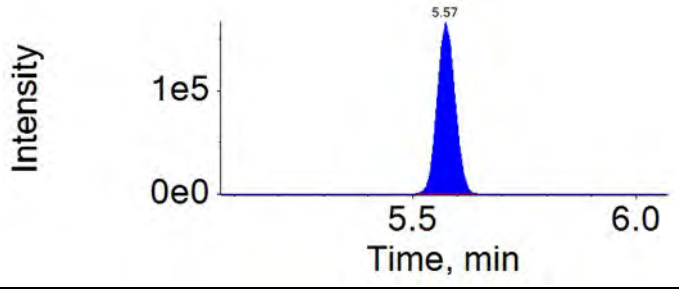
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



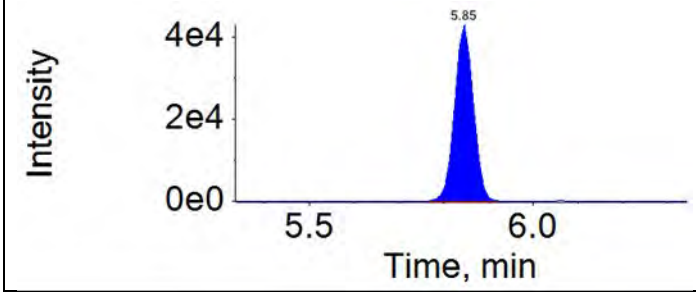


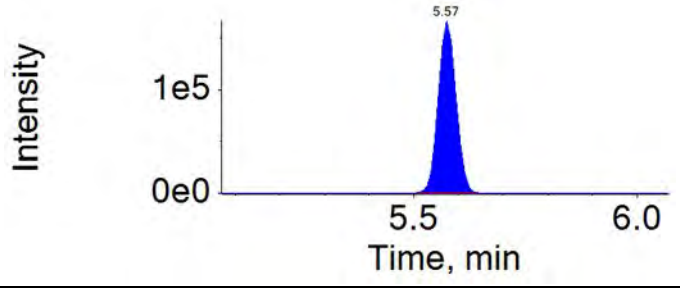
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

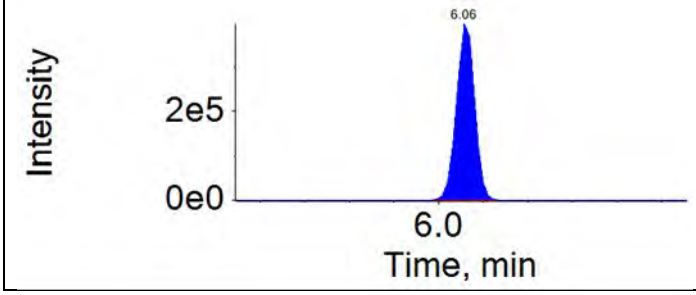
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

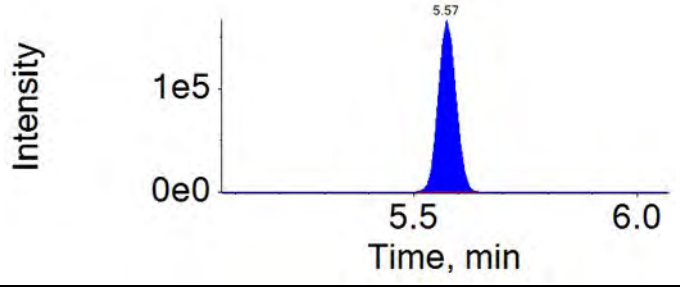
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



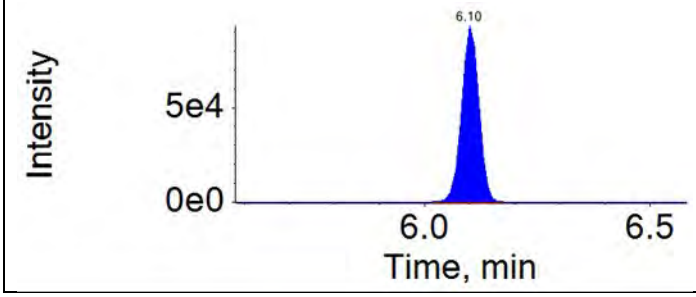


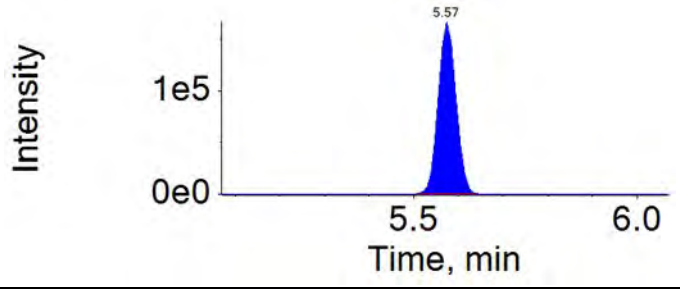
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



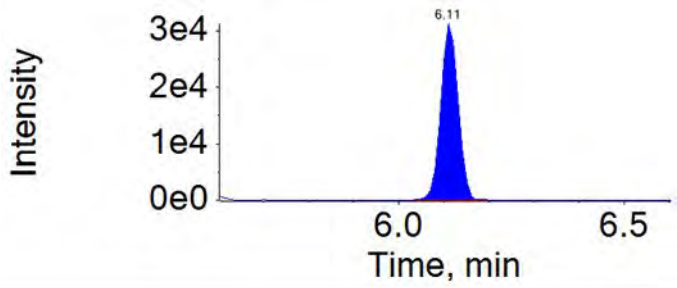


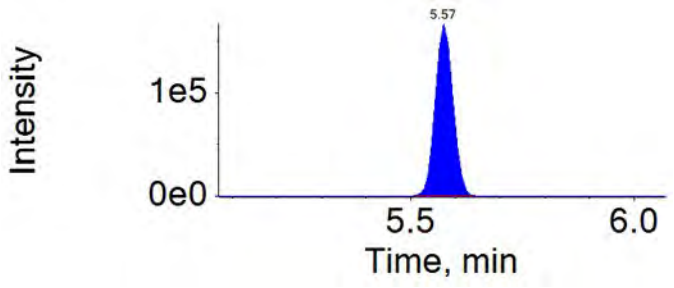
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



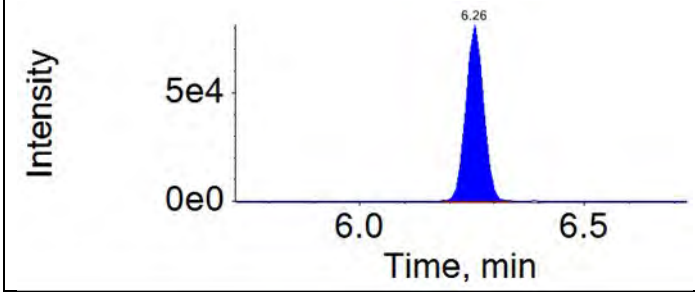


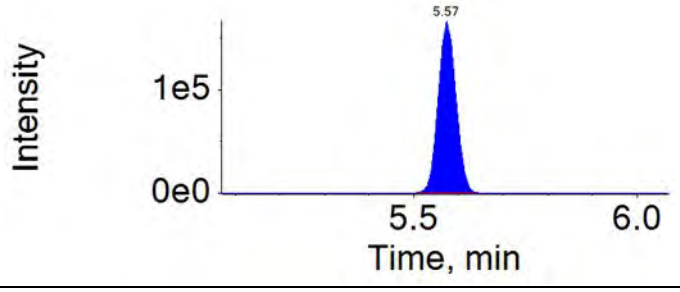
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

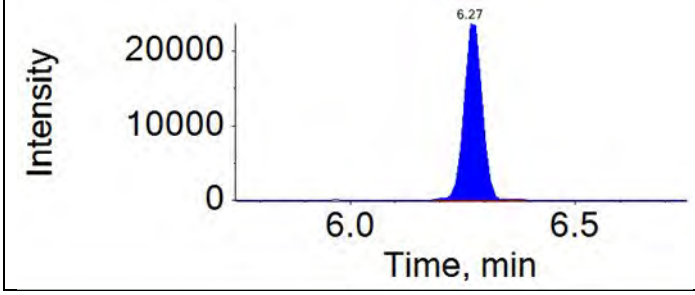
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

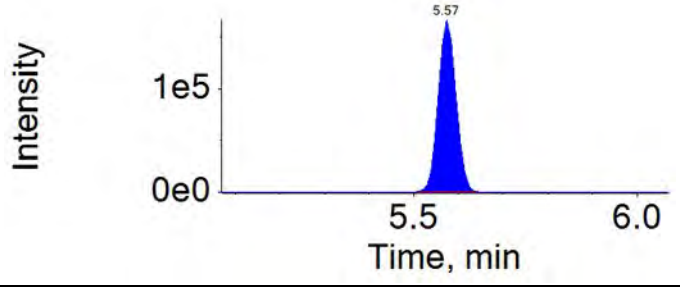
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



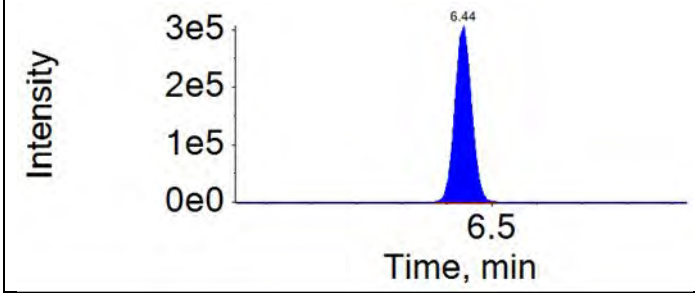


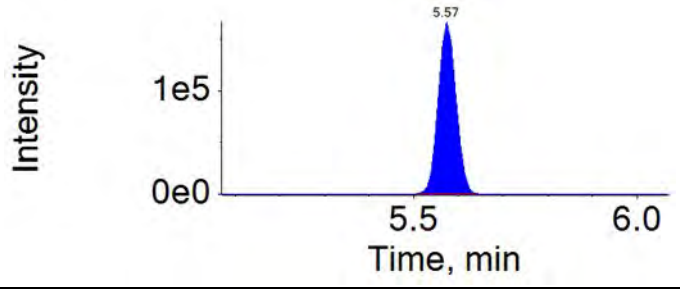
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



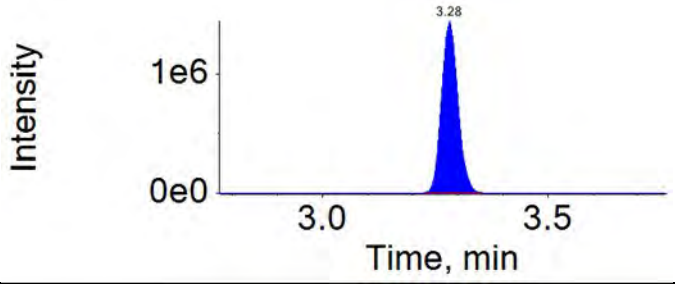


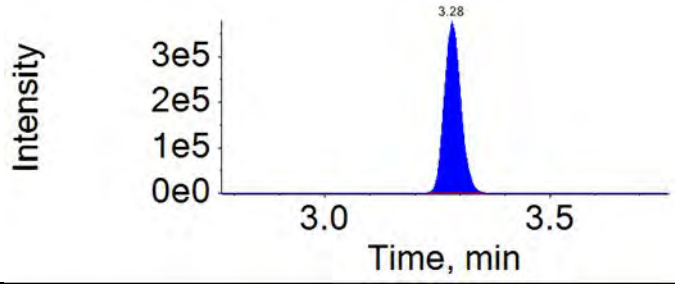
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

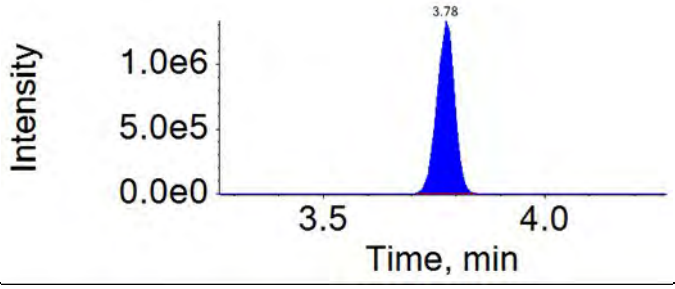
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

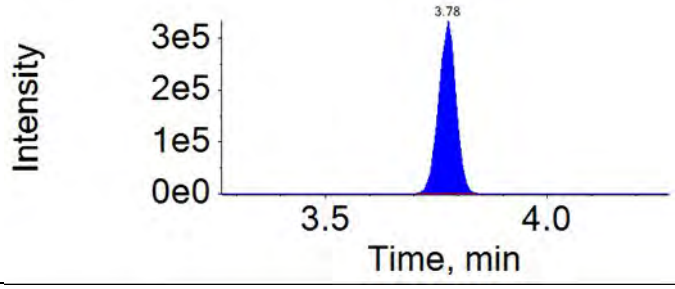
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



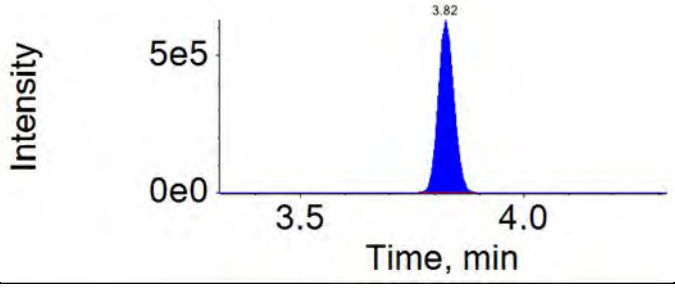


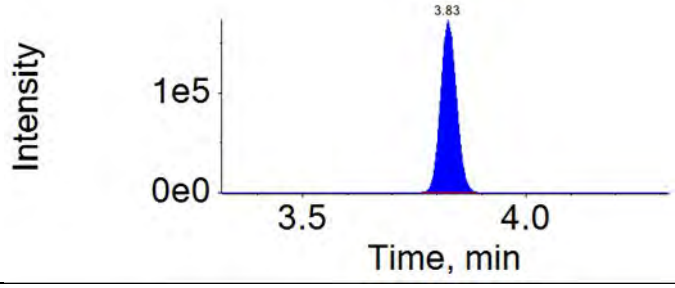
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



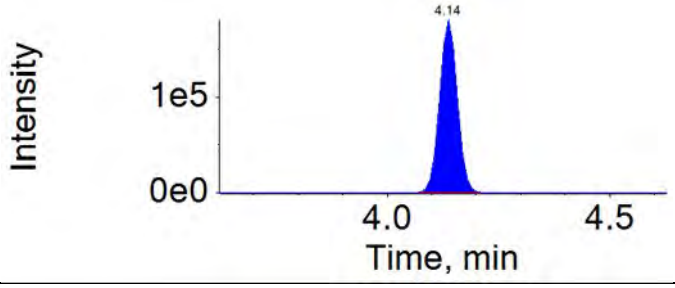


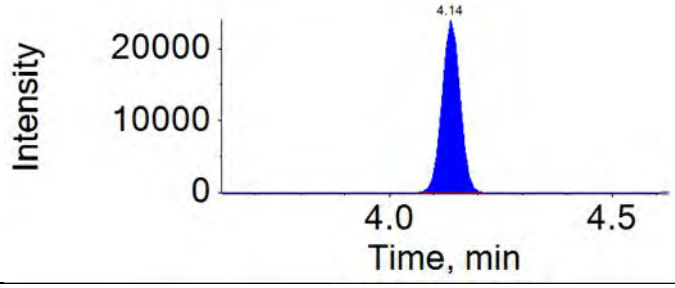
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



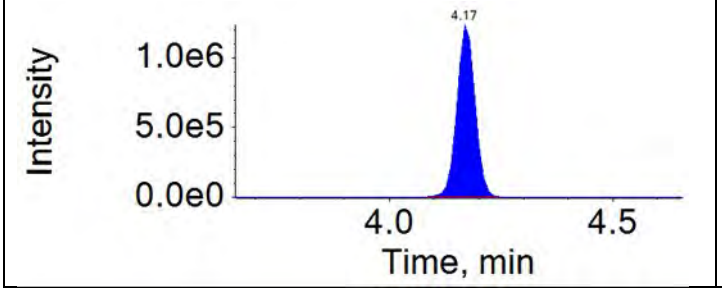


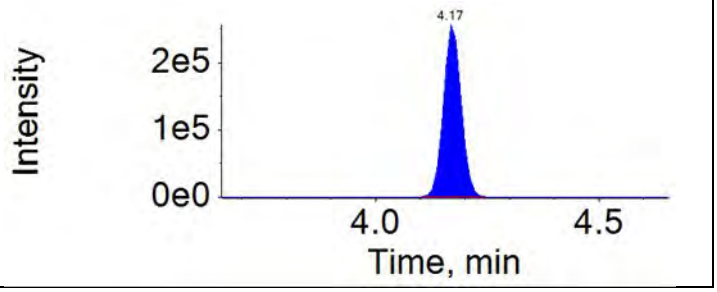
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

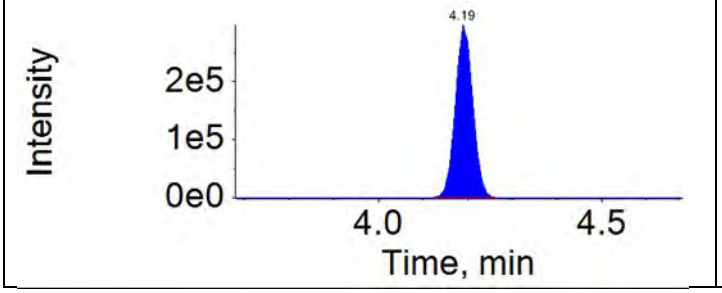
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

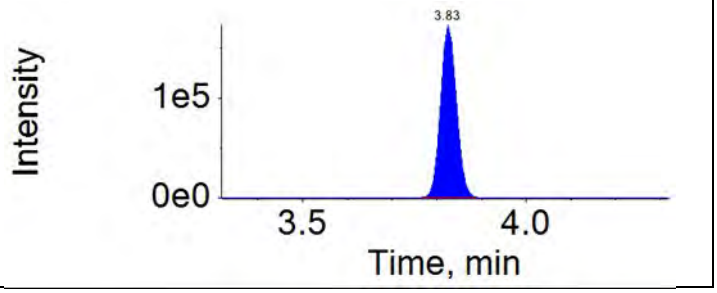
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



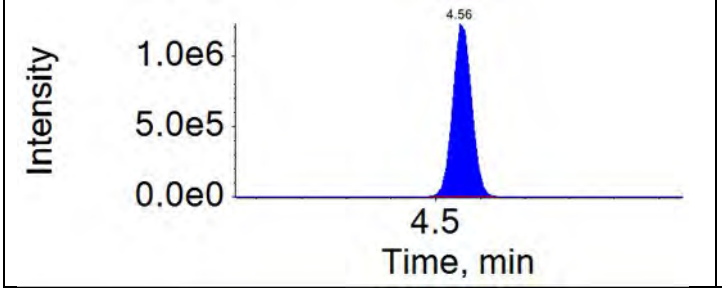


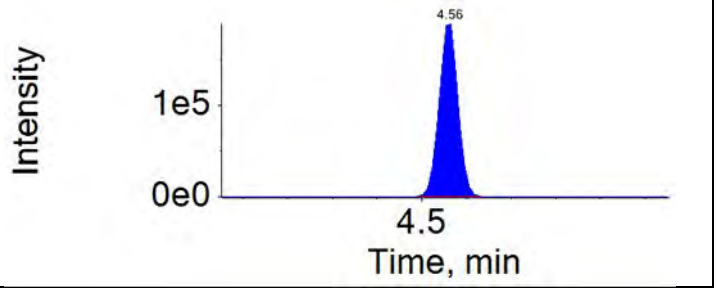
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



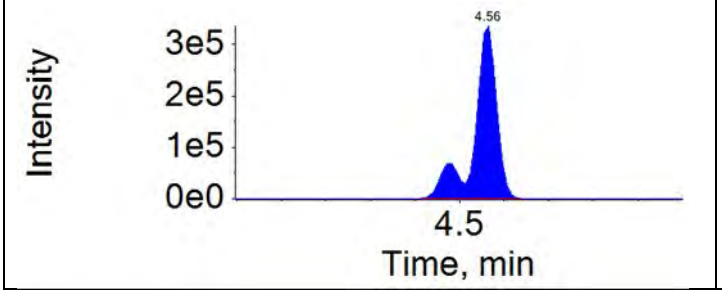


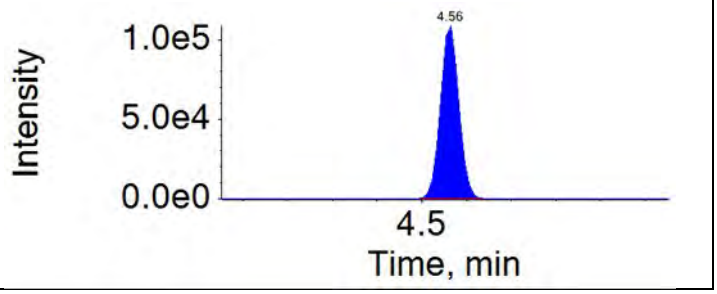
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



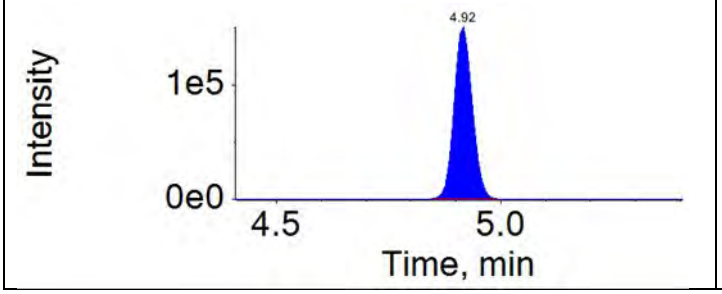


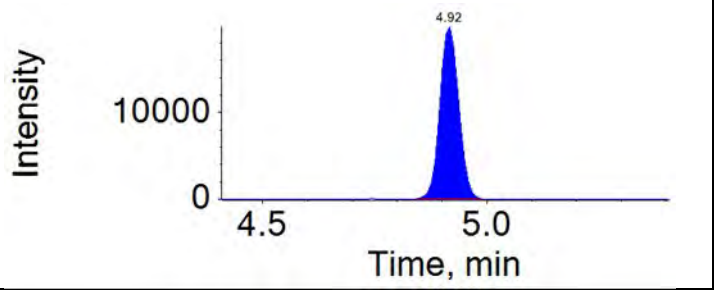
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

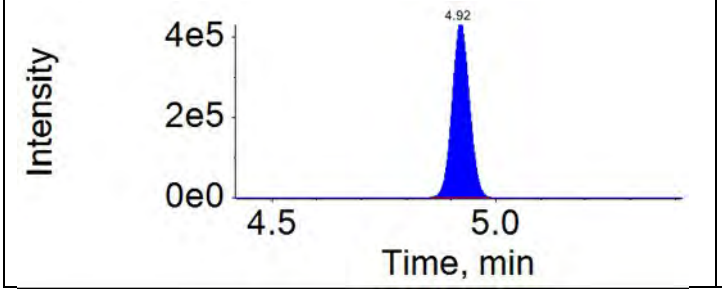
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

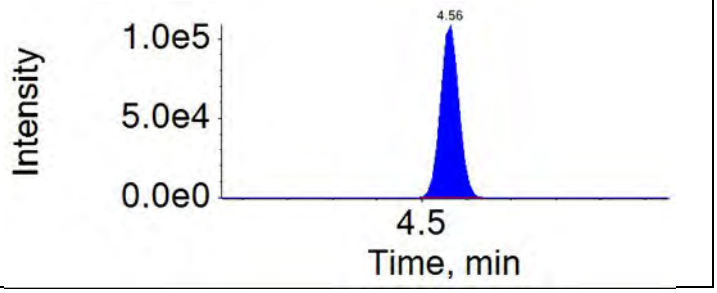
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



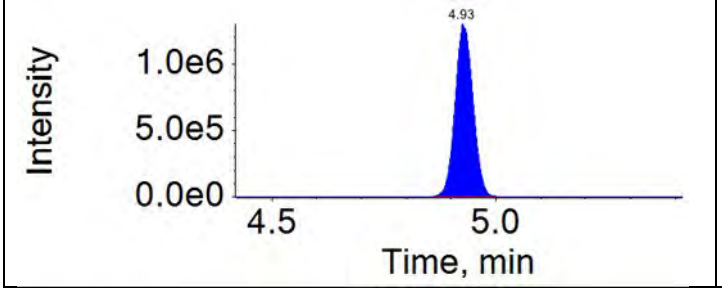


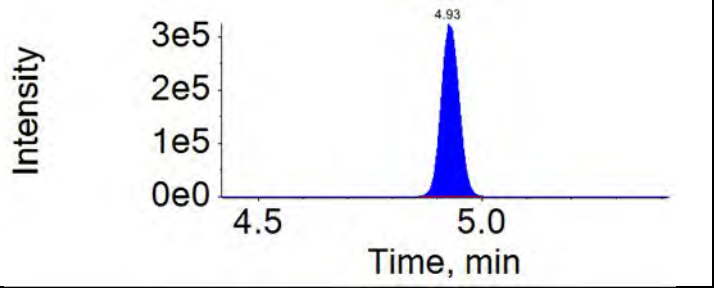
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



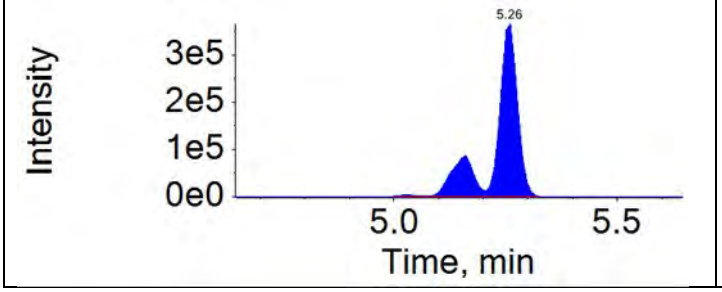


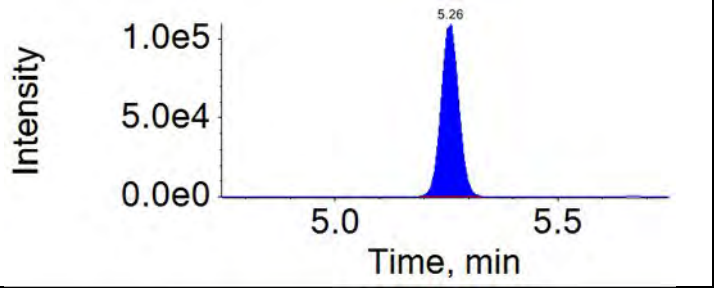
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



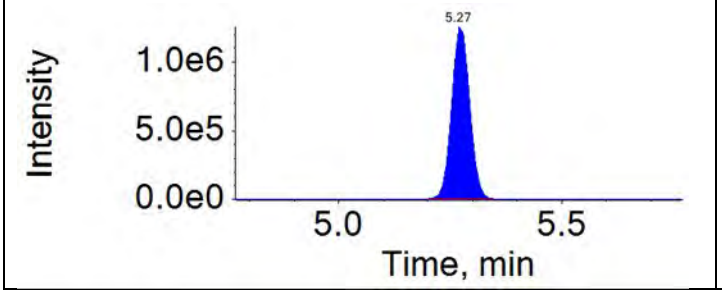


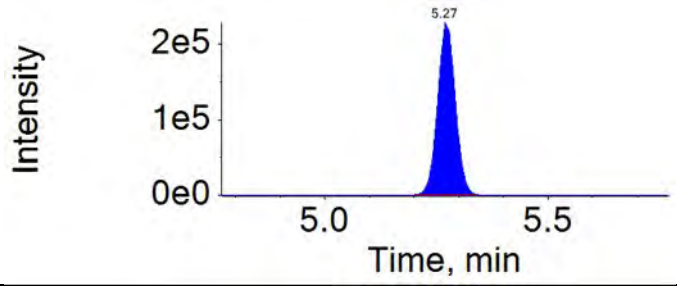
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

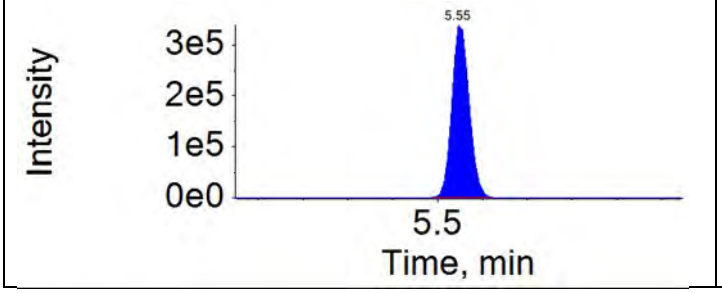
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

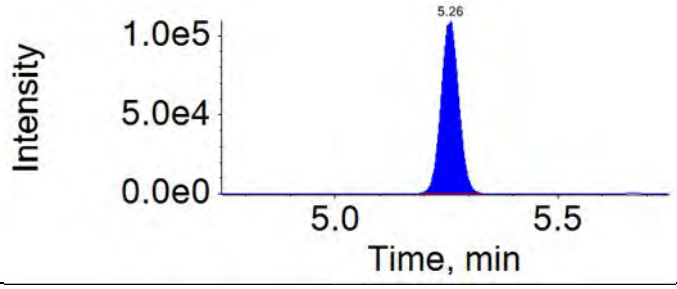
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



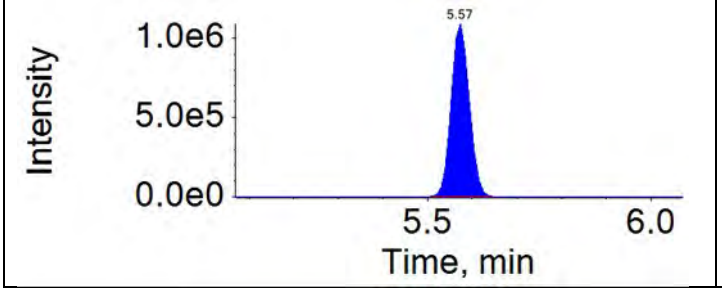


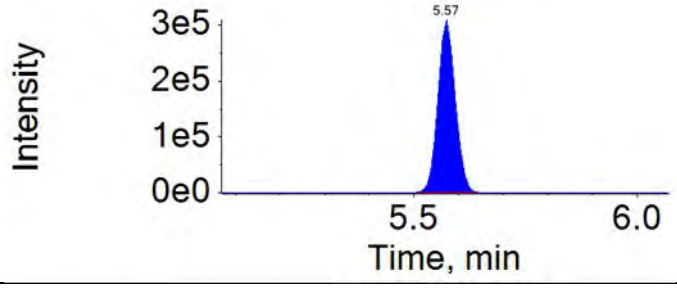
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



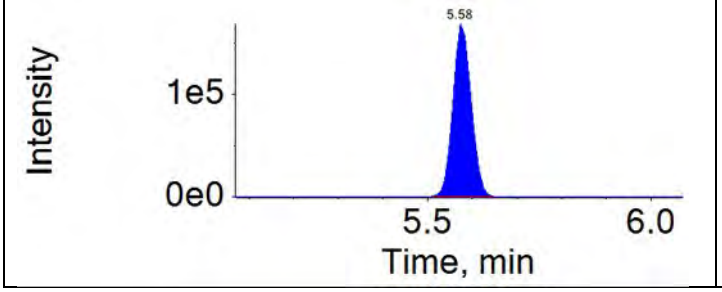


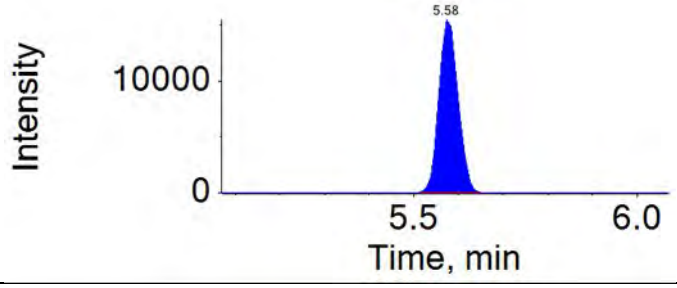
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



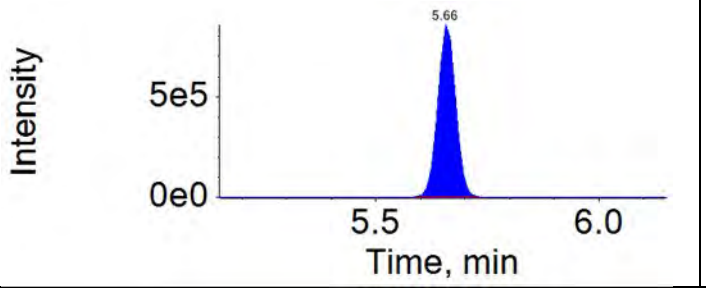


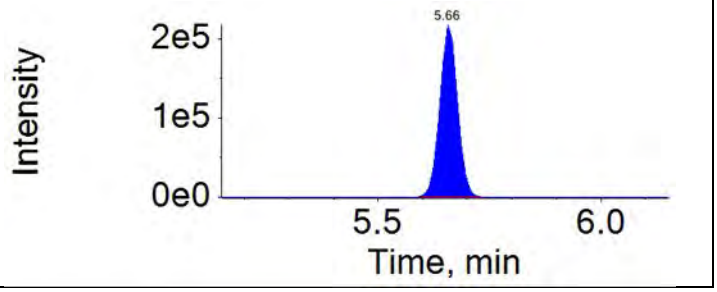
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

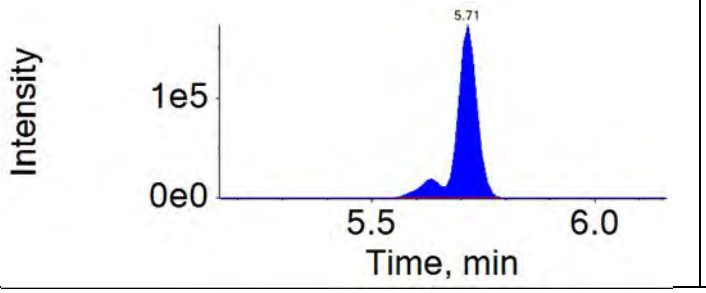
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

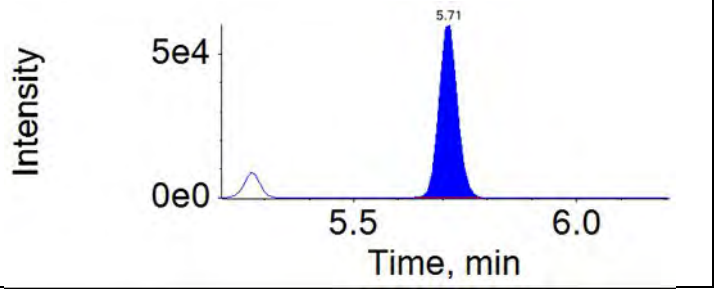
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



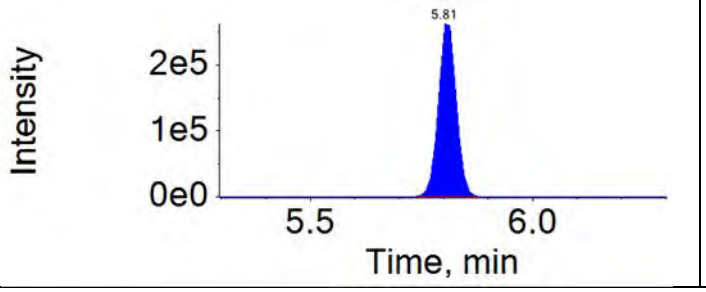


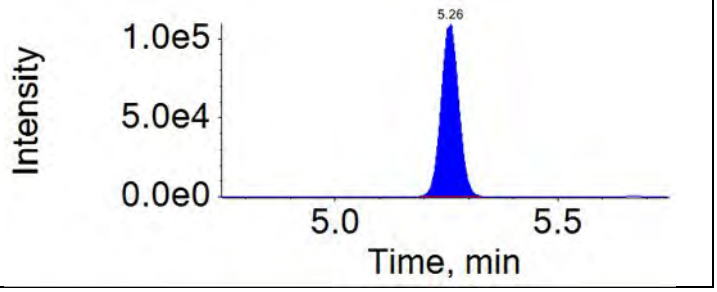
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



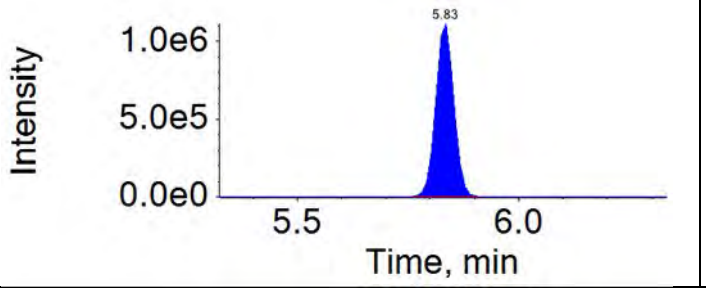


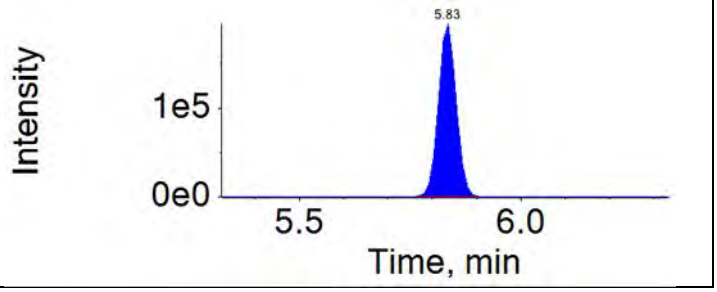
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



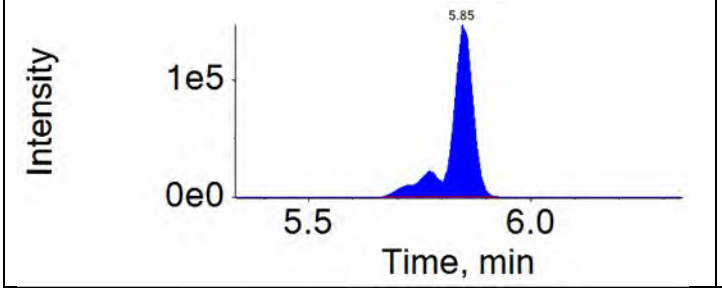


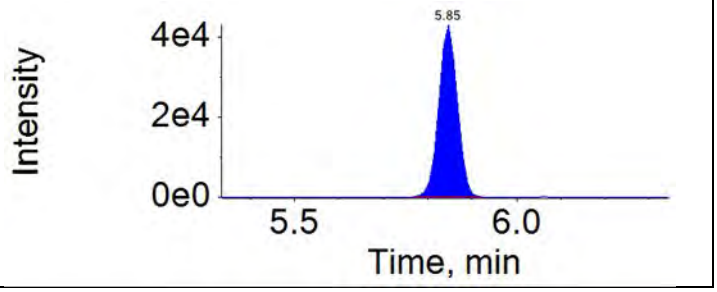
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

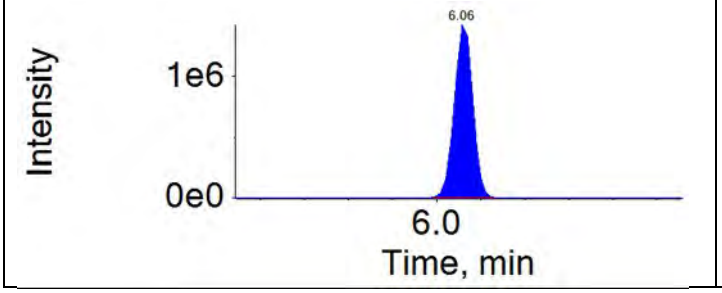
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

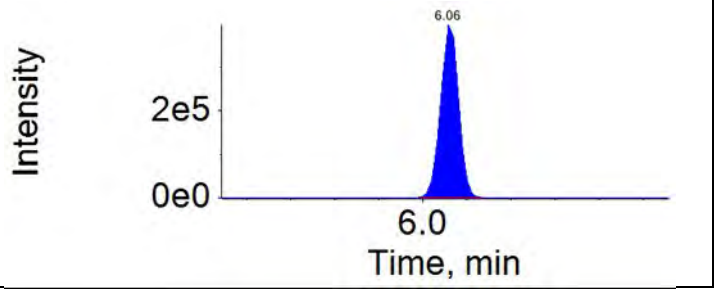
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



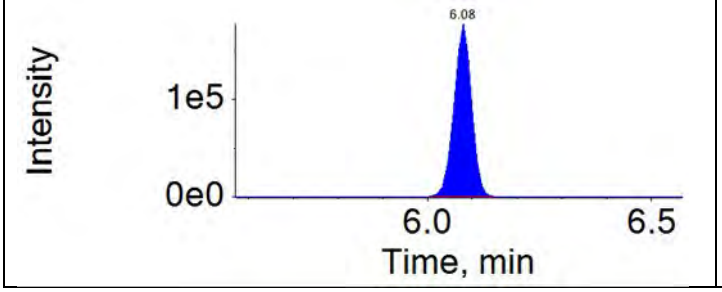


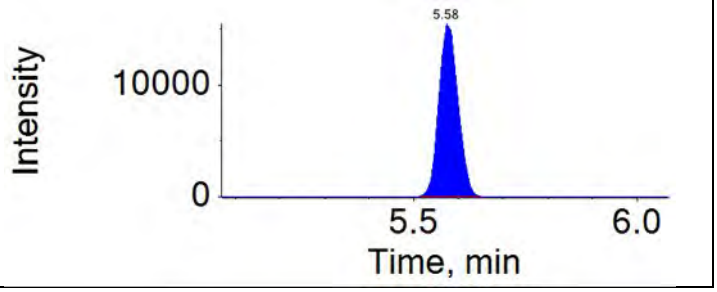
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



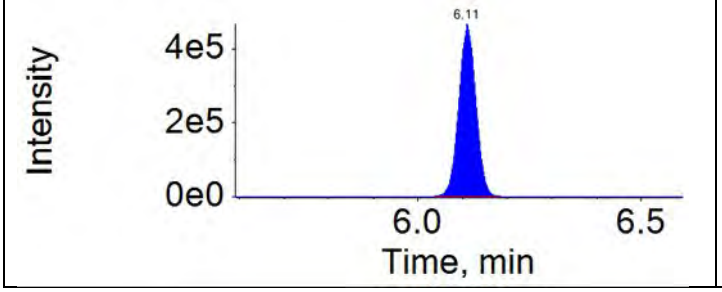


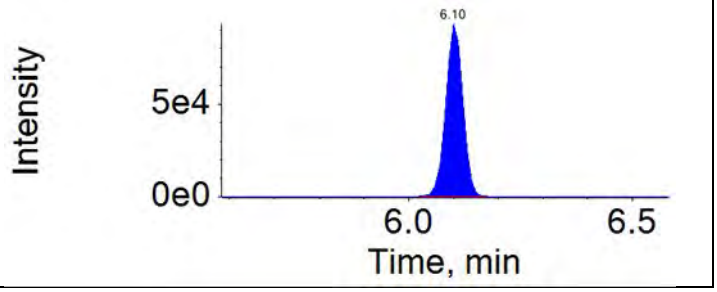
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



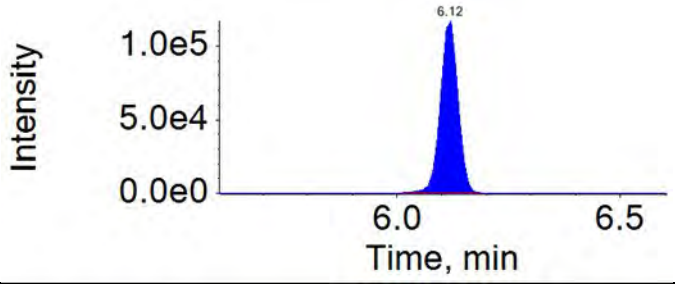


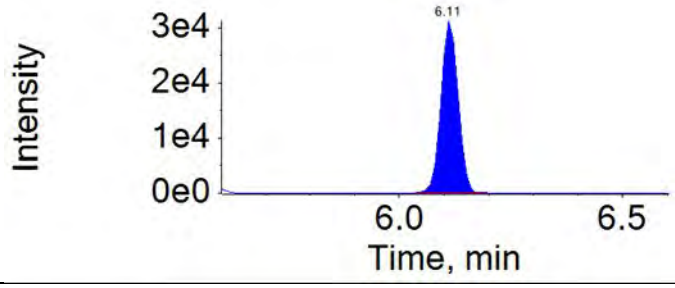
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

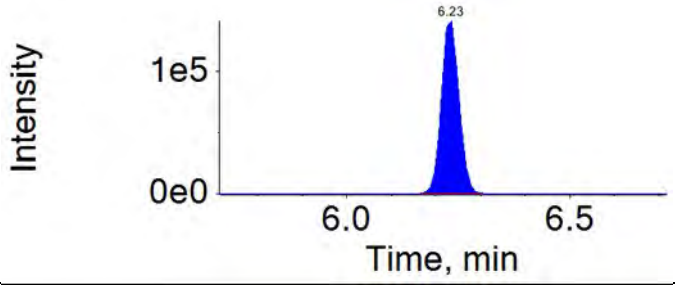
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

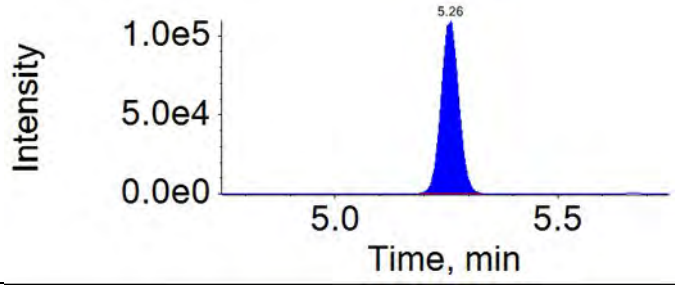
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



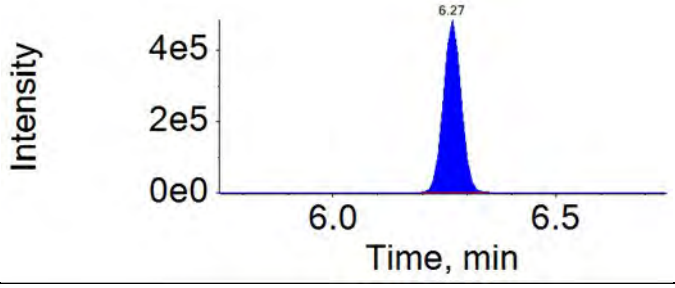


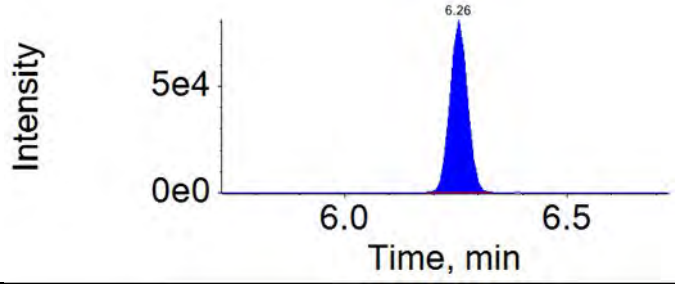
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



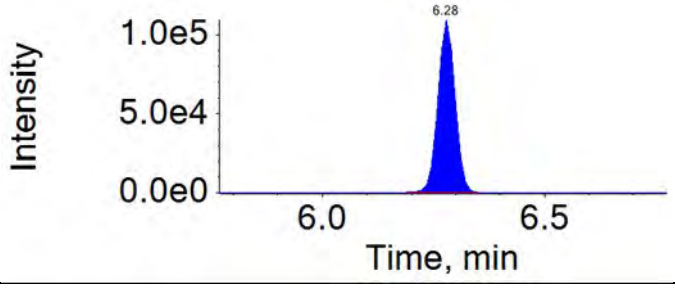


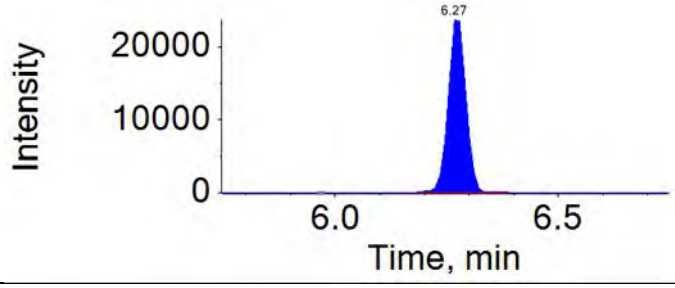
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0



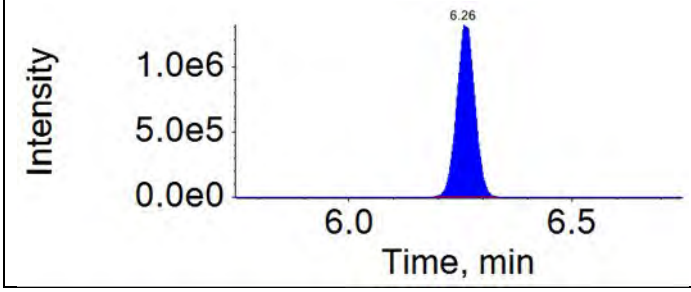
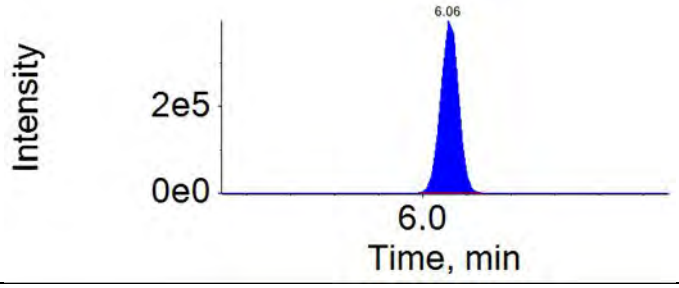


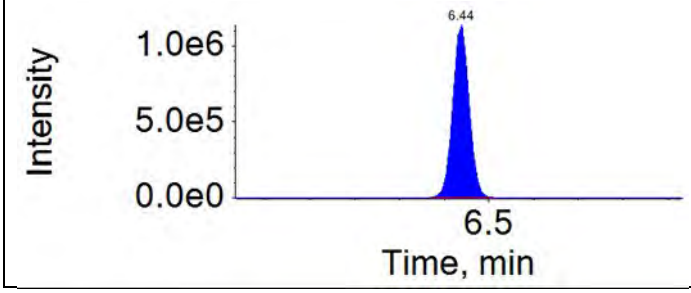
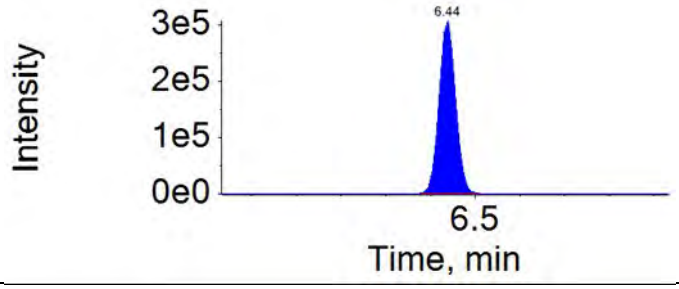
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

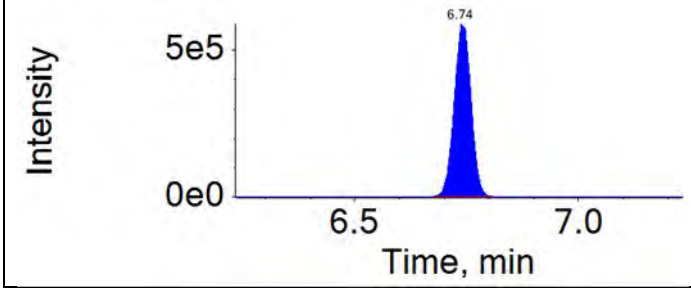
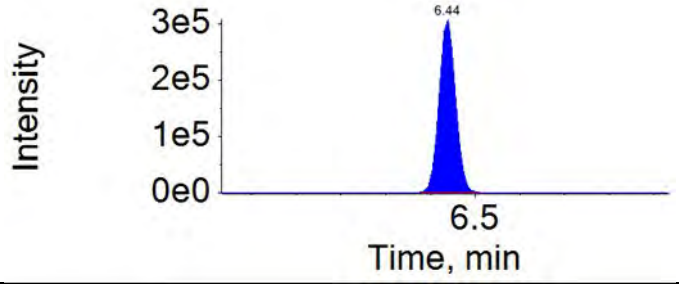


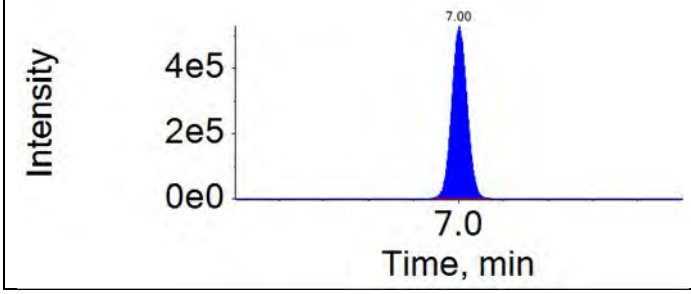
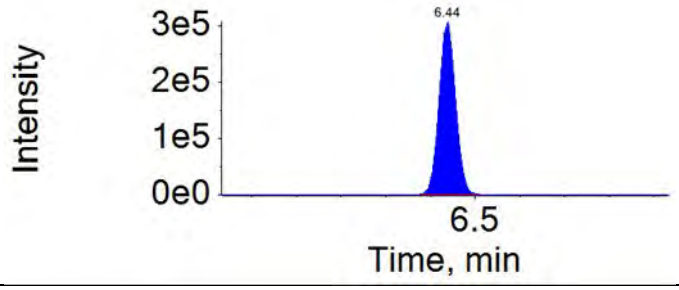


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

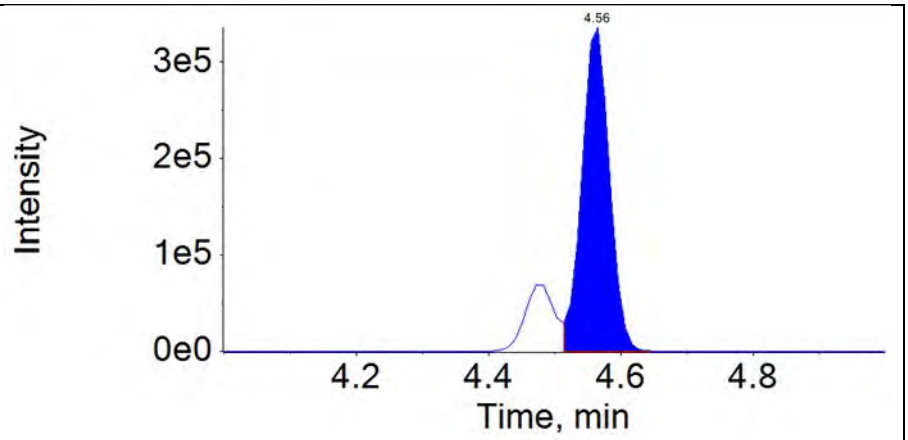
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

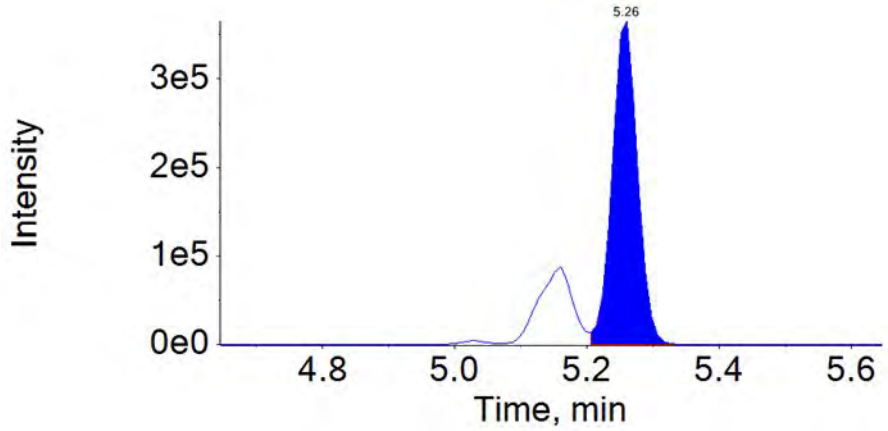
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



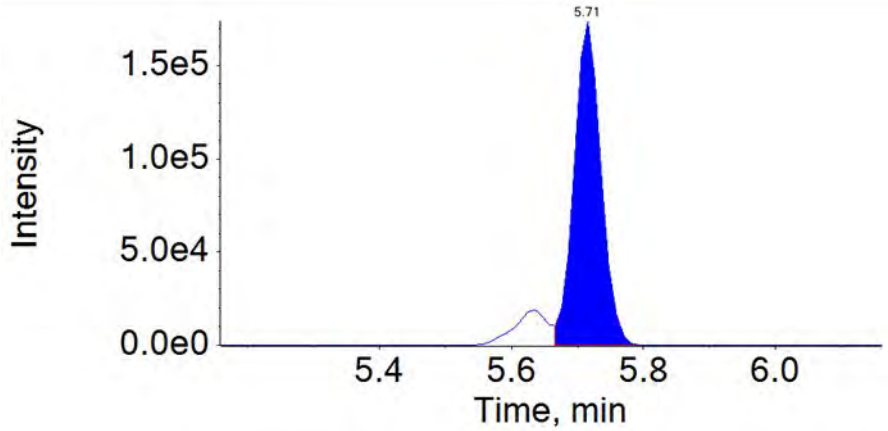
Integration Comment: incorrect integration

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



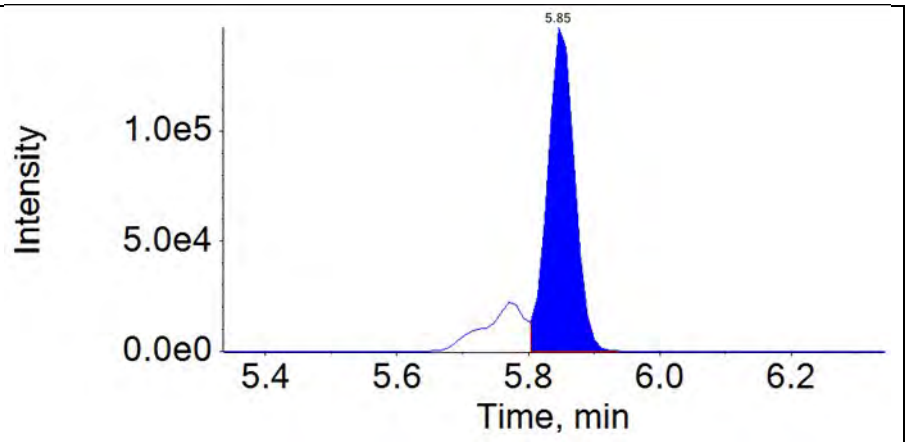
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

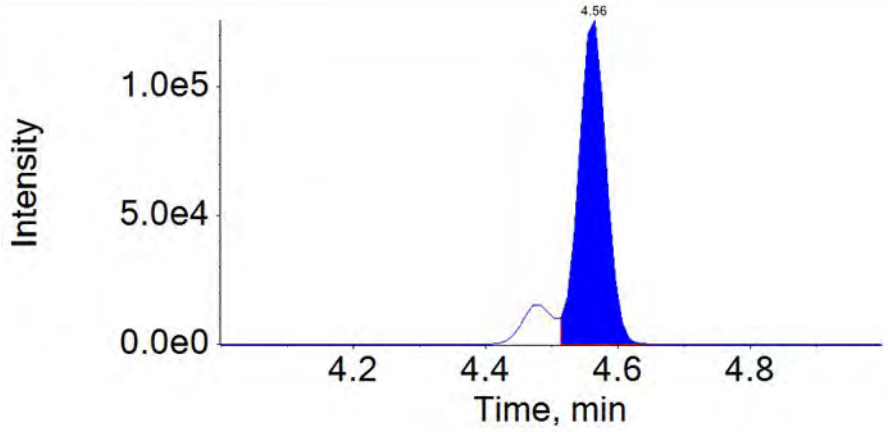
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
417736.88
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



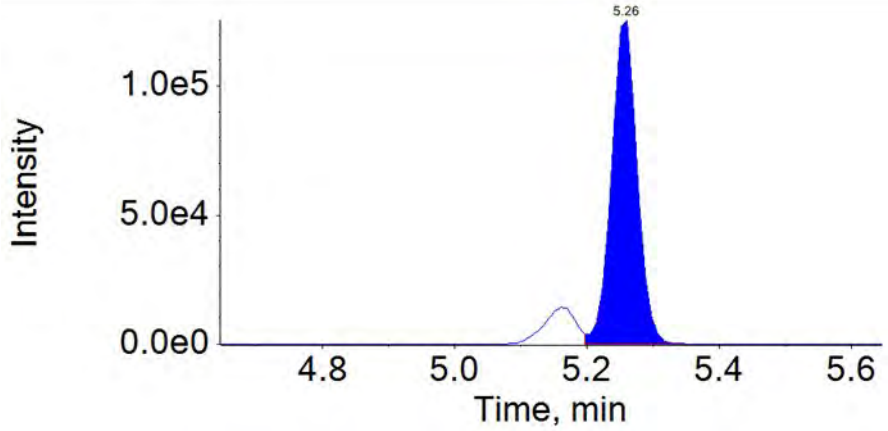
Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

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



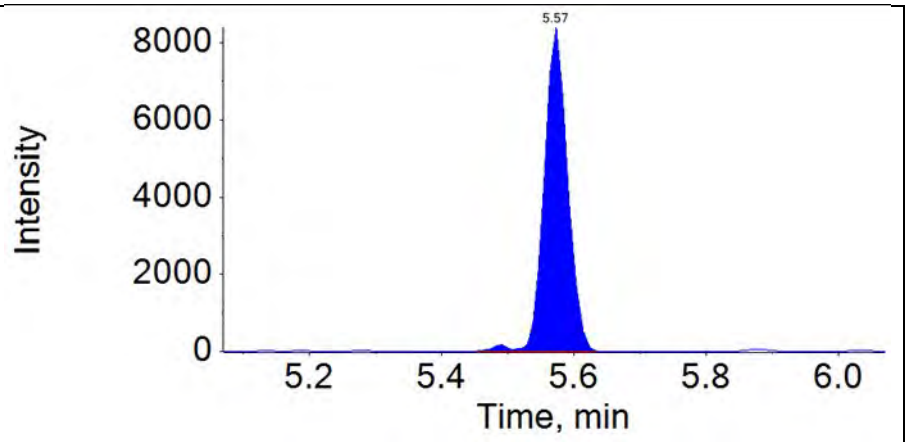
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

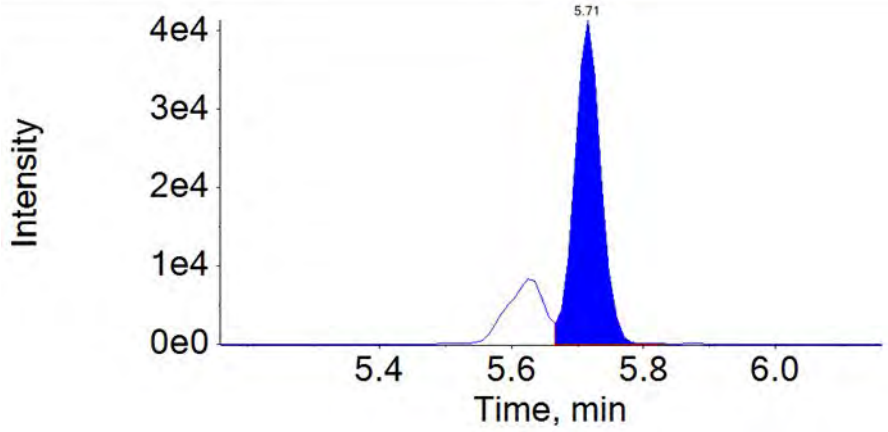
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



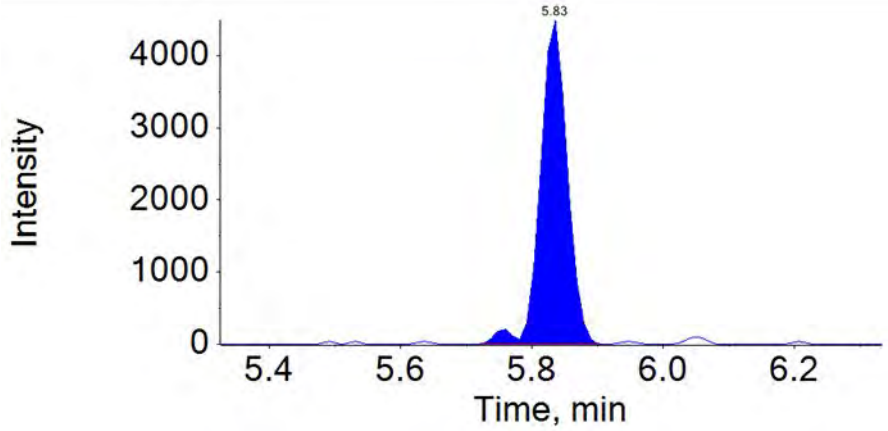
Integration Comment: incorrect integration

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

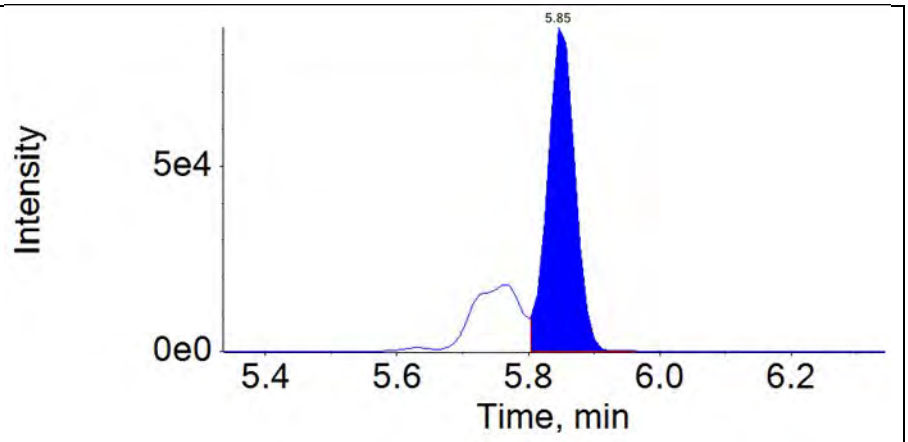
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

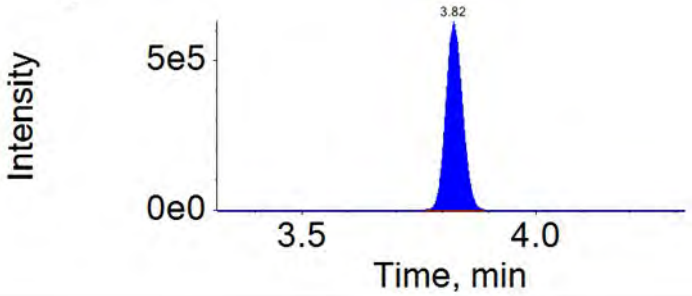
Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-10.wiff

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	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	
PFTrDA	6.26	1.03	3743763.62	A	0.0090	0.0080			
PFTrDA_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	

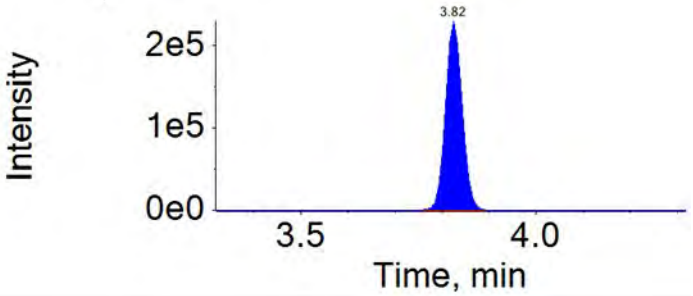
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

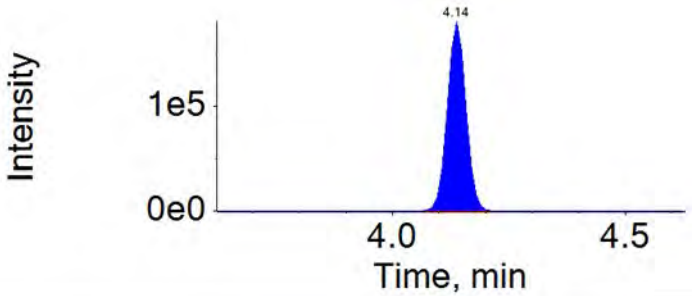
Component: PFBS
Primary Mass: 299.0 / 80.0



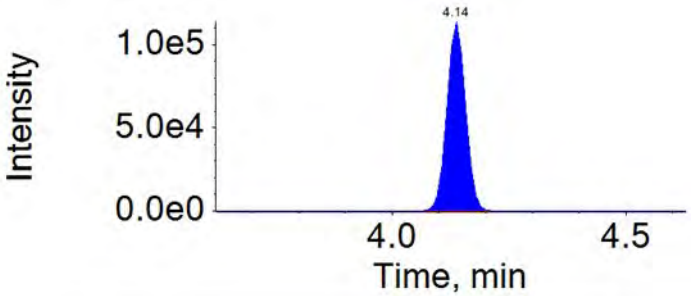
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



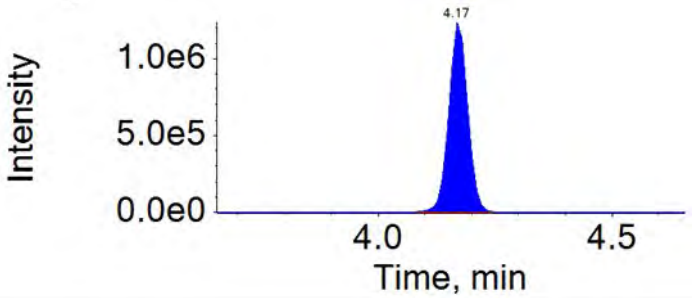
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



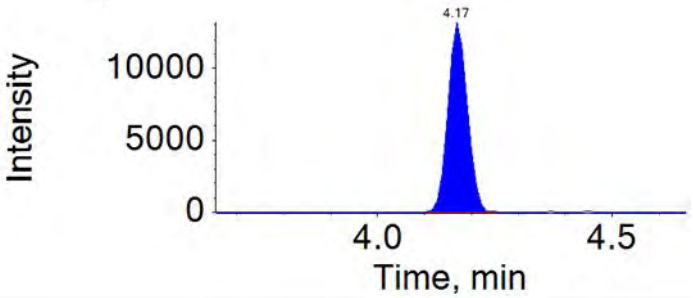
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



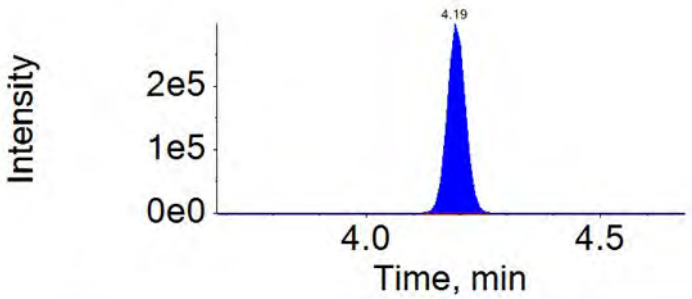
Component: PFHxA
Primary Mass: 313.0 / 269.0



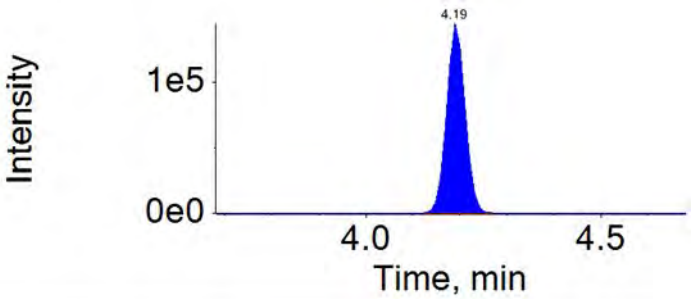
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



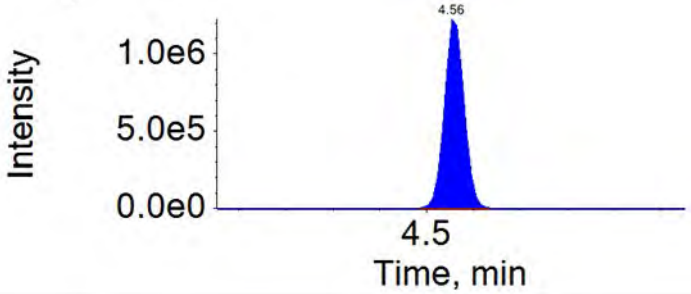
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



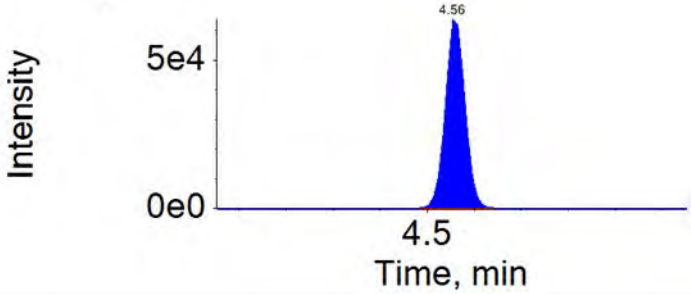
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

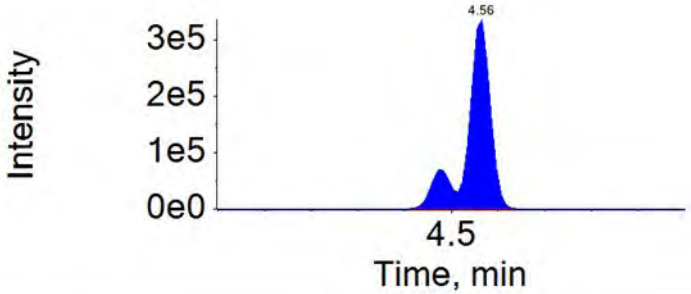
Component: PFHpA
Primary Mass: 363.0 / 319.0



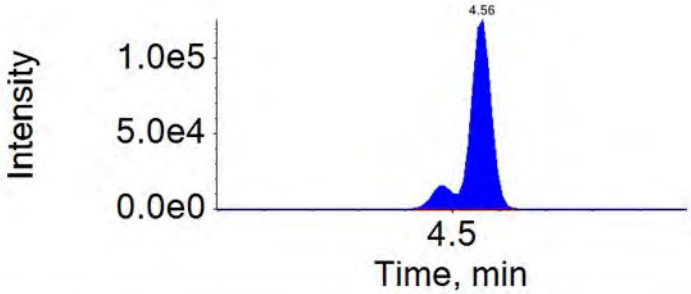
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



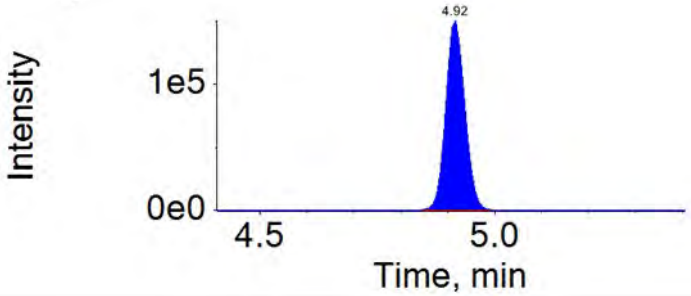
Component: PFHxS
Primary Mass: 399.0 / 80.0



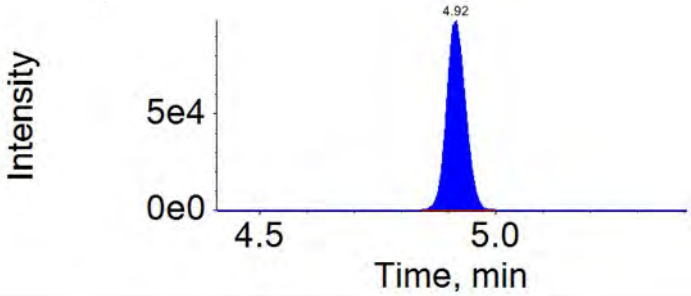
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



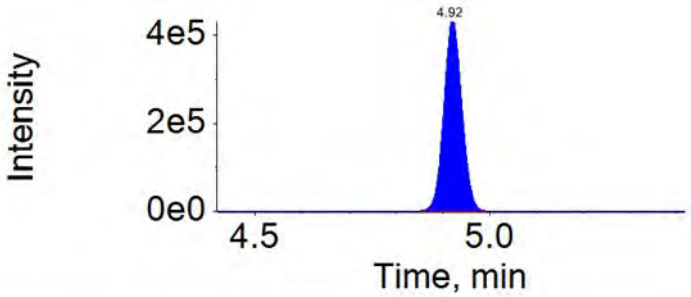
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



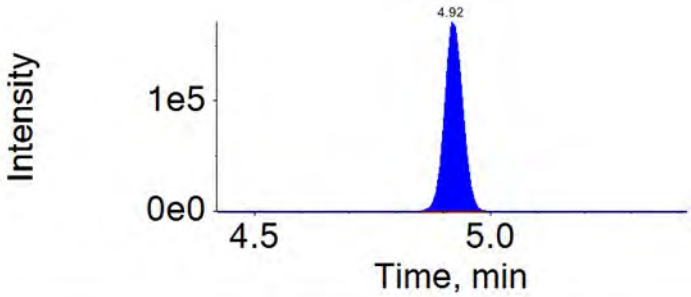
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



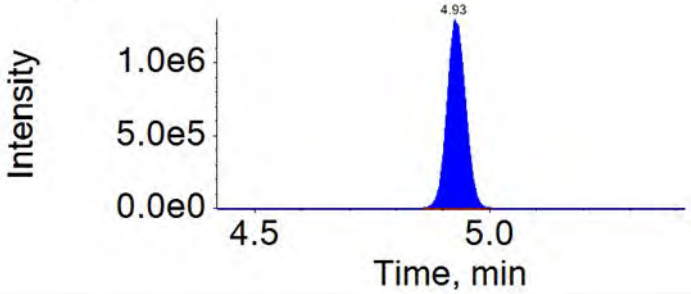
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



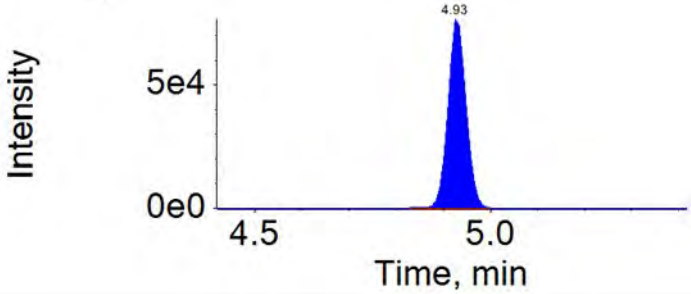
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

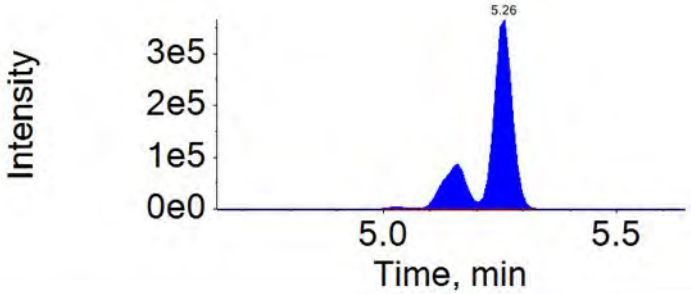
Component: PFOA
Primary Mass: 413.0 / 369.0



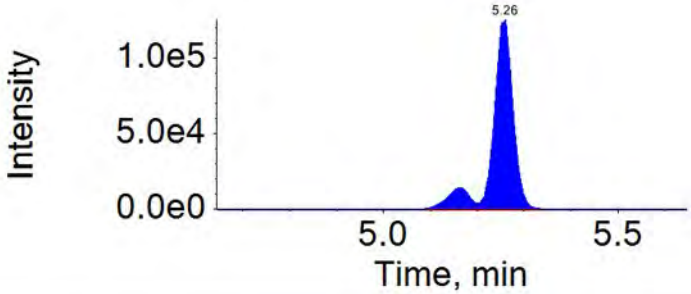
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



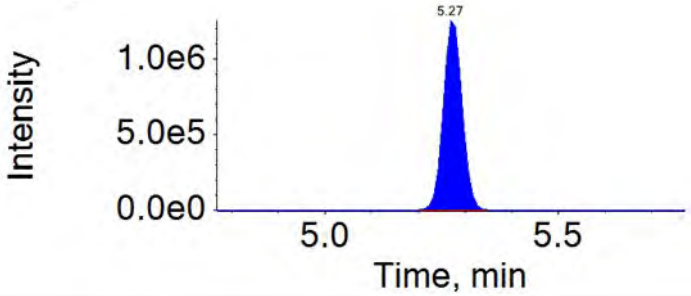
Component: PFOS
Primary Mass: 499.0 / 80.0



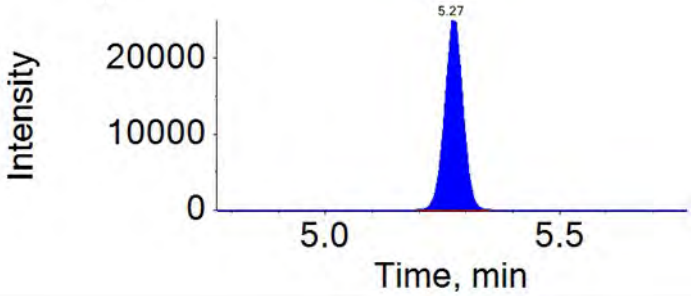
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



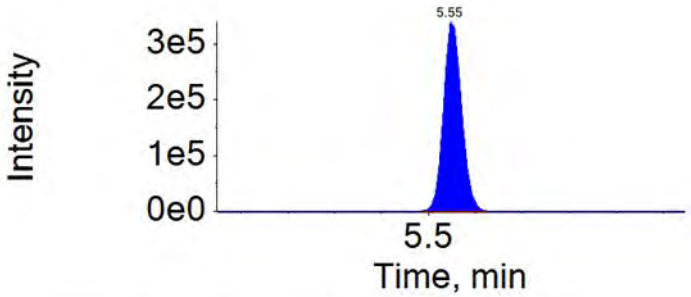
Component: PFNA
Primary Mass: 463.0 / 419.0



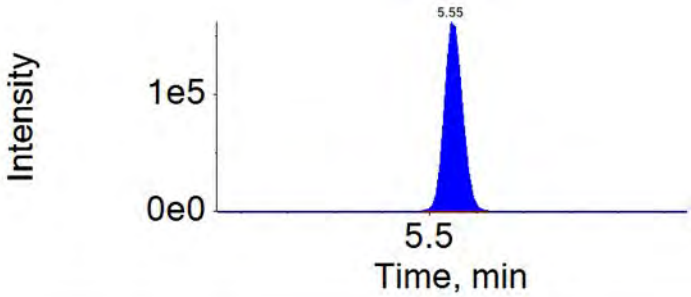
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



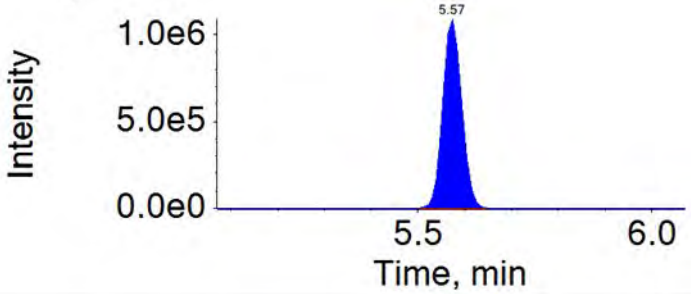
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



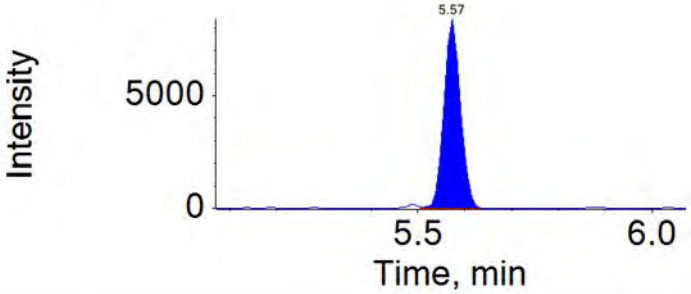
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

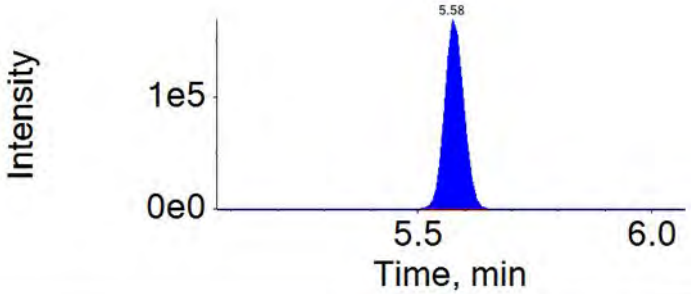
Component: PFDA
Primary Mass: 513.0 / 469.0



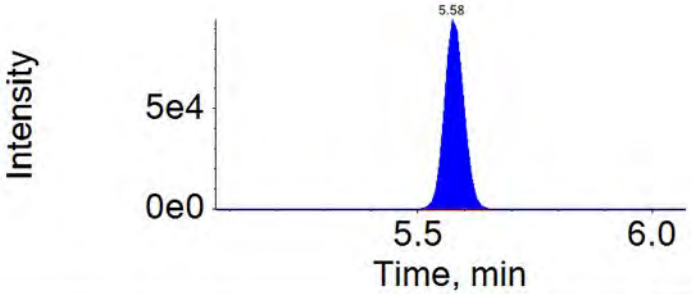
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



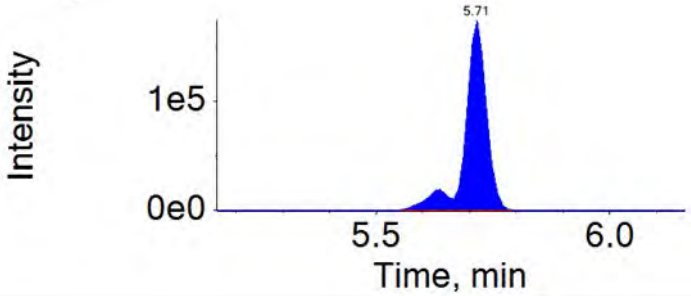
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



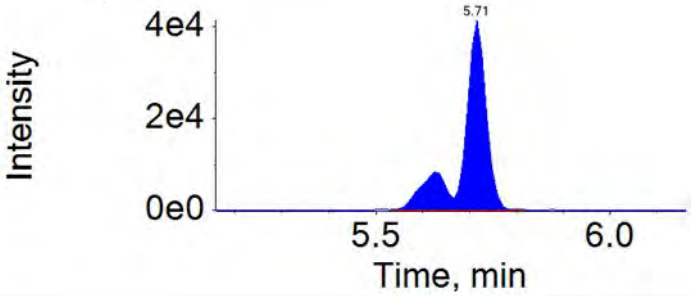
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



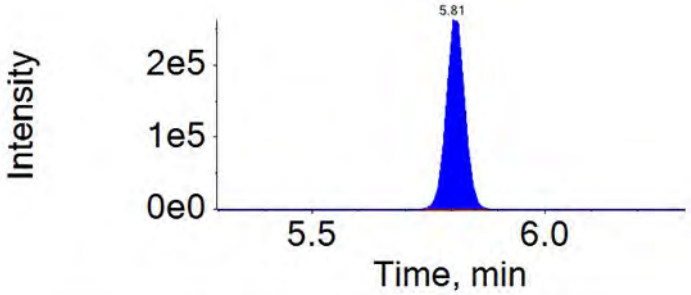
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



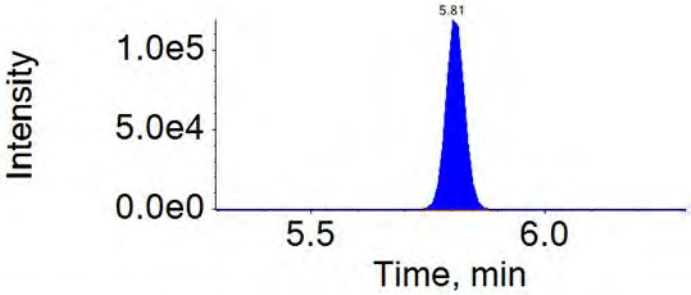
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



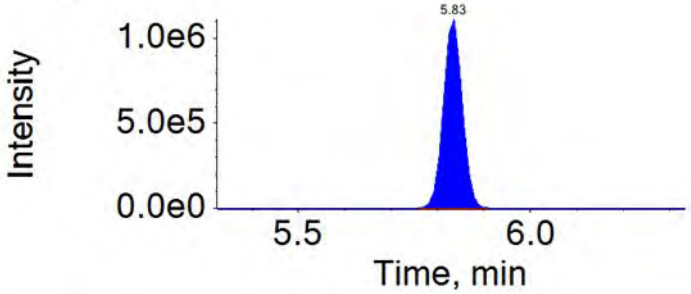
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



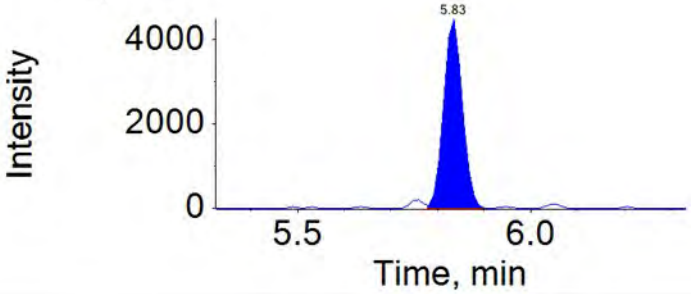
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

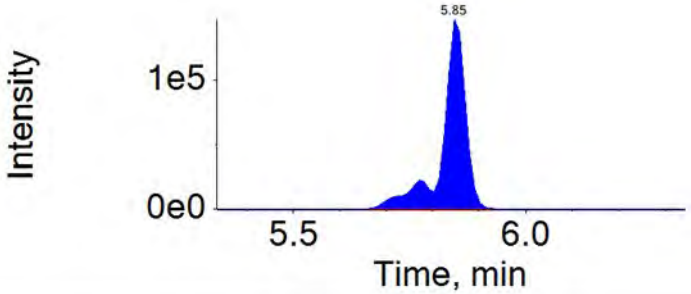
Component: PFUnDA
Primary Mass: 563.0 / 519.0



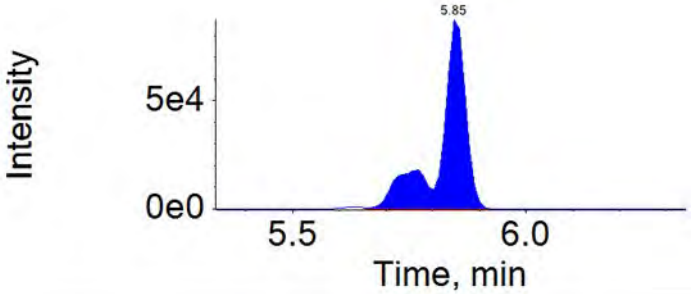
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



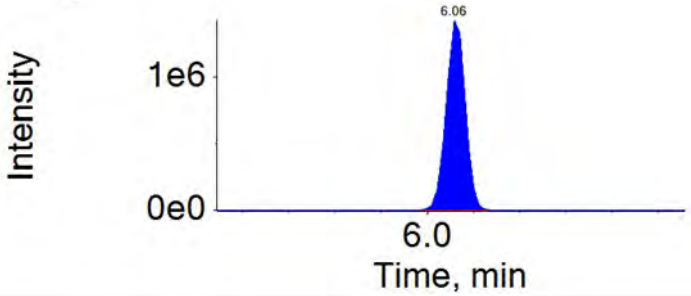
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



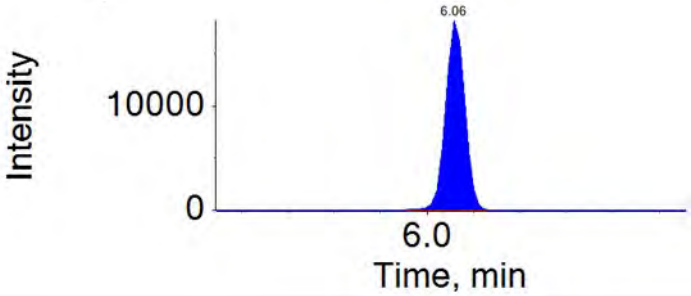
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



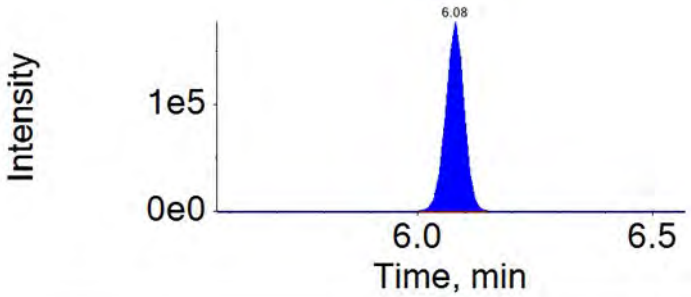
Component: PFDoDA
Primary Mass: 613.0 / 569.0



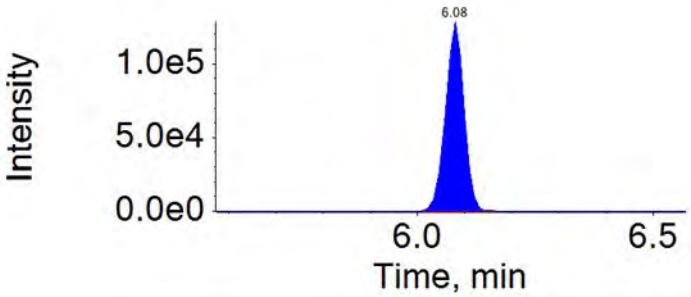
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



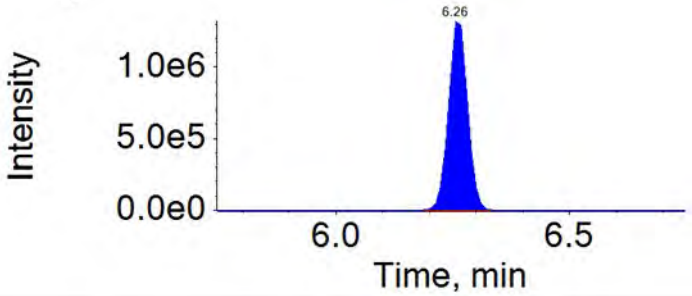
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



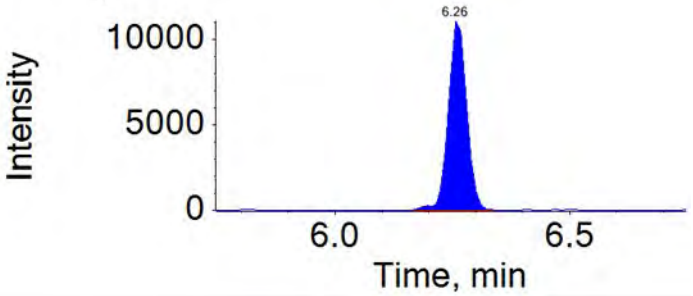
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

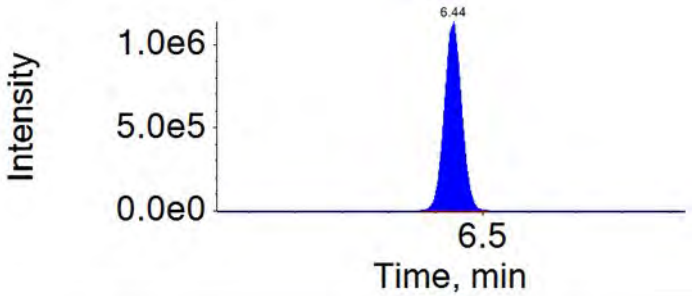
Component: PFTrDA
Primary Mass: 663.0 / 619.0



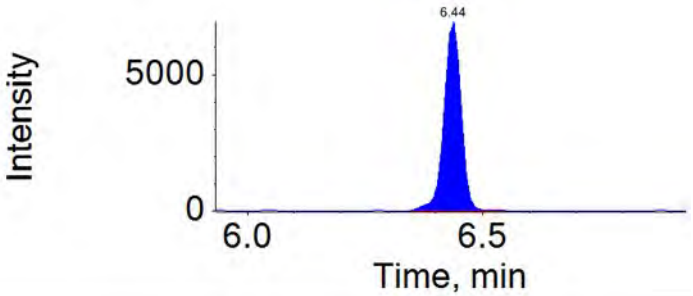
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



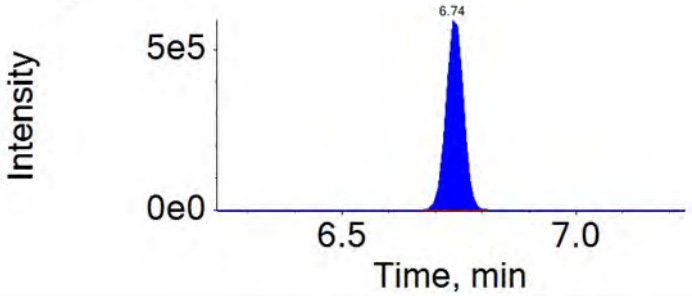
Component: PFTeDA
Primary Mass: 713.0 / 669.0



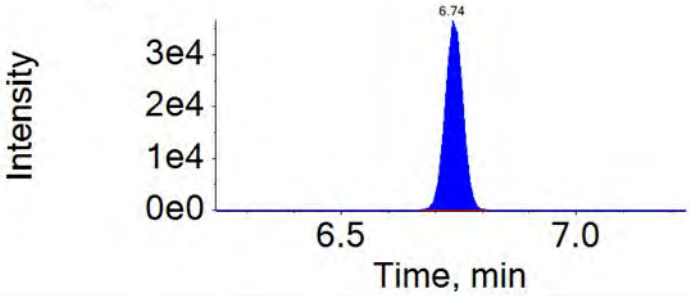
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



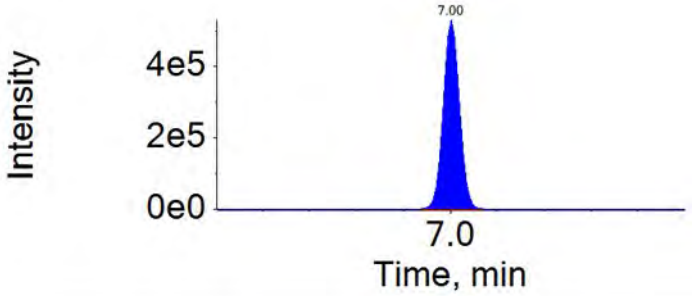
Component: PFHxDA
Primary Mass: 813.0 / 769.0



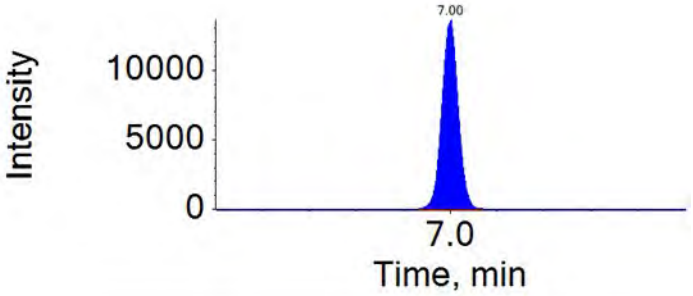
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

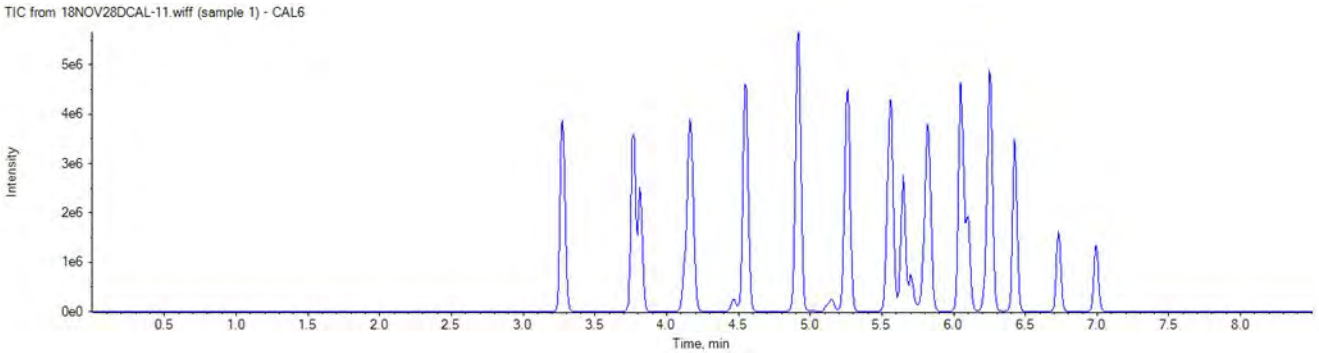
Analyte Quantitation Peak Table

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
PFTrDA	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

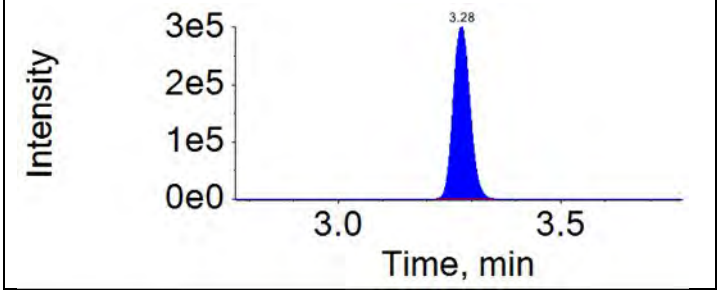


APPROVED
By MCD at 5:00 pm, 11/28/18

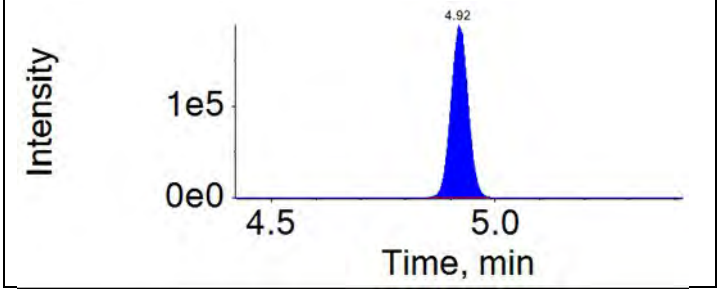
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

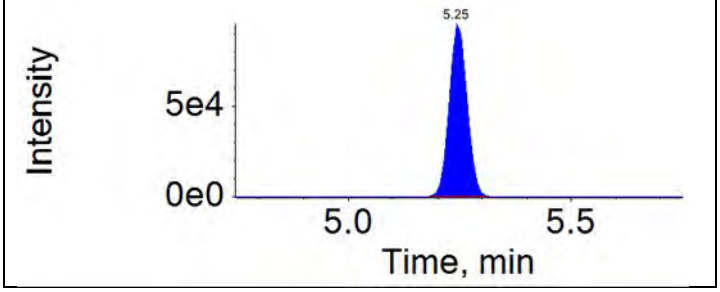
Injection Standard: 13C3-PFBA
216.0 / 172.0



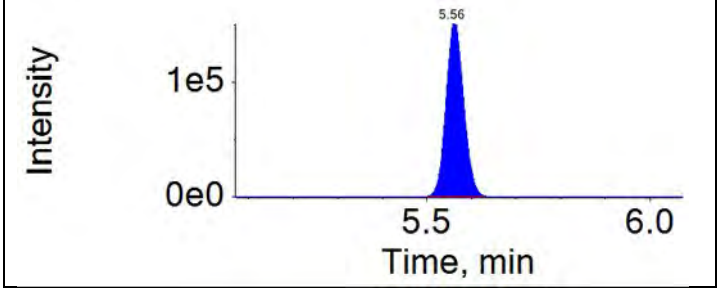
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



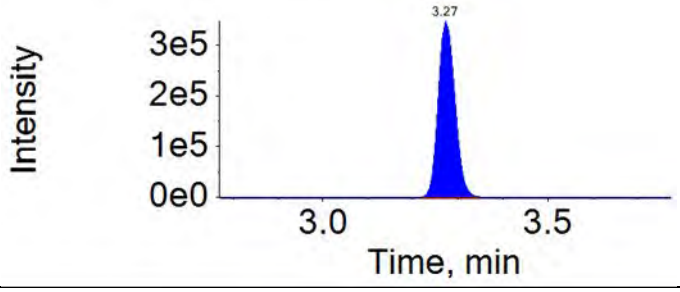
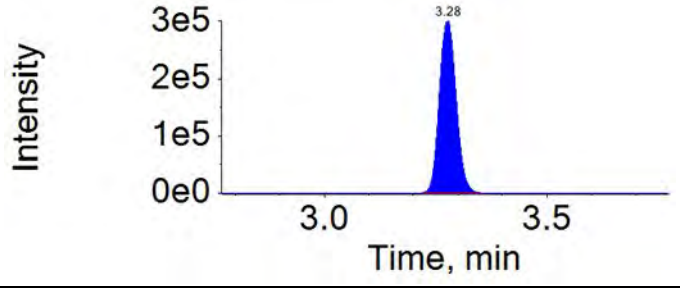
Injection Standard: 13C2-PFDA
515.0 / 470.0

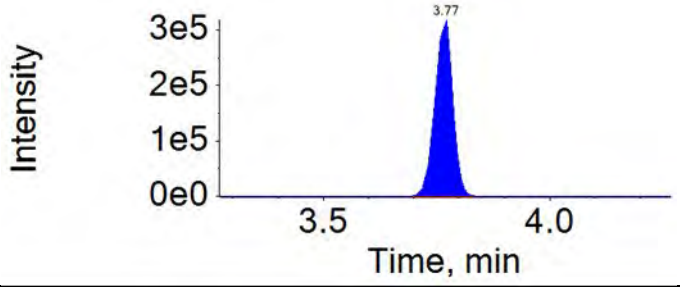
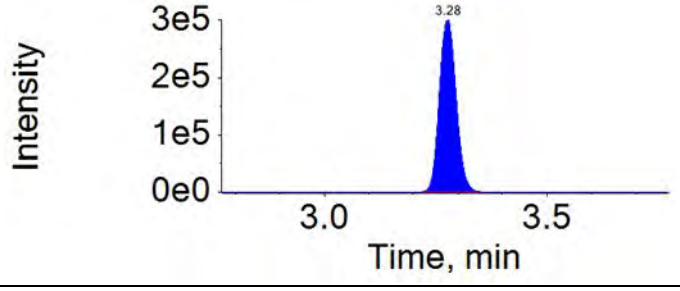


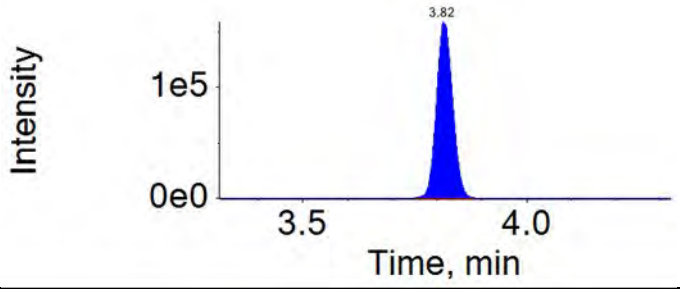
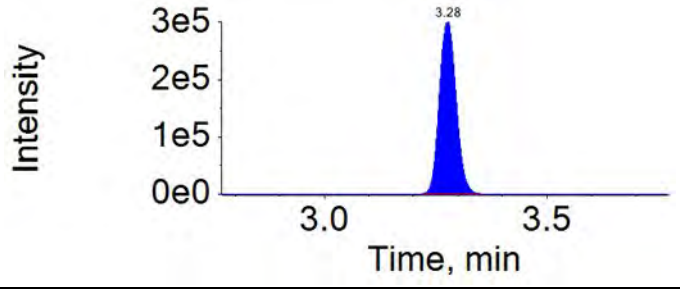
APPROVED
By MCD at 5:00 pm, 11/28/18

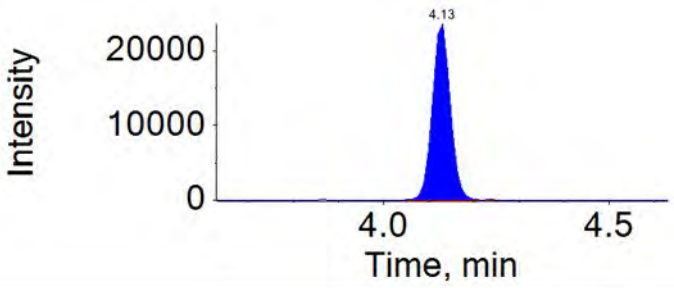
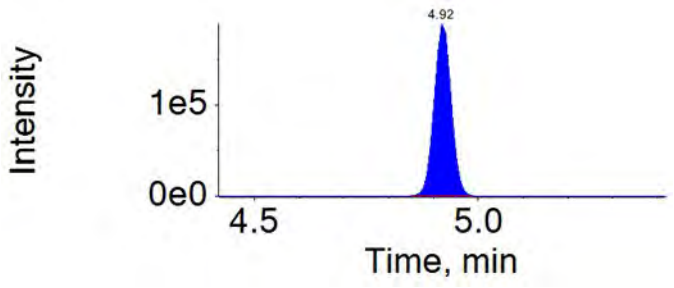
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

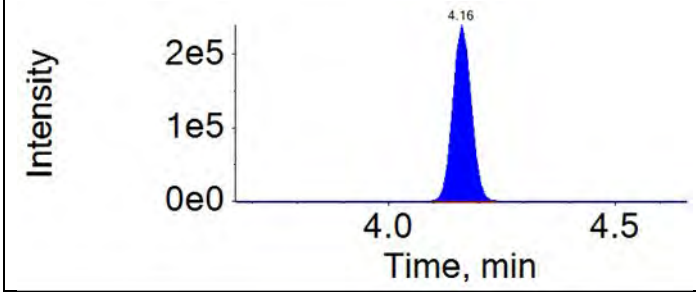
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

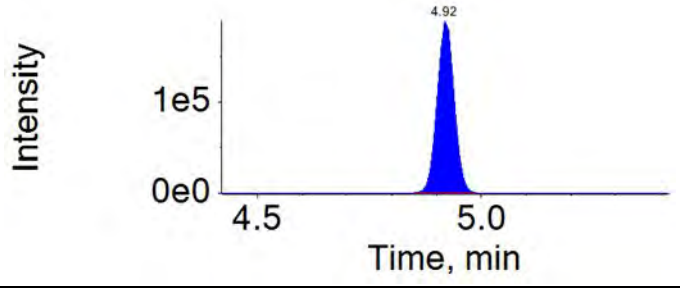
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

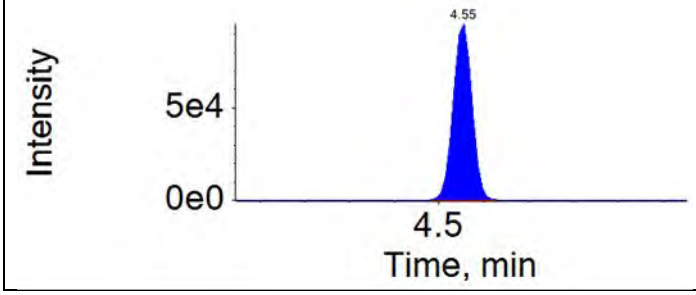
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

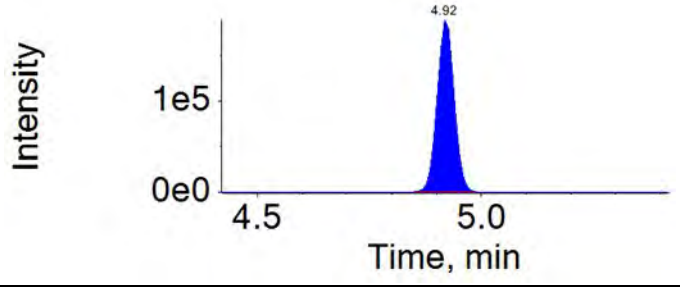
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



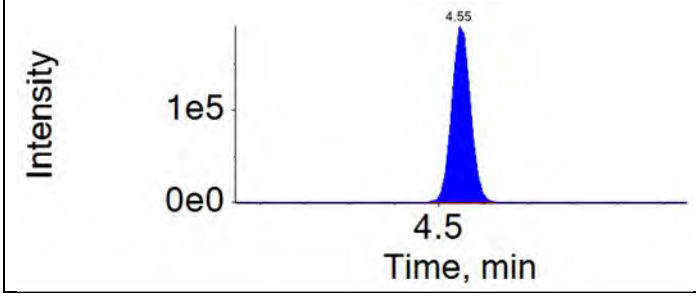


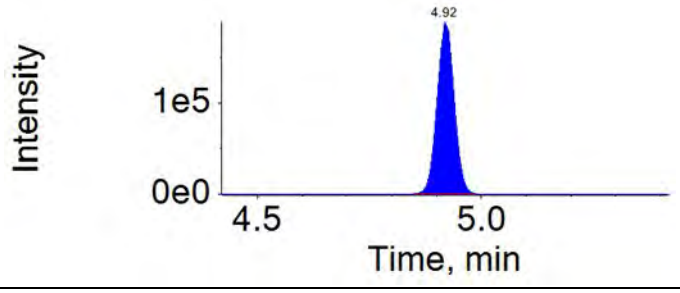
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



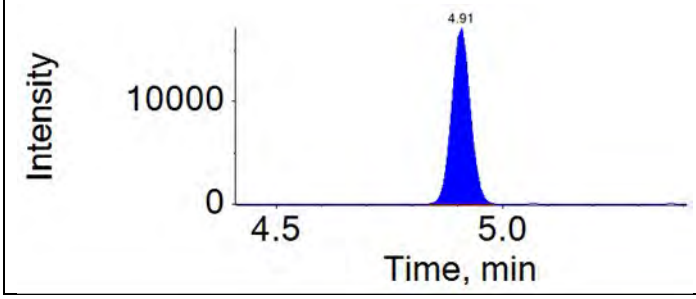


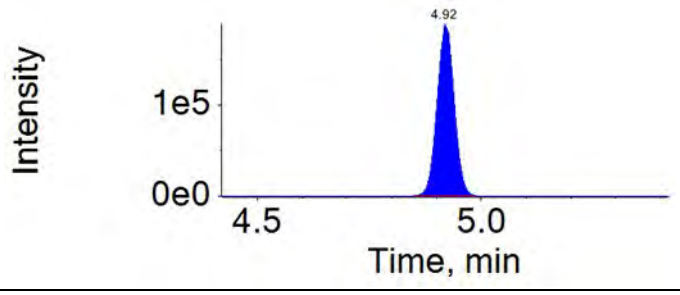
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

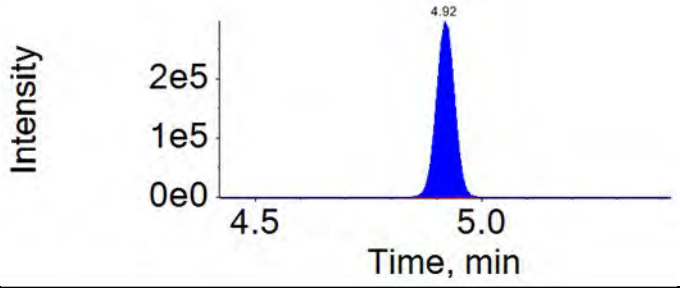
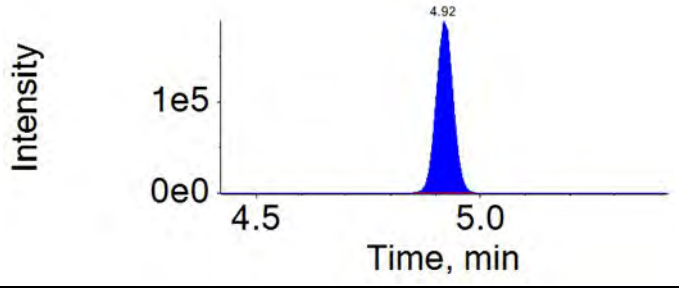


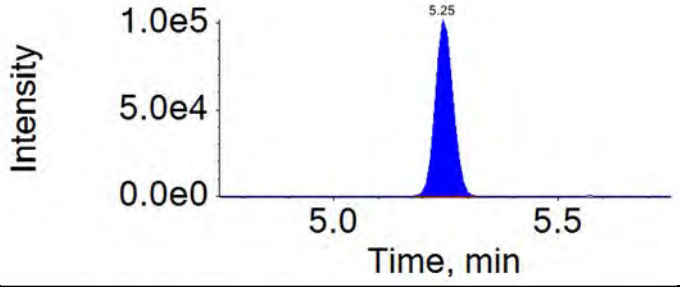
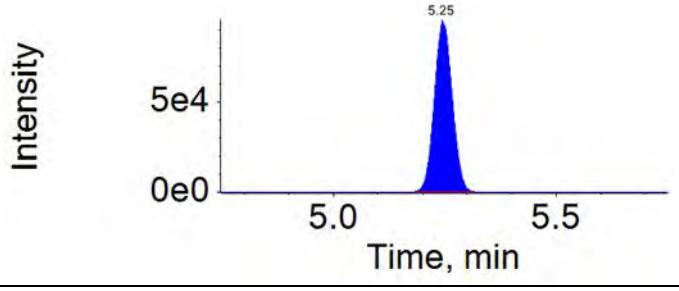


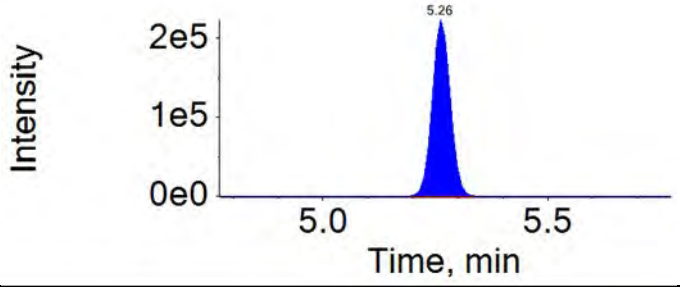
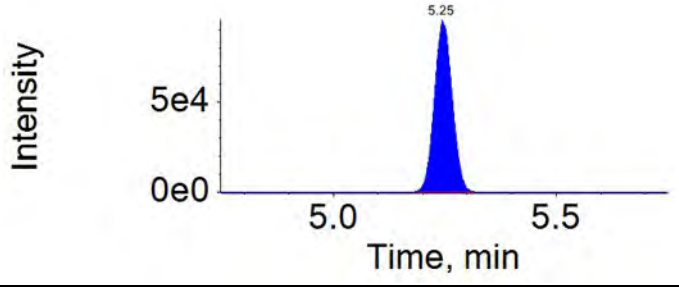
APPROVED
By MCD at 5:00 pm, 11/28/18

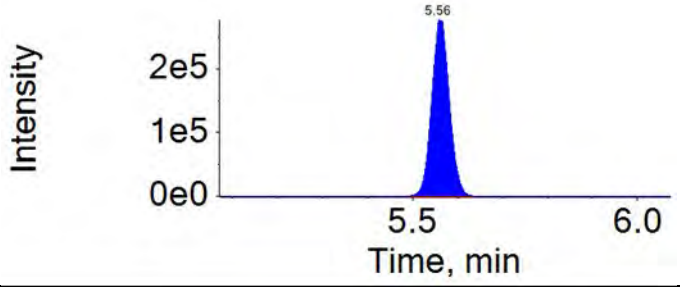
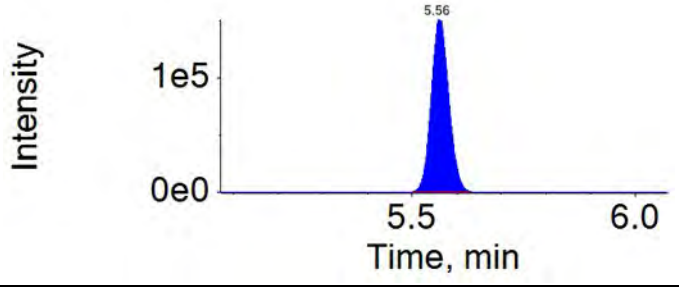
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

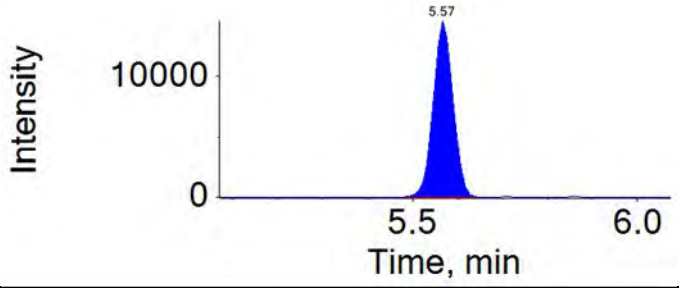
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

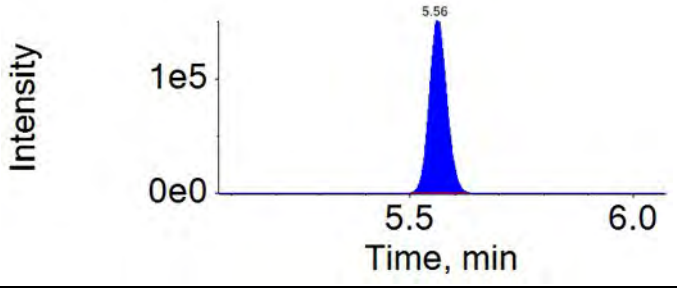
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

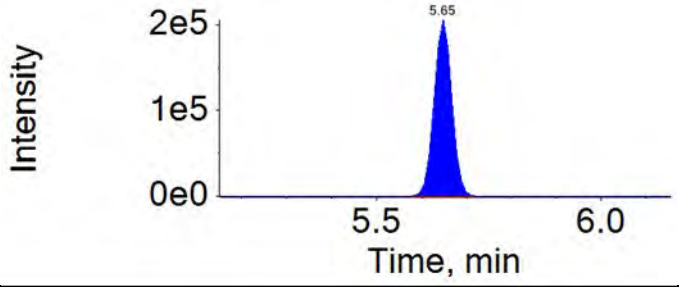
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

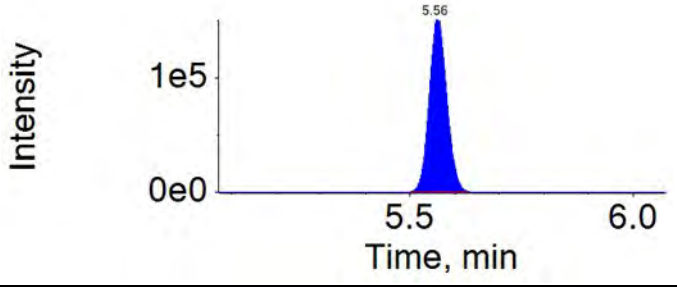
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



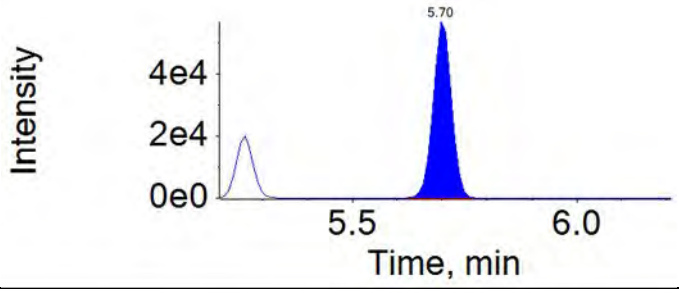


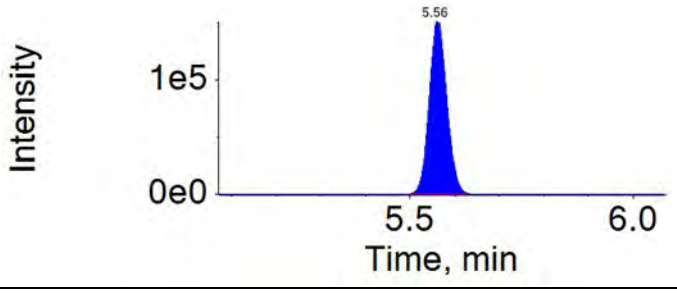
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



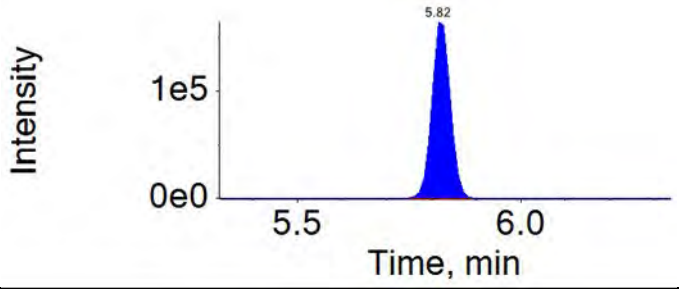


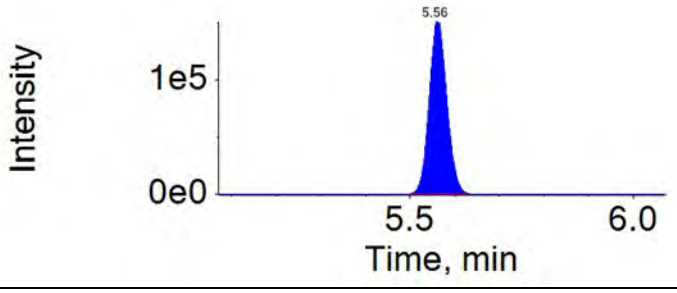
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



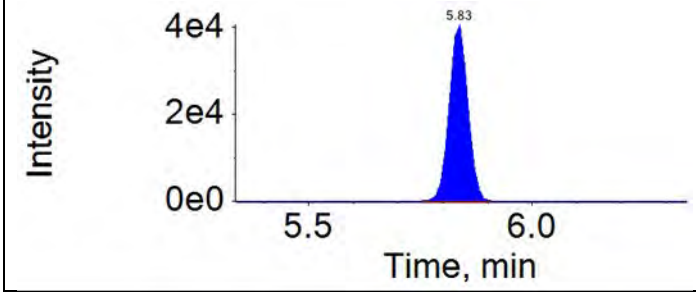


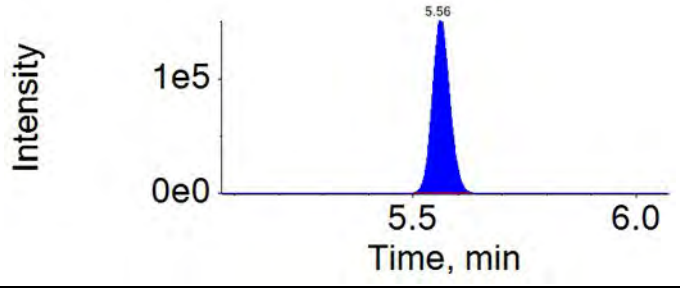
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

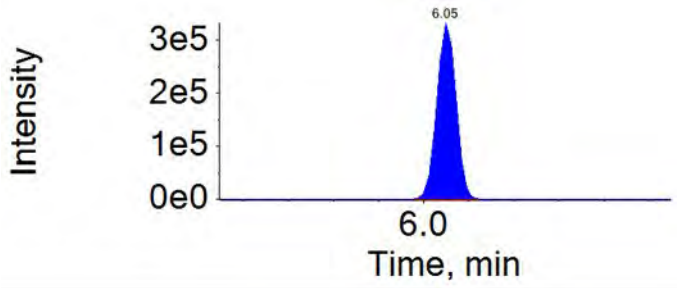
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

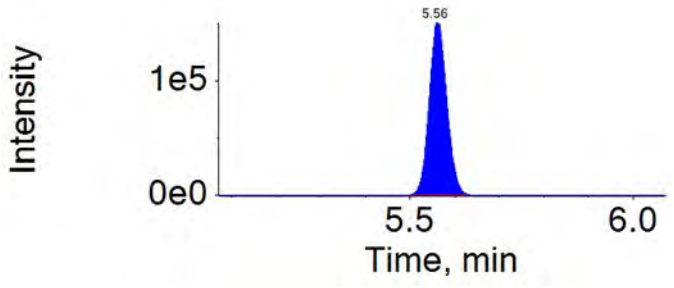
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



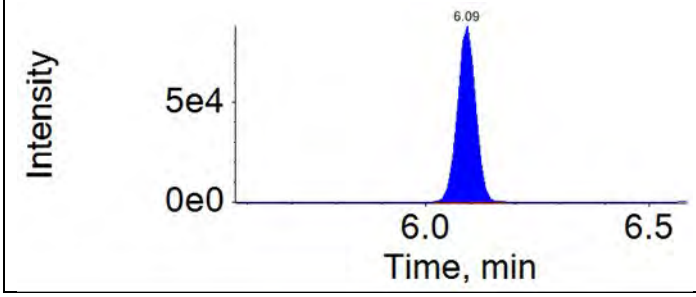


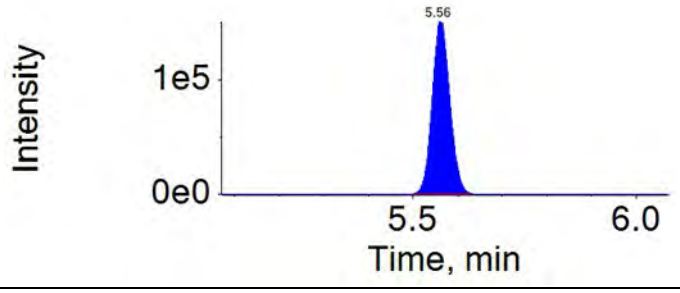
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



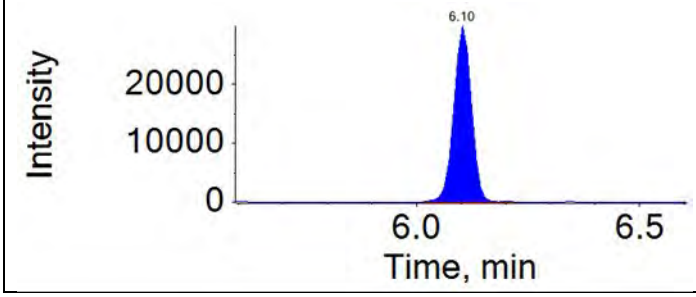


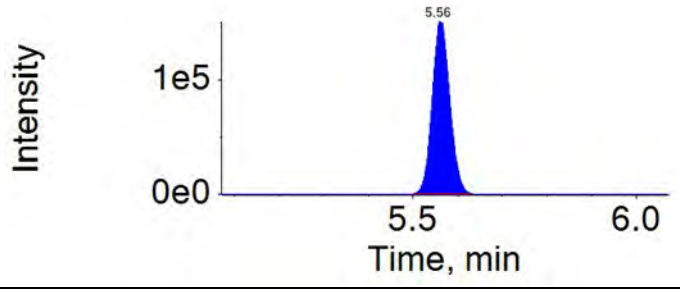
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



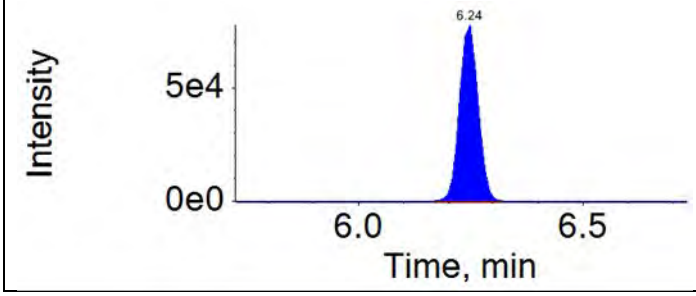


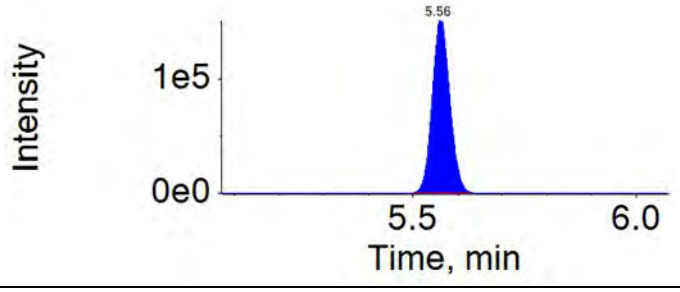
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

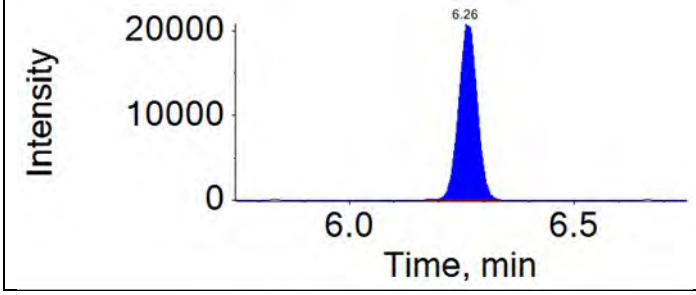
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

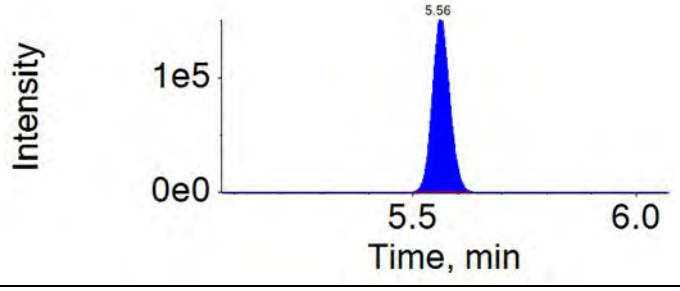
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



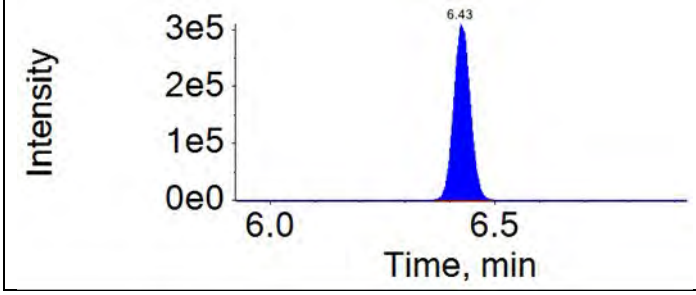


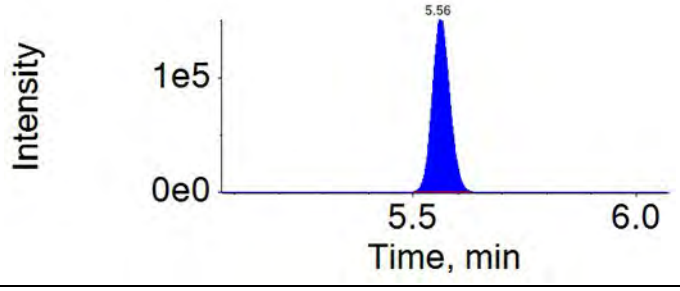
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



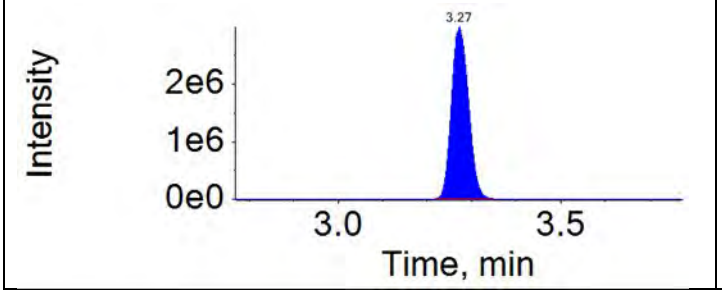


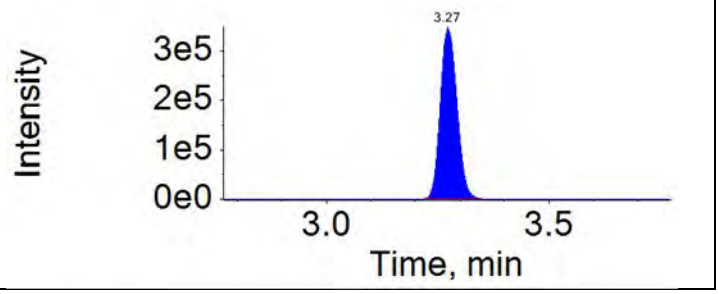
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

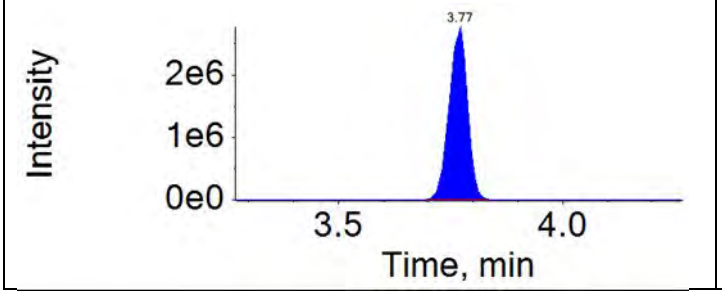
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

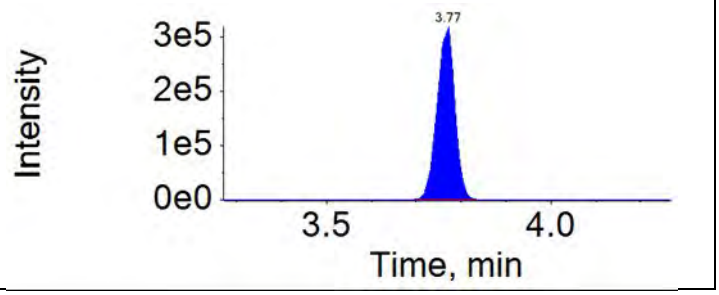
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



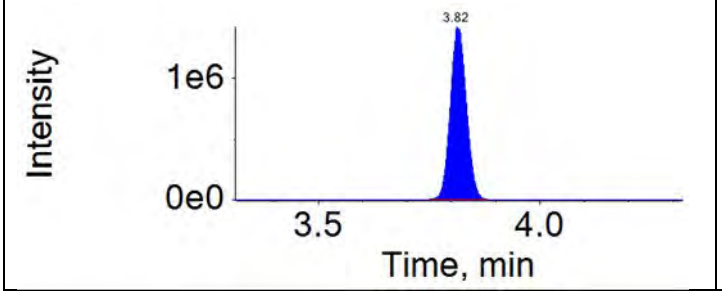


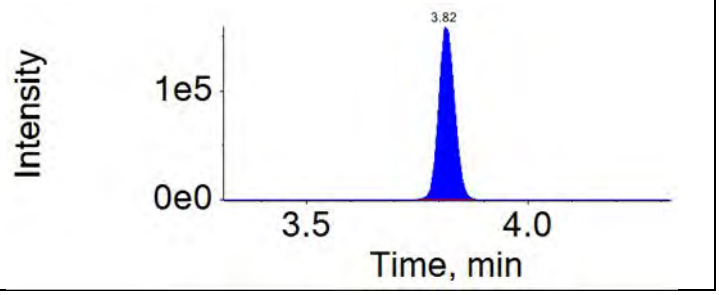
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



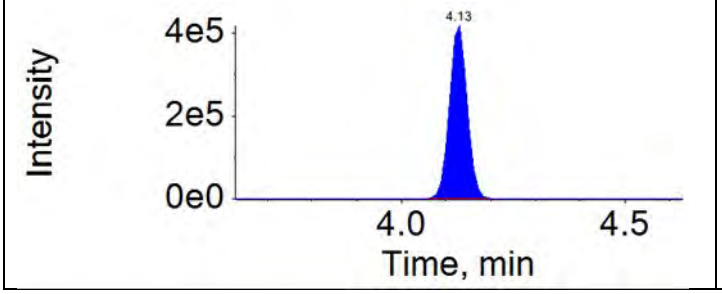


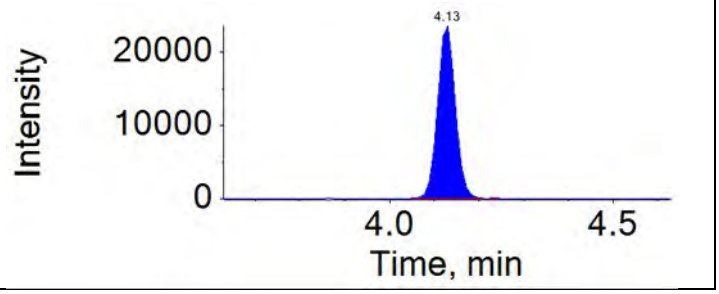
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



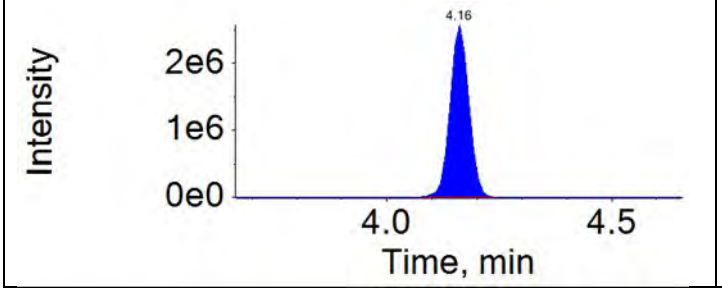


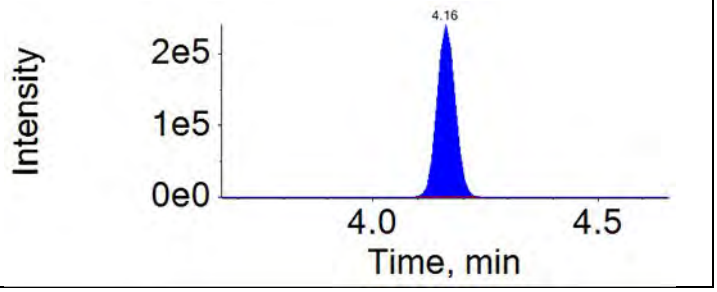
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

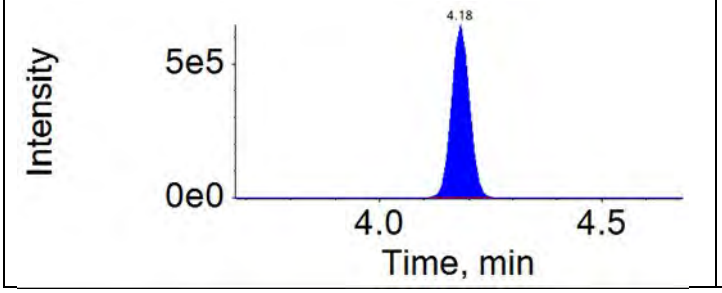
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

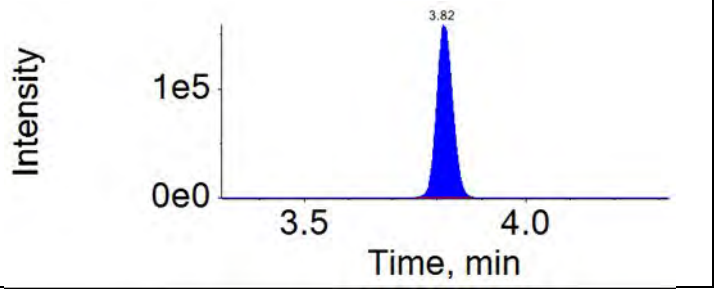
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



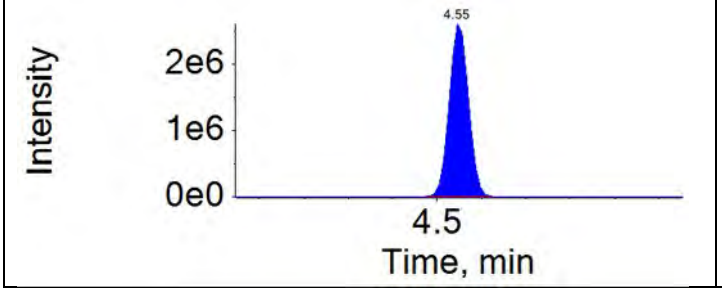


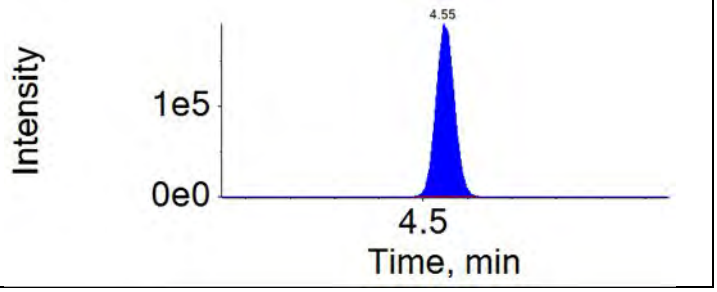
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



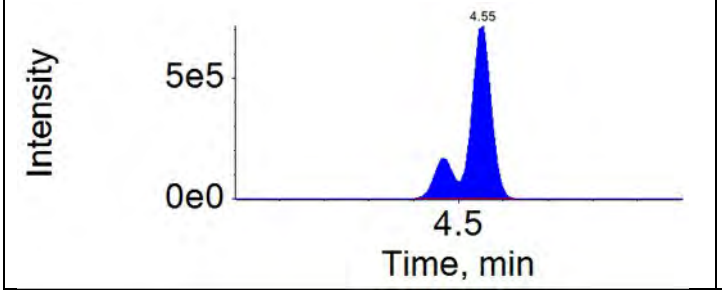


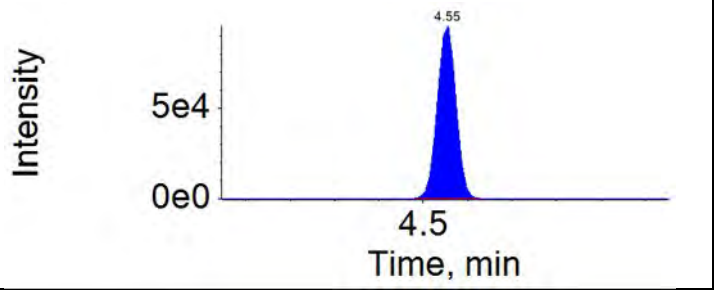
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

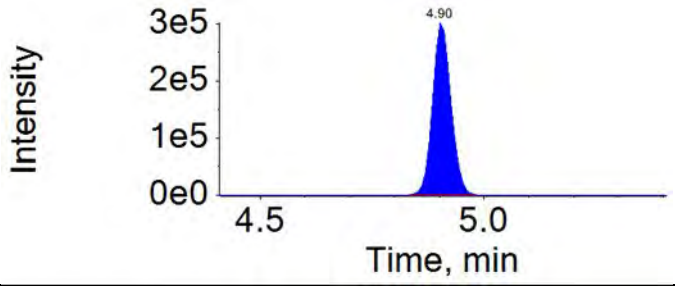
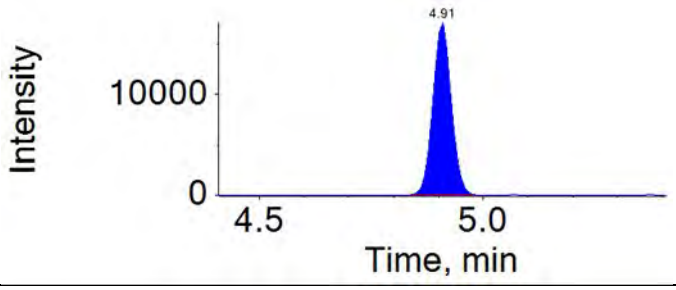


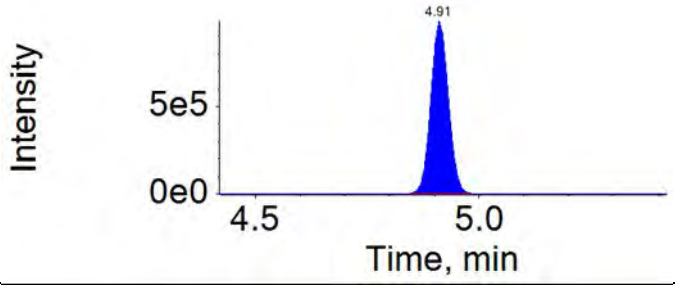
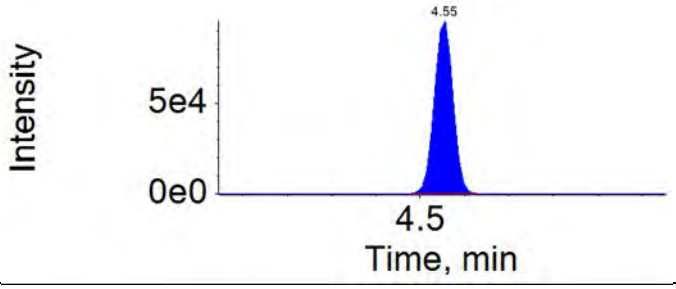


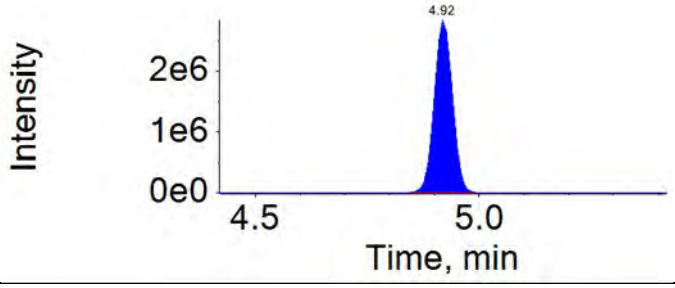
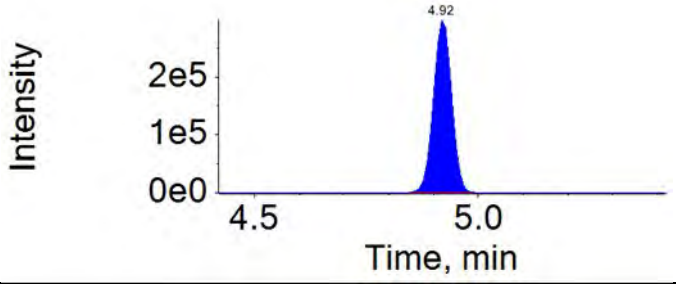
APPROVED
By MCD at 5:00 pm, 11/28/18

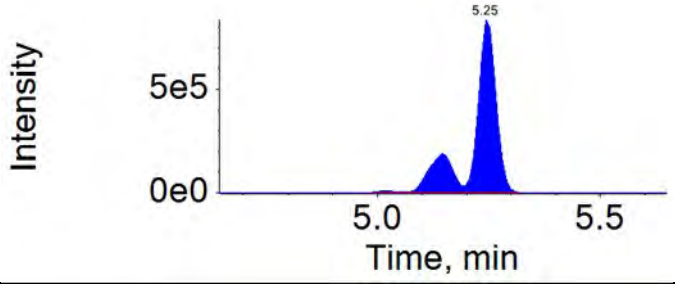
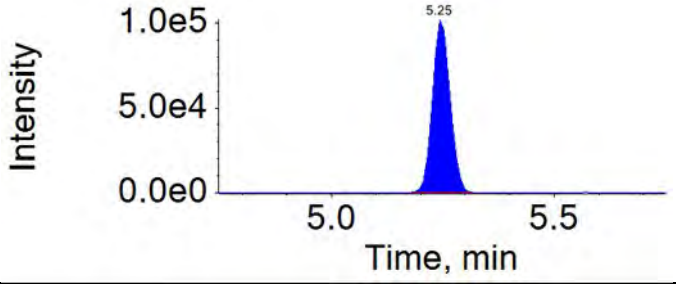
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

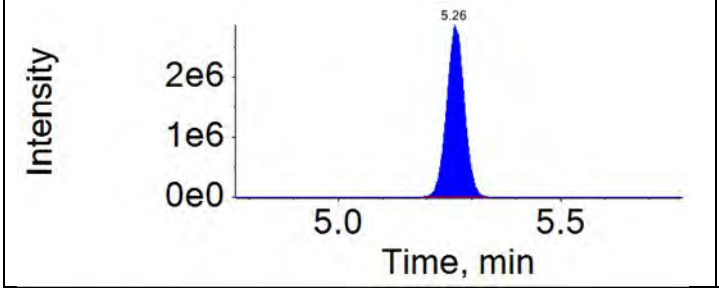
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

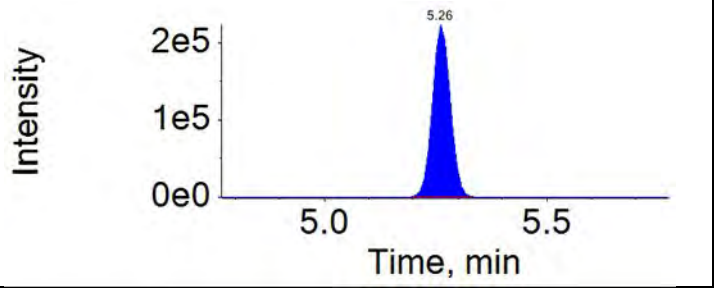
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

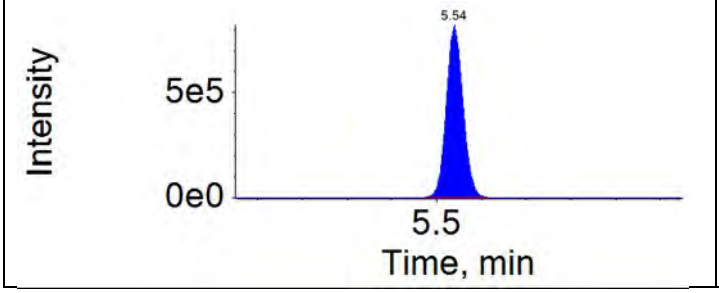
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

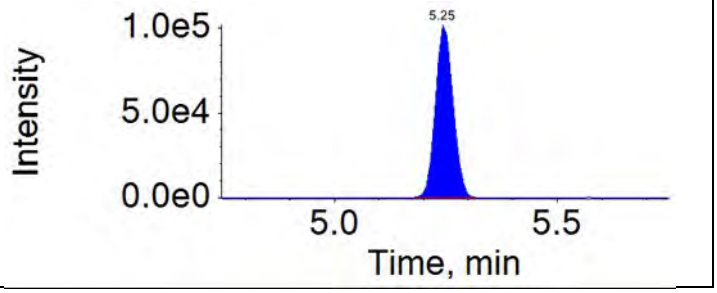
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



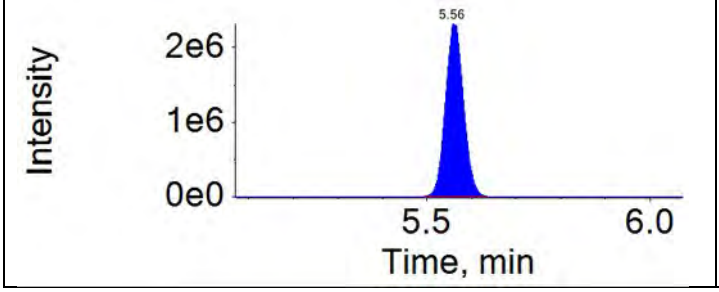


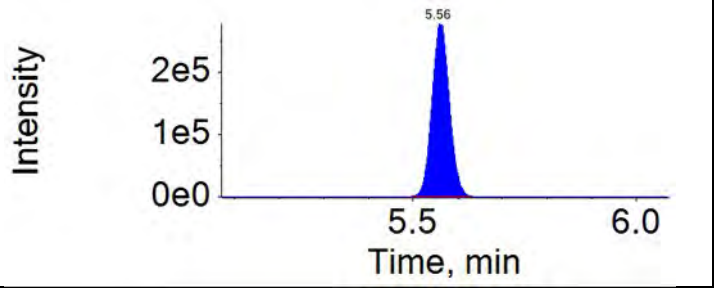
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



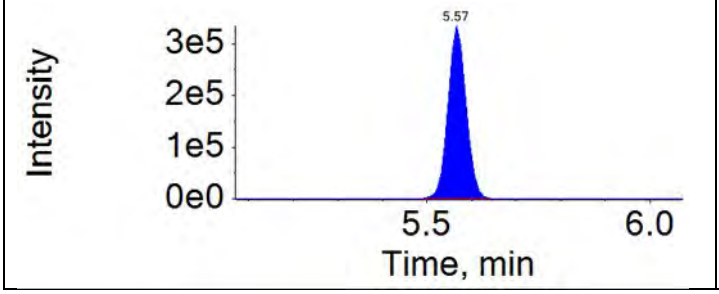


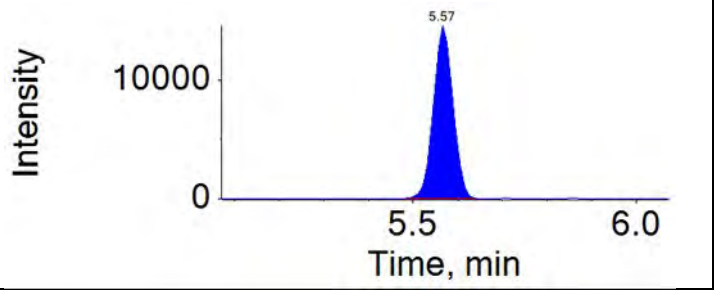
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



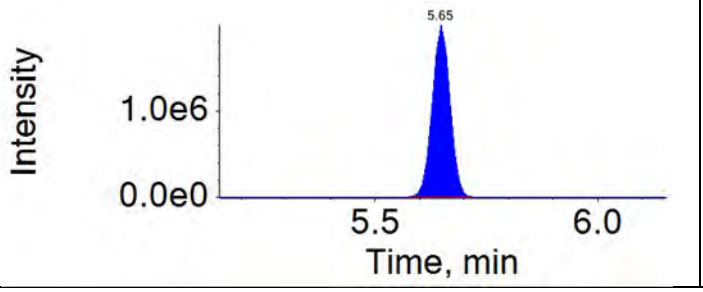


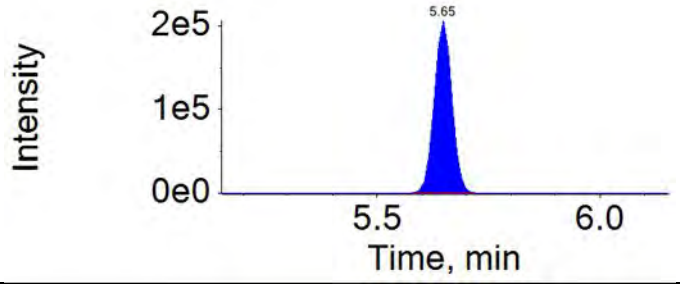
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

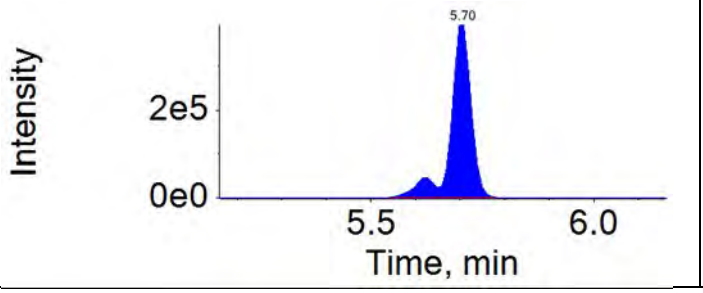
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

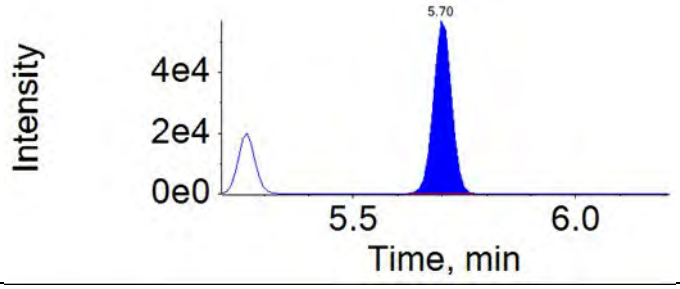
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



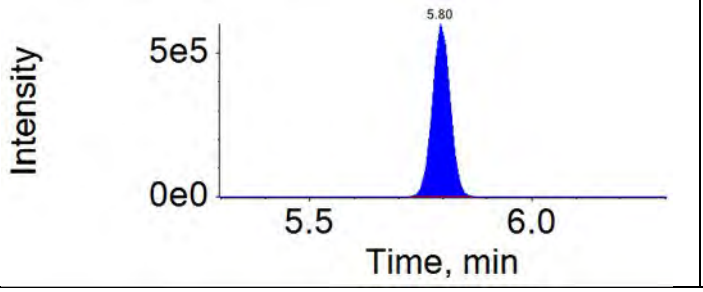


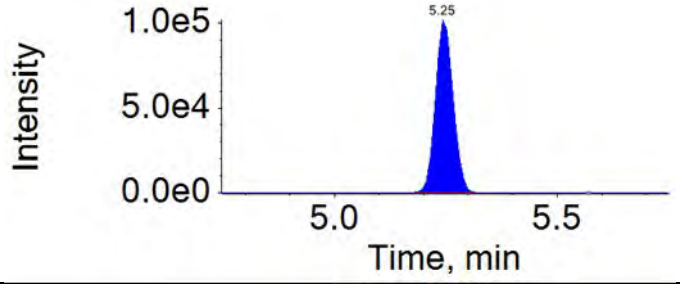
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



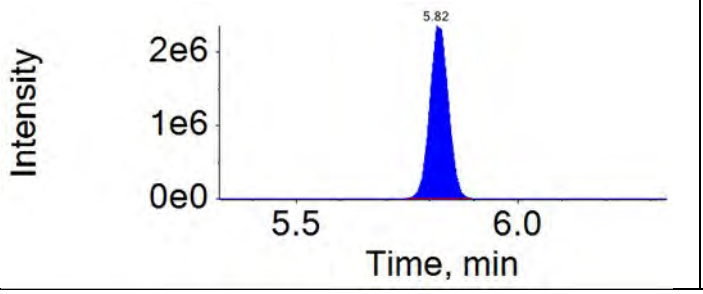


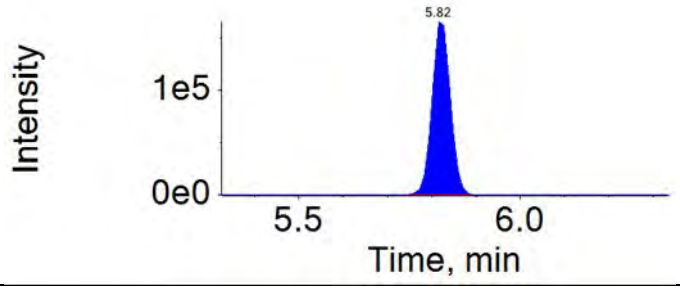
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



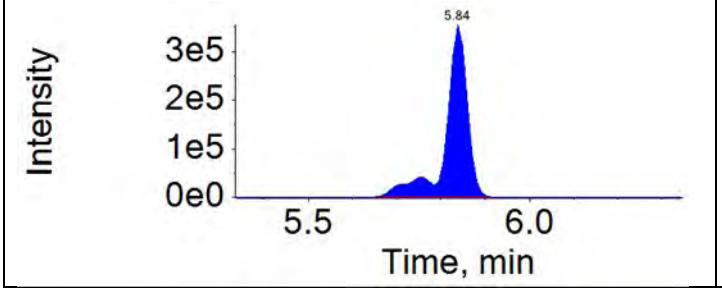


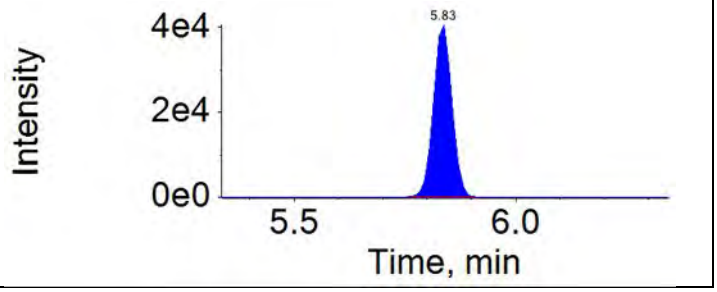
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

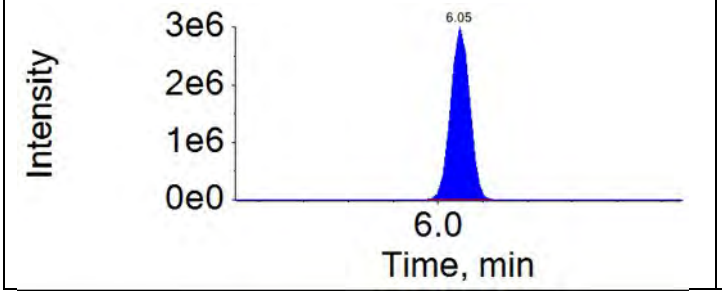
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

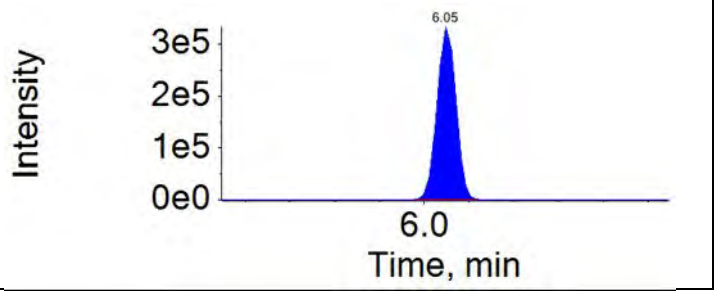
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



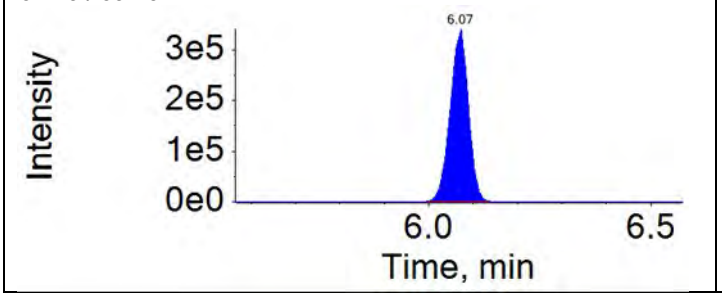


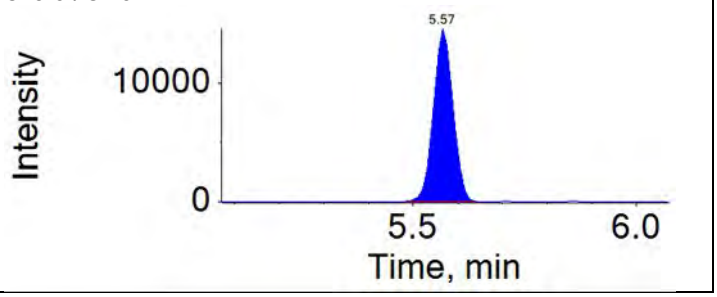
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



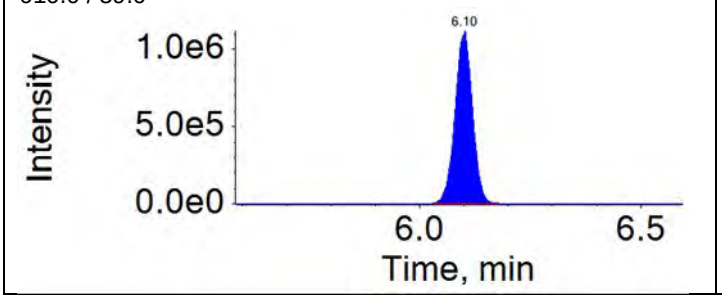


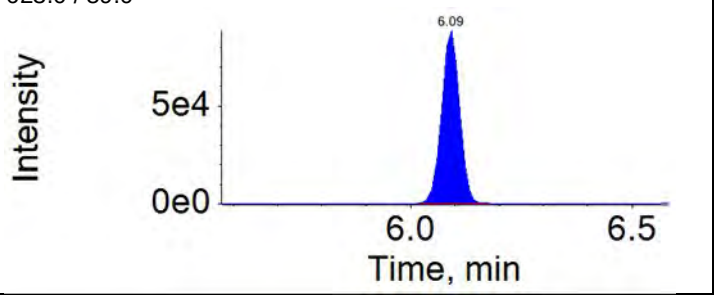
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



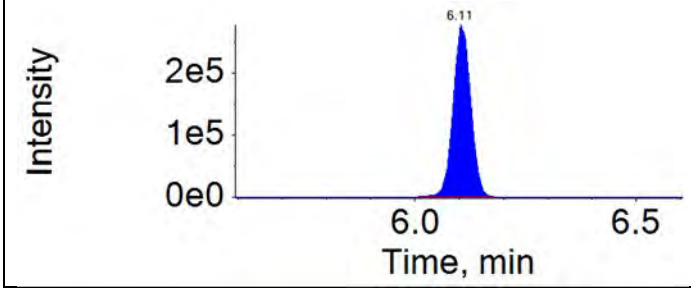


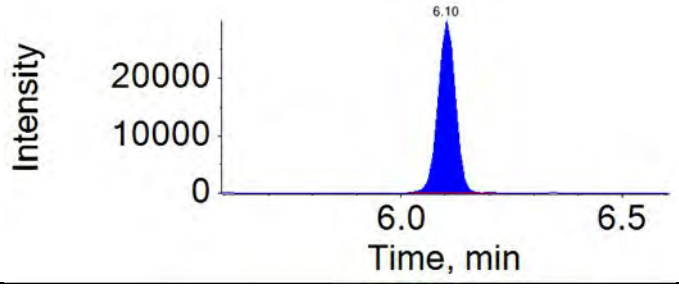
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

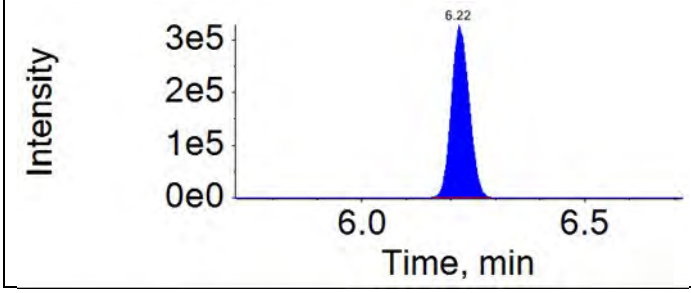
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

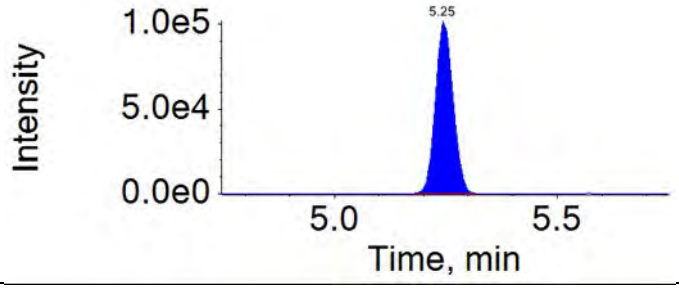
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



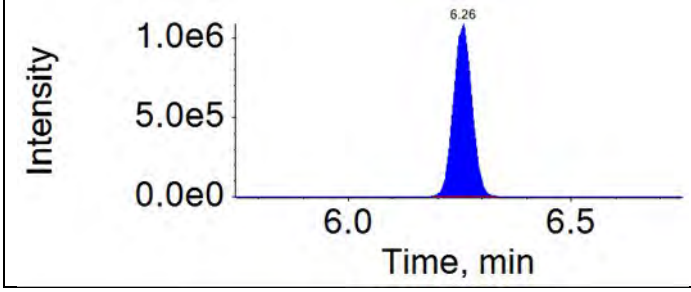


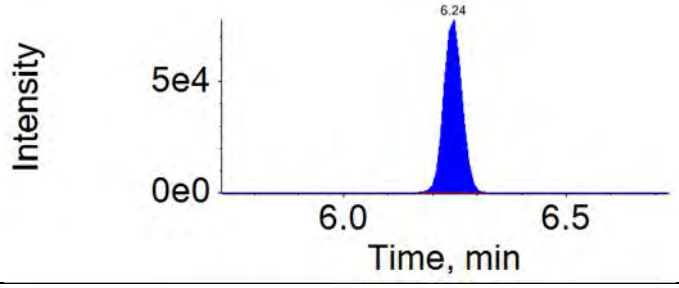
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



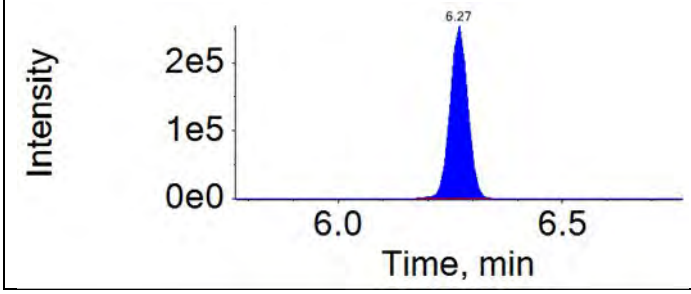


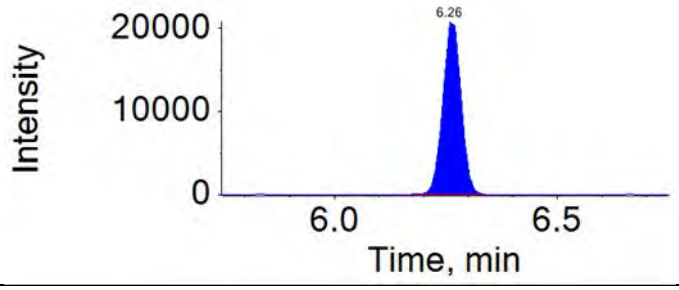
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



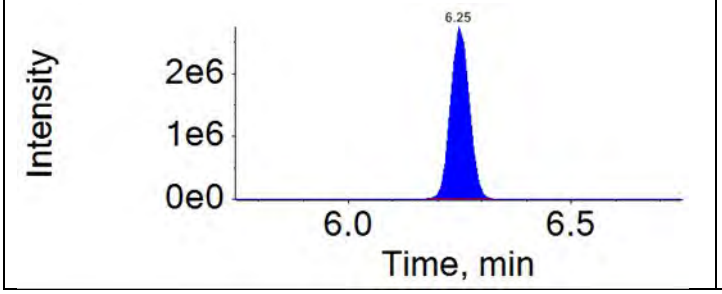


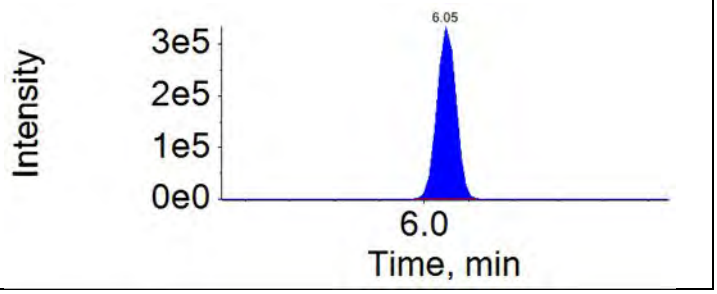
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

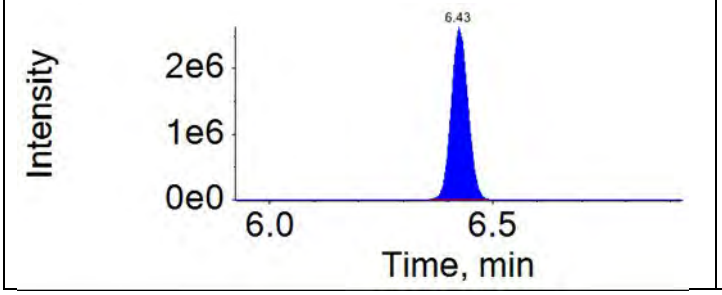
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

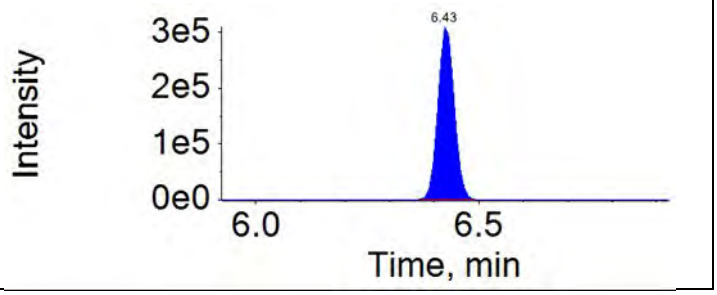
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



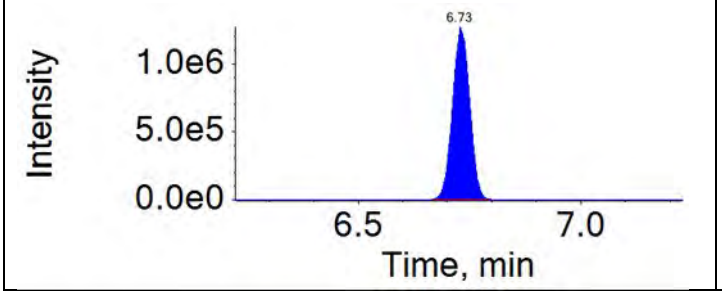


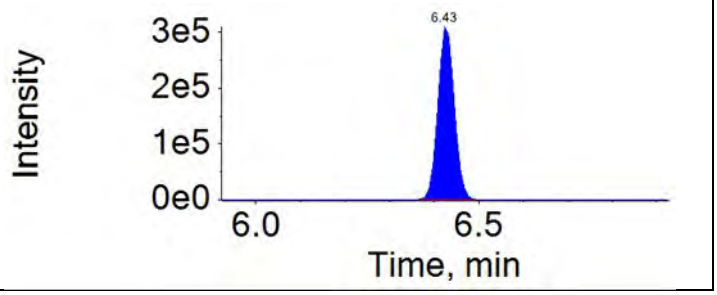
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



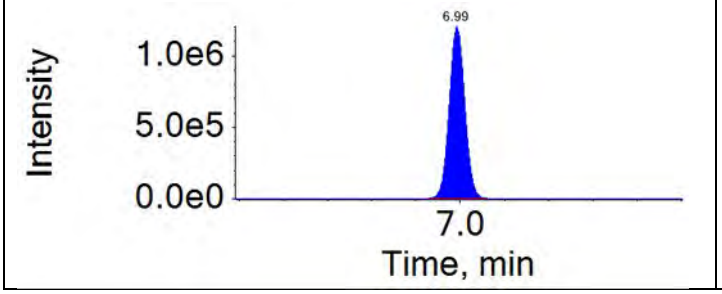


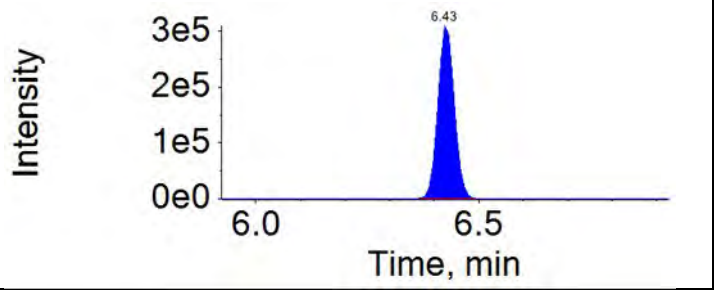
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



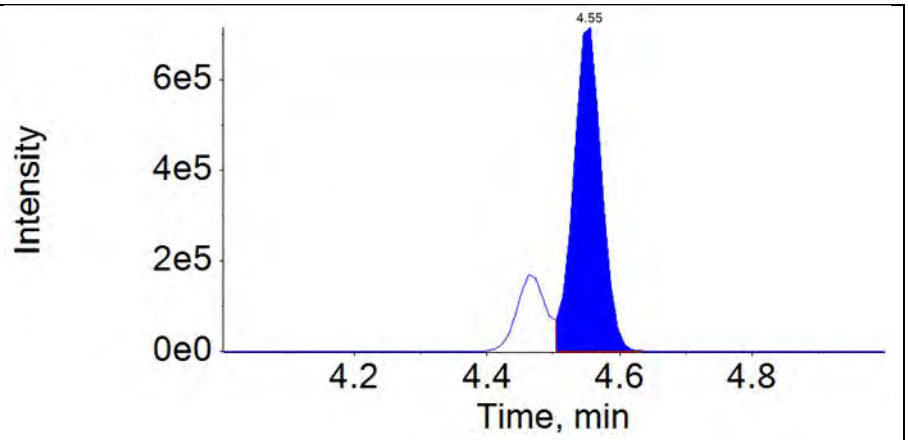


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

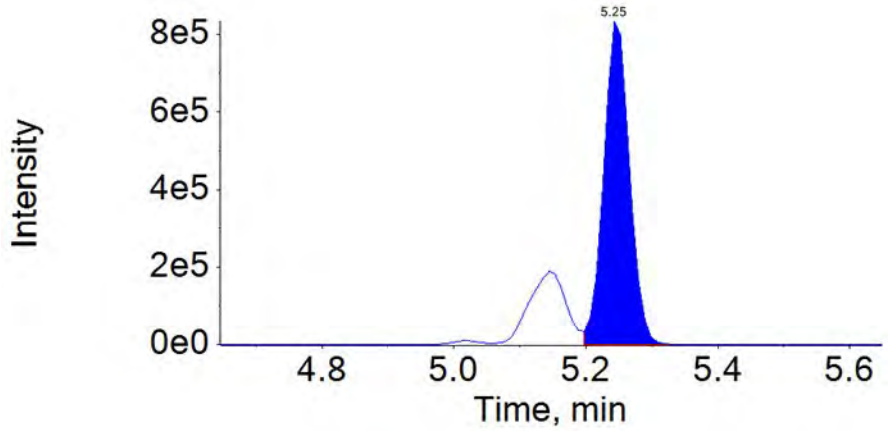
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
2110073.26
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



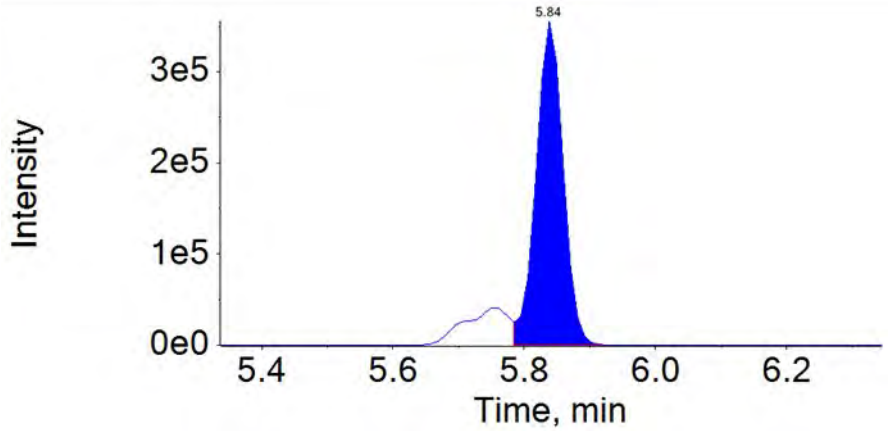
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
2264157.02
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
1021470.64
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



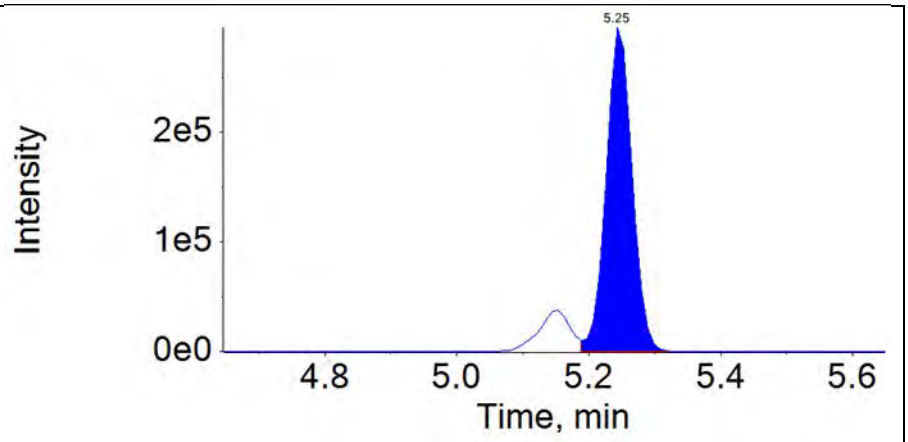
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

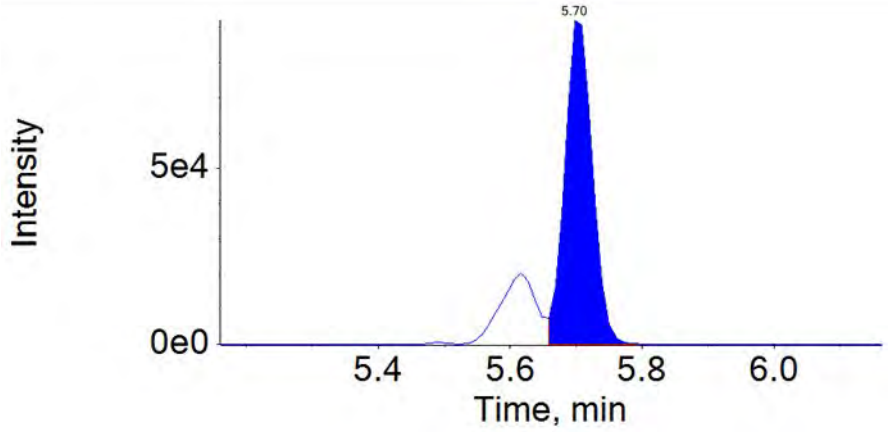
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
810528.26
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



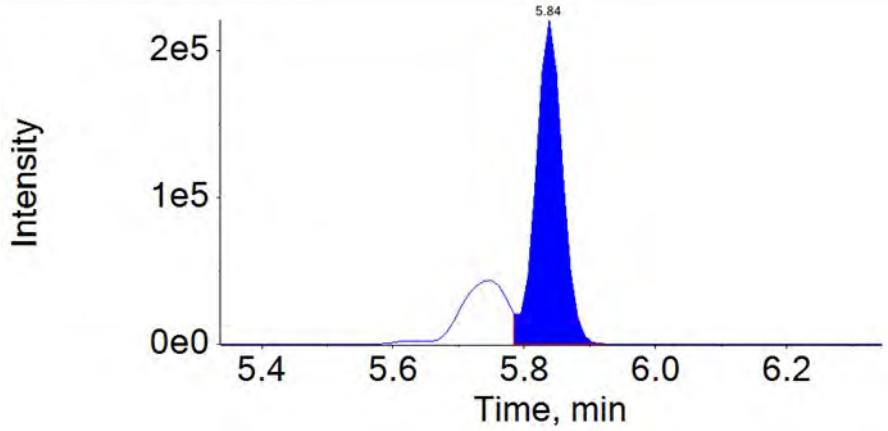
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
267798.15
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
625806.77
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

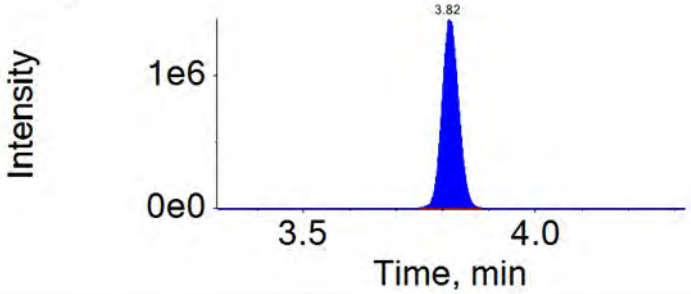
Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-11.wiff

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	3600470.83	A	0.3655	0.3566			
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	
PFTrDA	6.25	1.03	7958673.38	A	0.0090	0.0094			
PFTrDA_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	

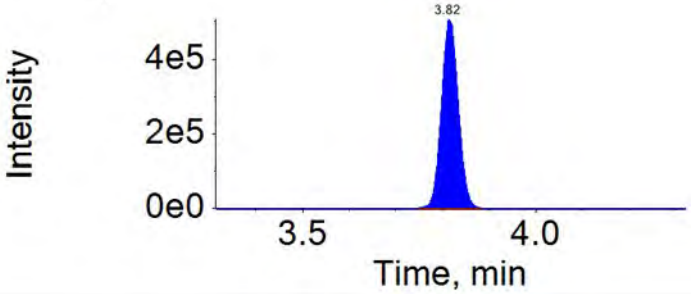
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

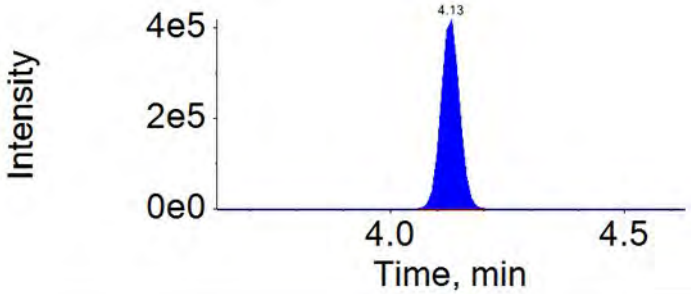
Component: PFBS
Primary Mass: 299.0 / 80.0



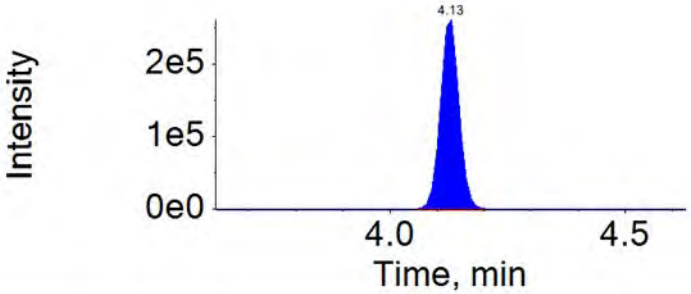
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



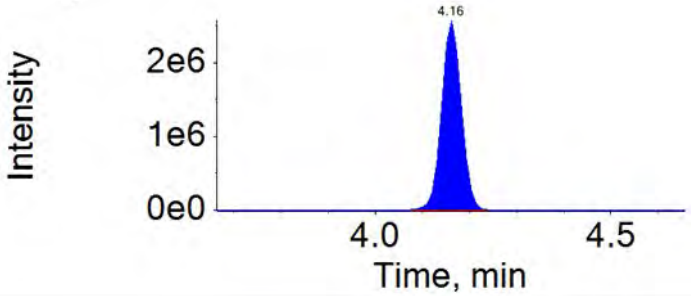
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



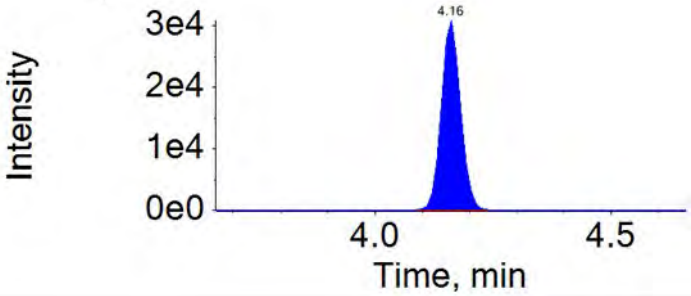
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



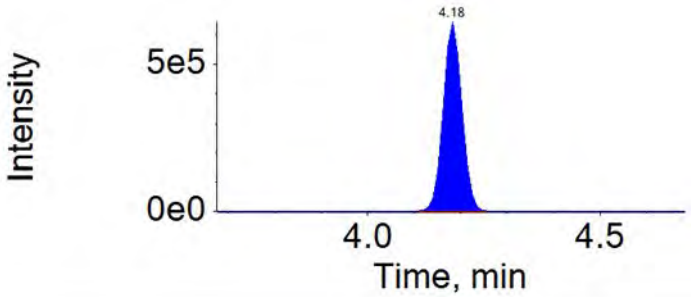
Component: PFHxA
Primary Mass: 313.0 / 269.0



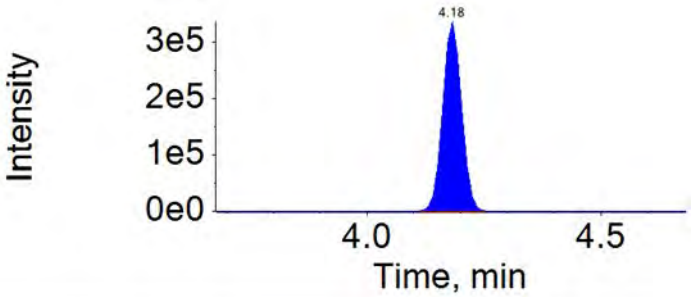
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



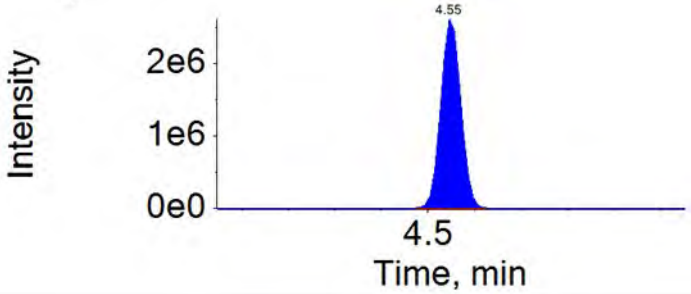
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



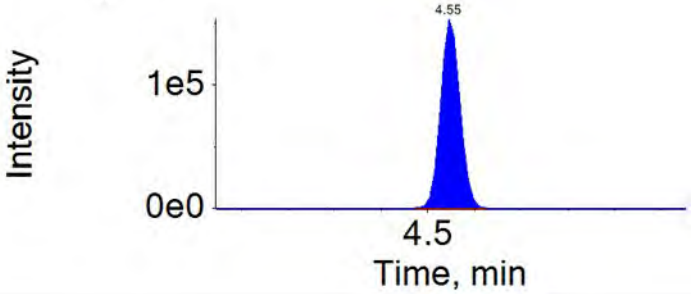
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

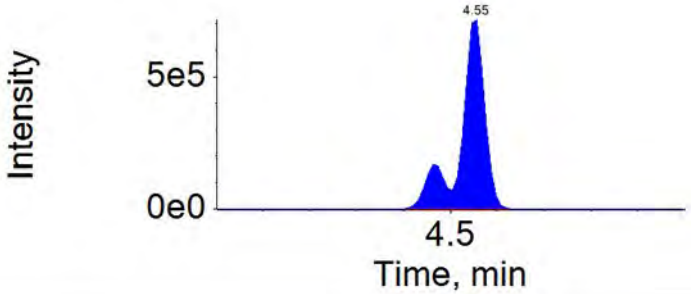
Component: PFHpA
Primary Mass: 363.0 / 319.0



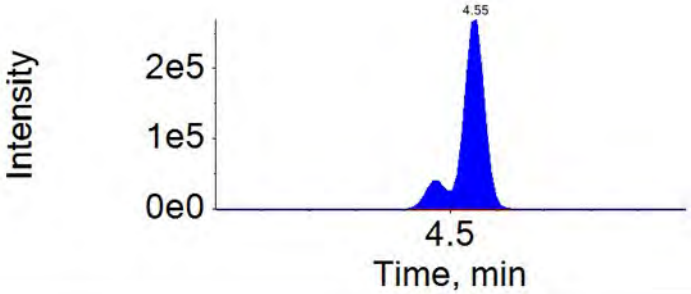
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



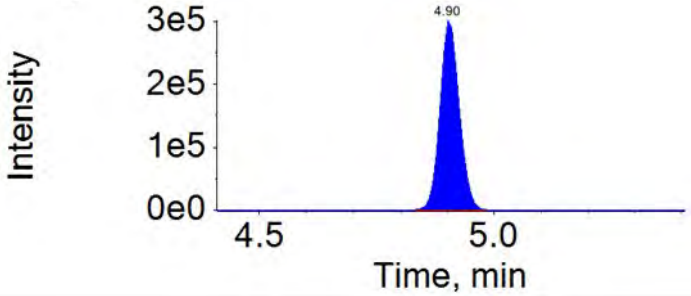
Component: PFHxS
Primary Mass: 399.0 / 80.0



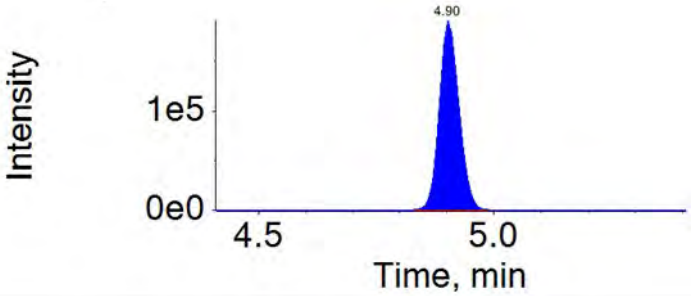
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



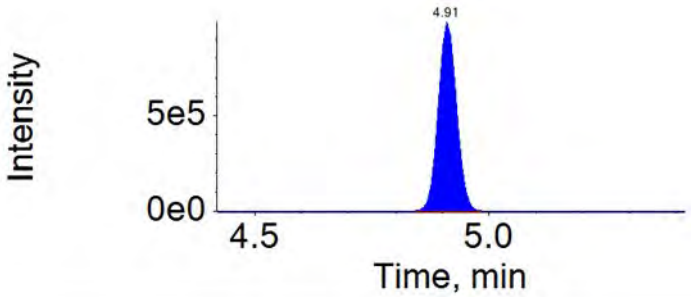
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



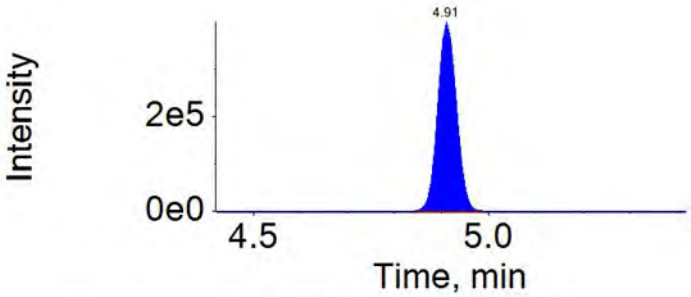
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



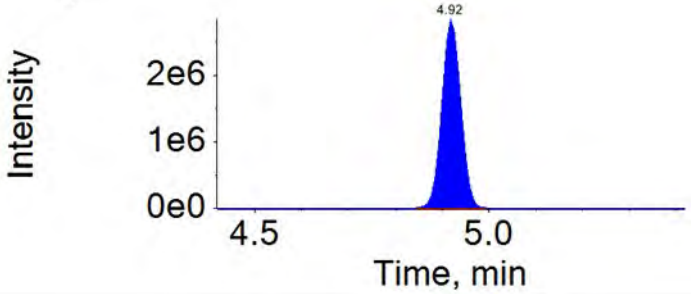
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



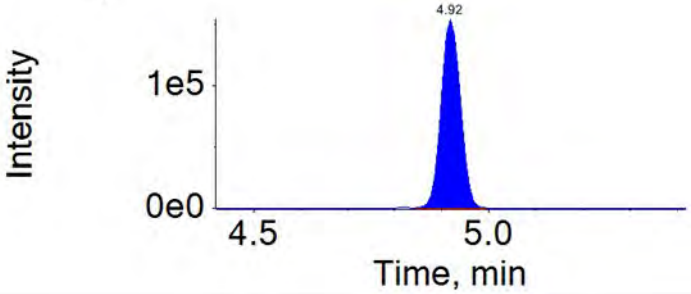
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

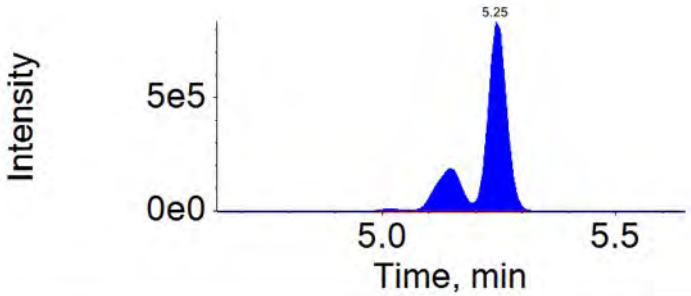
Component: PFOA
Primary Mass: 413.0 / 369.0



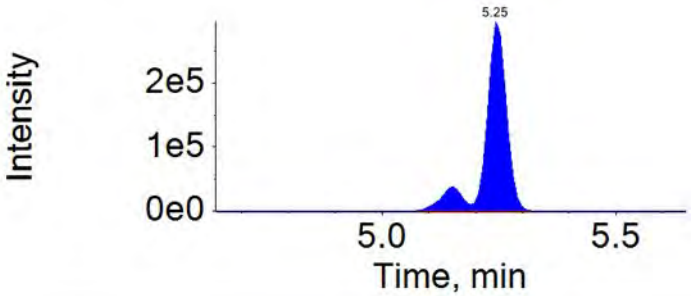
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



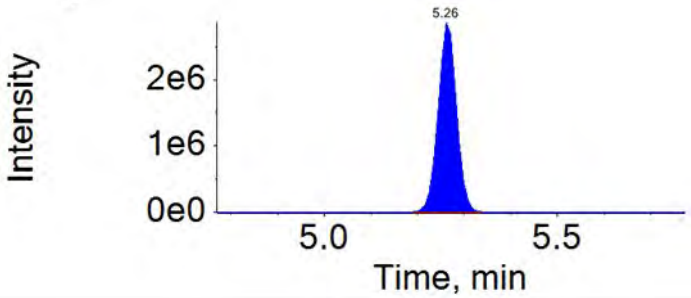
Component: PFOS
Primary Mass: 499.0 / 80.0



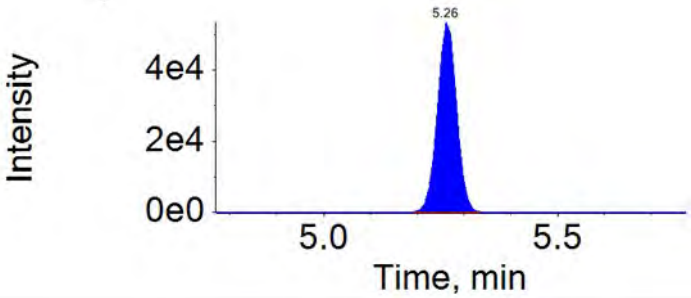
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



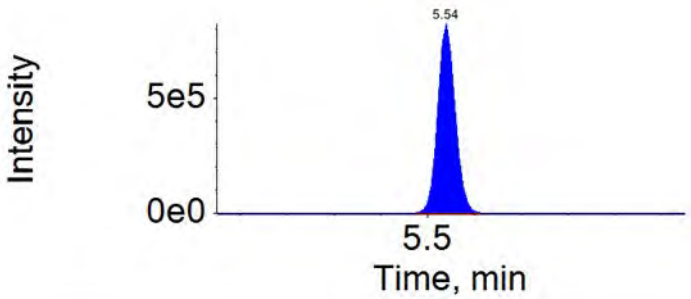
Component: PFNA
Primary Mass: 463.0 / 419.0



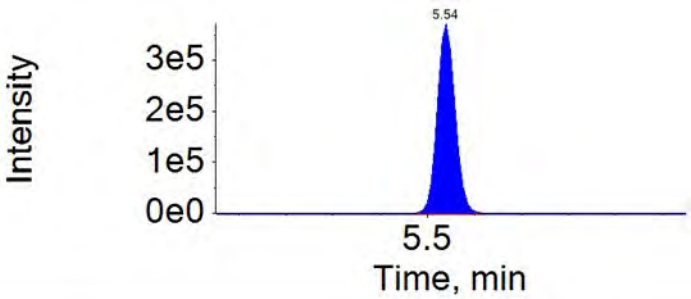
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



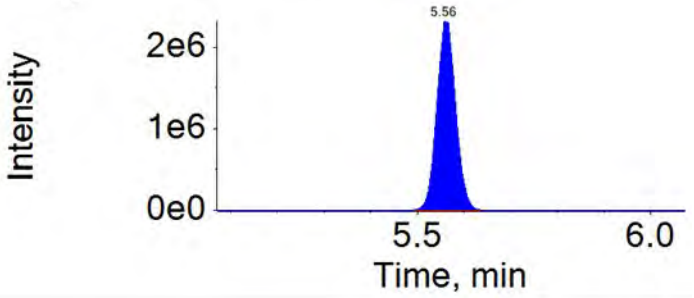
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



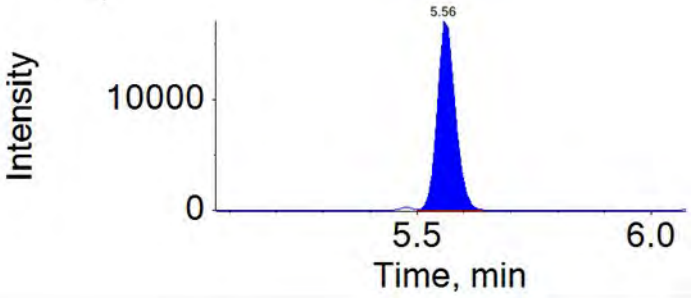
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

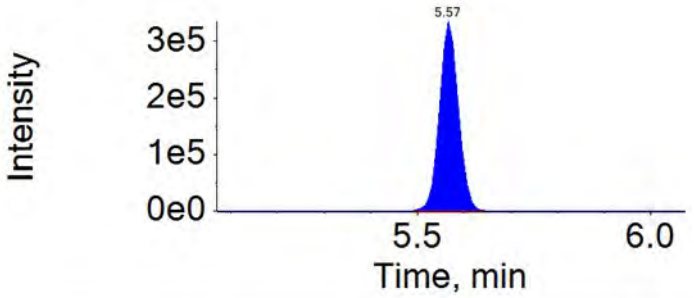
Component: PFDA
Primary Mass: 513.0 / 469.0



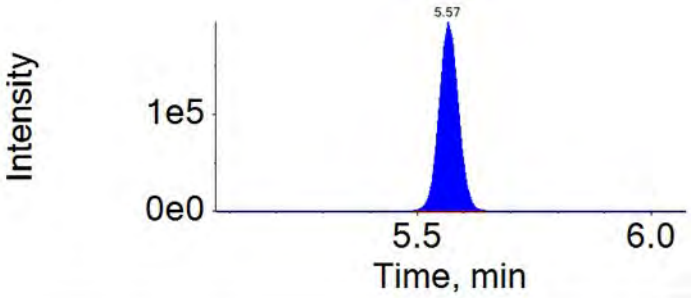
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



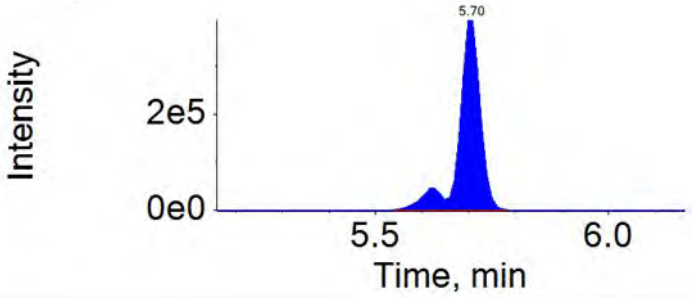
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



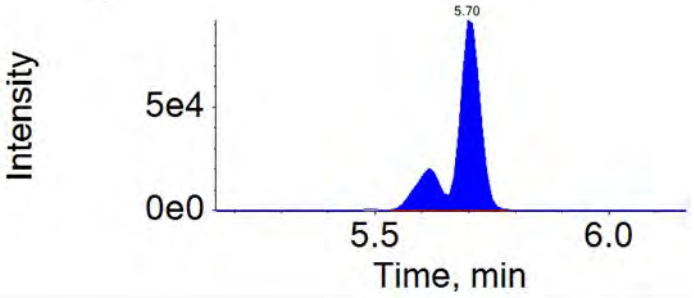
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



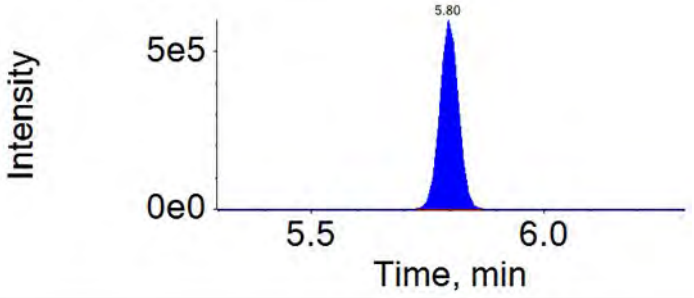
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



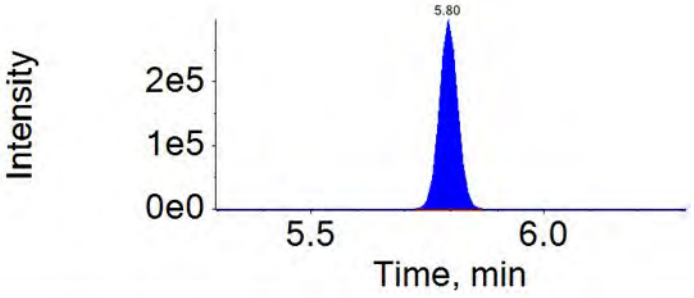
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



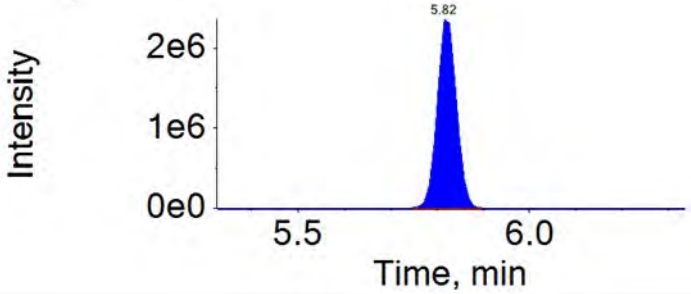
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



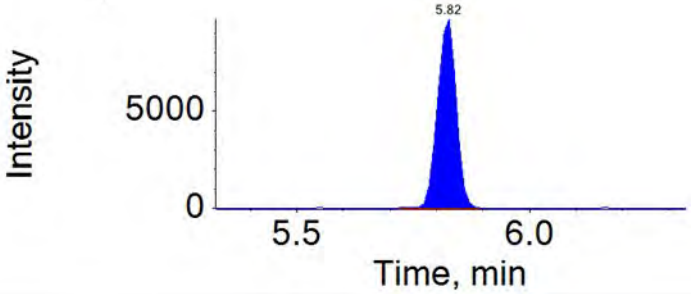
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

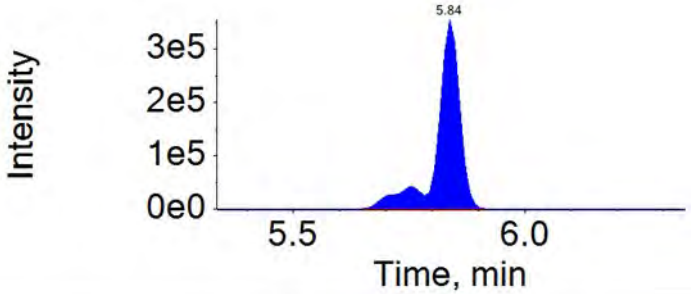
Component: PFUnDA
Primary Mass: 563.0 / 519.0



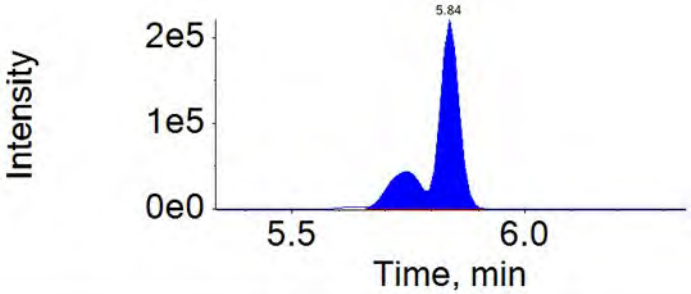
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



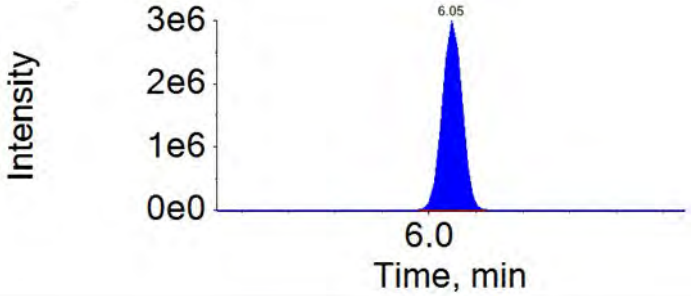
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



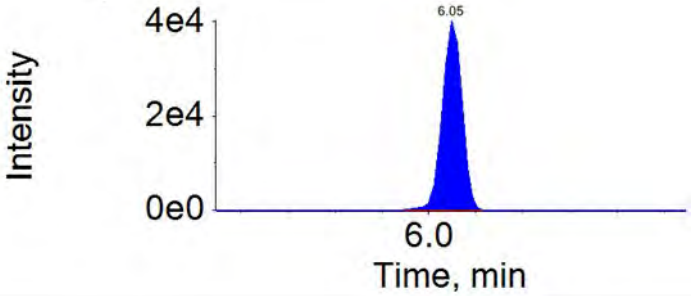
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



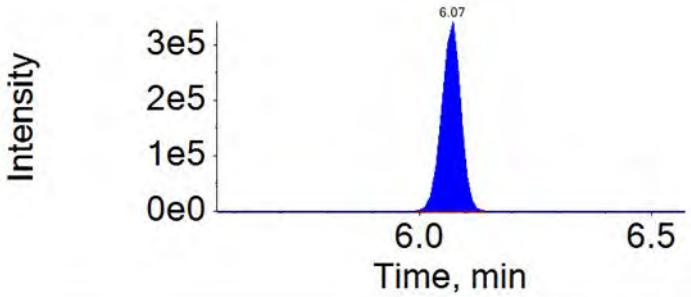
Component: PFDoDA
Primary Mass: 613.0 / 569.0



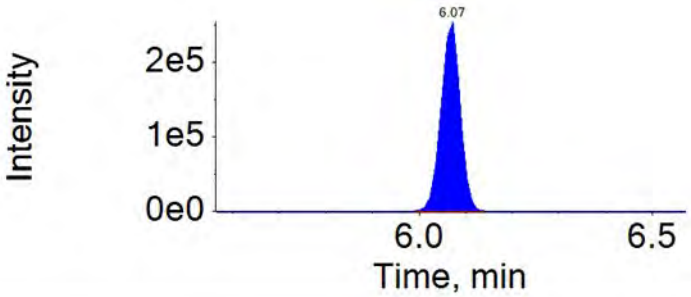
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



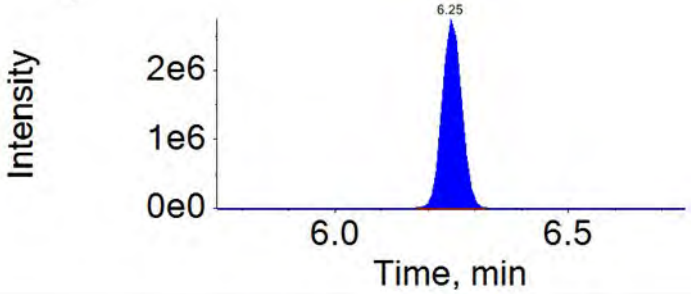
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



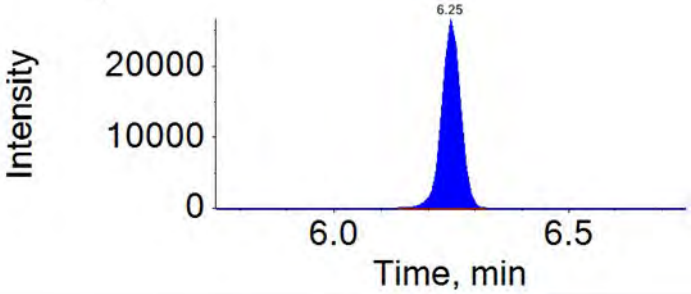
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

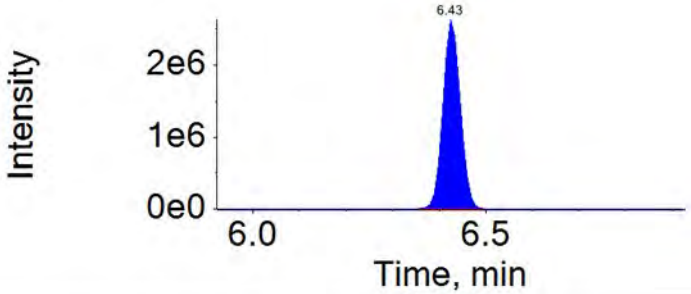
Component: PFTrDA
Primary Mass: 663.0 / 619.0



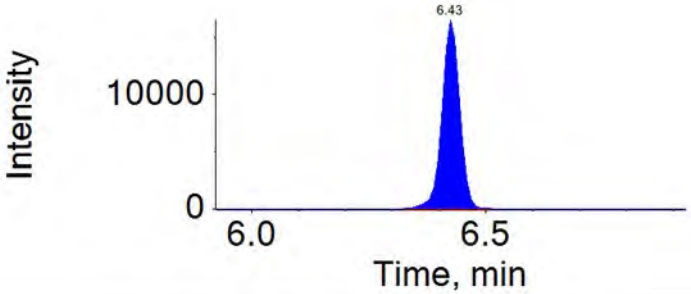
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



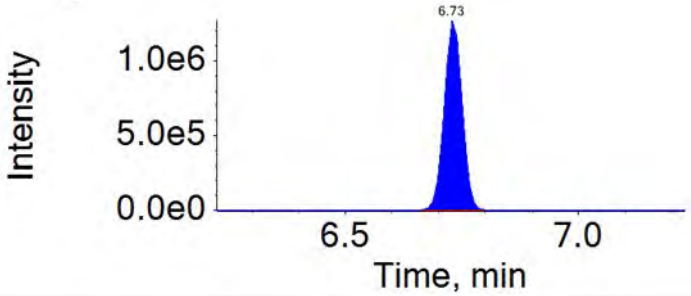
Component: PFTeDA
Primary Mass: 713.0 / 669.0



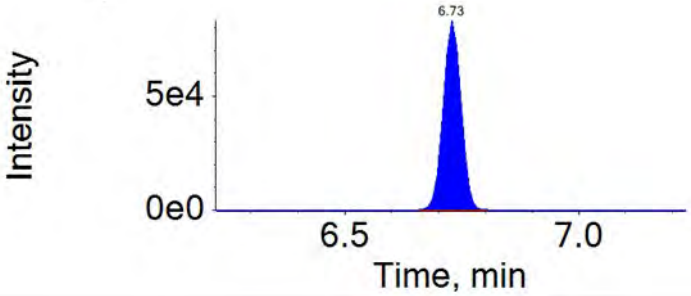
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



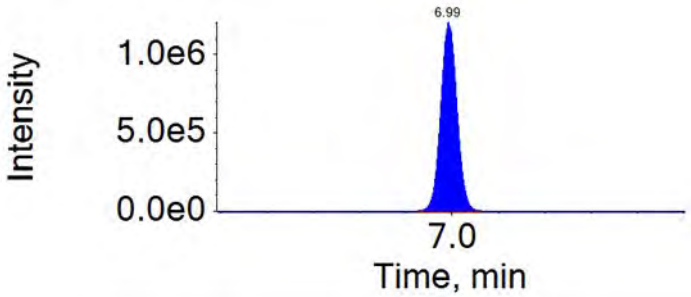
Component: PFHxDA
Primary Mass: 813.0 / 769.0



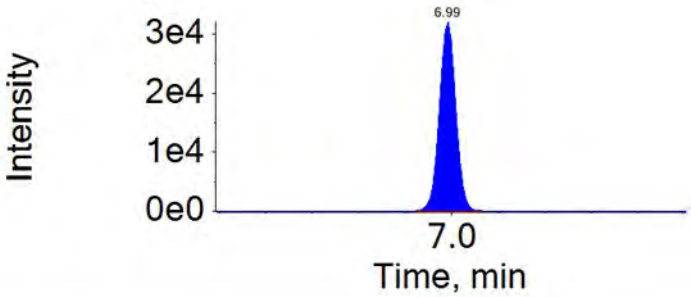
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

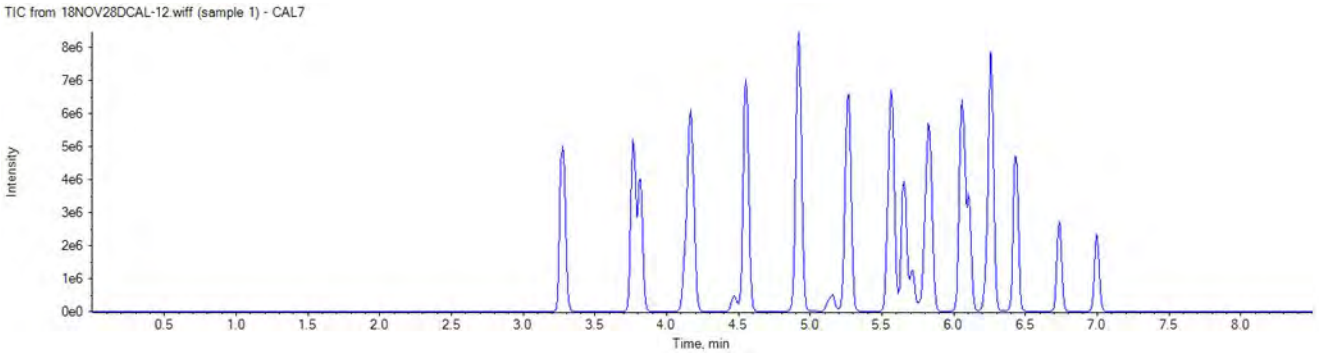
Analyte Quantitation Peak Table

Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-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	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
PFTrDA	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

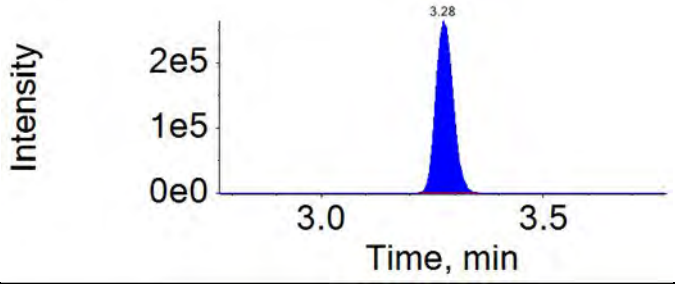


APPROVED
By MCD at 5:00 pm, 11/28/18

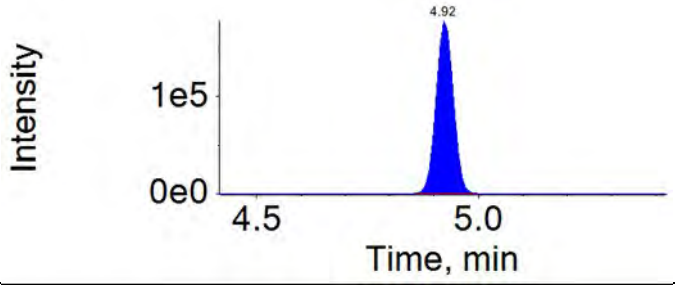
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

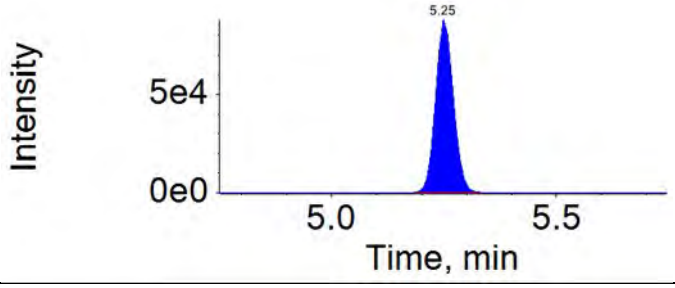
Injection Standard: 13C3-PFBA
216.0 / 172.0



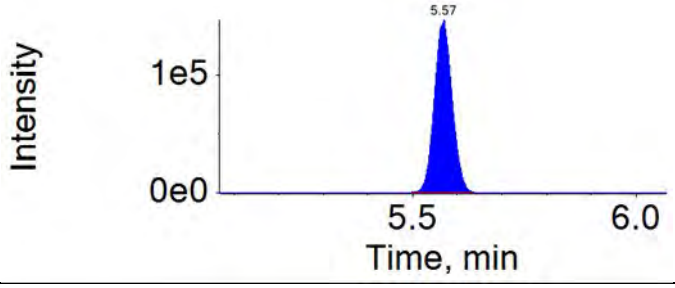
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

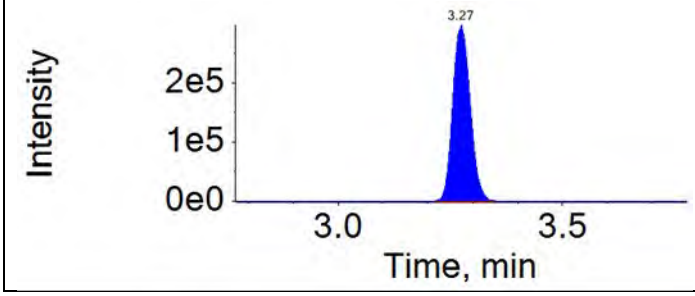


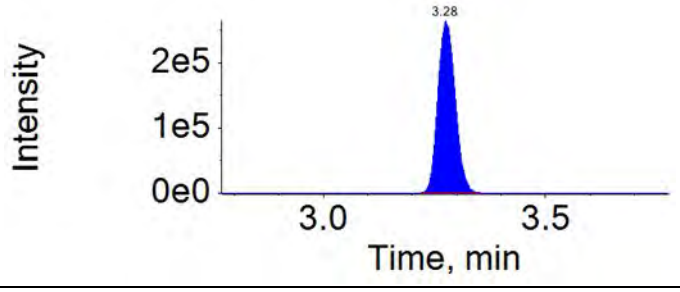
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

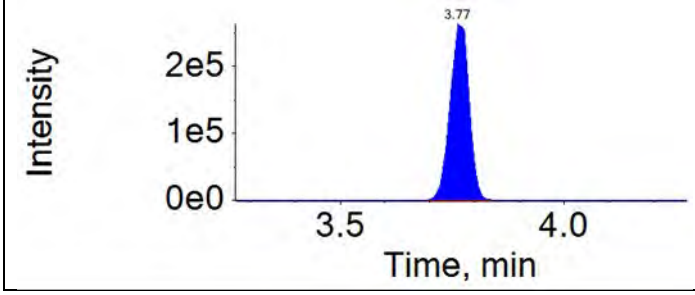
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

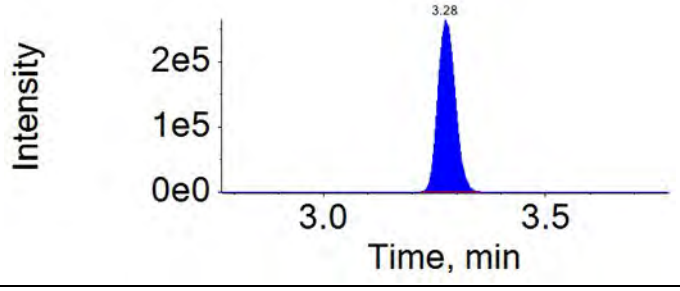
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



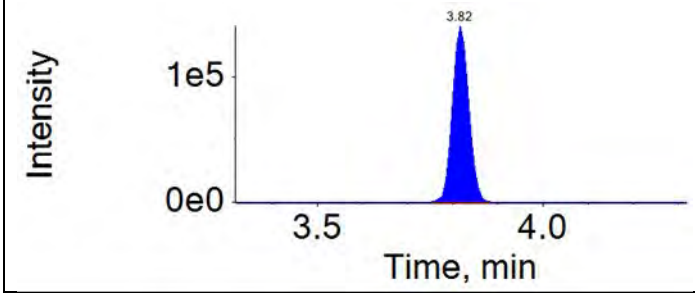


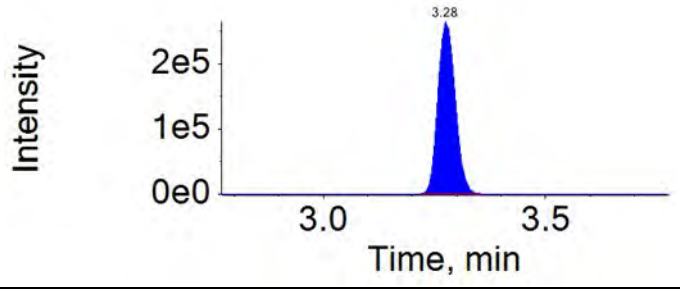
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



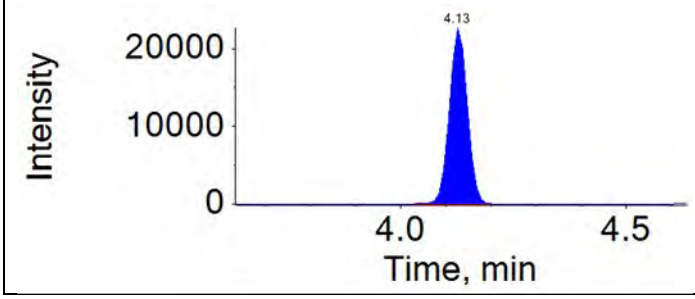


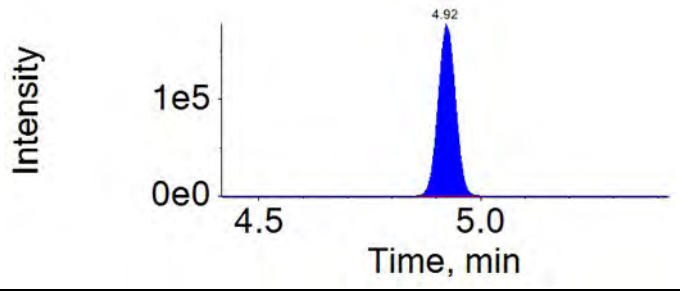
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



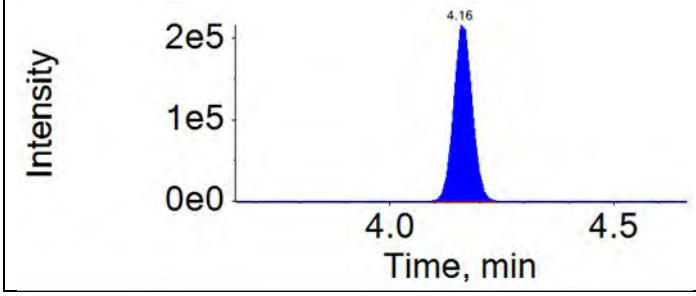


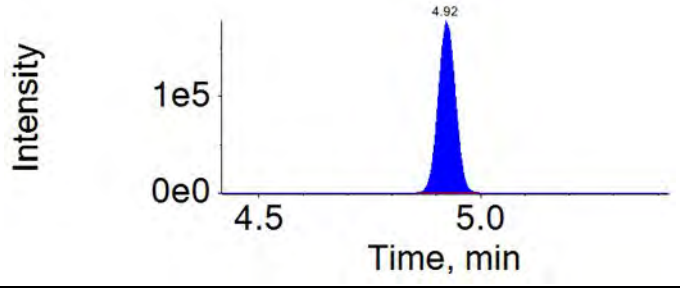
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

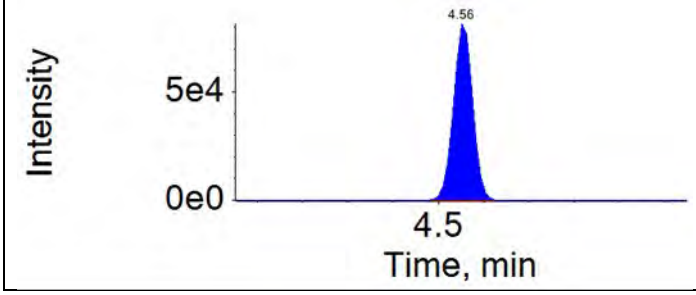
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

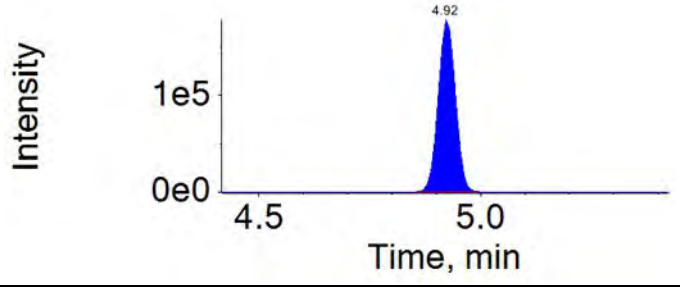
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



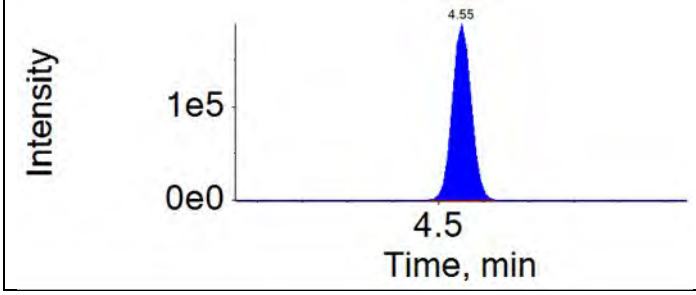


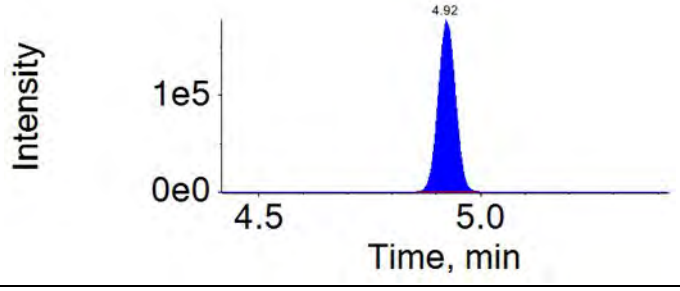
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



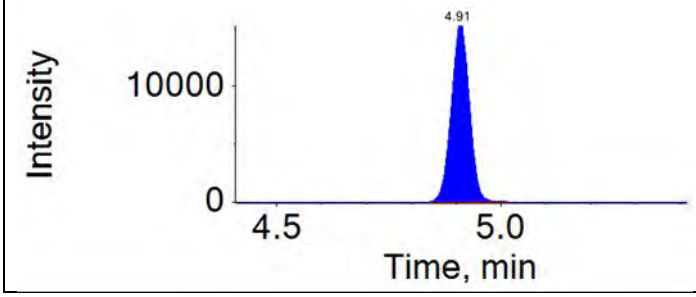


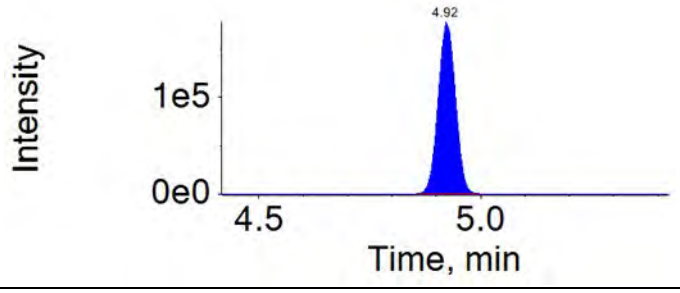
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



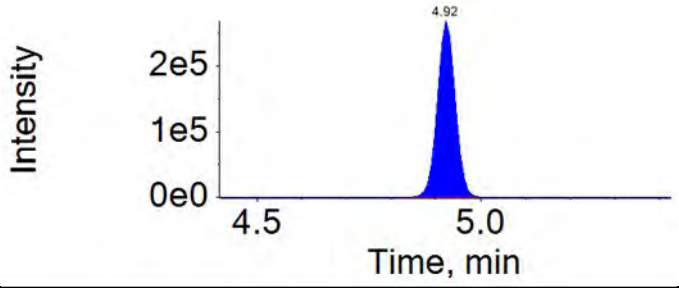


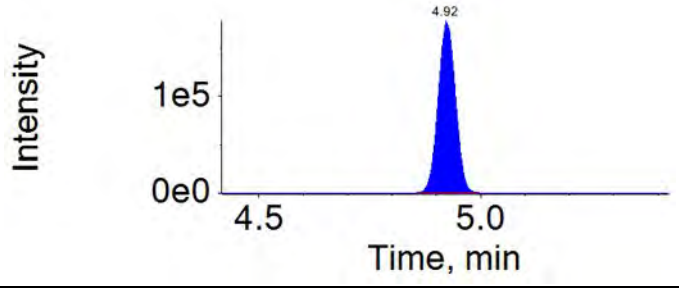
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

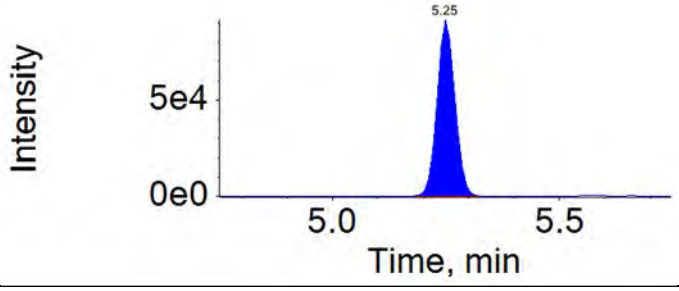
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

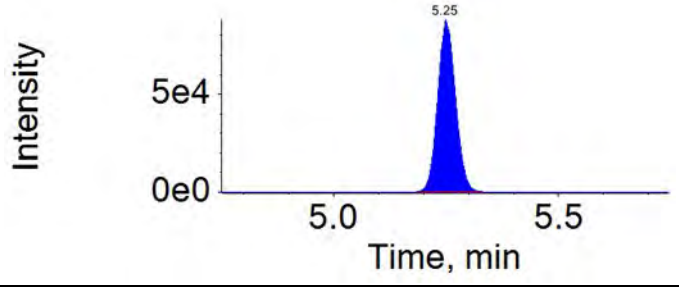
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



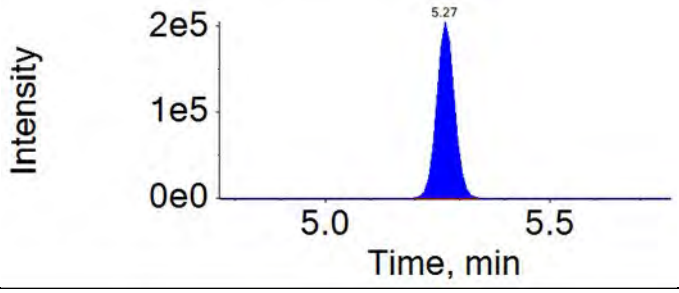


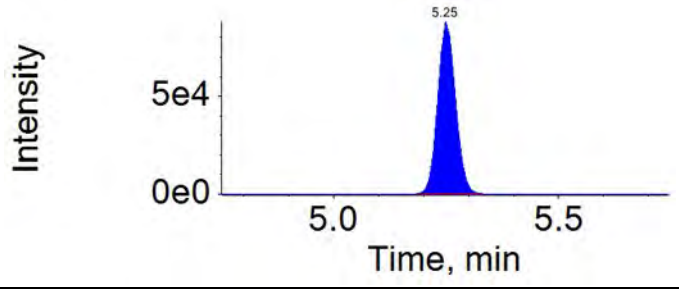
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



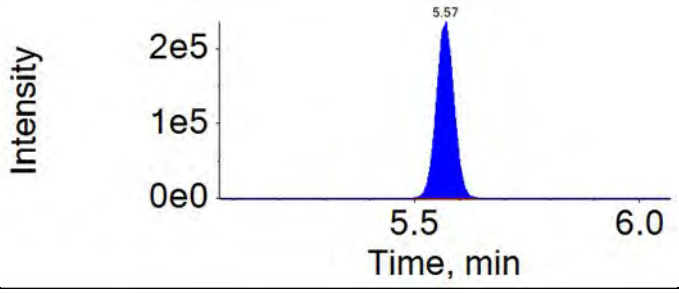


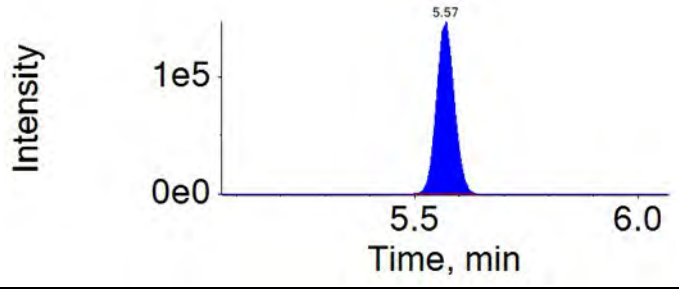
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



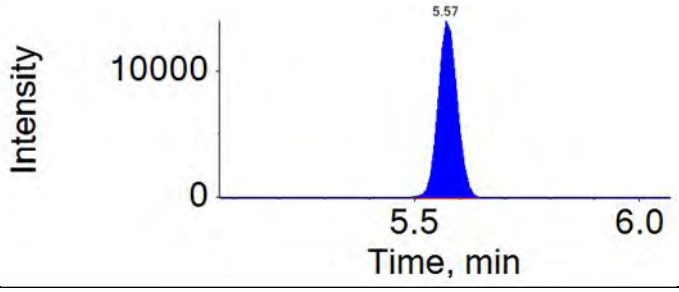


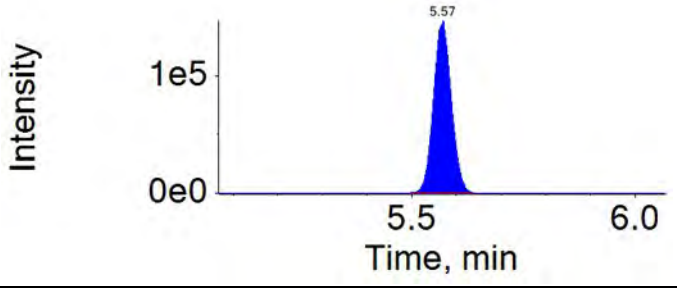
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

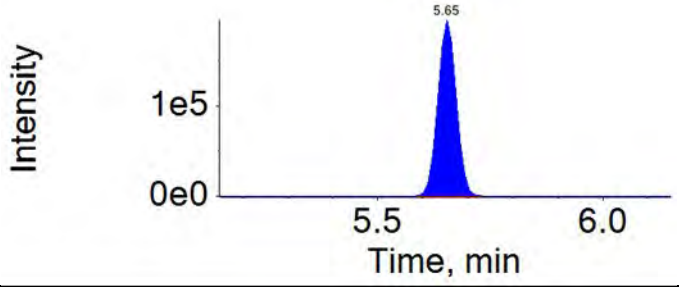
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

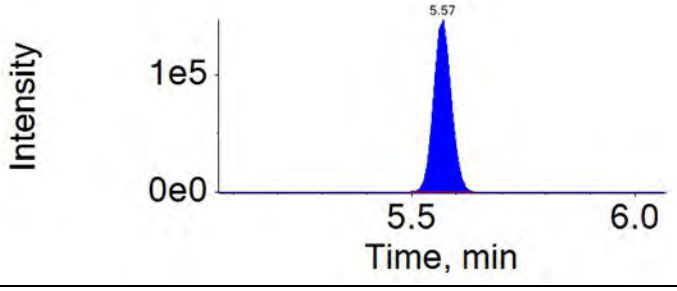
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



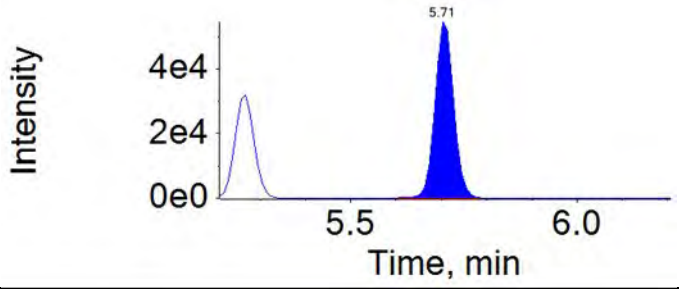


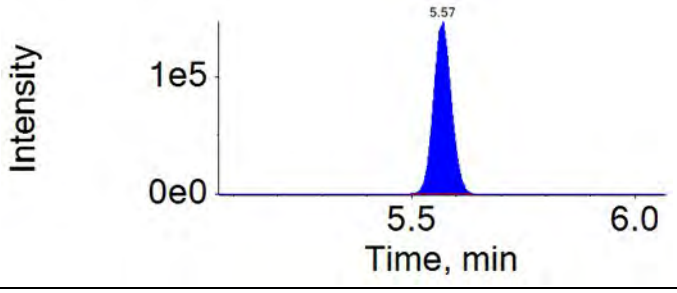
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



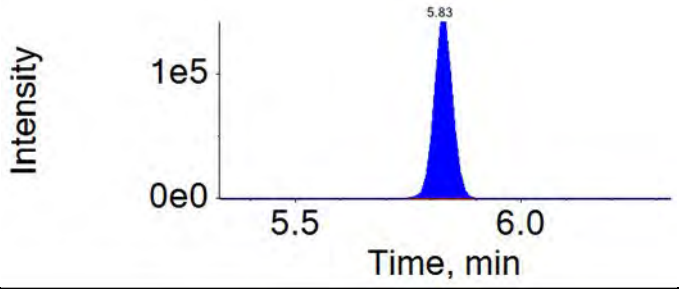


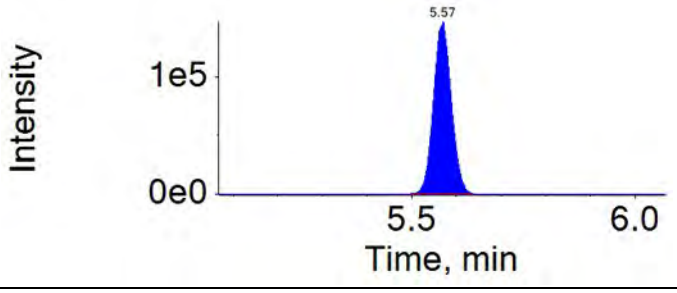
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



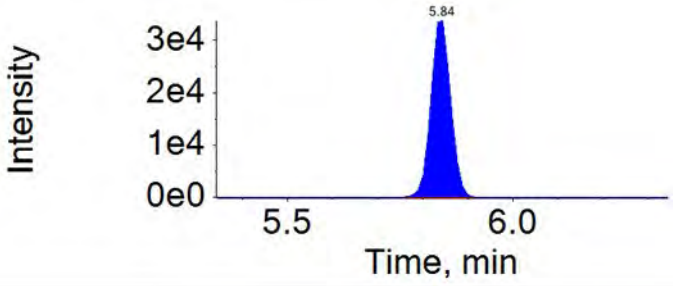


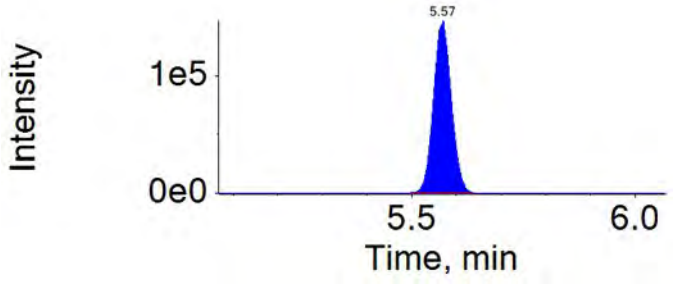
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

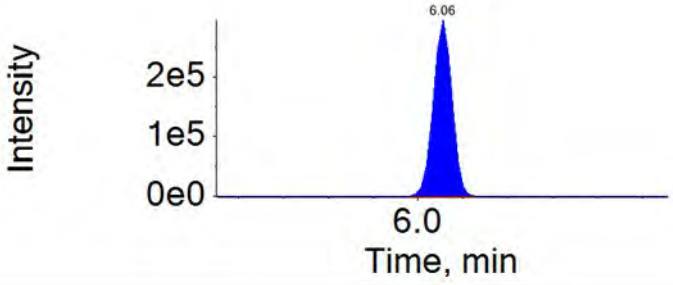
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

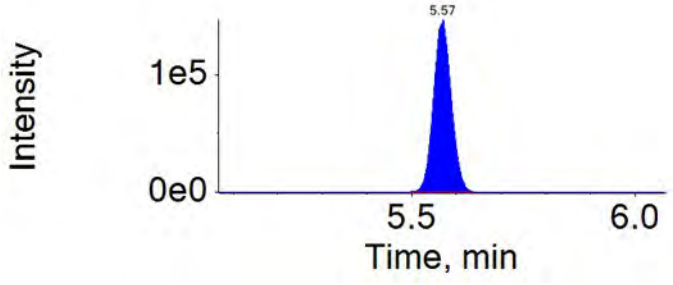
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



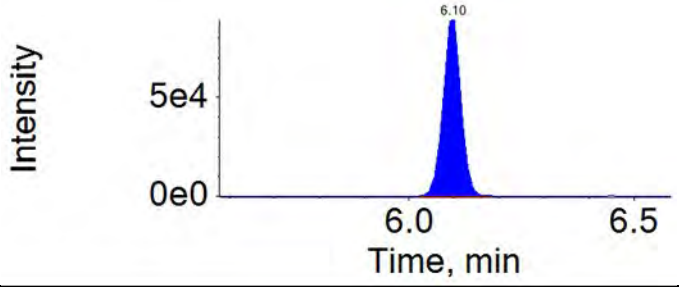


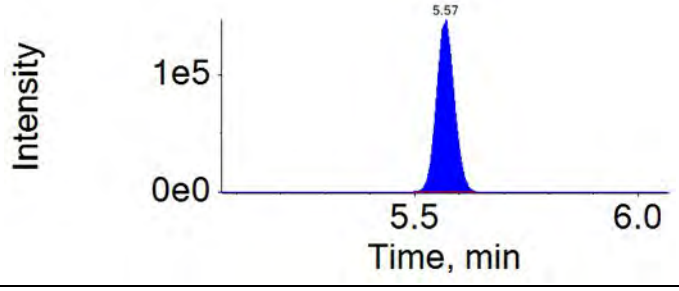
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



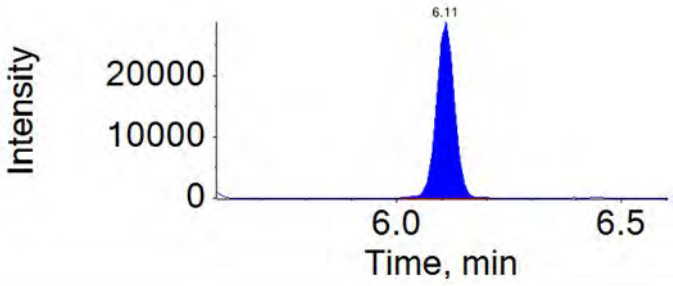


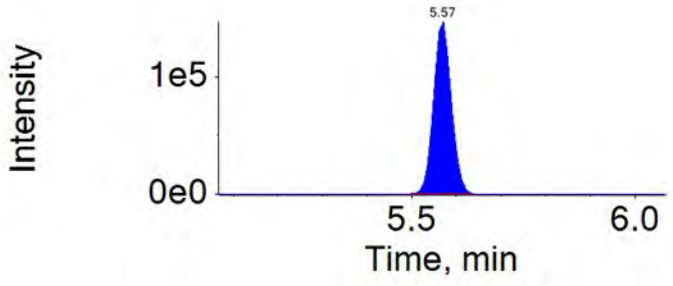
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

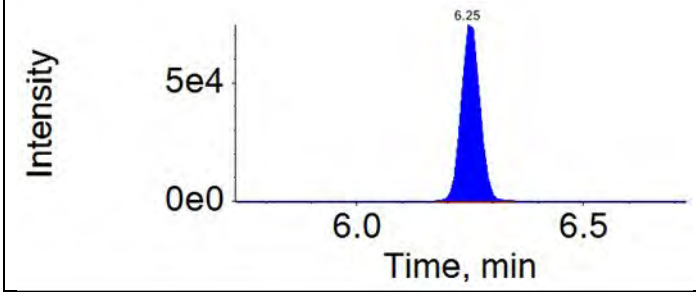
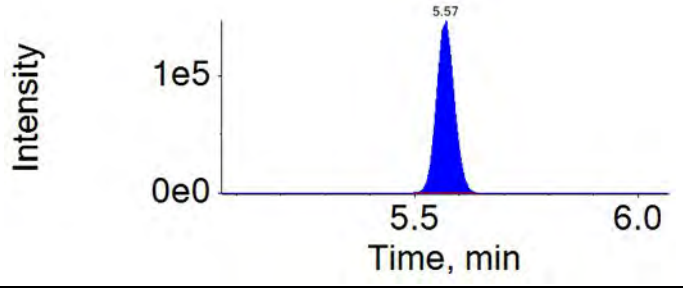


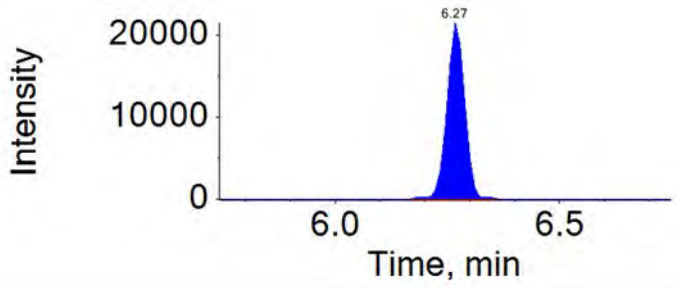
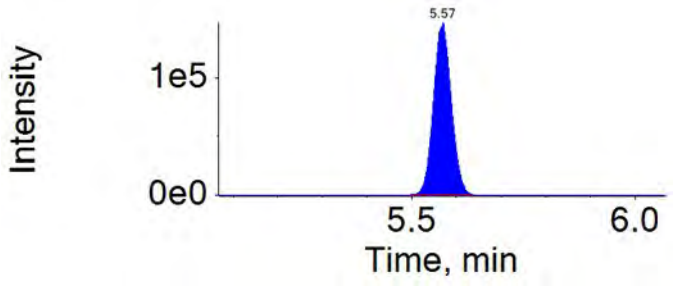


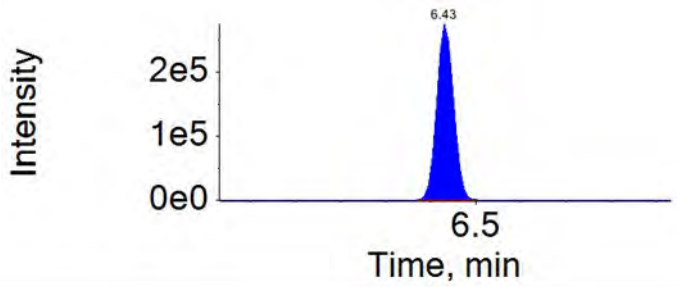
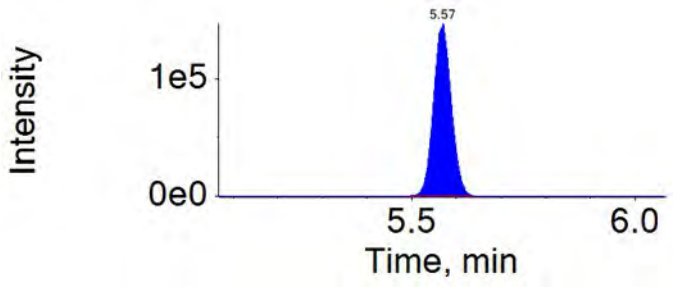
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

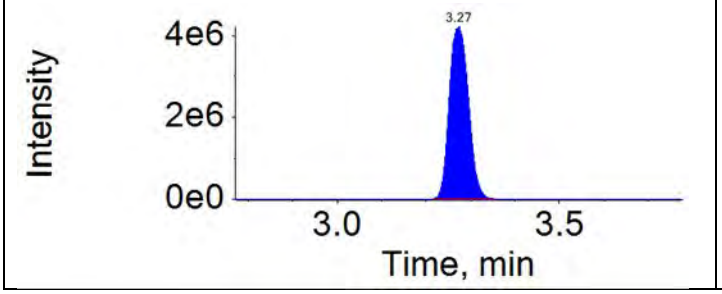
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0
	

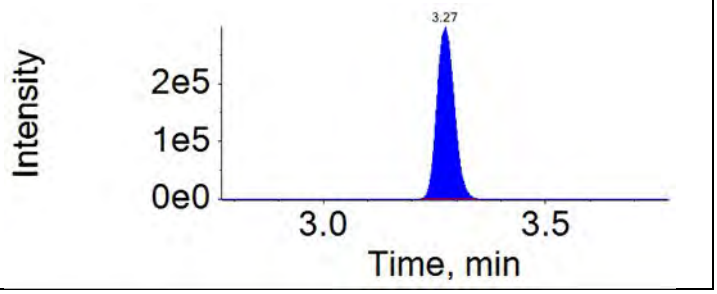
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

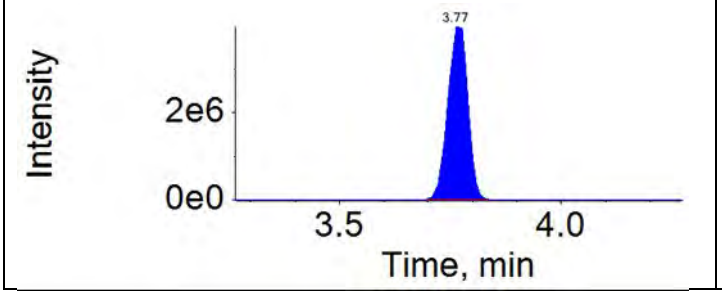
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

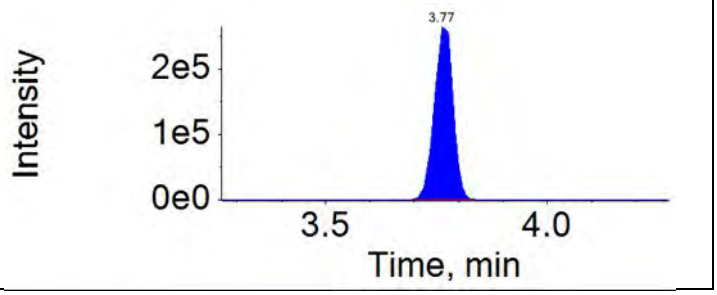
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



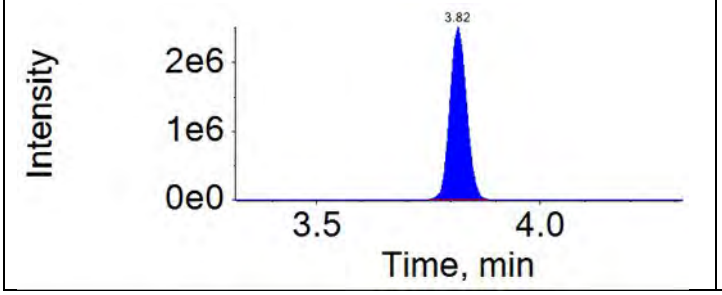


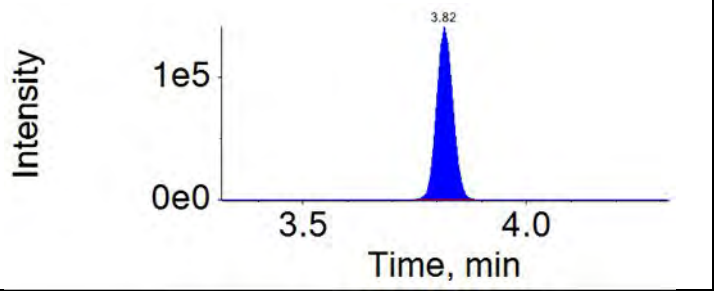
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



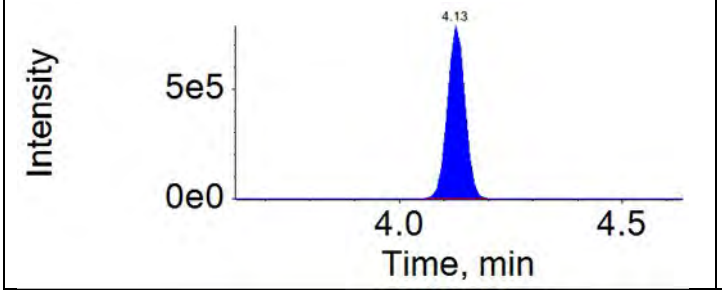


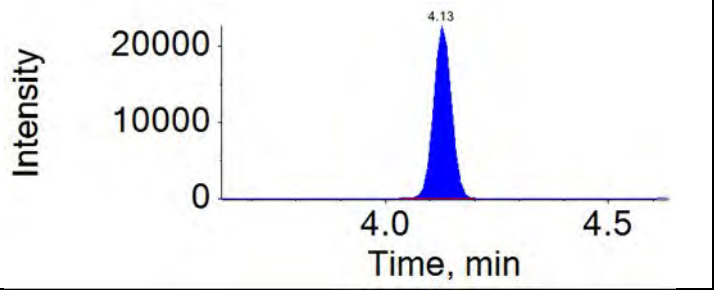
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



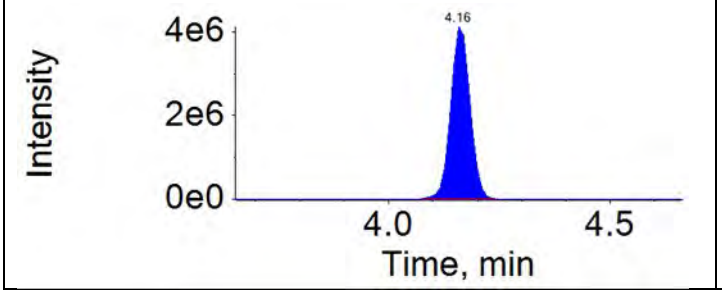


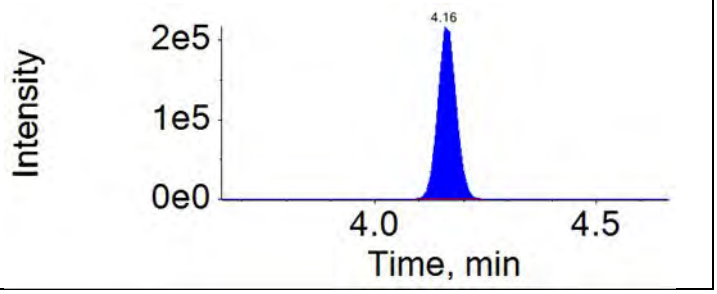
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

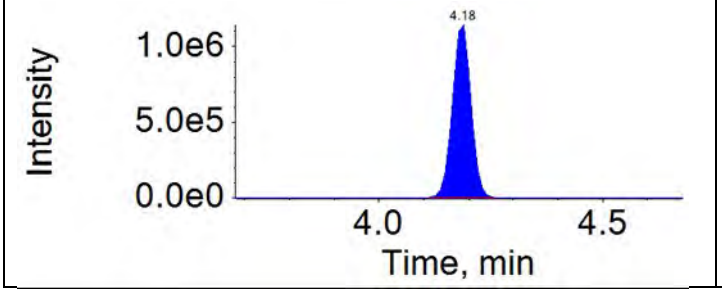
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

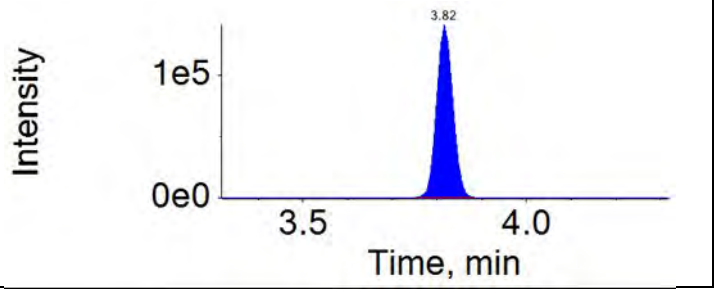
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



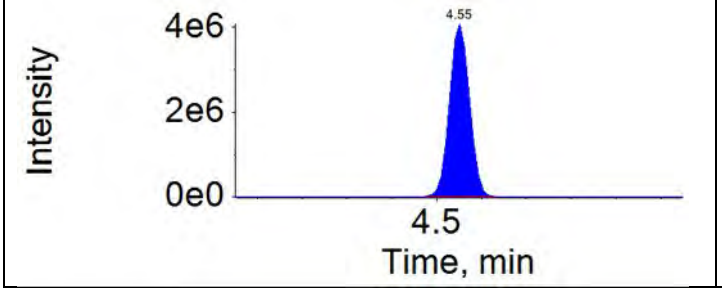


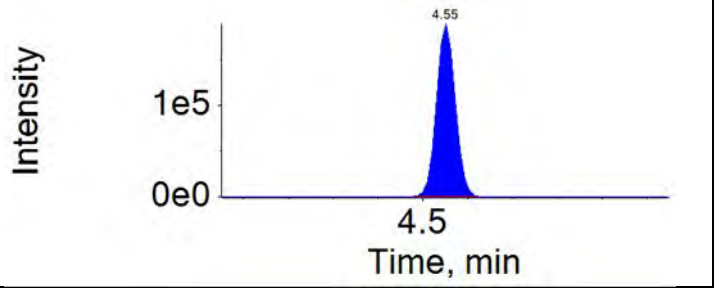
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



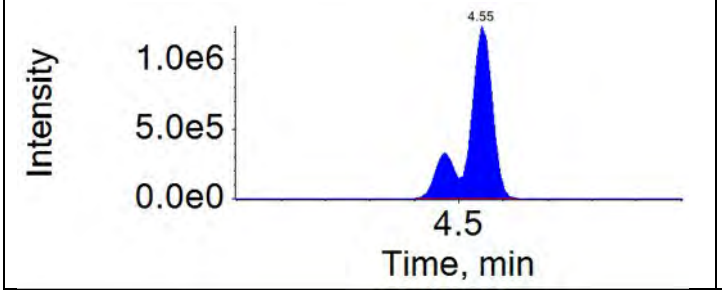


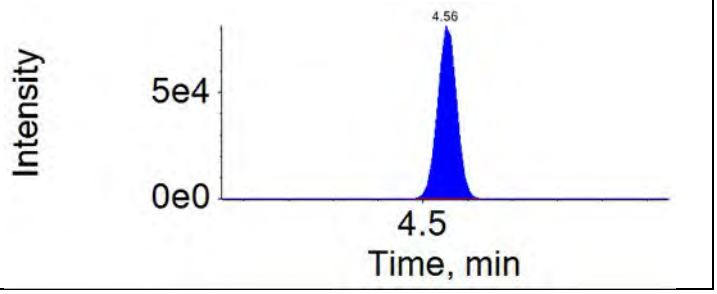
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

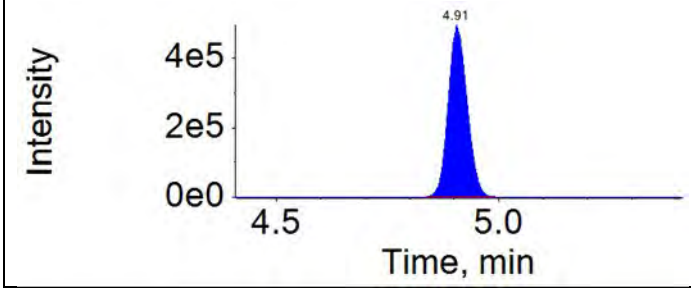
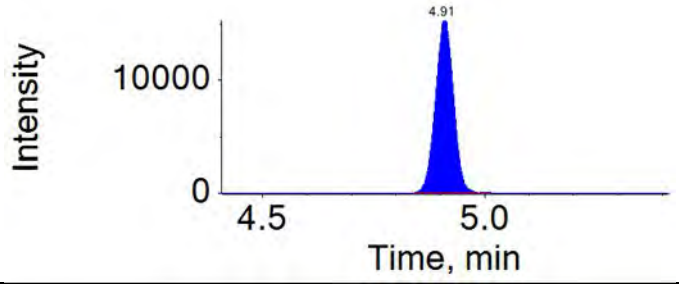


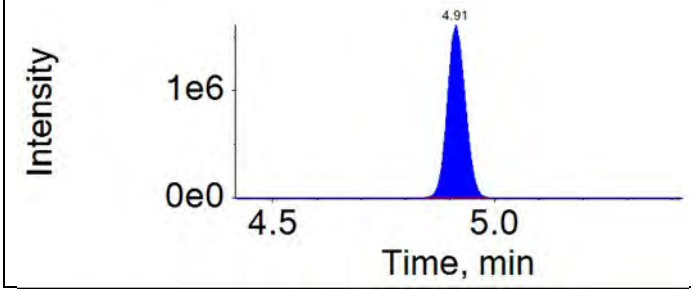
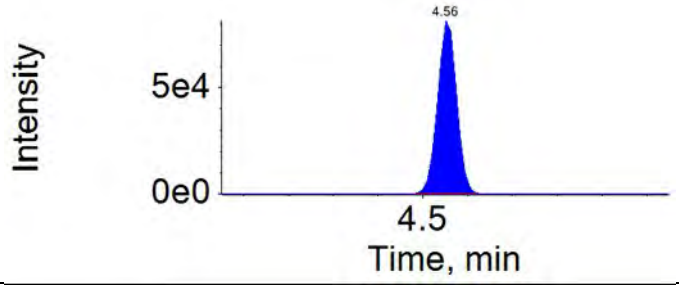


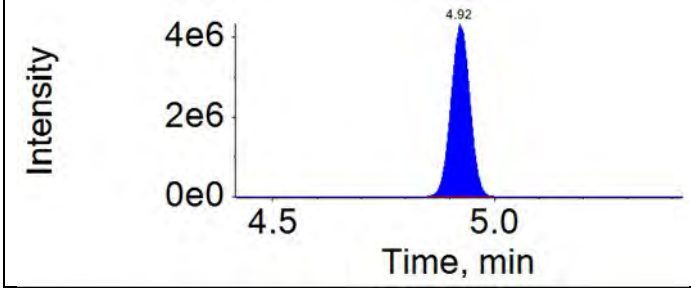
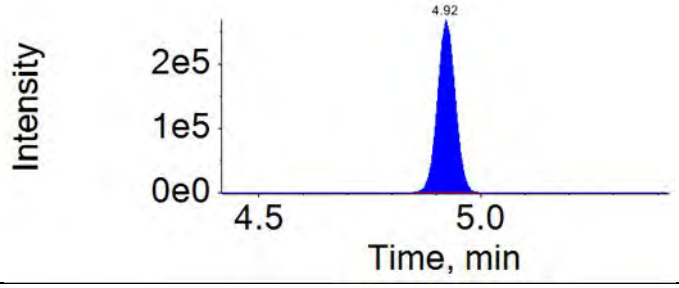
APPROVED
By MCD at 5:01 pm, 11/28/18

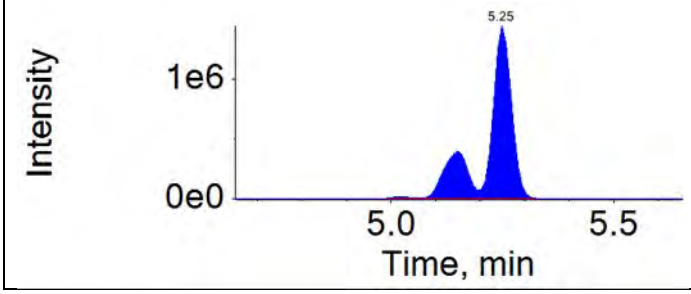
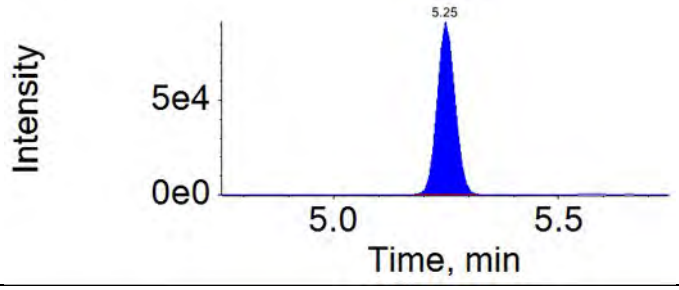
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

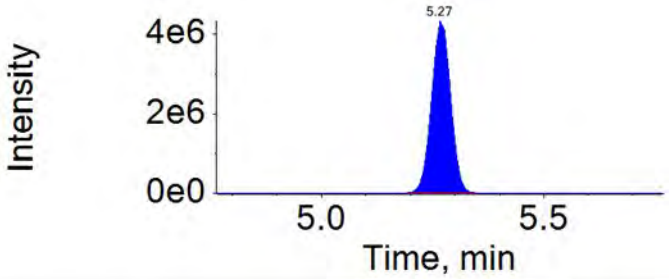
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

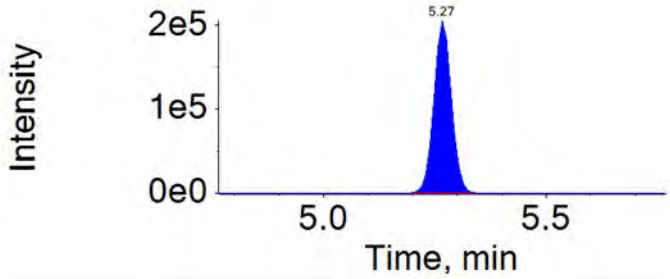
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

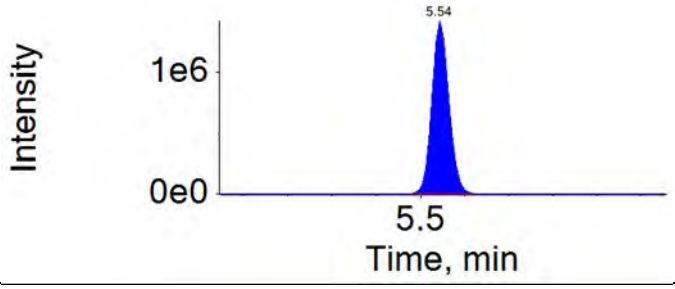
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

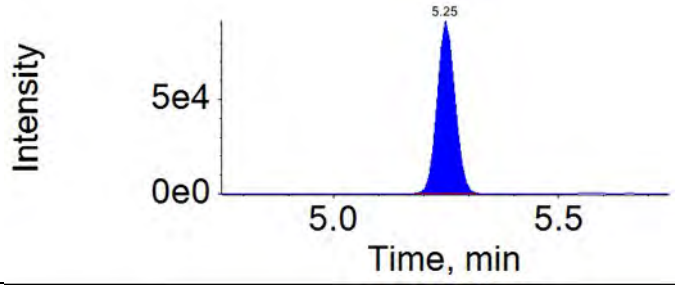
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



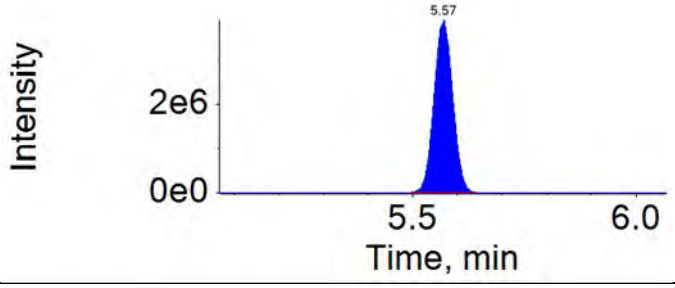


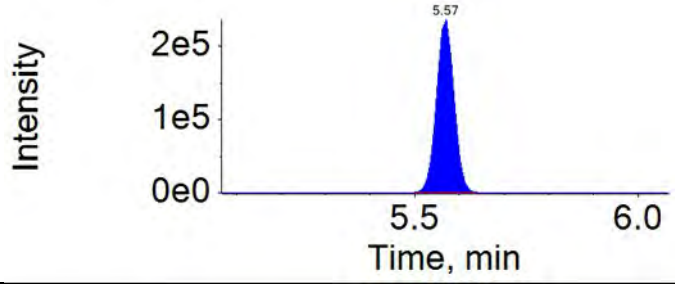
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



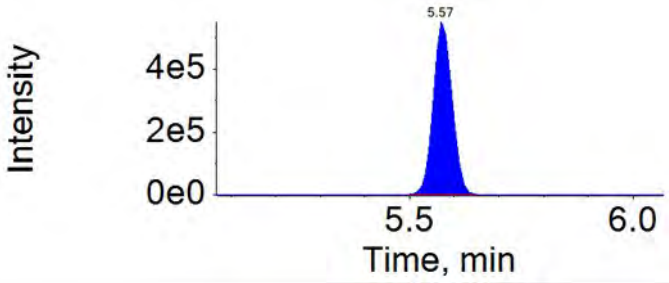


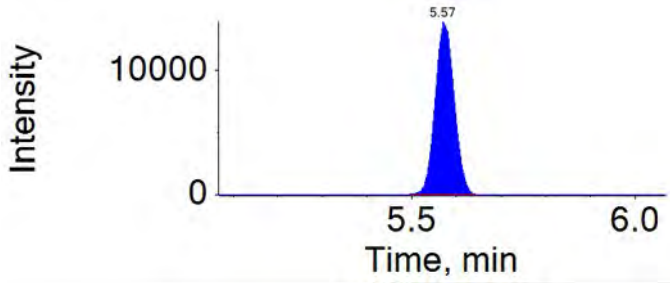
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



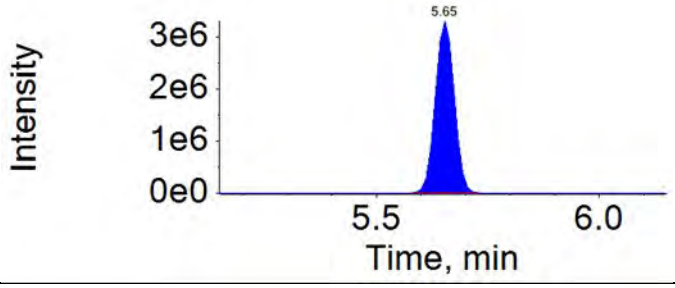


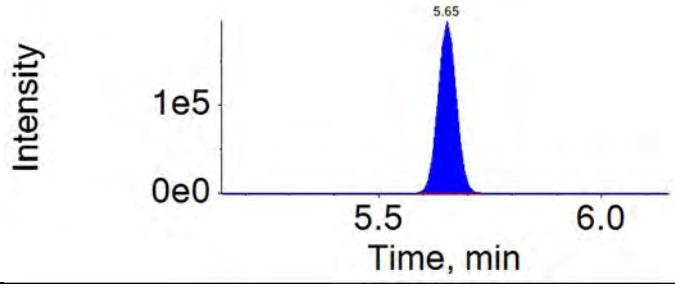
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

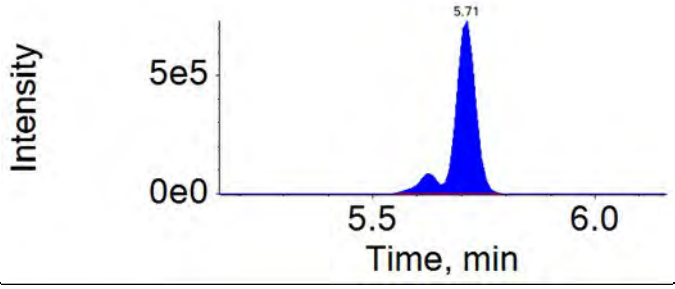
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

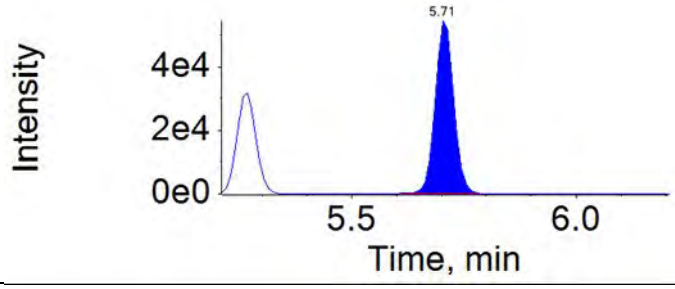
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



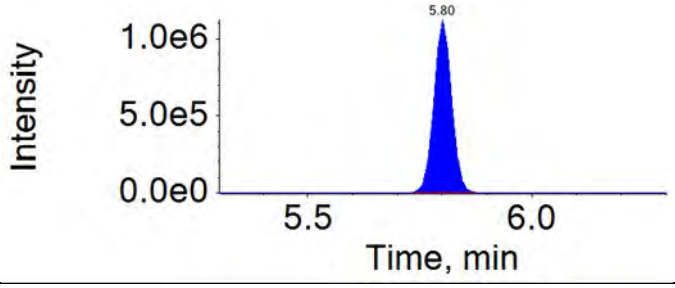


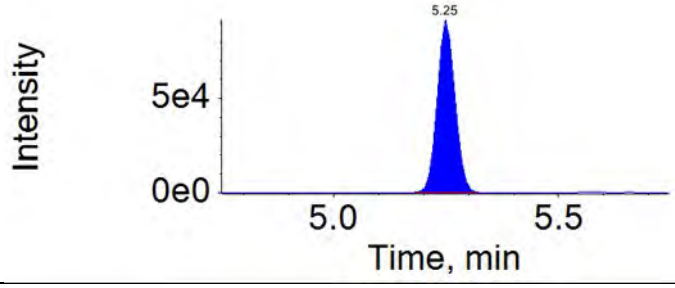
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



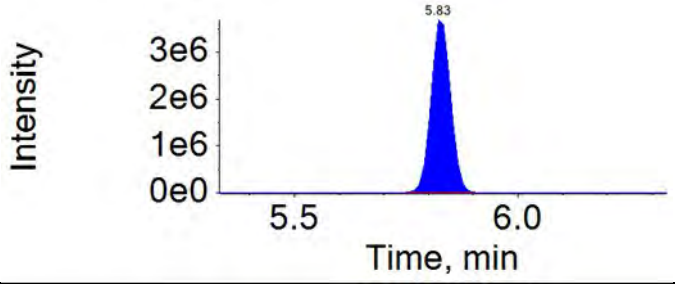


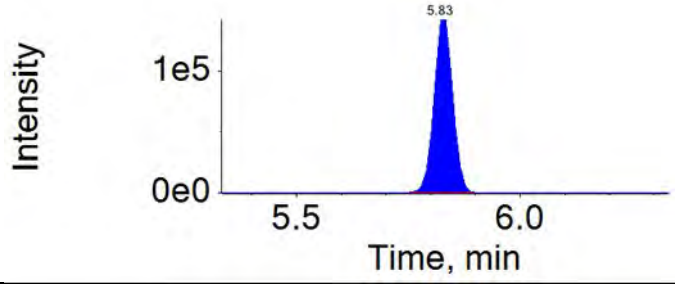
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



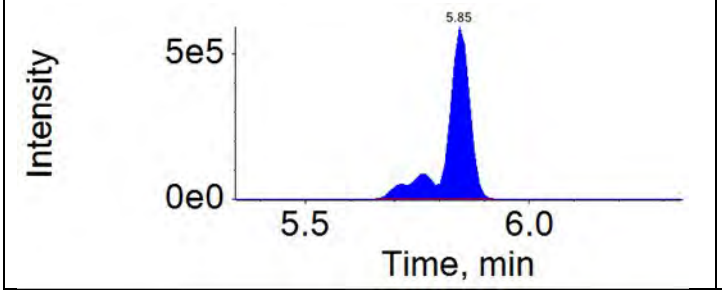


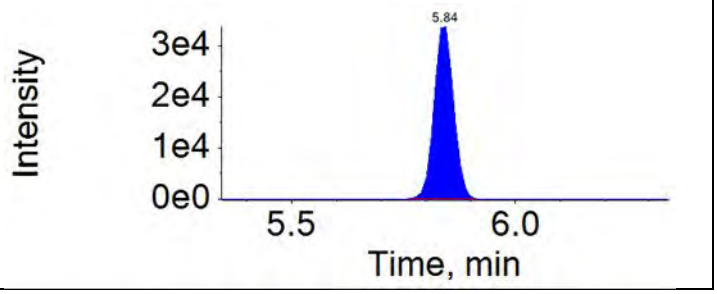
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

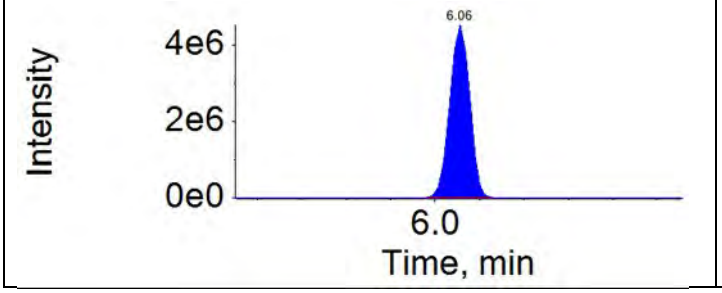
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

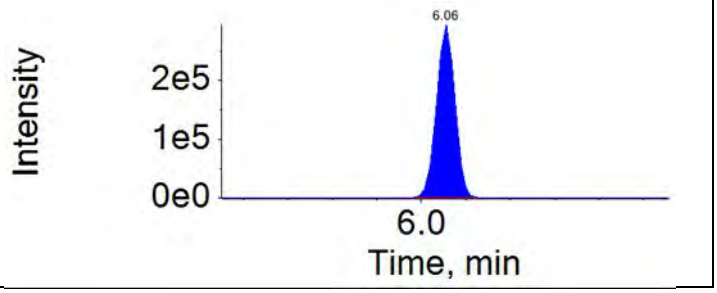
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



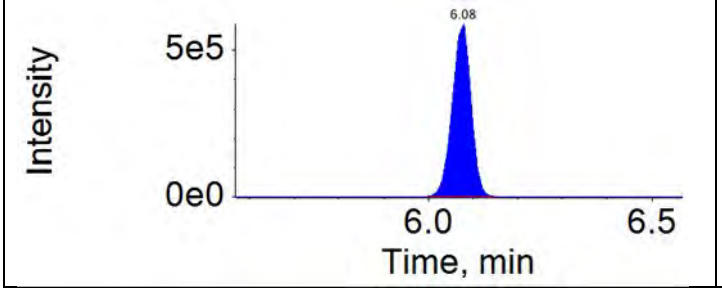


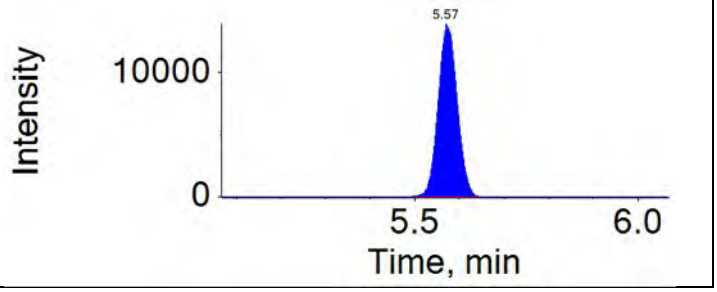
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



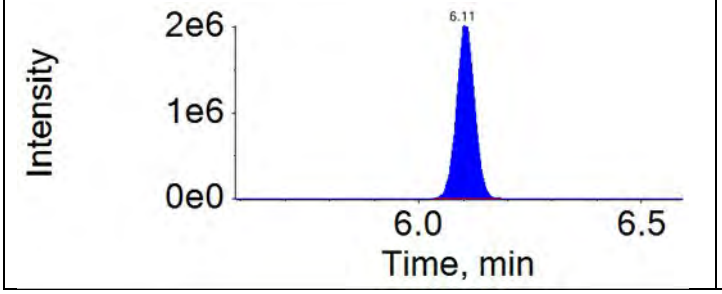


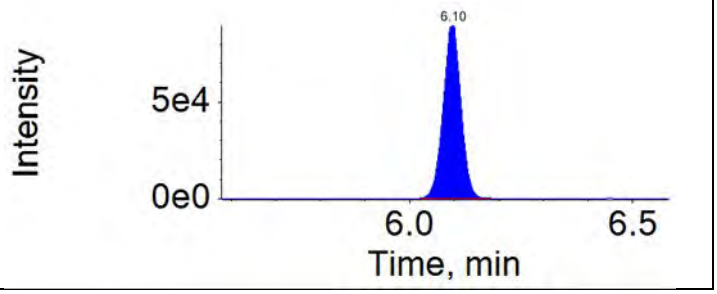
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



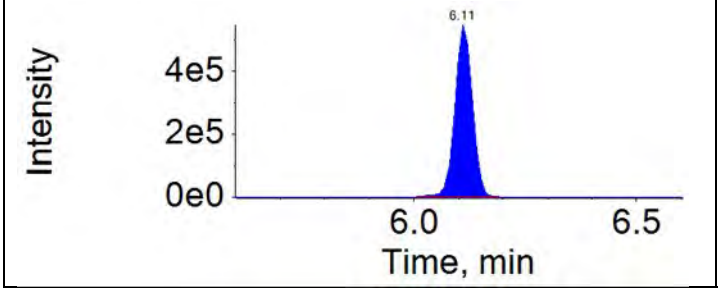


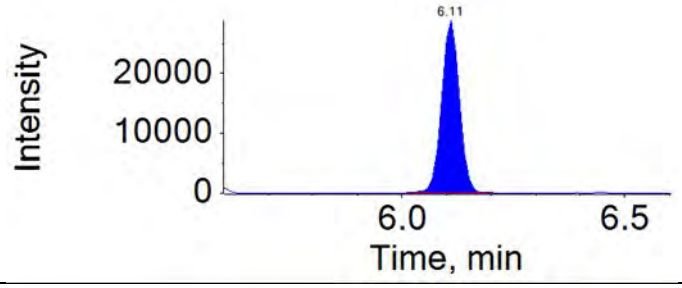
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

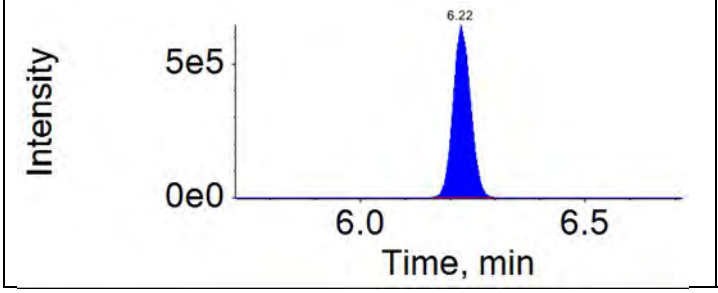
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

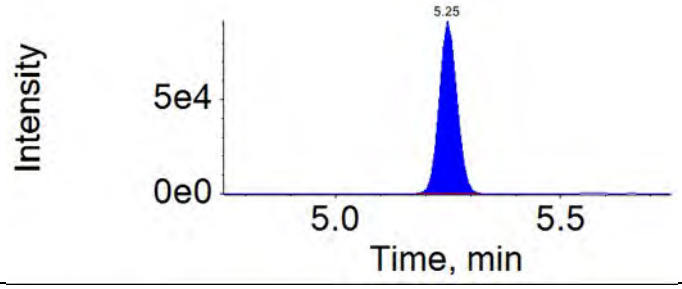
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



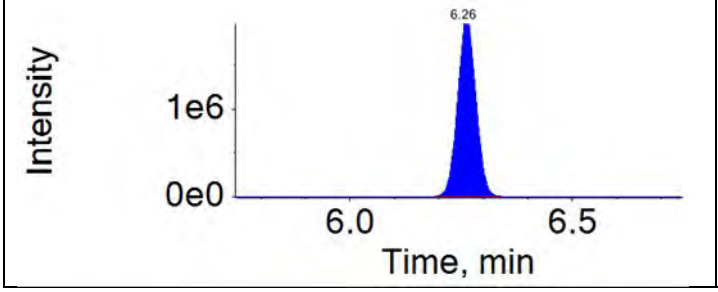


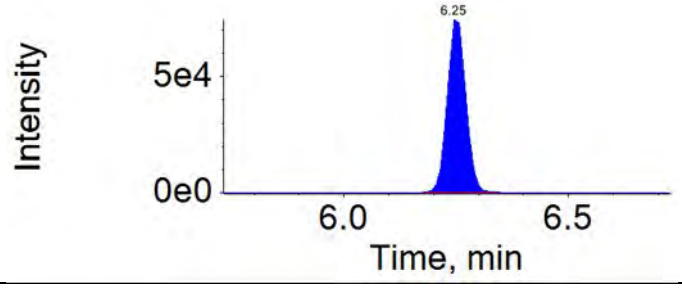
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



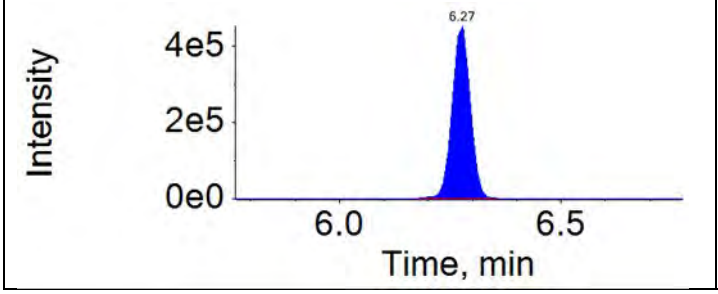


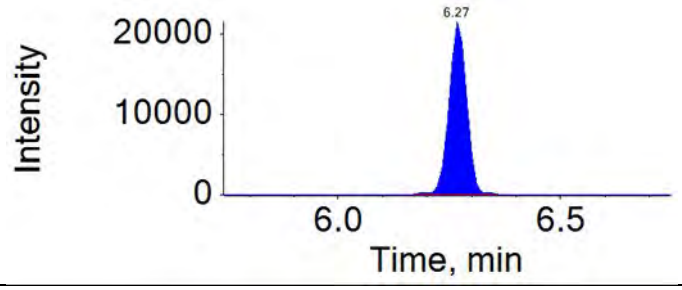
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



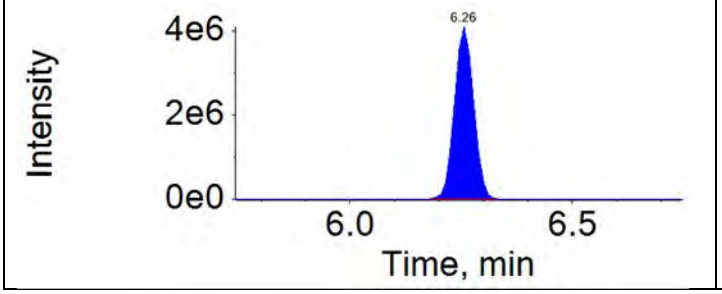


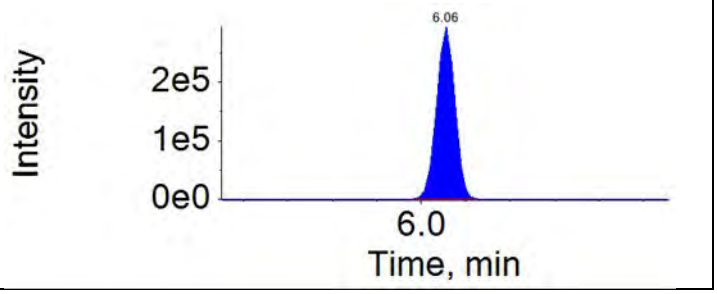
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

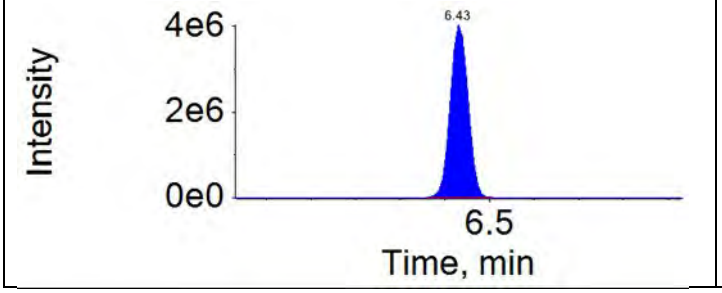
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

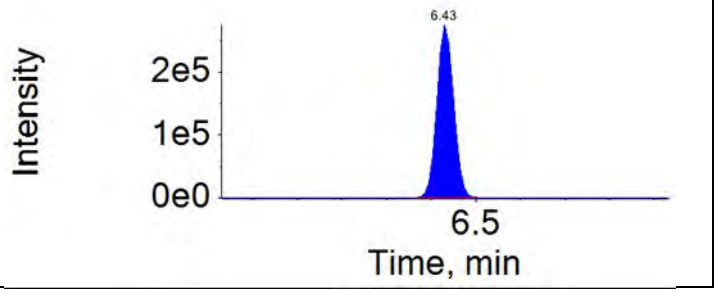
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



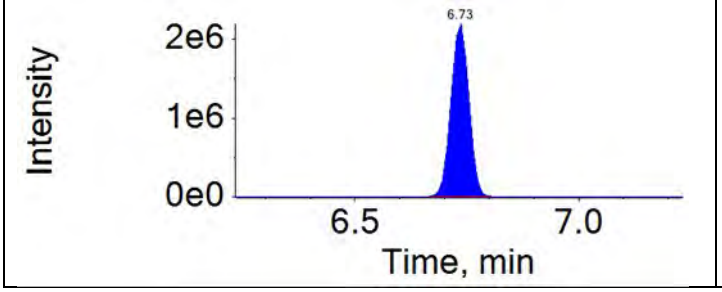


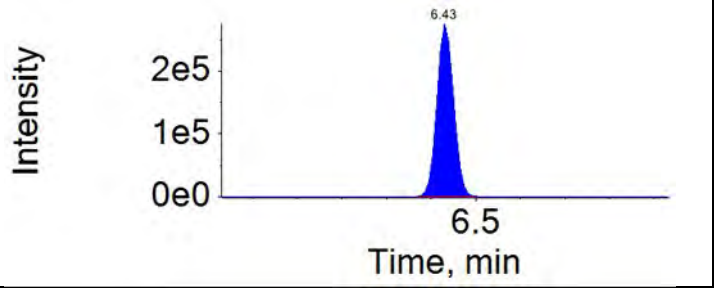
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



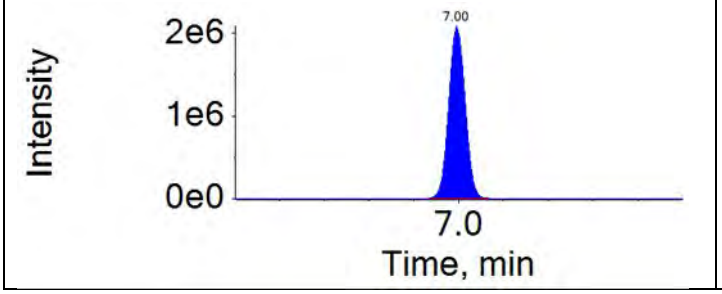


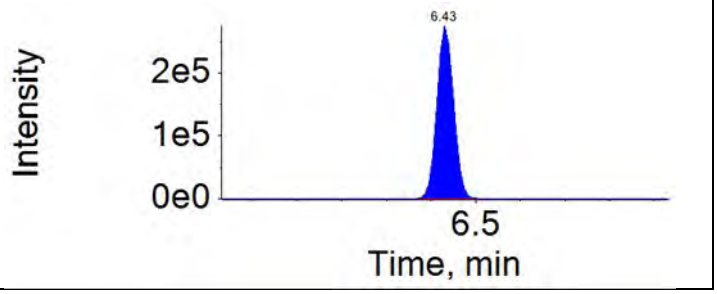
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



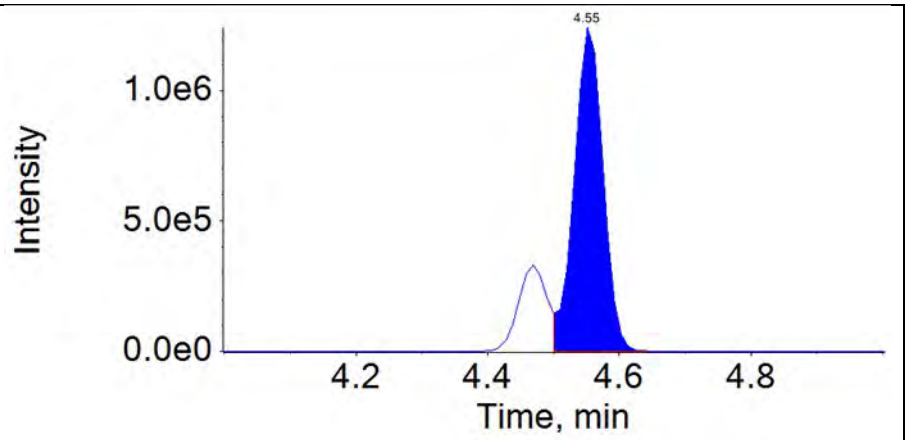


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

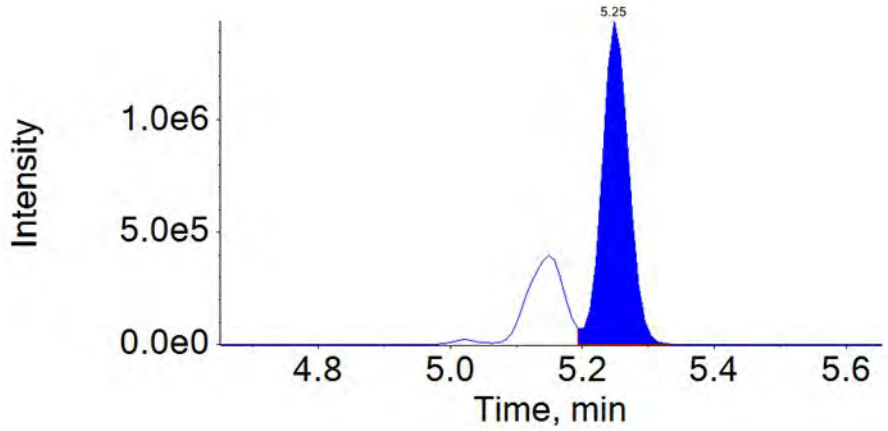
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
3819927.07
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



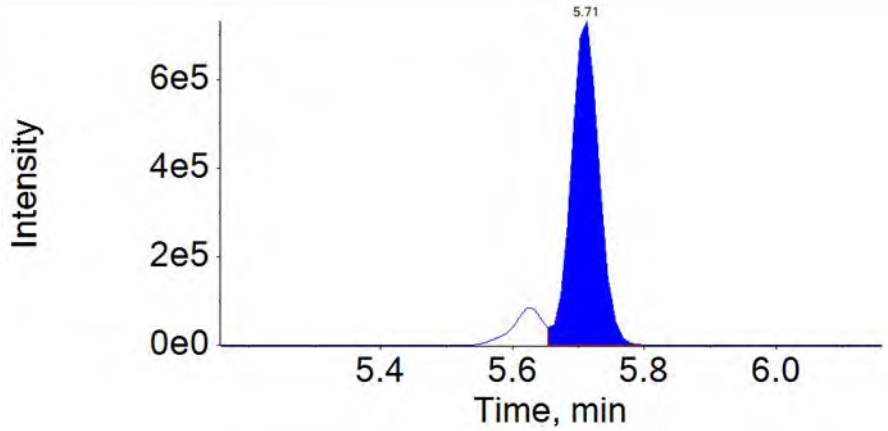
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
4044104.57
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
2148433.90
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



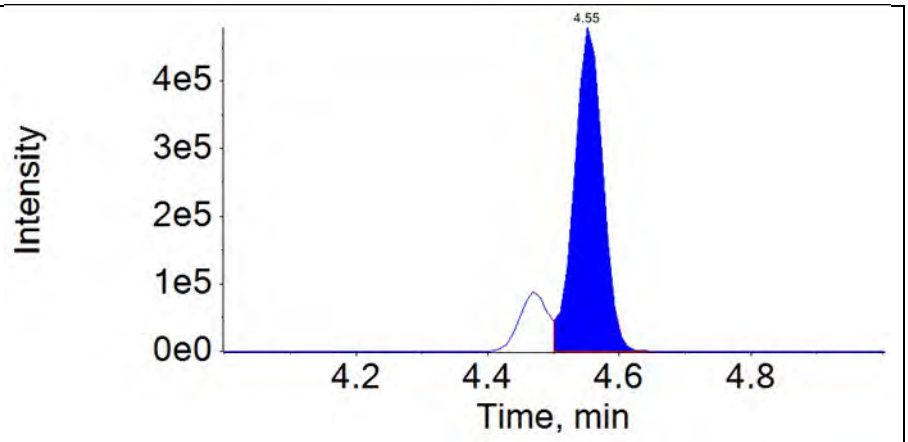
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

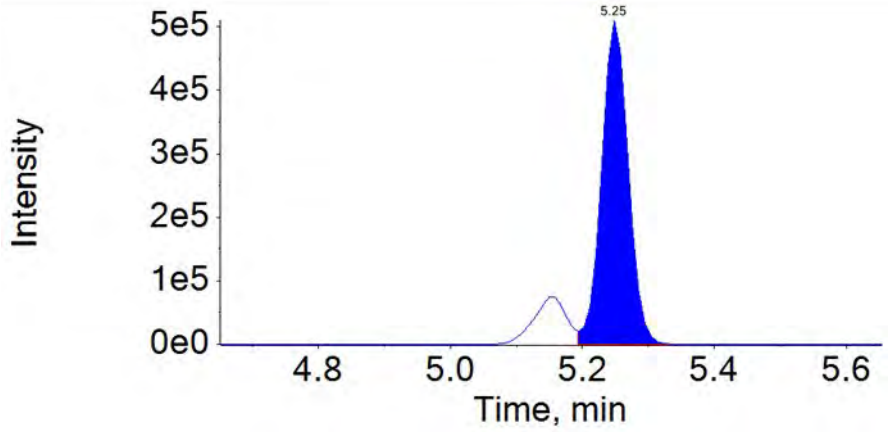
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



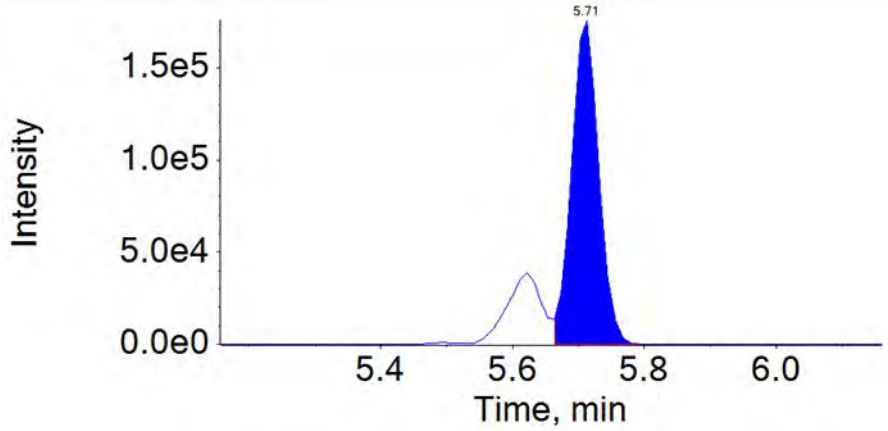
Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

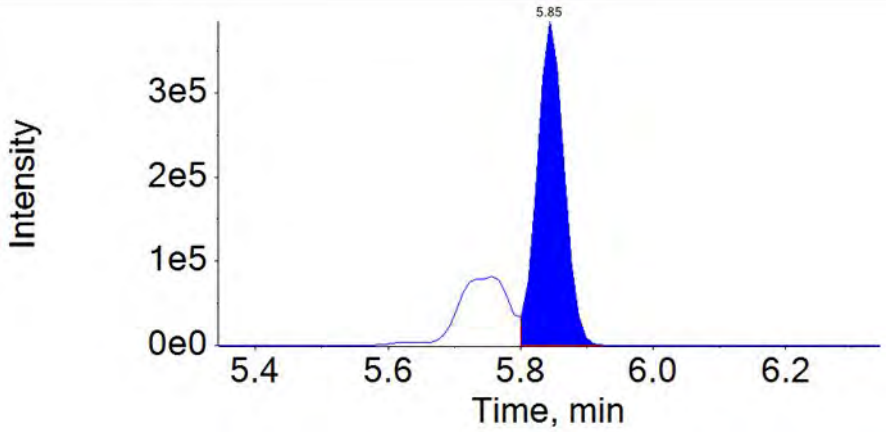
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

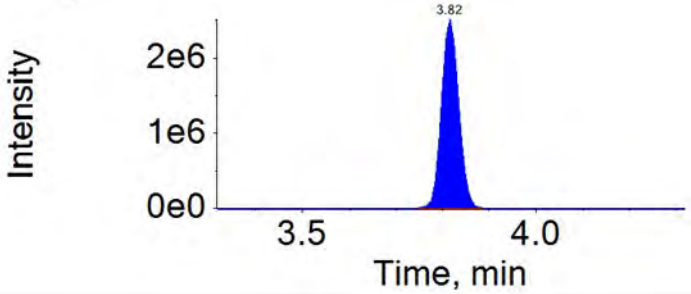
Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-12.wiff

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	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	
PFTrDA	6.26	1.03	12329126.07	A	0.0090	0.0102			
PFTrDA_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	

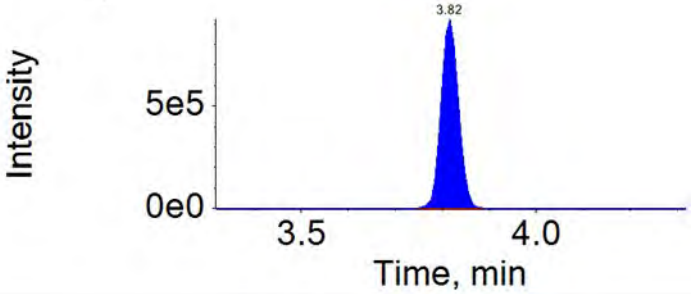
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

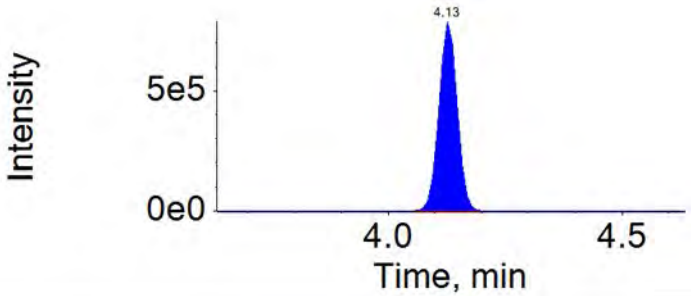
Component: PFBS
Primary Mass: 299.0 / 80.0



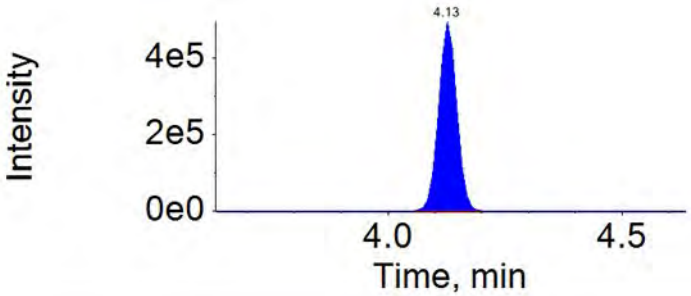
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



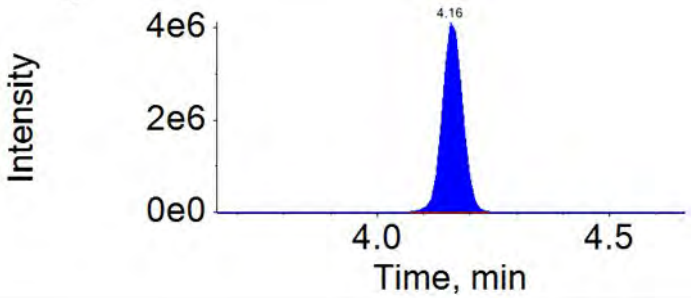
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



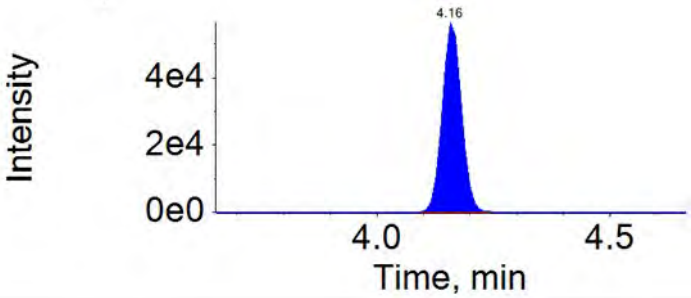
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



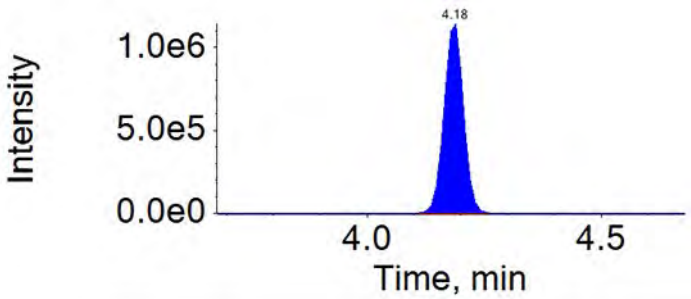
Component: PFHxA
Primary Mass: 313.0 / 269.0



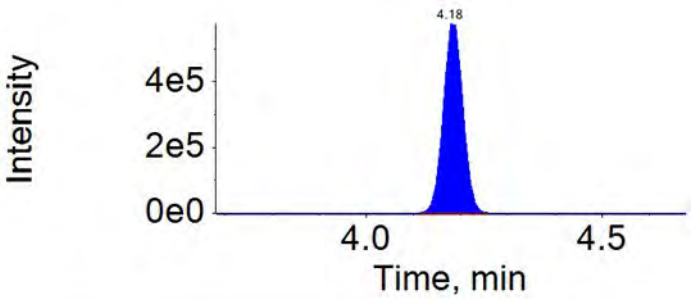
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



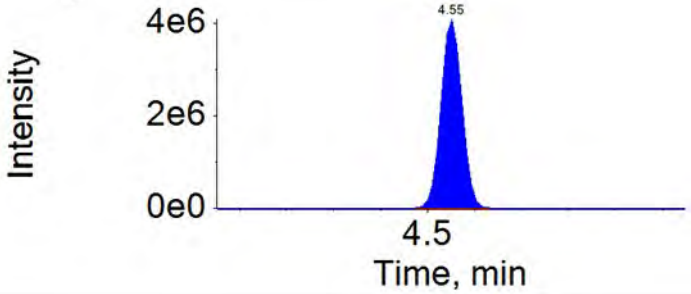
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



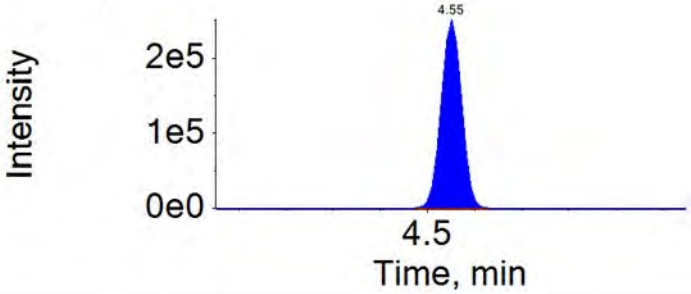
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

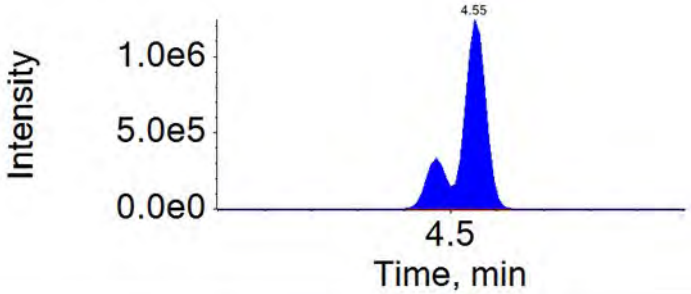
Component: PFHpA
Primary Mass: 363.0 / 319.0



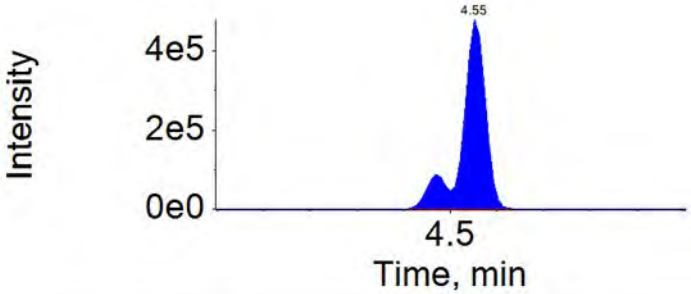
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



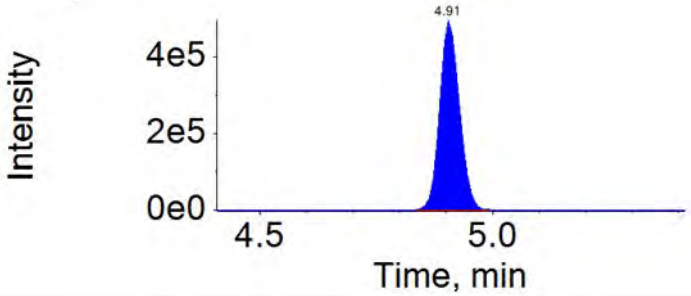
Component: PFHxS
Primary Mass: 399.0 / 80.0



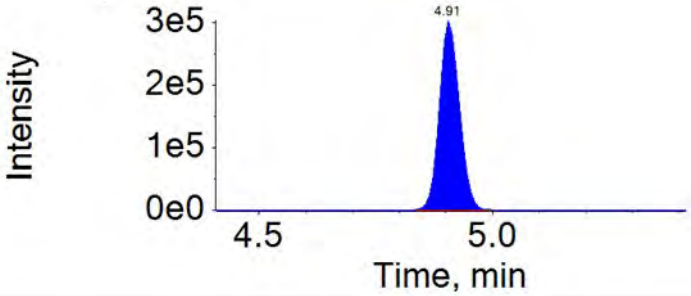
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



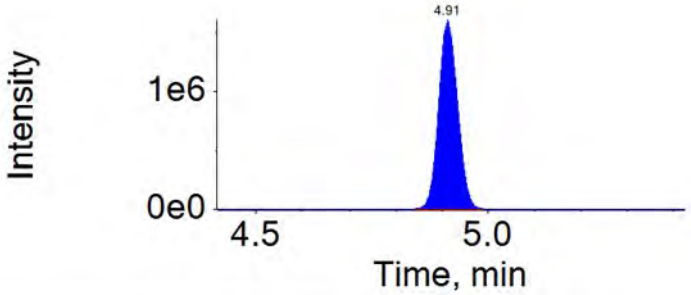
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



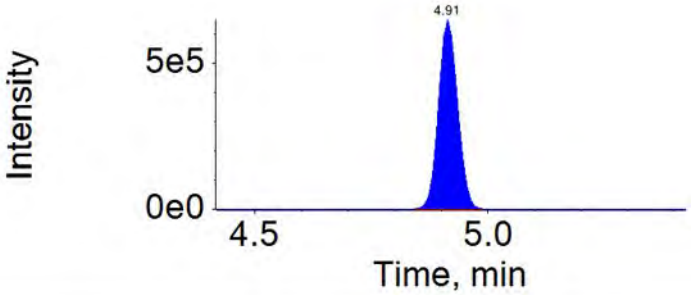
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



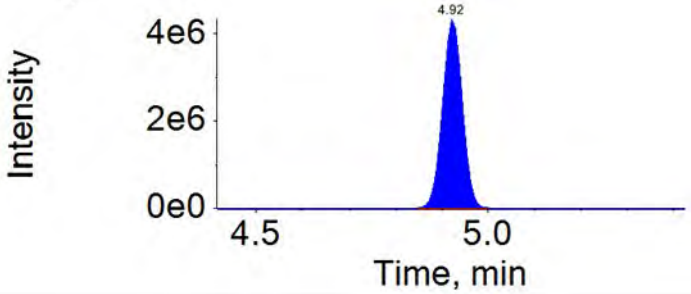
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



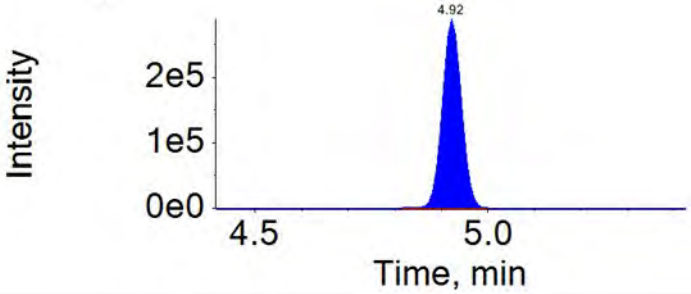
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

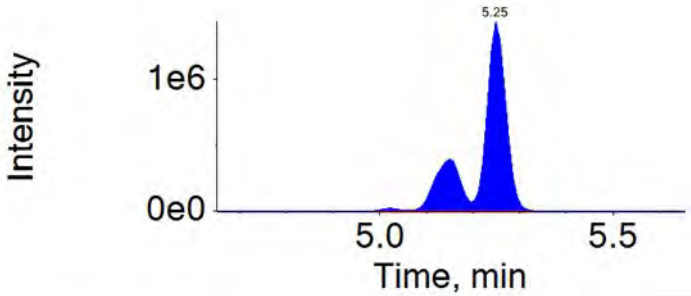
Component: PFOA
Primary Mass: 413.0 / 369.0



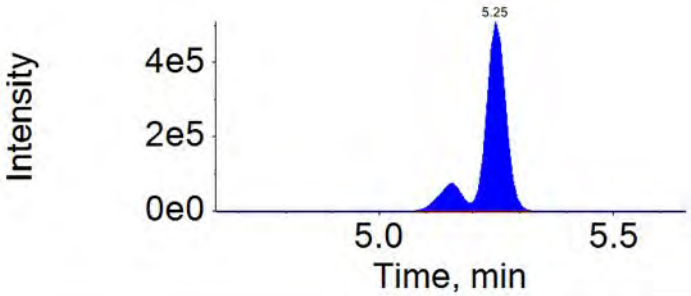
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



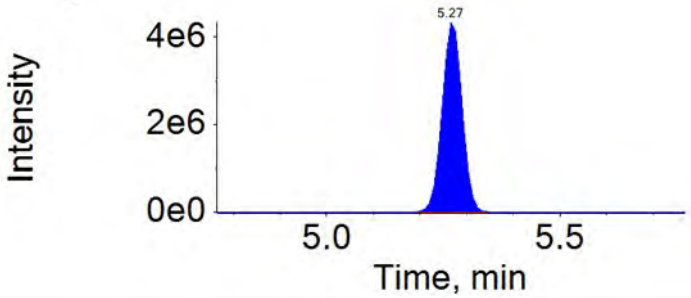
Component: PFOS
Primary Mass: 499.0 / 80.0



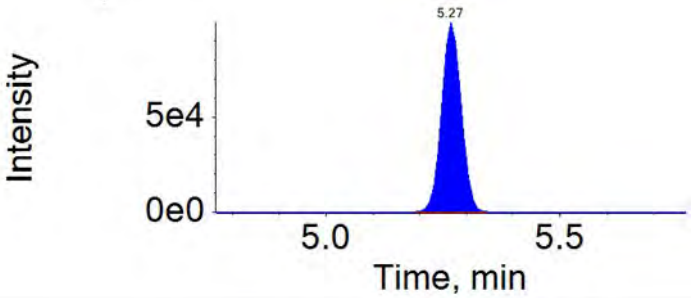
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



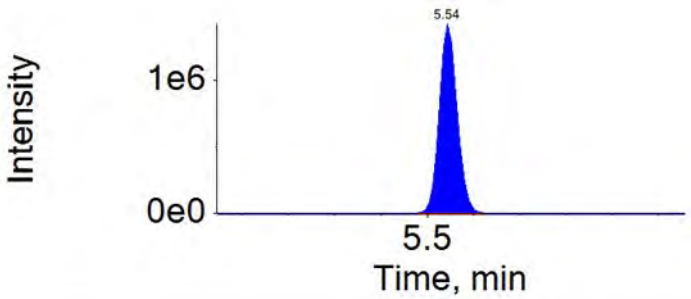
Component: PFNA
Primary Mass: 463.0 / 419.0



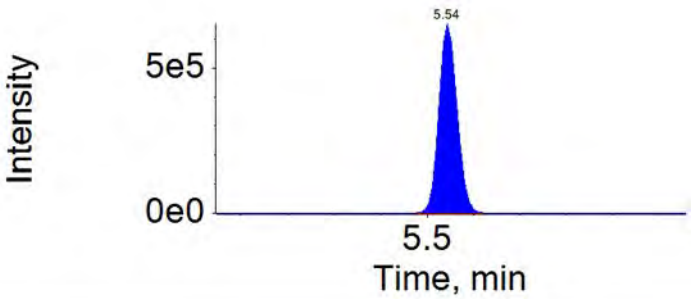
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



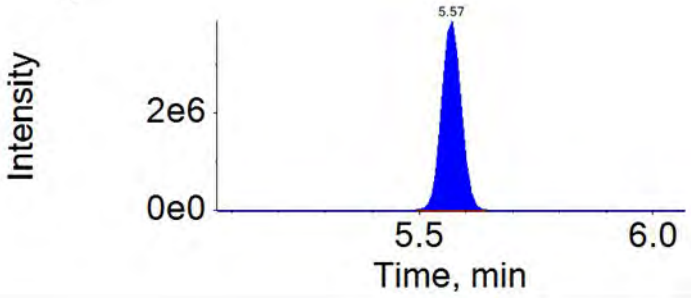
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



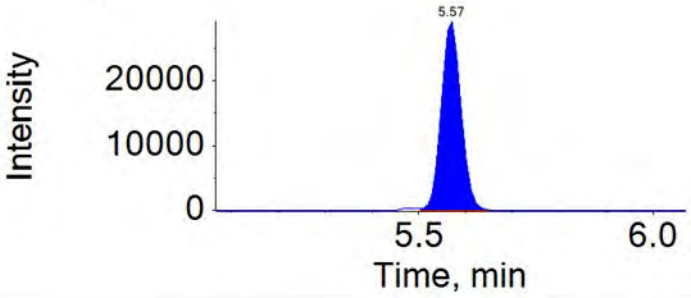
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

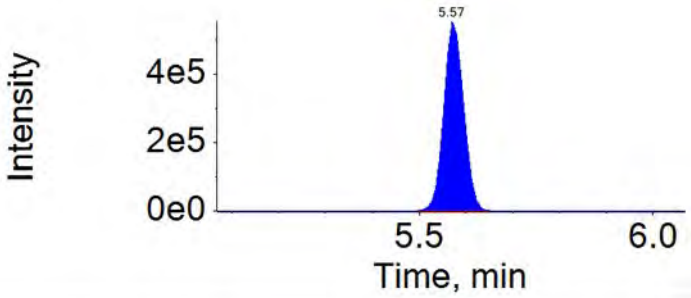
Component: PFDA
Primary Mass: 513.0 / 469.0



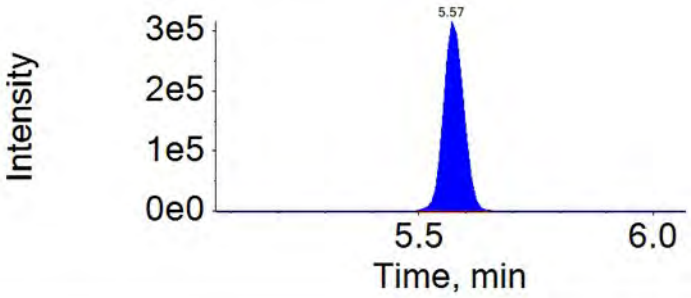
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



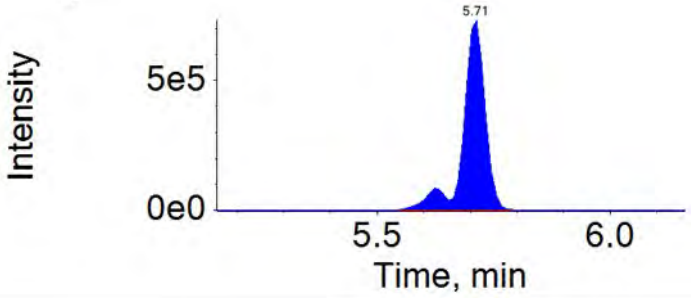
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



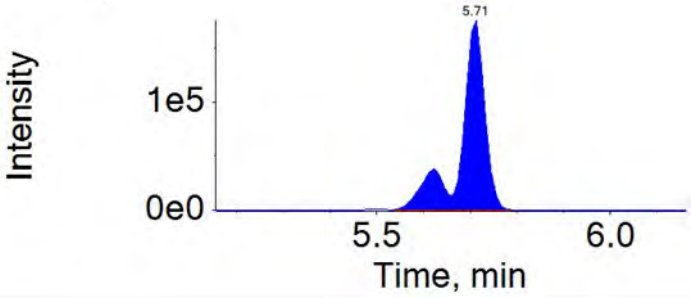
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



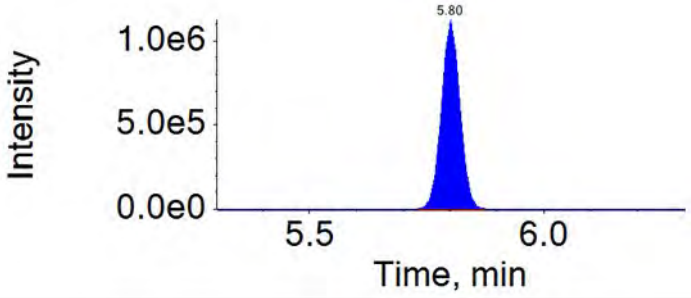
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



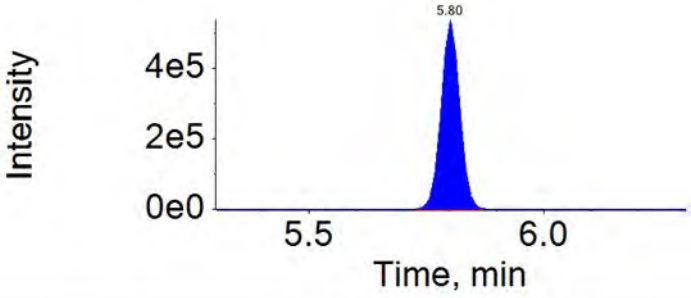
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



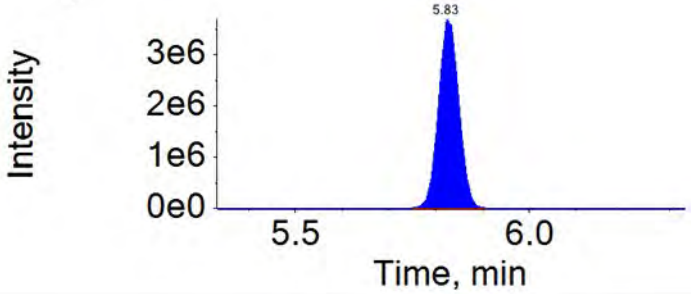
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



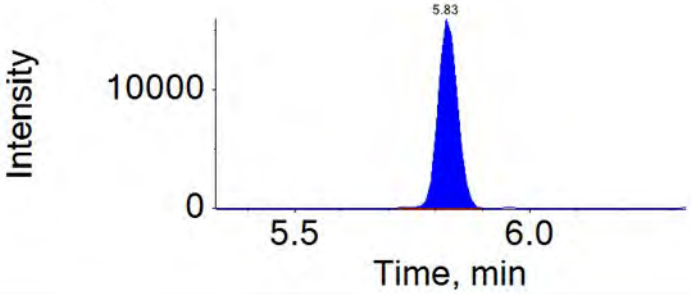
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

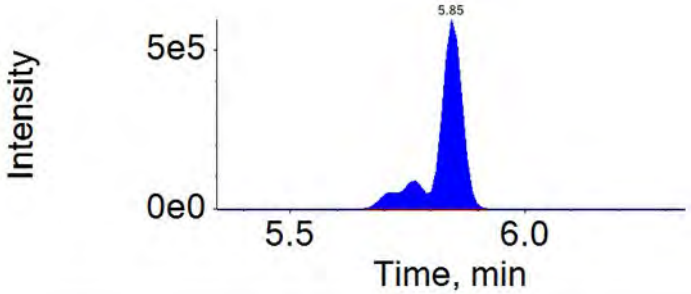
Component: PFUnDA
Primary Mass: 563.0 / 519.0



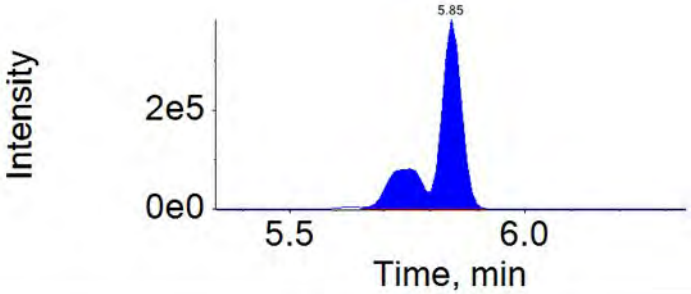
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



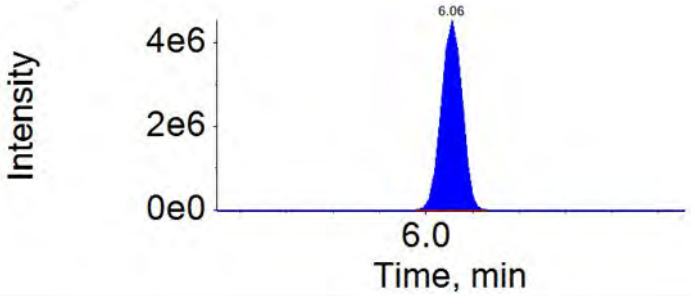
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



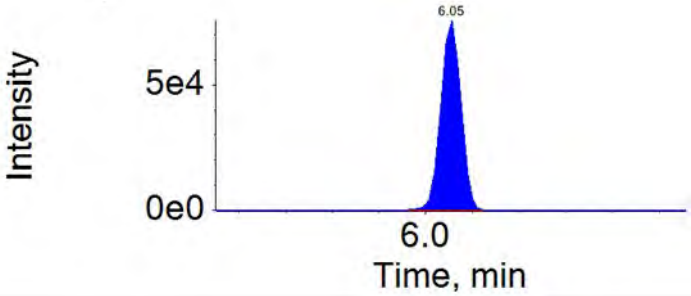
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



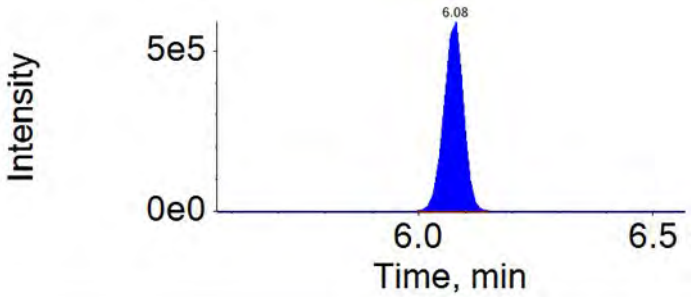
Component: PFDoDA
Primary Mass: 613.0 / 569.0



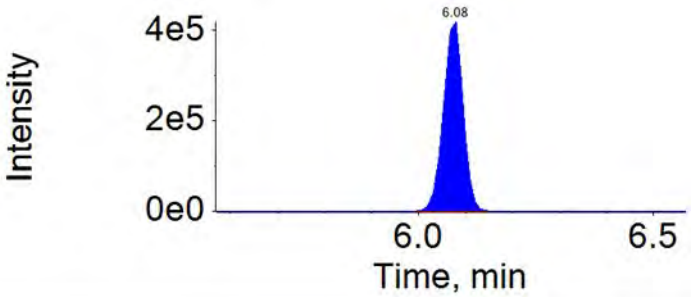
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



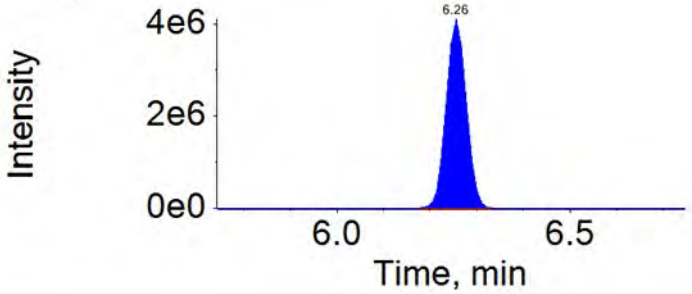
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



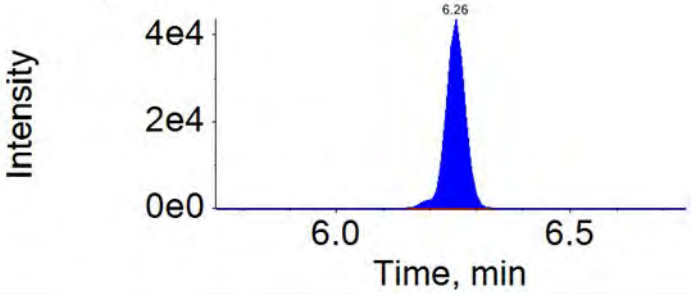
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

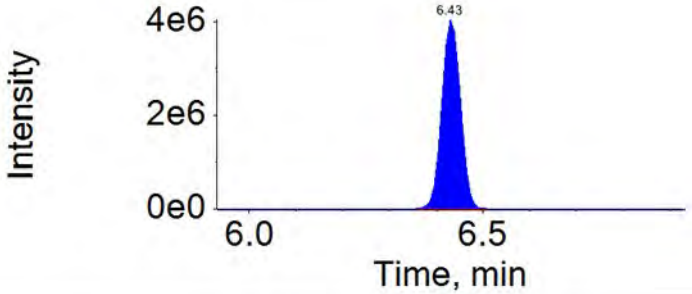
Component: PFTrDA
Primary Mass: 663.0 / 619.0



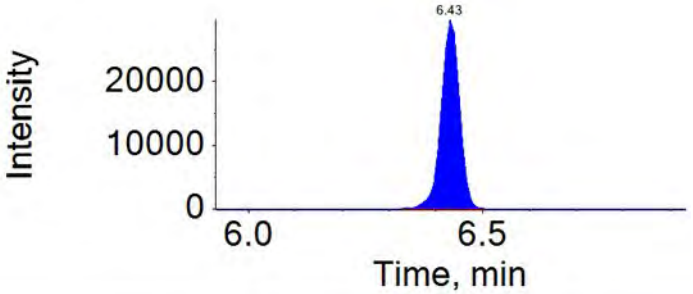
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



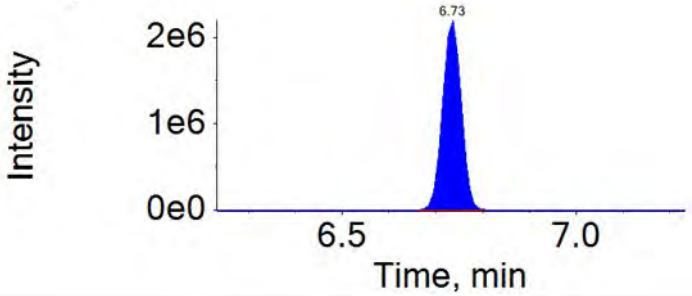
Component: PFTeDA
Primary Mass: 713.0 / 669.0



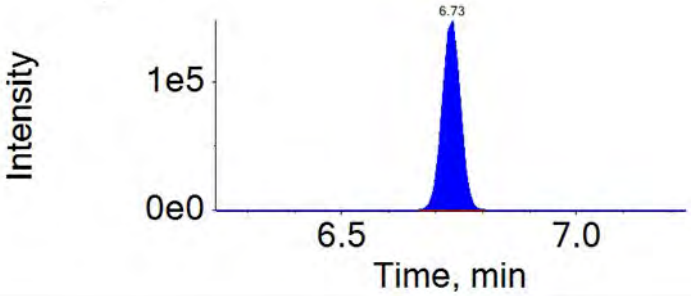
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



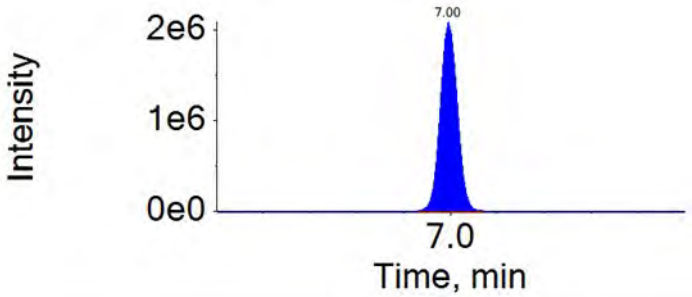
Component: PFHxDA
Primary Mass: 813.0 / 769.0



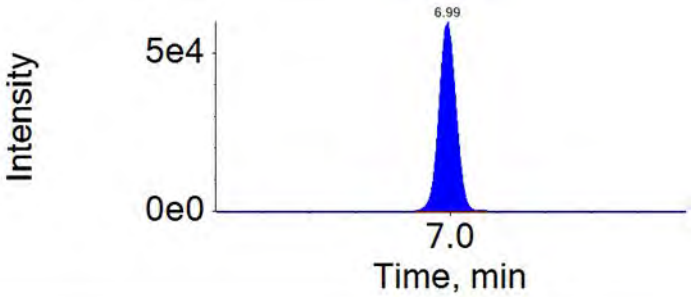
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **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	

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

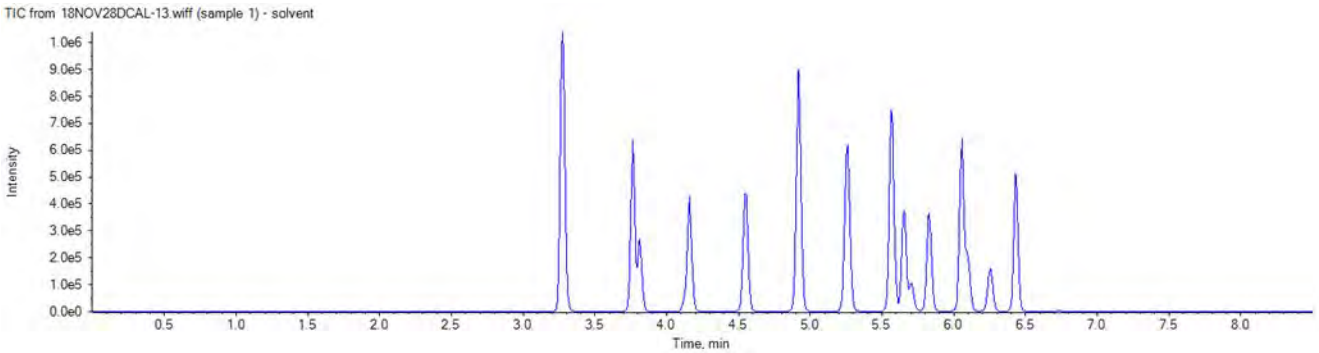
Analyte Quantitation Peak Table

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	
PFTrDA	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

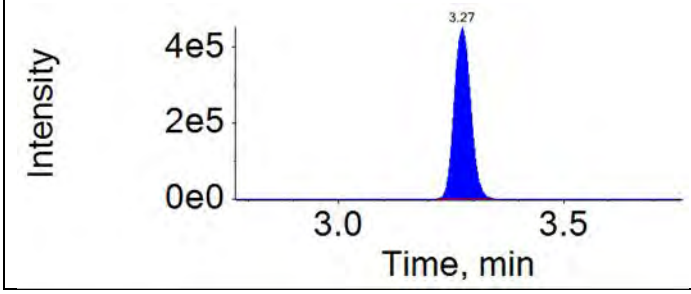


APPROVED
By JPT at 1:11 pm, 11/29/18

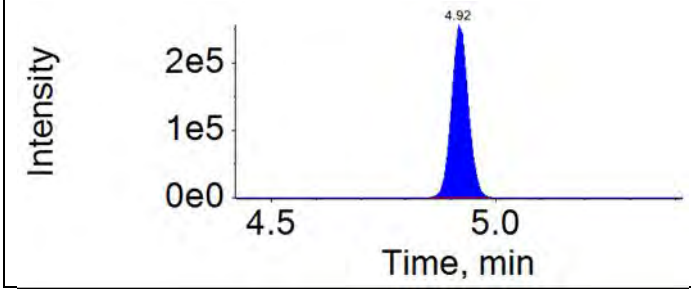
REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

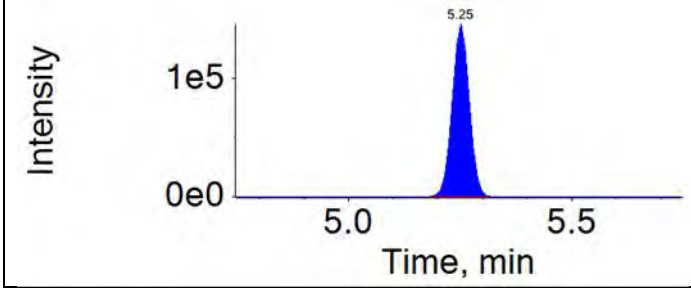
Injection Standard: 13C3-PFBA
216.0 / 172.0



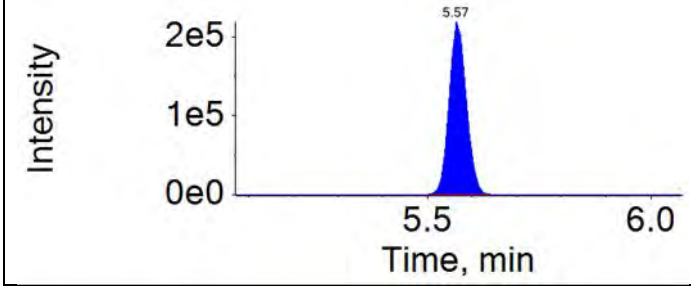
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

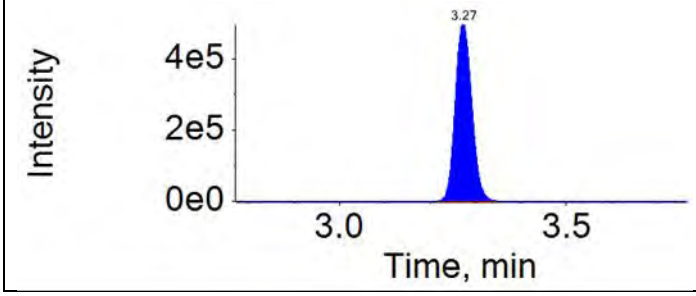


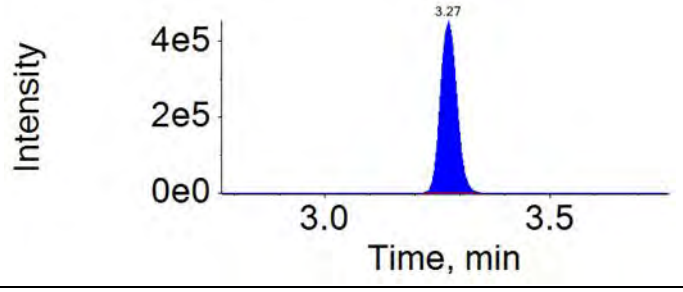
Injection Standard: 13C2-PFDA
515.0 / 470.0



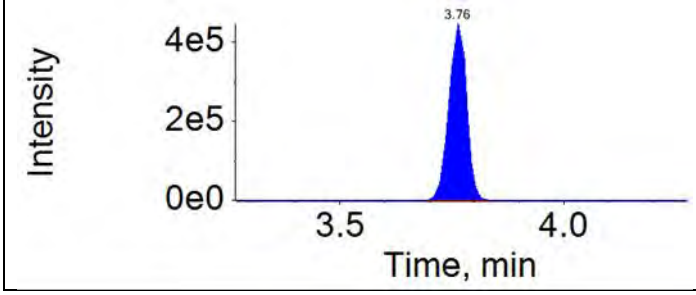
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

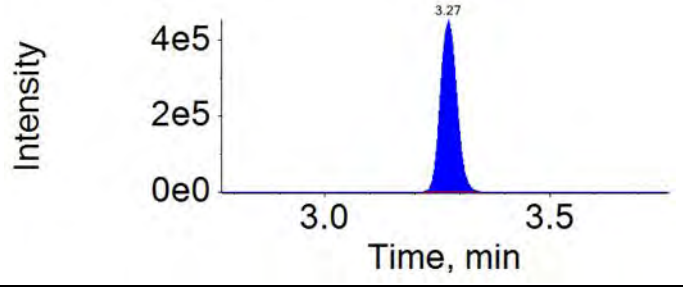
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



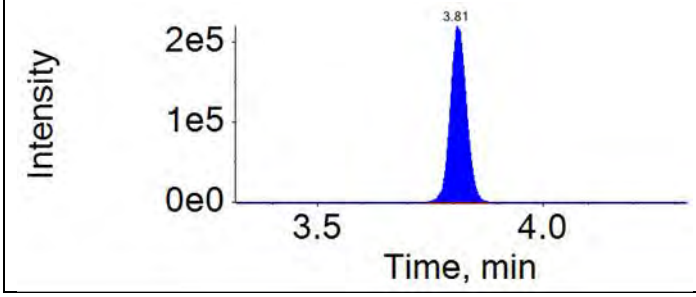


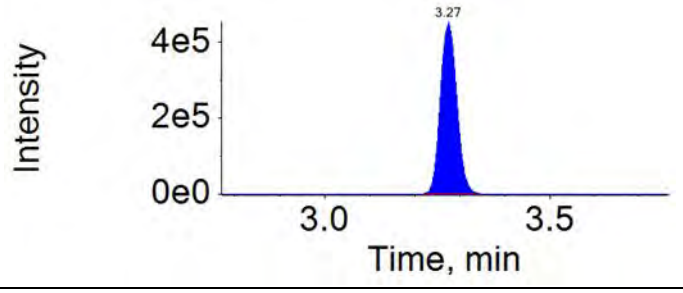
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



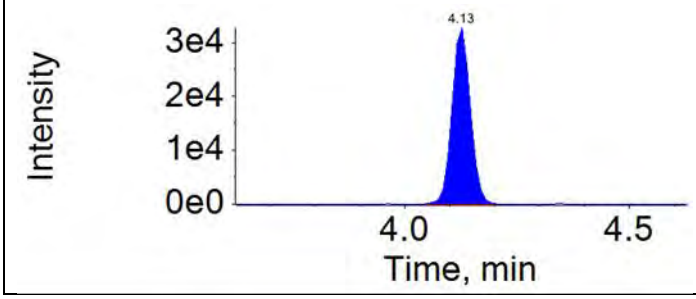


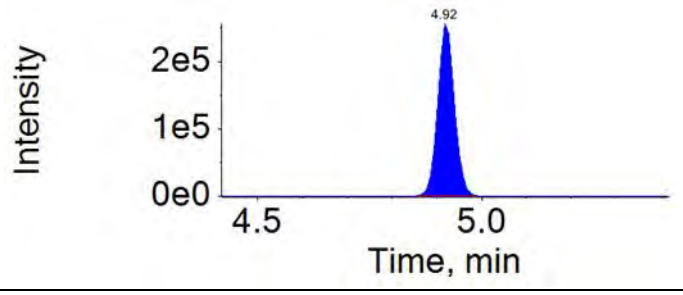
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



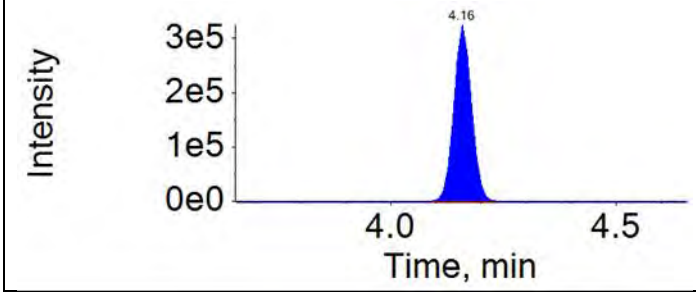


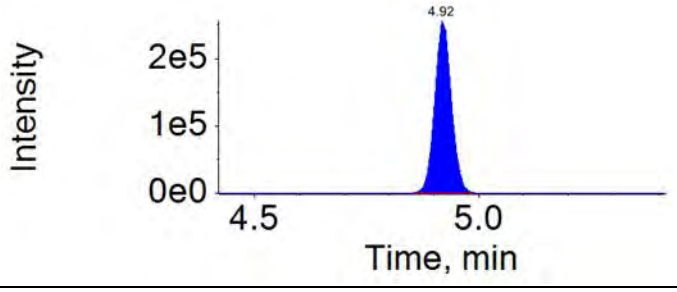
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

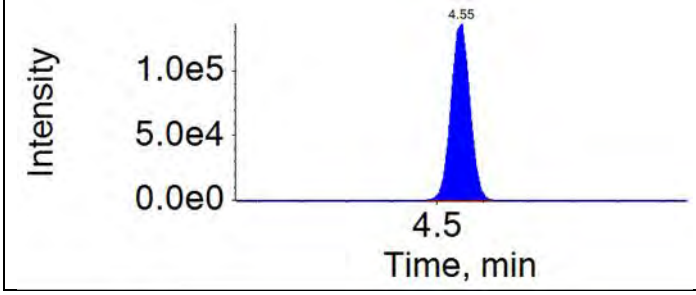
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

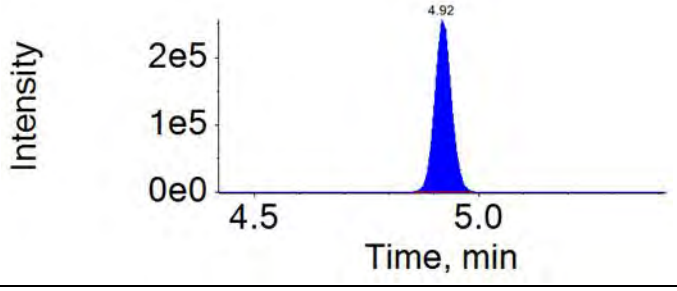
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



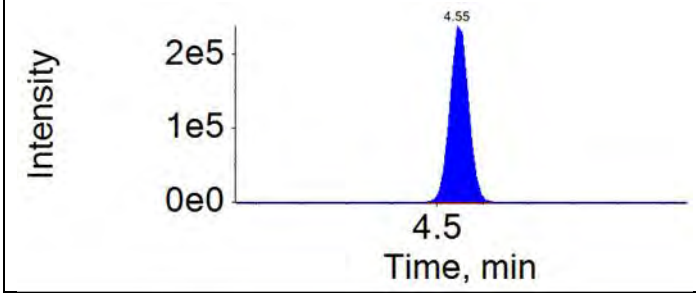


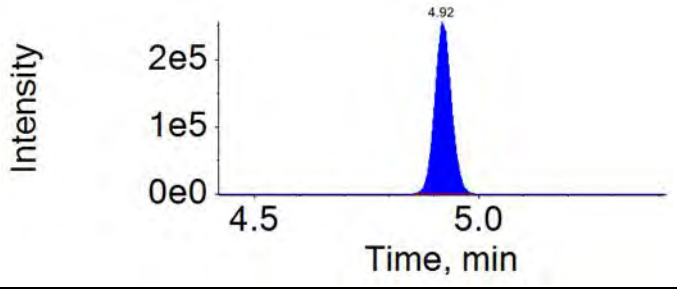
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



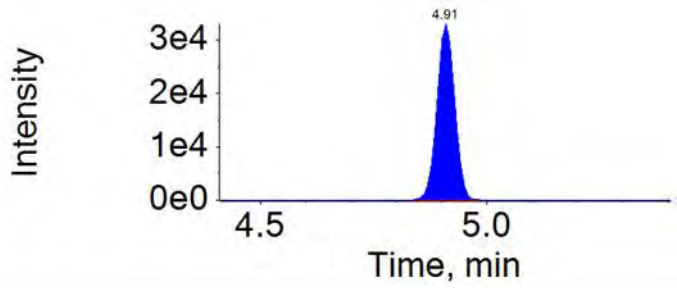


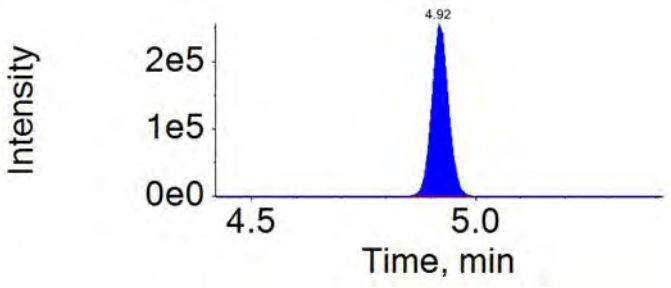
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



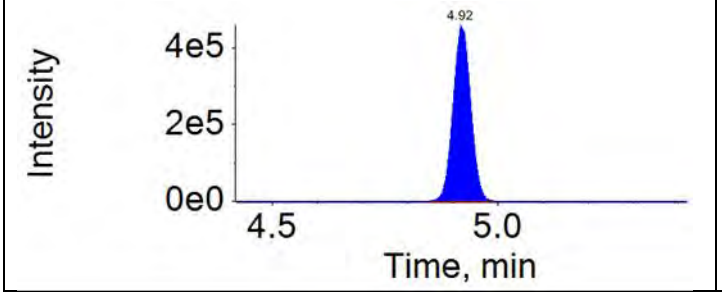


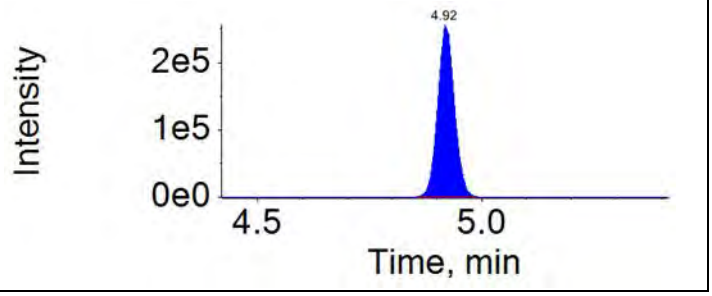
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

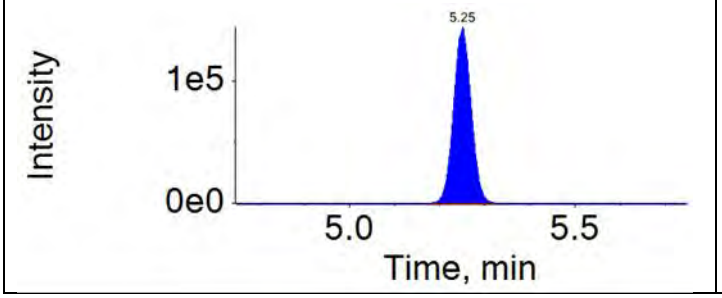
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

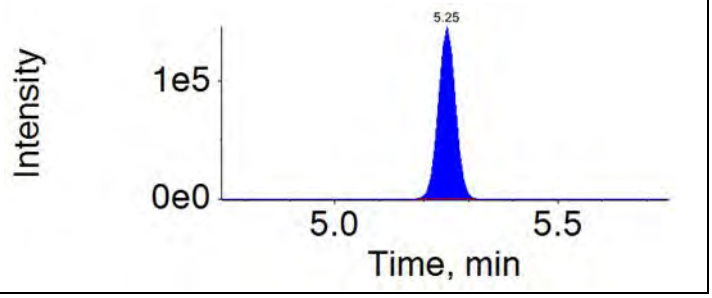
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



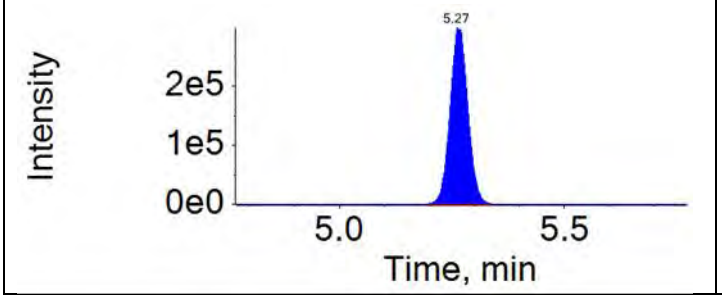


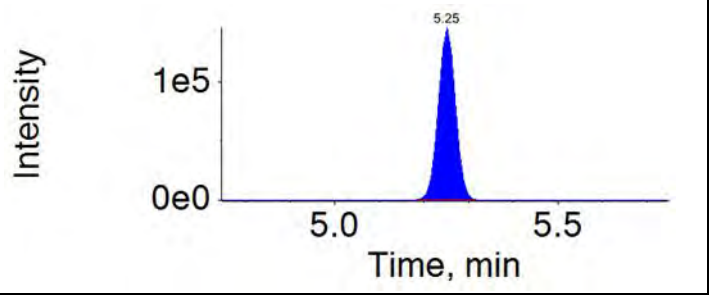
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



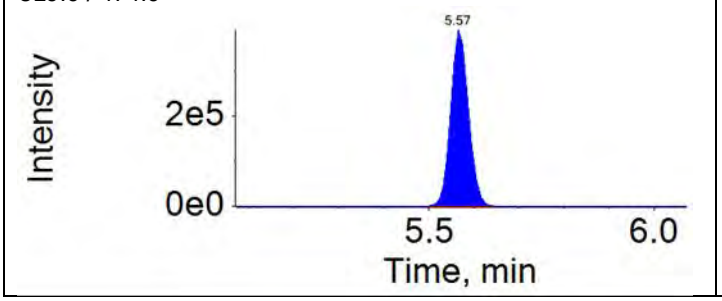


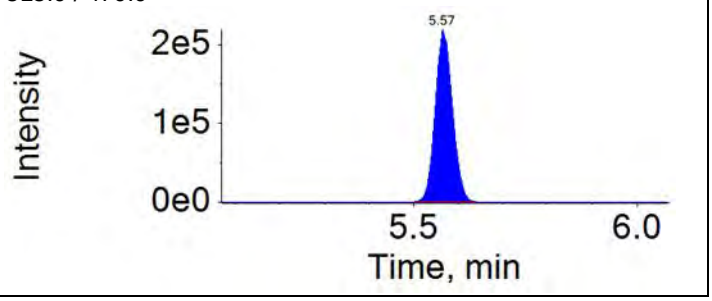
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



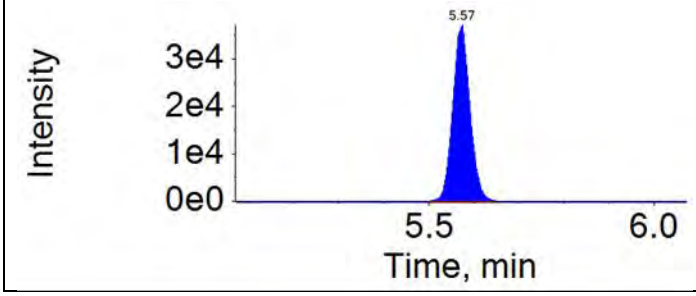


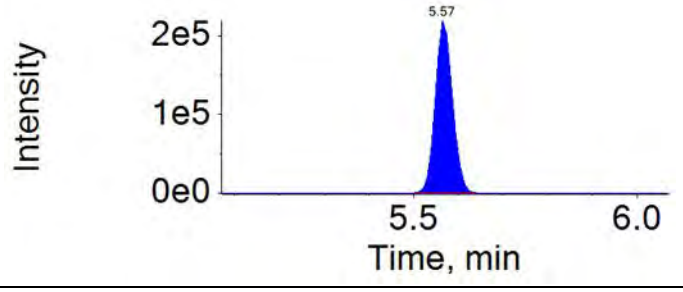
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

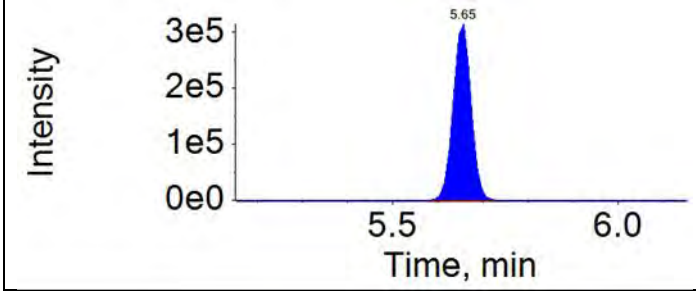
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

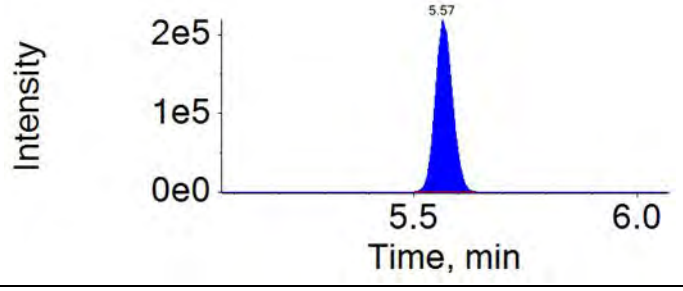
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



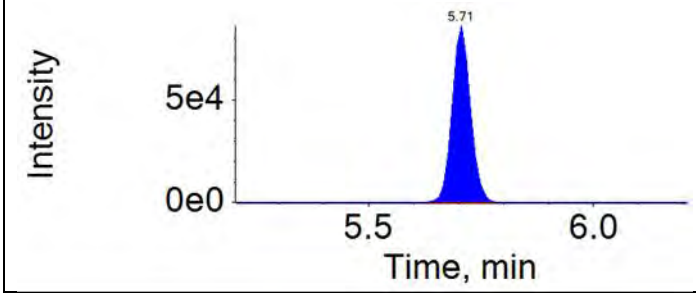


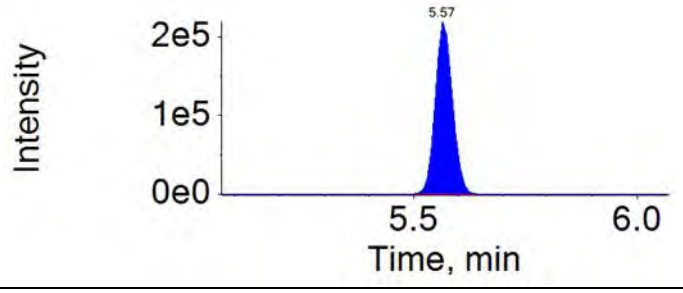
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



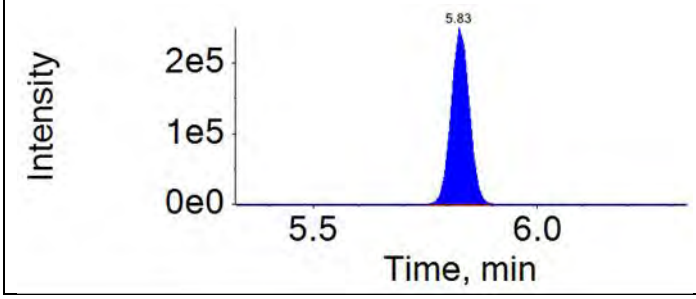


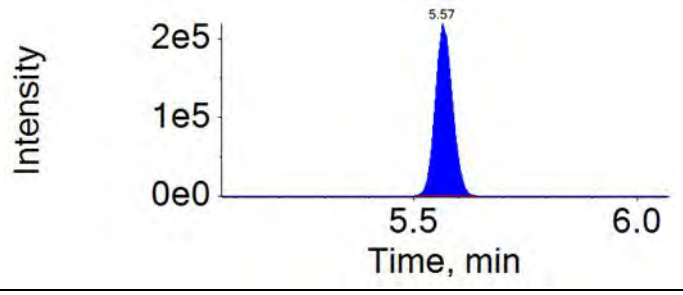
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



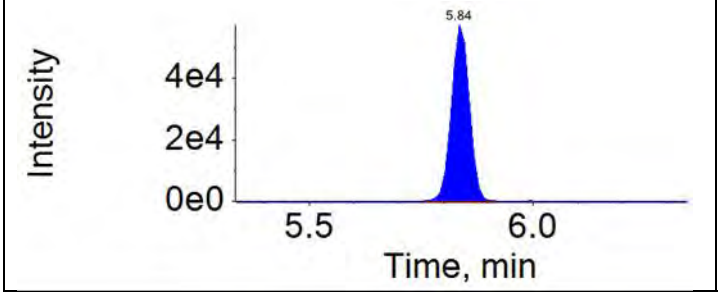


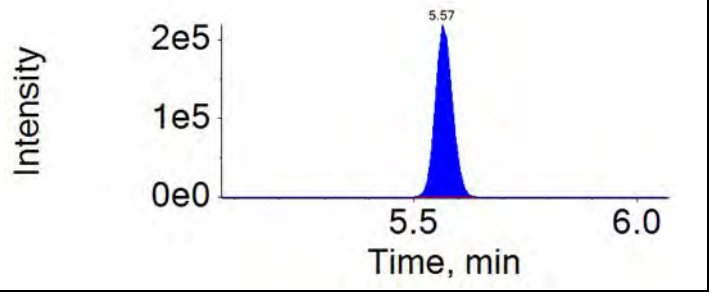
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

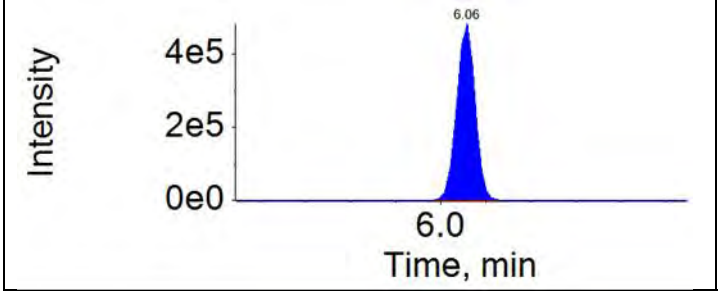
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

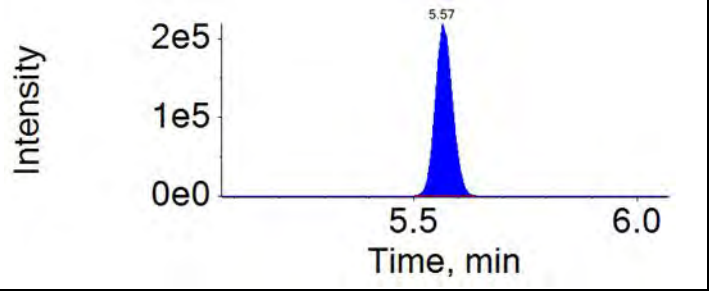
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



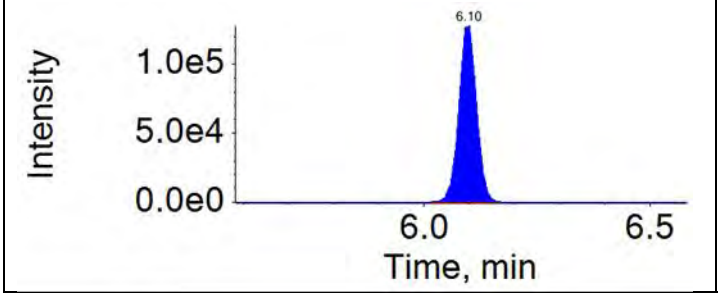


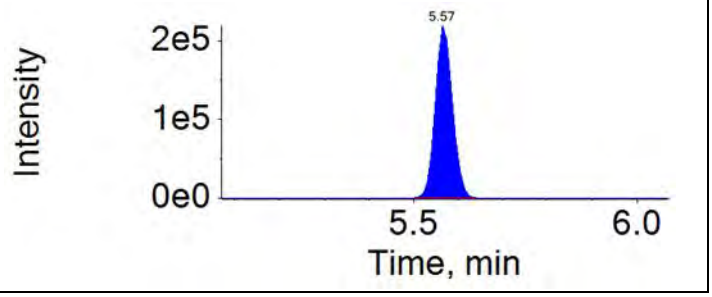
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



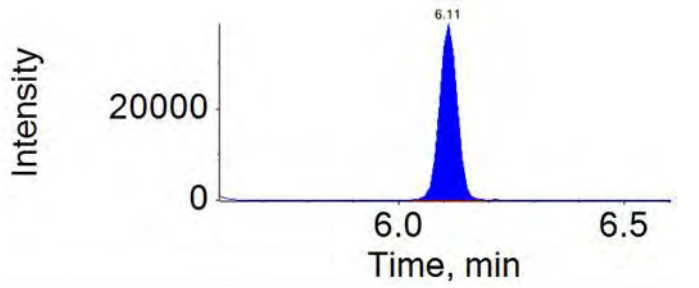


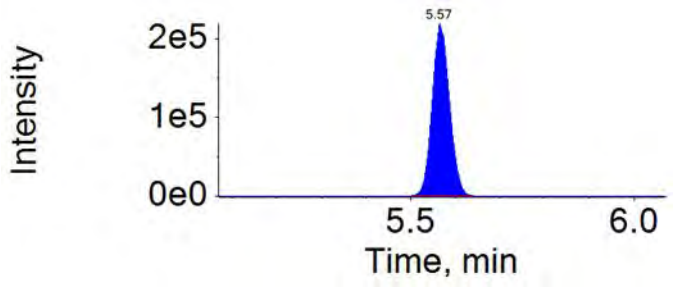
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



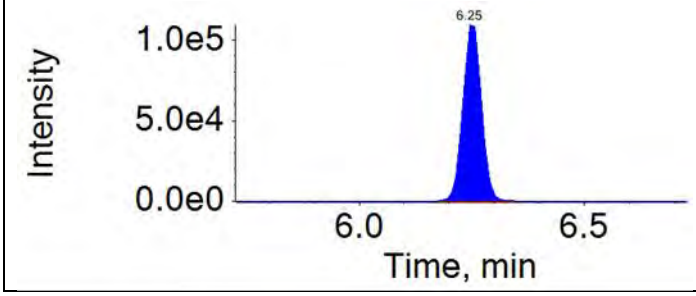


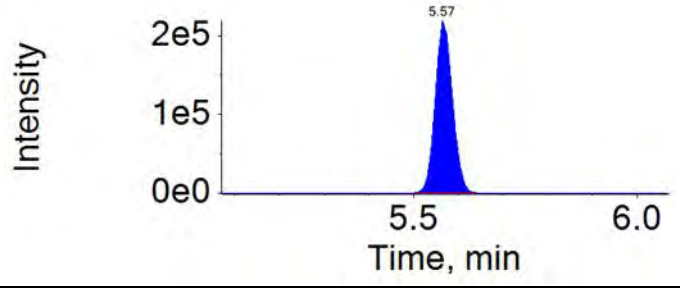
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

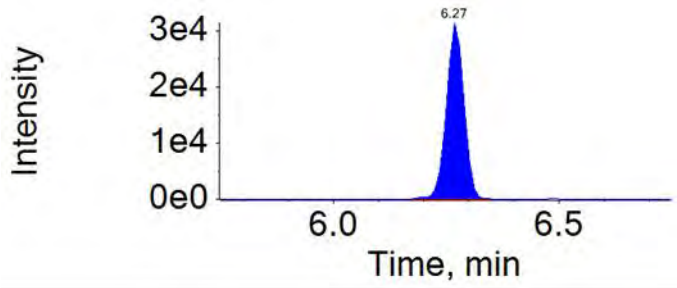
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

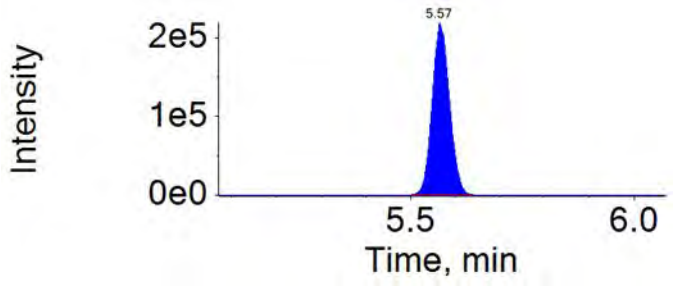
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



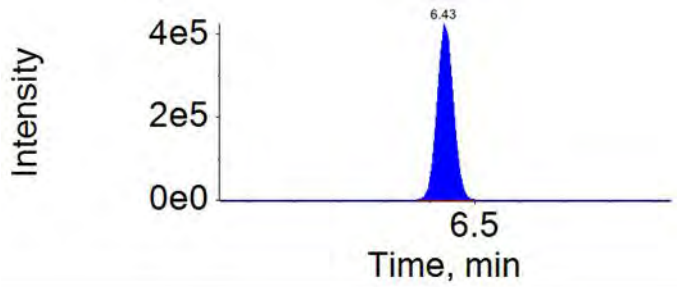


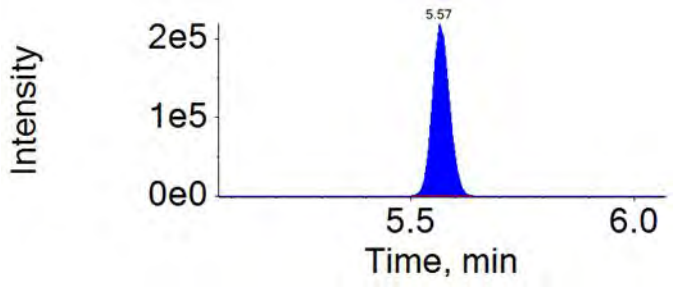
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



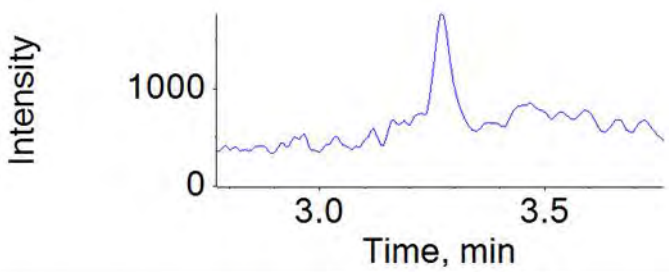


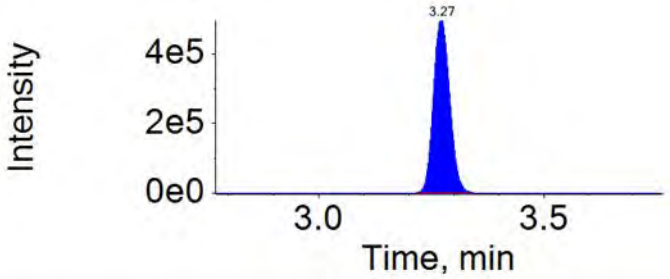
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

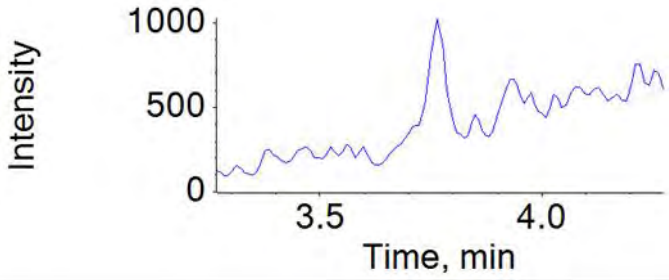
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

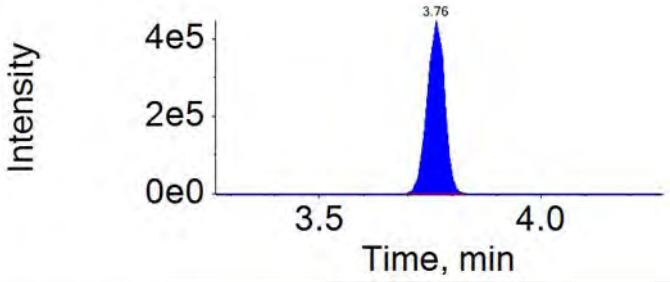
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



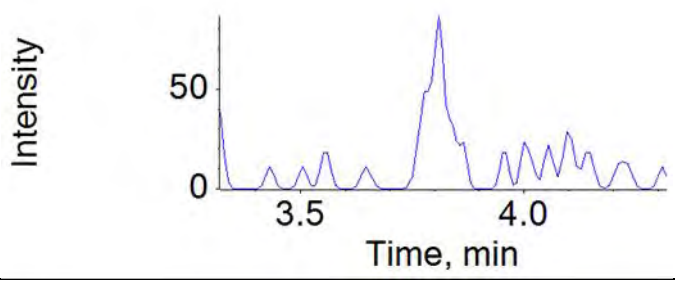


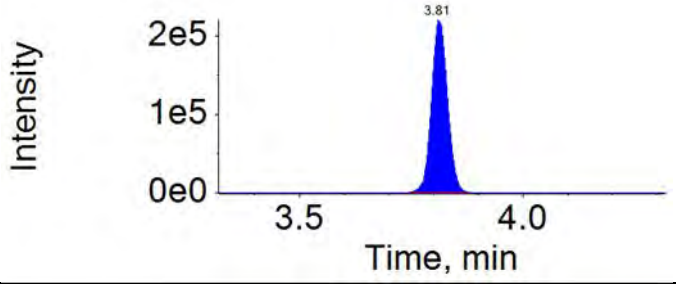
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



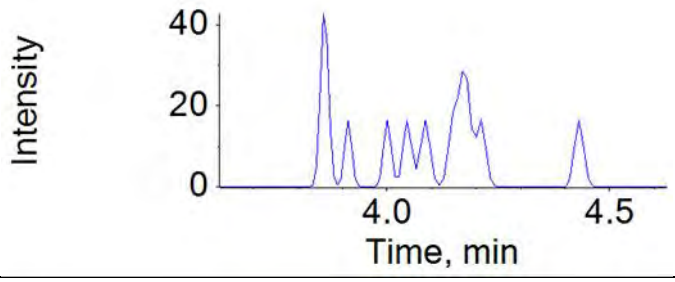


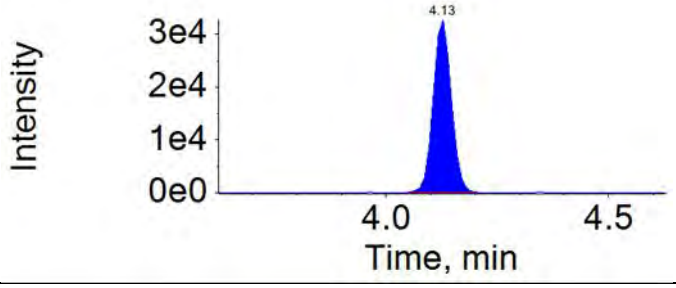
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



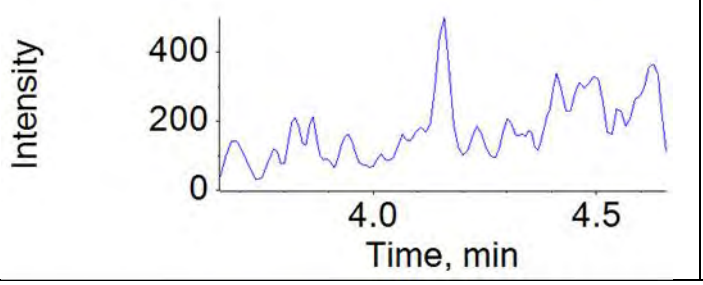


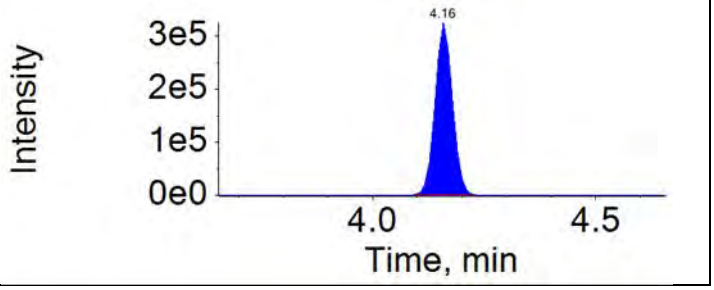
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

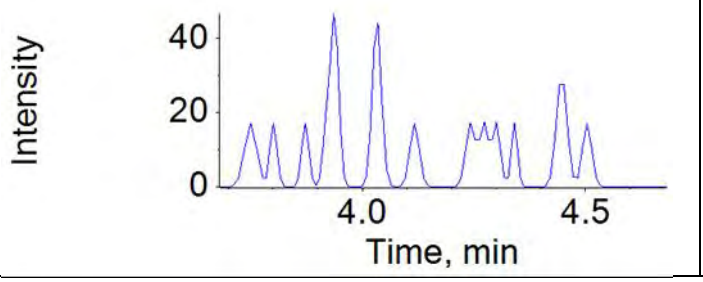
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

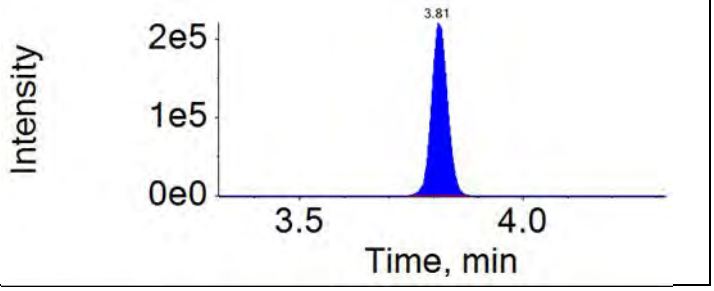
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



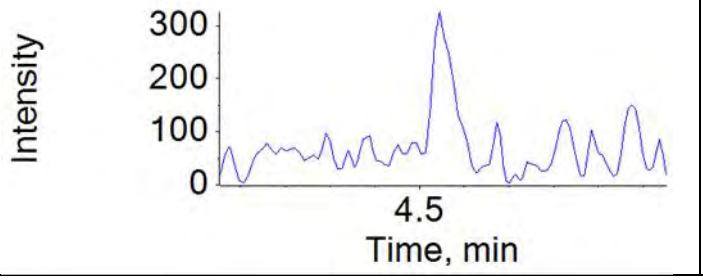


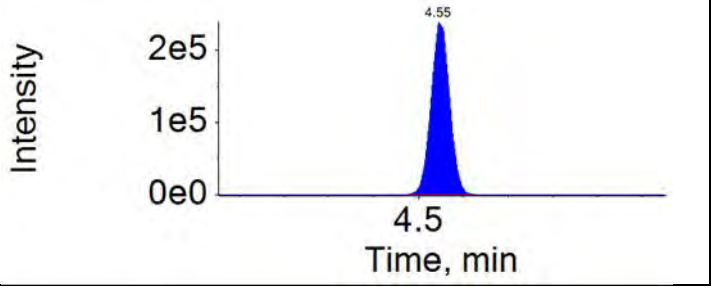
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



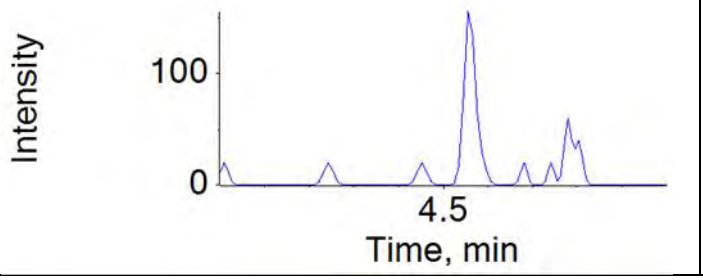


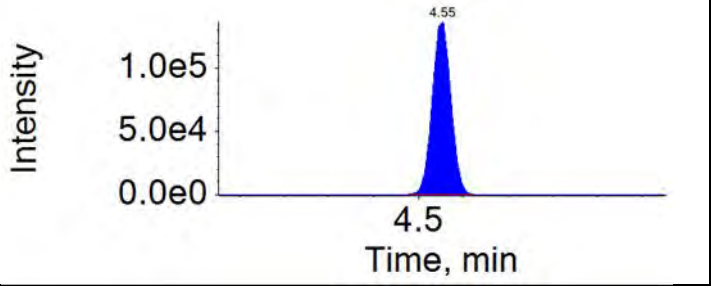
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



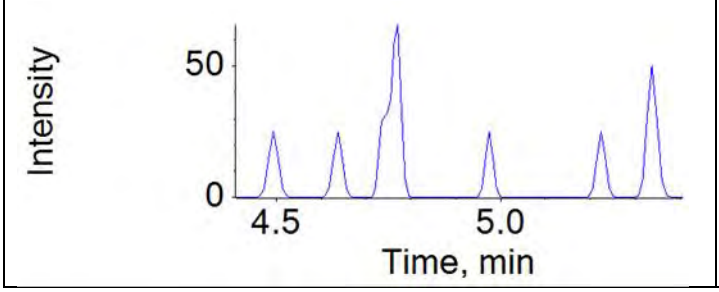


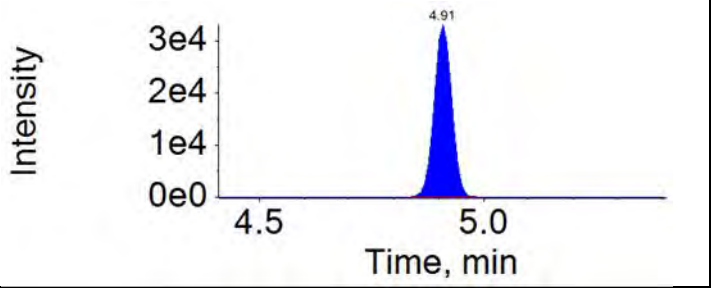
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

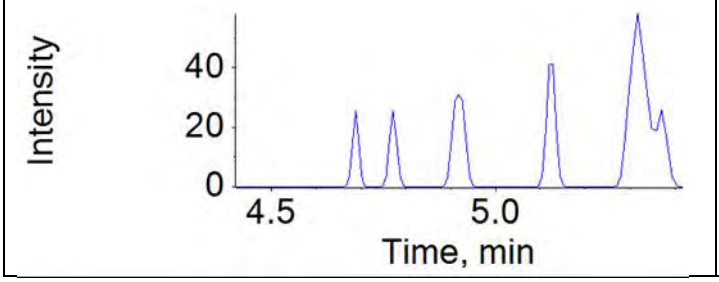
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

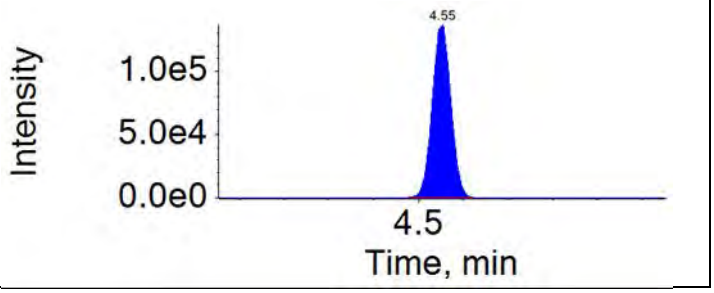
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



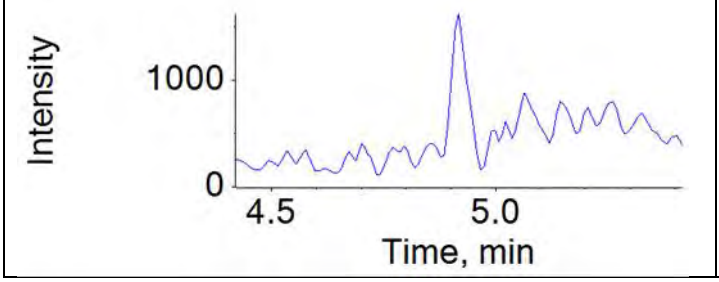


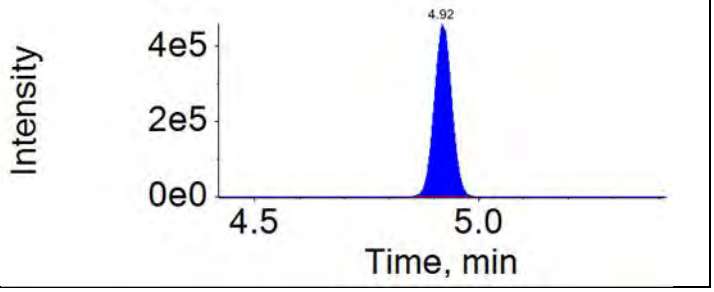
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



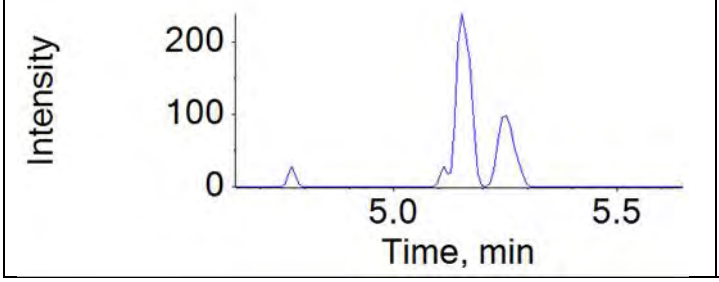


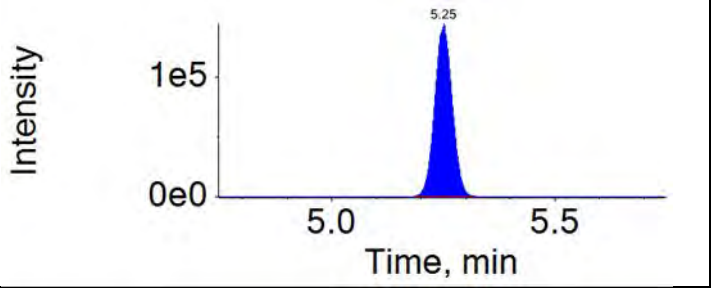
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



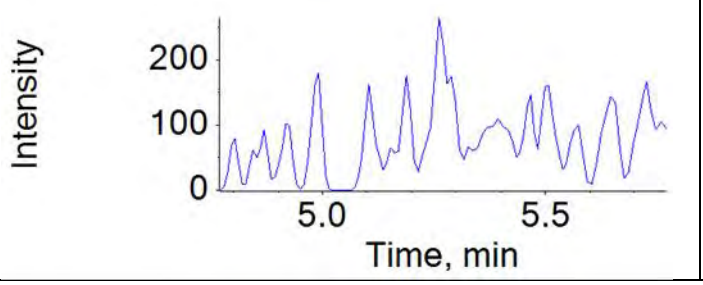


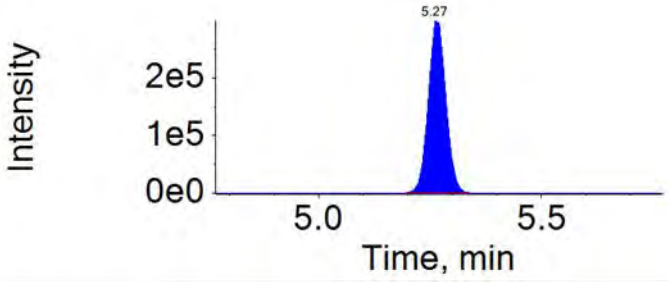
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

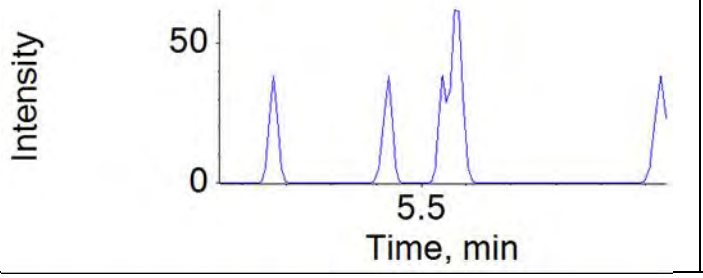
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

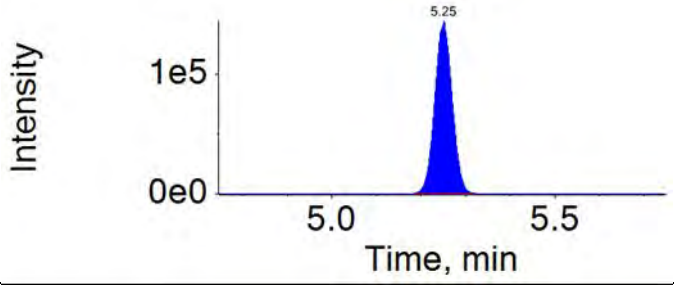
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



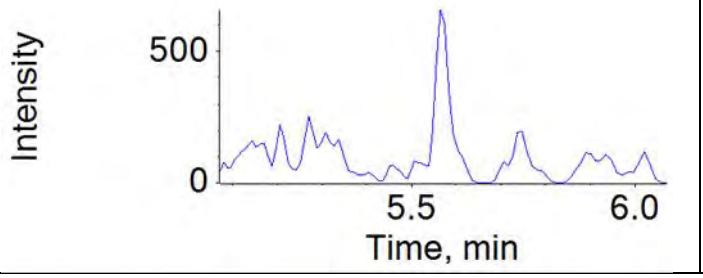


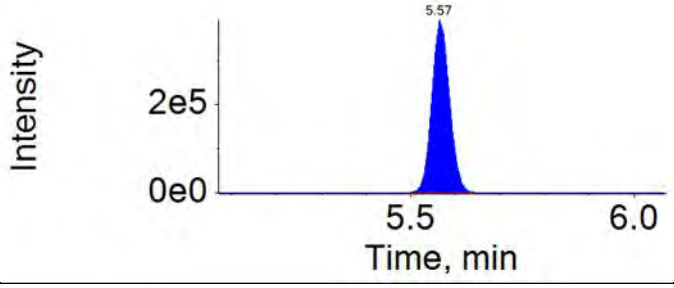
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



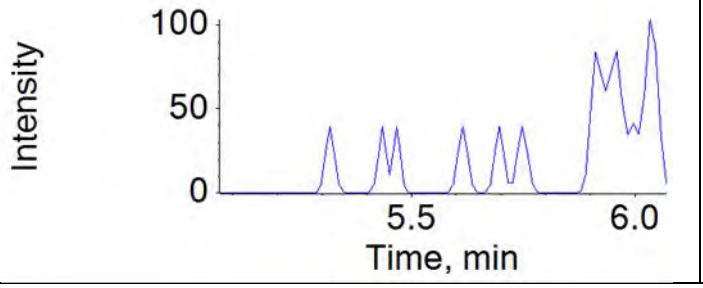


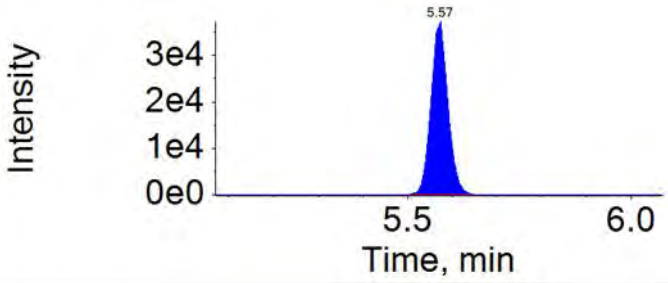
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



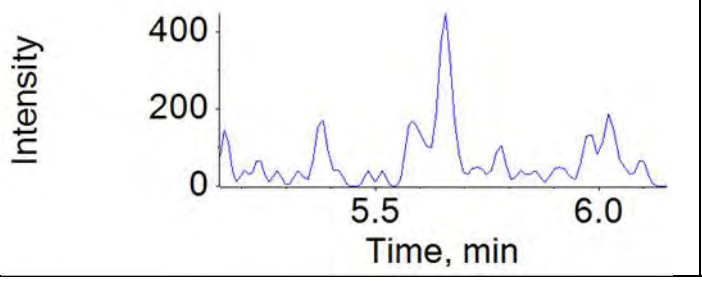


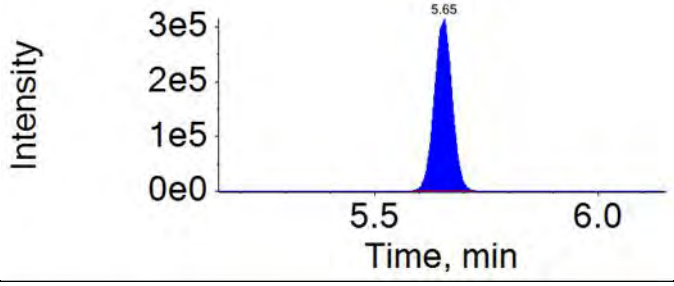
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

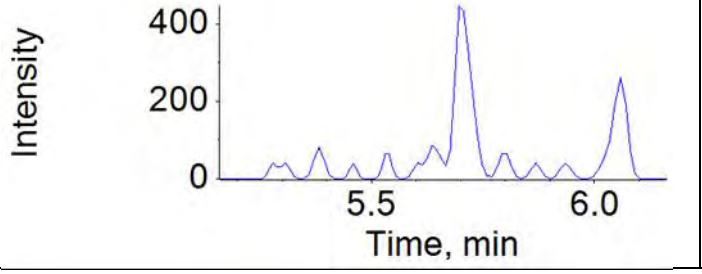
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

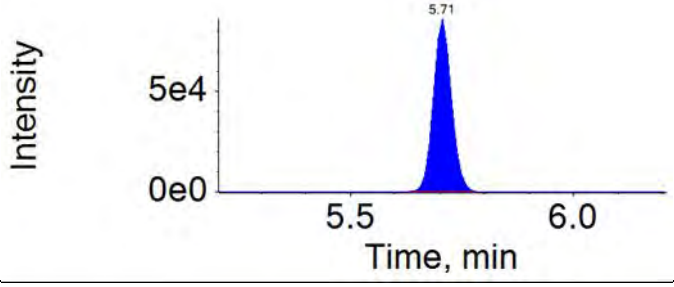
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



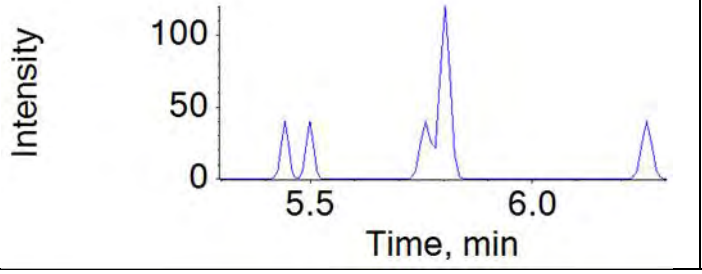


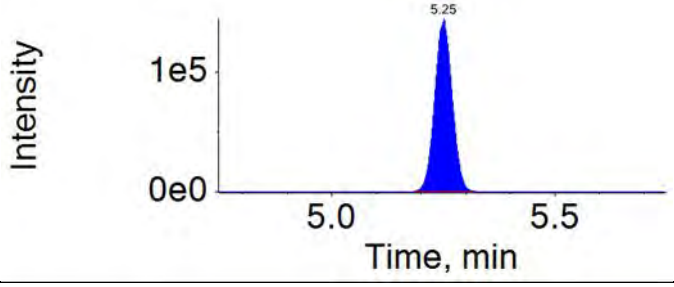
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



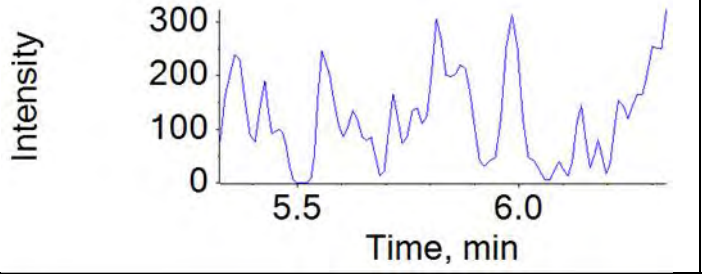


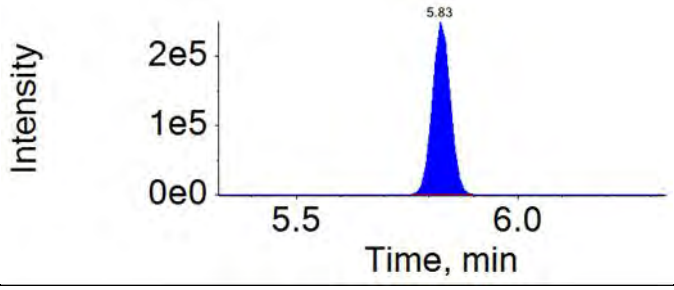
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



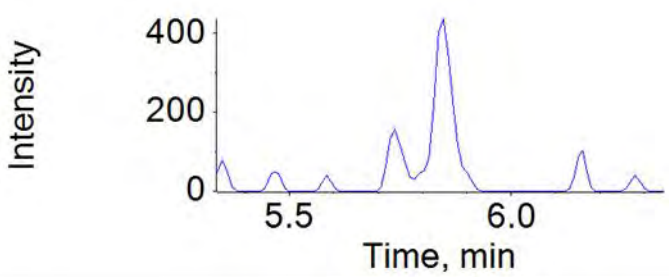


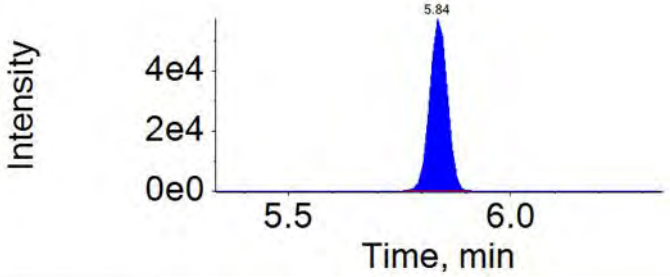
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

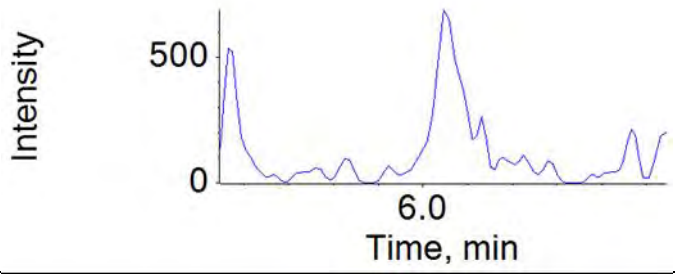
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

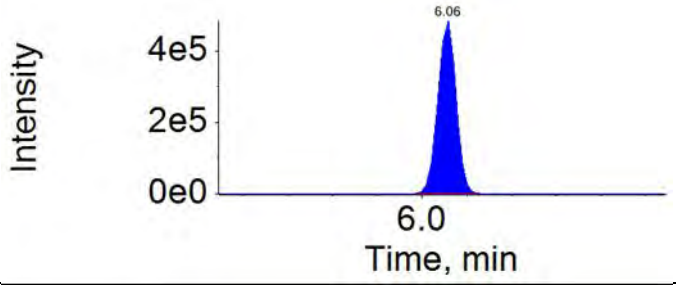
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



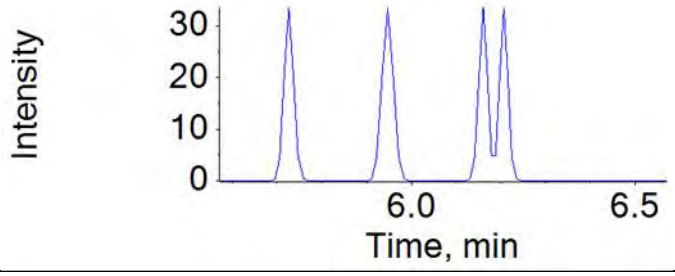


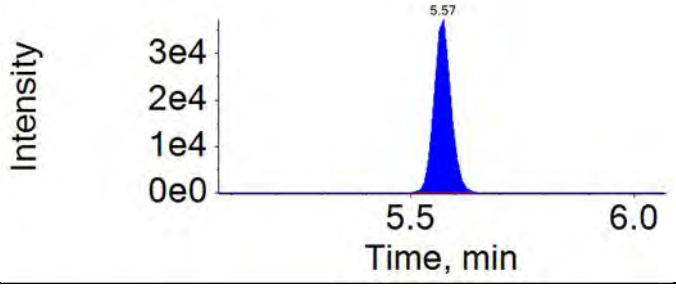
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



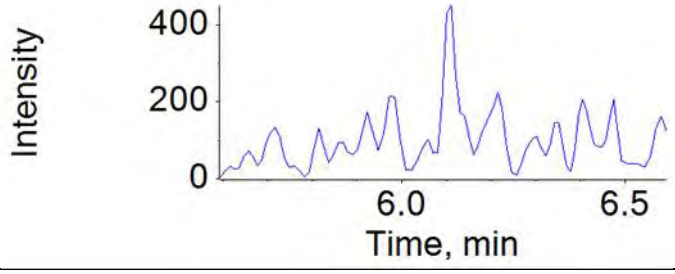


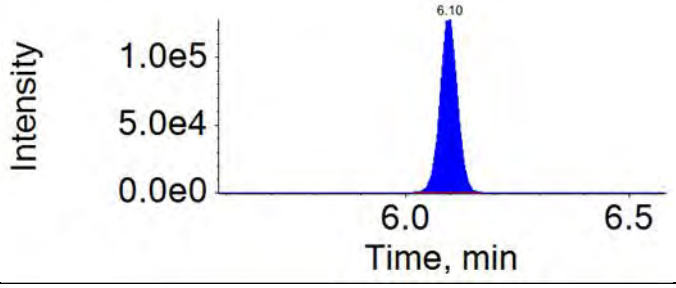
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



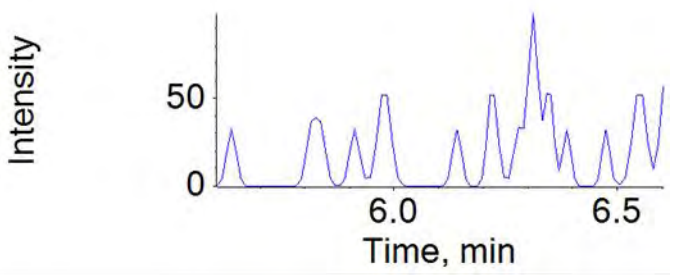


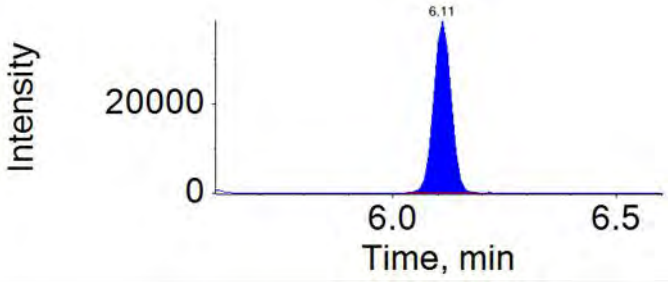
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

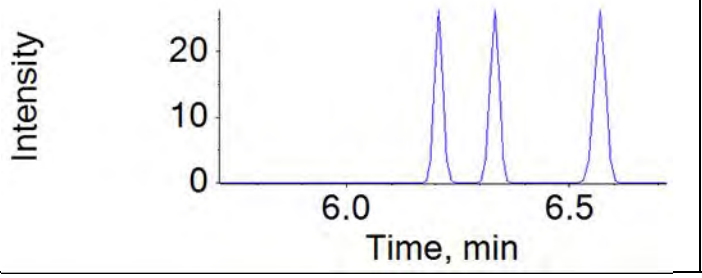
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

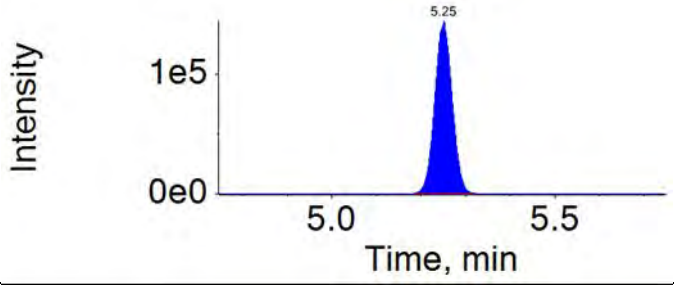
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



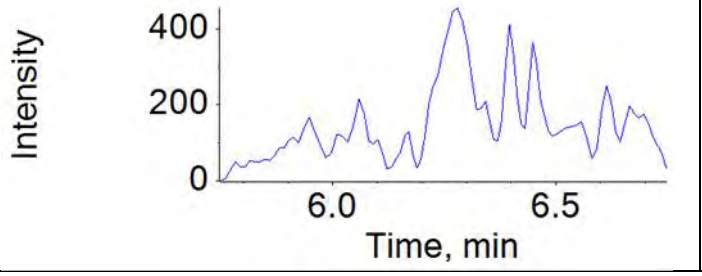


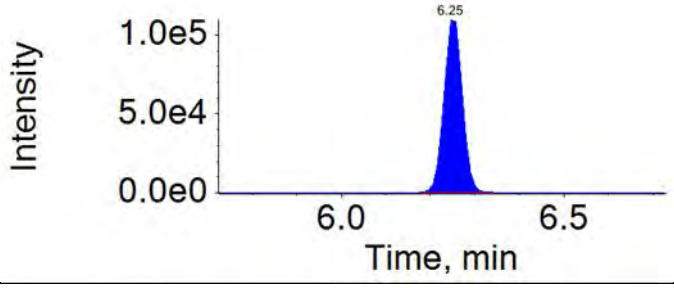
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



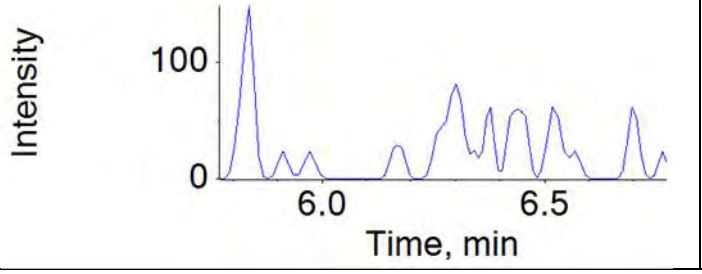


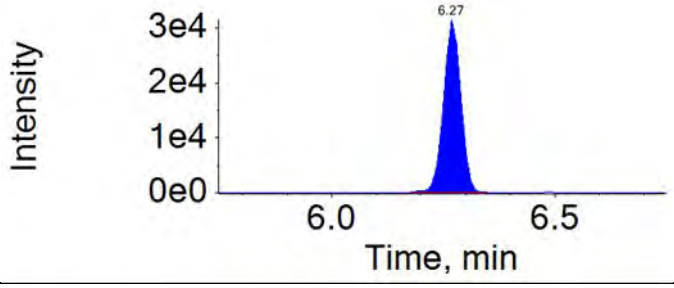
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



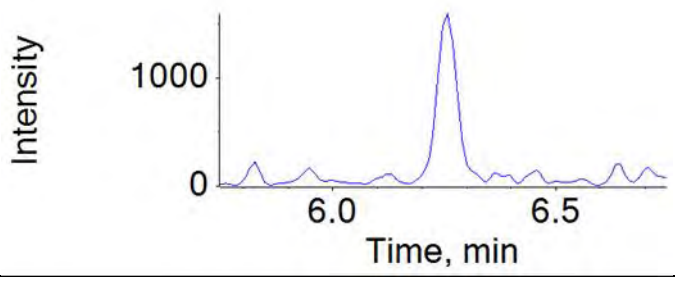


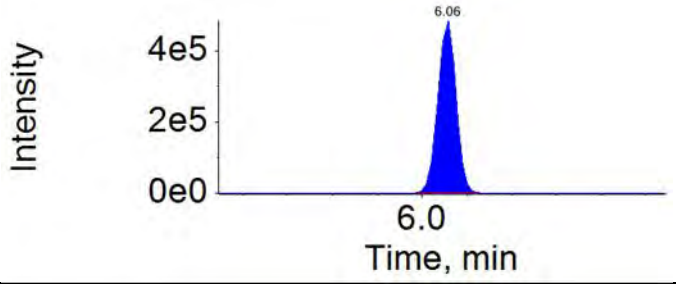
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

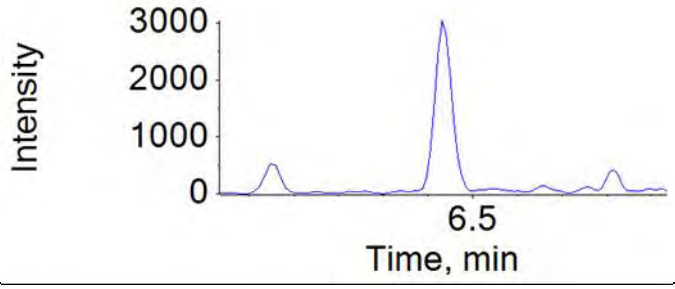
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

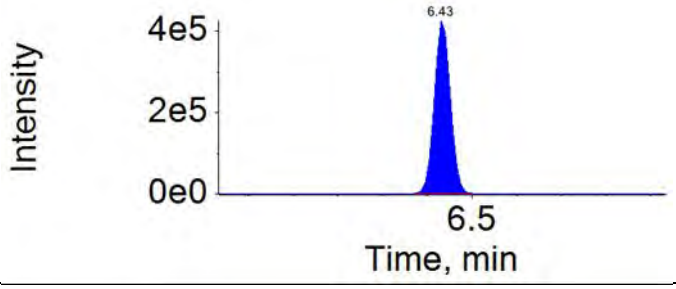
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



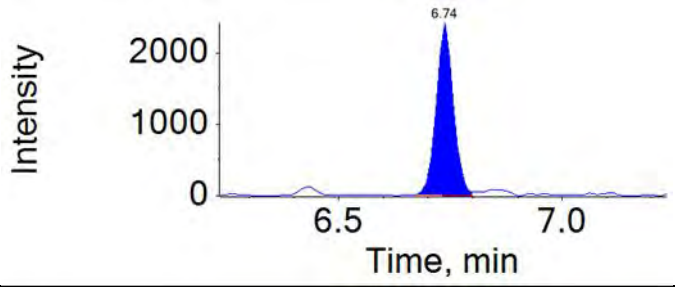


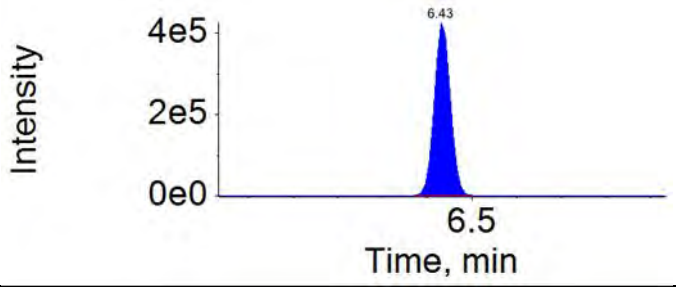
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



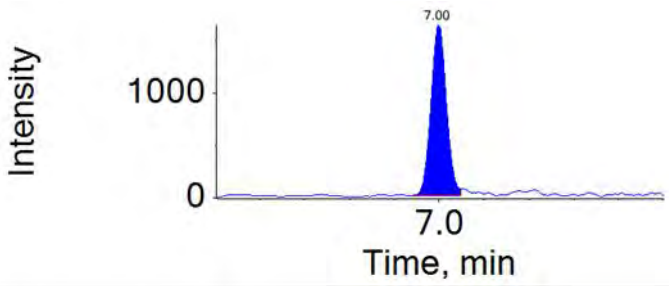


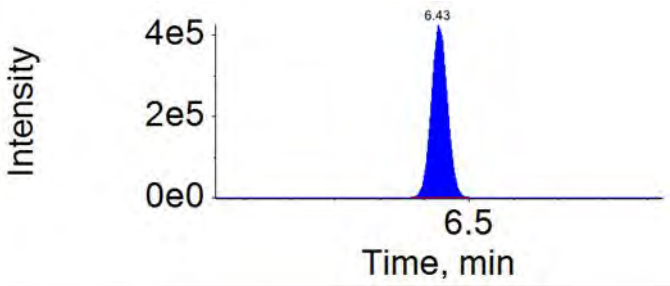
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





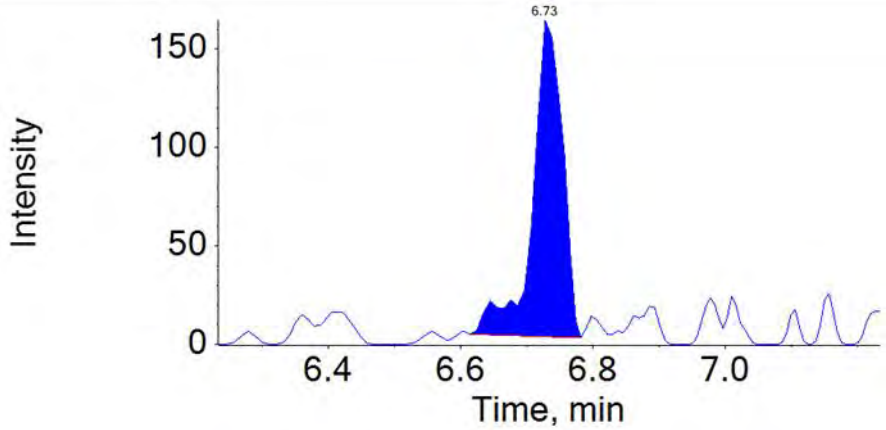
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM

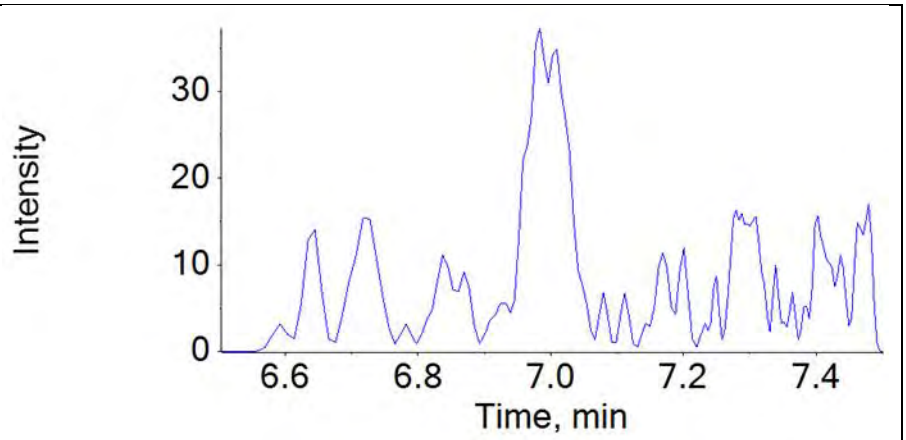
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxDA_2
RT (min.):
6.73
Peak Area:
511.31
Mass Range:
813.0 / 169.0
File Name:
18NOV28DCAL-13.wiff
Sample Name:
Instrument Blank



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-13.wiff
Sample Name:
Instrument Blank



Integration Comment: incorrect integration

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM

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

Ion Ratio Report

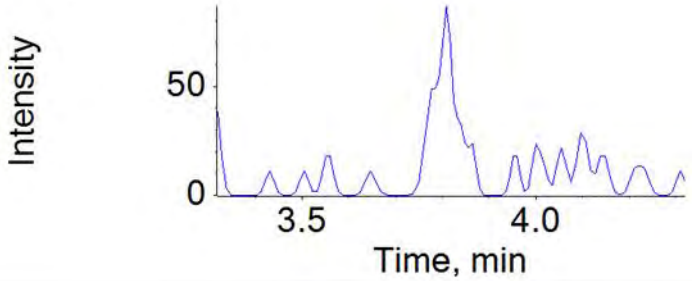
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-13.wiff

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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

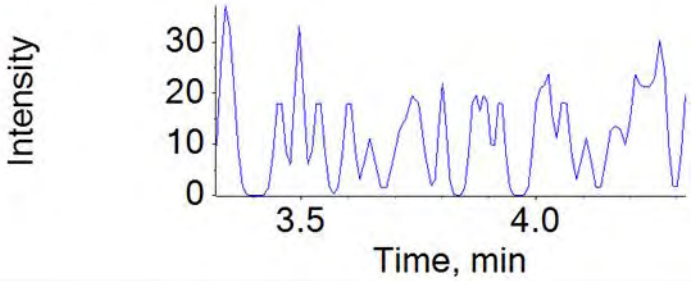
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

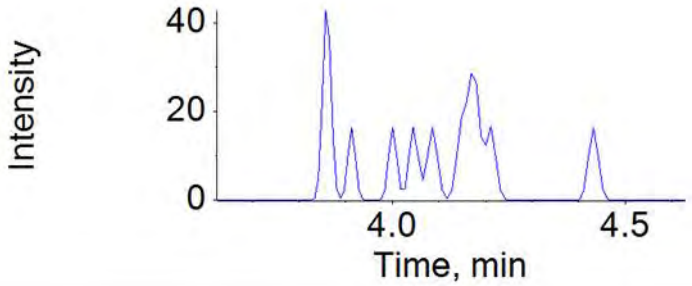
Component: PFBS
Primary Mass: 299.0 / 80.0



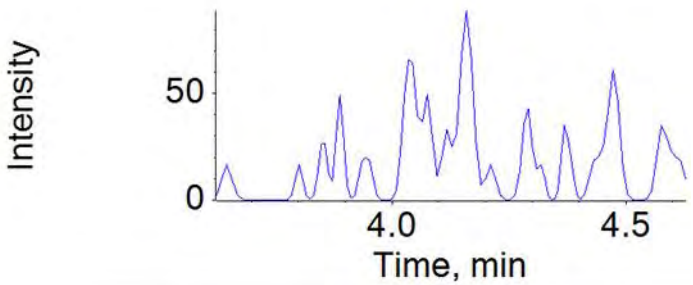
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



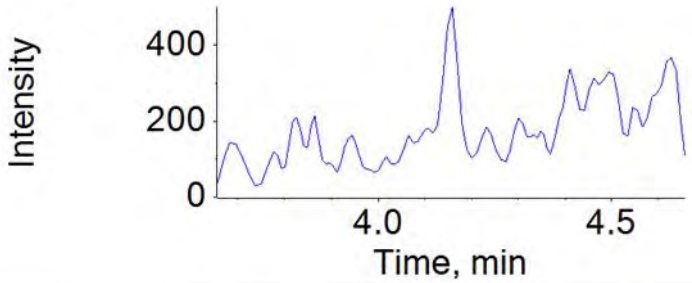
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



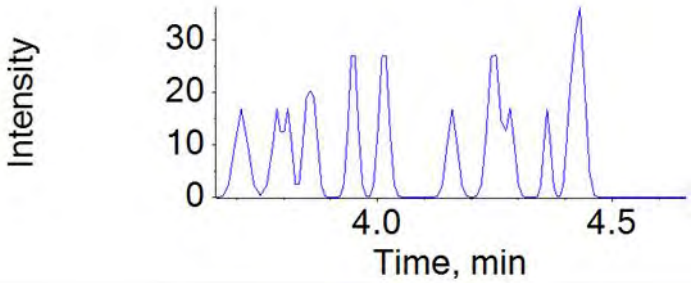
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



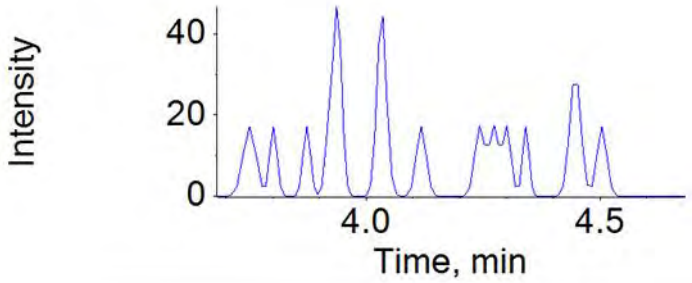
Component: PFHxA
Primary Mass: 313.0 / 269.0



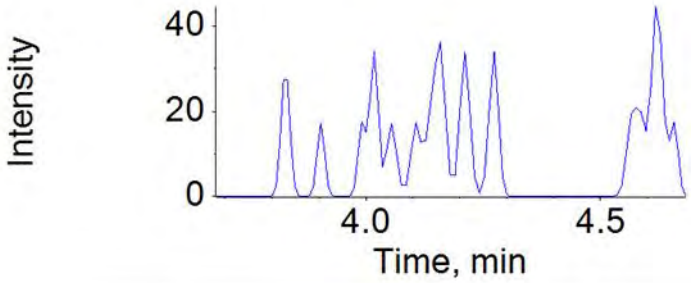
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



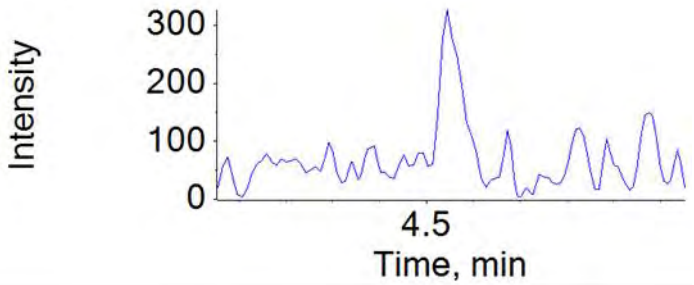
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



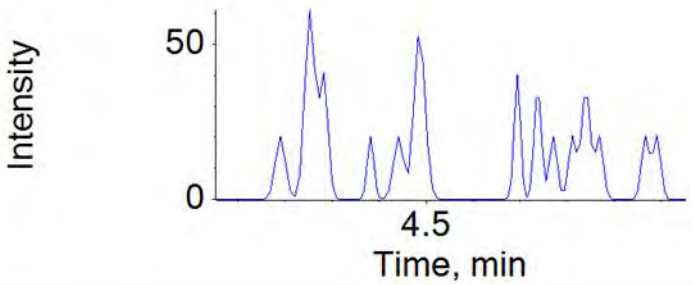
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

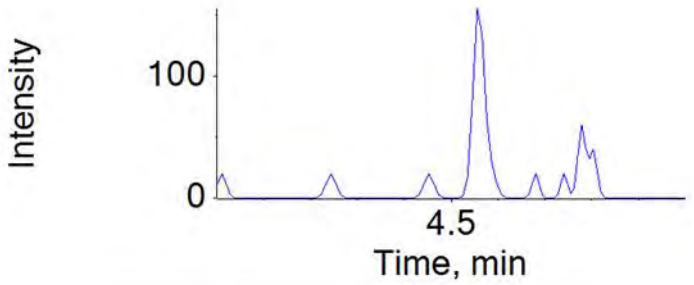
Component: PFHpA
Primary Mass: 363.0 / 319.0



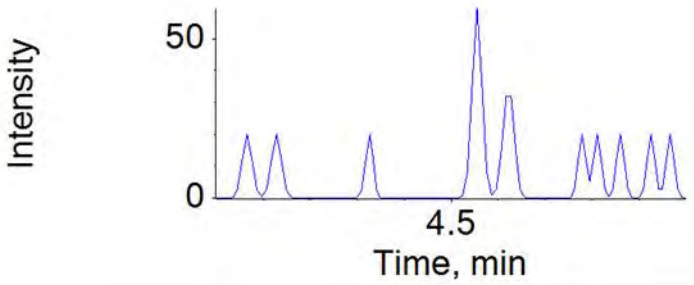
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



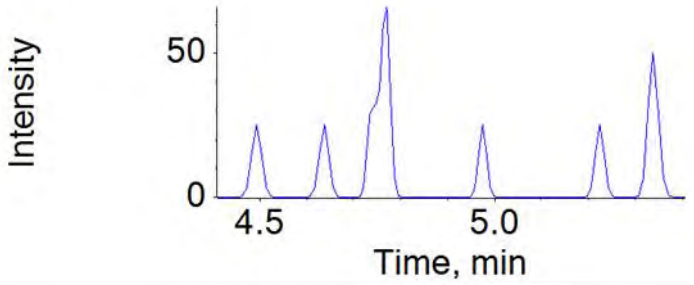
Component: PFHxS
Primary Mass: 399.0 / 80.0



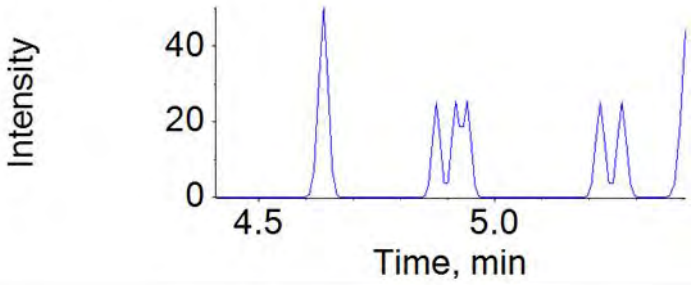
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



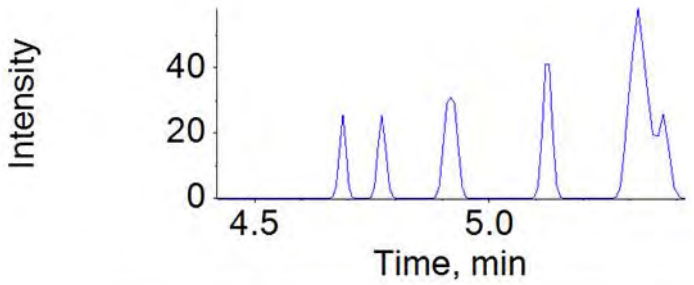
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



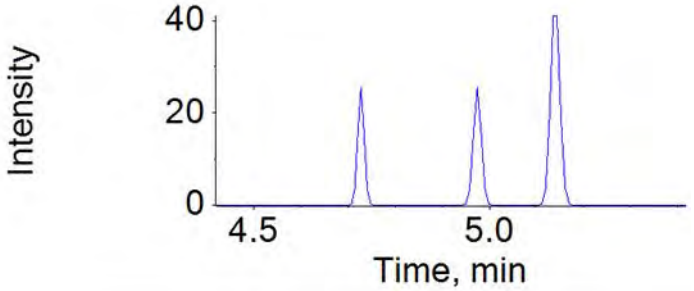
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



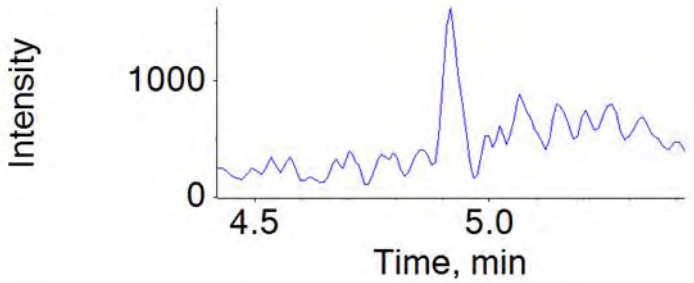
Component: PFHpS
Primary Mass: 449.0 / 80.0



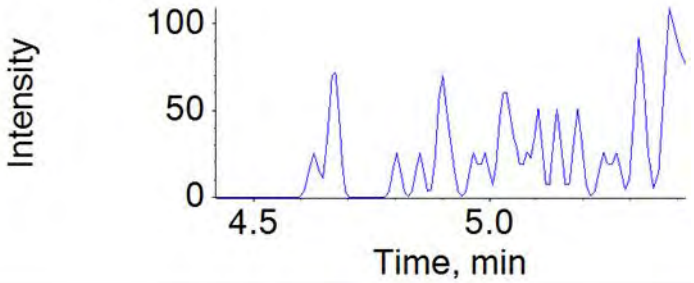
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



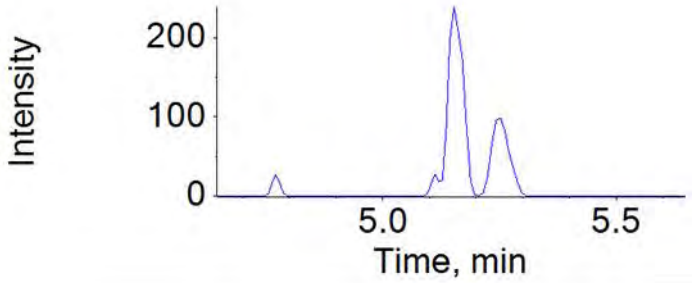
Component: PFOA
Primary Mass: 413.0 / 369.0



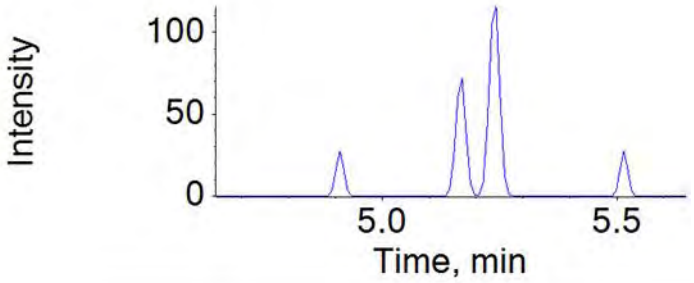
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



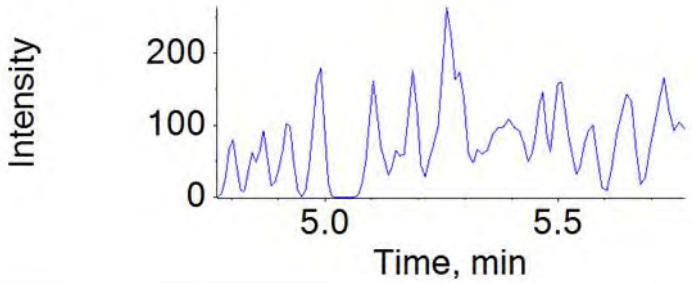
Component: PFOS
Primary Mass: 499.0 / 80.0



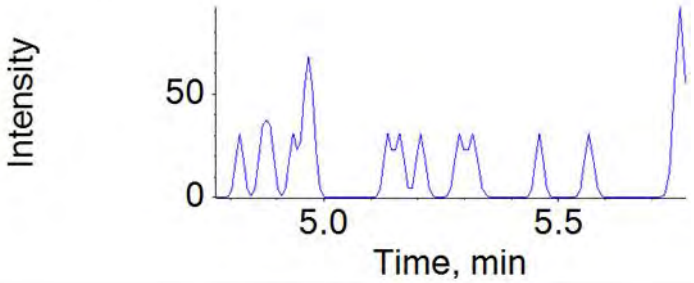
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



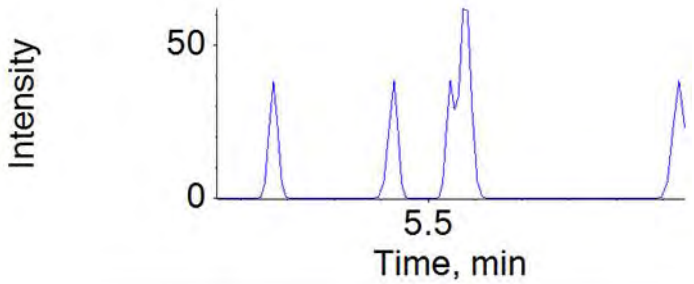
Component: PFNA
Primary Mass: 463.0 / 419.0



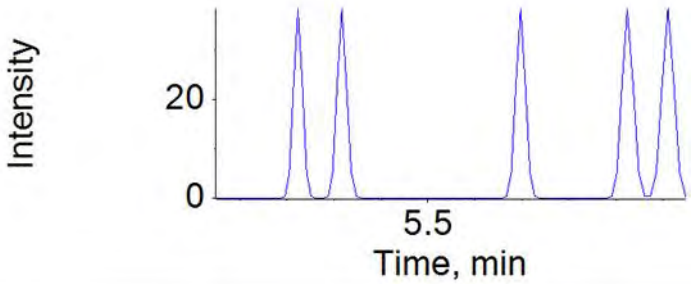
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



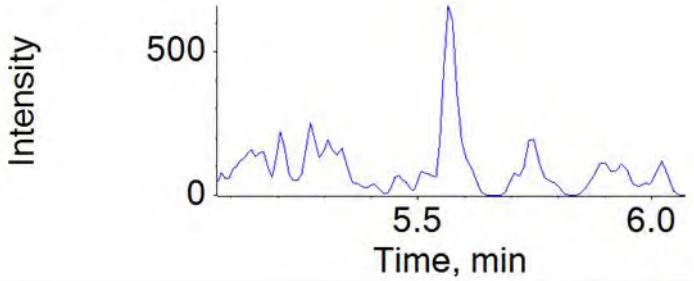
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



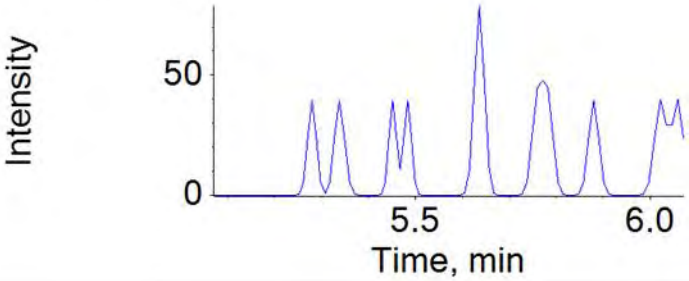
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

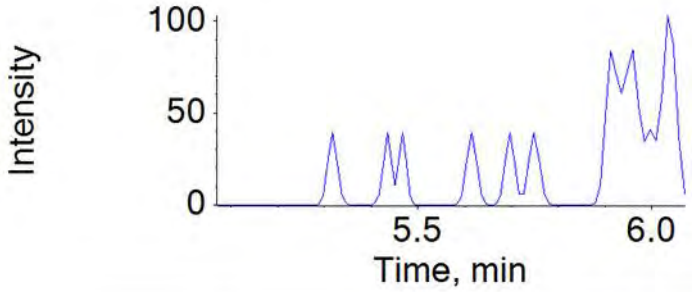
Component: PFDA
Primary Mass: 513.0 / 469.0



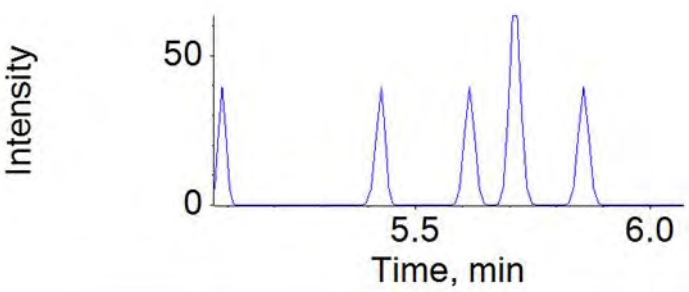
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



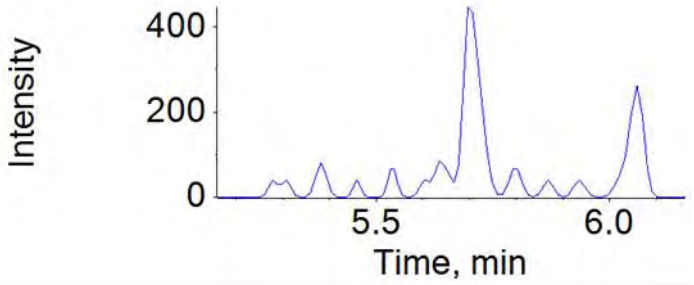
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



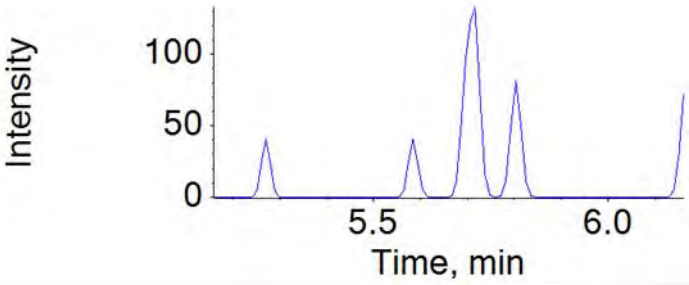
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



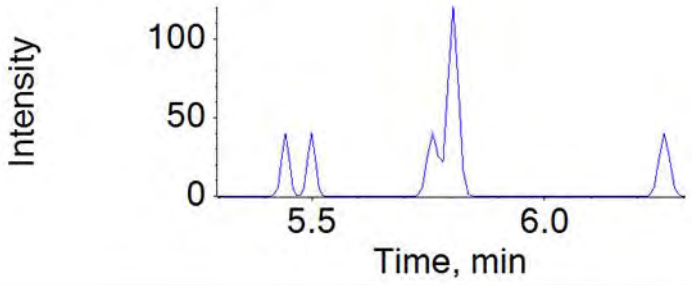
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



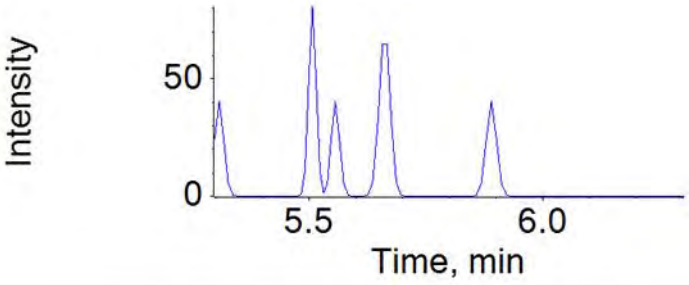
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



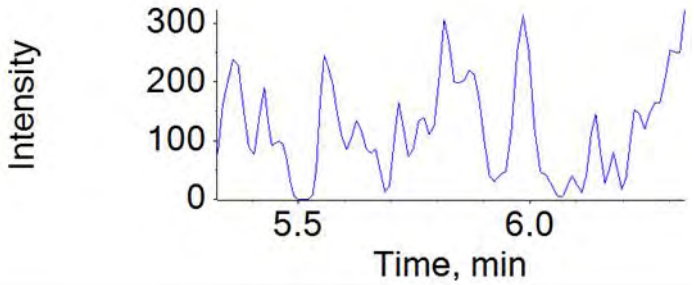
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



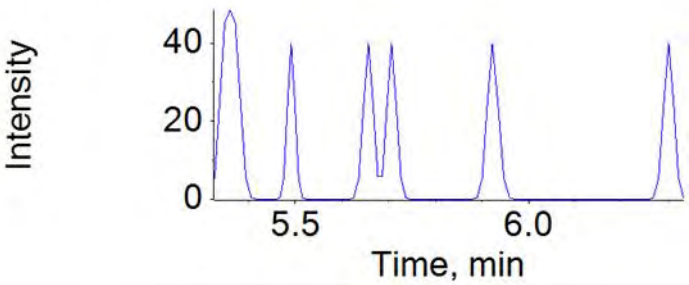
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

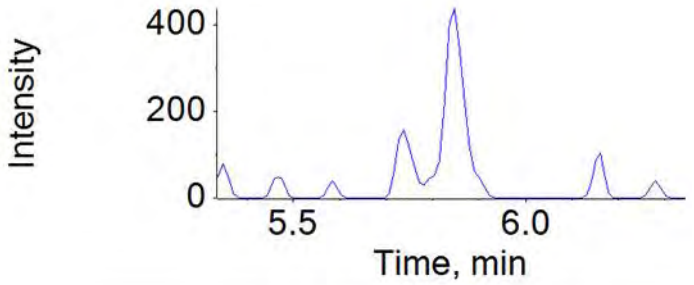
Component: PFUnDA
Primary Mass: 563.0 / 519.0



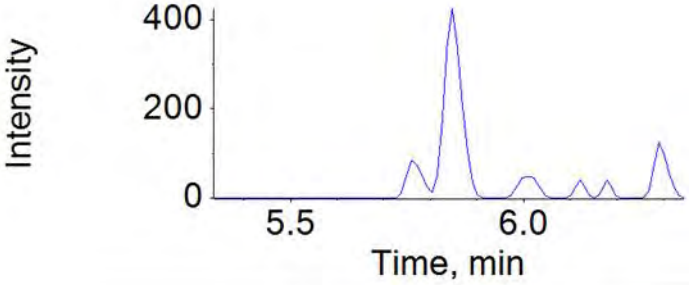
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



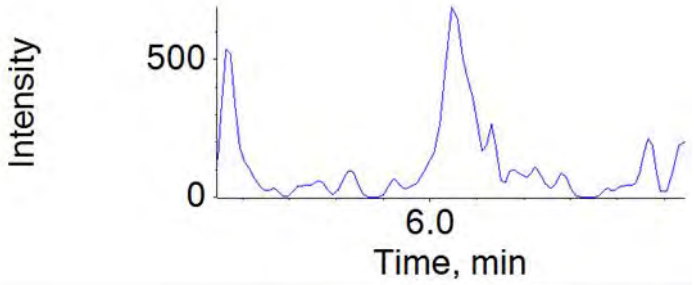
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



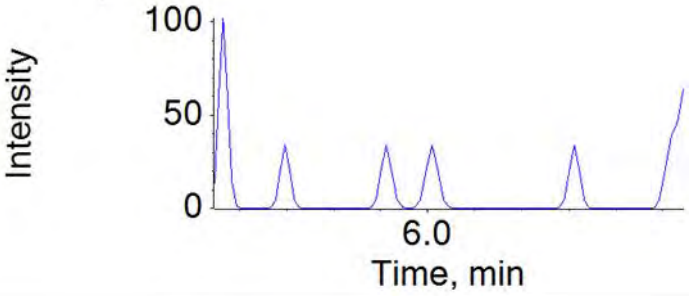
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



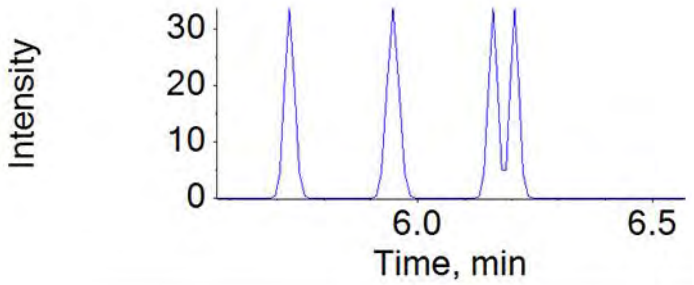
Component: PFDoDA
Primary Mass: 613.0 / 569.0



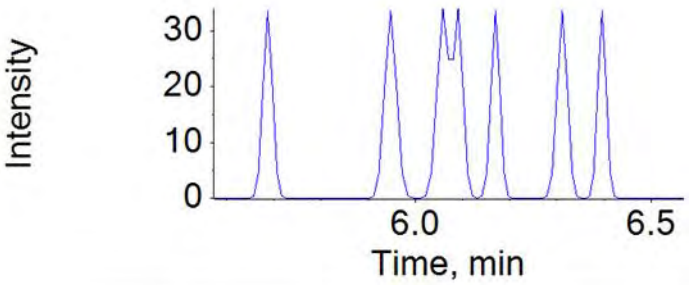
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



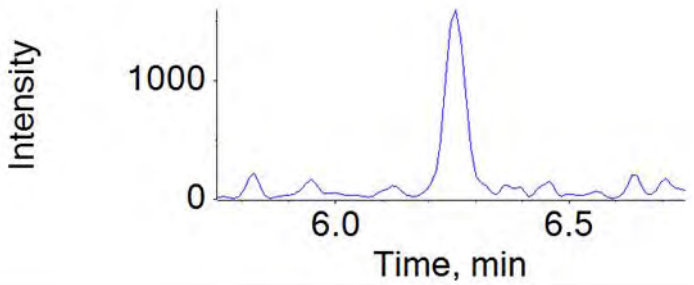
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



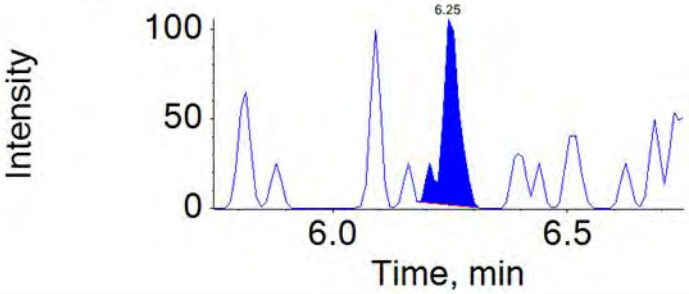
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

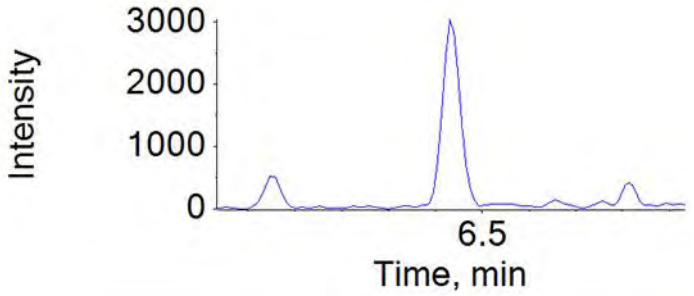
Component: PFTrDA
Primary Mass: 663.0 / 619.0



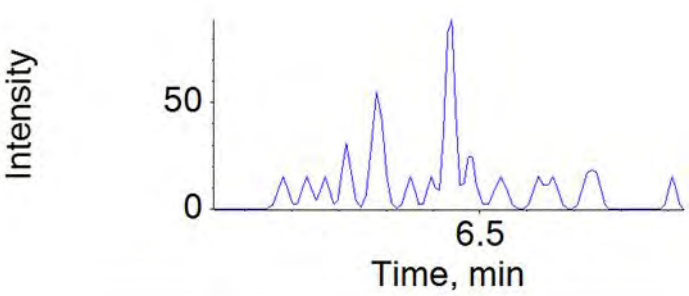
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



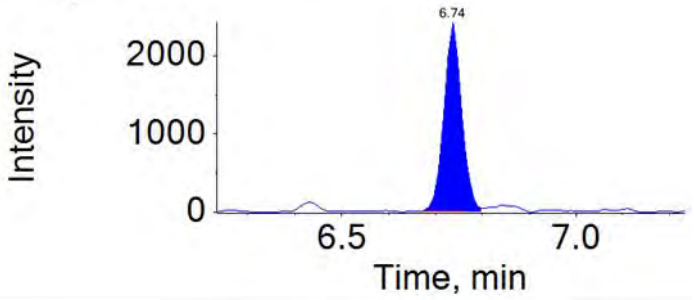
Component: PFTeDA
Primary Mass: 713.0 / 669.0



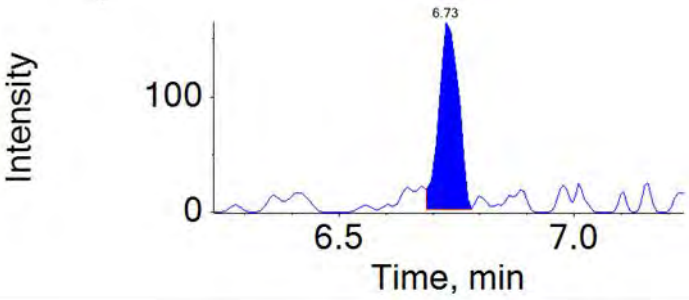
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



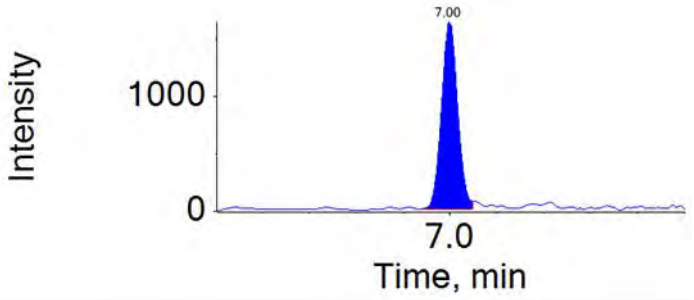
Component: PFHxDA
Primary Mass: 813.0 / 769.0



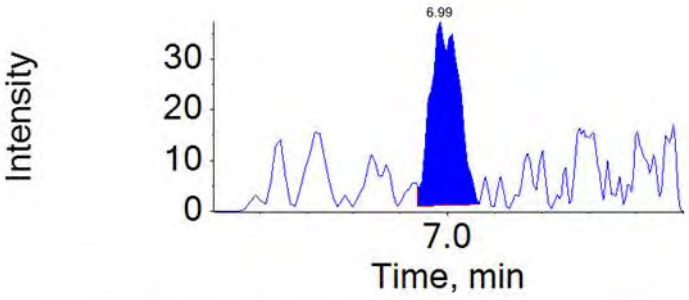
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	MDL			**Data File:**		18NOV28DCAL-05.wiff
Sample ID:	MDLMODX1833F			**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	Rreference 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	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

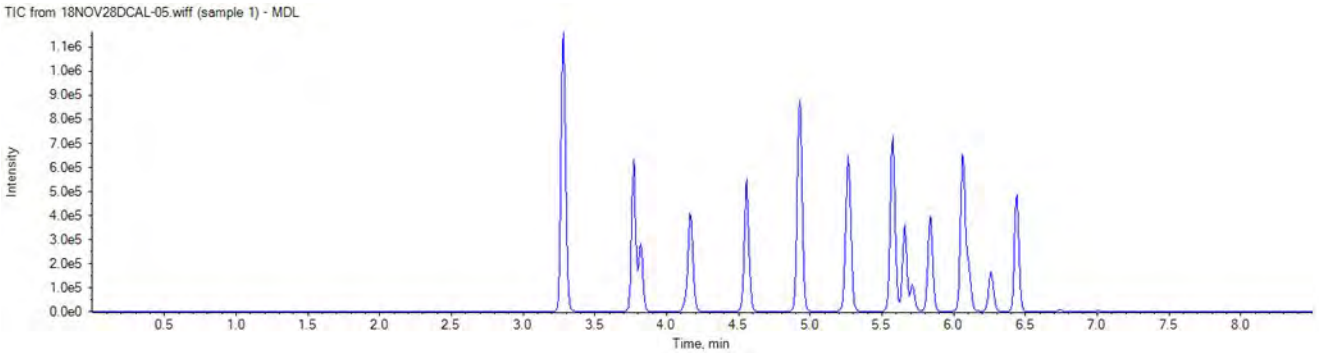
Analyte Quantitation Peak Table

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-PFHpA	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
PFTrDA	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

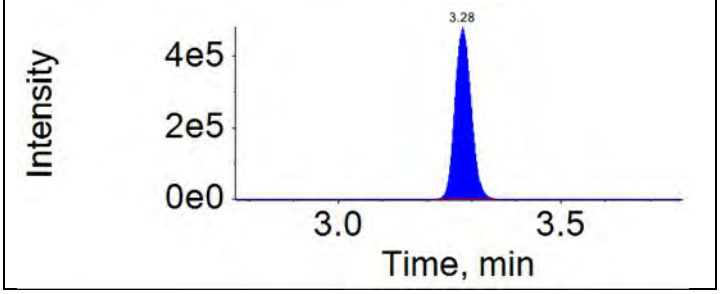


APPROVED
By MCD at 5:01 pm, 11/28/18

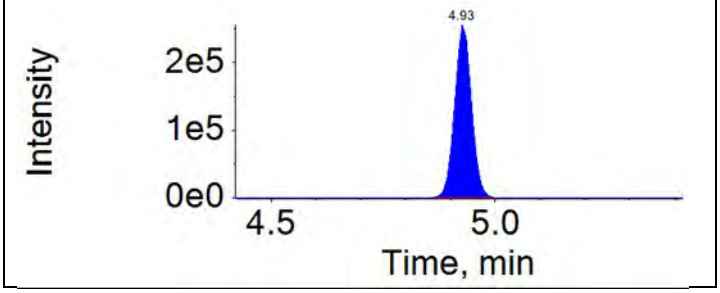
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

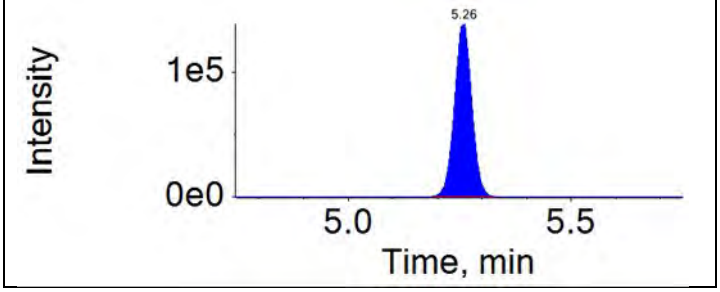
Injection Standard: 13C3-PFBA
216.0 / 172.0



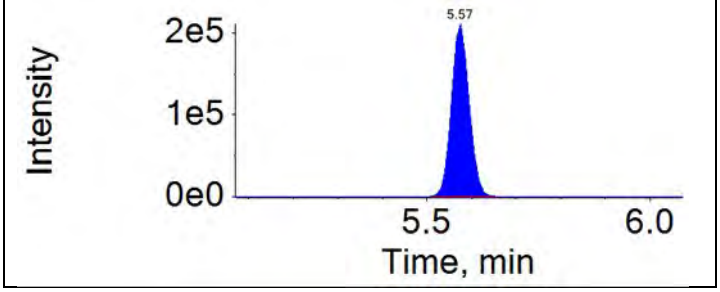
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

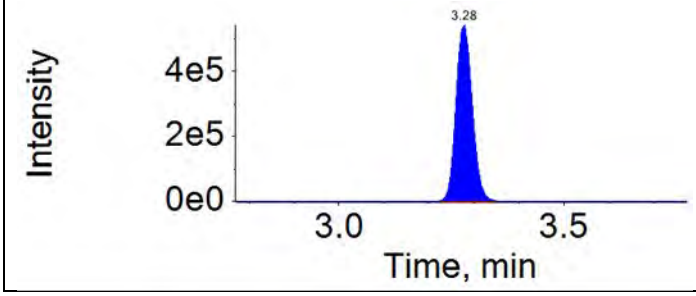


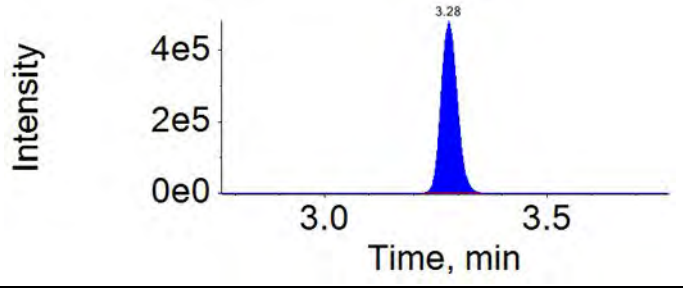
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

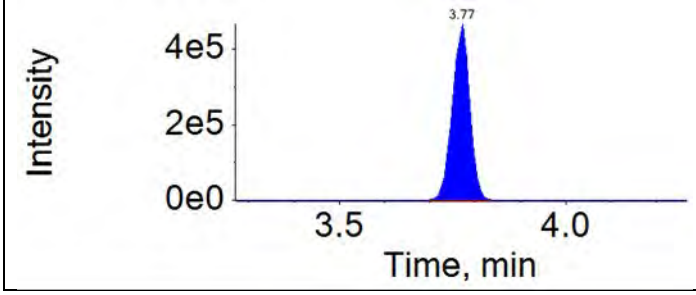
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

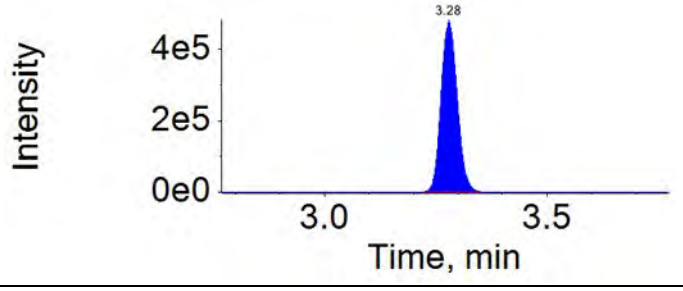
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



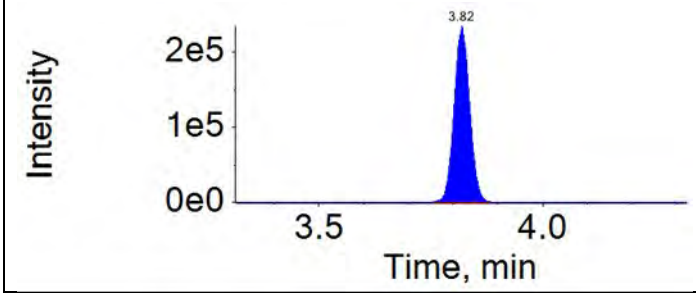


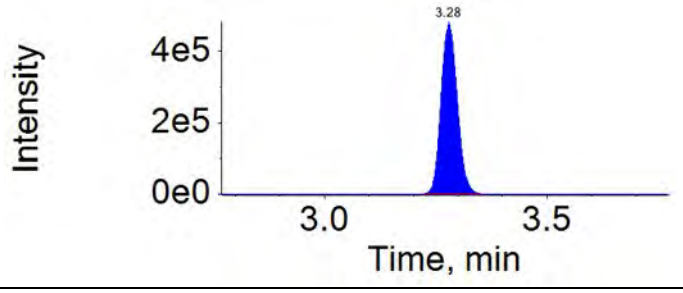
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



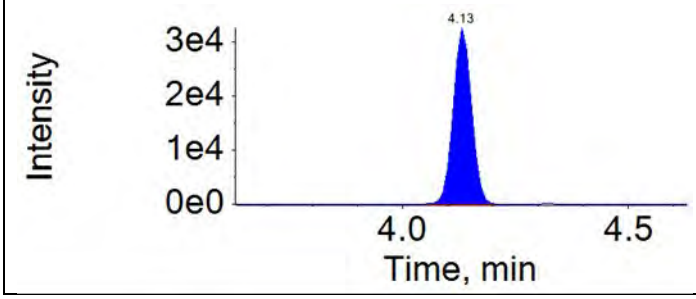


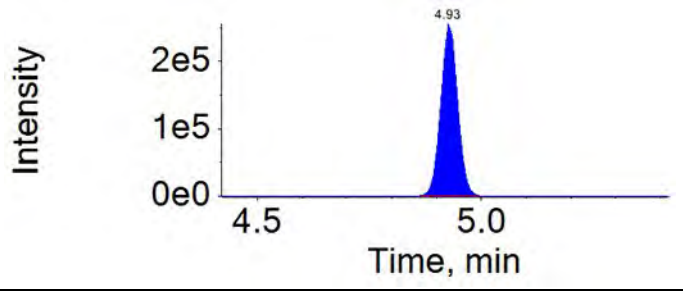
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



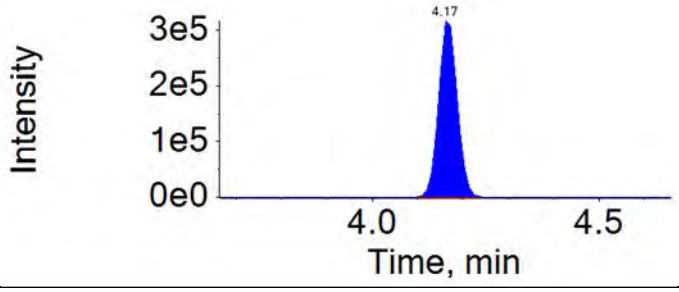


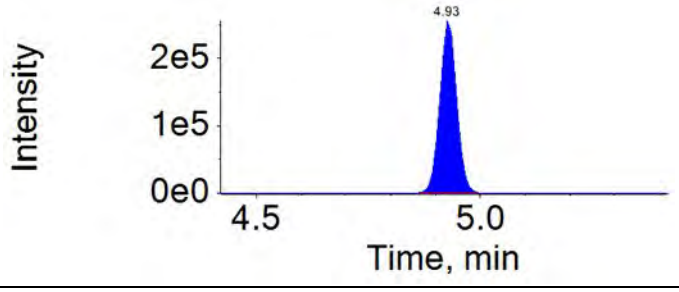
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

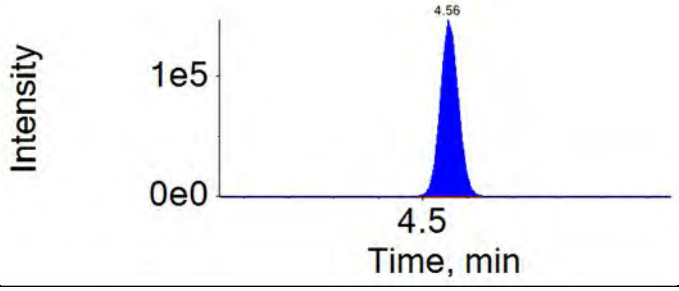
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

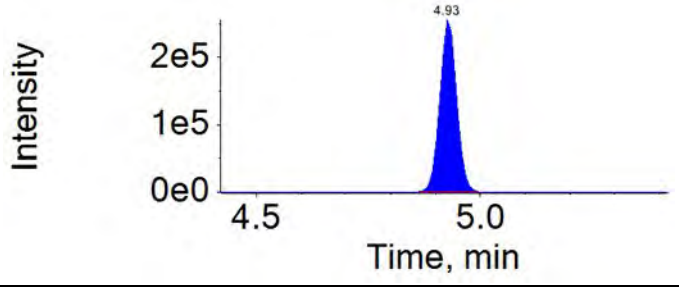
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



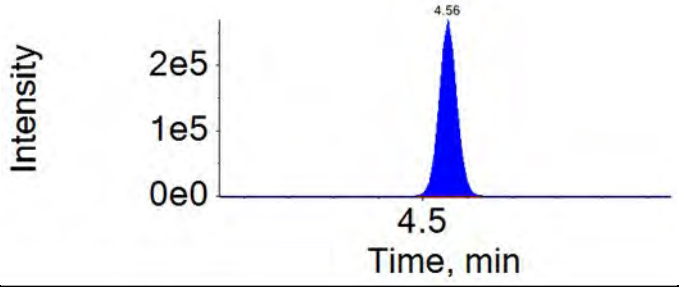


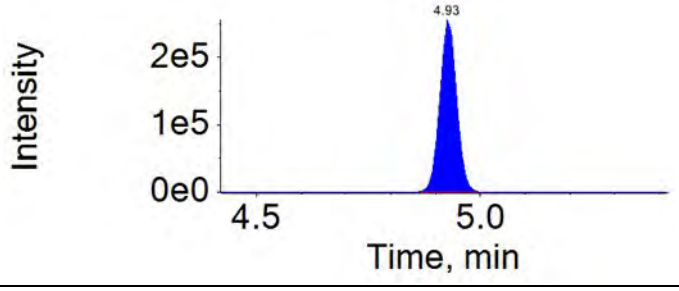
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



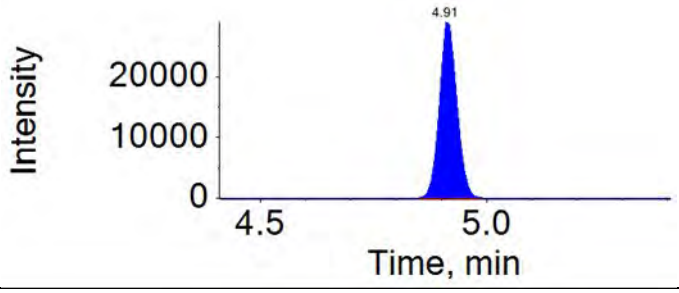


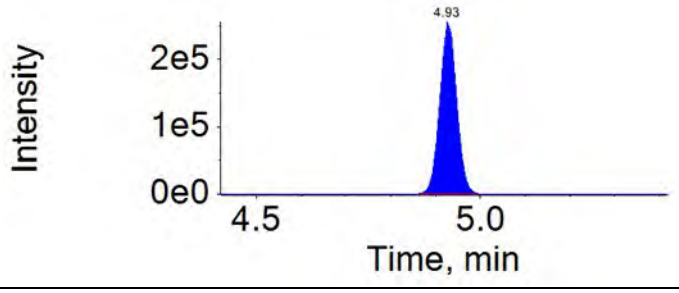
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

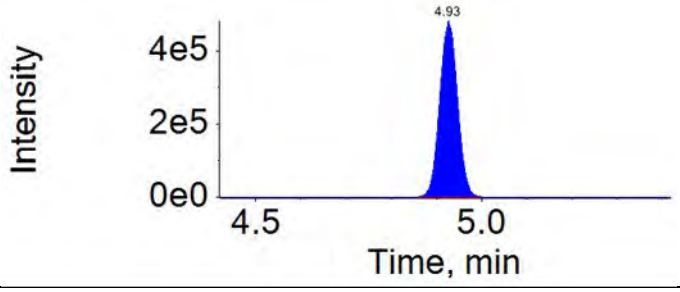
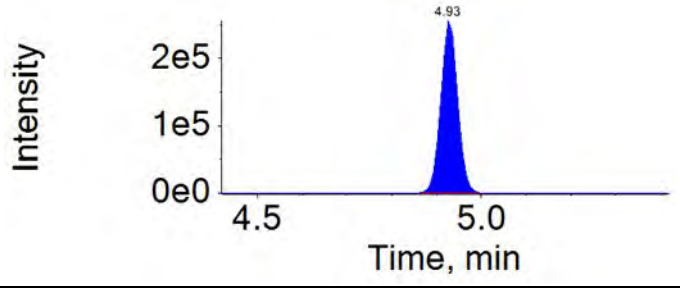


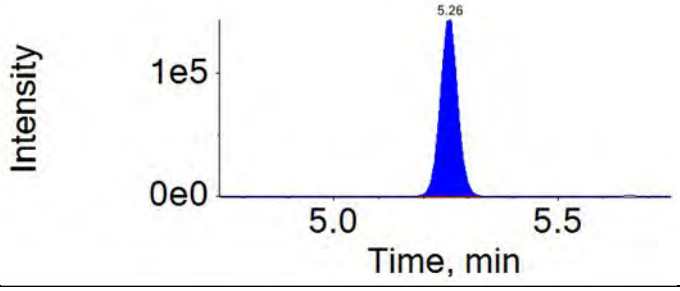
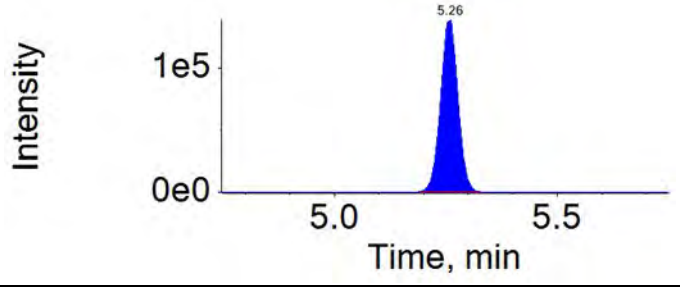


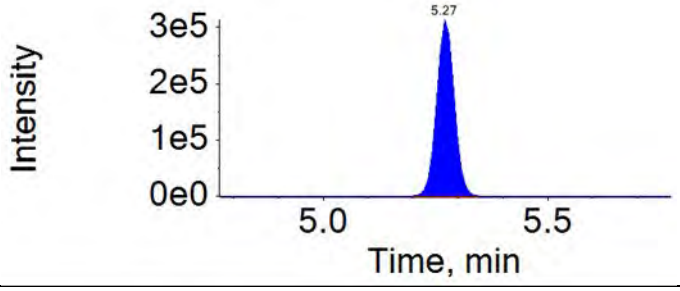
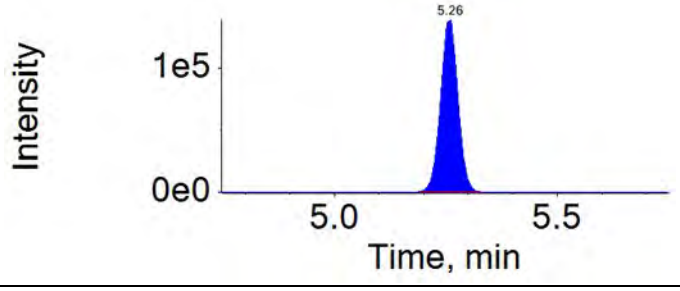
APPROVED
By MCD at 5:01 pm, 11/28/18

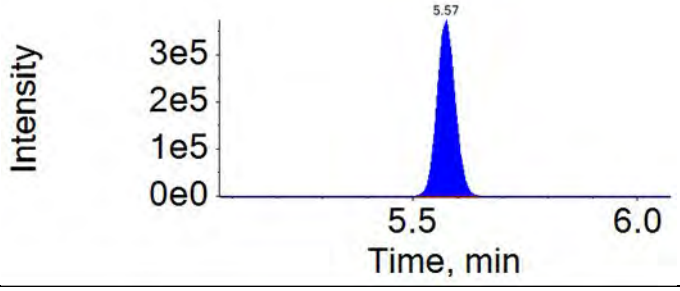
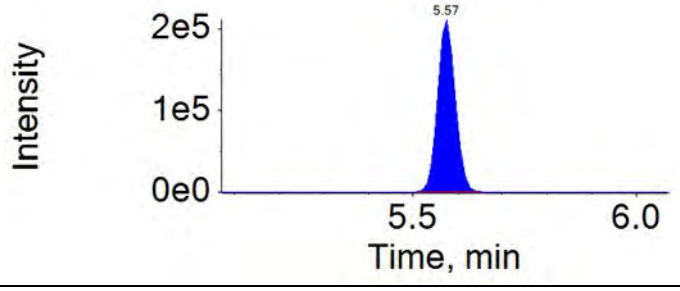
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

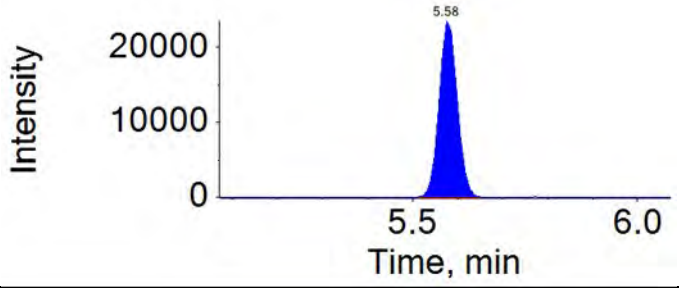
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

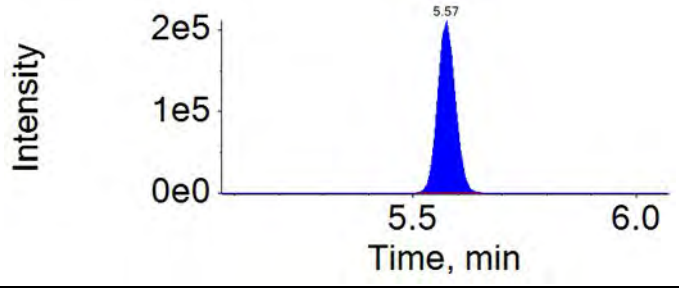
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

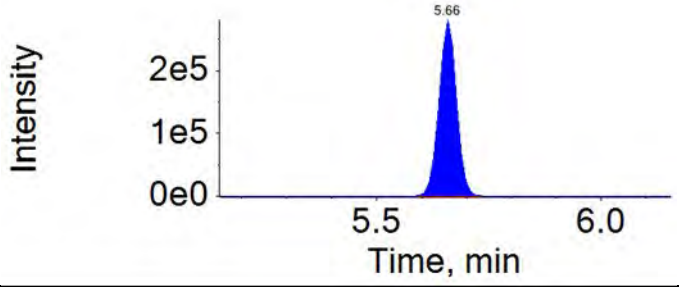
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

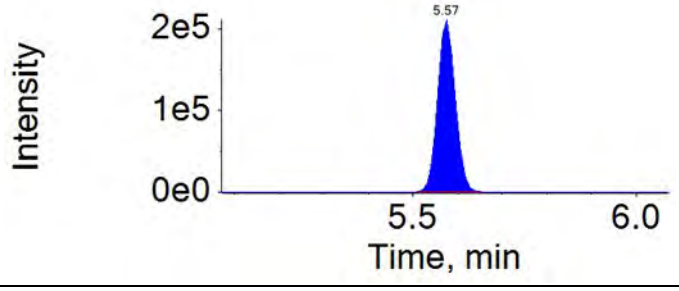
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



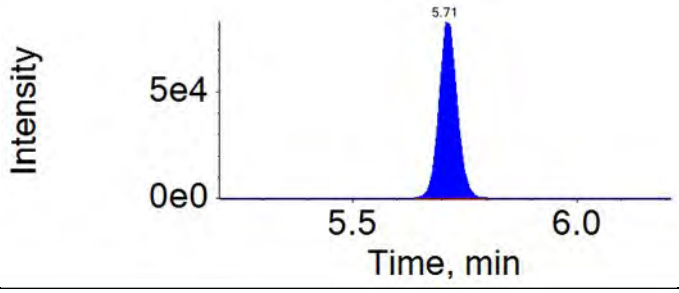


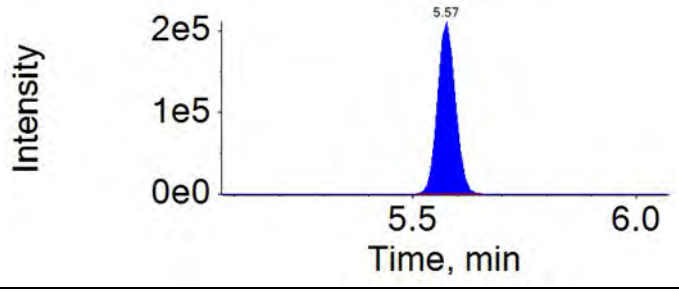
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



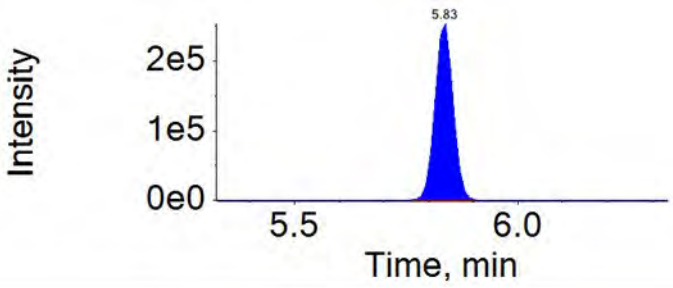


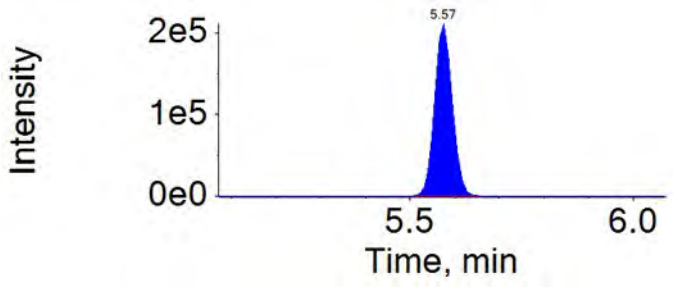
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



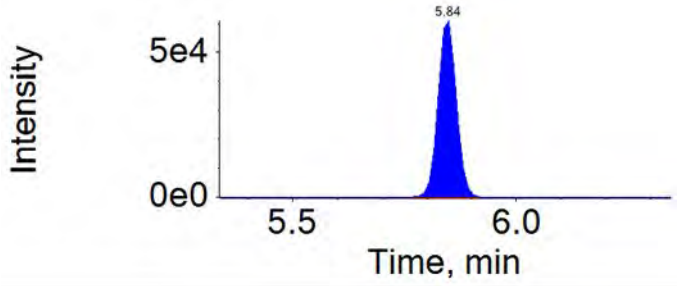


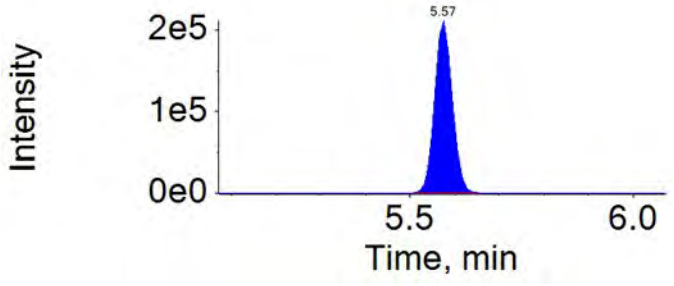
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

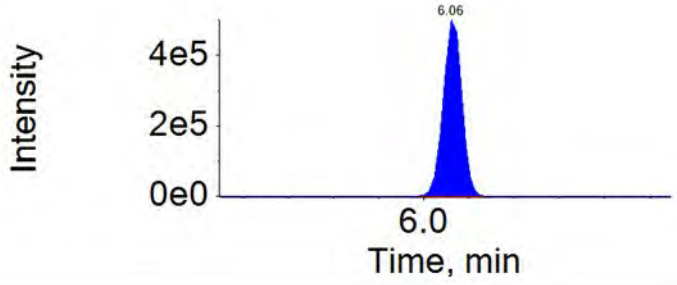
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

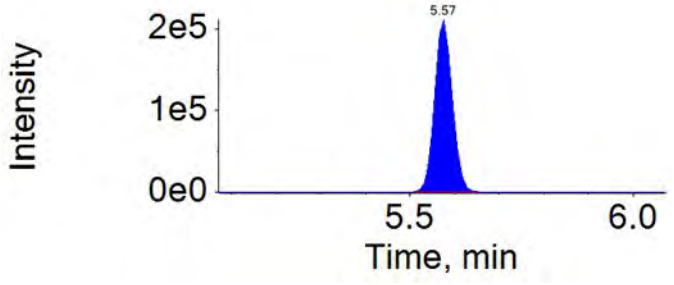
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



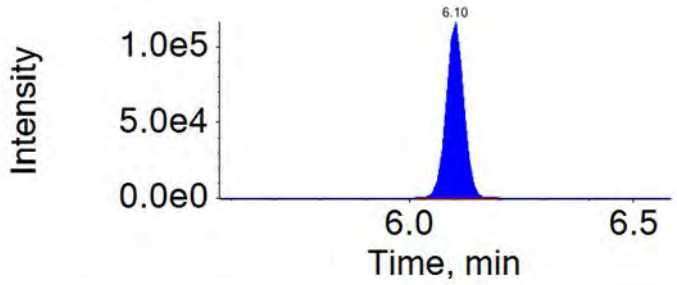


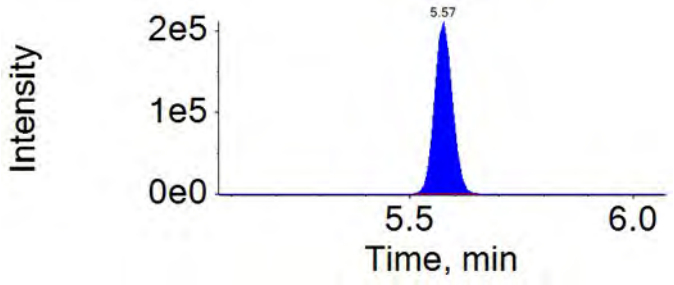
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



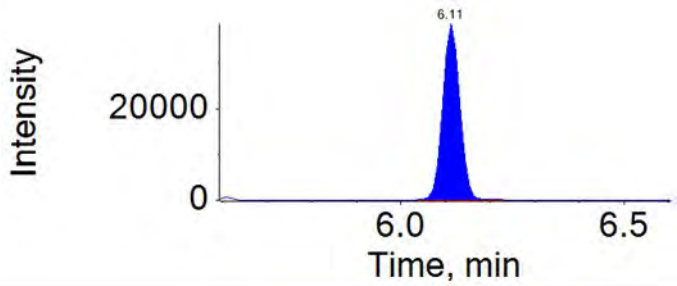


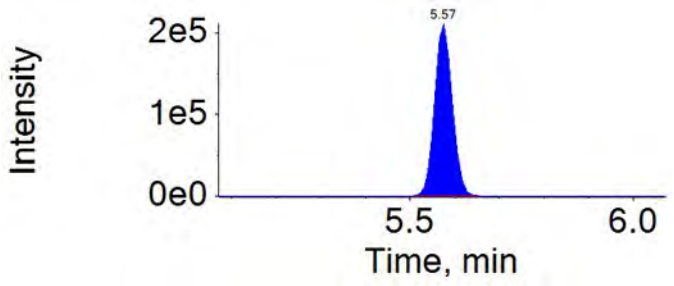
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



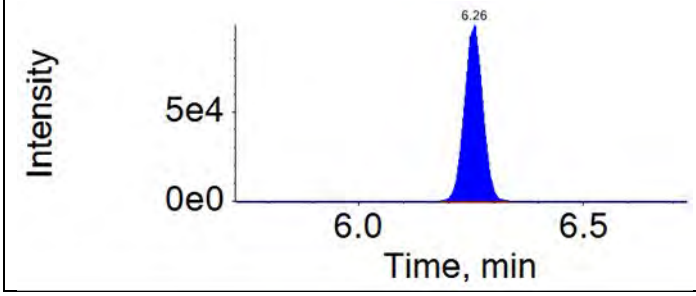


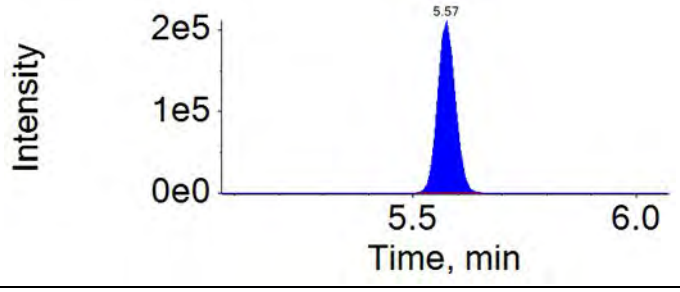
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

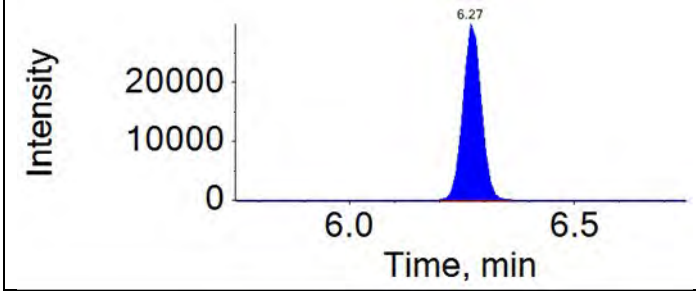
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

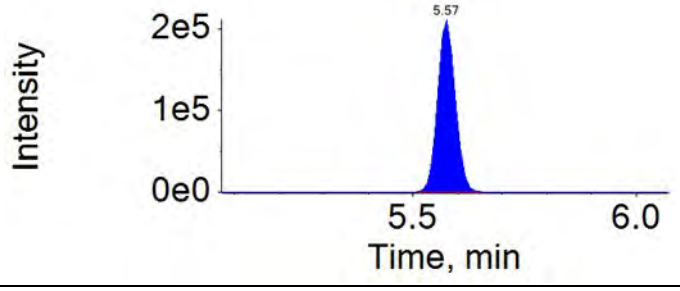
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



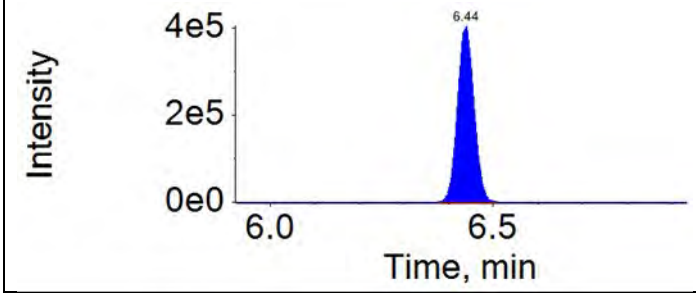


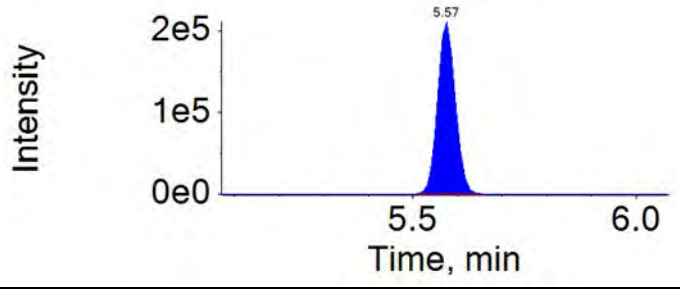
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



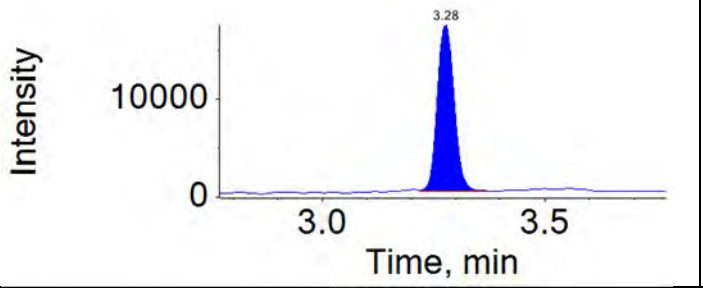


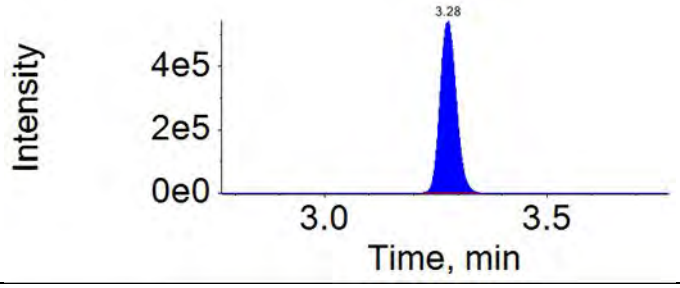
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

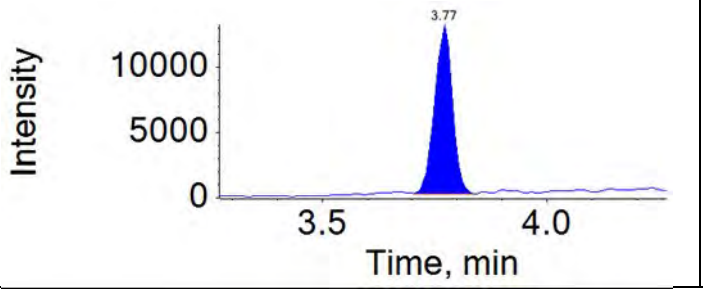
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

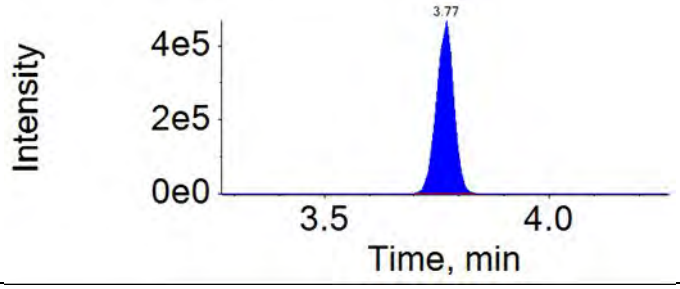
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



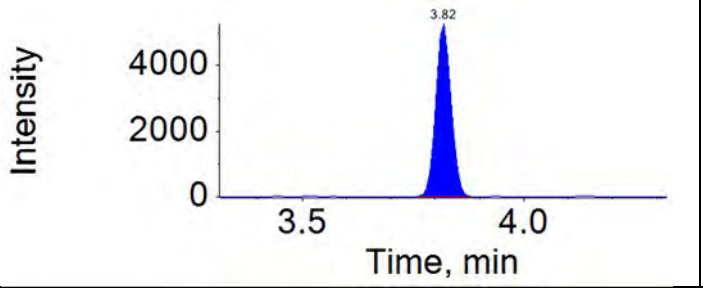


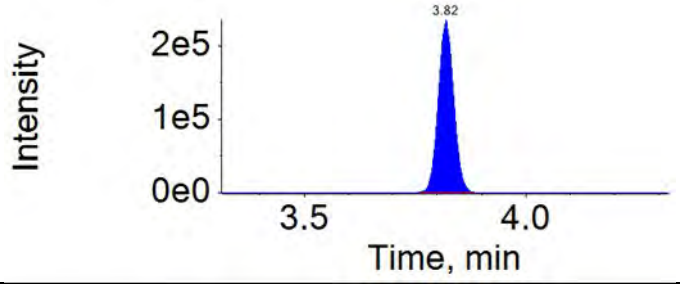
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



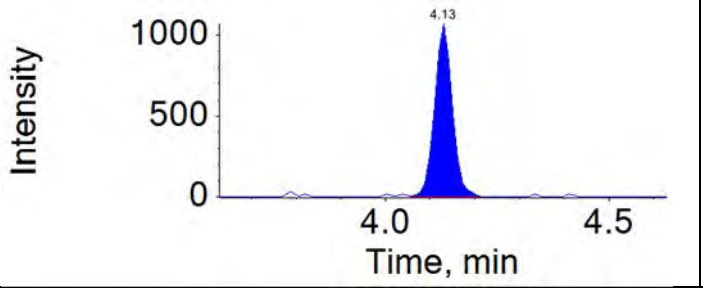


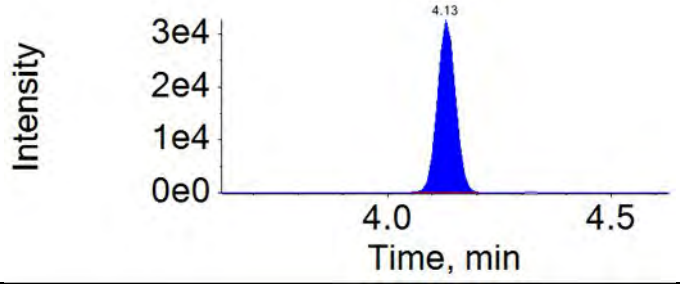
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



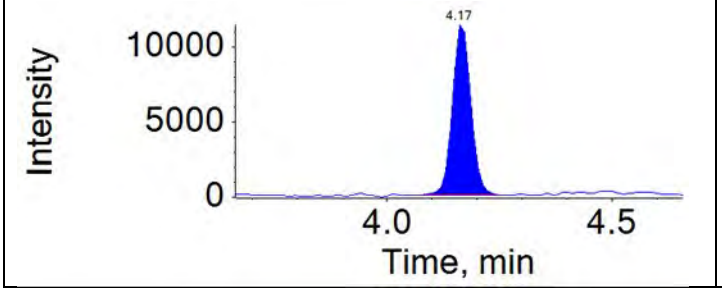


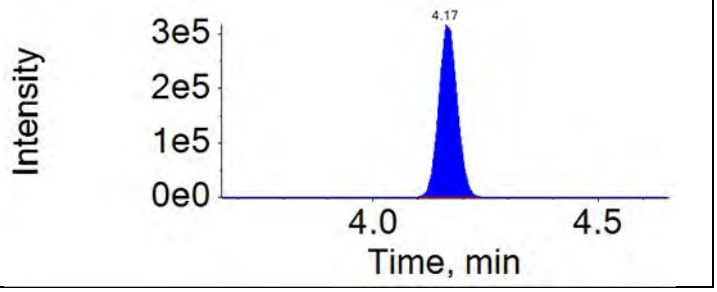
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

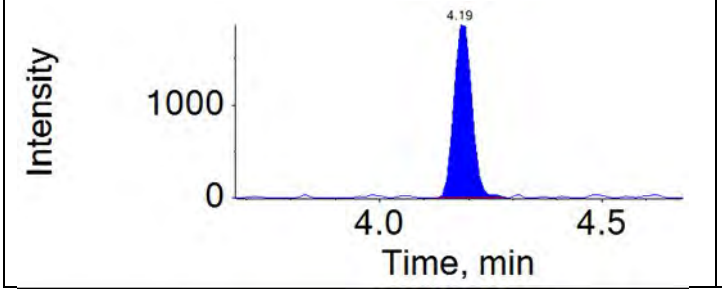
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

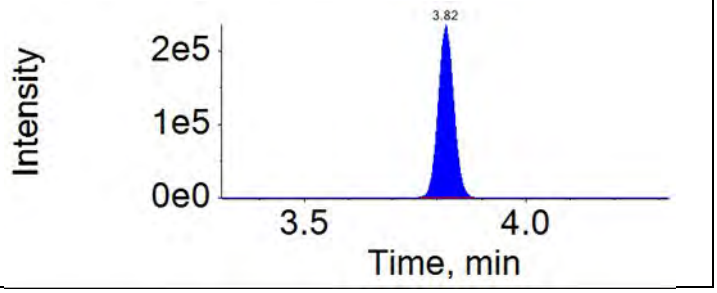
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



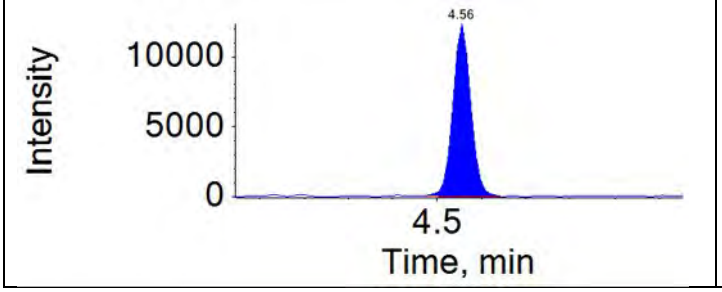


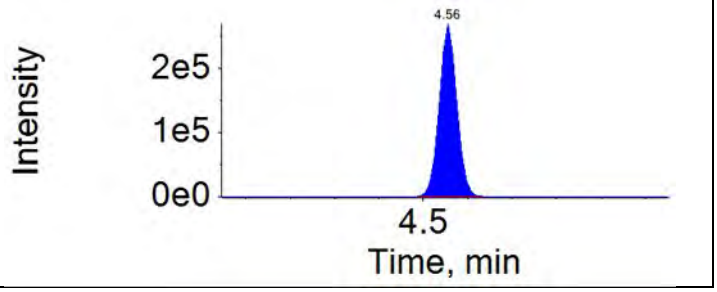
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



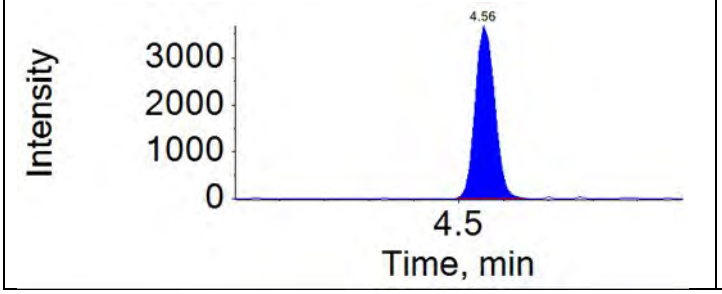


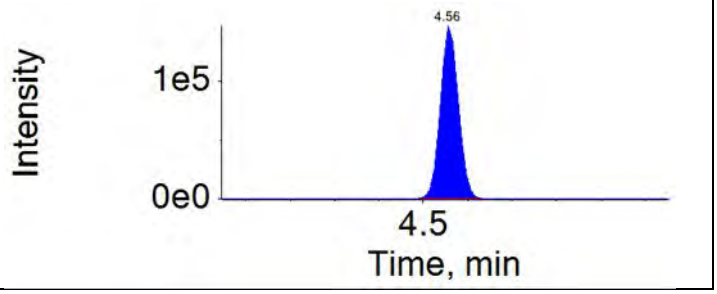
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



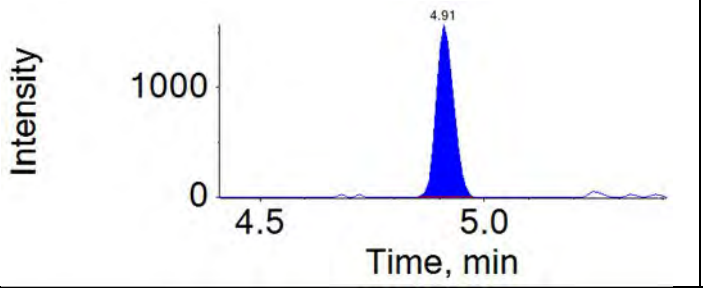


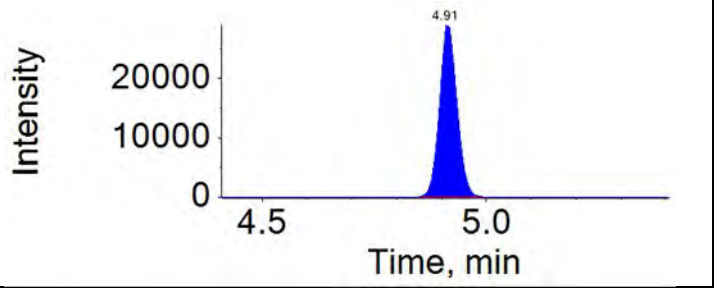
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

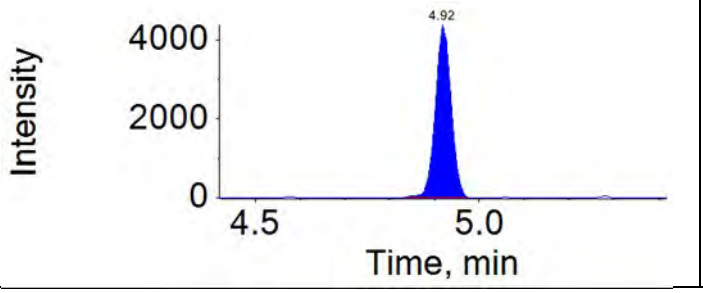
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

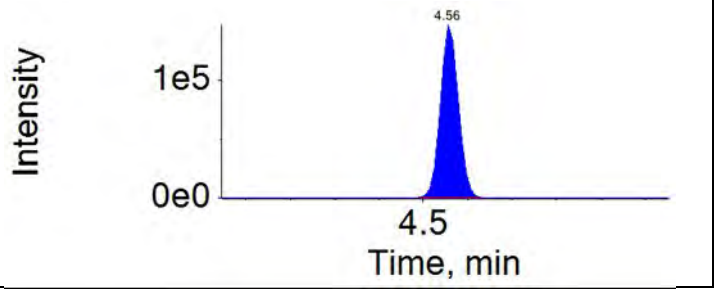
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



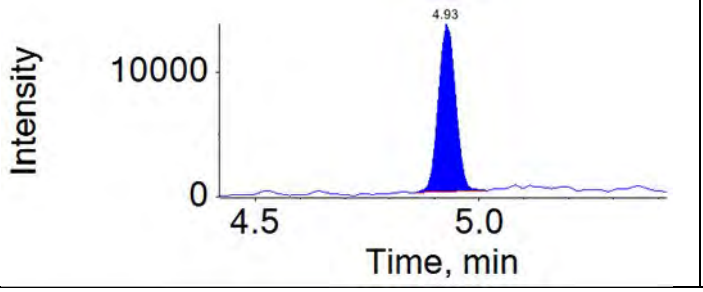


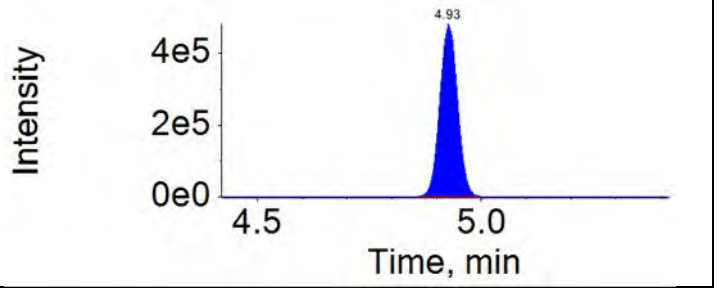
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



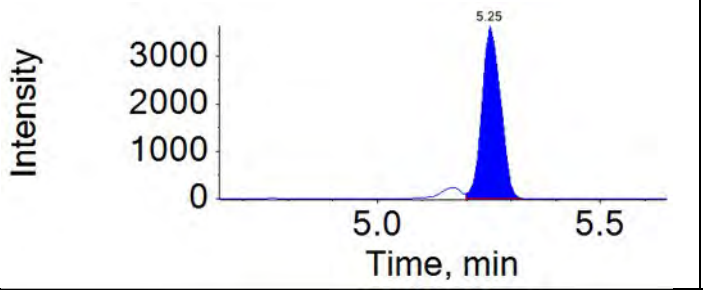


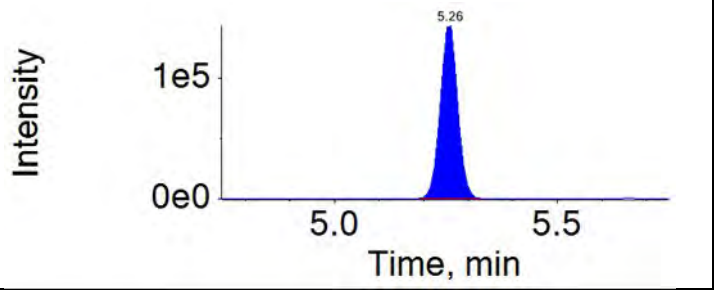
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



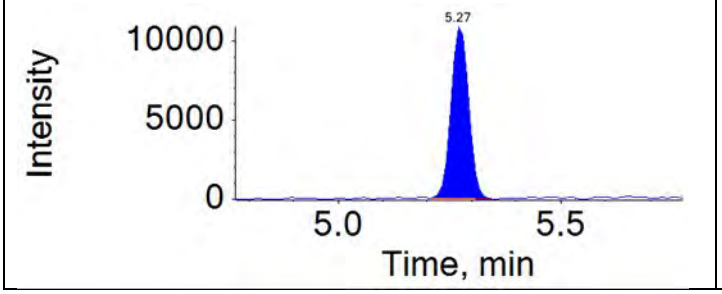


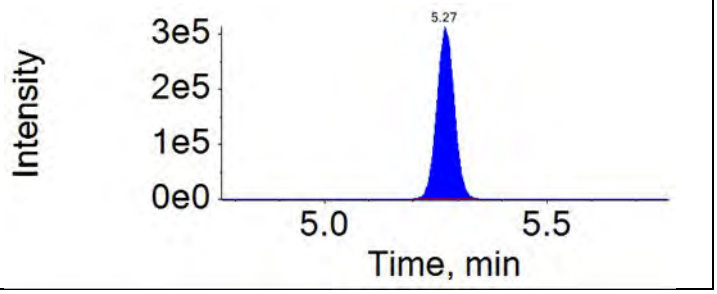
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

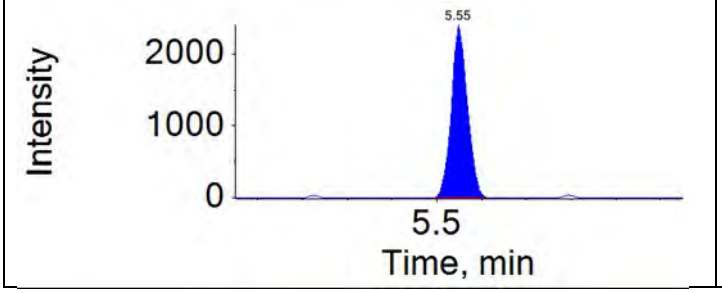
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

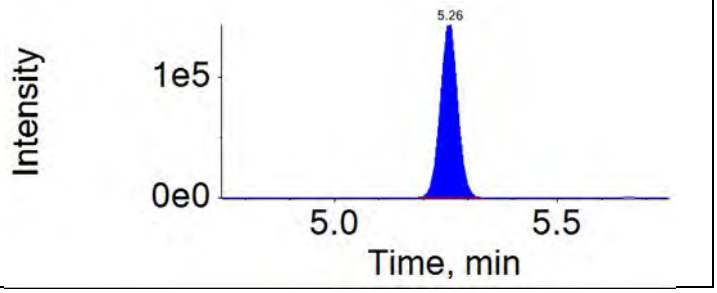
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



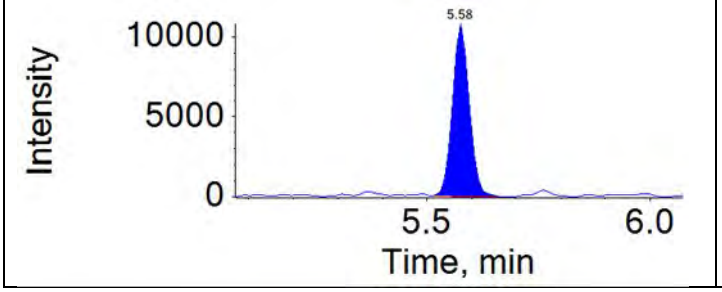


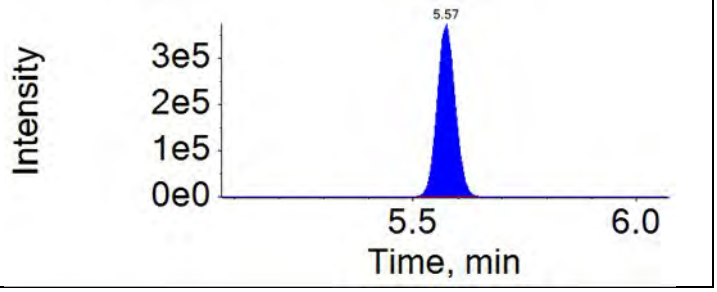
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



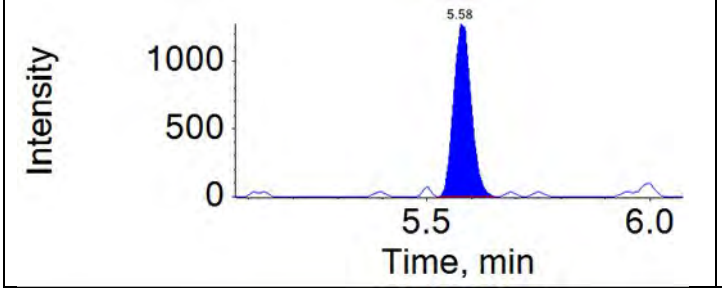


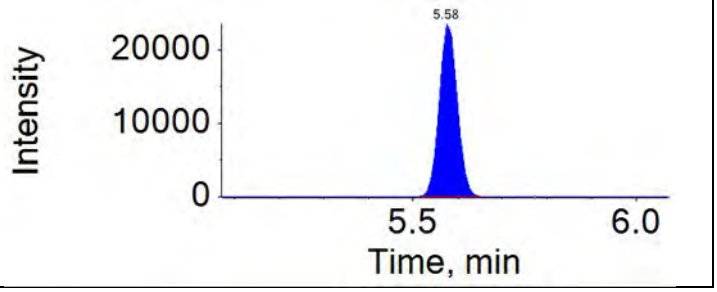
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



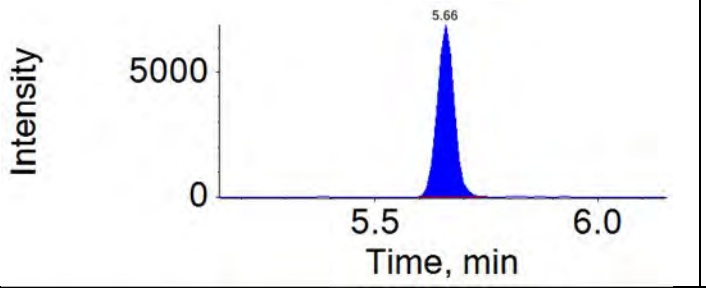


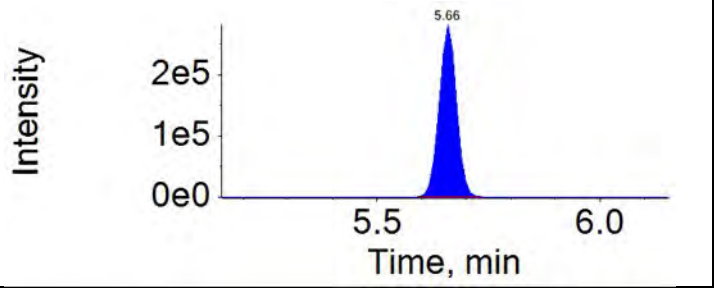
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

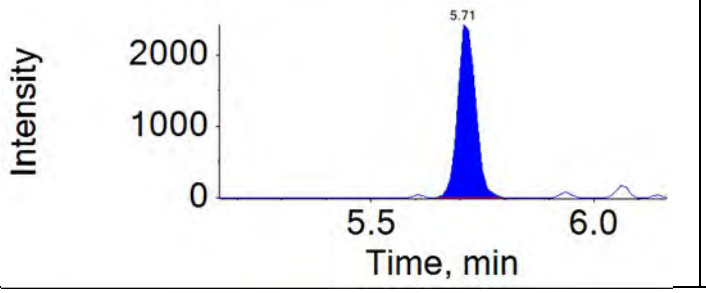
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

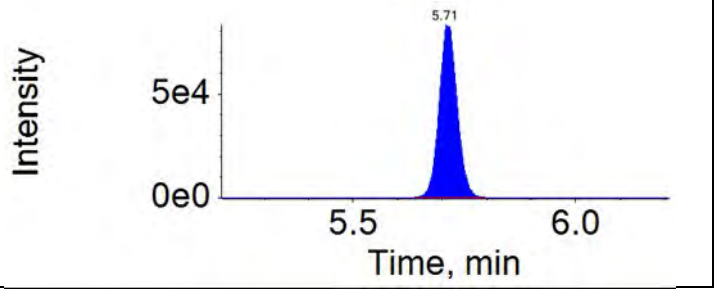
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



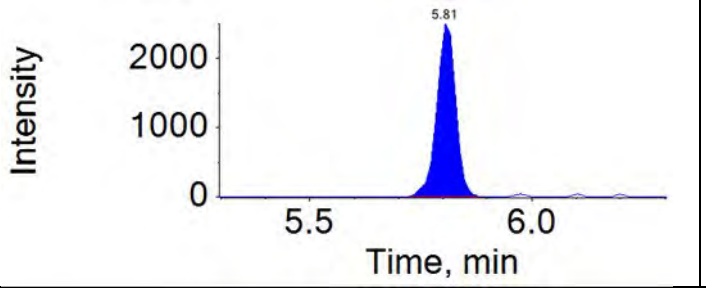


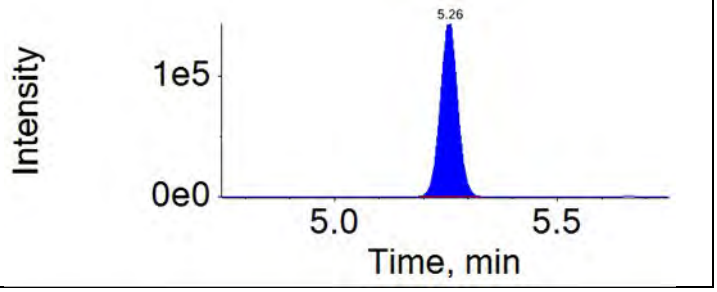
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



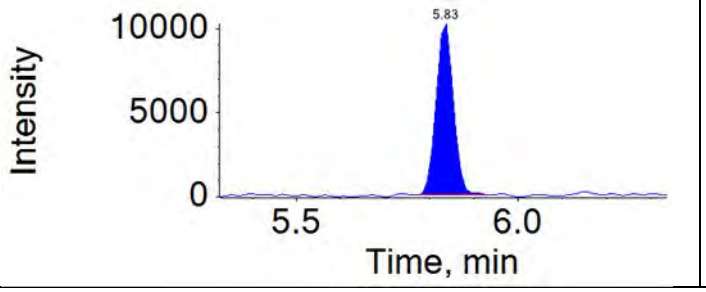


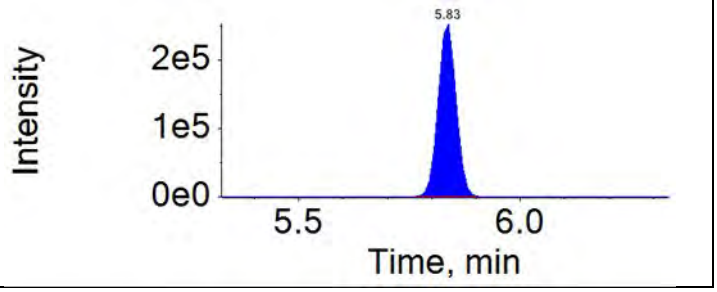
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



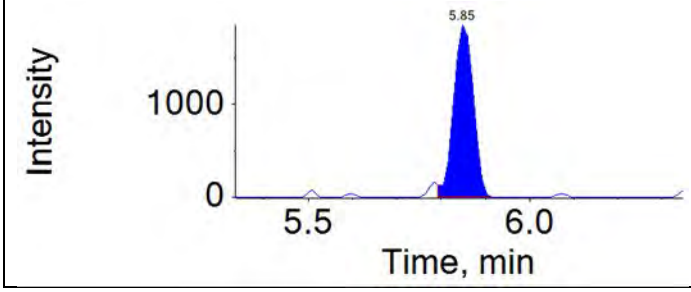


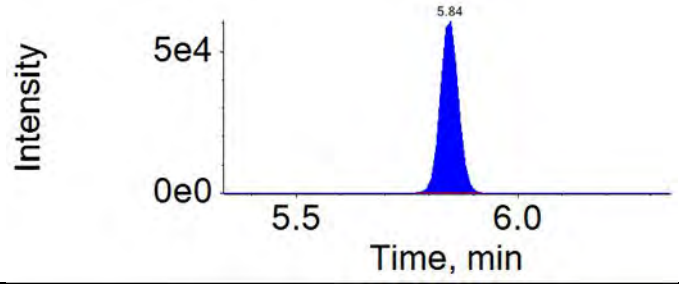
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

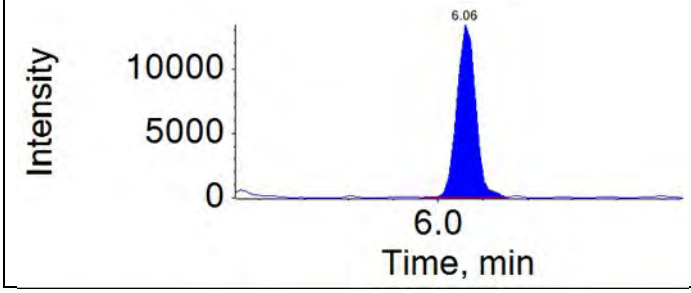
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

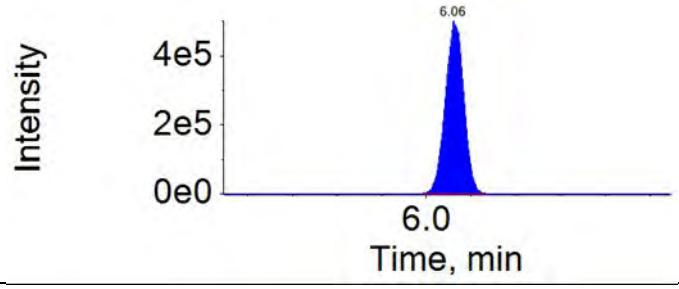
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



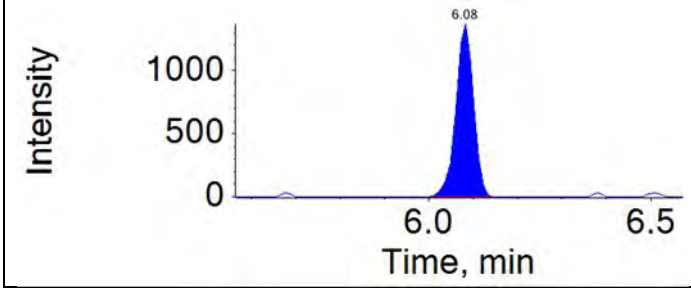


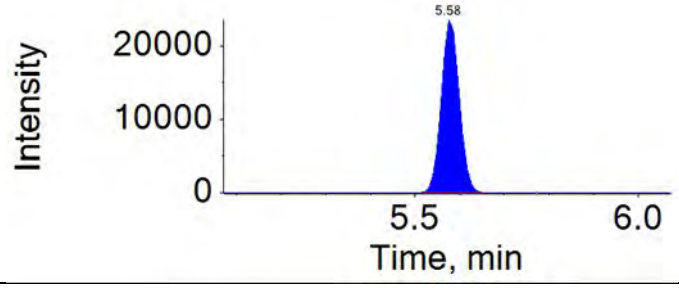
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



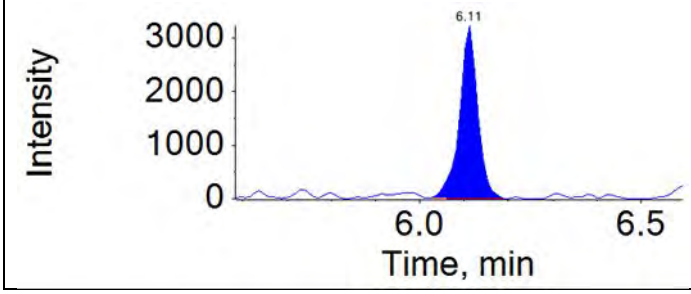


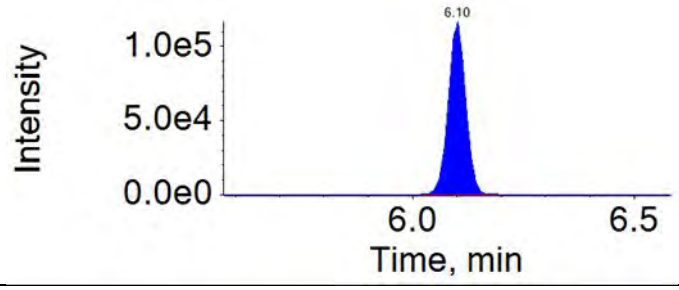
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



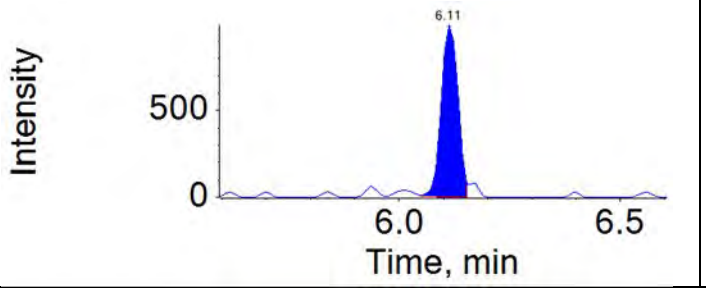


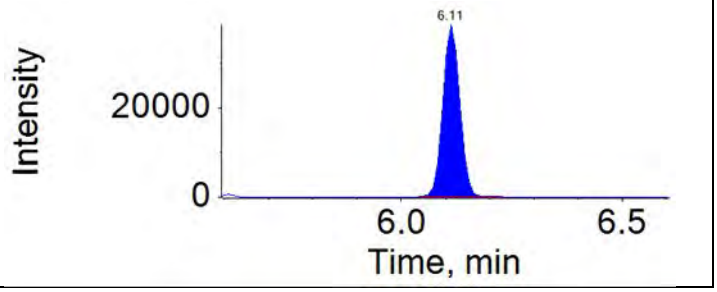
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

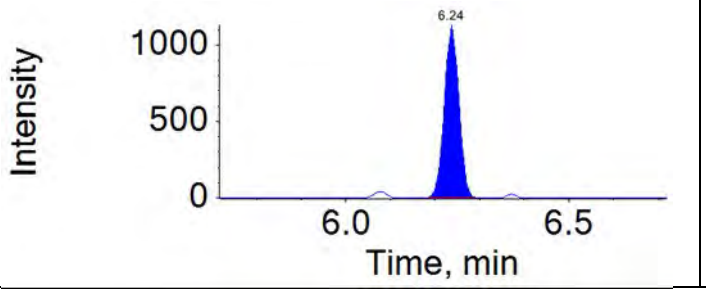
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

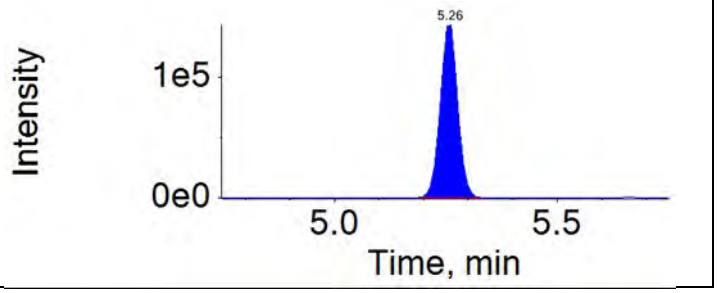
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



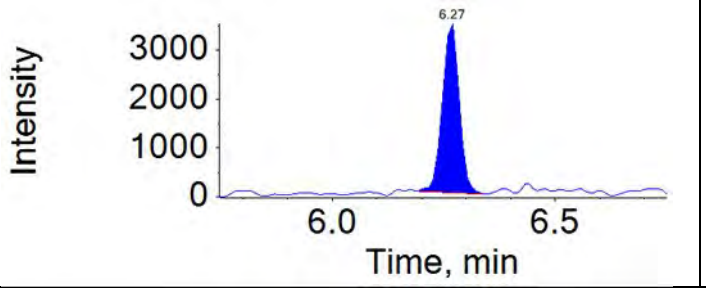


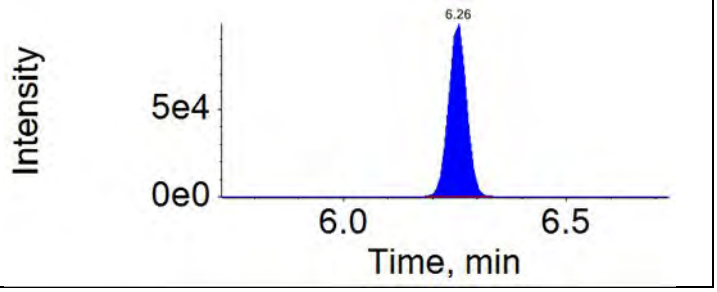
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



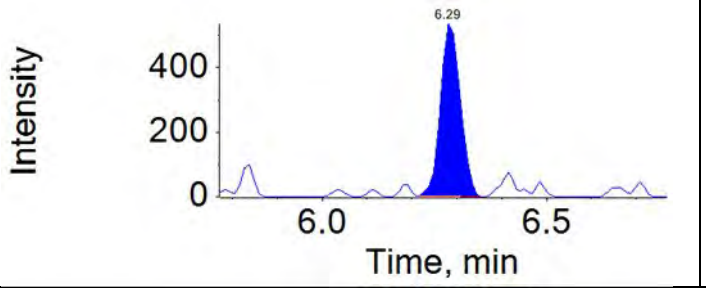


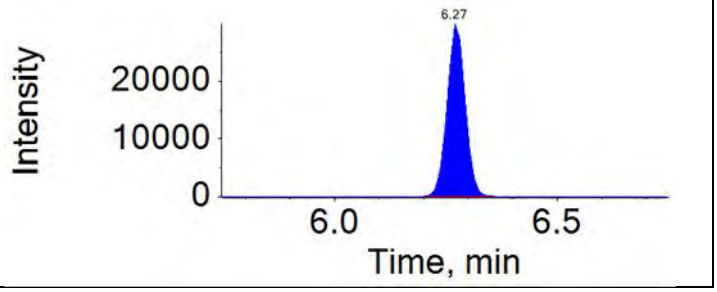
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

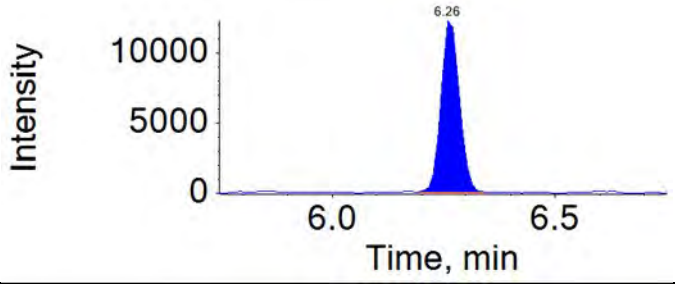
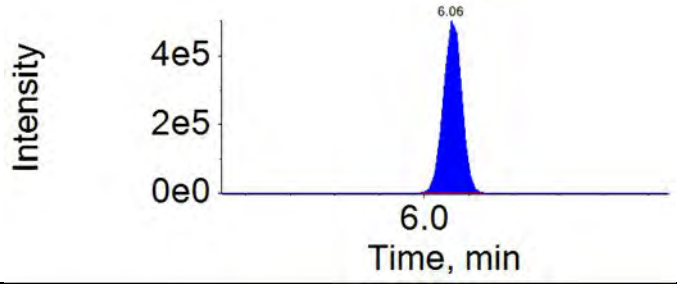


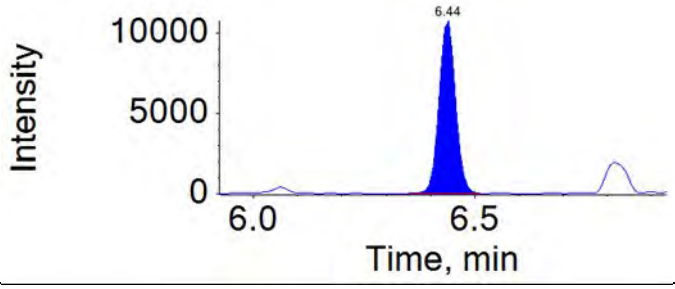
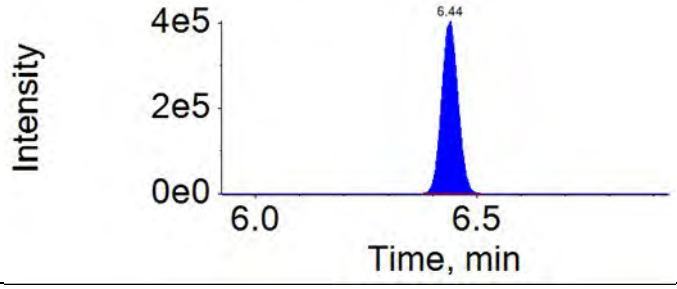


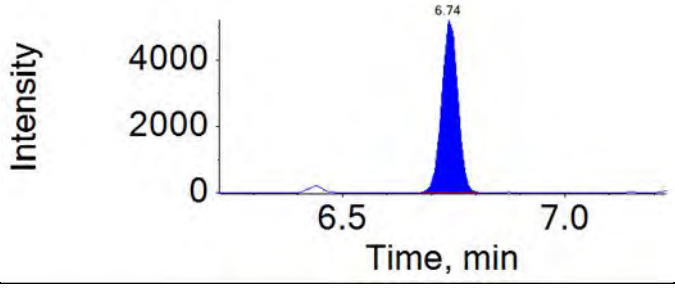
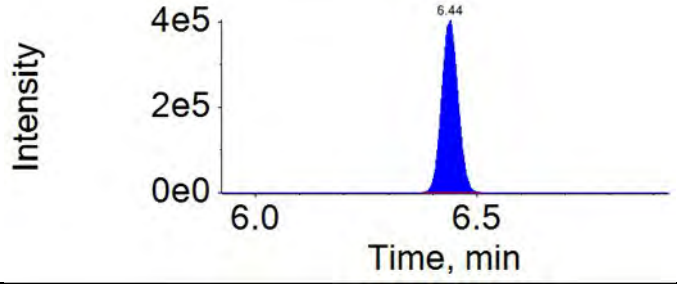
APPROVED
By MCD at 5:01 pm, 11/28/18

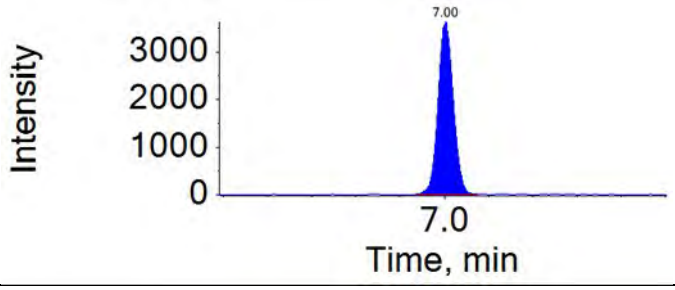
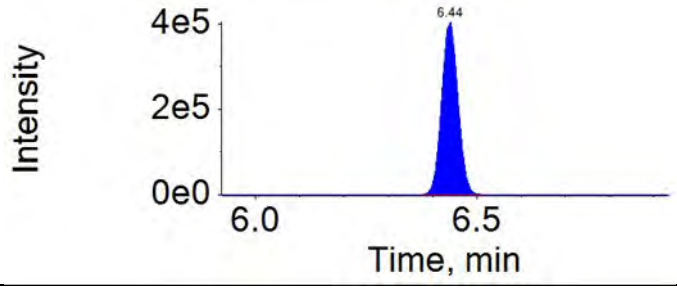
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

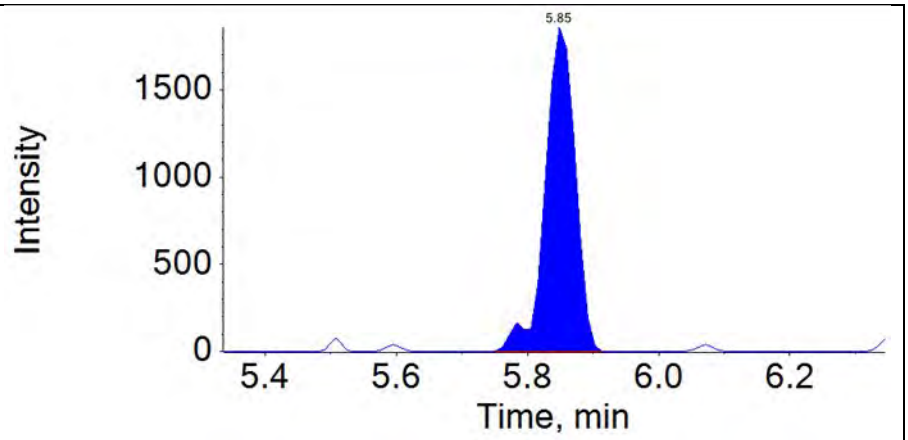
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

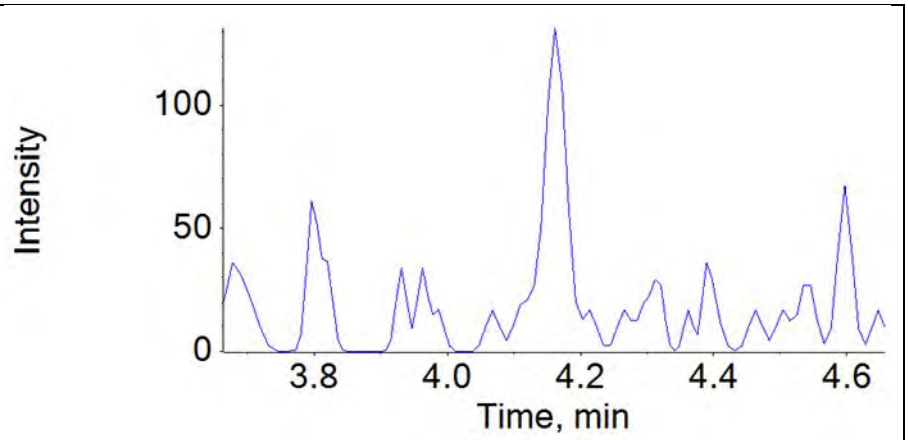
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
5953.37
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



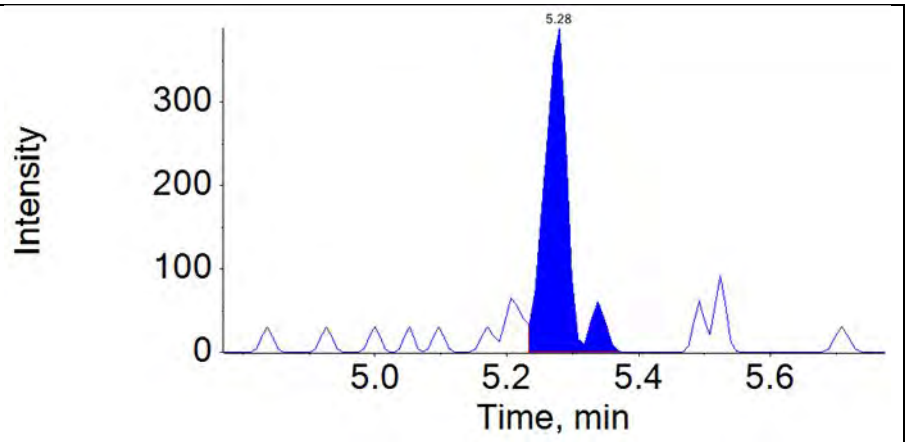
Integration Comment: incorrect integration

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:
18NOV28DCAL-05.wiff
Sample Name:
MDL



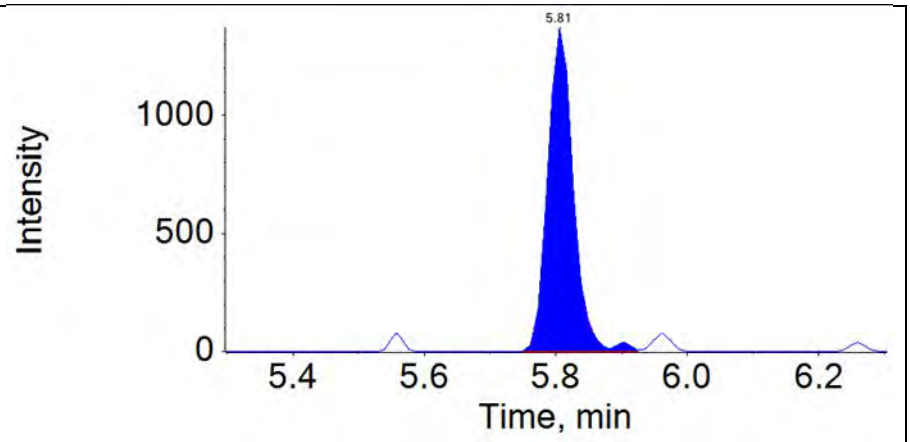
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

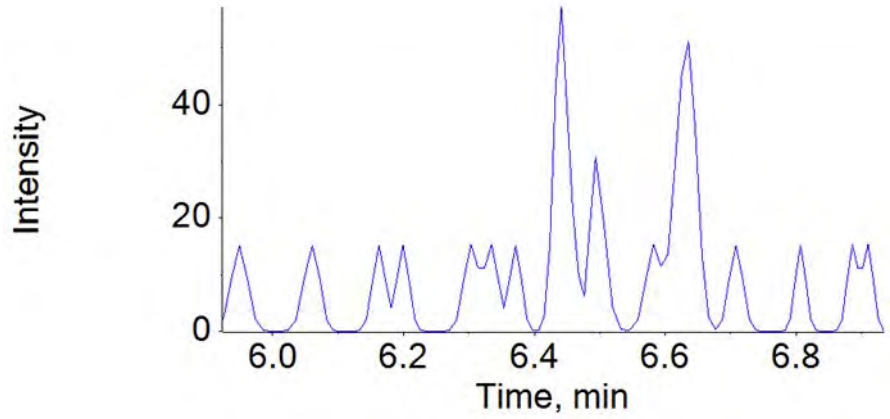
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDS_2
RT (min.):
5.81
Peak Area:
3733.02
Mass Range:
599.0 / 99.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



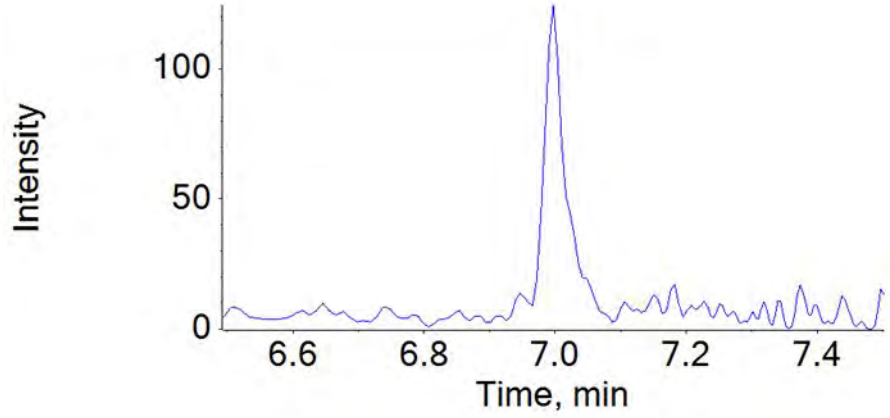
Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-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

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

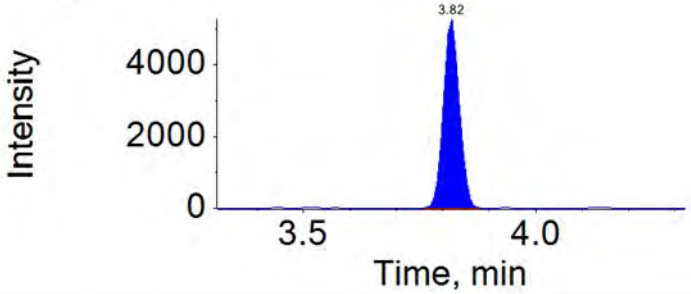
Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-05.wiff

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	12605.11	A	0.3655	0.3999			
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	
PFTrDA	6.26	1.03	35013.33	A	0.0090	0.0082			
PFTrDA_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	

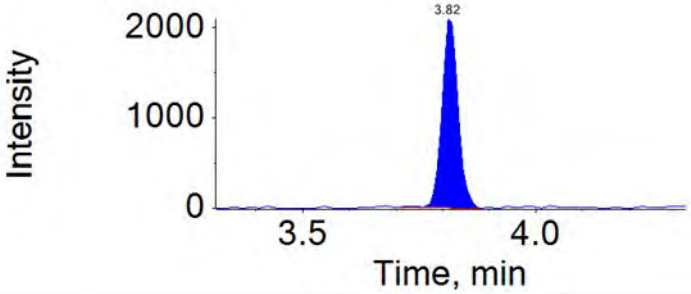
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

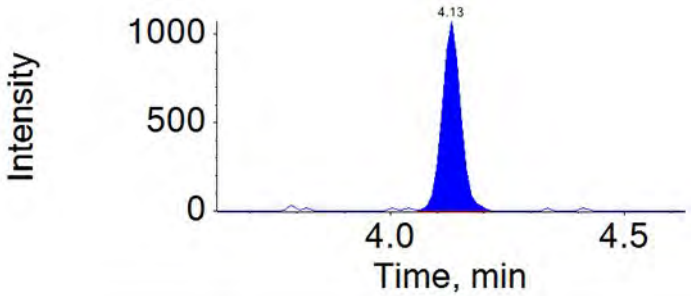
Component: PFBS
Primary Mass: 299.0 / 80.0



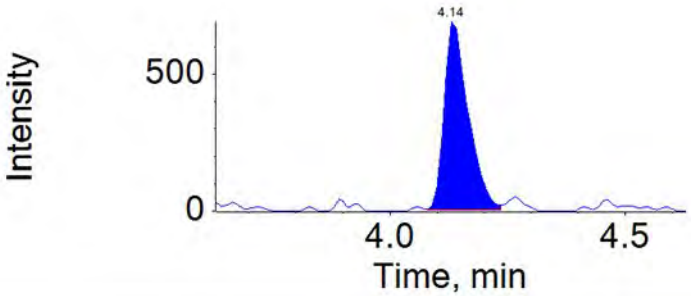
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



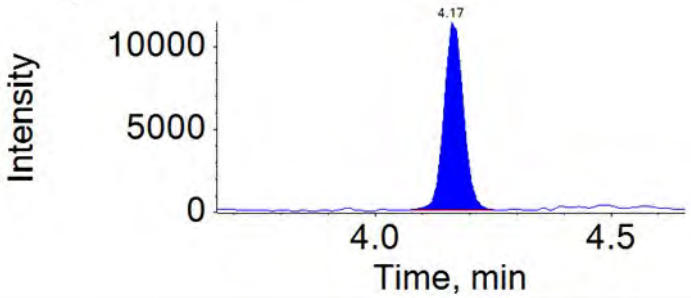
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



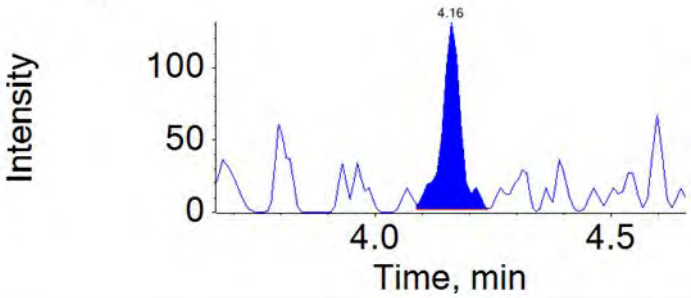
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



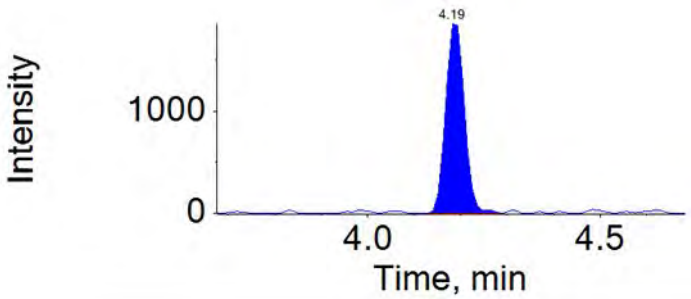
Component: PFHxA
Primary Mass: 313.0 / 269.0



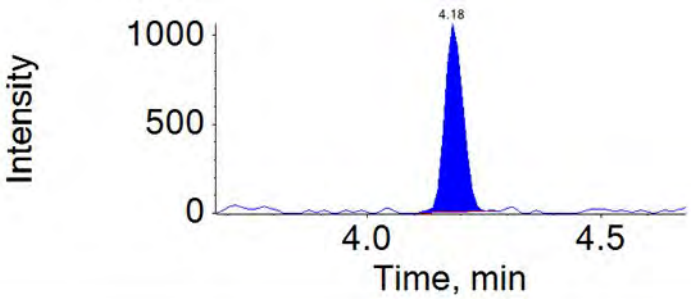
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



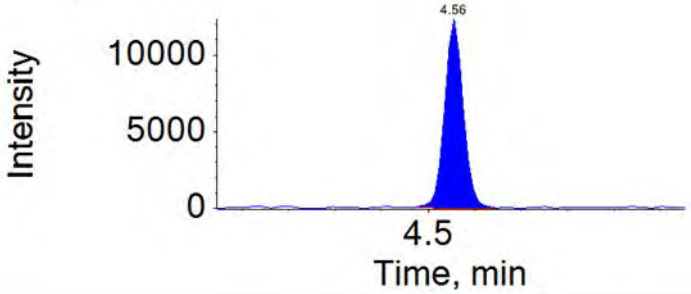
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



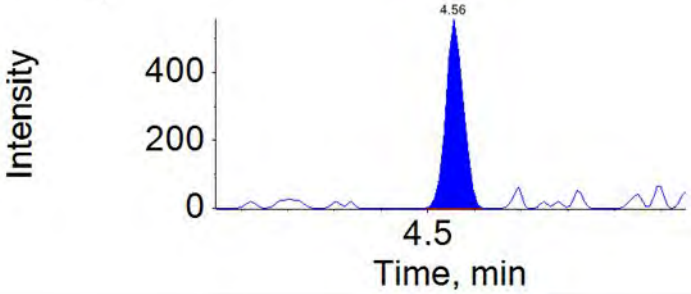
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

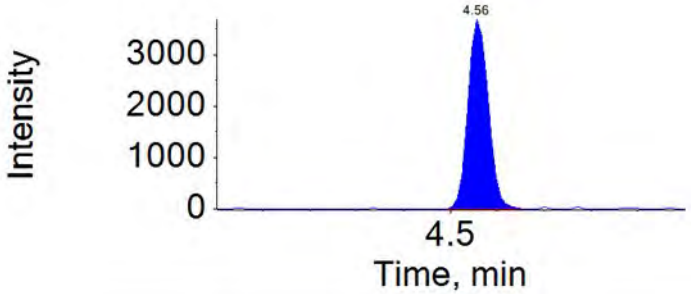
Component: PFHpA
Primary Mass: 363.0 / 319.0



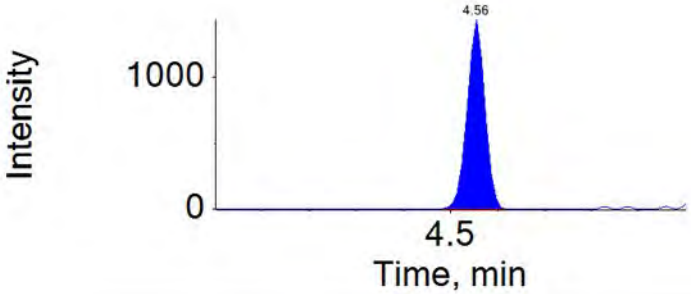
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



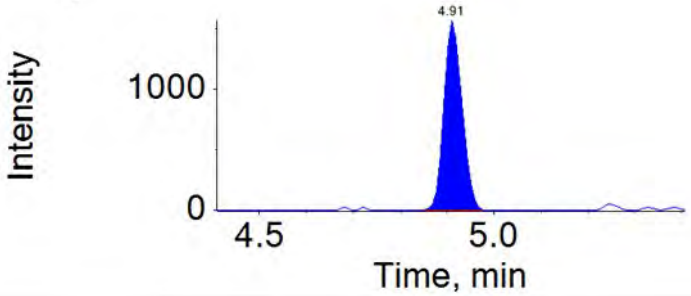
Component: PFHxS
Primary Mass: 399.0 / 80.0



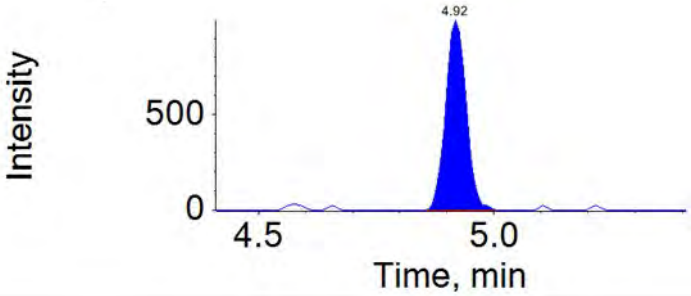
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



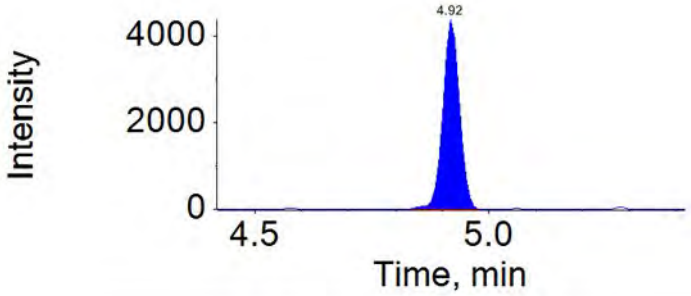
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



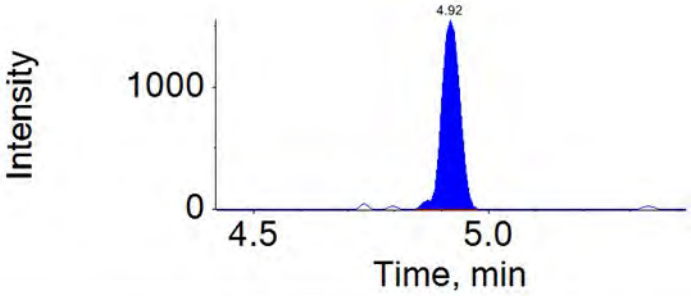
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



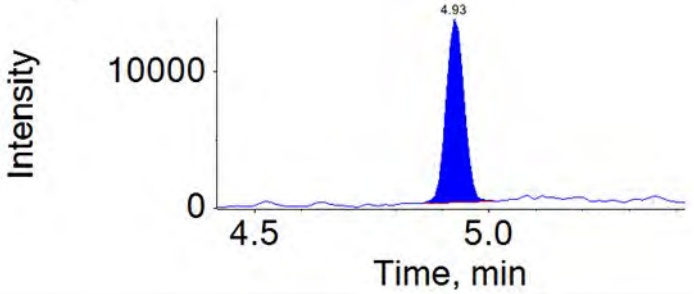
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



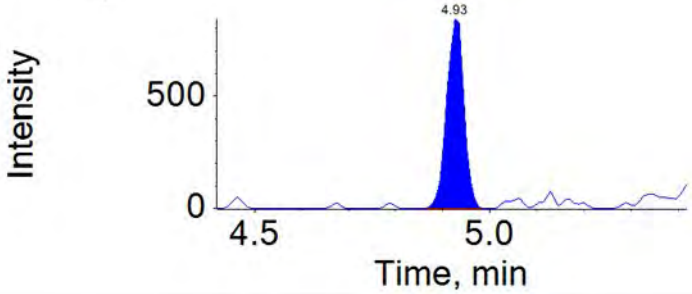
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

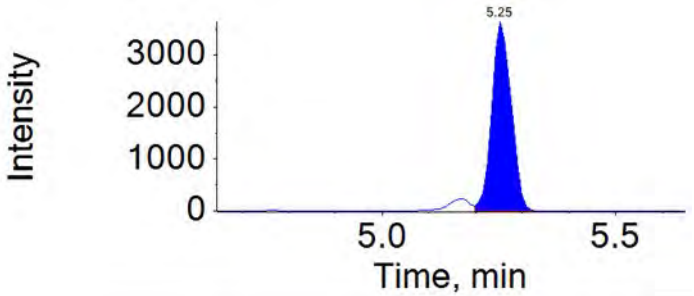
Component: PFOA
Primary Mass: 413.0 / 369.0



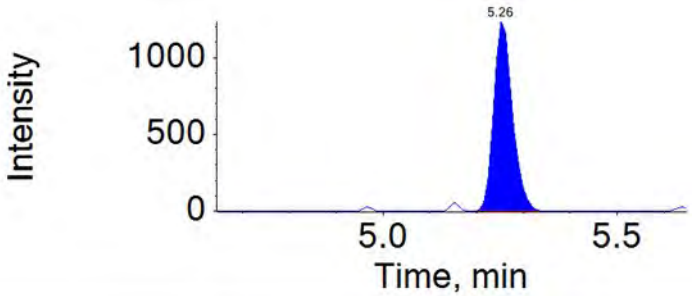
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



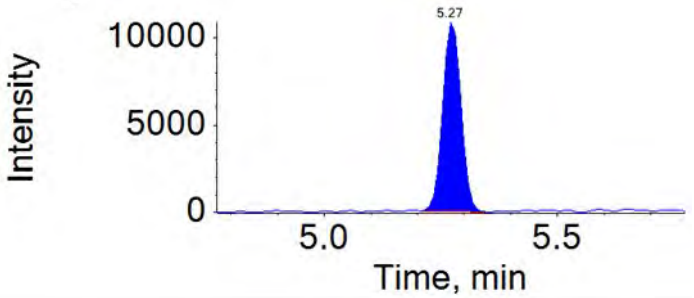
Component: PFOS
Primary Mass: 499.0 / 80.0



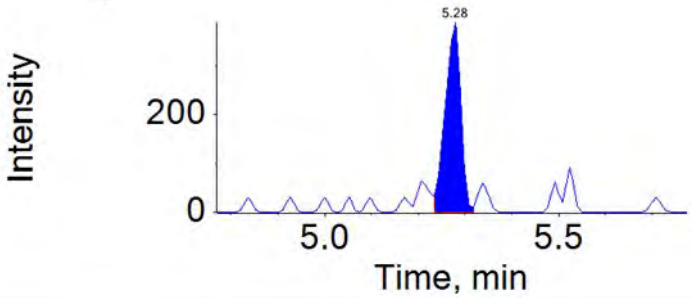
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



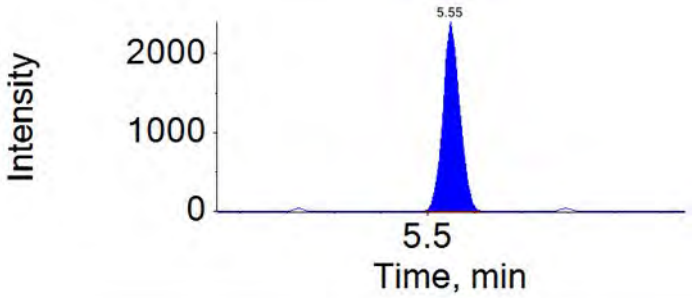
Component: PFNA
Primary Mass: 463.0 / 419.0



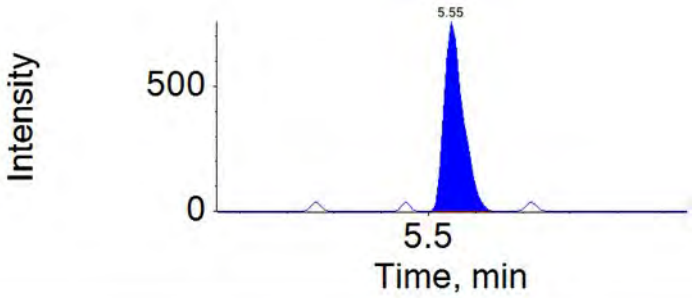
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



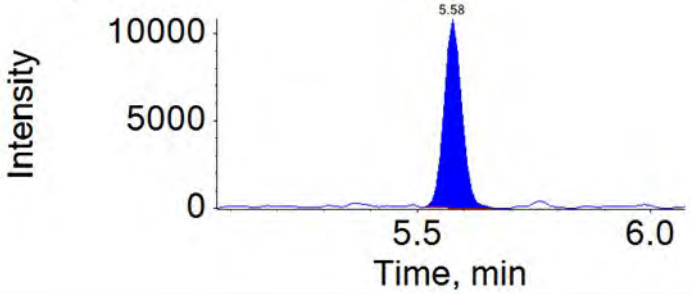
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



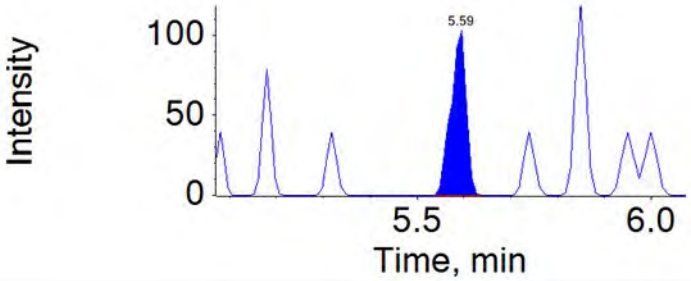
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

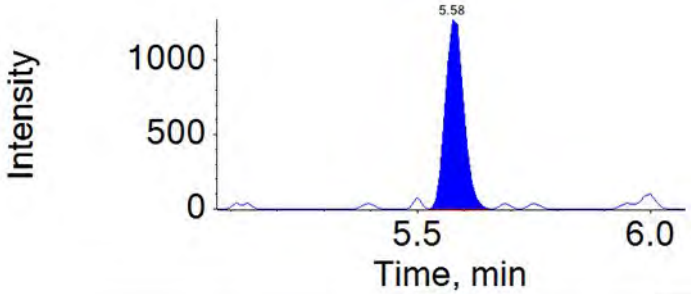
Component: PFDA
Primary Mass: 513.0 / 469.0



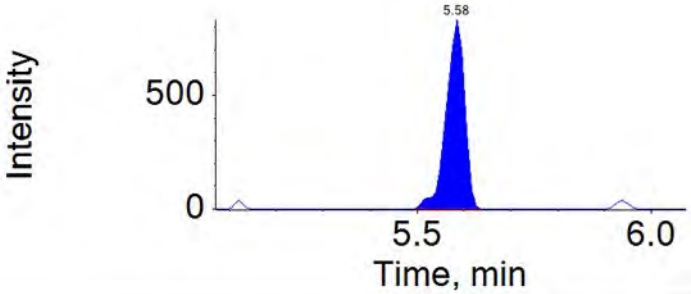
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



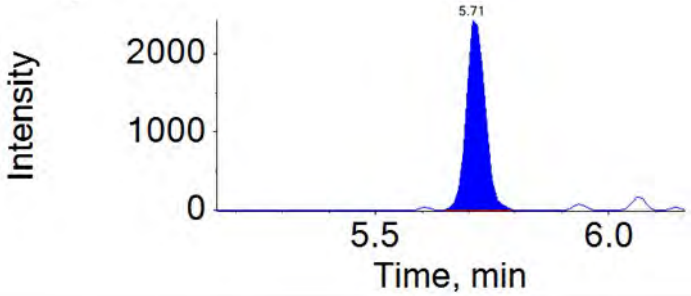
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



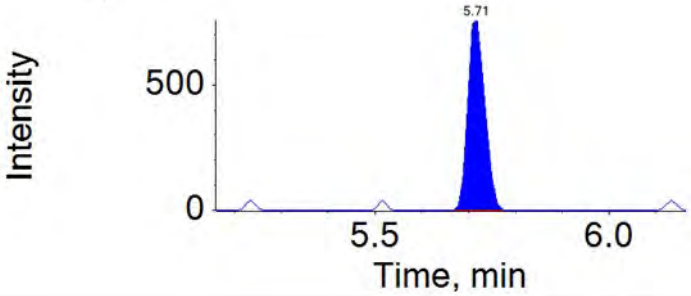
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



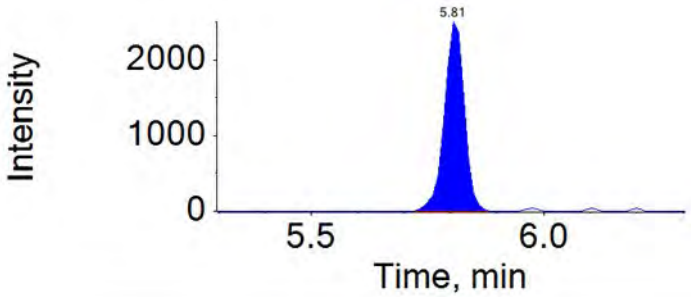
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



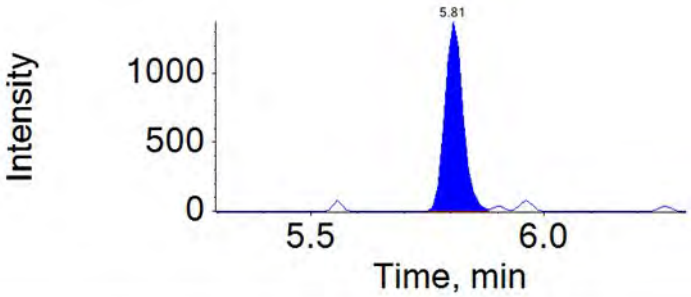
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



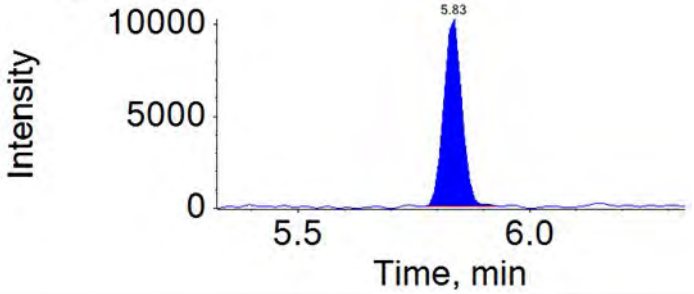
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



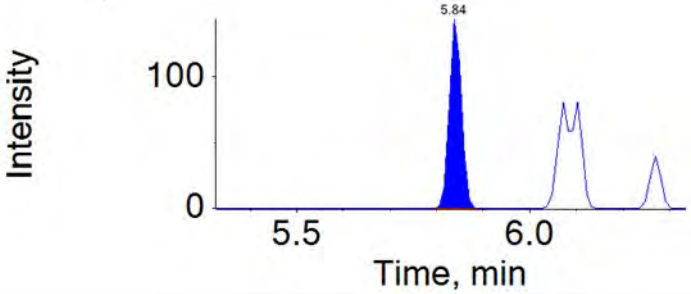
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

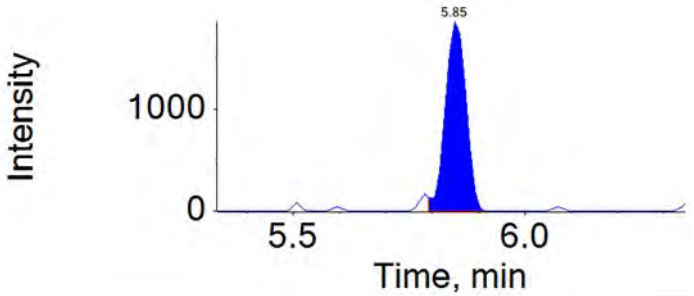
Component: PFUnDA
Primary Mass: 563.0 / 519.0



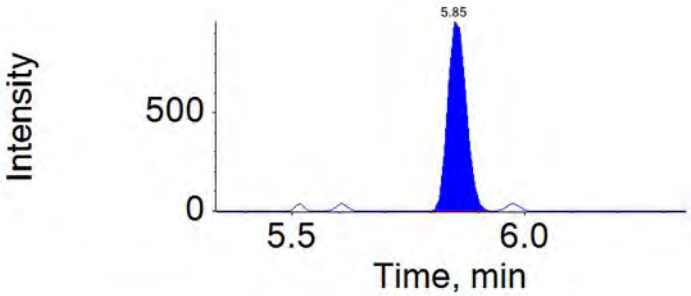
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



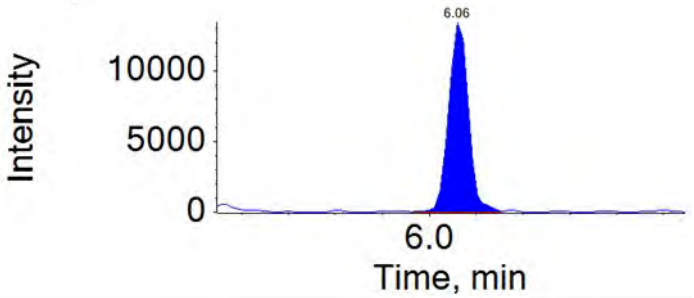
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



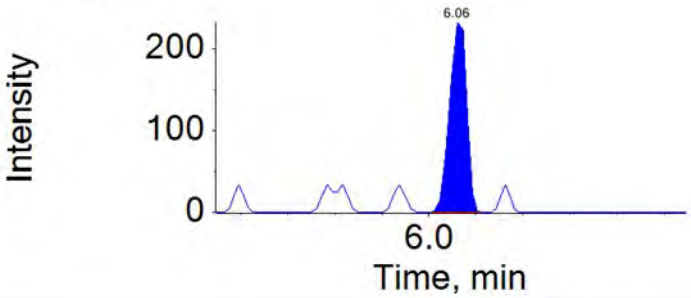
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



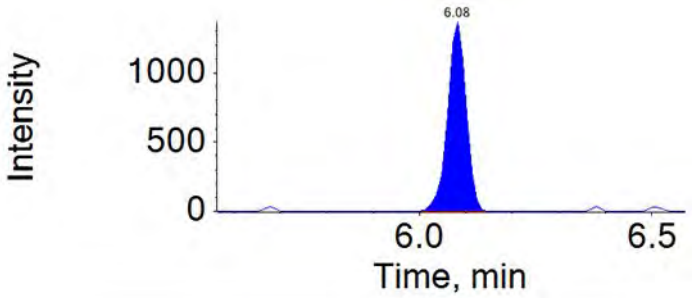
Component: PFDoDA
Primary Mass: 613.0 / 569.0



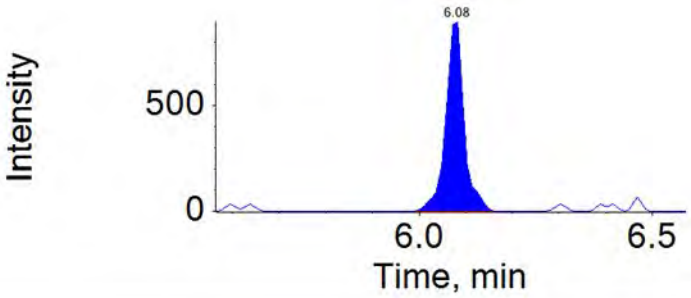
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



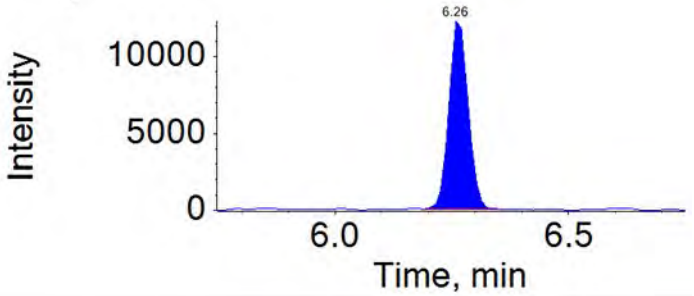
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



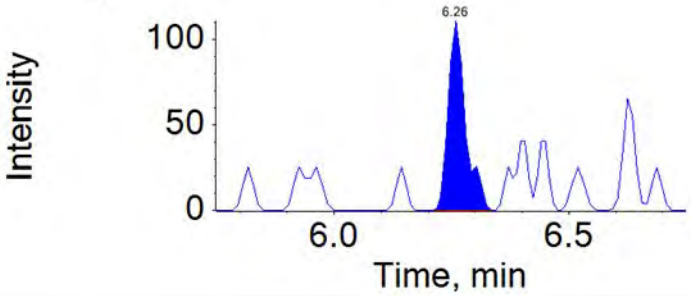
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

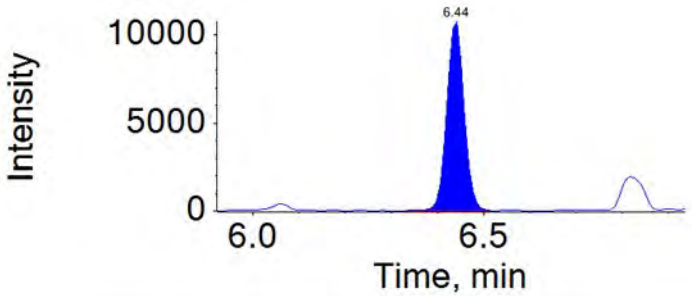
Component: PFTrDA
Primary Mass: 663.0 / 619.0



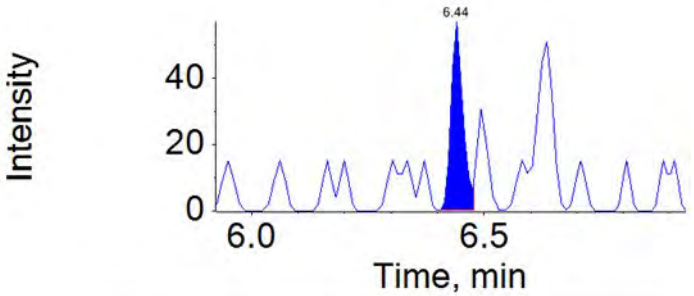
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



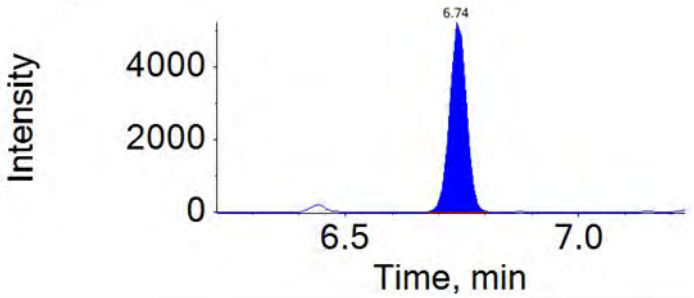
Component: PFTeDA
Primary Mass: 713.0 / 669.0



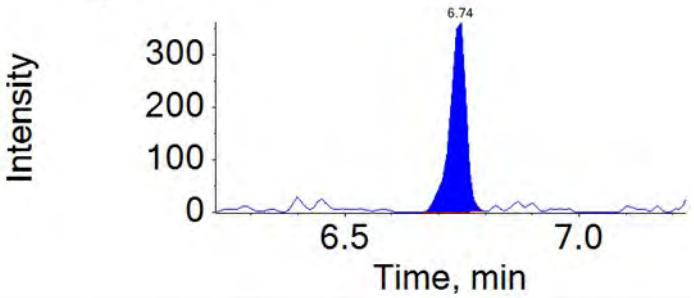
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



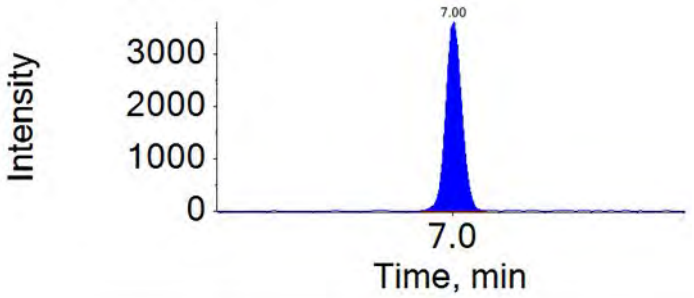
Component: PFHxDA
Primary Mass: 813.0 / 769.0



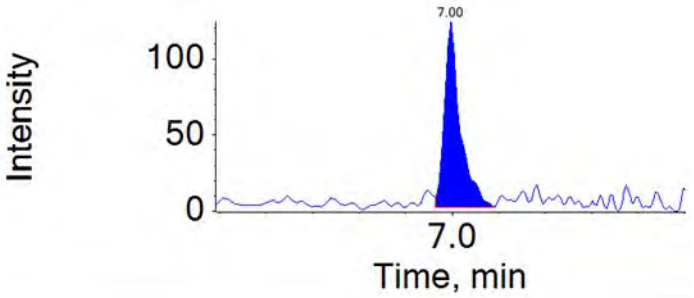
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

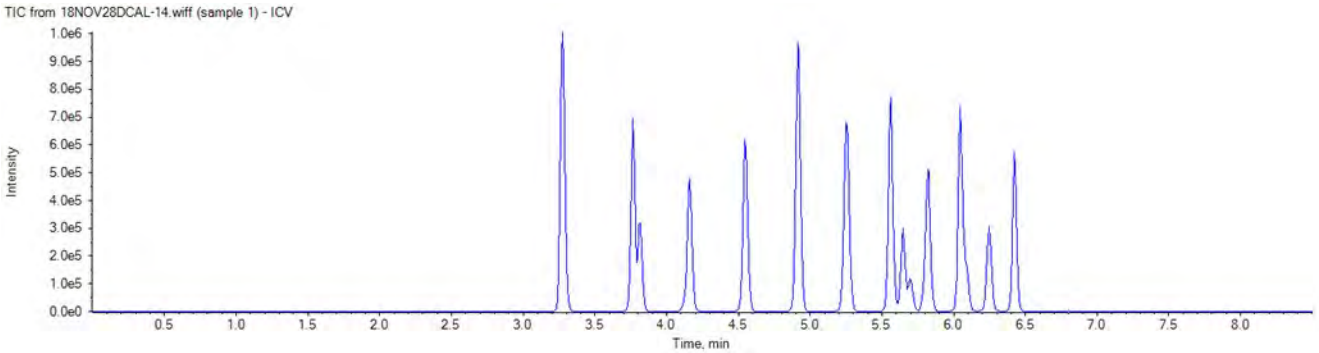
Analyte Quantitation Peak Table

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	
PFTrDA	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

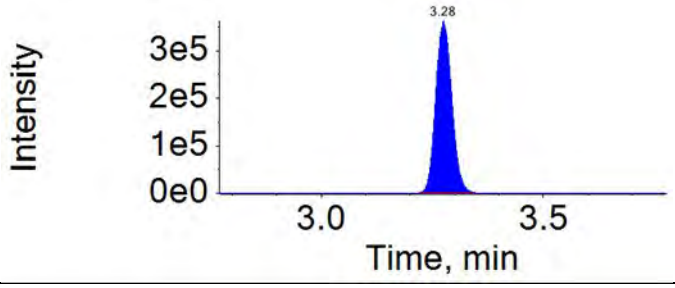


APPROVED
By MCD at 5:01 pm, 11/28/18

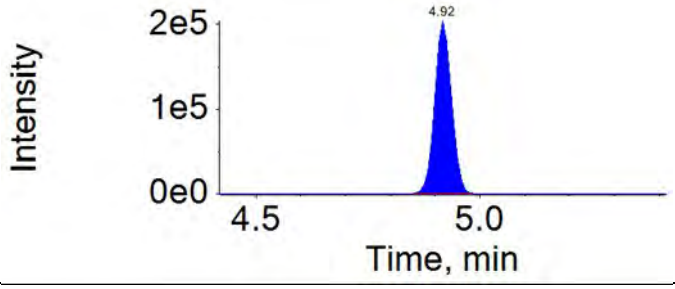
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

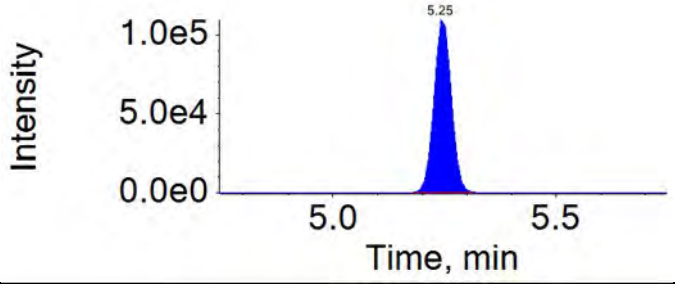
Injection Standard: 13C3-PFBA
216.0 / 172.0



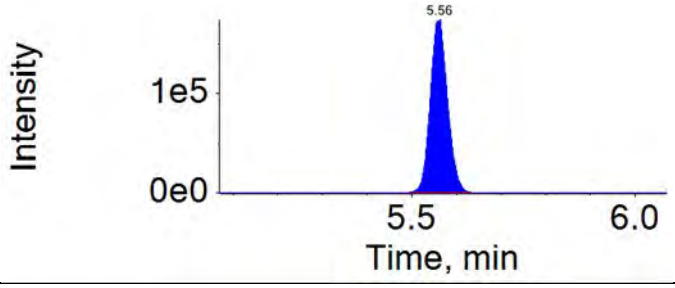
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

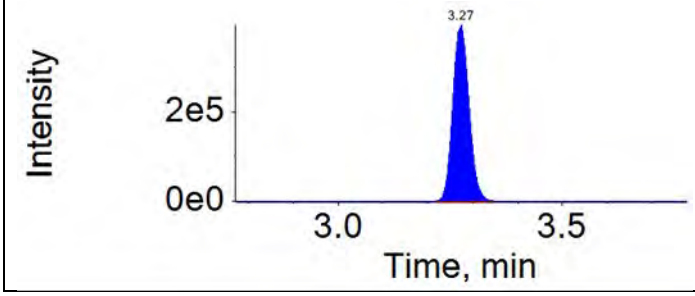


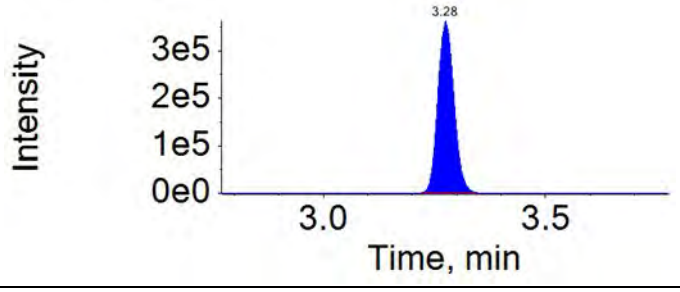
Injection Standard: 13C2-PFDA
515.0 / 470.0



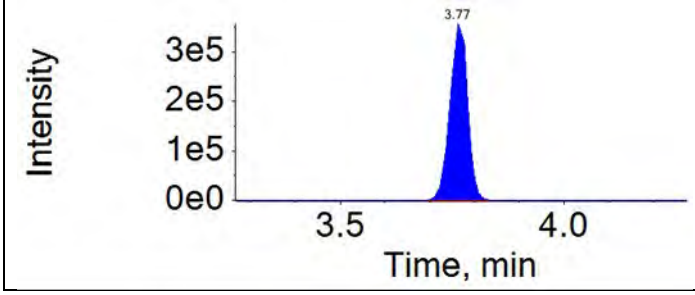
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

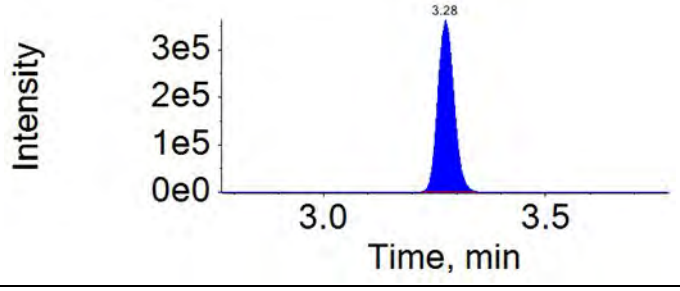
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



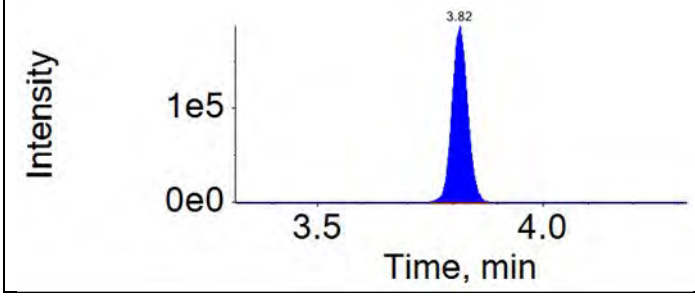


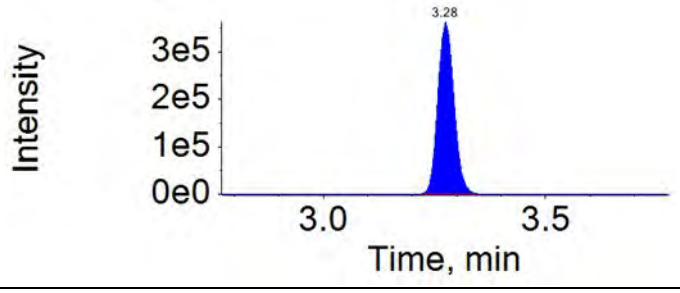
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



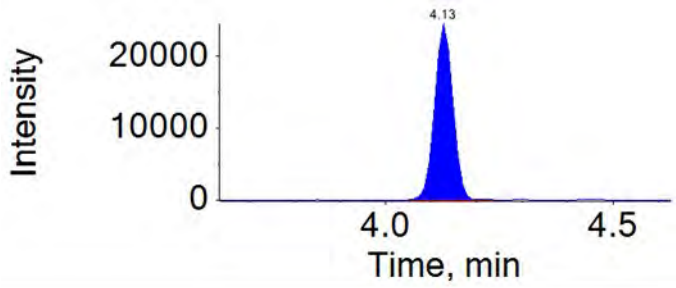


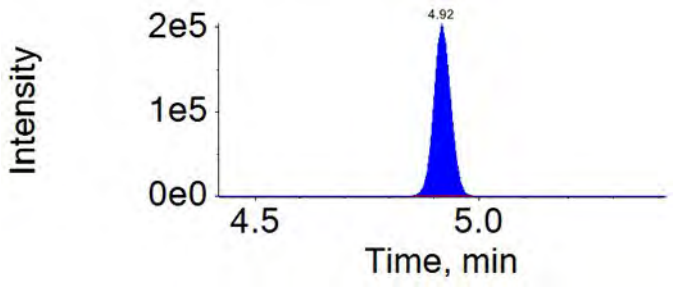
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



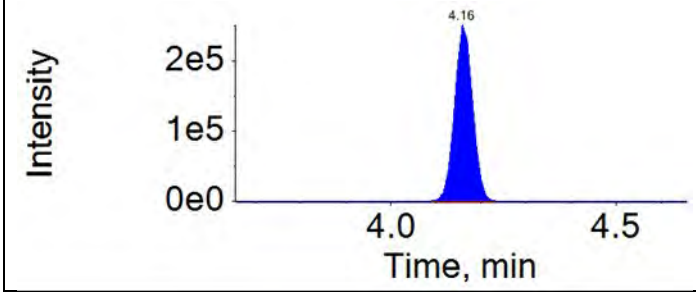


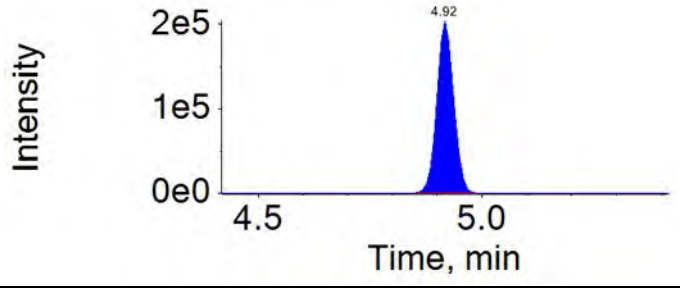
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

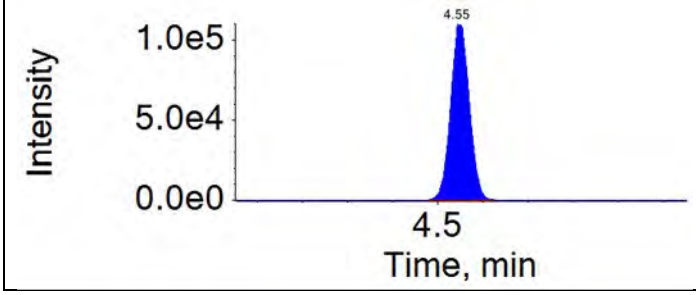
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

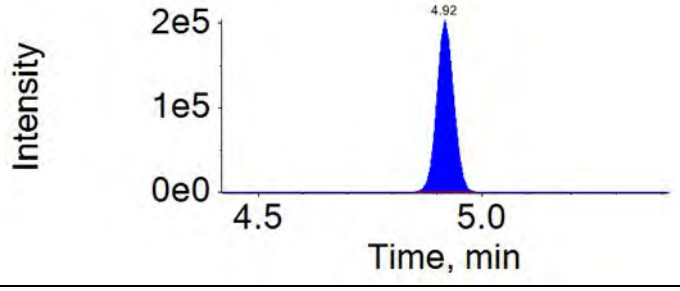
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



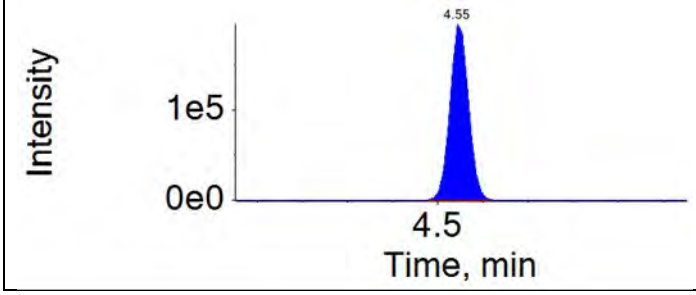


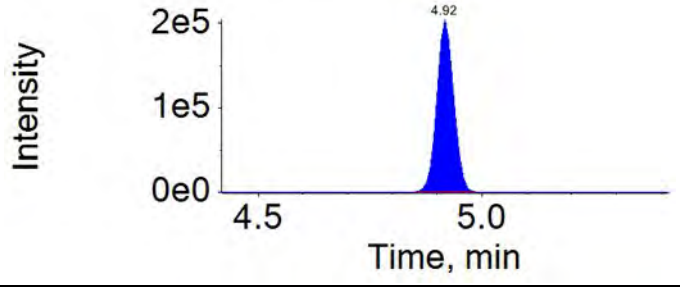
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



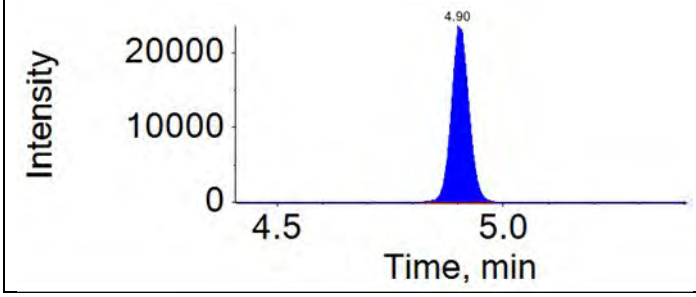


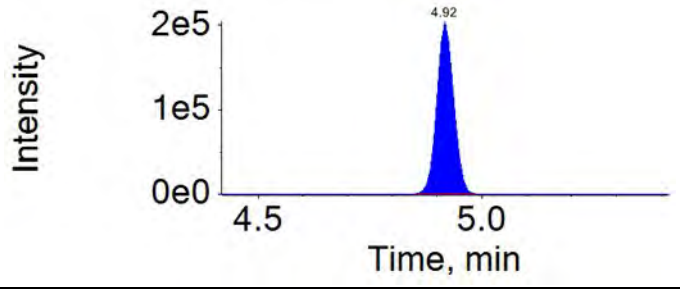
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



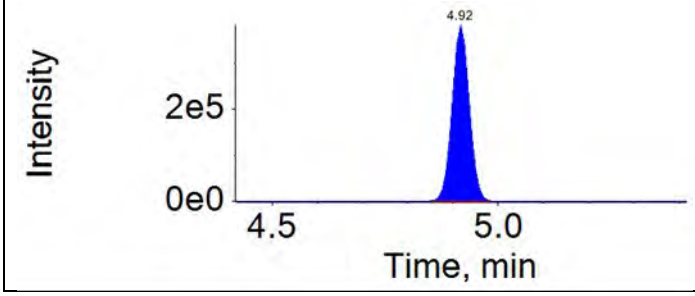


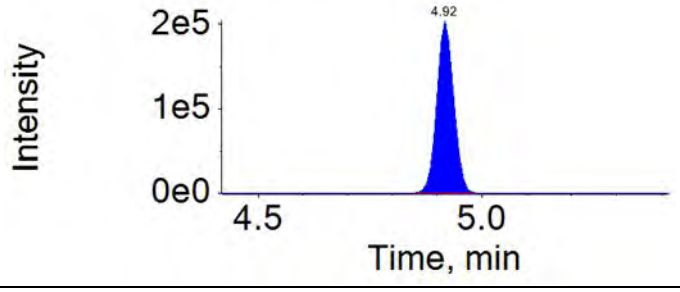
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

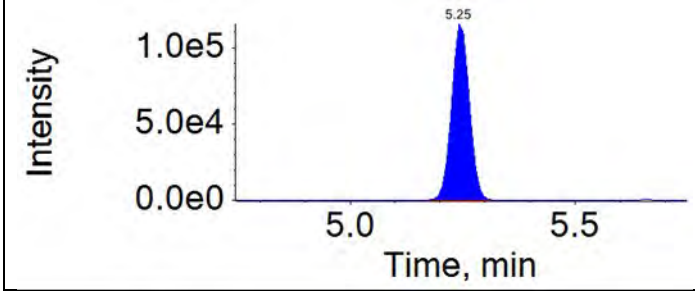
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

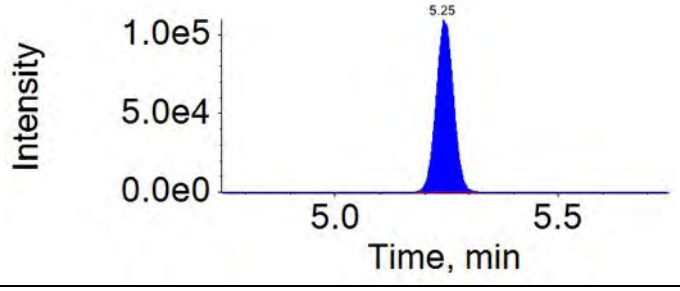
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



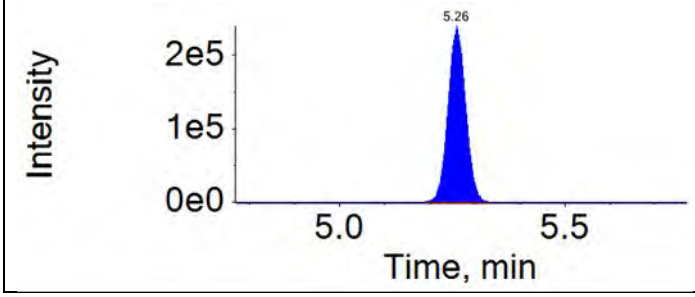


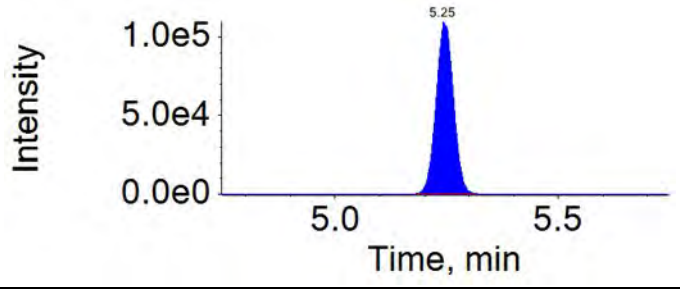
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



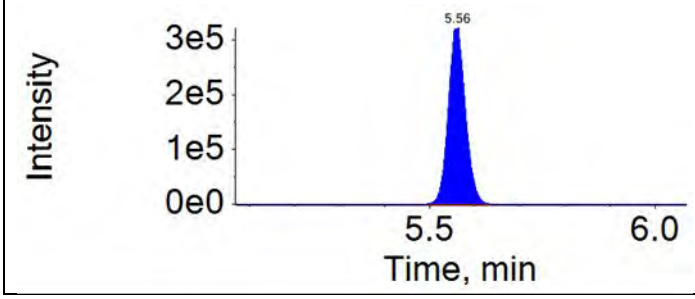


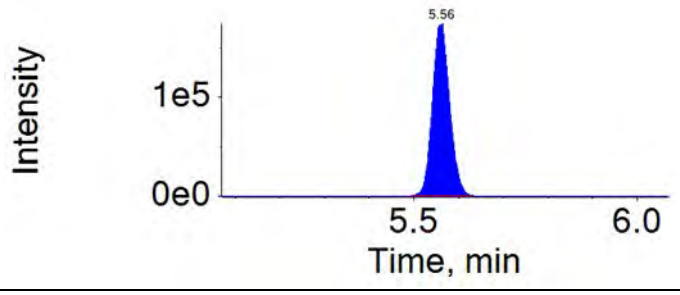
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

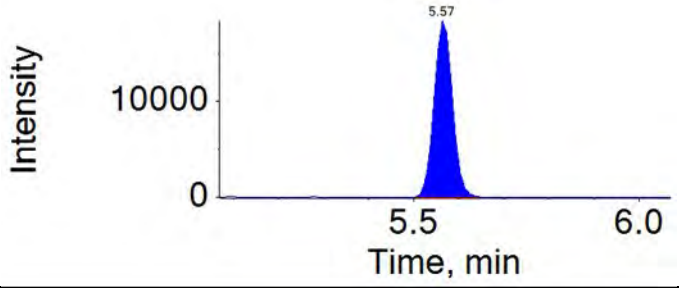
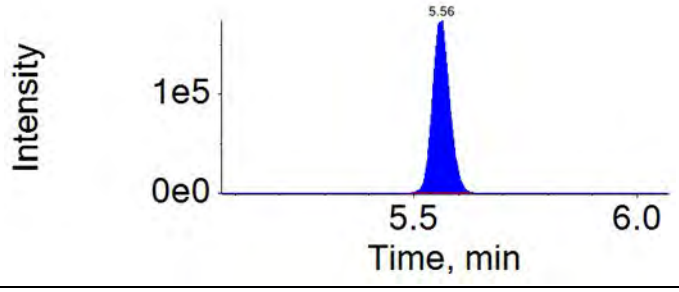


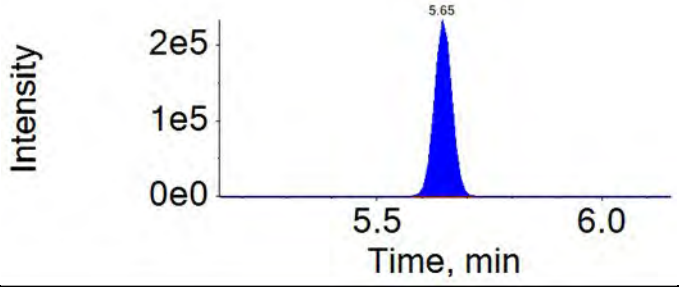
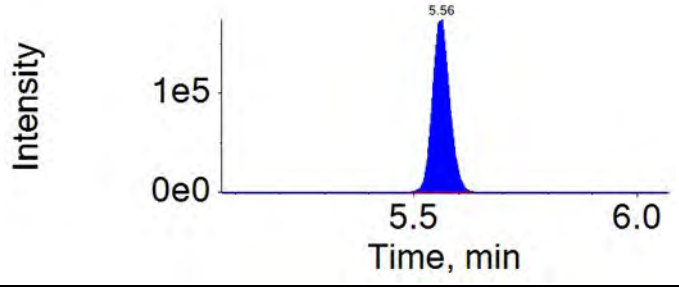


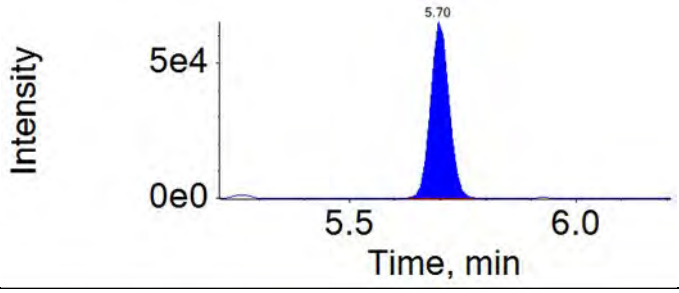
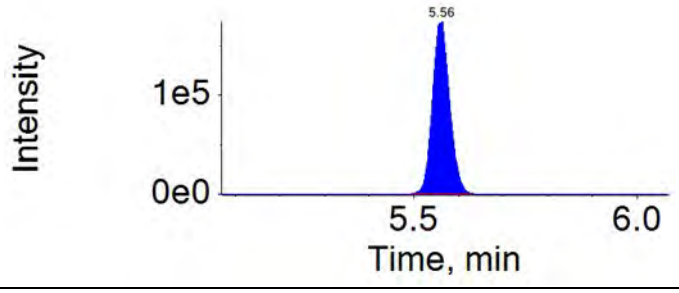
APPROVED
By MCD at 5:01 pm, 11/28/18

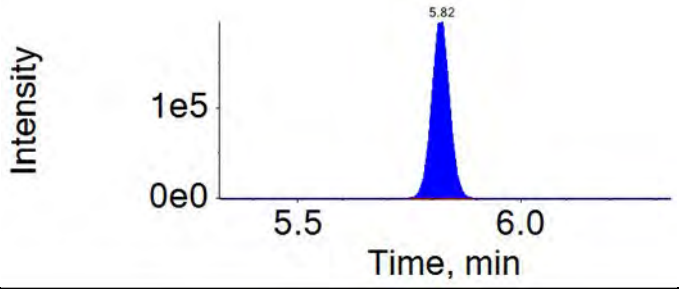
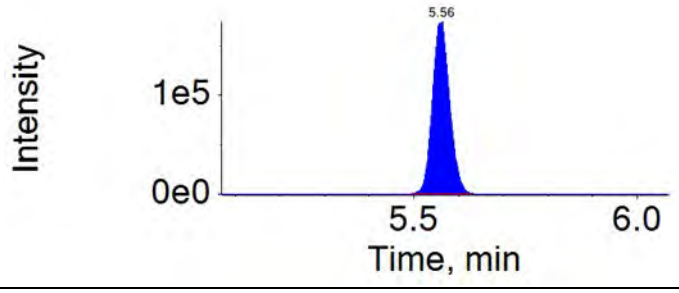
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

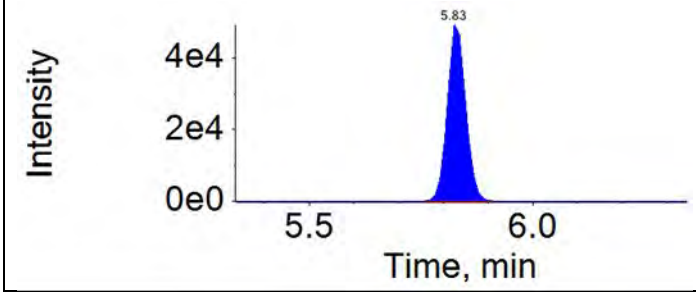
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

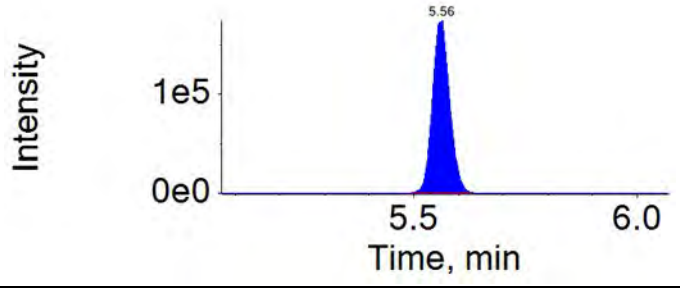
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

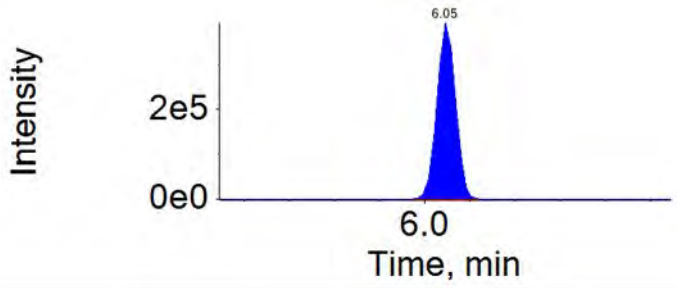
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

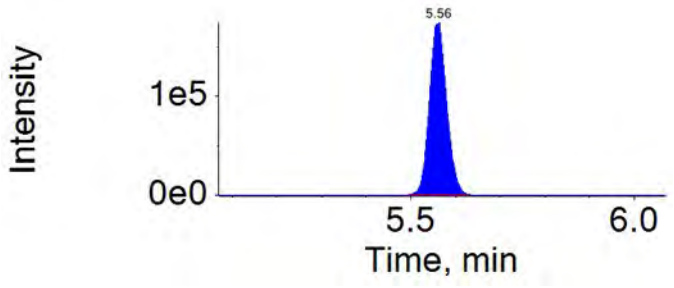
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



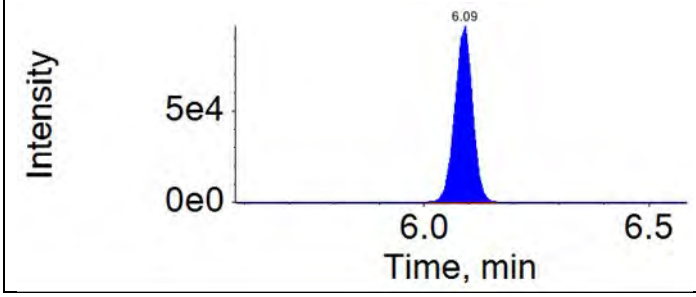


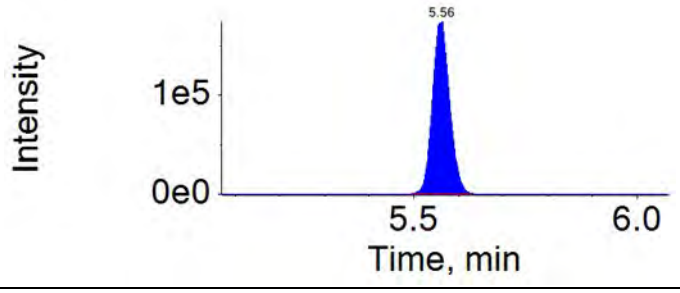
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



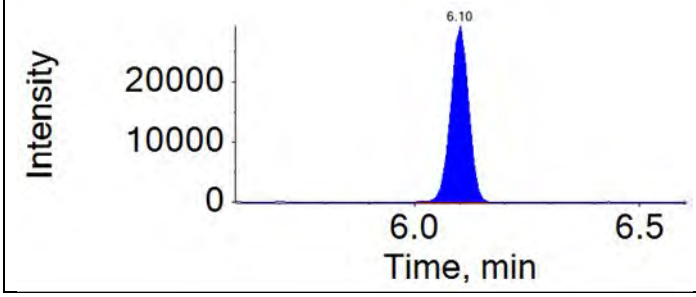


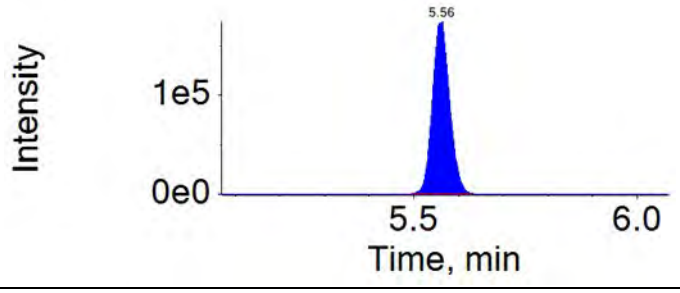
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



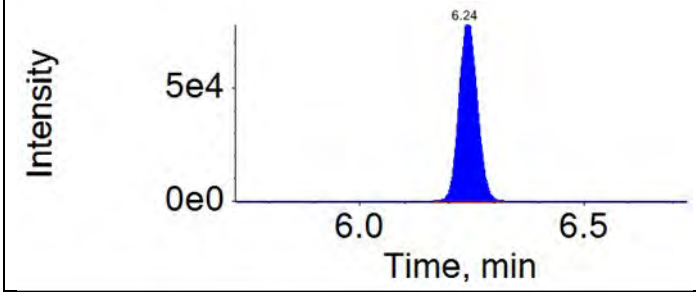


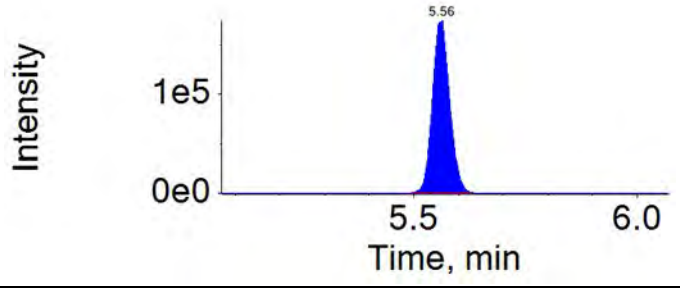
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

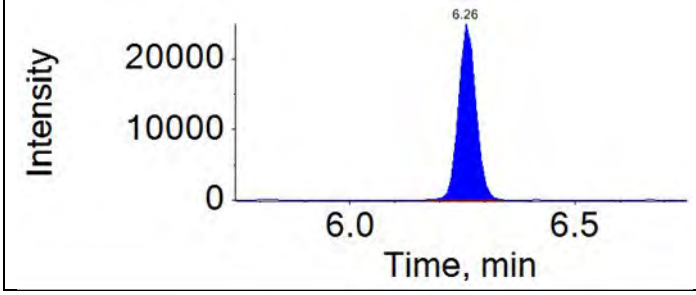
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

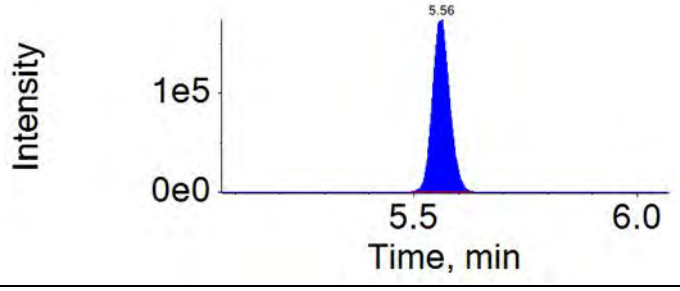
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



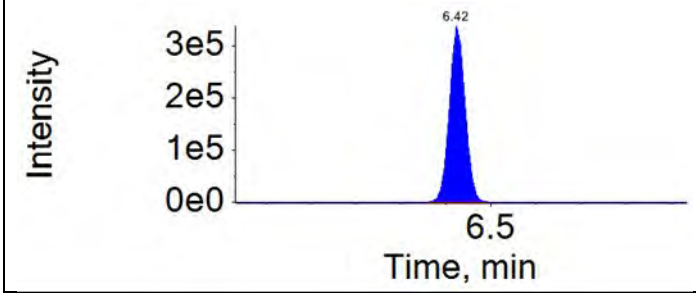


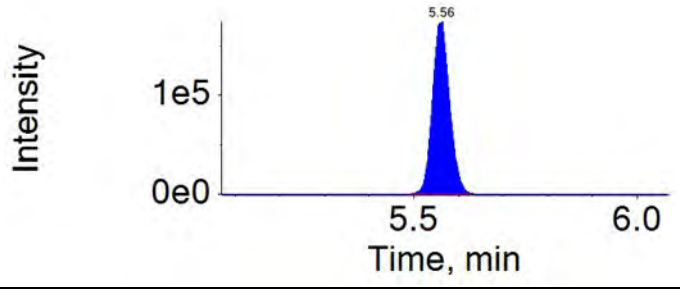
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



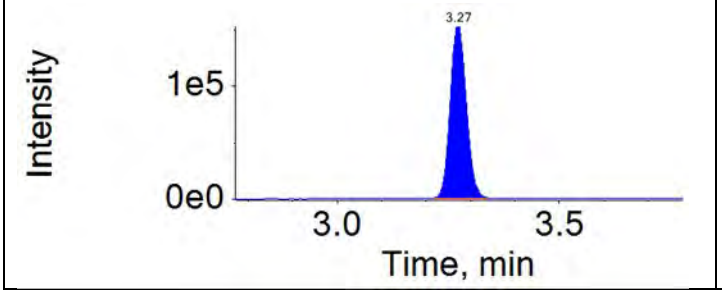


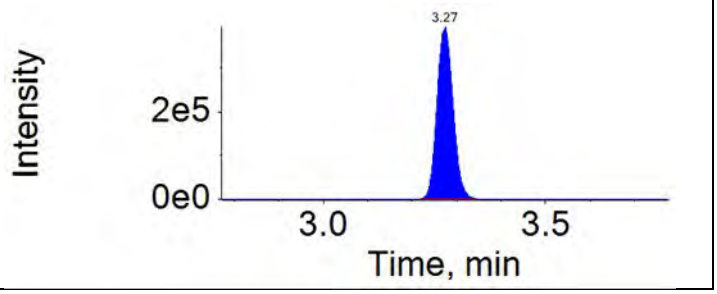
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

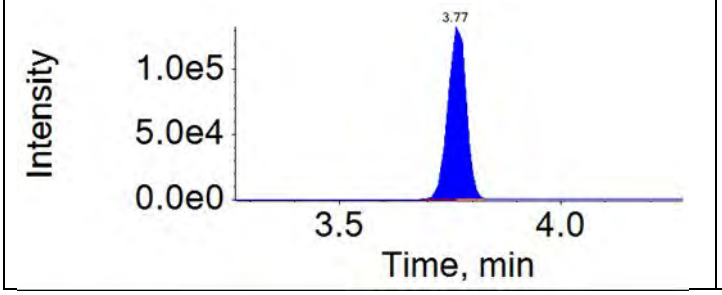
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

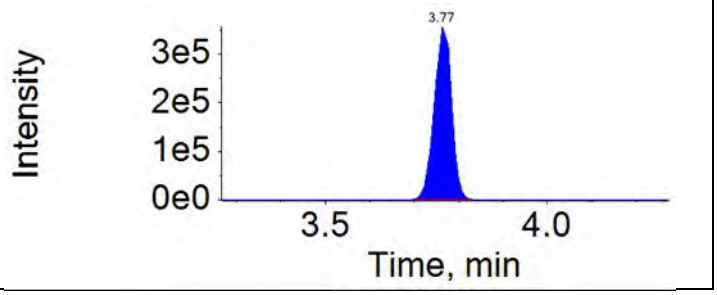
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



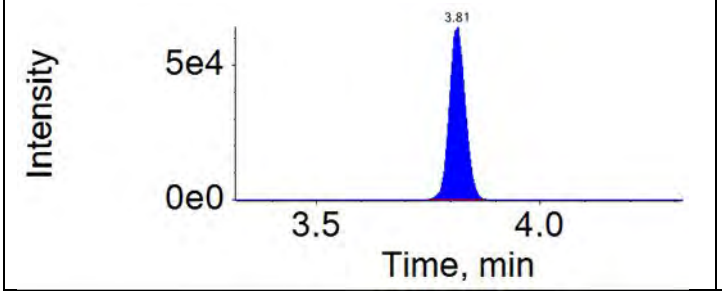


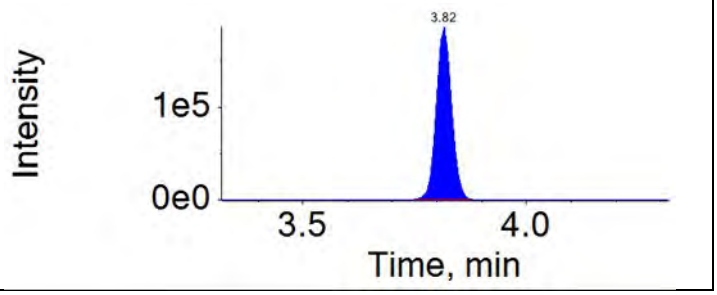
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



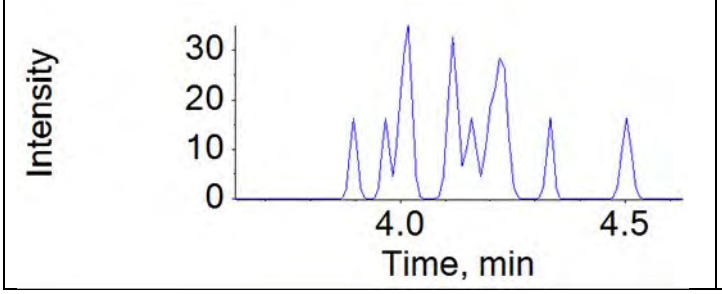


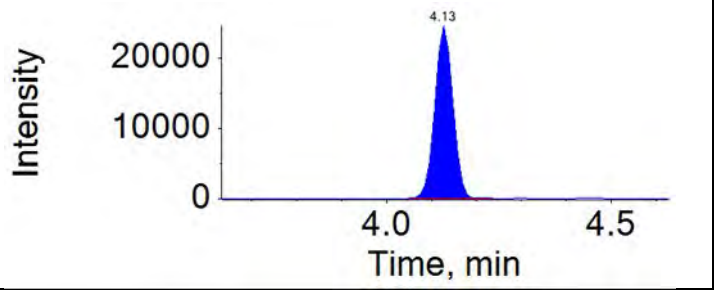
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



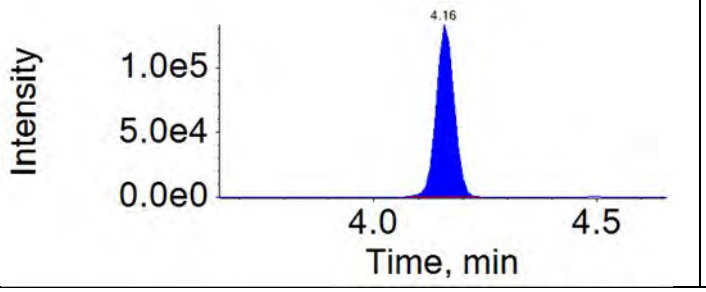


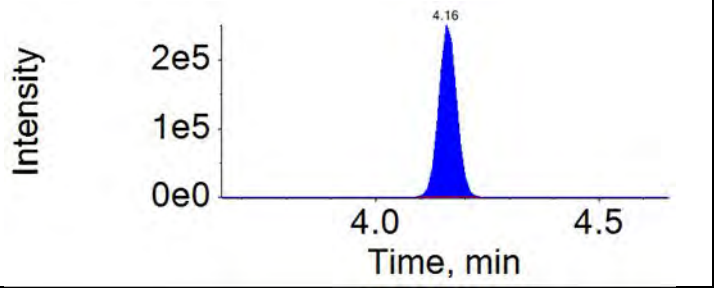
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

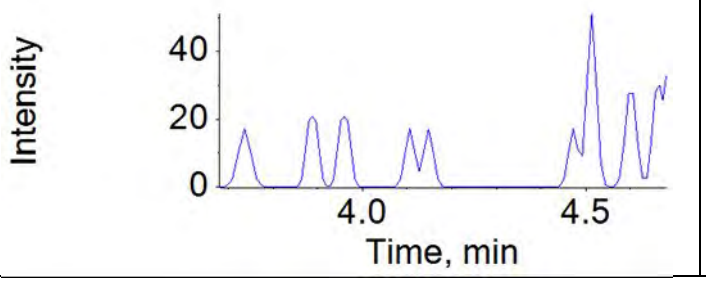
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

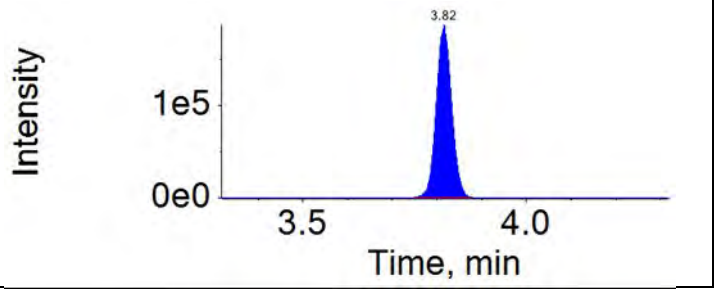
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



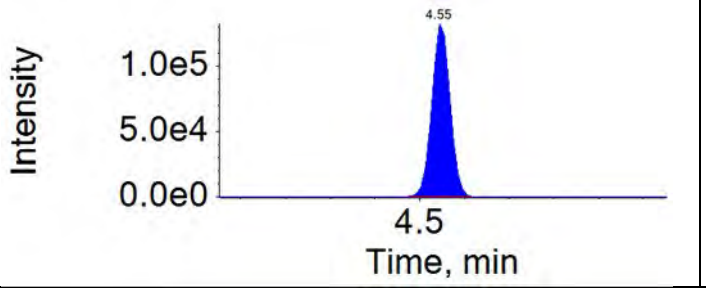


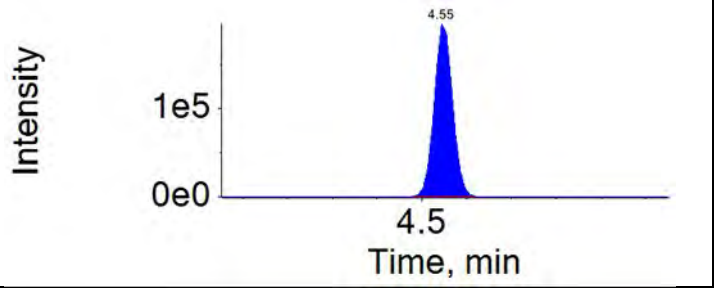
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



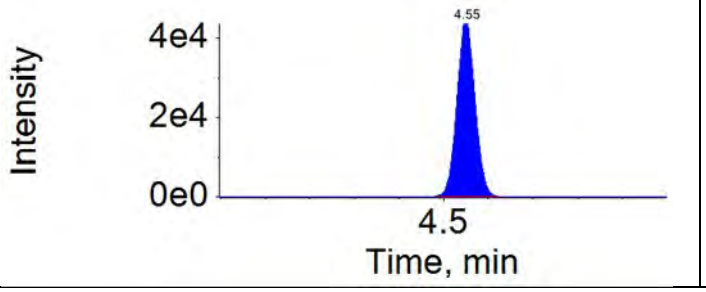


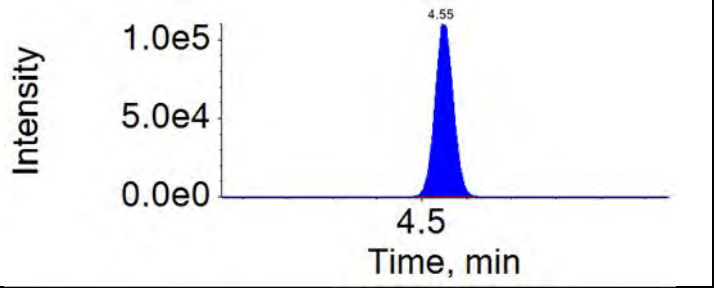
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



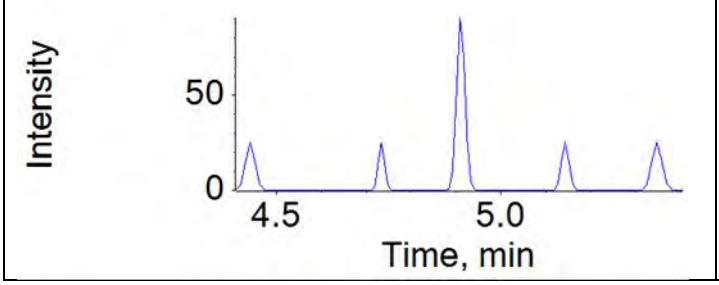


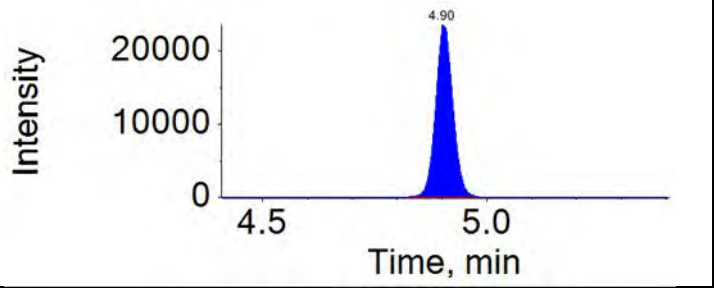
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

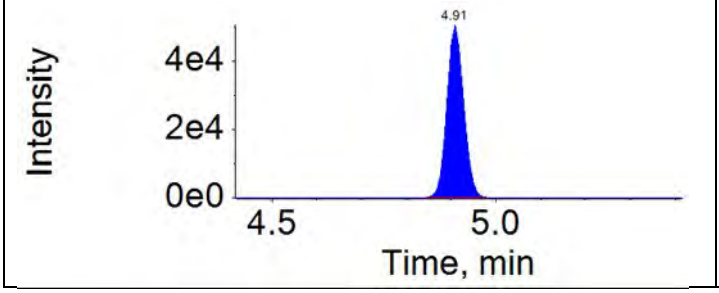
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

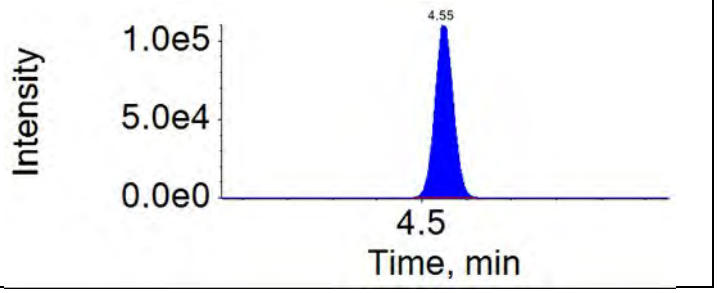
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



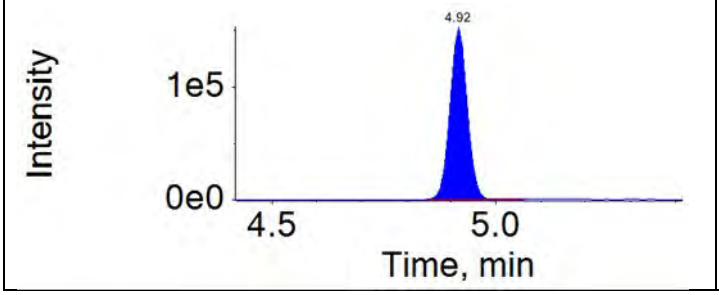


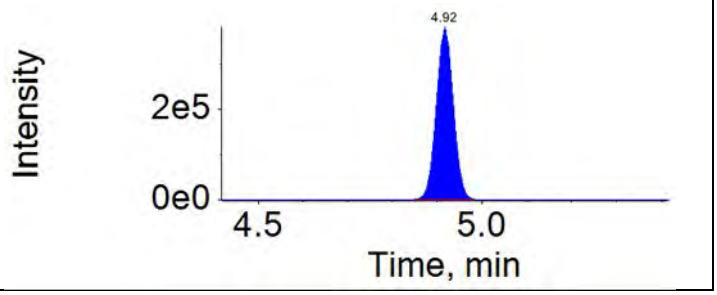
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



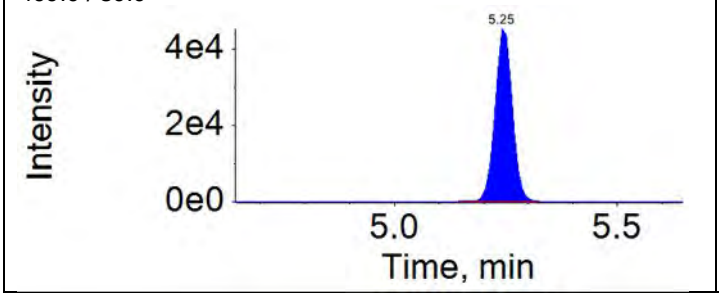


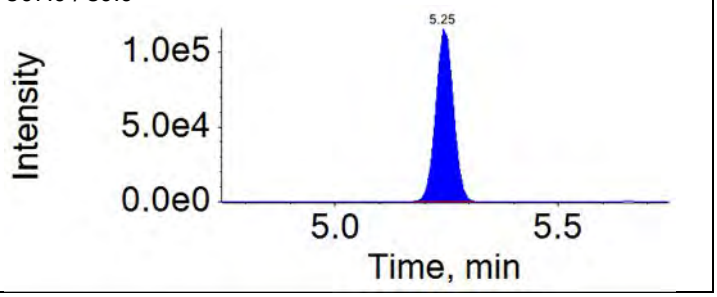
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



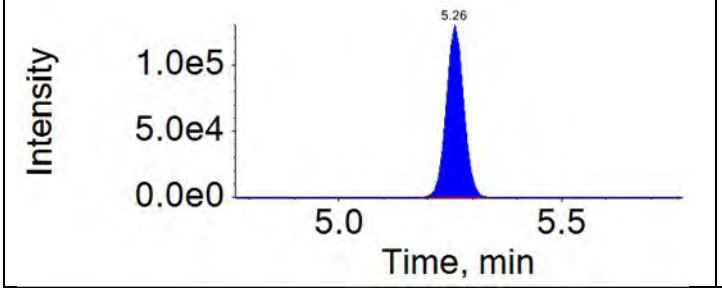


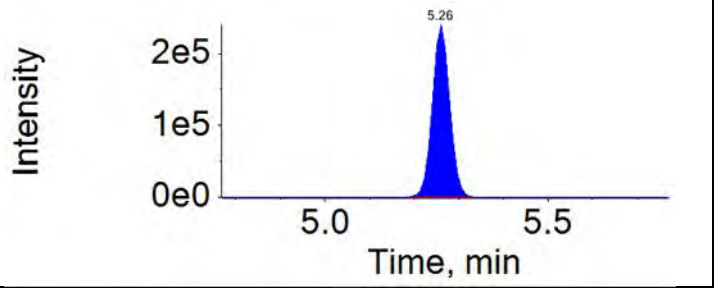
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

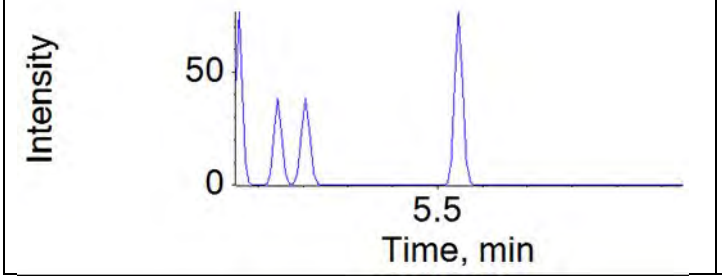
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

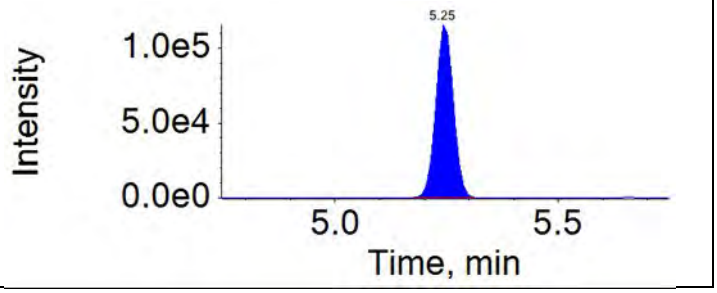
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



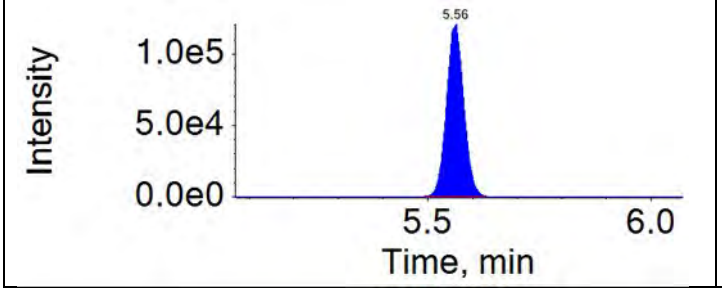


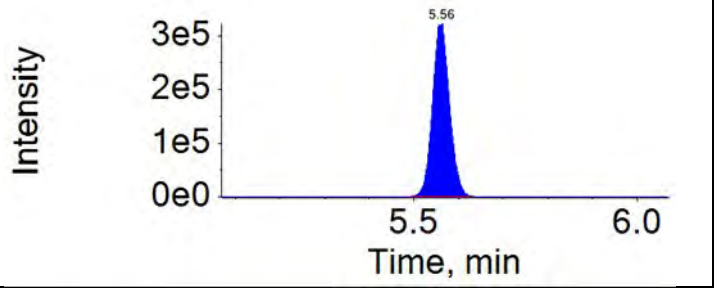
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



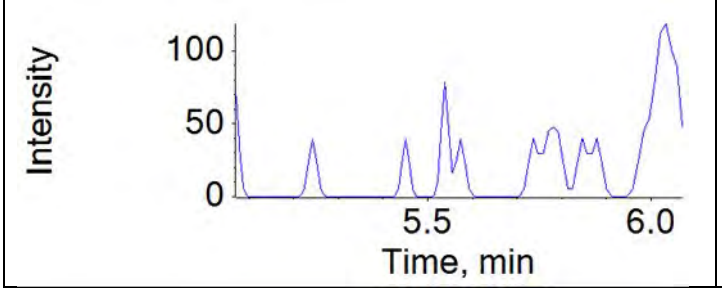


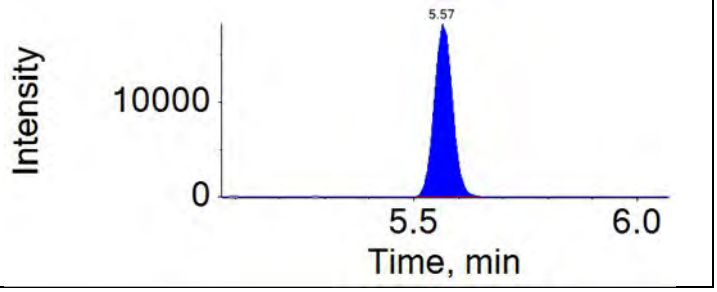
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



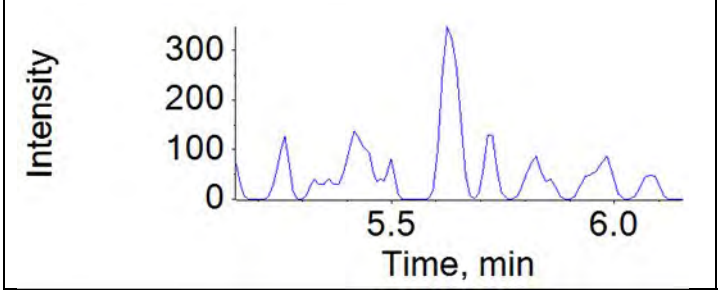


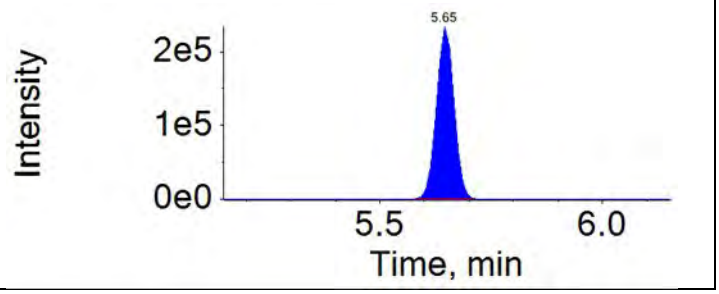
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

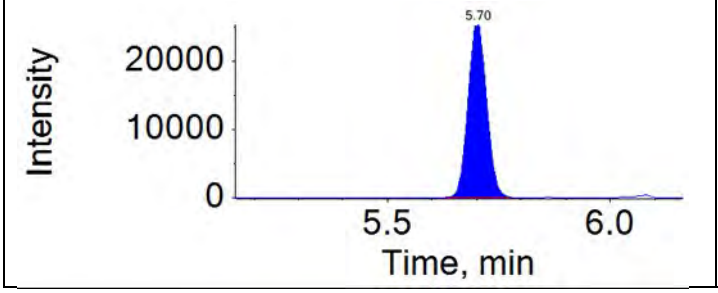
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

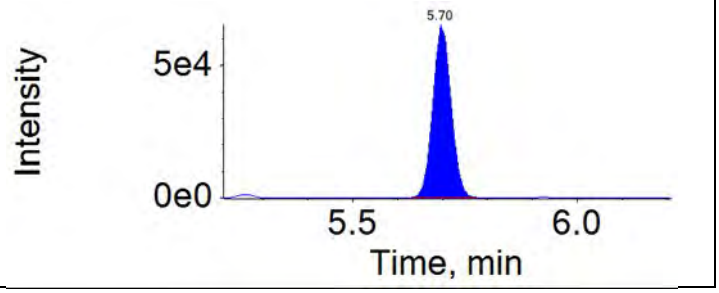
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



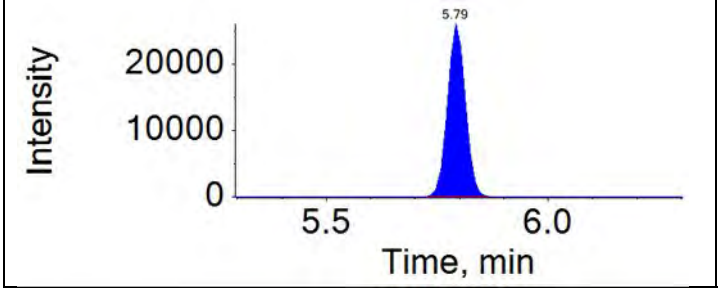


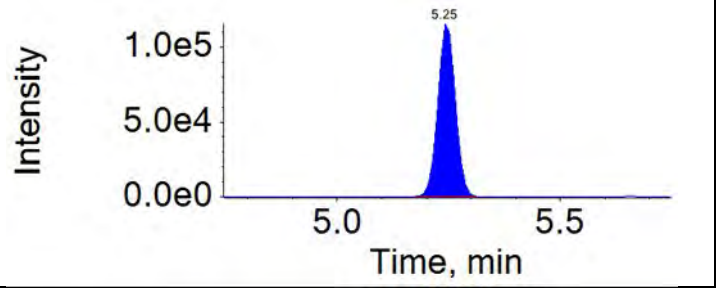
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



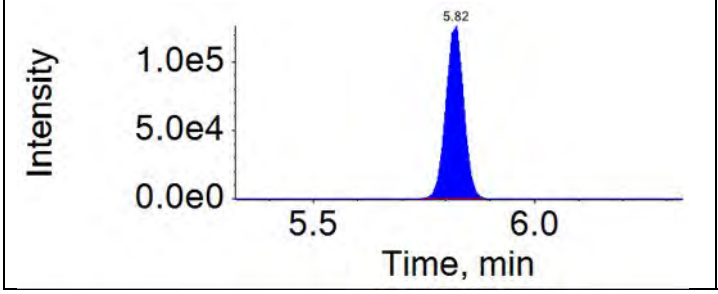


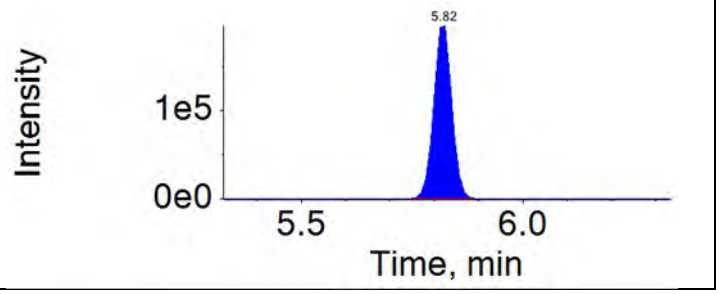
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



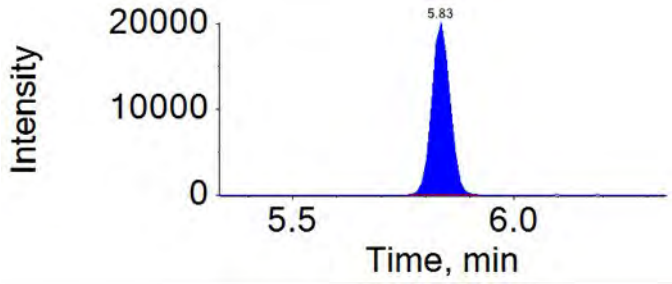


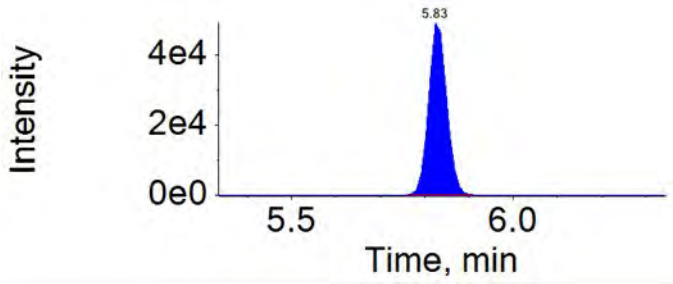
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

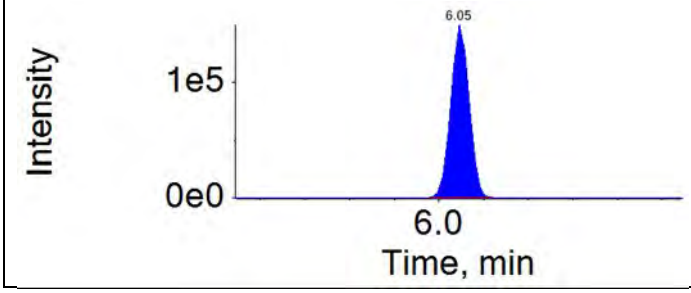
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

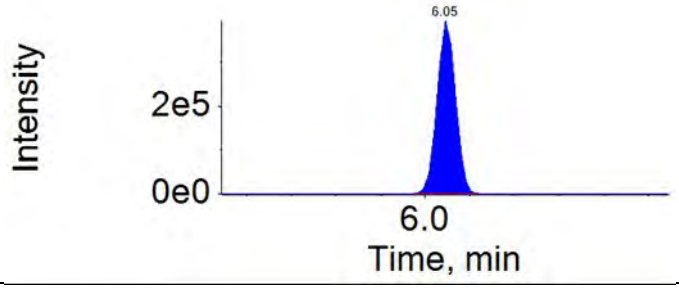
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



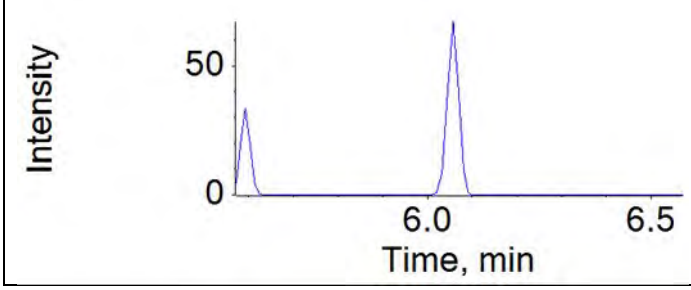


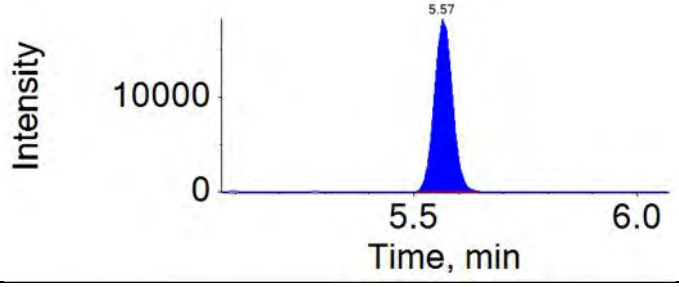
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



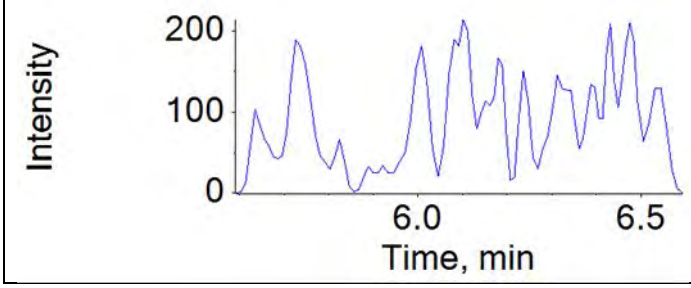


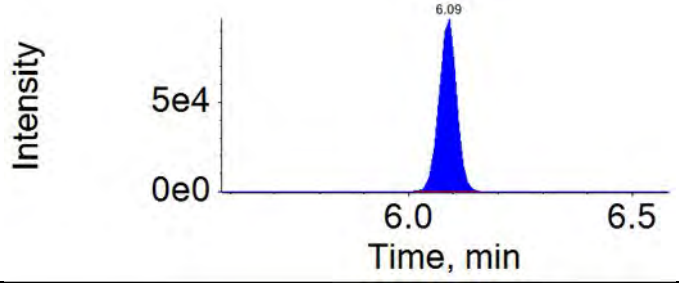
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



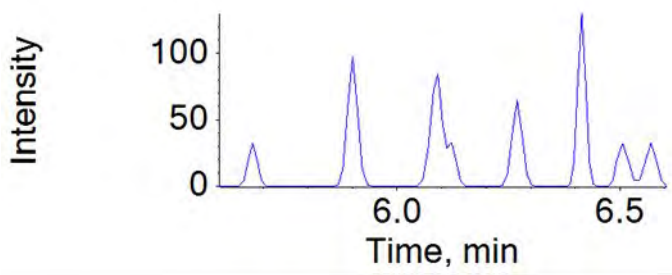


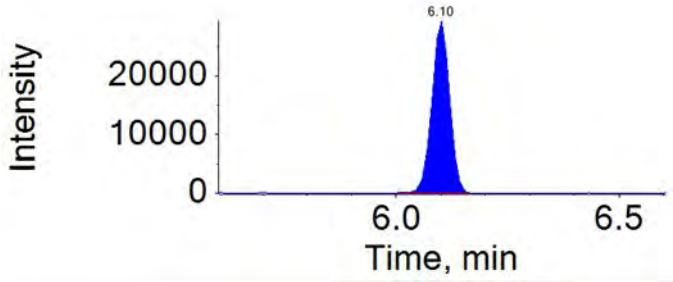
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

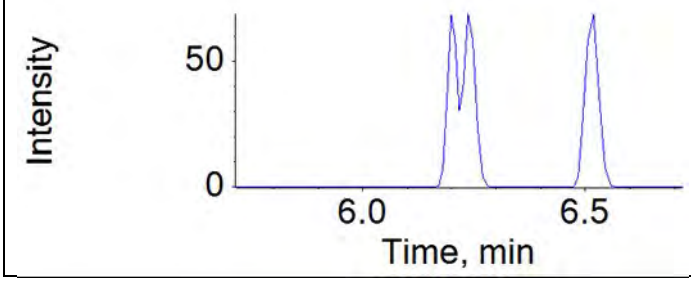
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

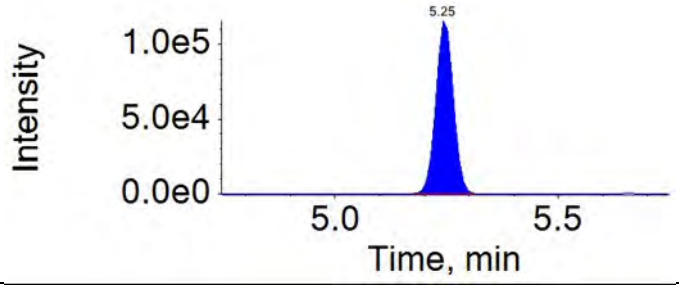
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



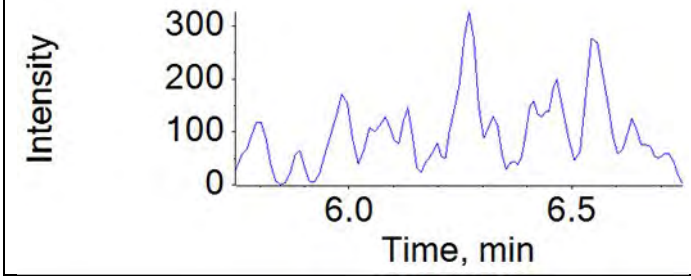


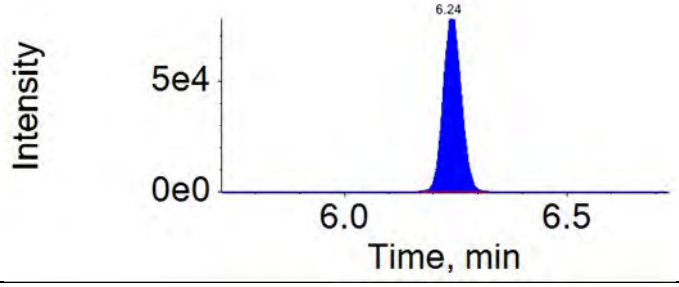
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



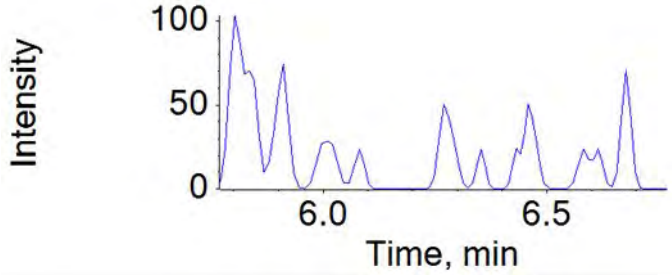


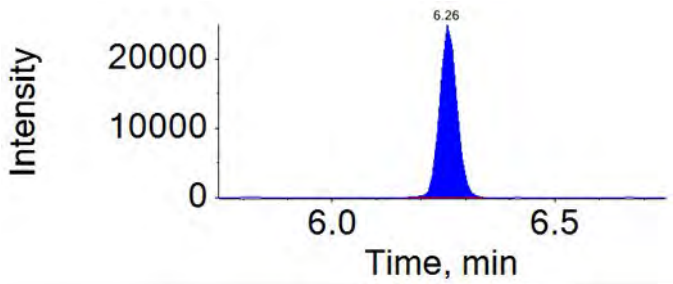
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

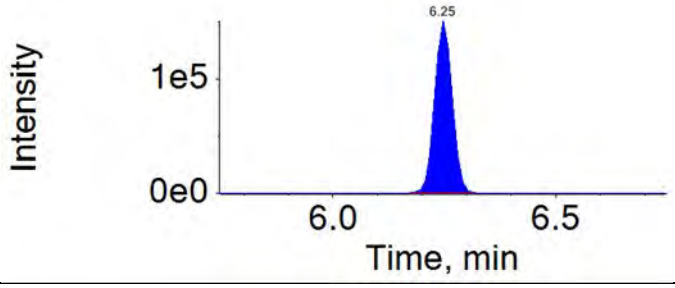
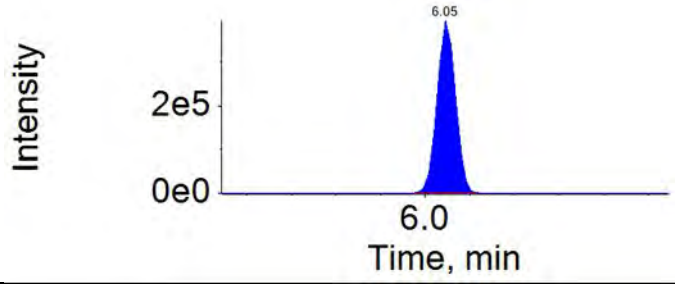


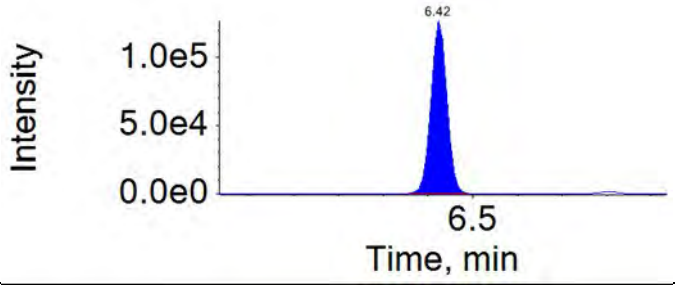
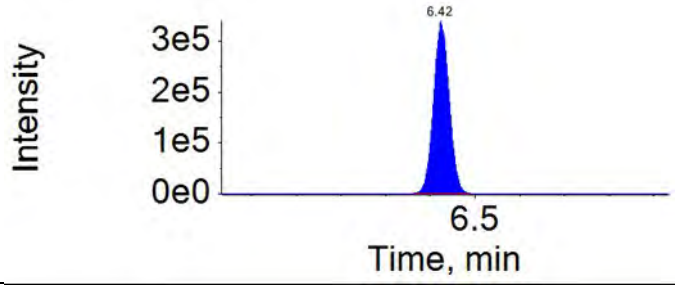


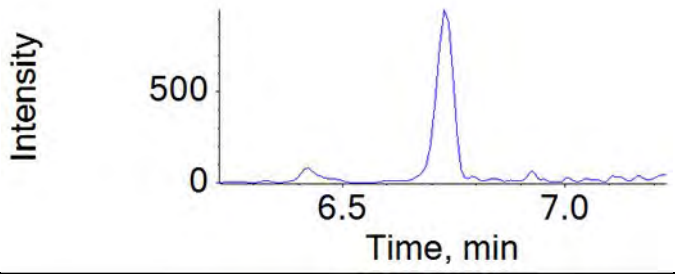
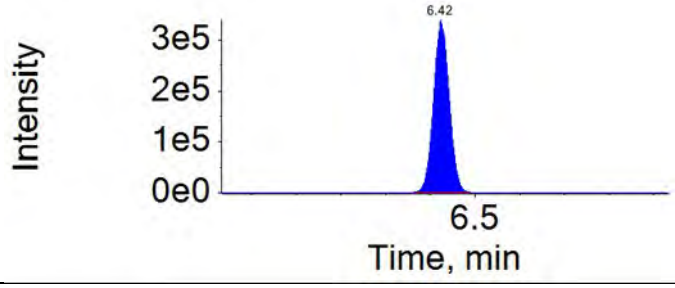
APPROVED
By MCD at 5:01 pm, 11/28/18

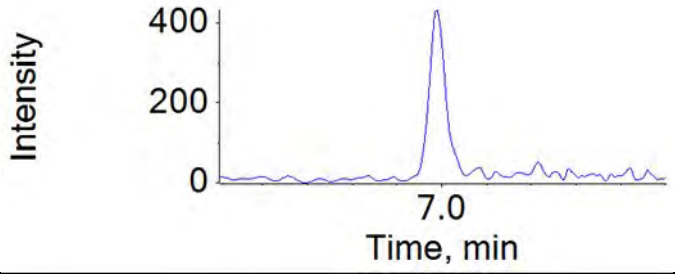
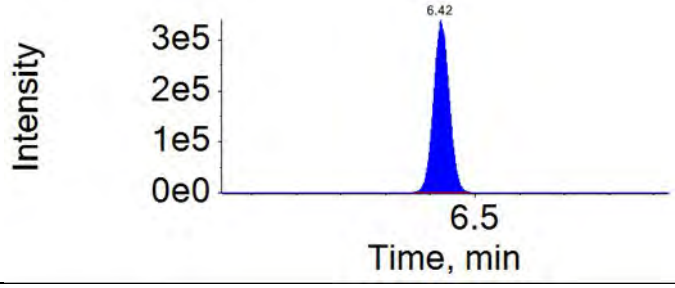
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

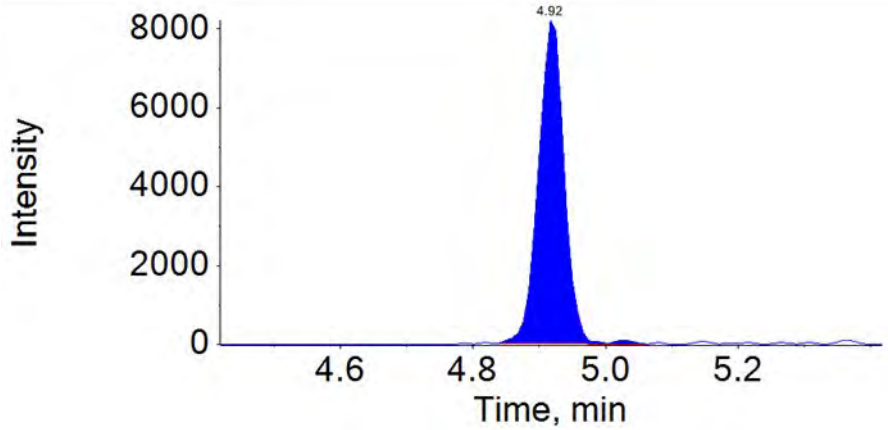
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

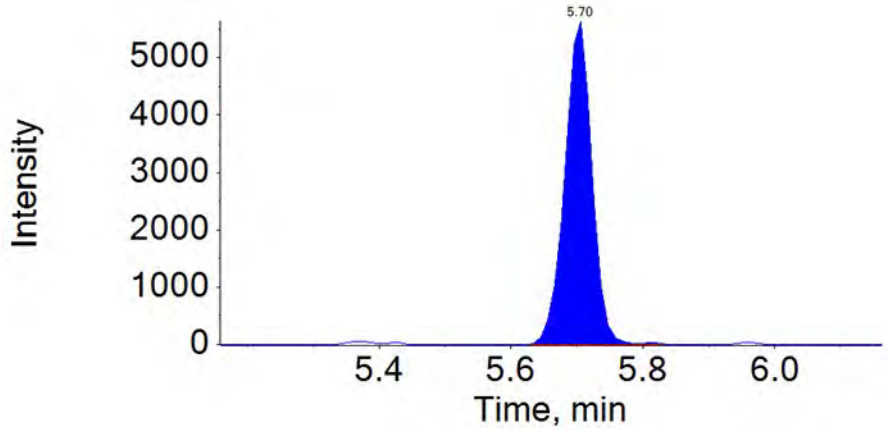
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
22382.92
Mass Range:
413.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



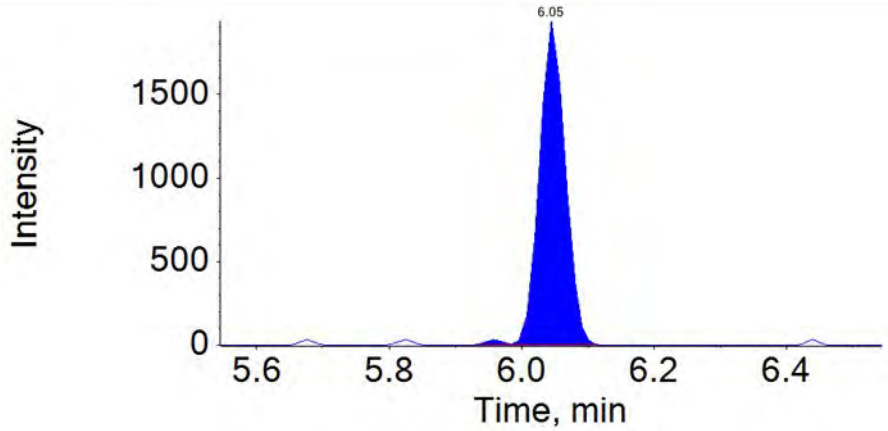
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
16150.62
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
5326.50
Mass Range:
613.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

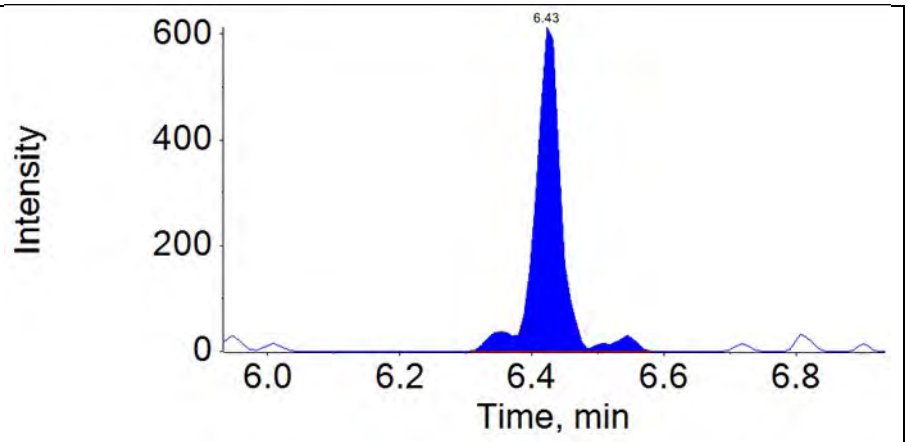
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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



Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

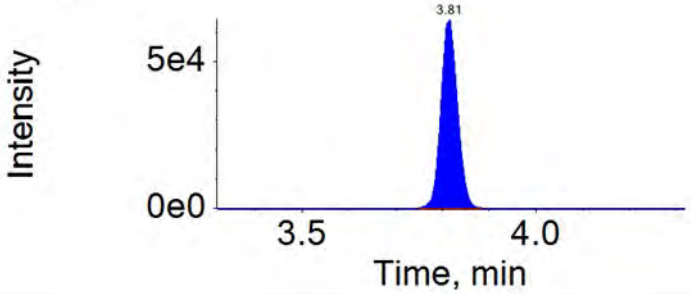
Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-14.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	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	
PFTrDA	6.25	1.03	416758.36	A	0.0090	0.0086			
PFTrDA_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	

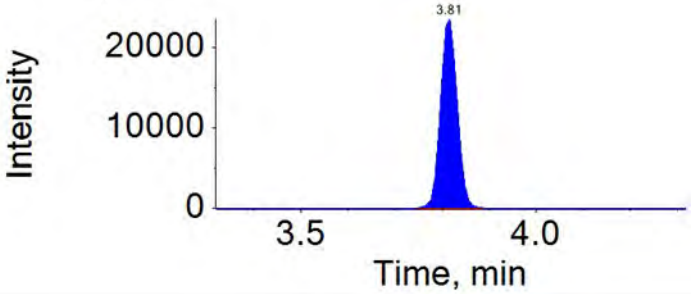
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

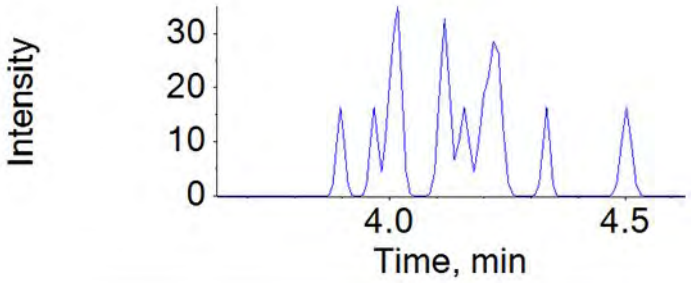
Component: PFBS
Primary Mass: 299.0 / 80.0



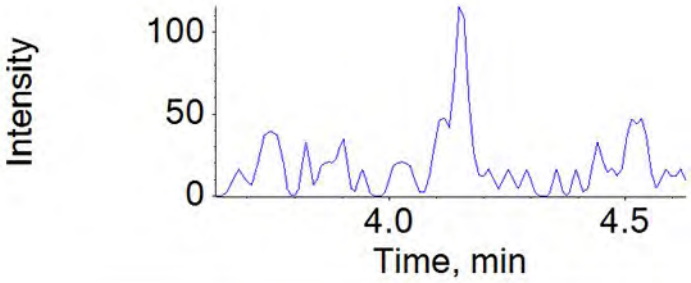
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



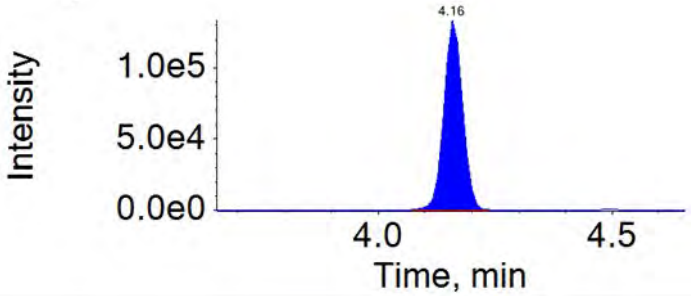
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



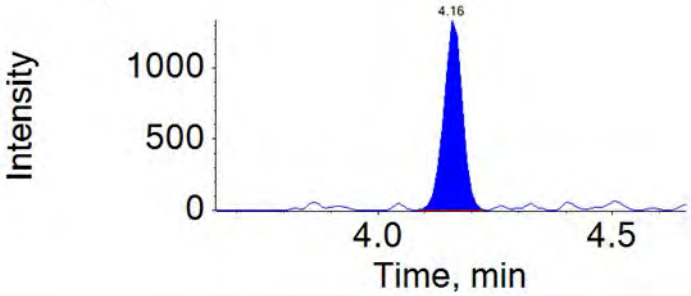
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



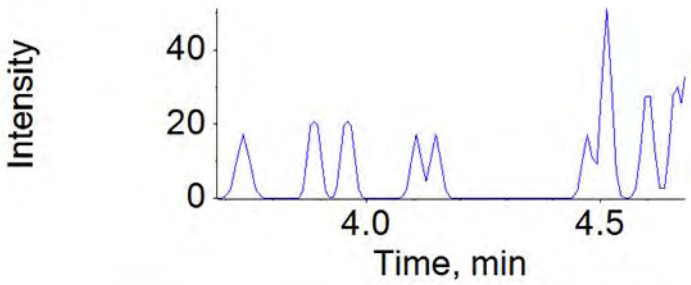
Component: PFHxA
Primary Mass: 313.0 / 269.0



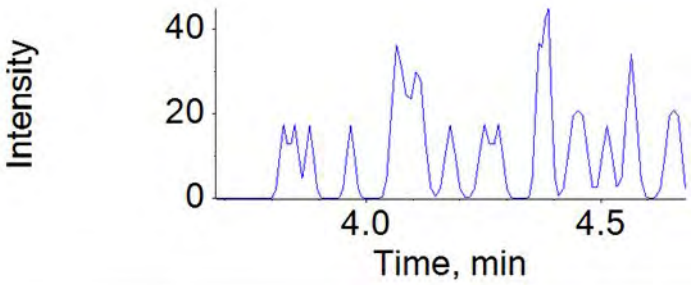
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



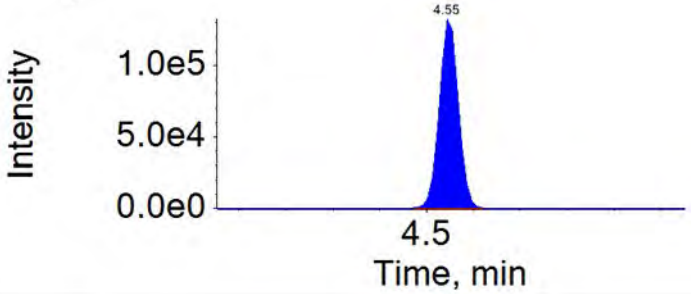
Component: PFPeS
Primary Mass: 349.0 / 80.0



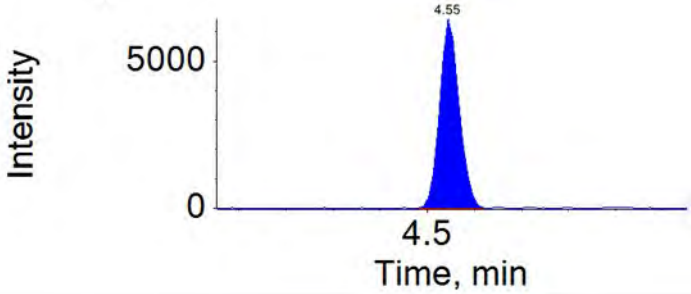
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



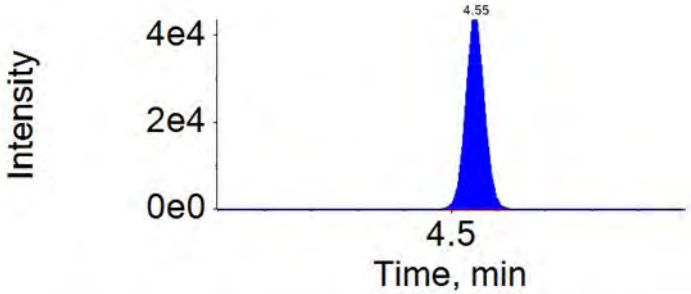
Component: PFHpA
Primary Mass: 363.0 / 319.0



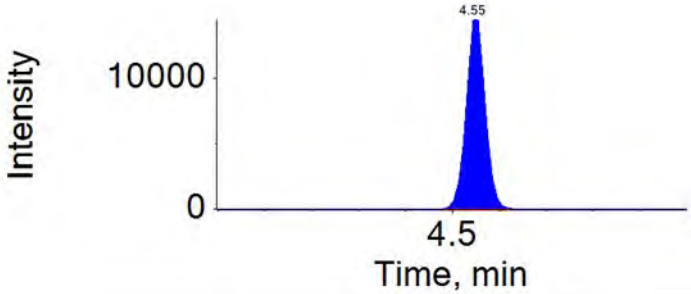
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



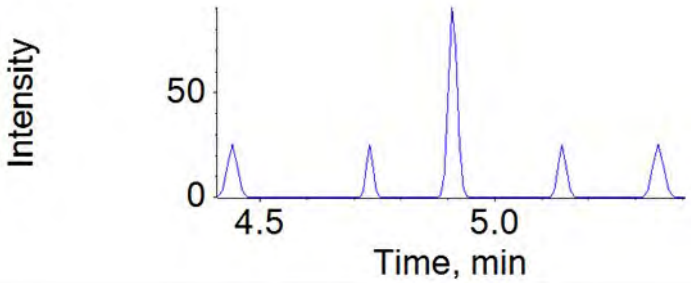
Component: PFHxS
Primary Mass: 399.0 / 80.0



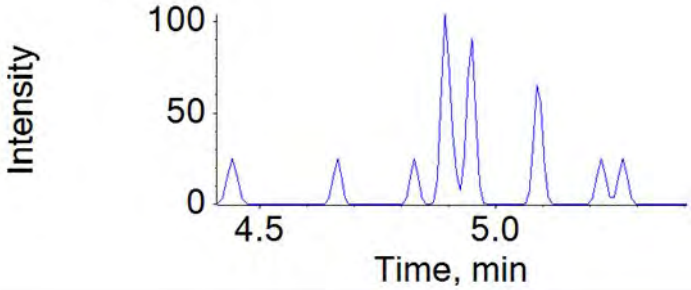
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



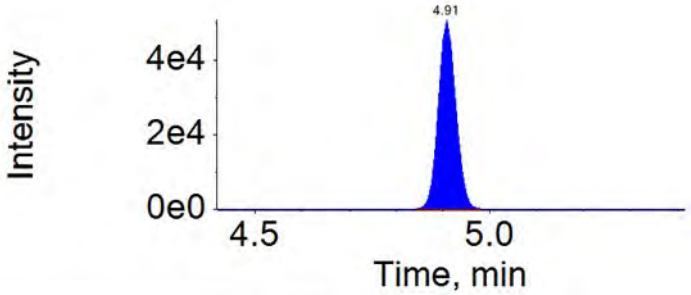
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



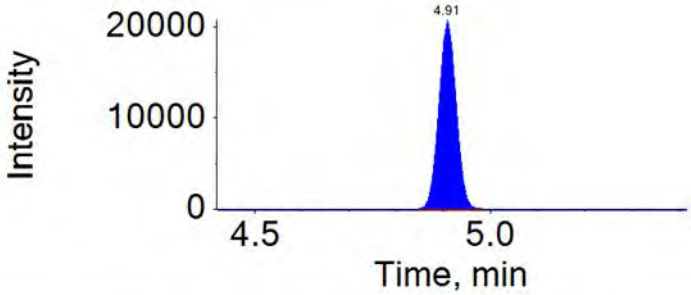
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



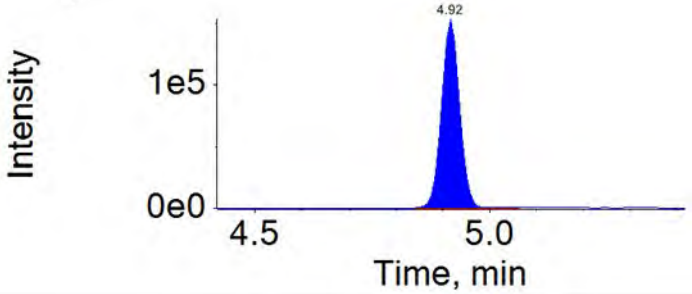
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



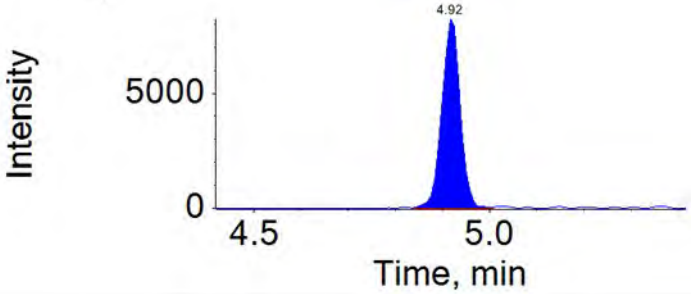
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

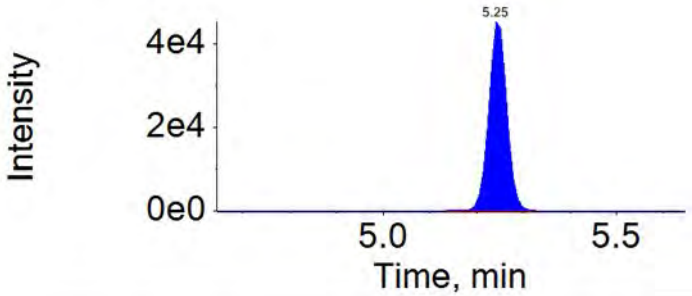
Component: PFOA
Primary Mass: 413.0 / 369.0



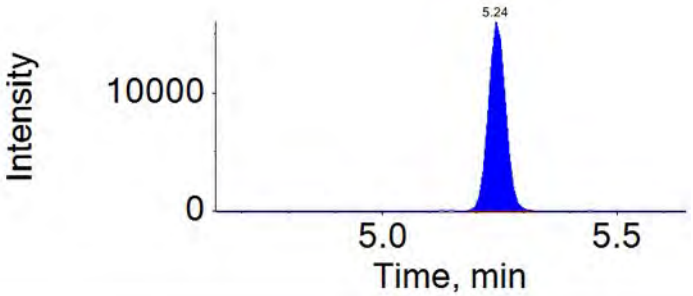
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



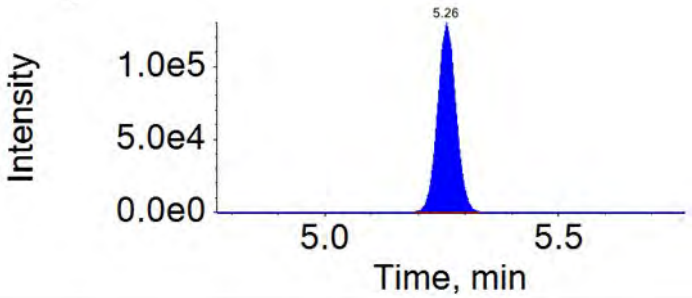
Component: PFOS
Primary Mass: 499.0 / 80.0



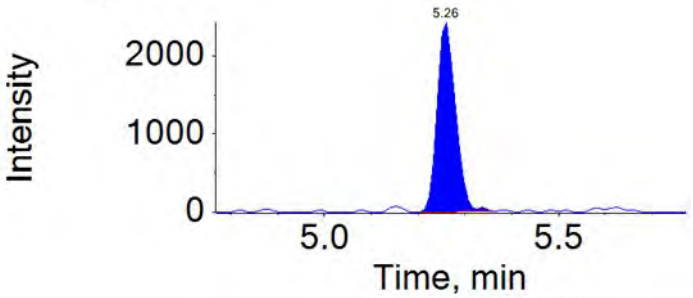
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



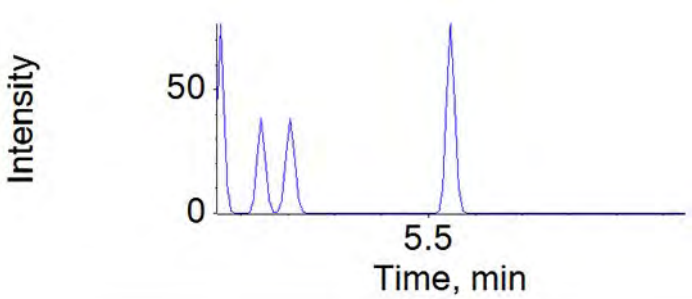
Component: PFNA
Primary Mass: 463.0 / 419.0



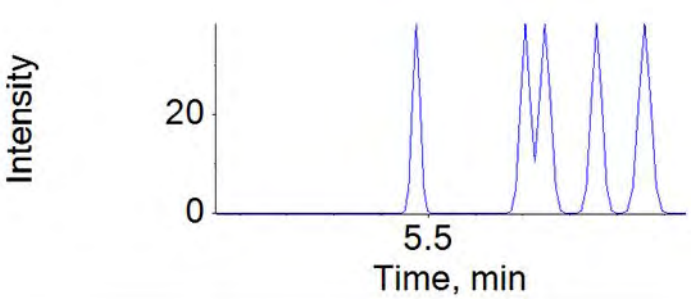
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



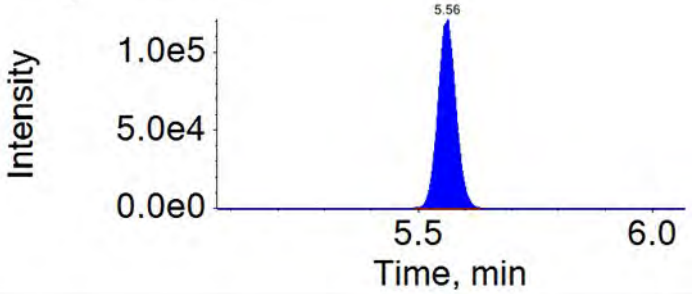
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



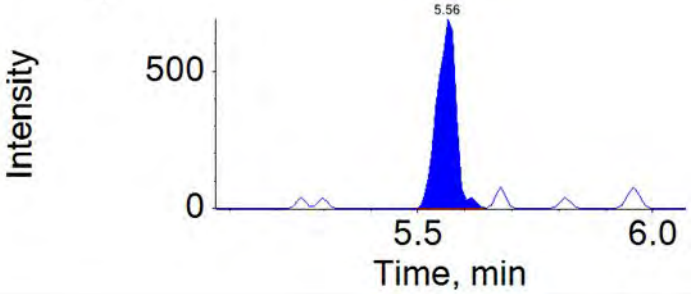
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

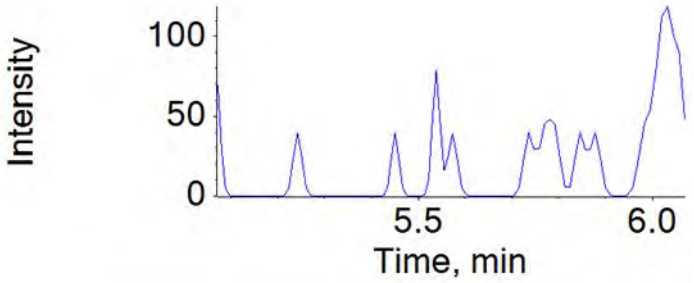
Component: PFDA
Primary Mass: 513.0 / 469.0



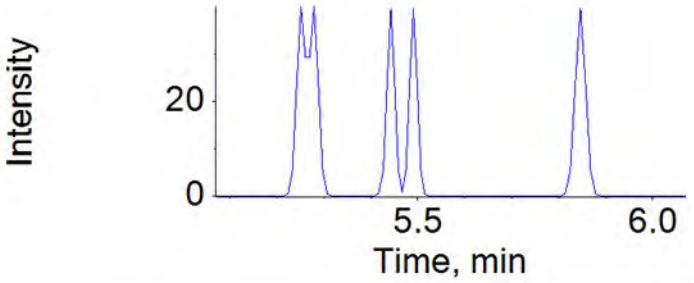
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



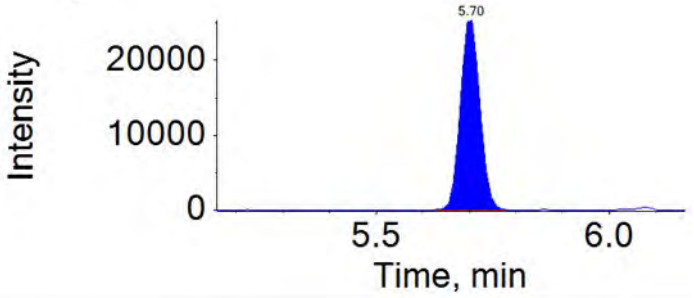
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



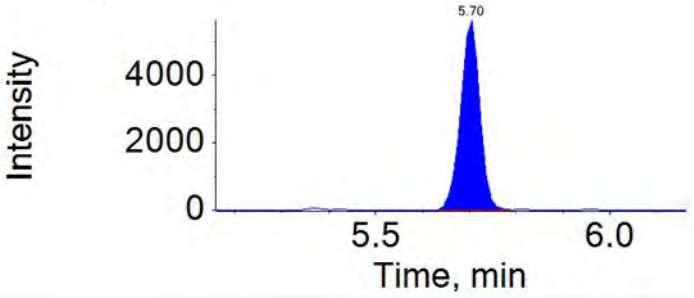
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



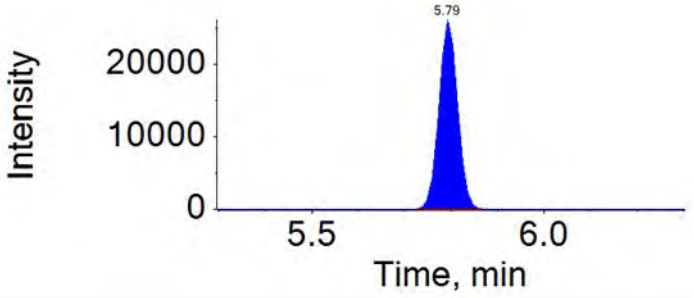
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



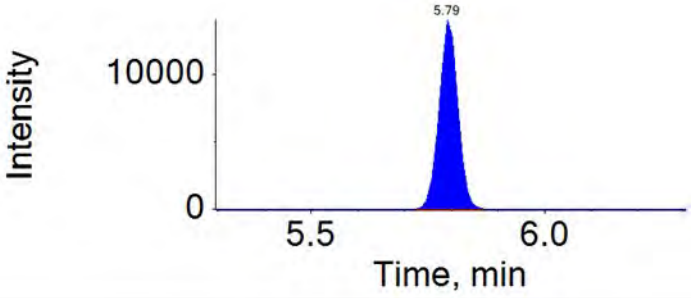
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



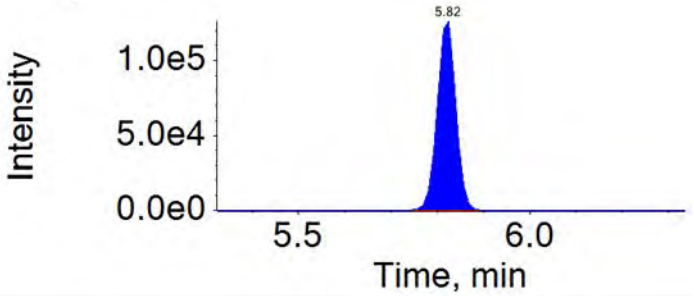
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



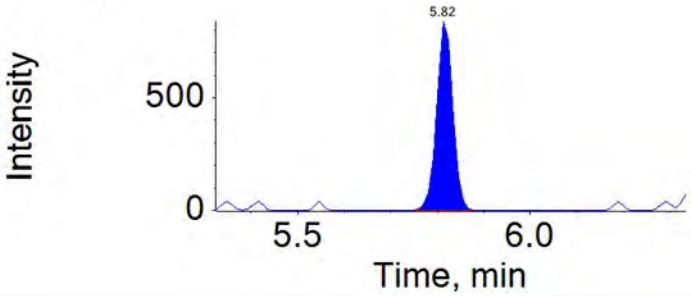
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

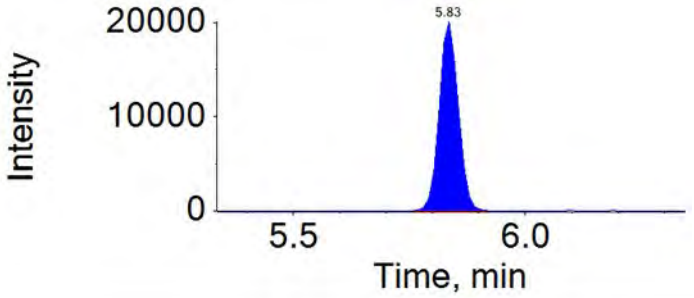
Component: PFUnDA
Primary Mass: 563.0 / 519.0



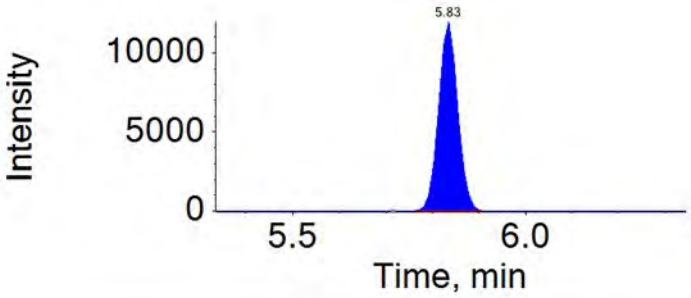
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



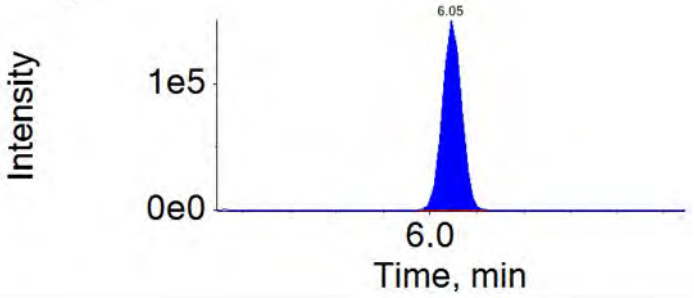
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



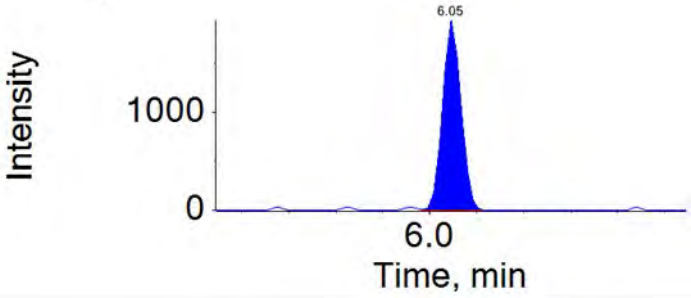
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



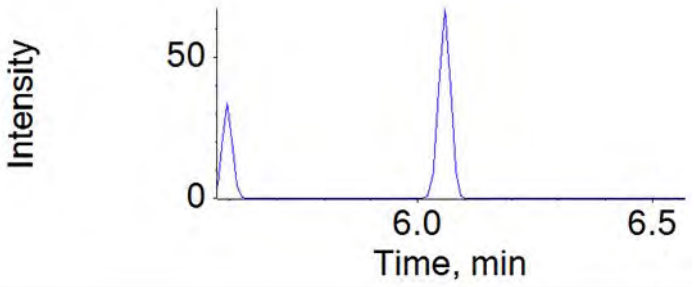
Component: PFDoDA
Primary Mass: 613.0 / 569.0



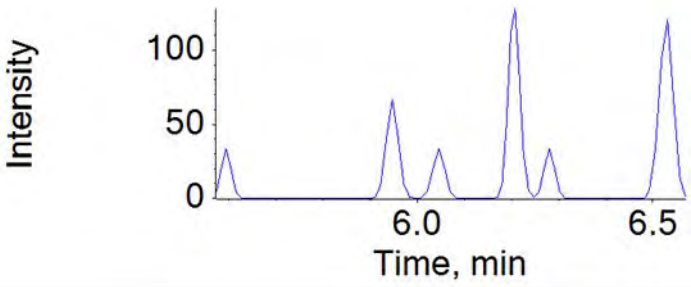
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



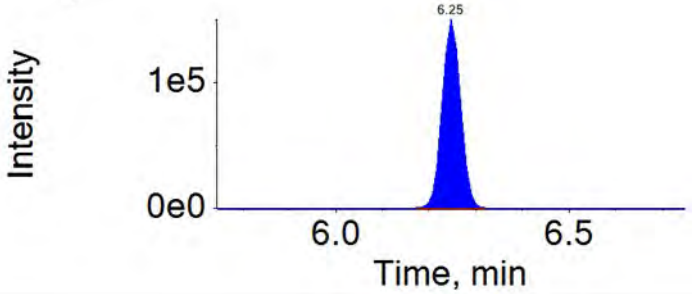
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



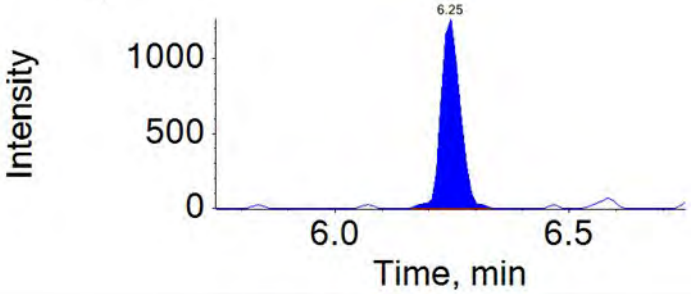
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



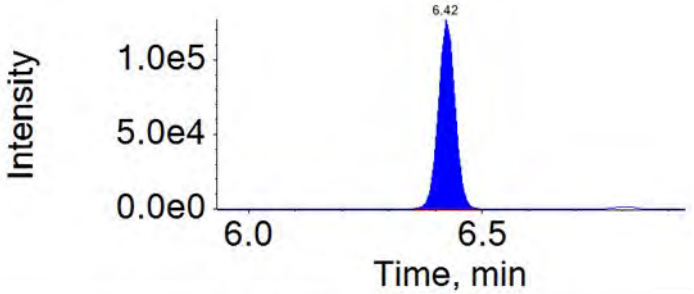
Component: PFTrDA
Primary Mass: 663.0 / 619.0



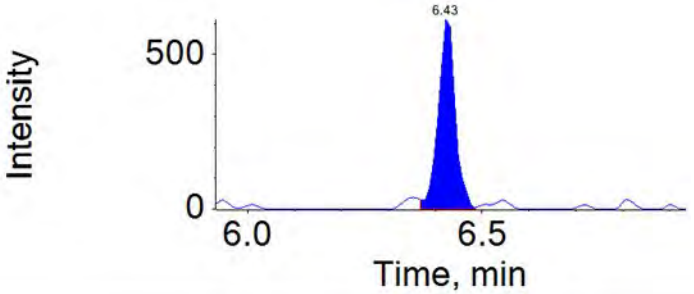
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



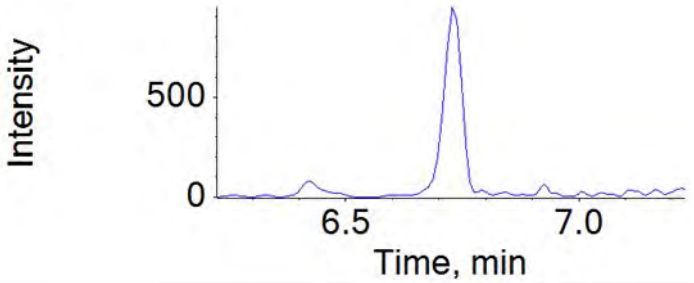
Component: PFTeDA
Primary Mass: 713.0 / 669.0



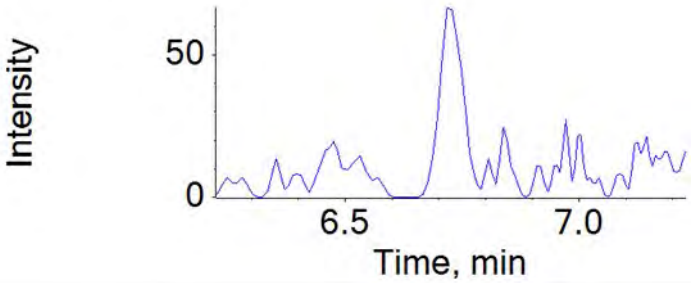
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



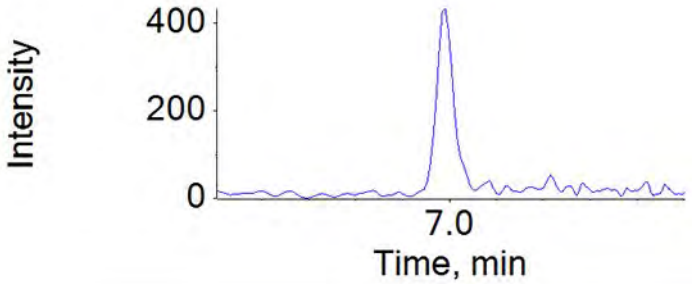
Component: PFHxDA
Primary Mass: 813.0 / 769.0



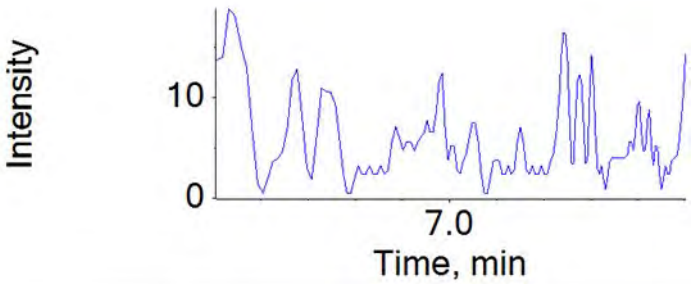
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

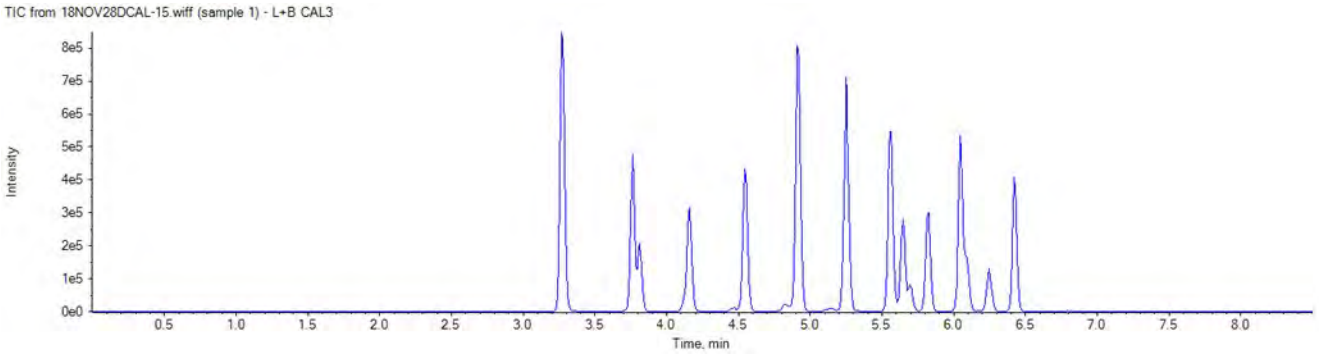
Analyte Quantitation Peak Table

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	
PFTrDA	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	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	

Total Ion Chromatogram

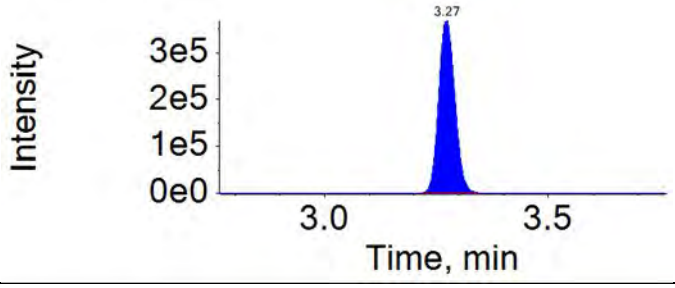


APPROVED
By MCD at 5:01 pm, 11/28/18

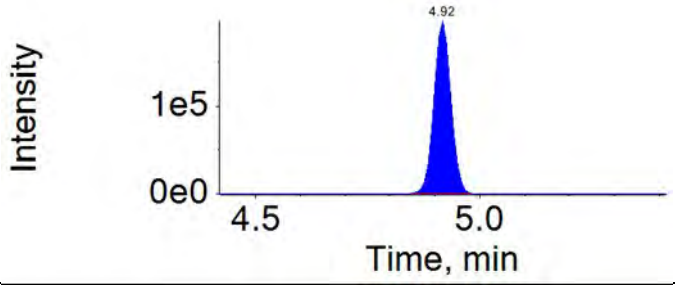
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

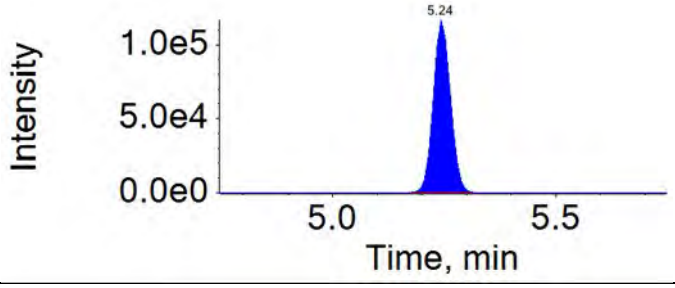
Injection Standard: 13C3-PFBA
216.0 / 172.0



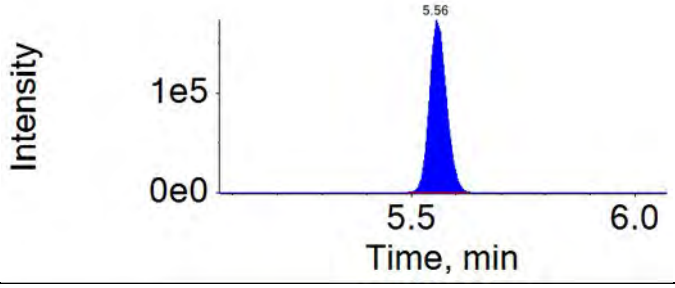
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



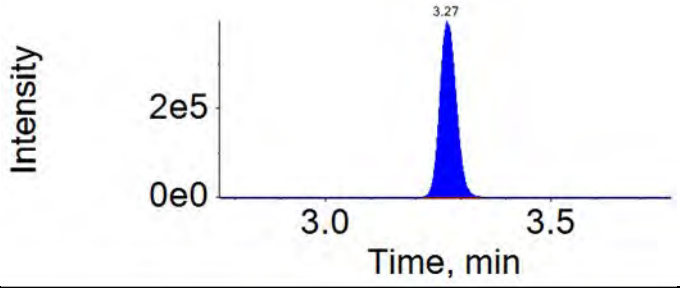
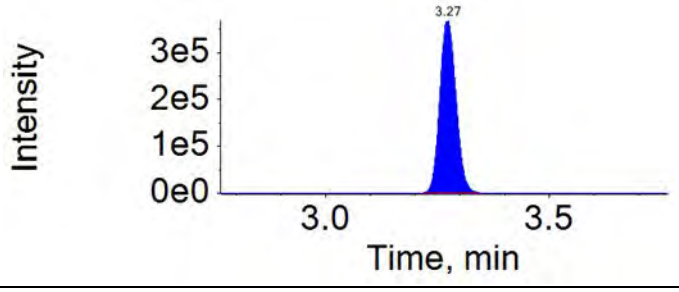
Injection Standard: 13C2-PFDA
515.0 / 470.0

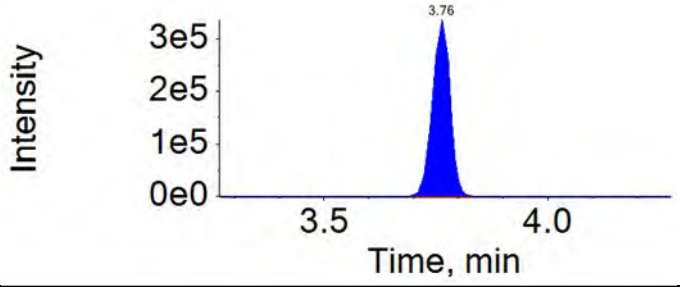
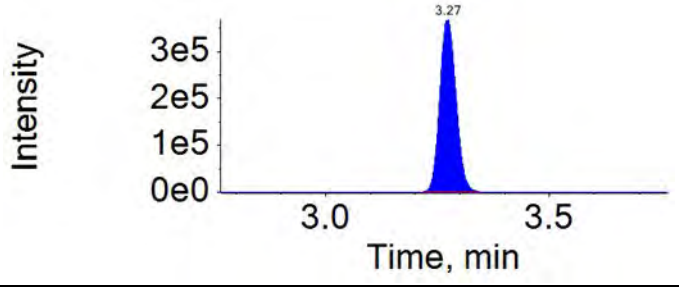


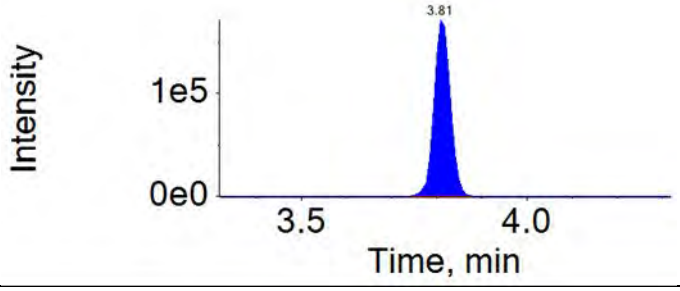
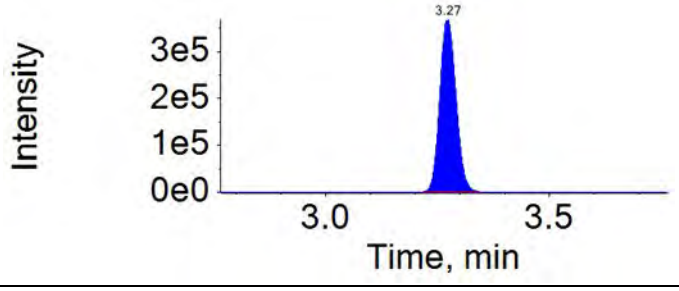
APPROVED
By MCD at 5:01 pm, 11/28/18

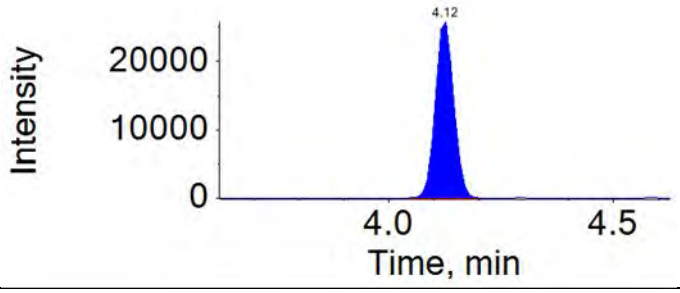
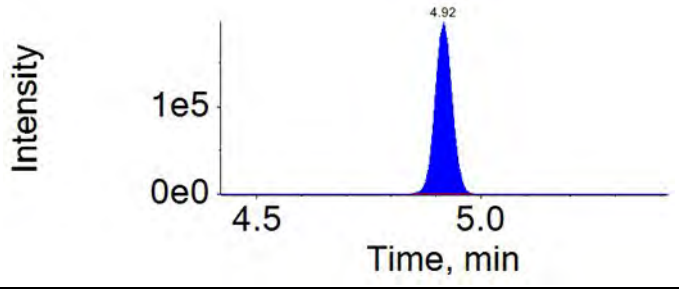
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

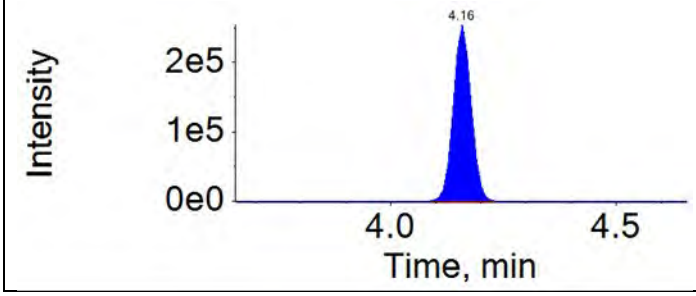
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

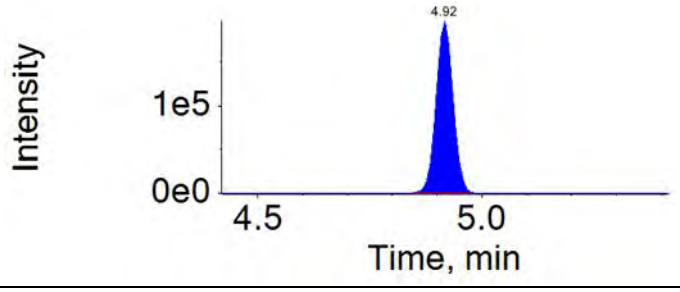
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

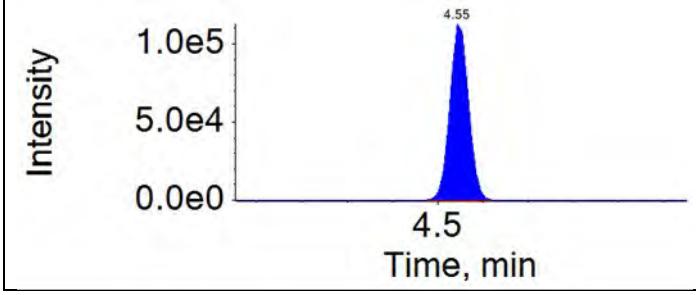
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

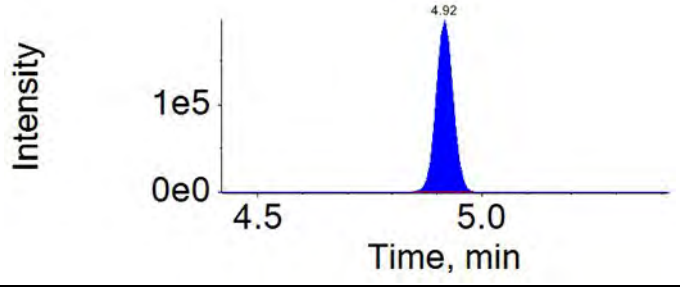
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



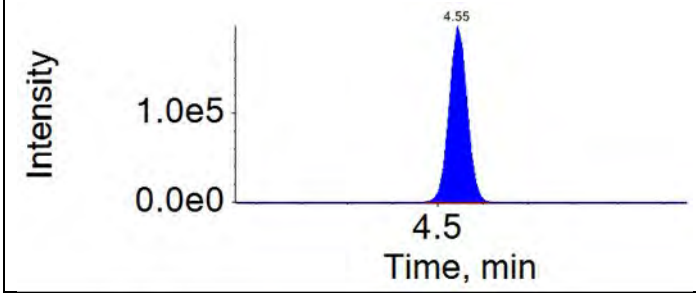


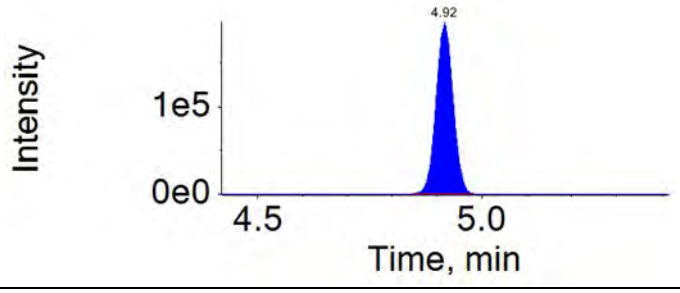
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



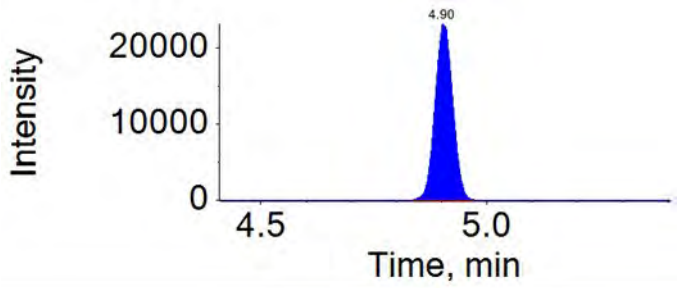


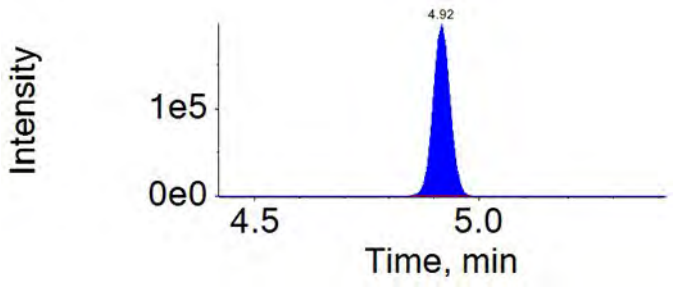
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0





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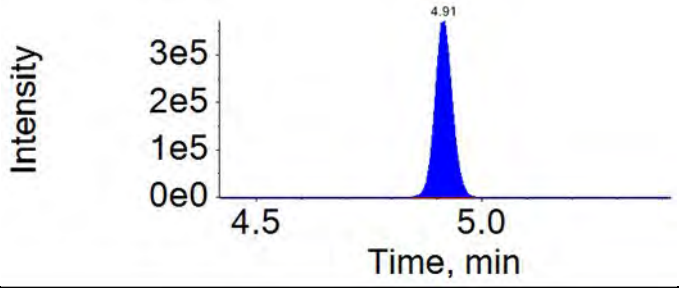
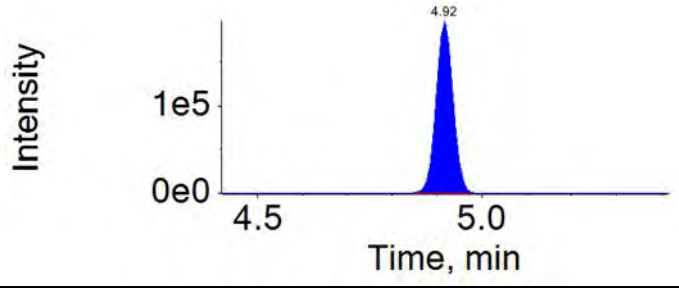
By HMK at 12:22 pm, 11/29/18

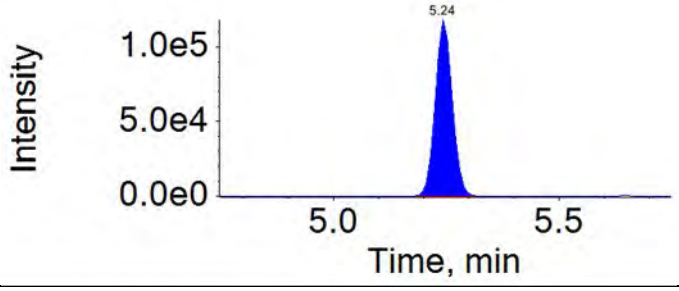
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

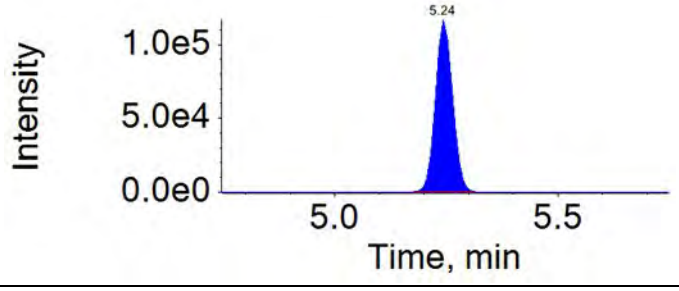
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



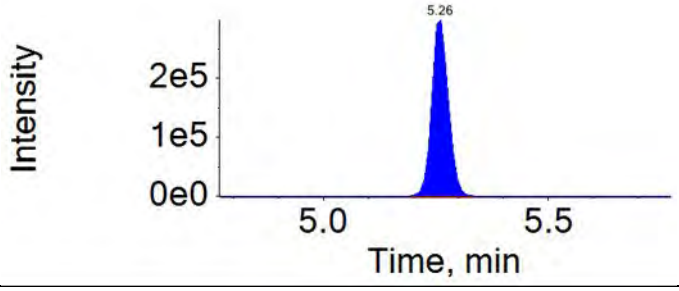


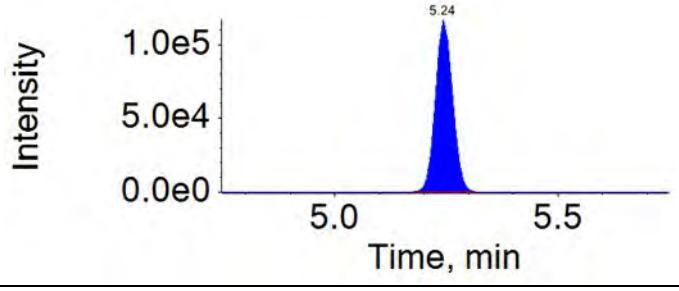
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



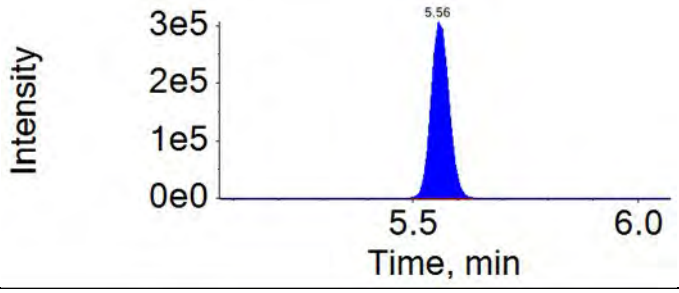


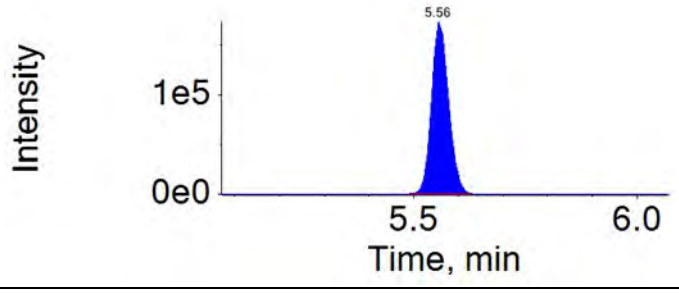
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

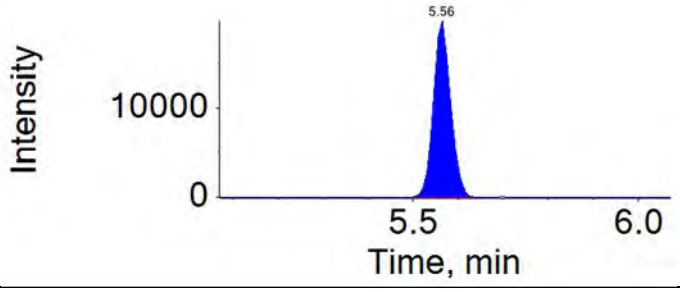
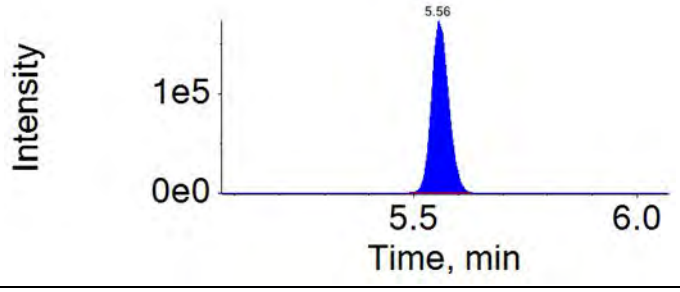


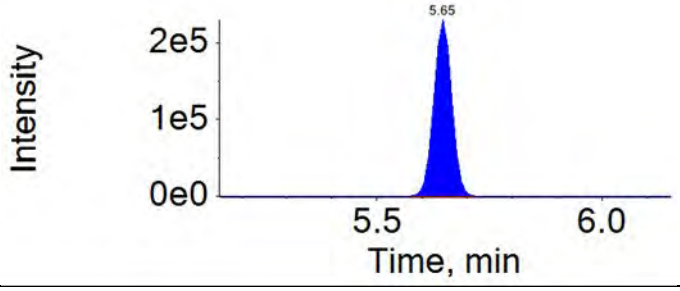
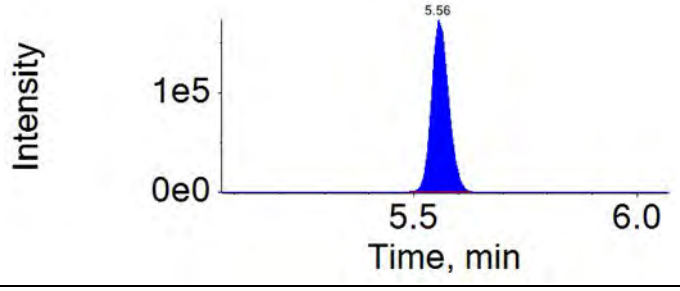


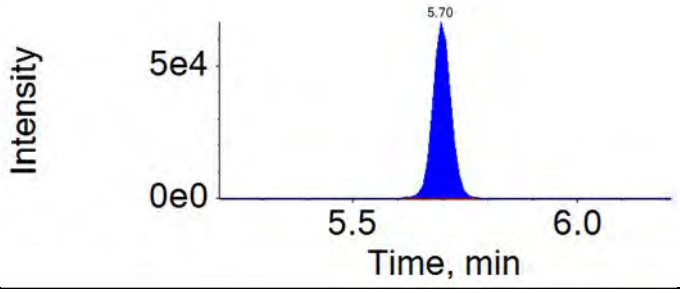
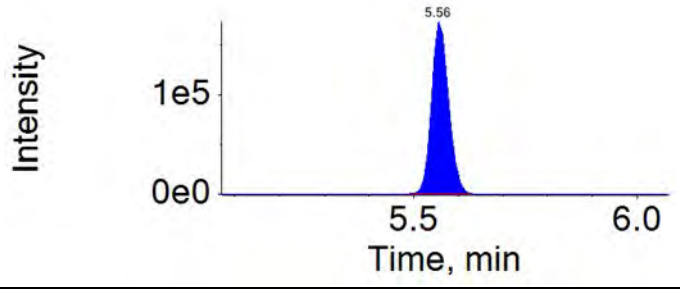
APPROVED
By MCD at 5:01 pm, 11/28/18

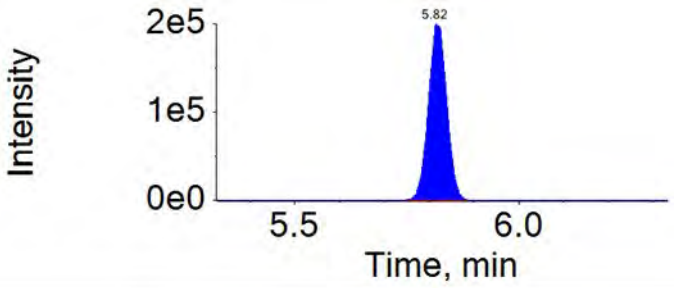
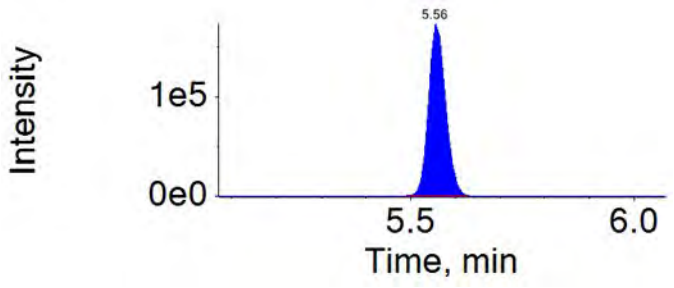
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

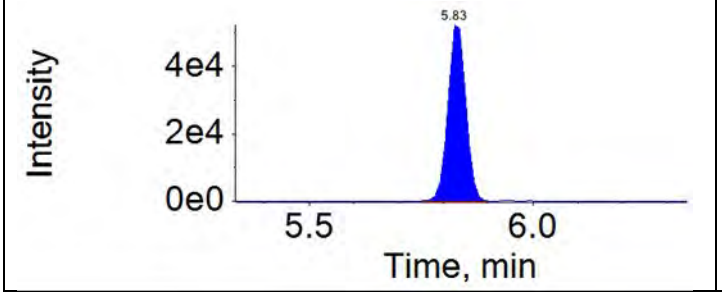
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

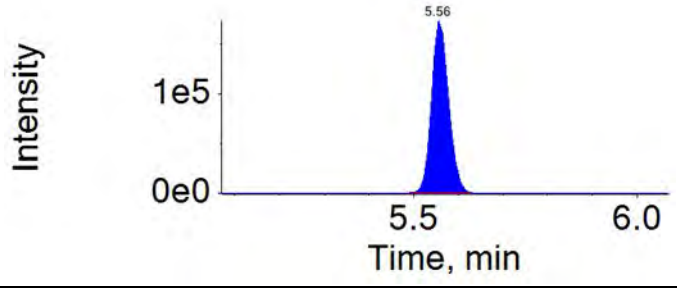
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

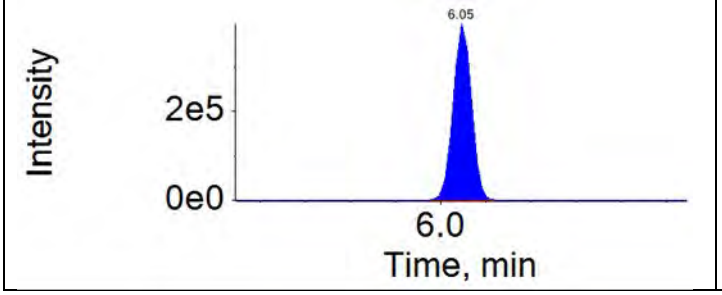
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

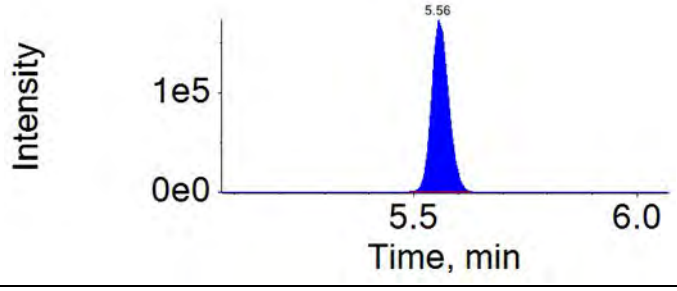
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



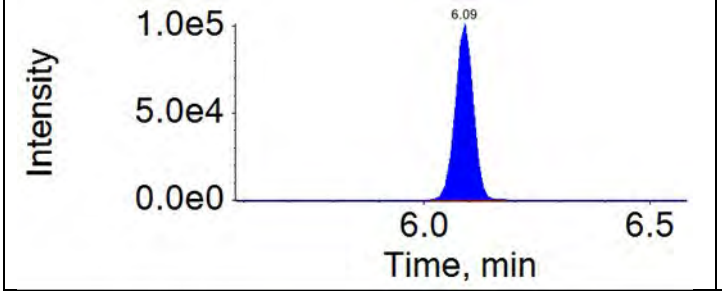


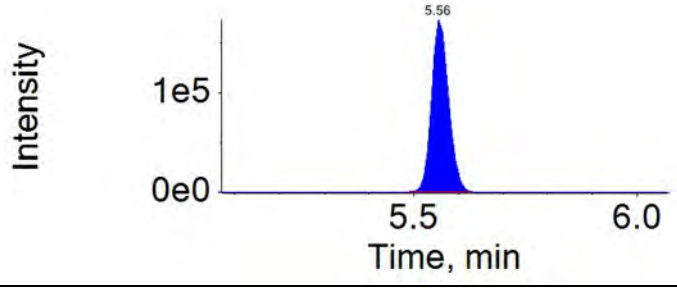
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



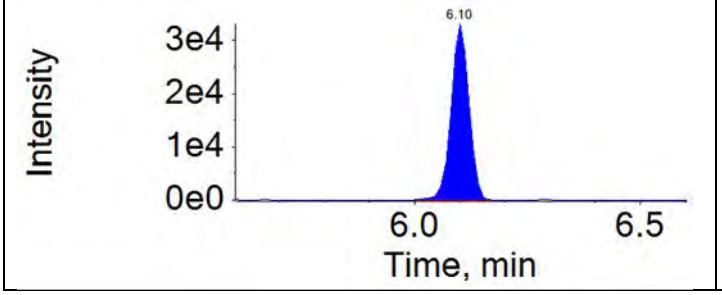


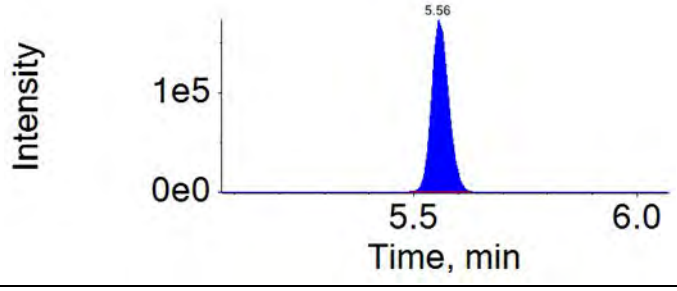
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



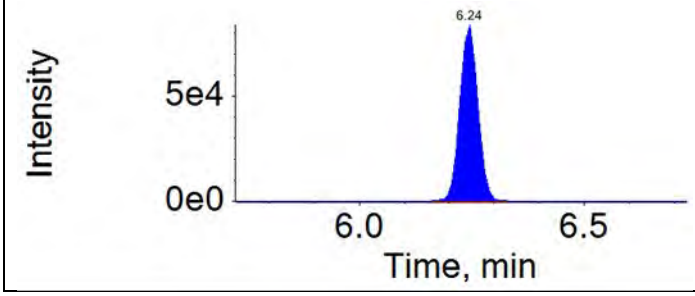


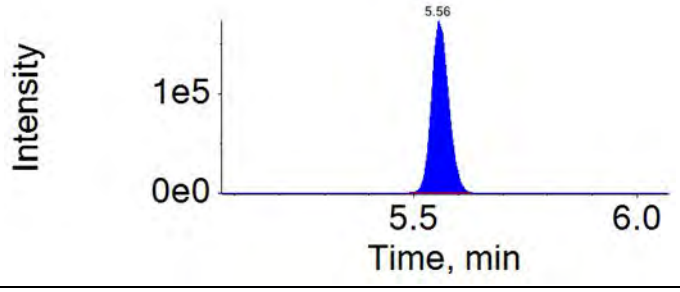
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

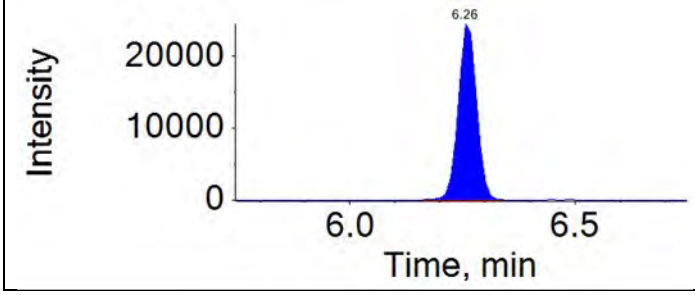
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

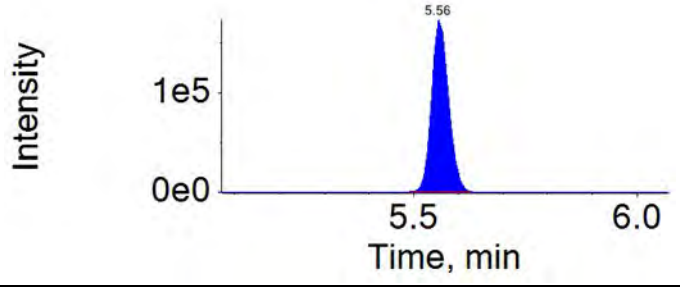
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



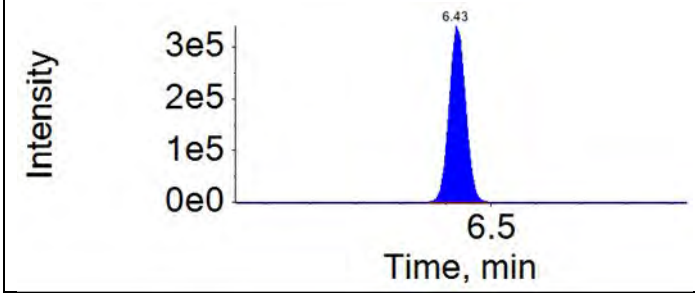


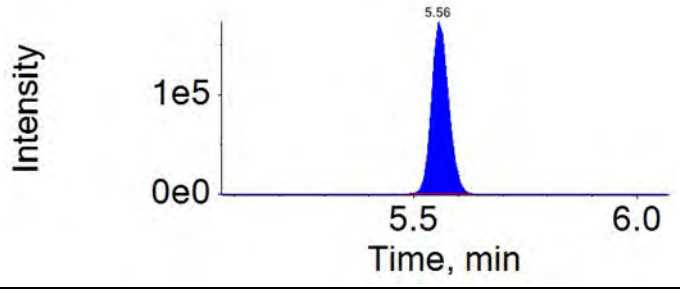
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



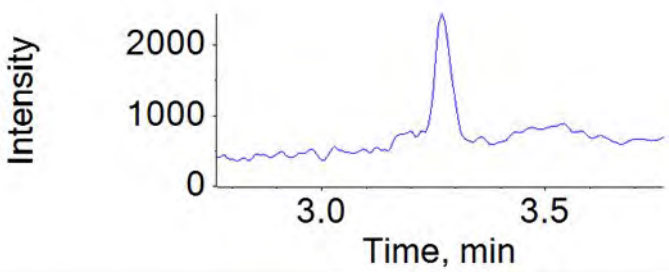


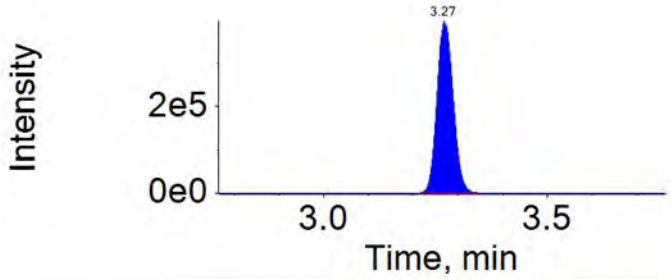
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

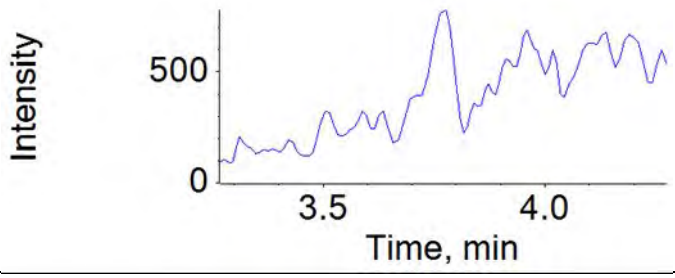
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

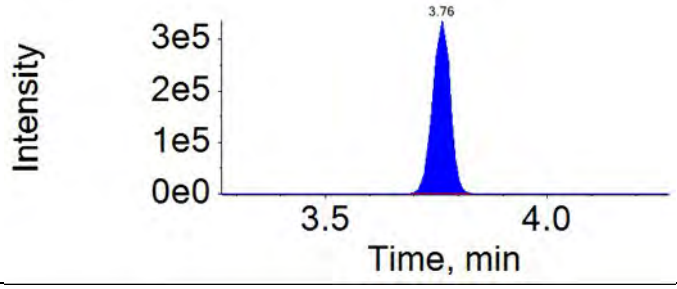
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



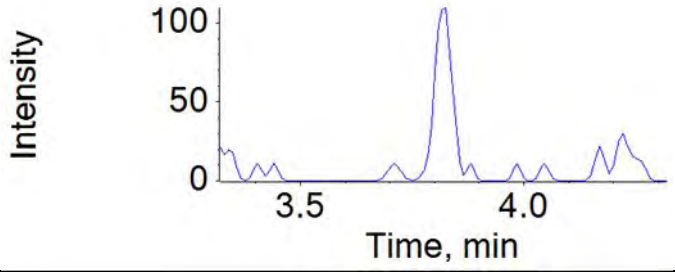


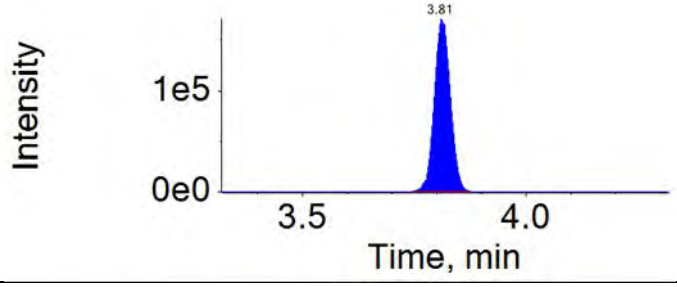
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



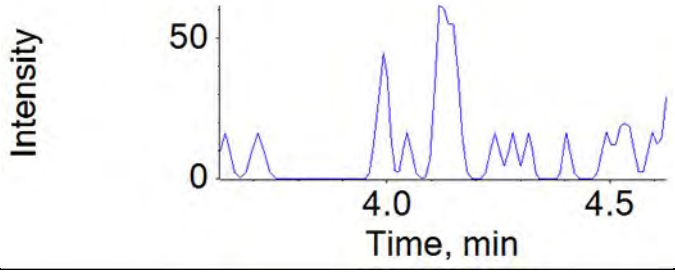


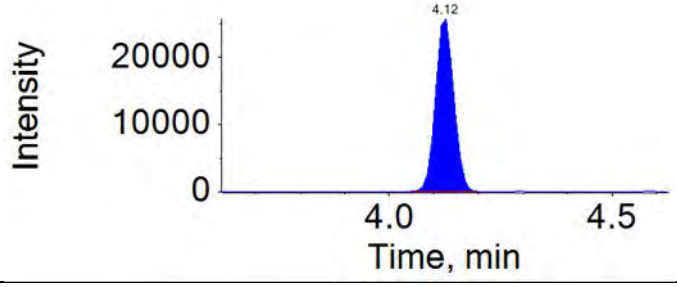
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



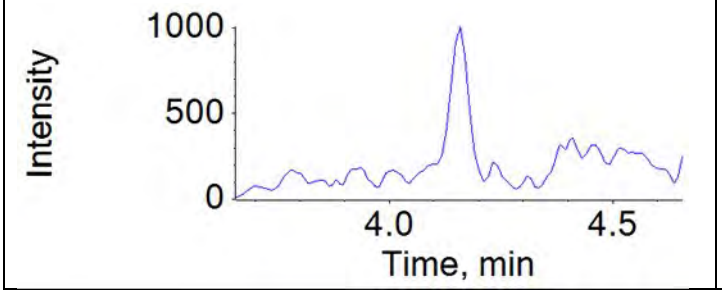


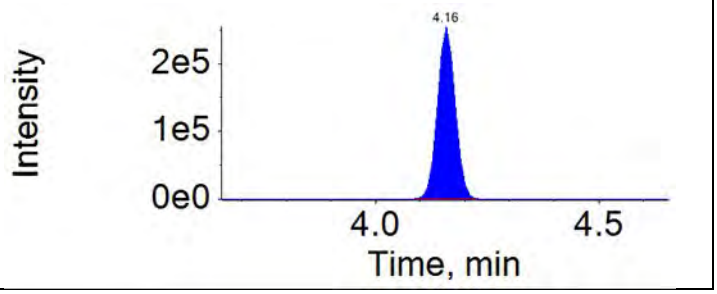
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

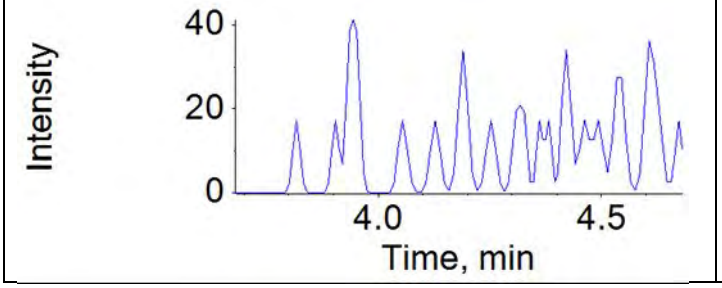
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

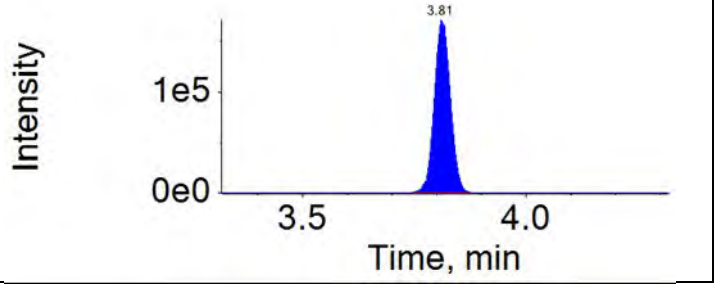
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



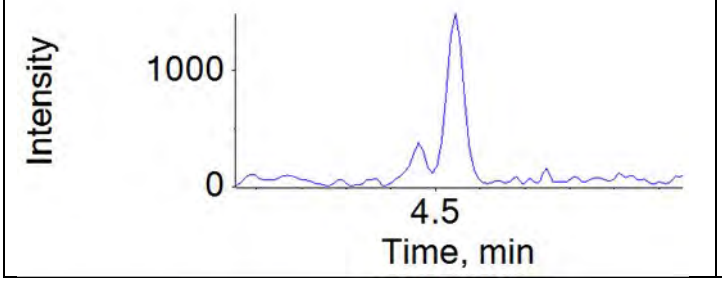


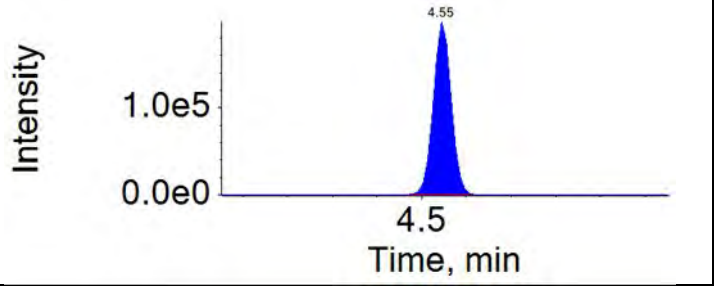
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



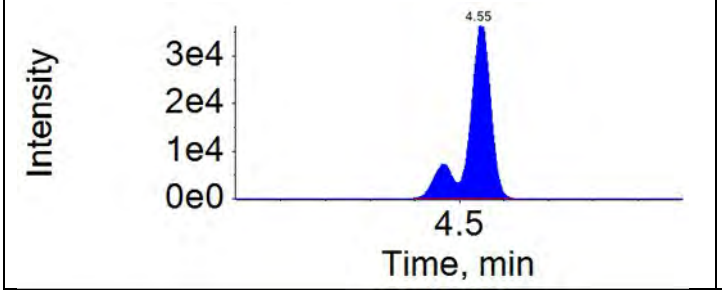


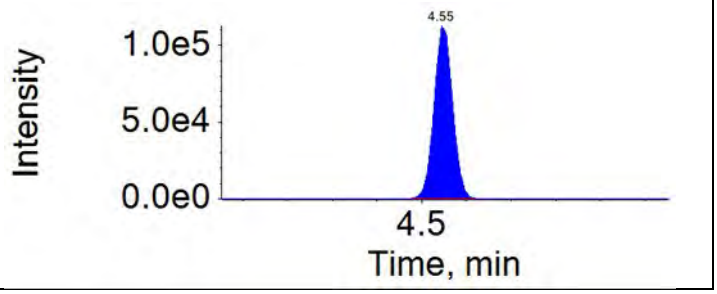
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



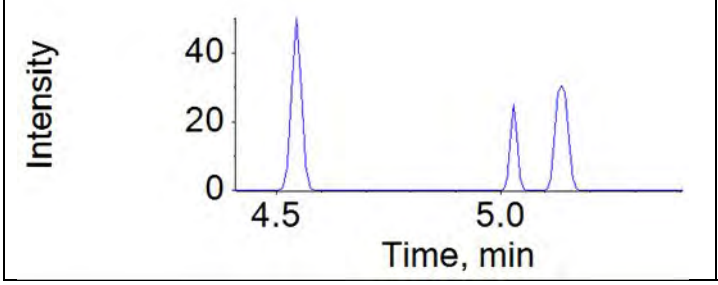


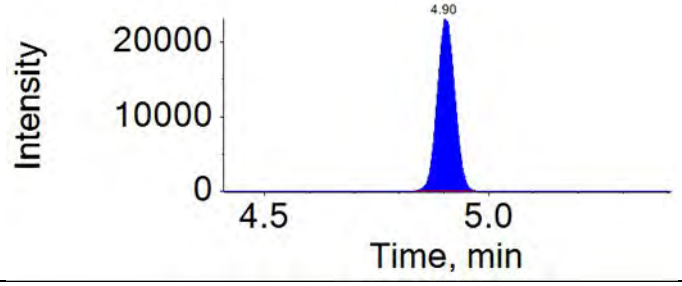
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

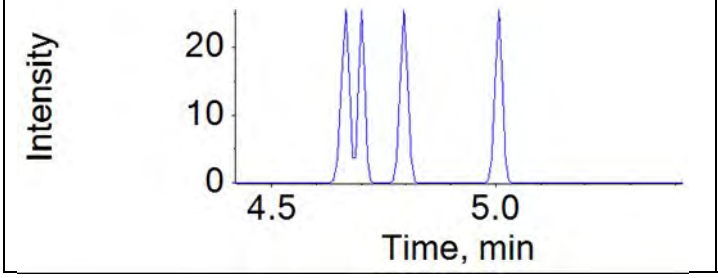
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

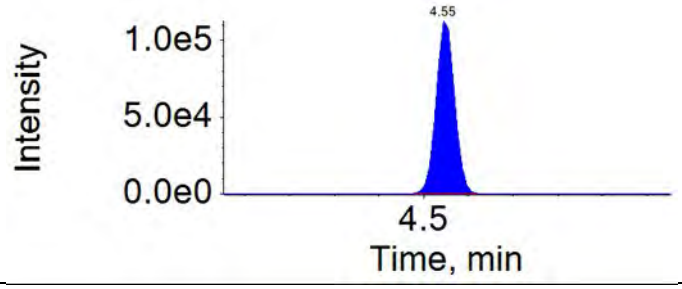
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



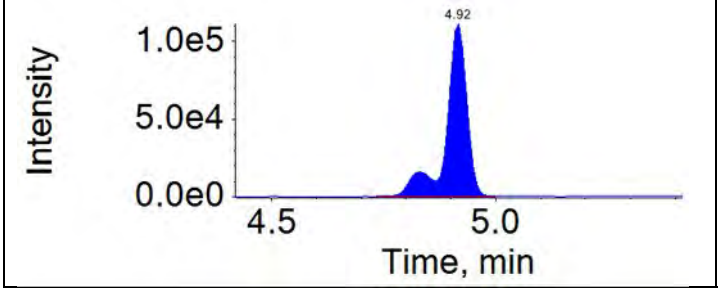


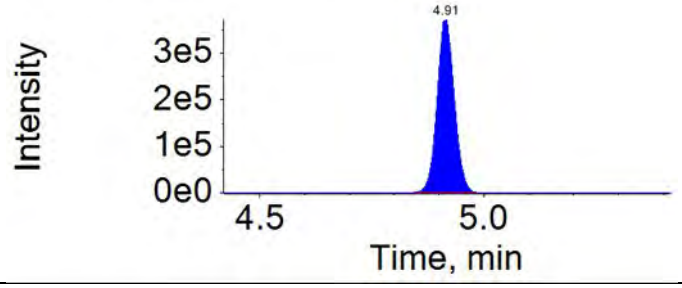
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



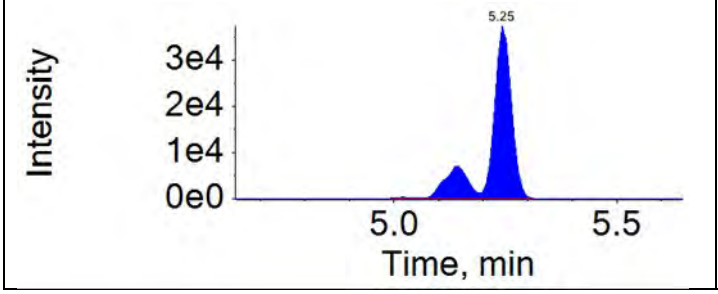


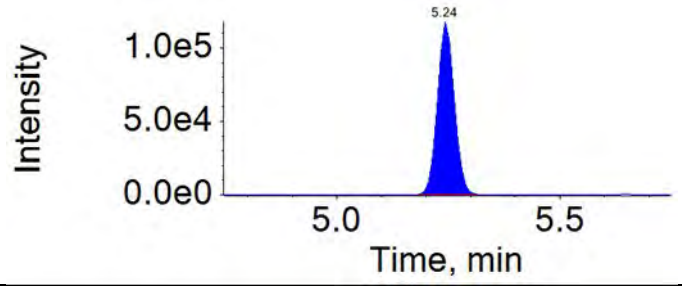
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



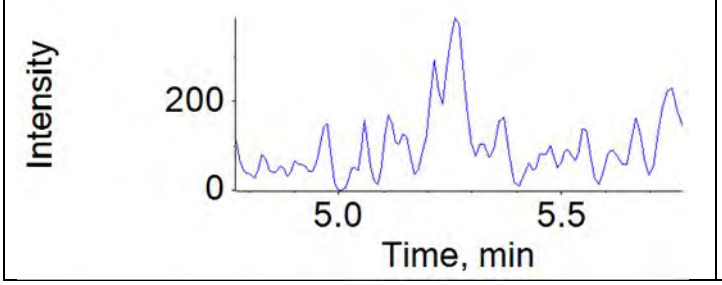


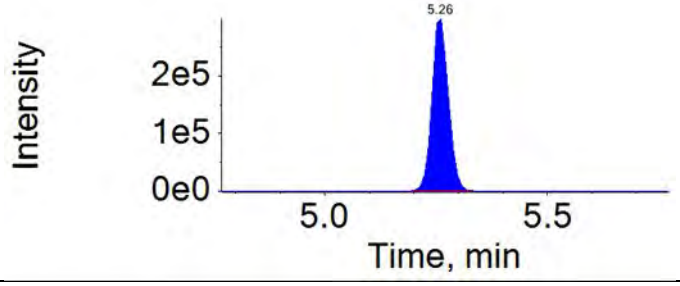
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

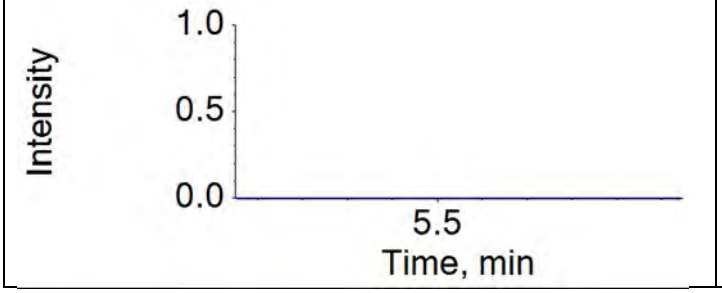
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

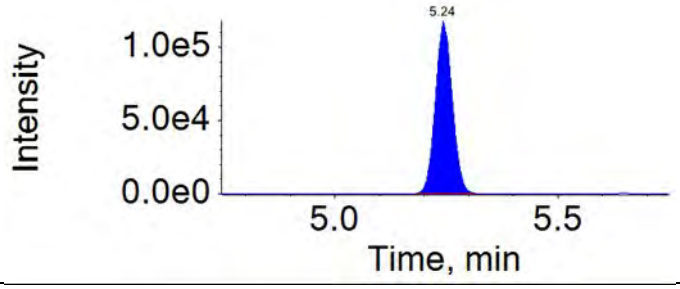
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



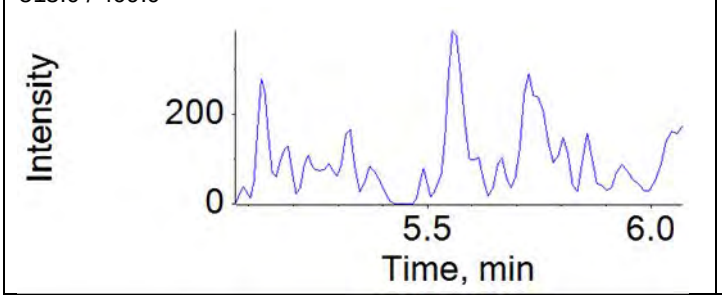


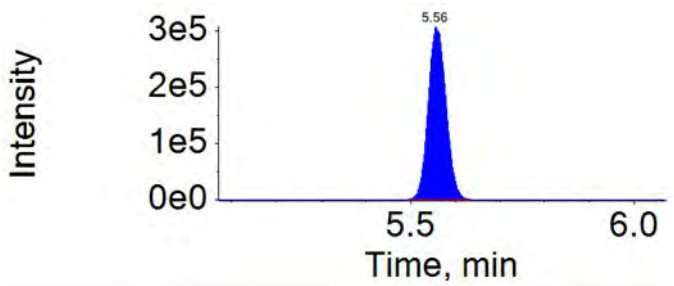
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



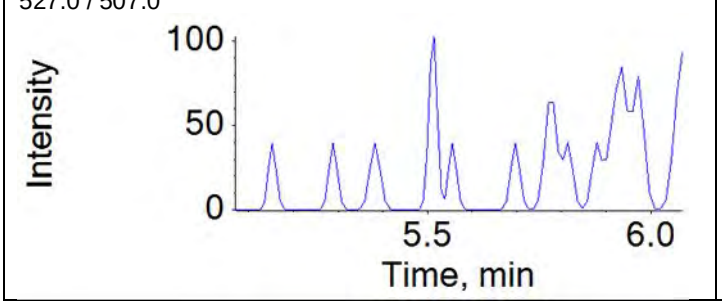


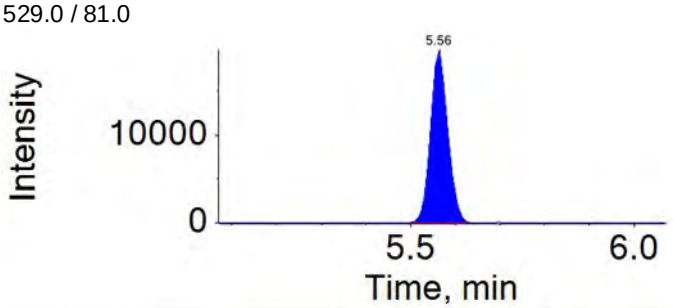
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



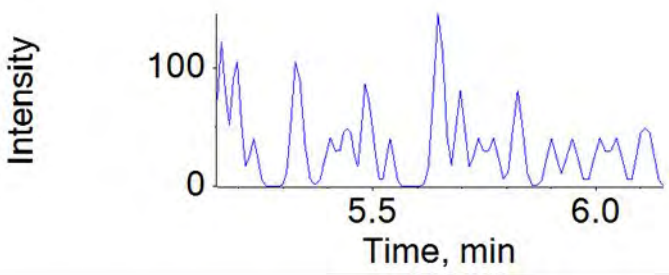


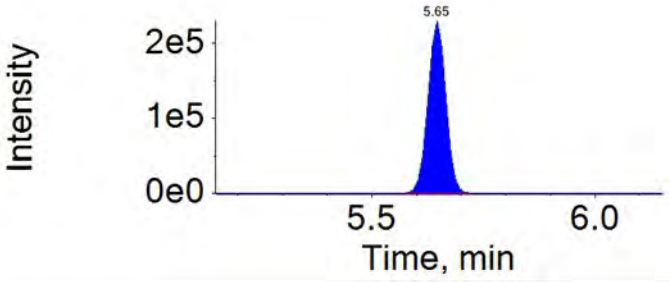
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

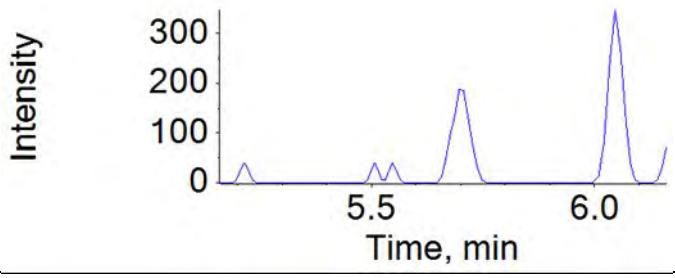
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

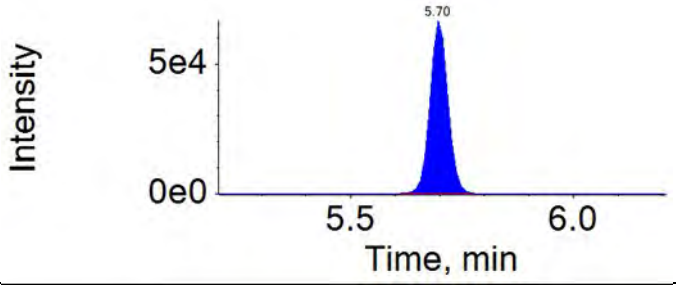
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



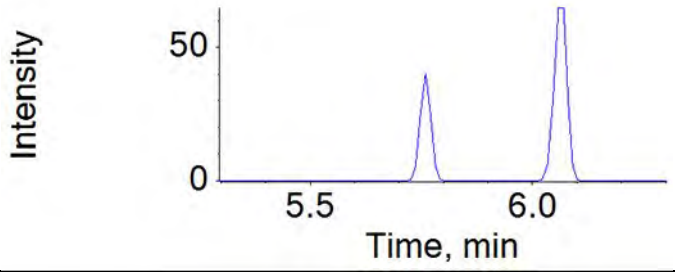


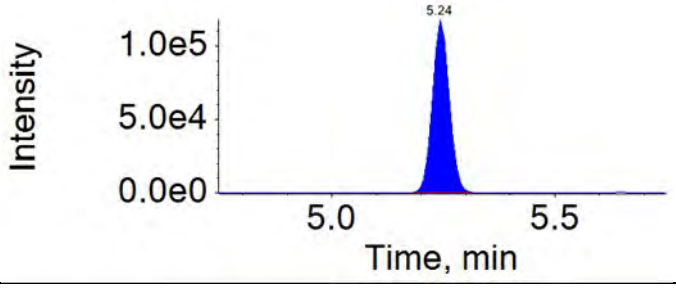
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



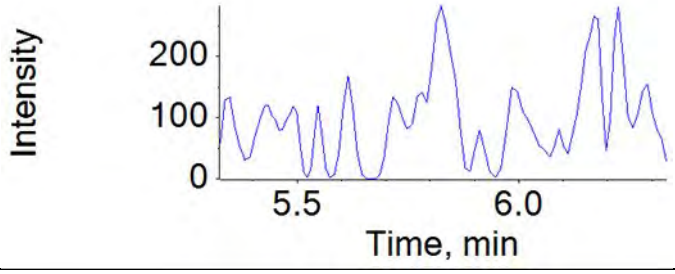


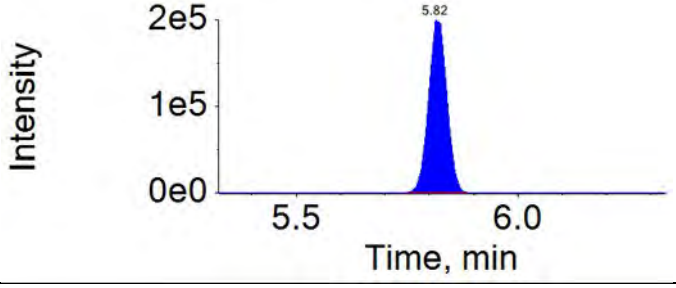
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



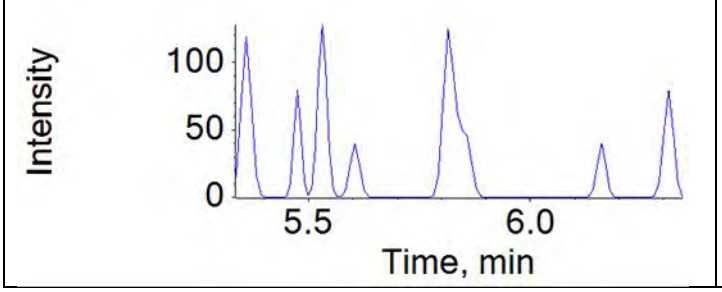


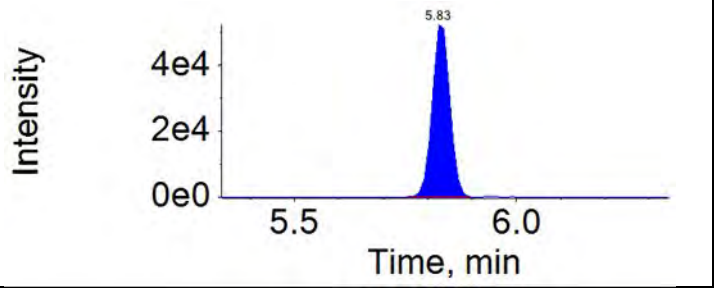
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

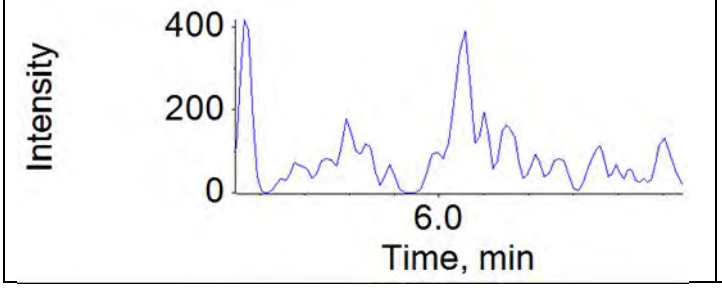
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

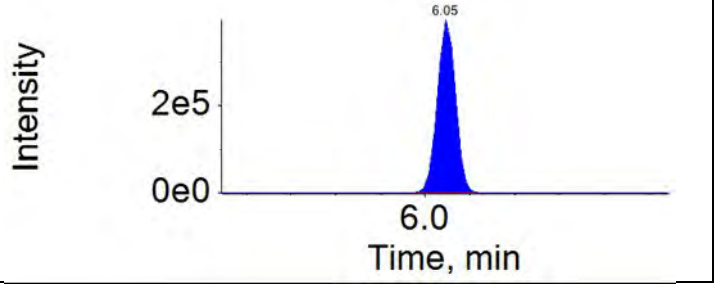
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



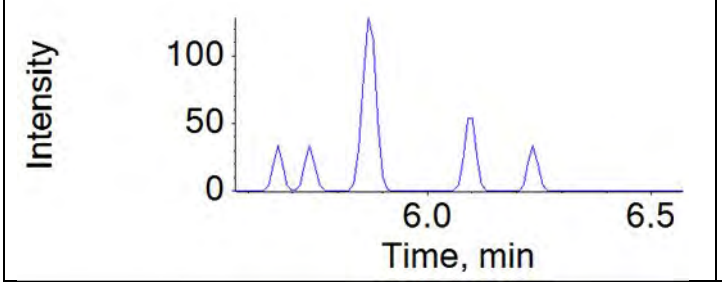


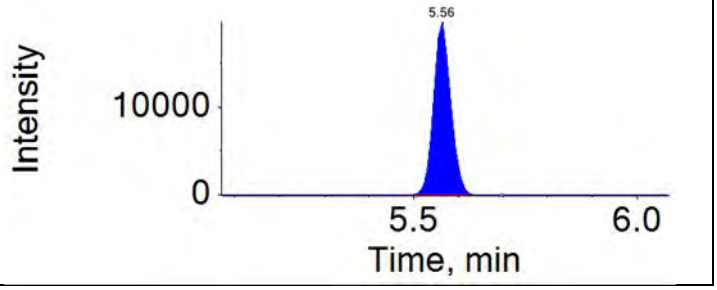
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



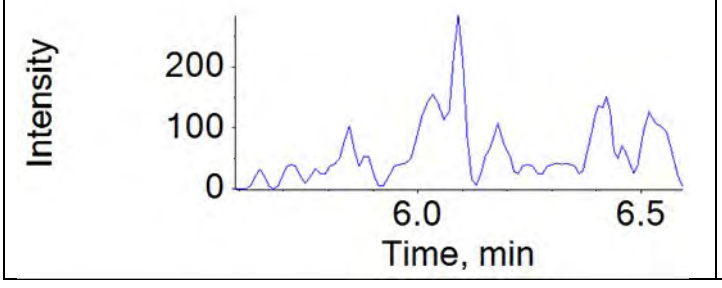


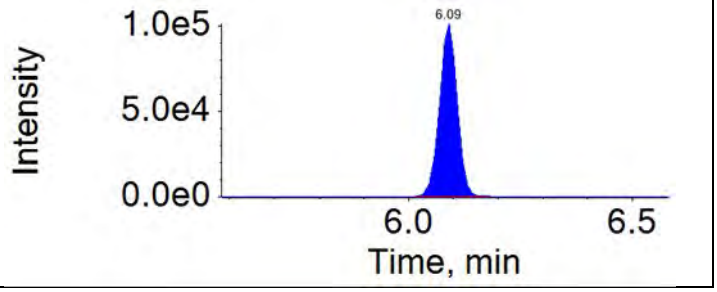
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



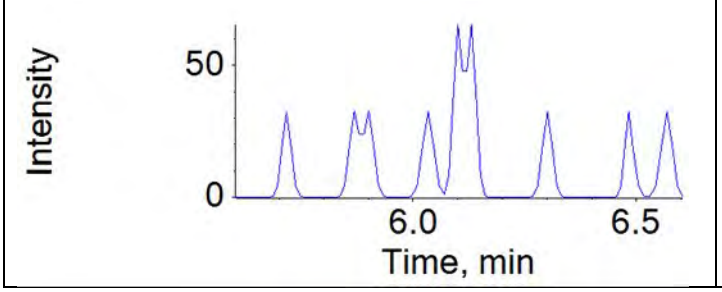


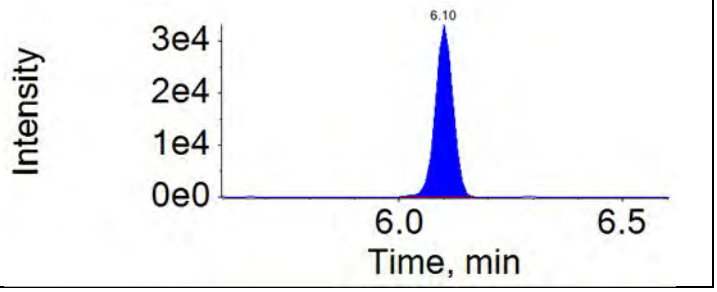
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

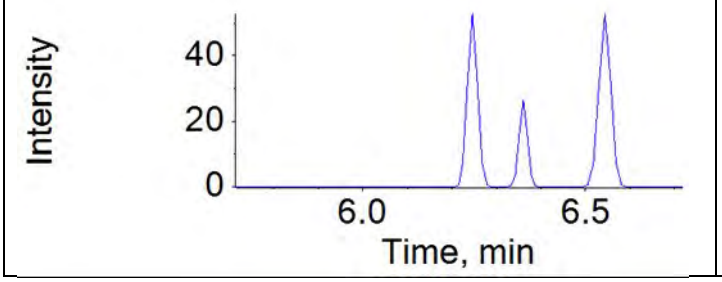
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

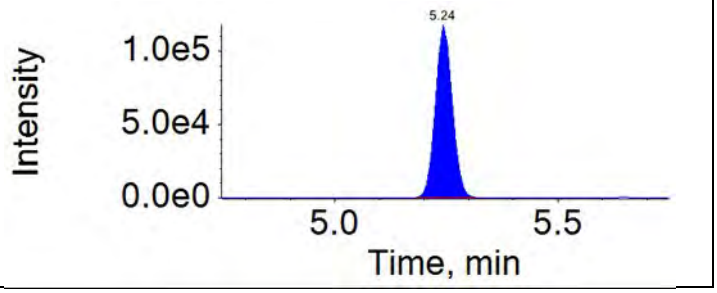
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



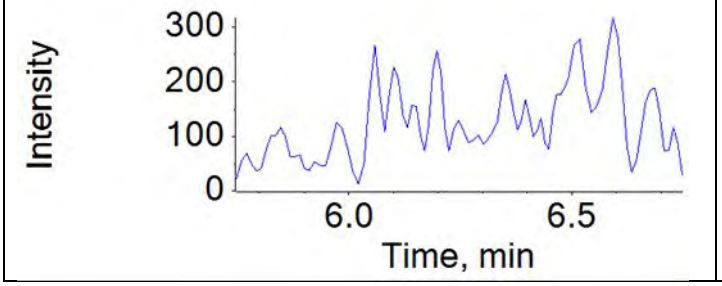


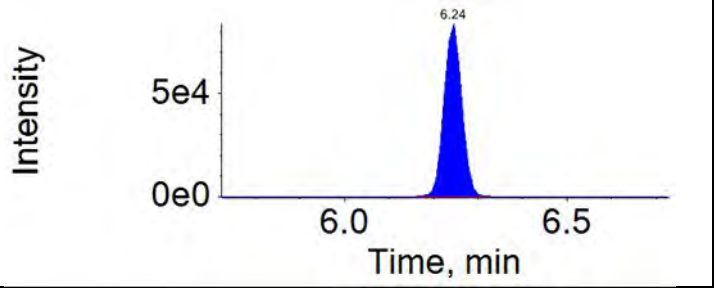
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



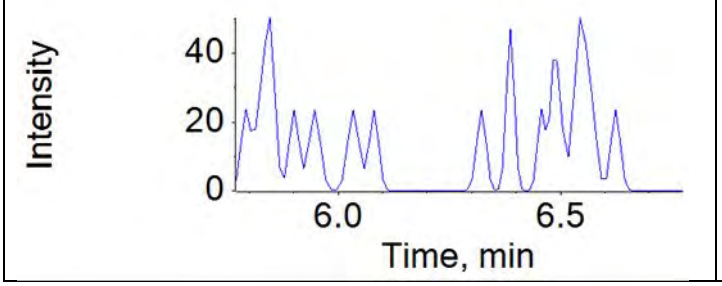


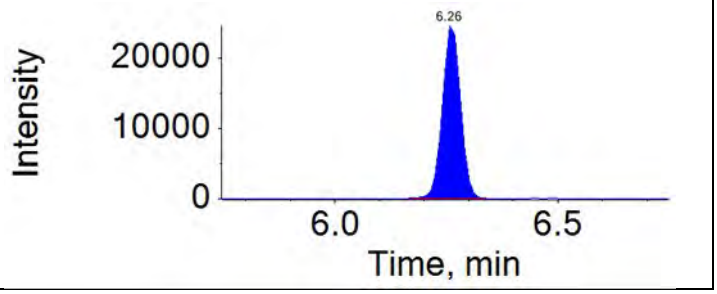
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



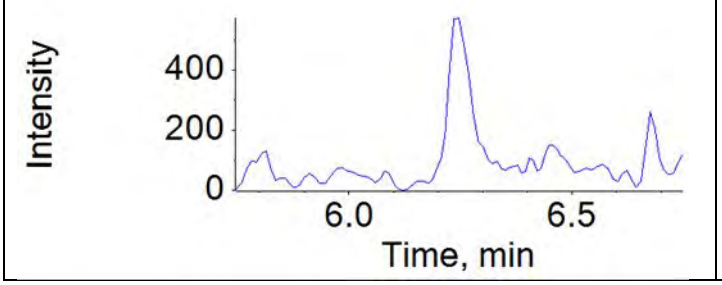


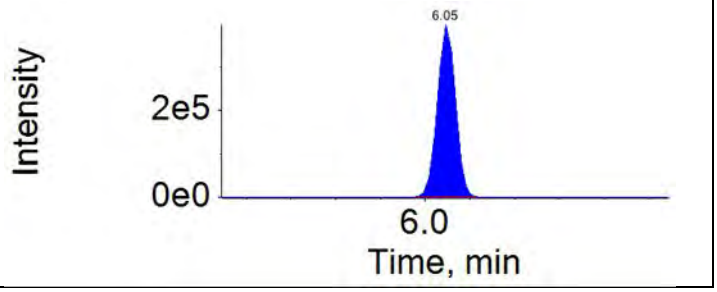
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

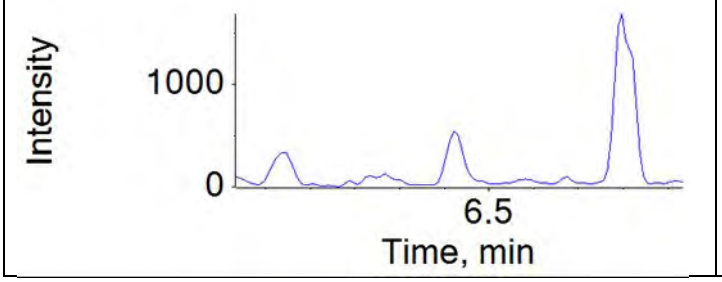
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

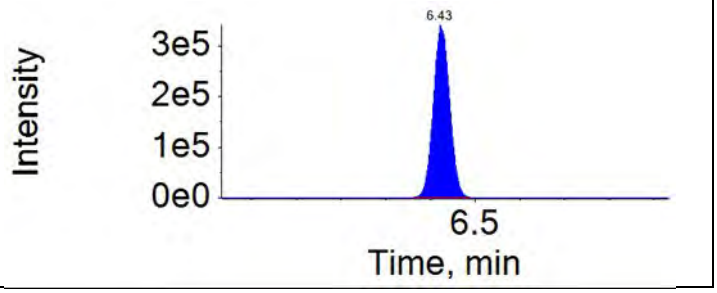
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



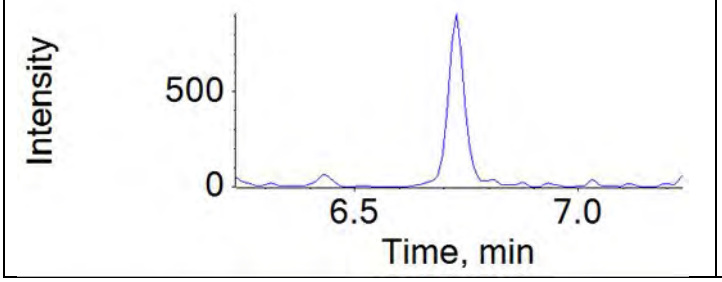


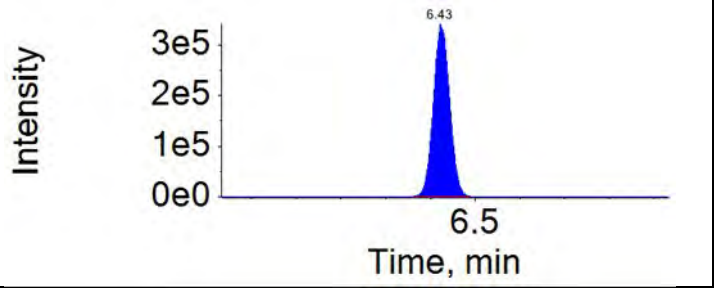
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



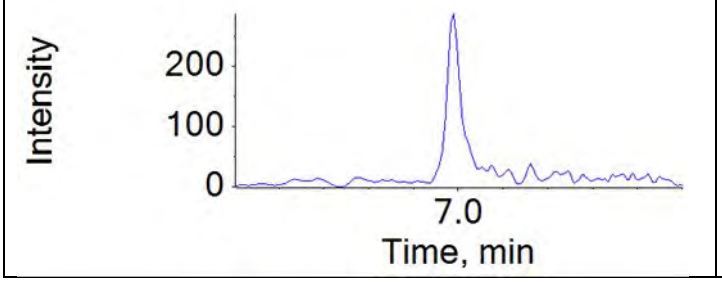


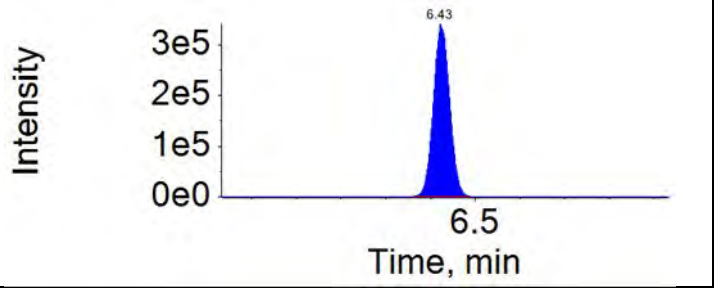
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



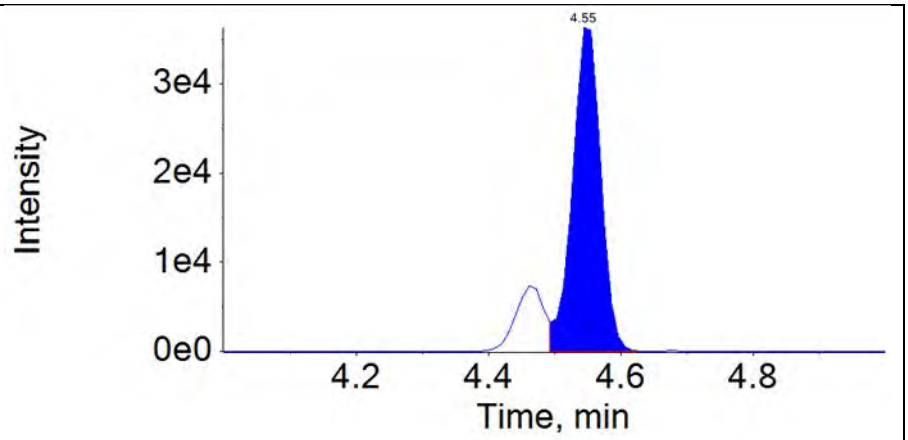


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

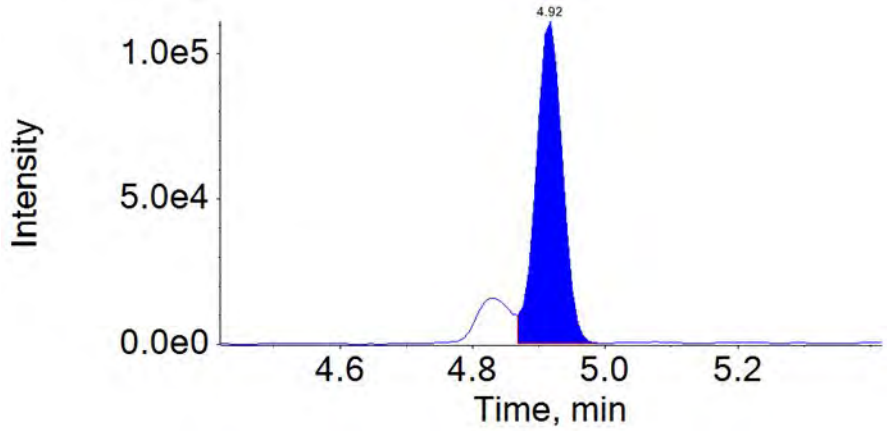
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



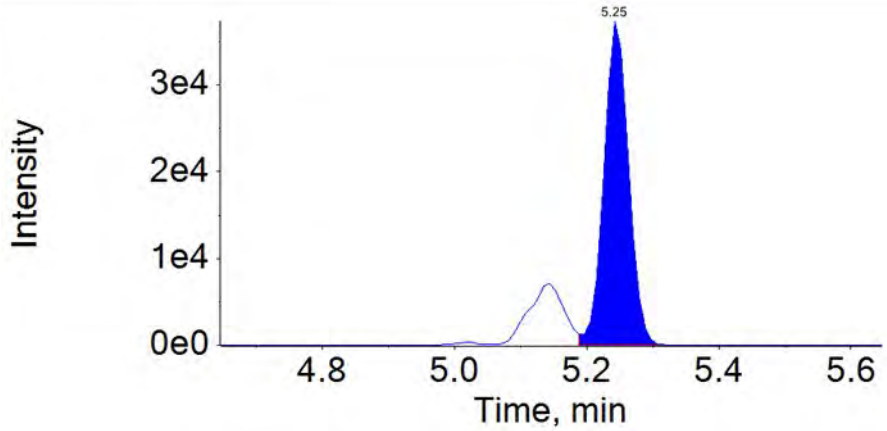
Integration Comment: incorrect integration

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



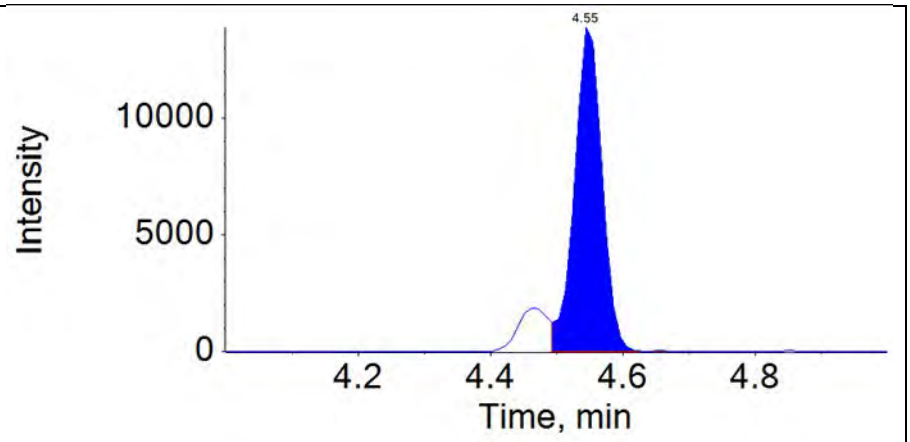
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

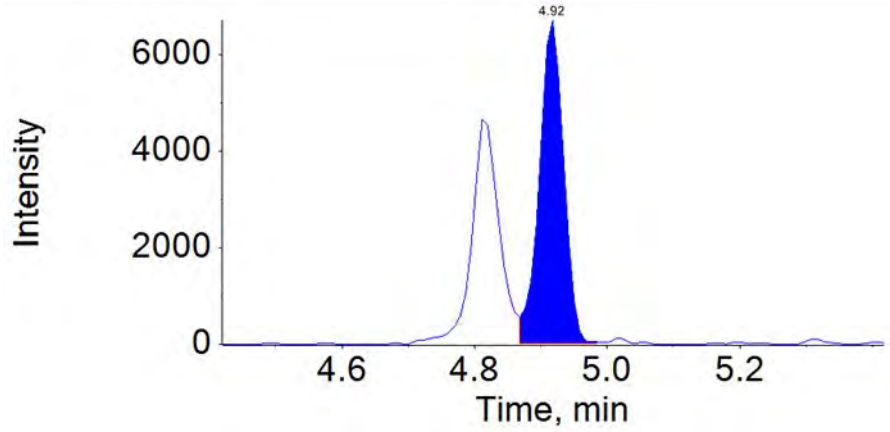
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



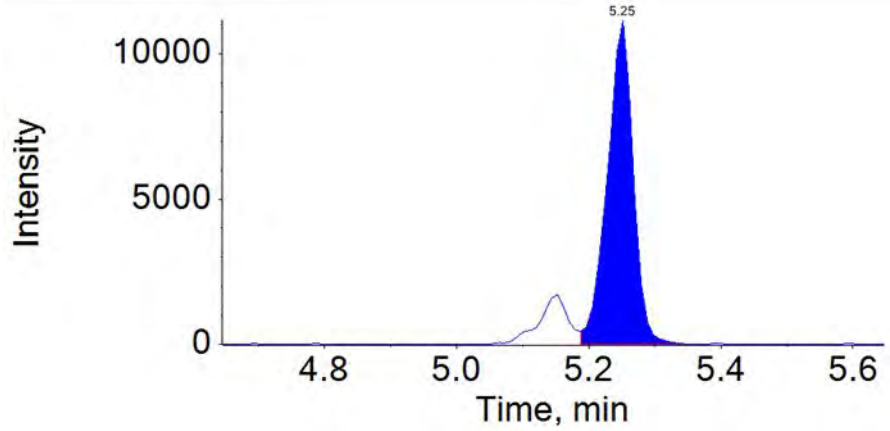
Integration Comment: incorrect integration

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

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

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

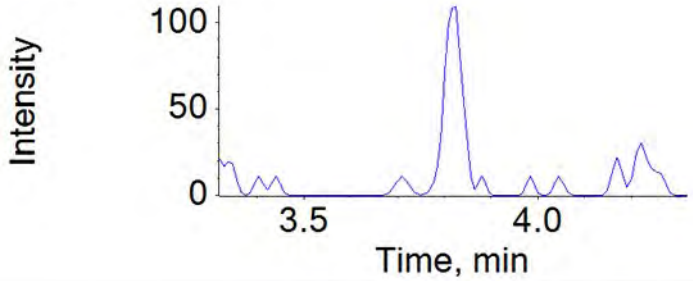
Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-15.wiff

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	
PFTrDA	N/A	N/A	N/A	A	0.0090	N/A			
PFTrDA_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	

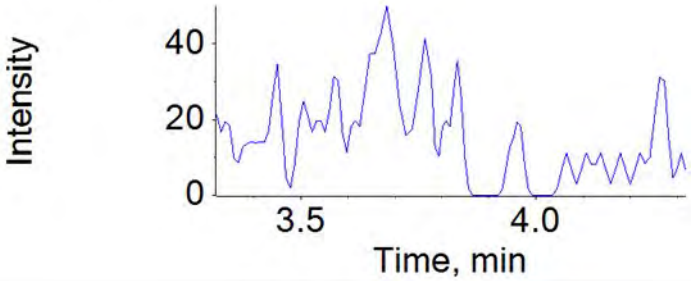
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

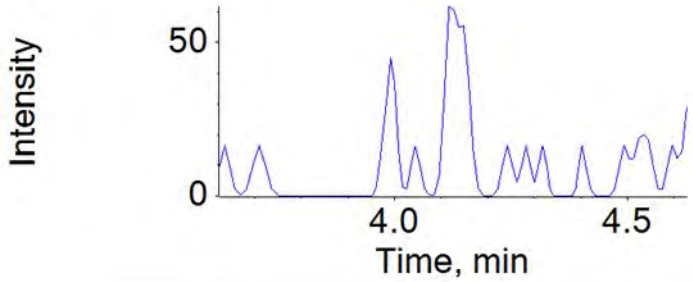
Component: PFBS
Primary Mass: 299.0 / 80.0



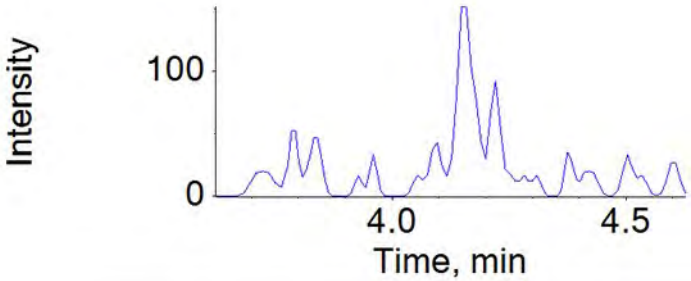
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



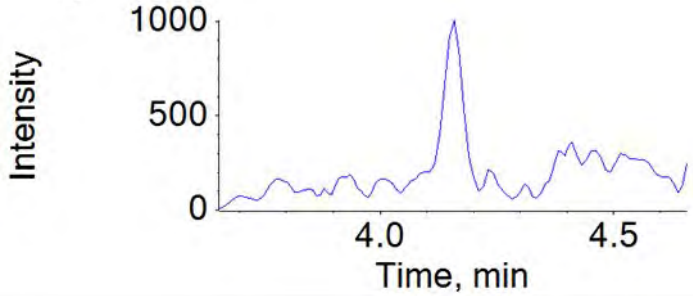
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



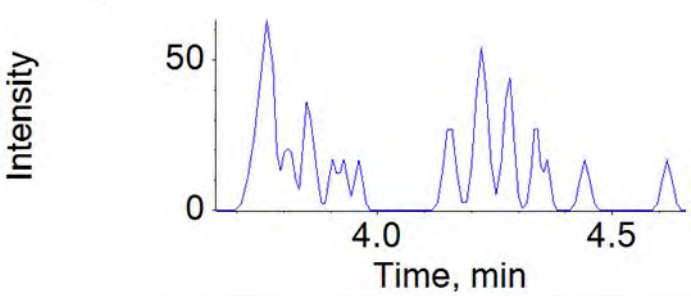
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



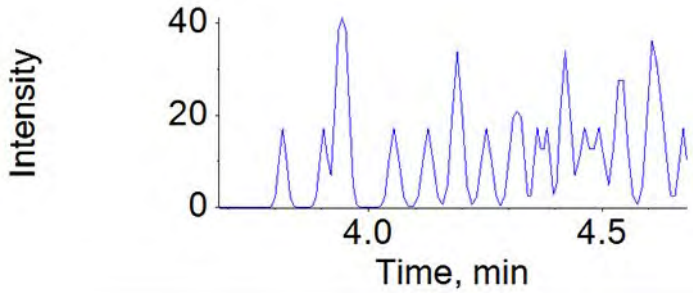
Component: PFHxA
Primary Mass: 313.0 / 269.0



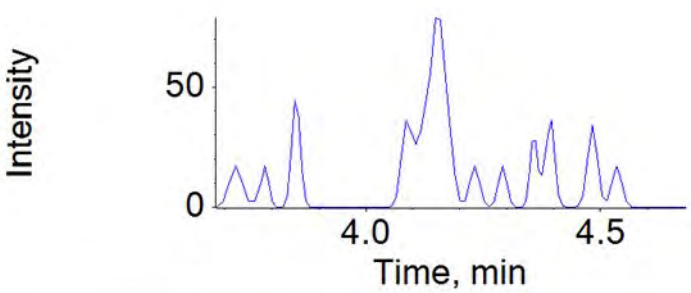
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



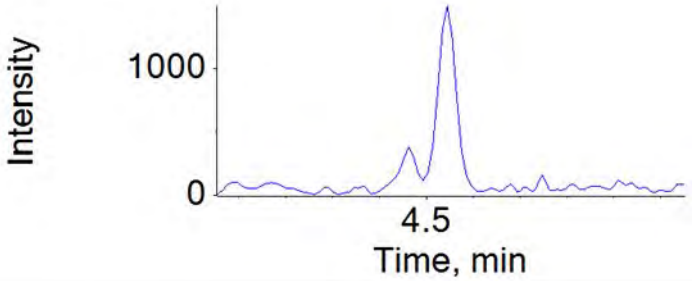
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



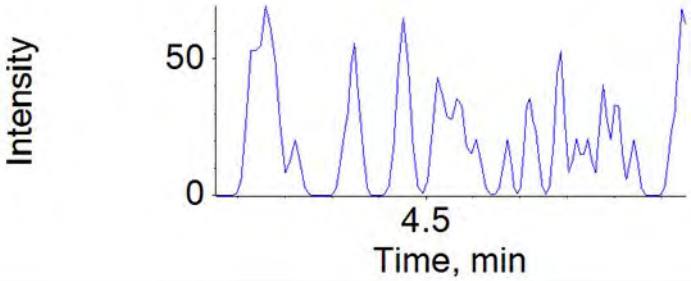
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

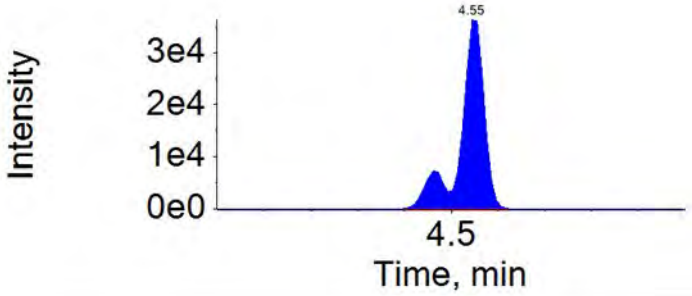
Component: PFHpA
Primary Mass: 363.0 / 319.0



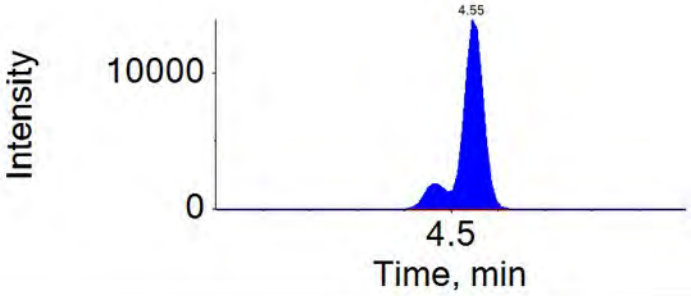
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



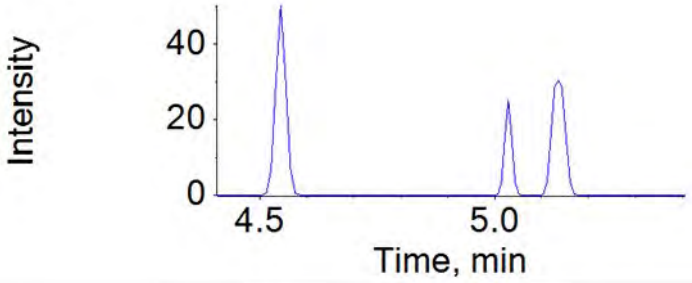
Component: PFHxS
Primary Mass: 399.0 / 80.0



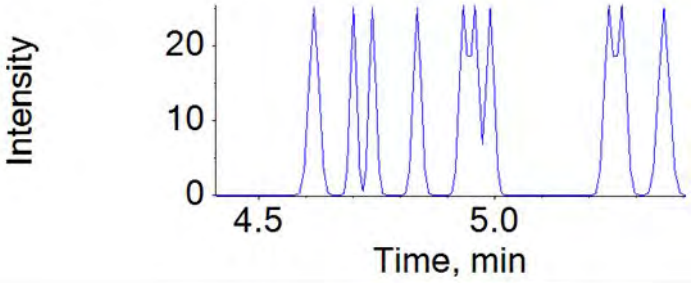
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



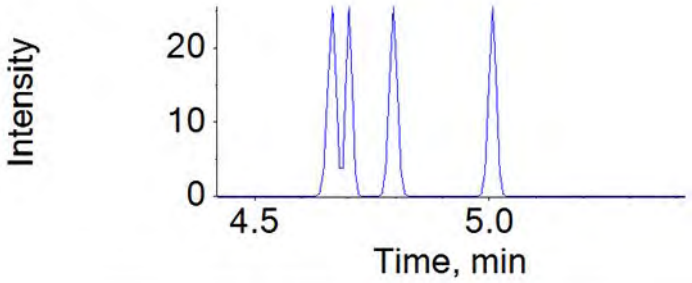
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



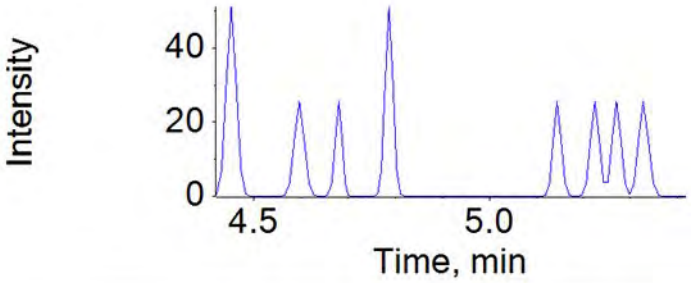
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



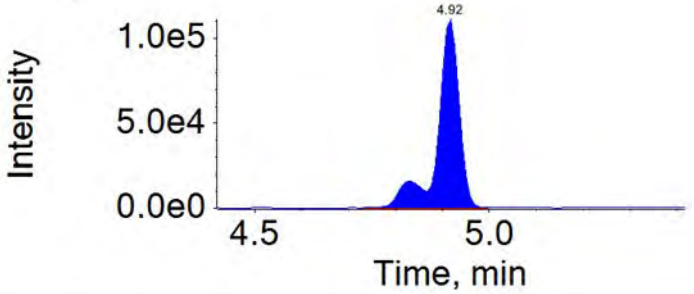
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



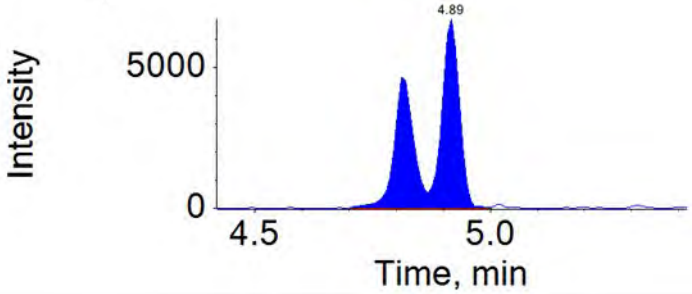
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

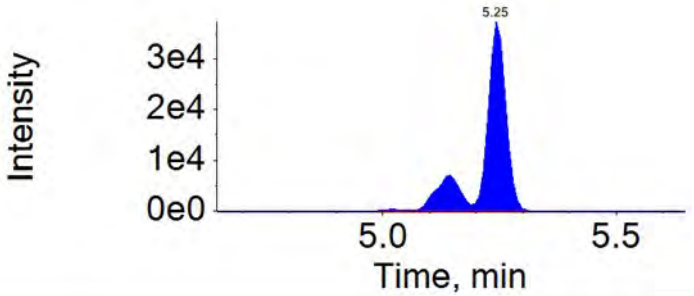
Component: PFOA
Primary Mass: 413.0 / 369.0



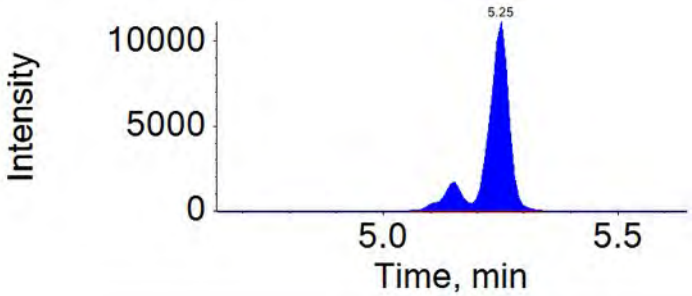
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



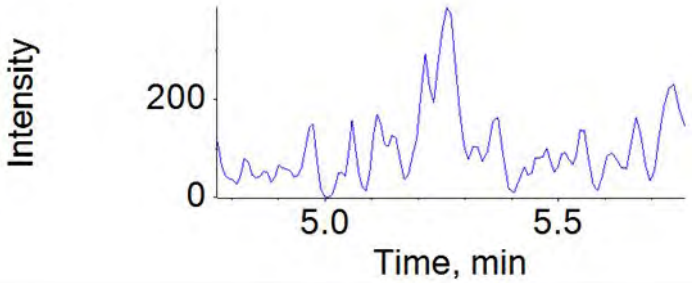
Component: PFOS
Primary Mass: 499.0 / 80.0



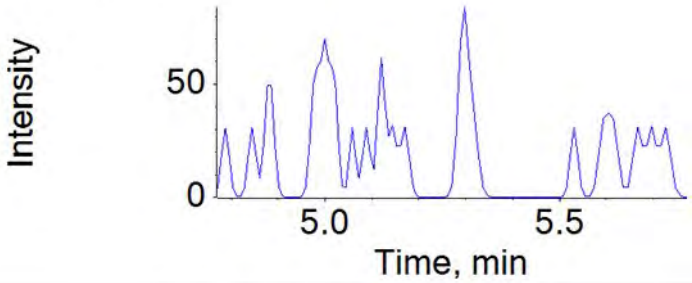
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



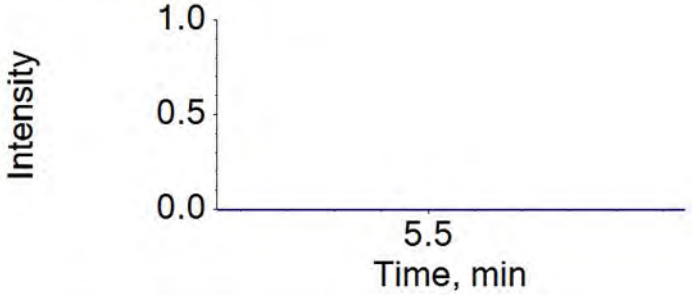
Component: PFNA
Primary Mass: 463.0 / 419.0



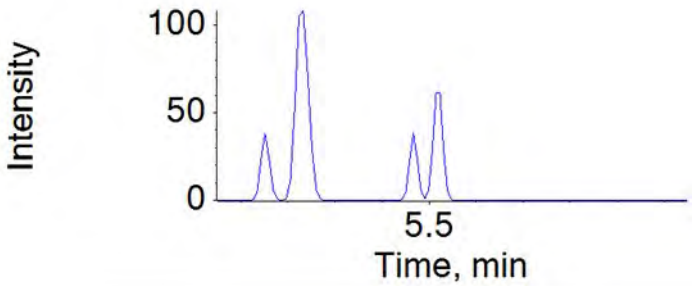
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



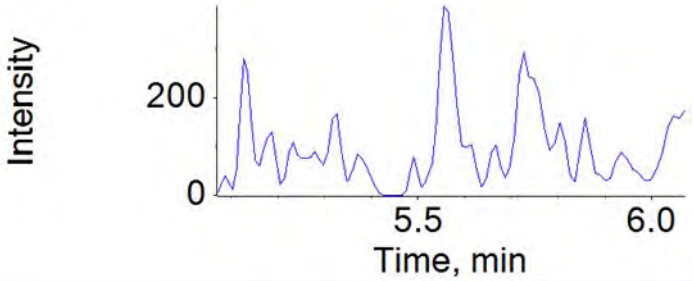
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



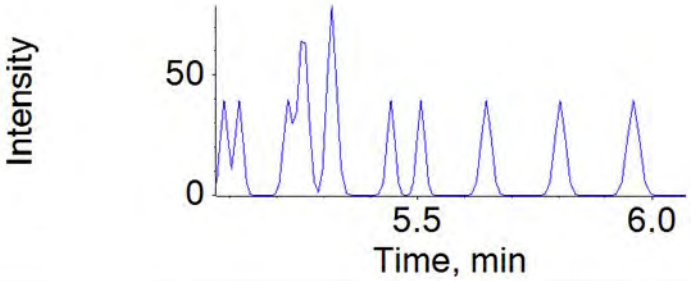
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

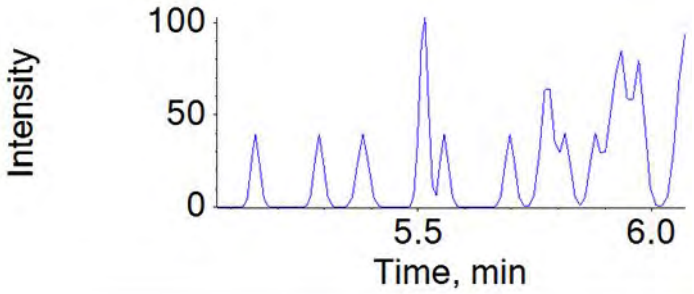
Component: PFDA
Primary Mass: 513.0 / 469.0



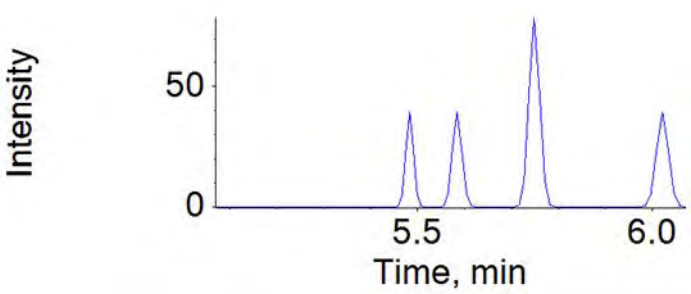
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



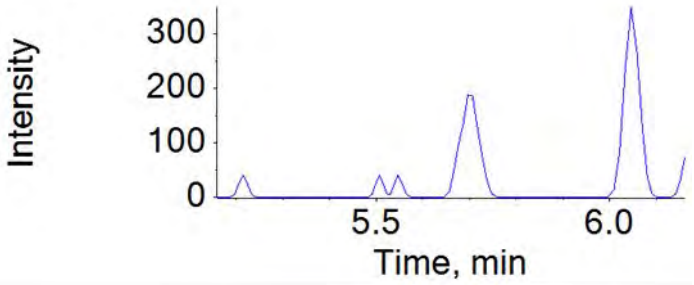
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



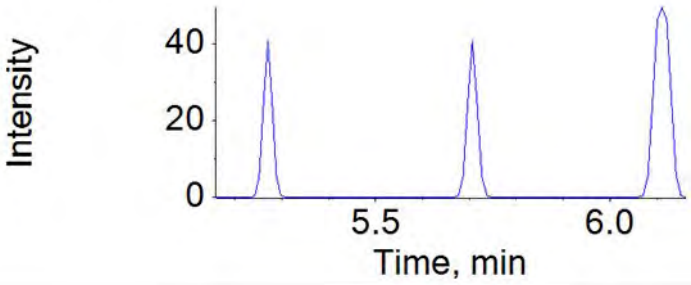
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



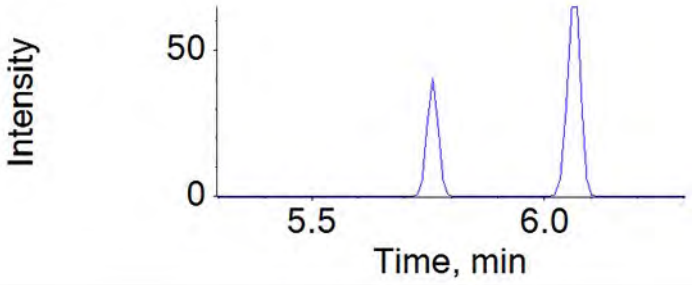
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



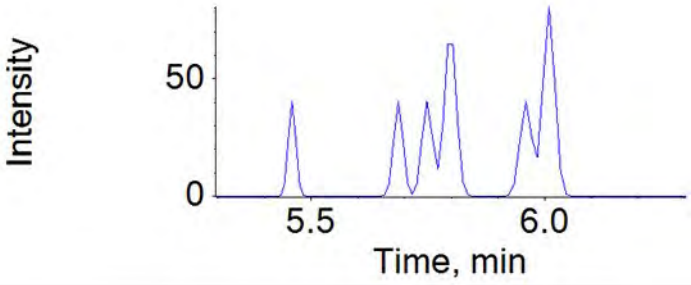
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



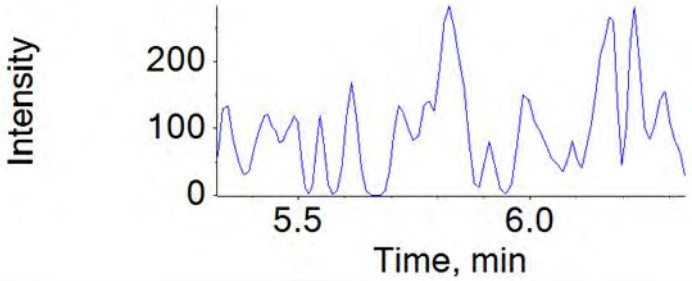
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



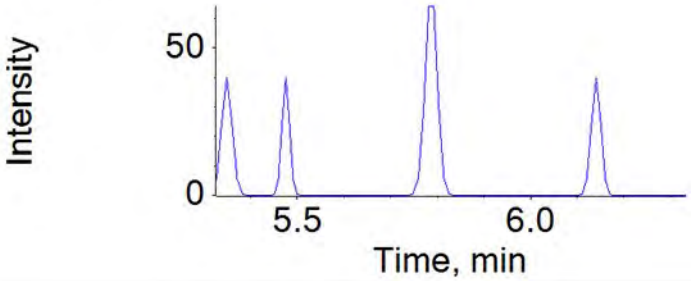
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

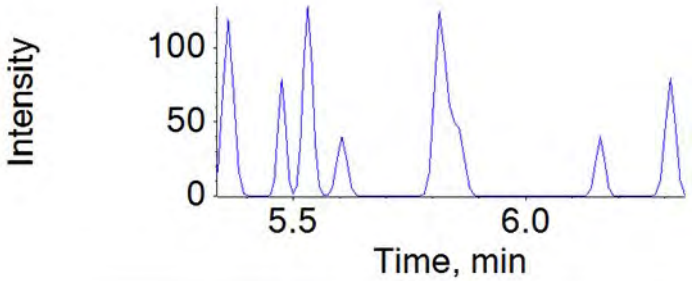
Component: PFUnDA
Primary Mass: 563.0 / 519.0



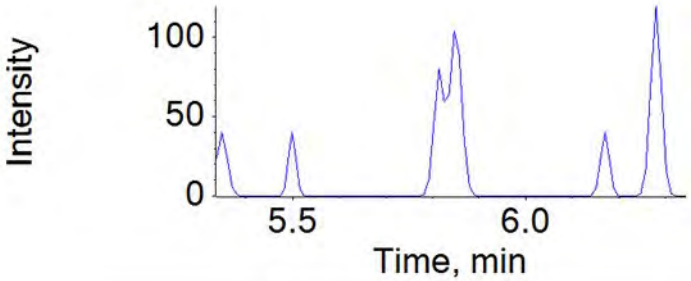
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



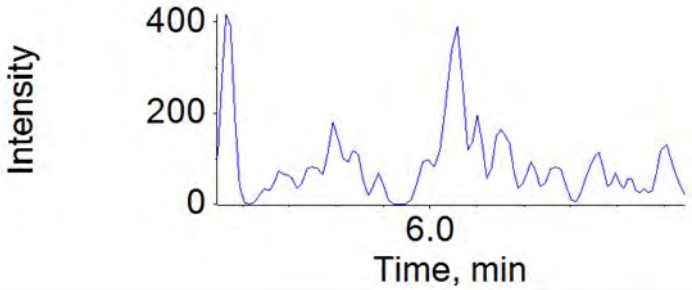
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



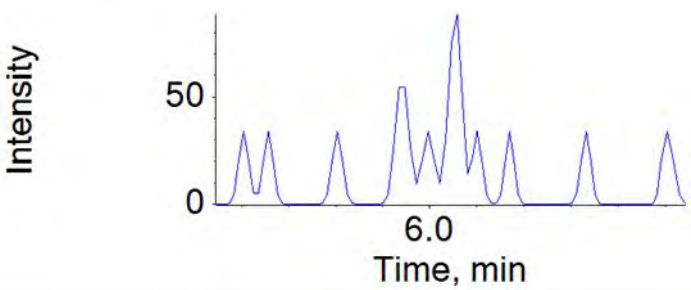
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



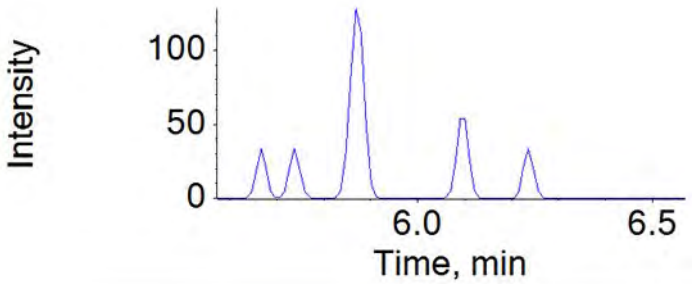
Component: PFDoDA
Primary Mass: 613.0 / 569.0



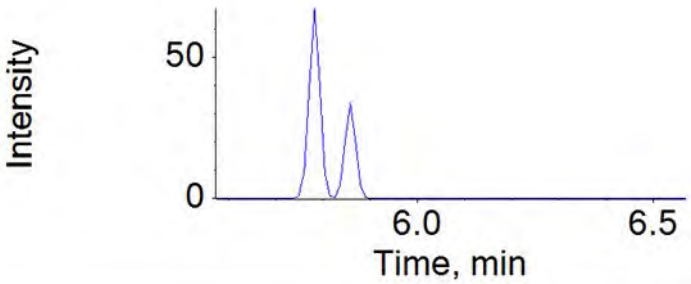
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



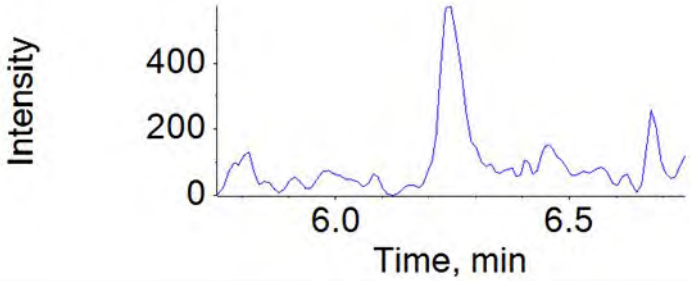
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



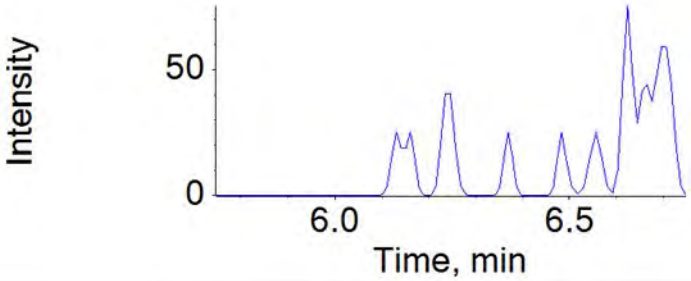
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

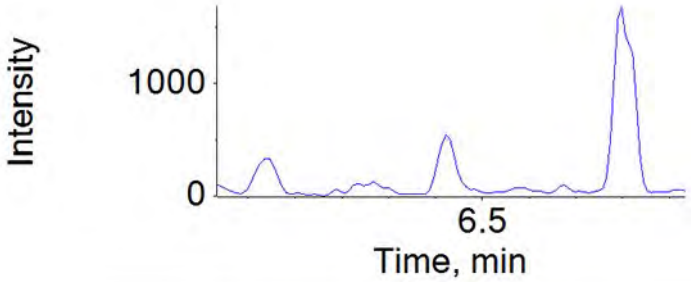
Component: PFTrDA
Primary Mass: 663.0 / 619.0



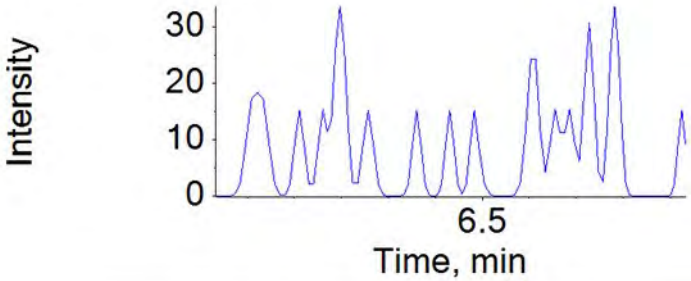
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



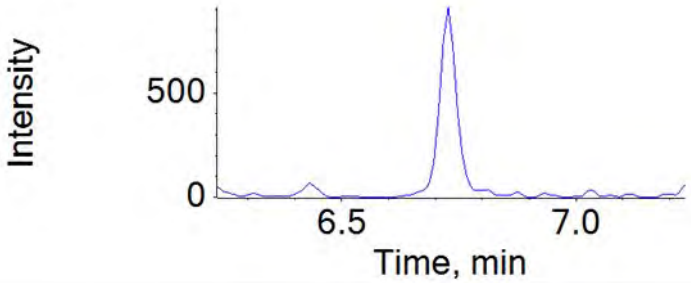
Component: PFTeDA
Primary Mass: 713.0 / 669.0



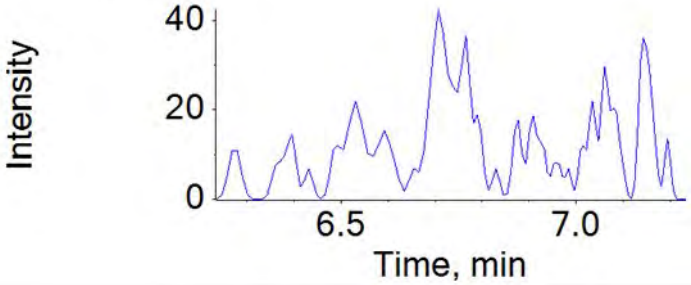
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



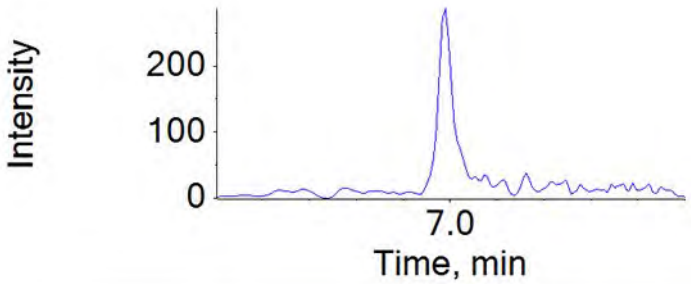
Component: PFHxDA
Primary Mass: 813.0 / 769.0



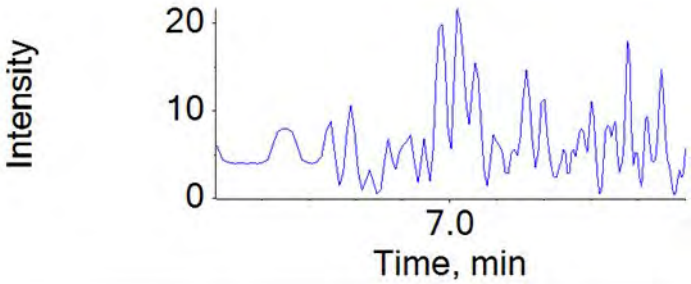
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



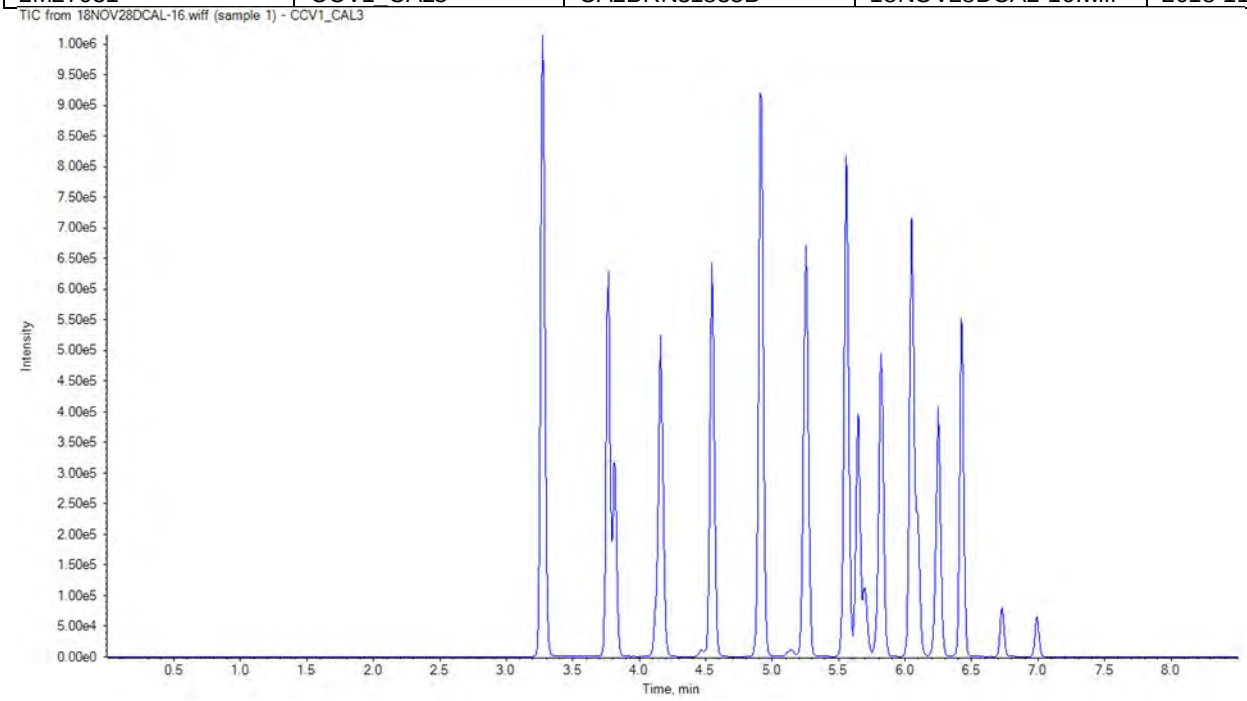
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

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



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

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

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	
PFTrDA	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	
PFODA	137372.8	10	13C2-PFTeDA	823659.2	5.0	0.167	6.99	1.090	2.000	2.222	11	30	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **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	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

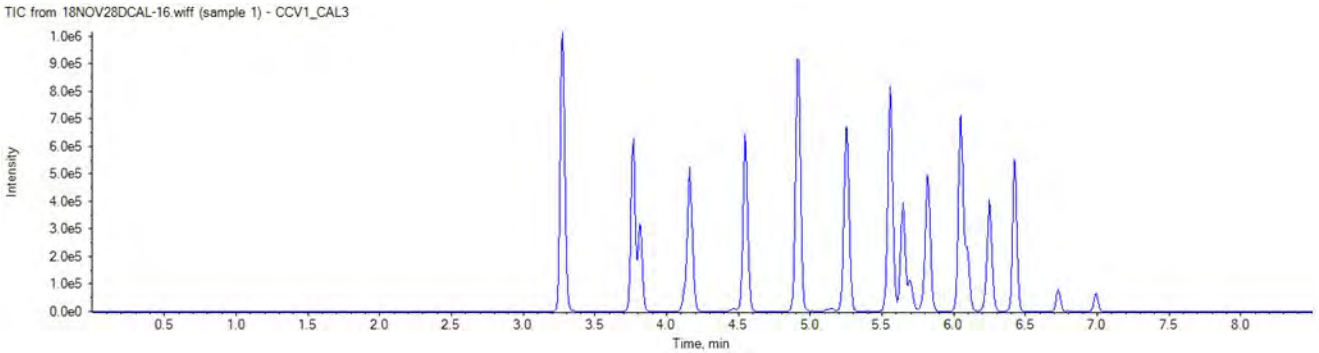
Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-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	3.27	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
PFDoDA	6.05	1.000	480438.7		A	13C2-PFDoDA	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
PFDoS	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
PFTrDA	6.25	1.030	453601.4		A	13C2-PFDoDA	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

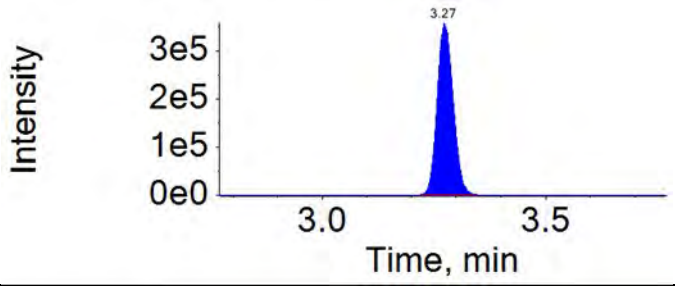


APPROVED
By MCD at 5:01 pm, 11/28/18

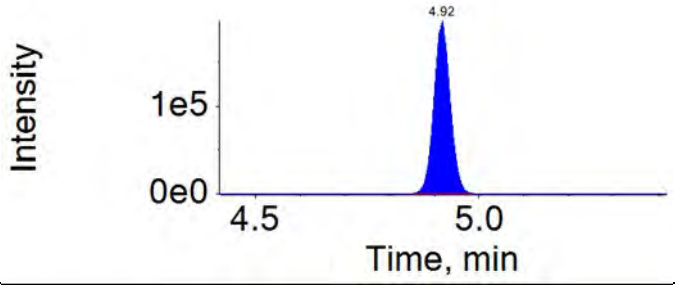
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

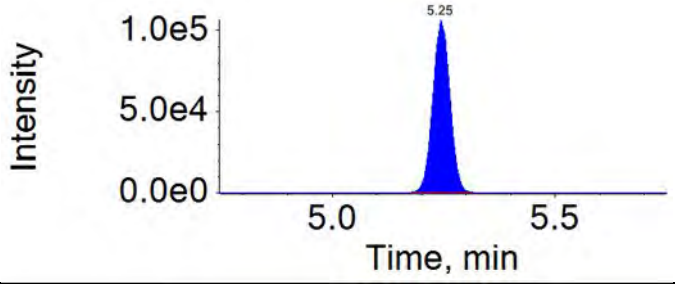
Injection Standard: 13C3-PFBA
216.0 / 172.0



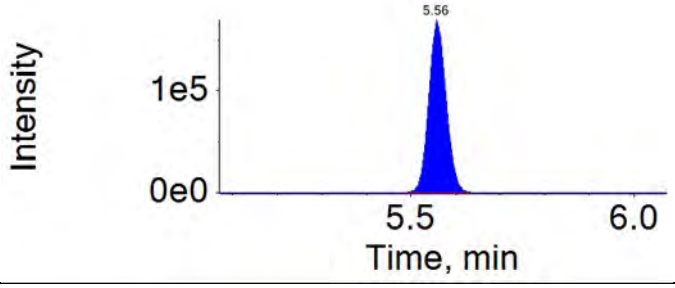
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

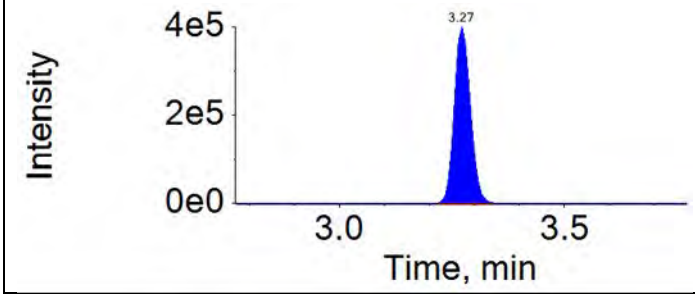


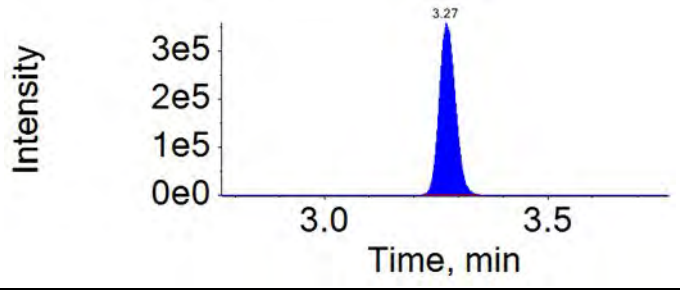
Injection Standard: 13C2-PFDA
515.0 / 470.0



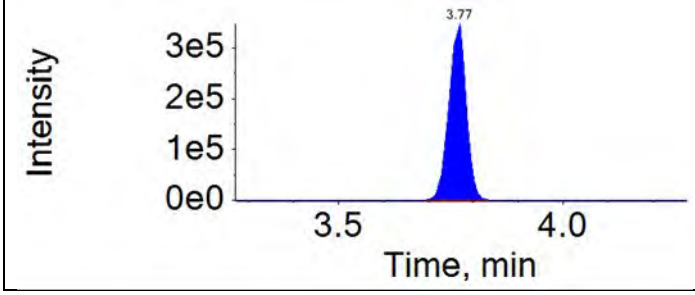
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

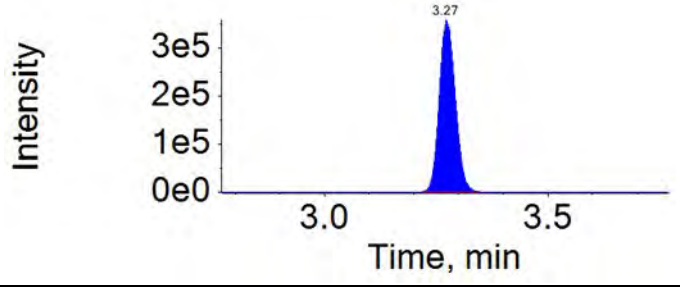
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



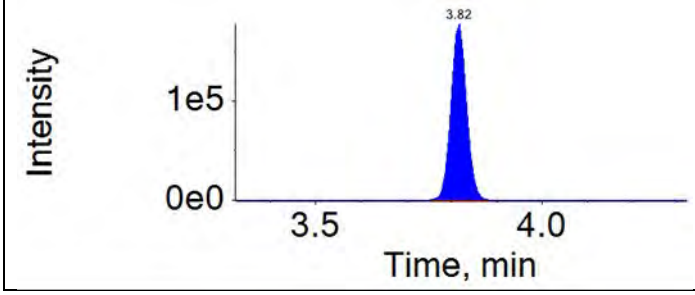


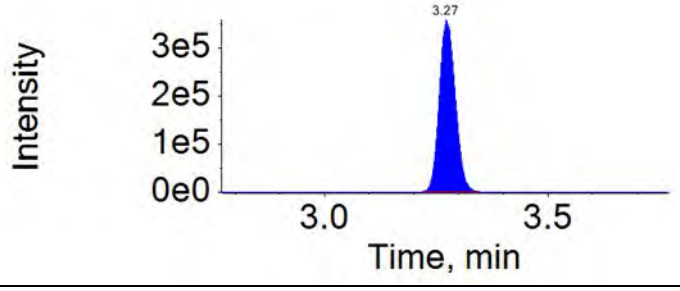
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



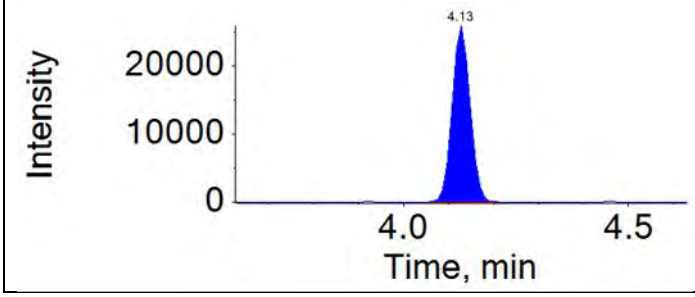


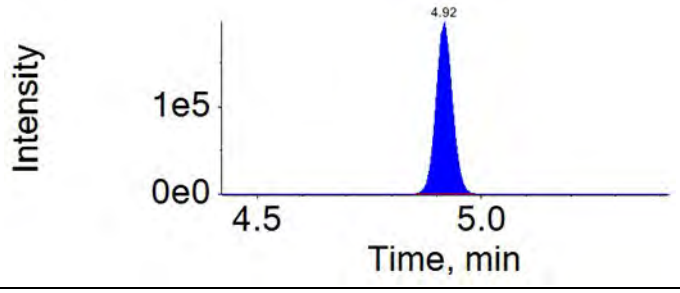
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





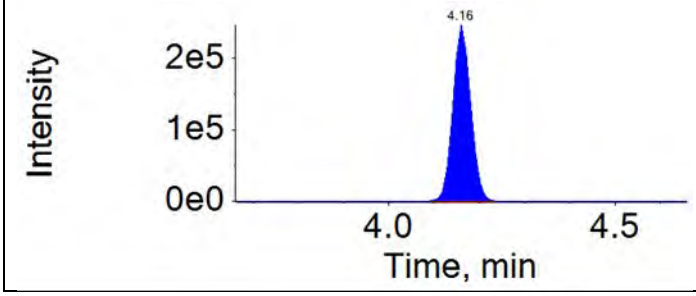
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

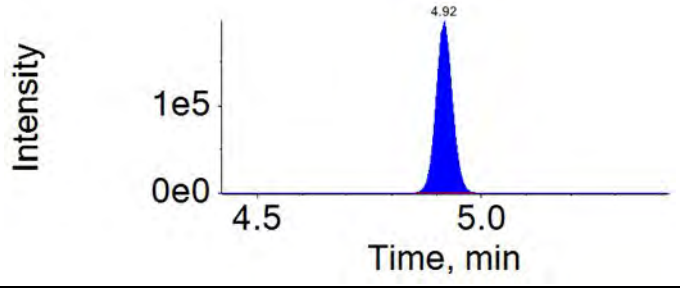




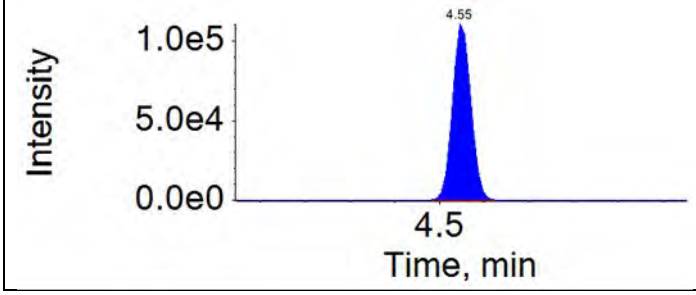
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

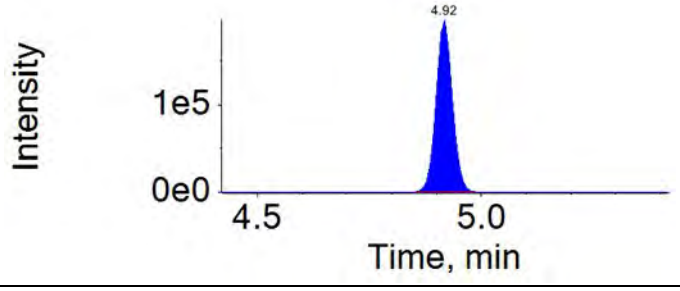
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



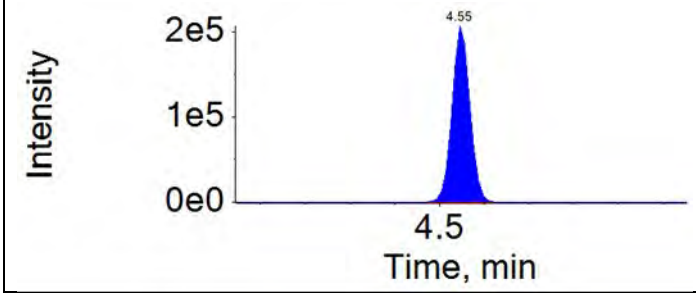


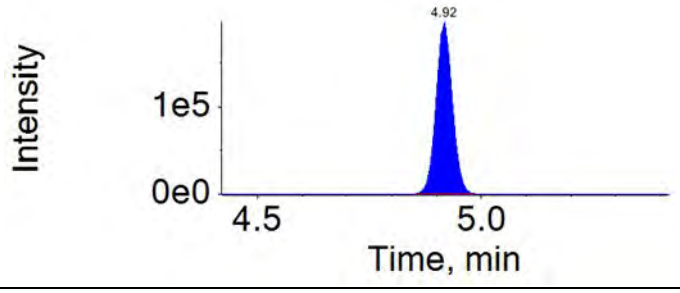
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



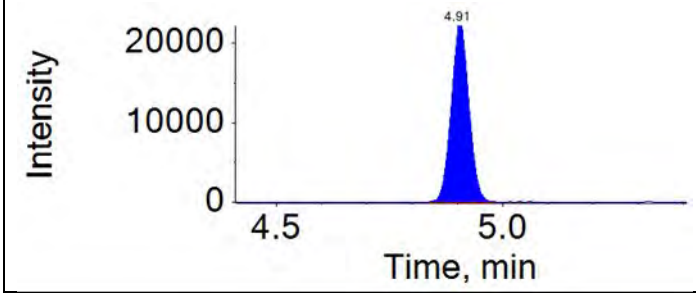


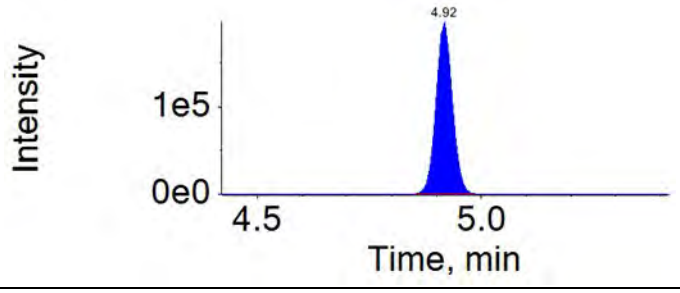
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

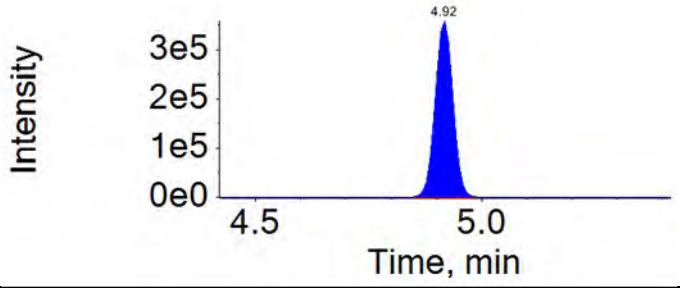
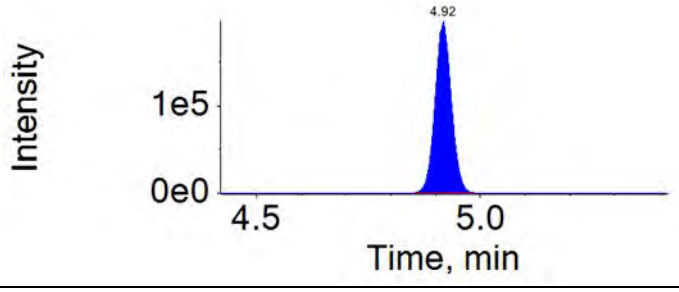


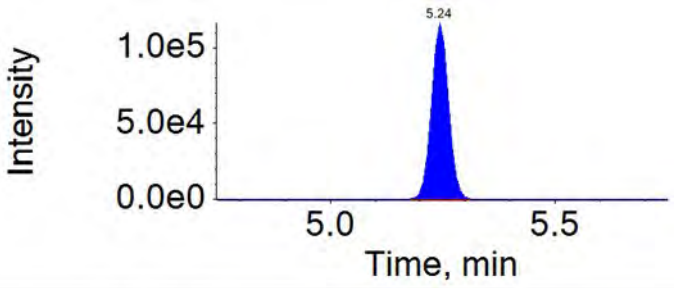
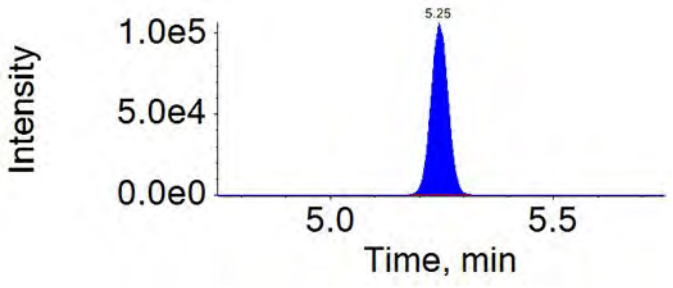


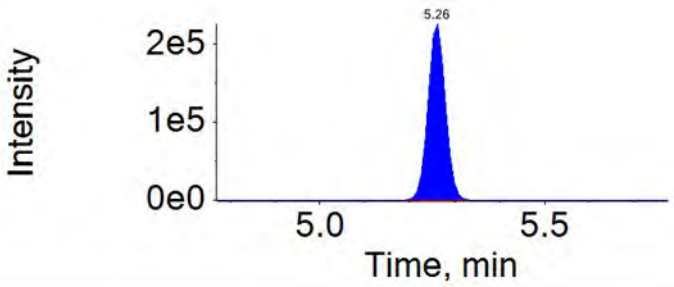
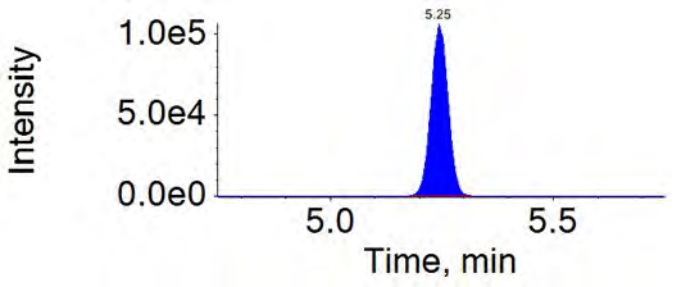
APPROVED
By MCD at 5:01 pm, 11/28/18

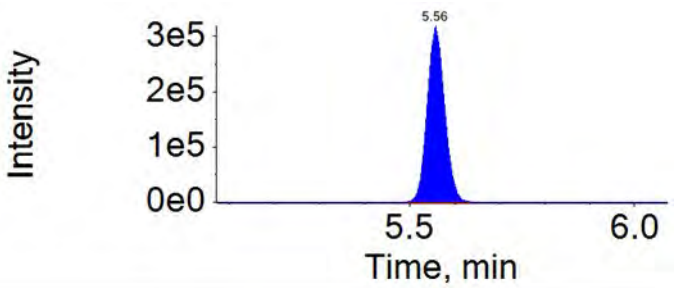
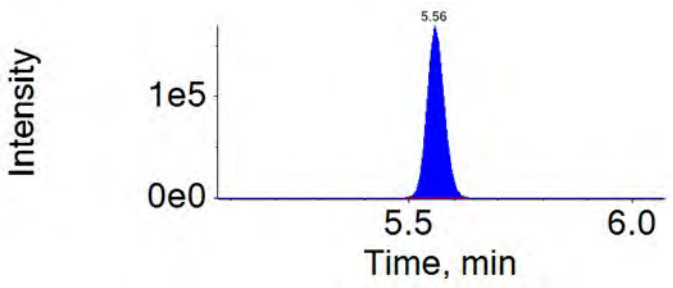
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

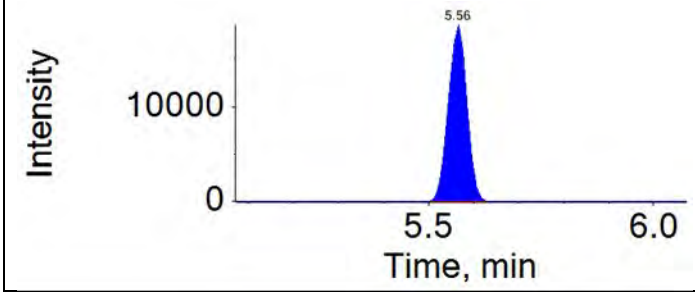
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

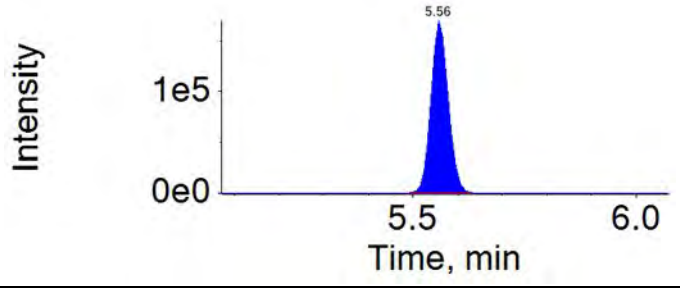
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

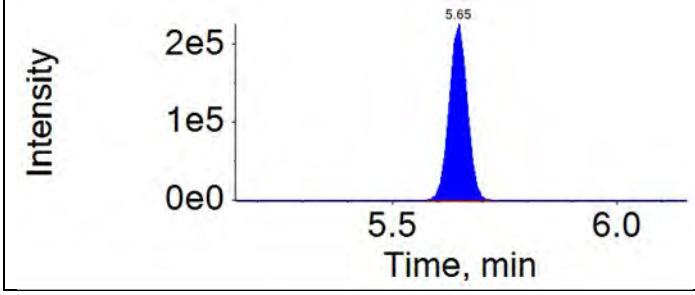
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

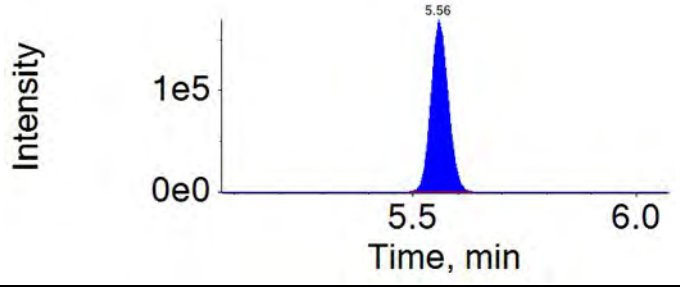
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



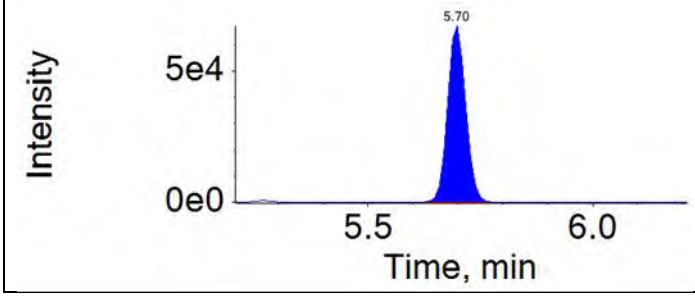


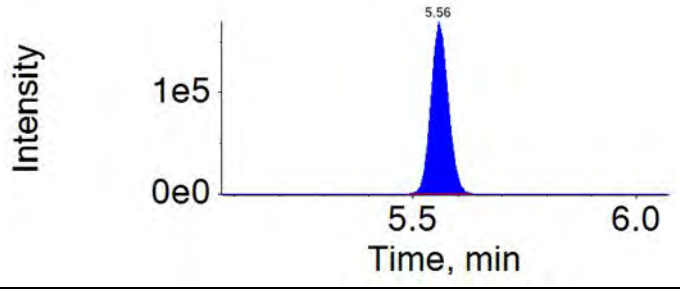
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



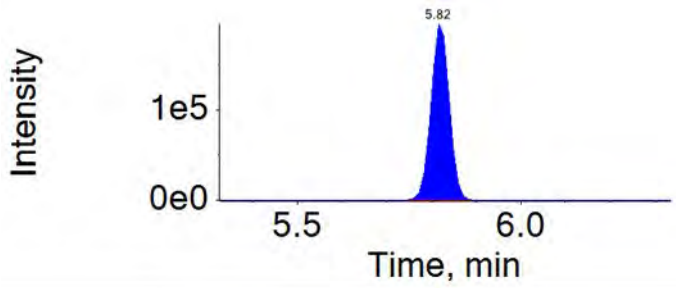


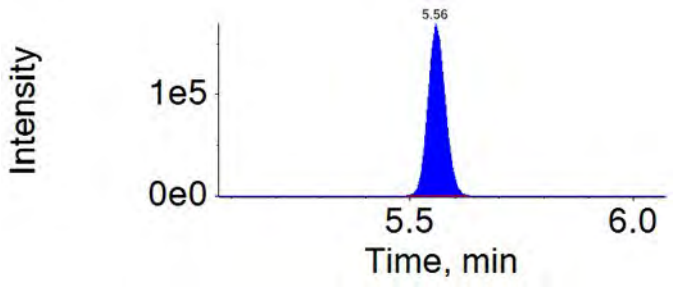
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



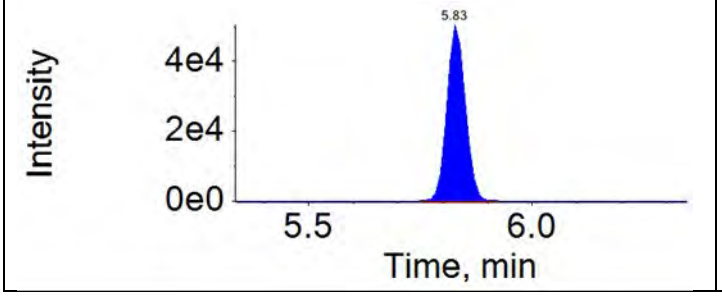


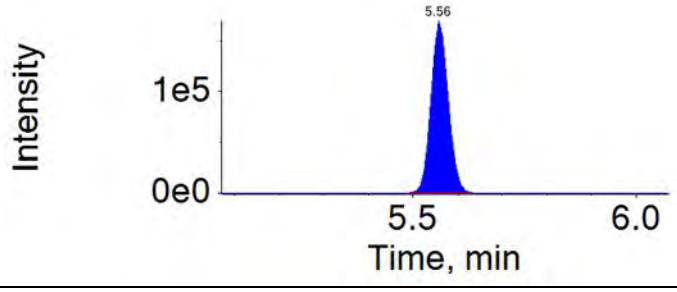
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

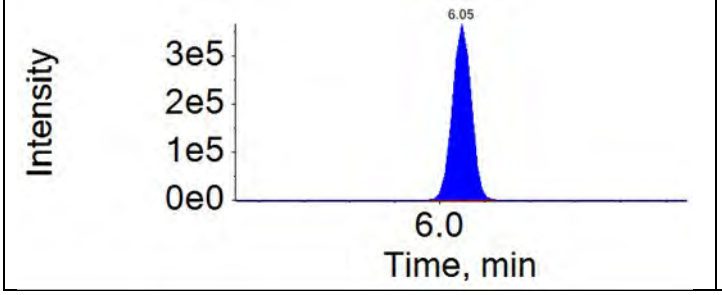
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

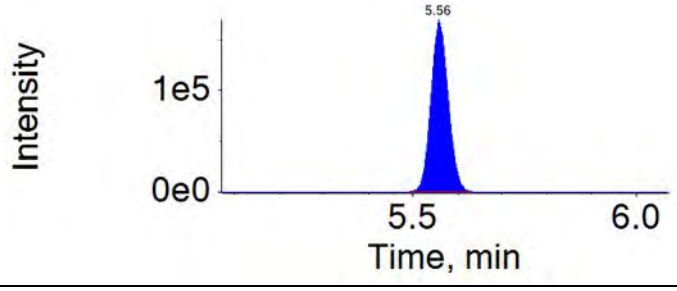
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



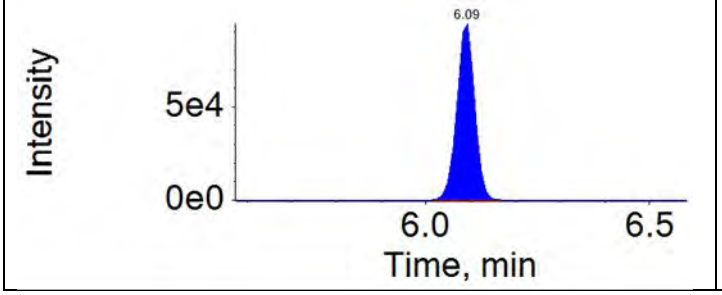


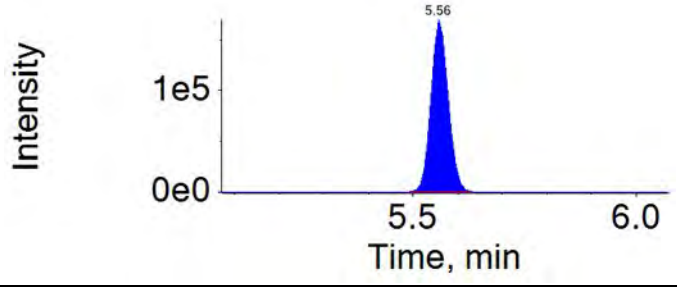
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



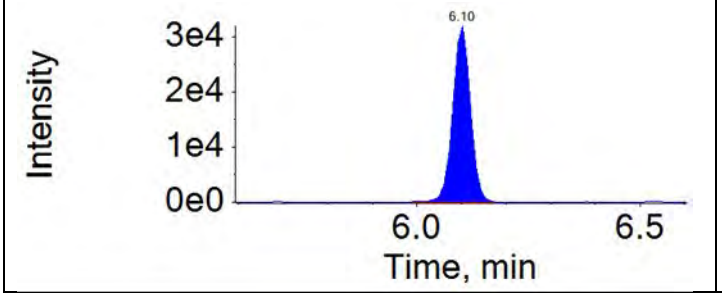


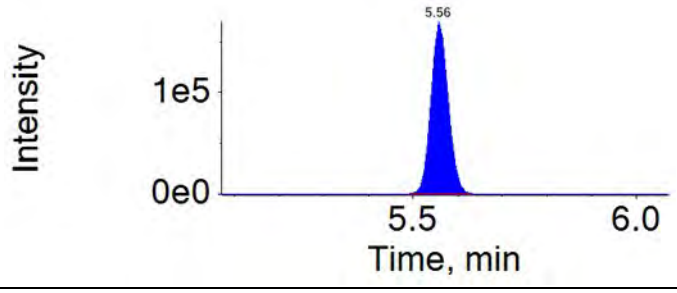
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



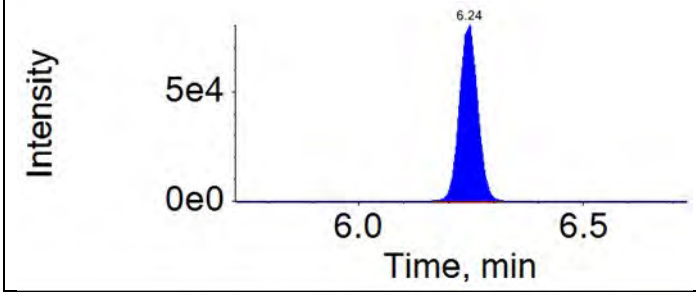


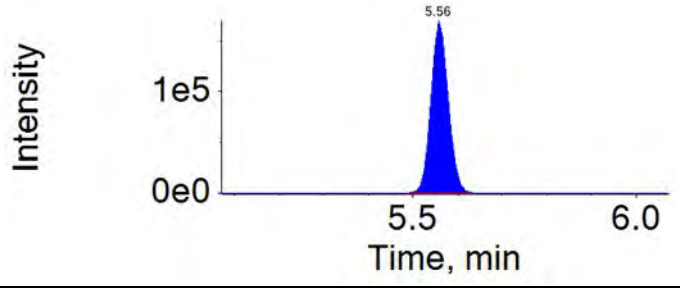
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

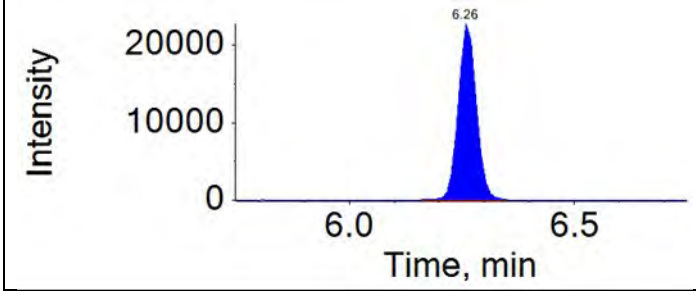
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

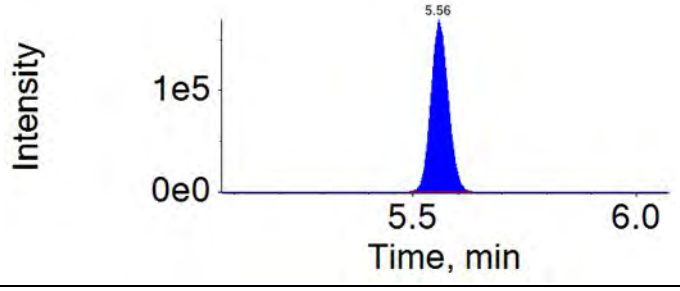
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



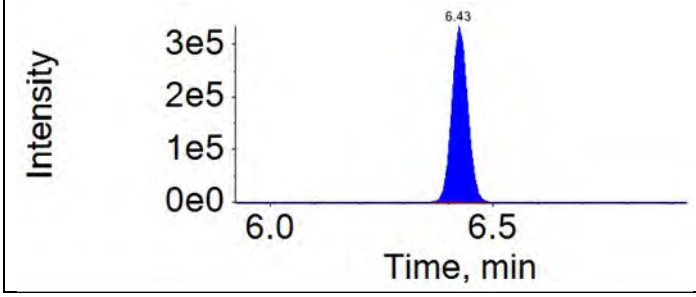


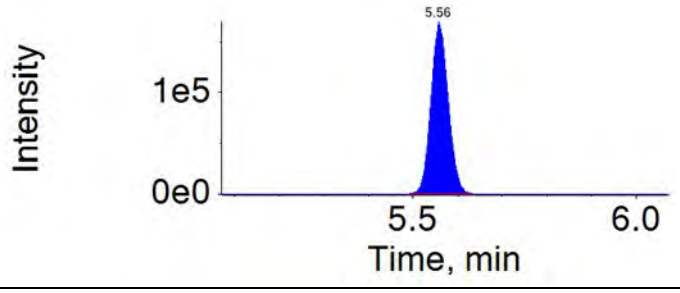
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



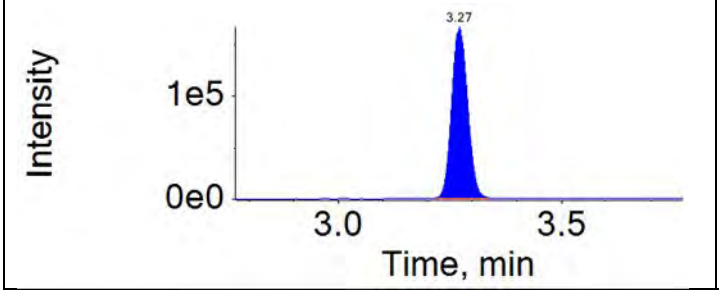


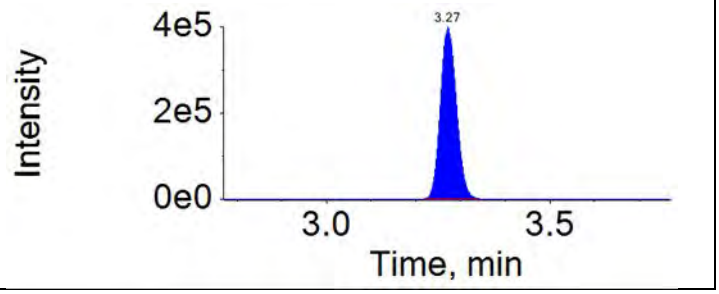
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

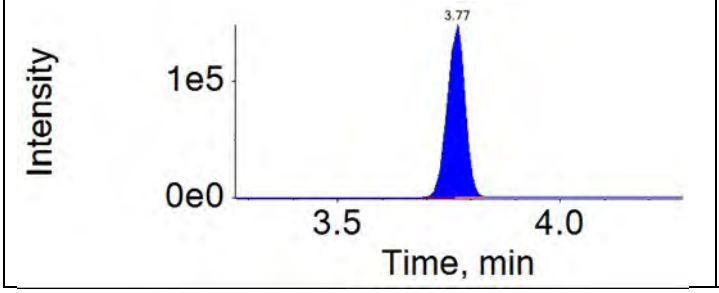
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

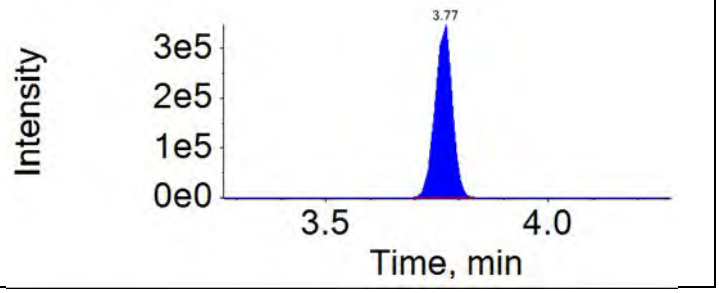
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



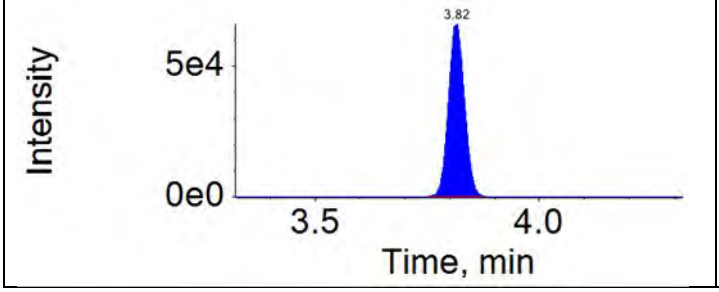


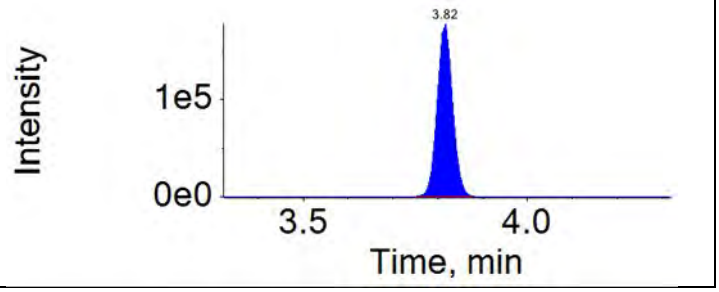
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



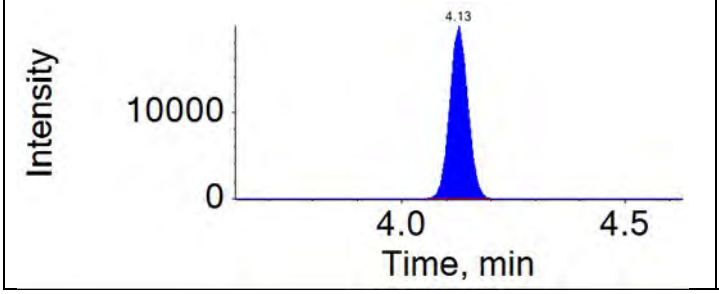


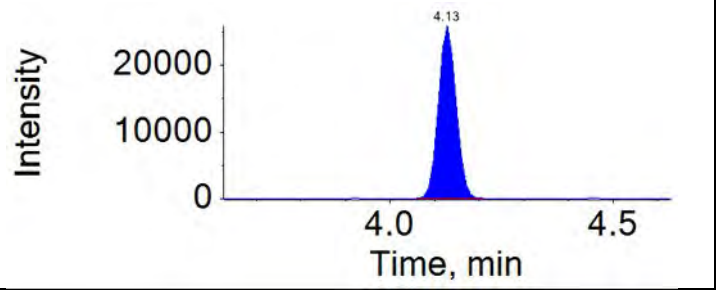
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



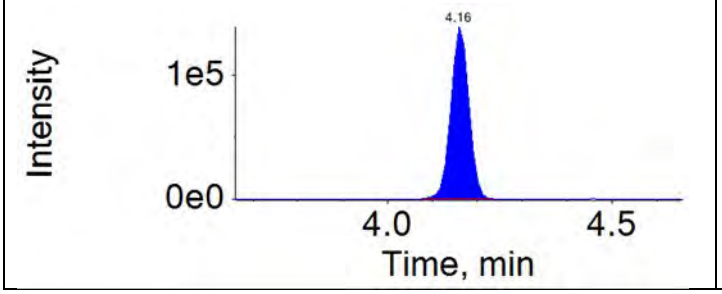


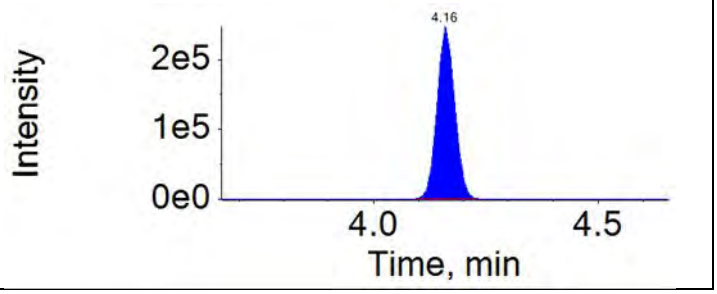
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

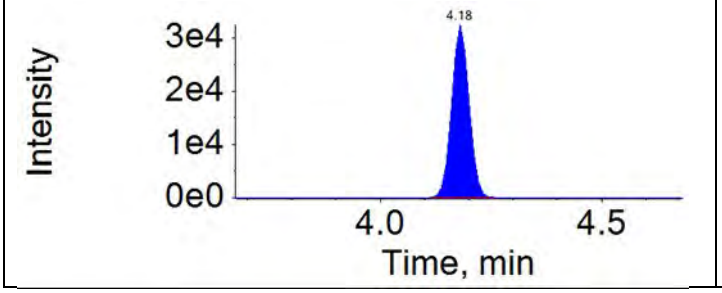
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

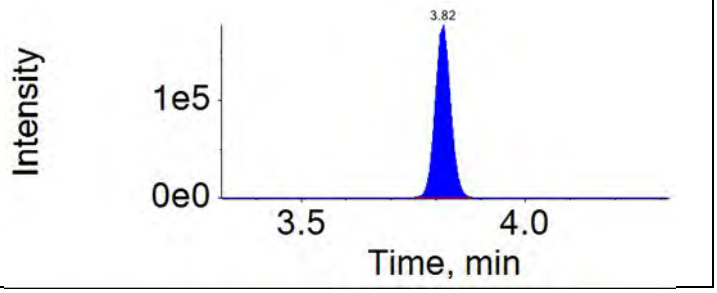
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



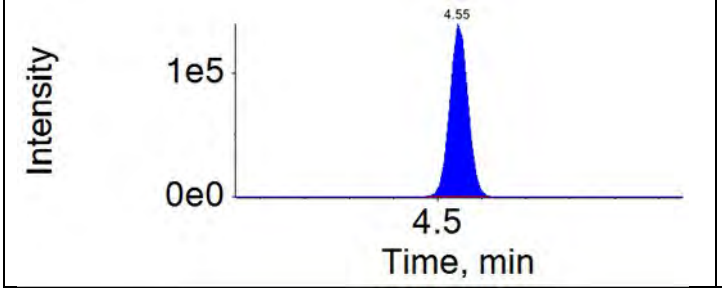


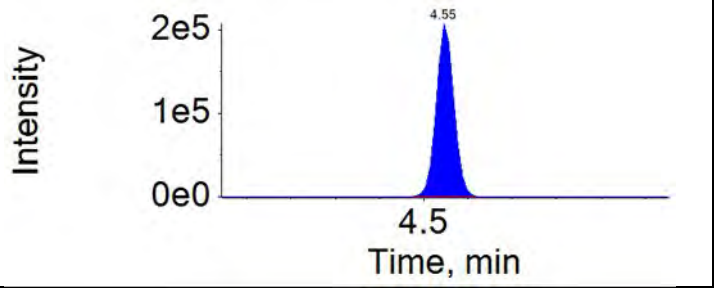
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



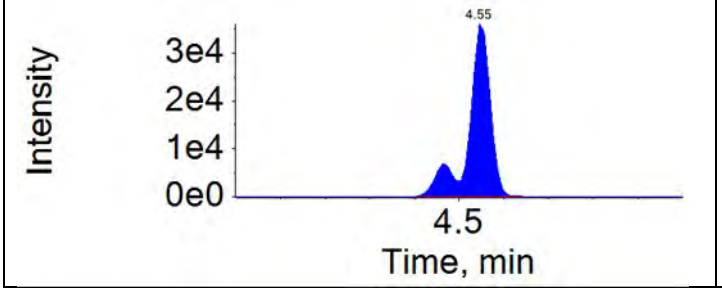


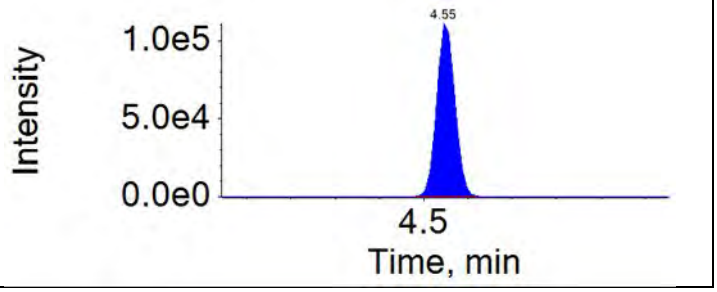
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

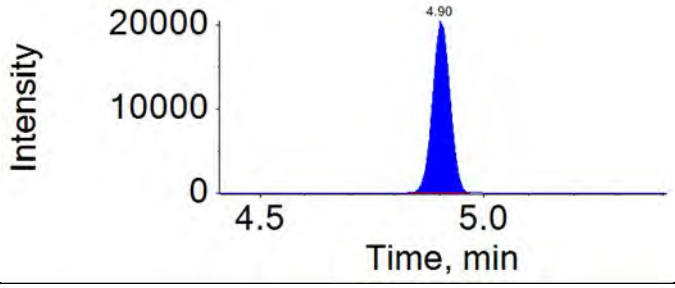
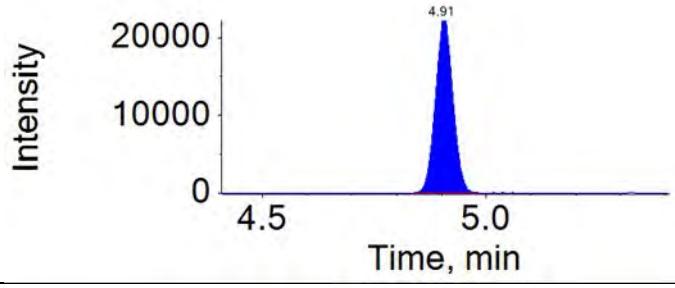


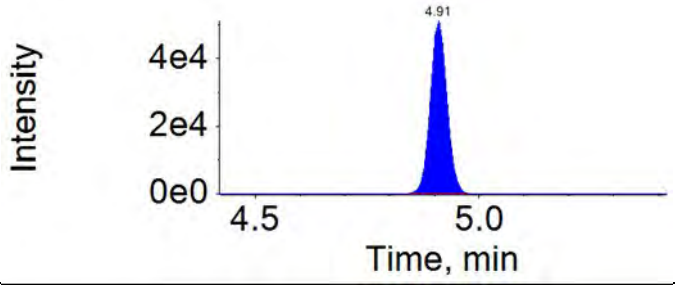
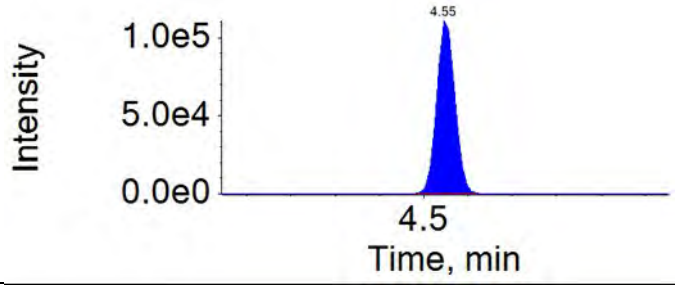


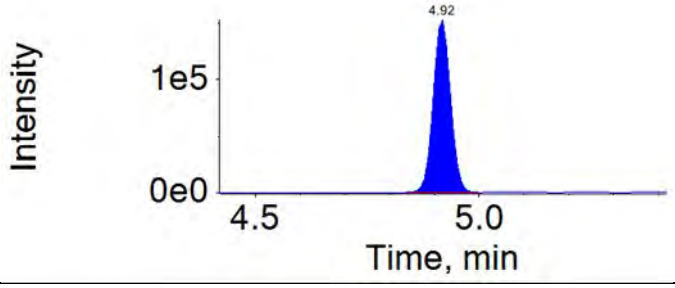
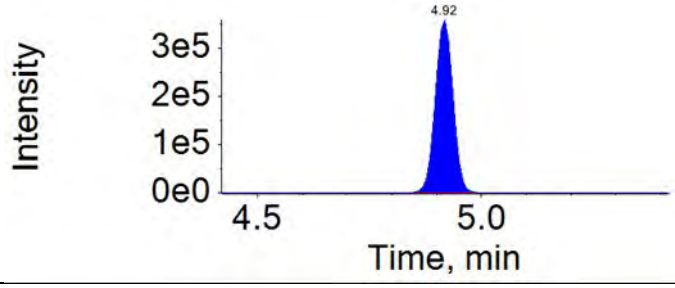
APPROVED
By MCD at 5:01 pm, 11/28/18

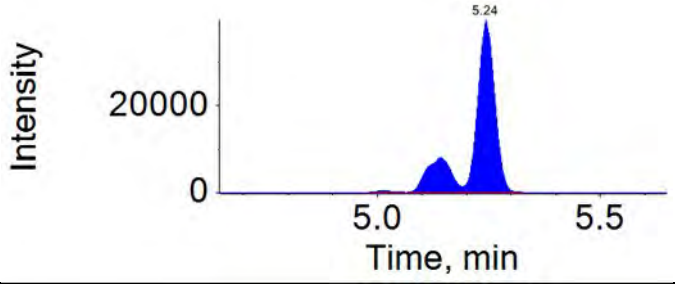
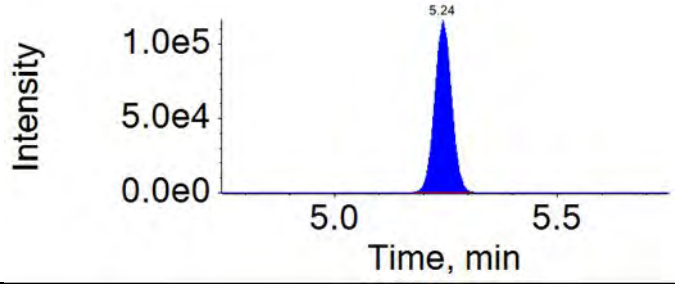
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

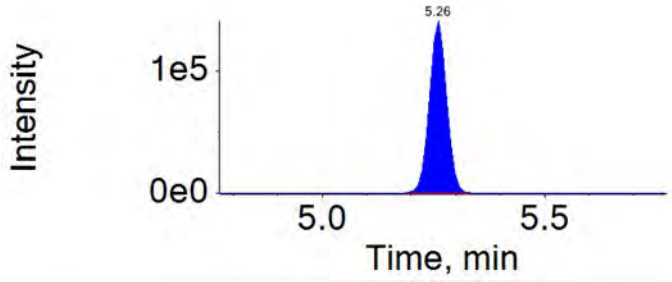
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

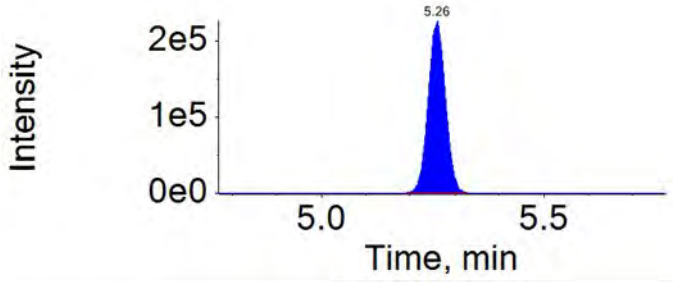
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

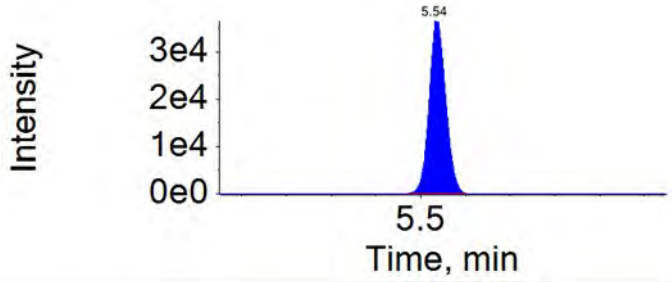
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

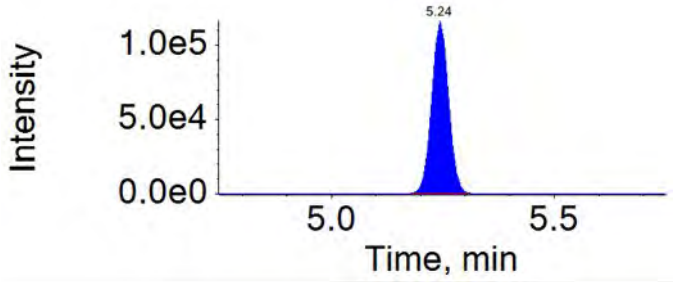
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



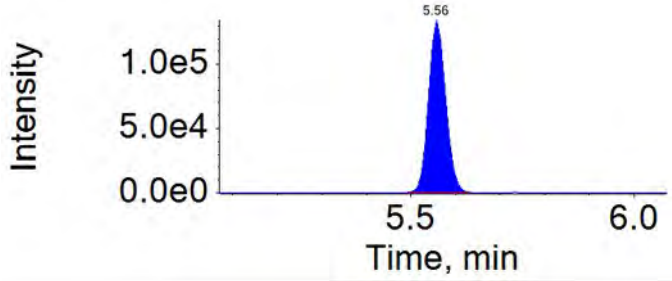


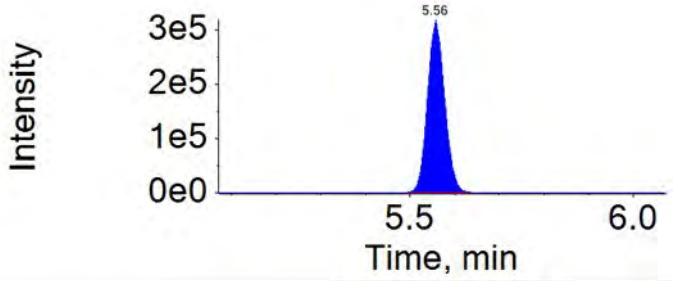
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



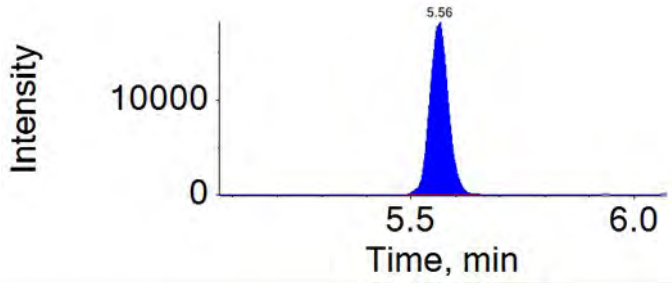


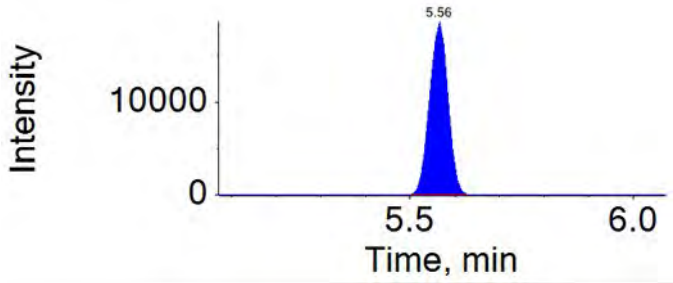
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



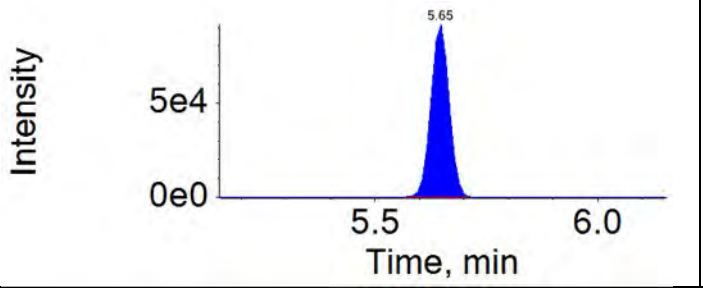


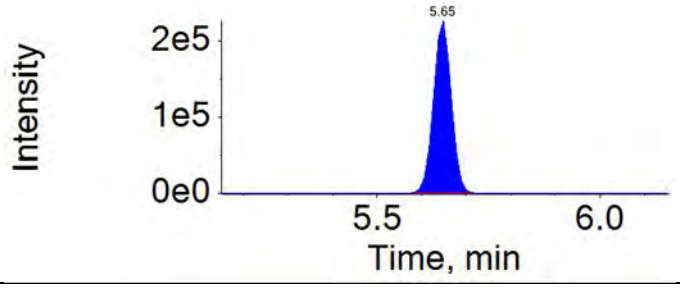
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

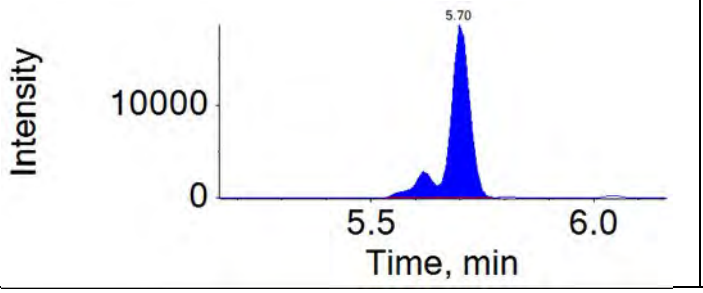
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

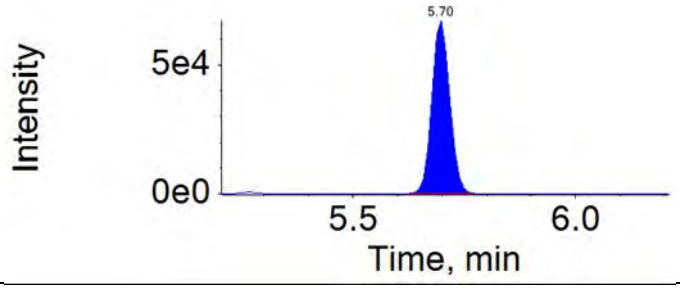
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



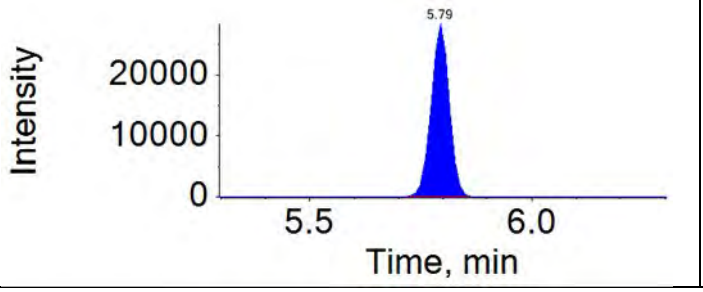


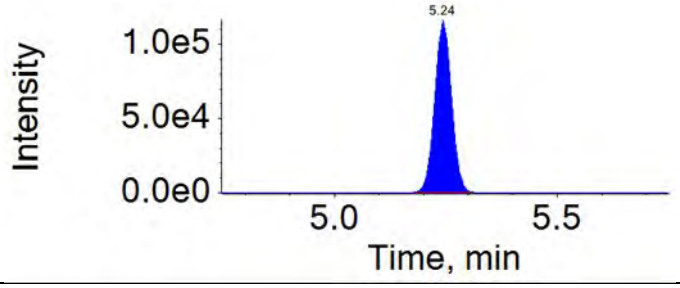
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



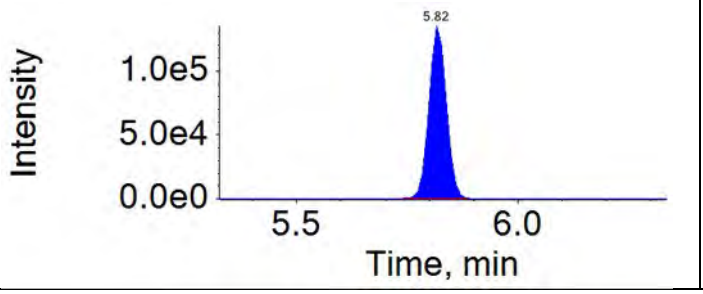


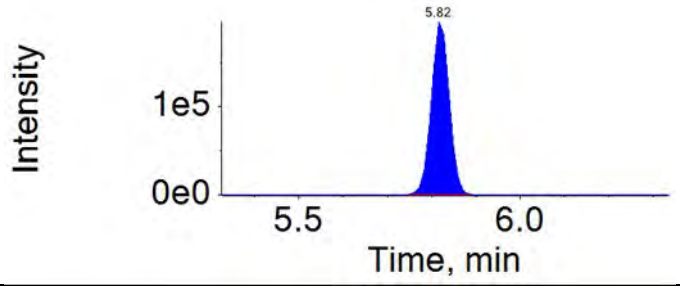
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



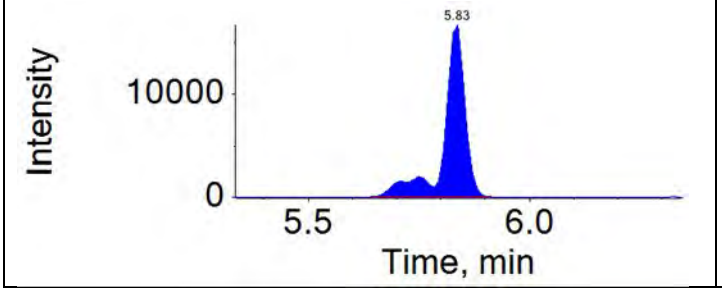


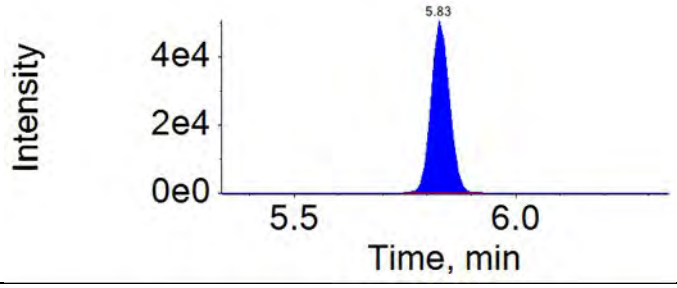
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

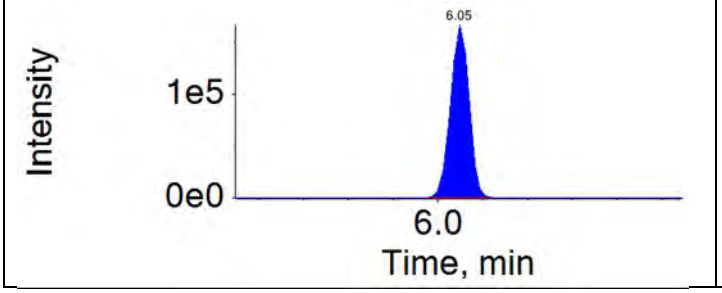
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

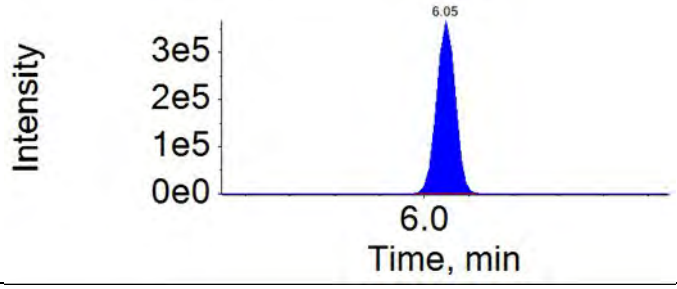
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



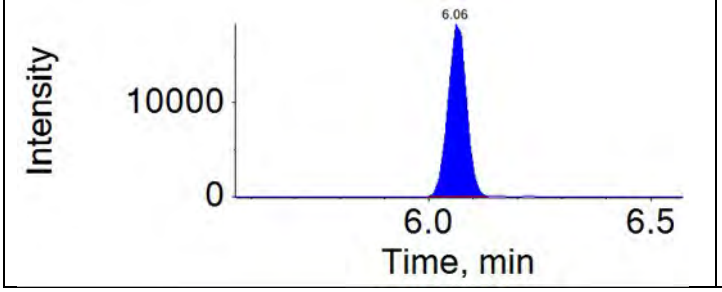


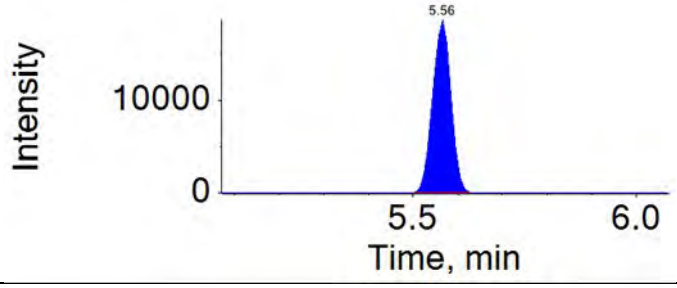
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



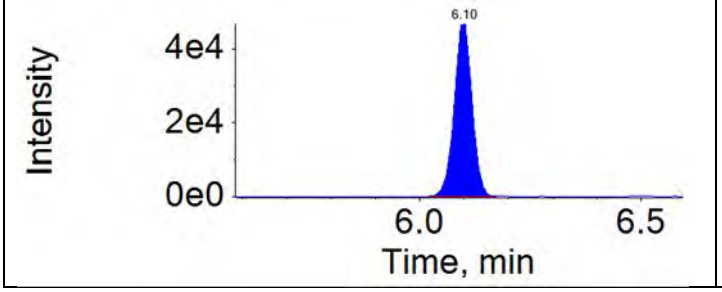


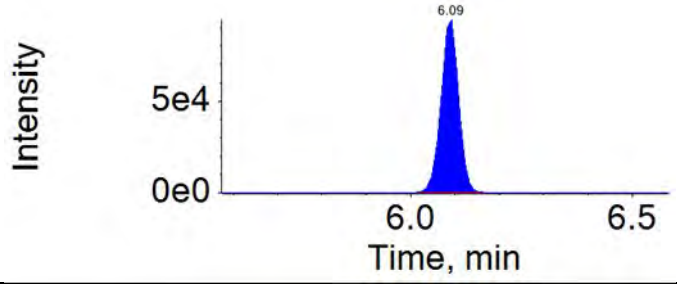
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



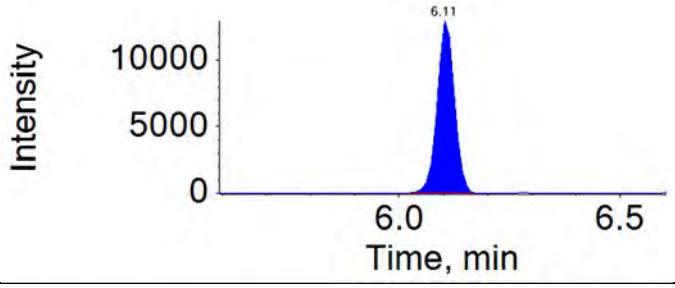


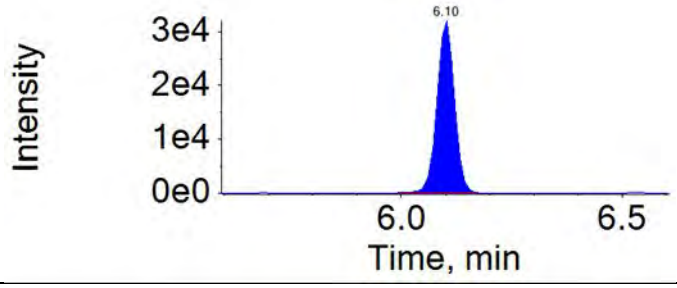
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

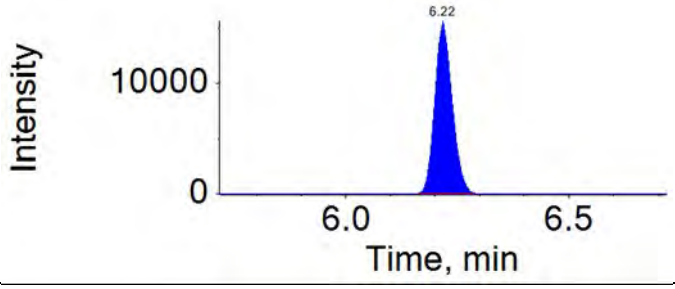
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

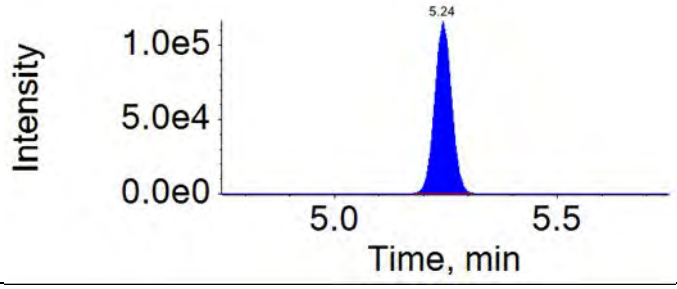
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



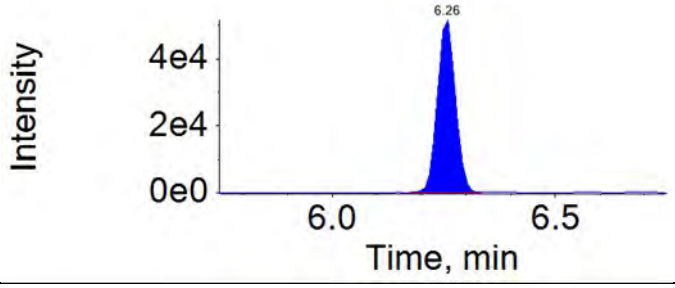


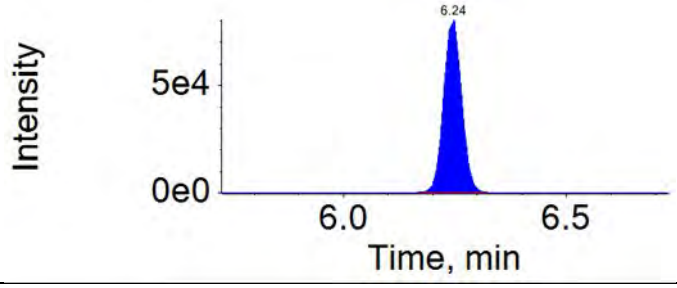
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



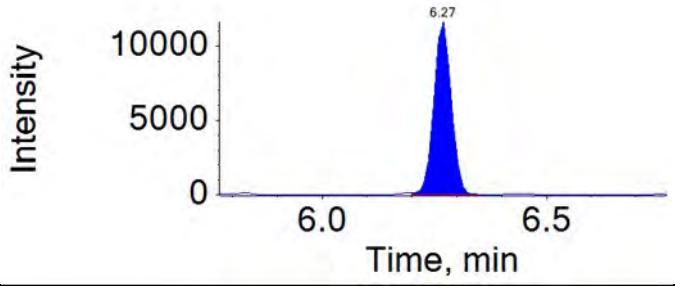


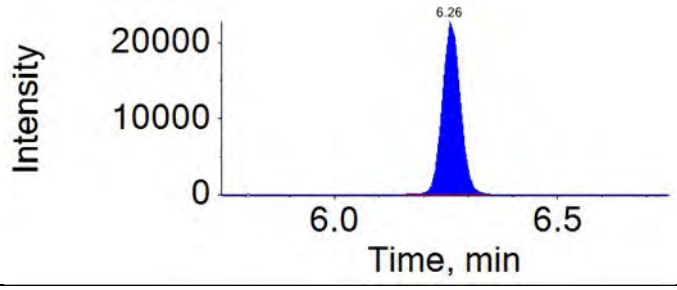
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



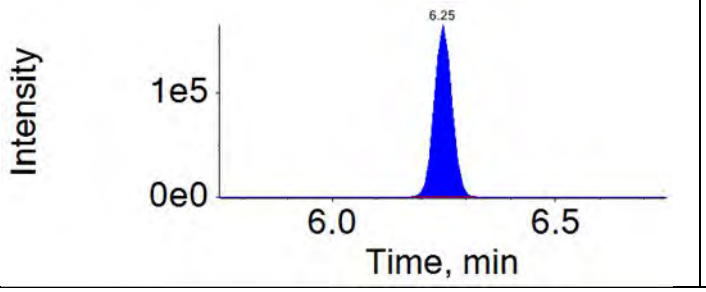


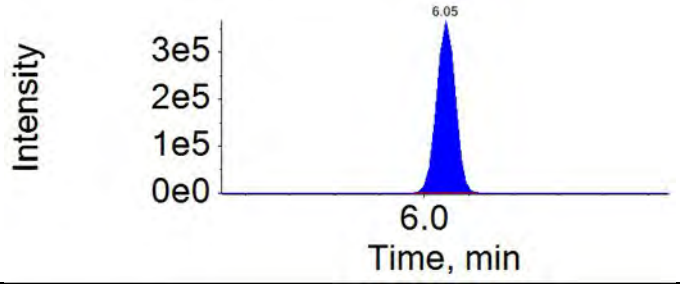
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

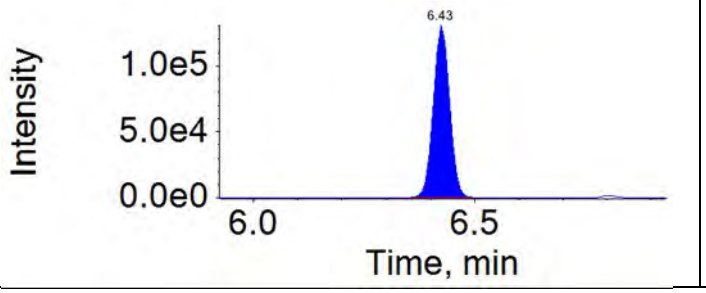
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

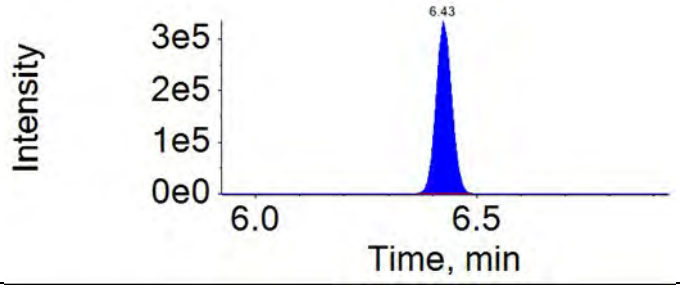
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



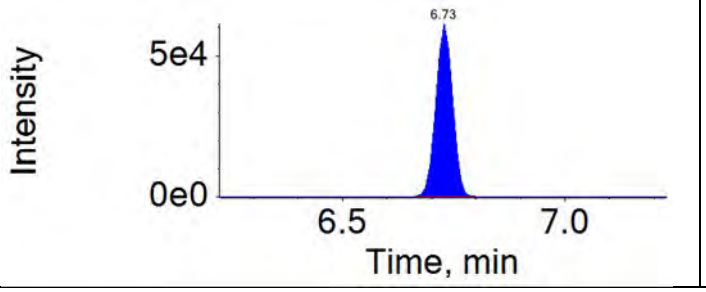


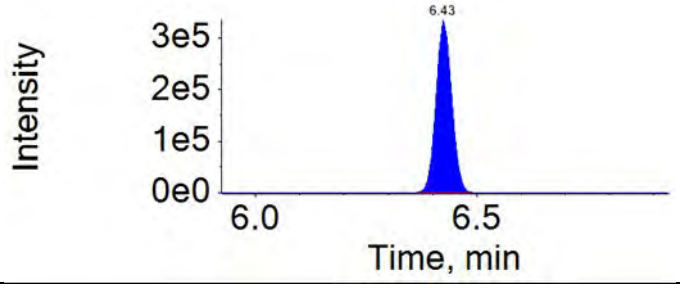
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



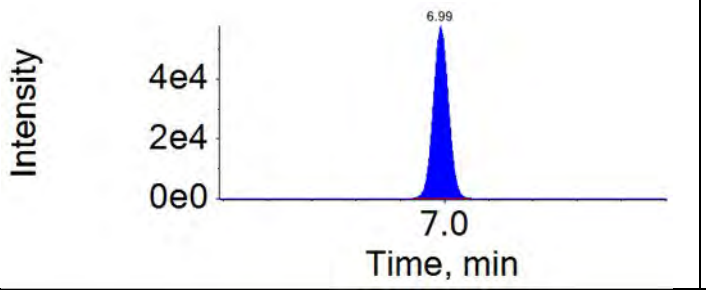


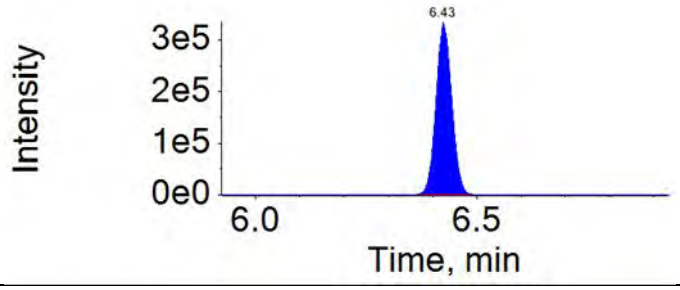
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



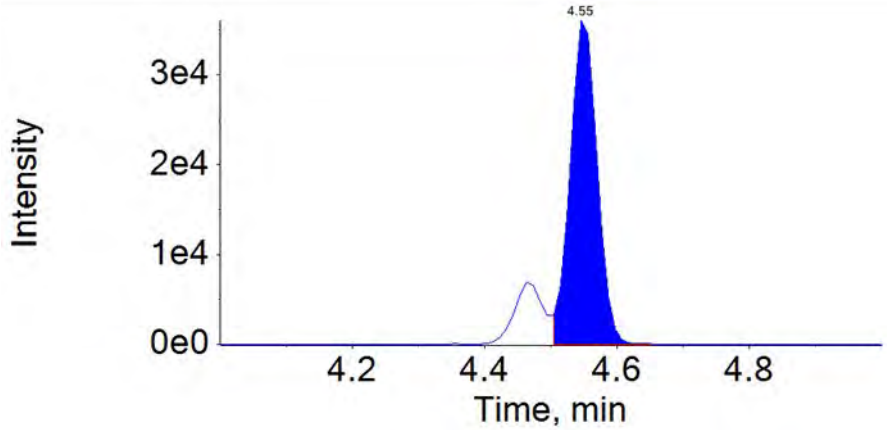


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

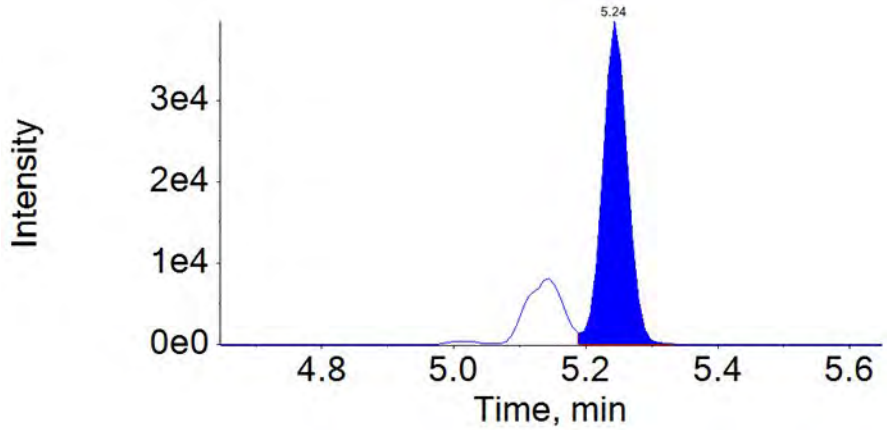
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
103015.29
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



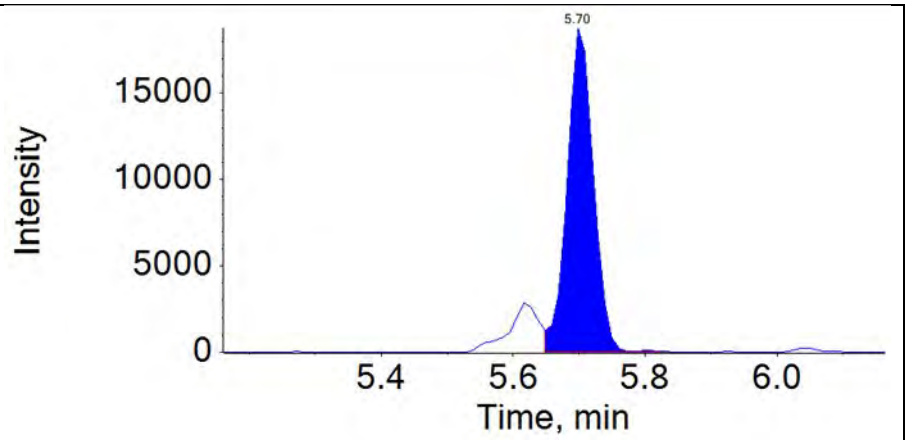
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
103980.06
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
52224.93
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



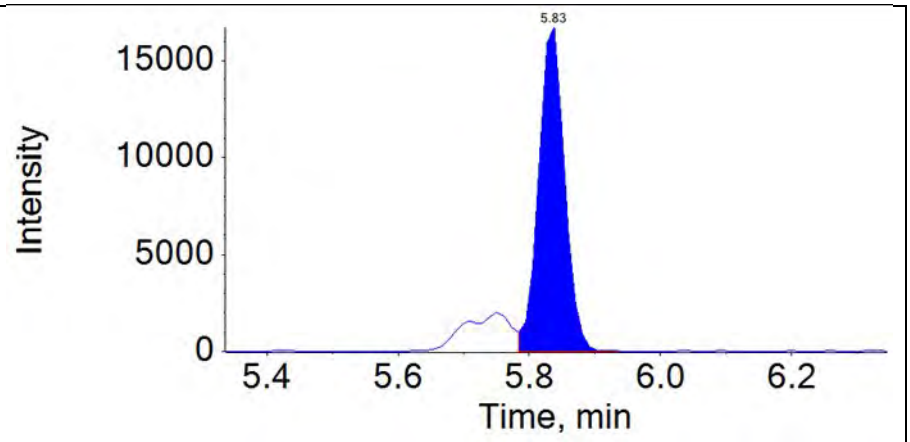
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

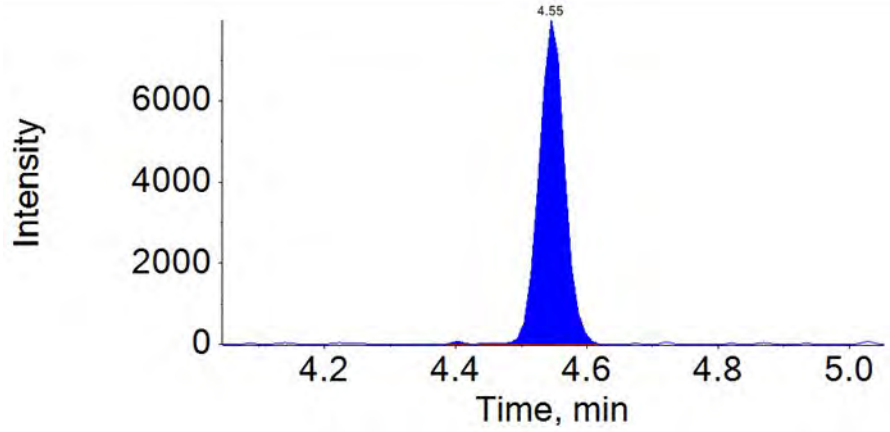
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



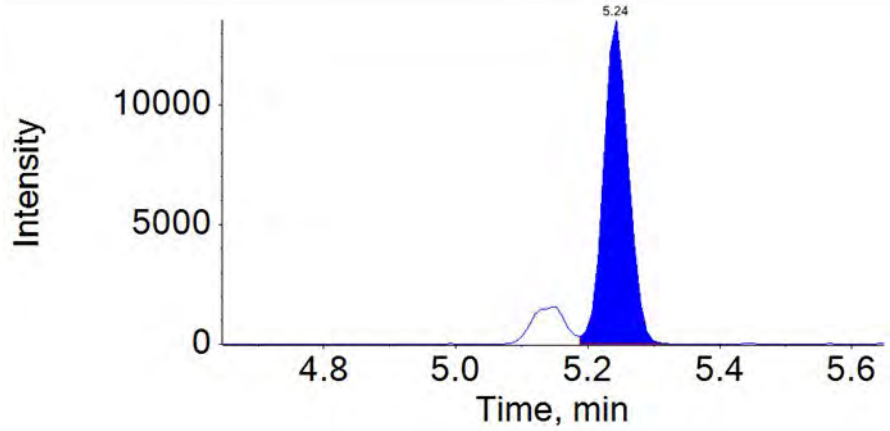
Integration Comment: incorrect integration

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



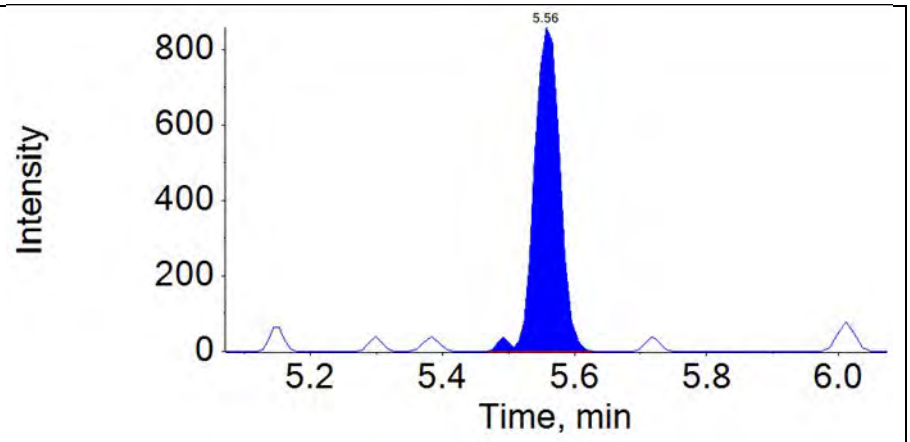
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

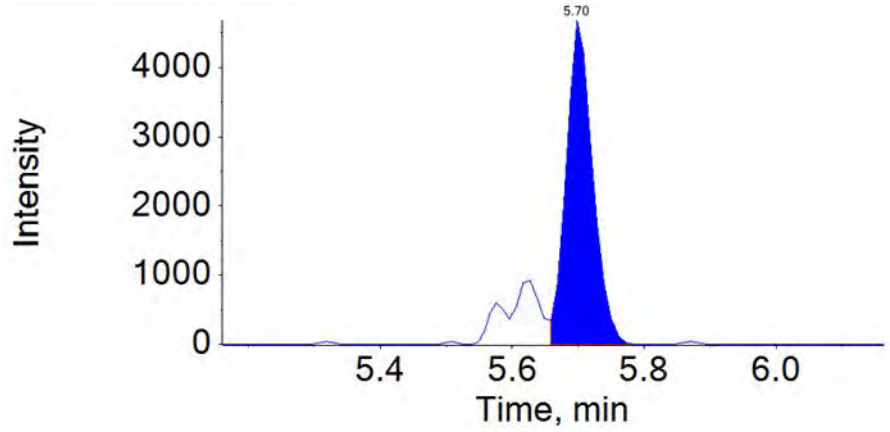
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



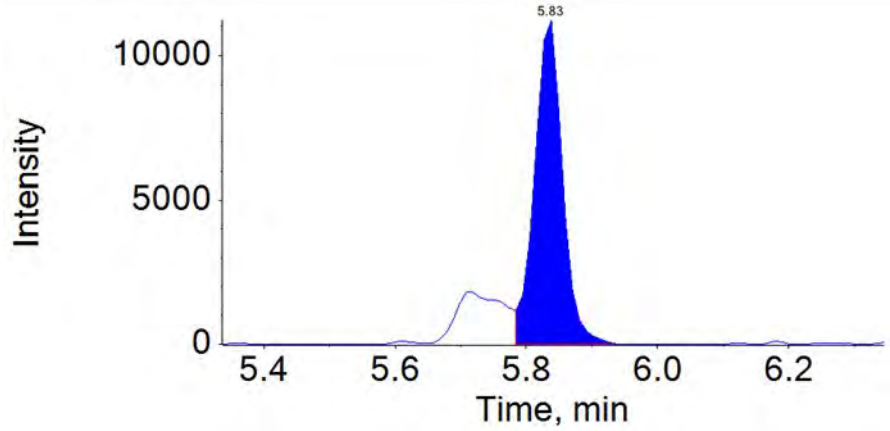
Integration Comment: incorrect integration

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

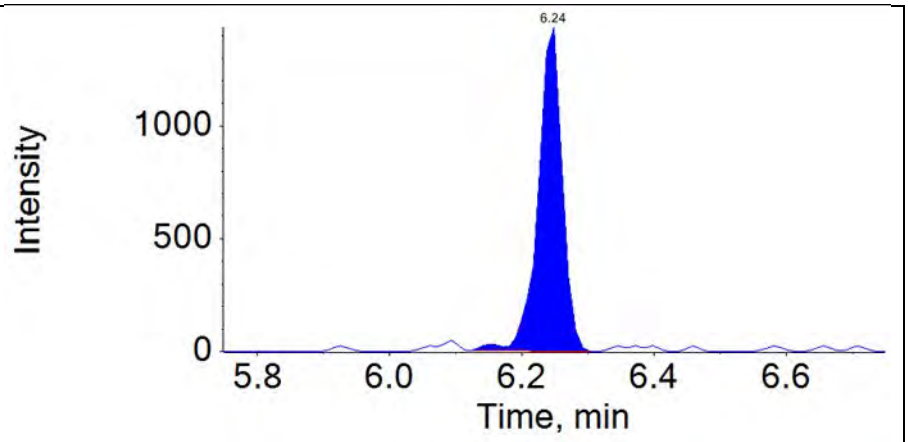
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

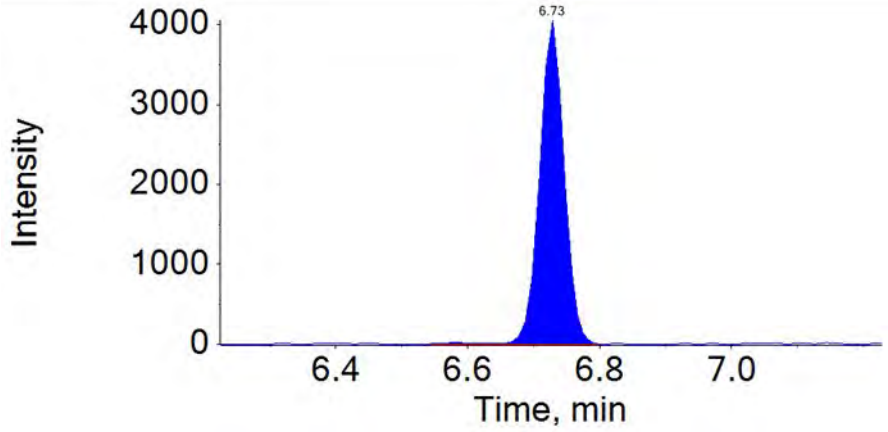
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Ion Ratio Report

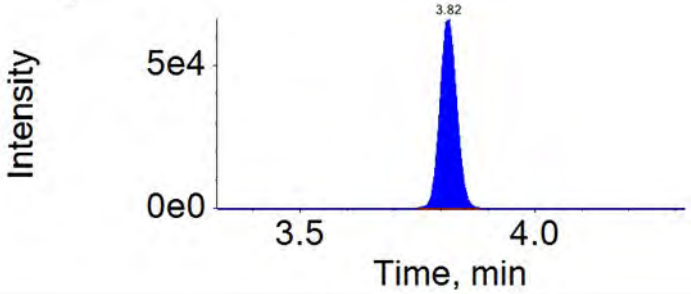
Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-16.wiff

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	
PFTrDA	6.25	1.03	453601.44	A	0.0090	0.0080			
PFTrDA_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	

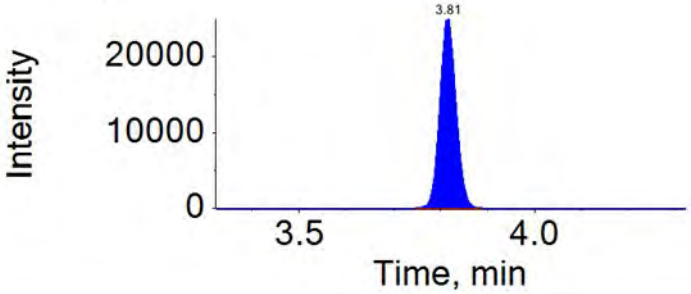
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

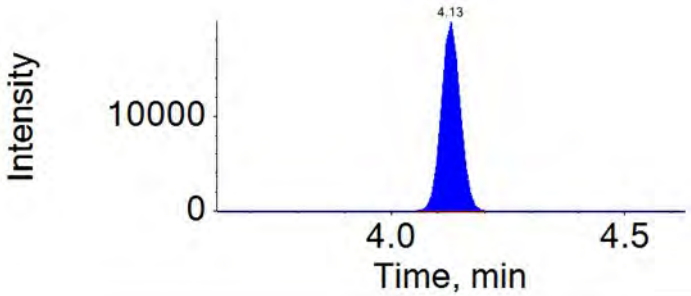
Component: PFBS
Primary Mass: 299.0 / 80.0



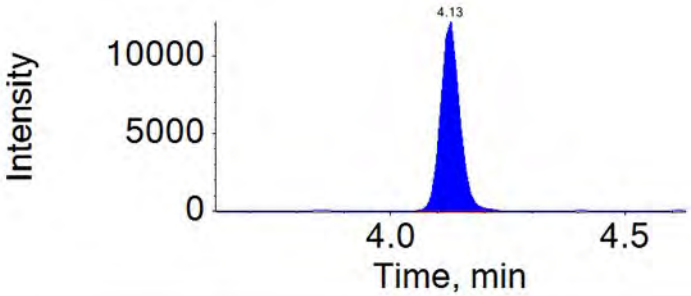
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



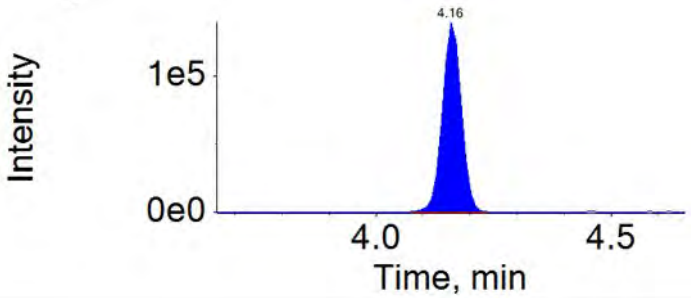
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



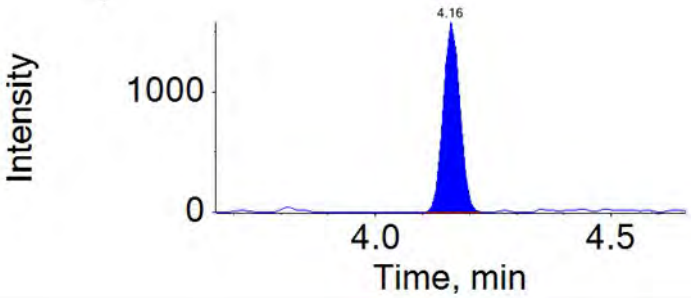
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



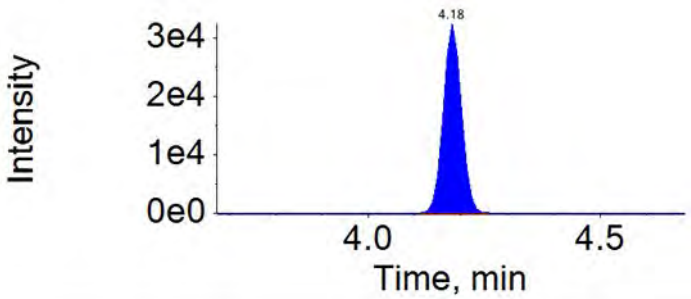
Component: PFHxA
Primary Mass: 313.0 / 269.0



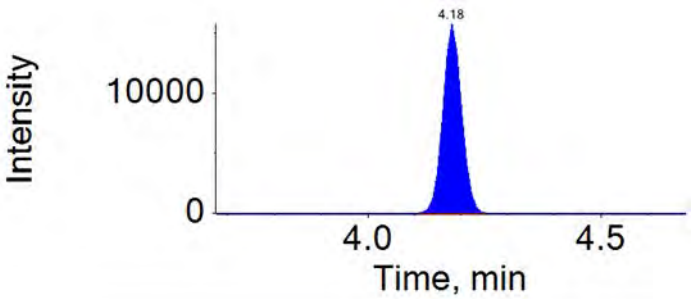
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



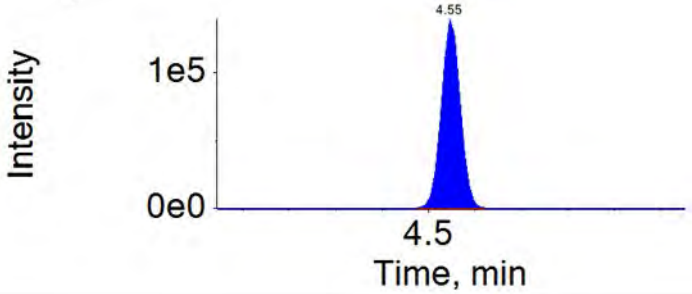
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



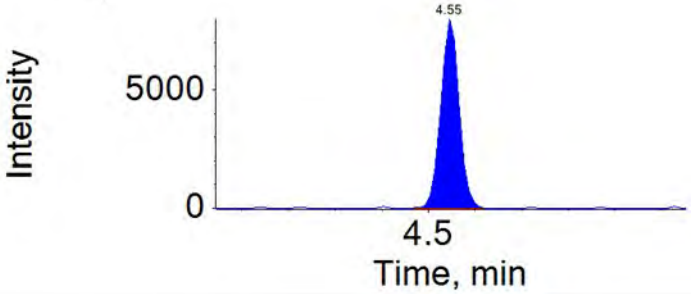
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

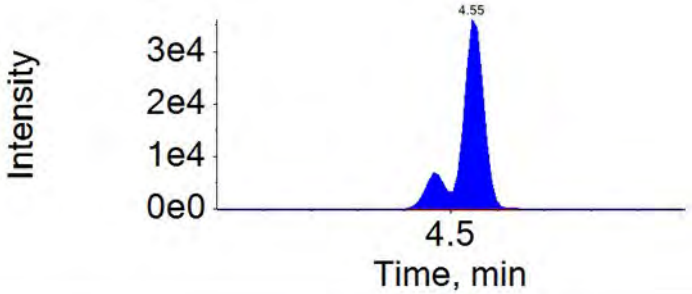
Component: PFHpA
Primary Mass: 363.0 / 319.0



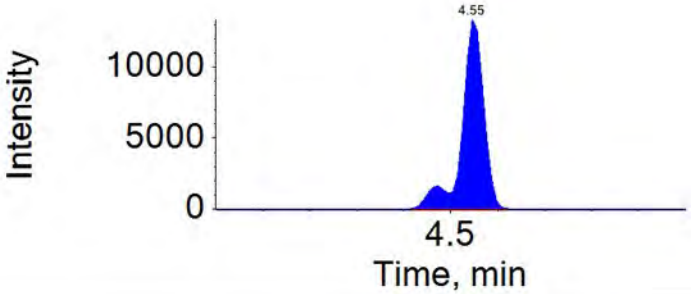
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



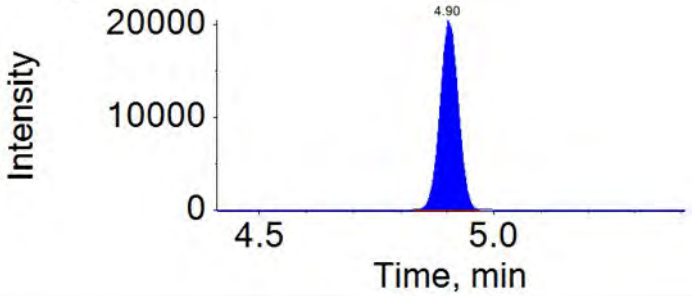
Component: PFHxS
Primary Mass: 399.0 / 80.0



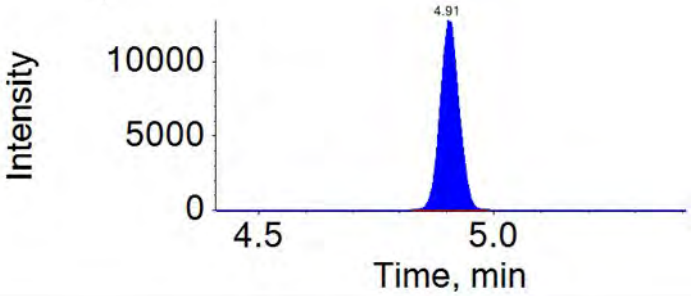
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



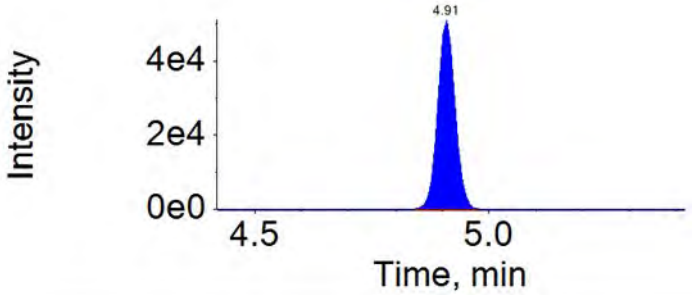
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



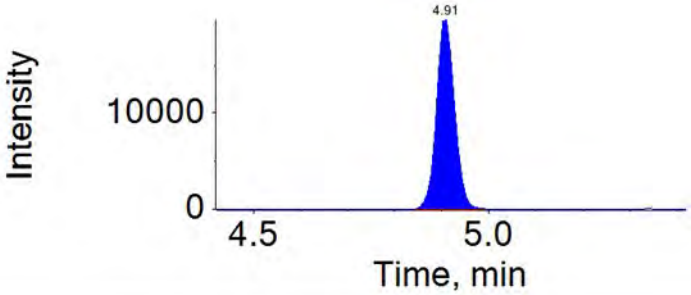
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



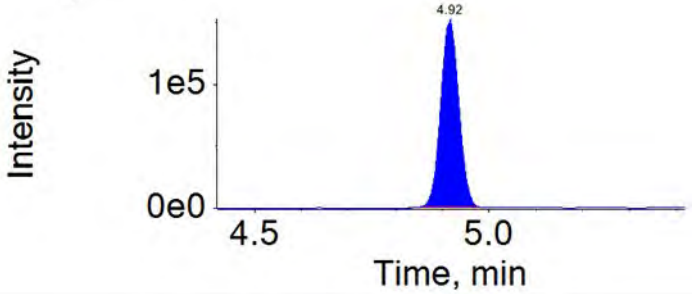
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



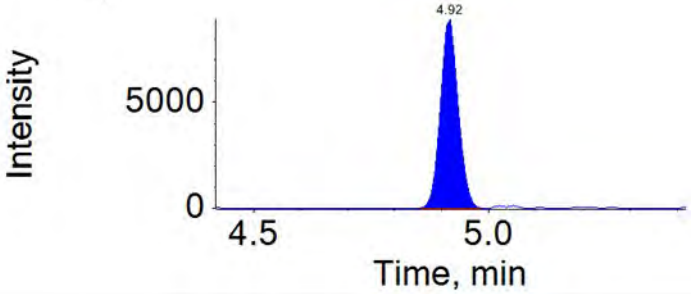
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

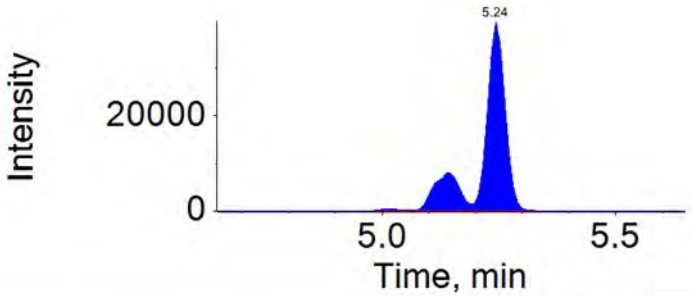
Component: PFOA
Primary Mass: 413.0 / 369.0



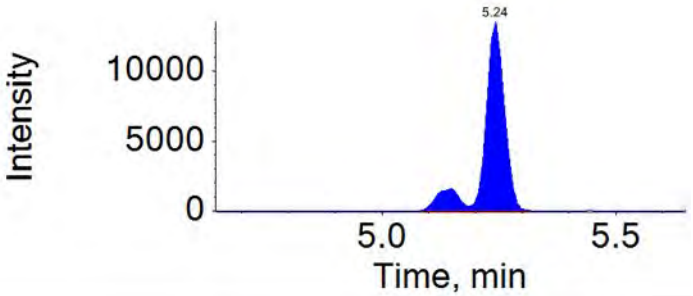
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



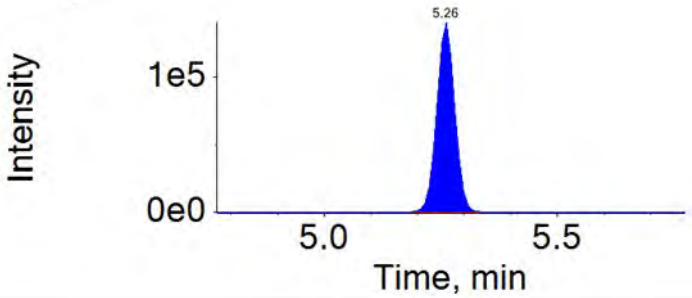
Component: PFOS
Primary Mass: 499.0 / 80.0



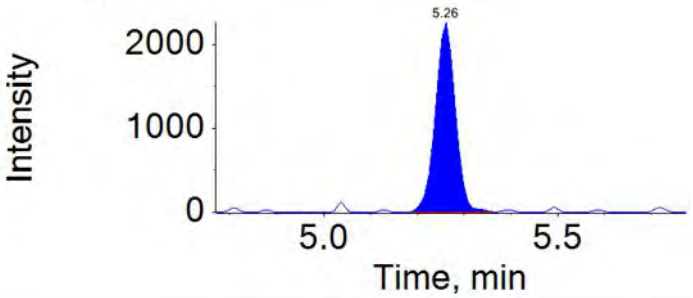
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



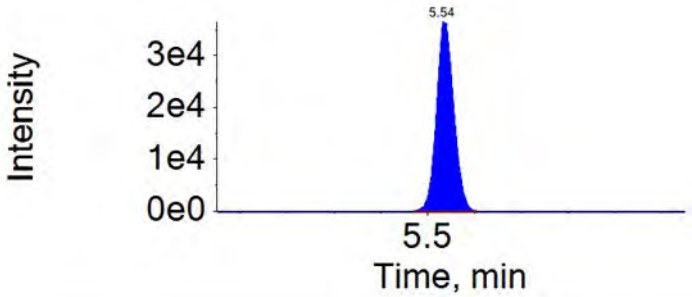
Component: PFNA
Primary Mass: 463.0 / 419.0



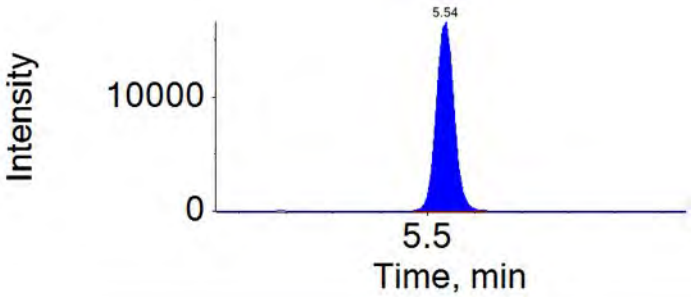
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



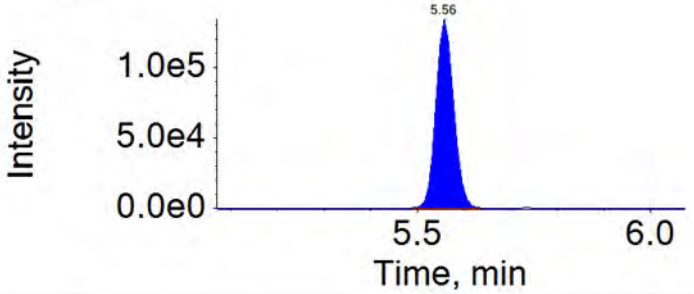
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



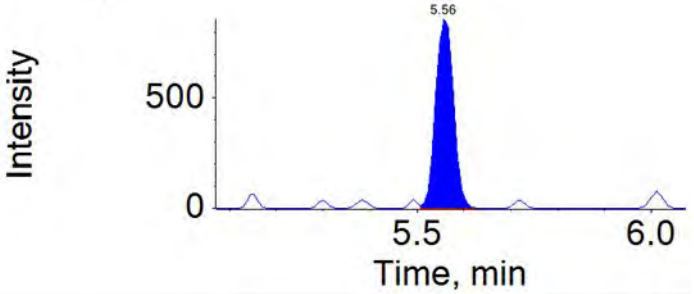
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

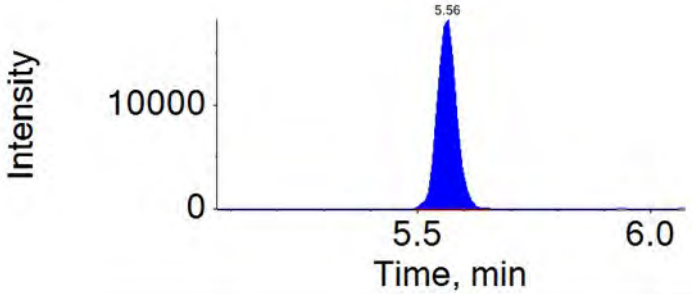
Component: PFDA
Primary Mass: 513.0 / 469.0



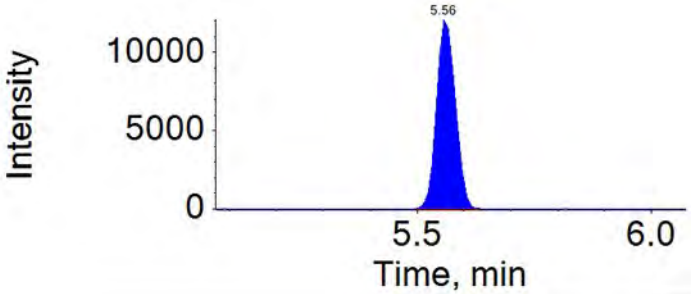
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



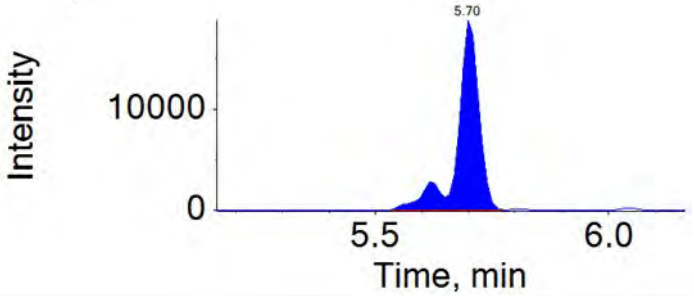
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



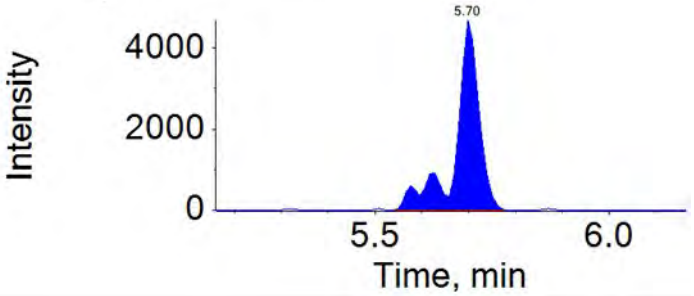
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



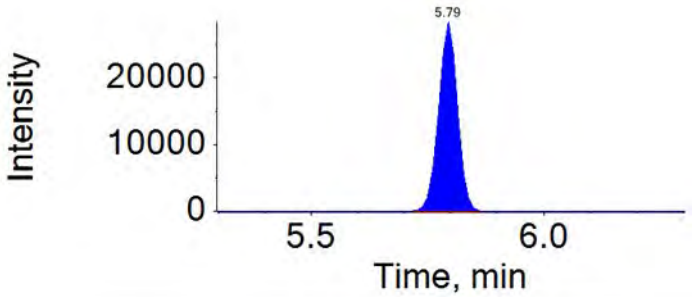
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



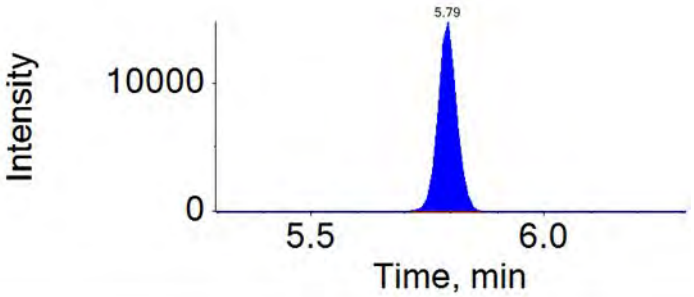
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



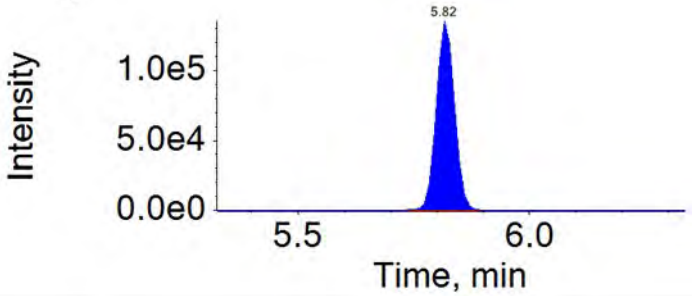
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



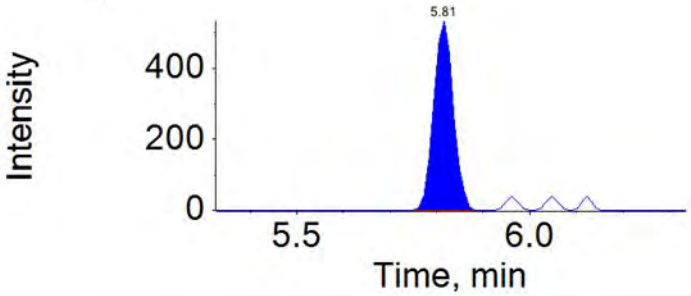
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

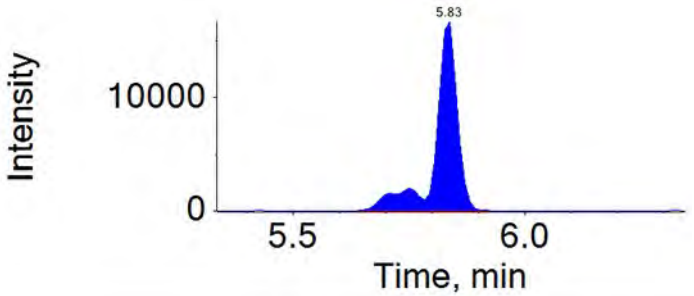
Component: PFUnDA
Primary Mass: 563.0 / 519.0



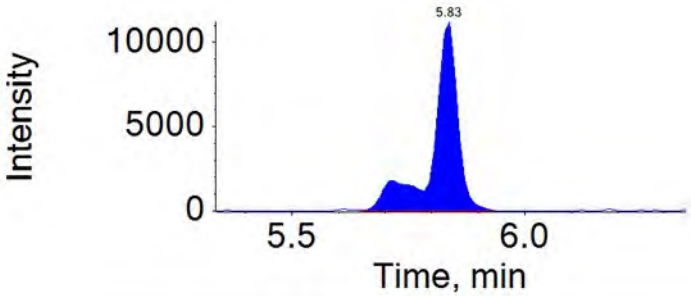
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



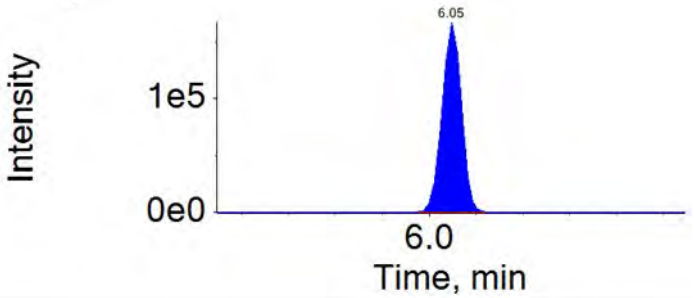
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



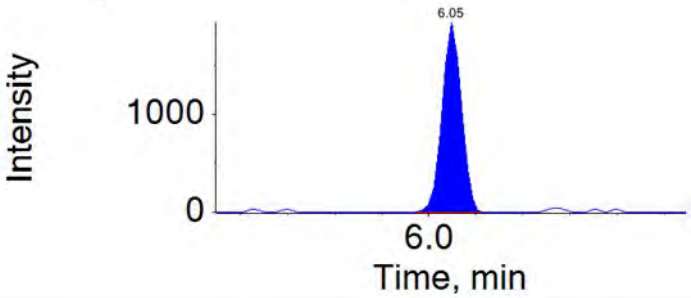
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



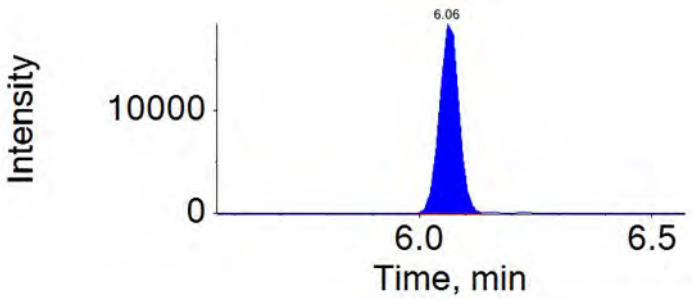
Component: PFDoDA
Primary Mass: 613.0 / 569.0



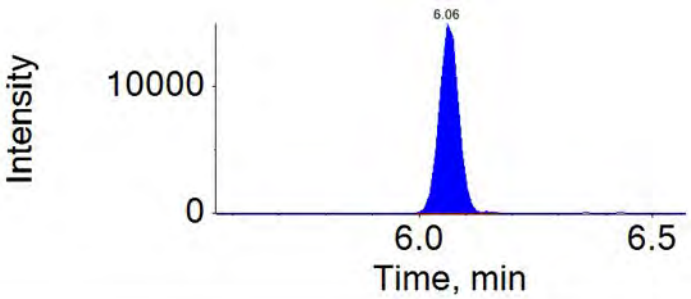
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



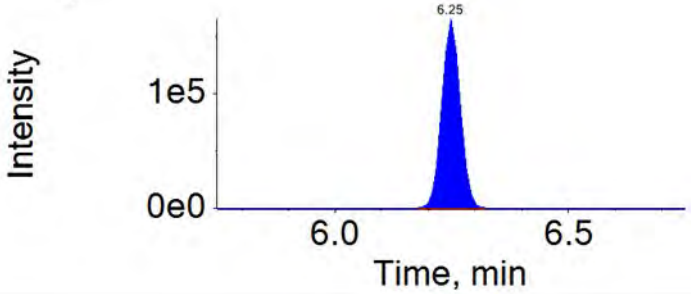
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



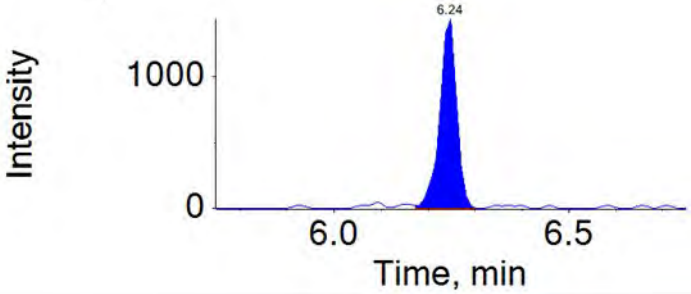
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

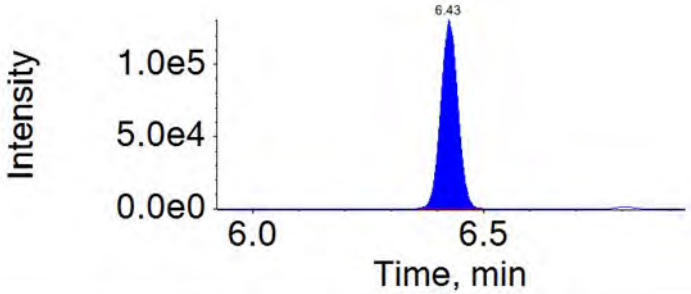
Component: PFTrDA
Primary Mass: 663.0 / 619.0



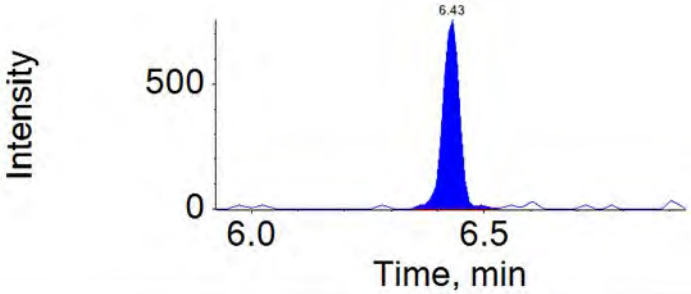
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



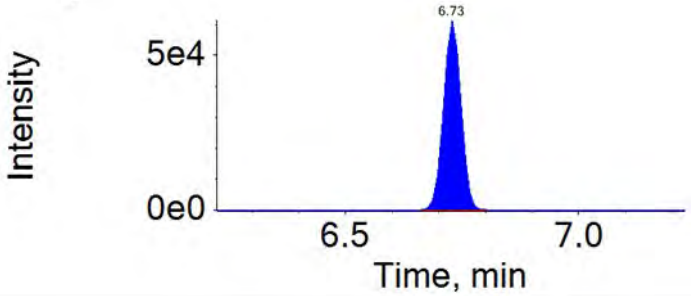
Component: PFTeDA
Primary Mass: 713.0 / 669.0



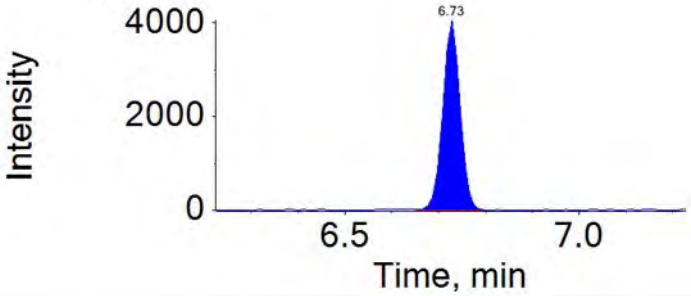
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



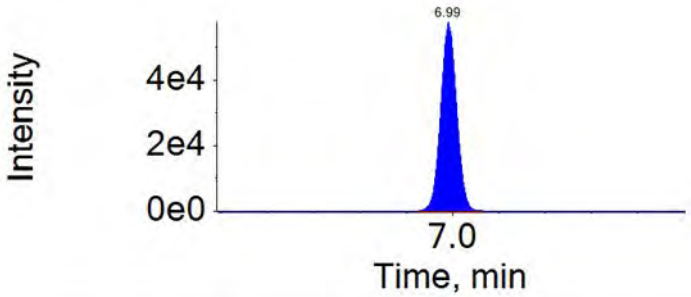
Component: PFHxDA
Primary Mass: 813.0 / 769.0



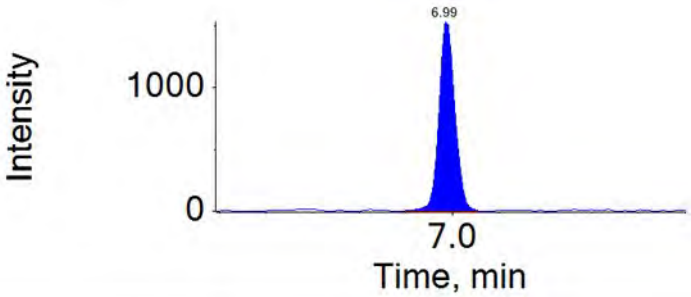
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



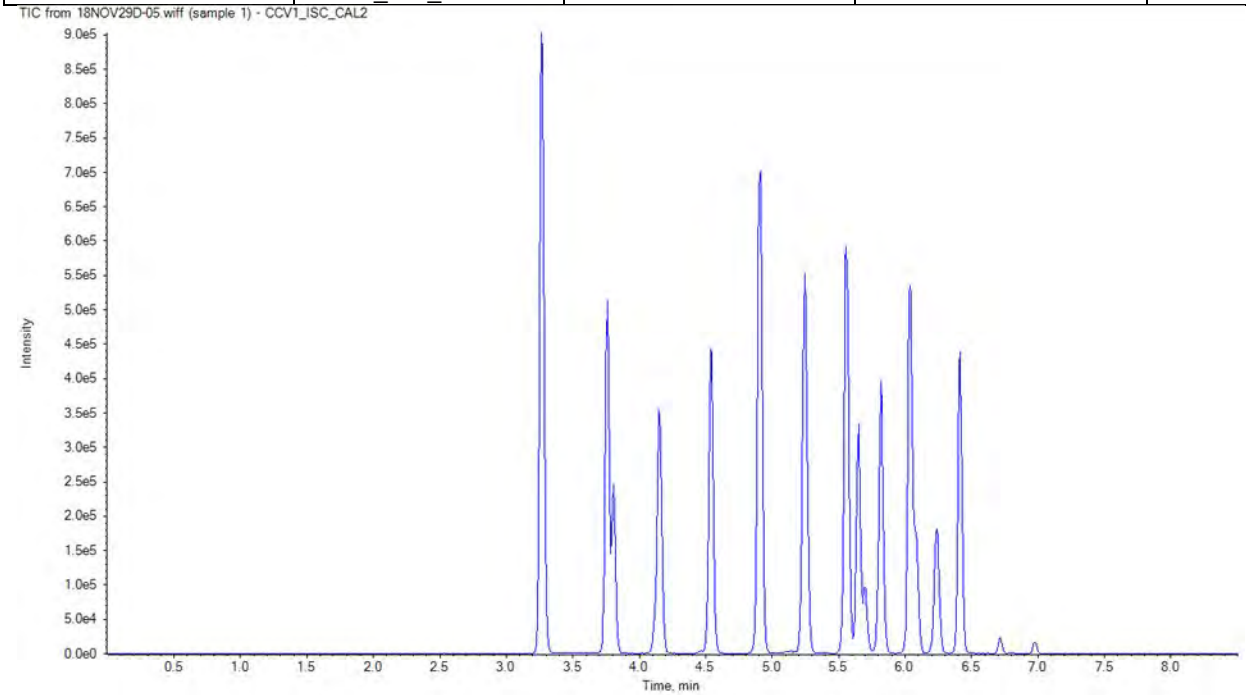
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

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	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 Verfication

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	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	
PFTrDA	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	
PFODA	35571.7	10	13C2-PFTeDA	840112.8	5.0	0.042	6.98	1.090	0.600	0.564	-6	30	

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 Verfication

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 **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

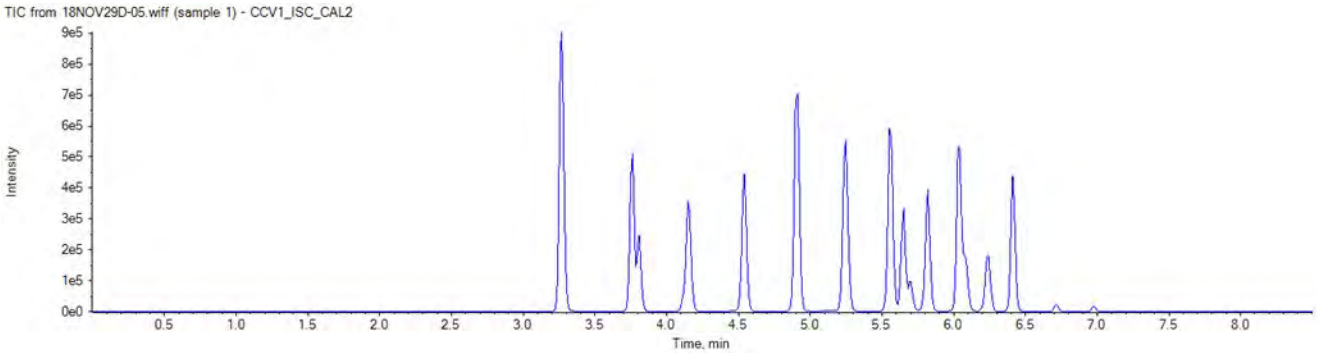
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-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	3.26	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
PFTrDA	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

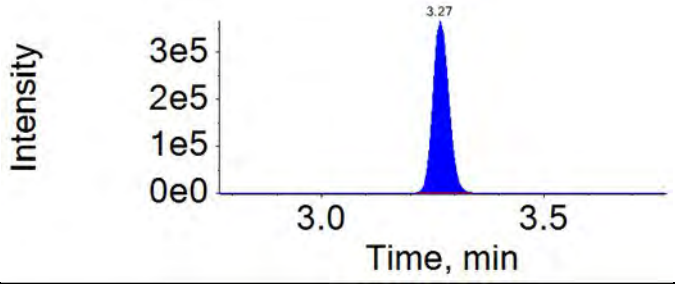


APPROVED
By MCD at 8:06 pm, 11/29/18

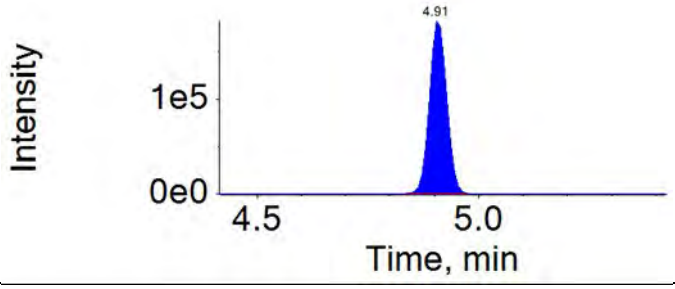
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

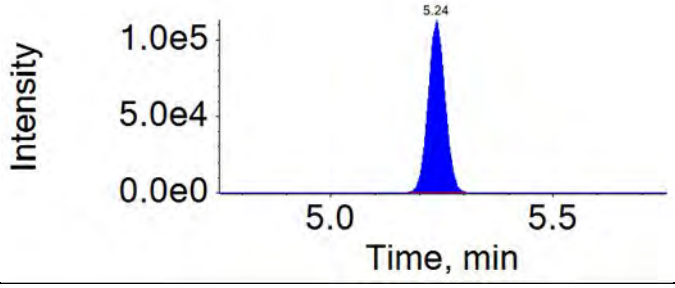
Injection Standard: 13C3-PFBA
216.0 / 172.0



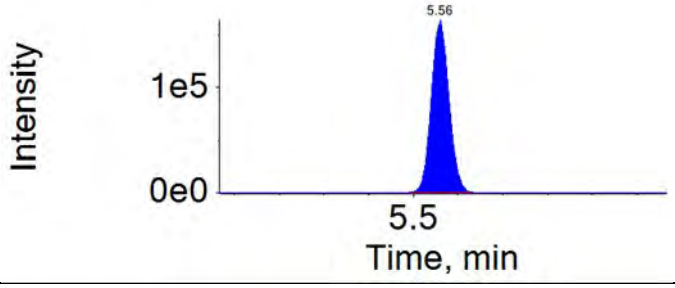
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

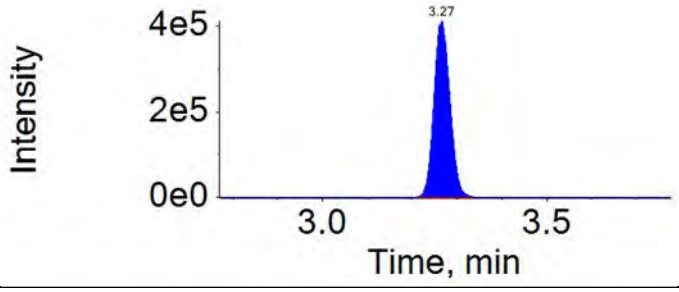


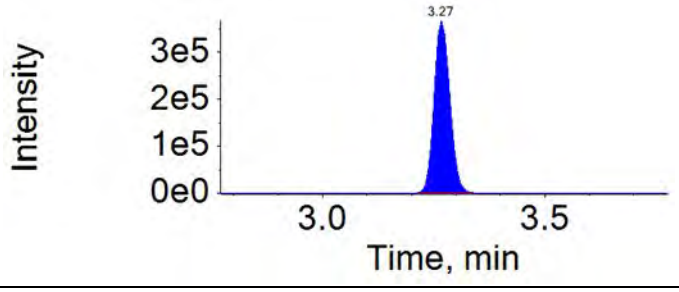
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

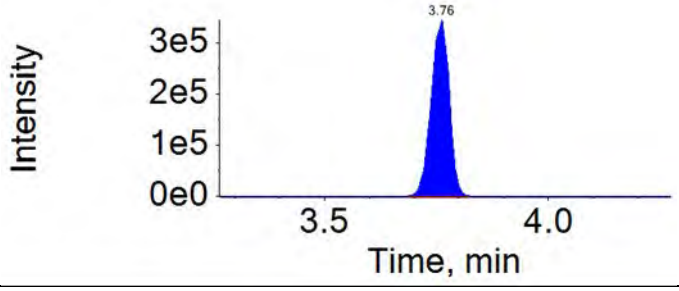
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

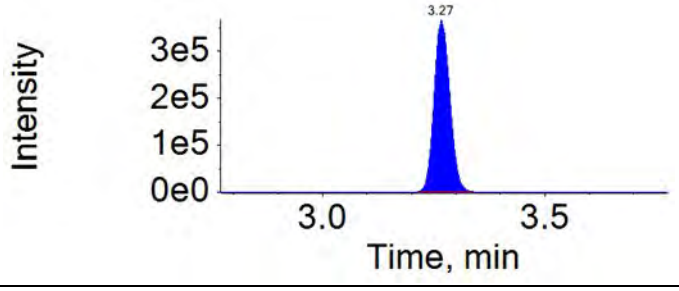
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



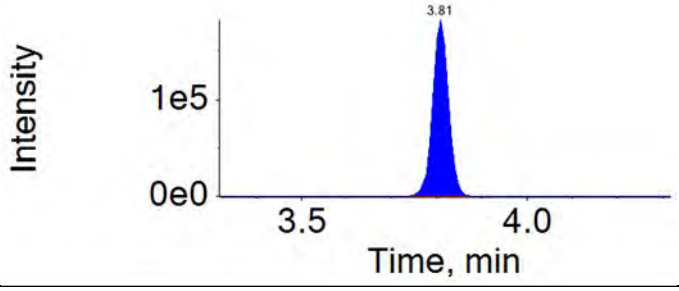


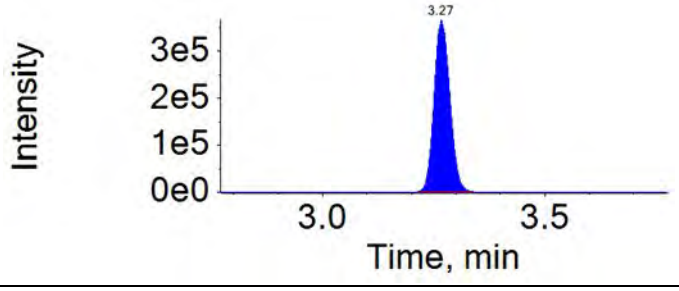
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



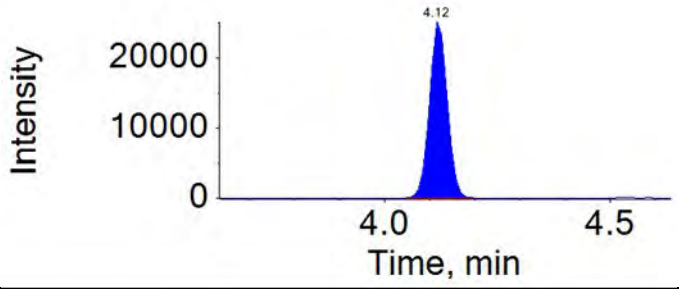


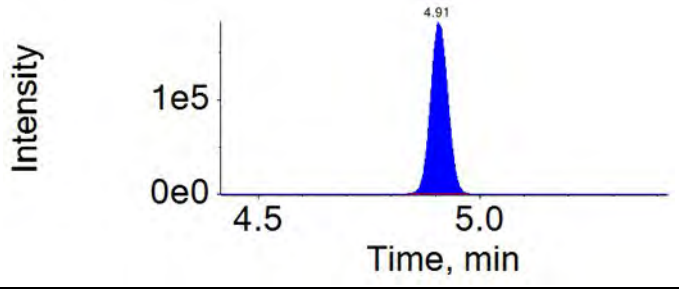
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



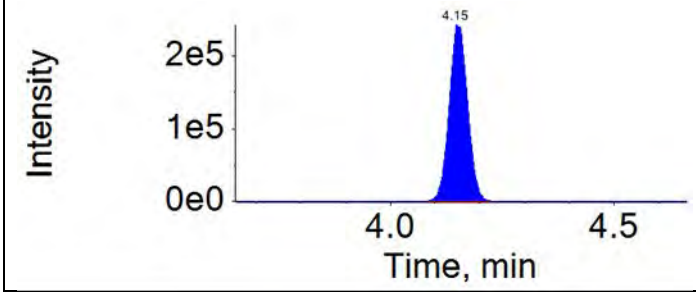


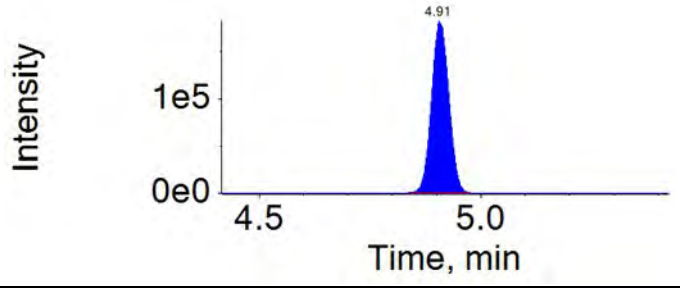
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

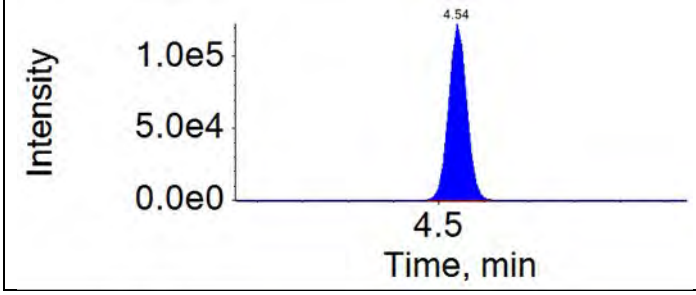
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

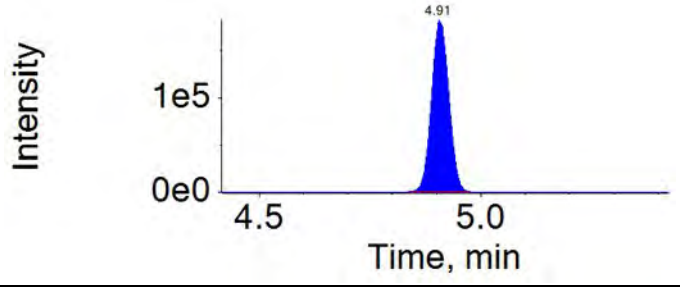
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



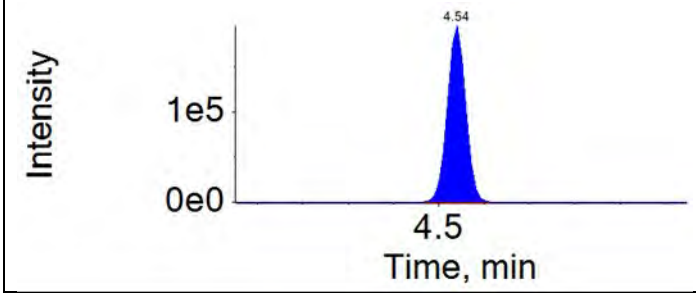


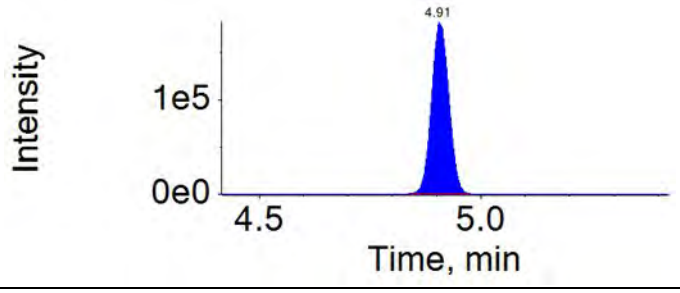
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



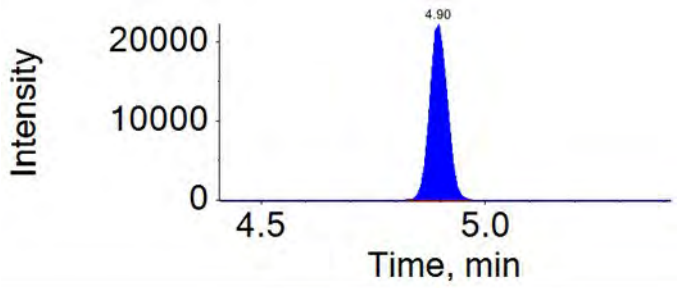


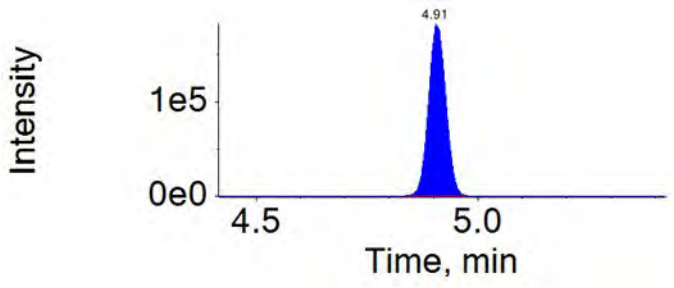
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

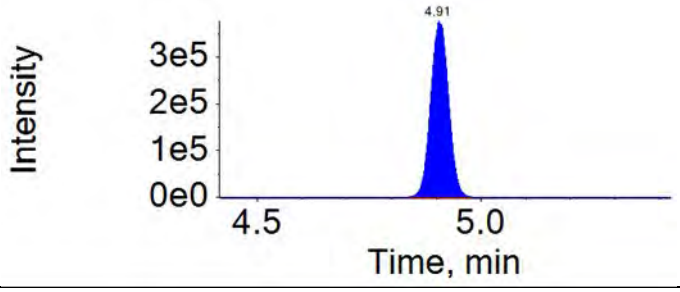
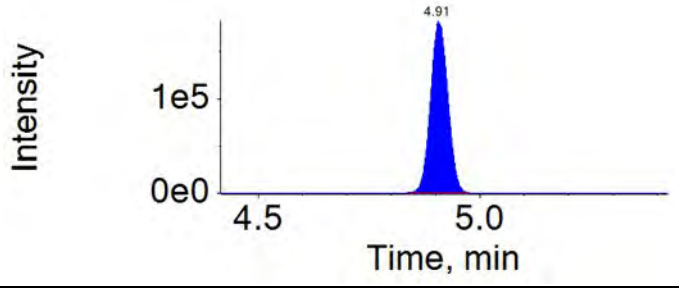


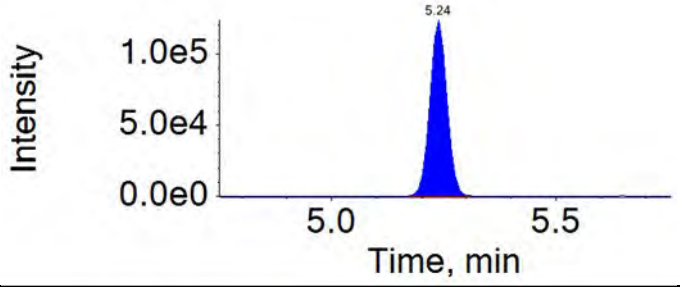
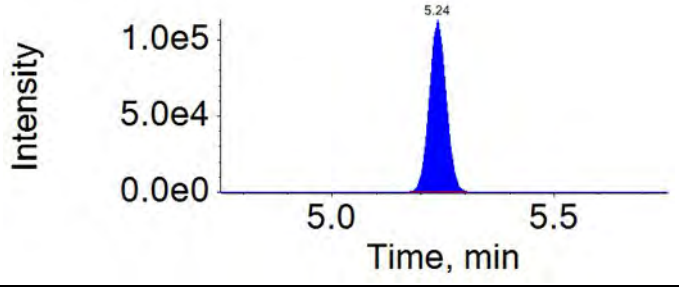


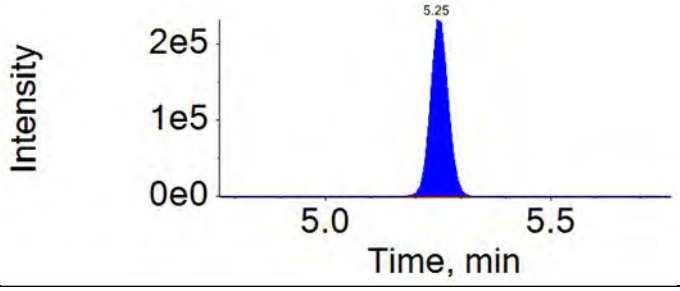
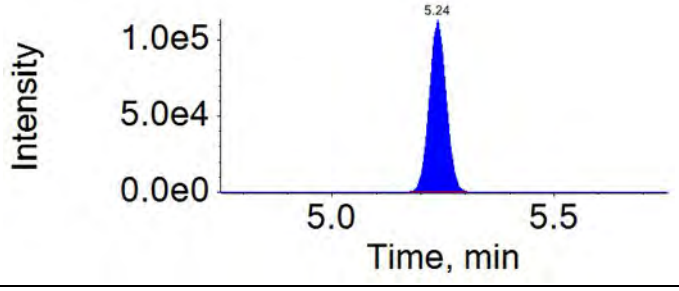
APPROVED
By MCD at 8:06 pm, 11/29/18

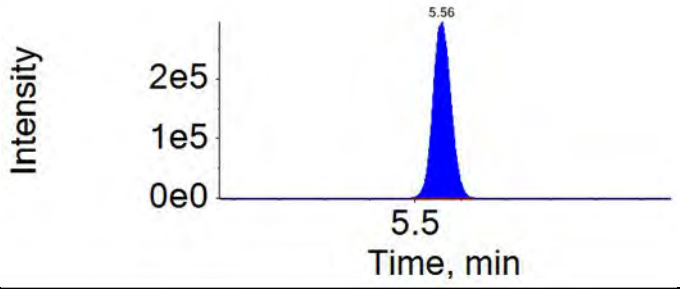
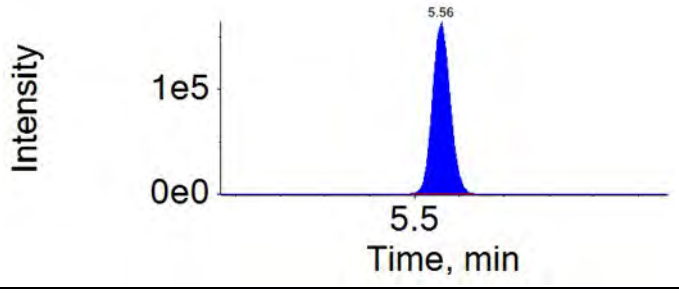
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

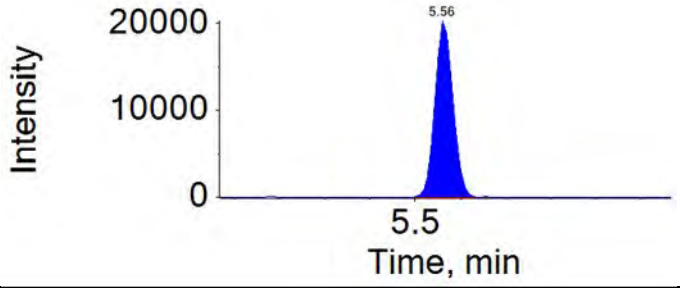
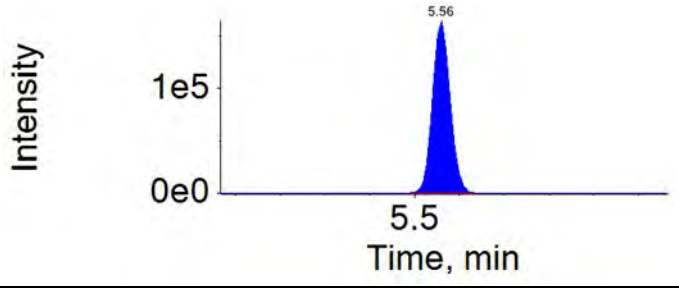
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

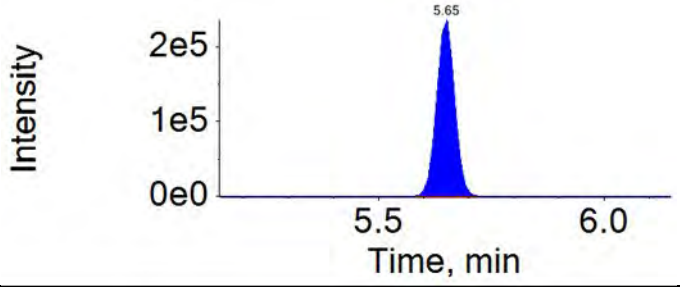
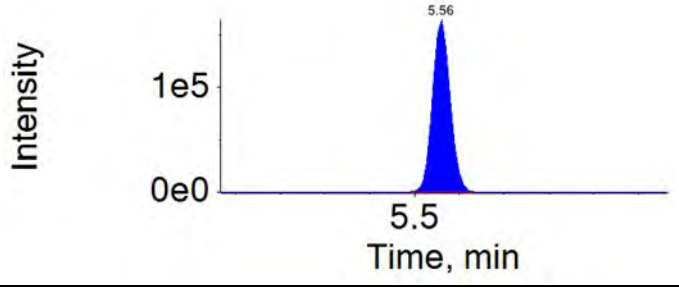
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

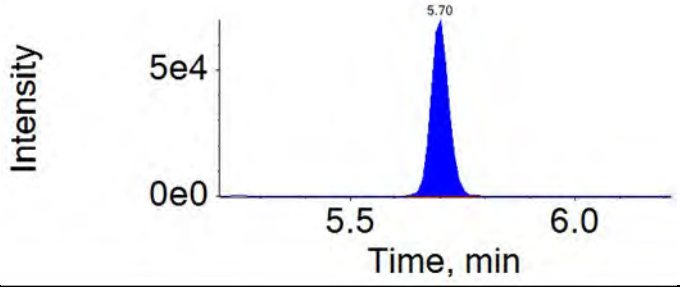
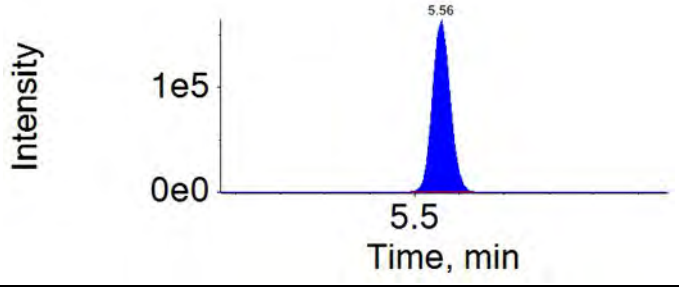
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

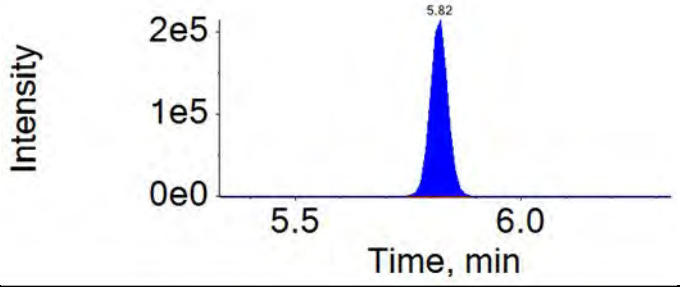
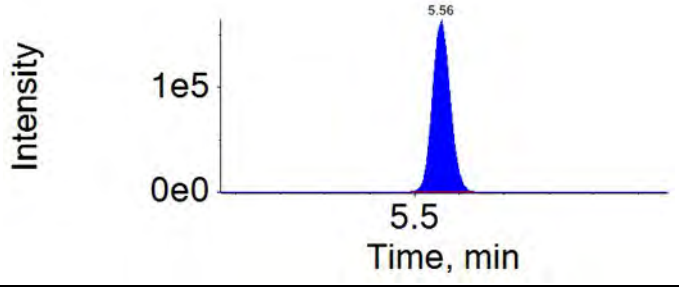
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

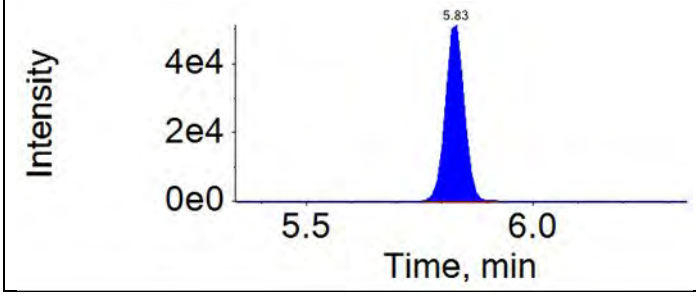
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

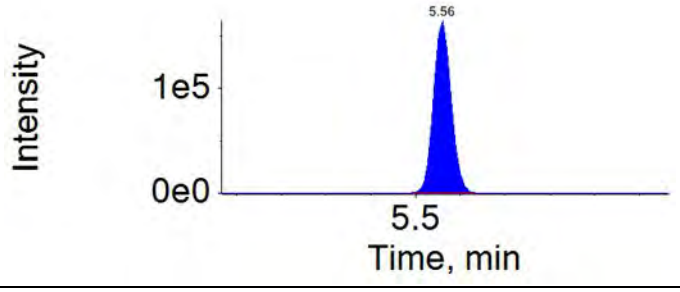
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

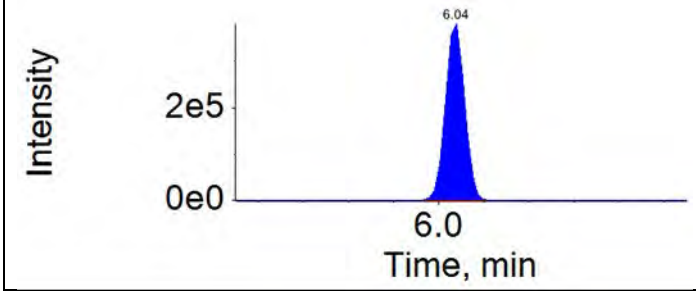
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

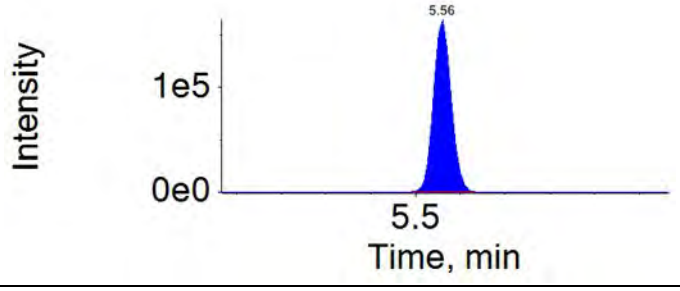
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



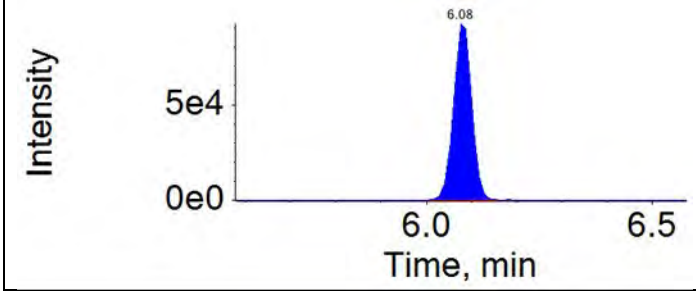


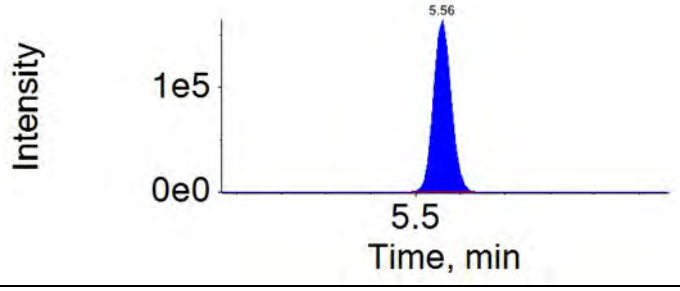
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



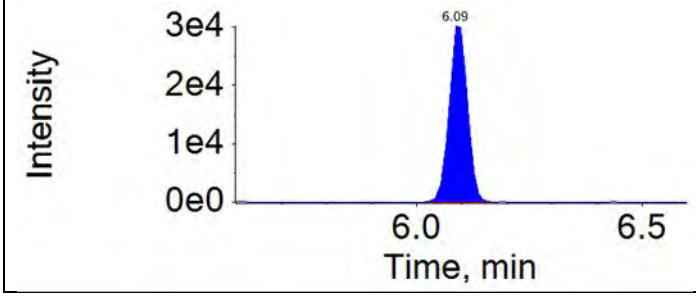


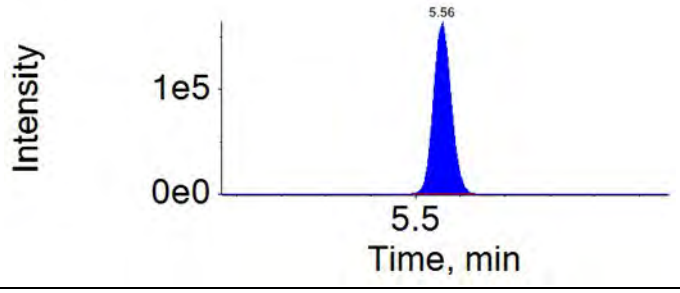
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



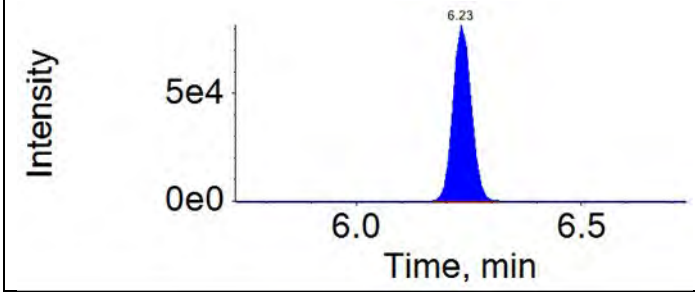


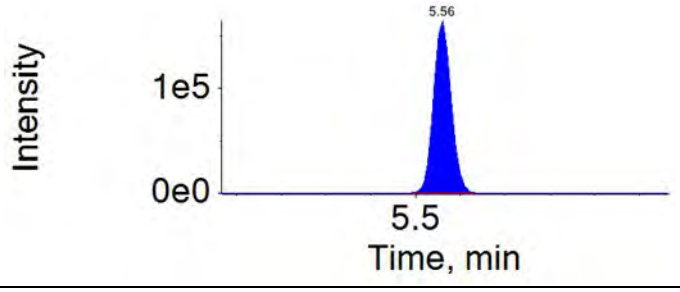
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

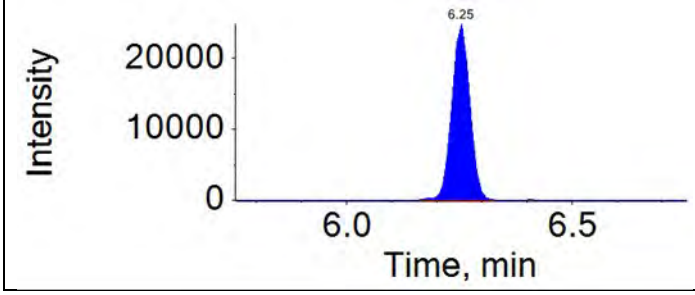
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

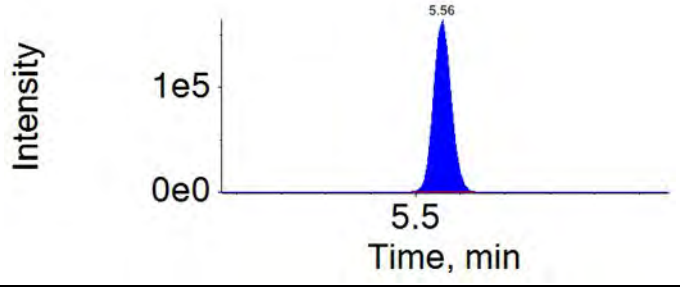
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



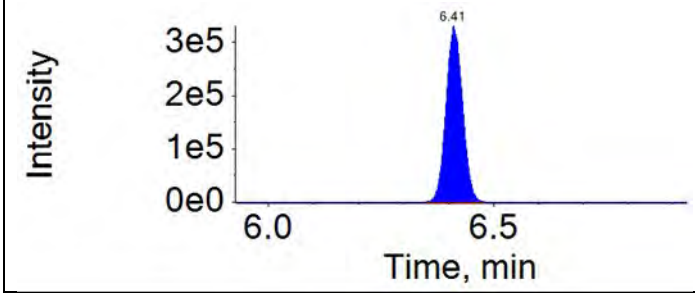


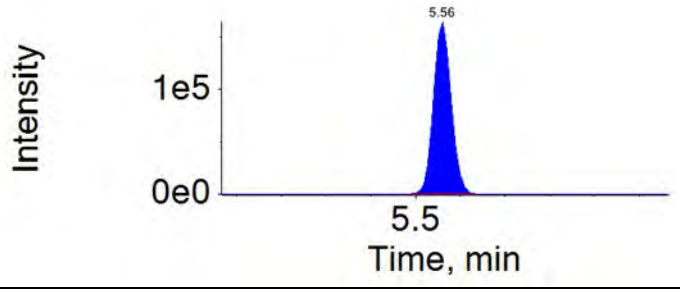
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



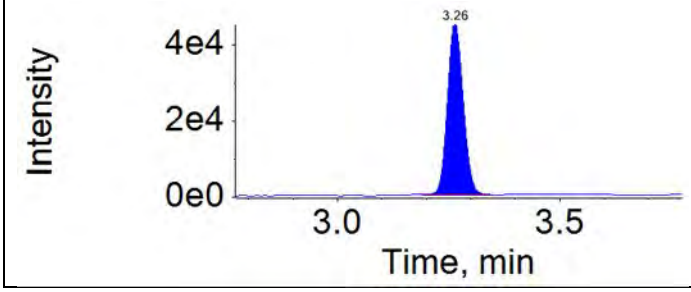


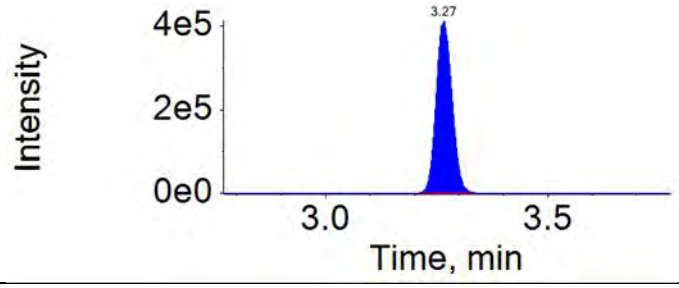
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

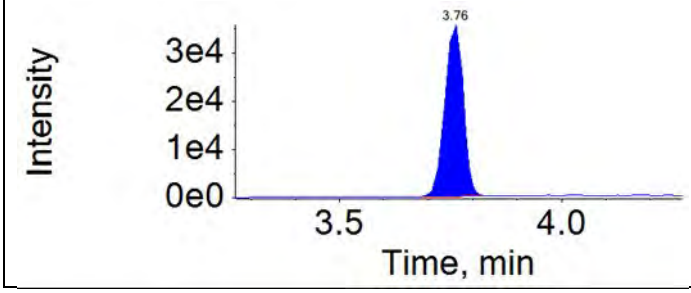
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

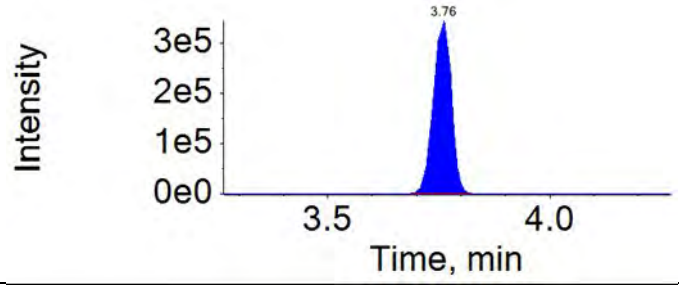
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



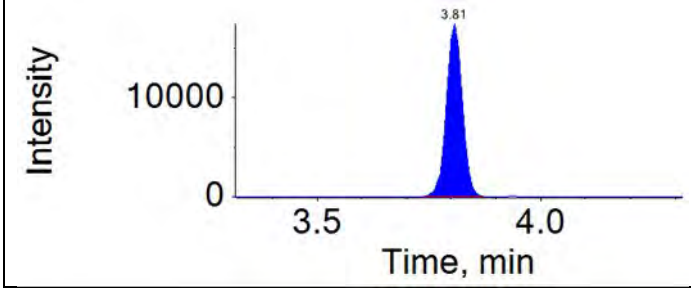


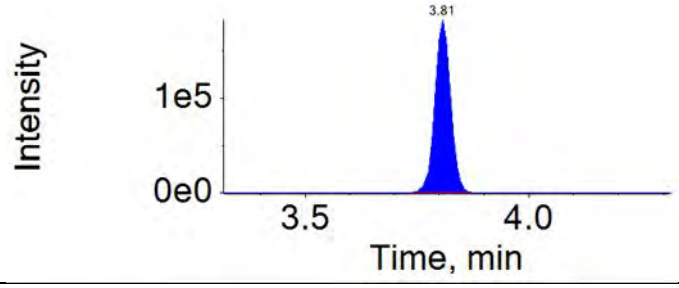
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



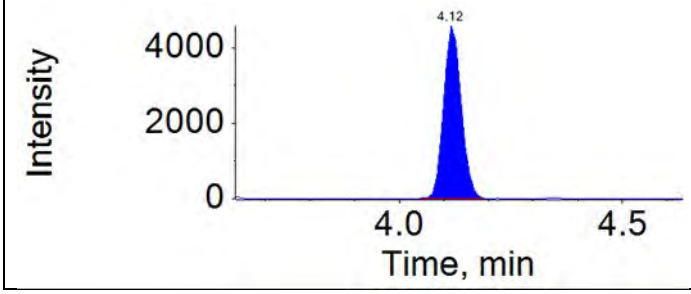


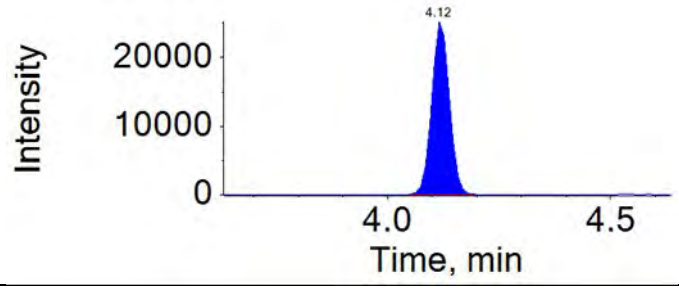
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

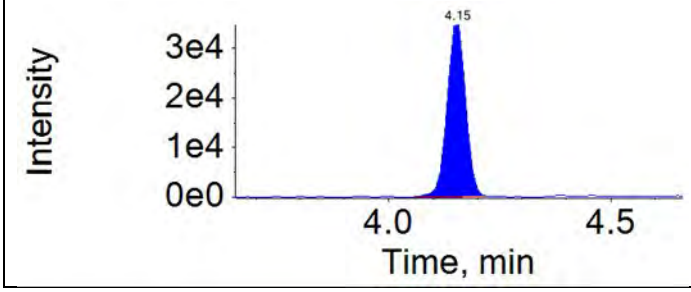
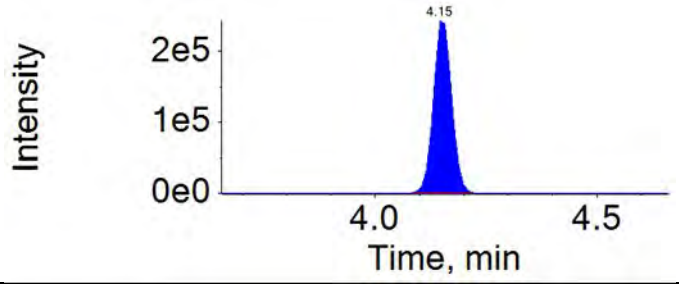


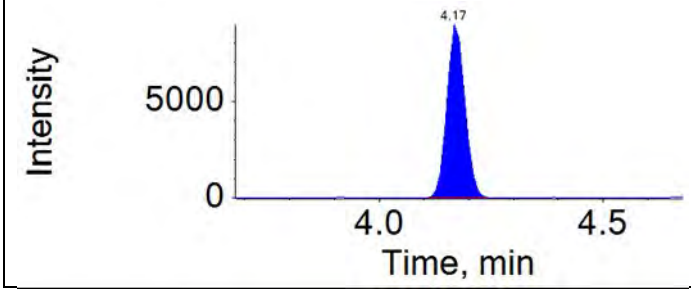
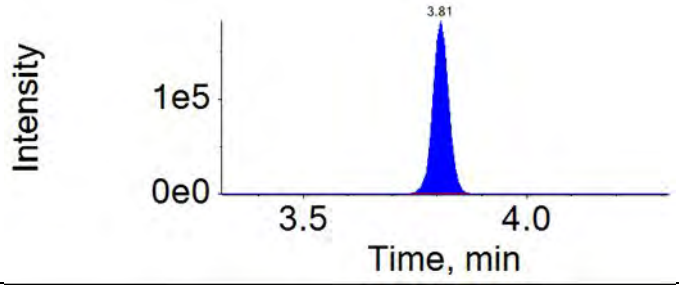


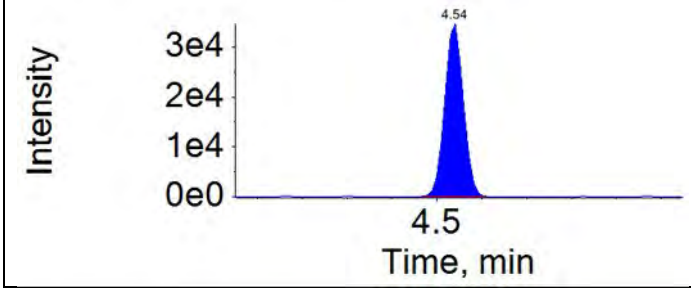
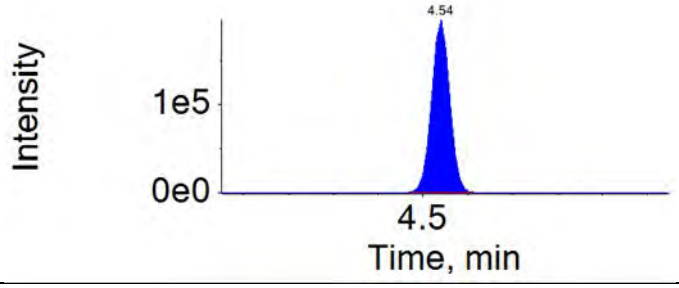
APPROVED
By MCD at 8:06 pm, 11/29/18

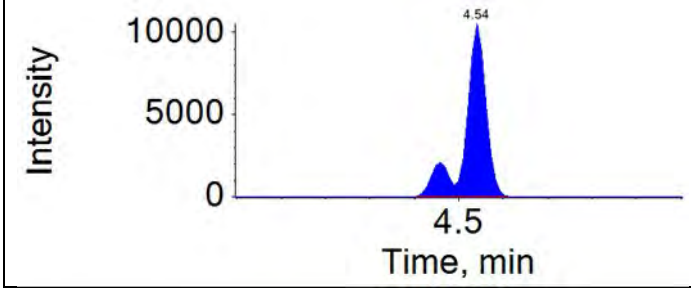
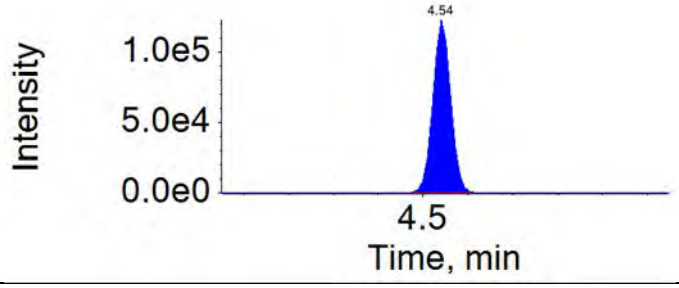
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

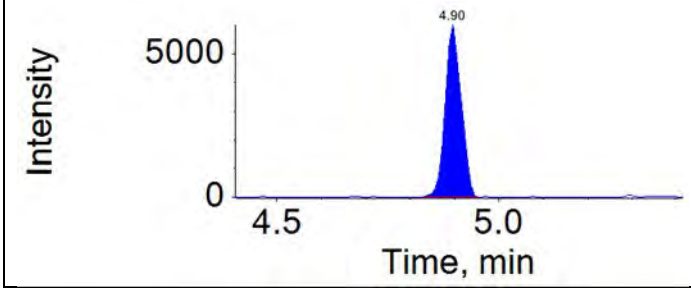
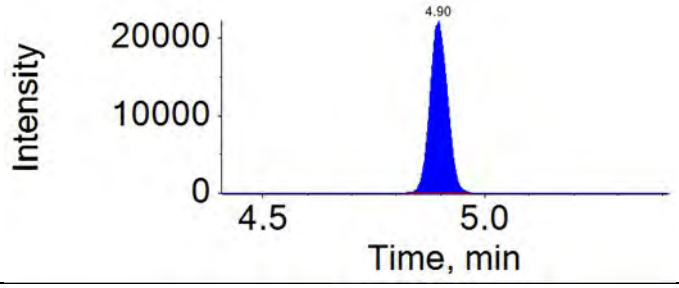
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

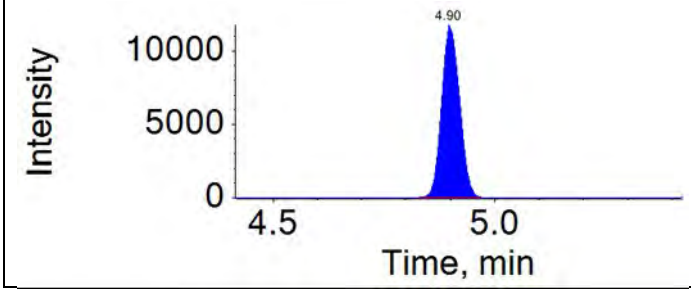
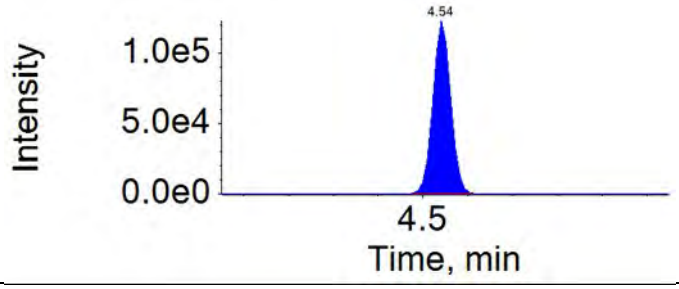
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

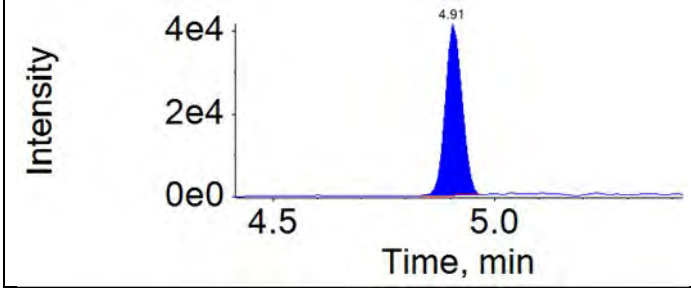
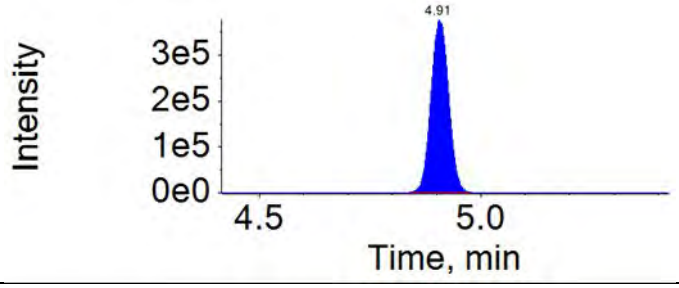
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

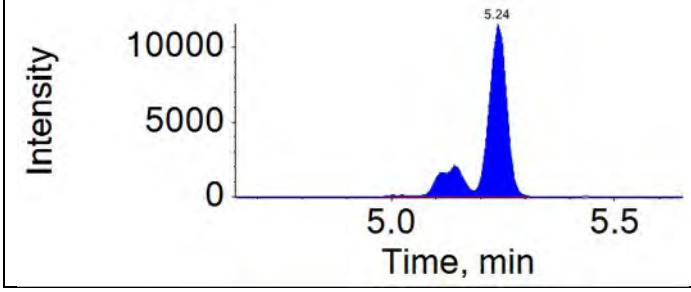
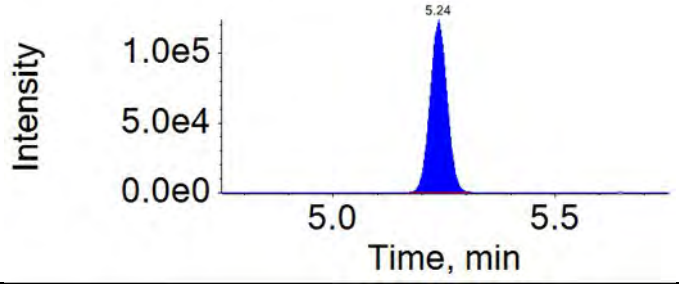
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

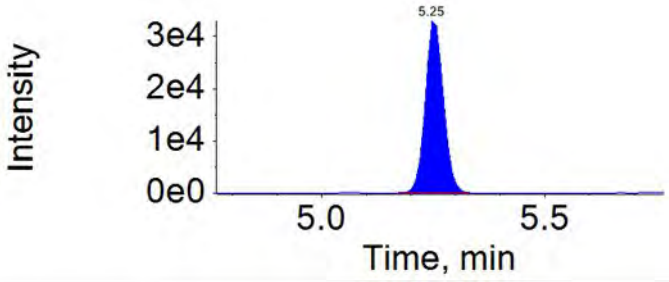
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

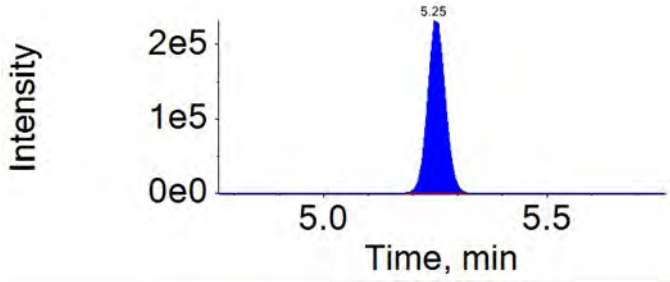
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

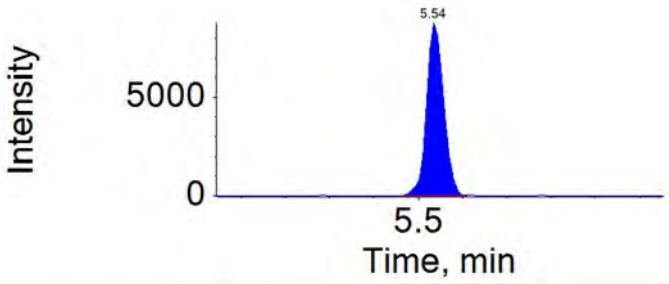
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

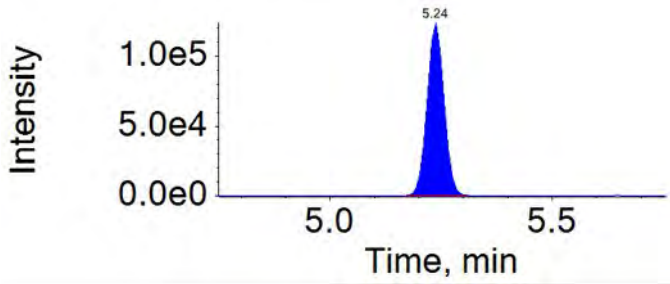
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



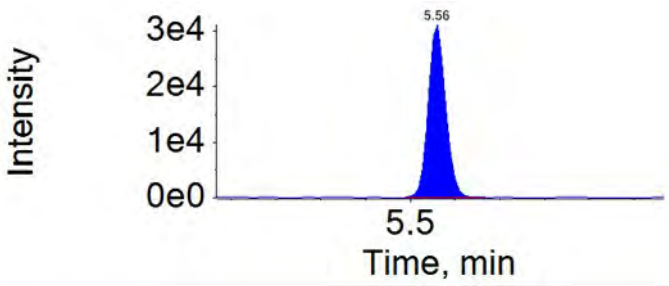


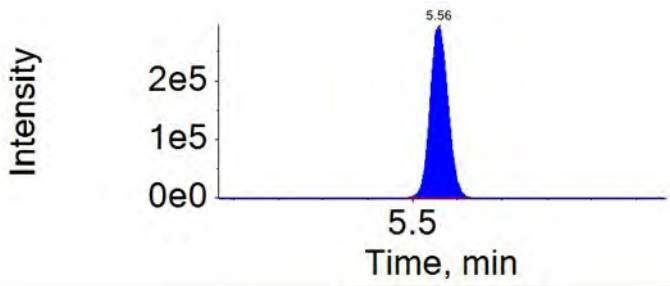
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



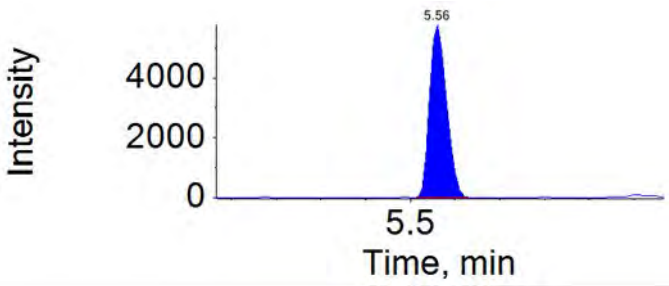


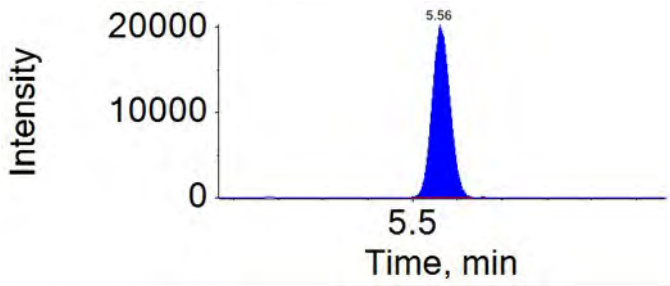
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

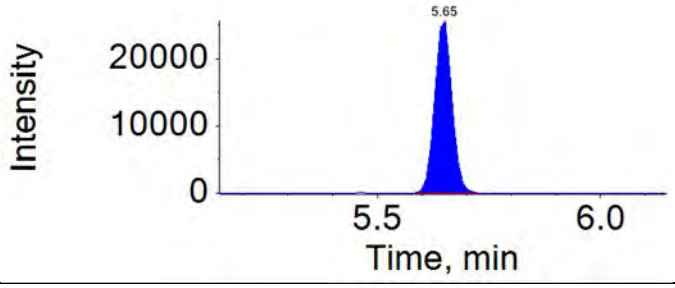
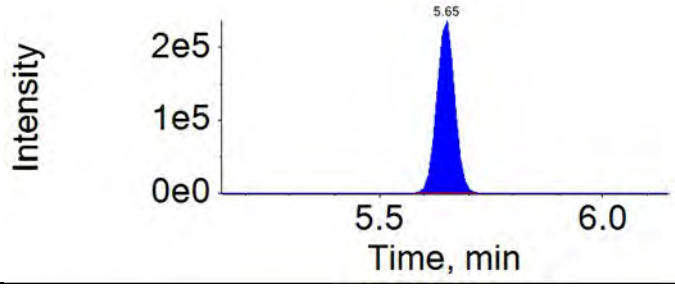


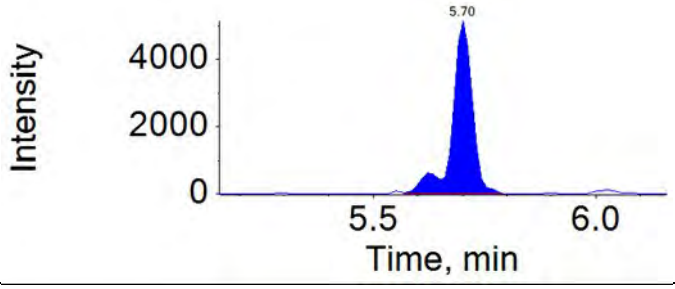
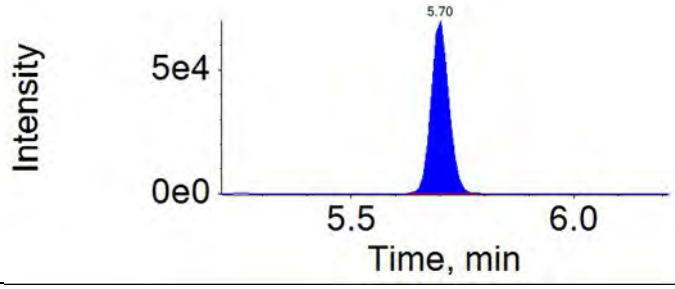


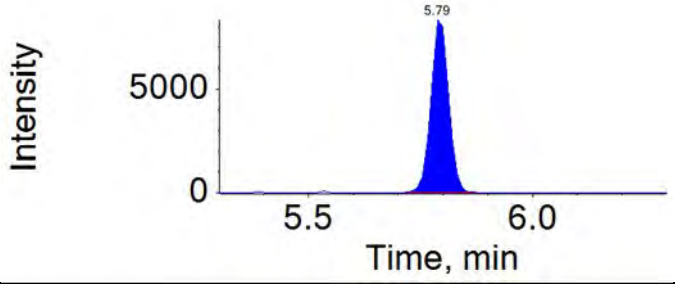
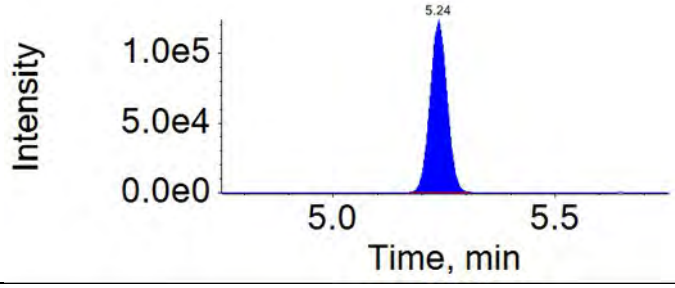
APPROVED
By MCD at 8:06 pm, 11/29/18

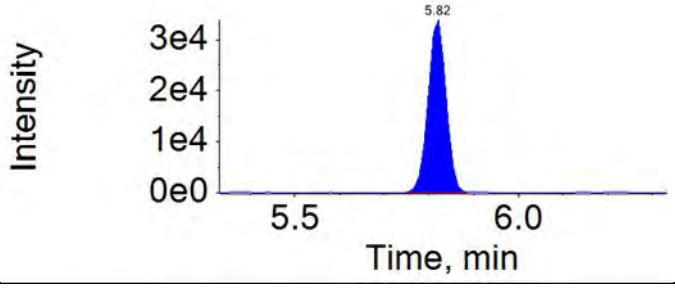
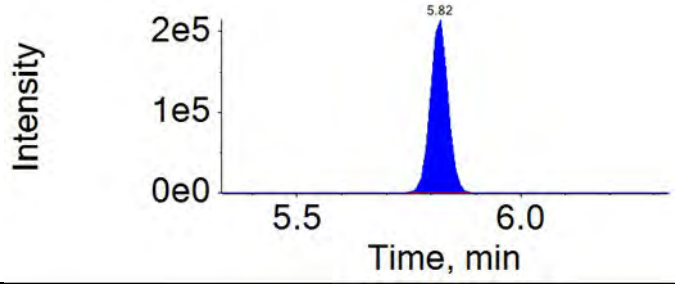
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

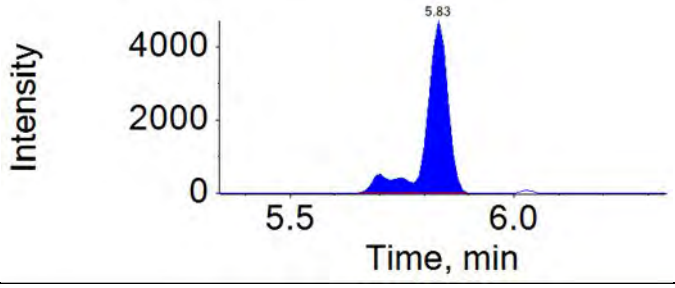
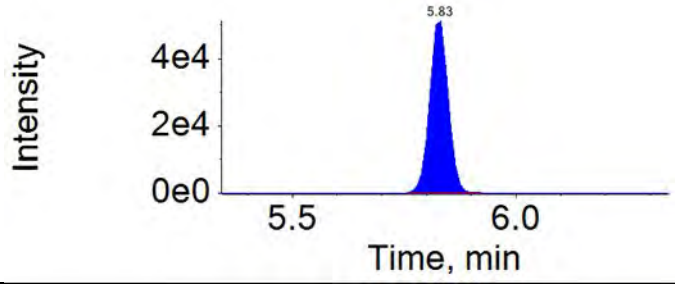
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

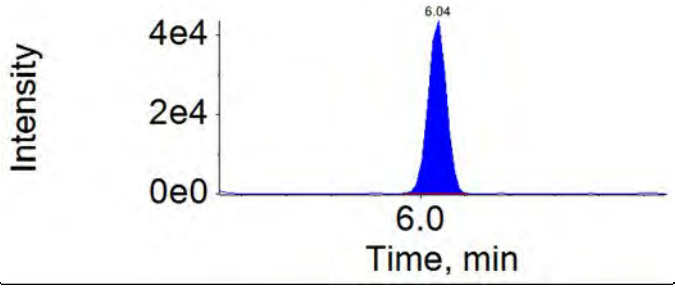
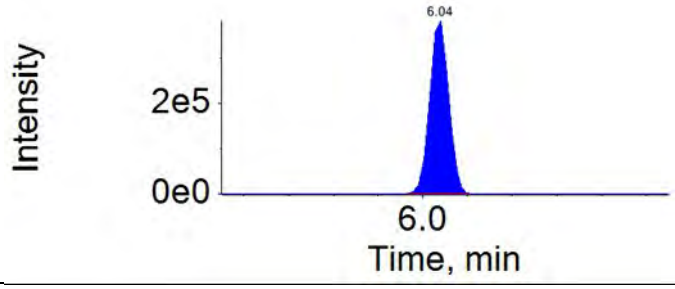
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

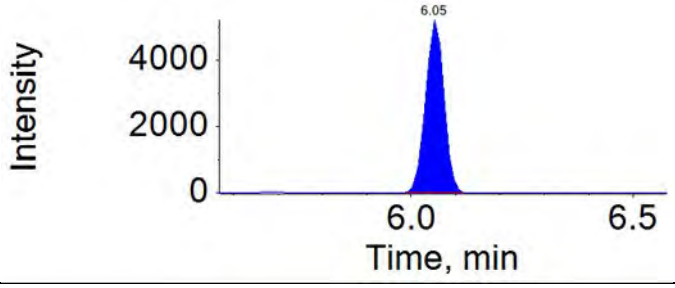
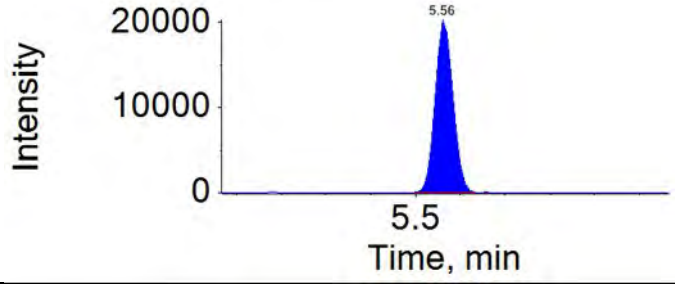
APPROVED
By MCD at 8:06 pm, 11/29/18

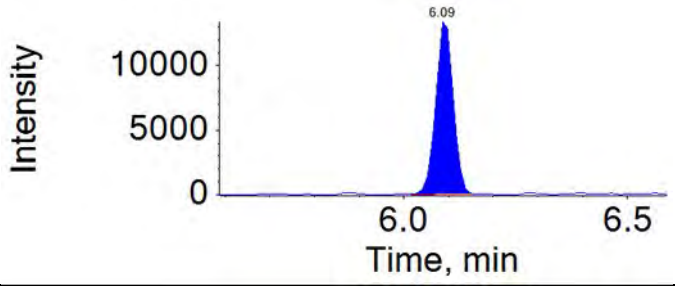
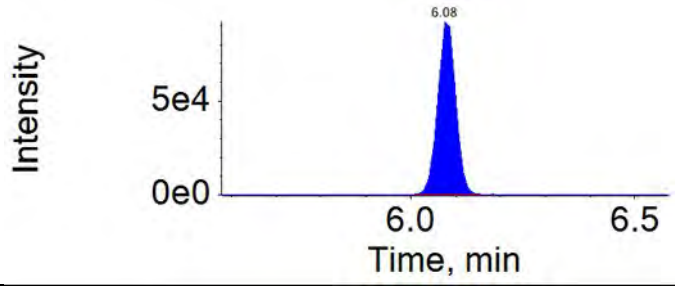
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

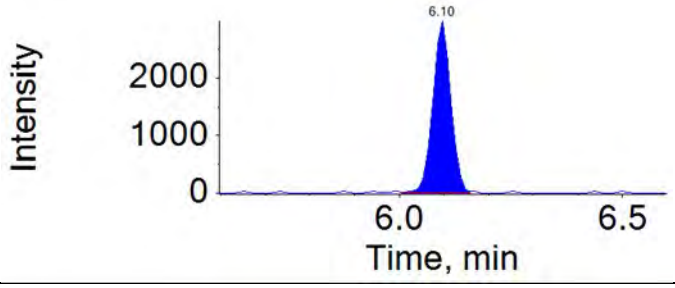
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

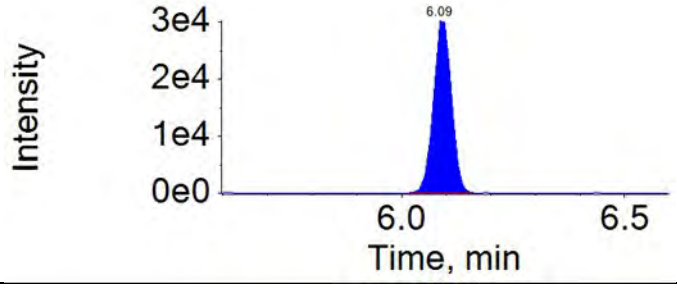
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

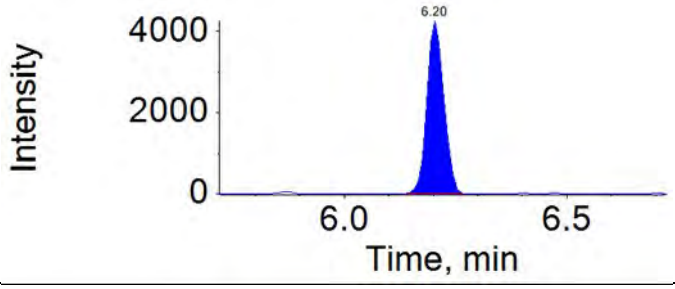
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

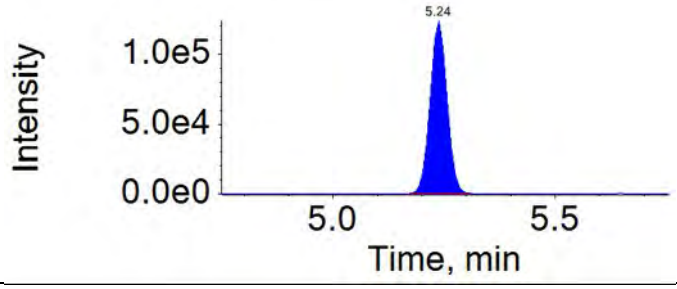
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



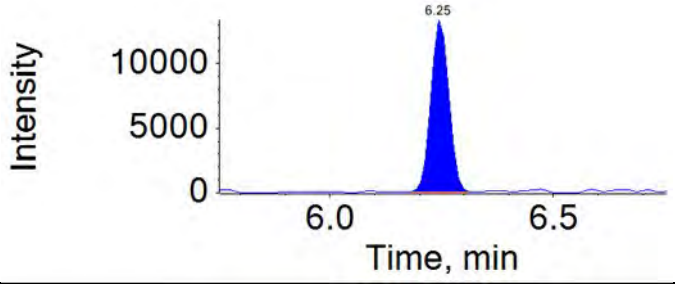


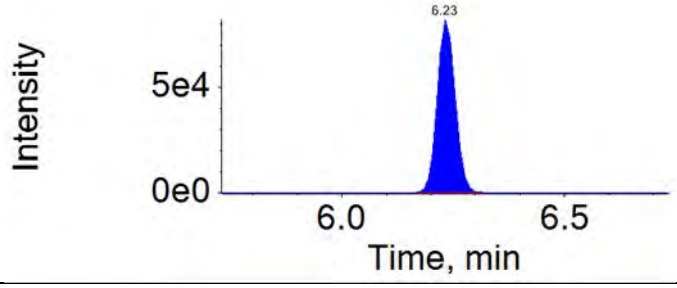
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



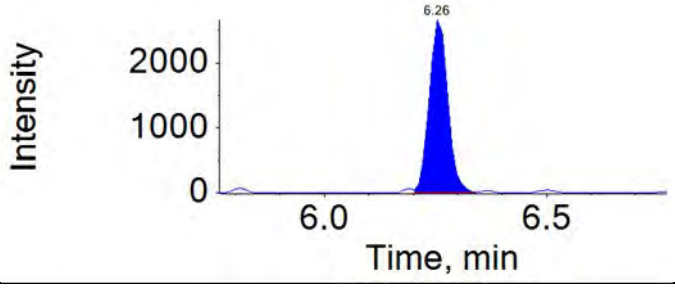


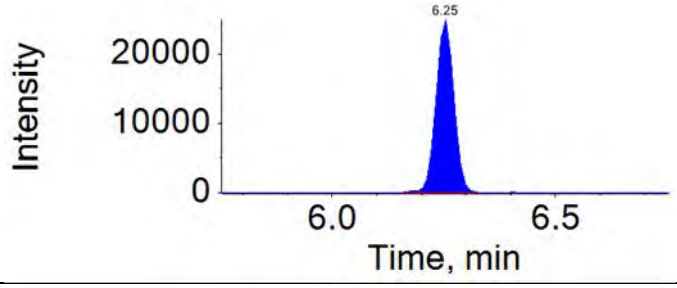
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

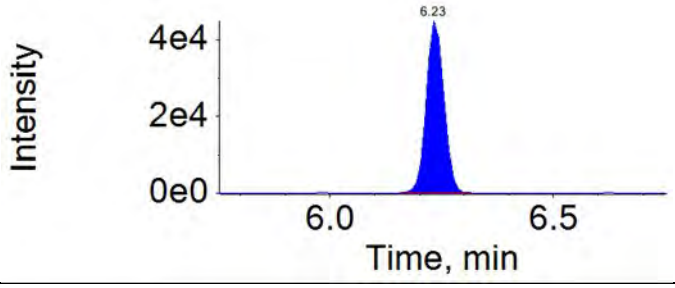
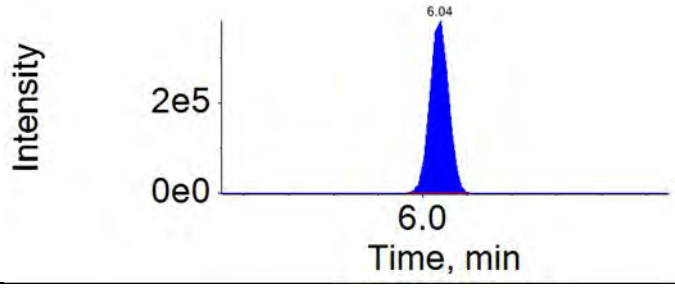


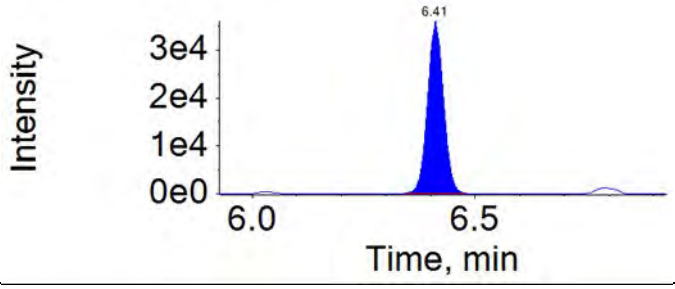
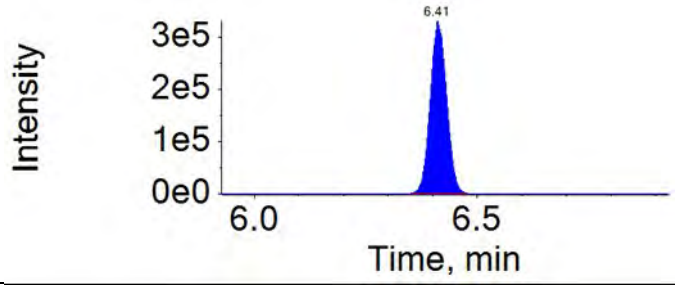


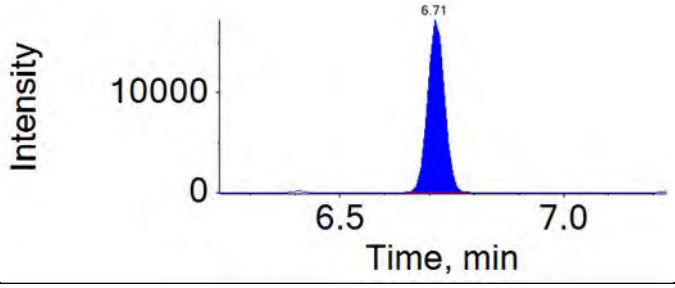
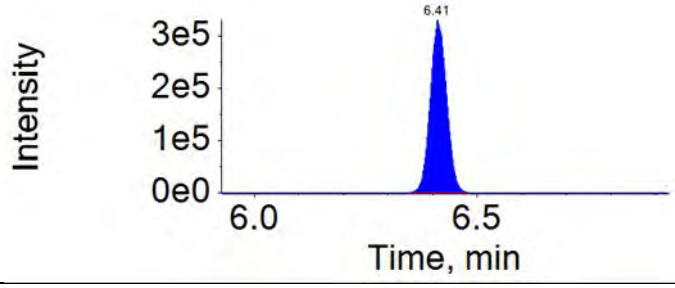
APPROVED
By MCD at 8:06 pm, 11/29/18

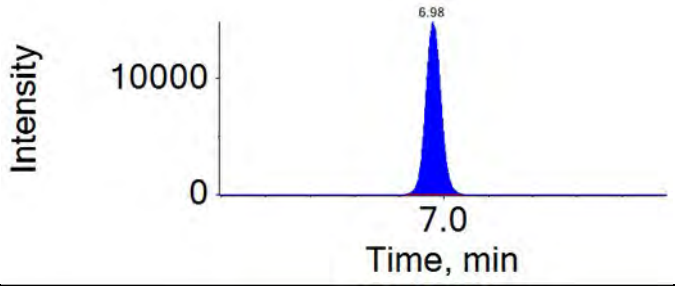
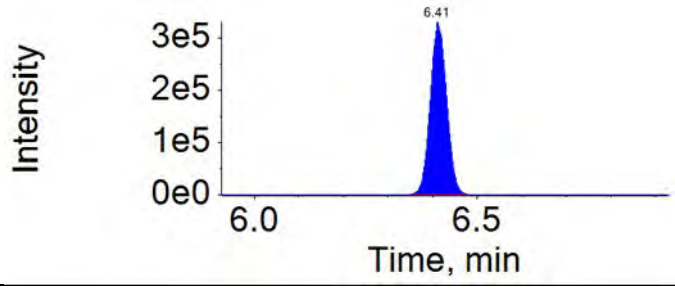
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

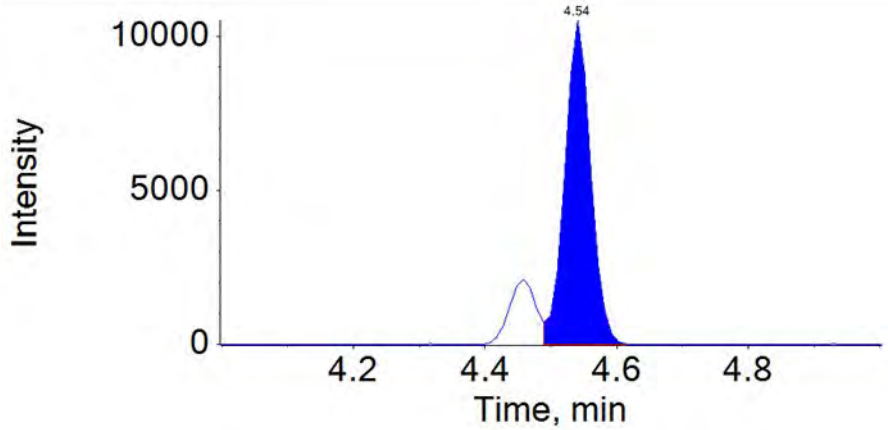
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

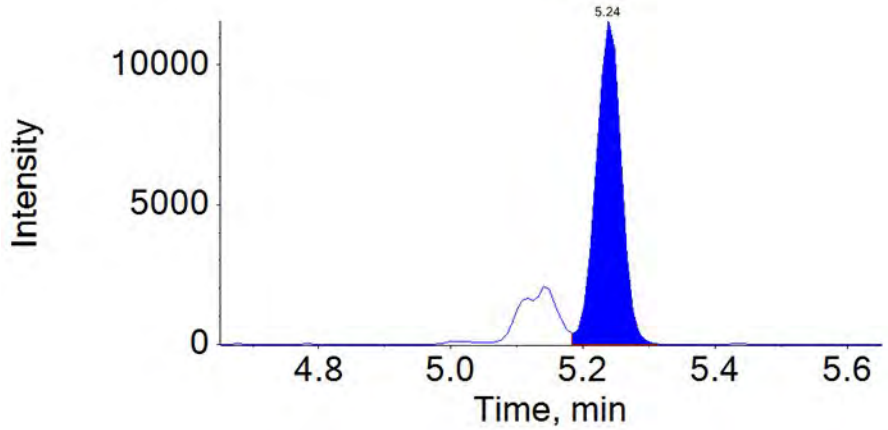
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



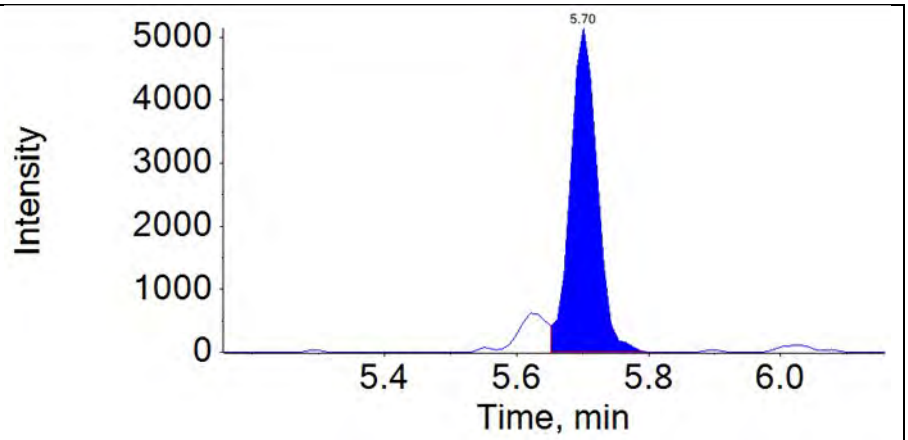
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
30774.9
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
14468.0
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2

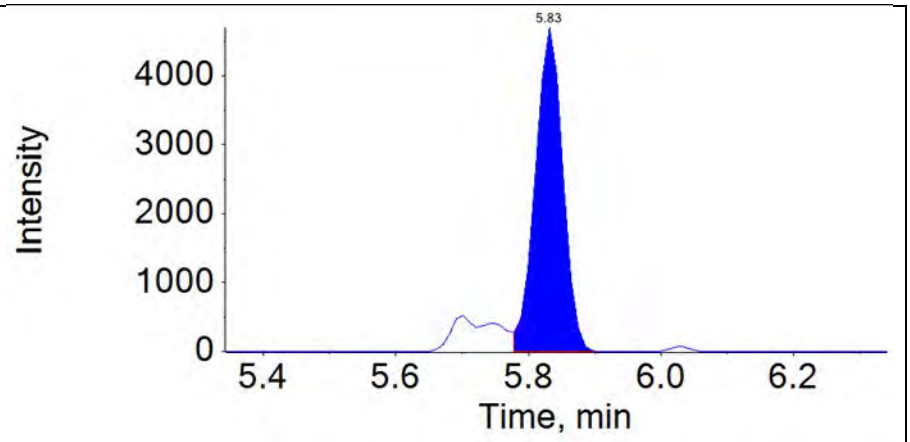


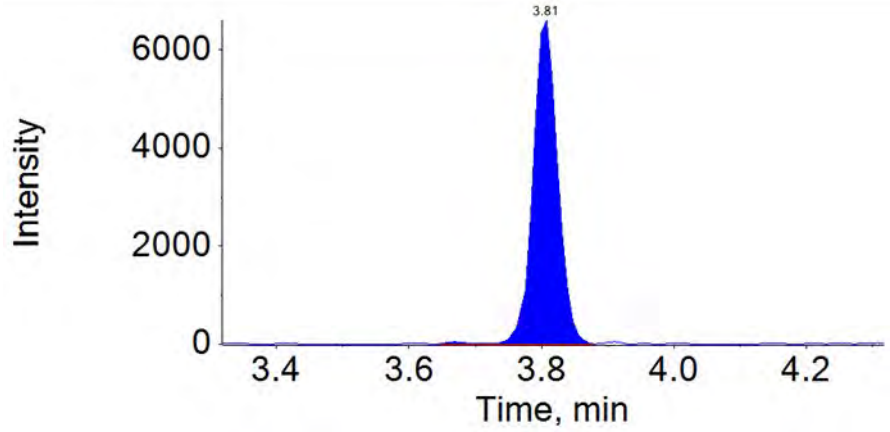
Integration Comment: incorrect integration

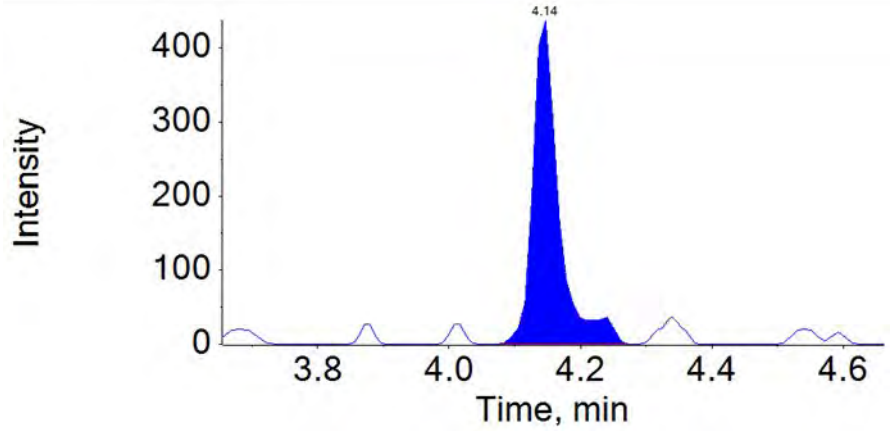
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 13564.4 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: PFBS_2 **RT (min.):** 3.81 **Peak Area:** 17159.7 **Mass Range:** 299.0 / 99.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

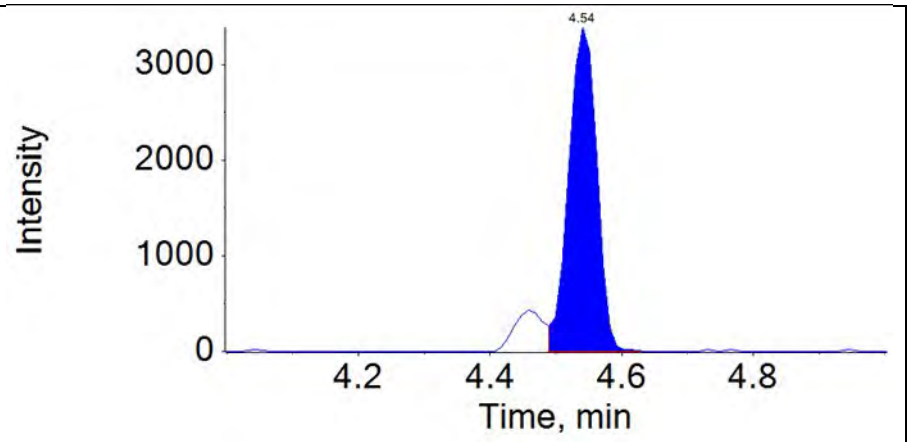
Component Name: PFHxA_2 **RT (min.):** 4.14 **Peak Area:** 1214.8 **Mass Range:** 313.0 / 119.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

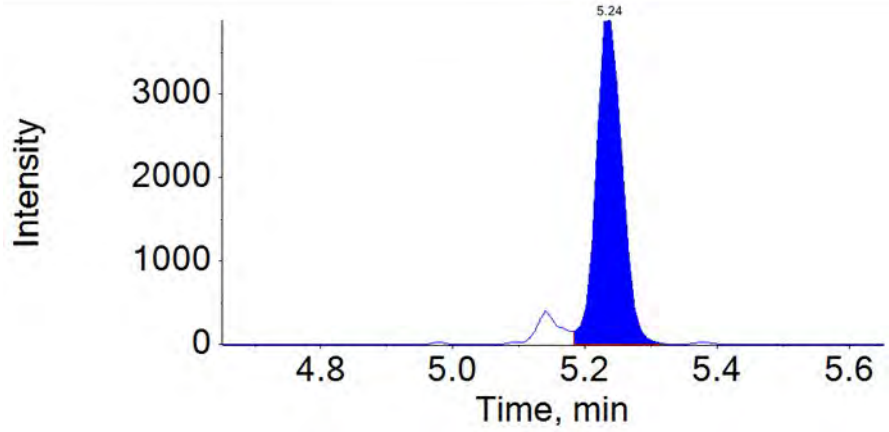
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
10090.1
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



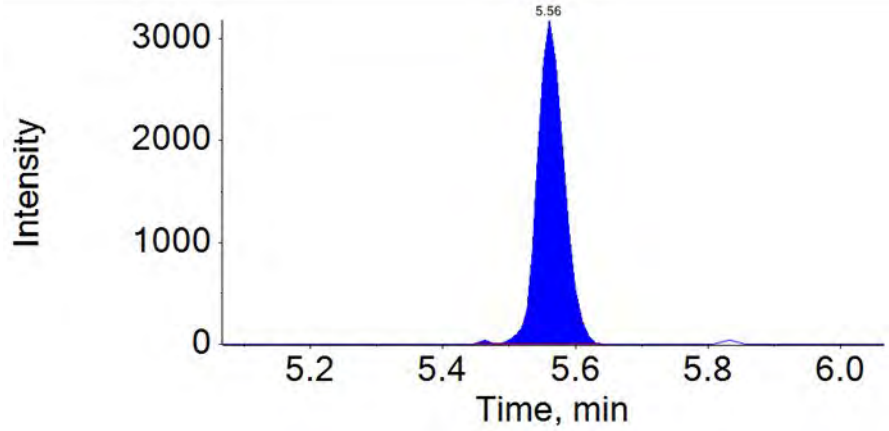
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
10719.2
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



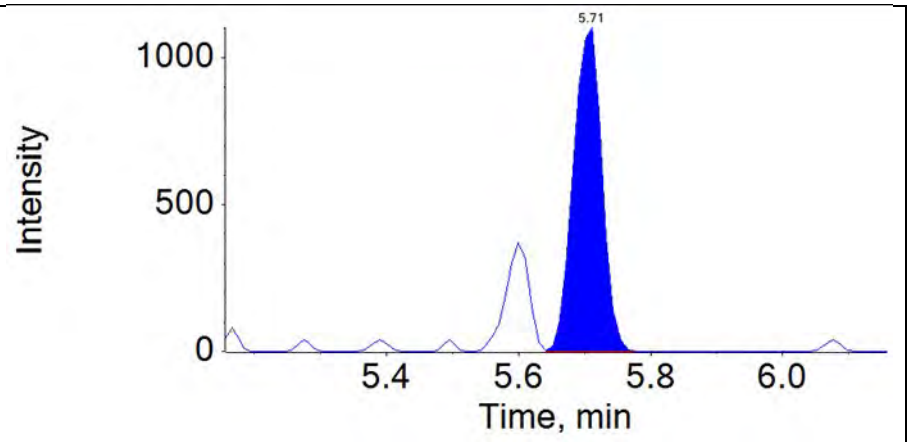
Integration Comment: incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

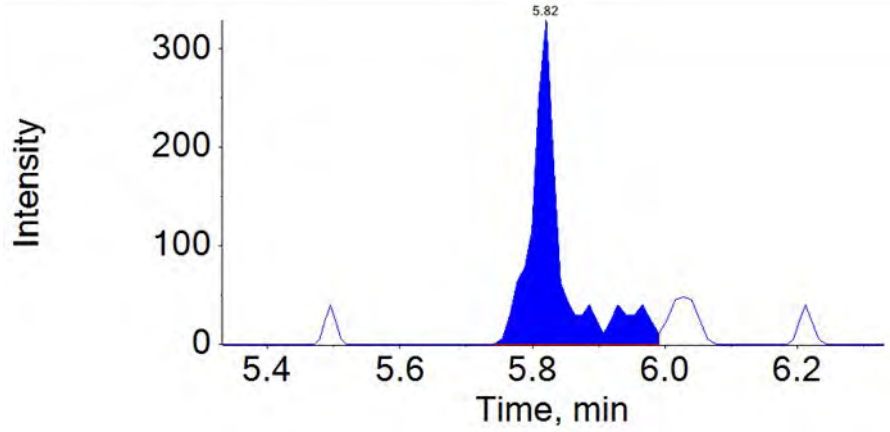
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



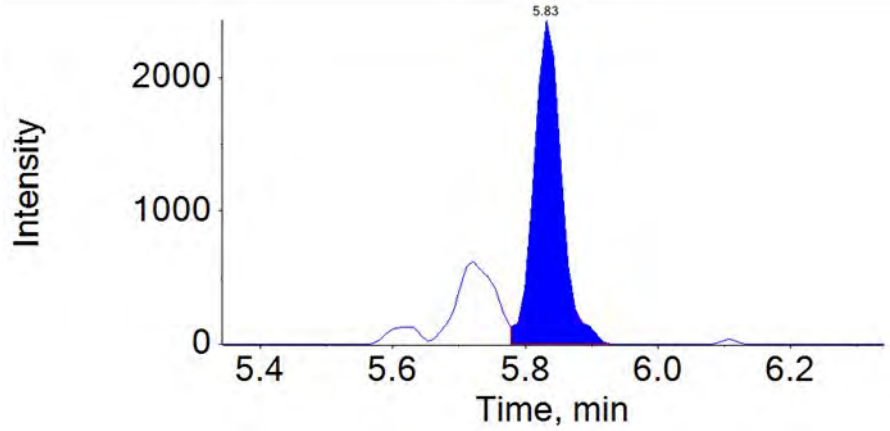
Integration Comment: incorrect integration

Component Name:
PFUnDA_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



Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

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

Ion Ratio Report

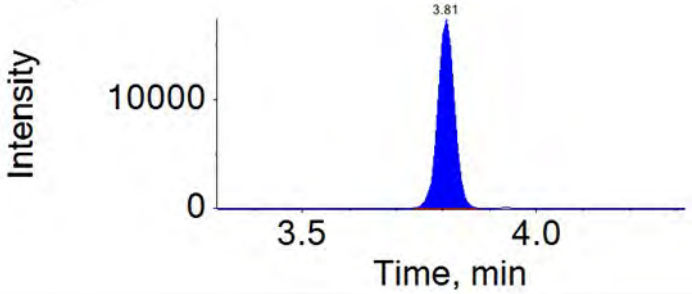
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-05.wiff

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	
PFTrDA	6.23	1.03	122778.8	A	N/A	0.0057			
PFTrDA_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	

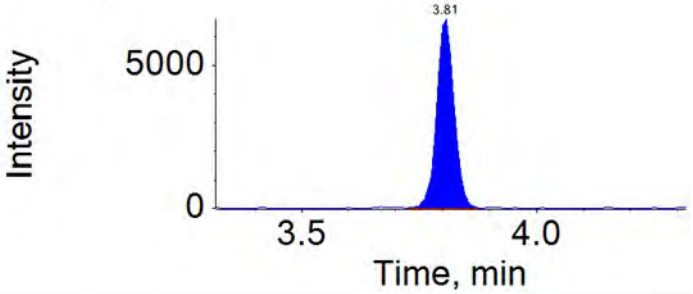
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

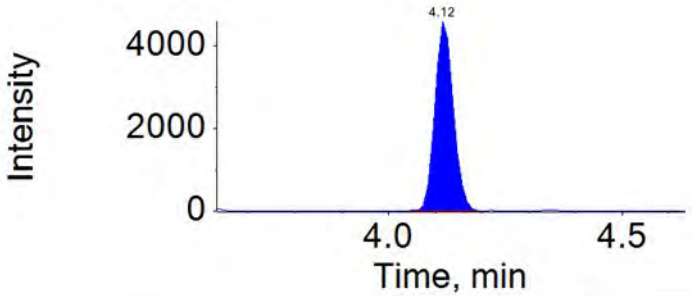
Component: PFBS
Primary Mass: 299.0 / 80.0



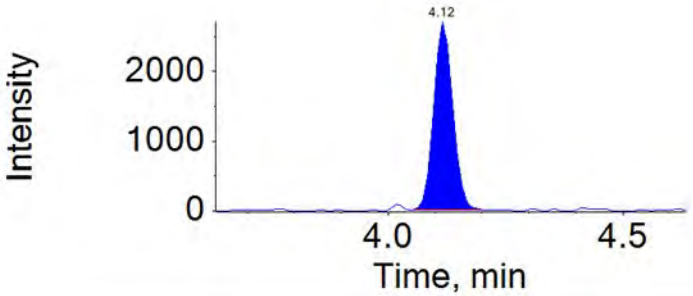
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



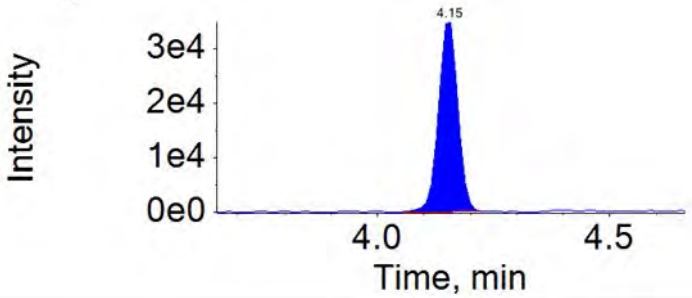
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



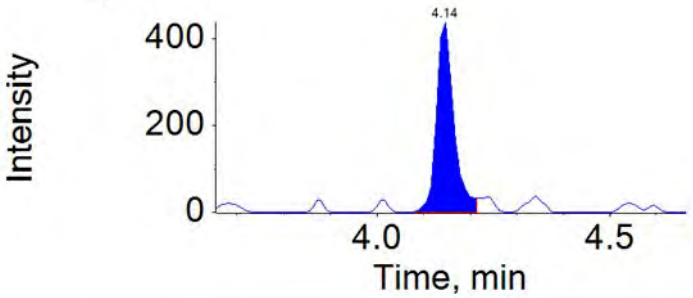
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



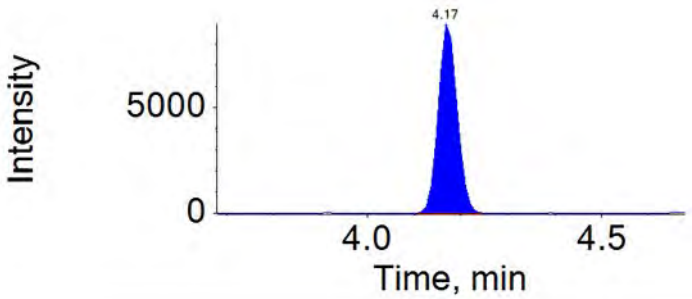
Component: PFHxA
Primary Mass: 313.0 / 269.0



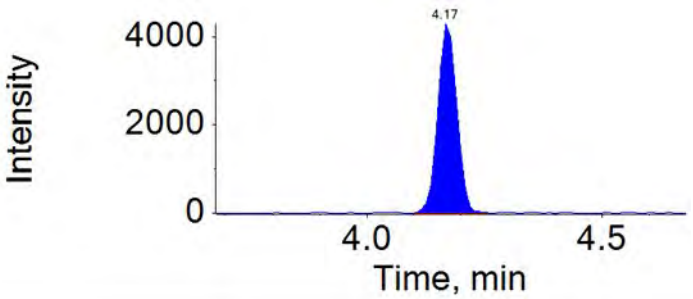
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



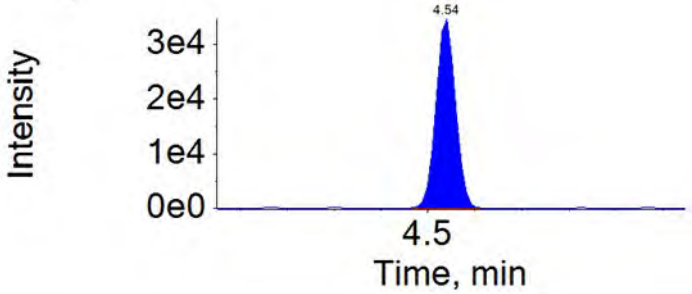
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



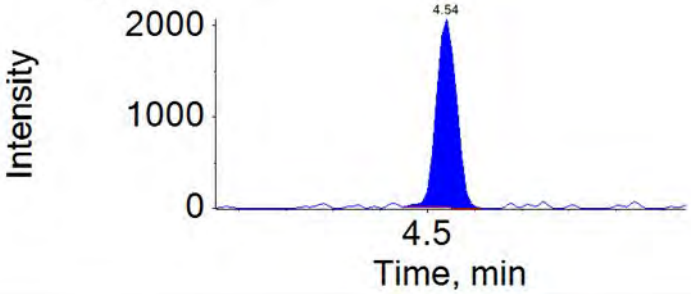
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

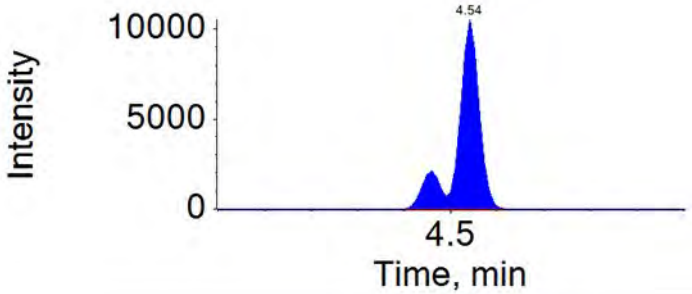
Component: PFHpA
Primary Mass: 363.0 / 319.0



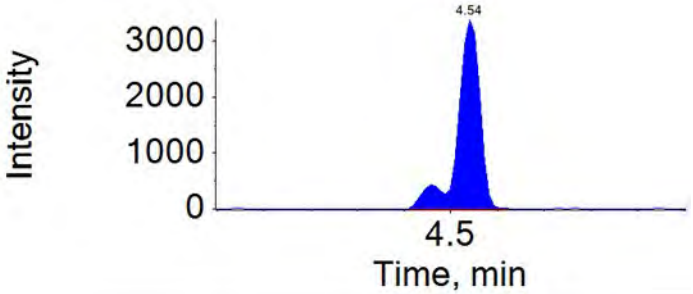
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



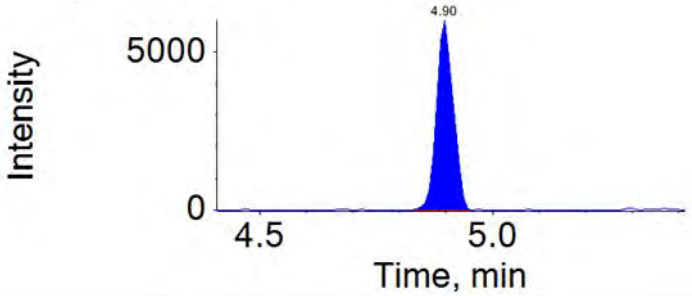
Component: PFHxS
Primary Mass: 399.0 / 80.0



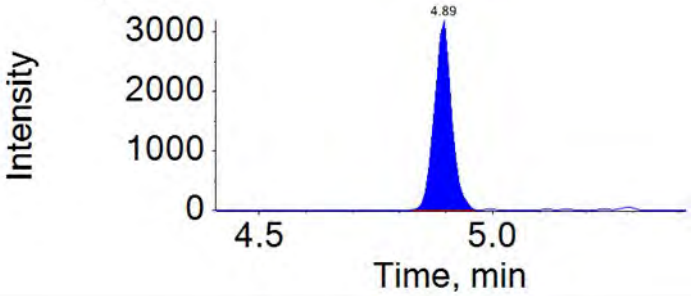
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



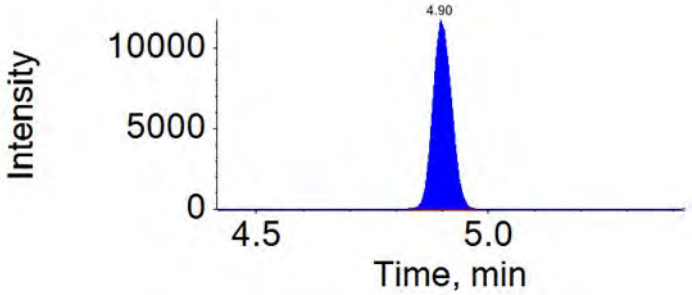
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



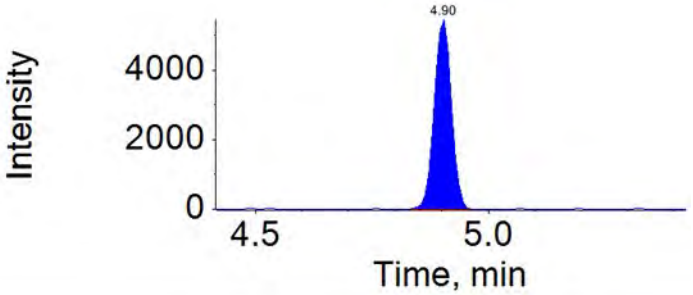
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



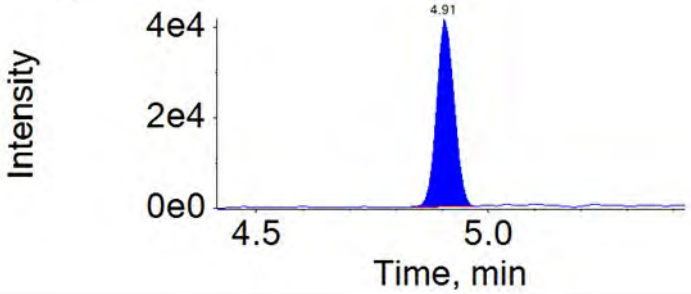
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



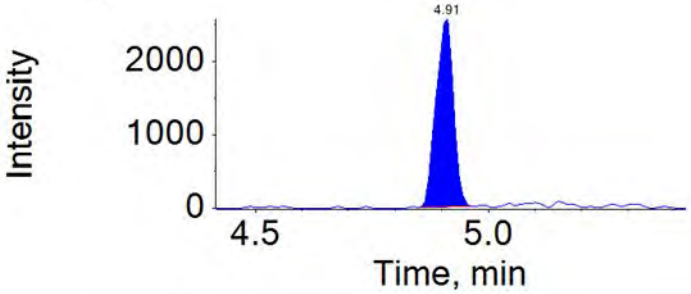
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

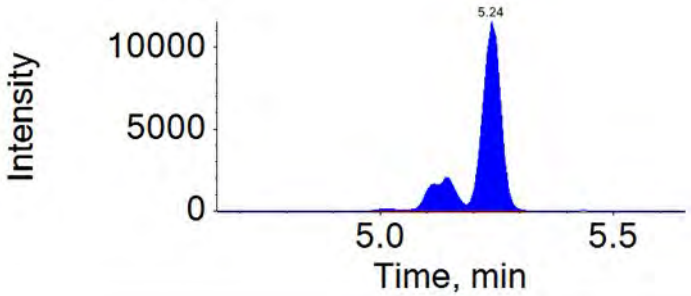
Component: PFOA
Primary Mass: 413.0 / 369.0



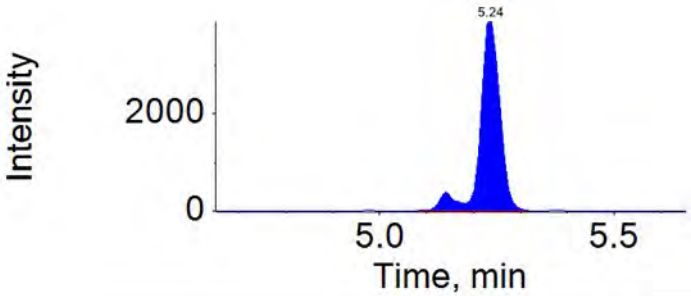
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



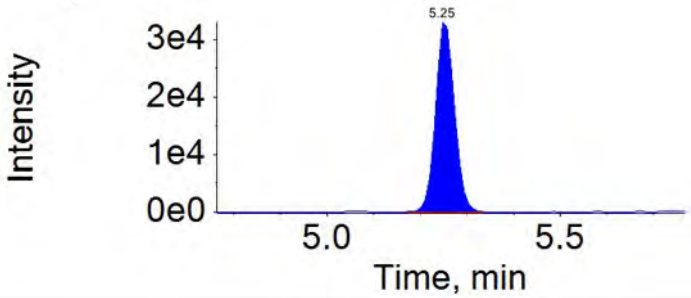
Component: PFOS
Primary Mass: 499.0 / 80.0



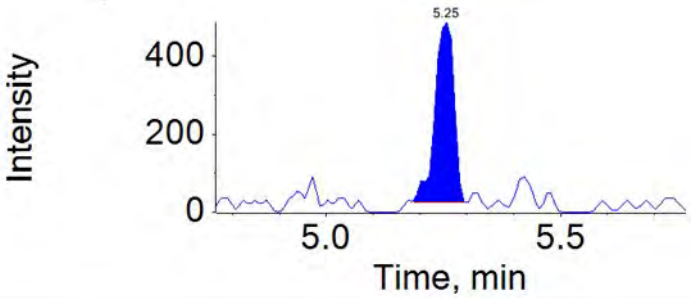
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



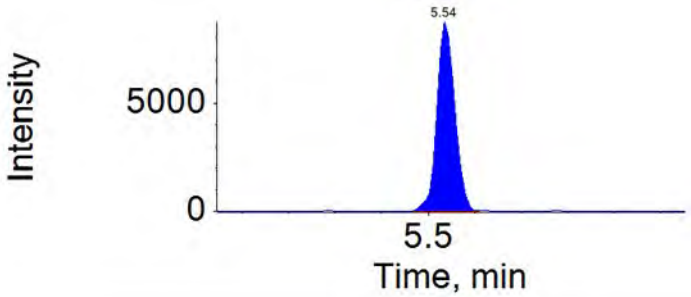
Component: PFNA
Primary Mass: 463.0 / 419.0



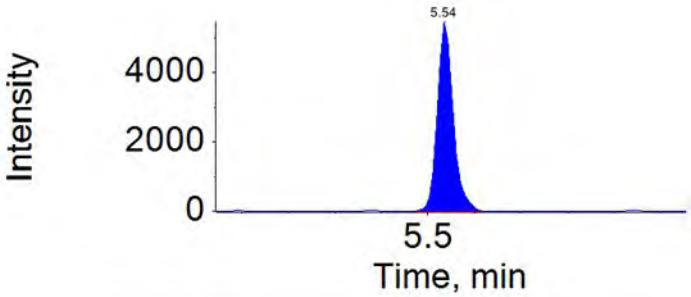
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



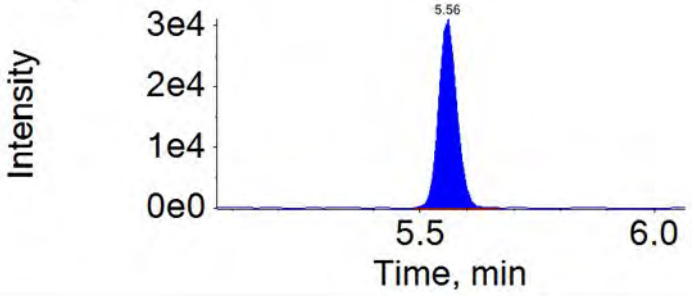
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



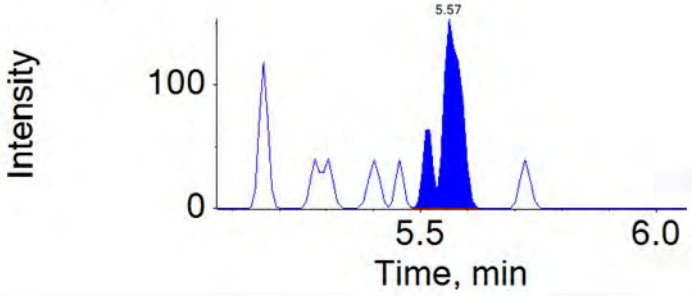
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

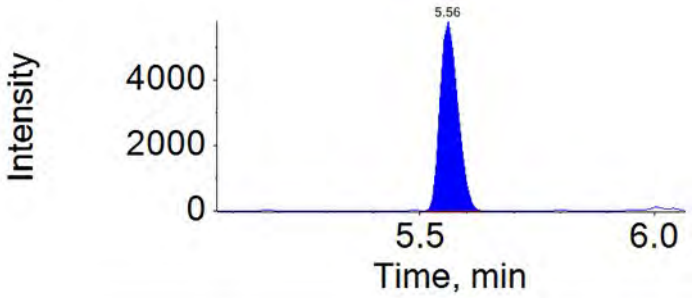
Component: PFDA
Primary Mass: 513.0 / 469.0



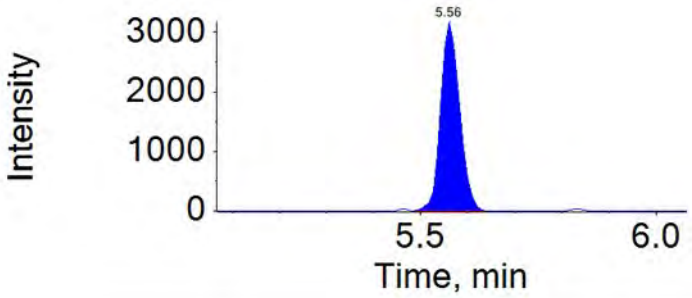
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



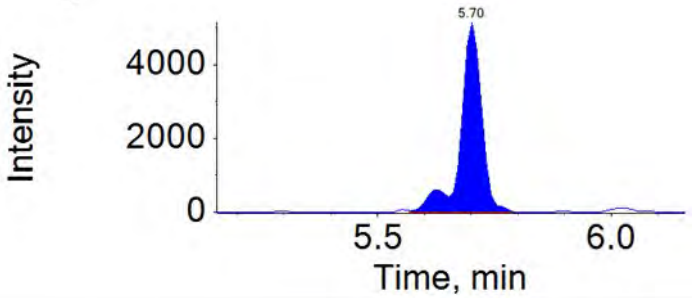
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



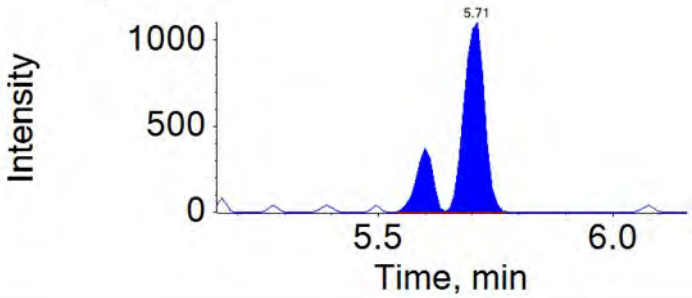
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



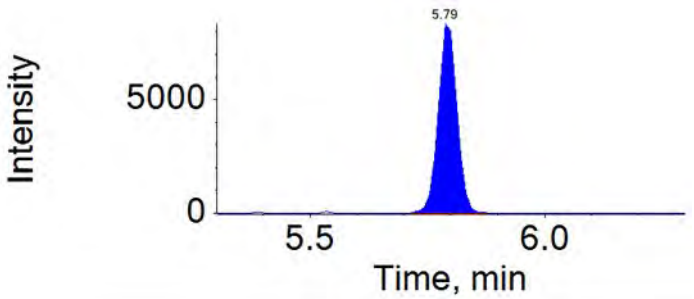
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



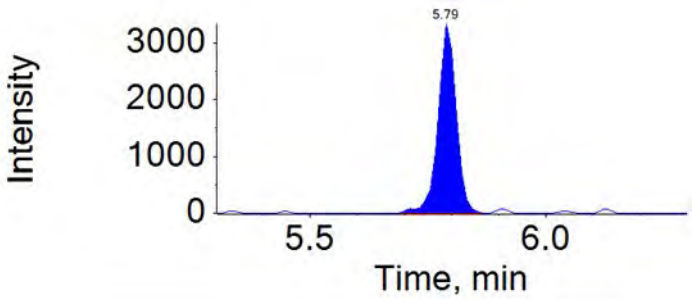
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



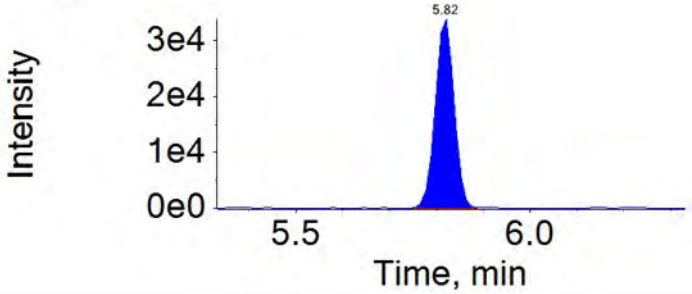
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



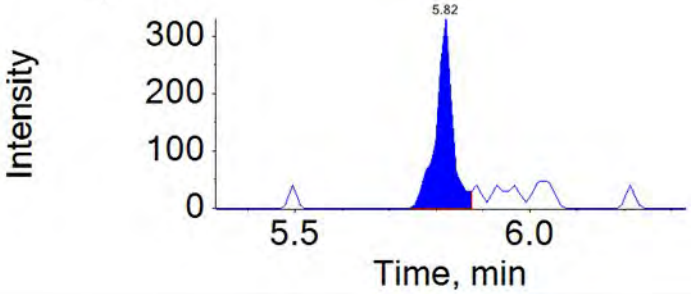
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

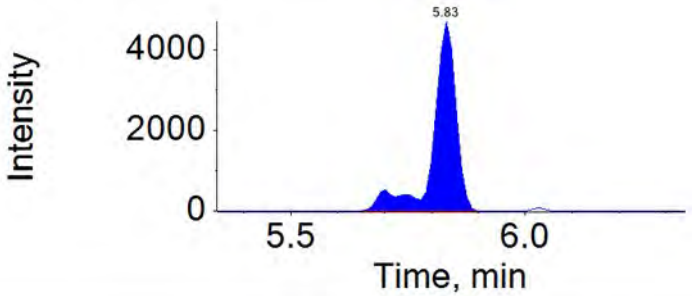
Component: PFUnDA
Primary Mass: 563.0 / 519.0



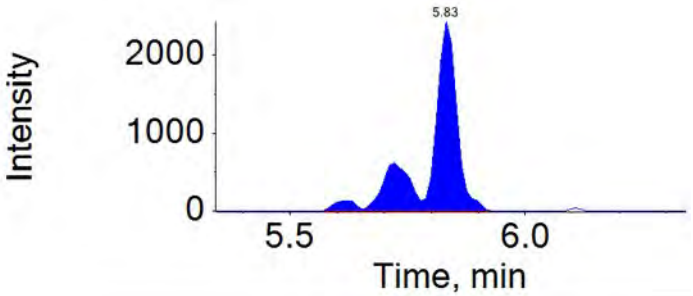
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



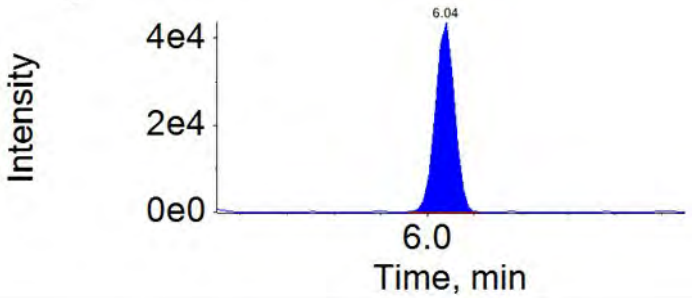
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



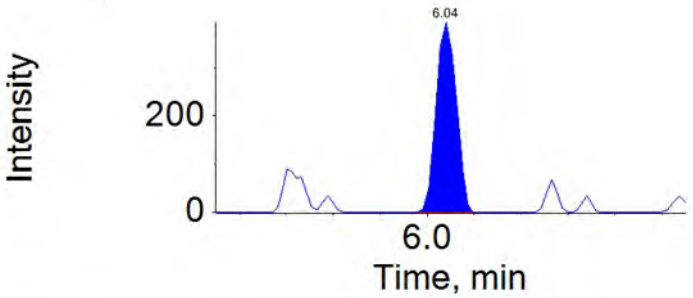
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



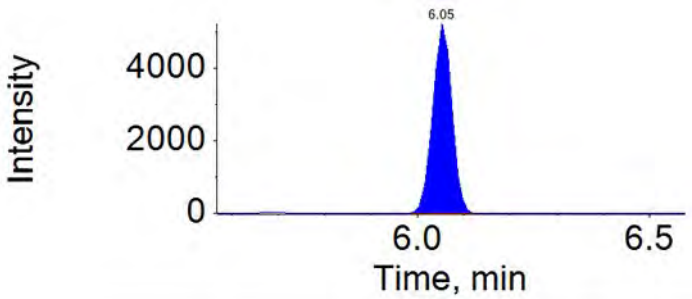
Component: PFDoDA
Primary Mass: 613.0 / 569.0



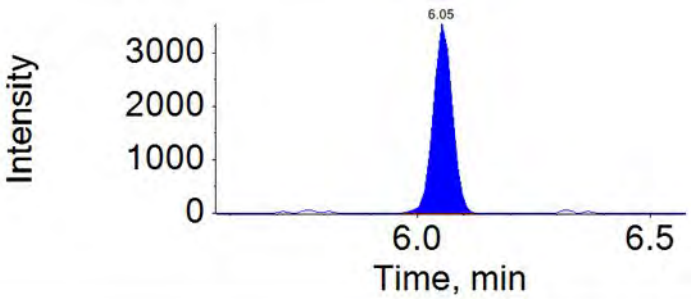
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



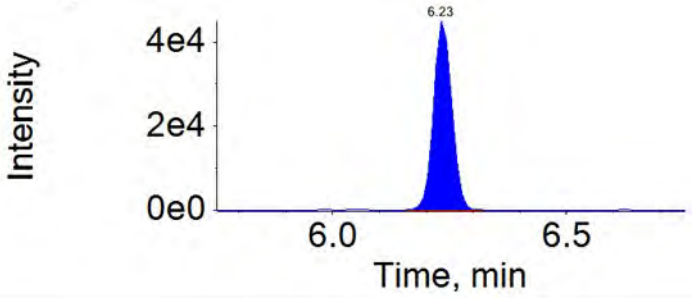
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



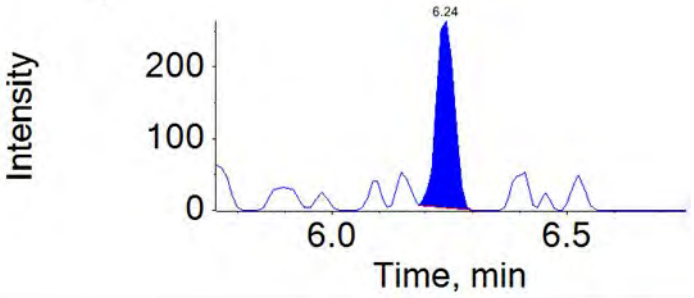
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

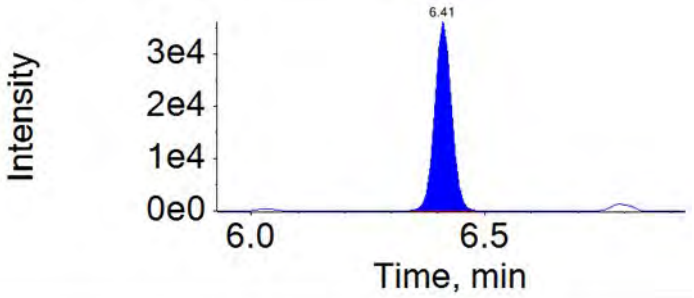
Component: PFTrDA
Primary Mass: 663.0 / 619.0



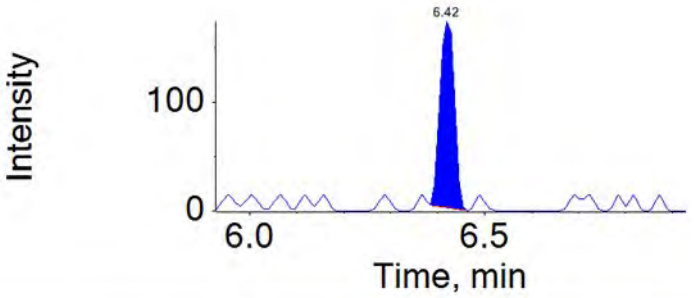
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



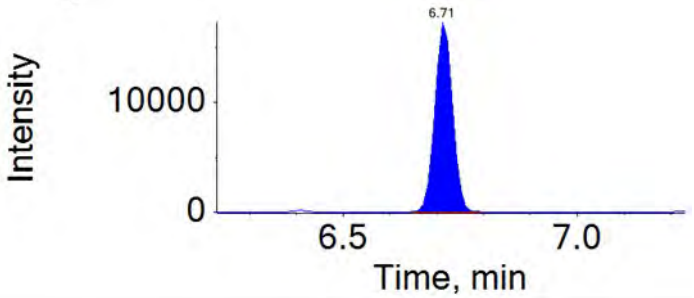
Component: PFTeDA
Primary Mass: 713.0 / 669.0



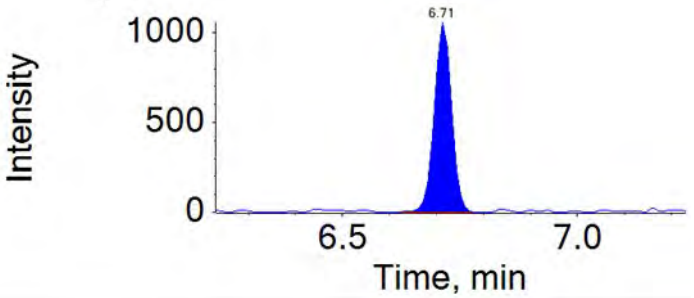
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



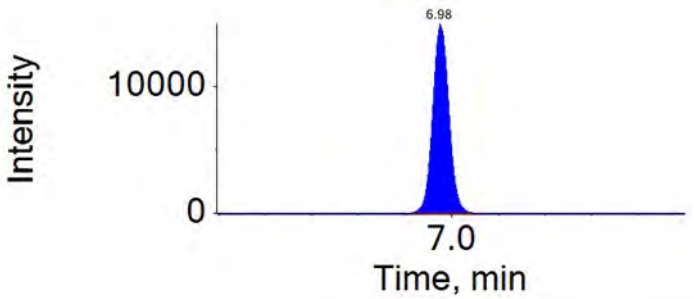
Component: PFHxDA
Primary Mass: 813.0 / 769.0



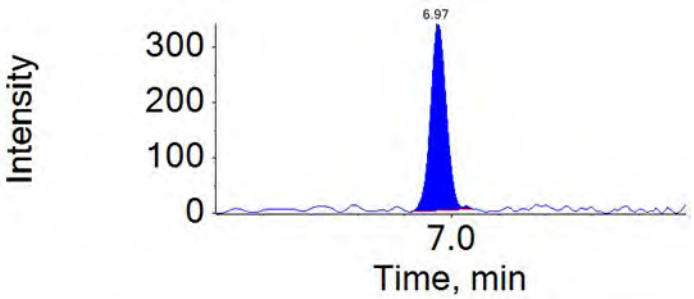
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **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	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

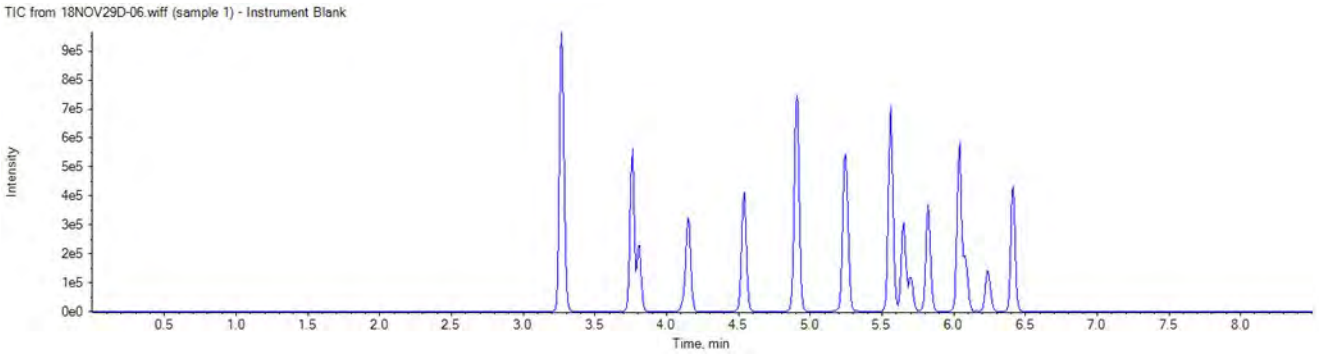
Analyte Quantitation Peak Table

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	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	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	
PFTrDA	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	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	

Total Ion Chromatogram

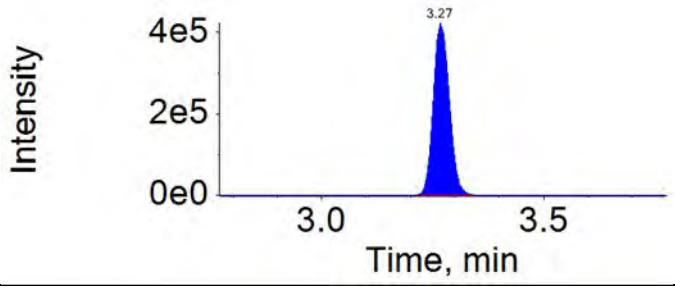


APPROVED
By MCD at 8:06 pm, 11/29/18

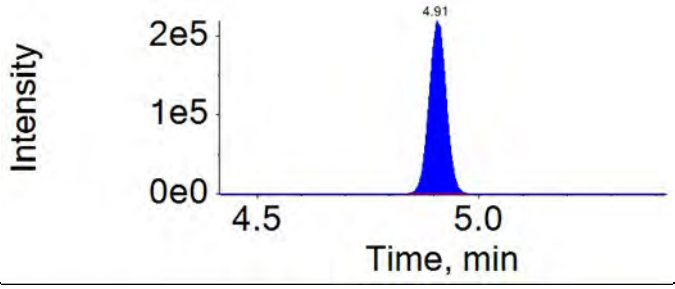
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

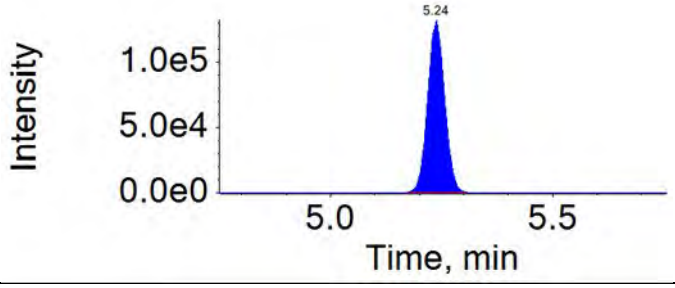
Injection Standard: 13C3-PFBA
216.0 / 172.0



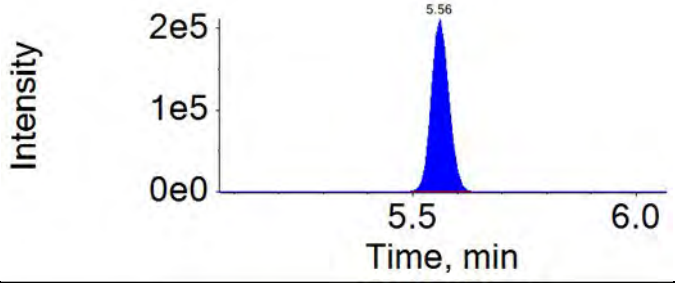
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

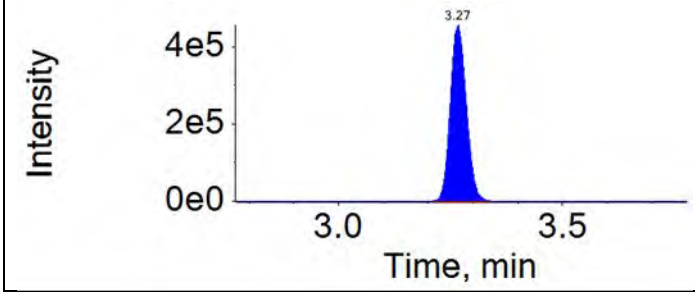


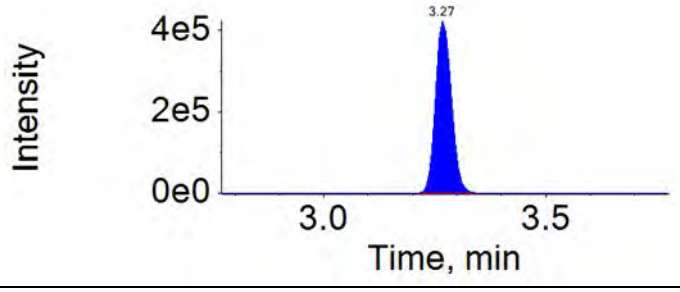
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

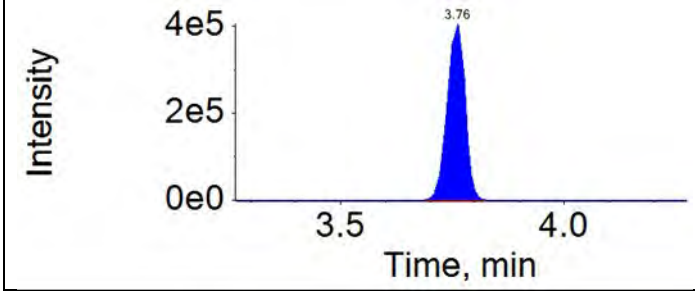
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

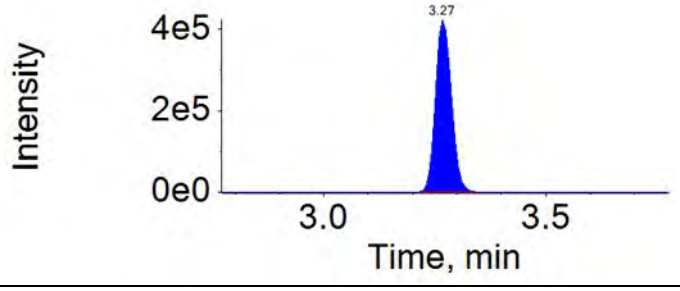
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



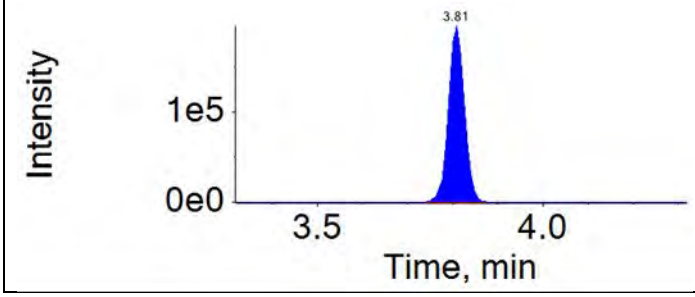


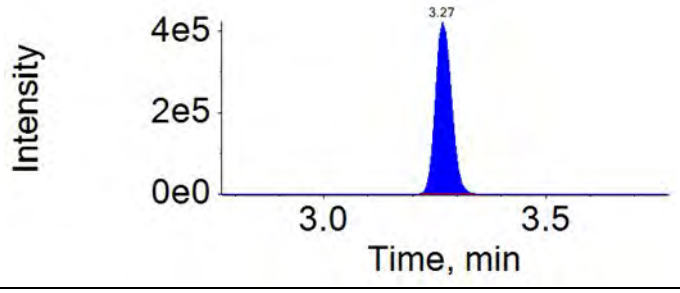
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



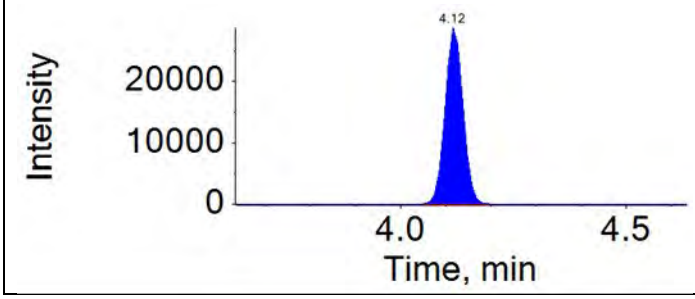


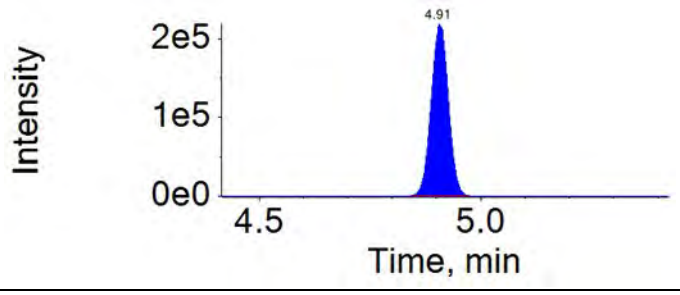
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

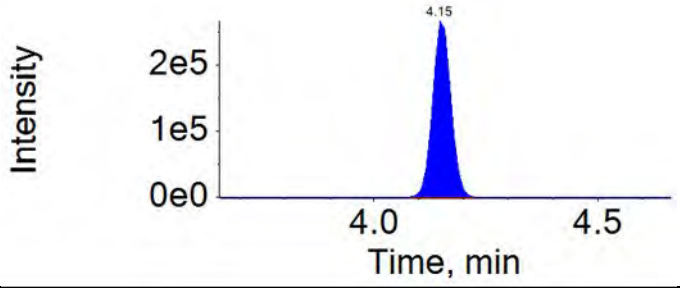
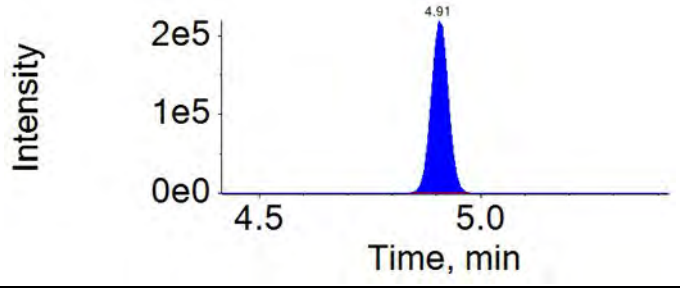


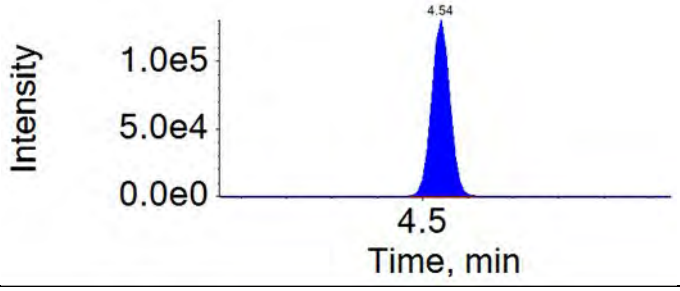
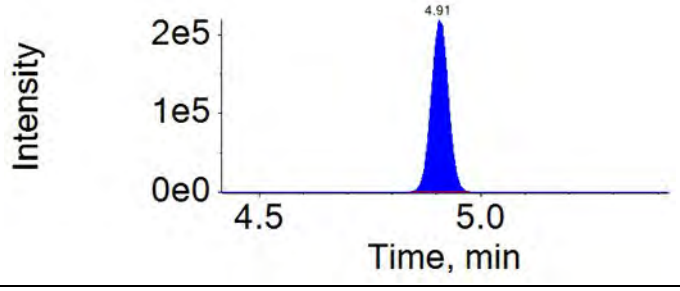


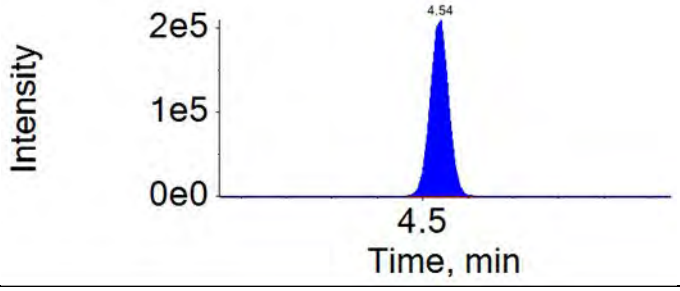
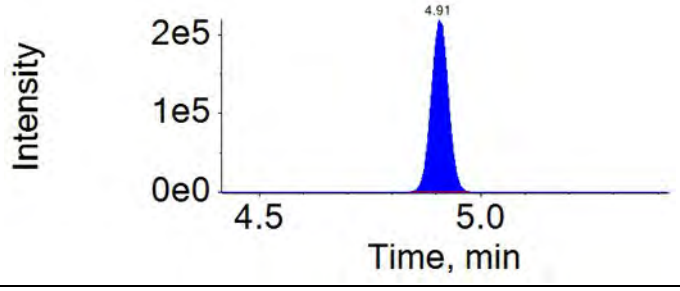
APPROVED
By MCD at 8:06 pm, 11/29/18

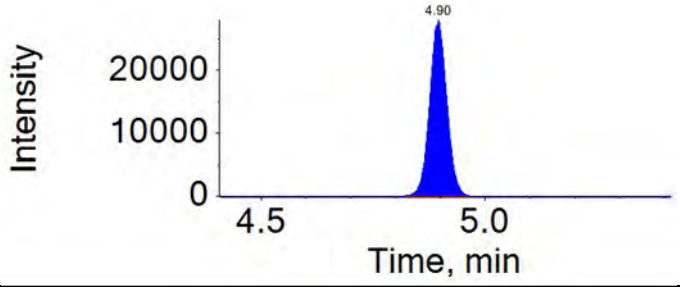
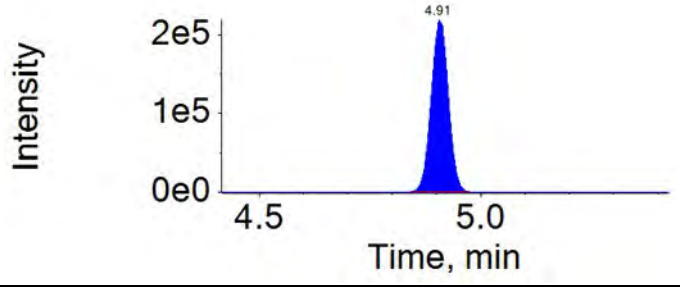
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

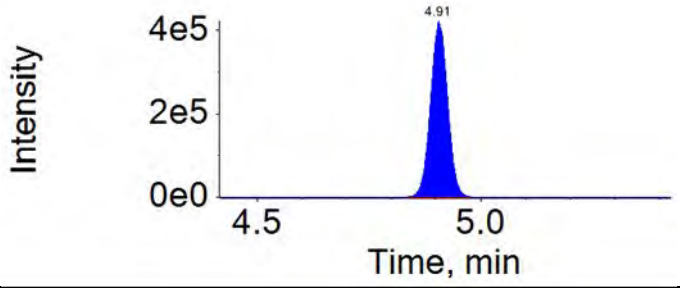
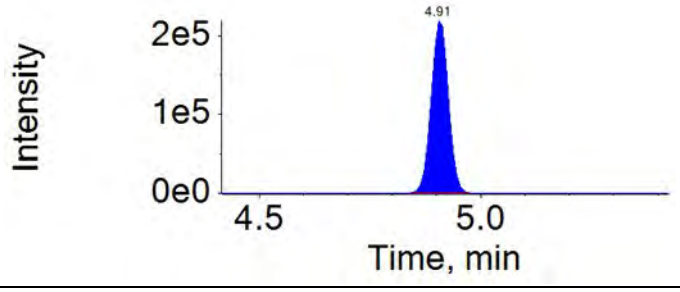
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

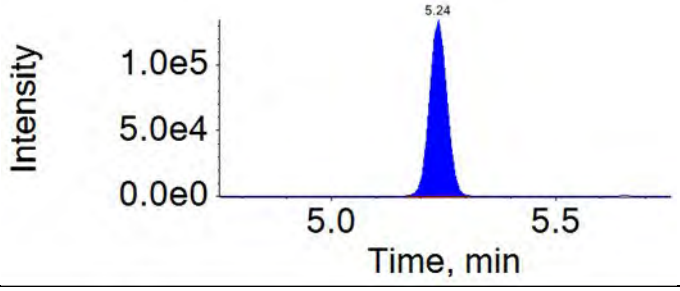
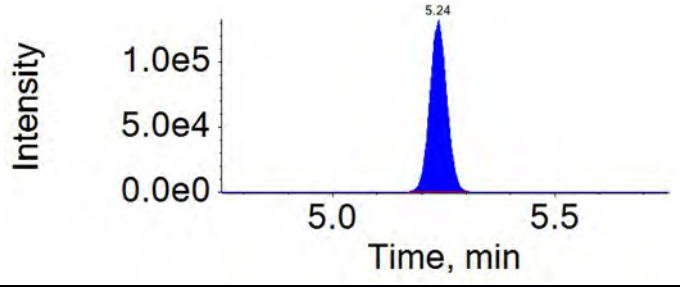
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

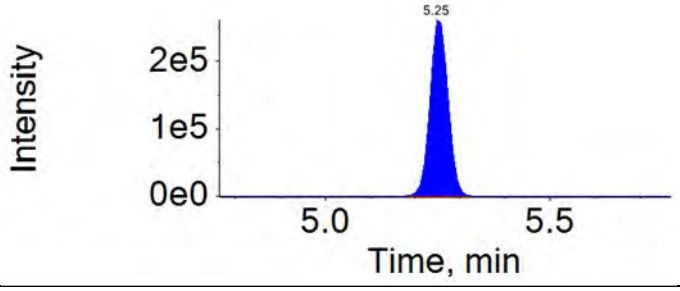
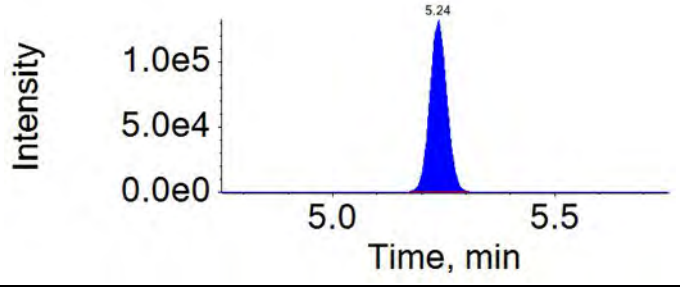
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

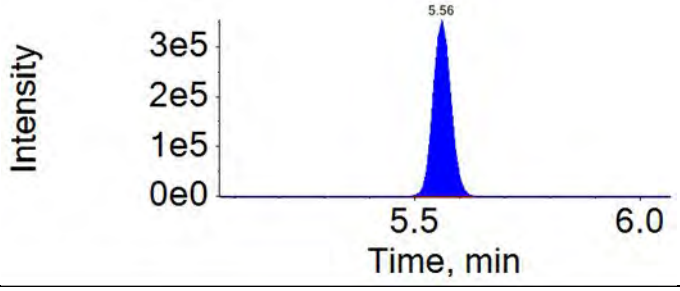
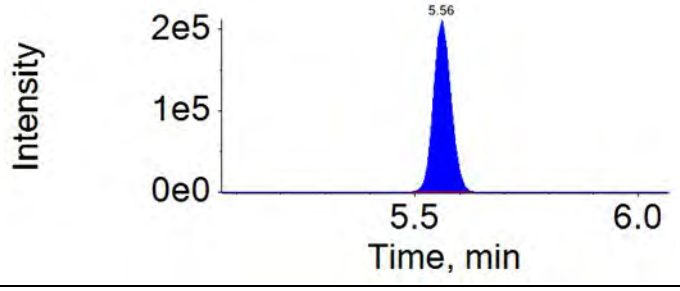
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

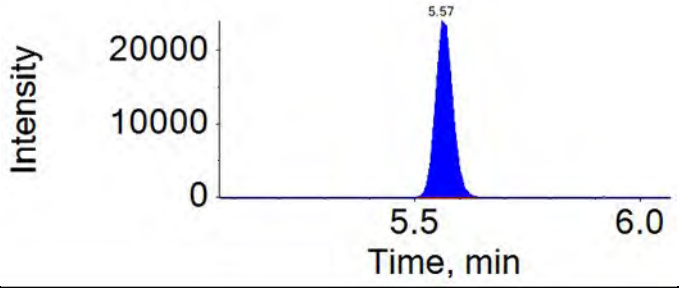
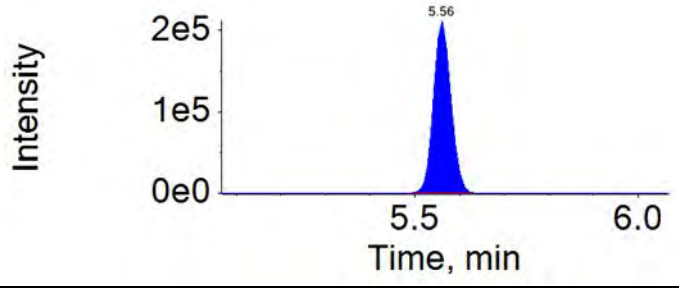
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

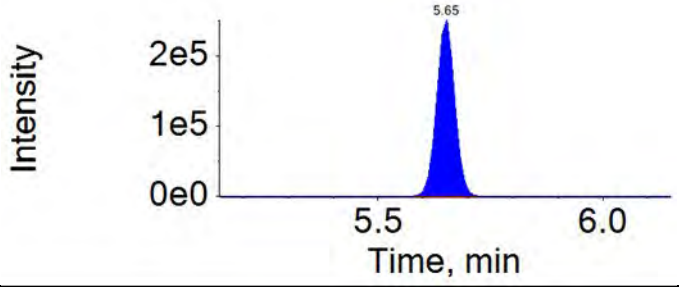
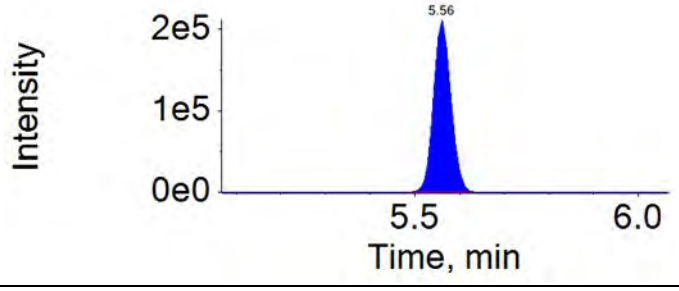
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

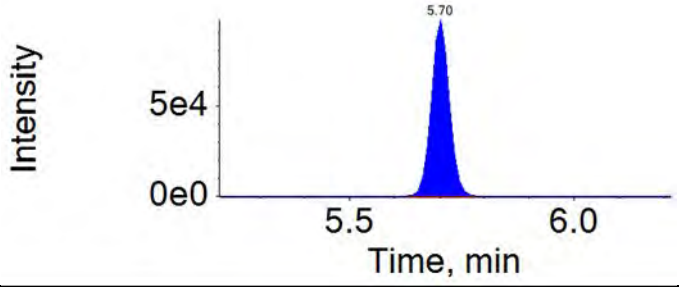
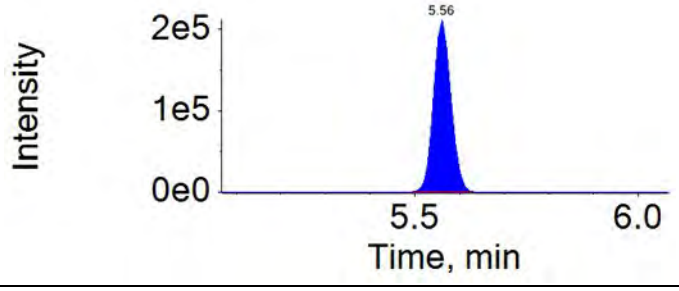
APPROVED
By MCD at 8:06 pm, 11/29/18

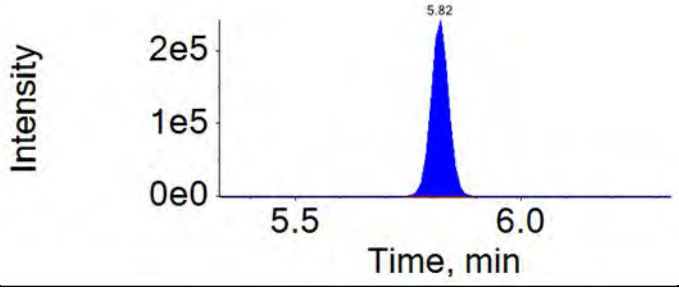
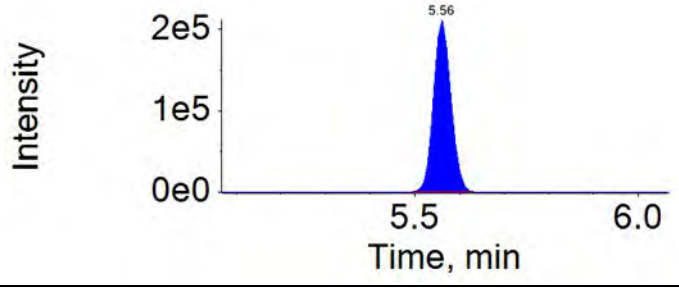
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

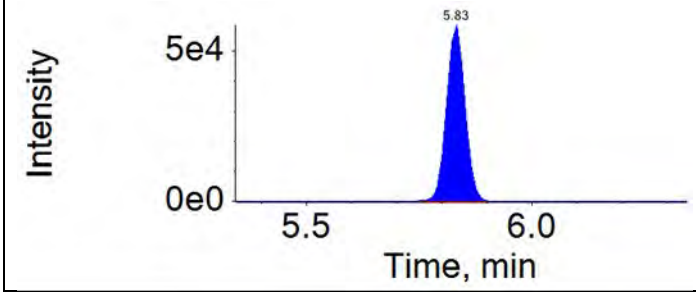
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

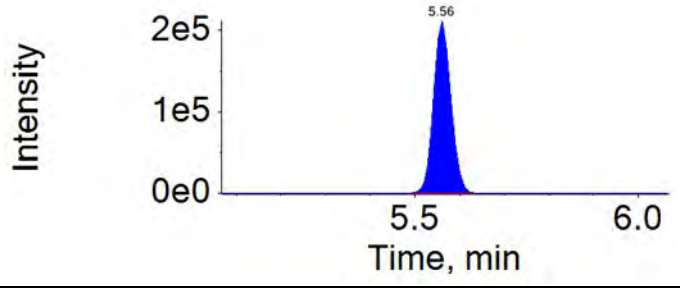
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

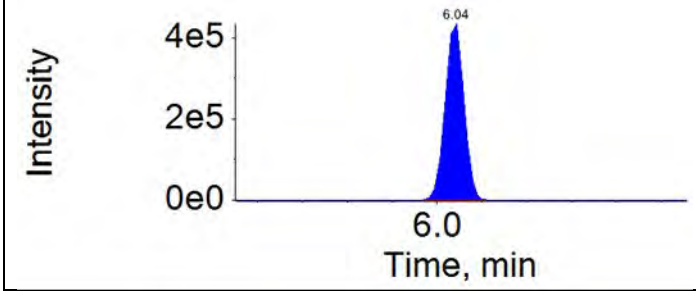
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

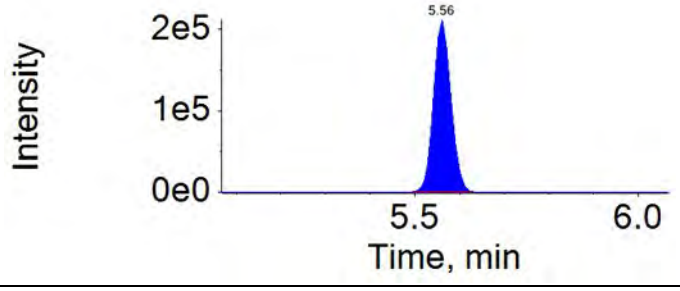
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



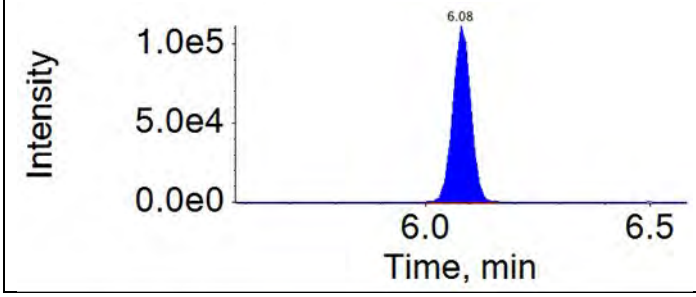


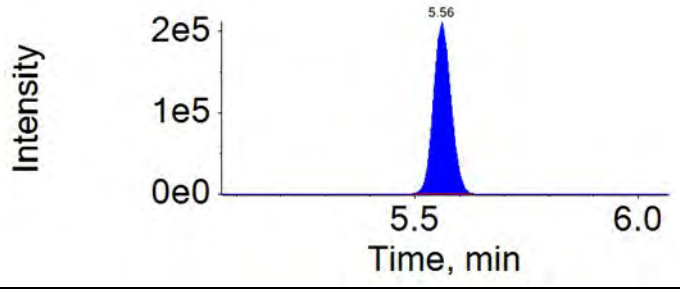
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



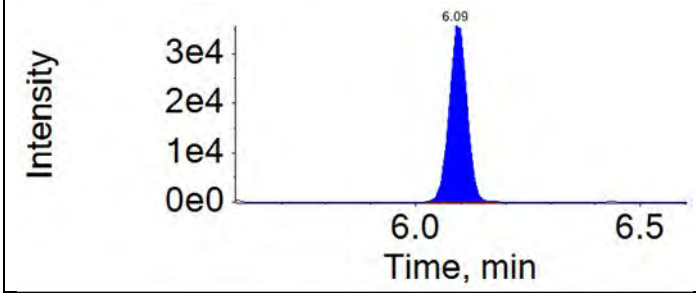


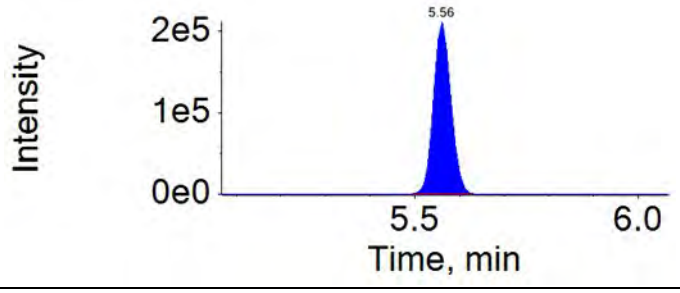
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



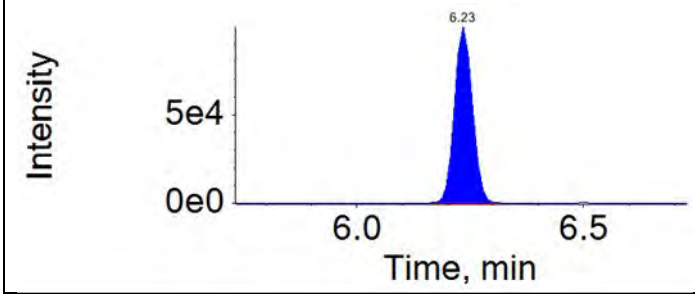


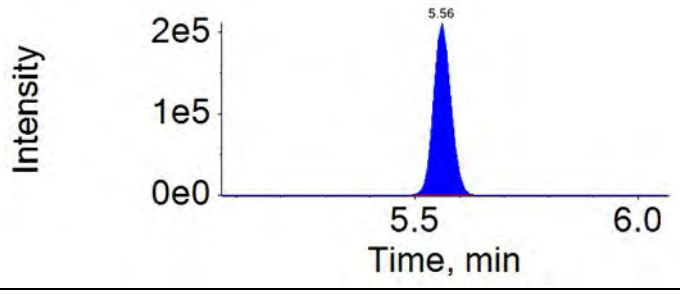
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

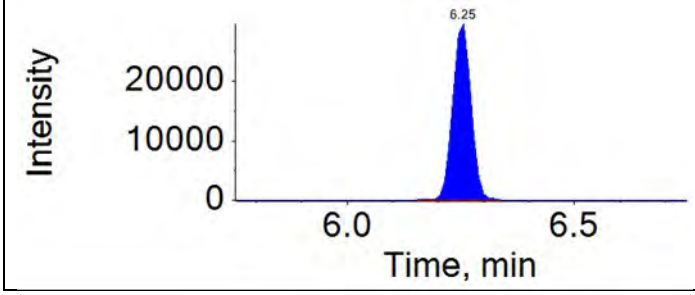
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

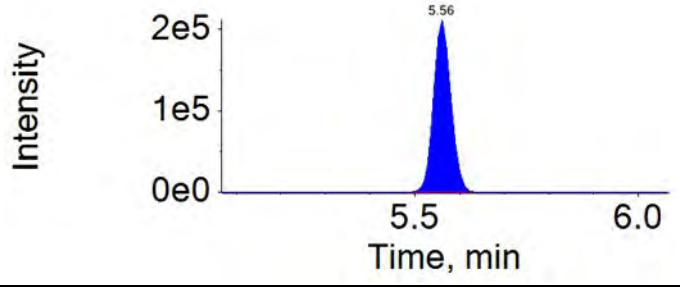
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



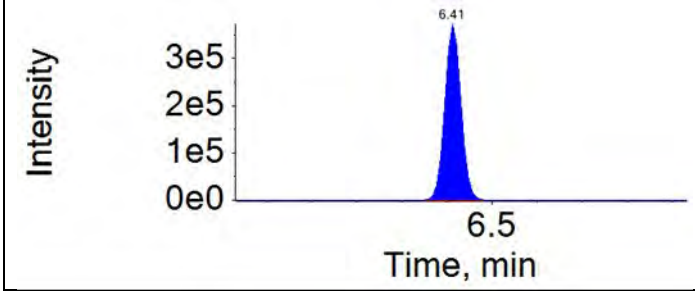


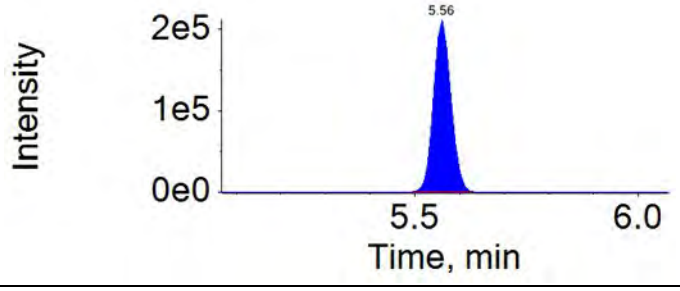
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



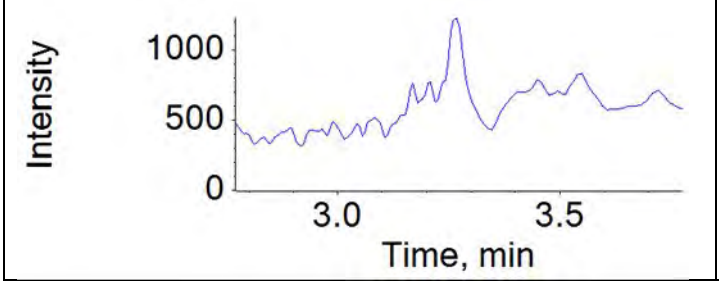


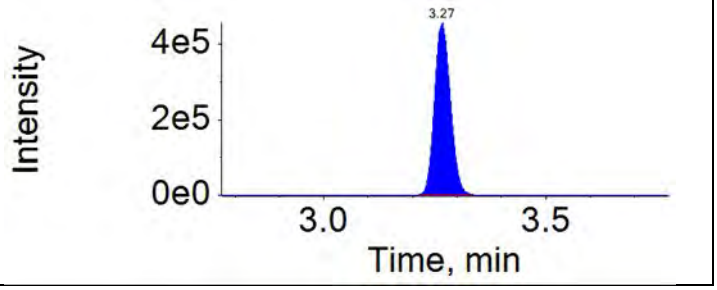
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

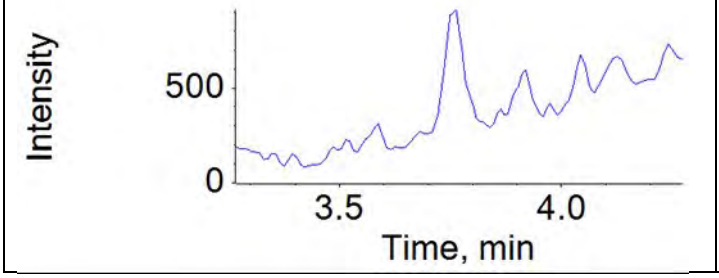
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

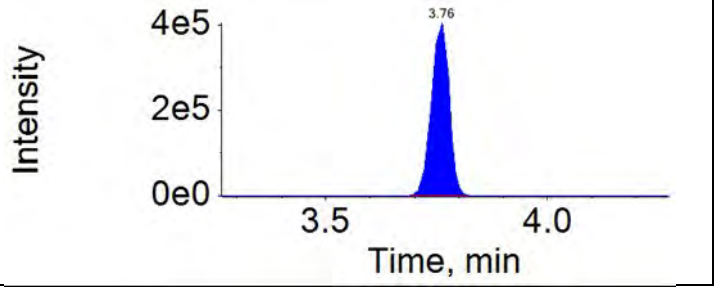
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



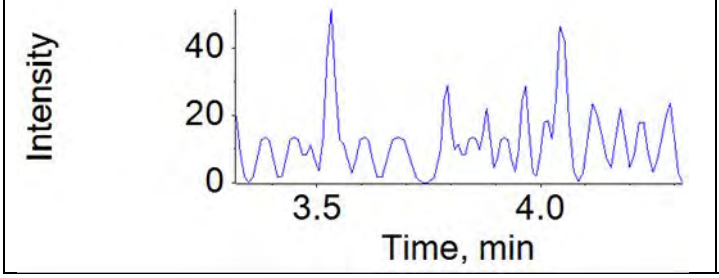


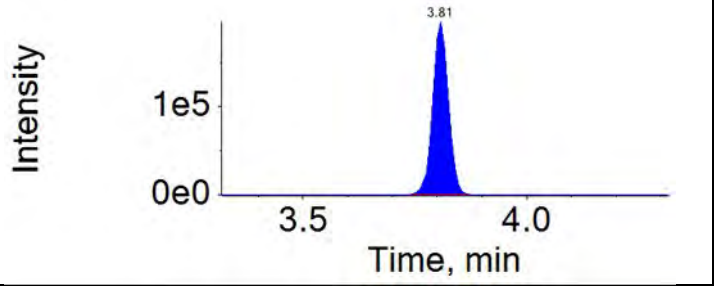
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



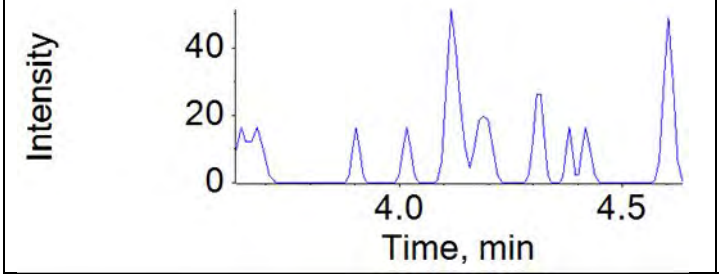


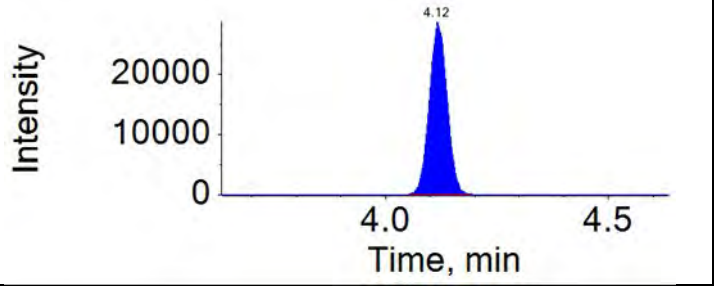
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



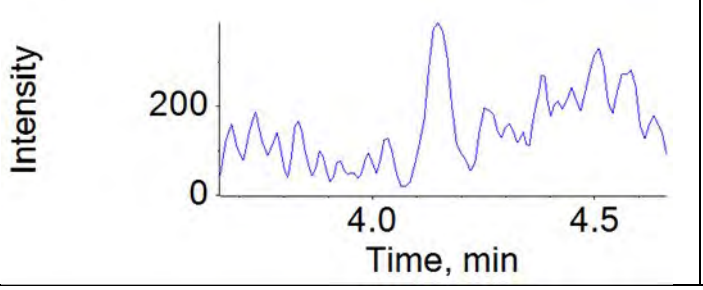


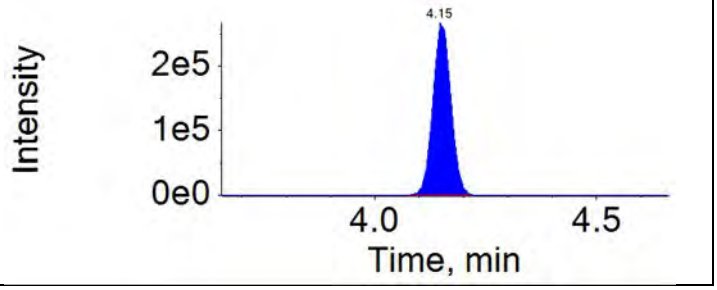
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

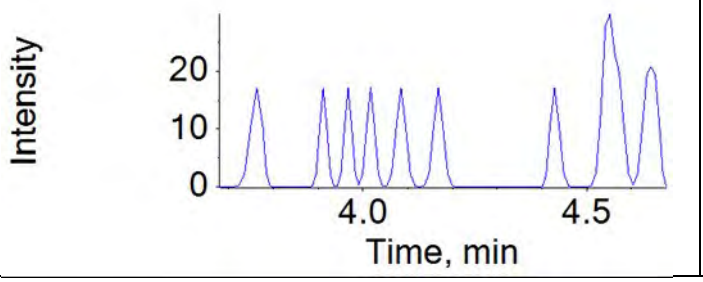
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

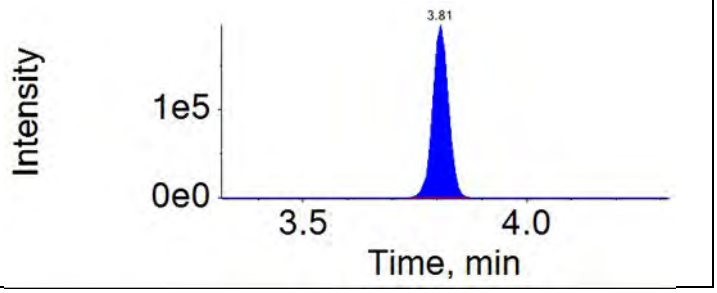
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



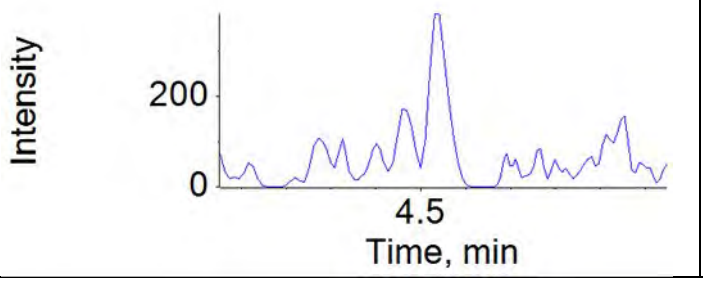


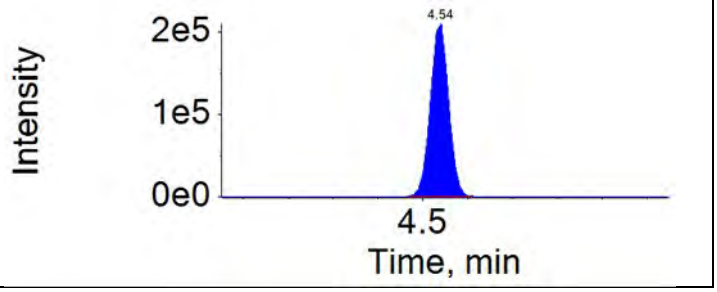
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



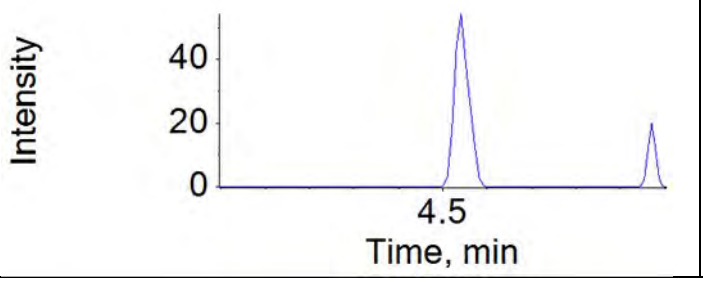


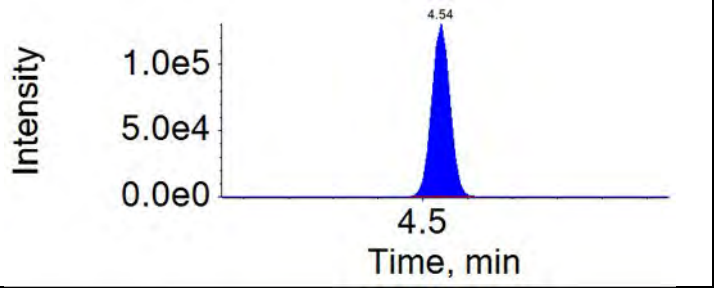
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



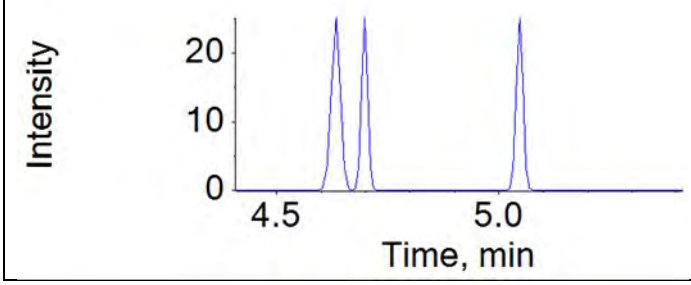


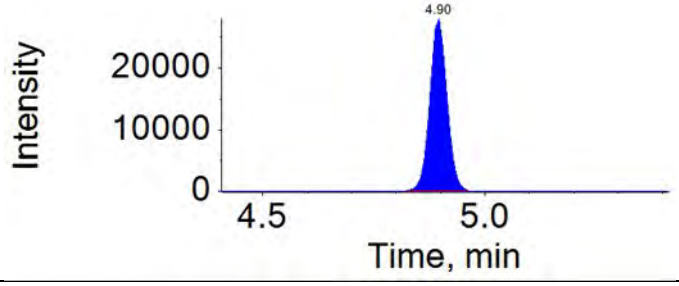
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

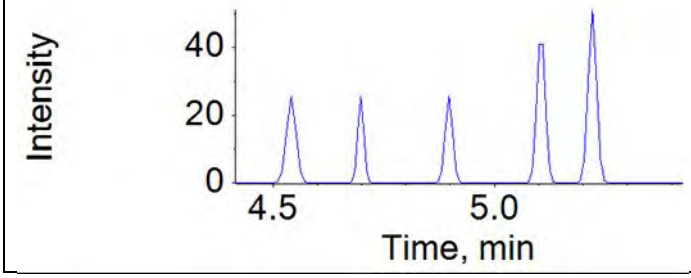
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

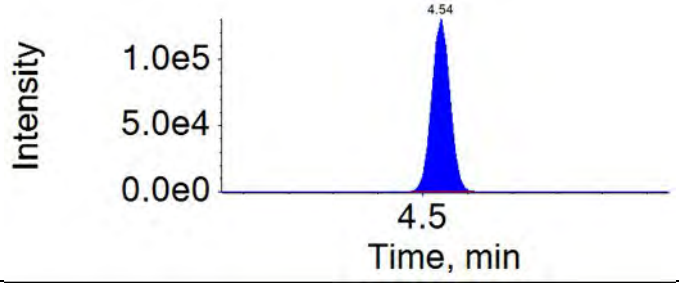
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



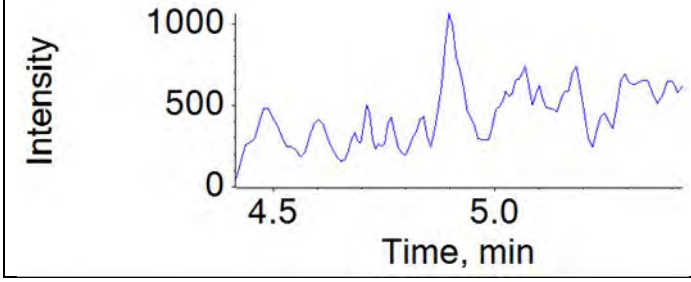


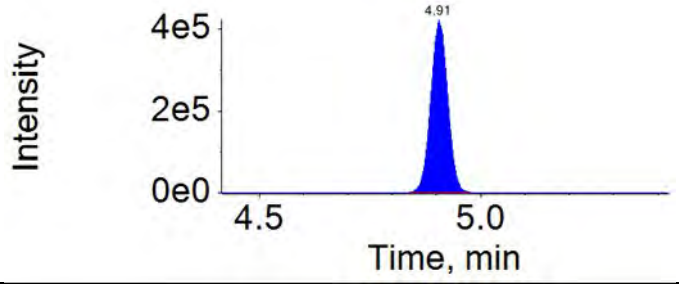
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



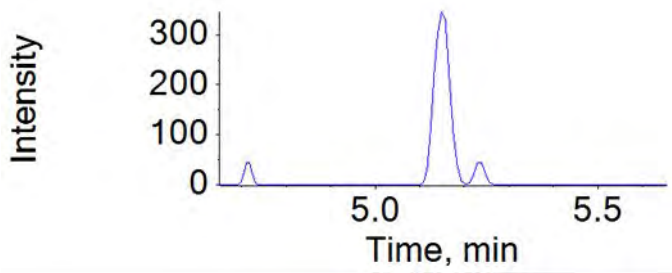


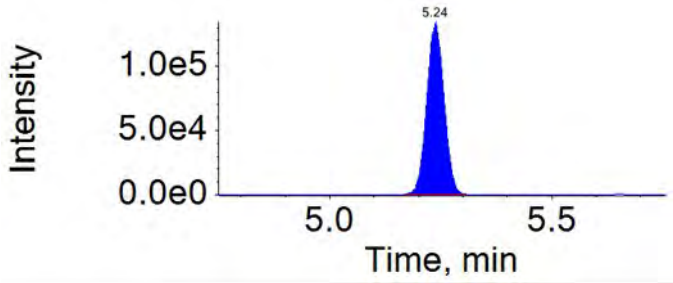
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



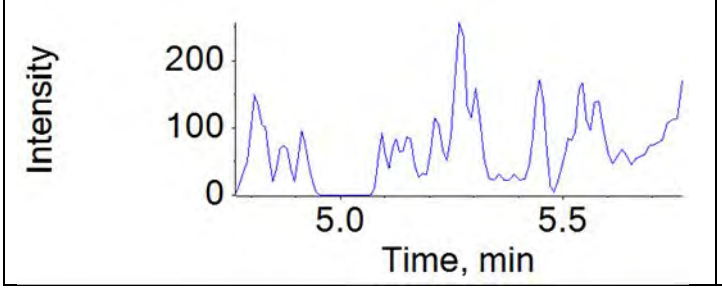


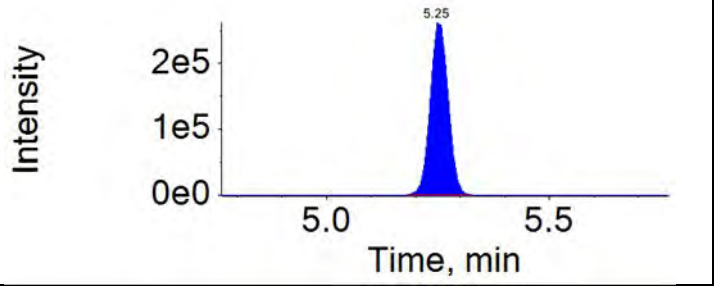
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

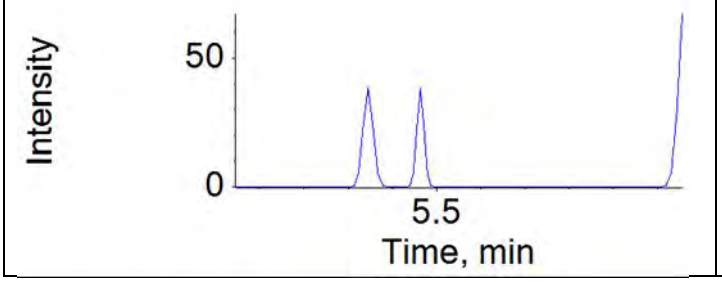
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

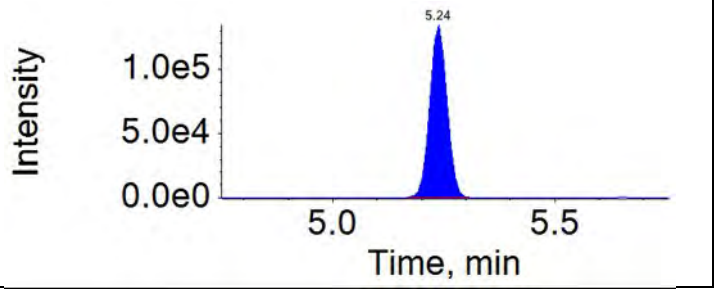
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



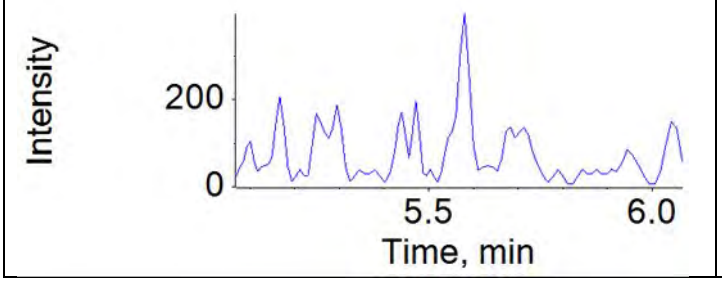


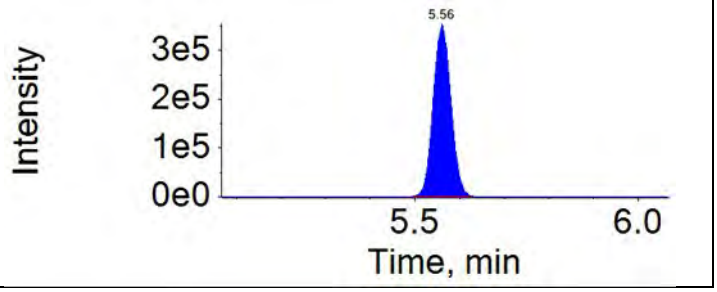
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



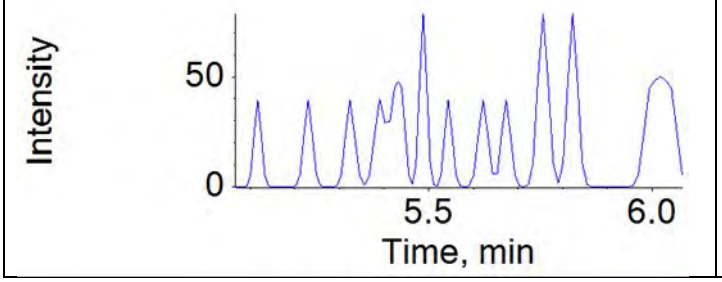


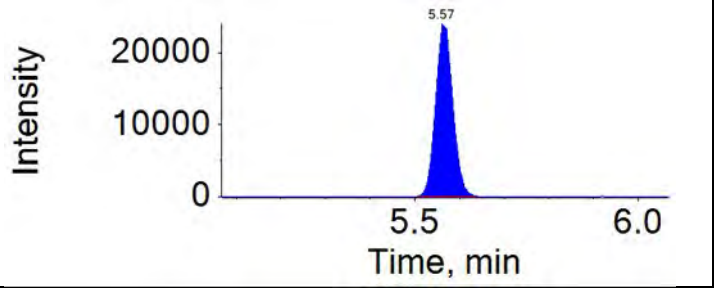
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



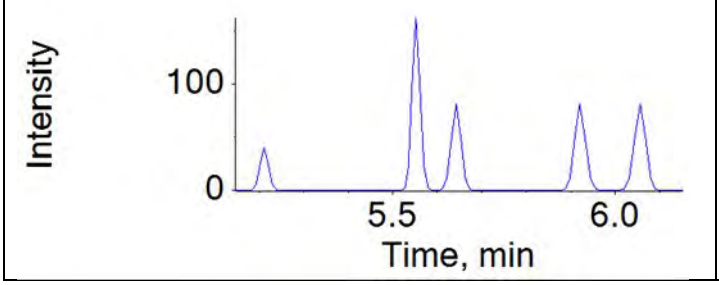


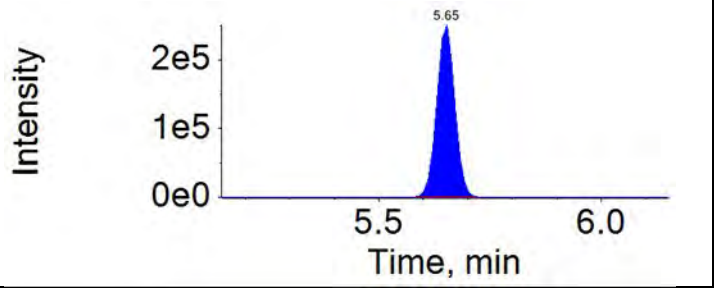
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

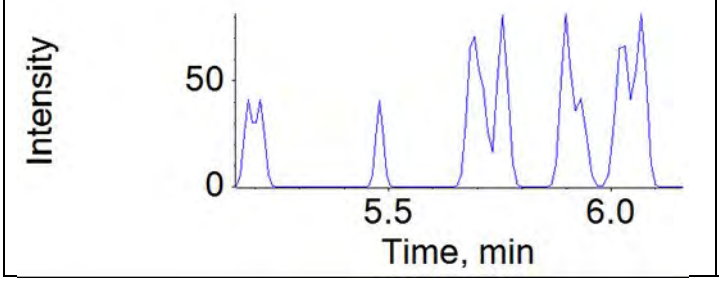
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

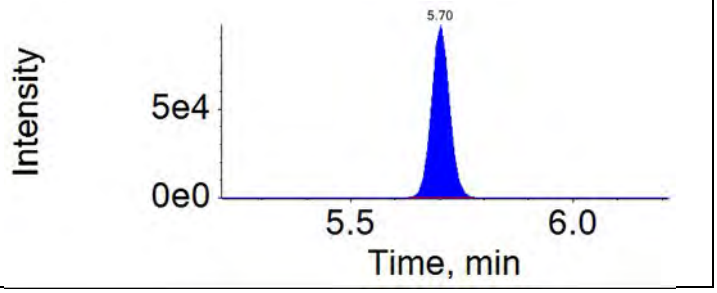
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



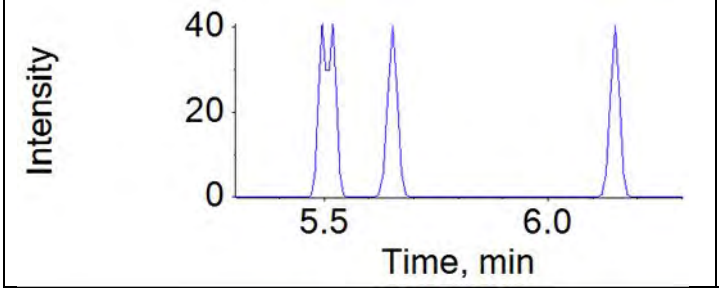


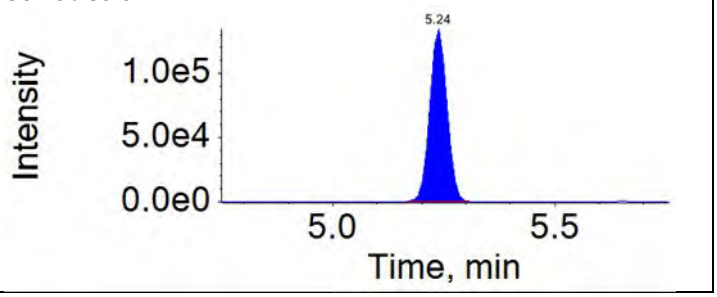
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



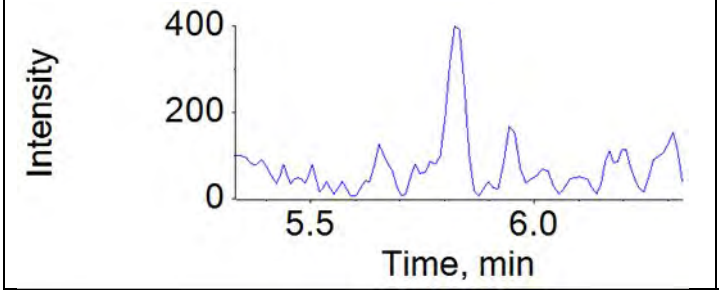


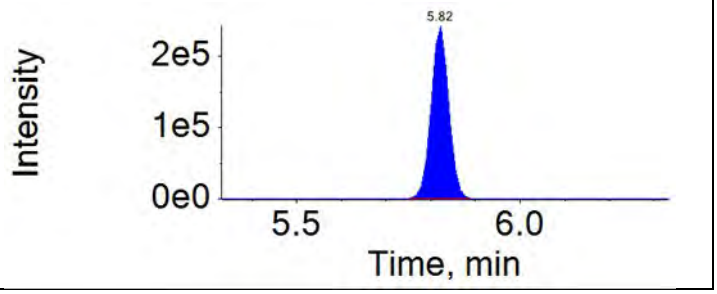
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



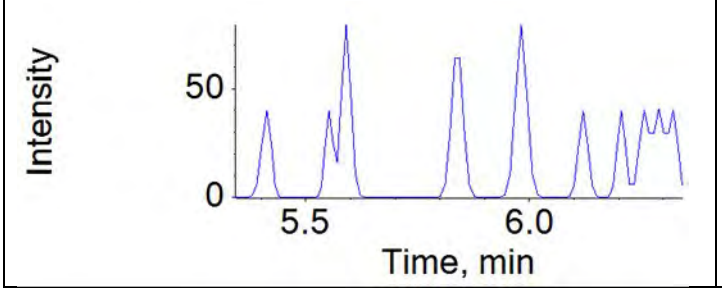


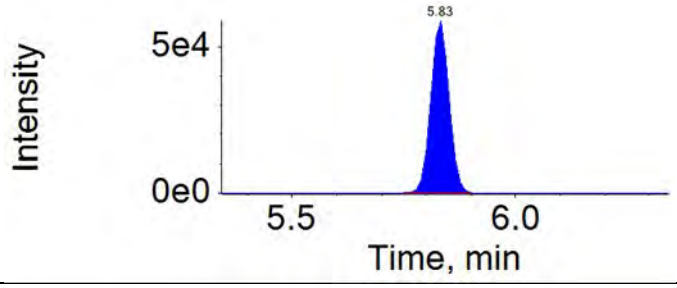
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

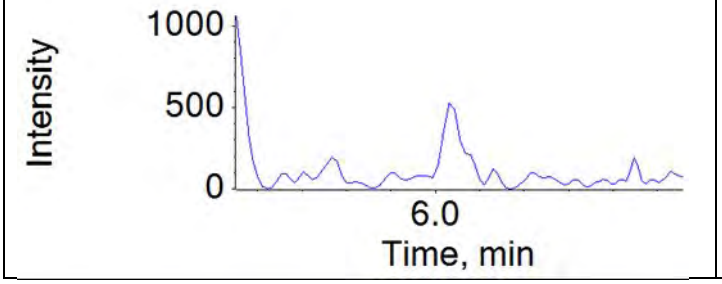
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

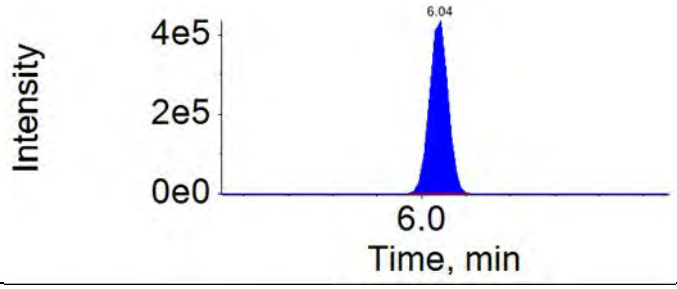
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



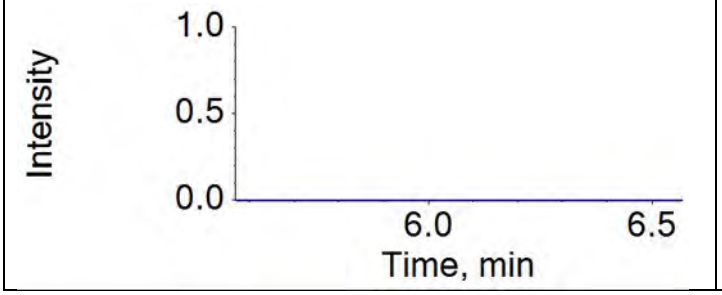


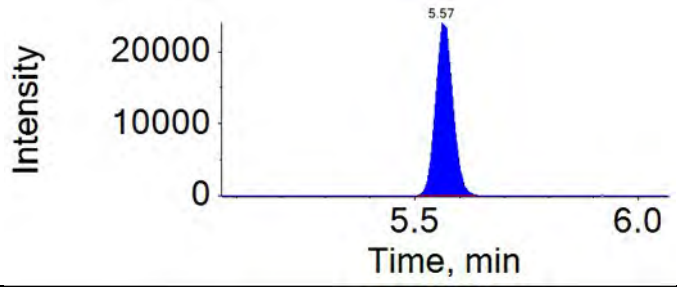
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



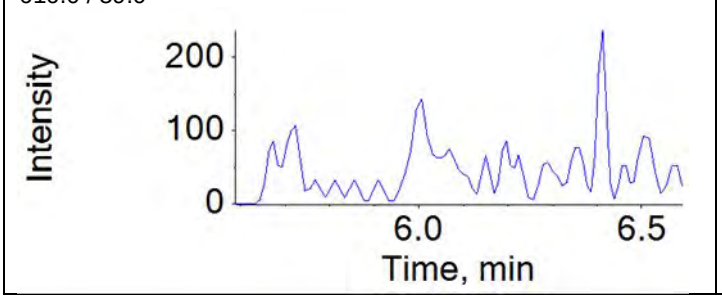


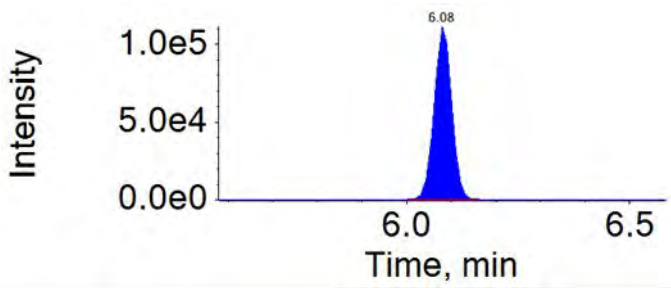
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



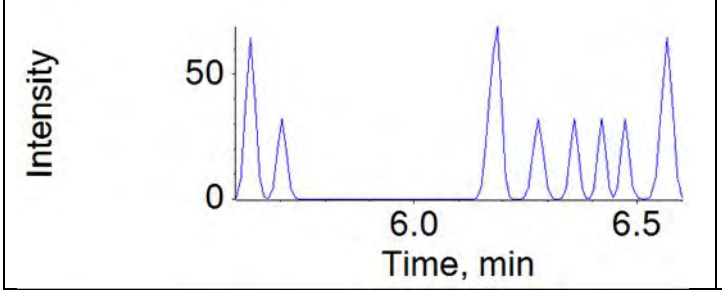


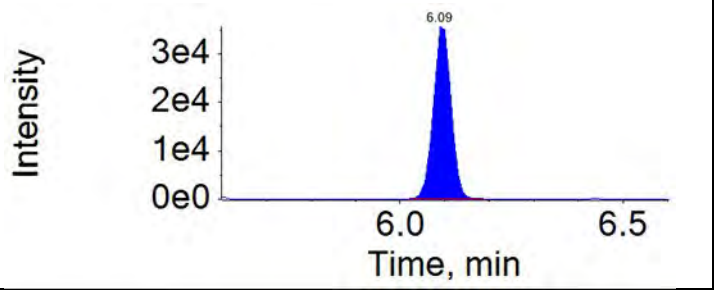
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

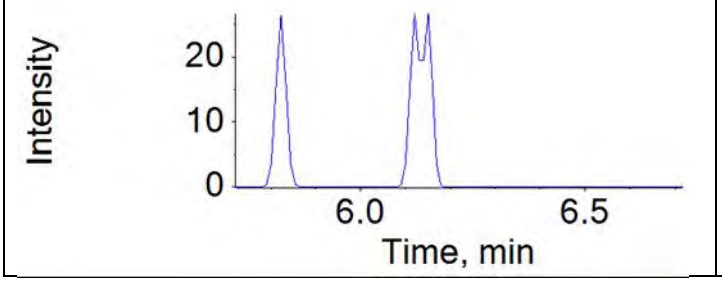
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

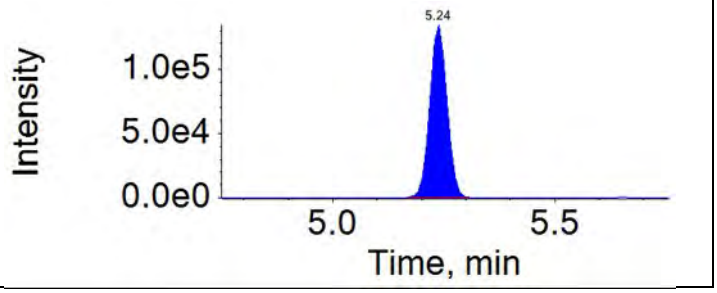
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



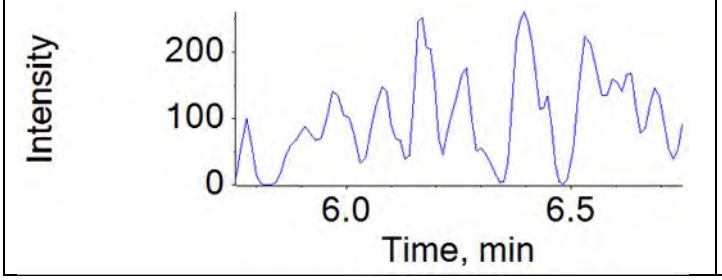


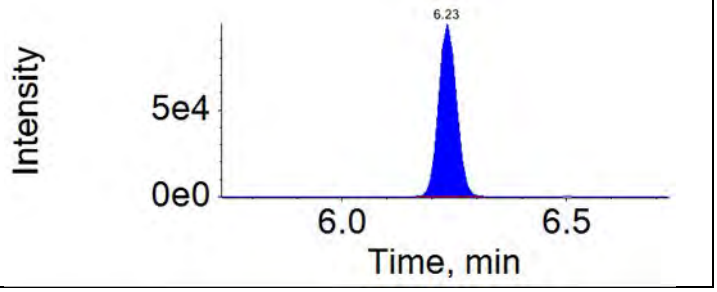
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



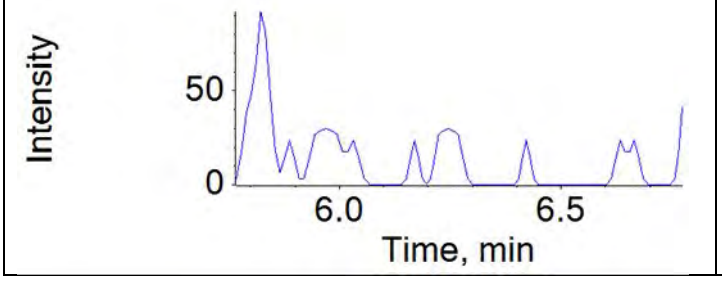


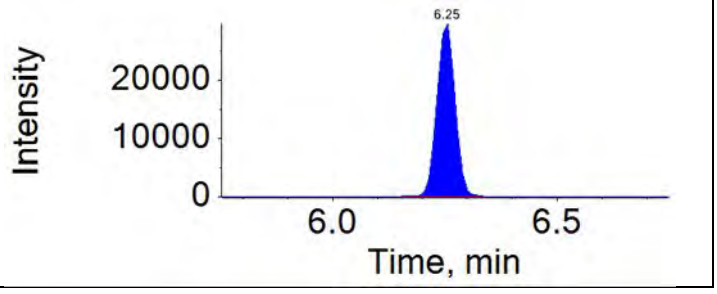
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



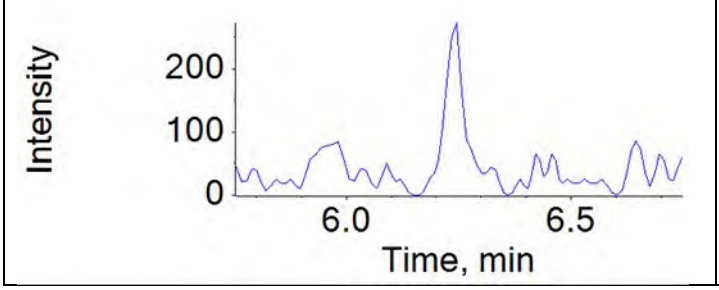


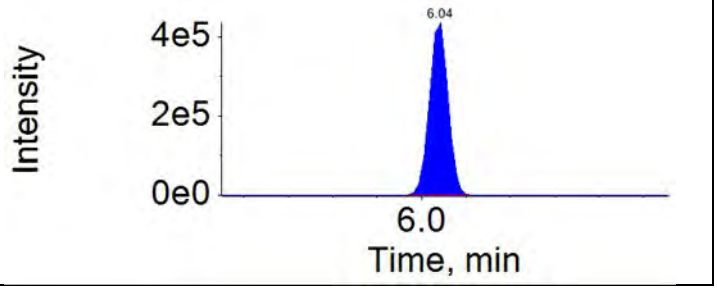
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

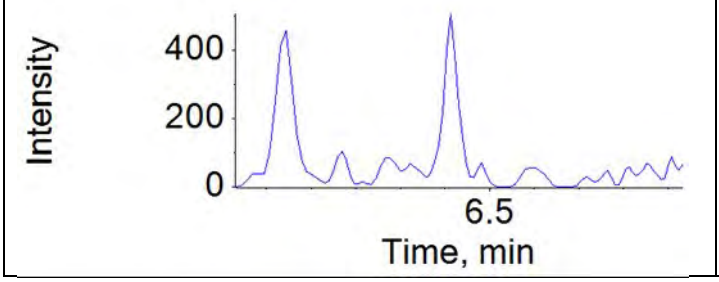
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

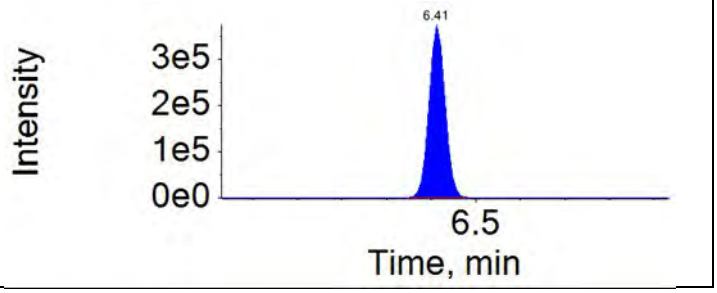
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



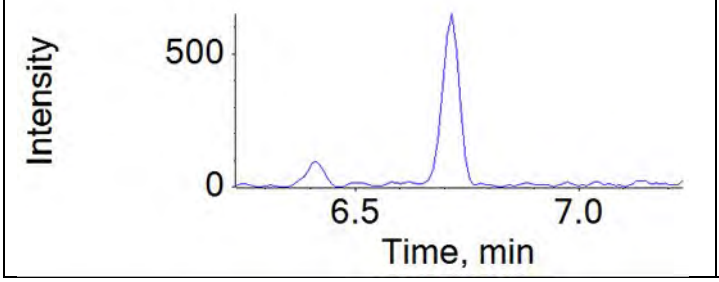


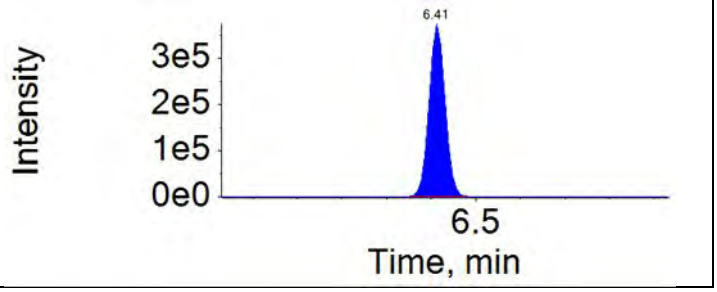
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



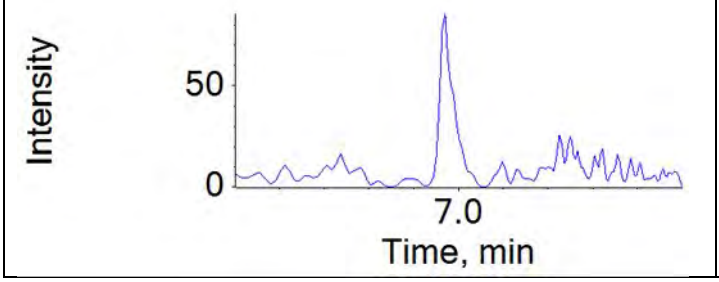


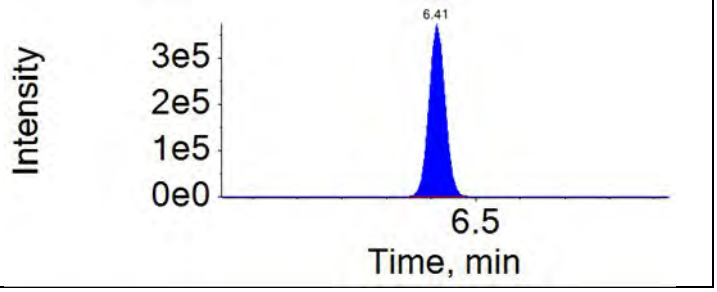
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Ion Ratio Report

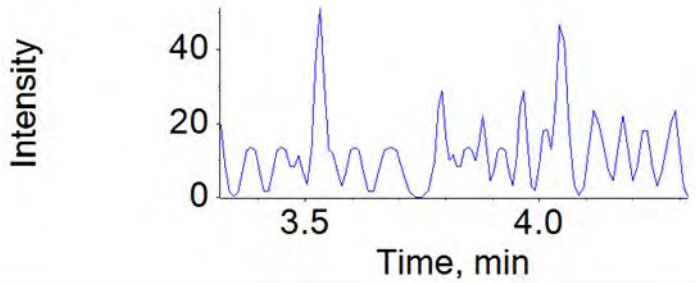
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-06.wiff

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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

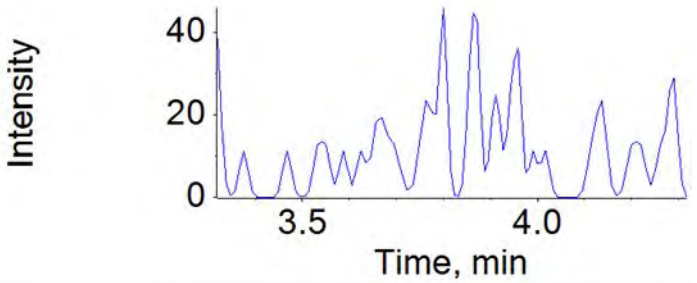
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

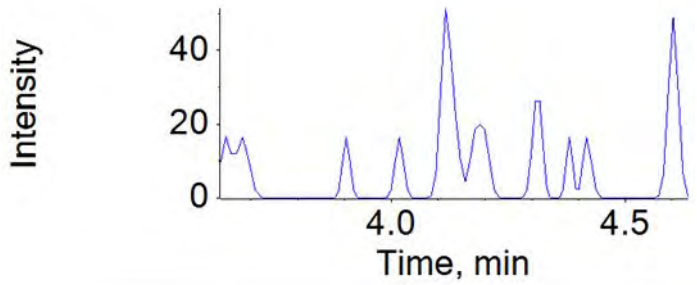
Component: PFBS
Primary Mass: 299.0 / 80.0



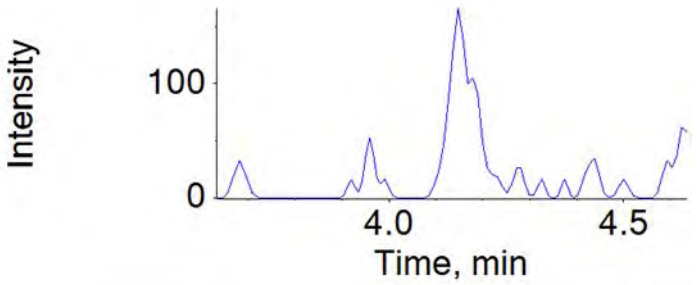
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



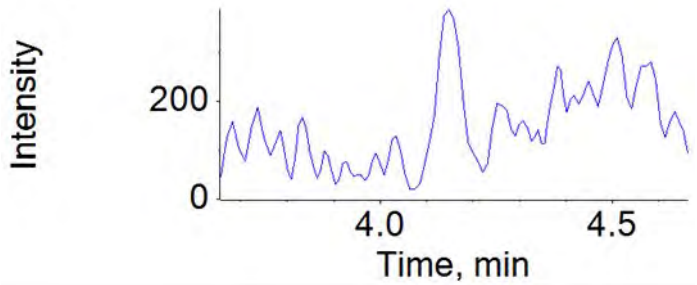
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



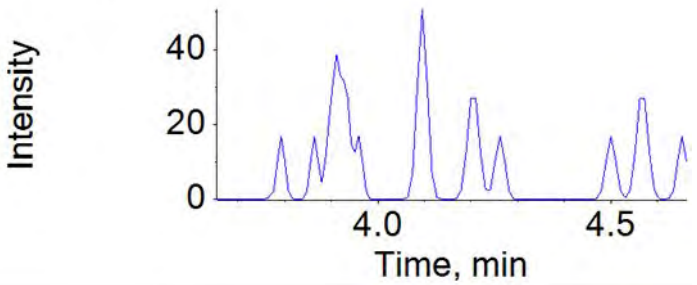
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



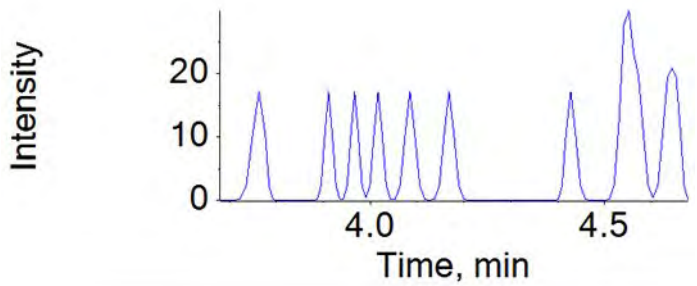
Component: PFHxA
Primary Mass: 313.0 / 269.0



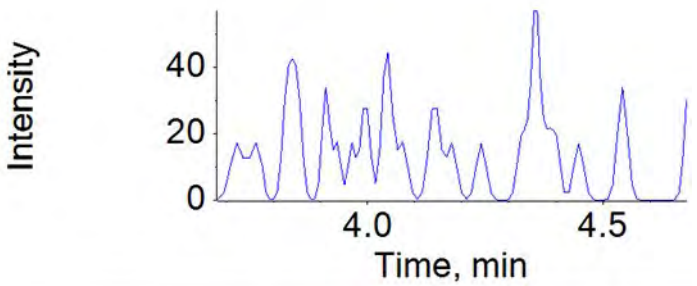
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



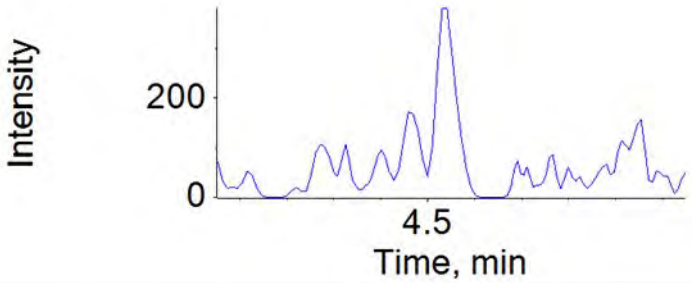
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



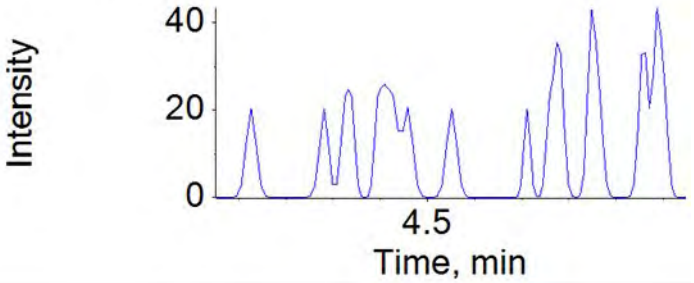
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

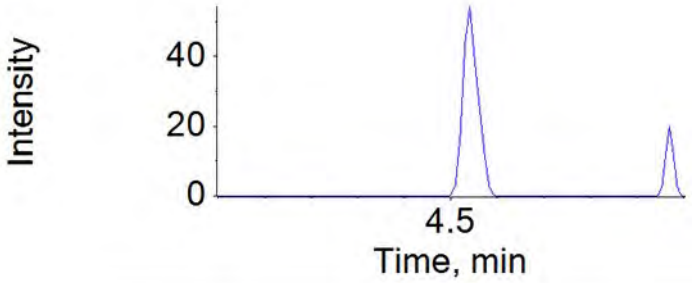
Component: PFHpA
Primary Mass: 363.0 / 319.0



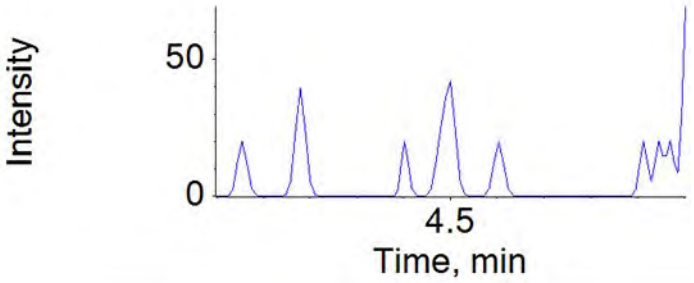
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



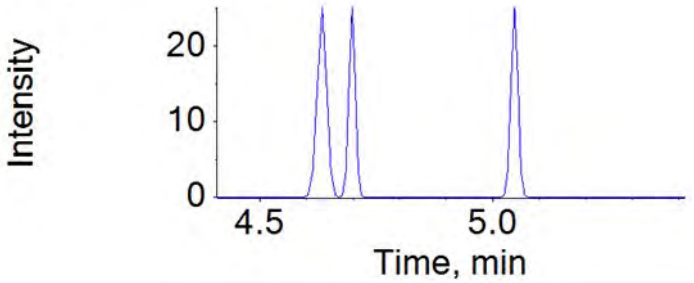
Component: PFHxS
Primary Mass: 399.0 / 80.0



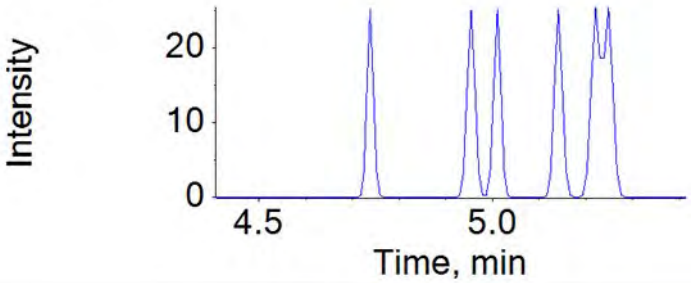
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



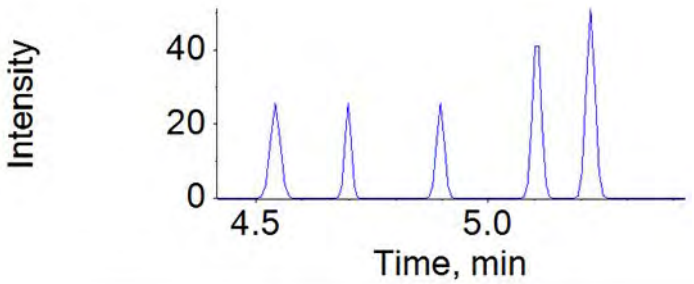
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



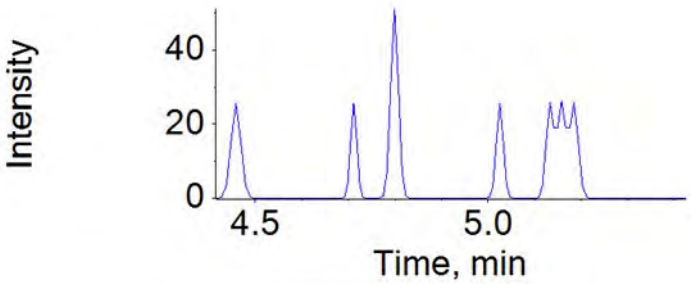
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



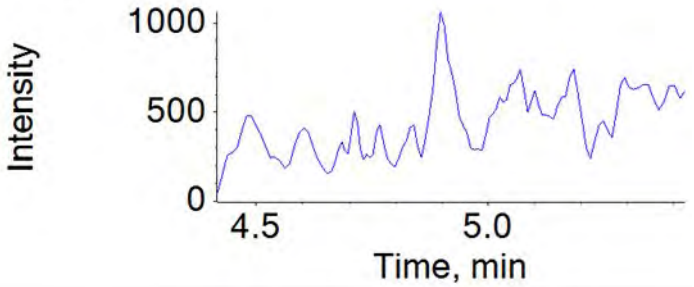
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



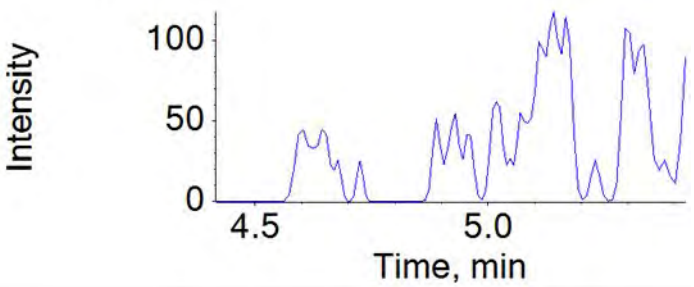
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

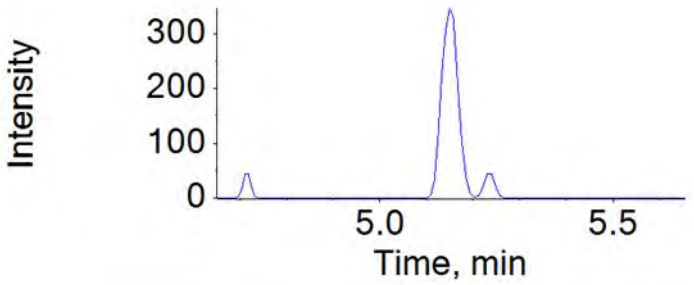
Component: PFOA
Primary Mass: 413.0 / 369.0



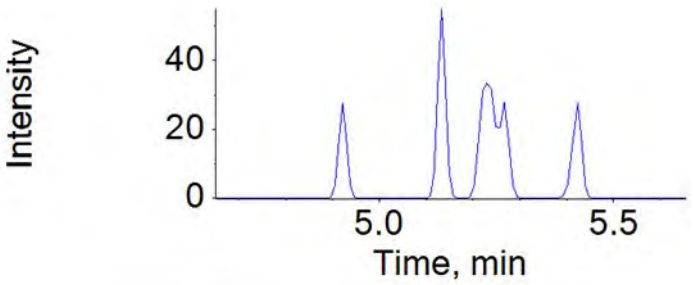
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



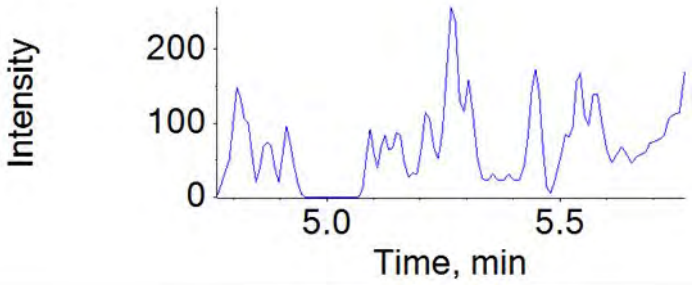
Component: PFOS
Primary Mass: 499.0 / 80.0



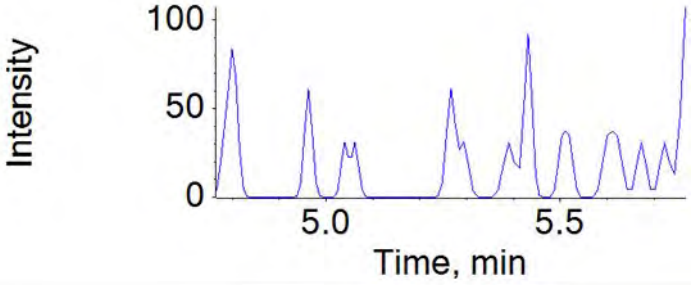
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



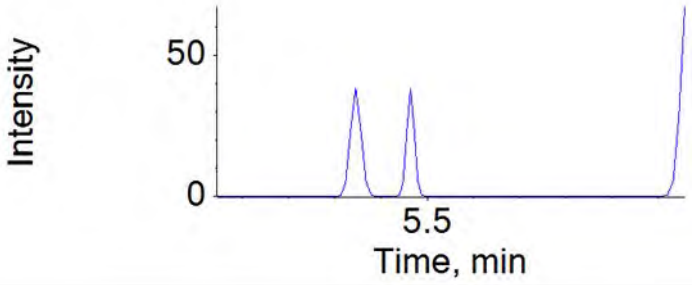
Component: PFNA
Primary Mass: 463.0 / 419.0



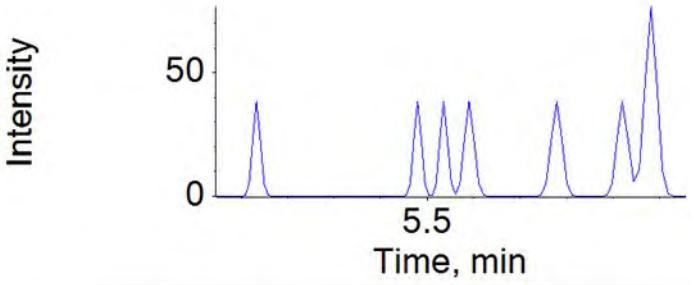
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



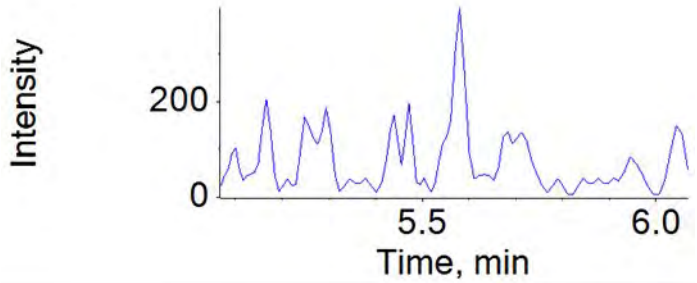
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



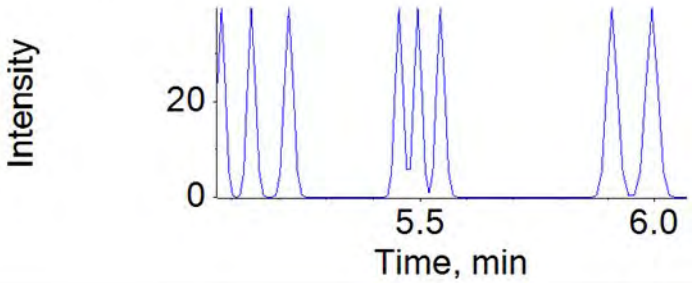
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

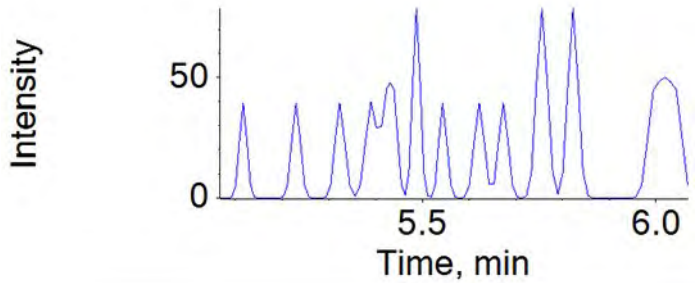
Component: PFDA
Primary Mass: 513.0 / 469.0



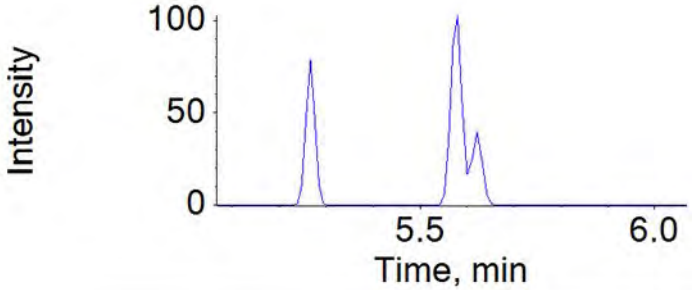
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



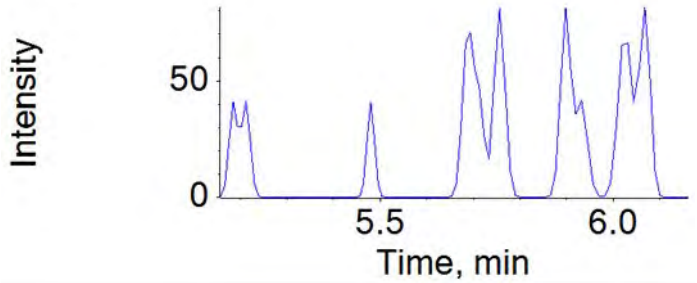
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



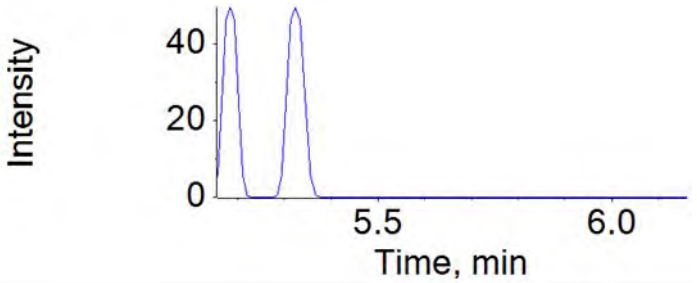
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



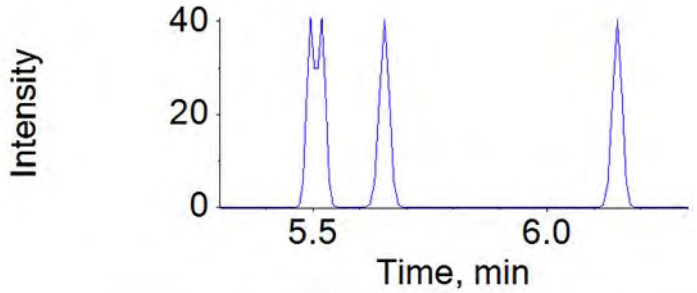
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



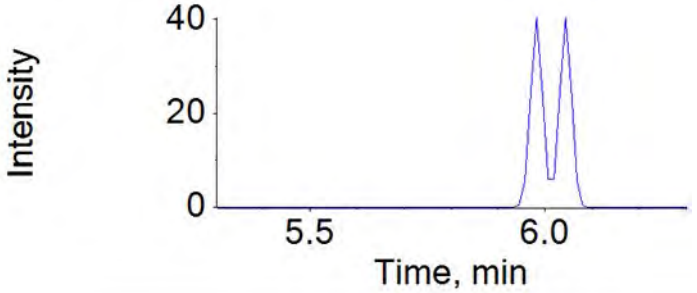
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



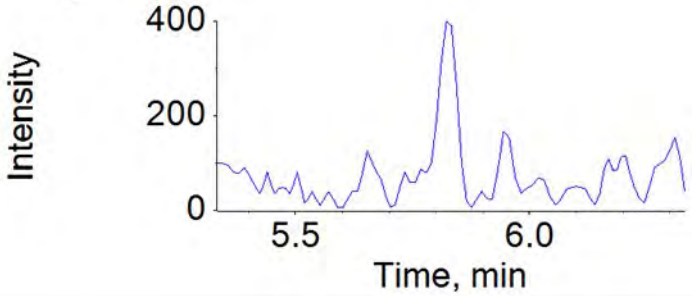
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



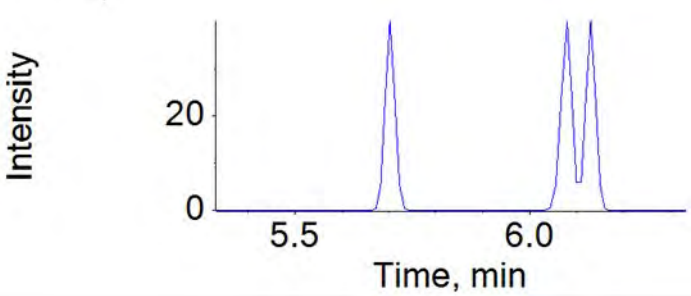
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

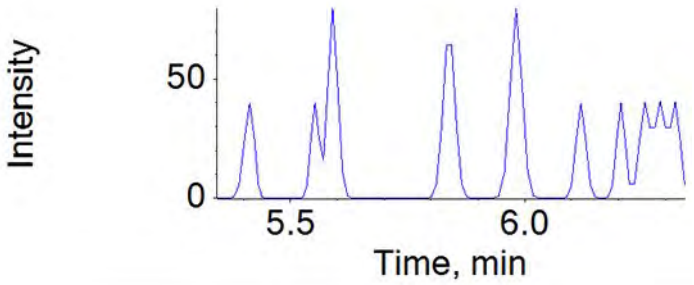
Component: PFUnDA
Primary Mass: 563.0 / 519.0



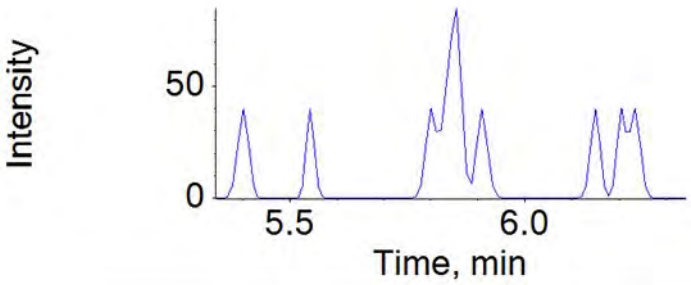
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



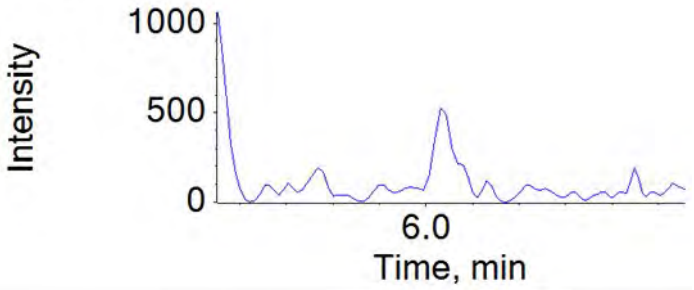
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



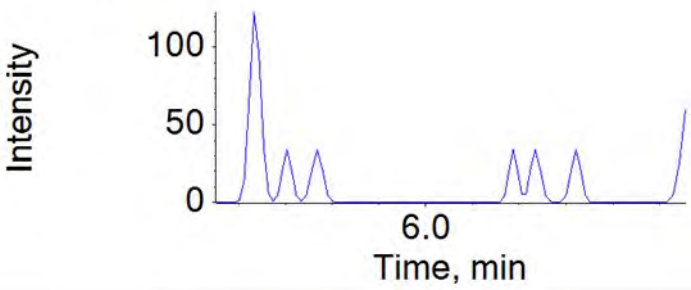
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



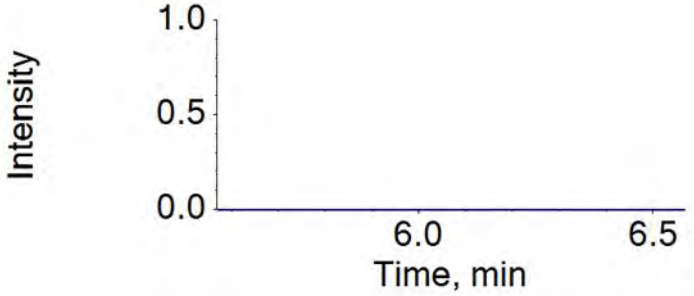
Component: PFDoDA
Primary Mass: 613.0 / 569.0



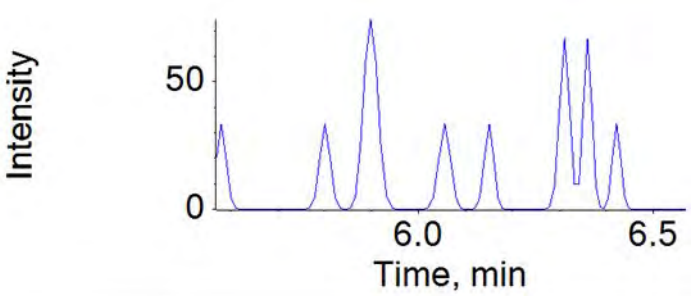
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



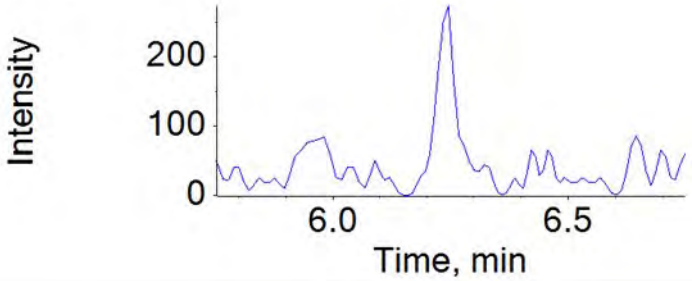
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



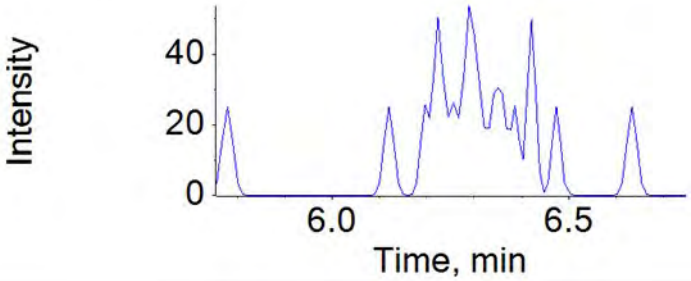
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

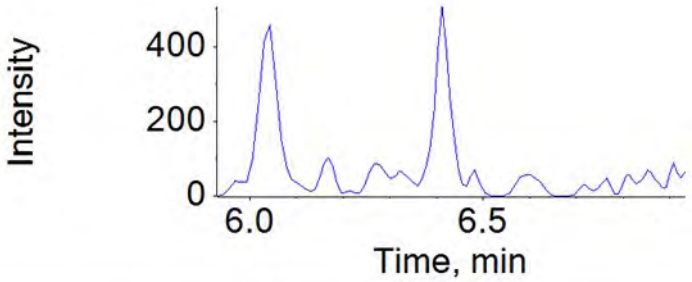
Component: PFTrDA
Primary Mass: 663.0 / 619.0



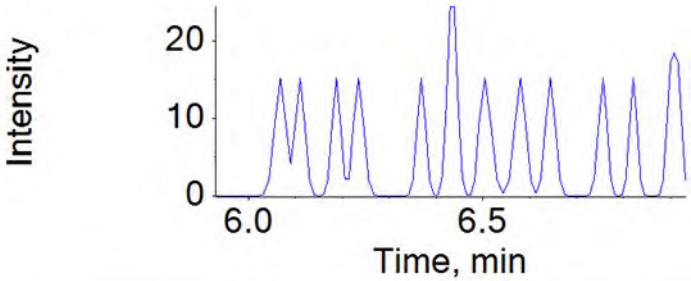
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



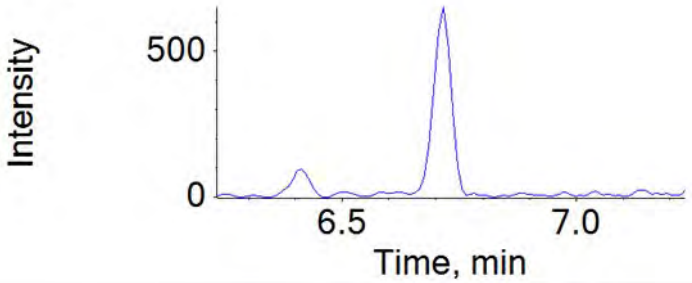
Component: PFTeDA
Primary Mass: 713.0 / 669.0



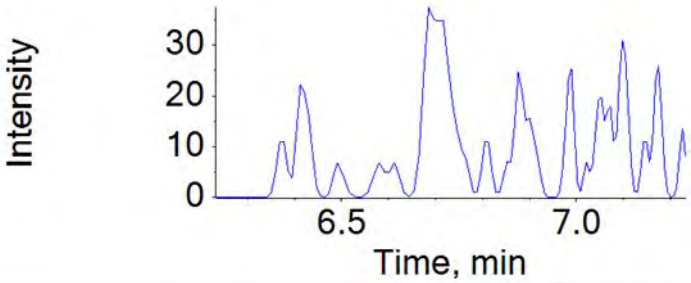
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



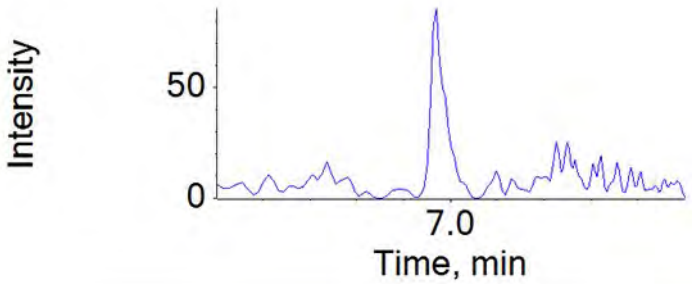
Component: PFHxDA
Primary Mass: 813.0 / 769.0



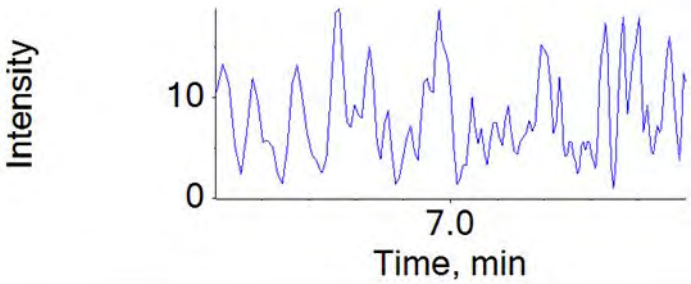
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



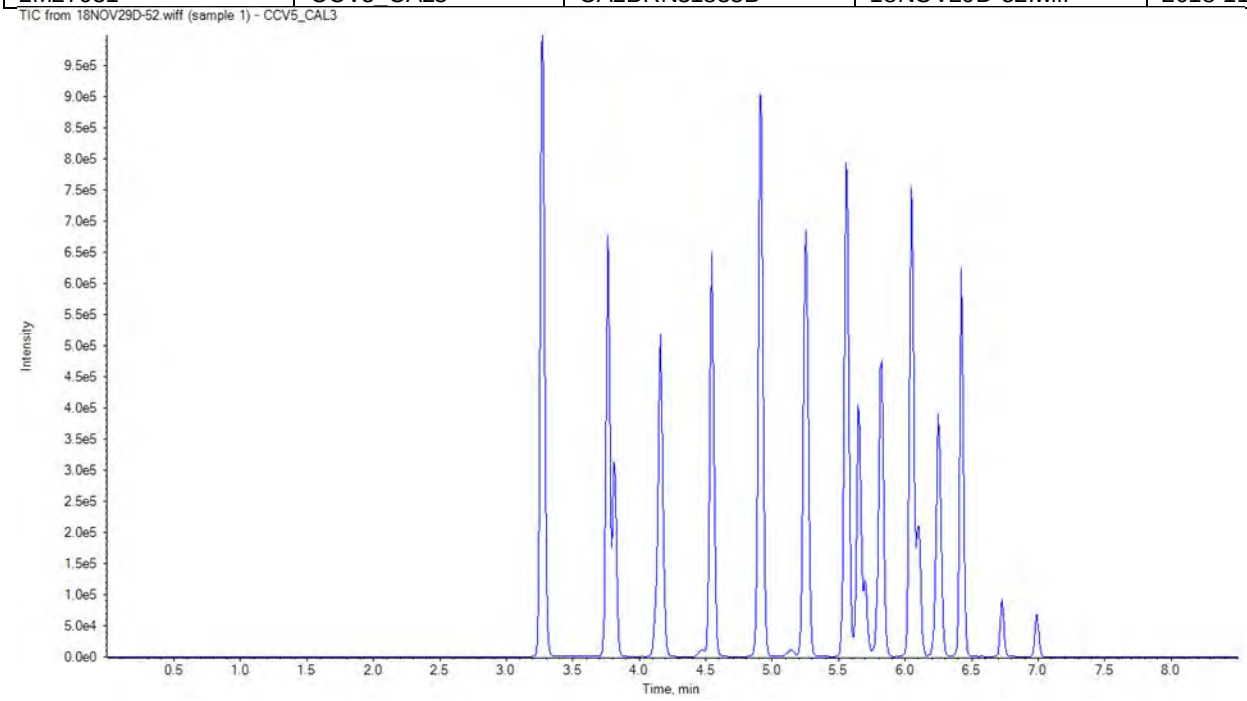
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

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



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 Verfication

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	
PFTrDA	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	
PFODA	141132.9	10	13C2-PFTeDA	853856.6	5.0	0.165	6.99	1.090	2.000	2.202	10	30	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **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	Rreference 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 **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

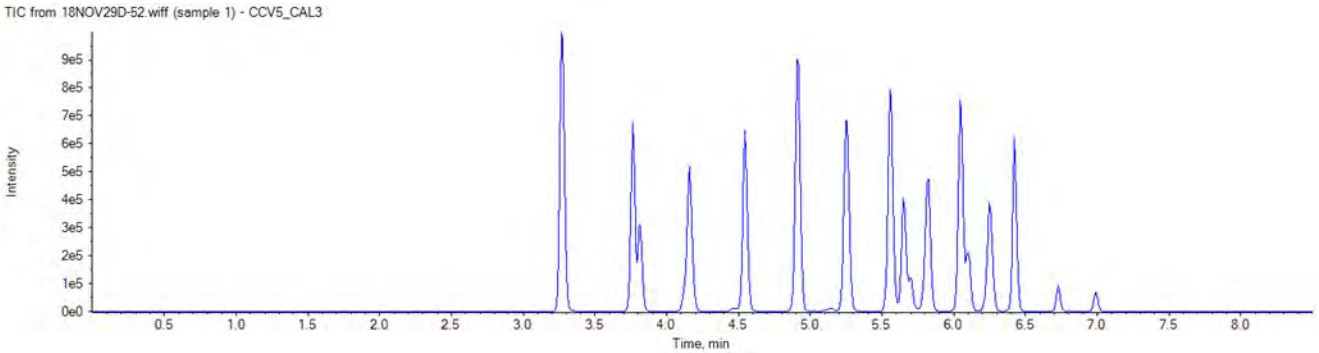
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV29D-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	3.27	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
PFDoDA	6.05	1.000	467324.6		A	13C2-PFDoDA	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
PFDoS	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
PFTrDA	6.25	1.030	477187.4		A	13C2-PFDoDA	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

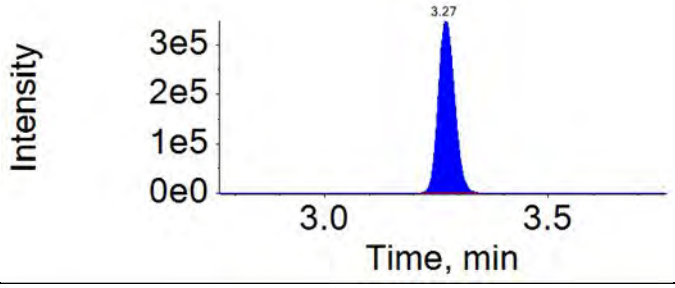


APPROVED
By MCD at 8:06 pm, 11/29/18

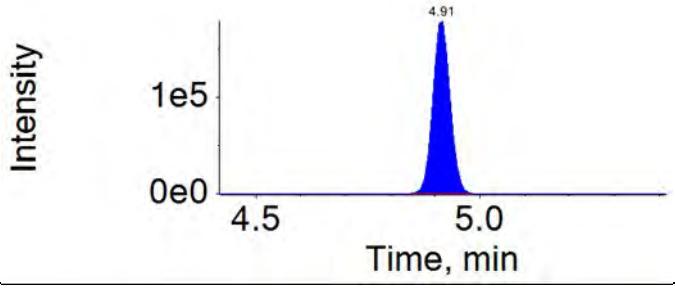
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

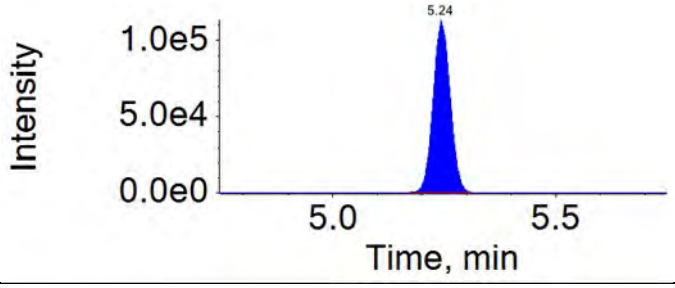
Injection Standard: 13C3-PFBA
216.0 / 172.0



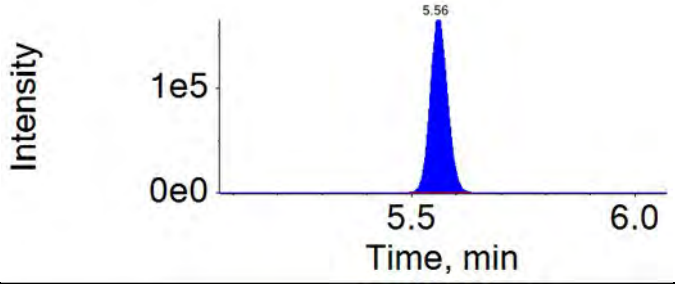
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

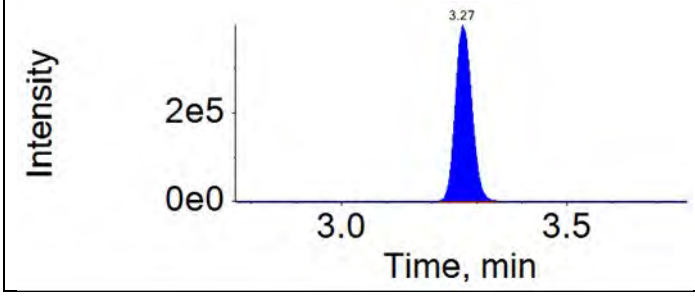


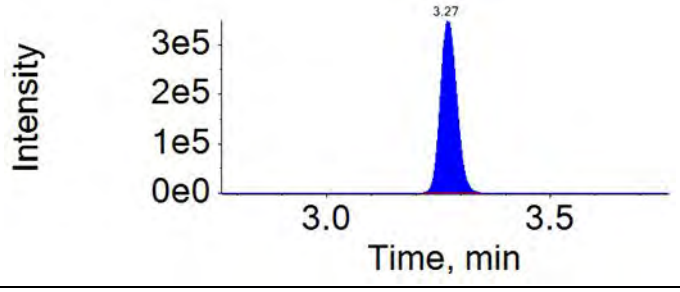
Injection Standard: 13C2-PFDA
515.0 / 470.0



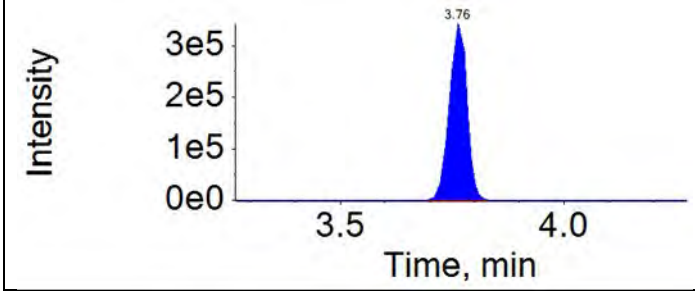
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

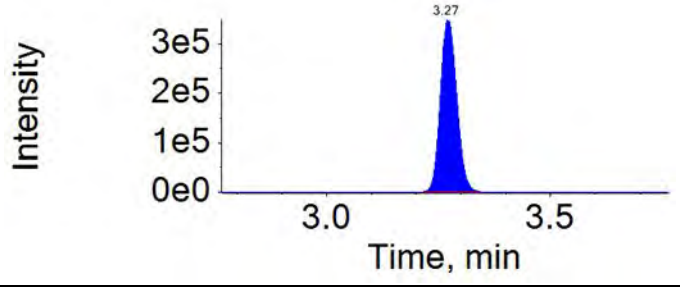
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



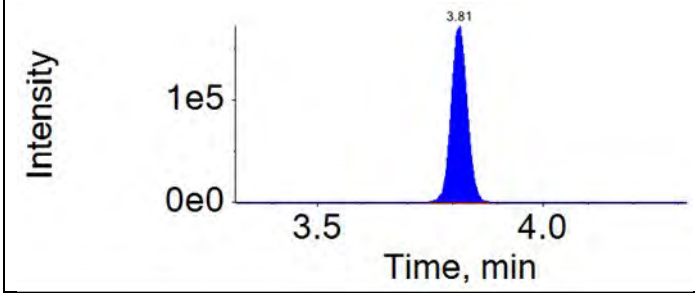


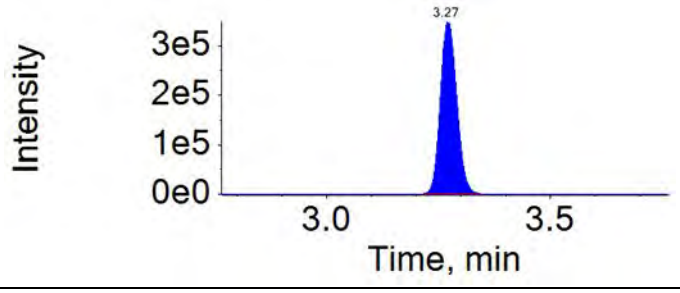
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



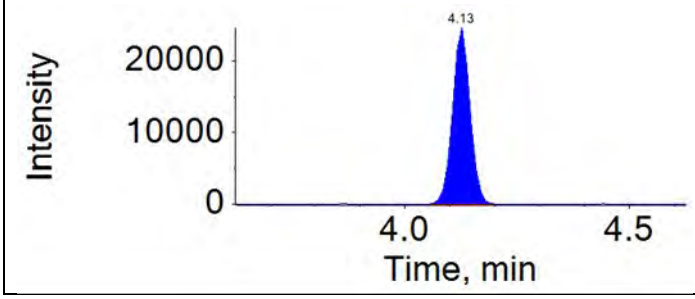


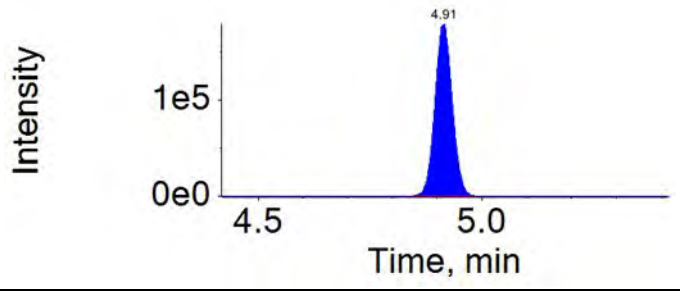
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



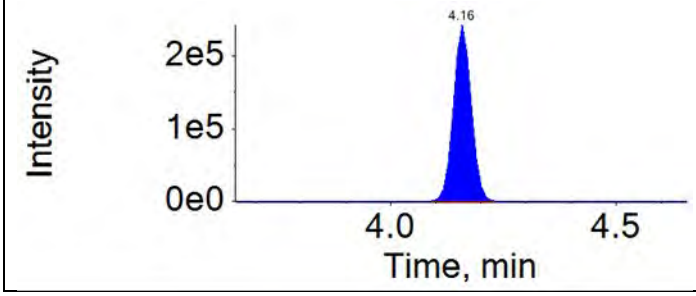


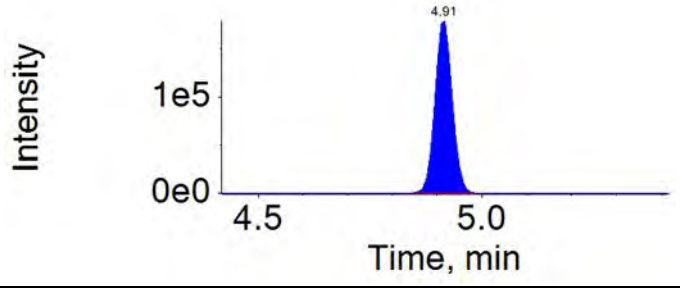
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

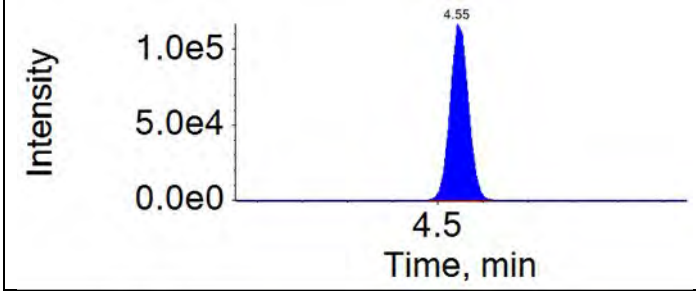
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

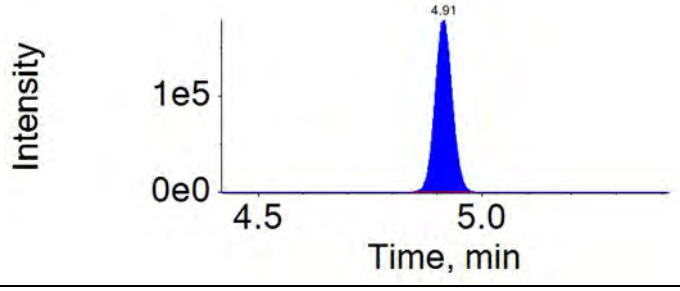
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



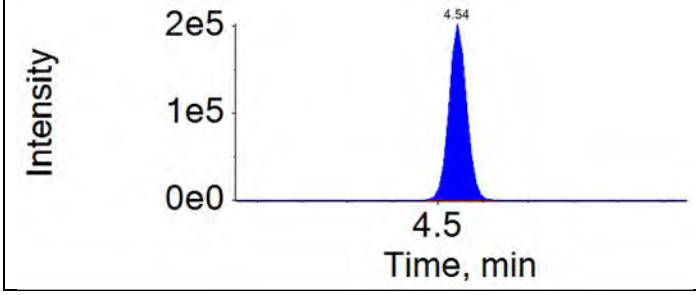


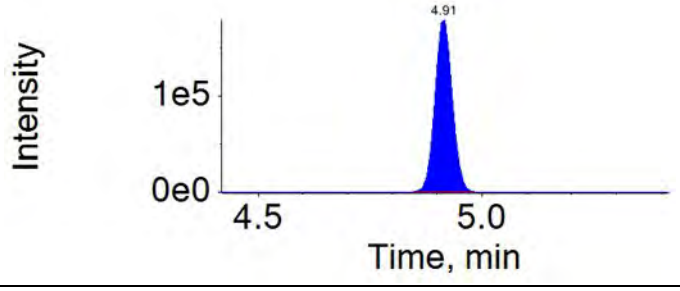
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



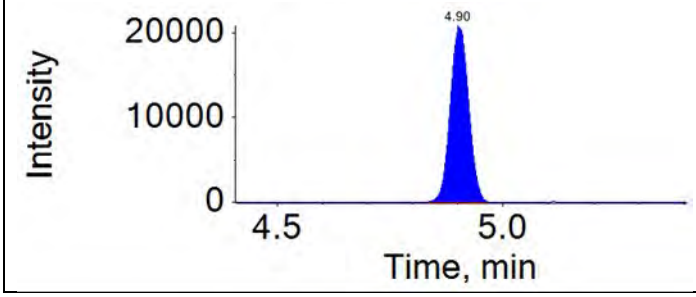


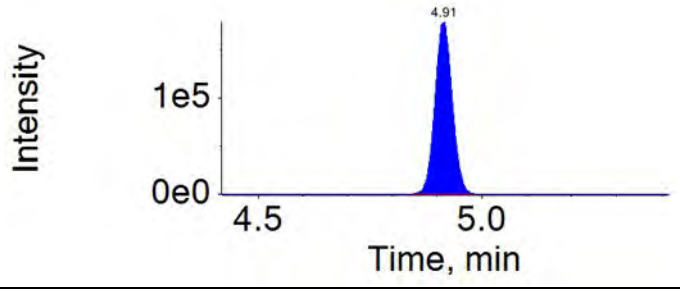
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

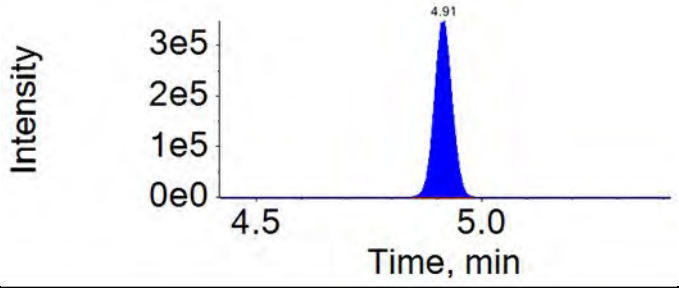
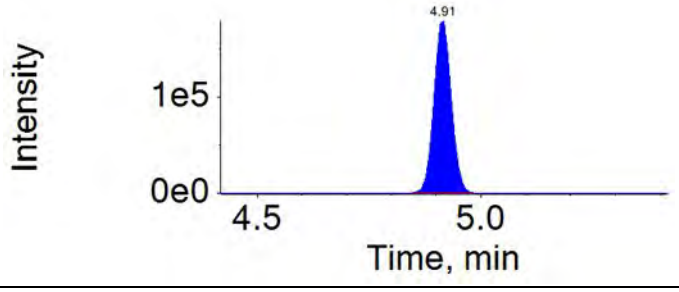


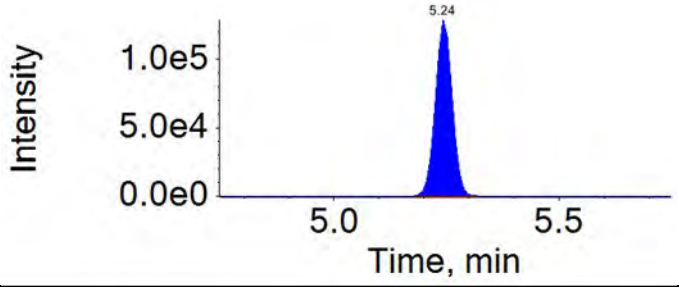
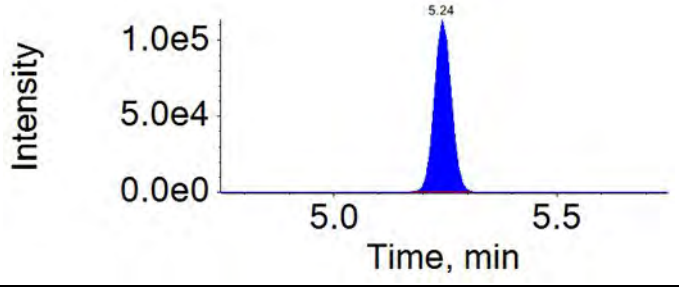


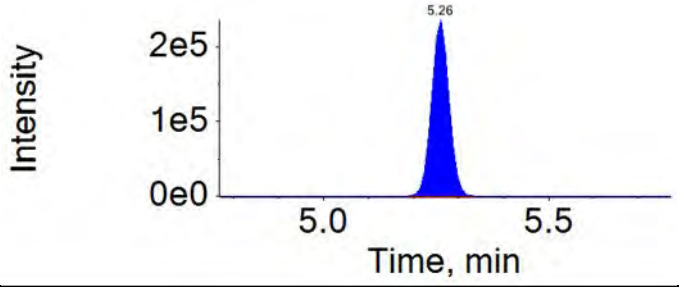
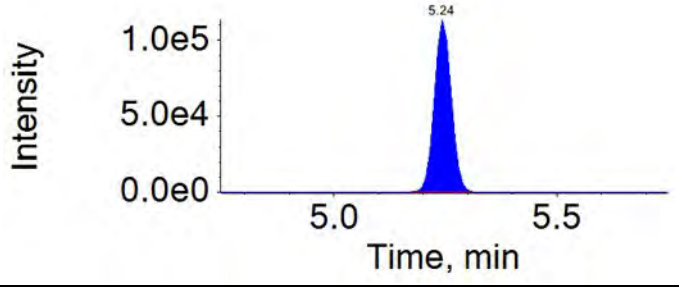
APPROVED
By MCD at 8:06 pm, 11/29/18

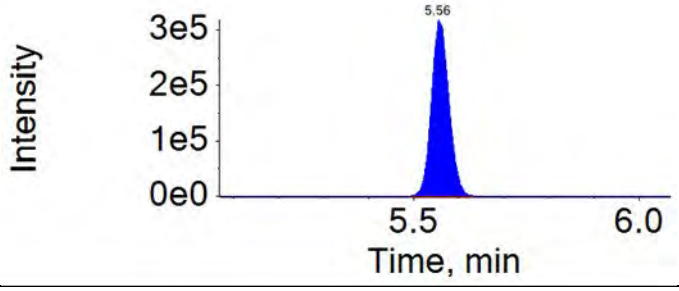
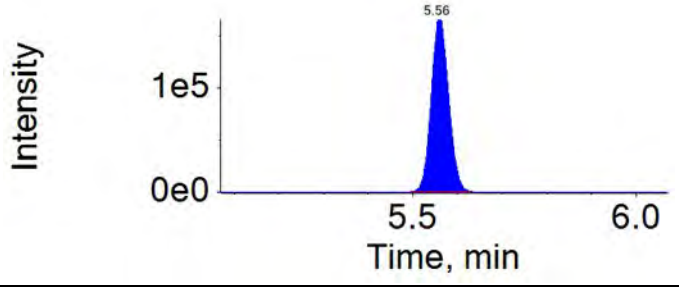
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

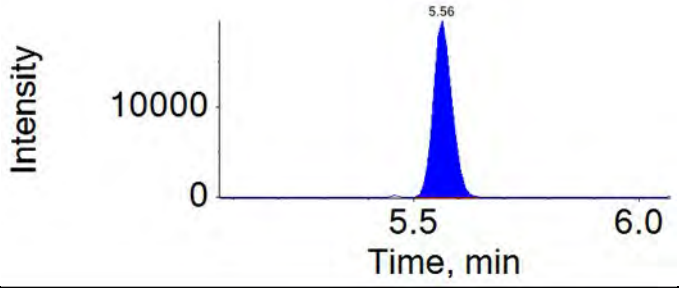
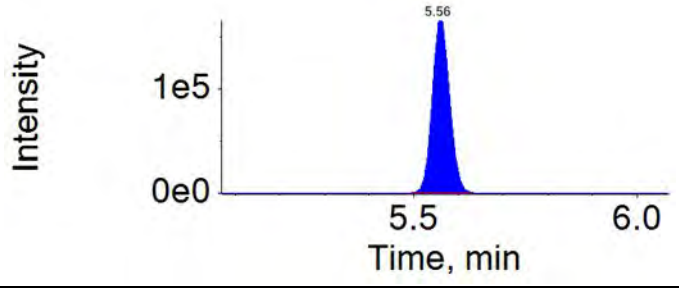
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

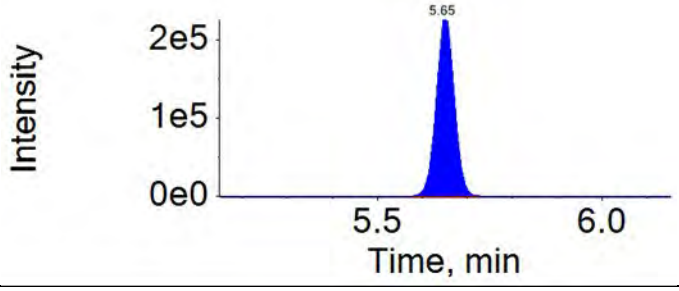
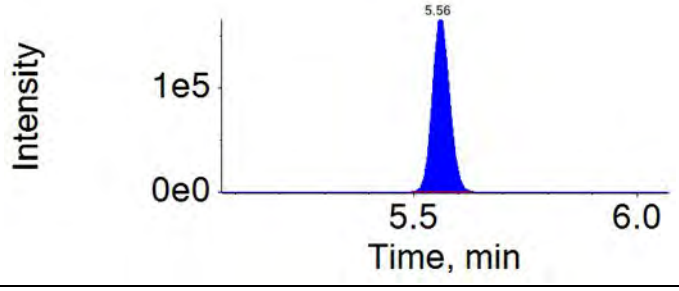
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

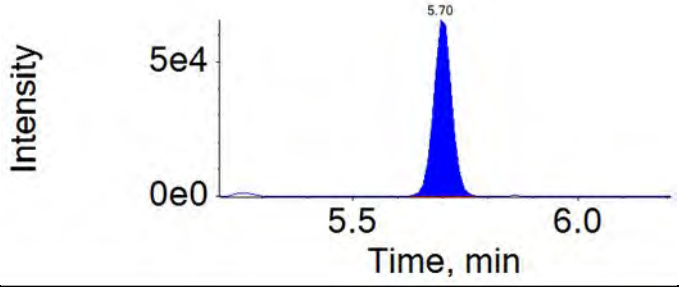
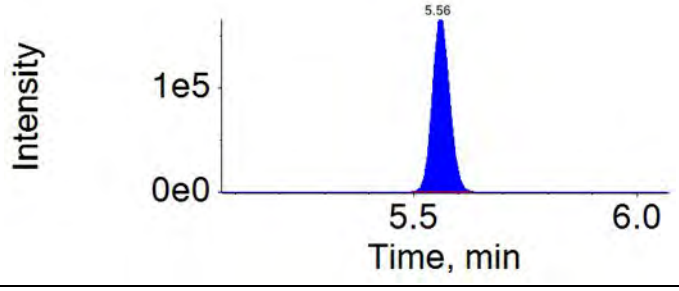
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

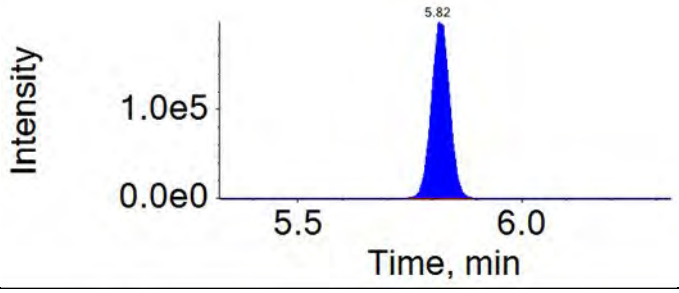
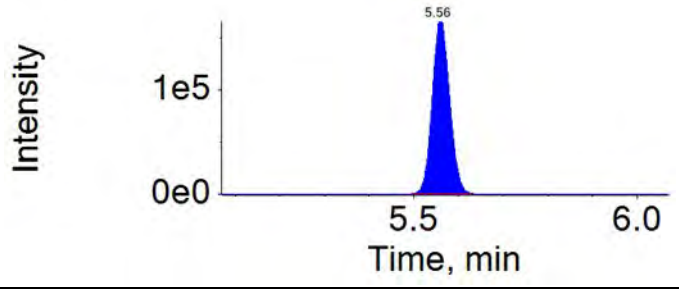
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

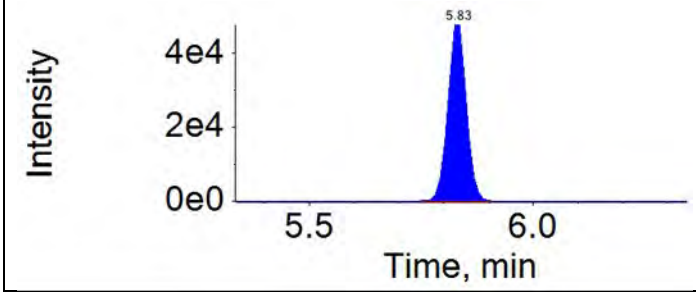
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

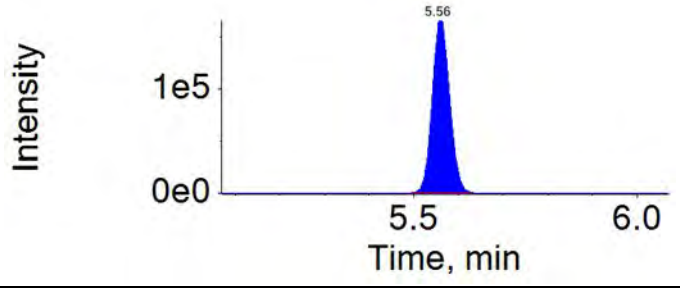
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

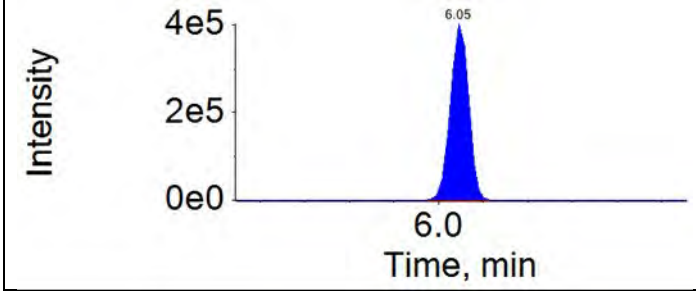
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

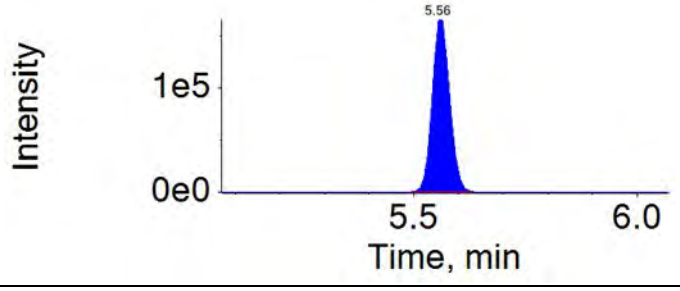
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



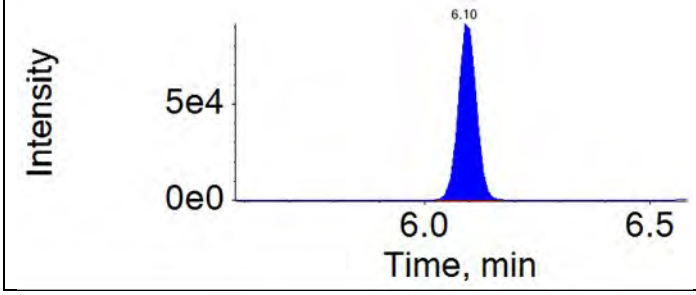


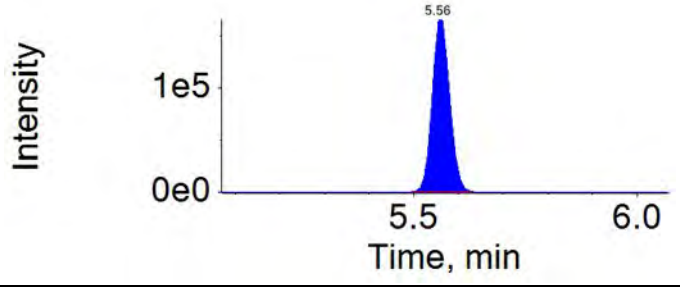
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



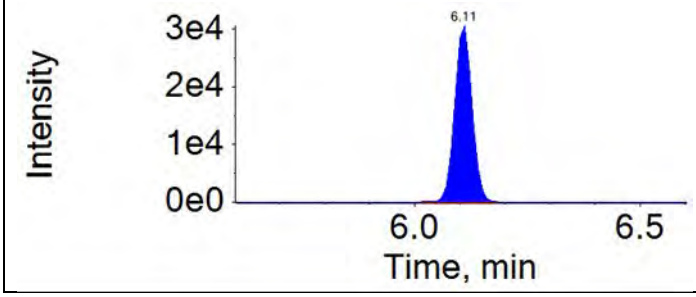


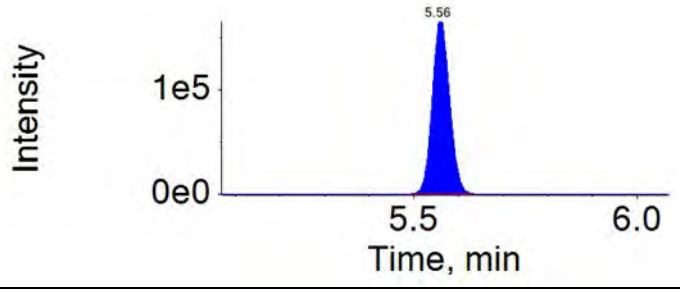
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





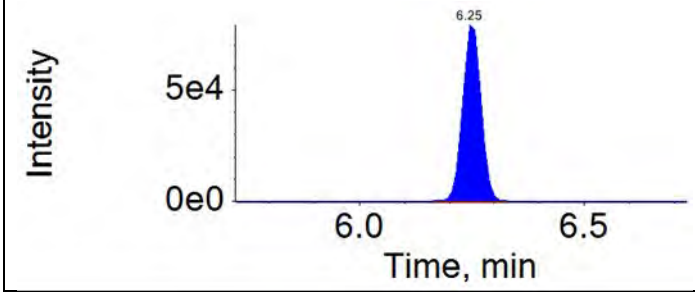
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

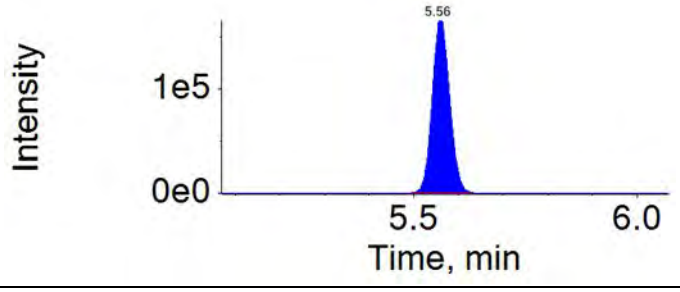




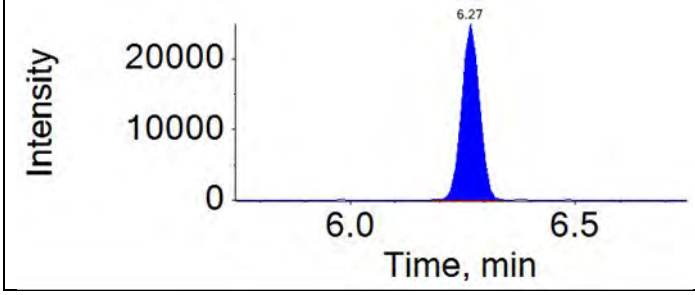
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

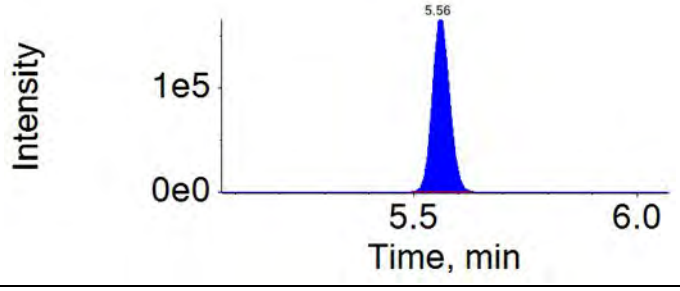
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



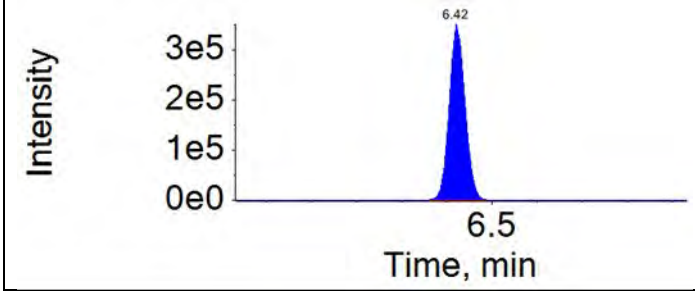


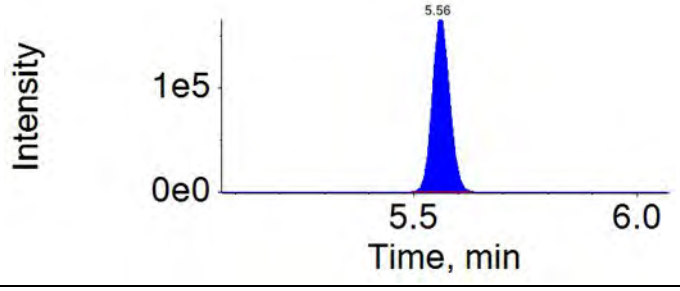
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



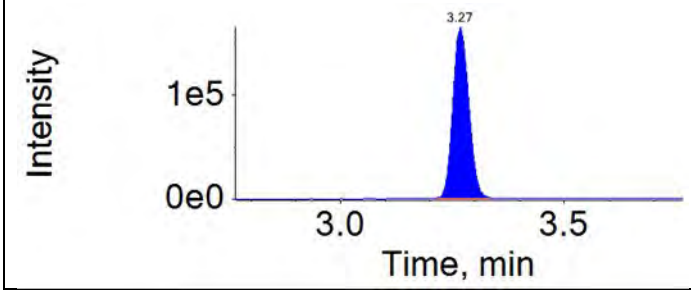


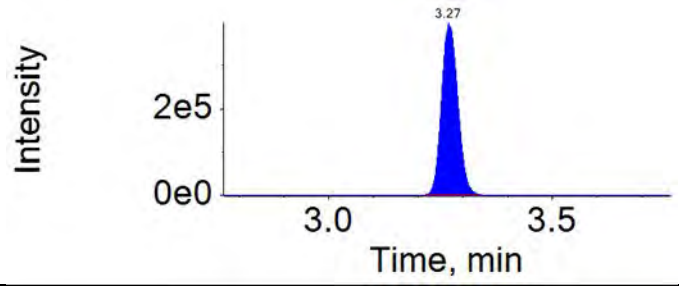
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

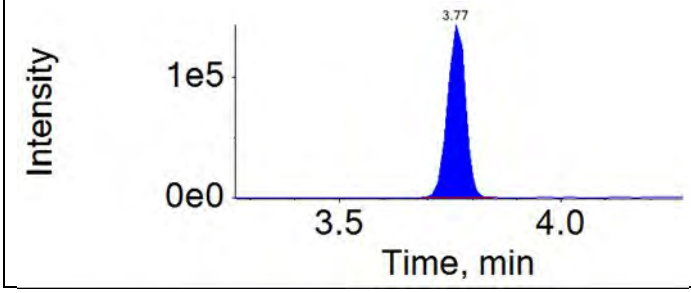
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

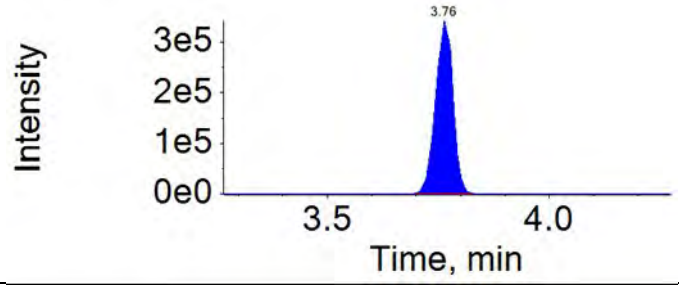
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



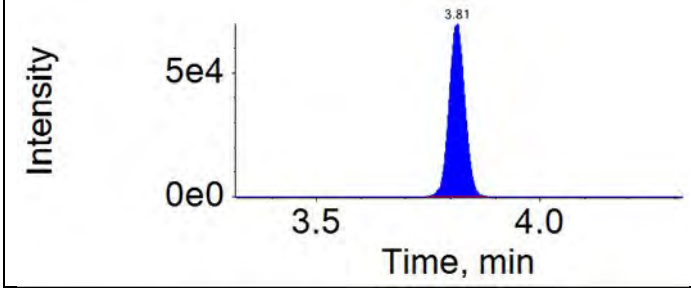


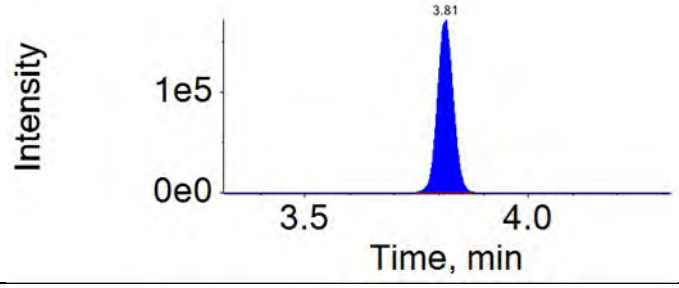
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



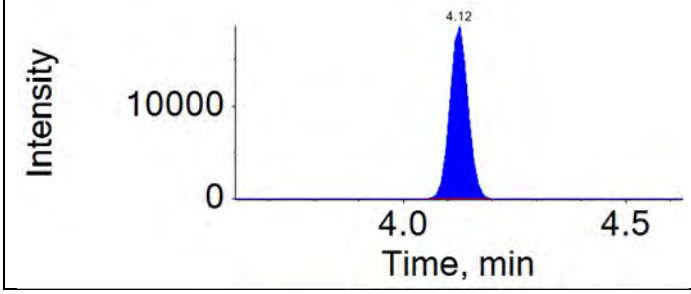


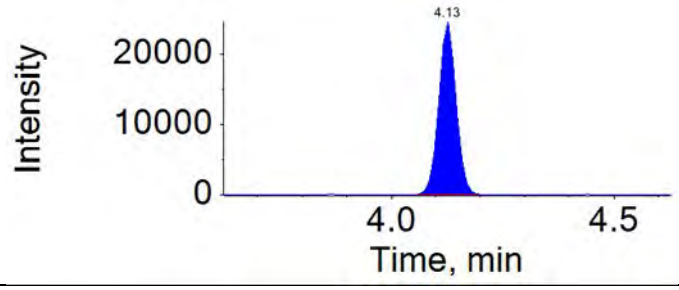
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



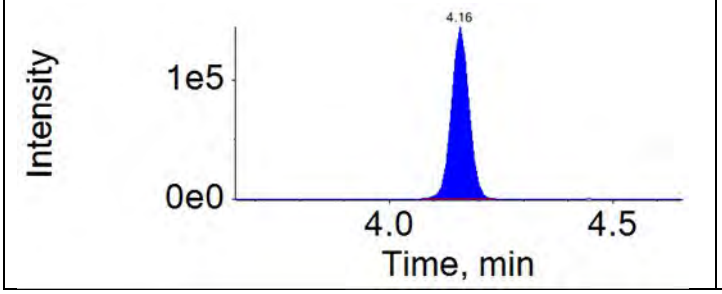


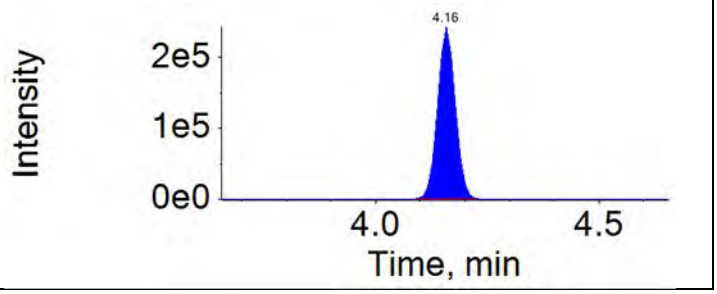
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

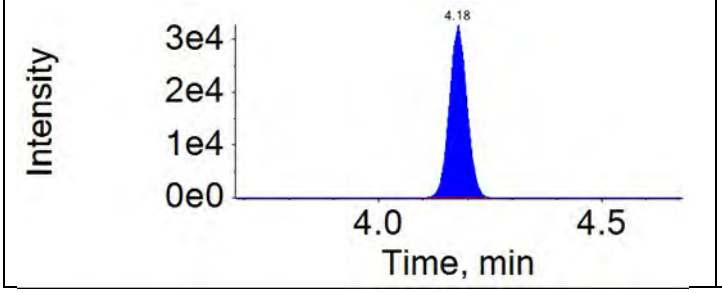
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

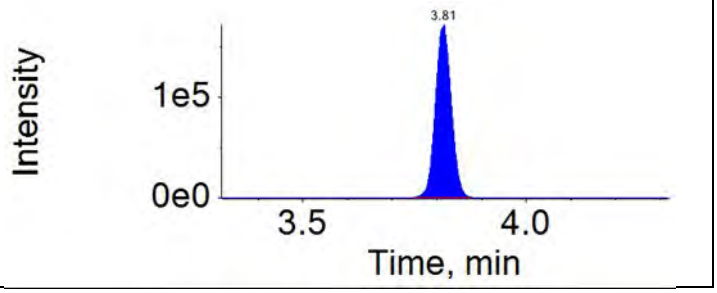
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



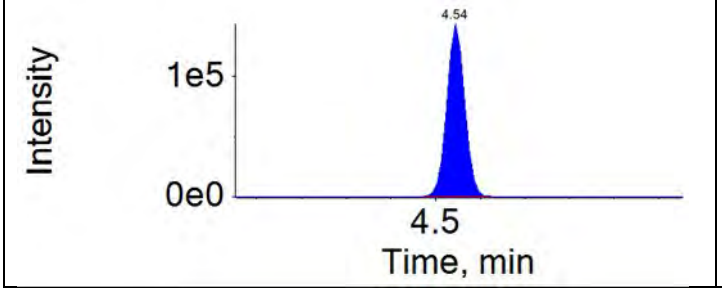


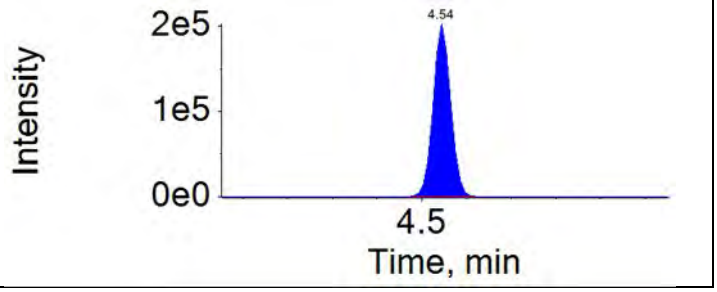
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



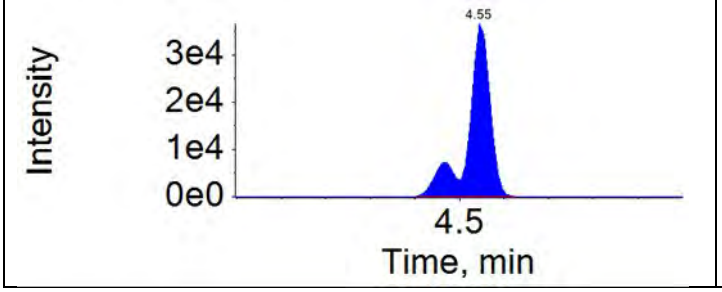


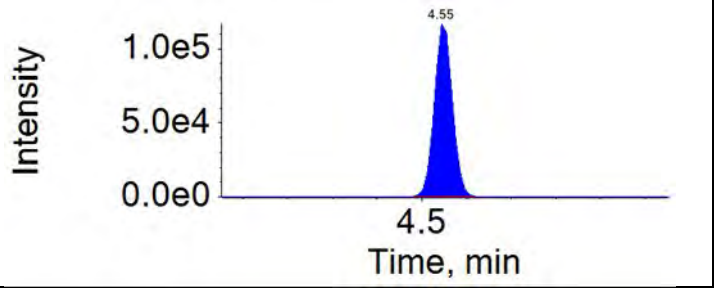
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





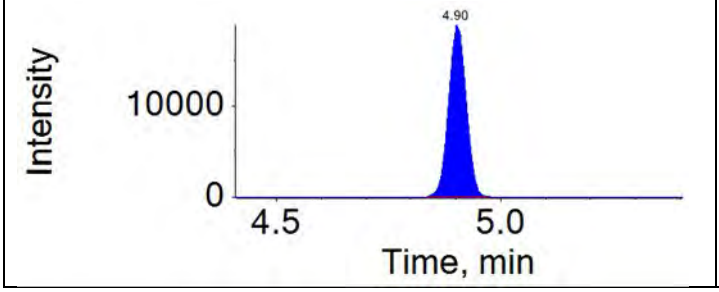
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

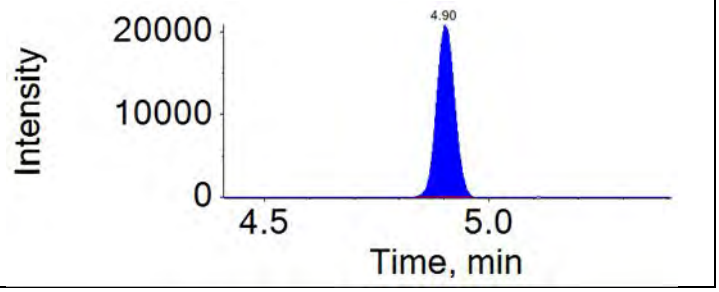




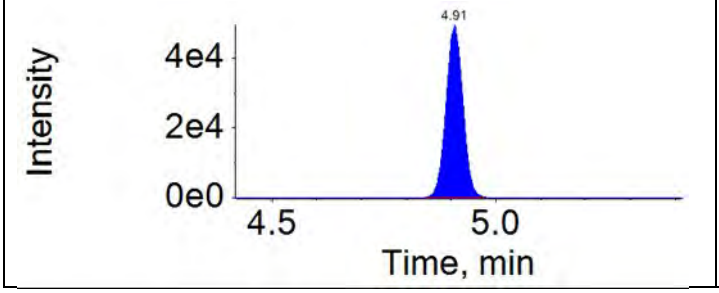
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

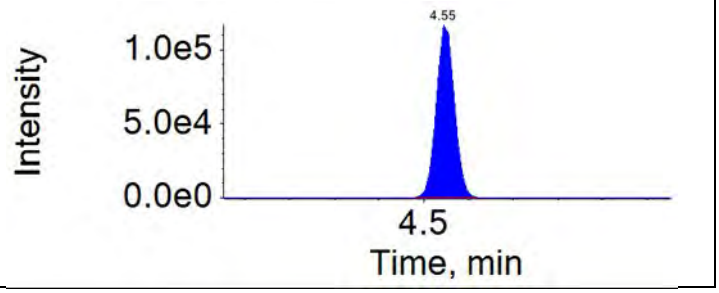
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



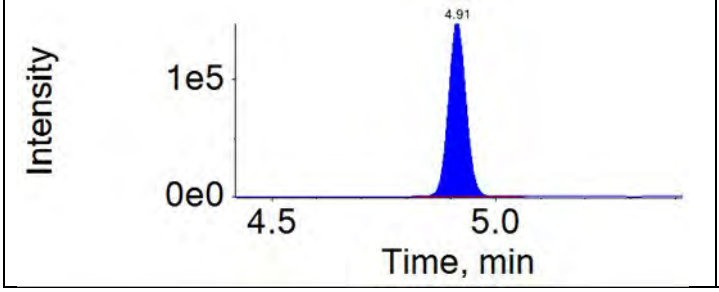


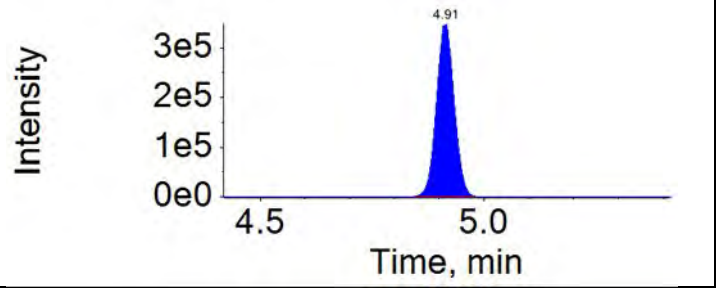
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



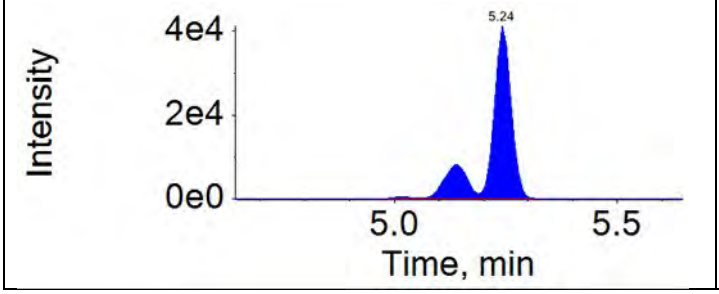


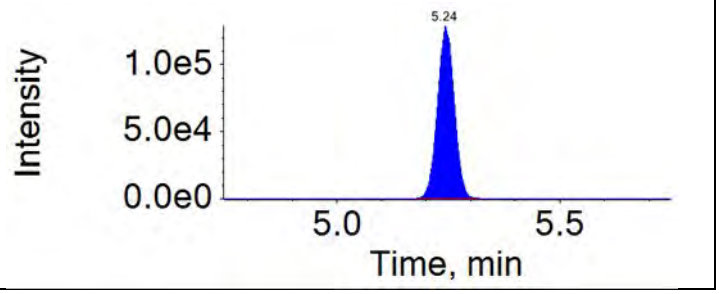
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



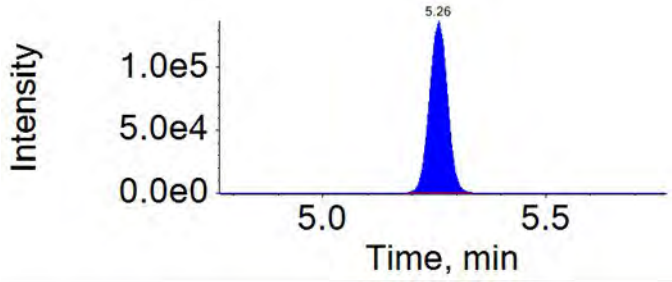


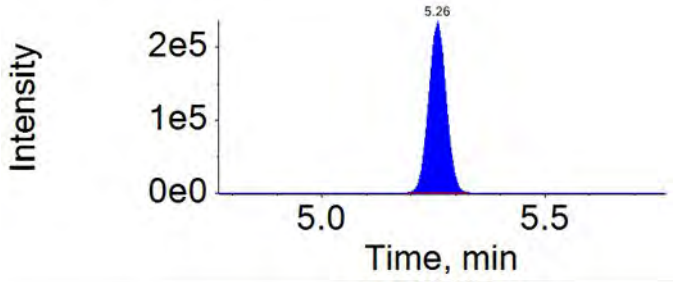
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

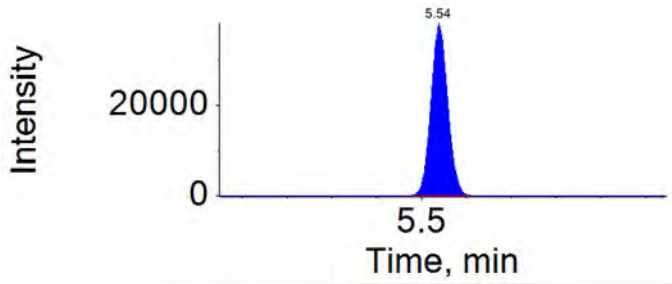
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

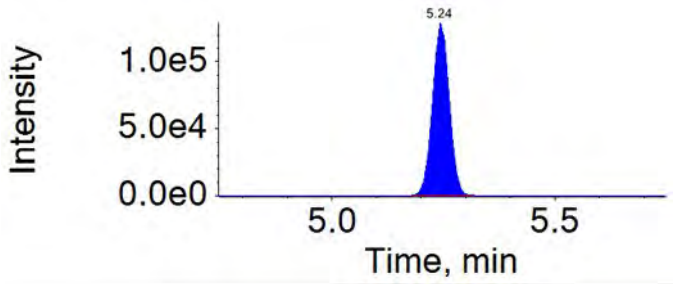
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



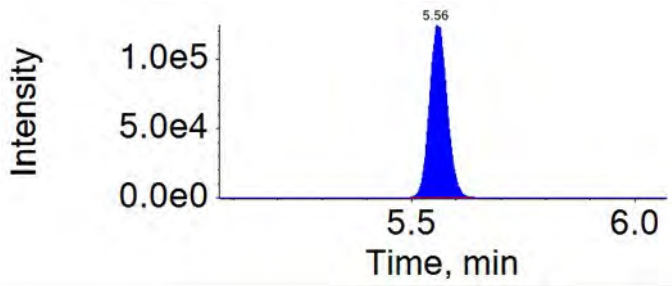


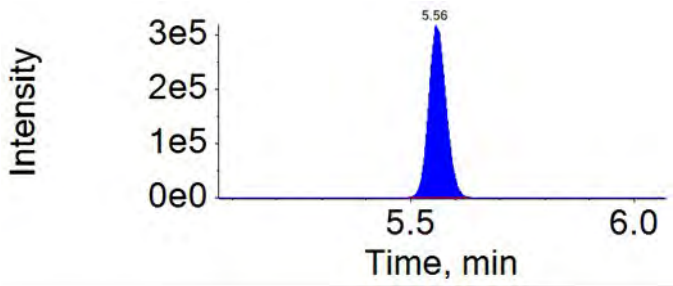
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



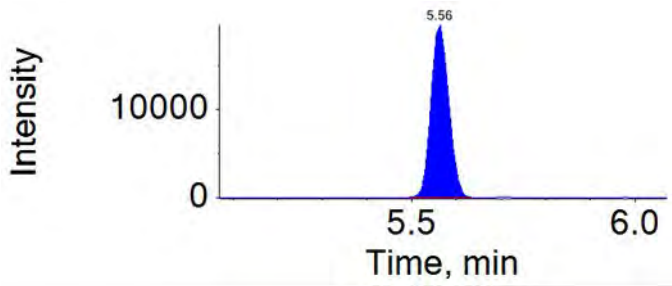


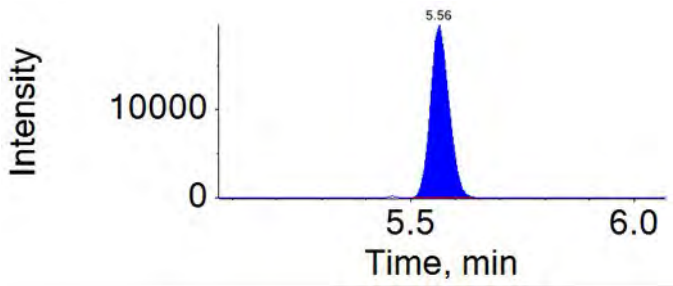
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



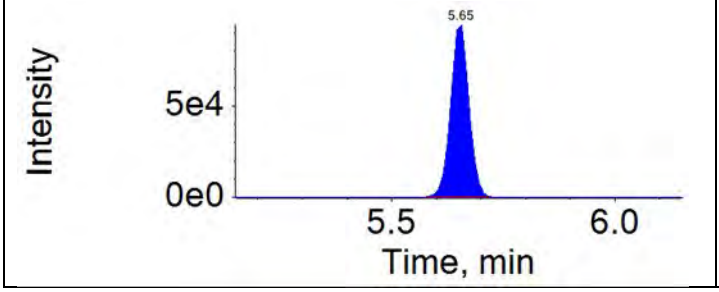


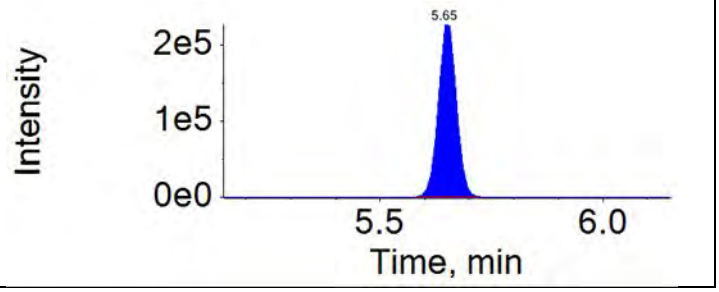
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

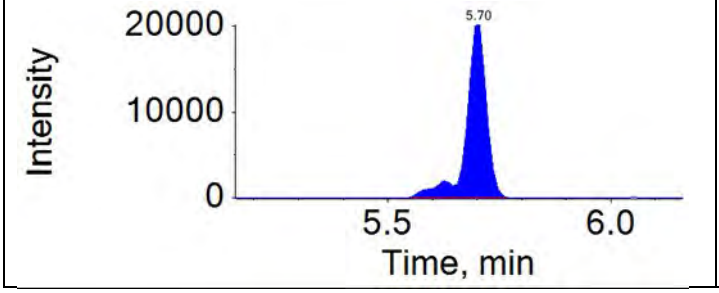
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

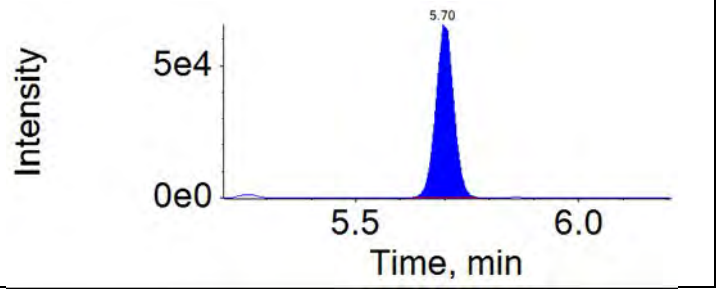
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



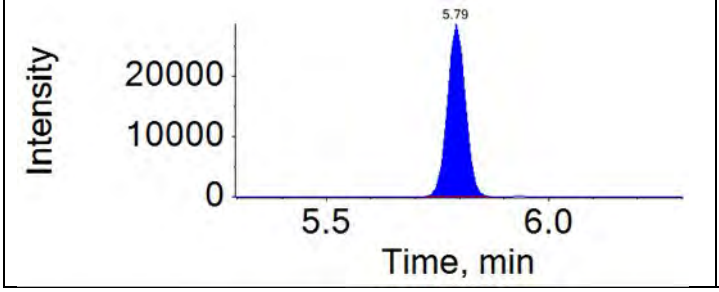


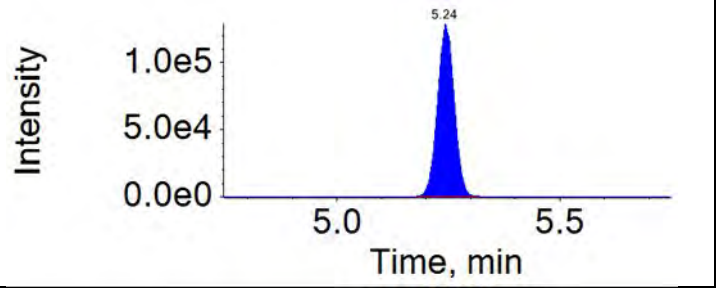
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



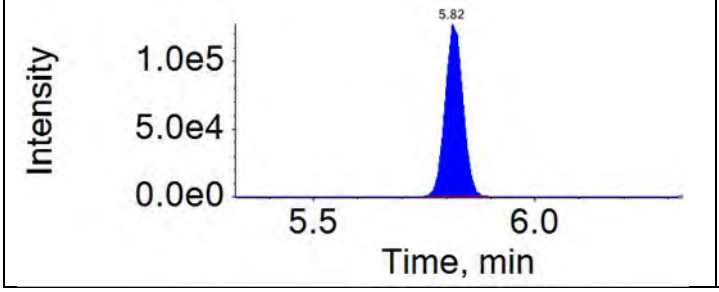


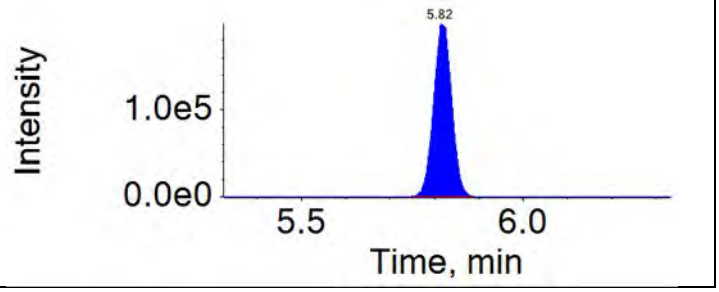
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



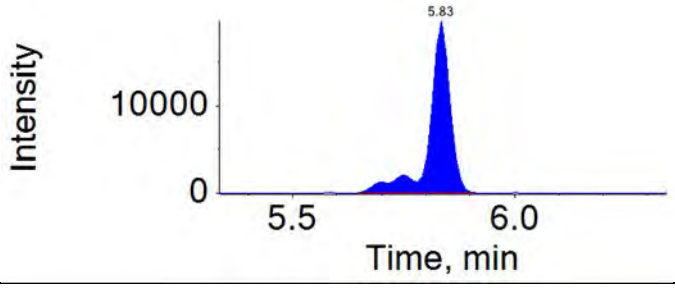


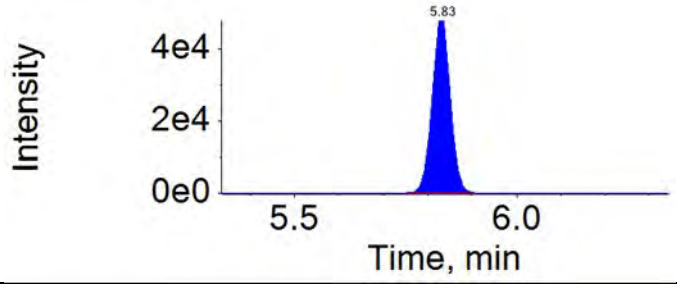
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

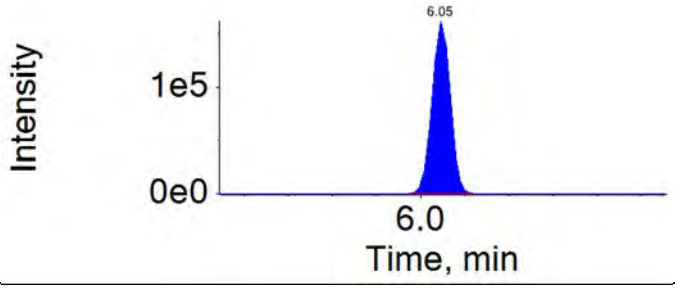
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

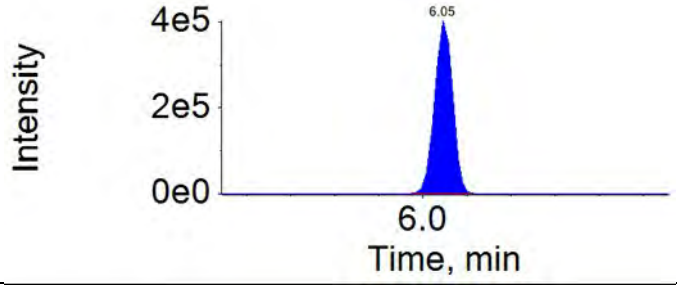
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



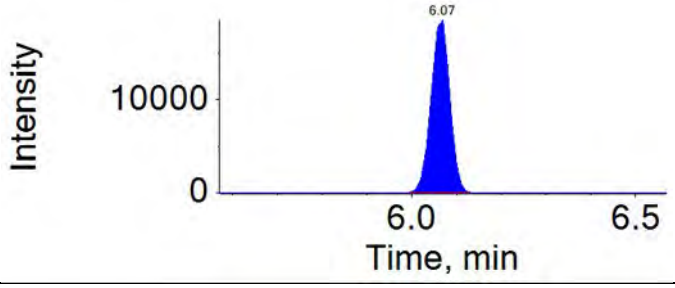


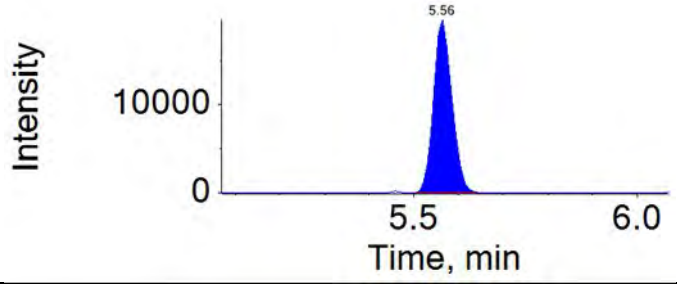
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



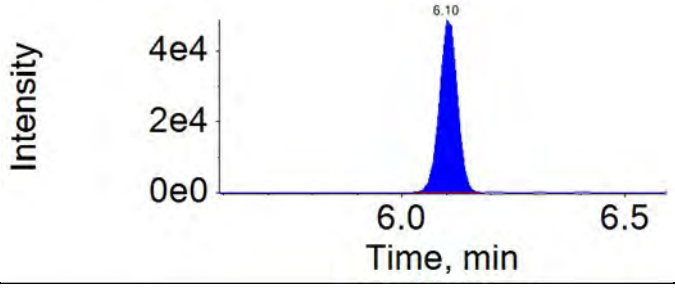


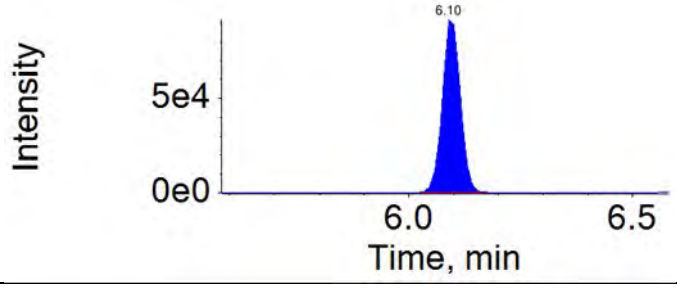
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



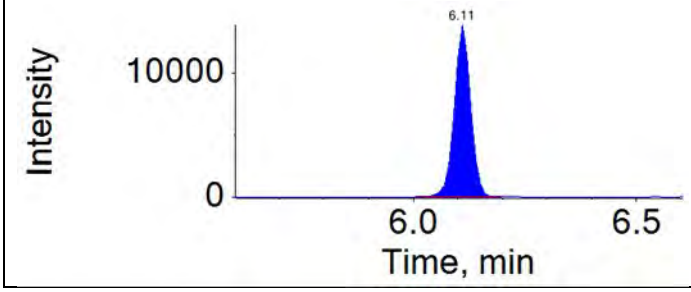


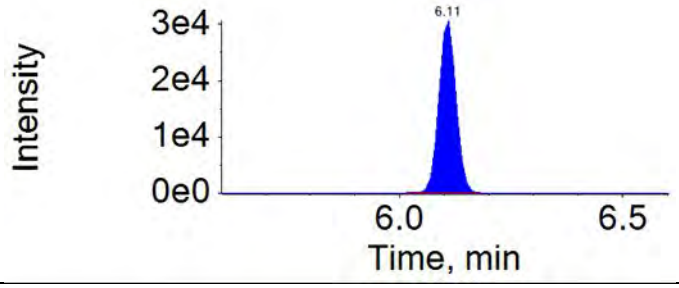
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

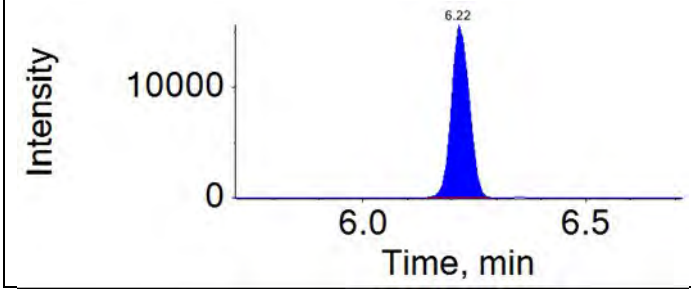
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

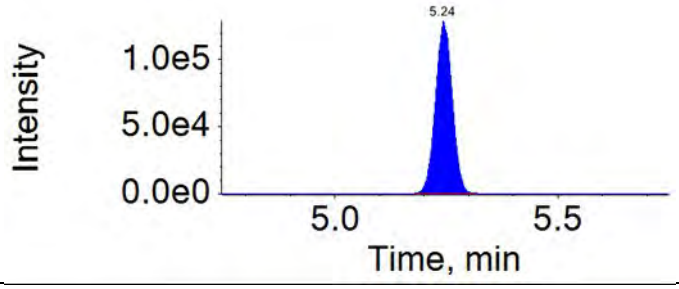
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



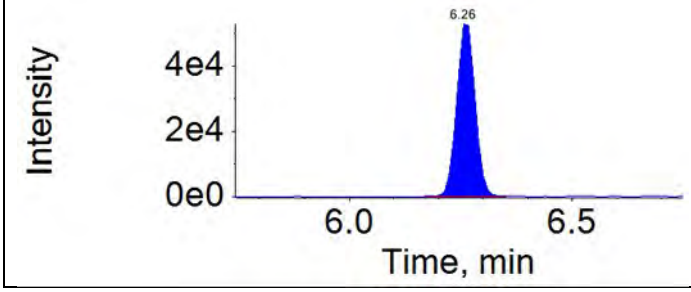


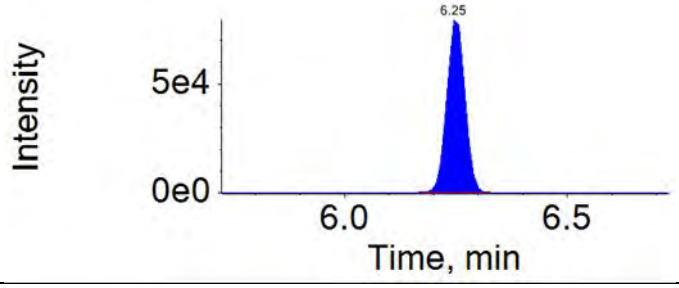
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



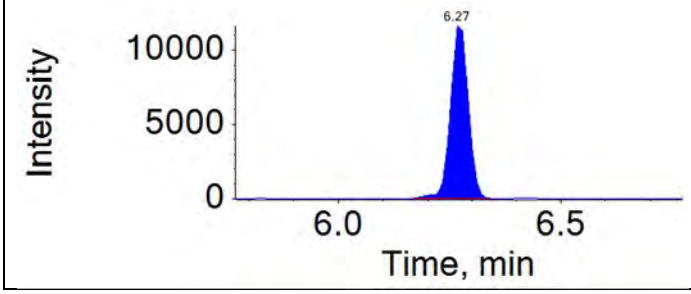


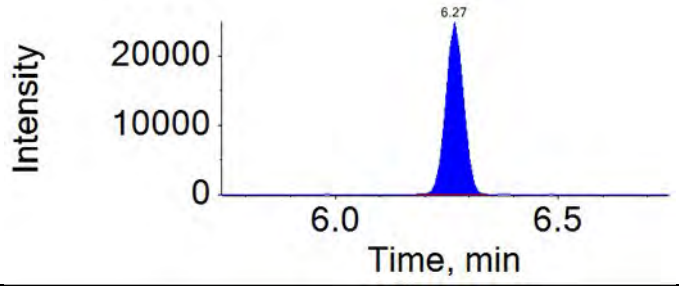
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

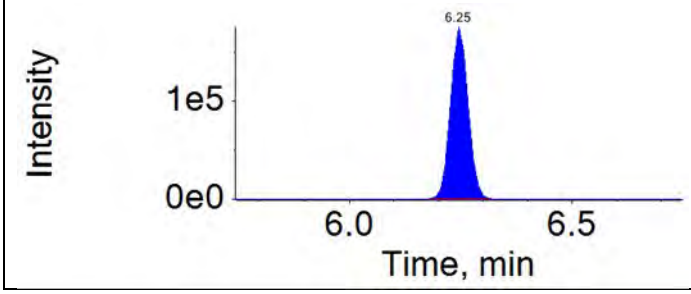
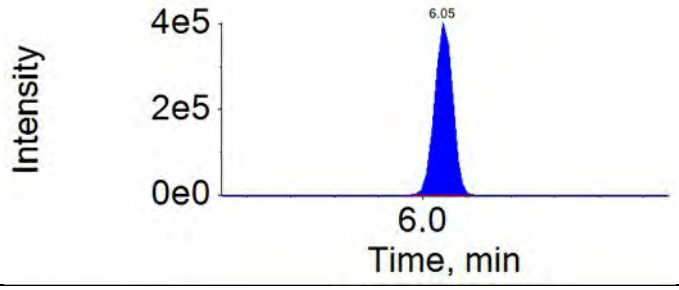


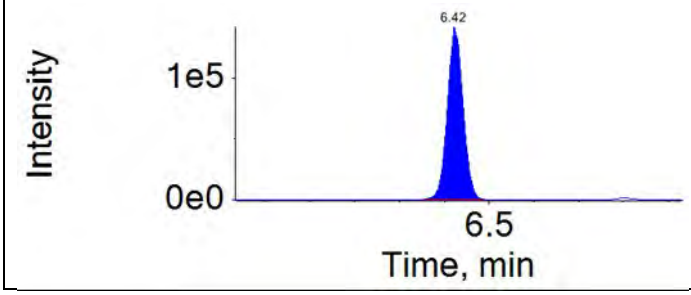
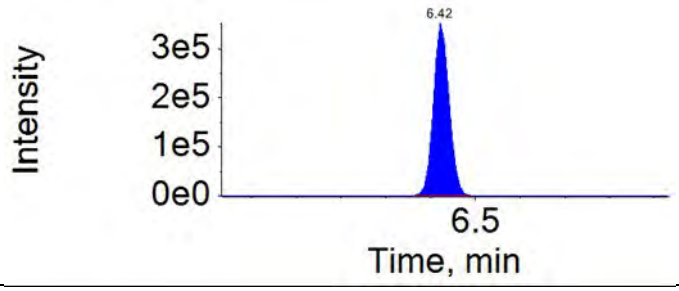


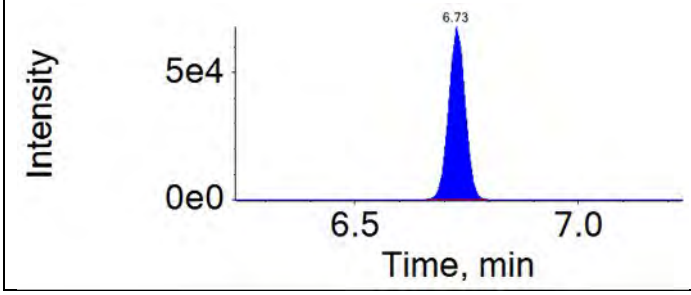
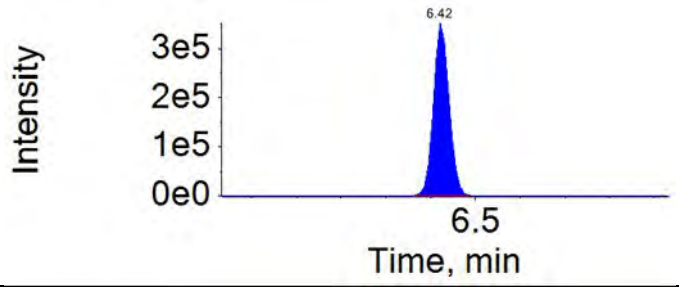
APPROVED
By MCD at 8:06 pm, 11/29/18

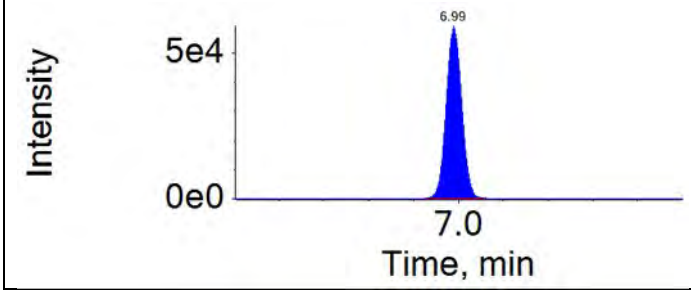
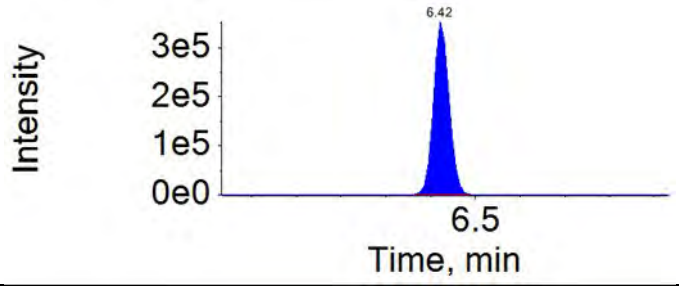
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

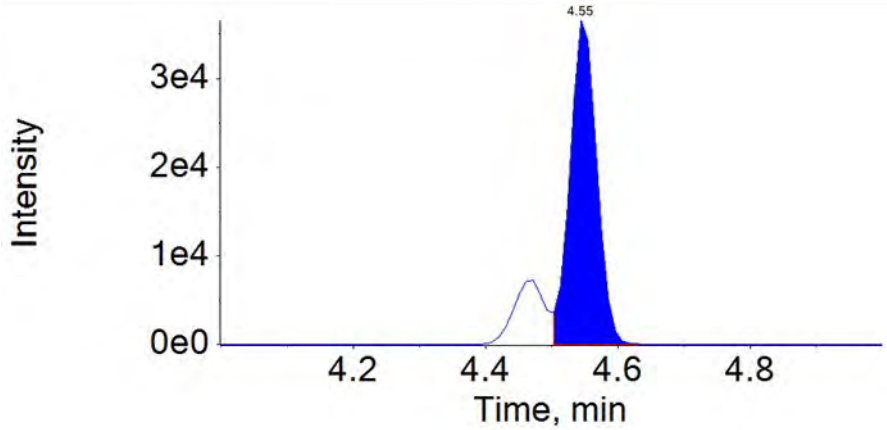
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

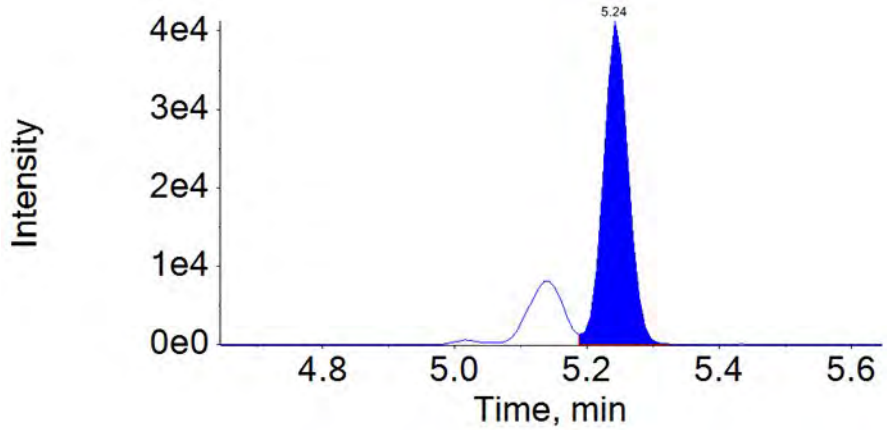
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
103048.0
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



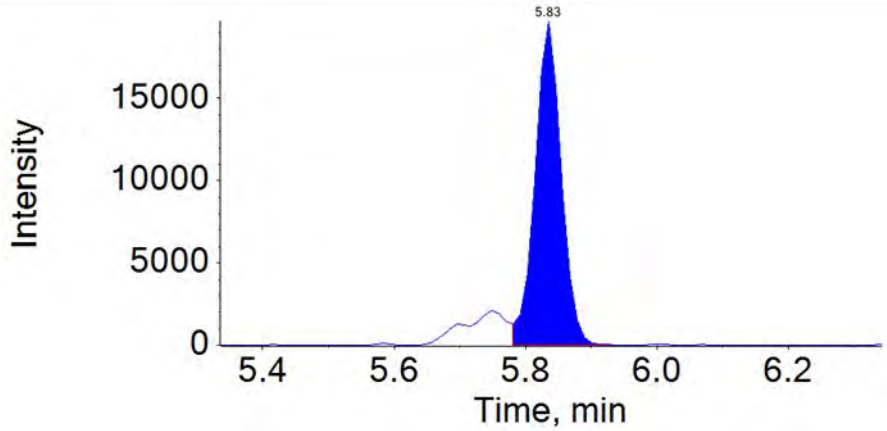
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
107440.5
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.83
Peak Area:
54491.9
Mass Range:
584.0 / 419.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



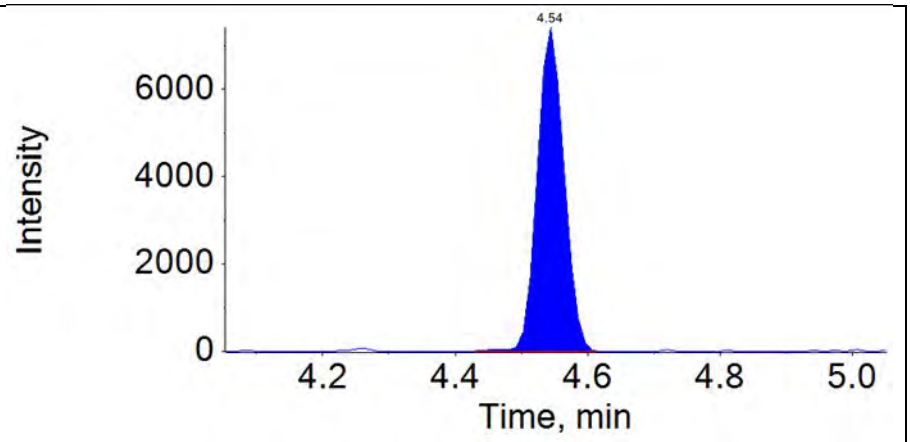
Integration Comment: incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

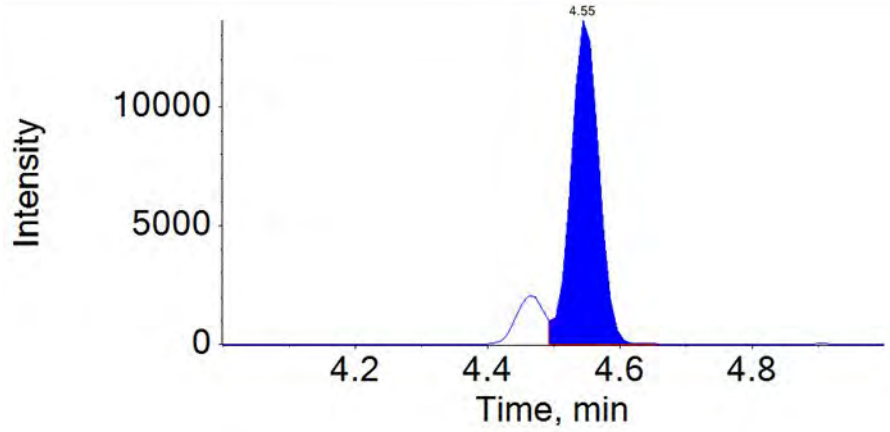
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA_2
RT (min.):
4.54
Peak Area:
20844.3
Mass Range:
363.0 / 169.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



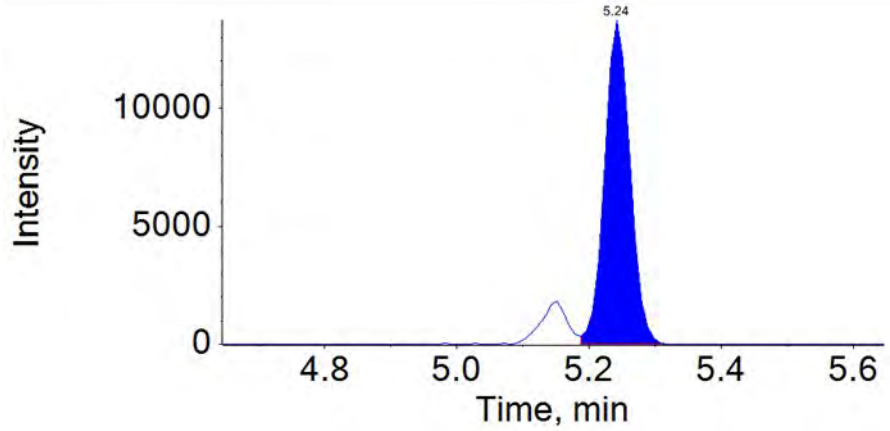
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
39908.0
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
36914.5
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



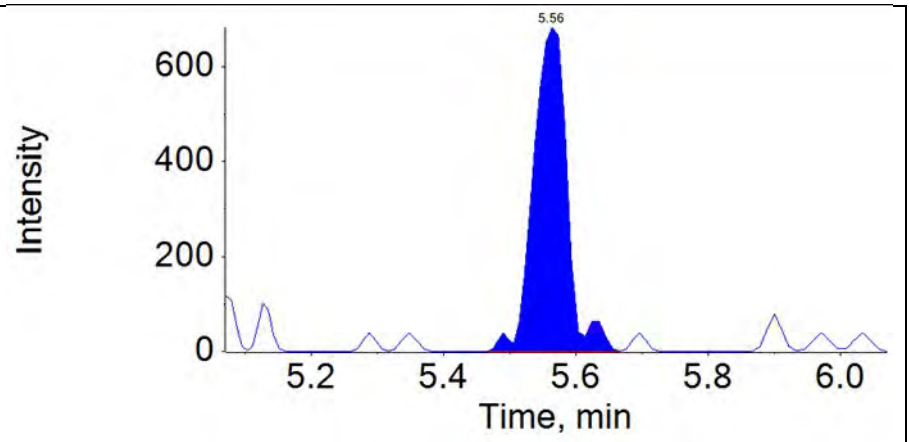
Integration Comment: incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

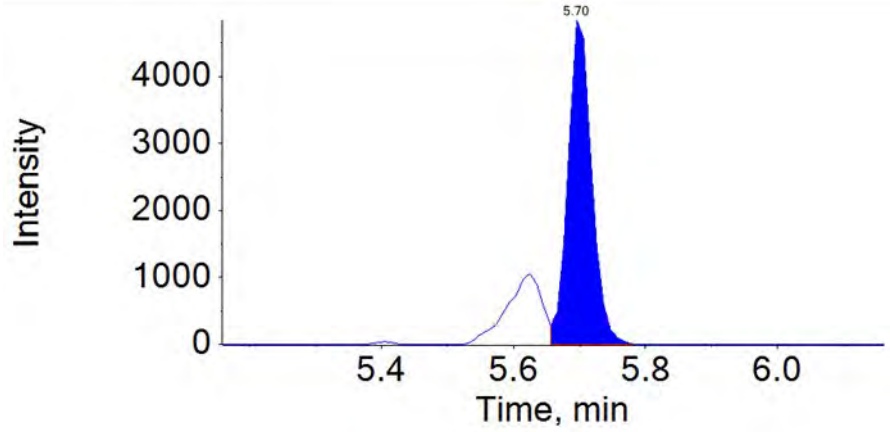
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.56
Peak Area:
2438.8
Mass Range:
513.0 / 169.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



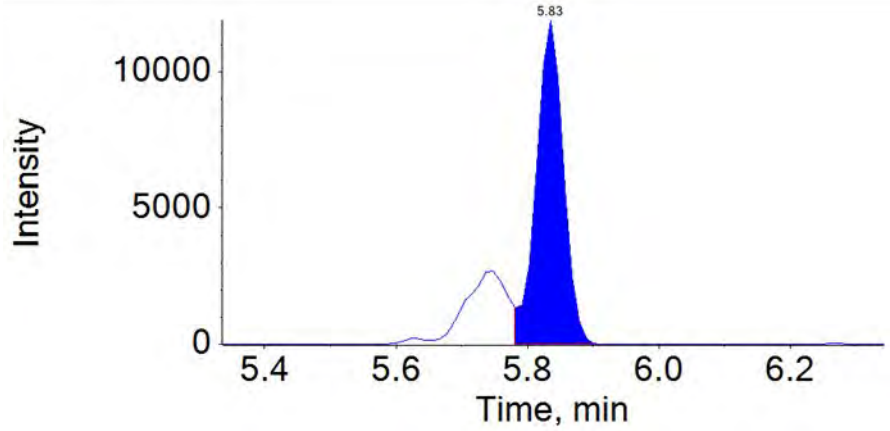
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
12072.2
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
34118.1
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3

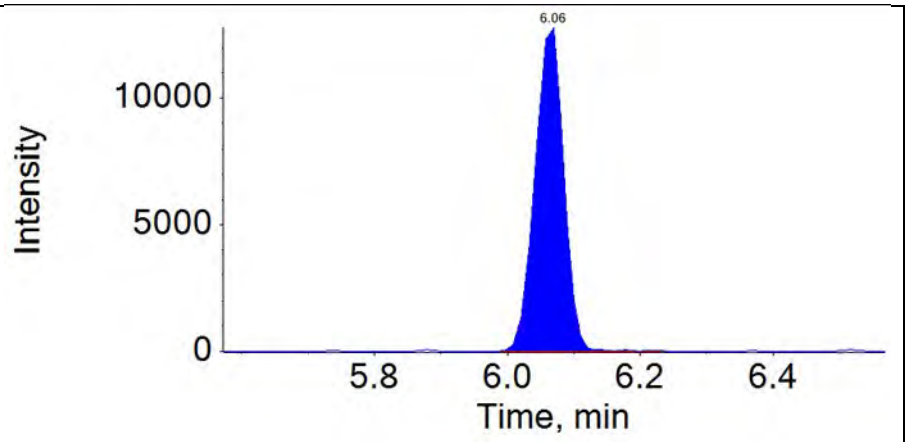


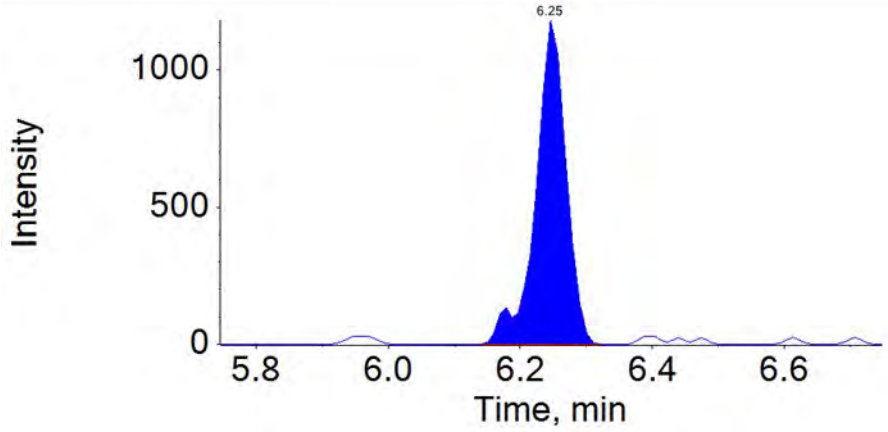
Integration Comment: incorrect integration

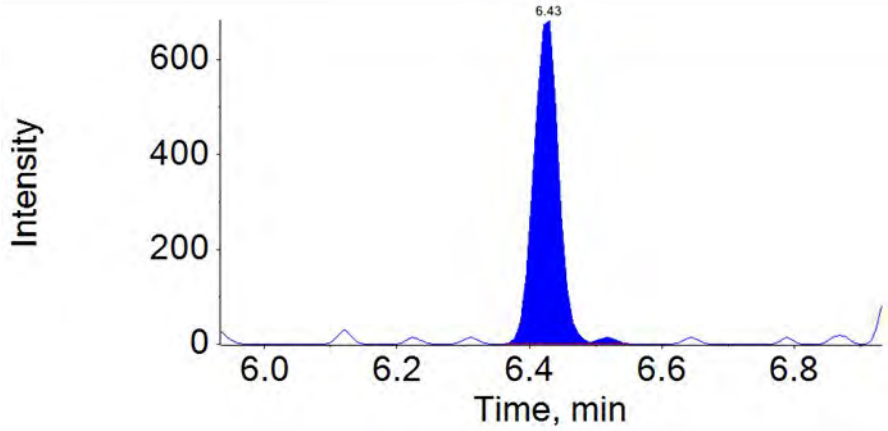
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: 10:2-FTS_2 **RT (min.):** 6.06 **Peak Area:** 38871.1 **Mass Range:** 627.0 / 81.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTrDA_2 **RT (min.):** 6.25 **Peak Area:** 3806.2 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** 6.43 **Peak Area:** 1816.4 **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

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

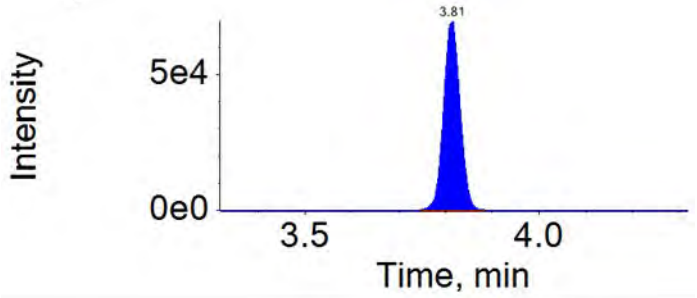
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV29D-52.wiff

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	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	
PFTrDA	6.25	1.03	477187.4	A	N/A	0.0076			
PFTrDA_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	

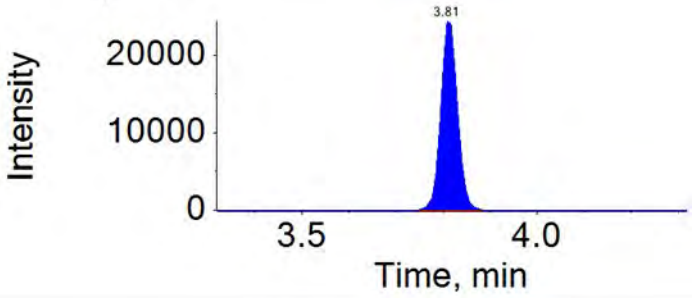
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

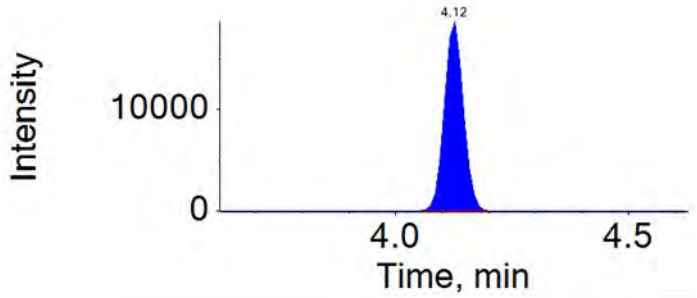
Component: PFBS
Primary Mass: 299.0 / 80.0



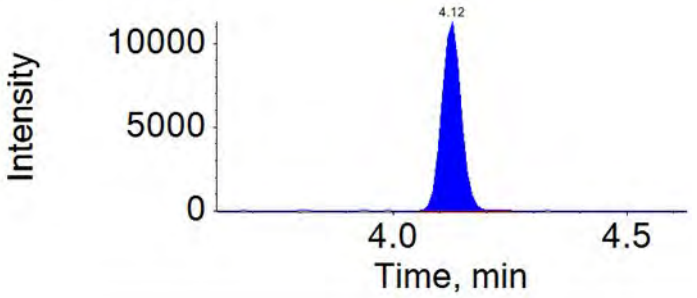
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



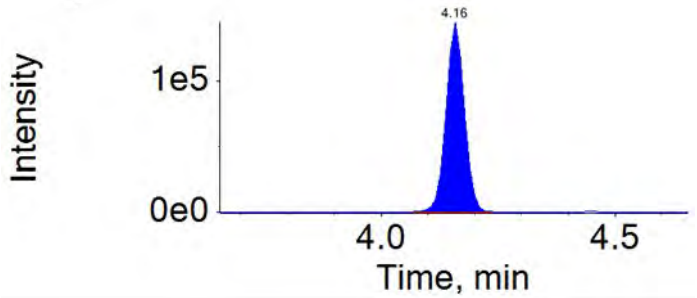
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



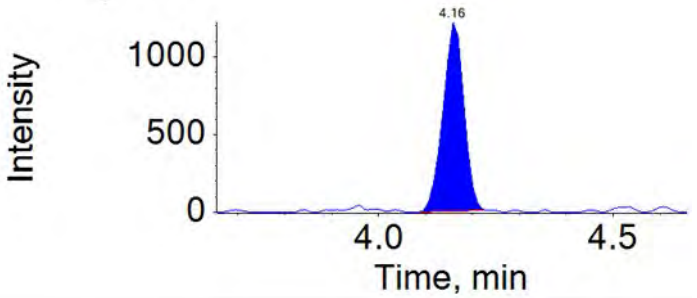
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



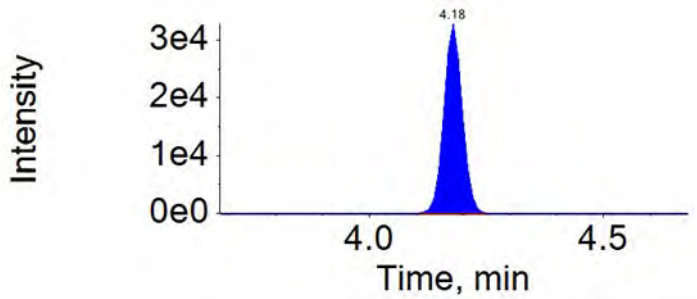
Component: PFHxA
Primary Mass: 313.0 / 269.0



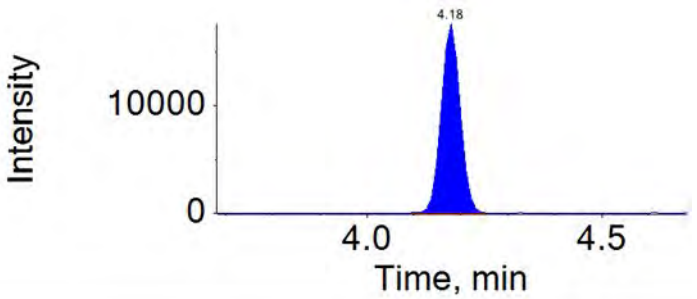
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



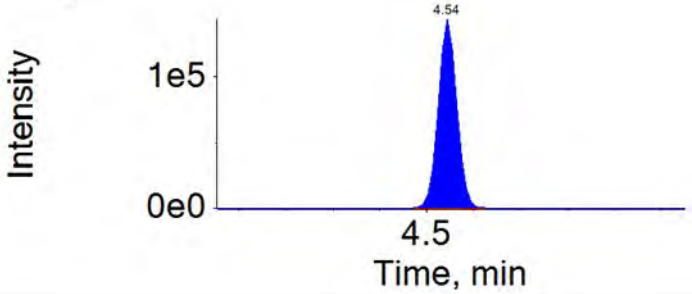
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



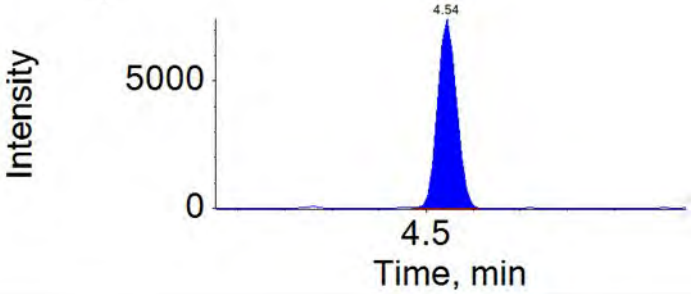
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

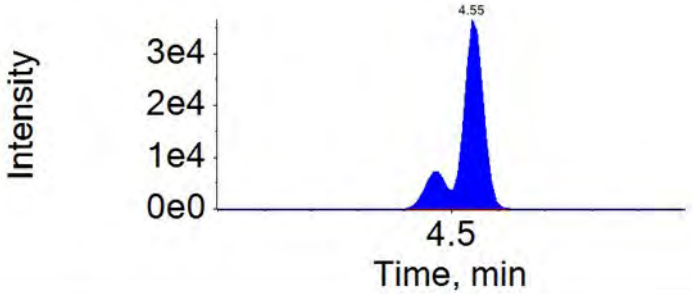
Component: PFHpA
Primary Mass: 363.0 / 319.0



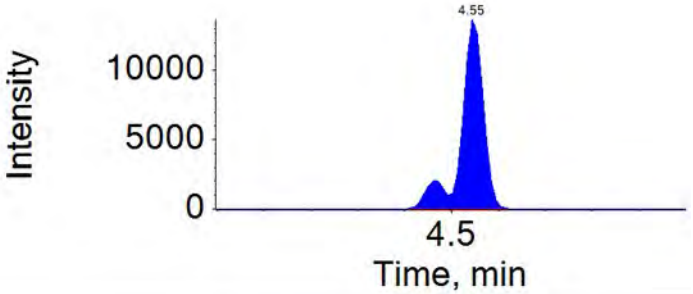
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



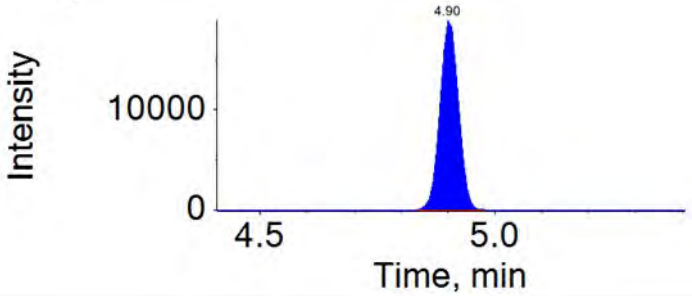
Component: PFHxS
Primary Mass: 399.0 / 80.0



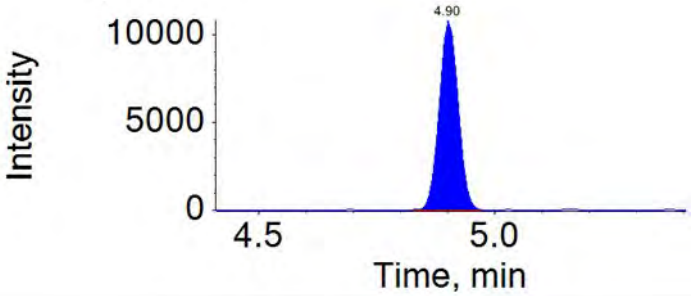
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



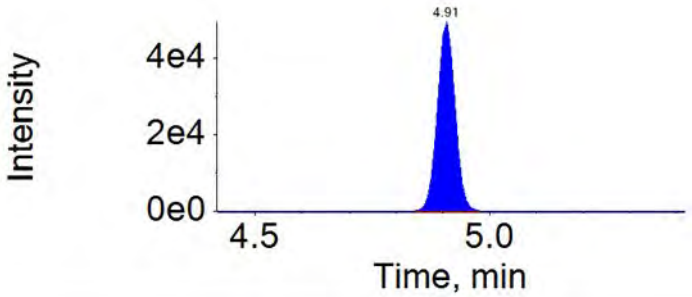
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



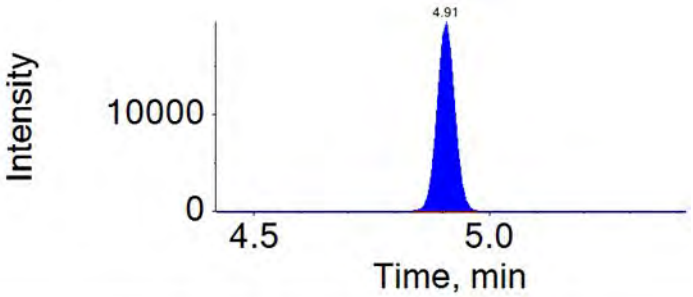
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



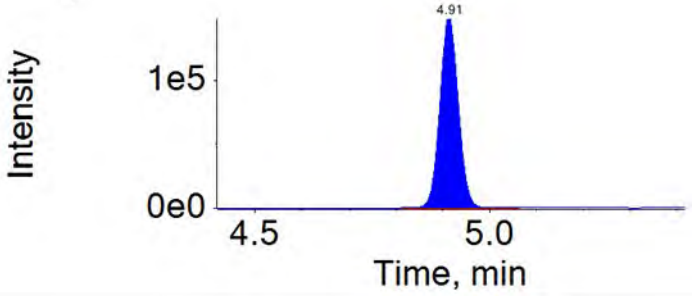
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



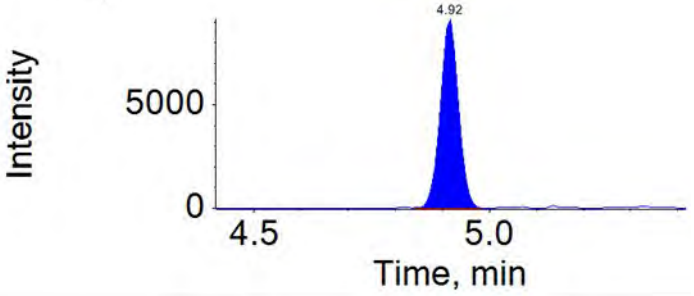
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

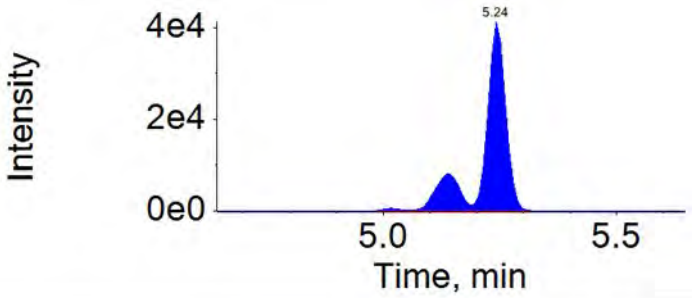
Component: PFOA
Primary Mass: 413.0 / 369.0



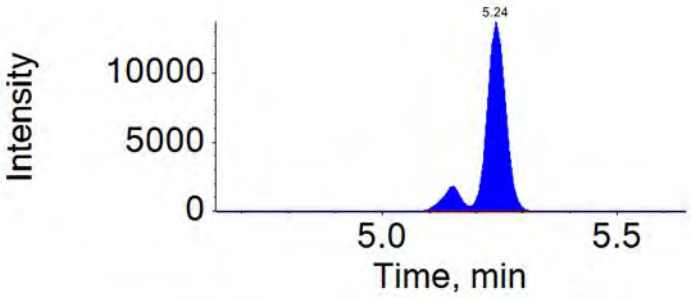
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



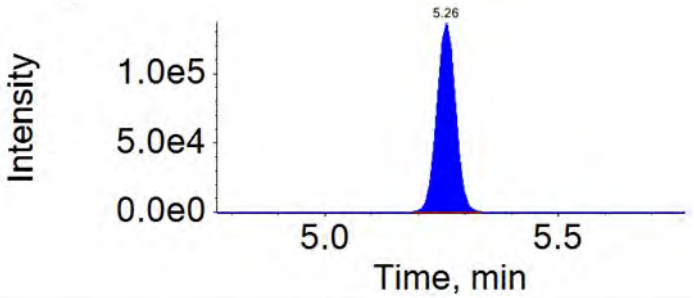
Component: PFOS
Primary Mass: 499.0 / 80.0



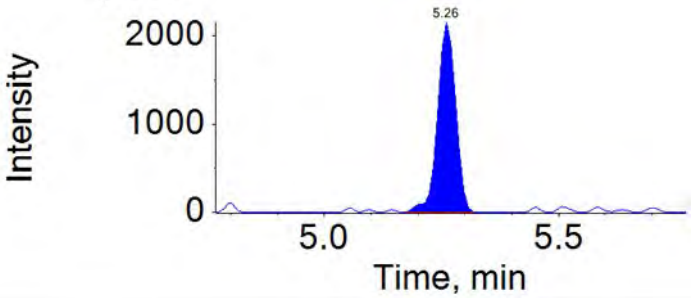
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



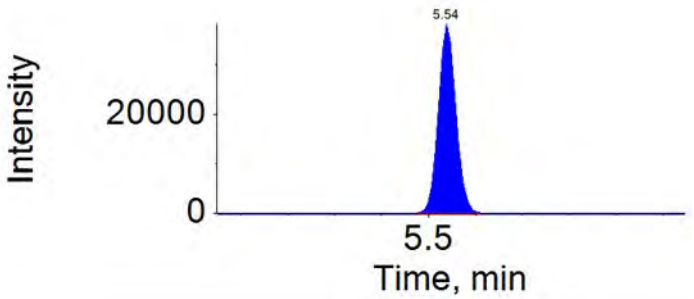
Component: PFNA
Primary Mass: 463.0 / 419.0



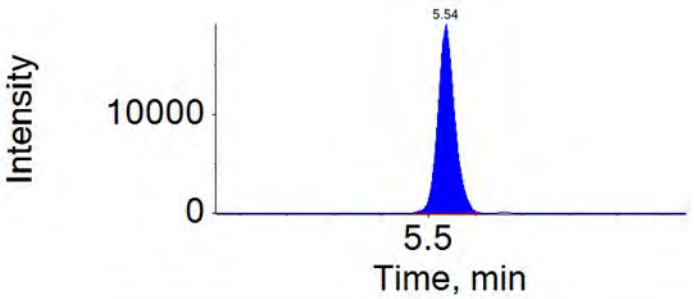
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



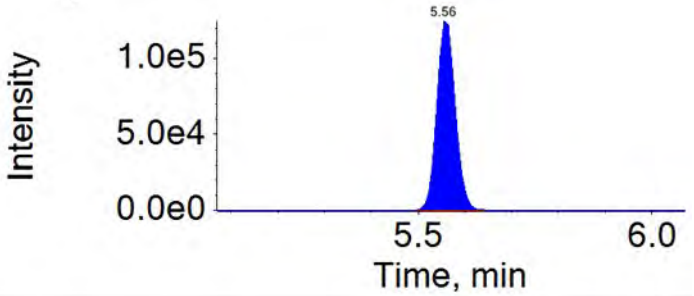
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



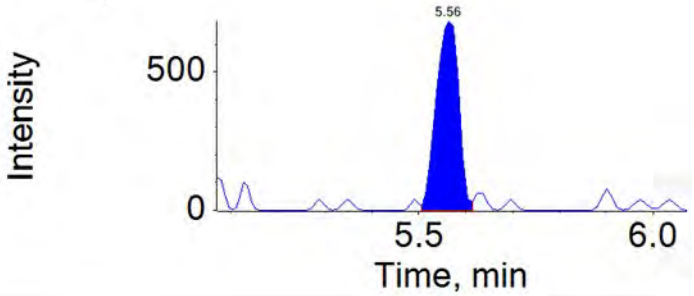
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

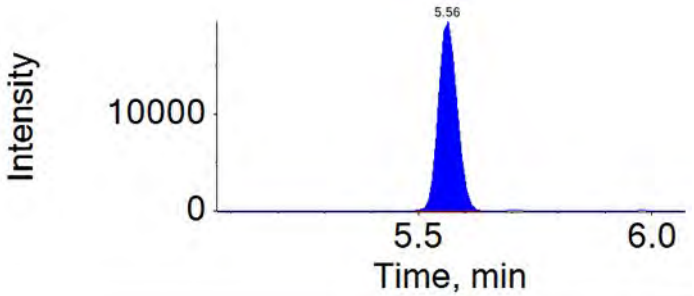
Component: PFDA
Primary Mass: 513.0 / 469.0



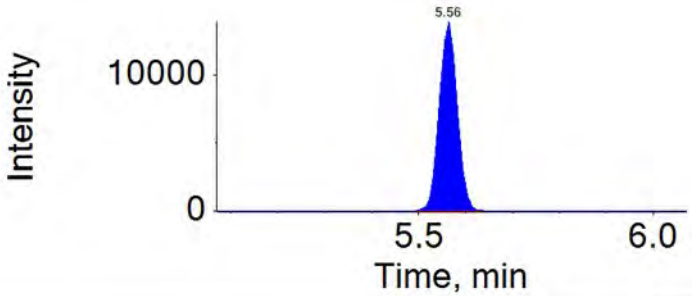
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



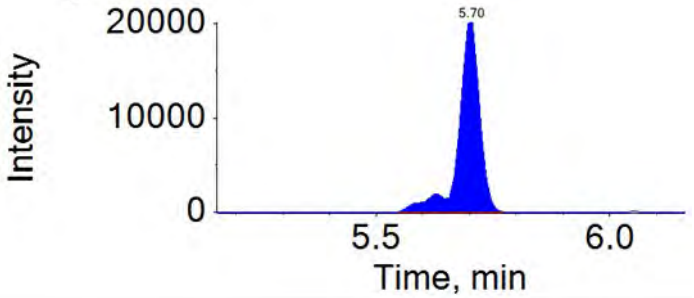
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



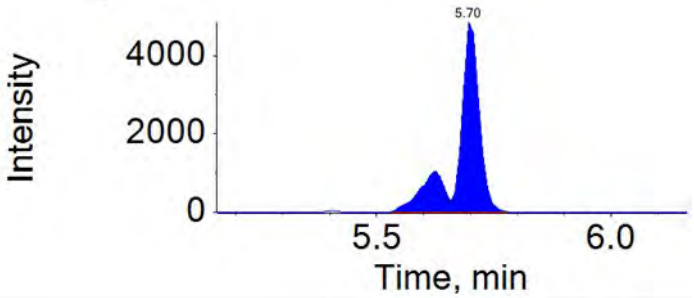
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



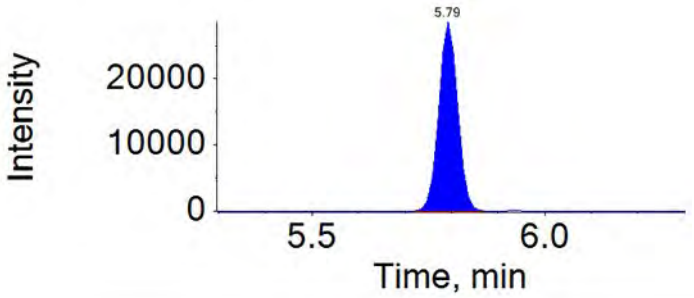
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



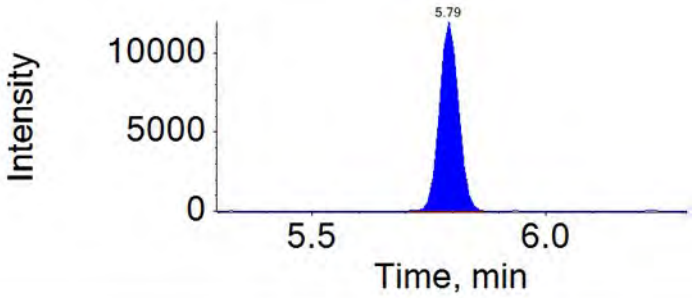
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



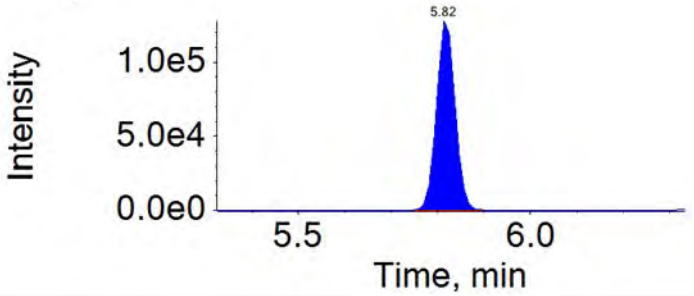
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



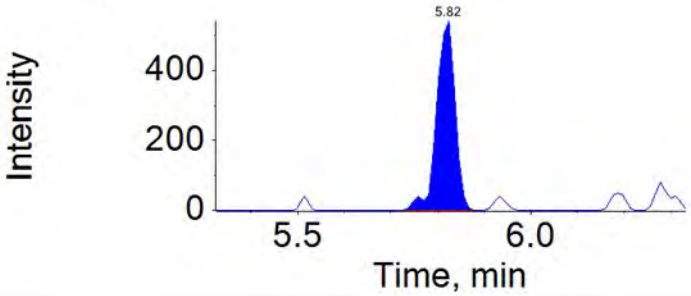
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

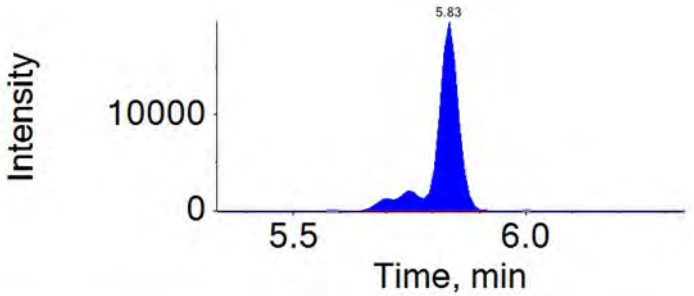
Component: PFUnDA
Primary Mass: 563.0 / 519.0



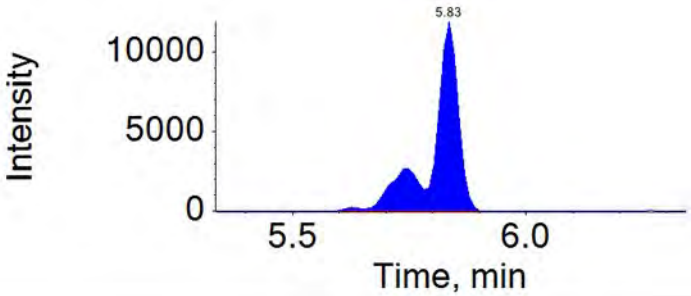
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



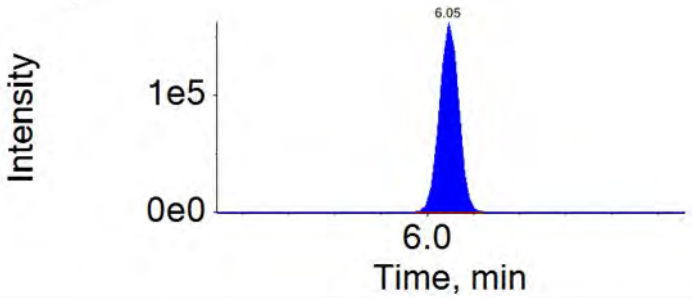
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



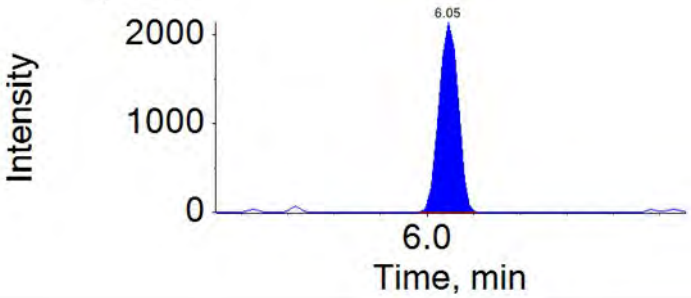
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



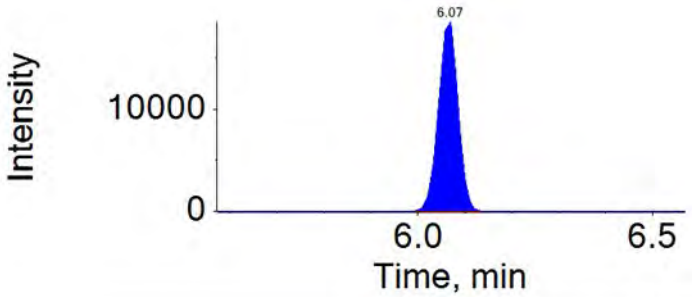
Component: PFDoDA
Primary Mass: 613.0 / 569.0



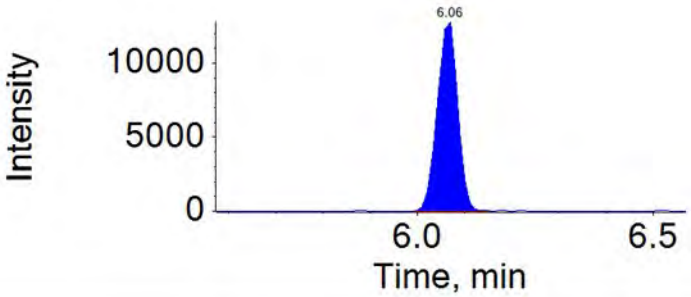
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



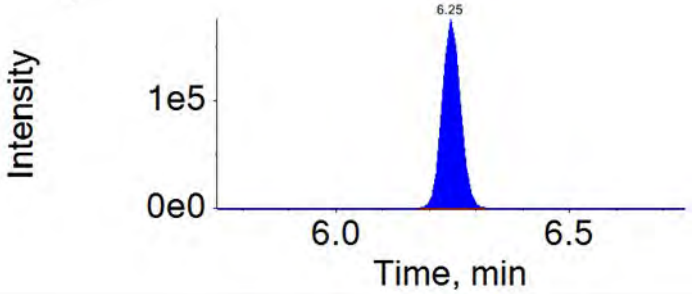
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



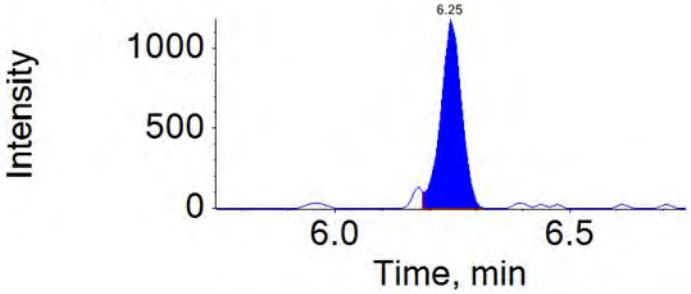
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

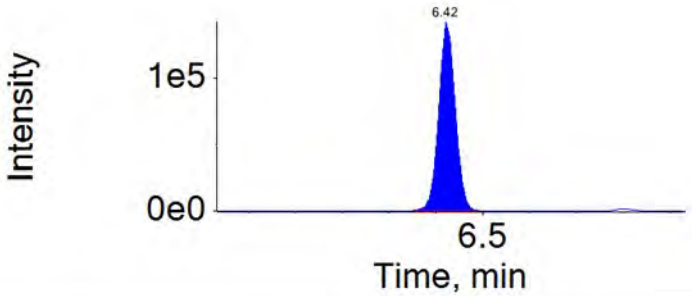
Component: PFTrDA
Primary Mass: 663.0 / 619.0



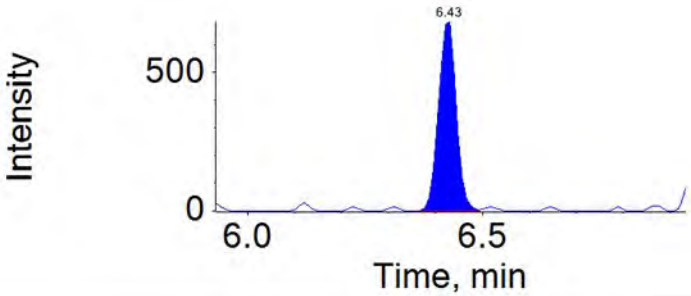
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



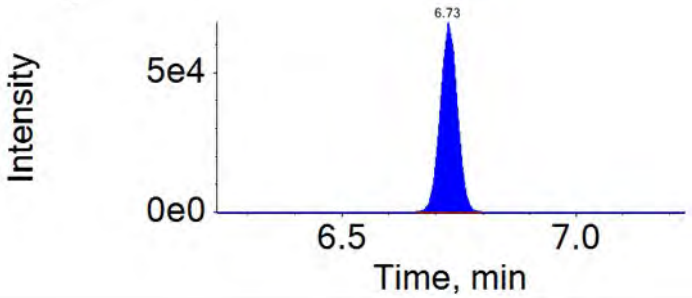
Component: PFTeDA
Primary Mass: 713.0 / 669.0



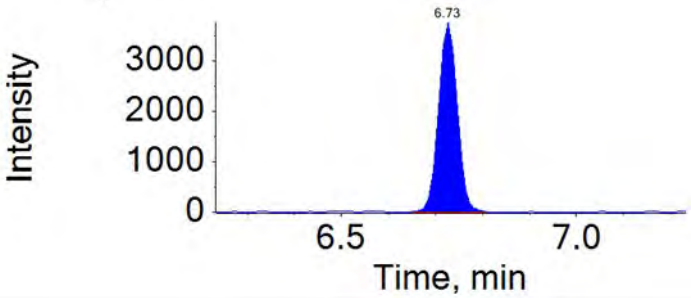
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



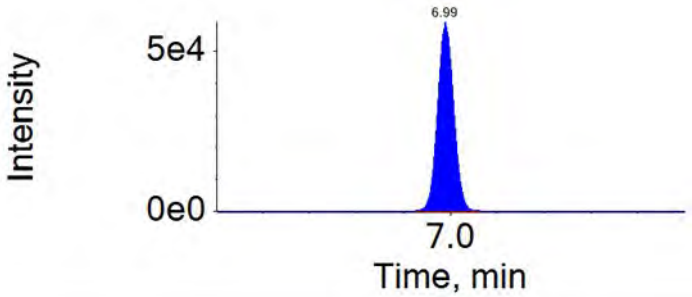
Component: PFHxDA
Primary Mass: 813.0 / 769.0



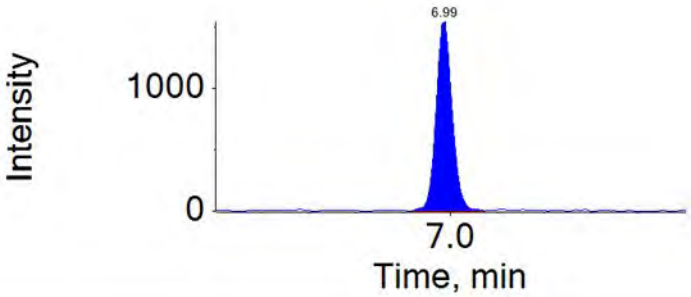
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



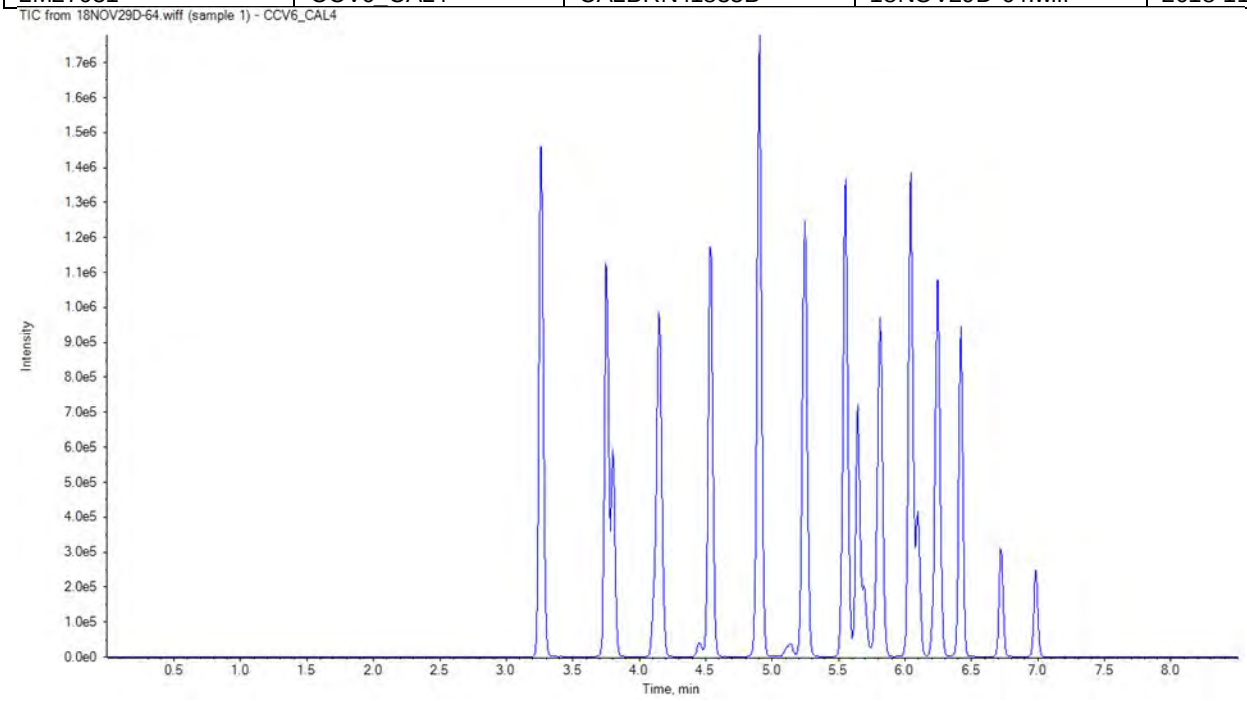
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

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



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 Verfication

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-PFHpA	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	
PFTrDA	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	
PFODA	509959.1	10	13C2-PFTeDA	822251.9	5.0	0.620	6.98	1.090	8.000	8.262	3	30	

APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Continuing Calibration Verfication

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 **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **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	Rreference 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	

APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

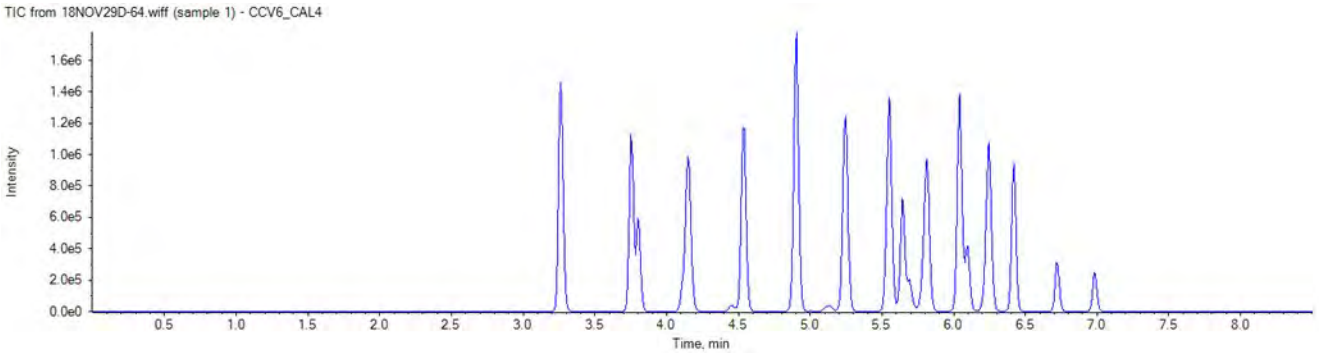
Analyte Quantitation Peak Table

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
PFTrDA	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

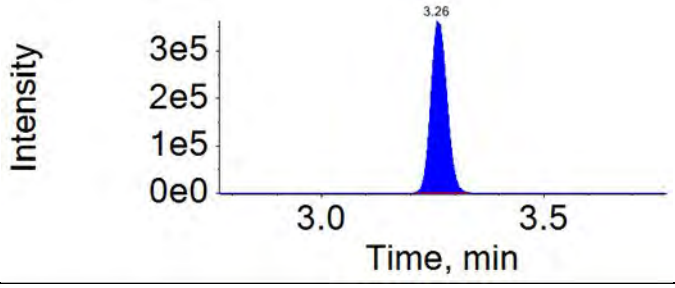


APPROVED
By MCD at 3:26 pm, 11/30/18

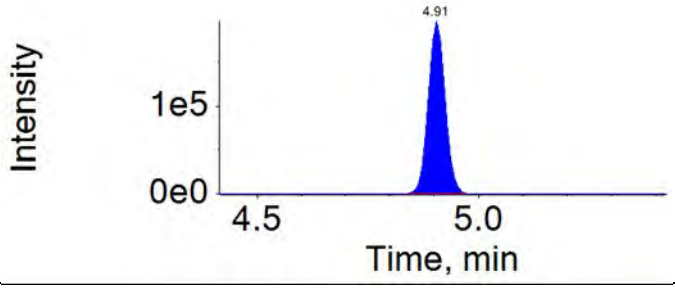
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

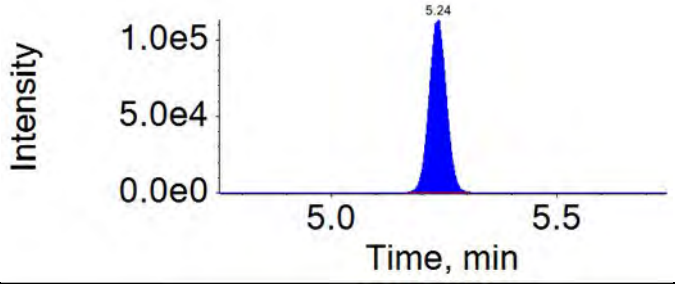
Injection Standard: 13C3-PFBA
216.0 / 172.0



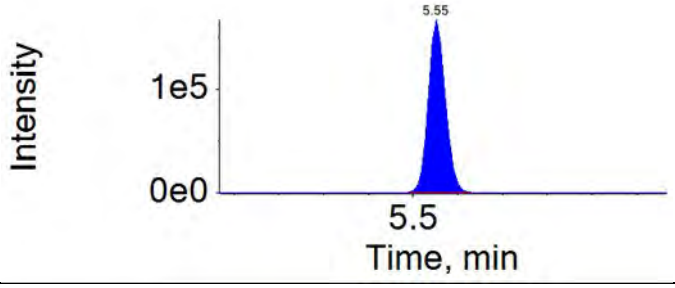
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

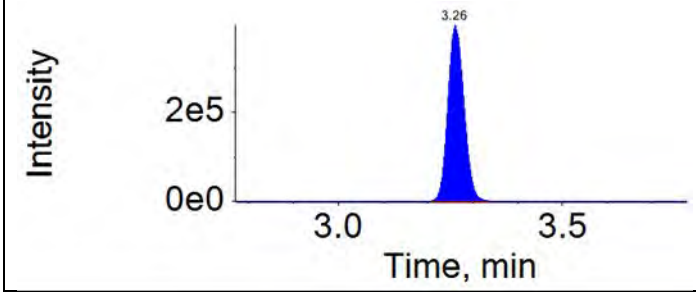


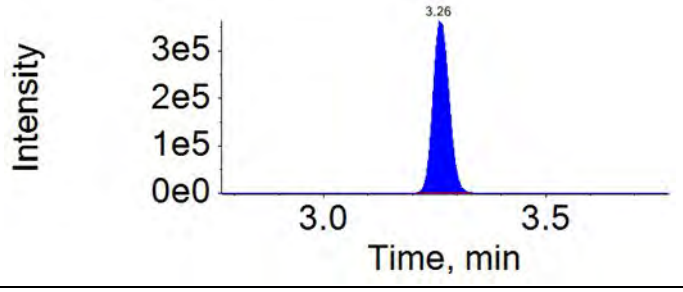
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

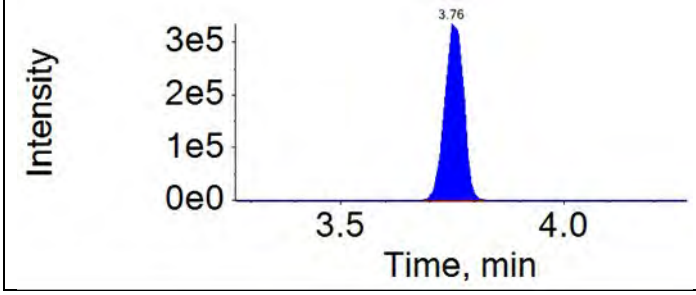
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

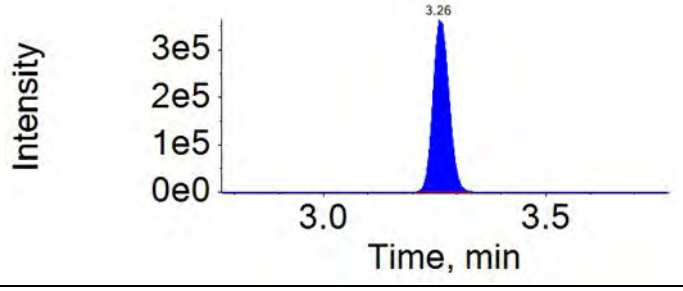
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



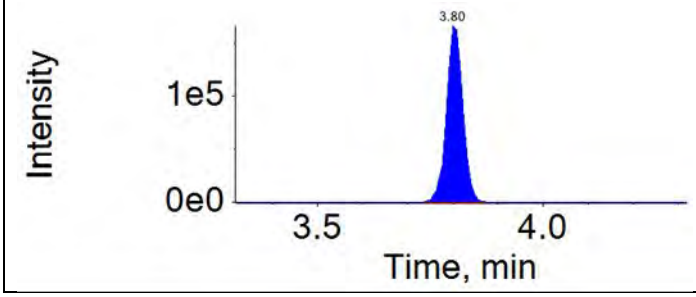


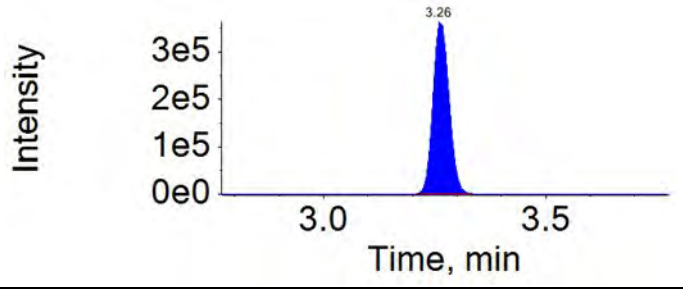
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



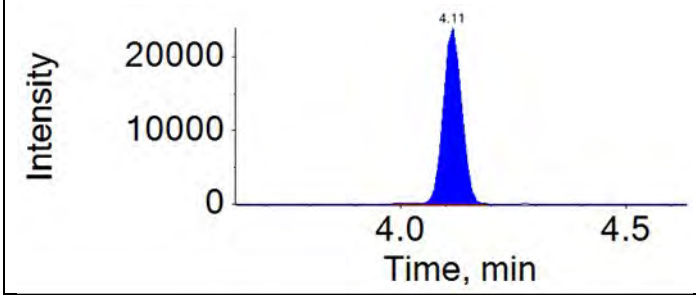


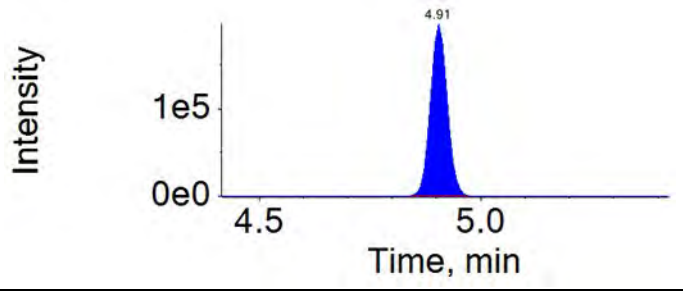
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



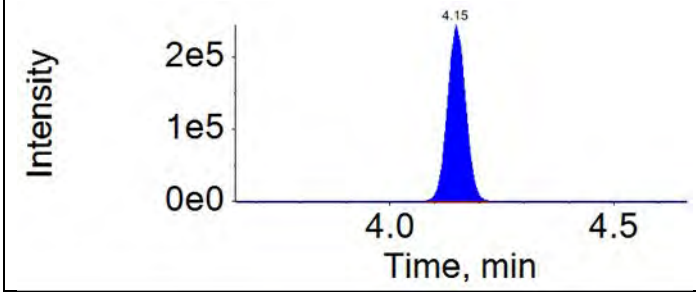


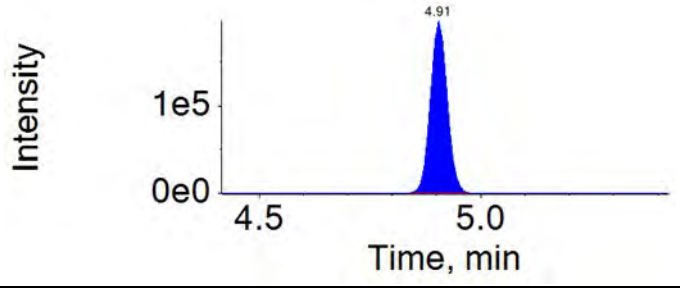
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

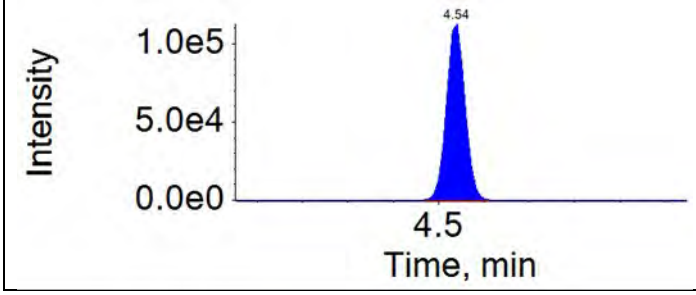
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

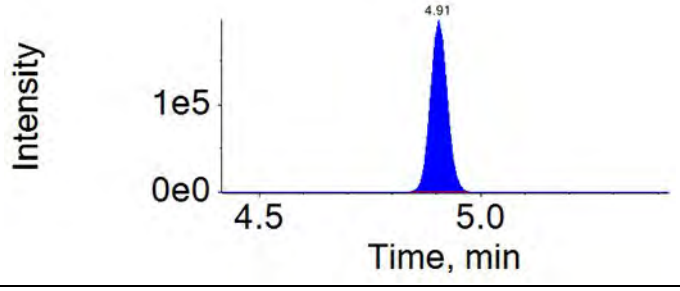
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



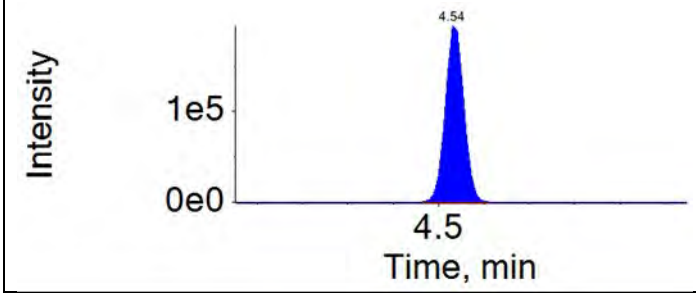


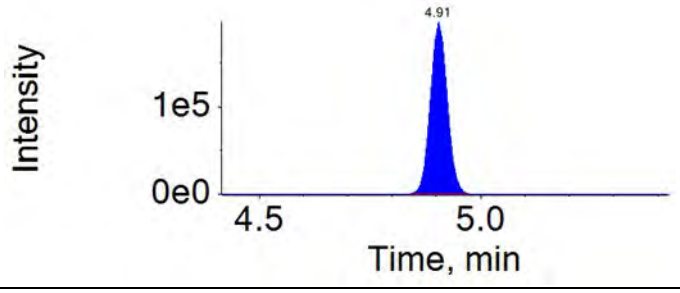
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



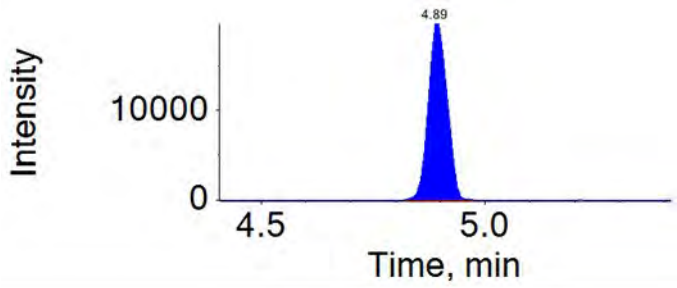


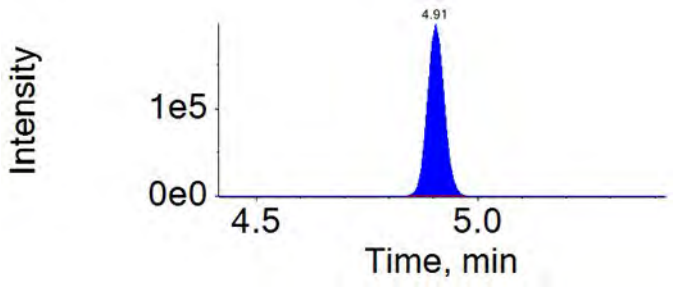
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

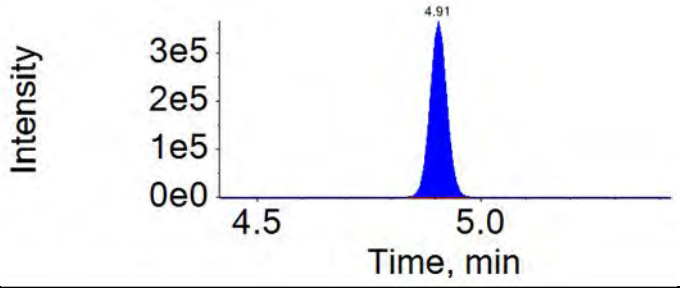
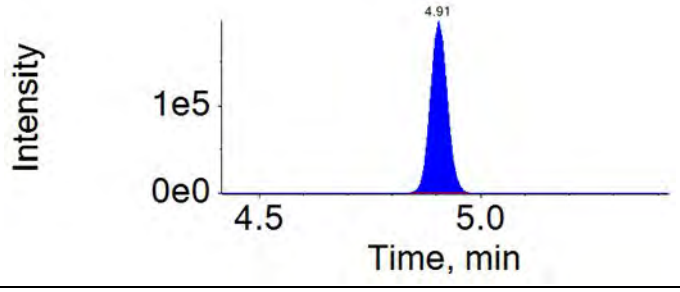


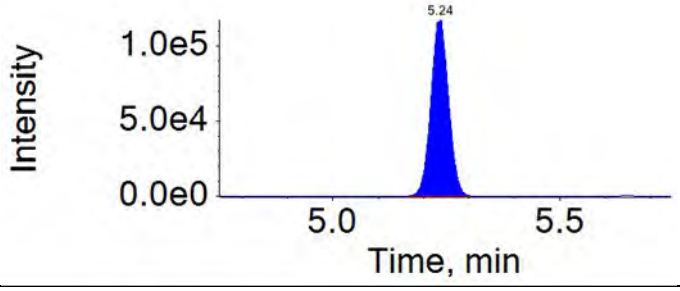
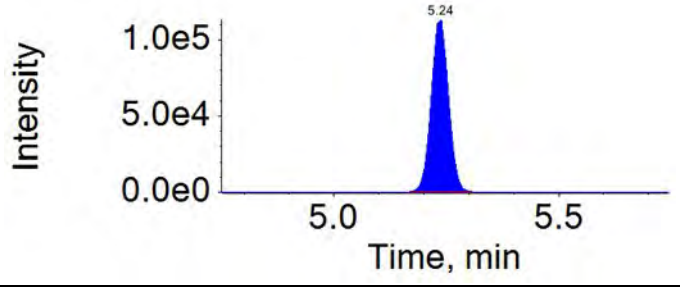


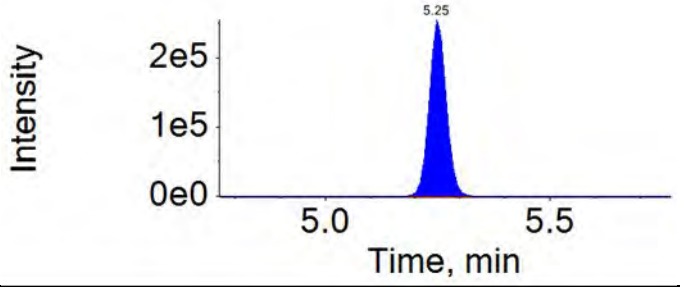
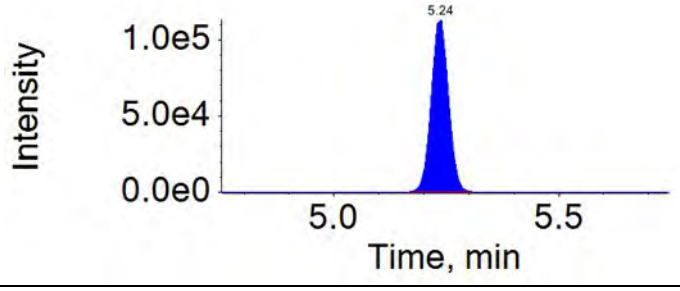
APPROVED
By MCD at 3:26 pm, 11/30/18

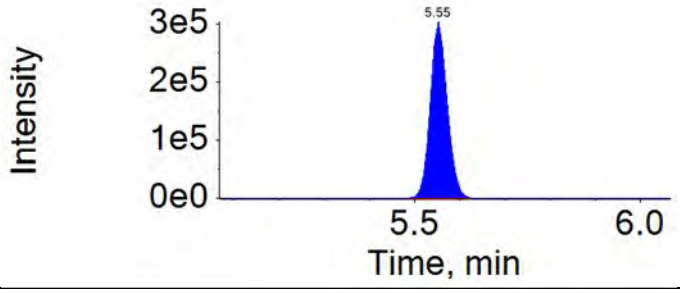
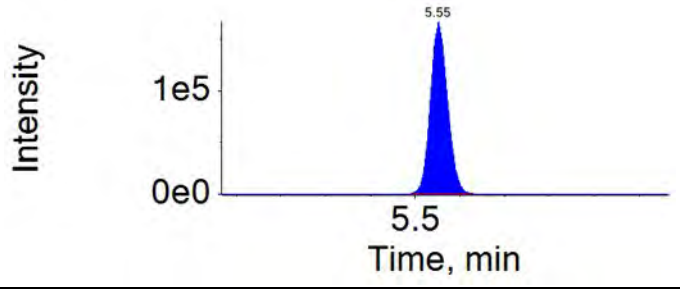
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

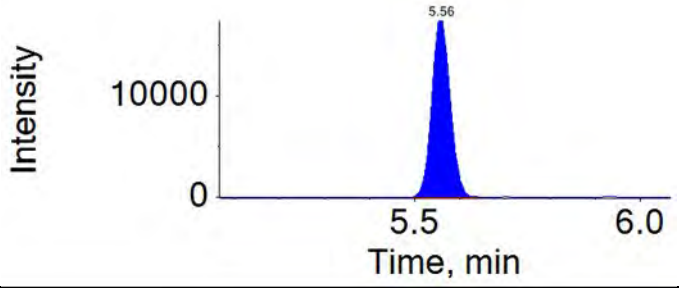
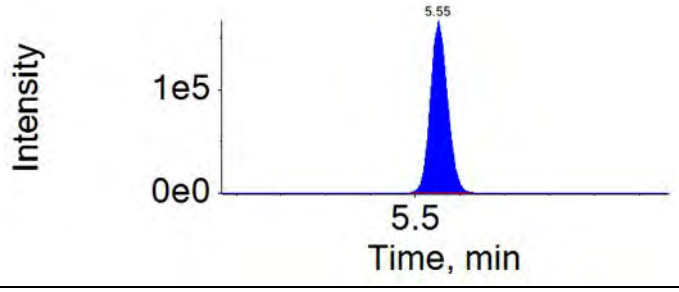
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

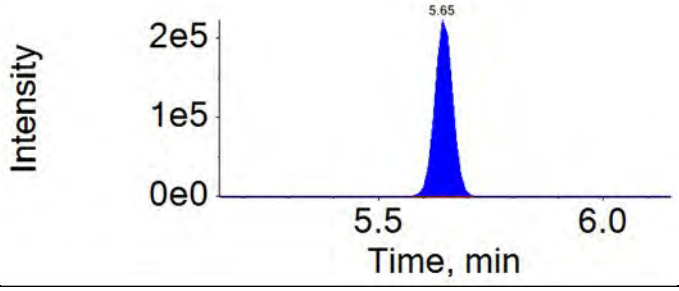
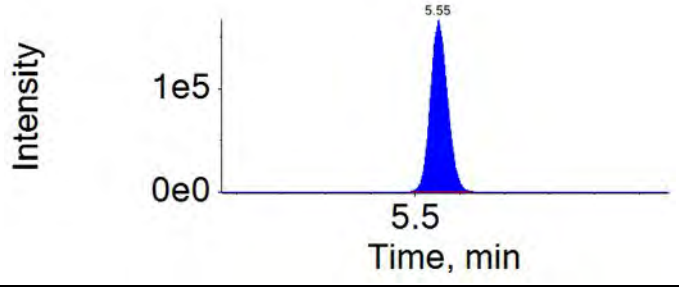
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

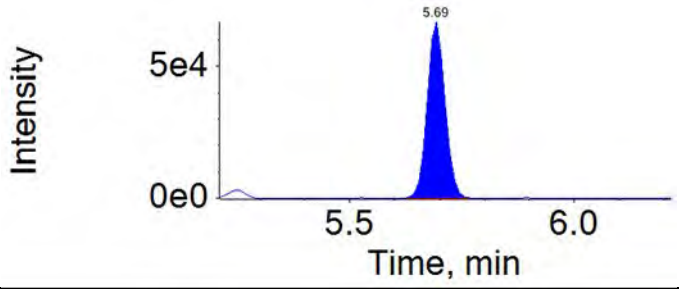
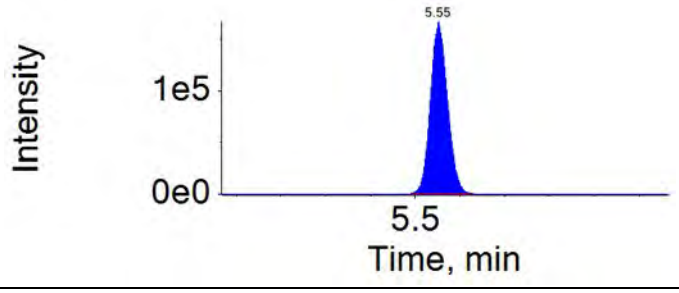
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

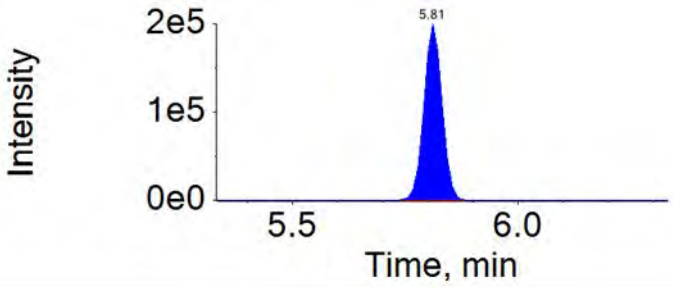
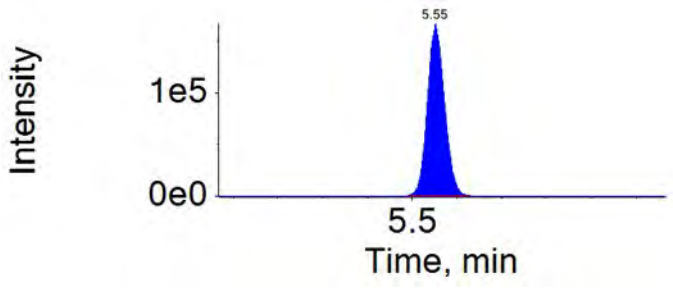
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

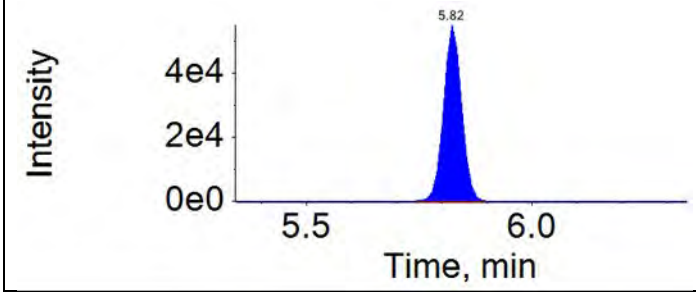
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

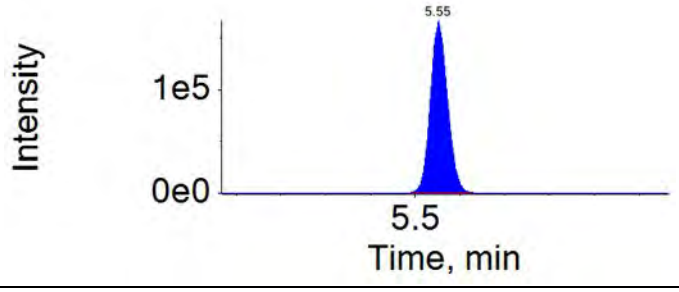
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

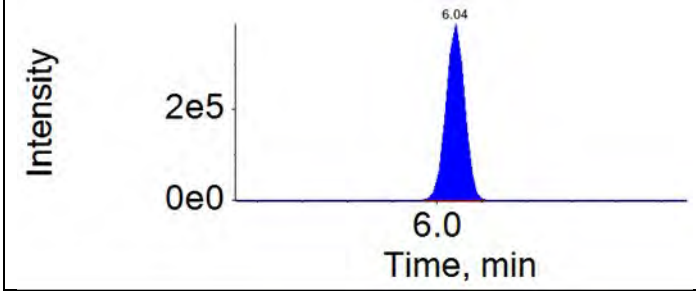
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

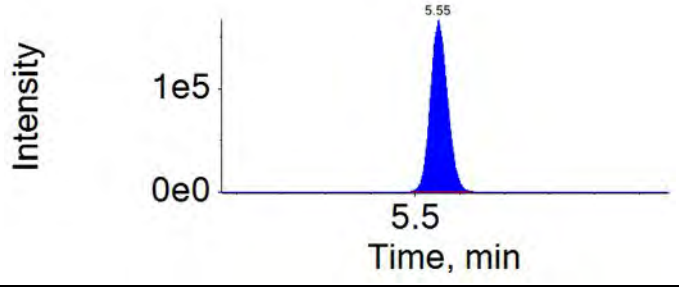
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



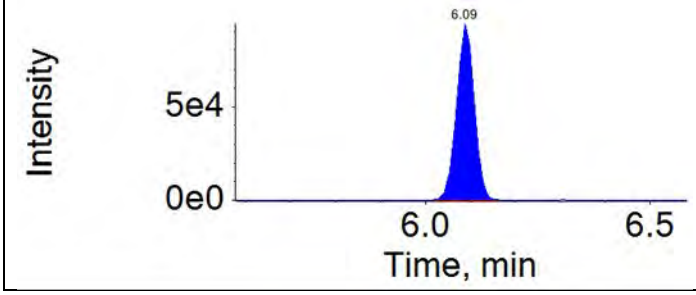


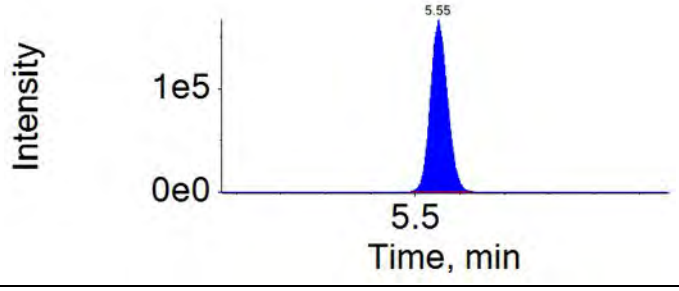
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



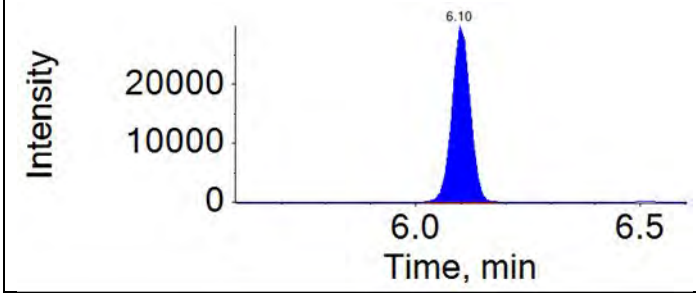


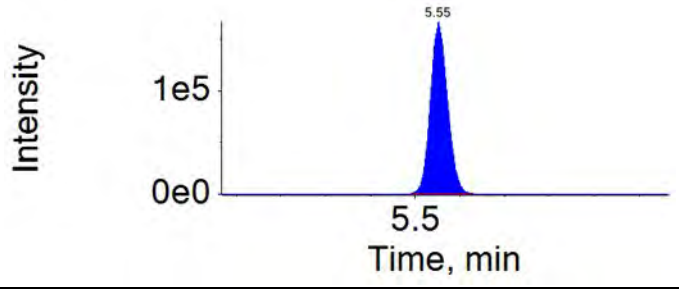
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



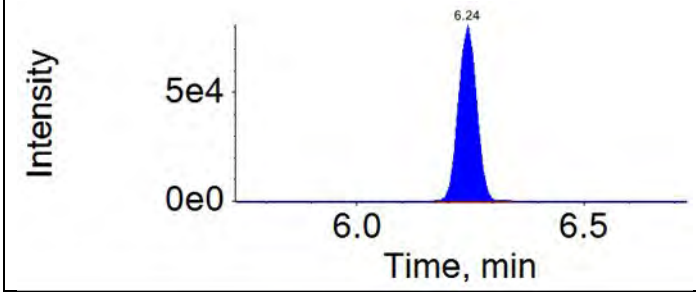


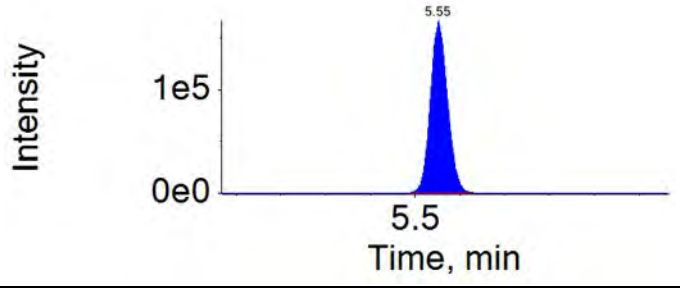
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

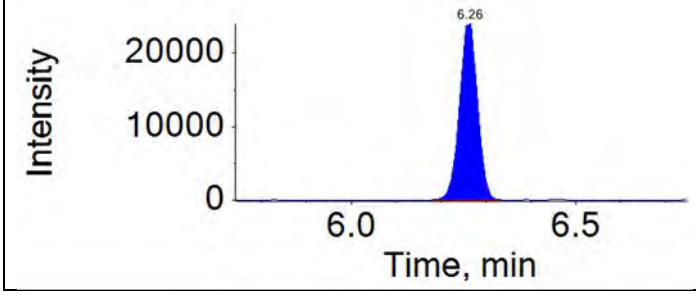
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

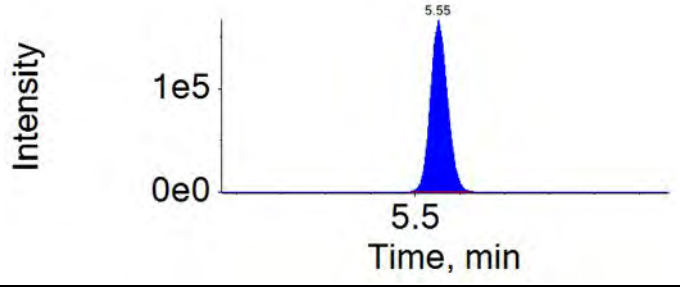
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



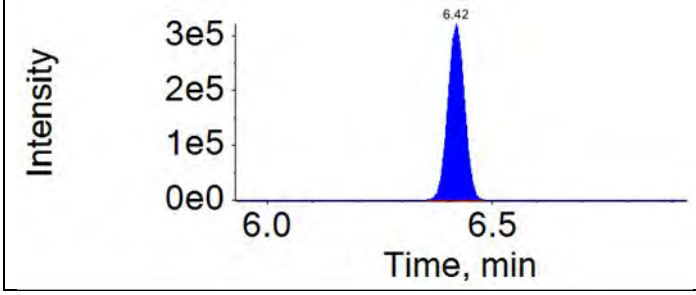


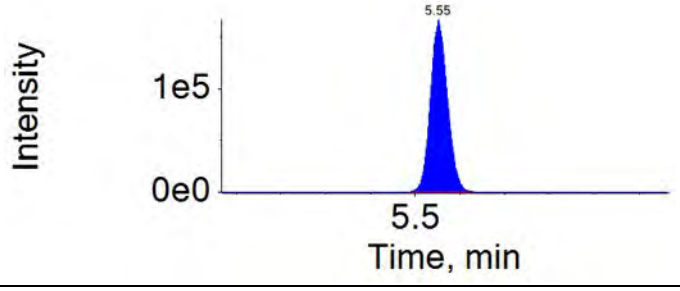
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



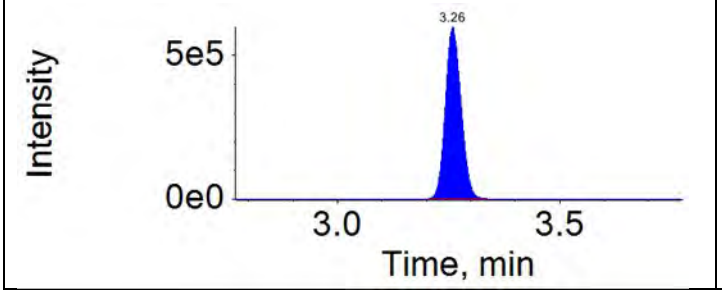


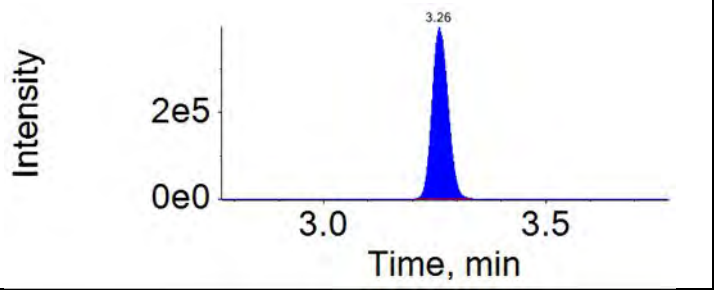
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

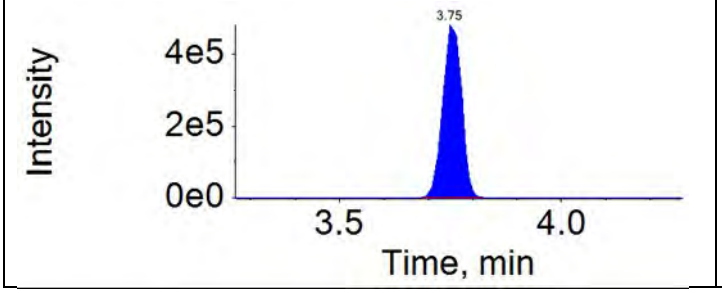
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

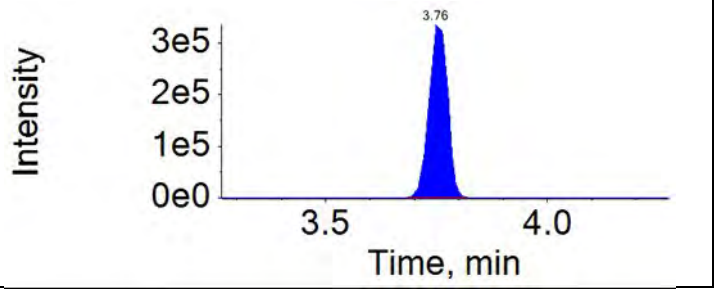
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



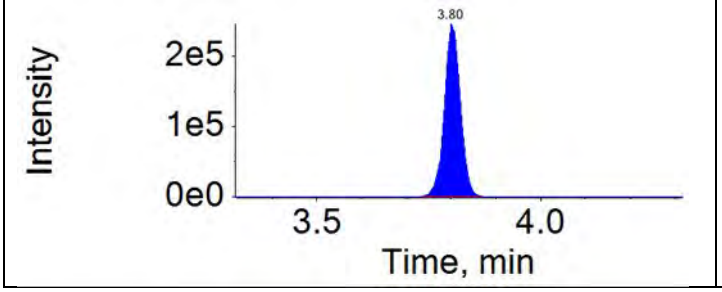


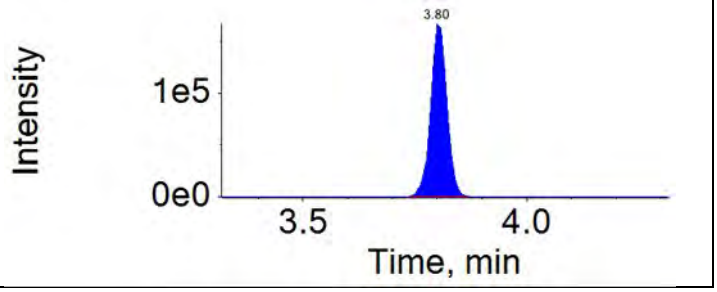
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



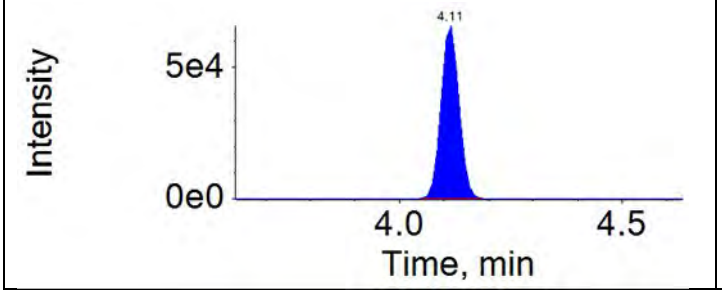


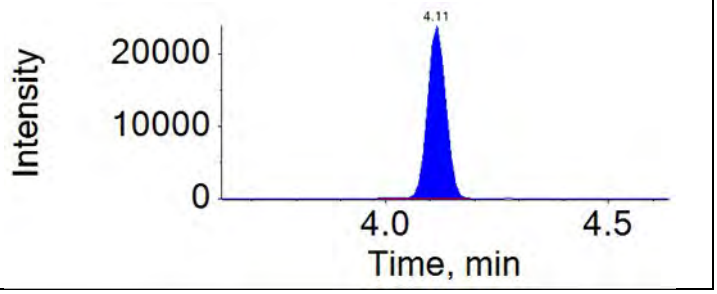
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

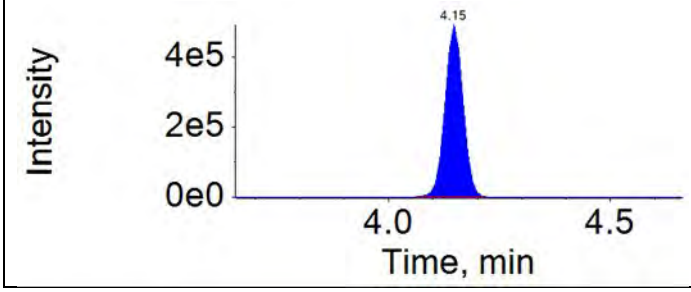
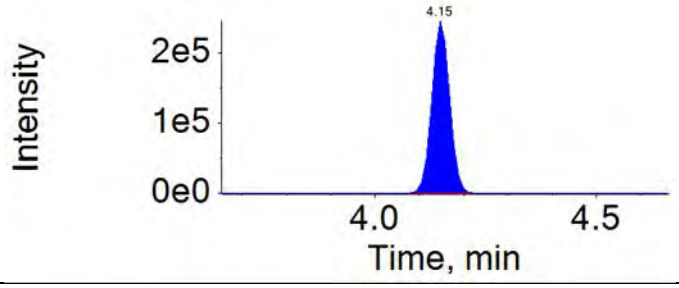


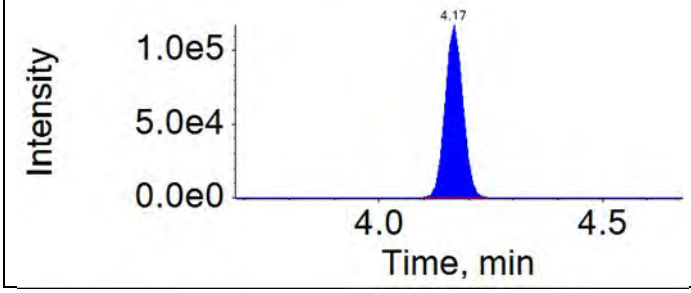
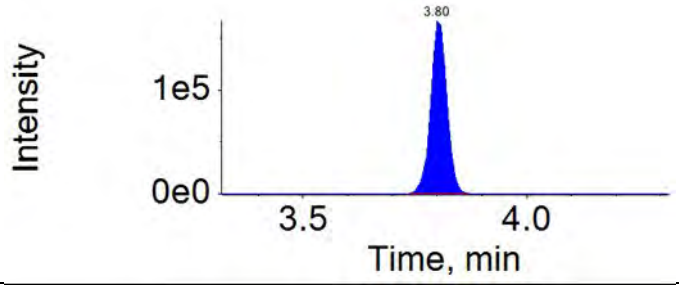


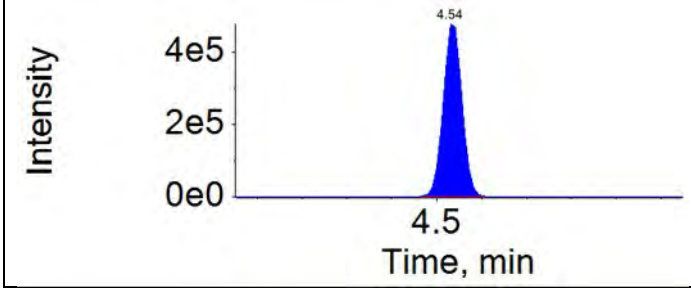
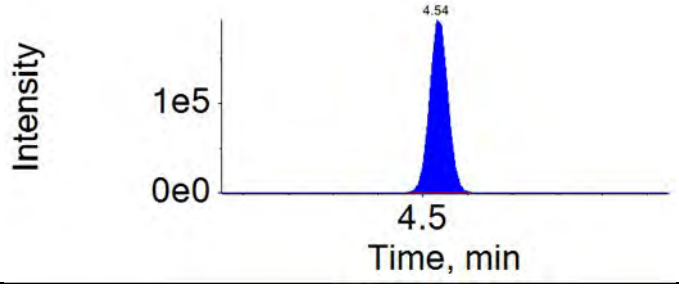
APPROVED
By MCD at 3:26 pm, 11/30/18

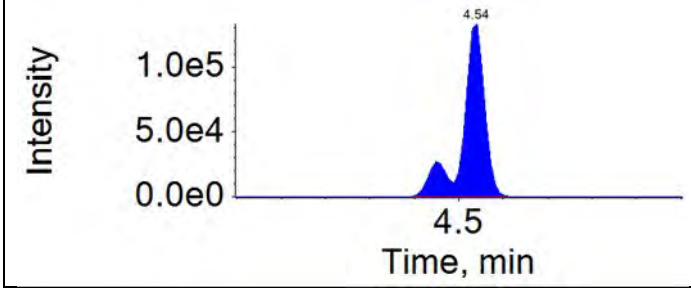
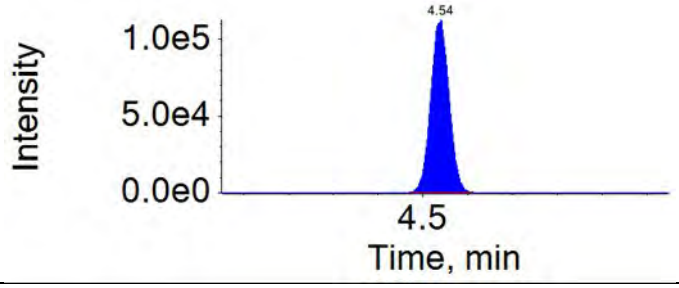
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

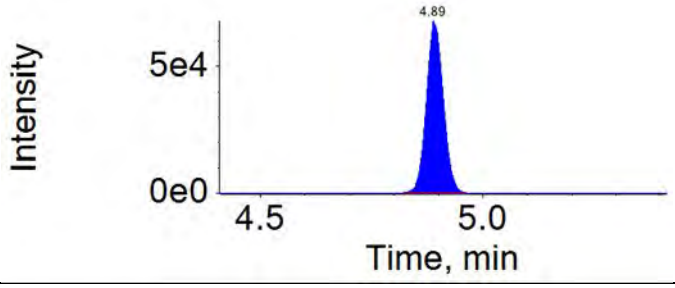
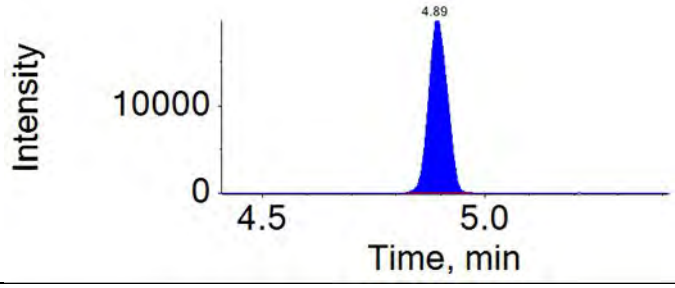
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

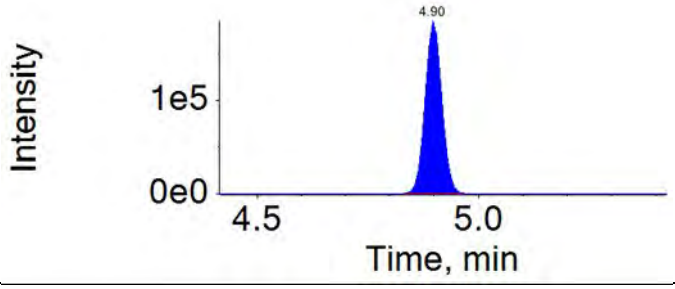
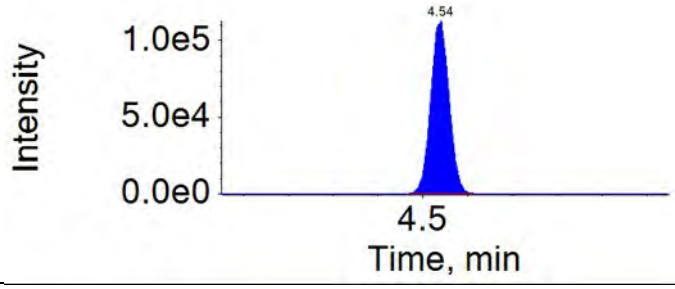
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

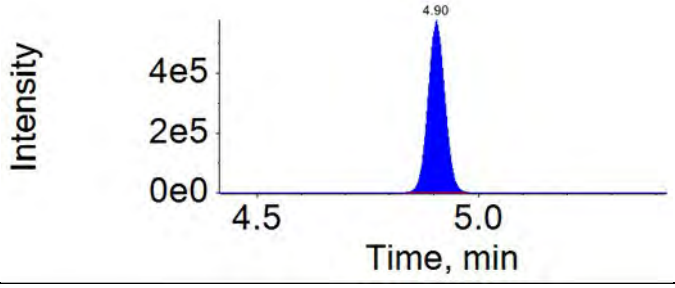
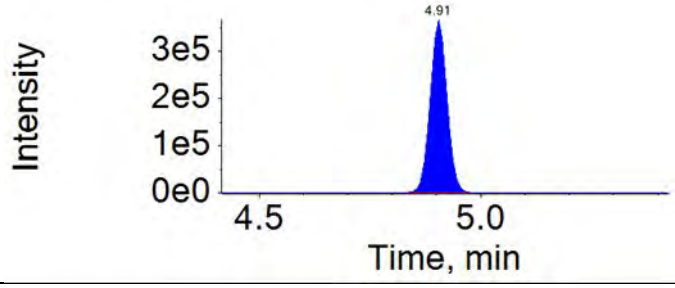
APPROVED
By MCD at 3:26 pm, 11/30/18

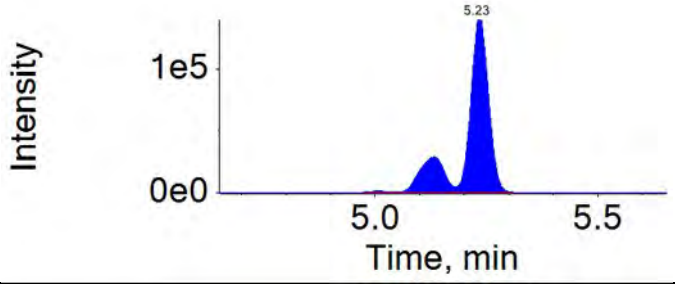
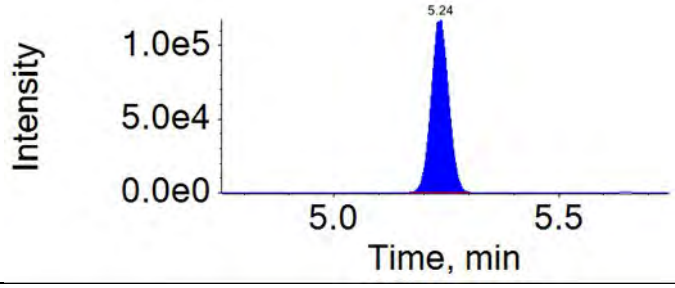
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

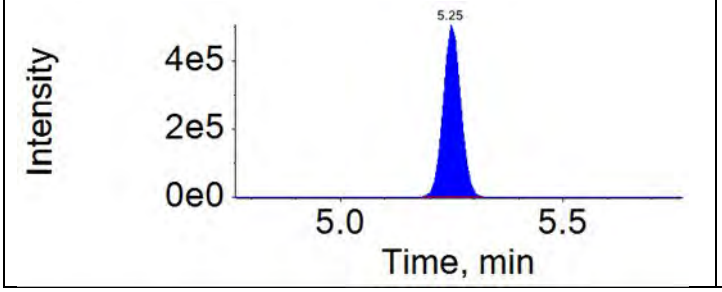
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

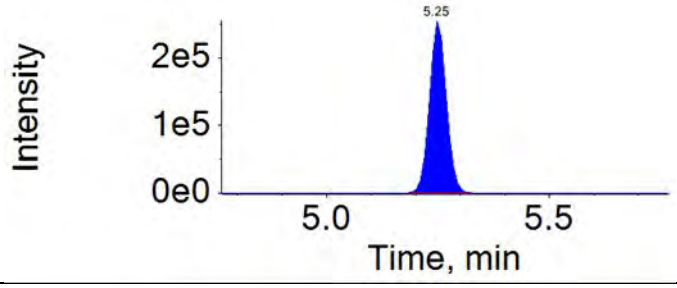
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

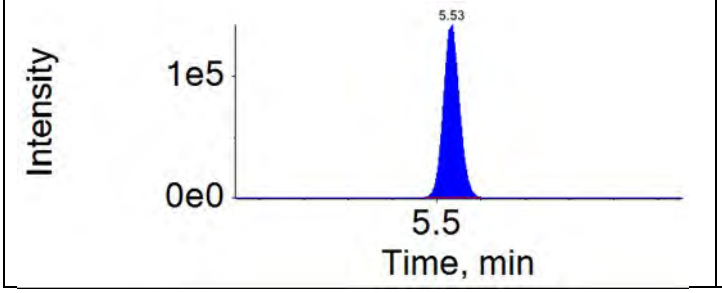
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

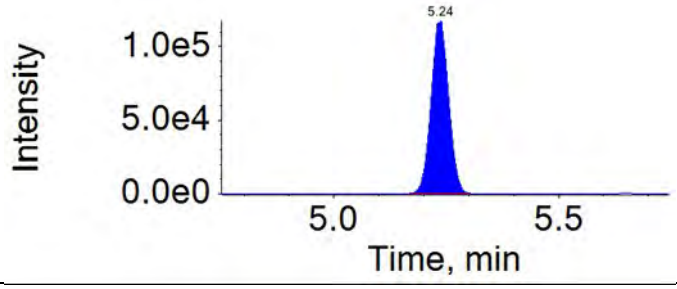
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



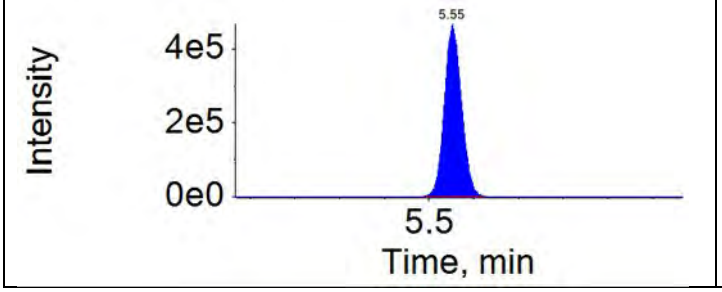


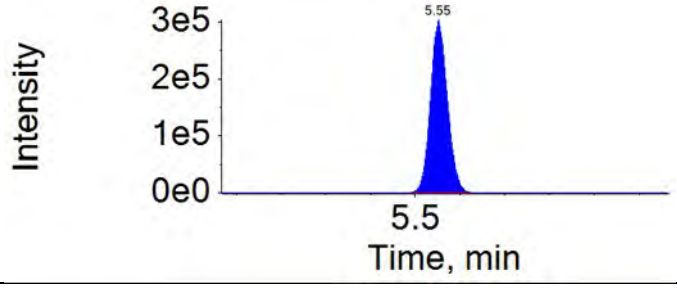
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



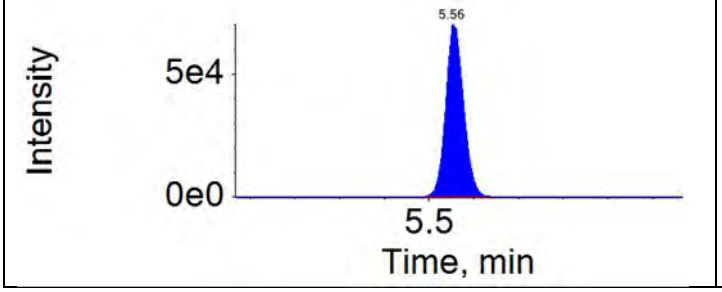


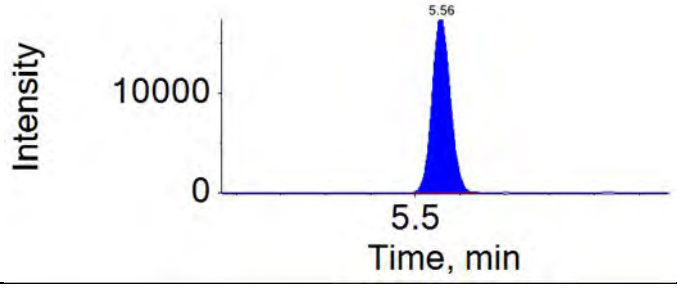
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

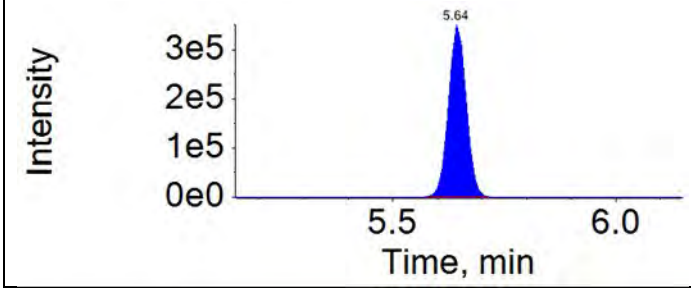
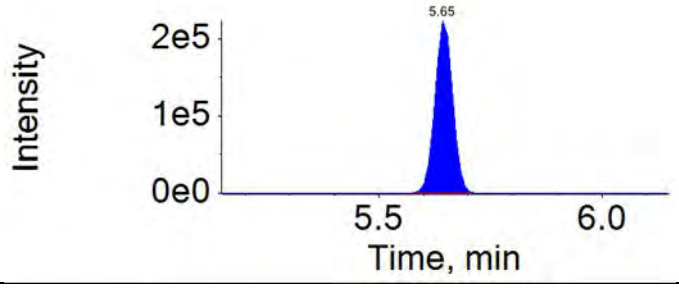


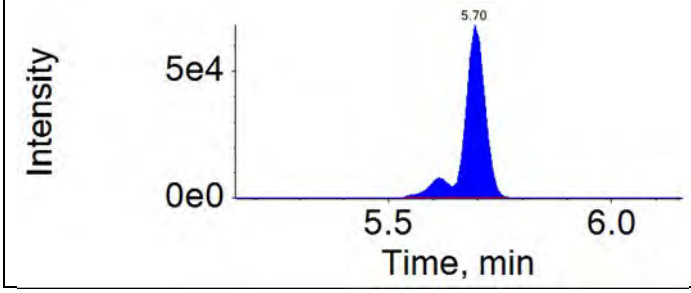
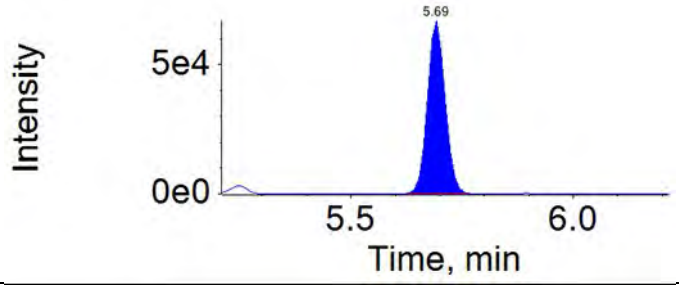


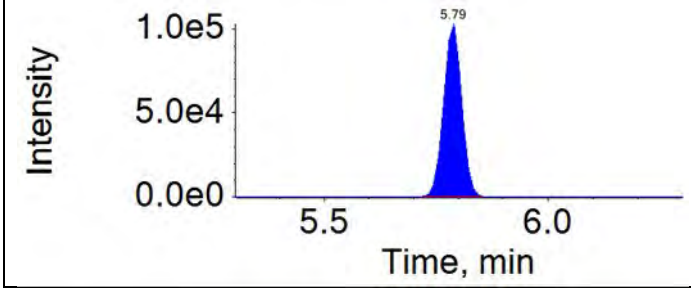
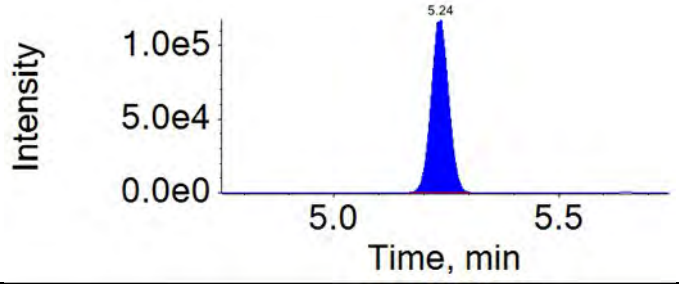
APPROVED
By MCD at 3:26 pm, 11/30/18

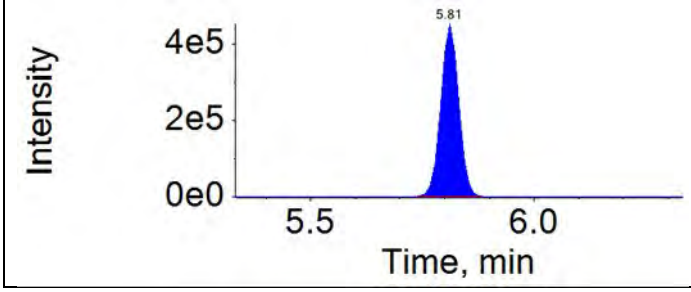
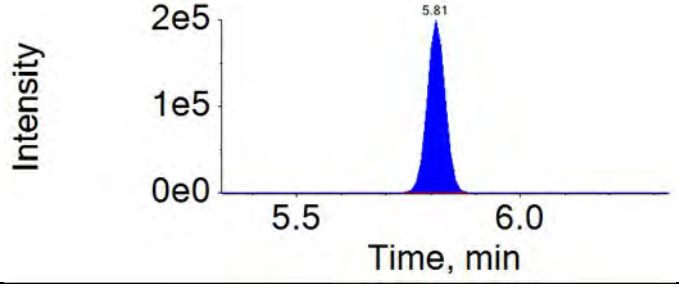
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

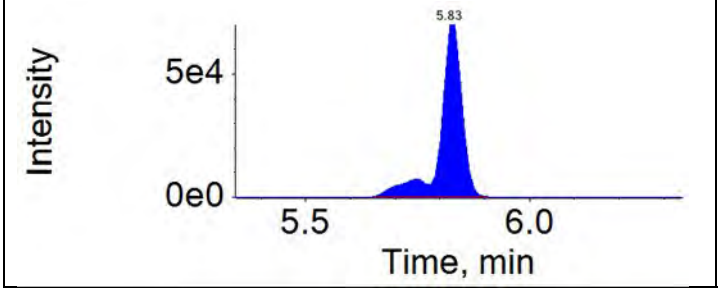
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

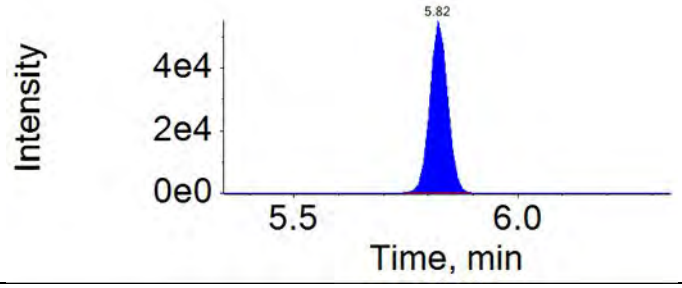
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

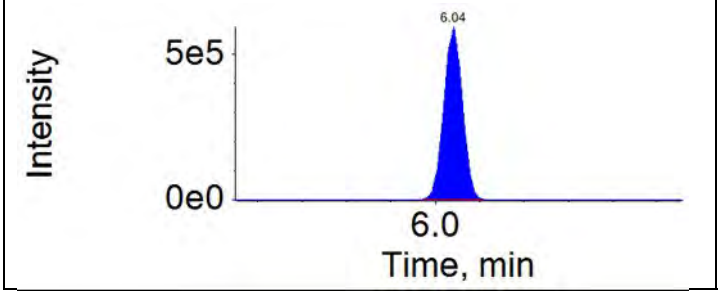
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

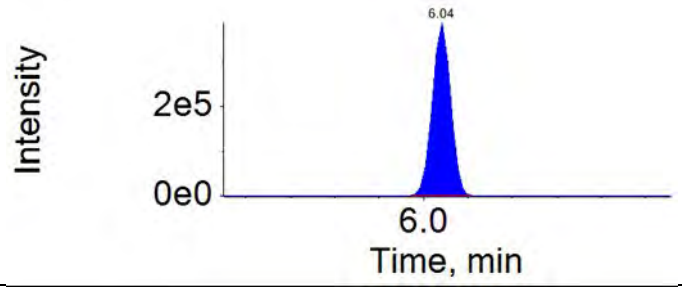
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



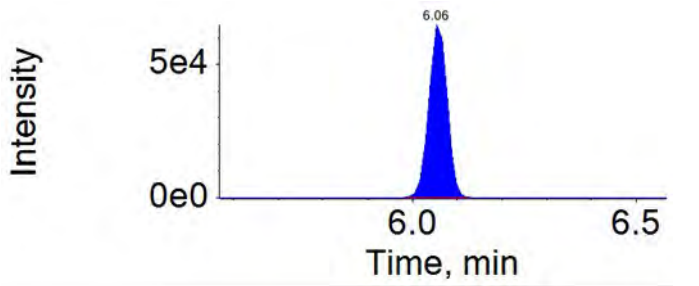


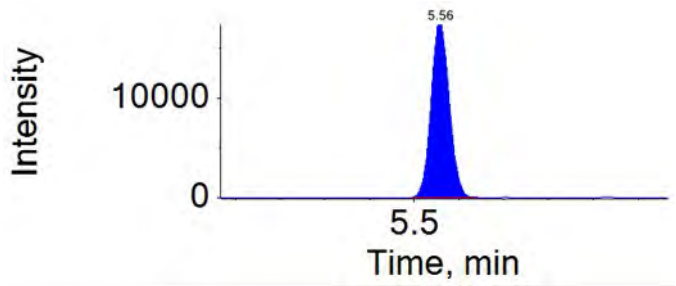
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



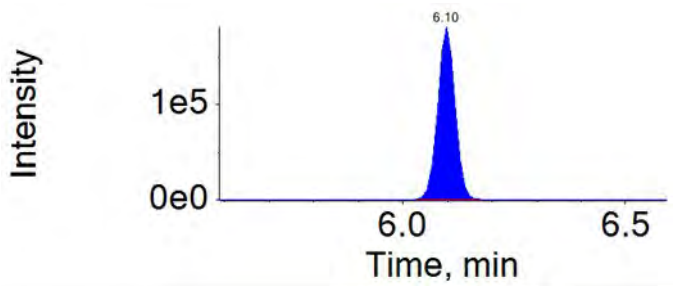


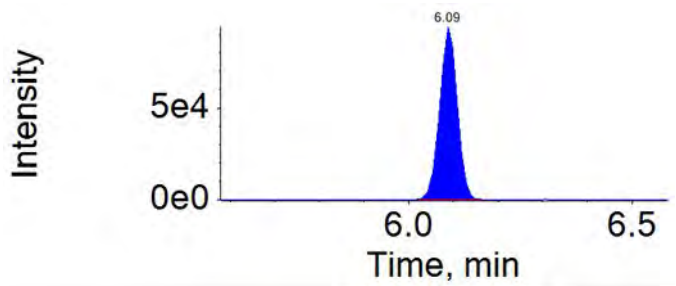
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



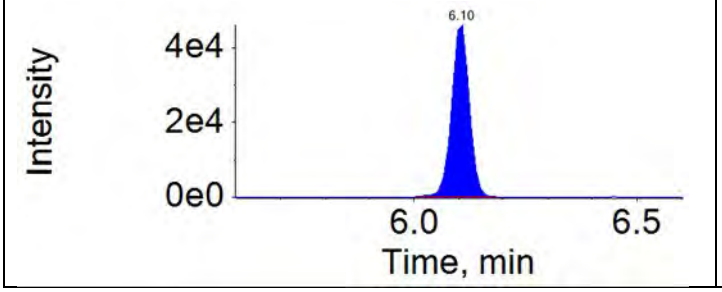


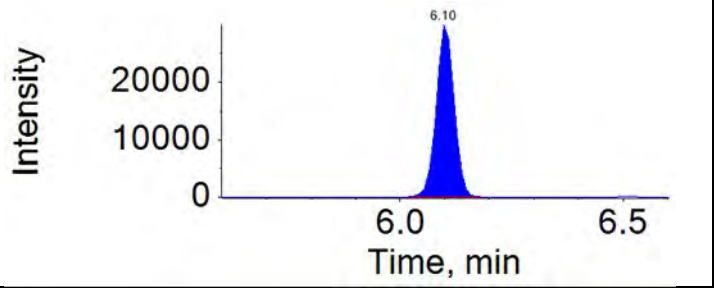
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

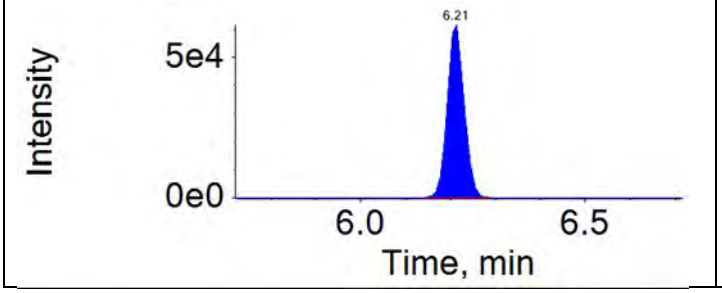
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

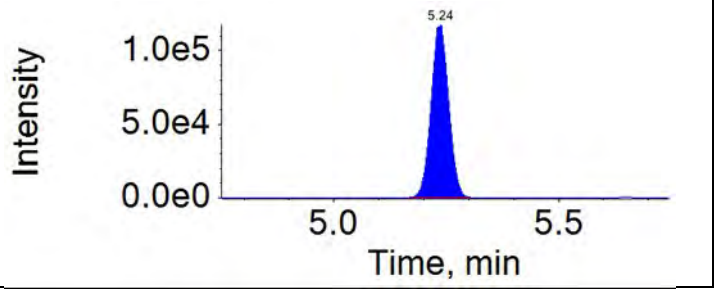
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



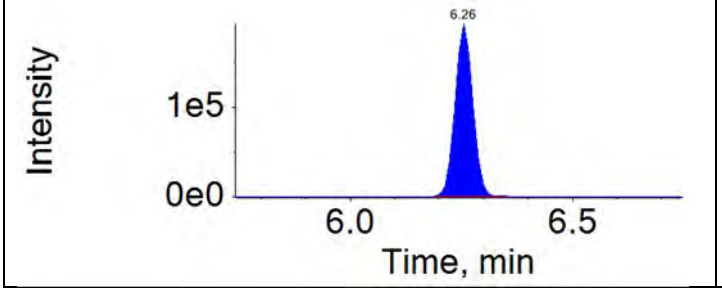


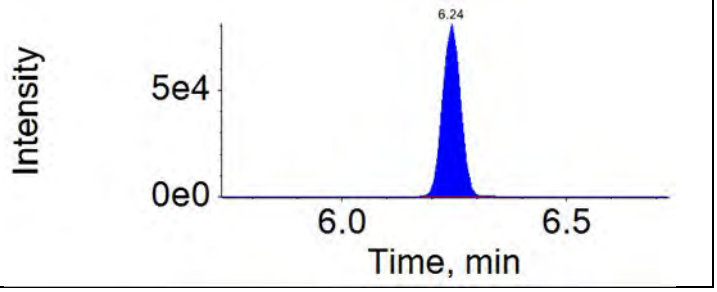
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



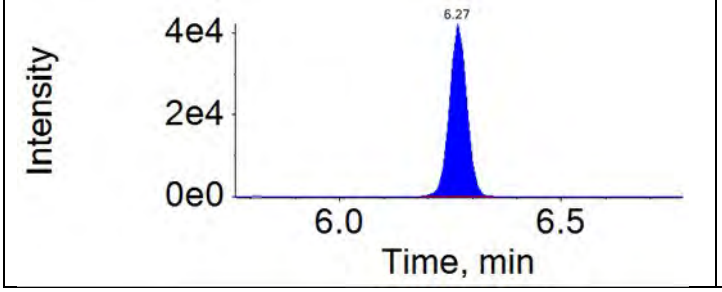


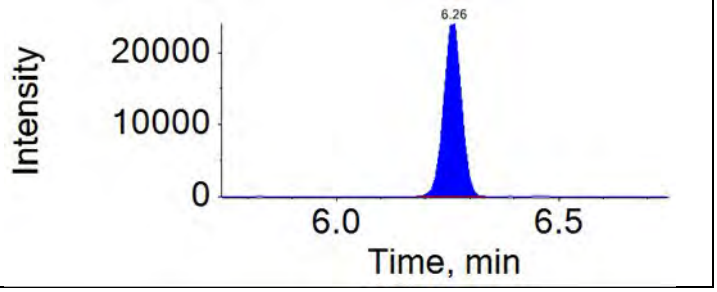
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



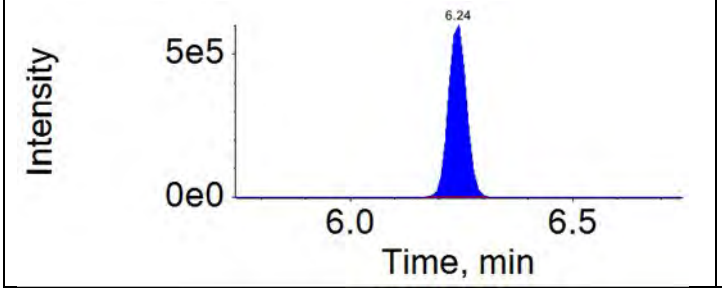


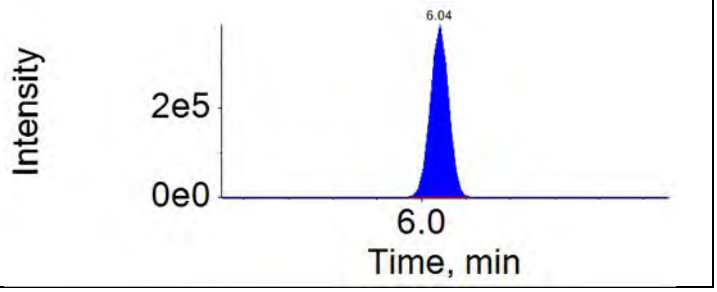
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

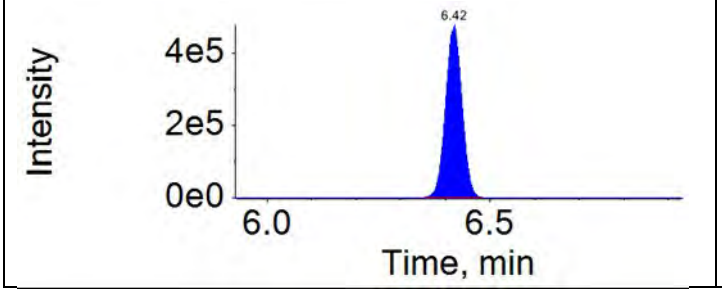
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

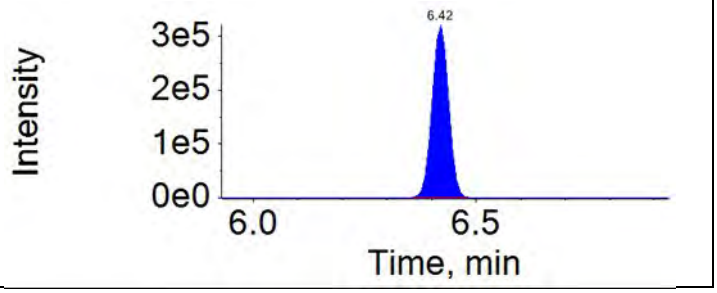
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



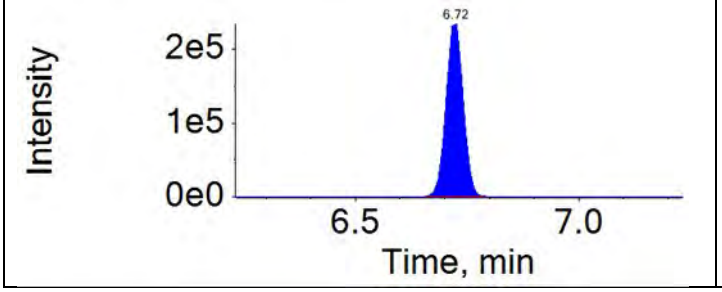


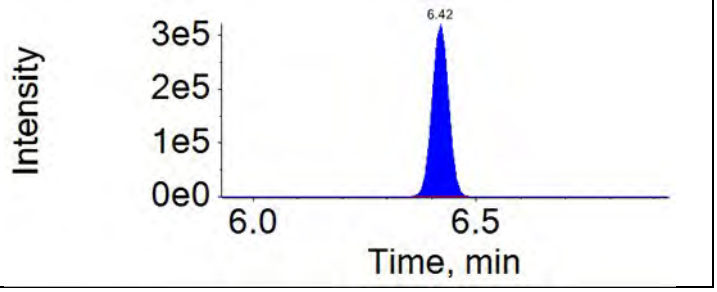
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



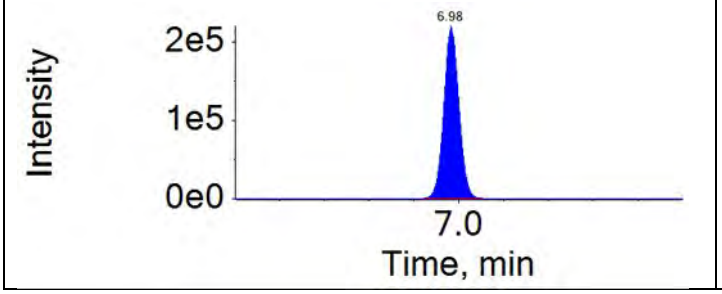


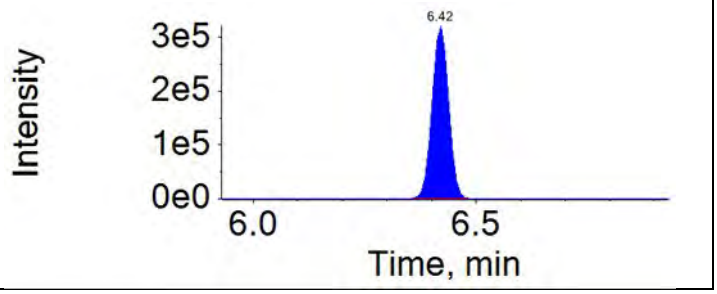
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



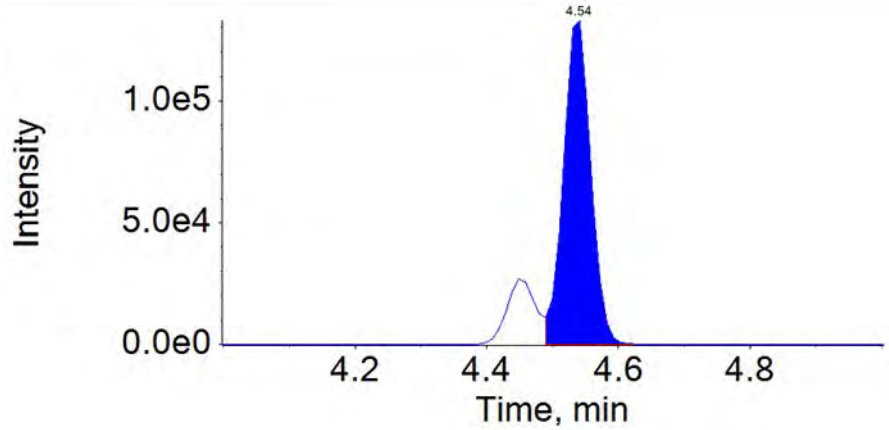


APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

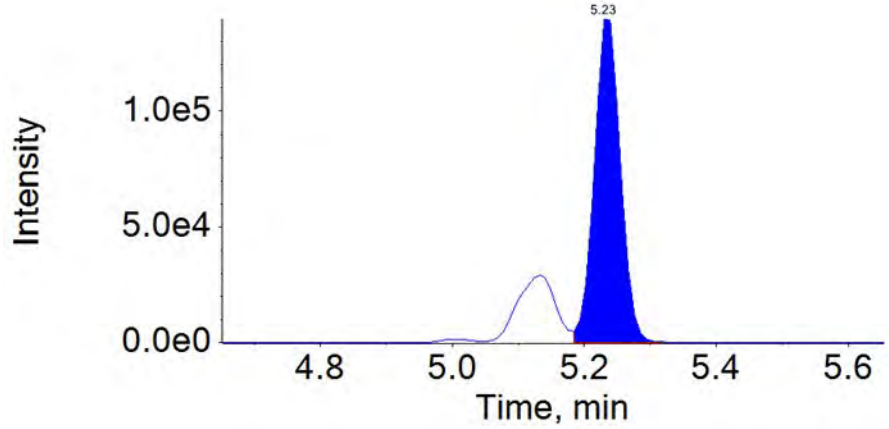
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



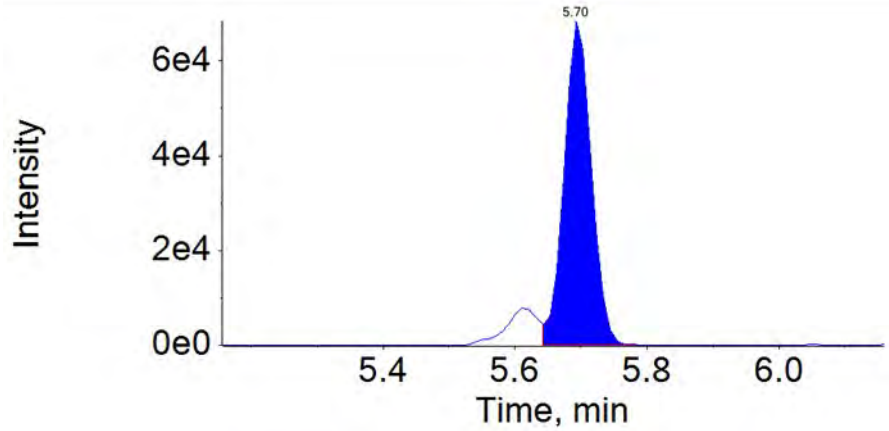
Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
196666.7
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



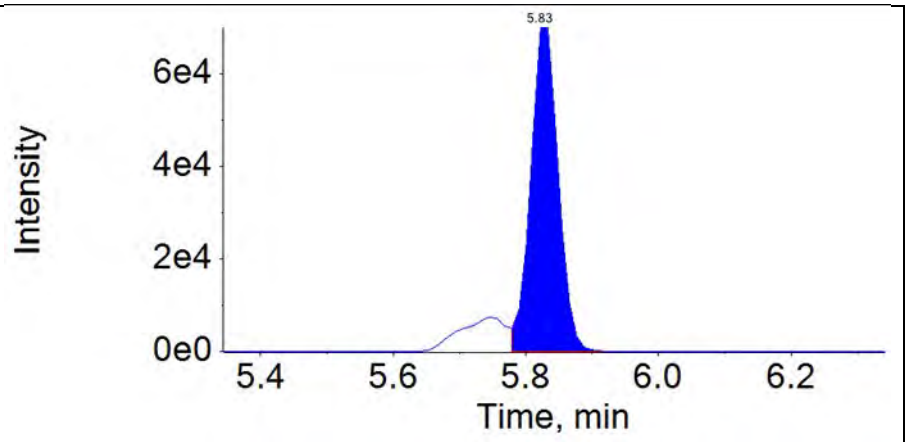
Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

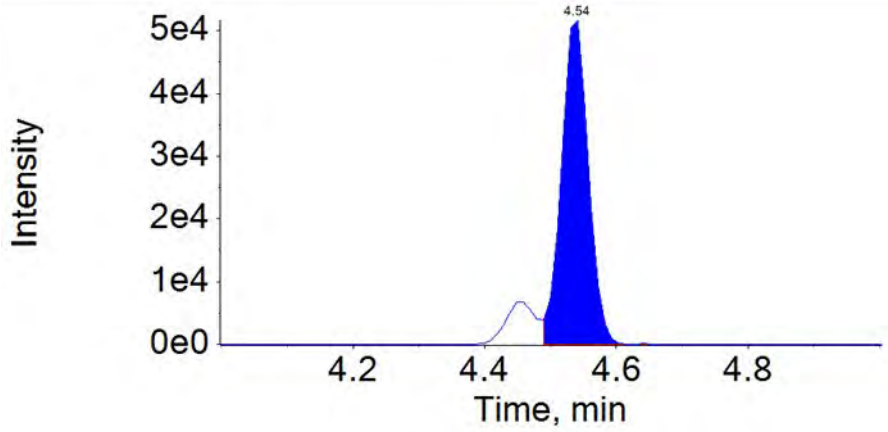
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.83
Peak Area:
203534.1
Mass Range:
584.0 / 419.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



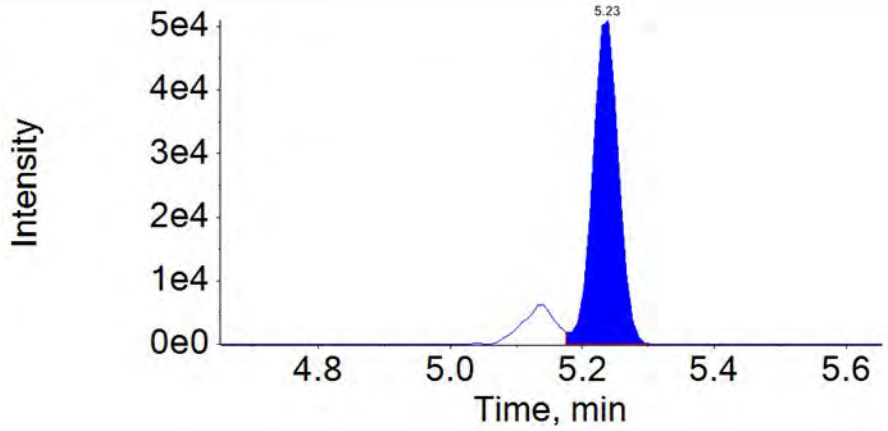
Integration Comment: incorrect integration

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



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.23
Peak Area:
139568.4
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
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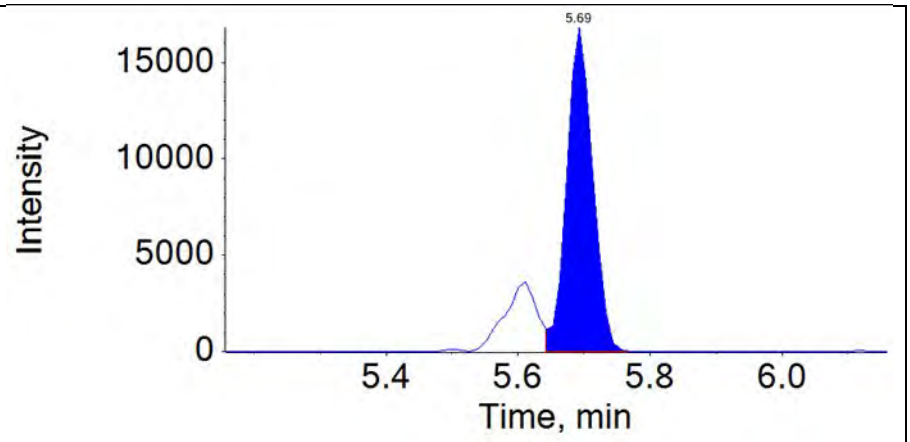
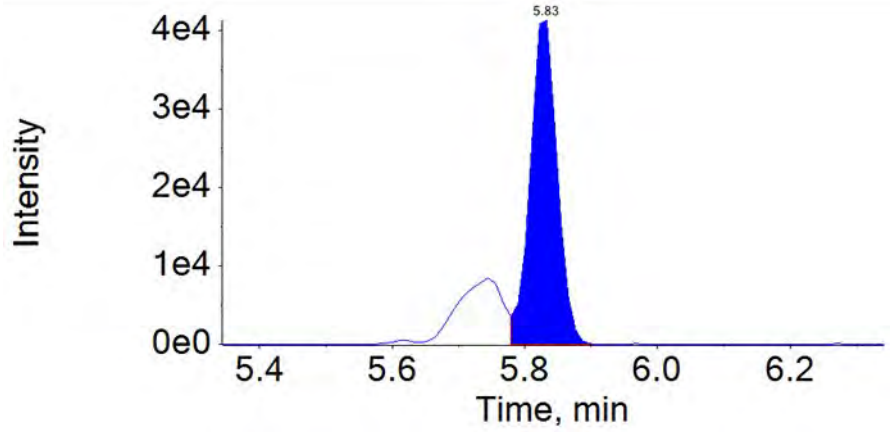
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.69
Peak Area:
46000.9
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



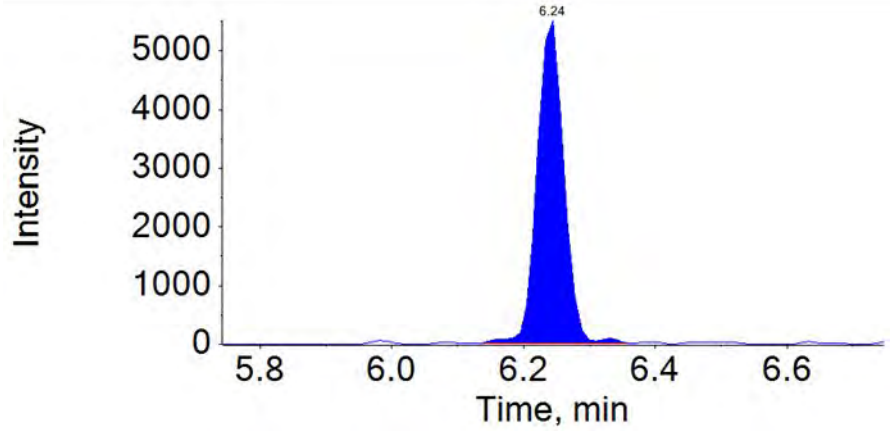
Integration Comment: incorrect integration

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:
PFTrDA_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

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

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

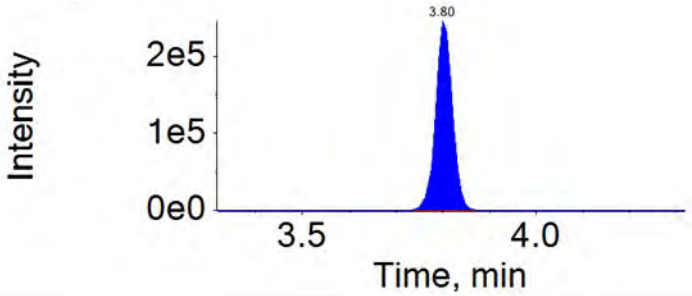
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV29D-64.wiff

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	609993.7	A	N/A	0.3626			
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	
PFTrDA	6.24	1.03	1695782.7	A	N/A	0.0091			
PFTrDA_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	

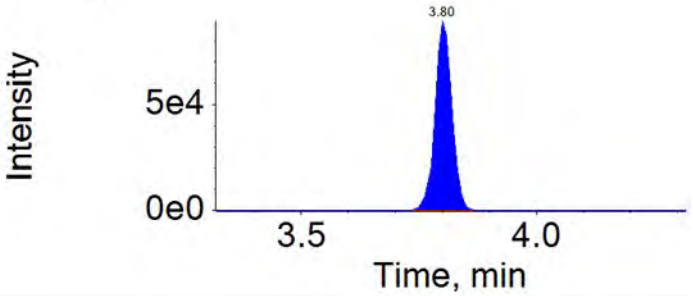
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

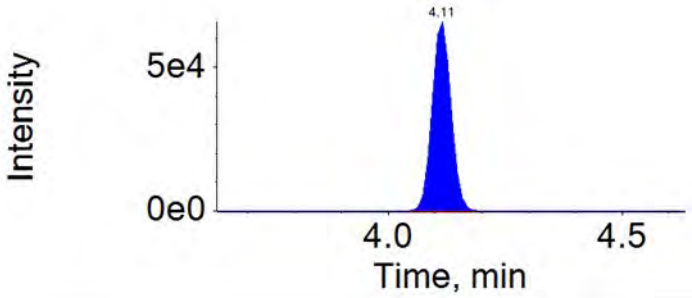
Component: PFBS
Primary Mass: 299.0 / 80.0



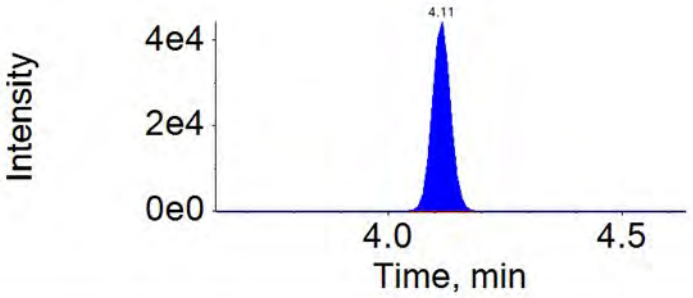
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



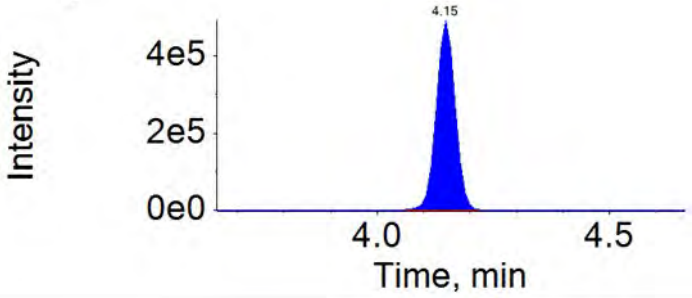
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



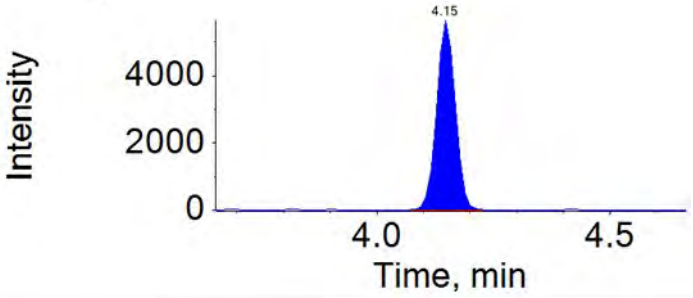
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



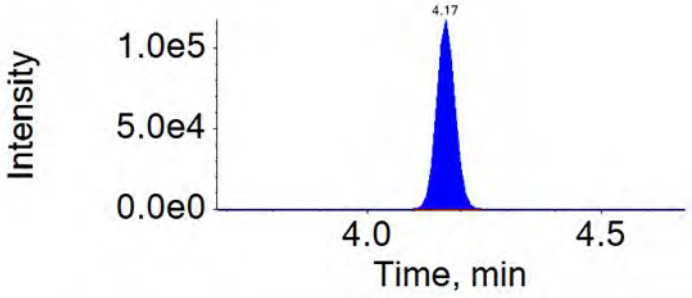
Component: PFHxA
Primary Mass: 313.0 / 269.0



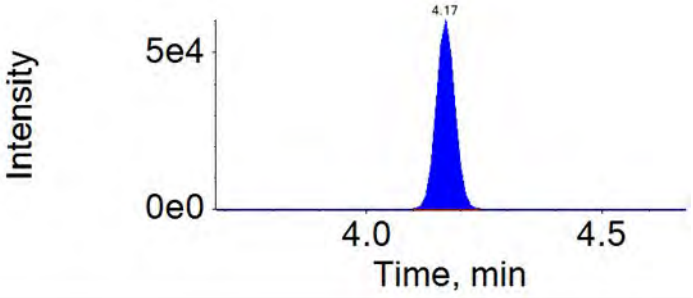
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



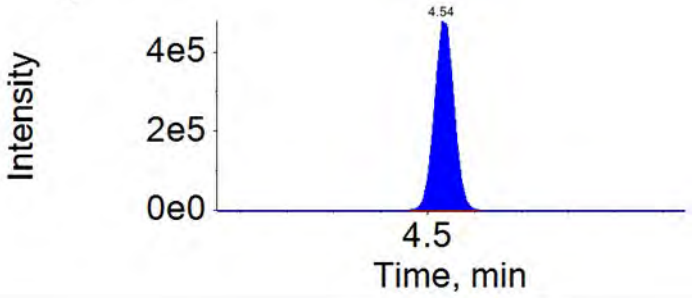
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



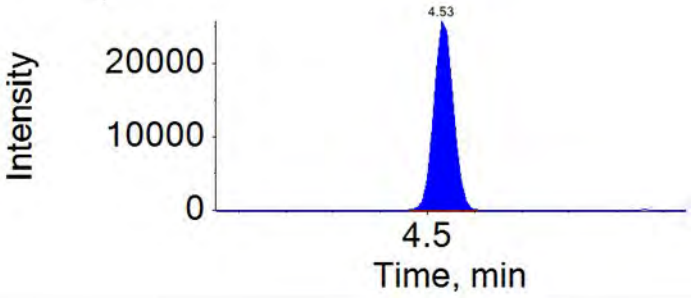
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

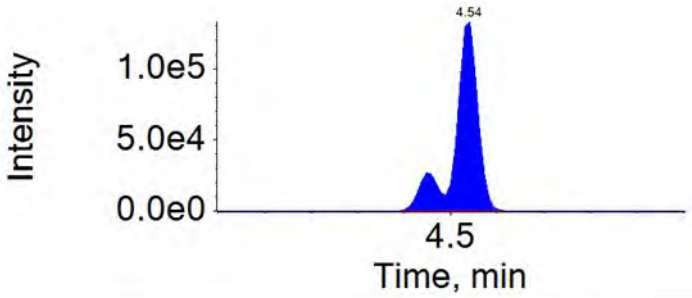
Component: PFHpA
Primary Mass: 363.0 / 319.0



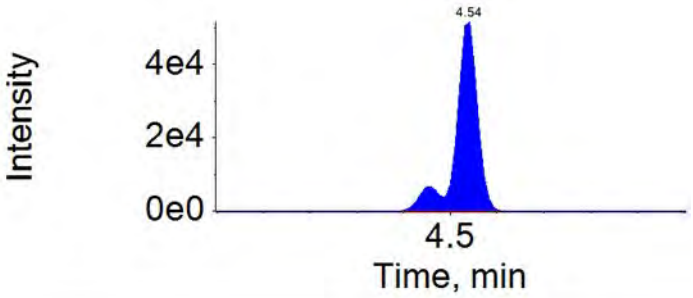
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



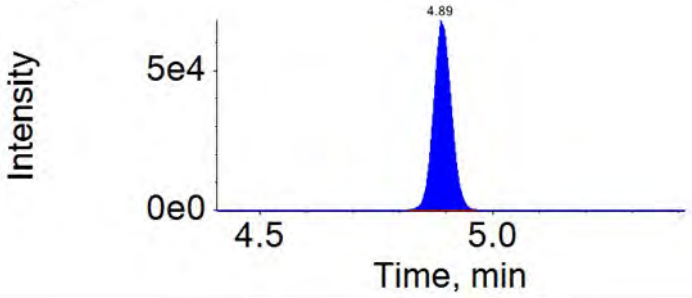
Component: PFHxS
Primary Mass: 399.0 / 80.0



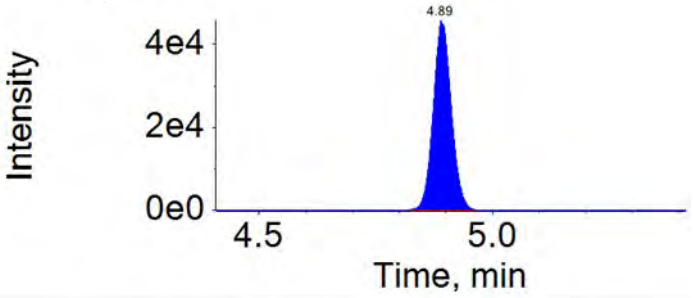
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



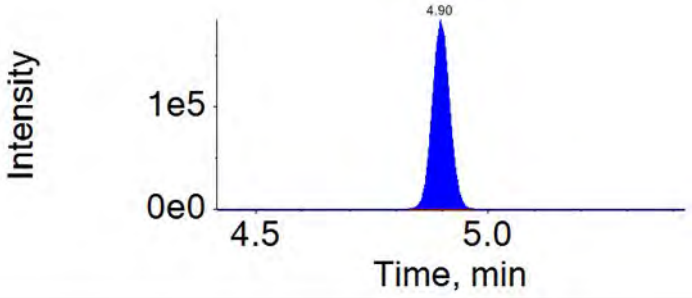
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



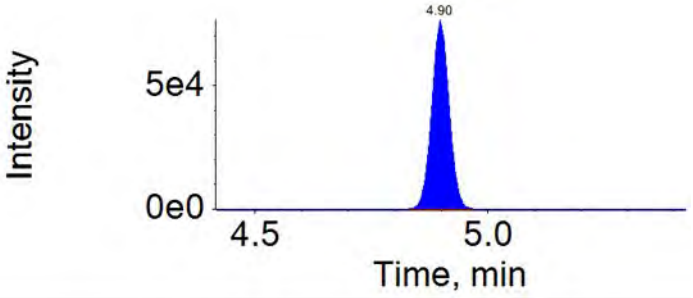
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



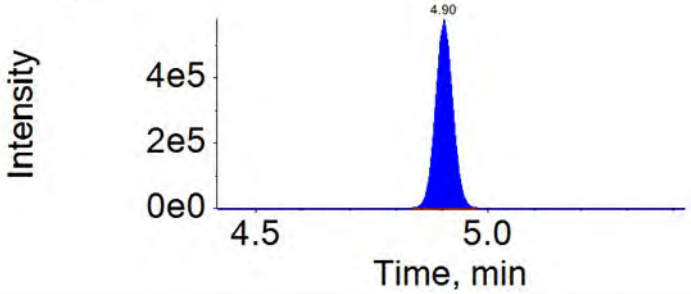
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



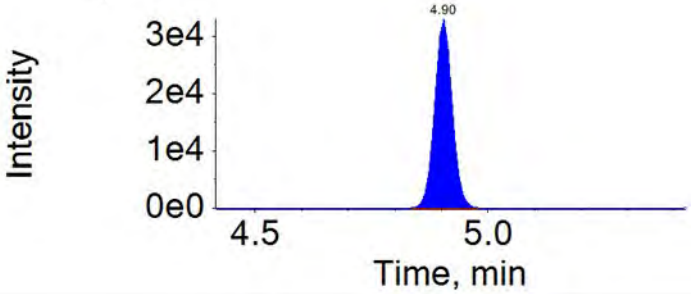
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

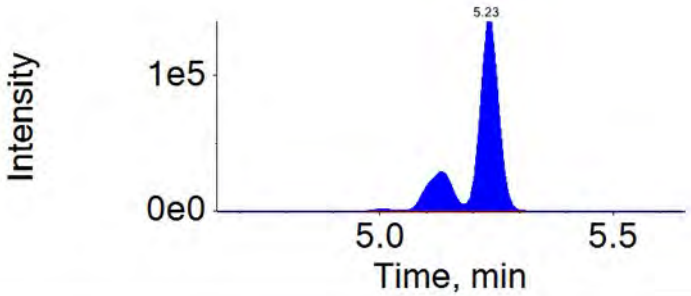
Component: PFOA
Primary Mass: 413.0 / 369.0



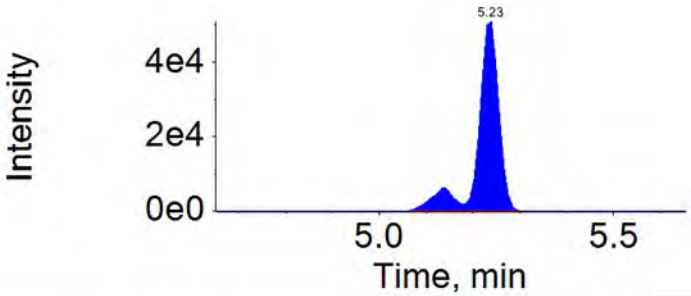
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



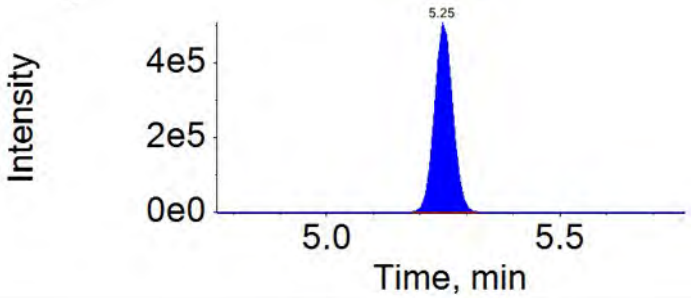
Component: PFOS
Primary Mass: 499.0 / 80.0



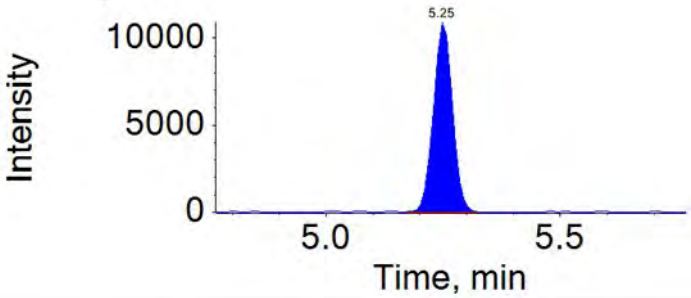
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



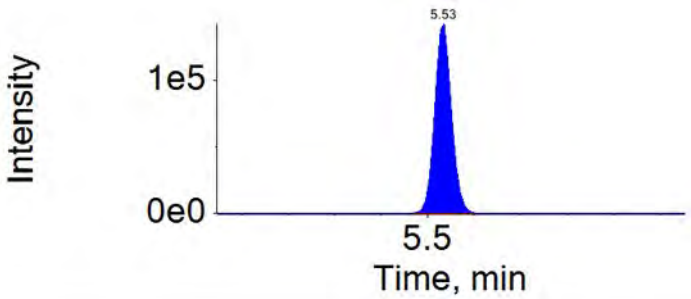
Component: PFNA
Primary Mass: 463.0 / 419.0



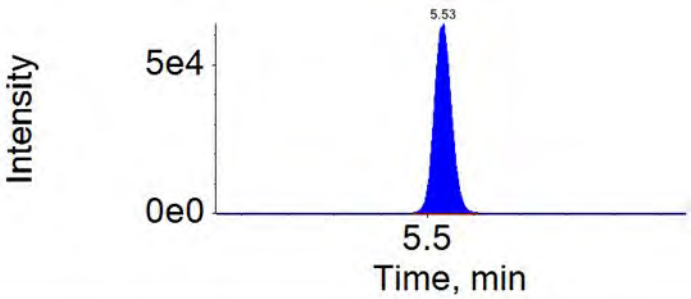
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



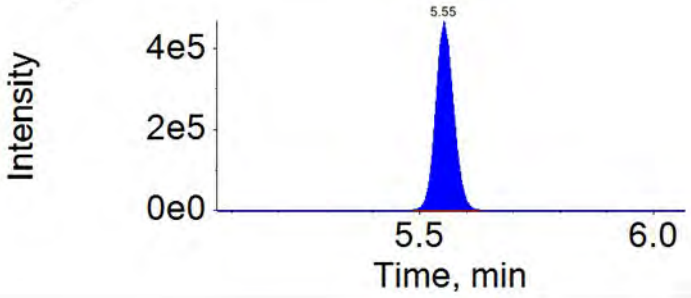
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



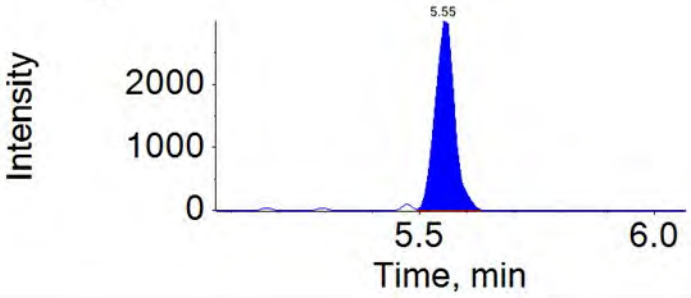
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

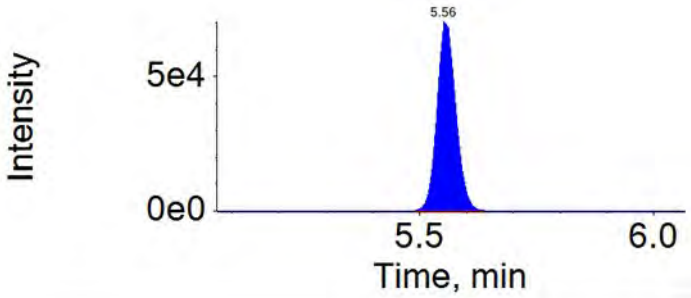
Component: PFDA
Primary Mass: 513.0 / 469.0



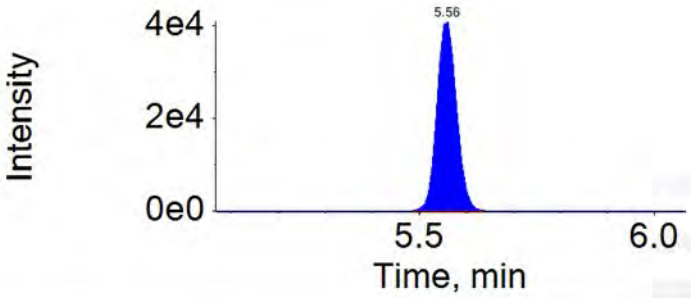
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



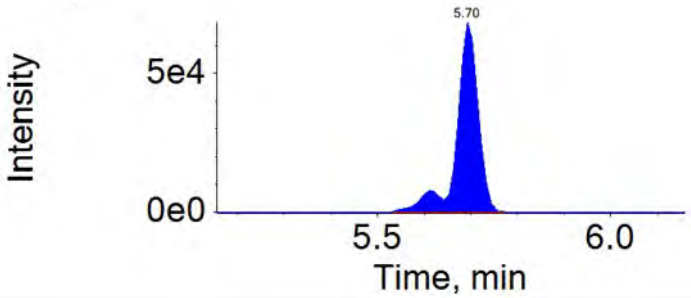
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



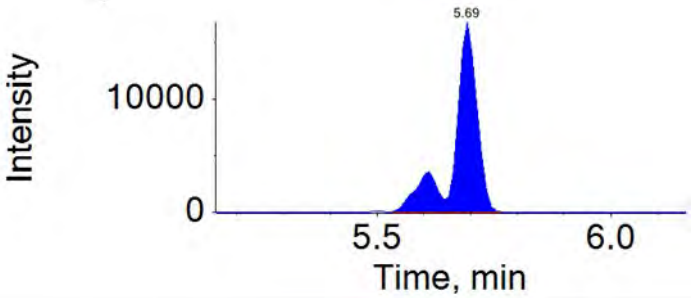
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



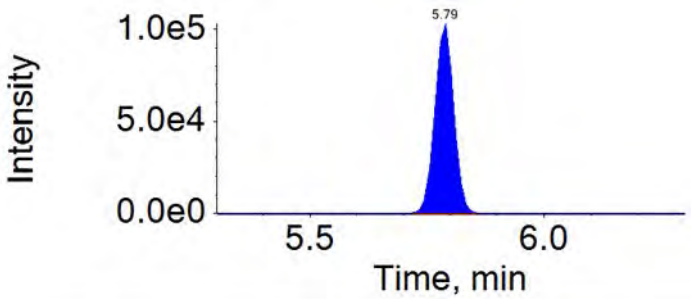
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



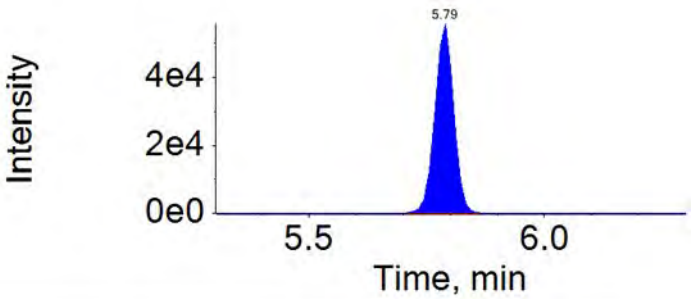
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



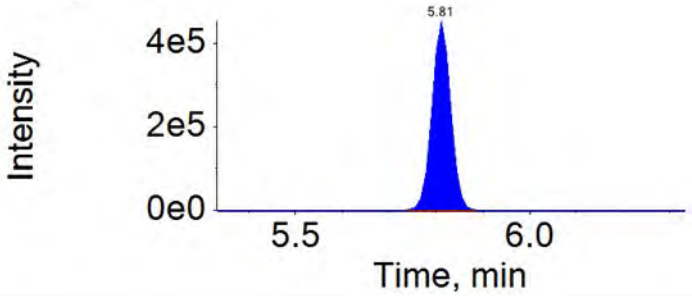
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



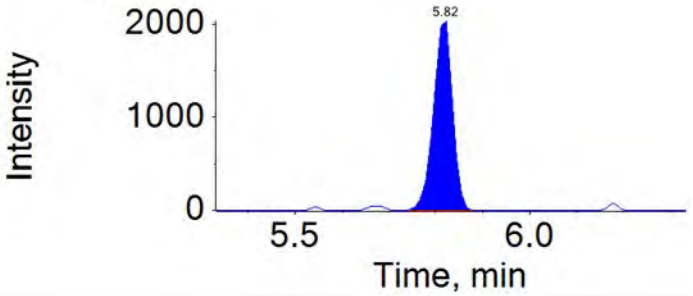
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

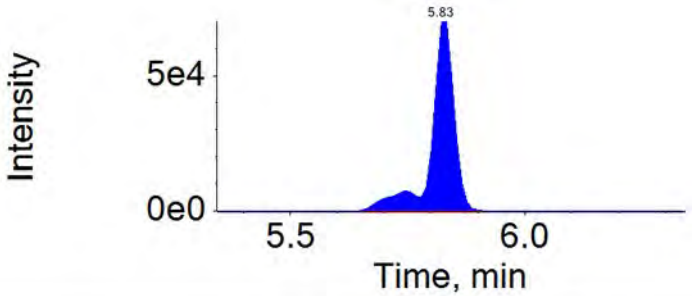
Component: PFUnDA
Primary Mass: 563.0 / 519.0



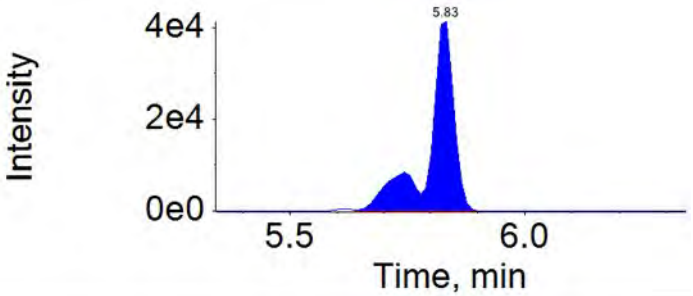
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



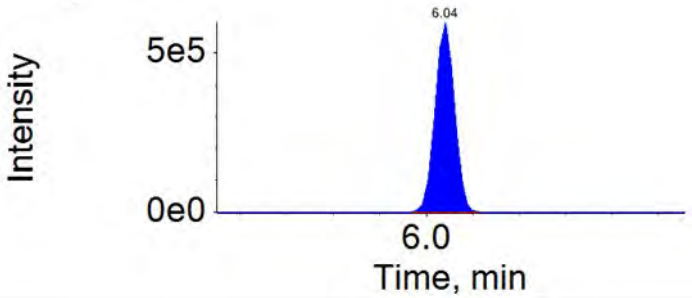
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



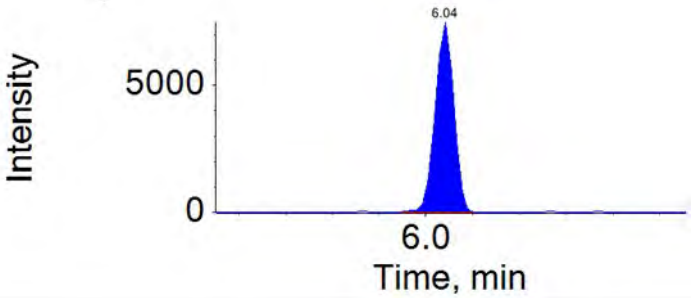
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



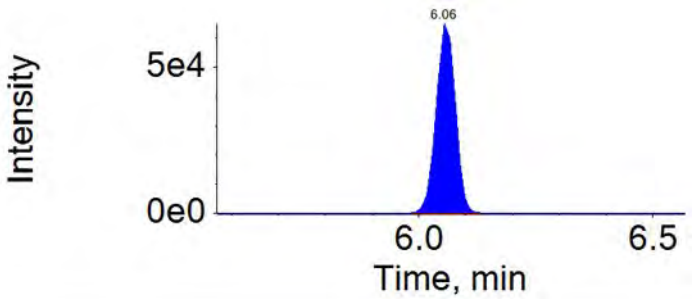
Component: PFDoDA
Primary Mass: 613.0 / 569.0



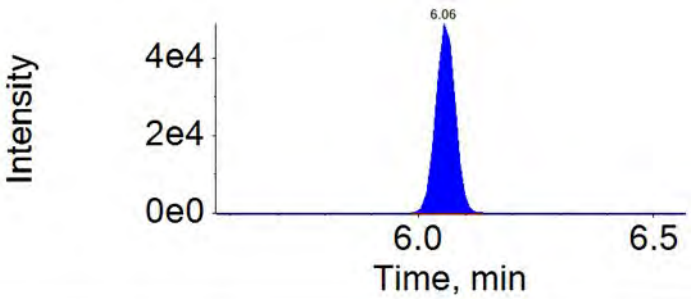
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



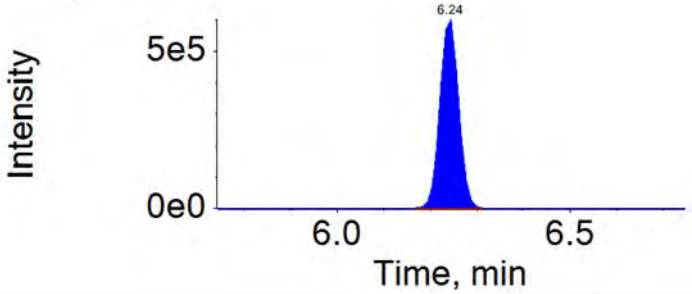
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



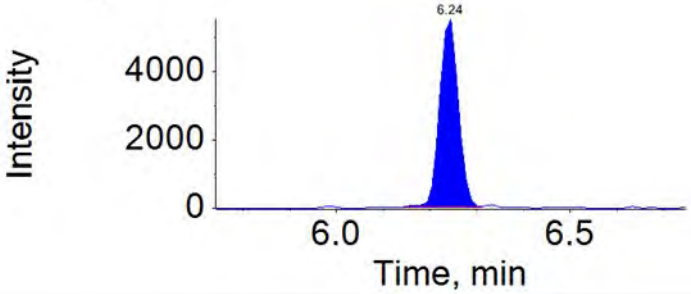
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



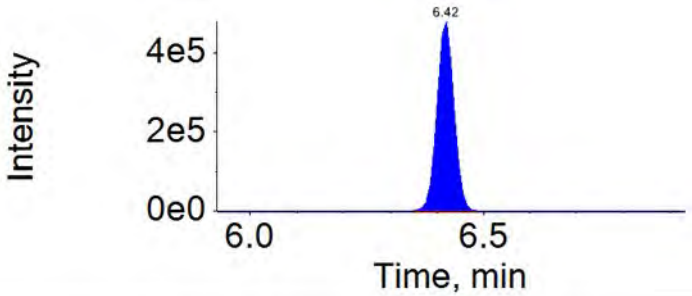
Component: PFTrDA
Primary Mass: 663.0 / 619.0



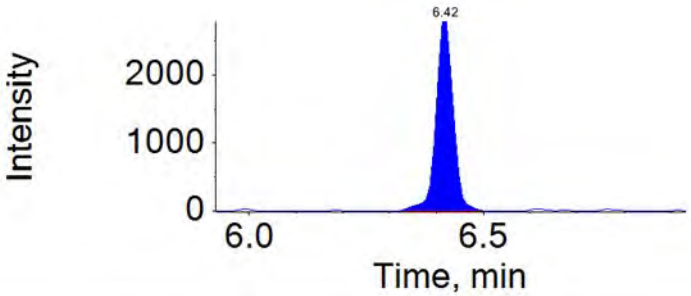
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



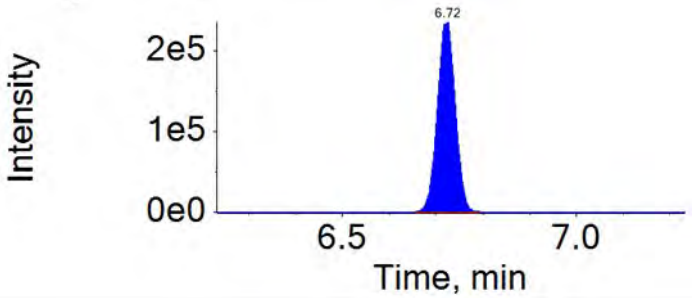
Component: PFTeDA
Primary Mass: 713.0 / 669.0



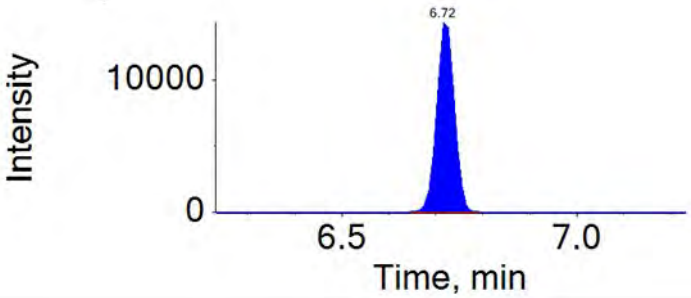
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



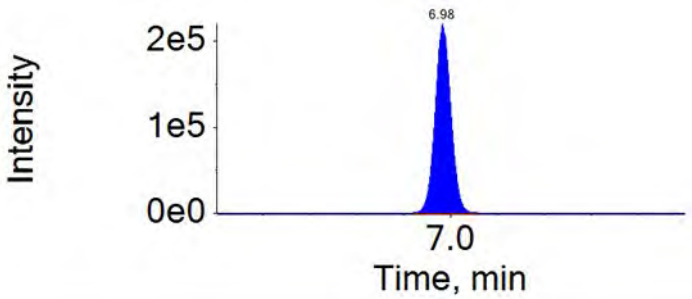
Component: PFHxDA
Primary Mass: 813.0 / 769.0



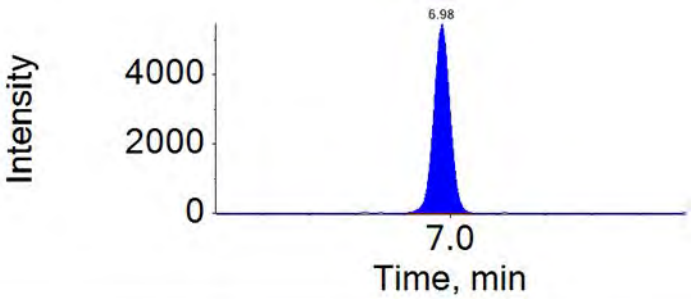
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



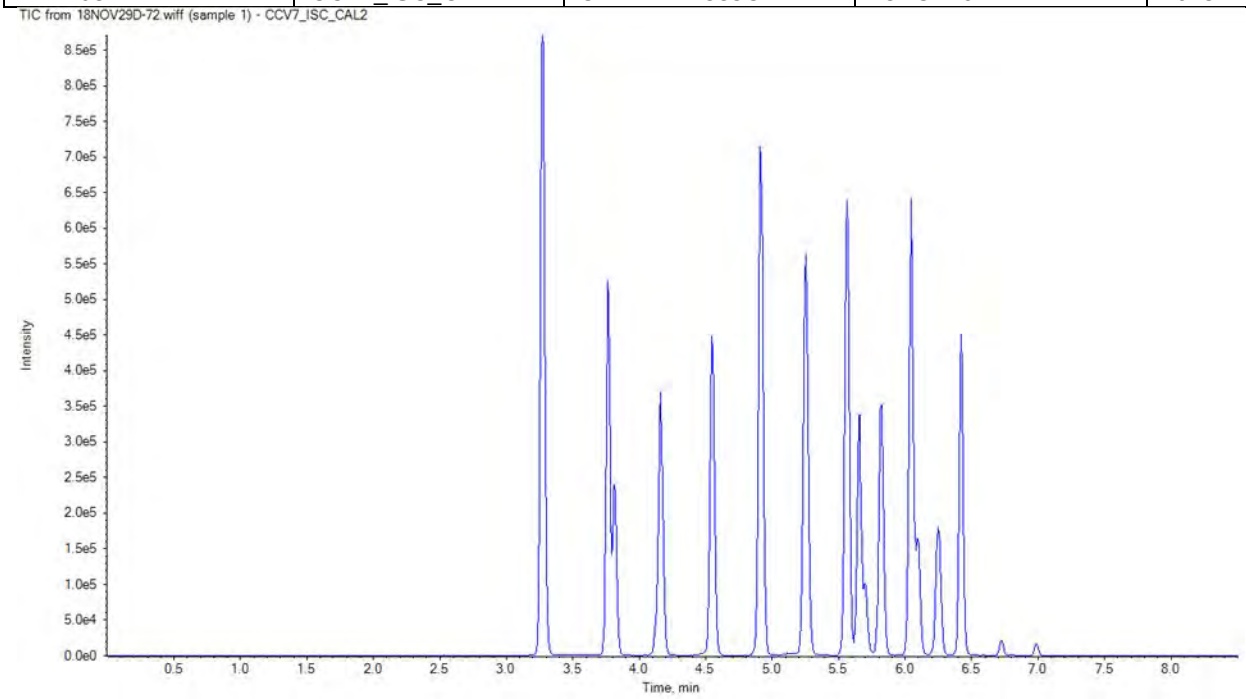
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

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	CCV7_ISC_CAL2	CALBRN21833C	18NOV29D-72.wiff	2018-11-29T20:38:03



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 Verfication

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	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	
PFTrDA	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	
PFODA	35501.9	10	13C2-PFTeDA	847108.8	5.0	0.042	6.99	1.090	0.600	0.558	-7	30	

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 Verfication

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	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

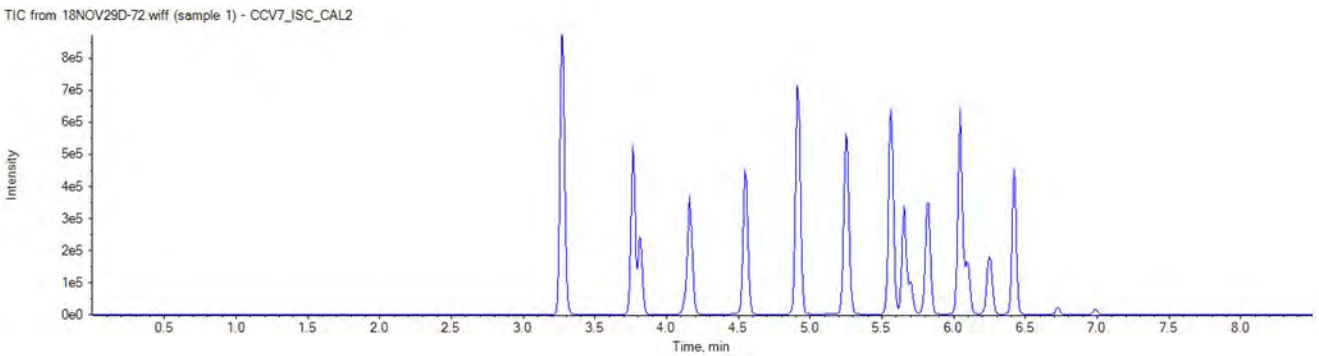
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-72.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	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
PFTrDA	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

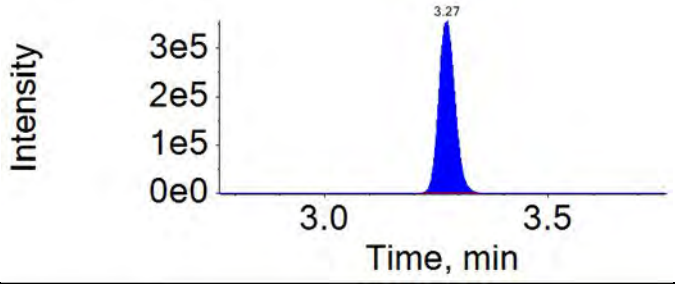


APPROVED
By MCD at 3:27 pm, 11/30/18

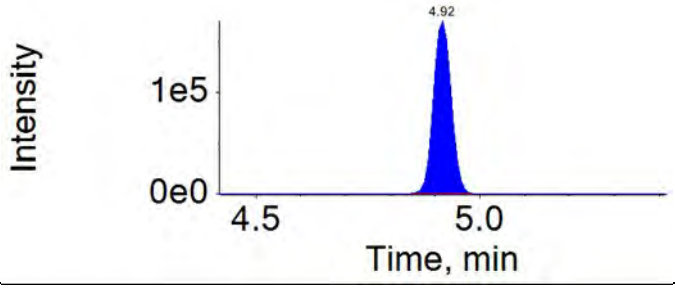
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

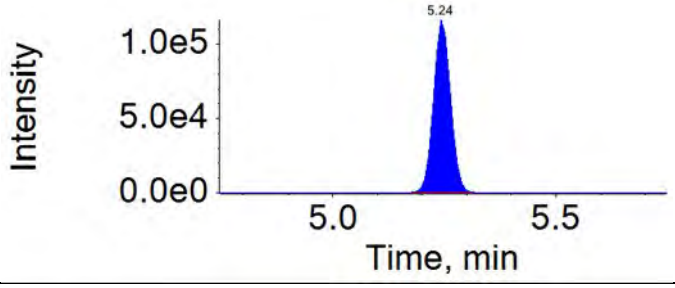
Injection Standard: 13C3-PFBA
216.0 / 172.0



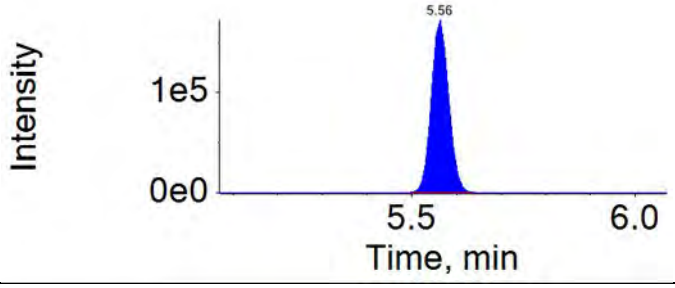
Injection Standard: 13C2-PFOA
415.0 / 370.0



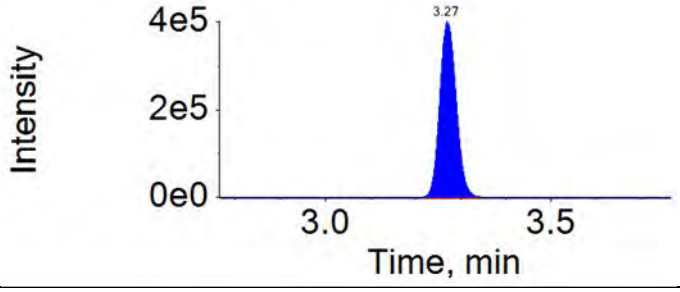
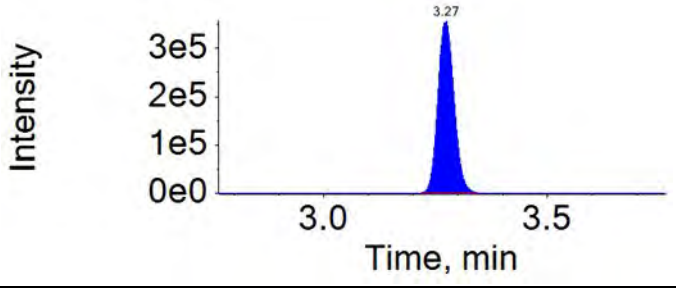
Injection Standard: 13C4-PFOS
503.0 / 80.0

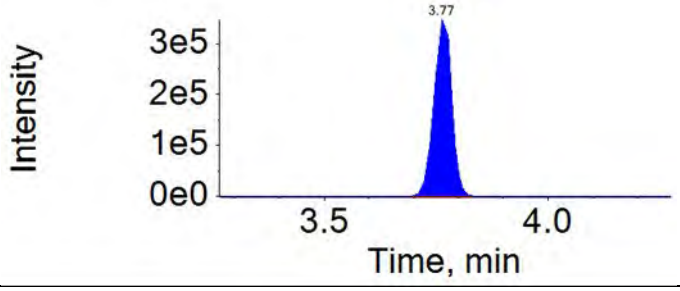
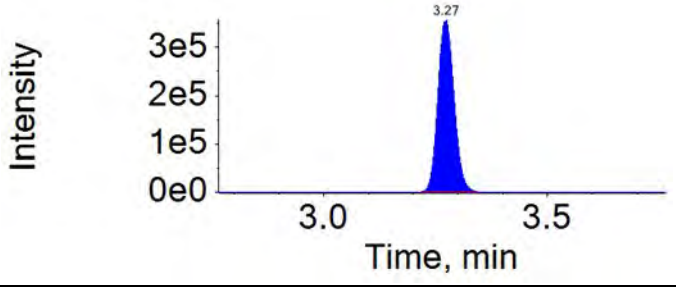


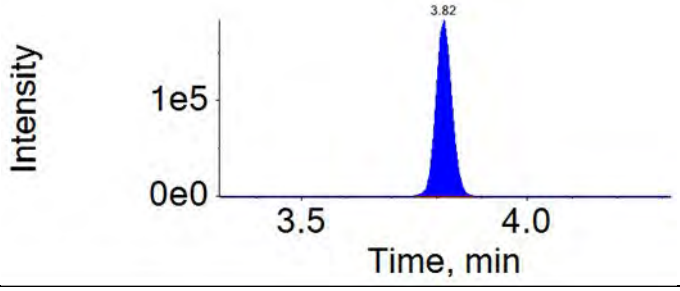
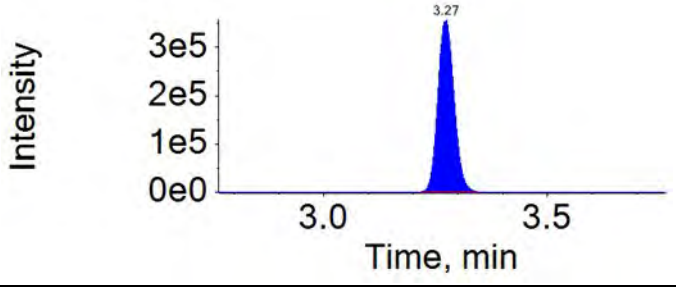
Injection Standard: 13C2-PFDA
515.0 / 470.0

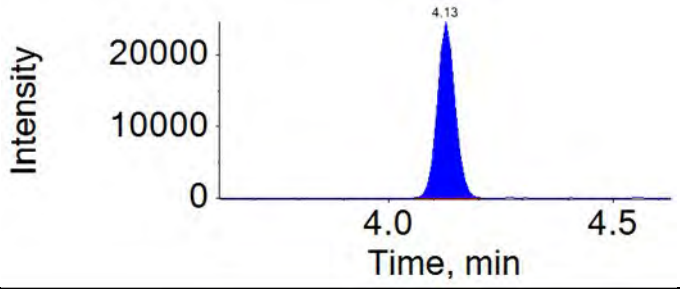
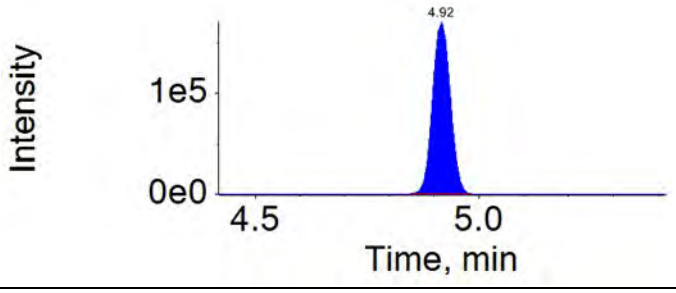


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

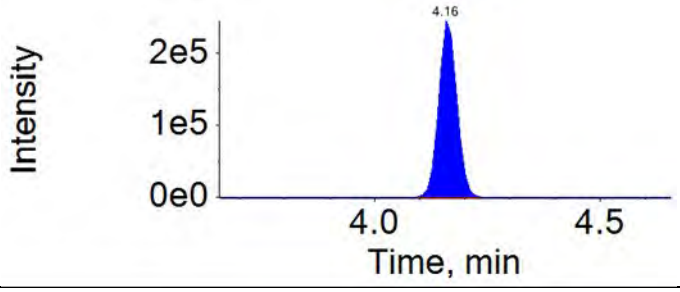
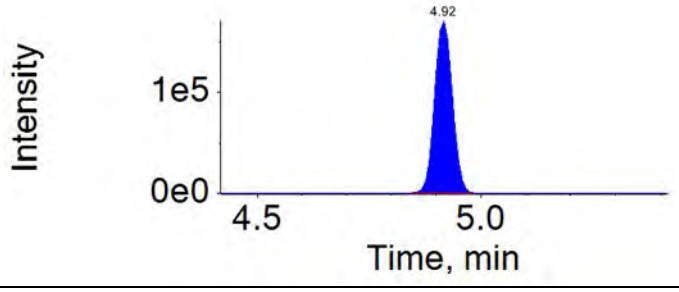
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

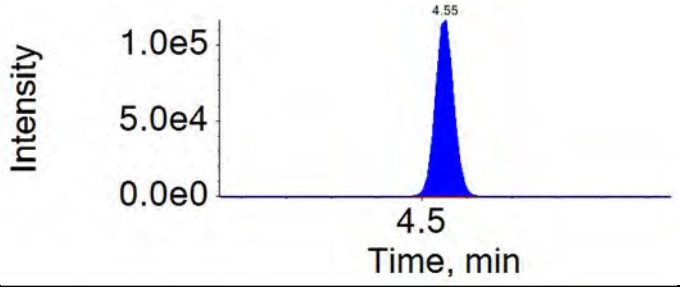
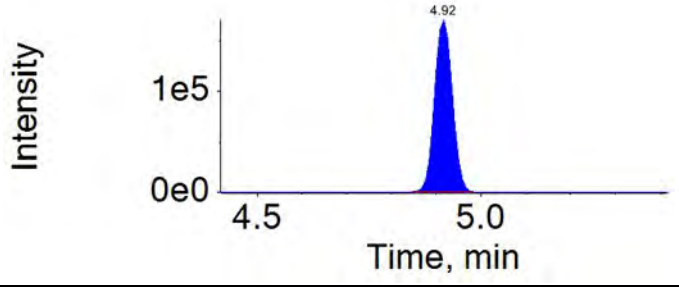
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

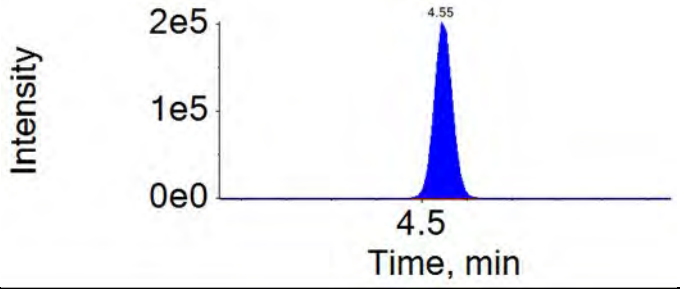
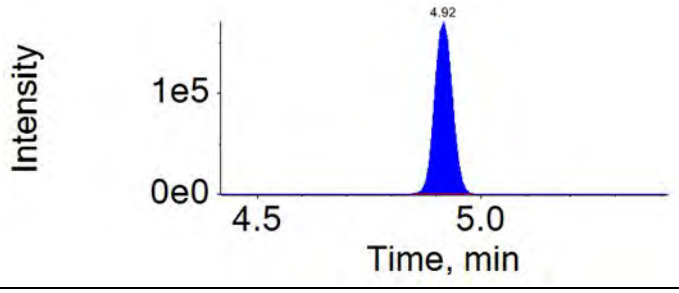
APPROVED
By MCD at 3:27 pm, 11/30/18

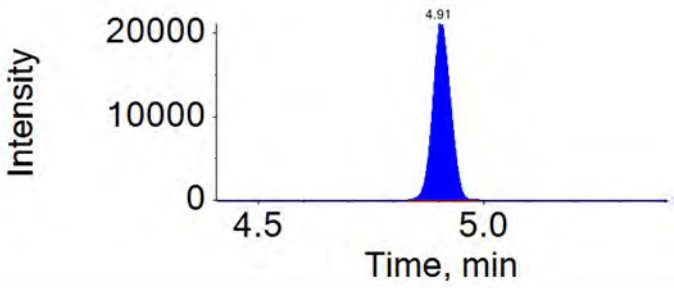
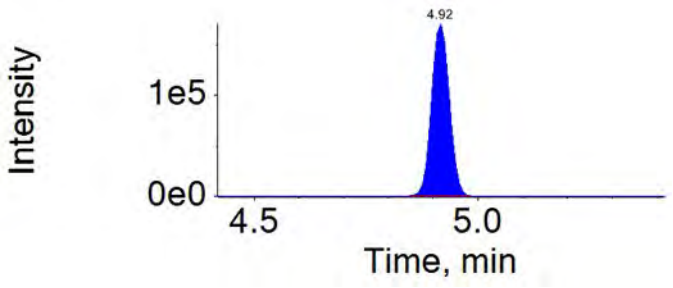
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

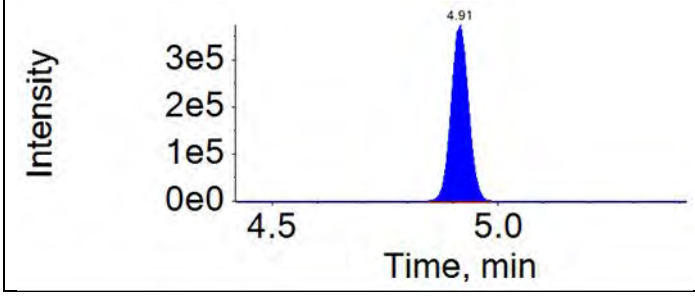
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

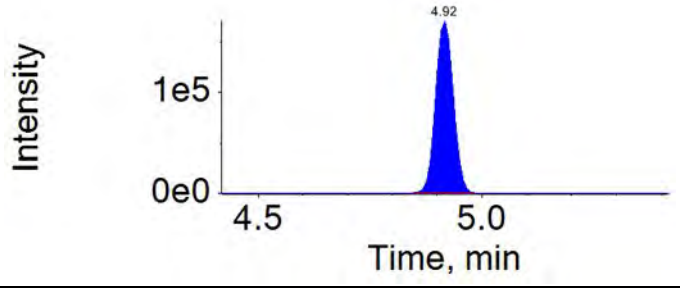
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

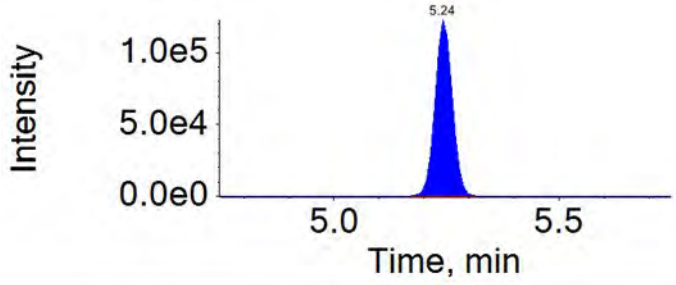
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

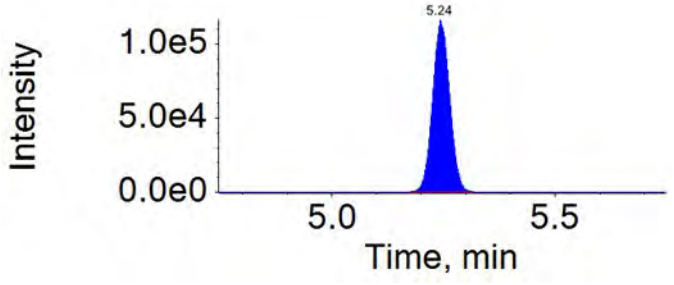
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



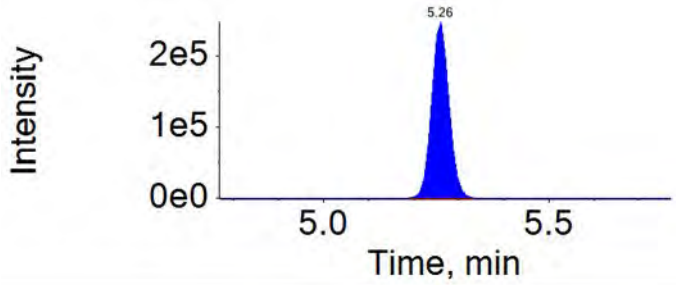


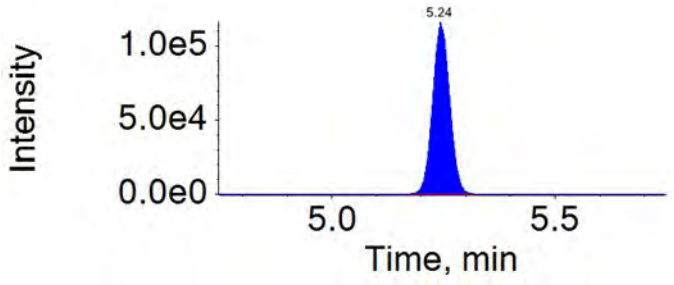
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



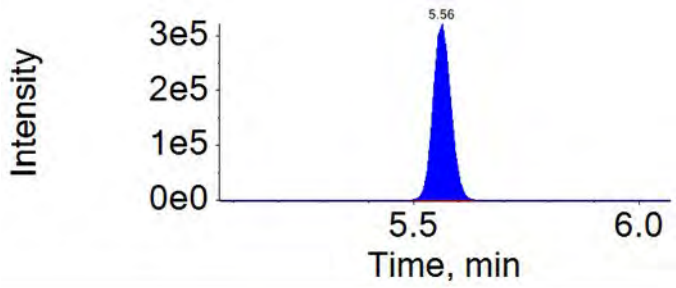


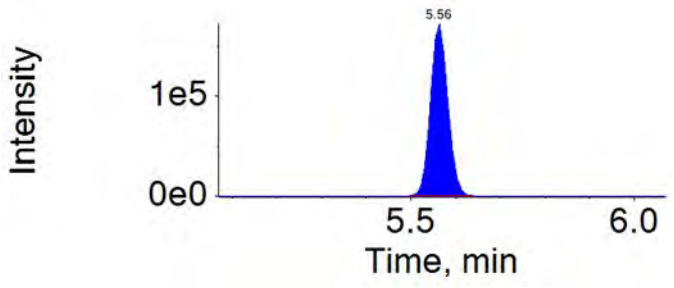
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



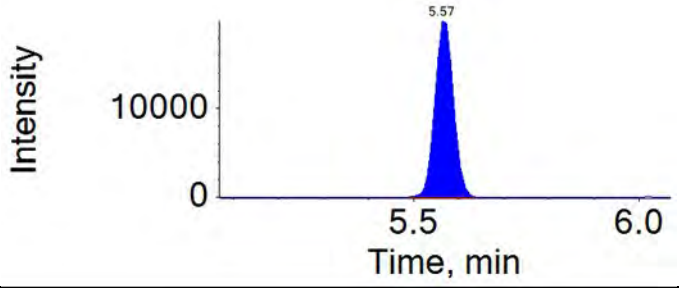


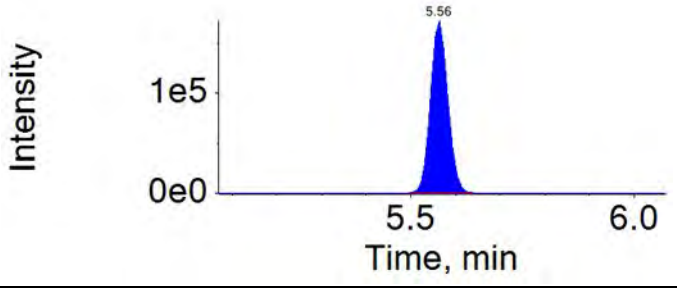
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

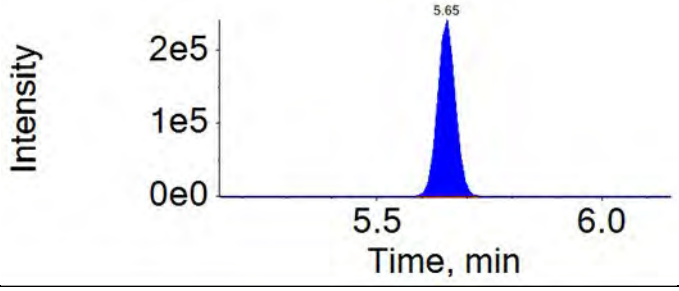
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

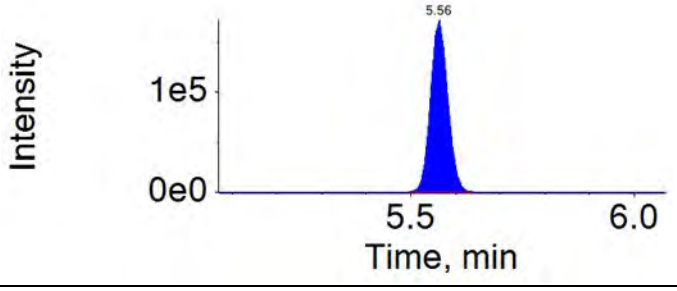
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



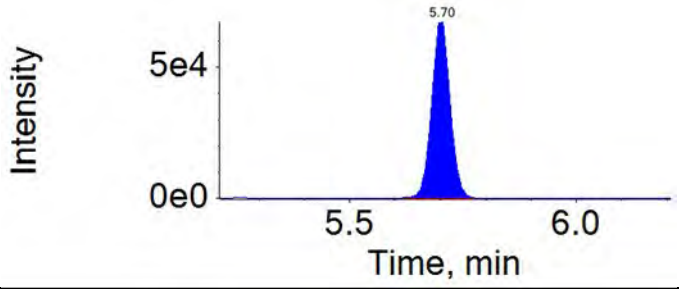


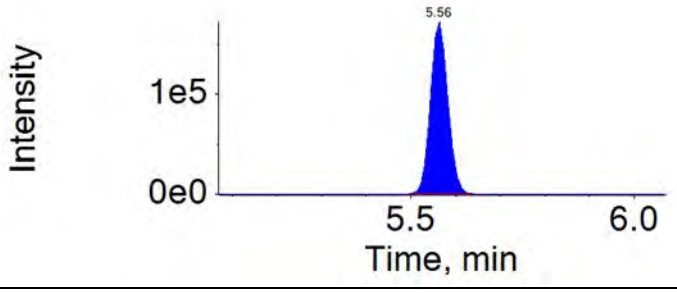
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



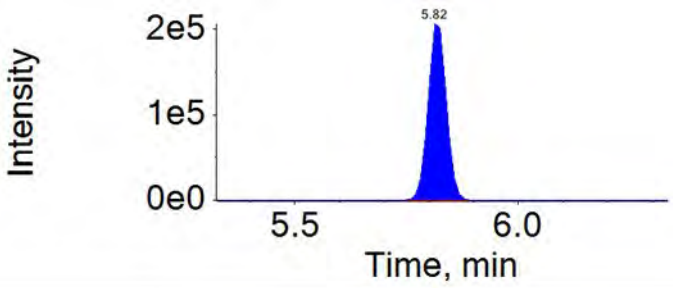


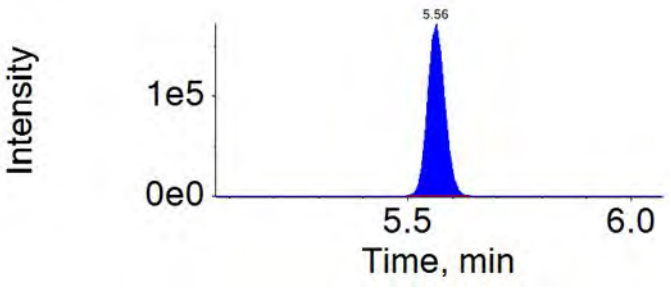
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



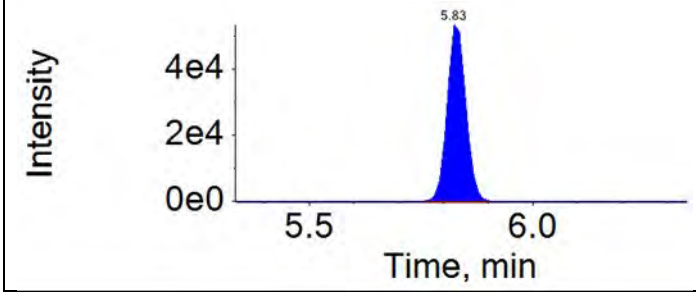


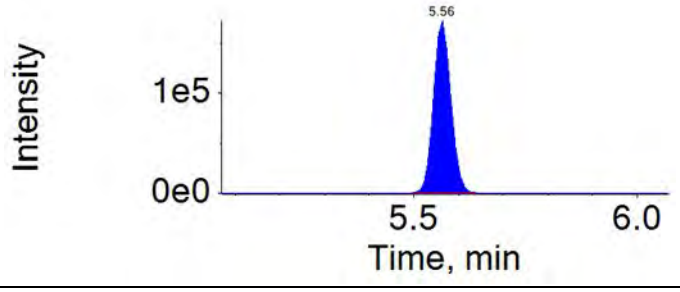
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

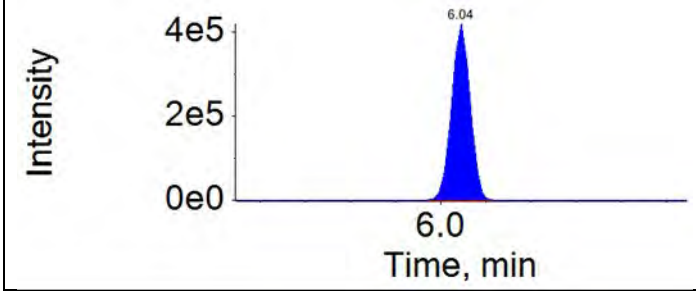
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

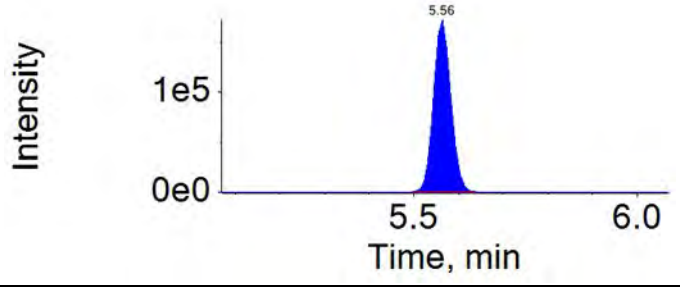
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



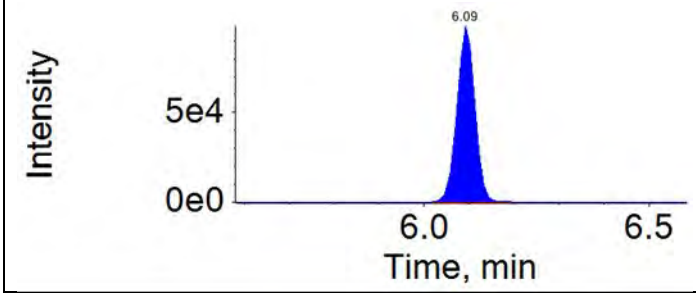


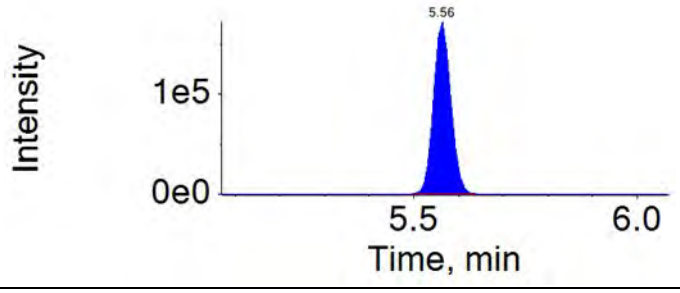
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



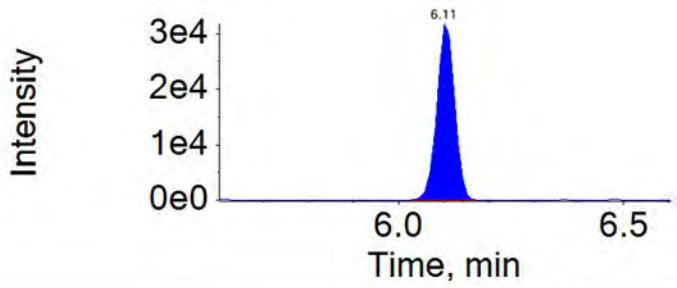


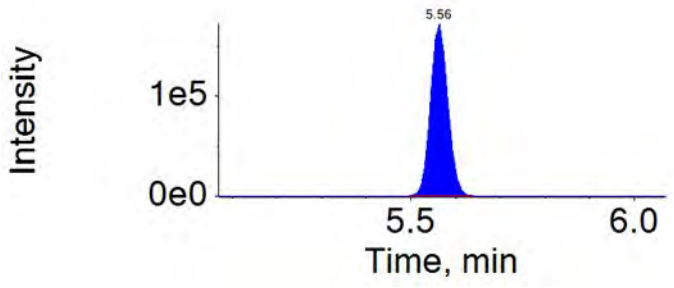
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



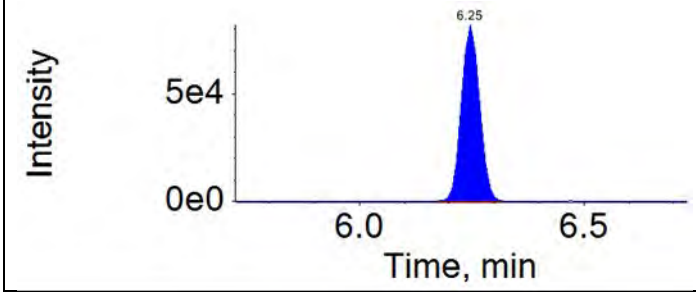


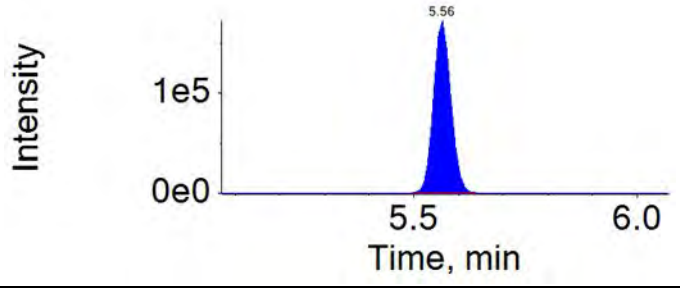
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

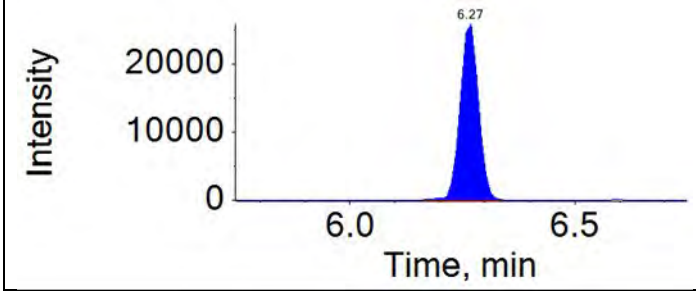
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

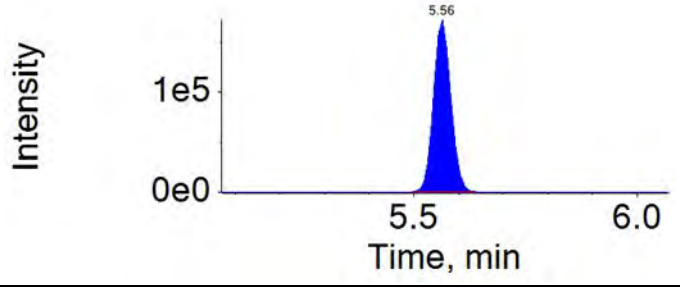
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



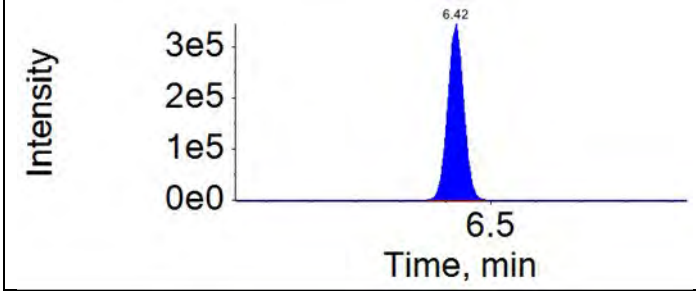


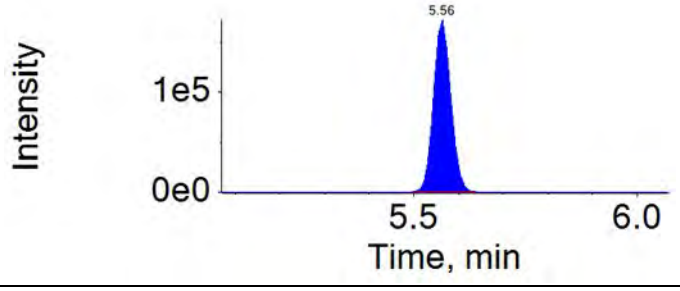
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



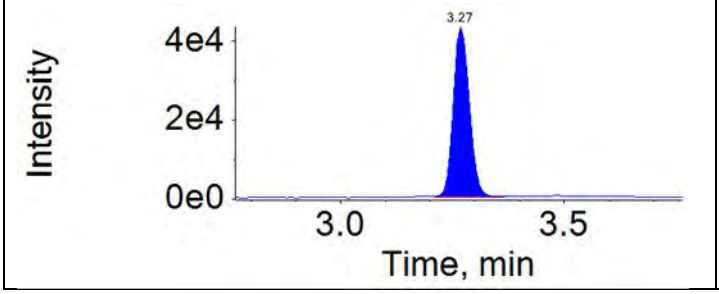


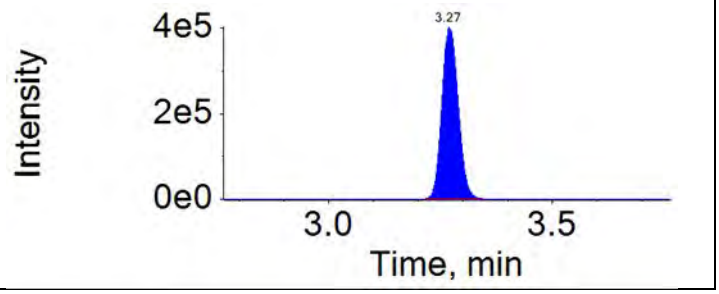
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

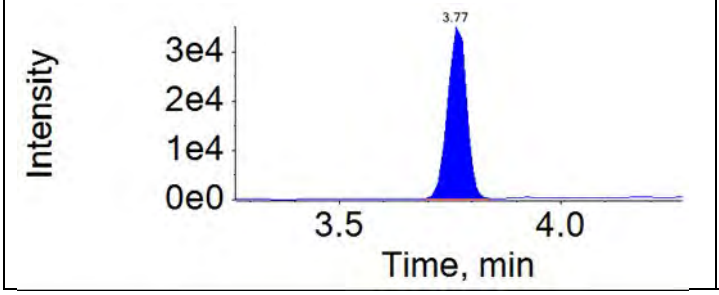
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

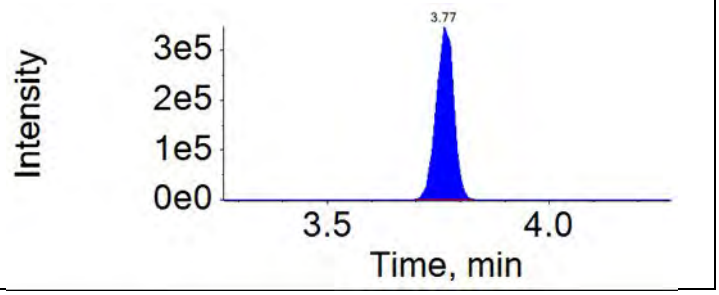
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



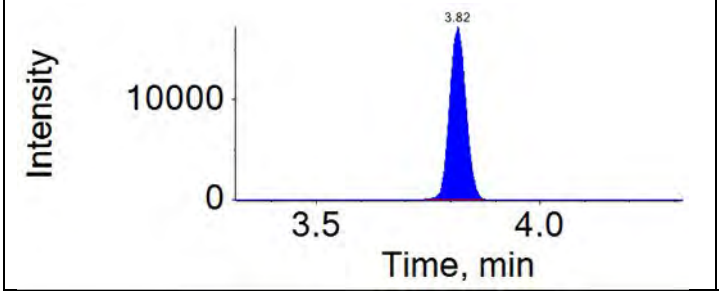


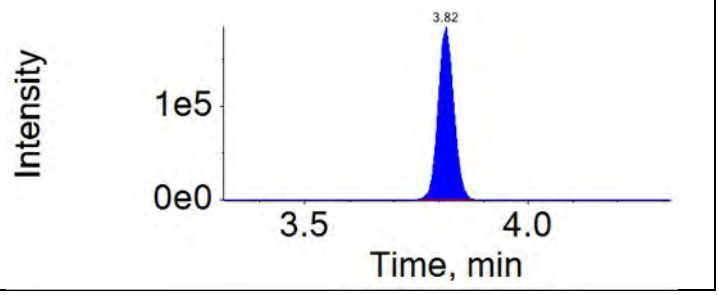
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



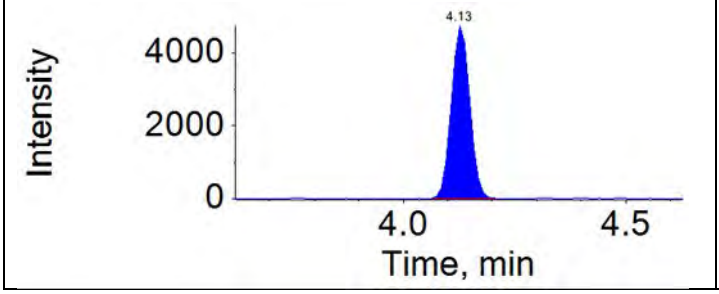


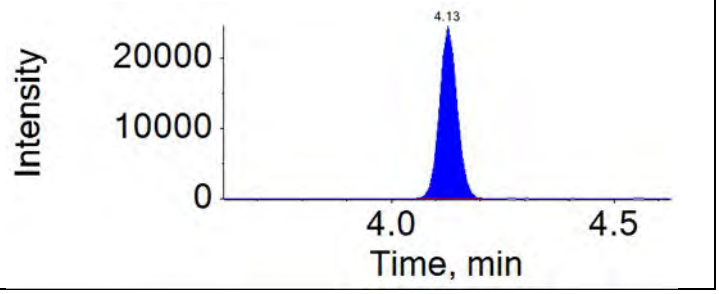
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



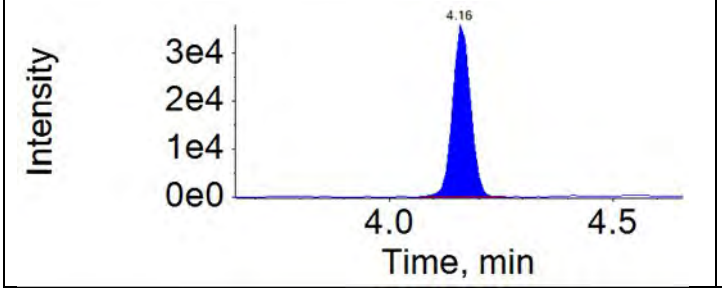


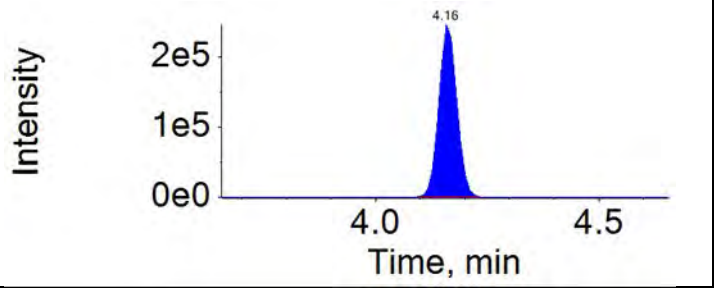
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

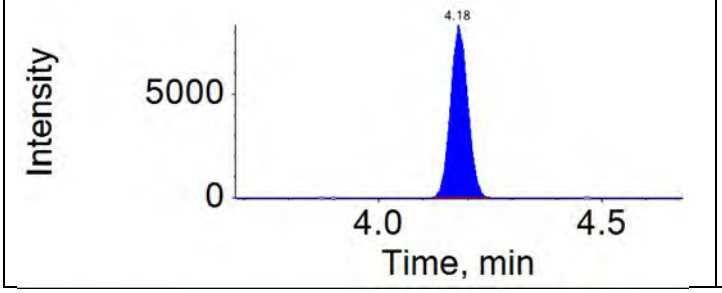
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

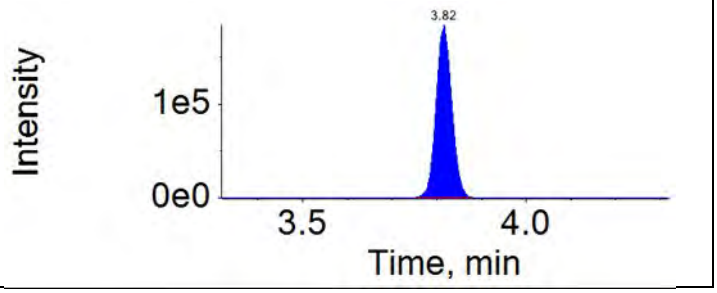
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



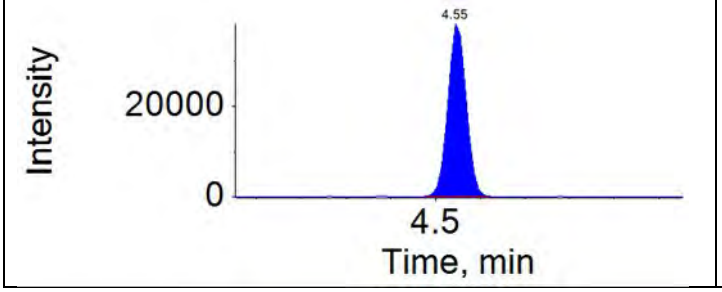


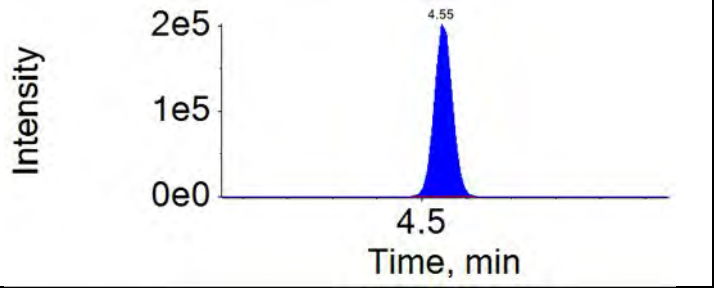
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



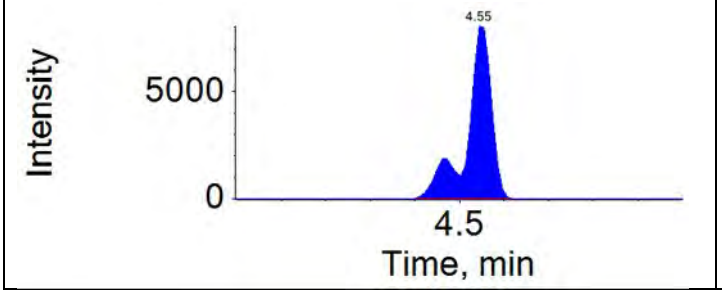


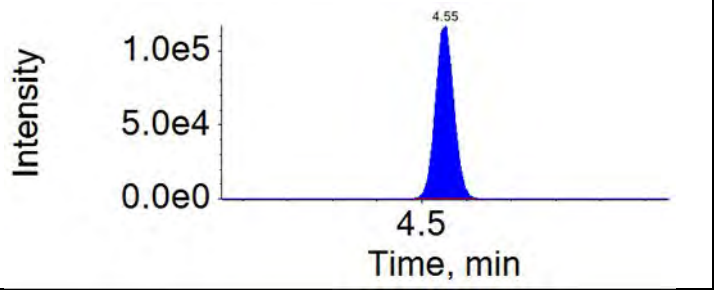
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

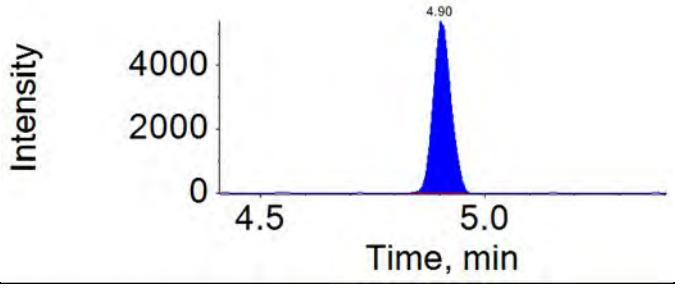
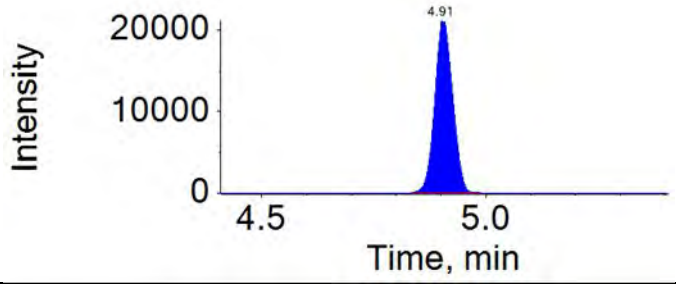


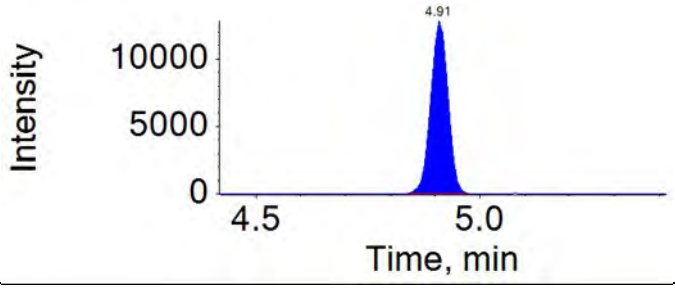
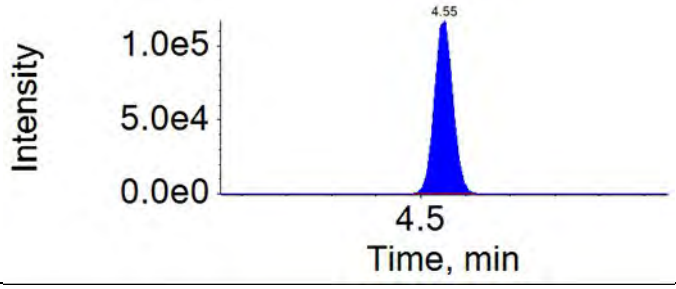


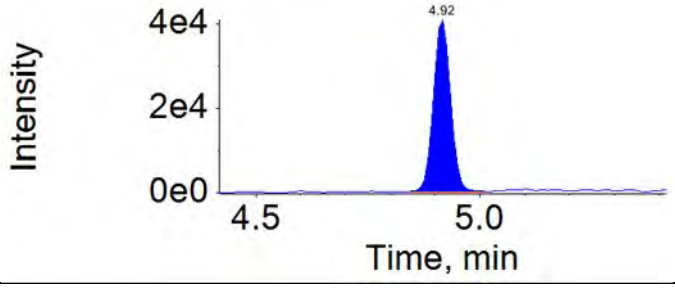
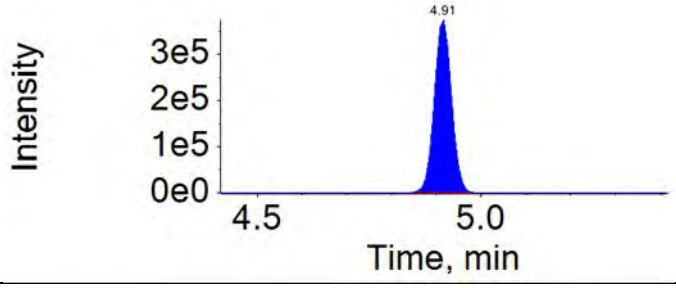
APPROVED
By MCD at 3:27 pm, 11/30/18

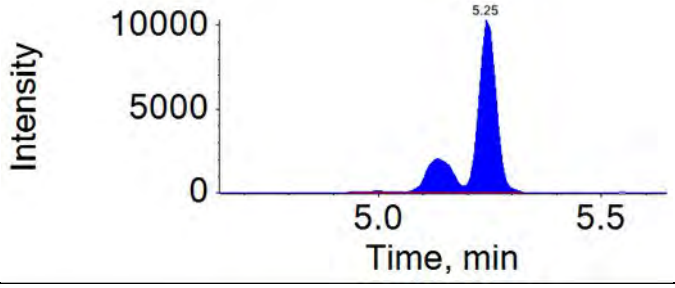
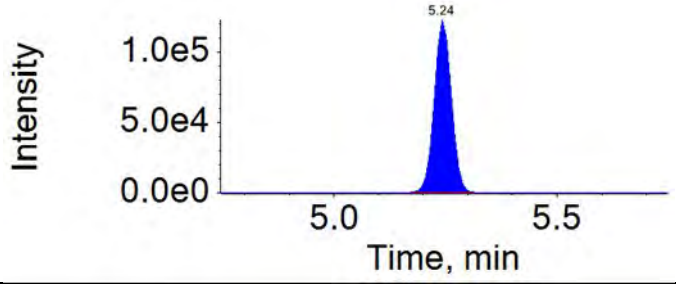
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

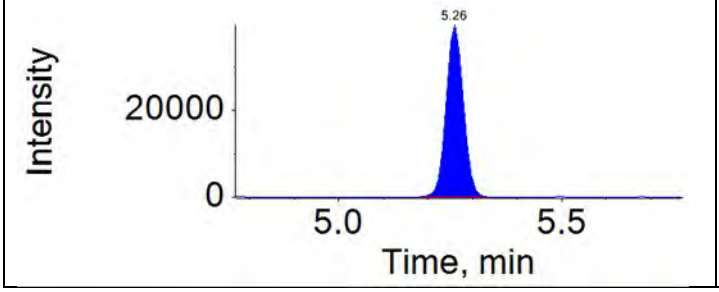
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

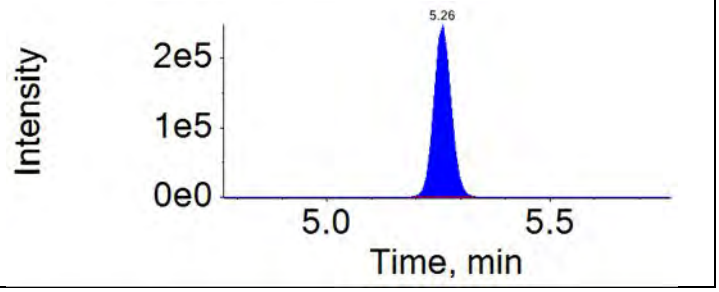
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

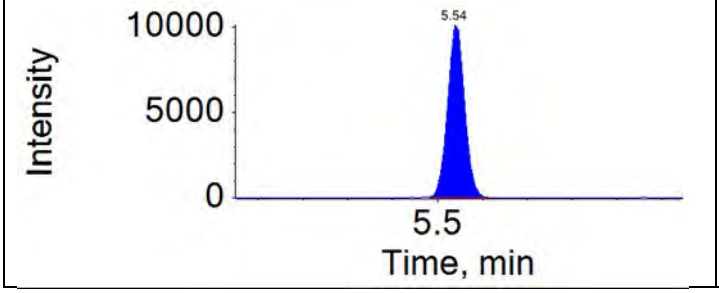
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

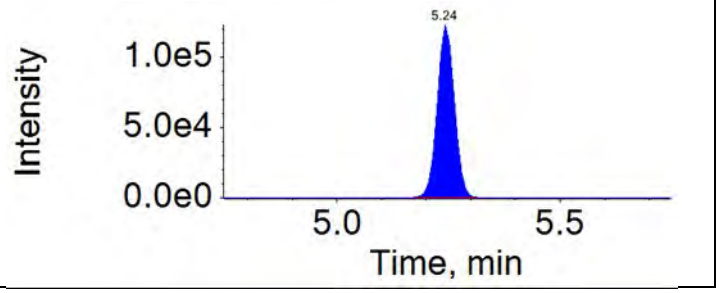
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



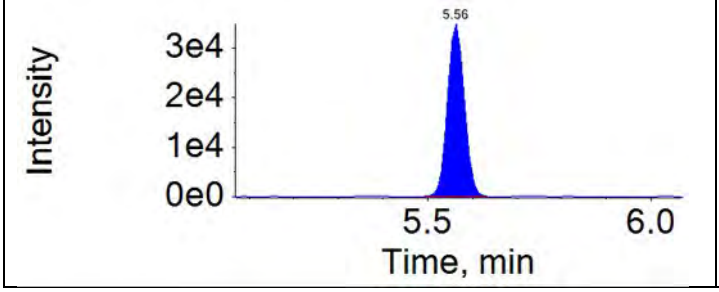


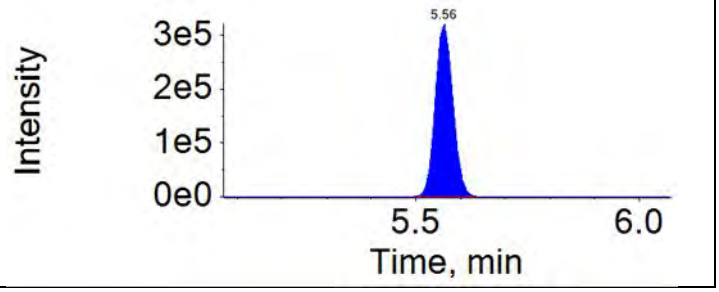
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



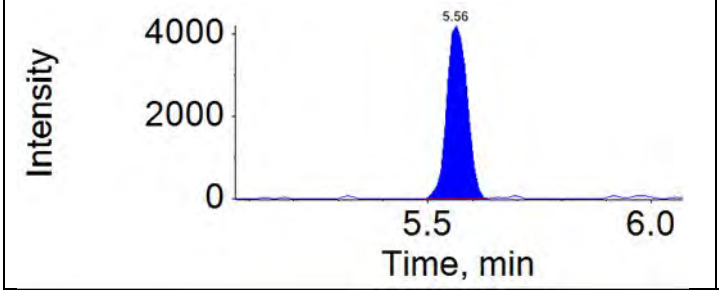


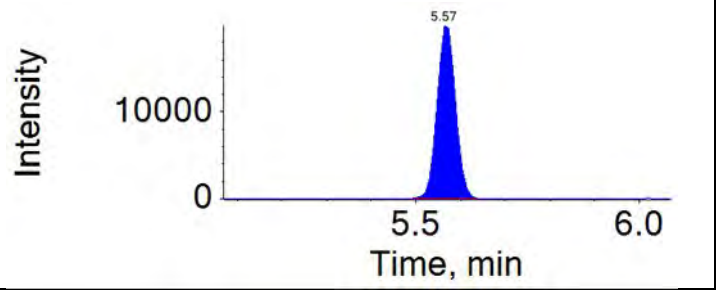
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

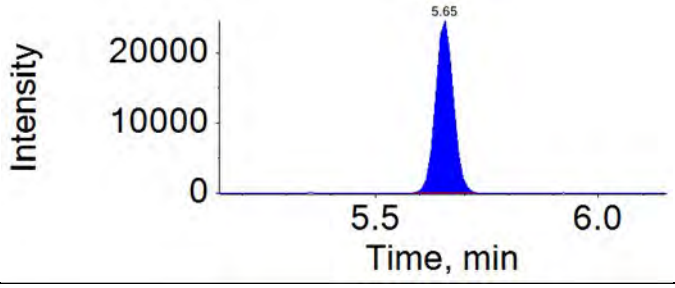
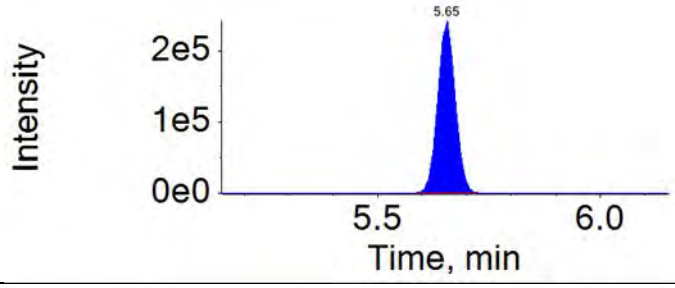


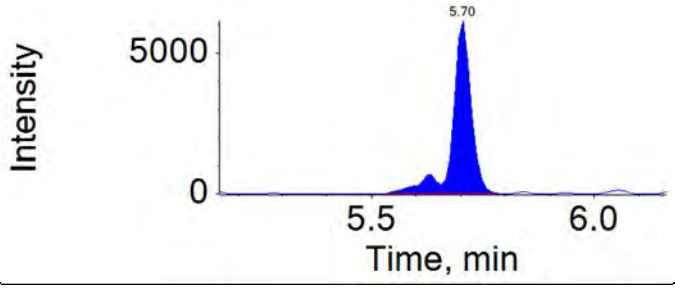
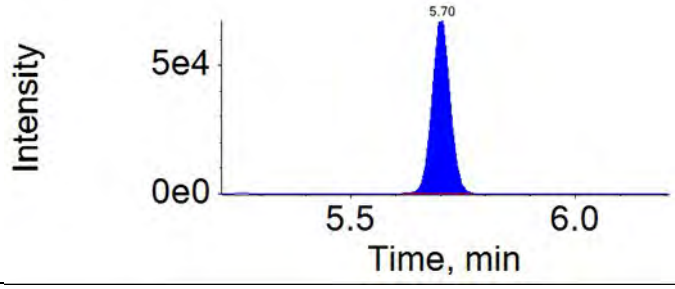


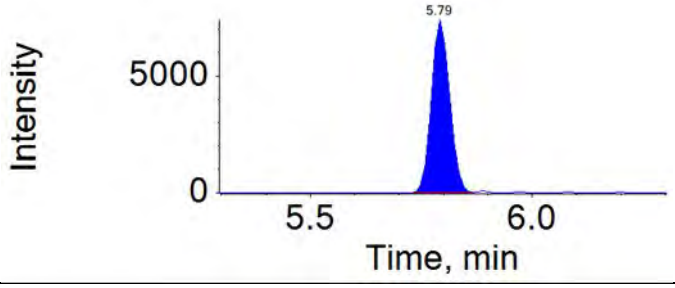
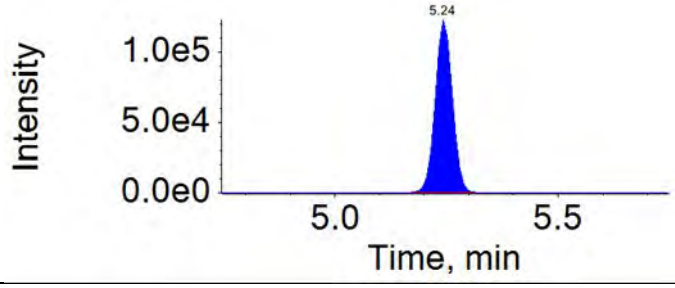
APPROVED
By MCD at 3:27 pm, 11/30/18

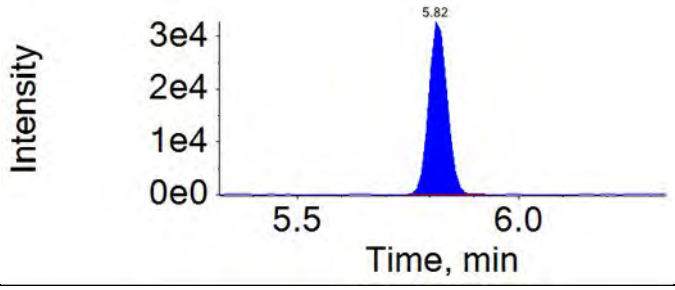
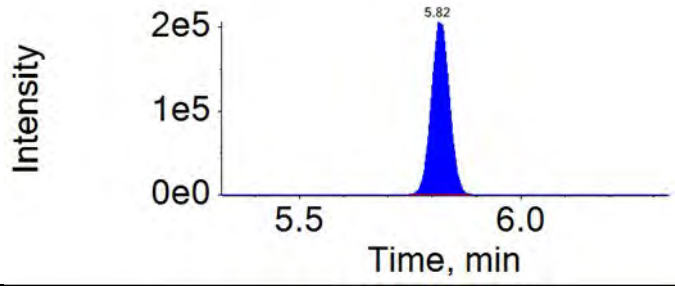
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

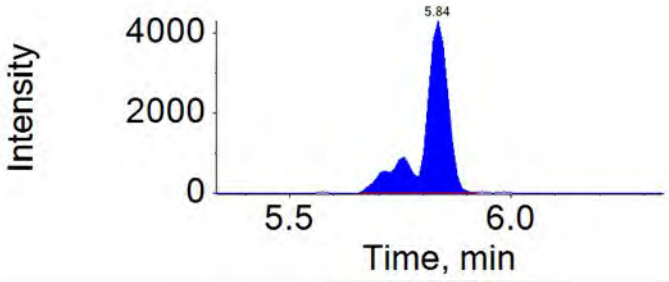
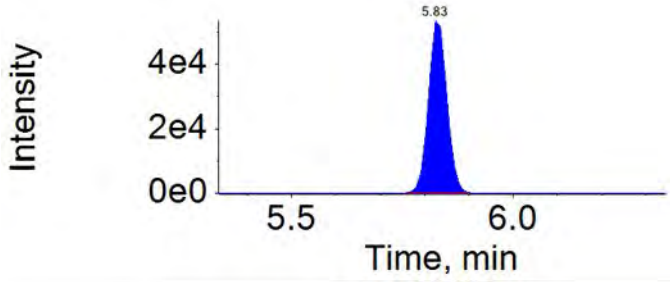
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

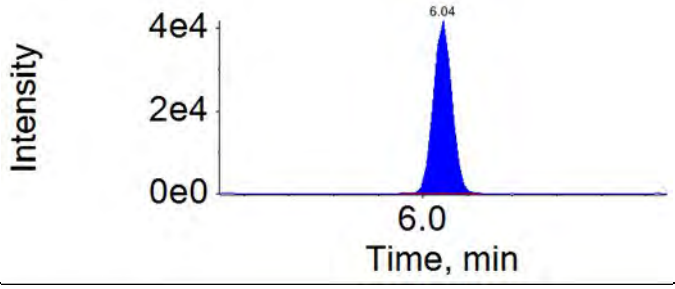
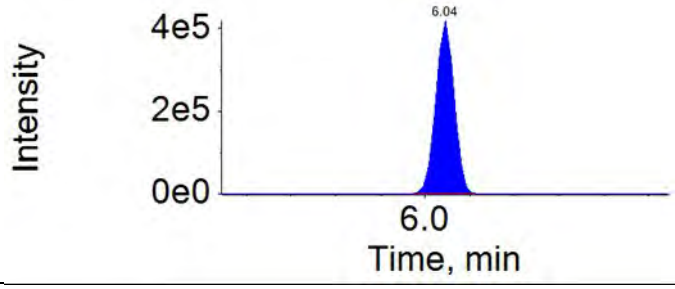
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

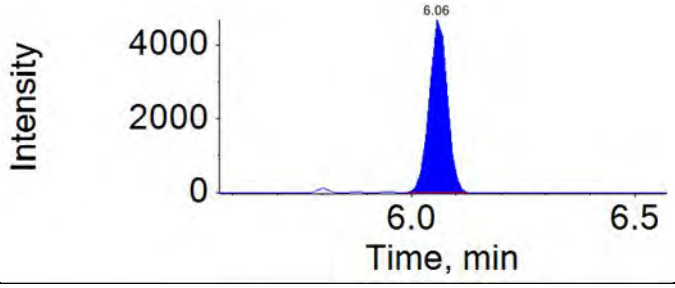
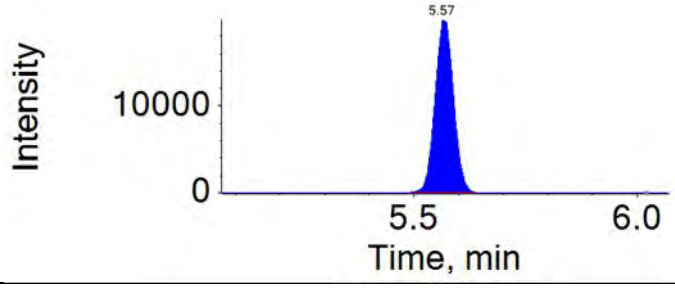
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

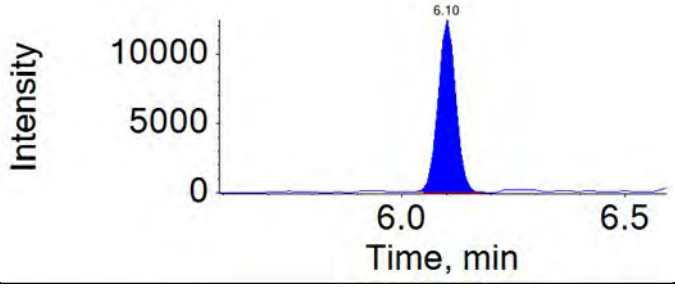
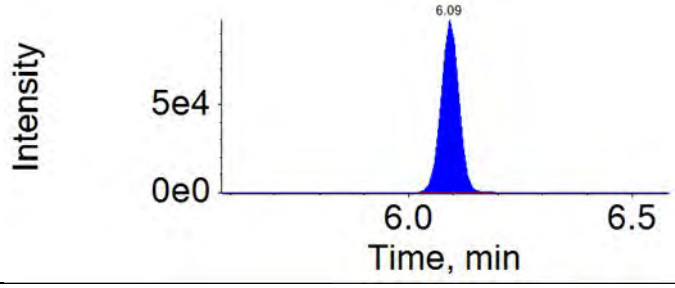
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

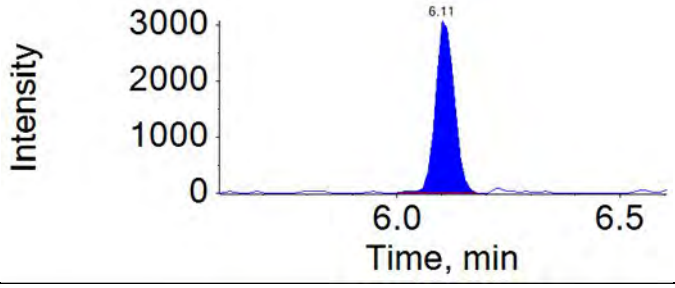
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

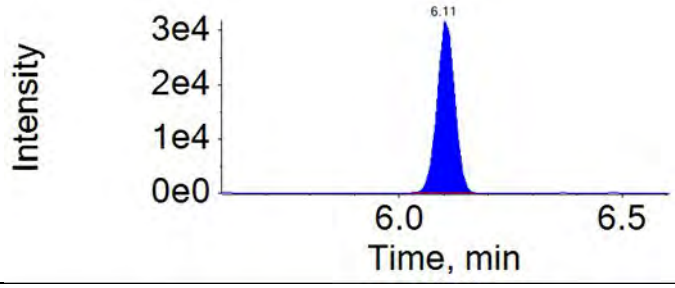
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

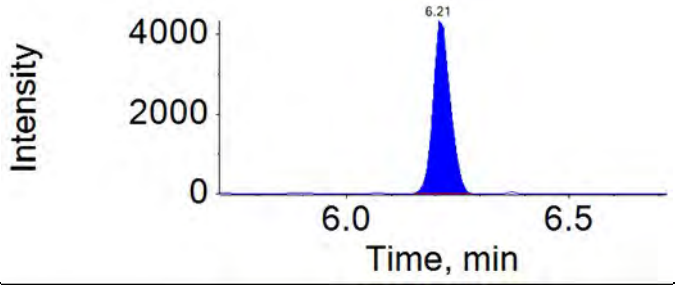
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

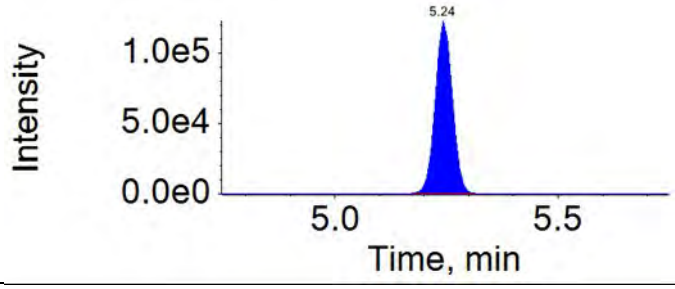
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



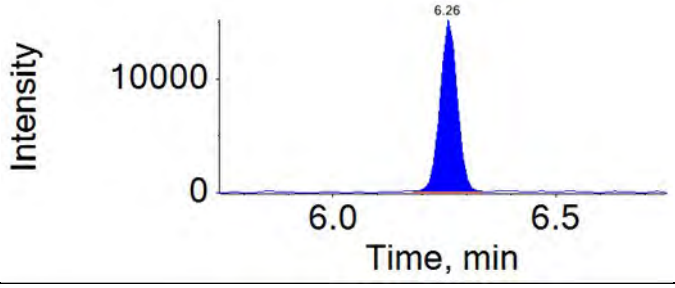


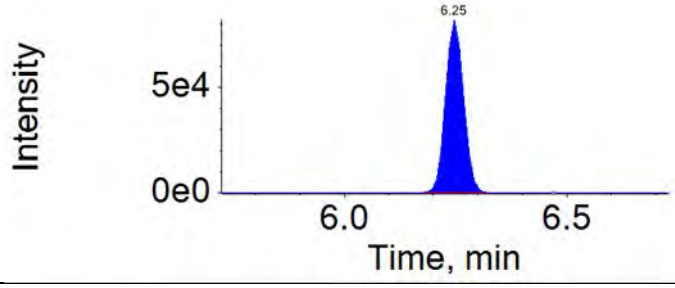
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



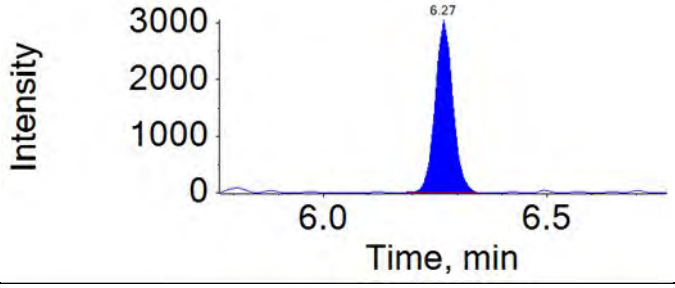


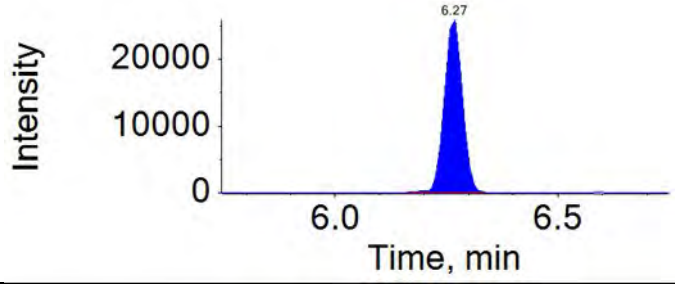
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

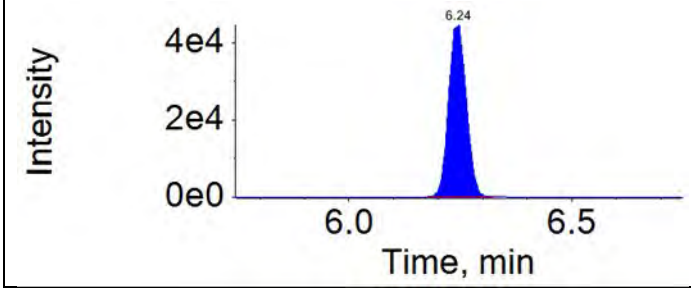
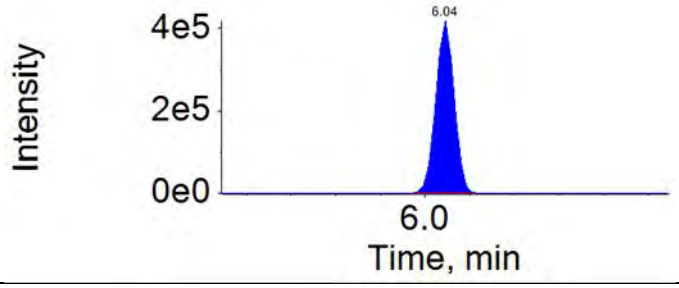


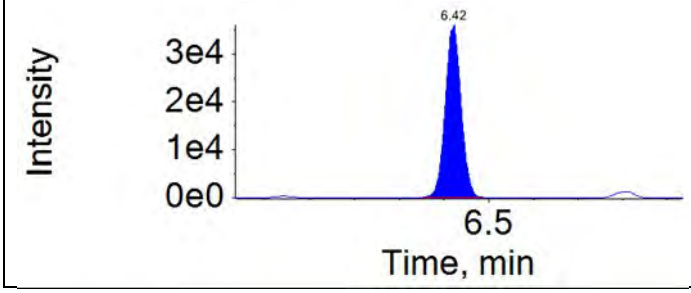
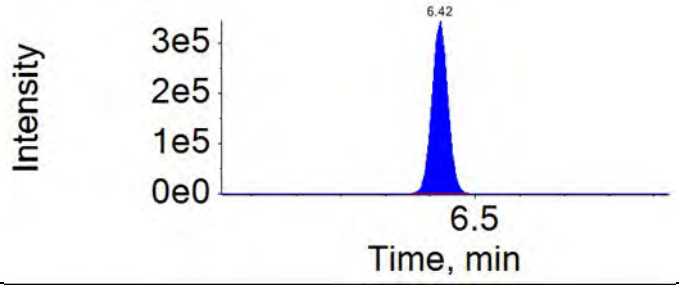


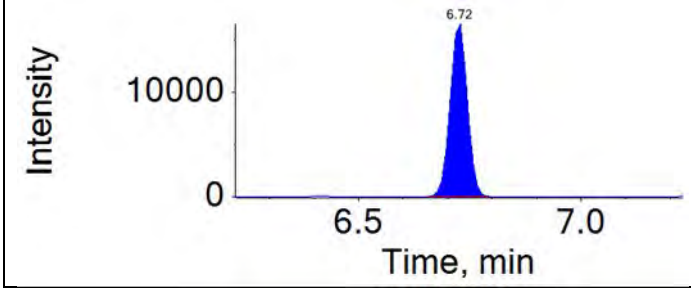
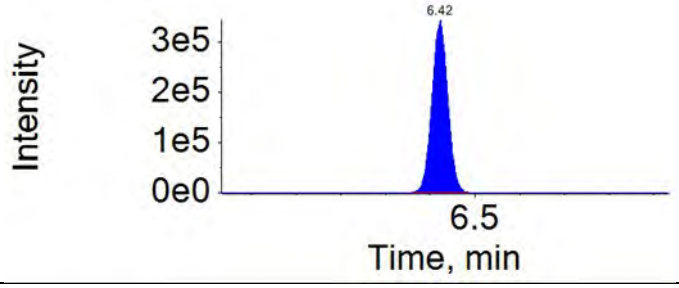
APPROVED
By MCD at 3:27 pm, 11/30/18

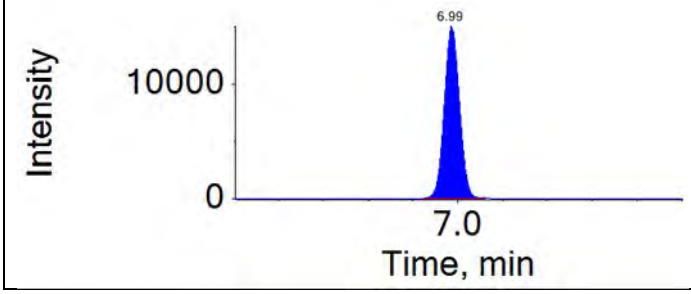
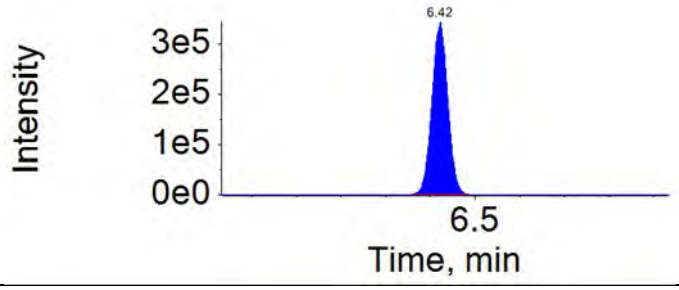
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

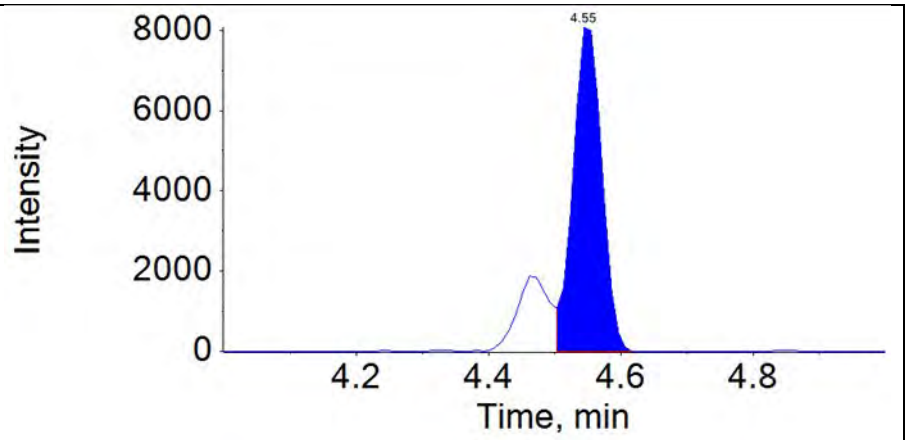
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

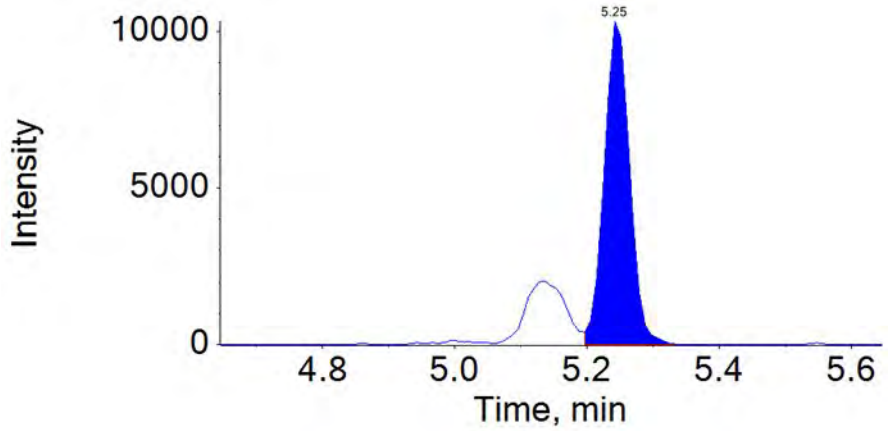
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
24612.5
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



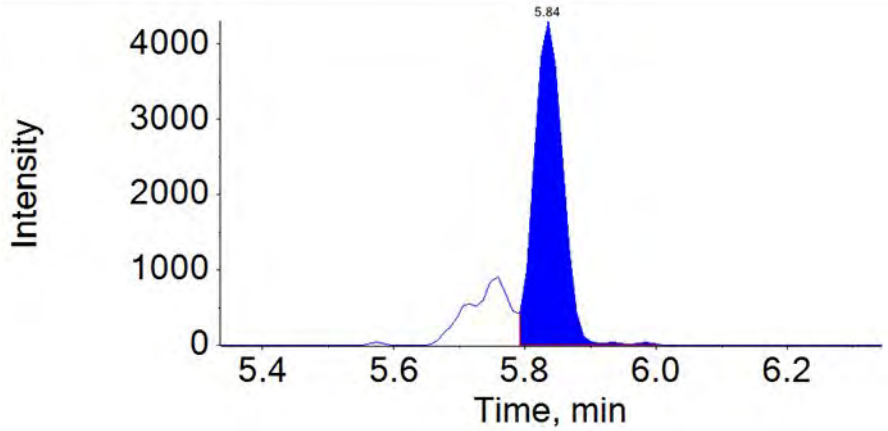
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
27561.1
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
13046.5
Mass Range:
584.0 / 419.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



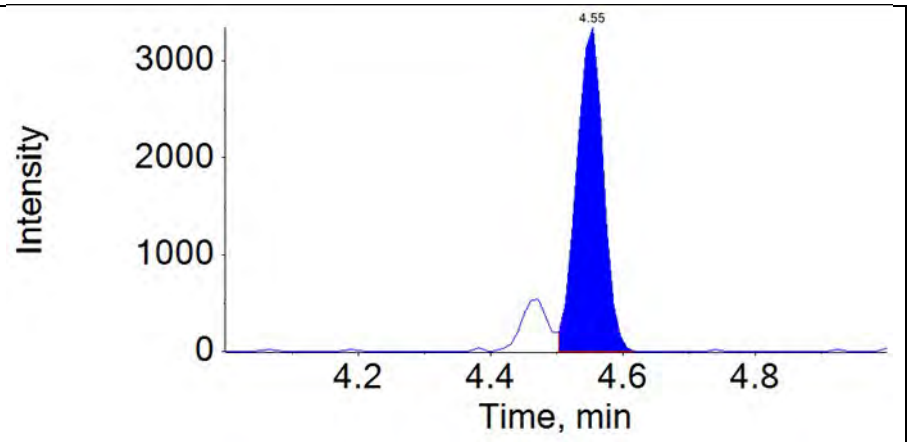
Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

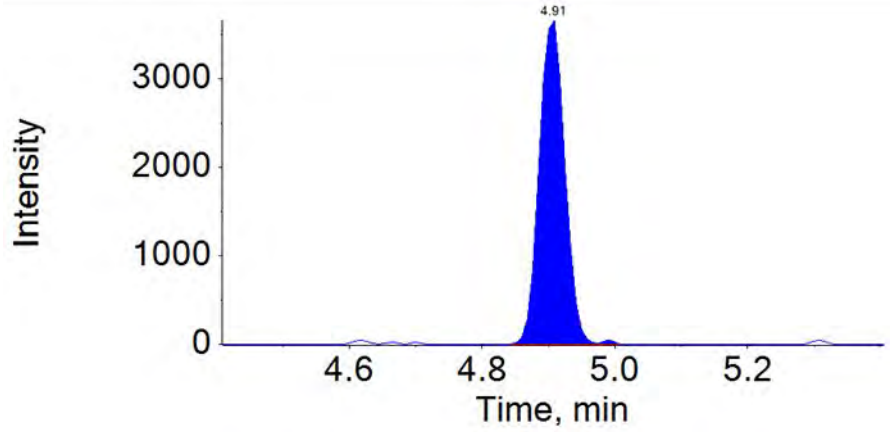
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
9386.3
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



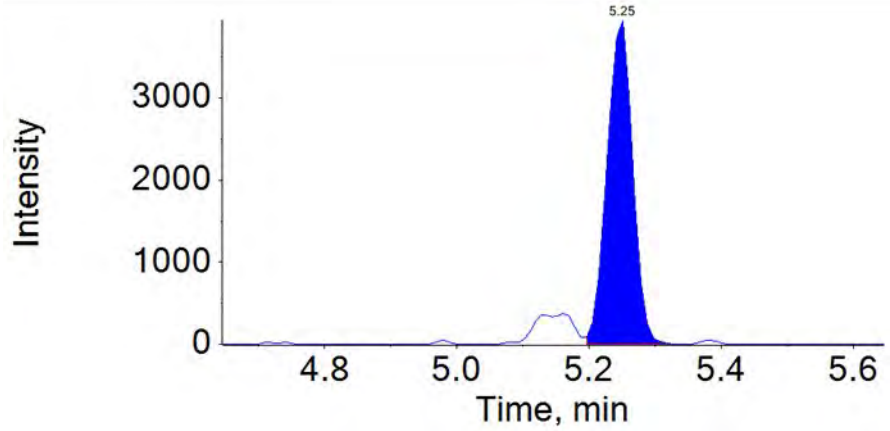
Integration Comment: incorrect integration

Component Name:
6:2-FTS_2
RT (min.):
4.91
Peak Area:
9903.4
Mass Range:
427.0 / 81.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
10671.6
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



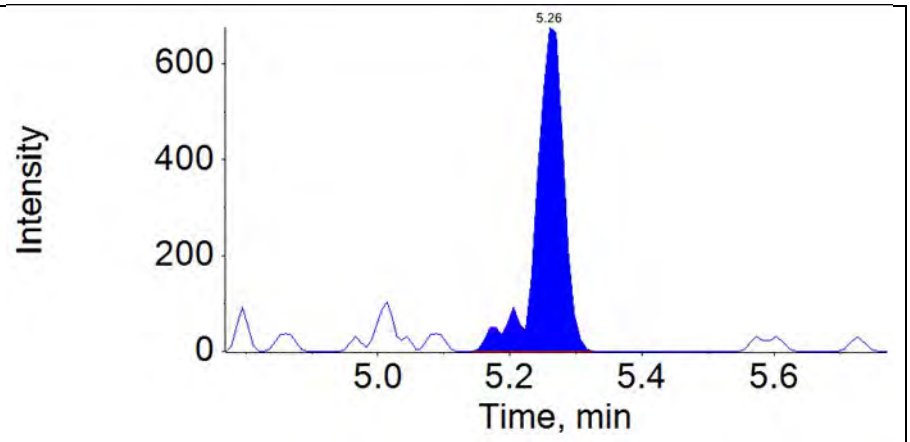
Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

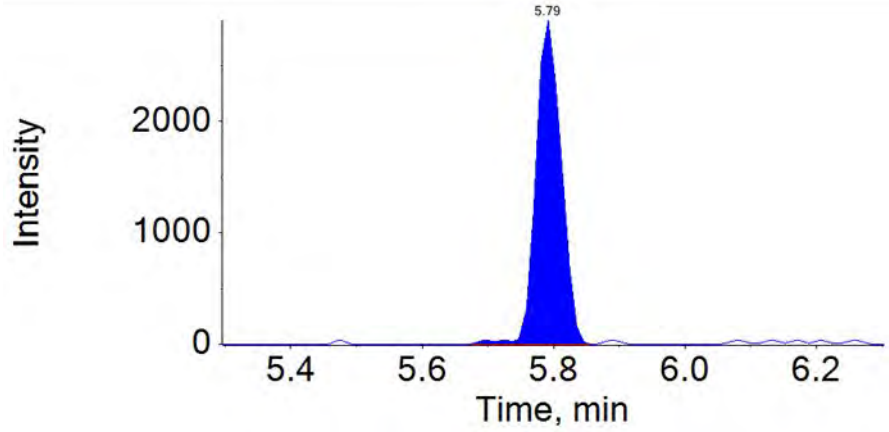
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



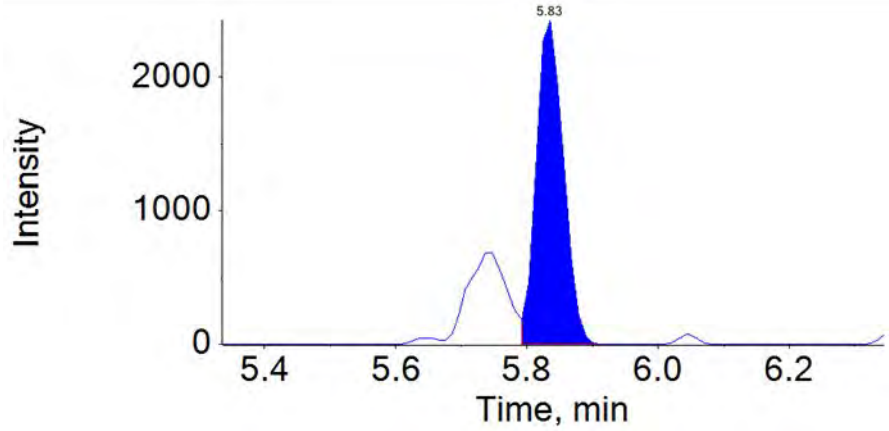
Integration Comment: incorrect integration

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

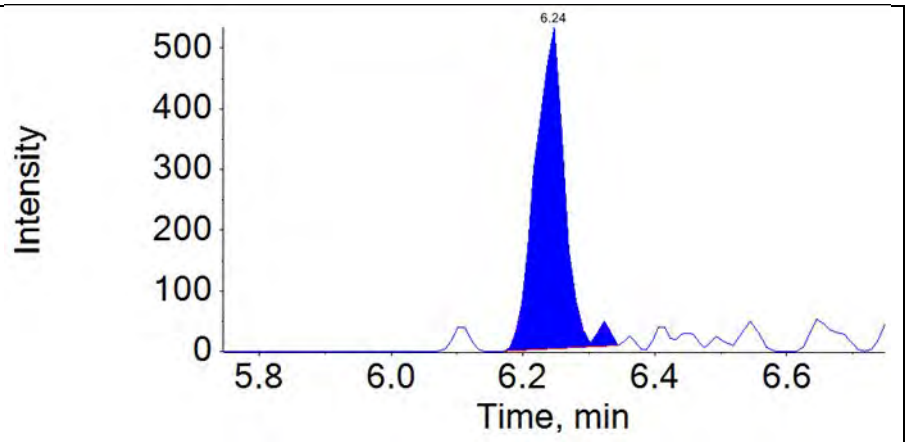


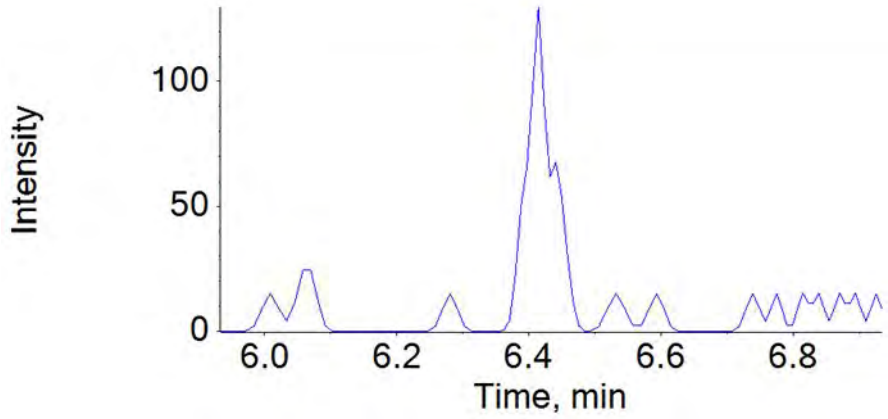
Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

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: PFTrDA_2 **RT (min.):** 6.24 **Peak Area:** 1661.7 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_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:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

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

Ion Ratio Report

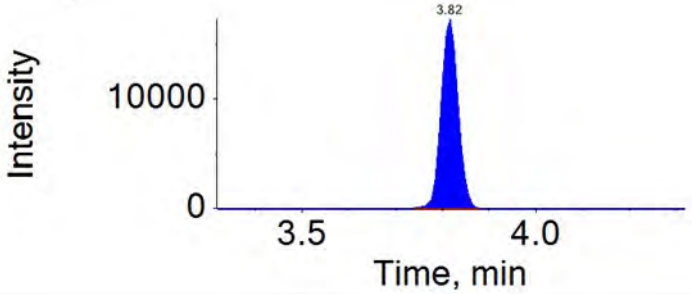
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-72.wiff

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	
PFTrDA	6.24	1.03	124162.6	A	N/A	0.0132			
PFTrDA_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	

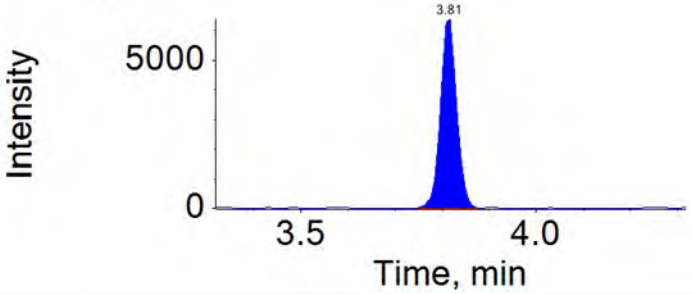
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

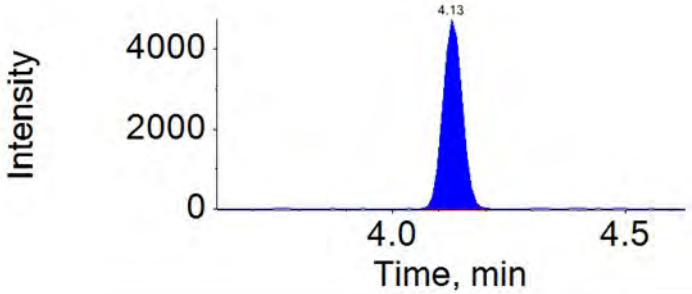
Component: PFBS
Primary Mass: 299.0 / 80.0



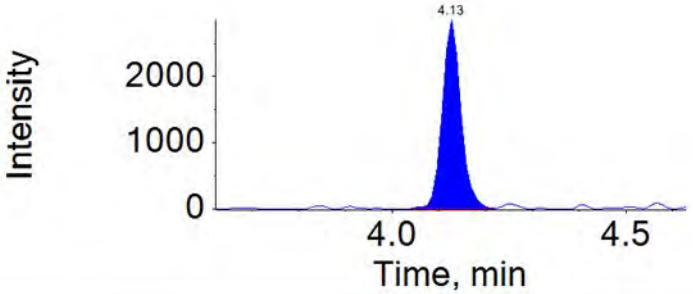
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



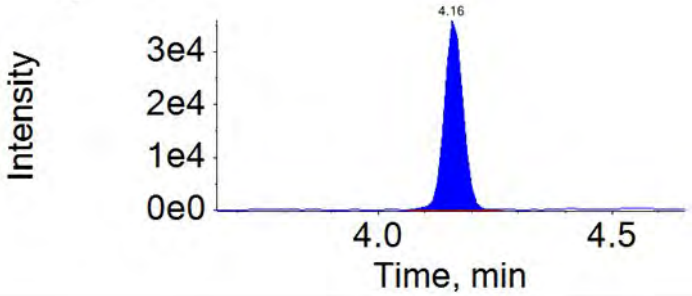
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



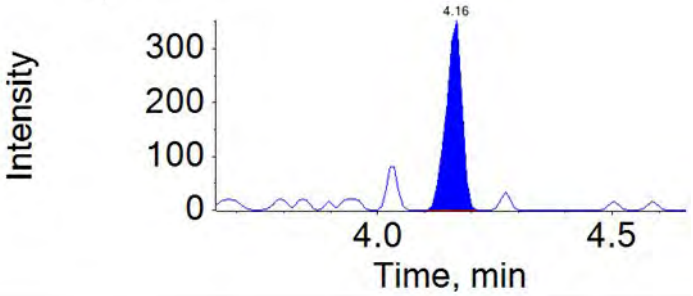
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



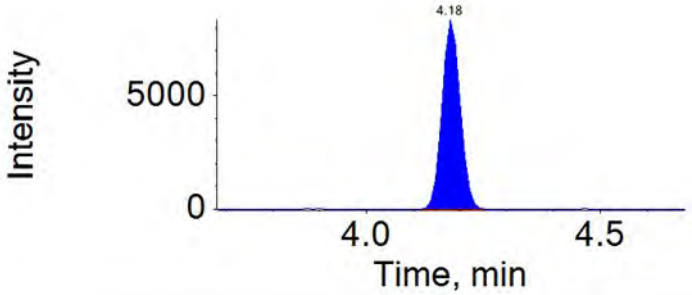
Component: PFHxA
Primary Mass: 313.0 / 269.0



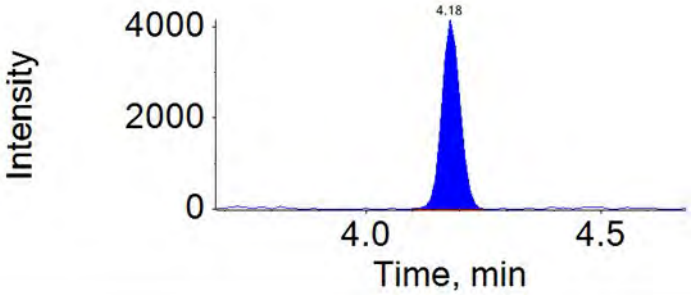
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 3:27 pm, 11/30/18

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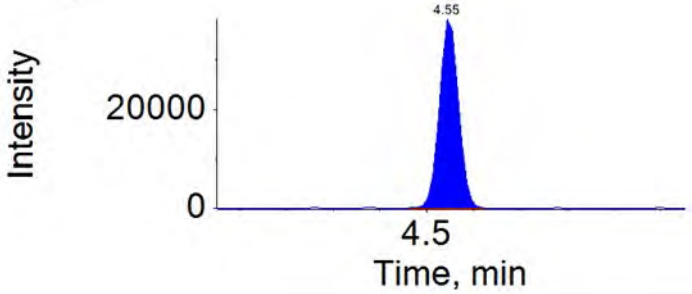
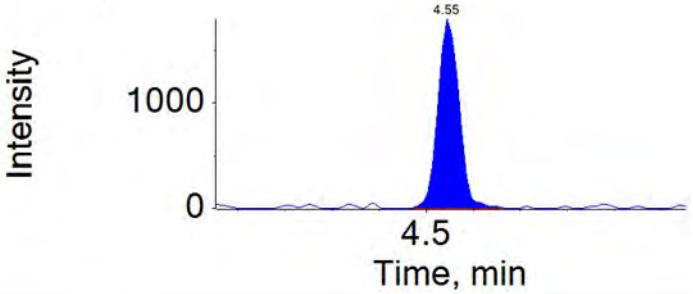
By umar at 12:38 pm, 12/4/18

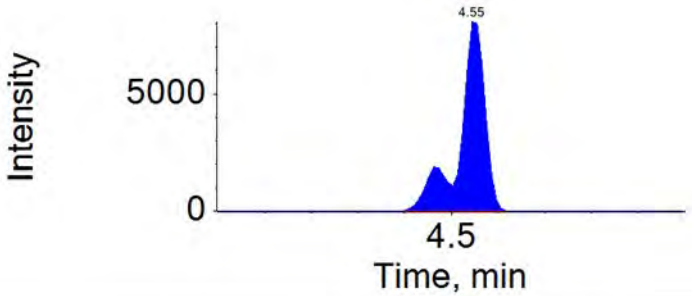
Component: PFHpA
Primary Mass: 363.0 / 319.0



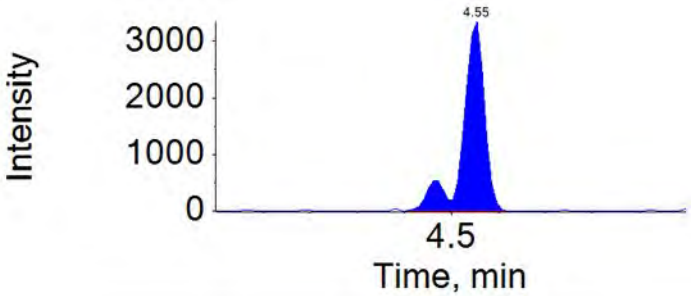
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



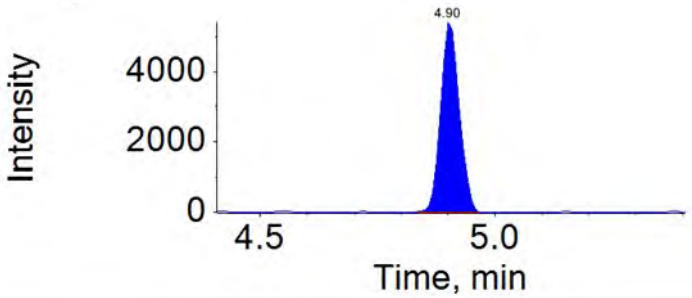
Component: PFHxS
Primary Mass: 399.0 / 80.0



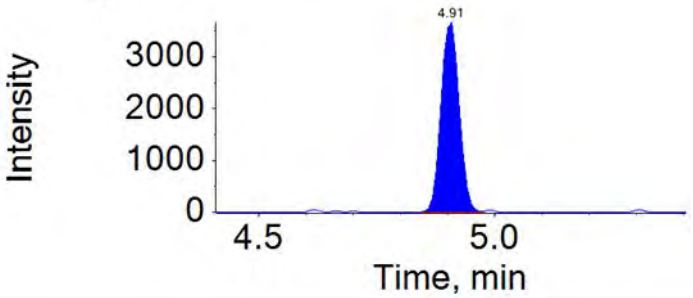
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



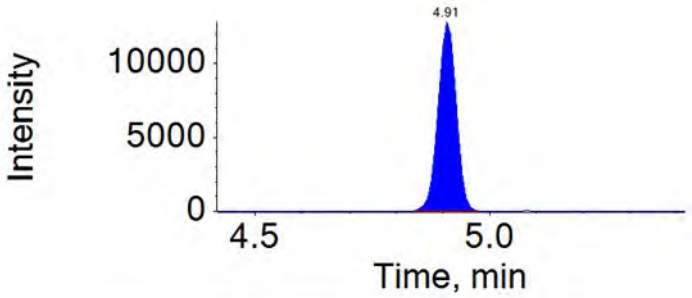
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



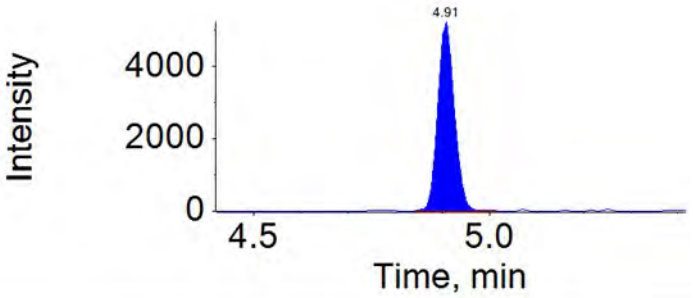
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By MCD at 3:27 pm, 11/30/18

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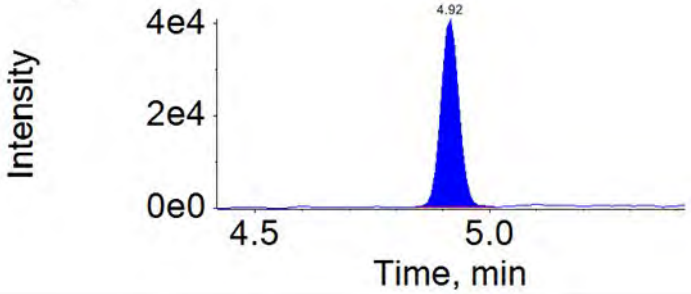
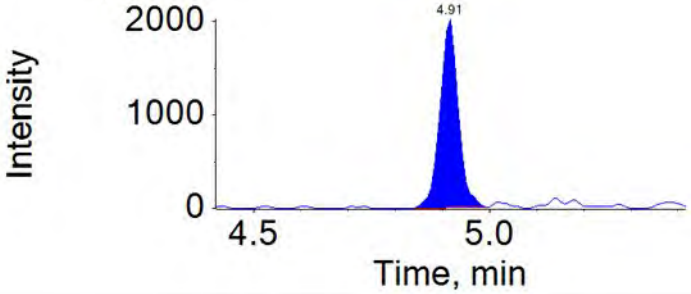
By umar at 12:38 pm, 12/4/18

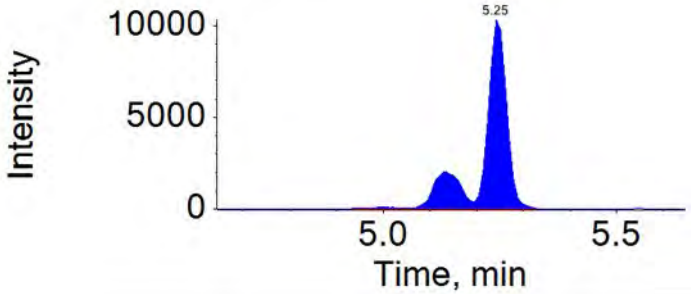
Component: PFOA
Primary Mass: 413.0 / 369.0



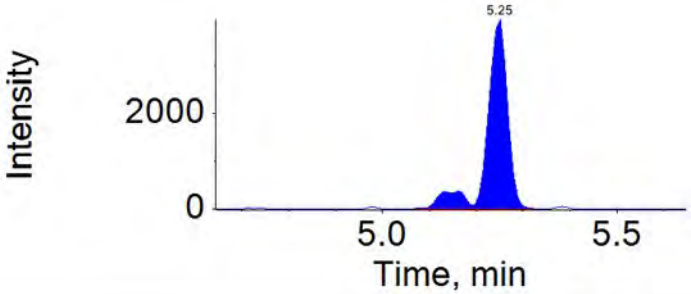
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



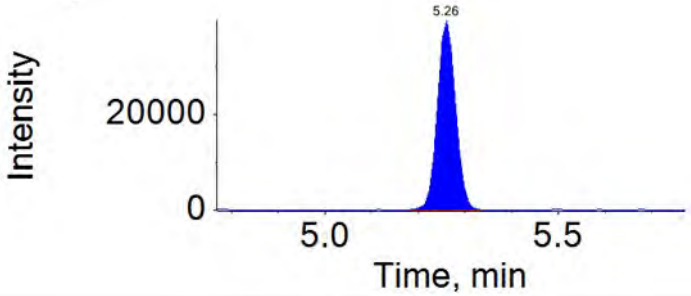
Component: PFOS
Primary Mass: 499.0 / 80.0



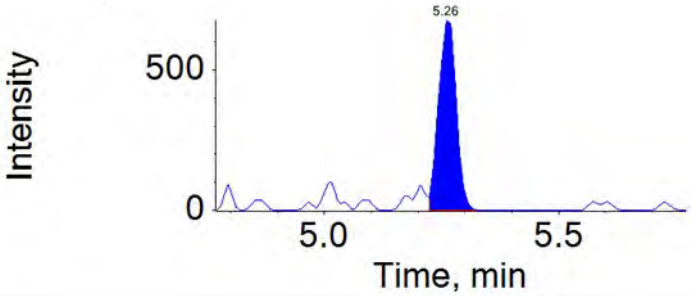
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



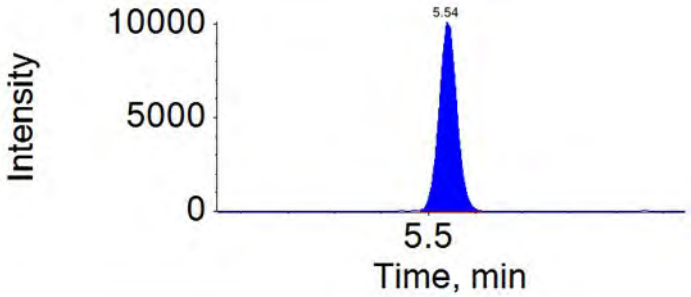
Component: PFNA
Primary Mass: 463.0 / 419.0



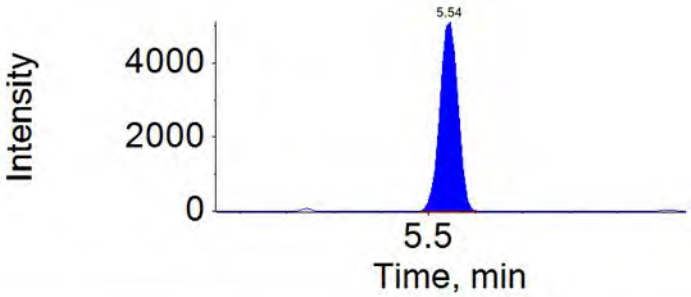
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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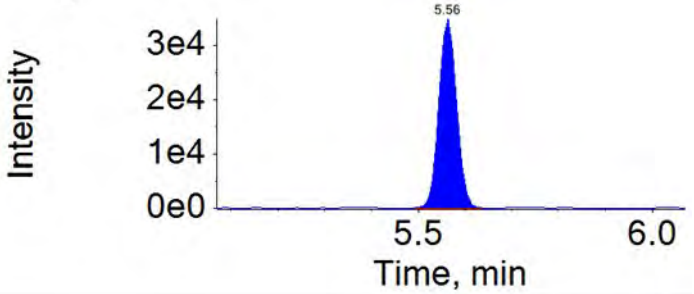
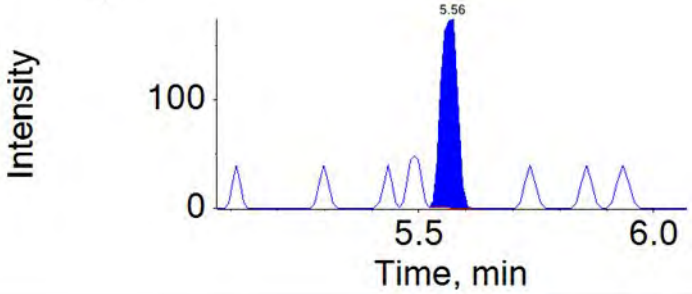
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

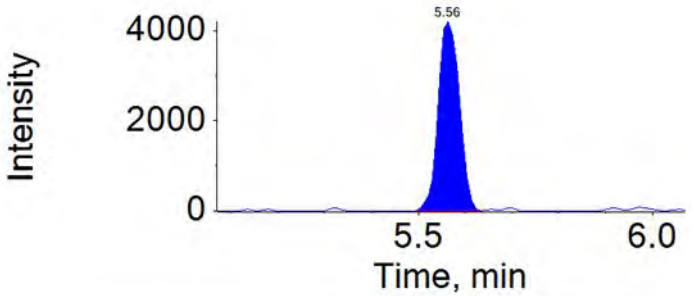
Component: PFDA
Primary Mass: 513.0 / 469.0



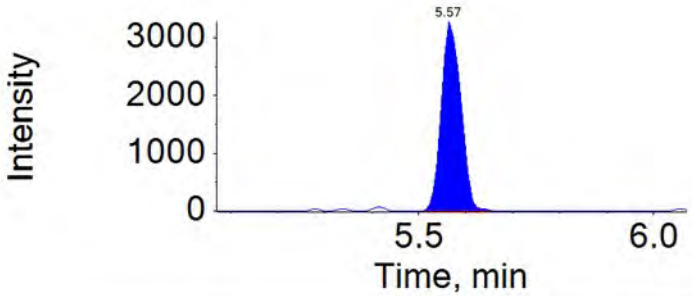
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



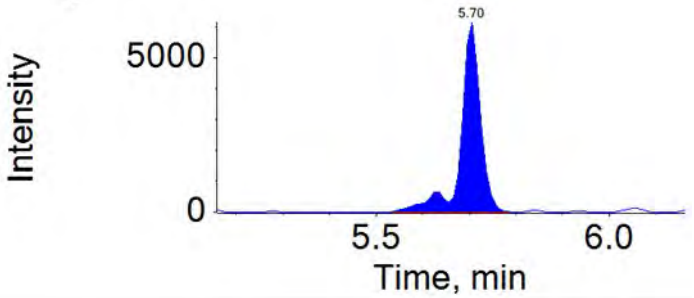
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



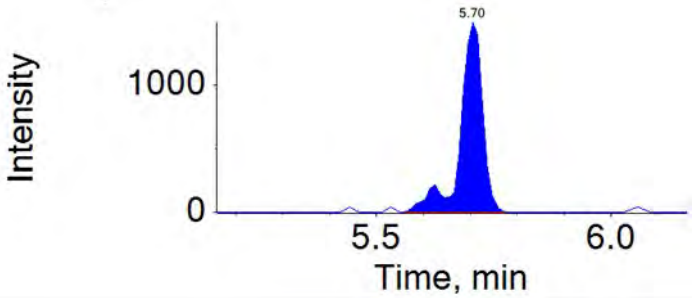
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



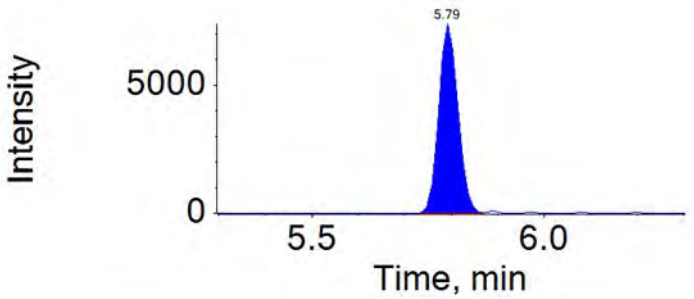
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



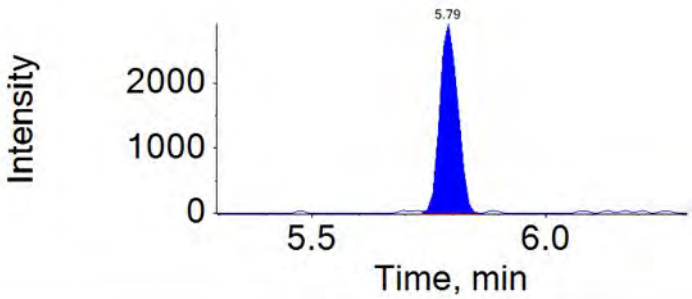
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



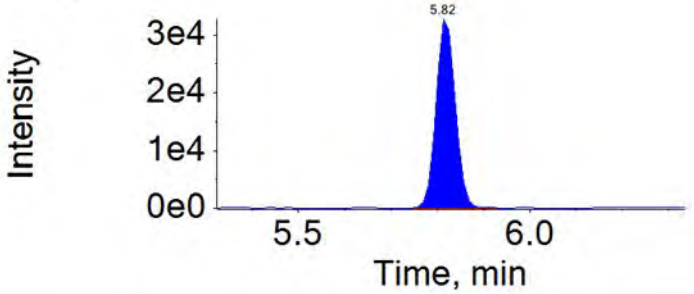
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



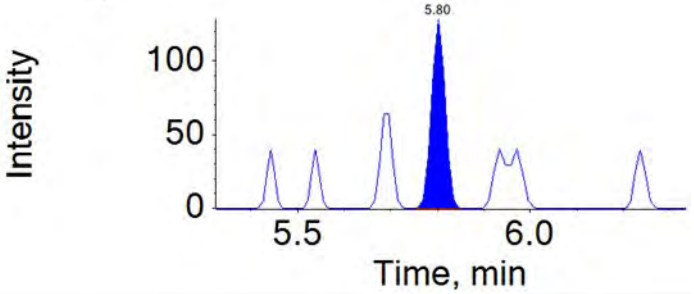
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

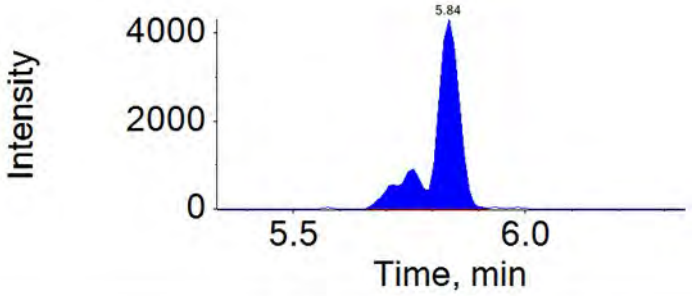
Component: PFUnDA
Primary Mass: 563.0 / 519.0



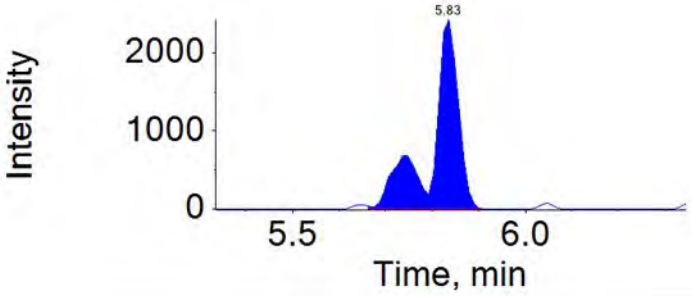
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



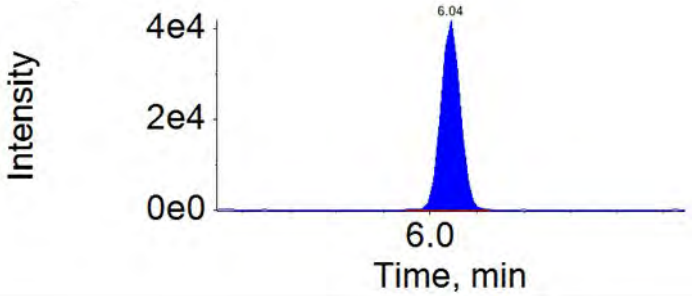
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



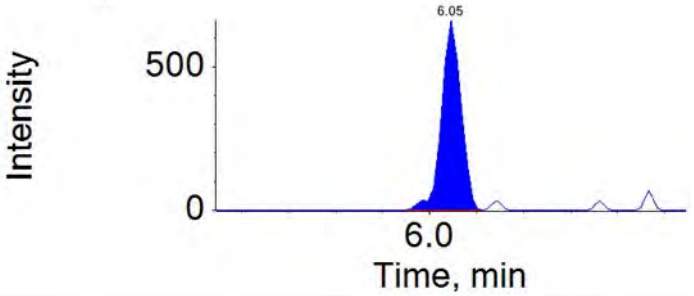
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



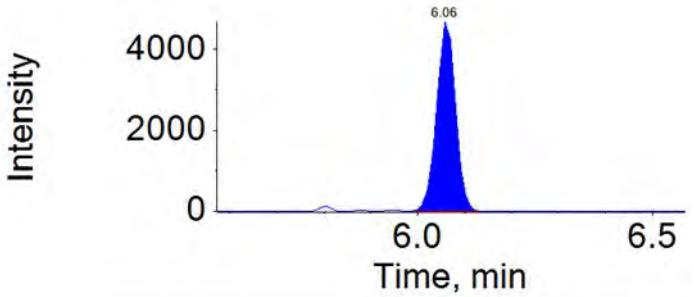
Component: PFDoDA
Primary Mass: 613.0 / 569.0



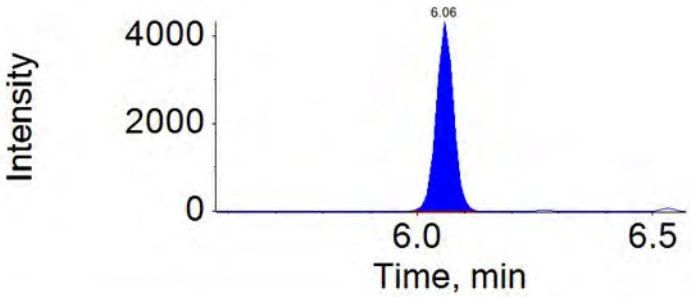
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



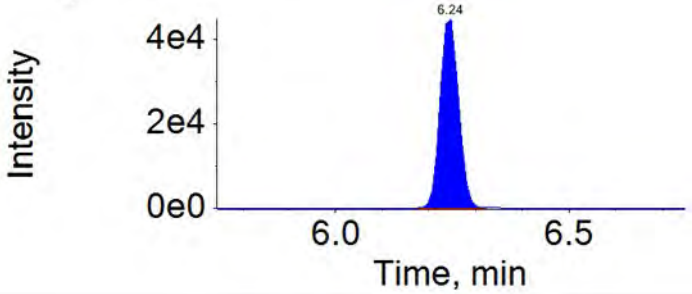
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



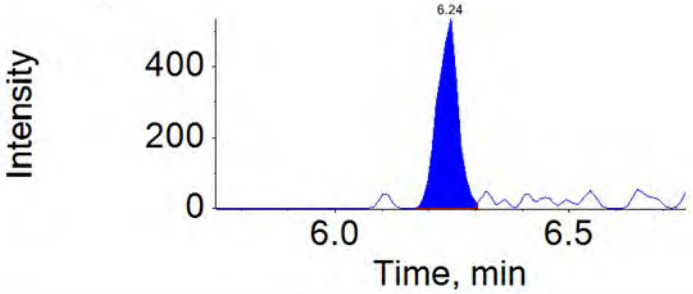
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

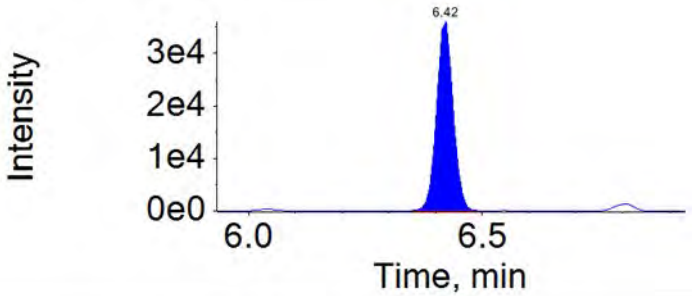
Component: PFTrDA
Primary Mass: 663.0 / 619.0



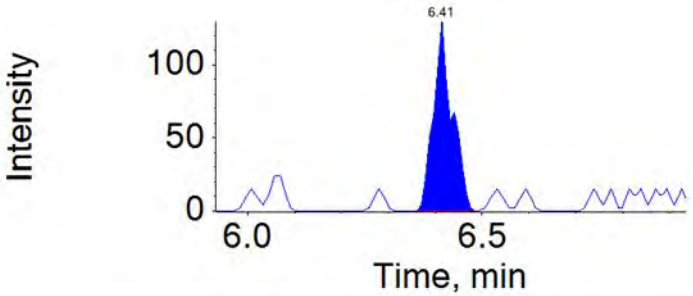
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



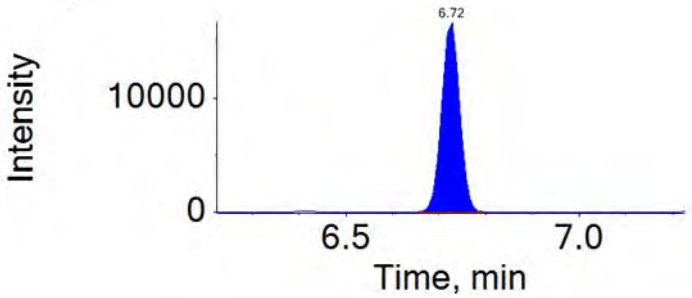
Component: PFTeDA
Primary Mass: 713.0 / 669.0



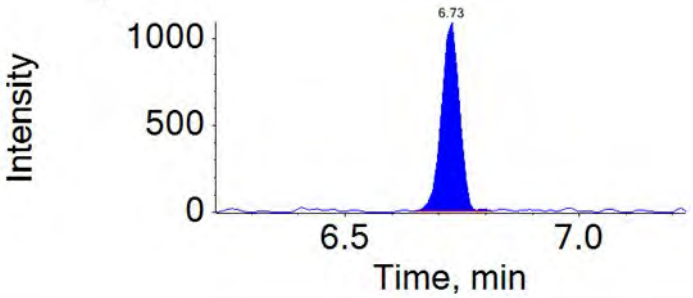
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



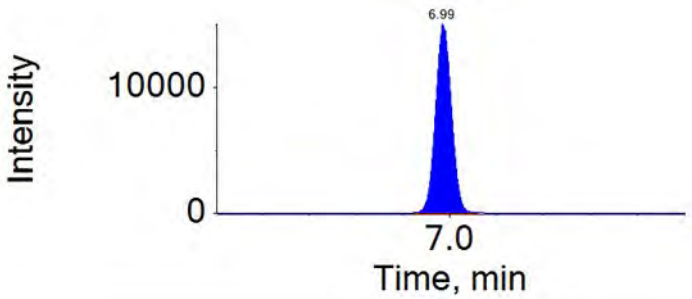
Component: PFHxDA
Primary Mass: 813.0 / 769.0



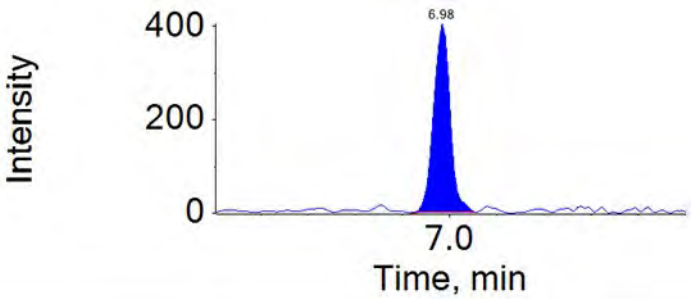
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **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 **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

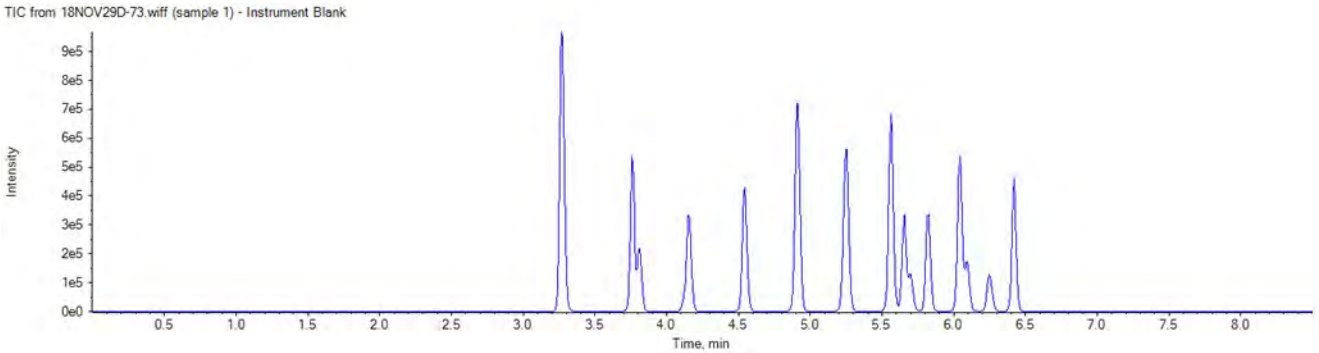
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-73.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	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	
PFTrDA	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	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	

Total Ion Chromatogram

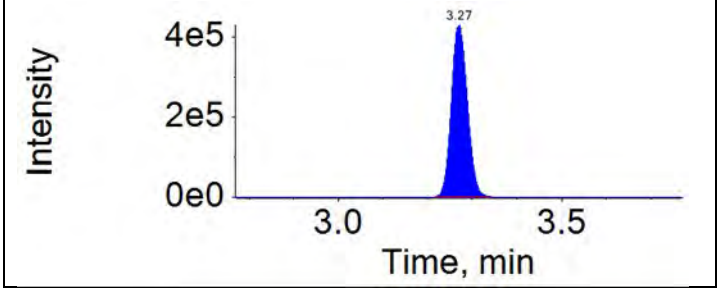


APPROVED
By MCD at 3:27 pm, 11/30/18

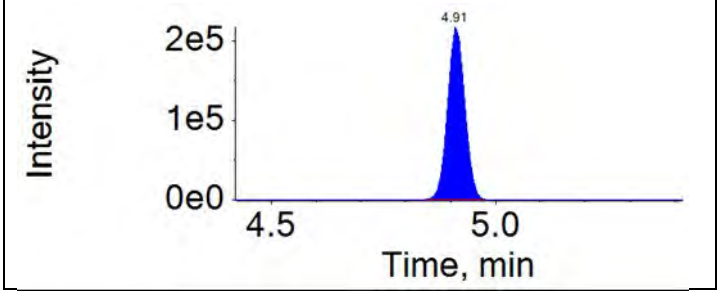
REVIEWED
By UMJS at 3:33 pm, 12/11/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

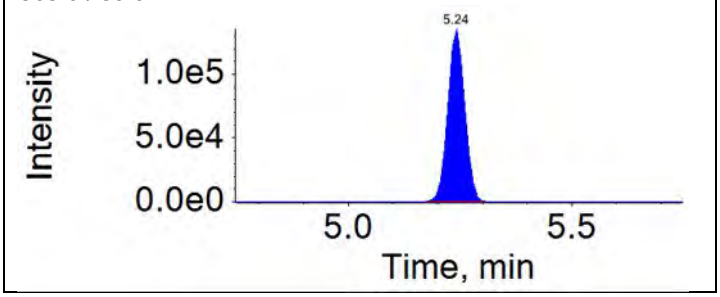
Injection Standard: 13C3-PFBA
216.0 / 172.0



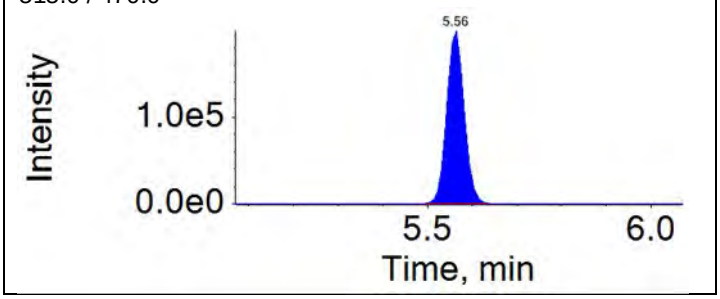
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



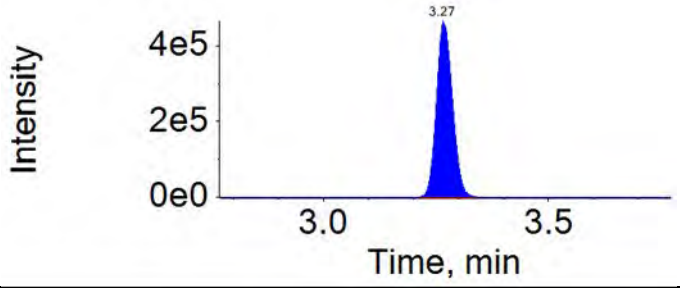
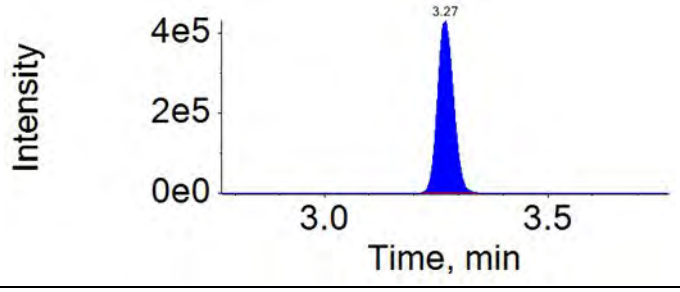
Injection Standard: 13C2-PFDA
515.0 / 470.0

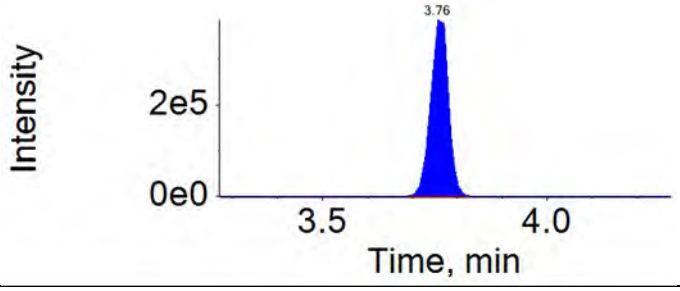
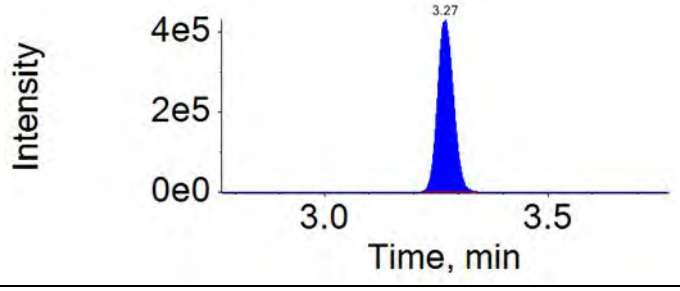


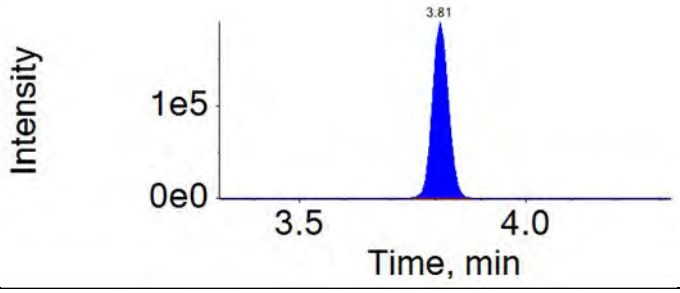
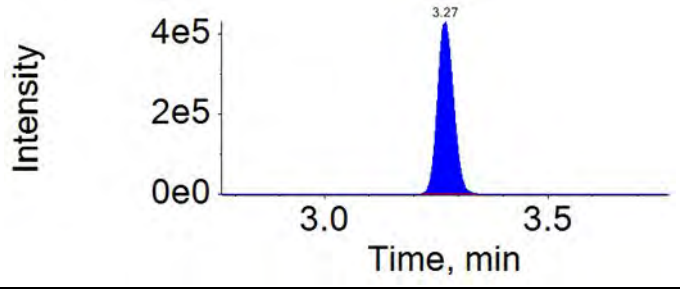
APPROVED
By MCD at 3:27 pm, 11/30/18

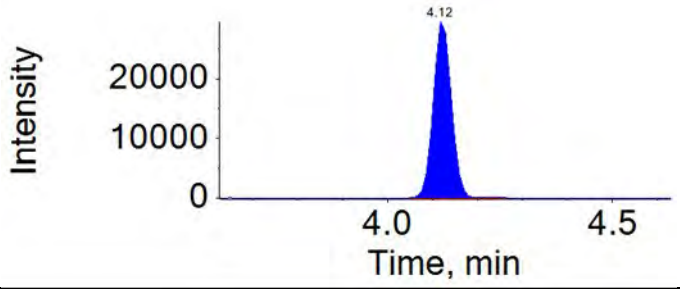
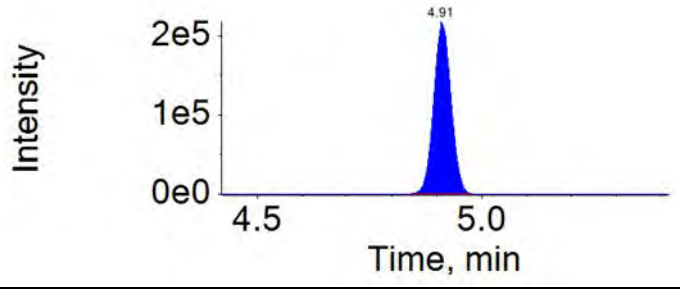
REVIEWED
By UMJS at 3:33 pm, 12/11/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

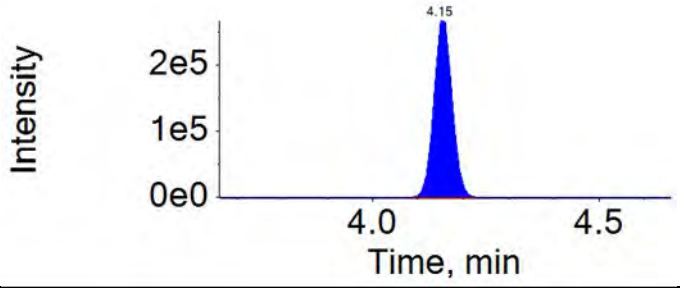
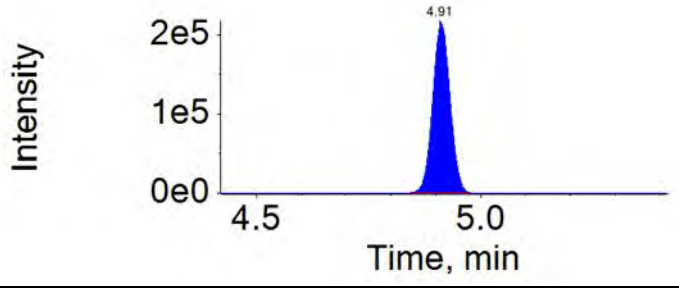
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

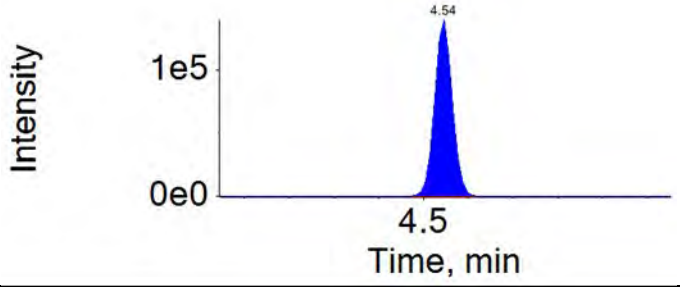
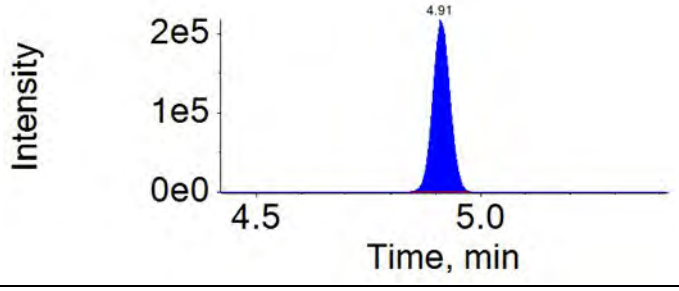
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

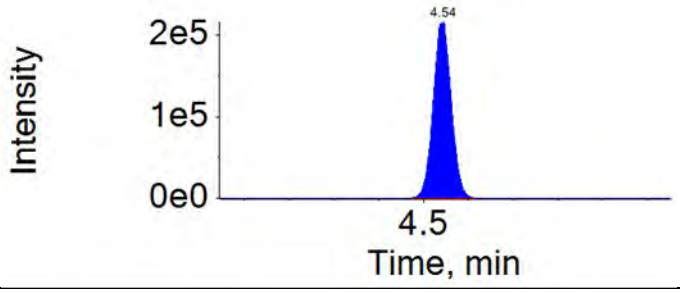
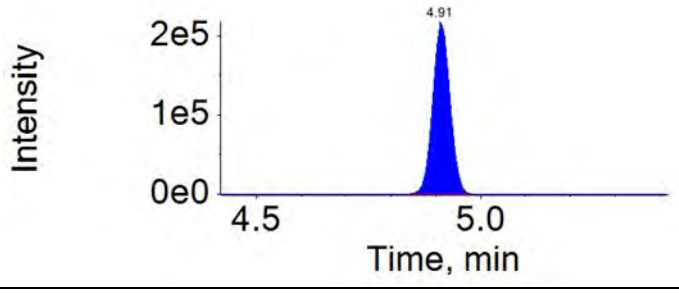
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

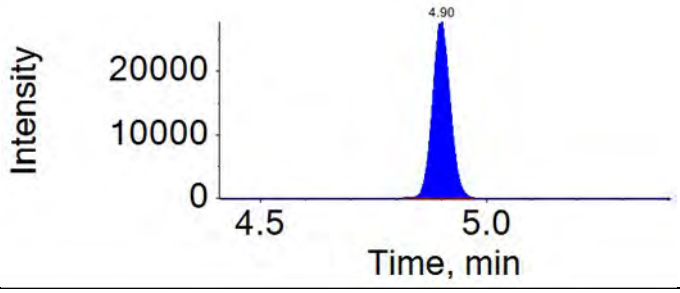
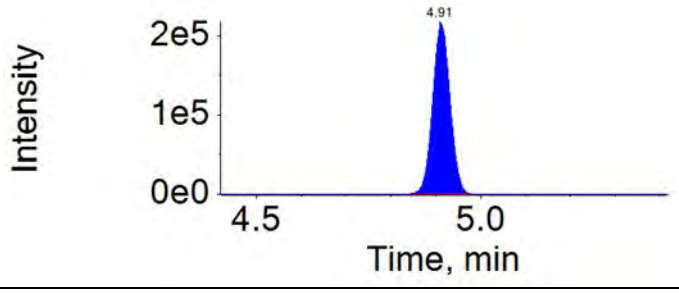
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

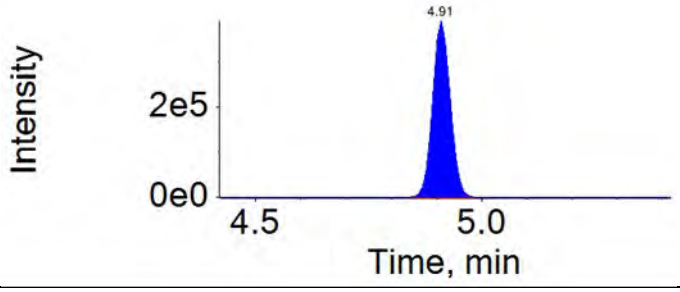
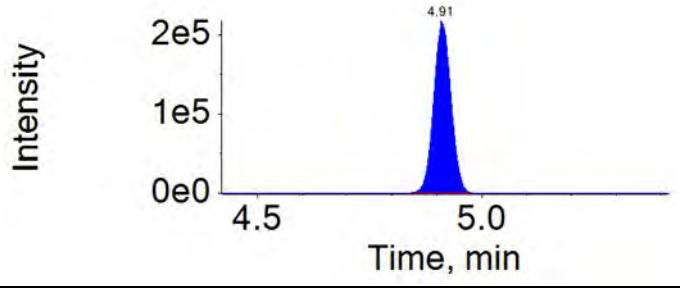
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

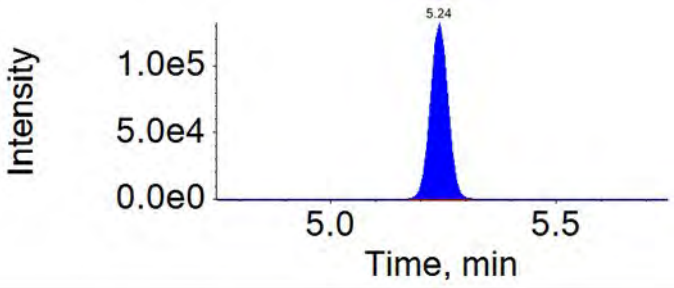
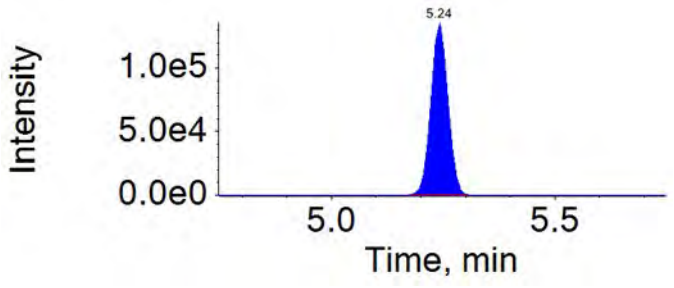
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

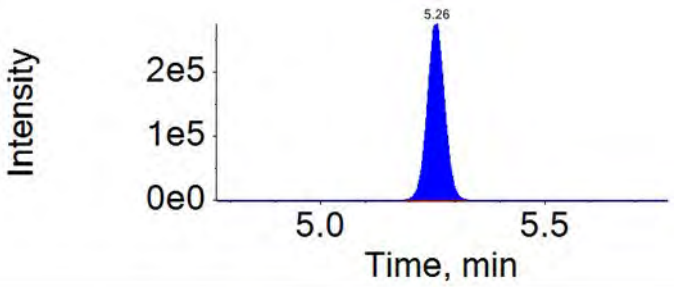
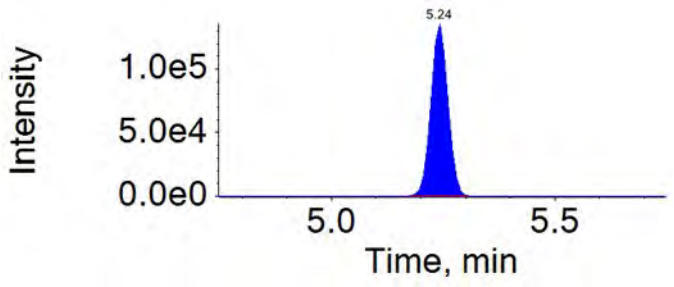
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

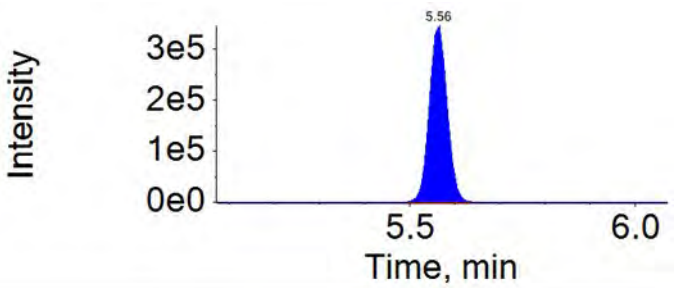
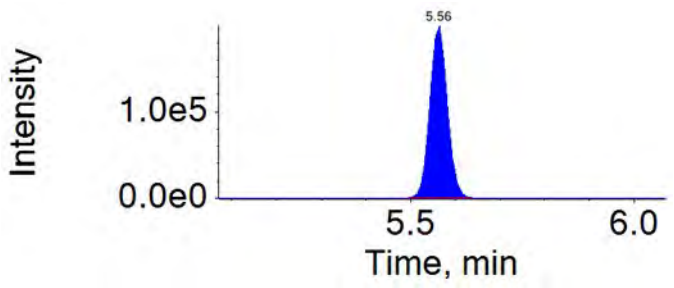
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

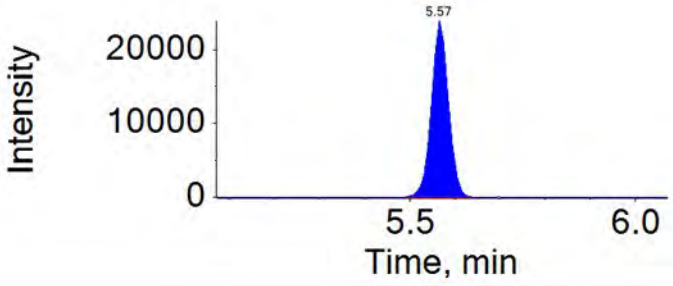
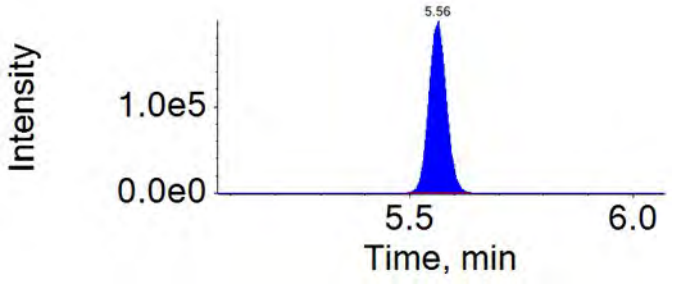
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

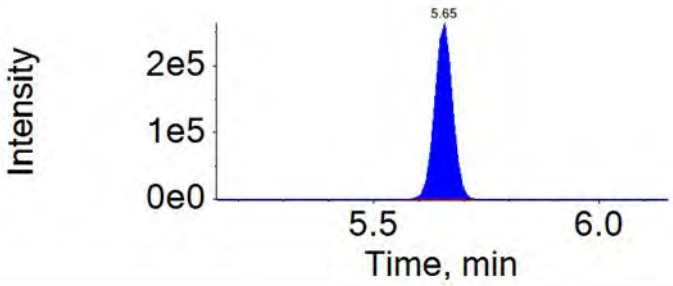
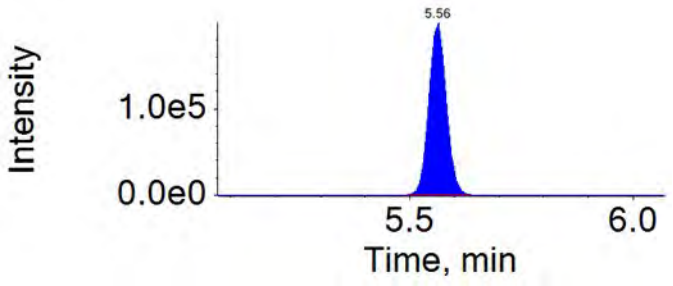
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

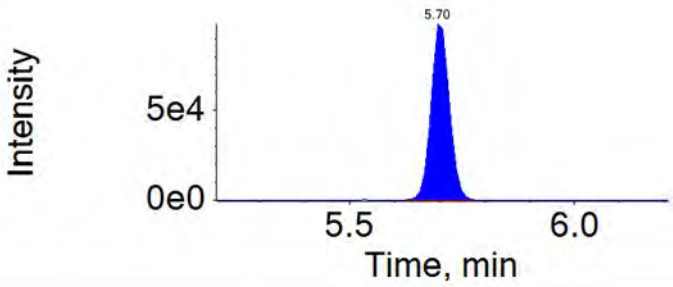
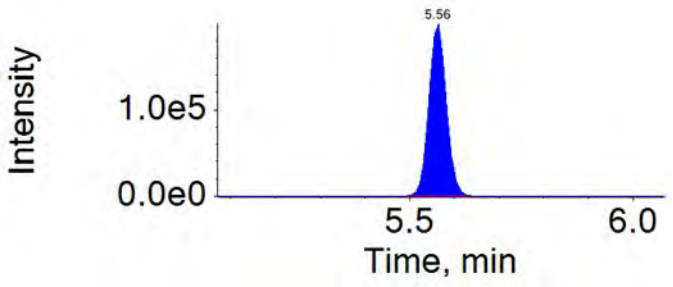
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

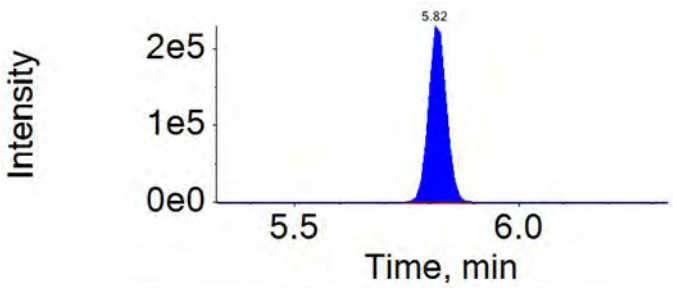
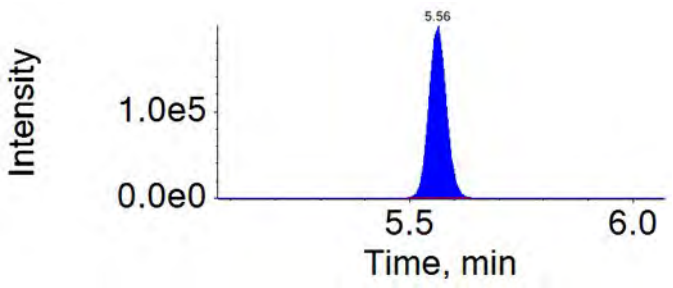
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

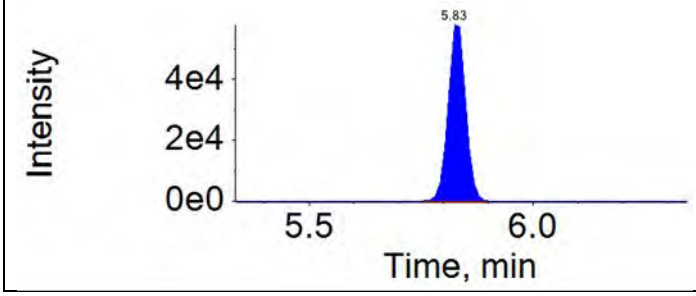
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

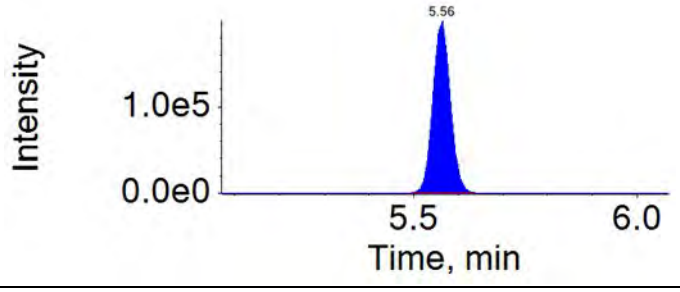
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

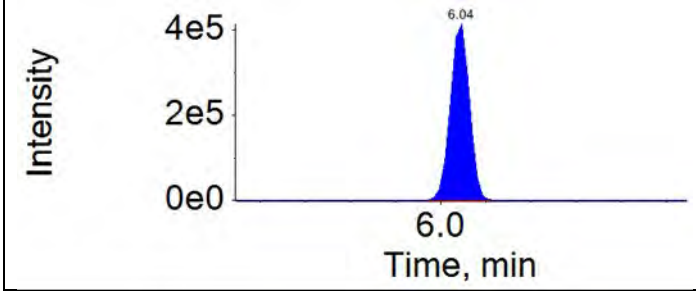
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

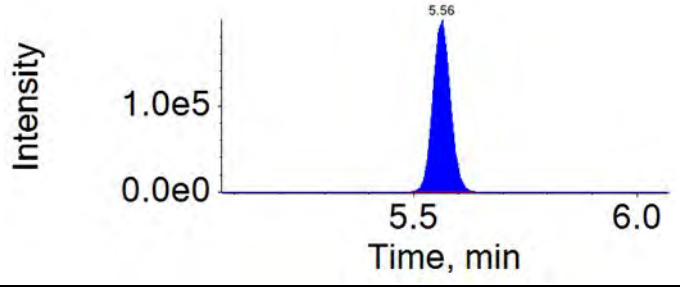
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



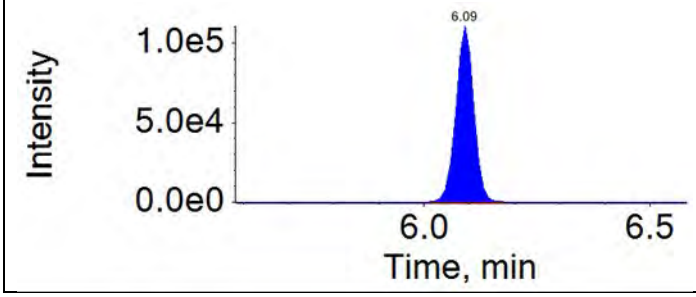


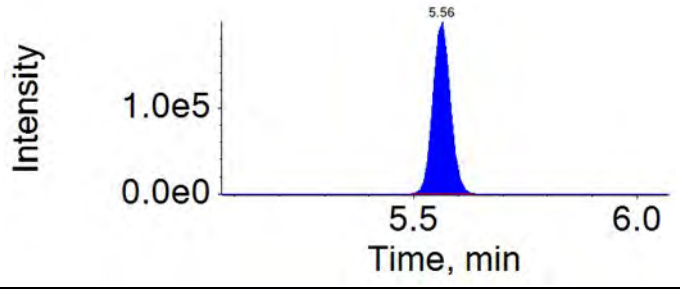
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



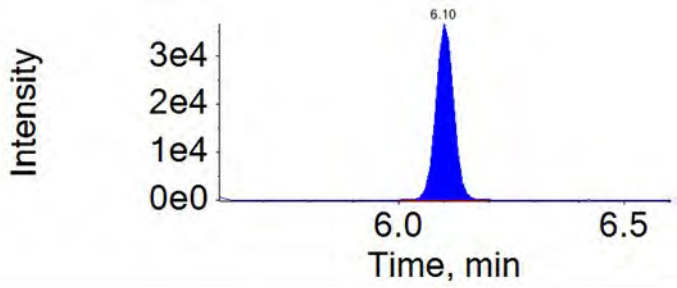


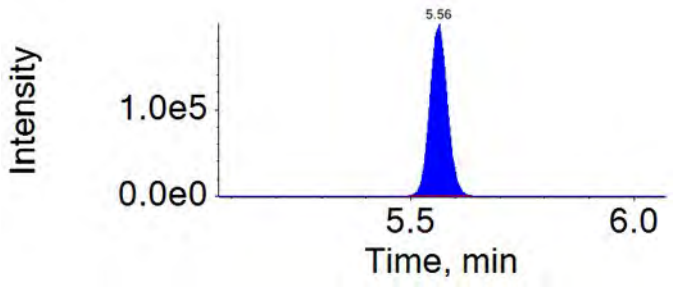
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





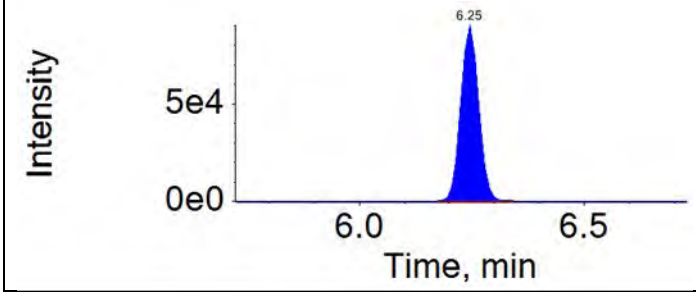
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

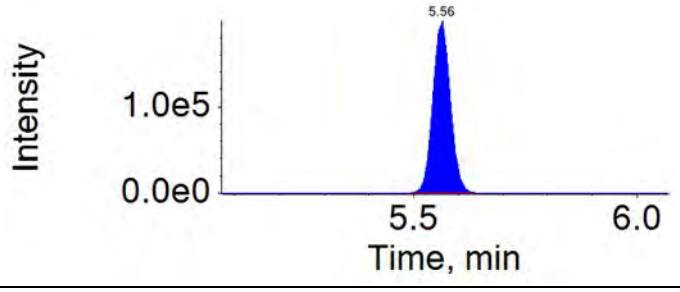




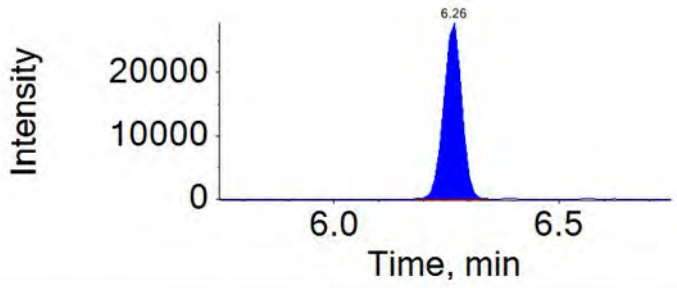
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

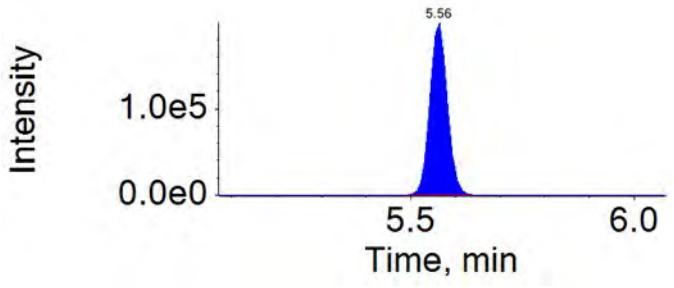
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



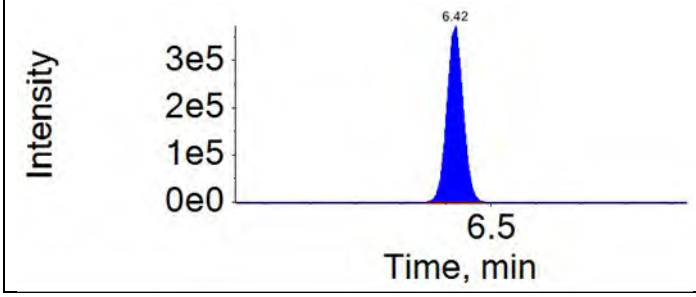


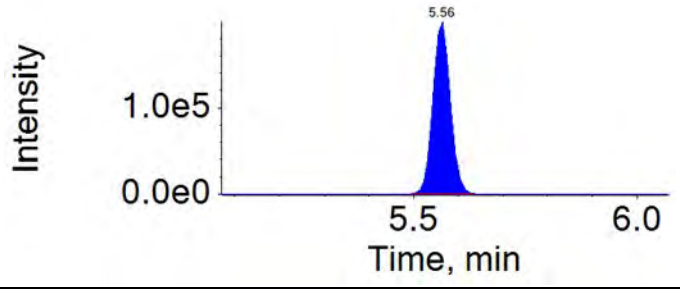
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





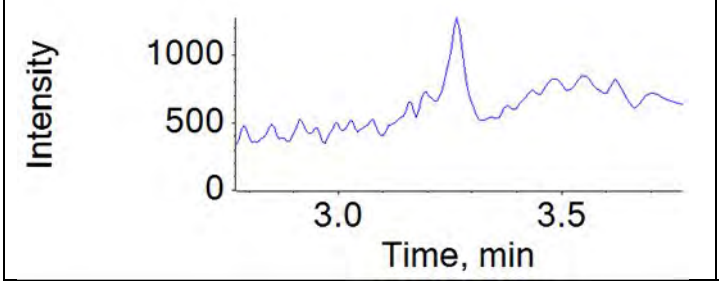
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

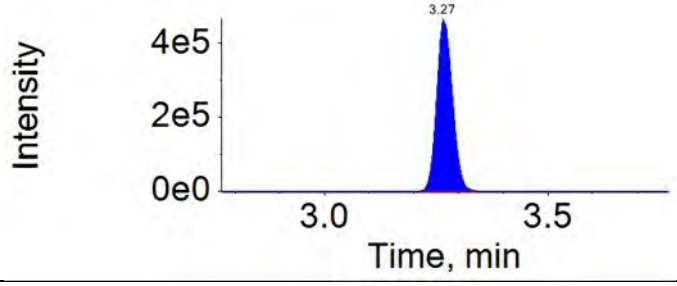




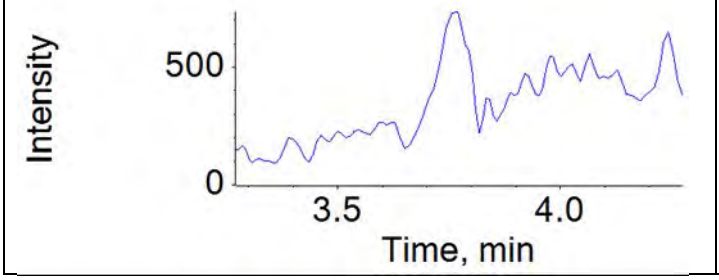
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

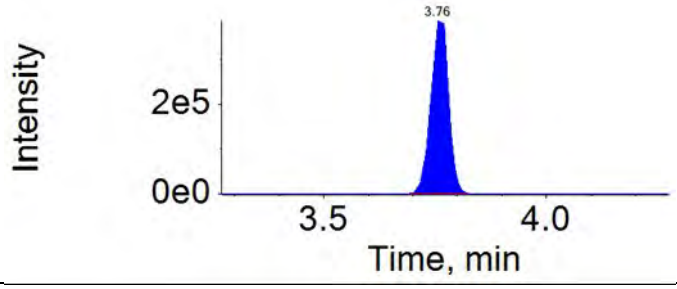
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



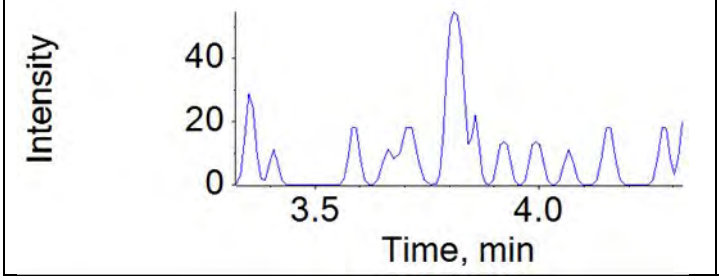


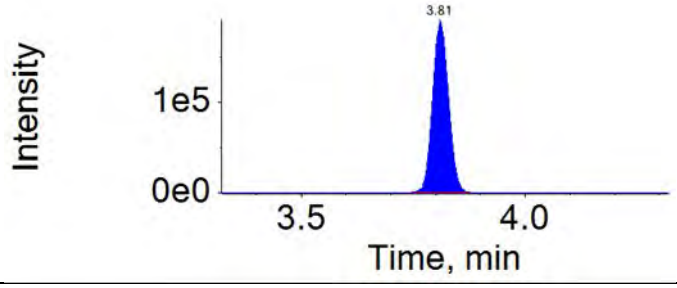
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



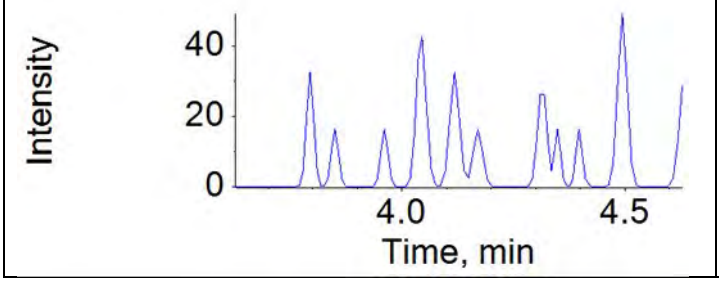


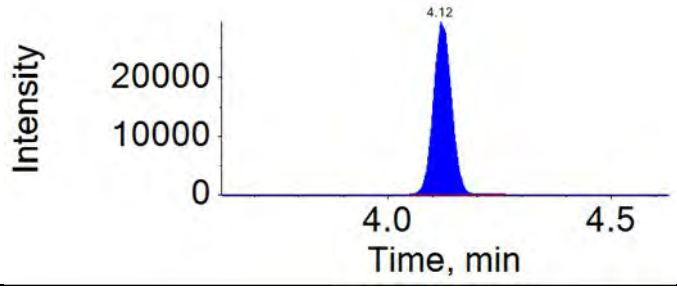
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



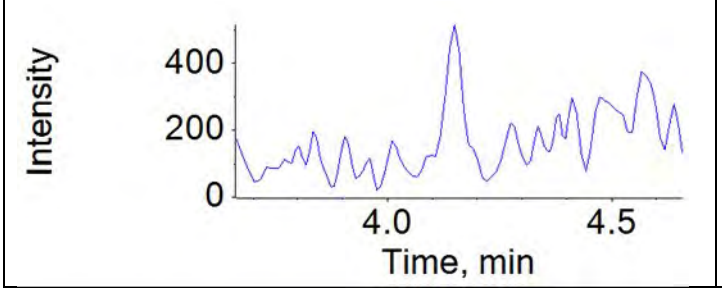


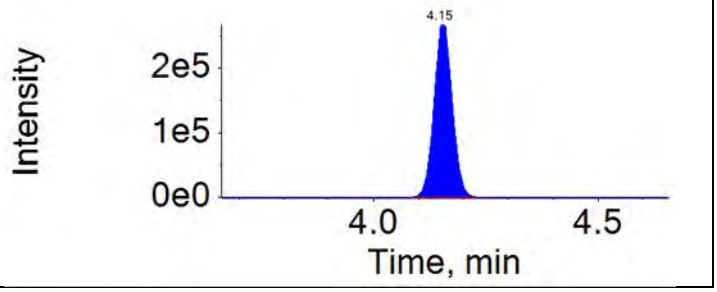
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

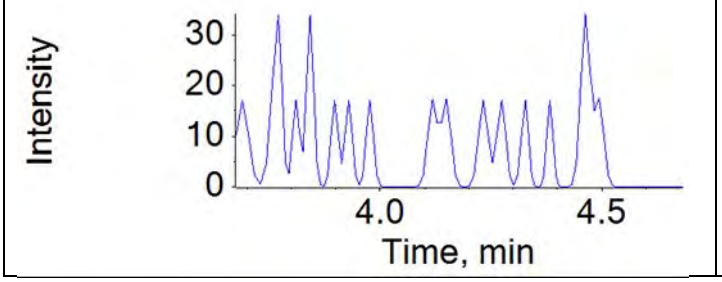
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

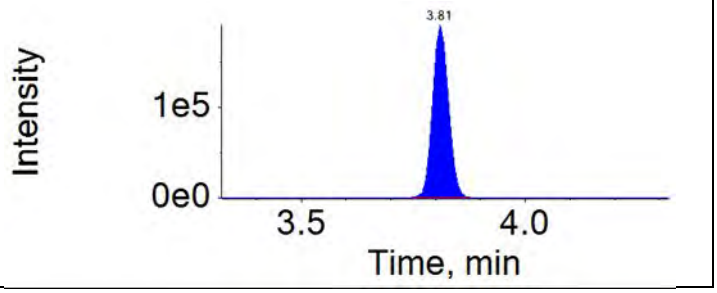
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



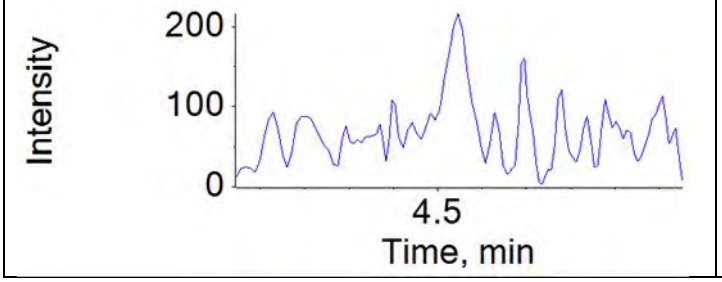


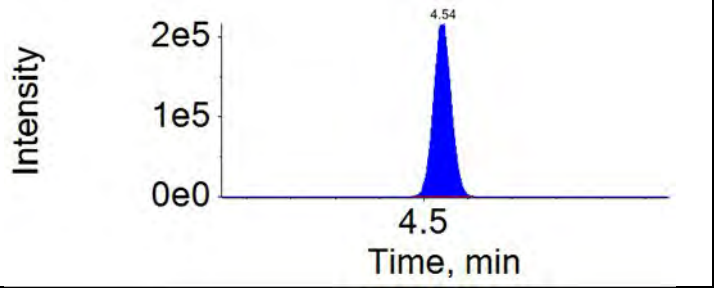
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



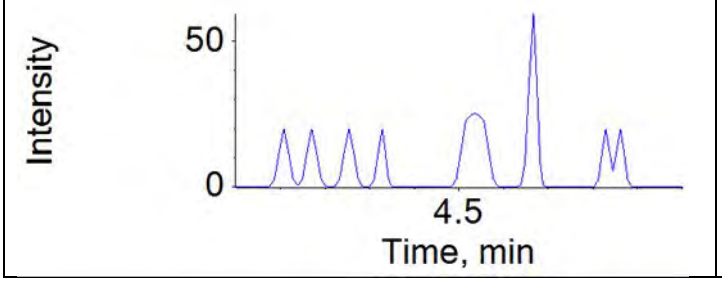


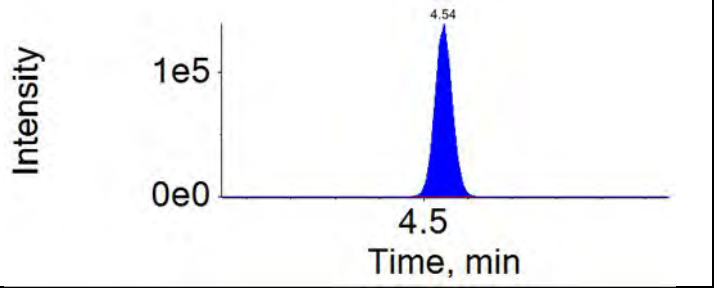
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



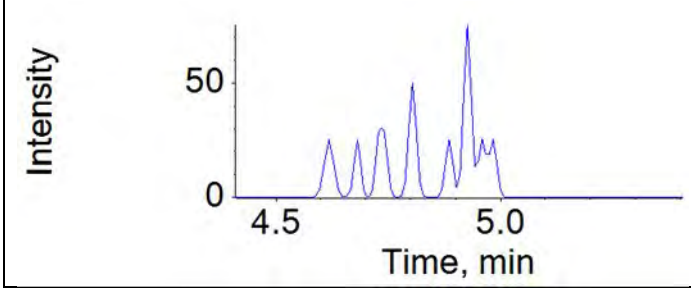
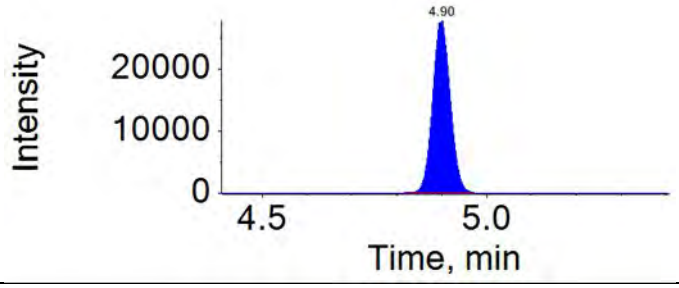


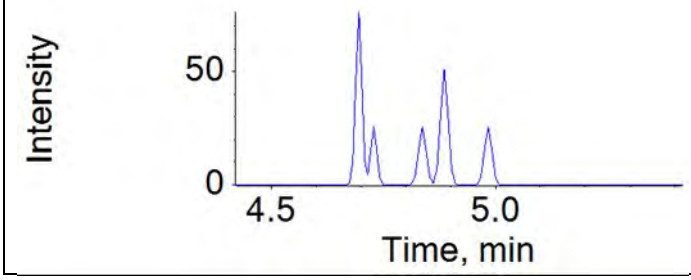
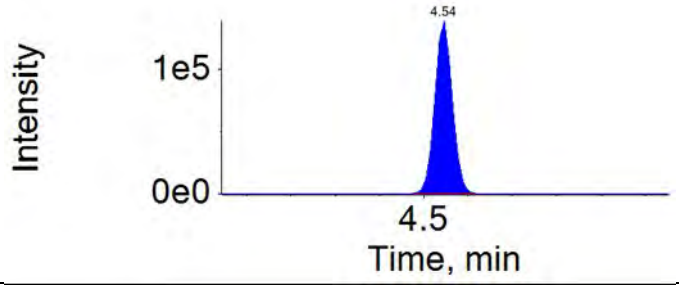
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

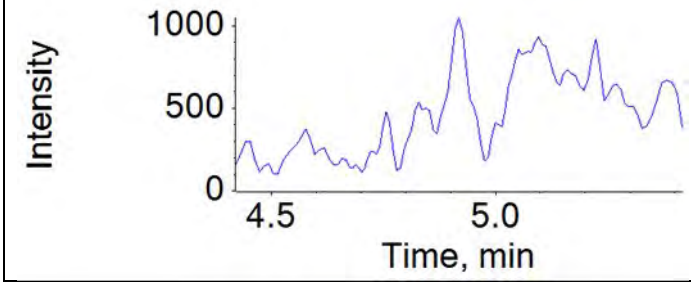
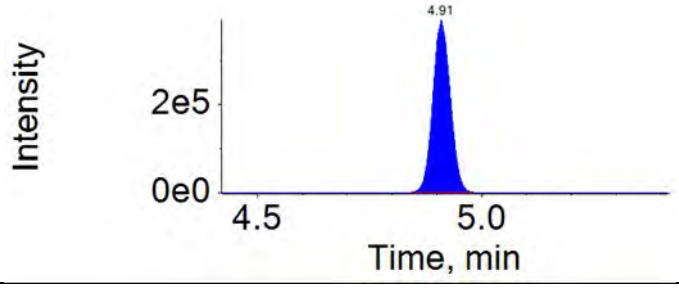


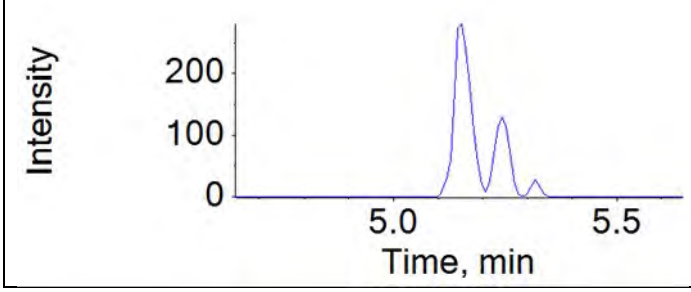
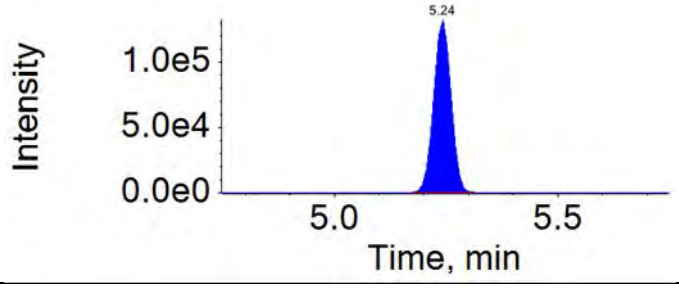


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

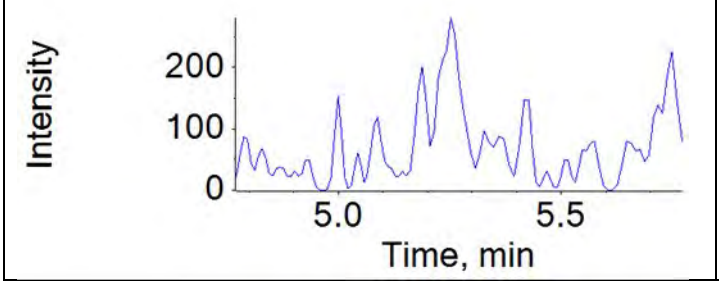
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

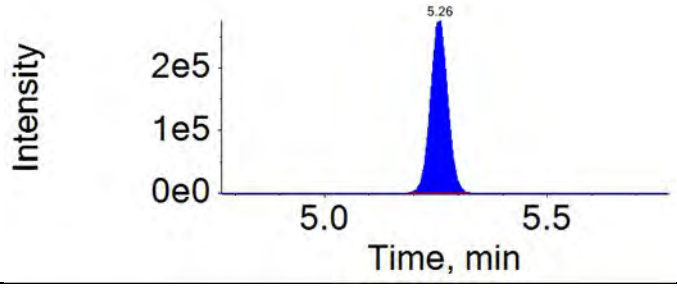
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

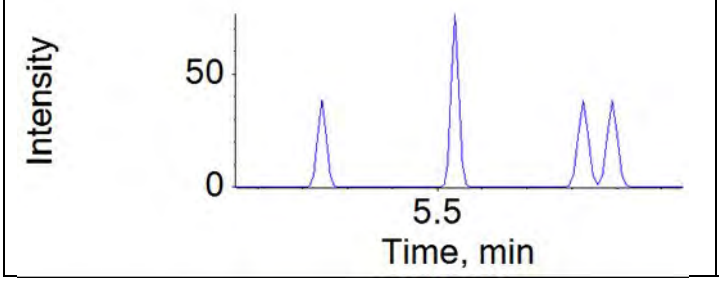
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

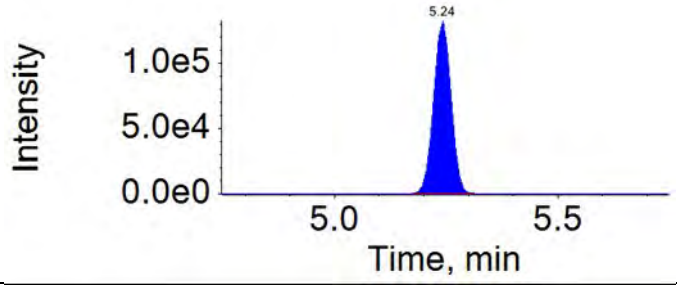
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



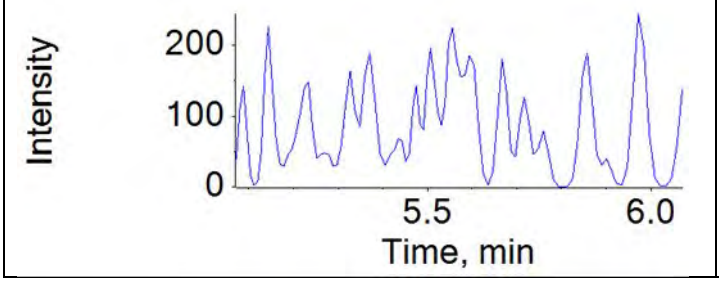


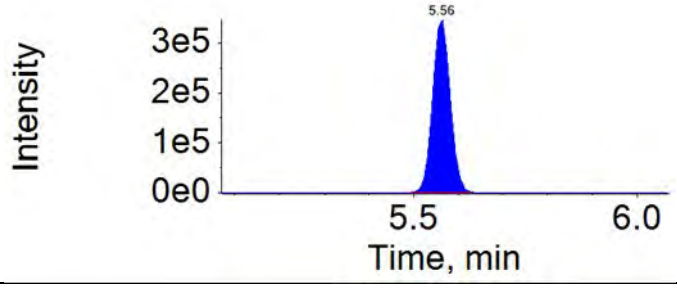
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



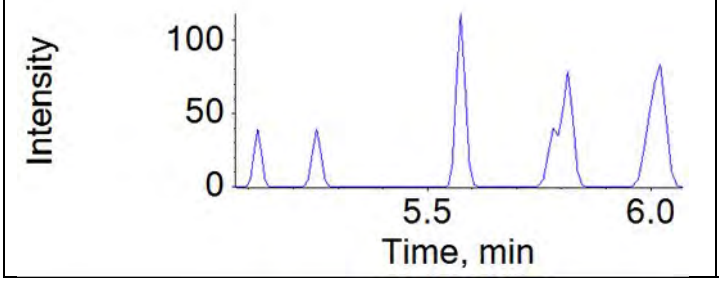


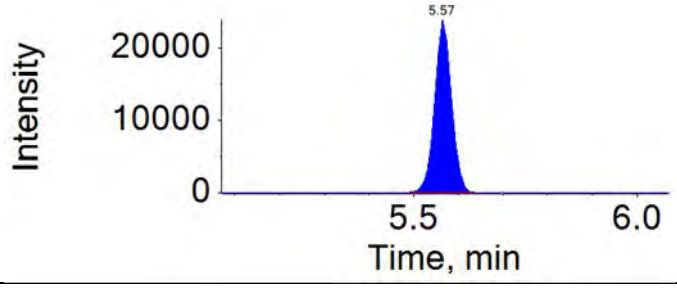
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





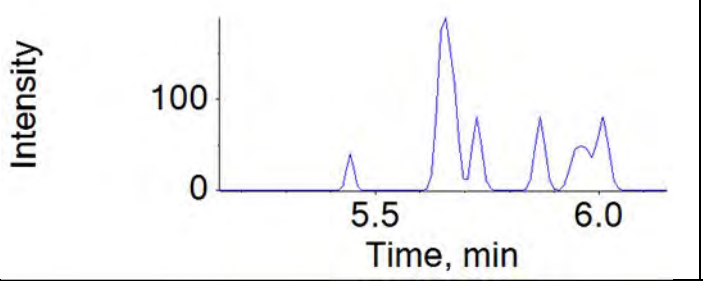
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

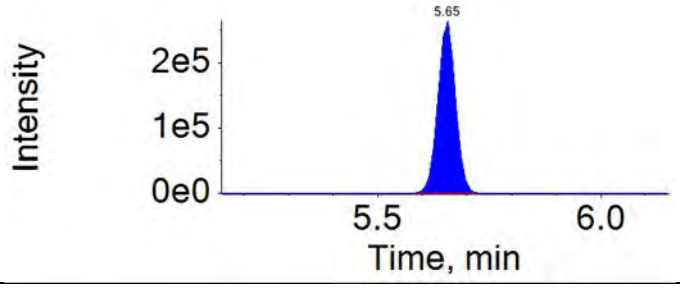




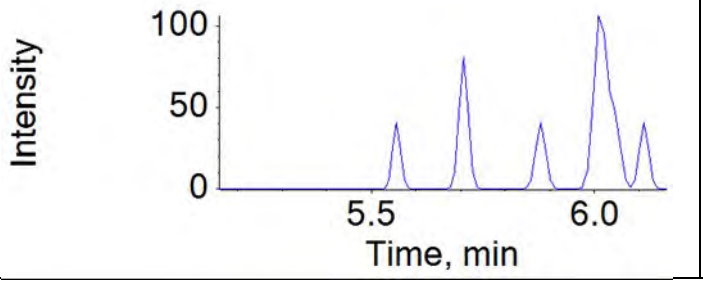
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

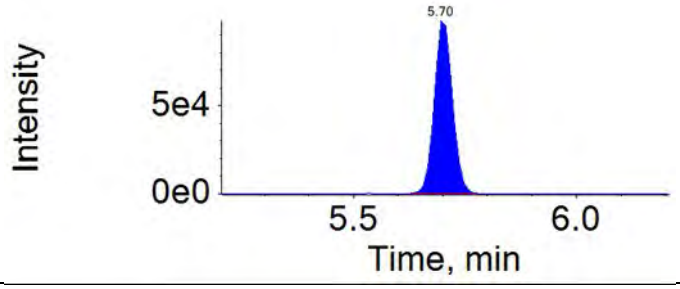
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



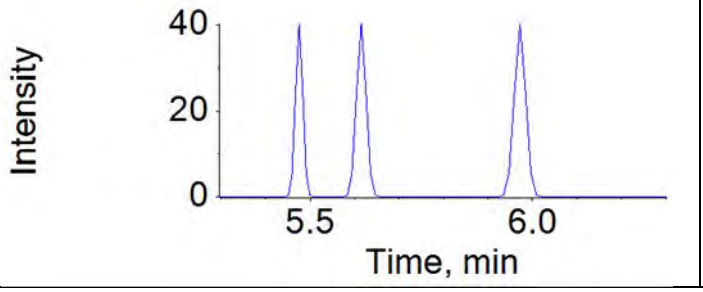


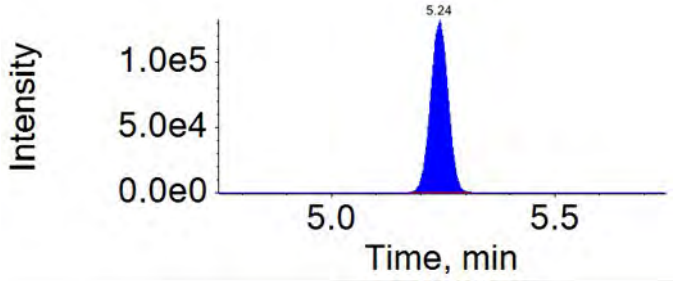
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



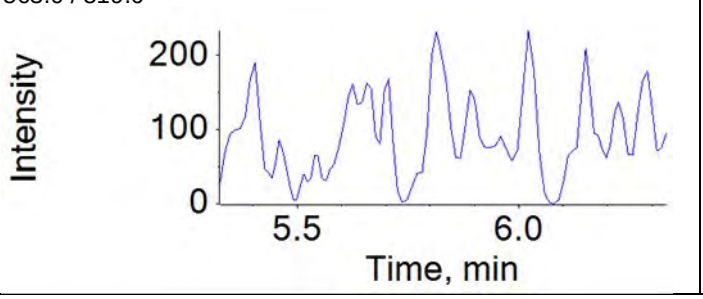


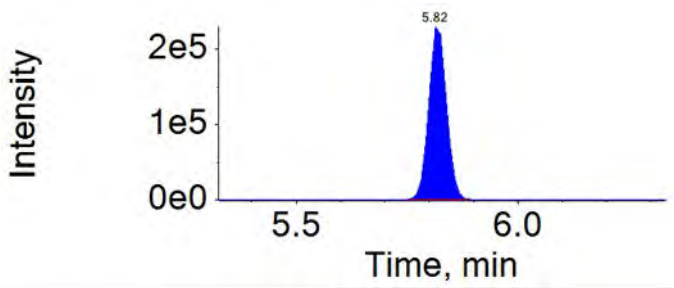
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



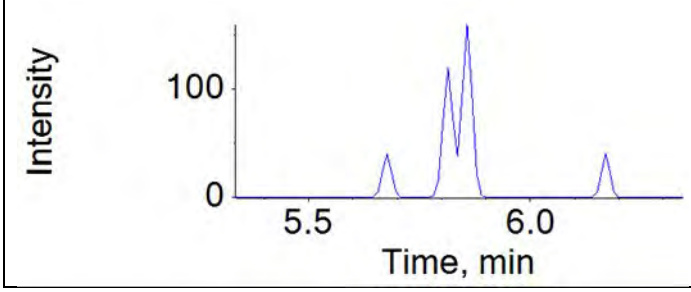


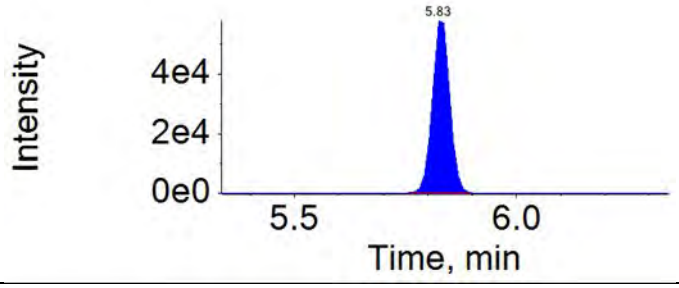
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

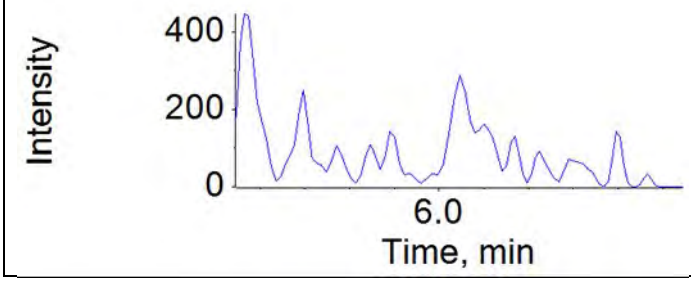
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

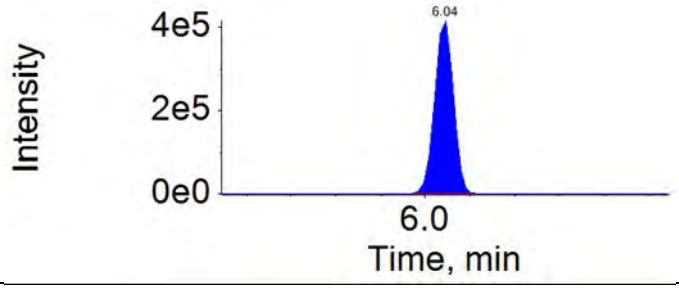
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



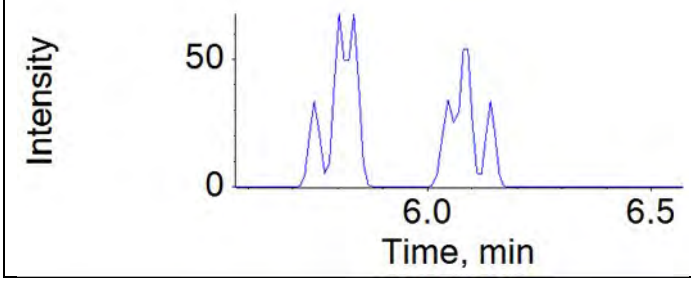


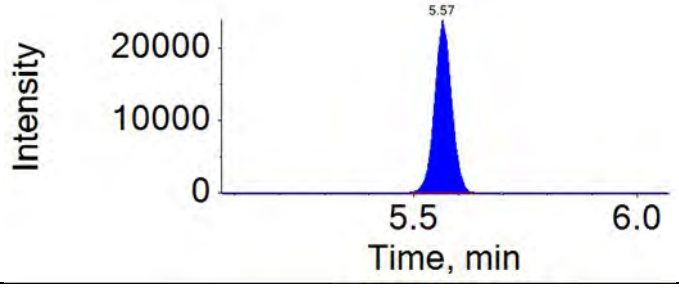
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



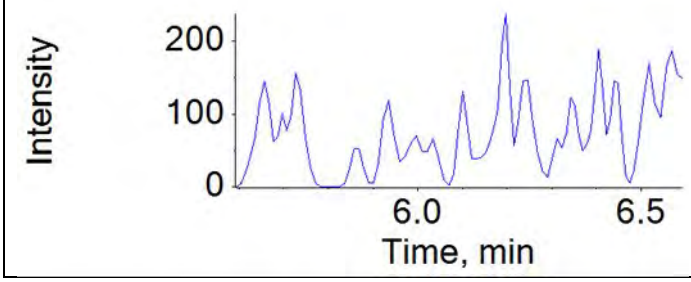


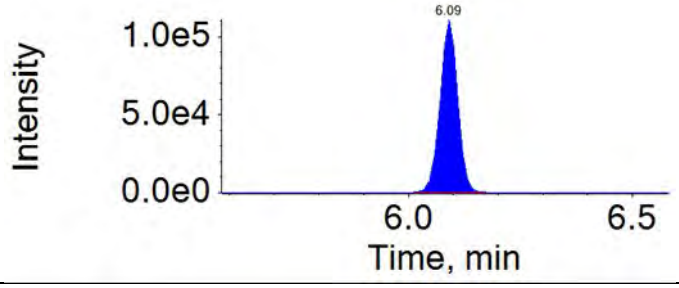
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





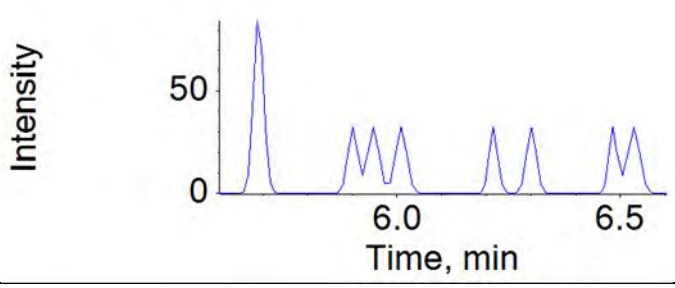
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

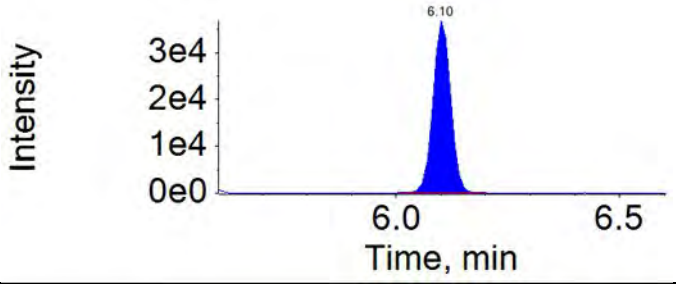




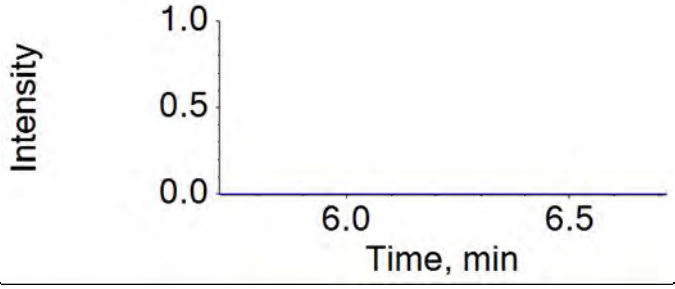
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

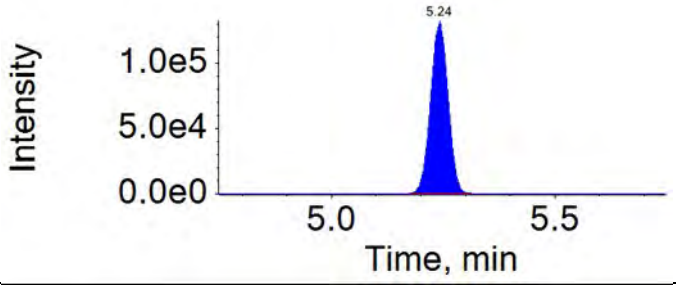
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



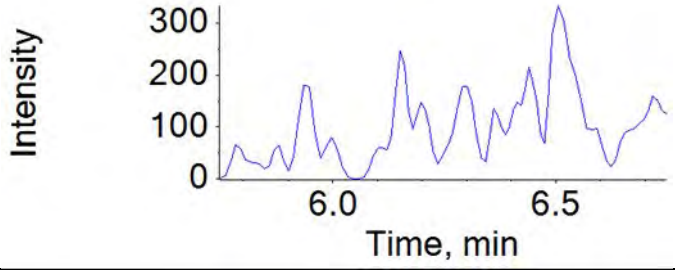


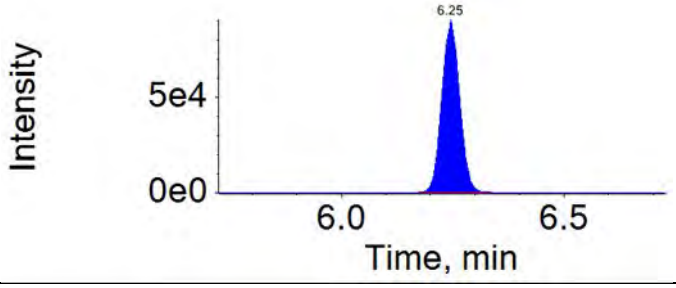
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



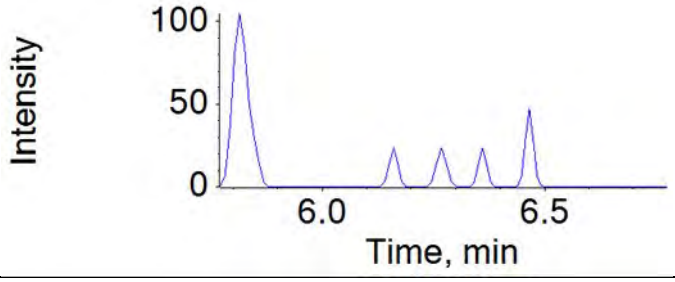


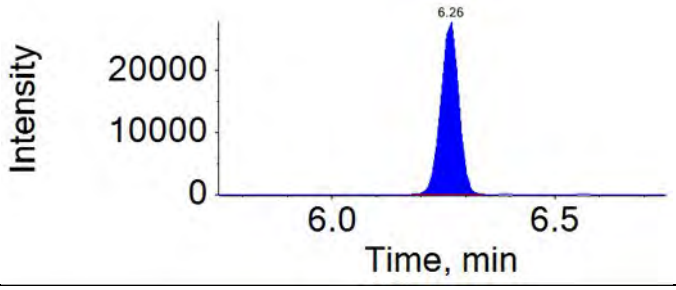
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





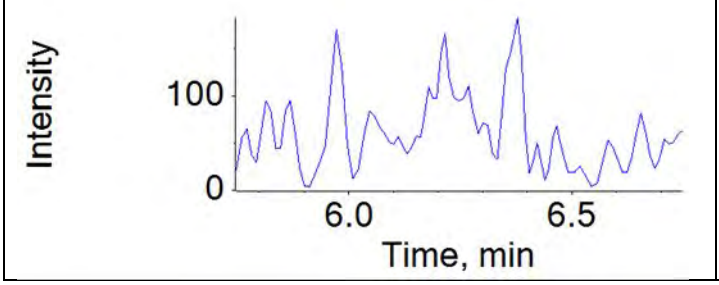
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

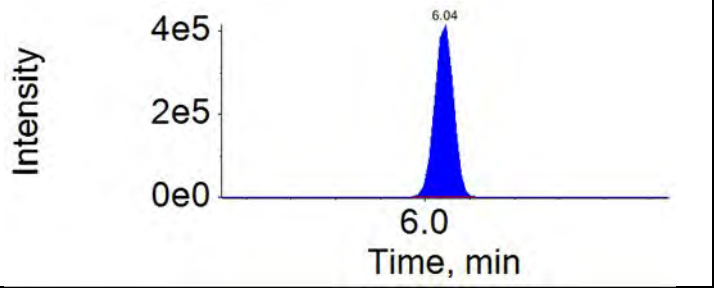




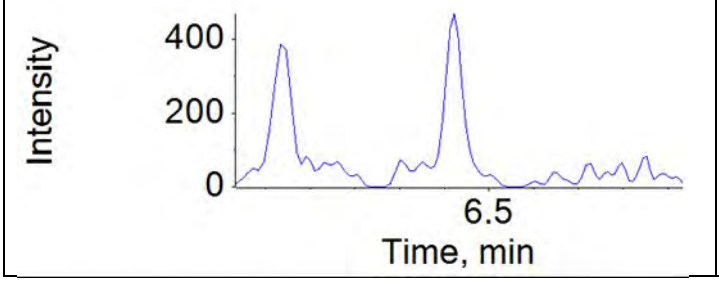
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

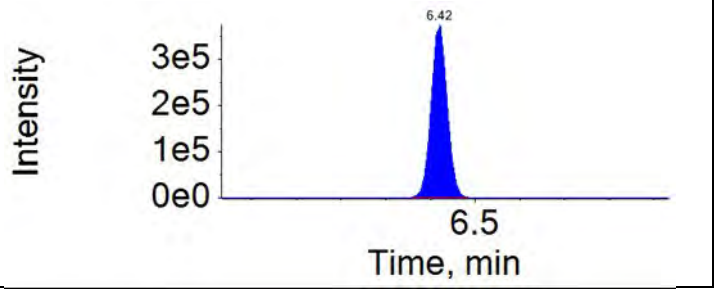
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



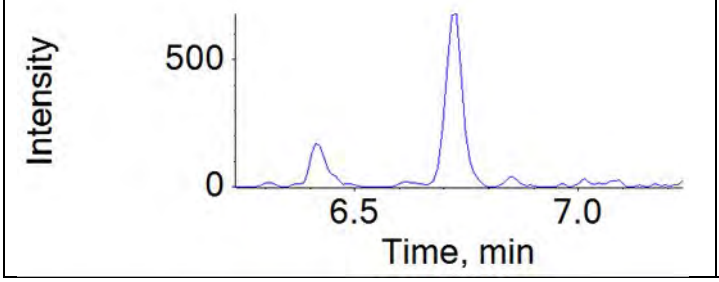


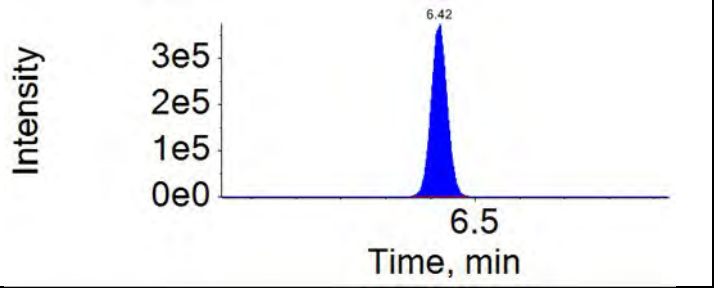
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



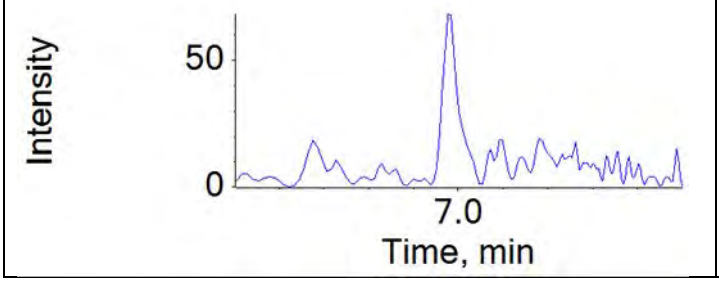


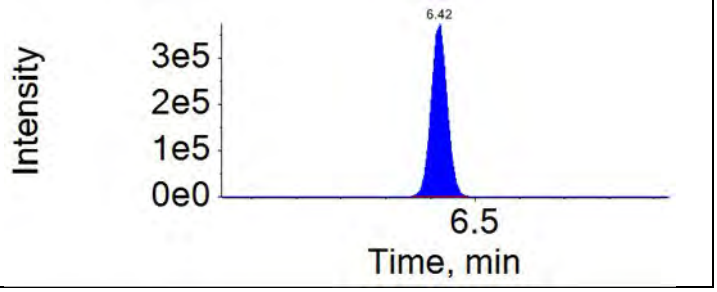
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





Ion Ratio Report

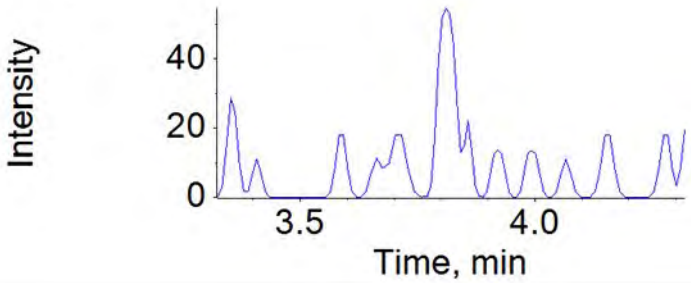
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-73.wiff

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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

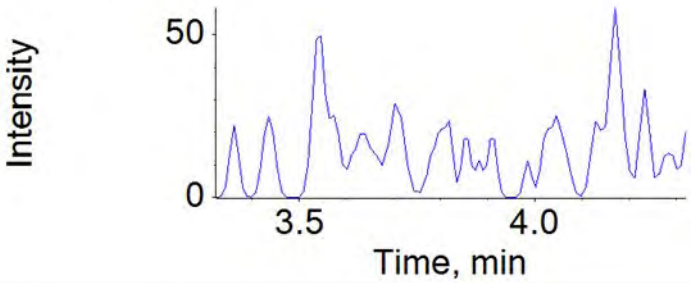
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

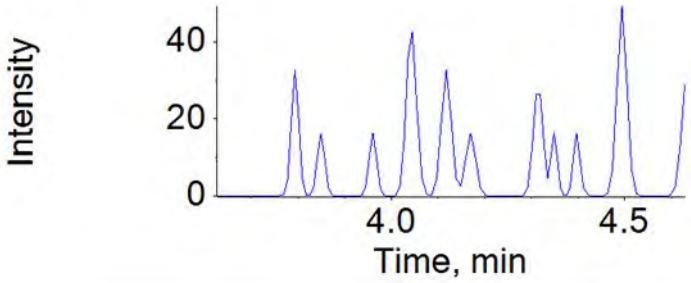
Component: PFBS
Primary Mass: 299.0 / 80.0



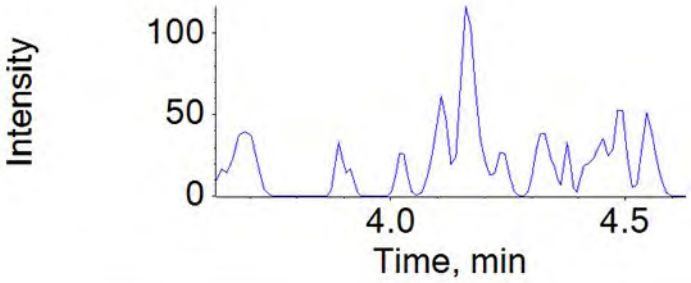
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



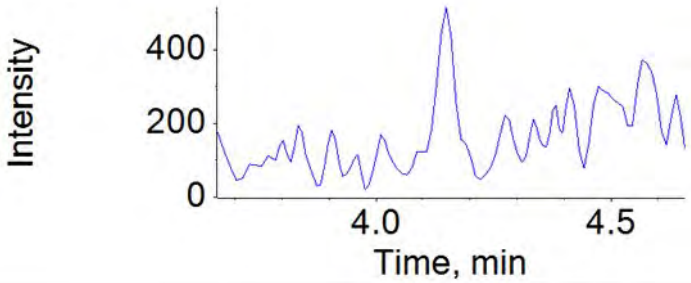
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



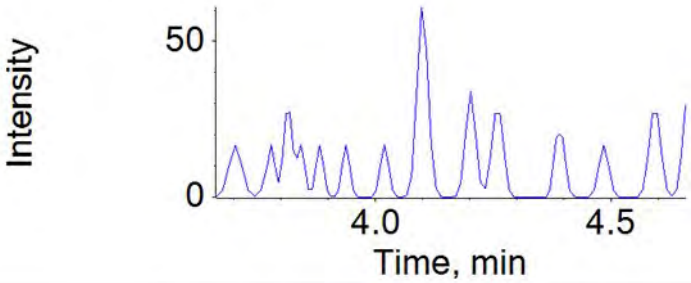
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



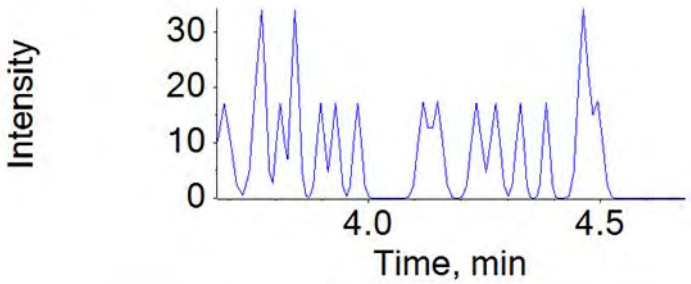
Component: PFHxA
Primary Mass: 313.0 / 269.0



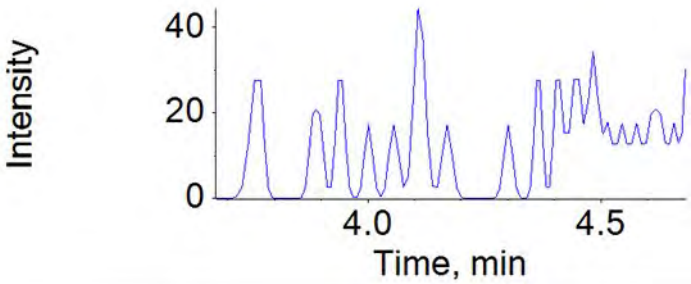
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



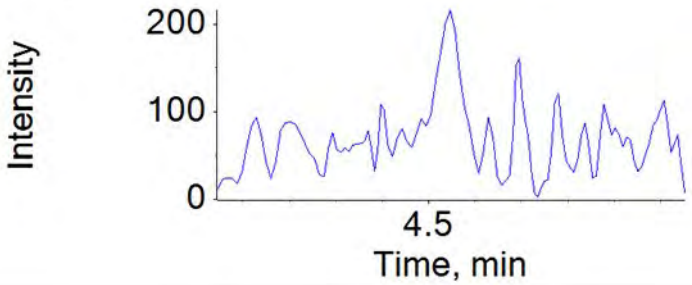
Component: PFPeS
Primary Mass: 349.0 / 80.0



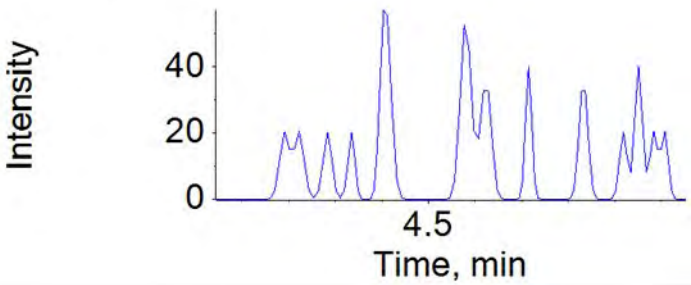
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



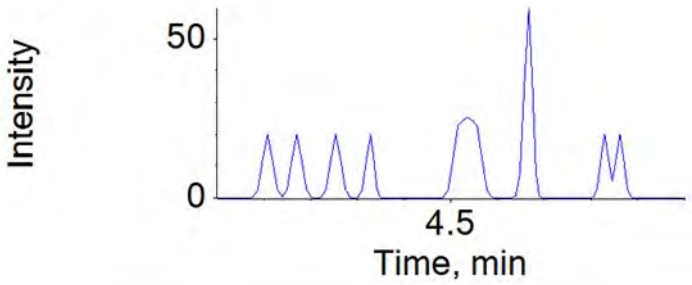
Component: PFHpA
Primary Mass: 363.0 / 319.0



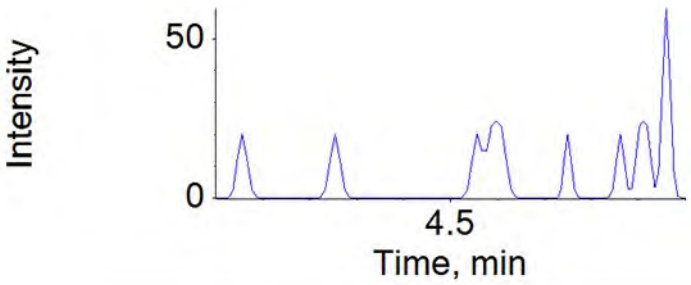
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



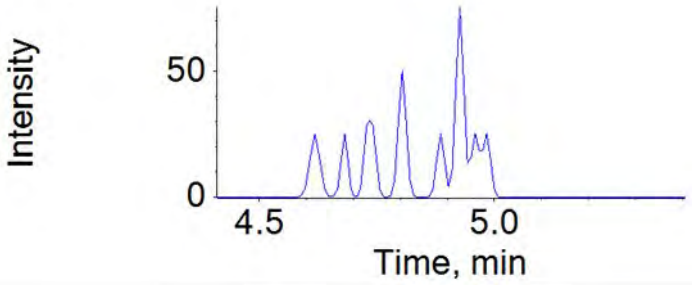
Component: PFHxS
Primary Mass: 399.0 / 80.0



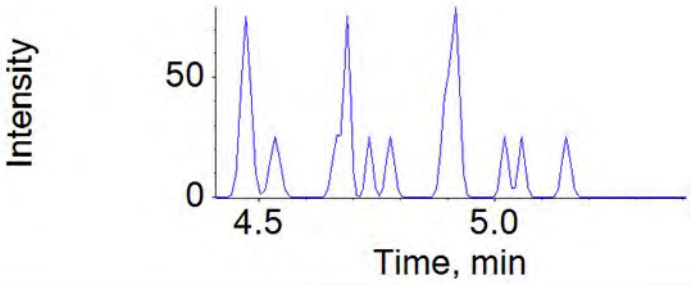
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



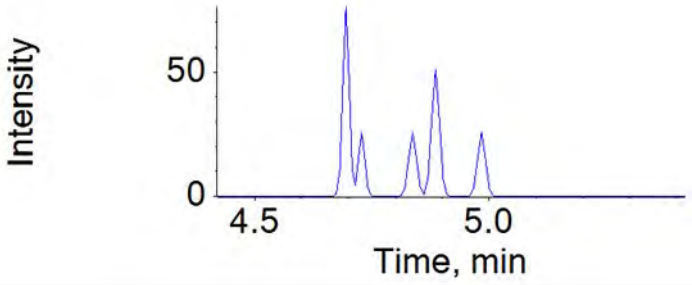
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



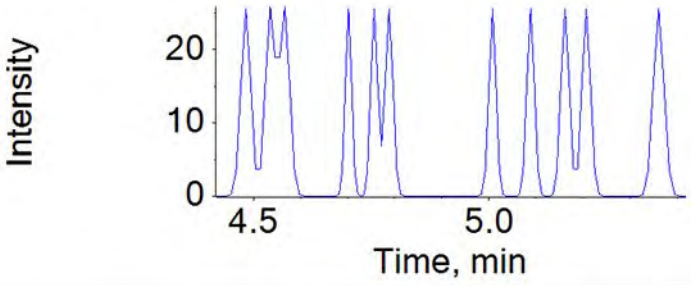
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



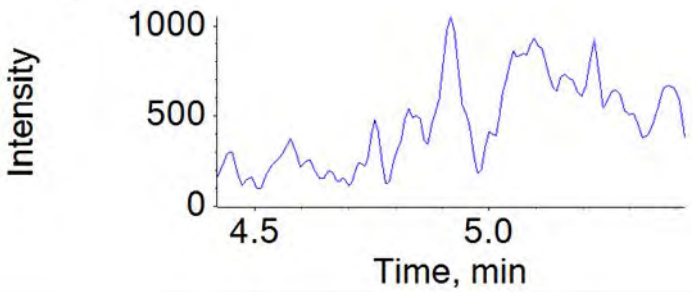
Component: PFHpS
Primary Mass: 449.0 / 80.0



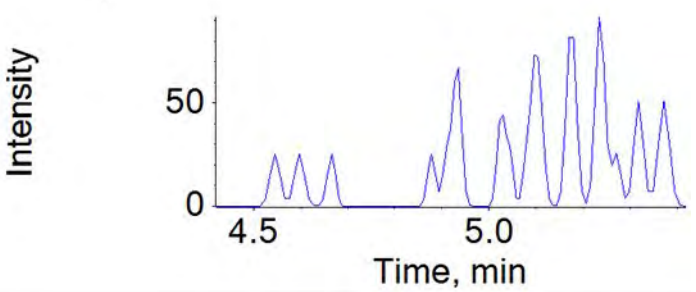
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



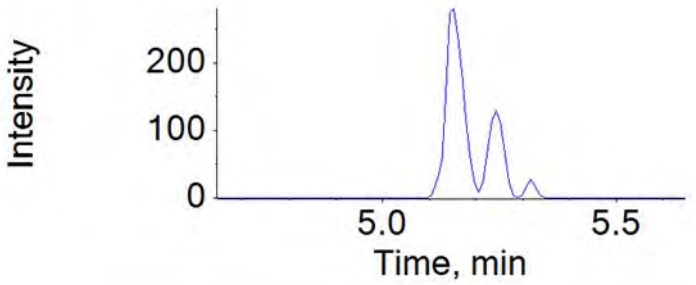
Component: PFOA
Primary Mass: 413.0 / 369.0



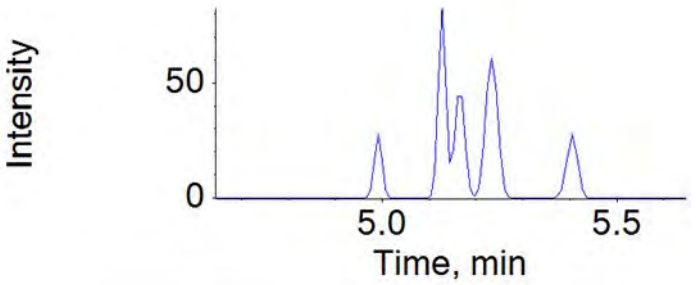
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



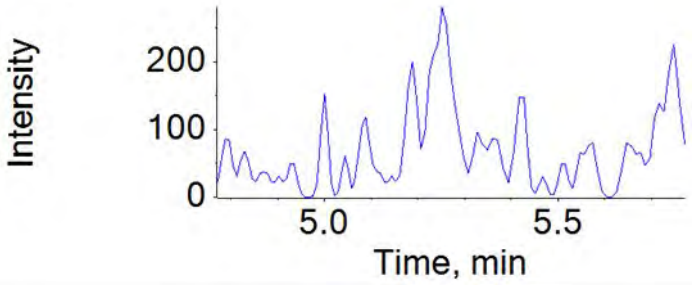
Component: PFOS
Primary Mass: 499.0 / 80.0



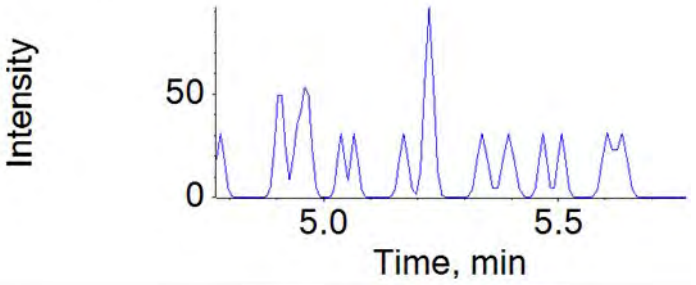
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



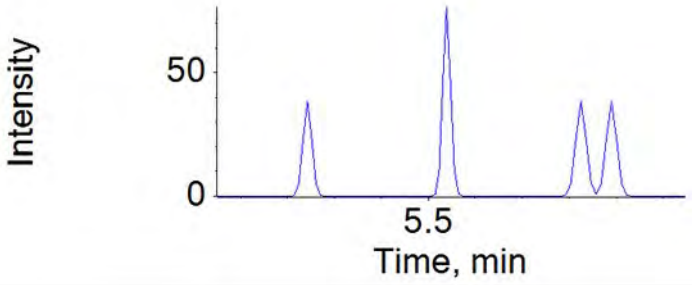
Component: PFNA
Primary Mass: 463.0 / 419.0



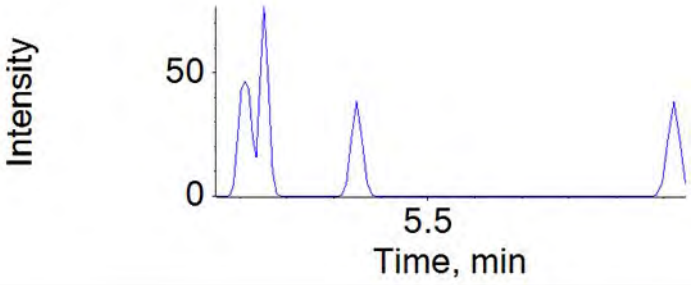
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



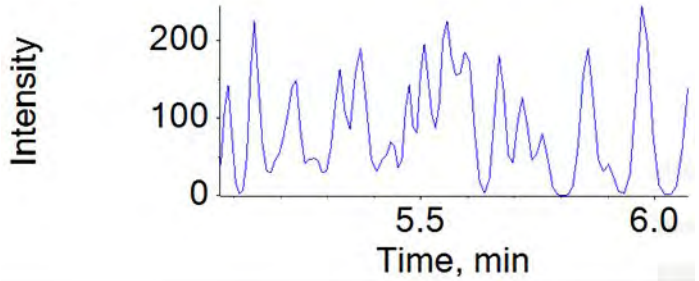
Component: PFNS
Primary Mass: 549.0 / 80.0



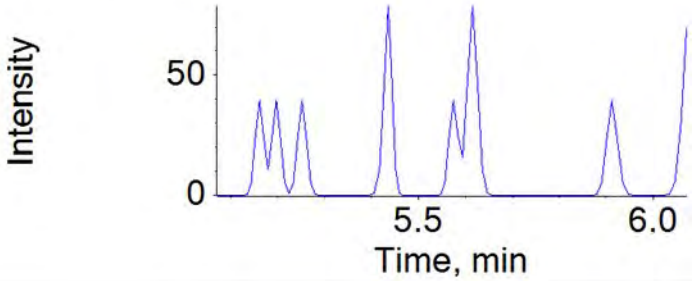
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



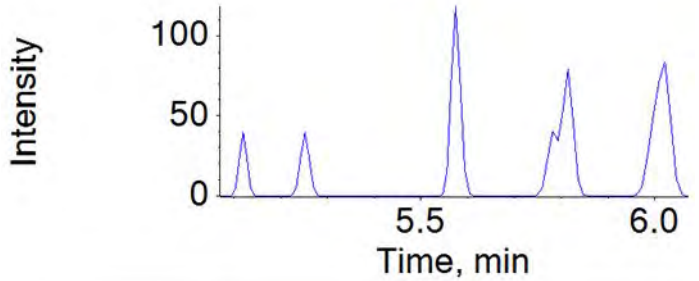
Component: PFDA
Primary Mass: 513.0 / 469.0



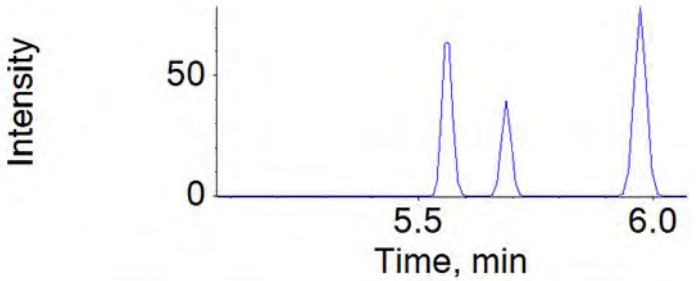
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



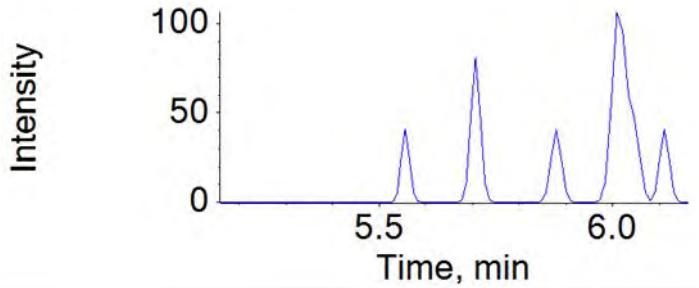
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



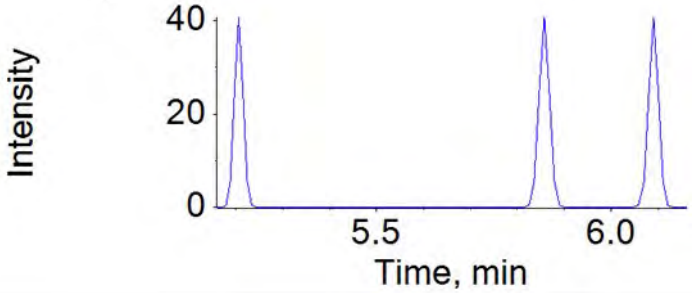
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



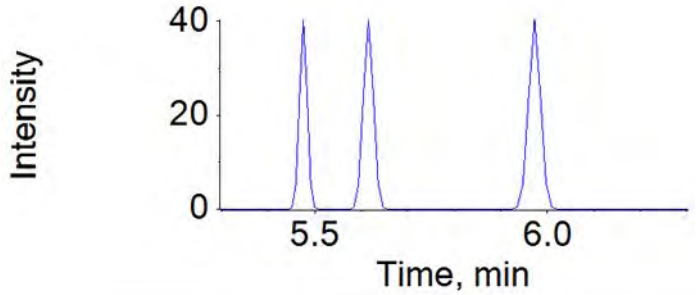
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



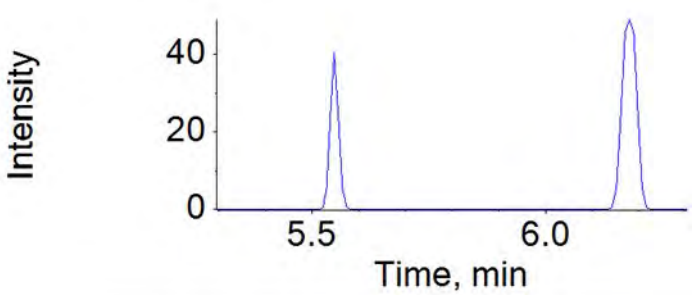
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



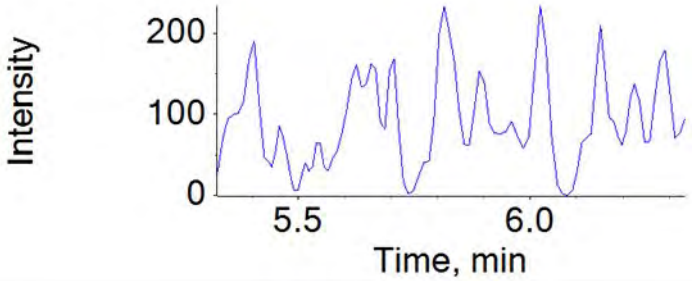
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



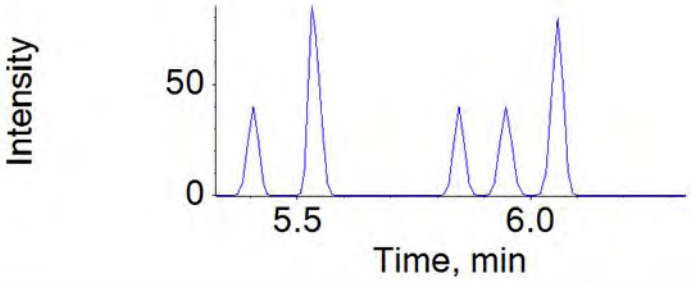
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

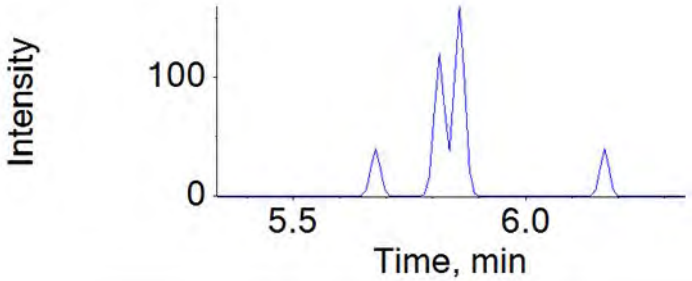
Component: PFUnDA
Primary Mass: 563.0 / 519.0



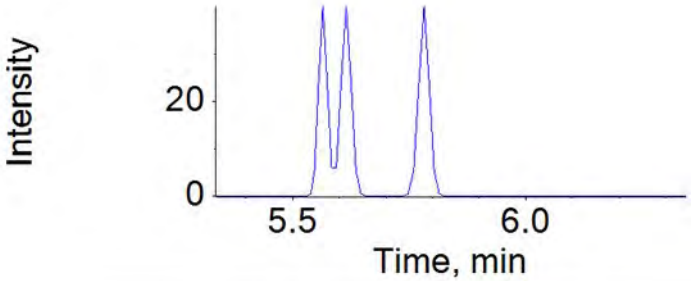
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



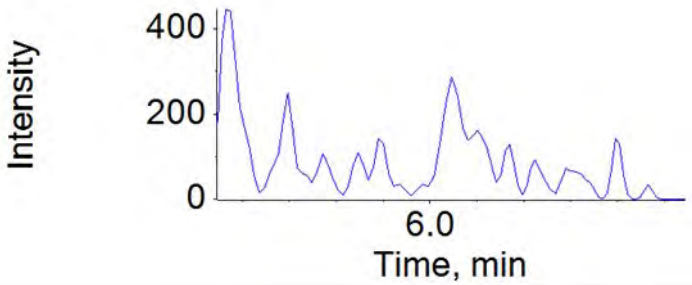
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



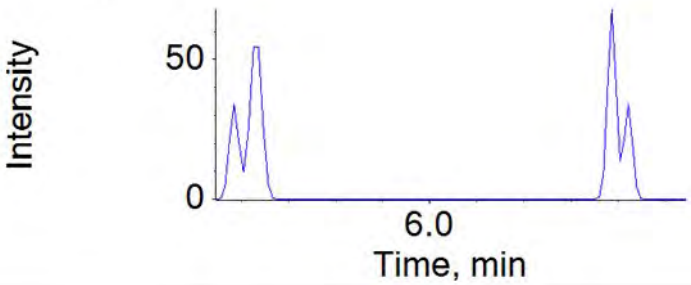
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



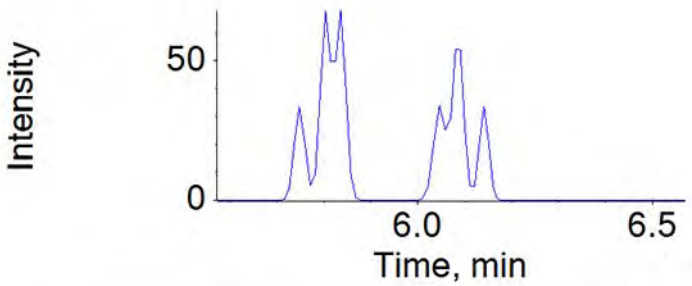
Component: PFDoDA
Primary Mass: 613.0 / 569.0



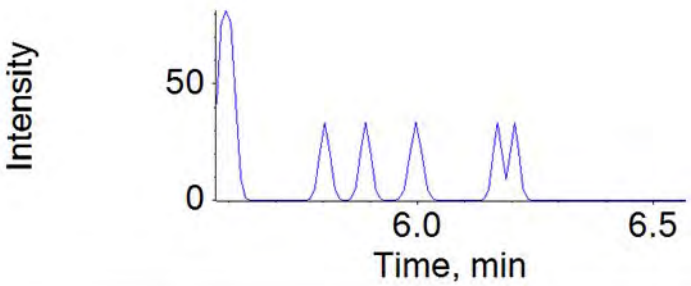
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



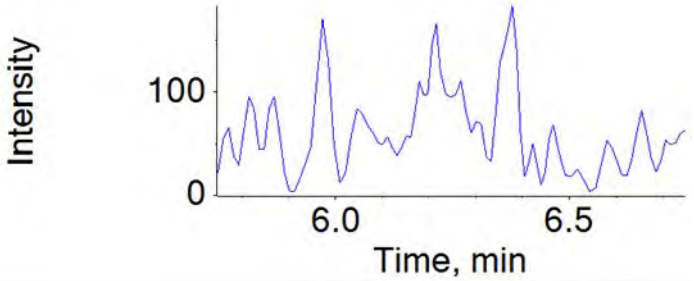
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



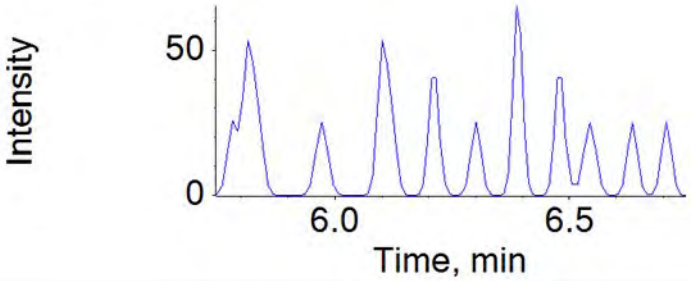
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



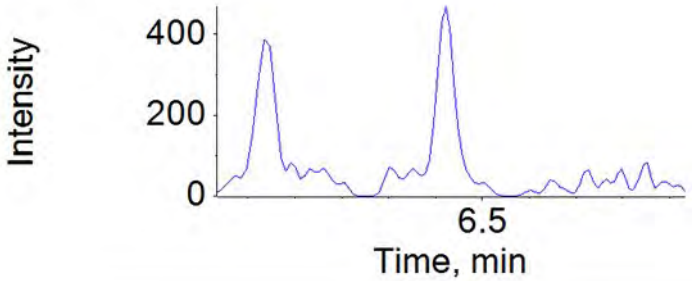
Component: PFTrDA
Primary Mass: 663.0 / 619.0



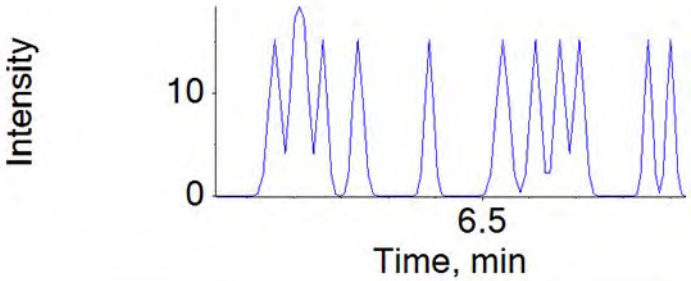
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



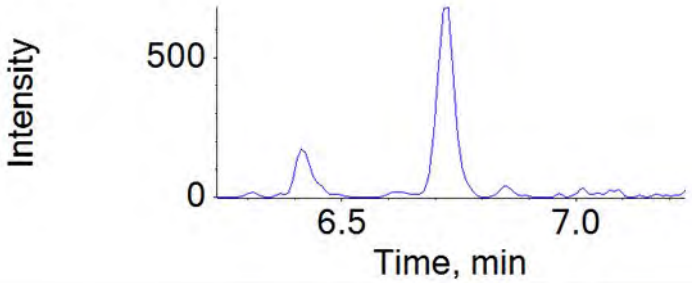
Component: PFTeDA
Primary Mass: 713.0 / 669.0



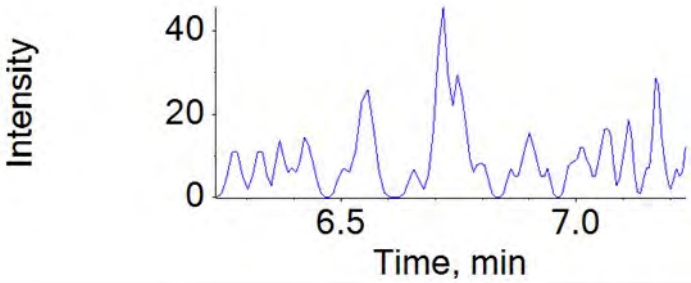
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



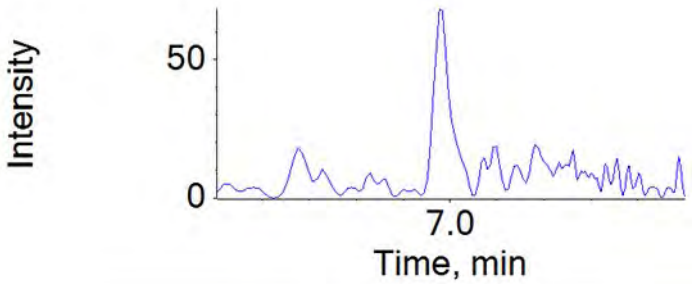
Component: PFHxDA
Primary Mass: 813.0 / 769.0



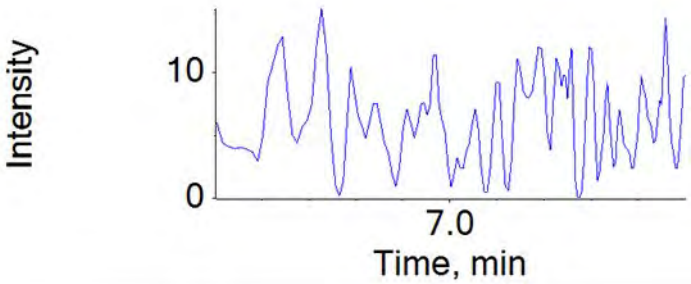
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0

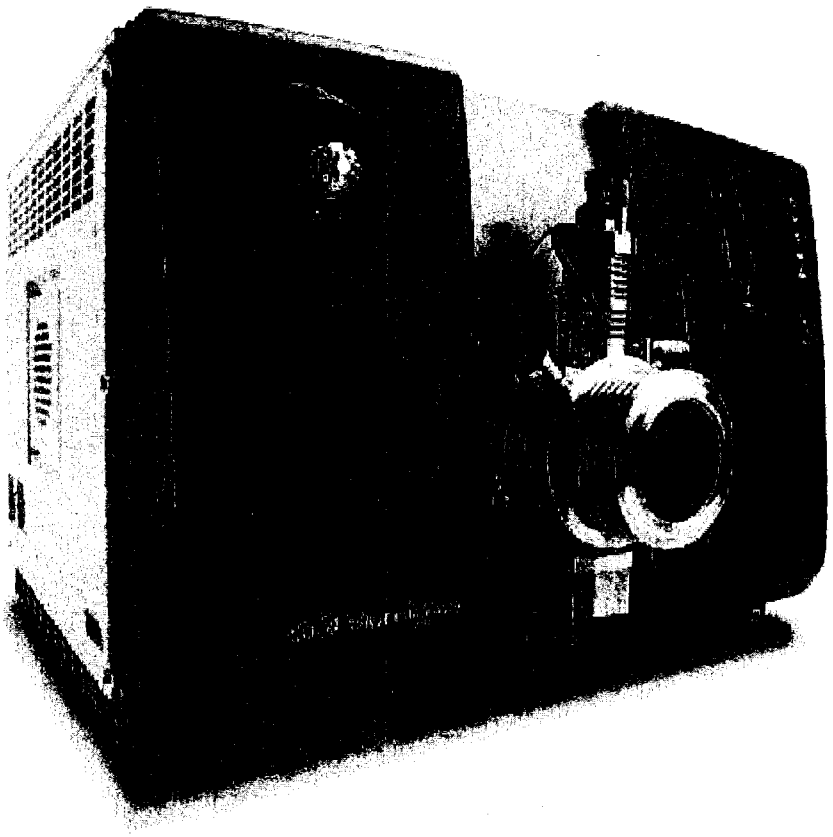


LM27631

SCIEX

Triple Quad™ 4500 and Triple Quad™ 4500MD Systems

Installation Checklist and Data Log



GEN-IDV-06-1212-C | D5082309 C

October 2016

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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	PIL1801
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)	2001171218 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 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. 1. Inspect the packaging for exterior damage. 2. Unpack the bench and then inspect for damage. 3. Install the bench.	○	◉

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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™ ion source. Refer to the *Turbo V™ Ion Source Operator Guide*. For 4500MD systems, refer to the *System User Guide*. For other systems, refer to the *Turbo V™ Ion Source Operator Guide*.	☑	
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.	☑	

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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 Cliquid® 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 theStatusScope® 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, Cliquid® software has been installed. • Other Analyst® or Analyst® MD compatible add-on software shipped with the system has been installed.	◉	◉

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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.	☑	

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Task	Complete	N/A
Complete all of the sections in the *Customer Familiarization Checklist*. 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 *Installation Checklist and Data Log*: • 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.	☑	

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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	0.4×10^{-5} torr ≤ $P_{CAD\ 0}$ ≤ 1.1×10^{-5} torr	0.7 x 10e-5 torr
Vacuum chamber pressure with CAD gas set to Full	1.8×10^{-5} torr ≤ ($P_{CAD\ 12} - P_{CAD\ 0}$) ≤ 2.8×10^{-5} torr	2.1 x 10e-5 torr

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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	Specification	Result
175.133	$\geq 8.0 \times 10^6$	1.6298e7	0.6 to 0.8	0.7105
500.380	$\geq 8.0 \times 10^6$	2.4240e7	0.6 to 0.8	0.6995
906.673	$\geq 2.0 \times 10^7$	3.2349e7	0.6 to 0.8	0.7151
1952.427	$\geq 8.8 \times 10^5$	1.8122e6	0.6 to 0.8	0.7423

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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	

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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	≥ 8.0×10^6	[redacted]	0.6 to 0.8	[redacted]
500.380	≥ 8.0×10^6	[redacted]	0.6 to 0.8	[redacted]
906.673	≥ 2.0×10^7	[redacted]	0.6 to 0.8	[redacted]
1952.427	≥ 8.8×10^5	[redacted]	0.6 to 0.8	[redacted]

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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	

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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	≥ 1.8×10^7	2.23786e7	0.6 to 0.8	0.6638
1863.306	≥ 1.4×10^6	2.1046e6	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	

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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	≥ 1.8×10^7	2.6621e7	0.6 to 0.8	0.7288
1863.306	≥ 2.0×10^6	3.5734e6	0.6 to 0.8	0.7033

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	

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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 $\frac{Intensity\ for\ ion\ at\ m/z\ 195.1}{Intensity\ for\ ion\ at\ m/z\ 609.2\ (or\ as\ calibrated)} \times 100 \geq 10\%$	[redacted]

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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.	☑

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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	0.4×10^{-5} torr ≤ $P_{CAD\ 0}$ ≤ 1.1×10^{-5} torr	0.4x10e-5torr
Vacuum chamber pressure with CAD gas set to Full	1.8×10^{-5} torr ≤ ($P_{CAD\ 12} - P_{CAD\ 0}$) ≤ 2.8×10^{-5} torr	2.1x10e-5torr

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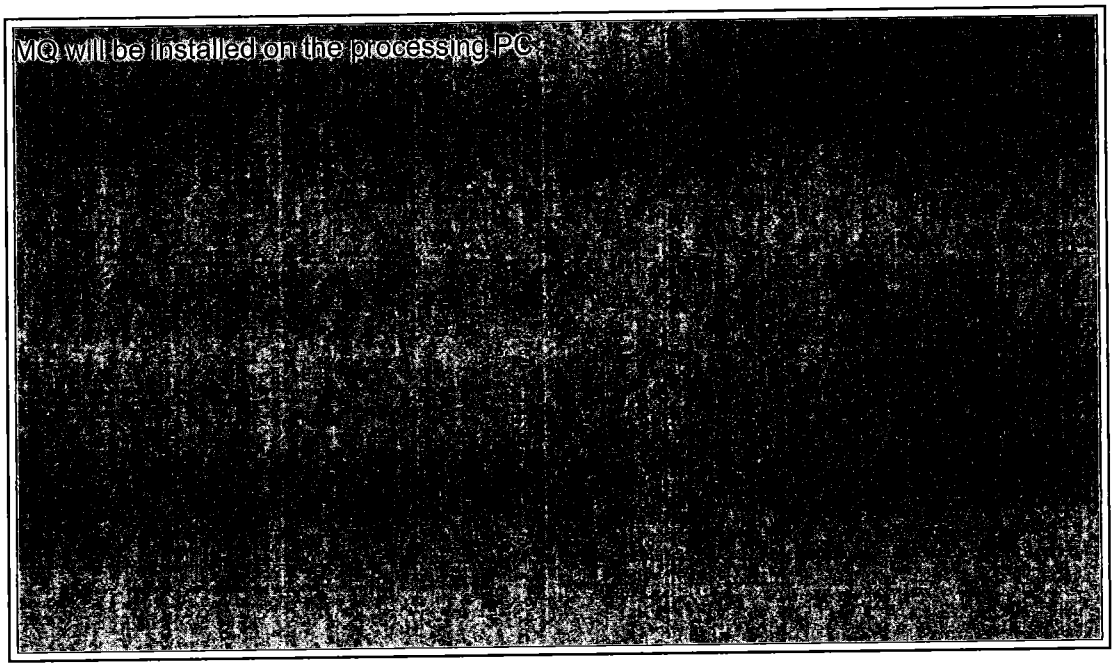
Signoff 4

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



Revision History

Revision	Reason for Change	Date
A	First release of the combined *SCIEX Triple Quad™ 4500 and 4500MD System Installation Checklist and Data Log.* 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

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

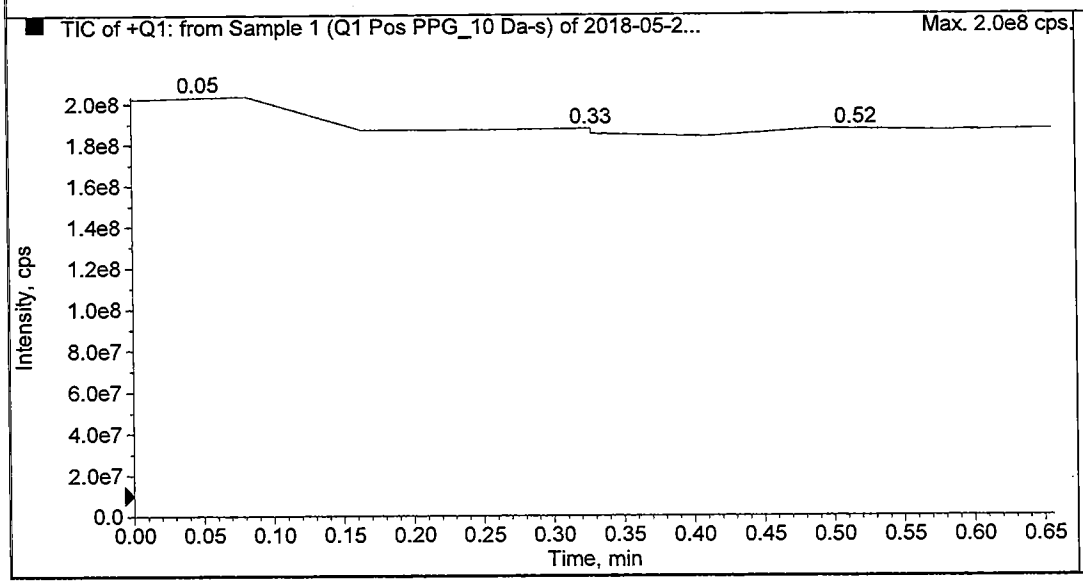
Mass Spectrometer Method Properties

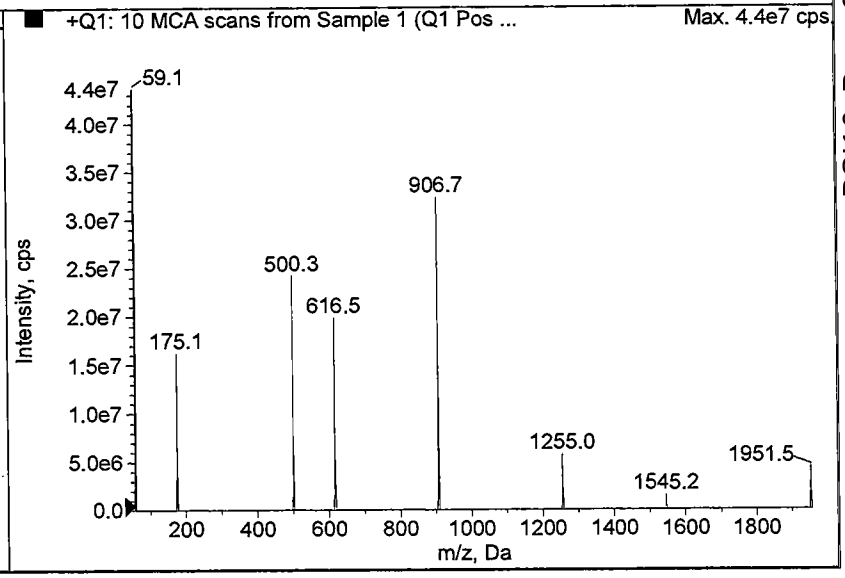
Period 1:

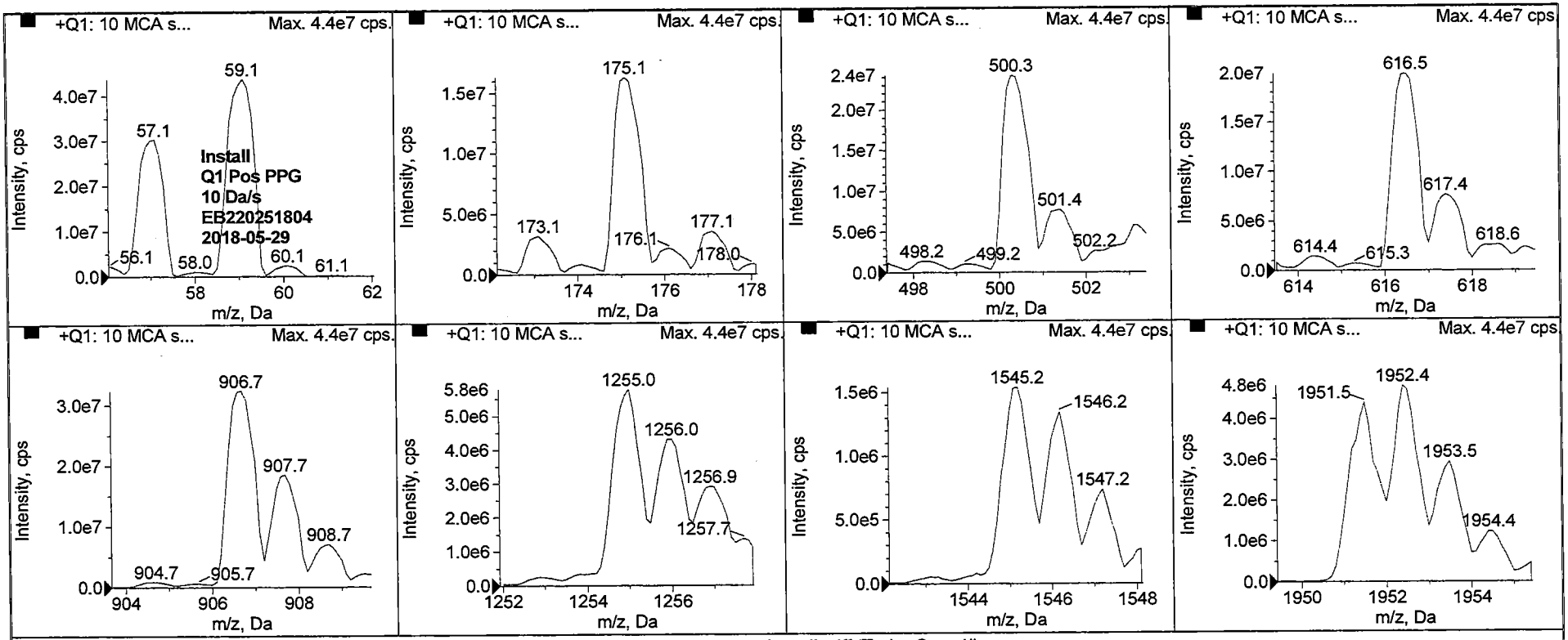
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 10 MCA scans from Sample 1 (Q1 Pos PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0559	4.3682e7	0.6931	-5.8810e-3
2	175.1330	175.1423	1.6298e7	0.7105	-9.3008e-3
3	500.3800	500.3732	2.4240e7	0.6995	6.8010e-3
4	616.4640	616.4825	1.9901e7	0.6890	-0.0185
5	906.6730	906.6804	3.2349e7	0.7151	-7.3891e-3
6	1254.9250	1254.9327	5.7895e6	0.7632	-7.6510e-3
7	1545.1340	1545.1665	1.5381e6	0.7694	-0.0325
8	1952.4270	1952.4521	4.8122e6	0.7423	-0.0251

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

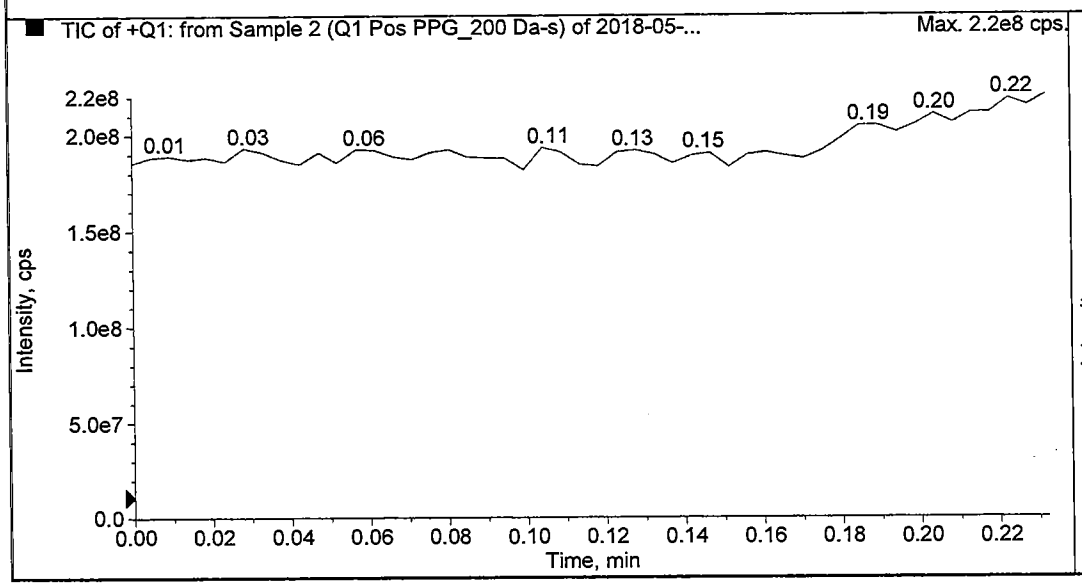
Mass Spectrometer Method Properties

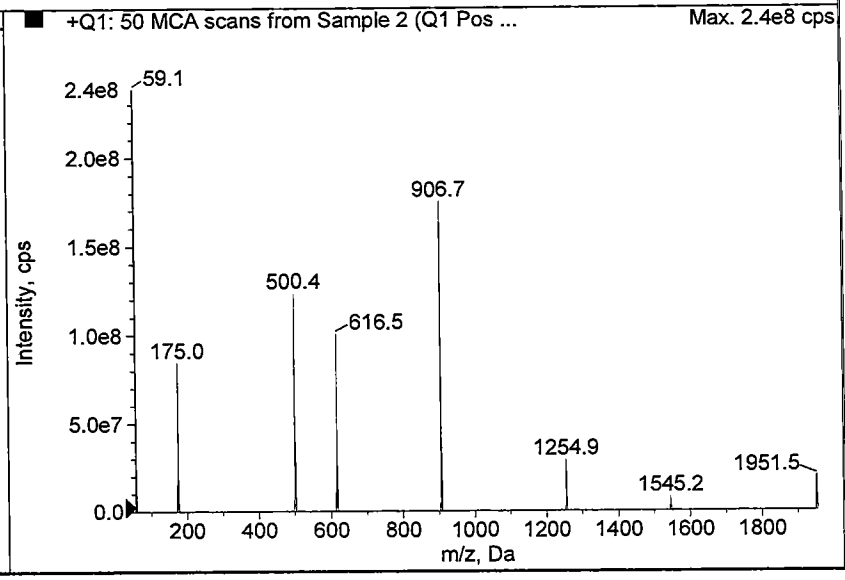
Period 1:

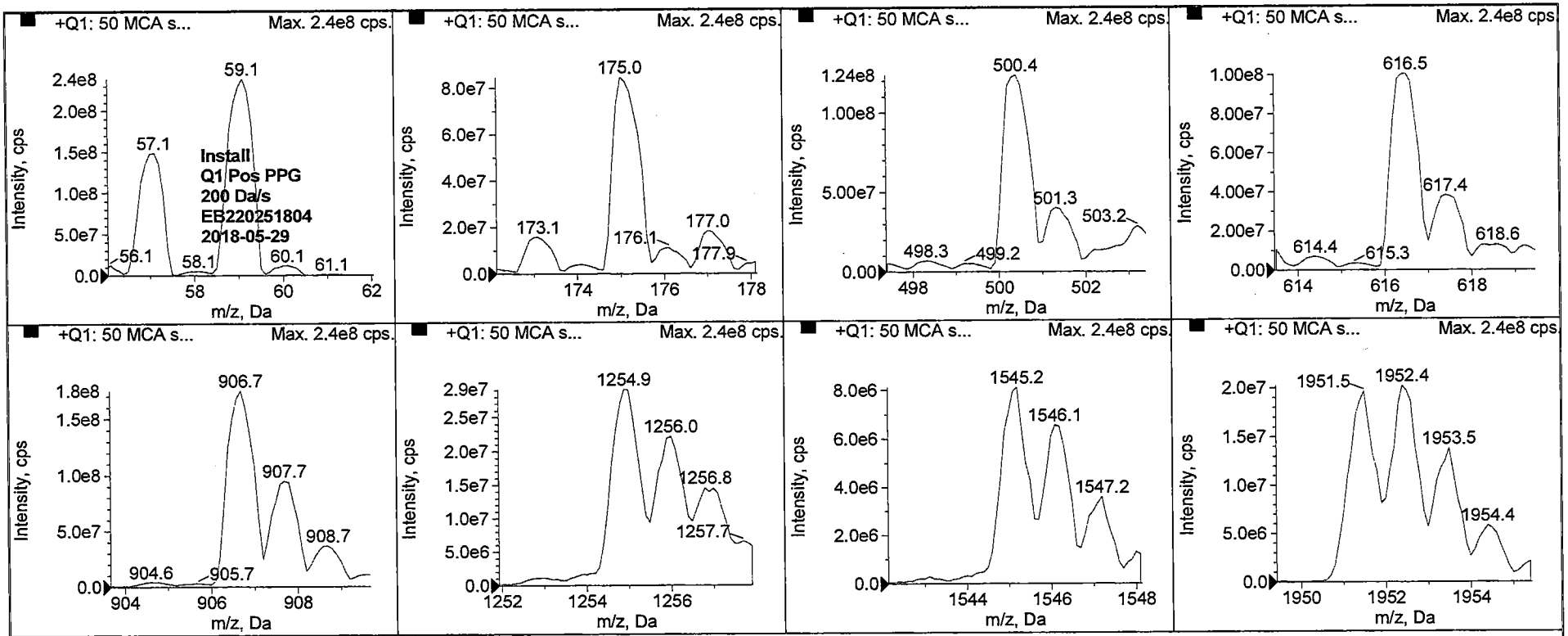
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for " +Q1: 50 MCA scans from Sample 2 (Q1 Pos PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0570	2.3875e8	0.6632	-6.9868e-3
2	175.1330	175.1204	8.4656e7	0.7253	0.0126
3	500.3800	500.3915	1.2366e8	0.7160	-0.0115
4	616.4640	616.4631	1.0058e8	0.7191	9.0862e-4
5	906.6730	906.6801	1.7505e8	0.7187	-7.0740e-3
6	1254.9250	1254.9211	2.9174e7	0.7662	3.8790e-3
7	1545.1340	1545.1254	8.1140e6	0.7324	8.6264e-3
8	1952.4270	1952.4458	2.0214e7	0.7760	-0.0188

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

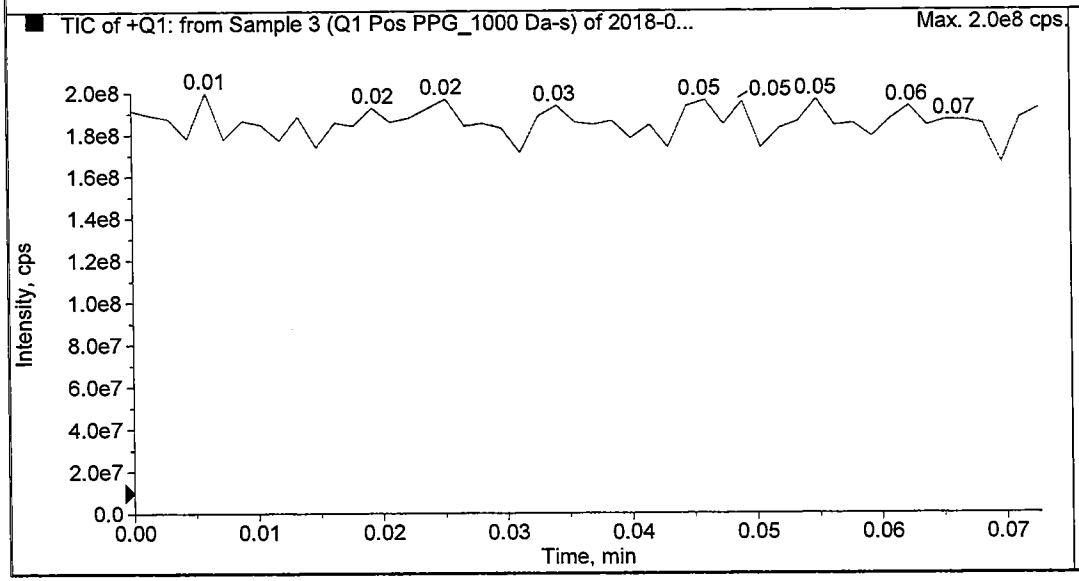
Mass Spectrometer Method Properties

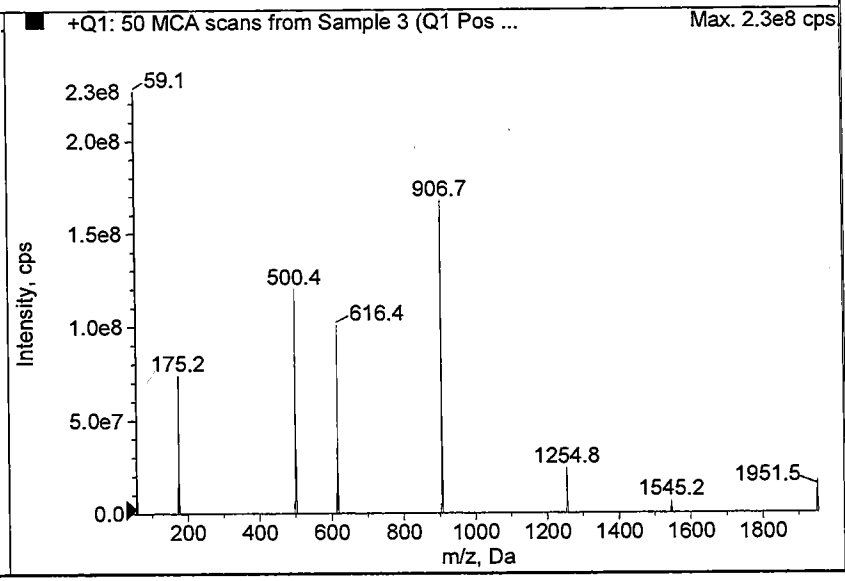
Period 1:

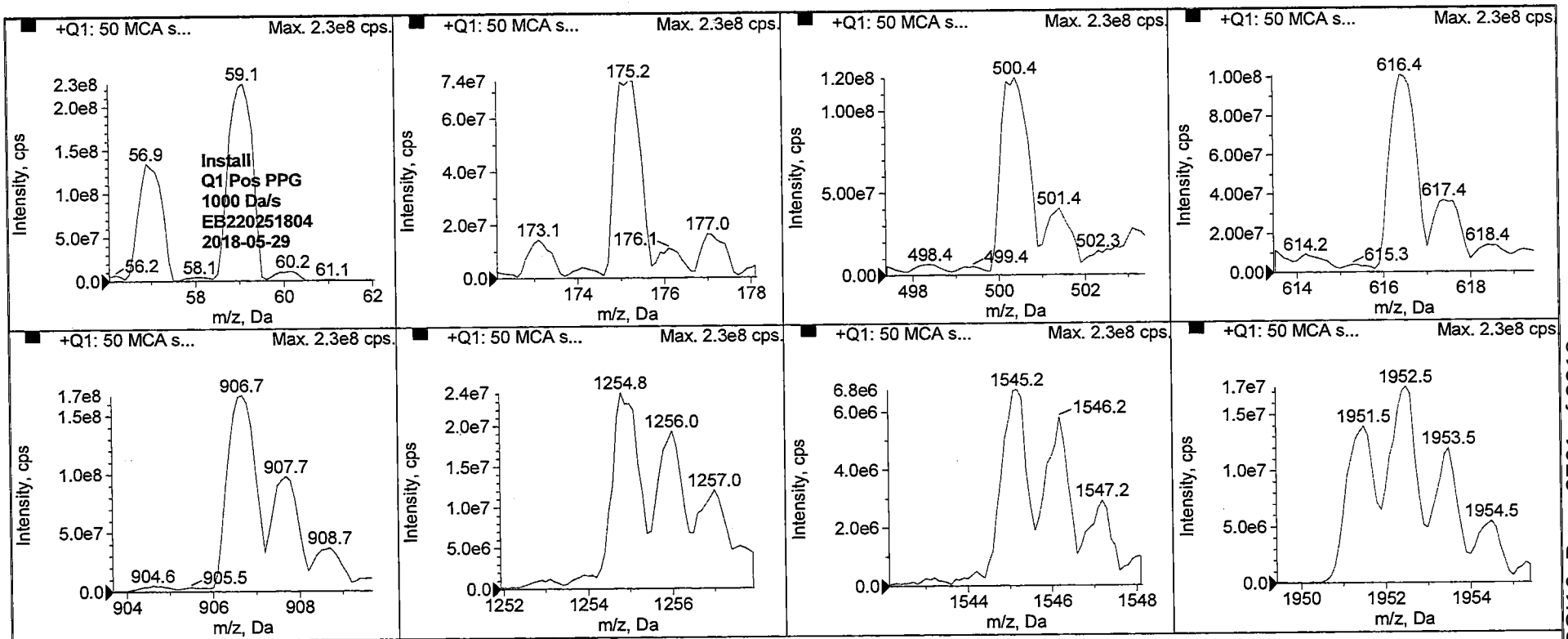
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for " +Q1: 50 MCA scans from Sample 3 (Q1 Pos PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0540	2.2668e8	0.6411	-4.0020e-3
2	175.1330	175.1630	7.4160e7	0.7037	-0.0300
3	500.3800	500.3767	1.2013e8	0.7536	3.3425e-3
4	616.4640	616.4720	1.0080e8	0.7224	-8.0022e-3
5	906.6730	906.6738	1.6743e8	0.7638	-8.2831e-4
6	1254.9250	1254.9160	2.4100e7	0.7104	9.0009e-3
7	1545.1340	1545.1314	6.7600e6	0.6758	2.5866e-3
8	1952.4270	1952.4259	1.7440e7	0.7572	1.0770e-3

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	5500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	10.0
Q1 Resolution:	Unit
Ion Energy 1 (IE1):	1.2
CEM (CEM):	1800.0

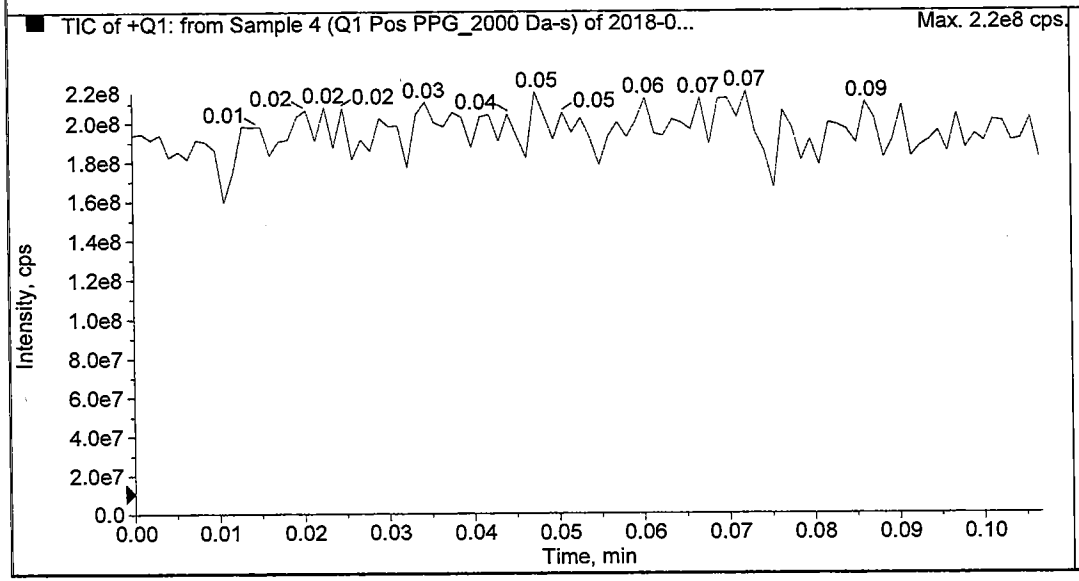
Mass Spectrometer Method Properties

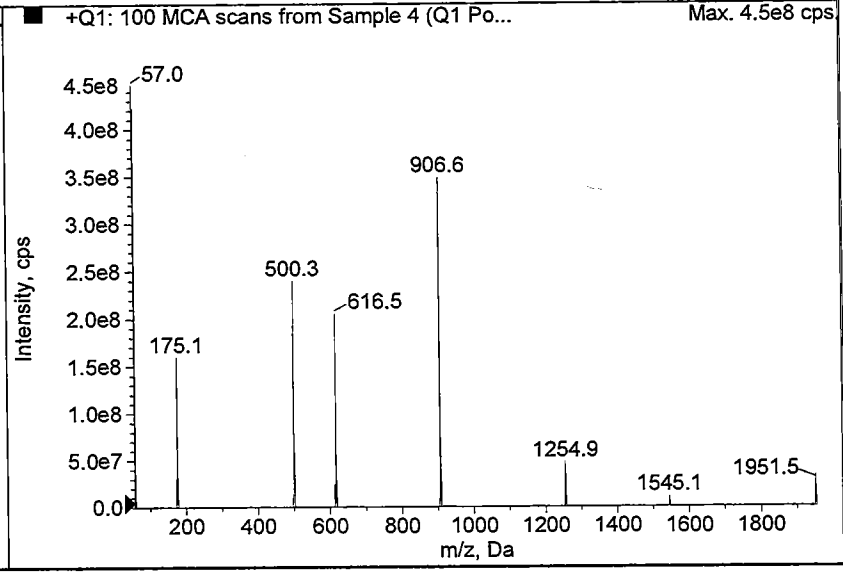
Period 1:

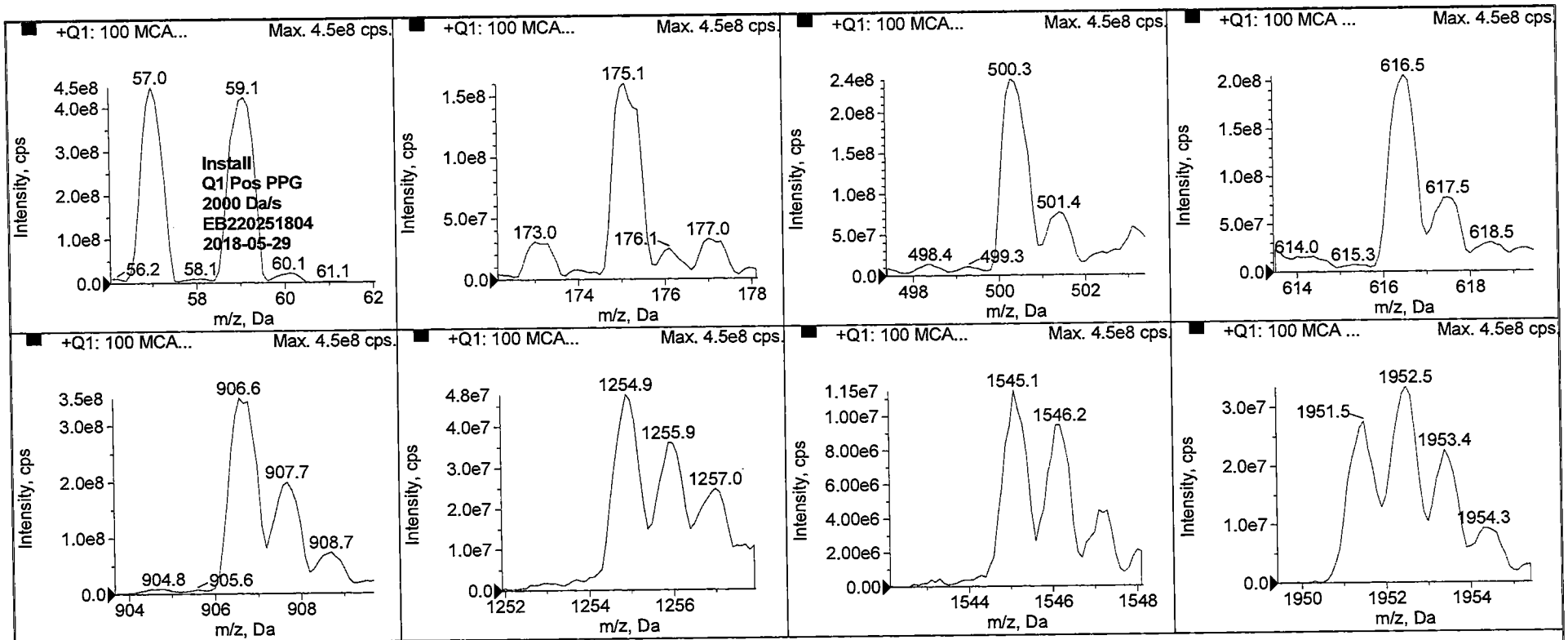
Scans in Period:	100
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

Period 1 Experiment 1:

Scan Type:	Q1 MS (Q1)
Polarity:	Positive
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q1:	Unit







Peak List for " +Q1: 100 MCA scans from Sample 4 (Q1 Pos PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0541	4.2264e8	0.6747	-4.1197e-3
2	175.1330	175.1367	1.6034e8	0.7378	-3.7421e-3
3	500.3800	500.3744	2.4052e8	0.6995	5.5649e-3
4	616.4640	616.4767	2.0538e8	0.7070	-0.0127
5	906.6730	906.6844	3.4888e8	0.7414	-0.0114
6	1254.9250	1254.9130	4.7800e7	0.7332	0.0120
7	1545.1340	1545.1396	1.1460e7	0.6649	-5.5517e-3
8	1952.4270	1952.4475	3.3400e7	0.7743	-0.0205

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	5500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	1.1
CEM (CEM):	1800.0

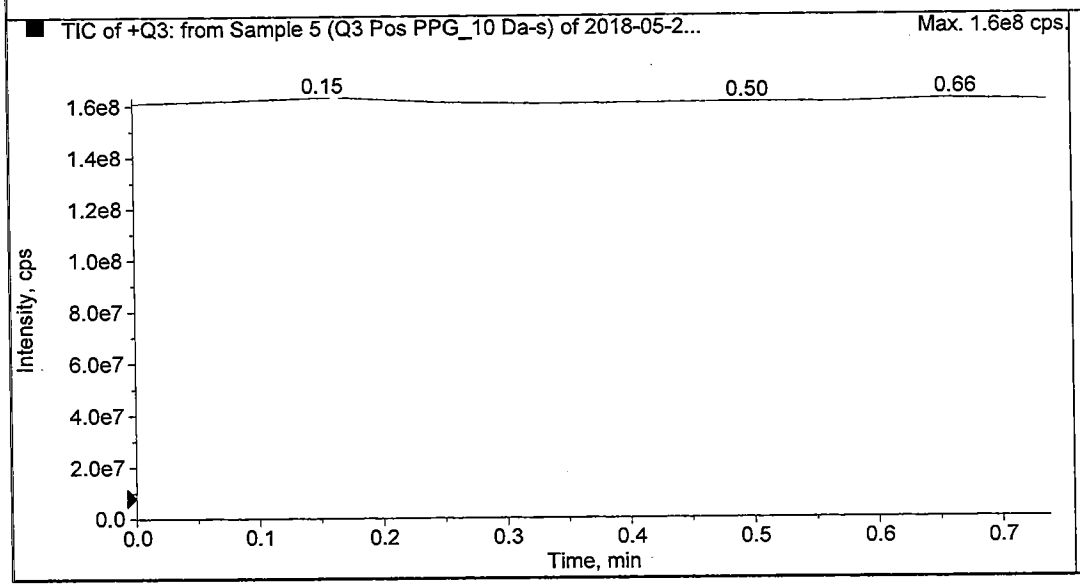
Mass Spectrometer Method Properties

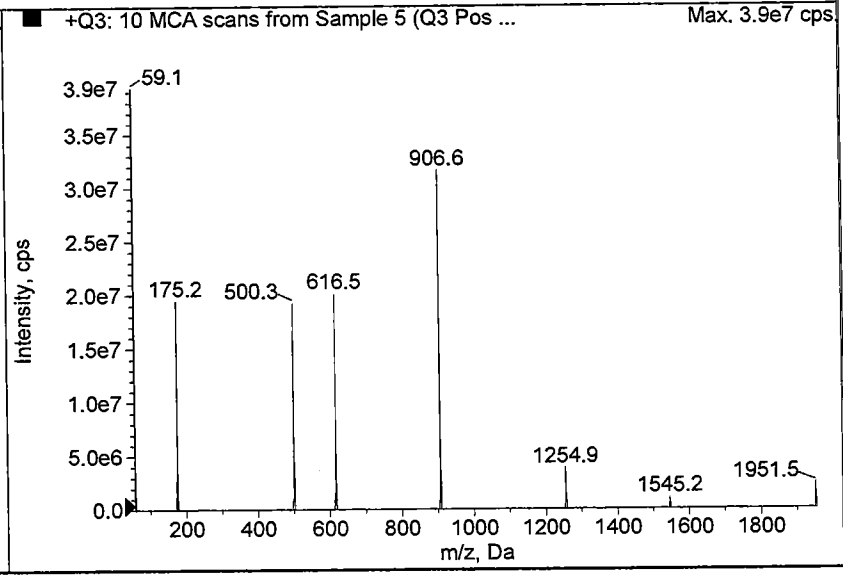
Period 1:

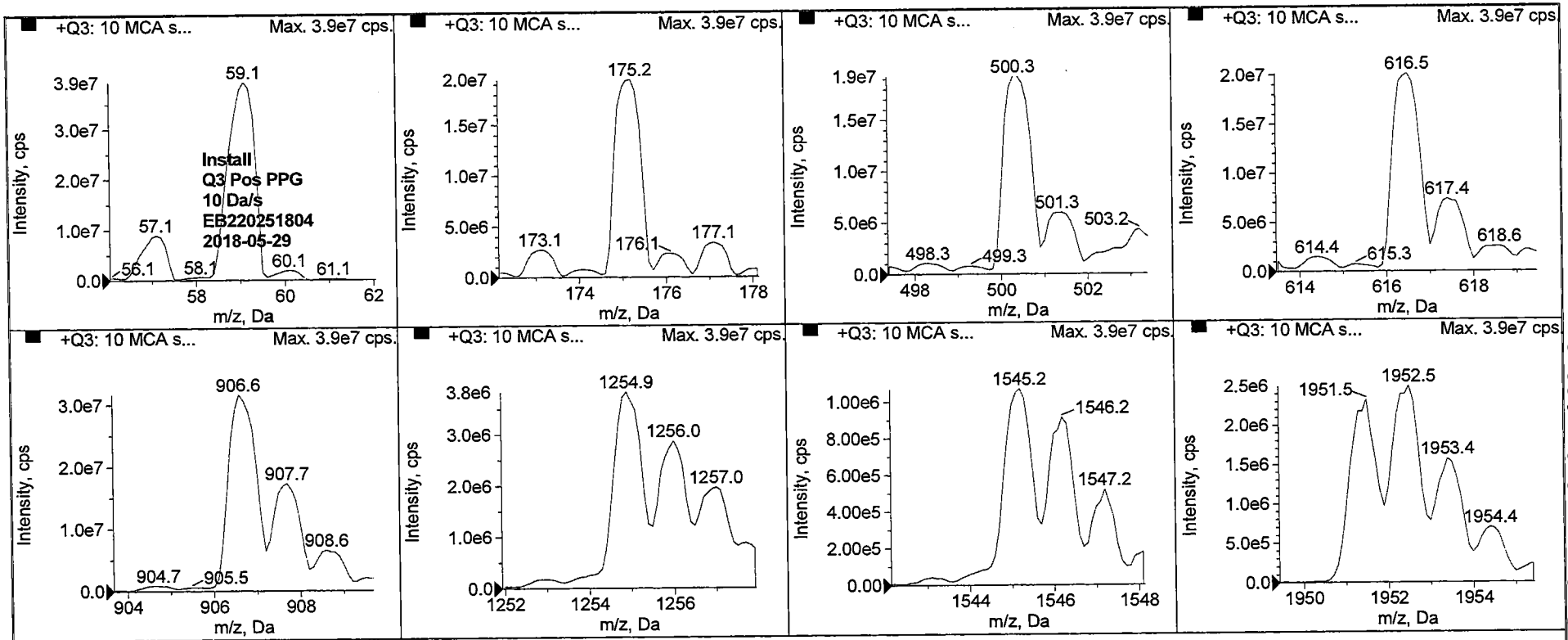
Scans in Period:	10
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

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







Peak List for "+Q3: 10 MCA scans from Sample 5 (Q3 Pos PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0600	3.9407e7	0.7175	-9.9728e-3
2	175.1330	175.1331	1.9501e7	0.6916	-1.2286e-4
3	500.3800	500.3823	1.9253e7	0.7278	-2.2612e-3
4	616.4640	616.4685	2.0128e7	0.7214	-4.5095e-3
5	906.6730	906.6736	3.1634e7	0.7403	-6.1273e-4
6	1254.9250	1254.9230	3.8338e6	0.7464	2.0449e-3
7	1545.1340	1545.1599	1.0717e6	0.7475	-0.0259
8	1952.4270	1952.4105	2.4968e6	0.7828	0.0165

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	5500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	1.0
CEM (CEM):	1800.0

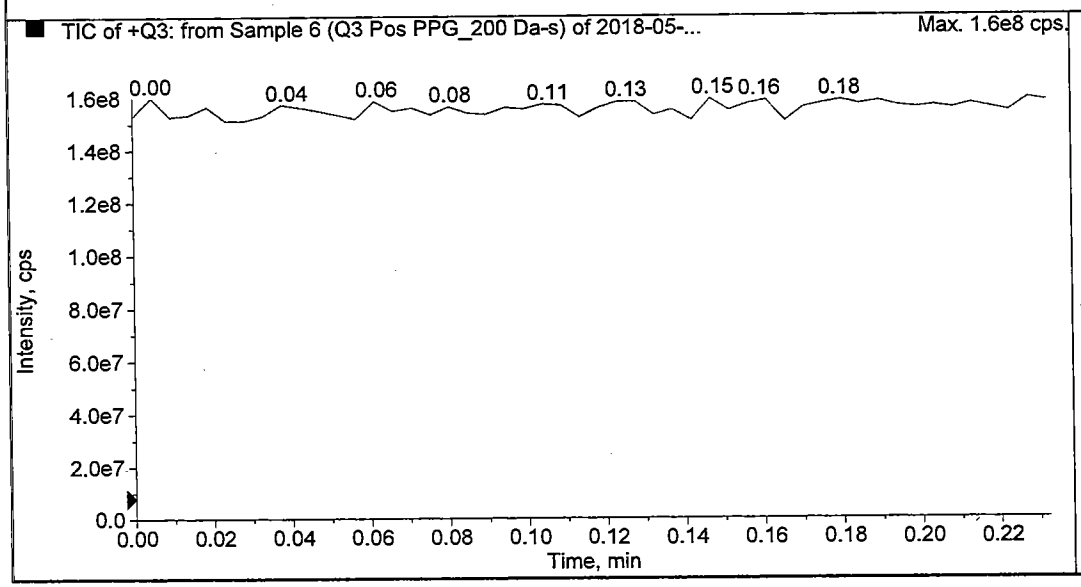
Mass Spectrometer Method Properties

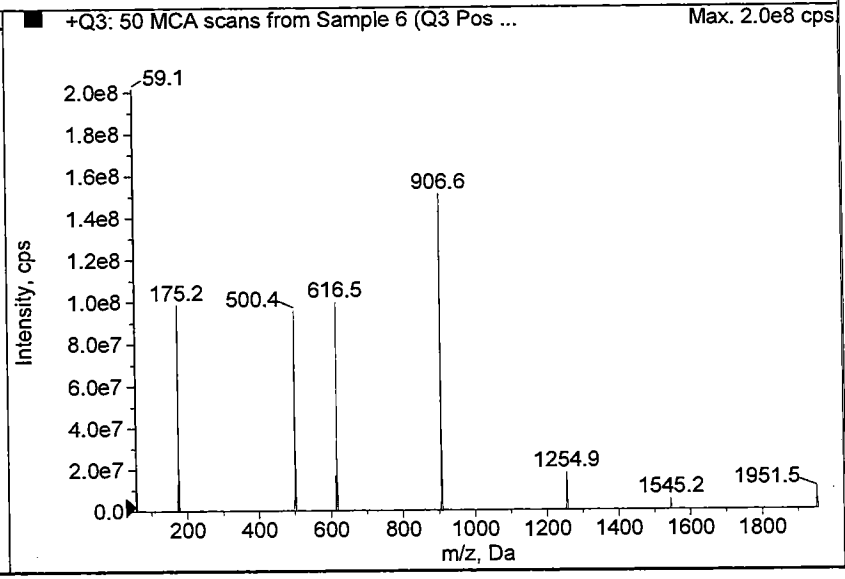
Period 1:

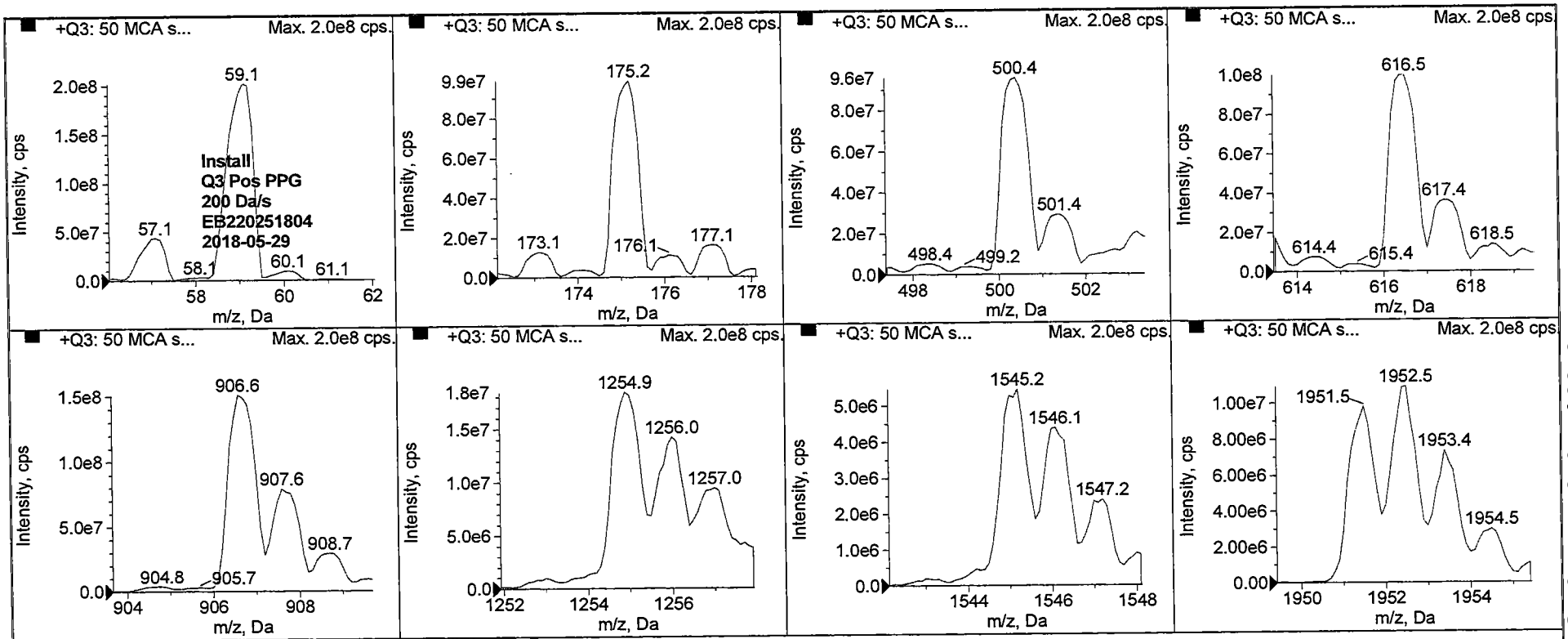
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

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







Peak List for " +Q3: 50 MCA scans from Sample 6 (Q3 Pos PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0535	2.0159e8	0.6898	-3.5186e-3
2	175.1330	175.1234	9.8734e7	0.6779	9.5931e-3
3	500.3800	500.3781	9.5670e7	0.7134	1.9254e-3
4	616.4640	616.4537	9.9852e7	0.7073	0.0103
5	906.6730	906.6796	1.5094e8	0.7211	-6.5779e-3
6	1254.9250	1254.9165	1.8432e7	0.7818	8.4504e-3
7	1545.1340	1545.1060	5.4540e6	0.7324	0.0280
8	1952.4270	1952.4363	1.0900e7	0.7220	-9.3366e-3

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	5500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	1.0
CEM (CEM):	1800.0

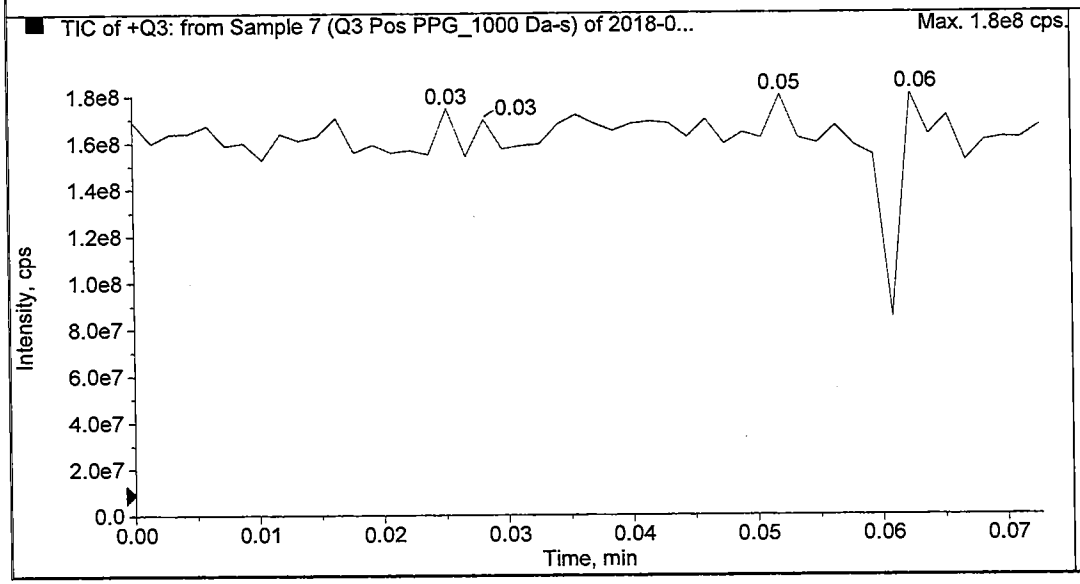
Mass Spectrometer Method Properties

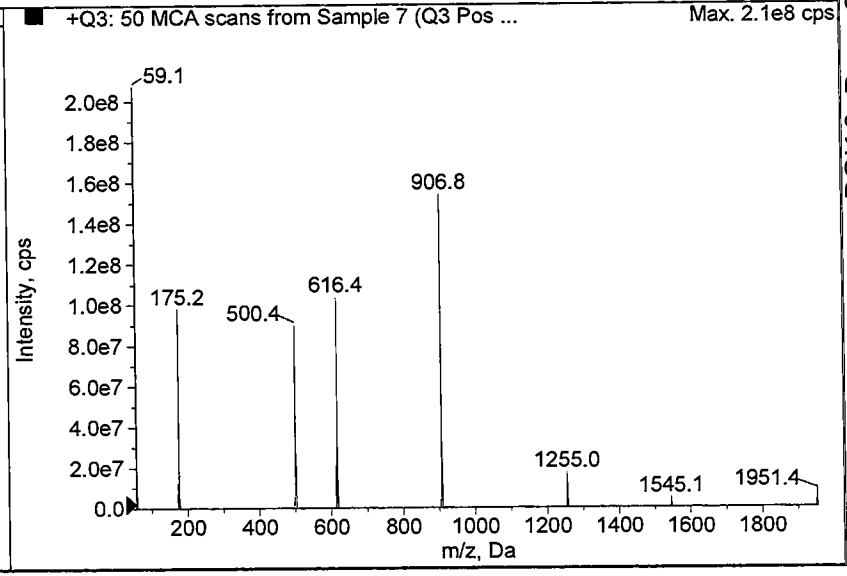
Period 1:

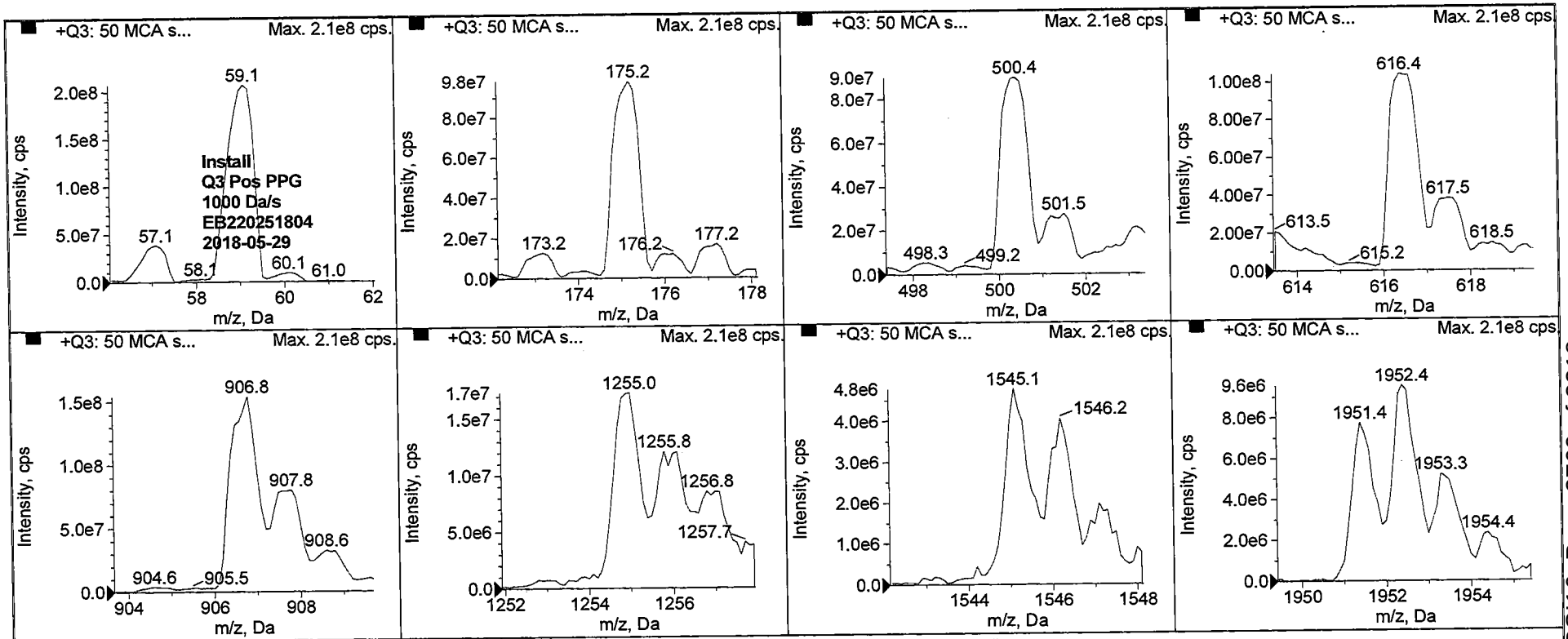
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

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







Peak List for " +Q3: 50 MCA scans from Sample 7 (Q3 Pos PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0525	2.0725e8	0.7070	-2.4950e-3
2	175.1330	175.1317	9.8190e7	0.6991	1.2969e-3
3	500.3800	500.3731	8.9990e7	0.7222	6.9400e-3
4	616.4640	616.4761	1.0393e8	0.7599	-0.0121
5	906.6730	906.6936	1.5407e8	0.7541	-0.0206
6	1254.9250	1254.9120	1.7310e7	0.7068	0.0130
7	1545.1340	1545.1453	4.7800e6	0.6227	-0.0113
8	1952.4270	1952.4249	9.5700e6	0.6631	2.0854e-3

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): 1.2

CEM (CEM): 1800.0

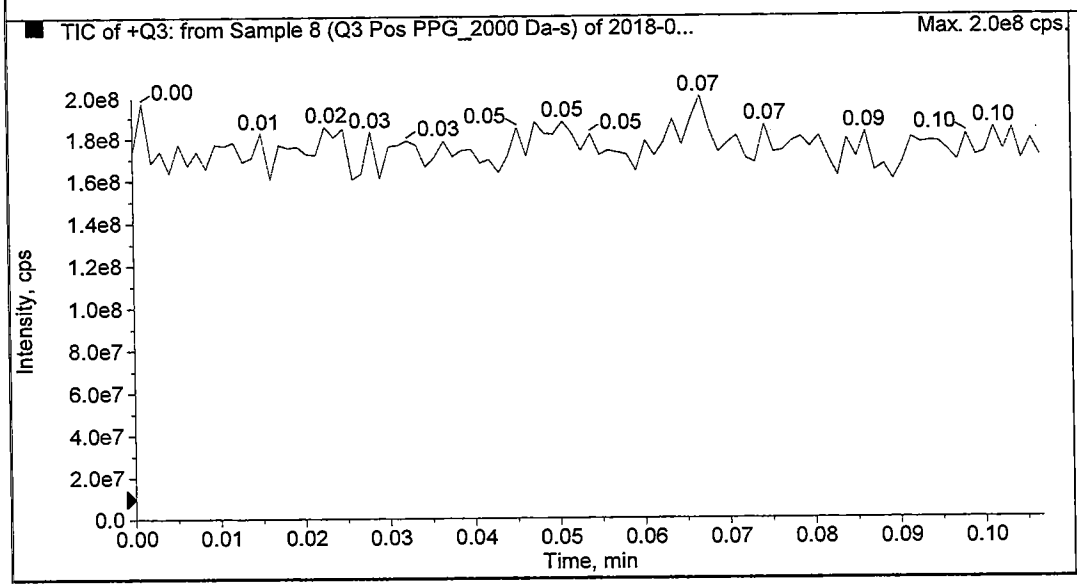
Mass Spectrometer Method Properties

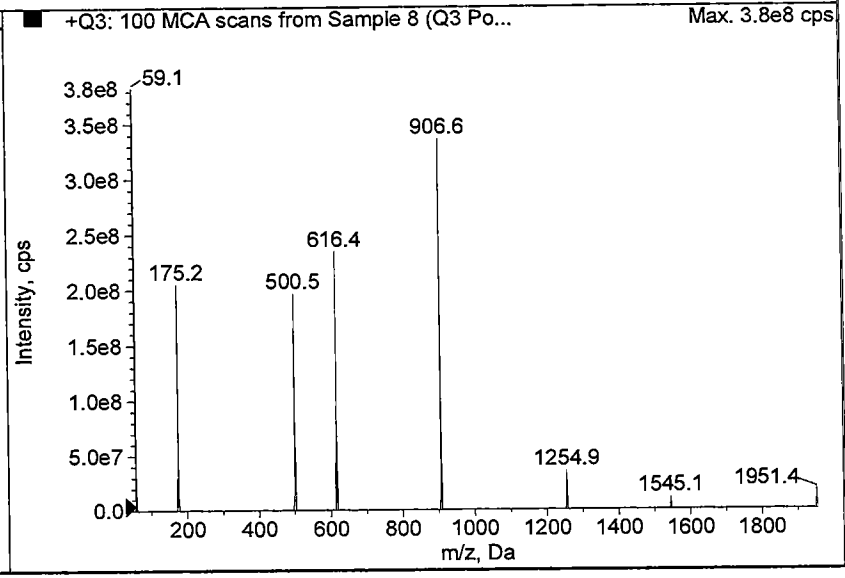
Period 1:

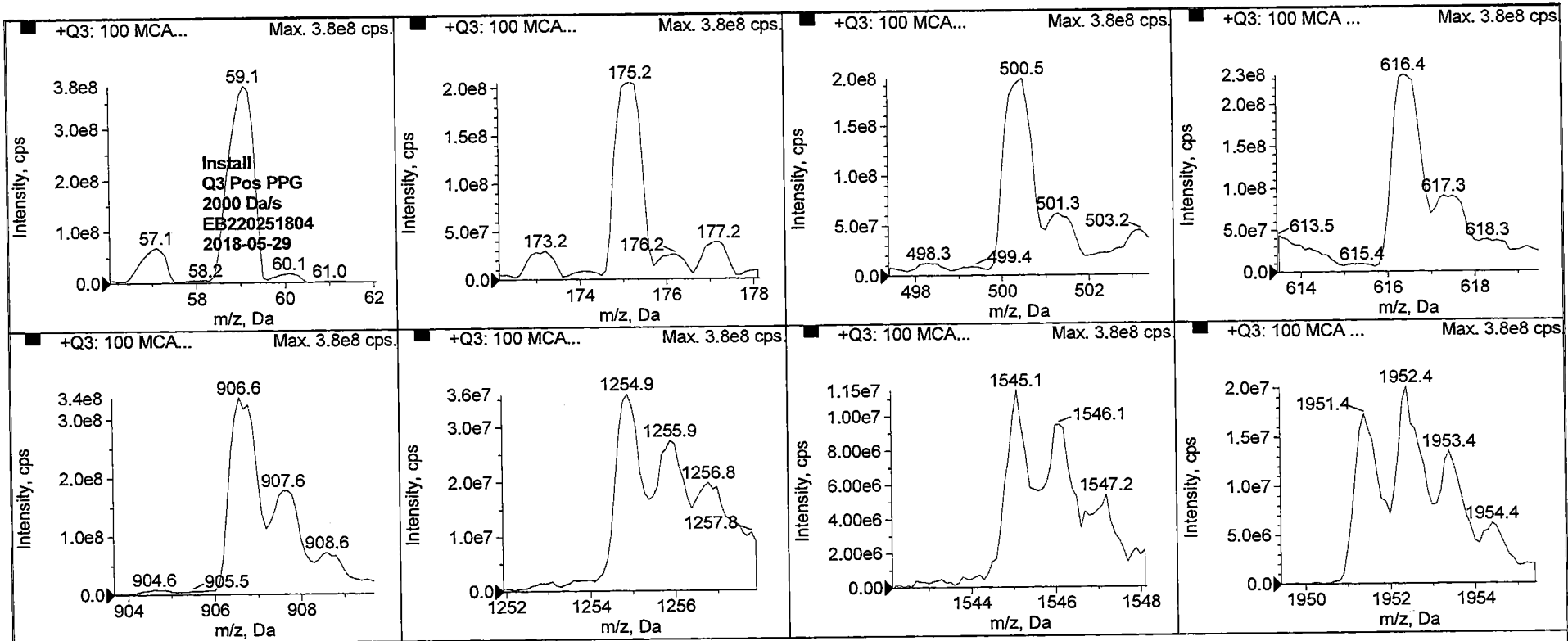
Scans in Period: 100
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for " +Q3: 100 MCA scans from Sample 8 (Q3 Pos PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0613	3.8304e8	0.6857	-0.0113
2	175.1330	175.1384	2.0544e8	0.7196	-5.4303e-3
3	500.3800	500.3896	1.9692e8	0.7603	-9.6113e-3
4	616.4640	616.4545	2.3484e8	0.7563	9.5275e-3
5	906.6730	906.6804	3.3638e8	0.7428	-7.4202e-3
6	1254.9250	1254.9055	3.5980e7	0.7182	0.0195
7	1545.1340	1545.0988	1.1500e7	0.6834	0.0352
8	1952.4270	1952.4546	2.0100e7	0.7640	-0.0276

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

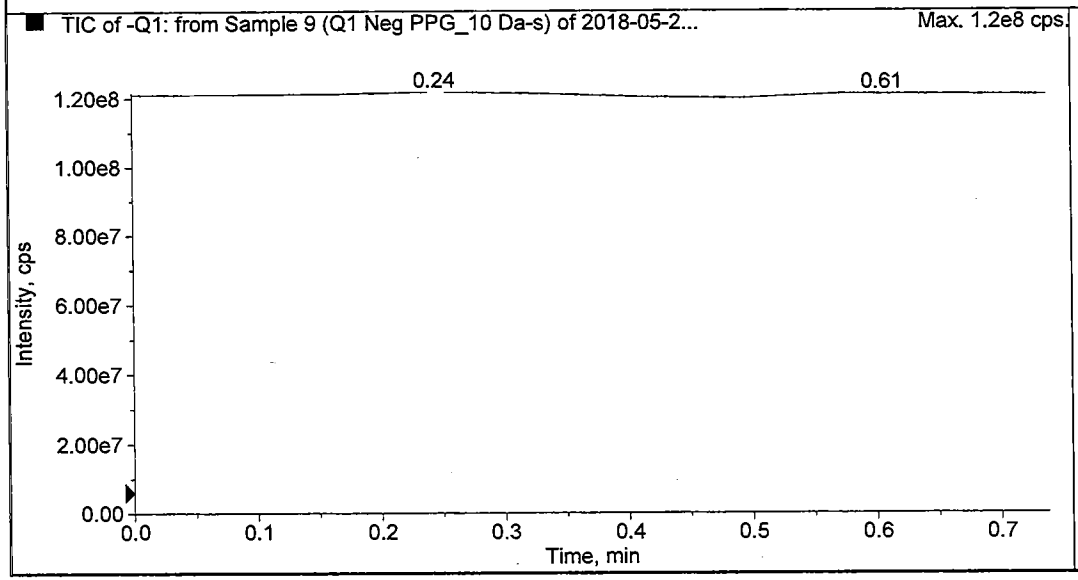
Mass Spectrometer Method Properties

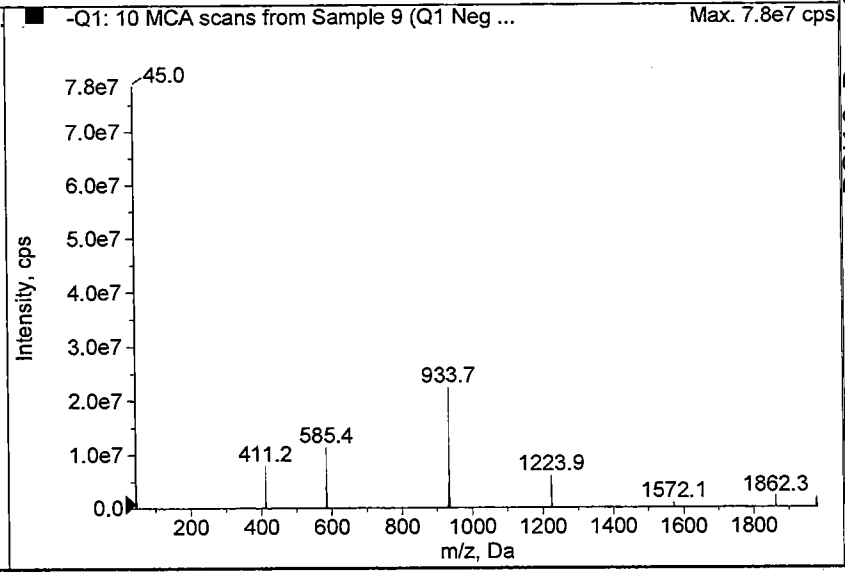
Period 1:

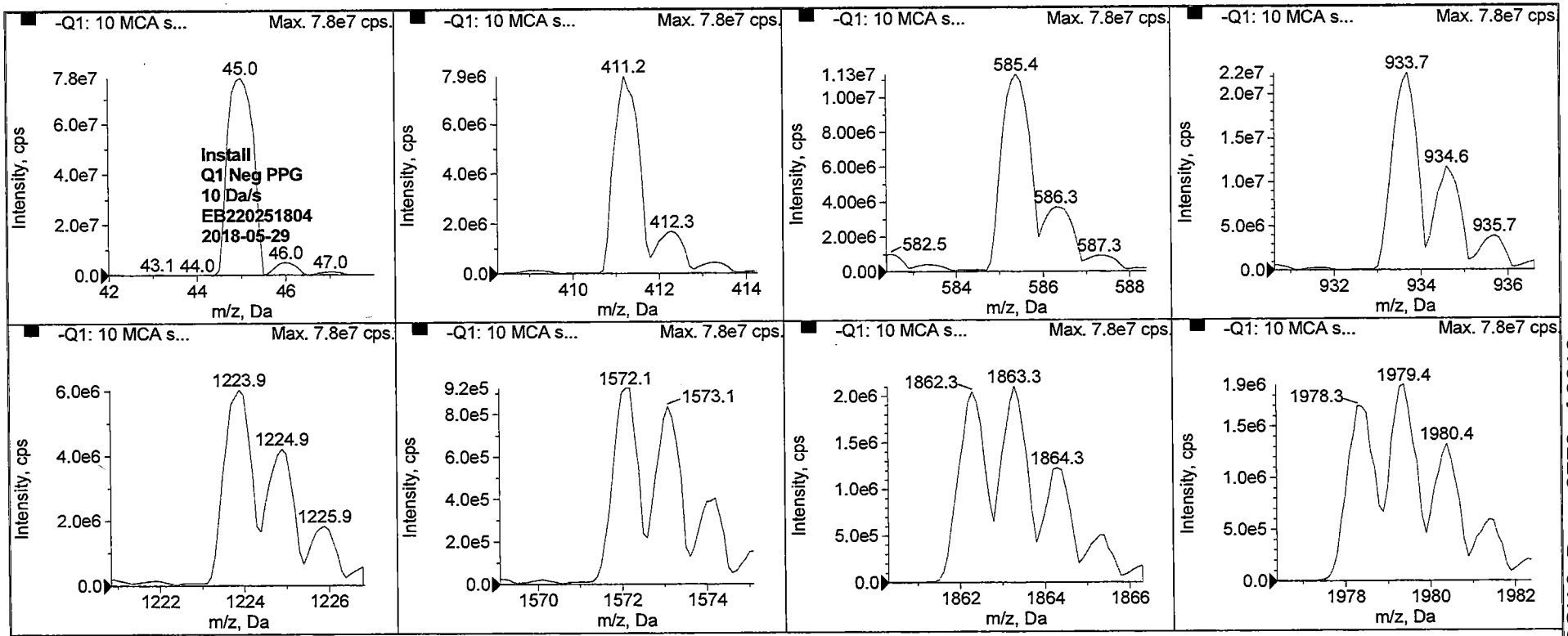
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for "-Q1: 10 MCA scans from Sample 9 (Q1 Neg PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9947	7.8484e7	0.6977	3.3302e-3
2	411.2590	411.2640	7.9184e6	0.7009	-4.9843e-3
3	585.3850	585.3944	1.1318e7	0.7674	-9.3834e-3
4	933.6360	933.6513	2.2378e7	0.6638	-0.0153
5	1223.8450	1223.8605	6.0413e6	0.7621	-0.0155
6	1572.0970	1572.0967	9.2320e5	0.6727	2.8078e-4
7	1863.3060	1863.2949	2.1046e6	0.7369	0.0111
8	1979.3890	1979.3655	1.8985e6	0.7323	0.0235

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

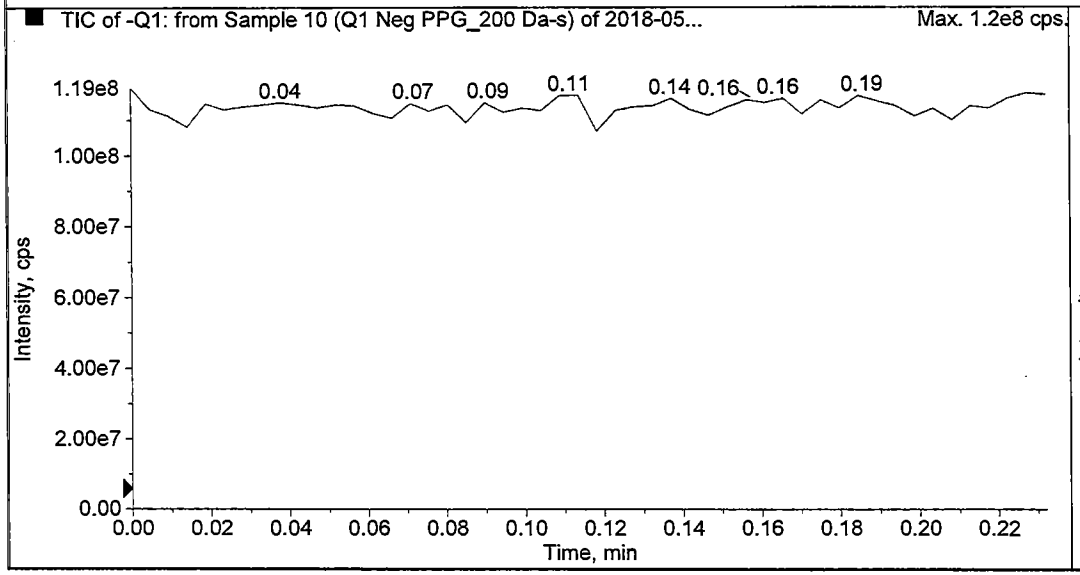
Mass Spectrometer Method Properties

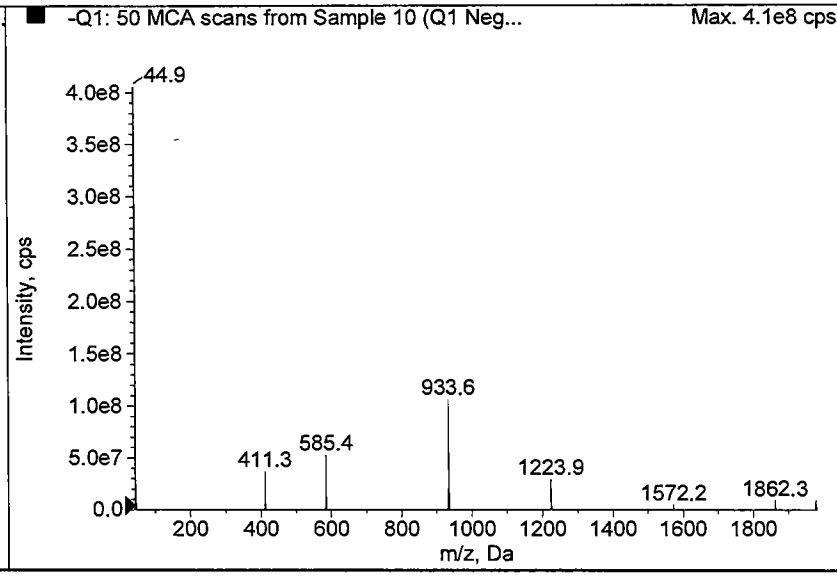
Period 1:

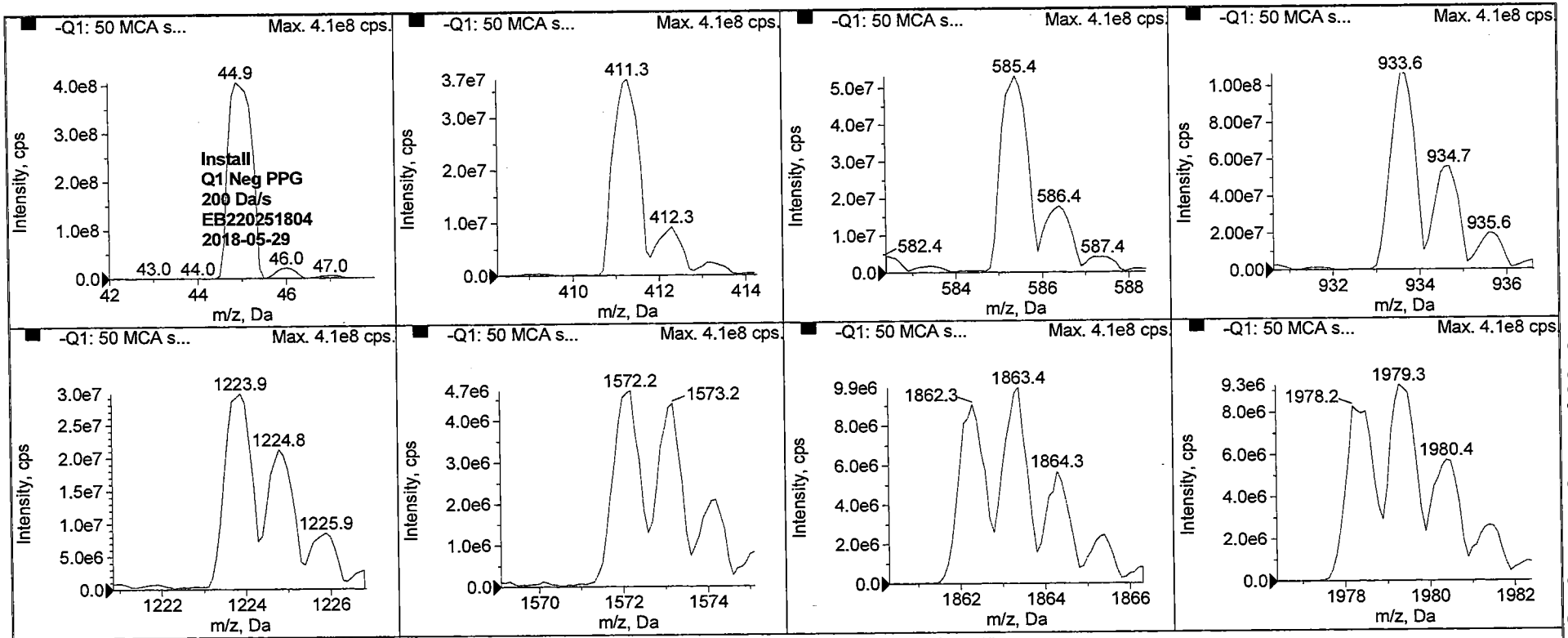
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for "-Q1: 50 MCA scans from Sample 10 (Q1 Neg PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9900	4.0582e8	0.6493	8.0001e-3
2	411.2590	411.2621	3.7274e7	0.7276	-3.1008e-3
3	585.3850	585.3787	5.3084e7	0.7168	6.3372e-3
4	933.6360	933.6551	1.0649e8	0.6450	-0.0191
5	1223.8450	1223.8398	2.9712e7	0.7456	5.1659e-3
6	1572.0970	1572.1026	4.7160e6	0.7330	-5.5764e-3
7	1863.3060	1863.3085	9.9060e6	0.6832	-2.5396e-3
8	1979.3890	1979.3715	9.2680e6	0.7385	0.0175

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

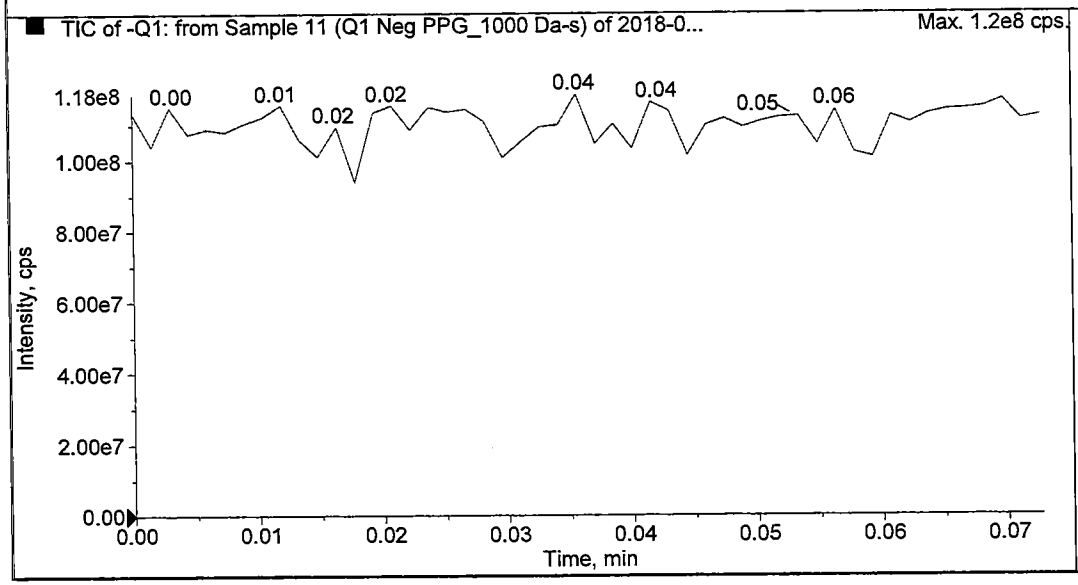
Mass Spectrometer Method Properties

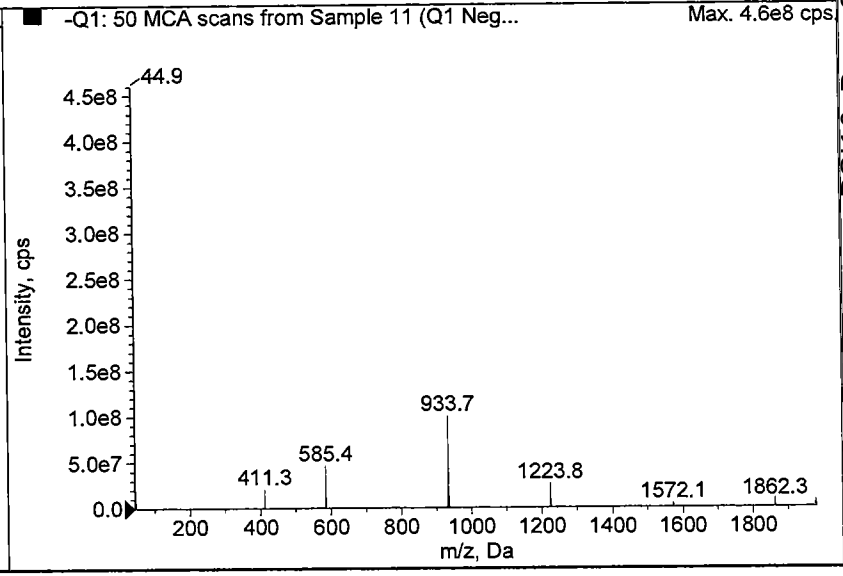
Period 1:

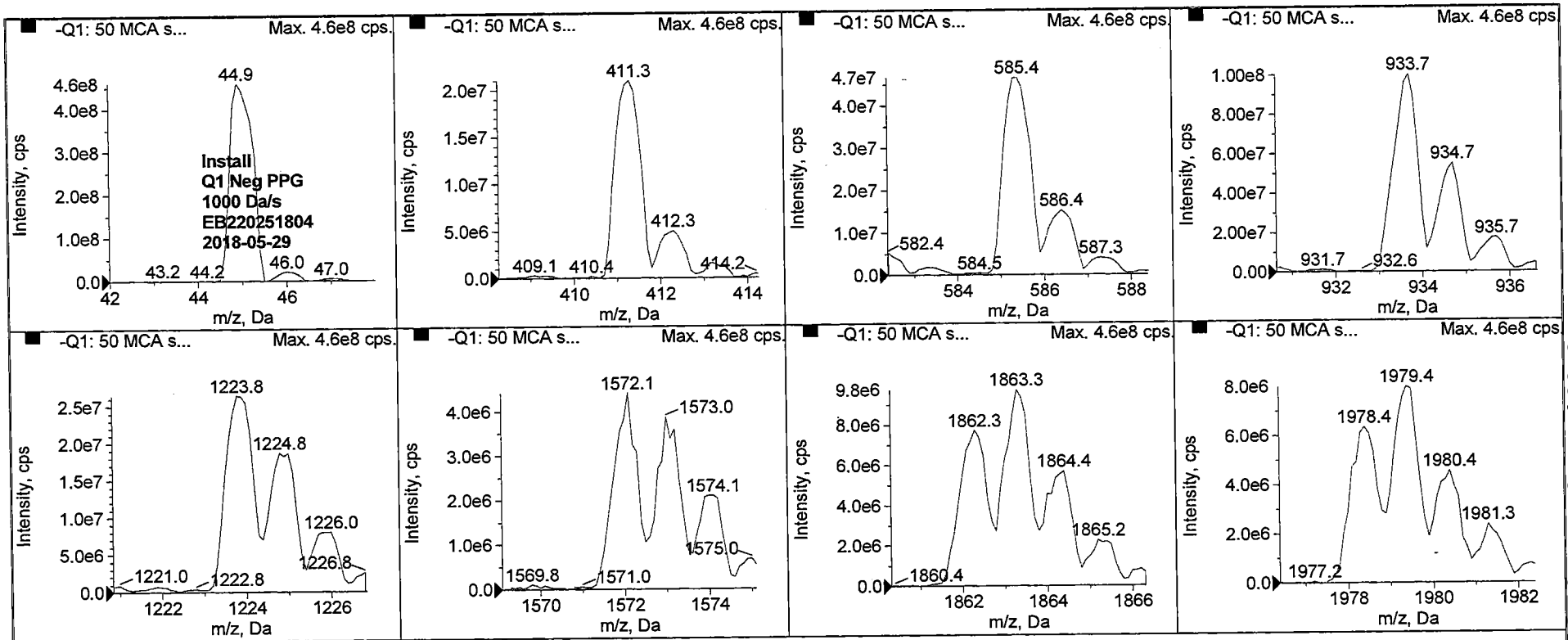
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for "-Q1: 50 MCA scans from Sample 11 (Q1 Neg PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0048	4.6001e8	0.6178	-6.8036e-3
2	411.2590	411.2622	2.1000e7	0.6966	-3.2270e-3
3	585.3850	585.3835	4.6680e7	0.7152	1.4984e-3
4	933.6360	933.6542	1.0040e8	0.6380	-0.0182
5	1223.8450	1223.8506	2.6440e7	0.7474	-5.6084e-3
6	1572.0970	1572.0547	4.4200e6	0.6569	0.0423
7	1863.3060	1863.3097	9.7600e6	0.7294	-3.6879e-3
8	1979.3890	1979.3736	7.9900e6	0.7077	0.0154

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	-4500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	-10.0
Q1 Resolution:	Unit
Ion Energy 1 (IE1):	-1.0
CEM (CEM):	1900.0

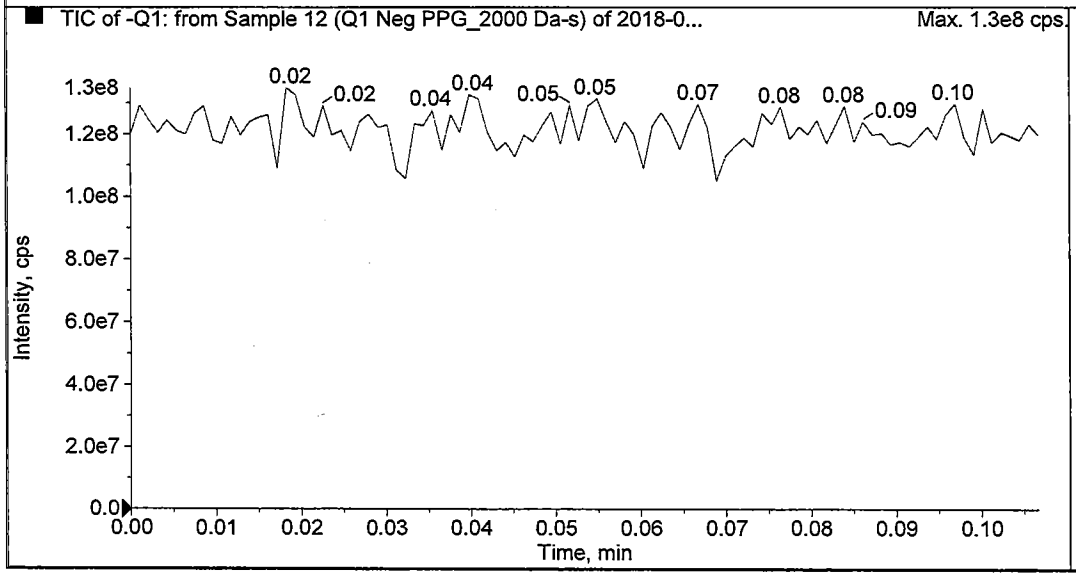
Mass Spectrometer Method Properties

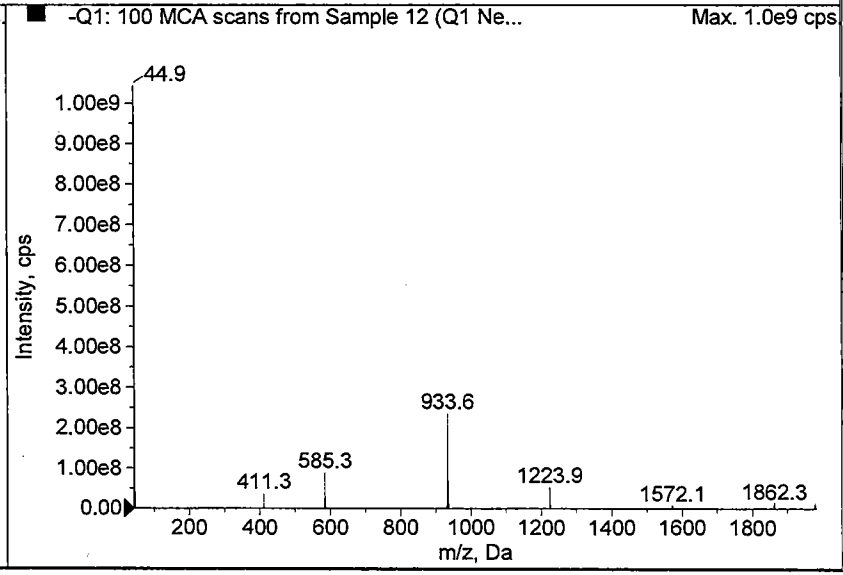
Period 1:

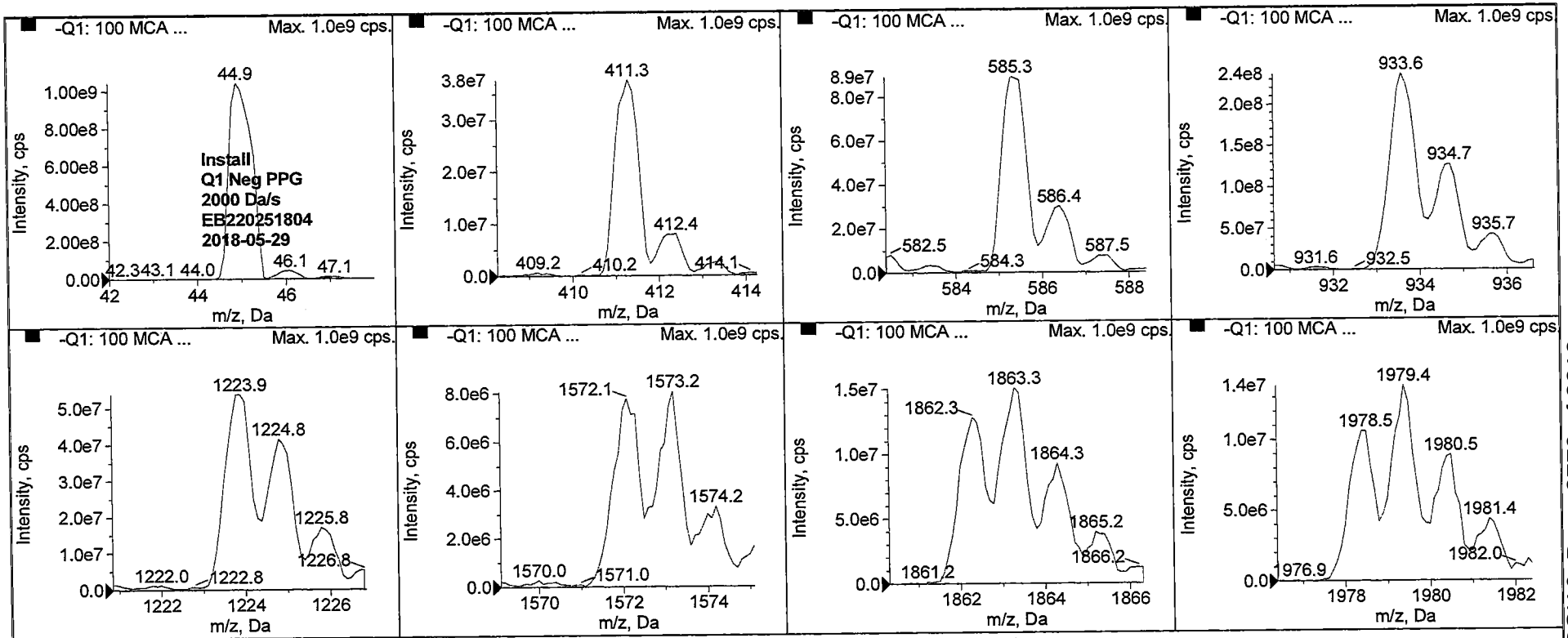
Scans in Period:	100
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

Period 1 Experiment 1:

Scan Type:	Q1 MS (Q1)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q1:	Unit







Peak List for "-Q1: 100 MCA scans from Sample 12 (Q1 Neg PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9988	1.0432e9	0.6290	-7.8776e-4
2	411.2590	411.2681	3.7700e7	0.6335	-9.0706e-3
3	585.3850	585.3670	8.9260e7	0.6465	0.0180
4	933.6360	933.6310	2.3632e8	0.6639	4.9633e-3
5	1223.8450	1223.8469	5.3740e7	0.7138	-1.8551e-3
6	1572.0970	1572.1139	7.7800e6	0.7223	-0.0169
7	1863.3060	1863.2638	1.5060e7	0.7553	0.0422
8	1979.3890	1979.3750	1.3800e7	0.6556	0.0140

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): -1.5

CEM (CEM): 1900.0

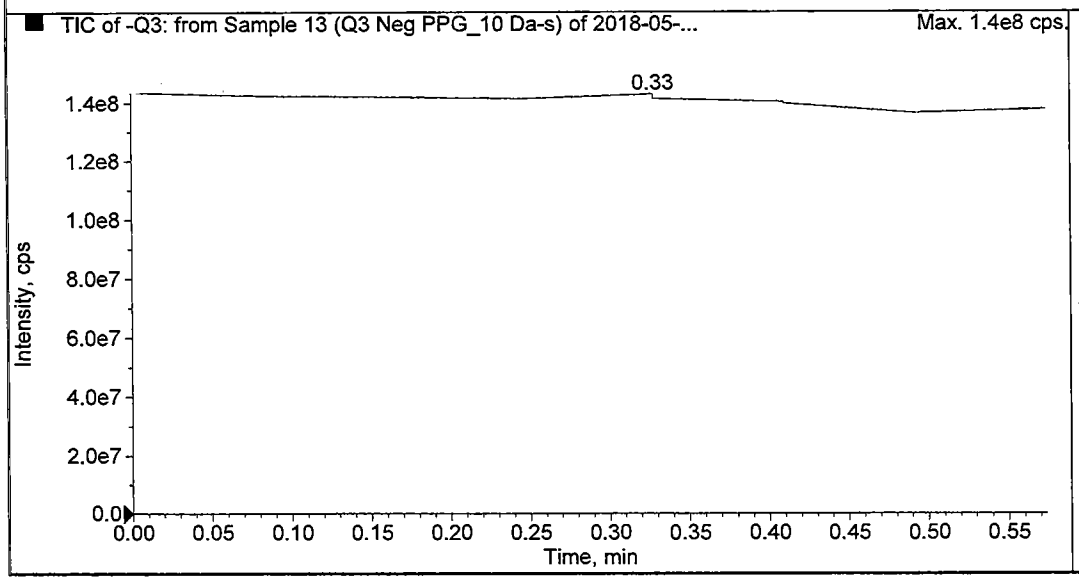
Mass Spectrometer Method Properties

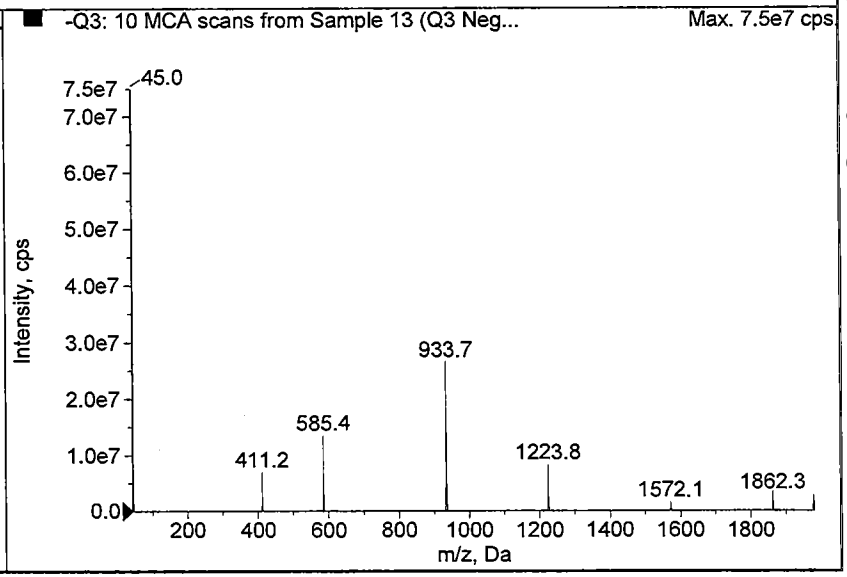
Period 1:

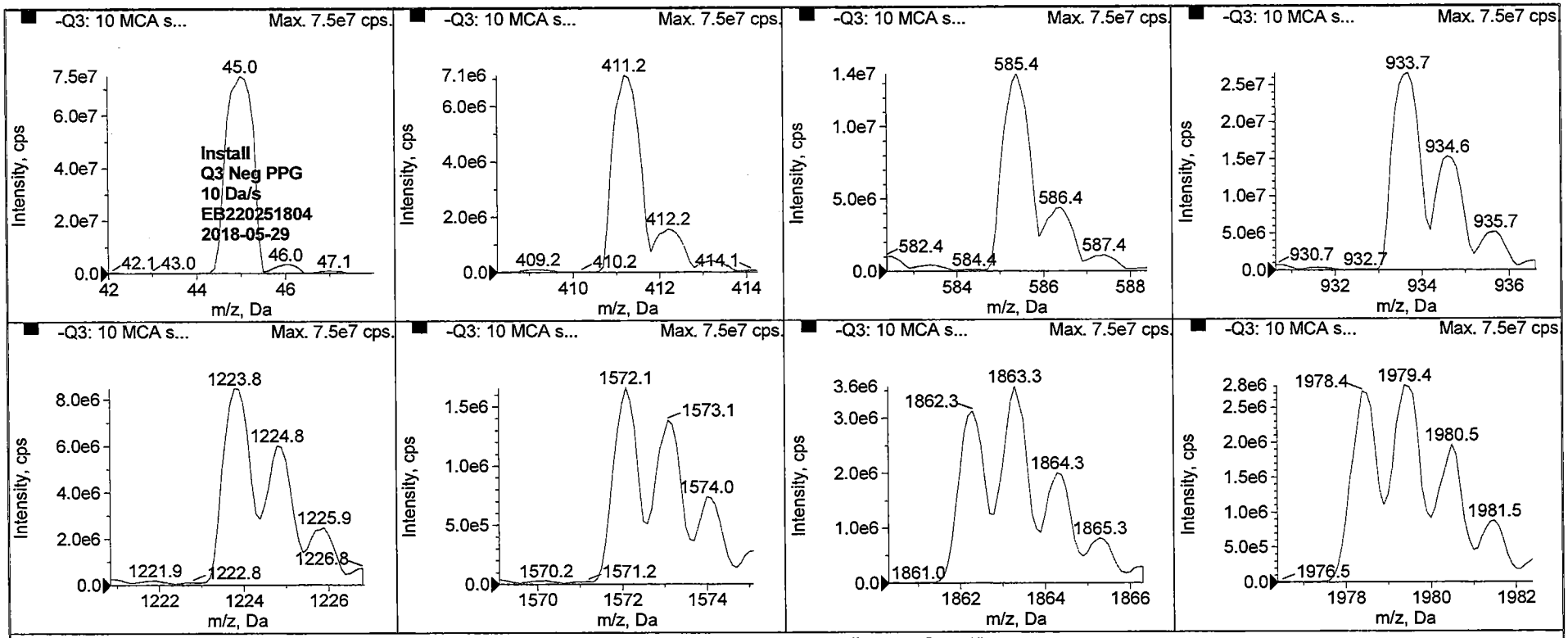
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for "-Q3: 10 MCA scans from Sample 13 (Q3 Neg PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9972	7.5007e7	0.7320	7.7711e-4
2	411.2590	411.2344	7.1361e6	0.7370	0.0246
3	585.3850	585.3868	1.3657e7	0.7362	-1.8161e-3
4	933.6360	933.6384	2.6621e7	0.7288	-2.4244e-3
5	1223.8450	1223.8430	8.4746e6	0.7528	1.9856e-3
6	1572.0970	1572.0927	1.6606e6	0.6651	4.2840e-3
7	1863.3060	1863.3066	3.5734e6	0.7033	-6.4400e-4
8	1979.3890	1979.4384	2.8091e6	0.7513	-0.0494

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	-4500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	-10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	-1.5
CEM (CEM):	1900.0

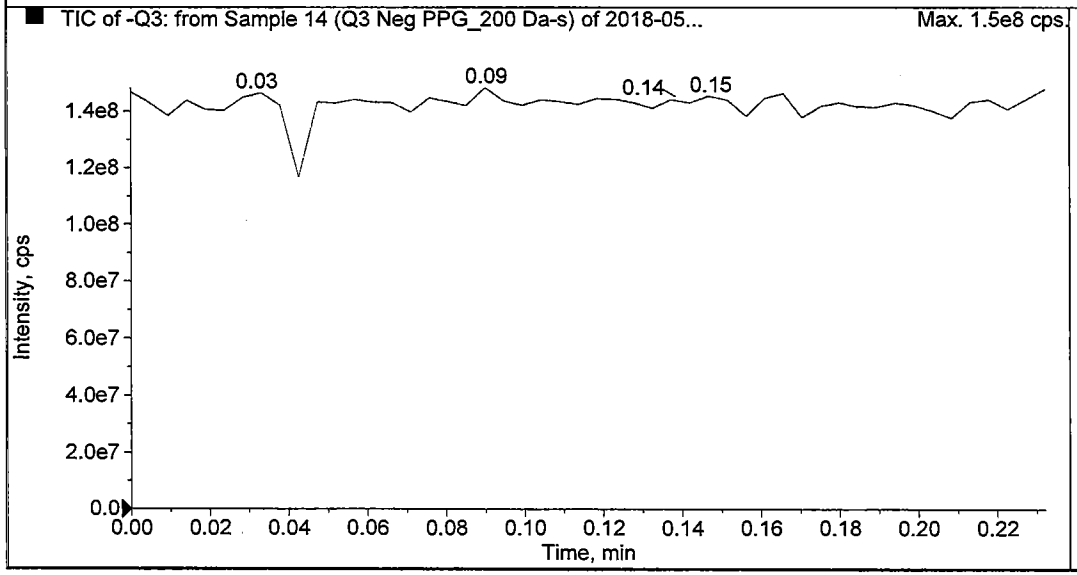
Mass Spectrometer Method Properties

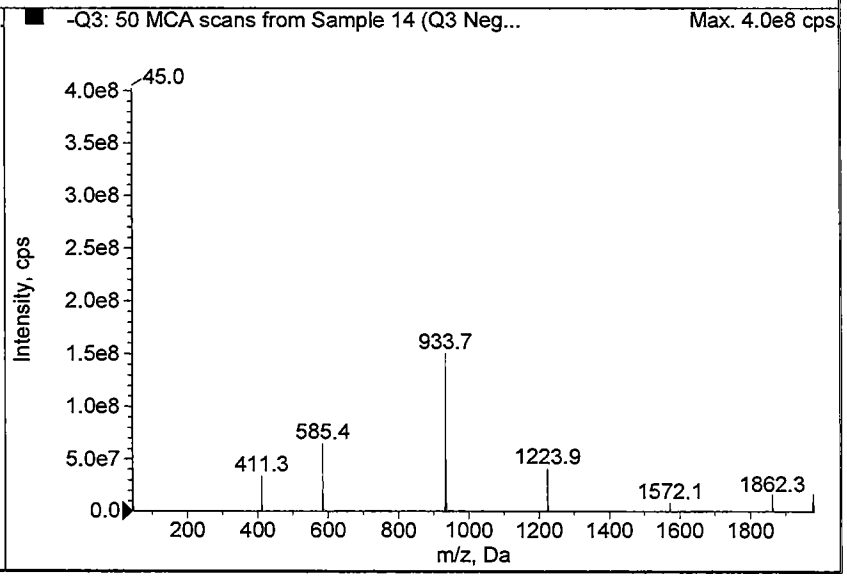
Period 1:

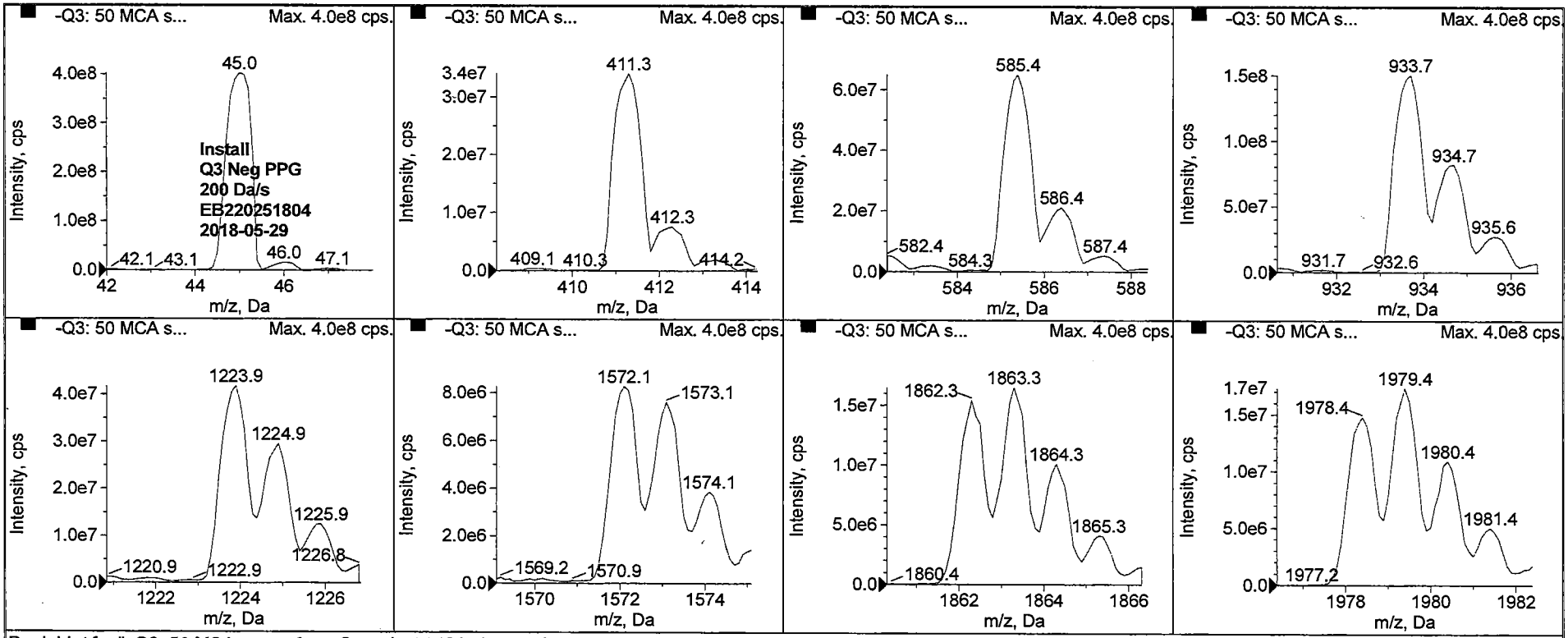
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

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







Peak List for "-Q3: 50 MCA scans from Sample 14 (Q3 Neg PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9962	4.0241e8	0.6638	1.8369e-3
2	411.2590	411.2556	3.4052e7	0.7417	3.4492e-3
3	585.3850	585.3842	6.5036e7	0.7136	7.7195e-4
4	933.6360	933.6363	1.5056e8	0.7374	-3.0811e-4
5	1223.8450	1223.8530	4.1810e7	0.7279	-7.9656e-3
6	1572.0970	1572.1021	8.2680e6	0.7241	-5.0694e-3
7	1863.3060	1863.3199	1.6482e7	0.6755	-0.0139
8	1979.3890	1979.3879	1.7328e7	0.7116	1.1118e-3

Stale Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): -1.5

CEM (CEM): 1900.0

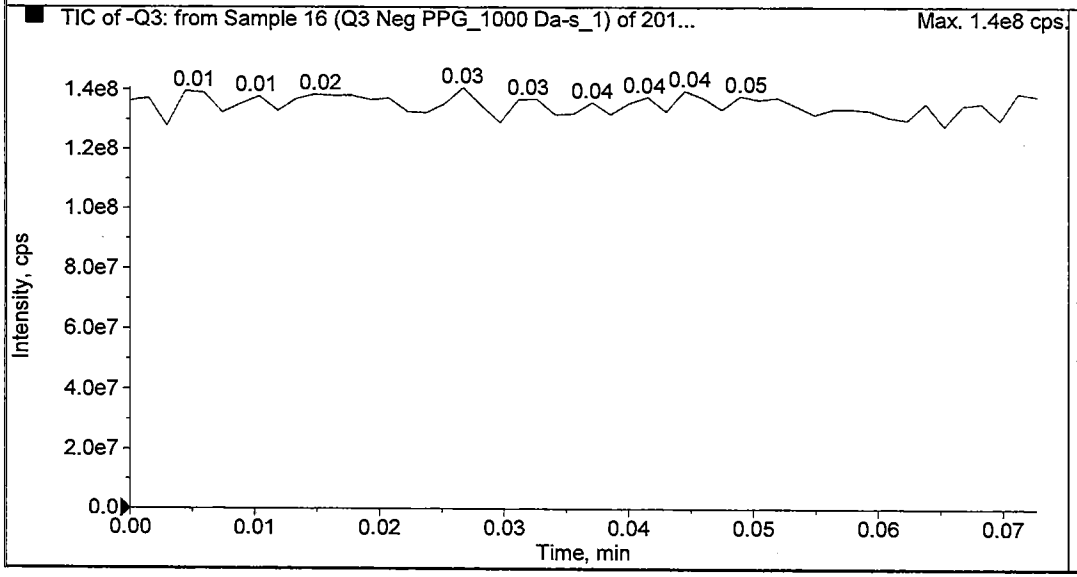
Mass Spectrometer Method Properties

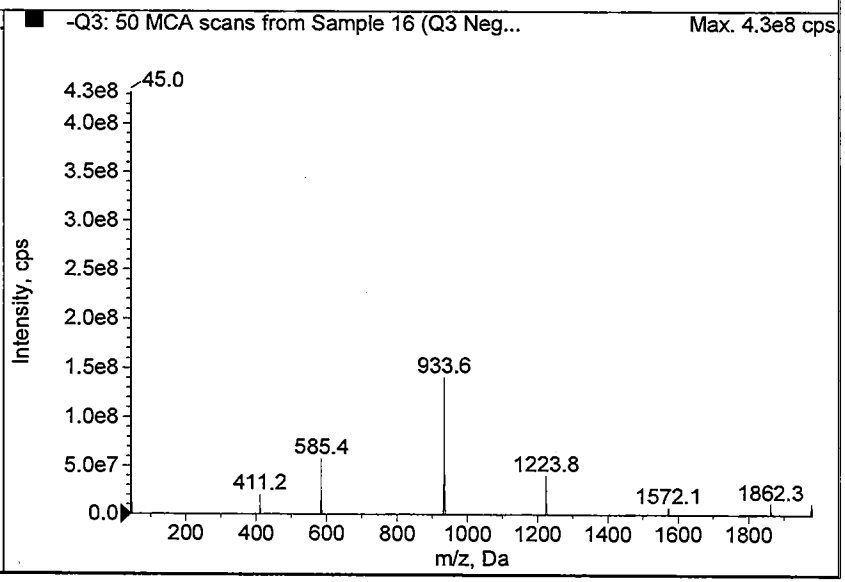
Period 1:

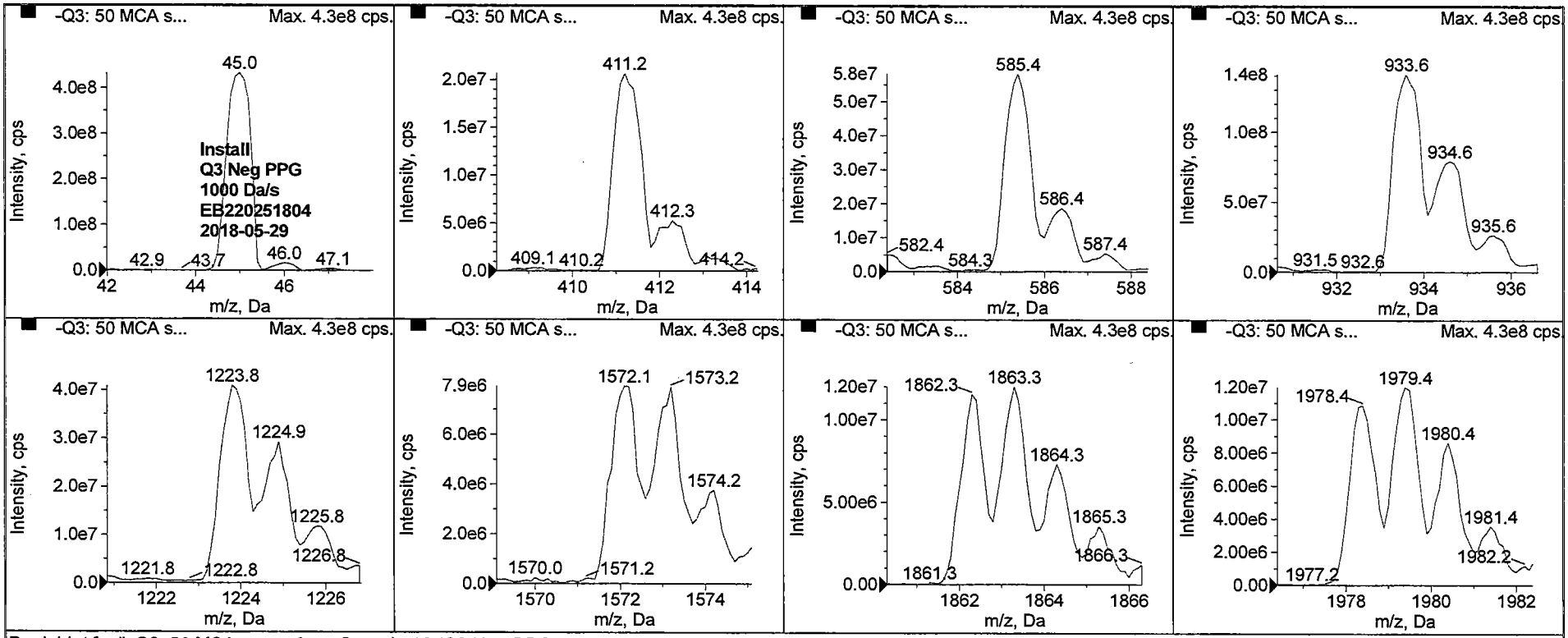
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

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







Peak List for "-Q3: 50 MCA scans from Sample 16 (Q3 Neg PPG_1000 Da-s_1) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9825	4.3310e8	0.6384	0.0155
2	411.2590	411.2576	2.0660e7	0.7352	1.4357e-3
3	585.3850	585.3827	5.8190e7	0.6719	2.2702e-3
4	933.6360	933.6150	1.4107e8	0.7226	0.0210
5	1223.8450	1223.8394	4.0960e7	0.7336	5.6019e-3
6	1572.0970	1572.1001	7.9400e6	0.7950	-3.0523e-3
7	1863.3060	1863.2902	1.2010e7	0.6806	0.0158
8	1979.3890	1979.4012	1.1960e7	0.7138	-0.0122

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): -1.5

CEM (CEM): 1900.0

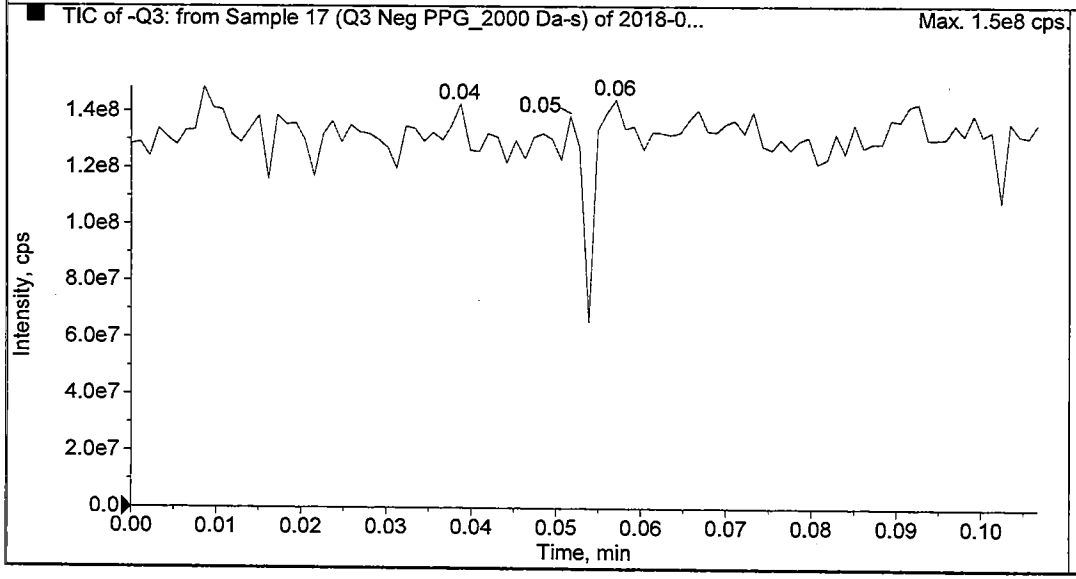
Mass Spectrometer Method Properties

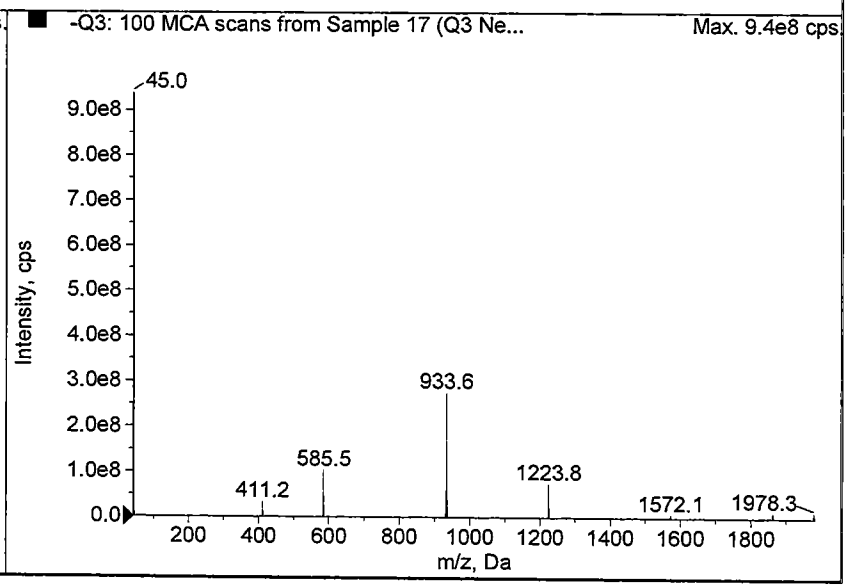
Period 1:

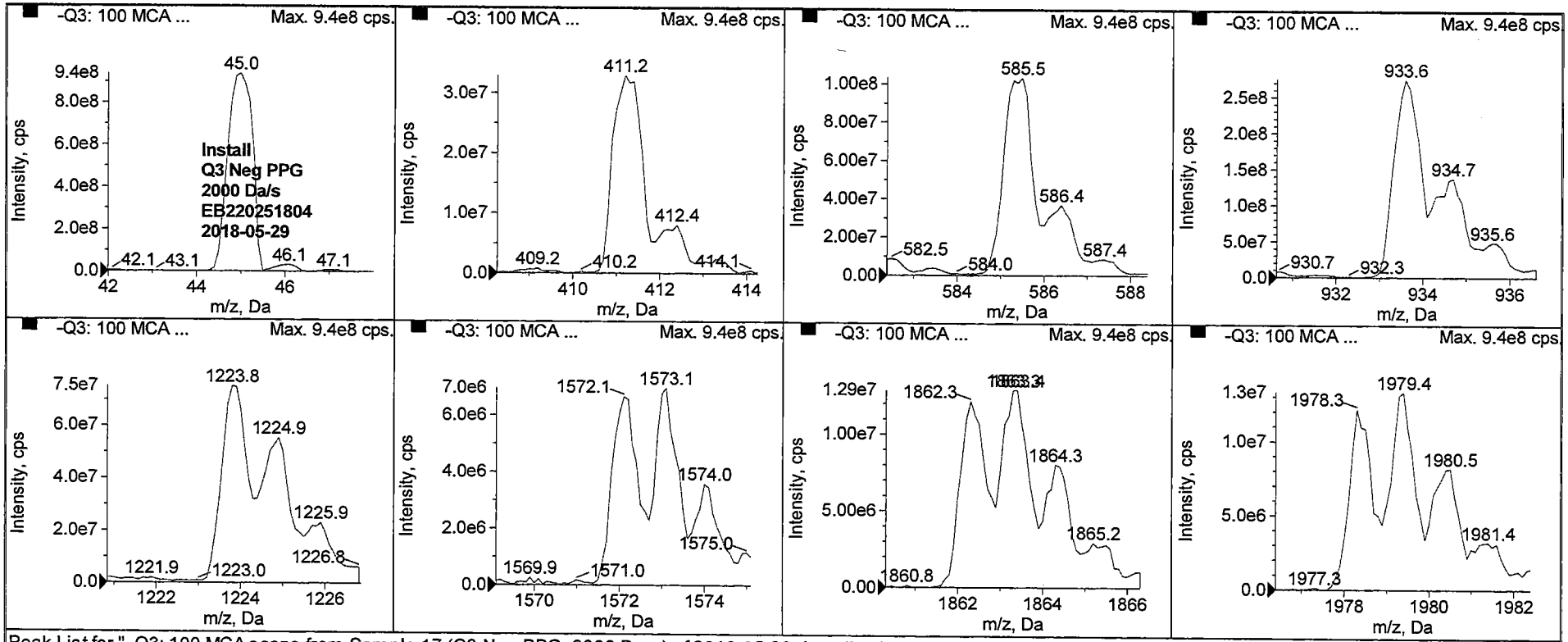
Scans in Period: 100
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for "-Q3: 100 MCA scans from Sample 17 (Q3 Neg PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9950	9.3786e8	0.6643	2.9882e-3
2	411.2590	411.2370	3.2920e7	0.7732	0.0220
3	585.3850	585.3850	1.0332e8	0.6994	-4.8105e-6
4	933.6360	933.6288	2.7486e8	0.7105	7.2155e-3
5	1223.8450	1223.8546	7.5140e7	0.6946	-9.5568e-3
6	1572.0970	1572.1115	6.6600e6	0.6890	-0.0145
7	1863.3060	1863.3250	1.2880e7	0.7704	-0.0190
8	1979.3890	1979.3741	1.3320e7	0.6259	0.0149

Sate Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 28.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Declustering Potential (DP): 135.0
Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

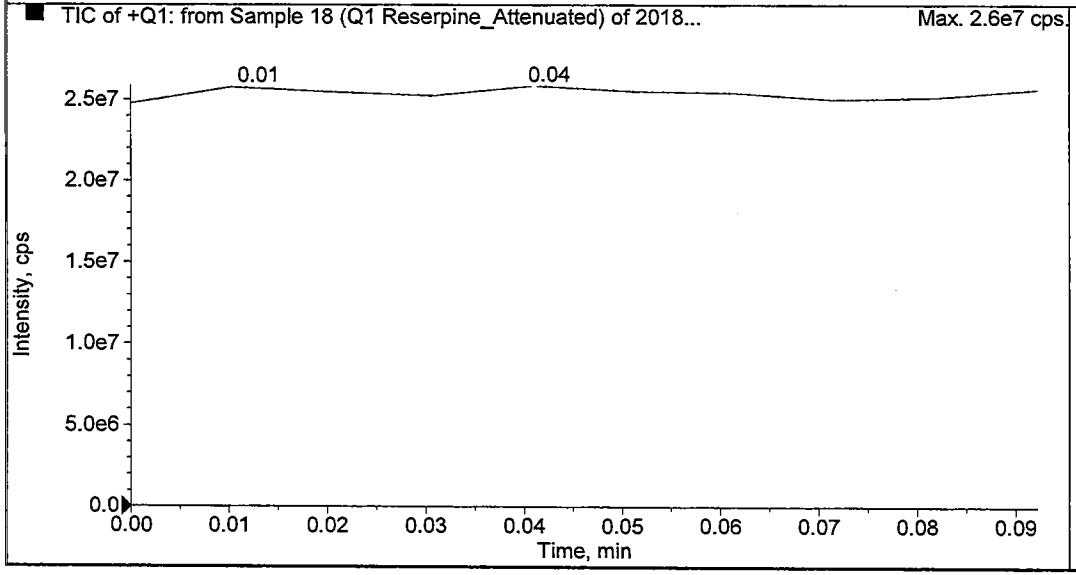
Mass Spectrometer Method Properties

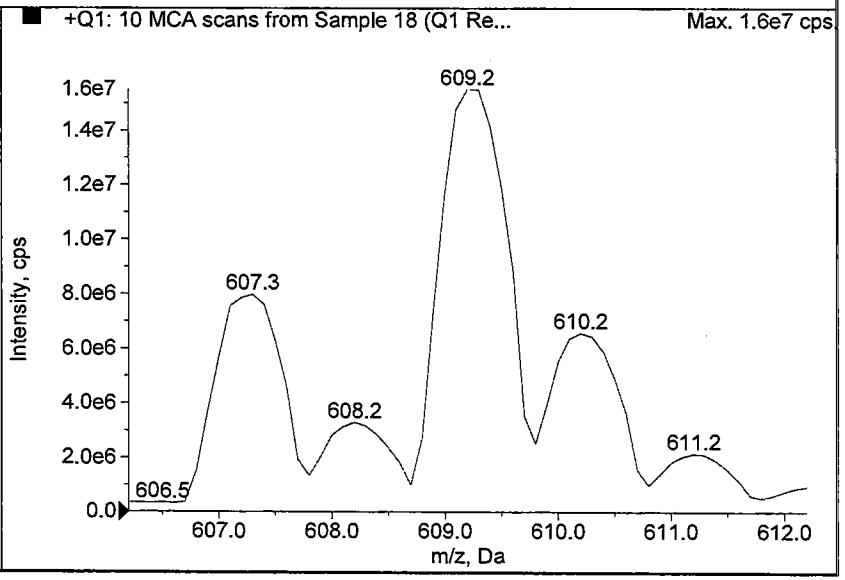
Period 1:

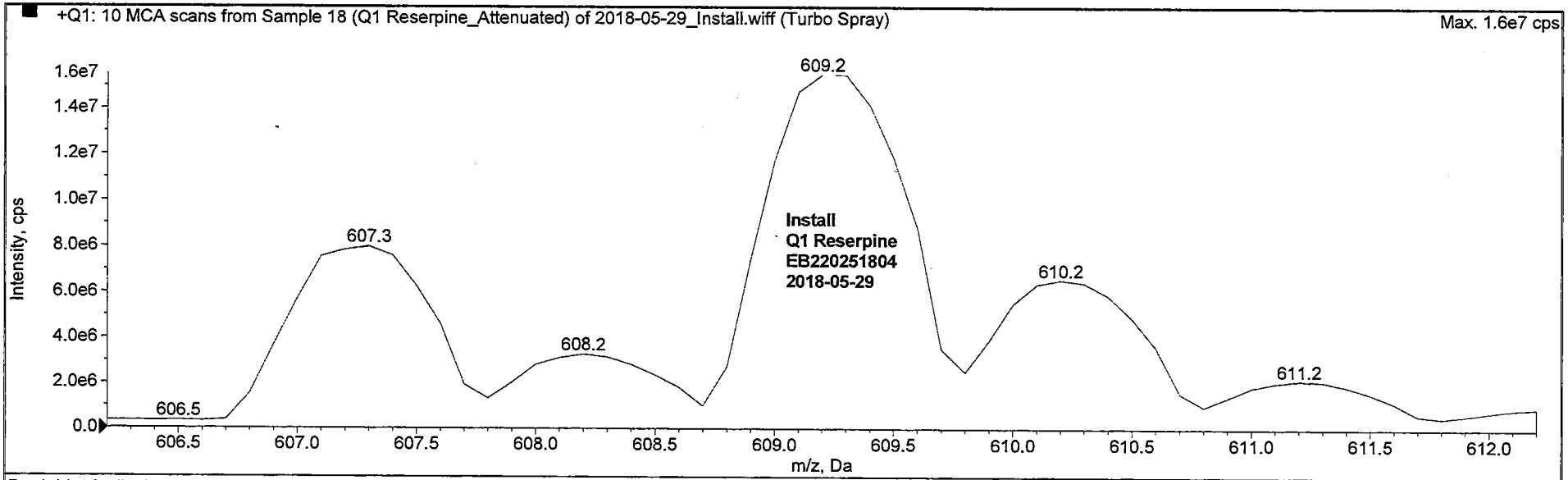
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 10 MCA scans from Sample 18 (Q1 Reserpine_Attenuated) 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	n/a
2	609.2810	609.2580	1.5520e7	0.7138	0.0230

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 28.0
Collision Gas (CAD): 9
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Declustering Potential (DP): 135.0
Entrance Potential (EP): 10.0
Collision Energy (CE): 44.5
Collision Cell Exit Potential (CXP): 6.2

Q1 Resolution: Unit Q3 Resolution: Unit
Ion Energy 1 (IE1): 1.2

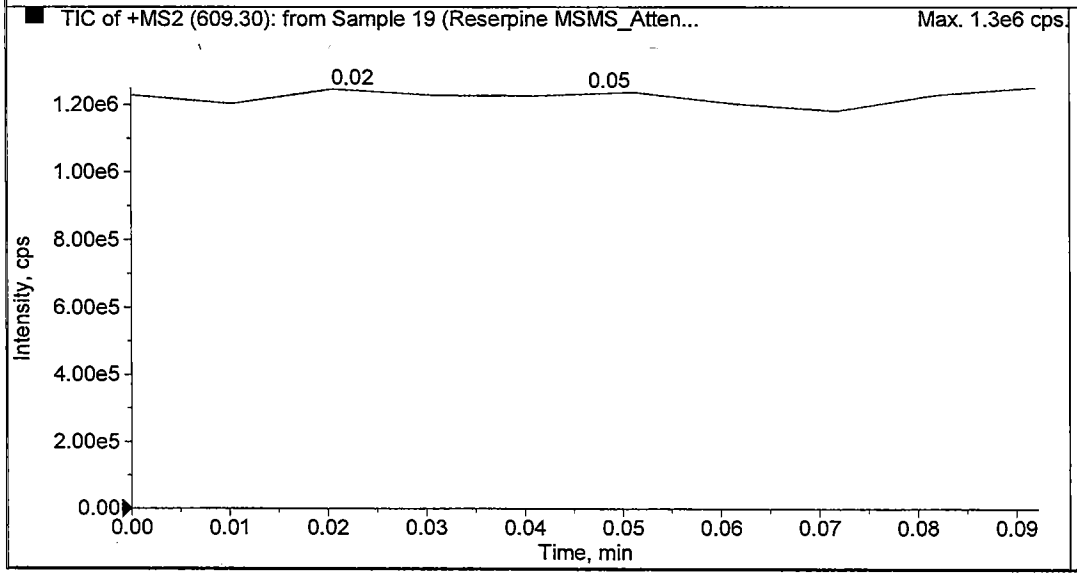
Mass Spectrometer Method Properties

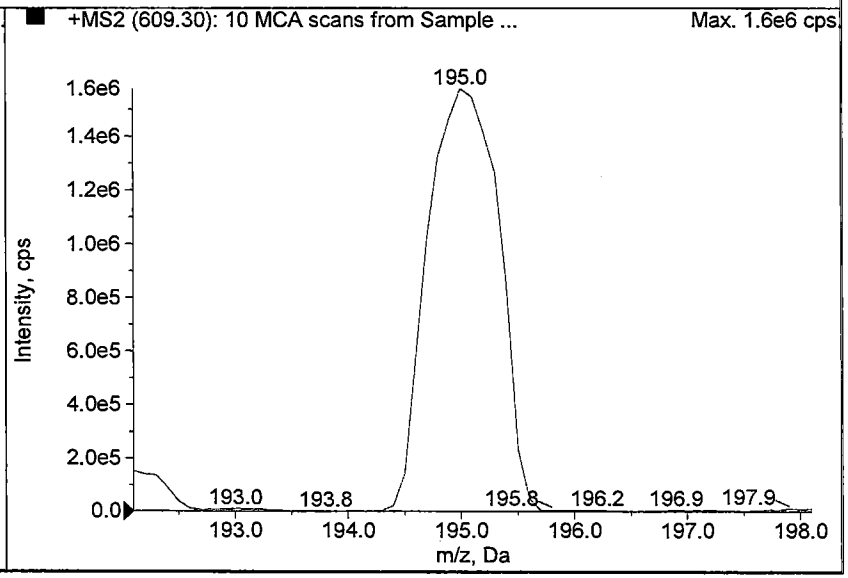
Period 1:

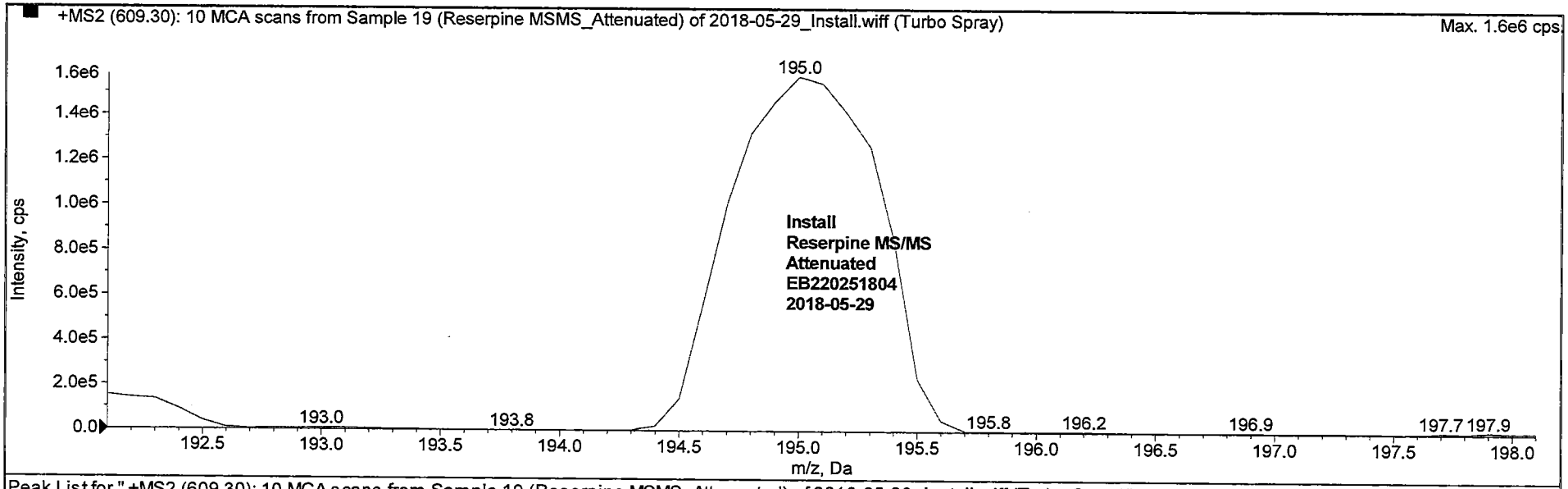
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Product Ion (MS2)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Product Of: 609.30 Da







Peak List for "+MS2 (609.30): 10 MCA scans from Sample 19 (Reserpine MSMS_Attenuated) of 2018-05-29_Install.wiff (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: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK311003			**Data File:**		18NOV08D-42.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311003			**Acquis Date:**		2018-11-08T17:58:28
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	66			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311003
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311003			**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: 18NOV08D-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	818018.3	728839.7	12	50	
13C2-PFOA	5.0	599449.6	491983.1	22	50	
13C4-PFOS	4.8	298112.3	255568.1	17	50	
13C2-PFDA	5.0	370426.1	315407.5	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	604601.5	13C3-PFBA	818018.3	0.739	10.000	6.841	68	50-150	
E13C5-PFPeA	651821.6	13C3-PFBA	818018.3	0.797	10.000	6.942	69	50-150	
E13C3-PFBS	313228.9	13C3-PFBA	818018.3	0.383	9.300	5.620	60	50-150	
E13C2-4:2-FTS	41168.9	13C2-PFOA	599449.6	0.069	9.340	6.198	66	50-150	
E13C5-PFHxA	531279.2	13C2-PFOA	599449.6	0.886	10.000	6.520	65	50-150	
E13C3-PFHxS	258175.1	13C2-PFOA	599449.6	0.431	9.460	6.184	65	50-150	
E13C4-PFHpA	404660.2	13C2-PFOA	599449.6	0.675	10.000	6.142	61	50-150	
E13C2-6:2-FTS	28206.6	13C2-PFOA	599449.6	0.047	9.500	6.276	66	50-150	
E13C8-PFOA	697498.9	13C2-PFOA	599449.6	1.164	10.000	6.490	65	50-150	
E13C8-PFOS	232593.8	13C4-PFOS	298112.3	0.780	9.560	6.900	72	50-150	
E13C9-PFNA	373800.2	13C4-PFOS	298112.3	1.254	10.000	6.850	69	50-150	
E13C6-PFDA	463101.7	13C2-PFDA	370426.1	1.250	10.000	6.288	63	50-150	
E13C2-8:2-FTS	19223.9	13C2-PFDA	370426.1	0.052	9.580	5.492	57	50-150	
E13C8-PFOSA	551166.7	13C2-PFDA	370426.1	1.488	10.000	6.494	65	50-150	
Ed3-NMeFOSAA	61296.9	13C2-PFDA	370426.1	0.165	10.000	6.154	62	50-150	
E13C7-PFUnDA	222247.7	13C2-PFDA	370426.1	0.600	10.000	6.922	69	50-150	
Ed5-NEtFOSAA	50236.7	13C2-PFDA	370426.1	0.136	10.000	6.277	63	50-150	
E13C2-PFDoDA	423554.9	13C2-PFDA	370426.1	1.143	10.000	6.165	62	50-150	
Ed7-NMePFOSAE	245048.5	13C2-PFDA	370426.1	0.662	10.000	6.153	62	50-150	
Ed3-NMePFOSA	63306.2	13C2-PFDA	370426.1	0.171	10.000	6.258	63	50-150	
Ed9-NEtPFOSAE	211093.2	13C2-PFDA	370426.1	0.570	10.000	6.509	65	50-150	
Ed5-NEtPFOSA	52090.0	13C2-PFDA	370426.1	0.141	10.000	6.512	65	50-150	
E13C2-PFTeDA	306290.2	13C2-PFDA	370426.1	0.827	10.000	5.953	60	50-150	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

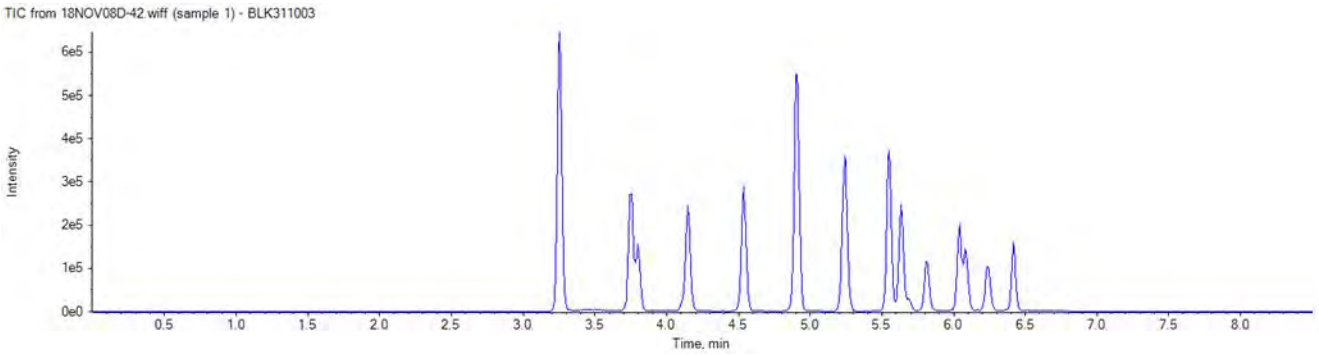
Analyte Quantitation Peak Table

Sample Name: BLK311003 **Instrument Name:** LM27631 **File Name:** 18NOV08D-42.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	3.25	604601.5	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.75	651821.6	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	313228.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	41168.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	531279.2	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	313228.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	258175.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	404660.2	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	28206.6	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	258175.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	697498.9	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.23	232593.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	373800.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	232593.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.55	463101.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	19223.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.63	551166.7	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.69	61296.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.23	232593.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.81	222247.7	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.82	50236.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	423554.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	19223.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	245048.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.09	63306.2	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	232593.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	211093.2	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	52090.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	423554.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306290.2	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306290.2	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306290.2	N/A	

Total Ion Chromatogram

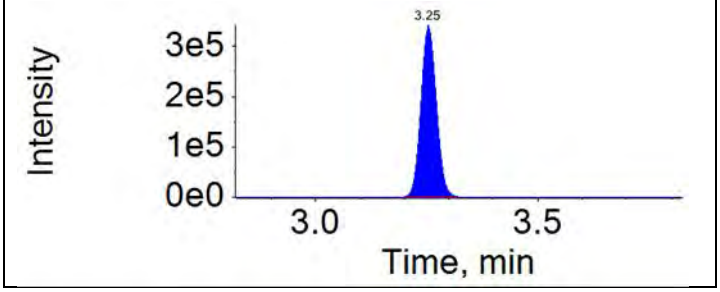


APPROVED
By JPT at 1:25 pm, 11/9/18

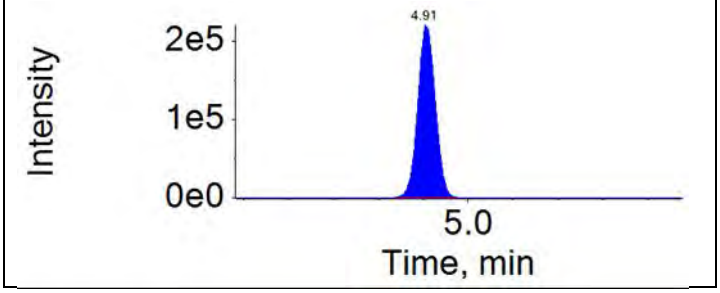
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

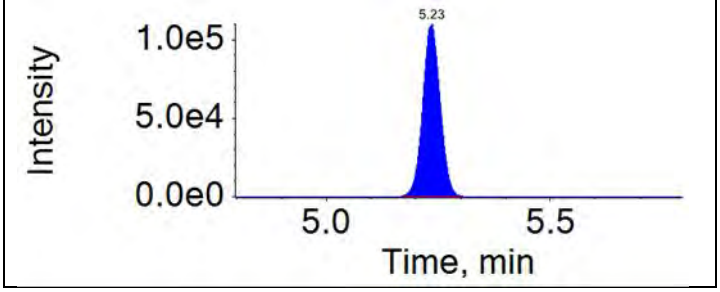
Injection Standard: 13C3-PFBA
216.0 / 172.0



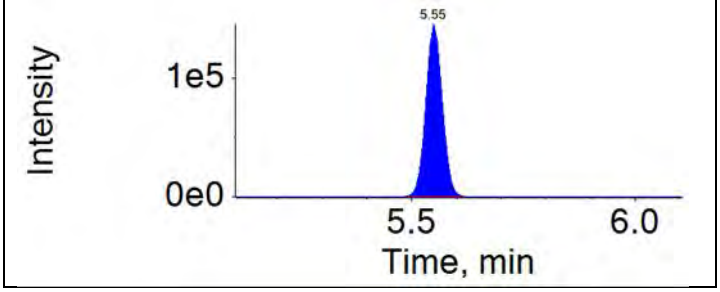
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

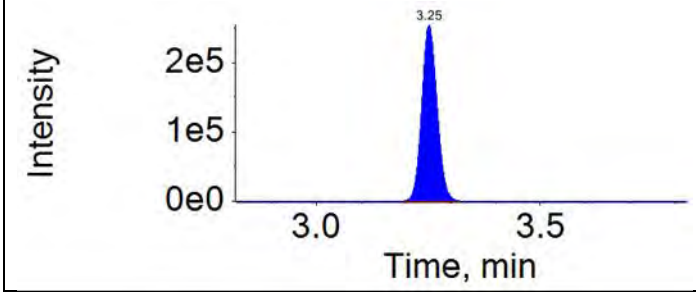


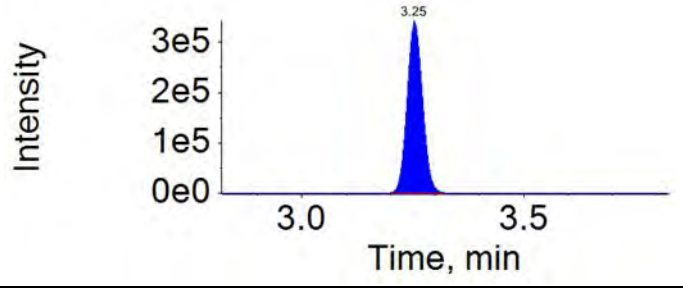
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

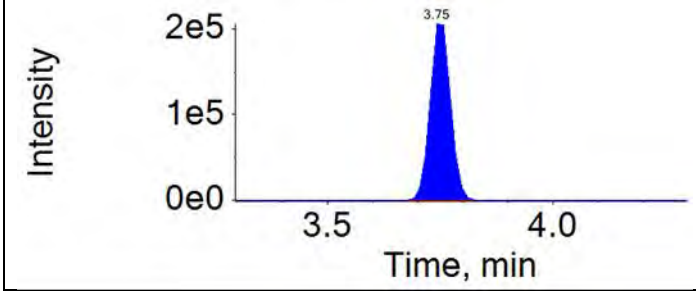
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

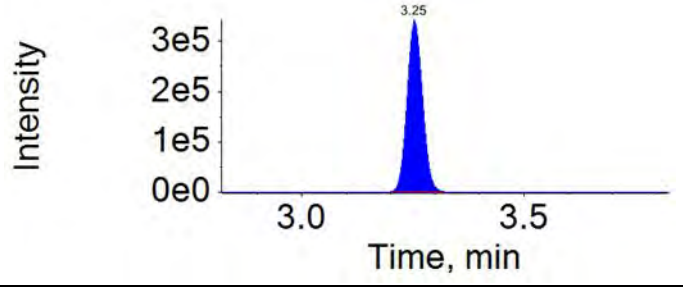
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



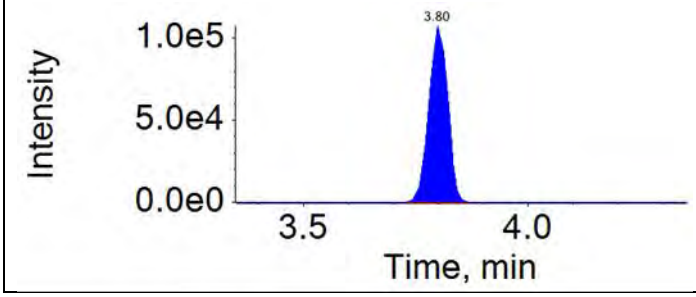


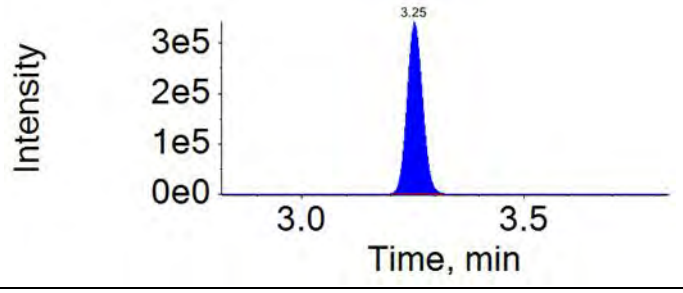
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



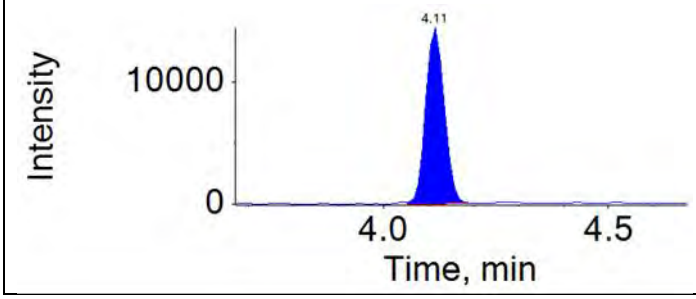


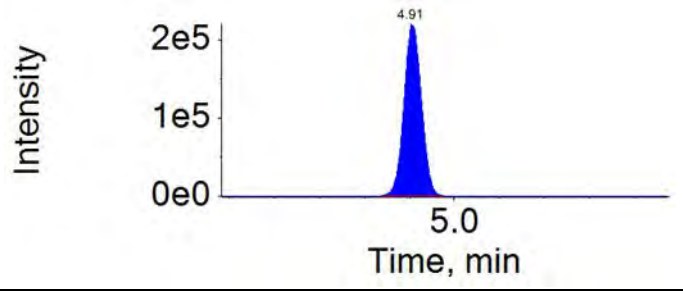
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



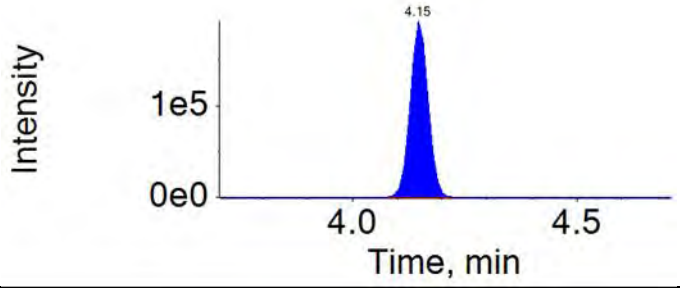


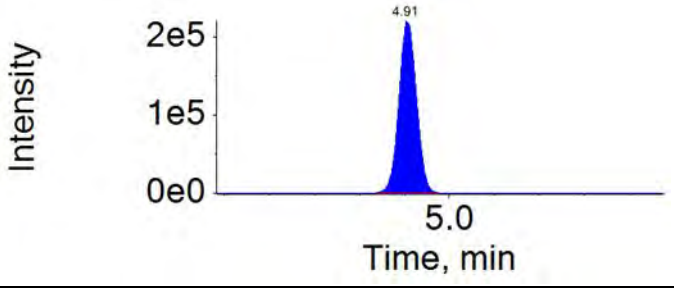
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

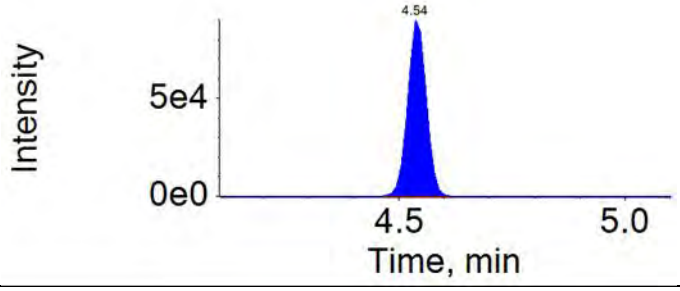
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

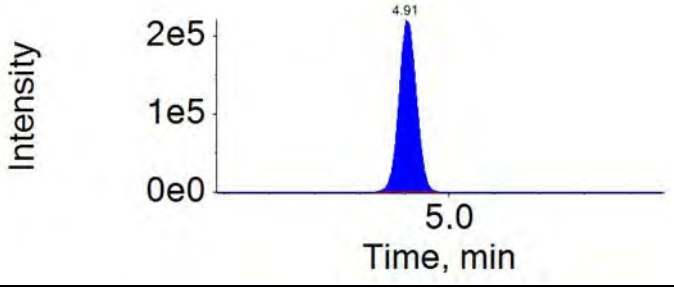
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



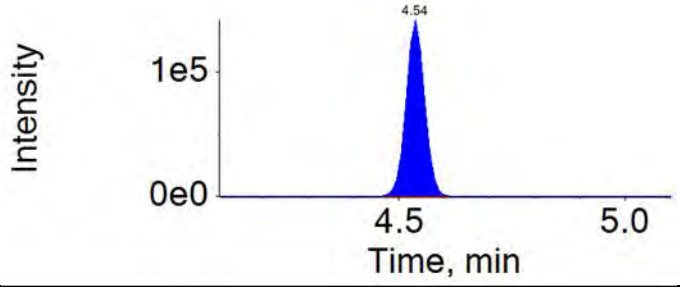


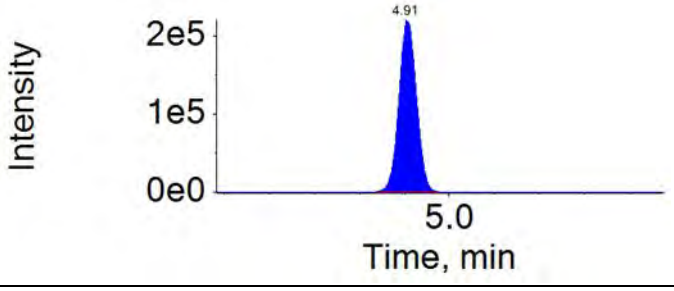
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



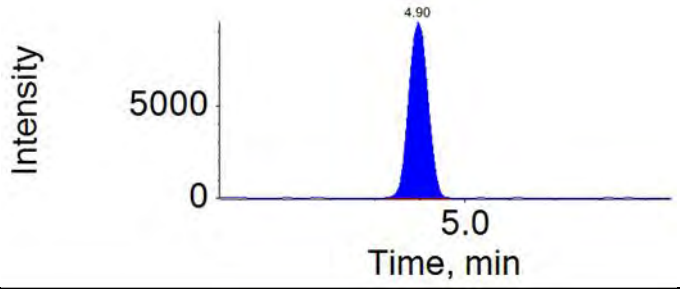


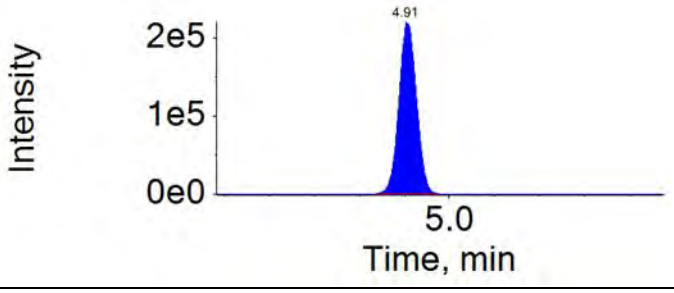
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

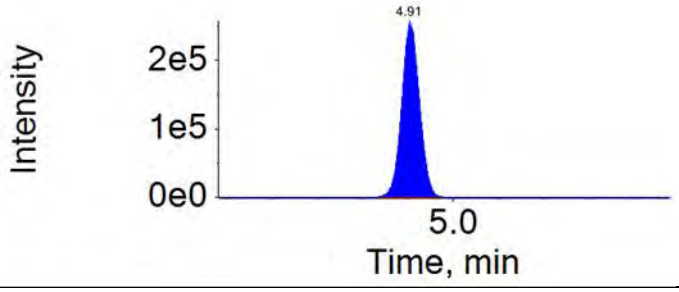
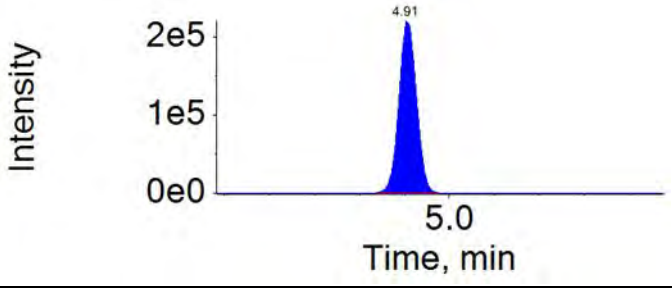


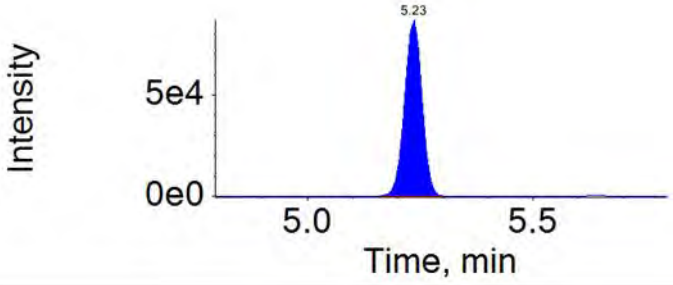
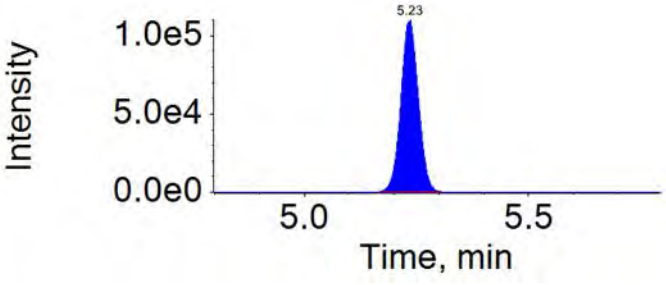


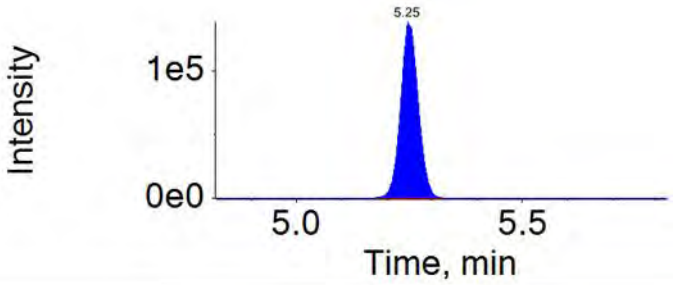
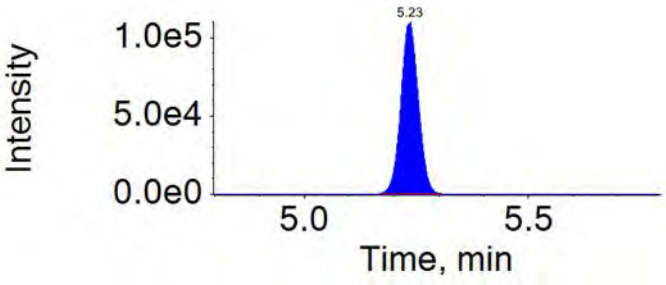
APPROVED
By JPT at 1:25 pm, 11/9/18

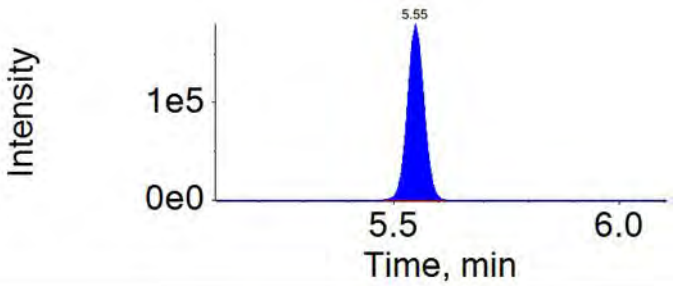
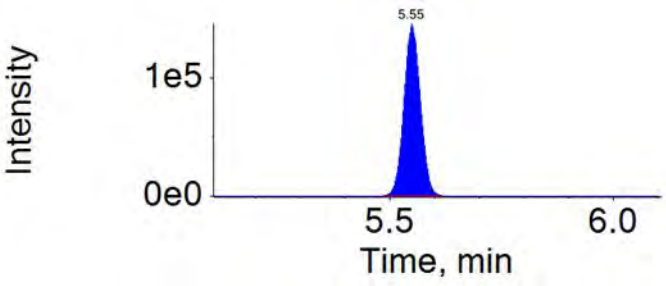
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

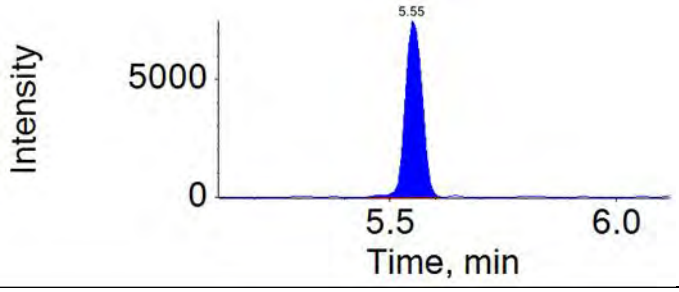
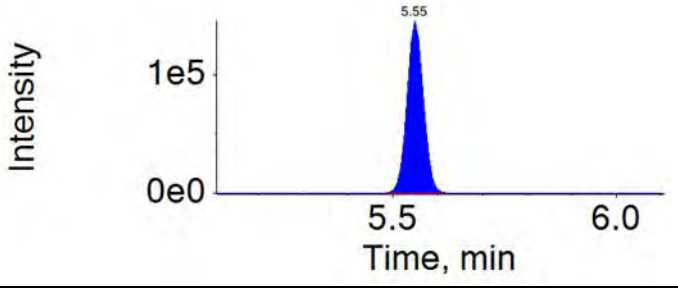
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

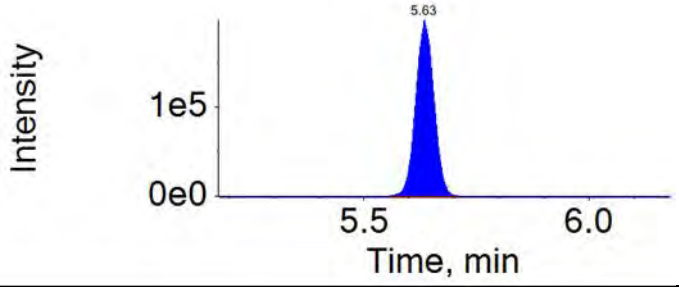
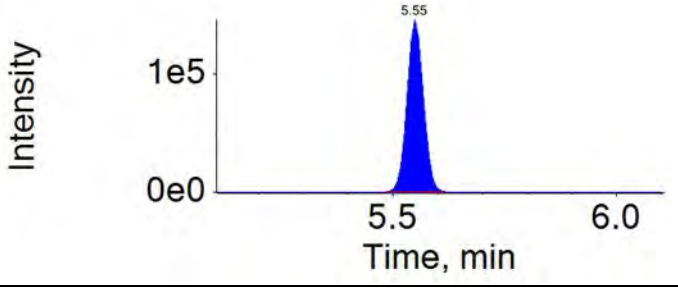
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

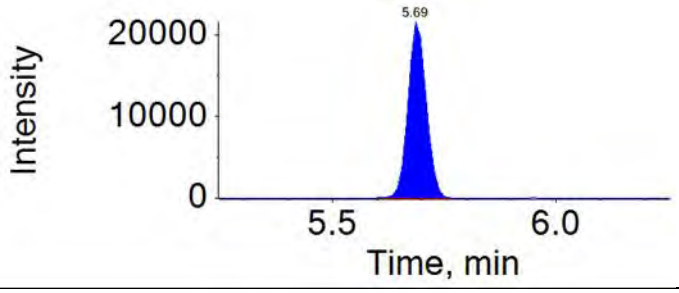
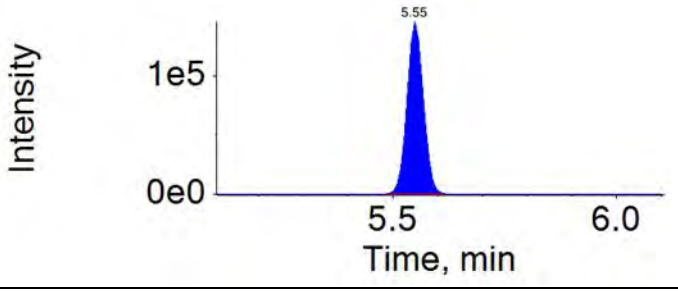
APPROVED
By JPT at 1:25 pm, 11/9/18

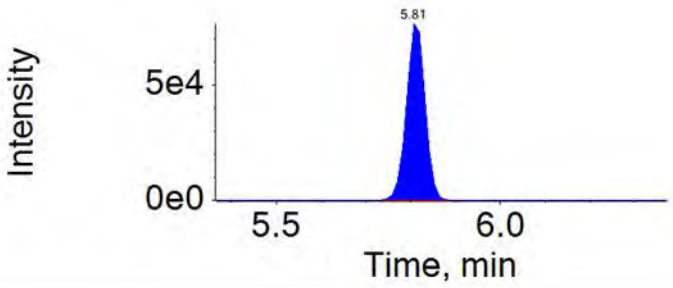
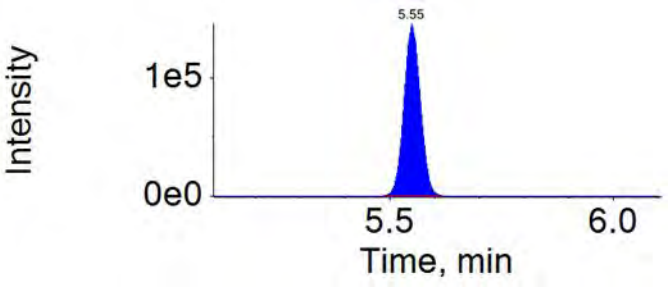
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

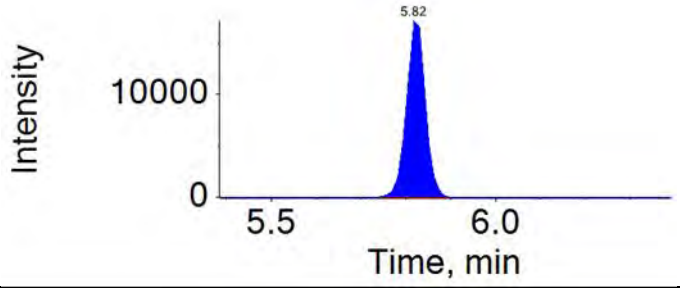
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

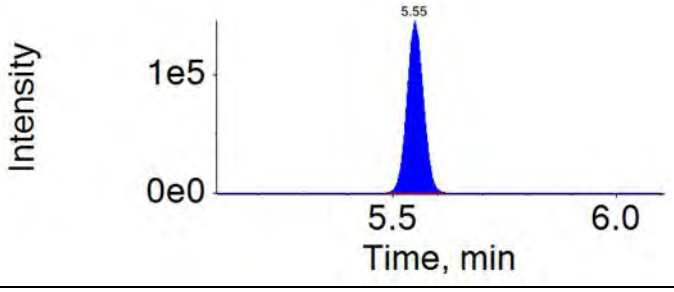
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

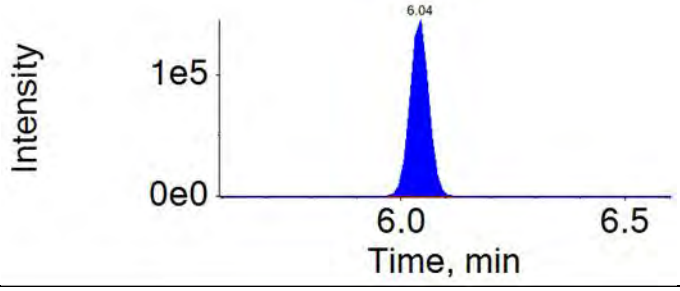
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

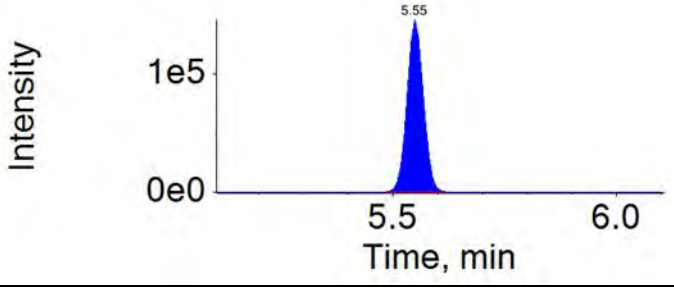
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



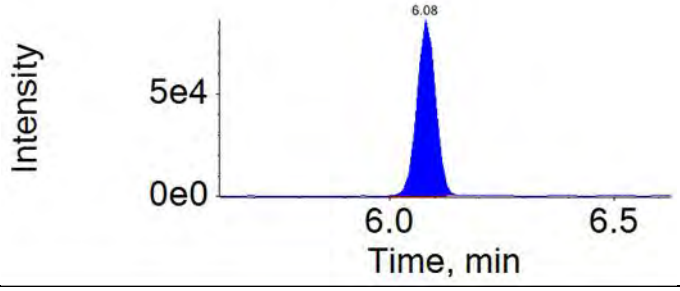


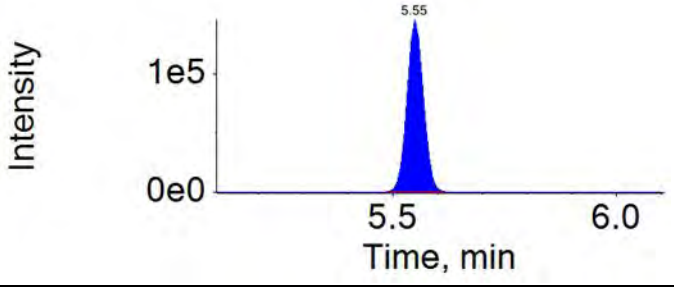
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



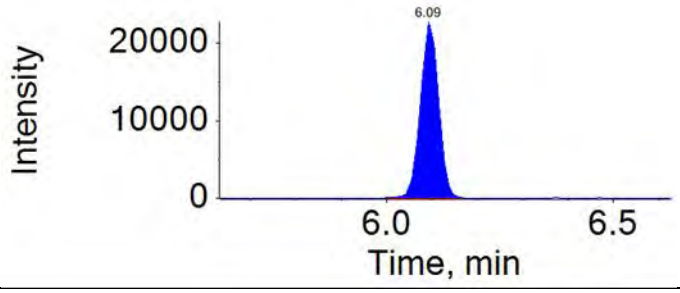


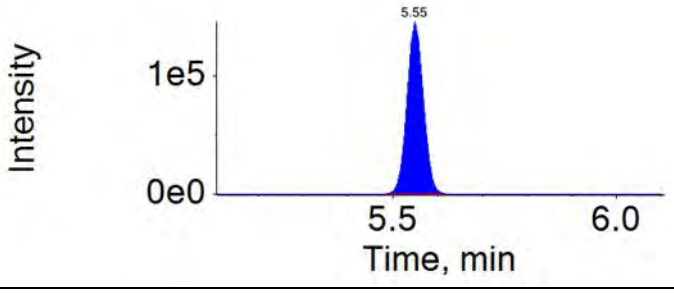
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



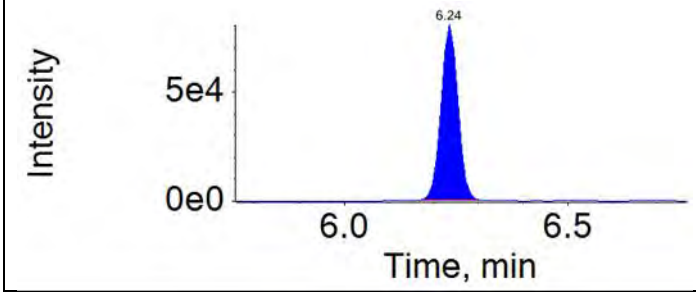


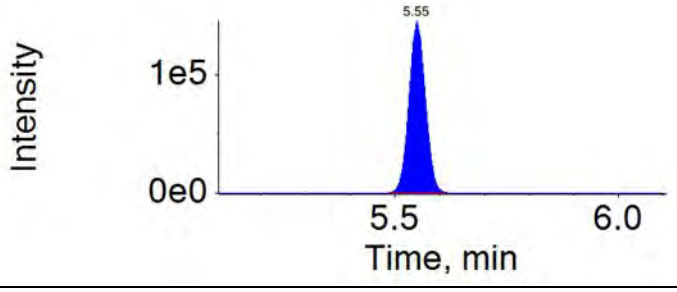
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

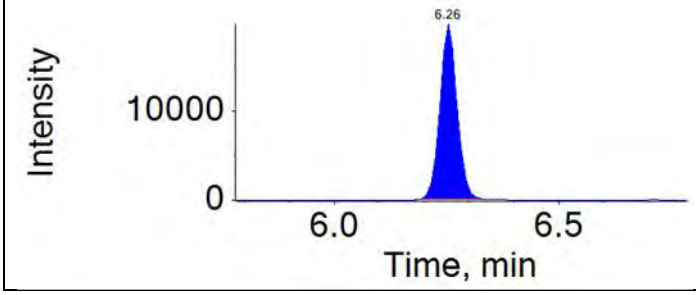
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

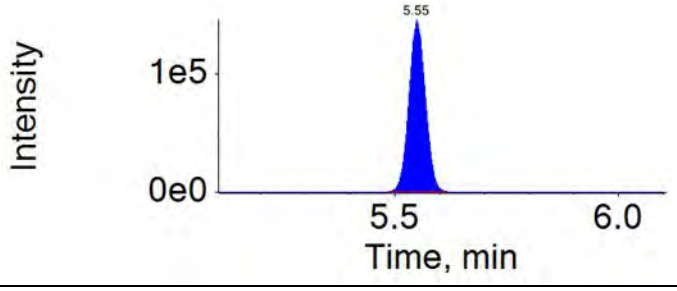
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



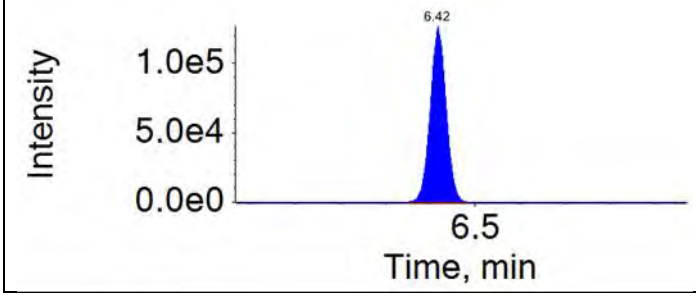


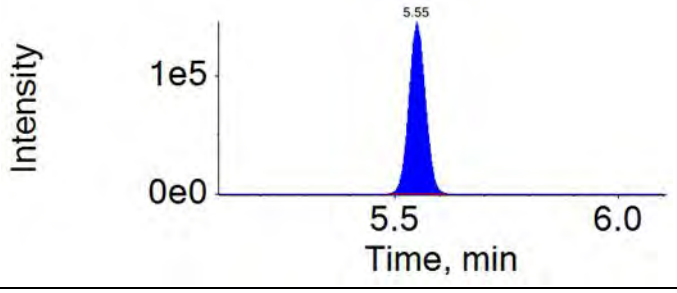
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



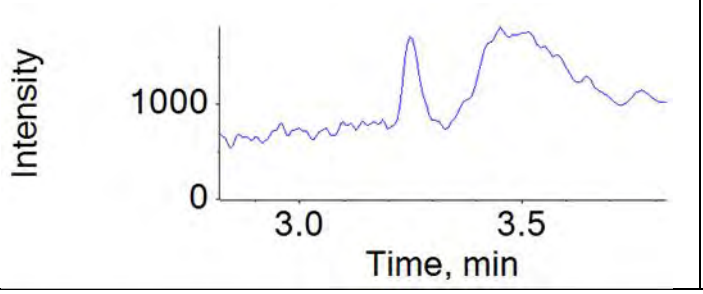


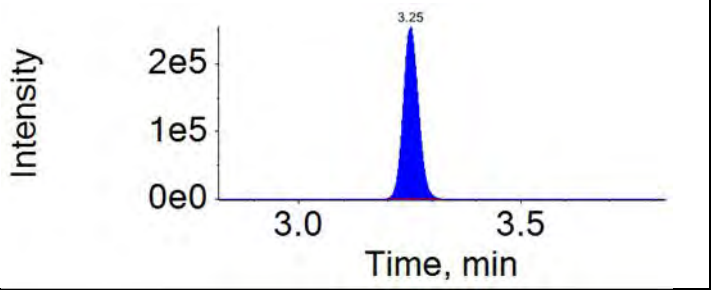
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

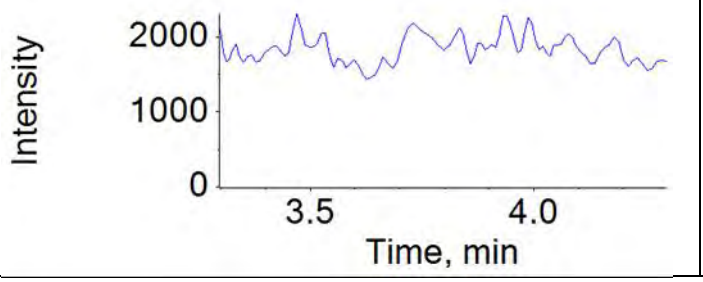
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

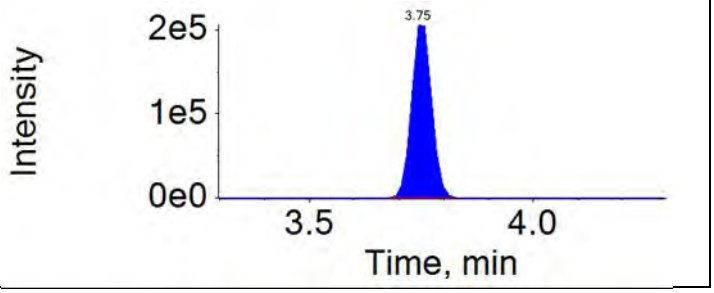
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



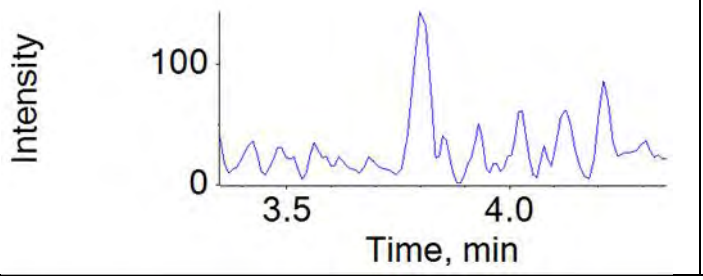


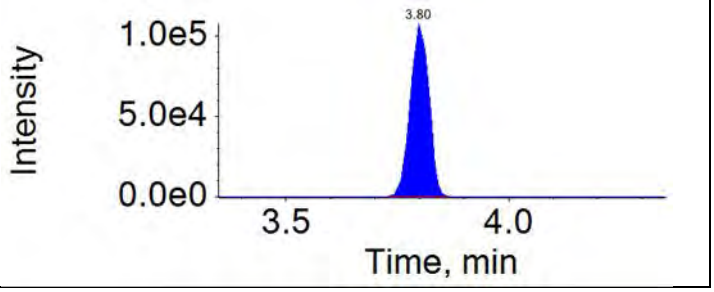
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



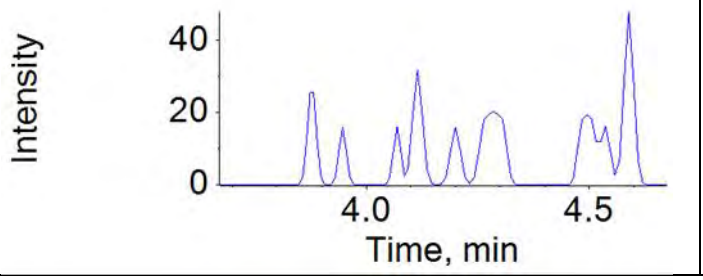


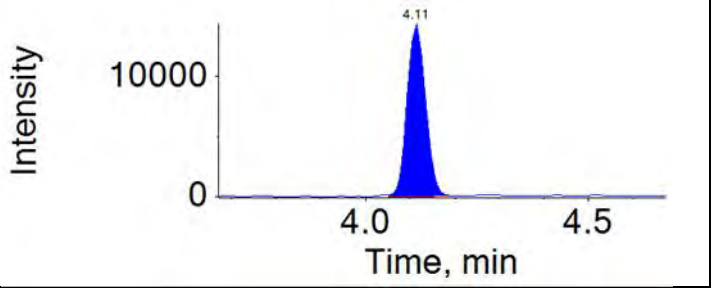
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



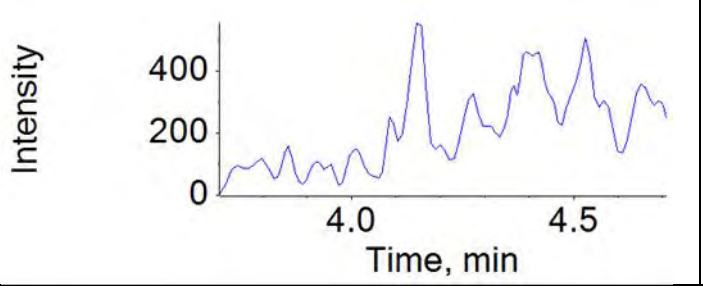


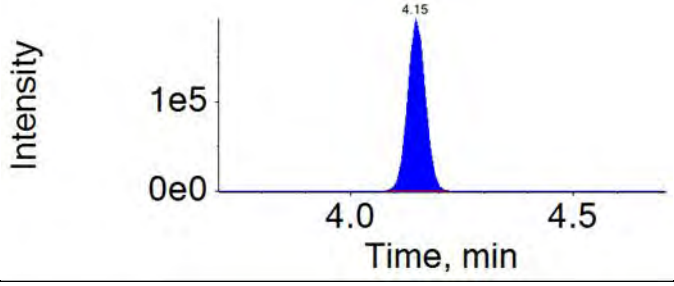
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

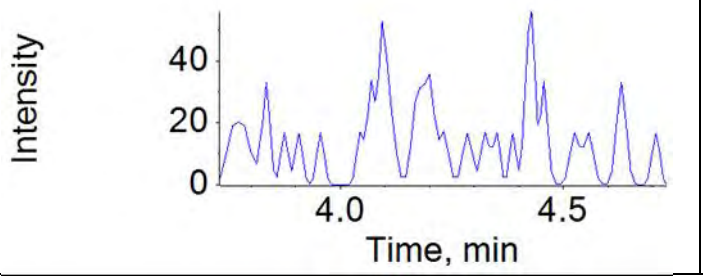
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

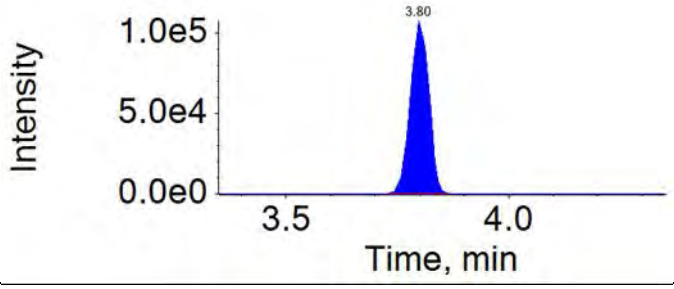
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



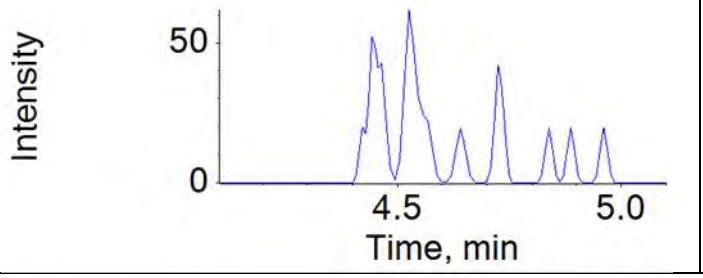


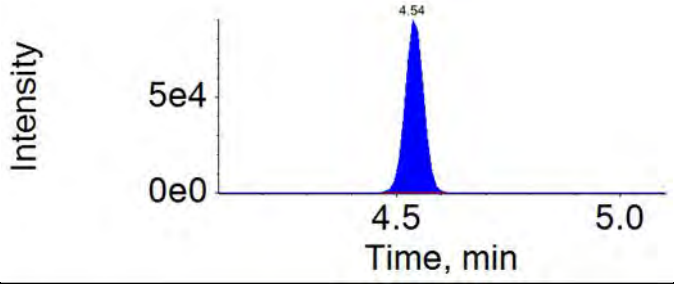
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



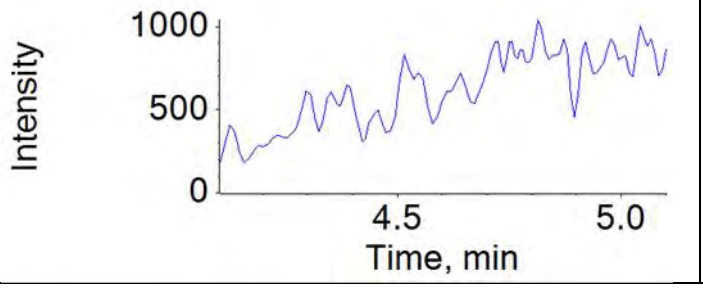


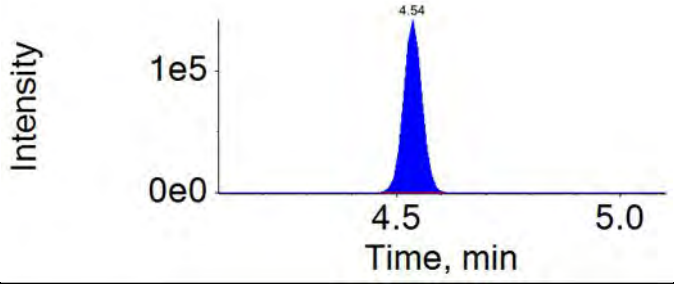
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



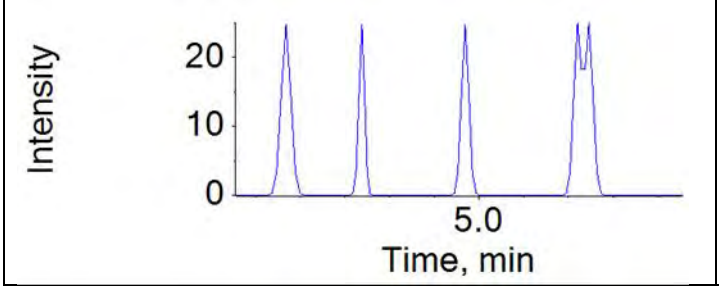


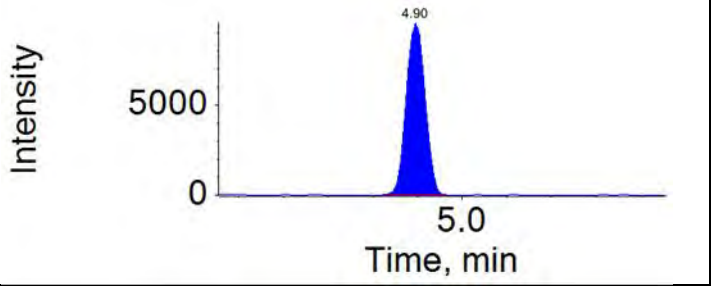
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

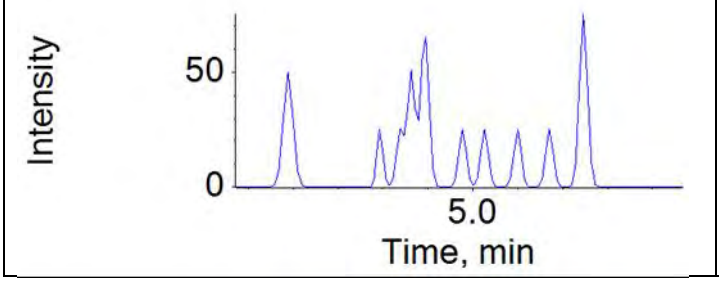
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

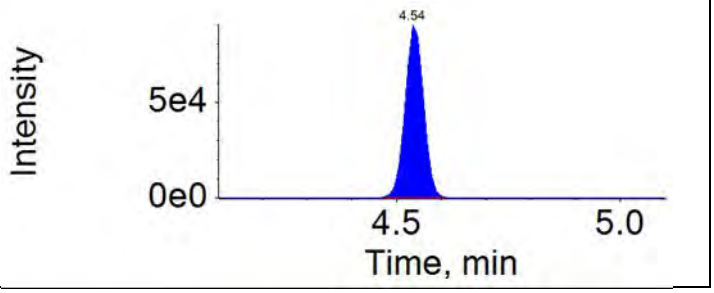
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



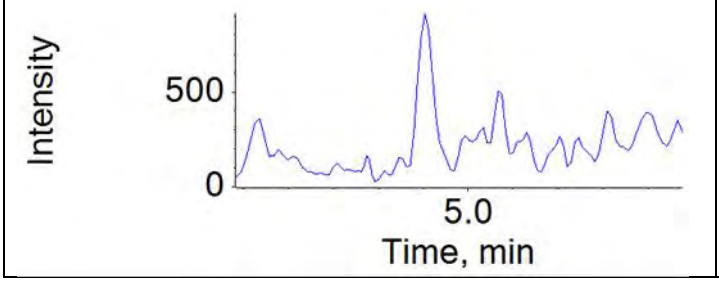


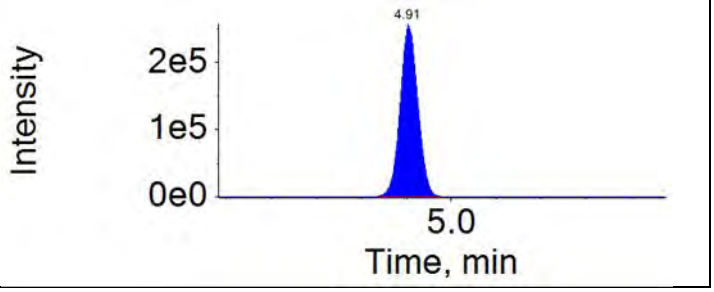
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



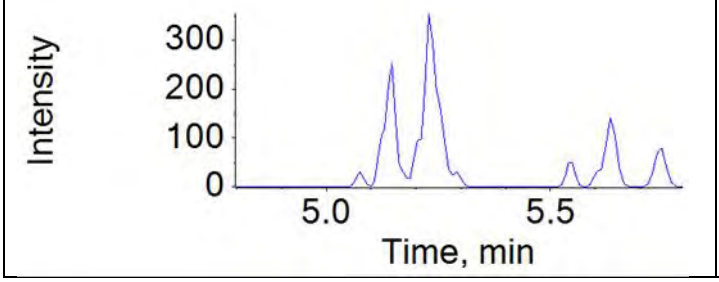


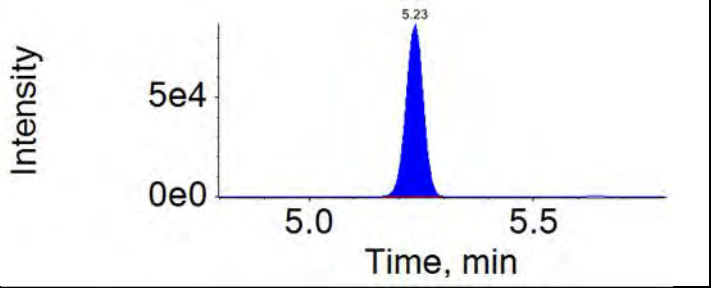
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



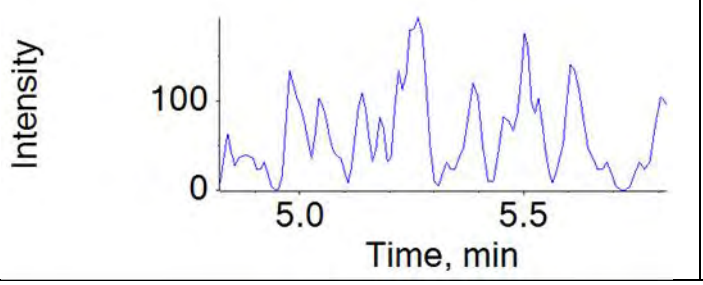


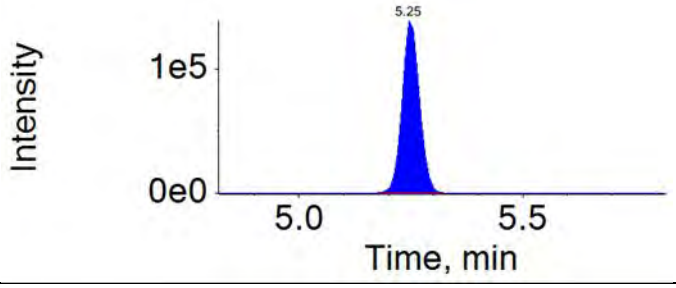
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

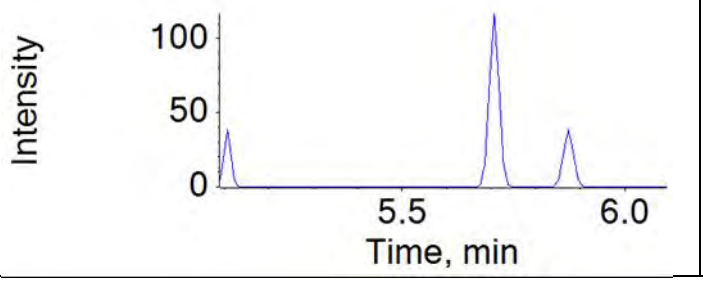
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

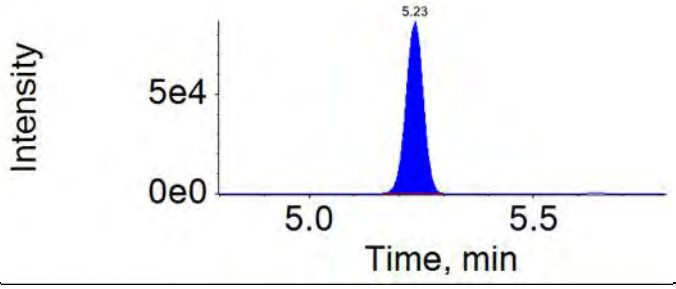
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



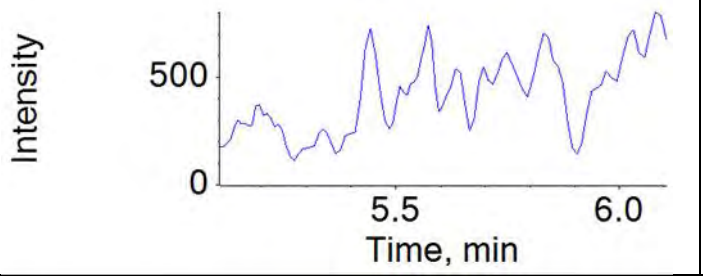


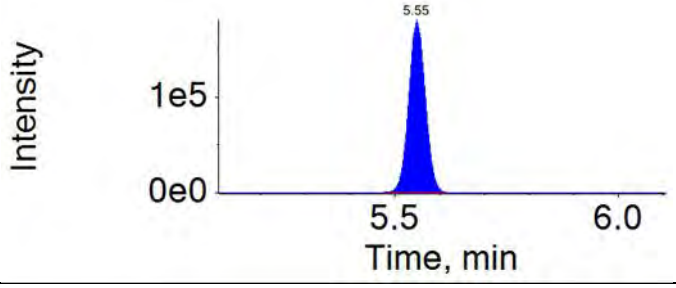
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



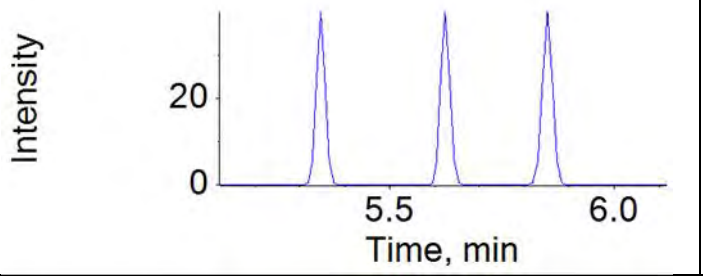


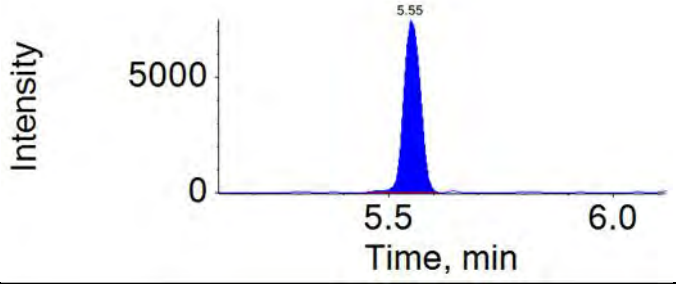
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



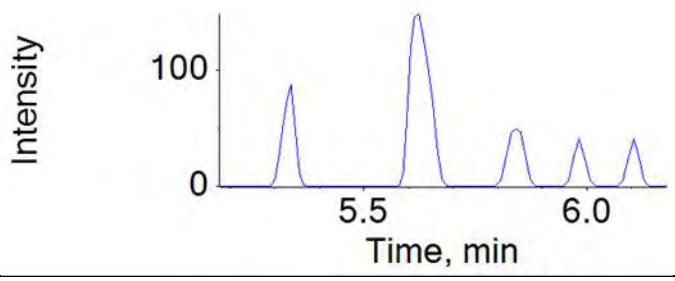


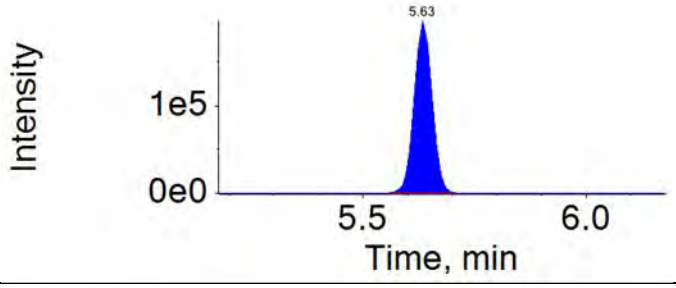
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

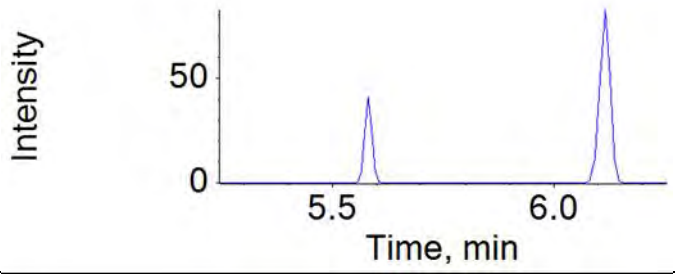
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

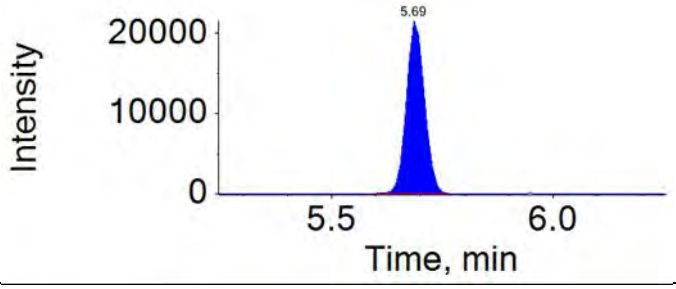
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



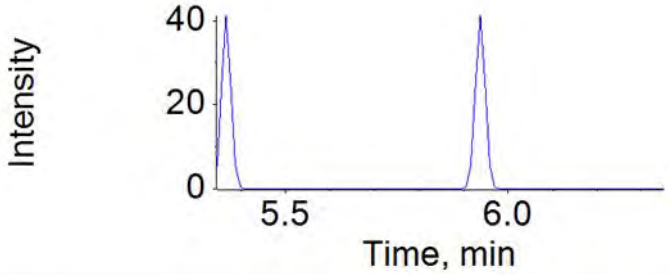


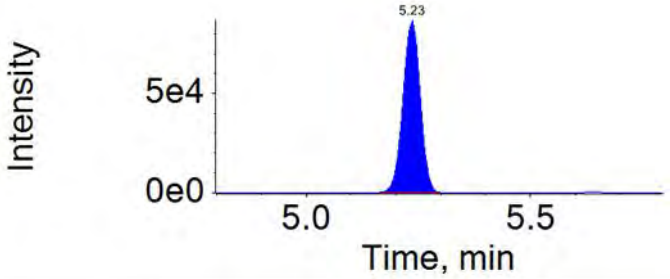
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



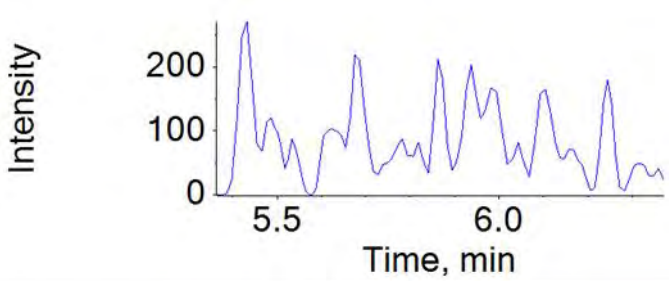


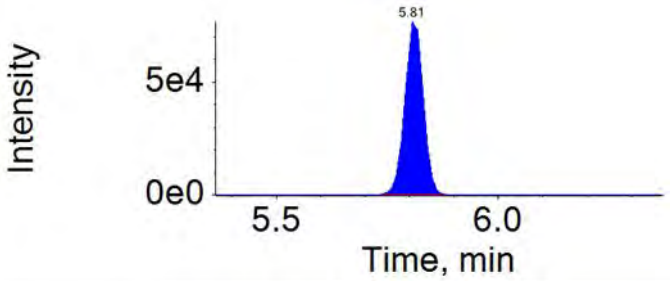
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



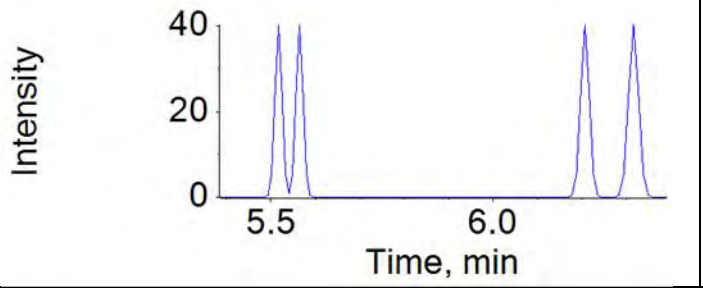


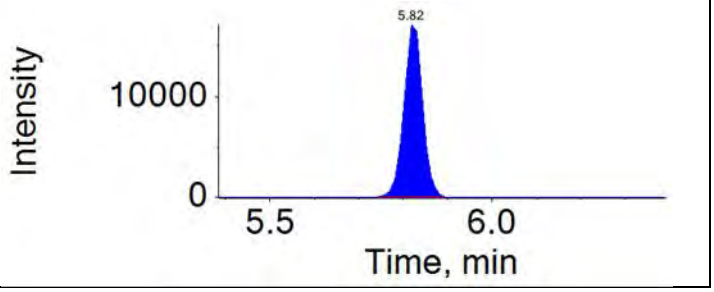
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

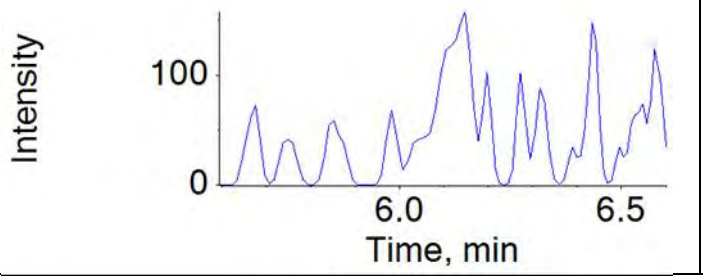
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

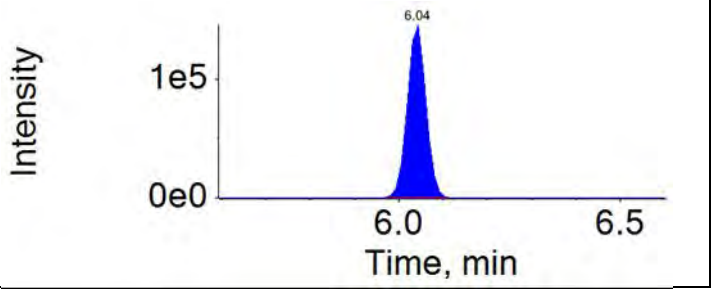
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



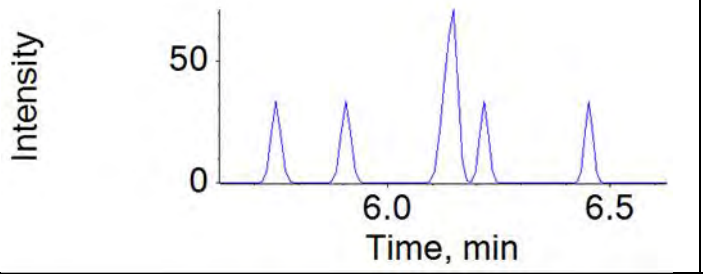


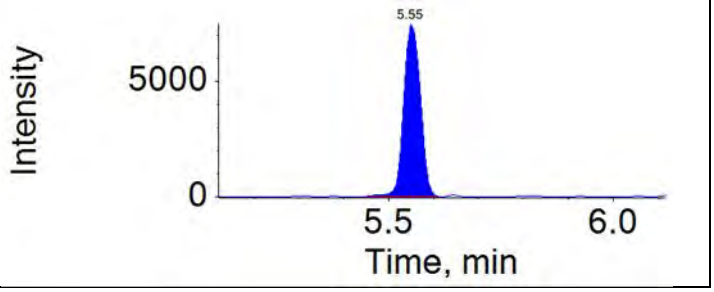
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



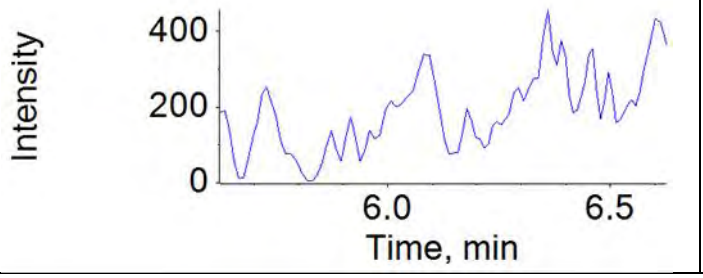


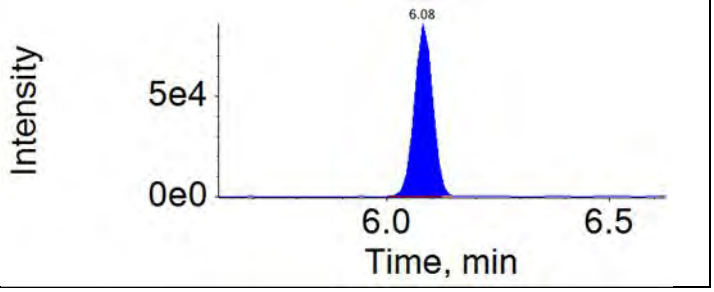
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



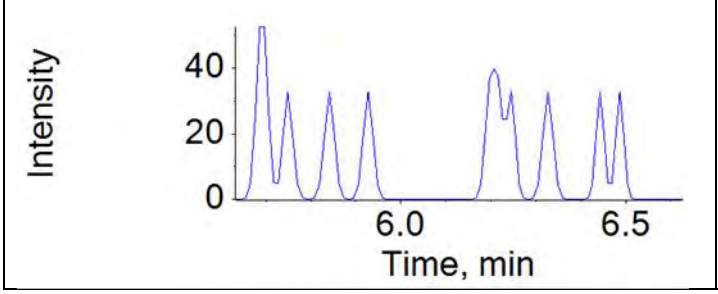


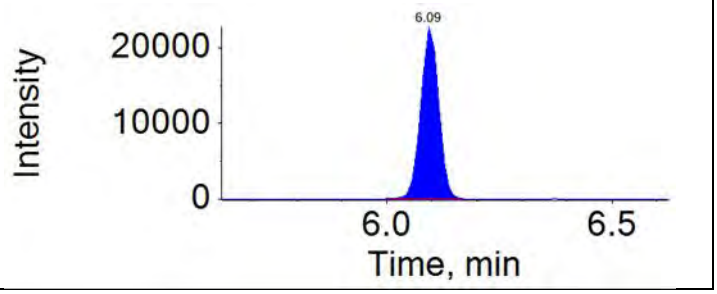
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

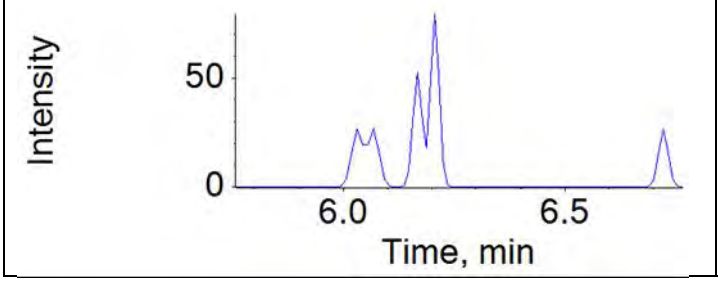
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

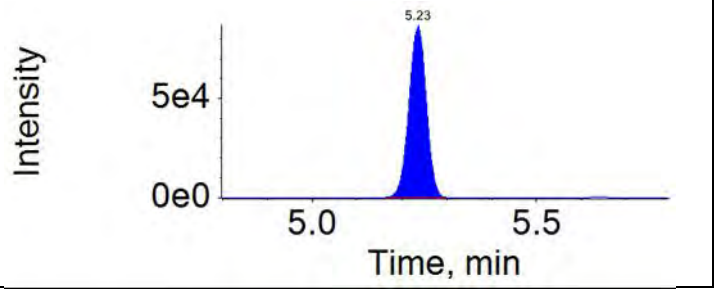
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



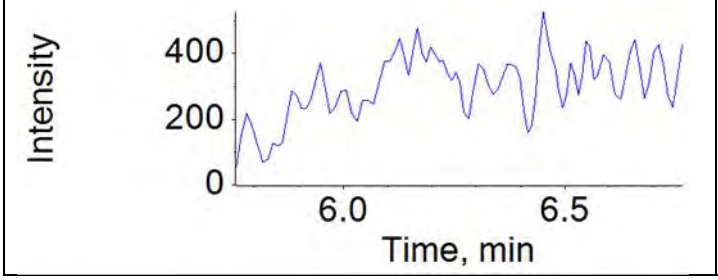


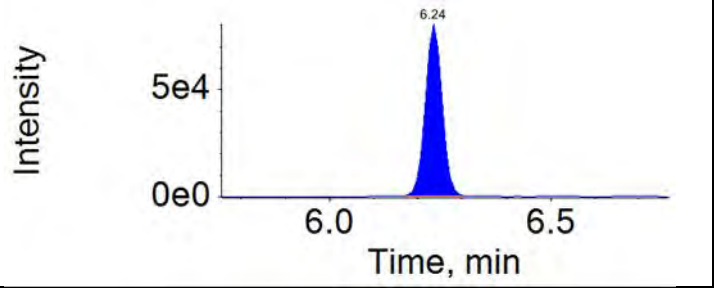
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



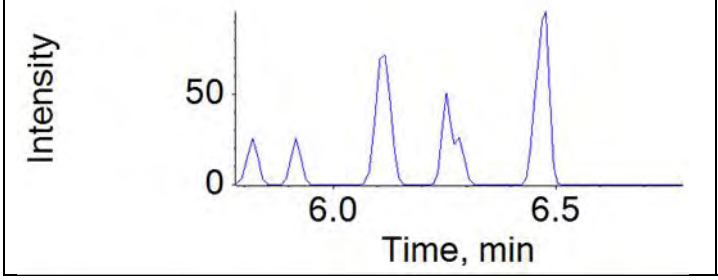


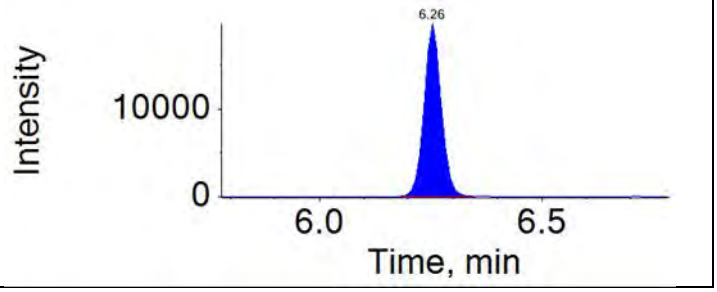
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0





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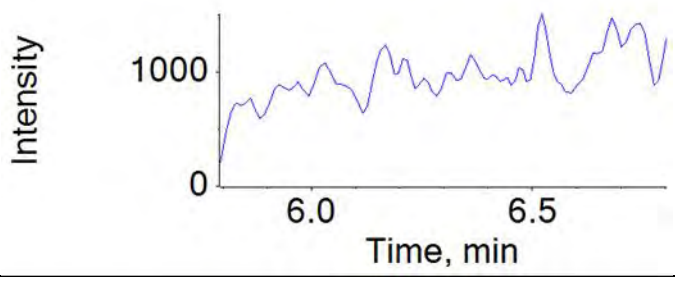
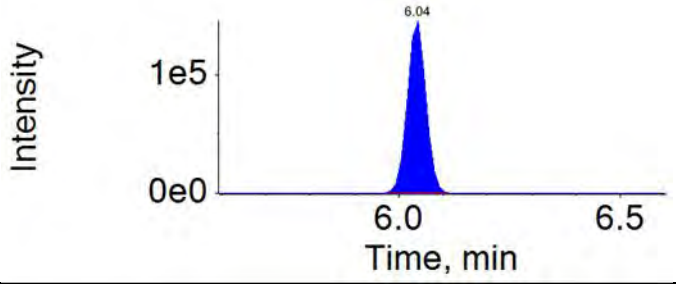
By HMK at 9:20 am, 11/13/18

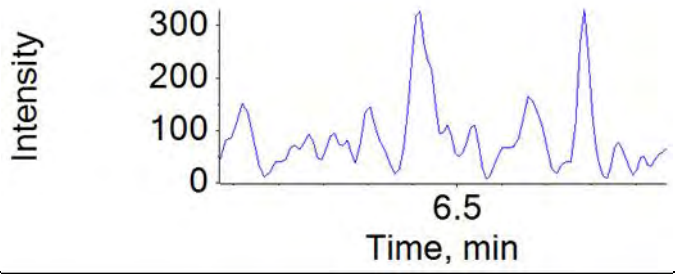
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

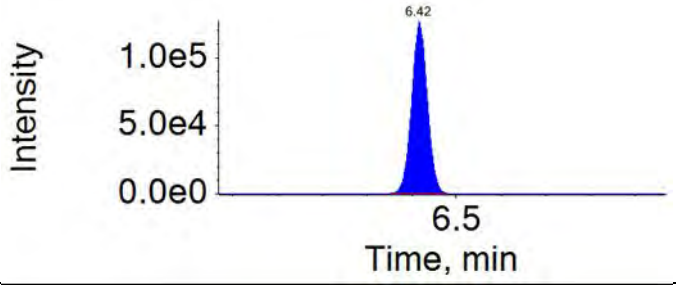
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



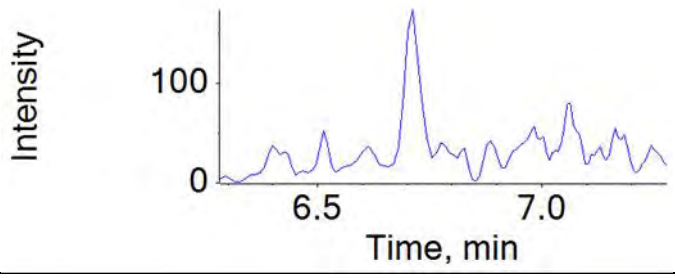


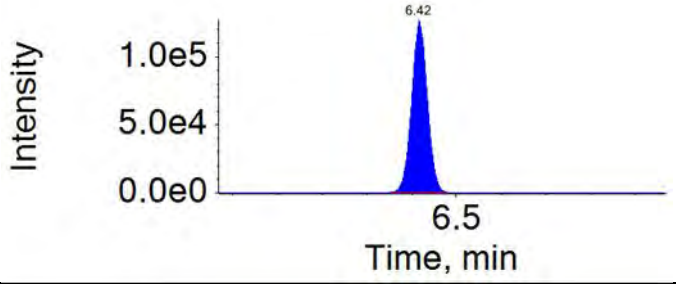
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



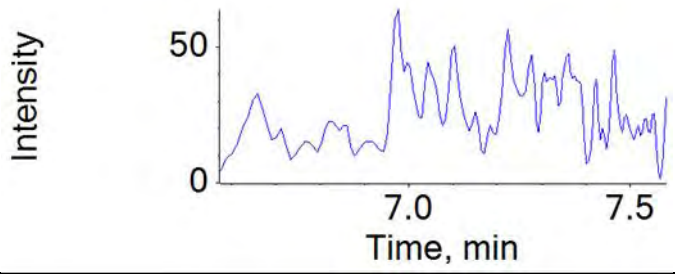


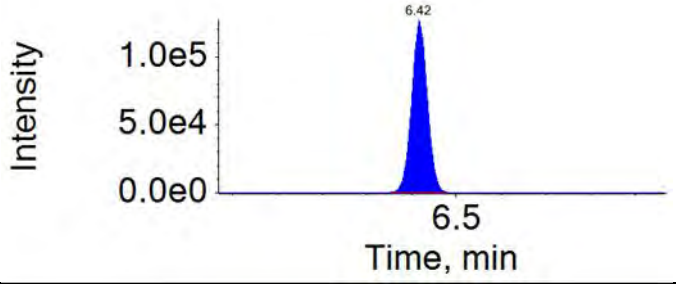
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Ion Ratio Report

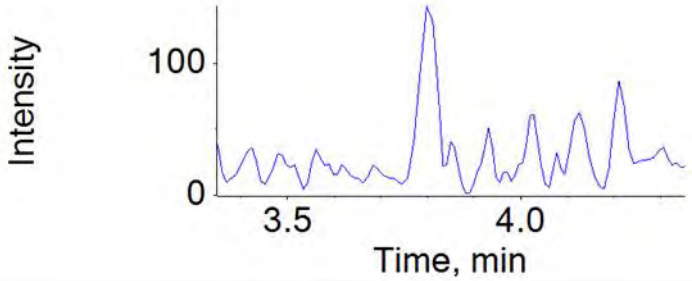
Sample Name: BLK311003 **Instrument Name:** LM27631 **File Name:** 18NOV08D-42.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

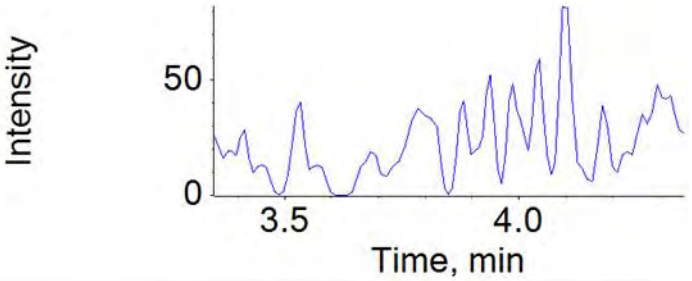
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

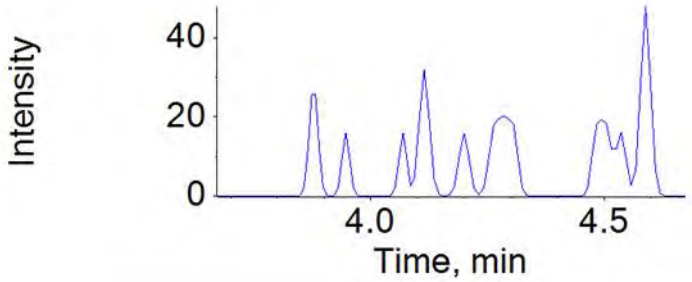
Component: PFBS
Primary Mass: 299.0 / 80.0



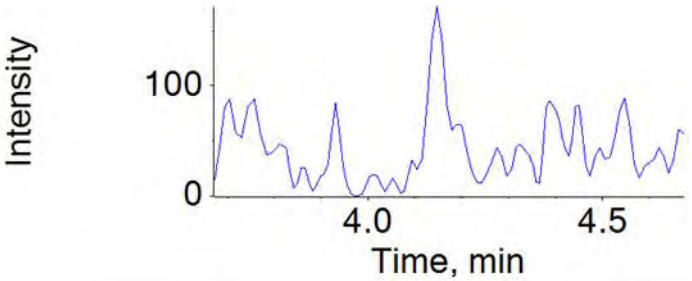
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



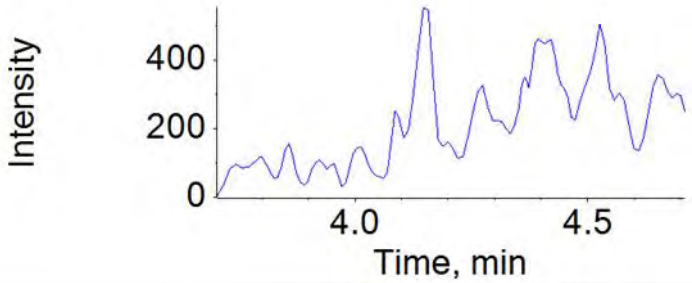
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



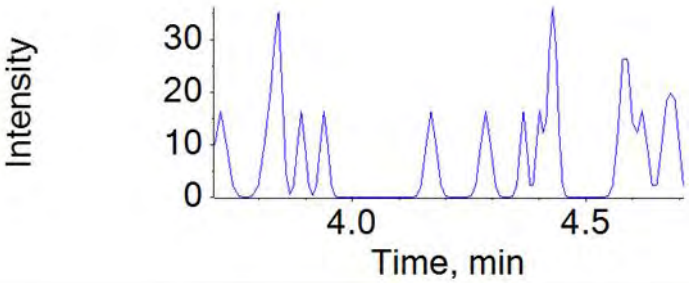
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



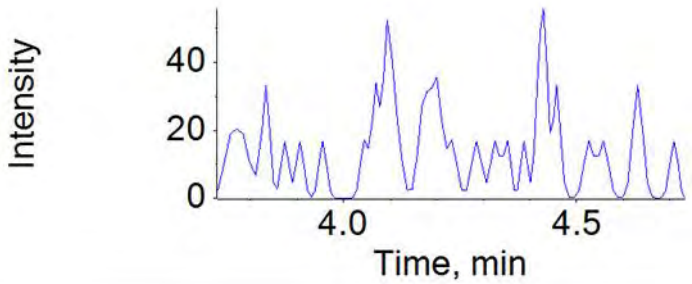
Component: PFHxA
Primary Mass: 313.0 / 269.0



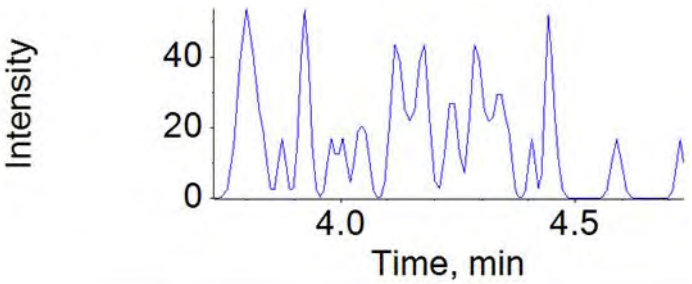
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



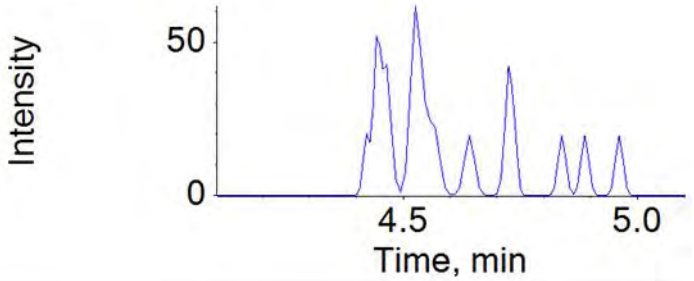
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



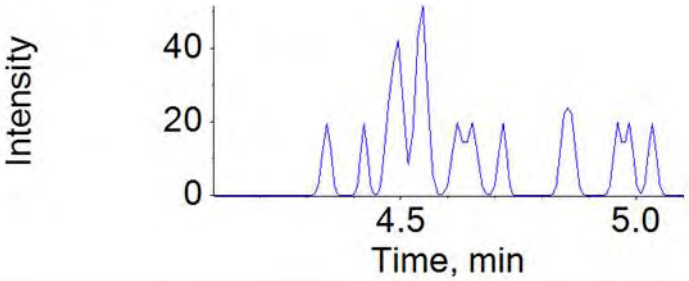
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

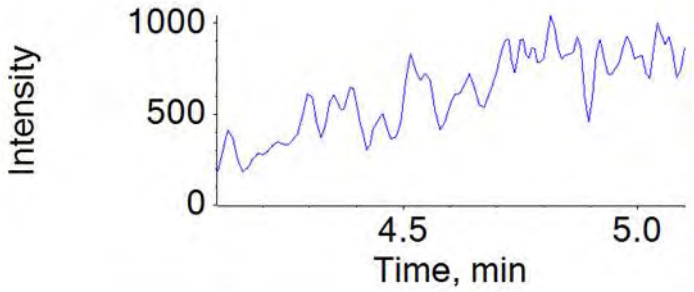
Component: PFHxS
Primary Mass: 399.0 / 80.0



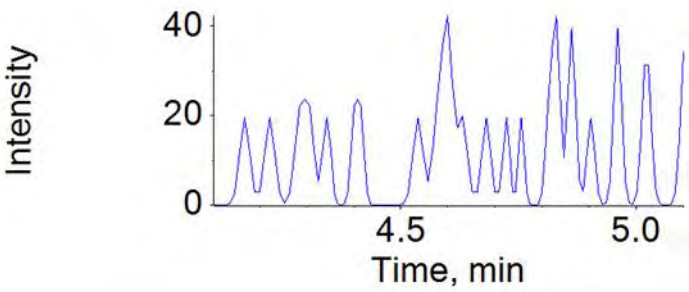
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



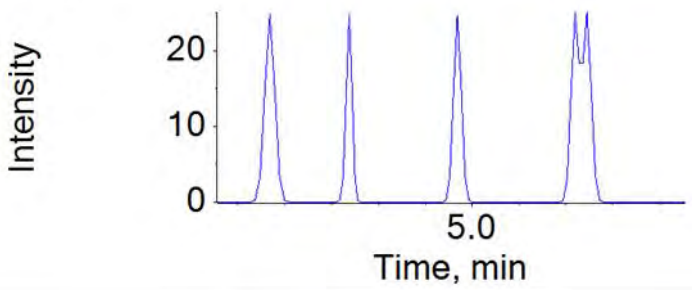
Component: PFHpA
Primary Mass: 363.0 / 319.0



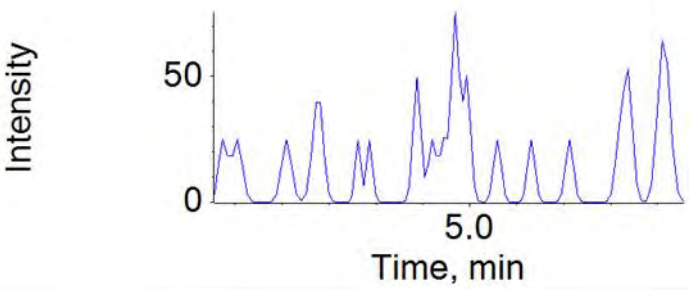
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



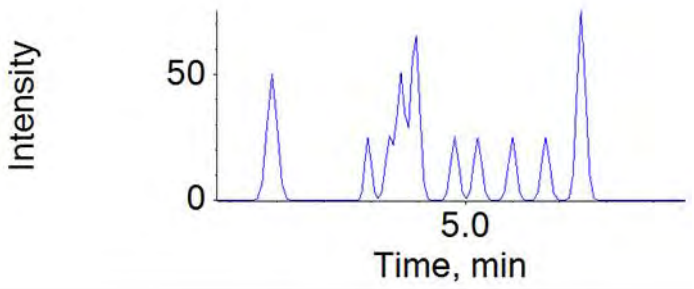
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



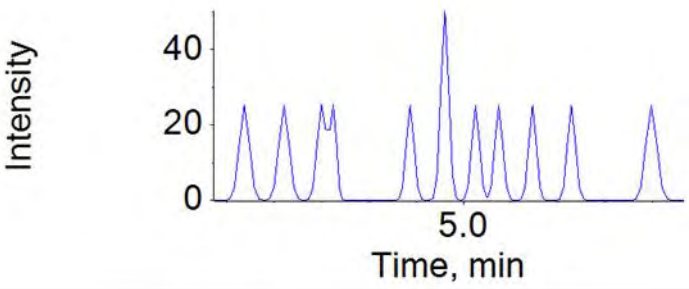
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



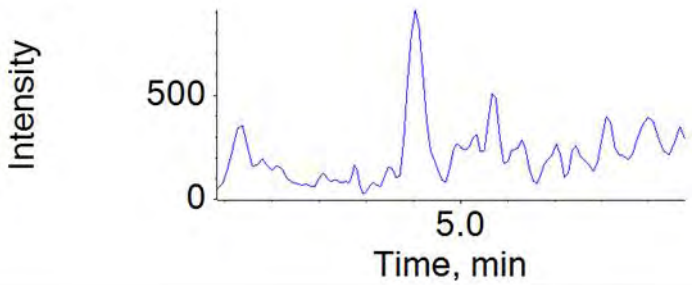
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



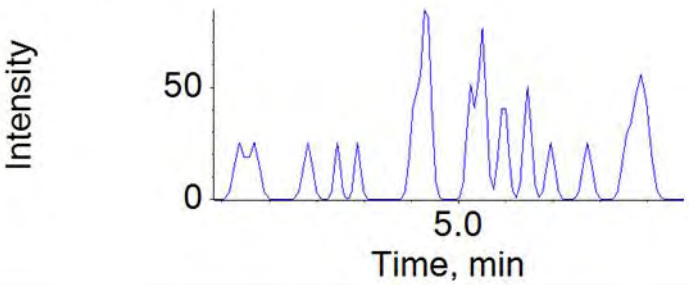
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

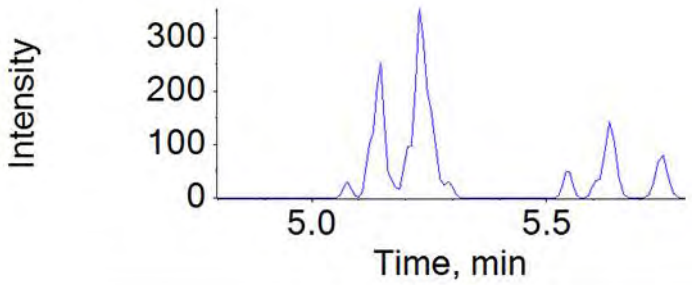
Component: PFOA
Primary Mass: 413.0 / 369.0



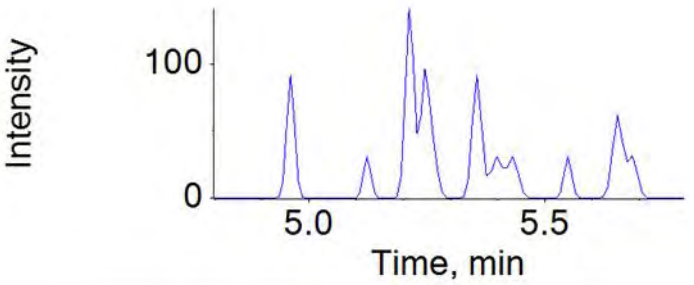
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



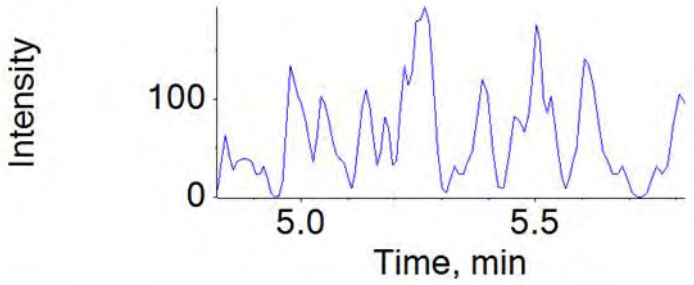
Component: PFOS
Primary Mass: 499.0 / 80.0



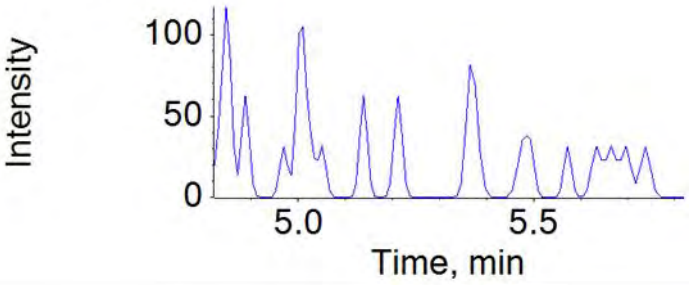
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



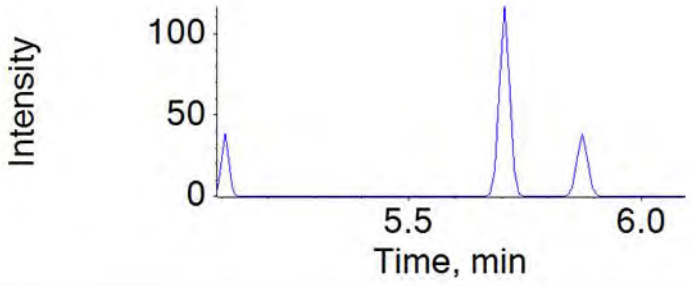
Component: PFNA
Primary Mass: 463.0 / 419.0



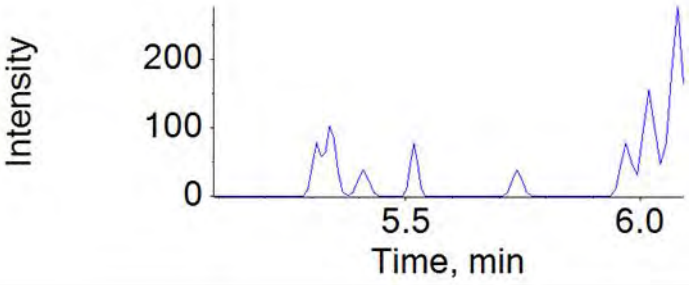
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



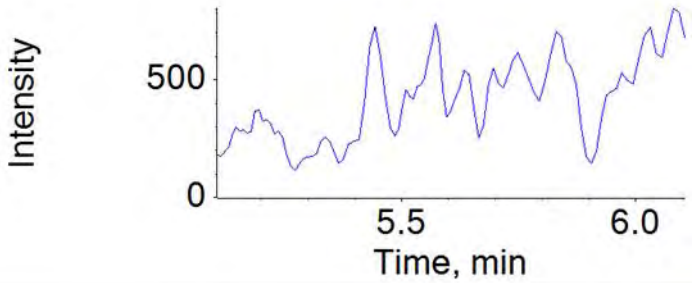
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



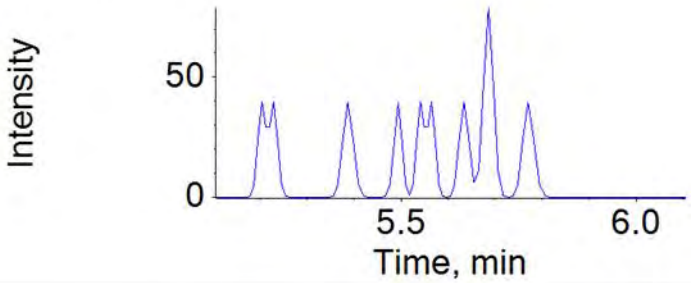
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

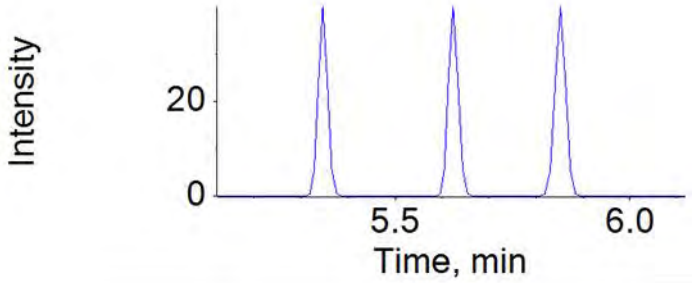
Component: PFDA
Primary Mass: 513.0 / 469.0



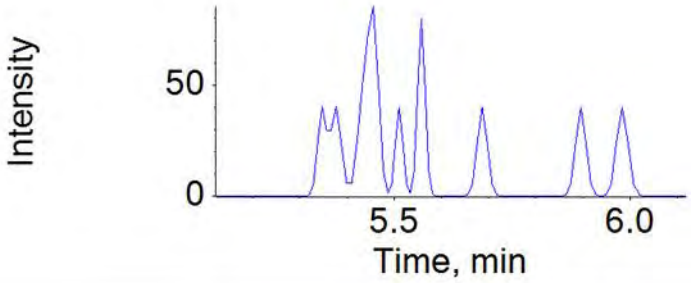
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



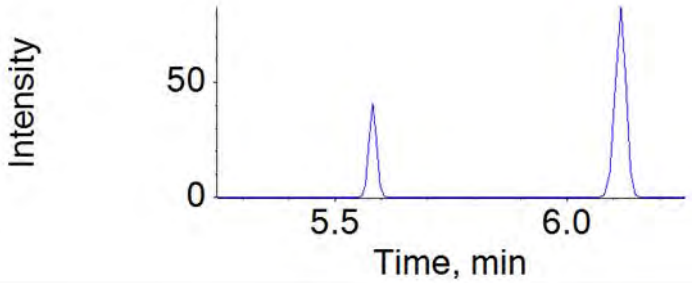
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



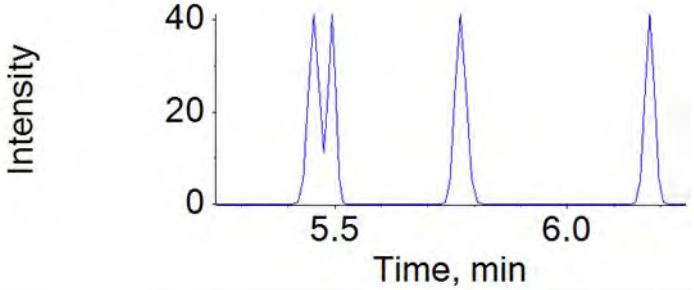
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



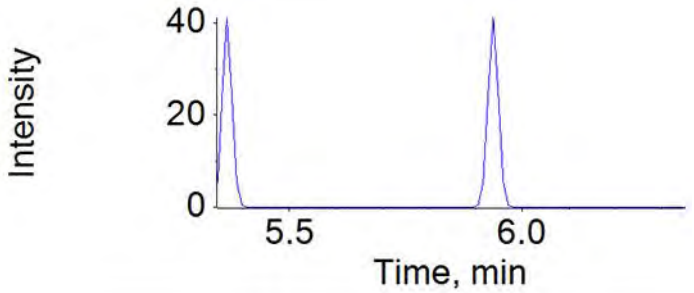
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



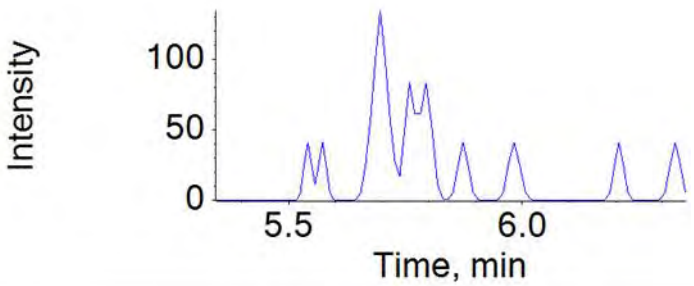
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



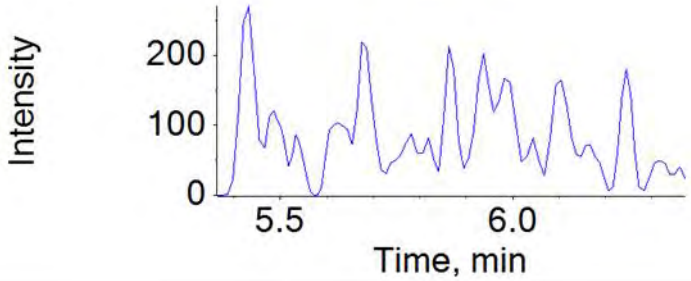
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



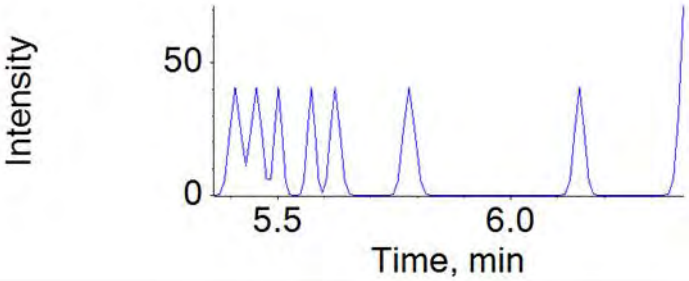
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

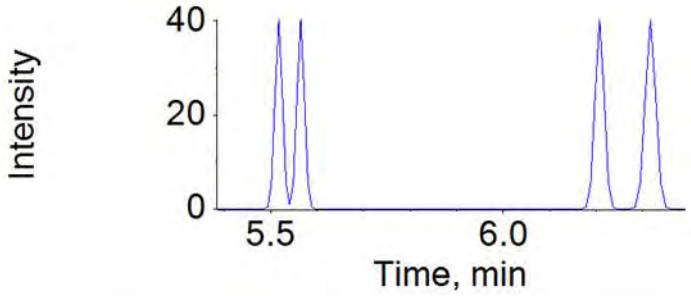
Component: PFUnDA
Primary Mass: 563.0 / 519.0



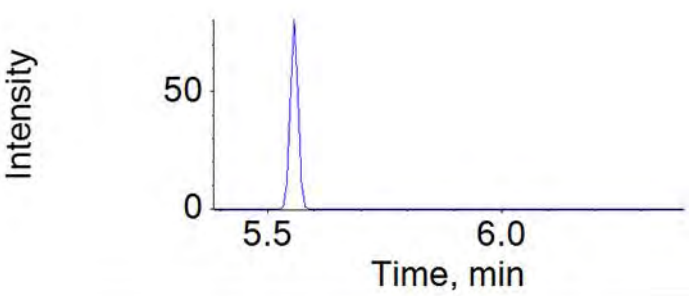
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



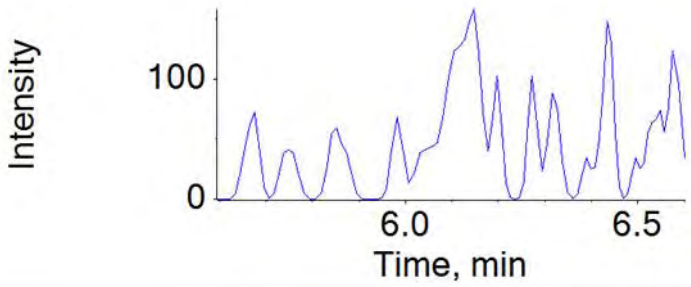
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



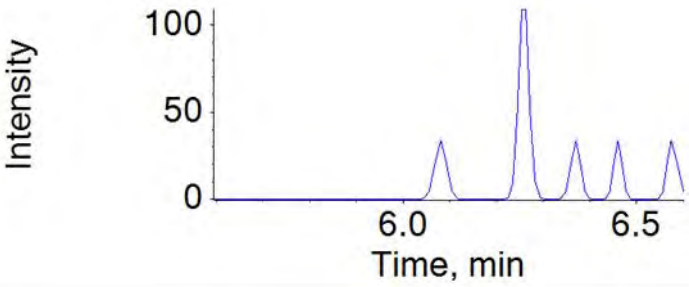
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



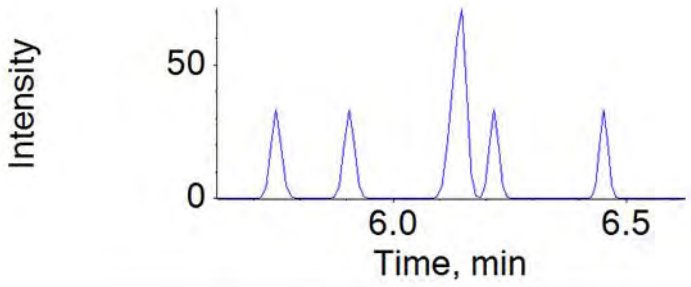
Component: PFDoDA
Primary Mass: 613.0 / 569.0



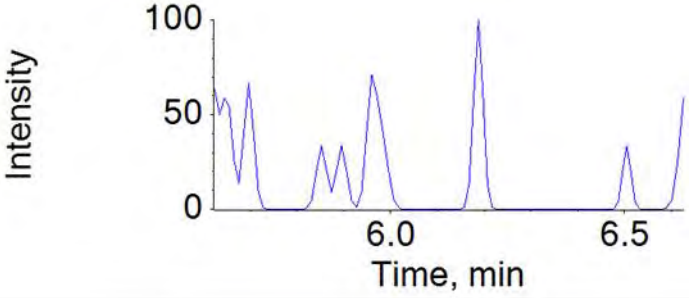
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



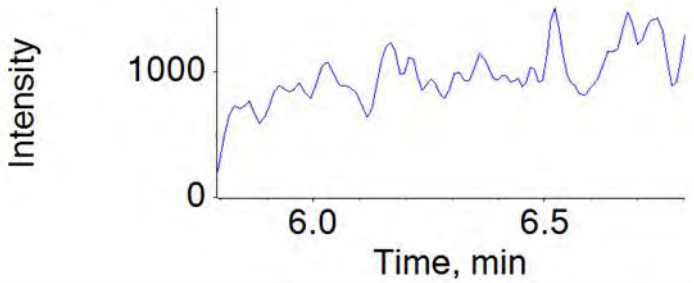
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



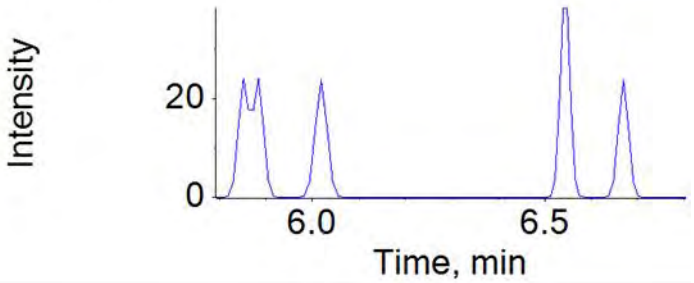
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

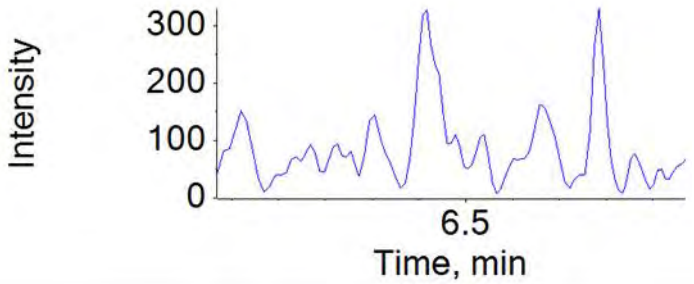
Component: PFTrDA
Primary Mass: 663.0 / 619.0



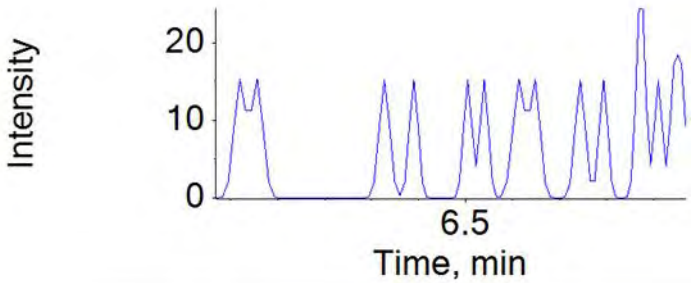
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



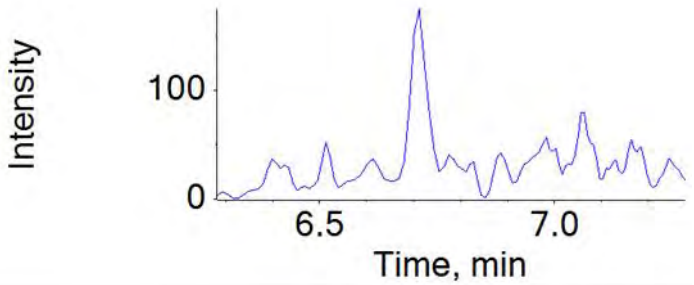
Component: PFTeDA
Primary Mass: 713.0 / 669.0



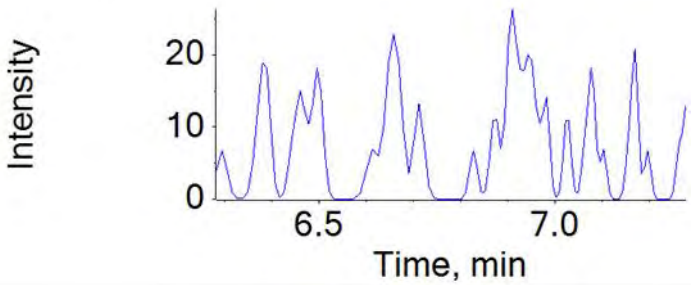
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



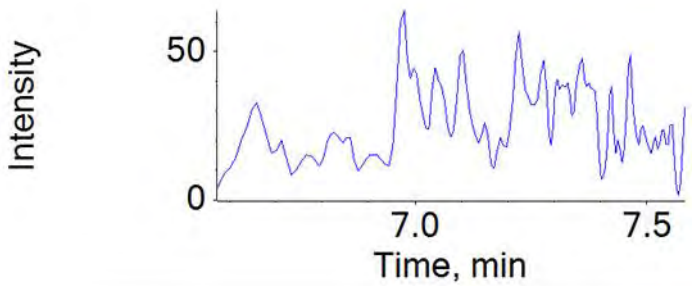
Component: PFHxDA
Primary Mass: 813.0 / 769.0



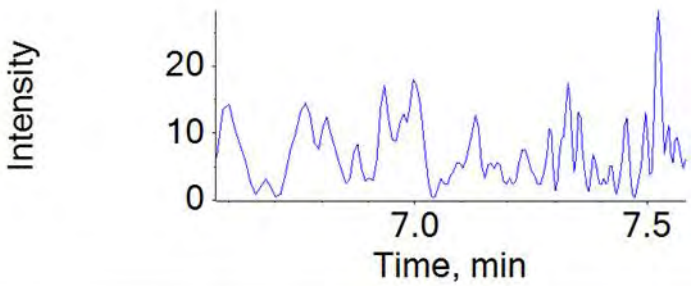
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK311004			**Data File:**		18NOV08D-88.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311004			**Acquis Date:**		2018-11-09T00:53:31
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	29			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311004			**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: 18NOV08D-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	896330.7	728839.7	23	50	
13C2-PFOA	5.0	611088.1	491983.1	24	50	
13C4-PFOS	4.8	350046.5	255568.1	37	50	
13C2-PFDA	5.0	385799.5	315407.5	22	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	691646.8	13C3-PFBA	896330.7	0.772	10.000	7.142	71	50-150	
E13C5-PFPeA	727029.0	13C3-PFBA	896330.7	0.811	10.000	7.067	71	50-150	
E13C3-PFBS	355533.3	13C3-PFBA	896330.7	0.397	9.300	5.822	63	50-150	
E13C2-4:2-FTS	46555.3	13C2-PFOA	611088.1	0.076	9.340	6.875	74	50-150	
E13C5-PFHxA	598683.6	13C2-PFOA	611088.1	0.980	10.000	7.208	72	50-150	
E13C3-PFHxS	286358.1	13C2-PFOA	611088.1	0.469	9.460	6.728	71	50-150	
E13C4-PFHpA	462963.1	13C2-PFOA	611088.1	0.758	10.000	6.893	69	50-150	
E13C2-6:2-FTS	30191.7	13C2-PFOA	611088.1	0.049	9.500	6.589	69	50-150	
E13C8-PFOA	813053.6	13C2-PFOA	611088.1	1.331	10.000	7.421	74	50-150	
E13C8-PFOS	257738.8	13C4-PFOS	350046.5	0.736	9.560	6.512	68	50-150	
E13C9-PFNA	433281.5	13C4-PFOS	350046.5	1.238	10.000	6.762	68	50-150	
E13C6-PFDA	549439.6	13C2-PFDA	385799.5	1.424	10.000	7.163	72	50-150	
E13C2-8:2-FTS	20533.5	13C2-PFDA	385799.5	0.053	9.580	5.633	59	50-150	
E13C8-PFOSA	620659.9	13C2-PFDA	385799.5	1.609	10.000	7.021	70	50-150	
Ed3-NMeFOSAA	74733.6	13C2-PFDA	385799.5	0.194	10.000	7.204	72	50-150	
E13C7-PFUnDA	257410.6	13C2-PFDA	385799.5	0.667	10.000	7.698	77	50-150	
Ed5-NEtFOSAA	55117.7	13C2-PFDA	385799.5	0.143	10.000	6.612	66	50-150	
E13C2-PFDoDA	492972.3	13C2-PFDA	385799.5	1.278	10.000	6.889	69	50-150	
Ed7-NMePFOSAE	301531.0	13C2-PFDA	385799.5	0.782	10.000	7.269	73	50-150	
Ed3-NMePFOSA	68351.0	13C2-PFDA	385799.5	0.177	10.000	6.487	65	50-150	
Ed9-NEtPFOSAE	247133.5	13C2-PFDA	385799.5	0.641	10.000	7.316	73	50-150	
Ed5-NEtPFOSA	60591.0	13C2-PFDA	385799.5	0.157	10.000	7.273	73	50-150	
E13C2-PFTeDA	334763.8	13C2-PFDA	385799.5	0.868	10.000	6.248	62	50-150	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

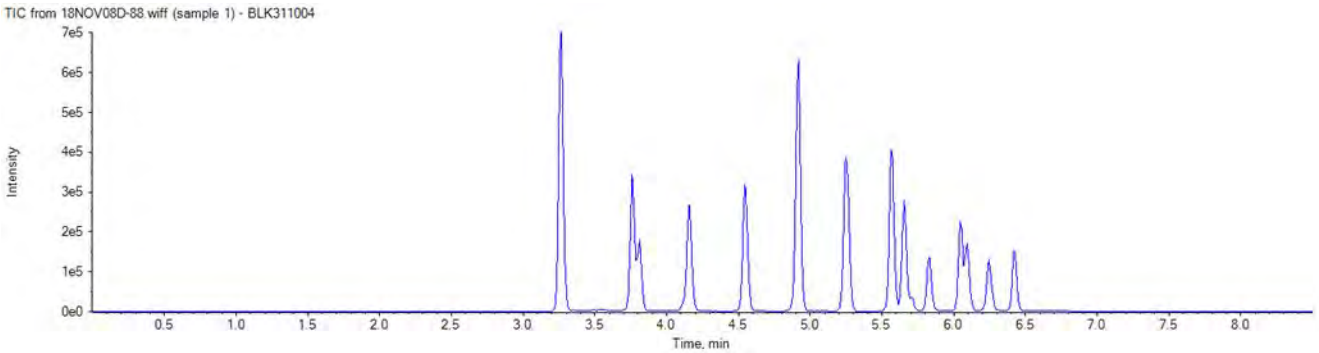
Analyte Quantitation Peak Table

Sample Name: BLK311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-88.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	691646.8	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	727029.0	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	355533.3	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	46555.3	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	598683.6	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	355533.3	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	286358.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	462963.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	30191.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	286358.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	813053.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	433281.5	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	549439.6	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	20533.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	620659.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	74733.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	257410.6	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	55117.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	492972.3	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	20533.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	301531.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	68351.0	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	247133.5	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	60591.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	492972.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	

Total Ion Chromatogram

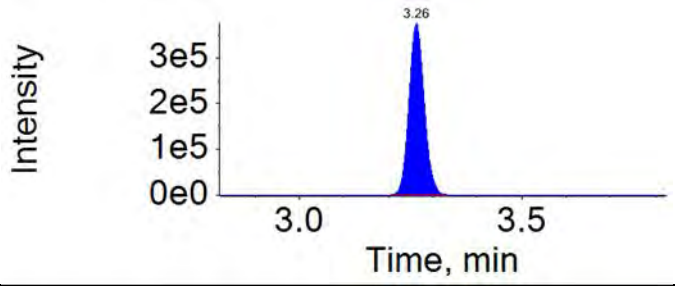


APPROVED
By JPT at 5:18 pm, 11/9/18

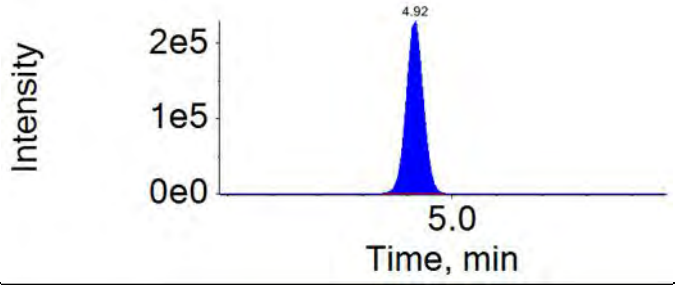
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

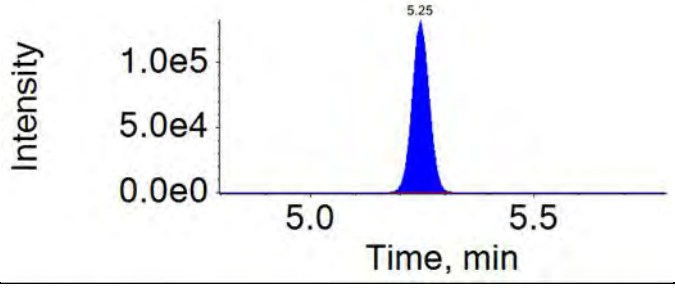
Injection Standard: 13C3-PFBA
216.0 / 172.0



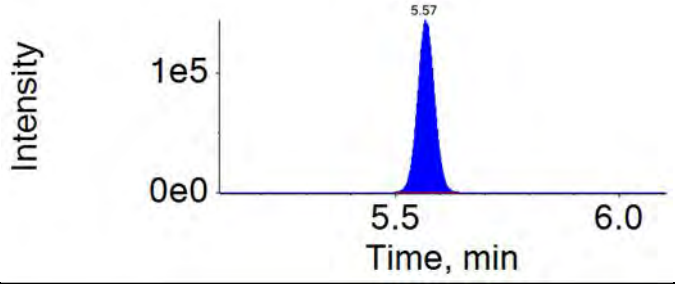
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

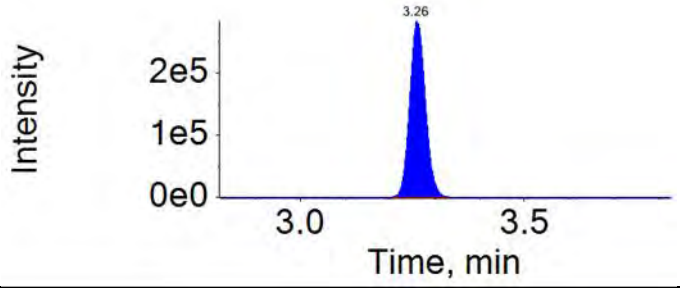


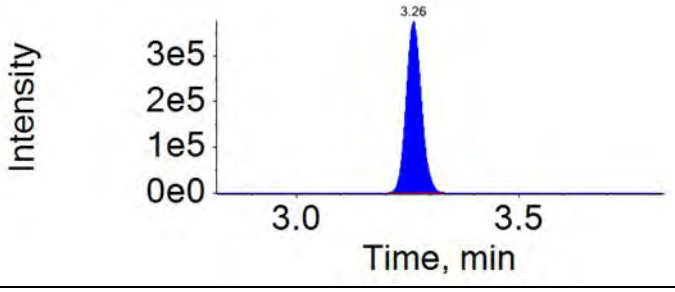
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

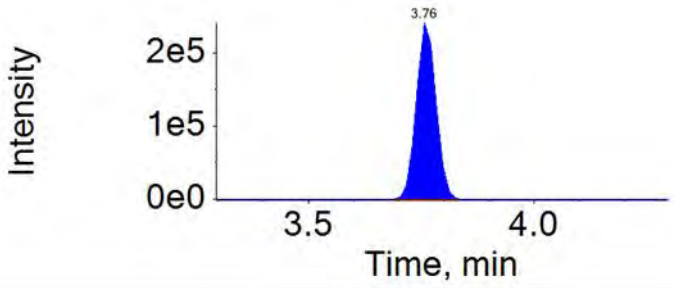
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

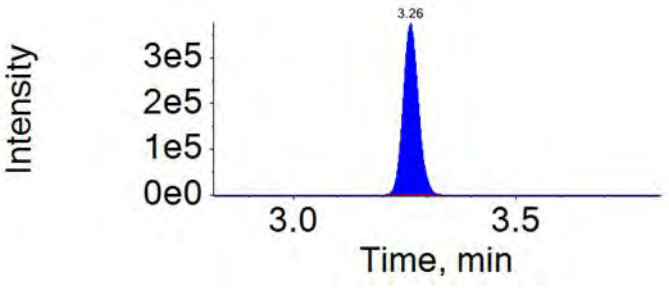
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



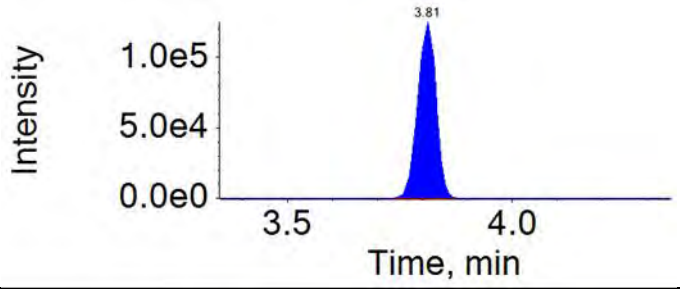


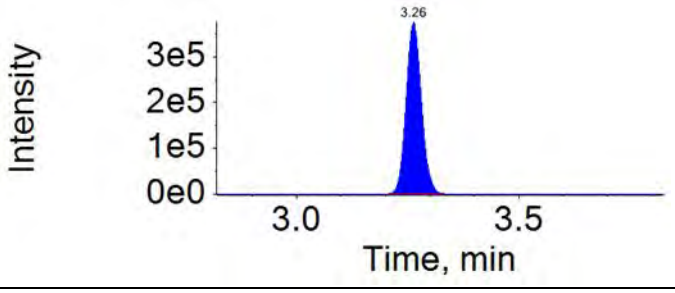
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



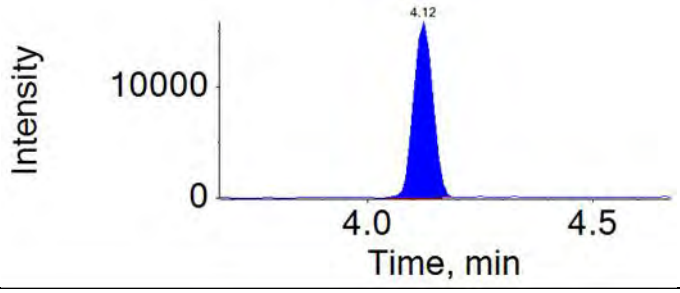


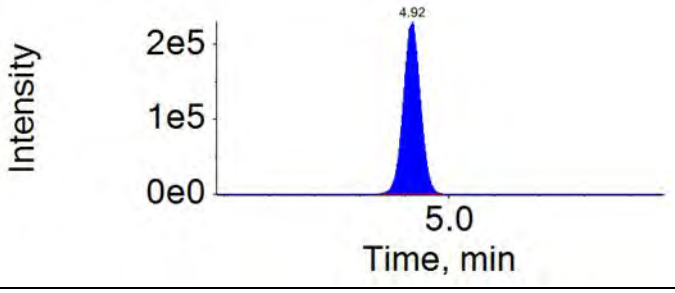
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



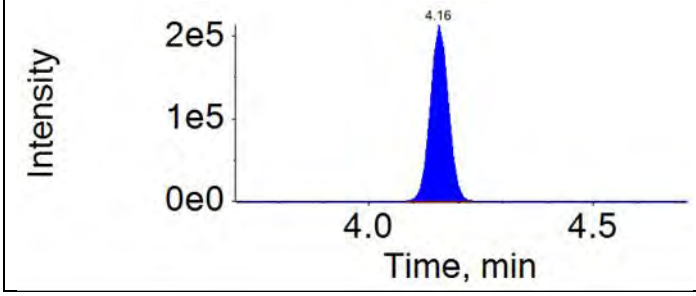


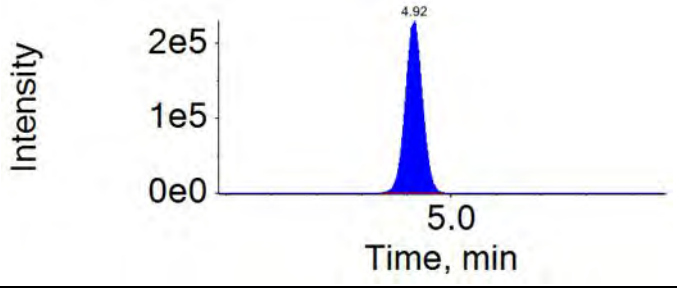
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

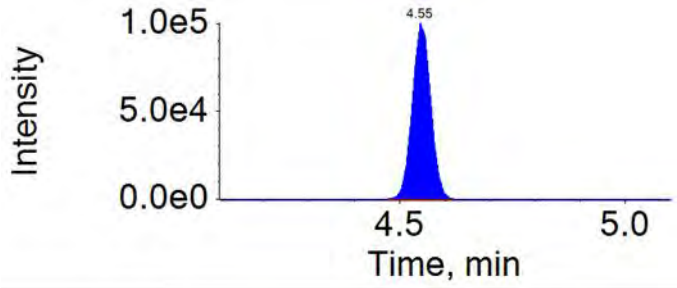
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

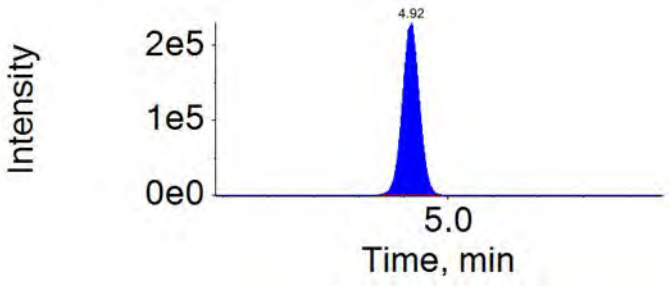
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



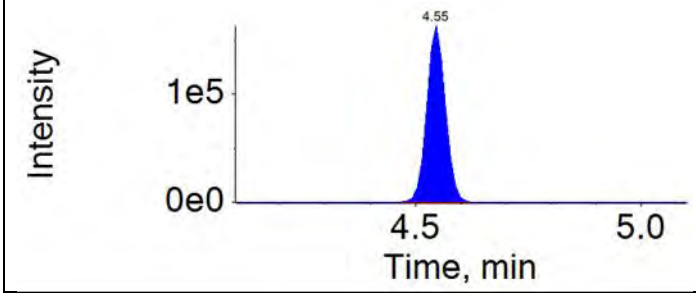


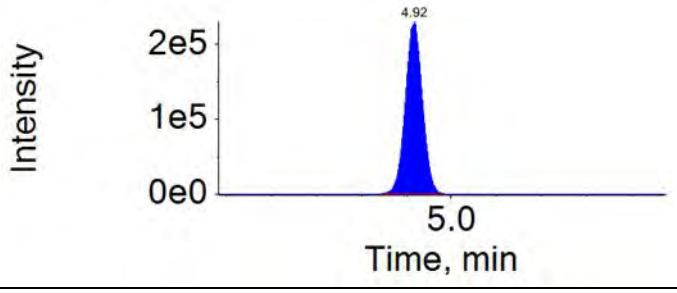
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



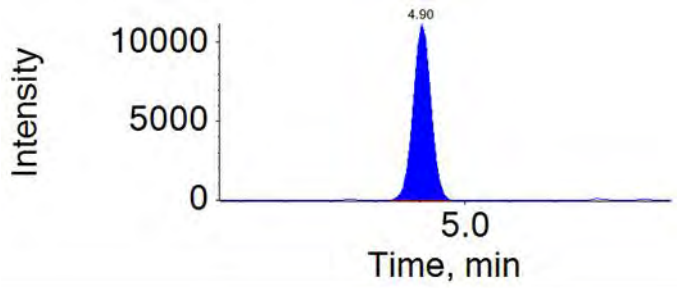


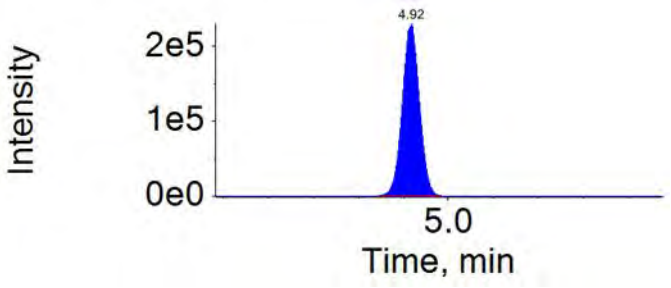
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





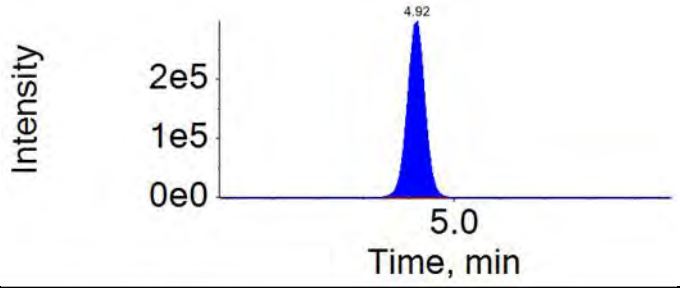
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

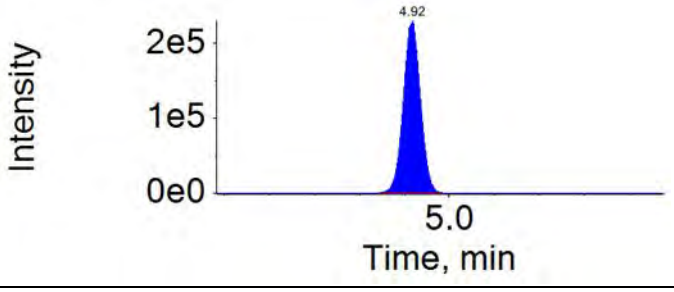




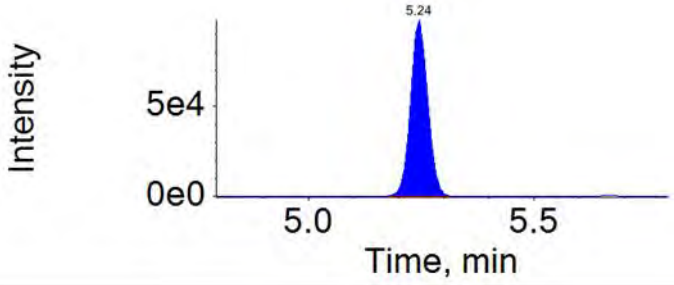
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

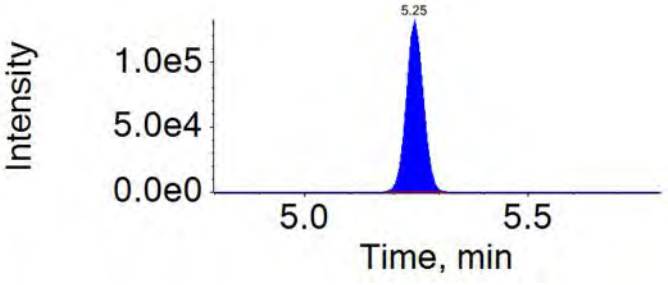
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



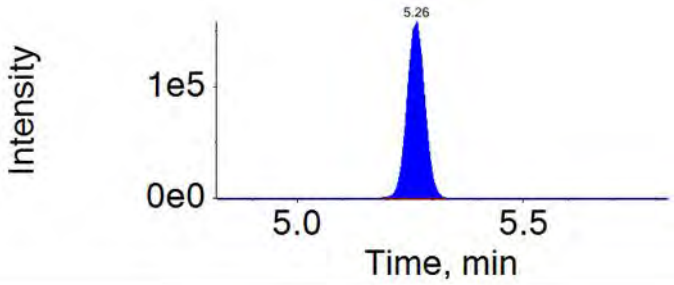


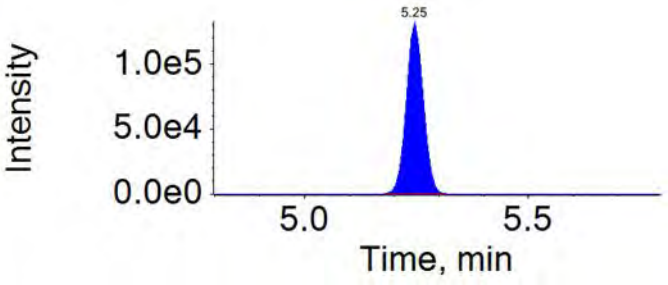
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



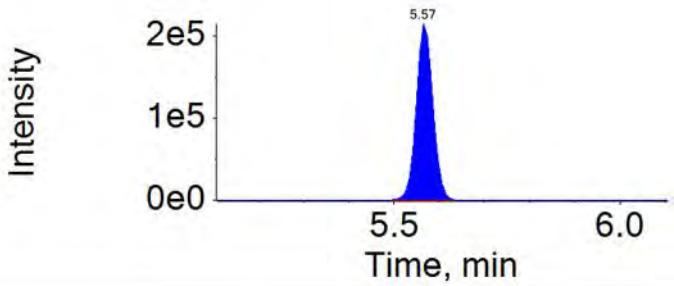


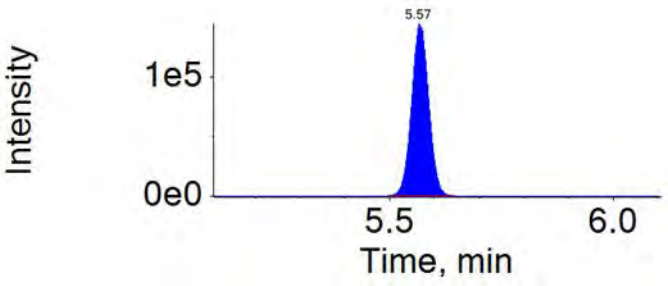
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

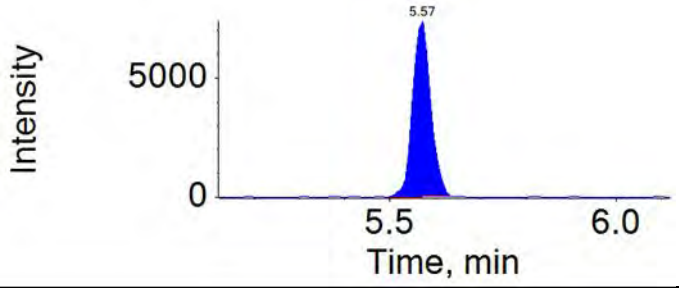
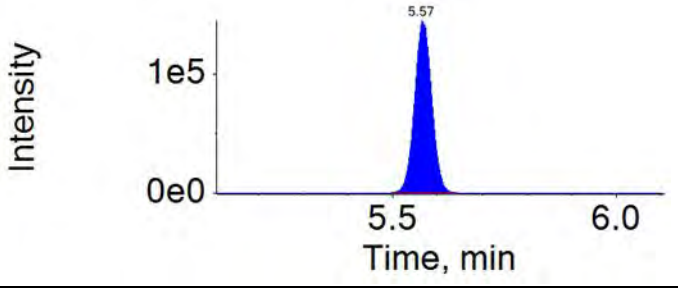


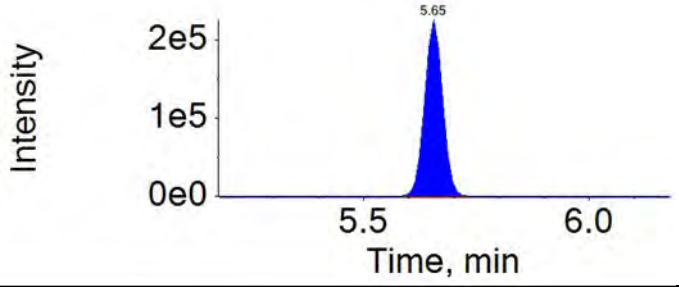
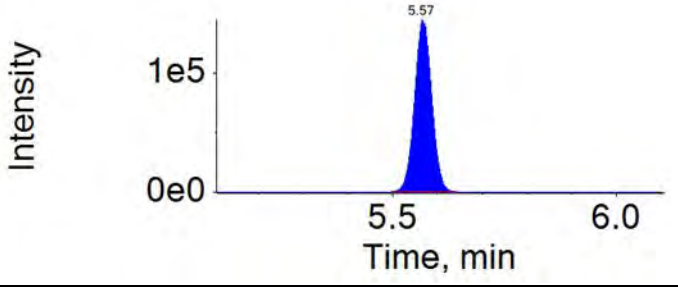


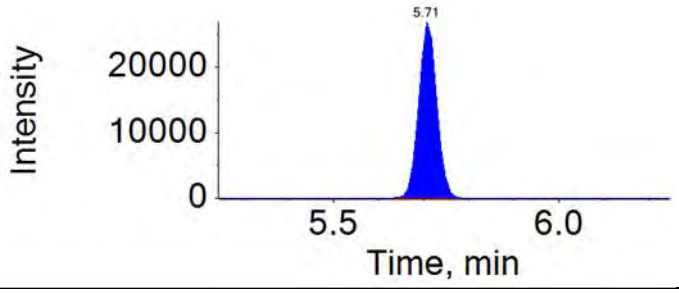
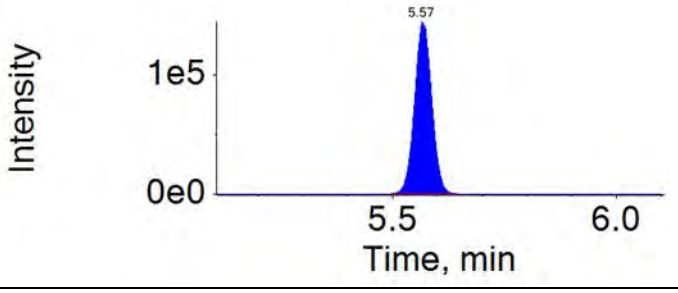
APPROVED
By JPT at 5:18 pm, 11/9/18

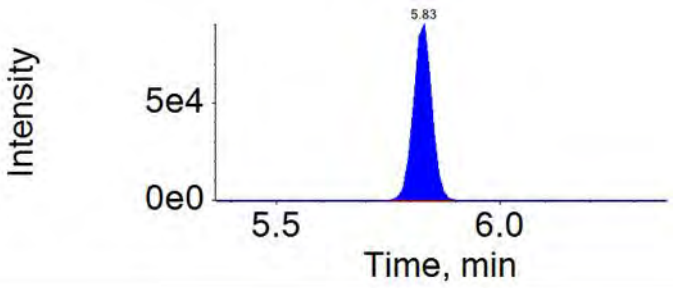
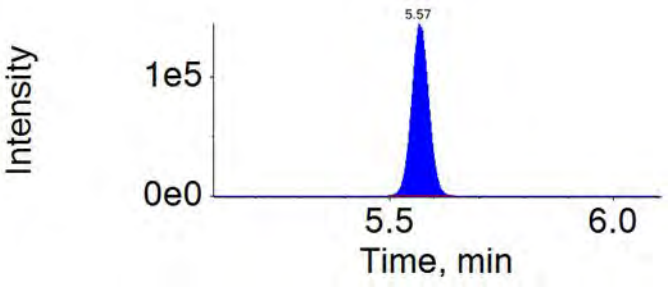
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

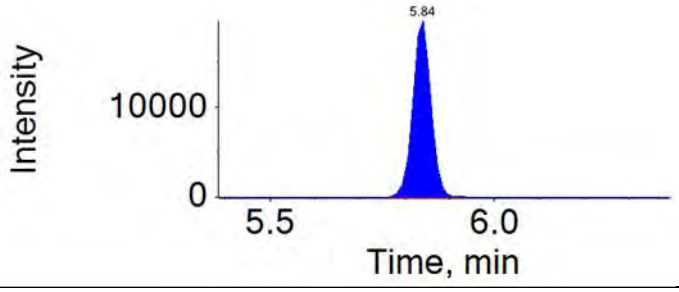
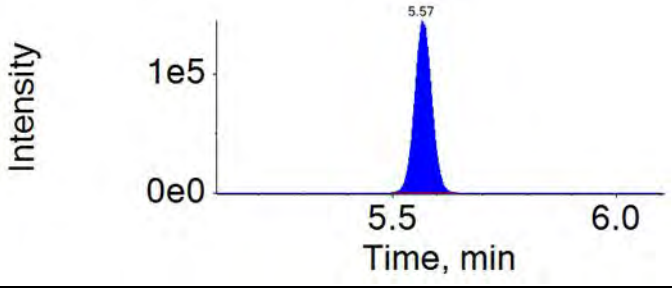
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

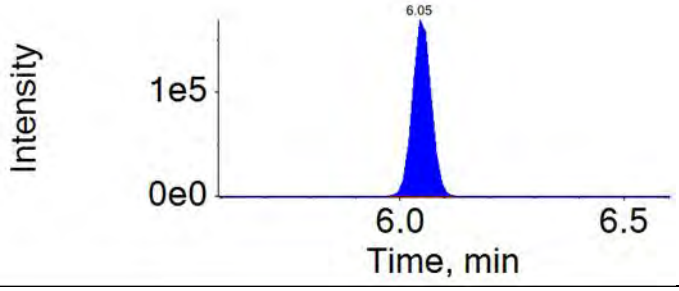
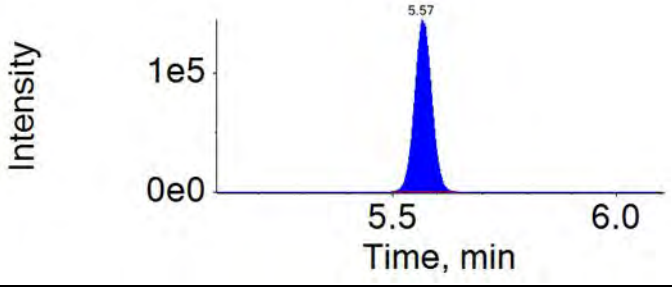
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

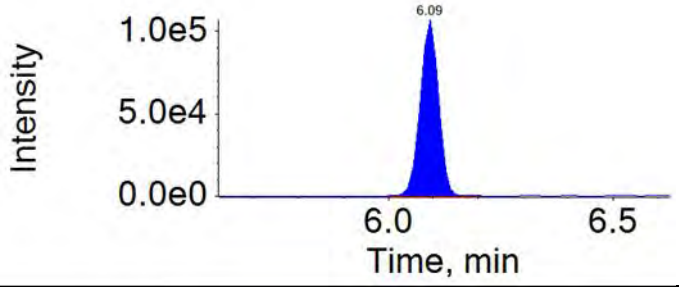
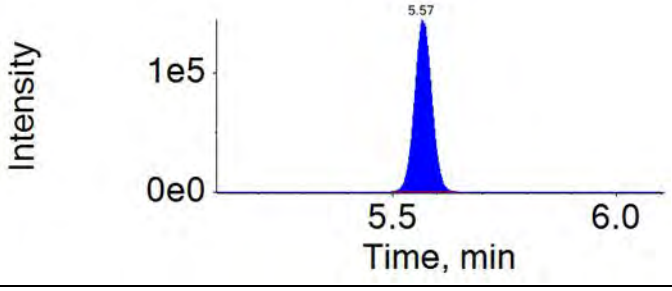
APPROVED
By JPT at 5:18 pm, 11/9/18

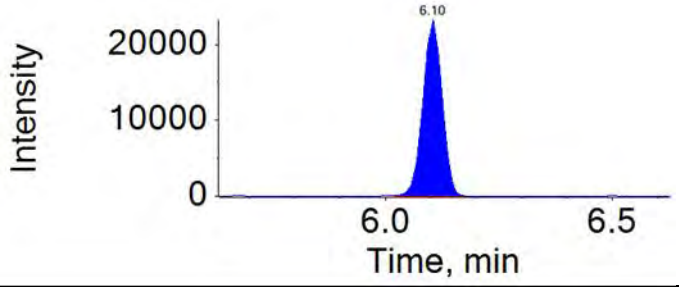
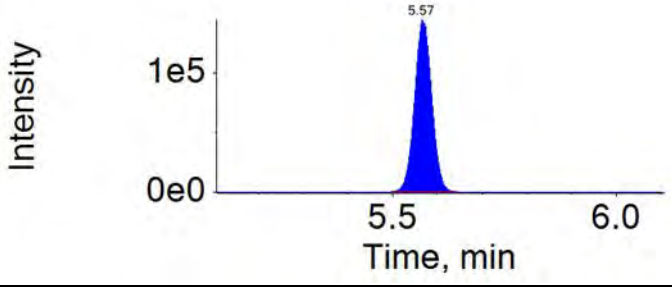
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

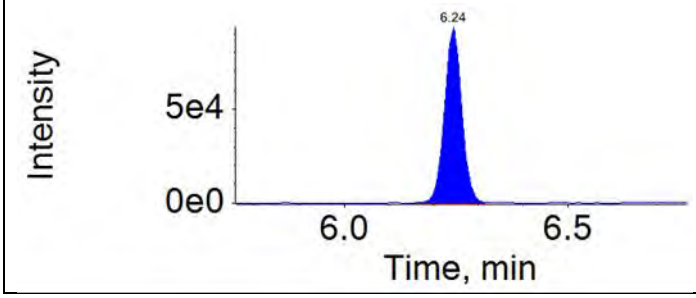
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

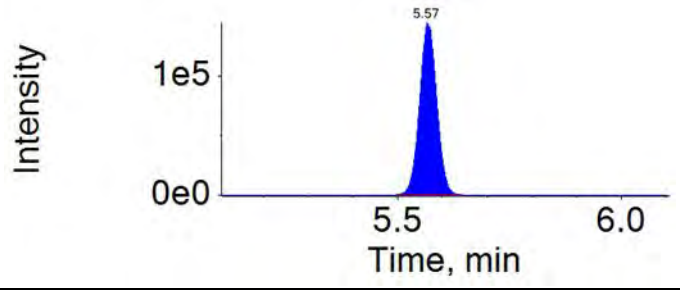
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

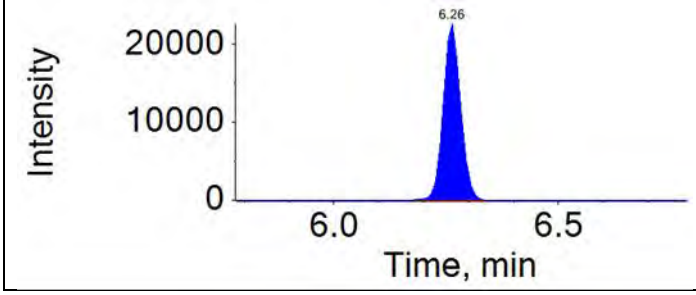
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

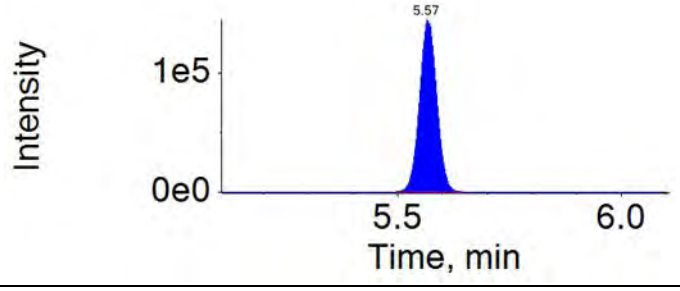
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



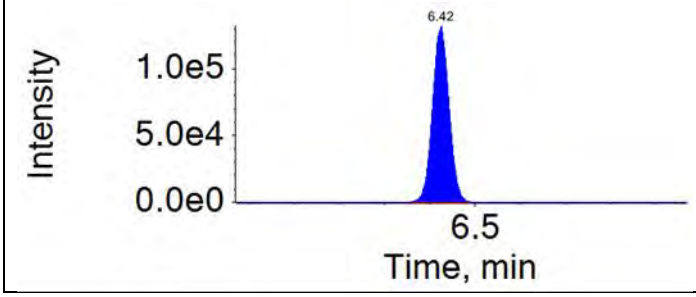


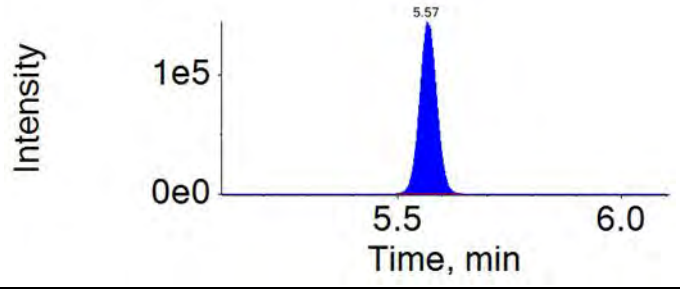
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



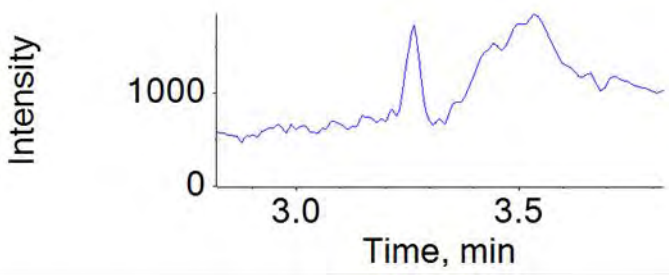


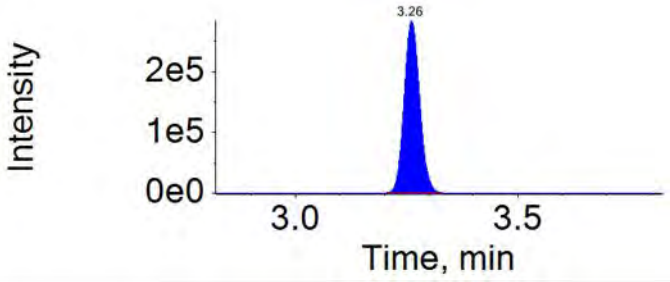
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

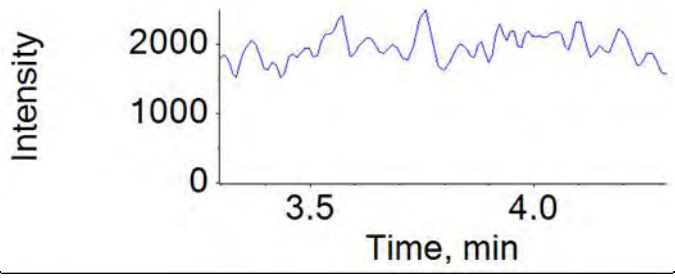
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

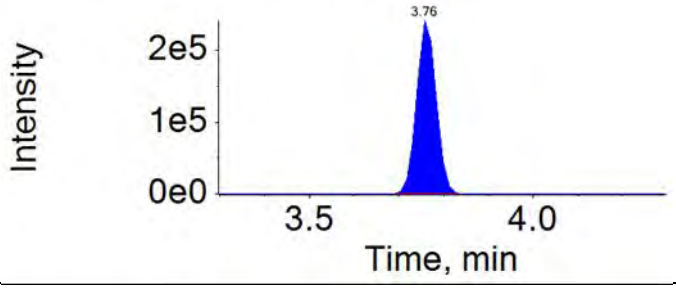
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



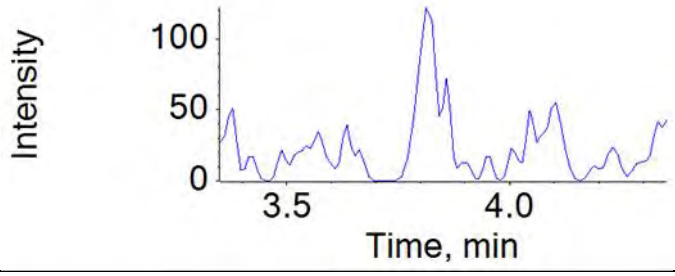


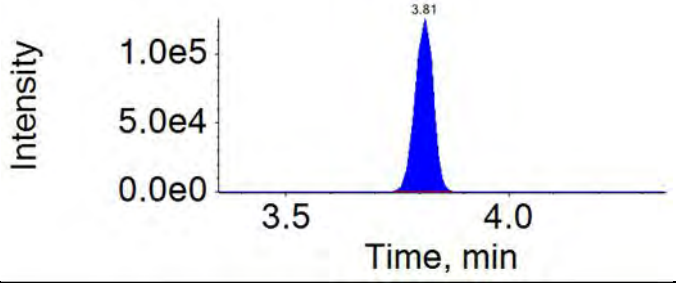
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



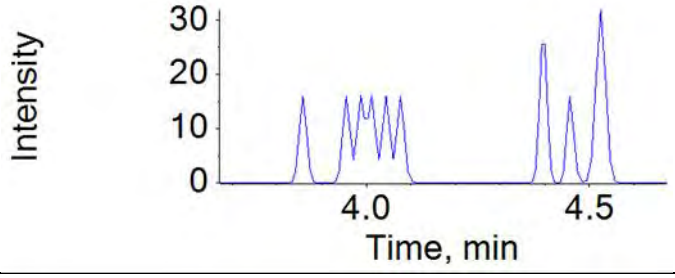


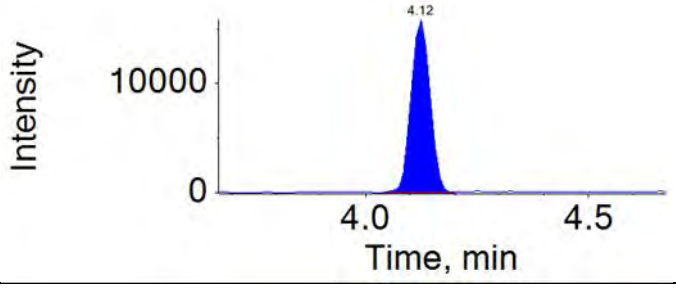
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



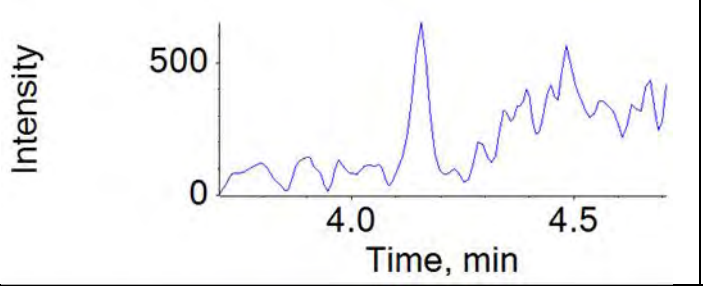


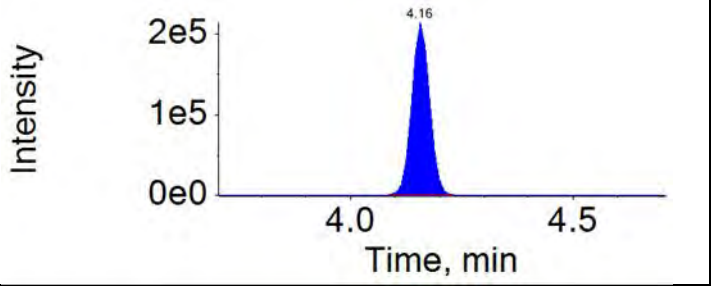
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

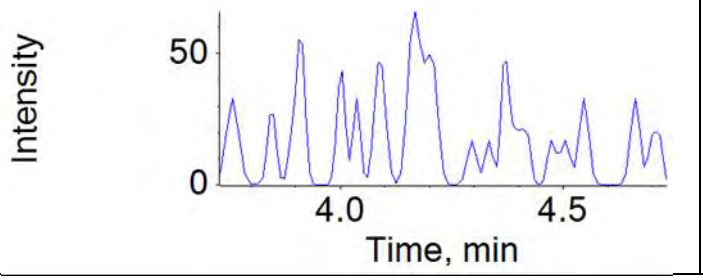
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

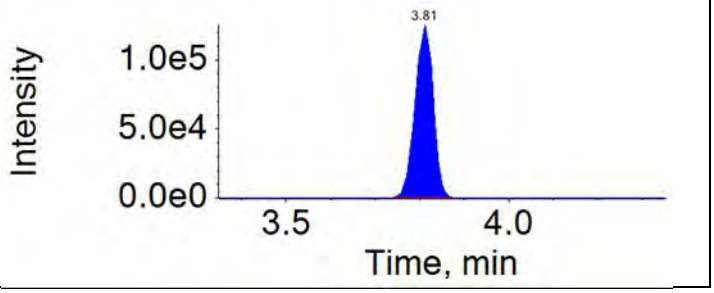
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



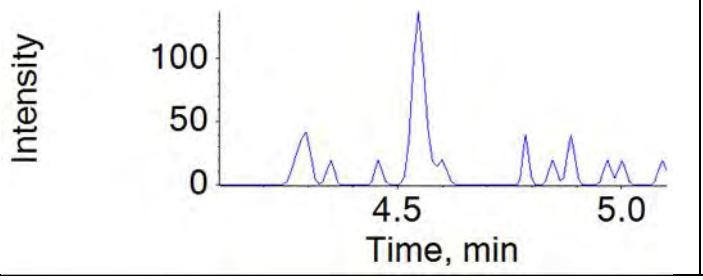


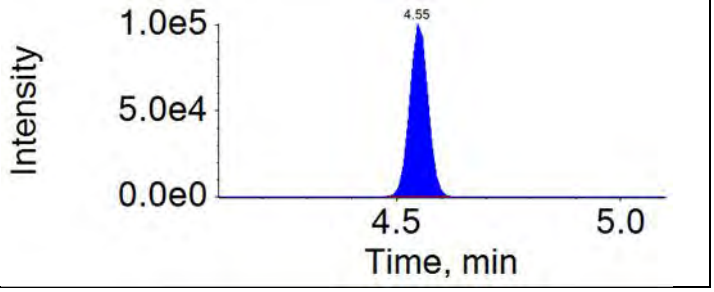
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



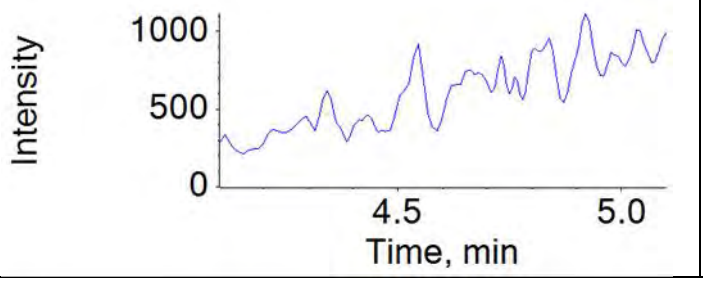


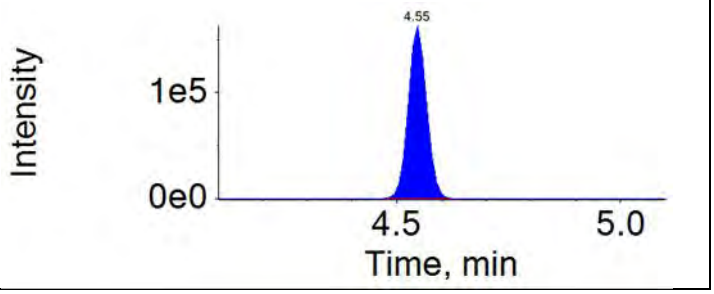
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





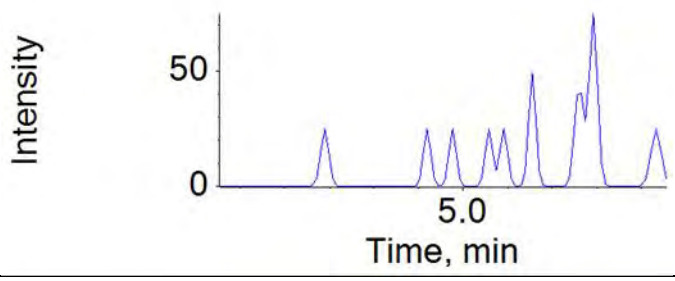
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

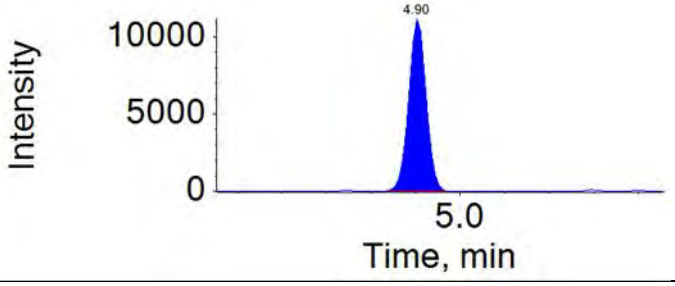




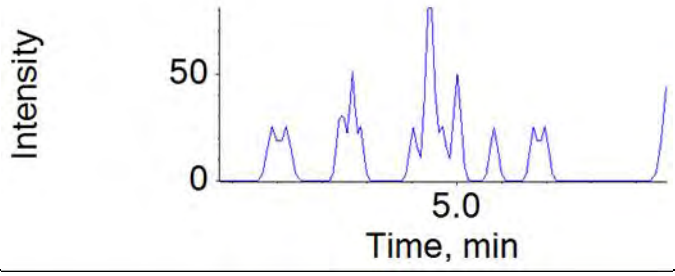
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

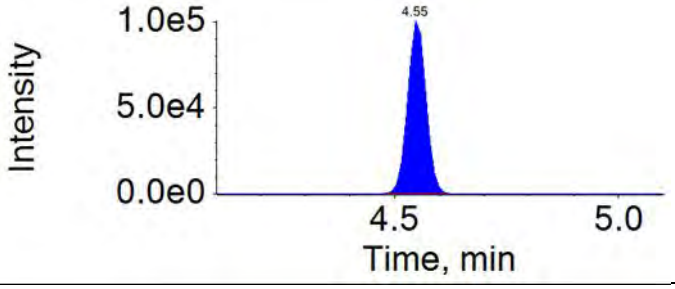
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



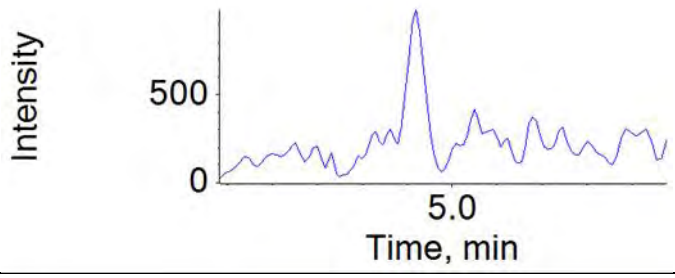


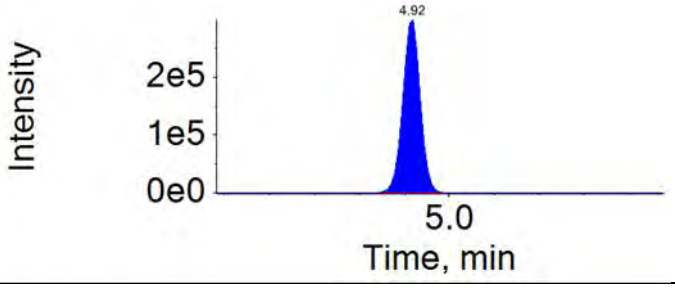
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



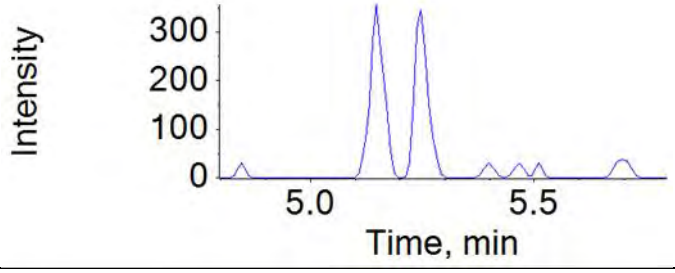


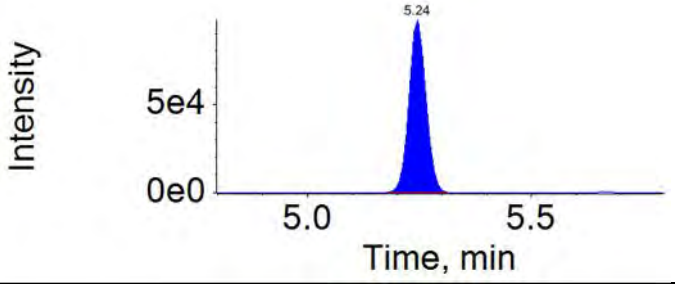
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



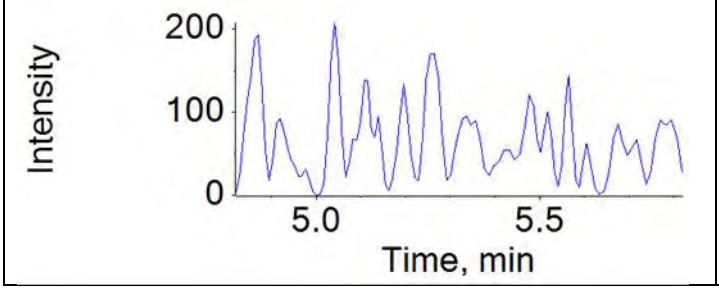


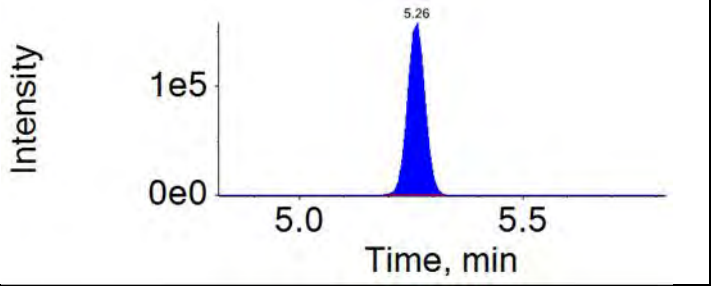
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

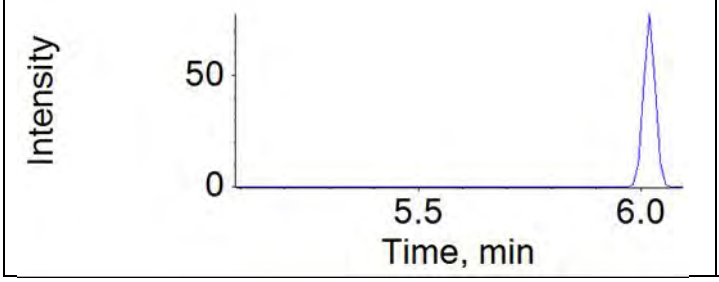
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

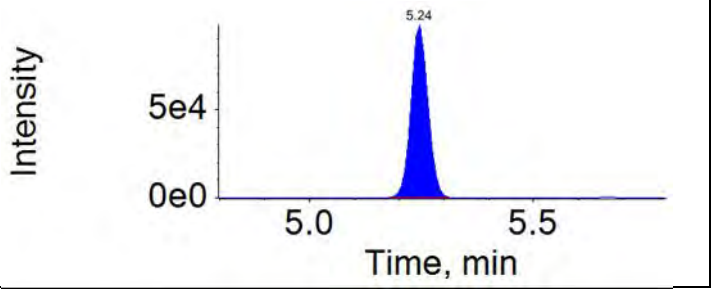
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



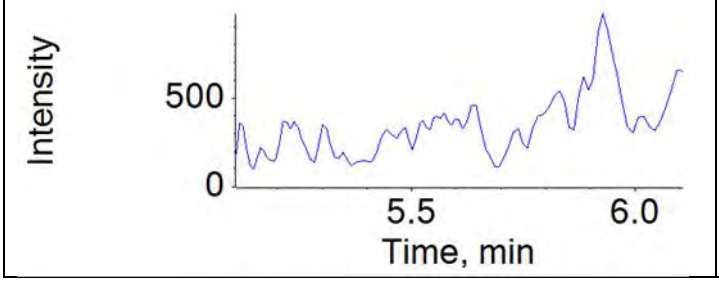


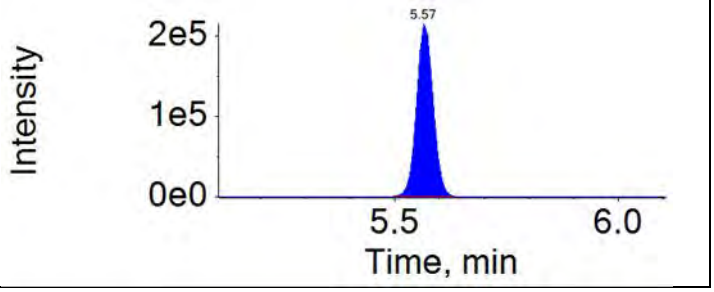
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



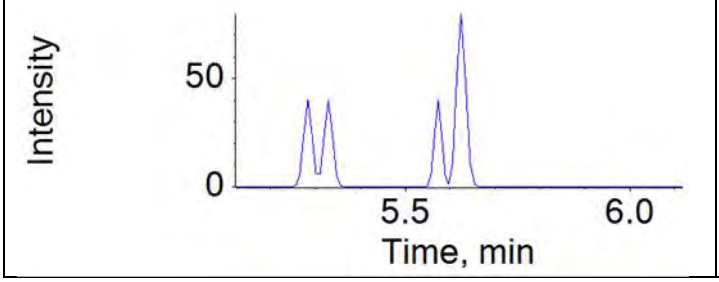


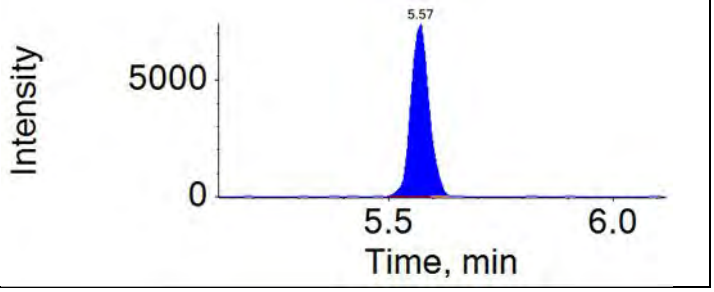
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



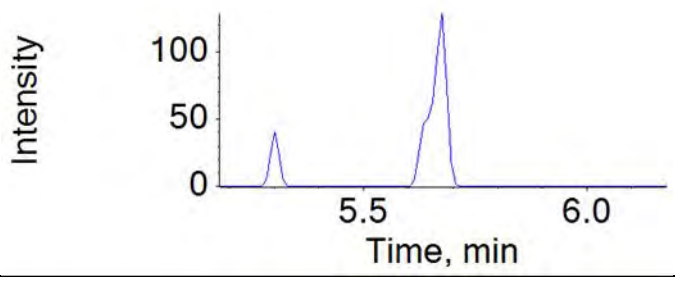


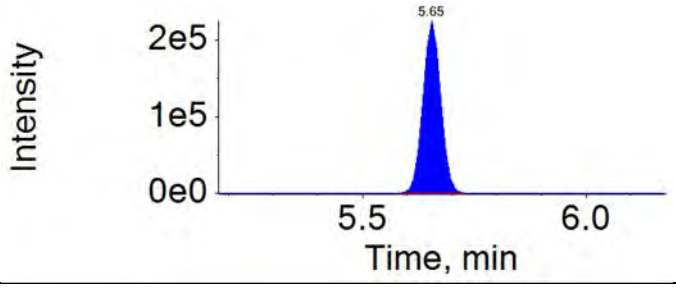
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

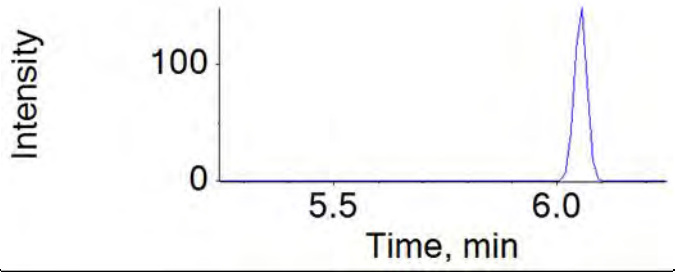
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

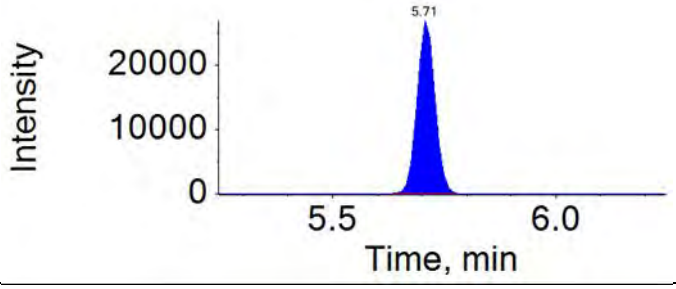
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



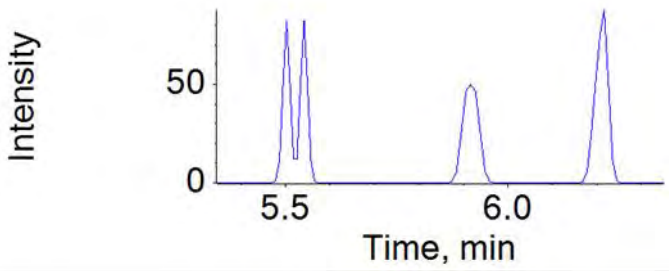


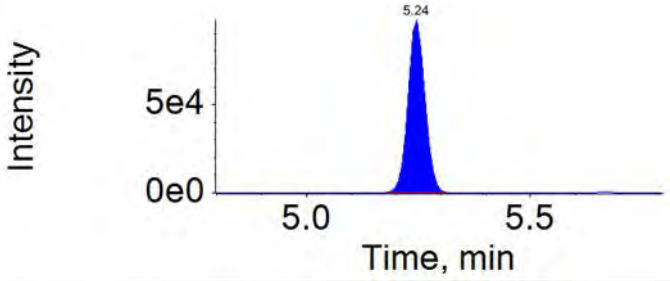
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



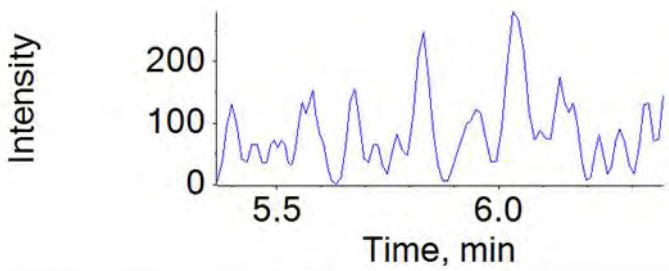


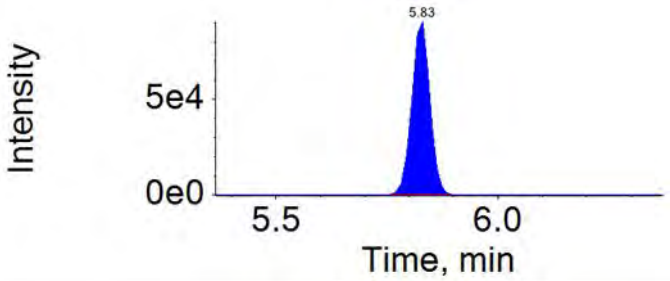
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



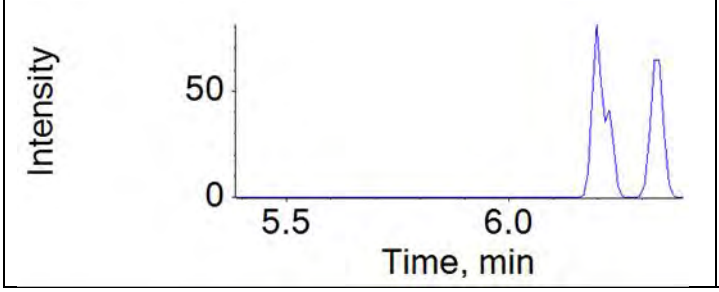


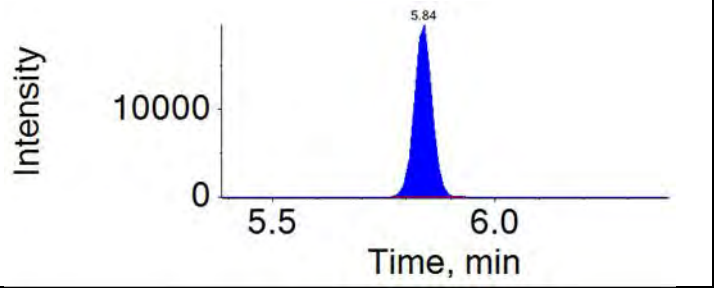
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

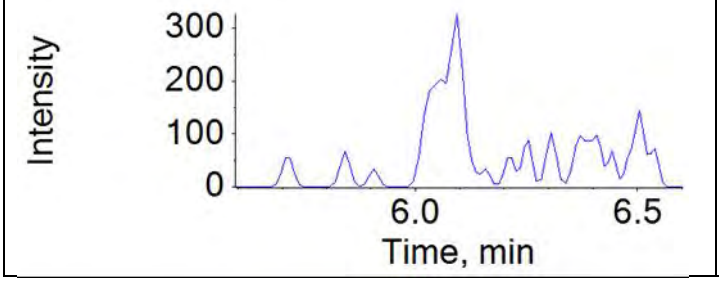
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

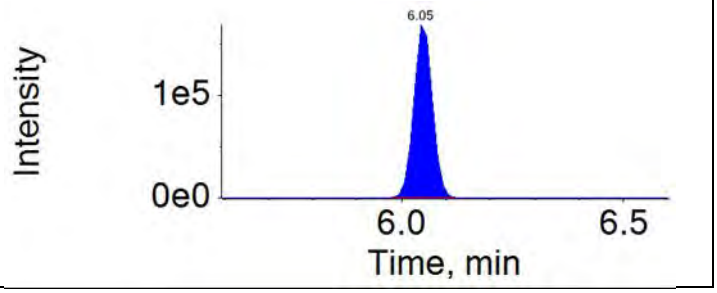
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



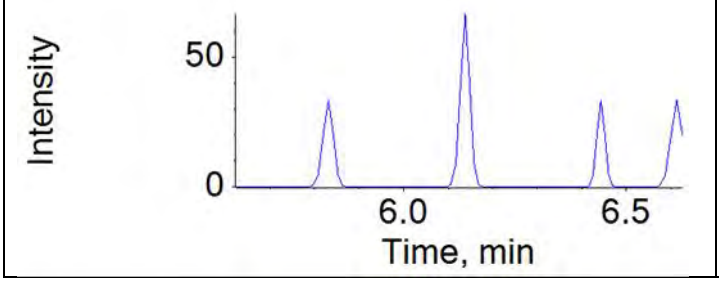


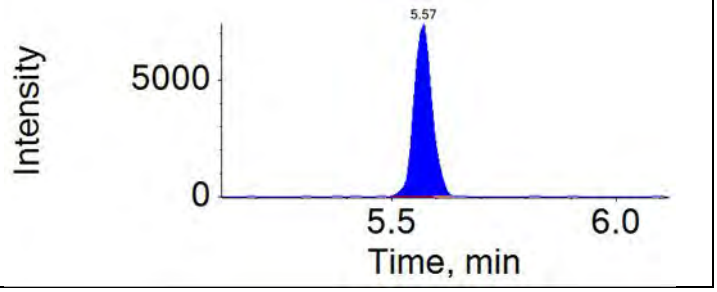
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



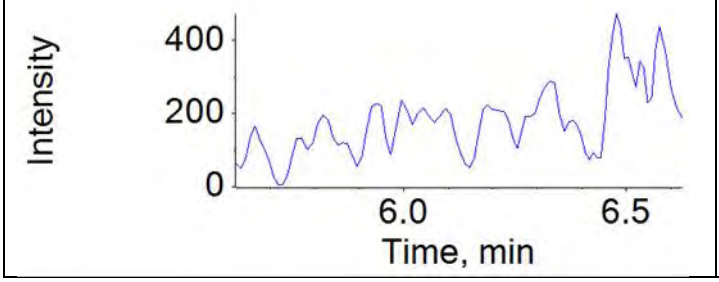


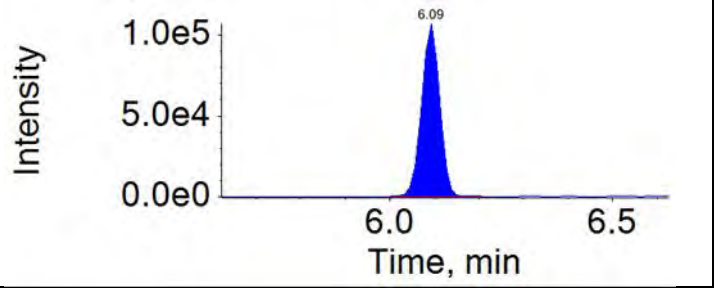
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



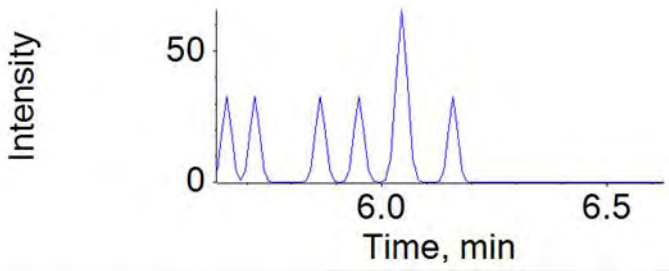


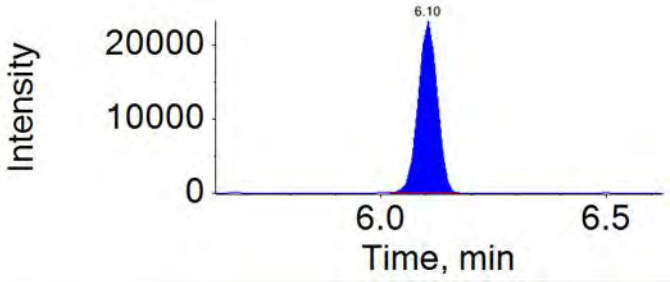
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

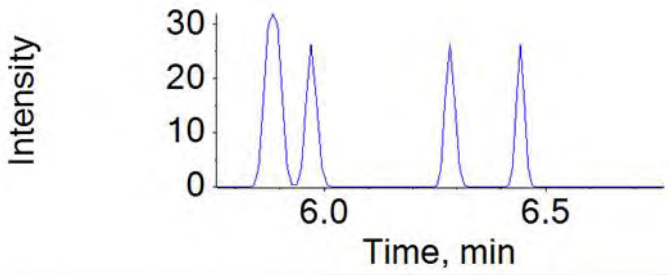
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

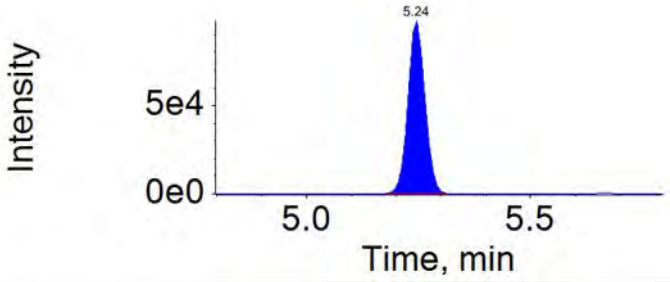
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



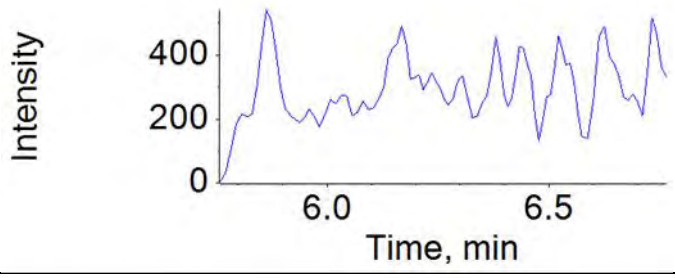


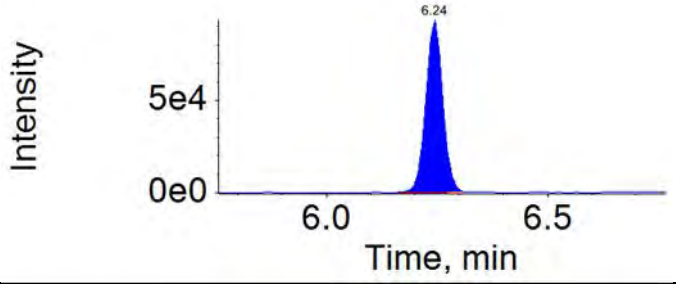
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



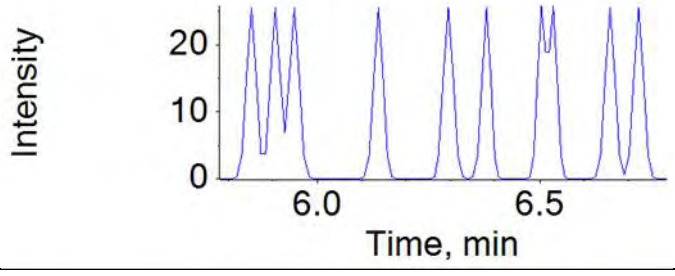


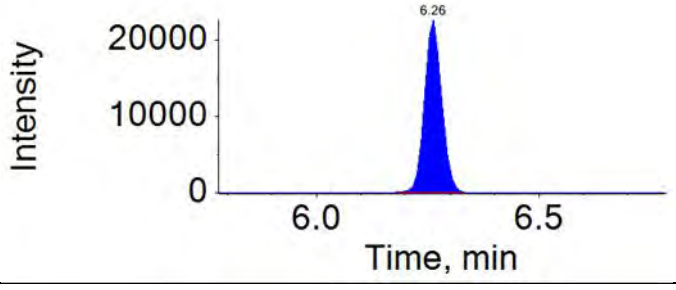
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



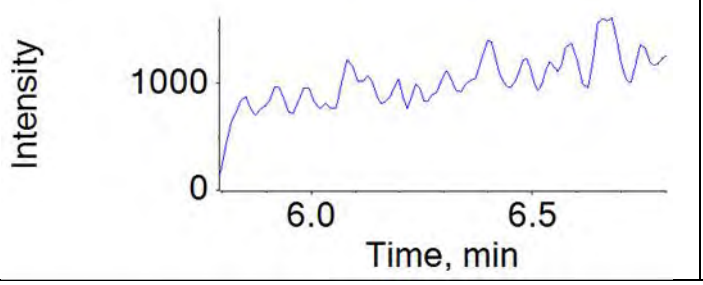


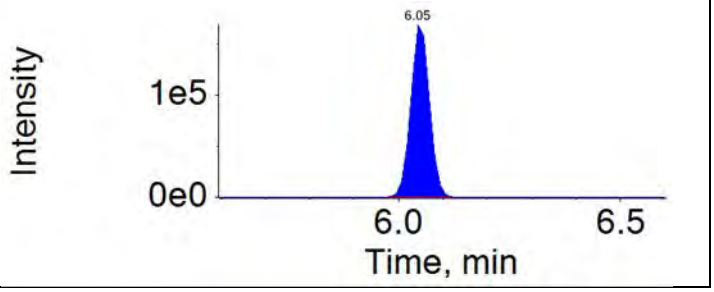
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

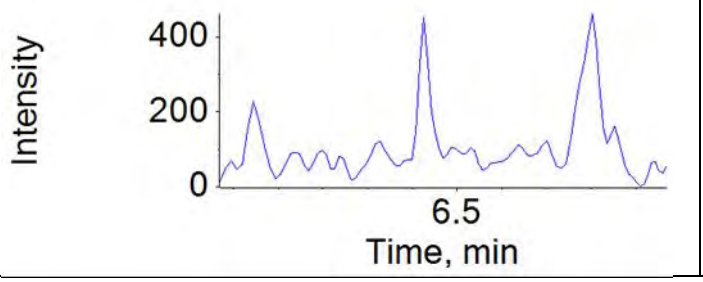
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

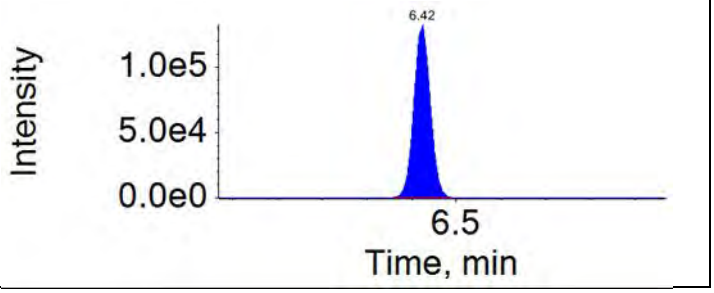
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



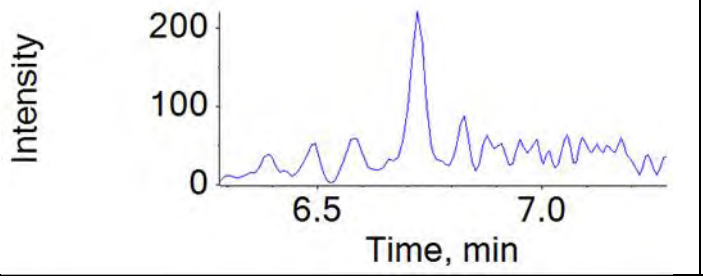


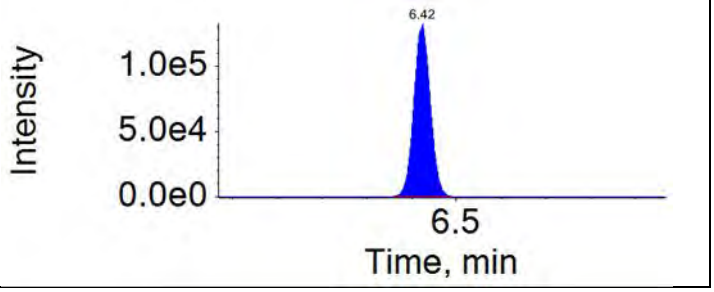
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



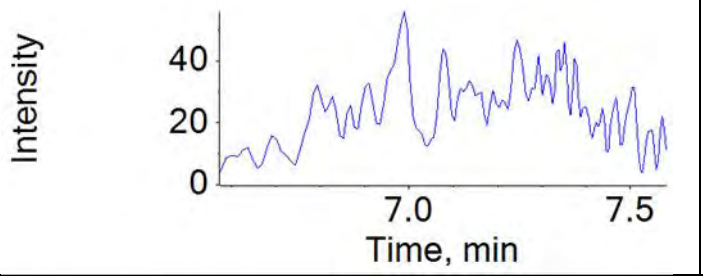


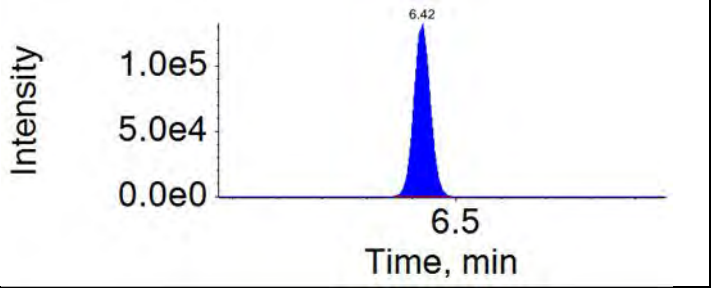
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





Ion Ratio Report

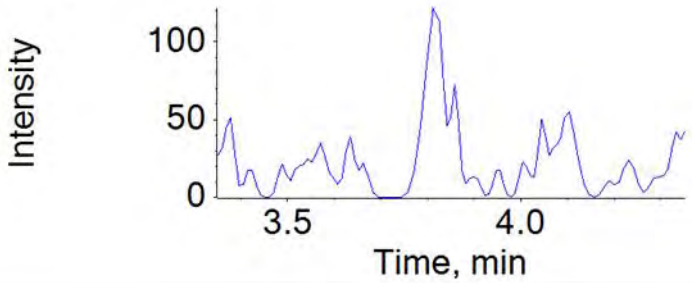
Sample Name: BLK311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-88.wiff

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	
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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

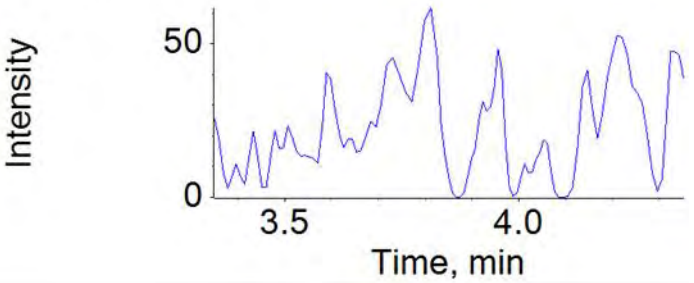
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

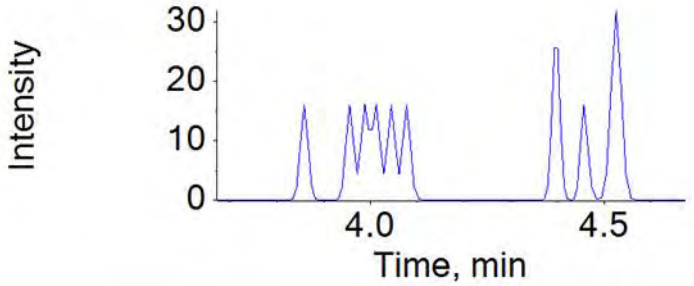
Component: PFBS
Primary Mass: 299.0 / 80.0



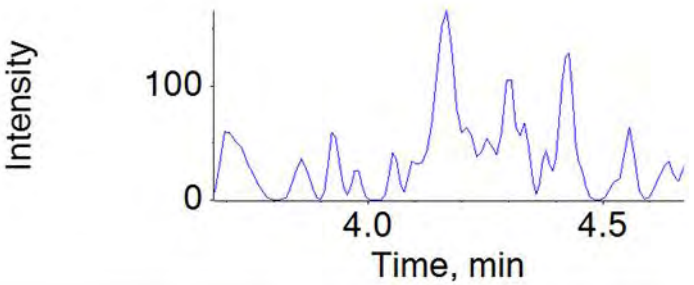
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



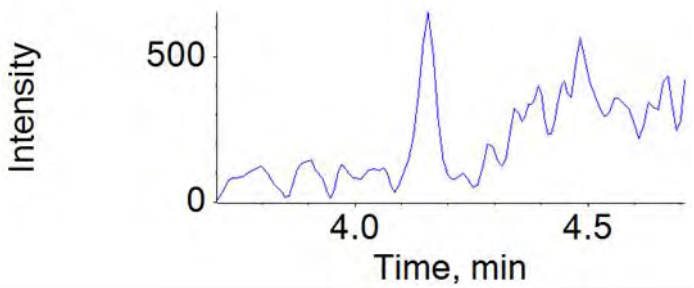
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



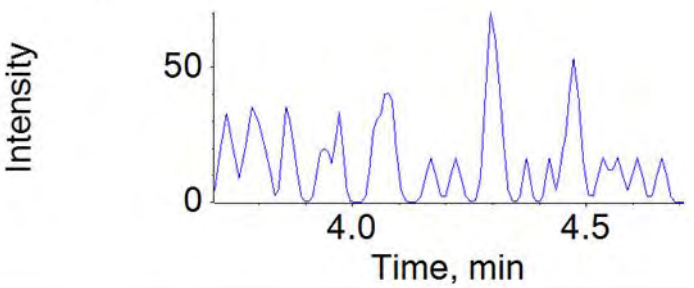
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



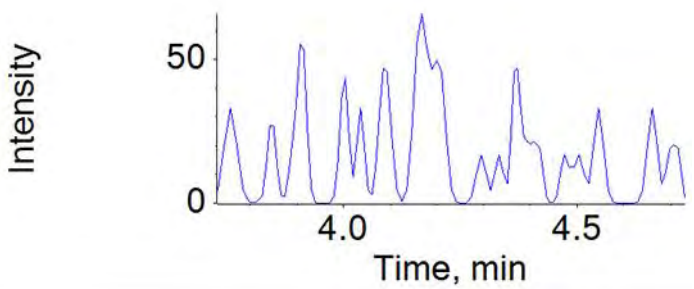
Component: PFHxA
Primary Mass: 313.0 / 269.0



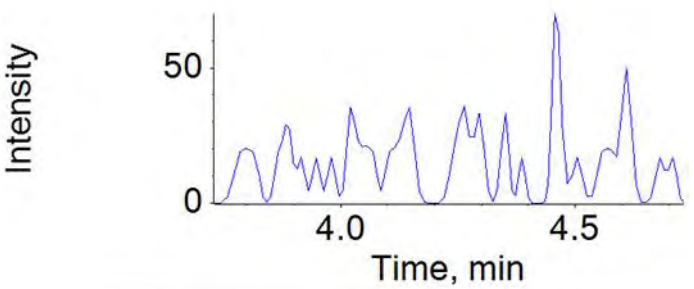
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



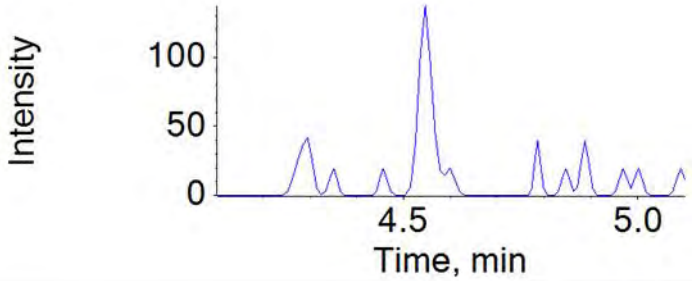
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



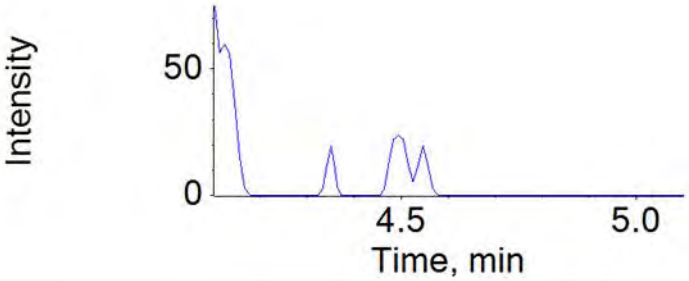
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

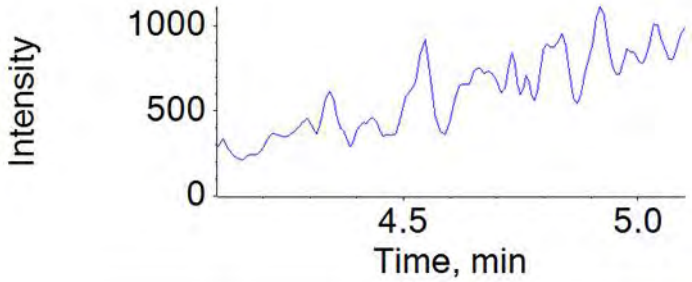
Component: PFHxS
Primary Mass: 399.0 / 80.0



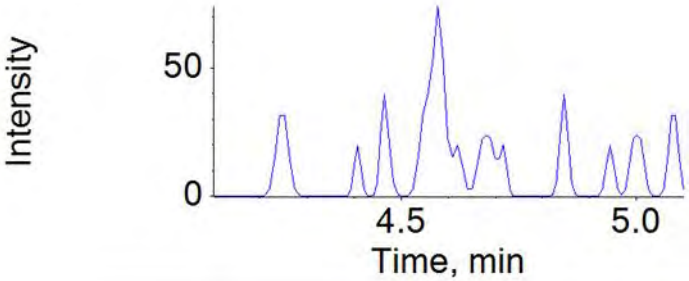
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



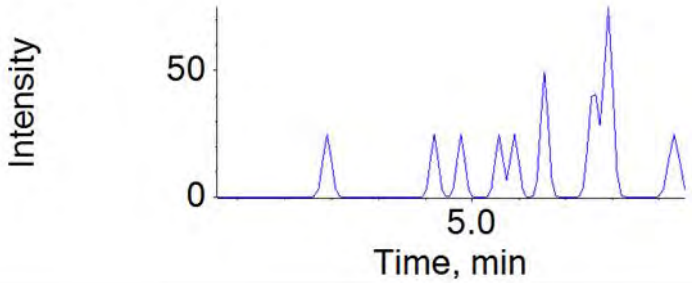
Component: PFHpA
Primary Mass: 363.0 / 319.0



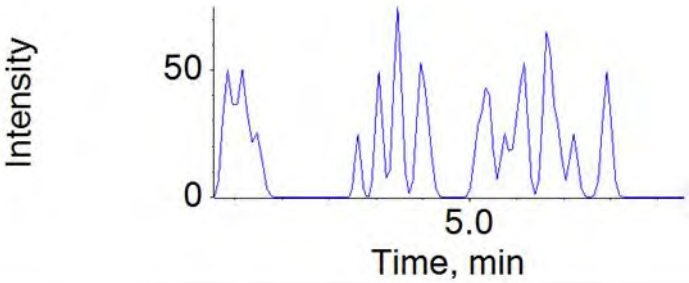
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



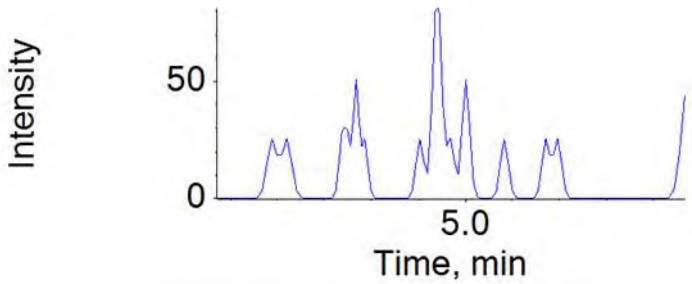
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



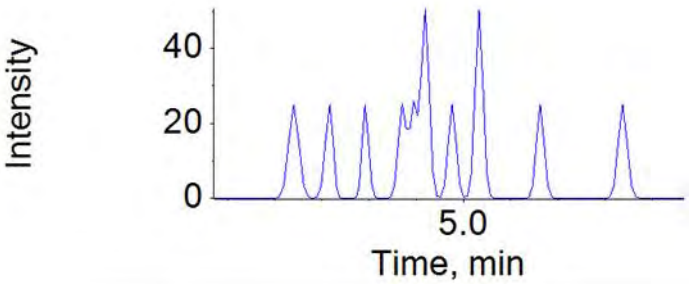
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



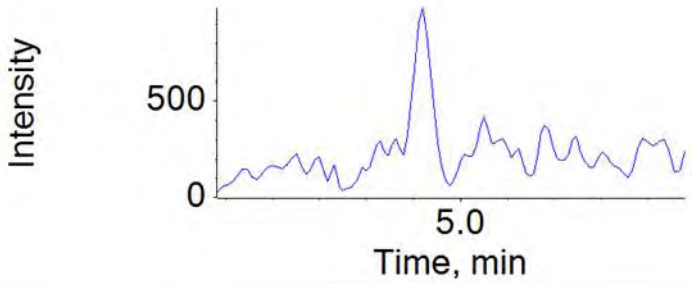
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



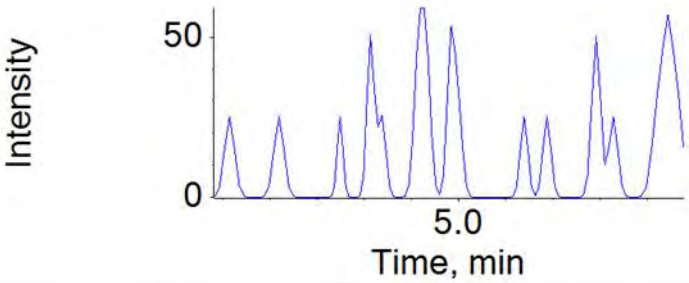
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

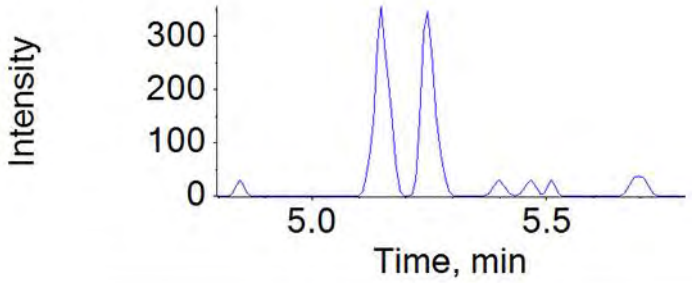
Component: PFOA
Primary Mass: 413.0 / 369.0



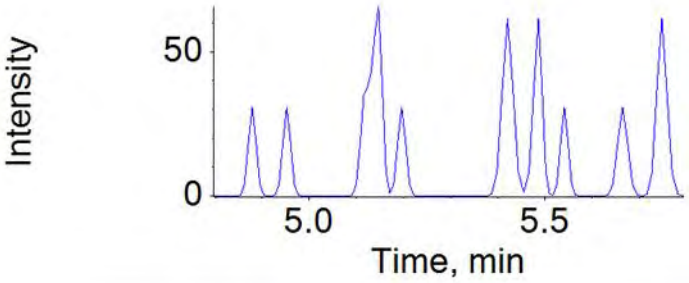
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



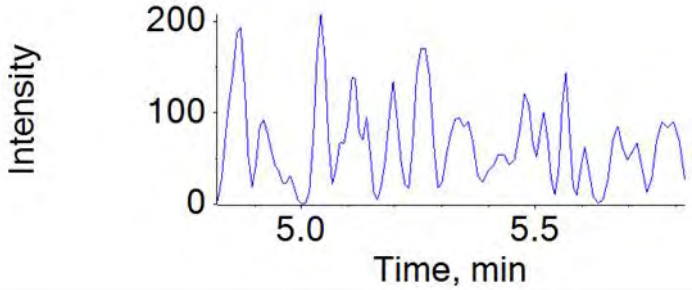
Component: PFOS
Primary Mass: 499.0 / 80.0



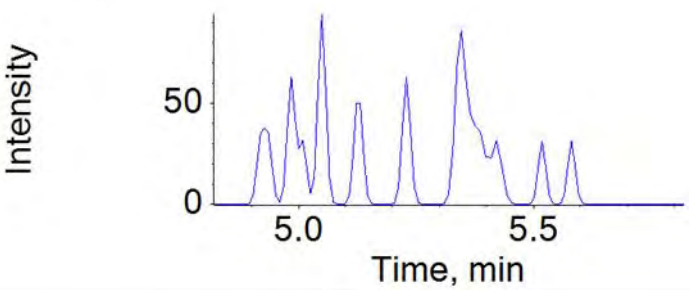
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



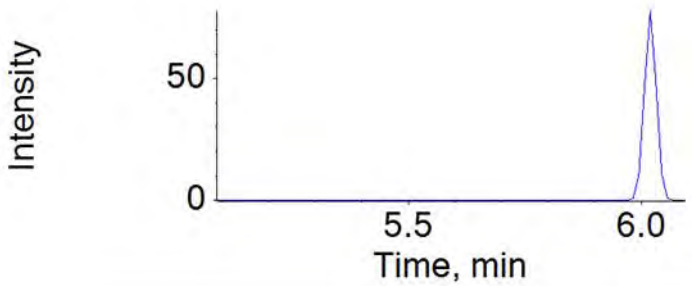
Component: PFNA
Primary Mass: 463.0 / 419.0



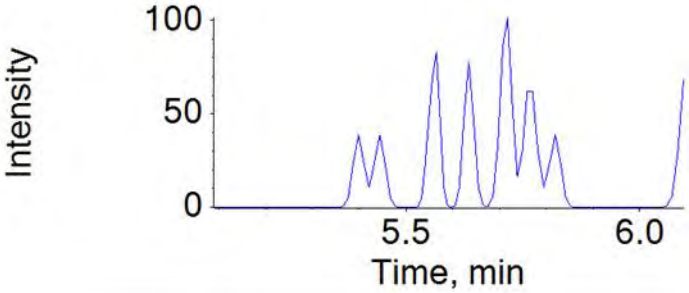
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



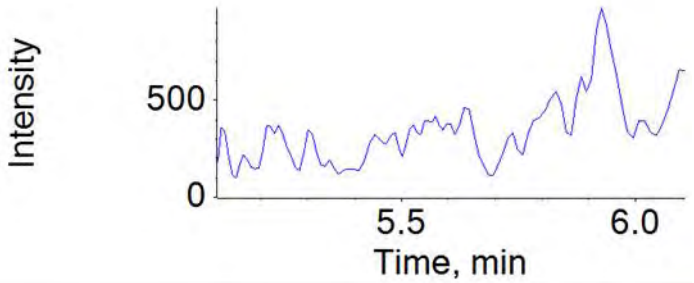
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



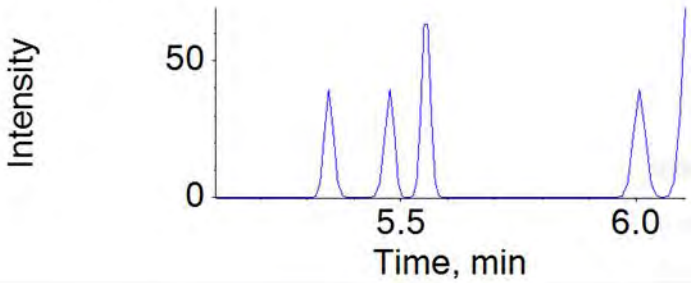
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

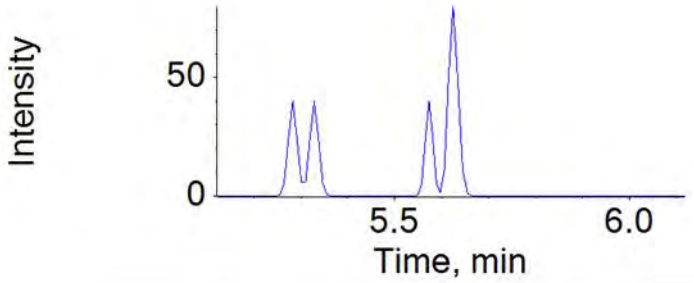
Component: PFDA
Primary Mass: 513.0 / 469.0



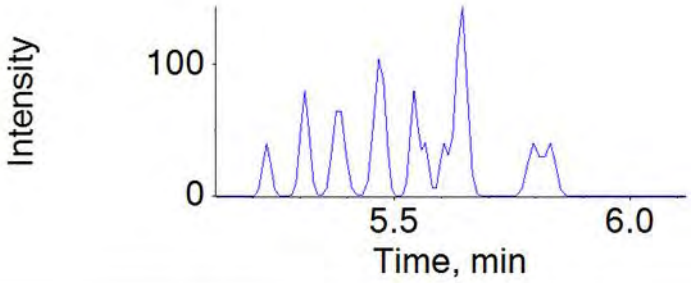
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



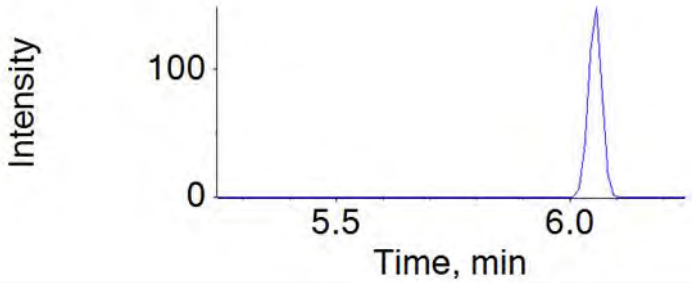
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



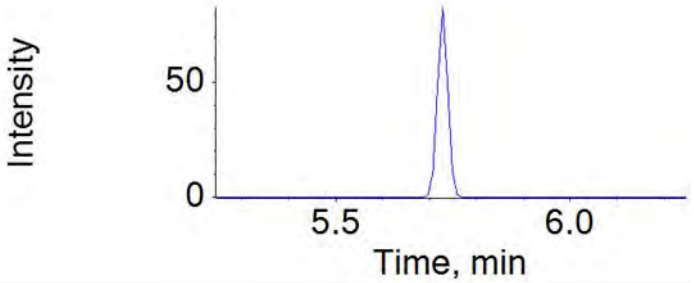
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



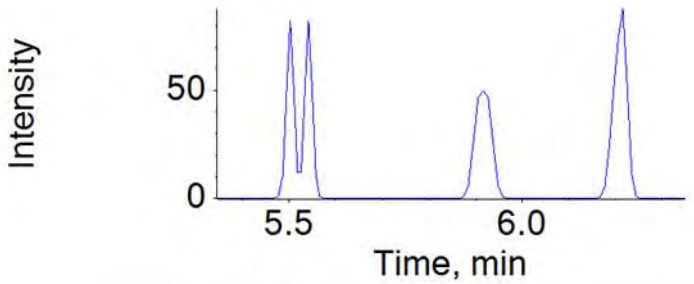
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



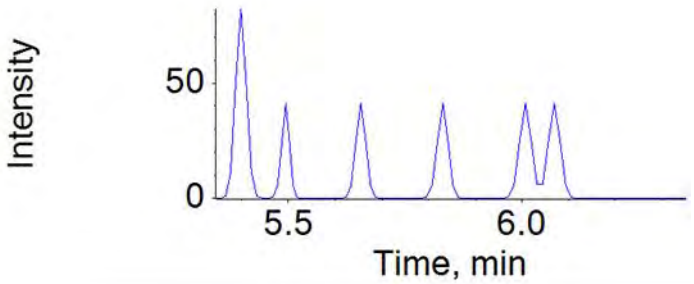
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



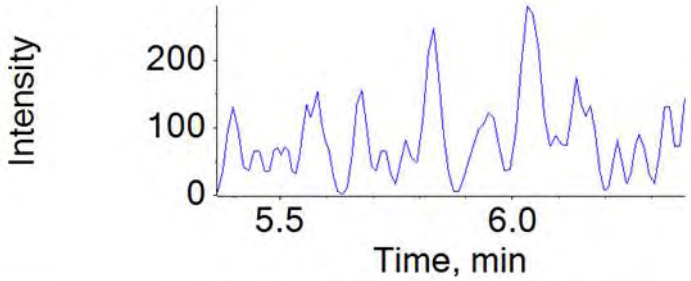
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



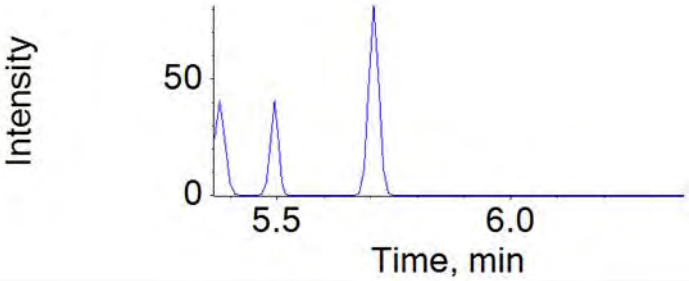
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

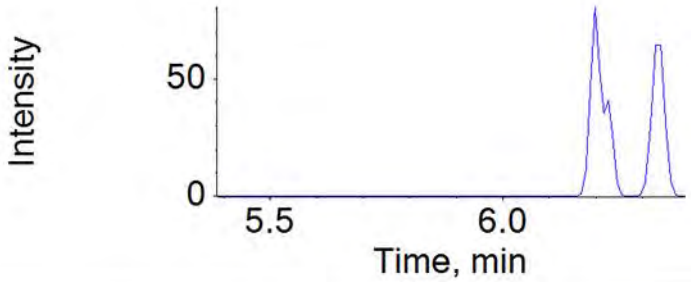
Component: PFUnDA
Primary Mass: 563.0 / 519.0



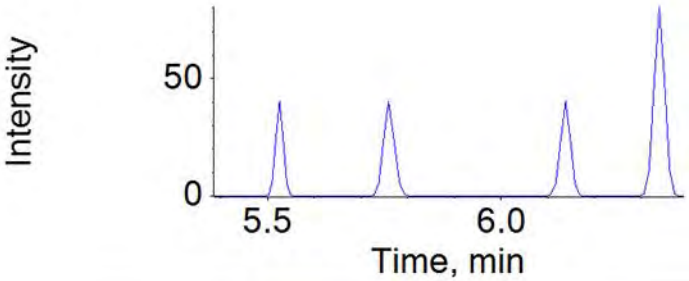
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



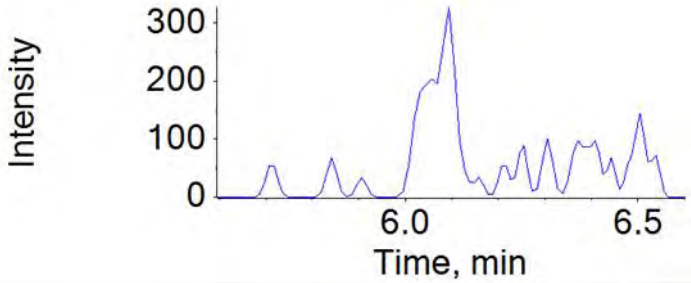
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



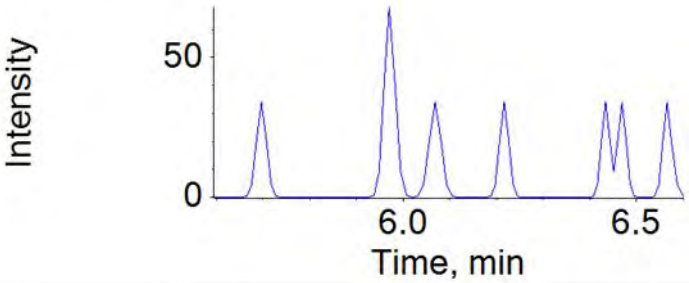
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



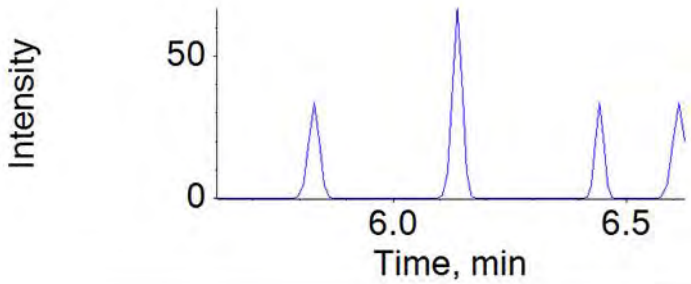
Component: PFDoDA
Primary Mass: 613.0 / 569.0



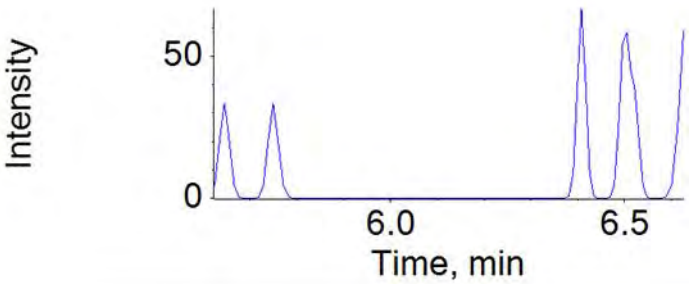
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



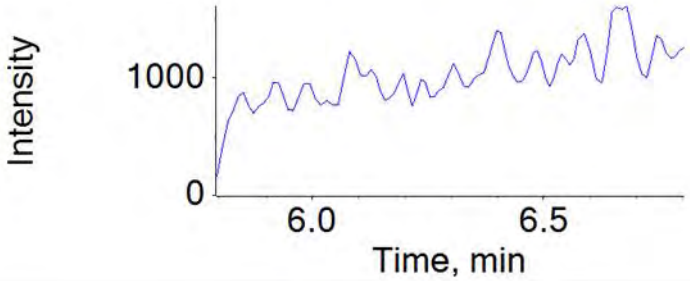
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



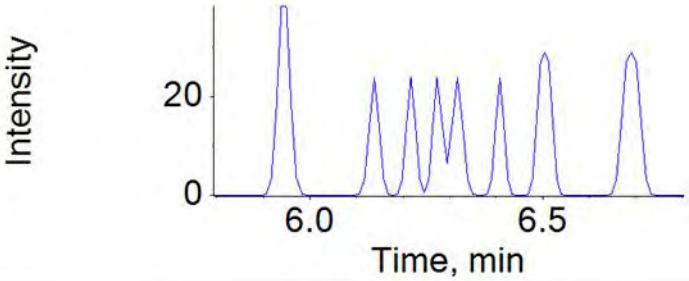
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

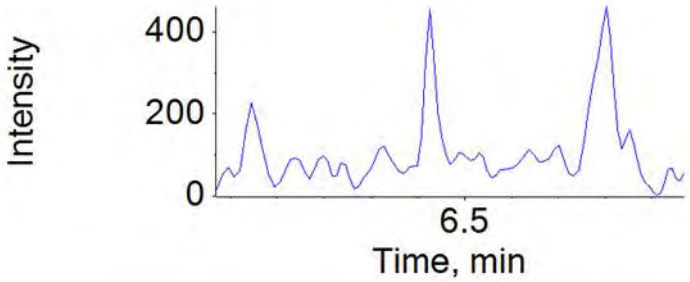
Component: PFTrDA
Primary Mass: 663.0 / 619.0



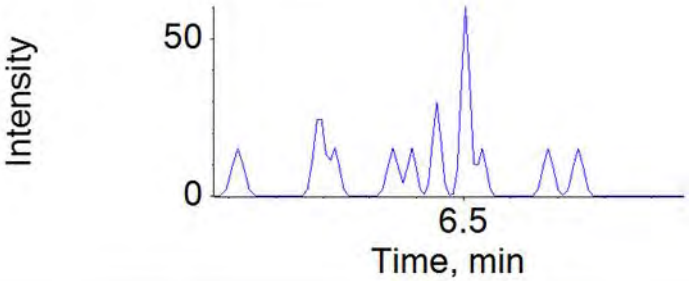
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



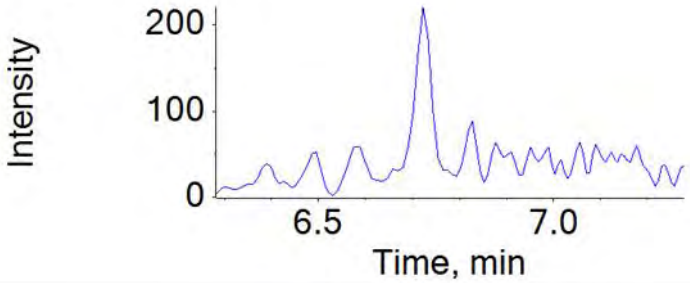
Component: PFTeDA
Primary Mass: 713.0 / 669.0



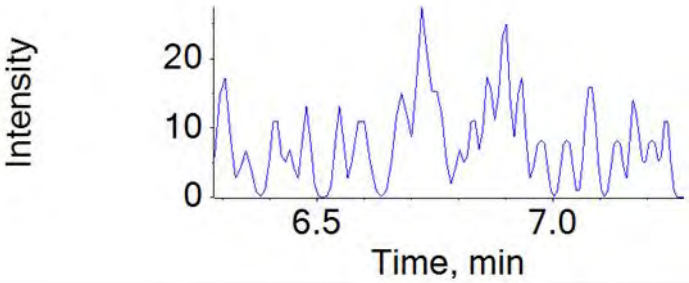
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



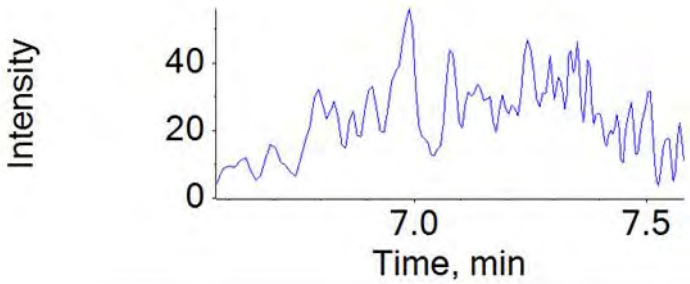
Component: PFHxDA
Primary Mass: 813.0 / 769.0



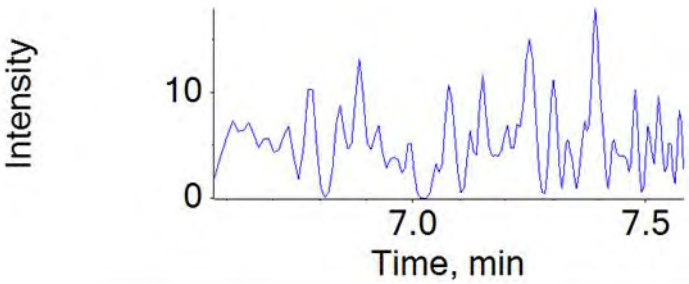
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312003 11/9/2018 8:24:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK312003			**Data File:**		18NOV09D-05.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312003			**Acquis Date:**		2018-11-09T05:15:02
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	51			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18312003
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18312003			**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	749759.8	725974.7	3	50	
13C2-PFOA	5.0	509083.9	506876.7	0	50	
13C4-PFOS	4.8	286757.5	274910.1	4	50	
13C2-PFDA	5.0	321185.5	307276.7	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	638075.0	13C3-PFBA	749759.8	0.851	10.000	7.877	79	50-150	
E13C5-PFPeA	662379.5	13C3-PFBA	749759.8	0.883	10.000	7.697	77	50-150	
E13C3-PFBS	326492.0	13C3-PFBA	749759.8	0.435	9.300	6.392	69	50-150	
E13C2-4:2-FTS	42833.5	13C2-PFOA	509083.9	0.084	9.340	7.593	81	50-150	
E13C5-PFHxA	545230.9	13C2-PFOA	509083.9	1.071	10.000	7.879	79	50-150	
E13C3-PFHxS	261297.1	13C2-PFOA	509083.9	0.513	9.460	7.369	78	50-150	
E13C4-PFHpA	451137.0	13C2-PFOA	509083.9	0.886	10.000	8.063	81	50-150	
E13C2-6:2-FTS	31459.8	13C2-PFOA	509083.9	0.062	9.500	8.242	87	50-150	
E13C8-PFOA	767473.5	13C2-PFOA	509083.9	1.508	10.000	8.408	84	50-150	
E13C8-PFOS	233137.0	13C4-PFOS	286757.5	0.813	9.560	7.190	75	50-150	
E13C9-PFNA	389268.9	13C4-PFOS	286757.5	1.357	10.000	7.416	74	50-150	
E13C6-PFDA	517998.4	13C2-PFDA	321185.5	1.613	10.000	8.112	81	50-150	
E13C2-8:2-FTS	23303.5	13C2-PFDA	321185.5	0.073	9.580	7.678	80	50-150	
E13C8-PFOSA	575020.1	13C2-PFDA	321185.5	1.790	10.000	7.813	78	50-150	
Ed3-NMeFOSAA	72535.2	13C2-PFDA	321185.5	0.226	10.000	8.399	84	50-150	
E13C7-PFUnDA	229773.9	13C2-PFDA	321185.5	0.715	10.000	8.254	83	50-150	
Ed5-NEtFOSAA	50550.1	13C2-PFDA	321185.5	0.157	10.000	7.284	73	50-150	
E13C2-PFDoDA	461781.3	13C2-PFDA	321185.5	1.438	10.000	7.752	78	50-150	
Ed7-NMePFOSAE	267527.4	13C2-PFDA	321185.5	0.833	10.000	7.747	77	50-150	
Ed3-NMePFOSA	39528.9	13C2-PFDA	321185.5	0.123	10.000	4.506	45	50-150	OOS
Ed9-NEtPFOSAE	221665.3	13C2-PFDA	321185.5	0.690	10.000	7.883	79	50-150	
Ed5-NEtPFOSA	31271.6	13C2-PFDA	321185.5	0.097	10.000	4.509	45	50-150	OOS
E13C2-PFTeDA	327271.2	13C2-PFDA	321185.5	1.019	10.000	7.336	73	50-150	

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

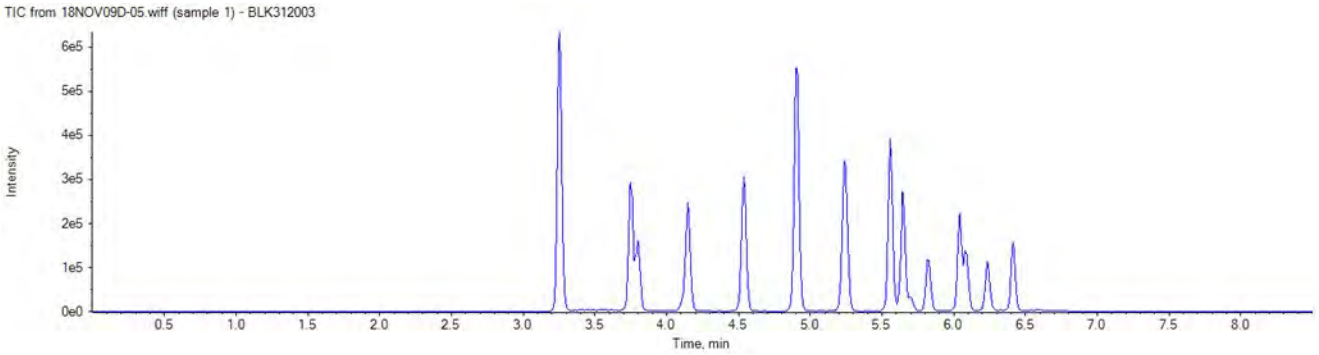
Analyte Quantitation Peak Table

Sample Name: BLK312003 **Instrument Name:** LM27631 **File Name:** 18NOV09D-05.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	3.25	638075.0	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.75	662379.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	326492.0	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	42833.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	545230.9	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	326492.0	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	261297.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	451137.0	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.89	31459.8	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	261297.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	767473.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.23	233137.0	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	389268.9	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	233137.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	517998.4	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	23303.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	575020.1	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	72535.2	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.23	233137.0	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	229773.9	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	50550.1	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	461781.3	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	23303.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	267527.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	39528.9	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	233137.0	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.23	221665.3	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.25	31271.6	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	461781.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	327271.2	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	327271.2	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	327271.2	N/A	

Total Ion Chromatogram

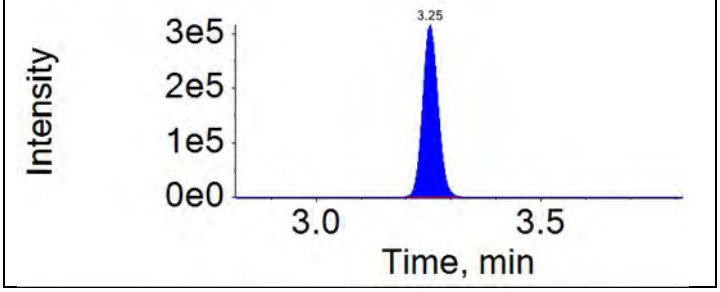


APPROVED
By MCD at 8:48 pm, 11/9/18

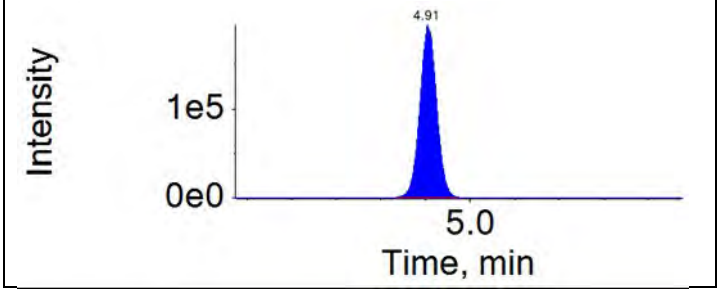
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

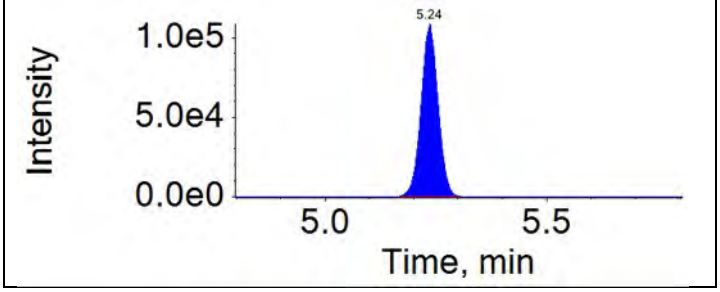
Injection Standard: 13C3-PFBA
216.0 / 172.0



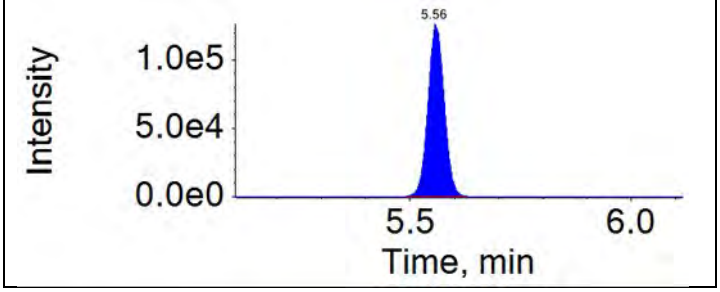
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

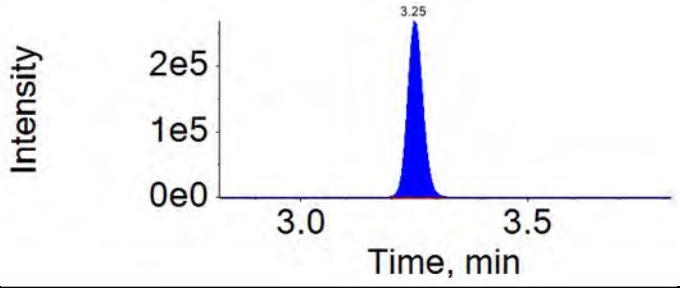


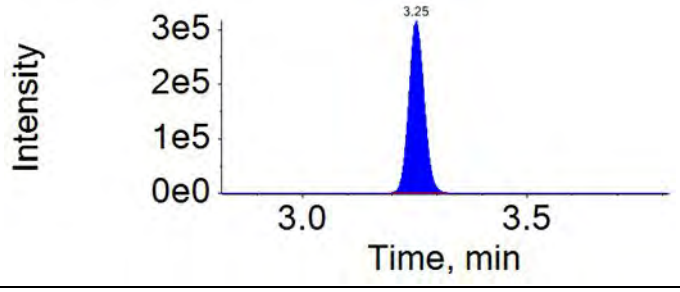
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

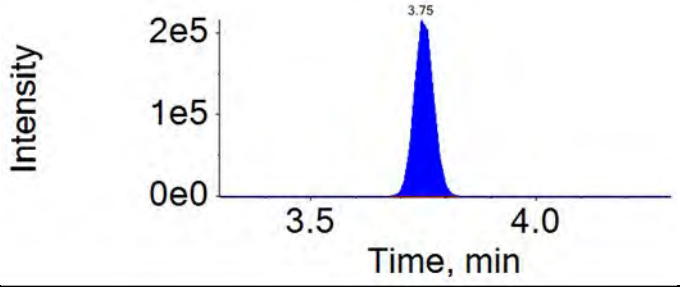
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

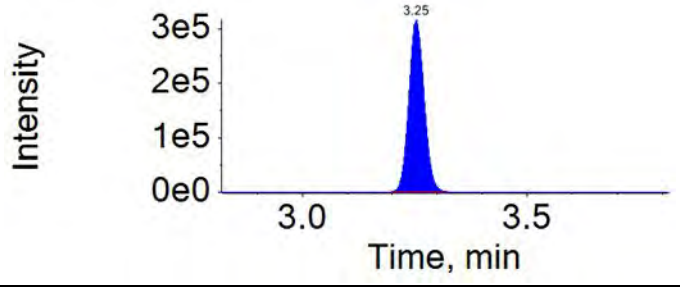
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



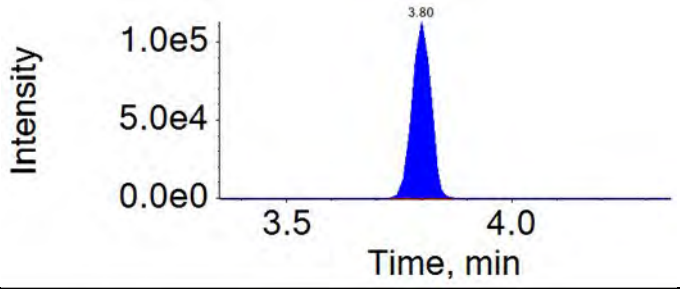


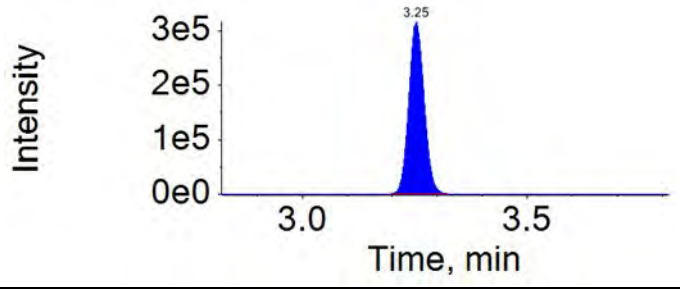
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



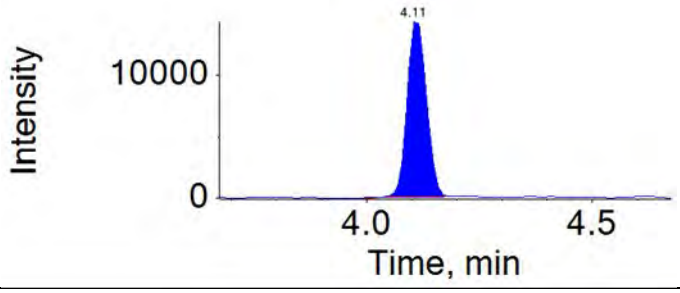


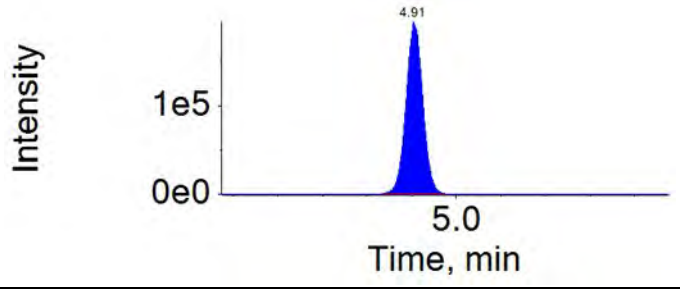
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





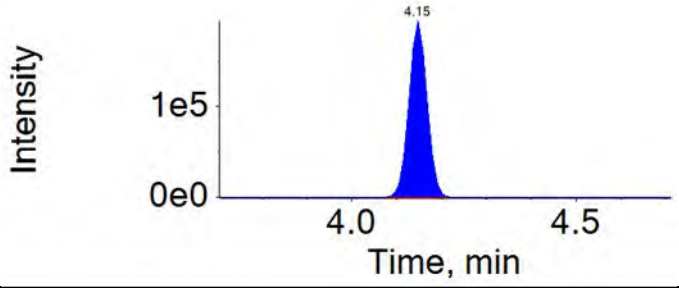
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

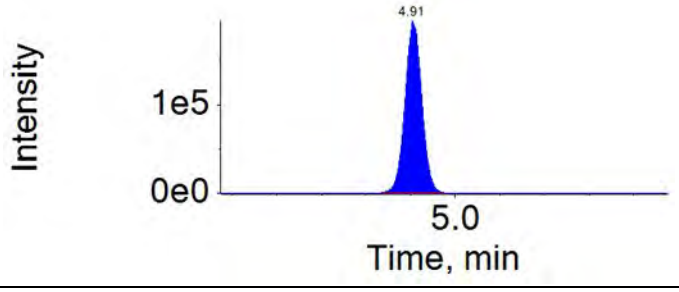




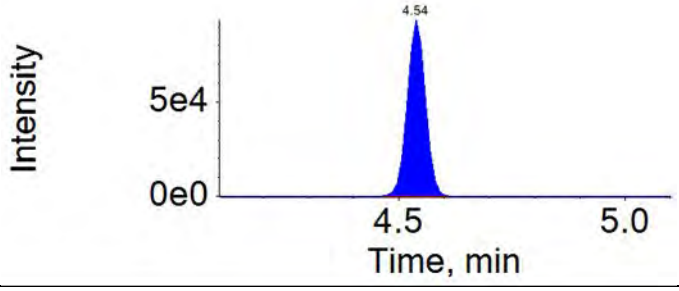
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

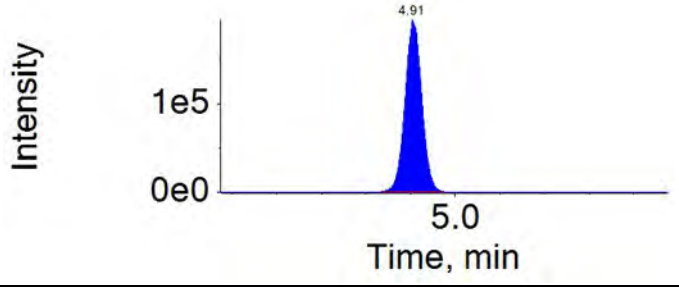
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



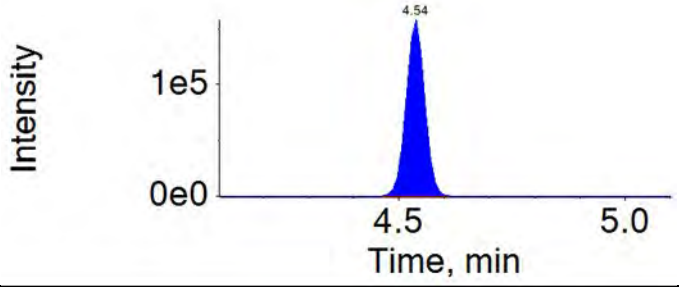


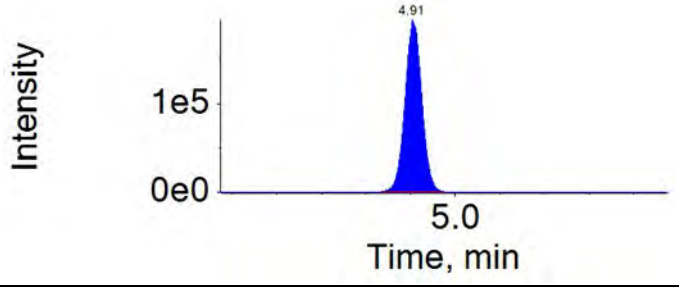
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



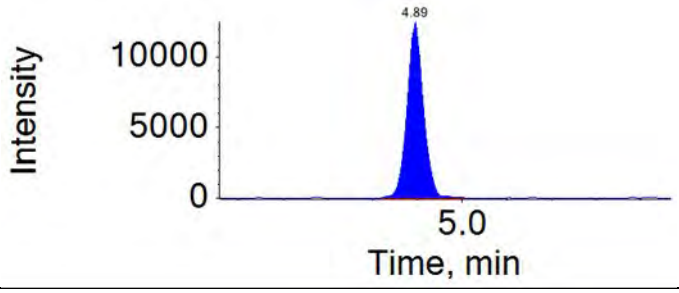


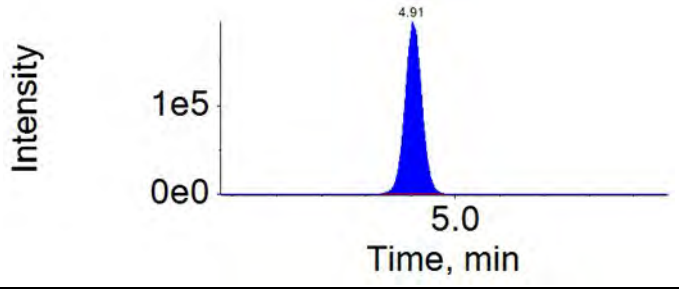
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

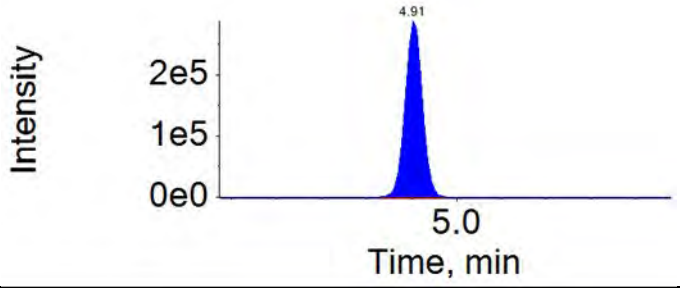
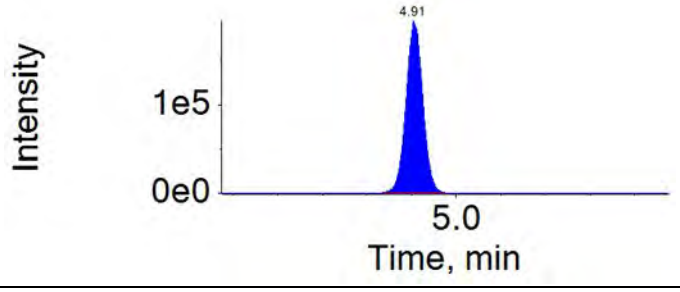


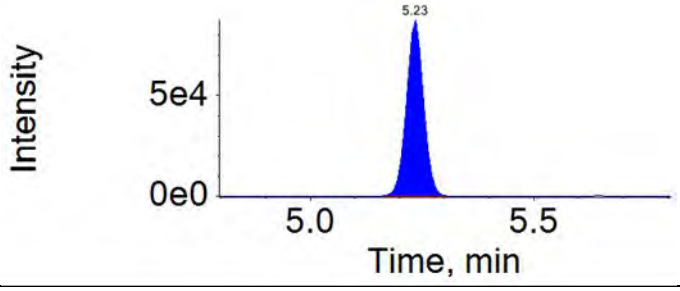
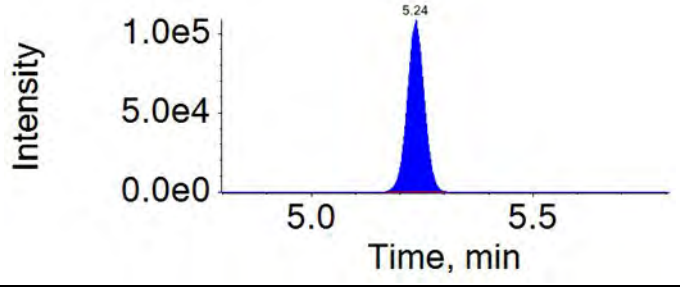


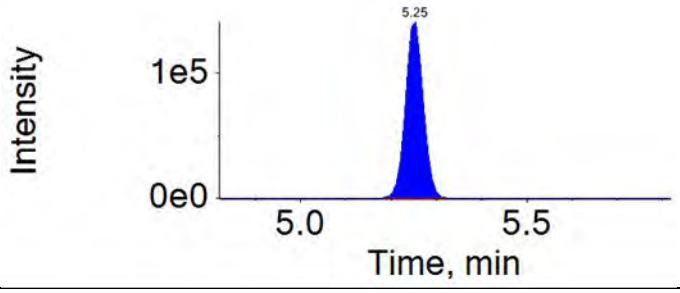
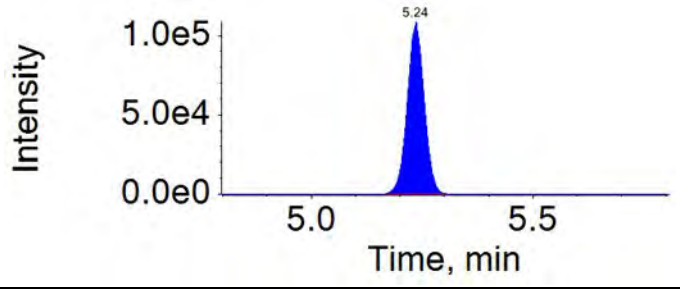
APPROVED
By MCD at 8:48 pm, 11/9/18

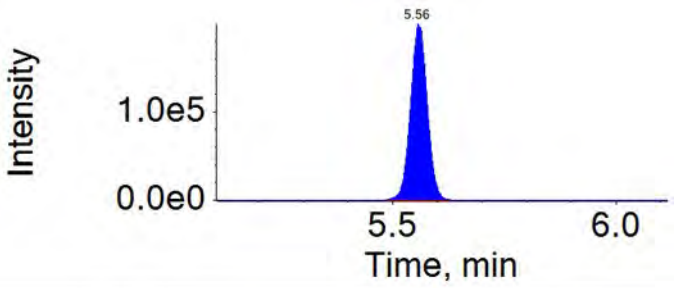
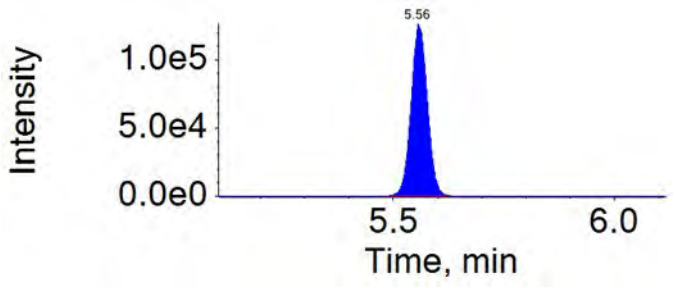
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

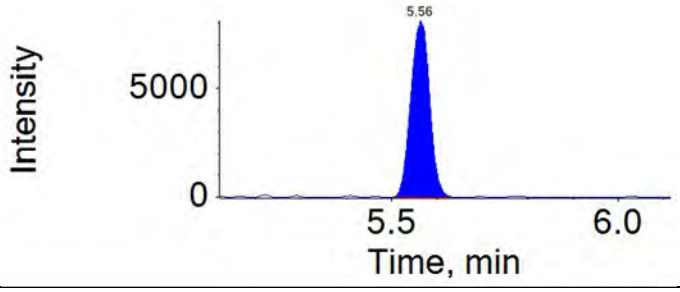
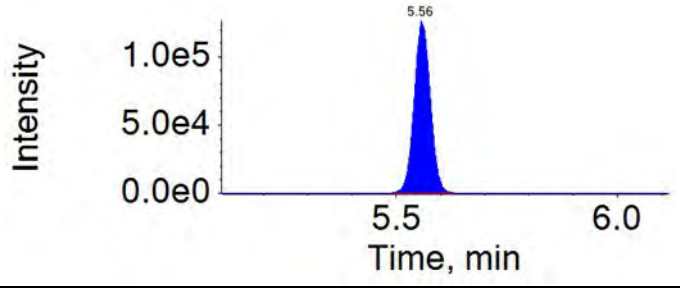
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

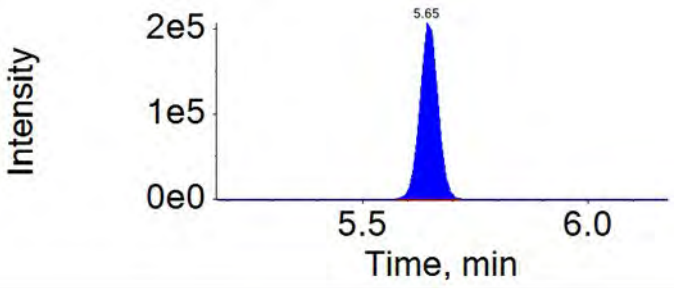
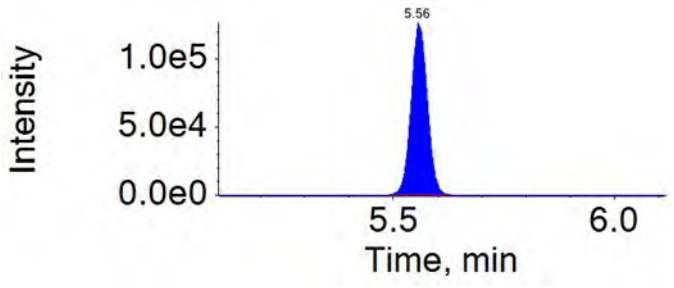
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

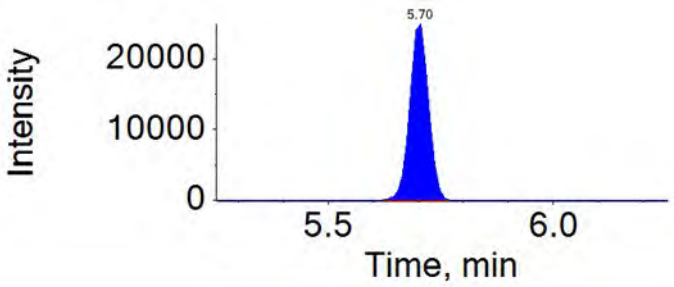
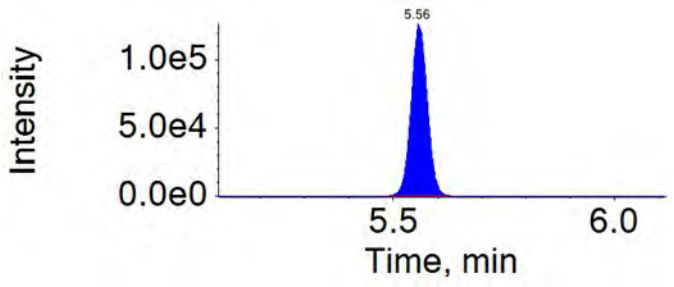
APPROVED
By MCD at 8:48 pm, 11/9/18

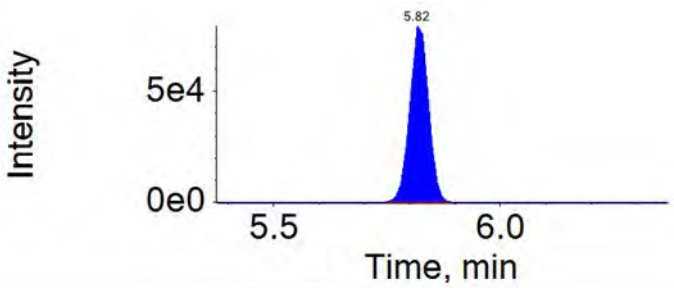
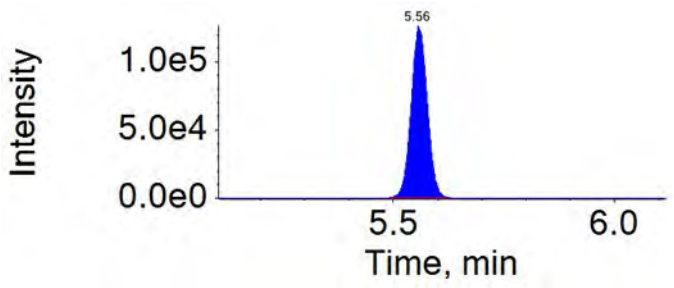
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

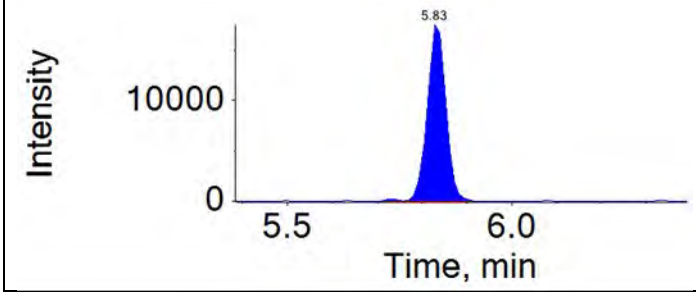
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

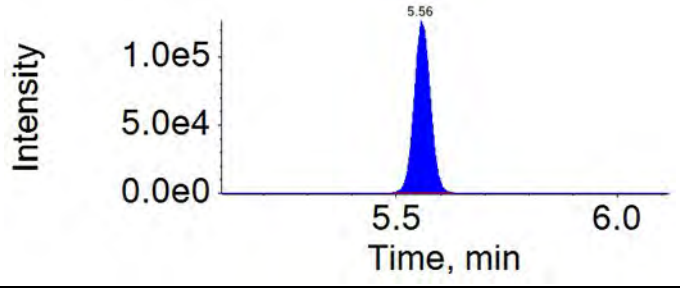
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

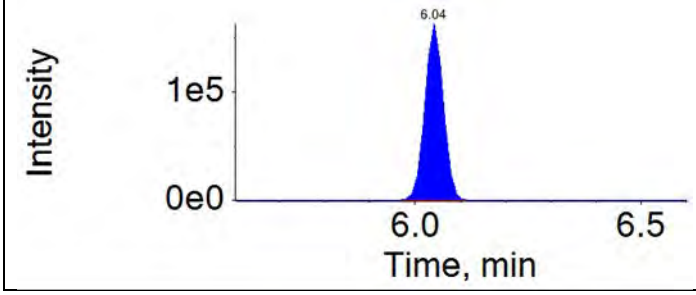
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

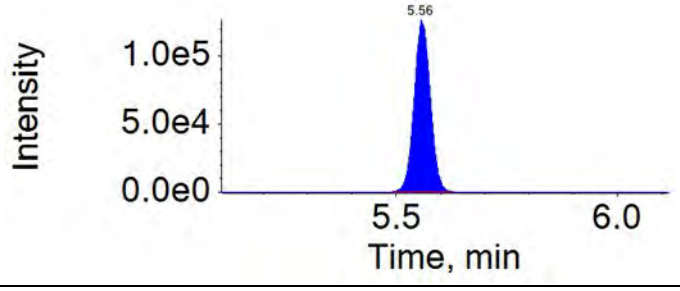
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



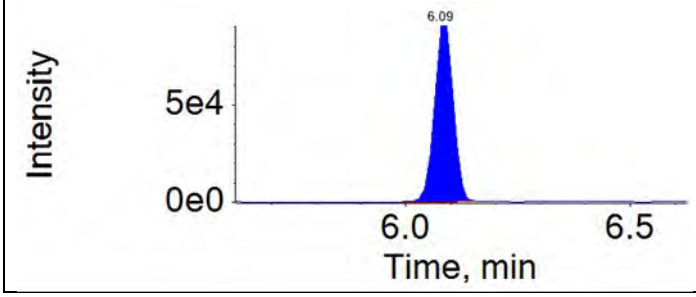


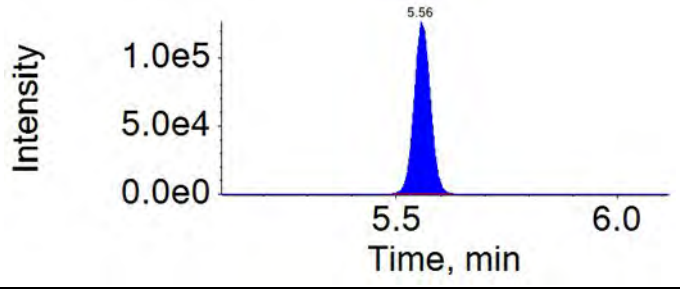
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



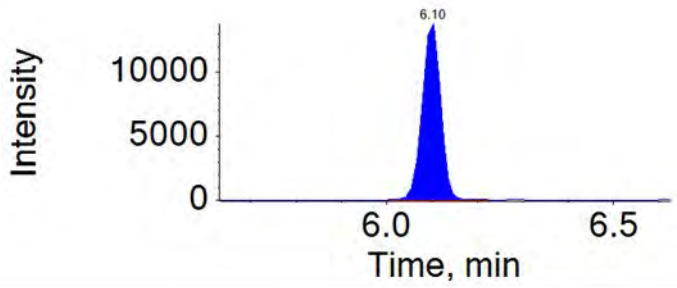


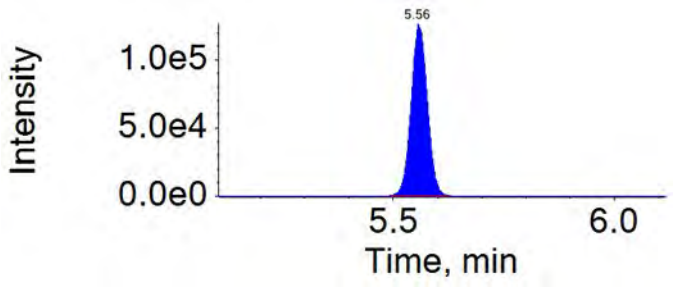
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



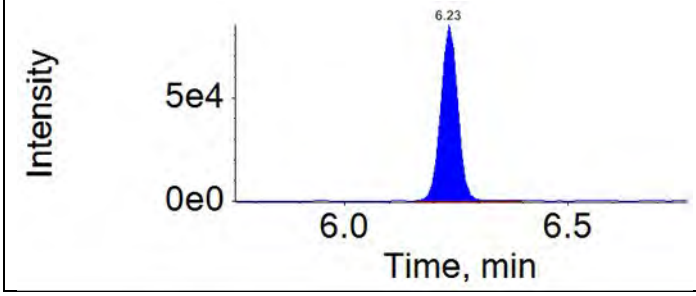


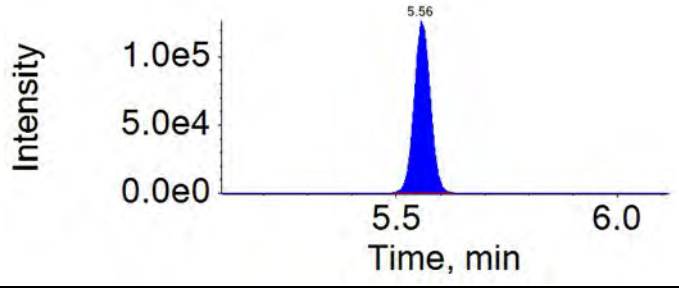
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

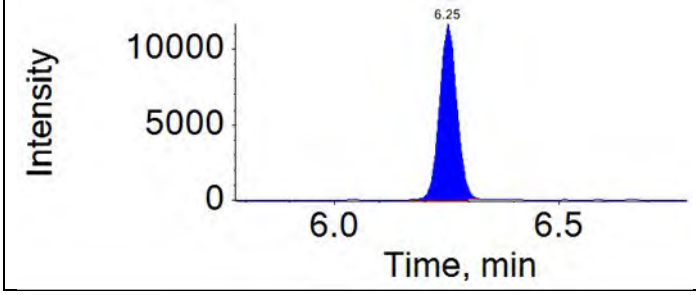
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

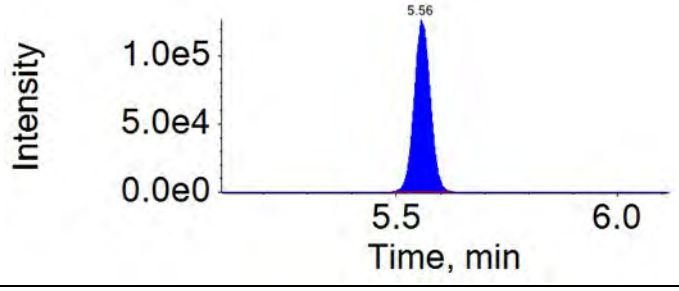
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



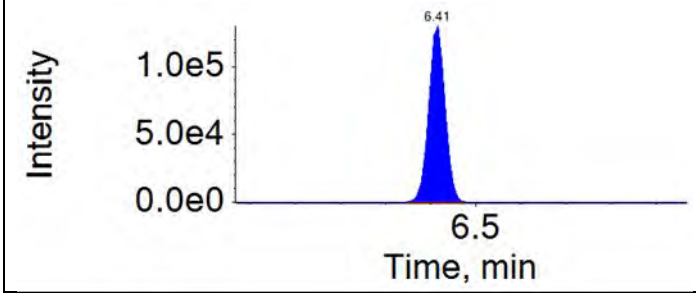


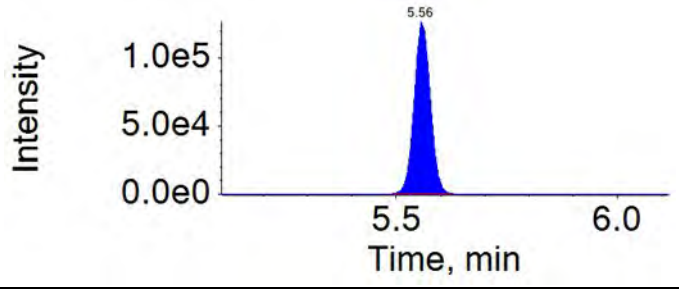
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



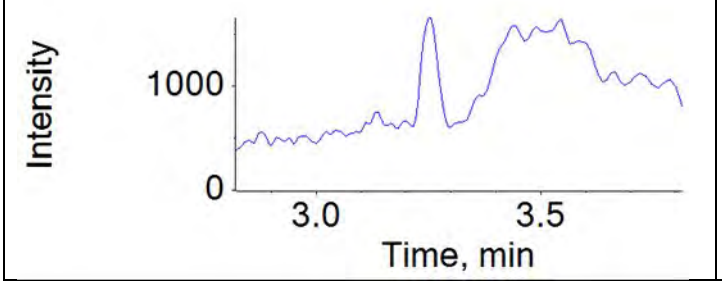


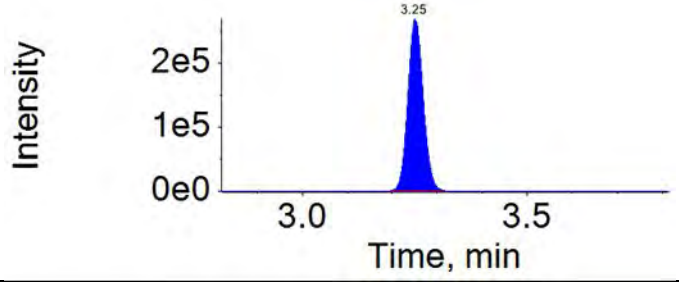
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

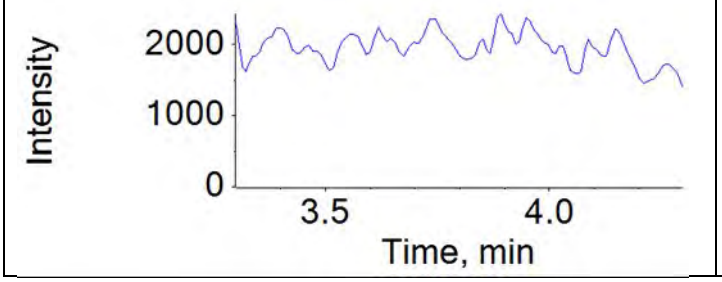
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

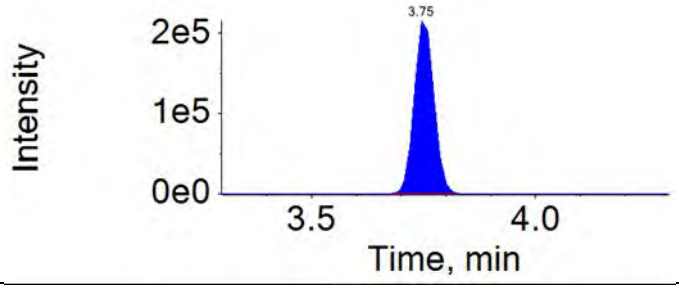
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



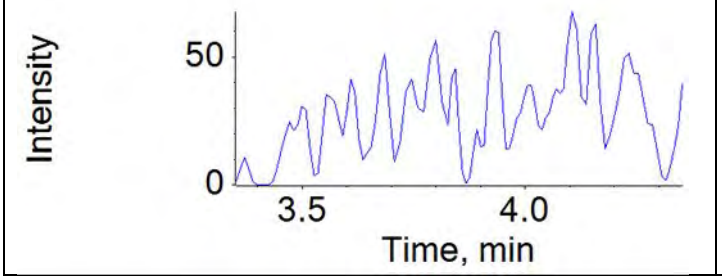


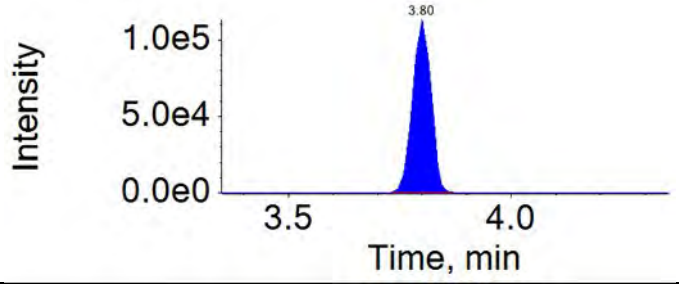
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



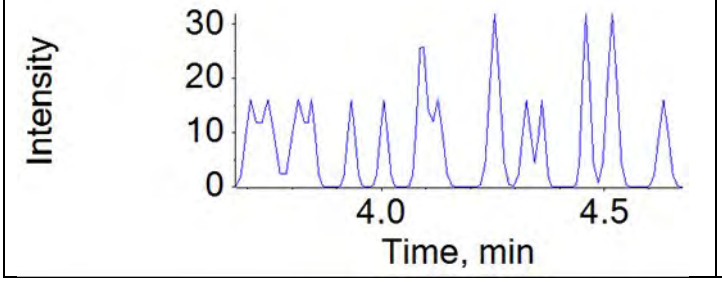


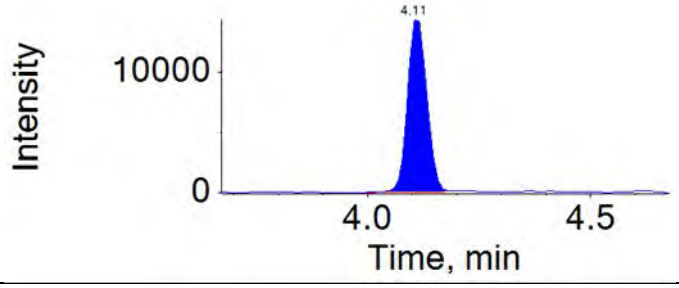
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



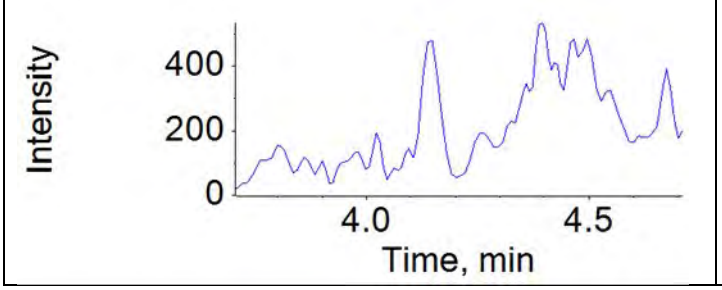


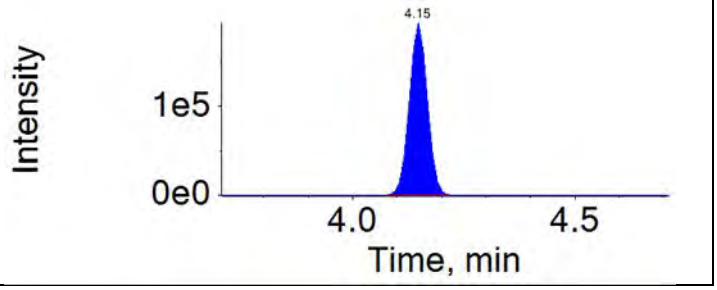
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

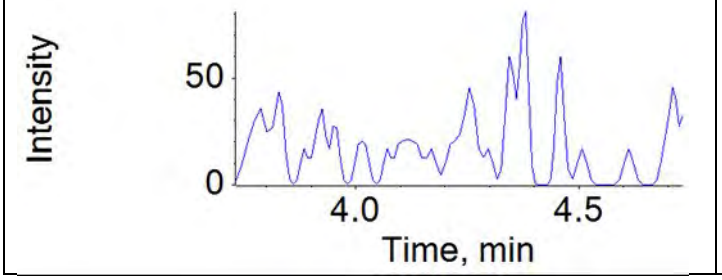
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

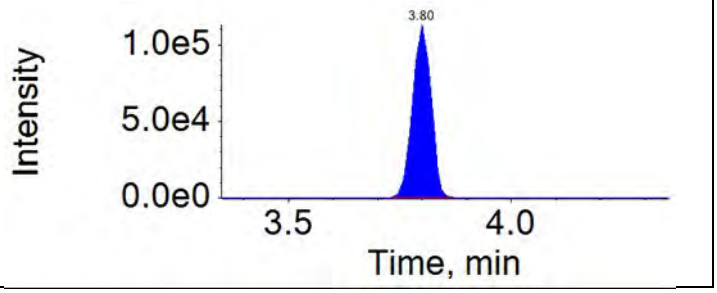
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



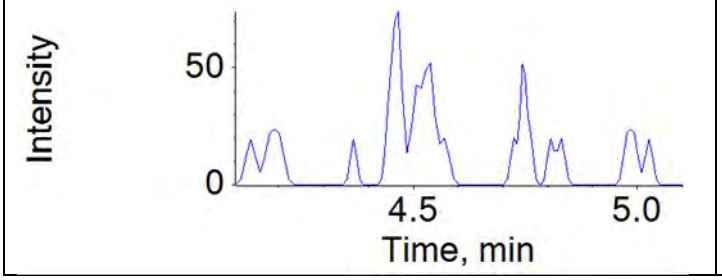


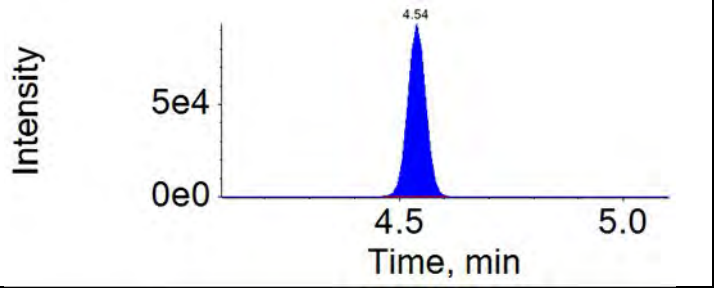
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



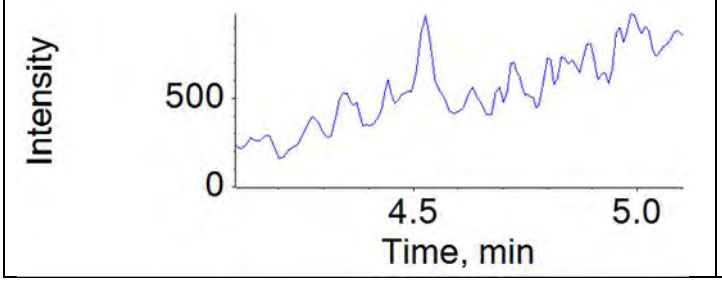


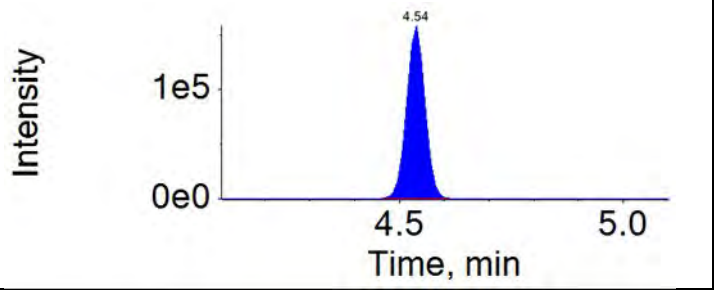
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



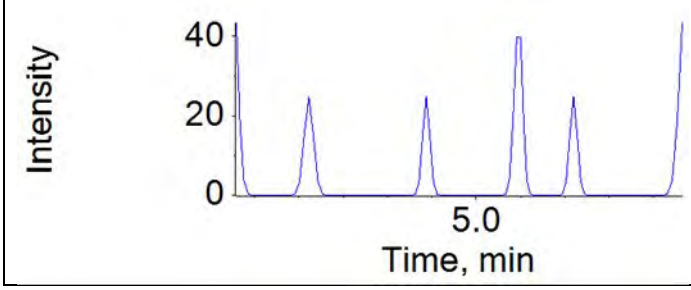
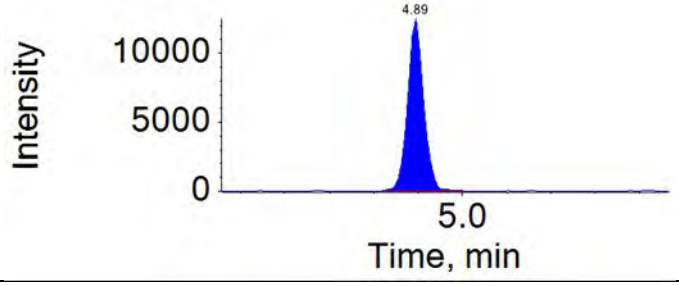


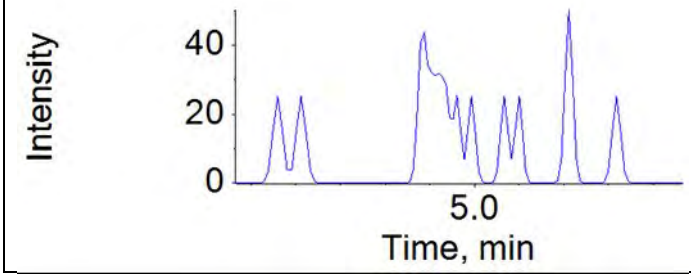
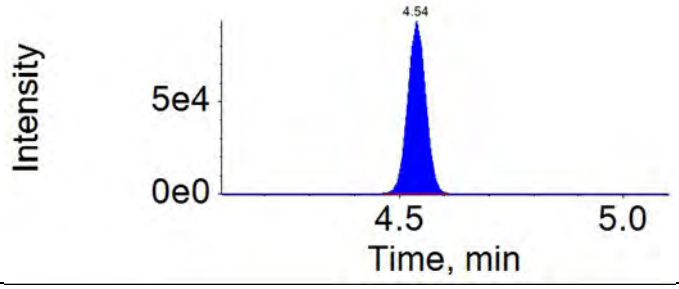
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

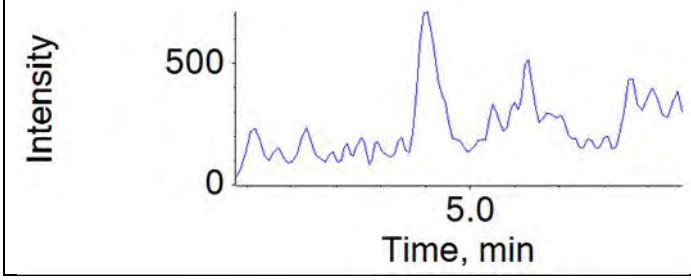
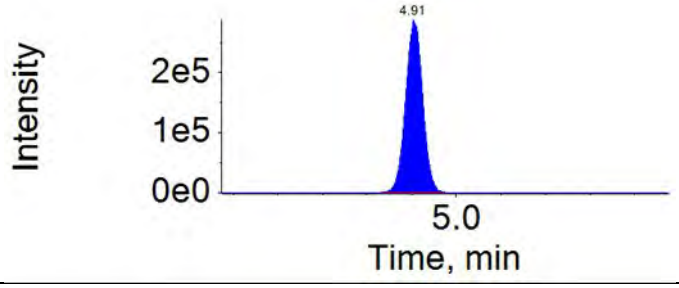


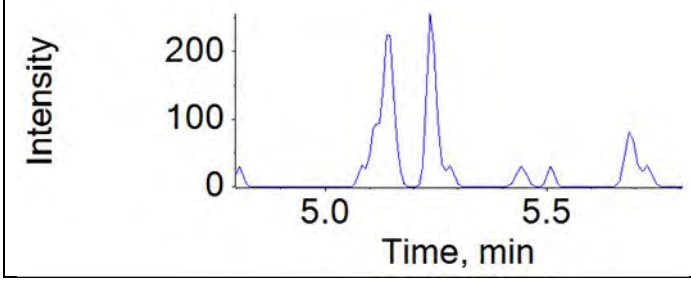
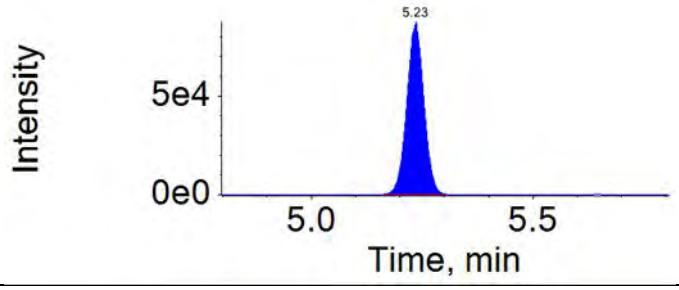


ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

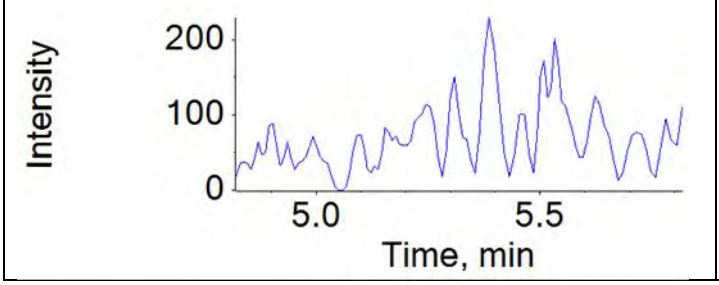
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

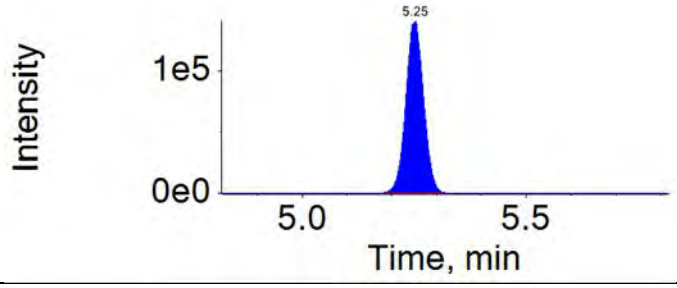
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

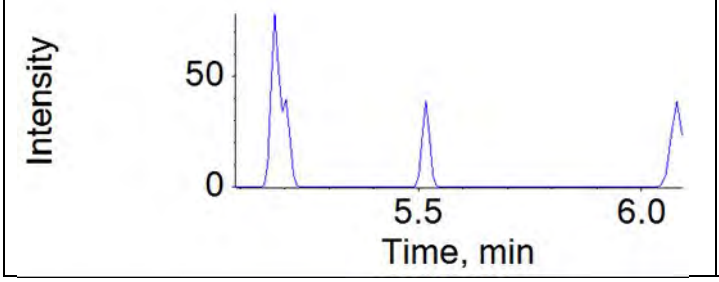
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

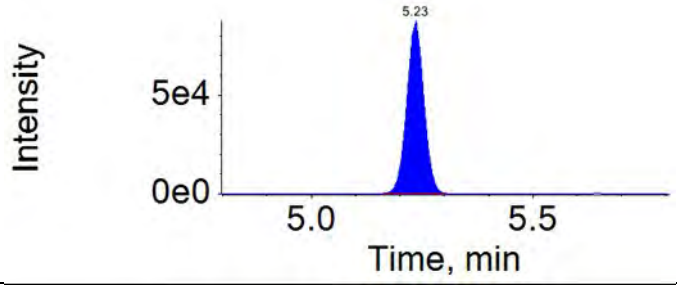
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



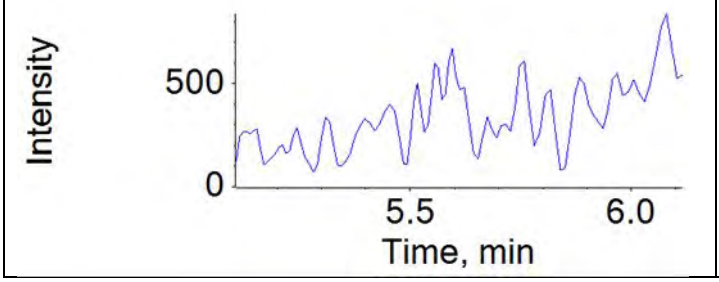


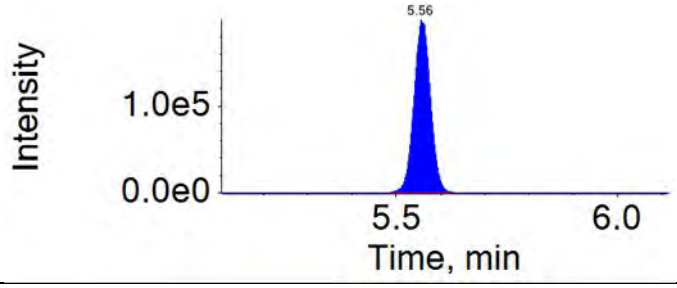
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



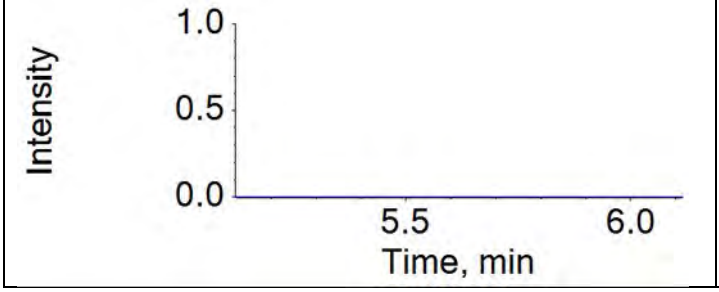


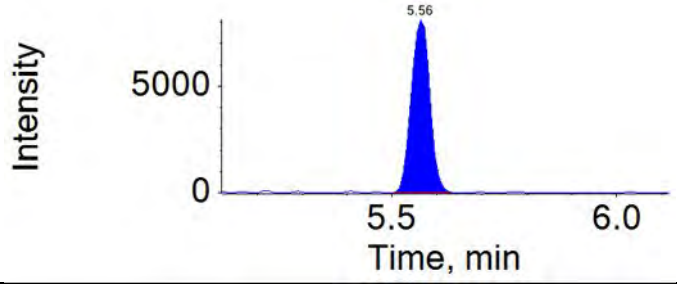
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



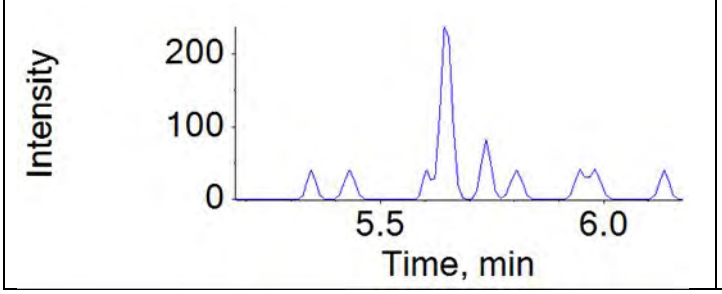


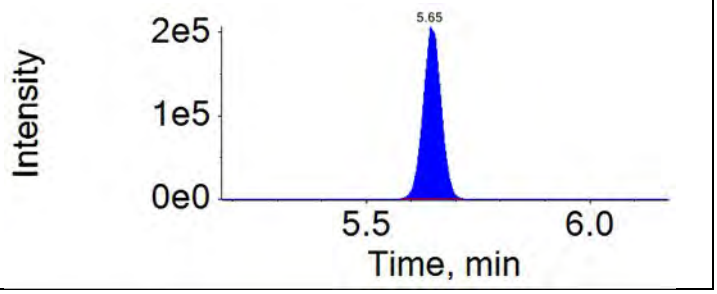
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

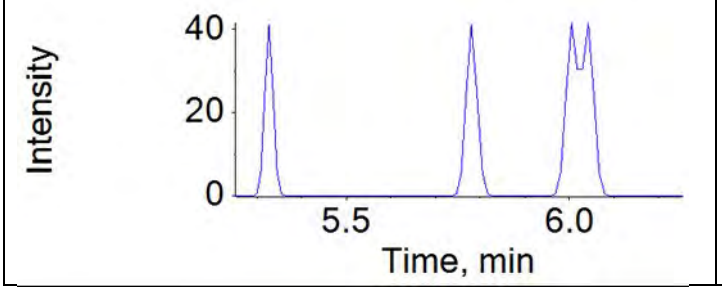
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

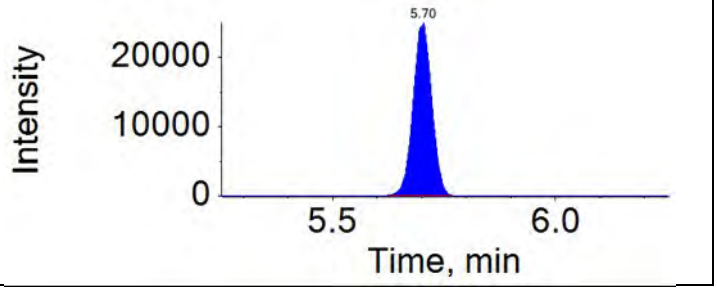
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



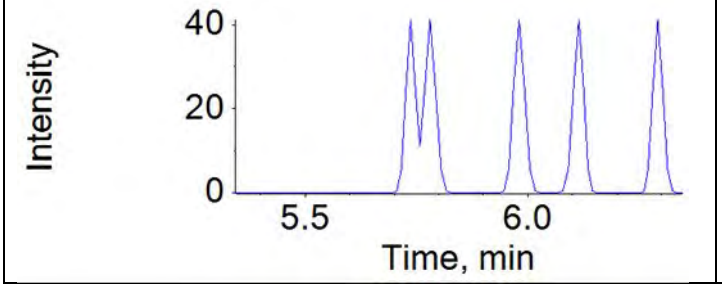


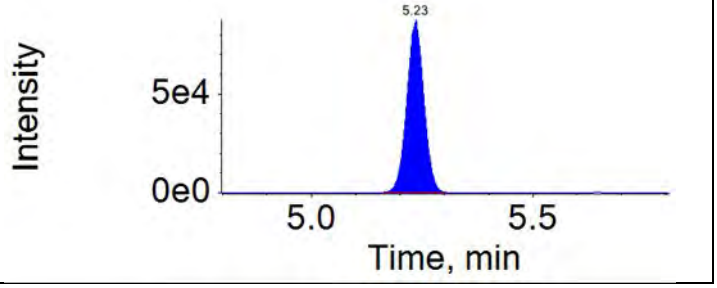
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



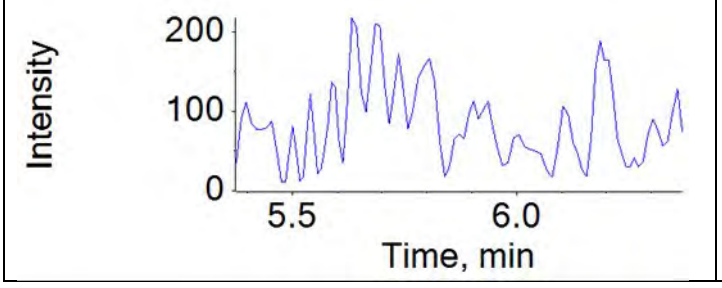


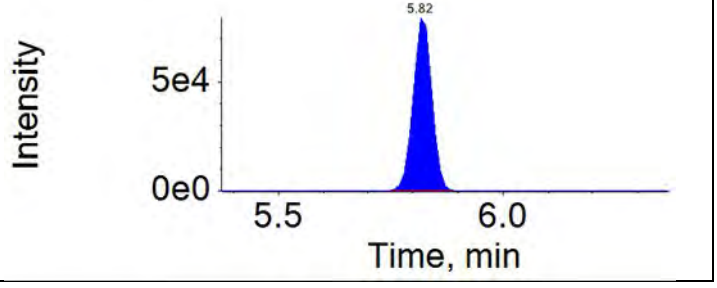
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



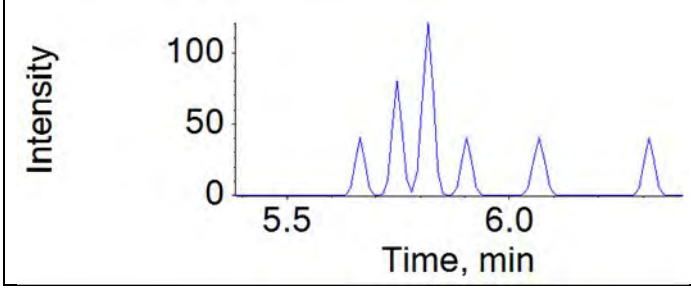


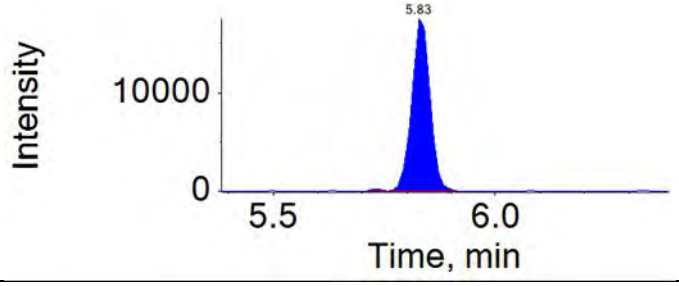
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

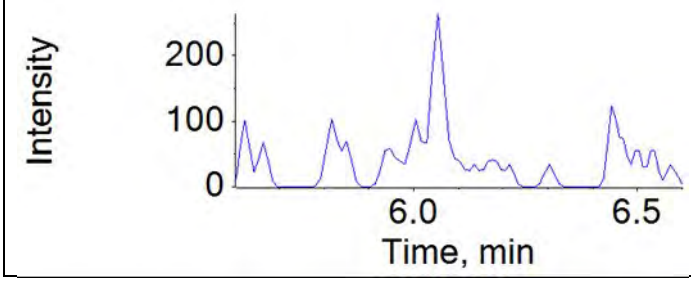
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

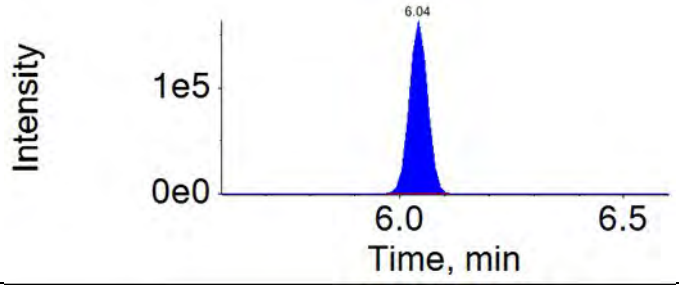
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



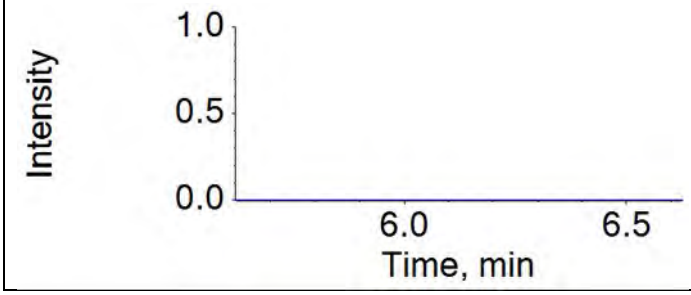


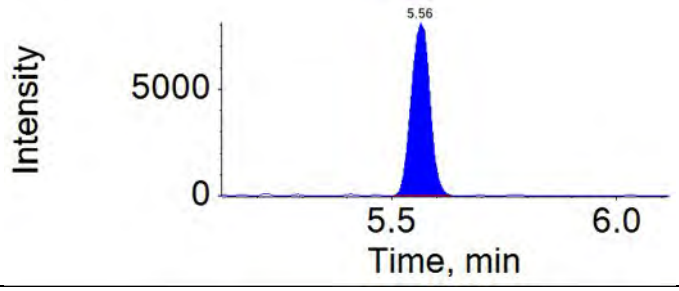
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



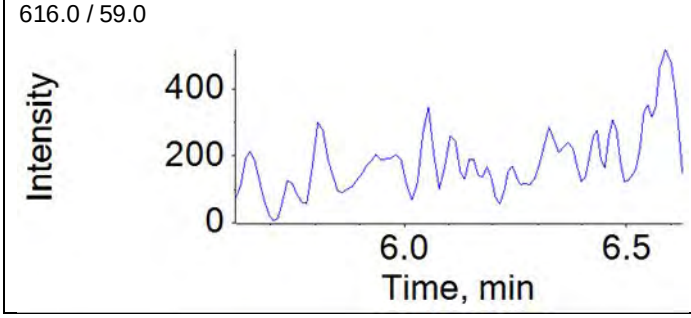


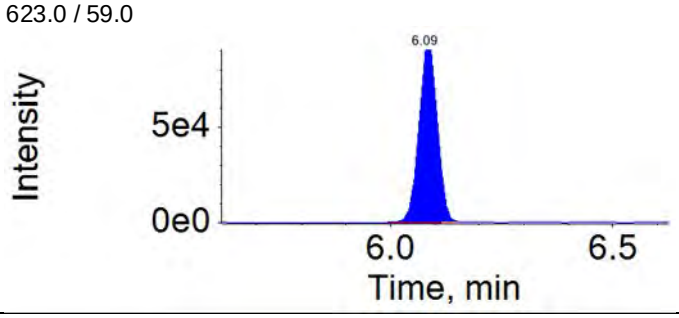
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





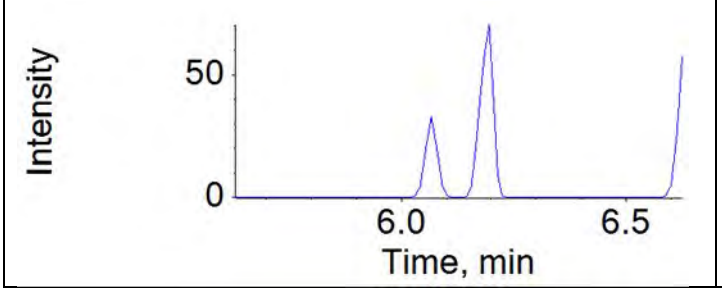
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

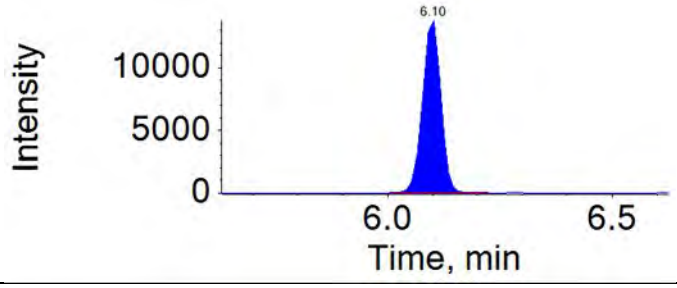




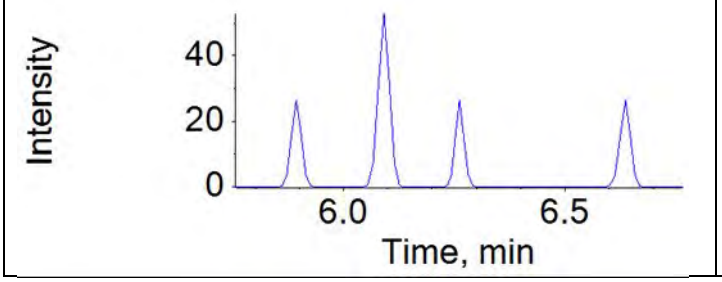
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

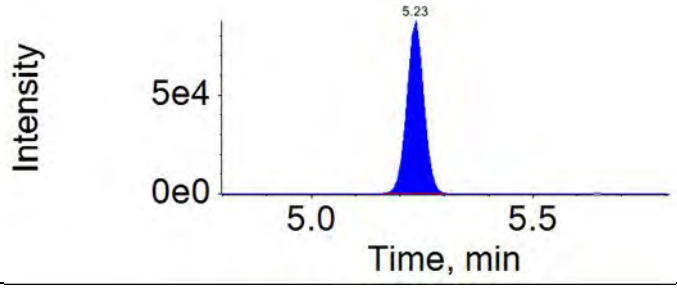
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



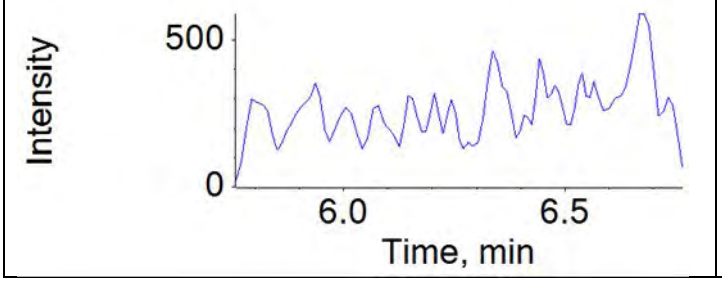


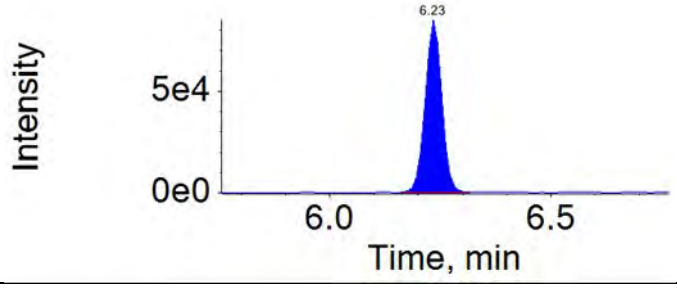
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



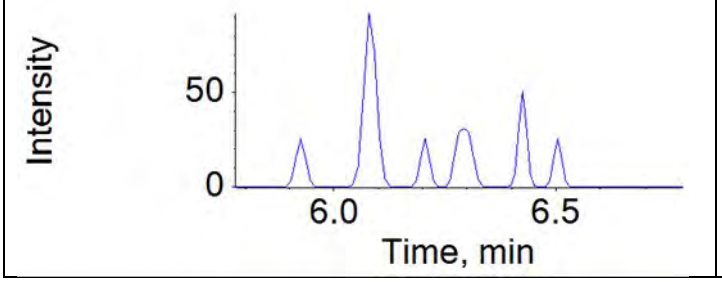


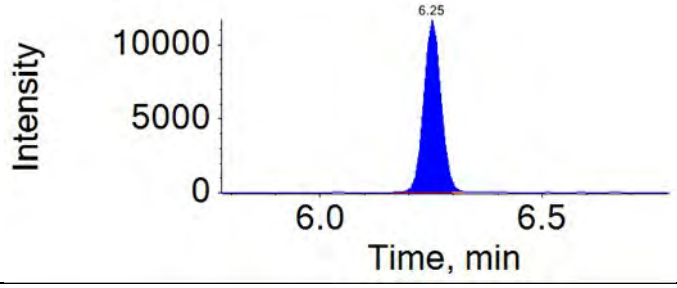
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

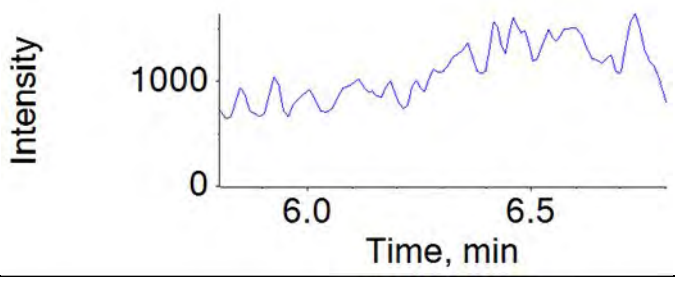
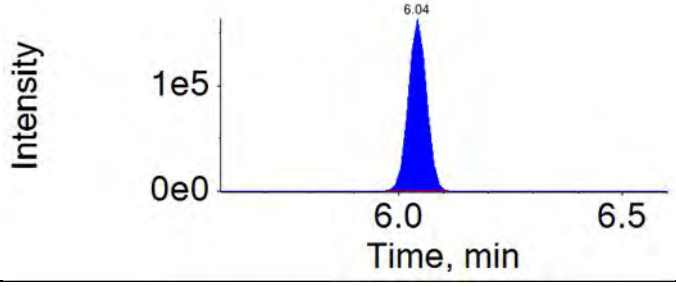


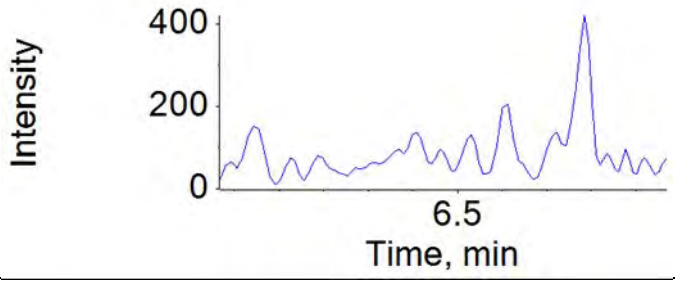
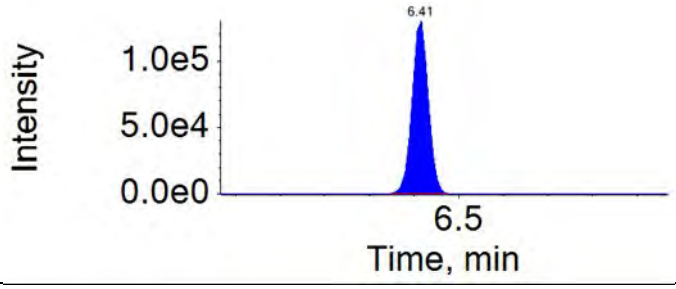


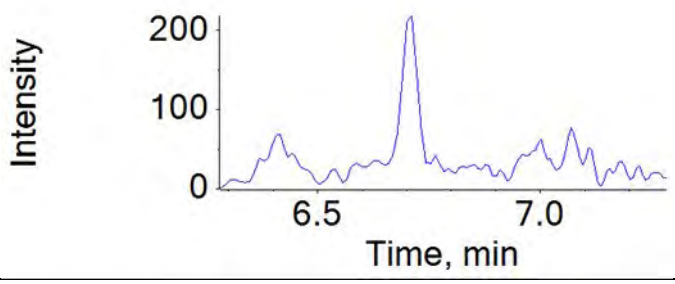
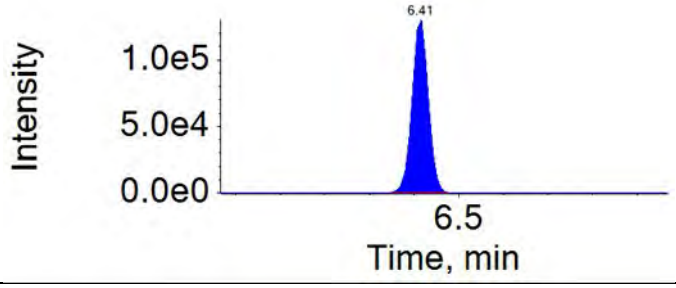
APPROVED
By MCD at 8:48 pm, 11/9/18

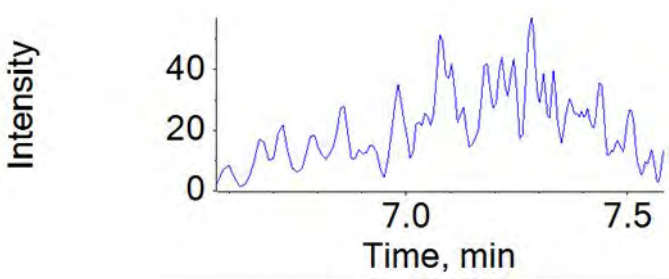
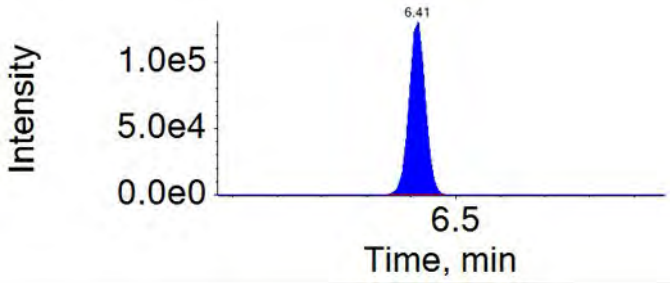
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Ion Ratio Report

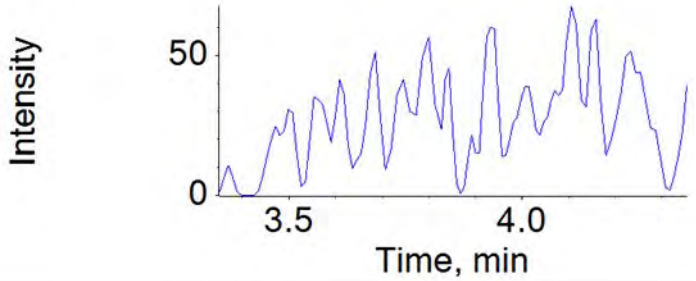
Sample Name: BLK312003 **Instrument Name:** LM27631 **File Name:** 18NOV09D-05.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

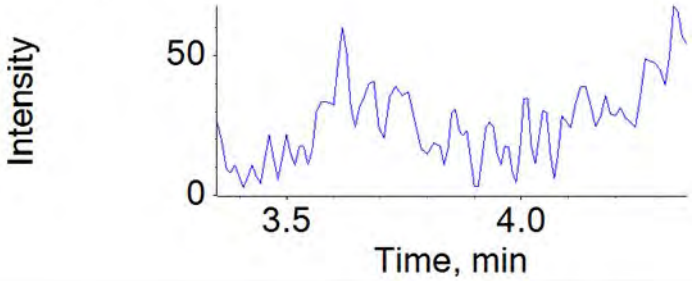
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

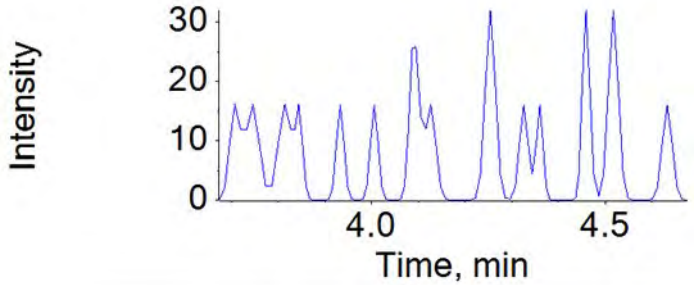
Component: PFBS
Primary Mass: 299.0 / 80.0



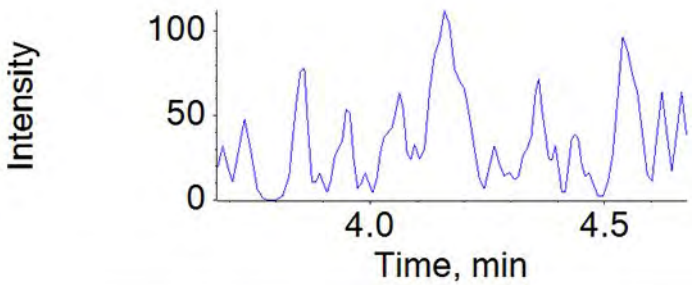
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



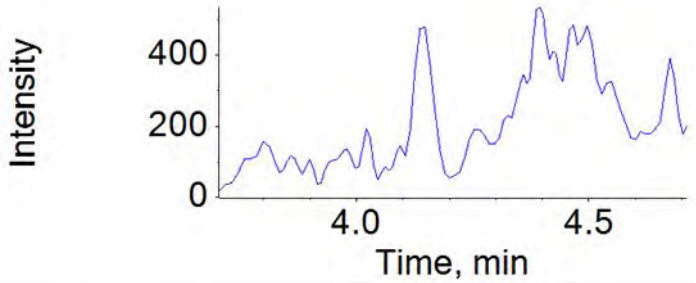
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



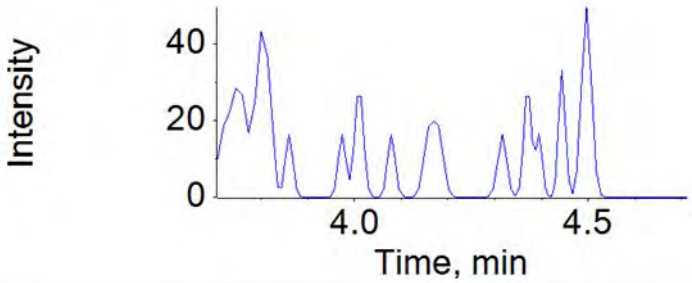
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



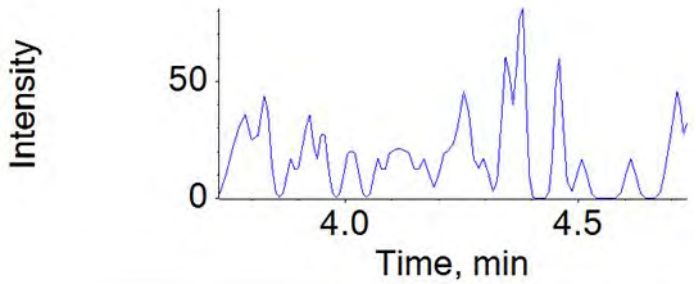
Component: PFHxA
Primary Mass: 313.0 / 269.0



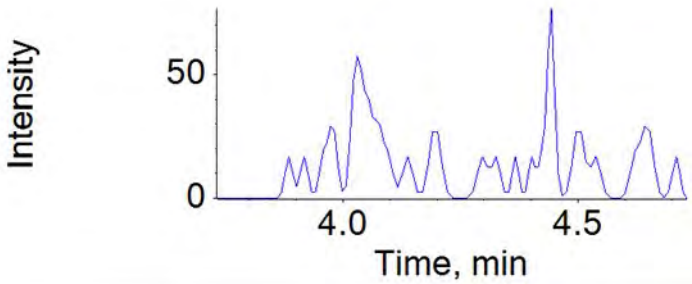
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



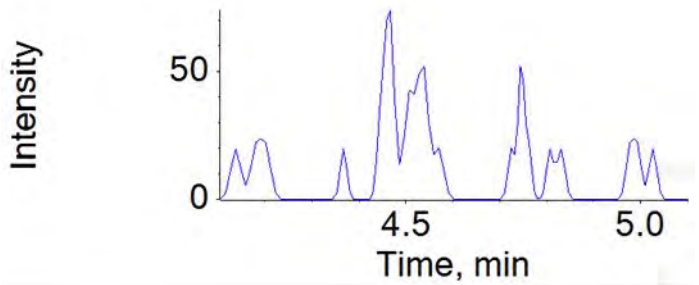
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



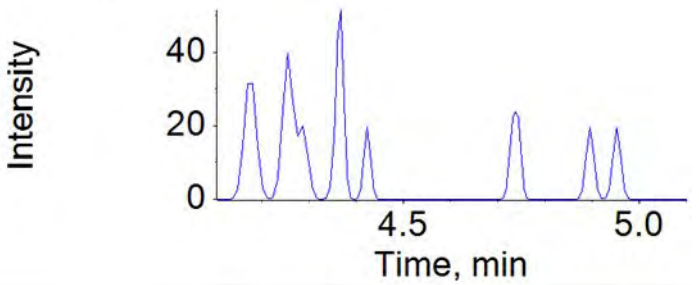
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

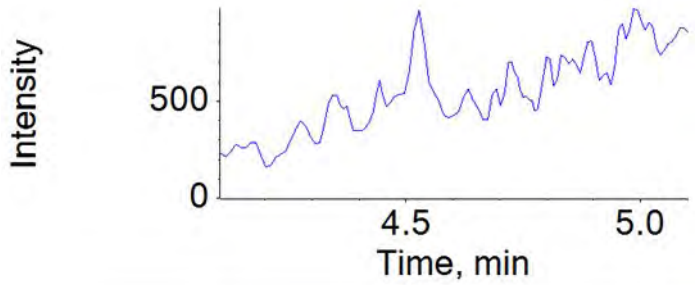
Component: PFHxS
Primary Mass: 399.0 / 80.0



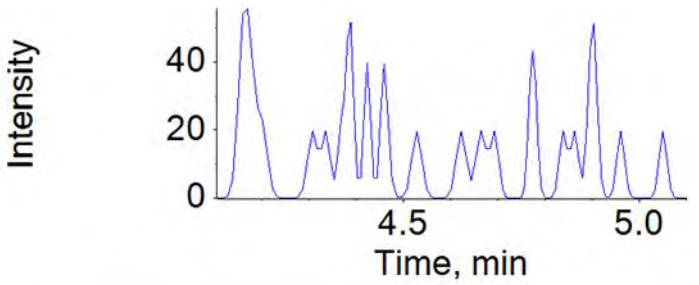
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



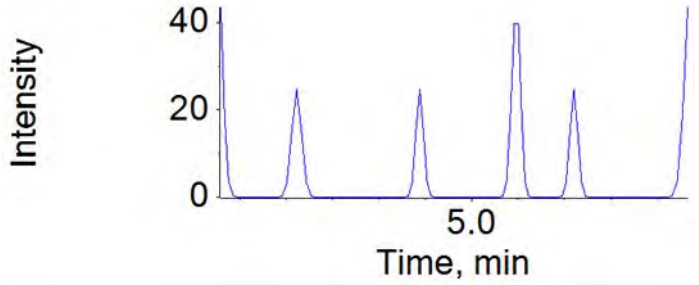
Component: PFHpA
Primary Mass: 363.0 / 319.0



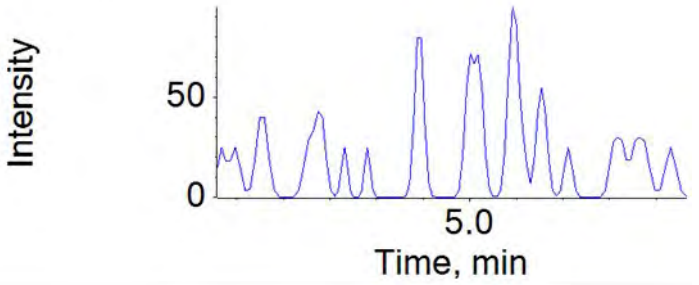
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



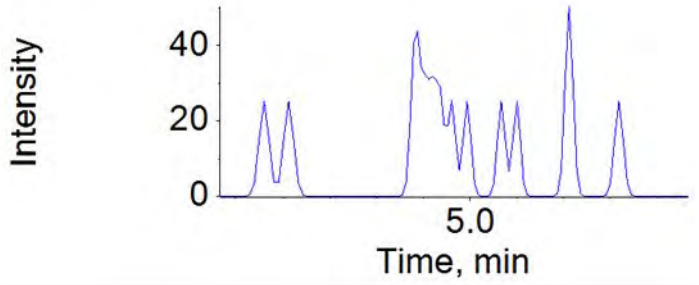
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



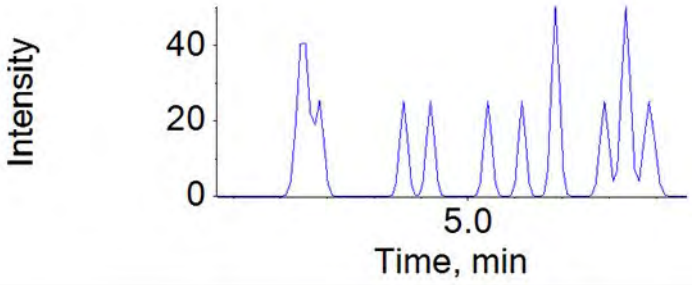
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



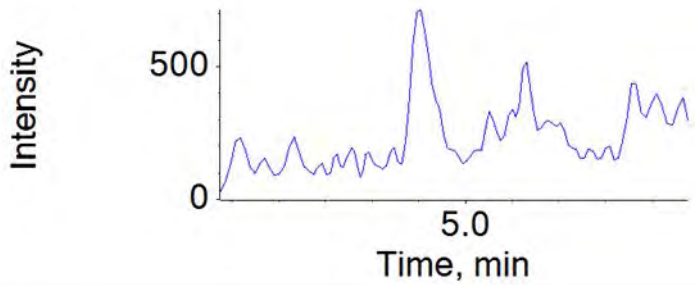
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



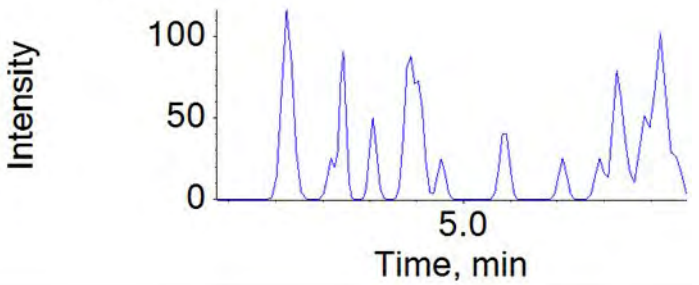
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

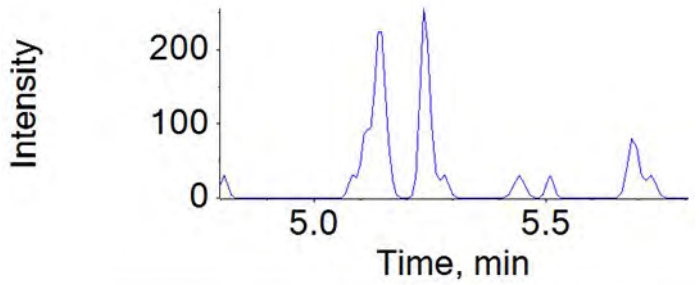
Component: PFOA
Primary Mass: 413.0 / 369.0



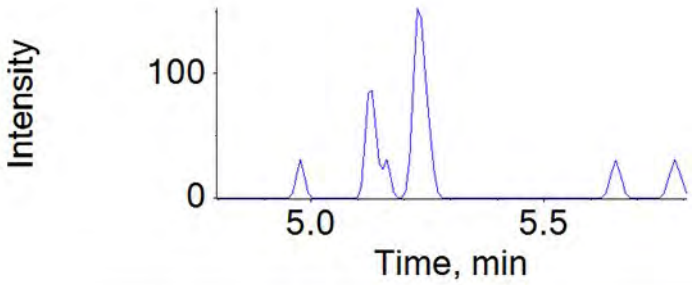
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



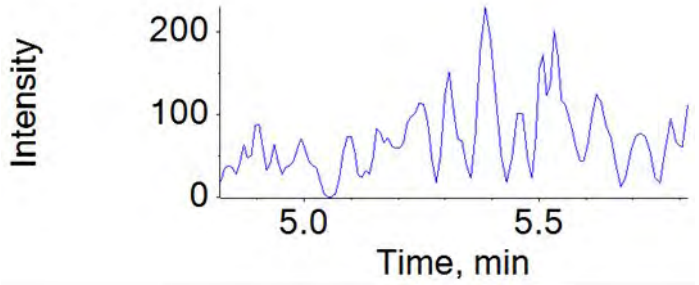
Component: PFOS
Primary Mass: 499.0 / 80.0



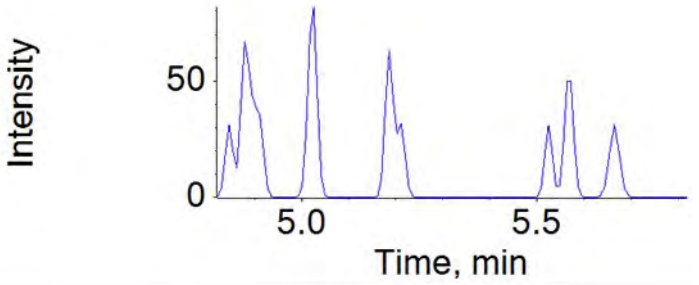
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



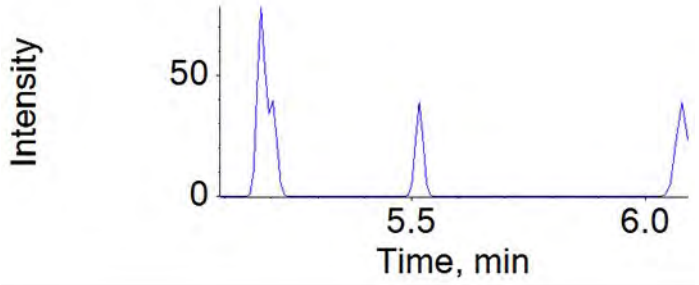
Component: PFNA
Primary Mass: 463.0 / 419.0



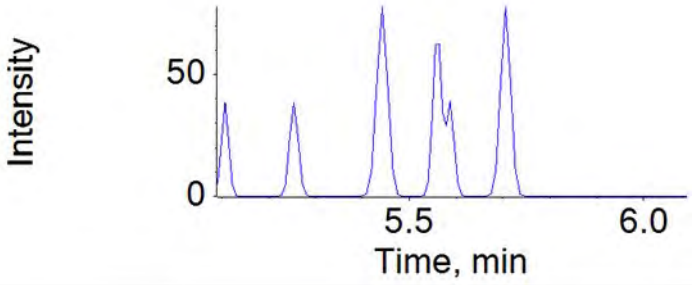
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



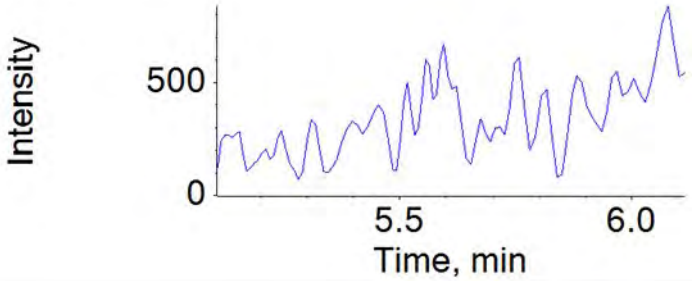
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



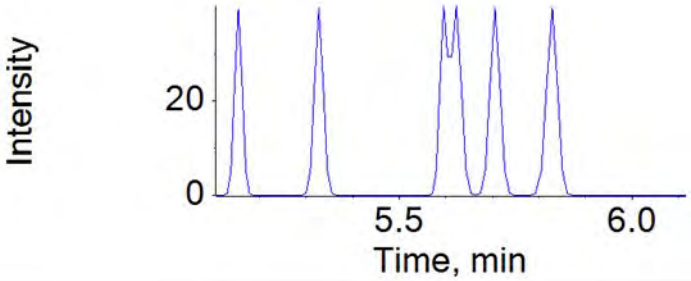
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

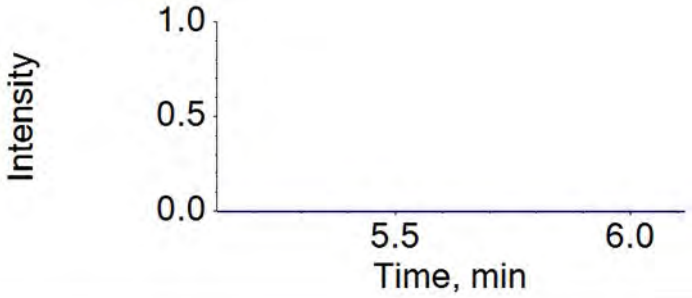
Component: PFDA
Primary Mass: 513.0 / 469.0



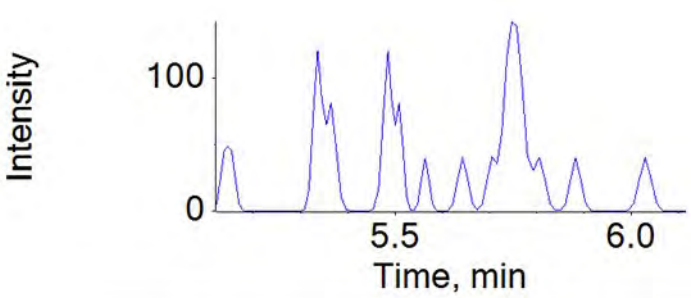
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



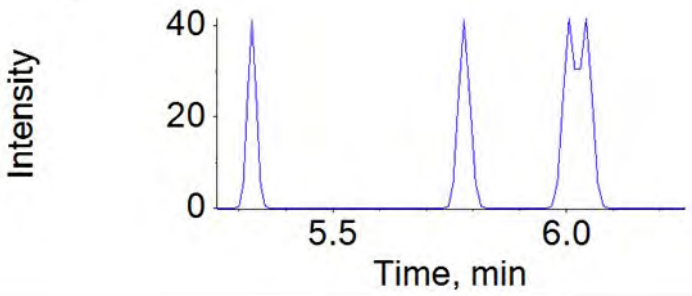
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



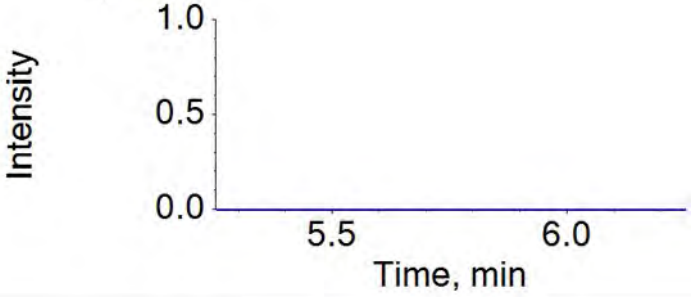
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



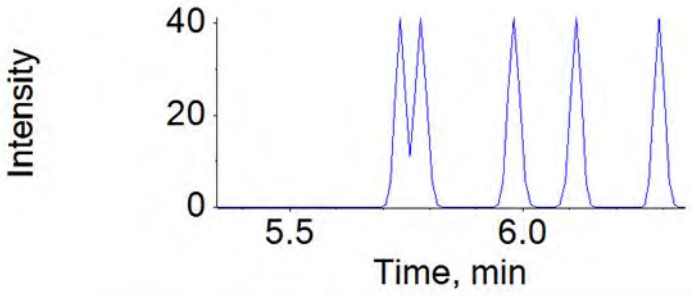
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



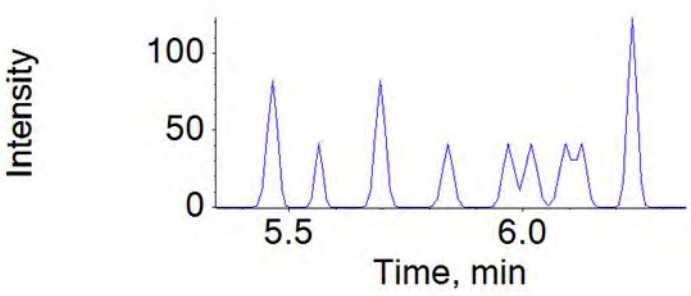
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



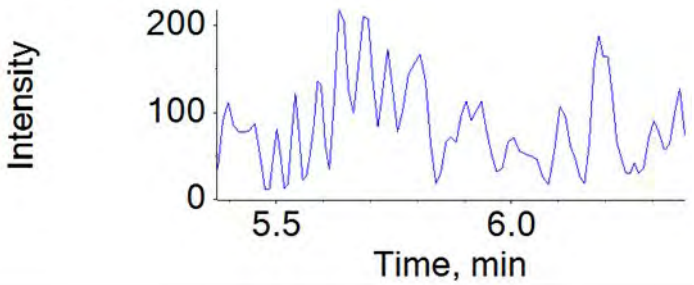
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



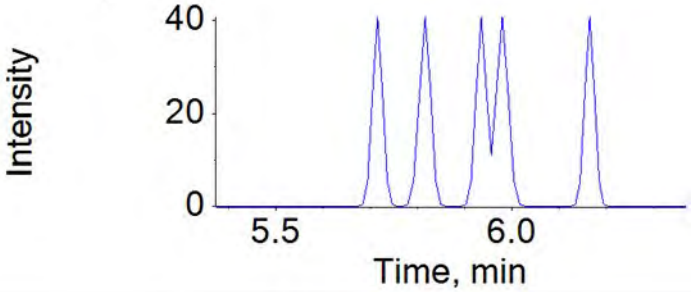
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

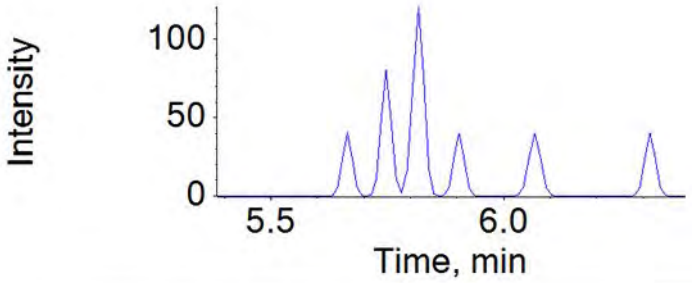
Component: PFUnDA
Primary Mass: 563.0 / 519.0



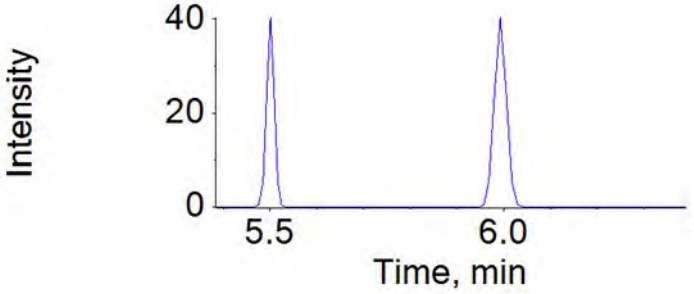
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



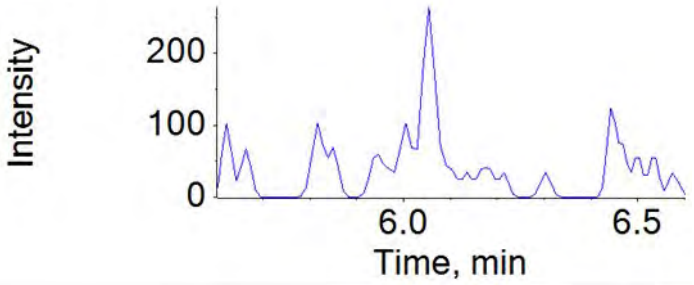
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



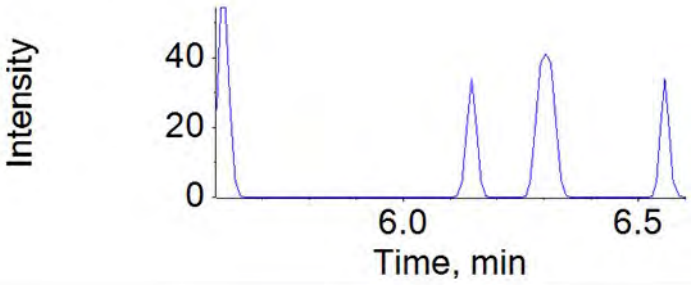
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



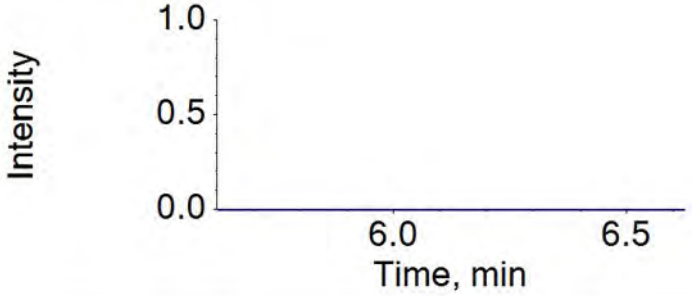
Component: PFDoDA
Primary Mass: 613.0 / 569.0



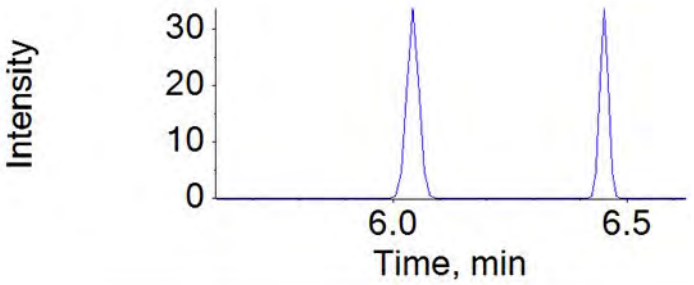
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



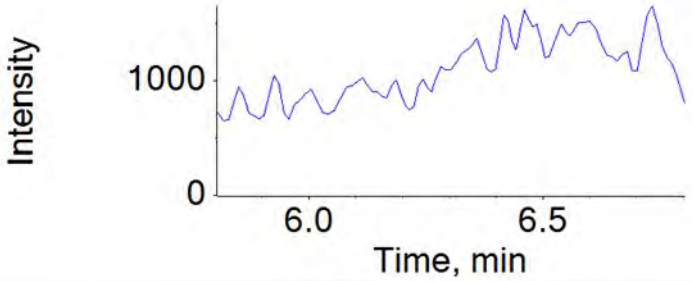
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



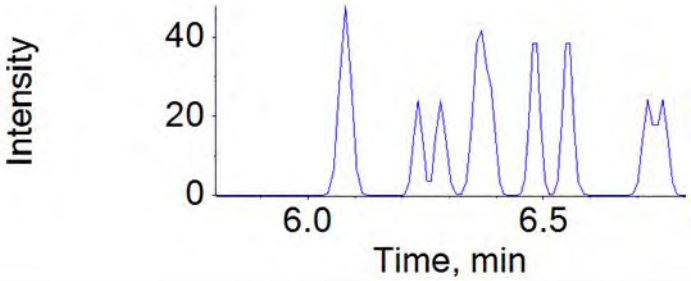
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

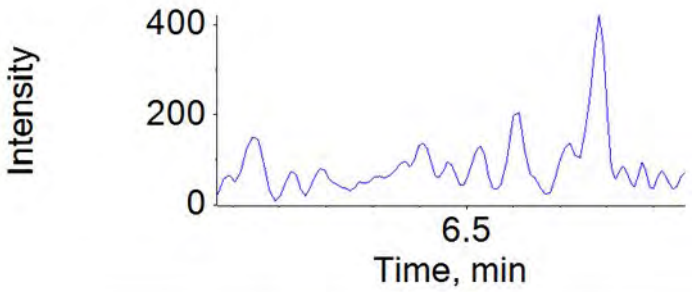
Component: PFTrDA
Primary Mass: 663.0 / 619.0



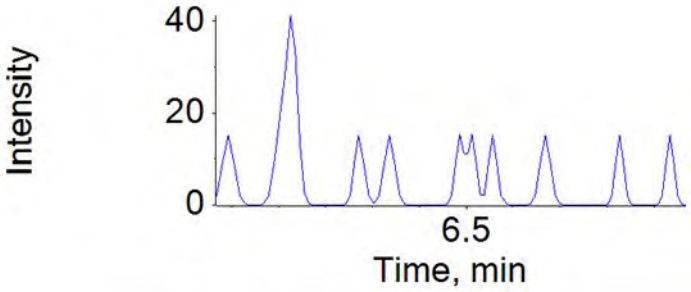
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



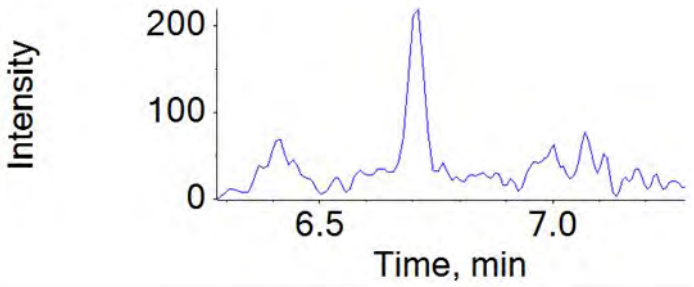
Component: PFTeDA
Primary Mass: 713.0 / 669.0



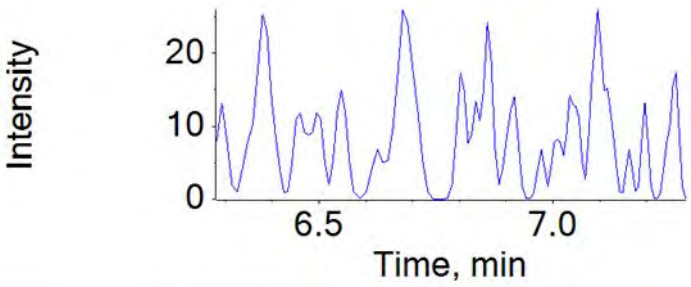
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



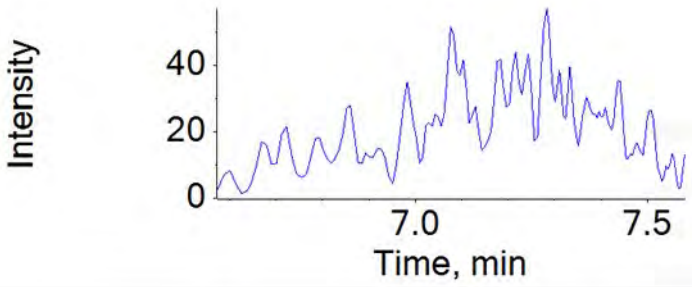
Component: PFHxDA
Primary Mass: 813.0 / 769.0



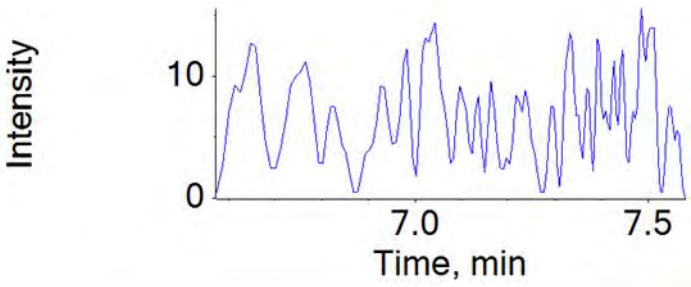
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312004 11/10/2018 12:05:42 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK312004			**Data File:**		18NOV09D-63.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312004			**Acquis Date:**		2018-11-09T13:58:27
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	93			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18312004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18312004			**Operator:**		MCD7824
Sample Wt.:	0.25000			**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	738987.6	725974.7	2	50	
13C2-PFOA	5.0	499279.4	506876.7	-1	50	
13C4-PFOS	4.8	260982.1	274910.1	-5	50	
13C2-PFDA	5.0	305623.6	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	782606.0	13C3-PFBA	738987.6	1.059	20.000	19.603	98	50-150	
E13C5-PFPeA	755334.2	13C3-PFBA	738987.6	1.022	20.000	17.811	89	50-150	
E13C3-PFBS	383719.8	13C3-PFBA	738987.6	0.519	18.600	15.243	82	50-150	
E13C2-4:2-FTS	50639.7	13C2-PFOA	499279.4	0.101	18.680	18.306	98	50-150	
E13C5-PFHxA	645997.0	13C2-PFOA	499279.4	1.294	20.000	19.038	95	50-150	
E13C3-PFHxS	319121.2	13C2-PFOA	499279.4	0.639	18.920	18.354	97	50-150	
E13C4-PFHpA	527596.0	13C2-PFOA	499279.4	1.057	20.000	19.229	96	50-150	
E13C2-6:2-FTS	32684.5	13C2-PFOA	499279.4	0.065	19.000	17.461	92	50-150	
E13C8-PFOA	866130.3	13C2-PFOA	499279.4	1.735	20.000	19.351	97	50-150	
E13C8-PFOS	281044.3	13C4-PFOS	260982.1	1.077	19.120	19.047	100	50-150	
E13C9-PFNA	476932.6	13C4-PFOS	260982.1	1.827	20.000	19.967	100	50-150	
E13C6-PFDA	598934.2	13C2-PFDA	305623.6	1.960	20.000	19.713	99	50-150	
E13C2-8:2-FTS	27697.1	13C2-PFDA	305623.6	0.091	19.160	19.181	100	50-150	
E13C8-PFOSA	621786.6	13C2-PFDA	305623.6	2.034	20.000	17.758	89	50-150	
Ed3-NMeFOSAA	82740.6	13C2-PFDA	305623.6	0.271	20.000	20.138	101	50-150	
E13C7-PFUnDA	270005.2	13C2-PFDA	305623.6	0.883	20.000	20.386	102	50-150	
Ed5-NEtFOSAA	65219.2	13C2-PFDA	305623.6	0.213	20.000	19.754	99	50-150	
E13C2-PFDoDA	521263.3	13C2-PFDA	305623.6	1.706	20.000	18.392	92	50-150	
Ed7-NMePFOSAE	261901.6	13C2-PFDA	305623.6	0.857	20.000	15.940	80	50-150	
Ed3-NMePFOSA	55142.7	13C2-PFDA	305623.6	0.180	20.000	13.213	66	50-150	
Ed9-NEtPFOSAE	227598.0	13C2-PFDA	305623.6	0.745	20.000	17.011	85	50-150	
Ed5-NEtPFOSA	49210.4	13C2-PFDA	305623.6	0.161	20.000	14.913	75	50-150	
E13C2-PFTeDA	363684.9	13C2-PFDA	305623.6	1.190	20.000	17.136	86	50-150	

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

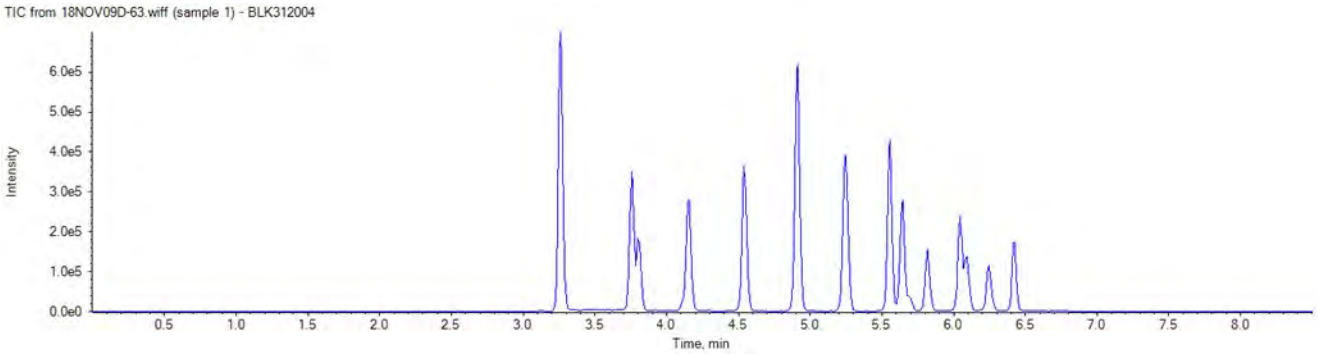
Analyte Quantitation Peak Table

Sample Name: BLK312004 **Instrument Name:** LM27631 **File Name:** 18NOV09D-63.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
0.25000	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/L)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	782606.0	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	755334.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	383719.8	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	50639.7	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	645997.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	383719.8	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	319121.2	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	527596.0	N/A	
6:2-FTS	4.90	1.000	638.6		A	13C2-6:2-FTS	4.90	32684.5	0.020	0.195
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	319121.2	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	866130.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	281044.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	476932.6	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	281044.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.55	598934.2	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	27697.1	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	621786.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.69	82740.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	281044.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	270005.2	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	65219.2	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	521263.3	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	27697.1	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	261901.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	55142.7	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	281044.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	227598.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	49210.4	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	521263.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	363684.9	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	363684.9	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	363684.9	N/A	

Total Ion Chromatogram

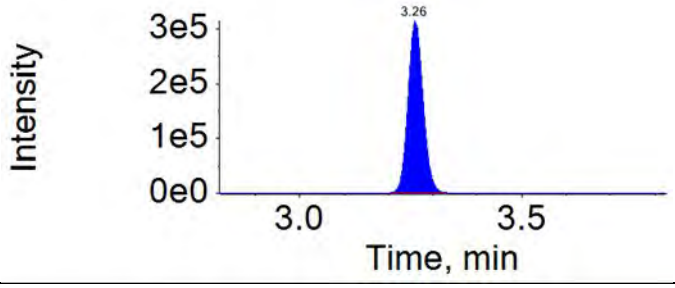


APPROVED
By MCD at 0:13 am, 11/10/18

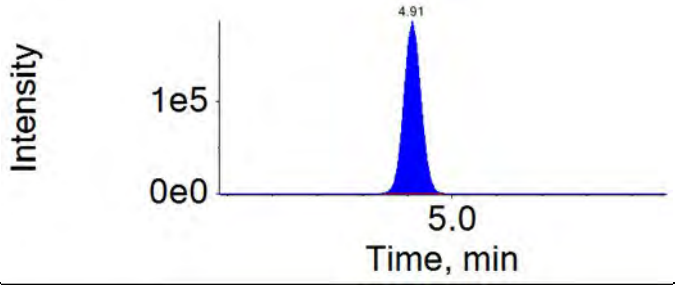
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

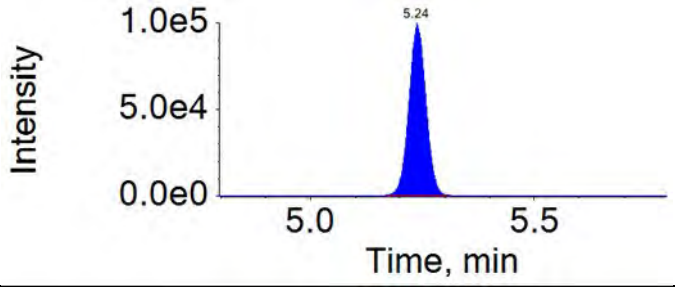
Injection Standard: 13C3-PFBA
216.0 / 172.0



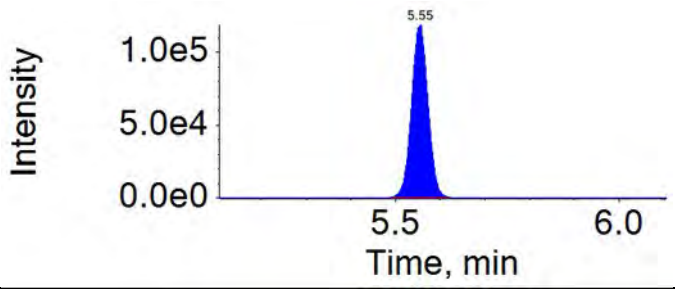
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



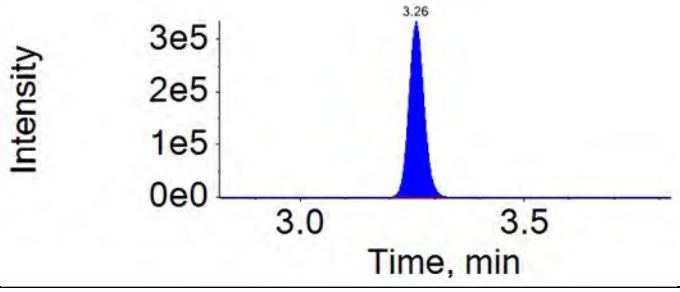
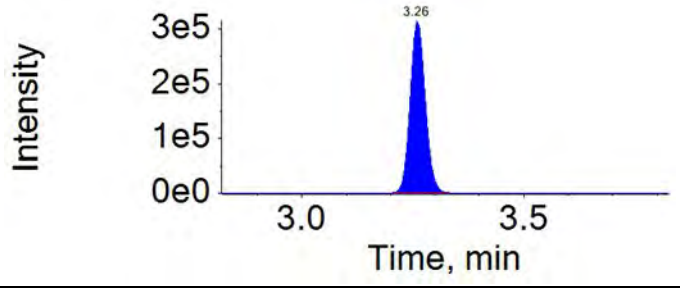
Injection Standard: 13C2-PFDA
515.0 / 470.0

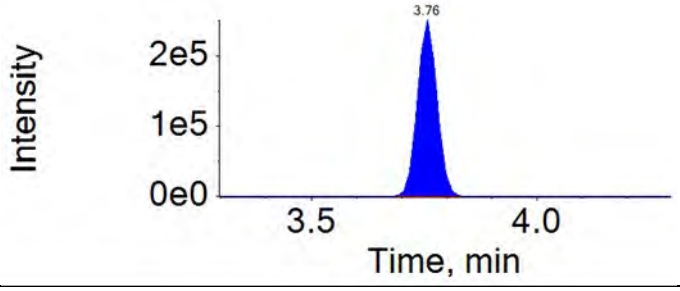
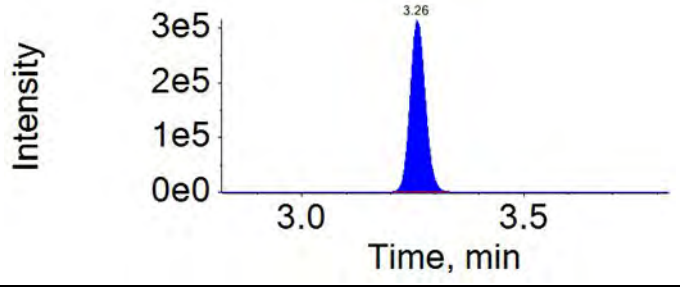


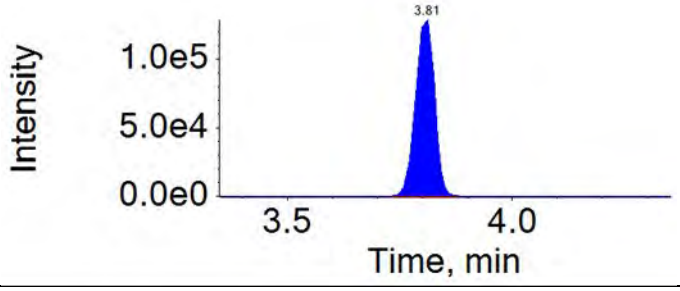
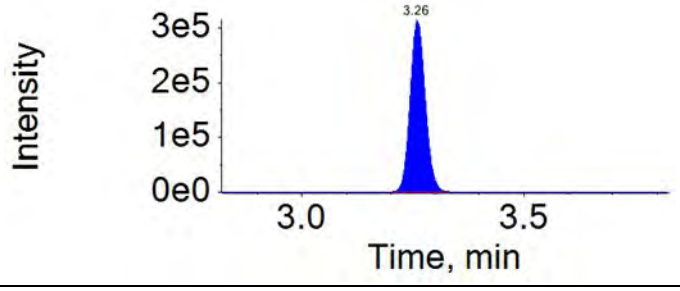
APPROVED
By MCD at 0:13 am, 11/10/18

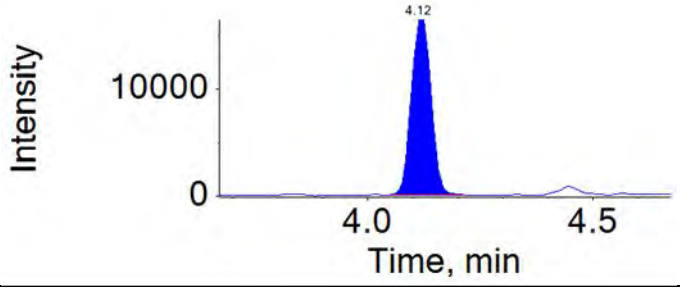
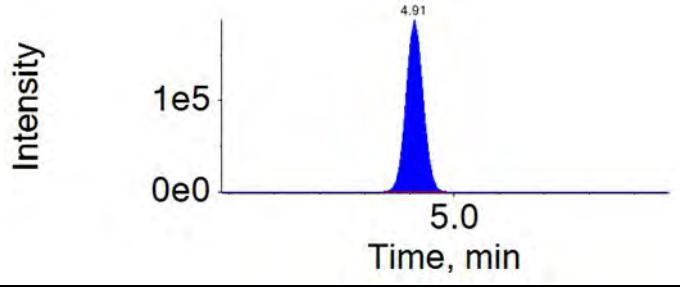
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

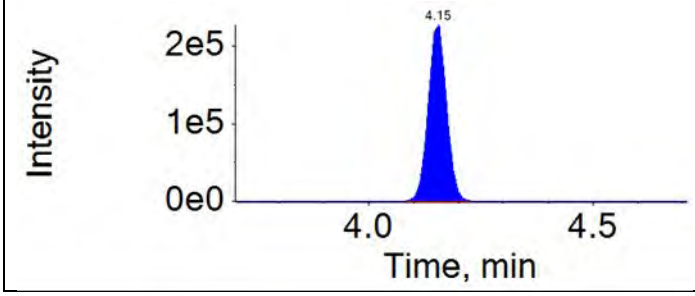
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

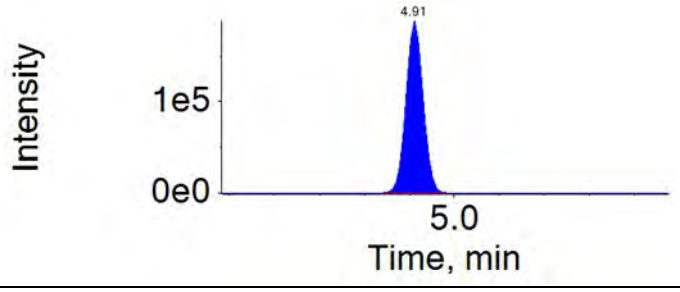
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

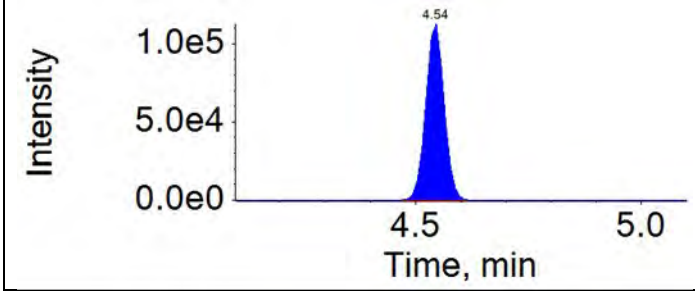
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

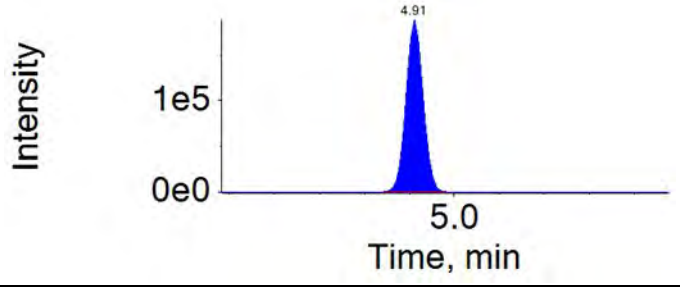
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



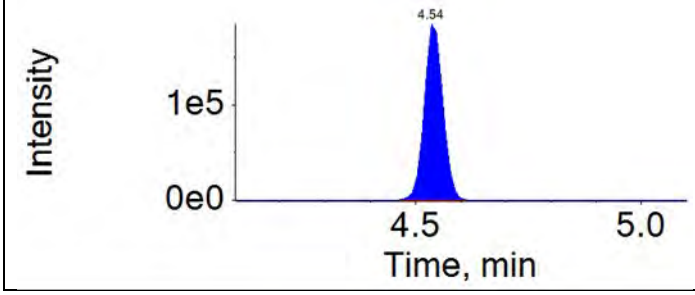


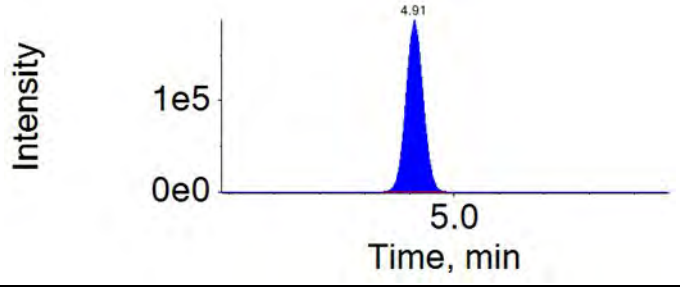
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



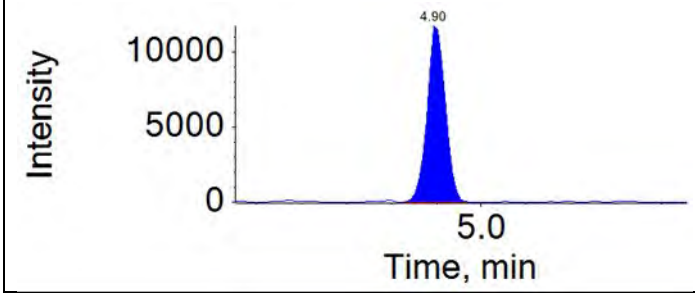


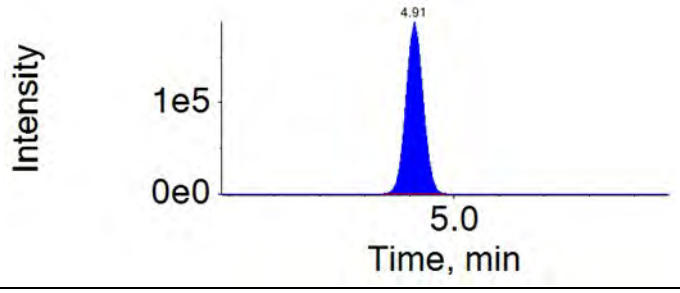
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



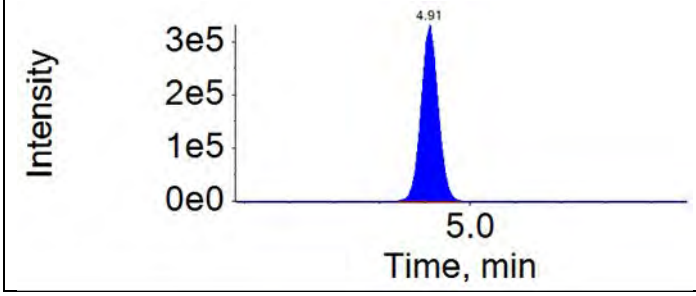


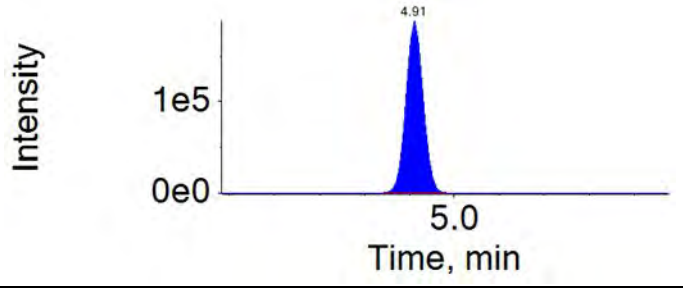
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

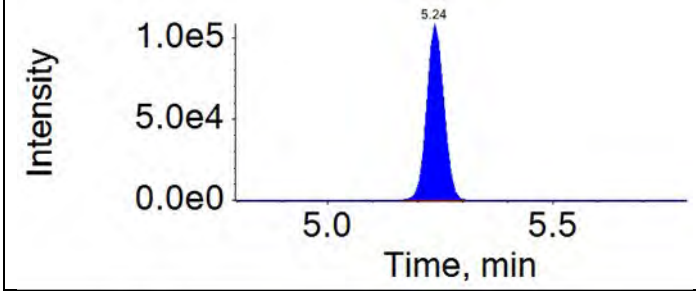
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

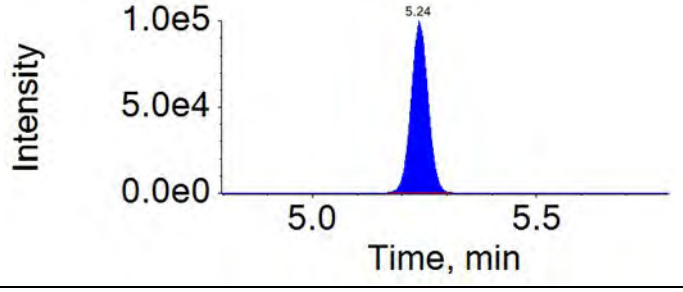
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



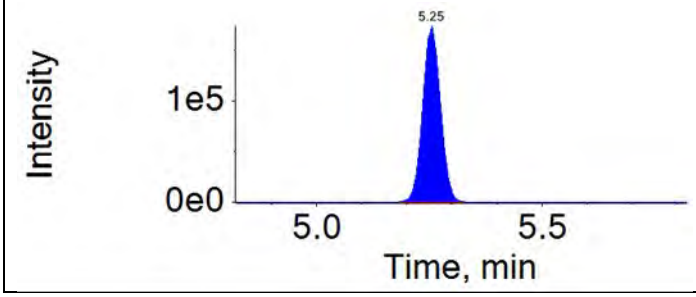


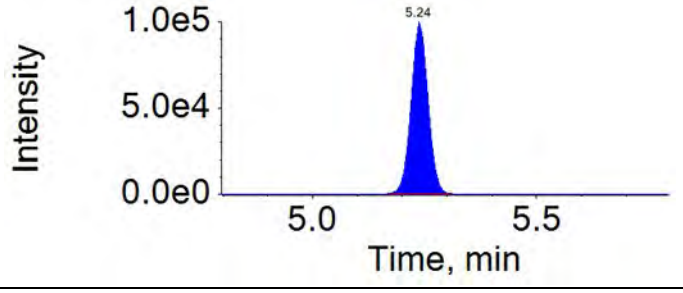
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



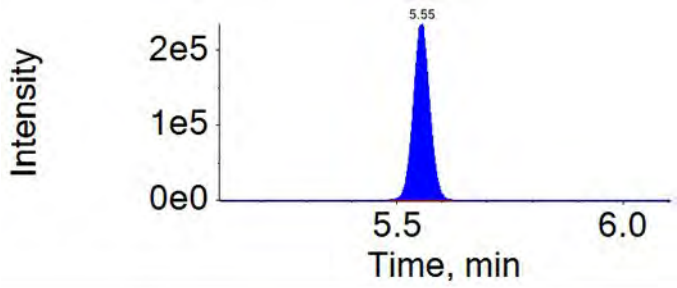


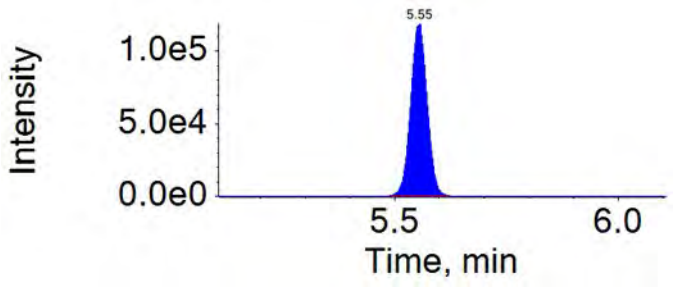
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



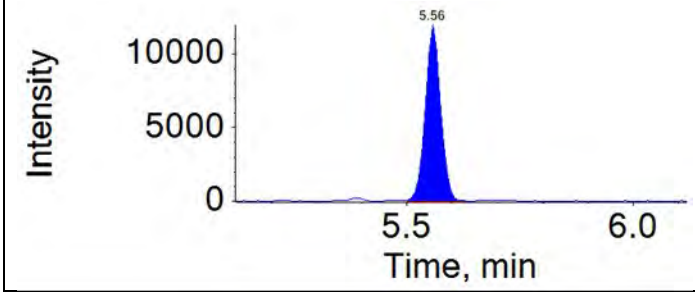


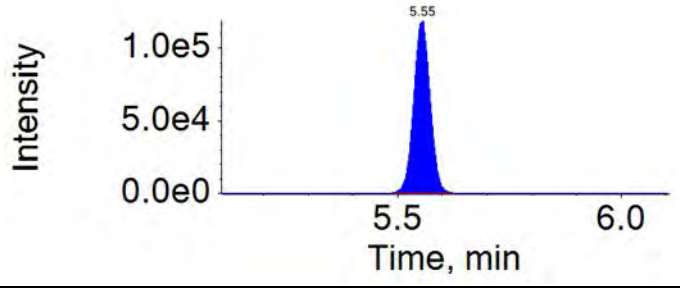
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

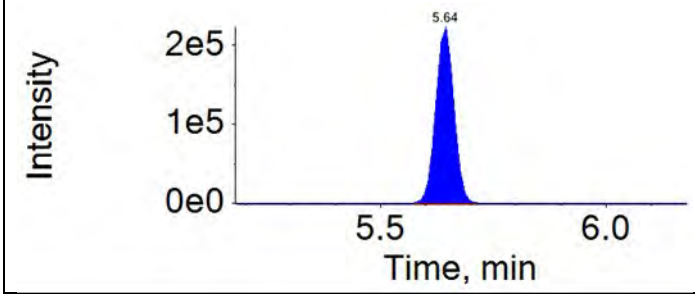
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

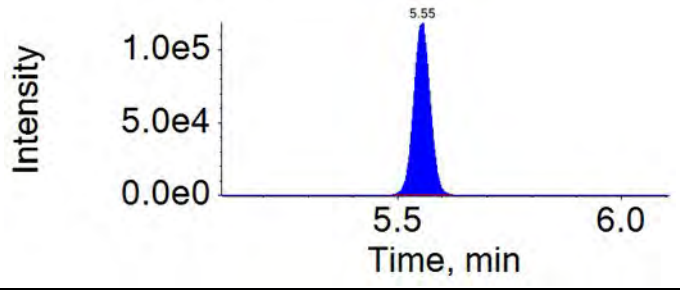
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



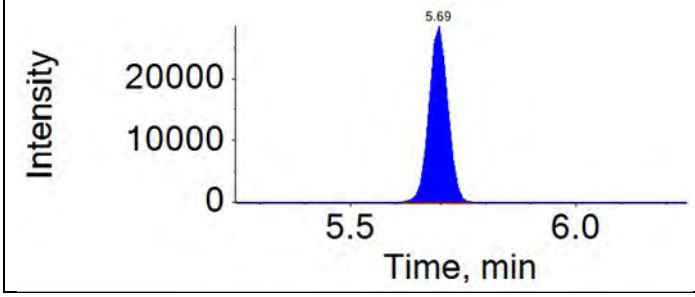


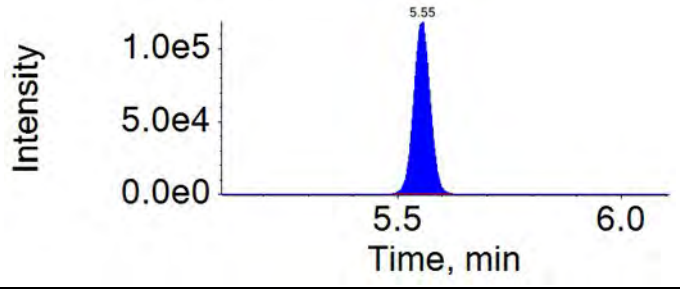
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



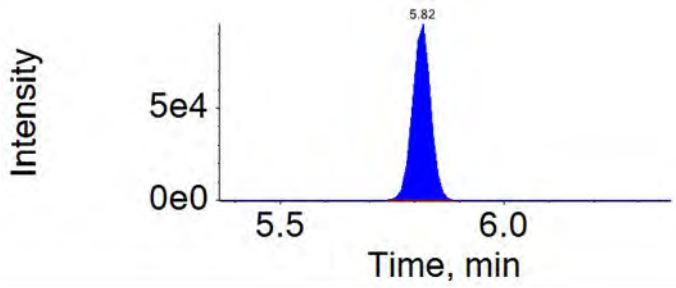


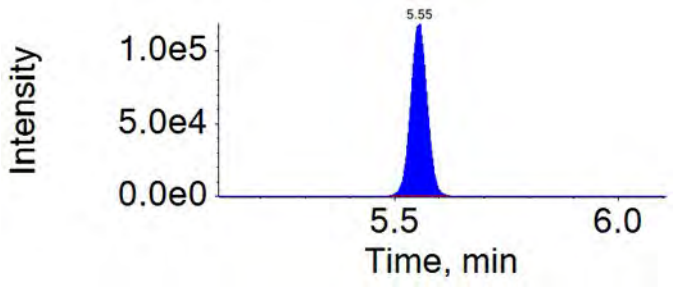
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



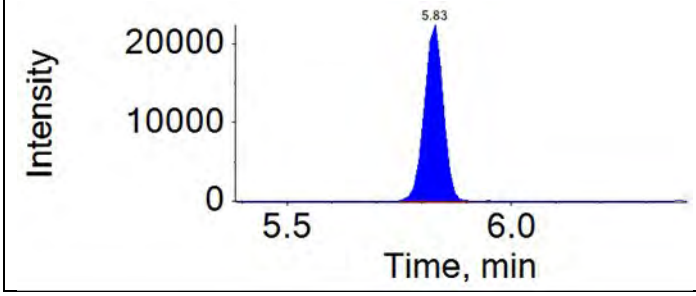


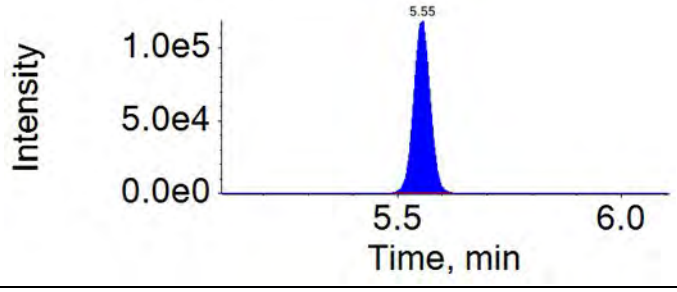
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

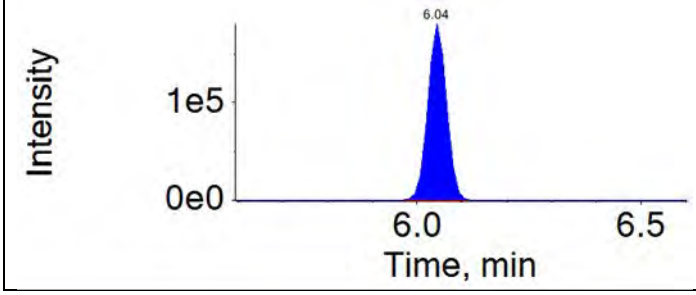
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

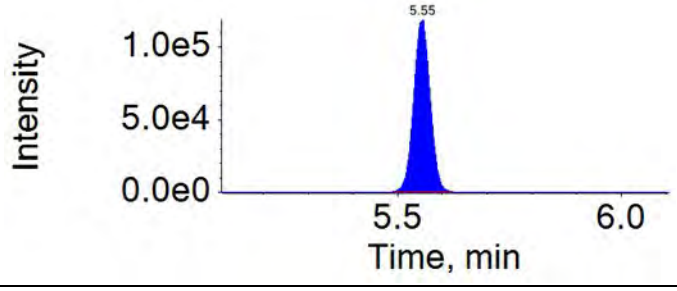
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



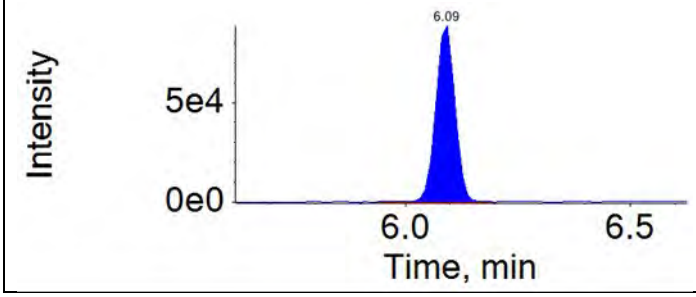


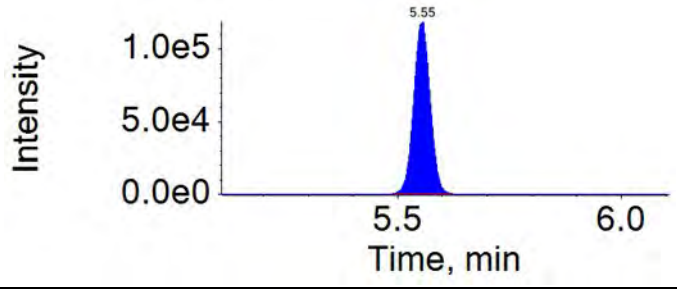
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



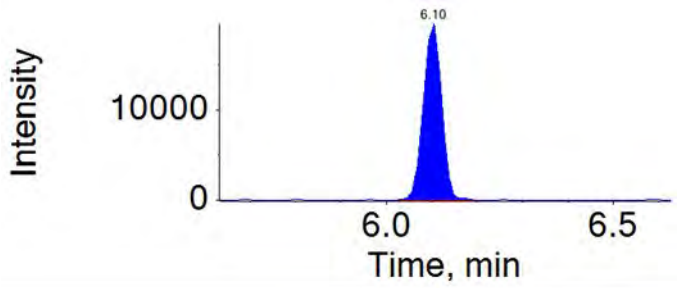


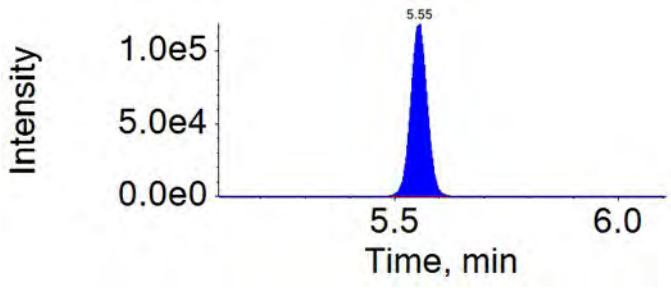
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



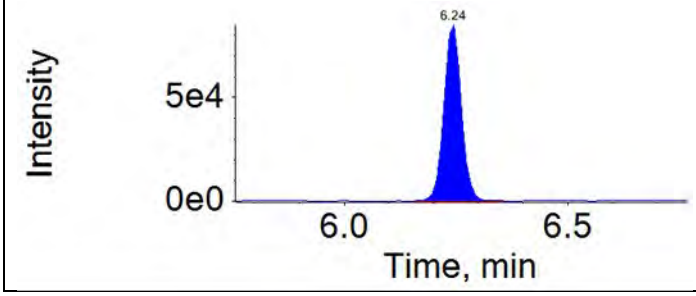


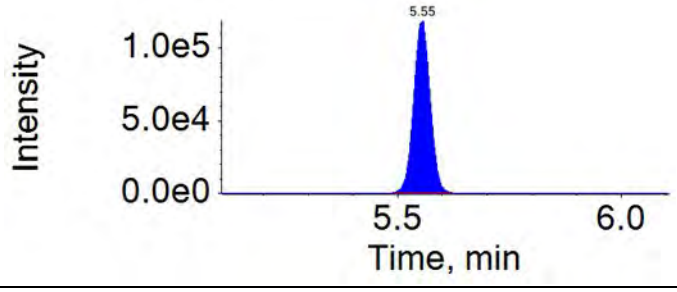
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

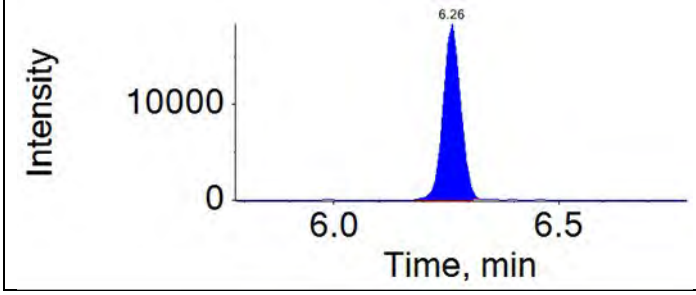
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

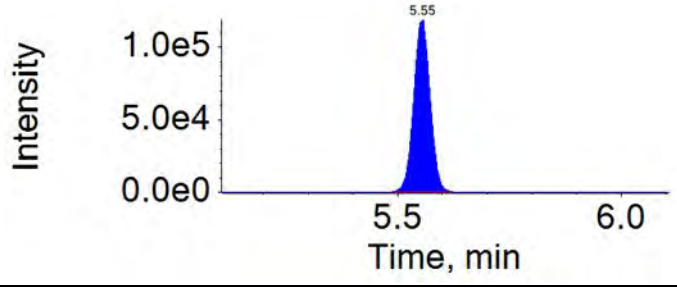
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



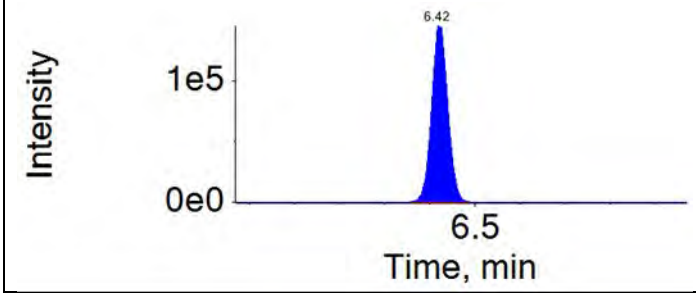


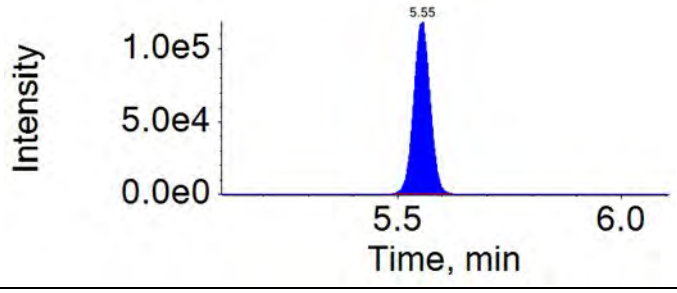
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



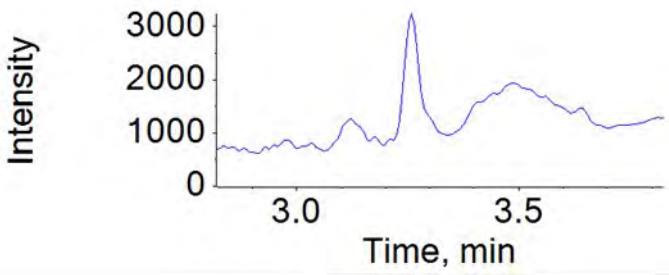


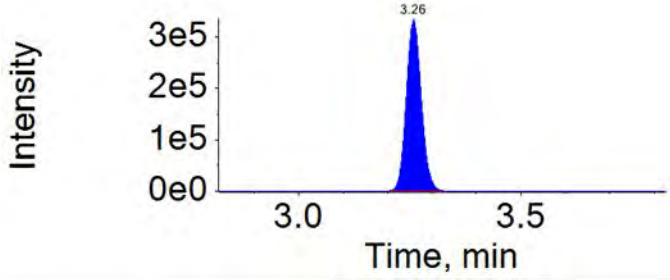
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

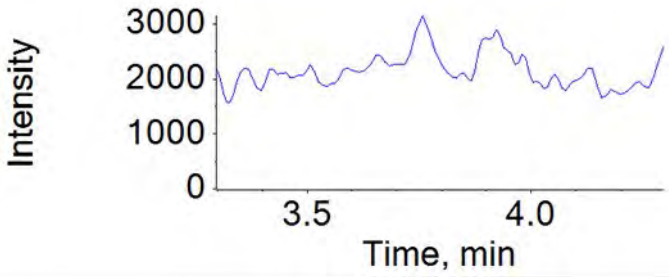
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

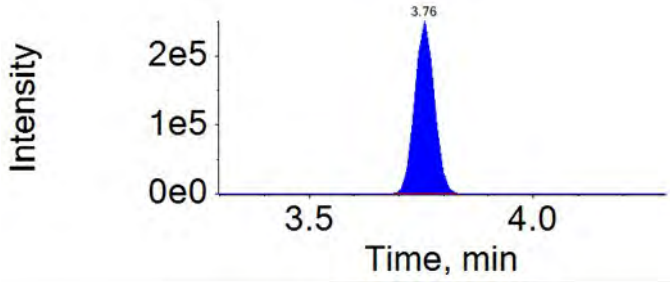
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



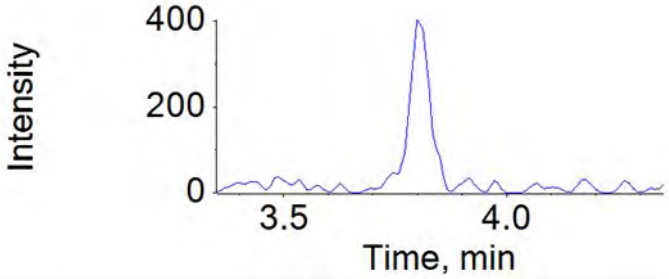


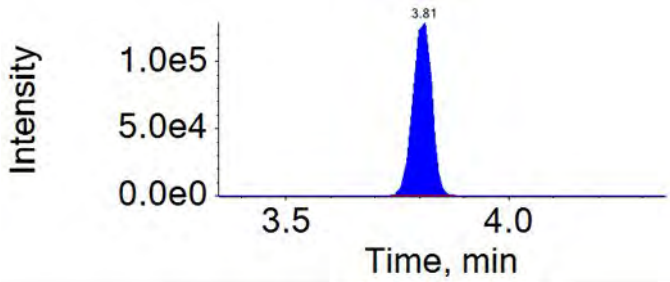
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



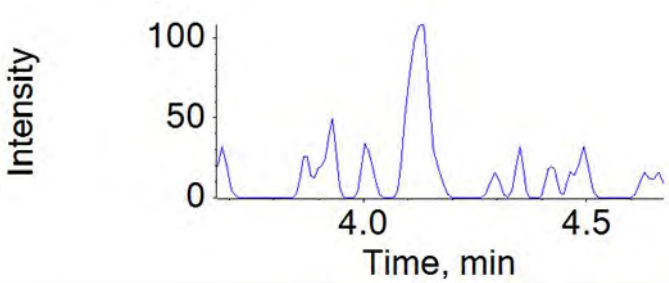


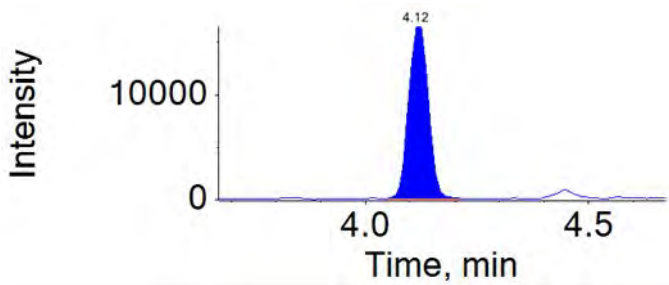
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



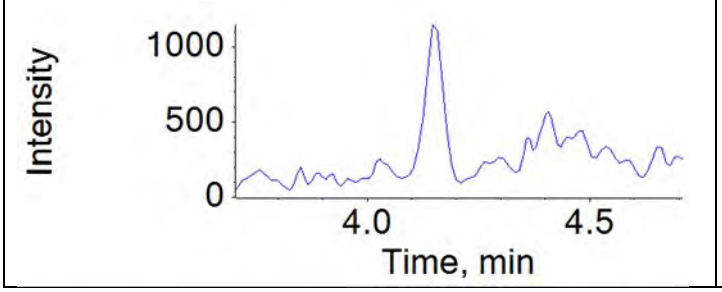


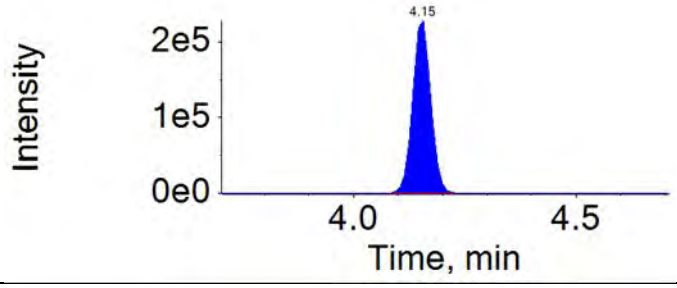
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

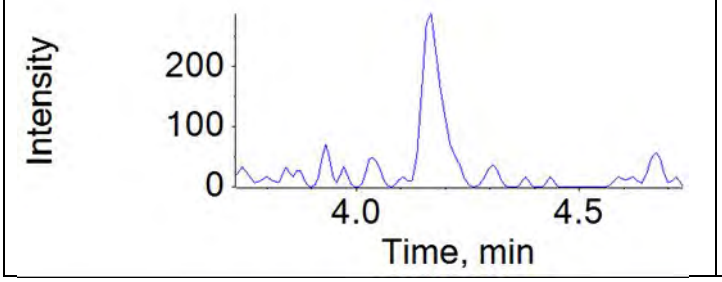
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

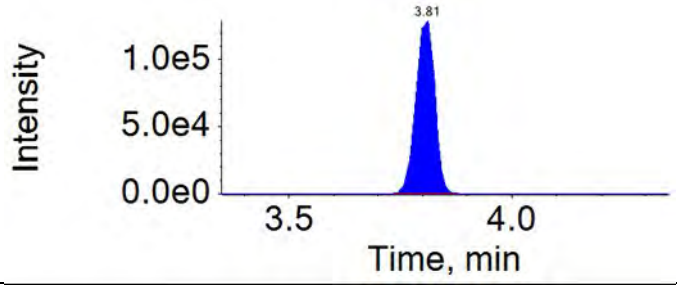
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



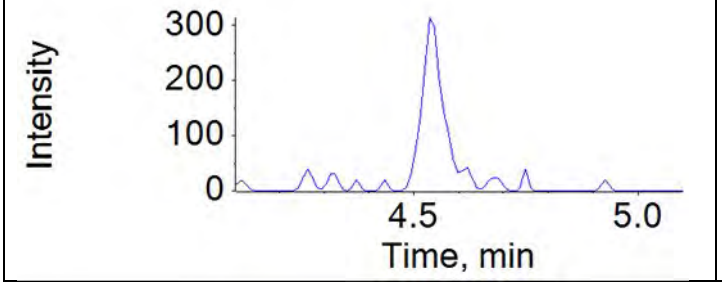


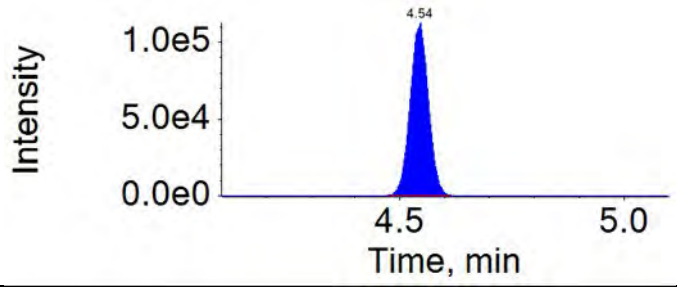
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



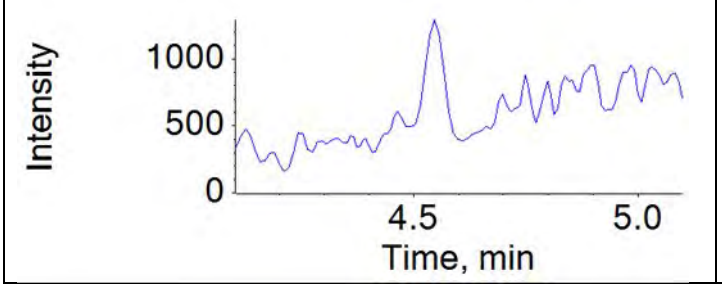


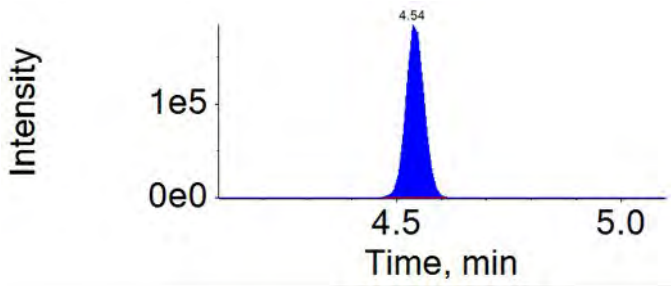
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



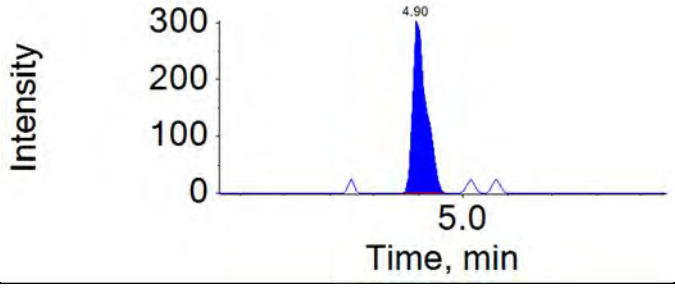
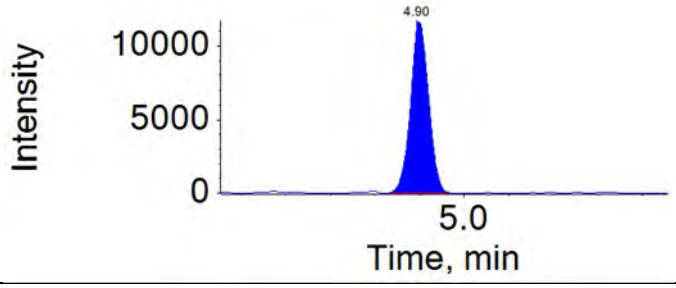


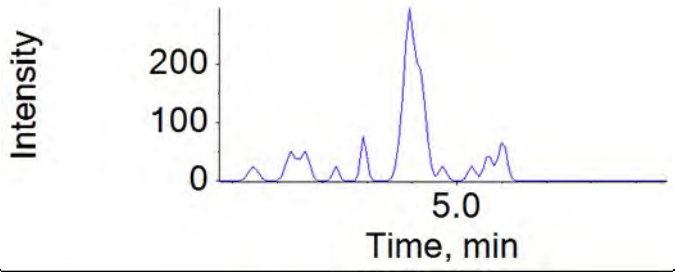
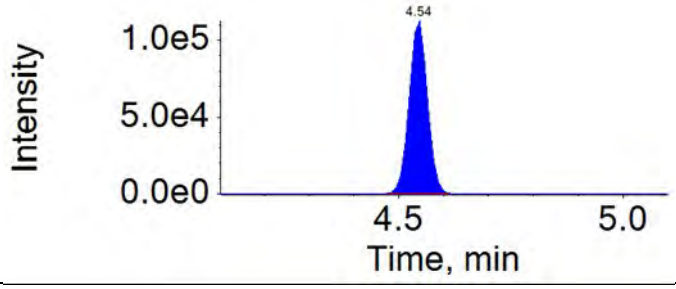
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

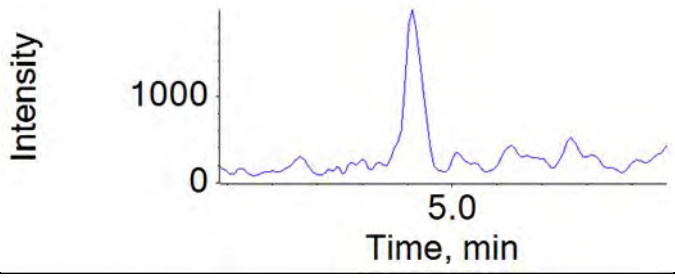
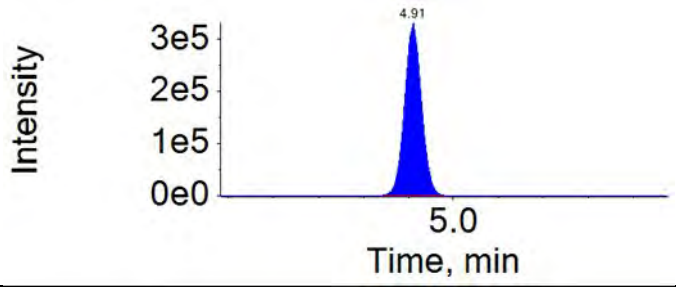


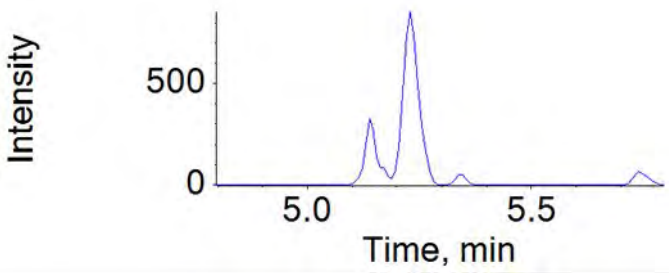
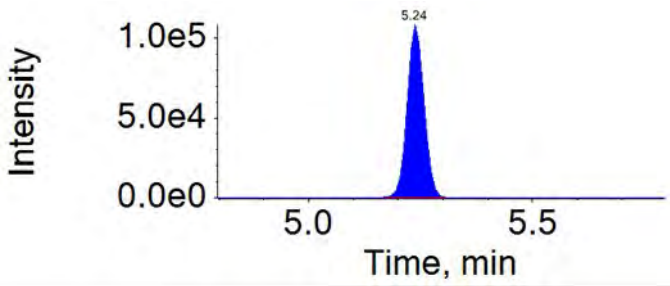


ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

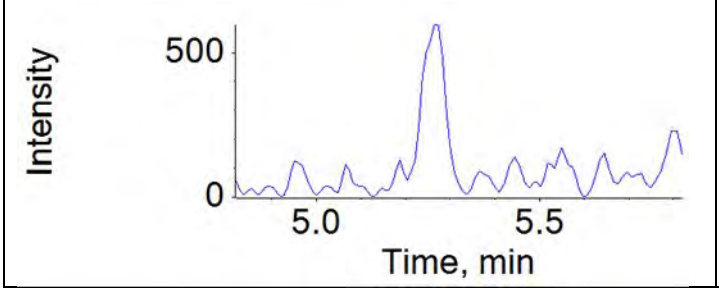
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

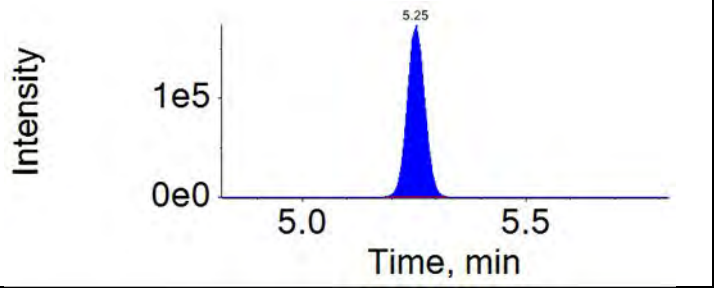
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

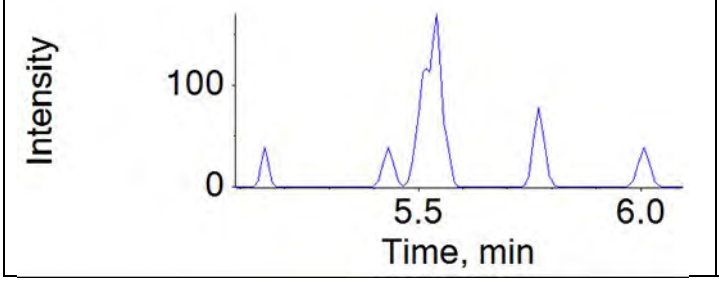
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

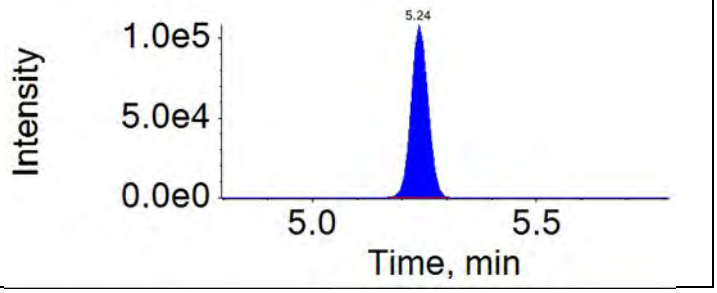
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



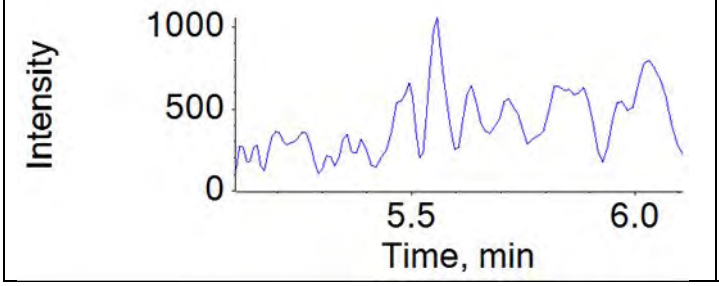


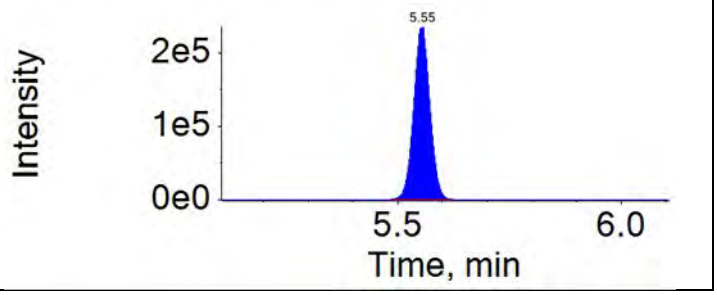
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



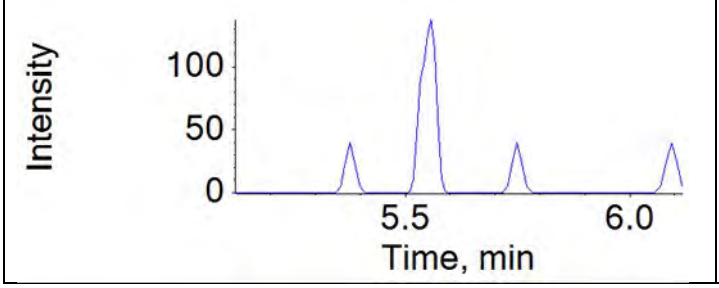


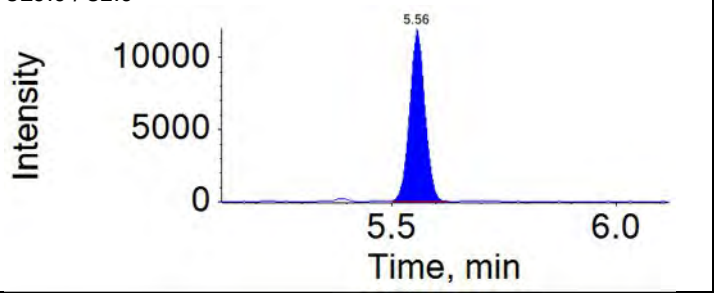
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



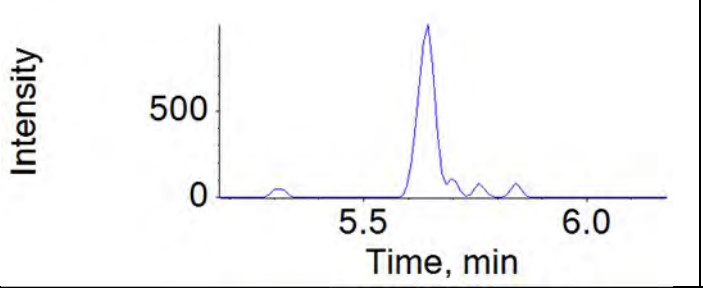


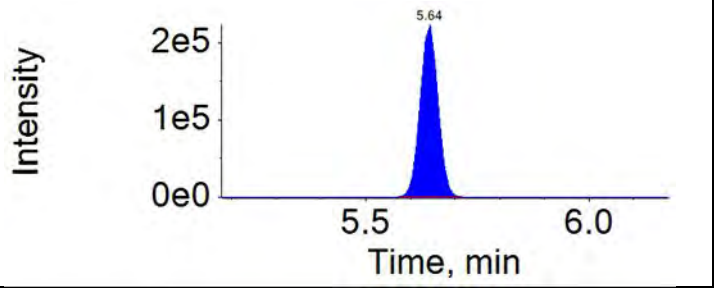
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

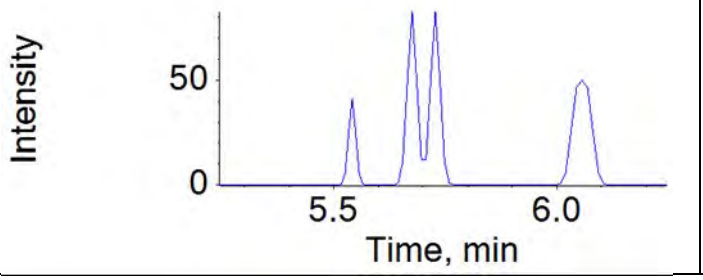
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

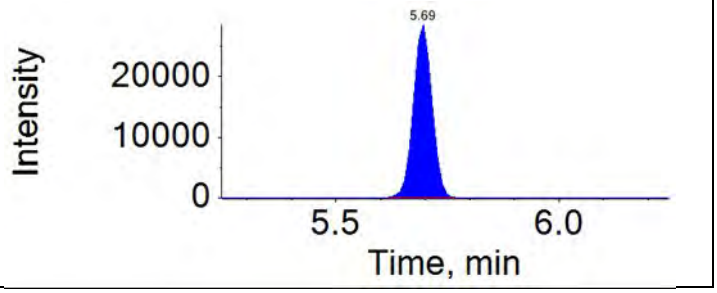
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



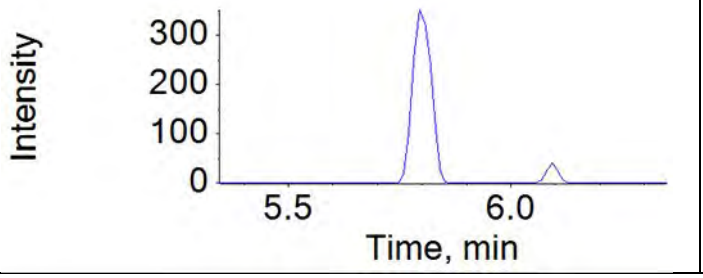


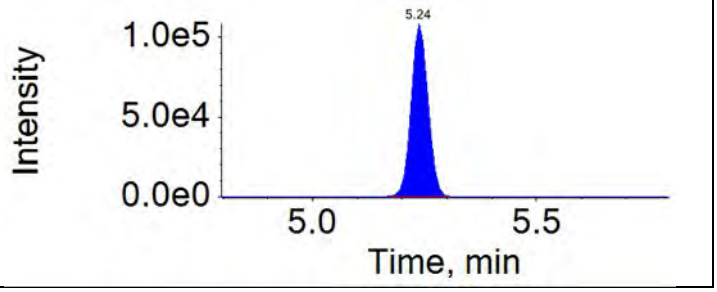
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



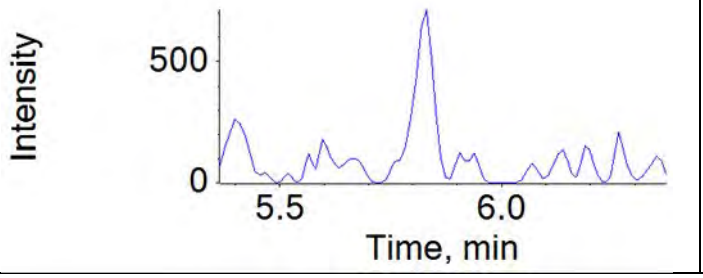


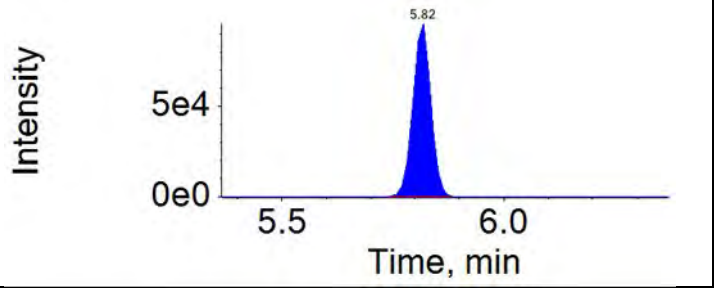
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



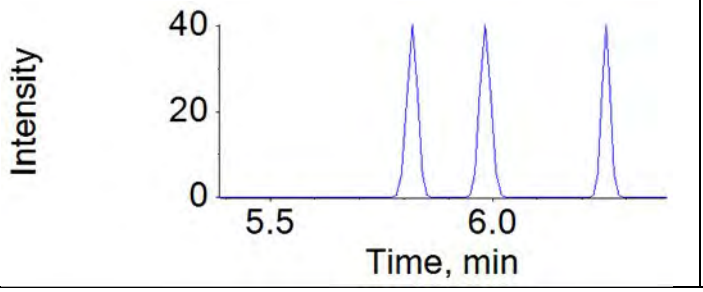


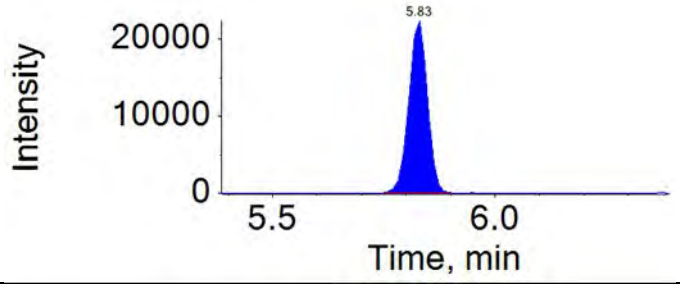
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

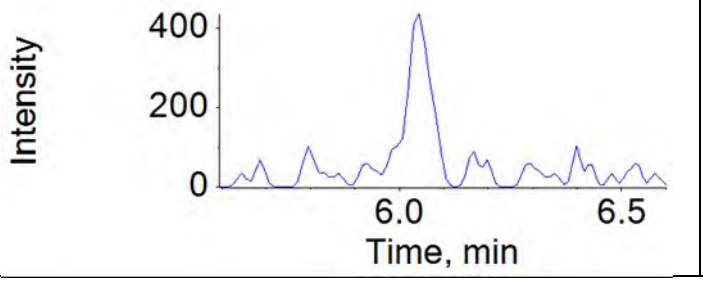
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

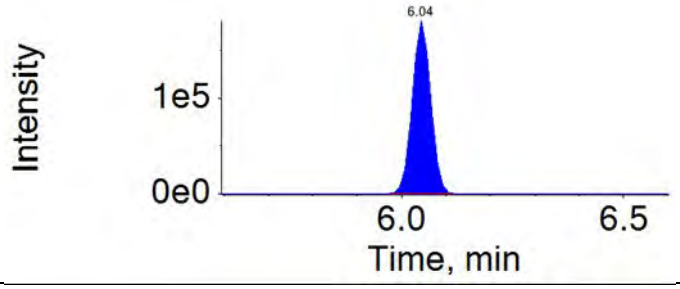
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



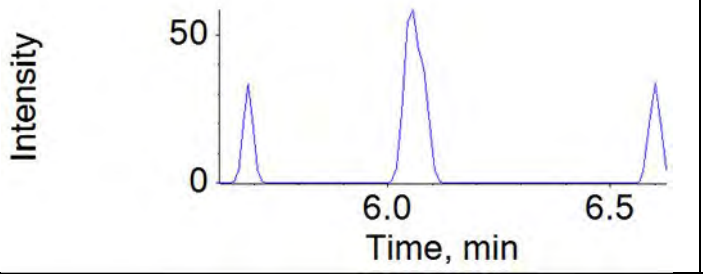


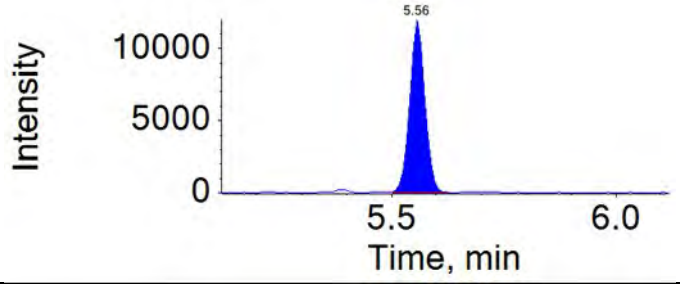
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



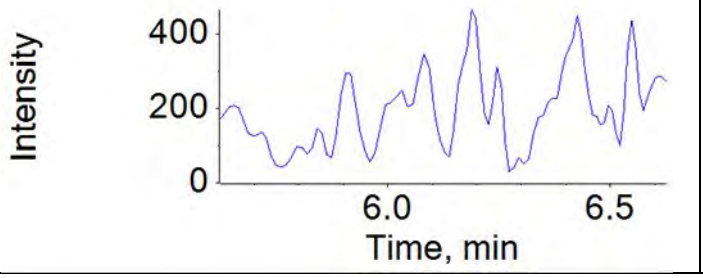


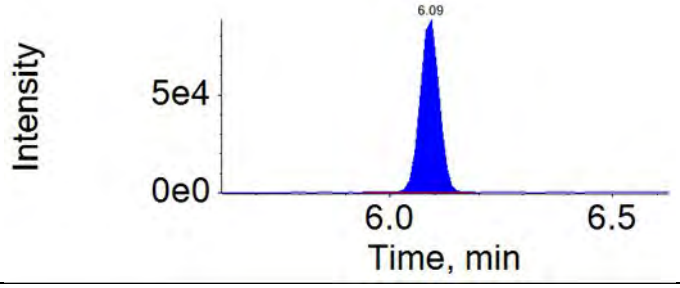
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



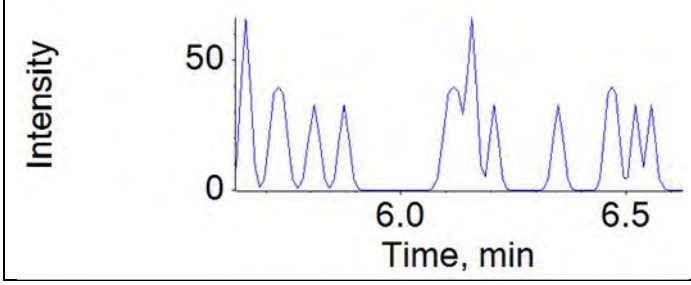


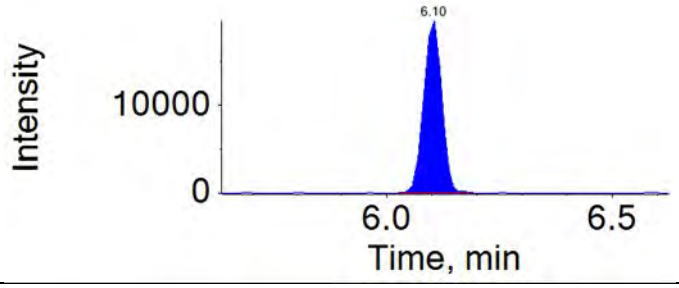
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

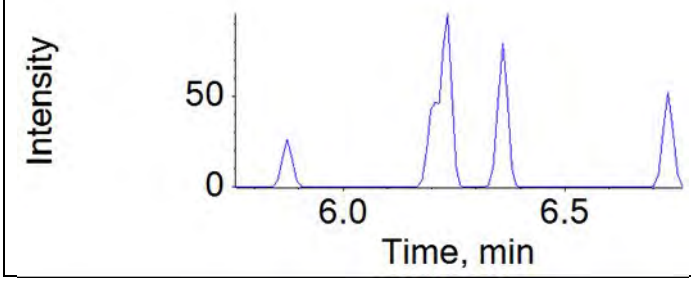
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

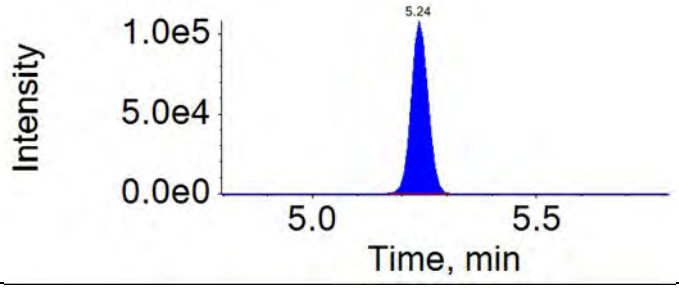
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



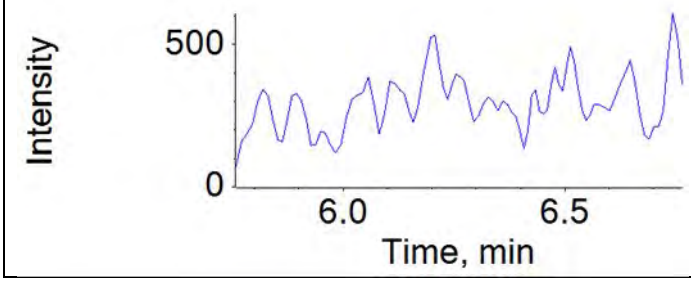


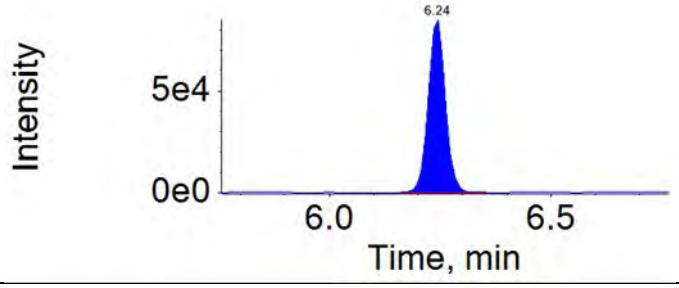
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



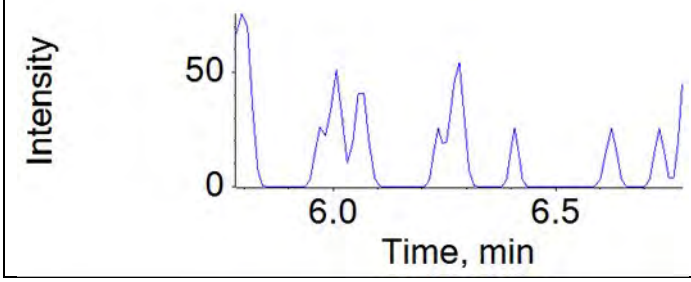


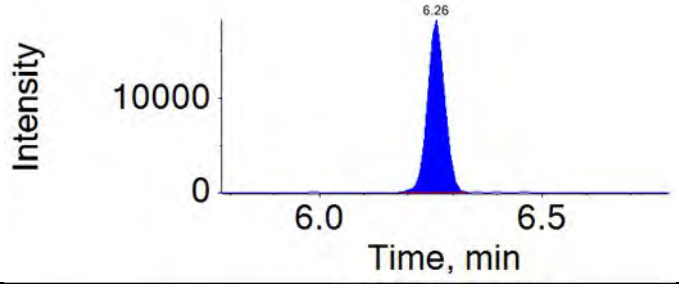
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



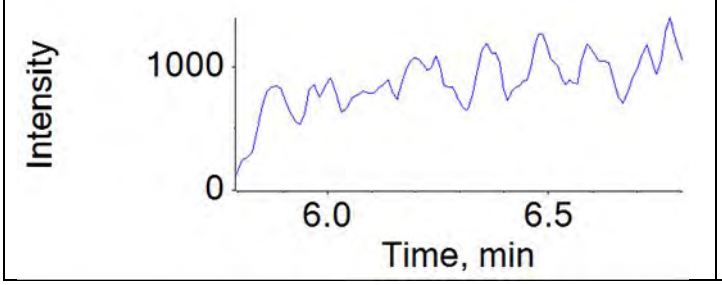


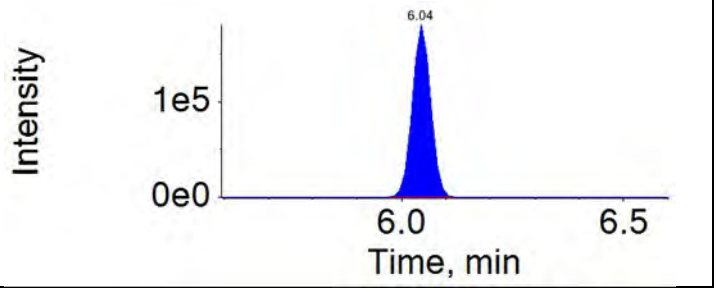
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

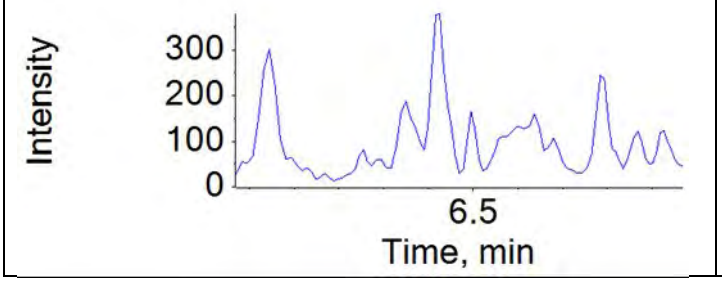
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

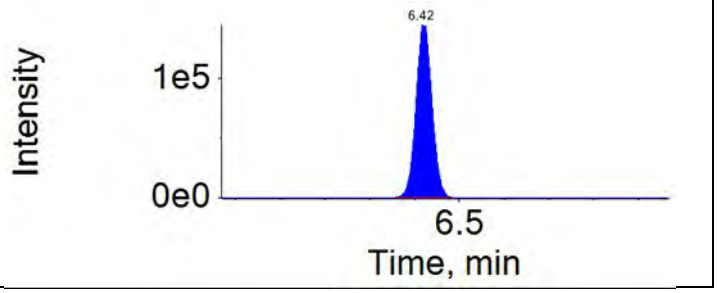
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



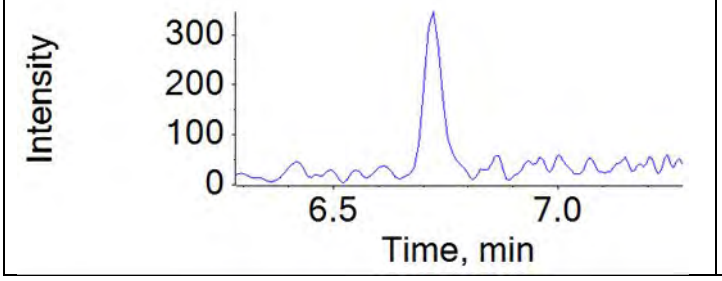


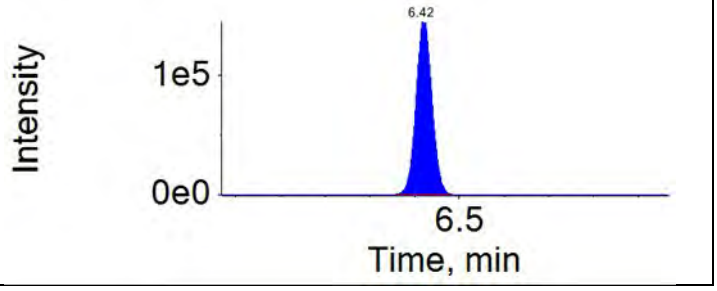
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



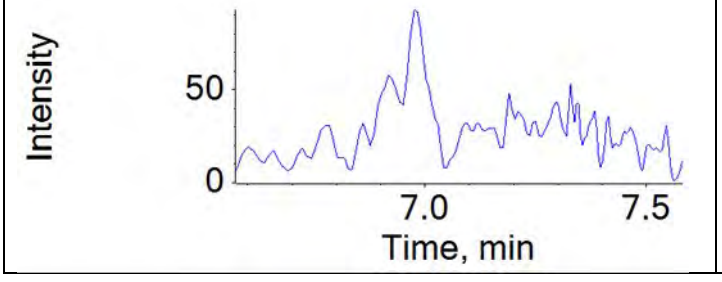


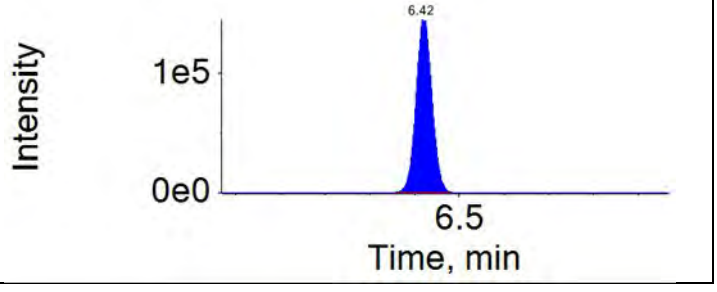
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Ion Ratio Report

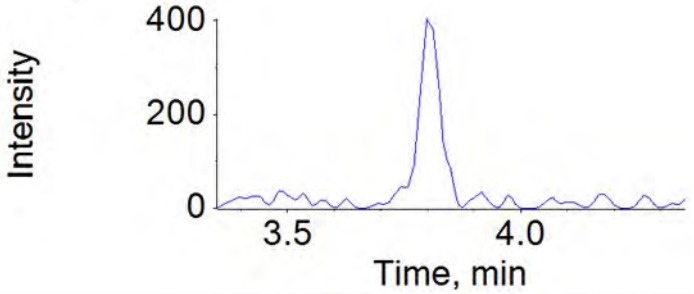
Sample Name: BLK312004 **Instrument Name:** LM27631 **File Name:** 18NOV09D-63.wiff

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	
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	4.90	1.00	638.6	A	N/A	0.2583			
6:2-FTS_2	4.91	1.00	165.0	A	N/A	0.2583	-62	50	OOS
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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

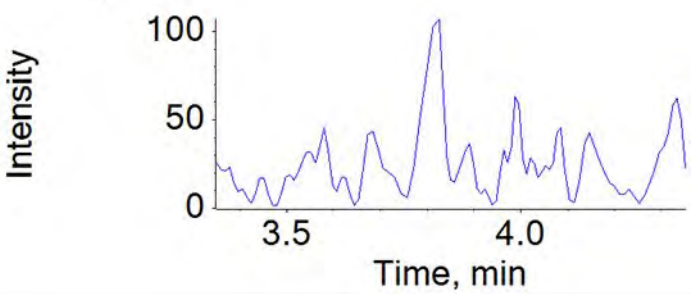
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

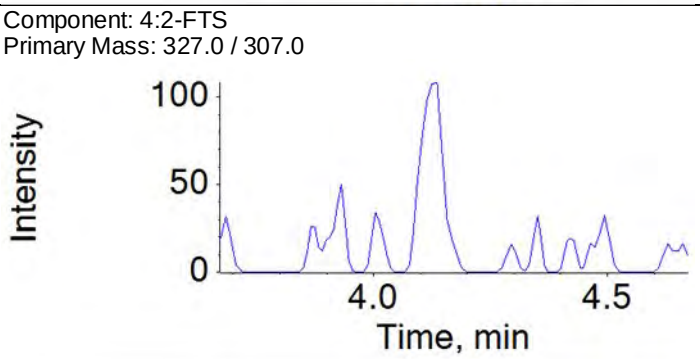
Component: PFBS
Primary Mass: 299.0 / 80.0



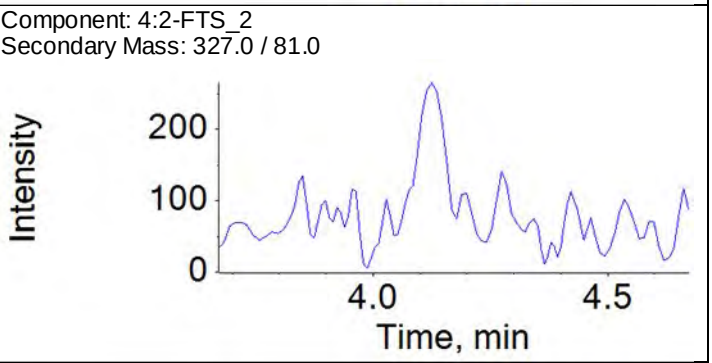
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



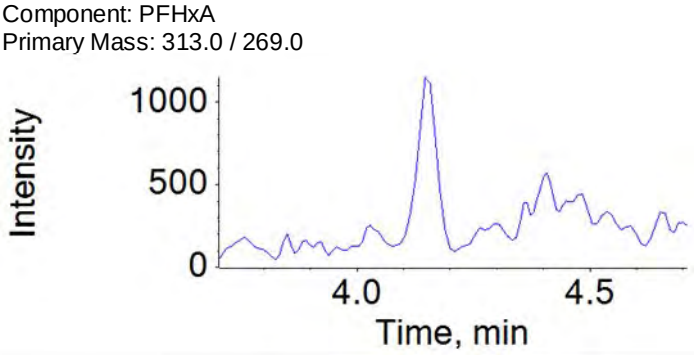
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



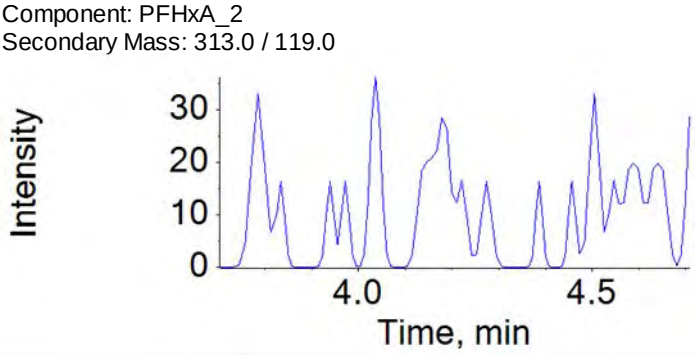
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



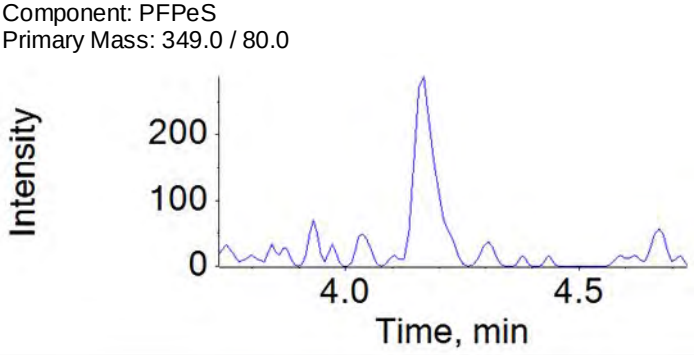
Component: PFHxA
Primary Mass: 313.0 / 269.0



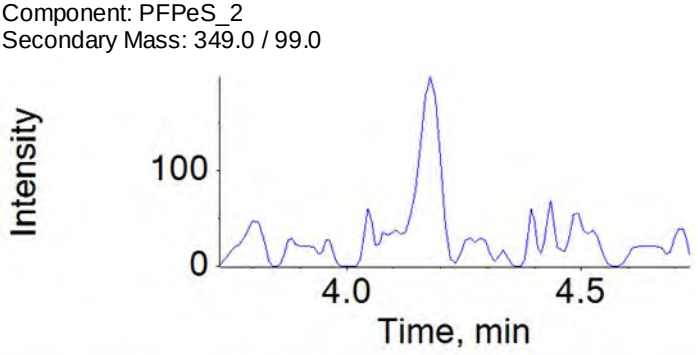
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



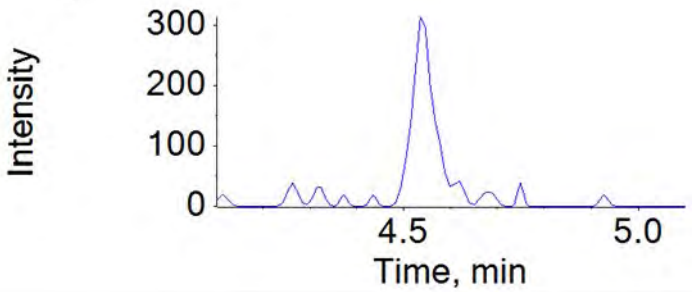
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



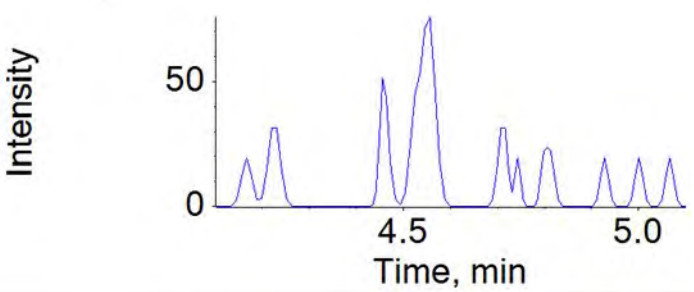
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

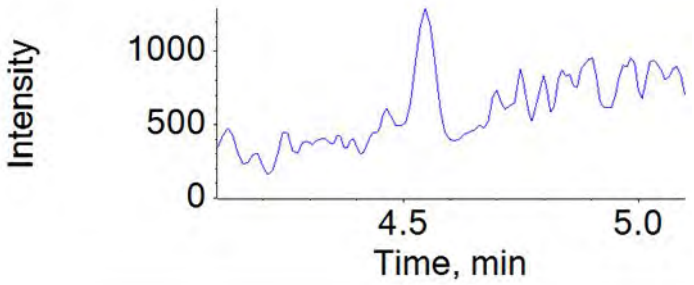
Component: PFHxS
Primary Mass: 399.0 / 80.0



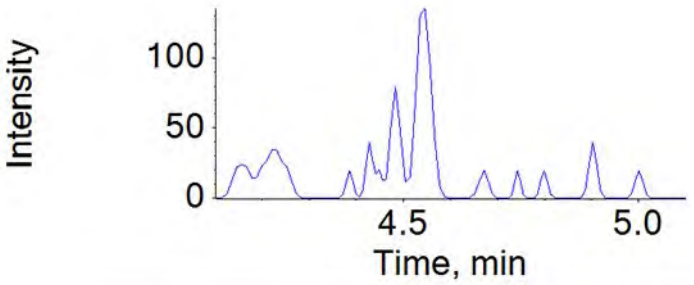
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



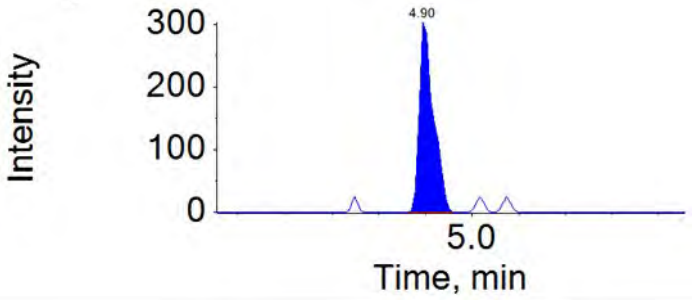
Component: PFHpA
Primary Mass: 363.0 / 319.0



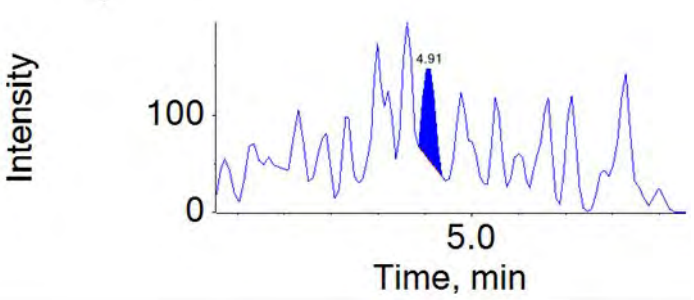
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



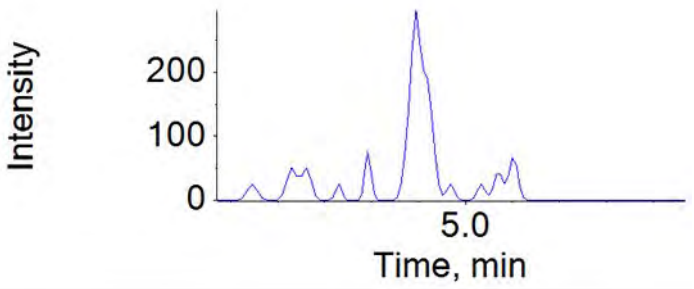
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



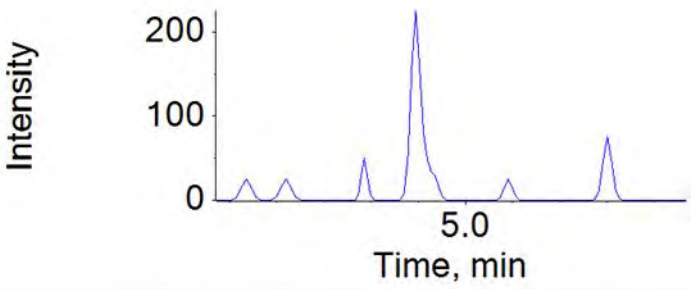
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



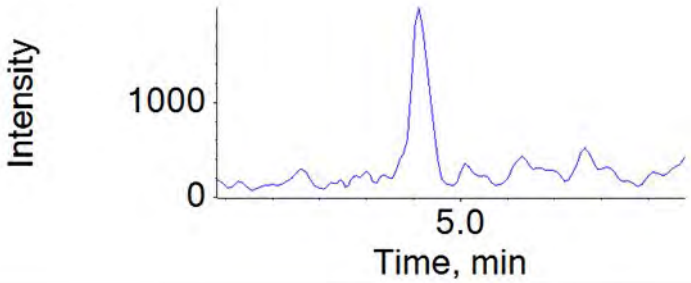
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



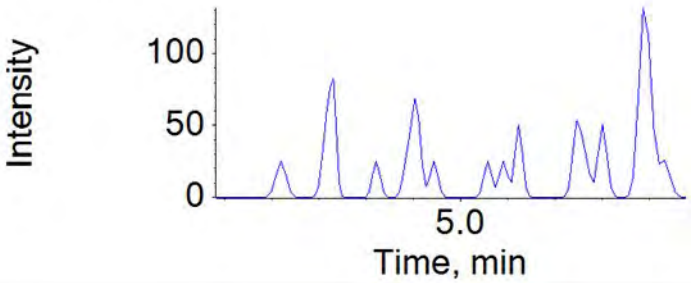
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

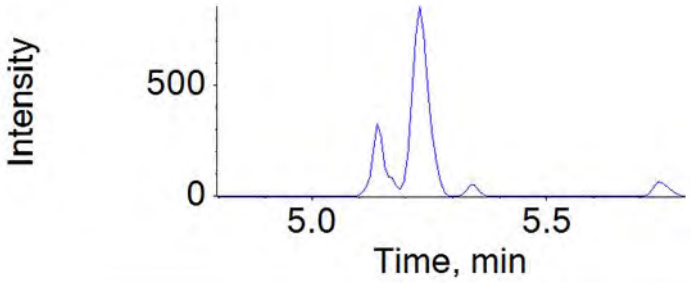
Component: PFOA
Primary Mass: 413.0 / 369.0



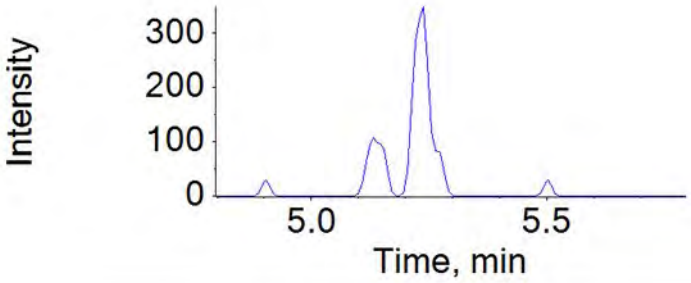
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



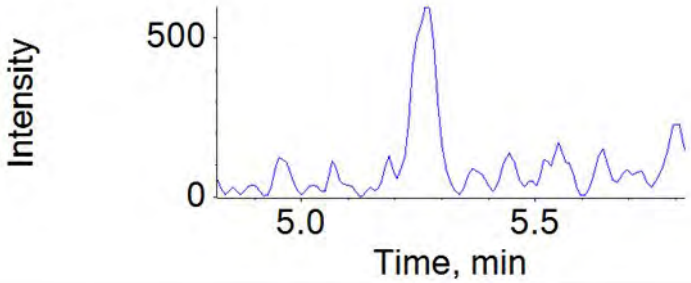
Component: PFOS
Primary Mass: 499.0 / 80.0



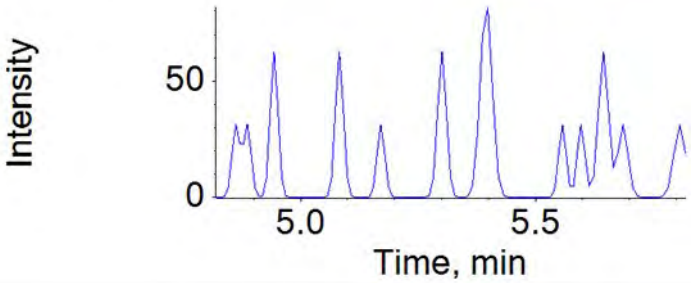
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



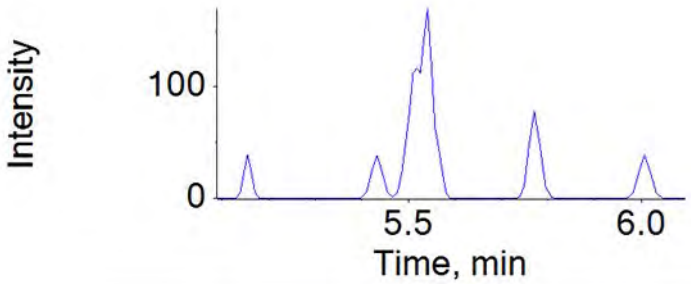
Component: PFNA
Primary Mass: 463.0 / 419.0



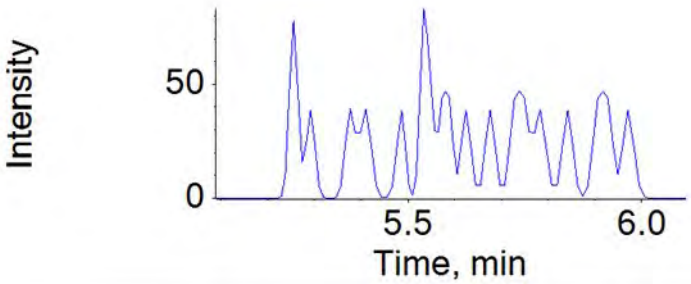
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



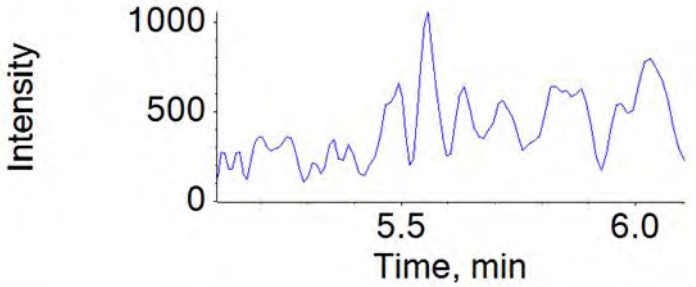
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



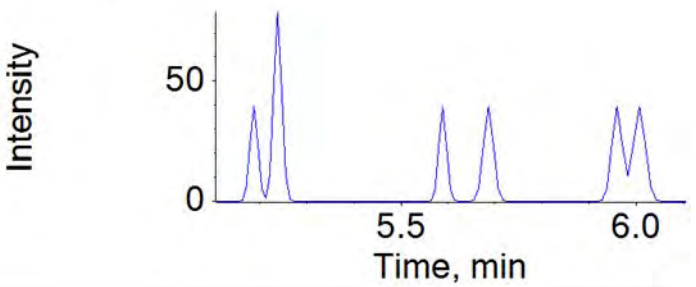
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

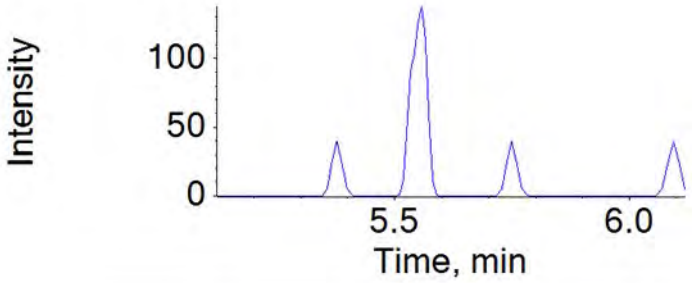
Component: PFDA
Primary Mass: 513.0 / 469.0



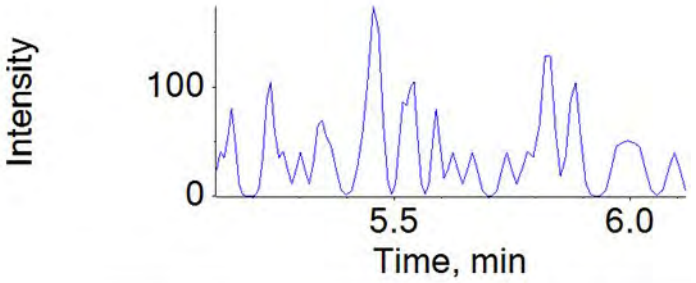
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



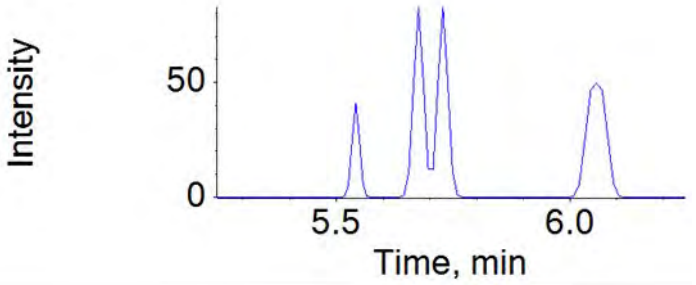
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



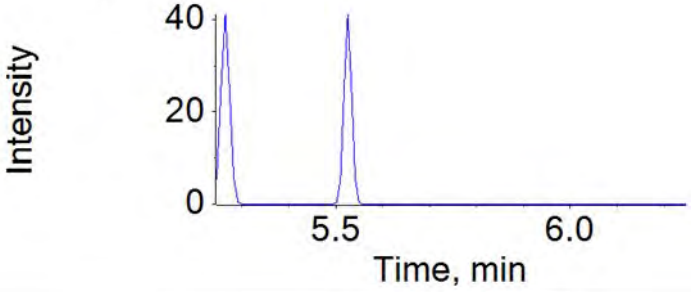
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



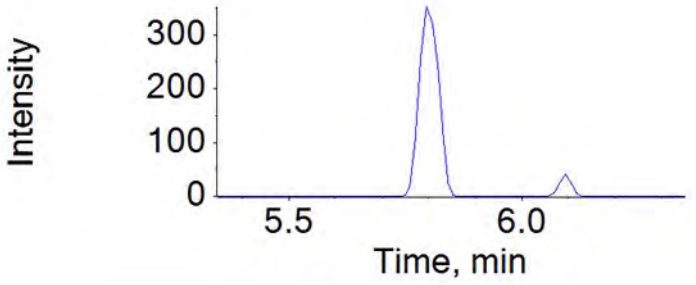
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



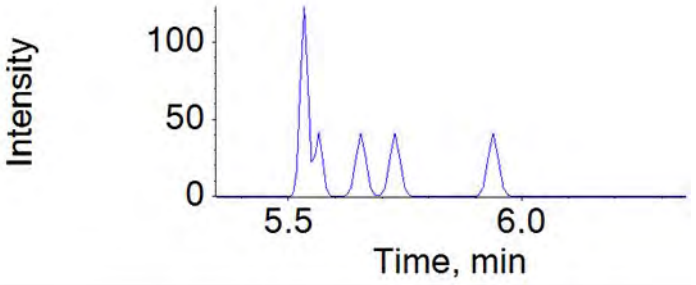
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



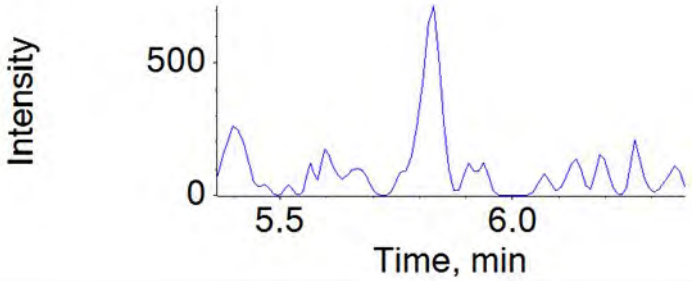
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



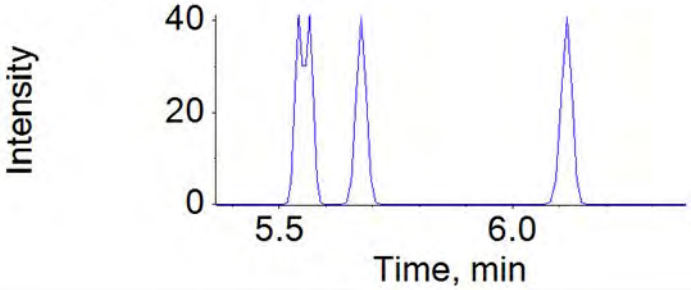
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

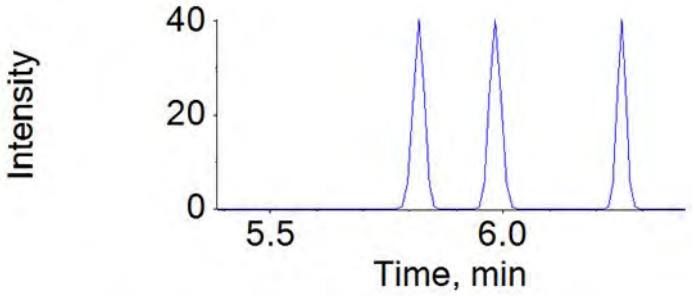
Component: PFUnDA
Primary Mass: 563.0 / 519.0



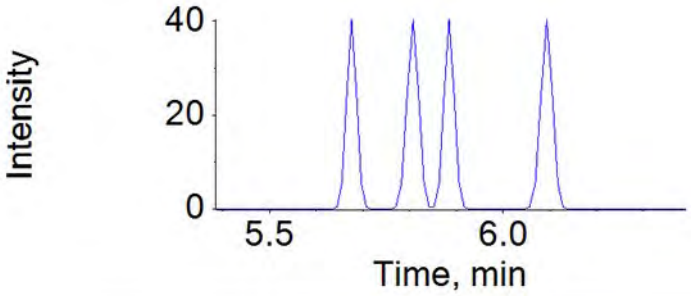
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



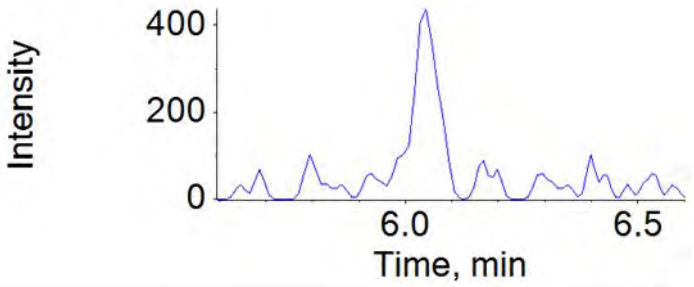
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



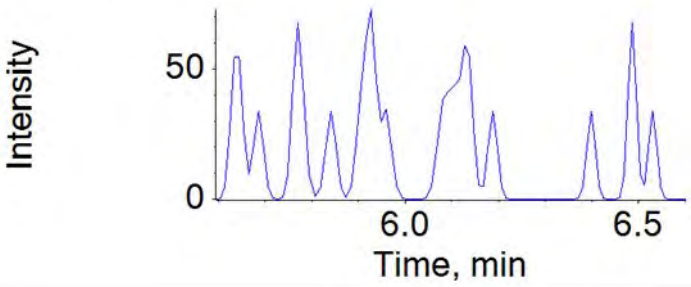
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



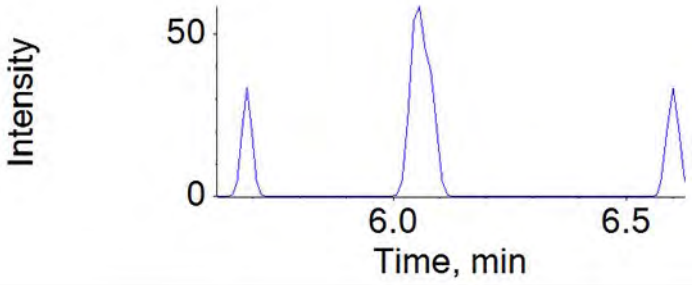
Component: PFDoDA
Primary Mass: 613.0 / 569.0



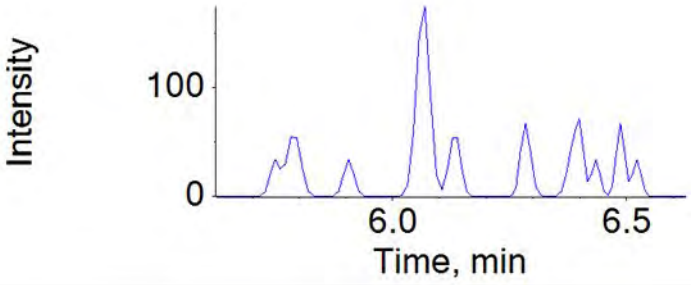
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



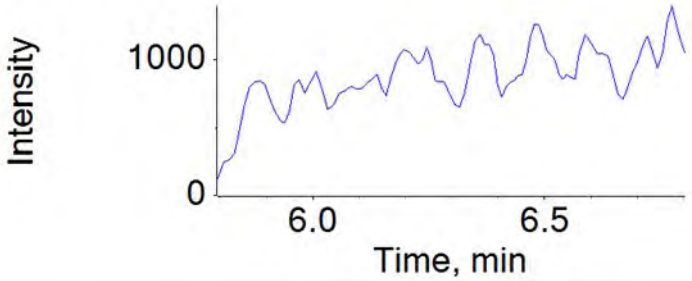
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



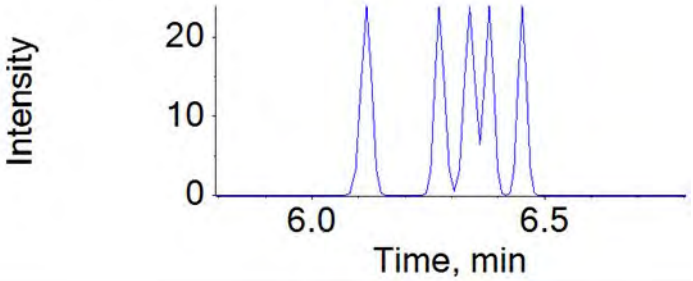
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

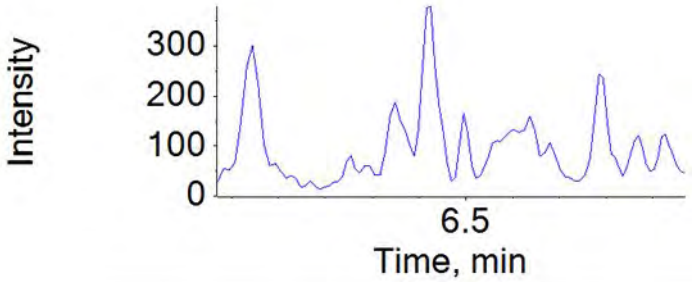
Component: PFTrDA
Primary Mass: 663.0 / 619.0



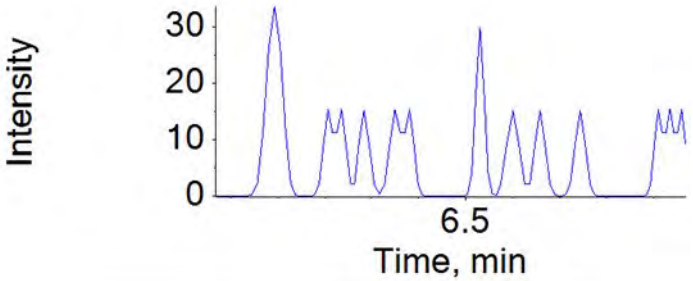
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



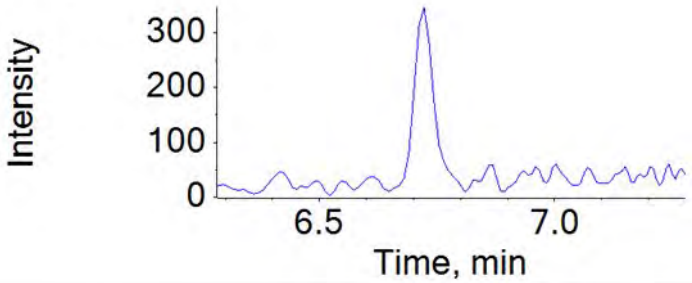
Component: PFTeDA
Primary Mass: 713.0 / 669.0



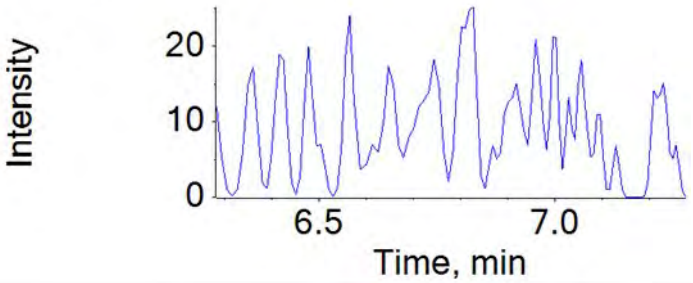
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



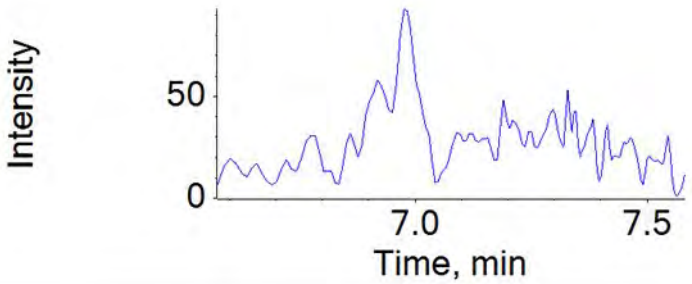
Component: PFHxDA
Primary Mass: 813.0 / 769.0



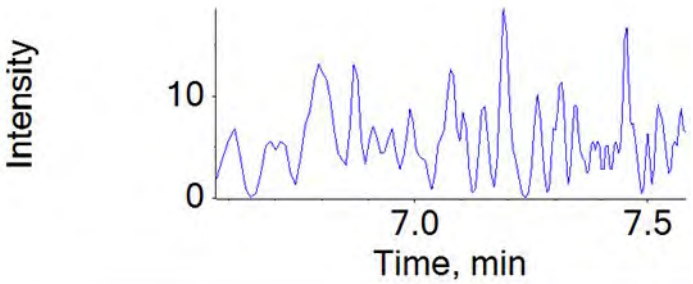
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK314009			**Data File:**		18NOV12D-61.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18314009			**Acquis Date:**		2018-11-13T01:47:15
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	87			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18314009
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18314009			**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: 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	699270.0	659926.2	6	50	
13C2-PFOA	5.0	496770.9	450219.7	10	50	
13C4-PFOS	4.8	262662.1	249205.8	5	50	
13C2-PFDA	5.0	315319.9	278743.9	13	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	758902.2	13C3-PFBA	699270.0	1.085	10.000	9.731	97	50-150	
E13C5-PFPeA	749222.9	13C3-PFBA	699270.0	1.071	10.000	9.611	96	50-150	
E13C3-PFBS	425635.3	13C3-PFBA	699270.0	0.609	9.300	8.594	92	50-150	
E13C2-4:2-FTS	51052.5	13C2-PFOA	496770.9	0.103	9.340	9.154	98	50-150	
E13C5-PFHxA	689496.3	13C2-PFOA	496770.9	1.388	10.000	10.028	100	50-150	
E13C3-PFHxS	325083.5	13C2-PFOA	496770.9	0.654	9.460	8.981	95	50-150	
E13C4-PFHpA	528205.2	13C2-PFOA	496770.9	1.063	10.000	9.580	96	50-150	
E13C2-6:2-FTS	36476.8	13C2-PFOA	496770.9	0.073	9.500	9.825	103	50-150	
E13C8-PFOA	884378.0	13C2-PFOA	496770.9	1.780	10.000	9.810	98	50-150	
E13C8-PFOS	277389.8	13C4-PFOS	262662.1	1.056	9.560	9.359	98	50-150	
E13C9-PFNA	476524.2	13C4-PFOS	262662.1	1.814	10.000	10.117	101	50-150	
E13C6-PFDA	631518.9	13C2-PFDA	315319.9	2.003	10.000	9.347	93	50-150	
E13C2-8:2-FTS	26930.3	13C2-PFDA	315319.9	0.085	9.580	8.519	89	50-150	
E13C8-PFOSA	684138.1	13C2-PFDA	315319.9	2.170	10.000	9.620	96	50-150	
Ed3-NMeFOSAA	89590.7	13C2-PFDA	315319.9	0.284	10.000	10.257	103	50-150	
E13C7-PFUnDA	260090.0	13C2-PFDA	315319.9	0.825	10.000	9.578	96	50-150	
Ed5-NEtFOSAA	62087.7	13C2-PFDA	315319.9	0.197	10.000	8.332	83	50-150	
E13C2-PFDoDA	545178.9	13C2-PFDA	315319.9	1.729	10.000	8.978	90	50-150	
Ed7-NMePFOSAE	339831.0	13C2-PFDA	315319.9	1.078	10.000	9.328	93	50-150	
Ed3-NMePFOSA	74424.8	13C2-PFDA	315319.9	0.236	10.000	8.577	86	50-150	
Ed9-NEtPFOSAE	285523.3	13C2-PFDA	315319.9	0.906	10.000	9.419	94	50-150	
Ed5-NEtPFOSA	64667.6	13C2-PFDA	315319.9	0.205	10.000	9.622	96	50-150	
E13C2-PFTeDA	398085.1	13C2-PFDA	315319.9	1.262	10.000	8.864	89	50-150	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

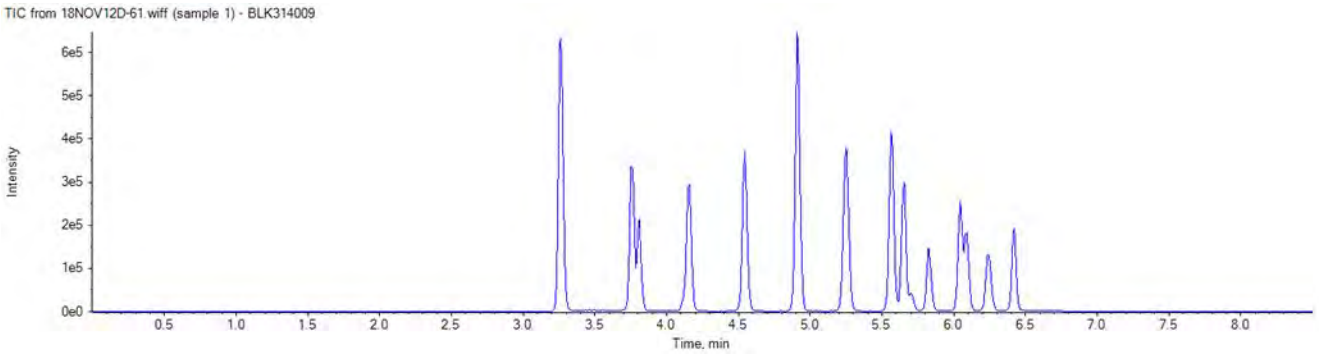
Analyte Quantitation Peak Table

Sample Name: BLK314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-61.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	758902.2	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	749222.9	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	425635.3	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	51052.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	689496.3	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	425635.3	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	528205.2	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	325083.5	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	36476.8	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	325083.5	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	884378.0	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	277389.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	476524.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	277389.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	631518.9	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	26930.3	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	684138.1	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	89590.7	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	277389.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	260090.0	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	62087.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	545178.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	26930.3	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	339831.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	74424.8	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	277389.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	285523.3	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	64667.6	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	545178.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	398085.1	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	398085.1	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	398085.1	N/A	

Total Ion Chromatogram

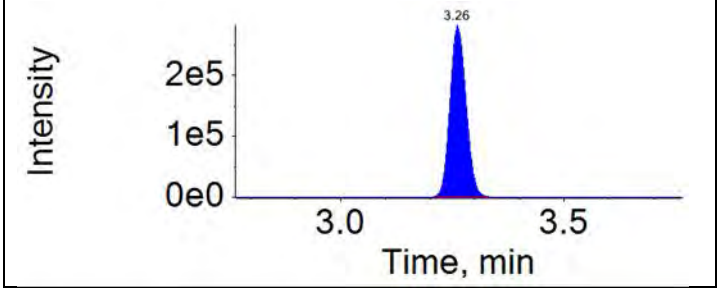


APPROVED
By JPT at 4:11 pm, 11/13/18

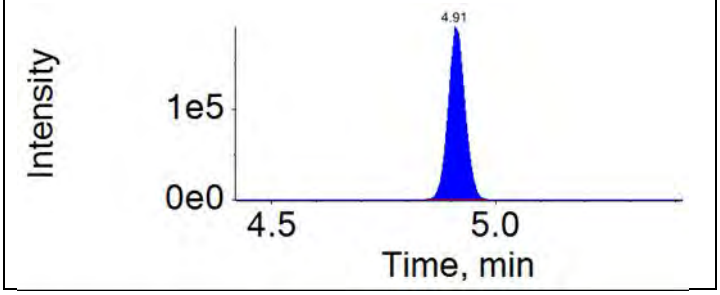
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

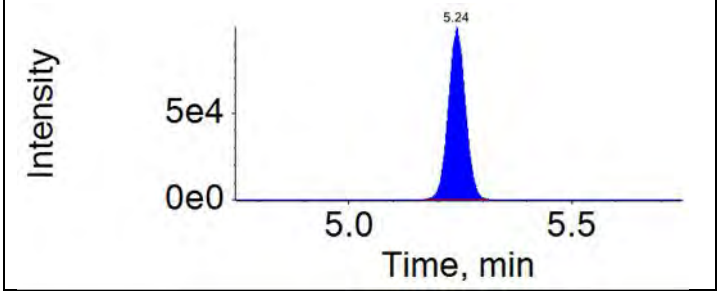
Injection Standard: 13C3-PFBA
216.0 / 172.0



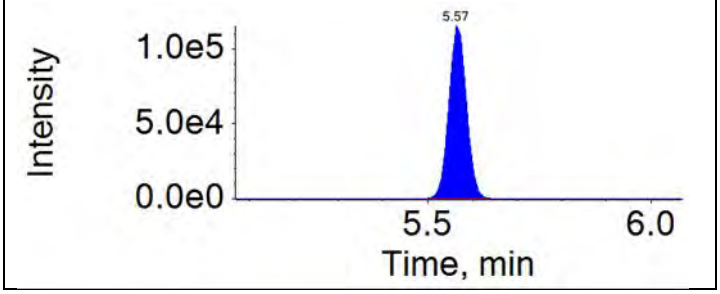
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

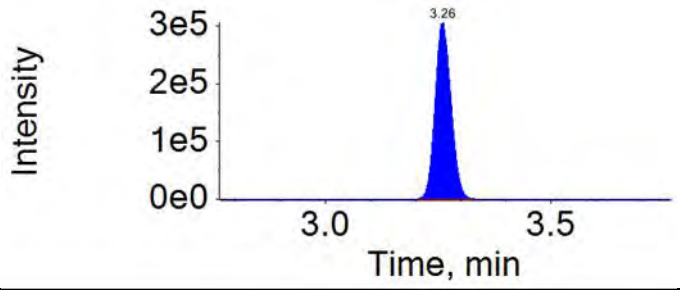


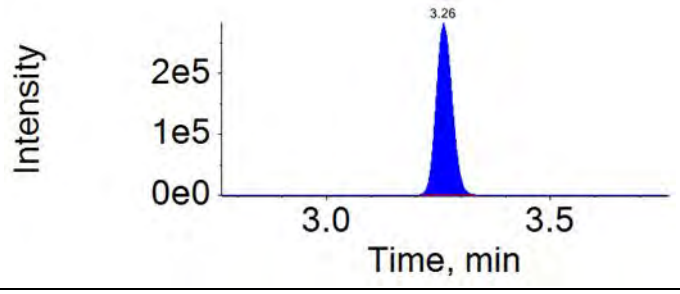
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

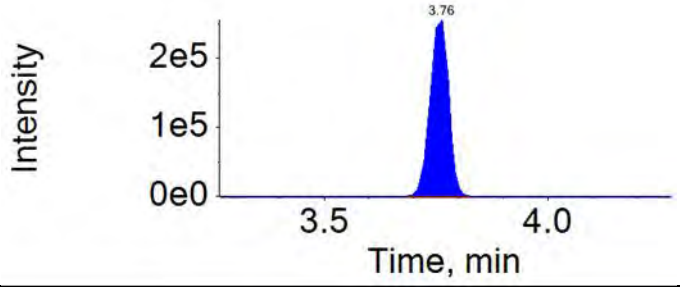
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

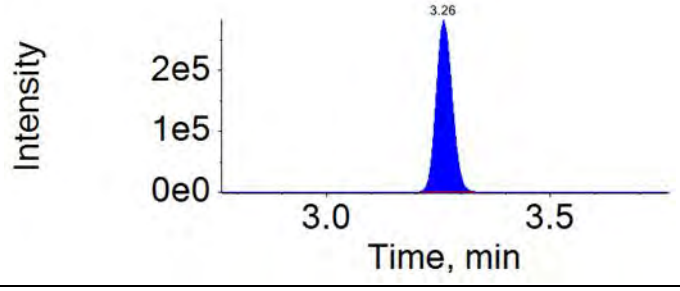
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



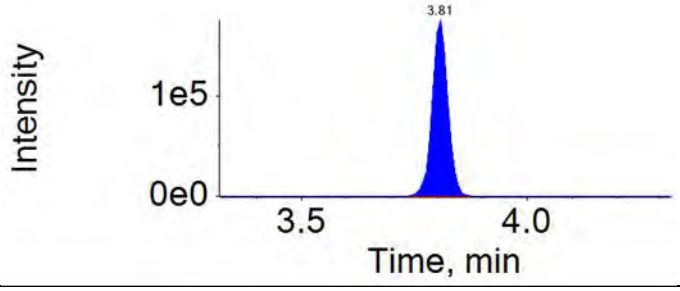


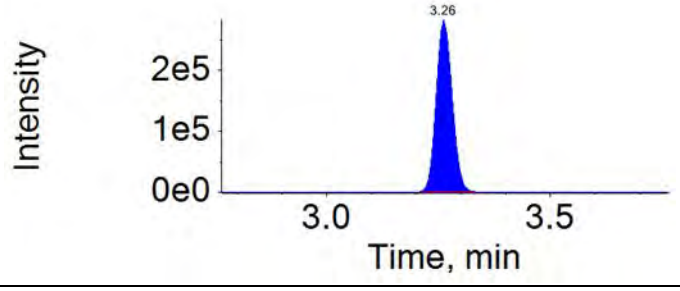
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



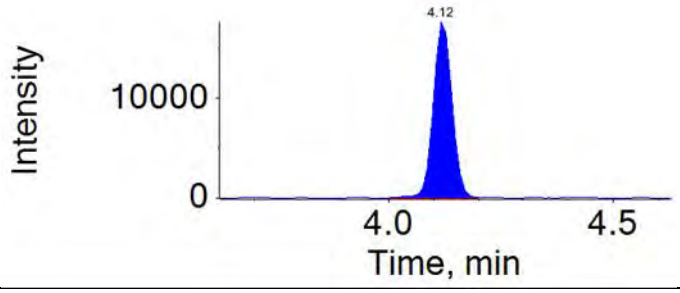


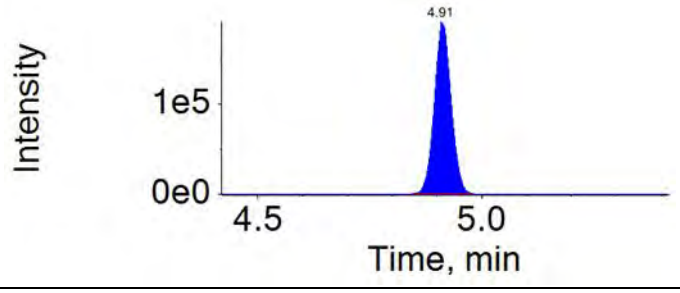
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



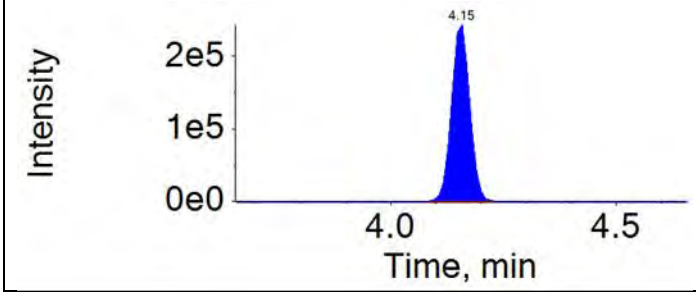


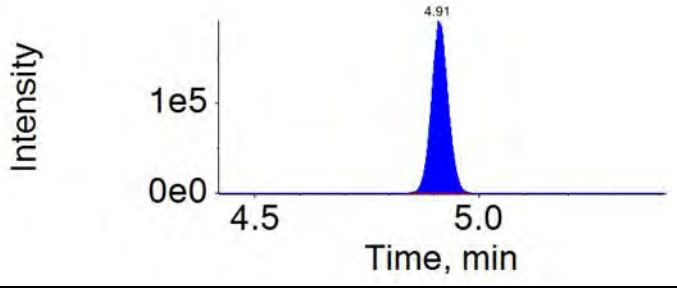
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

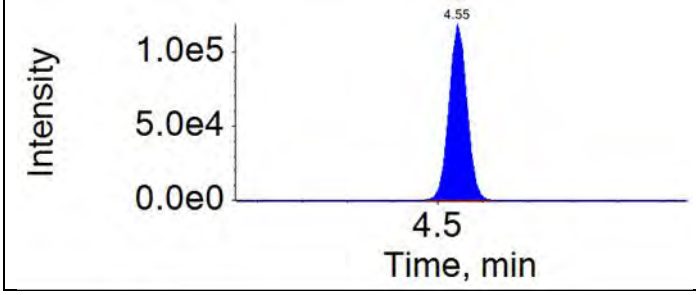
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

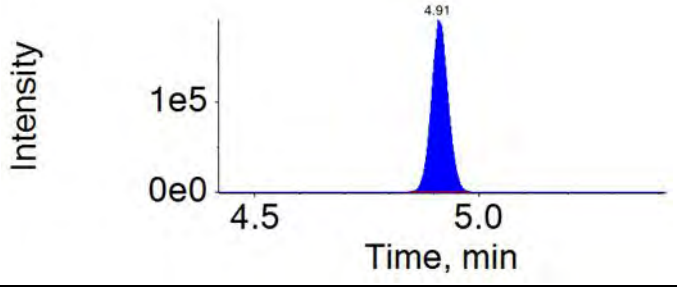
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



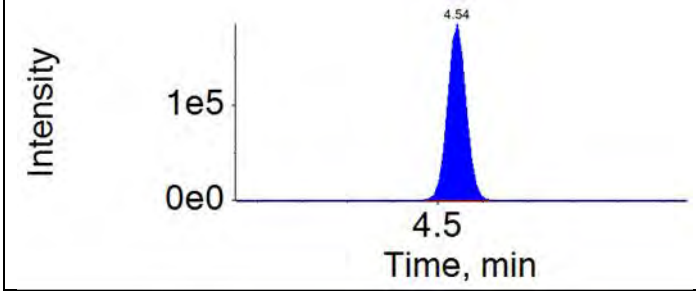


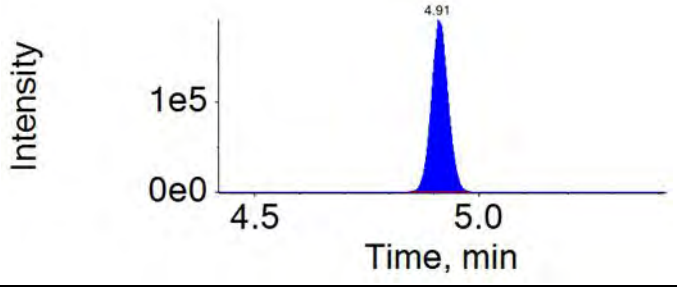
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



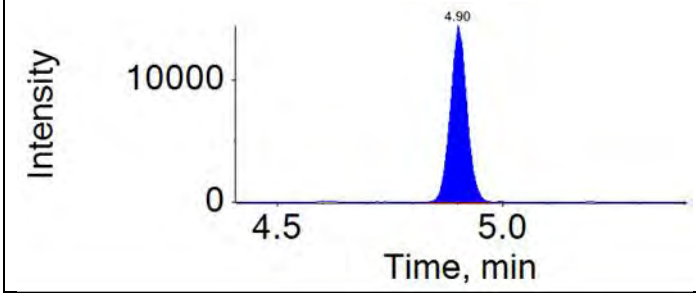


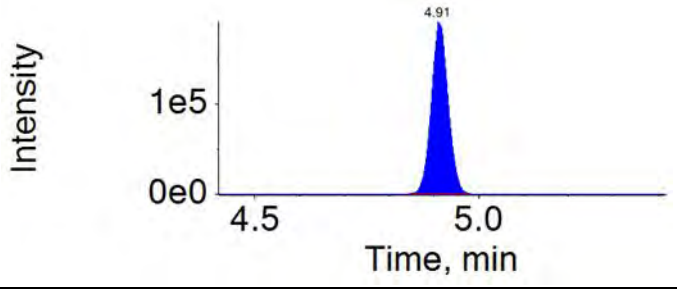
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



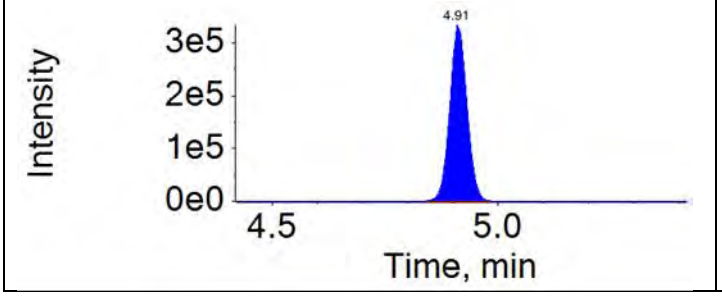


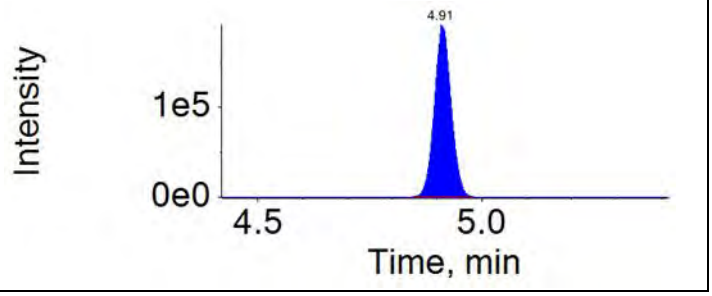
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

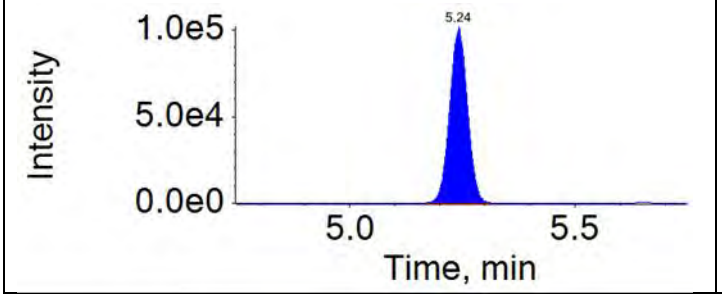
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

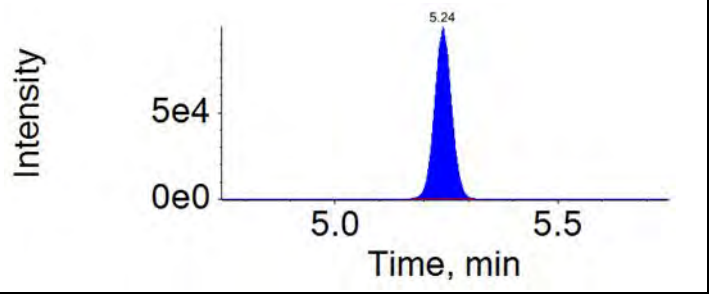
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



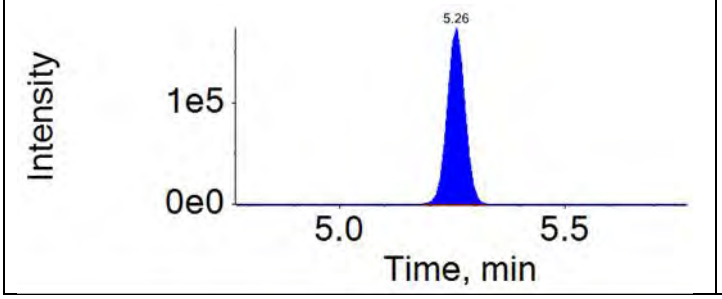


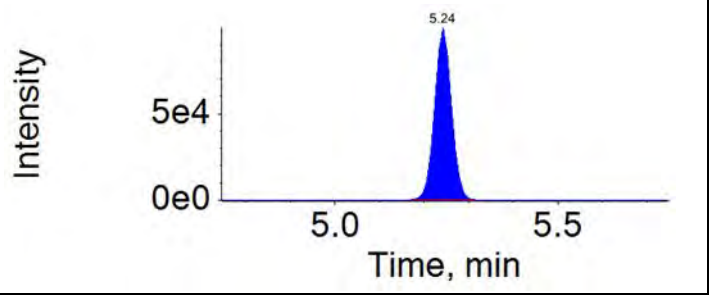
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



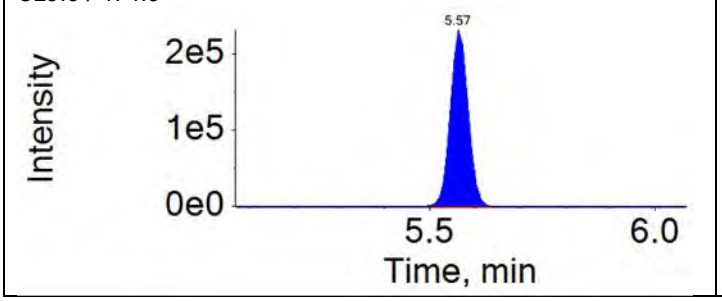


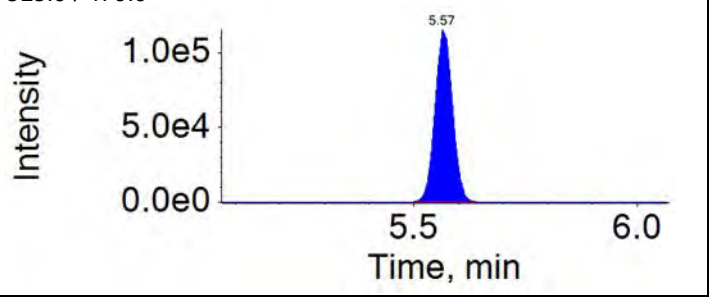
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

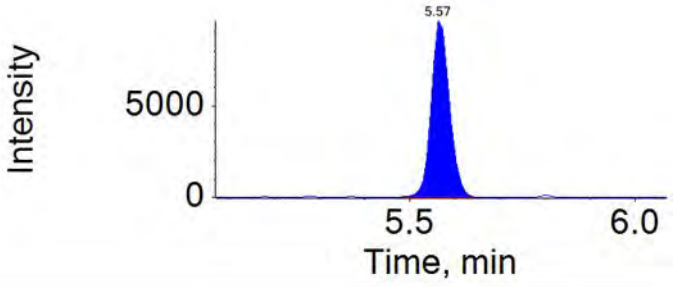
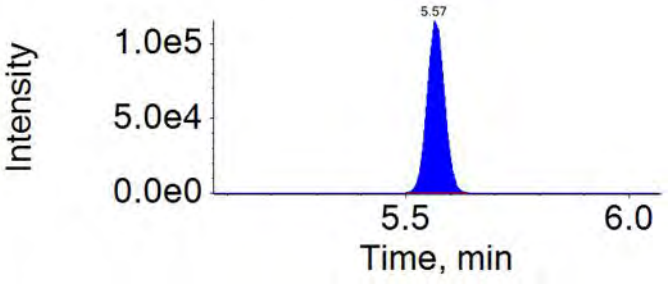


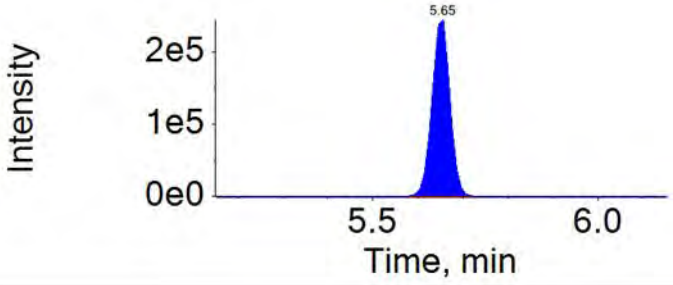
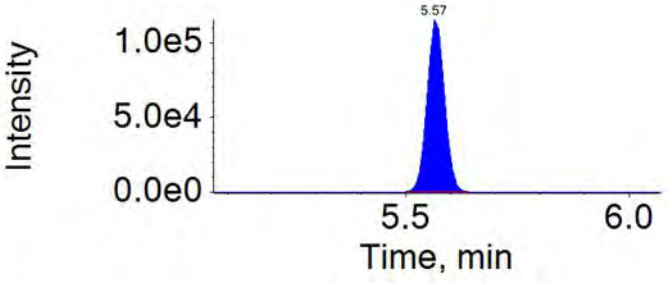


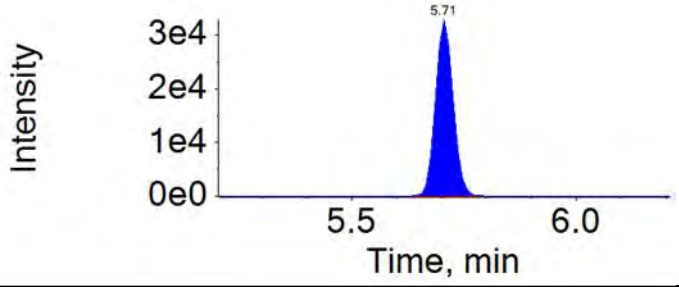
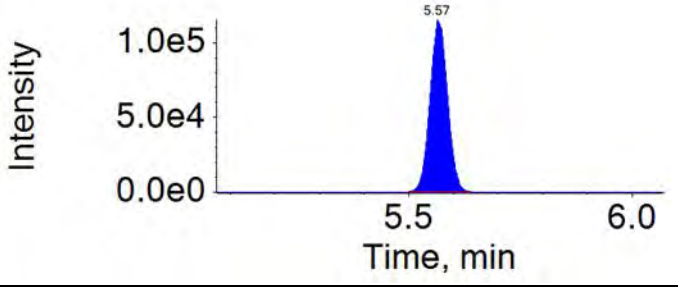
APPROVED
By JPT at 4:11 pm, 11/13/18

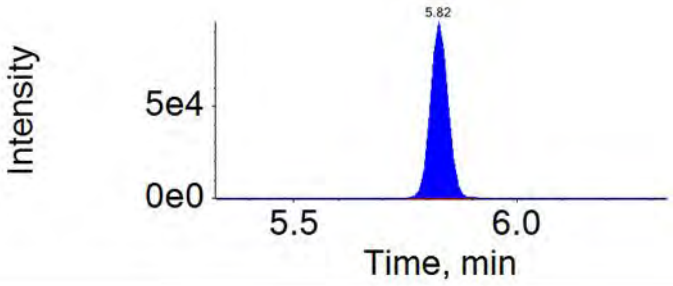
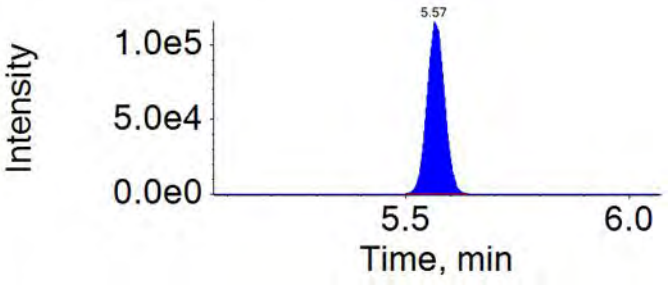
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

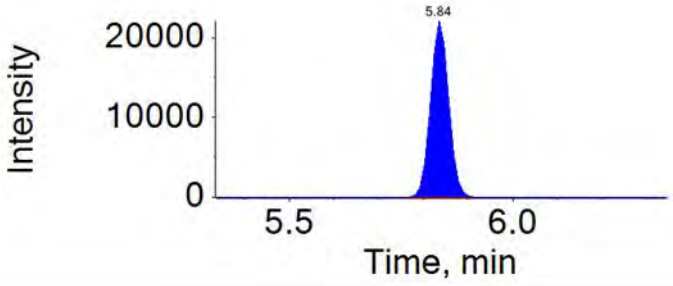
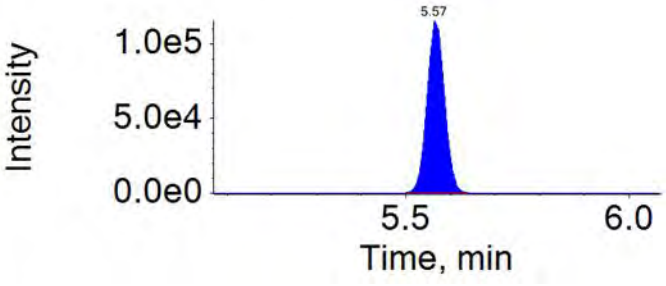
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

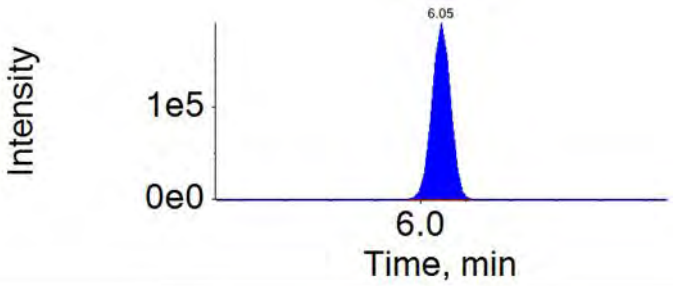
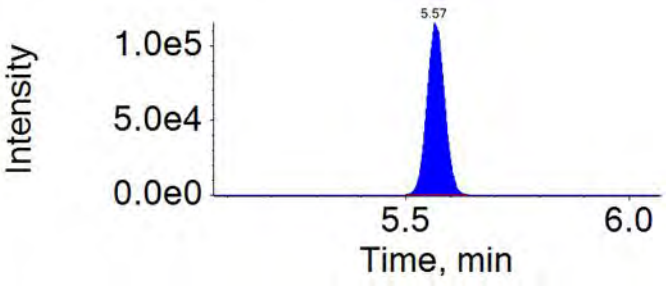
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

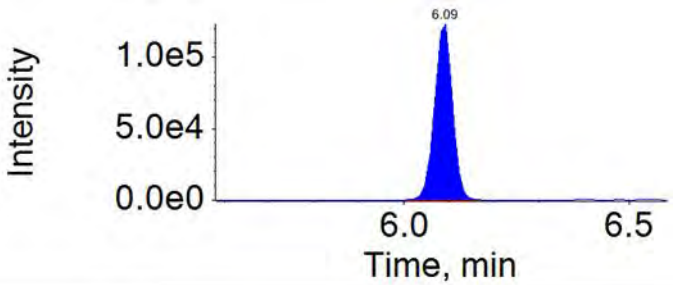
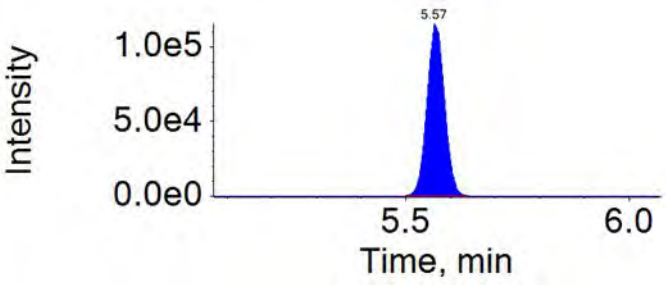
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

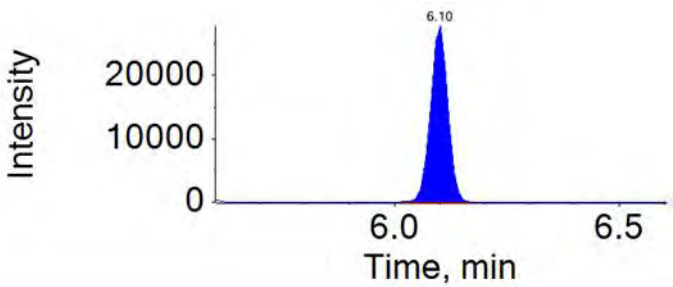
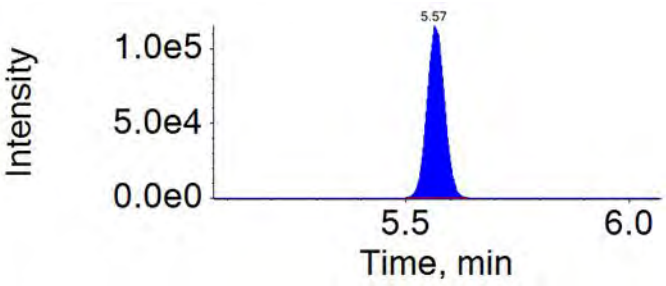
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

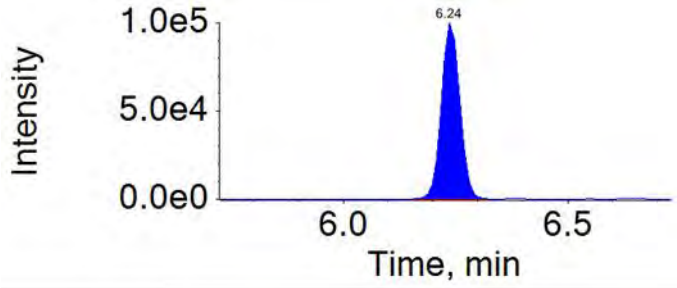
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

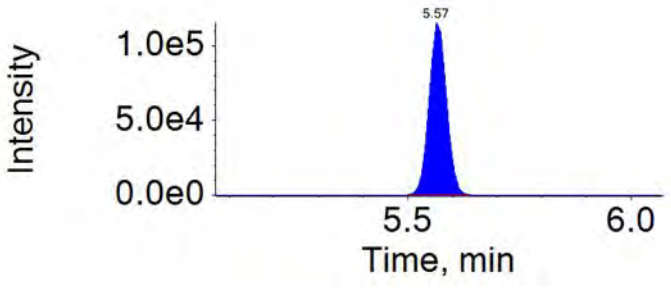
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

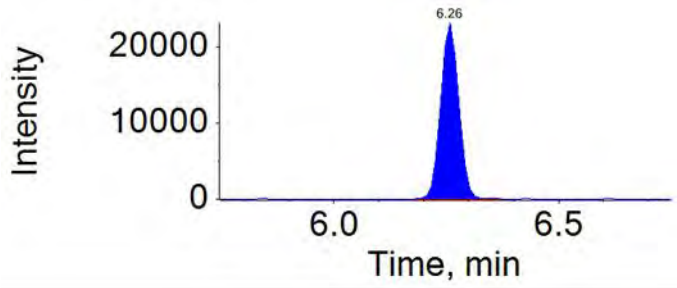
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

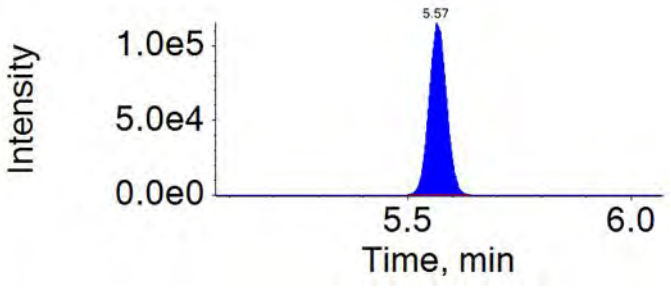
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



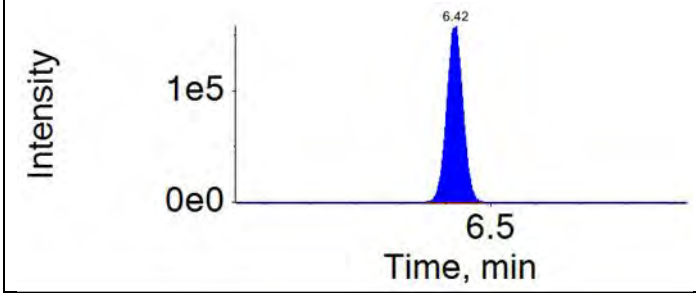


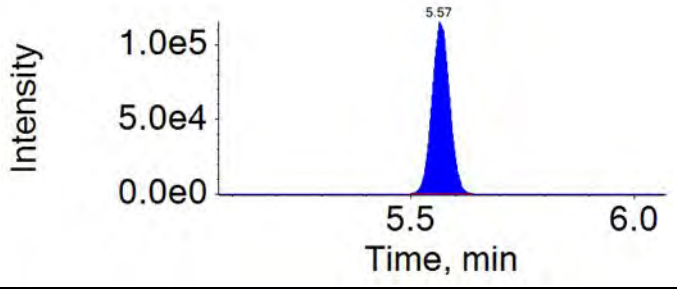
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



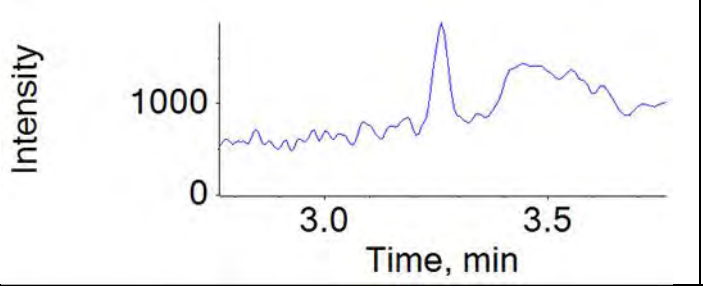


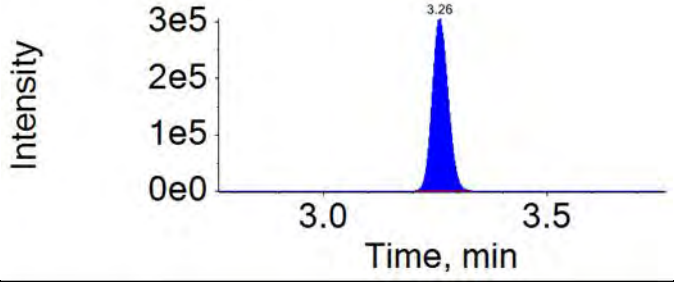
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

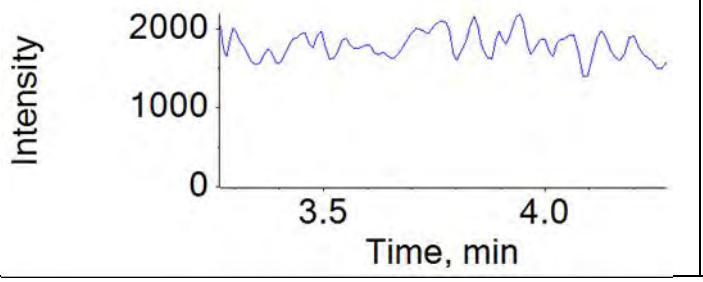
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

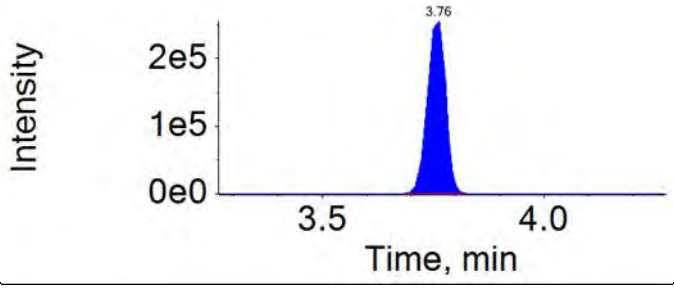
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



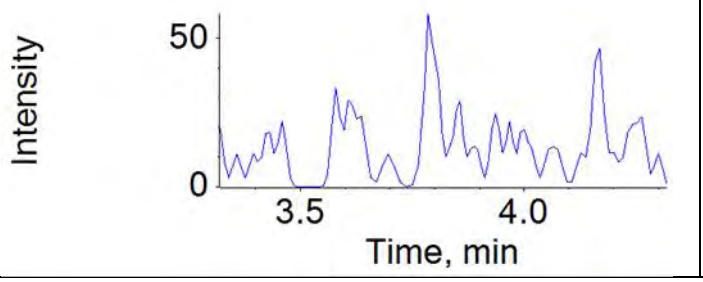


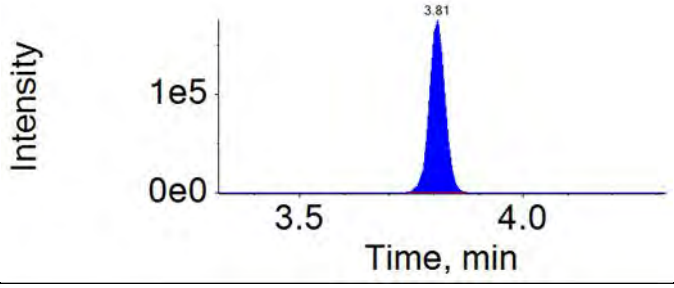
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



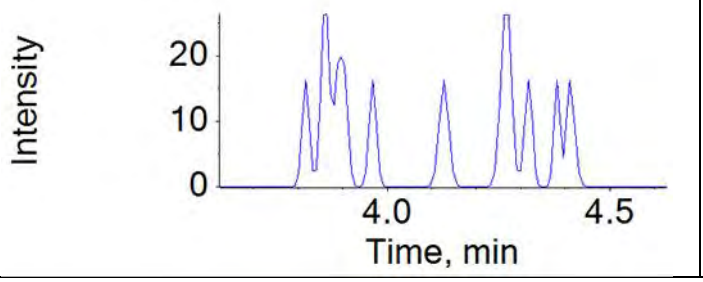


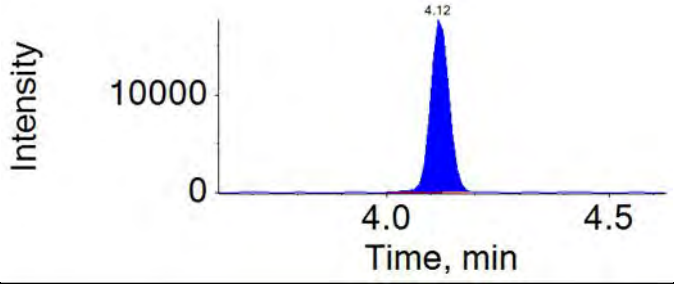
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



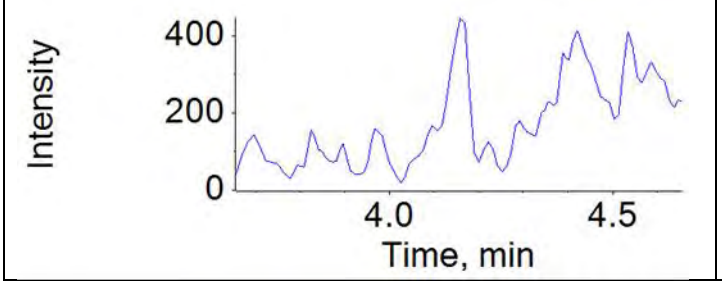


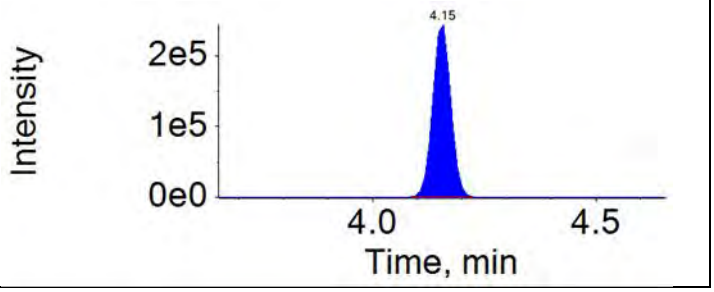
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

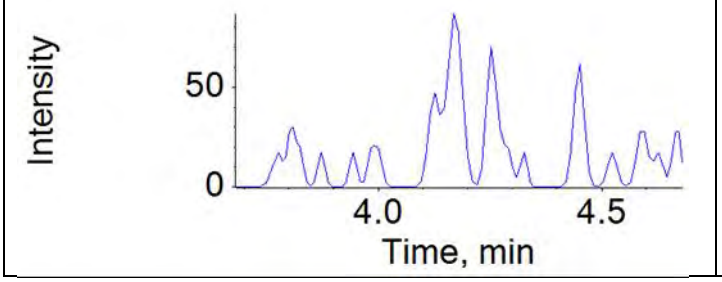
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

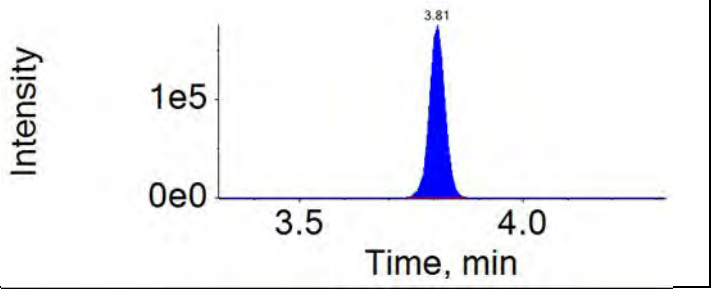
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



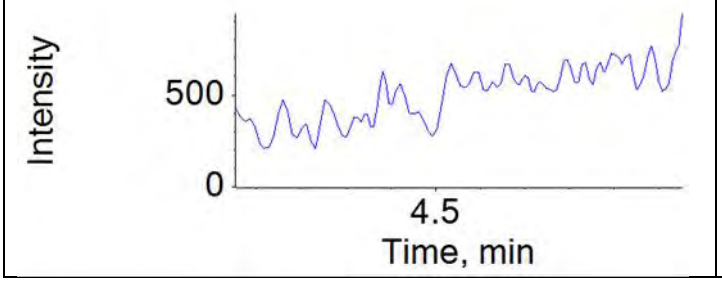


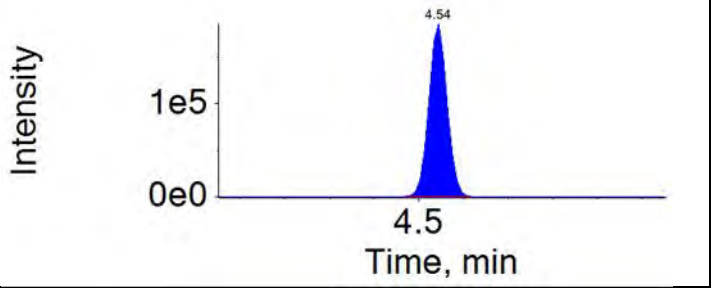
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



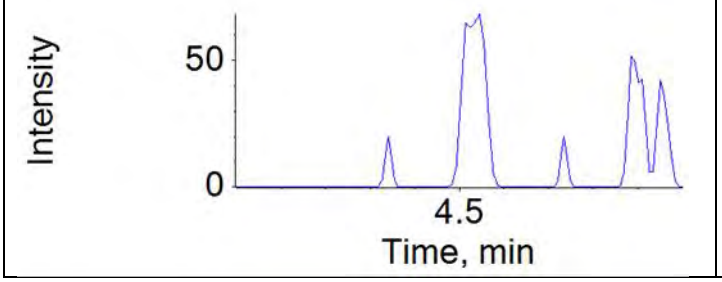


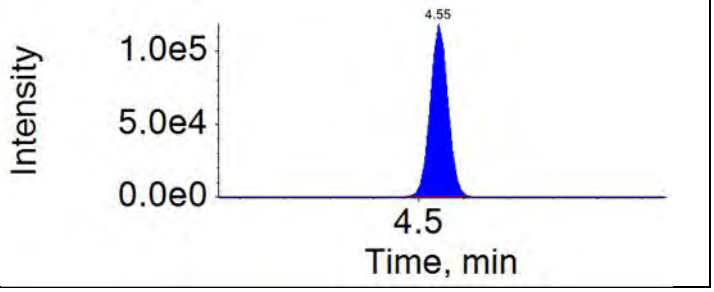
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





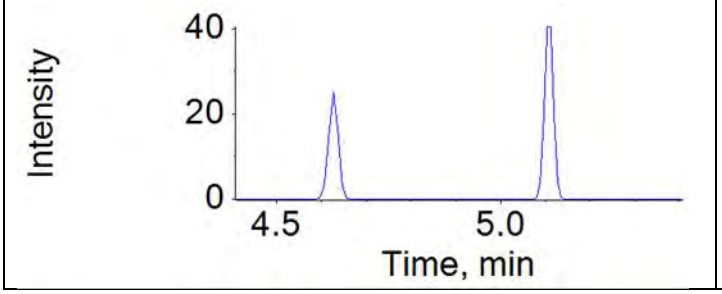
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

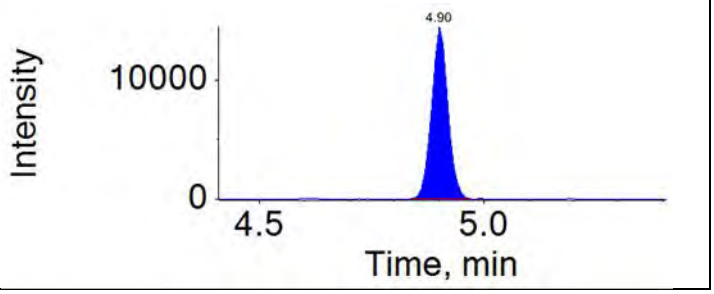




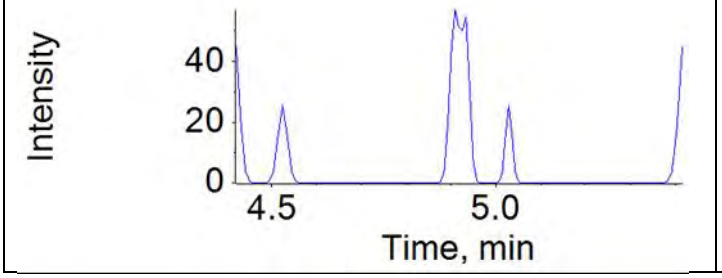
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

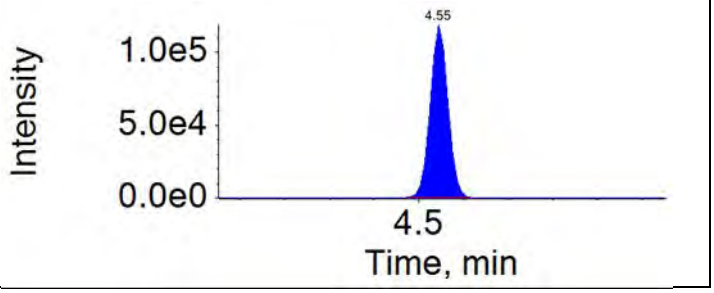
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



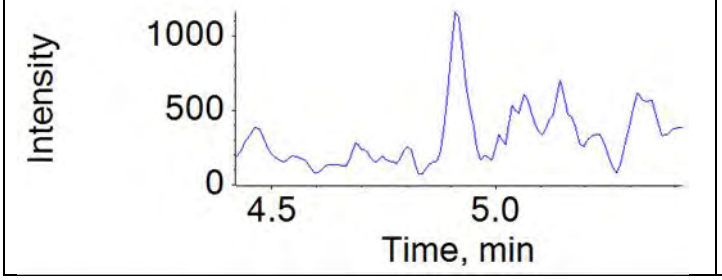


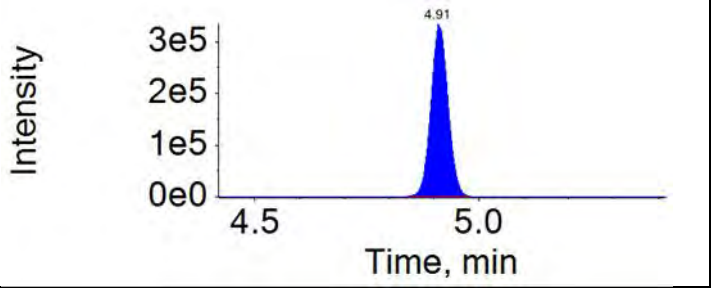
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



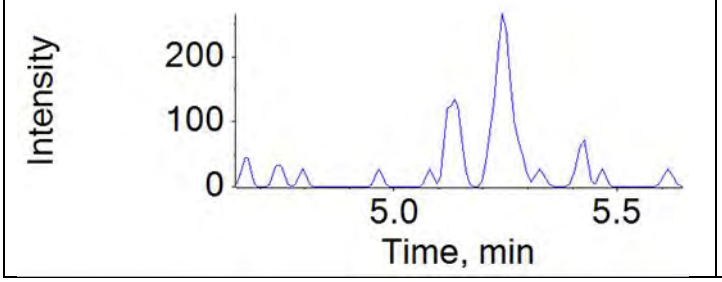


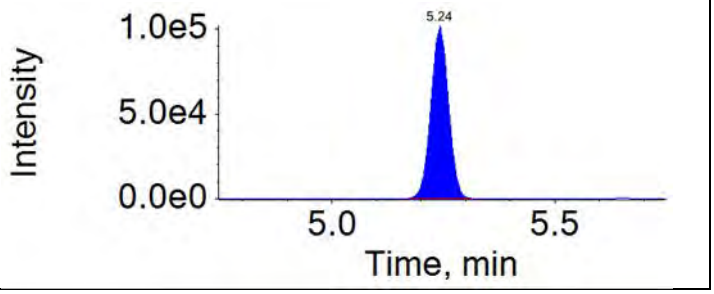
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



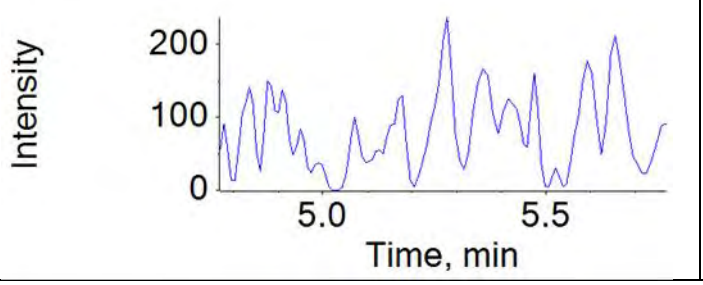


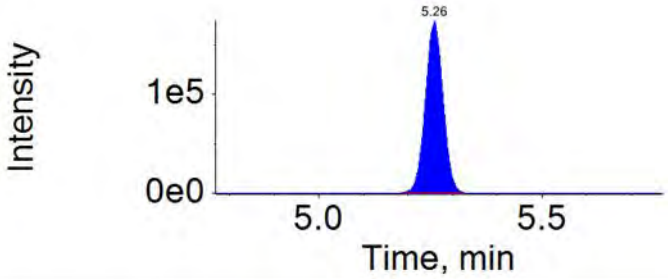
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

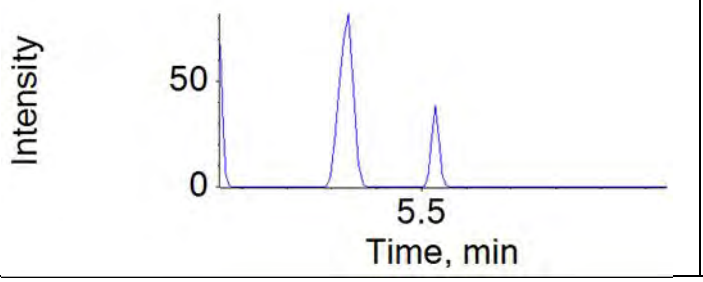
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

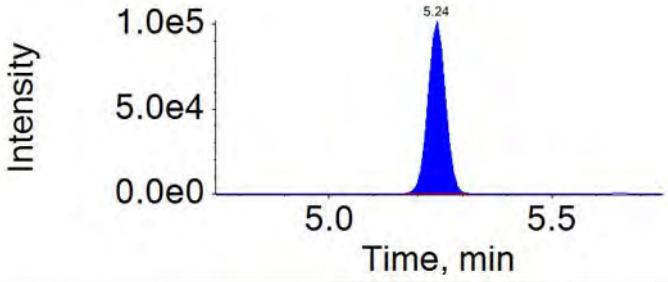
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



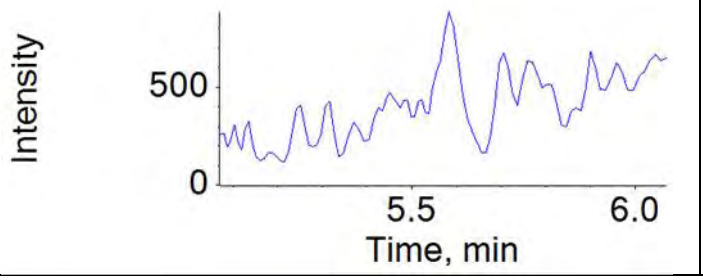


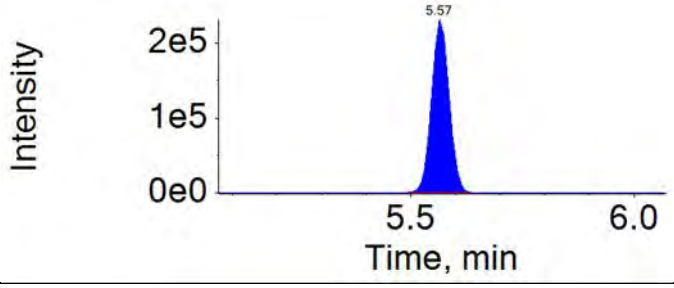
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



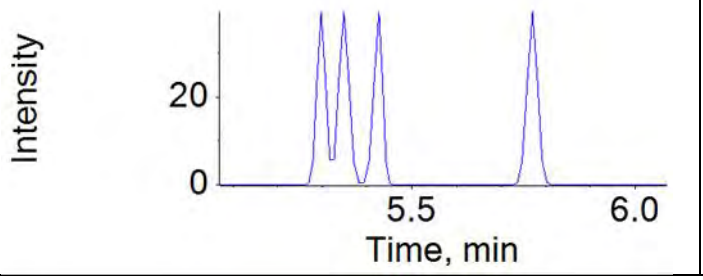


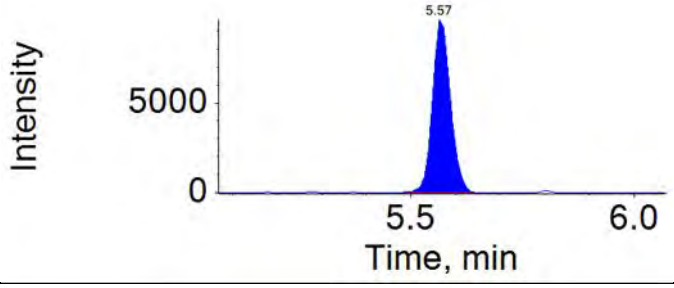
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



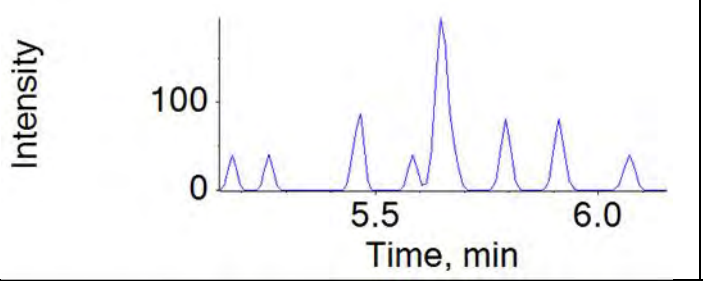


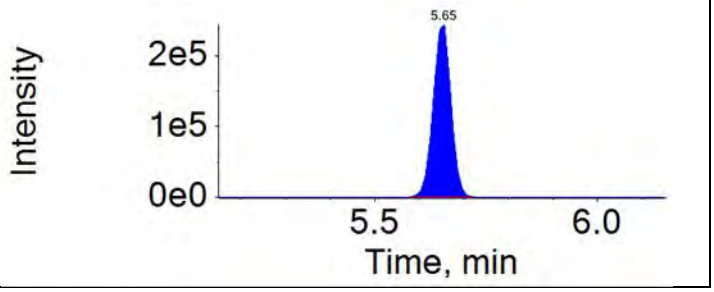
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

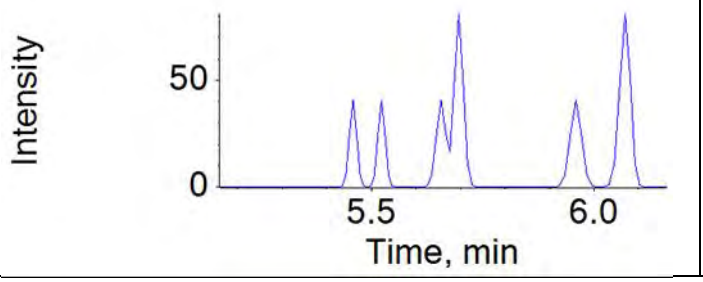
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

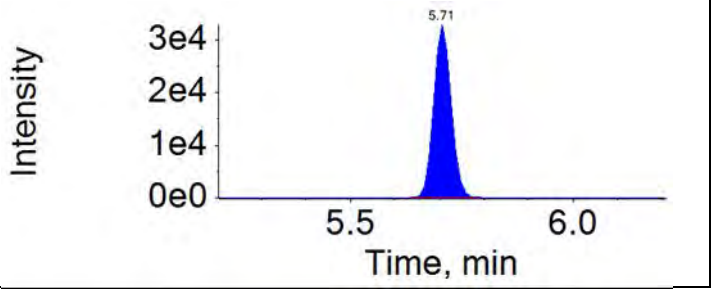
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



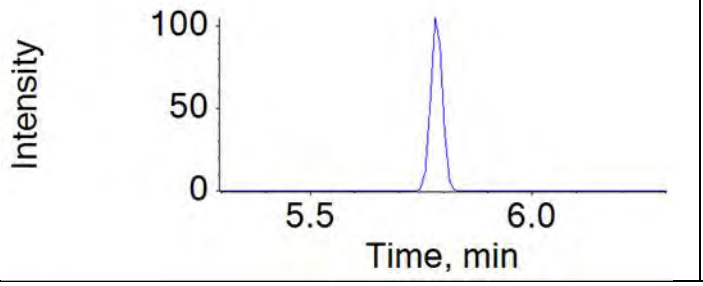


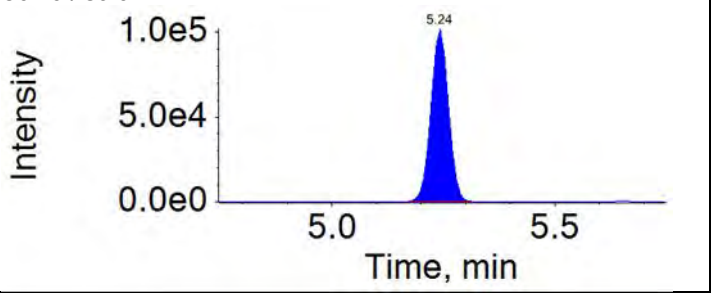
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



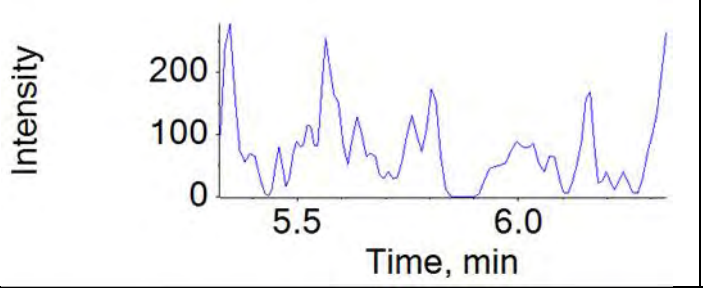


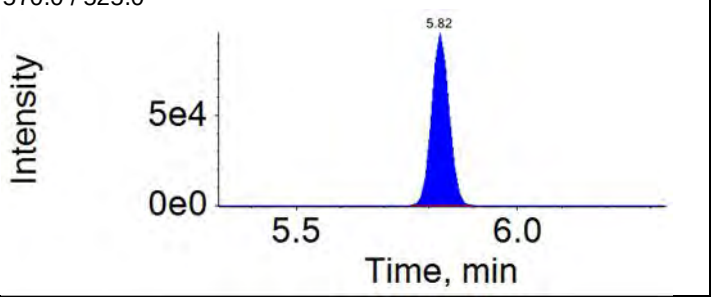
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



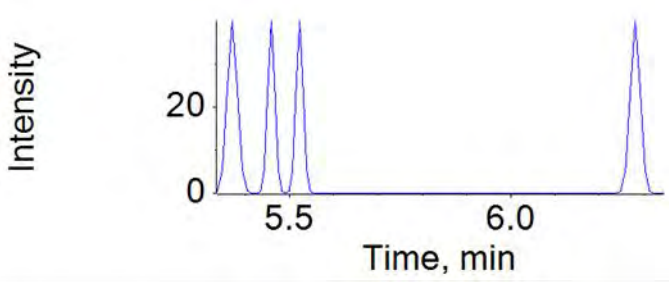


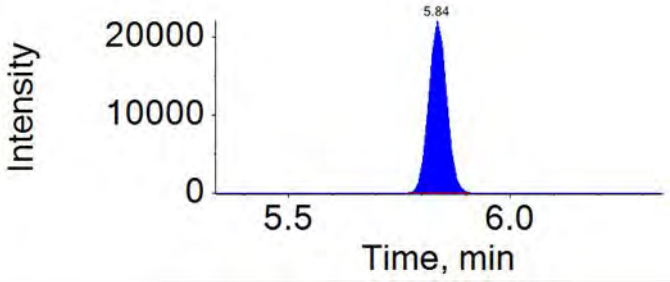
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

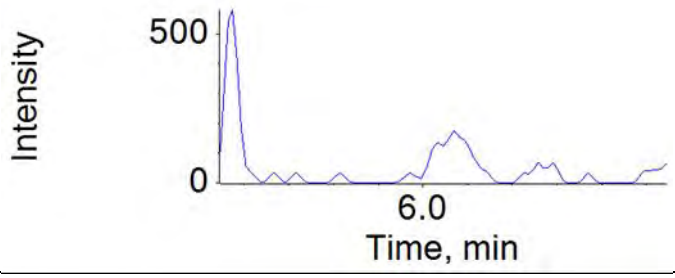
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

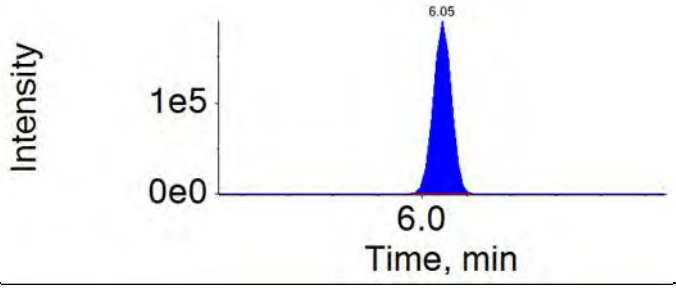
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



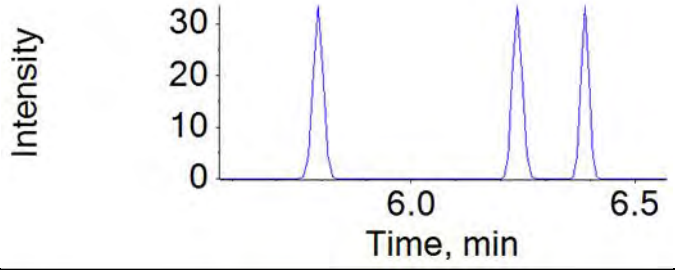


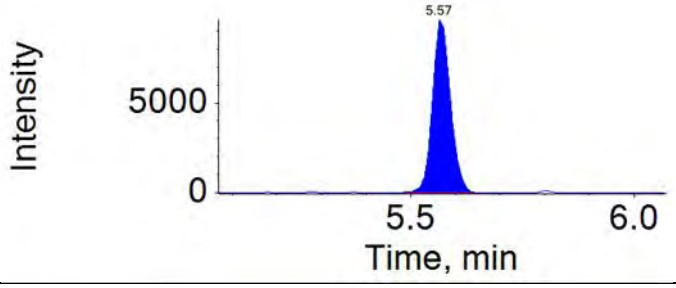
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



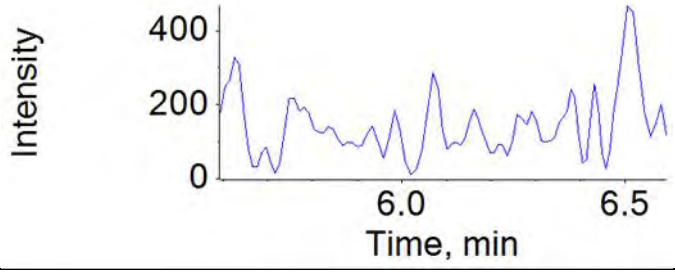


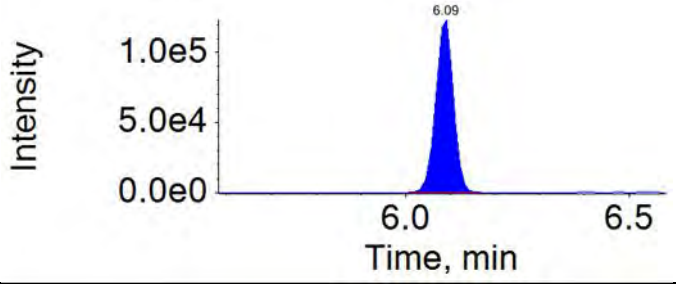
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



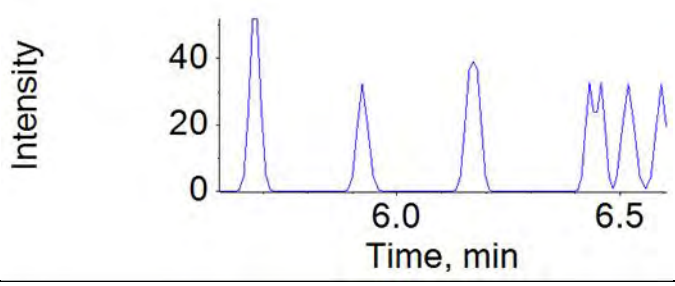


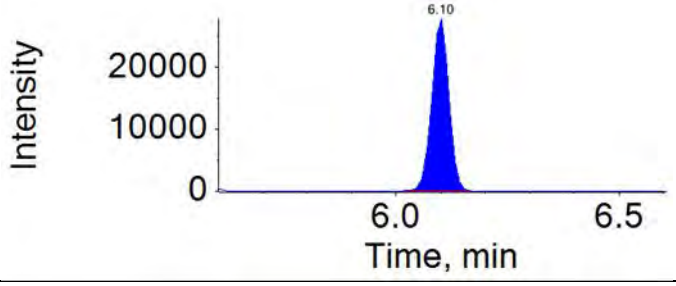
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

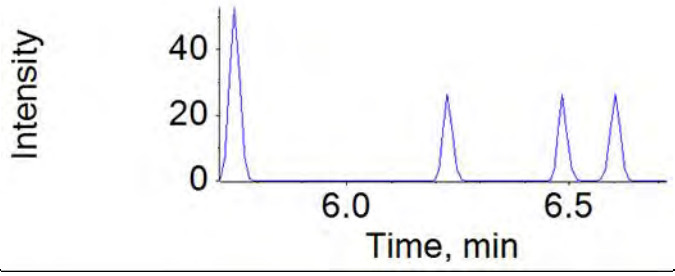
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

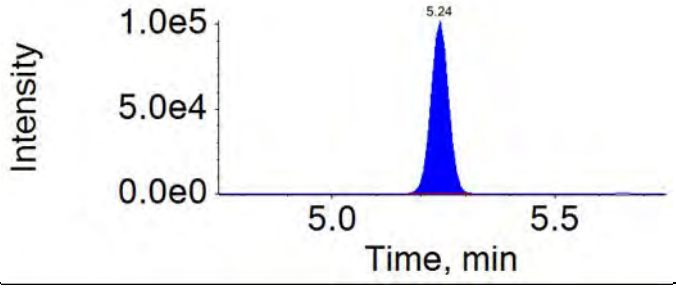
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



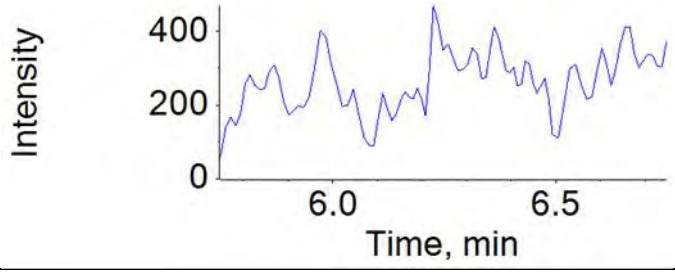


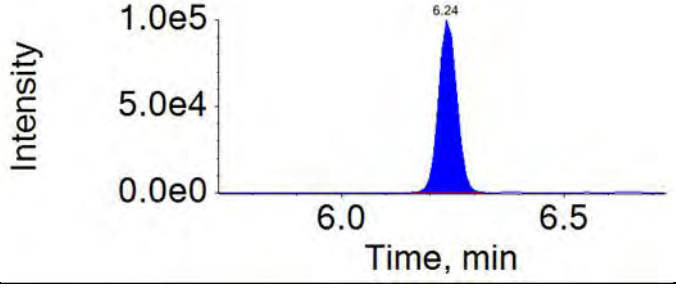
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



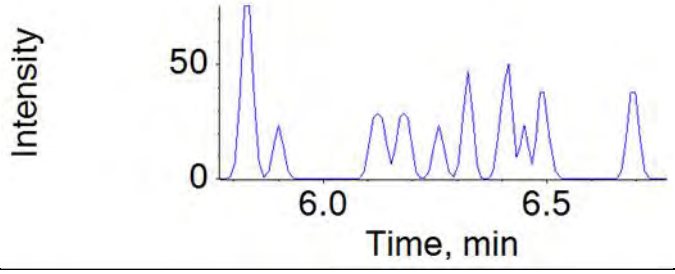


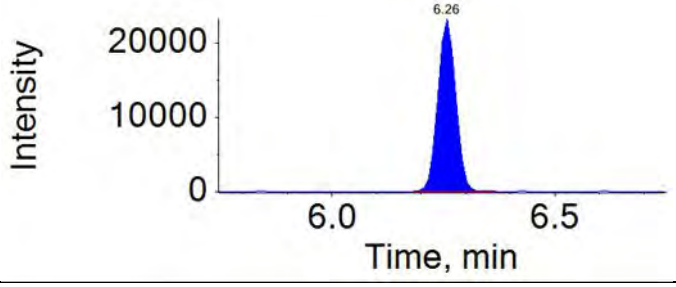
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0



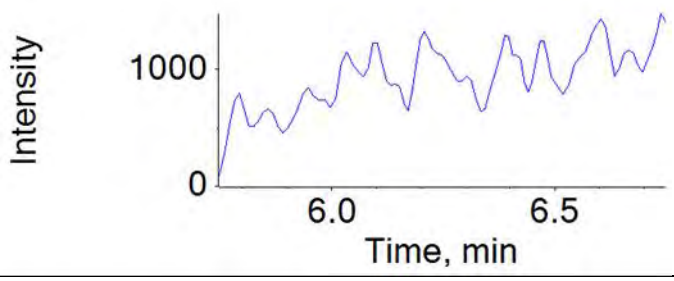
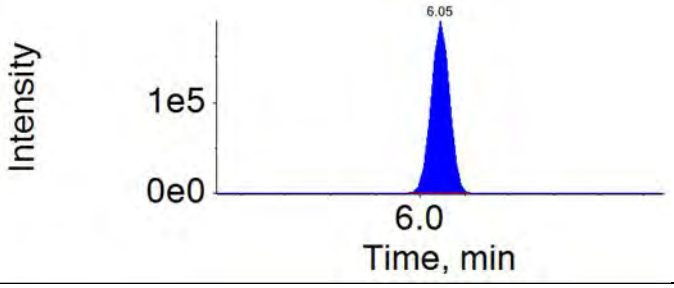


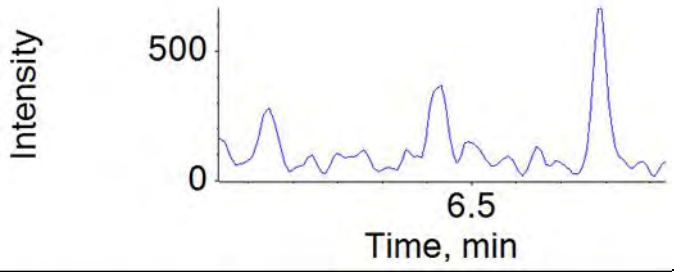
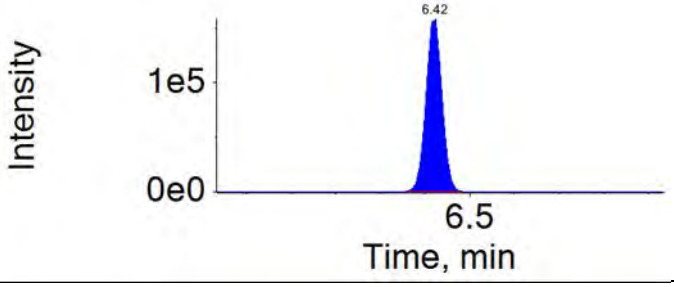
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

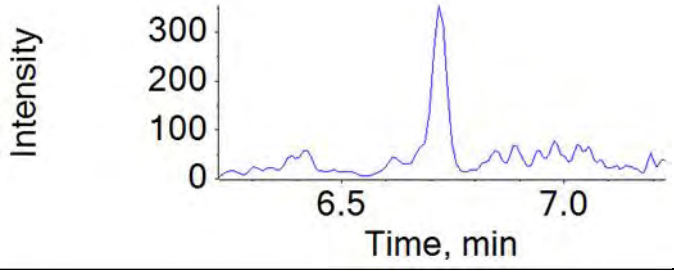
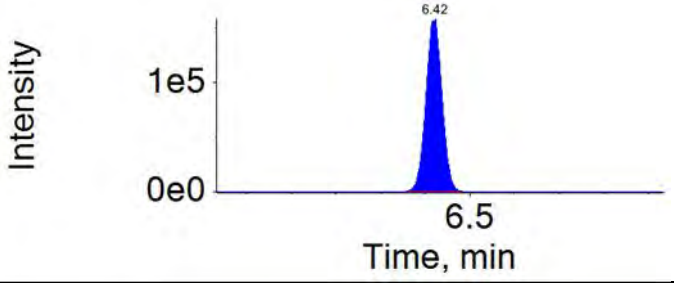


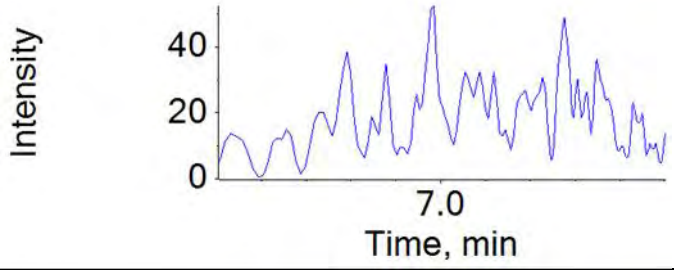
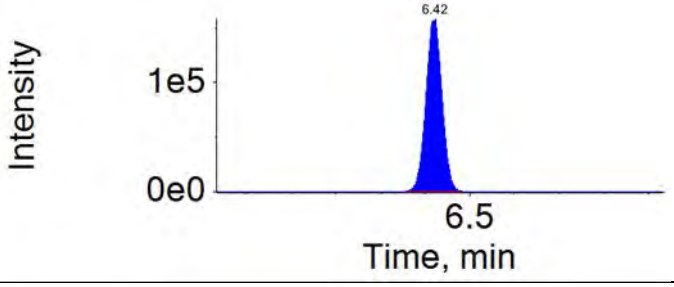


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

Ion Ratio Report

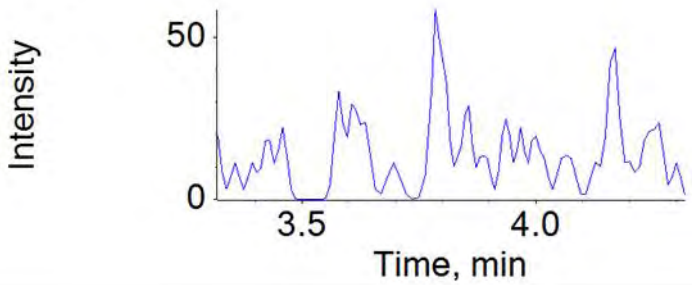
Sample Name: BLK314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-61.wiff

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!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

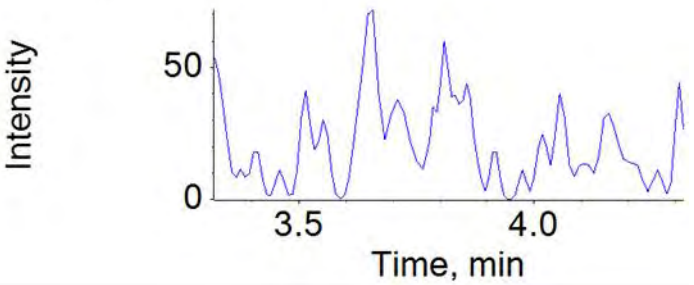
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

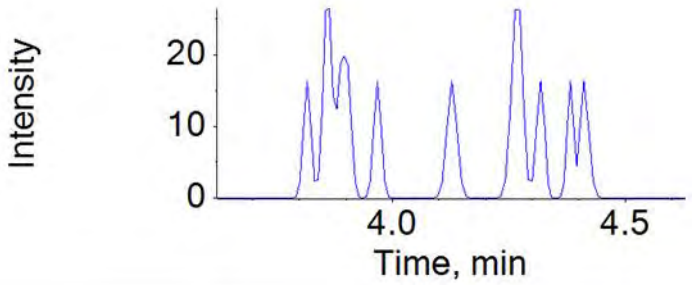
Component: PFBS
Primary Mass: 299.0 / 80.0



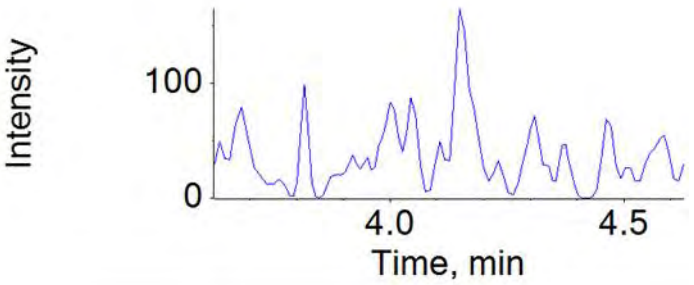
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



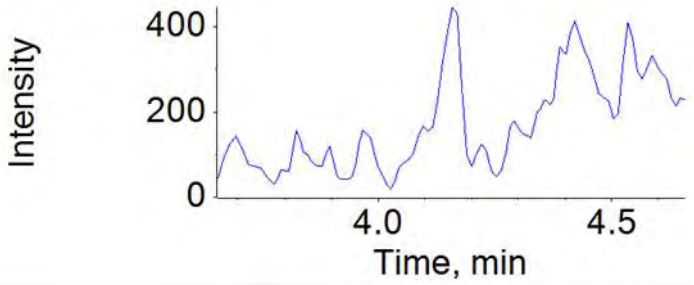
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



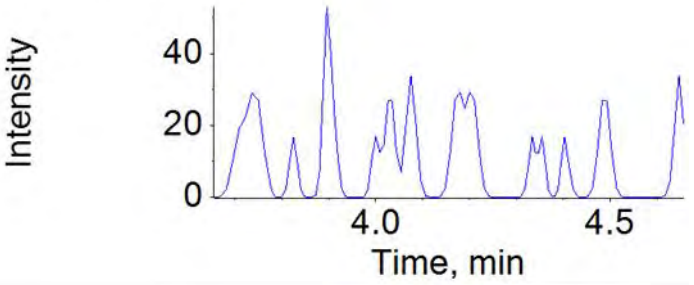
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



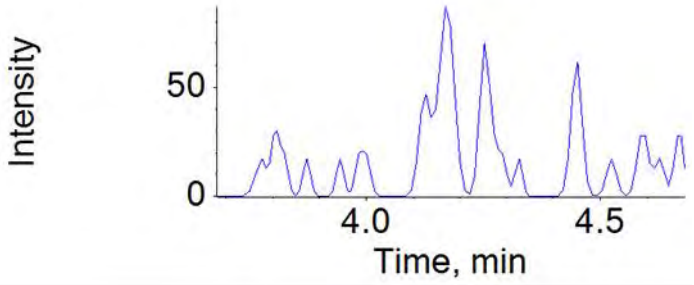
Component: PFHxA
Primary Mass: 313.0 / 269.0



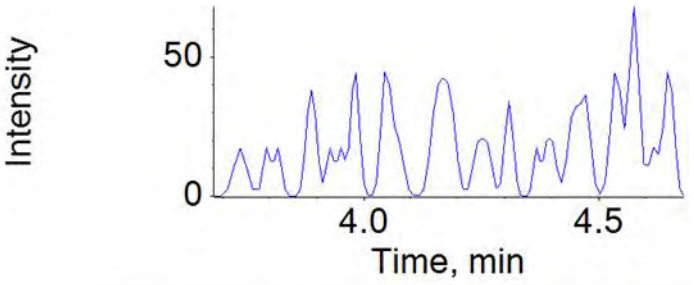
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



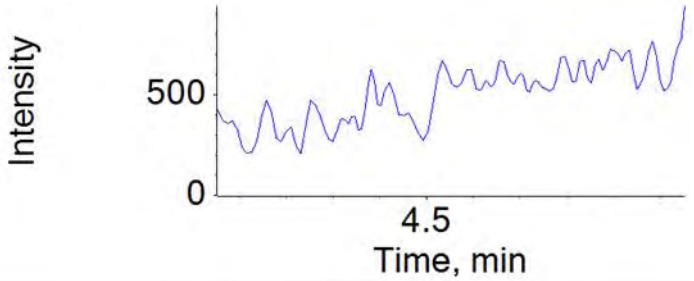
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



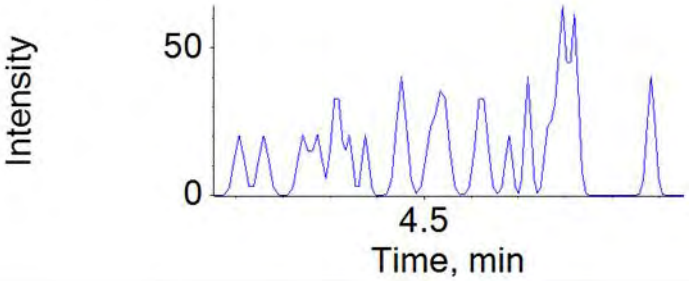
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

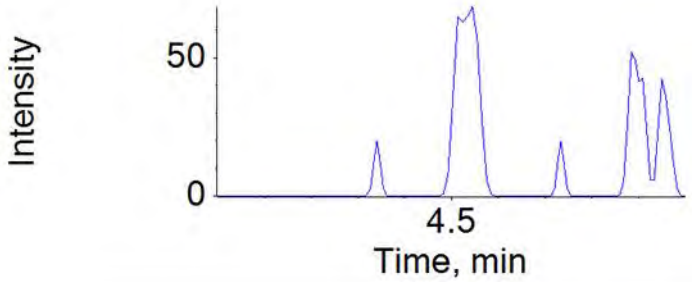
Component: PFHpA
Primary Mass: 363.0 / 319.0



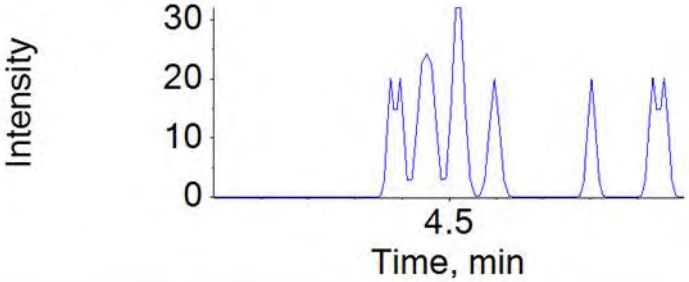
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



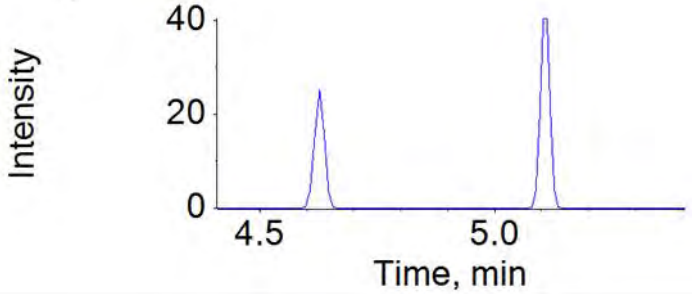
Component: PFHxS
Primary Mass: 399.0 / 80.0



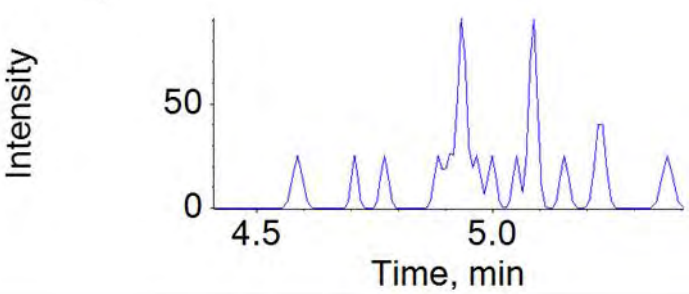
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



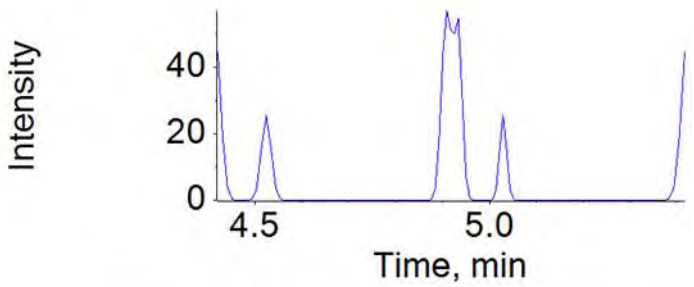
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



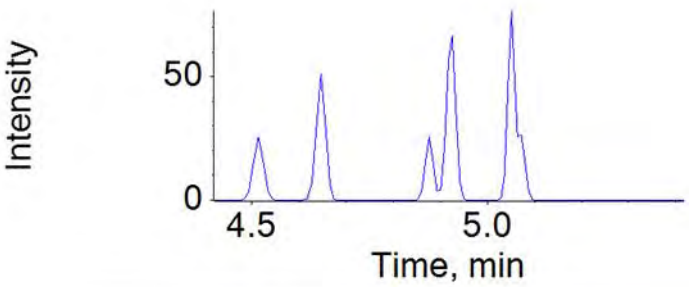
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



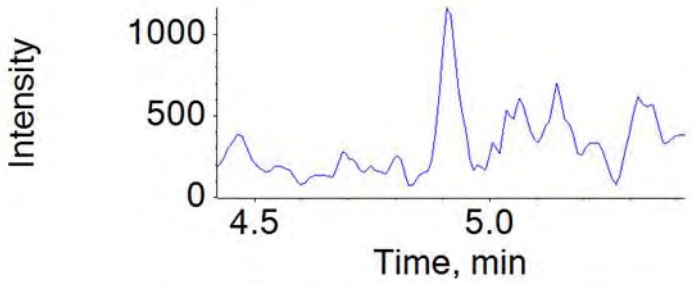
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



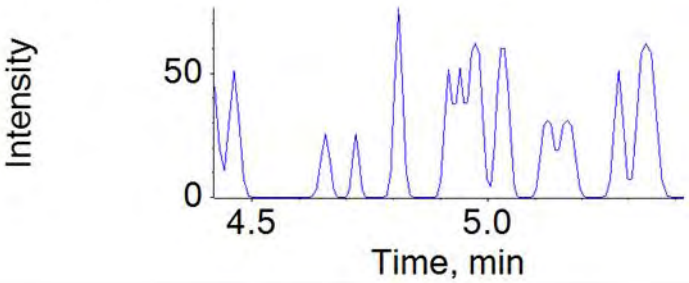
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

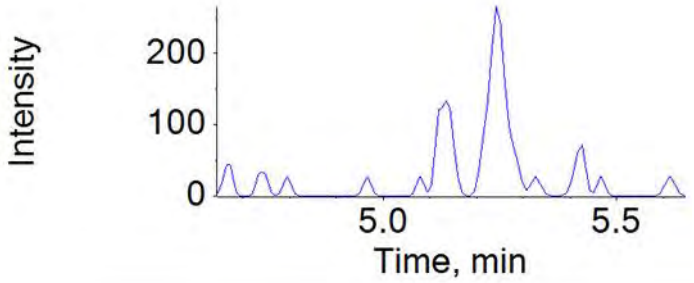
Component: PFOA
Primary Mass: 413.0 / 369.0



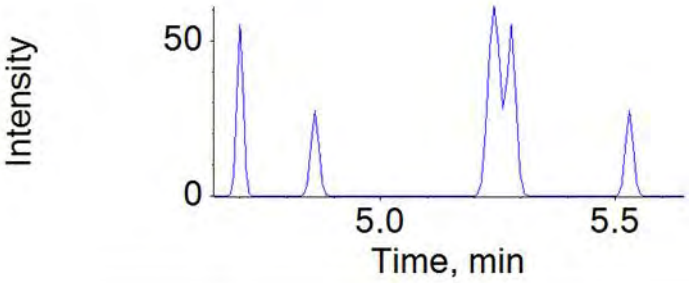
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



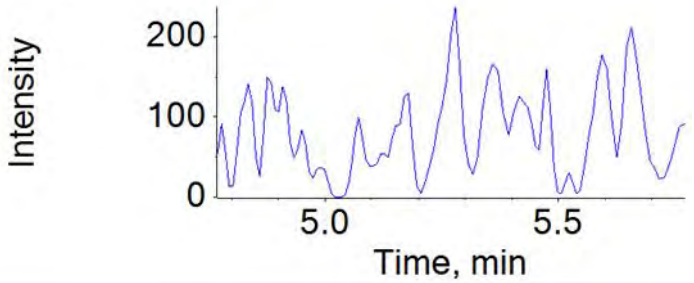
Component: PFOS
Primary Mass: 499.0 / 80.0



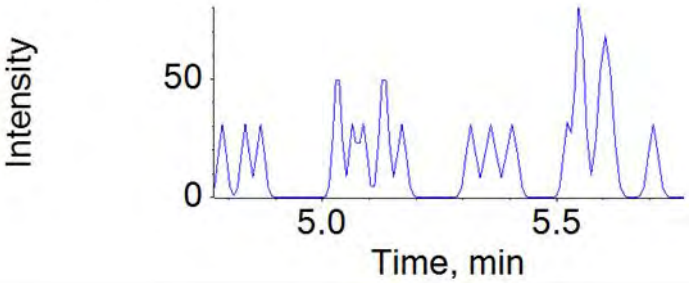
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



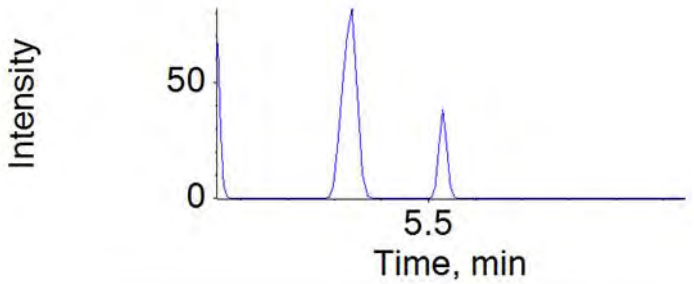
Component: PFNA
Primary Mass: 463.0 / 419.0



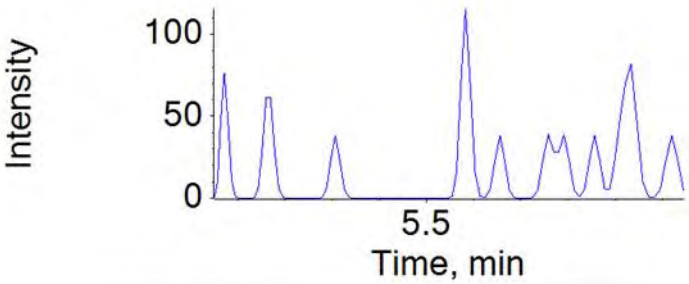
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



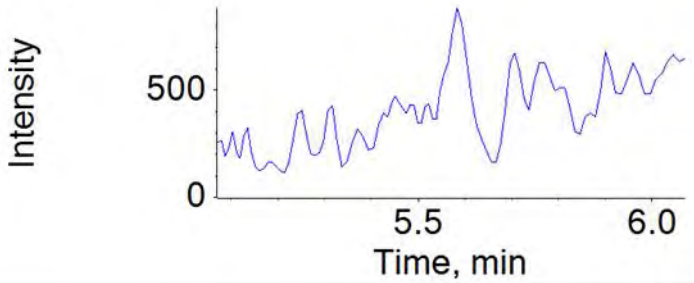
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



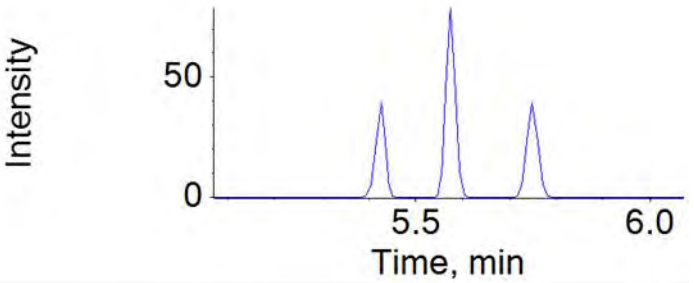
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

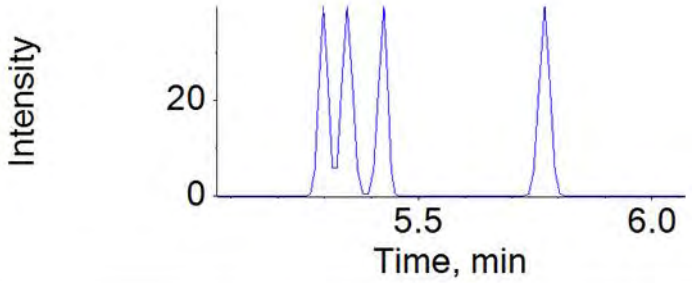
Component: PFDA
Primary Mass: 513.0 / 469.0



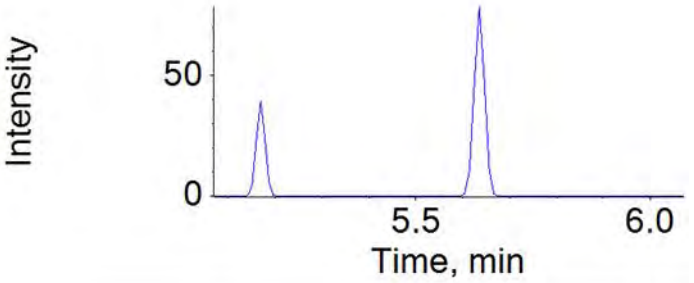
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



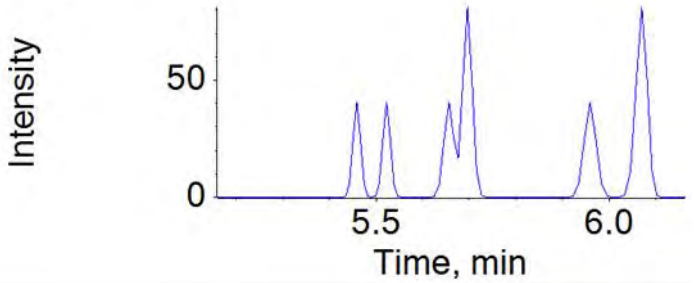
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



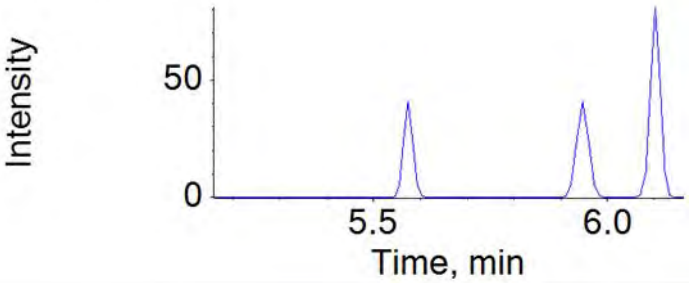
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



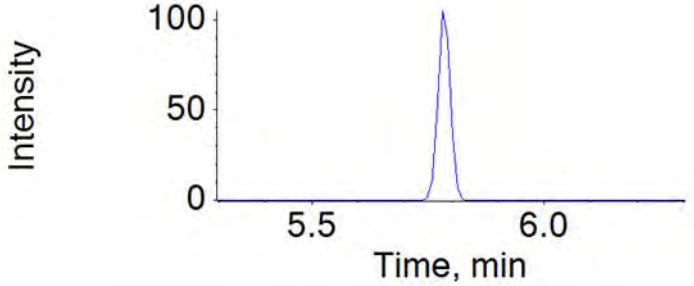
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



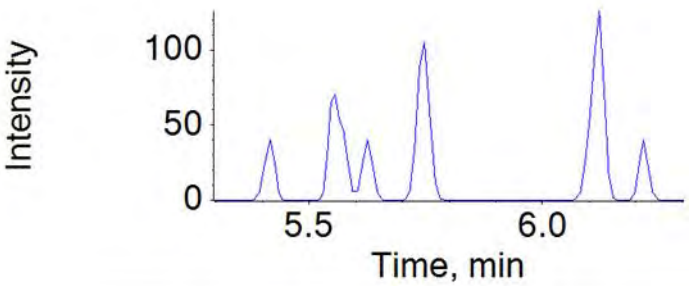
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



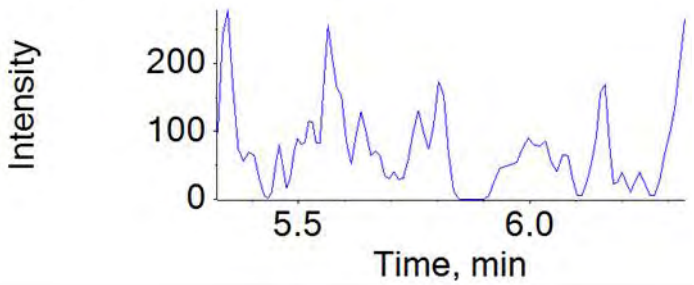
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



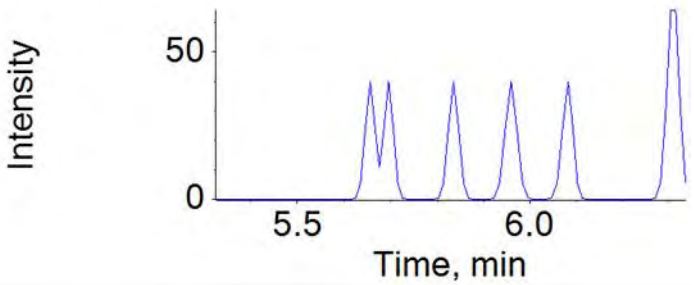
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

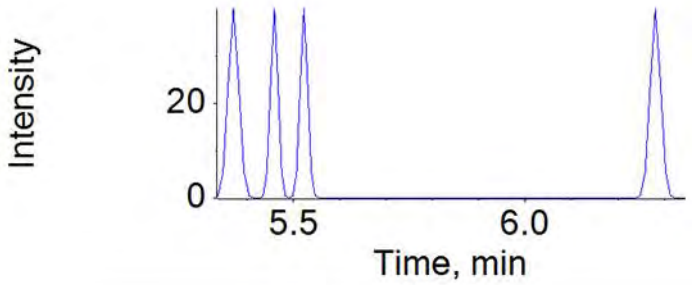
Component: PFUnDA
Primary Mass: 563.0 / 519.0



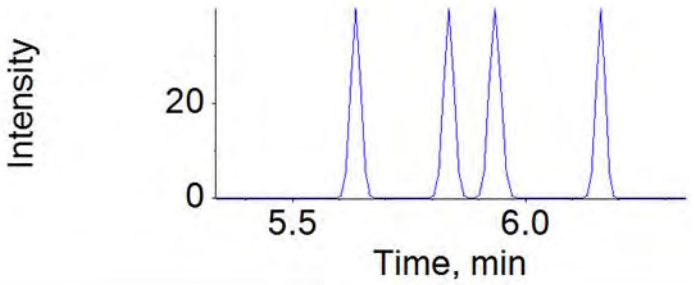
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



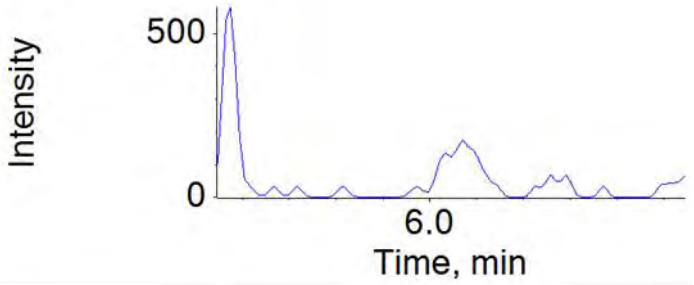
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



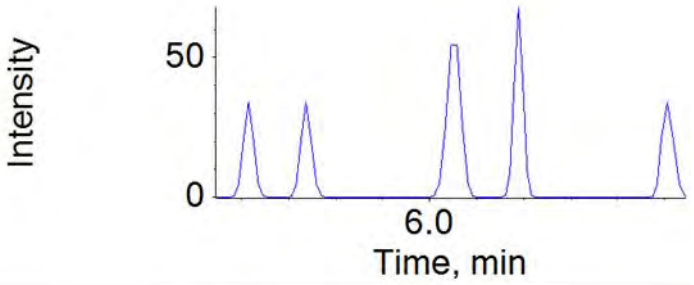
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



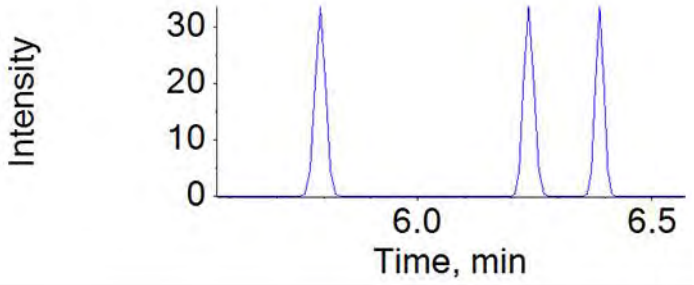
Component: PFDoDA
Primary Mass: 613.0 / 569.0



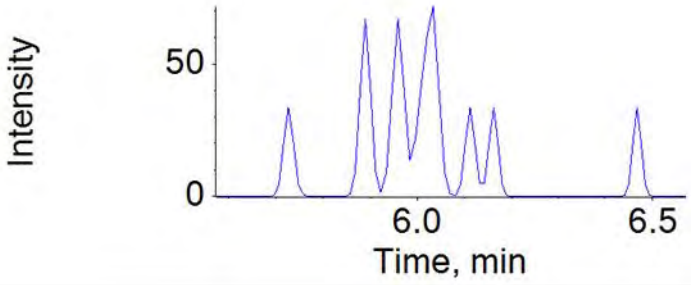
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



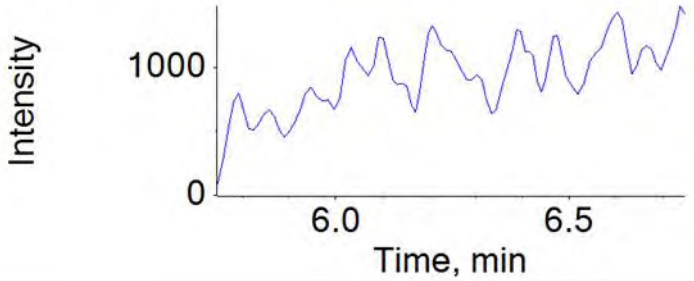
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



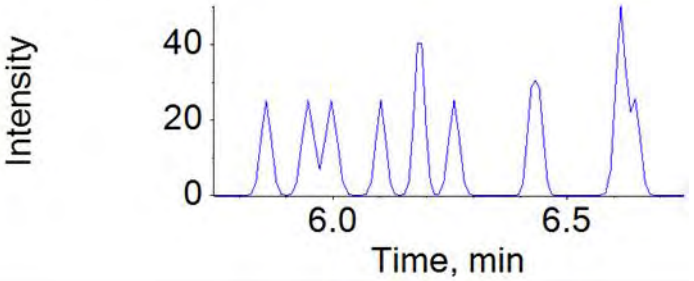
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

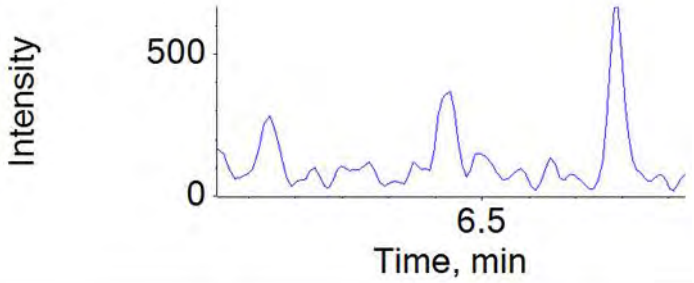
Component: PFTrDA
Primary Mass: 663.0 / 619.0



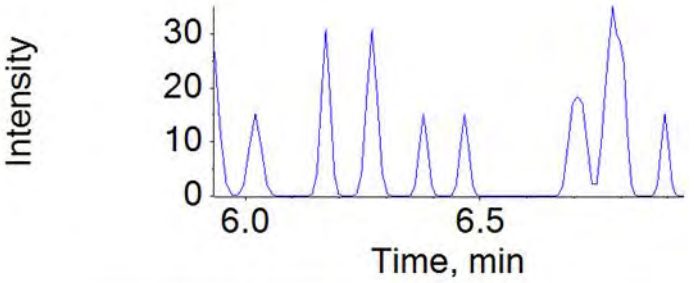
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



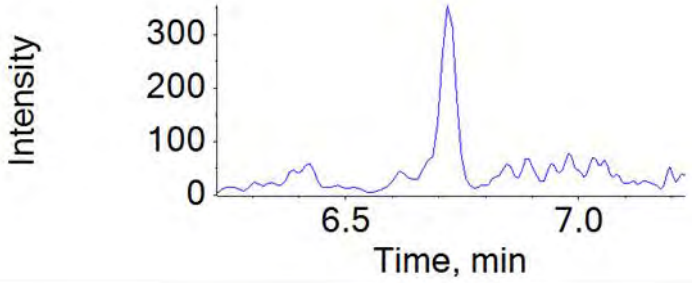
Component: PFTeDA
Primary Mass: 713.0 / 669.0



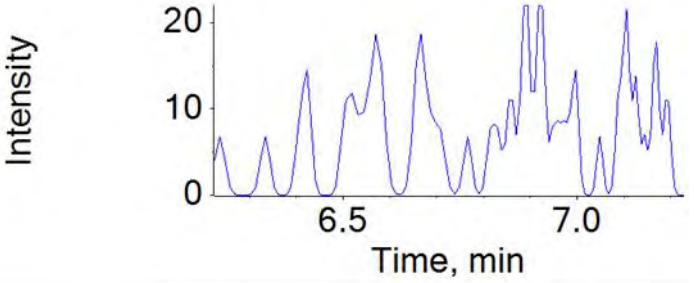
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



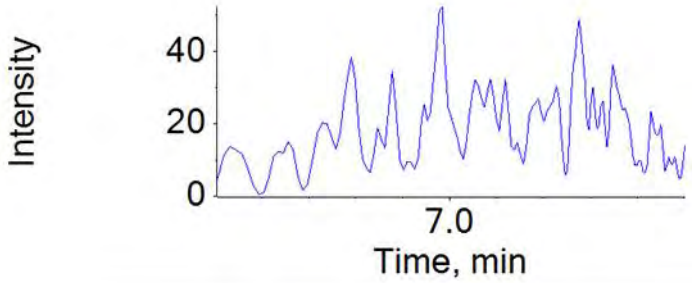
Component: PFHxDA
Primary Mass: 813.0 / 769.0



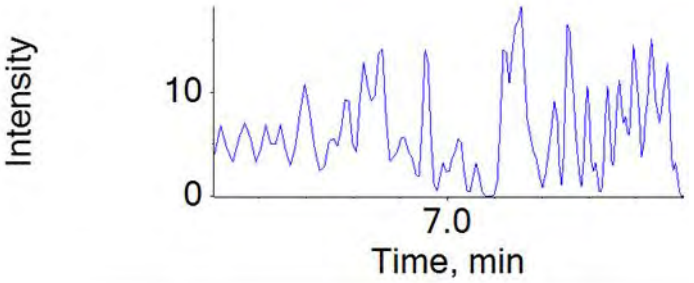
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK316011			**Data File:**		18NOV13D-49.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18316011			**Acquis Date:**		2018-11-13T16:56:29
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	47			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18316011
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18316011			**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: 18NOV13D-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	750418.0	661126.9	14	50	
13C2-PFOA	5.0	523346.1	466902.6	12	50	
13C4-PFOS	4.8	279165.7	247446.9	13	50	
13C2-PFDA	5.0	319900.9	295381.6	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	585730.6	13C3-PFBA	750418.0	0.781	10.000	6.999	70	50-150	
E13C5-PFPeA	576099.4	13C3-PFBA	750418.0	0.768	10.000	6.887	69	50-150	
E13C3-PFBS	325907.7	13C3-PFBA	750418.0	0.434	9.300	6.132	66	50-150	
E13C2-4:2-FTS	36725.8	13C2-PFOA	523346.1	0.070	9.340	6.251	67	50-150	
E13C5-PFHxA	503637.2	13C2-PFOA	523346.1	0.962	10.000	6.953	70	50-150	
E13C3-PFHxS	251215.7	13C2-PFOA	523346.1	0.480	9.460	6.588	70	50-150	
E13C4-PFHpA	405827.0	13C2-PFOA	523346.1	0.775	10.000	6.987	70	50-150	
E13C2-6:2-FTS	27958.6	13C2-PFOA	523346.1	0.053	9.500	7.149	75	50-150	
E13C8-PFOA	697933.9	13C2-PFOA	523346.1	1.334	10.000	7.348	73	50-150	
E13C8-PFOS	213856.0	13C4-PFOS	279165.7	0.766	9.560	6.789	71	50-150	
E13C9-PFNA	370432.1	13C4-PFOS	279165.7	1.327	10.000	7.399	74	50-150	
E13C6-PFDA	492806.6	13C2-PFDA	319900.9	1.540	10.000	7.190	72	50-150	
E13C2-8:2-FTS	21048.0	13C2-PFDA	319900.9	0.066	9.580	6.563	69	50-150	
E13C8-PFOSA	525622.4	13C2-PFDA	319900.9	1.643	10.000	7.285	73	50-150	
Ed3-NMeFOSAA	62073.0	13C2-PFDA	319900.9	0.194	10.000	7.005	70	50-150	
E13C7-PFUnDA	205374.4	13C2-PFDA	319900.9	0.642	10.000	7.455	75	50-150	
Ed5-NEtFOSAA	47747.8	13C2-PFDA	319900.9	0.149	10.000	6.316	63	50-150	
E13C2-PFDoDA	430591.1	13C2-PFDA	319900.9	1.346	10.000	6.989	70	50-150	
Ed7-NMePFOSAE	259882.8	13C2-PFDA	319900.9	0.812	10.000	7.031	70	50-150	
Ed3-NMePFOSA	58678.7	13C2-PFDA	319900.9	0.183	10.000	6.665	67	50-150	
Ed9-NEtPFOSAE	212201.6	13C2-PFDA	319900.9	0.663	10.000	6.900	69	50-150	
Ed5-NEtPFOSA	45311.1	13C2-PFDA	319900.9	0.142	10.000	6.645	66	50-150	
E13C2-PFTeDA	288143.9	13C2-PFDA	319900.9	0.901	10.000	6.324	63	50-150	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

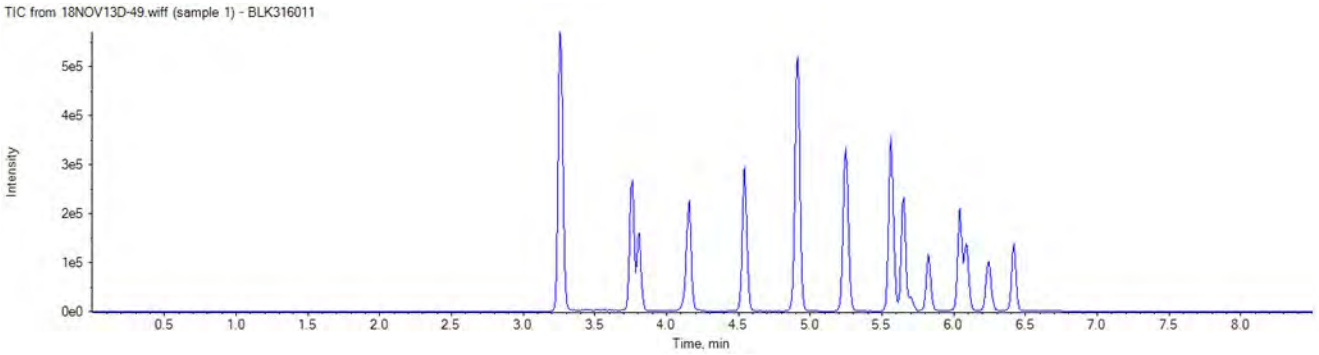
Analyte Quantitation Peak Table

Sample Name: BLK316011 **Instrument Name:** LM27631 **File Name:** 18NOV13D-49.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	585730.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	576099.4	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	325907.7	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	36725.8	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	503637.2	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	325907.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	405827.0	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	251215.7	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	27958.6	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	251215.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	697933.9	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	213856.0	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	370432.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	213856.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	492806.6	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	21048.0	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	525622.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	62073.0	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	213856.0	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	205374.4	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	47747.8	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	430591.1	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	21048.0	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	259882.8	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	58678.7	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	213856.0	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	212201.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	45311.1	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	430591.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	288143.9	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	288143.9	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	288143.9	N/A	

Total Ion Chromatogram

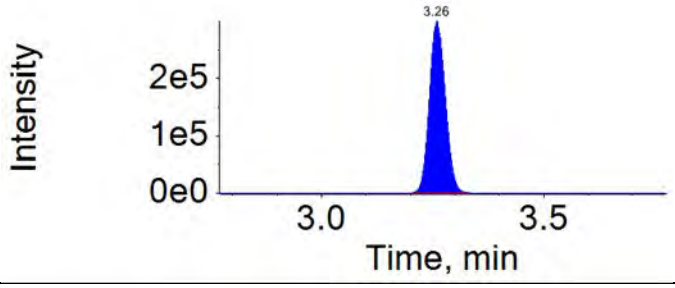


APPROVED
By MCD at 4:51 pm, 11/14/18

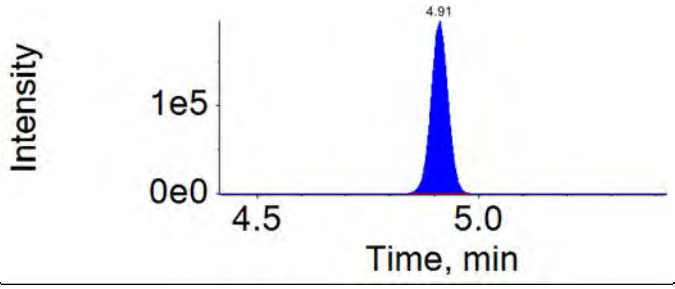
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

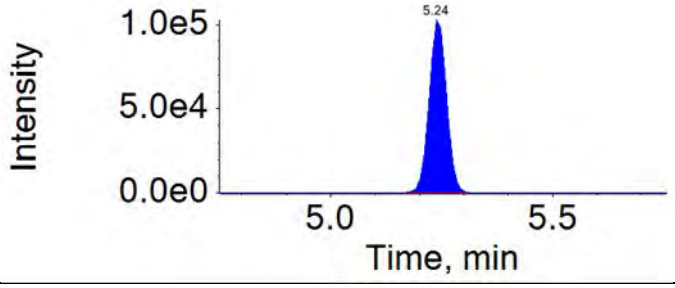
Injection Standard: 13C3-PFBA
216.0 / 172.0



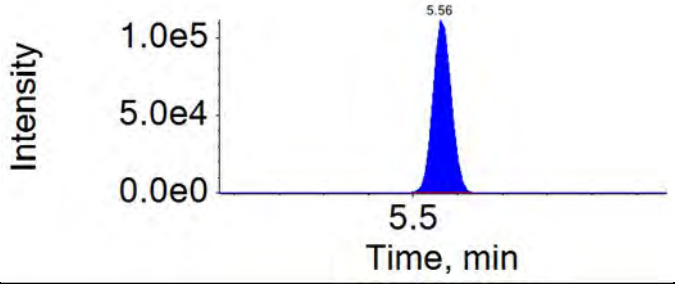
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

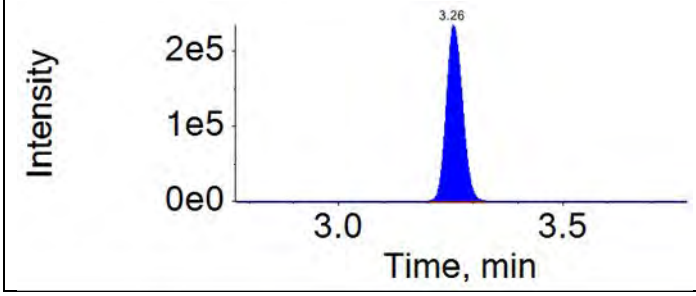


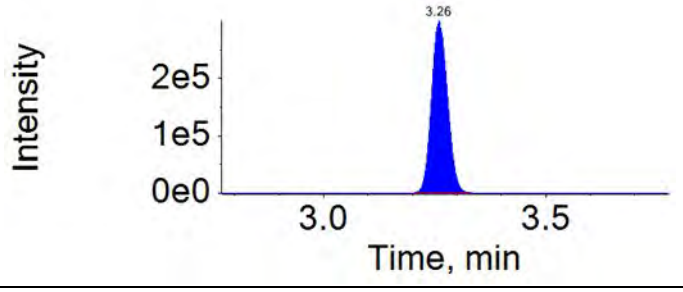
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

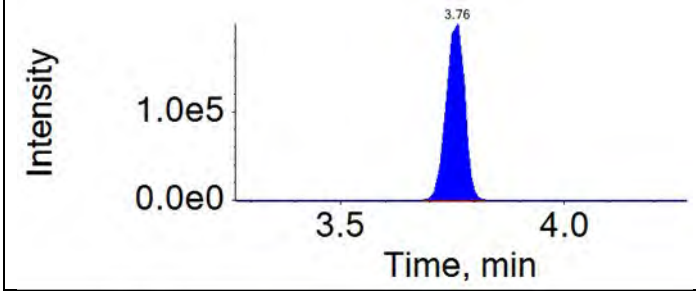
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

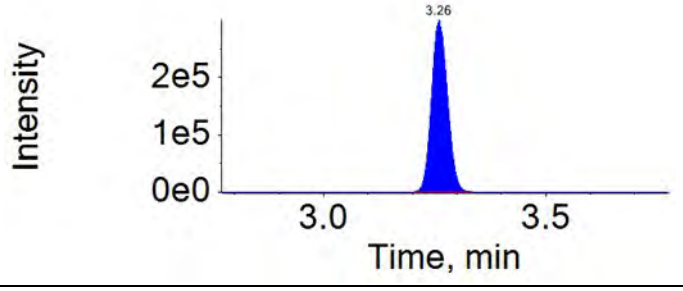
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



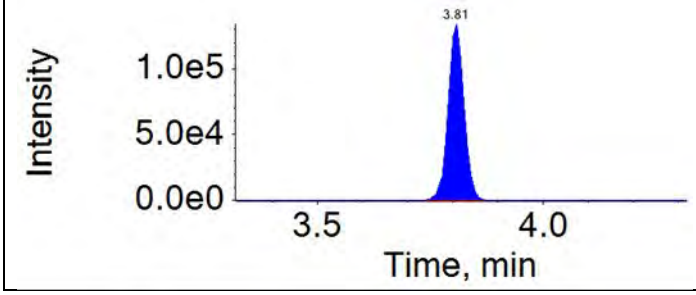


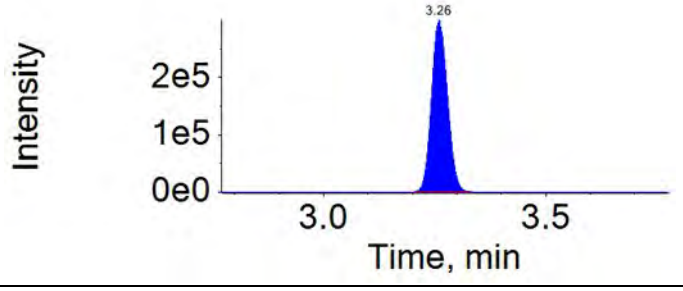
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



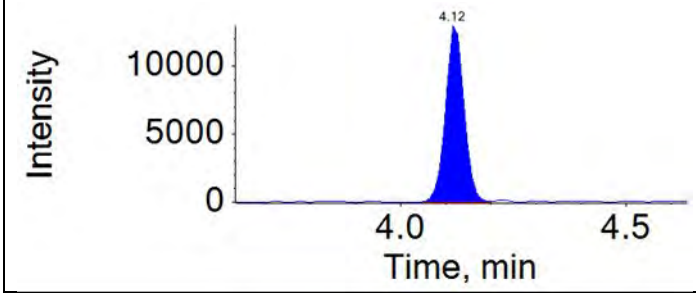


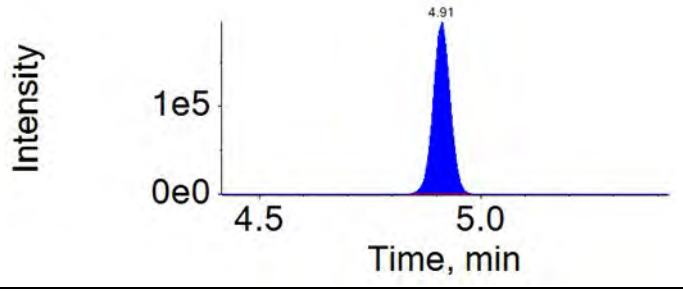
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



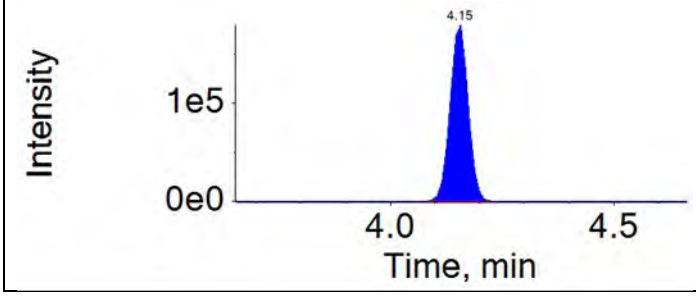


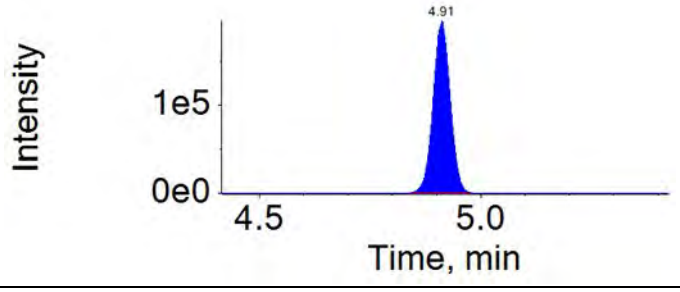
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

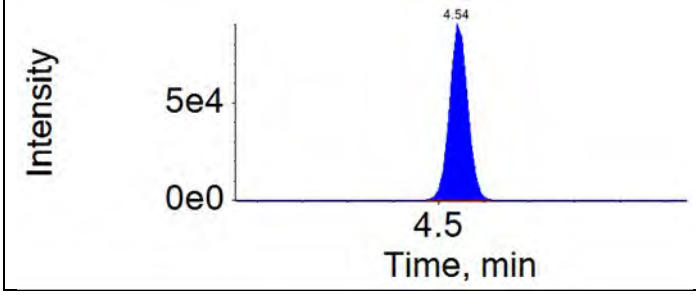
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

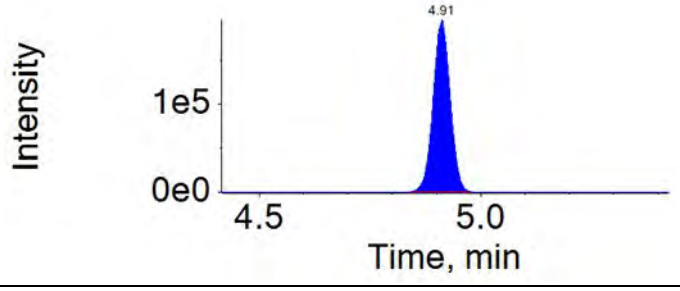
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



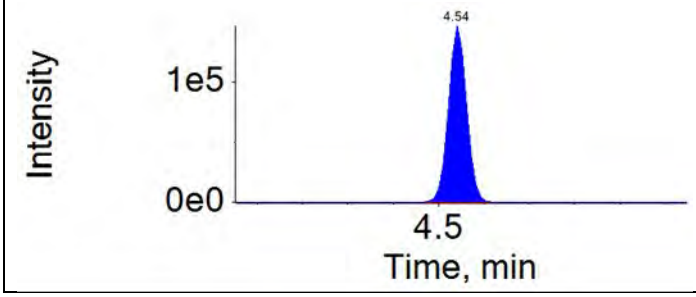


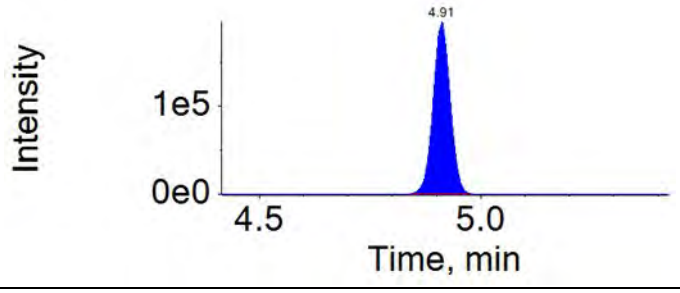
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



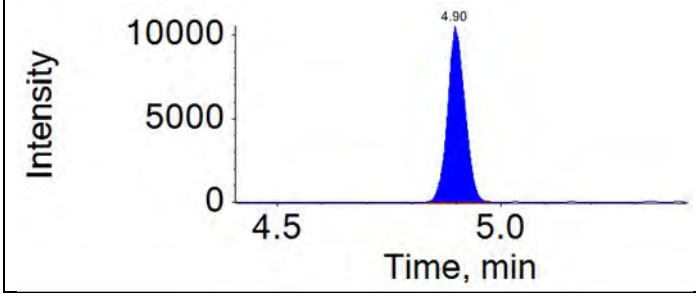


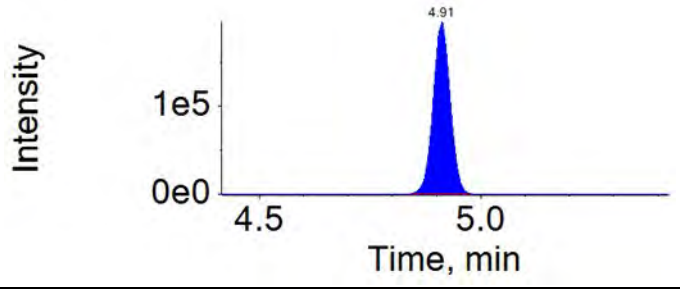
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

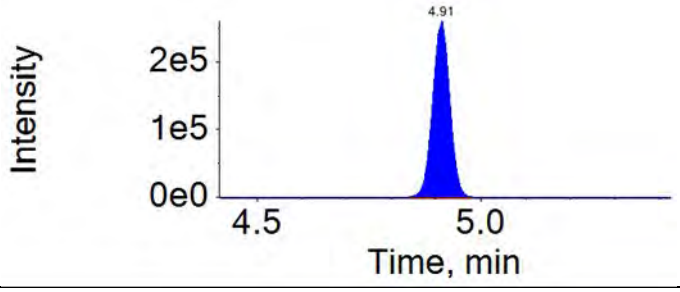
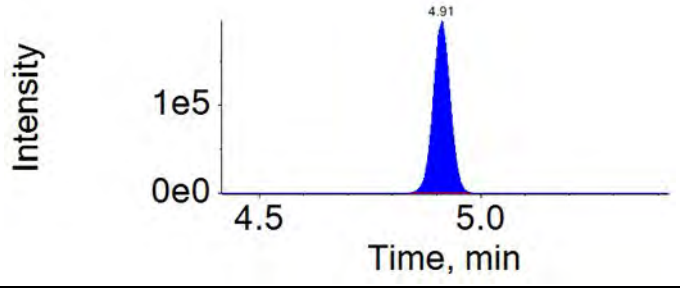


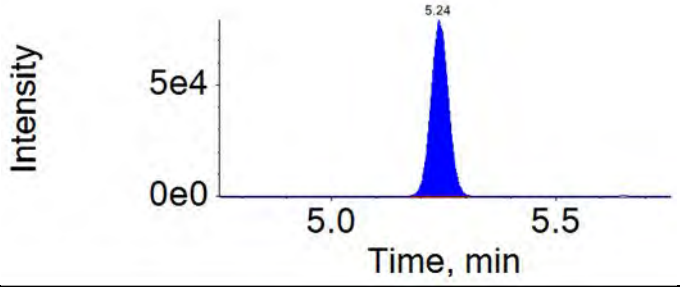
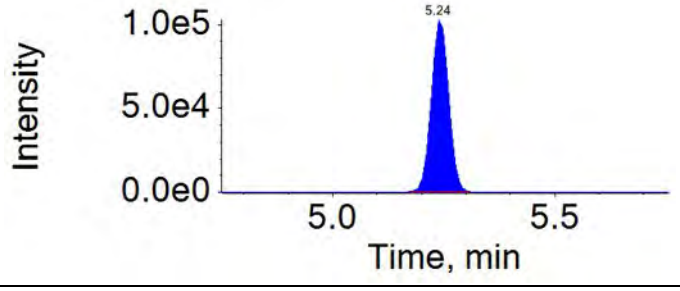


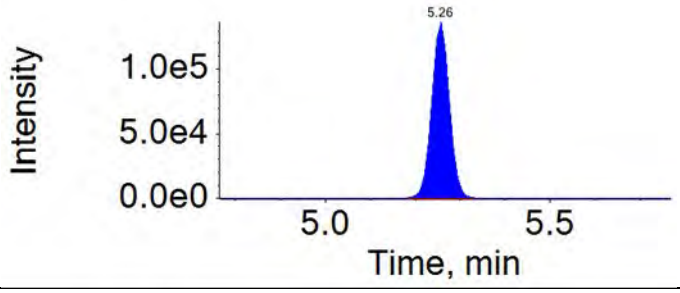
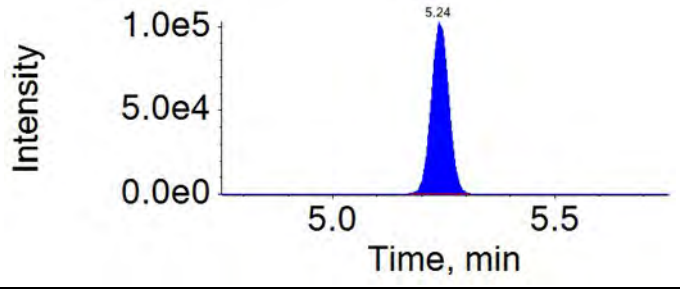
APPROVED
By MCD at 4:51 pm, 11/14/18

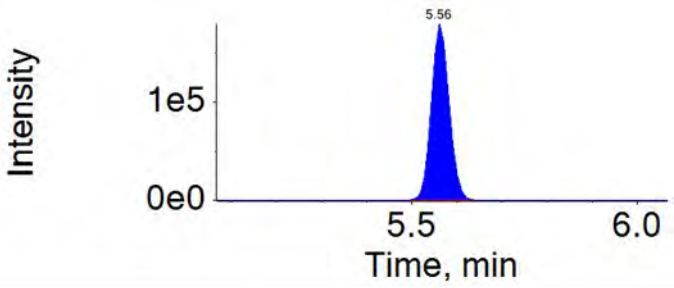
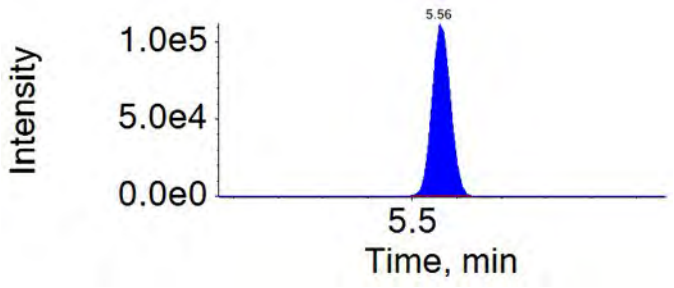
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

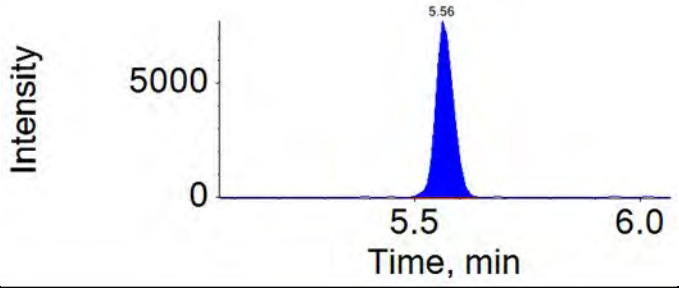
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

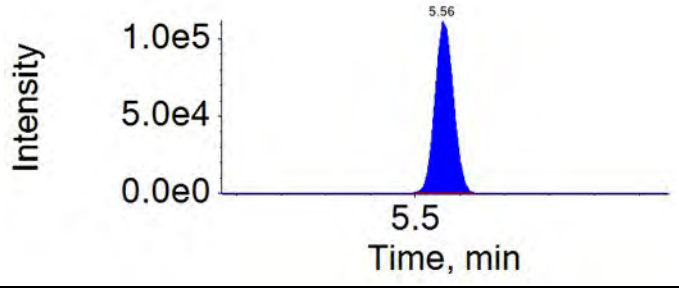
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

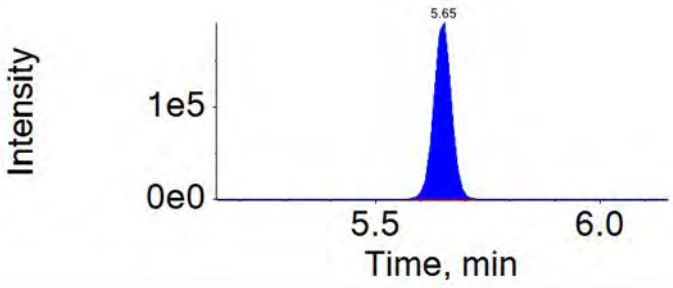
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

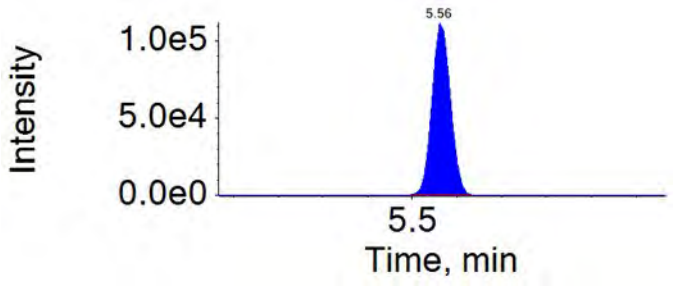
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



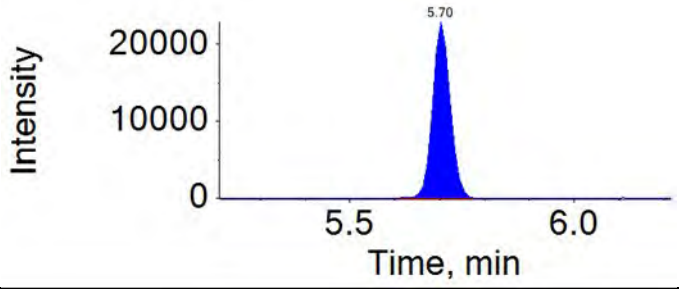


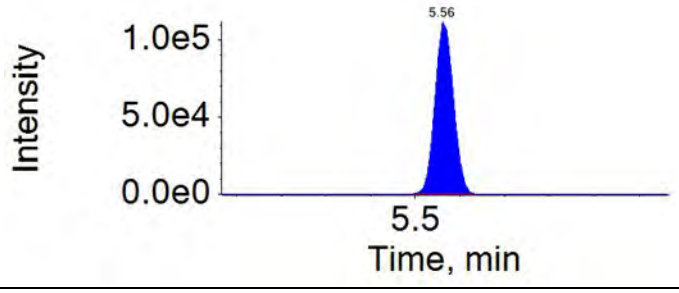
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



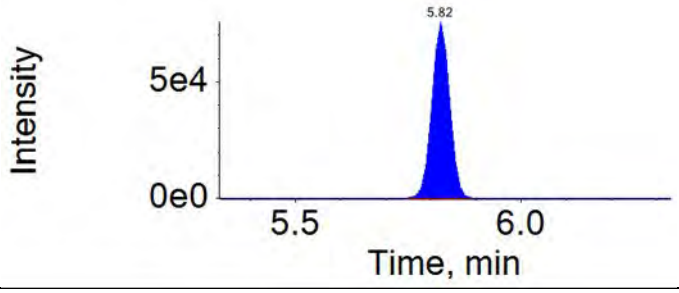


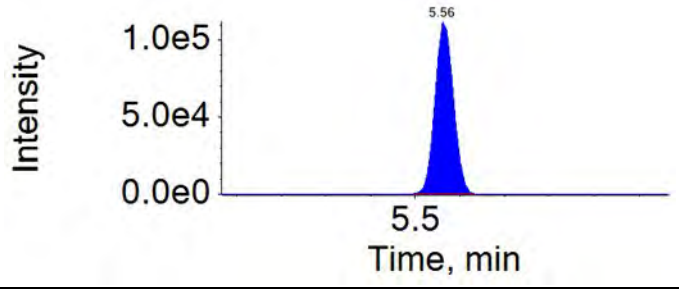
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

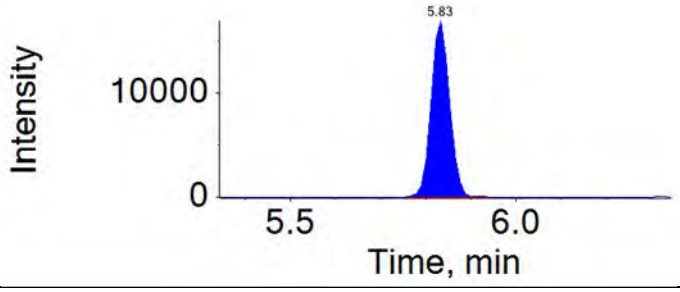
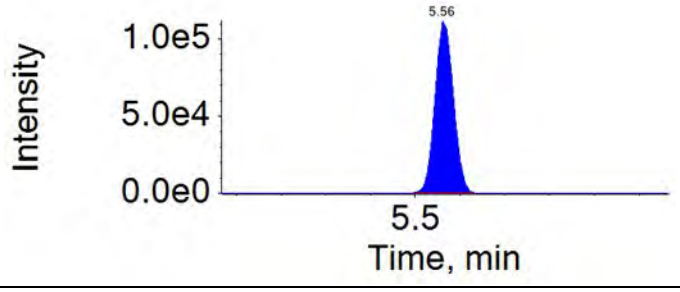


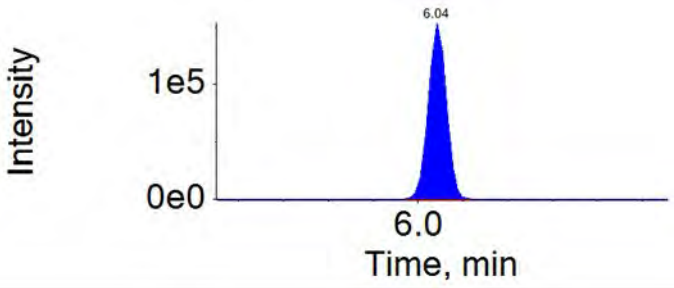
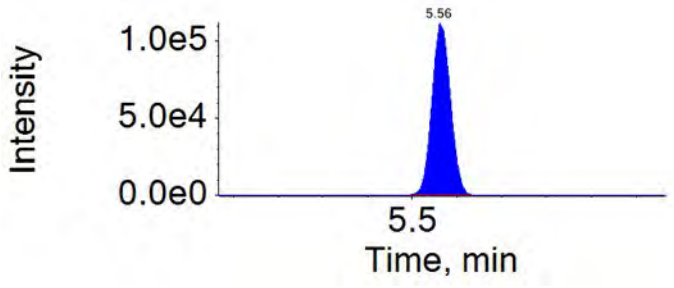


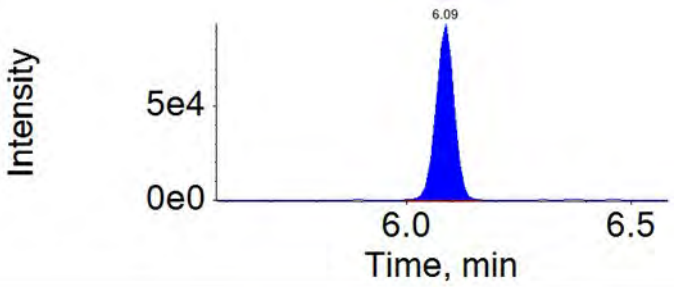
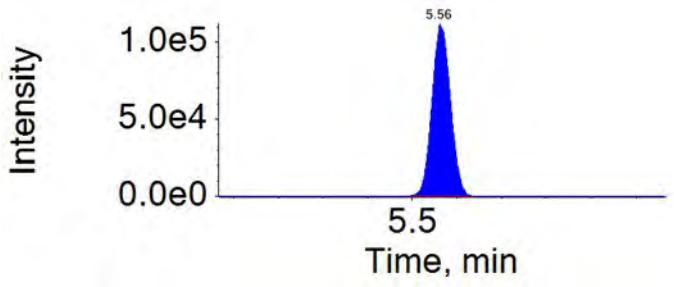
APPROVED
By MCD at 4:51 pm, 11/14/18

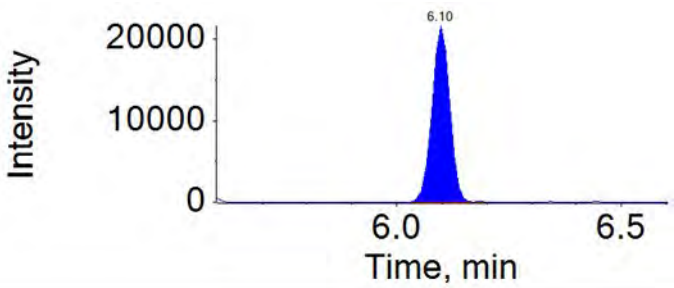
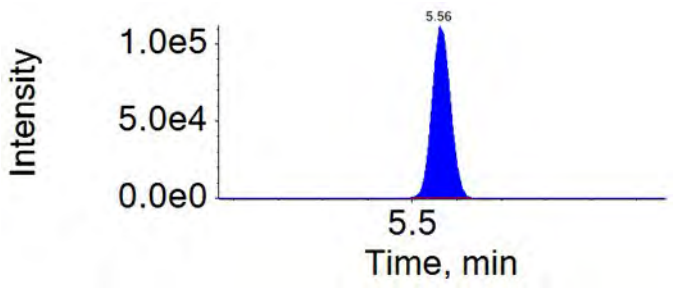
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

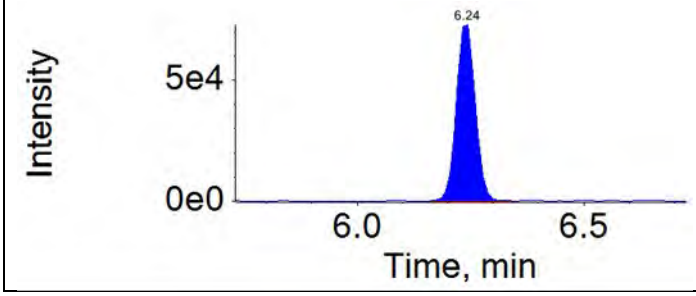
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

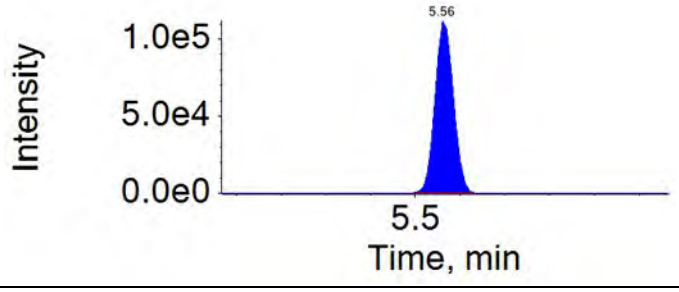
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

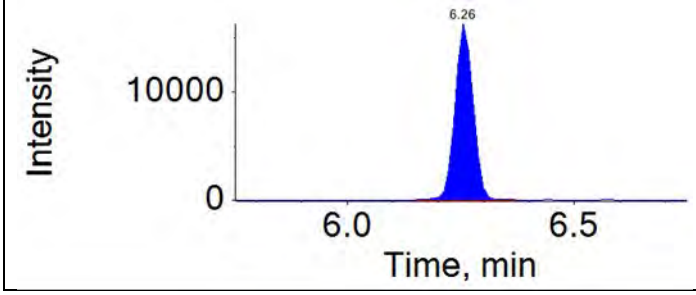
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

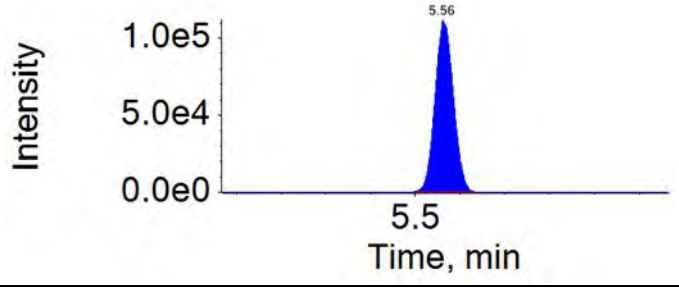
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



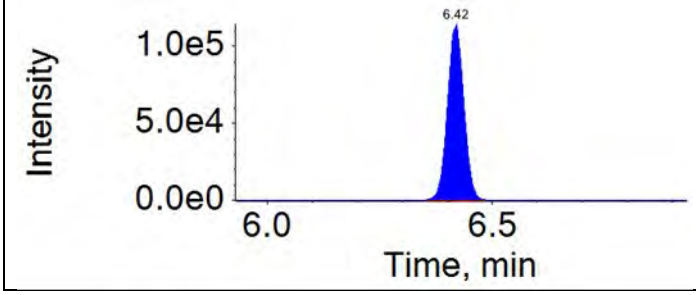


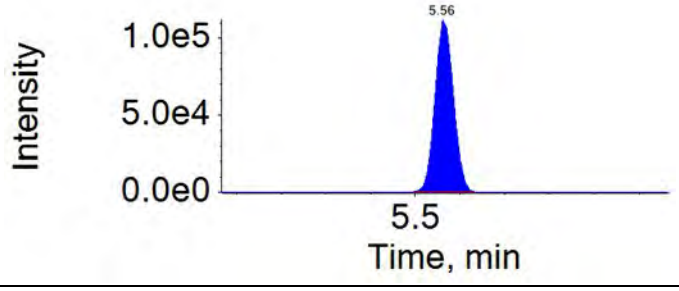
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



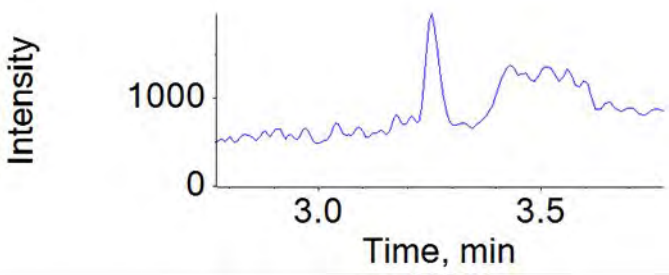


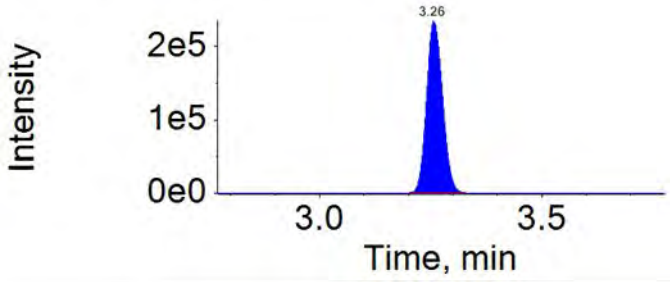
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

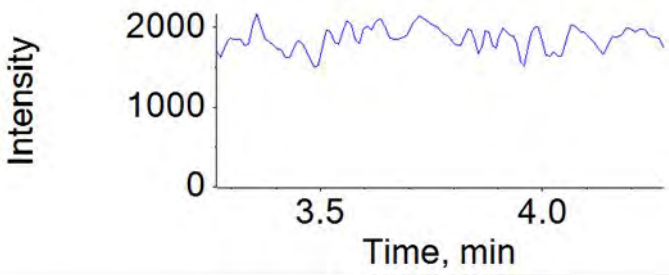
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

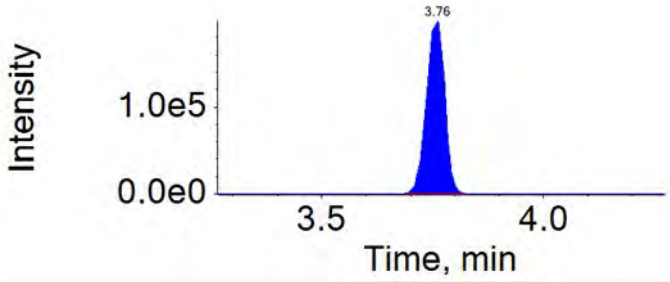
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



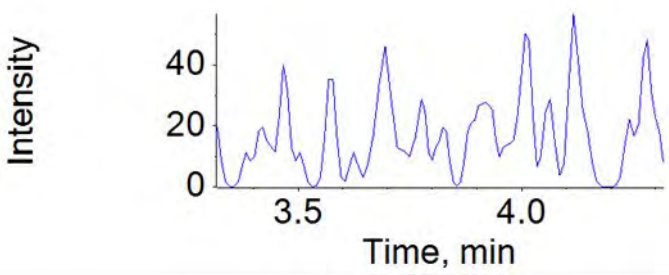


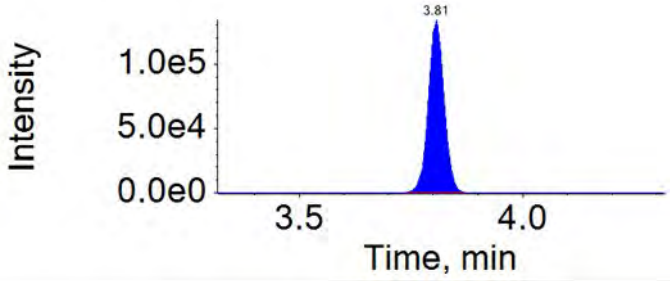
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



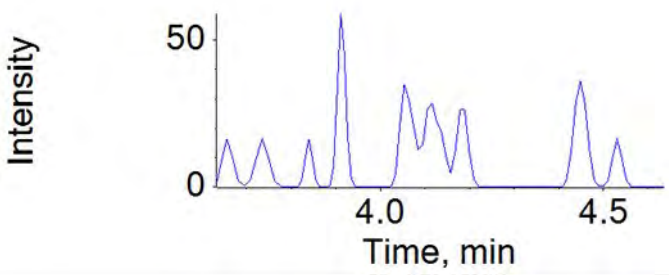


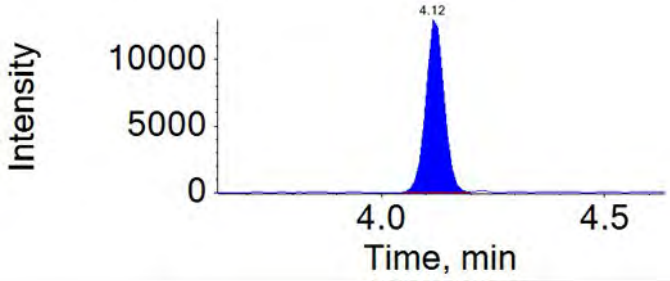
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



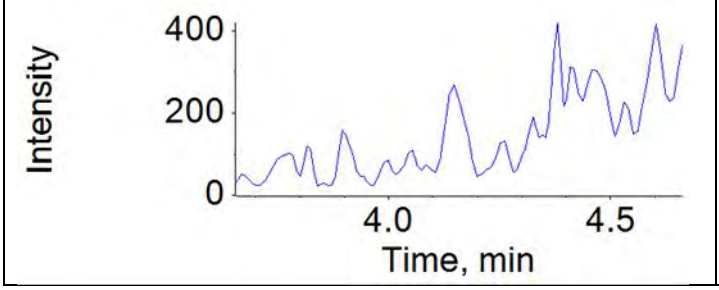


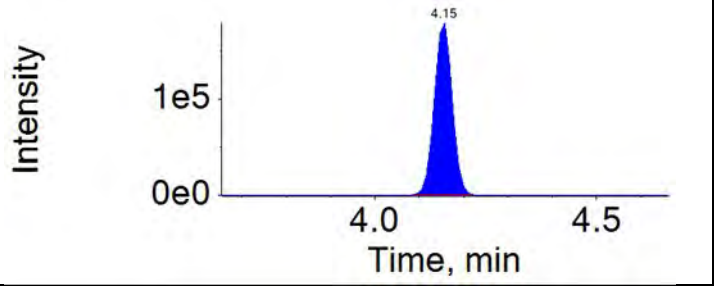
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

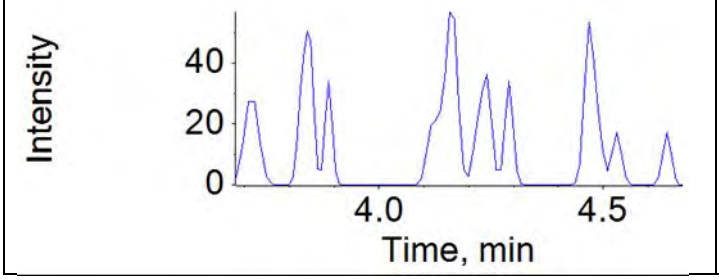
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

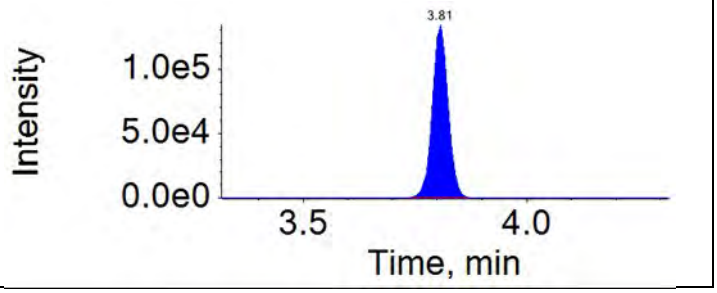
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



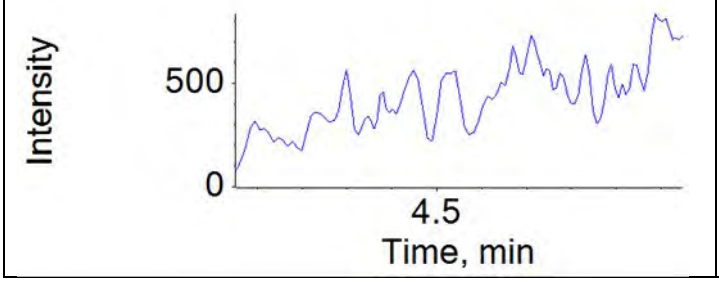


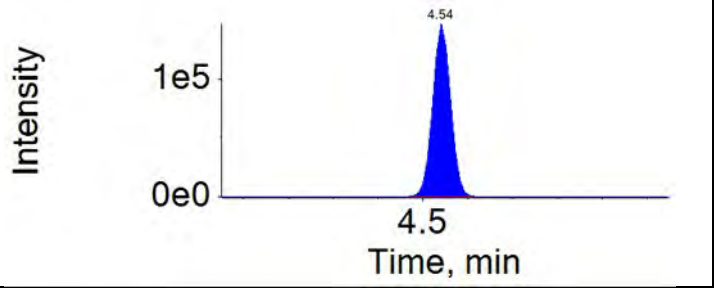
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



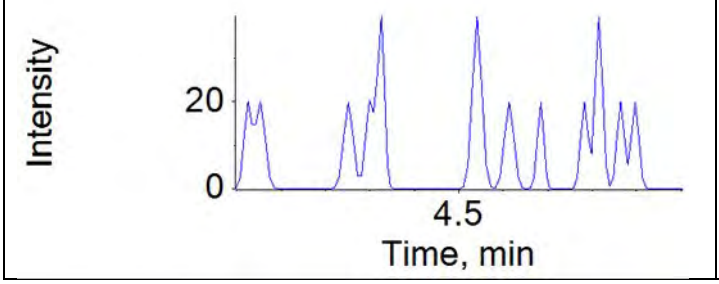


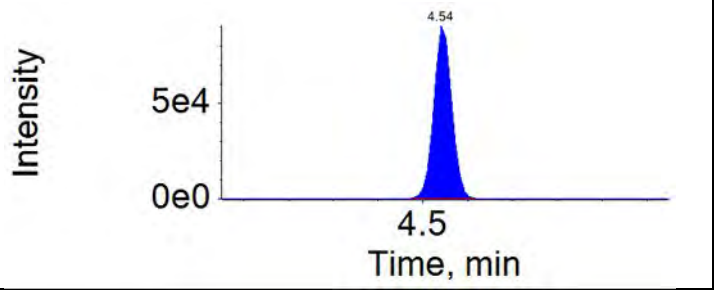
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



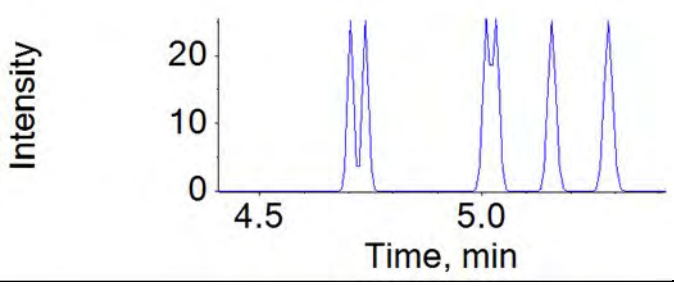
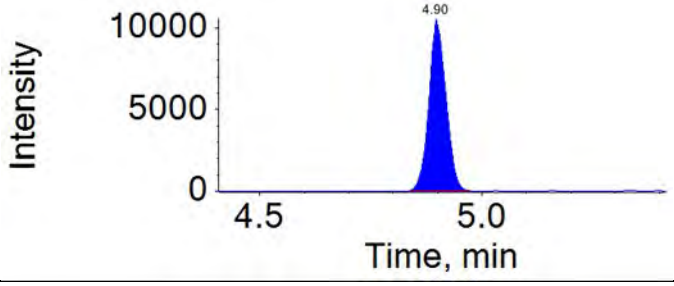


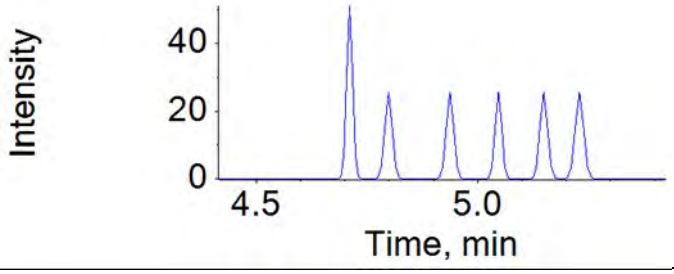
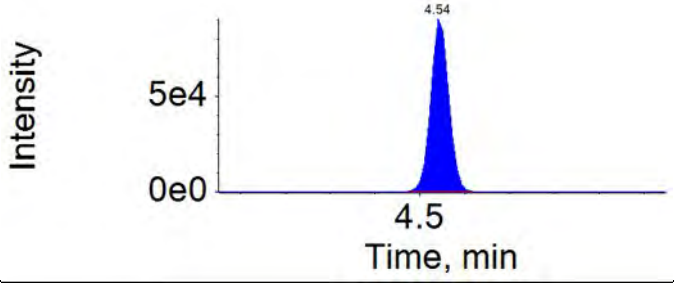
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

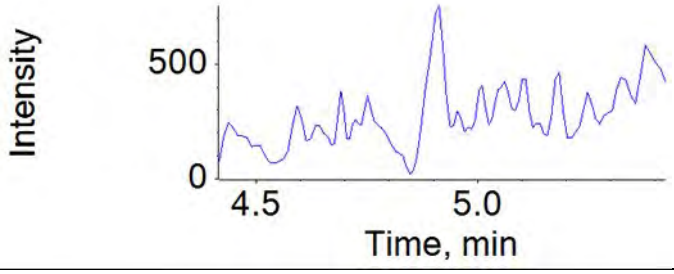
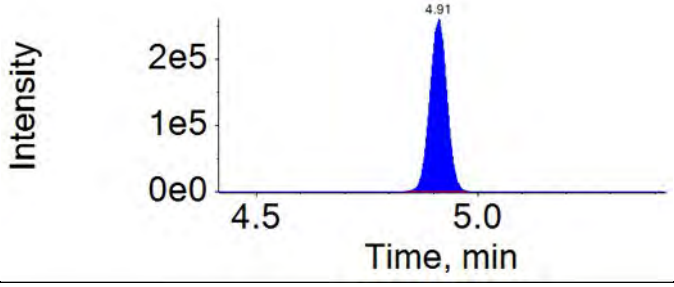


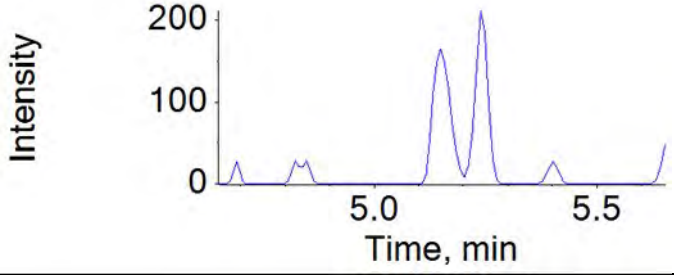
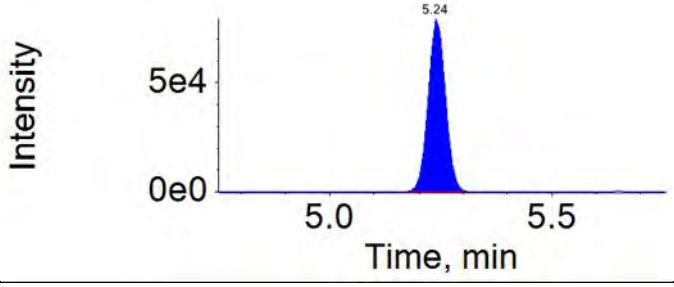


ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

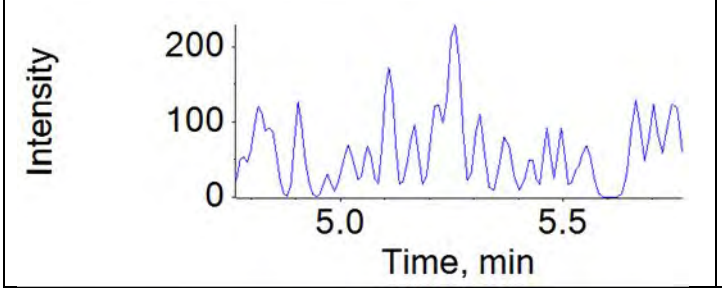
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

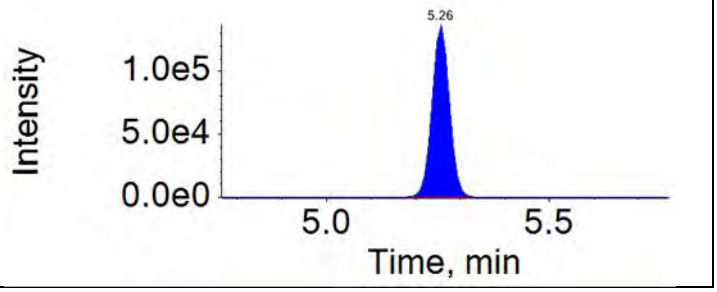
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

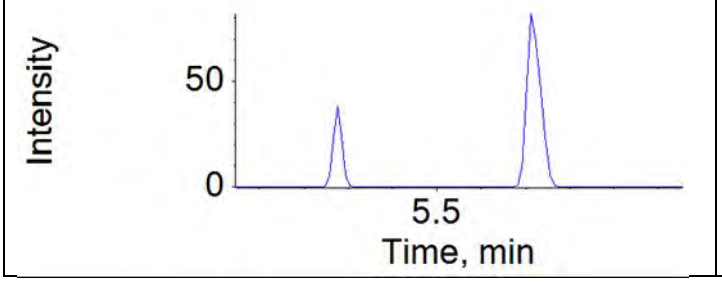
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

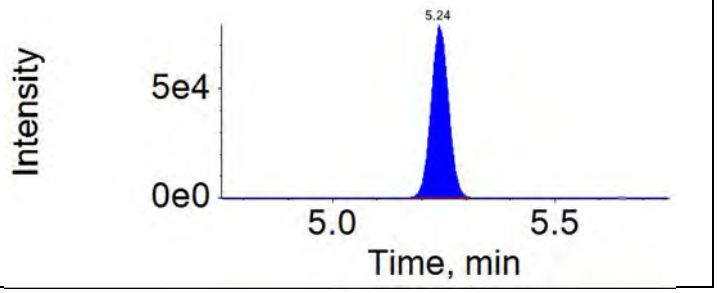
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



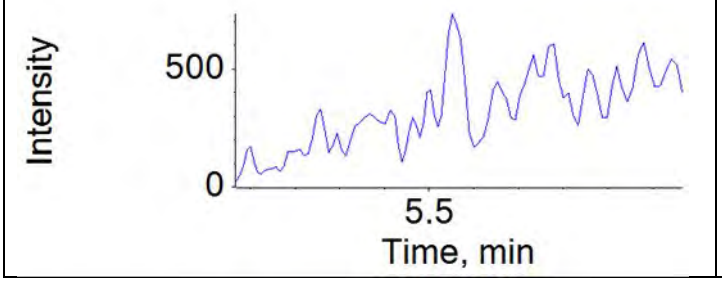


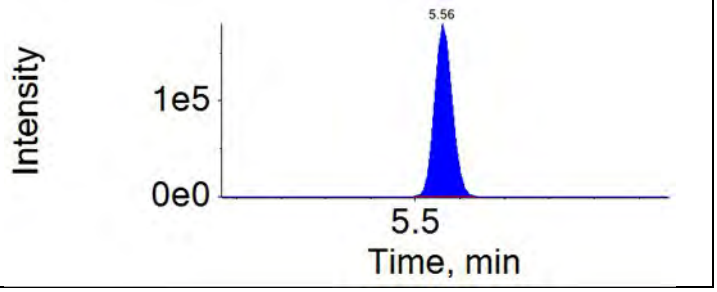
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



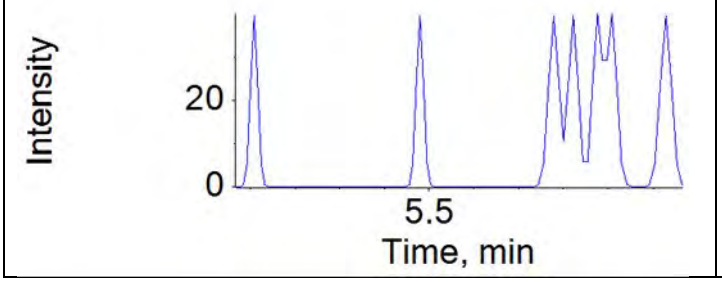


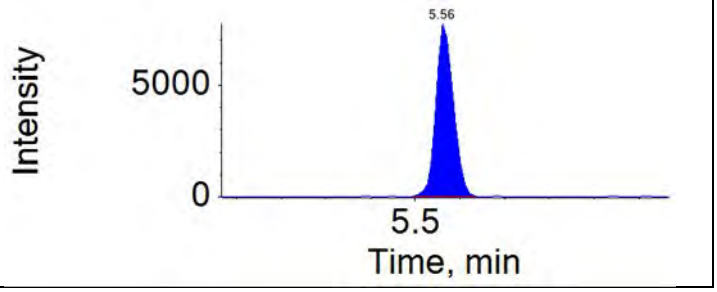
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



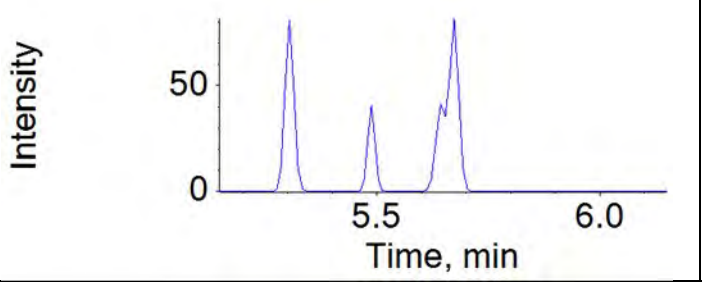


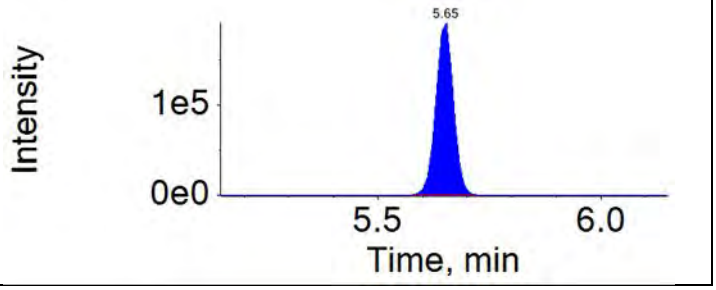
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

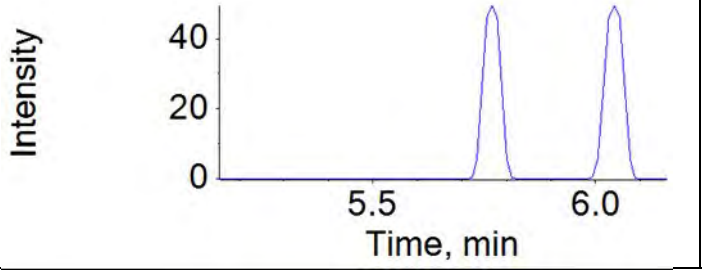
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

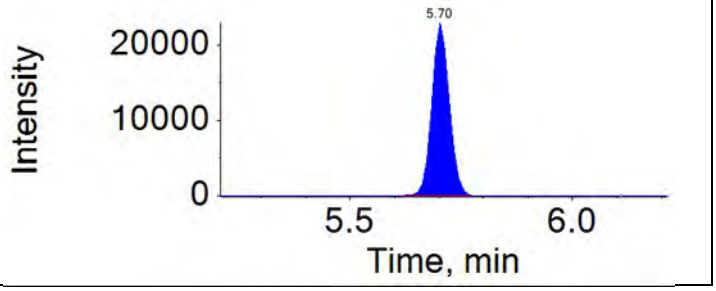
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



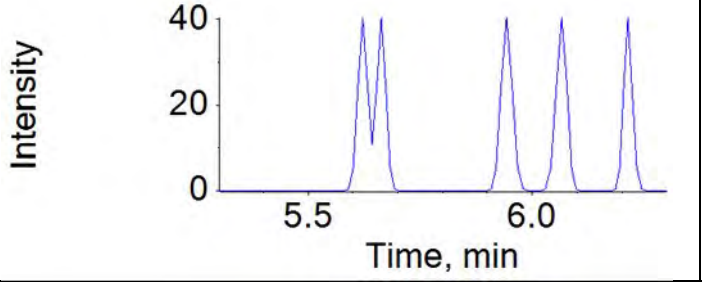


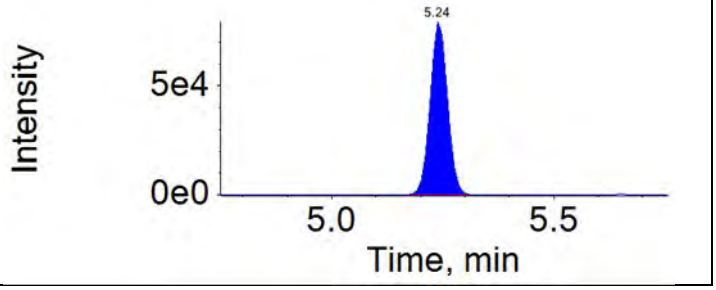
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



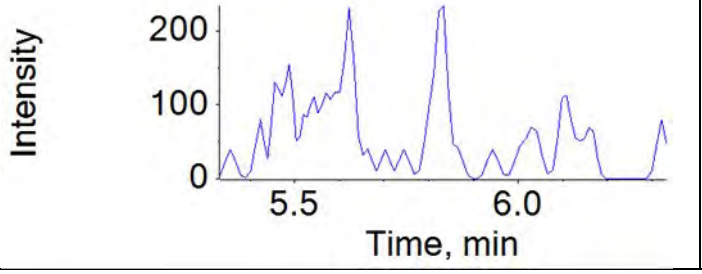


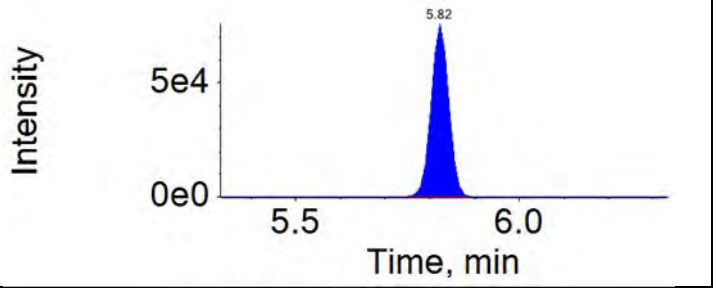
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



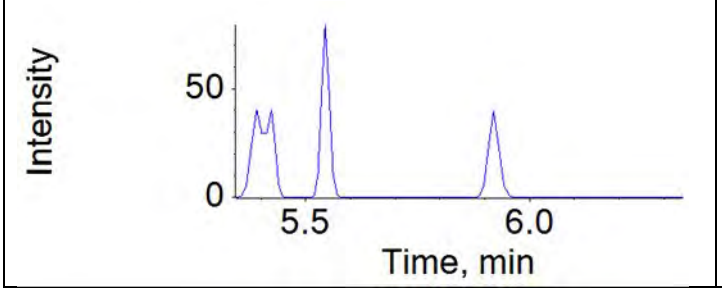


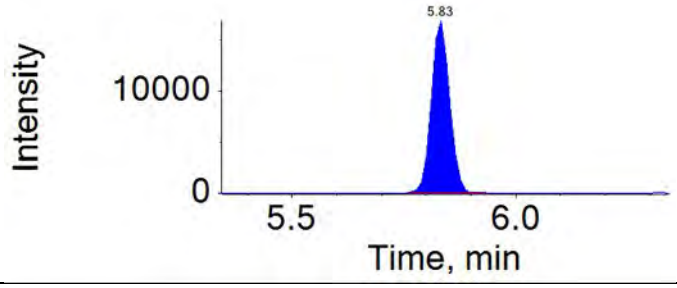
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

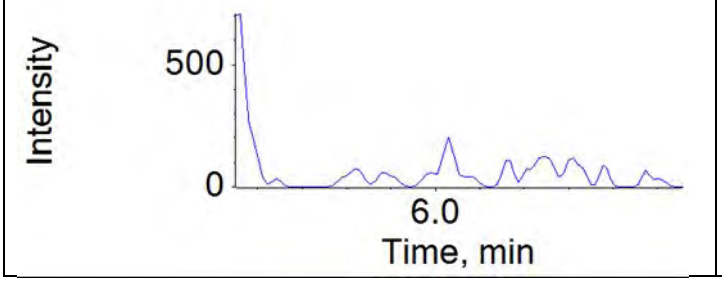
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

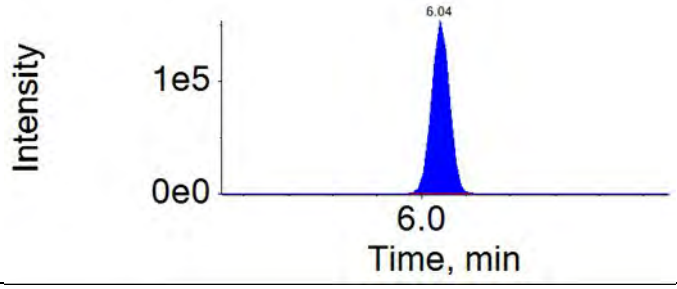
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



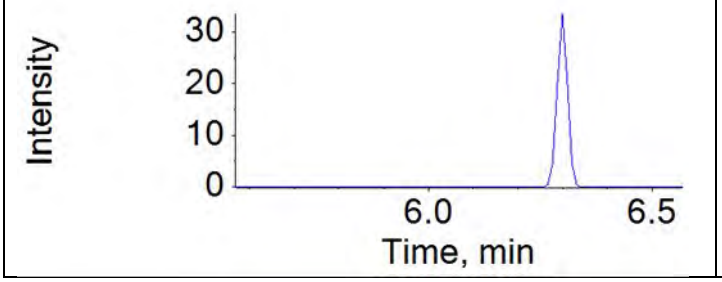


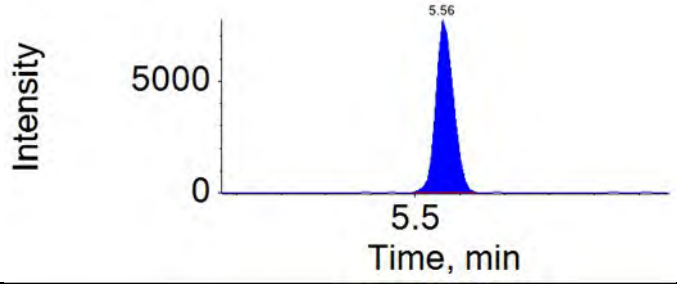
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



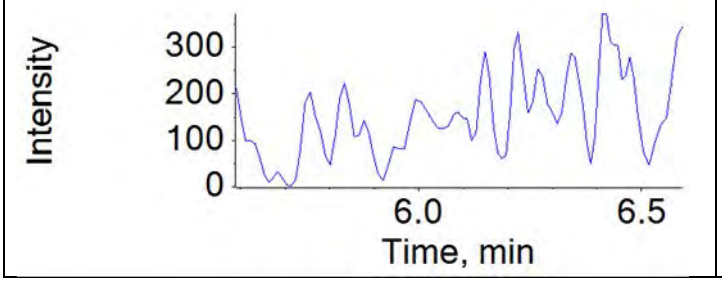


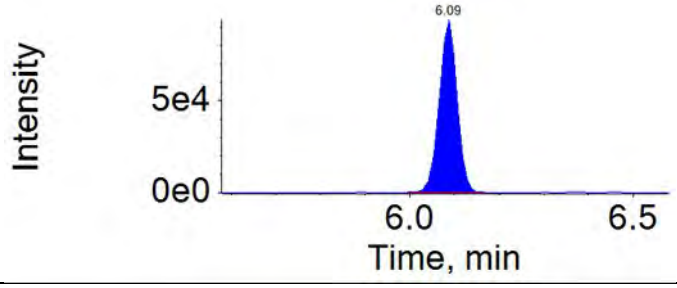
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



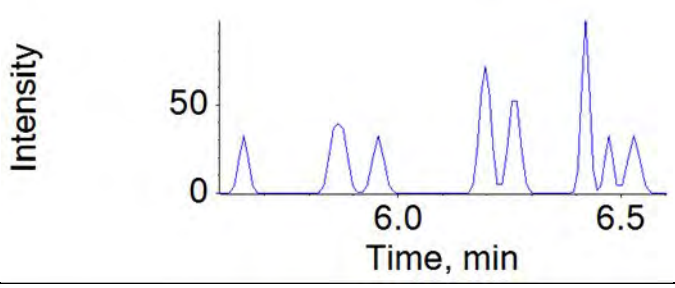


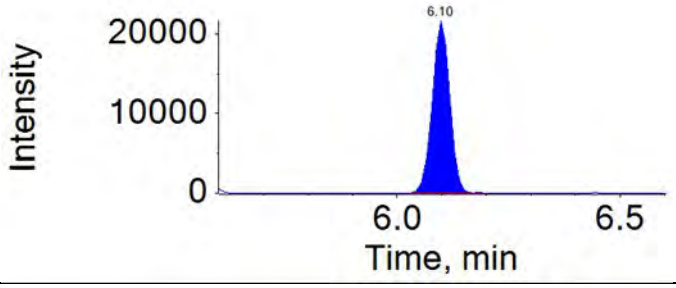
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

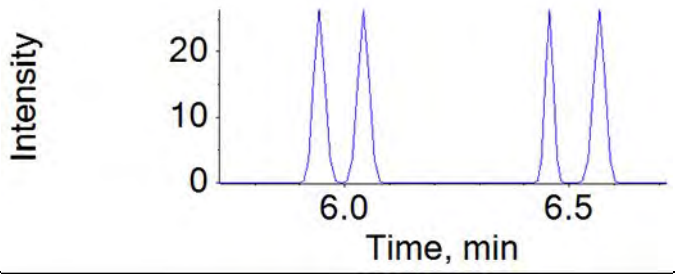
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

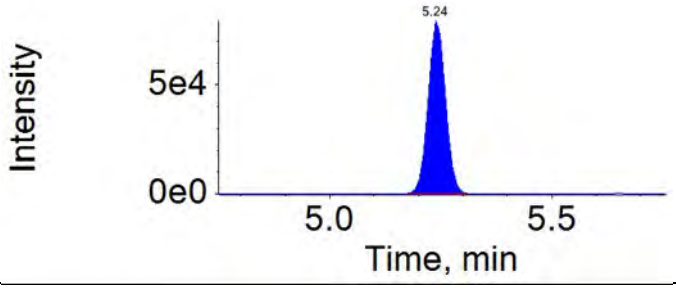
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



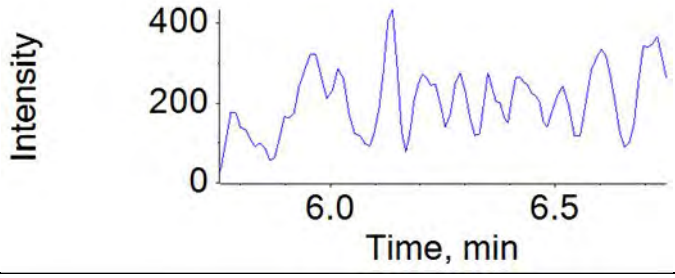


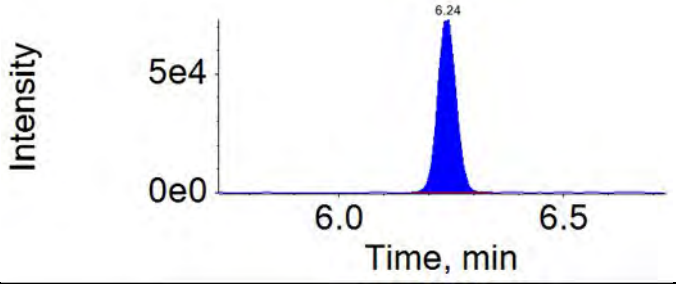
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



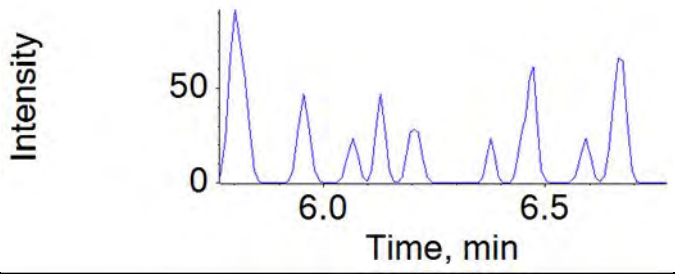


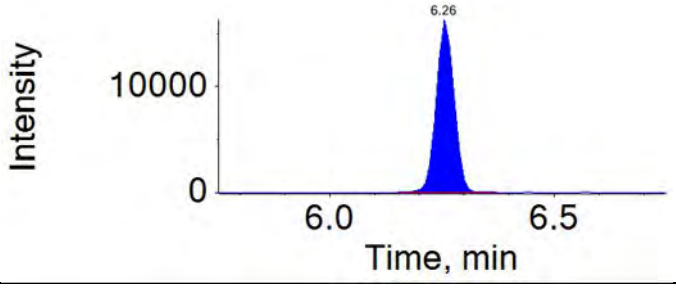
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

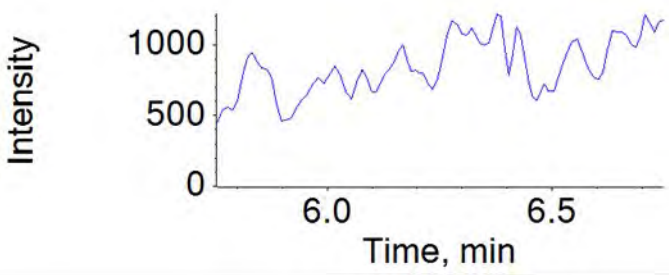
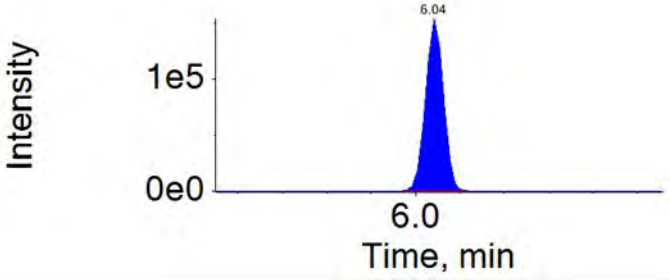


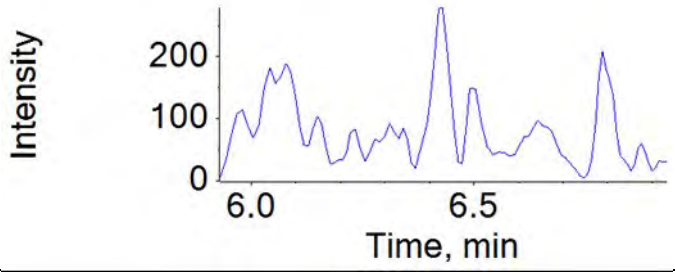
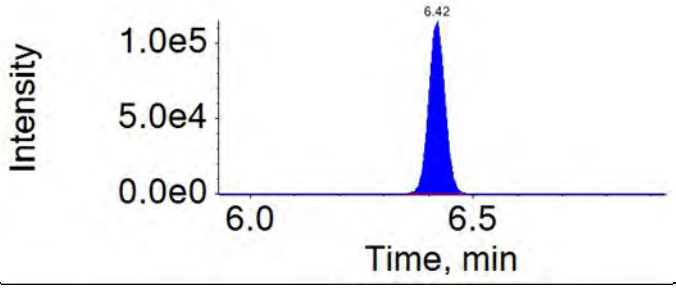


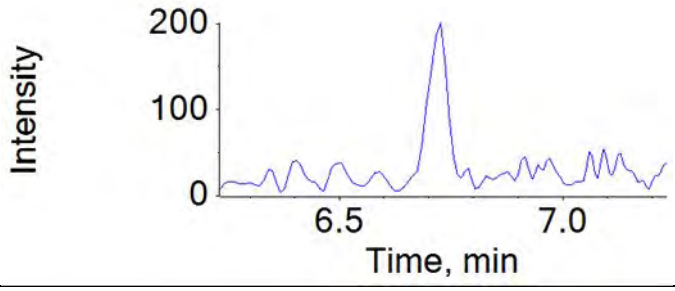
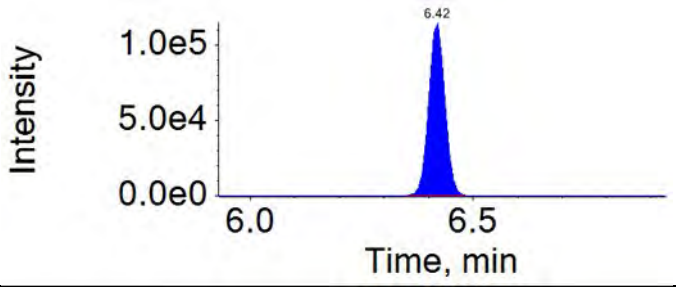
APPROVED
By MCD at 4:51 pm, 11/14/18

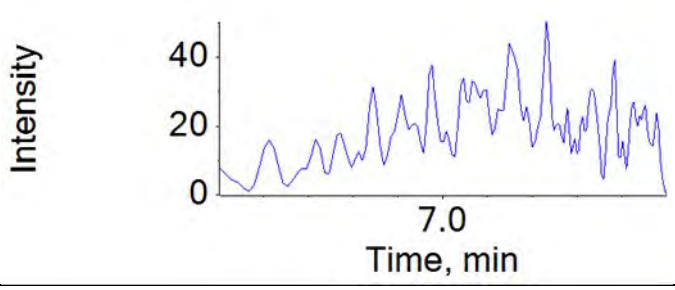
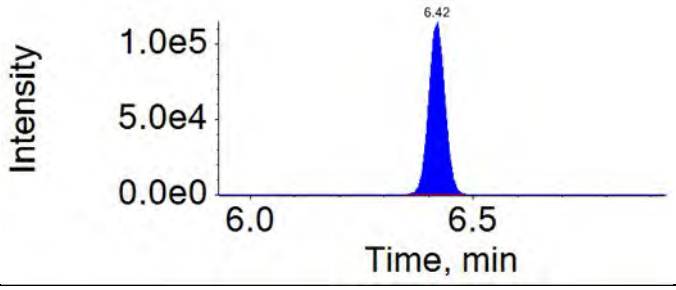
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Ion Ratio Report

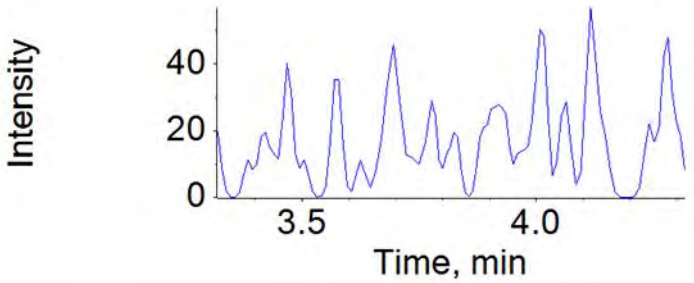
Sample Name: BLK316011 **Instrument Name:** LM27631 **File Name:** 18NOV13D-49.wiff

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!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

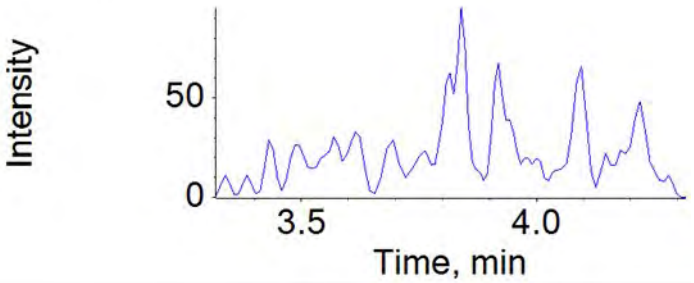
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

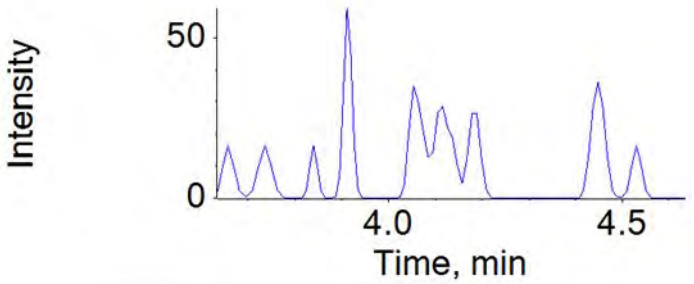
Component: PFBS
Primary Mass: 299.0 / 80.0



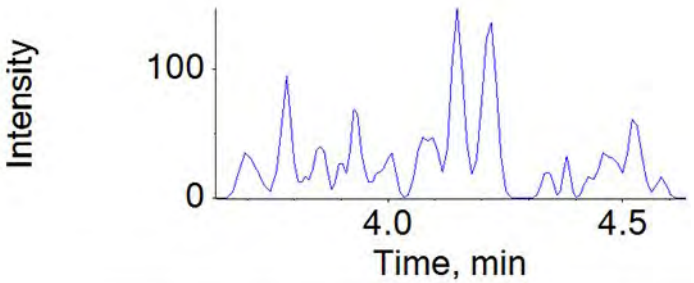
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



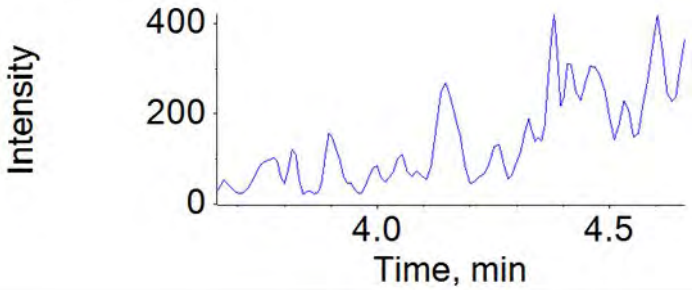
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



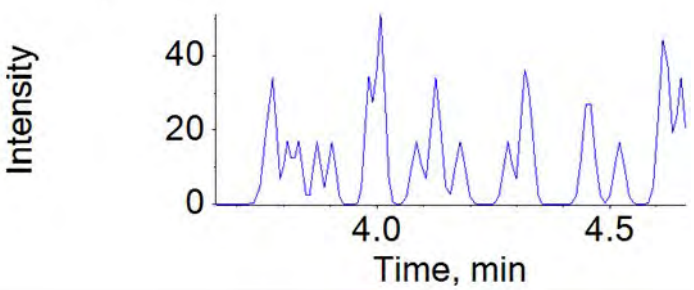
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



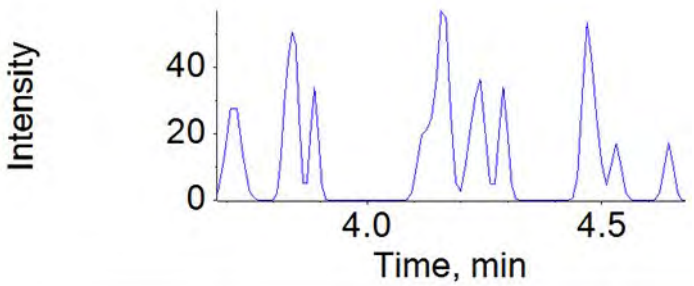
Component: PFHxA
Primary Mass: 313.0 / 269.0



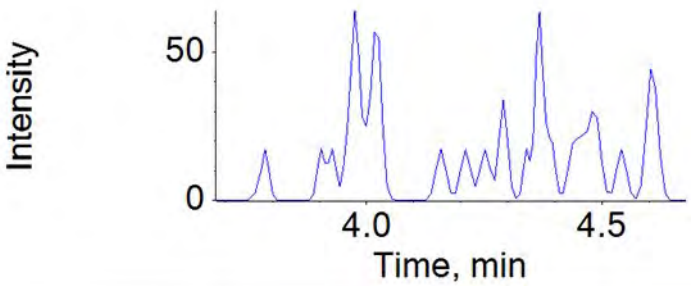
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



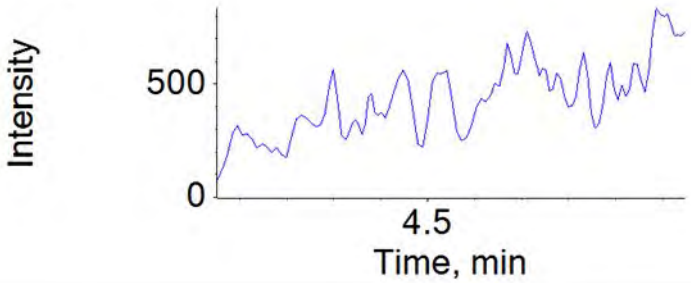
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



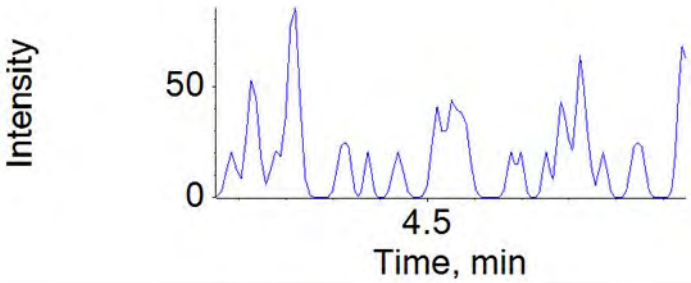
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

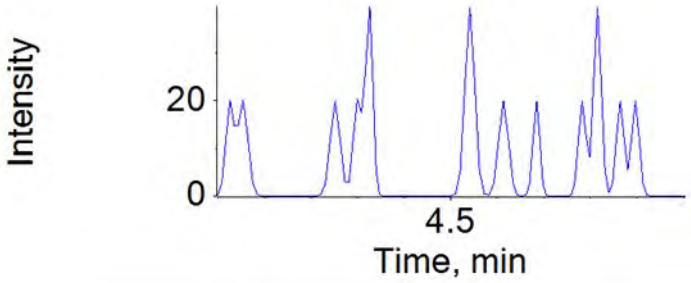
Component: PFHpA
Primary Mass: 363.0 / 319.0



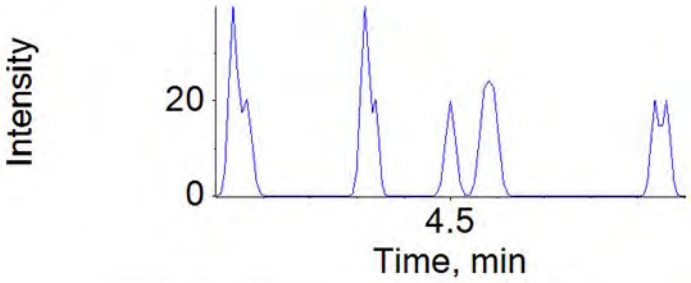
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



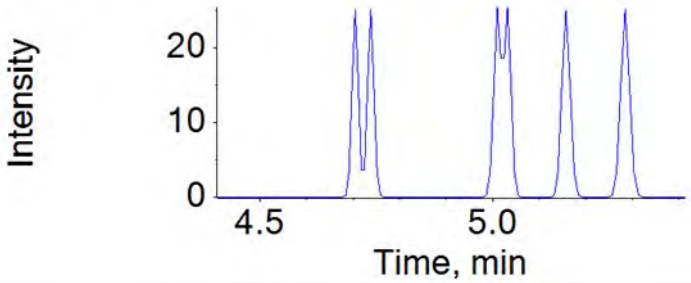
Component: PFHxS
Primary Mass: 399.0 / 80.0



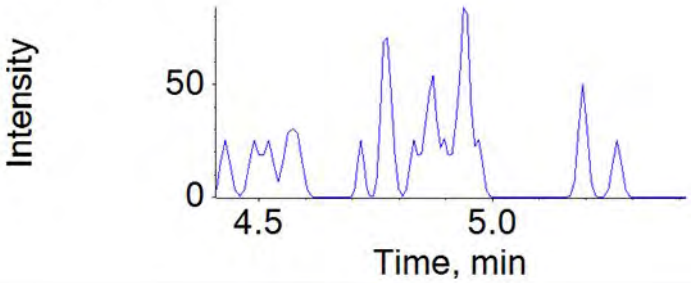
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



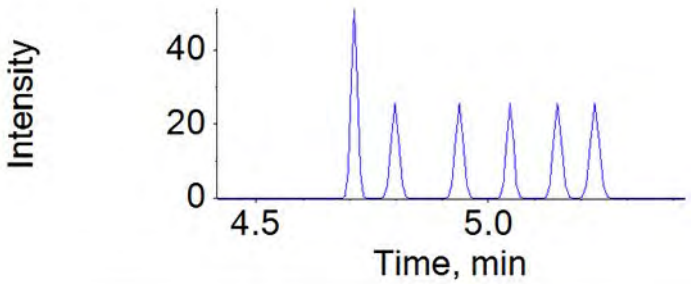
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



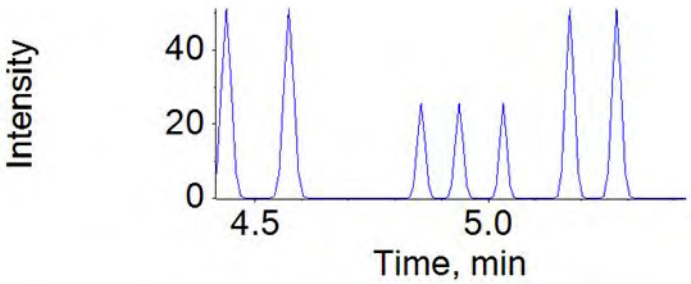
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



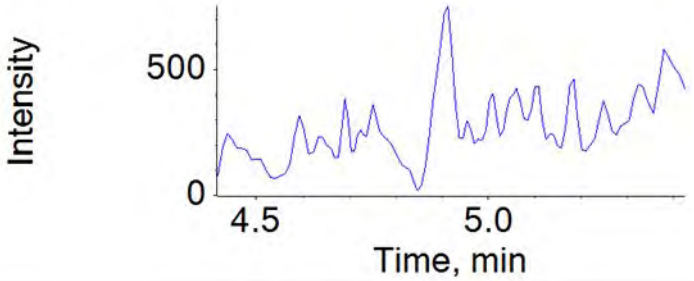
Component: PFHpS
Primary Mass: 449.0 / 80.0



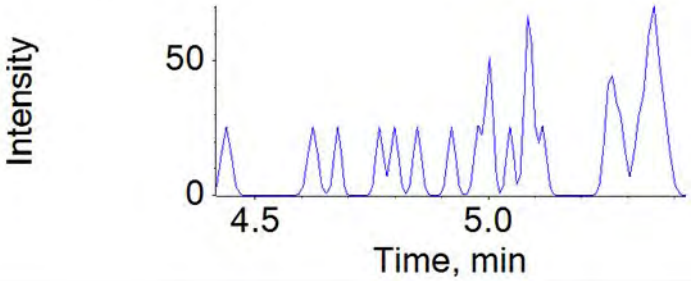
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



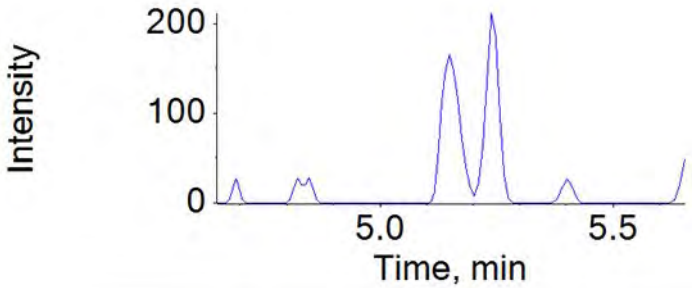
Component: PFOA
Primary Mass: 413.0 / 369.0



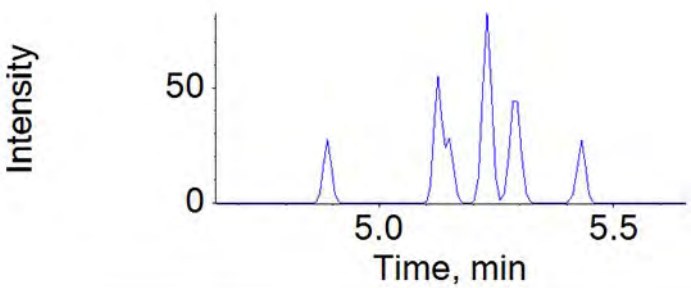
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



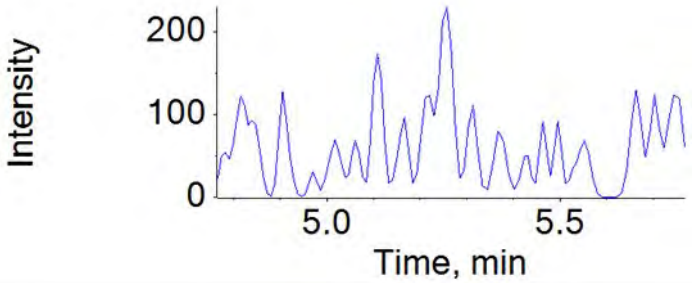
Component: PFOS
Primary Mass: 499.0 / 80.0



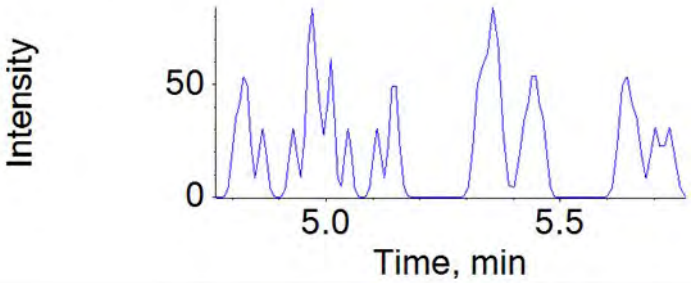
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



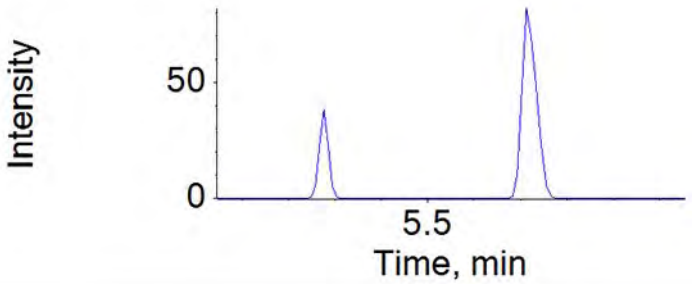
Component: PFNA
Primary Mass: 463.0 / 419.0



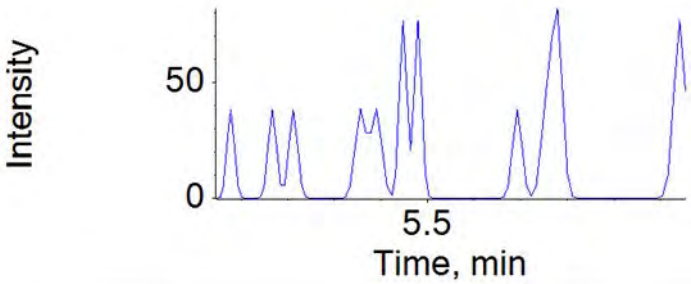
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



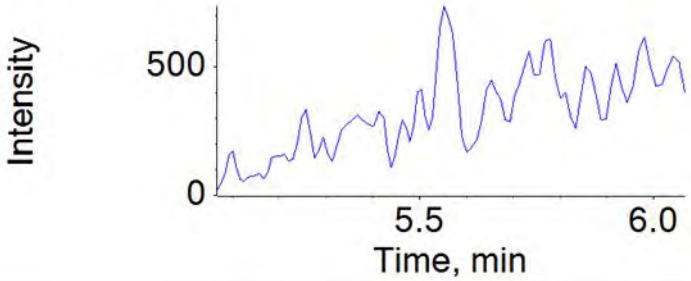
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



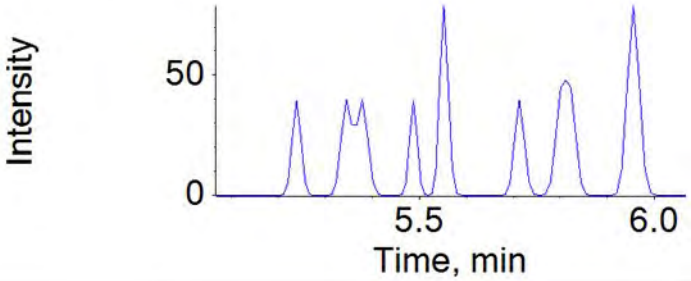
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

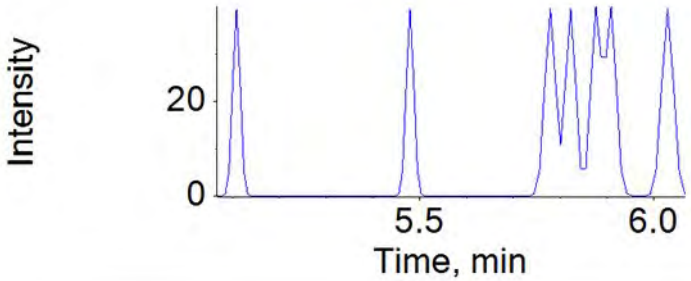
Component: PFDA
Primary Mass: 513.0 / 469.0



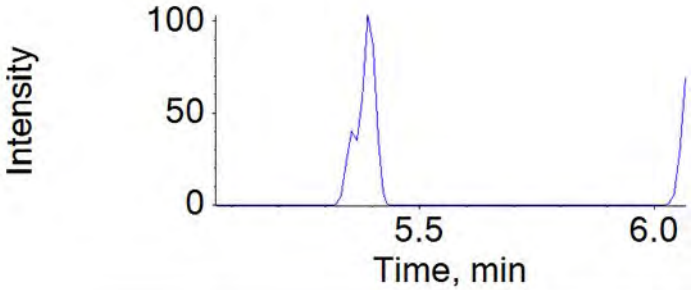
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



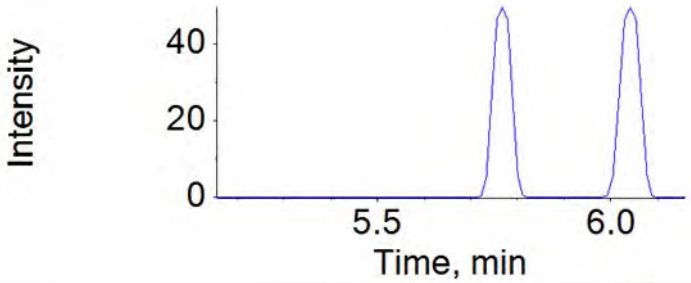
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



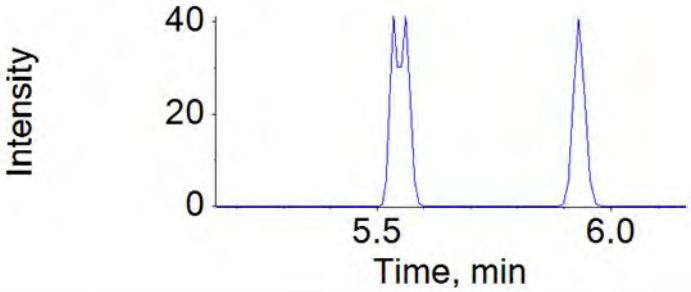
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



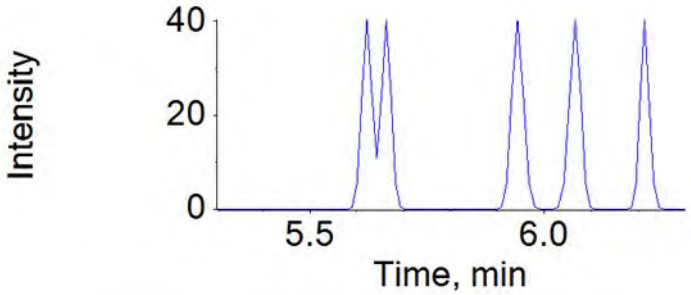
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



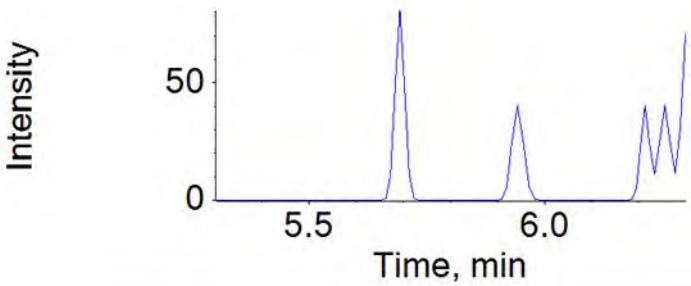
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



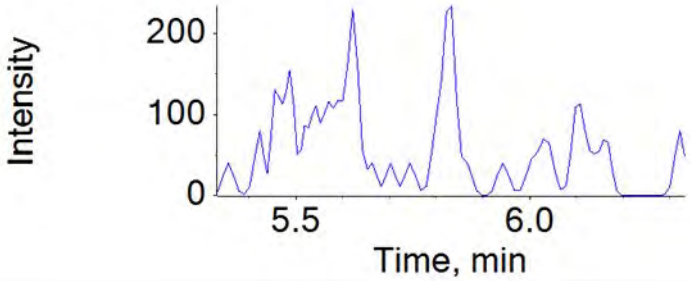
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



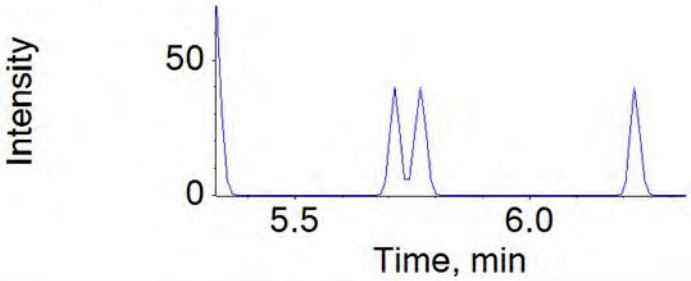
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

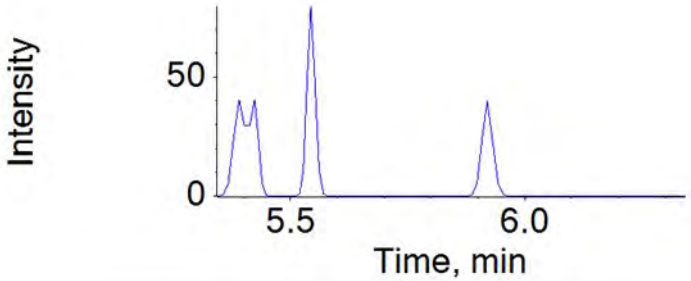
Component: PFUnDA
Primary Mass: 563.0 / 519.0



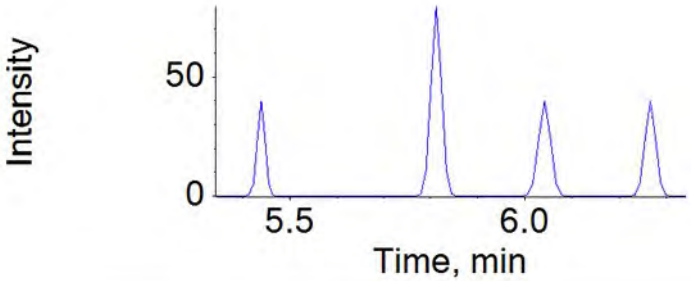
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



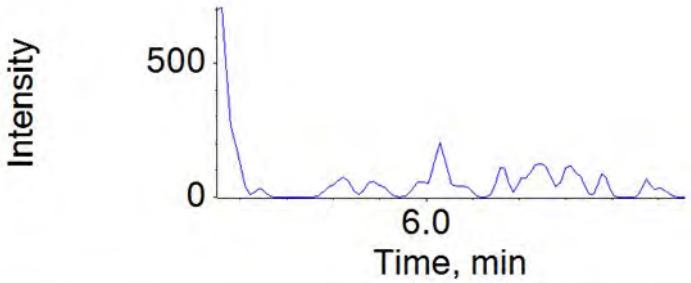
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



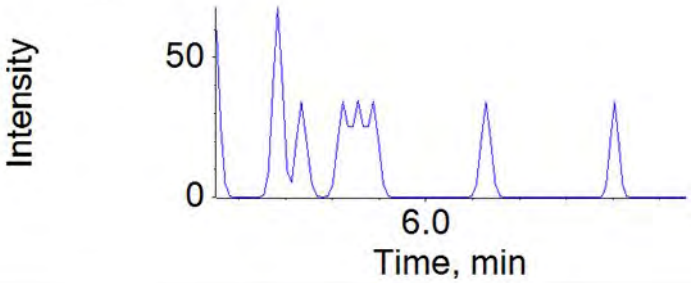
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



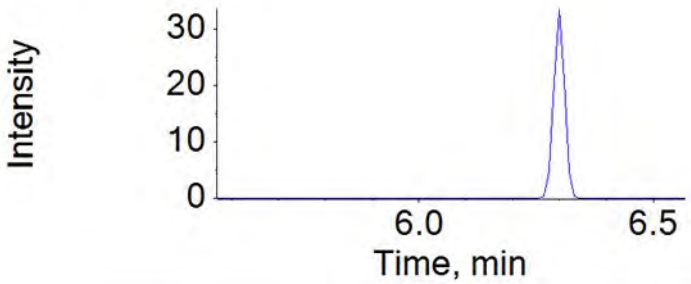
Component: PFDoDA
Primary Mass: 613.0 / 569.0



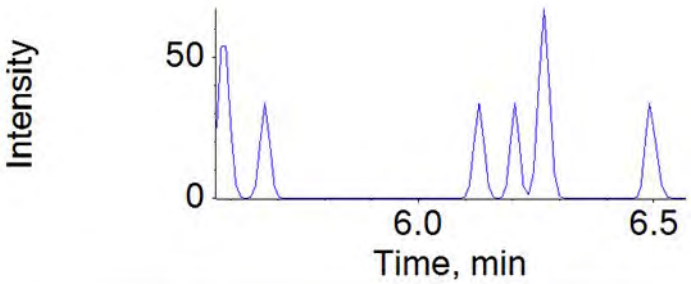
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



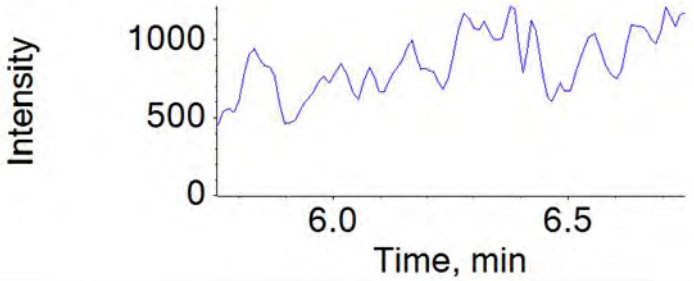
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



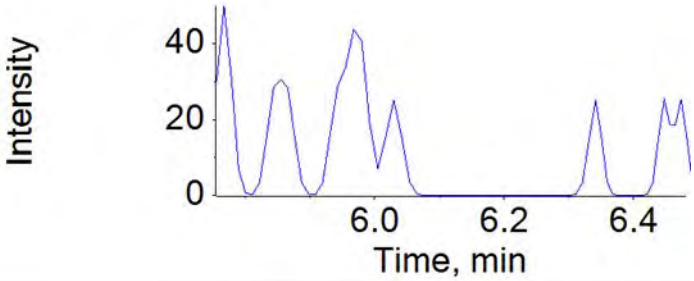
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

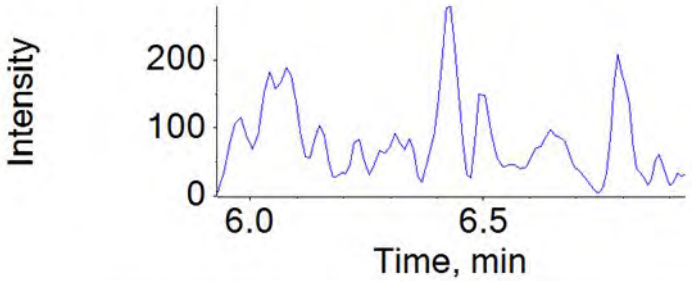
Component: PFTrDA
Primary Mass: 663.0 / 619.0



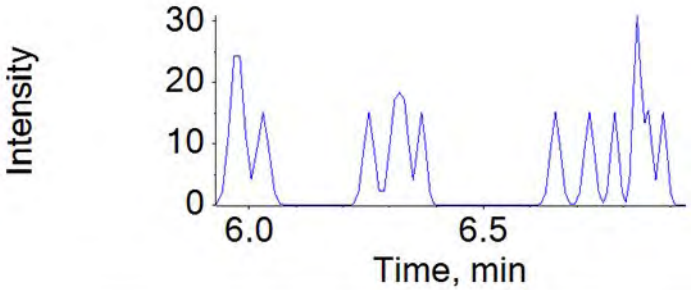
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



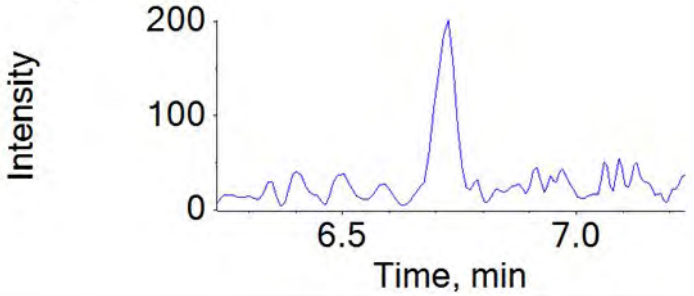
Component: PFTeDA
Primary Mass: 713.0 / 669.0



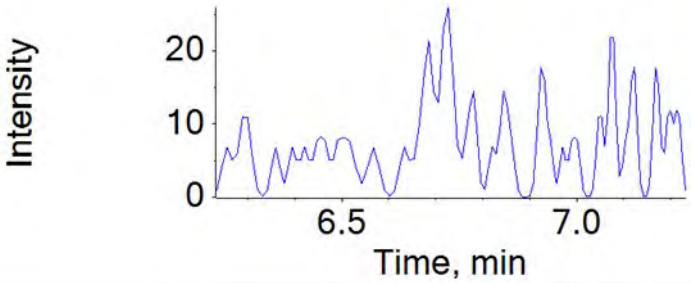
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



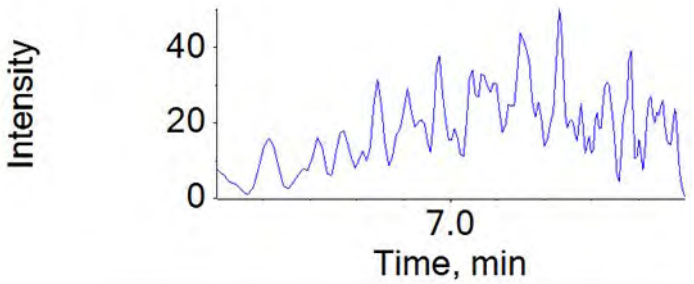
Component: PFHxDA
Primary Mass: 813.0 / 769.0



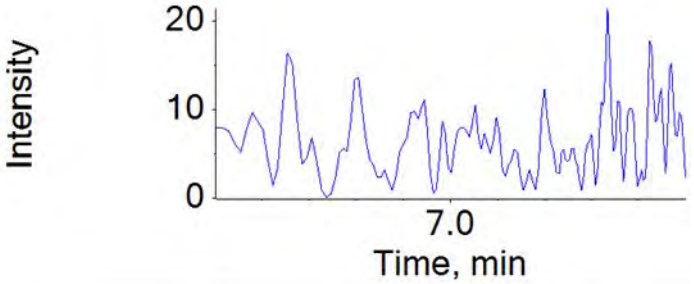
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK332003			**Data File:**		18NOV29D-55.wiff
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	

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

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

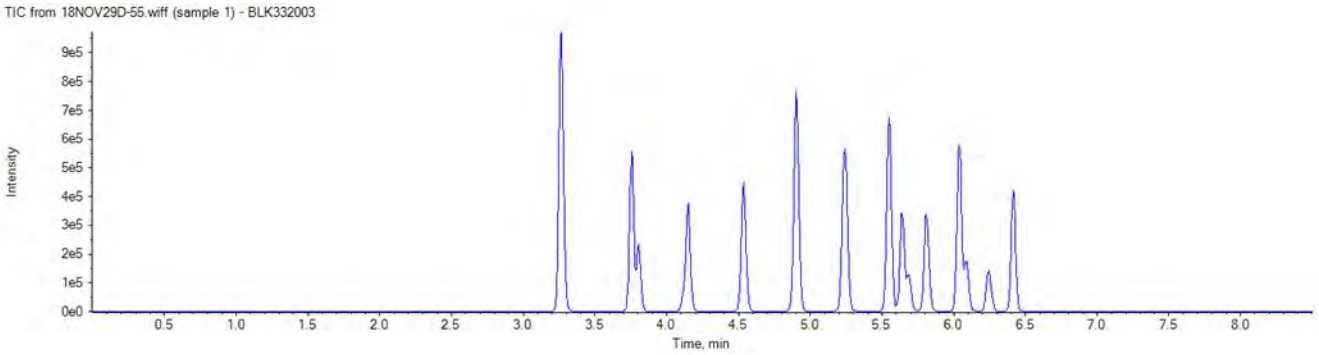
Analyte Quantitation Peak Table

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	
PFTrDA	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	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	

Total Ion Chromatogram

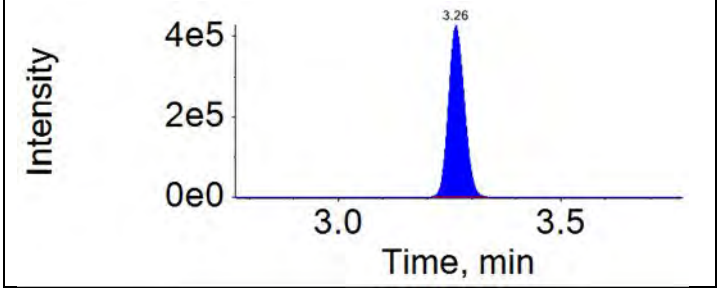


APPROVED
By MCD at 10:13 pm, 11/30/18

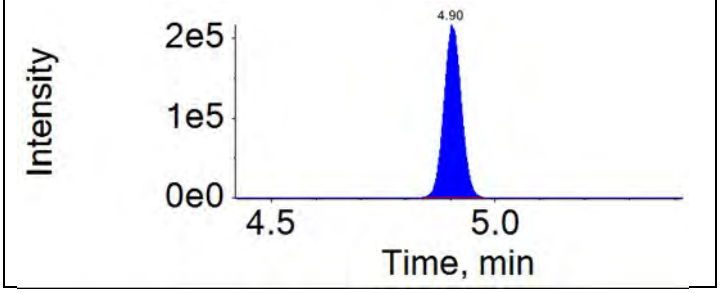
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

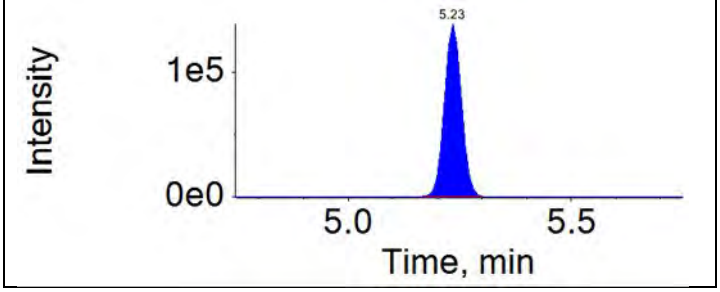
Injection Standard: 13C3-PFBA
216.0 / 172.0



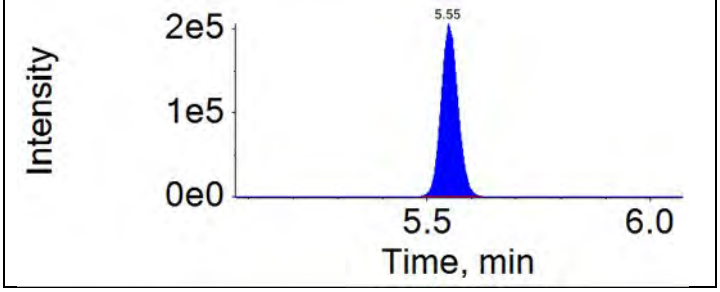
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



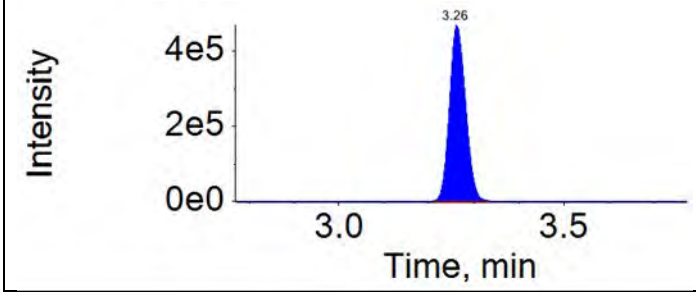
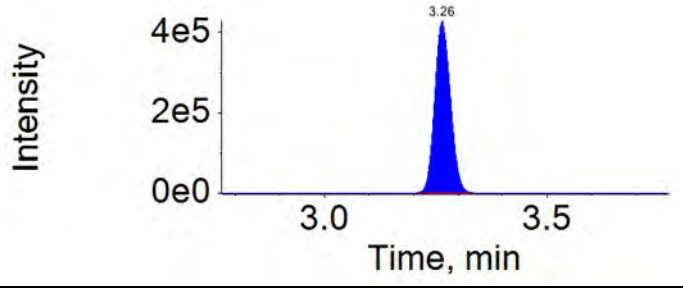
Injection Standard: 13C2-PFDA
515.0 / 470.0

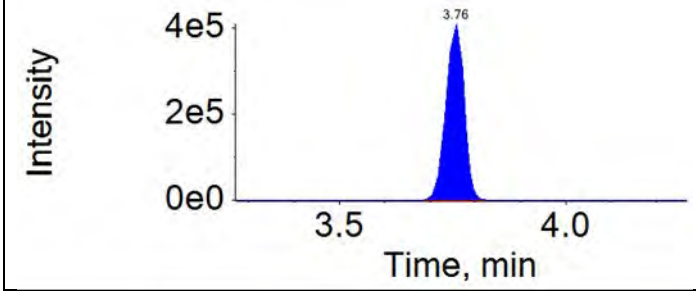
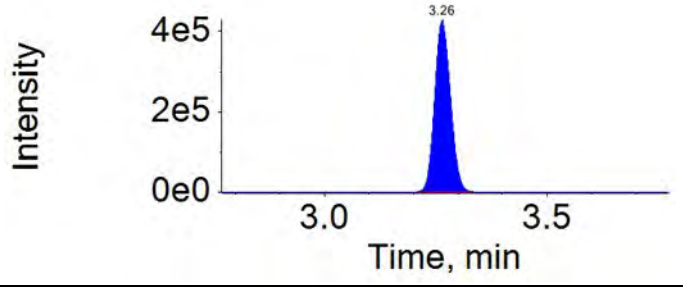


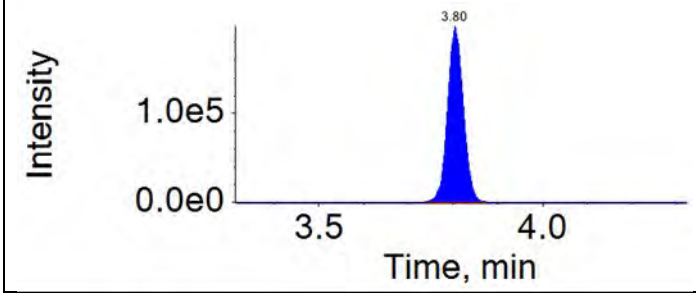
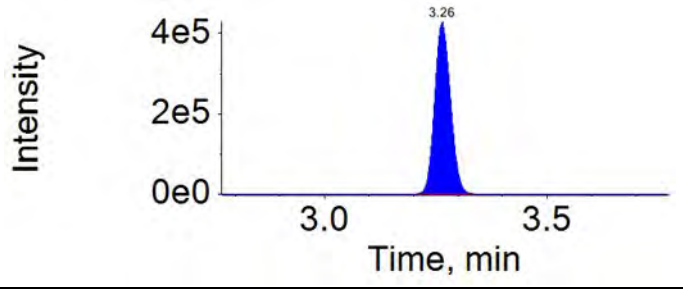
APPROVED
By MCD at 10:13 pm, 11/30/18

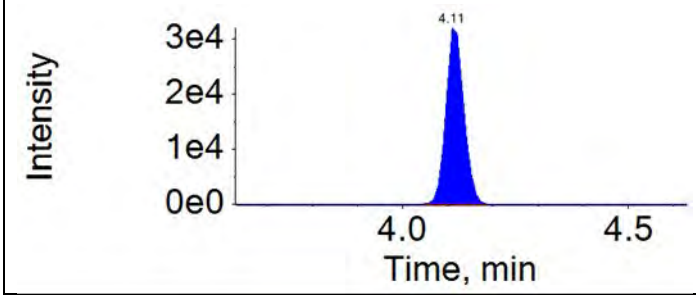
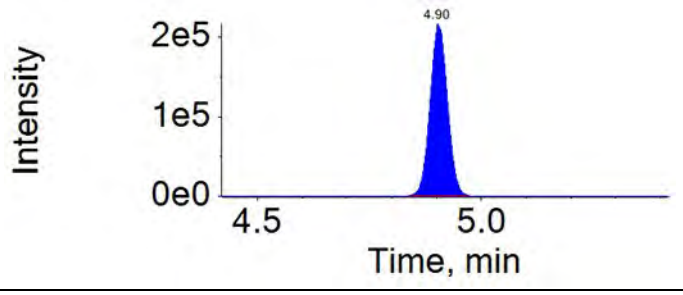
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

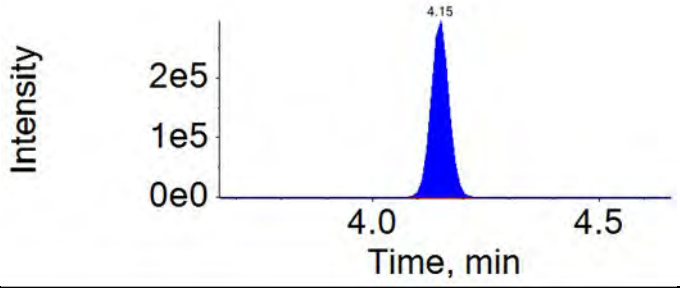
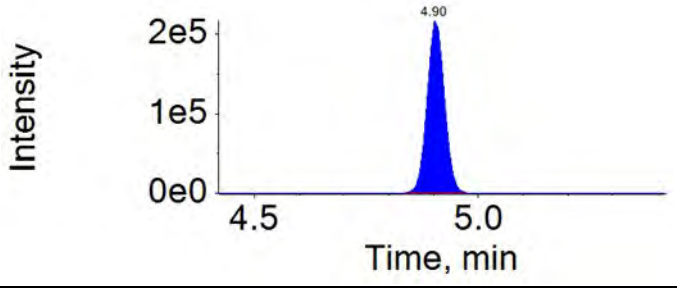
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

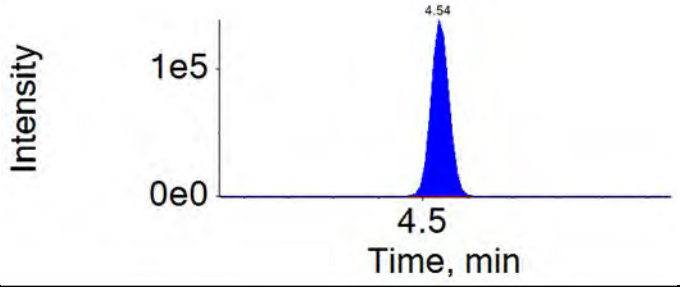
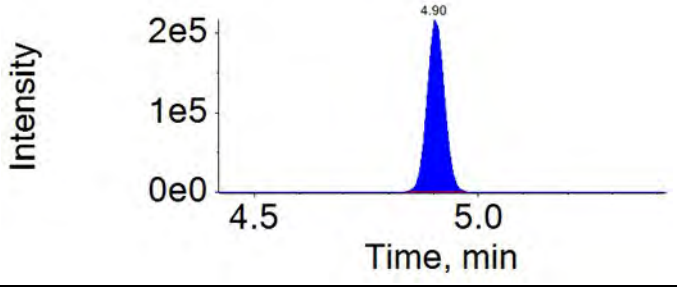
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

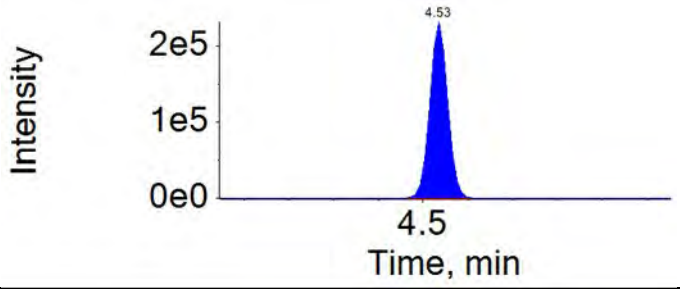
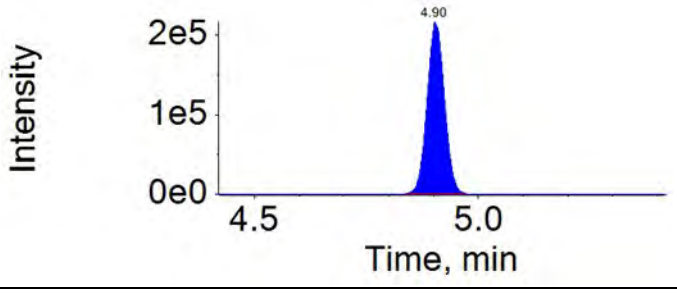
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

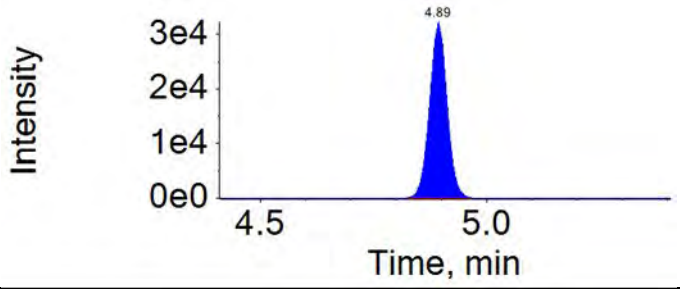
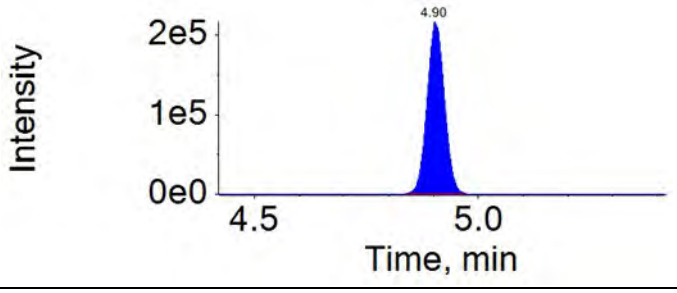
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

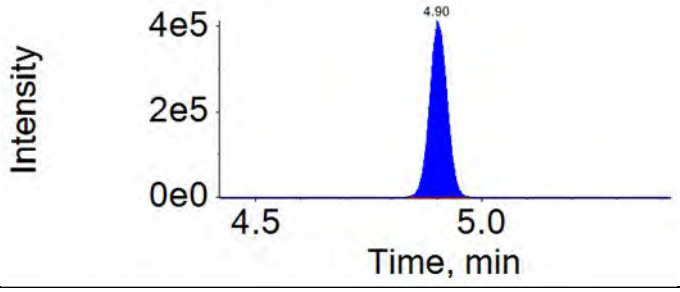
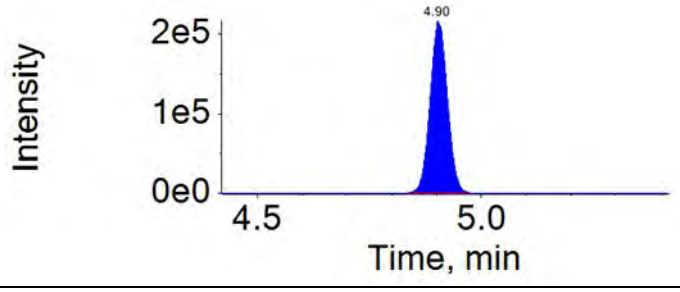
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

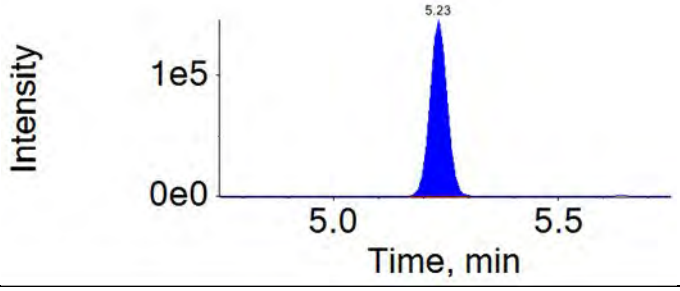
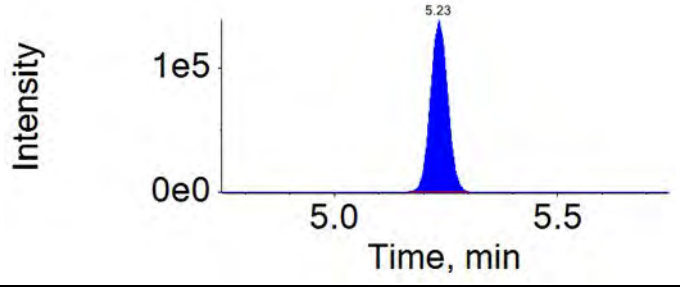
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

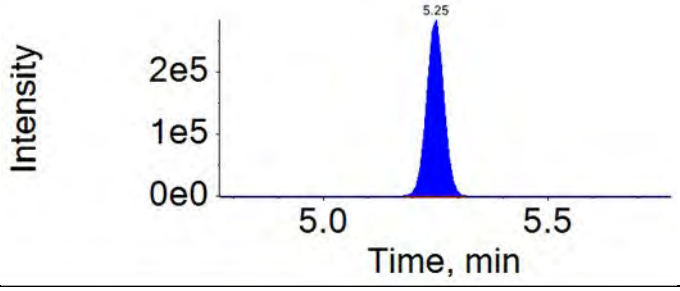
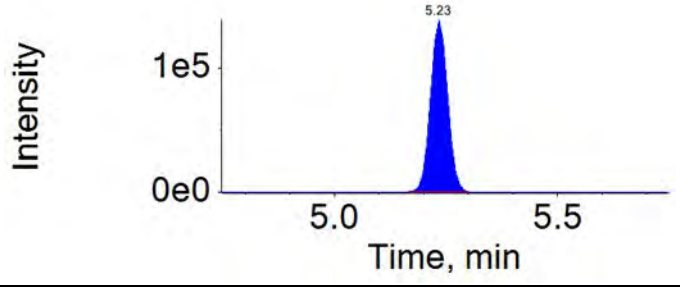
APPROVED
By MCD at 10:13 pm, 11/30/18

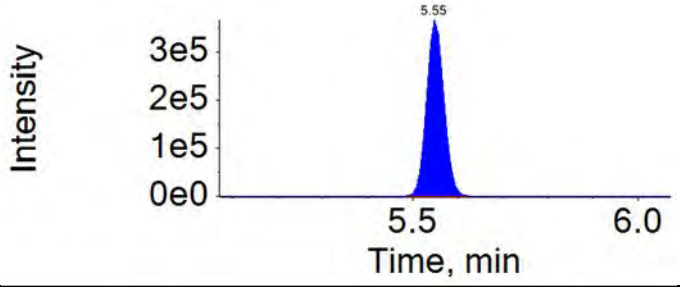
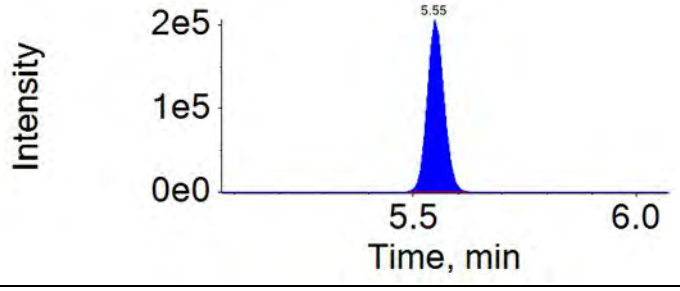
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

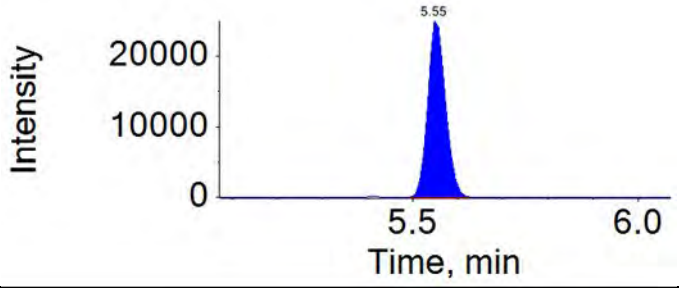
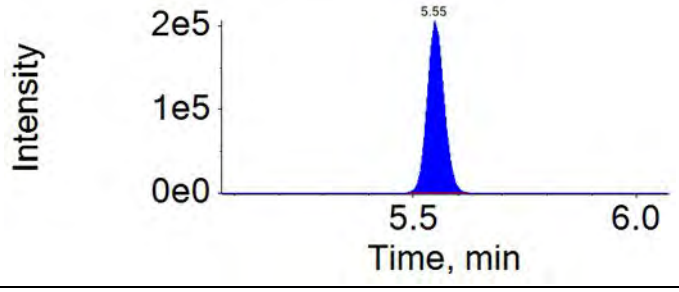
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

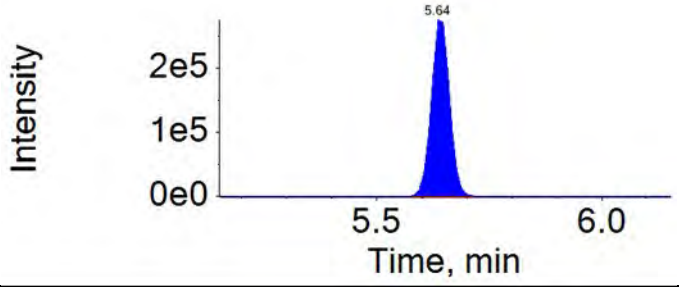
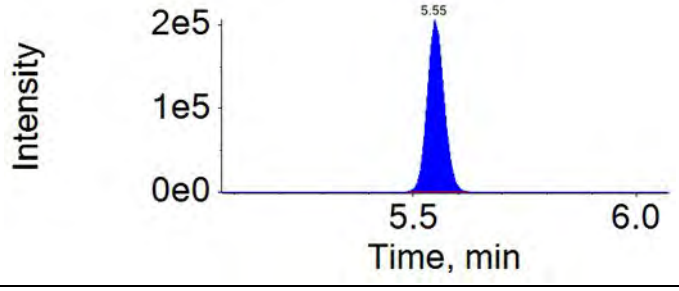
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

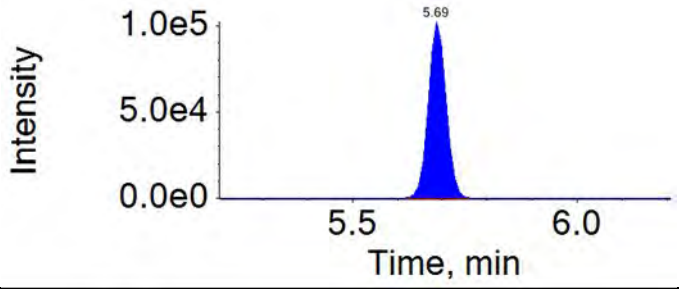
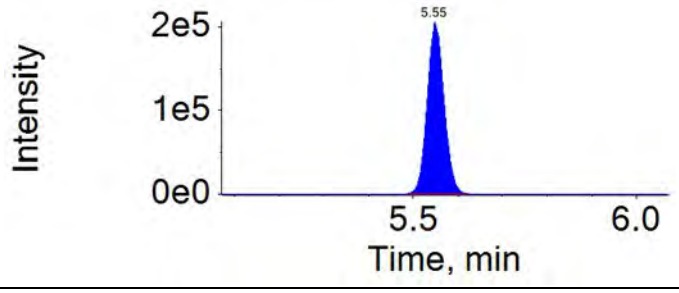
APPROVED
By MCD at 10:13 pm, 11/30/18

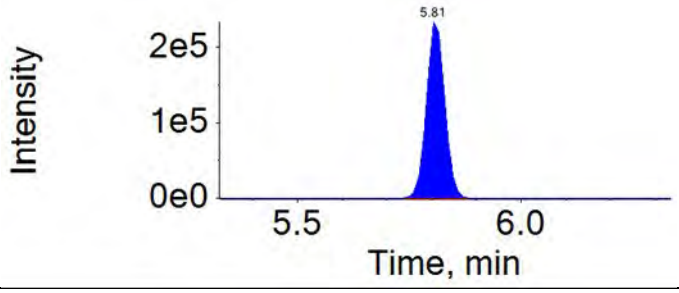
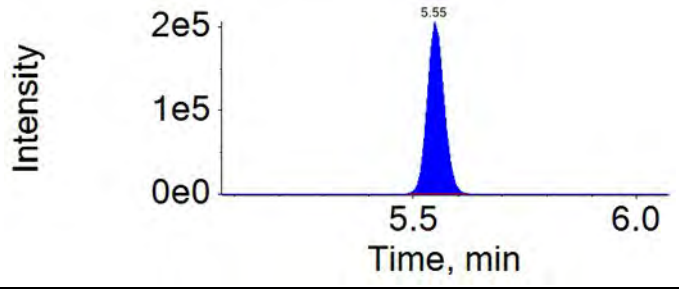
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

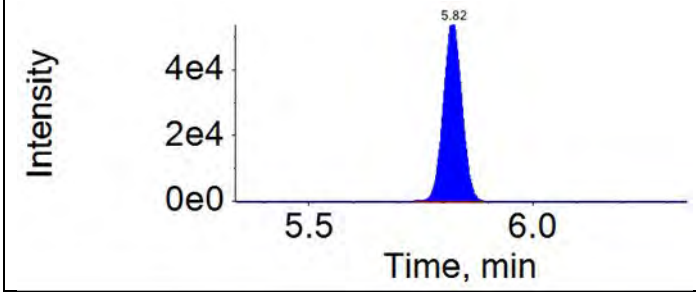
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

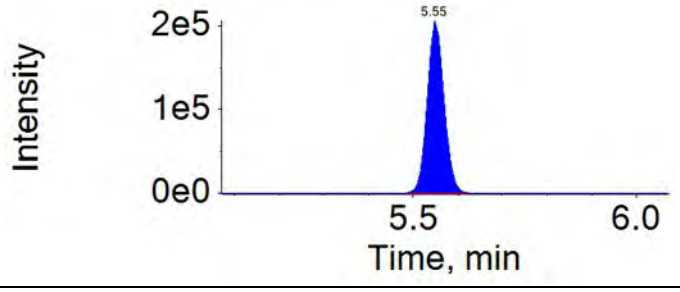
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

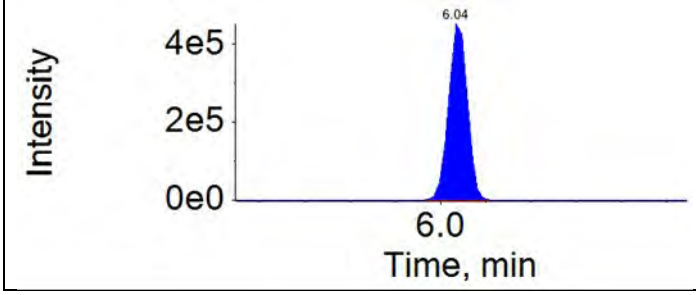
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

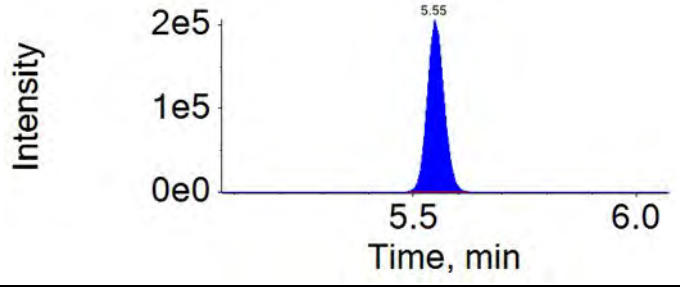
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



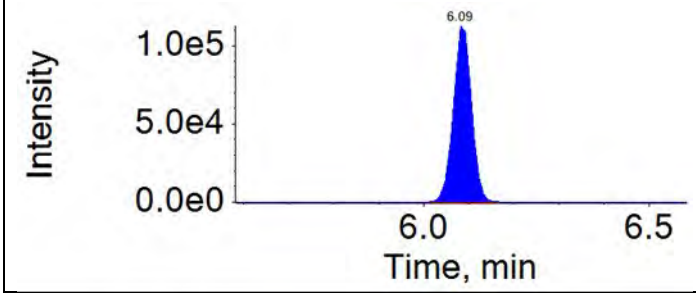


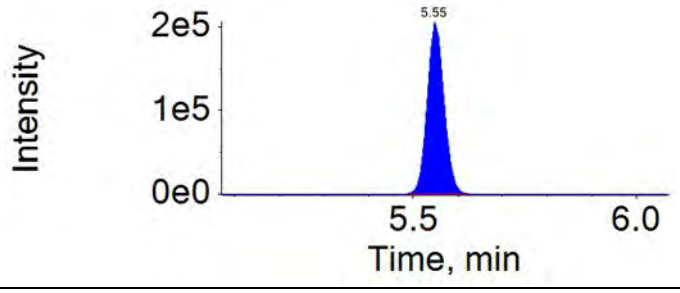
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



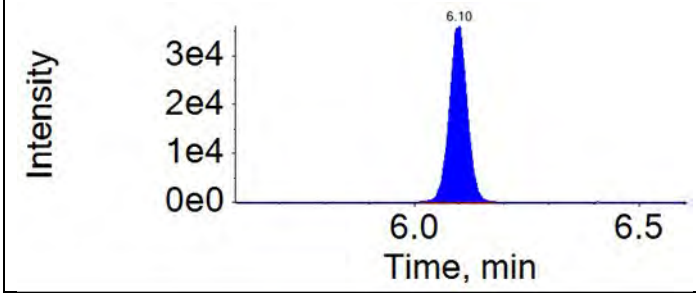


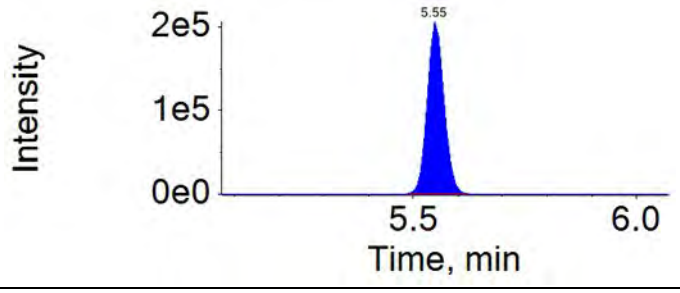
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





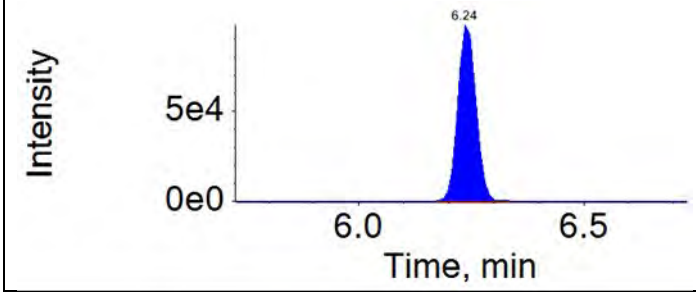
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

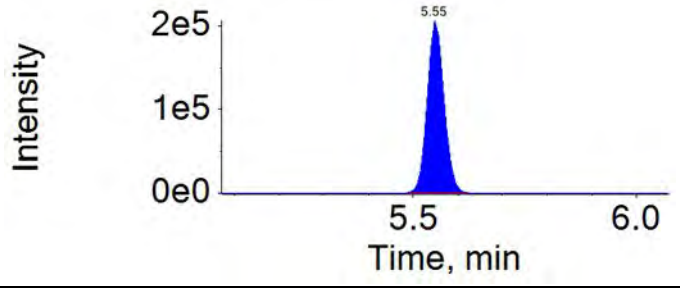




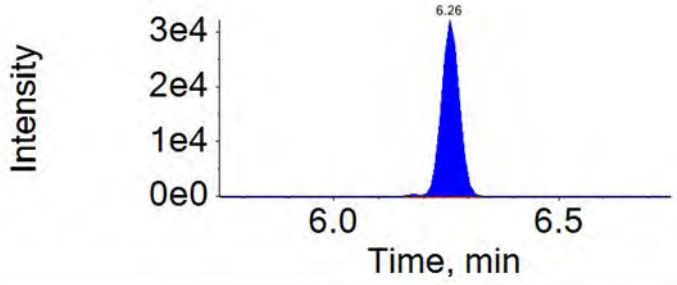
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

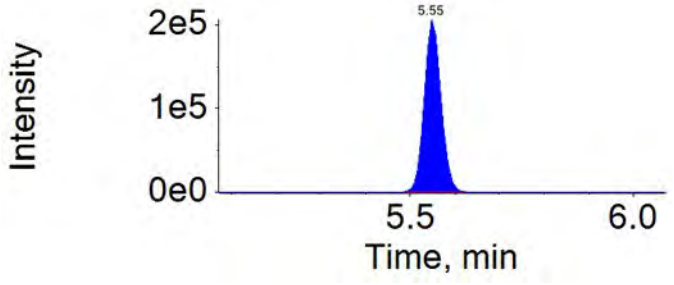
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



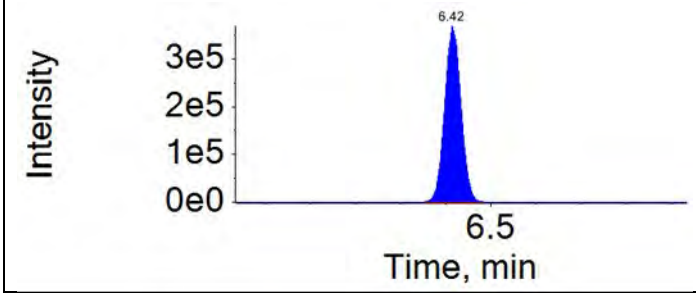


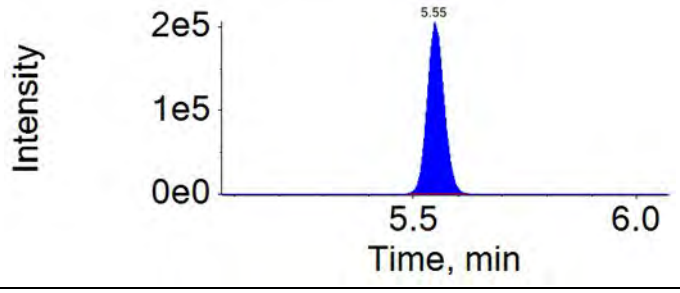
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



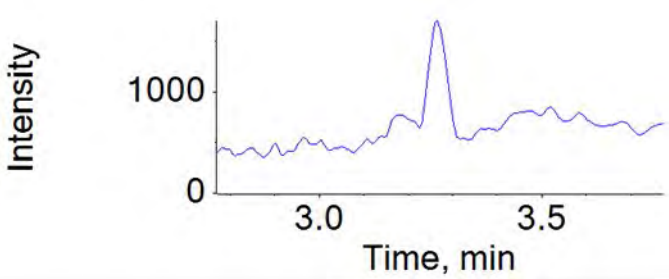


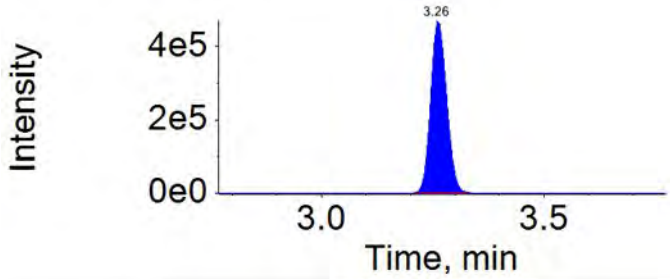
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

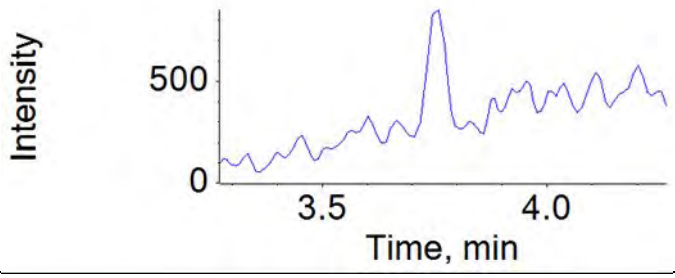
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

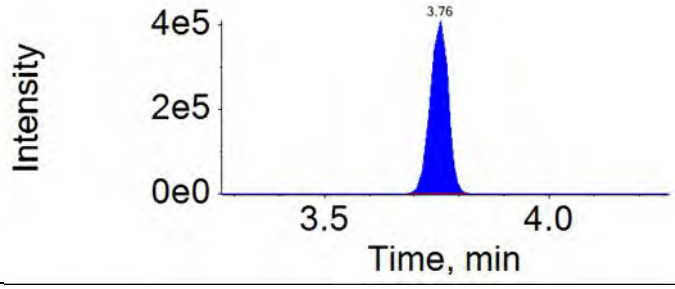
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



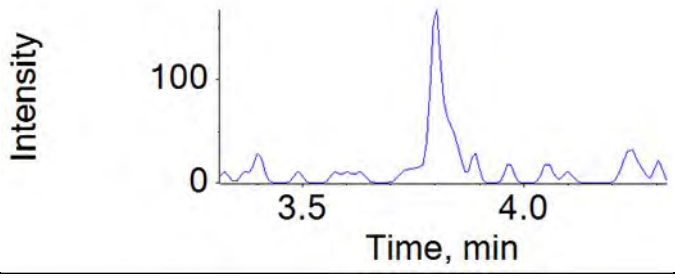


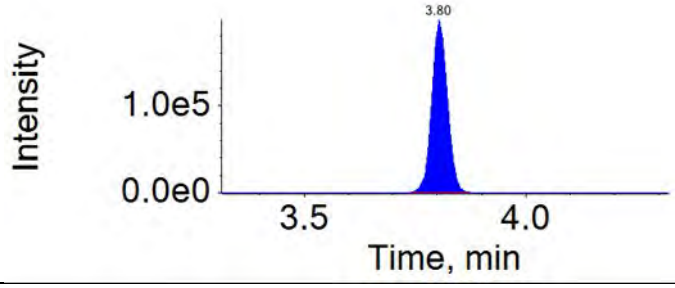
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



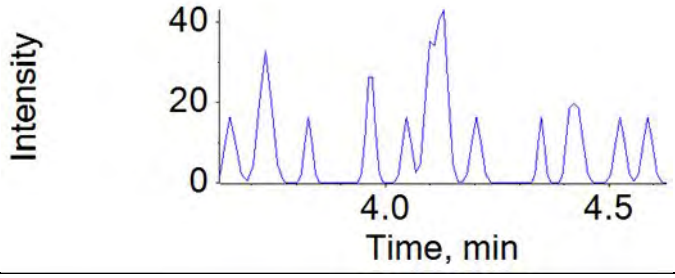


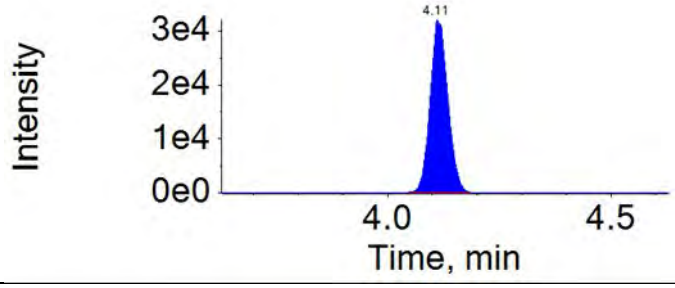
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



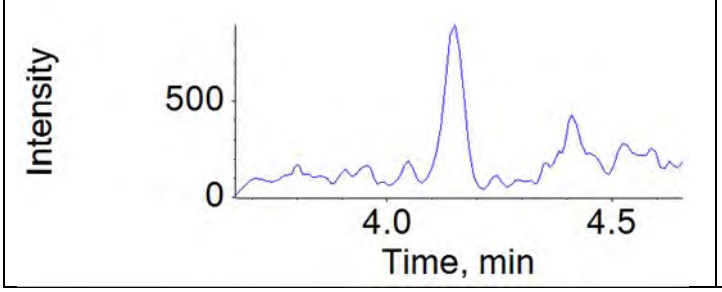


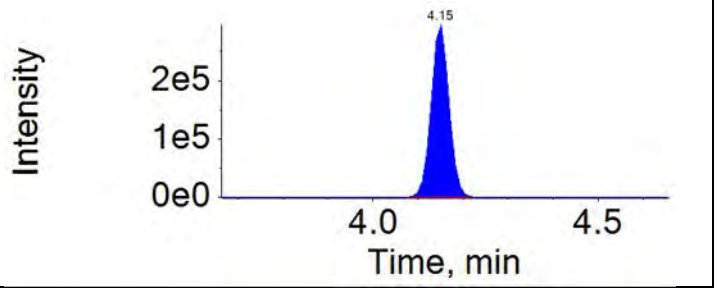
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

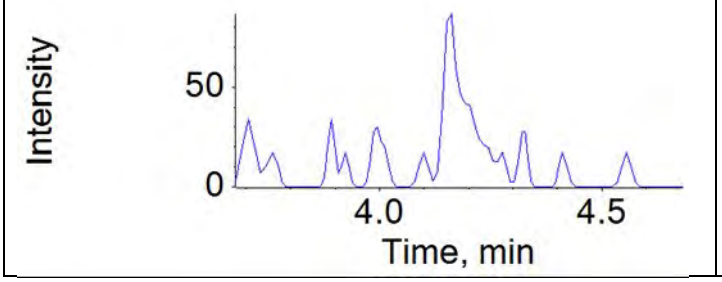
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

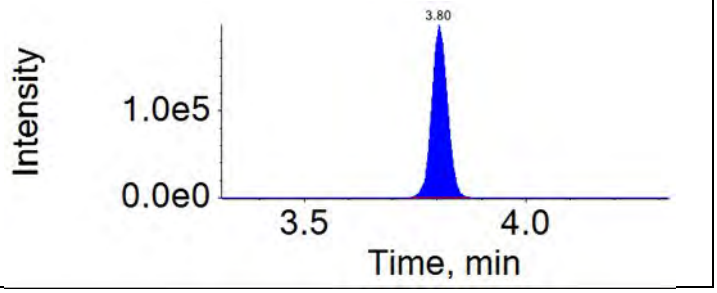
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



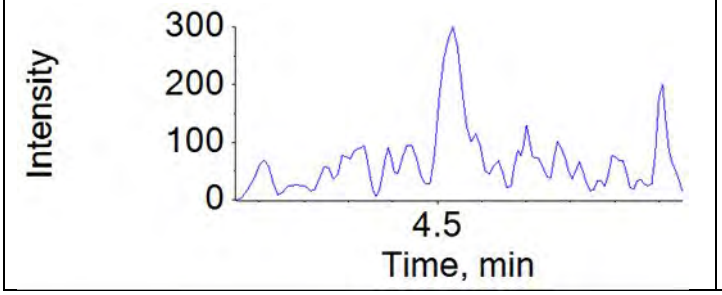


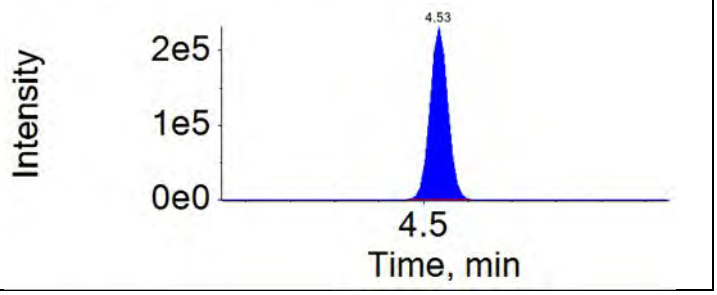
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



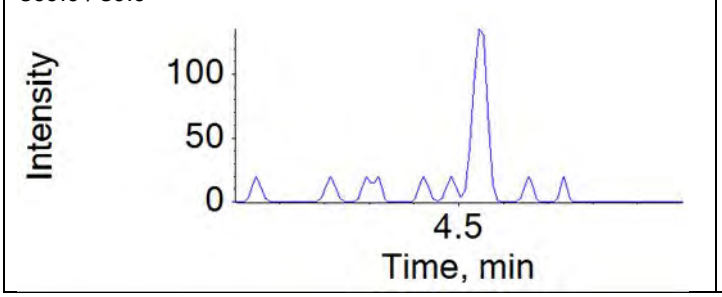


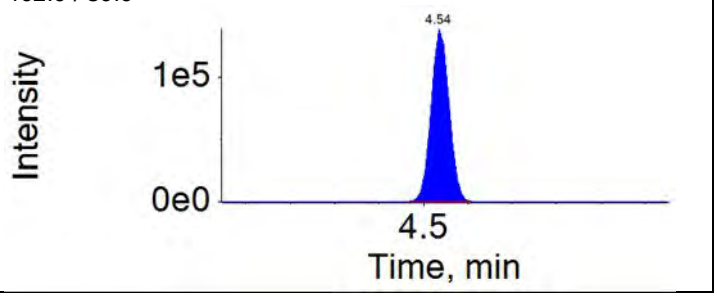
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

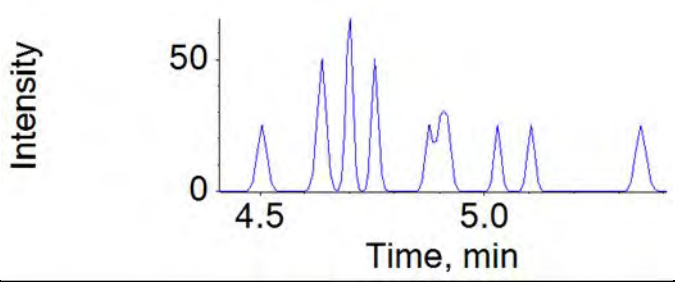
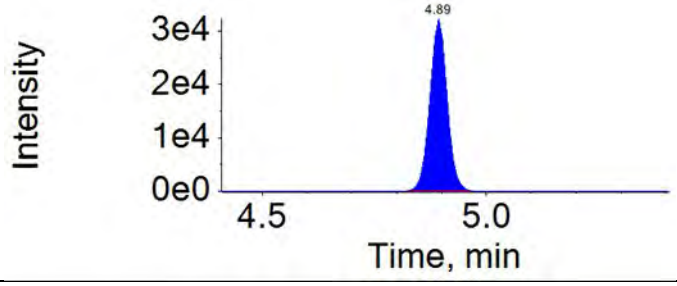


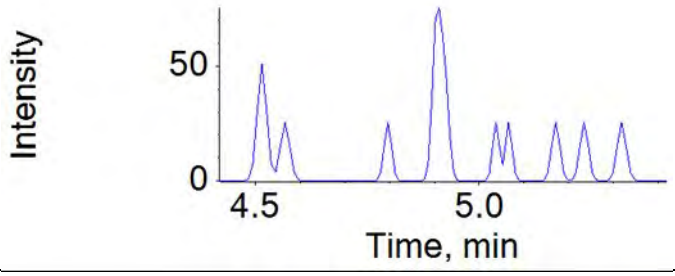
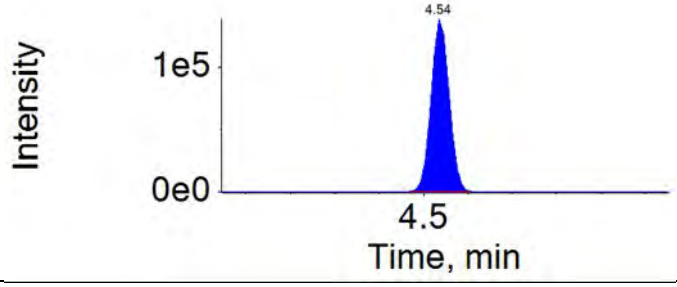


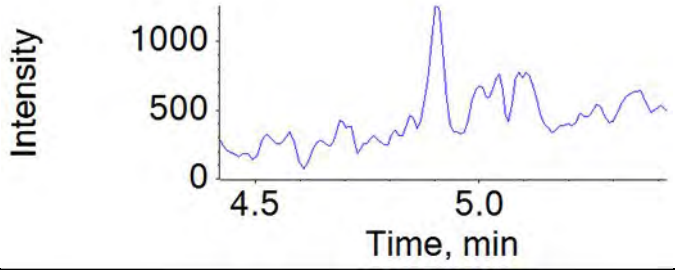
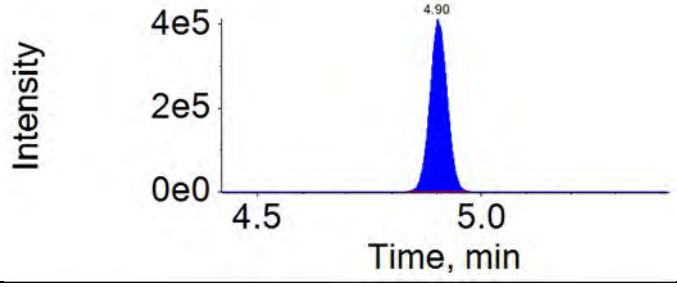
APPROVED
By MCD at 10:13 pm, 11/30/18

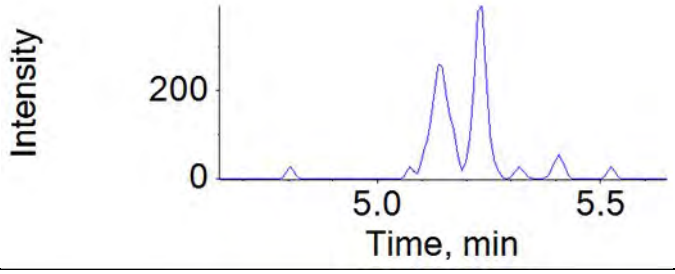
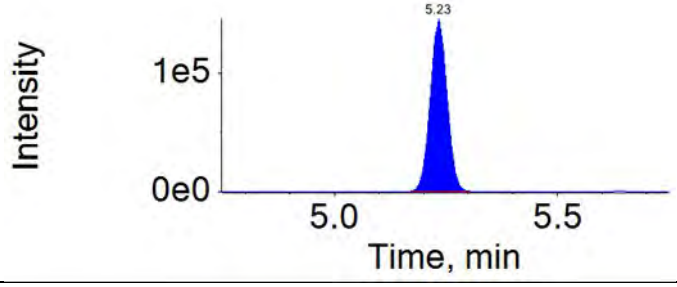
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

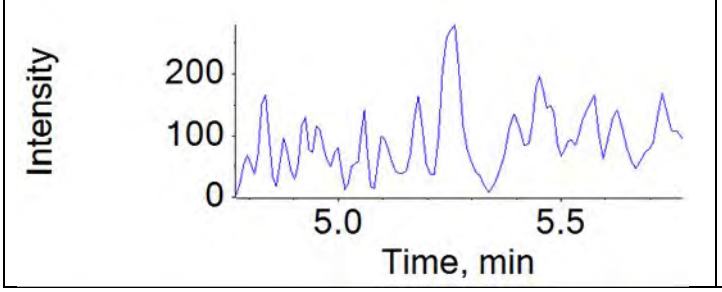
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

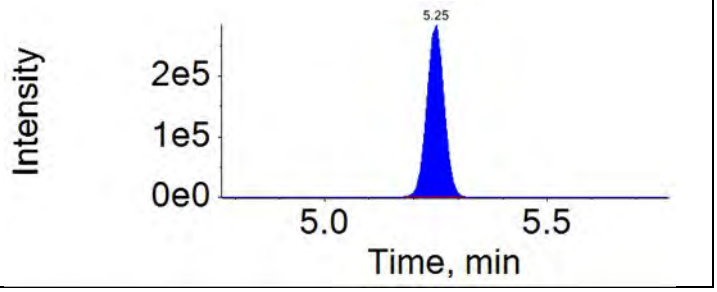
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

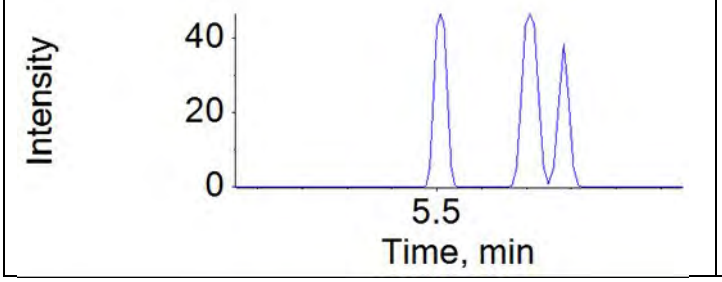
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

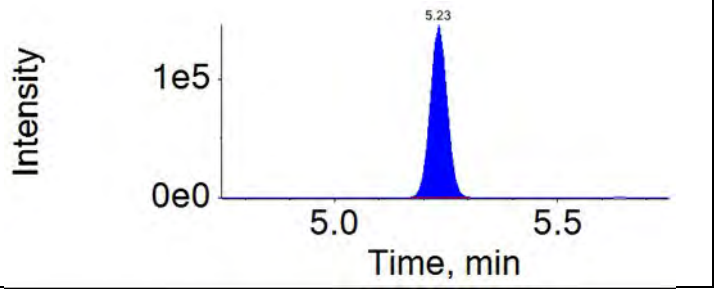
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



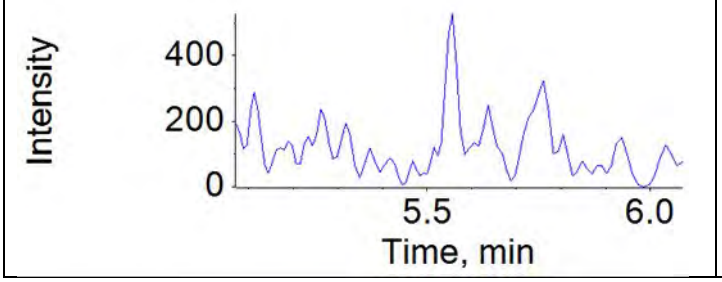


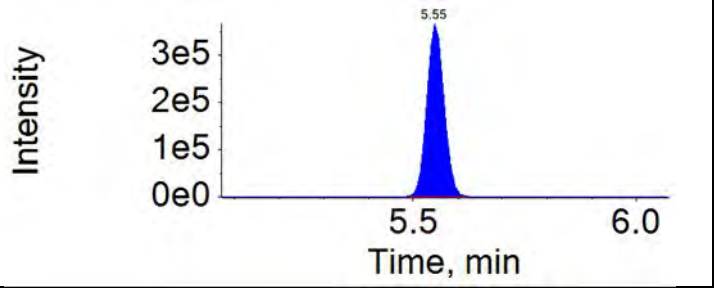
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



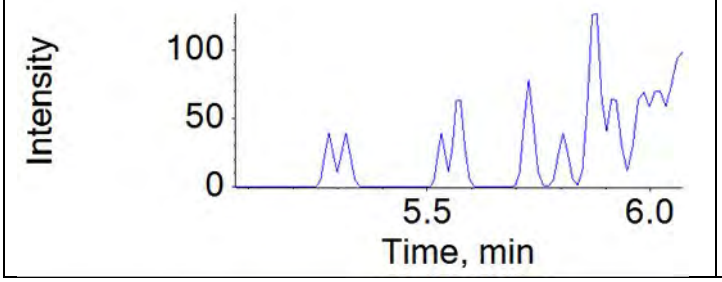


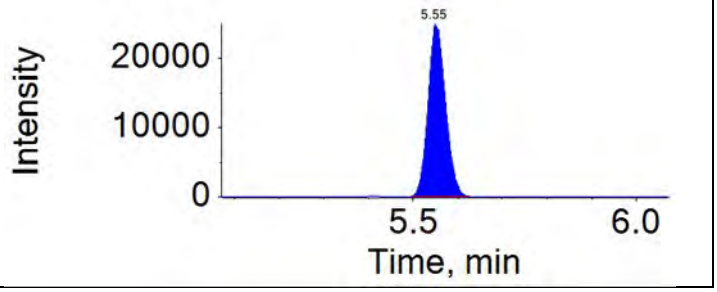
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



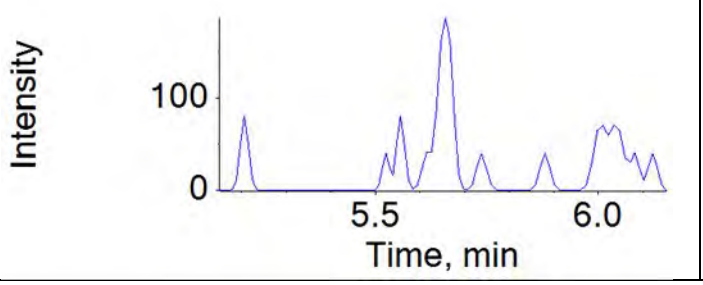


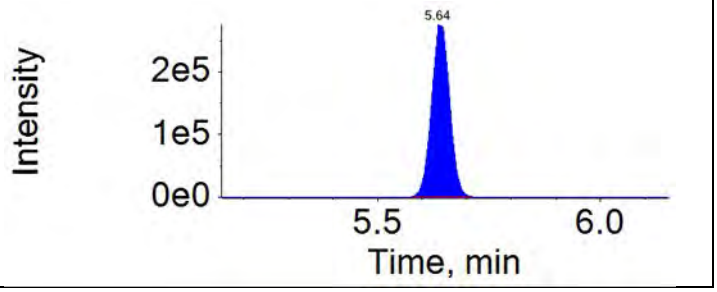
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

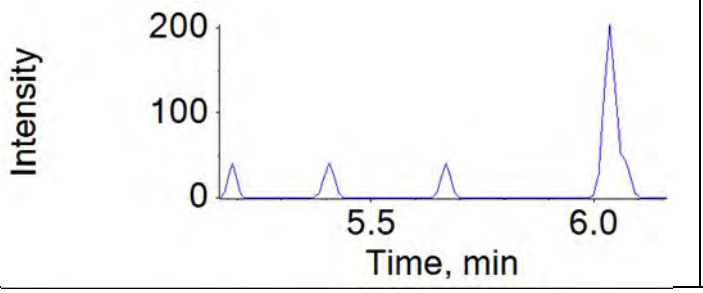
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

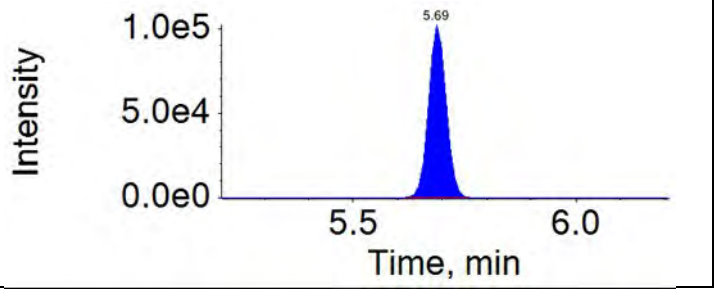
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



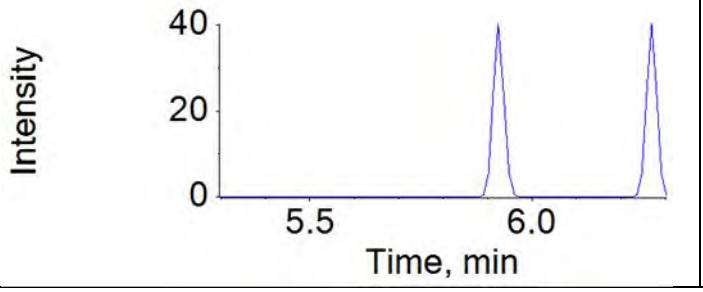


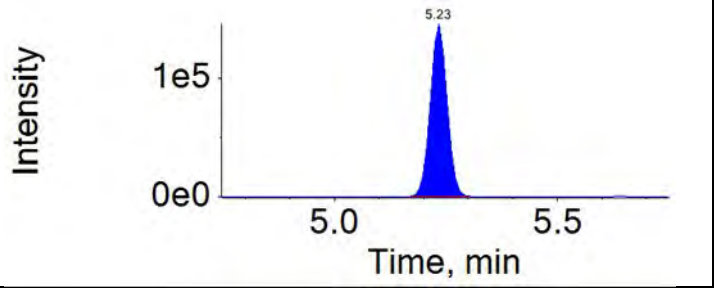
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



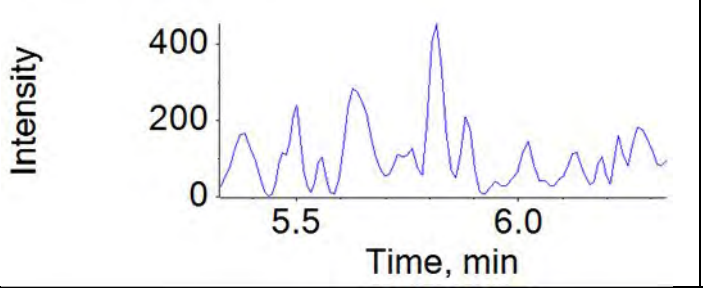


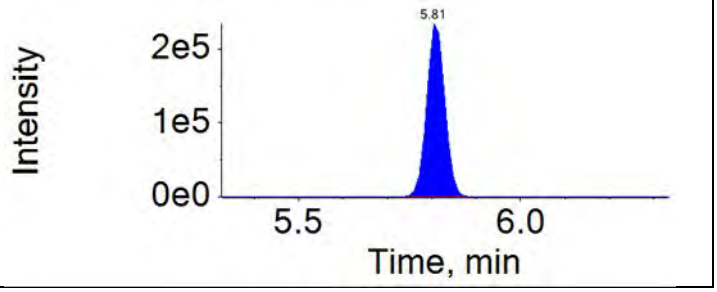
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



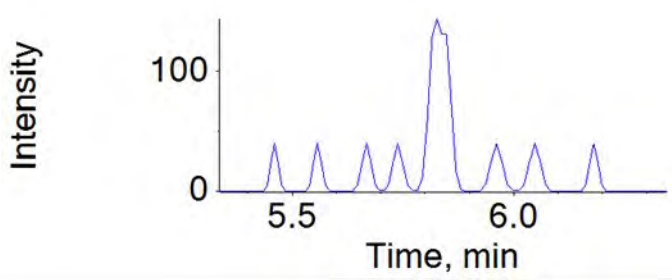


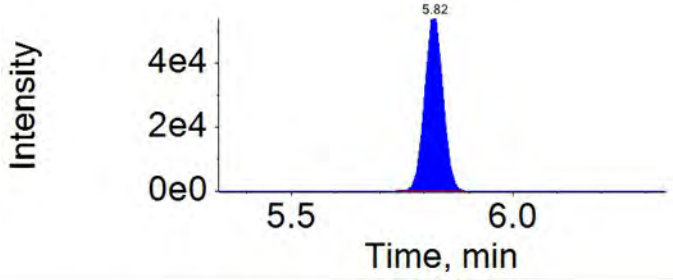
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

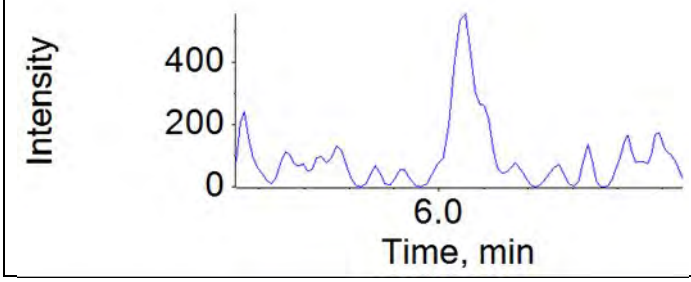
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

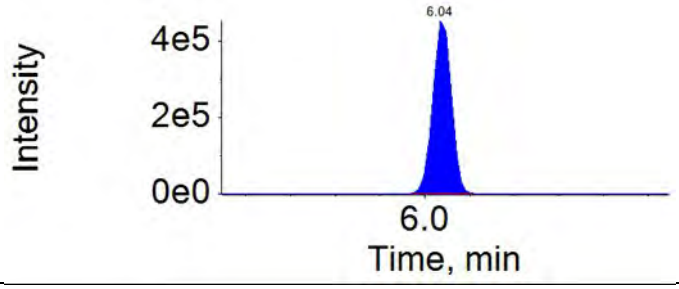
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



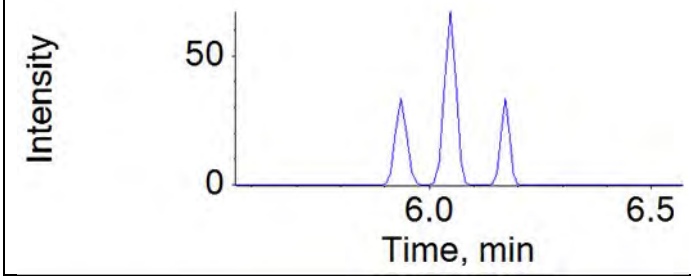


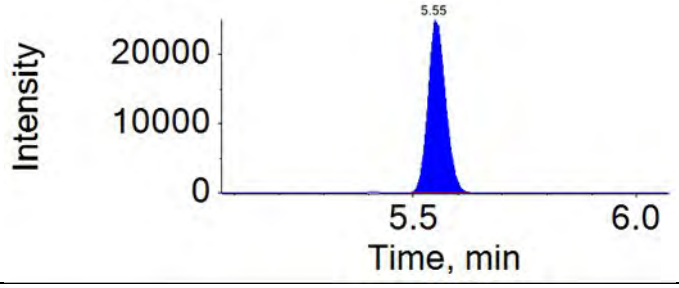
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



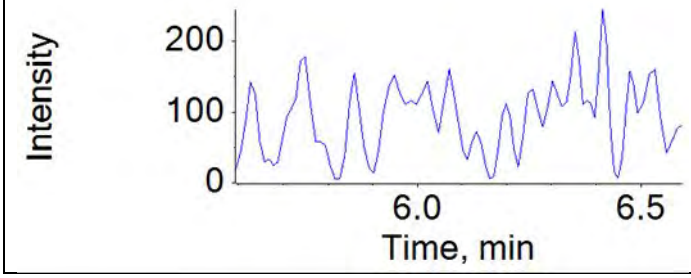


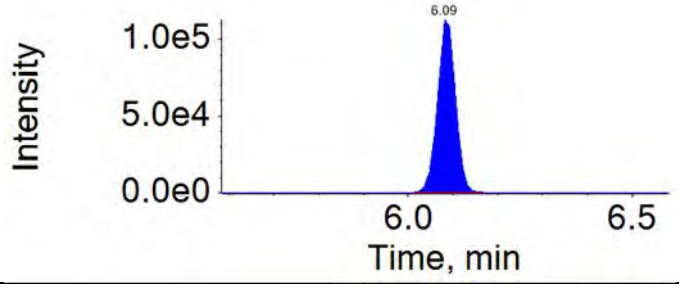
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



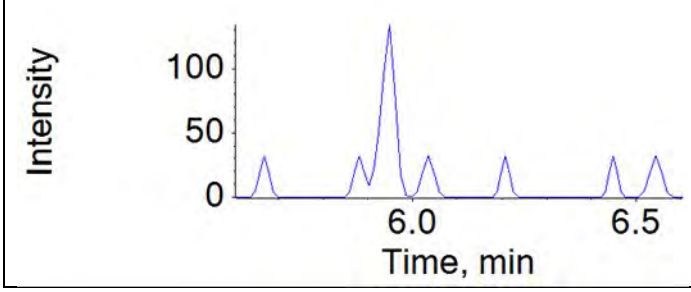


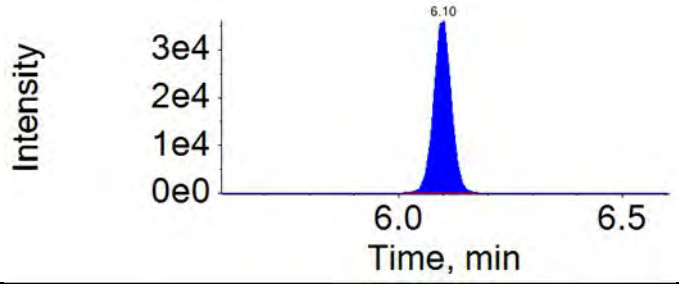
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

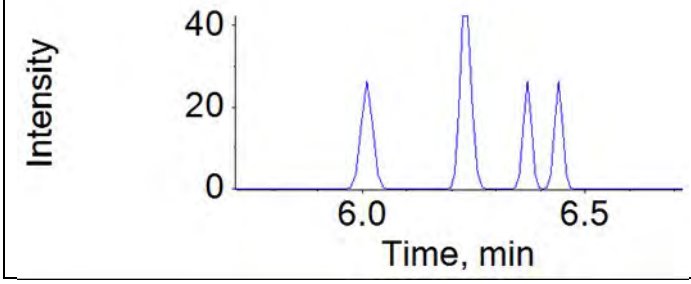
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

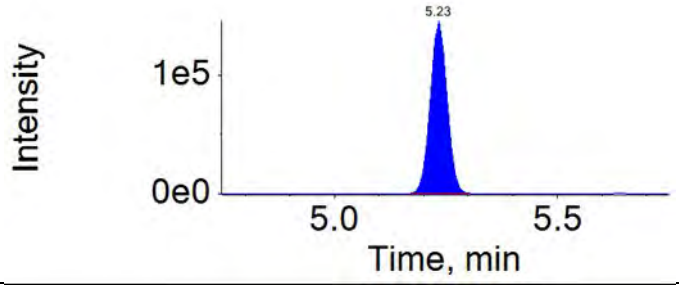
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



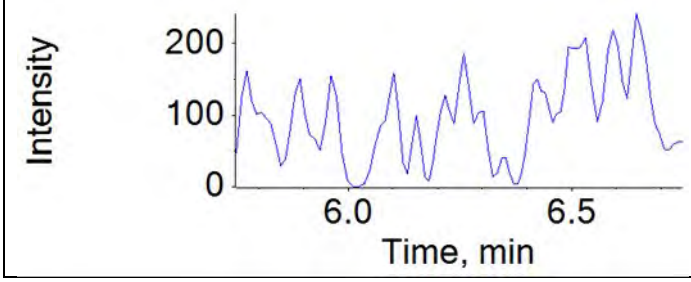


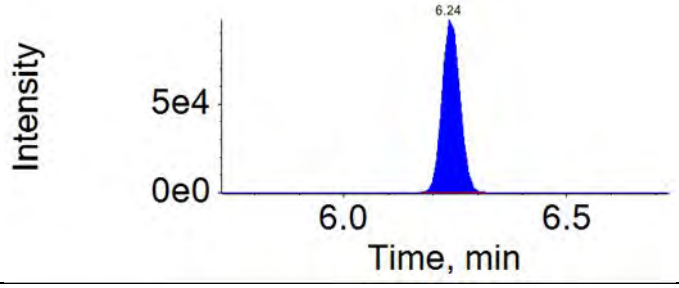
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



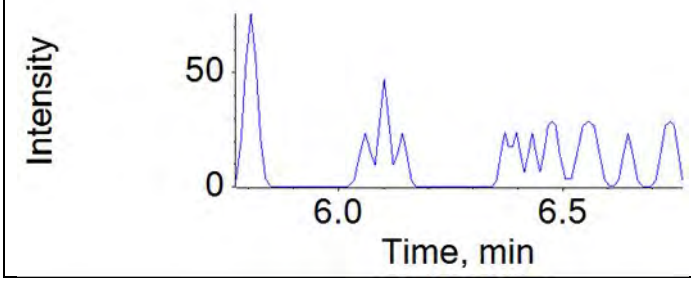


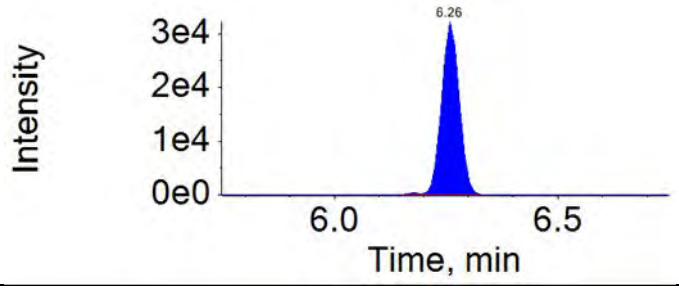
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



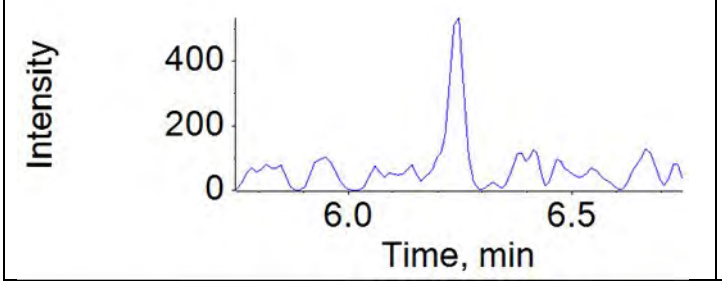


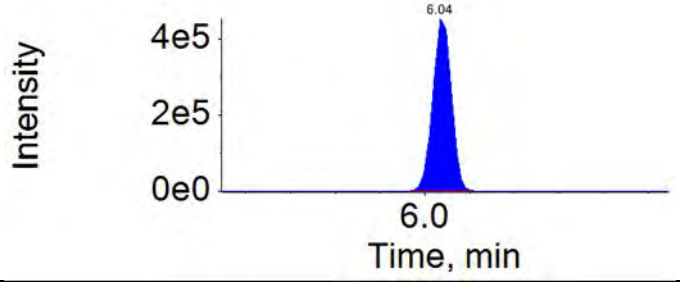
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

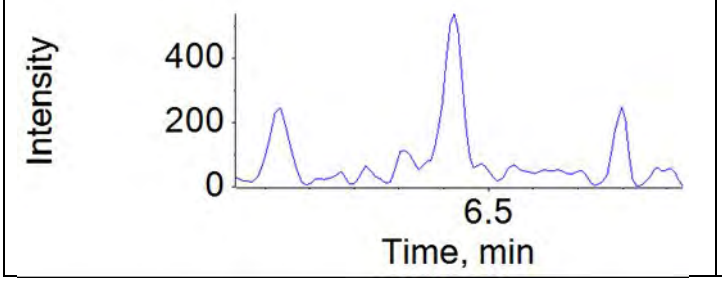
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

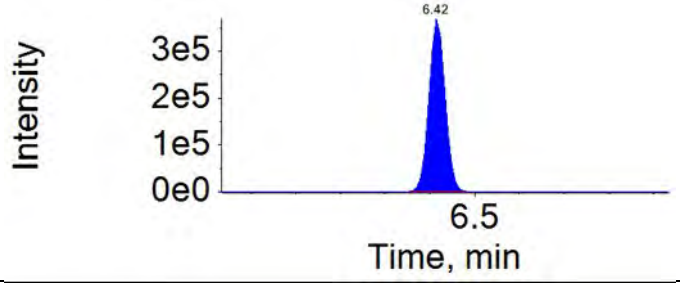
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



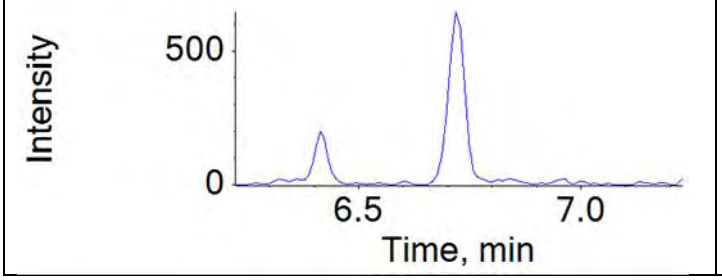


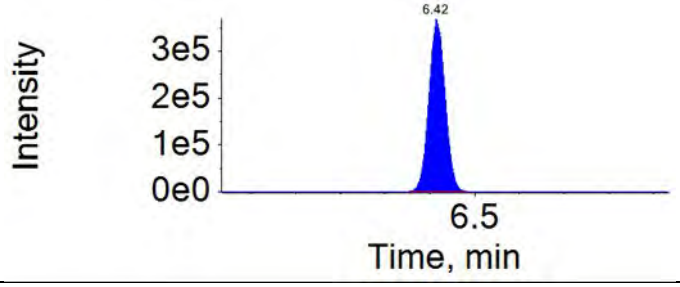
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



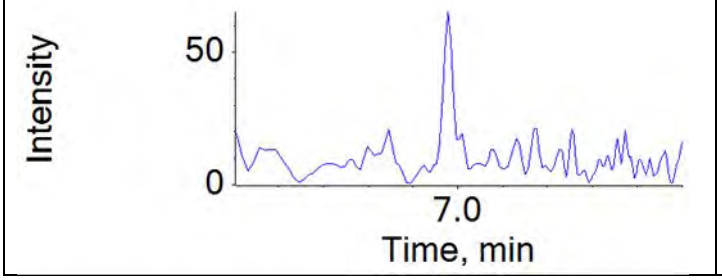


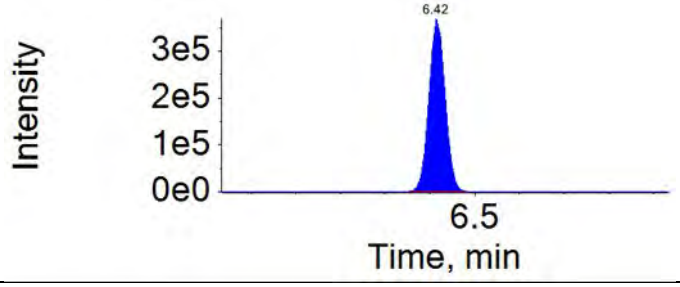
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





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

REVIEWED
By HMK at 2:27 pm, 12/6/18

Ion Ratio Report

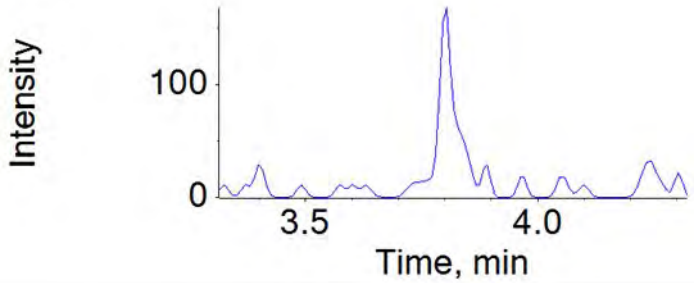
Sample Name: BLK332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-55.wiff

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	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_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	

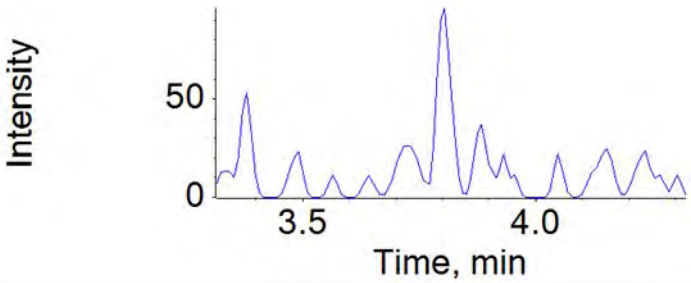
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

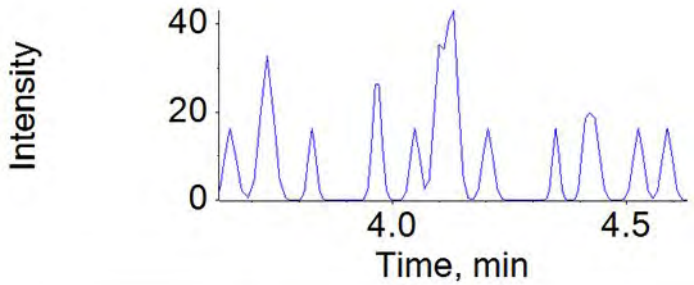
Component: PFBS
Primary Mass: 299.0 / 80.0



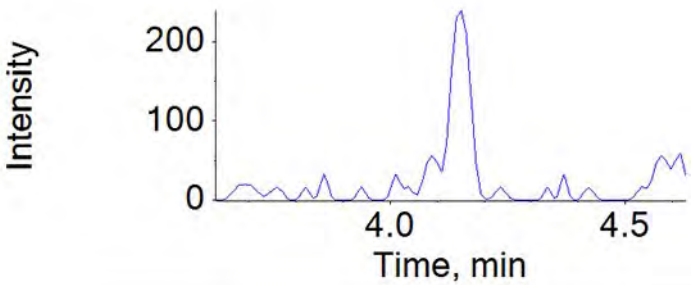
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



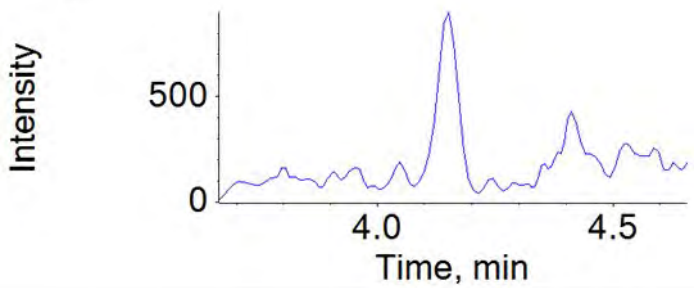
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



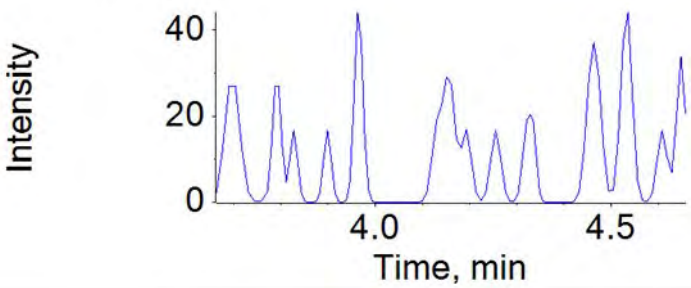
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



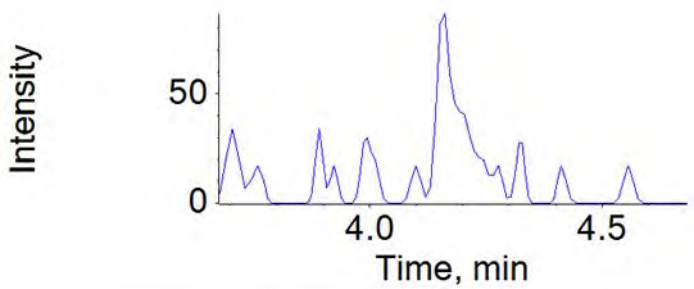
Component: PFHxA
Primary Mass: 313.0 / 269.0



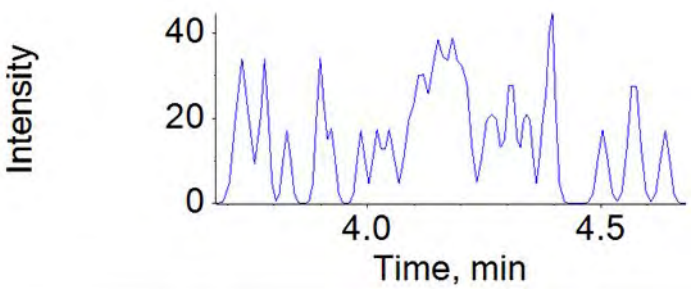
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



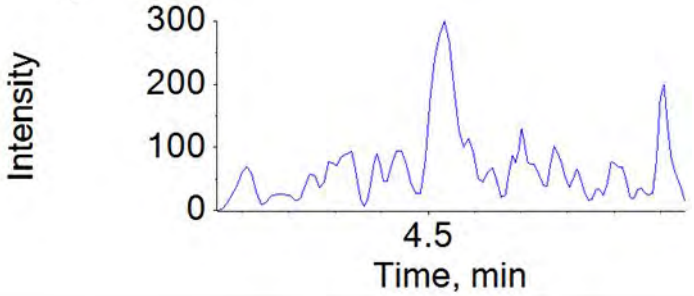
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



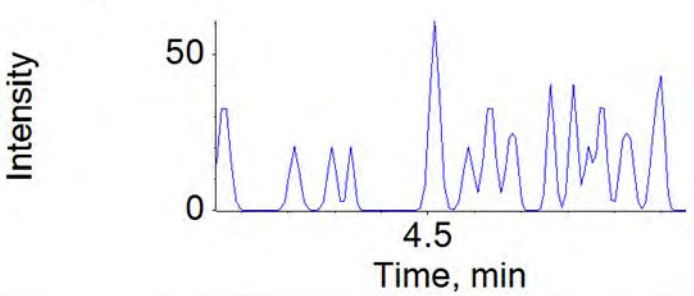
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

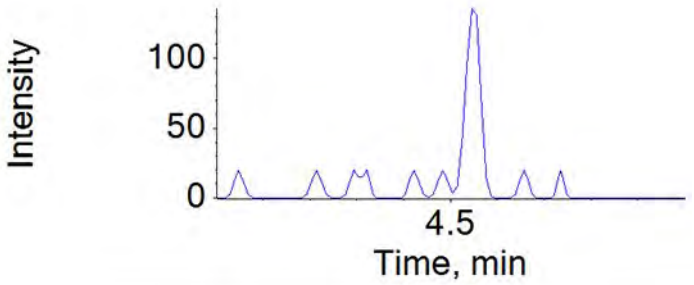
Component: PFHpA
Primary Mass: 363.0 / 319.0



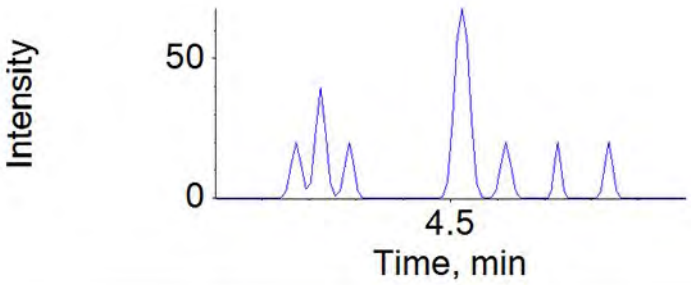
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



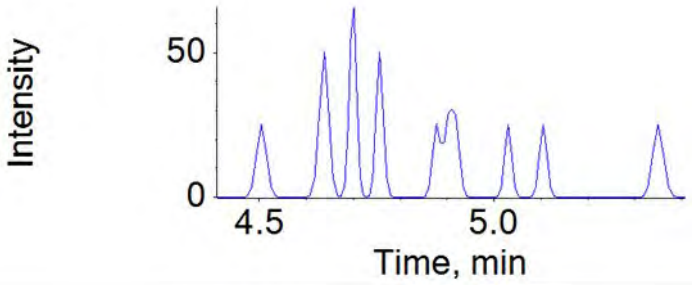
Component: PFHxS
Primary Mass: 399.0 / 80.0



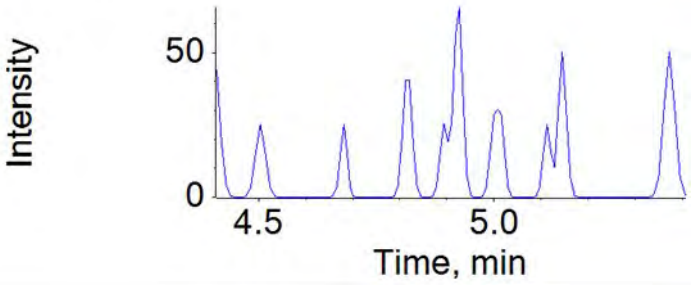
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



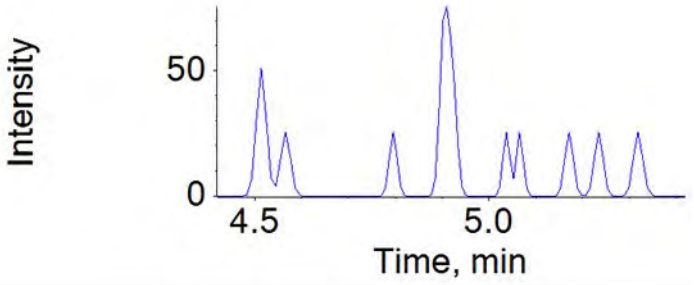
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



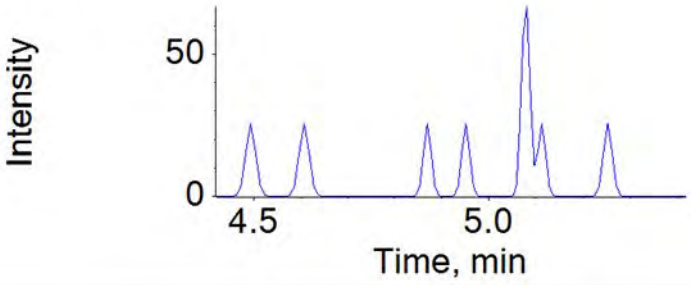
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



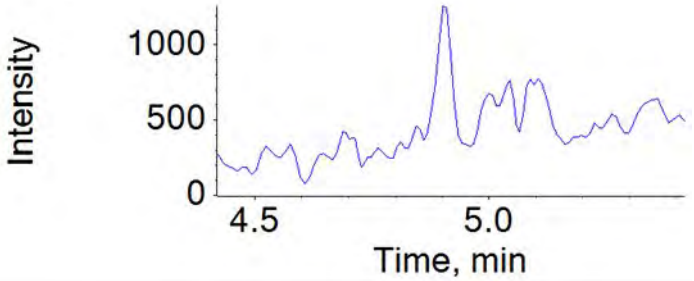
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



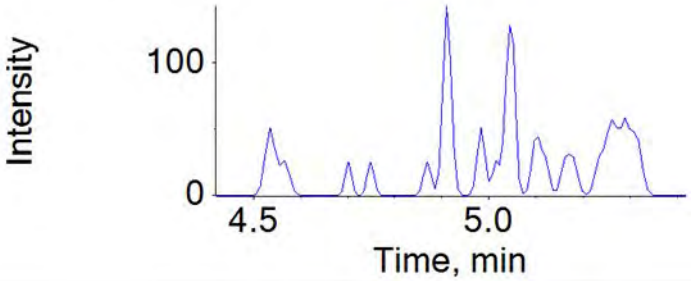
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

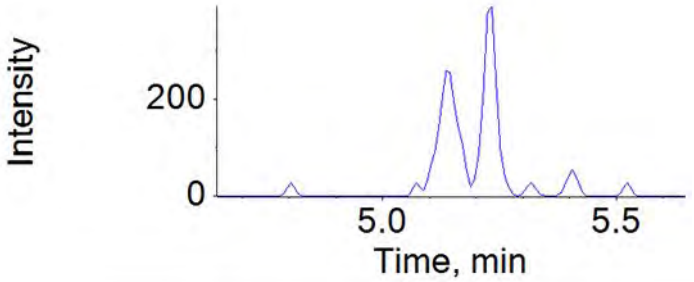
Component: PFOA
Primary Mass: 413.0 / 369.0



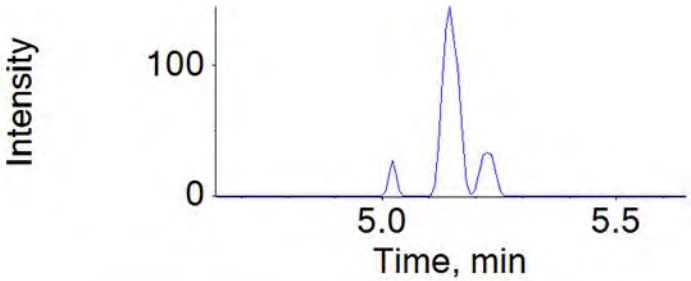
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



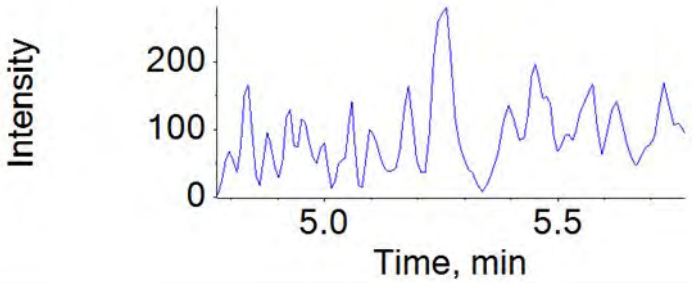
Component: PFOS
Primary Mass: 499.0 / 80.0



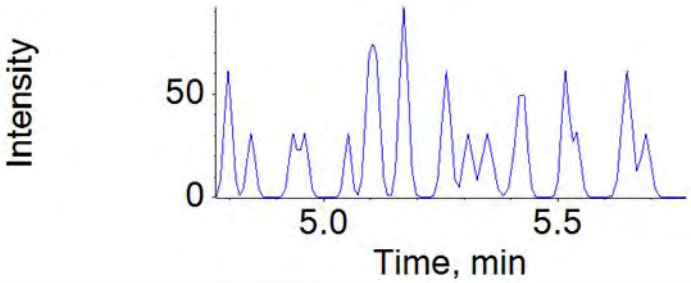
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



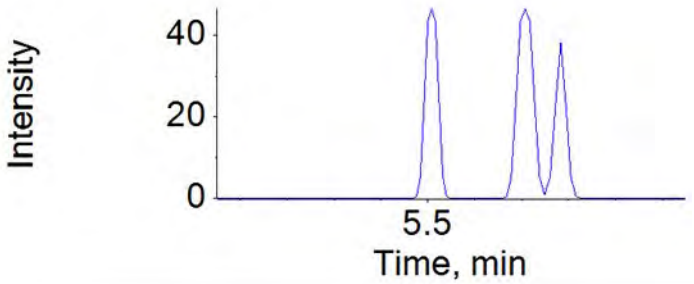
Component: PFNA
Primary Mass: 463.0 / 419.0



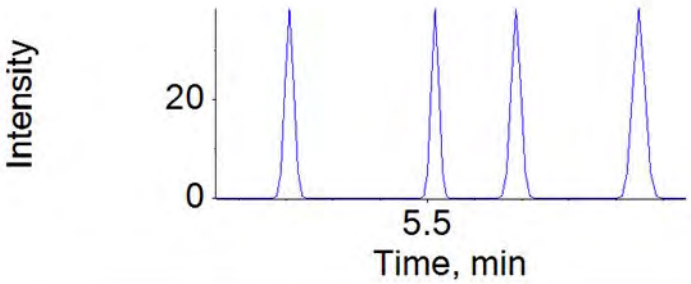
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



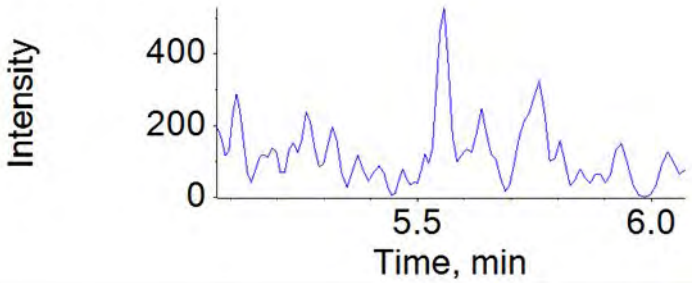
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



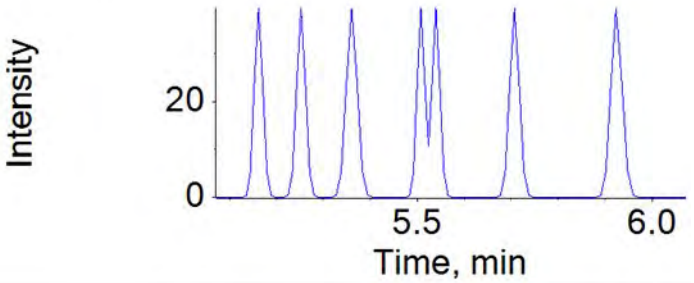
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

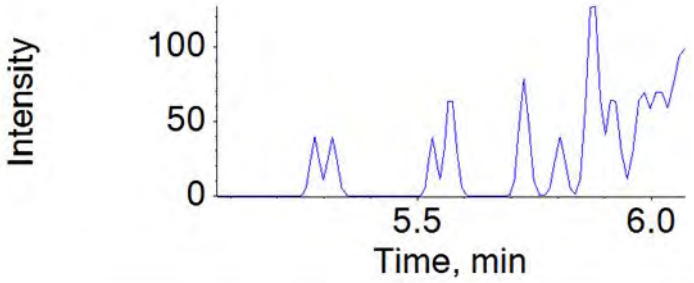
Component: PFDA
Primary Mass: 513.0 / 469.0



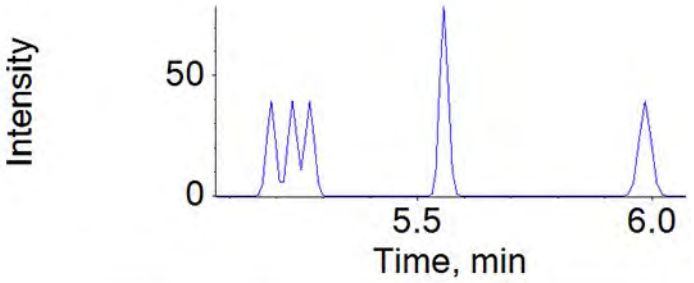
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



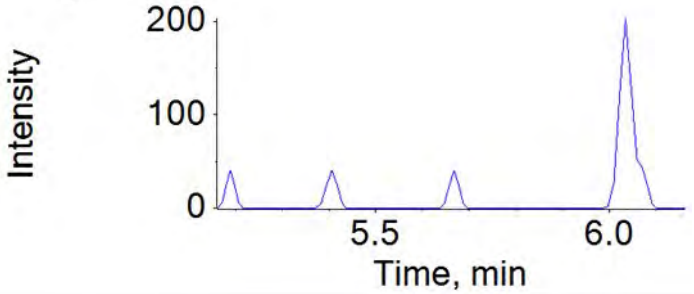
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



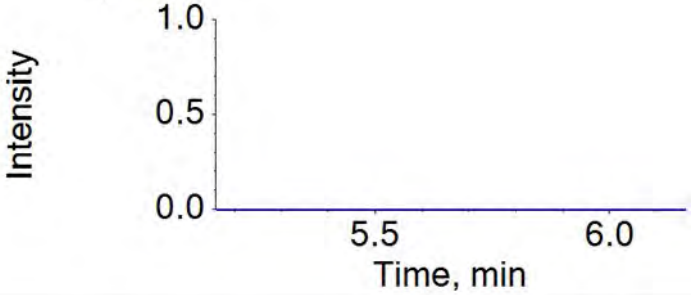
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



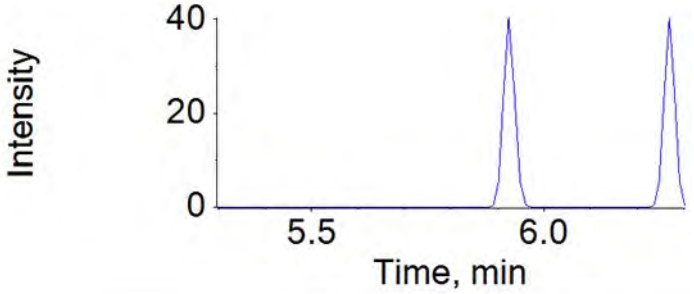
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



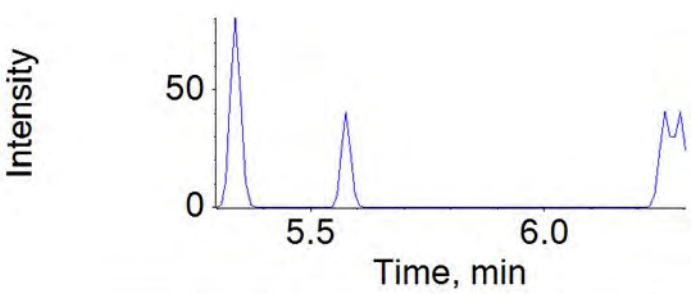
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



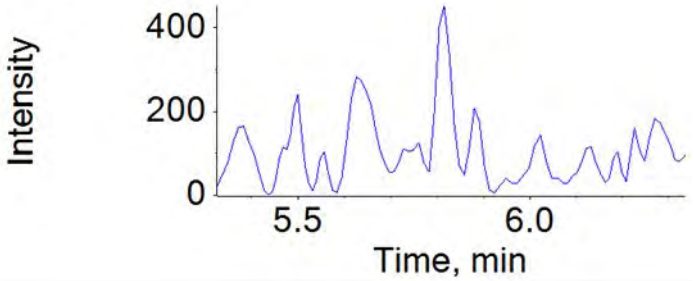
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



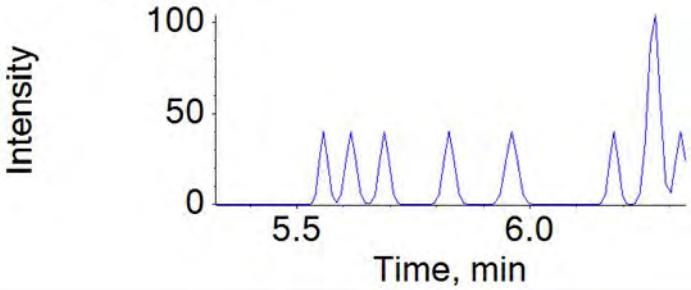
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

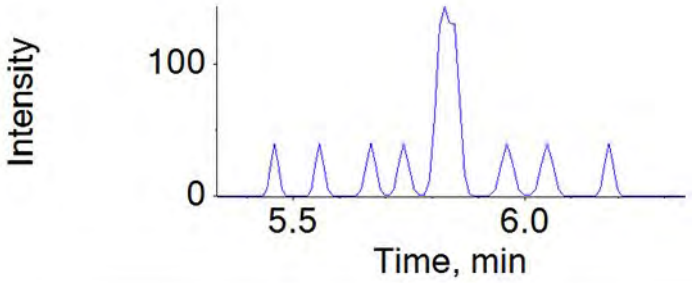
Component: PFUnDA
Primary Mass: 563.0 / 519.0



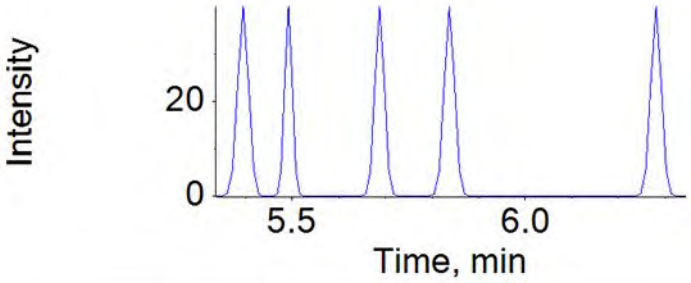
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



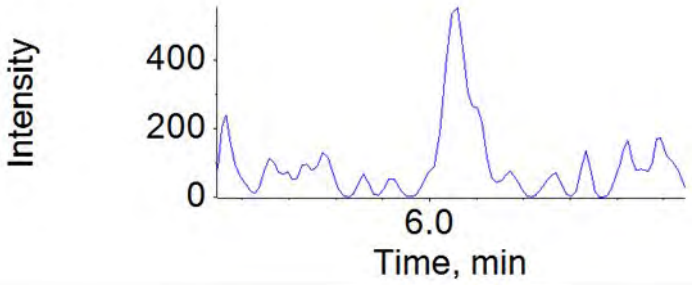
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



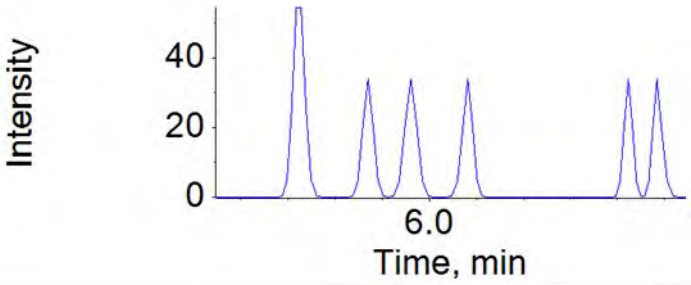
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



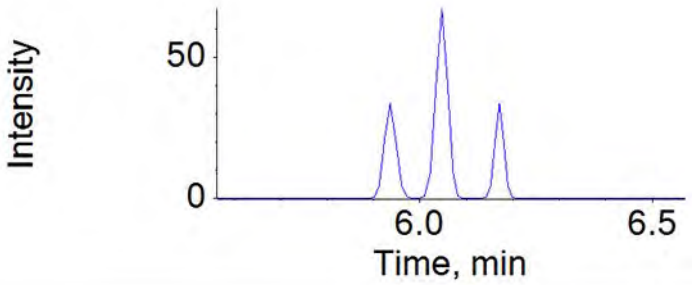
Component: PFDoDA
Primary Mass: 613.0 / 569.0



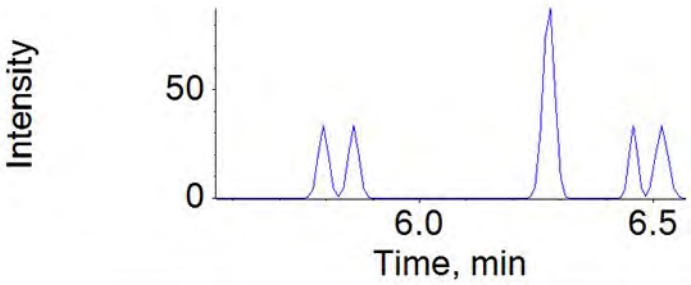
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



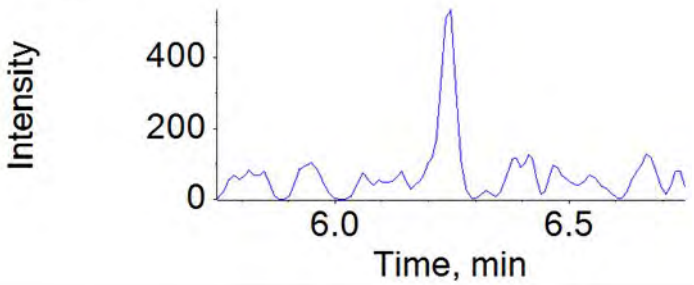
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



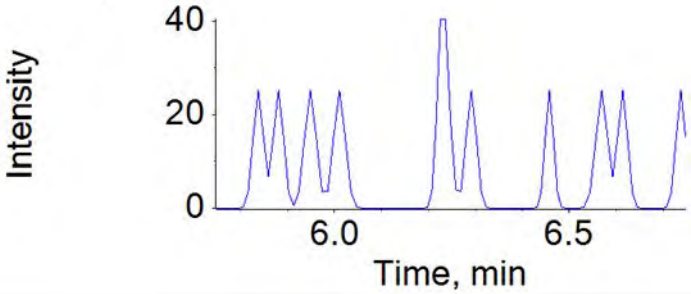
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

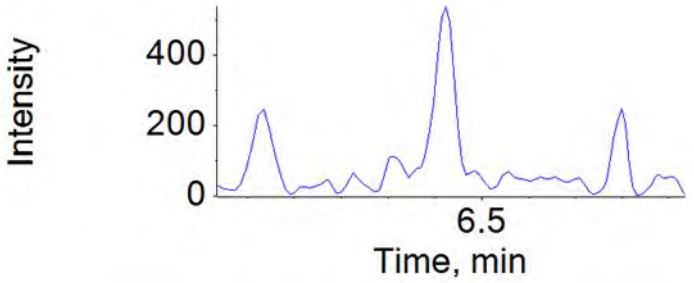
Component: PFTrDA
Primary Mass: 663.0 / 619.0



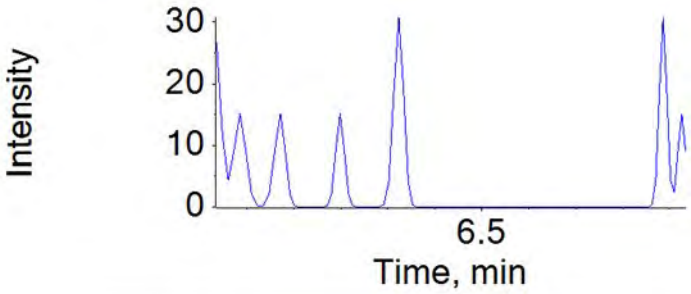
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



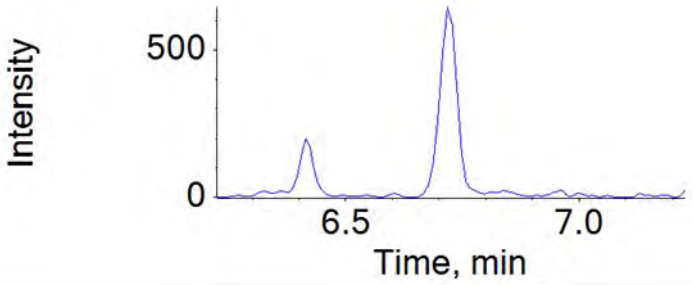
Component: PFTeDA
Primary Mass: 713.0 / 669.0



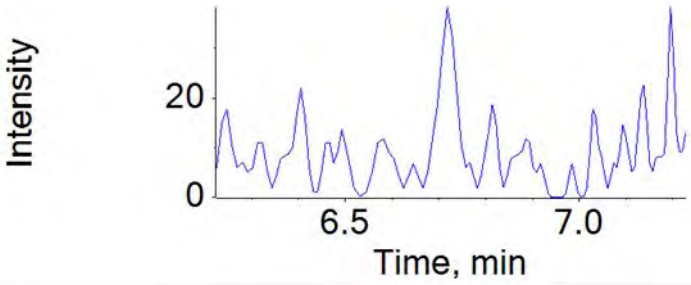
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



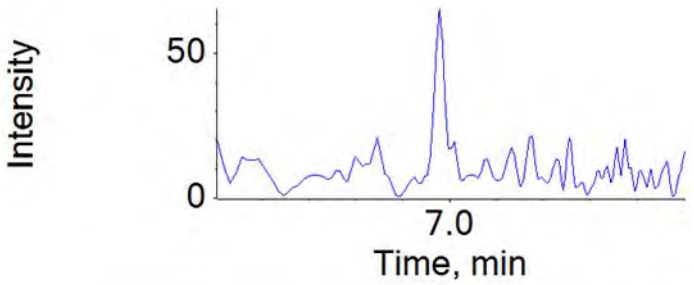
Component: PFHxDA
Primary Mass: 813.0 / 769.0



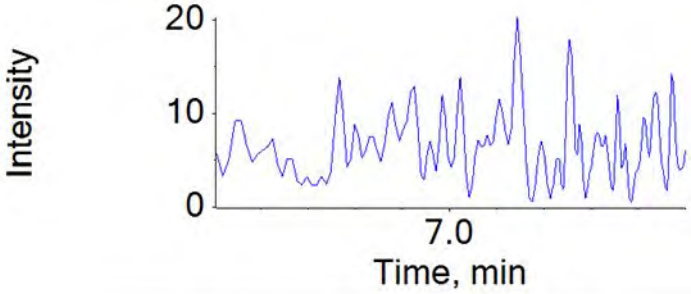
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



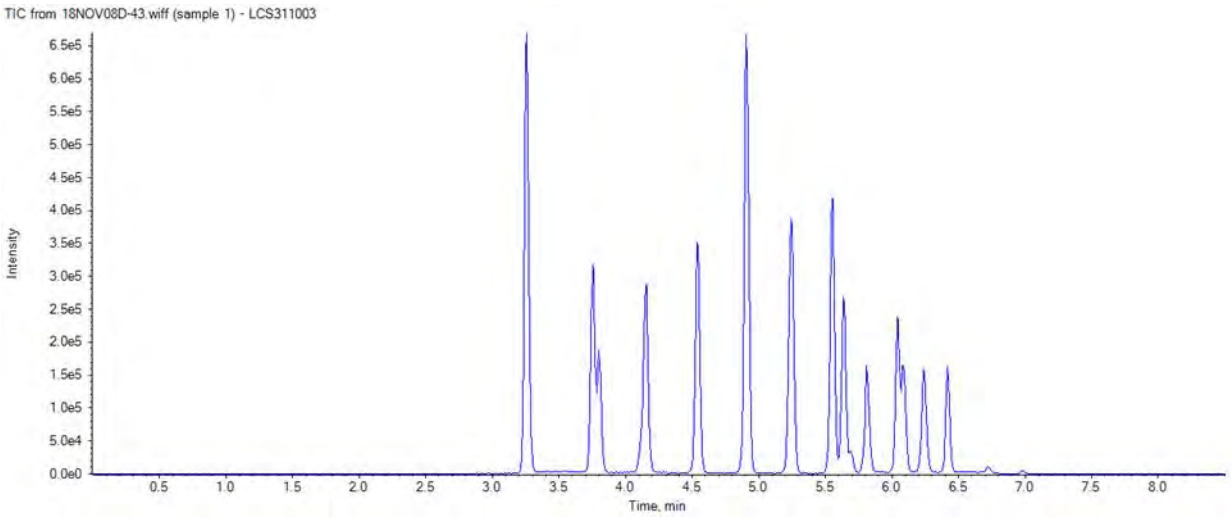
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311003	EPA 537 mod QSM 5.1 table B-15 18311003	18NOV08D-43.wiff	2018-11-08T18:07:28



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	5.00	829041.8	728839.7	14	50	
13C2-PFOA	5.00	596077.9	491983.1	21	50	
13C4-PFOS	4.78	315243.3	255568.1	23	50	
13C2-PFDA	5.00	357222.9	315407.5	13	50	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311003	EPA 537 mod QSM 5.1 table B-15 18311003	18NOV08D-43.wiff	2018-11-08T18:07:28

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	85668.6	587532.3	0.146	1.360	1.707	125	70-130	
PFPeA	84091.6	621006.6	0.135	1.360	1.609	118	70-130	
PFBS	47533.7	317971.8	0.149	1.202	1.507	125	70-130	
4:2-FTS	29774.1	40423.2	0.737	3.736	3.960	106	70-130	
PFHxA	98867.0	541689.2	0.183	1.360	1.565	115	70-130	
PFPeS	24361.6	317971.8	0.077	1.276	1.511	118	70-130	
PFHxS	35952.4	256826.4	0.140	1.286	1.419	110	70-130	
PFHpA	93987.9	427163.7	0.220	1.360	1.480	109	70-130	
6:2-FTS	22257.7	29336.0	0.759	3.792	3.785	100	70-130	
PFHpS	34896.9	256826.4	0.136	1.294	1.422	110	70-130	
PFOA	109090.0	749192.2	0.146	1.360	1.640	121	70-130	
PFOS	33466.7	206665.6	0.162	1.300	1.679	129	70-130	
PFNA	87422.3	377922.8	0.231	1.360	1.729	127	70-130	
PFNS	18340.8	206665.6	0.089	1.306	1.407	108	70-130	
PFDA	74370.7	472690.3	0.157	1.360	1.731	127	70-130	
8:2-FTS	18035.9	21382.1	0.844	3.832	3.803	99	70-130	
PFOSA	77084.3	541034.6	0.142	1.360	1.540	113	70-130	
NMeFOSAA	9671.9	63563.3	0.152	1.360	1.566	115	70-130	
PFDS	16821.5	206665.6	0.081	1.310	1.555	119	70-130	
PFUnDA	59951.9	231787.3	0.259	1.360	1.483	109	70-130	
NEtFOSAA	5543.2	45297.5	0.122	1.360	1.052	77	70-130	
PFDoDA	58326.7	420397.3	0.139	1.360	1.504	111	70-130	
10:2-FTS	14346.2	21382.1	0.671	3.856	4.178	108	70-130	
NMePFOSAE	44322.3	261094.8	0.170	1.360	1.521	112	70-130	
NMePFOSA	8775.4	67449.1	0.130	1.360	1.456	107	70-130	
PFDoS	7752.4	206665.6	0.038	1.316	1.448	110	70-130	
NEtPFOSAE	52737.1	222563.6	0.237	1.360	1.519	112	70-130	
NEtPFOSA	6870.3	51874.7	0.132	1.360	1.167	86	70-130	
PFTrDA	52795.8	420397.3	0.126	1.360	1.584	116	70-130	
PFTeDA	41651.9	297180.8	0.140	1.360	1.646	121	70-130	
PFHxDA	18860.6	297180.8	0.063	1.360	1.576	116	70-130	
PFODA	11360.4	297180.8	0.038	1.360	1.095	81	70-130	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

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

Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS311003			**Data File:**		18NOV08D-43.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311003			**Acquis Date:**		2018-11-08T18:07:28
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	67			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311003
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311003			**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: 18NOV08D-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	829041.8	728839.7	14	50	
13C2-PFOA	5.0	596077.9	491983.1	21	50	
13C4-PFOS	4.8	315243.3	255568.1	23	50	
13C2-PFDA	5.0	357222.9	315407.5	13	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	587532.3	13C3-PFBA	829041.8	0.709	10.000	6.559	66	50-150	
E13C5-PFPeA	621006.6	13C3-PFBA	829041.8	0.749	10.000	6.526	65	50-150	
E13C3-PFBS	317971.8	13C3-PFBA	829041.8	0.384	9.300	5.630	61	50-150	
E13C2-4:2-FTS	40423.2	13C2-PFOA	596077.9	0.068	9.340	6.120	66	50-150	
E13C5-PFHxA	541689.2	13C2-PFOA	596077.9	0.909	10.000	6.686	67	50-150	
E13C3-PFHxS	256826.4	13C2-PFOA	596077.9	0.431	9.460	6.186	65	50-150	
E13C4-PFHpA	427163.7	13C2-PFOA	596077.9	0.717	10.000	6.520	65	50-150	
E13C2-6:2-FTS	29336.0	13C2-PFOA	596077.9	0.049	9.500	6.564	69	50-150	
E13C8-PFOA	749192.2	13C2-PFOA	596077.9	1.257	10.000	7.010	70	50-150	
E13C8-PFOS	206665.6	13C4-PFOS	315243.3	0.656	9.560	5.798	61	50-150	
E13C9-PFNA	377922.8	13C4-PFOS	315243.3	1.199	10.000	6.549	65	50-150	
E13C6-PFDA	472690.3	13C2-PFDA	357222.9	1.323	10.000	6.655	67	50-150	
E13C2-8:2-FTS	21382.1	13C2-PFDA	357222.9	0.060	9.580	6.335	66	50-150	
E13C8-PFOSA	541034.6	13C2-PFDA	357222.9	1.515	10.000	6.610	66	50-150	
Ed3-NMeFOSAA	63563.3	13C2-PFDA	357222.9	0.178	10.000	6.618	66	50-150	
E13C7-PFUnDA	231787.3	13C2-PFDA	357222.9	0.649	10.000	7.486	75	50-150	
Ed5-NEtFOSAA	45297.5	13C2-PFDA	357222.9	0.127	10.000	5.869	59	50-150	
E13C2-PFDoDA	420397.3	13C2-PFDA	357222.9	1.177	10.000	6.345	63	50-150	
Ed7-NMePFOSAE	261094.8	13C2-PFDA	357222.9	0.731	10.000	6.798	68	50-150	
Ed3-NMePFOSA	67449.1	13C2-PFDA	357222.9	0.189	10.000	6.913	69	50-150	
Ed9-NEtPFOSAE	222563.6	13C2-PFDA	357222.9	0.623	10.000	7.116	71	50-150	
Ed5-NEtPFOSA	51874.7	13C2-PFDA	357222.9	0.145	10.000	6.725	67	50-150	
E13C2-PFTeDA	297180.8	13C2-PFDA	357222.9	0.832	10.000	5.990	60	50-150	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

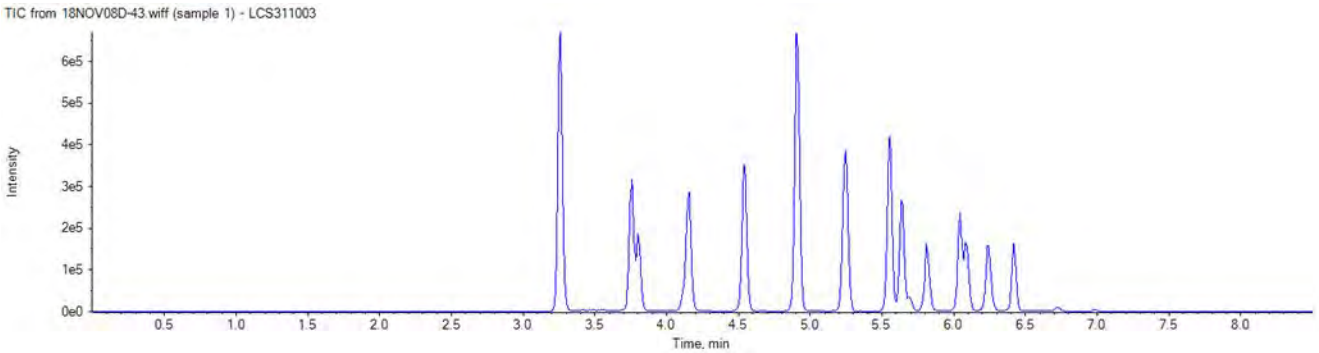
Analyte Quantitation Peak Table

Sample Name: LCS311003 **Instrument Name:** LM27631 **File Name:** 18NOV08D-43.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	3.25	1.000	85668.6		A	13C4-PFBA	3.26	587532.3	0.146	1.707
PFPeA	3.75	1.000	84091.6		A	13C5-PFPeA	3.76	621006.6	0.135	1.609
PFBS	3.80	1.000	47533.7		A	13C3-PFBS	3.80	317971.8	0.149	1.507
4:2-FTS	4.12	1.000	29774.1		A	13C2-4:2-FTS	4.12	40423.2	0.737	3.960
PFHxA	4.15	1.000	98867.0		A	13C5-PFHxA	4.15	541689.2	0.183	1.565
PFPeS	4.17	1.100	24361.6		A	13C3-PFBS	3.80	317971.8	0.077	1.511
PFHxS	4.54	1.000	35952.4		A	13C3-PFHxS	4.54	256826.4	0.140	1.419
PFHpA	4.54	1.000	93987.9		A	13C4-PFHpA	4.54	427163.7	0.220	1.480
6:2-FTS	4.90	1.000	22257.7		A	13C2-6:2-FTS	4.90	29336.0	0.759	3.785
PFHpS	4.90	1.080	34896.9		A	13C3-PFHxS	4.54	256826.4	0.136	1.422
PFOA	4.91	1.000	109090.0		A	13C8-PFOA	4.91	749192.2	0.146	1.640
PFOS	5.24	1.000	33466.7		M	13C8-PFOS	5.24	206665.6	0.162	1.679
PFNA	5.25	1.000	87422.3		A	13C9-PFNA	5.25	377922.8	0.231	1.729
PFNS	5.53	1.060	18340.8		A	13C8-PFOS	5.24	206665.6	0.089	1.407
PFDA	5.55	1.000	74370.7		A	13C6-PFDA	5.55	472690.3	0.157	1.731
8:2-FTS	5.56	1.000	18035.9		A	13C2-8:2-FTS	5.56	21382.1	0.844	3.803
PFOSA	5.64	1.000	77084.3		A	13C8-PFOSA	5.64	541034.6	0.142	1.540
NMeFOSAA	5.69	1.000	9671.9		A	d3-NMeFOSAA	5.69	63563.3	0.152	1.566
PFDS	5.78	1.100	16821.5		A	13C8-PFOS	5.24	206665.6	0.081	1.555
PFUnDA	5.82	1.000	59951.9		A	13C7-PFUnDA	5.81	231787.3	0.259	1.483
NEtFOSAA	5.83	1.000	5543.2		A	d5-NEtFOSAA	5.83	45297.5	0.122	1.052
PFDoDA	6.04	1.000	58326.7		A	13C2-PFDoDA	6.04	420397.3	0.139	1.504
10:2-FTS	6.06	1.090	14346.2		A	13C2-8:2-FTS	5.56	21382.1	0.671	4.178
NMePFOSAE	6.09	1.000	44322.3		M	d7-NMePFOSAE	6.08	261094.8	0.170	1.521
NMePFOSA	6.10	1.000	8775.4		M	d3-NMePFOSA	6.10	67449.1	0.130	1.456
PFDoS	6.21	1.190	7752.4		A	13C8-PFOS	5.24	206665.6	0.038	1.448
NEtPFOSAE	6.25	1.000	52737.1		A	d9-NEtPFOSAE	6.24	222563.6	0.237	1.519
NEtPFOSA	6.26	1.000	6870.3		A	d5-NEtPFOSA	6.26	51874.7	0.132	1.167
PFTrDA	6.24	1.030	52795.8		A	13C2-PFDoDA	6.04	420397.3	0.126	1.584
PFTeDA	6.42	1.000	41651.9		A	13C2-PFTeDA	6.42	297180.8	0.140	1.646
PFHxDA	6.72	1.050	18860.6		A	13C2-PFTeDA	6.42	297180.8	0.063	1.576
PFODA	6.98	1.090	11360.4		A	13C2-PFTeDA	6.42	297180.8	0.038	1.095

Total Ion Chromatogram

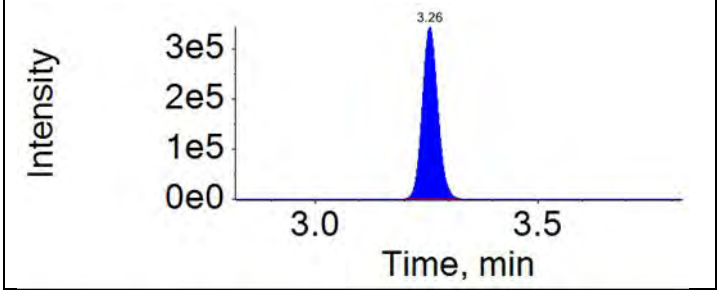


APPROVED
By JPT at 1:25 pm, 11/9/18

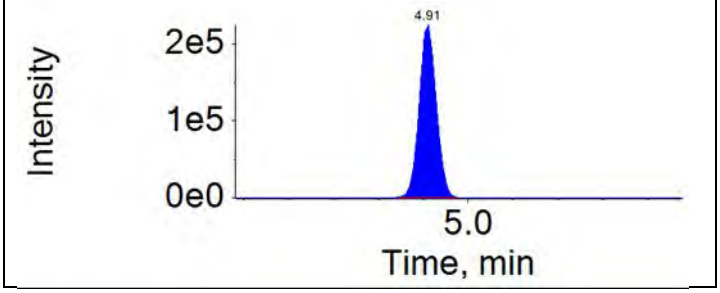
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

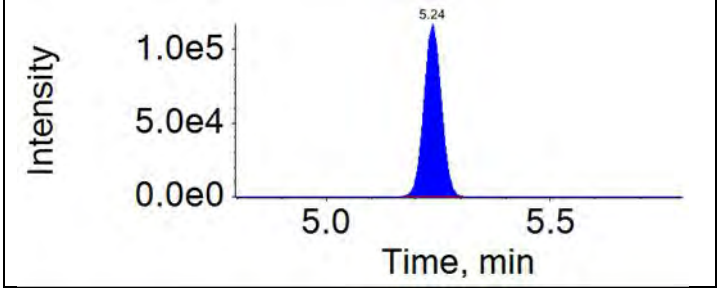
Injection Standard: 13C3-PFBA
216.0 / 172.0



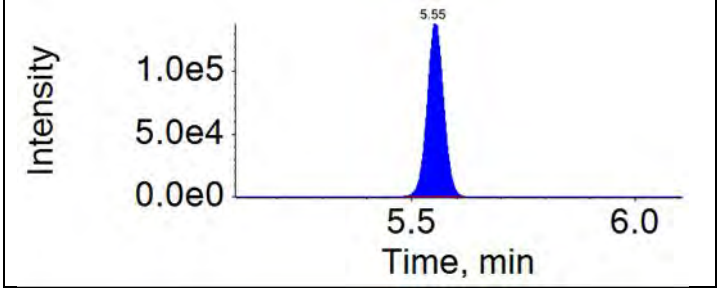
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

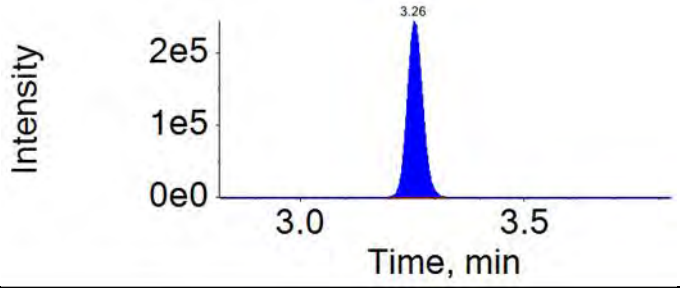


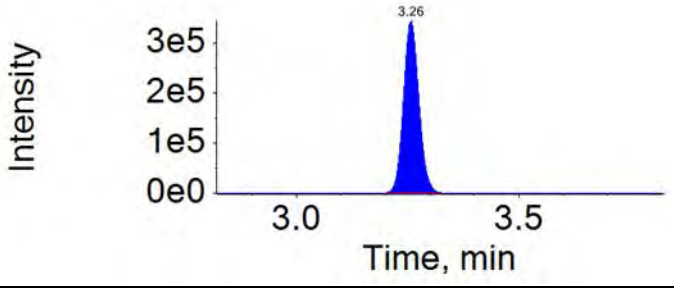
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

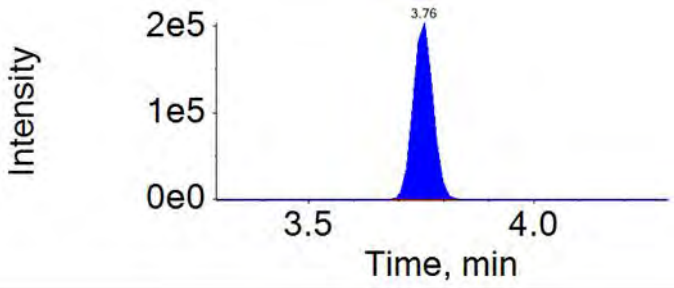
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

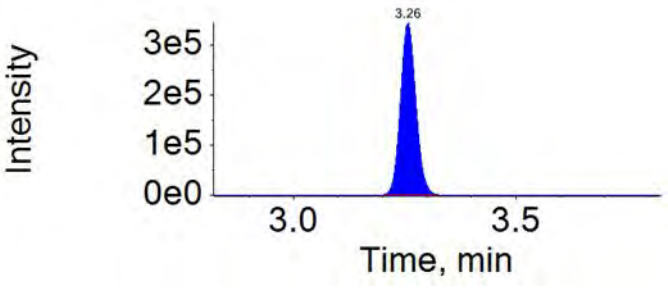
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



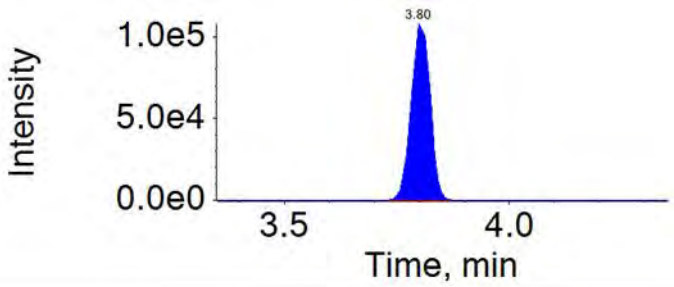


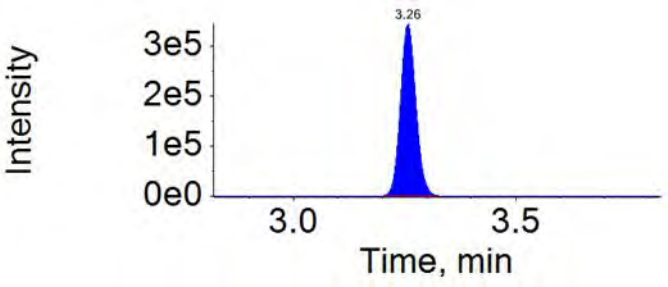
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



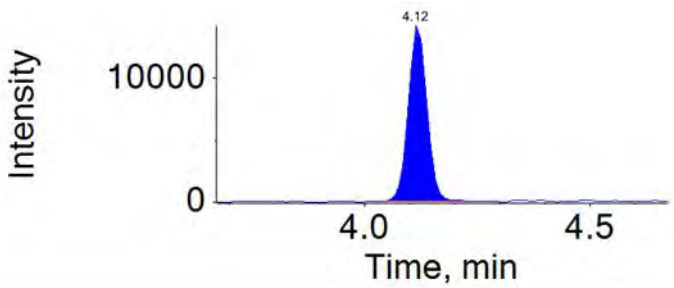


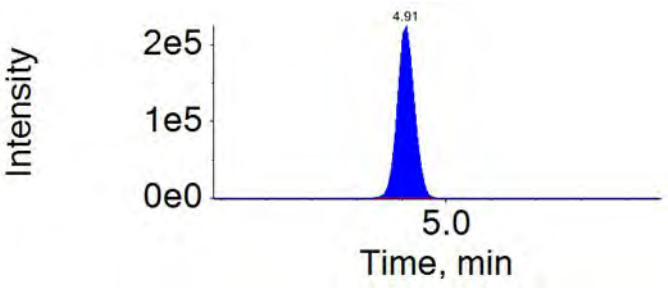
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



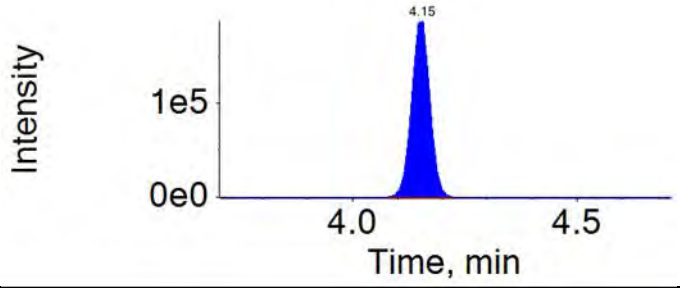


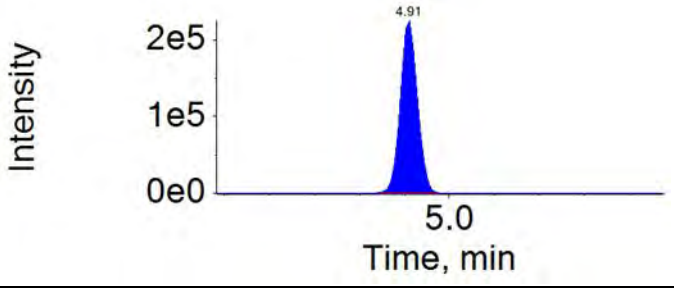
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

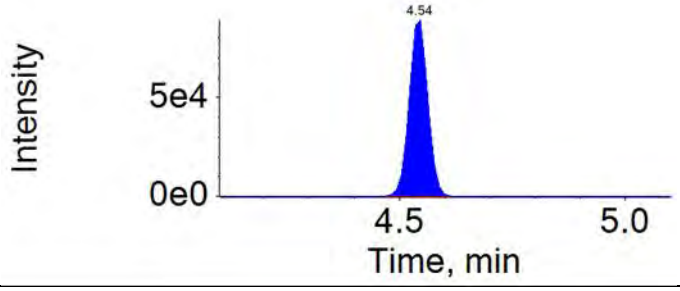
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

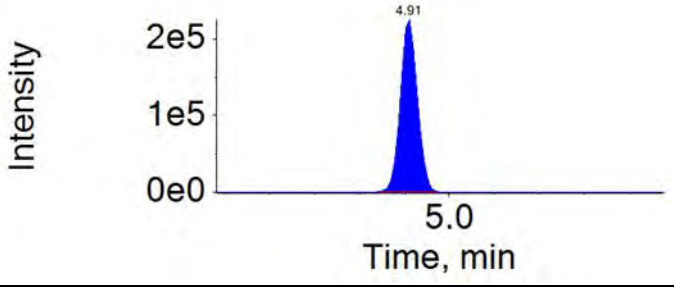
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



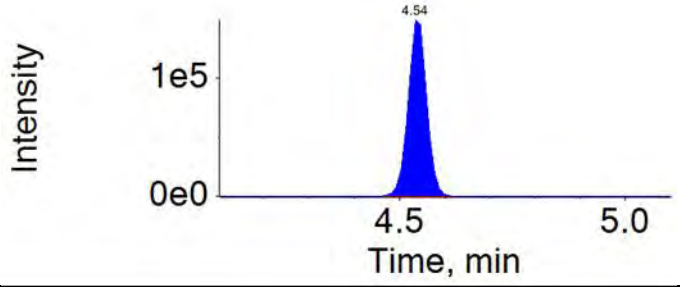


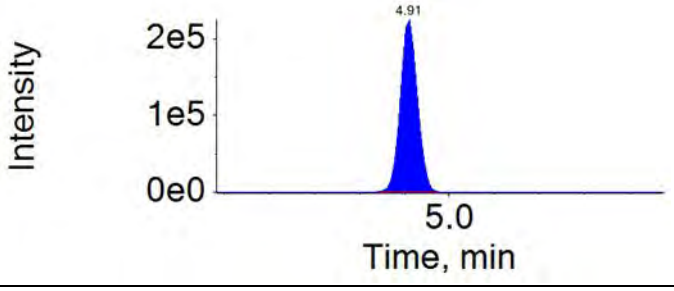
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



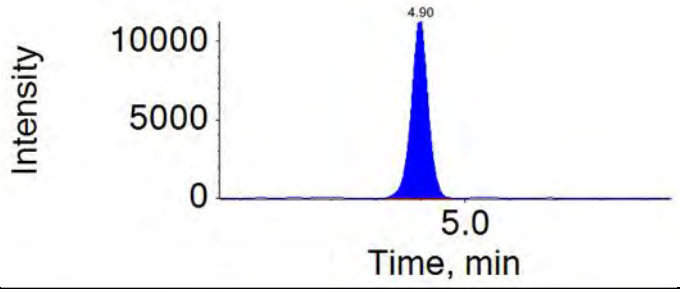


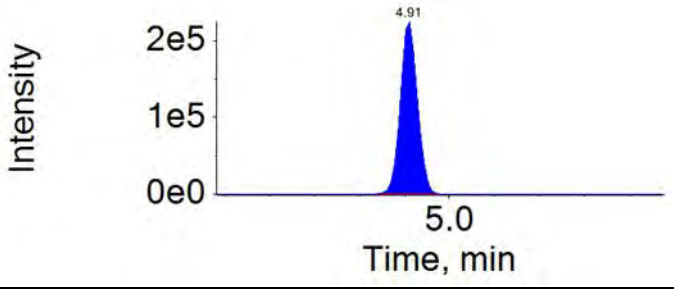
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



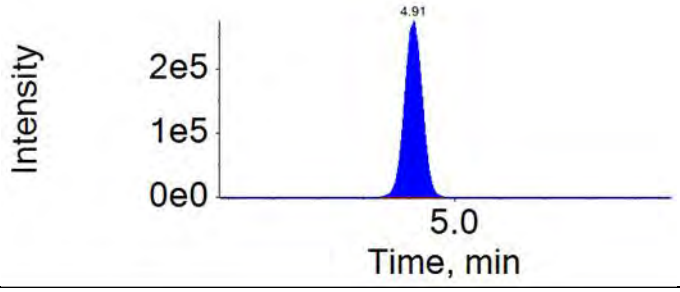


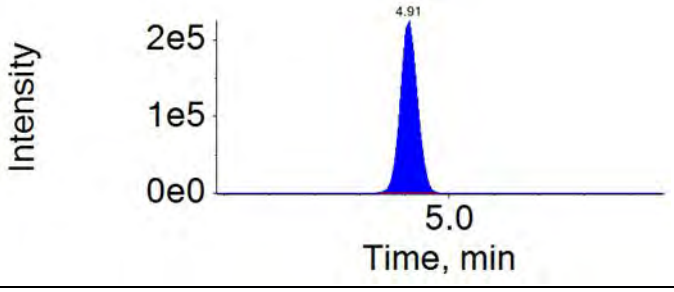
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

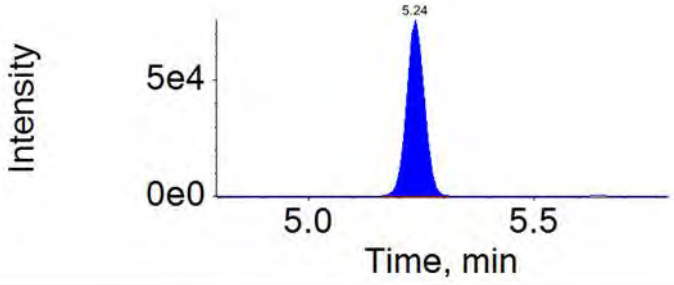
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

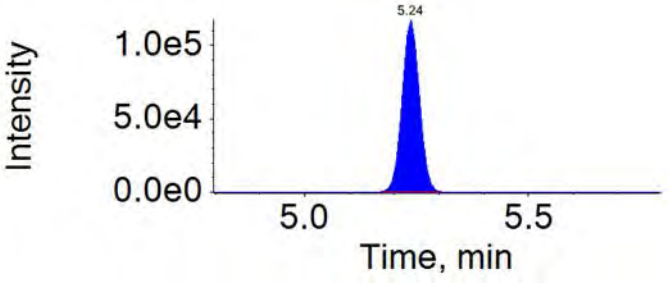
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



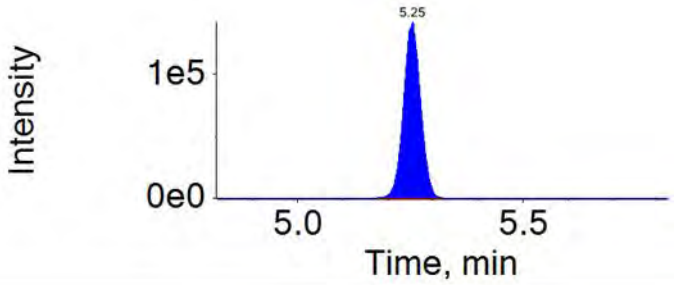


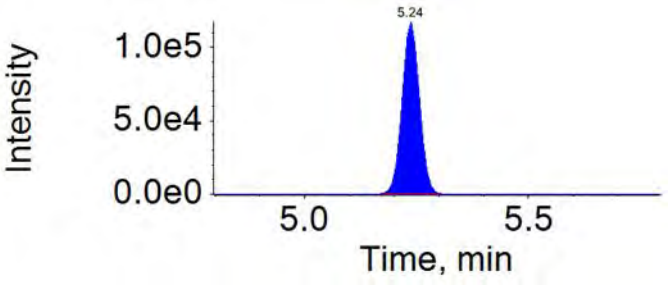
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



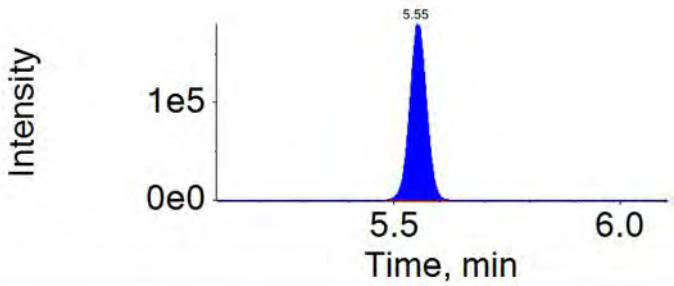


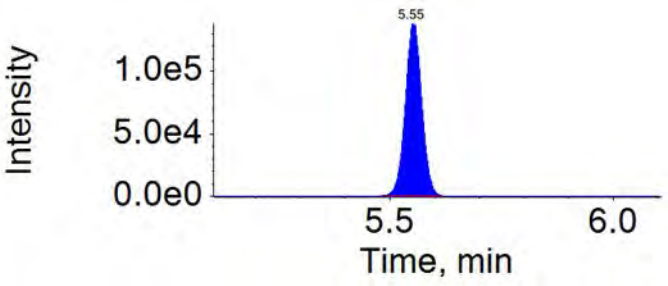
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



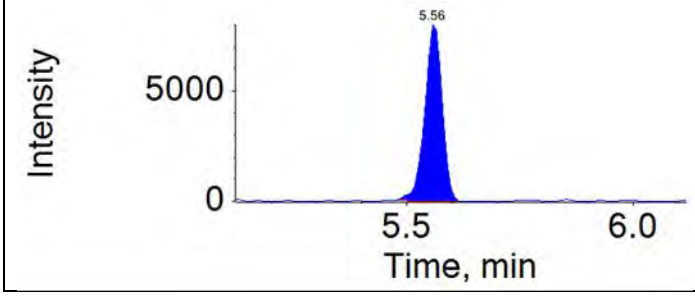


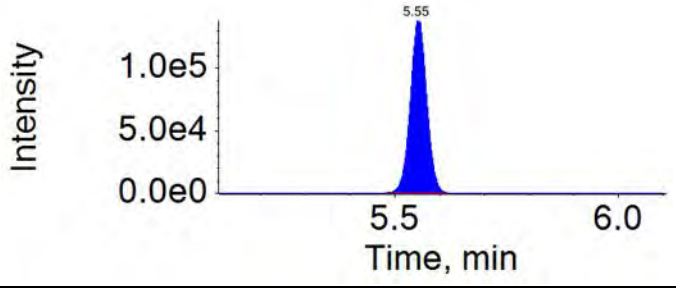
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

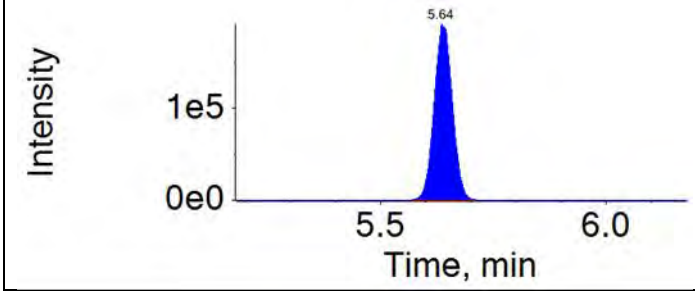
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

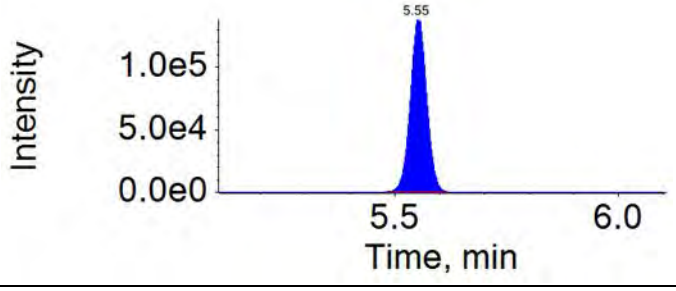
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



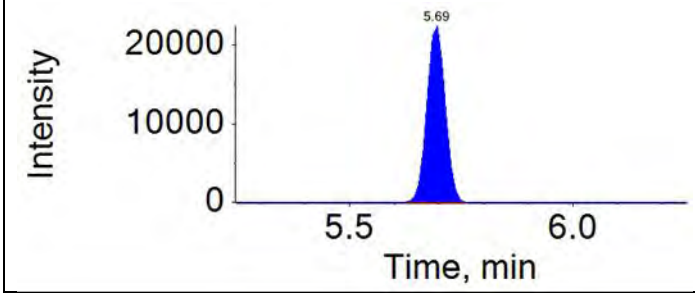


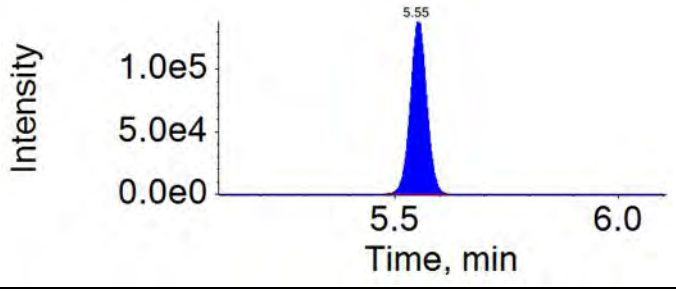
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



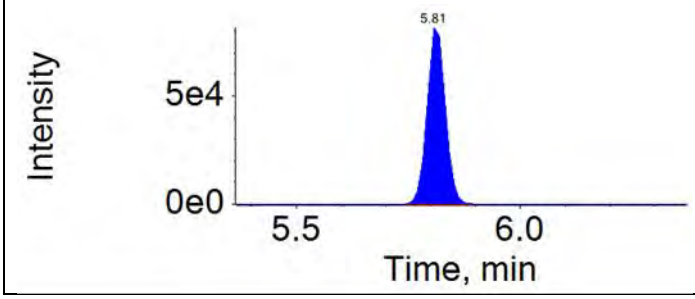


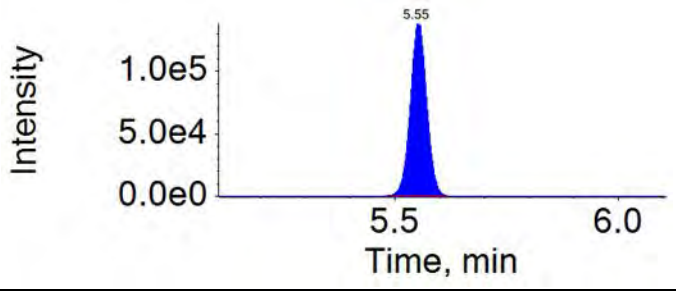
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



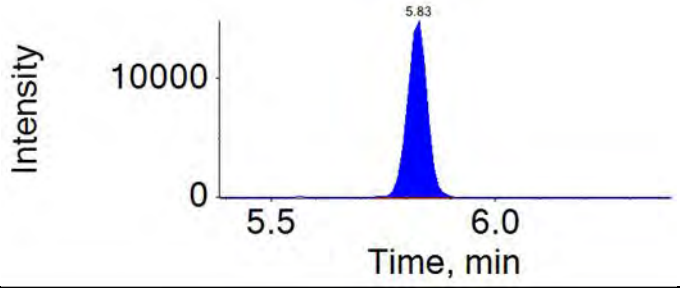


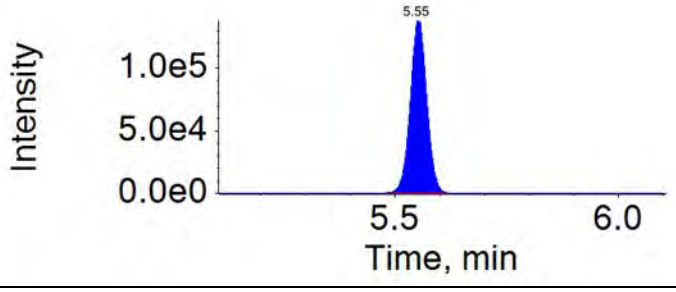
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

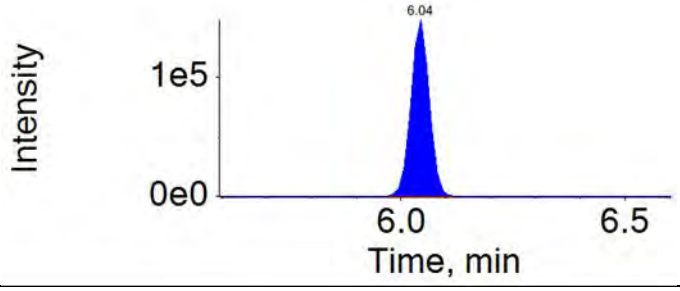
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

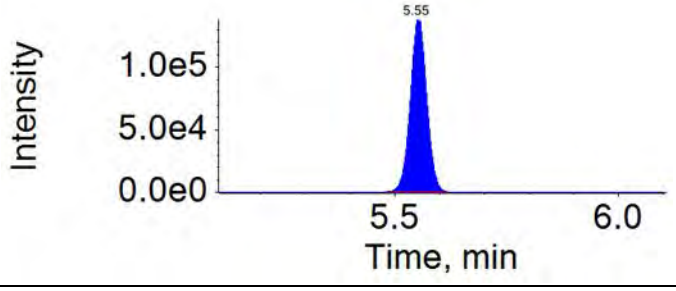
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



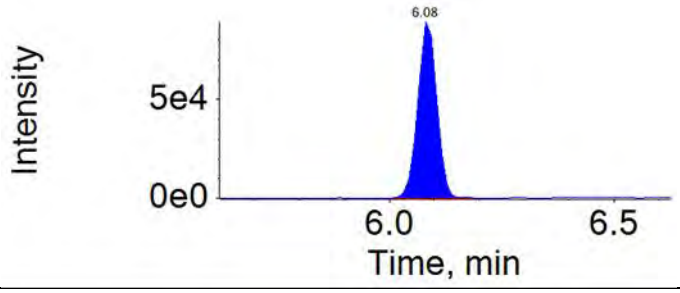


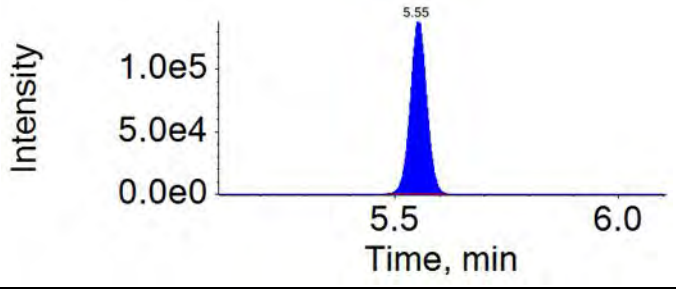
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



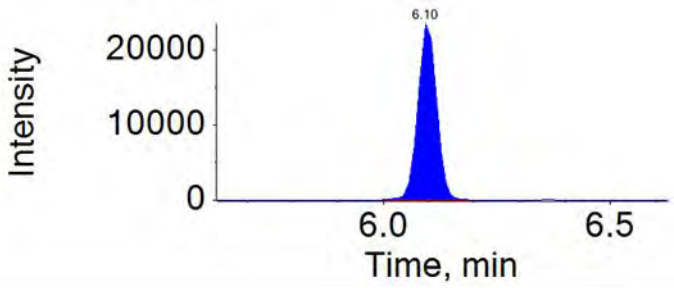


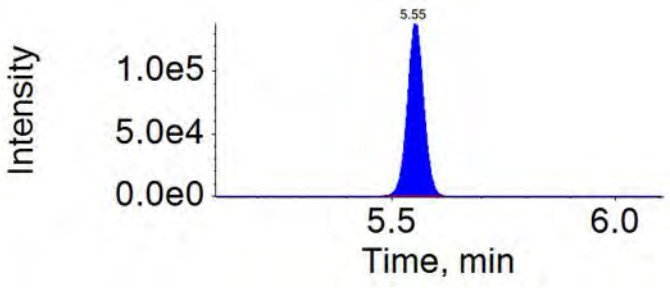
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



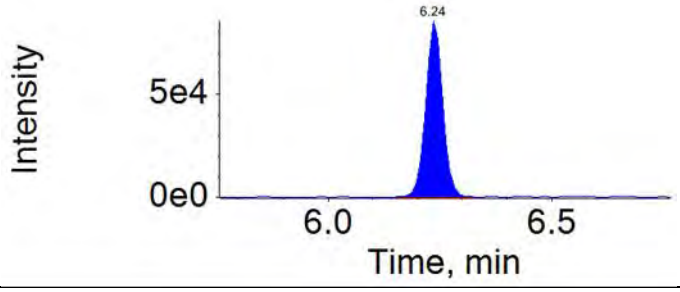


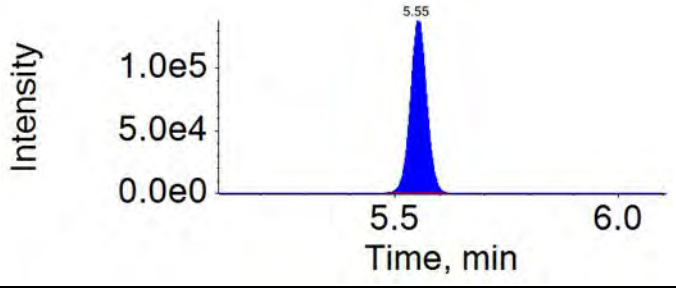
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

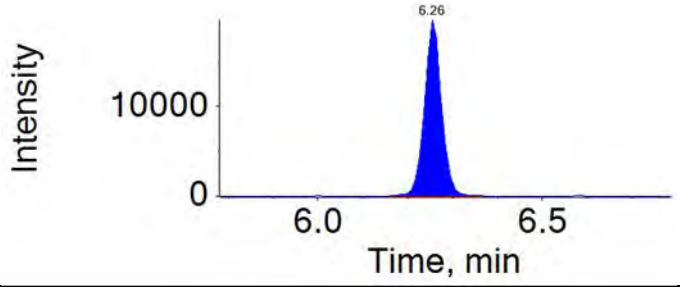
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

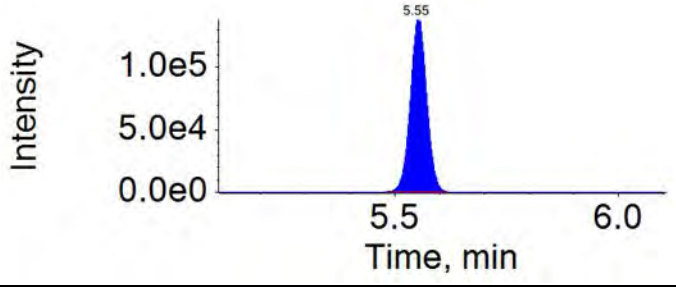
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



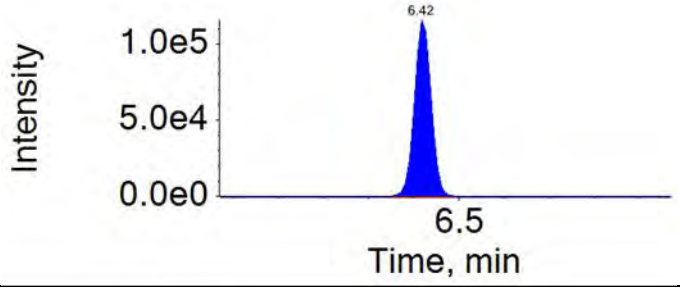


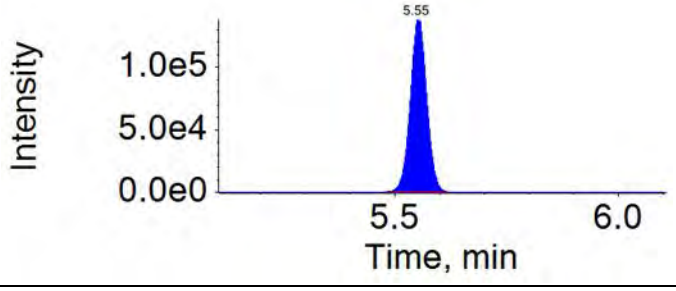
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

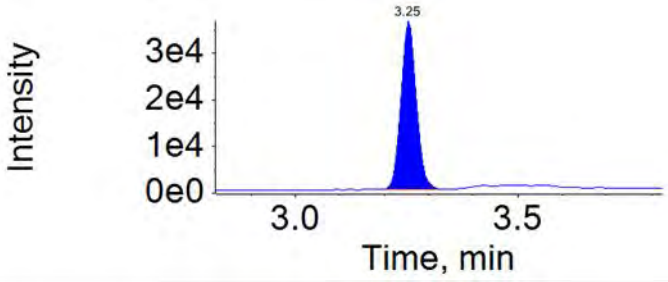
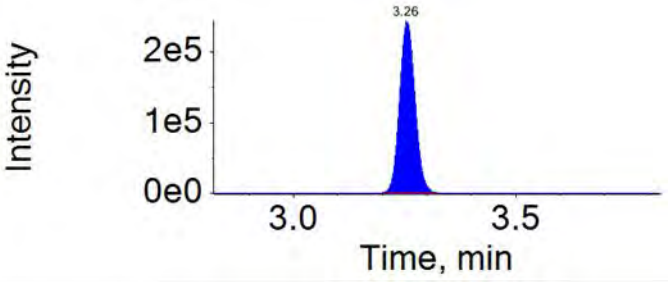


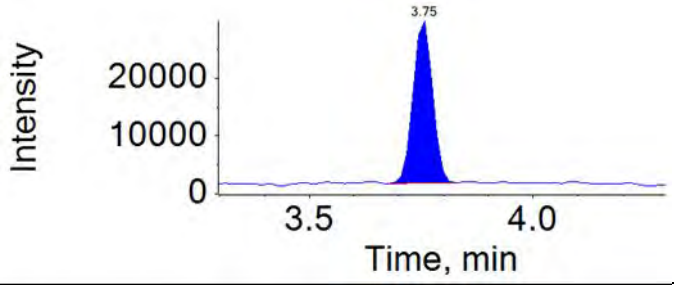
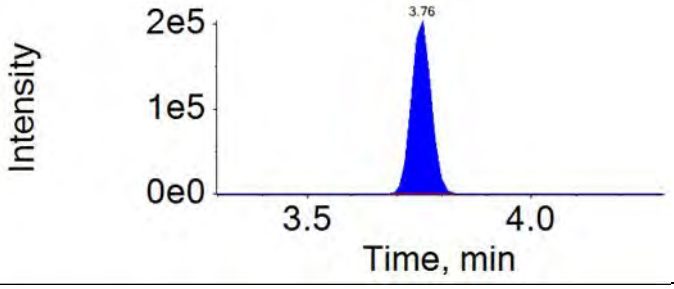


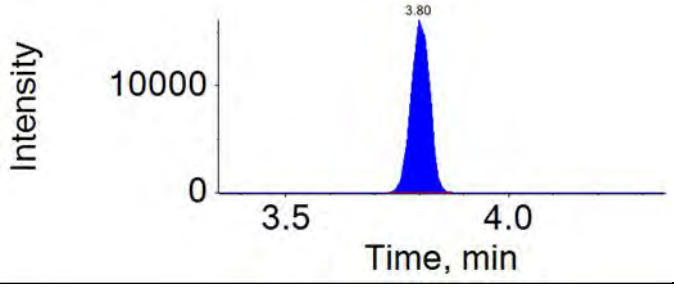
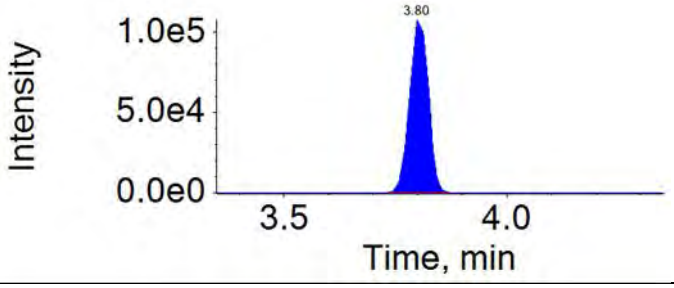
APPROVED
By JPT at 1:25 pm, 11/9/18

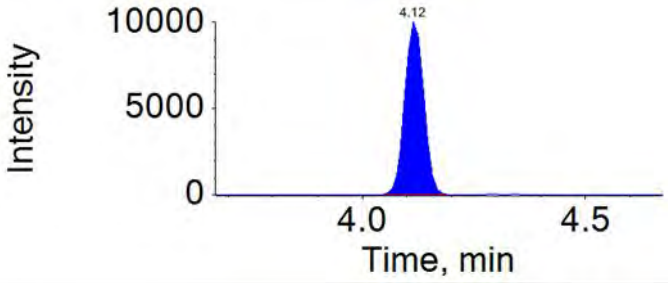
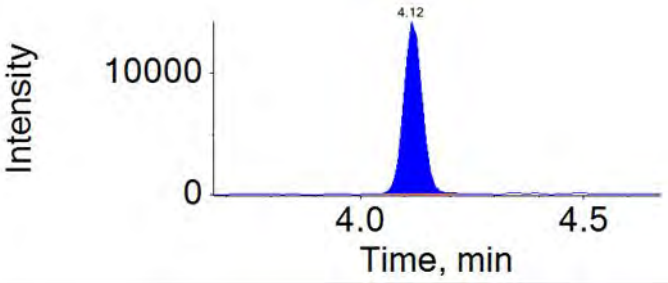
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

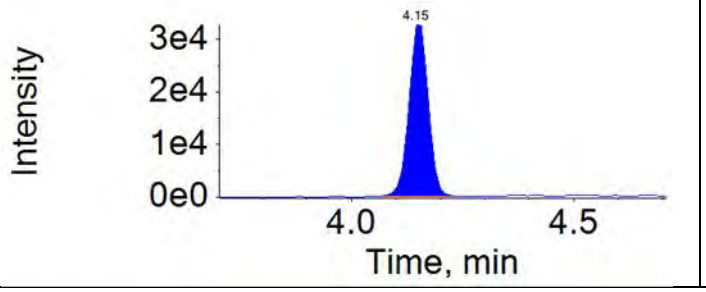
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

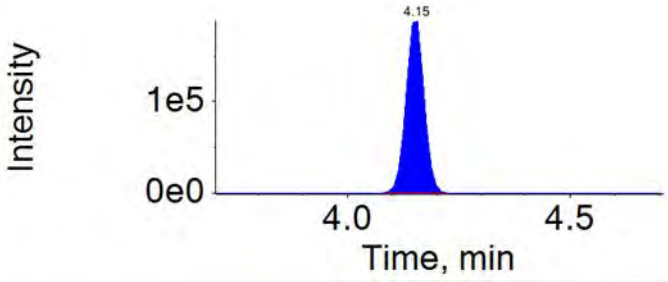
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

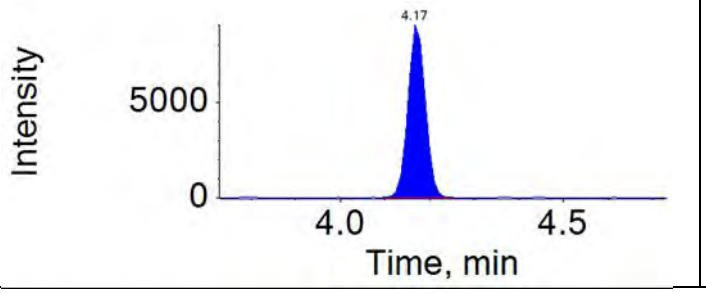
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

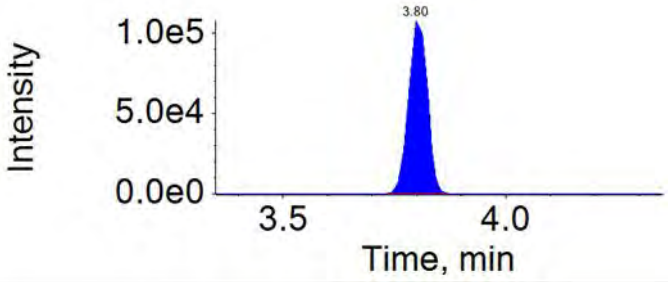
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



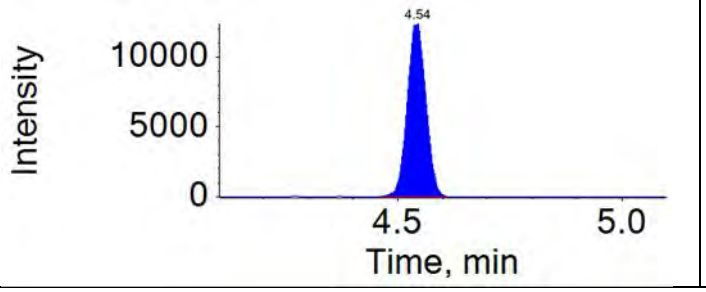


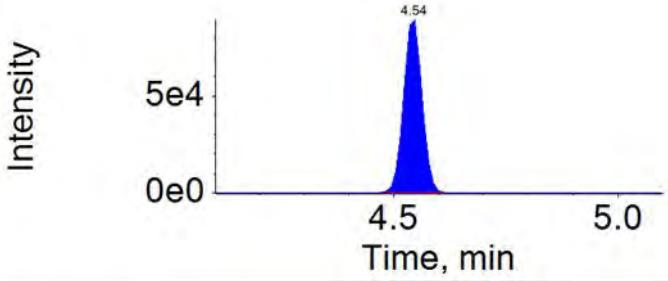
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



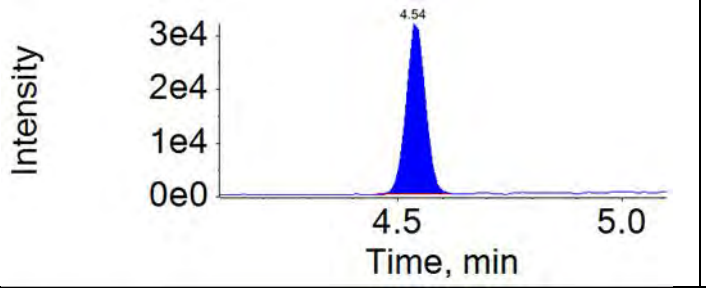


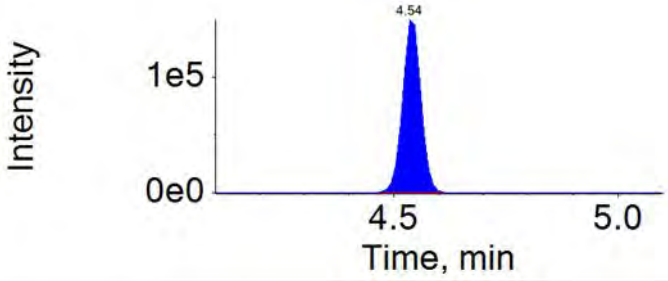
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



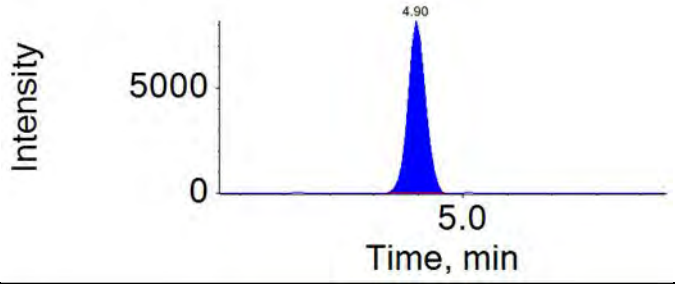


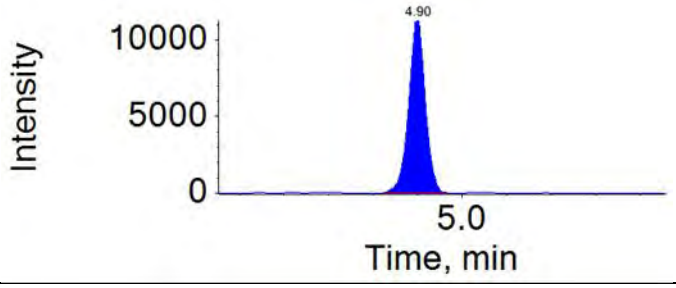
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

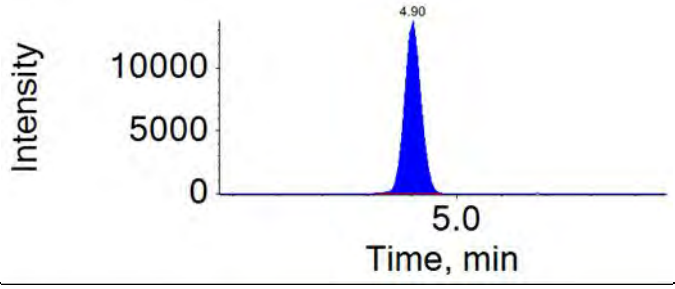
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

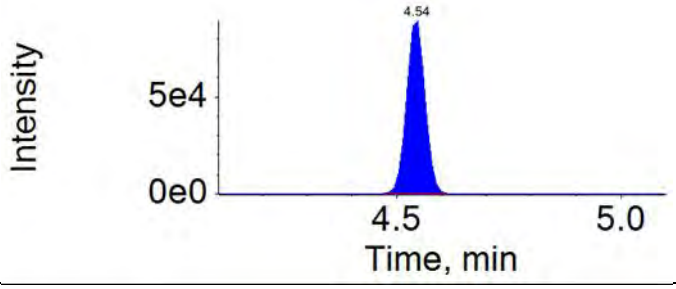
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



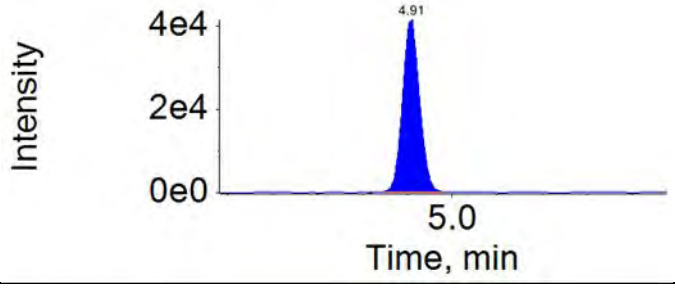


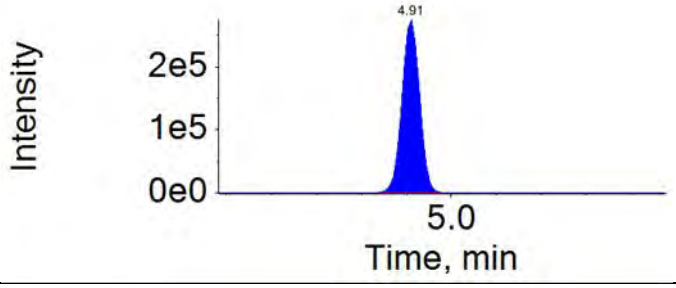
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



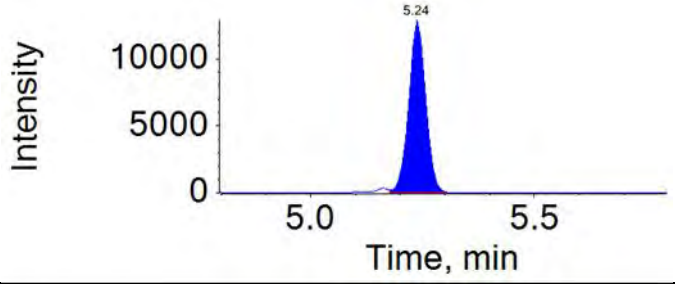


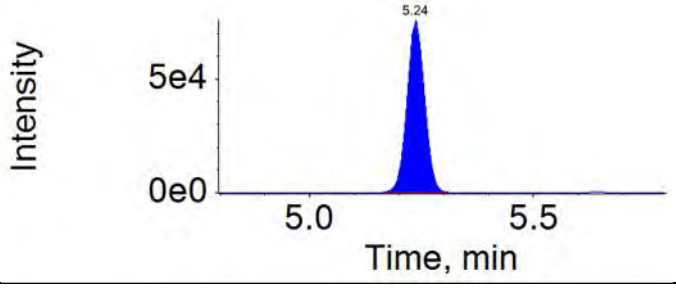
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



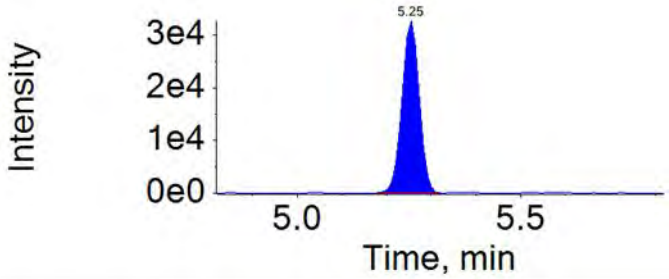


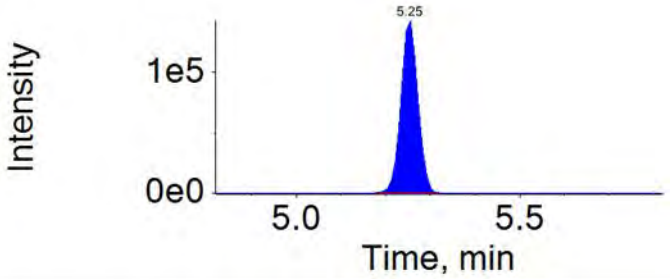
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

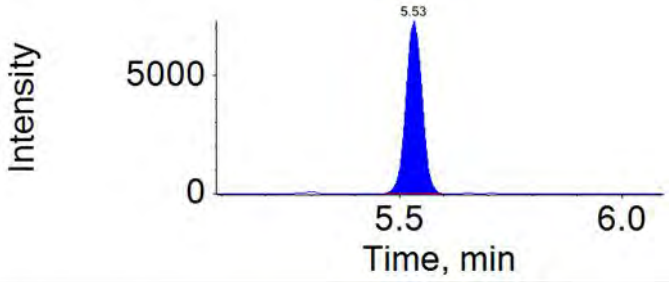
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

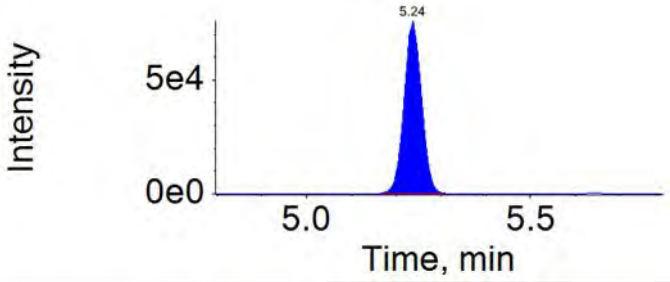
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



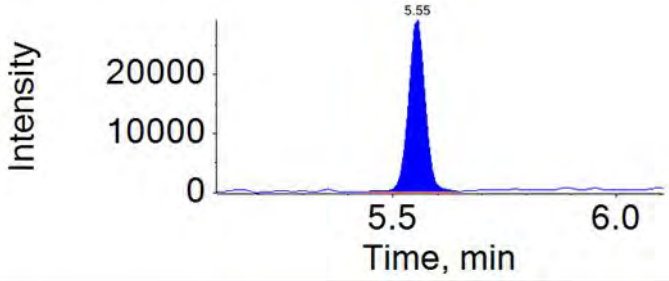


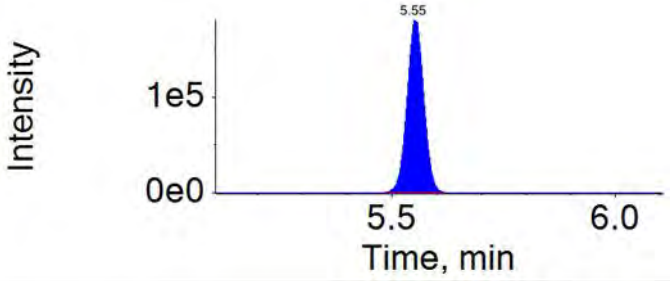
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



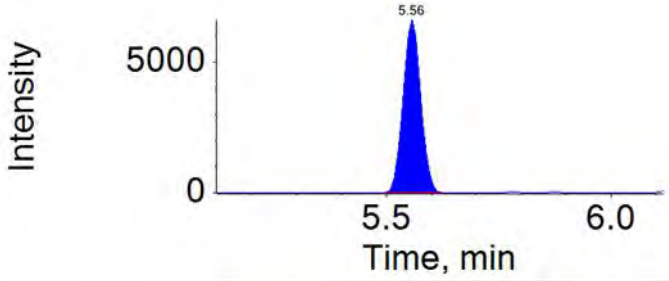


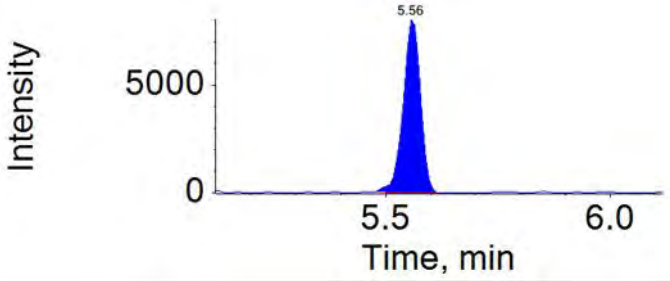
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



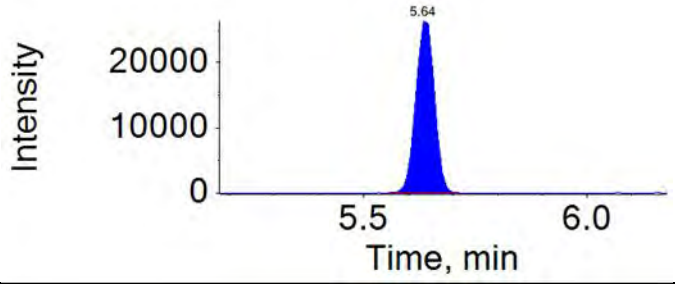


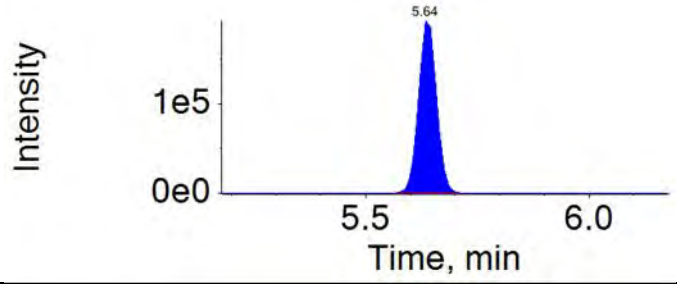
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

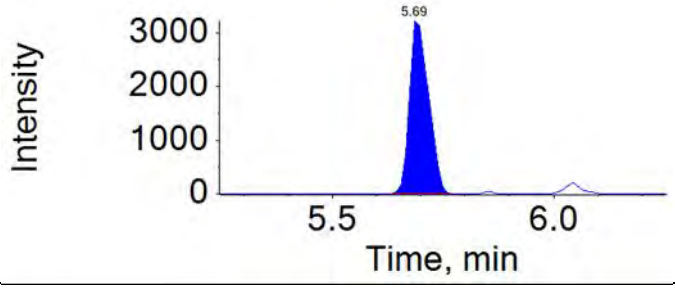
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

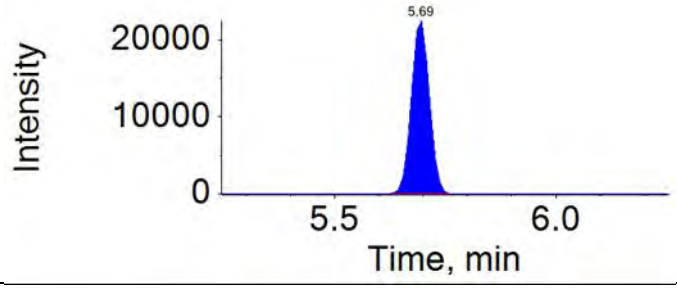
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



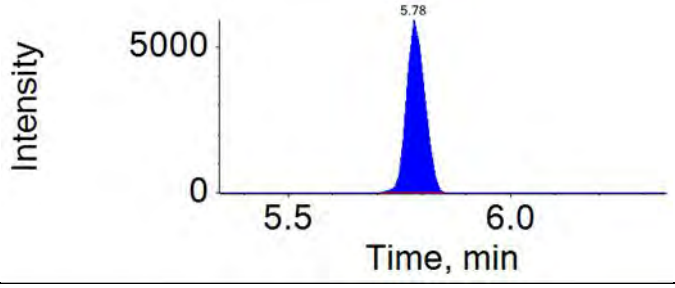


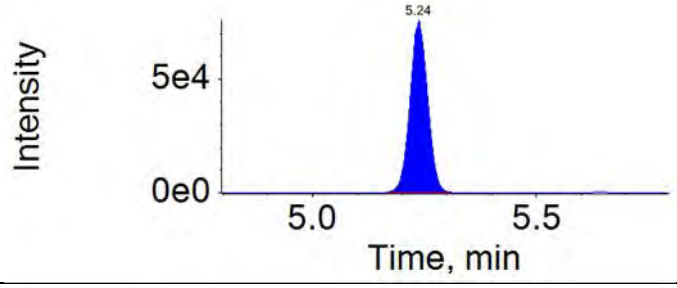
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



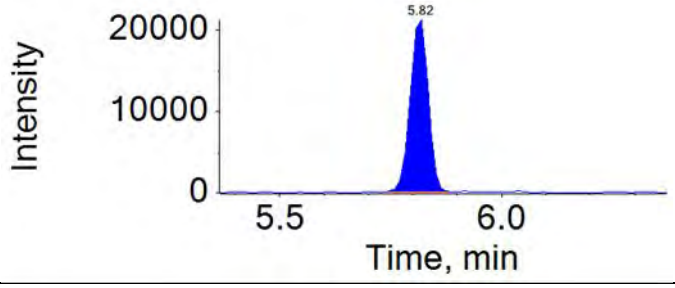


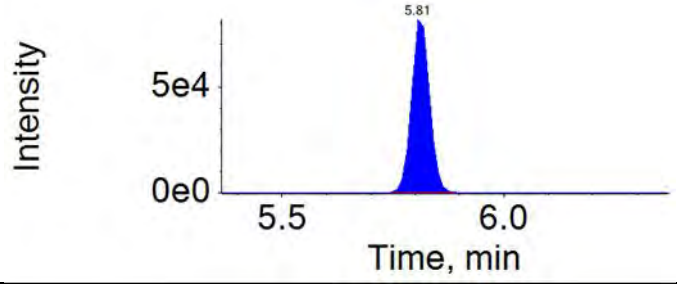
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



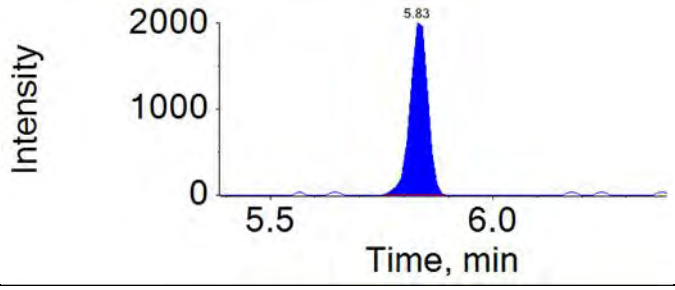


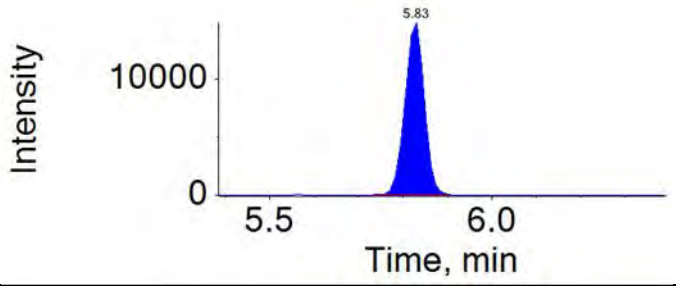
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

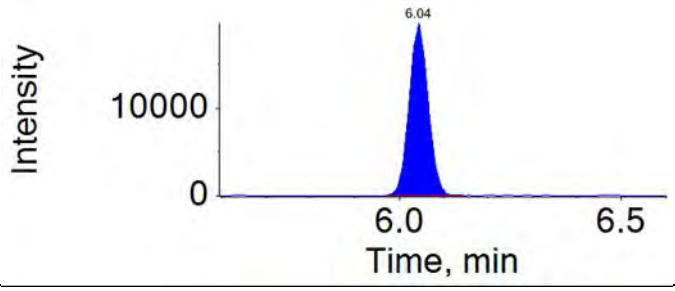
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

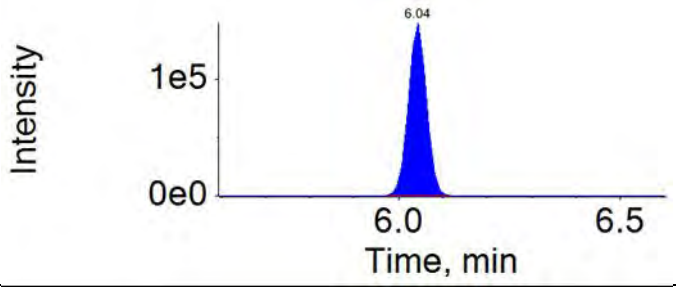
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



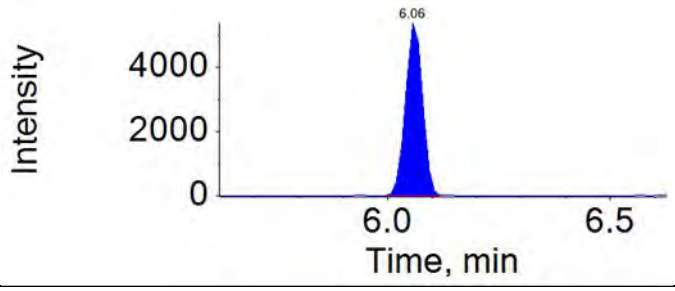


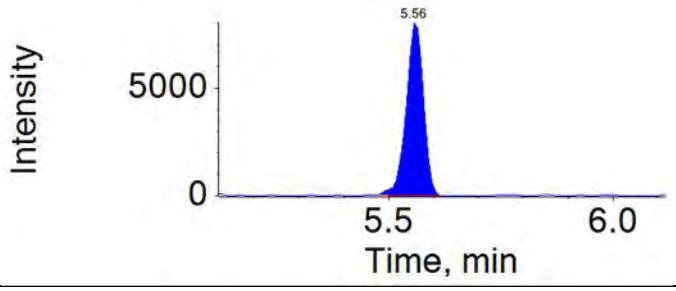
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



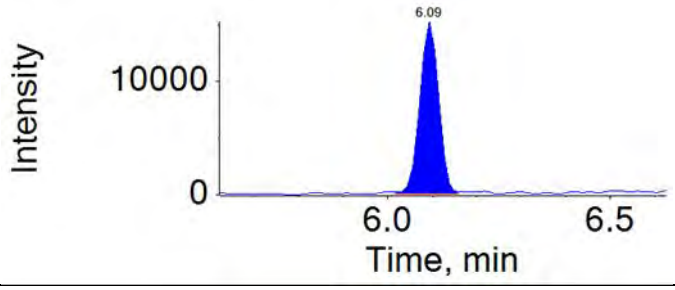


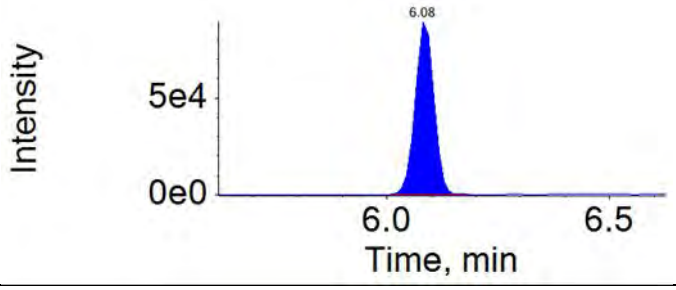
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



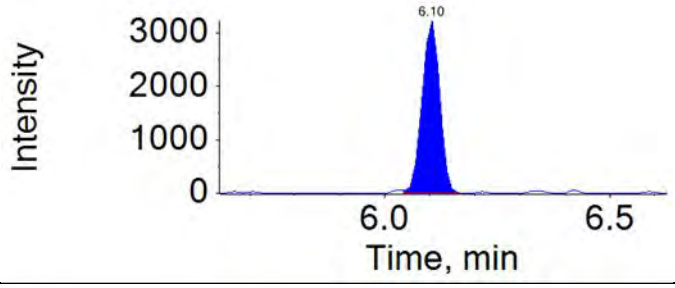


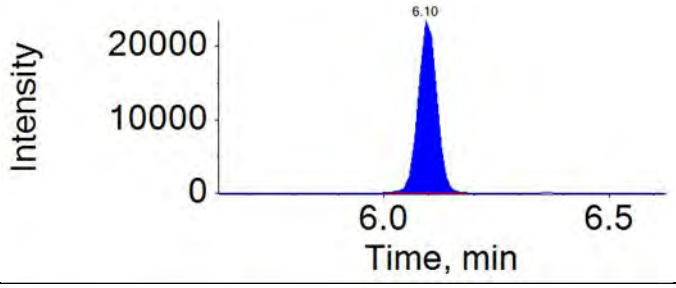
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

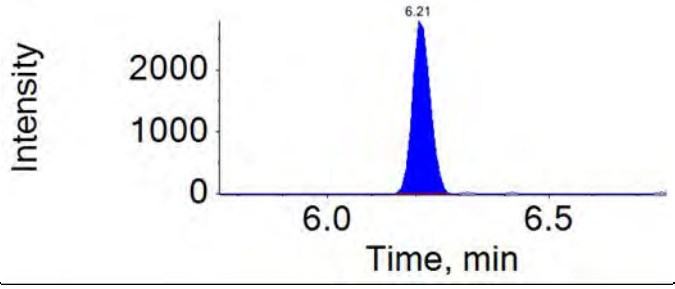
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

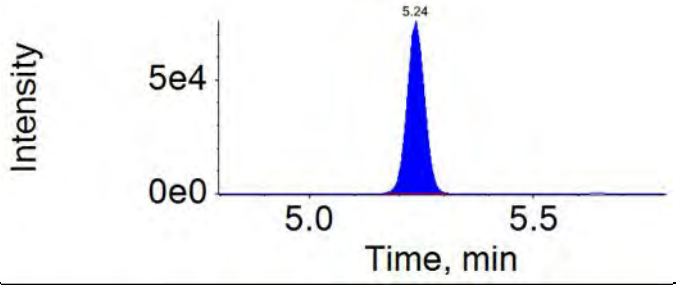
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



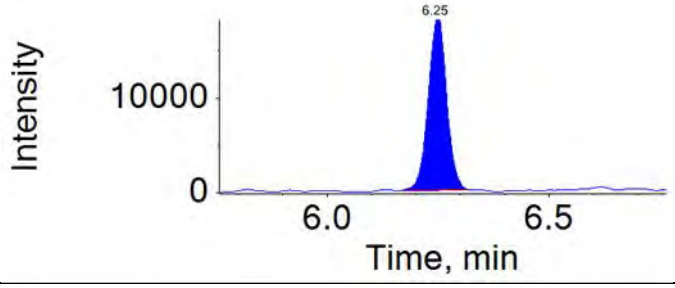


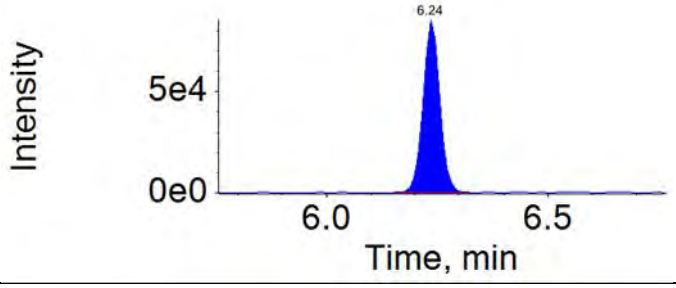
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



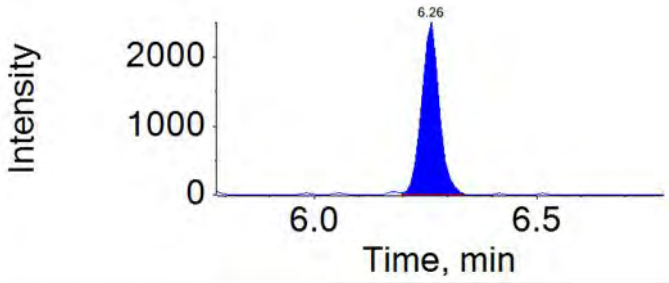


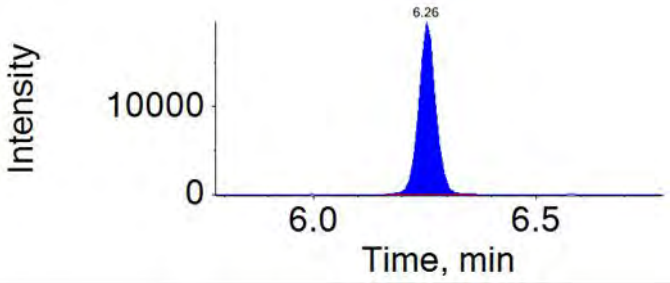
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

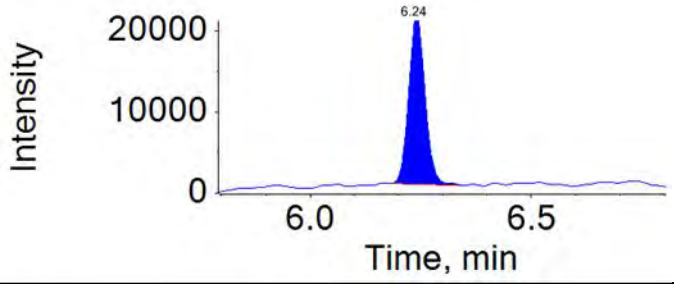
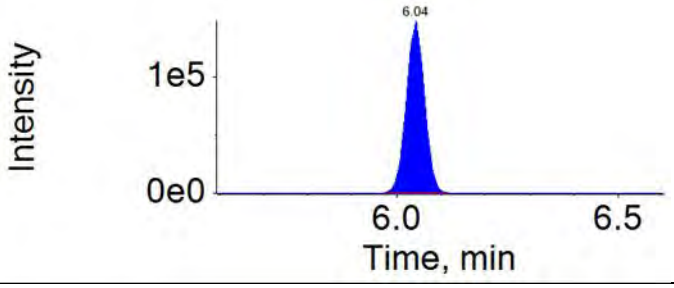


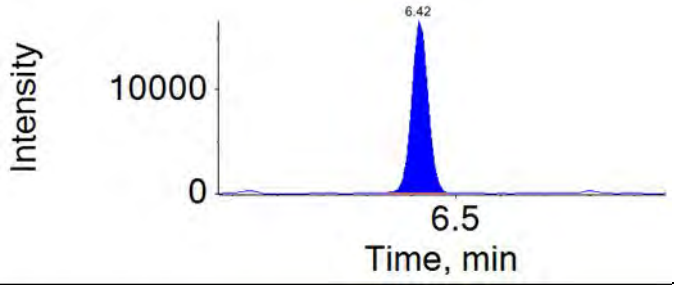
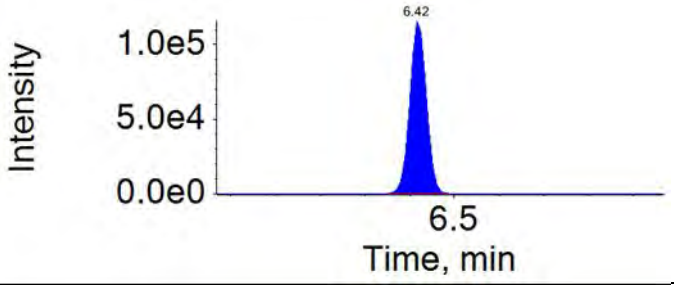


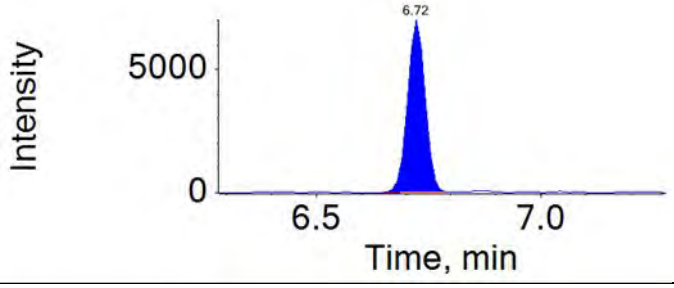
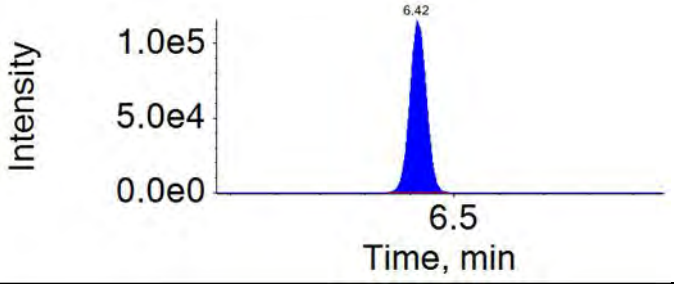
APPROVED
By JPT at 1:25 pm, 11/9/18

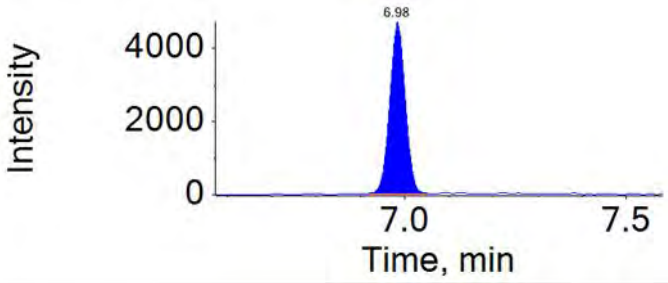
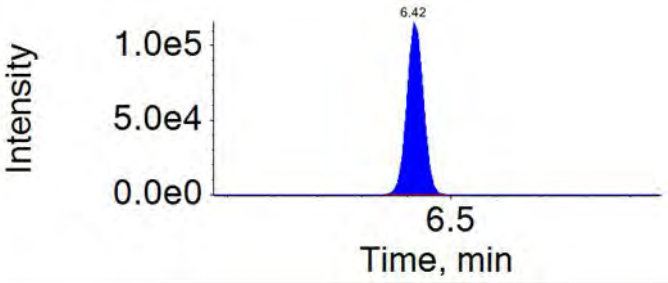
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

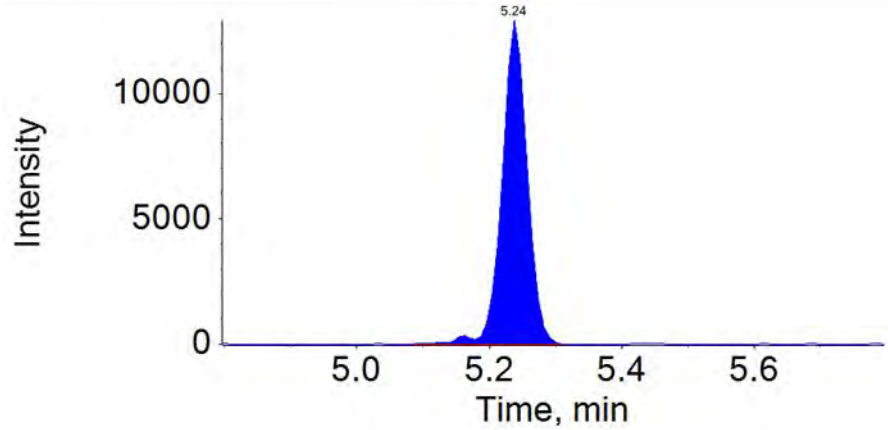
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

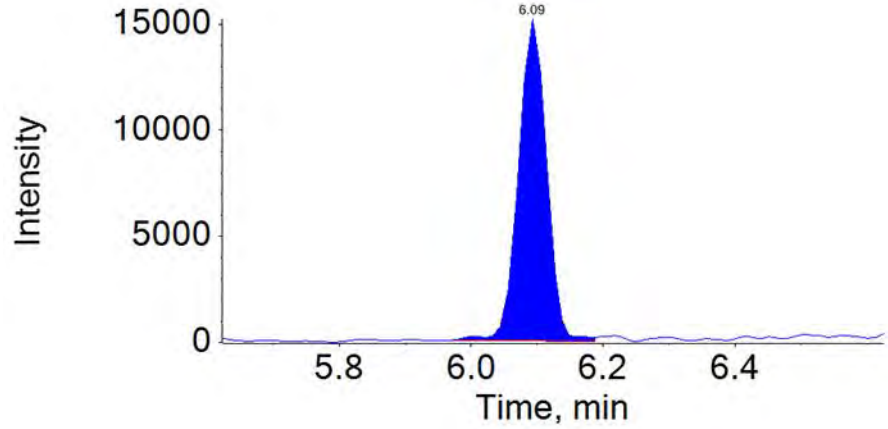
Results Table Name: 18311003
Results Table Date: 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
34214.4
Mass Range:
499.0 / 80.0
File Name:
18NOV08D-43.wiff
Sample Name:
LCS311003



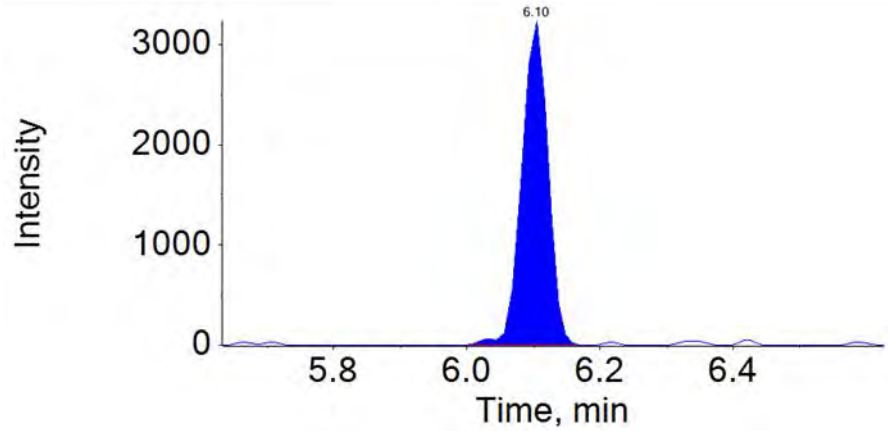
Integration Comment: incorrect integration

Component Name:
NMePFOSAE
RT (min.):
6.09
Peak Area:
45061.9
Mass Range:
616.0 / 59.0
File Name:
18NOV08D-43.wiff
Sample Name:
LCS311003



Integration Comment: incorrect integration

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
8875.5
Mass Range:
512.0 / 169.0
File Name:
18NOV08D-43.wiff
Sample Name:
LCS311003



Integration Comment: incorrect integration

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Results Table Name: 18311003
Results Table Date: 11/9/2018 1:08:25 PM

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

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Ion Ratio Report

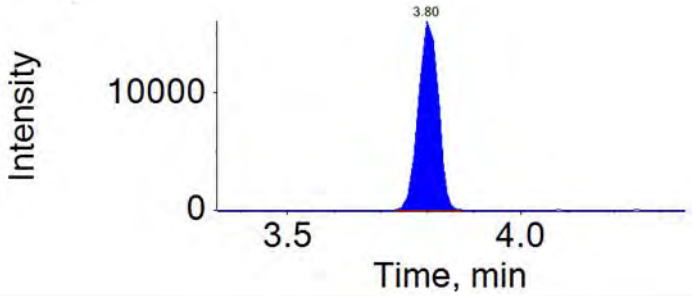
Sample Name: LCS311003 **Instrument Name:** LM27631 **File Name:** 18NOV08D-43.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	47533.7	A	N/A	1.0000			
PFBS_2	3.80	1.00	16542.2	A	N/A	0.3480	-3	50	
4:2-FTS	4.12	1.00	29774.1	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	18456.2	A	N/A	0.6199	-3	50	
PFHxA	4.15	1.00	98867.0	A	N/A	1.0000			
PFHxA_2	4.15	1.00	977.9	A	N/A	0.0099	-14	50	
PFPeS	4.17	1.10	24361.6	A	N/A	1.0000			
PFPeS_2	4.17	1.10	12155.3	A	N/A	0.4990	-7	50	
PFHxS	4.54	1.00	35952.4	A	N/A	1.0000			
PFHxS_2	4.54	1.00	13689.5	A	N/A	0.3808	7	50	
PFHpA	4.54	1.00	93987.9	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6846.9	A	N/A	0.0728	26	50	
6:2-FTS	4.90	1.00	22257.7	A	N/A	1.0000			
6:2-FTS_2	4.89	1.00	15941.2	A	N/A	0.7162	6	50	
PFHpS	4.90	1.08	34896.9	A	N/A	1.0000			
PFHpS_2	4.90	1.08	14298.1	A	N/A	0.4097	4	50	
PFOA	4.91	1.00	109090.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	6005.2	A	N/A	0.0550	-13	50	
PFOS	5.24	1.00	33466.7	M	N/A	1.0000			
PFOS_2	5.24	1.00	9901.8	A	N/A	0.2959	-15	50	
PFNA	5.25	1.00	87422.3	A	N/A	1.0000			
PFNA_2	5.25	1.00	1416.2	A	N/A	0.0162	-22	50	
PFNS	5.53	1.06	18340.8	A	N/A	1.0000			
PFNS_2	5.53	1.06	11049.4	A	N/A	0.6025	23	50	
PFDA	5.55	1.00	74370.7	A	N/A	1.0000			
PFDA_2	5.55	1.00	416.4	A	N/A	0.0056	-1	50	
8:2-FTS	5.56	1.00	18035.9	A	N/A	1.0000			
8:2-FTS_2	5.55	1.00	11762.7	A	N/A	0.6522	6	50	
NMeFOSAA	5.69	1.00	9671.9	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	1289.4	A	N/A	0.1333	-40	50	
PFDS	5.78	1.10	16821.5	A	N/A	1.0000			
PFDS_2	5.79	1.11	7897.8	A	N/A	0.4695	1	50	
PFUnDA	5.82	1.00	59951.9	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	119.6	A	N/A	0.0020	-37	50	
NEtFOSAA	5.83	1.00	5543.2	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	4603.3	A	N/A	0.8304	37	50	
PFDoDA	6.04	1.00	58326.7	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	813.0	A	N/A	0.0139	28	50	
10:2-FTS	6.06	1.09	14346.2	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	8920.1	A	N/A	0.6218	-12	50	
PFTrDA	6.24	1.03	52795.8	A	N/A	1.0000			
PFTrDA_2	6.23	1.03	154.0	A	N/A	0.0029	-70	50	OOS
PFTeDA	6.42	1.00	41651.9	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	138.4	A	N/A	0.0033	-40	50	
PFHxDA	6.72	1.05	18860.6	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1220.8	A	N/A	0.0647	9	50	
PFODA	6.98	1.09	11360.4	A	N/A	1.0000			
PFODA_2	6.98	1.09	360.8	A	N/A	0.0318	24	50	

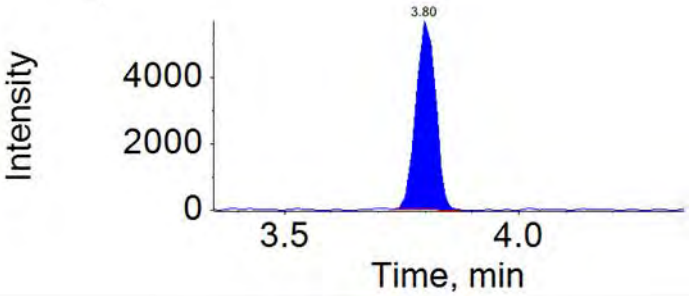
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

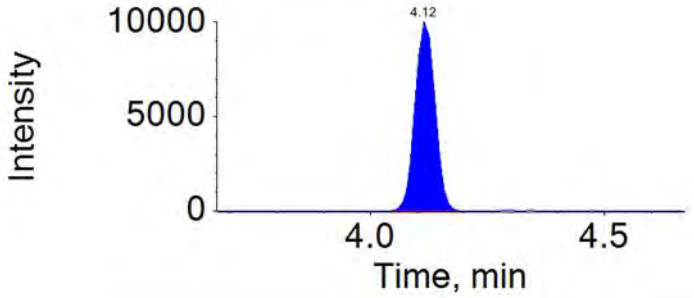
Component: PFBS
Primary Mass: 299.0 / 80.0



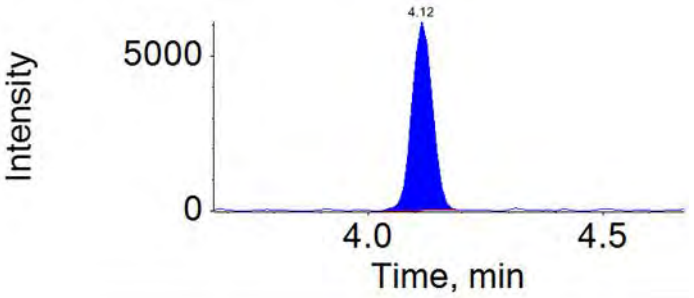
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



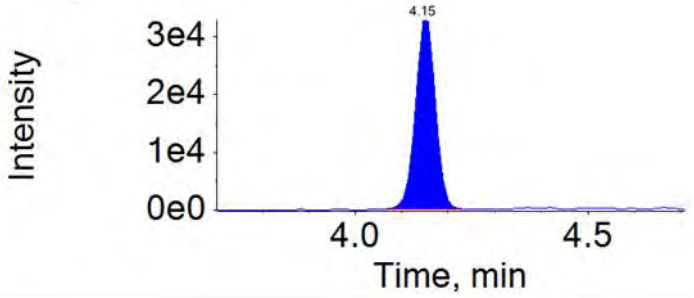
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



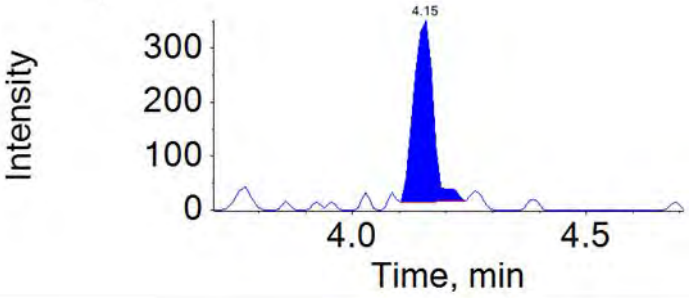
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



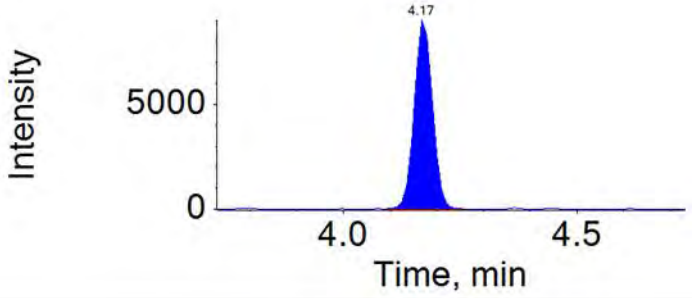
Component: PFHxA
Primary Mass: 313.0 / 269.0



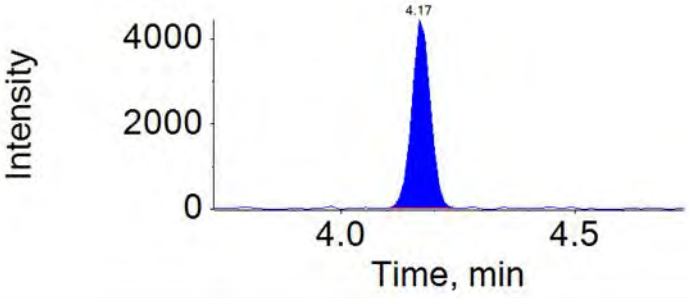
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



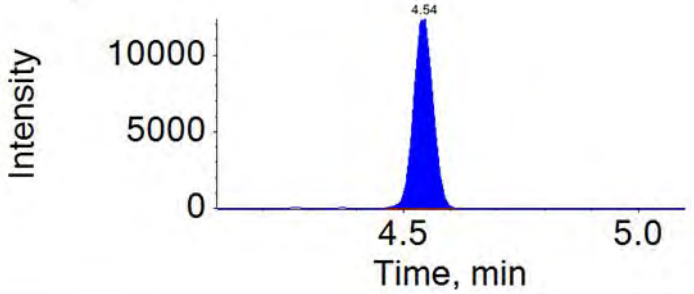
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



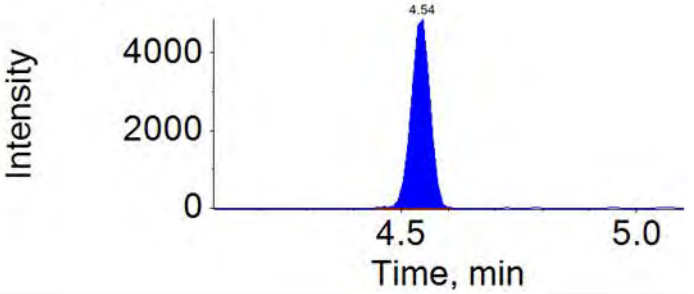
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

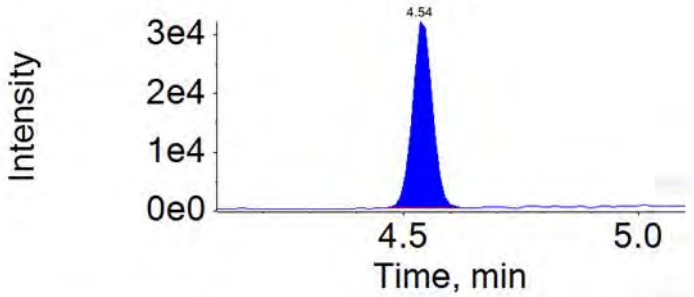
Component: PFHxS
Primary Mass: 399.0 / 80.0



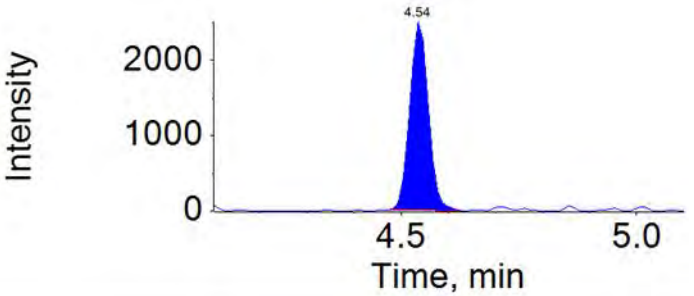
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



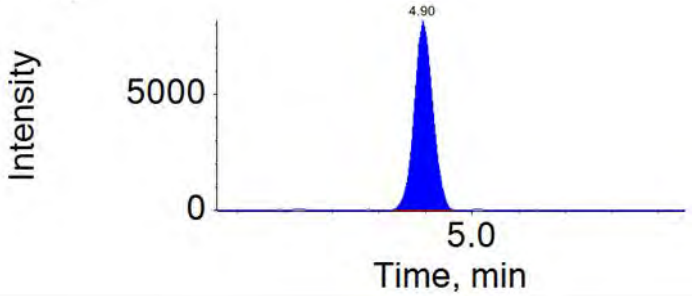
Component: PFHpA
Primary Mass: 363.0 / 319.0



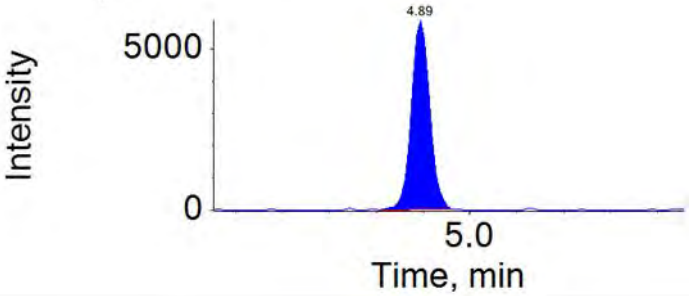
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



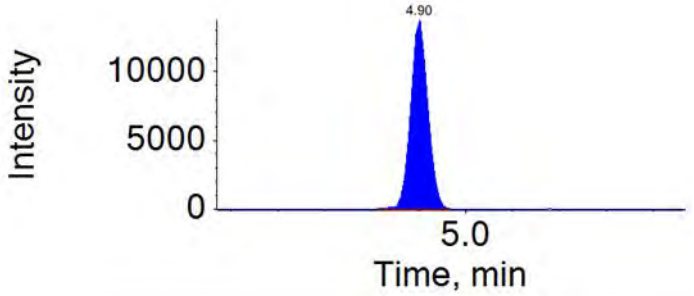
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



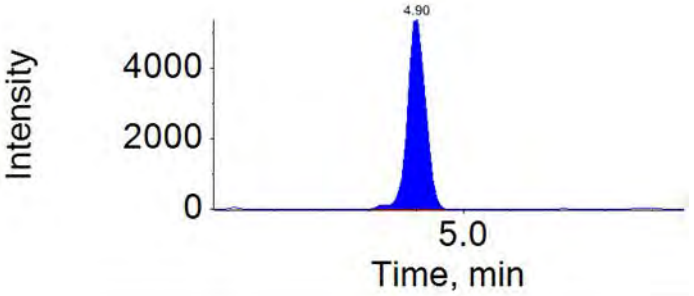
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



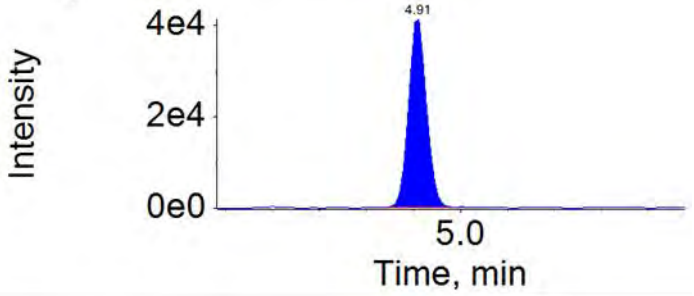
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



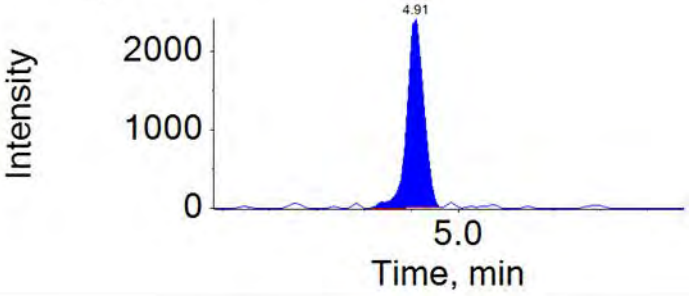
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

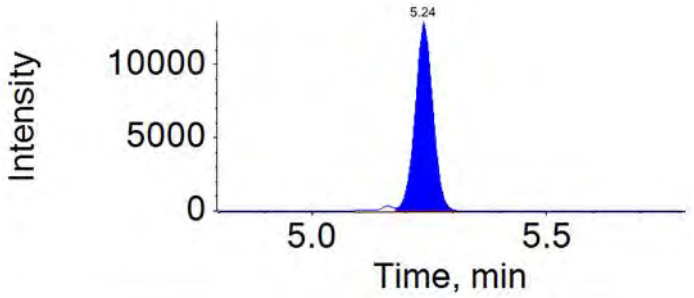
Component: PFOA
Primary Mass: 413.0 / 369.0



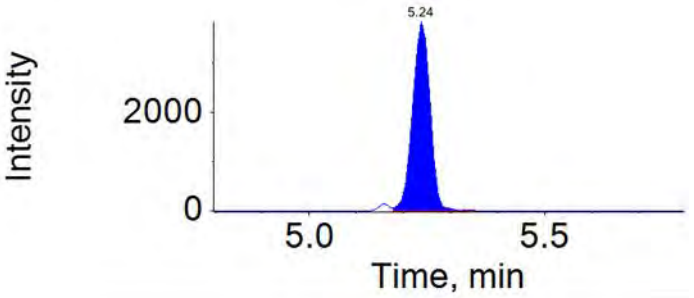
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



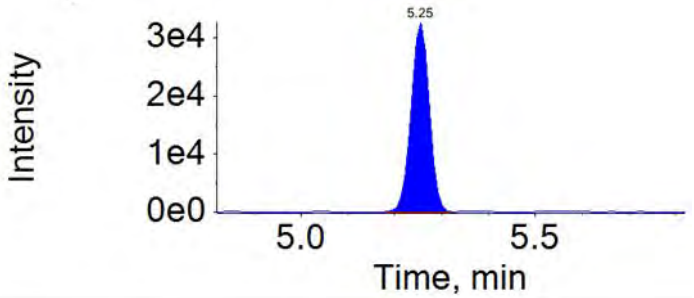
Component: PFOS
Primary Mass: 499.0 / 80.0



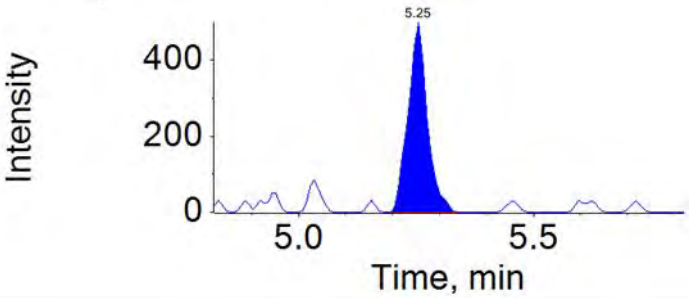
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



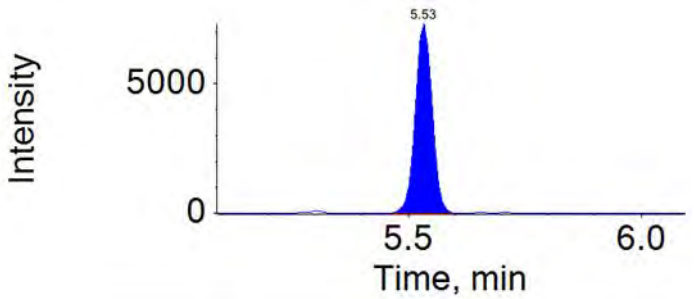
Component: PFNA
Primary Mass: 463.0 / 419.0



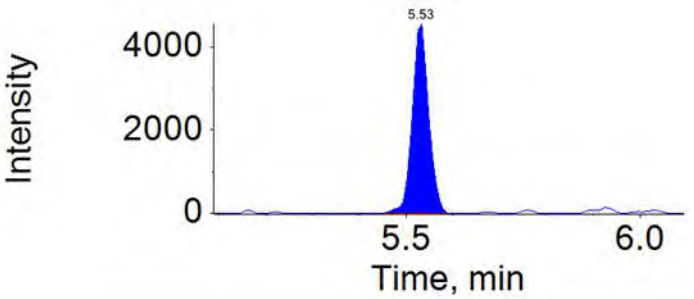
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



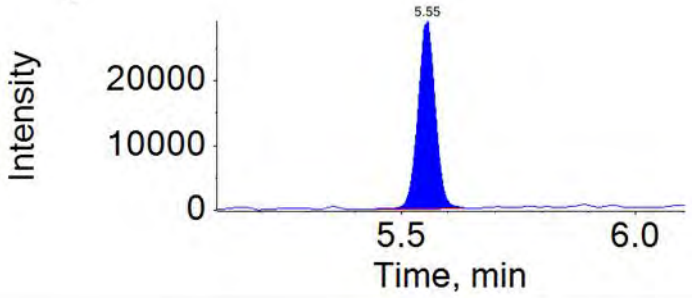
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



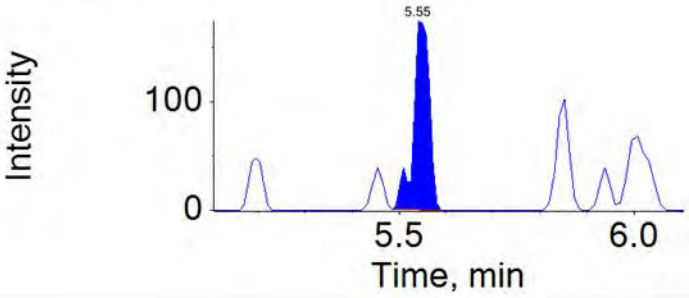
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

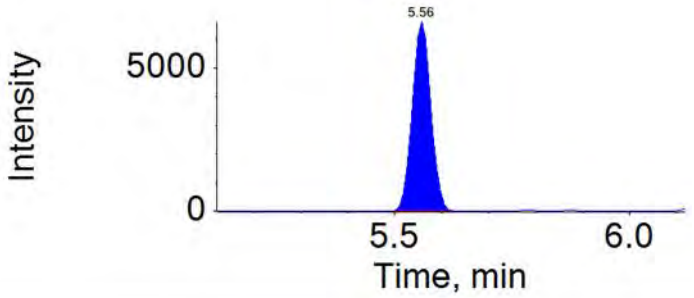
Component: PFDA
Primary Mass: 513.0 / 469.0



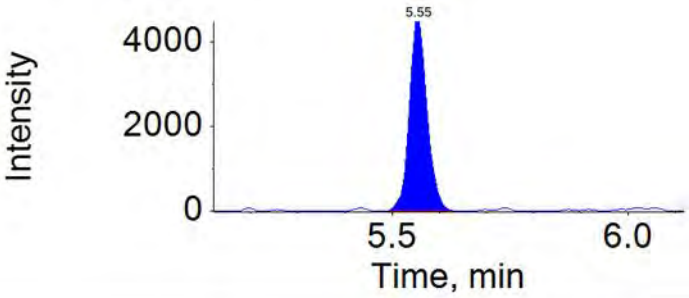
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



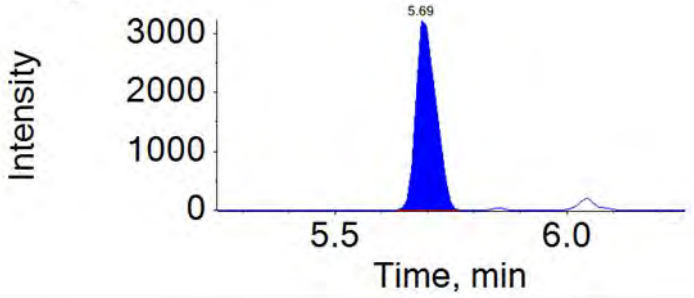
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



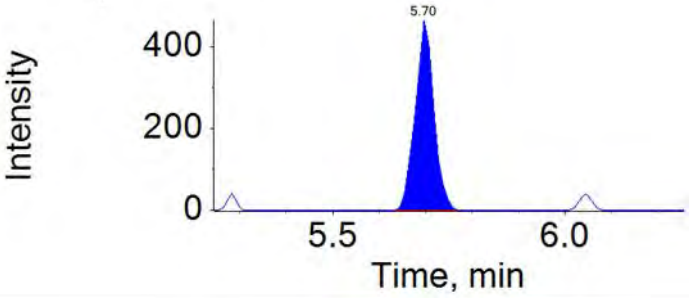
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



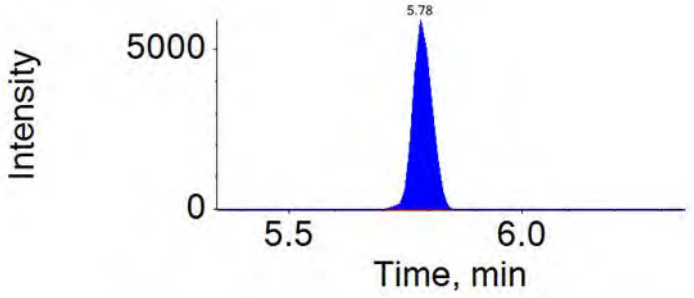
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



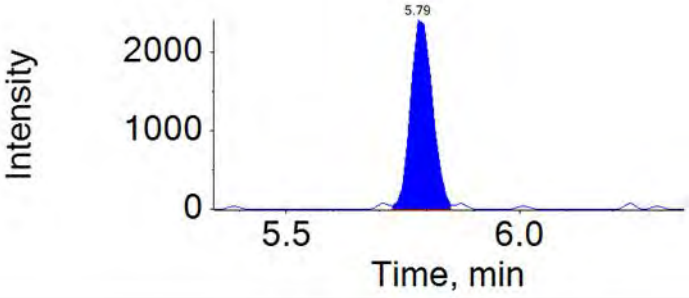
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



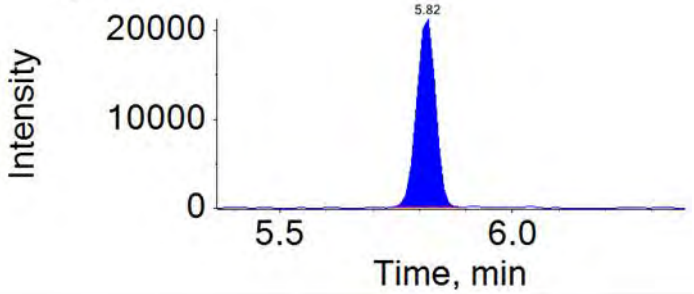
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



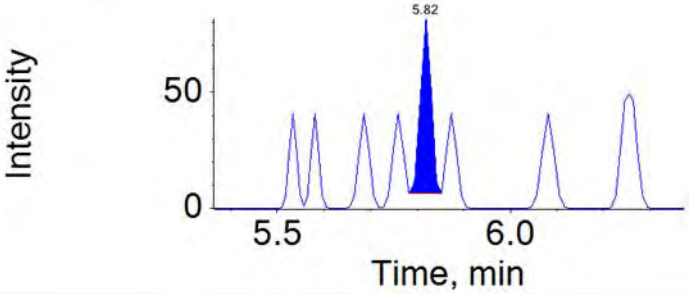
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

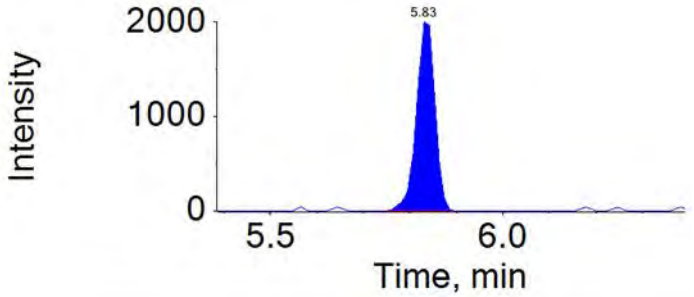
Component: PFUnDA
Primary Mass: 563.0 / 519.0



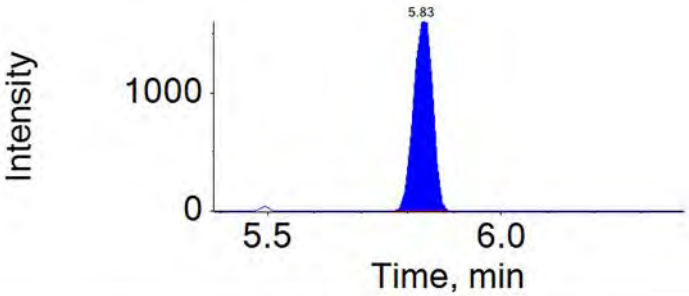
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



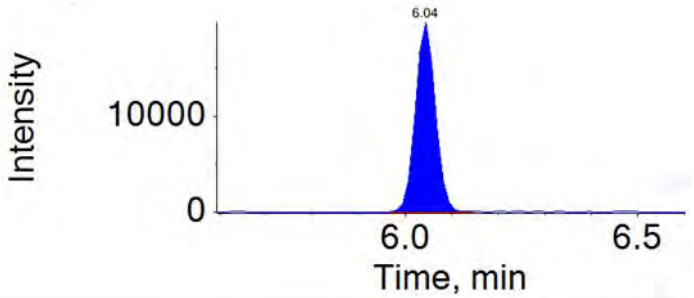
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



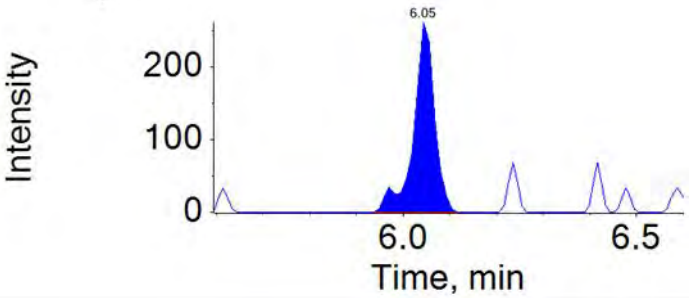
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



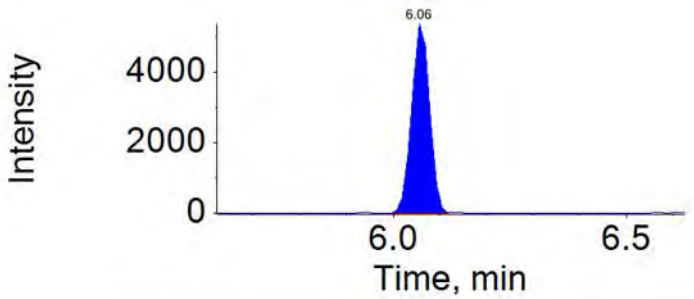
Component: PFDoDA
Primary Mass: 613.0 / 569.0



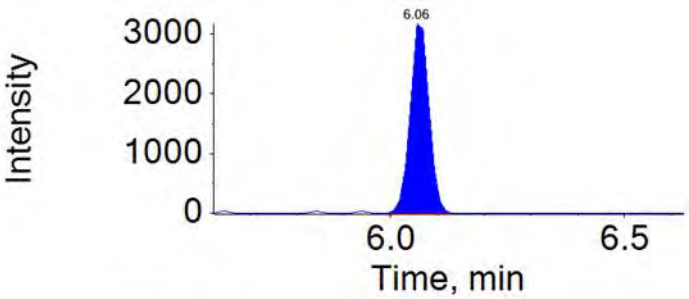
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



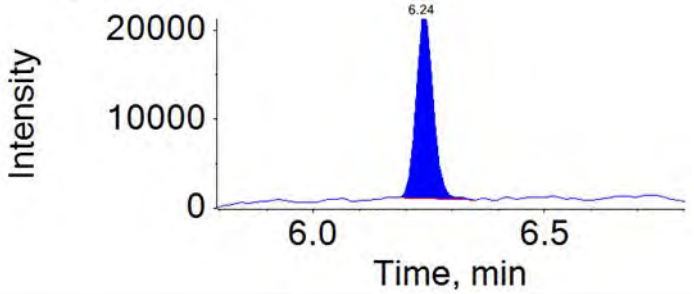
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



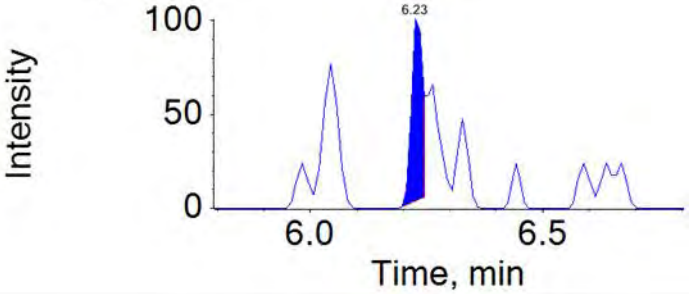
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

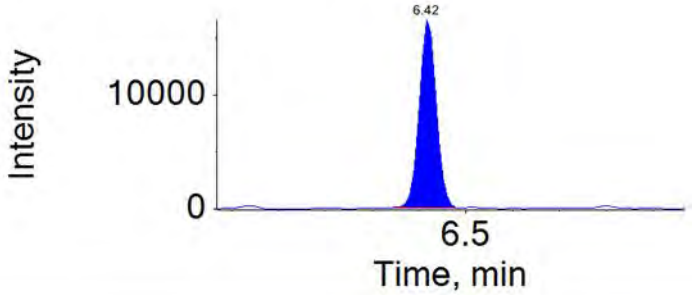
Component: PFTrDA
Primary Mass: 663.0 / 619.0



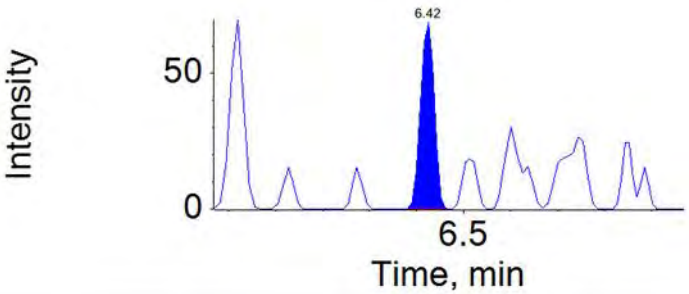
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



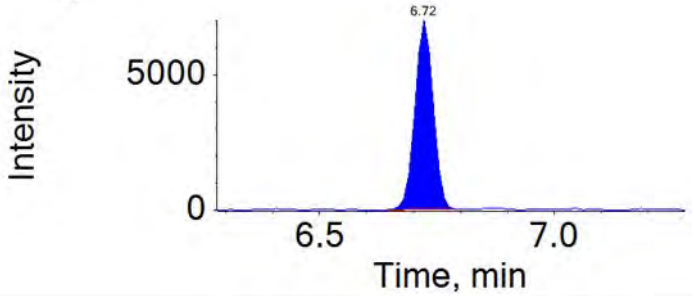
Component: PFTeDA
Primary Mass: 713.0 / 669.0



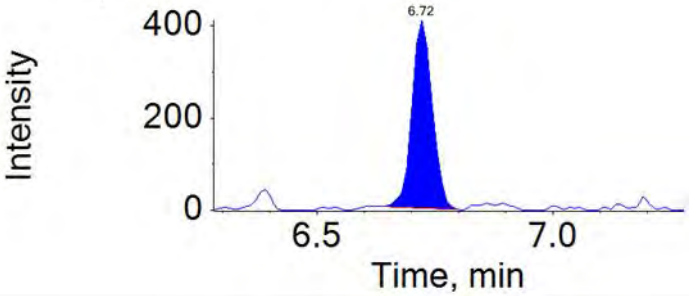
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



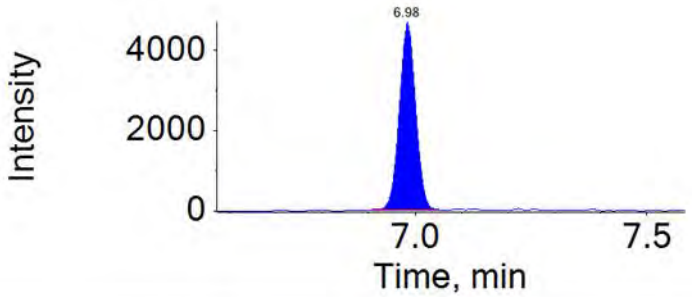
Component: PFHxDA
Primary Mass: 813.0 / 769.0



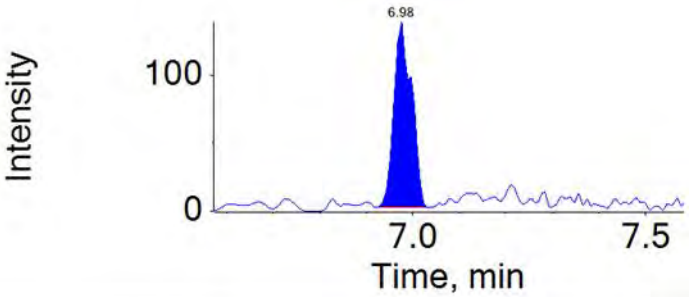
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



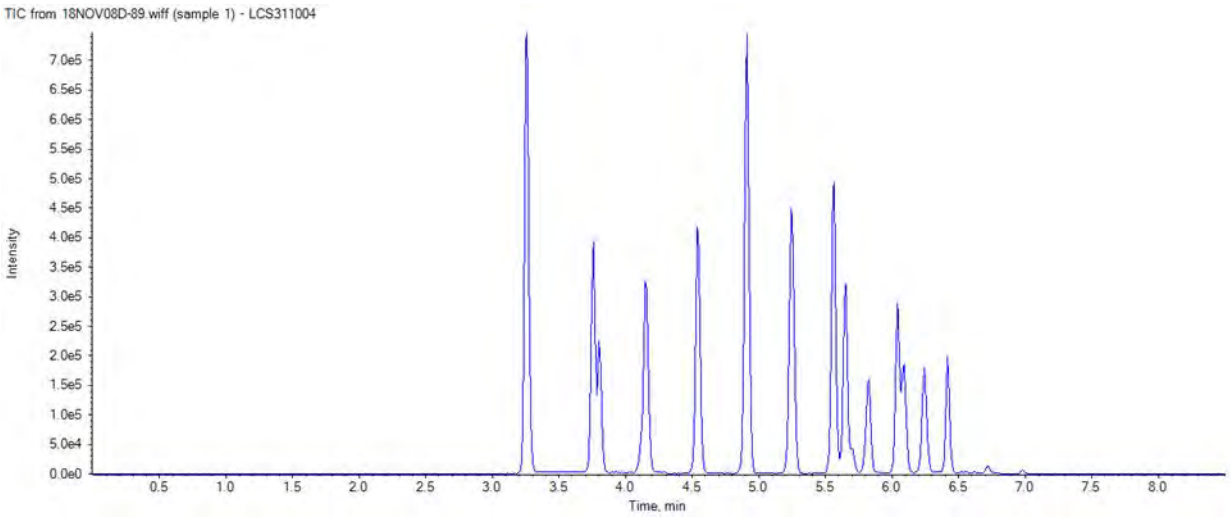
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311004	EPA 537 mod QSM 5.1 table B-15 18311004	18NOV08D-89.wiff	2018-11-09T01:02:32



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	5.00	889938.1	728839.7	22	50	
13C2-PFOA	5.00	606974.4	491983.1	23	50	
13C4-PFOS	4.78	335742.2	255568.1	31	50	
13C2-PFDA	5.00	396694.2	315407.5	26	50	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311004	EPA 537 mod QSM 5.1 table B-15 18311004	18NOV08D-89.wiff	2018-11-09T01:02:32

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	101749.7	705313.0	0.144	1.360	1.689	124	70-130	
PFPeA	102423.0	747418.0	0.137	1.360	1.629	120	70-130	
PFBS	53410.9	368225.8	0.145	1.202	1.463	122	70-130	
4:2-FTS	33742.6	47717.4	0.707	3.736	3.802	102	70-130	
PFHxA	120680.5	617795.1	0.195	1.360	1.675	123	70-130	
PFPeS	27393.4	368225.8	0.074	1.276	1.467	115	70-130	
PFHxS	46193.6	291018.8	0.159	1.286	1.609	125	70-130	
PFHpA	126951.4	504254.3	0.252	1.360	1.693	125	70-130	
6:2-FTS	31393.1	35884.7	0.875	3.792	4.365	115	70-130	
PFHpS	40276.5	291018.8	0.138	1.294	1.448	112	70-130	
PFOA	120216.0	845285.4	0.142	1.360	1.602	118	70-130	
PFOS	36585.5	250670.6	0.146	1.300	1.514	116	70-130	
PFNA	95446.4	445603.1	0.214	1.360	1.601	118	70-130	
PFNS	24310.9	250670.6	0.097	1.306	1.538	118	70-130	
PFDA	82291.8	563539.3	0.146	1.360	1.607	118	70-130	
8:2-FTS	22496.8	22942.9	0.981	3.832	4.420	115	70-130	
PFOSA	89767.1	645085.9	0.139	1.360	1.504	111	70-130	
NMeFOSAA	8023.1	80073.2	0.100	1.360	1.031	76	70-130	
PFDS	21977.8	250670.6	0.088	1.310	1.675	128	70-130	
PFUnDA	69235.5	232579.4	0.298	1.360	1.707	126	70-130	
NEtFOSAA	9098.1	56032.2	0.162	1.360	1.396	103	70-130	
PFDoDA	74292.6	514522.9	0.144	1.360	1.565	115	70-130	
10:2-FTS	14347.7	22942.9	0.625	3.856	3.895	101	70-130	
NMePFOSAE	48919.1	300135.0	0.163	1.360	1.461	107	70-130	
NMePFOSA	8051.1	68264.5	0.118	1.360	1.320	97	70-130	
PFDoS	9515.4	250670.6	0.038	1.316	1.465	111	70-130	
NEtPFOSAE	63998.8	241236.3	0.265	1.360	1.701	125	70-130	
NEtPFOSA	9276.8	59547.9	0.156	1.360	1.372	101	70-130	
PFTrDA	61292.4	514522.9	0.119	1.360	1.502	110	70-130	
PFTeDA	47159.9	341302.2	0.138	1.360	1.623	119	70-130	
PFHxDA	22665.7	341302.2	0.066	1.360	1.649	121	70-130	
PFODA	13228.2	341302.2	0.039	1.360	1.111	82	70-130	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS311004			**Data File:**		18NOV08D-89.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311004			**Acquis Date:**		2018-11-09T01:02:32
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	30			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311004			**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: 18NOV08D-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	889938.1	728839.7	22	50	
13C2-PFOA	5.0	606974.4	491983.1	23	50	
13C4-PFOS	4.8	335742.2	255568.1	31	50	
13C2-PFDA	5.0	396694.2	315407.5	26	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	705313.0	13C3-PFBA	889938.1	0.793	10.000	7.335	73	50-150	
E13C5-PFPeA	747418.0	13C3-PFBA	889938.1	0.840	10.000	7.317	73	50-150	
E13C3-PFBS	368225.8	13C3-PFBA	889938.1	0.414	9.300	6.073	65	50-150	
E13C2-4:2-FTS	47717.4	13C2-PFOA	606974.4	0.079	9.340	7.095	76	50-150	
E13C5-PFHxA	617795.1	13C2-PFOA	606974.4	1.018	10.000	7.488	75	50-150	
E13C3-PFHxS	291018.8	13C2-PFOA	606974.4	0.479	9.460	6.884	73	50-150	
E13C4-PFHpA	504254.3	13C2-PFOA	606974.4	0.831	10.000	7.559	76	50-150	
E13C2-6:2-FTS	35884.7	13C2-PFOA	606974.4	0.059	9.500	7.885	83	50-150	
E13C8-PFOA	845285.4	13C2-PFOA	606974.4	1.393	10.000	7.767	78	50-150	
E13C8-PFOS	250670.6	13C4-PFOS	335742.2	0.747	9.560	6.603	69	50-150	
E13C9-PFNA	445603.1	13C4-PFOS	335742.2	1.327	10.000	7.251	73	50-150	
E13C6-PFDA	563539.3	13C2-PFDA	396694.2	1.421	10.000	7.145	71	50-150	
E13C2-8:2-FTS	22942.9	13C2-PFDA	396694.2	0.058	9.580	6.121	64	50-150	
E13C8-PFOSA	645085.9	13C2-PFDA	396694.2	1.626	10.000	7.097	71	50-150	
Ed3-NMeFOSAA	80073.2	13C2-PFDA	396694.2	0.202	10.000	7.507	75	50-150	
E13C7-PFUnDA	232579.4	13C2-PFDA	396694.2	0.586	10.000	6.764	68	50-150	
Ed5-NEtFOSAA	56032.2	13C2-PFDA	396694.2	0.141	10.000	6.538	65	50-150	
E13C2-PFDoDA	514522.9	13C2-PFDA	396694.2	1.297	10.000	6.993	70	50-150	
Ed7-NMePFOSAE	300135.0	13C2-PFDA	396694.2	0.757	10.000	7.037	70	50-150	
Ed3-NMePFOSA	68264.5	13C2-PFDA	396694.2	0.172	10.000	6.301	63	50-150	
Ed9-NEtPFOSAE	241236.3	13C2-PFDA	396694.2	0.608	10.000	6.946	69	50-150	
Ed5-NEtPFOSA	59547.9	13C2-PFDA	396694.2	0.150	10.000	6.951	70	50-150	
E13C2-PFTeDA	341302.2	13C2-PFDA	396694.2	0.860	10.000	6.195	62	50-150	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

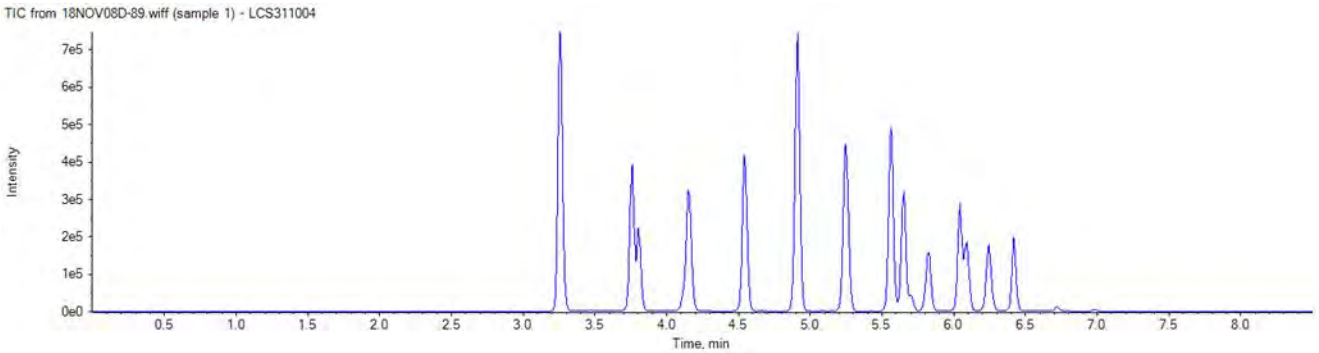
Analyte Quantitation Peak Table

Sample Name: LCS311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-89.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	3.25	1.000	101749.7		A	13C4-PFBA	3.26	705313.0	0.144	1.689
PFPeA	3.76	1.000	102423.0		A	13C5-PFPeA	3.76	747418.0	0.137	1.629
PFBS	3.81	1.000	53410.9		A	13C3-PFBS	3.81	368225.8	0.145	1.463
4:2-FTS	4.12	1.000	33742.6		A	13C2-4:2-FTS	4.12	47717.4	0.707	3.802
PFHxA	4.15	1.000	120680.5		A	13C5-PFHxA	4.15	617795.1	0.195	1.675
PFPeS	4.17	1.100	27393.4		A	13C3-PFBS	3.81	368225.8	0.074	1.467
PFHxS	4.54	1.000	46193.6		A	13C3-PFHxS	4.54	291018.8	0.159	1.609
PFHpA	4.54	1.000	126951.4		A	13C4-PFHpA	4.54	504254.3	0.252	1.693
6:2-FTS	4.90	1.000	31393.1		A	13C2-6:2-FTS	4.90	35884.7	0.875	4.365
PFHpS	4.90	1.080	40276.5		A	13C3-PFHxS	4.54	291018.8	0.138	1.448
PFOA	4.91	1.000	120216.0		A	13C8-PFOA	4.91	845285.4	0.142	1.602
PFOS	5.24	1.000	36585.5		M	13C8-PFOS	5.24	250670.6	0.146	1.514
PFNA	5.26	1.000	95446.4		A	13C9-PFNA	5.26	445603.1	0.214	1.601
PFNS	5.54	1.060	24310.9		A	13C8-PFOS	5.24	250670.6	0.097	1.538
PFDA	5.56	1.000	82291.8		A	13C6-PFDA	5.56	563539.3	0.146	1.607
8:2-FTS	5.57	1.000	22496.8		A	13C2-8:2-FTS	5.56	22942.9	0.981	4.420
PFOSA	5.65	1.000	89767.1		A	13C8-PFOSA	5.65	645085.9	0.139	1.504
NMeFOSAA	5.71	1.000	8023.1		M	d3-NMeFOSAA	5.70	80073.2	0.100	1.031
PFDS	5.80	1.110	21977.8		A	13C8-PFOS	5.24	250670.6	0.088	1.675
PFUnDA	5.82	1.000	69235.5		A	13C7-PFUnDA	5.82	232579.4	0.298	1.707
NEtFOSAA	5.84	1.000	9098.1		A	d5-NEtFOSAA	5.83	56032.2	0.162	1.396
PFDoDA	6.04	1.000	74292.6		A	13C2-PFDoDA	6.04	514522.9	0.144	1.565
10:2-FTS	6.06	1.090	14347.7		A	13C2-8:2-FTS	5.56	22942.9	0.625	3.895
NMePFOSAE	6.10	1.000	48919.1		A	d7-NMePFOSAE	6.09	300135.0	0.163	1.461
NMePFOSA	6.10	1.000	8051.1		M	d3-NMePFOSA	6.10	68264.5	0.118	1.320
PFDoS	6.21	1.190	9515.4		A	13C8-PFOS	5.24	250670.6	0.038	1.465
NEtPFOSAE	6.25	1.000	63998.8		A	d9-NEtPFOSAE	6.24	241236.3	0.265	1.701
NEtPFOSA	6.26	1.000	9276.8		A	d5-NEtPFOSA	6.26	59547.9	0.156	1.372
PFTrDA	6.24	1.030	61292.4		A	13C2-PFDoDA	6.04	514522.9	0.119	1.502
PFTeDA	6.42	1.000	47159.9		A	13C2-PFTeDA	6.42	341302.2	0.138	1.623
PFHxDA	6.72	1.050	22665.7		A	13C2-PFTeDA	6.42	341302.2	0.066	1.649
PFODA	6.98	1.090	13228.2		A	13C2-PFTeDA	6.42	341302.2	0.039	1.111

Total Ion Chromatogram

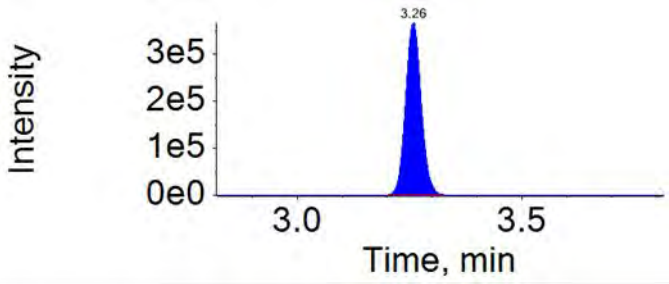


APPROVED
By JPT at 5:18 pm, 11/9/18

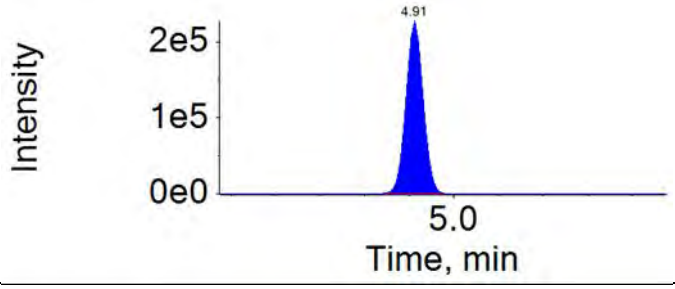
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

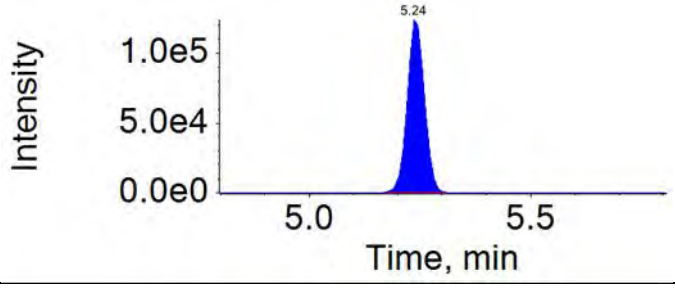
Injection Standard: 13C3-PFBA
216.0 / 172.0



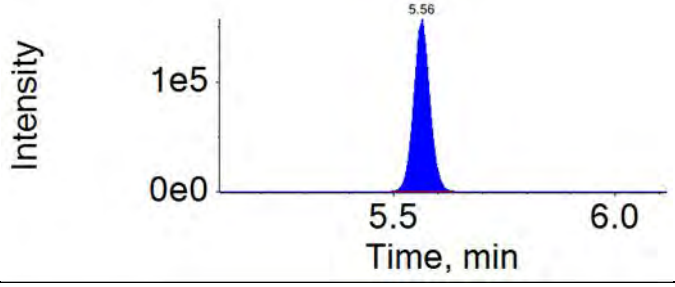
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



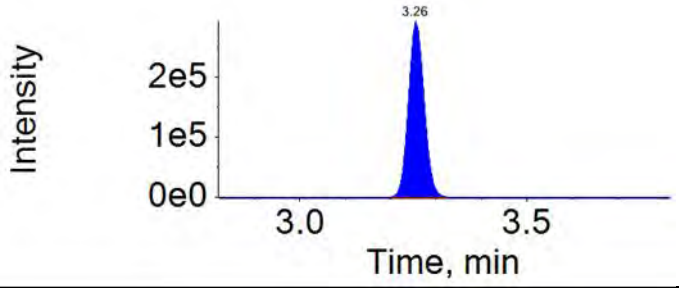
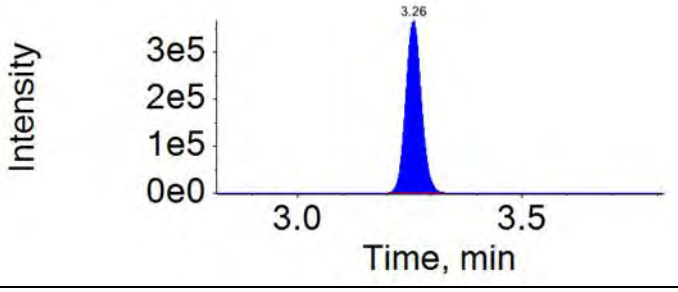
Injection Standard: 13C2-PFDA
515.0 / 470.0

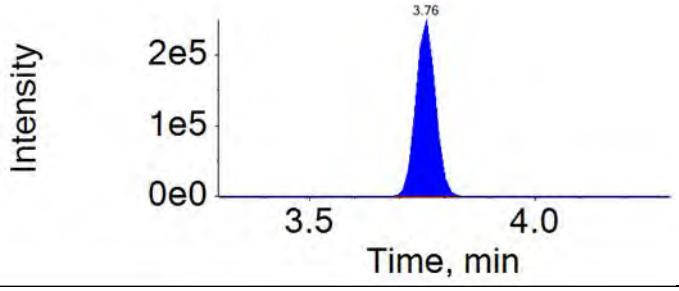
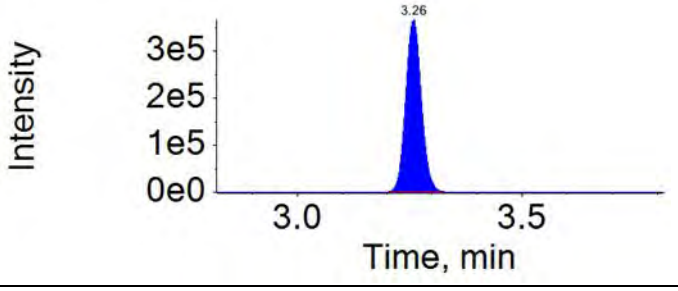


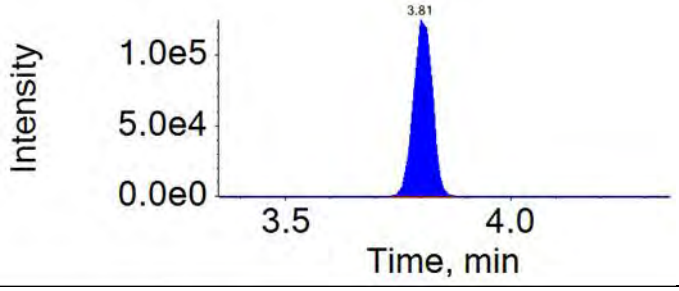
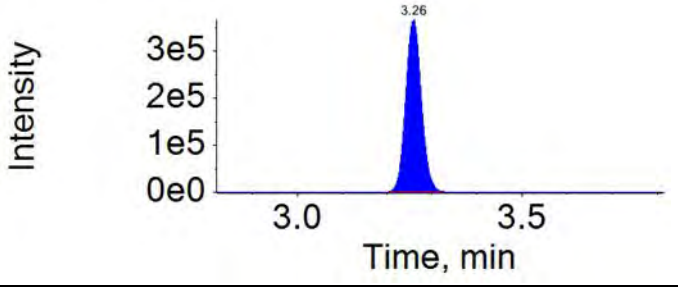
APPROVED
By JPT at 5:18 pm, 11/9/18

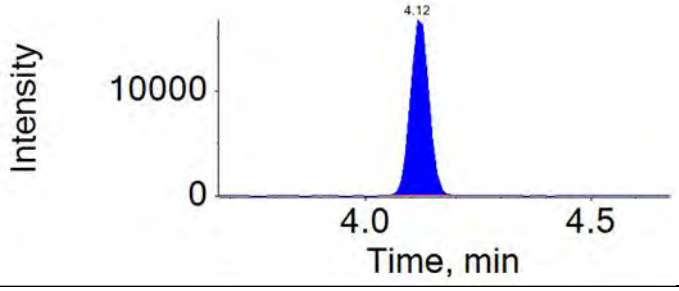
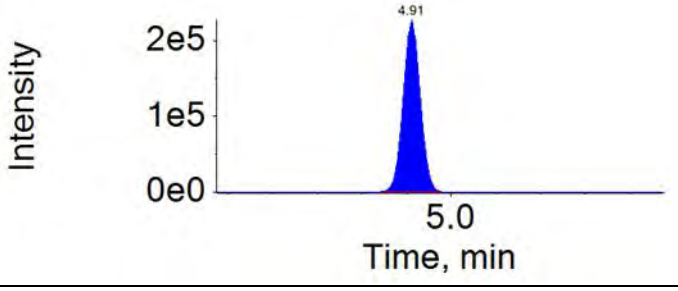
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

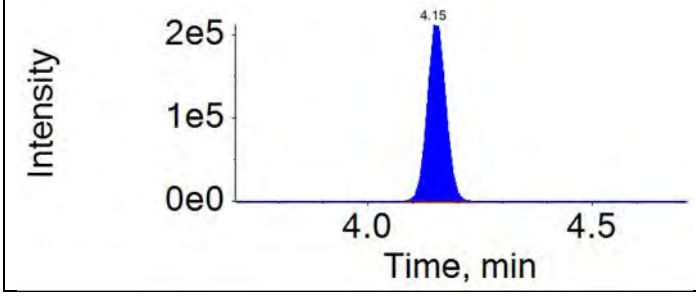
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

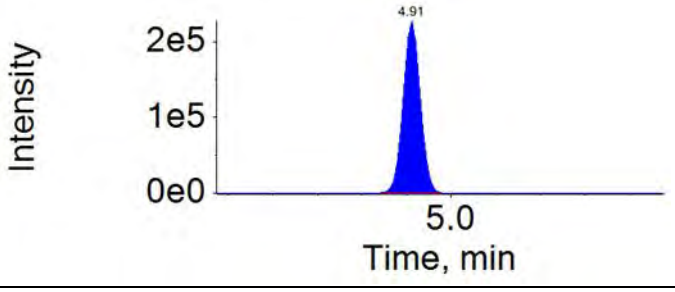
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

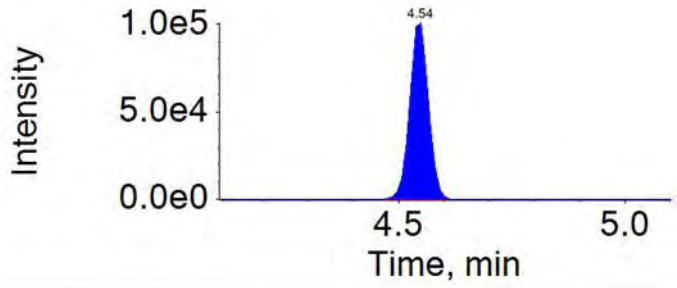
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

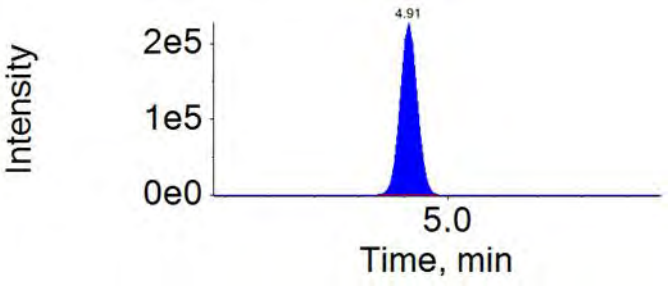
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



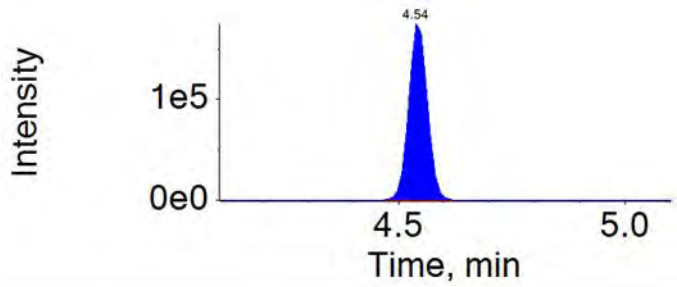


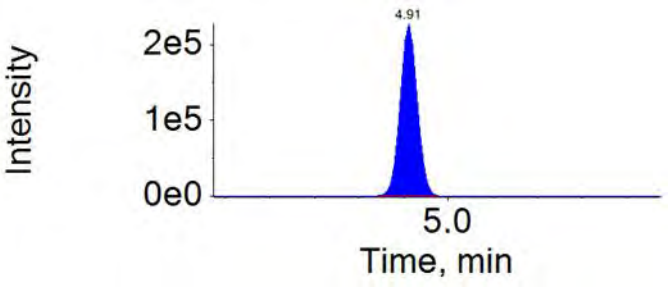
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



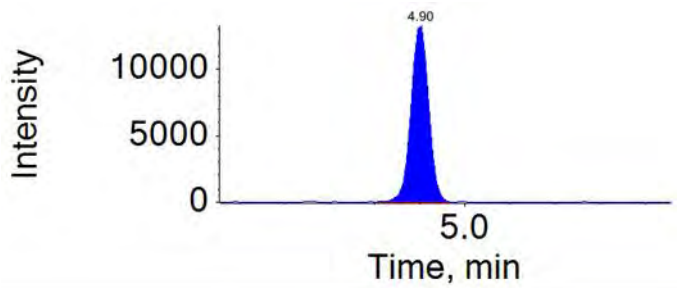


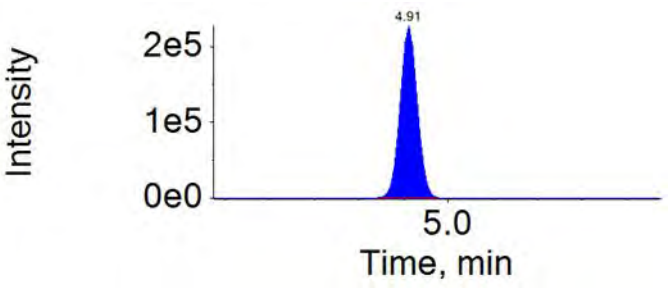
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

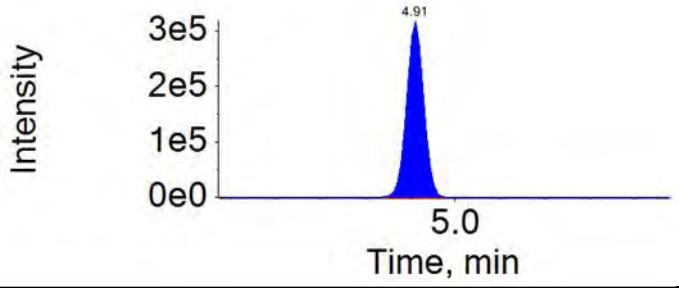
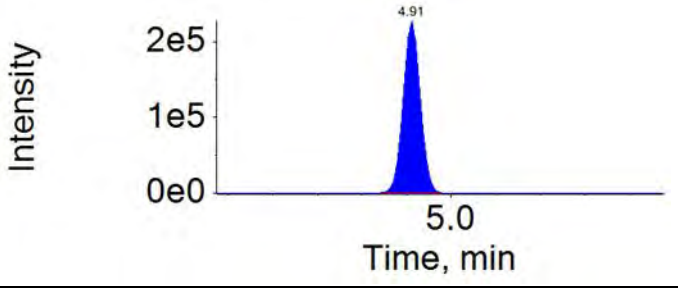


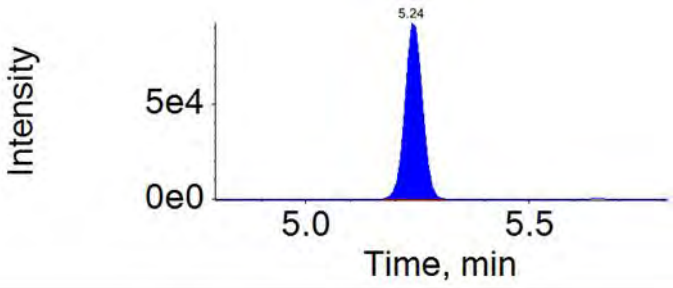
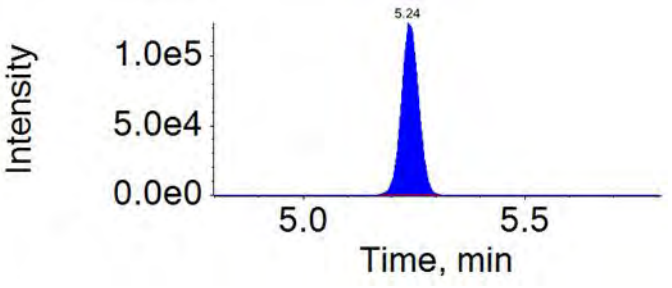


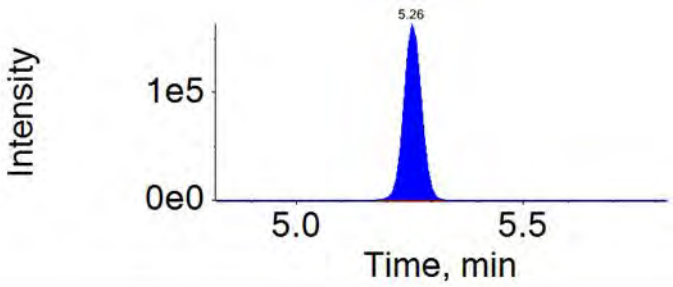
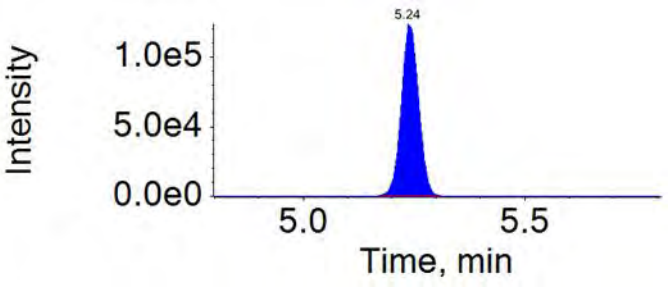
APPROVED
By JPT at 5:18 pm, 11/9/18

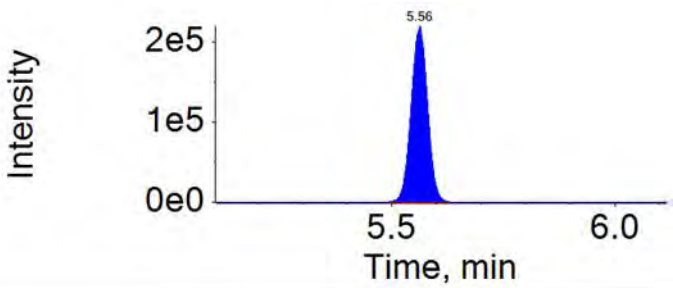
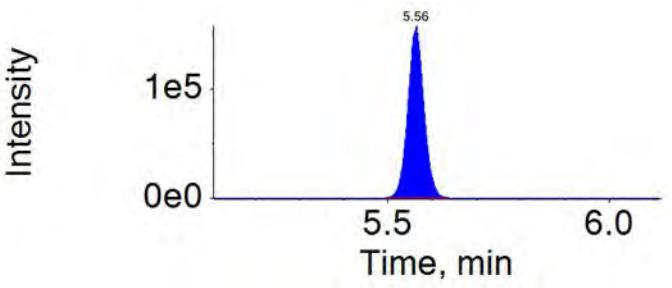
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

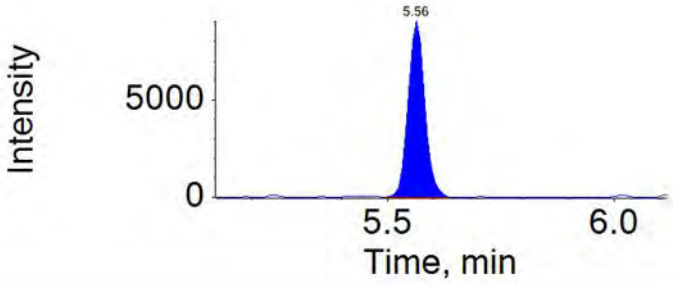
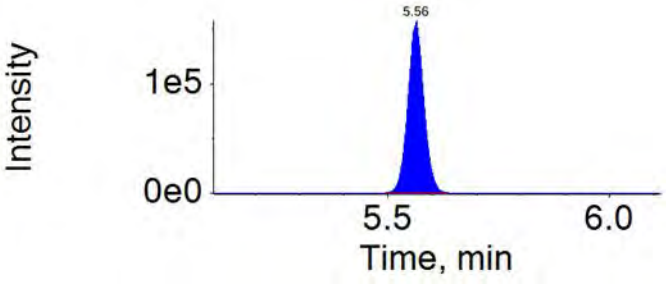
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

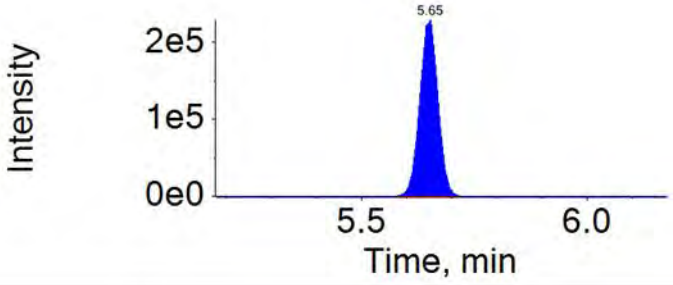
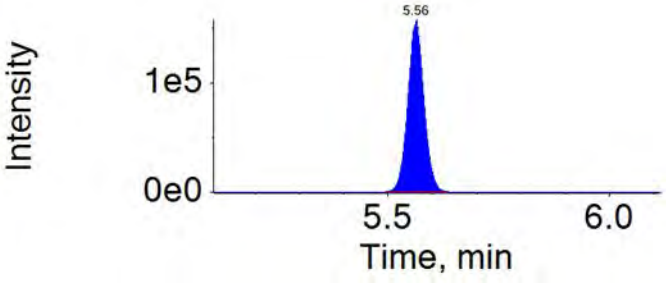
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

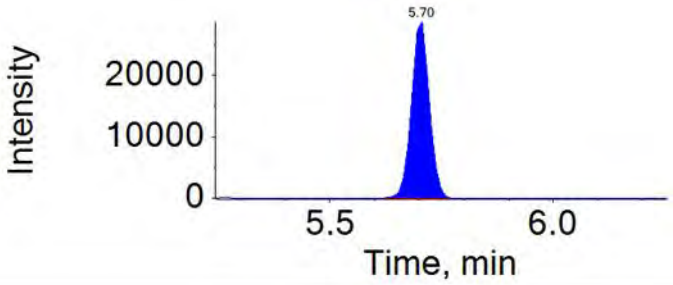
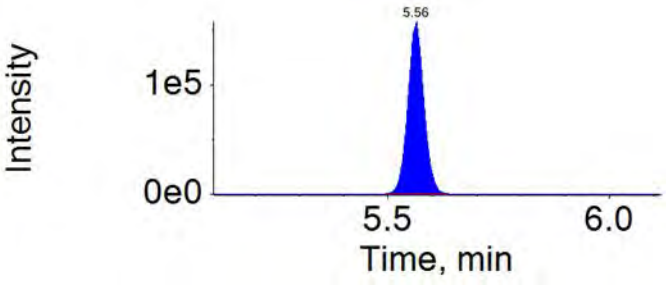
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

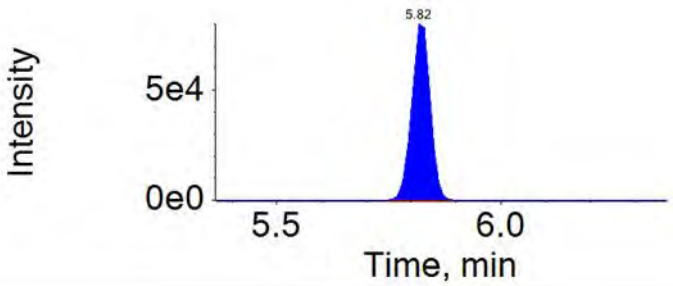
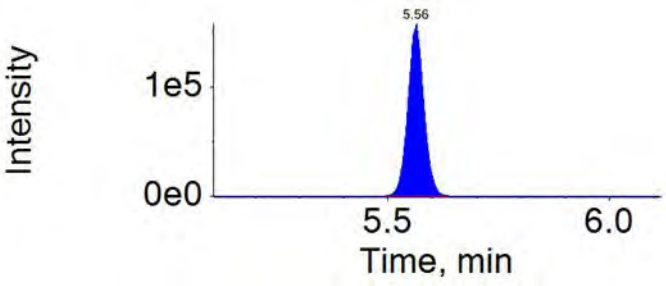
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

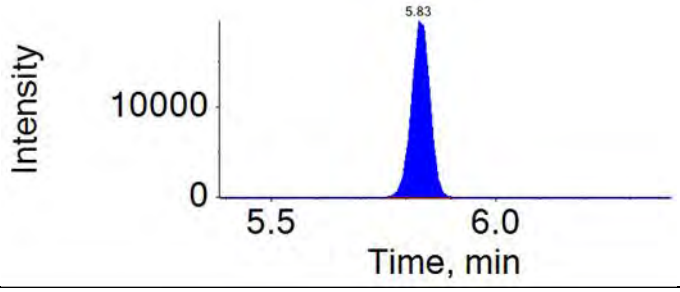
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

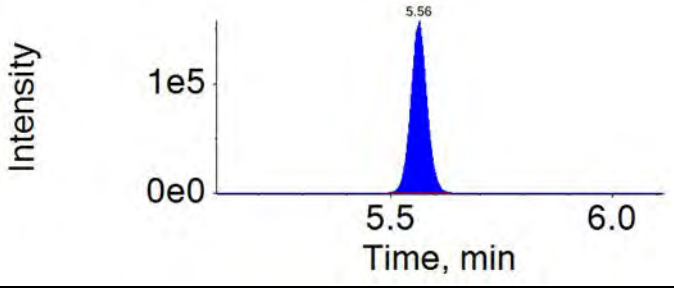
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

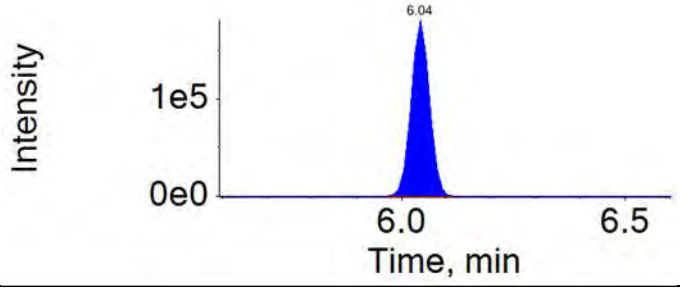
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

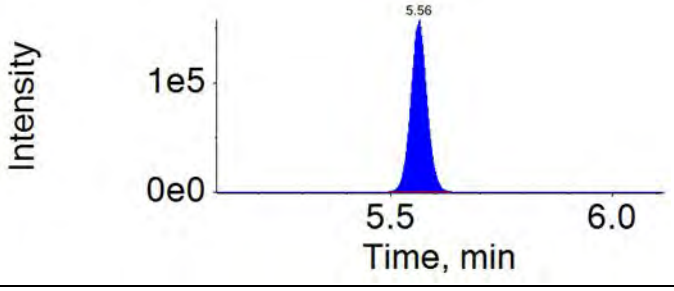
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



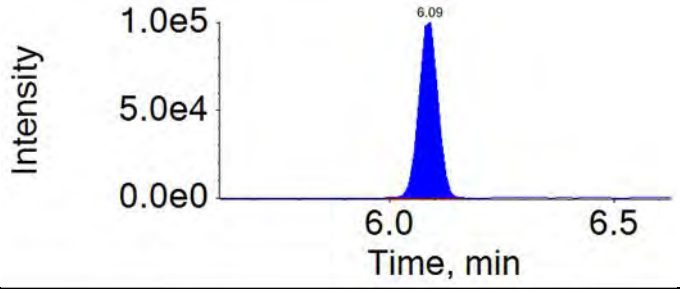


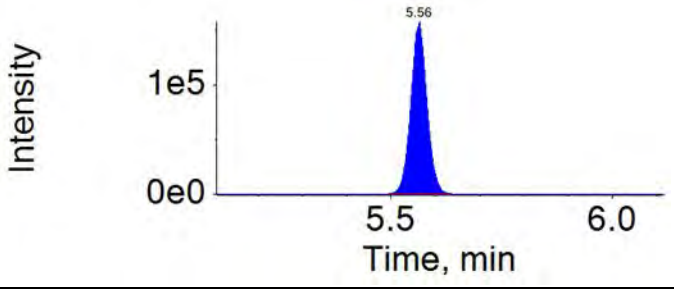
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



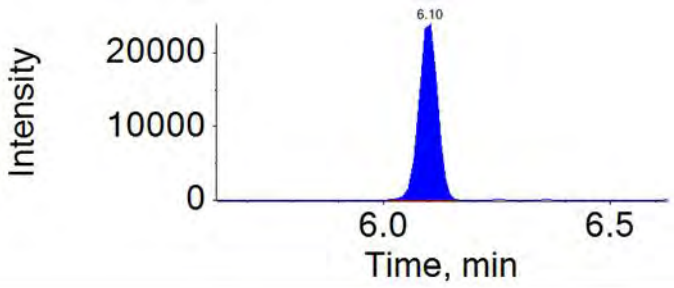


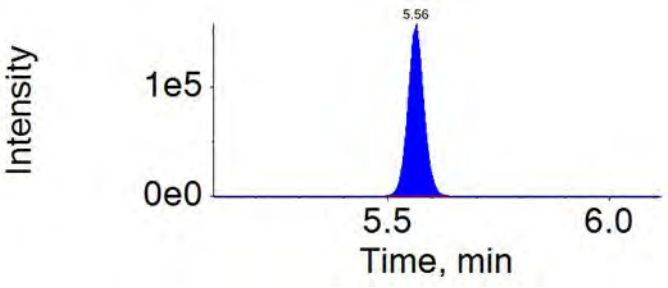
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



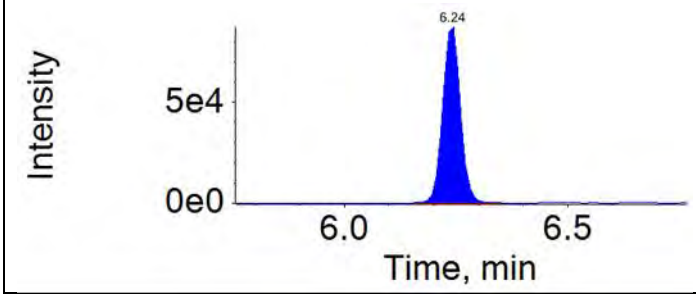


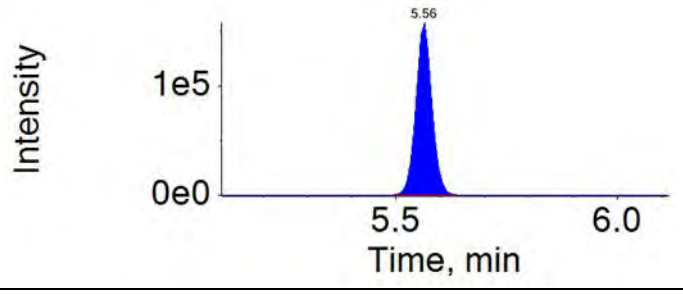
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

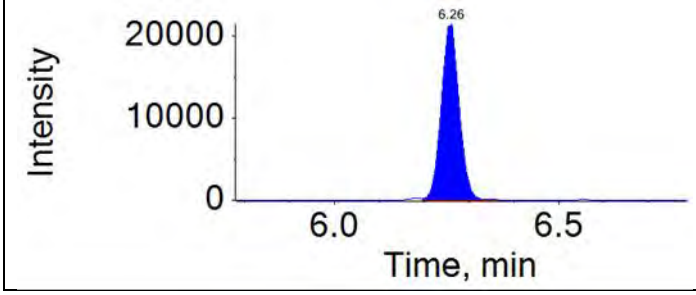
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

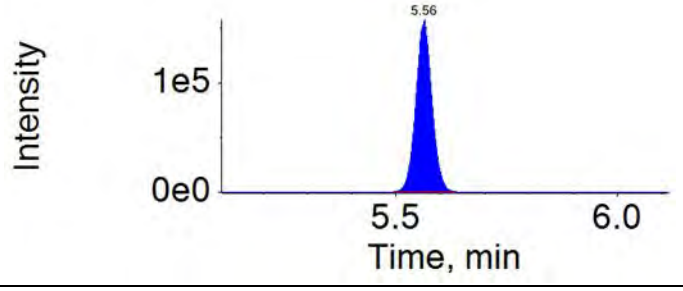
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



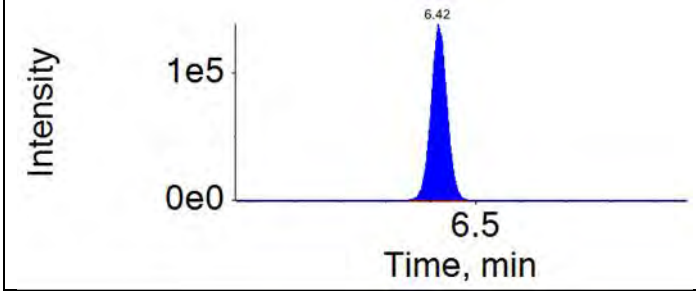


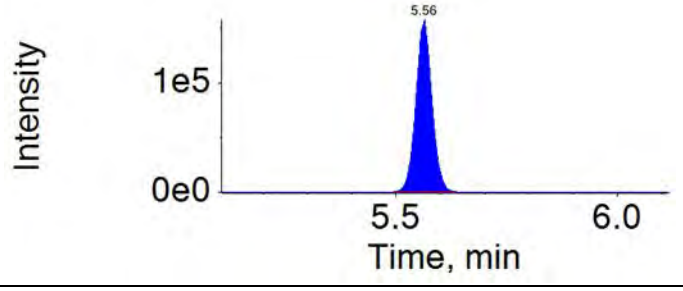
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



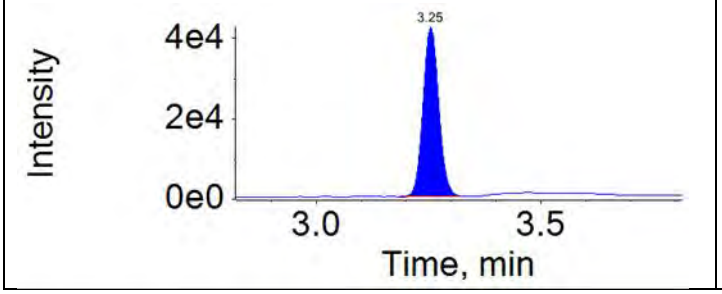


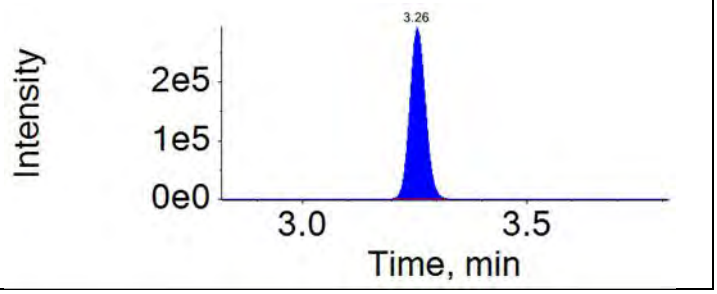
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

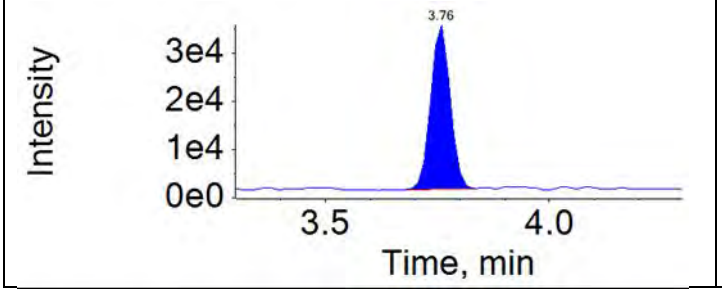
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

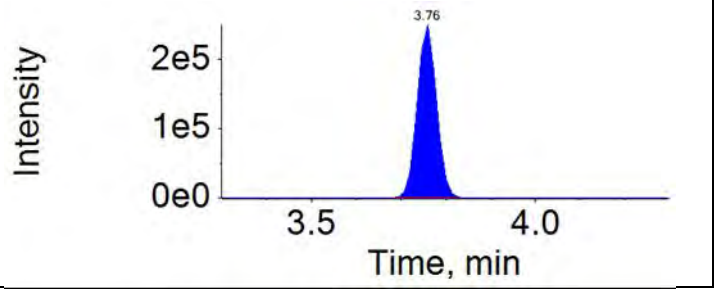
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



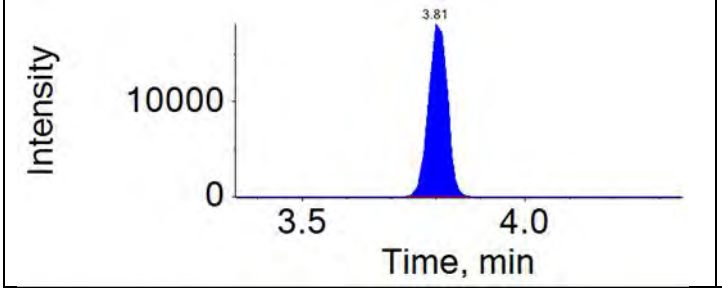


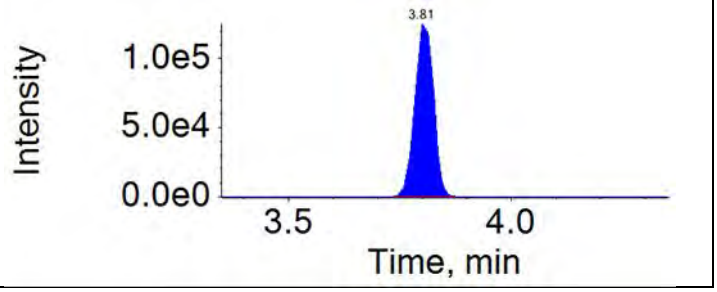
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



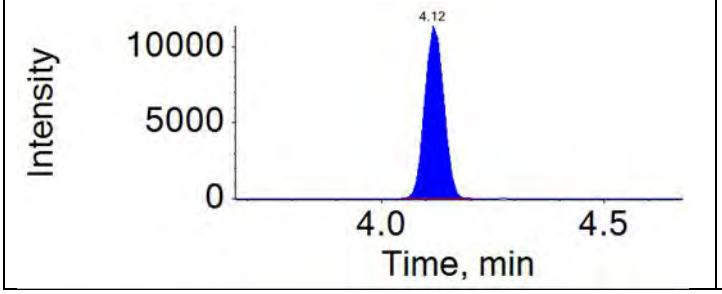


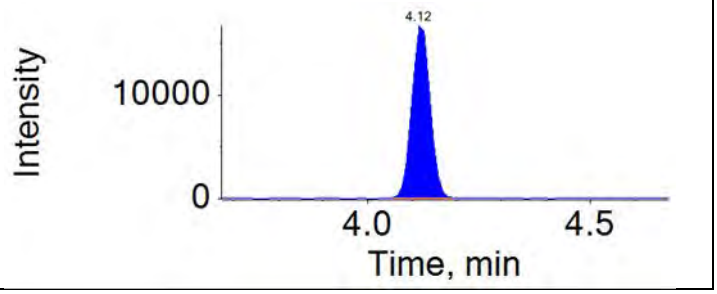
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



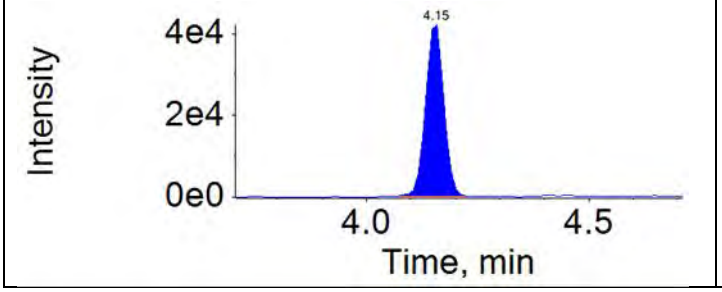


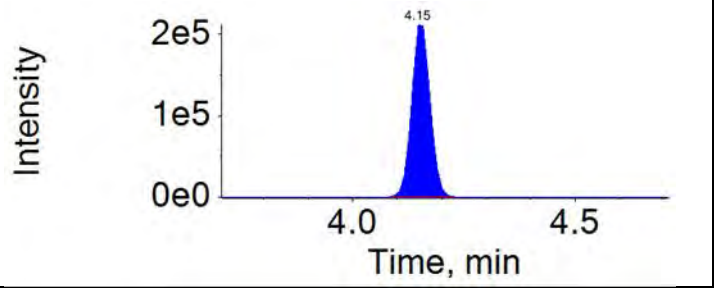
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

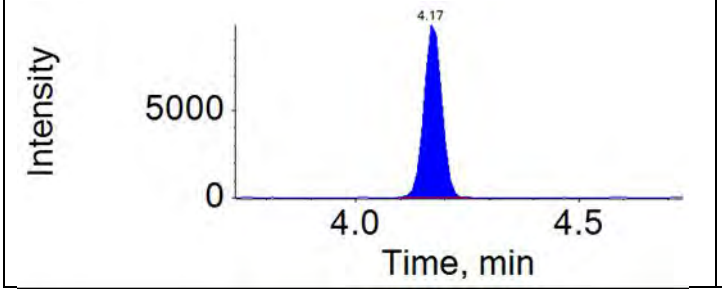
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

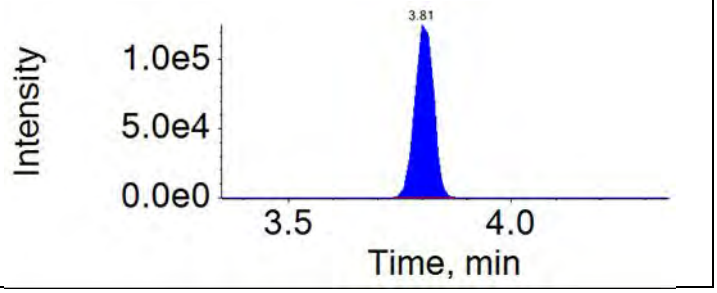
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



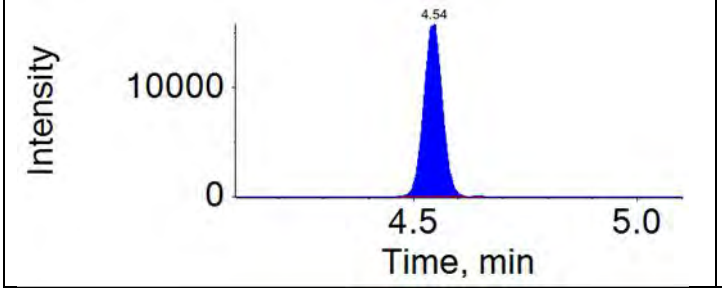


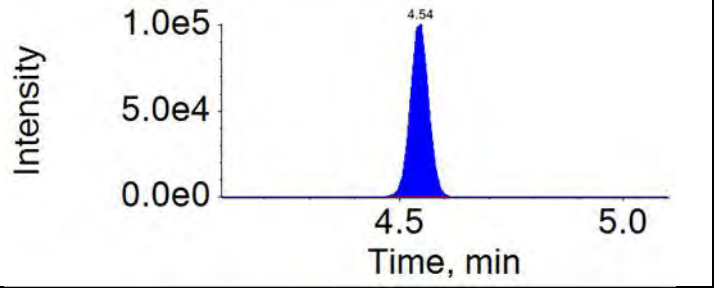
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



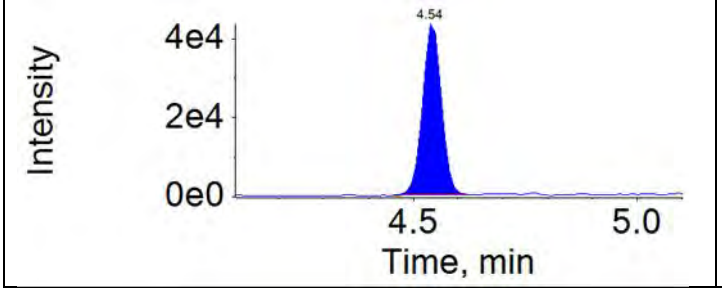


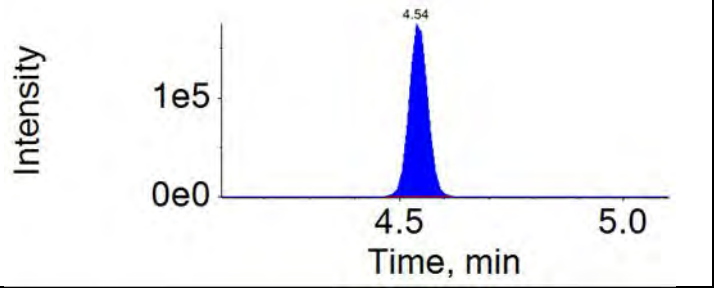
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

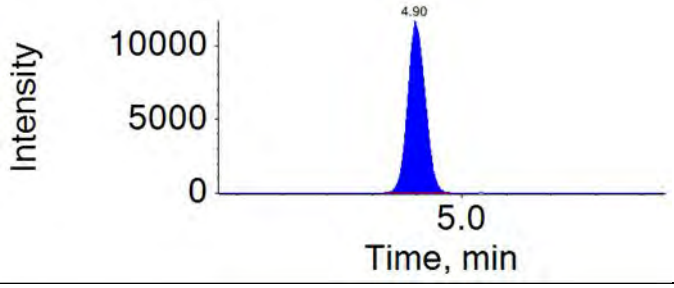
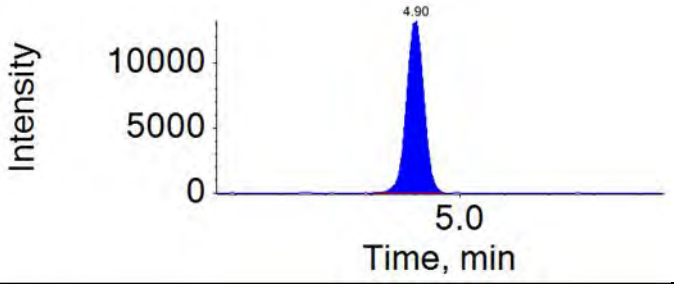


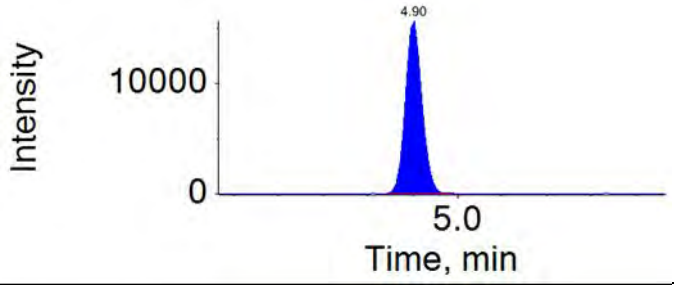
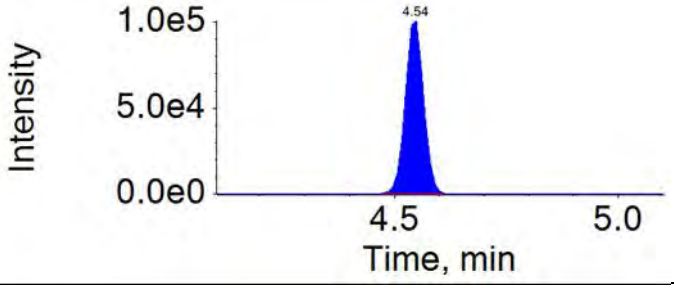


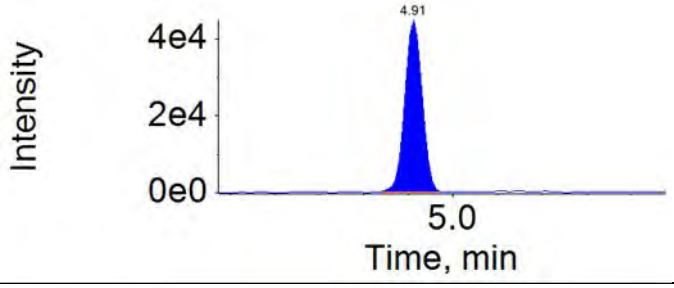
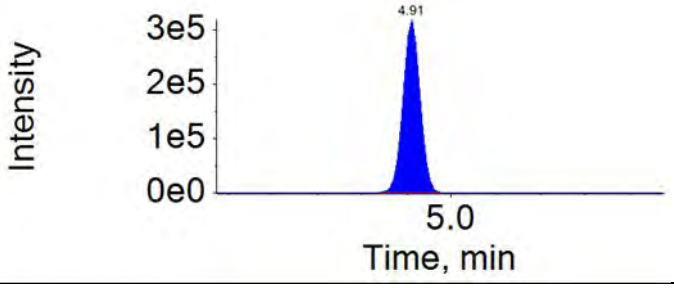
APPROVED
By JPT at 5:18 pm, 11/9/18

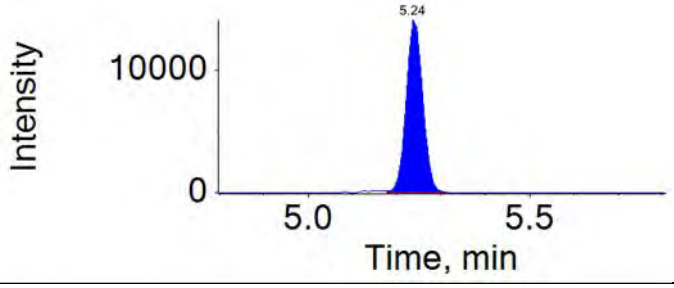
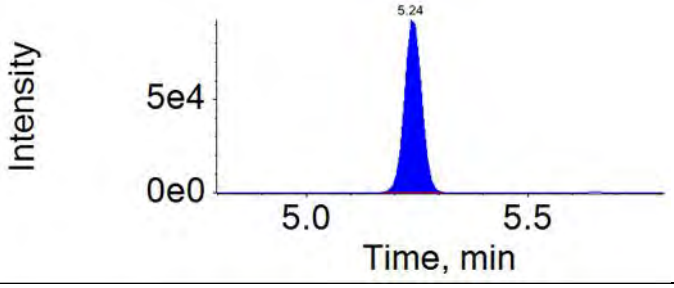
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

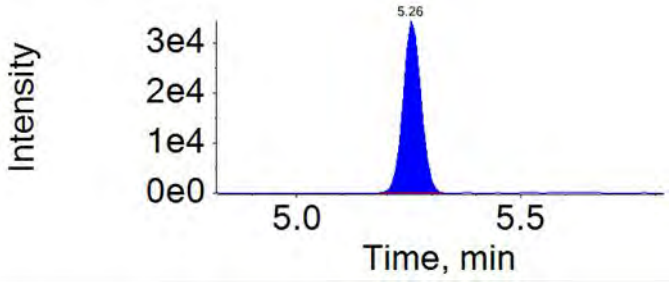
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

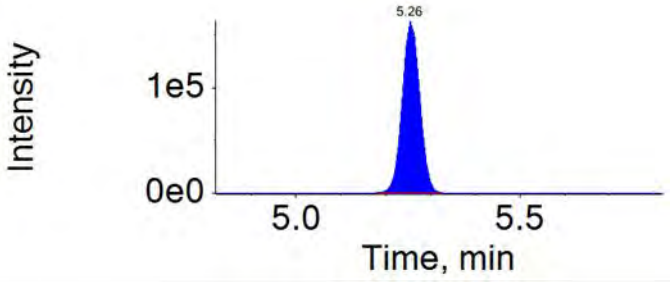
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

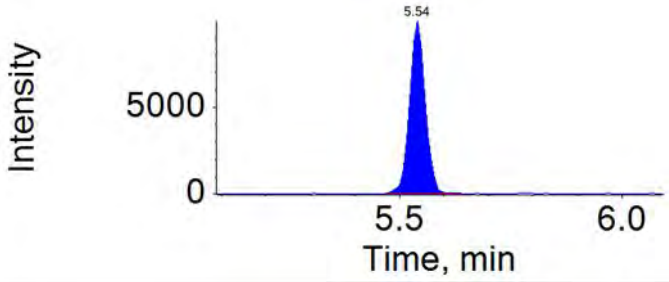
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

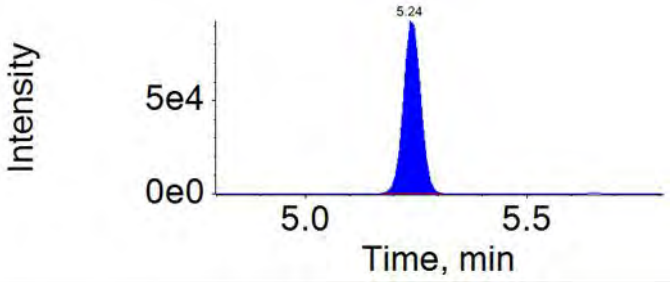
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



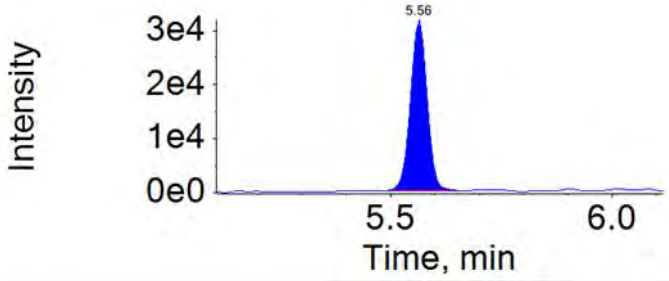


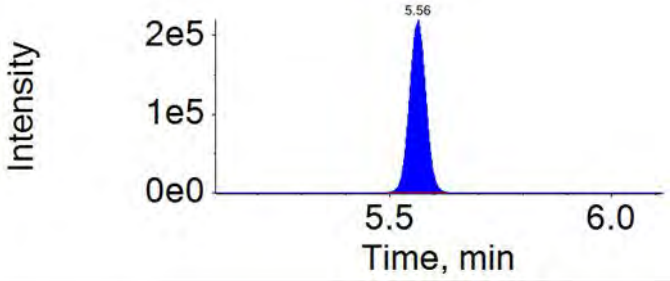
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



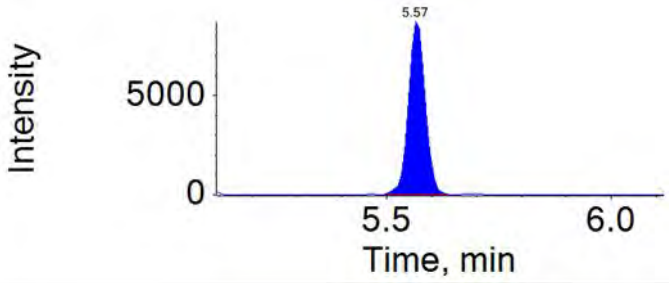


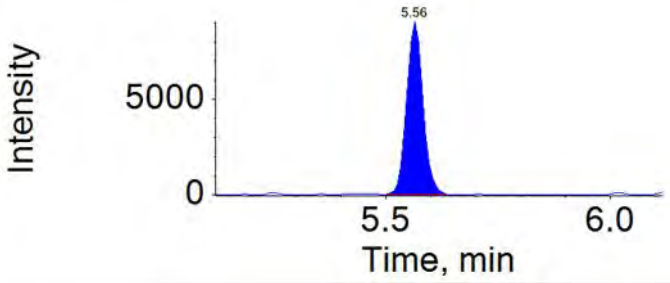
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



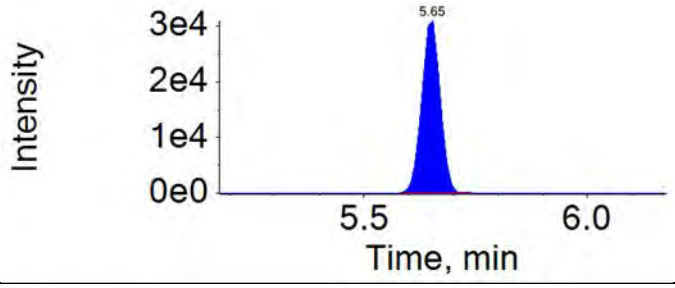


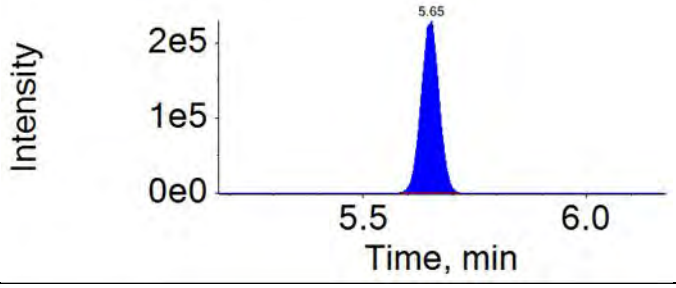
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

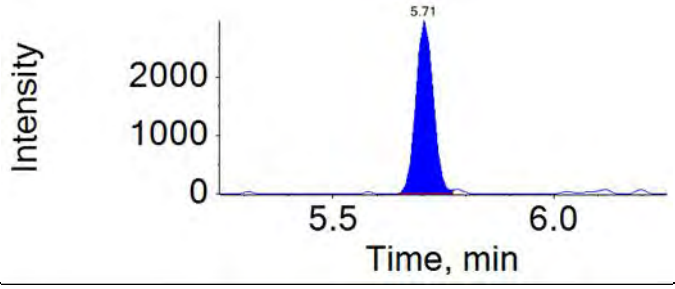
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

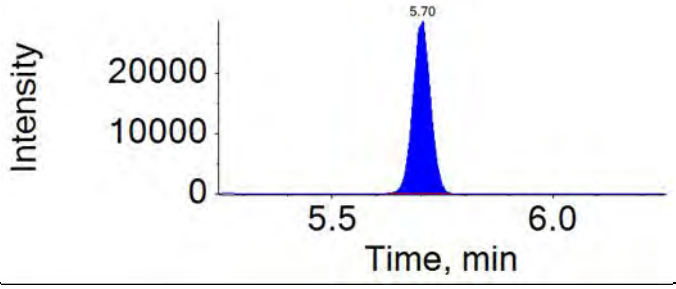
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



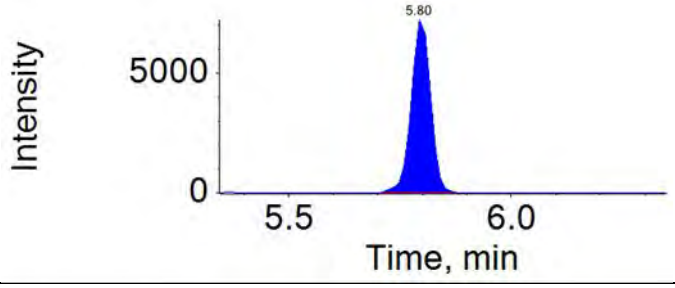


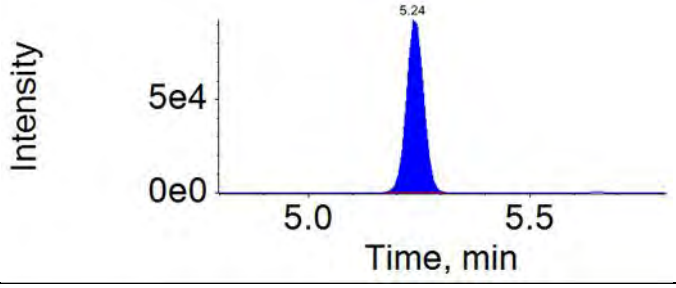
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



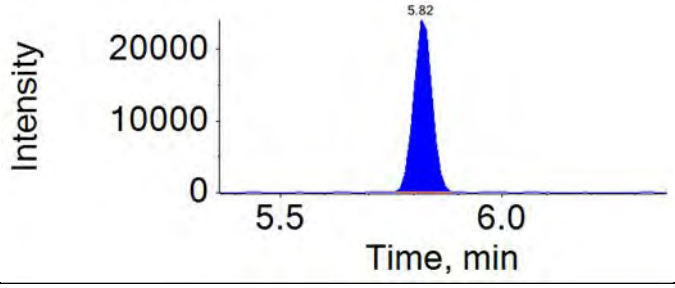


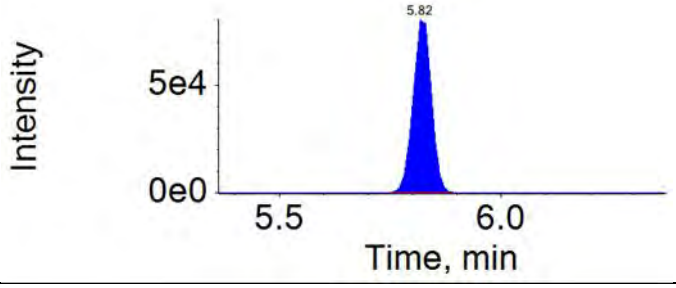
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

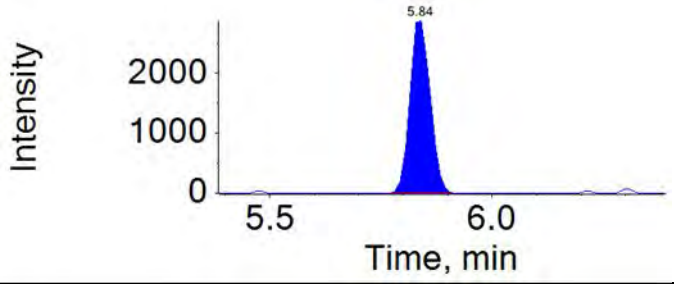
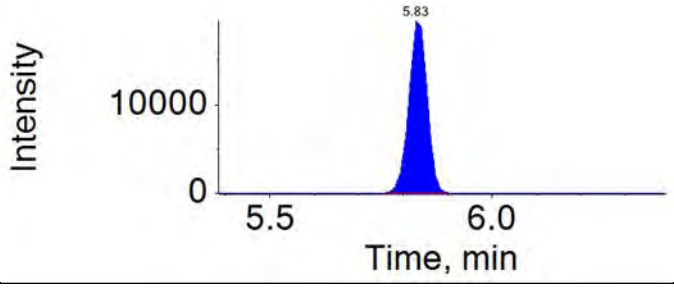


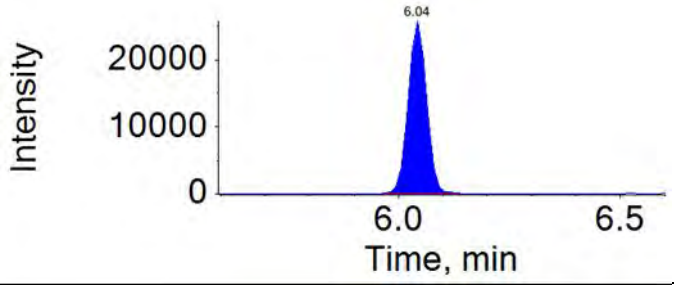
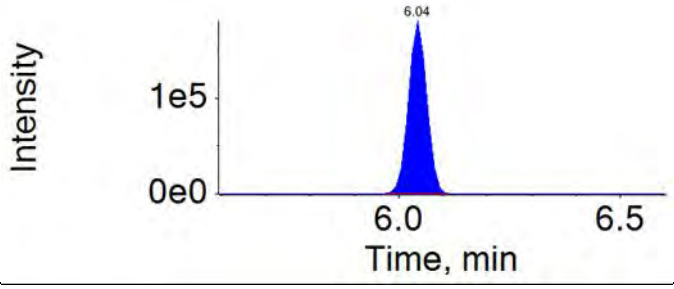


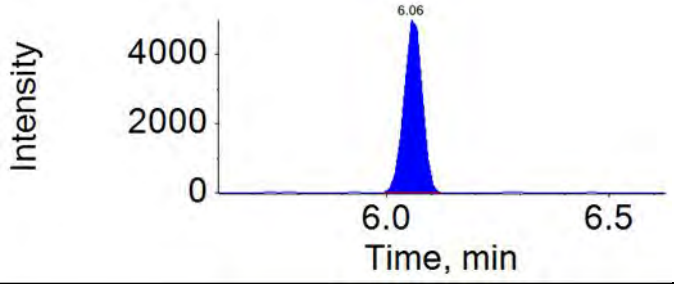
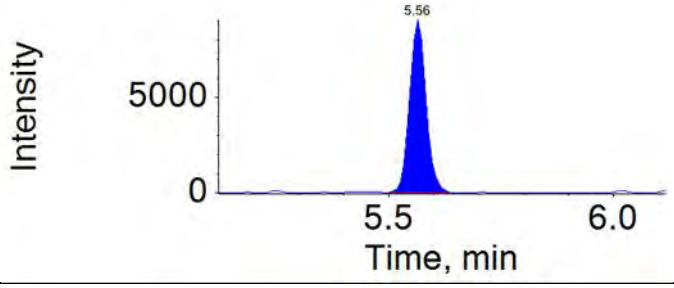
APPROVED
By JPT at 5:18 pm, 11/9/18

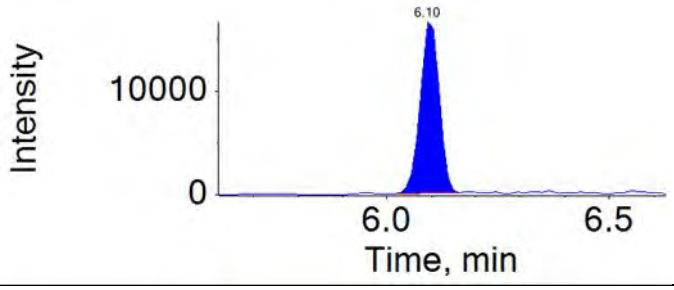
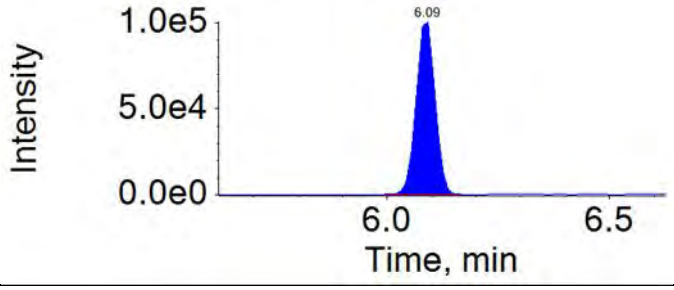
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

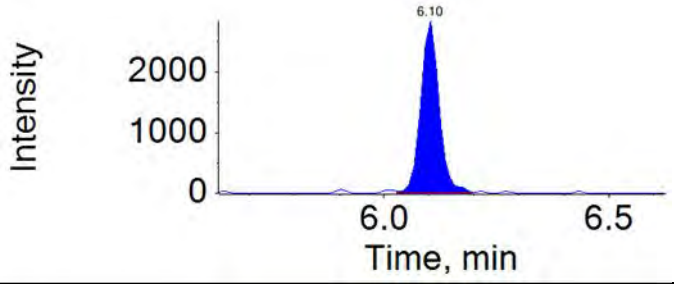
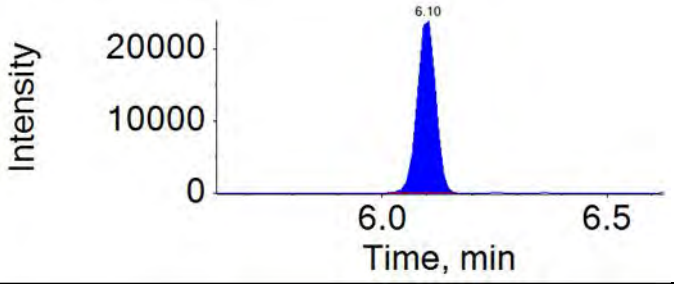
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

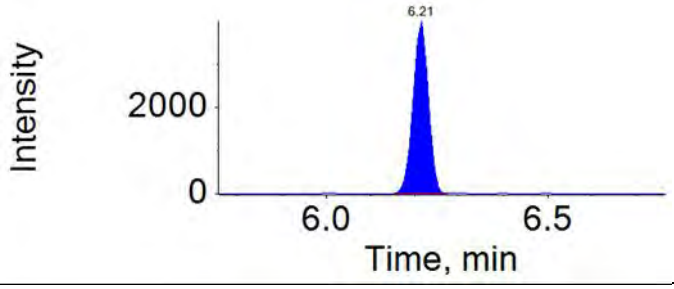
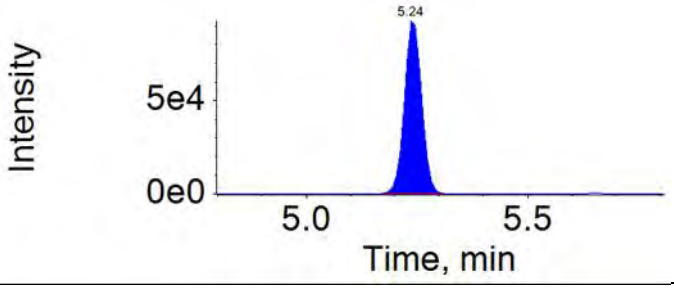
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

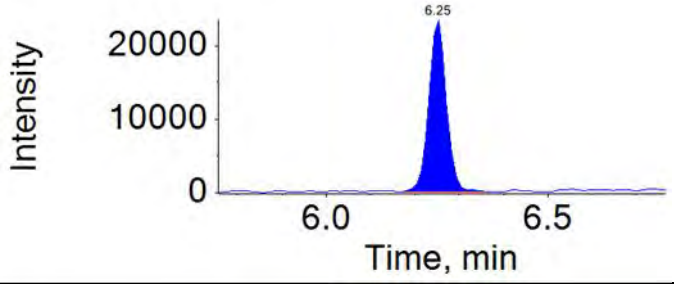
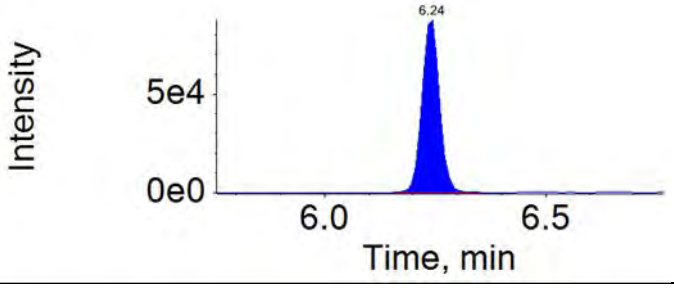
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

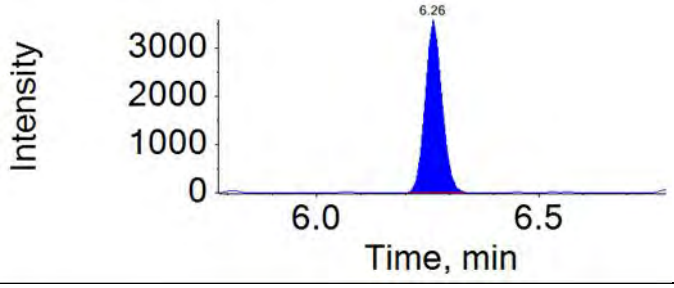
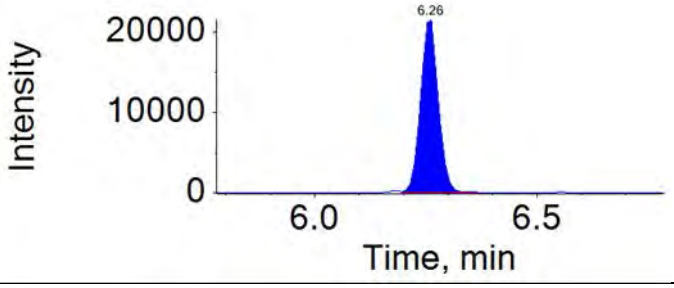
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0
	

Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0
	

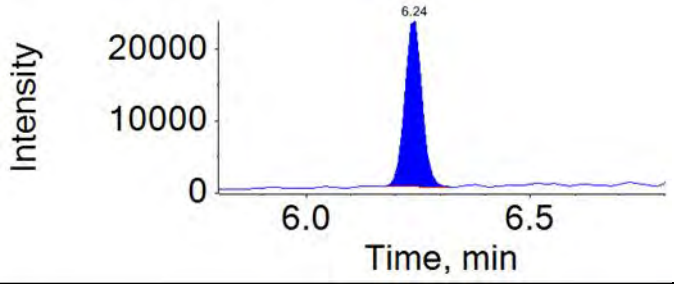
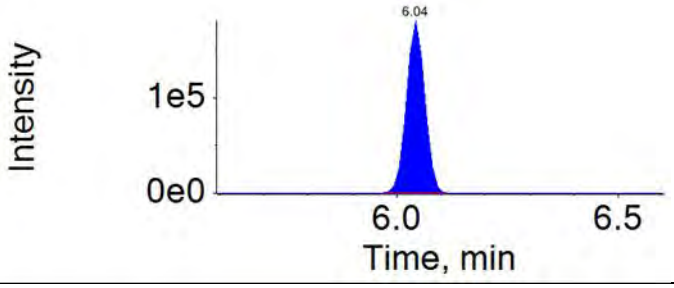
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0
	

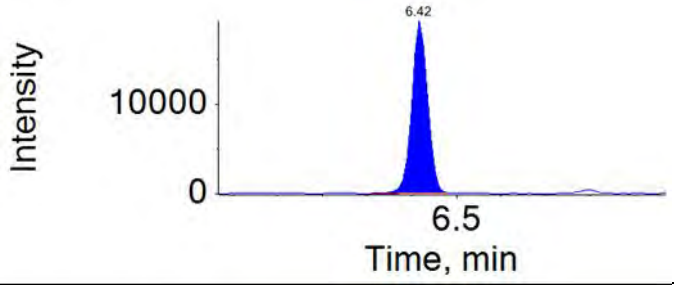
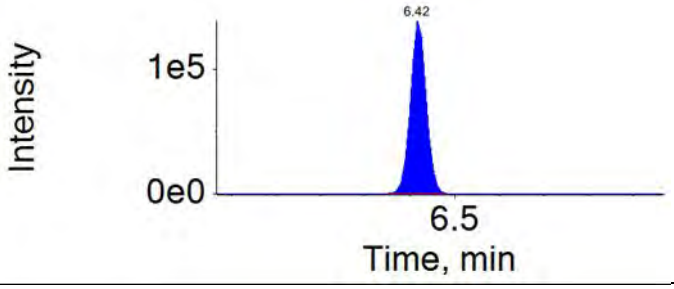
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0
	

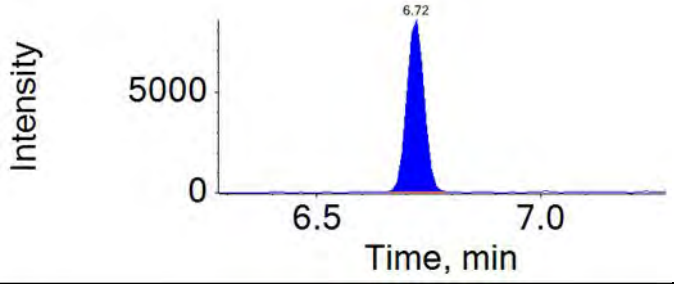
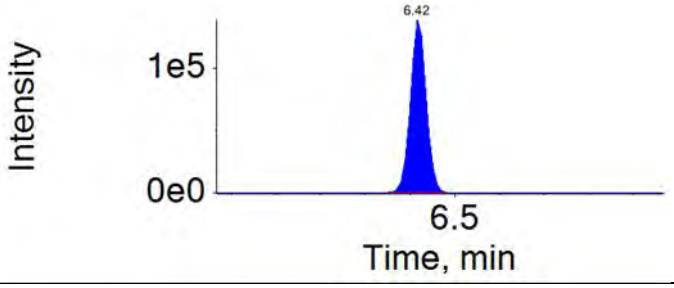
APPROVED
By JPT at 5:18 pm, 11/9/18

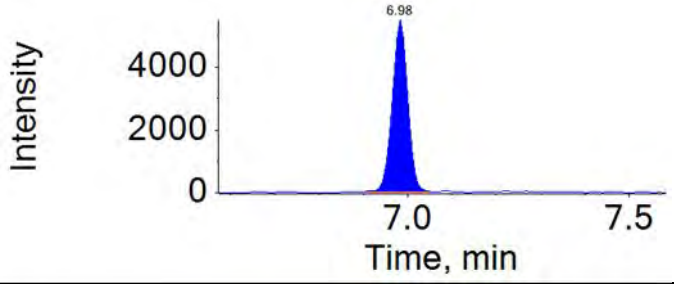
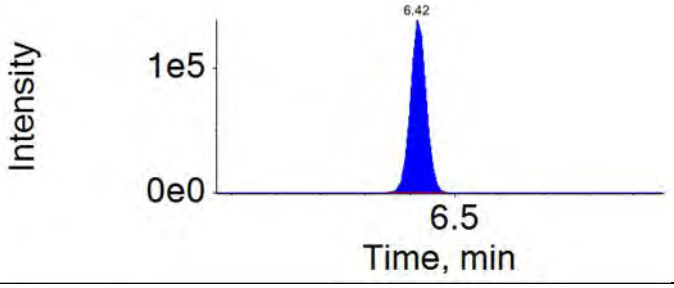
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

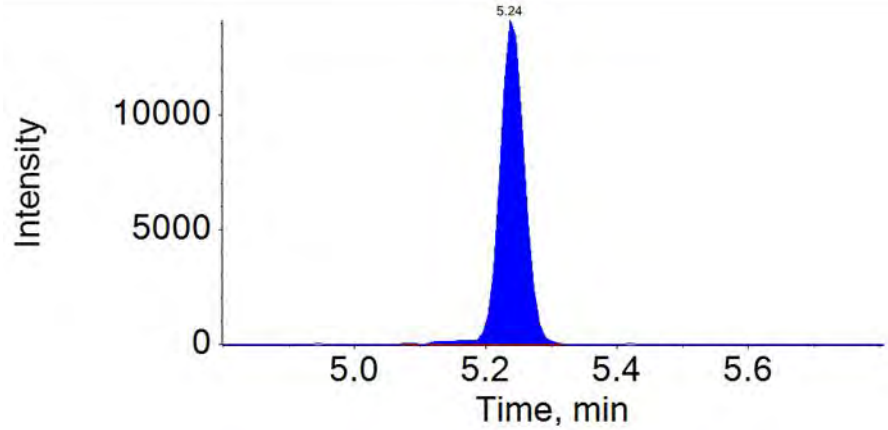
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

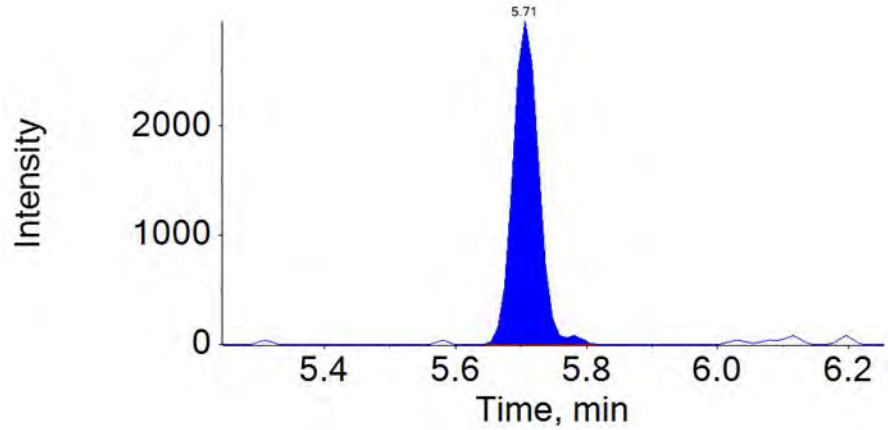
Results Table Name: 18311004
Results Table Date: 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
37201.4
Mass Range:
499.0 / 80.0
File Name:
18NOV08D-89.wiff
Sample Name:
LCS311004



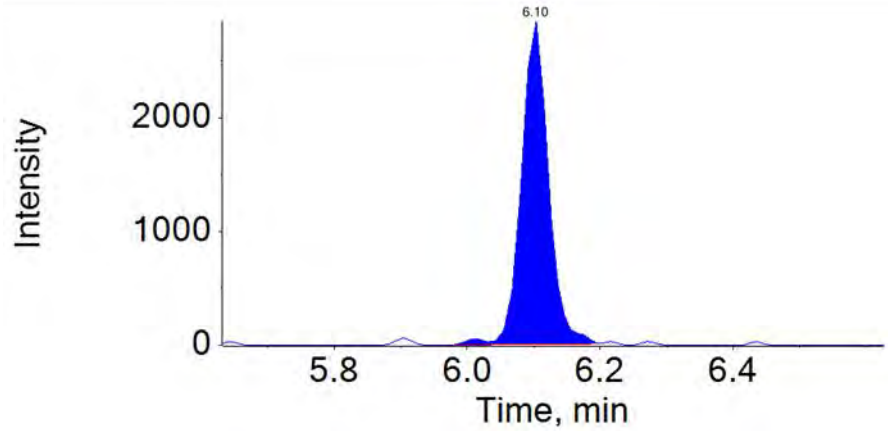
Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
8148.5
Mass Range:
570.0 / 419.0
File Name:
18NOV08D-89.wiff
Sample Name:
LCS311004



Integration Comment: incorrect integration

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
8074.2
Mass Range:
512.0 / 169.0
File Name:
18NOV08D-89.wiff
Sample Name:
LCS311004



Integration Comment: incorrect integration

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Results Table Name: 18311004
Results Table Date: 11/9/2018 4:24:53 PM

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

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Ion Ratio Report

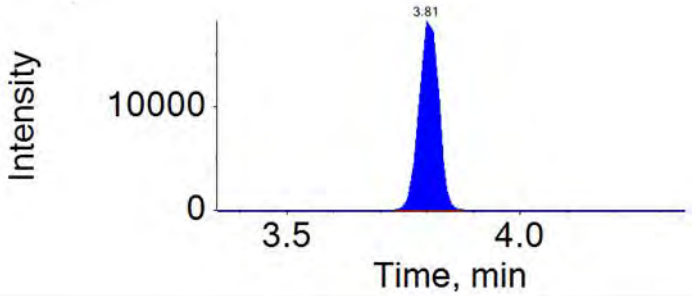
Sample Name: LCS311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-89.wiff

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	53410.9	A	N/A	1.0000			
PFBS_2	3.80	1.00	20485.4	A	N/A	0.3835	7	50	
4:2-FTS	4.12	1.00	33742.6	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	23759.2	A	N/A	0.7041	11	50	
PFHxA	4.15	1.00	120680.5	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1252.7	A	N/A	0.0104	-10	50	
PFPeS	4.17	1.10	27393.4	A	N/A	1.0000			
PFPeS_2	4.17	1.10	14860.9	A	N/A	0.5425	1	50	
PFHxS	4.54	1.00	46193.6	A	N/A	1.0000			
PFHxS_2	4.54	1.00	15449.0	A	N/A	0.3344	-6	50	
PFHpA	4.54	1.00	126951.4	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6448.2	A	N/A	0.0508	-12	50	
6:2-FTS	4.90	1.00	31393.1	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	18704.9	A	N/A	0.5958	-12	50	
PFHpS	4.90	1.08	40276.5	A	N/A	1.0000			
PFHpS_2	4.90	1.08	16829.2	A	N/A	0.4178	6	50	
PFOA	4.91	1.00	120216.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	5578.8	A	N/A	0.0464	-27	50	
PFOS	5.24	1.00	36585.5	M	N/A	1.0000			
PFOS_2	5.24	1.00	14567.7	A	N/A	0.3982	14	50	
PFNA	5.26	1.00	95446.4	A	N/A	1.0000			
PFNA_2	5.25	1.00	1916.1	A	N/A	0.0201	-3	50	
PFNS	5.54	1.06	24310.9	A	N/A	1.0000			
PFNS_2	5.54	1.06	12423.6	A	N/A	0.5110	5	50	
PFDA	5.56	1.00	82291.8	A	N/A	1.0000			
PFDA_2	5.56	1.00	465.0	A	N/A	0.0057	0	50	
8:2-FTS	5.57	1.00	22496.8	A	N/A	1.0000			
8:2-FTS_2	5.56	1.00	13628.5	A	N/A	0.6058	-2	50	
NMeFOSAA	5.71	1.00	8023.1	M	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2646.7	A	N/A	0.3299	50	50	
PFDS	5.80	1.11	21977.8	A	N/A	1.0000			
PFDS_2	5.79	1.11	8736.0	A	N/A	0.3975	-14	50	
PFUnDA	5.82	1.00	69235.5	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	140.0	A	N/A	0.0020	-36	50	
NEtFOSAA	5.84	1.00	9098.1	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	5814.7	A	N/A	0.6391	5	50	
PFDoDA	6.04	1.00	74292.6	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	1066.3	A	N/A	0.0144	31	50	
10:2-FTS	6.06	1.09	14347.7	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	10279.5	A	N/A	0.7165	1	50	
PFTrDA	6.24	1.03	61292.4	A	N/A	1.0000			
PFTrDA_2	6.26	1.04	170.2	A	N/A	0.0028	-71	50	OOS
PFTeDA	6.42	1.00	47159.9	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	236.5	A	N/A	0.0050	-9	50	
PFHxDA	6.72	1.05	22665.7	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1176.2	A	N/A	0.0519	-13	50	
PFODA	6.98	1.09	13228.2	A	N/A	1.0000			
PFODA_2	6.98	1.09	381.3	A	N/A	0.0288	12	50	

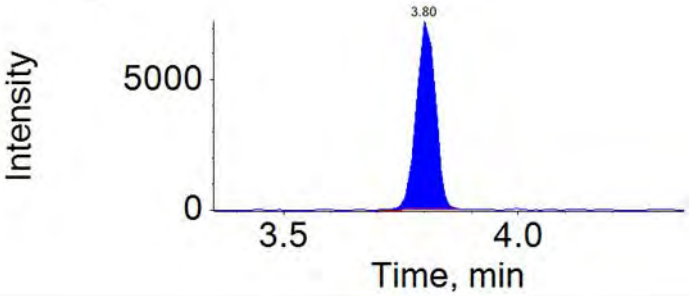
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

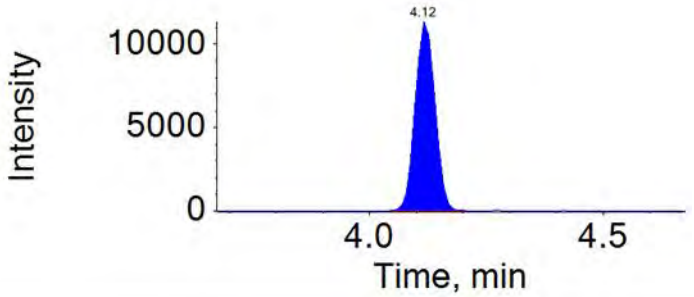
Component: PFBS
Primary Mass: 299.0 / 80.0



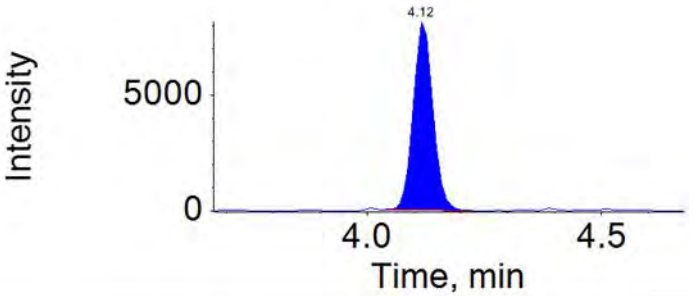
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



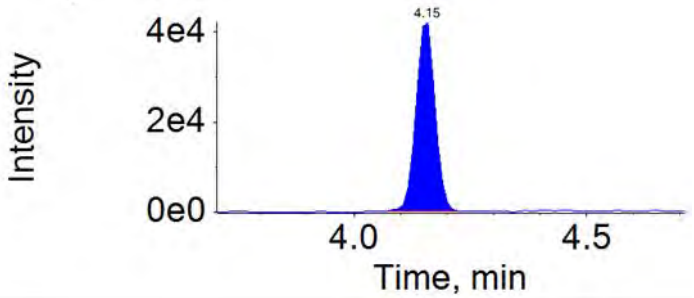
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



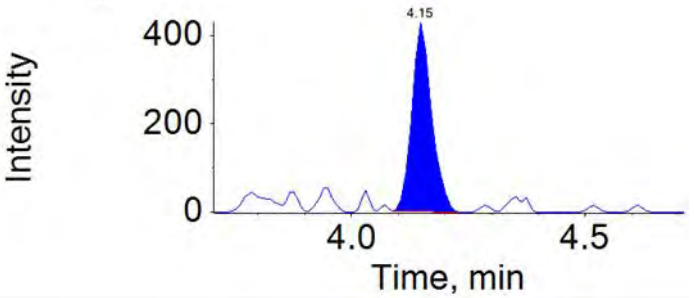
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



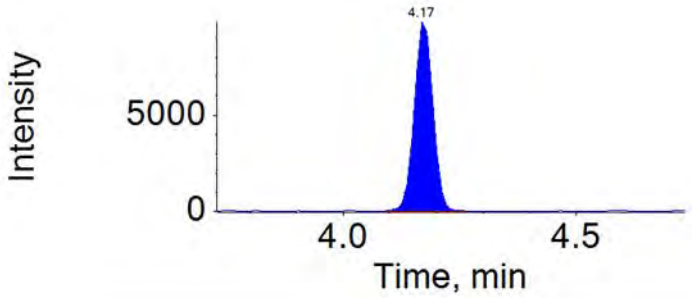
Component: PFHxA
Primary Mass: 313.0 / 269.0



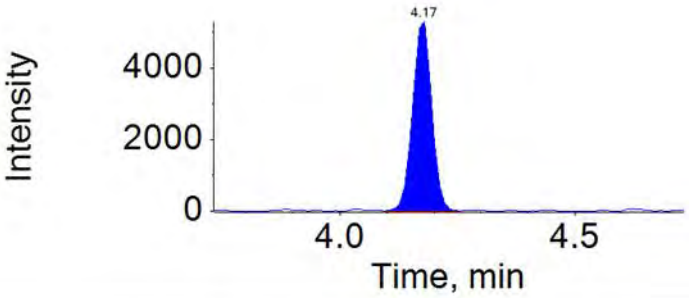
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



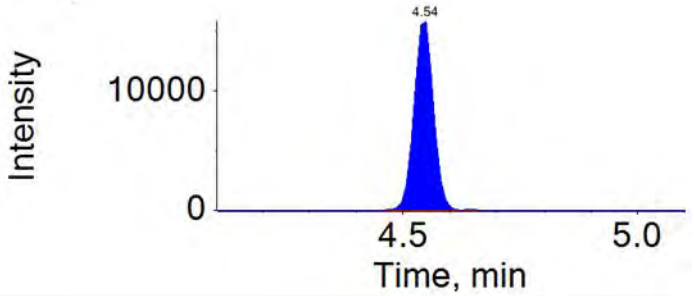
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



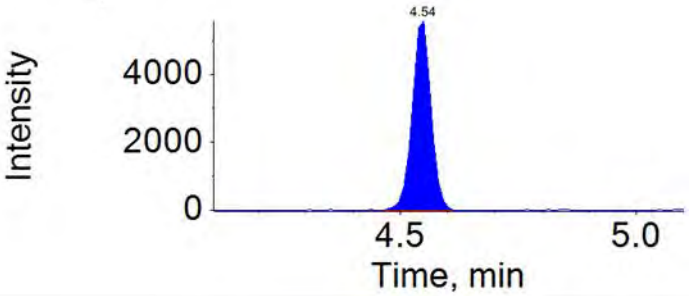
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

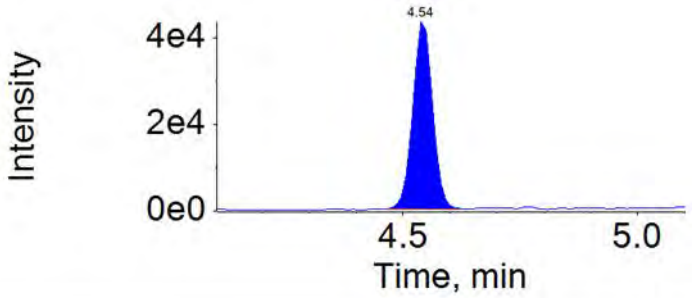
Component: PFHxS
Primary Mass: 399.0 / 80.0



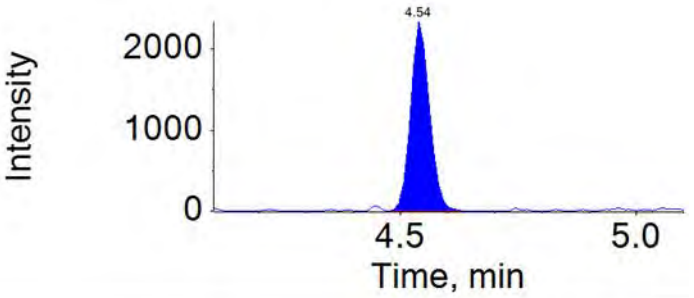
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



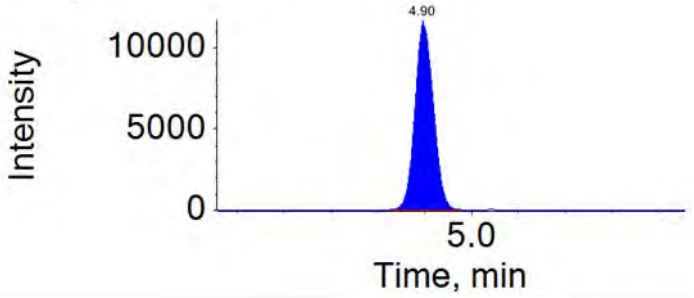
Component: PFHpA
Primary Mass: 363.0 / 319.0



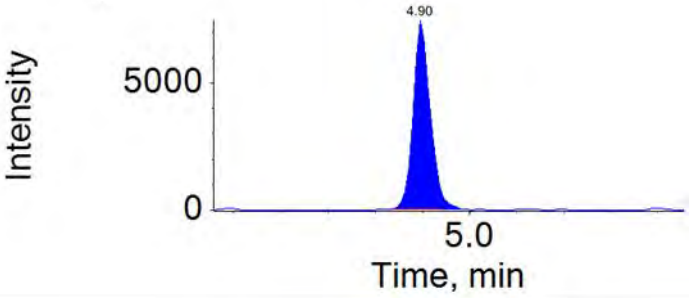
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



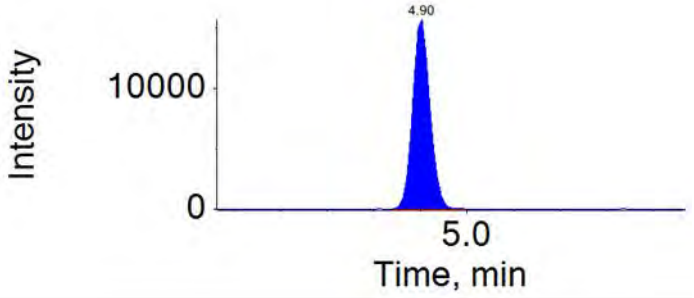
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



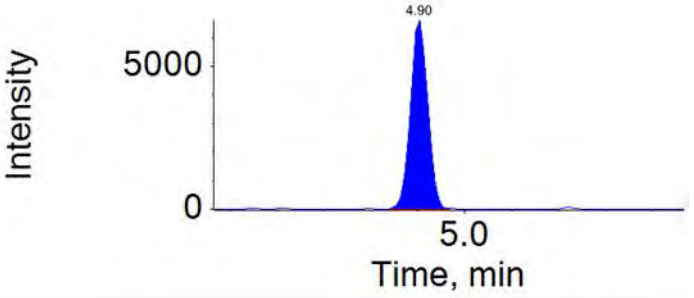
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



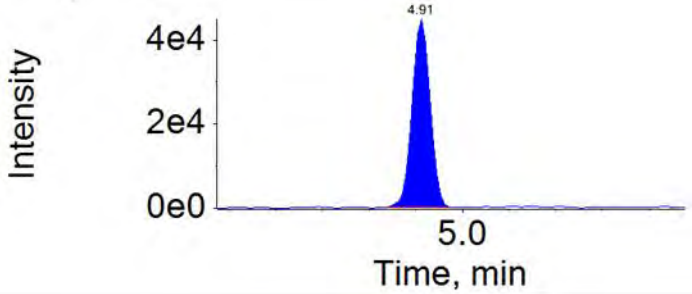
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



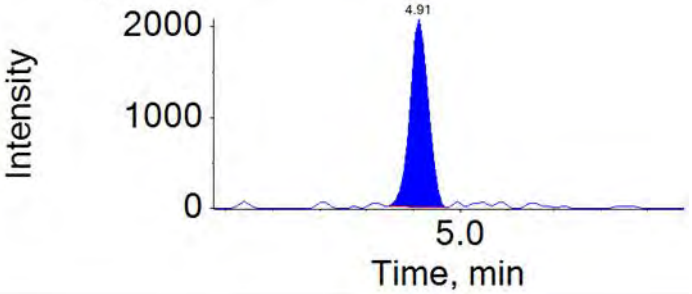
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

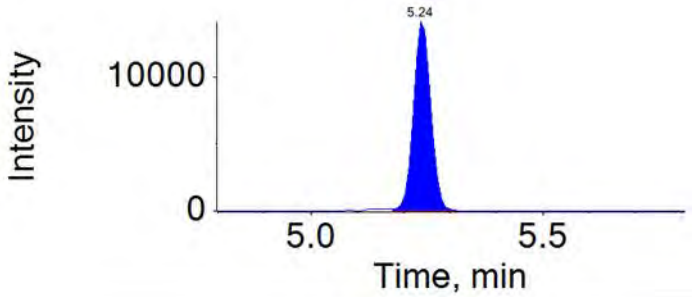
Component: PFOA
Primary Mass: 413.0 / 369.0



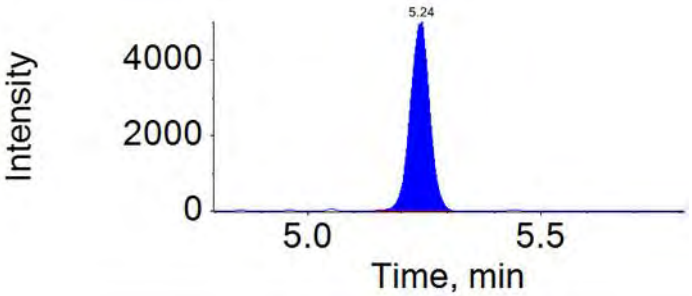
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



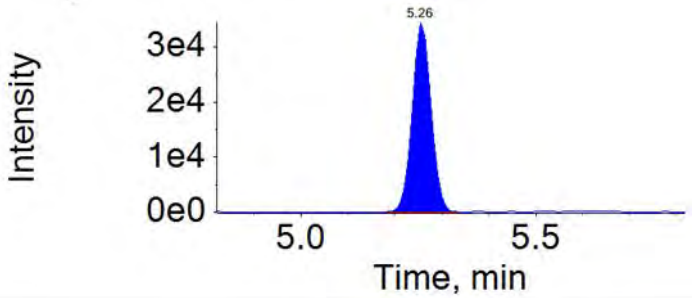
Component: PFOS
Primary Mass: 499.0 / 80.0



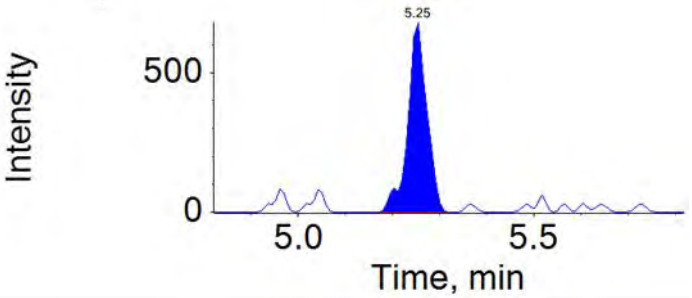
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



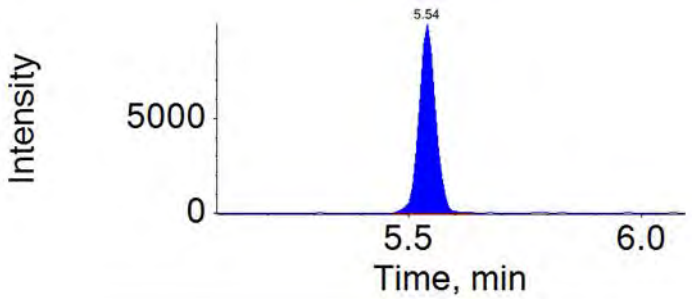
Component: PFNA
Primary Mass: 463.0 / 419.0



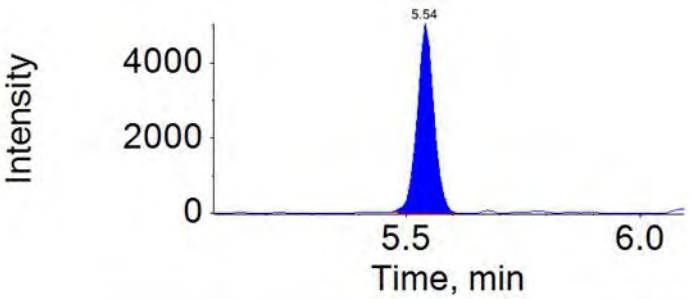
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



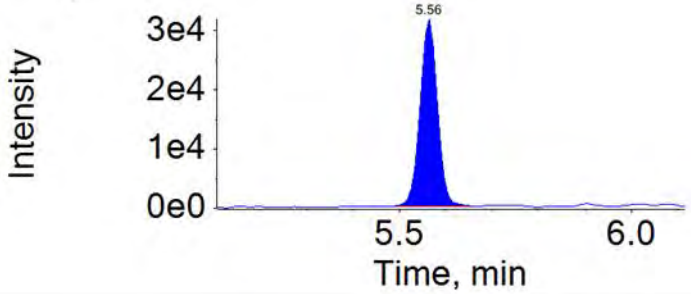
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



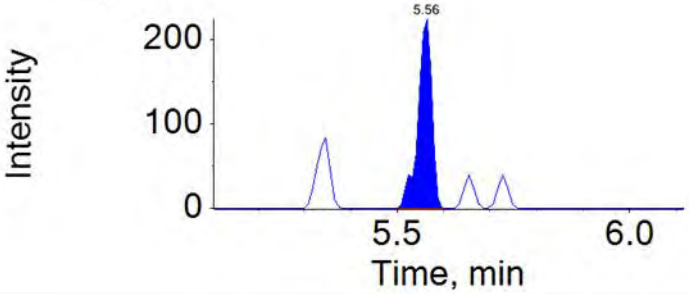
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

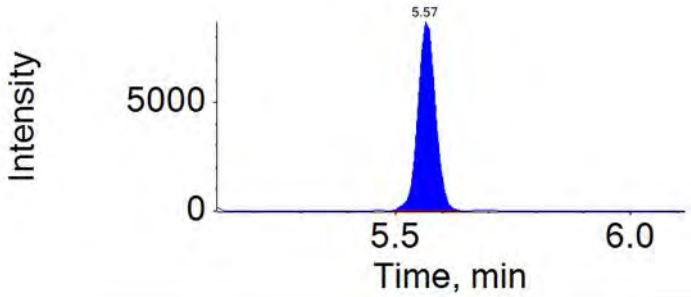
Component: PFDA
Primary Mass: 513.0 / 469.0



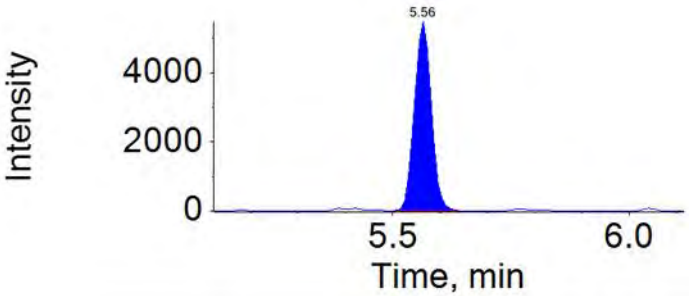
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



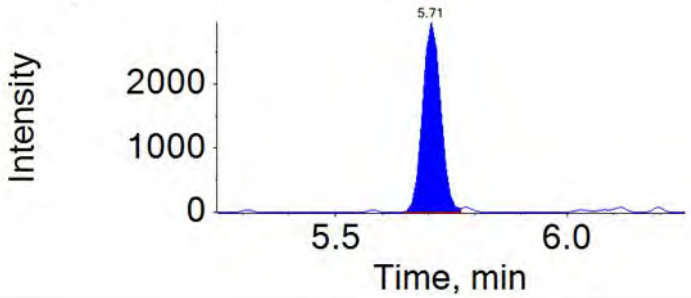
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



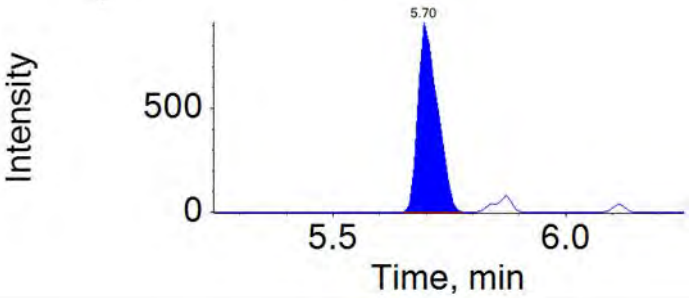
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



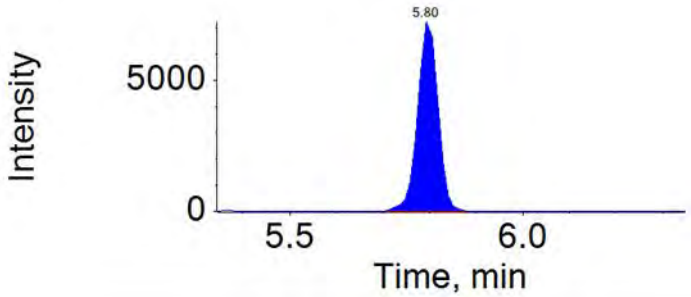
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



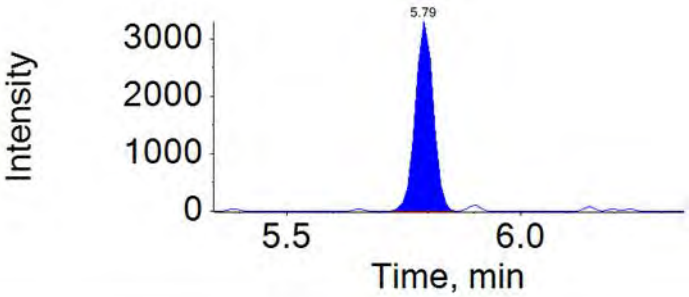
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



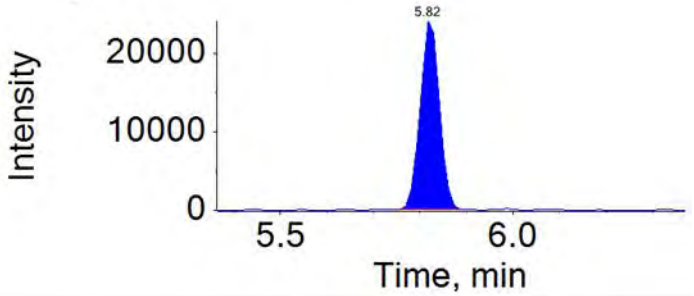
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



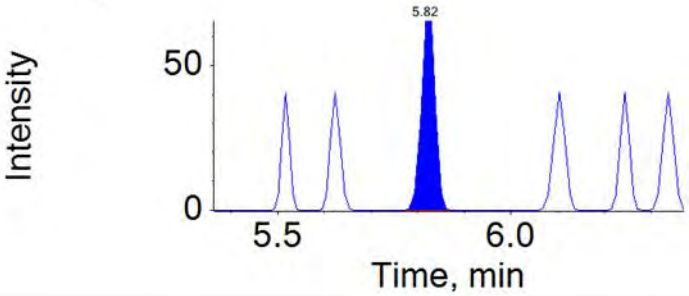
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

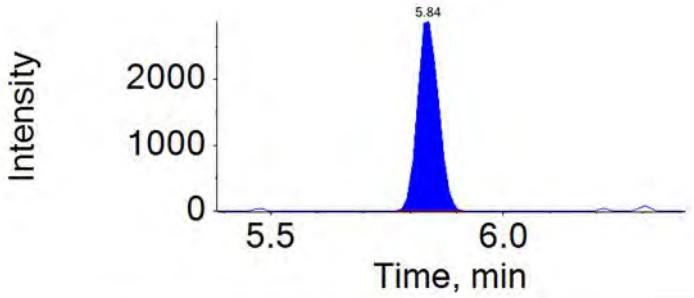
Component: PFUnDA
Primary Mass: 563.0 / 519.0



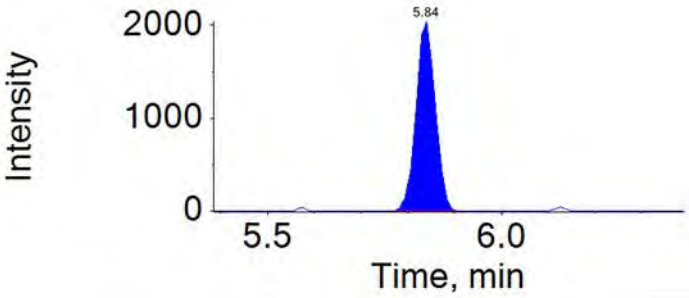
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



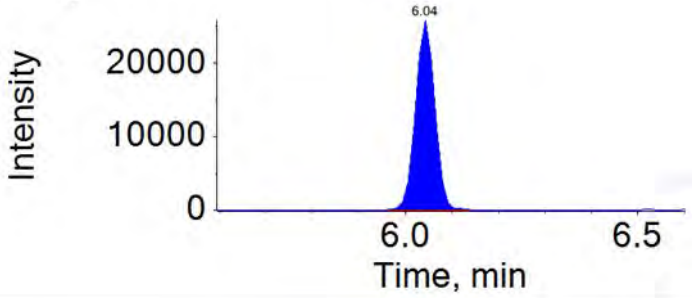
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



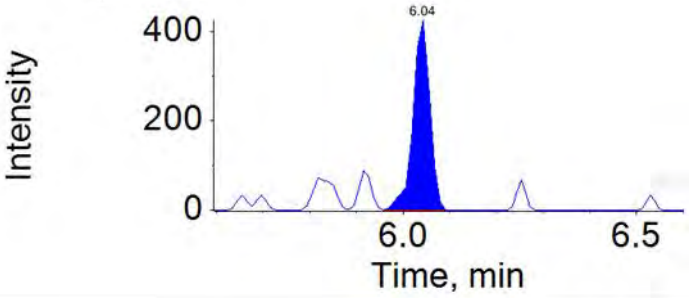
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



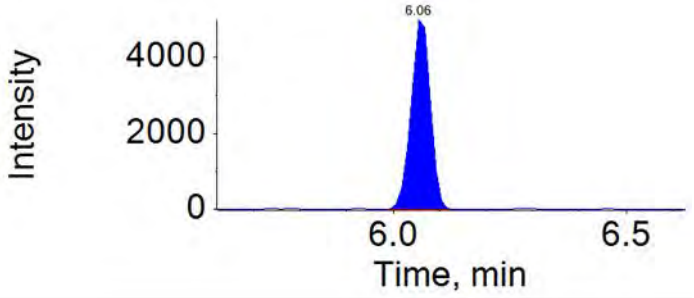
Component: PFDoDA
Primary Mass: 613.0 / 569.0



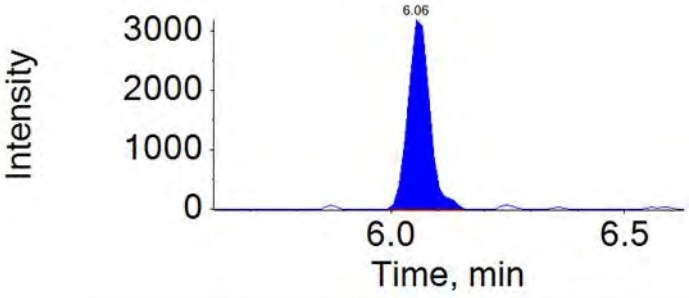
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



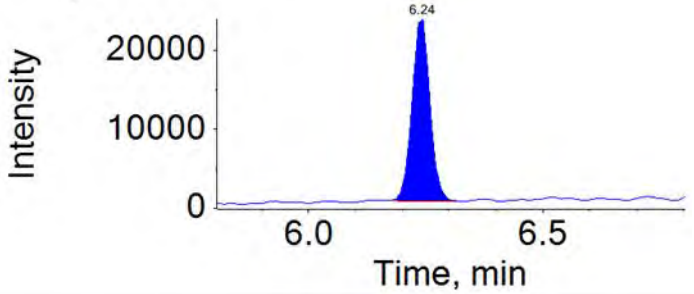
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



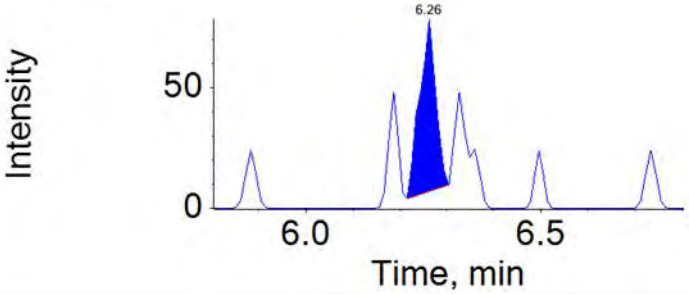
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

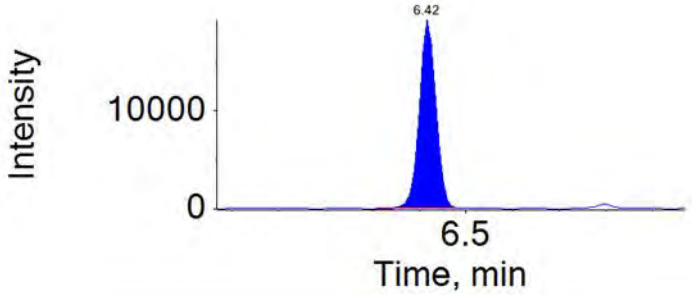
Component: PFTrDA
Primary Mass: 663.0 / 619.0



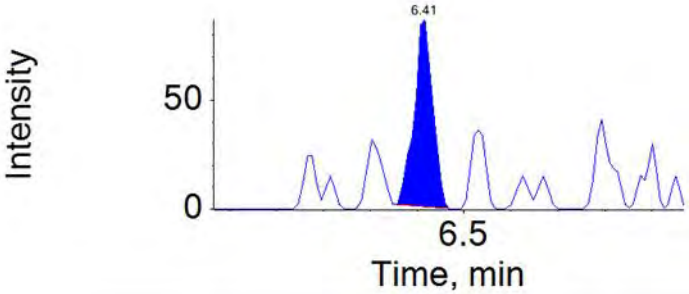
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



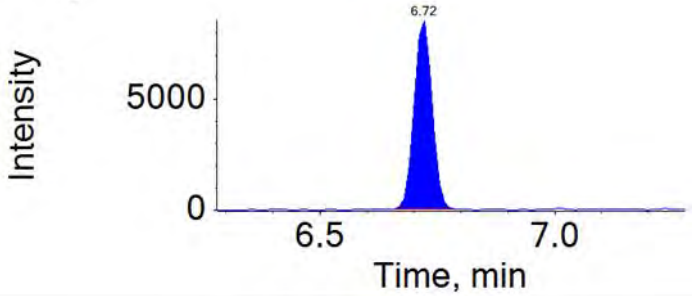
Component: PFTeDA
Primary Mass: 713.0 / 669.0



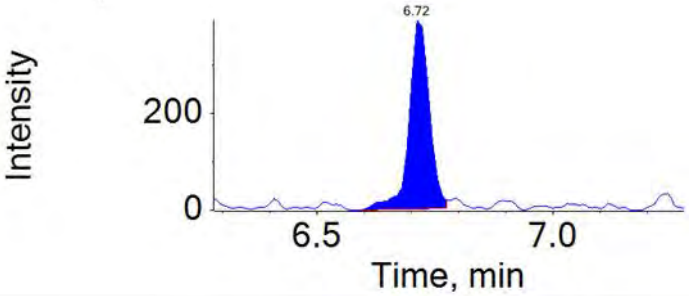
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



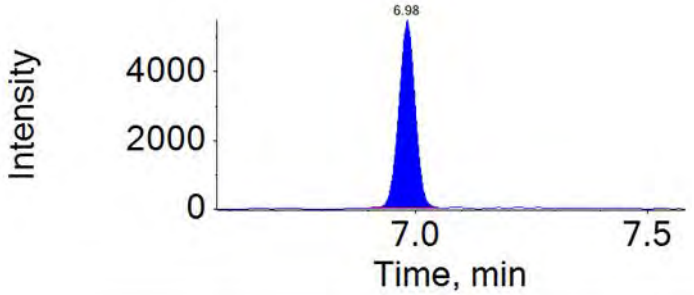
Component: PFHxDA
Primary Mass: 813.0 / 769.0



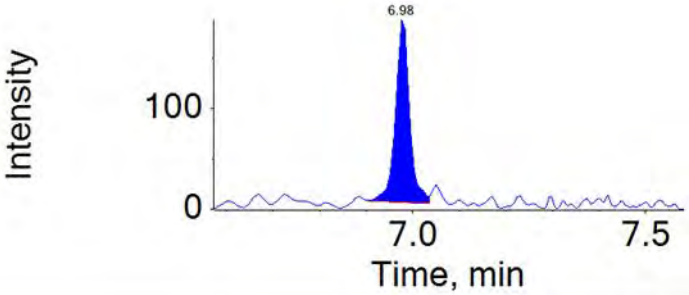
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



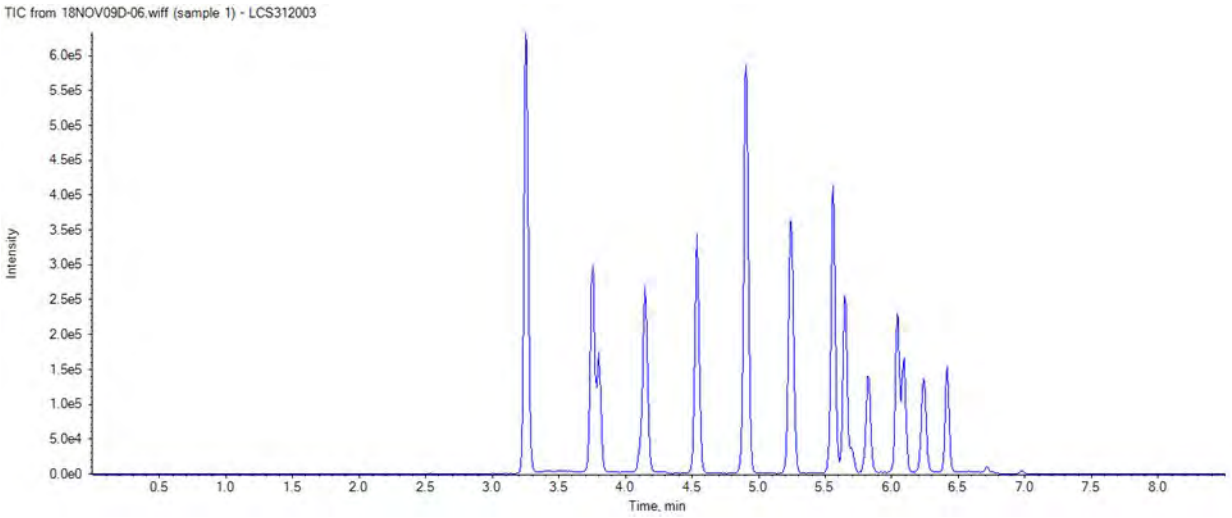
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312003 11/9/2018 8:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312003	EPA 537 mod QSM 5.1 table B-15 18312003	18NOV09D-06.wiff	2018-11-09T05:24:02



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	747751.3	725974.7	3	50	
13C2-PFOA	5.00	516191.6	506876.7	2	50	
13C4-PFOS	4.78	287226.4	274910.1	4	50	
13C2-PFDA	5.00	317586.6	307276.7	3	50	

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:22:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312003	EPA 537 mod QSM 5.1 table B-15 18312003	18NOV09D-06.wiff	2018-11-09T05:24:02

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	80954.8	584922.7	0.138	1.360	1.620	119	70-130	
PFPeA	81317.0	612999.5	0.133	1.360	1.577	116	70-130	
PFBS	43186.2	292975.0	0.147	1.202	1.486	124	70-130	
4:2-FTS	26213.8	39998.7	0.655	3.736	3.524	94	70-130	
PFHxA	92961.3	500286.6	0.186	1.360	1.594	117	70-130	
PFPeS	23682.8	292975.0	0.081	1.276	1.595	125	70-130	
PFHxS	34087.4	242117.8	0.141	1.286	1.427	111	70-130	
PFHpA	91234.9	395187.0	0.231	1.360	1.553	114	70-130	
6:2-FTS	23863.4	27282.5	0.875	3.792	4.364	115	70-130	
PFHpS	32797.3	242117.8	0.135	1.294	1.417	110	70-130	
PFOA	102411.2	693376.7	0.148	1.360	1.663	122	70-130	
PFOS	29966.5	214238.6	0.140	1.300	1.451	112	70-130	
PFNA	80403.9	363875.2	0.221	1.360	1.652	121	70-130	
PFNS	18341.4	214238.6	0.086	1.306	1.358	104	70-130	
PFDA	66745.0	466285.2	0.143	1.360	1.575	116	70-130	
8:2-FTS	17316.3	20339.2	0.851	3.832	3.838	100	70-130	
PFOSA	70444.5	526322.2	0.134	1.360	1.447	106	70-130	
NMeFOSAA	7996.1	65100.7	0.123	1.360	1.264	93	70-130	
PFDS	16482.7	214238.6	0.077	1.310	1.470	112	70-130	
PFUnDA	53016.4	212219.5	0.250	1.360	1.433	105	70-130	
NEtFOSAA	5998.1	50606.8	0.119	1.360	1.019	75	70-130	
PFDoDA	59708.8	412469.5	0.145	1.360	1.569	115	70-130	
10:2-FTS	13240.3	20339.2	0.651	3.856	4.054	105	70-130	
NMePFOSAE	41308.1	256478.5	0.161	1.360	1.443	106	70-130	
NMePFOSA	6326.5	57553.7	0.110	1.360	1.231	90	70-130	
PFDoS	6298.3	214238.6	0.029	1.316	1.135	86	70-130	
NEtPFOSAE	45463.2	203333.7	0.224	1.360	1.434	105	70-130	
NEtPFOSA	5574.3	42505.3	0.131	1.360	1.155	85	70-130	
PFTrDA	48594.0	412469.5	0.118	1.360	1.486	109	70-130	
PFTeDA	38301.2	282247.1	0.136	1.360	1.594	117	70-130	
PFHxDA	16162.9	282247.1	0.057	1.360	1.422	105	70-130	
PFODA	9761.9	282247.1	0.035	1.360	0.991	73	70-130	

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312003 11/9/2018 8:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

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

Result Table: 18312003 11/9/2018 8:24:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS312003			**Data File:**		18NOV09D-06.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312003			**Acquis Date:**		2018-11-09T05:24:02
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	52			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18312003
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18312003			**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	747751.3	725974.7	3	50	
13C2-PFOA	5.0	516191.6	506876.7	2	50	
13C4-PFOS	4.8	287226.4	274910.1	4	50	
13C2-PFDA	5.0	317586.6	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
E13C4-PFBA	584922.7	13C3-PFBA	747751.3	0.782	10.000	7.240	72	50-150	
E13C5-PFPeA	612999.5	13C3-PFBA	747751.3	0.820	10.000	7.143	71	50-150	
E13C3-PFBS	292975.0	13C3-PFBA	747751.3	0.392	9.300	5.751	62	50-150	
E13C2-4:2-FTS	39998.7	13C2-PFOA	516191.6	0.077	9.340	6.993	75	50-150	
E13C5-PFHxA	500286.6	13C2-PFOA	516191.6	0.969	10.000	7.130	71	50-150	
E13C3-PFHxS	242117.8	13C2-PFOA	516191.6	0.469	9.460	6.734	71	50-150	
E13C4-PFHpA	395187.0	13C2-PFOA	516191.6	0.766	10.000	6.965	70	50-150	
E13C2-6:2-FTS	27282.5	13C2-PFOA	516191.6	0.053	9.500	7.049	74	50-150	
E13C8-PFOA	693376.7	13C2-PFOA	516191.6	1.343	10.000	7.492	75	50-150	
E13C8-PFOS	214238.6	13C4-PFOS	287226.4	0.746	9.560	6.596	69	50-150	
E13C9-PFNA	363875.2	13C4-PFOS	287226.4	1.267	10.000	6.921	69	50-150	
E13C6-PFDA	466285.2	13C2-PFDA	317586.6	1.468	10.000	7.385	74	50-150	
E13C2-8:2-FTS	20339.2	13C2-PFDA	317586.6	0.064	9.580	6.778	71	50-150	
E13C8-PFOSA	526322.2	13C2-PFDA	317586.6	1.657	10.000	7.233	72	50-150	
Ed3-NMeFOSAA	65100.7	13C2-PFDA	317586.6	0.205	10.000	7.624	76	50-150	
E13C7-PFUnDA	212219.5	13C2-PFDA	317586.6	0.668	10.000	7.710	77	50-150	
Ed5-NEtFOSAA	50606.8	13C2-PFDA	317586.6	0.159	10.000	7.375	74	50-150	
E13C2-PFDoDA	412469.5	13C2-PFDA	317586.6	1.299	10.000	7.003	70	50-150	
Ed7-NMePFOSAE	256478.5	13C2-PFDA	317586.6	0.808	10.000	7.511	75	50-150	
Ed3-NMePFOSA	57553.7	13C2-PFDA	317586.6	0.181	10.000	6.635	66	50-150	
Ed9-NEtPFOSAE	203333.7	13C2-PFDA	317586.6	0.640	10.000	7.313	73	50-150	
Ed5-NEtPFOSA	42505.3	13C2-PFDA	317586.6	0.134	10.000	6.198	62	50-150	
E13C2-PFTeDA	282247.1	13C2-PFDA	317586.6	0.889	10.000	6.399	64	50-150	

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

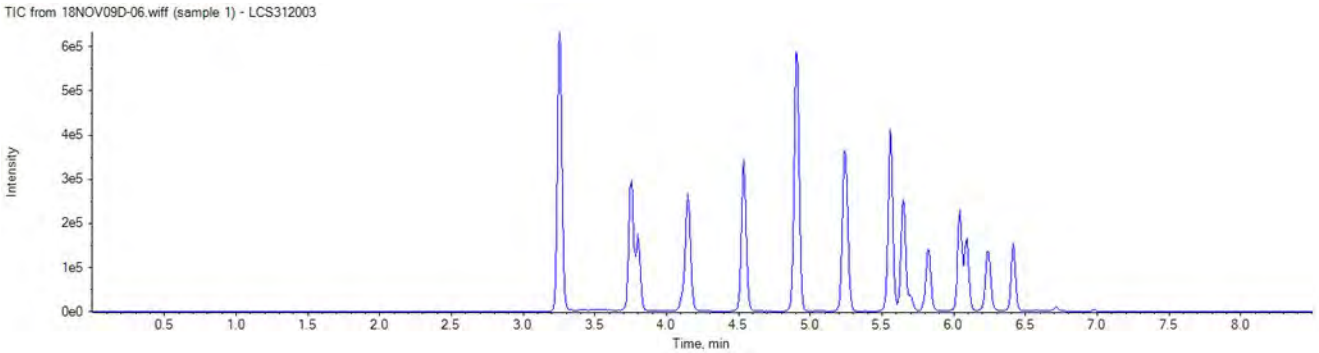
Analyte Quantitation Peak Table

Sample Name: LCS312003 **Instrument Name:** LM27631 **File Name:** 18NOV09D-06.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	3.25	1.000	80954.8		A	13C4-PFBA	3.25	584922.7	0.138	1.620
PFPeA	3.75	1.000	81317.0		A	13C5-PFPeA	3.75	612999.5	0.133	1.577
PFBS	3.80	1.000	43186.2		A	13C3-PFBS	3.80	292975.0	0.147	1.486
4:2-FTS	4.11	1.000	26213.8		A	13C2-4:2-FTS	4.11	39998.7	0.655	3.524
PFHxA	4.15	1.000	92961.3		A	13C5-PFHxA	4.15	500286.6	0.186	1.594
PFPeS	4.17	1.100	23682.8		A	13C3-PFBS	3.80	292975.0	0.081	1.595
PFHxS	4.54	1.000	34087.4		A	13C3-PFHxS	4.54	242117.8	0.141	1.427
PFHpA	4.54	1.000	91234.9		A	13C4-PFHpA	4.54	395187.0	0.231	1.553
6:2-FTS	4.89	1.000	23863.4		A	13C2-6:2-FTS	4.89	27282.5	0.875	4.364
PFHpS	4.90	1.080	32797.3		A	13C3-PFHxS	4.54	242117.8	0.135	1.417
PFOA	4.91	1.000	102411.2		A	13C8-PFOA	4.91	693376.7	0.148	1.663
PFOS	5.23	1.000	29966.5		A	13C8-PFOS	5.23	214238.6	0.140	1.451
PFNA	5.25	1.000	80403.9		A	13C9-PFNA	5.25	363875.2	0.221	1.652
PFNS	5.54	1.060	18341.4		A	13C8-PFOS	5.23	214238.6	0.086	1.358
PFDA	5.56	1.000	66745.0		A	13C6-PFDA	5.56	466285.2	0.143	1.575
8:2-FTS	5.56	1.000	17316.3		A	13C2-8:2-FTS	5.56	20339.2	0.851	3.838
PFOSA	5.65	1.000	70444.5		A	13C8-PFOSA	5.65	526322.2	0.134	1.447
NMeFOSAA	5.71	1.000	7996.1		A	d3-NMeFOSAA	5.70	65100.7	0.123	1.264
PFDS	5.80	1.110	16482.7		A	13C8-PFOS	5.23	214238.6	0.077	1.470
PFUnDA	5.82	1.000	53016.4		A	13C7-PFUnDA	5.82	212219.5	0.250	1.433
NEtFOSAA	5.84	1.000	5998.1		M	d5-NEtFOSAA	5.83	50606.8	0.119	1.019
PFDoDA	6.04	1.000	59708.8		A	13C2-PFDoDA	6.04	412469.5	0.145	1.569
10:2-FTS	6.06	1.090	13240.3		A	13C2-8:2-FTS	5.56	20339.2	0.651	4.054
NMePFOSAE	6.10	1.000	41308.1		A	d7-NMePFOSAE	6.09	256478.5	0.161	1.443
NMePFOSA	6.10	1.000	6326.5		A	d3-NMePFOSA	6.10	57553.7	0.110	1.231
PFDoS	6.21	1.190	6298.3		A	13C8-PFOS	5.23	214238.6	0.029	1.135
NEtPFOSAE	6.25	1.000	45463.2		A	d9-NEtPFOSAE	6.24	203333.7	0.224	1.434
NEtPFOSA	6.26	1.000	5574.3		A	d5-NEtPFOSA	6.26	42505.3	0.131	1.155
PFTrDA	6.24	1.030	48594.0		A	13C2-PFDoDA	6.04	412469.5	0.118	1.486
PFTeDA	6.41	1.000	38301.2		A	13C2-PFTeDA	6.42	282247.1	0.136	1.594
PFHxDA	6.72	1.050	16162.9		A	13C2-PFTeDA	6.42	282247.1	0.057	1.422
PFODA	6.98	1.090	9761.9		A	13C2-PFTeDA	6.42	282247.1	0.035	0.991

Total Ion Chromatogram

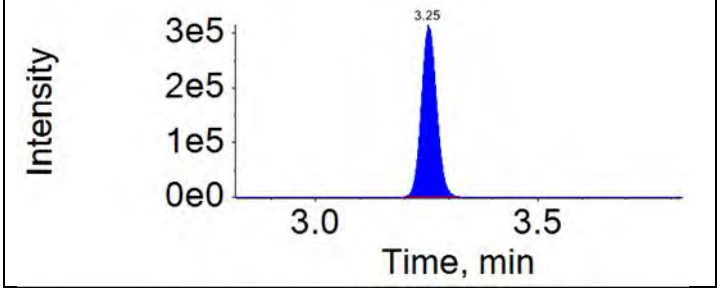


APPROVED
By MCD at 8:48 pm, 11/9/18

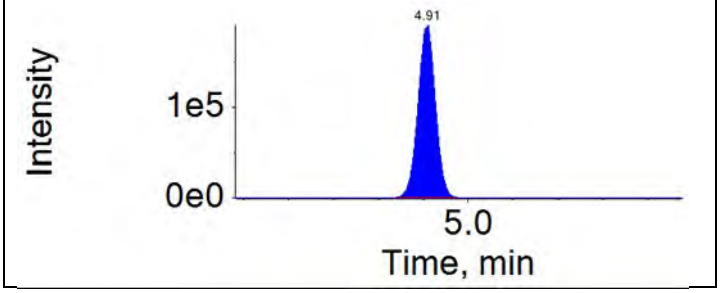
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

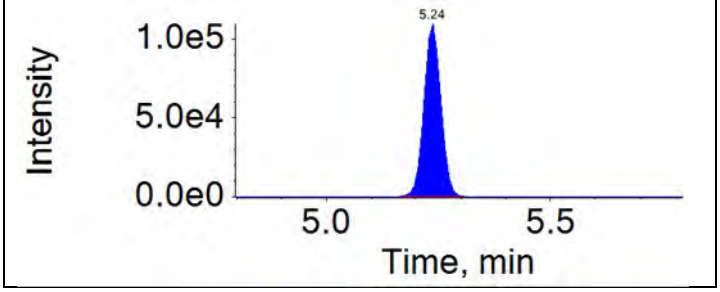
Injection Standard: 13C3-PFBA
216.0 / 172.0



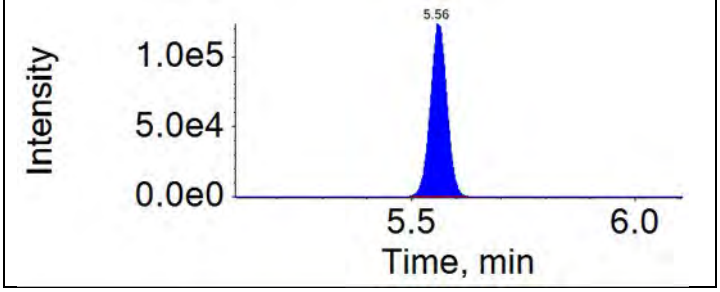
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

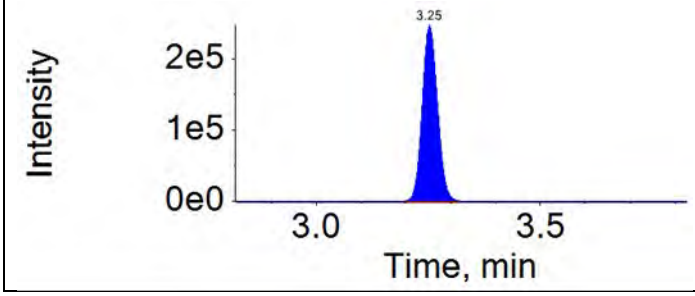


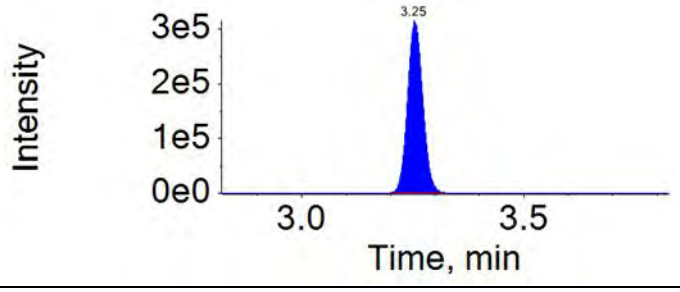
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

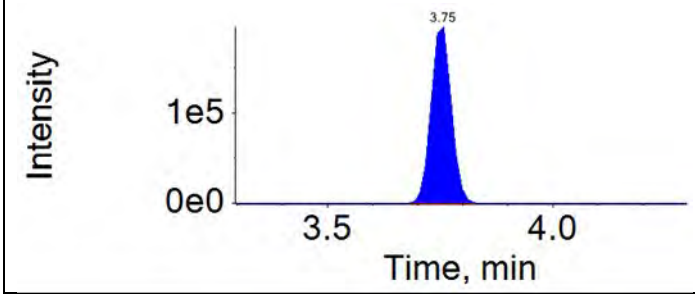
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

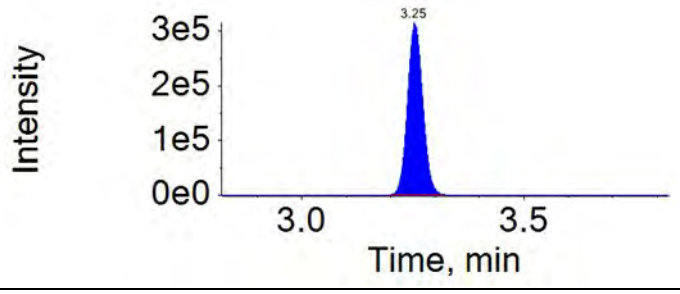
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



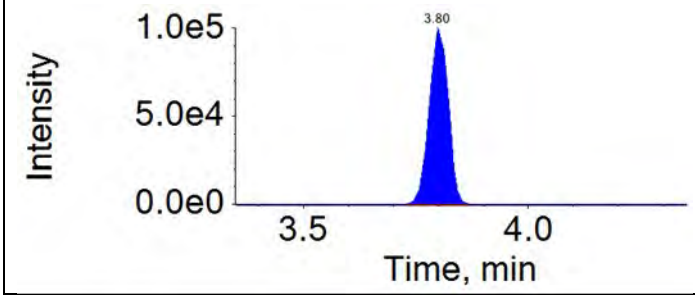


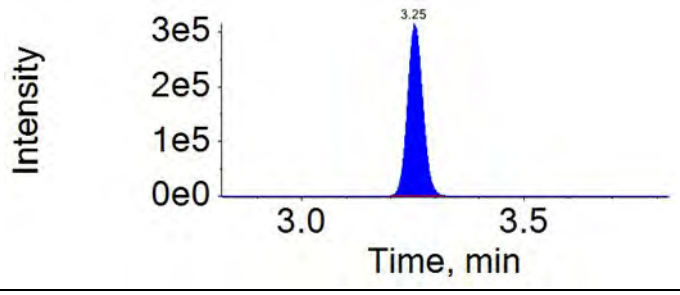
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



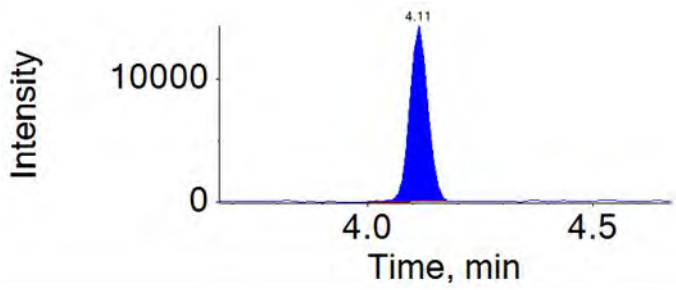


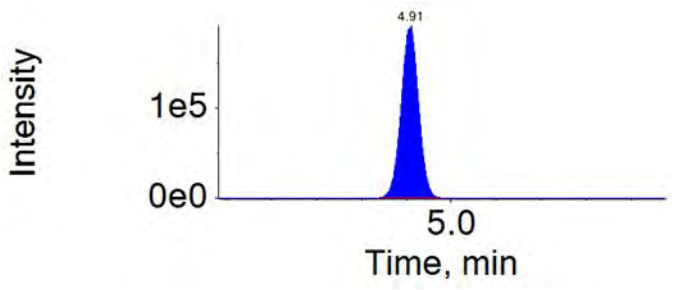
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



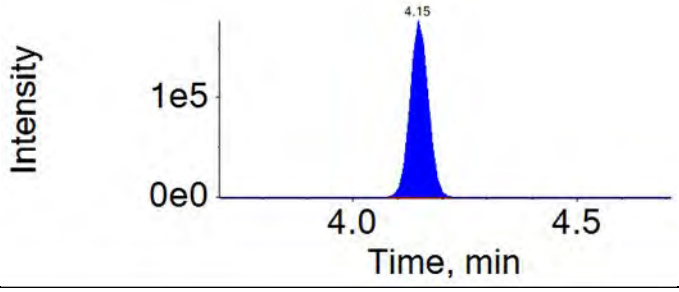


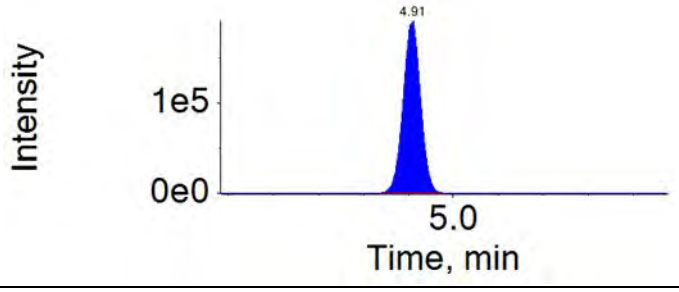
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

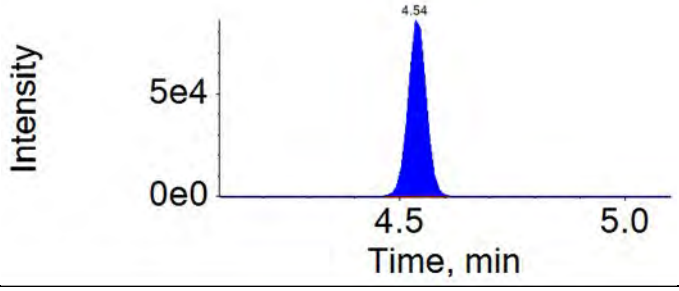
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

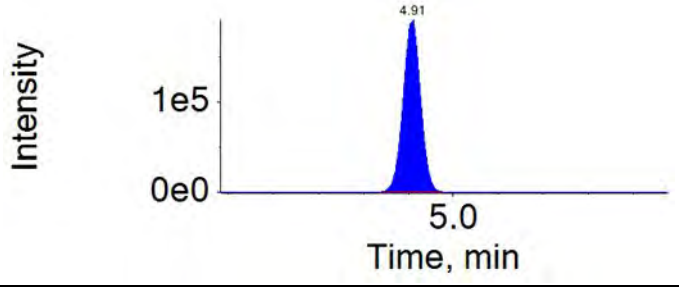
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



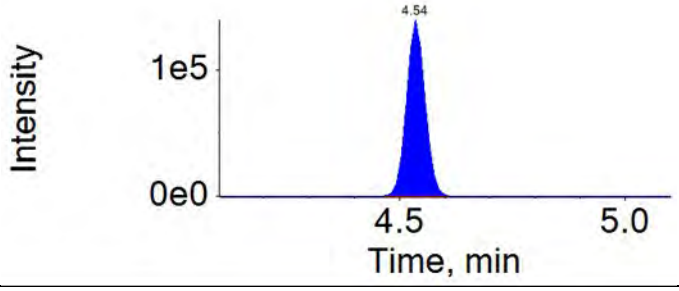


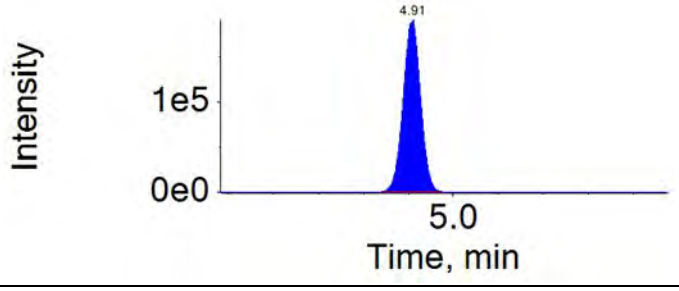
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



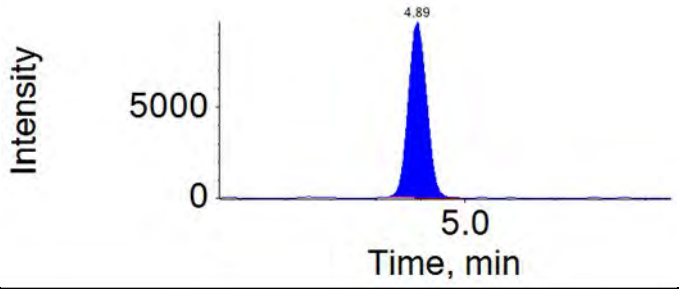


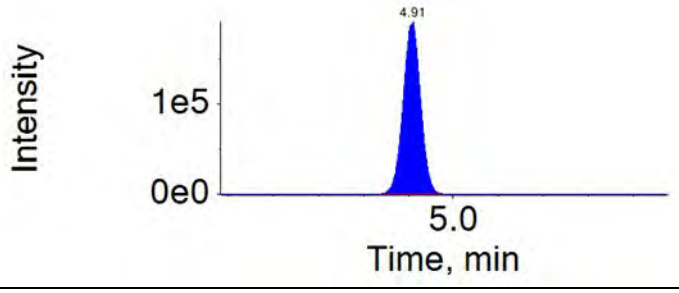
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

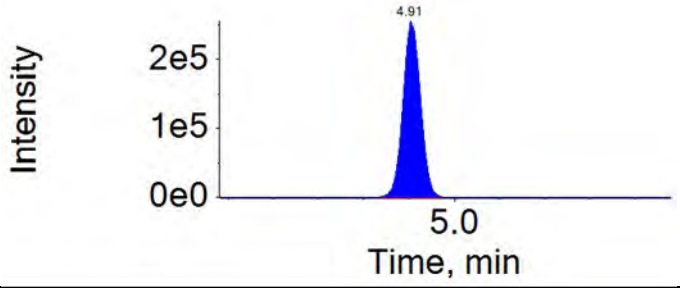
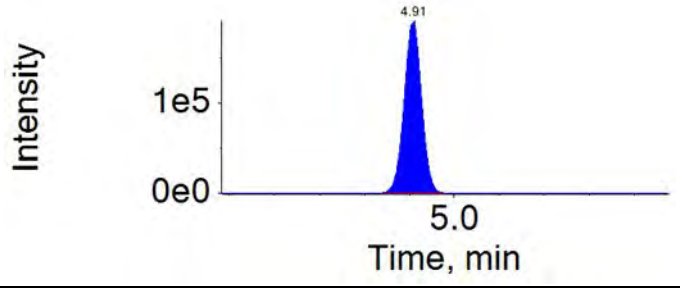


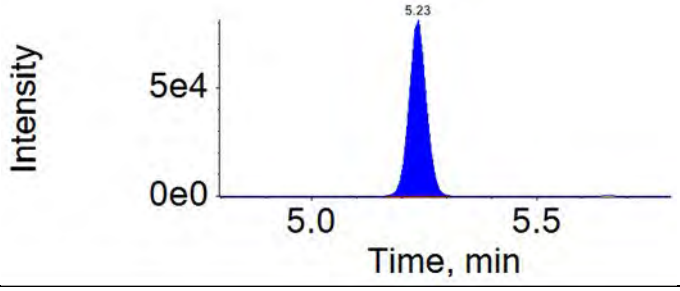
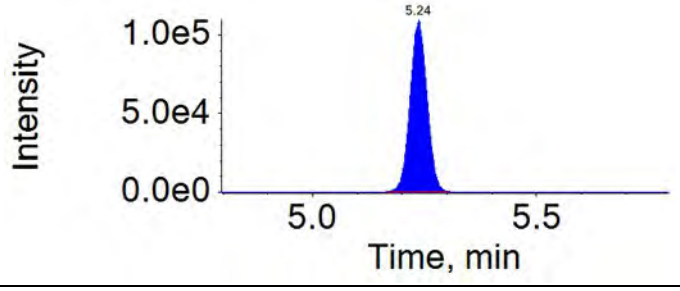


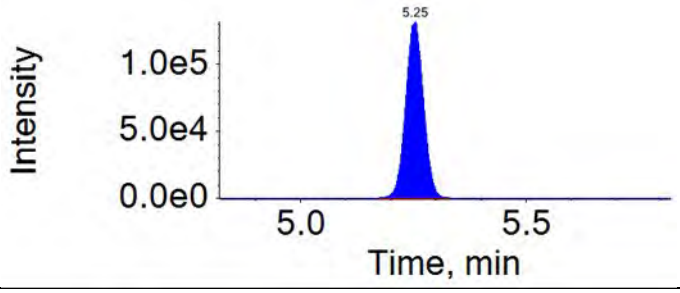
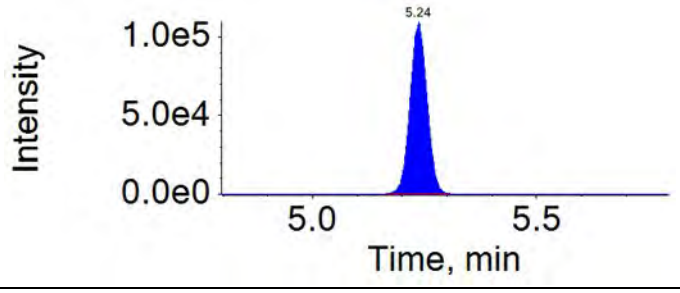
APPROVED
By MCD at 8:48 pm, 11/9/18

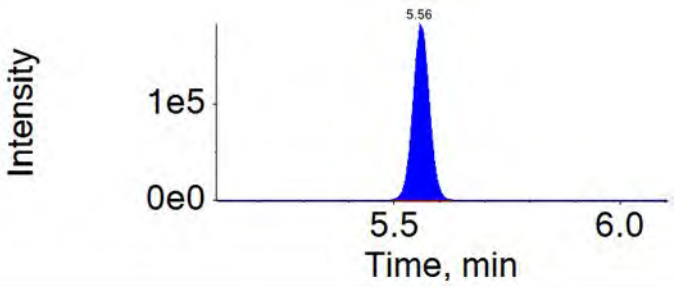
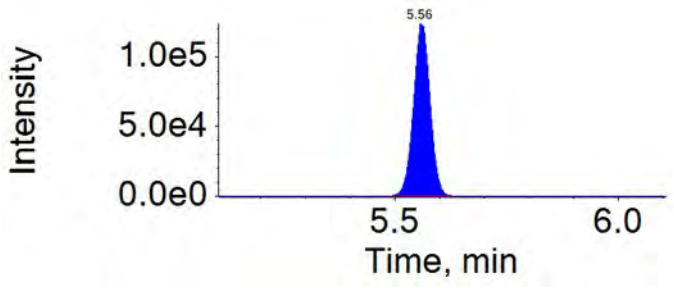
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

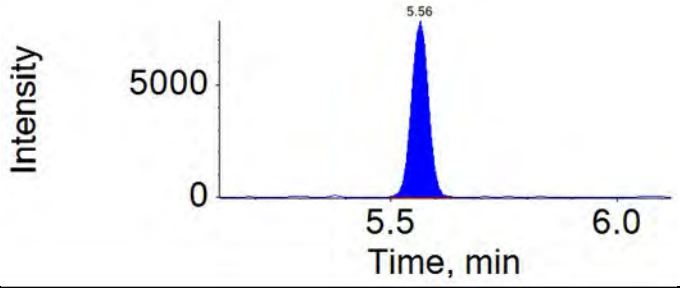
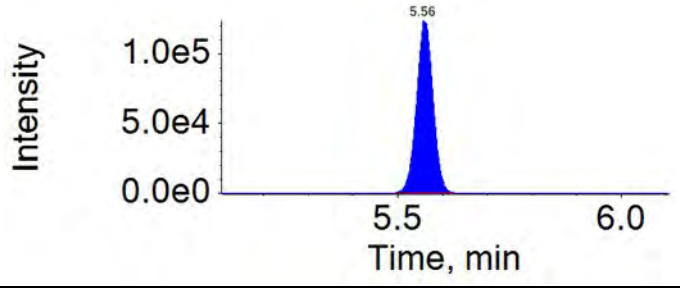
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

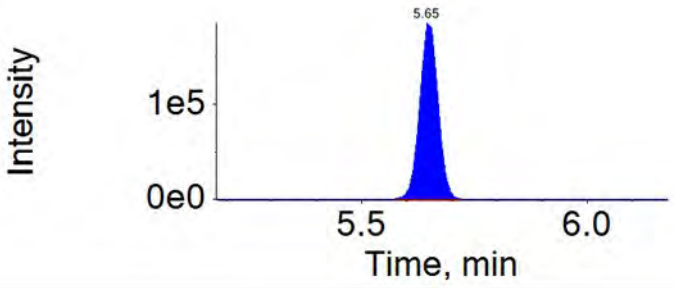
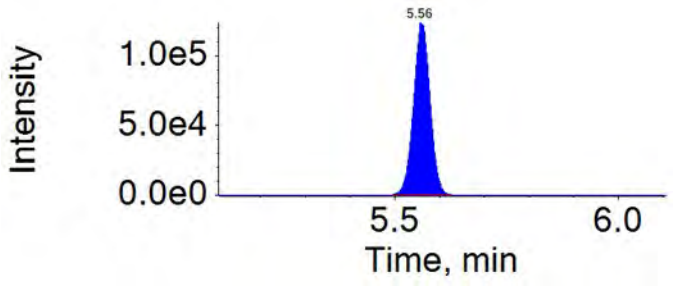
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

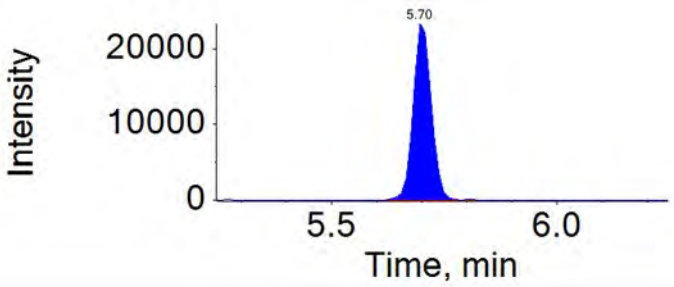
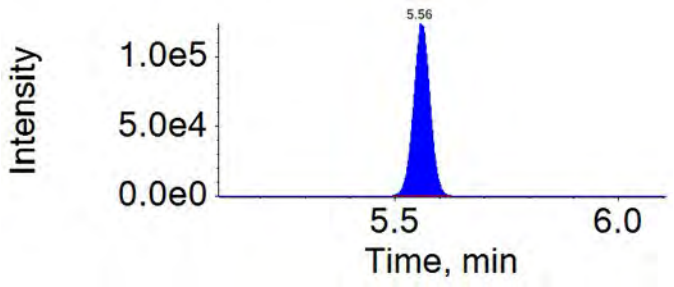
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

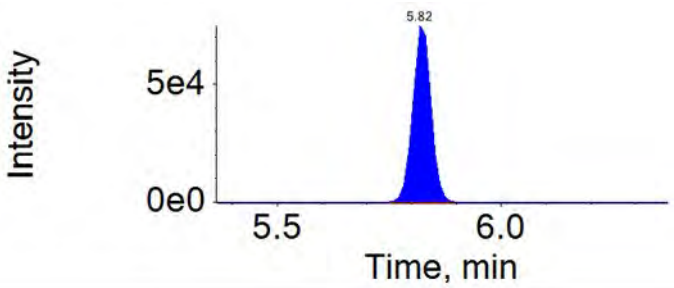
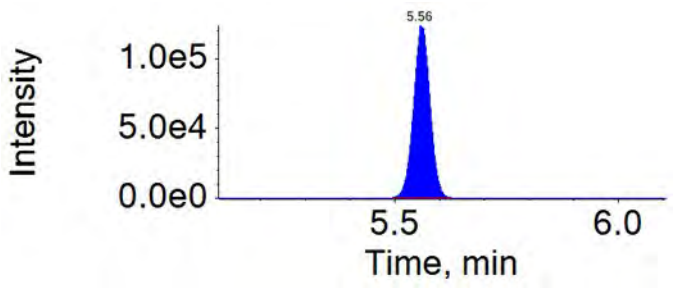
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

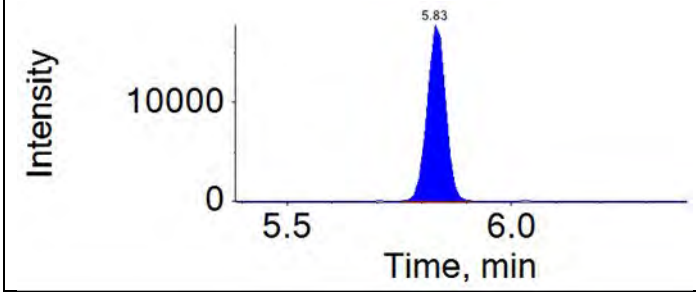
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

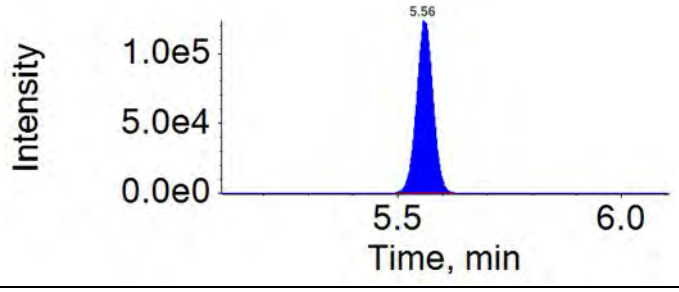
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

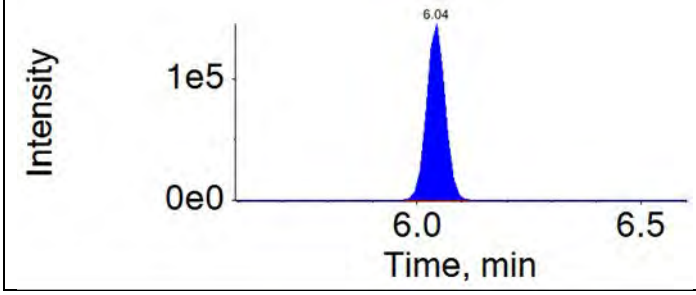
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

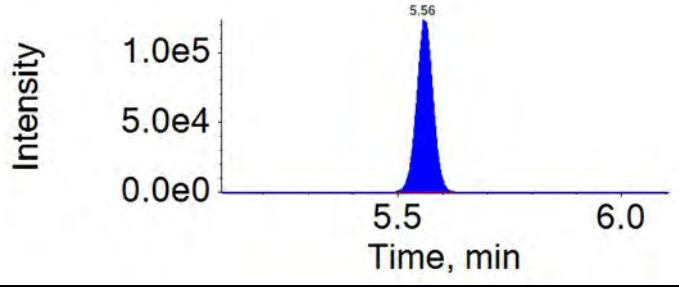
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



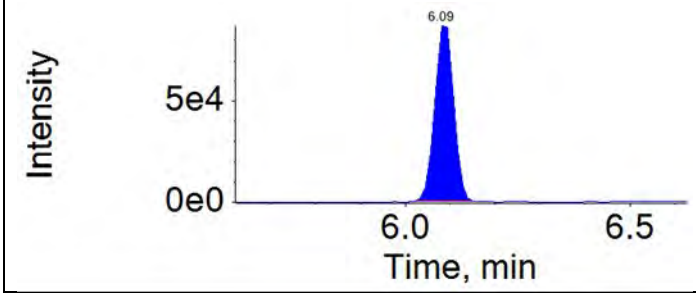


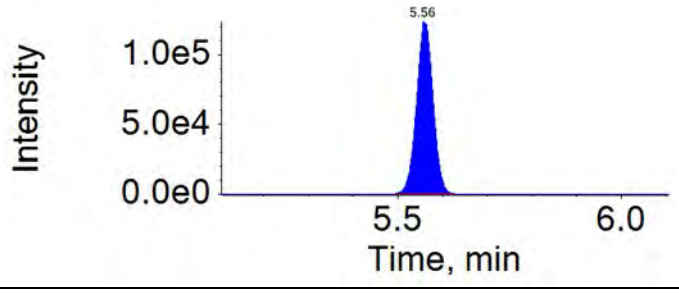
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



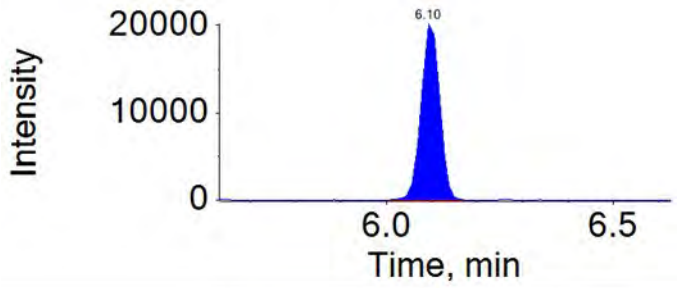


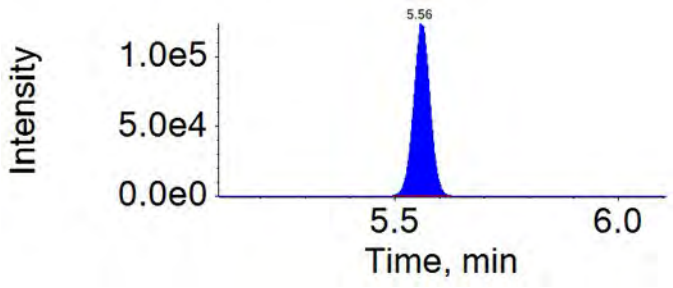
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



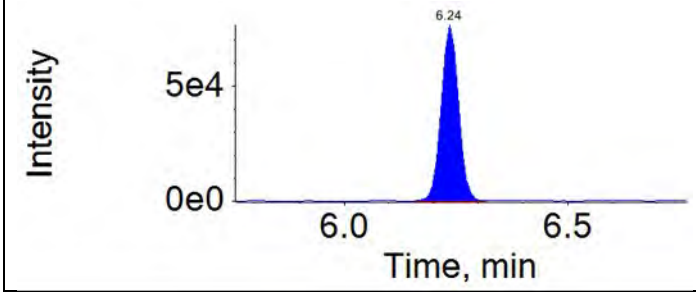


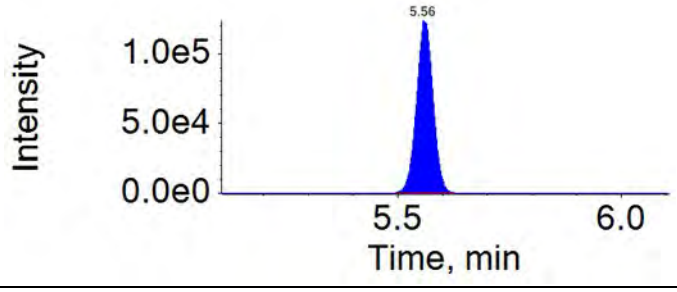
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

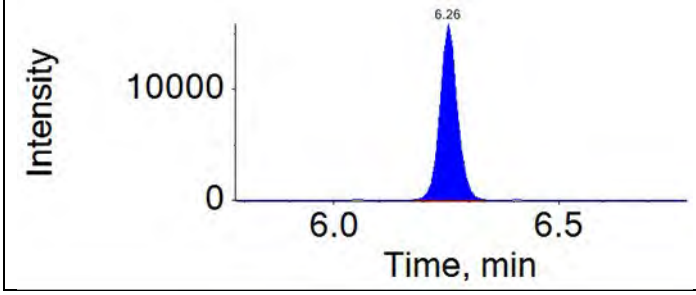
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

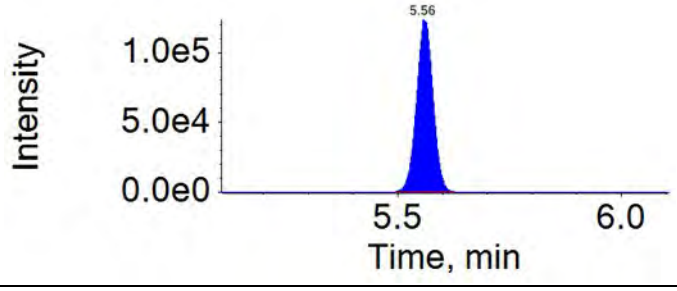
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



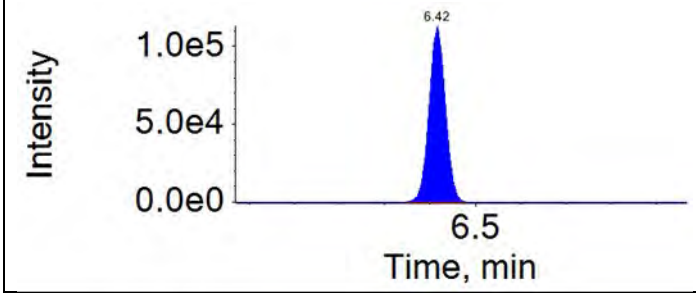


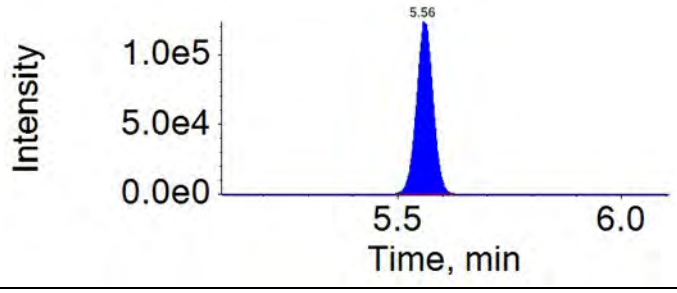
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

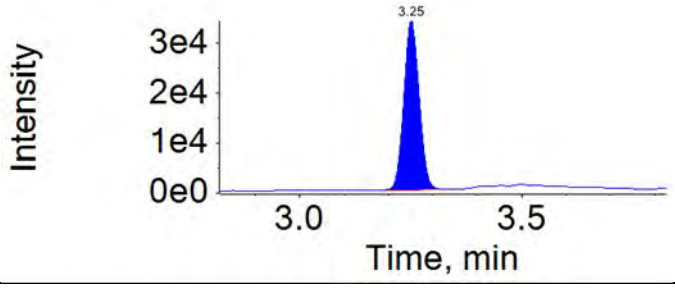
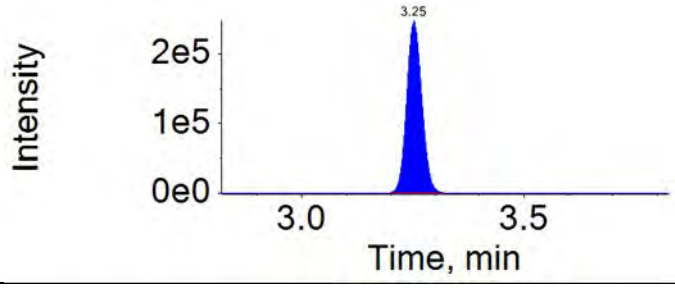


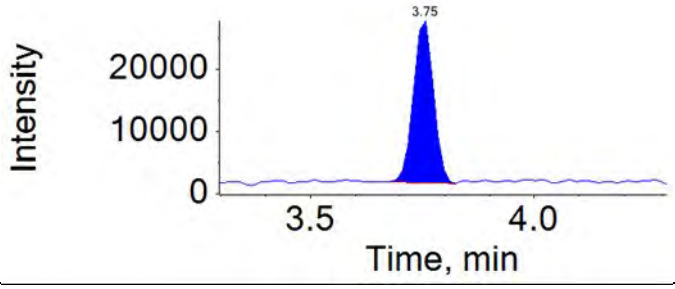
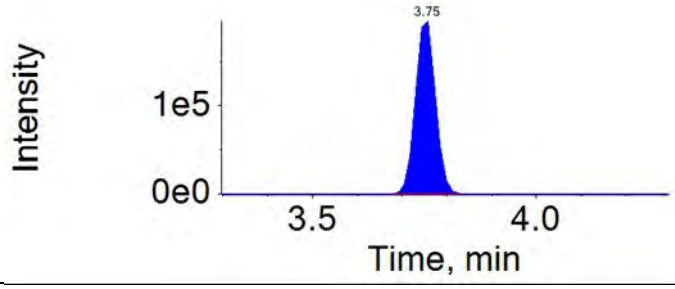


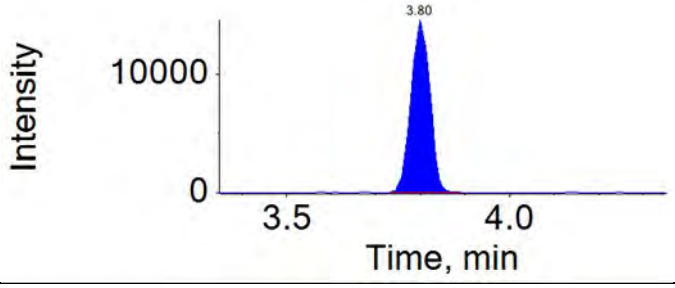
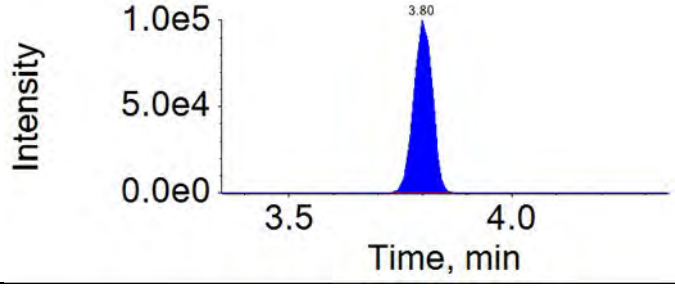
APPROVED
By MCD at 8:48 pm, 11/9/18

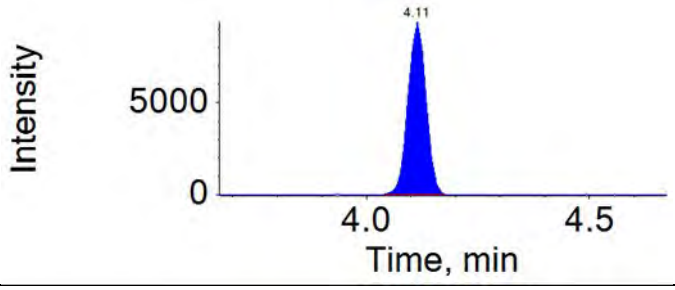
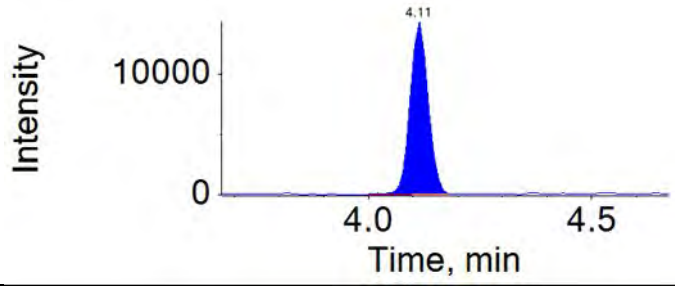
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

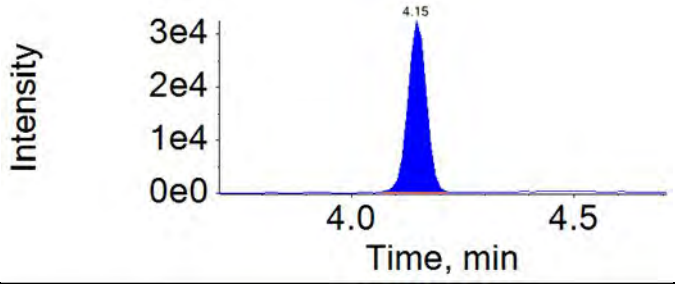
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

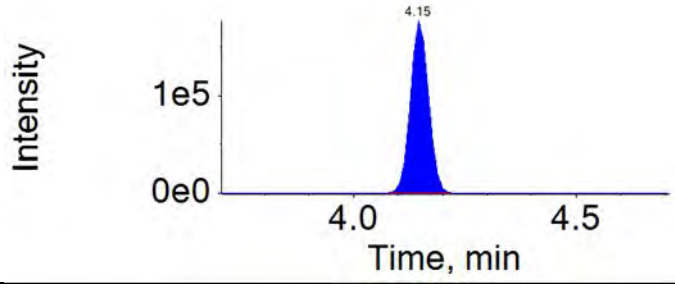
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

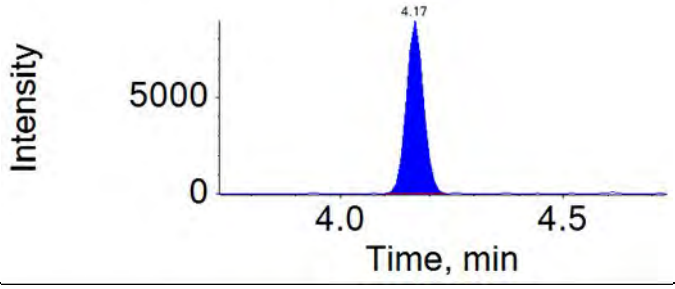
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

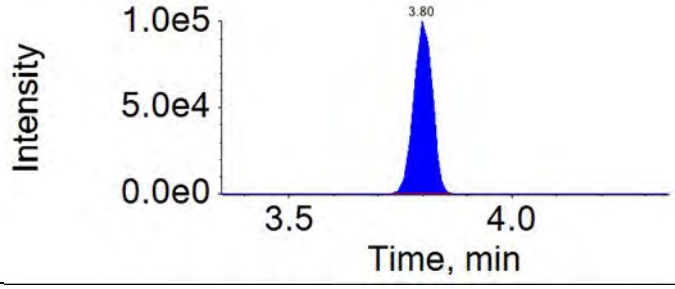
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



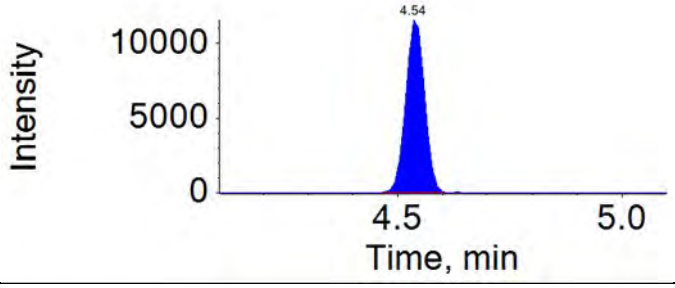


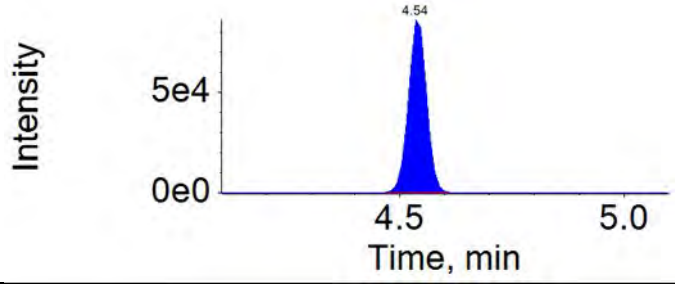
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



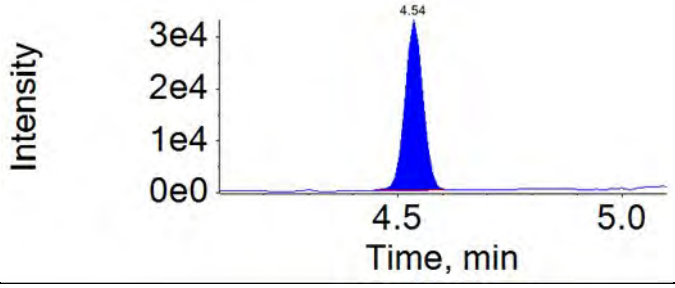


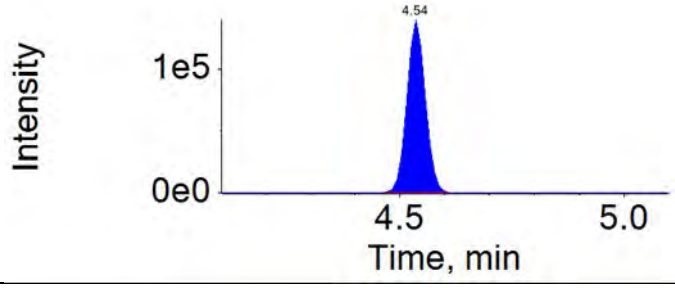
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



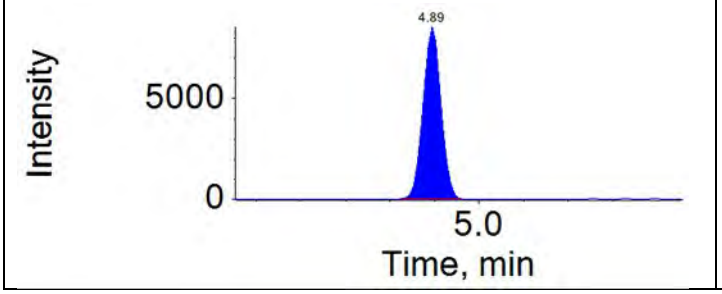


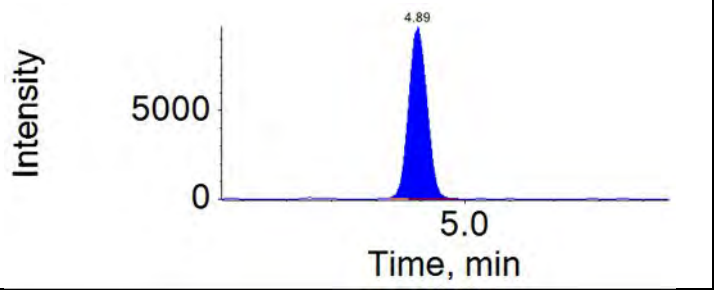
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

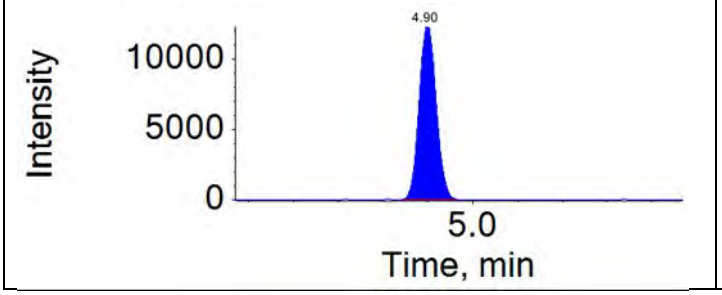
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

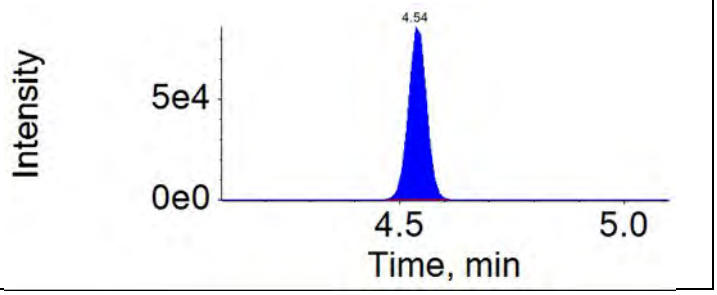
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



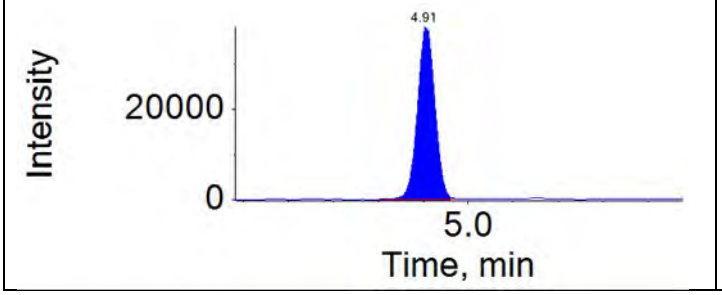


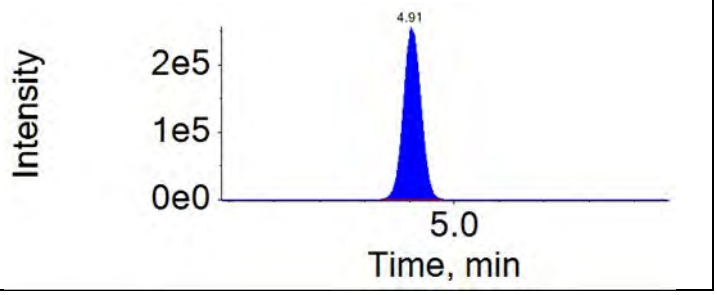
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



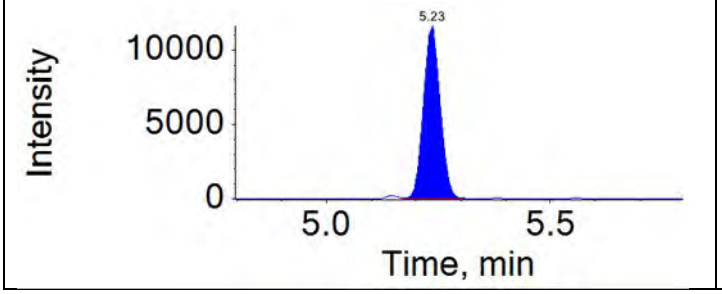


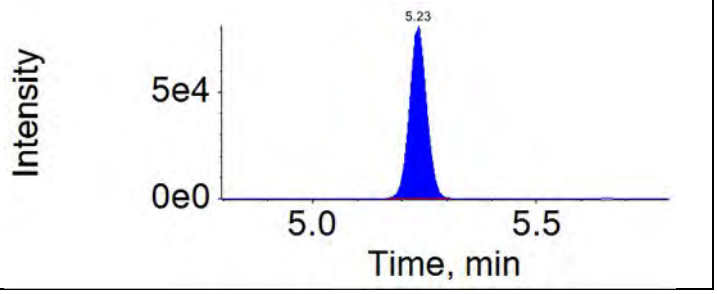
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



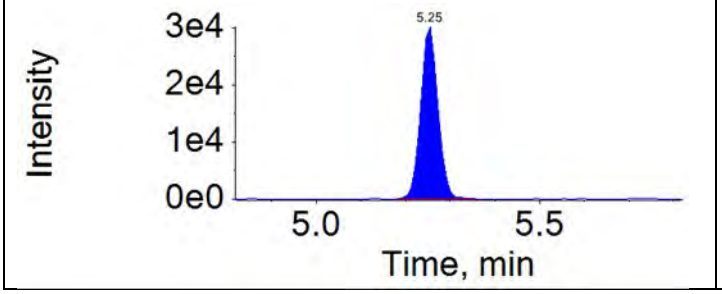


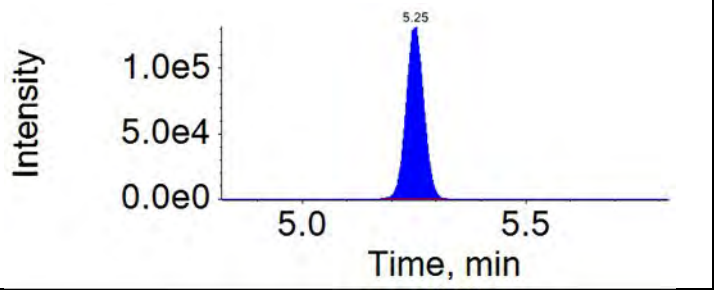
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

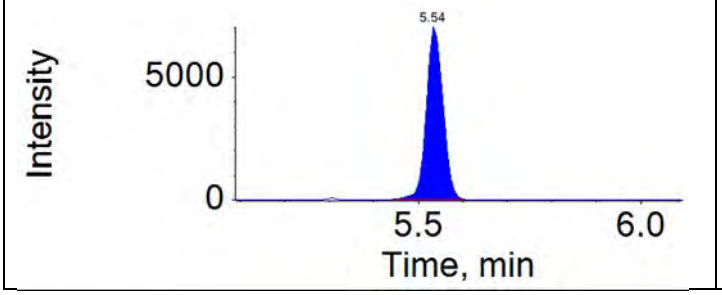
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

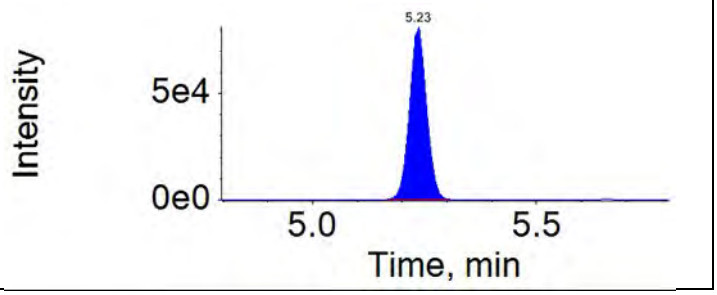
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



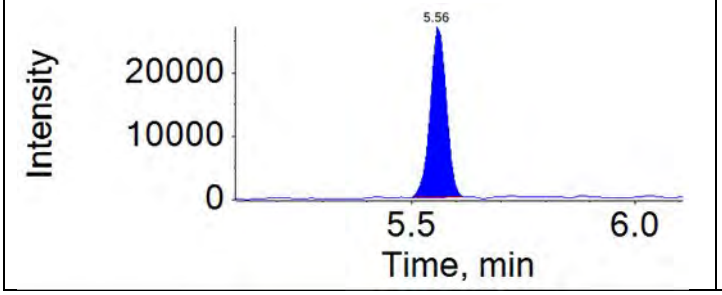


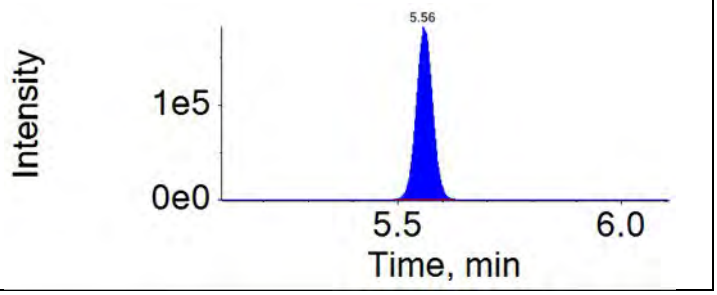
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



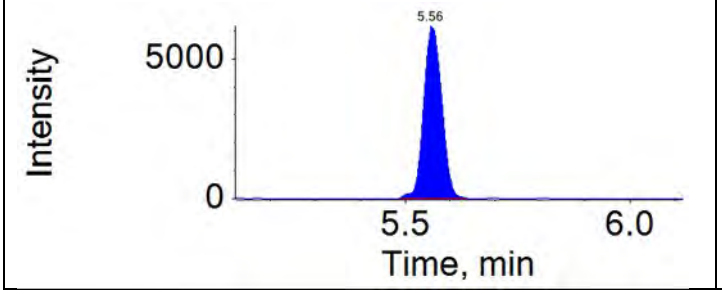


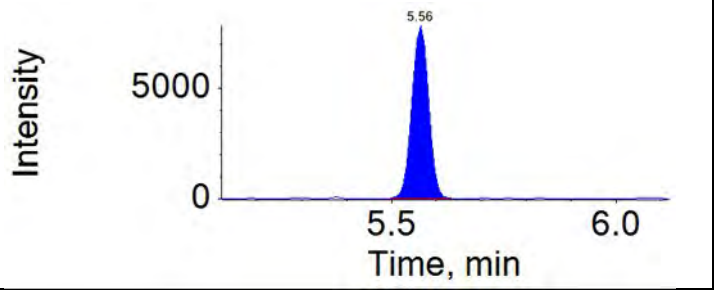
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

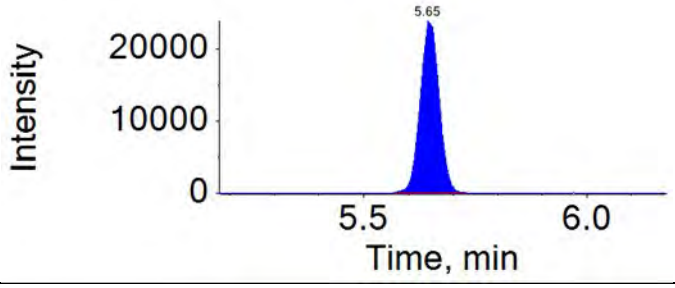
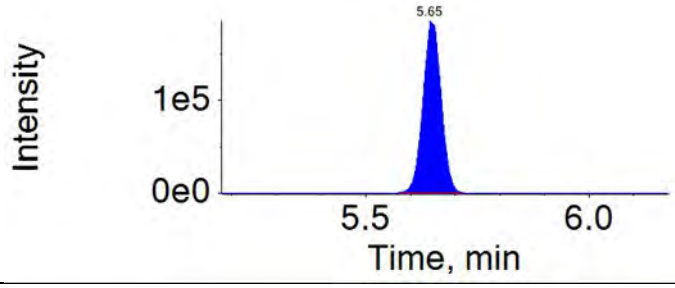


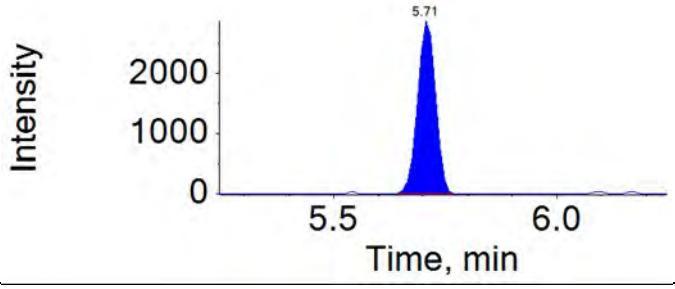
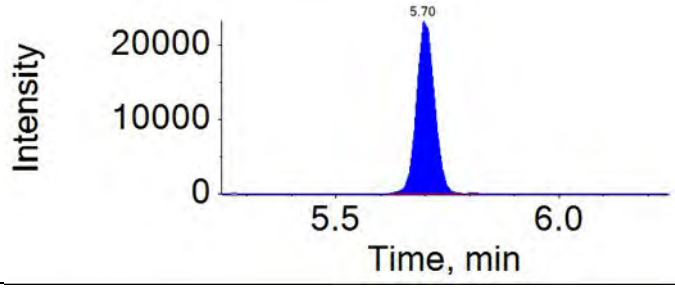


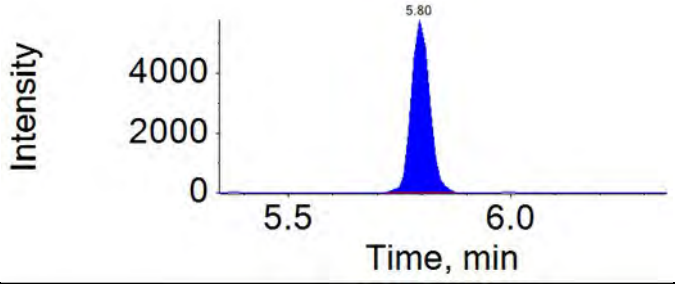
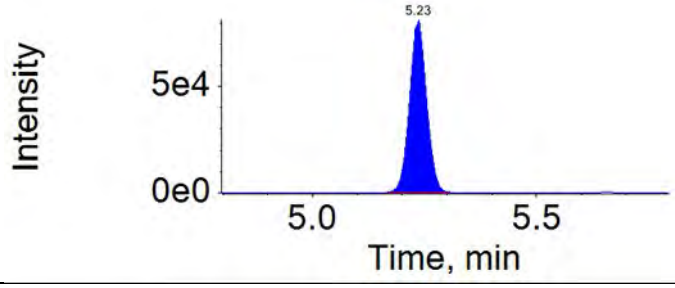
APPROVED
By MCD at 8:48 pm, 11/9/18

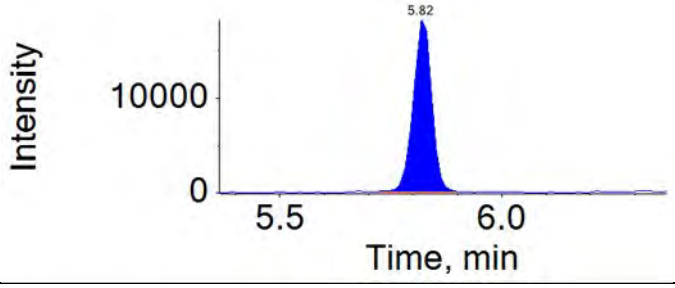
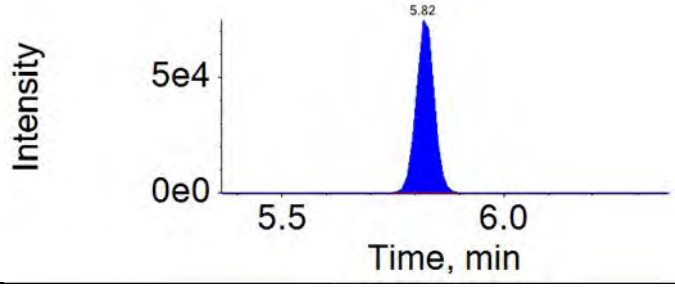
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

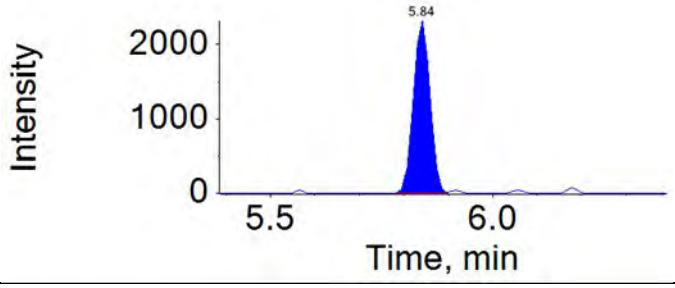
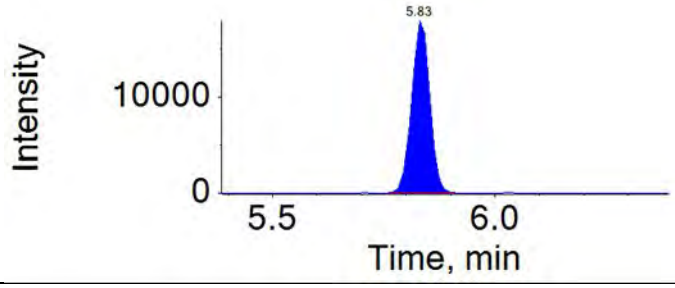
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

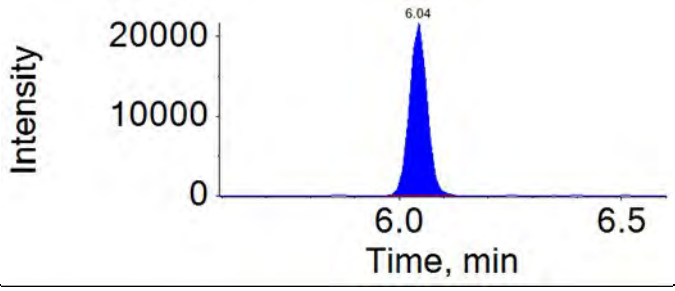
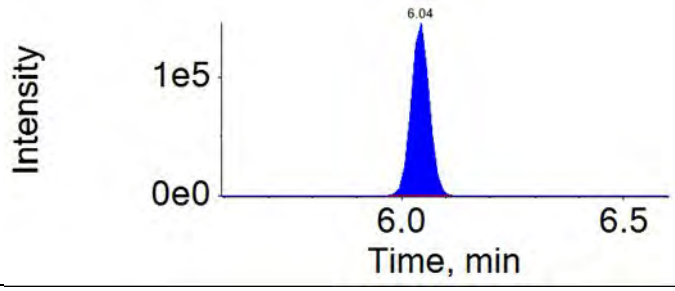
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

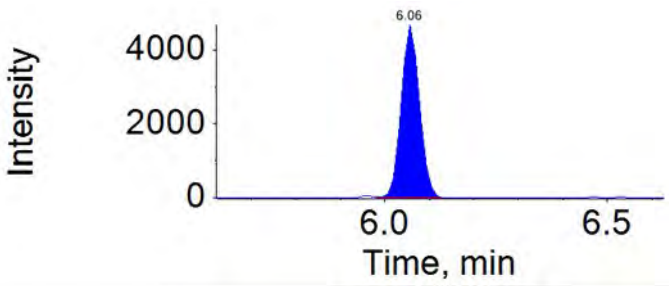
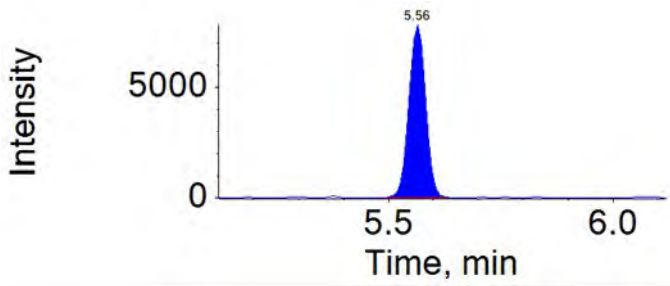
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

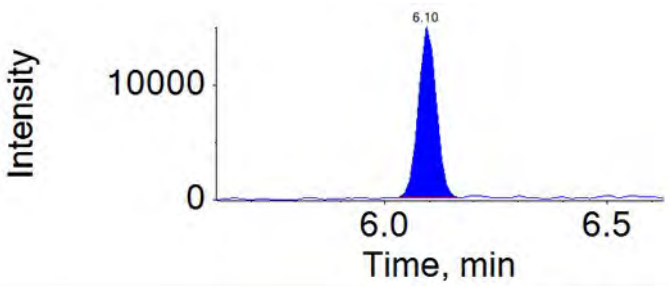
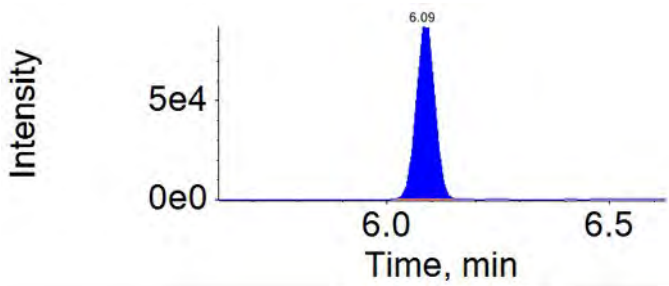
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

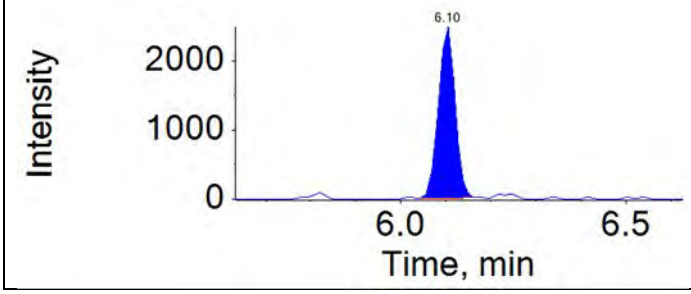
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

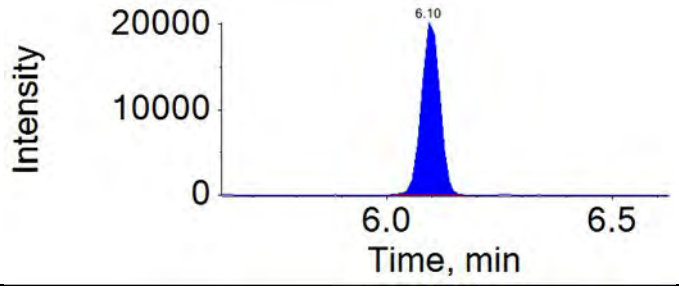
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

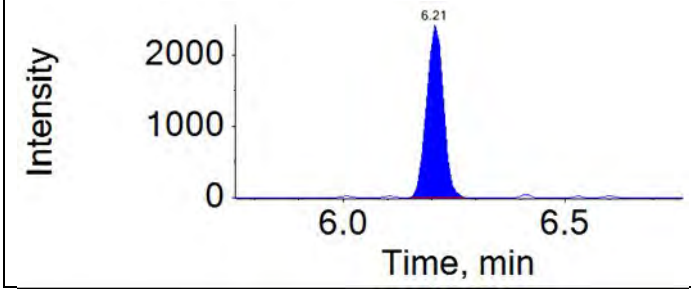
ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

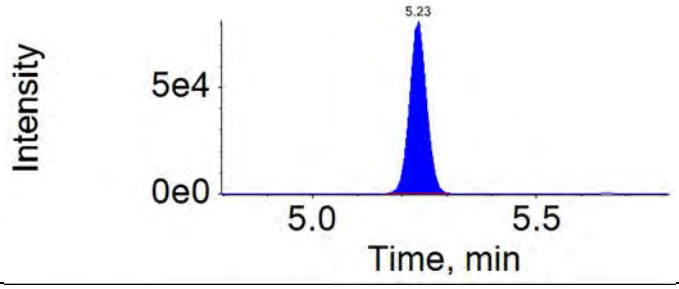
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



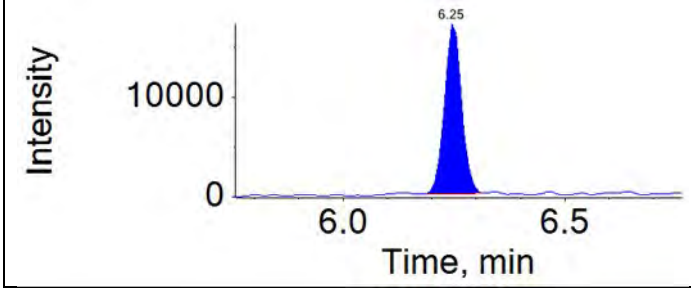


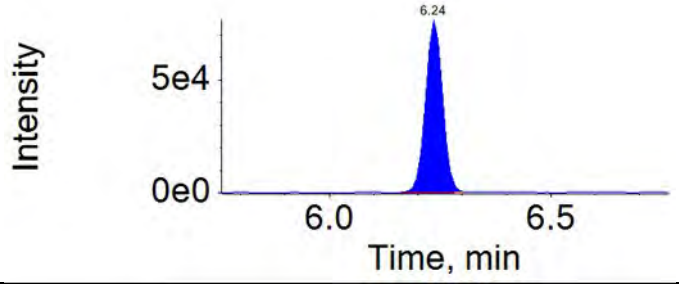
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



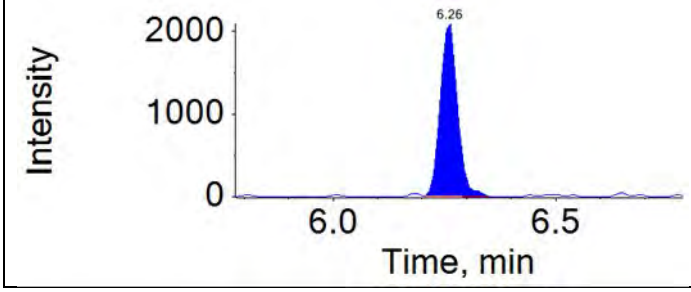


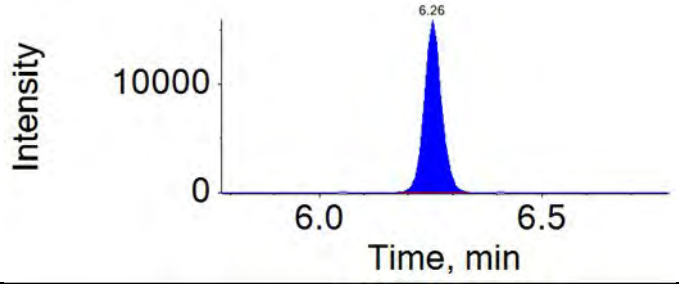
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

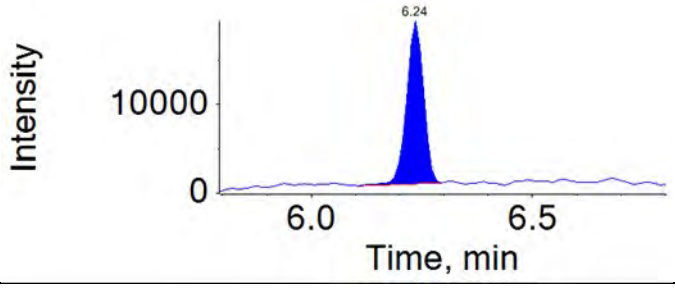
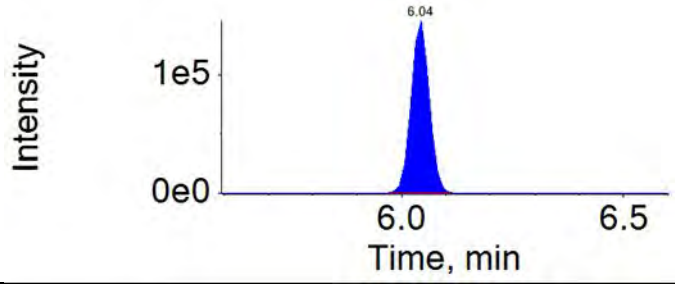


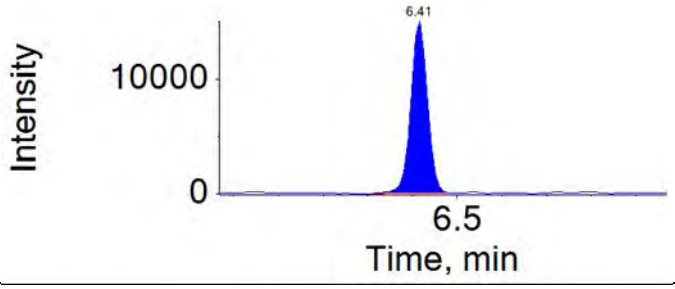
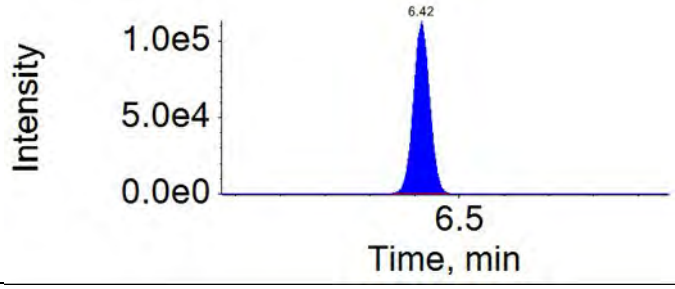


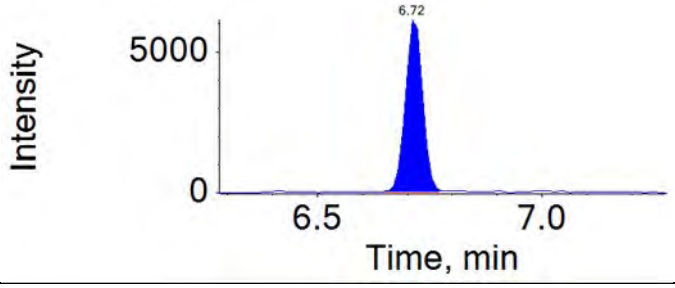
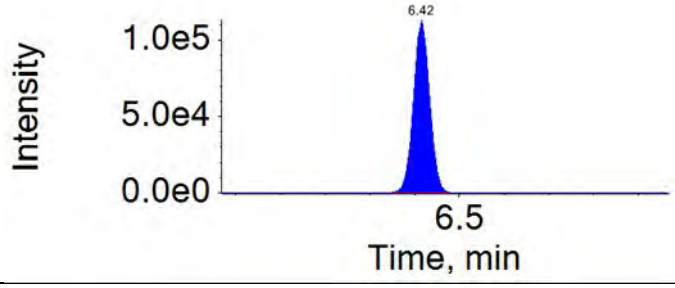
APPROVED
By MCD at 8:48 pm, 11/9/18

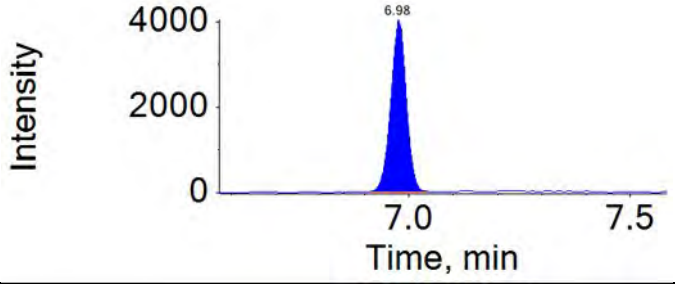
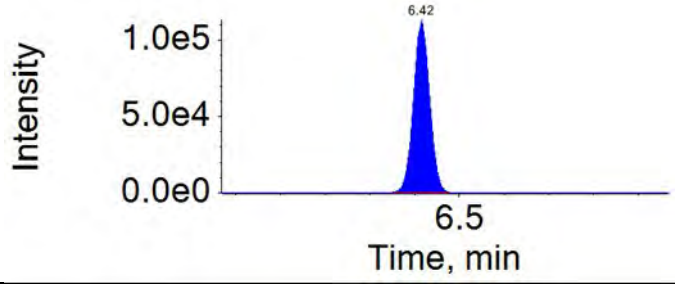
REVIEWED
By umar at 4:25 pm, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312003 11/9/2018 8:24:22 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

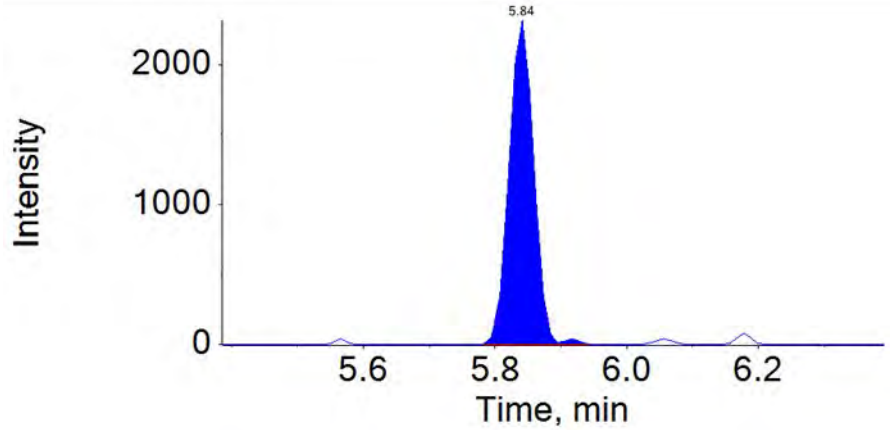
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Results Table Name: 18312003
Results Table Date: 11/9/2018 8:24:22 PM

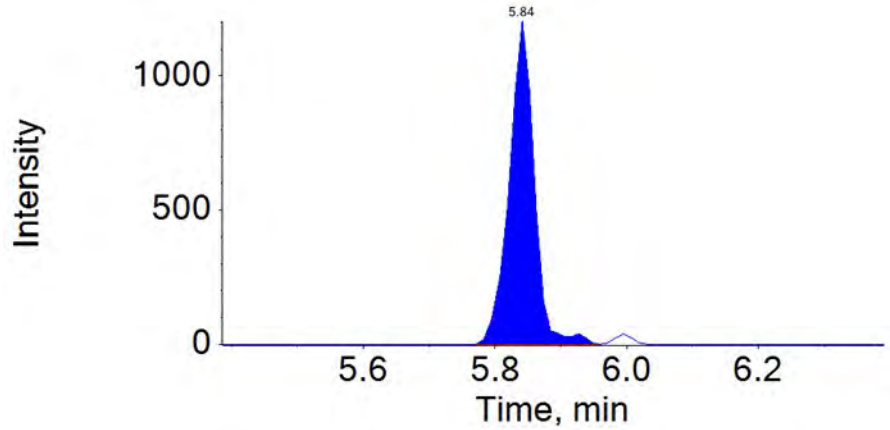
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
6061.7
Mass Range:
584.0 / 419.0
File Name:
18NOV09D-06.wiff
Sample Name:
LCS312003



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
3199.3
Mass Range:
584.0 / 526.0
File Name:
18NOV09D-06.wiff
Sample Name:
LCS312003



Integration Comment: incorrect integration

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Results Table Name: 18312003
Results Table Date: 11/9/2018 8:24:22 PM

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

APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Ion Ratio Report

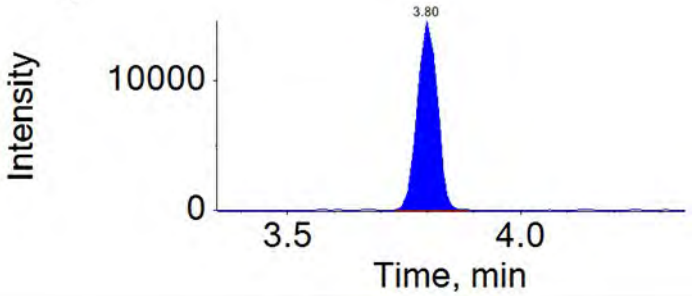
Sample Name: LCS312003 **Instrument Name:** LM27631 **File Name:** 18NOV09D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	43186.2	A	N/A	0.3633			
PFBS_2	3.80	1.00	15691.1	A	N/A	0.3633	2	50	
4:2-FTS	4.11	1.00	26213.8	A	N/A	0.6783			
4:2-FTS_2	4.11	1.00	17780.8	A	N/A	0.6783	6	50	
PFHxA	4.15	1.00	92961.3	A	N/A	0.0086			
PFHxA_2	4.15	1.00	798.2	A	N/A	0.0086	-24	50	
PFPeS	4.17	1.10	23682.8	A	N/A	0.5743			
PFPeS_2	4.17	1.10	13601.5	A	N/A	0.5743	6	50	
PFHxS	4.54	1.00	34087.4	A	N/A	0.3965			
PFHxS_2	4.54	1.00	13514.4	A	N/A	0.3965	11	50	
PFHpA	4.54	1.00	91234.9	A	N/A	0.0564			
PFHpA_2	4.54	1.00	5146.8	A	N/A	0.0564	-2	50	
6:2-FTS	4.89	1.00	23863.4	A	N/A	0.6270			
6:2-FTS_2	4.89	1.00	14961.3	A	N/A	0.6270	-8	50	
PFHpS	4.90	1.08	32797.3	A	N/A	0.4010			
PFHpS_2	4.90	1.08	13153.1	A	N/A	0.4010	2	50	
PFOA	4.91	1.00	102411.2	A	N/A	0.0576			
PFOA_2	4.91	1.00	5903.8	A	N/A	0.0576	-10	50	
PFOS	5.23	1.00	29966.5	A	N/A	0.3003			
PFOS_2	5.24	1.00	8999.9	A	N/A	0.3003	-15	50	
PFNA	5.25	1.00	80403.9	A	N/A	0.0212			
PFNA_2	5.25	1.00	1704.5	A	N/A	0.0212	3	50	
PFNS	5.54	1.06	18341.4	A	N/A	0.5052			
PFNS_2	5.54	1.06	9266.9	A	N/A	0.5052	4	50	
PFDA	5.56	1.00	66745.0	A	N/A	0.0104			
PFDA_2	5.57	1.00	696.0	A	N/A	0.0104	91	50	OOS
8:2-FTS	5.56	1.00	17316.3	A	N/A	0.6705			
8:2-FTS_2	5.56	1.00	11610.2	A	N/A	0.6705	8	50	
NMeFOSAA	5.71	1.00	7996.1	A	N/A	0.2419			
NMeFOSAA_2	5.70	1.00	1933.9	A	N/A	0.2419	11	50	
PFDS	5.80	1.11	16482.7	A	N/A	0.4841			
PFDS_2	5.80	1.11	7979.7	A	N/A	0.4841	5	50	
PFUnDA	5.82	1.00	53016.4	A	N/A	0.0012			
PFUnDA_2	5.87	1.01	65.7	A	N/A	0.0012	-59	50	OOS
NEtFOSAA	5.84	1.00	5998.1	M	N/A	0.5247			
NEtFOSAA_2	5.84	1.00	3147.3	M	N/A	0.5247	-13	50	
PFDoDA	6.04	1.00	59708.8	A	N/A	0.0116			
PFDoDA_2	6.04	1.00	691.2	A	N/A	0.0116	10	50	
10:2-FTS	6.06	1.09	13240.3	A	N/A	0.6790			
10:2-FTS_2	6.06	1.09	8990.5	A	N/A	0.6790	-5	50	
PFTrDA	6.24	1.03	48594.0	A	N/A	0.0107			
PFTrDA_2	6.23	1.03	521.9	A	N/A	0.0107	12	50	
PFTeDA	6.41	1.00	38301.2	A	N/A	0.0057			
PFTeDA_2	6.41	1.00	218.7	A	N/A	0.0057	6	50	
PFHxDA	6.72	1.05	16162.9	A	N/A	0.0746			
PFHxDA_2	6.71	1.05	1205.3	A	N/A	0.0746	26	50	
PFODA	6.98	1.09	9761.9	A	N/A	0.0271			
PFODA_2	6.97	1.09	264.3	A	N/A	0.0271	6	50	

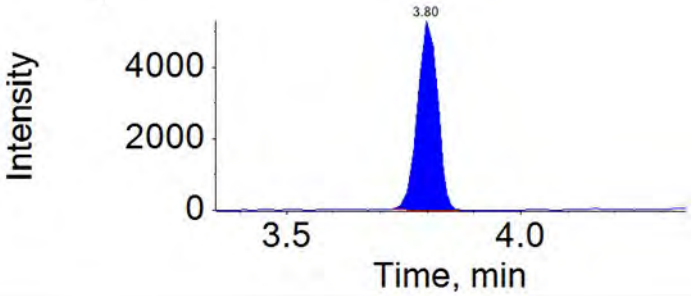
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

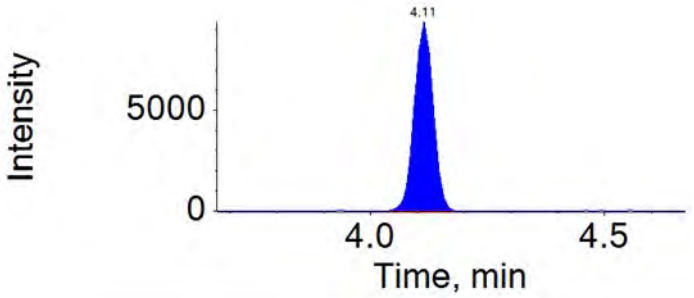
Component: PFBS
Primary Mass: 299.0 / 80.0



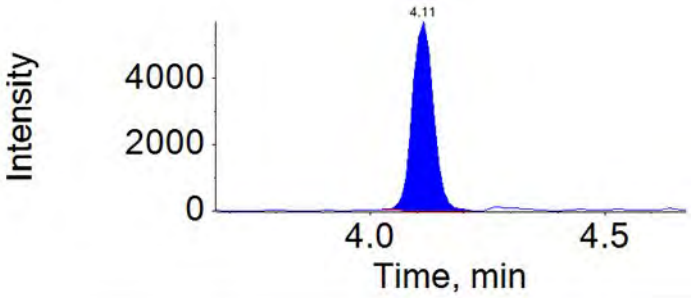
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



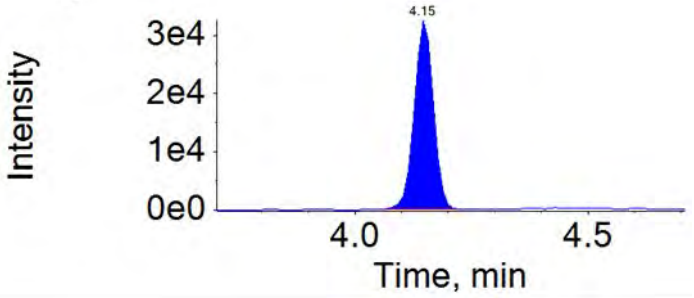
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



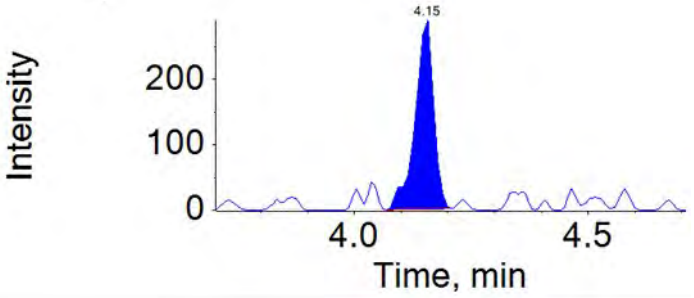
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



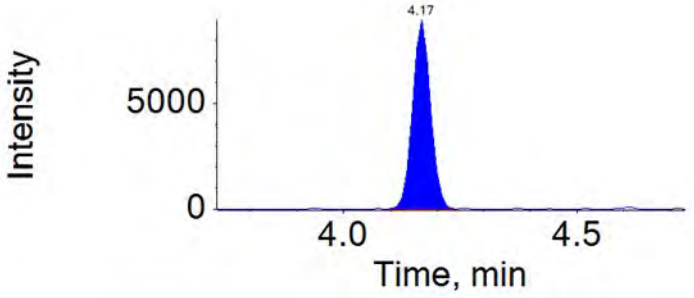
Component: PFHxA
Primary Mass: 313.0 / 269.0



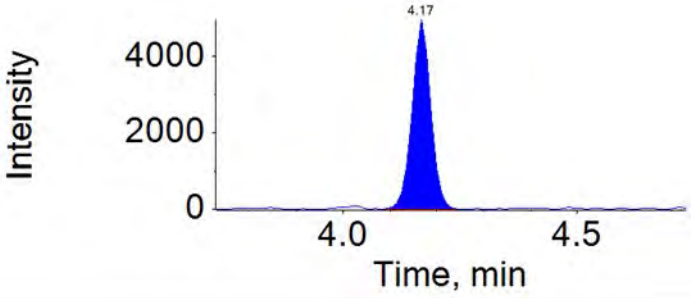
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



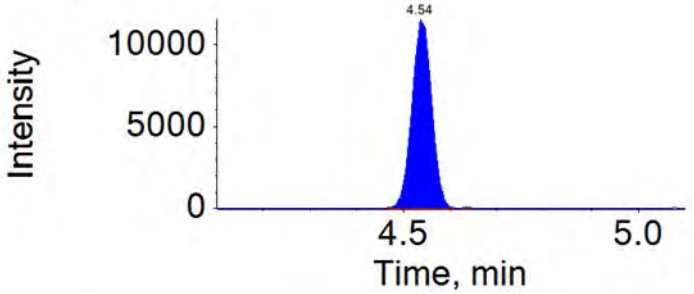
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



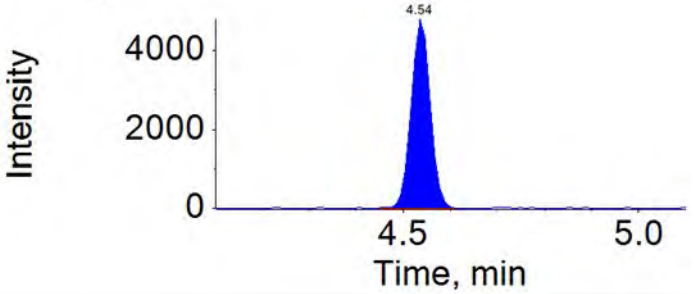
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

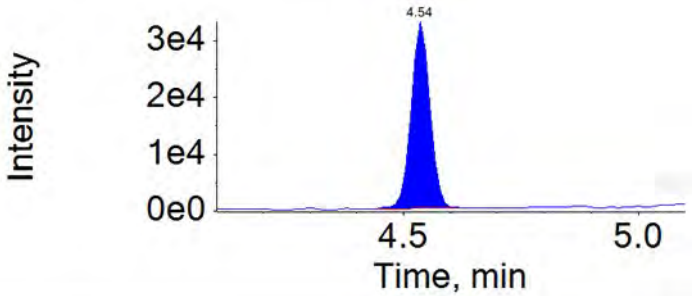
Component: PFHxS
Primary Mass: 399.0 / 80.0



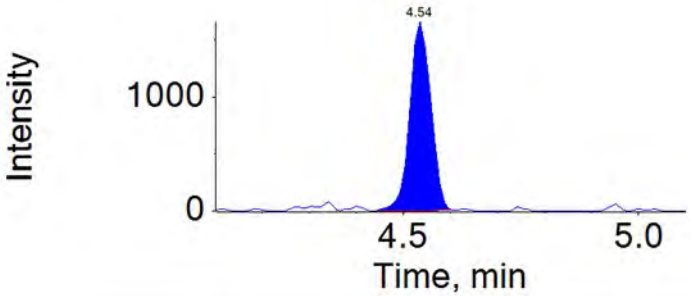
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



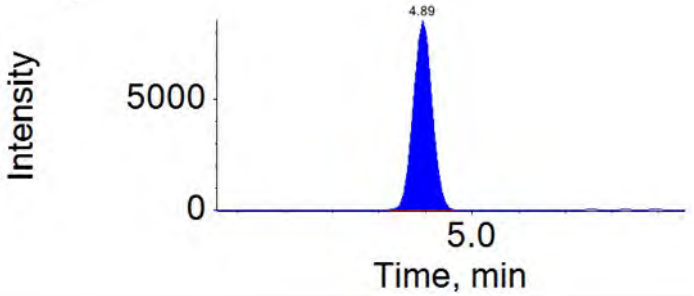
Component: PFHpA
Primary Mass: 363.0 / 319.0



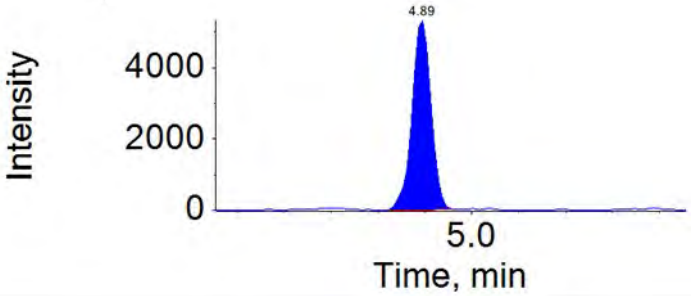
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



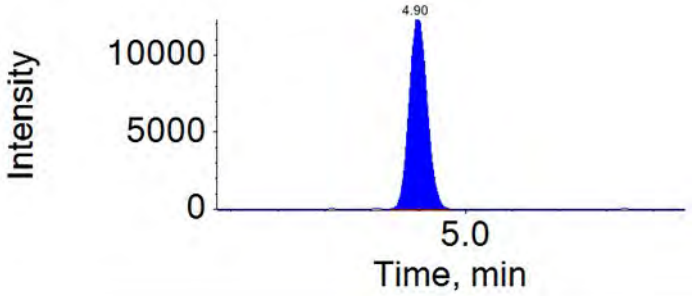
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



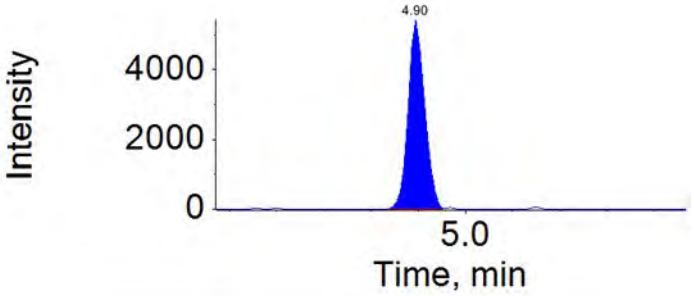
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



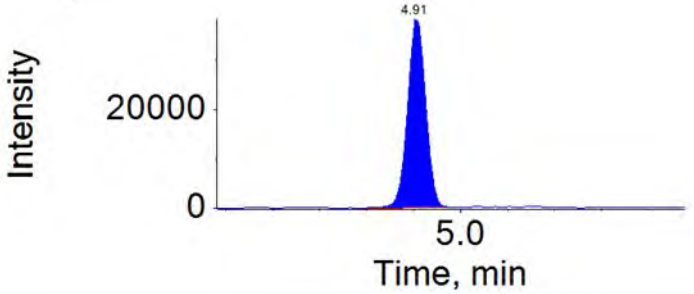
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



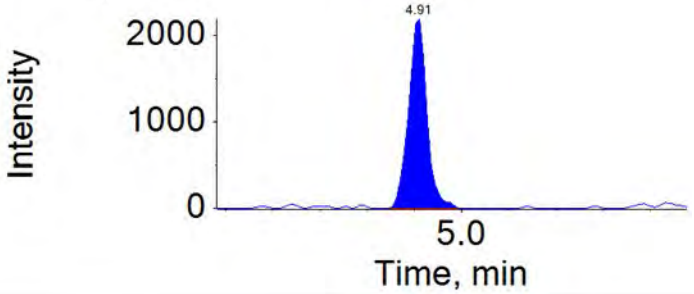
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

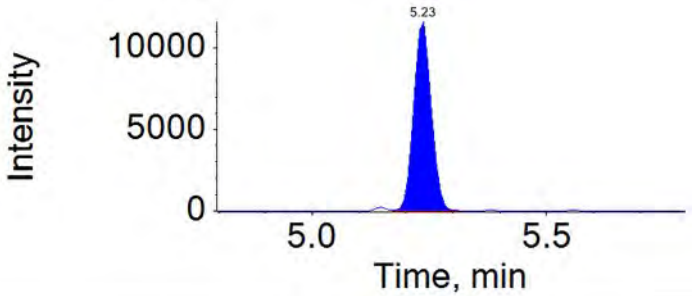
Component: PFOA
Primary Mass: 413.0 / 369.0



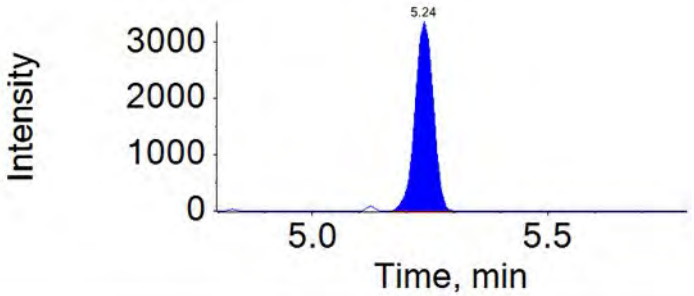
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



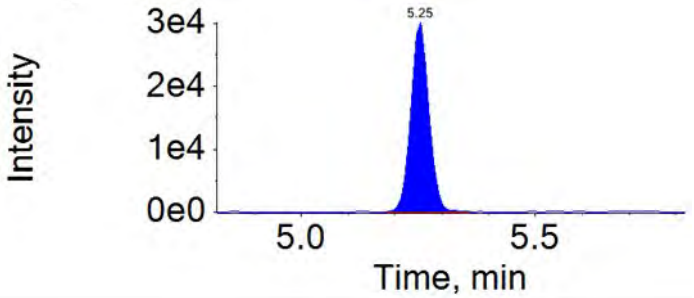
Component: PFOS
Primary Mass: 499.0 / 80.0



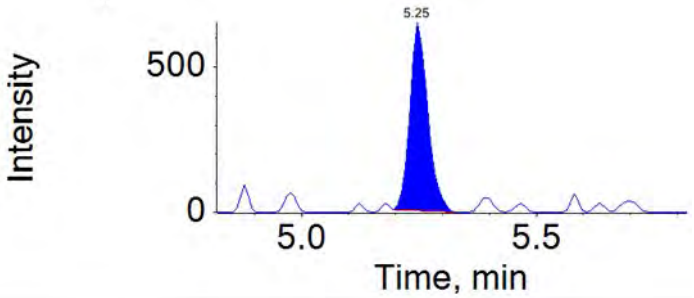
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



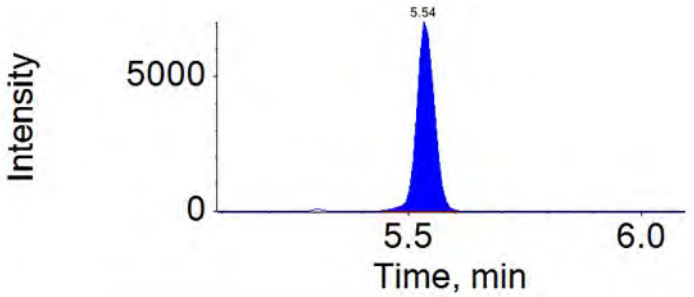
Component: PFNA
Primary Mass: 463.0 / 419.0



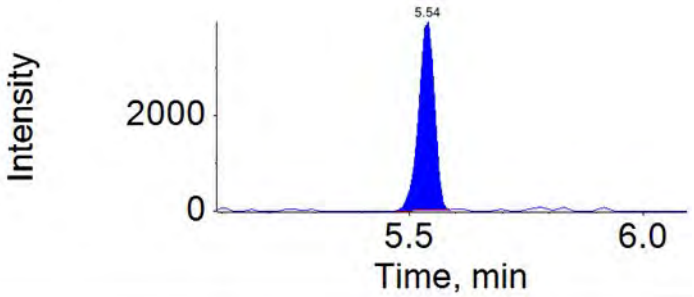
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



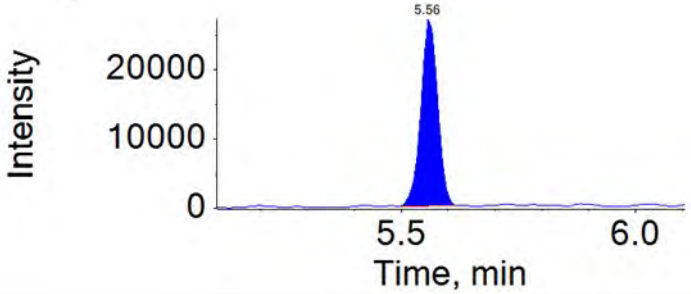
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



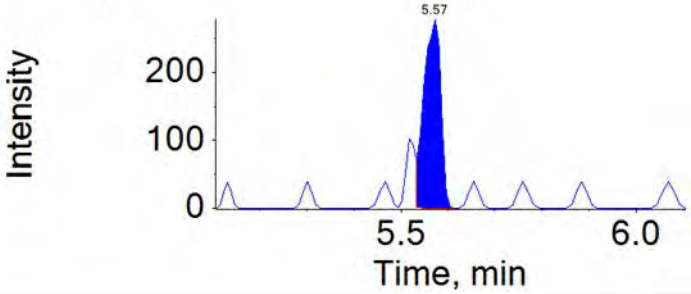
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

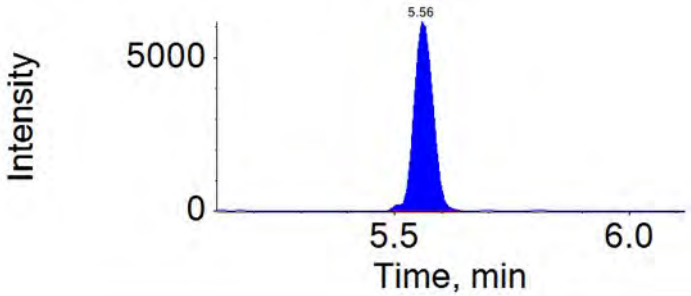
Component: PFDA
Primary Mass: 513.0 / 469.0



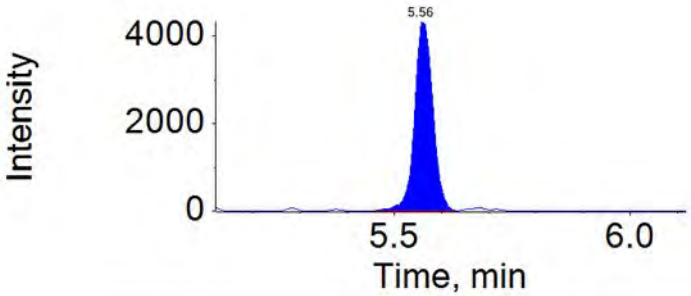
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



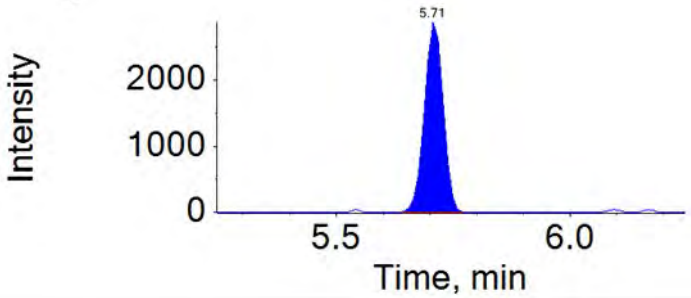
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



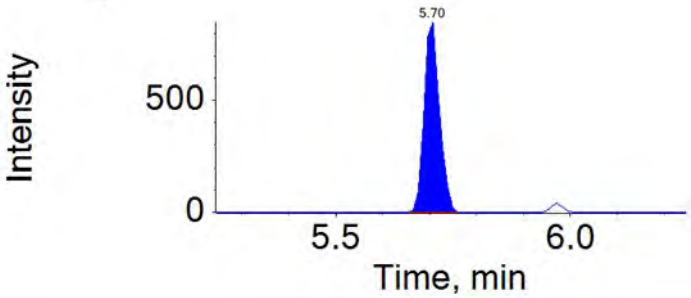
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



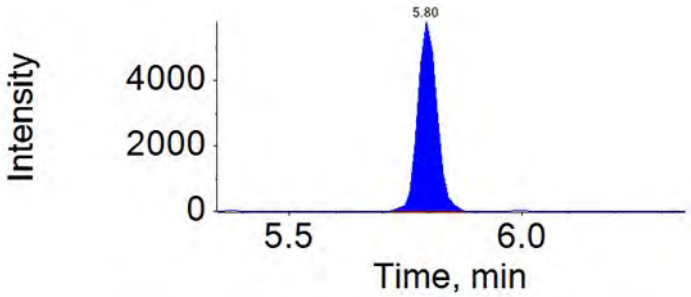
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



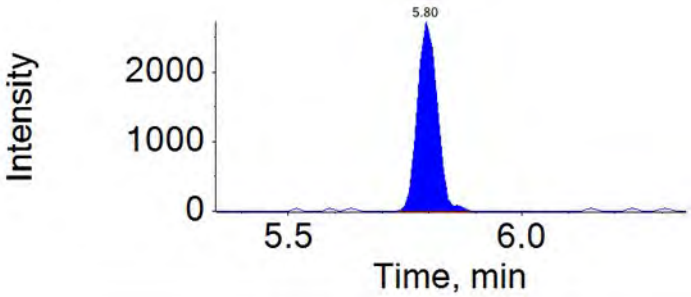
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



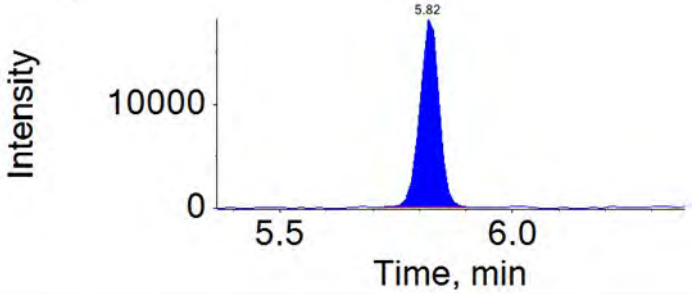
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



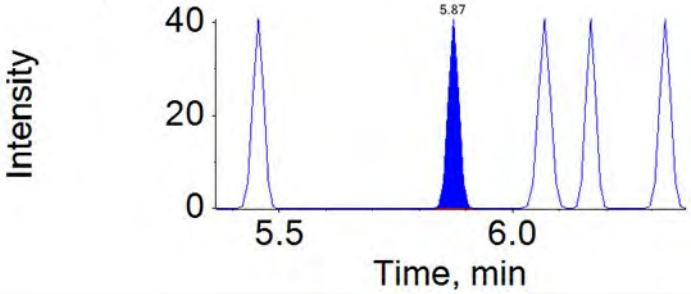
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

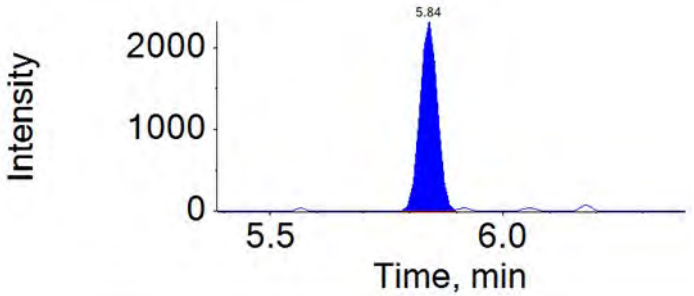
Component: PFUnDA
Primary Mass: 563.0 / 519.0



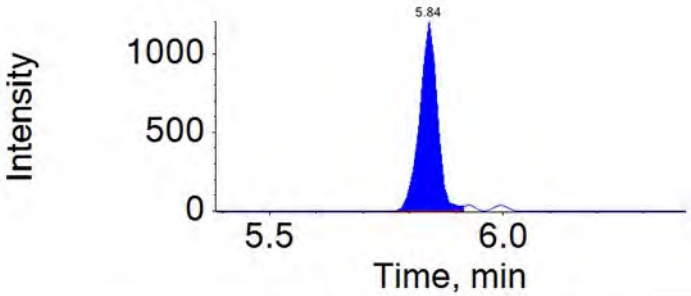
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



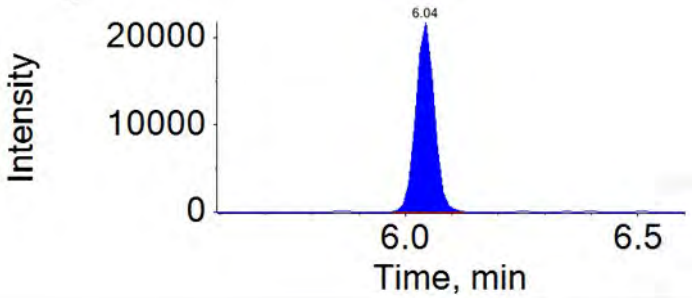
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



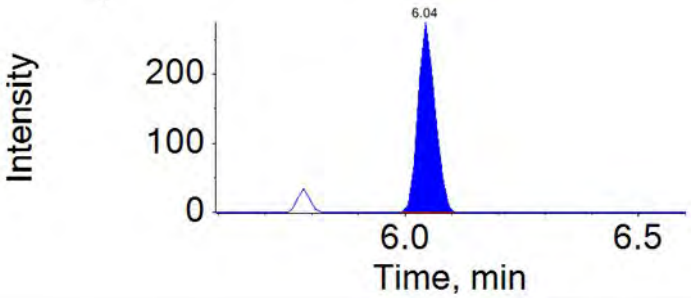
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



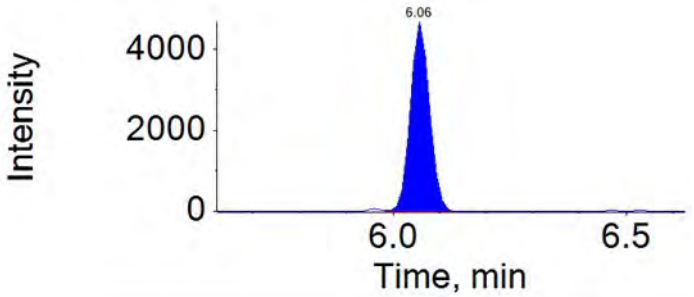
Component: PFDoDA
Primary Mass: 613.0 / 569.0



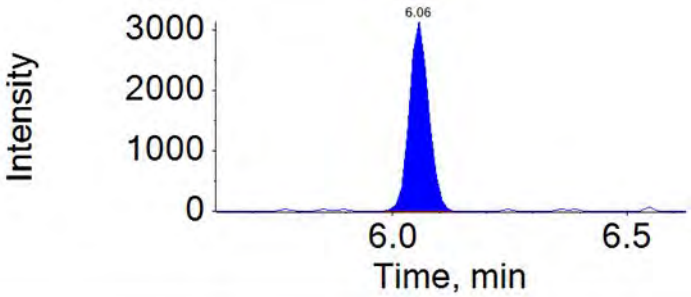
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



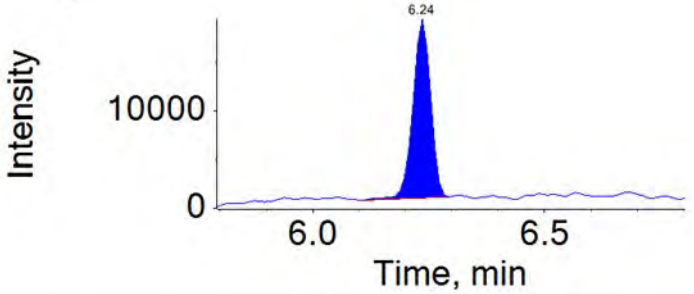
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



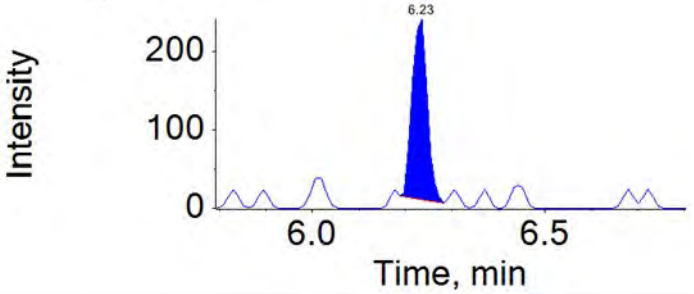
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

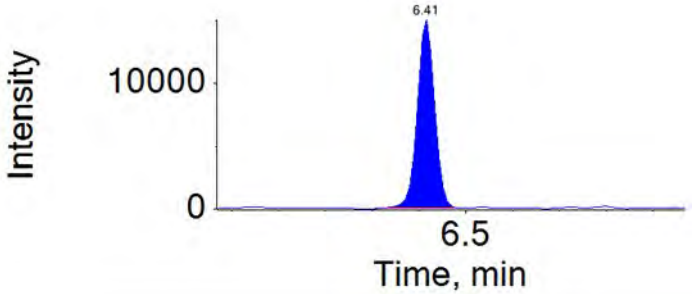
Component: PFTrDA
Primary Mass: 663.0 / 619.0



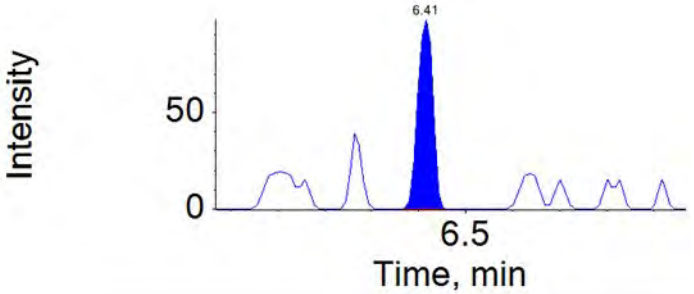
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



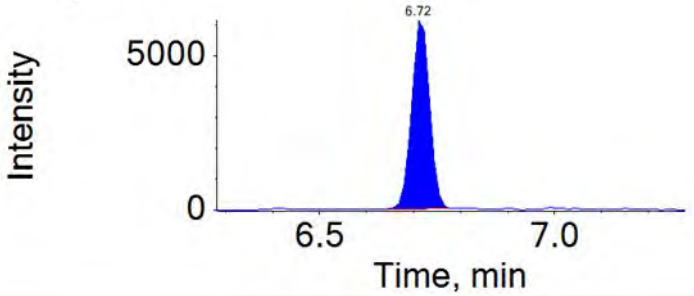
Component: PFTeDA
Primary Mass: 713.0 / 669.0



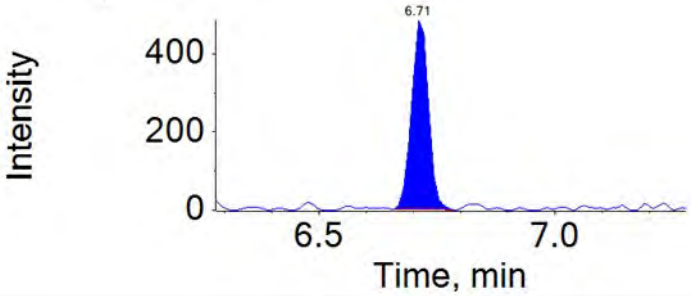
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



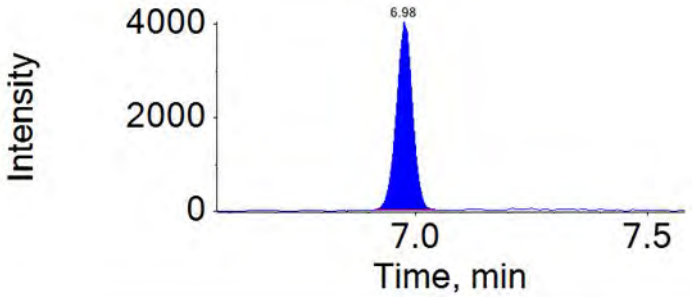
Component: PFHxDA
Primary Mass: 813.0 / 769.0



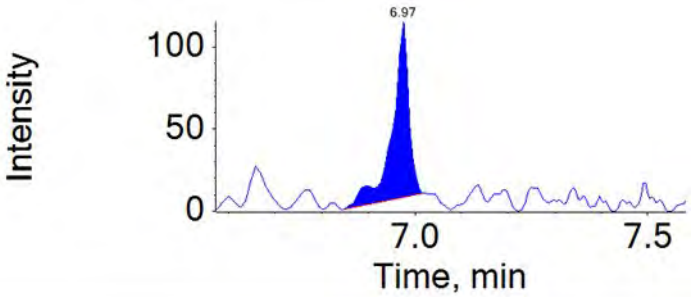
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



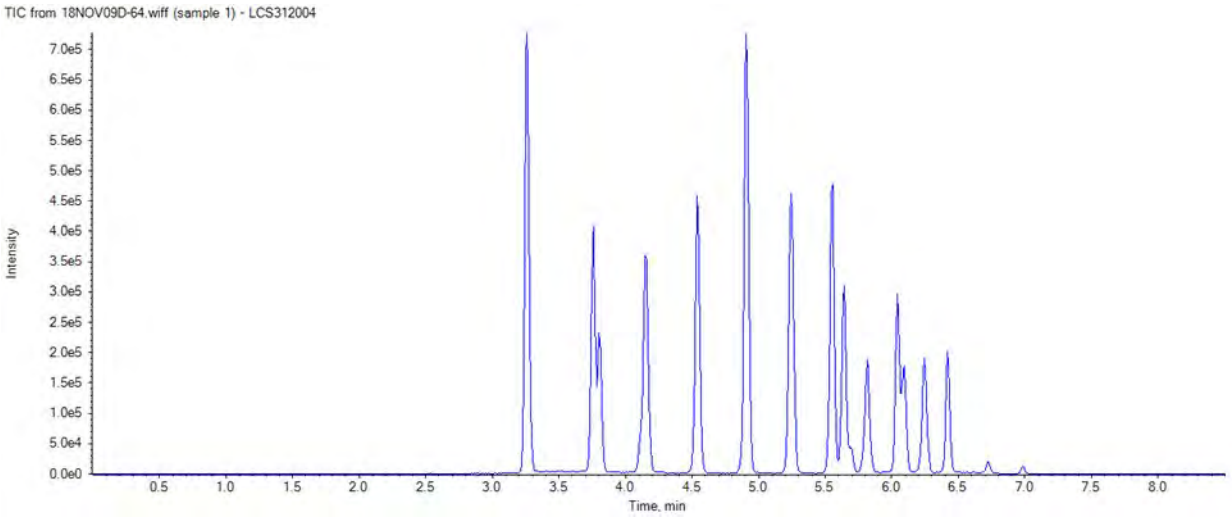
APPROVED
By MCD at 8:48 pm, 11/9/18

REVIEWED
By umar at 4:25 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312004 11/10/2018 12:03:44 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312004	EPA 537 mod QSM 5.1 table B-15 18312004	18NOV09D-64.wiff	2018-11-09T14:07:27



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	734192.9	725974.7	1	50	
13C2-PFOA	5.00	507585.3	506876.7	0	50	
13C4-PFOS	4.78	266990.3	274910.1	-3	50	
13C2-PFDA	5.00	298940.9	307276.7	-3	50	

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:03:44 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312004	EPA 537 mod QSM 5.1 table B-15 18312004	18NOV09D-64.wiff	2018-11-09T14:07:27

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	173620.4	719398.9	0.241	5.440	5.650	104	70-130	
PFPeA	159420.0	713688.4	0.223	5.440	5.310	98	70-130	
PFBS	86246.6	359612.0	0.240	4.812	4.837	101	72-127	
4:2-FTS	57561.1	46308.8	1.243	14.944	13.366	89	70-130	
PFHxA	192379.6	608112.4	0.316	5.440	5.427	100	77-132	
PFPeS	45131.6	359612.0	0.126	5.104	4.951	97	70-130	
PFHxS	66527.4	289113.1	0.230	5.144	4.665	91	71-130	
PFHpA	204610.6	473269.2	0.432	5.440	5.816	107	75-139	
6:2-FTS	47108.0	33603.2	1.402	15.168	13.989	92	70-130	
PFHpS	68206.6	289113.1	0.236	5.176	4.937	95	70-130	
PFOA	206072.1	804321.6	0.256	5.440	5.770	106	76-136	
PFOS	63039.5	253461.8	0.249	5.200	5.159	99	67-134	
PFNA	171879.6	436830.4	0.393	5.440	5.882	108	73-144	
PFNS	41098.7	253461.8	0.162	5.224	5.143	98	70-130	
PFDA	136106.0	536765.6	0.254	5.440	5.580	103	67-141	
8:2-FTS	36945.8	24016.5	1.538	15.328	13.870	90	70-130	
PFOSA	134220.0	570366.6	0.235	5.440	5.088	94	70-130	
NMeFOSAA	15599.1	80489.0	0.194	5.440	3.989	73	67-124	
PFDS	31247.4	253461.8	0.123	5.240	4.711	90	70-130	
PFUnDA	107715.6	241255.4	0.446	5.440	5.122	94	83-132	
NEtFOSAA	12912.0	55386.7	0.233	5.440	4.007	74	60-131	
PFDoDA	116982.1	488669.5	0.239	5.440	5.189	95	72-137	
10:2-FTS	25712.9	24016.5	1.071	15.424	13.335	86	70-130	
NMePFOSAE	75401.4	251688.8	0.300	5.440	5.370	99	70-130	
NMePFOSA	12721.5	57069.6	0.223	5.440	4.991	92	70-130	
PFDoS	14921.7	253461.8	0.059	5.264	4.545	86	70-130	
NEtPFOSAE	86103.0	213636.3	0.403	5.440	5.168	95	70-130	
NEtPFOSA	12443.3	47162.5	0.264	5.440	4.648	85	70-130	
PFTrDA	98180.4	488669.5	0.201	5.440	5.068	93	57-137	
PFTeDA	79821.1	338635.5	0.236	5.440	5.537	102	70-142	
PFHxDA	35529.8	338635.5	0.105	5.440	5.210	96	70-130	
PFODA	25174.1	338635.5	0.074	5.440	4.260	78	70-130	

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18312004 11/10/2018 12:03:44 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

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

Result Table: 18312004 11/10/2018 12:05:42 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS312004			**Data File:**		18NOV09D-64.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312004			**Acquis Date:**		2018-11-09T14:07:27
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	94			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18312004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18312004			**Operator:**		MCD7824
Sample Wt.:	0.25000			**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	734192.9	725974.7	1	50	
13C2-PFOA	5.0	507585.3	506876.7	0	50	
13C4-PFOS	4.8	266990.3	274910.1	-3	50	
13C2-PFDA	5.0	298940.9	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
E13C4-PFBA	719398.9	13C3-PFBA	734192.9	0.980	20.000	18.138	91	50-150	
E13C5-PFPeA	713688.4	13C3-PFBA	734192.9	0.972	20.000	16.939	85	50-150	
E13C3-PFBS	359612.0	13C3-PFBA	734192.9	0.490	18.600	14.379	77	50-150	
E13C2-4:2-FTS	46308.8	13C2-PFOA	507585.3	0.091	18.680	16.467	88	50-150	
E13C5-PFHxA	608112.4	13C2-PFOA	507585.3	1.198	20.000	17.628	88	50-150	
E13C3-PFHxS	289113.1	13C2-PFOA	507585.3	0.570	18.920	16.356	86	50-150	
E13C4-PFHpA	473269.2	13C2-PFOA	507585.3	0.932	20.000	16.966	85	50-150	
E13C2-6:2-FTS	33603.2	13C2-PFOA	507585.3	0.066	19.000	17.659	93	50-150	
E13C8-PFOA	804321.6	13C2-PFOA	507585.3	1.585	20.000	17.676	88	50-150	
E13C8-PFOS	253461.8	13C4-PFOS	266990.3	0.949	19.120	16.791	88	50-150	
E13C9-PFNA	436830.4	13C4-PFOS	266990.3	1.636	20.000	17.877	89	50-150	
E13C6-PFDA	536765.6	13C2-PFDA	298940.9	1.796	20.000	18.062	90	50-150	
E13C2-8:2-FTS	24016.5	13C2-PFDA	298940.9	0.080	19.160	17.004	89	50-150	
E13C8-PFOSA	570366.6	13C2-PFDA	298940.9	1.908	20.000	16.654	83	50-150	
Ed3-NMeFOSAA	80489.0	13C2-PFDA	298940.9	0.269	20.000	20.028	100	50-150	
E13C7-PFUnDA	241255.4	13C2-PFDA	298940.9	0.807	20.000	18.622	93	50-150	
Ed5-NEtFOSAA	55386.7	13C2-PFDA	298940.9	0.185	20.000	17.151	86	50-150	
E13C2-PFDoDA	488669.5	13C2-PFDA	298940.9	1.635	20.000	17.627	88	50-150	
Ed7-NMePFOSAE	251688.8	13C2-PFDA	298940.9	0.842	20.000	15.661	78	50-150	
Ed3-NMePFOSA	57069.6	13C2-PFDA	298940.9	0.191	20.000	13.980	70	50-150	
Ed9-NEtPFOSAE	213636.3	13C2-PFDA	298940.9	0.715	20.000	16.325	82	50-150	
Ed5-NEtPFOSA	47162.5	13C2-PFDA	298940.9	0.158	20.000	14.612	73	50-150	
E13C2-PFTeDA	338635.5	13C2-PFDA	298940.9	1.133	20.000	16.312	82	50-150	

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

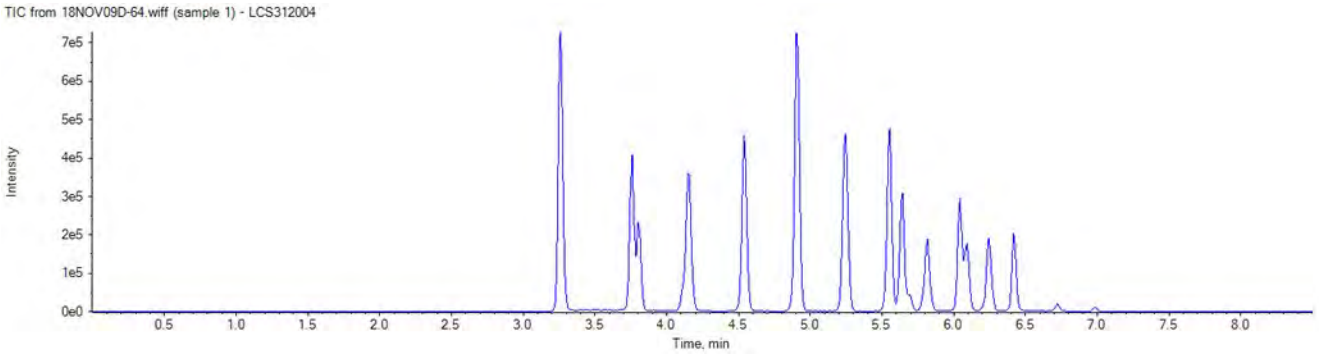
Analyte Quantitation Peak Table

Sample Name: LCS312004 **Instrument Name:** LM27631 **File Name:** 18NOV09D-64.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
0.25000	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/L)
PFBA	3.26	1.000	173620.4		A	13C4-PFBA	3.26	719398.9	0.241	5.650
PFPeA	3.76	1.000	159420.0		A	13C5-PFPeA	3.76	713688.4	0.223	5.310
PFBS	3.81	1.000	86246.6		A	13C3-PFBS	3.81	359612.0	0.240	4.837
4:2-FTS	4.12	1.000	57561.1		A	13C2-4:2-FTS	4.12	46308.8	1.243	13.366
PFHxA	4.15	1.000	192379.6		A	13C5-PFHxA	4.15	608112.4	0.316	5.427
PFPeS	4.17	1.100	45131.6		A	13C3-PFBS	3.81	359612.0	0.126	4.951
PFHxS	4.54	1.000	66527.4		A	13C3-PFHxS	4.54	289113.1	0.230	4.665
PFHpA	4.54	1.000	204610.6		A	13C4-PFHpA	4.54	473269.2	0.432	5.816
6:2-FTS	4.90	1.000	47108.0		A	13C2-6:2-FTS	4.90	33603.2	1.402	13.989
PFHpS	4.90	1.080	68206.6		A	13C3-PFHxS	4.54	289113.1	0.236	4.937
PFOA	4.91	1.000	206072.1		A	13C8-PFOA	4.91	804321.6	0.256	5.770
PFOS	5.24	1.000	63039.5		A	13C8-PFOS	5.24	253461.8	0.249	5.159
PFNA	5.25	1.000	171879.6		A	13C9-PFNA	5.25	436830.4	0.393	5.882
PFNS	5.53	1.060	41098.7		A	13C8-PFOS	5.24	253461.8	0.162	5.143
PFDA	5.55	1.000	136106.0		A	13C6-PFDA	5.55	536765.6	0.254	5.580
8:2-FTS	5.55	1.000	36945.8		A	13C2-8:2-FTS	5.56	24016.5	1.538	13.870
PFOSA	5.64	1.000	134220.0		A	13C8-PFOSA	5.64	570366.6	0.235	5.088
NMeFOSAA	5.70	1.000	15599.1		A	d3-NMeFOSAA	5.69	80489.0	0.194	3.989
PFDS	5.79	1.110	31247.4		A	13C8-PFOS	5.24	253461.8	0.123	4.711
PFUnDA	5.81	1.000	107715.6		A	13C7-PFUnDA	5.82	241255.4	0.446	5.122
NEtFOSAA	5.83	1.000	12912.0		M	d5-NEtFOSAA	5.83	55386.7	0.233	4.007
PFDoDA	6.04	1.000	116982.1		A	13C2-PFDoDA	6.04	488669.5	0.239	5.189
10:2-FTS	6.06	1.090	25712.9		A	13C2-8:2-FTS	5.56	24016.5	1.071	13.335
NMePFOSAE	6.10	1.000	75401.4		A	d7-NMePFOSAE	6.09	251688.8	0.300	5.370
NMePFOSA	6.11	1.000	12721.5		A	d3-NMePFOSA	6.10	57069.6	0.223	4.991
PFDoS	6.21	1.190	14921.7		A	13C8-PFOS	5.24	253461.8	0.059	4.545
NEtPFOSAE	6.25	1.000	86103.0		A	d9-NEtPFOSAE	6.24	213636.3	0.403	5.168
NEtPFOSA	6.27	1.000	12443.3		A	d5-NEtPFOSA	6.26	47162.5	0.264	4.648
PFTrDA	6.24	1.030	98180.4		A	13C2-PFDoDA	6.04	488669.5	0.201	5.068
PFTeDA	6.42	1.000	79821.1		A	13C2-PFTeDA	6.42	338635.5	0.236	5.537
PFHxDA	6.72	1.050	35529.8		A	13C2-PFTeDA	6.42	338635.5	0.105	5.210
PFODA	6.99	1.090	25174.1		A	13C2-PFTeDA	6.42	338635.5	0.074	4.260

Total Ion Chromatogram

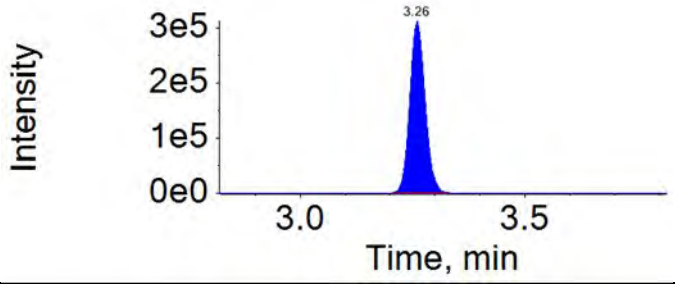


APPROVED
By MCD at 0:13 am, 11/10/18

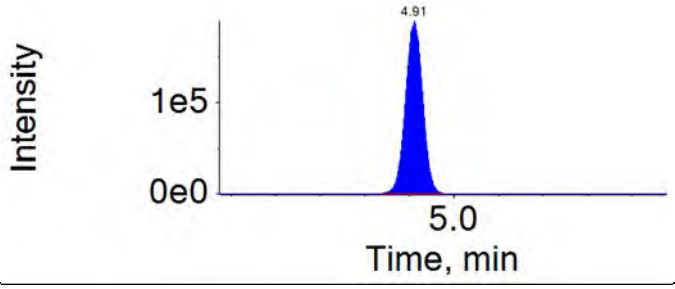
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

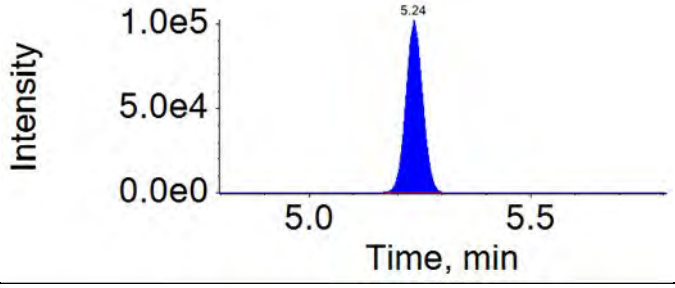
Injection Standard: 13C3-PFBA
216.0 / 172.0



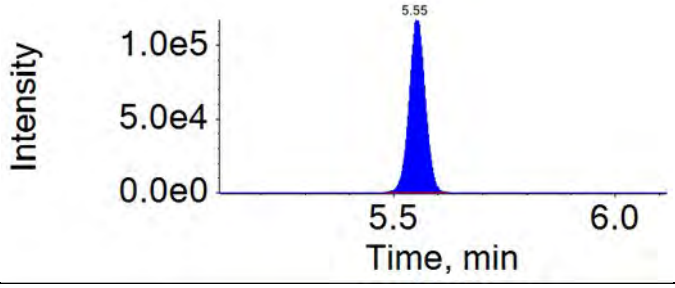
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

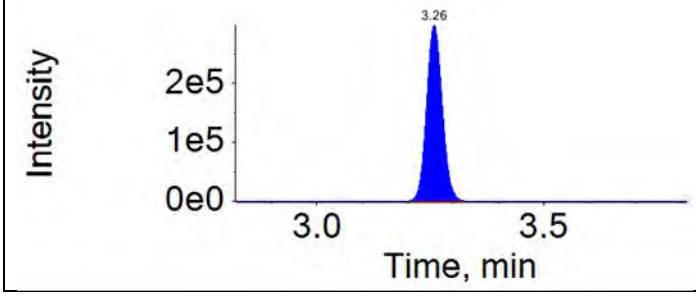


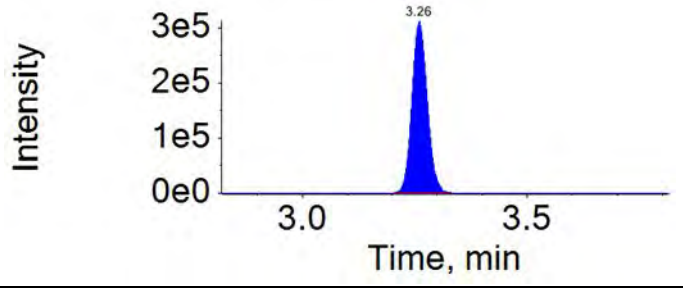
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

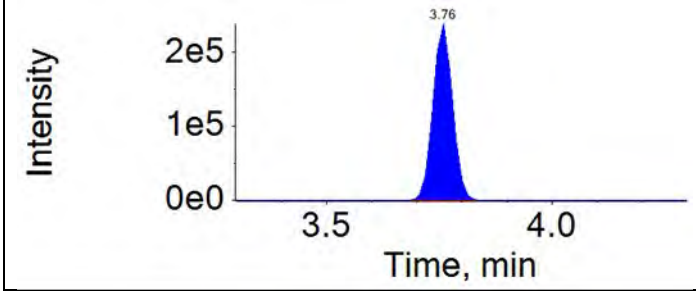
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

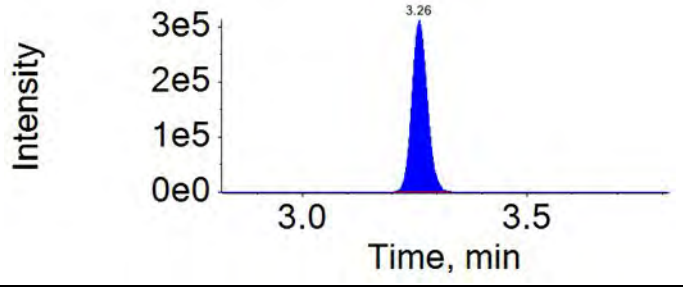
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



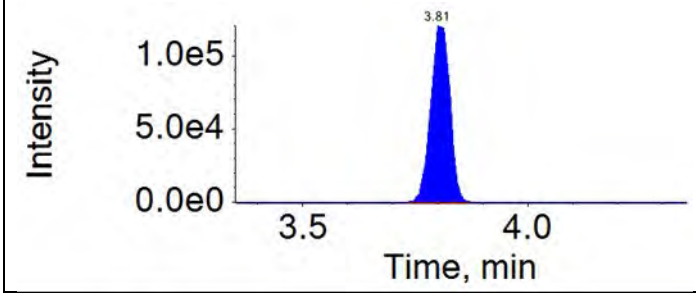


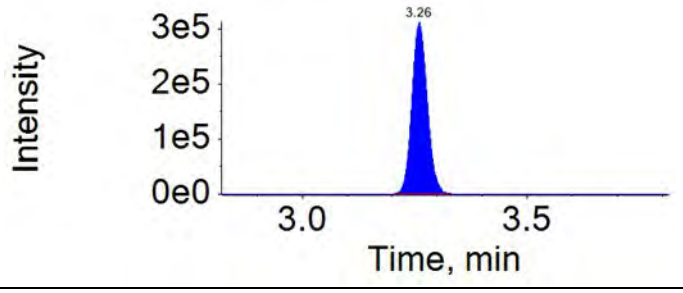
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



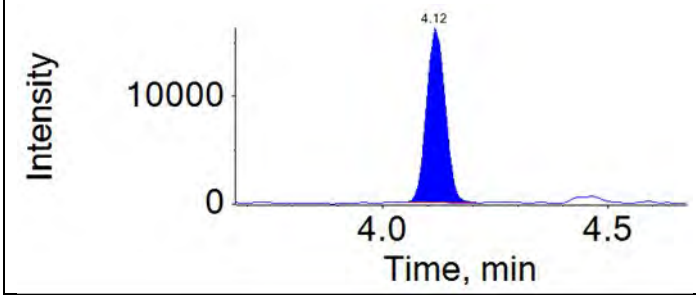


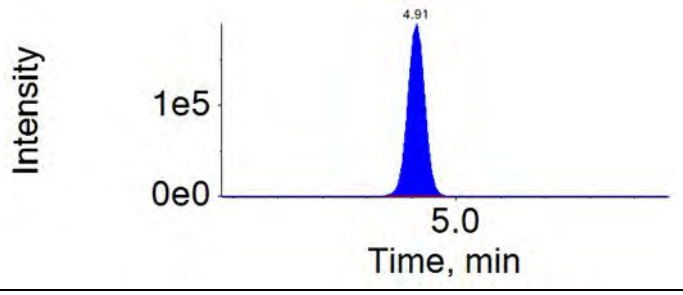
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





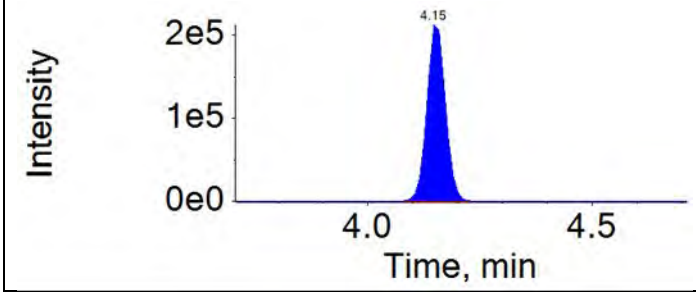
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

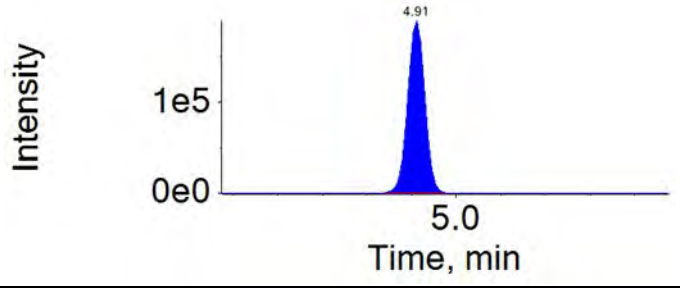




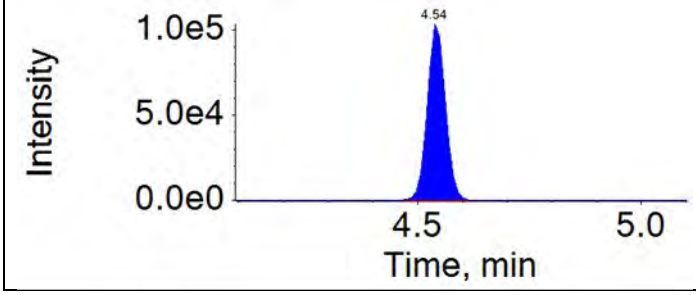
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

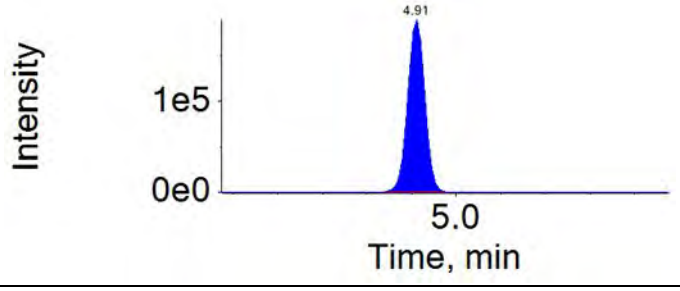
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



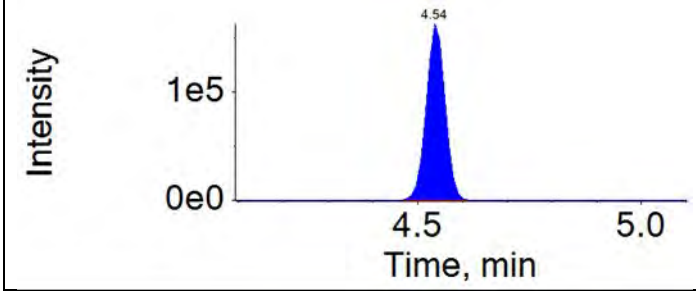


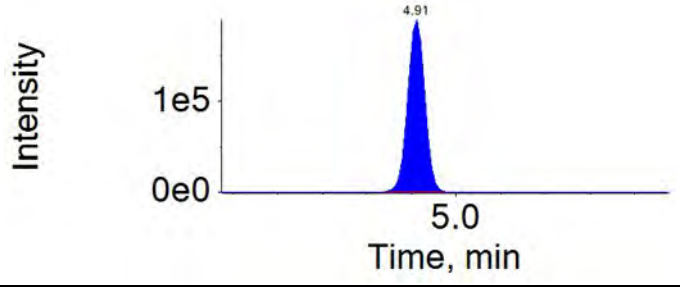
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



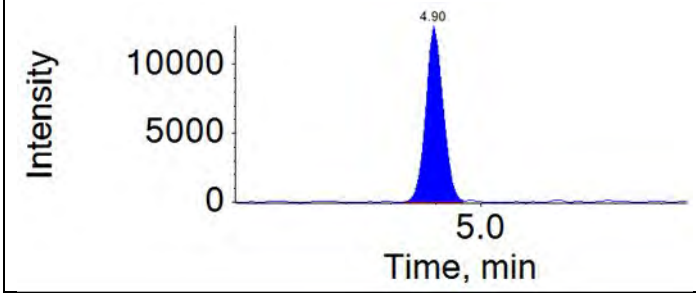


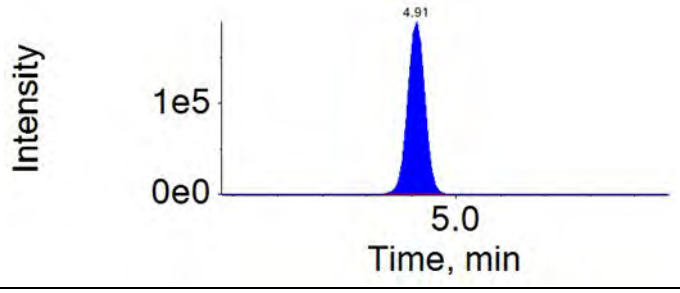
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

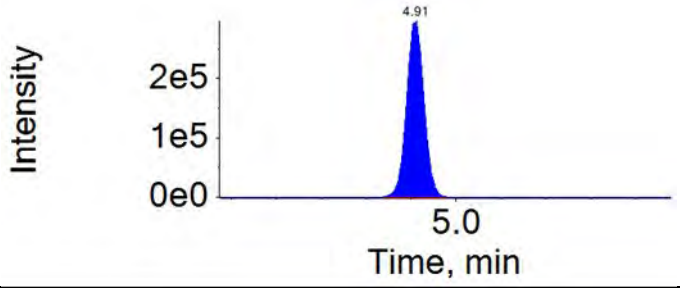
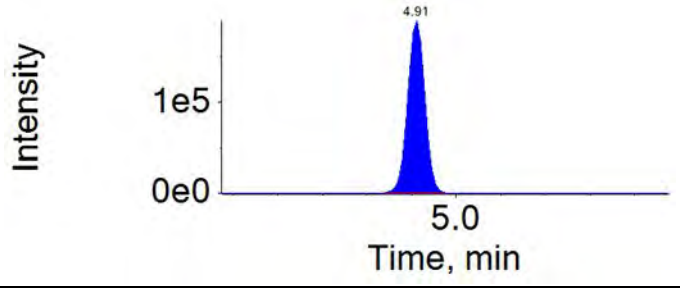


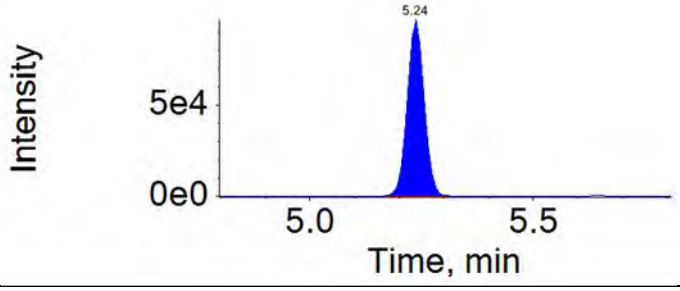
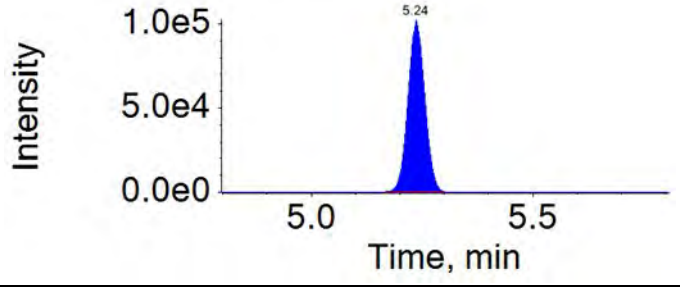


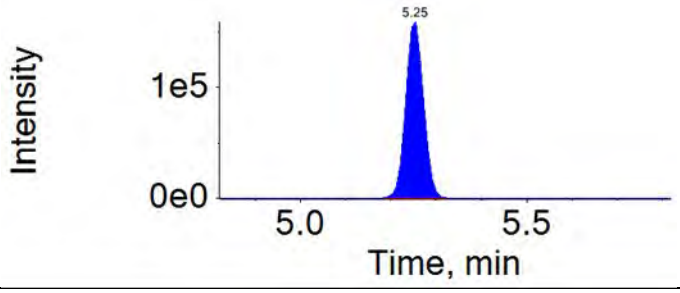
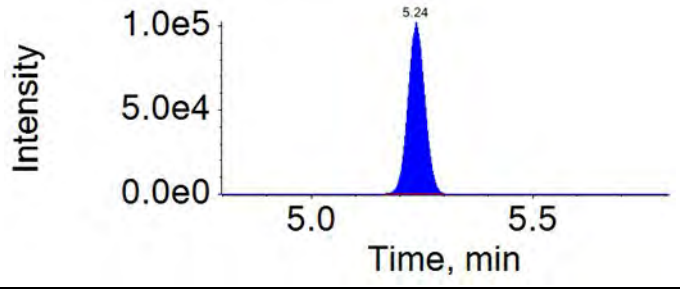
APPROVED
By MCD at 0:13 am, 11/10/18

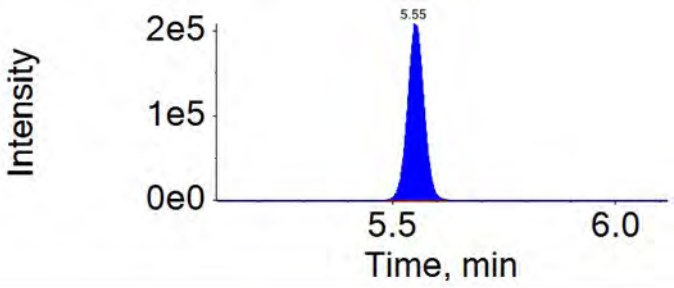
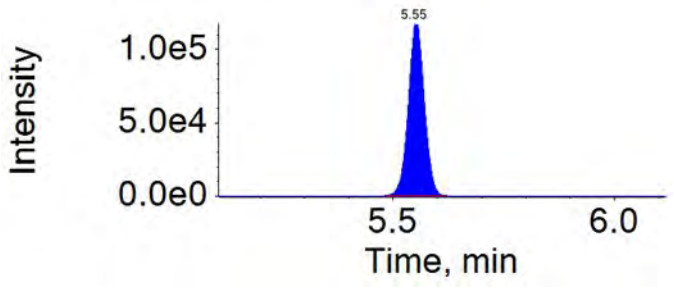
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

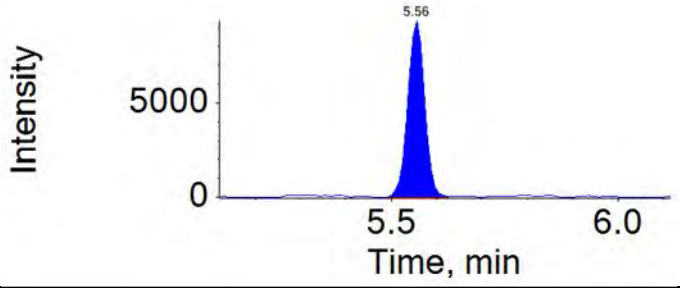
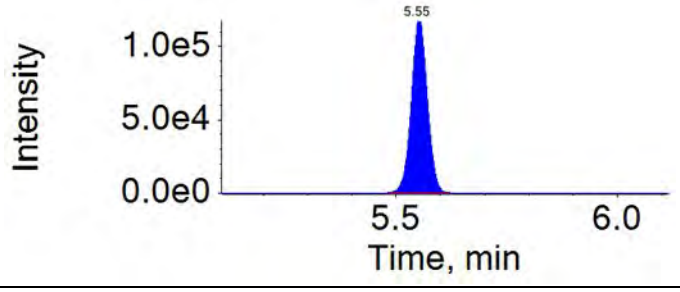
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

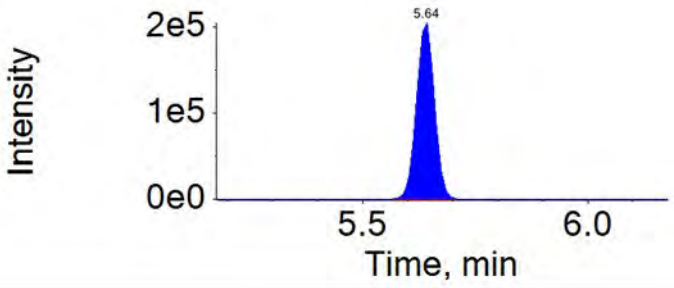
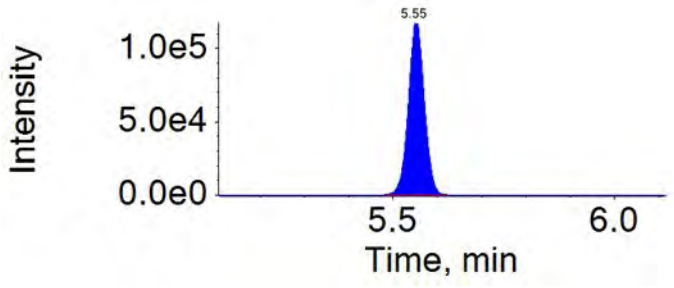
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

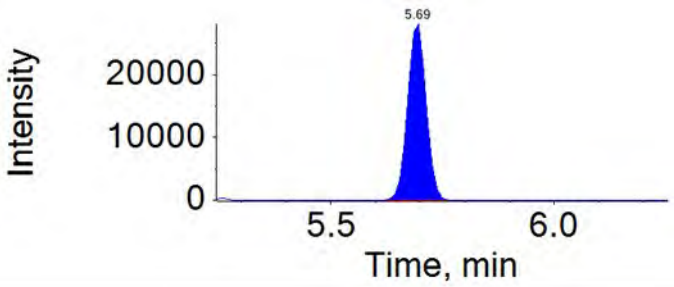
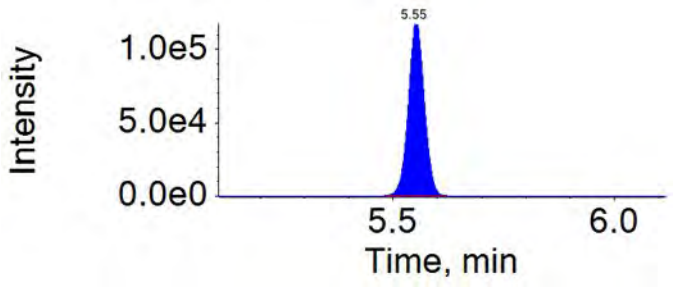
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

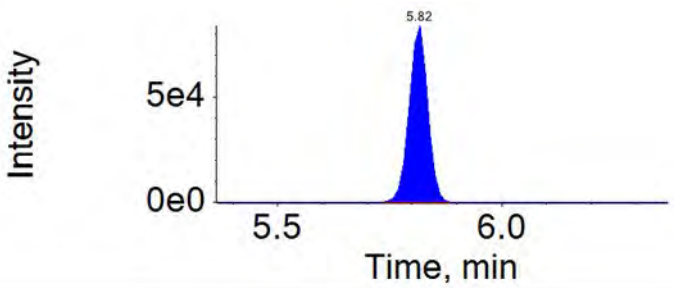
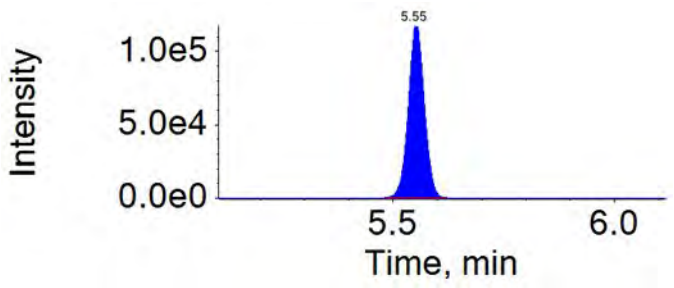
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

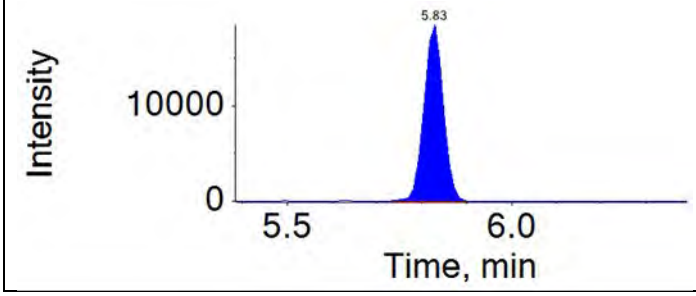
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

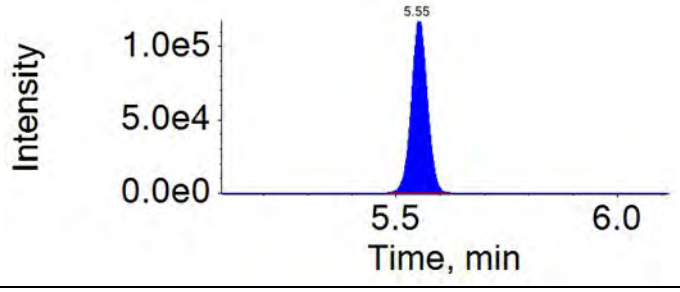
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

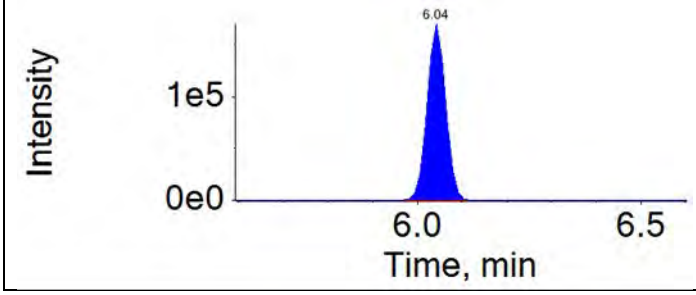
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

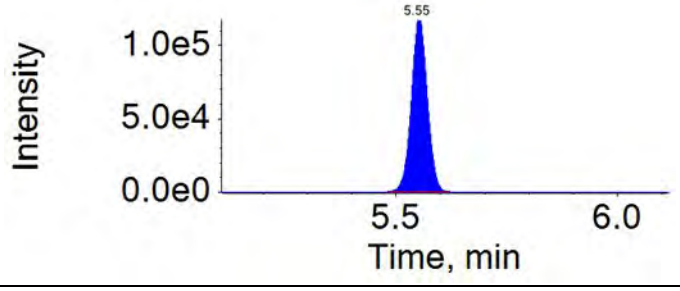
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



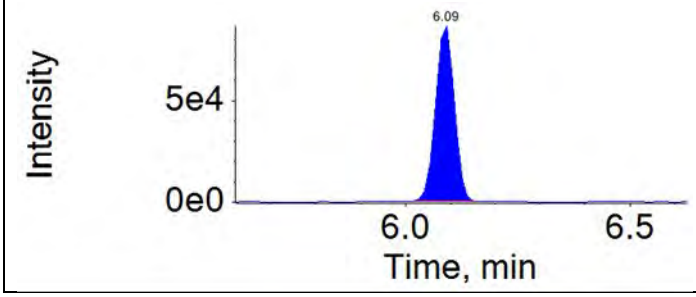


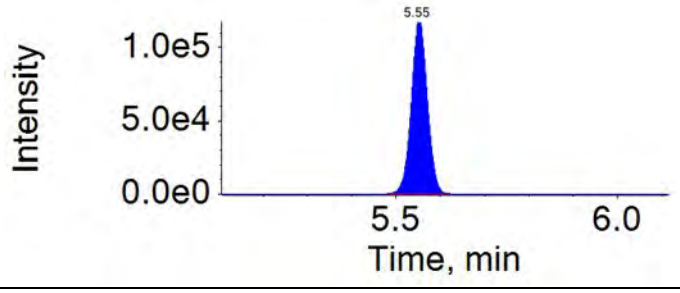
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



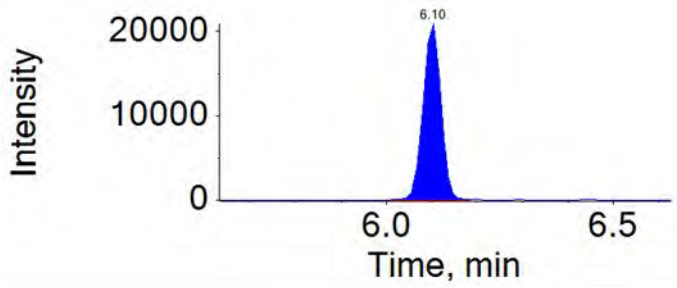


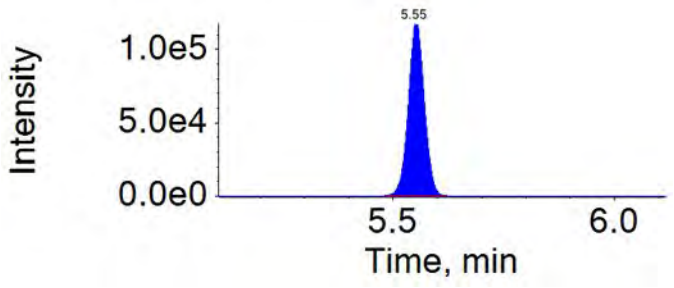
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



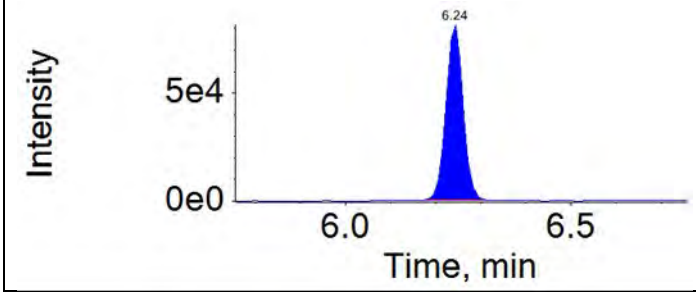


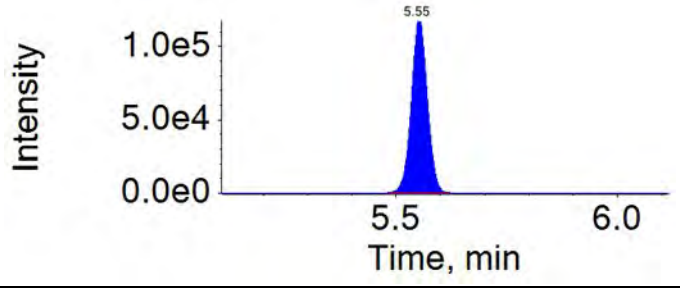
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

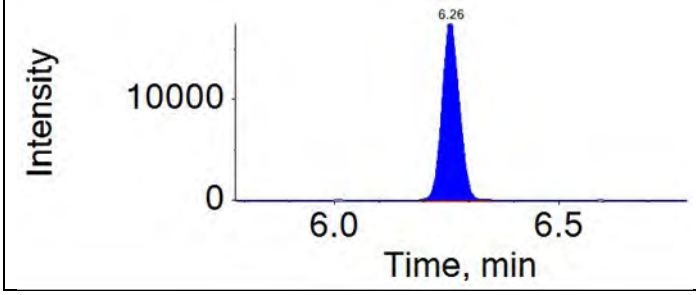
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

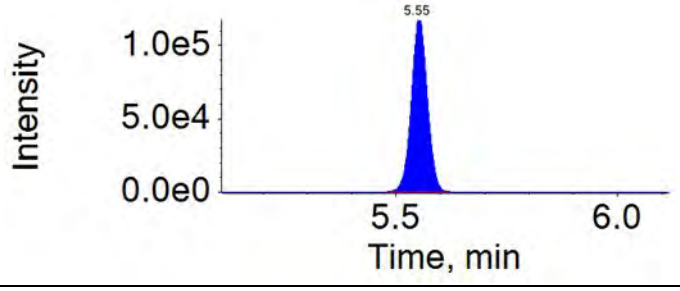
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



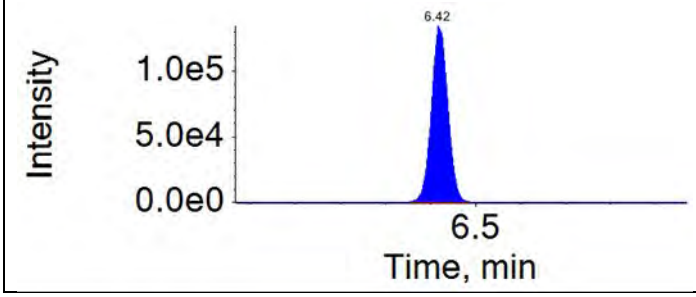


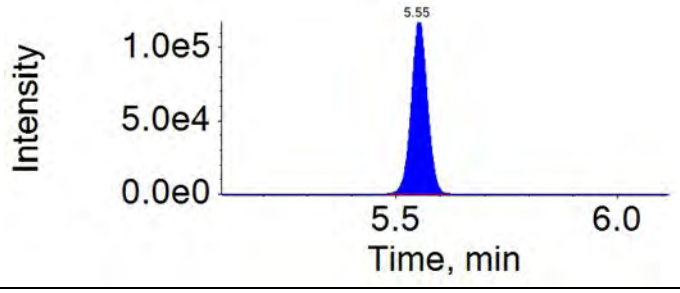
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



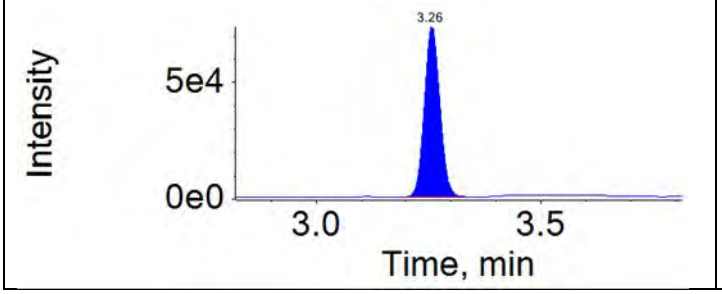


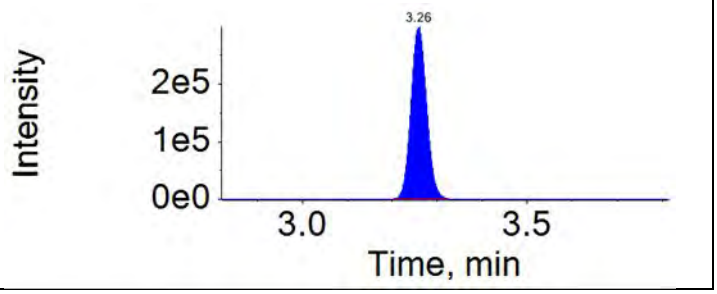
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

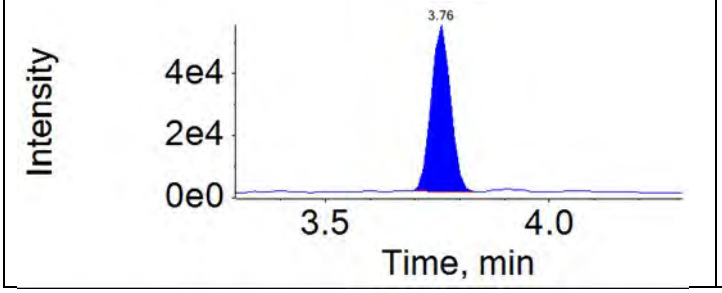
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

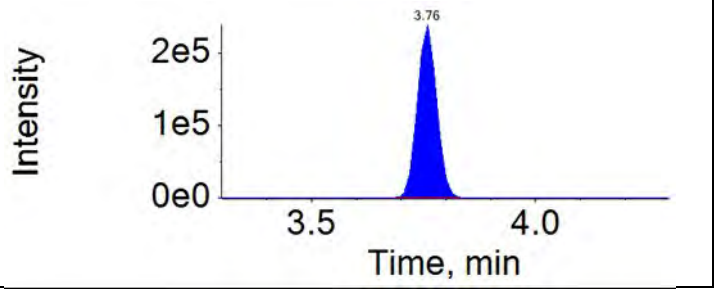
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



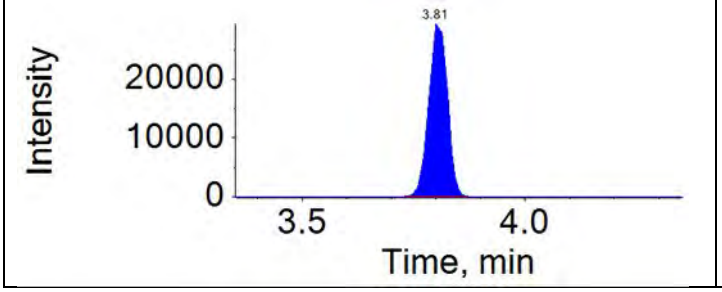


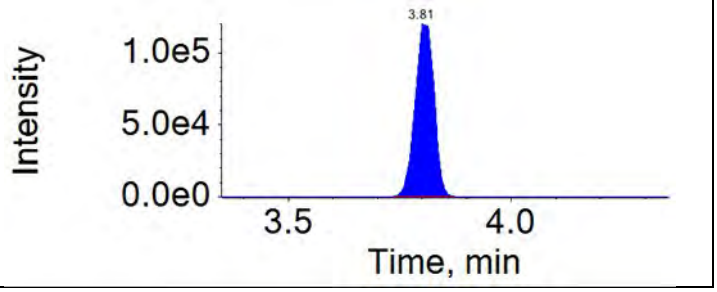
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



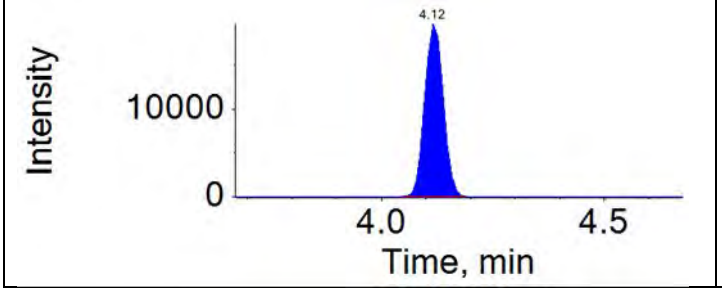


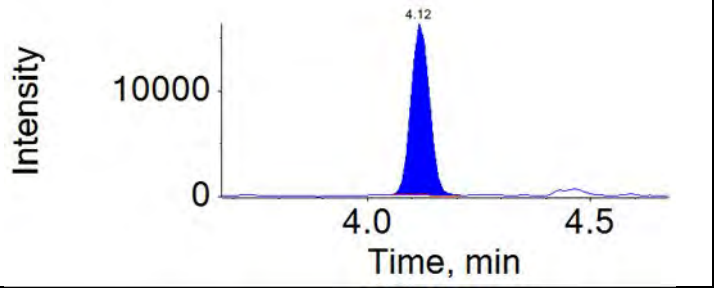
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

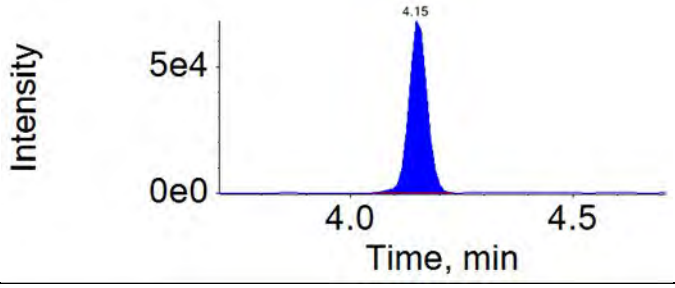
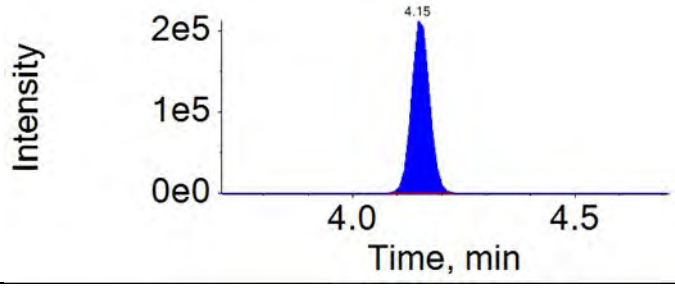


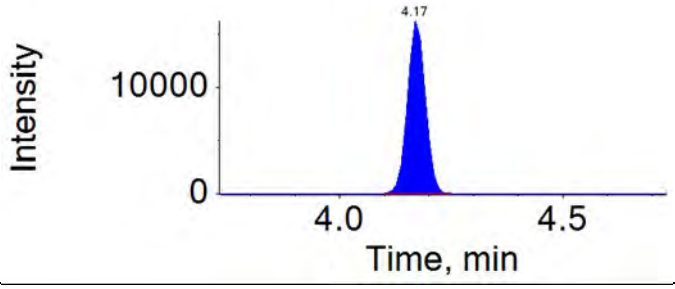
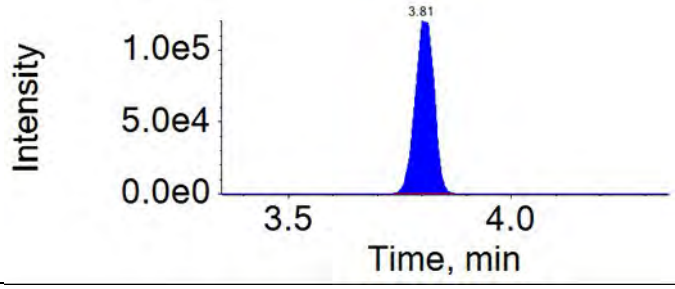


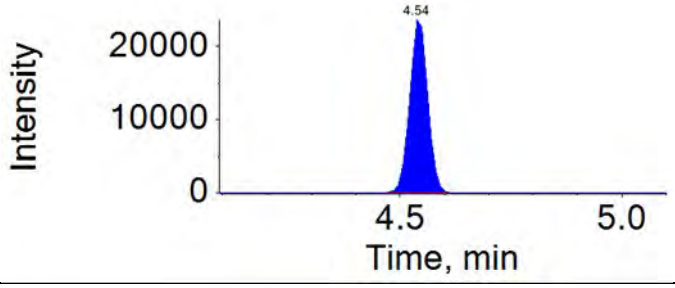
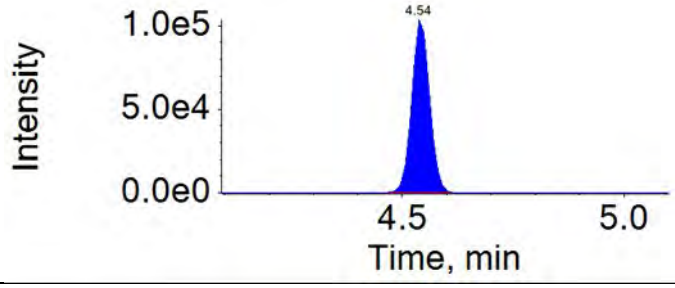
APPROVED
By MCD at 0:13 am, 11/10/18

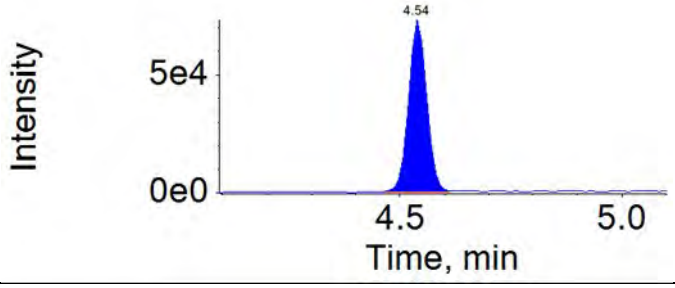
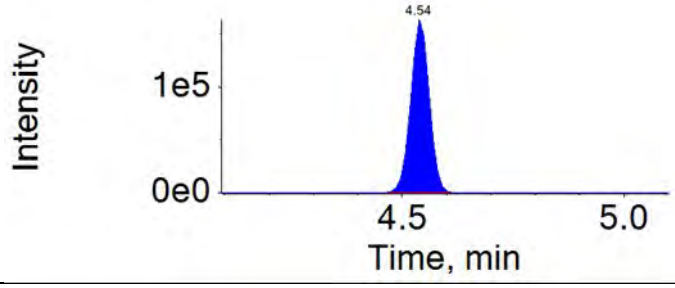
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

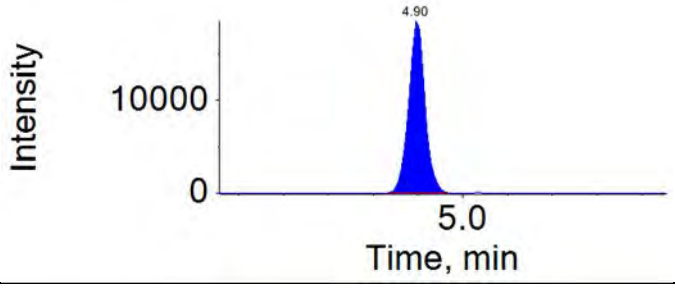
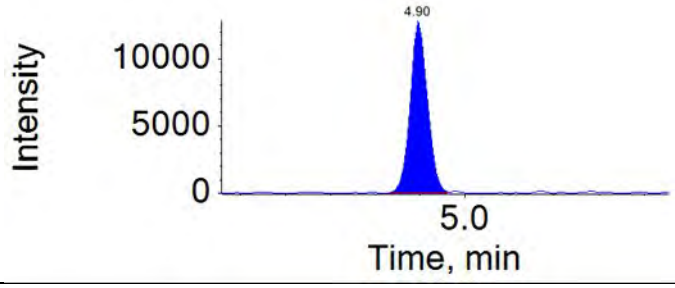
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

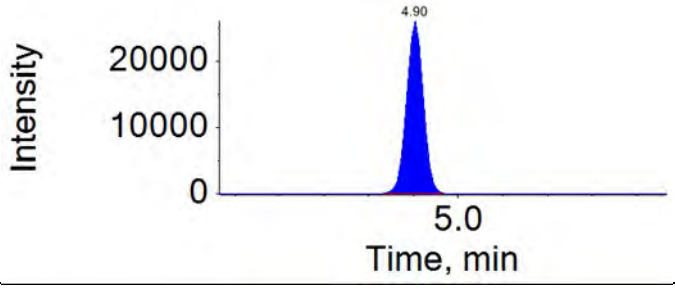
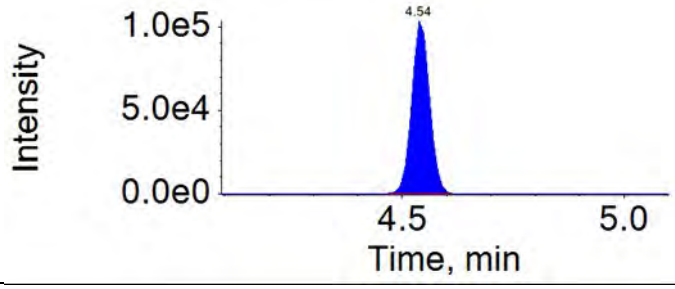
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

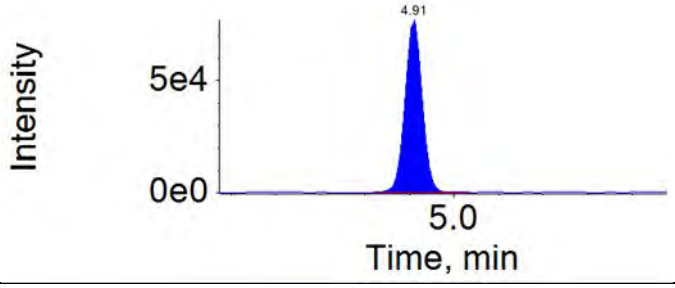
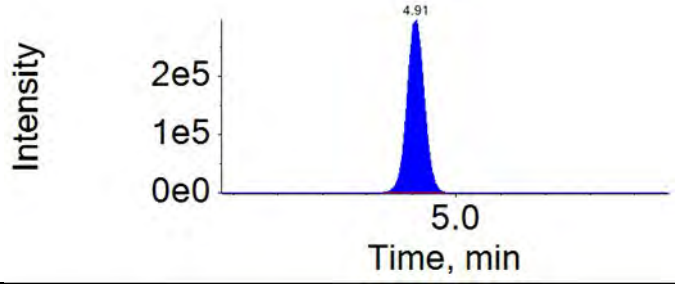
APPROVED
By MCD at 0:13 am, 11/10/18

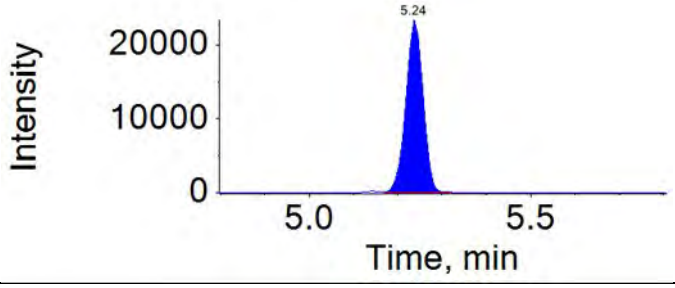
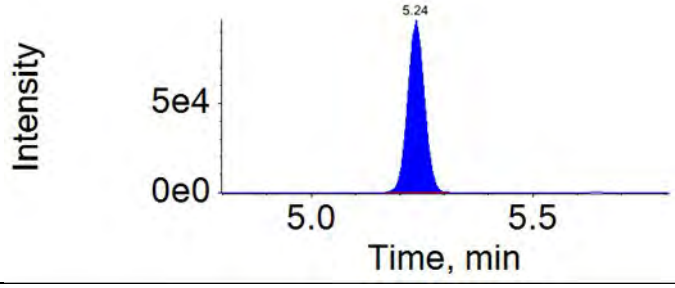
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

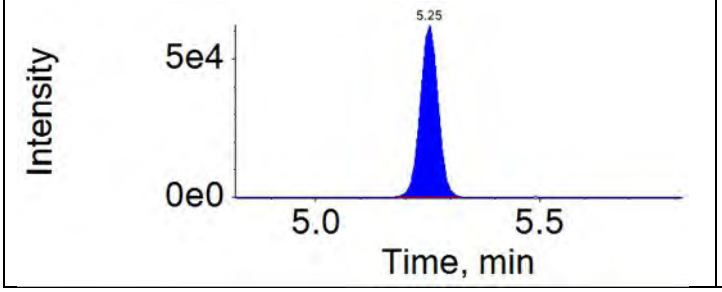
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

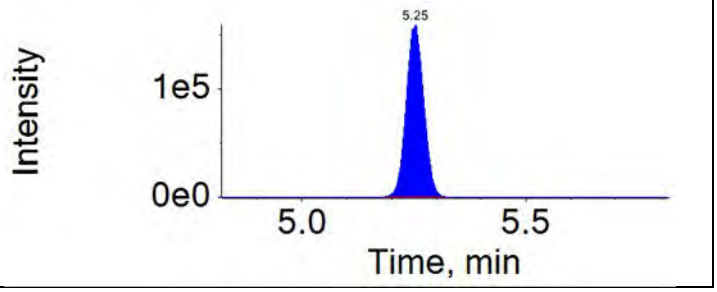
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

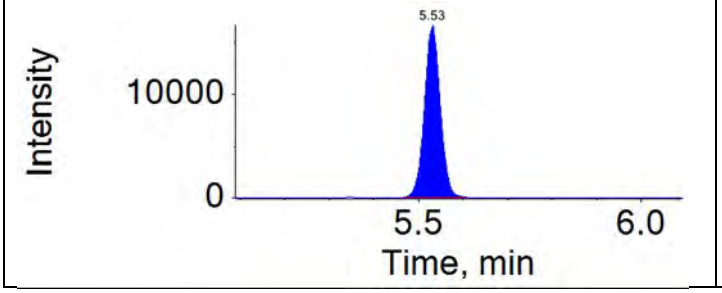
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

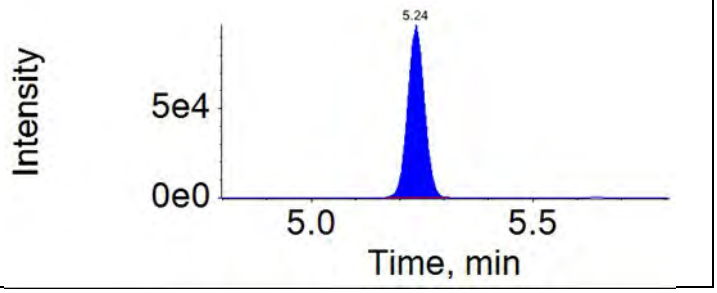
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



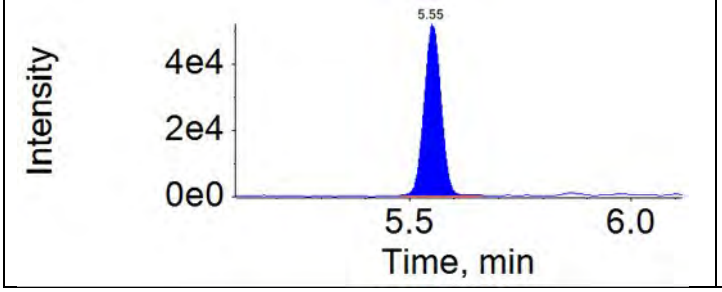


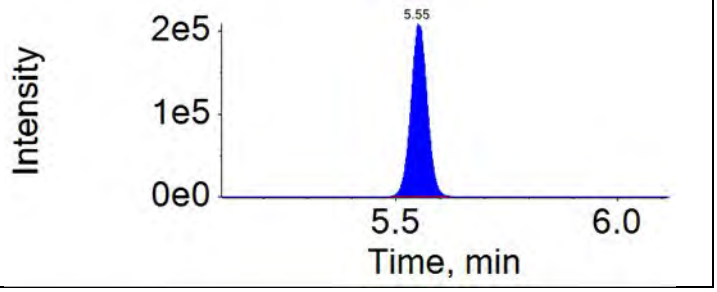
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



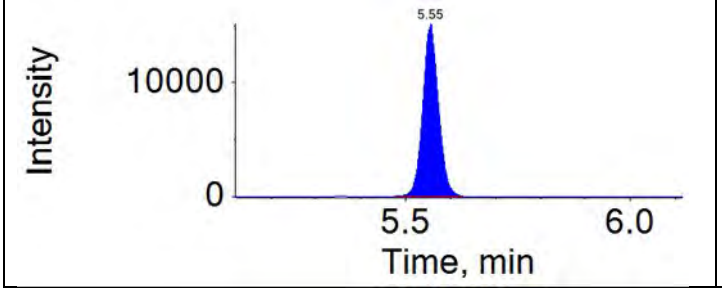


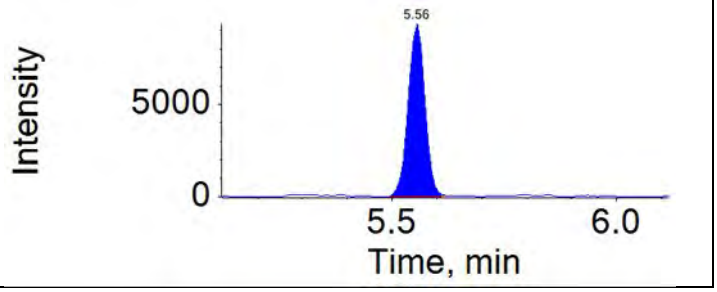
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



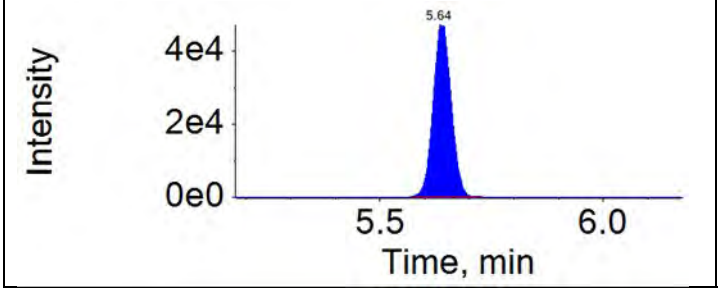


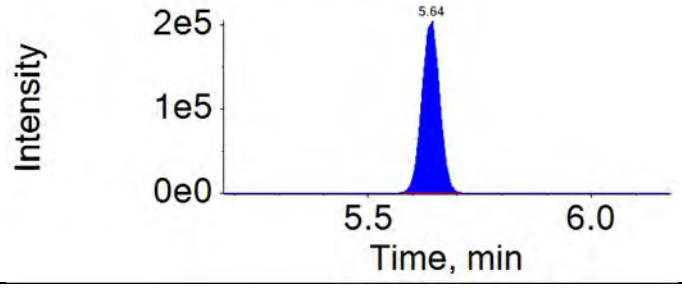
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

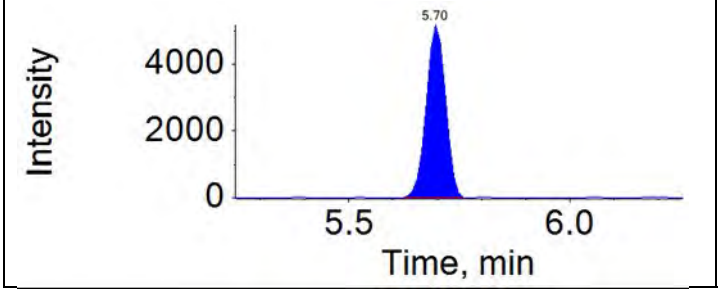
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

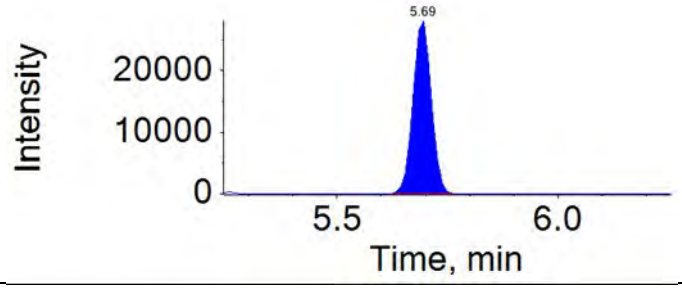
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



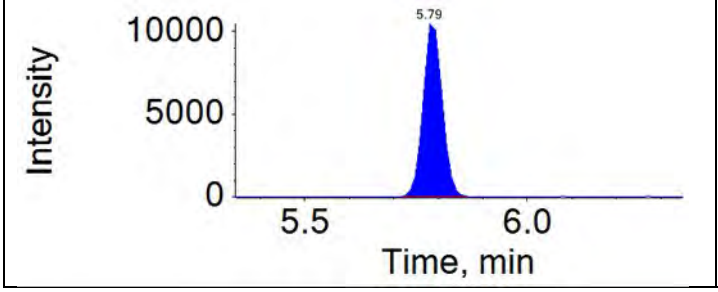


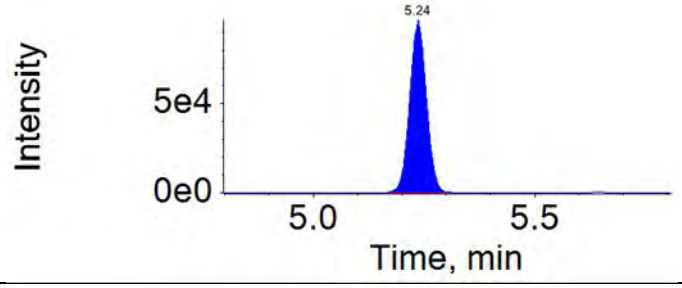
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



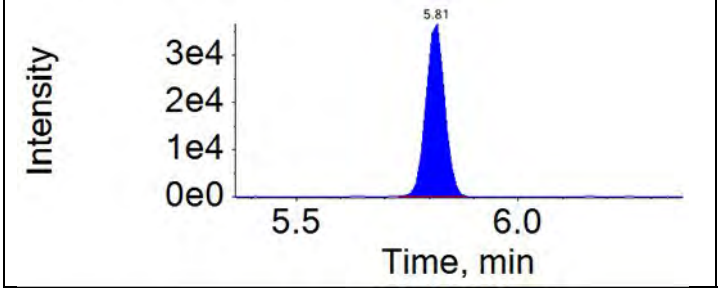


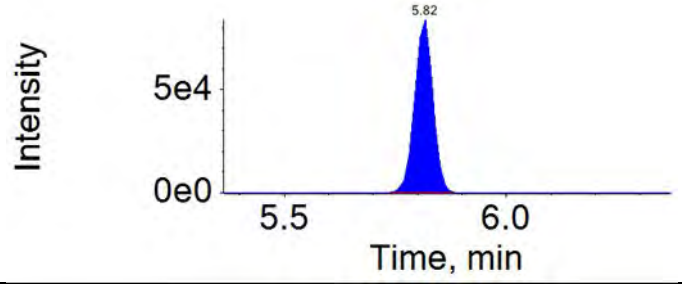
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



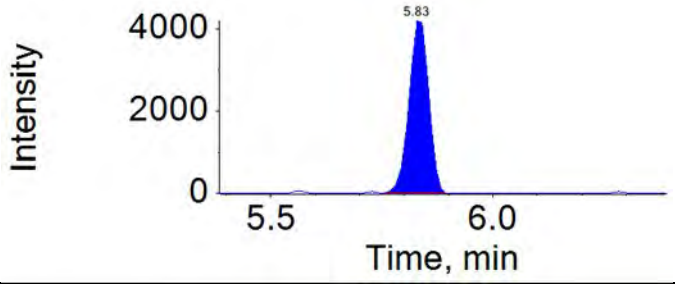


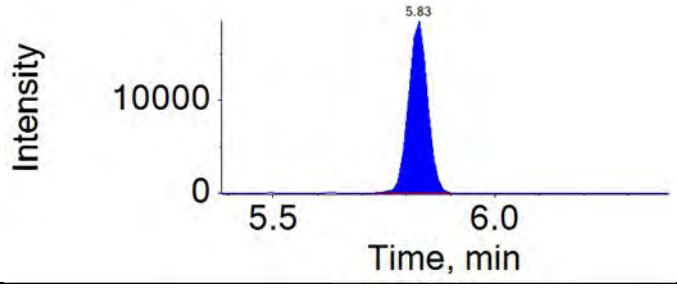
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

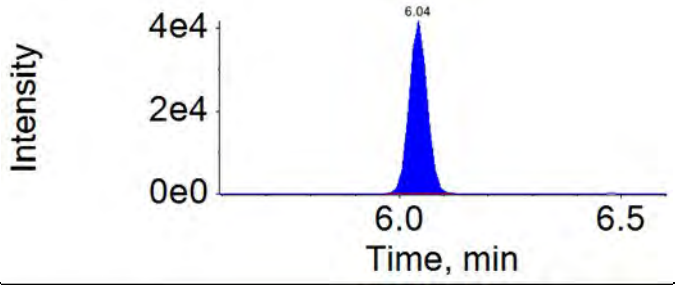
ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

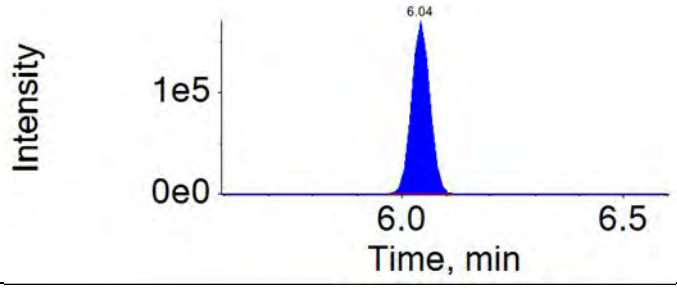
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



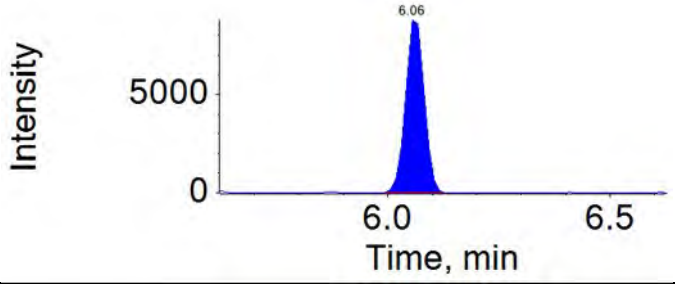


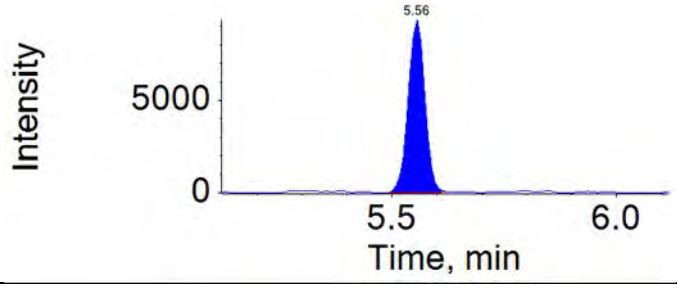
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



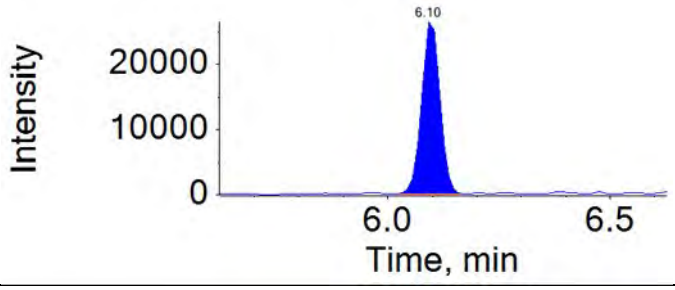


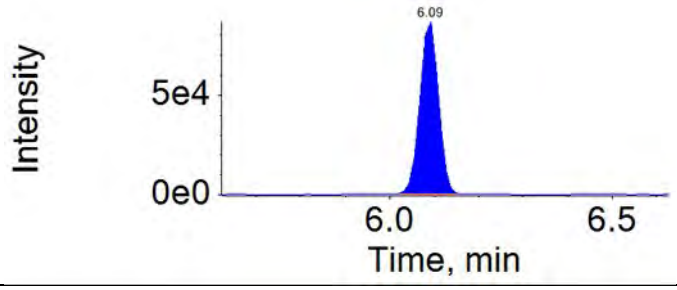
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

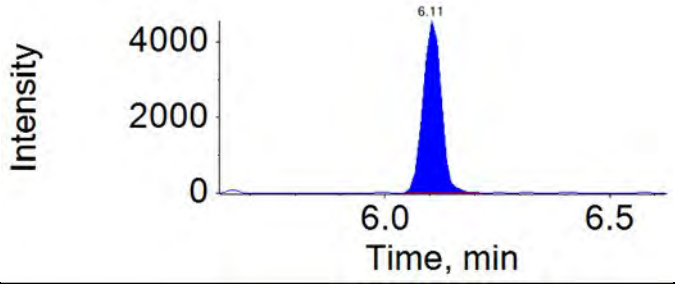
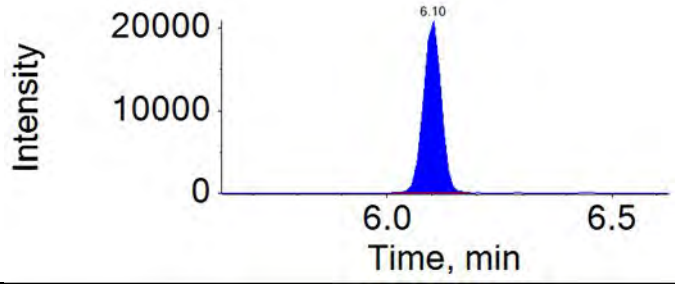


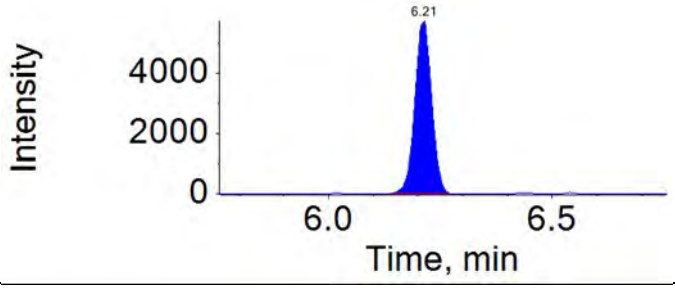
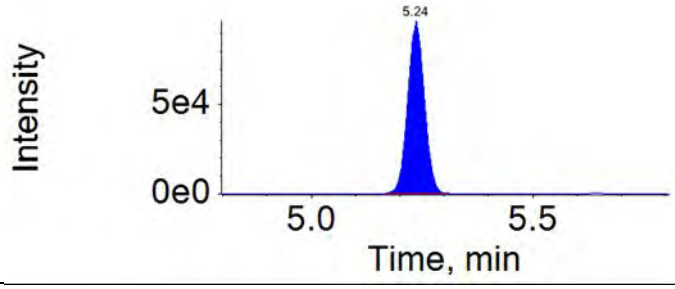


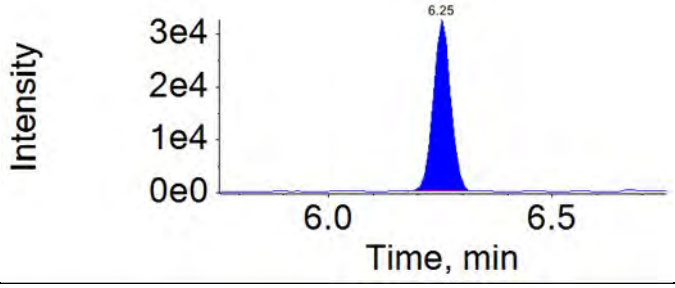
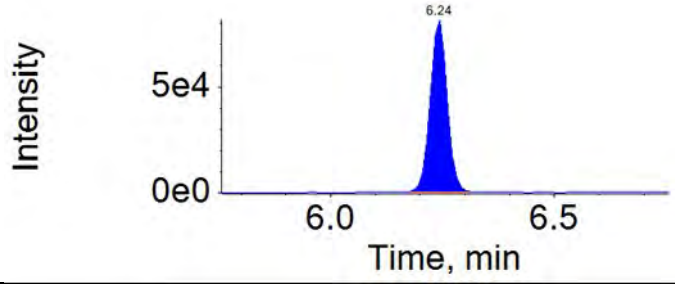
APPROVED
By MCD at 0:13 am, 11/10/18

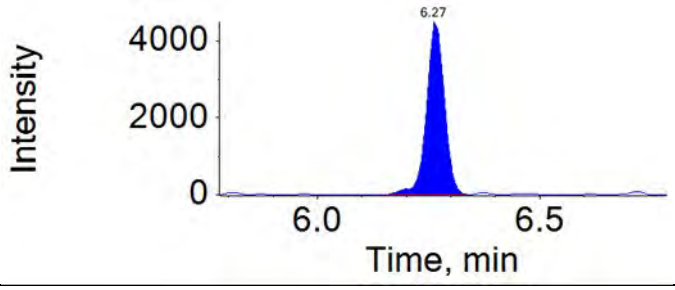
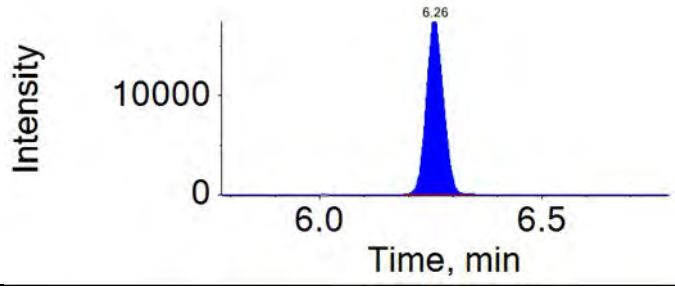
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0
	

Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0
	

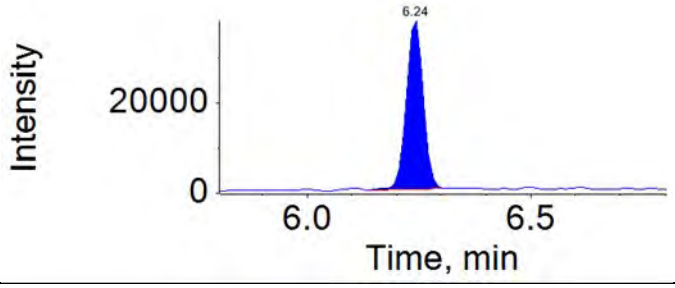
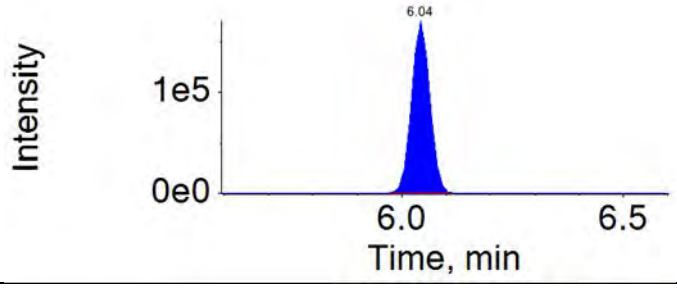
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0
	

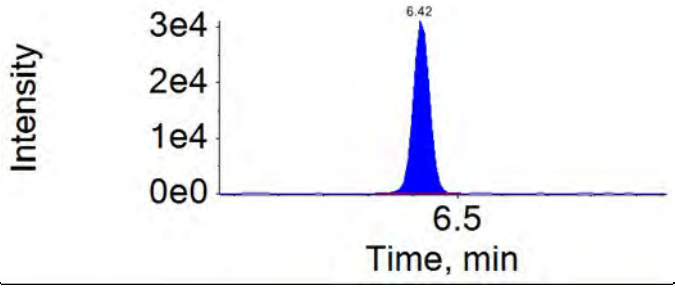
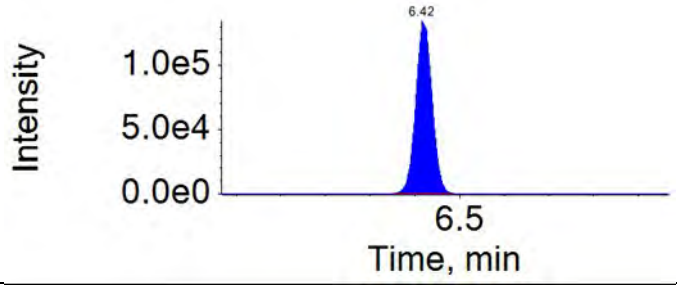
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0
	

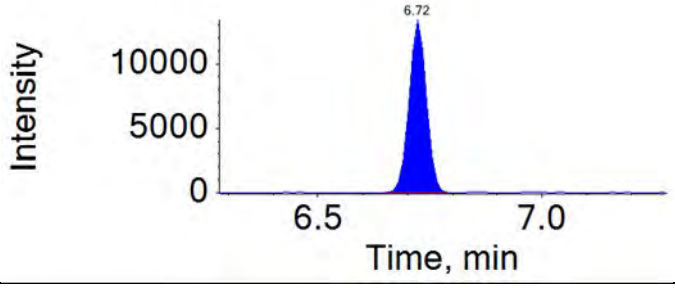
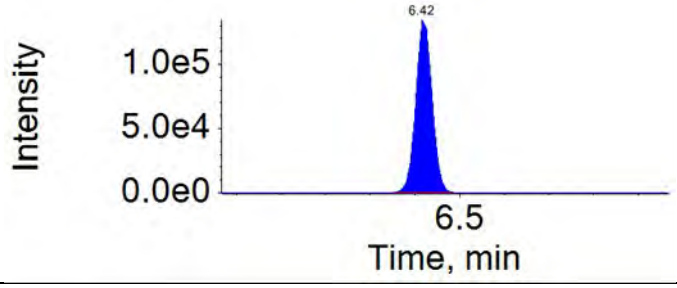
APPROVED
By MCD at 0:13 am, 11/10/18

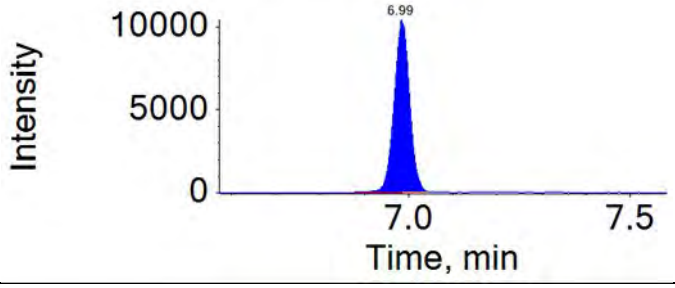
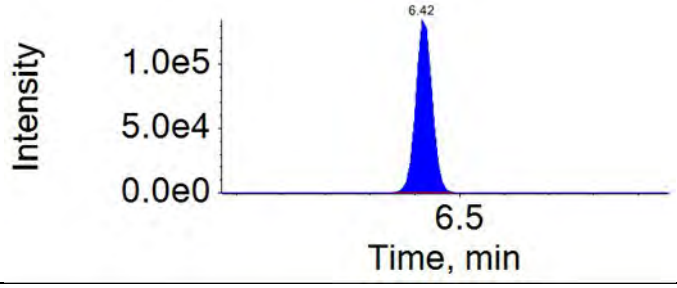
REVIEWED
By HMK at 7:51 am, 11/15/18

ICAL Name: 18NOV07DCAL **Result Table:** 18312004 11/10/2018 12:05:42 AM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

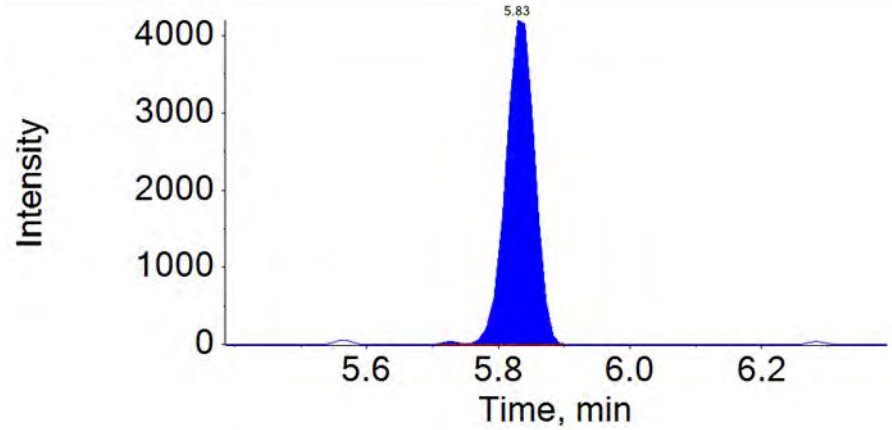
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

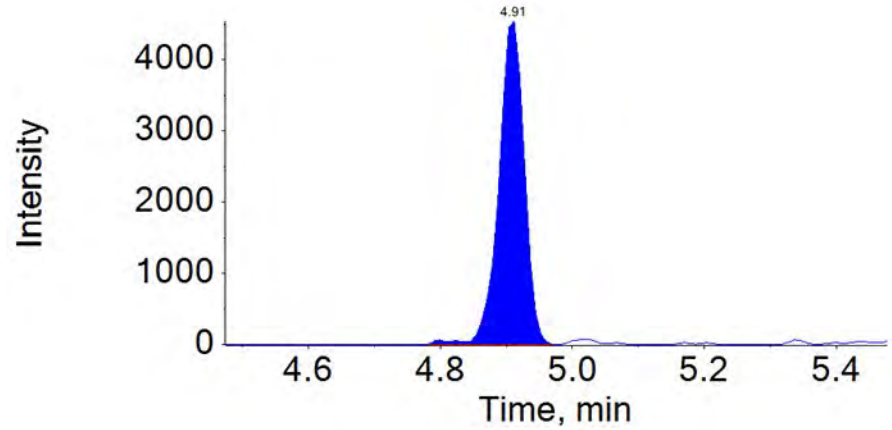
Results Table Name: 18312004
Results Table Date: 11/10/2018 12:05:42 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
NEtFOSAA
RT (min.):
5.83
Peak Area:
12973.3
Mass Range:
584.0 / 419.0
File Name:
18NOV09D-64.wiff
Sample Name:
LCS312004



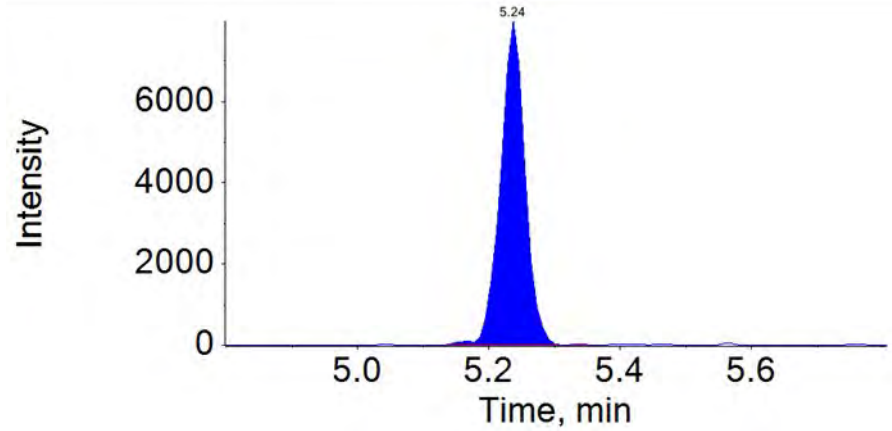
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
12253.8
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-64.wiff
Sample Name:
LCS312004



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
20822.1
Mass Range:
499.0 / 99.0
File Name:
18NOV09D-64.wiff
Sample Name:
LCS312004



Integration Comment: incorrect integration

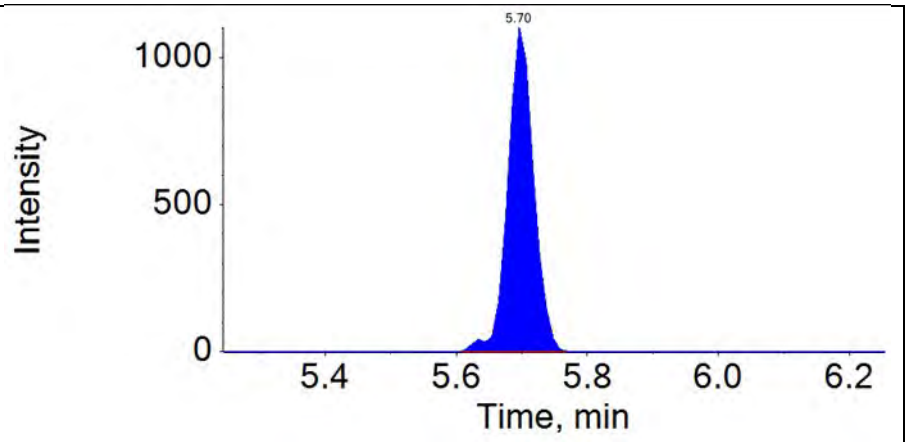
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Results Table Name: 18312004
Results Table Date: 11/10/2018 12:05:42 AM

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

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
3030.0
Mass Range:
570.0 / 483.0
File Name:
18NOV09D-64.wiff
Sample Name:
LCS312004



Integration Comment: incorrect integration

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Results Table Name: 18312004
Results Table Date: 11/10/2018 12:05:42 AM

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

APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

Ion Ratio Report

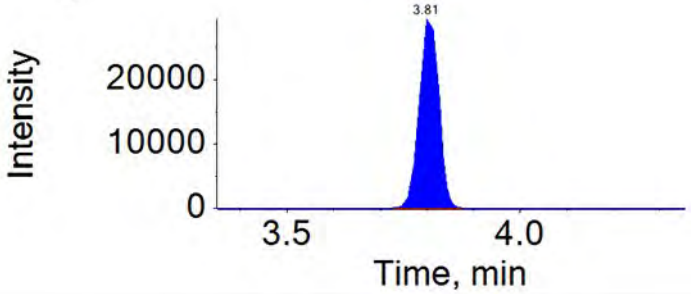
Sample Name: LCS312004 **Instrument Name:** LM27631 **File Name:** 18NOV09D-64.wiff

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	86246.6	A	N/A	0.3535			
PFBS_2	3.81	1.00	30487.8	A	N/A	0.3535	-1	50	
4:2-FTS	4.12	1.00	57561.1	A	N/A	0.6738			
4:2-FTS_2	4.12	1.00	38787.3	A	N/A	0.6738	5	50	
PFHxA	4.15	1.00	192379.6	A	N/A	0.0111			
PFHxA_2	4.16	1.00	2143.2	A	N/A	0.0111	-1	50	
PFPeS	4.17	1.10	45131.6	A	N/A	0.5847			
PFPeS_2	4.17	1.10	26388.5	A	N/A	0.5847	8	50	
PFHxS	4.54	1.00	66527.4	A	N/A	0.3910			
PFHxS_2	4.54	1.00	26014.2	A	N/A	0.3910	9	50	
PFHpA	4.54	1.00	204610.6	A	N/A	0.0537			
PFHpA_2	4.54	1.00	10979.6	A	N/A	0.0537	-7	50	
6:2-FTS	4.90	1.00	47108.0	A	N/A	0.6236			
6:2-FTS_2	4.90	1.00	29378.6	A	N/A	0.6236	-9	50	
PFHpS	4.90	1.08	68206.6	A	N/A	0.4039			
PFHpS_2	4.90	1.08	27550.4	A	N/A	0.4039	2	50	
PFOA	4.91	1.00	206072.1	A	N/A	0.0588			
PFOA_2	4.91	1.00	12115.6	M	N/A	0.0588	-8	50	
PFOS	5.24	1.00	63039.5	A	N/A	0.3270			
PFOS_2	5.24	1.00	20611.2	M	N/A	0.3270	-7	50	
PFNA	5.25	1.00	171879.6	A	N/A	0.0192			
PFNA_2	5.25	1.00	3294.7	A	N/A	0.0192	-7	50	
PFNS	5.53	1.06	41098.7	A	N/A	0.4306			
PFNS_2	5.53	1.06	17699.0	A	N/A	0.4306	-12	50	
PFDA	5.55	1.00	136106.0	A	N/A	0.0062			
PFDA_2	5.54	1.00	838.6	A	N/A	0.0062	13	50	
8:2-FTS	5.55	1.00	36945.8	A	N/A	0.6181			
8:2-FTS_2	5.56	1.00	22836.0	A	N/A	0.6181	-1	50	
NMeFOSAA	5.70	1.00	15599.1	A	N/A	0.1911			
NMeFOSAA_2	5.70	1.00	2980.8	M	N/A	0.1911	-12	50	
PFDS	5.79	1.11	31247.4	A	N/A	0.4735			
PFDS_2	5.79	1.11	14794.1	A	N/A	0.4735	3	50	
PFUnDA	5.81	1.00	107715.6	A	N/A	0.0007			
PFUnDA_2	5.81	1.00	73.8	A	N/A	0.0007	-78	50	OOS
NEtFOSAA	5.83	1.00	12912.0	M	N/A	0.6852			
NEtFOSAA_2	5.83	1.00	8847.5	A	N/A	0.6852	13	50	
PFDoDA	6.04	1.00	116982.1	A	N/A	0.0107			
PFDoDA_2	6.04	1.00	1250.3	A	N/A	0.0107	2	50	
10:2-FTS	6.06	1.09	25712.9	A	N/A	0.6061			
10:2-FTS_2	6.06	1.09	15583.7	A	N/A	0.6061	-15	50	
PFTrDA	6.24	1.03	98180.4	A	N/A	0.0083			
PFTrDA_2	6.24	1.03	817.0	A	N/A	0.0083	-13	50	
PFTeDA	6.42	1.00	79821.1	A	N/A	0.0050			
PFTeDA_2	6.42	1.00	400.0	A	N/A	0.0050	-7	50	
PFHxDA	6.72	1.05	35529.8	A	N/A	0.0665			
PFHxDA_2	6.72	1.05	2361.0	A	N/A	0.0665	12	50	
PFODA	6.99	1.09	25174.1	A	N/A	0.0297			
PFODA_2	6.98	1.09	747.7	A	N/A	0.0297	16	50	

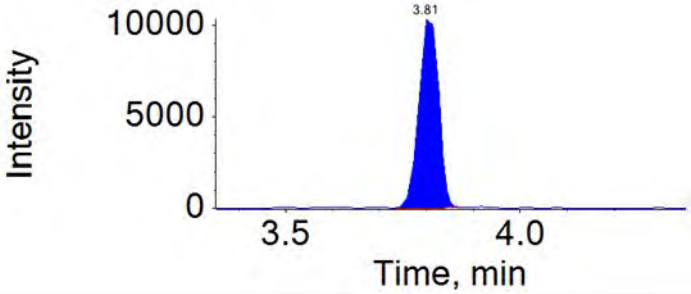
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:51 am, 11/15/18

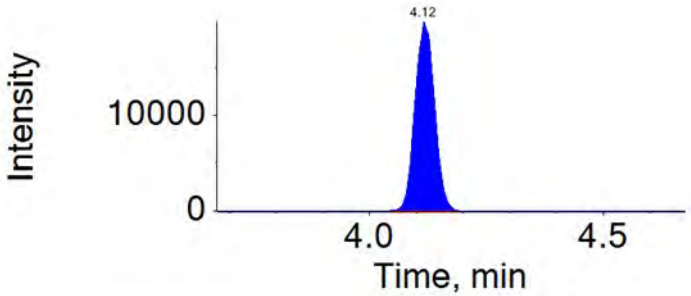
Component: PFBS
Primary Mass: 299.0 / 80.0



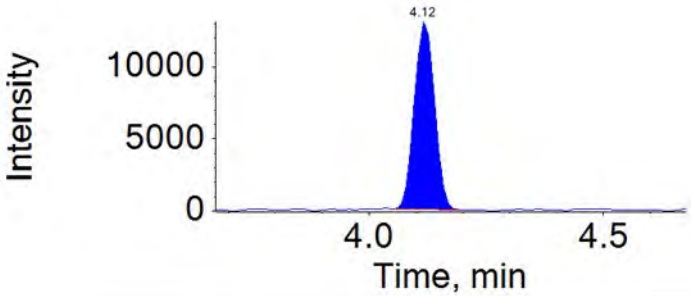
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



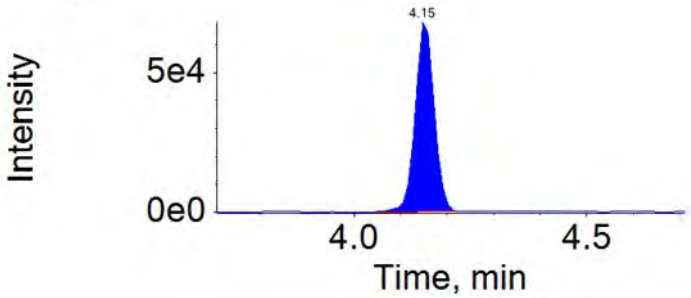
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



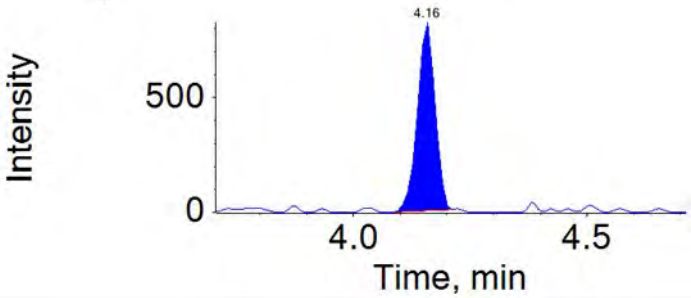
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



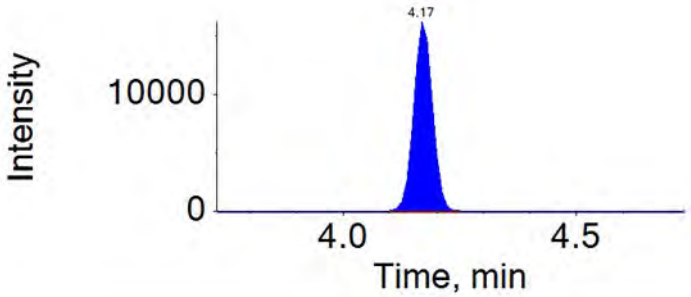
Component: PFHxA
Primary Mass: 313.0 / 269.0



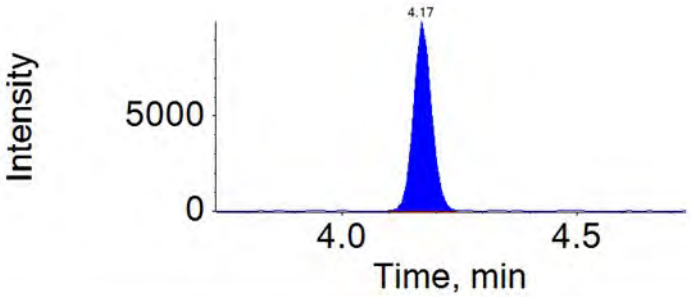
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



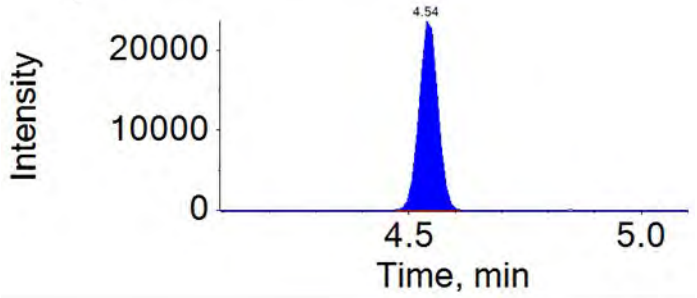
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



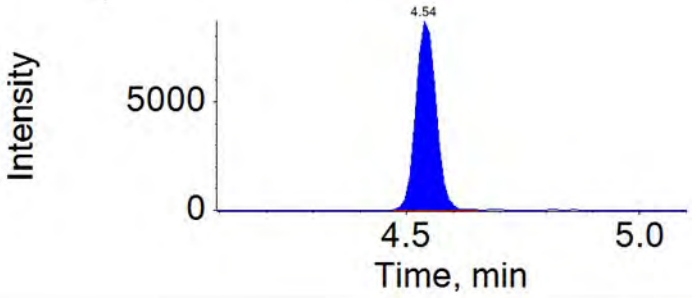
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

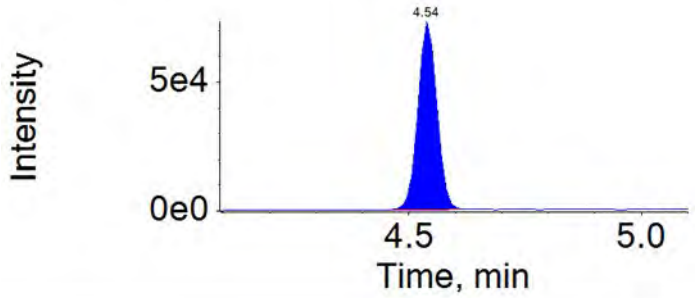
Component: PFHxS
Primary Mass: 399.0 / 80.0



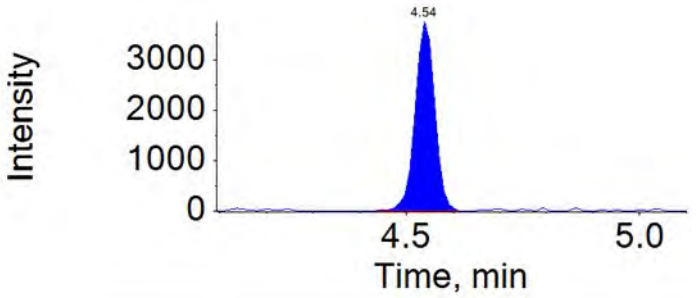
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



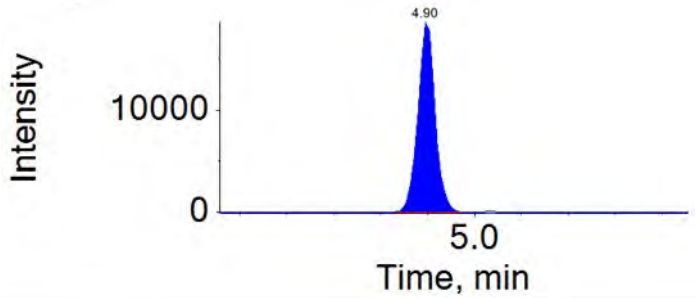
Component: PFHpA
Primary Mass: 363.0 / 319.0



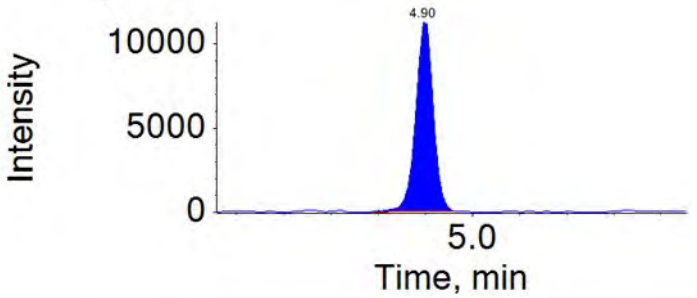
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



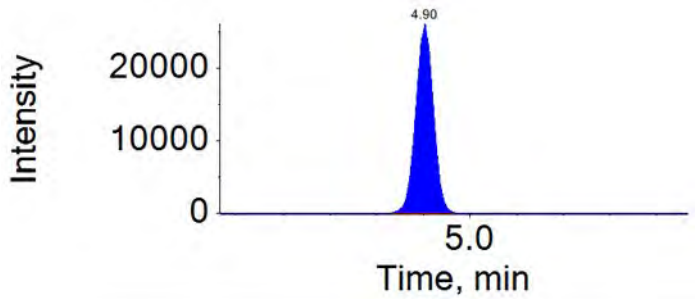
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



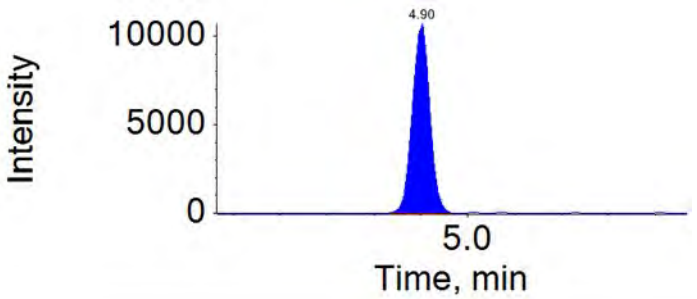
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



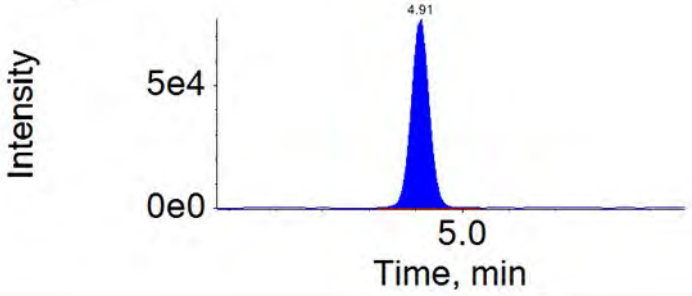
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



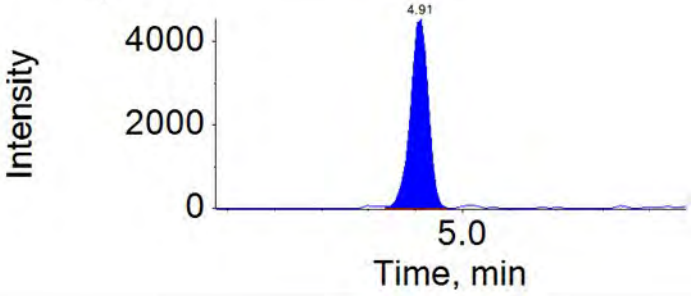
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

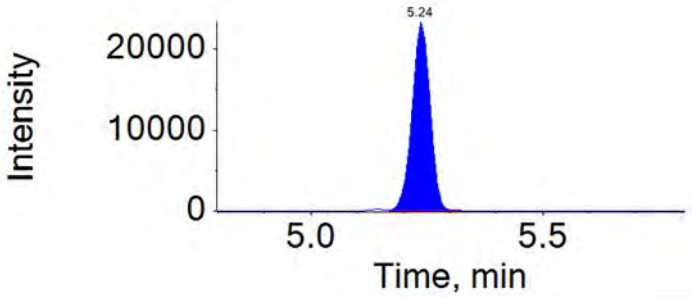
Component: PFOA
Primary Mass: 413.0 / 369.0



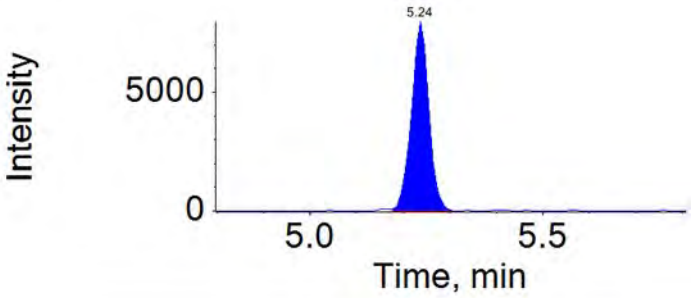
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



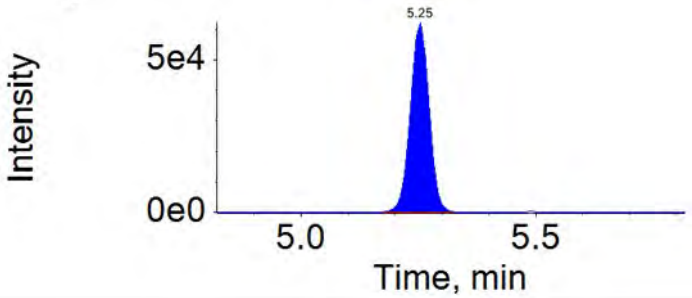
Component: PFOS
Primary Mass: 499.0 / 80.0



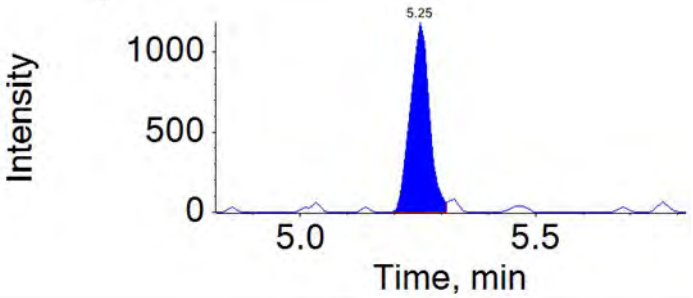
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



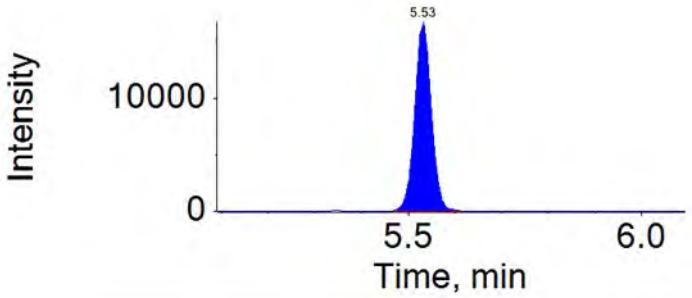
Component: PFNA
Primary Mass: 463.0 / 419.0



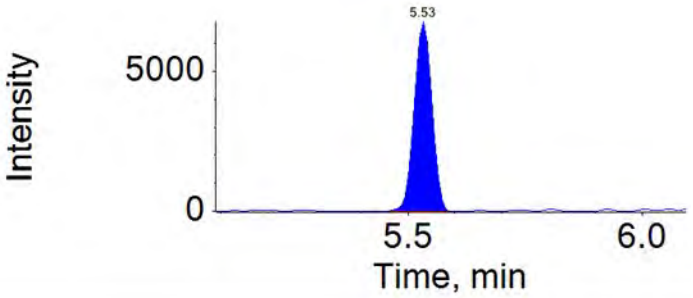
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



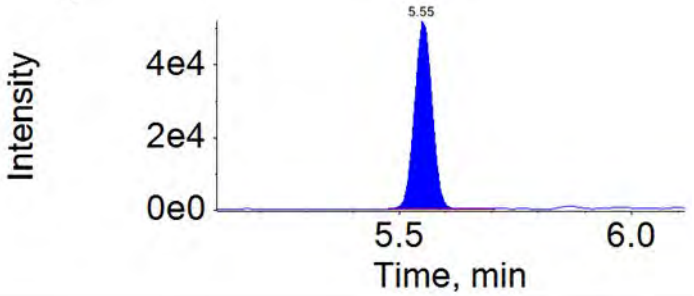
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



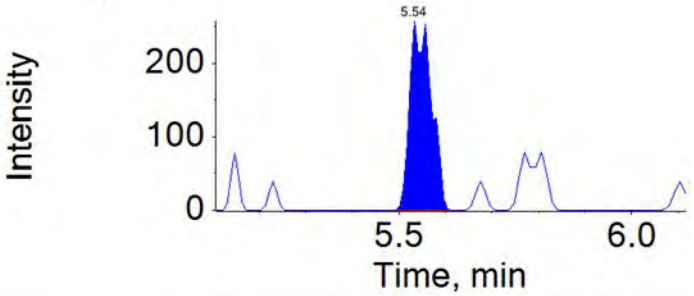
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

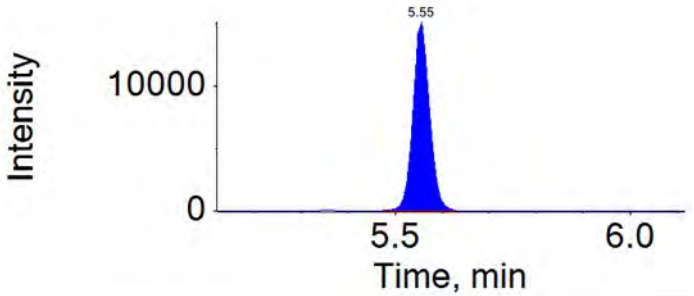
Component: PFDA
Primary Mass: 513.0 / 469.0



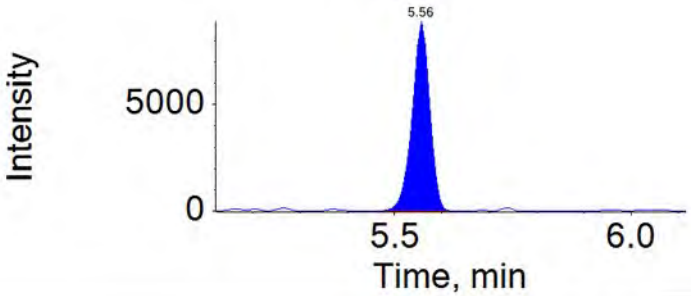
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



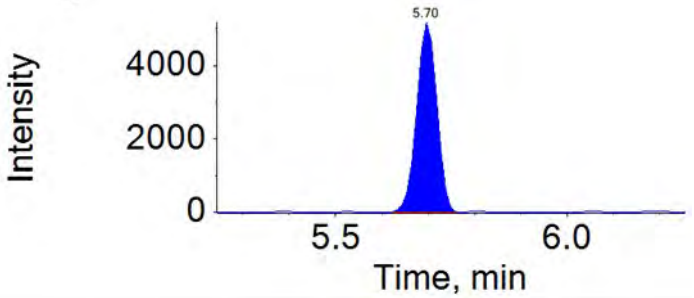
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



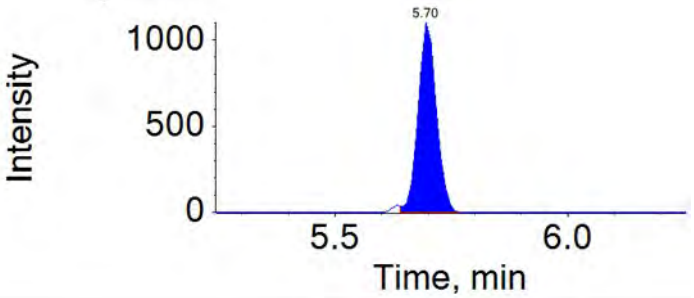
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



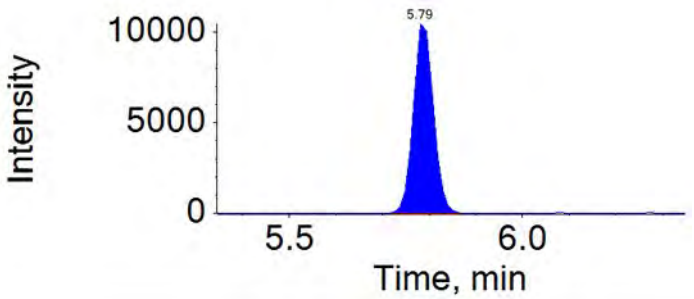
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



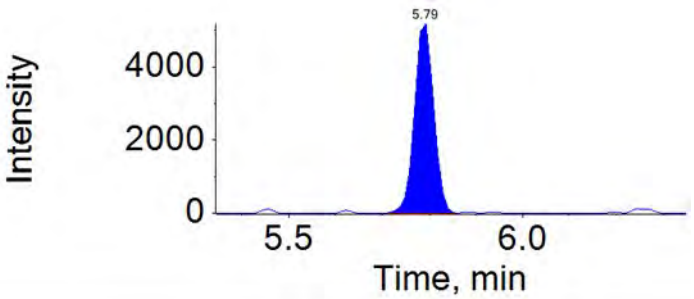
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



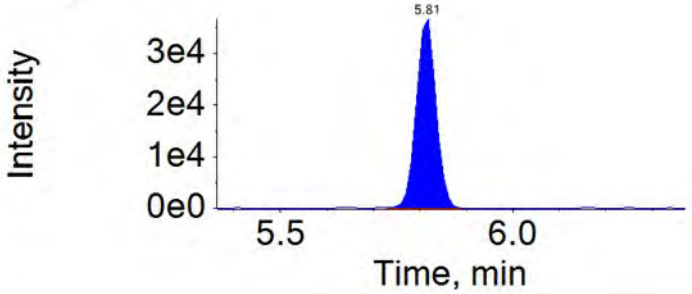
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



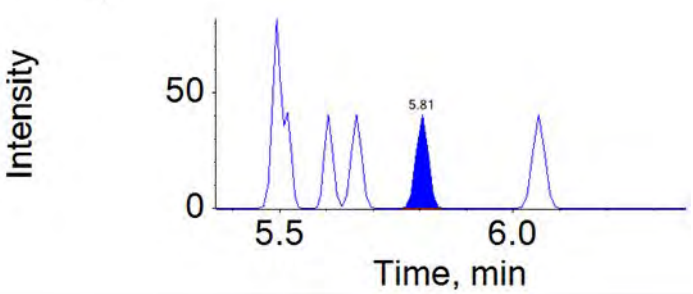
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

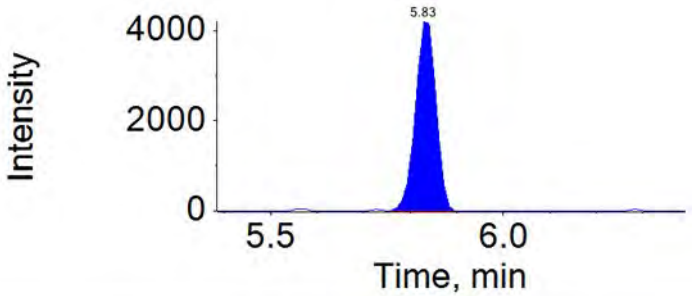
Component: PFUnDA
Primary Mass: 563.0 / 519.0



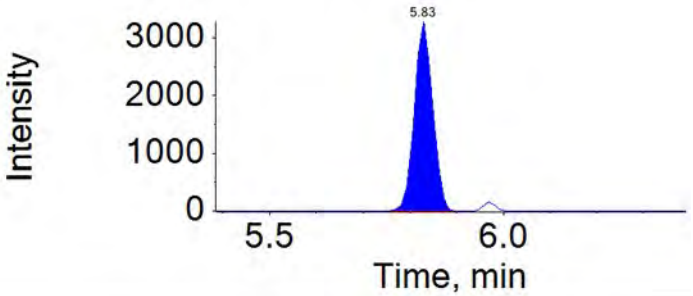
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



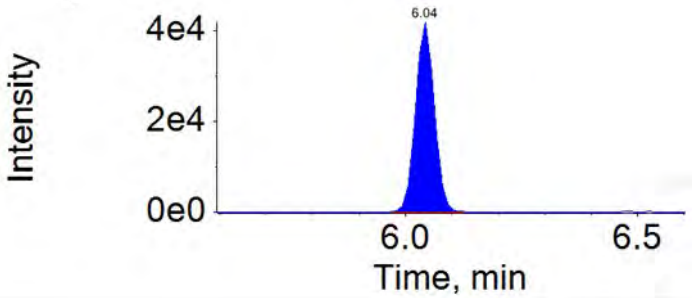
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



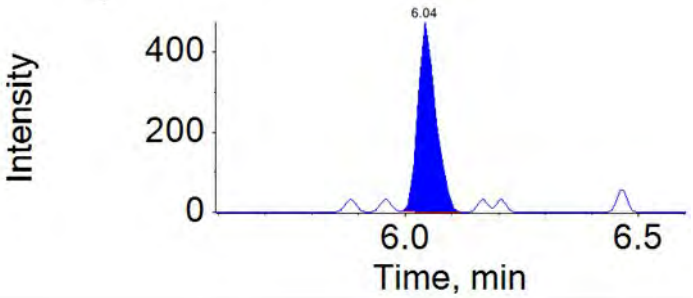
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



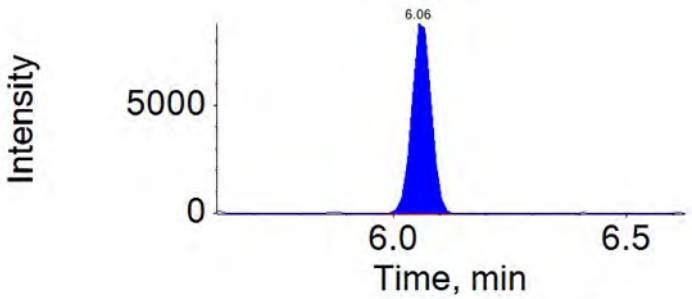
Component: PFDoDA
Primary Mass: 613.0 / 569.0



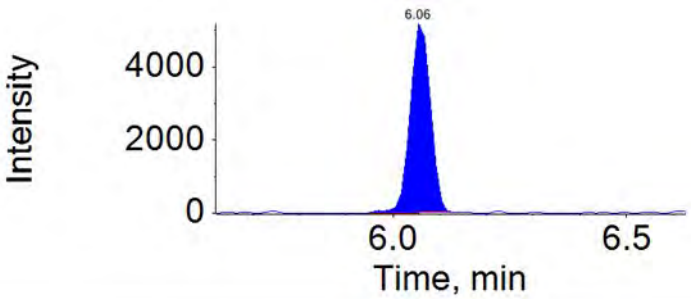
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



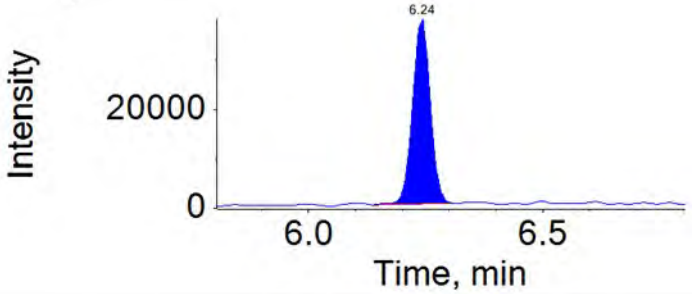
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



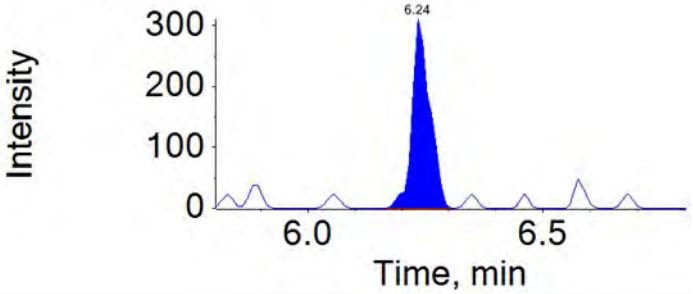
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

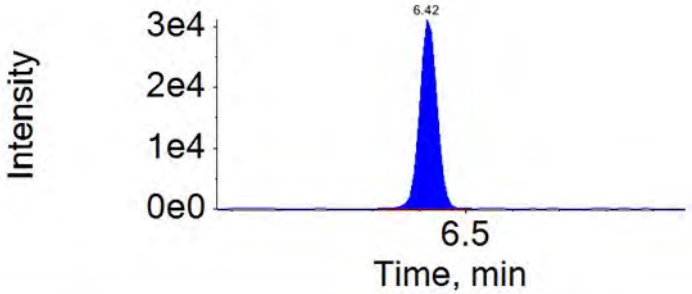
Component: PFTrDA
Primary Mass: 663.0 / 619.0



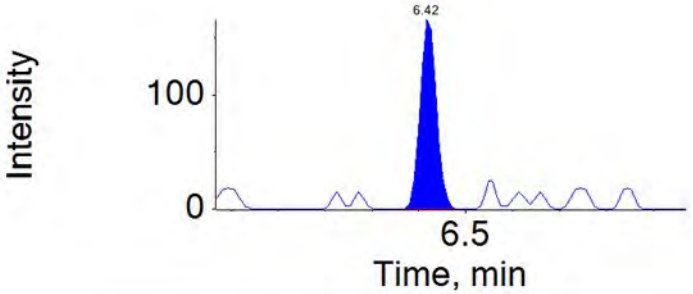
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



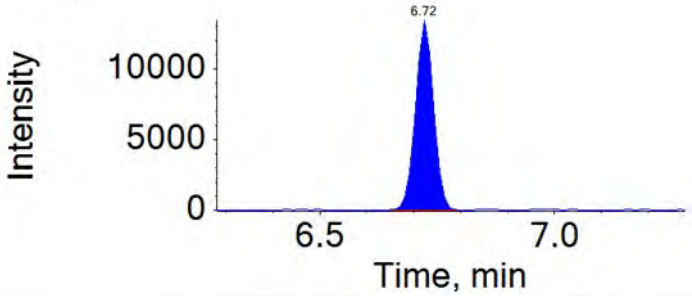
Component: PFTeDA
Primary Mass: 713.0 / 669.0



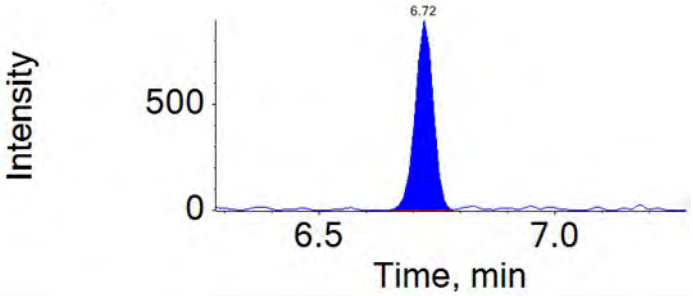
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



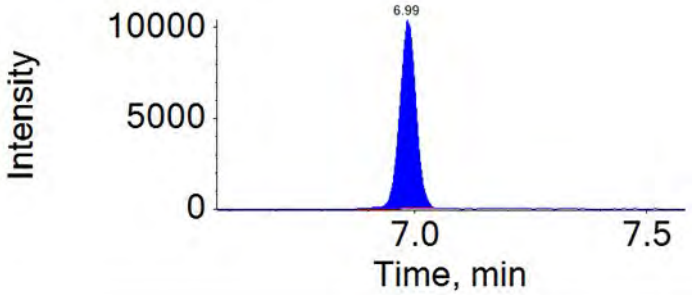
Component: PFHxDA
Primary Mass: 813.0 / 769.0



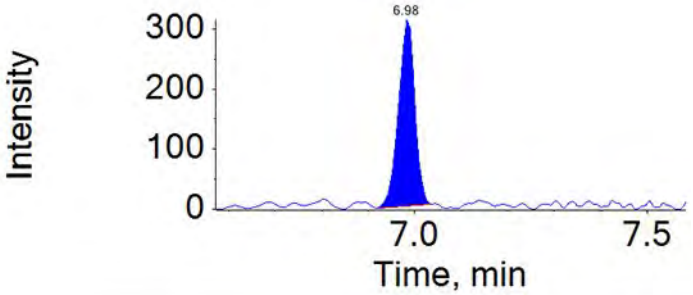
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



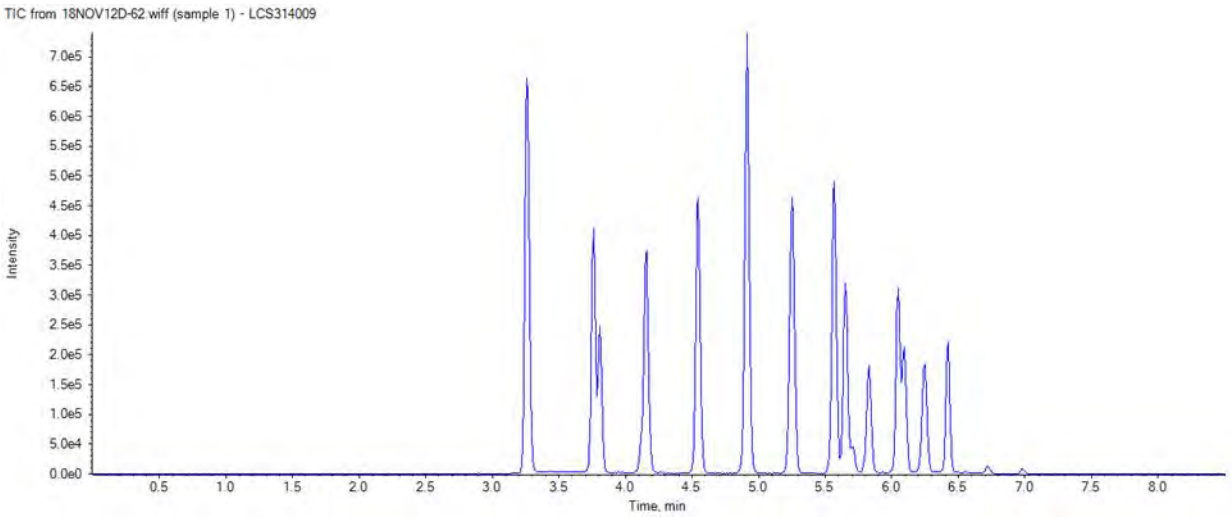
APPROVED
By MCD at 0:13 am, 11/10/18

REVIEWED
By HMK at 7:52 am, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314009 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS314009	EPA 537 mod QSM 5.1 table B-15 18314009	18NOV12D-62.wiff	2018-11-13T01:56:15



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	5.00	690128.4	659926.2	5	50	
13C2-PFOA	5.00	471809.6	450219.7	5	50	
13C4-PFOS	4.78	270962.0	249205.8	9	50	
13C2-PFDA	5.00	322353.7	278743.9	16	50	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS314009	EPA 537 mod QSM 5.1 table B-15 18314009	18NOV12D-62.wiff	2018-11-13T01:56:15

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	95535.7	779125.1	0.123	1.360	1.359	100	70-130	
PFPeA	97743.9	774296.9	0.126	1.360	1.462	107	70-130	
PFBS	52824.5	439409.5	0.120	1.204	1.144	95	70-130	
4:2-FTS	34074.2	50141.8	0.680	3.736	3.690	99	70-130	
PFHxA	112260.1	703072.7	0.160	1.360	1.333	98	70-130	
PFPeS	27021.9	439409.5	0.061	1.276	1.194	94	70-130	
PFHpA	117697.1	553821.6	0.213	1.360	1.409	104	70-130	
PFHxS	43072.0	339640.2	0.127	1.286	1.230	96	70-130	
6:2-FTS	28133.1	38531.5	0.730	3.792	3.534	93	70-130	
PFHpS	39257.0	339640.2	0.116	1.294	1.217	94	70-130	
PFOA	122414.3	923114.1	0.133	1.360	1.417	104	70-130	
PFOS	37351.3	283762.1	0.132	1.300	1.151	89	70-130	
PFNA	95349.1	506857.1	0.188	1.360	1.357	100	70-130	
PFNS	23252.6	283762.1	0.082	1.306	1.147	88	70-130	
PFDA	85091.1	672594.7	0.127	1.360	1.341	99	70-130	
8:2-FTS	22504.4	27945.4	0.805	3.832	3.755	98	70-130	
PFOSA	84782.2	673725.9	0.126	1.360	1.229	90	70-130	
NMeFOSAA	8497.5	89716.5	0.095	1.360	1.071	79	70-130	
PFDS	19464.8	283762.1	0.069	1.310	1.243	95	70-130	
PFUnDA	68284.8	266785.3	0.256	1.360	1.338	98	70-130	
NEtFOSAA	8018.0	66477.2	0.121	1.360	1.265	93	70-130	
PFDoDA	70529.8	576398.0	0.122	1.360	1.246	92	70-130	
10:2-FTS	12936.4	27945.4	0.463	3.856	3.084	80	70-130	
NMePFOSAE	47974.3	346210.9	0.139	1.360	1.153	85	70-130	
NMePFOSA	10951.8	86927.6	0.126	1.360	1.243	91	70-130	
PFDoS	9212.7	283762.1	0.032	1.316	1.137	86	70-130	
NEtPFOSAE	52806.0	289121.6	0.183	1.360	1.172	86	70-130	
NEtPFOSA	8024.1	64213.3	0.125	1.360	1.148	84	70-130	
PFTrDA	61457.0	576398.0	0.107	1.360	1.346	99	70-130	
PFTeDA	50632.5	414511.7	0.122	1.360	1.369	101	70-130	
PFHxDA	22738.0	414511.7	0.055	1.360	1.307	96	70-130	
PFODA	17951.0	414511.7	0.043	1.360	1.206	89	70-130	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314009 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	LCS314009			**Data File:**		18NOV12D-62.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18314009			**Acquis Date:**		2018-11-13T01:56:15
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	88			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18314009
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18314009			**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: 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	690128.4	659926.2	5	50	
13C2-PFOA	5.0	471809.6	450219.7	5	50	
13C4-PFOS	4.8	270962.0	249205.8	9	50	
13C2-PFDA	5.0	322353.7	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	779125.1	13C3-PFBA	690128.4	1.129	10.000	10.123	101	50-150	
E13C5-PFPeA	774296.9	13C3-PFBA	690128.4	1.122	10.000	10.064	101	50-150	
E13C3-PFBS	439409.5	13C3-PFBA	690128.4	0.637	9.300	8.989	97	50-150	
E13C2-4:2-FTS	50141.8	13C2-PFOA	471809.6	0.106	9.340	9.467	101	50-150	
E13C5-PFHxA	703072.7	13C2-PFOA	471809.6	1.490	10.000	10.766	108	50-150	
E13C3-PFHxS	339640.2	13C2-PFOA	471809.6	0.720	9.460	9.879	104	50-150	
E13C4-PFHpA	553821.6	13C2-PFOA	471809.6	1.174	10.000	10.576	106	50-150	
E13C2-6:2-FTS	38531.5	13C2-PFOA	471809.6	0.082	9.500	10.928	115	50-150	
E13C8-PFOA	923114.1	13C2-PFOA	471809.6	1.957	10.000	10.781	108	50-150	
E13C8-PFOS	283762.1	13C4-PFOS	270962.0	1.047	9.560	9.280	97	50-150	
E13C9-PFNA	506857.1	13C4-PFOS	270962.0	1.871	10.000	10.431	104	50-150	
E13C6-PFDA	672594.7	13C2-PFDA	322353.7	2.087	10.000	9.738	97	50-150	
E13C2-8:2-FTS	27945.4	13C2-PFDA	322353.7	0.087	9.580	8.647	90	50-150	
E13C8-PFOSA	673725.9	13C2-PFDA	322353.7	2.090	10.000	9.267	93	50-150	
Ed3-NMeFOSAA	89716.5	13C2-PFDA	322353.7	0.278	10.000	10.048	100	50-150	
E13C7-PFUnDA	266785.3	13C2-PFDA	322353.7	0.828	10.000	9.610	96	50-150	
Ed5-NEtFOSAA	66477.2	13C2-PFDA	322353.7	0.206	10.000	8.726	87	50-150	
E13C2-PFDoDA	576398.0	13C2-PFDA	322353.7	1.788	10.000	9.285	93	50-150	
Ed7-NMePFOSAE	346210.9	13C2-PFDA	322353.7	1.074	10.000	9.295	93	50-150	
Ed3-NMePFOSA	86927.6	13C2-PFDA	322353.7	0.270	10.000	9.799	98	50-150	
Ed9-NEtPFOSAE	289121.6	13C2-PFDA	322353.7	0.897	10.000	9.330	93	50-150	
Ed5-NEtPFOSA	64213.3	13C2-PFDA	322353.7	0.199	10.000	9.346	93	50-150	
E13C2-PFTeDA	414511.7	13C2-PFDA	322353.7	1.286	10.000	9.029	90	50-150	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

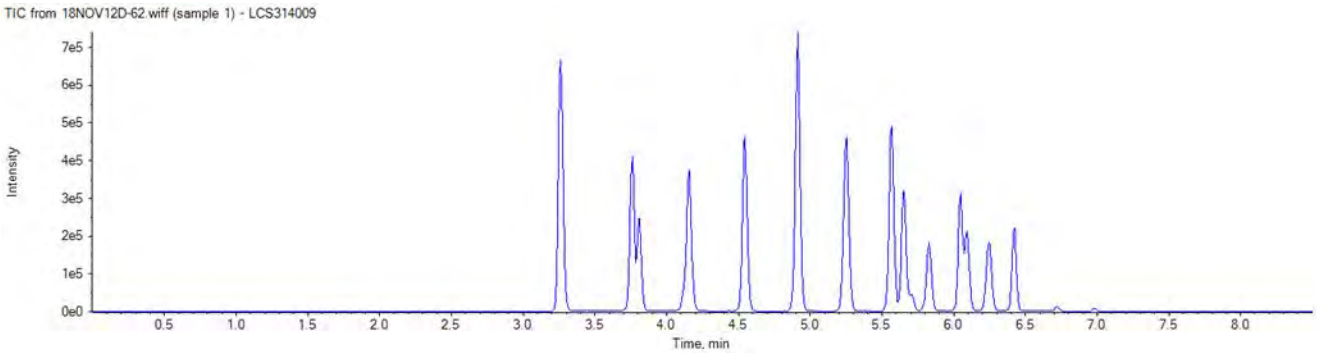
Analyte Quantitation Peak Table

Sample Name: LCS314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-62.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	3.26	1.000	95535.7		A	13C4-PFBA	3.26	779125.1	0.123	1.359
PFPeA	3.76	1.000	97743.9		A	13C5-PFPeA	3.76	774296.9	0.126	1.462
PFBS	3.81	1.000	52824.5		A	13C3-PFBS	3.81	439409.5	0.120	1.144
4:2-FTS	4.12	1.000	34074.2		A	13C2-4:2-FTS	4.12	50141.8	0.680	3.690
PFHxA	4.15	1.000	112260.1		A	13C5-PFHxA	4.16	703072.7	0.160	1.333
PFPeS	4.18	1.100	27021.9		A	13C3-PFBS	3.81	439409.5	0.061	1.194
PFHpA	4.54	1.000	117697.1		M	13C4-PFHpA	4.54	553821.6	0.213	1.409
PFHxS	4.55	1.000	43072.0		A	13C3-PFHxS	4.55	339640.2	0.127	1.230
6:2-FTS	4.90	1.000	28133.1		A	13C2-6:2-FTS	4.90	38531.5	0.730	3.534
PFHpS	4.91	1.080	39257.0		A	13C3-PFHxS	4.55	339640.2	0.116	1.217
PFOA	4.91	1.000	122414.3		A	13C8-PFOA	4.91	923114.1	0.133	1.417
PFOS	5.24	1.000	37351.3		M	13C8-PFOS	5.24	283762.1	0.132	1.151
PFNA	5.26	1.000	95349.1		A	13C9-PFNA	5.26	506857.1	0.188	1.357
PFNS	5.54	1.060	23252.6		A	13C8-PFOS	5.24	283762.1	0.082	1.147
PFDA	5.57	1.000	85091.1		A	13C6-PFDA	5.57	672594.7	0.127	1.341
8:2-FTS	5.57	1.000	22504.4		A	13C2-8:2-FTS	5.57	27945.4	0.805	3.755
PFOSA	5.65	1.000	84782.2		A	13C8-PFOSA	5.65	673725.9	0.126	1.229
NMeFOSAA	5.71	1.000	8497.5		A	d3-NMeFOSAA	5.71	89716.5	0.095	1.071
PFDS	5.80	1.110	19464.8		M	13C8-PFOS	5.24	283762.1	0.069	1.243
PFUnDA	5.83	1.000	68284.8		A	13C7-PFUnDA	5.83	266785.3	0.256	1.338
NEtFOSAA	5.84	1.000	8018.0		A	d5-NEtFOSAA	5.84	66477.2	0.121	1.265
PFDoDA	6.05	1.000	70529.8		A	13C2-PFDoDA	6.05	576398.0	0.122	1.246
10:2-FTS	6.06	1.090	12936.4		A	13C2-8:2-FTS	5.57	27945.4	0.463	3.084
NMePFOSAE	6.10	1.000	47974.3		A	d7-NMePFOSAE	6.09	346210.9	0.139	1.153
NMePFOSA	6.11	1.000	10951.8		M	d3-NMePFOSA	6.10	86927.6	0.126	1.243
PFDoS	6.21	1.180	9212.7		A	13C8-PFOS	5.24	283762.1	0.032	1.137
NEtPFOSAE	6.25	1.000	52806.0		A	d9-NEtPFOSAE	6.24	289121.6	0.183	1.172
NEtPFOSA	6.27	1.000	8024.1		M	d5-NEtPFOSA	6.26	64213.3	0.125	1.148
PFTrDA	6.24	1.030	61457.0		M	13C2-PFDoDA	6.05	576398.0	0.107	1.346
PFTeDA	6.42	1.000	50632.5		A	13C2-PFTeDA	6.42	414511.7	0.122	1.369
PFHxDA	6.72	1.050	22738.0		A	13C2-PFTeDA	6.42	414511.7	0.055	1.307
PFODA	6.98	1.090	17951.0		A	13C2-PFTeDA	6.42	414511.7	0.043	1.206

Total Ion Chromatogram

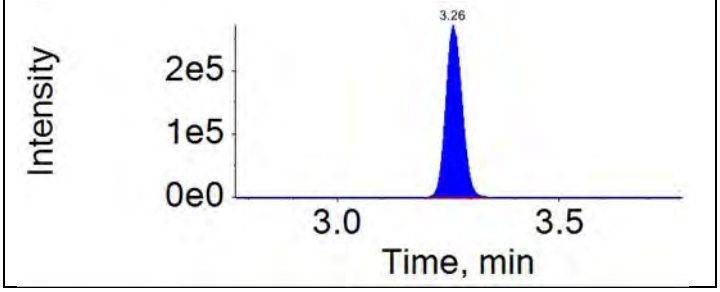


APPROVED
By JPT at 4:11 pm, 11/13/18

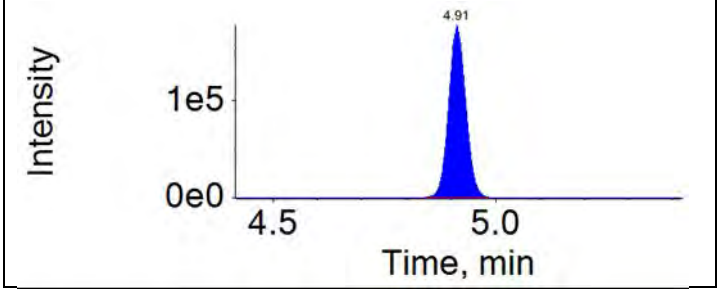
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

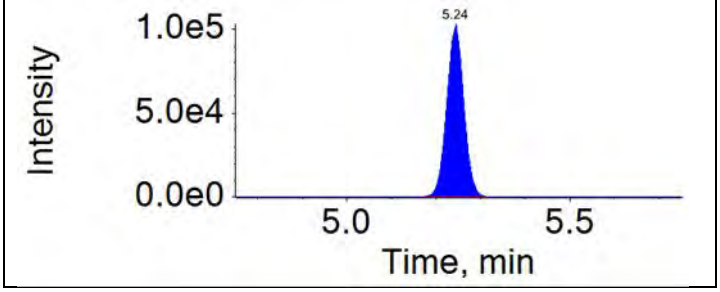
Injection Standard: 13C3-PFBA
216.0 / 172.0



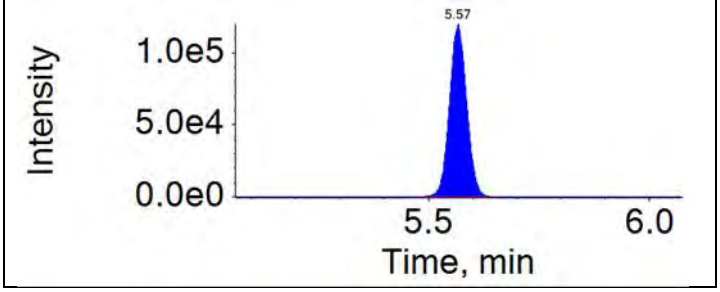
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

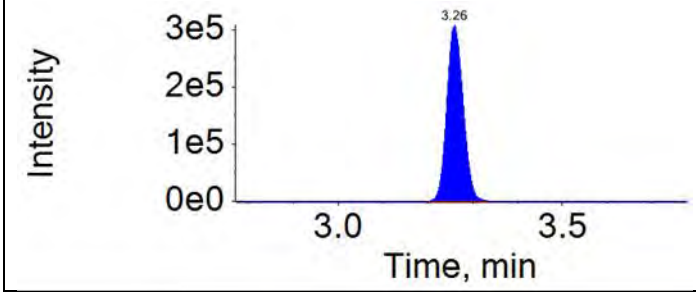


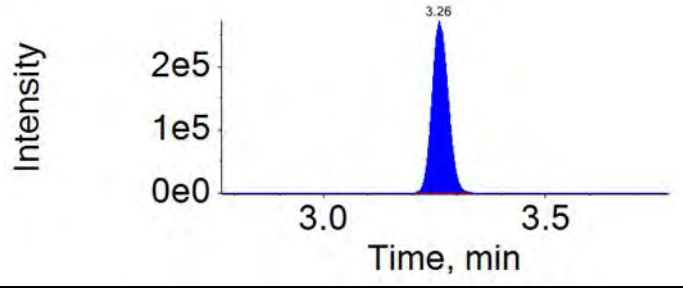
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

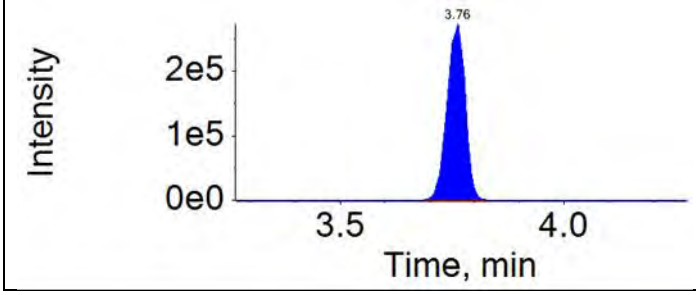
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

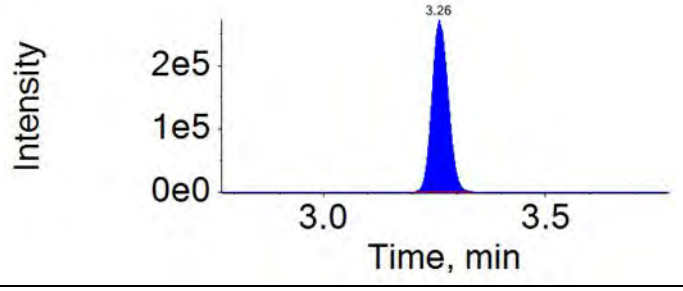
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



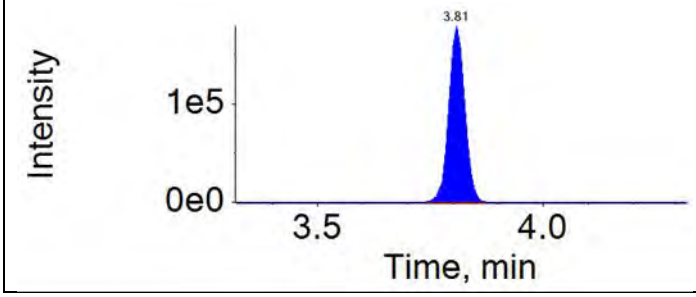


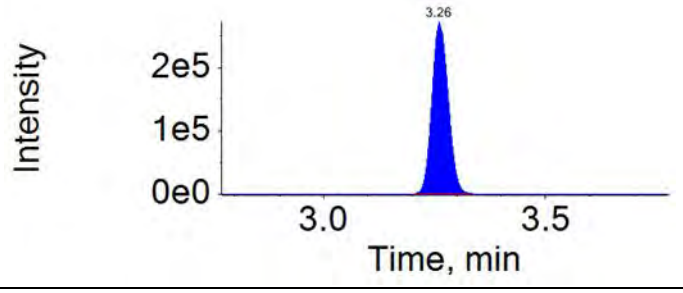
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



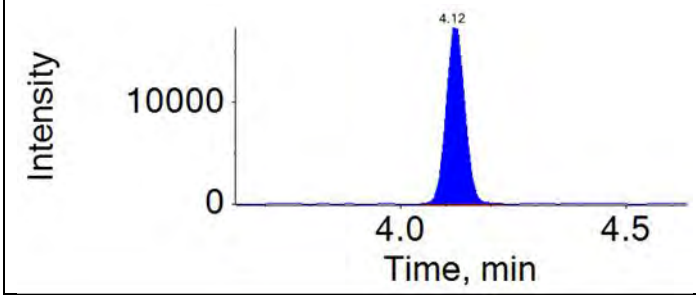


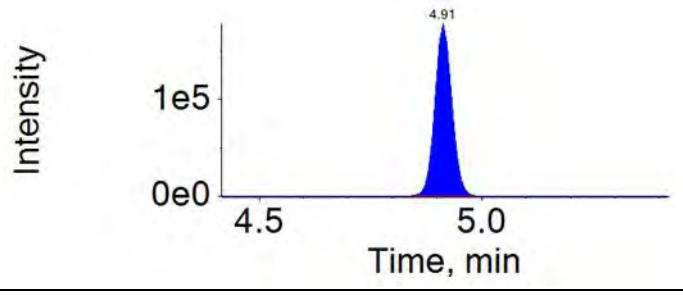
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



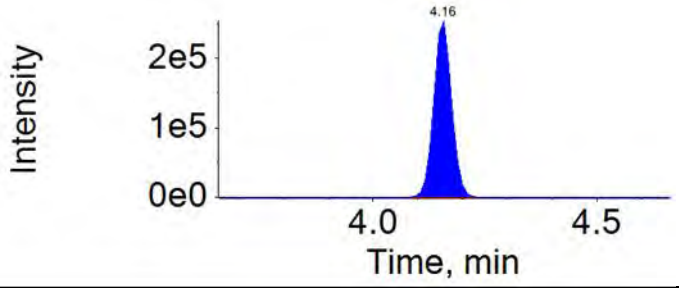
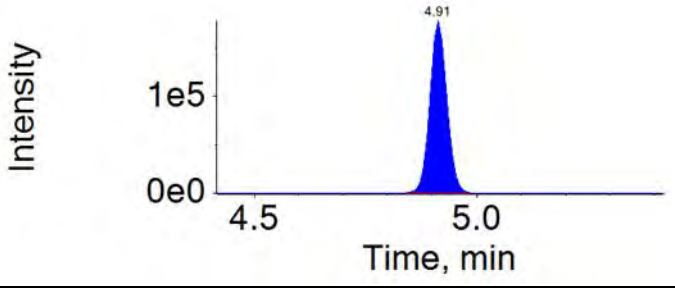


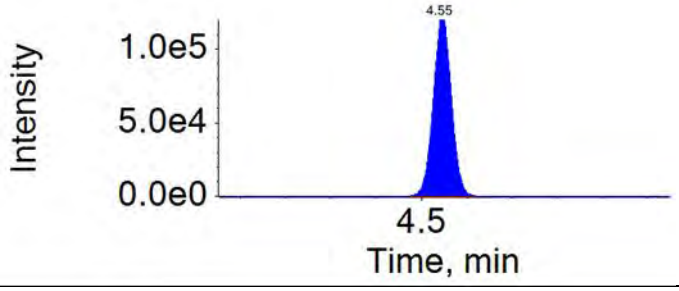
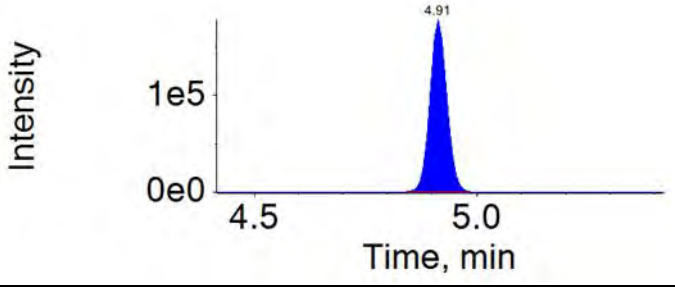
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

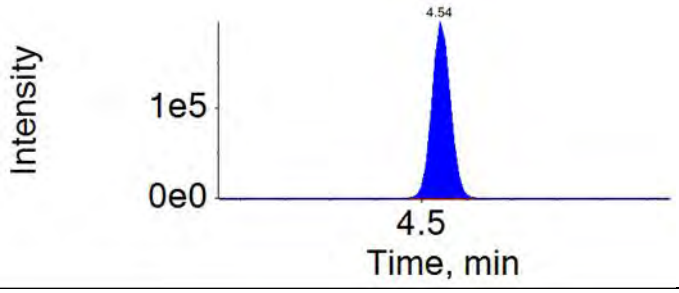
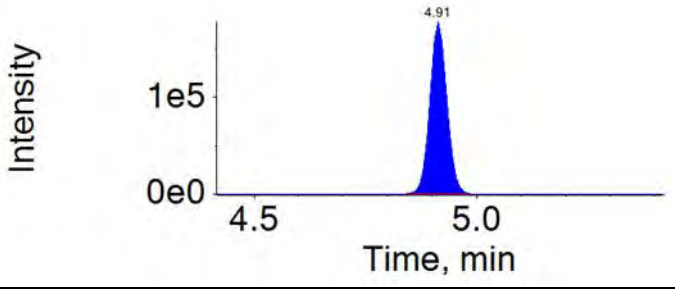


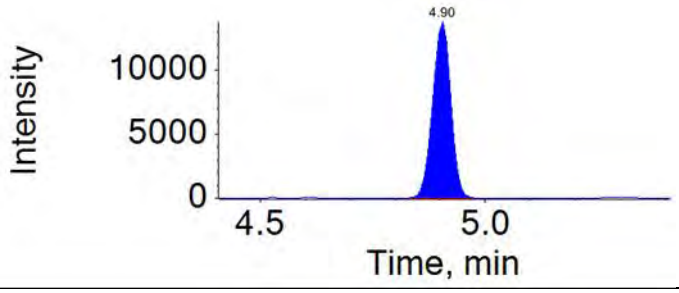
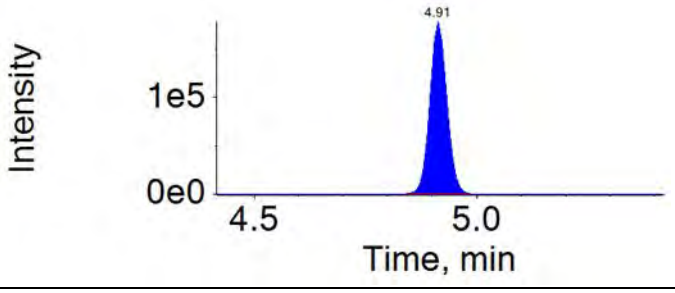


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

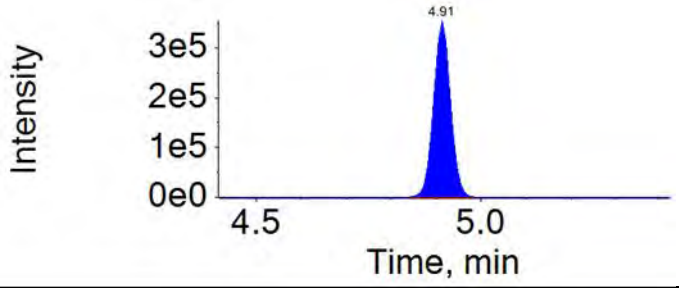
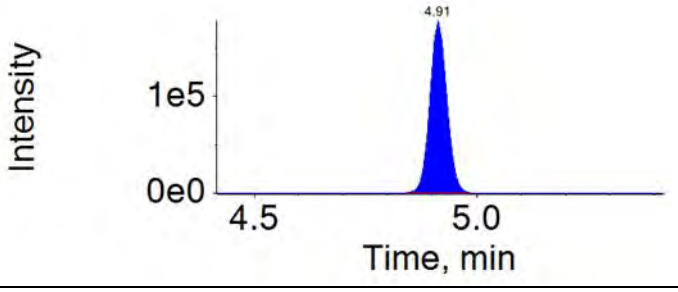
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

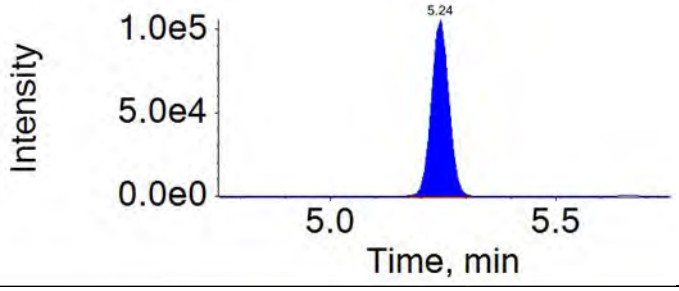
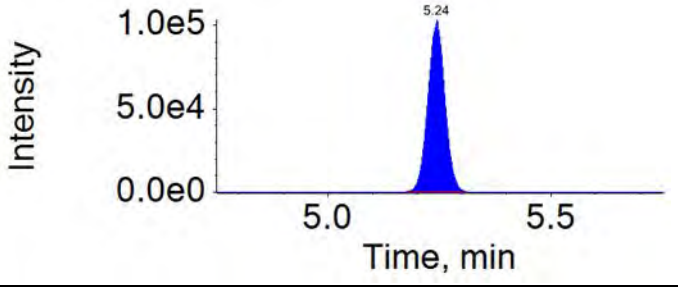
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

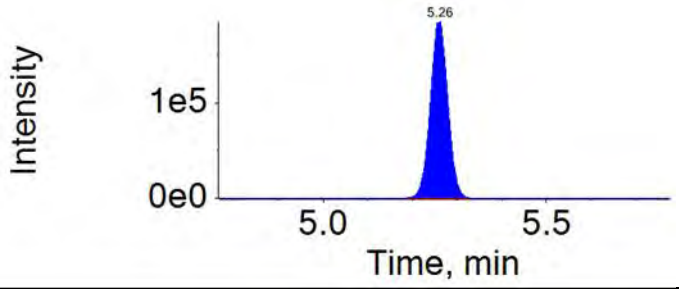
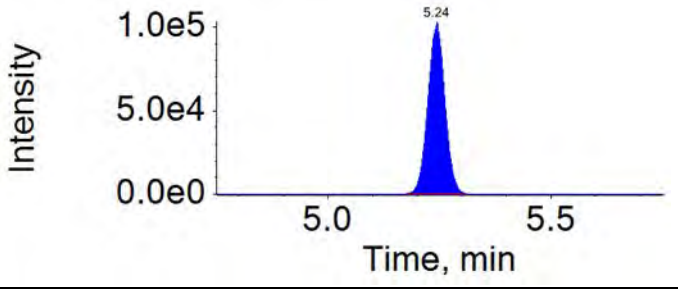
APPROVED
By JPT at 4:11 pm, 11/13/18

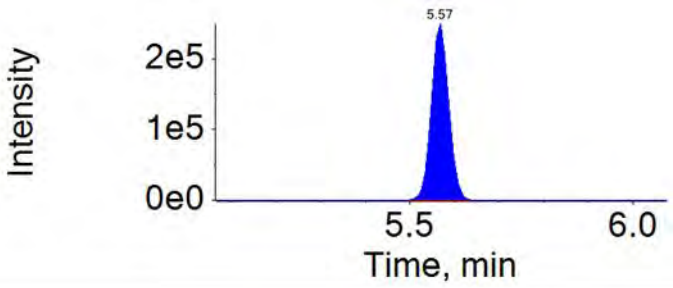
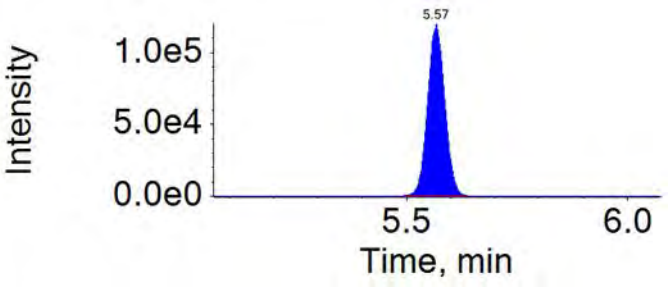
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

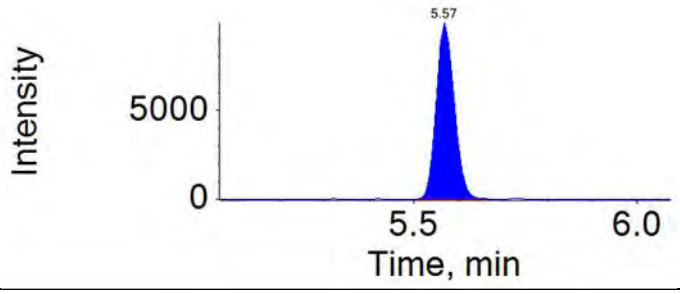
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

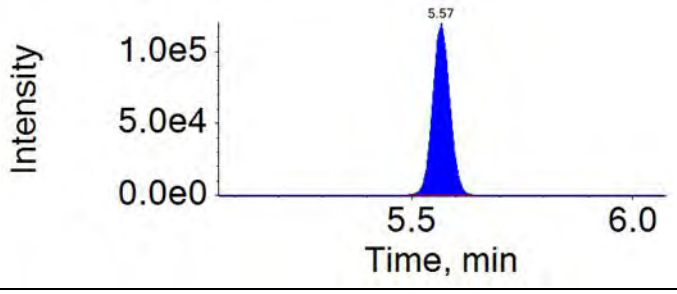
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

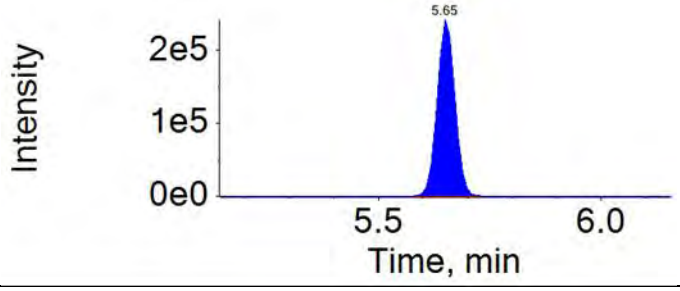
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

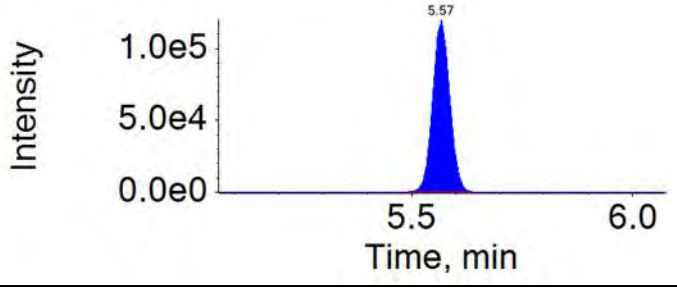
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



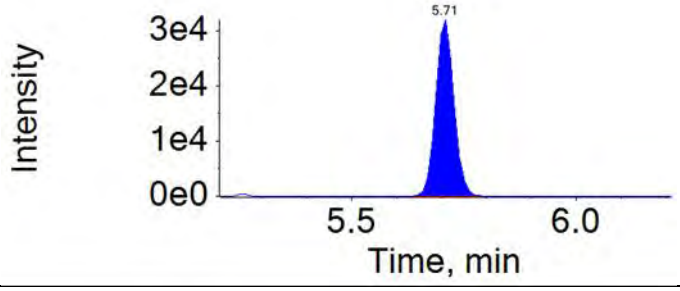


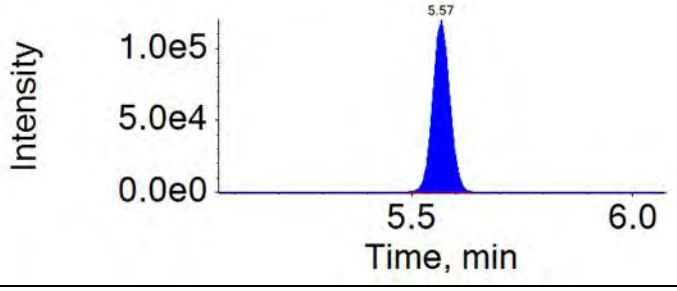
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



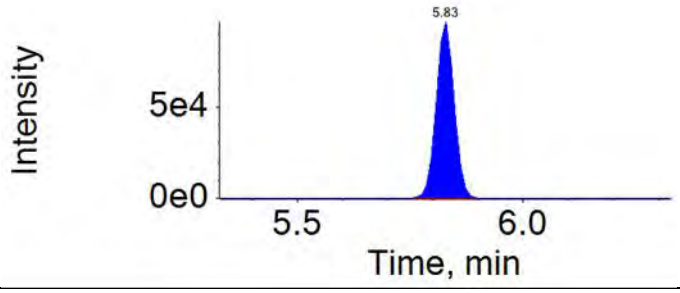


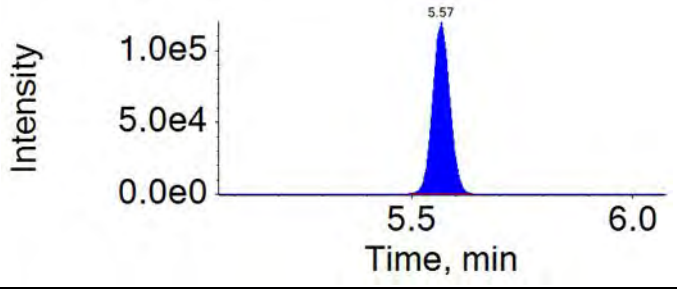
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



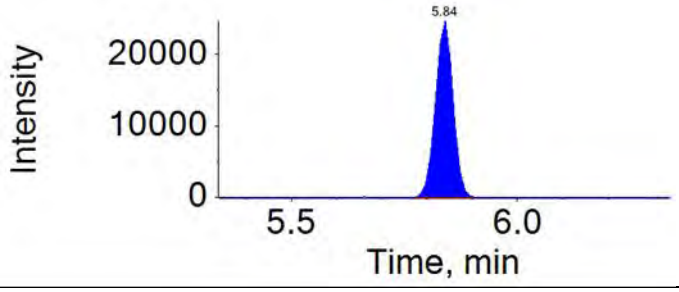
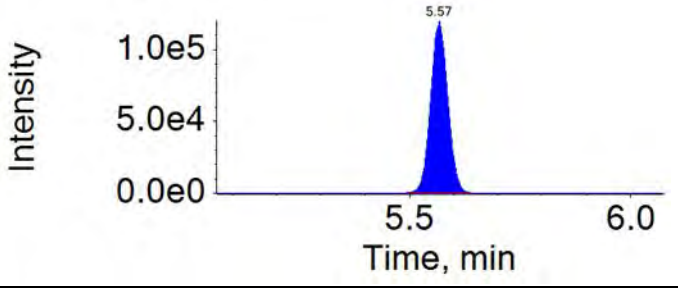


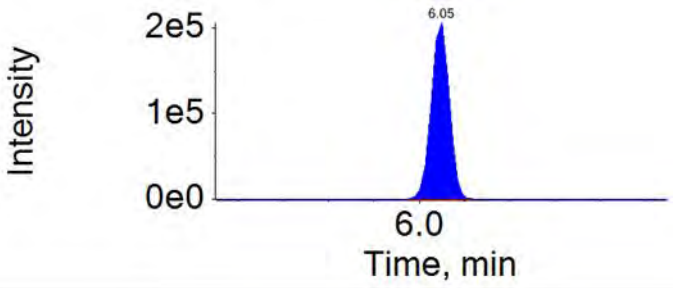
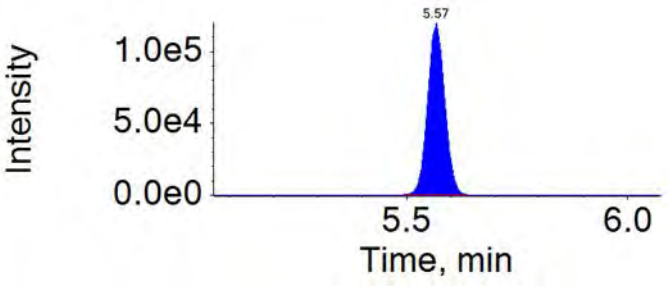
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

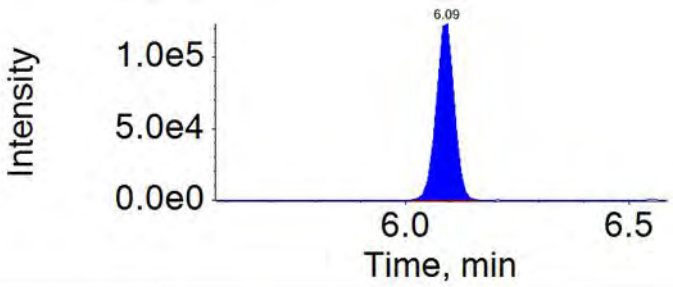
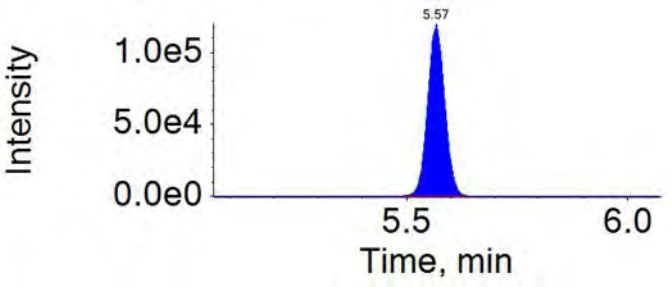


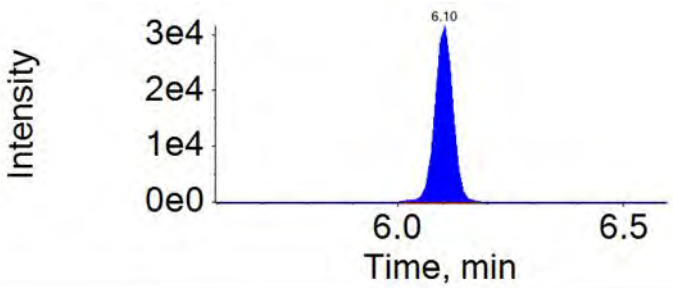
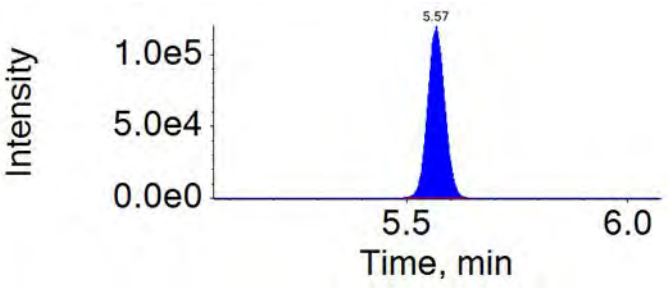


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

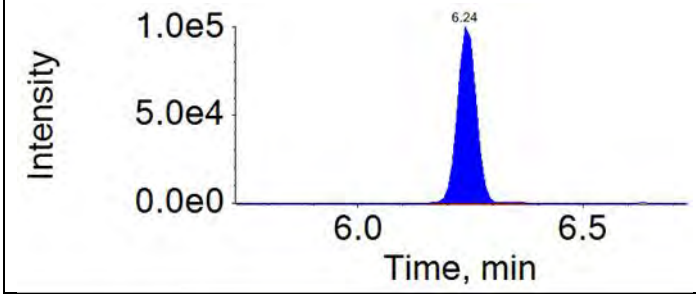
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

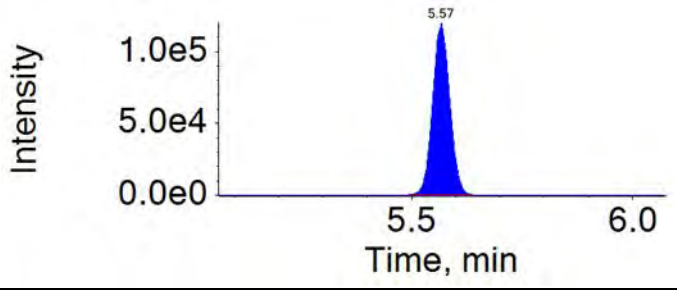
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

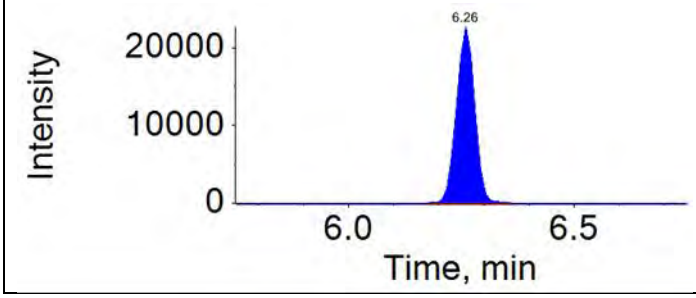
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

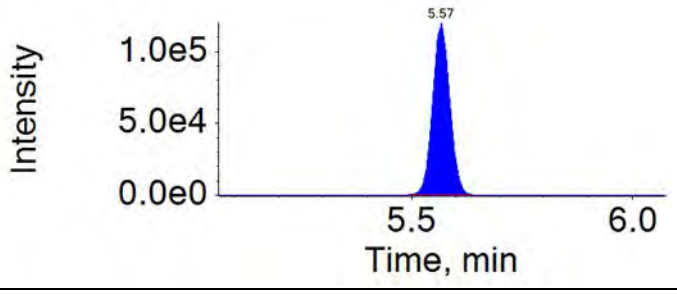
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



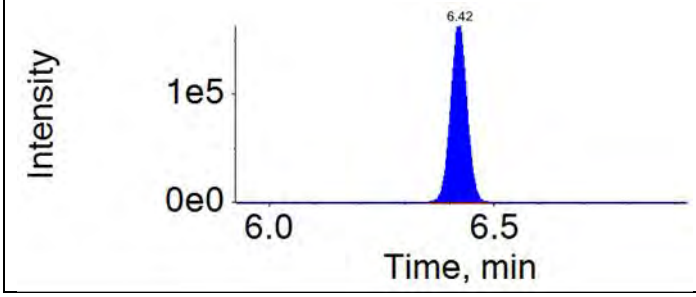


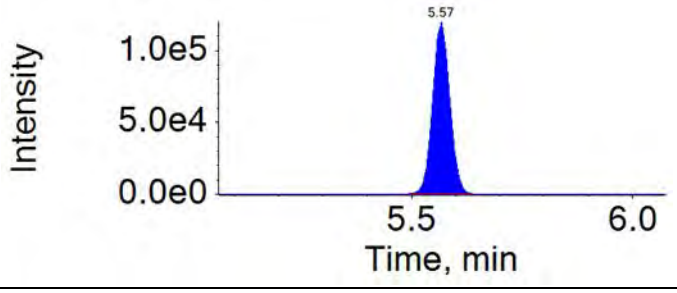
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



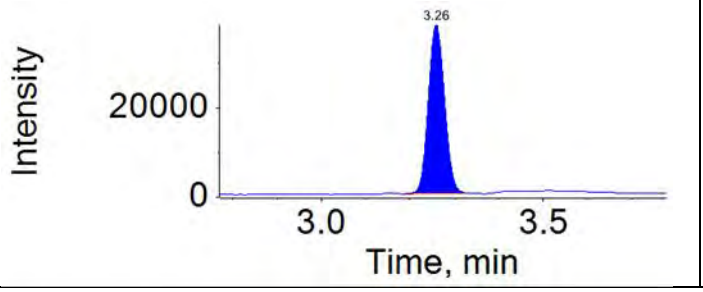


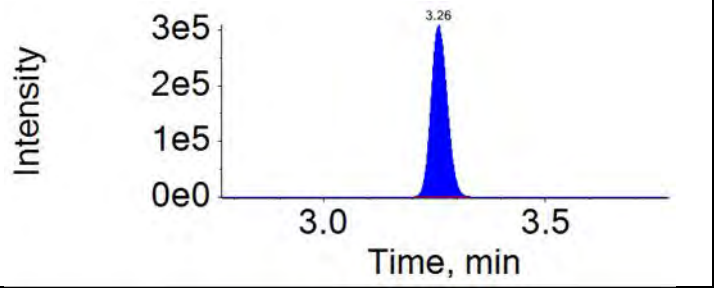
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

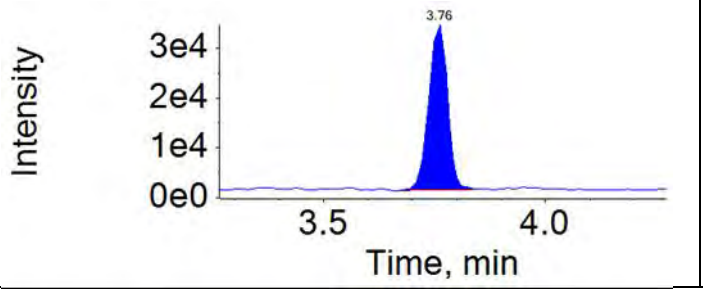
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

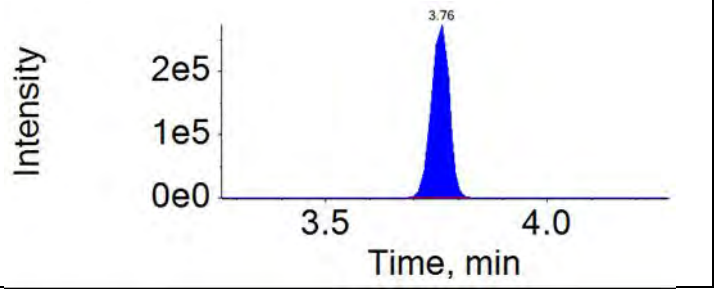
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



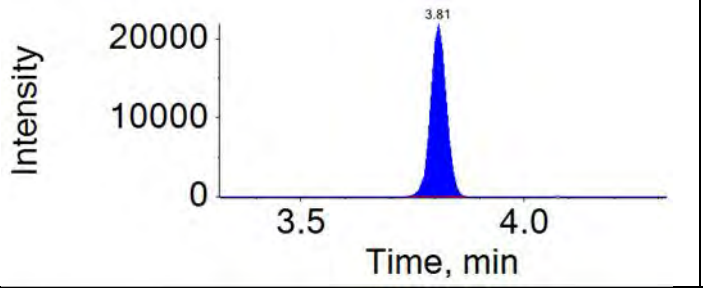


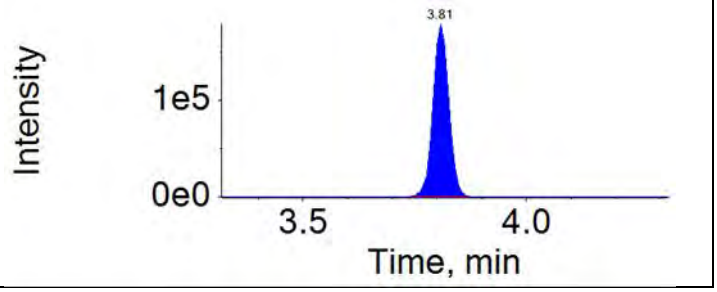
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



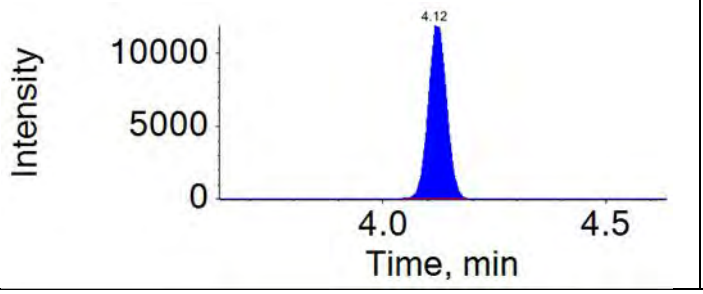


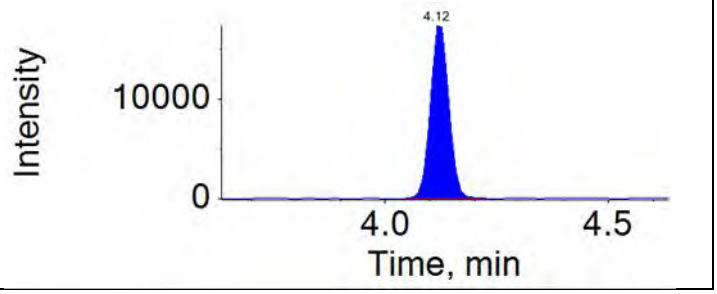
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



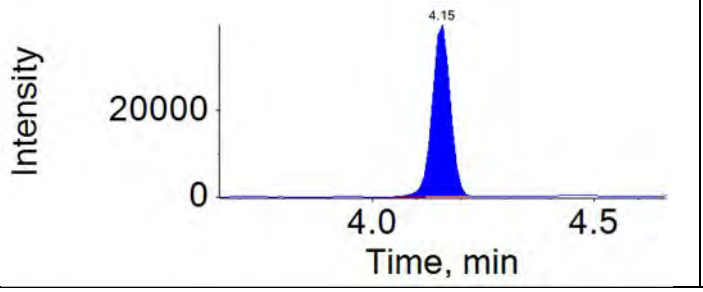


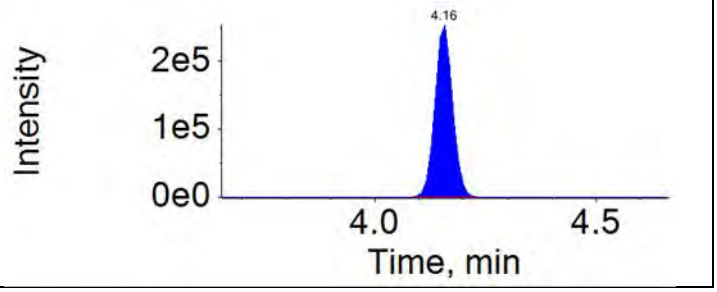
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

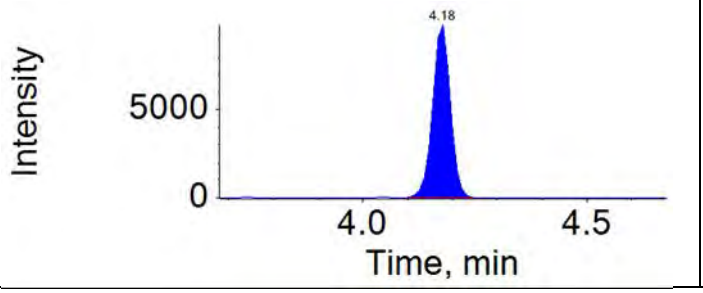
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

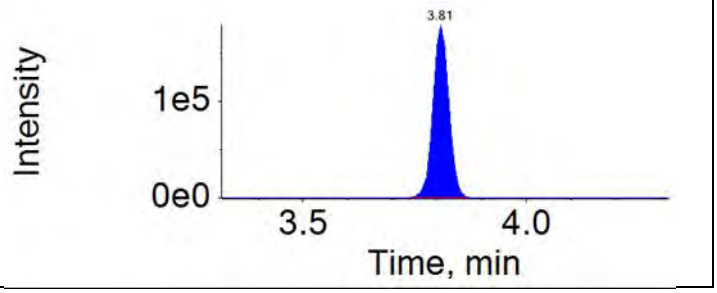
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



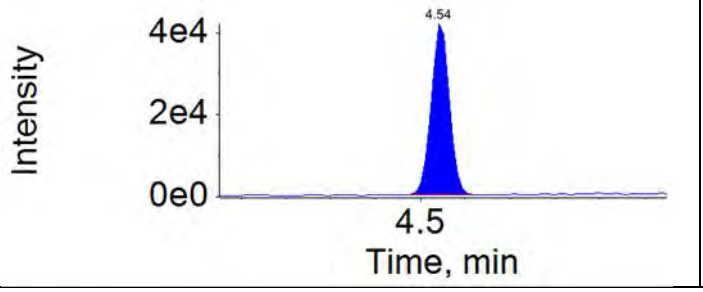


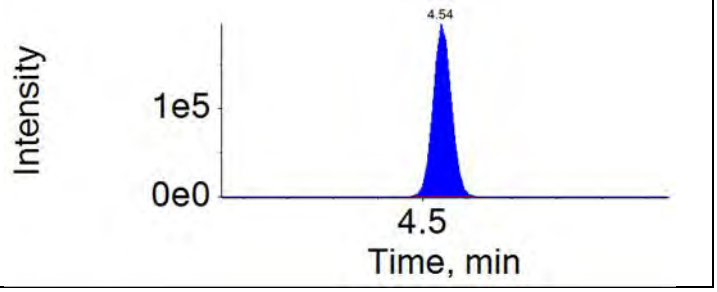
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



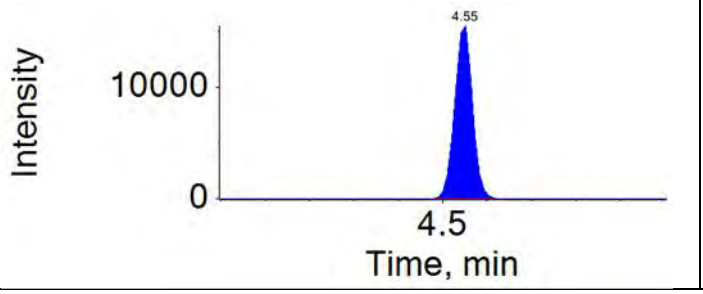


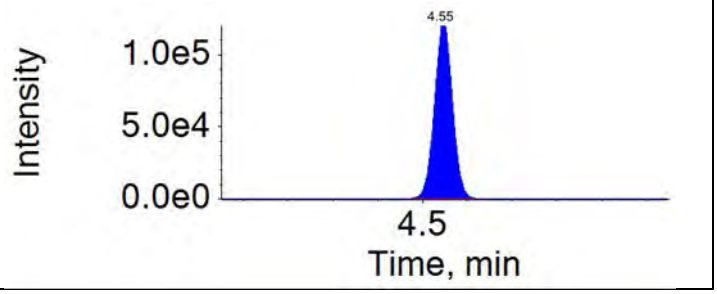
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



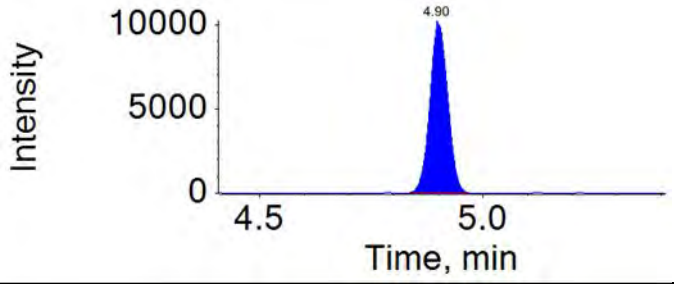
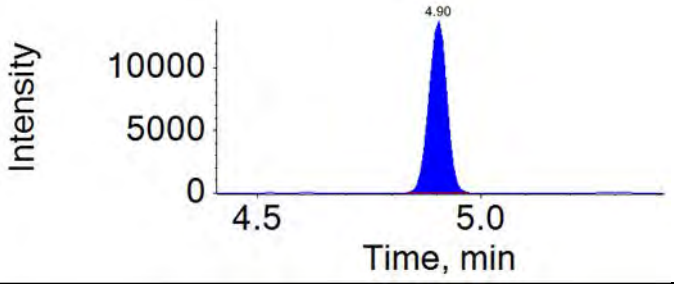


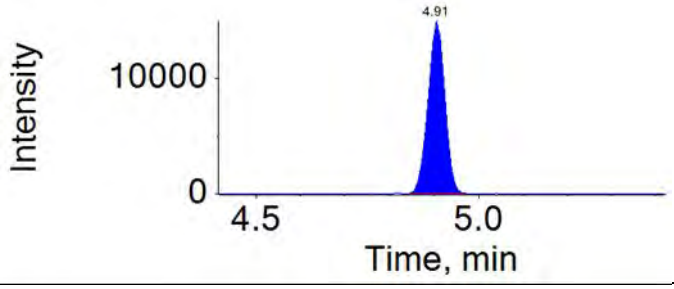
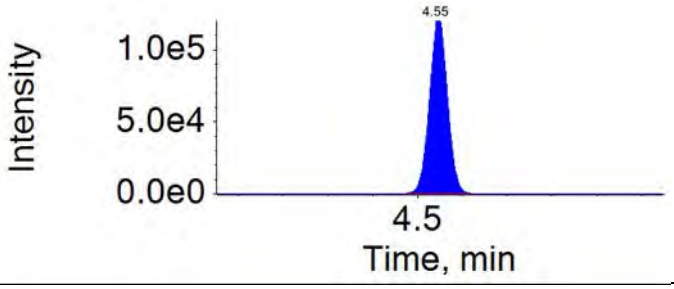
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

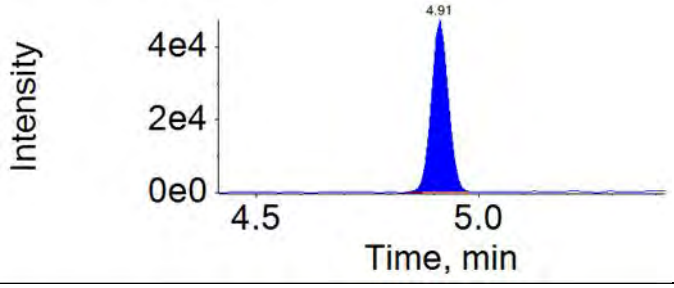
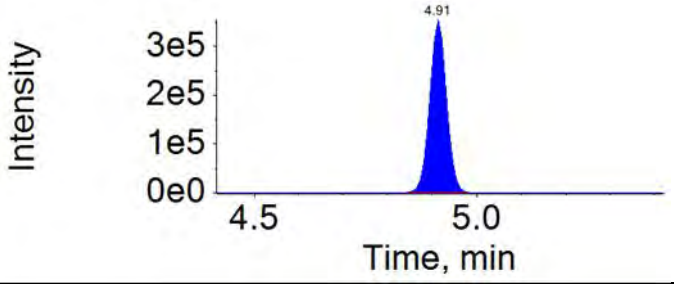


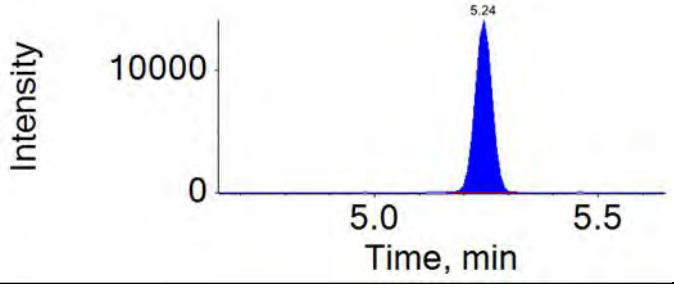
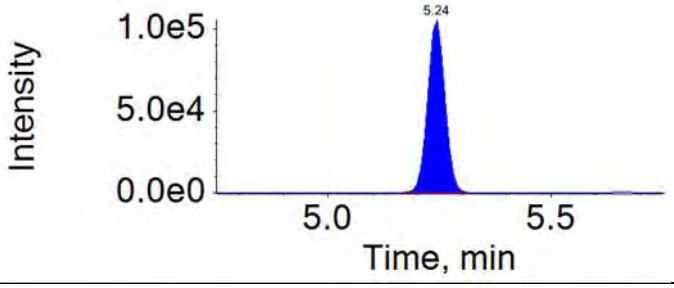


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

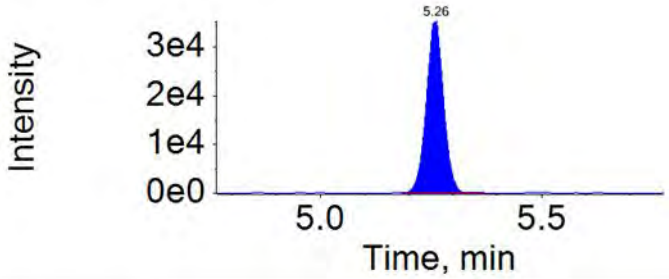
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

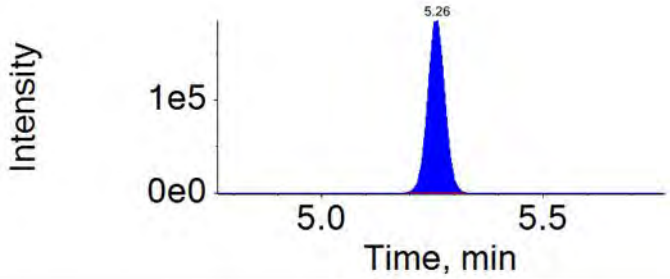
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

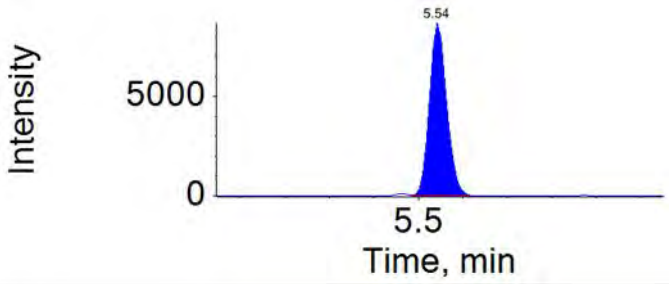
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

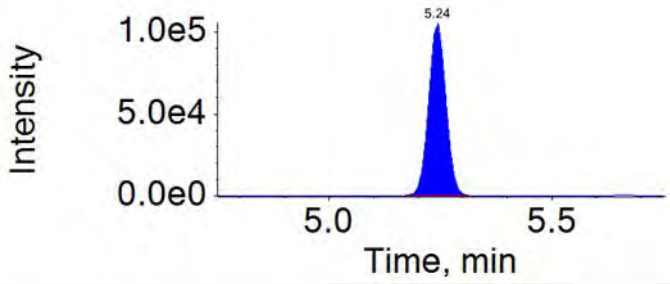
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



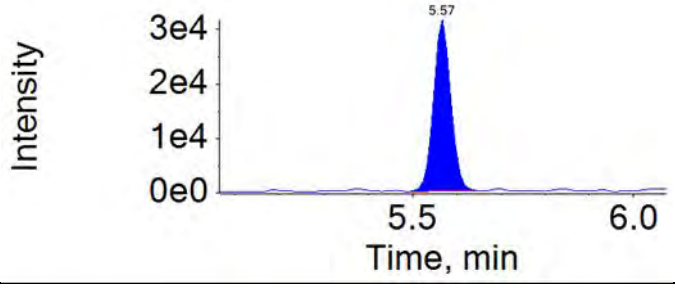


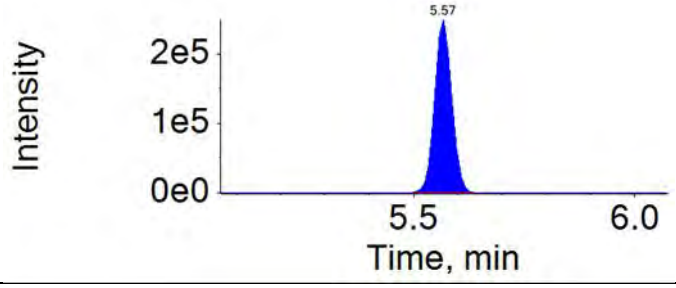
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



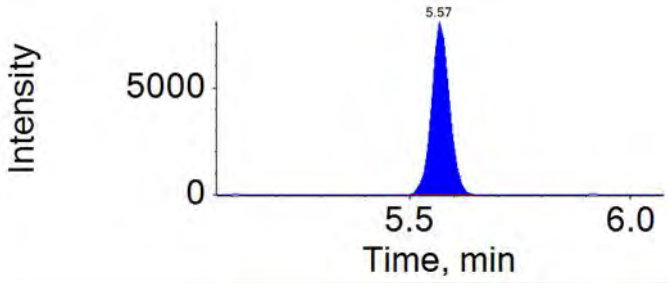


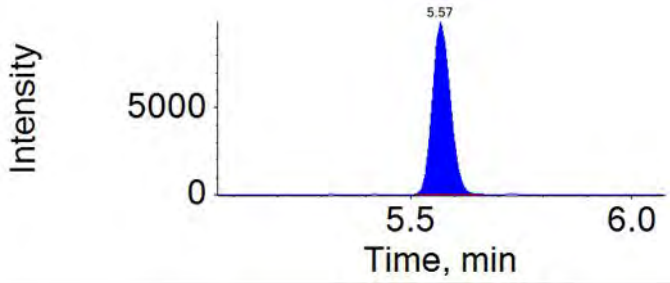
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

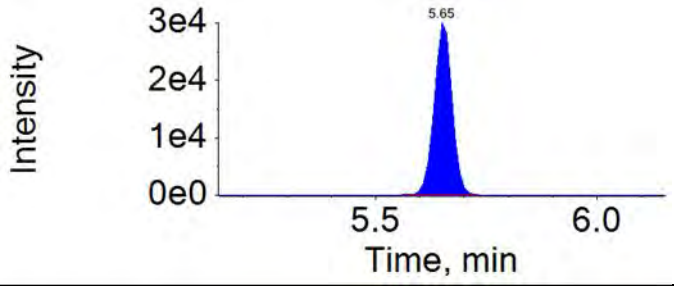
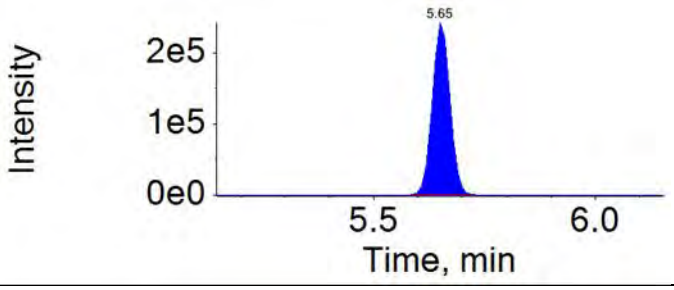


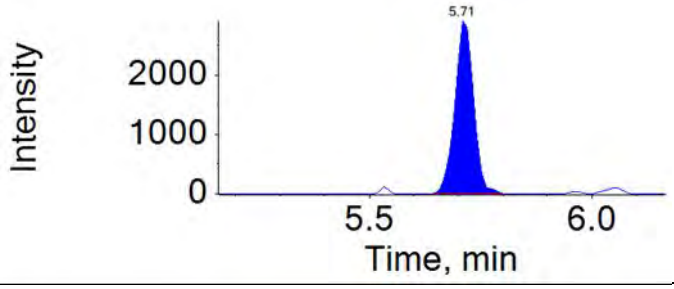
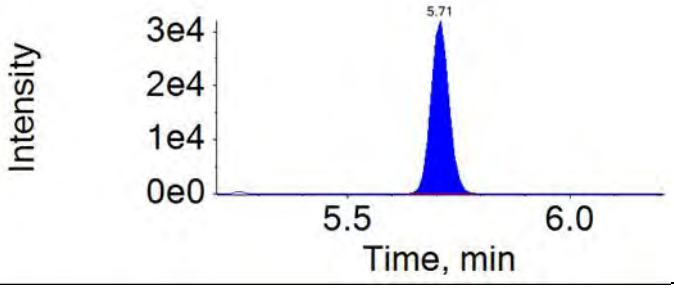


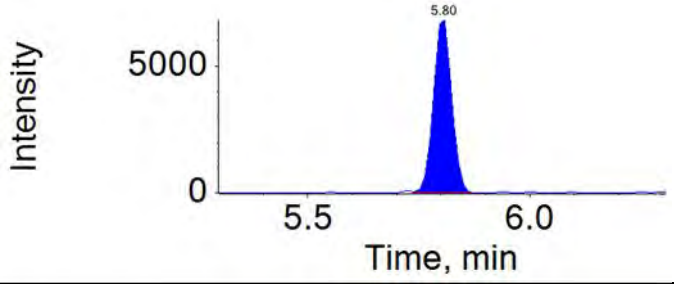
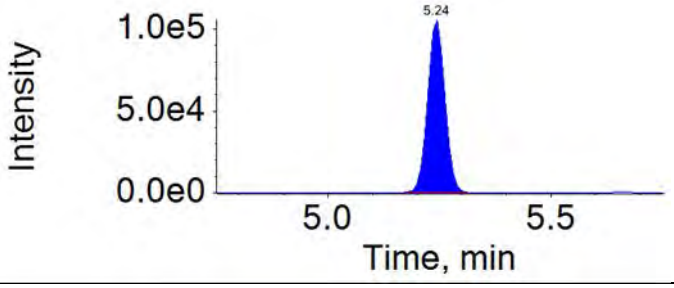
APPROVED
By JPT at 4:11 pm, 11/13/18

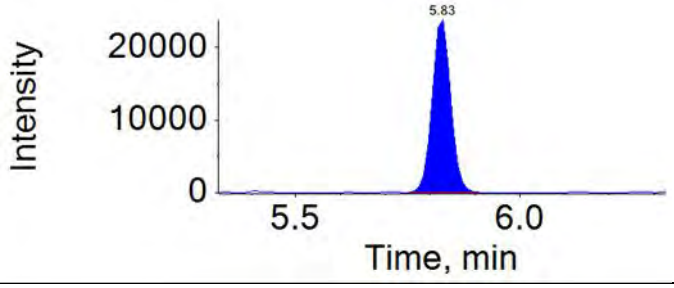
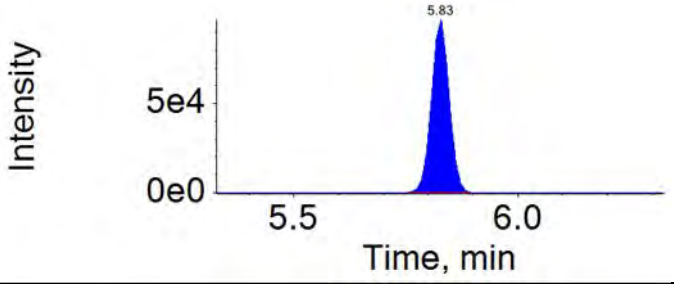
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

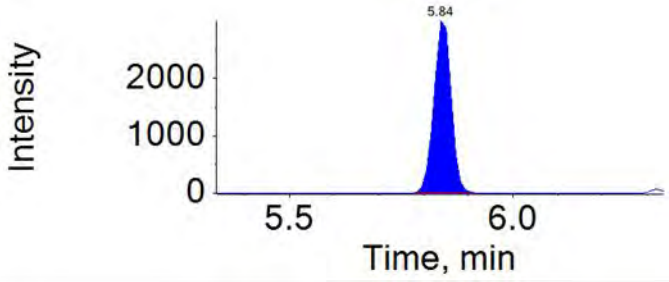
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

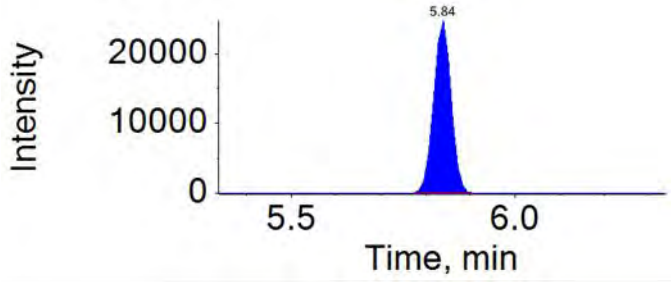
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

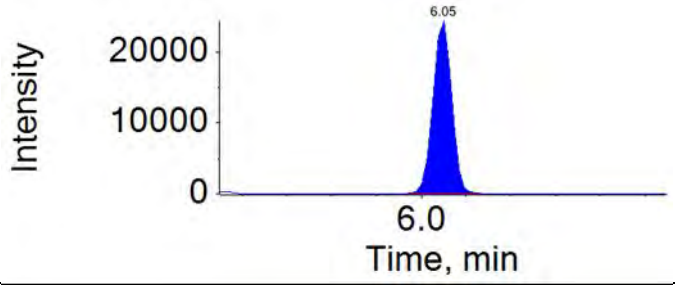
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

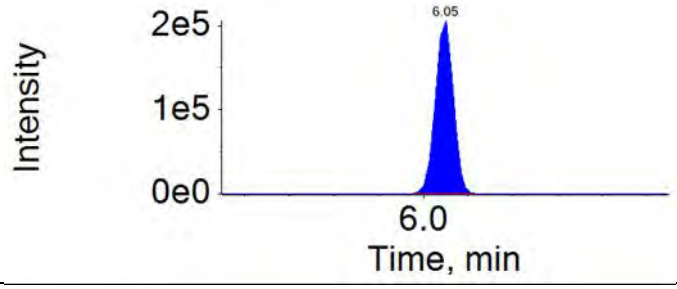
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



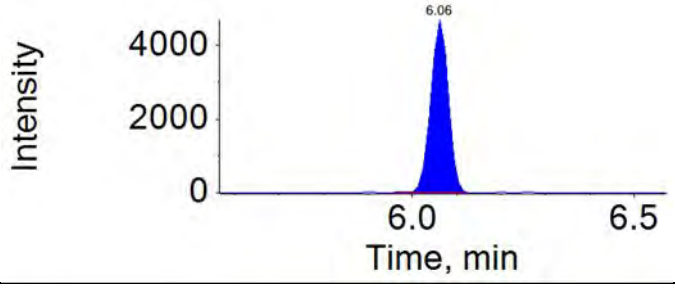


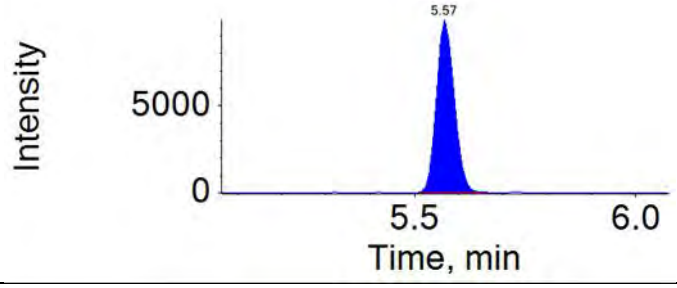
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



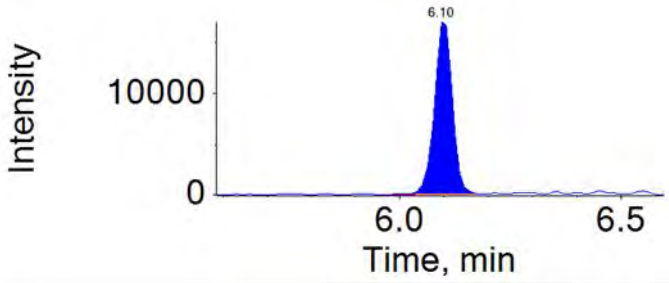


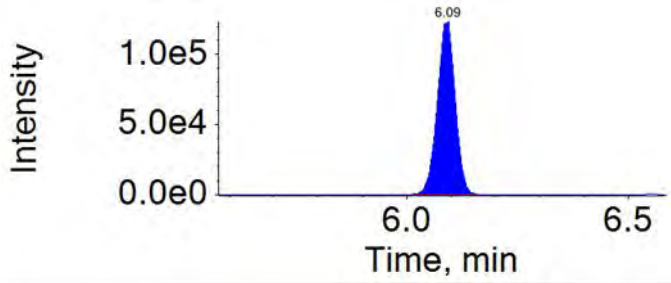
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



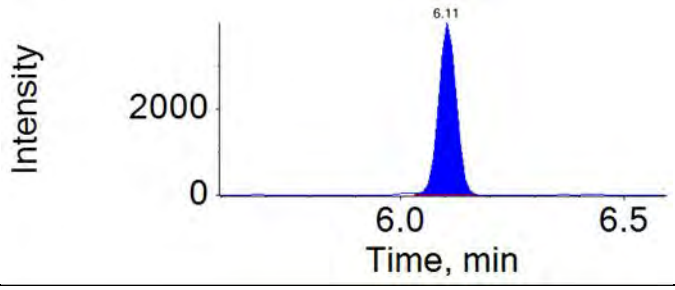


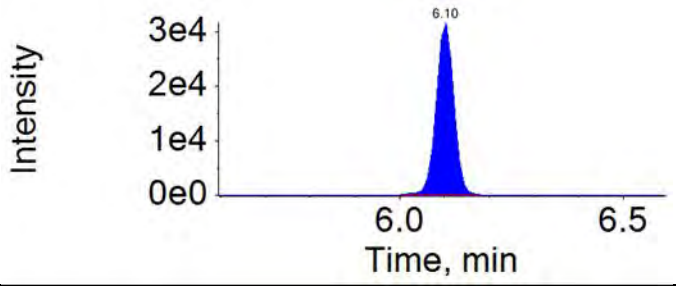
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

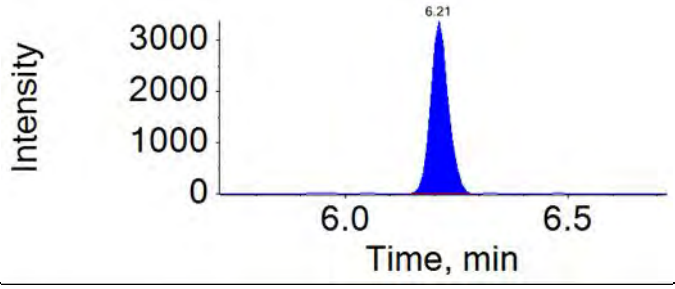
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

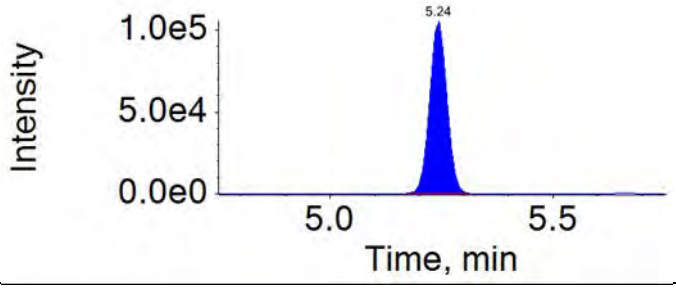
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



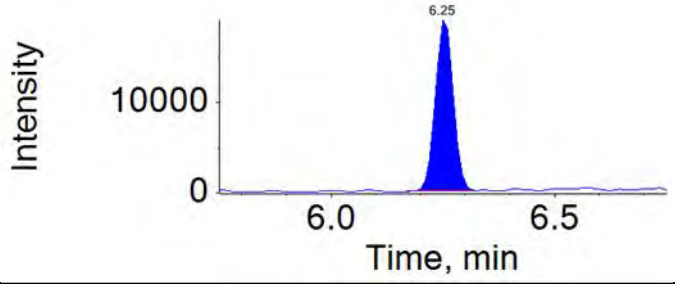


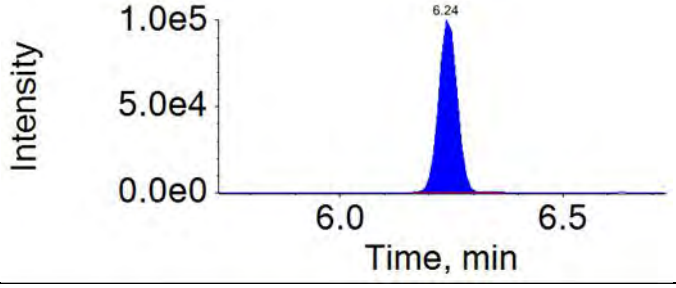
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



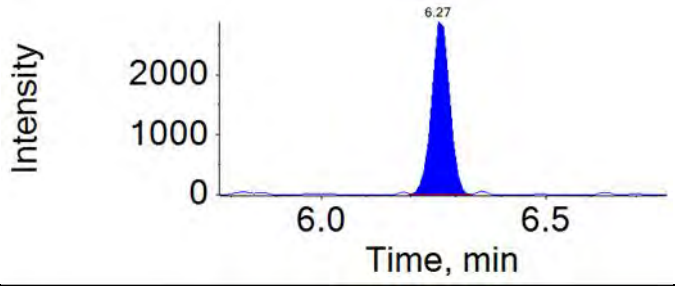


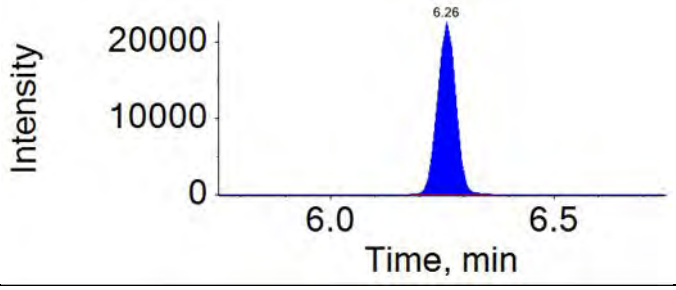
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

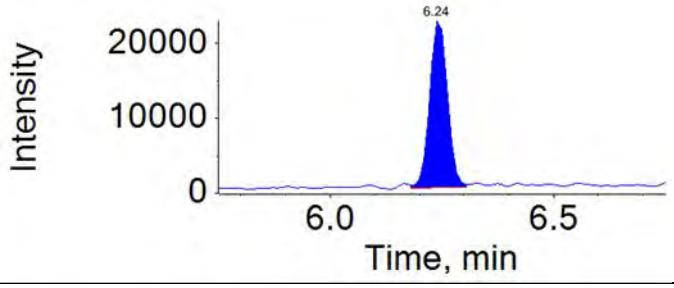
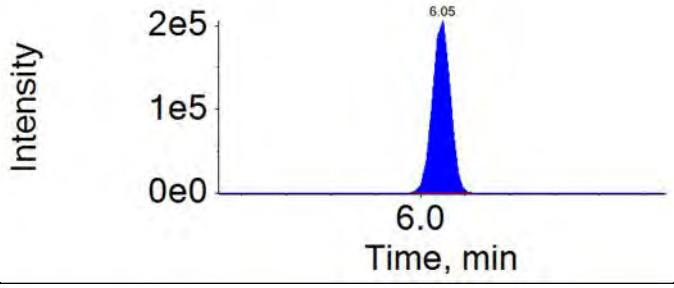


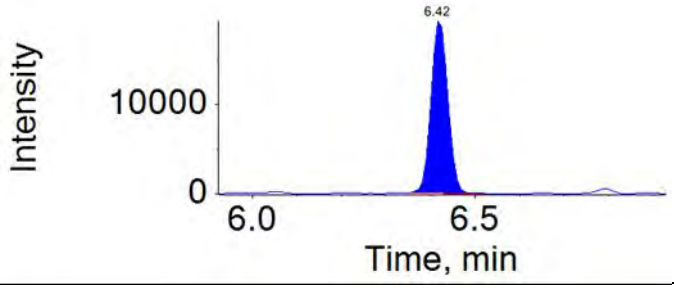
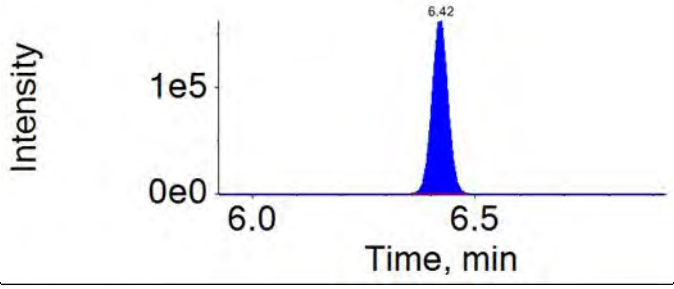


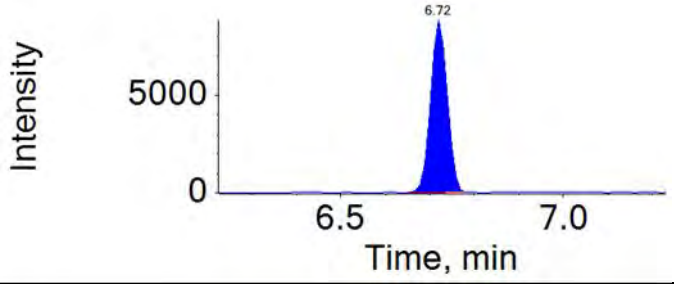
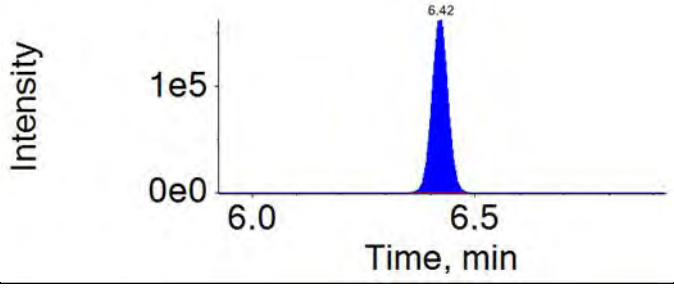
APPROVED
By JPT at 4:11 pm, 11/13/18

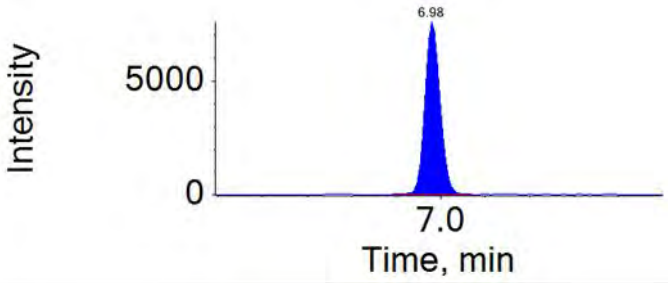
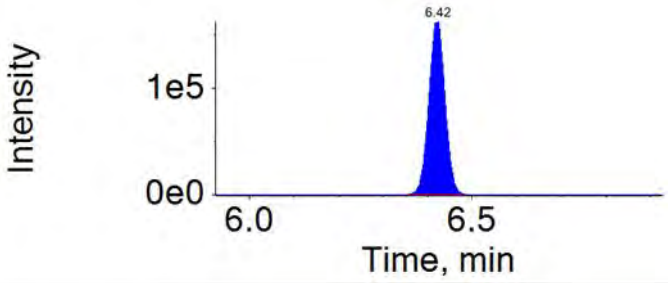
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

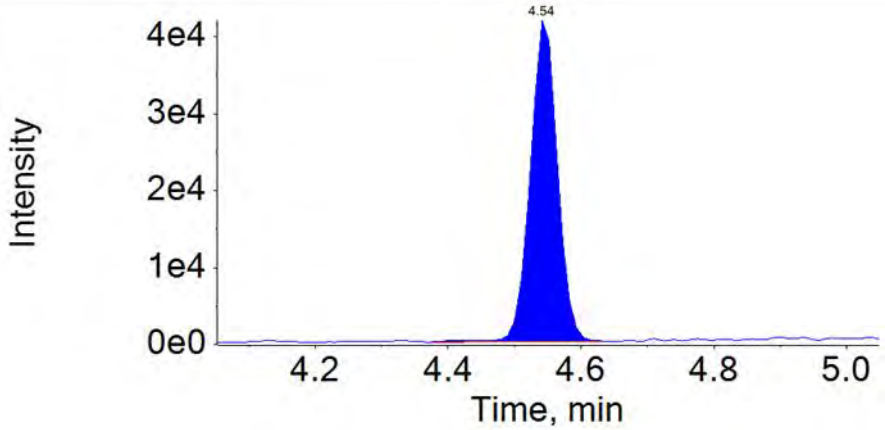
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

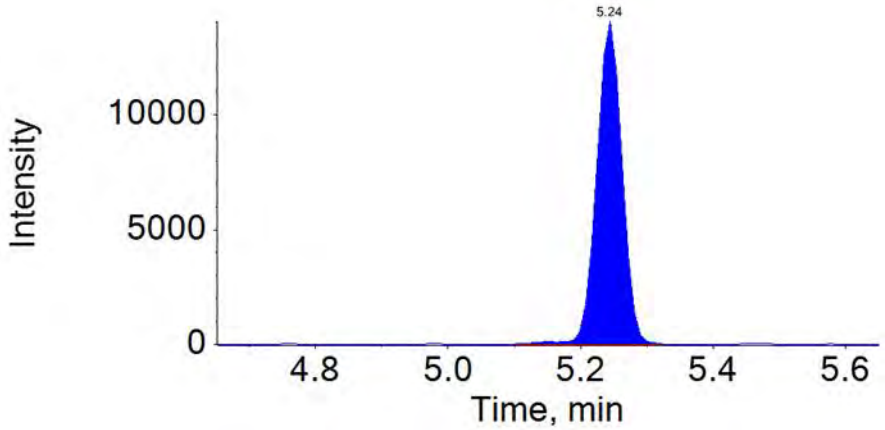
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

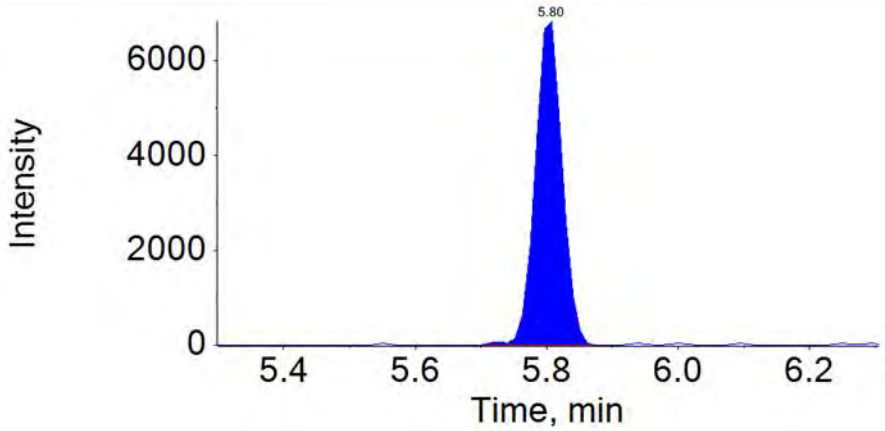
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHpA **RT (min.):** 4.54 **Peak Area:** 118852.3 **Mass Range:** 363.0 / 319.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 37646.3 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

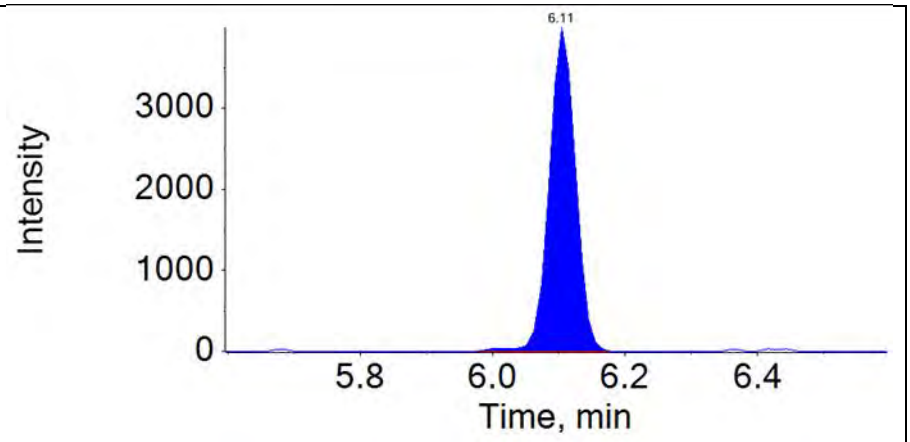
Component Name: PFDS **RT (min.):** 5.80 **Peak Area:** 19571.7 **Mass Range:** 599.0 / 80.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

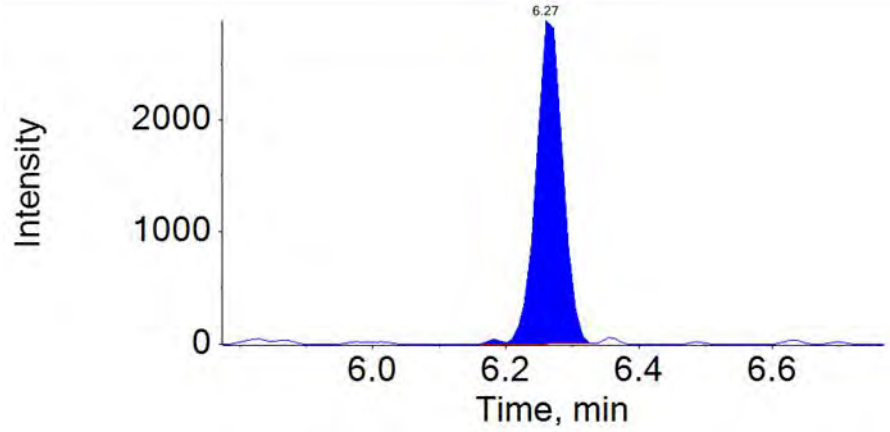
Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMePFOSA
RT (min.):
6.11
Peak Area:
11062.3
Mass Range:
512.0 / 169.0
File Name:
18NOV12D-62.wiff
Sample Name:
LCS314009



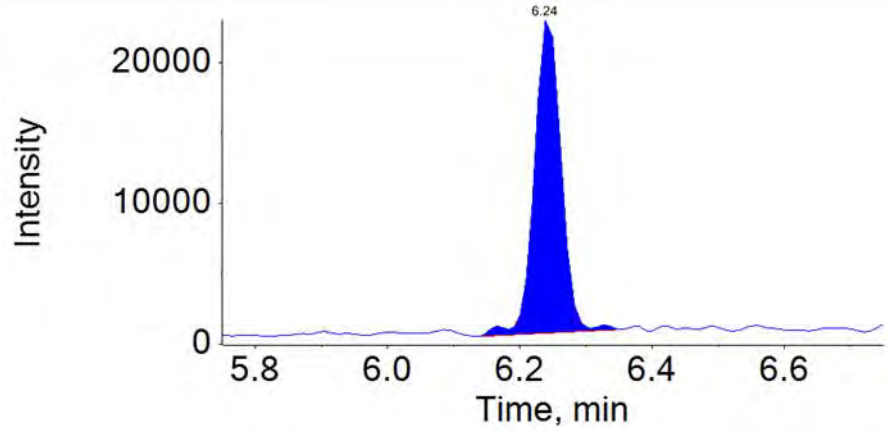
Integration Comment: incorrect integration

Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
8047.3
Mass Range:
526.0 / 169.0
File Name:
18NOV12D-62.wiff
Sample Name:
LCS314009



Integration Comment: incorrect integration

Component Name:
PFTrDA
RT (min.):
6.24
Peak Area:
62913.4
Mass Range:
663.0 / 619.0
File Name:
18NOV12D-62.wiff
Sample Name:
LCS314009



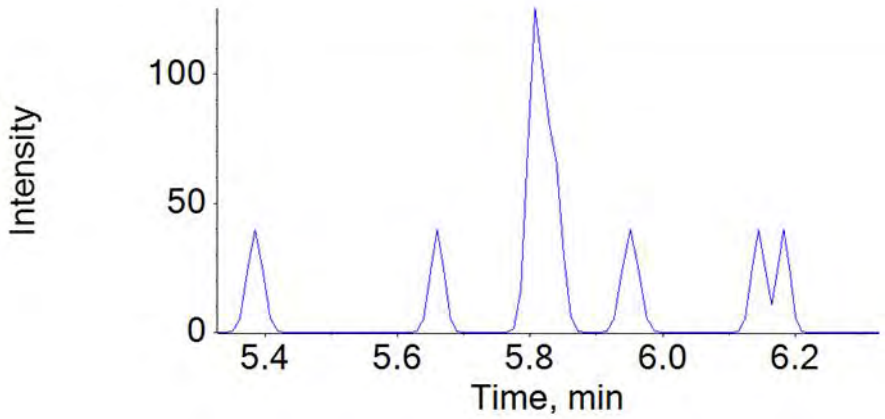
Integration Comment: incorrect integration

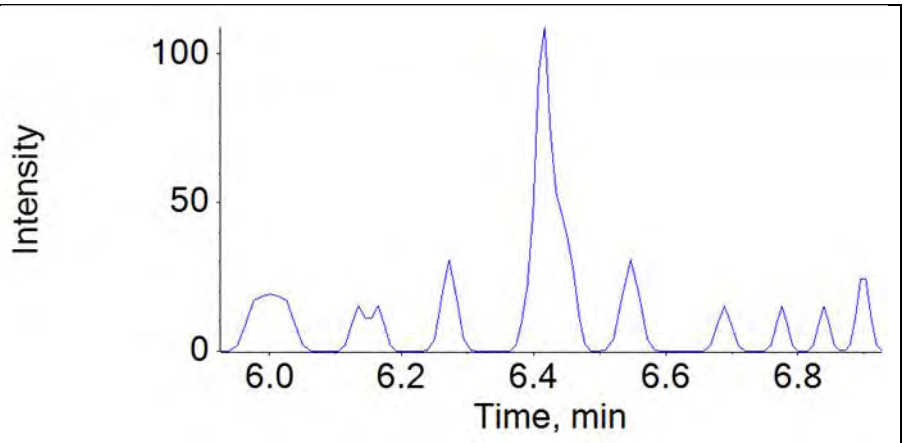
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM

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

Component Name: PFUnDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM

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

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Ion Ratio Report

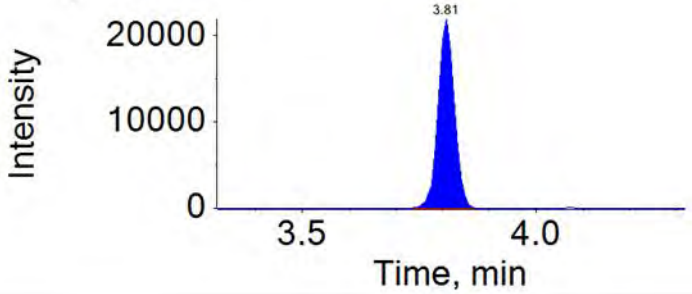
Sample Name: LCS314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-62.wiff

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	52824.5	A	N/A	1.0000			
PFBS_2	3.81	1.00	19292.7	A	N/A	0.3652	0	50	
4:2-FTS	4.12	1.00	34074.2	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	20953.9	A	N/A	0.6149		#NA!	
PFHxA	4.15	1.00	112260.1	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1791.7	A	N/A	0.0160	36	50	
PFPeS	4.18	1.10	27021.9	A	N/A	1.0000			
PFPeS_2	4.17	1.10	14650.5	A	N/A	0.5422	4	50	
PFHpA	4.54	1.00	117697.1	M	N/A	1.0000			
PFHpA_2	4.54	1.00	6215.0	A	N/A	0.0528	-6	50	
PFHxS	4.55	1.00	43072.0	A	N/A	1.0000			
PFHxS_2	4.54	1.00	13904.6	A	N/A	0.3228	6	50	
6:2-FTS	4.90	1.00	28133.1	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	17739.6	A	N/A	0.6306		#NA!	
PFHpS	4.91	1.08	39257.0	A	N/A	1.0000			
PFHpS_2	4.91	1.08	15979.1	A	N/A	0.4070	0	50	
PFOA	4.91	1.00	122414.3	A	N/A	1.0000			
PFOA_2	4.91	1.00	6597.6	A	N/A	0.0539	-5	50	
PFOS	5.24	1.00	37351.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	12702.0	A	N/A	0.3401	32	50	
PFNA	5.26	1.00	95349.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	1773.6	A	N/A	0.0186	-19	50	
PFNS	5.54	1.06	23252.6	A	N/A	1.0000			
PFNS_2	5.54	1.06	11892.7	A	N/A	0.5115	7	50	
PFDA	5.57	1.00	85091.1	A	N/A	1.0000			
PFDA_2	5.56	1.00	719.0	A	N/A	0.0084	6	50	
8:2-FTS	5.57	1.00	22504.4	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	12699.0	A	N/A	0.5643		#NA!	
NMeFOSAA	5.71	1.00	8497.5	A	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	2190.9	A	N/A	0.2578	21	50	
PFDS	5.80	1.11	19464.8	M	N/A	1.0000			
PFDS_2	5.80	1.11	8927.9	A	N/A	0.4587	-10	50	
PFUnDA	5.83	1.00	68284.8	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	321.8	M	N/A	0.0047	13	50	
NEtFOSAA	5.84	1.00	8018.0	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	5238.8	A	N/A	0.6534	13	50	
PFDoDA	6.05	1.00	70529.8	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	611.1	A	N/A	0.0087	-47	50	
10:2-FTS	6.06	1.09	12936.4	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	9955.4	A	N/A	0.7696		#NA!	
PFTrDA	6.24	1.03	61457.0	M	N/A	1.0000			
PFTrDA_2	6.24	1.03	619.6	A	N/A	0.0101	9	50	
PFTeDA	6.42	1.00	50632.5	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	278.3	M	N/A	0.0055	-14	50	
PFHxDA	6.72	1.05	22738.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1517.3	A	N/A	0.0667	-1	50	
PFODA	6.98	1.09	17951.0	A	N/A	1.0000			
PFODA_2	6.98	1.09	452.9	A	N/A	0.0252	-7	50	

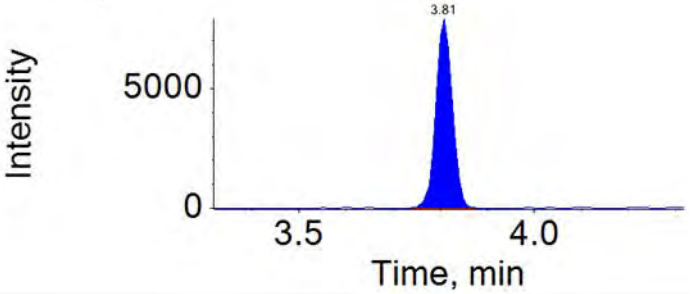
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

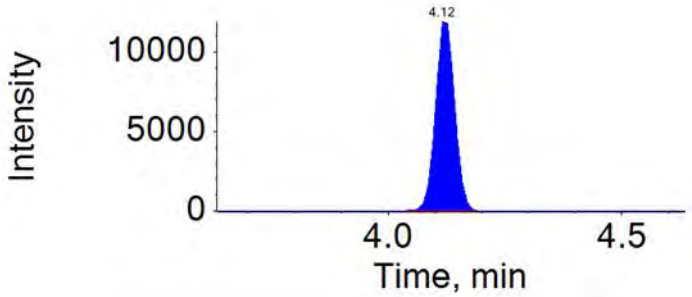
Component: PFBS
Primary Mass: 299.0 / 80.0



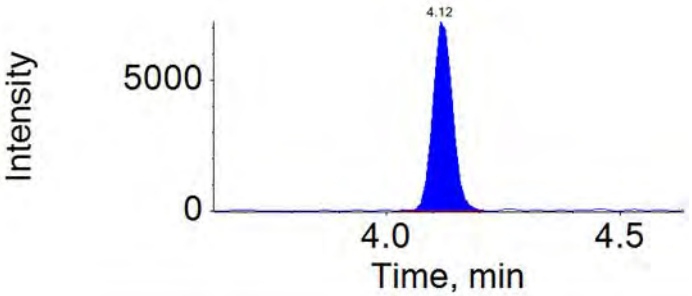
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



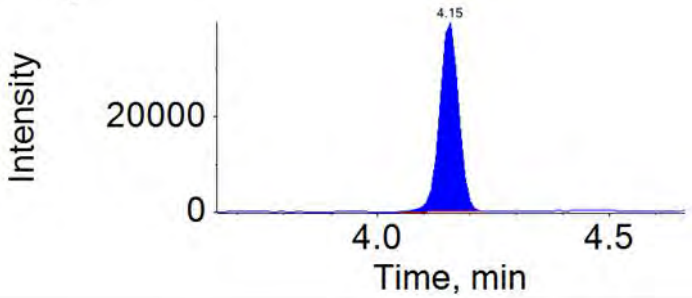
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



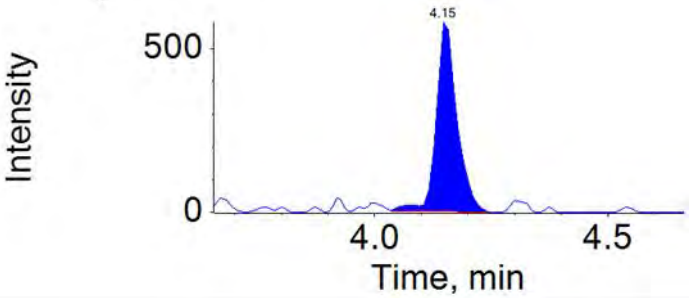
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



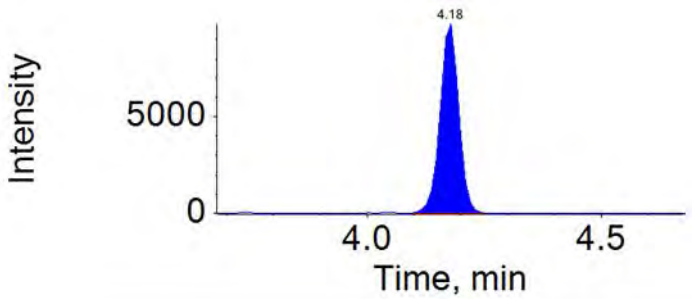
Component: PFHxA
Primary Mass: 313.0 / 269.0



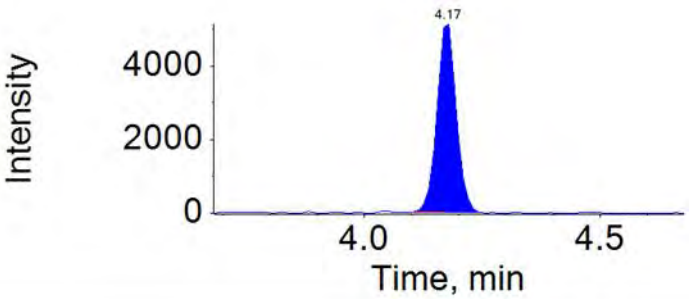
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



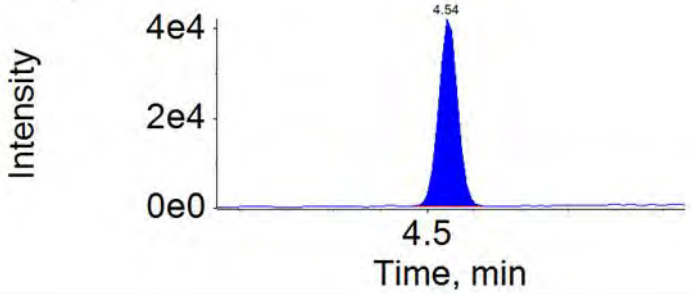
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



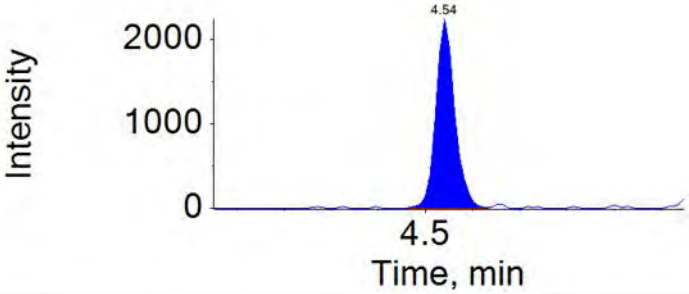
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

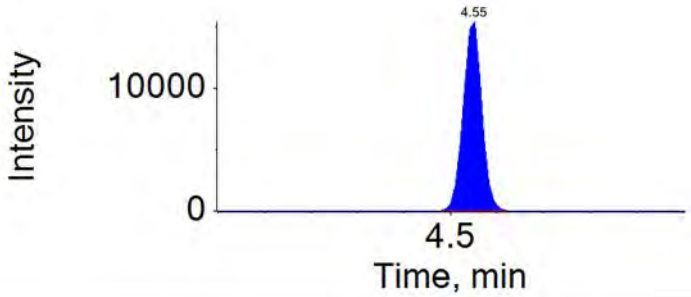
Component: PFHpA
Primary Mass: 363.0 / 319.0



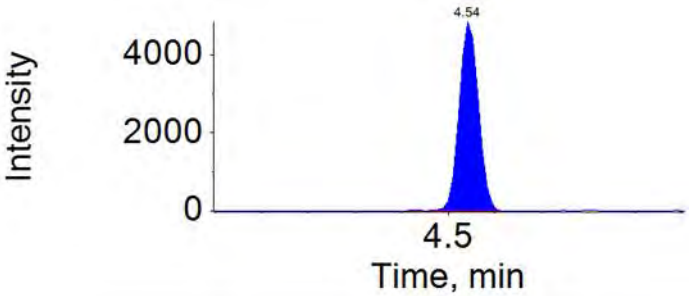
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



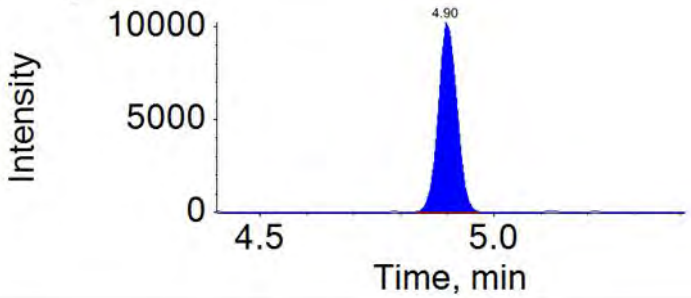
Component: PFHxS
Primary Mass: 399.0 / 80.0



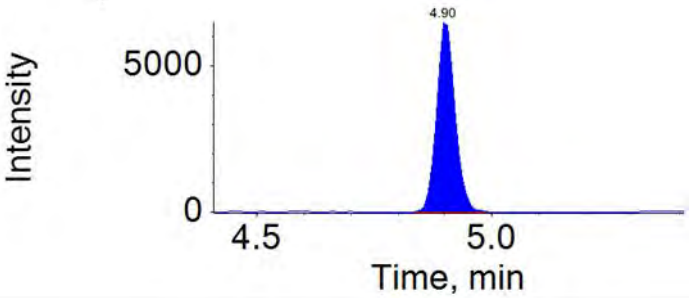
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



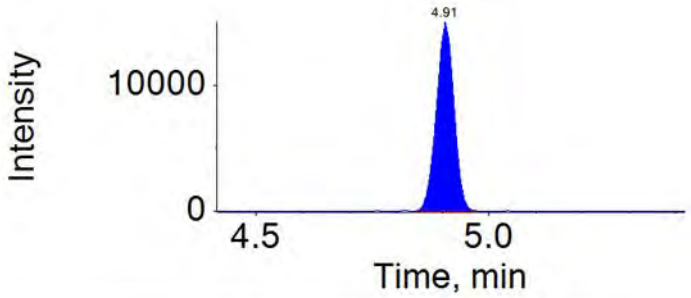
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



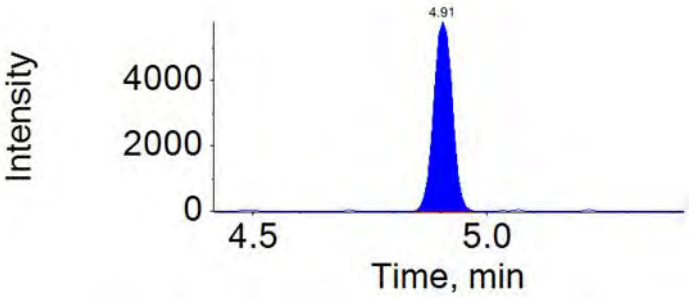
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



APPROVED
By JPT at 4:11 pm, 11/13/18

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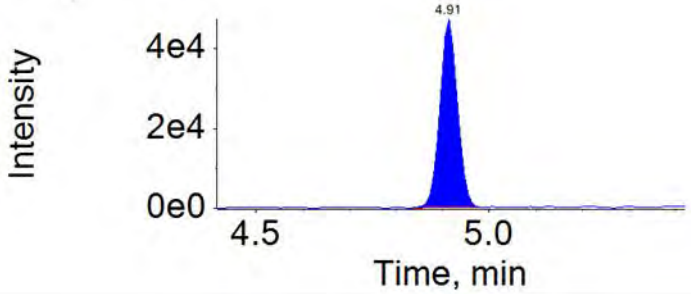
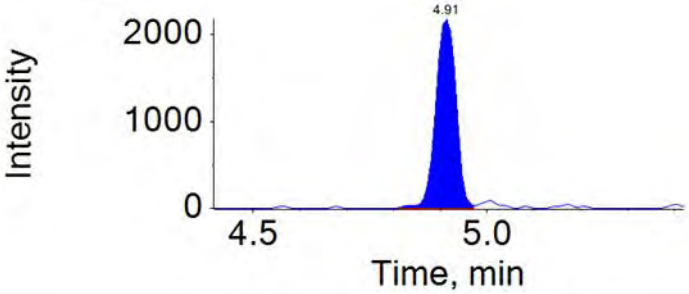
By umar at 5:38 pm, 11/13/18

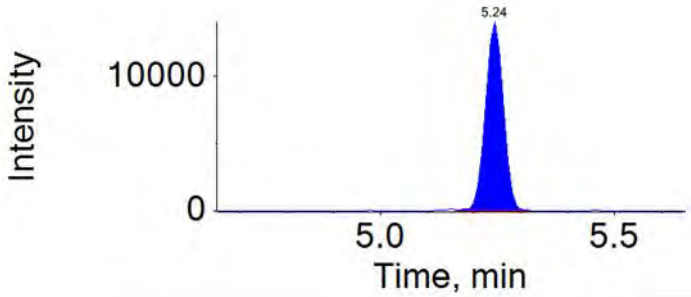
Component: PFOA
Primary Mass: 413.0 / 369.0



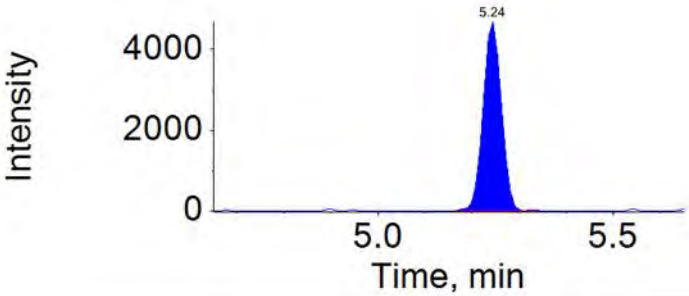
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



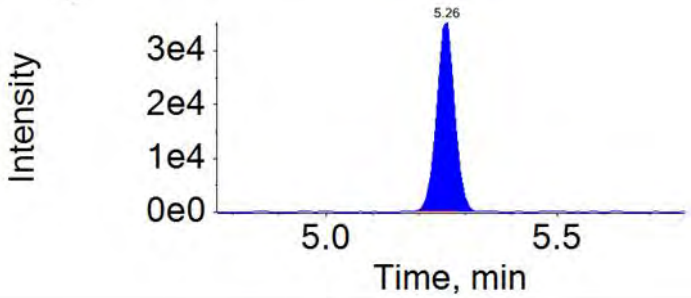
Component: PFOS
Primary Mass: 499.0 / 80.0



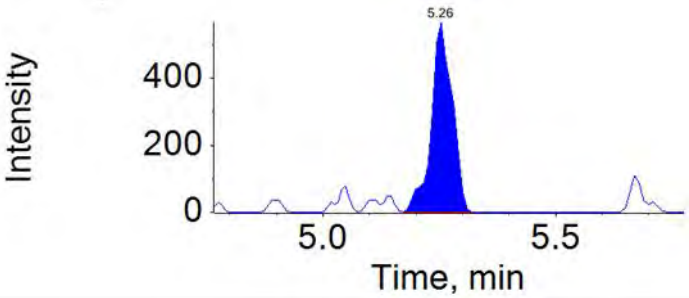
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



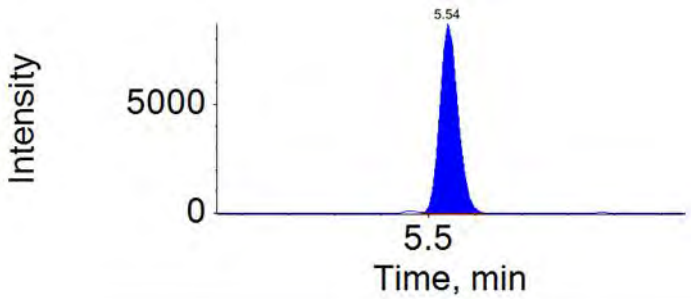
Component: PFNA
Primary Mass: 463.0 / 419.0



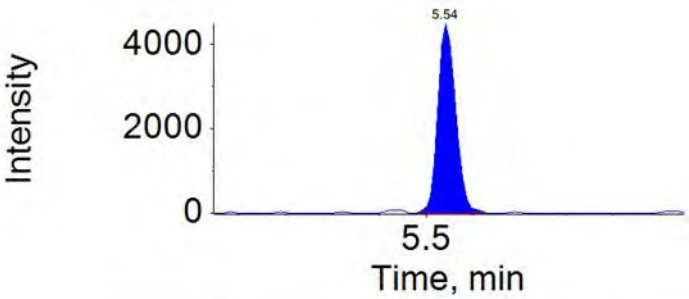
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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By JPT at 4:11 pm, 11/13/18

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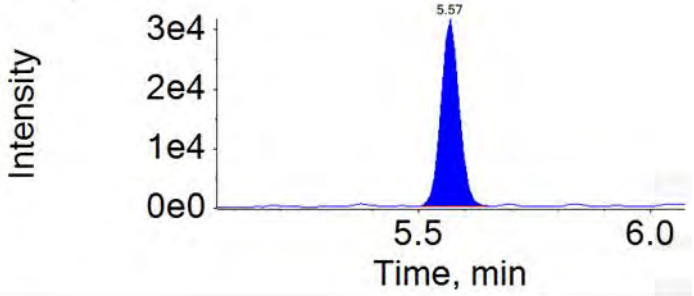
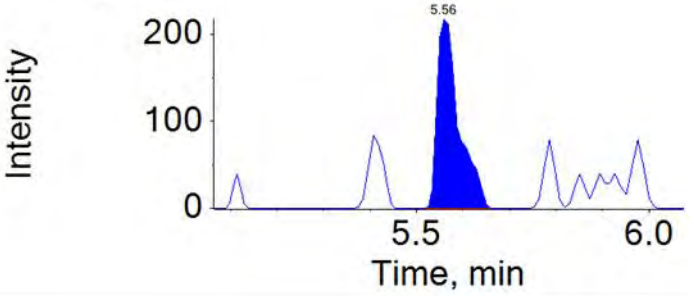
By umar at 5:38 pm, 11/13/18

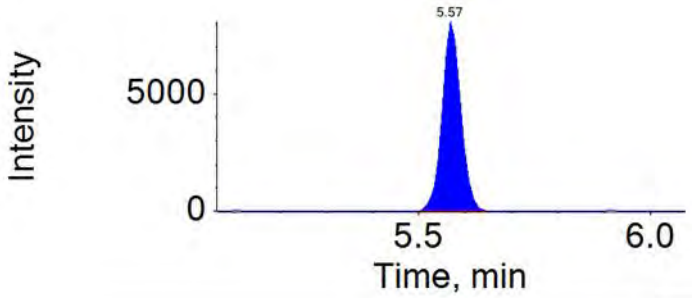
Component: PFDA
Primary Mass: 513.0 / 469.0



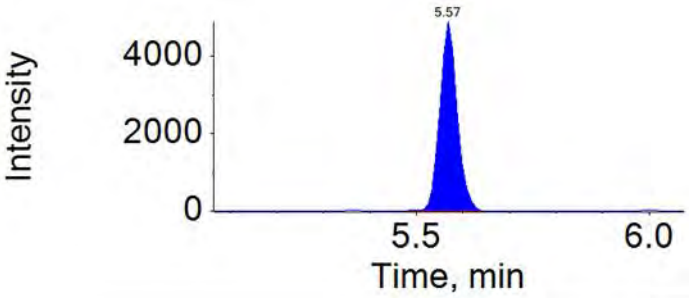
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



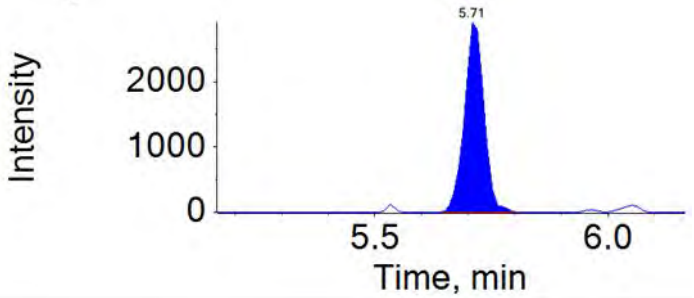
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



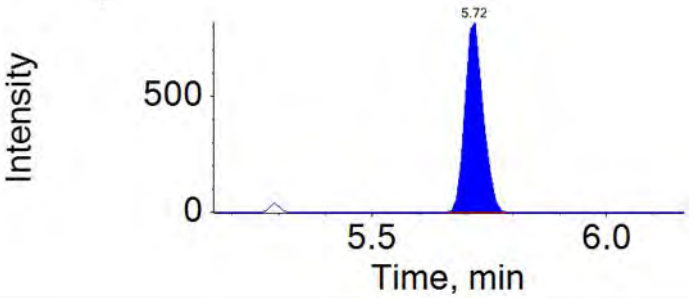
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



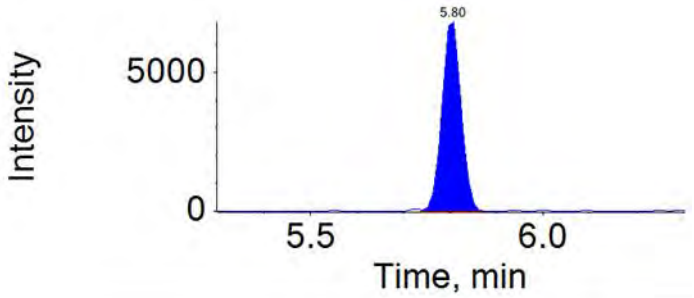
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



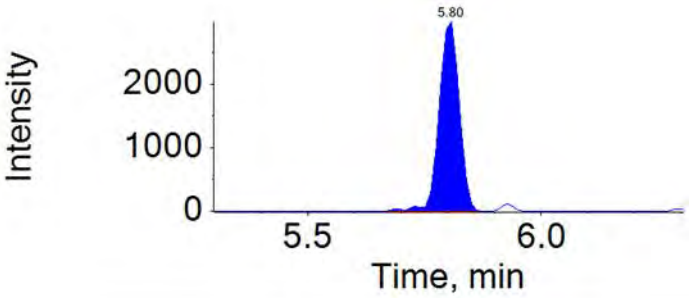
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



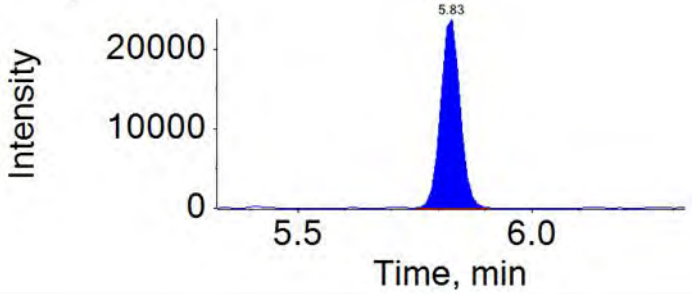
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



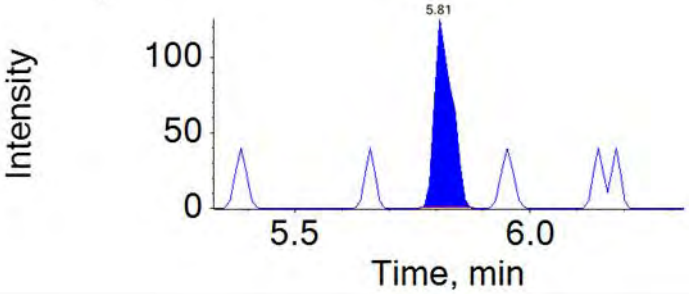
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

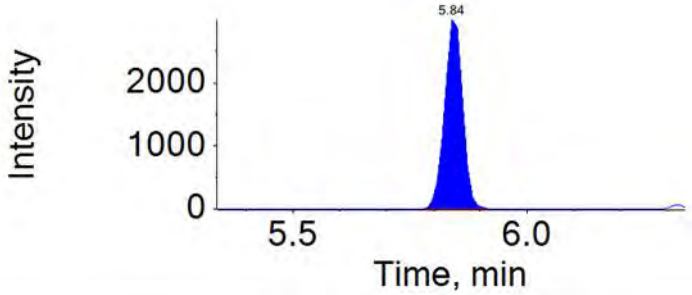
Component: PFUnDA
Primary Mass: 563.0 / 519.0



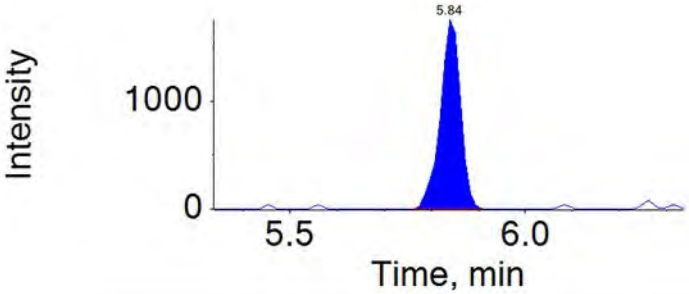
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



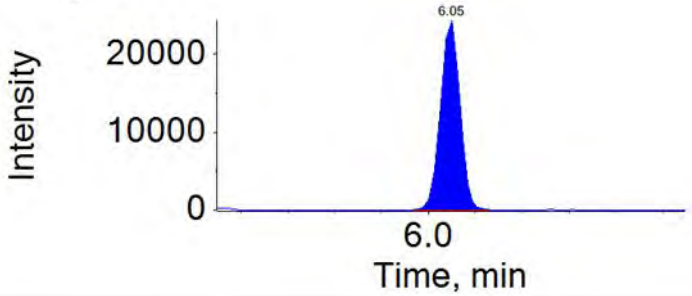
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



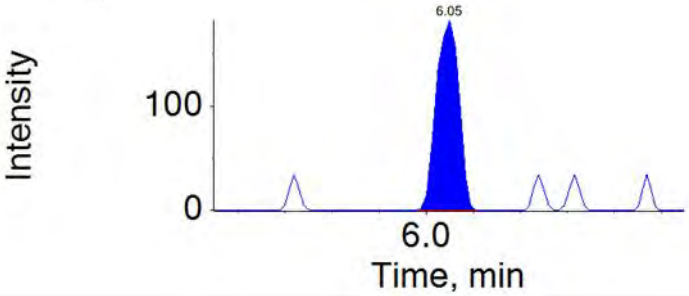
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



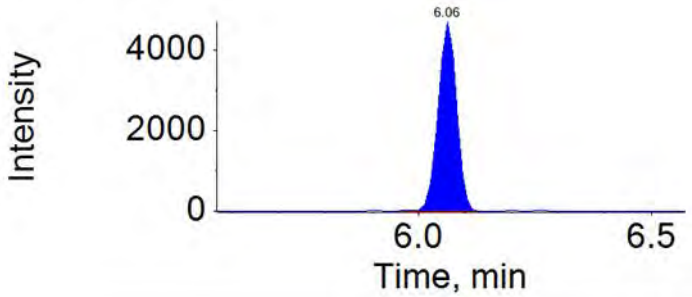
Component: PFDoDA
Primary Mass: 613.0 / 569.0



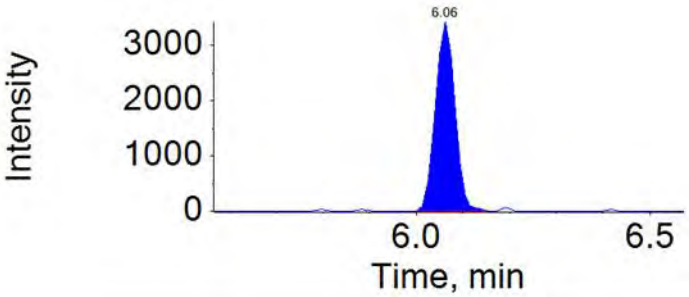
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



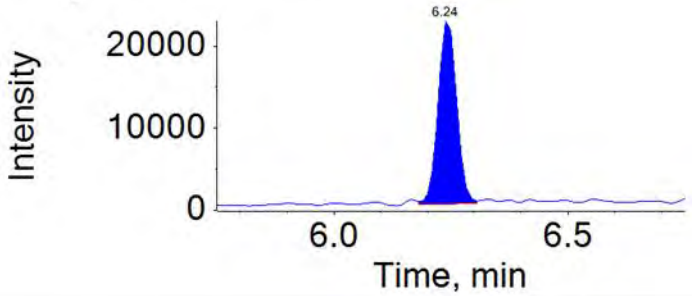
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



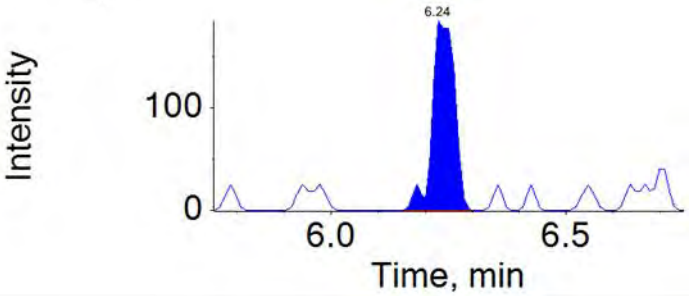
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

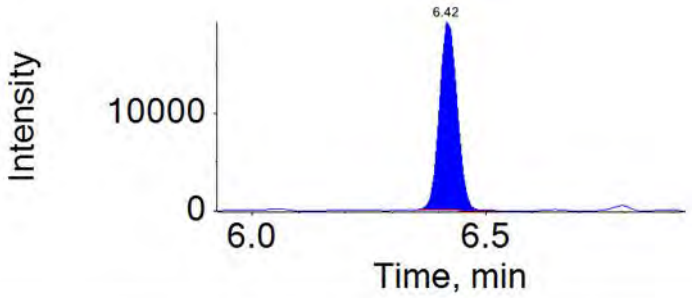
Component: PFTrDA
Primary Mass: 663.0 / 619.0



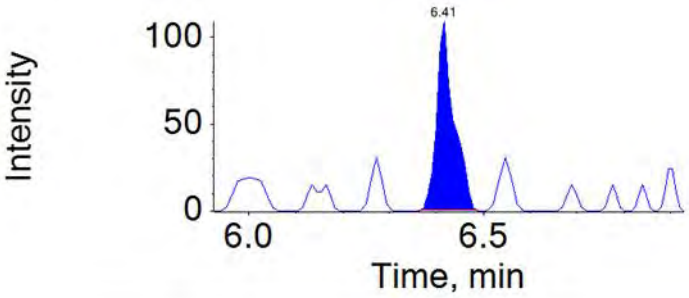
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



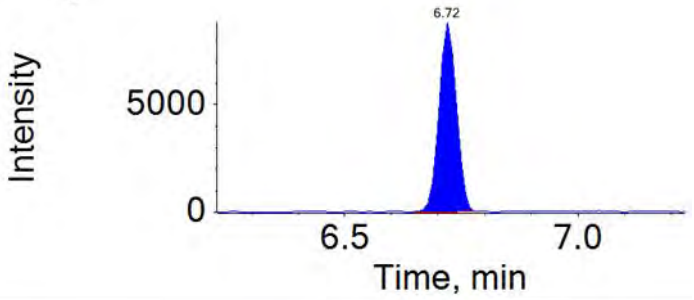
Component: PFTeDA
Primary Mass: 713.0 / 669.0



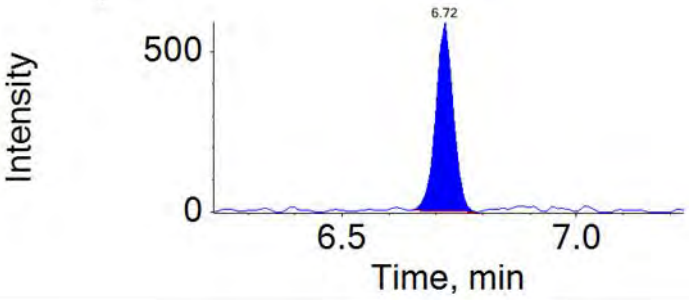
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



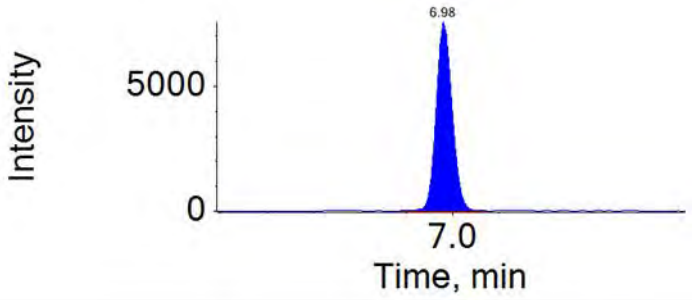
Component: PFHxDA
Primary Mass: 813.0 / 769.0



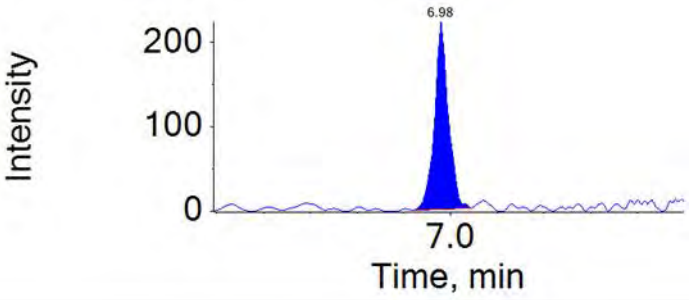
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



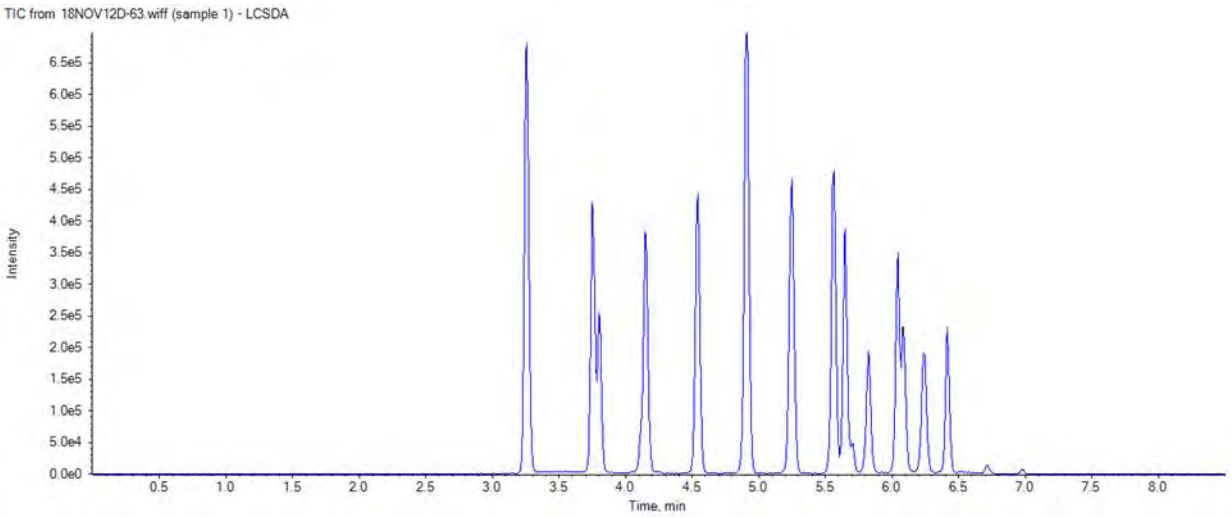
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314009 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCSDA	EPA 537 mod QSM 5.1 table B-15 18314009	18NOV12D-63.wiff	2018-11-13T02:05:18



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	5.00	701271.2	659926.2	6	50	
13C2-PFOA	5.00	503975.5	450219.7	12	50	
13C4-PFOS	4.78	264538.9	249205.8	6	50	
13C2-PFDA	5.00	322064.2	278743.9	16	50	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCSDA	EPA 537 mod QSM 5.1 table B-15 18314009	18NOV12D-63.wiff	2018-11-13T02:05:18

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	96914.8	795749.6	0.122	1.360	1.349	99	70-130	
PFPeA	96560.2	801350.3	0.120	1.360	1.395	103	70-130	
PFBS	54701.5	463995.2	0.118	1.204	1.122	93	70-130	
4:2-FTS	33814.8	53736.0	0.629	3.736	3.417	91	70-130	
PFHxA	113684.7	719169.8	0.158	1.360	1.320	97	70-130	
PFPeS	27680.1	463995.2	0.060	1.276	1.158	91	70-130	
PFHpA	113686.5	552750.2	0.206	1.360	1.364	100	70-130	
PFHxS	39842.8	332750.6	0.120	1.286	1.161	90	70-130	
6:2-FTS	28213.0	37398.7	0.754	3.792	3.651	96	70-130	
PFHpS	41695.9	332750.6	0.125	1.294	1.319	102	70-130	
PFOA	123339.7	969761.2	0.127	1.360	1.359	100	70-130	
PFOS	39472.9	288554.7	0.137	1.300	1.196	92	70-130	
PFNA	95881.7	500657.8	0.192	1.360	1.381	102	70-130	
PFNS	26164.9	288554.7	0.091	1.306	1.269	97	70-130	
PFDA	82553.9	659700.0	0.125	1.360	1.327	98	70-130	
8:2-FTS	21078.1	27329.4	0.771	3.832	3.596	94	70-130	
PFOSA	87609.7	734641.6	0.119	1.360	1.165	86	70-130	
NMeFOSAA	10118.0	88403.3	0.114	1.360	1.294	95	70-130	
PFDS	20979.9	288554.7	0.073	1.310	1.318	101	70-130	
PFUnDA	63123.8	277923.9	0.227	1.360	1.188	87	70-130	
NEtFOSAA	8407.1	67597.0	0.124	1.360	1.304	96	70-130	
PFDoDA	78452.1	614742.1	0.128	1.360	1.300	96	70-130	
10:2-FTS	16903.1	27329.4	0.618	3.856	4.120	107	70-130	
NMePFOSAE	53012.9	357680.5	0.148	1.360	1.234	91	70-130	
NMePFOSA	10762.5	88822.4	0.121	1.360	1.196	88	70-130	
PFDoS	8318.9	288554.7	0.029	1.316	1.010	77	70-130	
NEtPFOSAE	58896.1	305507.1	0.193	1.360	1.237	91	70-130	
NEtPFOSA	9305.7	67387.6	0.138	1.360	1.268	93	70-130	
PFTrDA	65068.2	614742.1	0.106	1.360	1.336	98	70-130	
PFTeDA	51005.4	416687.1	0.122	1.360	1.372	101	70-130	
PFHxDA	22874.0	416687.1	0.055	1.360	1.308	96	70-130	
PFODA	14881.3	416687.1	0.036	1.360	0.995	73	70-130	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314009 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	LCSDA			**Data File:**		18NOV12D-63.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18314009			**Acquis Date:**		2018-11-13T02:05:18
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	89			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18314009
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18314009			**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: 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	701271.2	659926.2	6	50	
13C2-PFOA	5.0	503975.5	450219.7	12	50	
13C4-PFOS	4.8	264538.9	249205.8	6	50	
13C2-PFDA	5.0	322064.2	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	795749.6	13C3-PFBA	701271.2	1.135	10.000	10.175	102	50-150	
E13C5-PFPeA	801350.3	13C3-PFBA	701271.2	1.143	10.000	10.251	103	50-150	
E13C3-PFBS	463995.2	13C3-PFBA	701271.2	0.662	9.300	9.341	100	50-150	
E13C2-4:2-FTS	53736.0	13C2-PFOA	503975.5	0.107	9.340	9.498	102	50-150	
E13C5-PFHxA	719169.8	13C2-PFOA	503975.5	1.427	10.000	10.310	103	50-150	
E13C3-PFHxS	332750.6	13C2-PFOA	503975.5	0.660	9.460	9.061	96	50-150	
E13C4-PFHpA	552750.2	13C2-PFOA	503975.5	1.097	10.000	9.882	99	50-150	
E13C2-6:2-FTS	37398.7	13C2-PFOA	503975.5	0.074	9.500	9.930	105	50-150	
E13C8-PFOA	969761.2	13C2-PFOA	503975.5	1.924	10.000	10.603	106	50-150	
E13C8-PFOS	288554.7	13C4-PFOS	264538.9	1.091	9.560	9.666	101	50-150	
E13C9-PFNA	500657.8	13C4-PFOS	264538.9	1.893	10.000	10.553	106	50-150	
E13C6-PFDA	659700.0	13C2-PFDA	322064.2	2.048	10.000	9.560	96	50-150	
E13C2-8:2-FTS	27329.4	13C2-PFDA	322064.2	0.085	9.580	8.464	88	50-150	
E13C8-PFOSA	734641.6	13C2-PFDA	322064.2	2.281	10.000	10.114	101	50-150	
Ed3-NMeFOSAA	88403.3	13C2-PFDA	322064.2	0.274	10.000	9.909	99	50-150	
E13C7-PFUnDA	277923.9	13C2-PFDA	322064.2	0.863	10.000	10.020	100	50-150	
Ed5-NEtFOSAA	67597.0	13C2-PFDA	322064.2	0.210	10.000	8.881	89	50-150	
E13C2-PFDoDA	614742.1	13C2-PFDA	322064.2	1.909	10.000	9.912	99	50-150	
Ed7-NMePFOSAE	357680.5	13C2-PFDA	322064.2	1.111	10.000	9.612	96	50-150	
Ed3-NMePFOSA	88822.4	13C2-PFDA	322064.2	0.276	10.000	10.021	100	50-150	
Ed9-NEtPFOSAE	305507.1	13C2-PFDA	322064.2	0.949	10.000	9.867	99	50-150	
Ed5-NEtPFOSA	67387.6	13C2-PFDA	322064.2	0.209	10.000	9.817	98	50-150	
E13C2-PFTeDA	416687.1	13C2-PFDA	322064.2	1.294	10.000	9.084	91	50-150	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

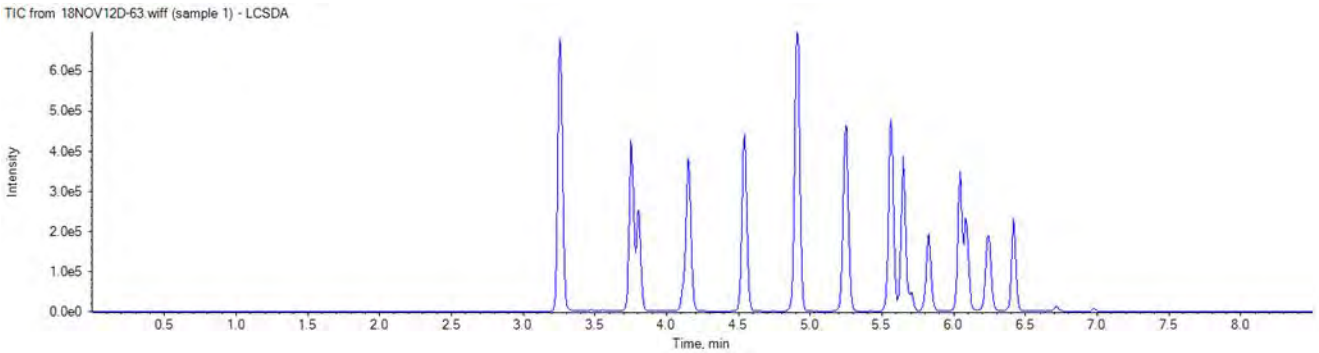
Analyte Quantitation Peak Table

Sample Name: LCSDA **Instrument Name:** LM27631 **File Name:** 18NOV12D-63.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	3.25	1.000	96914.8		A	13C4-PFBA	3.25	795749.6	0.122	1.349
PFPeA	3.75	1.000	96560.2		A	13C5-PFPeA	3.75	801350.3	0.120	1.395
PFBS	3.80	1.000	54701.5		A	13C3-PFBS	3.80	463995.2	0.118	1.122
4:2-FTS	4.12	1.000	33814.8		A	13C2-4:2-FTS	4.12	53736.0	0.629	3.417
PFHxA	4.15	1.000	113684.7		A	13C5-PFHxA	4.15	719169.8	0.158	1.320
PFPeS	4.17	1.100	27680.1		A	13C3-PFBS	3.80	463995.2	0.060	1.158
PFHpA	4.54	1.000	113686.5		A	13C4-PFHpA	4.54	552750.2	0.206	1.364
PFHxS	4.54	1.000	39842.8		A	13C3-PFHxS	4.54	332750.6	0.120	1.161
6:2-FTS	4.90	1.000	28213.0		A	13C2-6:2-FTS	4.90	37398.7	0.754	3.651
PFHpS	4.90	1.080	41695.9		A	13C3-PFHxS	4.54	332750.6	0.125	1.319
PFOA	4.91	1.000	123339.7		A	13C8-PFOA	4.91	969761.2	0.127	1.359
PFOS	5.24	1.000	39472.9		M	13C8-PFOS	5.24	288554.7	0.137	1.196
PFNA	5.26	1.000	95881.7		A	13C9-PFNA	5.26	500657.8	0.192	1.381
PFNS	5.54	1.060	26164.9		A	13C8-PFOS	5.24	288554.7	0.091	1.269
PFDA	5.56	1.000	82553.9		A	13C6-PFDA	5.56	659700.0	0.125	1.327
8:2-FTS	5.57	1.000	21078.1		A	13C2-8:2-FTS	5.57	27329.4	0.771	3.596
PFOSA	5.65	1.000	87609.7		A	13C8-PFOSA	5.65	734641.6	0.119	1.165
NMeFOSAA	5.71	1.000	10118.0		A	d3-NMeFOSAA	5.70	88403.3	0.114	1.294
PFDS	5.80	1.110	20979.9		A	13C8-PFOS	5.24	288554.7	0.073	1.318
PFUnDA	5.82	1.000	63123.8		A	13C7-PFUnDA	5.82	277923.9	0.227	1.188
NEtFOSAA	5.84	1.000	8407.1		A	d5-NEtFOSAA	5.83	67597.0	0.124	1.304
PFDoDA	6.04	1.000	78452.1		A	13C2-PFDoDA	6.04	614742.1	0.128	1.300
10:2-FTS	6.06	1.090	16903.1		A	13C2-8:2-FTS	5.57	27329.4	0.618	4.120
NMePFOSAE	6.09	1.000	53012.9		A	d7-NMePFOSAE	6.09	357680.5	0.148	1.234
NMePFOSA	6.10	1.000	10762.5		A	d3-NMePFOSA	6.10	88822.4	0.121	1.196
PFDoS	6.21	1.180	8318.9		A	13C8-PFOS	5.24	288554.7	0.029	1.010
NEtPFOSAE	6.25	1.000	58896.1		A	d9-NEtPFOSAE	6.24	305507.1	0.193	1.237
NEtPFOSA	6.26	1.000	9305.7		A	d5-NEtPFOSA	6.26	67387.6	0.138	1.268
PFTrDA	6.24	1.030	65068.2		A	13C2-PFDoDA	6.04	614742.1	0.106	1.336
PFTeDA	6.42	1.000	51005.4		A	13C2-PFTeDA	6.42	416687.1	0.122	1.372
PFHxDA	6.71	1.050	22874.0		A	13C2-PFTeDA	6.42	416687.1	0.055	1.308
PFODA	6.98	1.090	14881.3		A	13C2-PFTeDA	6.42	416687.1	0.036	0.995

Total Ion Chromatogram

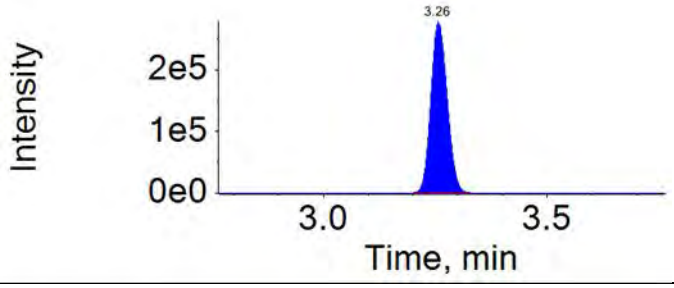


APPROVED
By JPT at 4:11 pm, 11/13/18

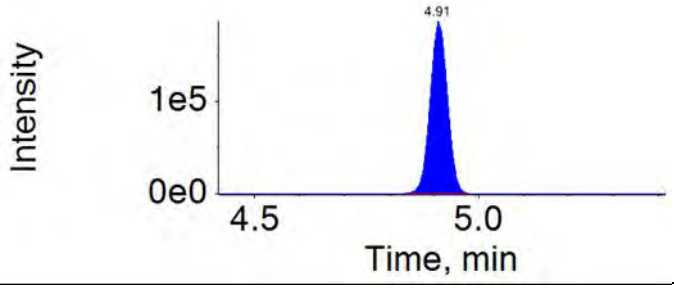
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

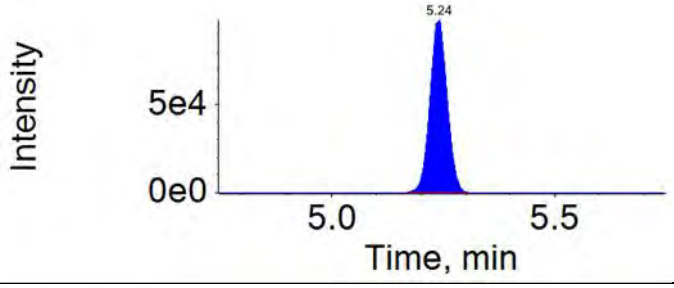
Injection Standard: 13C3-PFBA
216.0 / 172.0



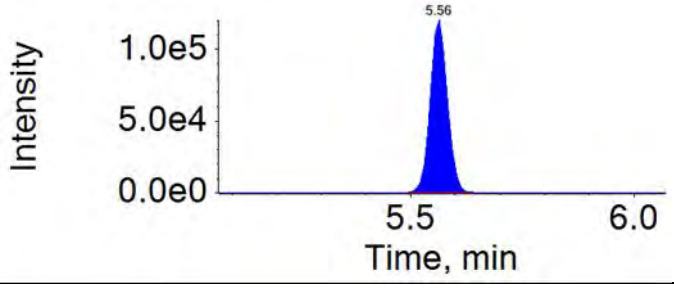
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



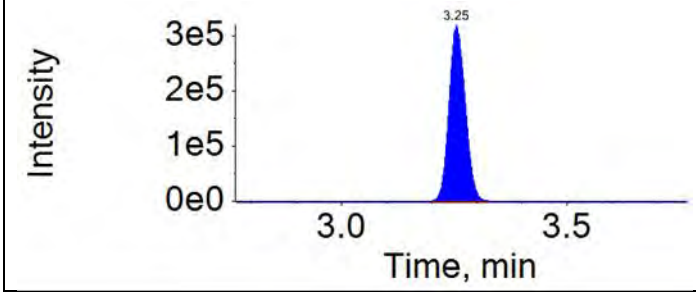
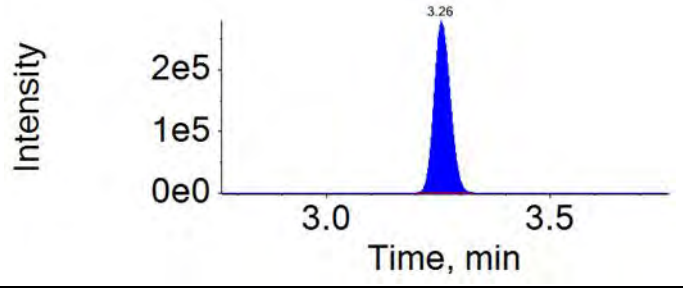
Injection Standard: 13C2-PFDA
515.0 / 470.0

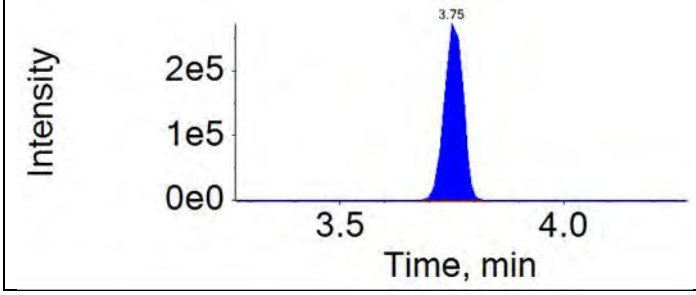
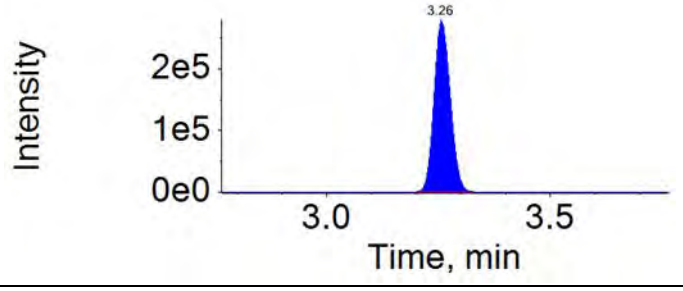


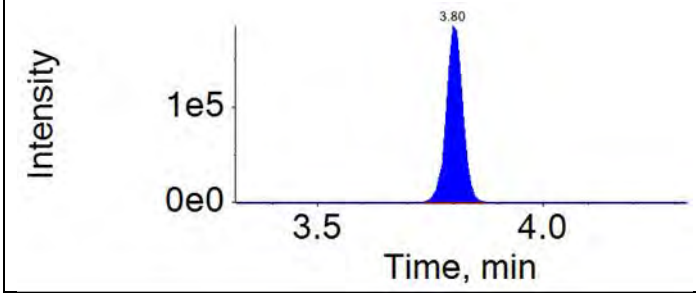
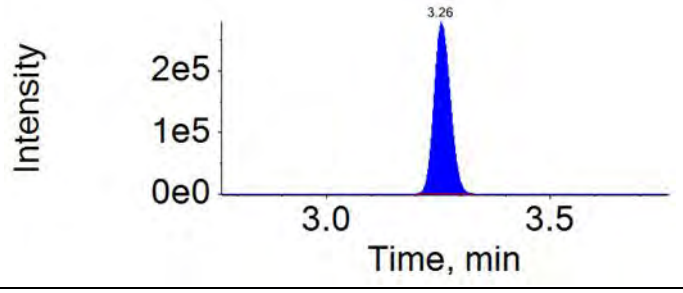
APPROVED
By JPT at 4:11 pm, 11/13/18

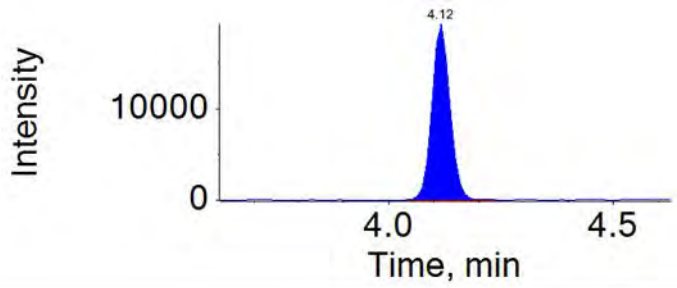
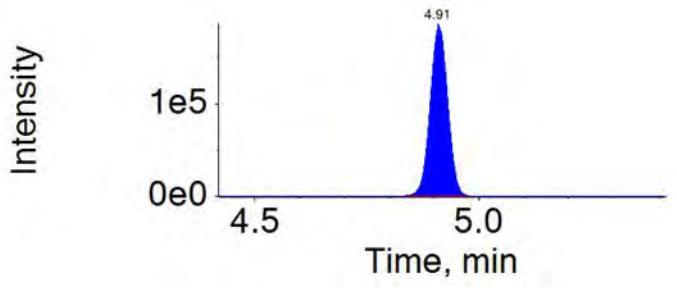
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

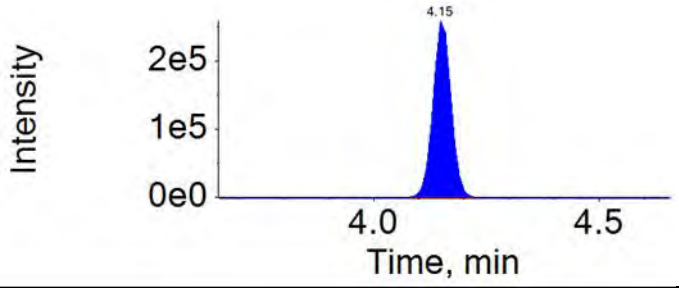
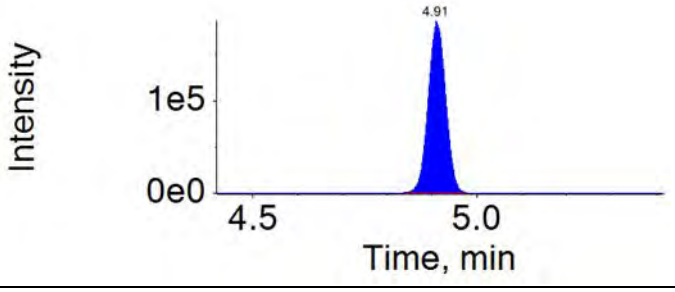
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

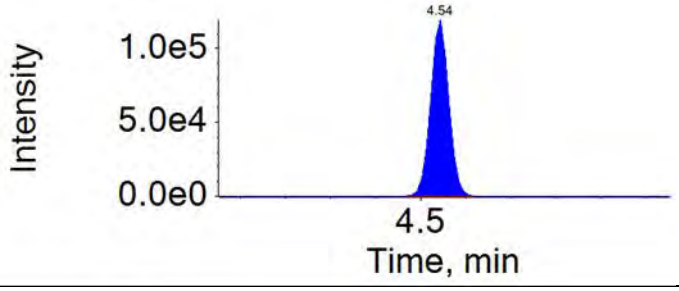
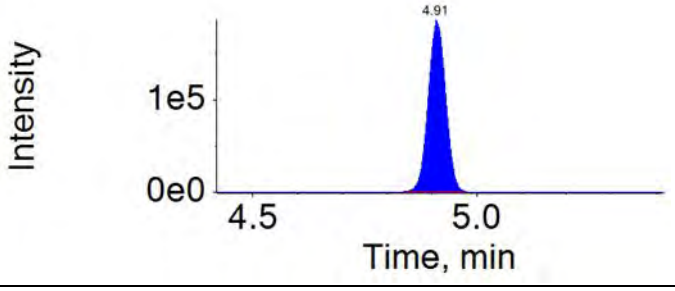
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

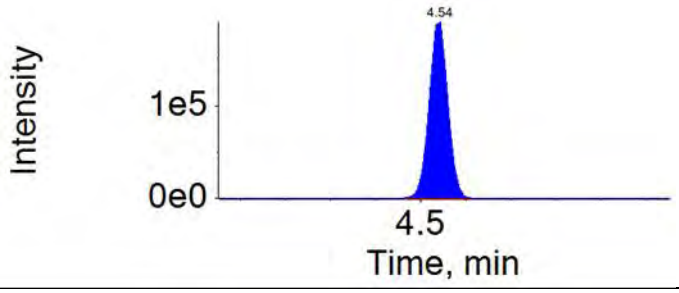
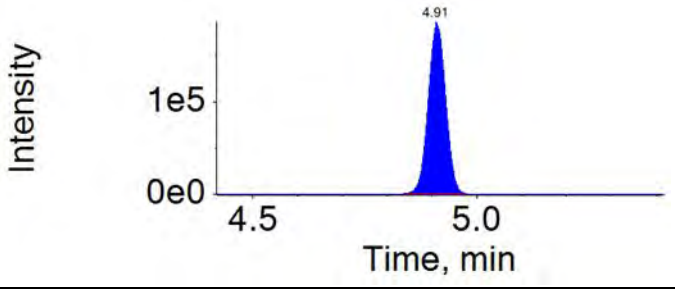
APPROVED
By JPT at 4:11 pm, 11/13/18

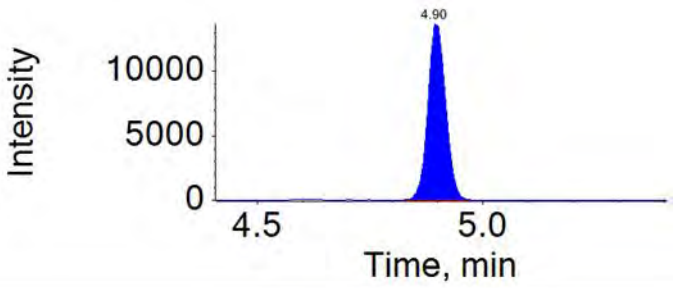
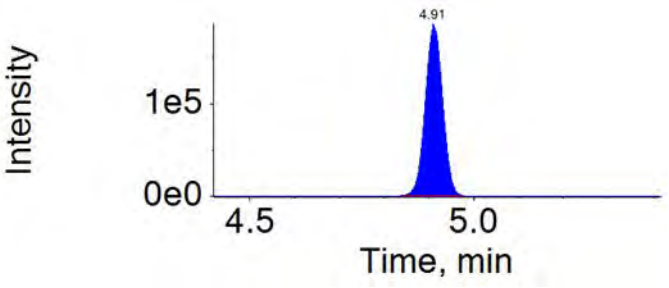
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

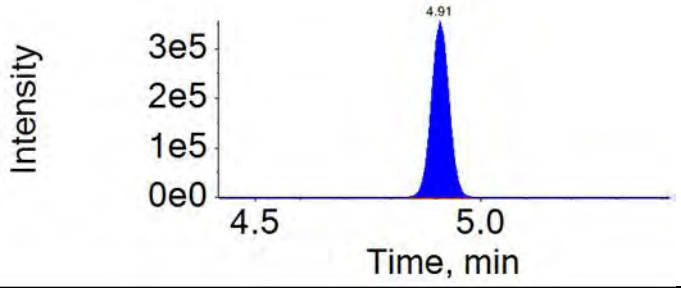
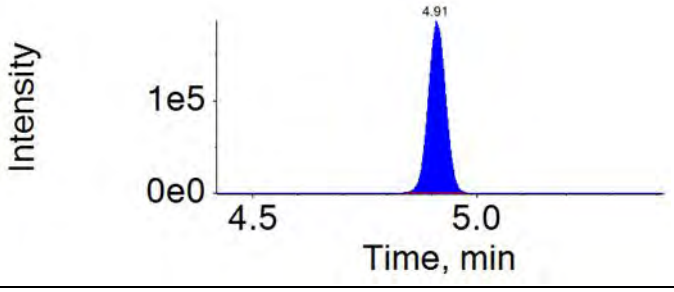
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

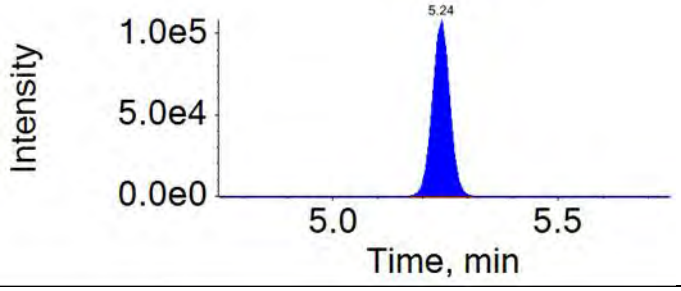
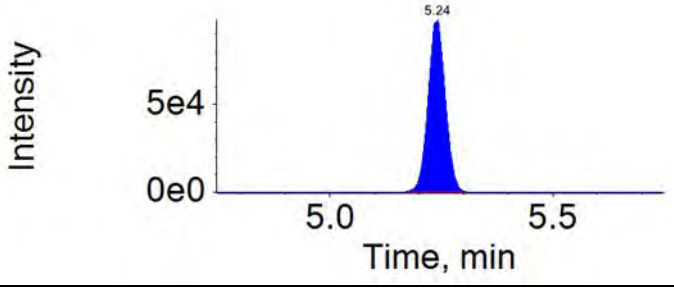
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

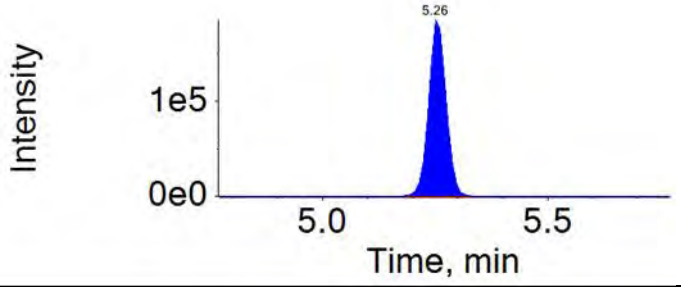
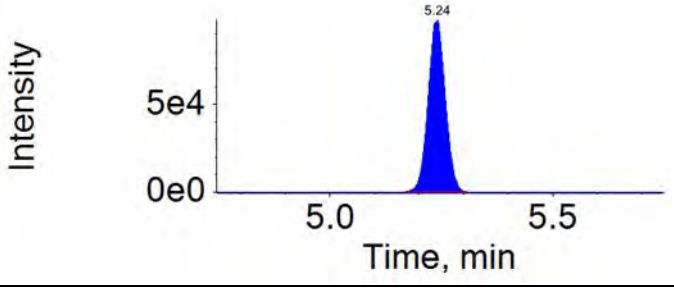
APPROVED
By JPT at 4:11 pm, 11/13/18

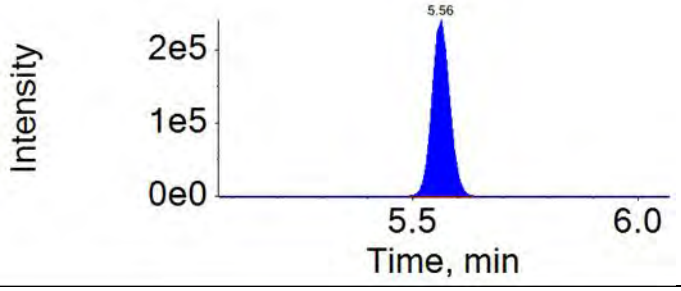
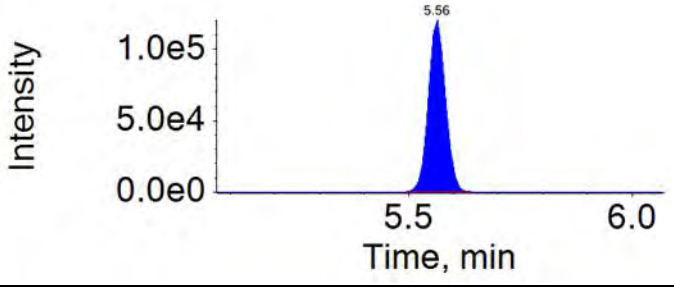
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

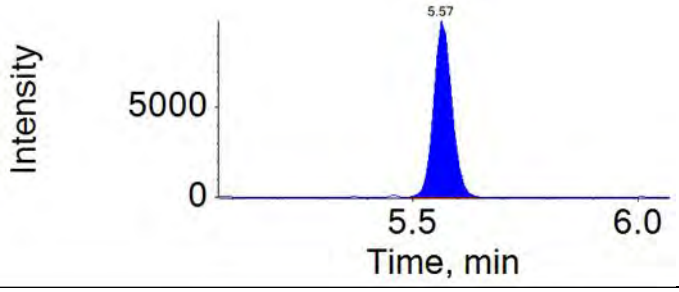
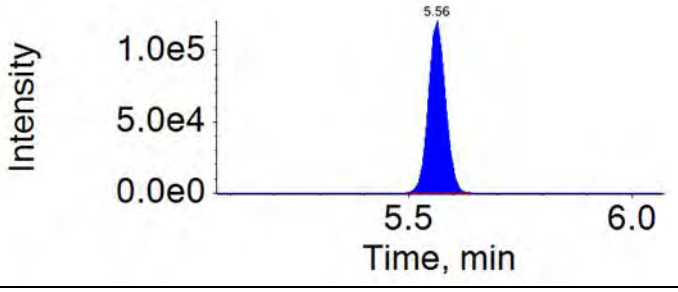
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

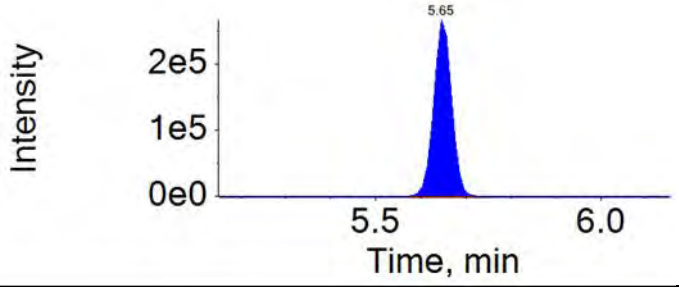
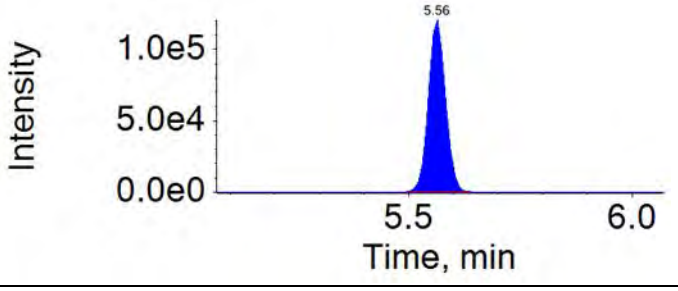
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

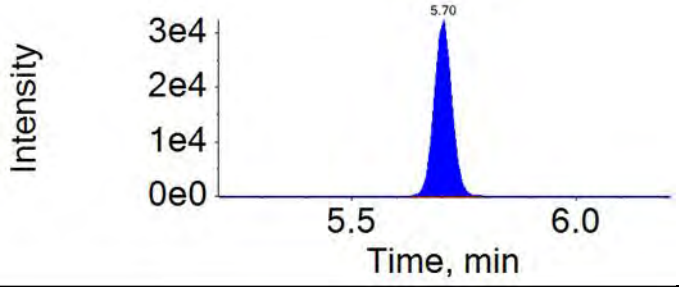
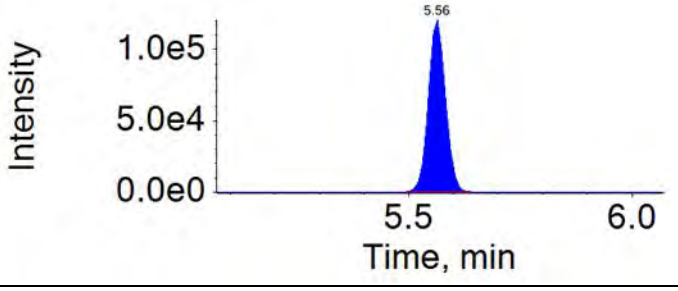
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

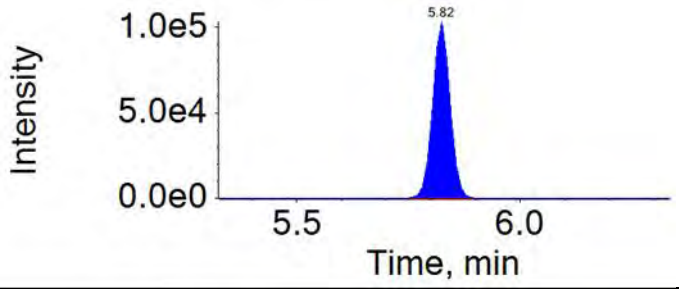
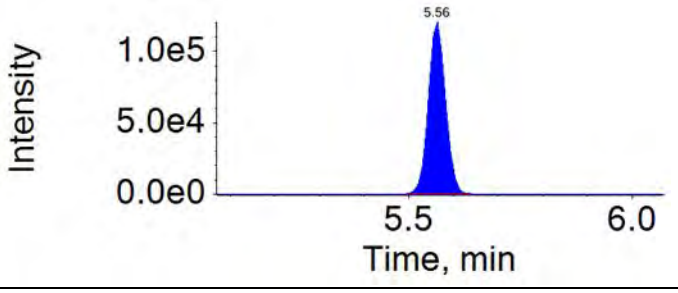
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

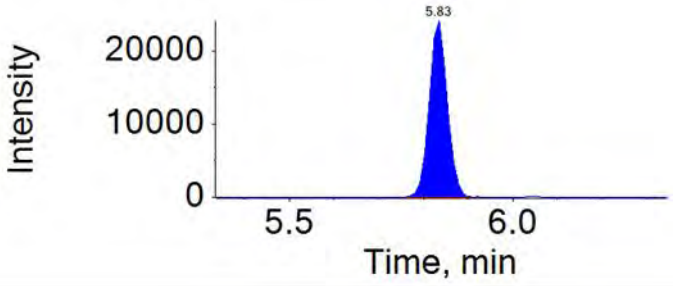
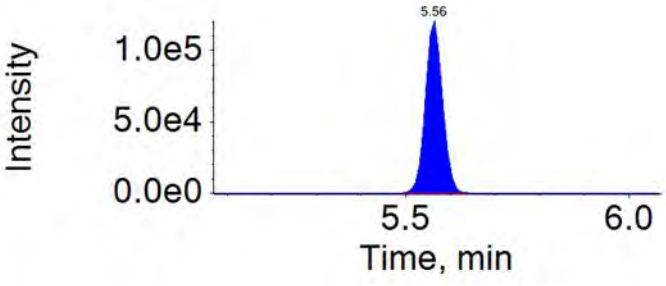
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

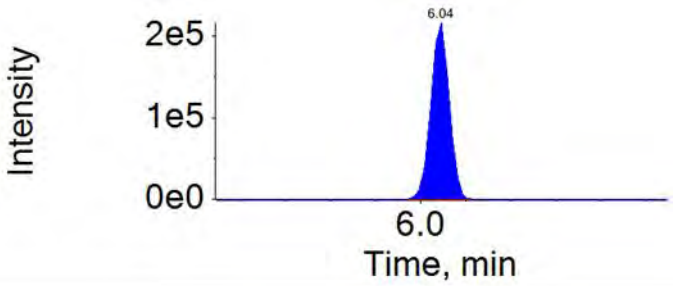
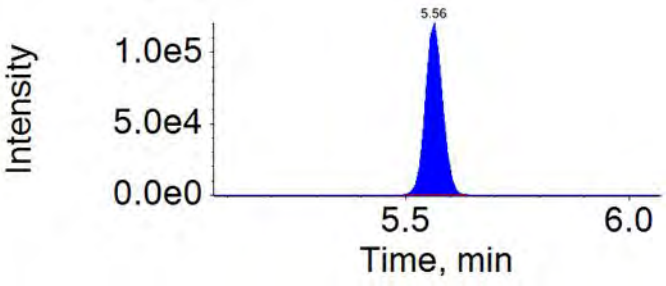
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

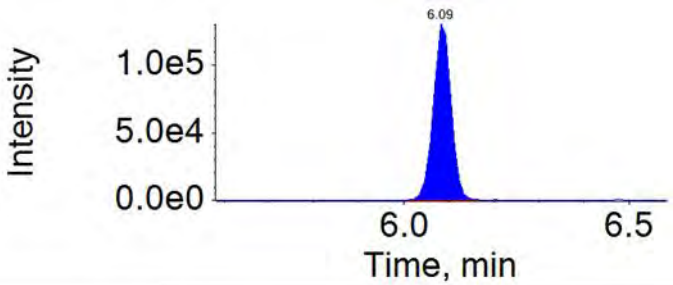
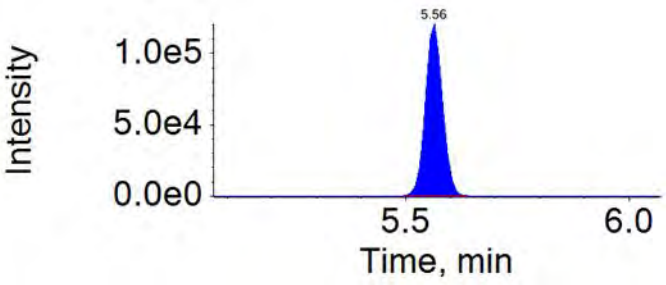
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

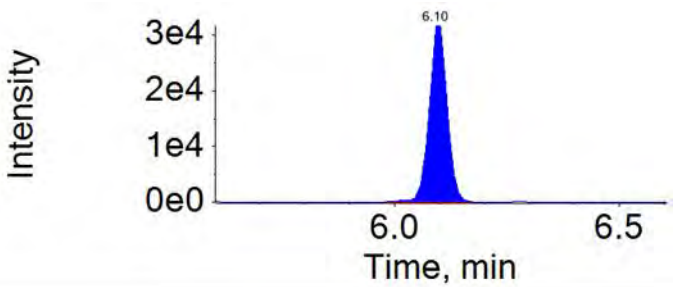
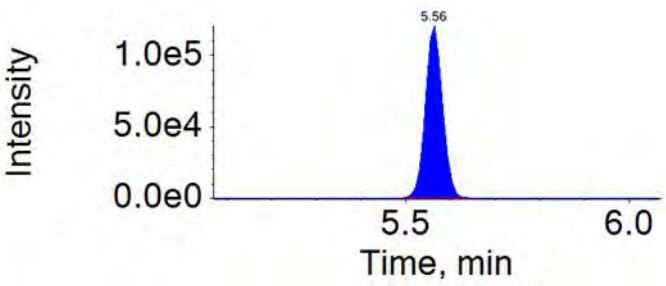
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

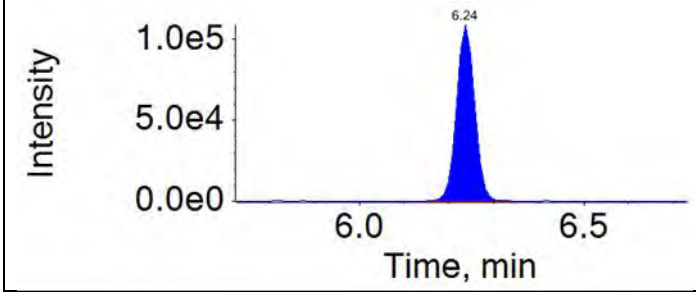
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

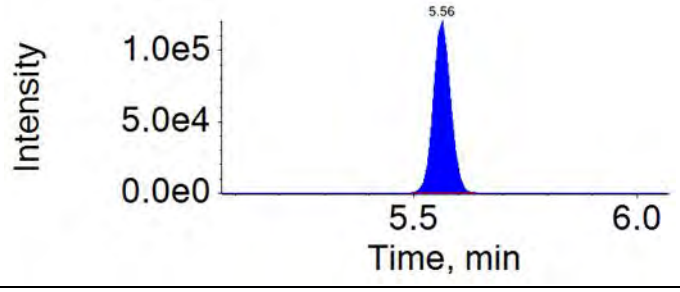
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

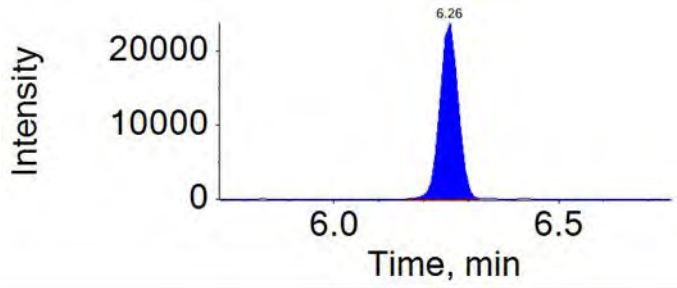
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

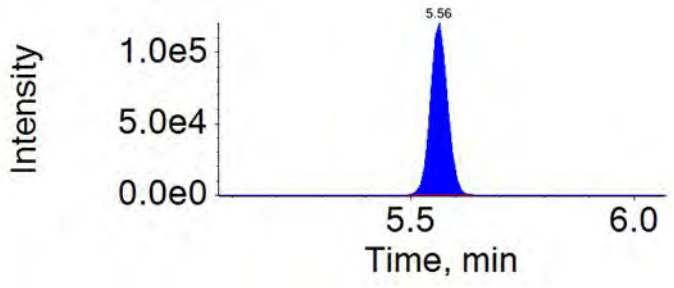
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



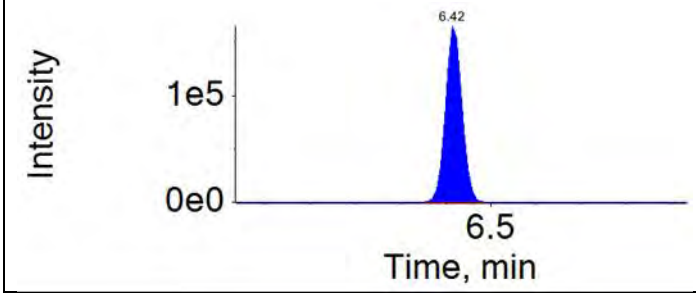


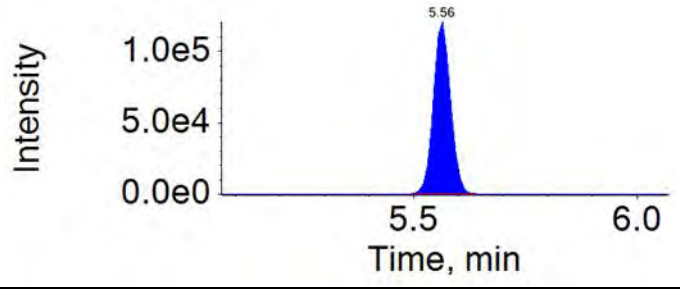
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



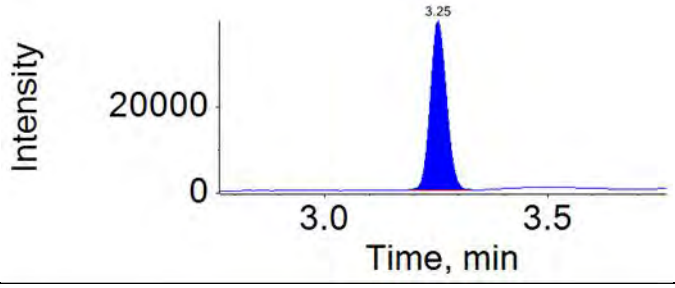


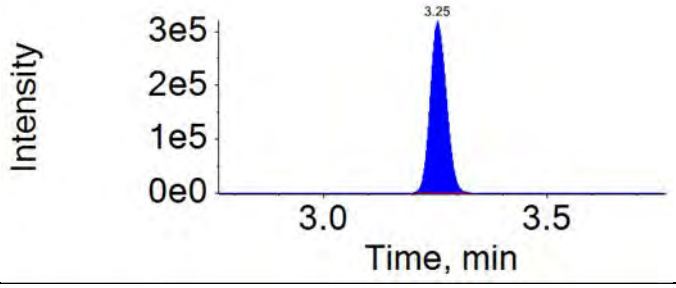
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

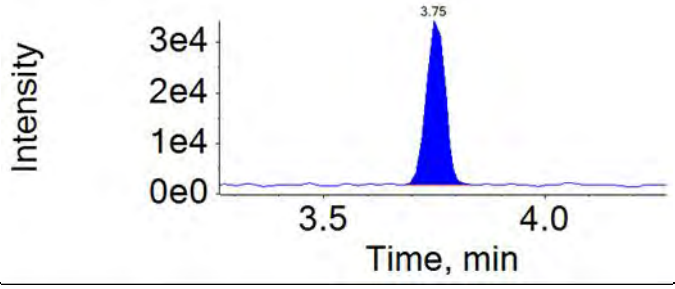
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

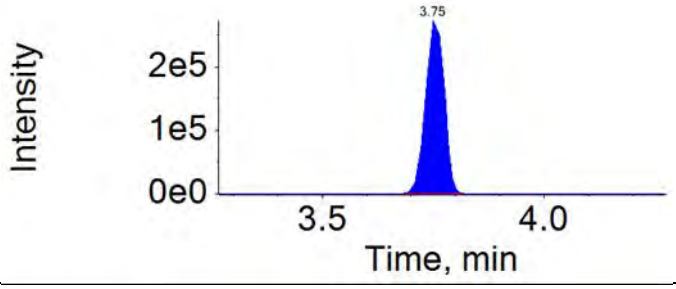
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



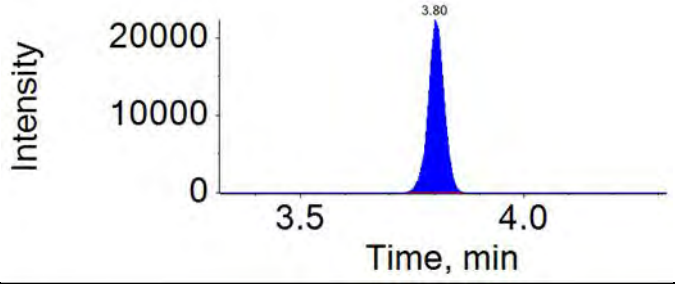


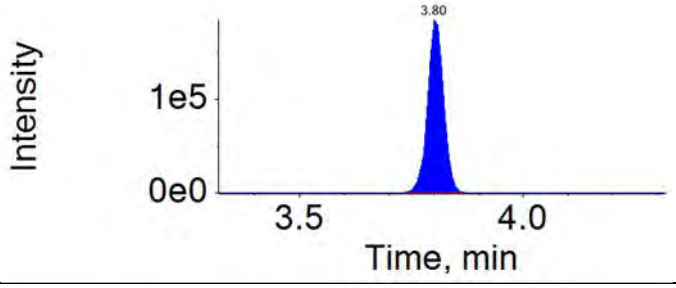
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



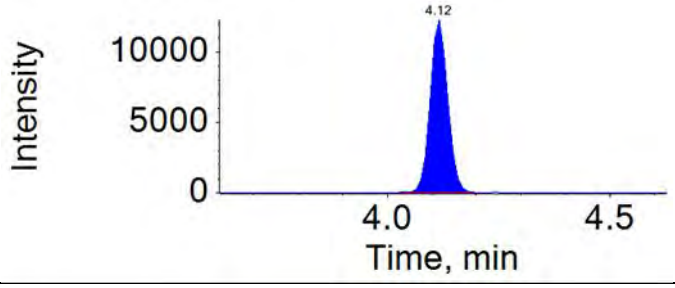


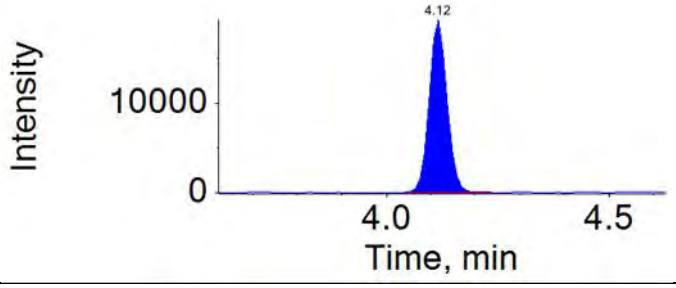
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



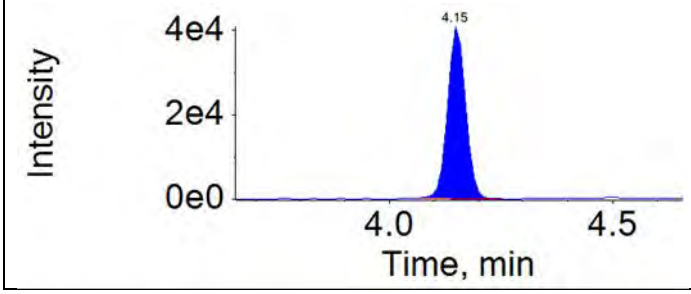


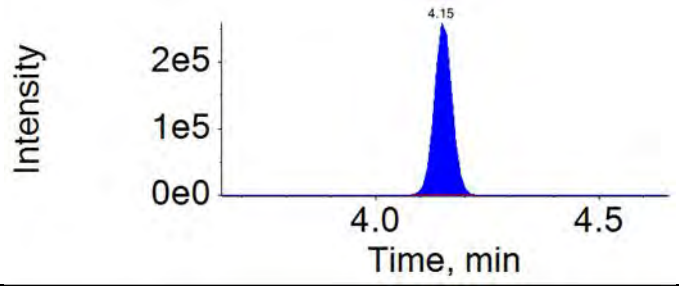
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

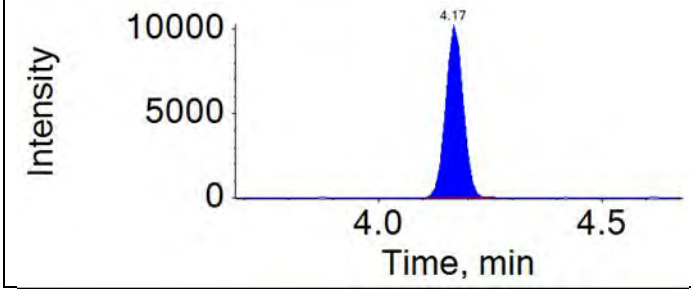
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

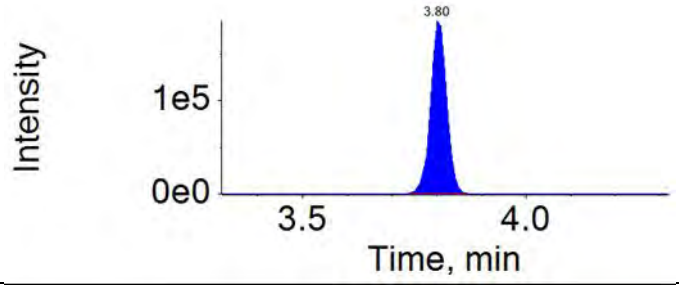
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



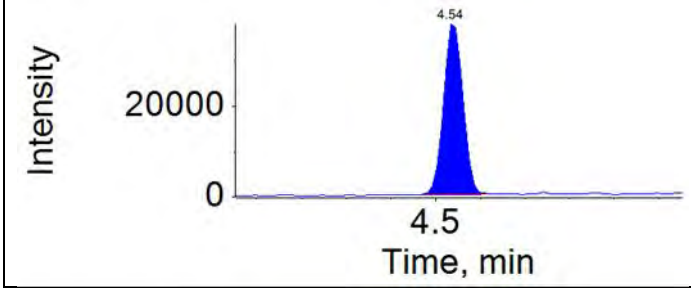


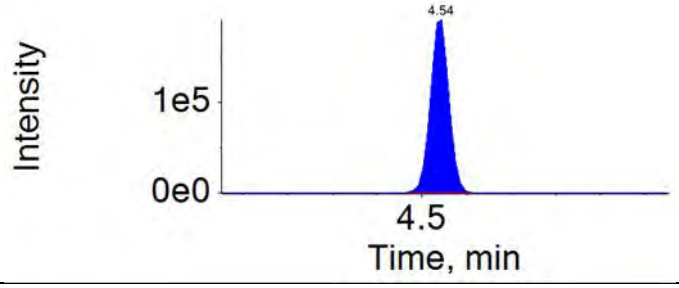
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



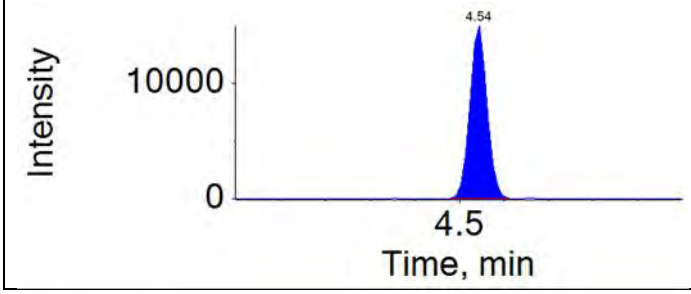


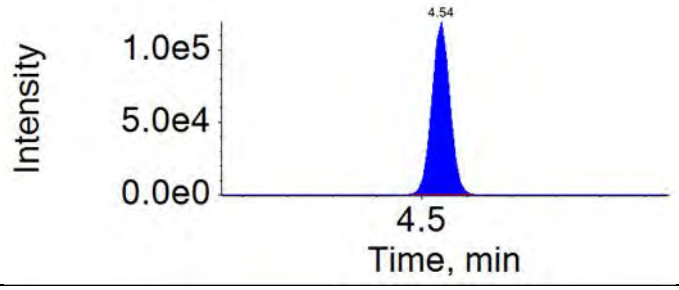
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



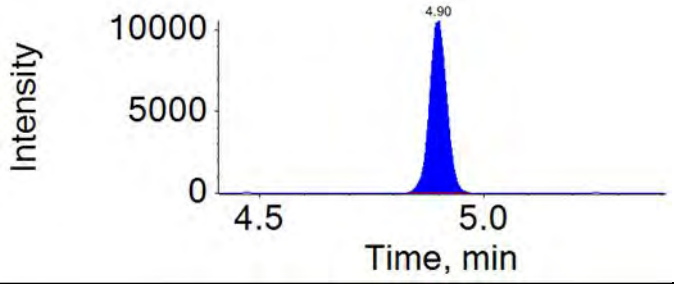
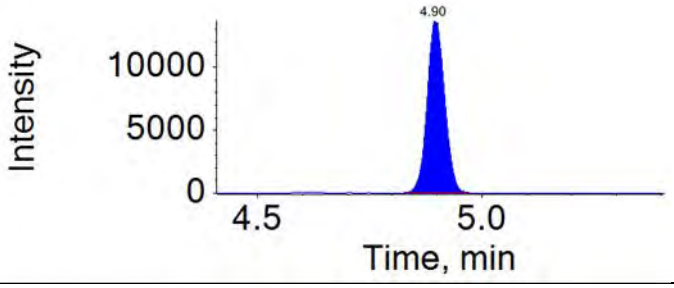


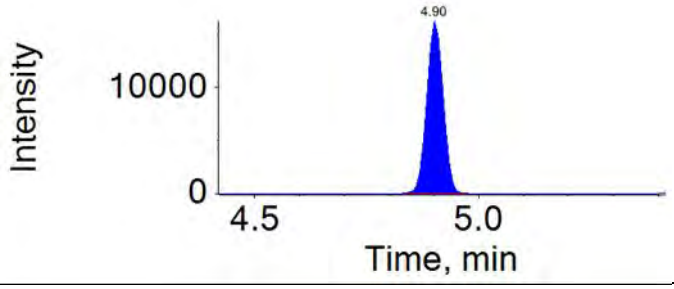
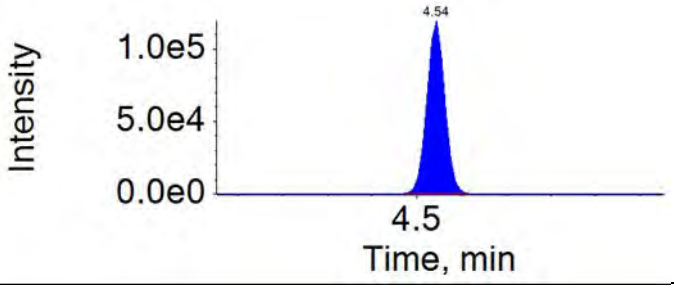
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

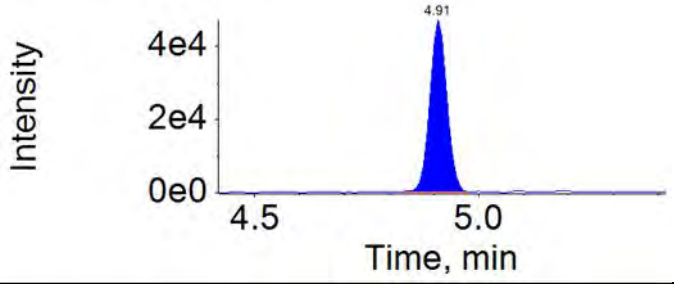
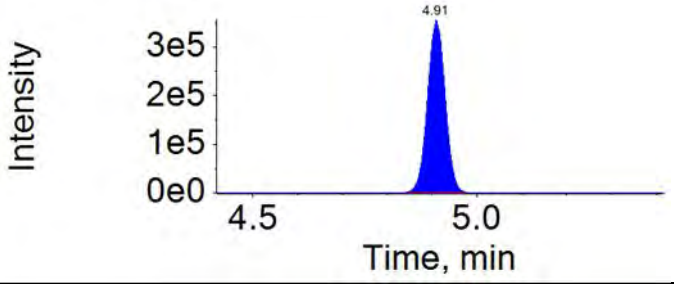


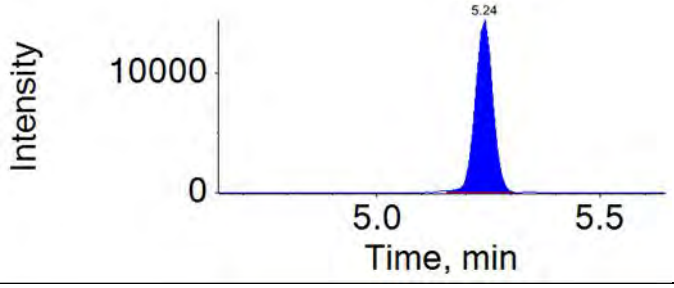
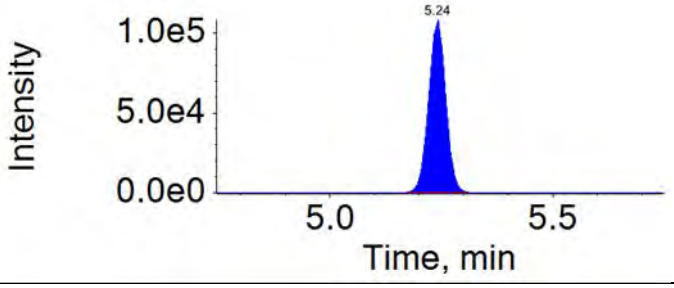


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

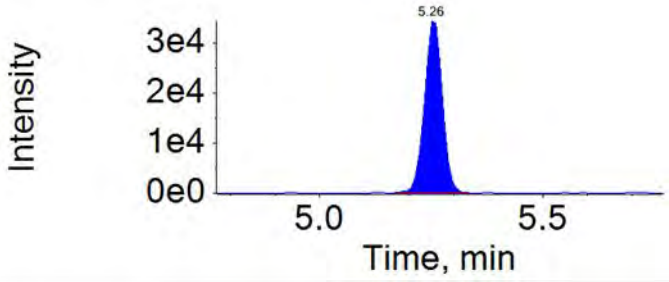
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

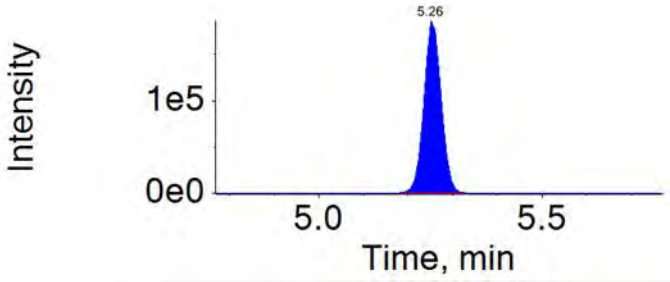
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

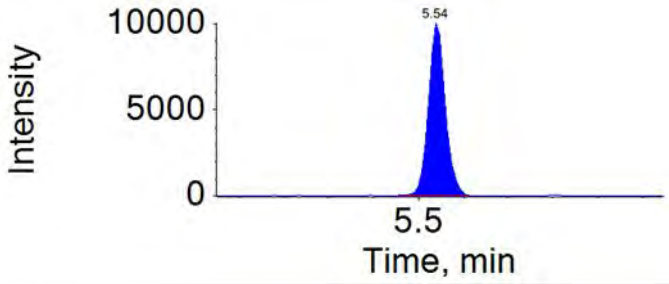
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

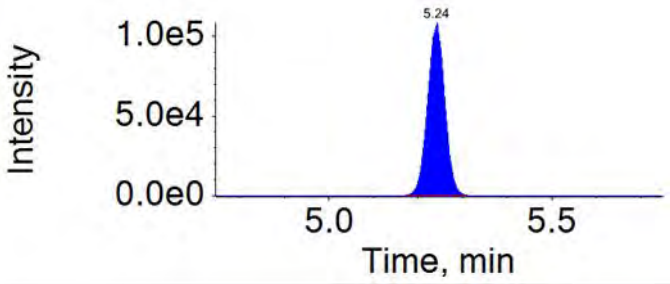
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



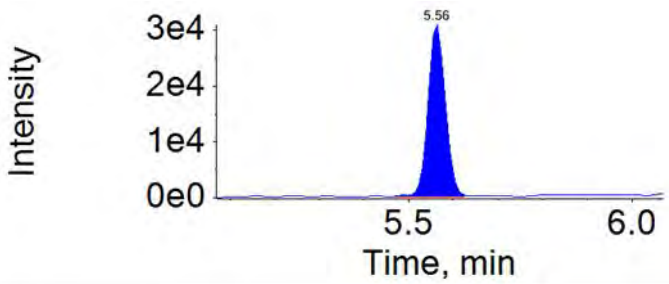


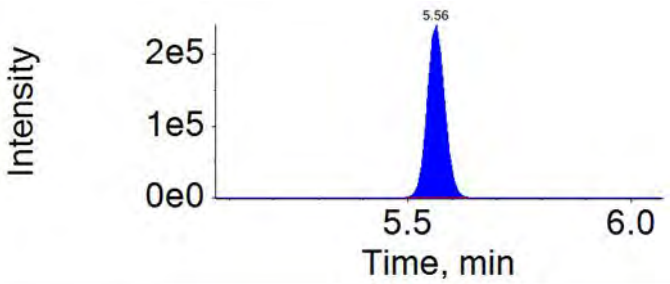
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



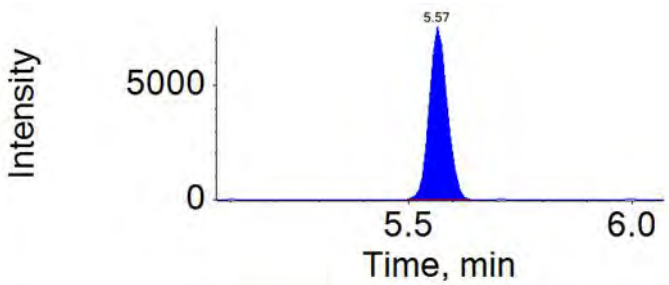


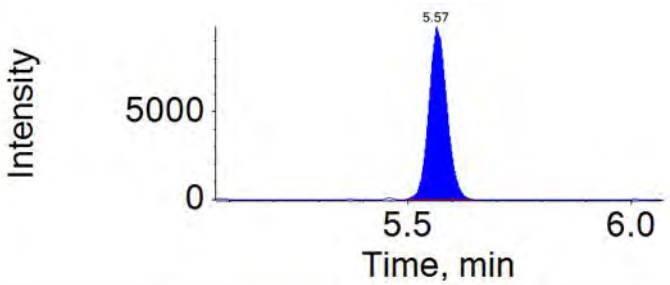
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

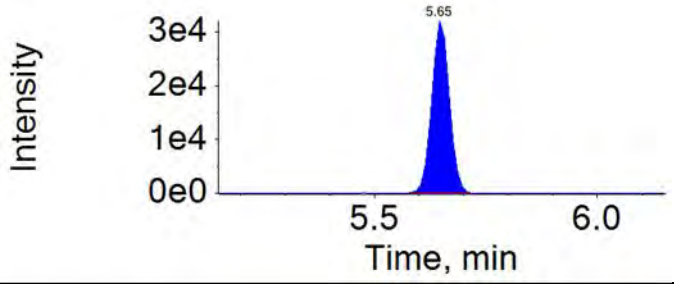
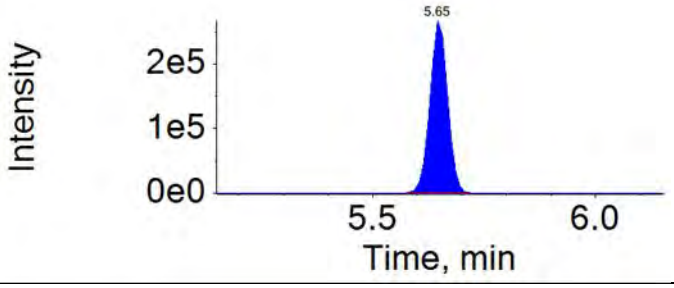


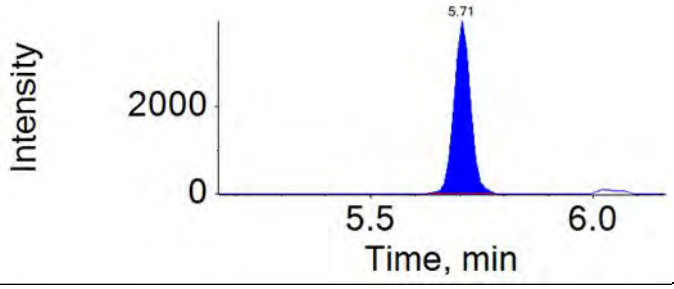
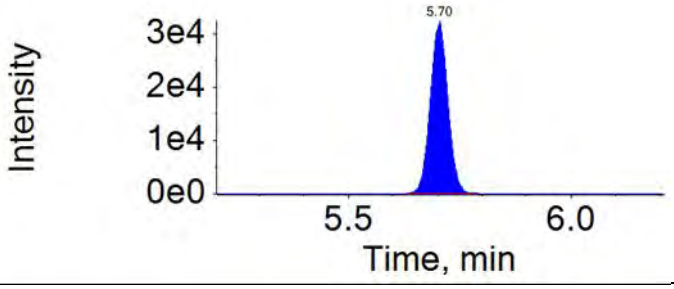


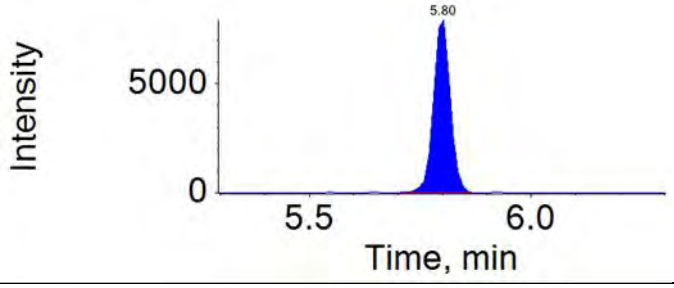
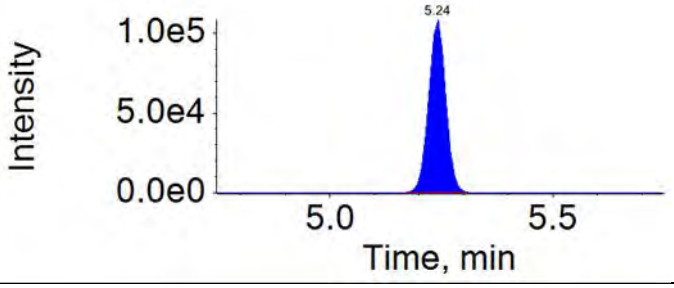
APPROVED
By JPT at 4:11 pm, 11/13/18

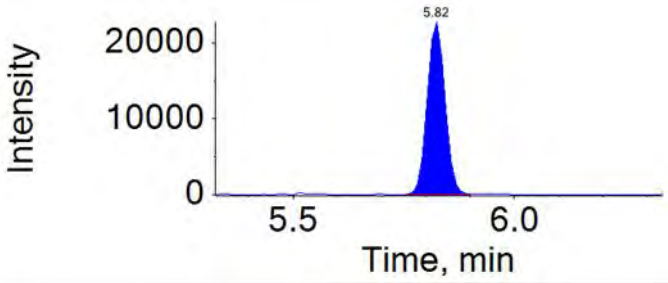
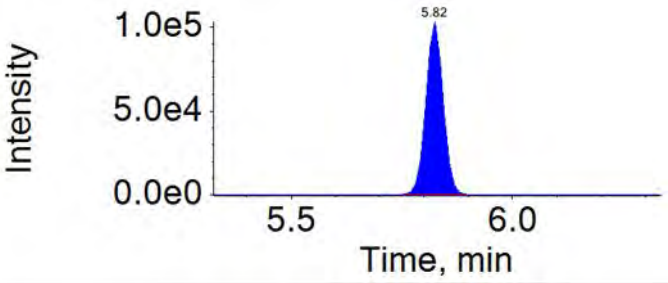
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

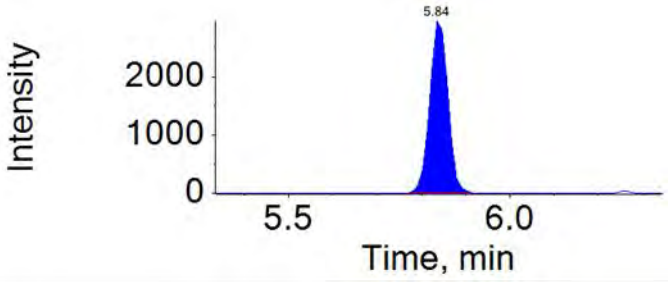
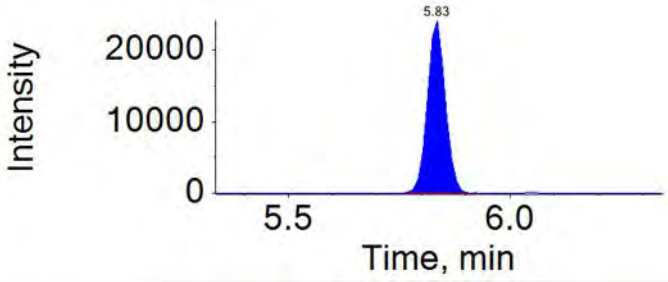
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

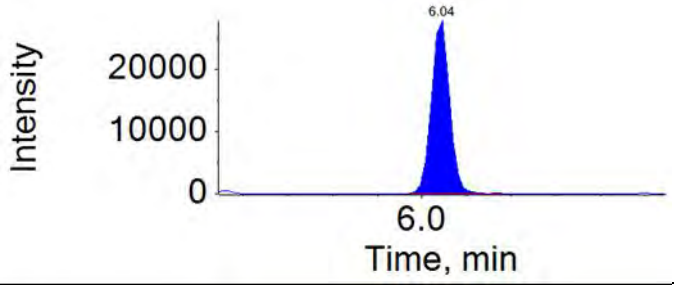
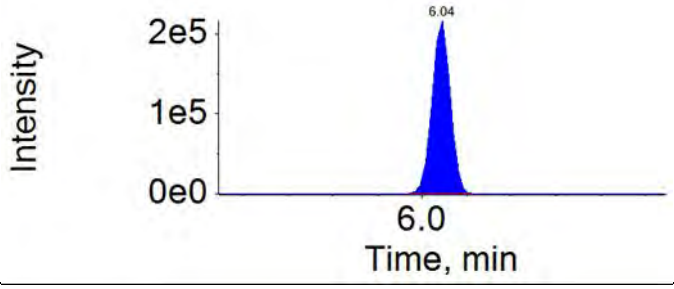
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

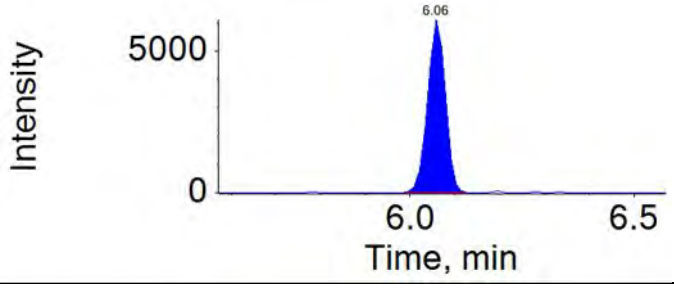
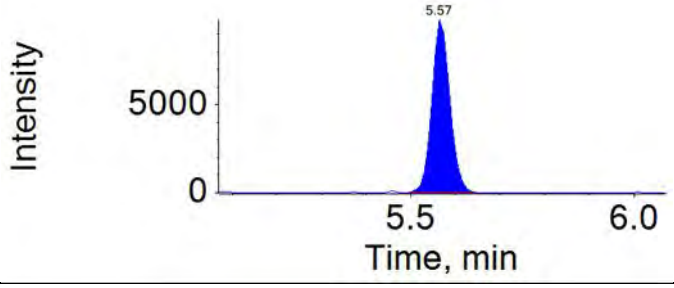
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

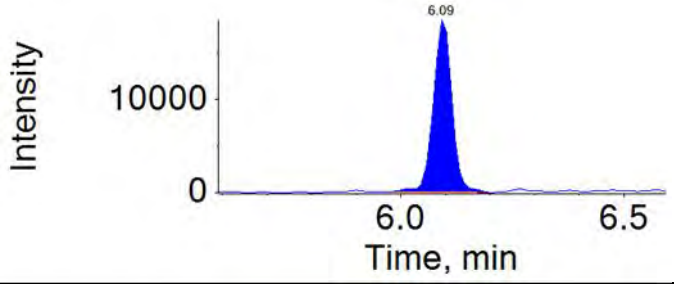
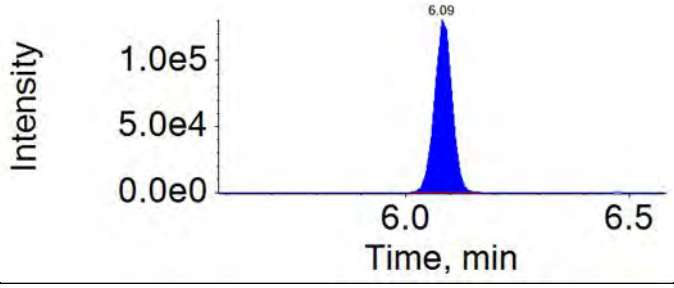
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

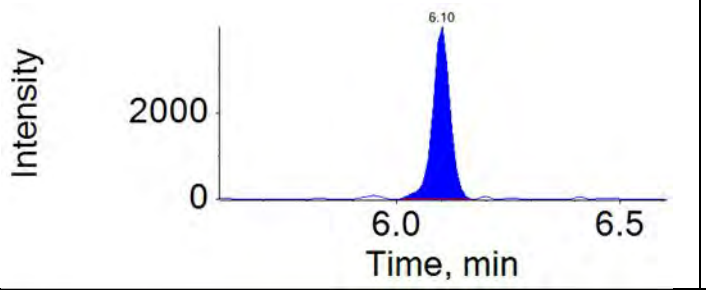
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

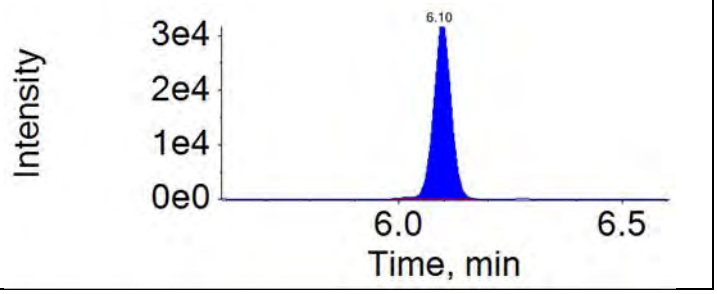
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

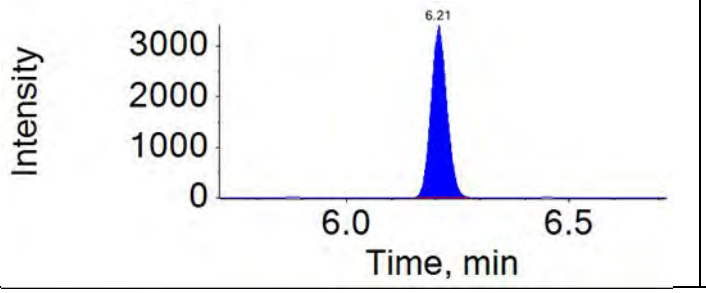
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

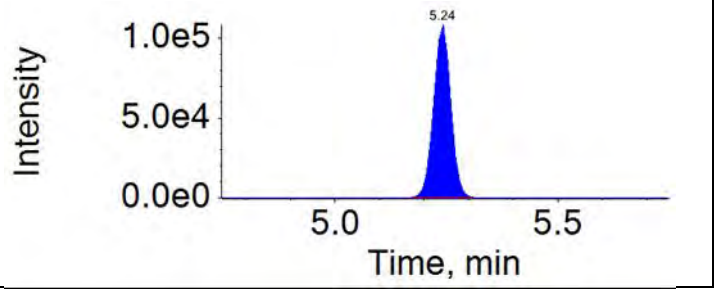
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



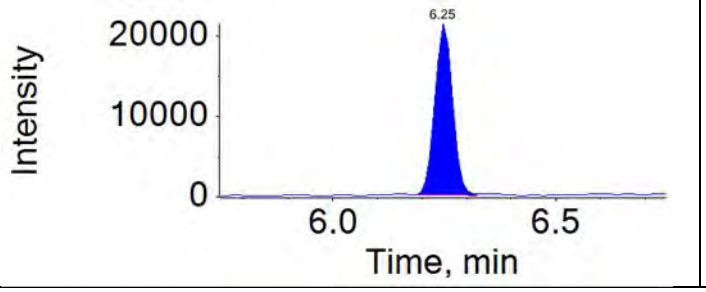


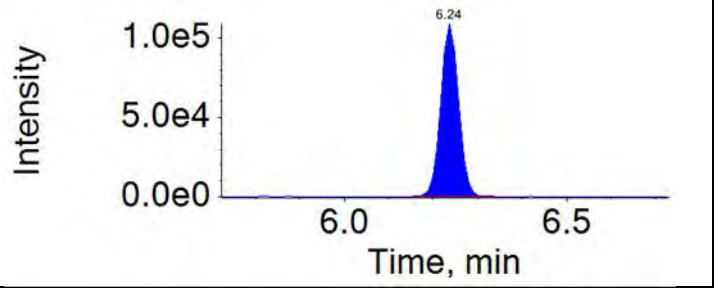
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



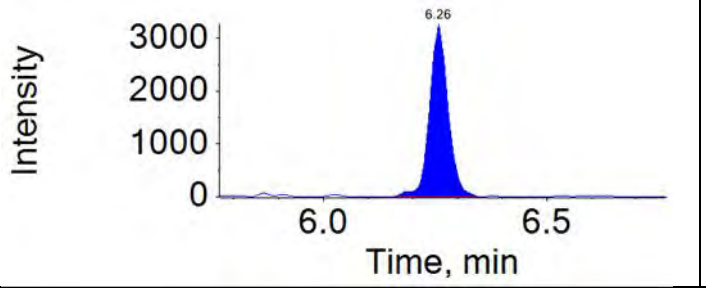


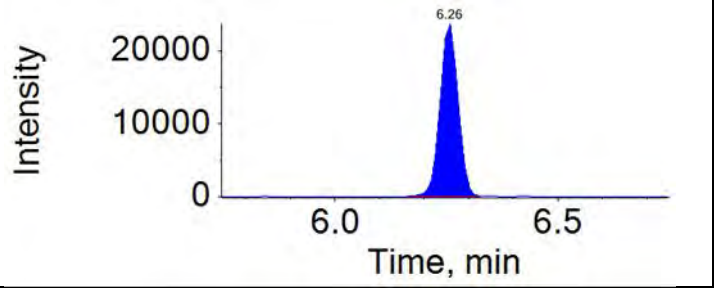
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0



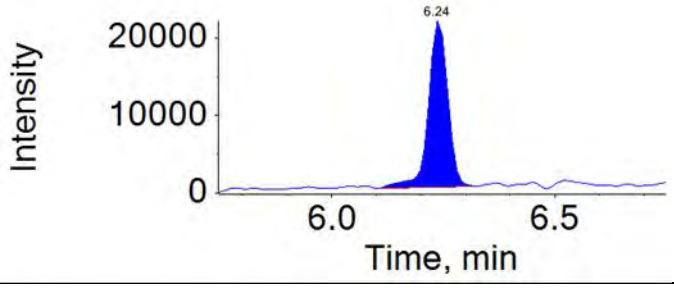
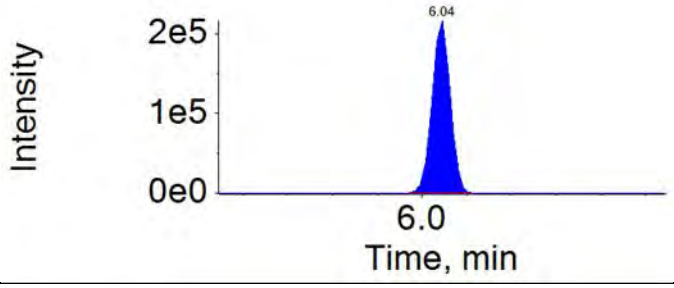


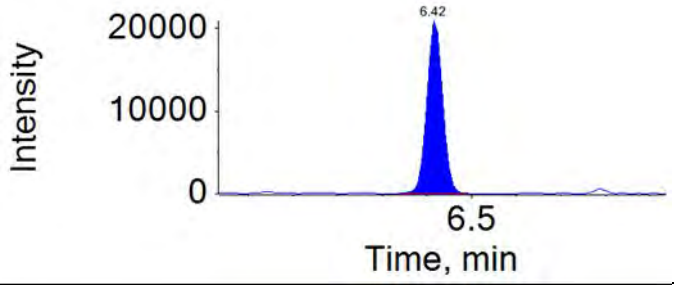
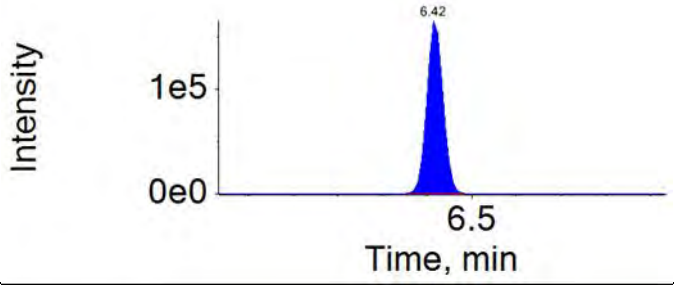
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

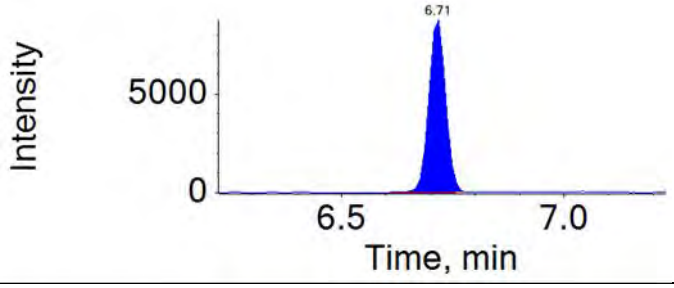
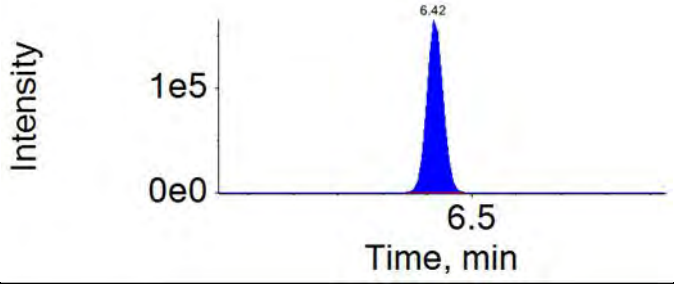


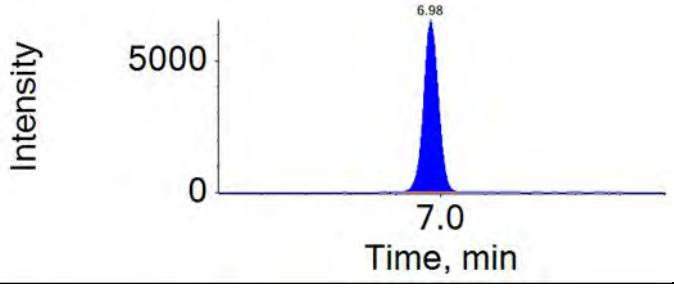
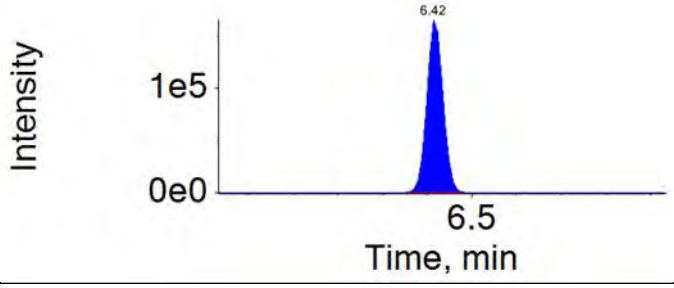


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

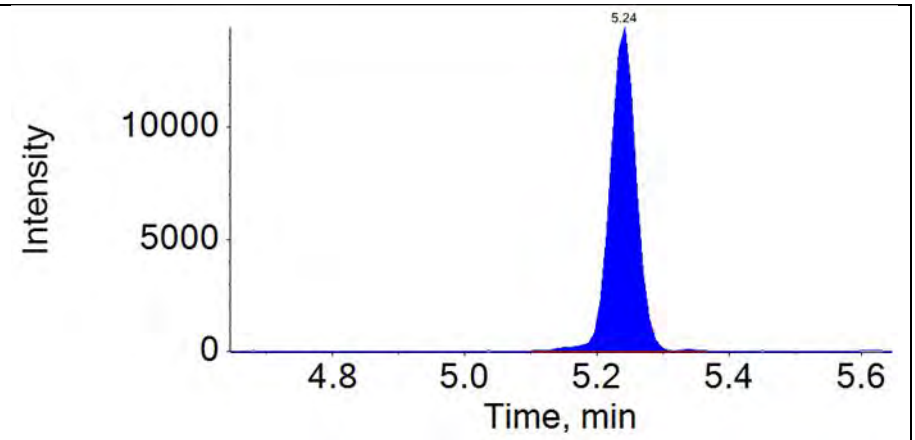
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

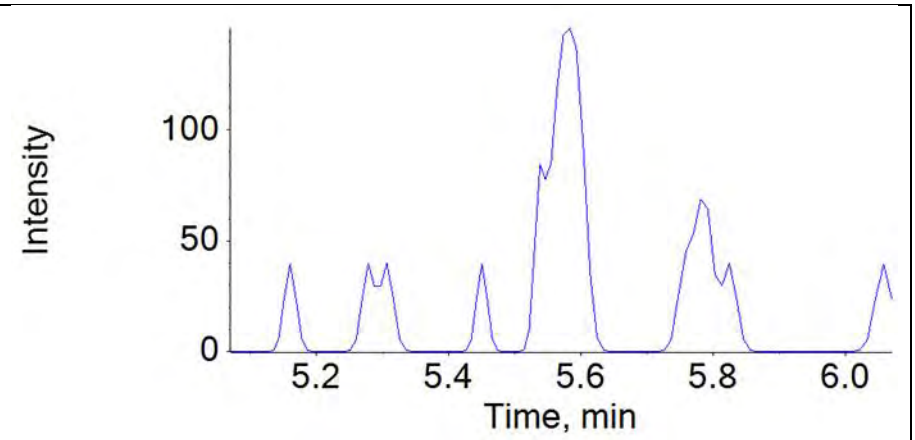
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

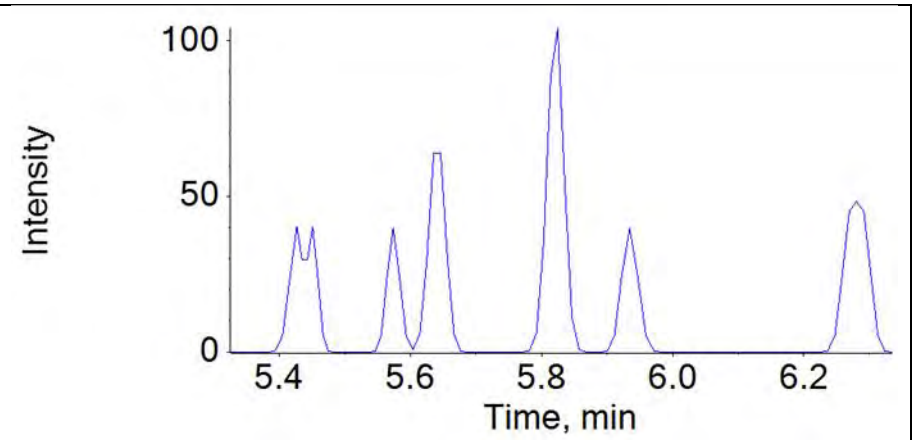
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 39962.8 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV12D-63.wiff **Sample Name:** LCSDA	 **Integration Comment:** incorrect integration

Component Name: PFDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 513.0 / 169.0 **File Name:** 18NOV12D-63.wiff **Sample Name:** LCSDA	 **Integration Comment:** incorrect integration

Component Name: PFUnDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV12D-63.wiff **Sample Name:** LCSDA	 **Integration Comment:** incorrect integration

APPROVED
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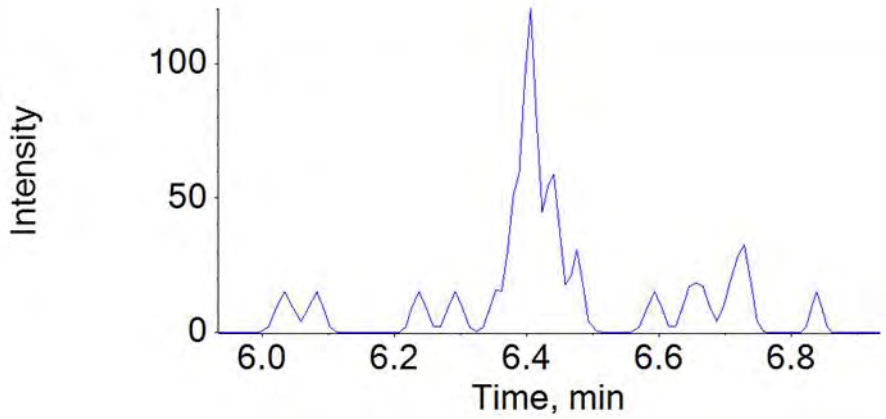
REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM

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

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV12D-63.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

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By JPT at 4:11 pm, 11/13/18

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By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM

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

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By umar at 5:38 pm, 11/13/18

Ion Ratio Report

Sample Name: LCSDA **Instrument Name:** LM27631 **File Name:** 18NOV12D-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	3.80	1.00	54701.5	A	N/A	1.0000			
PFBS_2	3.80	1.00	19642.2	A	N/A	0.3591	-1	50	
4:2-FTS	4.12	1.00	33814.8	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	21750.1	A	N/A	0.6432		#NA!	
PFHxA	4.15	1.00	113684.7	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1715.4	A	N/A	0.0151	28	50	
PFPeS	4.17	1.10	27680.1	A	N/A	1.0000			
PFPeS_2	4.17	1.10	14493.5	A	N/A	0.5236	1	50	
PFHpA	4.54	1.00	113686.5	A	N/A	1.0000			
PFHpA_2	4.54	1.00	5757.0	A	N/A	0.0506	-10	50	
PFHxS	4.54	1.00	39842.8	A	N/A	1.0000			
PFHxS_2	4.54	1.00	15196.9	A	N/A	0.3814	25	50	
6:2-FTS	4.90	1.00	28213.0	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	19749.4	A	N/A	0.7000		#NA!	
PFHpS	4.90	1.08	41695.9	A	N/A	1.0000			
PFHpS_2	4.90	1.08	15390.4	A	N/A	0.3691	-9	50	
PFOA	4.91	1.00	123339.7	A	N/A	1.0000			
PFOA_2	4.91	1.00	6584.2	A	N/A	0.0534	-6	50	
PFOS	5.24	1.00	39472.9	M	N/A	1.0000			
PFOS_2	5.24	1.00	12566.7	A	N/A	0.3184	23	50	
PFNA	5.26	1.00	95881.7	A	N/A	1.0000			
PFNA_2	5.25	1.00	1777.4	A	N/A	0.0185	-19	50	
PFNS	5.54	1.06	26164.9	A	N/A	1.0000			
PFNS_2	5.54	1.06	10542.2	A	N/A	0.4029	-15	50	
PFDA	5.56	1.00	82553.9	A	N/A	1.0000			
PFDA_2	5.58	1.00	552.6	M	N/A	0.0067	-16	50	
8:2-FTS	5.57	1.00	21078.1	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	12261.1	A	N/A	0.5817		#NA!	
NMeFOSAA	5.71	1.00	10118.0	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2582.7	A	N/A	0.2553	20	50	
PFDS	5.80	1.11	20979.9	A	N/A	1.0000			
PFDS_2	5.80	1.11	9442.5	A	N/A	0.4501	-12	50	
PFUnDA	5.82	1.00	63123.8	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	194.7	M	N/A	0.0031	-26	50	
NEtFOSAA	5.84	1.00	8407.1	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	6146.3	A	N/A	0.7311	26	50	
PFDoDA	6.04	1.00	78452.1	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	1246.2	A	N/A	0.0159	-3	50	
10:2-FTS	6.06	1.09	16903.1	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	10172.2	A	N/A	0.6018		#NA!	
PFTrDA	6.24	1.03	65068.2	A	N/A	1.0000			
PFTrDA_2	6.23	1.03	427.7	A	N/A	0.0066	-29	50	
PFTeDA	6.42	1.00	51005.4	A	N/A	1.0000			
PFTeDA_2	6.40	1.00	353.5	M	N/A	0.0069	8	50	
PFHxDA	6.71	1.05	22874.0	A	N/A	1.0000			
PFHxDA_2	6.71	1.05	1569.1	A	N/A	0.0686	1	50	
PFODA	6.98	1.09	14881.3	A	N/A	1.0000			
PFODA_2	6.97	1.09	421.2	A	N/A	0.0283	5	50	

APPROVED
By JPT at 4:11 pm, 11/13/18

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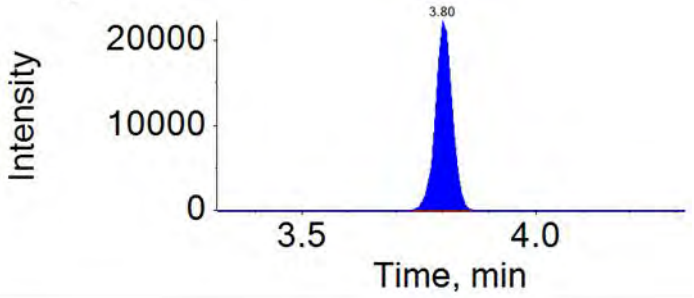
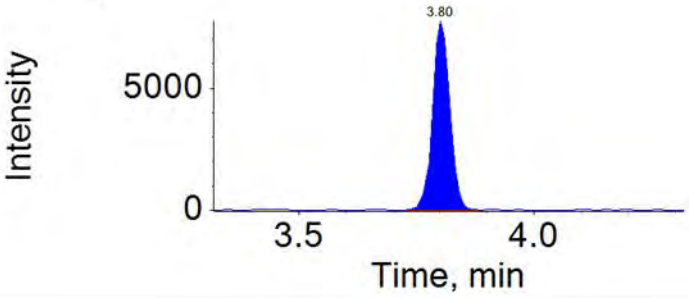
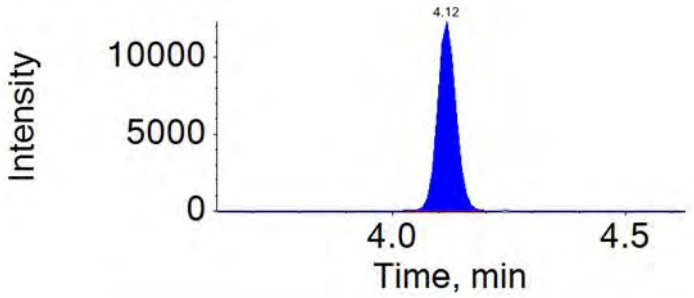
Component: PFBS
Primary Mass: 299.0 / 80.0



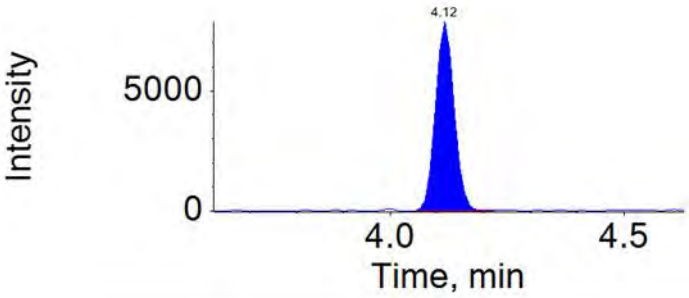
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



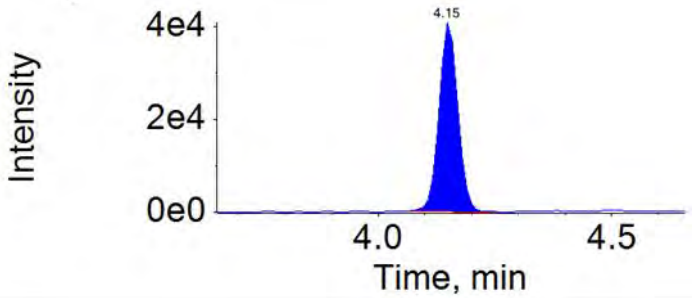
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



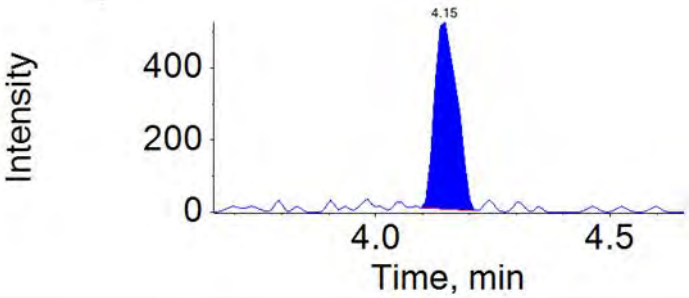
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



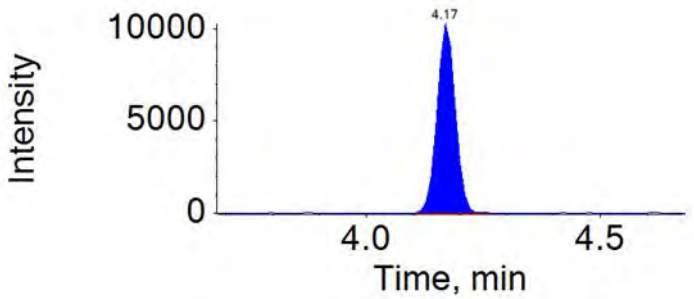
Component: PFHxA
Primary Mass: 313.0 / 269.0



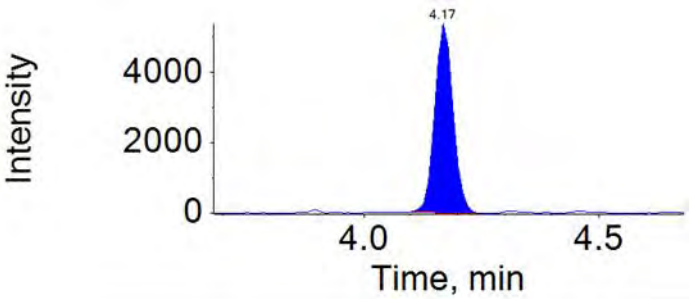
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By JPT at 4:11 pm, 11/13/18

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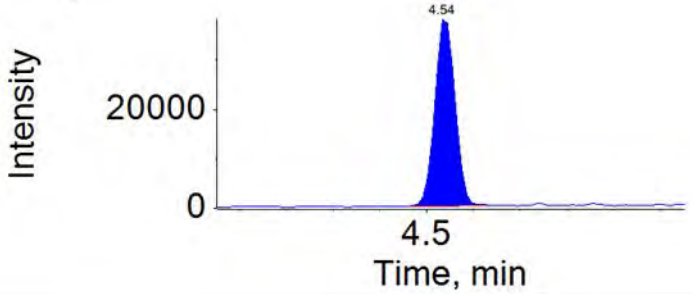
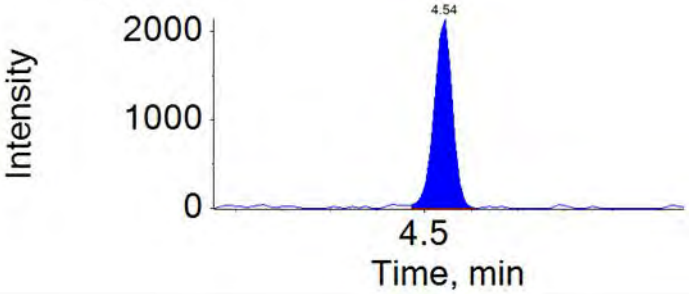
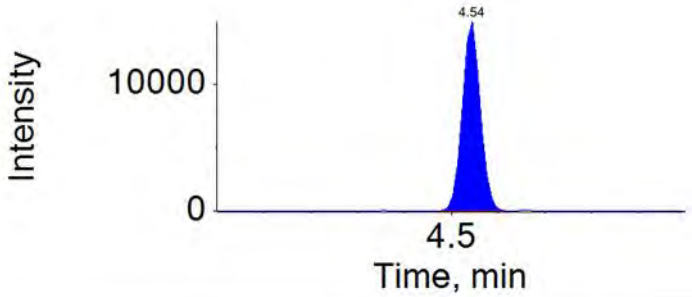
Component: PFHpA
Primary Mass: 363.0 / 319.0



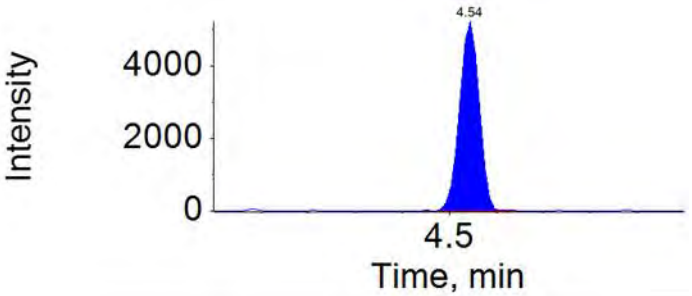
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



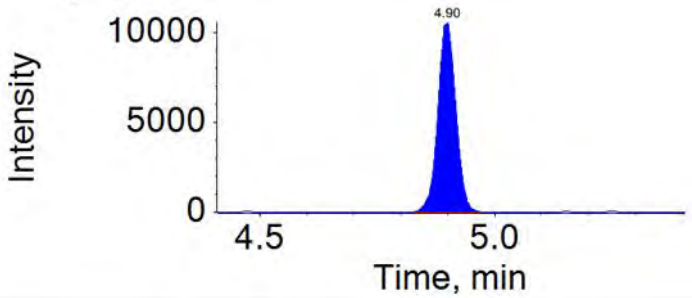
Component: PFHxS
Primary Mass: 399.0 / 80.0



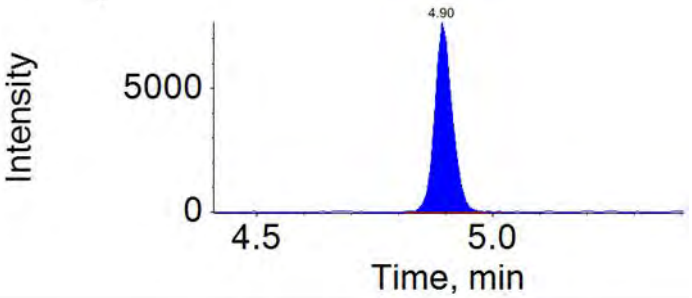
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



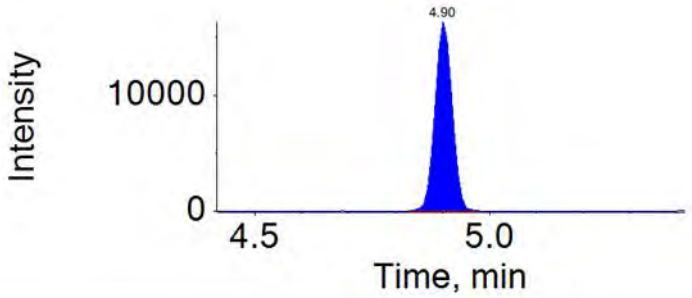
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



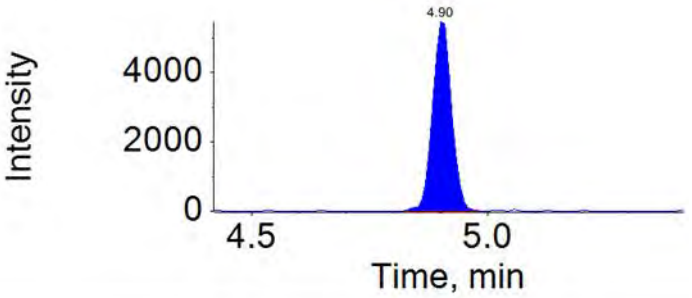
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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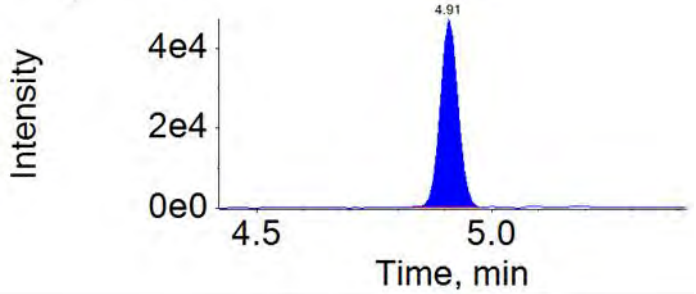
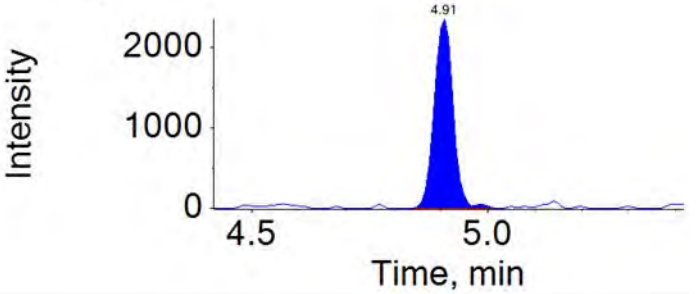
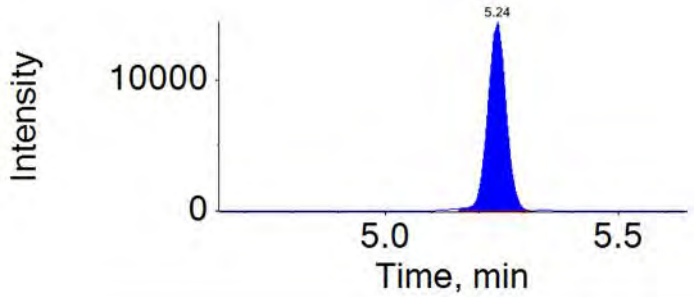
Component: PFOA
Primary Mass: 413.0 / 369.0



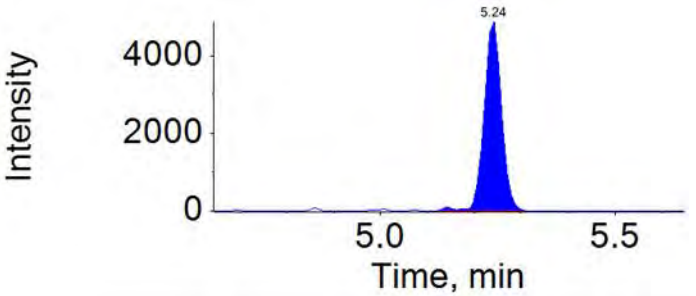
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



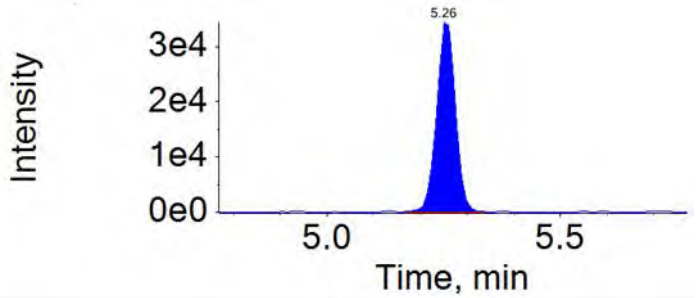
Component: PFOS
Primary Mass: 499.0 / 80.0



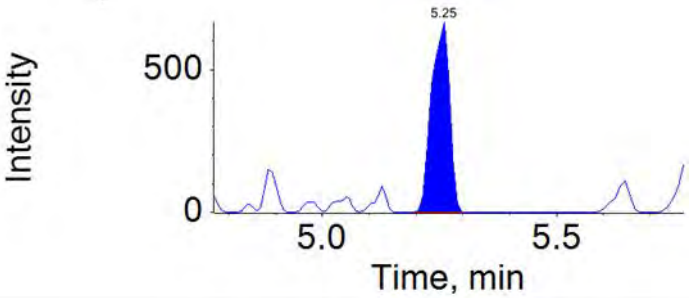
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



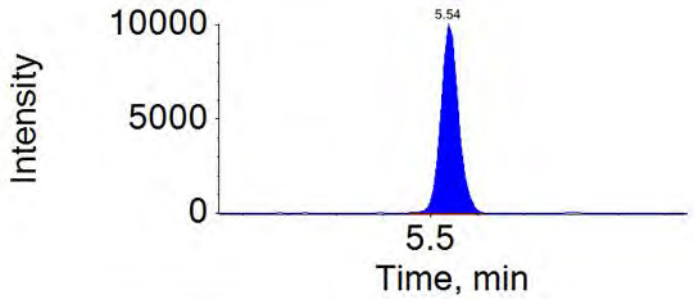
Component: PFNA
Primary Mass: 463.0 / 419.0



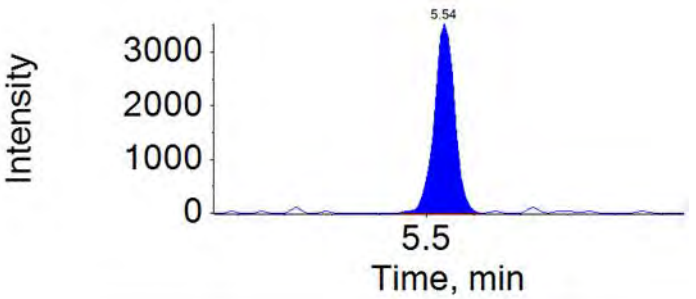
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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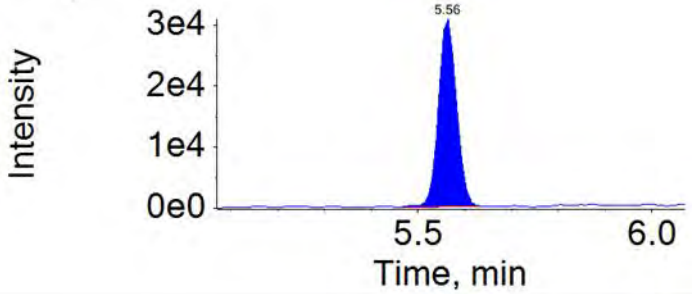
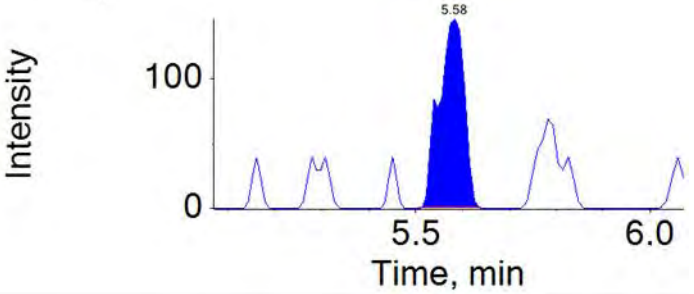
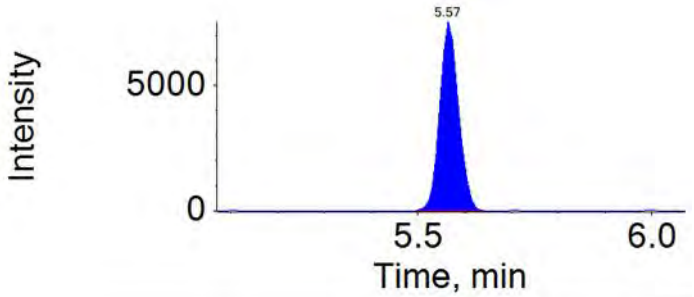
Component: PFDA
Primary Mass: 513.0 / 469.0



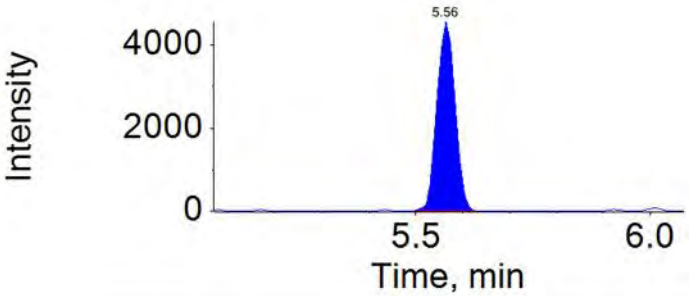
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



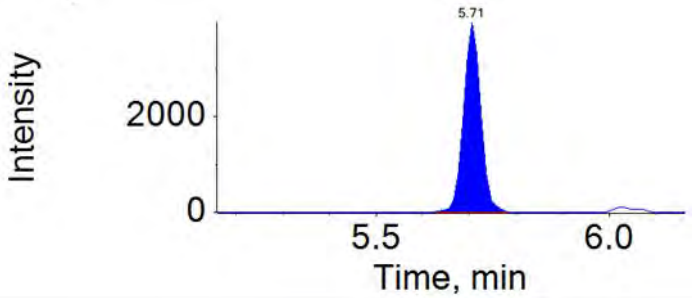
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



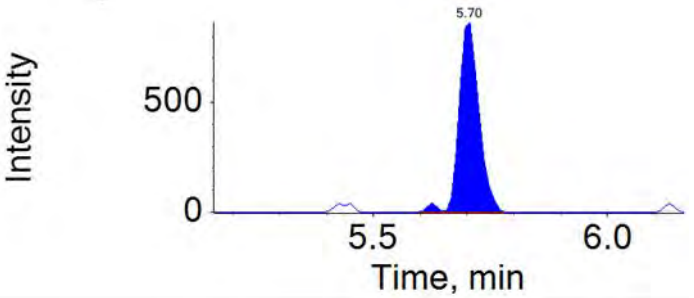
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



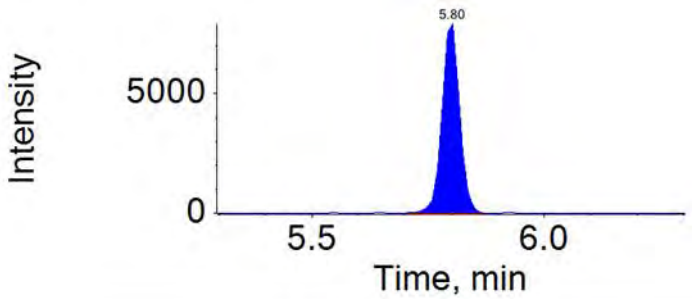
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



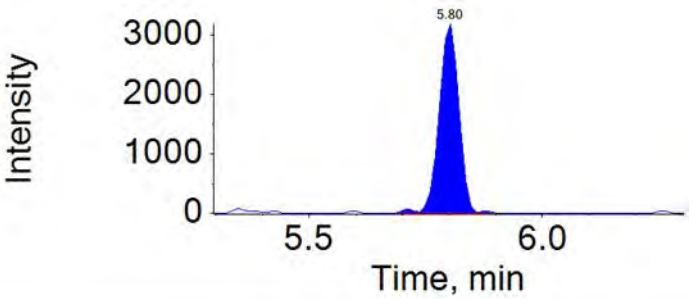
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



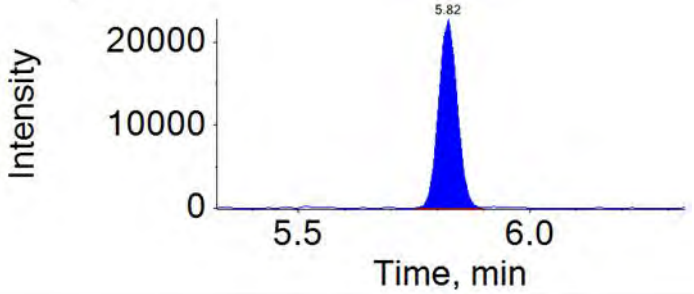
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



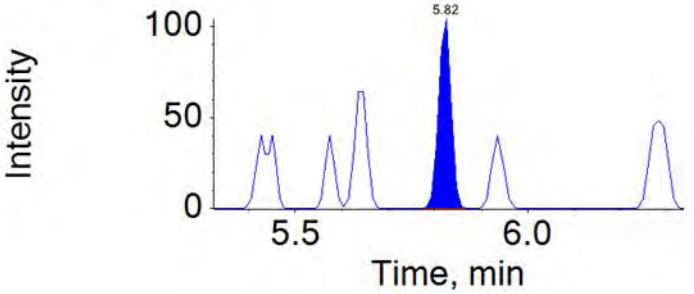
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

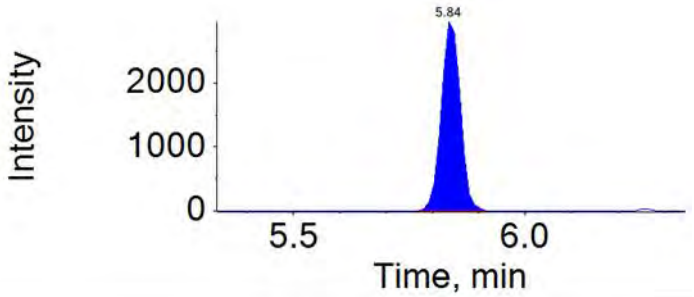
Component: PFUnDA
Primary Mass: 563.0 / 519.0



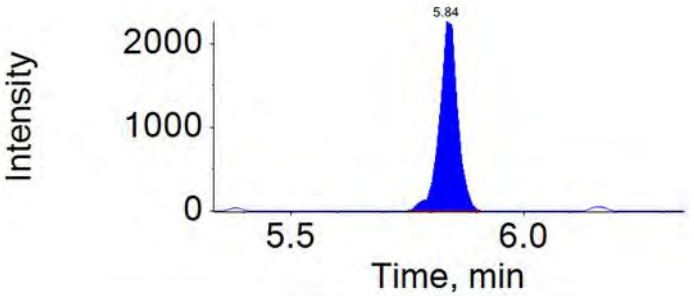
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



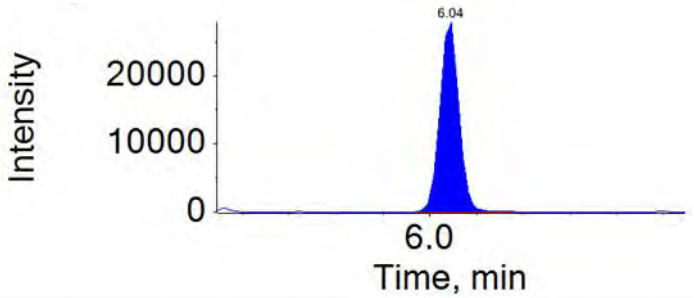
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



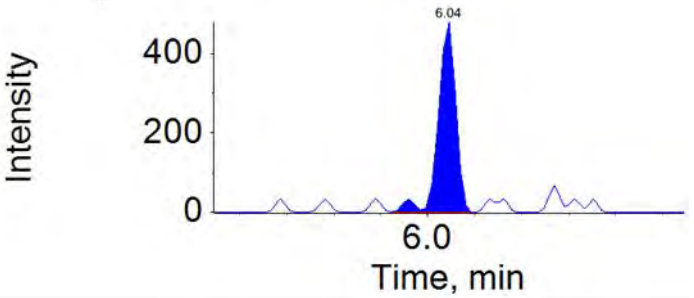
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



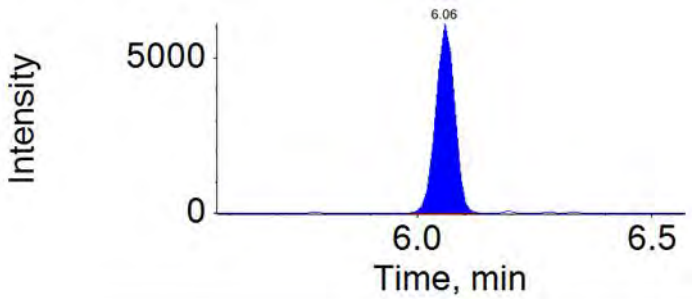
Component: PFDoDA
Primary Mass: 613.0 / 569.0



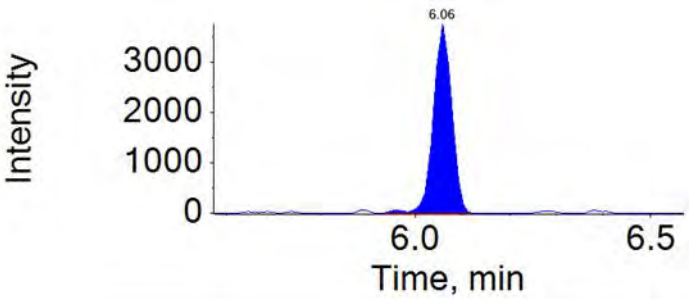
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



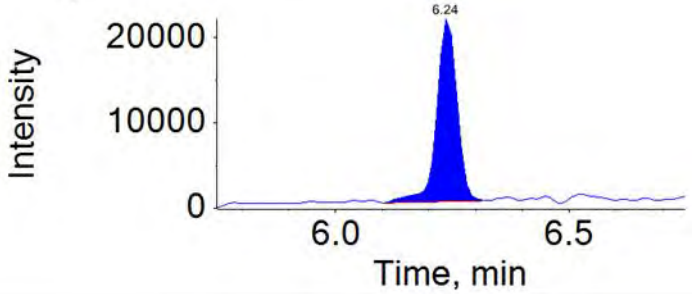
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



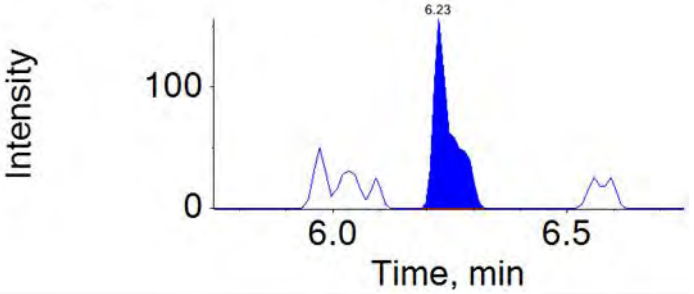
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

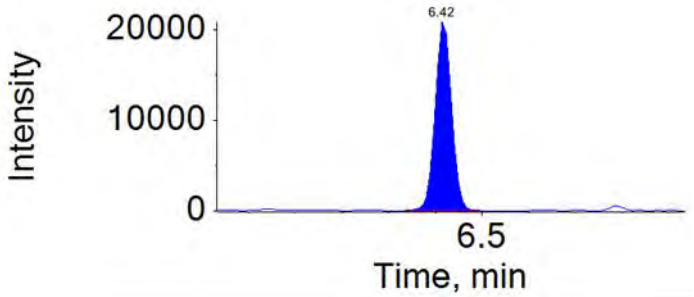
Component: PFTrDA
Primary Mass: 663.0 / 619.0



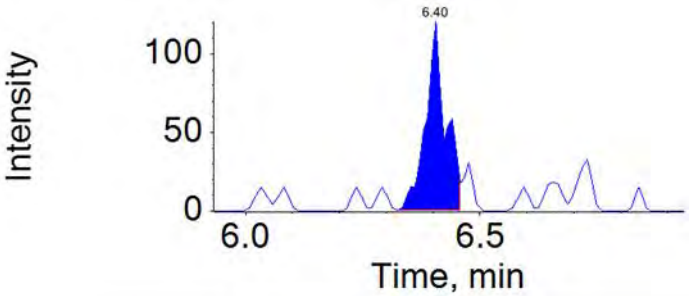
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



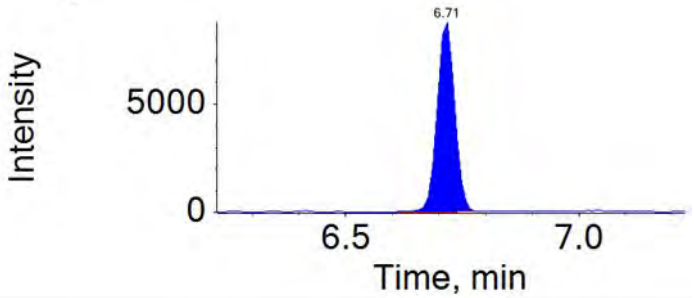
Component: PFTeDA
Primary Mass: 713.0 / 669.0



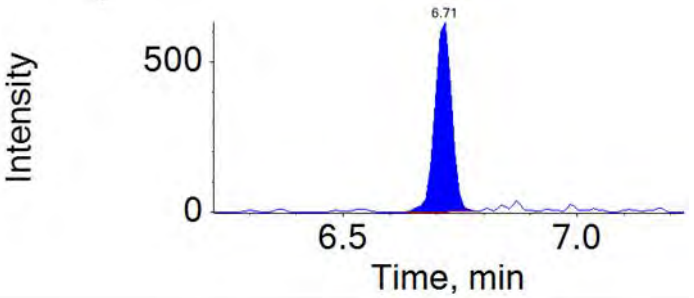
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



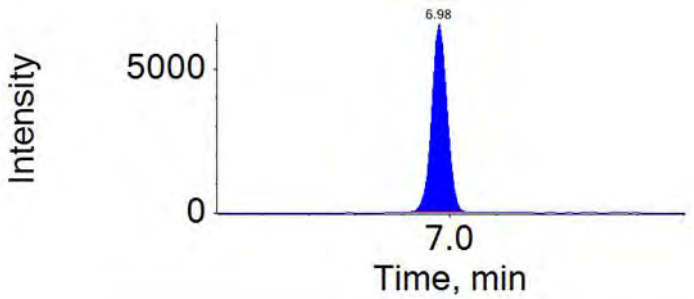
Component: PFHxDA
Primary Mass: 813.0 / 769.0



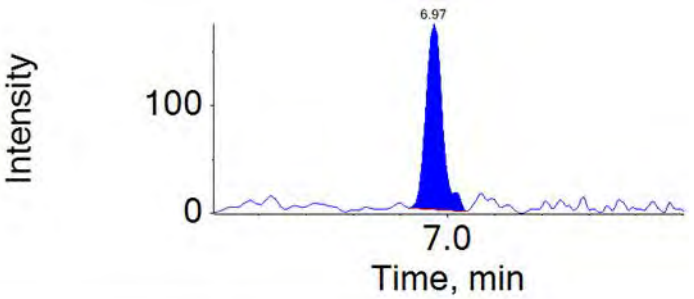
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



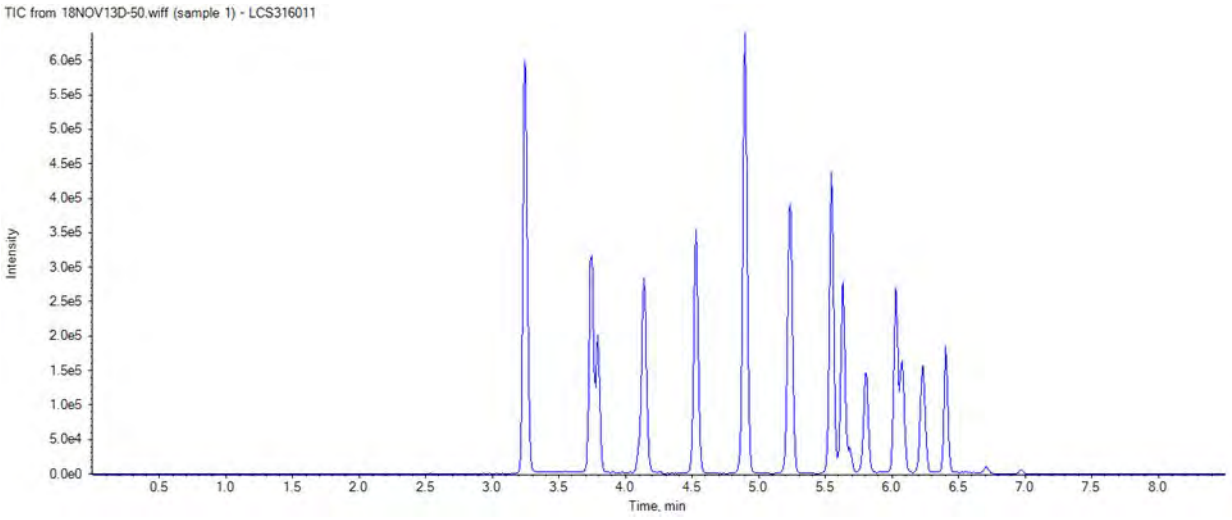
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18316011 11/14/2018 4:22:26 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS316011	EPA 537 mod QSM 5.1 table B-15 18316011	18NOV13D-50.wiff	2018-11-13T17:05:29



Injection Standard Area Reference File**:** 18NOV13D-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	712565.2	661126.9	8	50	
13C2-PFOA	5.00	506242.6	466902.6	8	50	
13C4-PFOS	4.78	269393.7	247446.9	9	50	
13C2-PFDA	5.00	327789.1	295381.6	11	50	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:22:26 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS316011	EPA 537 mod QSM 5.1 table B-15 18316011	18NOV13D-50.wiff	2018-11-13T17:05:29

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	79856.4	601174.2	0.133	1.360	1.472	108	70-130	
PFPeA	82557.6	639917.0	0.129	1.360	1.494	110	70-130	
PFBS	44459.9	360782.3	0.123	1.204	1.172	97	70-130	
4:2-FTS	25692.9	37715.3	0.681	3.736	3.699	99	70-130	
PFHxA	97616.4	540884.9	0.180	1.360	1.507	111	70-130	
PFPeS	22641.9	360782.3	0.063	1.276	1.219	95	70-130	
PFHpA	96030.7	406338.4	0.236	1.360	1.567	115	70-130	
PFHxS	33226.6	268448.8	0.124	1.286	1.200	93	70-130	
6:2-FTS	22116.6	27773.9	0.796	3.792	3.854	102	70-130	
PFHpS	32856.0	268448.8	0.122	1.294	1.289	100	70-130	
PFOA	101181.5	740235.7	0.137	1.360	1.460	107	70-130	
PFOS	26030.2	232772.8	0.112	1.300	0.978	75	70-130	
PFNA	82610.8	399655.4	0.207	1.360	1.491	110	70-130	
PFNS	17156.0	232772.8	0.074	1.306	1.031	79	70-130	
PFDA	65605.2	521885.9	0.126	1.360	1.333	98	70-130	
8:2-FTS	17909.5	21034.8	0.851	3.832	3.970	104	70-130	
PFOSA	71339.6	542687.1	0.131	1.360	1.284	94	70-130	
NMeFOSAA	7050.1	65127.0	0.108	1.360	1.224	90	70-130	
PFDS	16592.0	232772.8	0.071	1.310	1.292	99	70-130	
PFUnDA	57012.9	223233.6	0.255	1.360	1.335	98	70-130	
NEtFOSAA	6188.8	51198.1	0.121	1.360	1.267	93	70-130	
PFDoDA	60776.2	490842.9	0.124	1.360	1.261	93	70-130	
10:2-FTS	11237.1	21034.8	0.534	3.856	3.559	92	70-130	
NMePFOSAE	41492.7	264425.0	0.157	1.360	1.306	96	70-130	
NMePFOSA	8784.1	69464.9	0.126	1.360	1.248	92	70-130	
PFDoS	6319.8	232772.8	0.027	1.316	0.951	72	70-130	
NEtPFOSAE	50694.5	227082.7	0.223	1.360	1.432	105	70-130	
NEtPFOSA	7556.1	53035.0	0.142	1.360	1.309	96	70-130	
PFTrDA	57959.2	490842.9	0.118	1.360	1.491	110	70-130	
PFTeDA	41782.5	322039.7	0.130	1.360	1.455	107	70-130	
PFHxDA	17968.3	322039.7	0.056	1.360	1.329	98	70-130	
PFODA	11942.1	322039.7	0.037	1.360	1.033	76	70-130	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18316011 11/14/2018 4:22:26 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	LCS316011			**Data File:**		18NOV13D-50.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18316011			**Acquis Date:**		2018-11-13T17:05:29
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	48			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18316011
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18316011			**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: 18NOV13D-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	712565.2	661126.9	8	50	
13C2-PFOA	5.0	506242.6	466902.6	8	50	
13C4-PFOS	4.8	269393.7	247446.9	9	50	
13C2-PFDA	5.0	327789.1	295381.6	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	601174.2	13C3-PFBA	712565.2	0.844	10.000	7.565	76	50-150	
E13C5-PFPeA	639917.0	13C3-PFBA	712565.2	0.898	10.000	8.056	81	50-150	
E13C3-PFBS	360782.3	13C3-PFBA	712565.2	0.506	9.300	7.148	77	50-150	
E13C2-4:2-FTS	37715.3	13C2-PFOA	506242.6	0.075	9.340	6.636	71	50-150	
E13C5-PFHxA	540884.9	13C2-PFOA	506242.6	1.068	10.000	7.719	77	50-150	
E13C3-PFHxS	268448.8	13C2-PFOA	506242.6	0.530	9.460	7.277	77	50-150	
E13C4-PFHpA	406338.4	13C2-PFOA	506242.6	0.803	10.000	7.232	72	50-150	
E13C2-6:2-FTS	27773.9	13C2-PFOA	506242.6	0.055	9.500	7.341	77	50-150	
E13C8-PFOA	740235.7	13C2-PFOA	506242.6	1.462	10.000	8.057	81	50-150	
E13C8-PFOS	232772.8	13C4-PFOS	269393.7	0.864	9.560	7.657	80	50-150	
E13C9-PFNA	399655.4	13C4-PFOS	269393.7	1.484	10.000	8.273	83	50-150	
E13C6-PFDA	521885.9	13C2-PFDA	327789.1	1.592	10.000	7.431	74	50-150	
E13C2-8:2-FTS	21034.8	13C2-PFDA	327789.1	0.064	9.580	6.401	67	50-150	
E13C8-PFOSA	542687.1	13C2-PFDA	327789.1	1.656	10.000	7.341	73	50-150	
Ed3-NMeFOSAA	65127.0	13C2-PFDA	327789.1	0.199	10.000	7.173	72	50-150	
E13C7-PFUnDA	223233.6	13C2-PFDA	327789.1	0.681	10.000	7.908	79	50-150	
Ed5-NEtFOSAA	51198.1	13C2-PFDA	327789.1	0.156	10.000	6.609	66	50-150	
E13C2-PFDoDA	490842.9	13C2-PFDA	327789.1	1.497	10.000	7.776	78	50-150	
Ed7-NMePFOSAE	264425.0	13C2-PFDA	327789.1	0.807	10.000	6.982	70	50-150	
Ed3-NMePFOSA	69464.9	13C2-PFDA	327789.1	0.212	10.000	7.701	77	50-150	
Ed9-NEtPFOSAE	227082.7	13C2-PFDA	327789.1	0.693	10.000	7.206	72	50-150	
Ed5-NEtPFOSA	53035.0	13C2-PFDA	327789.1	0.162	10.000	7.591	76	50-150	
E13C2-PFTeDA	322039.7	13C2-PFDA	327789.1	0.982	10.000	6.898	69	50-150	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

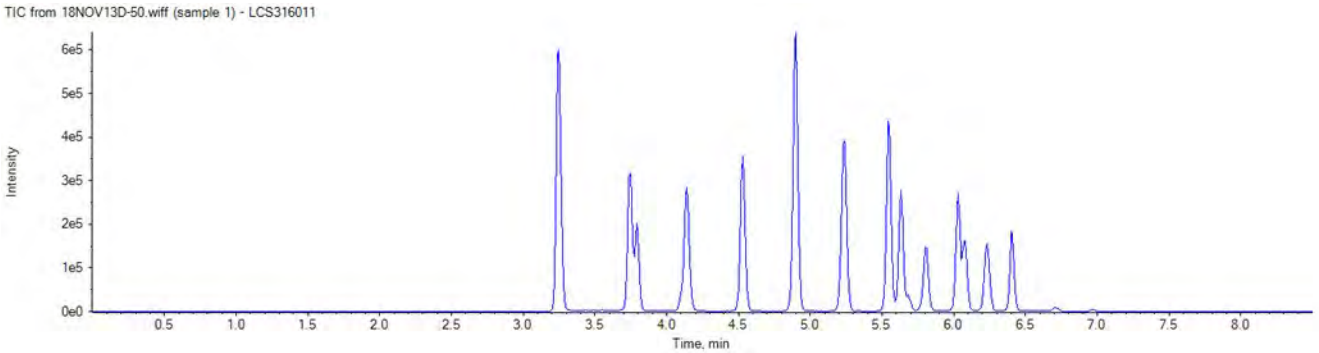
Analyte Quantitation Peak Table

Sample Name: LCS316011 **Instrument Name:** LM27631 **File Name:** 18NOV13D-50.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	3.24	1.000	79856.4		A	13C4-PFBA	3.24	601174.2	0.133	1.472
PFPeA	3.74	1.000	82557.6		A	13C5-PFPeA	3.74	639917.0	0.129	1.494
PFBS	3.79	1.000	44459.9		A	13C3-PFBS	3.79	360782.3	0.123	1.172
4:2-FTS	4.11	1.000	25692.9		A	13C2-4:2-FTS	4.10	37715.3	0.681	3.699
PFHxA	4.14	1.000	97616.4		A	13C5-PFHxA	4.14	540884.9	0.180	1.507
PFPeS	4.16	1.100	22641.9		A	13C3-PFBS	3.79	360782.3	0.063	1.219
PFHpA	4.53	1.000	96030.7		A	13C4-PFHpA	4.53	406338.4	0.236	1.567
PFHxS	4.53	1.000	33226.6		A	13C3-PFHxS	4.53	268448.8	0.124	1.200
6:2-FTS	4.89	1.000	22116.6		A	13C2-6:2-FTS	4.89	27773.9	0.796	3.854
PFHpS	4.89	1.080	32856.0		A	13C3-PFHxS	4.53	268448.8	0.122	1.289
PFOA	4.90	1.000	101181.5		A	13C8-PFOA	4.90	740235.7	0.137	1.460
PFOS	5.23	1.000	26030.2		M	13C8-PFOS	5.23	232772.8	0.112	0.978
PFNA	5.24	1.000	82610.8		A	13C9-PFNA	5.24	399655.4	0.207	1.491
PFNS	5.53	1.060	17156.0		A	13C8-PFOS	5.23	232772.8	0.074	1.031
PFDA	5.55	1.000	65605.2		A	13C6-PFDA	5.55	521885.9	0.126	1.333
8:2-FTS	5.55	1.000	17909.5		A	13C2-8:2-FTS	5.55	21034.8	0.851	3.970
PFOSA	5.63	1.000	71339.6		A	13C8-PFOSA	5.63	542687.1	0.131	1.284
NMeFOSAA	5.69	1.000	7050.1		A	d3-NMeFOSAA	5.69	65127.0	0.108	1.224
PFDS	5.78	1.110	16592.0		A	13C8-PFOS	5.23	232772.8	0.071	1.292
PFUnDA	5.80	1.000	57012.9		A	13C7-PFUnDA	5.80	223233.6	0.255	1.335
NEtFOSAA	5.82	1.000	6188.8		M	d5-NEtFOSAA	5.82	51198.1	0.121	1.267
PFDoDA	6.03	1.000	60776.2		A	13C2-PFDoDA	6.03	490842.9	0.124	1.261
10:2-FTS	6.05	1.090	11237.1		A	13C2-8:2-FTS	5.55	21034.8	0.534	3.559
NMePFOSAE	6.08	1.000	41492.7		A	d7-NMePFOSAE	6.07	264425.0	0.157	1.306
NMePFOSA	6.09	1.000	8784.1		A	d3-NMePFOSA	6.09	69464.9	0.126	1.248
PFDoS	6.20	1.190	6319.8		A	13C8-PFOS	5.23	232772.8	0.027	0.951
NEtPFOSAE	6.24	1.000	50694.5		A	d9-NEtPFOSAE	6.23	227082.7	0.223	1.432
NEtPFOSA	6.25	1.000	7556.1		A	d5-NEtPFOSA	6.25	53035.0	0.142	1.309
PFTrDA	6.23	1.030	57959.2		A	13C2-PFDoDA	6.03	490842.9	0.118	1.491
PFTeDA	6.40	1.000	41782.5		A	13C2-PFTeDA	6.41	322039.7	0.130	1.455
PFHxDA	6.71	1.050	17968.3		A	13C2-PFTeDA	6.41	322039.7	0.056	1.329
PFODA	6.97	1.090	11942.1		A	13C2-PFTeDA	6.41	322039.7	0.037	1.033

Total Ion Chromatogram

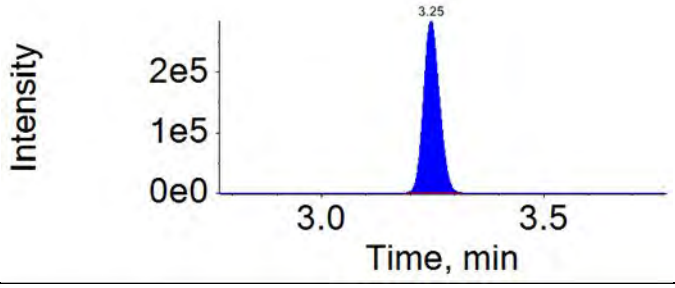


APPROVED
By MCD at 4:51 pm, 11/14/18

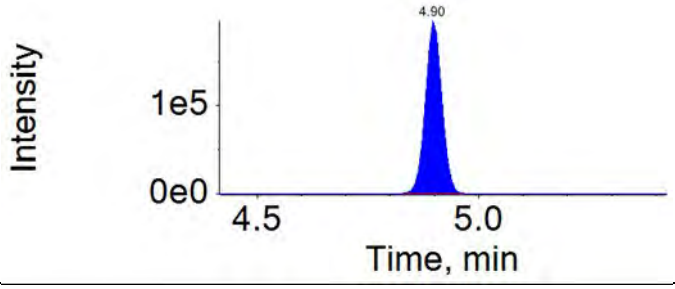
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

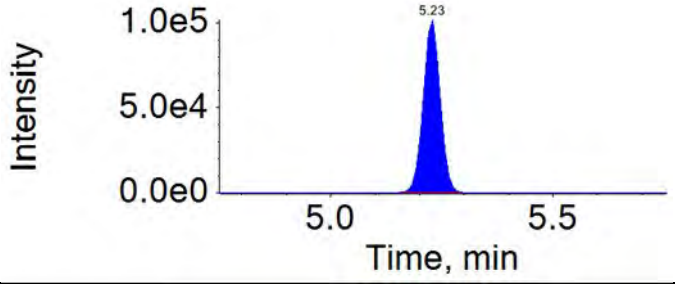
Injection Standard: 13C3-PFBA
216.0 / 172.0



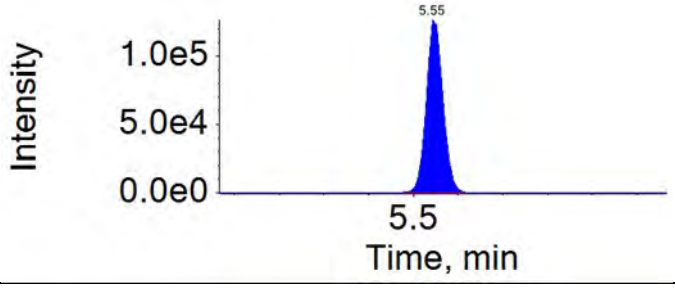
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

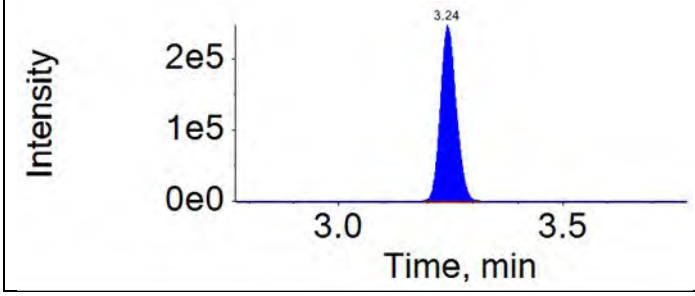


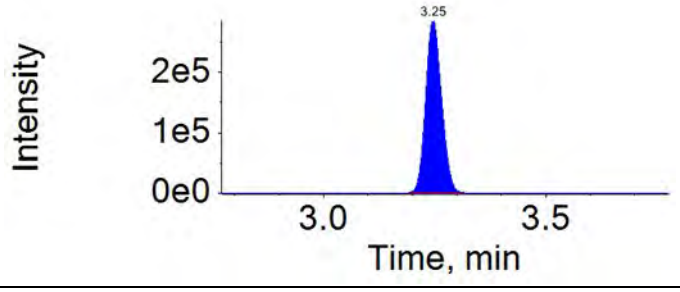
Injection Standard: 13C2-PFDA
515.0 / 470.0



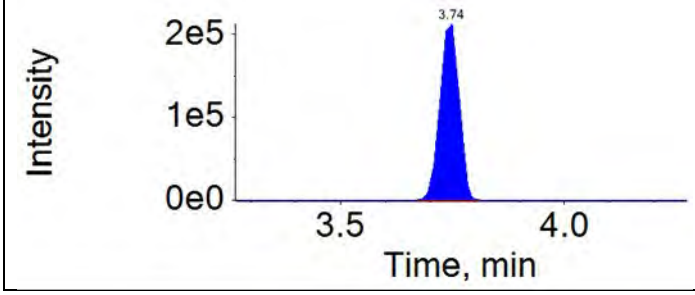
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

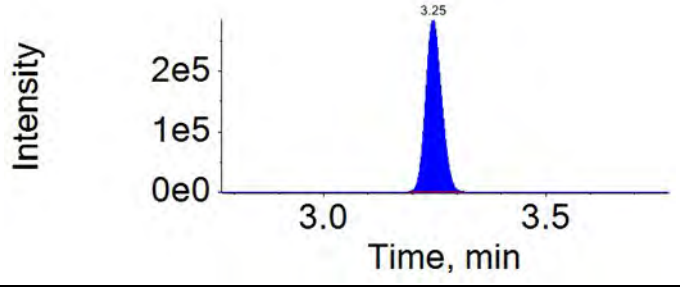
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



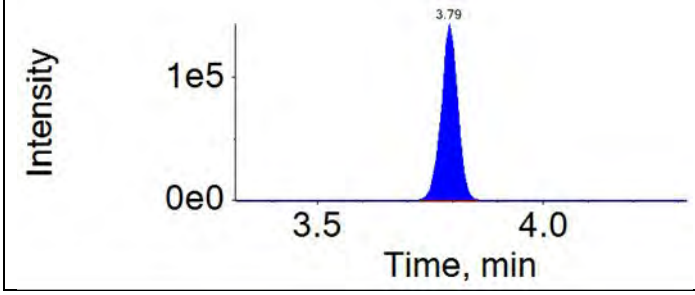


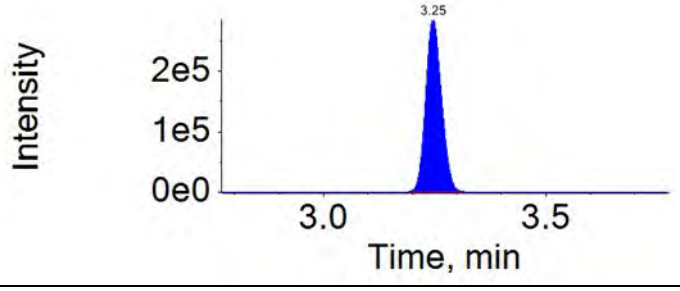
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



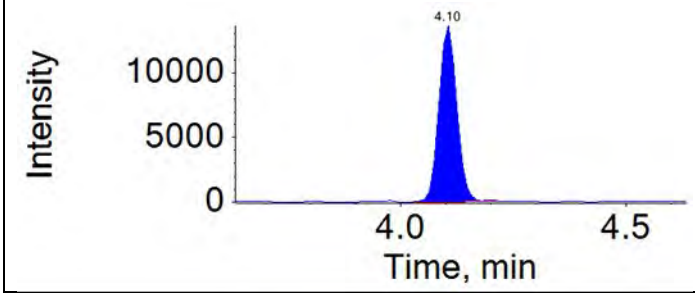


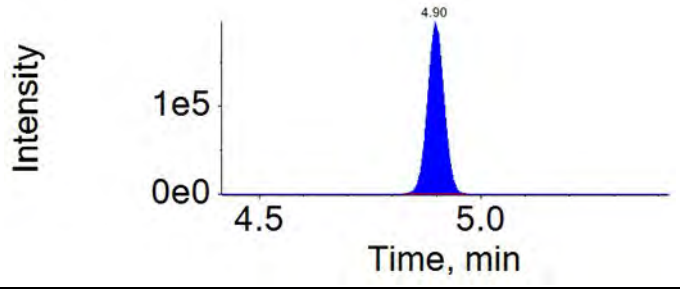
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



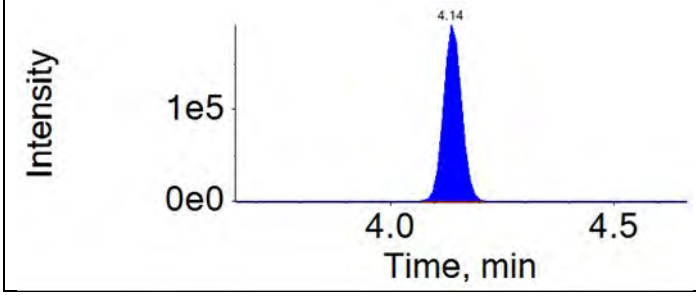


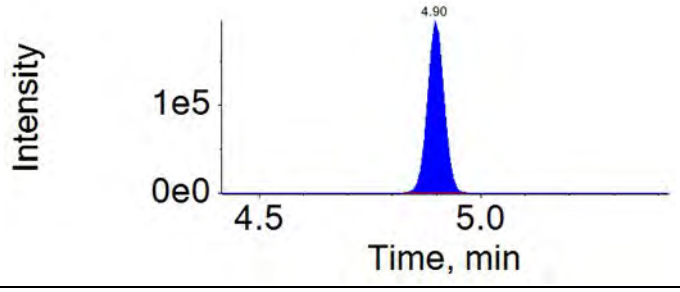
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

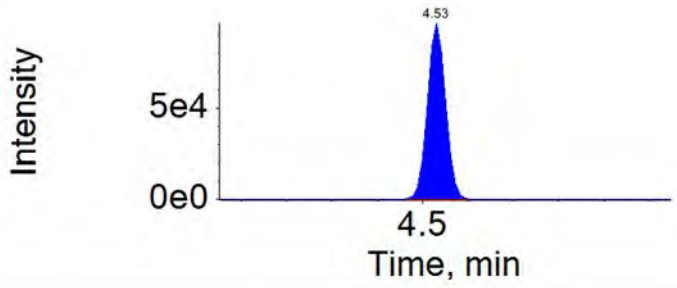
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

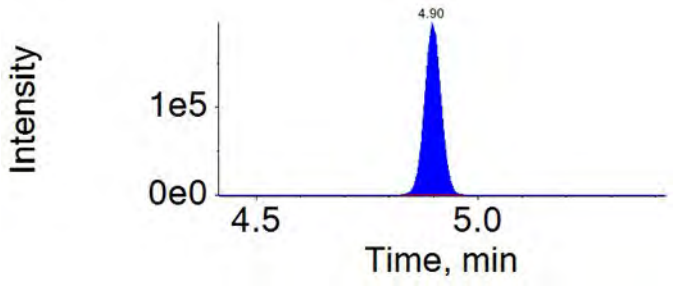
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



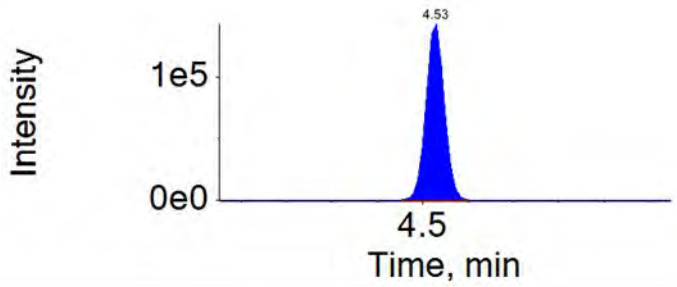


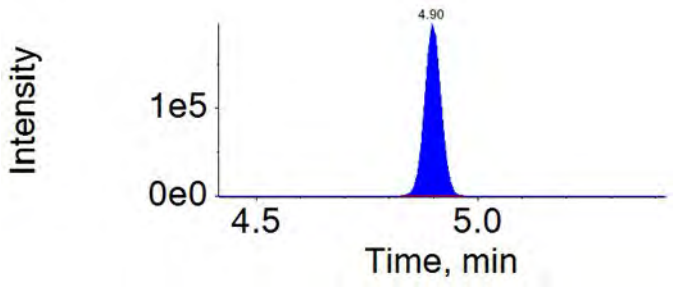
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



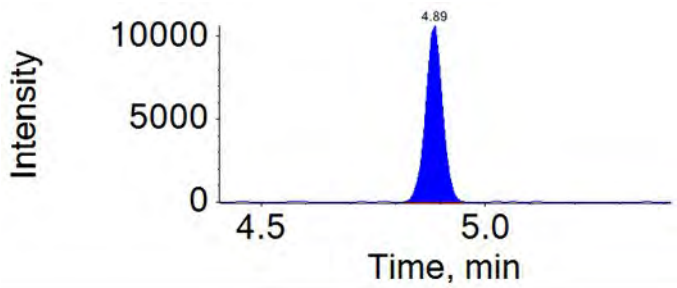


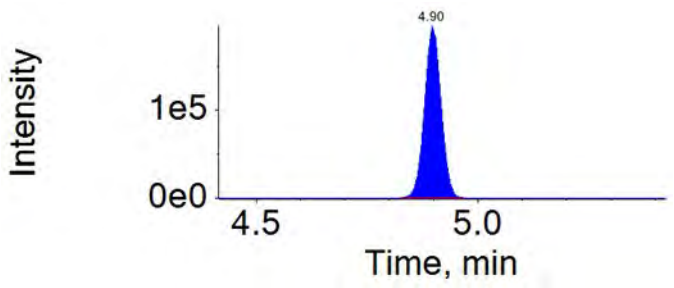
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



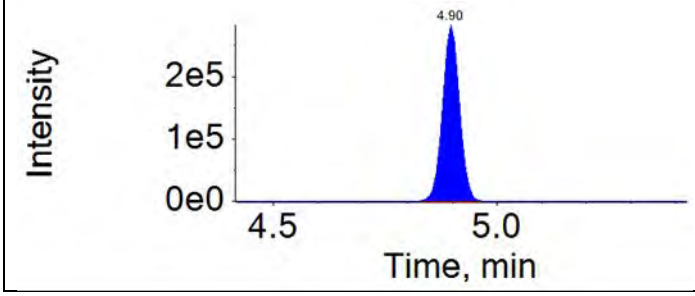


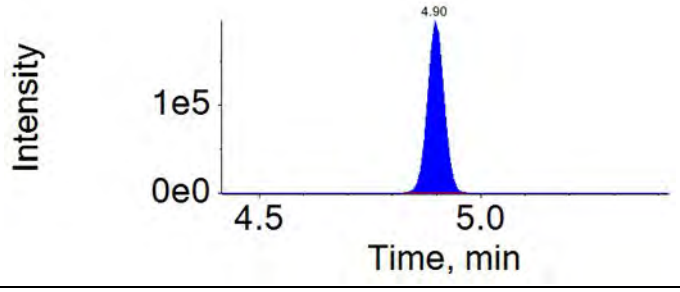
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

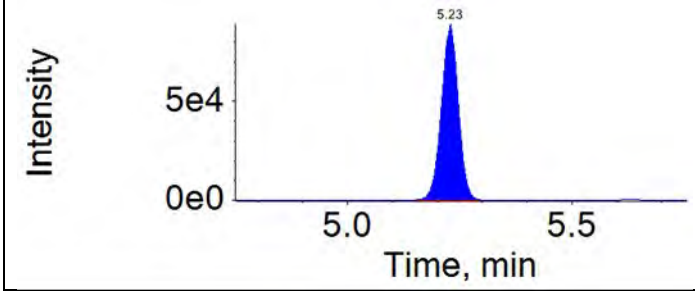
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

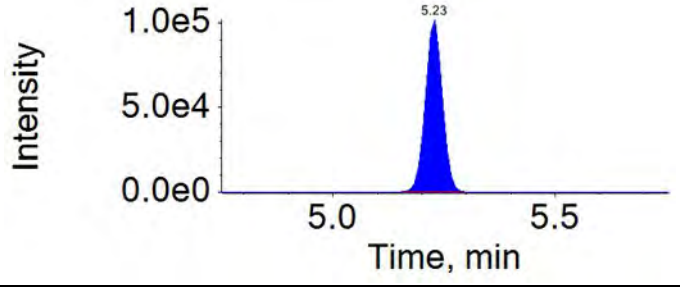
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



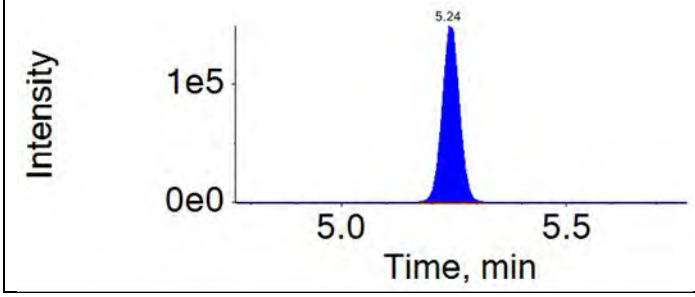


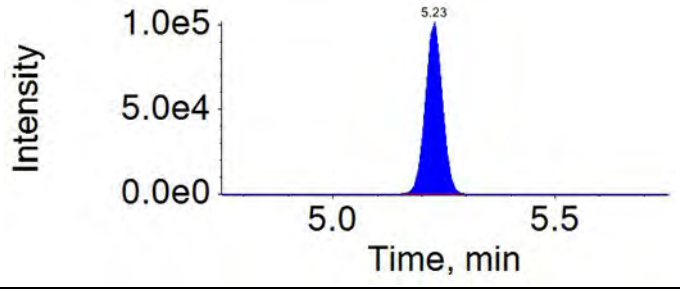
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



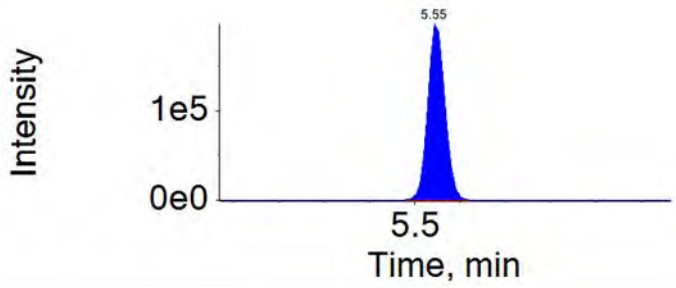


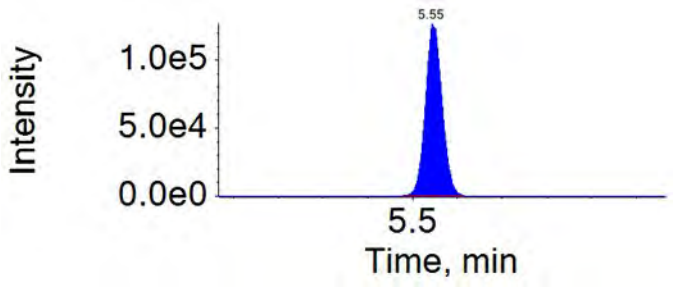
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



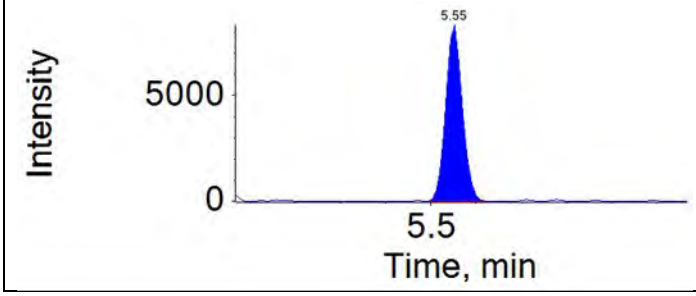


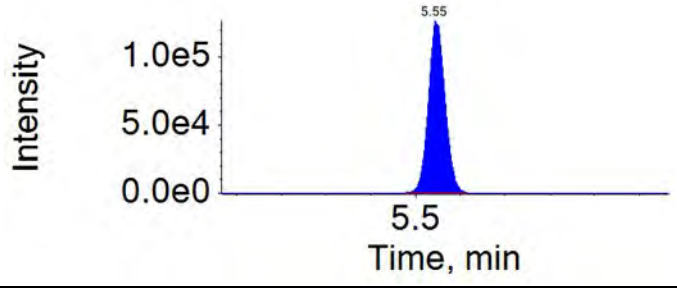
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

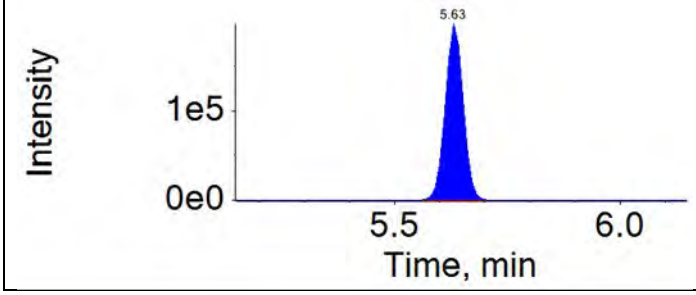
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

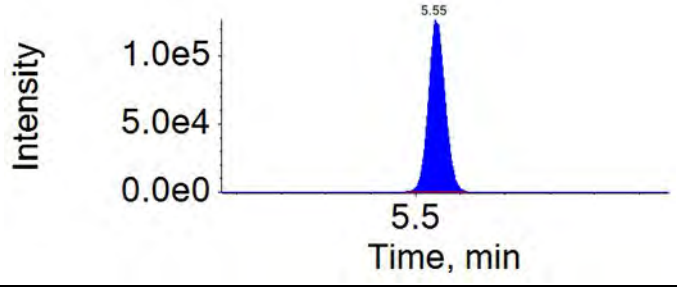
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



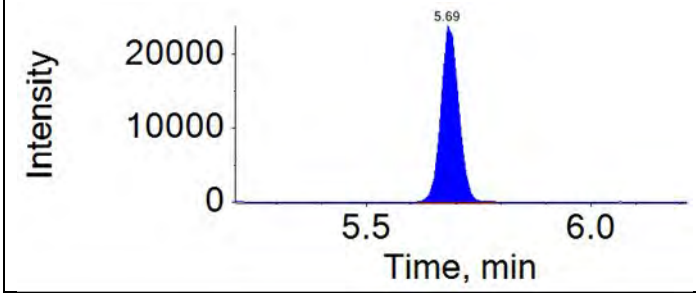


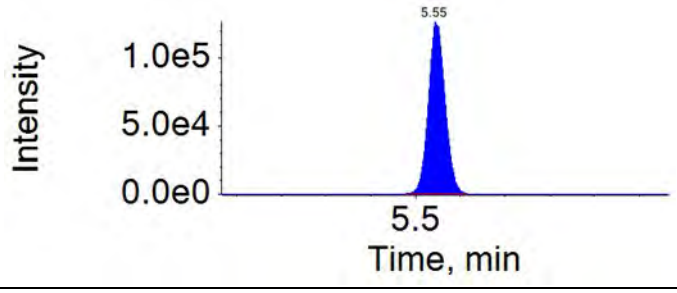
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



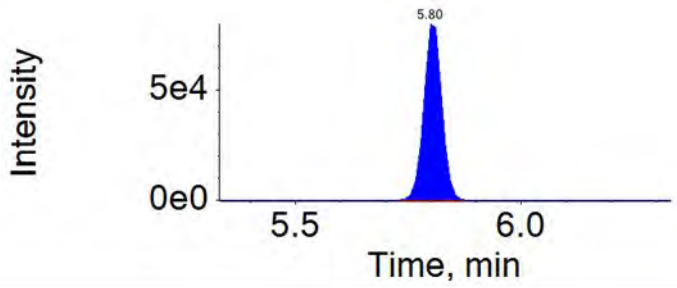


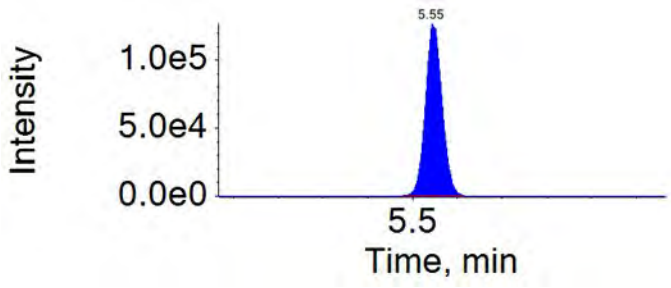
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



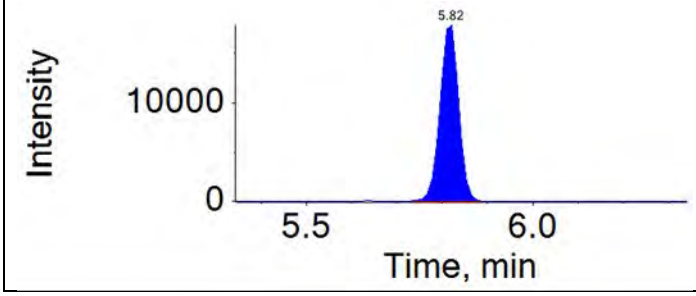


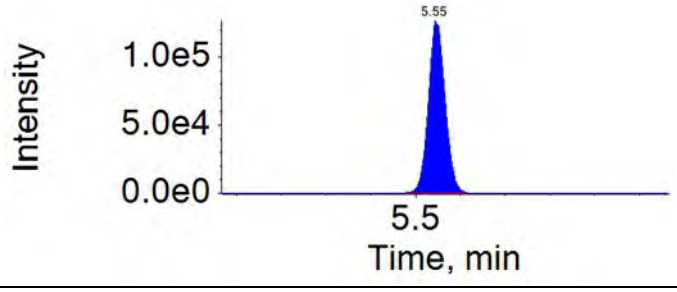
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

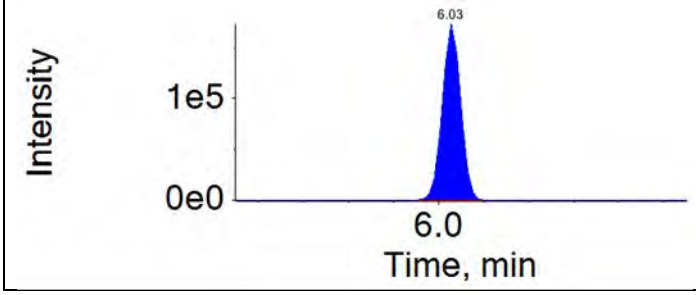
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

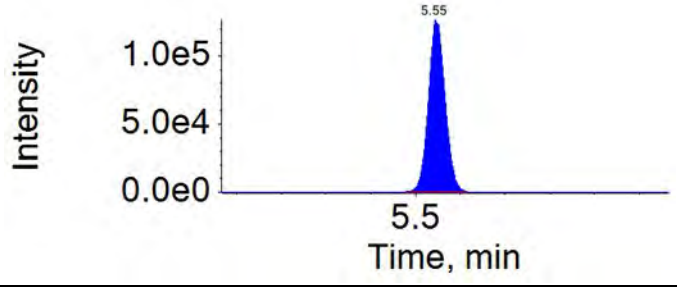
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



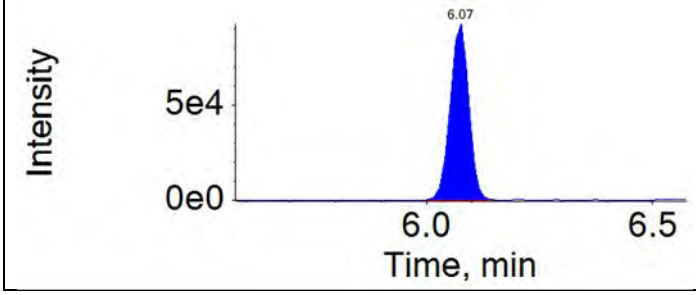


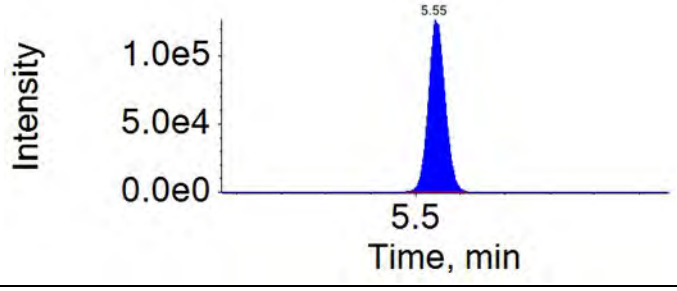
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



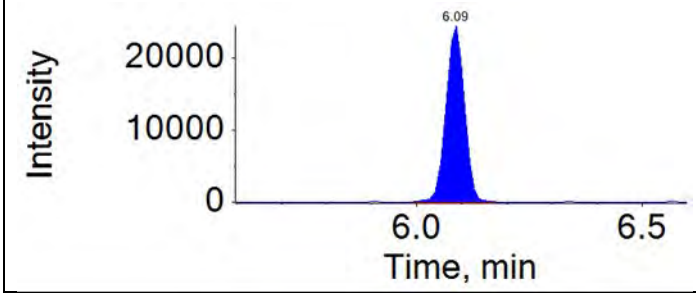


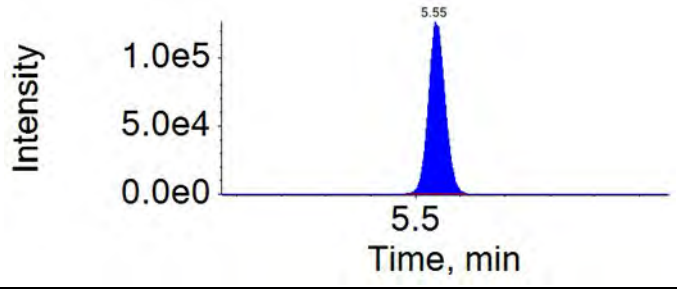
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



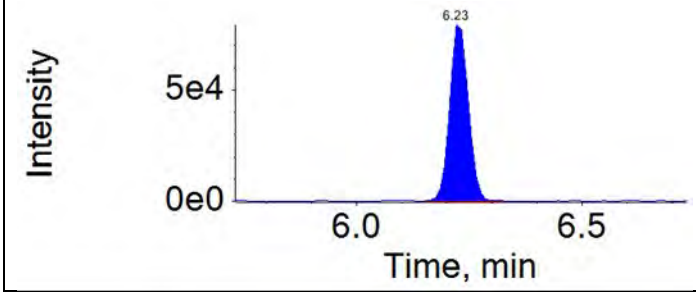


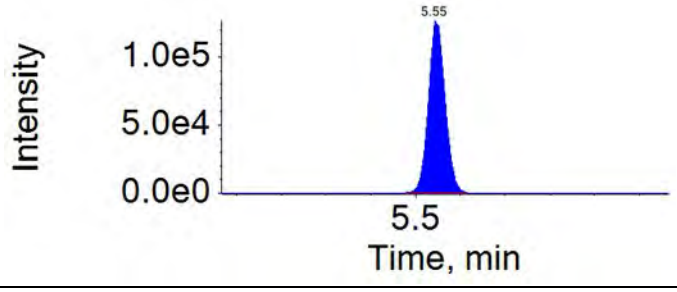
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

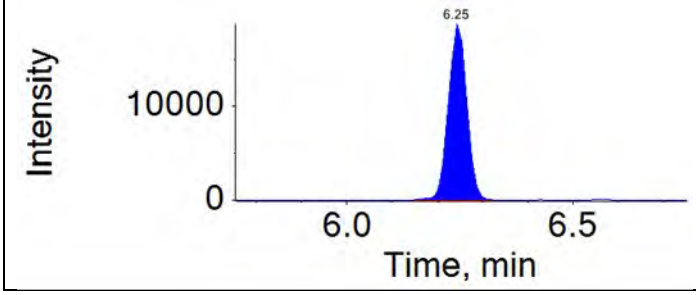
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

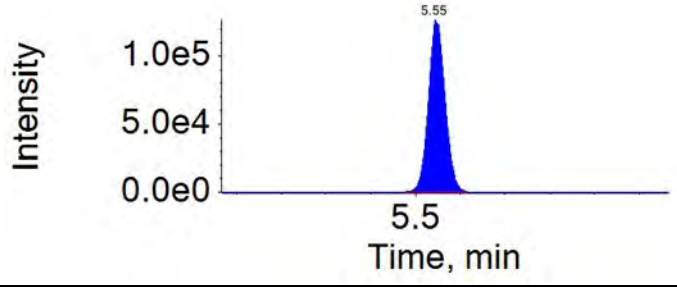
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



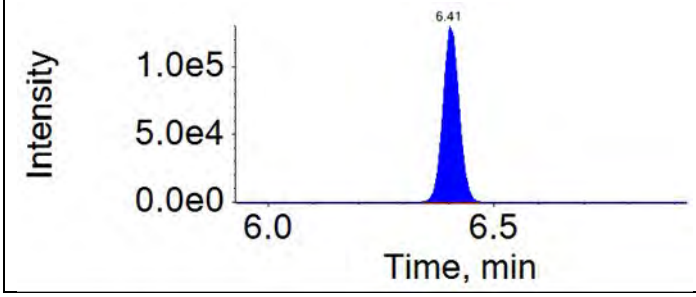


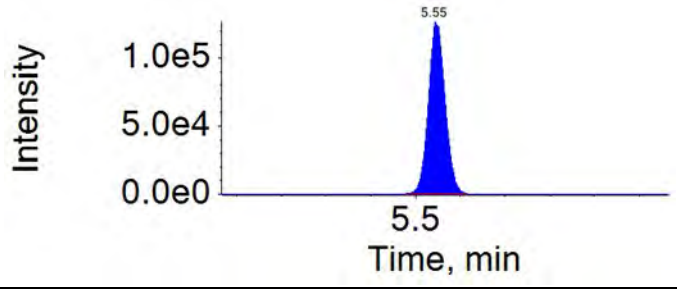
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

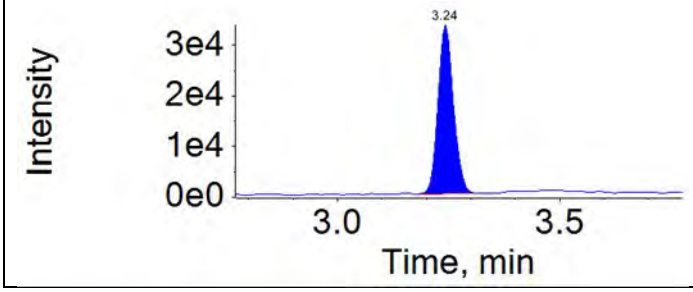
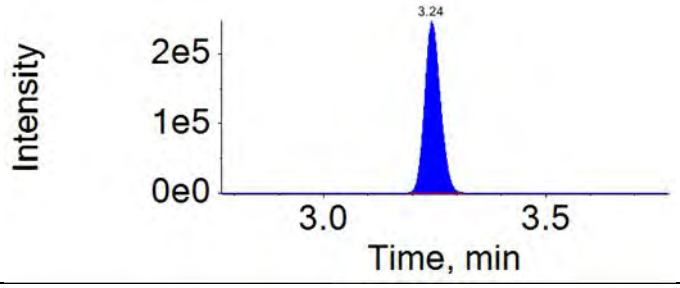


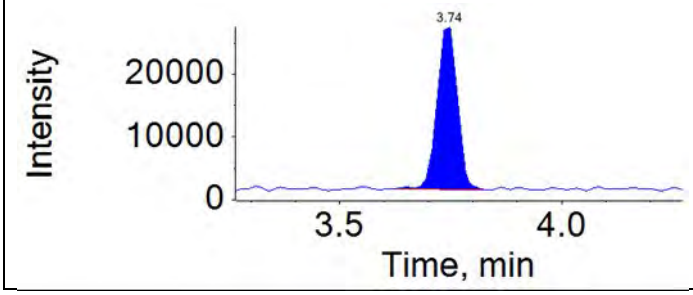
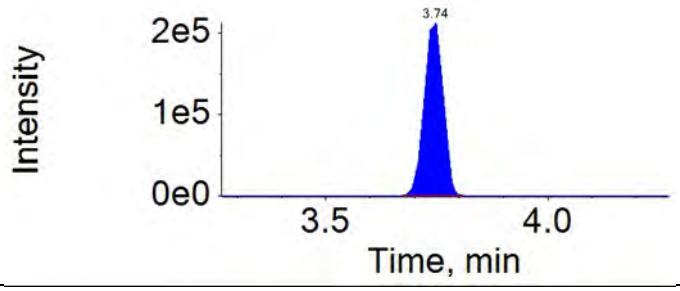


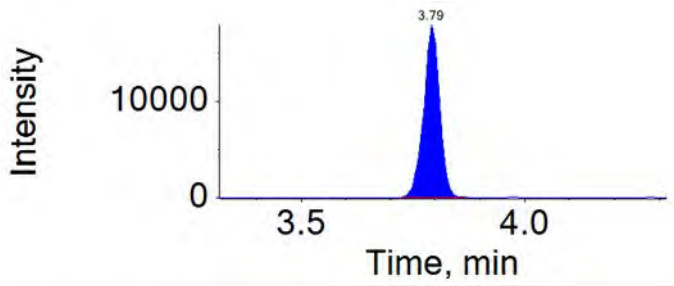
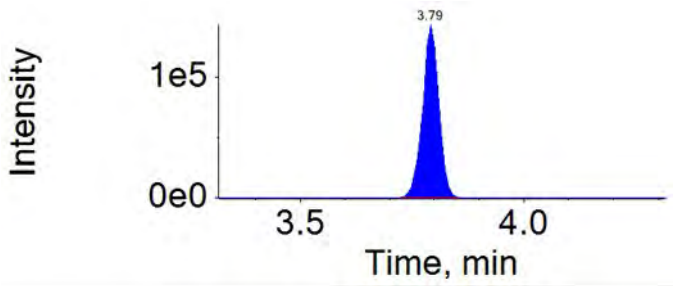
APPROVED
By MCD at 4:51 pm, 11/14/18

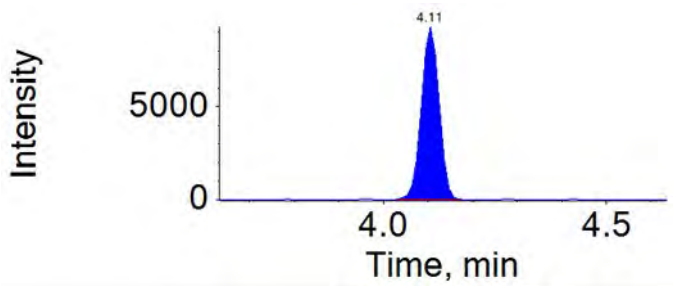
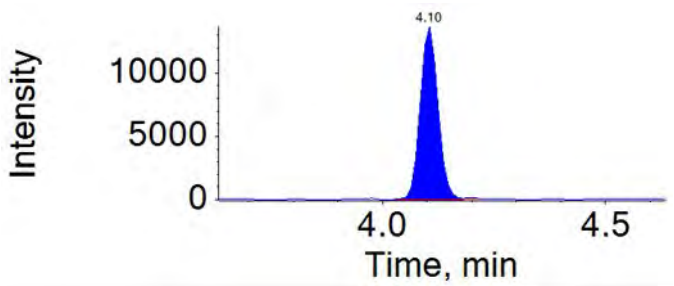
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

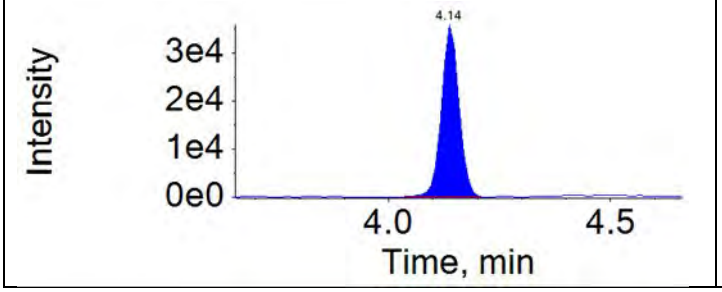
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

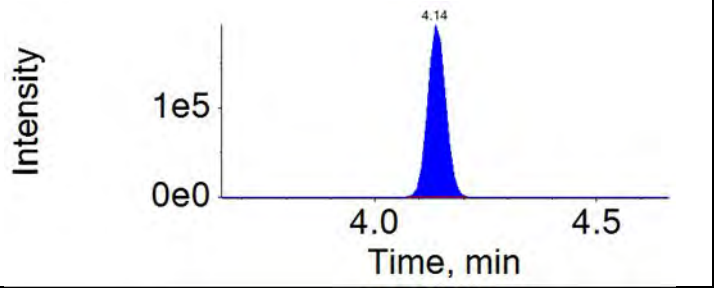
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

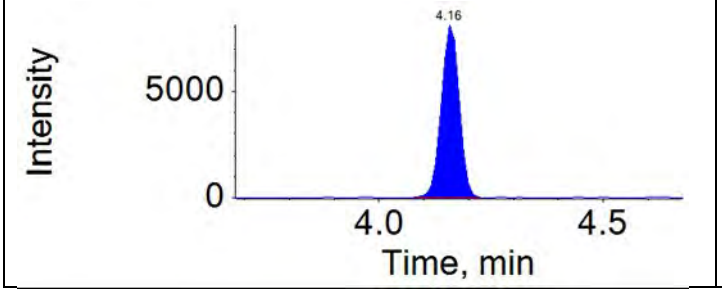
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

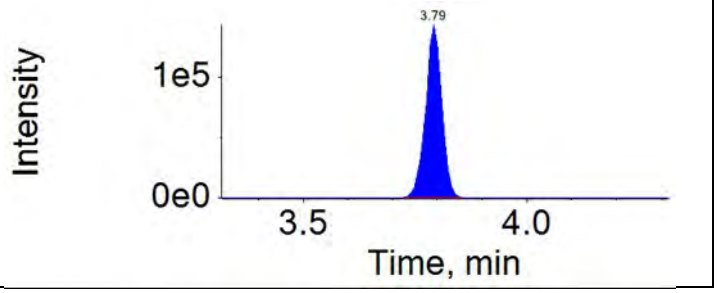
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



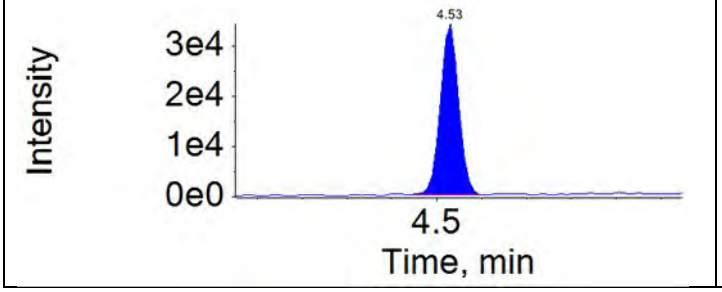


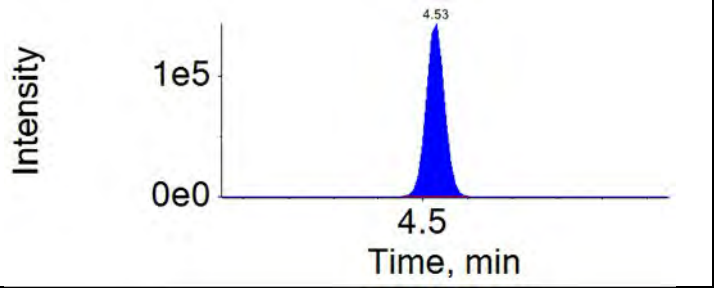
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



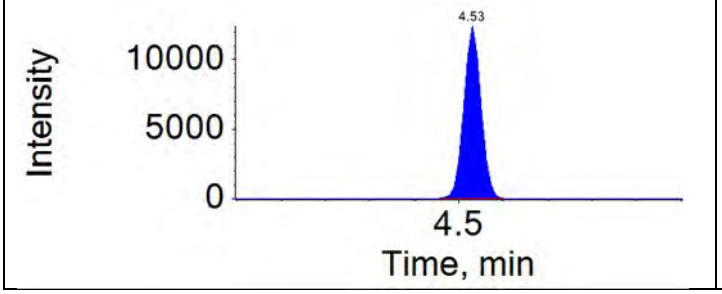


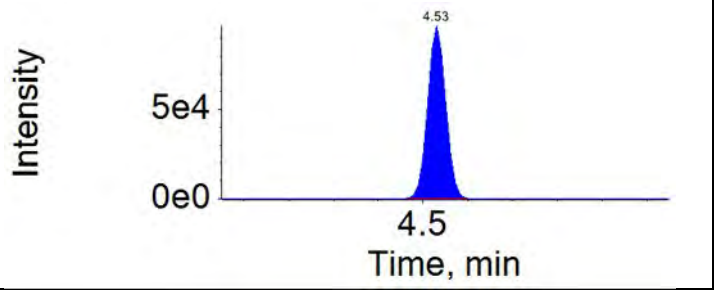
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

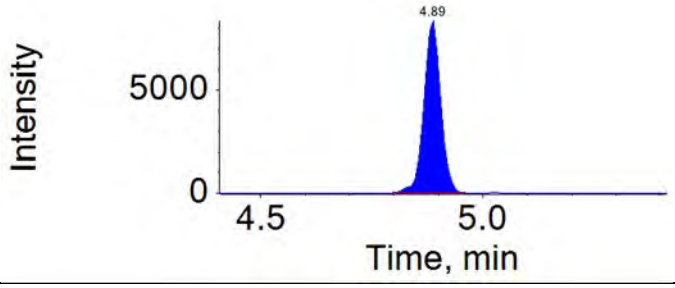
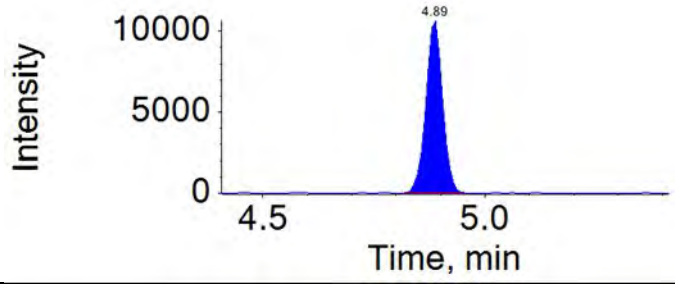


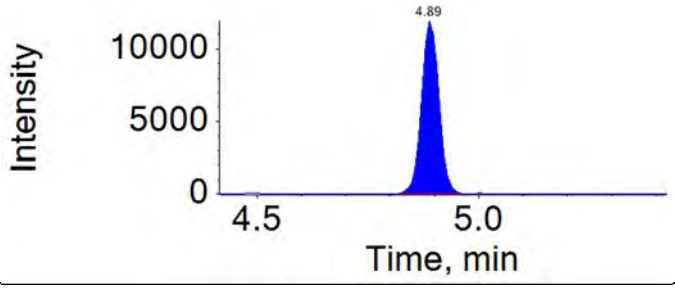
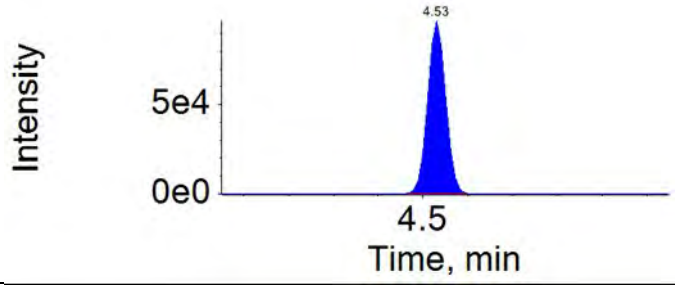


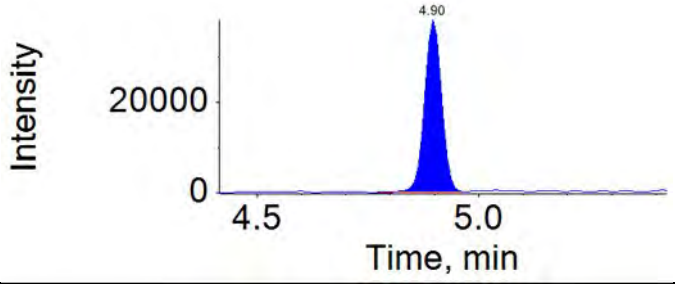
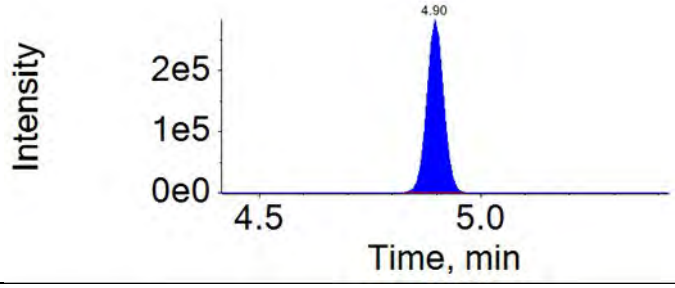
APPROVED
By MCD at 4:51 pm, 11/14/18

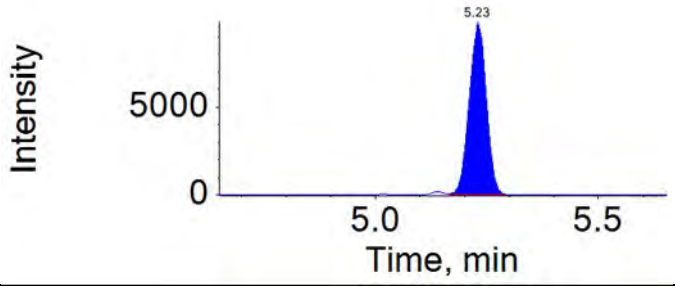
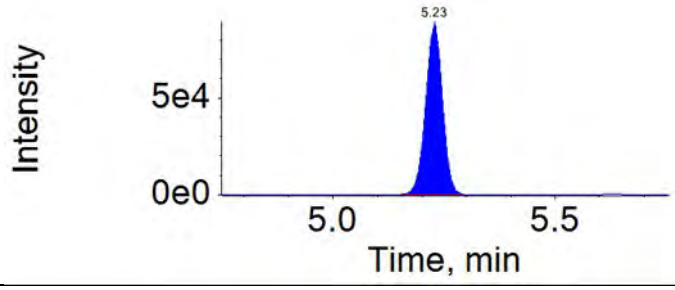
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

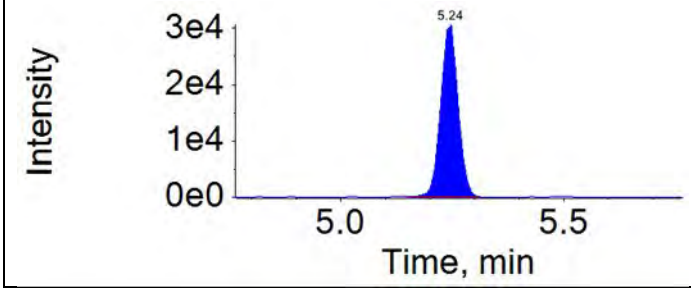
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

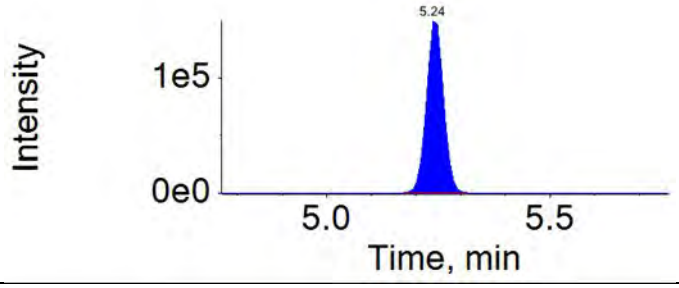
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

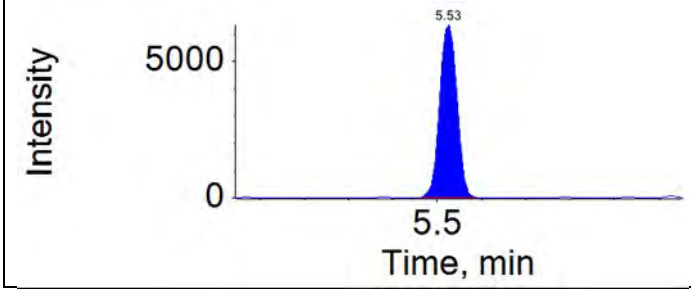
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

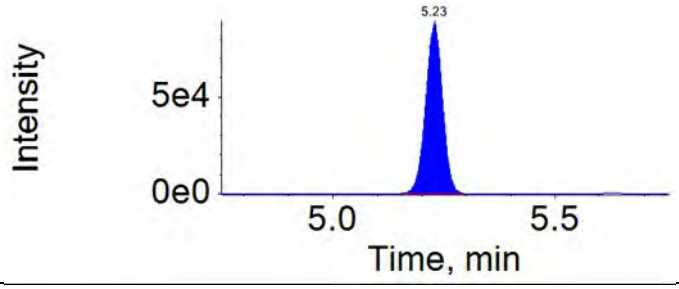
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



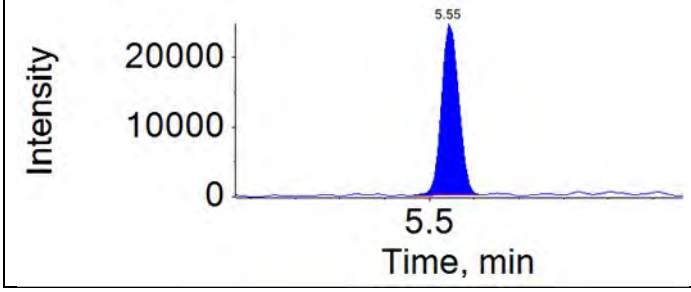


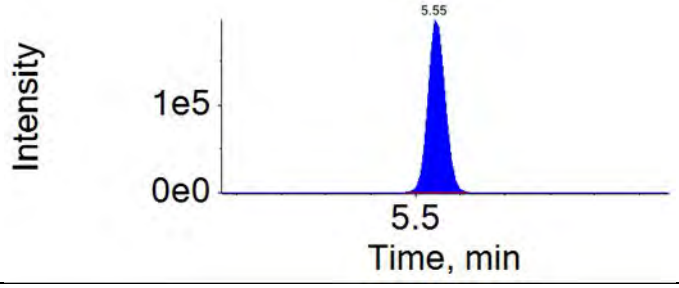
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



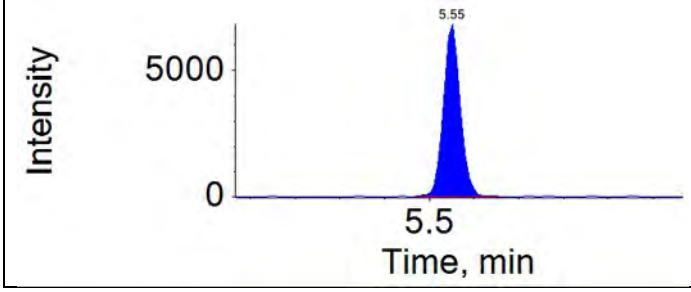


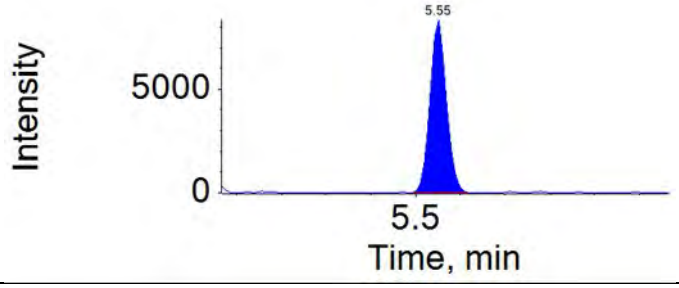
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



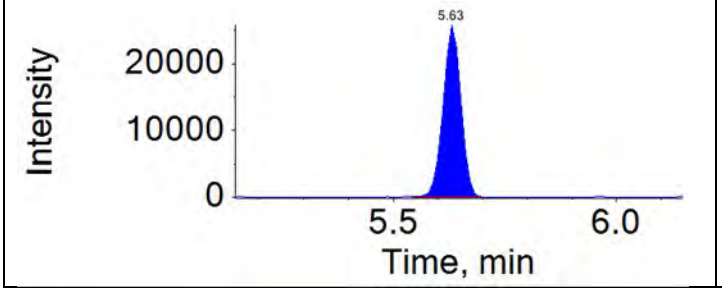


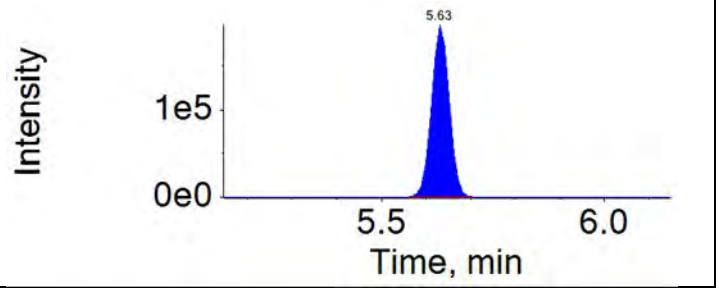
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

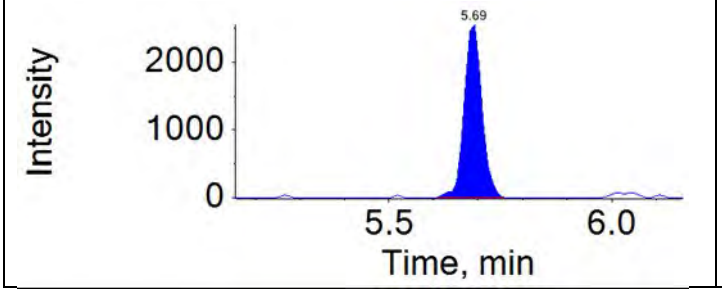
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

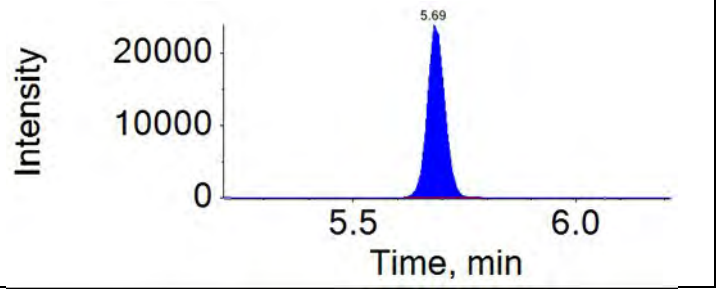
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



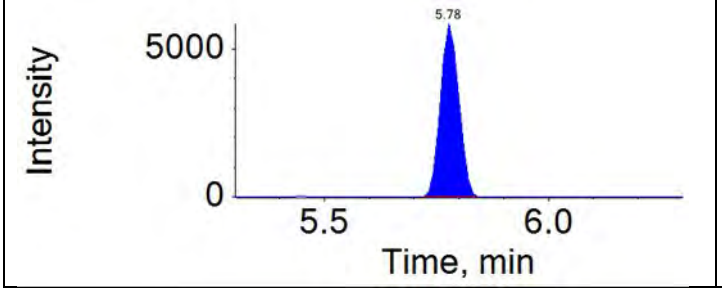


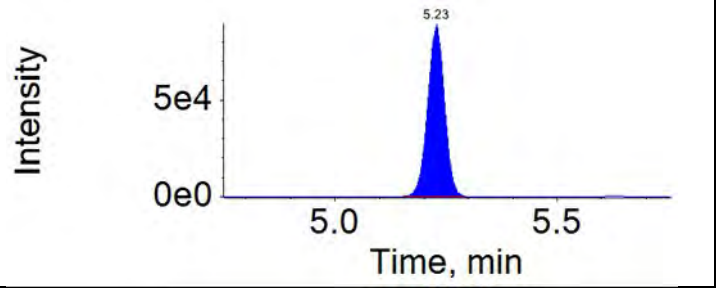
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



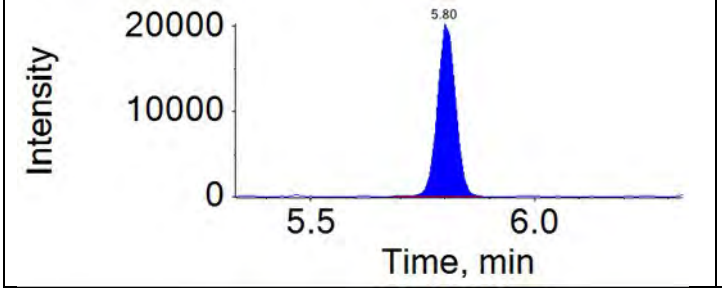


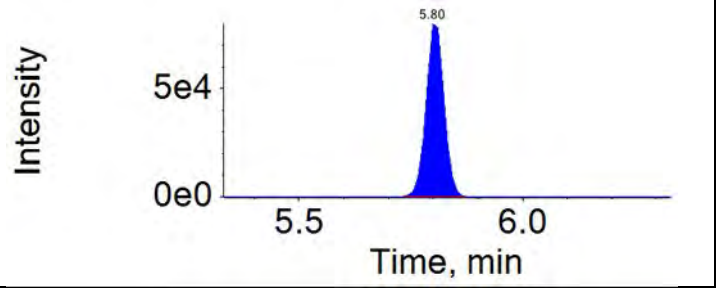
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



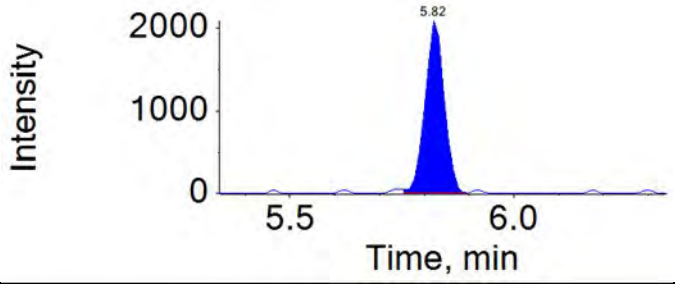


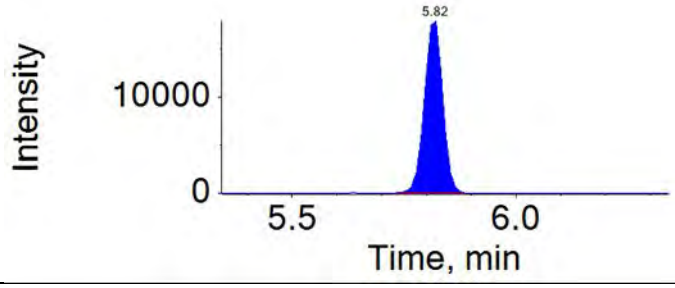
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

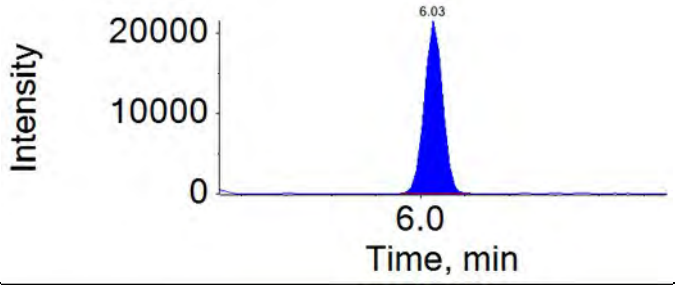
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

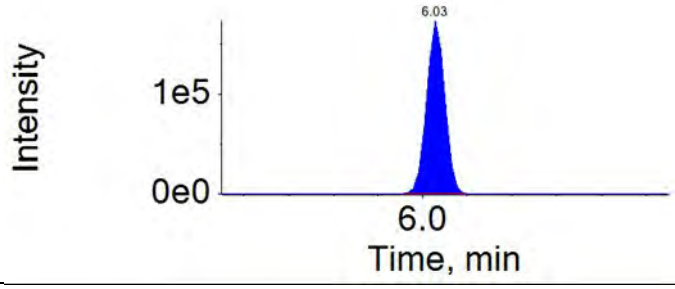
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



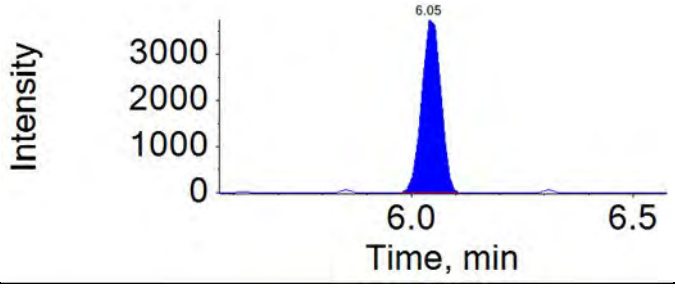


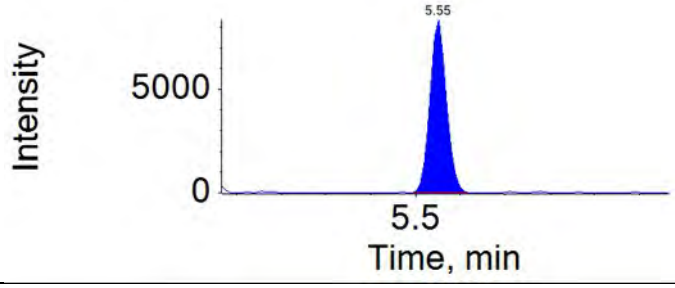
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



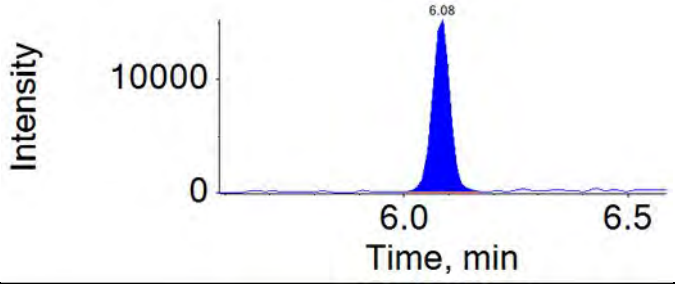


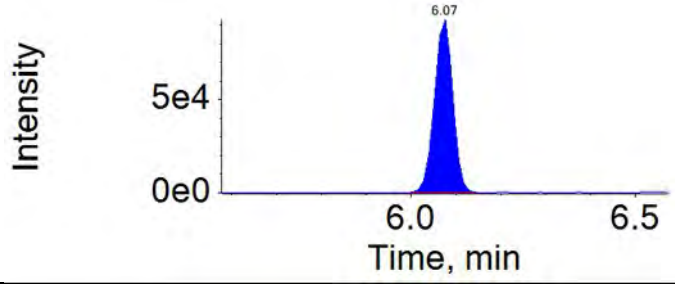
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



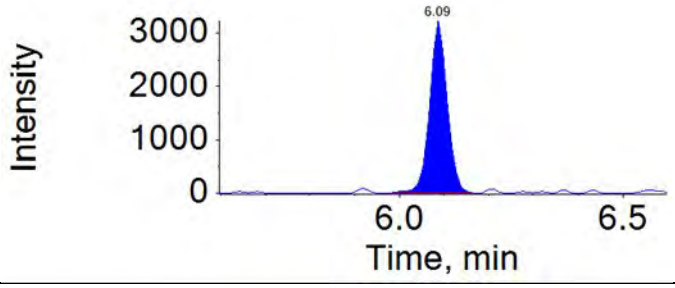


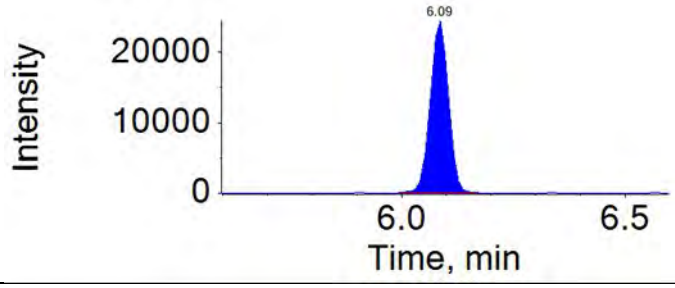
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

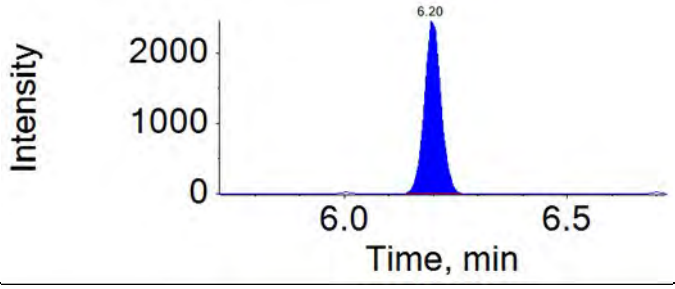
ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

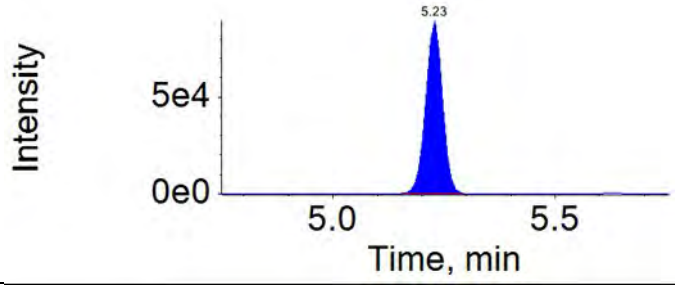
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



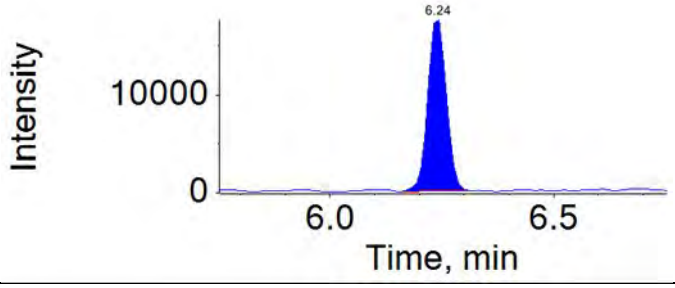


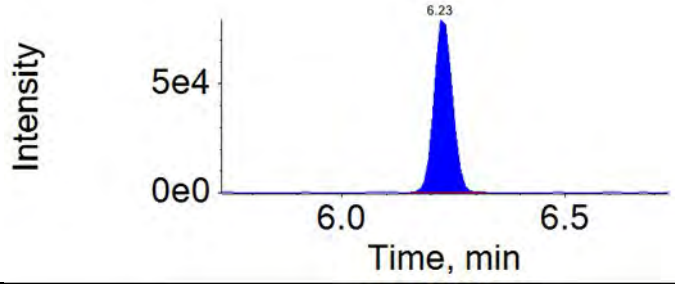
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



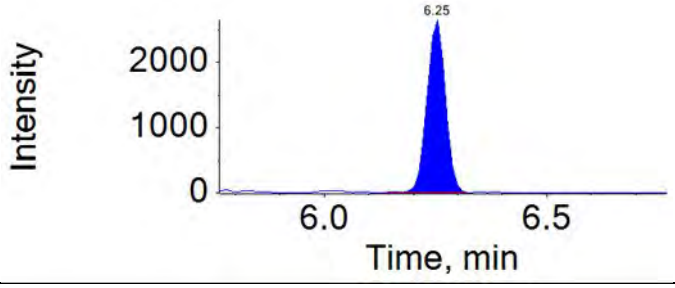


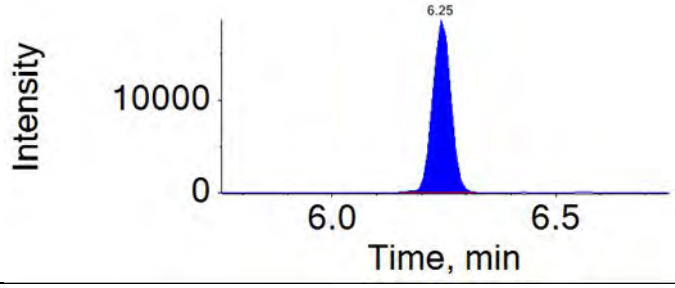
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

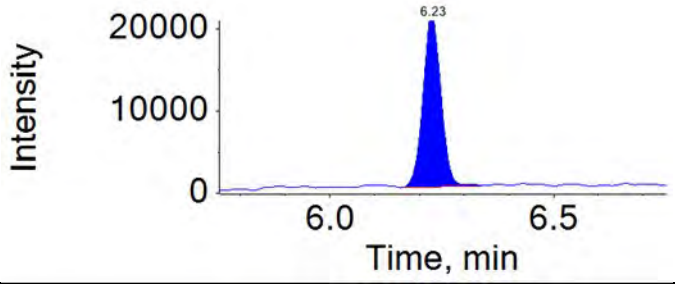
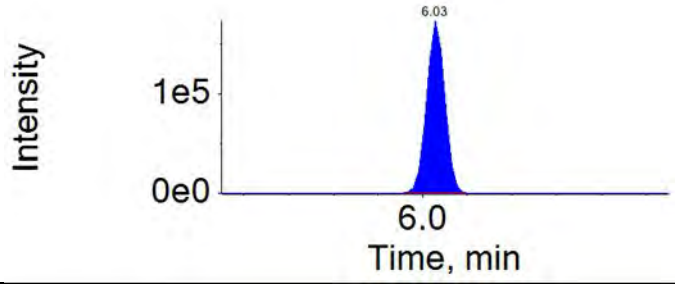


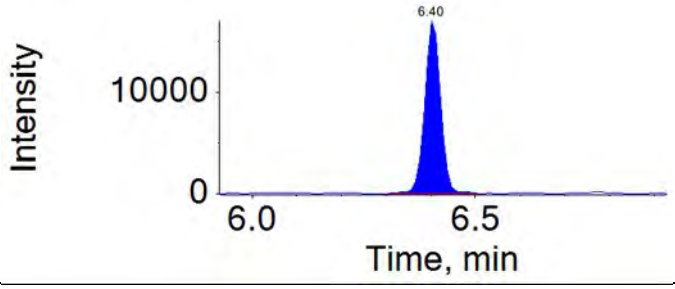
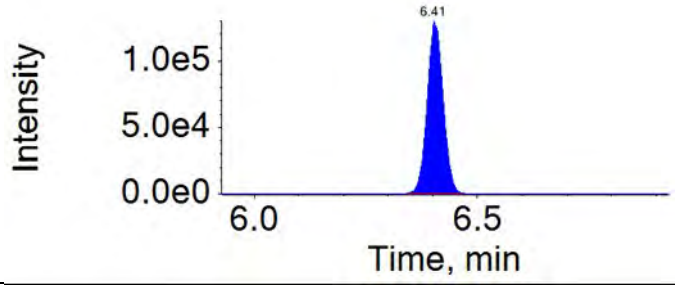


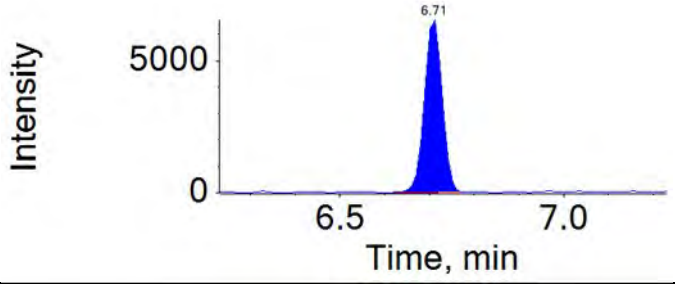
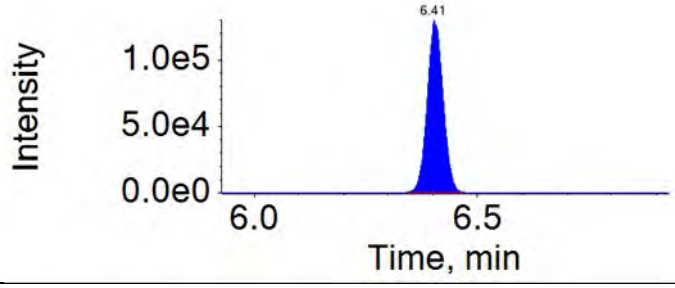
APPROVED
By MCD at 4:51 pm, 11/14/18

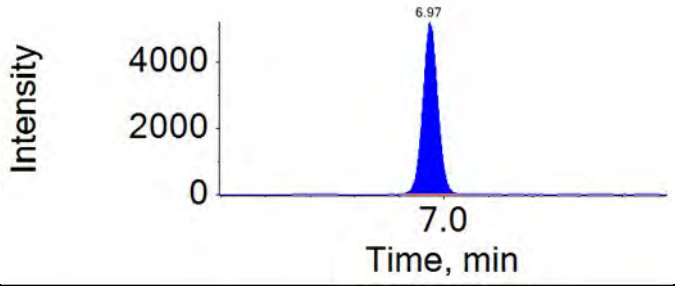
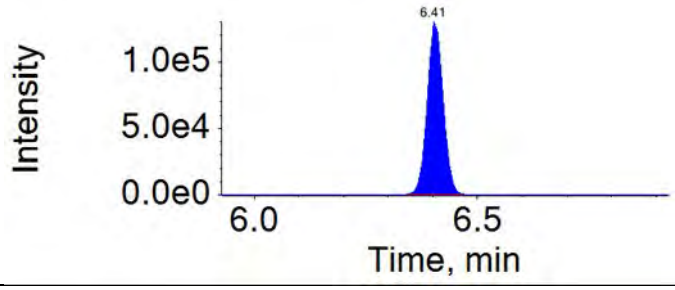
REVIEWED
By HMK at 12:22 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18316011 11/14/2018 4:24:36 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

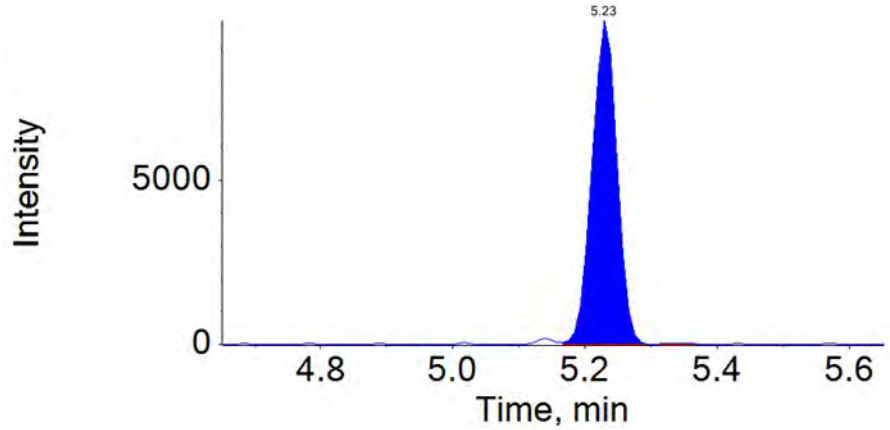
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

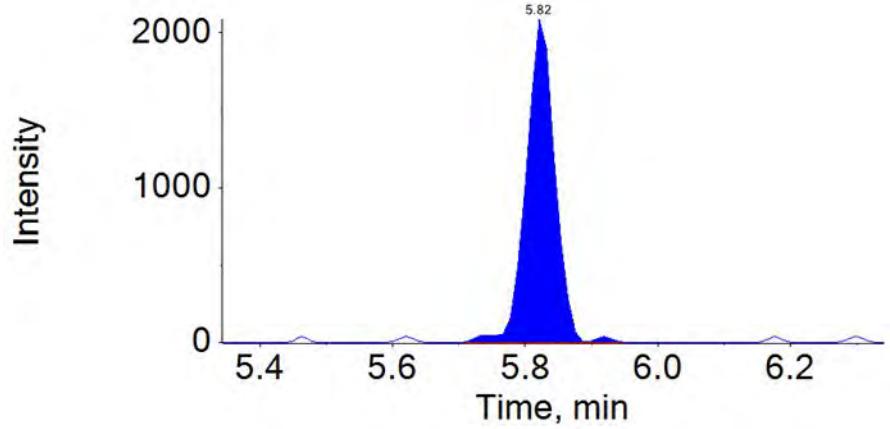
Results Table Name: 18316011
Results Table Date: 11/14/2018 4:24:36 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.23
Peak Area:
26114.1
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011



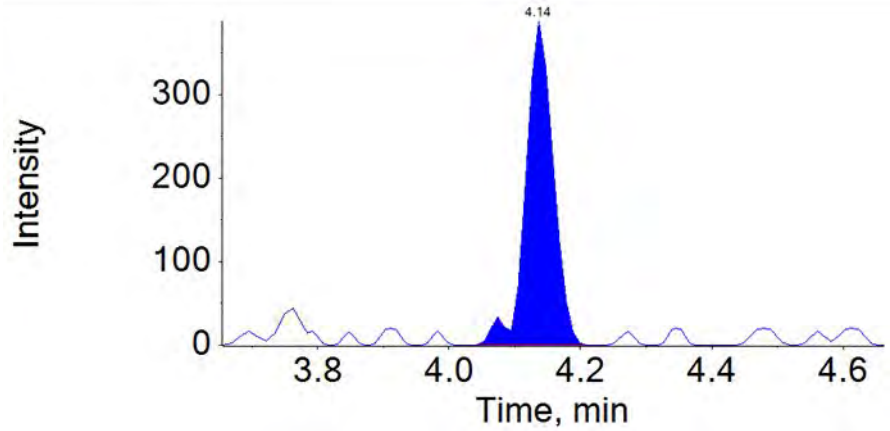
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.82
Peak Area:
6350.5
Mass Range:
584.0 / 419.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011



Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
4.14
Peak Area:
1136.2
Mass Range:
313.0 / 119.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011



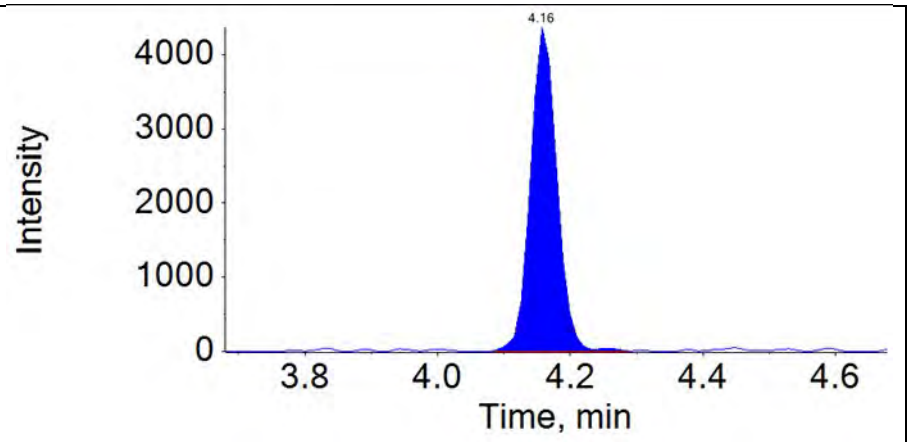
Integration Comment: incorrect integration

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

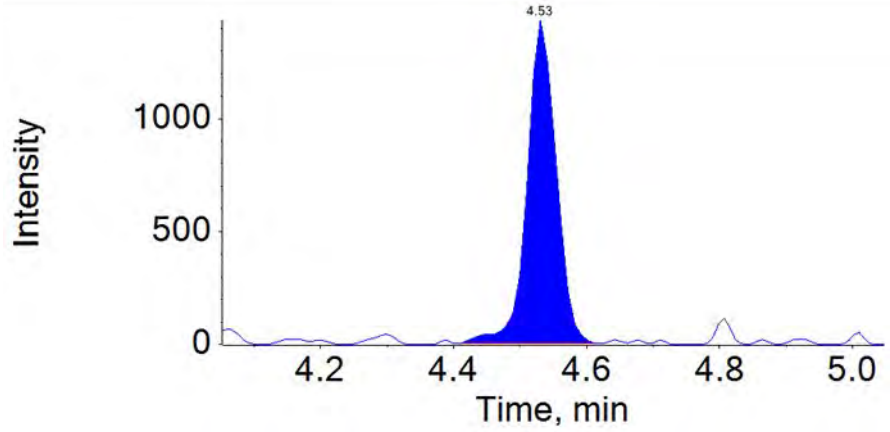
Results Table Name: 18316011
Results Table Date: 11/14/2018 4:24:36 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFPeS_2
RT (min.):
4.16
Peak Area:
12101.2
Mass Range:
349.0 / 99.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011



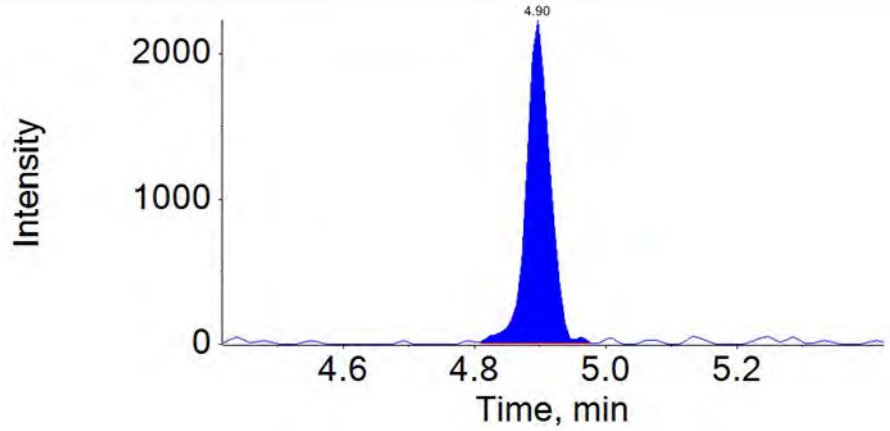
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.53
Peak Area:
4386.3
Mass Range:
363.0 / 169.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011



Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.90
Peak Area:
5570.7
Mass Range:
413.0 / 169.0
File Name:
18NOV13D-50.wiff
Sample Name:
LCS316011

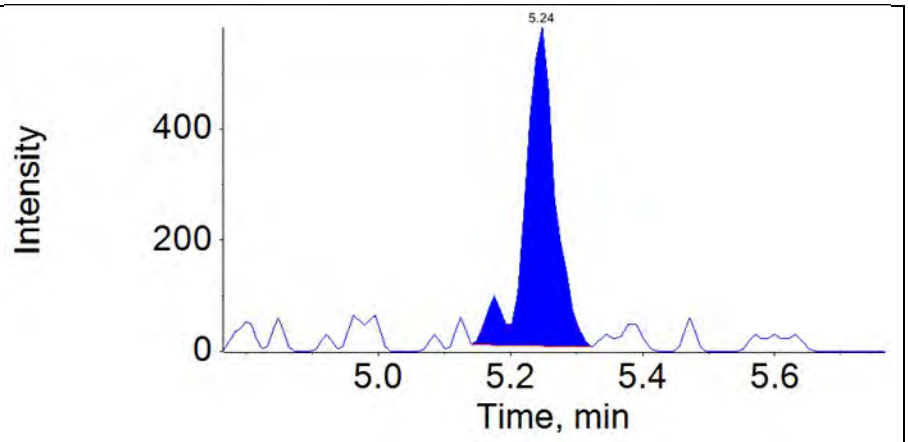


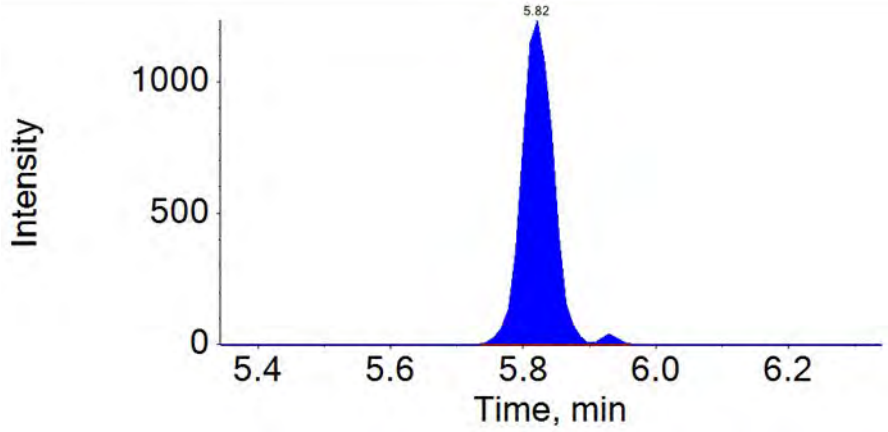
Integration Comment: incorrect integration

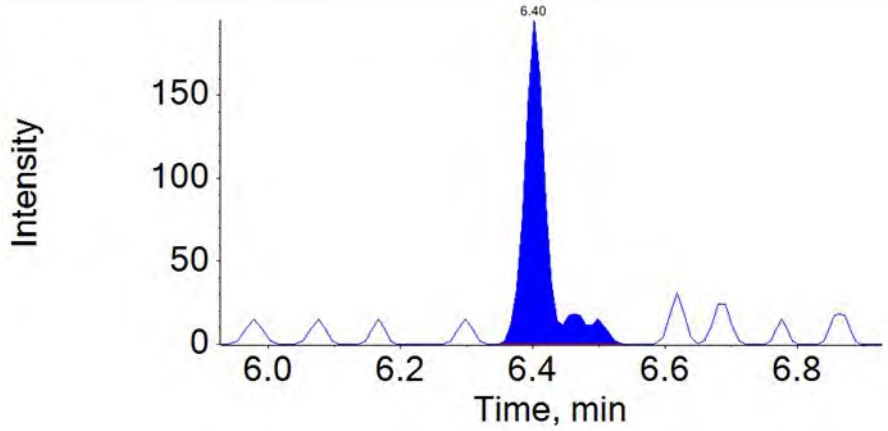
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Results Table Name: 18316011
Results Table Date: 11/14/2018 4:24:36 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFNA_2 **RT (min.):** 5.24 **Peak Area:** 1830.1 **Mass Range:** 463.0 / 169.0 **File Name:** 18NOV13D-50.wiff **Sample Name:** LCS316011	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.82 **Peak Area:** 4153.0 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV13D-50.wiff **Sample Name:** LCS316011	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** 6.40 **Peak Area:** 465.8 **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV13D-50.wiff **Sample Name:** LCS316011	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Results Table Name: 18316011
Results Table Date: 11/14/2018 4:24:36 PM

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

APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

Ion Ratio Report

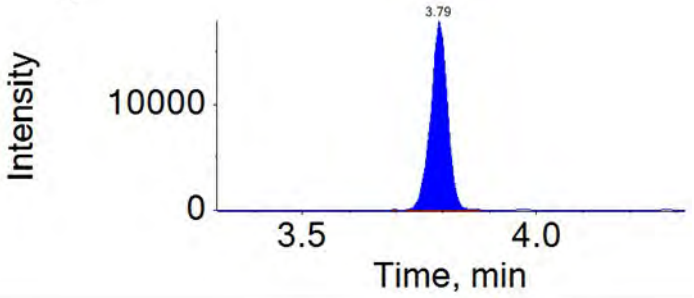
Sample Name: LCS316011 **Instrument Name:** LM27631 **File Name:** 18NOV13D-50.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.79	1.00	44459.9	A	N/A	0.3872			
PFBS_2	3.79	1.00	17215.6	A	N/A	0.3872	7	50	
4:2-FTS	4.11	1.00	25692.9	A	N/A	0.6485			
4:2 FTS_2	4.10	1.00	16660.7	A	N/A	0.6485		#NA!	
PFHxA	4.14	1.00	97616.4	A	N/A	0.0111			
PFHxA_2	4.14	1.00	1082.5	M	N/A	0.0111	-5	50	
PFPeS	4.16	1.10	22641.9	A	N/A	0.5320			
PFPeS_2	4.16	1.10	12045.7	M	N/A	0.5320	2	50	
PFHpA	4.53	1.00	96030.7	A	N/A	0.0449			
PFHpA_2	4.53	1.00	4315.4	M	N/A	0.0449	-20	50	
PFHxS	4.53	1.00	33226.6	A	N/A	0.3796			
PFHxS_2	4.53	1.00	12614.4	A	N/A	0.3796	11	50	
6:2-FTS	4.89	1.00	22116.6	A	N/A	0.6383			
6:2 FTS_2	4.89	1.00	14116.8	A	N/A	0.6383		#NA!	
PFHpS	4.89	1.08	32856.0	A	N/A	0.4217			
PFHpS_2	4.89	1.08	13856.2	A	N/A	0.4217	4	50	
PFOA	4.90	1.00	101181.5	A	N/A	0.0547			
PFOA_2	4.90	1.00	5534.5	M	N/A	0.0547	-3	50	
PFOS	5.23	1.00	26030.2	M	N/A	0.4150			
PFOS_2	5.23	1.00	10803.6	A	N/A	0.4150	40	50	
PFNA	5.24	1.00	82610.8	A	N/A	0.0205			
PFNA_2	5.24	1.00	1690.5	M	N/A	0.0205	-11	50	
PFNS	5.53	1.06	17156.0	A	N/A	0.5041			
PFNS_2	5.52	1.06	8649.0	A	N/A	0.5041	4	50	
PFDA	5.55	1.00	65605.2	A	N/A	0.0116			
PFDA_2	5.53	1.00	763.7	A	N/A	0.0116	44	50	
8:2-FTS	5.55	1.00	17909.5	A	N/A	0.6034			
8:2 FTS_2	5.55	1.00	10807.0	A	N/A	0.6034		#NA!	
NMeFOSAA	5.69	1.00	7050.1	A	N/A	0.1981			
NMeFOSAA_2	5.69	1.00	1397.0	A	N/A	0.1981	-23	50	
PFDS	5.78	1.11	16592.0	A	N/A	0.4374			
PFDS_2	5.78	1.11	7257.6	A	N/A	0.4374	-15	50	
PFUnDA	5.80	1.00	57012.9	A	N/A	0.0081			
PFUnDA_2	5.79	1.00	461.9	A	N/A	0.0081	39	50	
NEtFOSAA	5.82	1.00	6188.8	M	N/A	0.6601			
NEtFOSAA_2	5.82	1.00	4085.0	M	N/A	0.6601	-9	50	
PFDoDA	6.03	1.00	60776.2	A	N/A	0.0123			
PFDoDA_2	6.04	1.00	750.1	A	N/A	0.0123	-21	50	
10:2-FTS	6.05	1.09	11237.1	A	N/A	0.7742			
10:2 FTS_2	6.05	1.09	8699.9	A	N/A	0.7742		#NA!	
PFTrDA	6.23	1.03	57959.2	A	N/A	0.0094			
PFTrDA_2	6.23	1.03	545.2	A	N/A	0.0094	10	50	
PFTeDA	6.40	1.00	41782.5	A	N/A	0.0097			
PFTeDA_2	6.40	1.00	404.5	M	N/A	0.0097	55	50	OOS
PFHxDA	6.71	1.05	17968.3	A	N/A	0.0626			
PFHxDA_2	6.71	1.05	1124.6	A	N/A	0.0626	-8	50	
PFODA	6.97	1.09	11942.1	A	N/A	0.0298			
PFODA_2	6.97	1.09	356.2	A	N/A	0.0298	8	50	

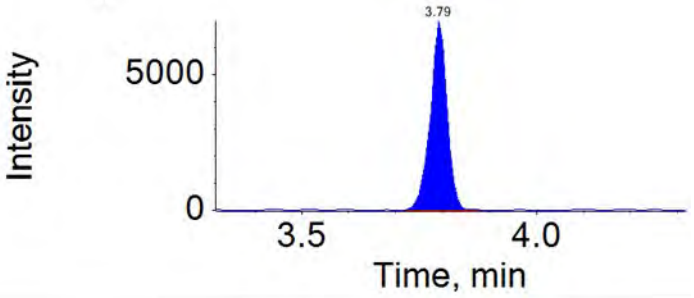
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

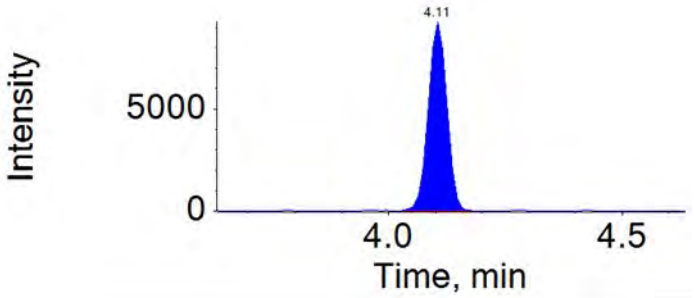
Component: PFBS
Primary Mass: 299.0 / 80.0



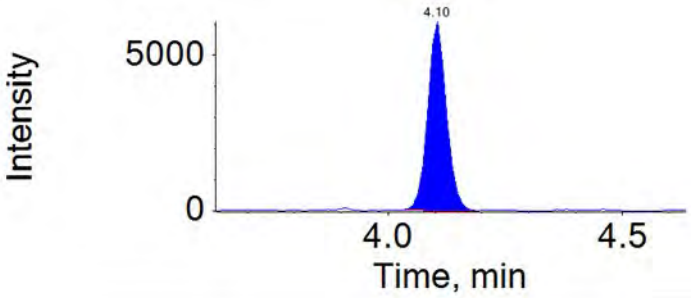
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



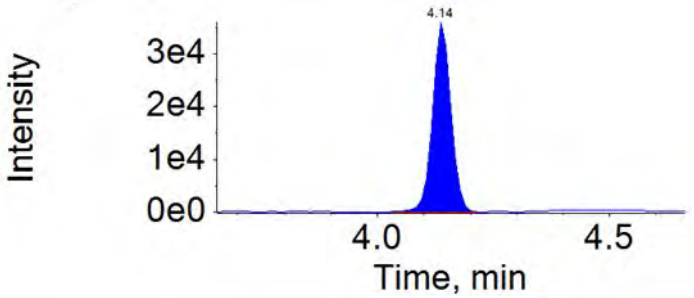
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



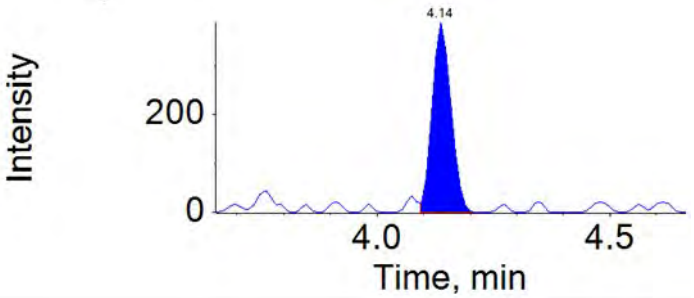
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



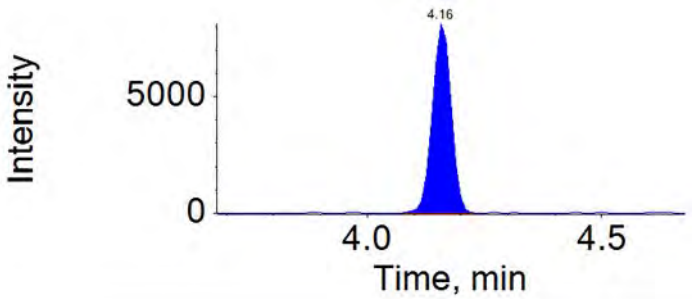
Component: PFHxA
Primary Mass: 313.0 / 269.0



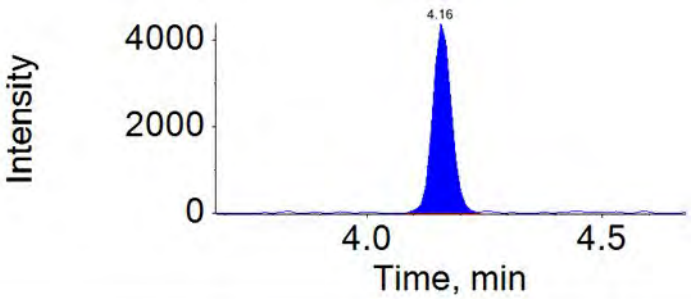
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 4:51 pm, 11/14/18

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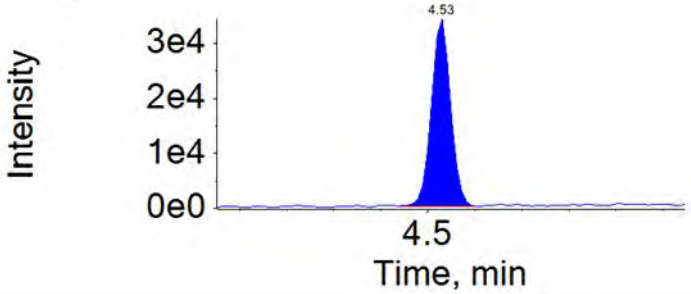
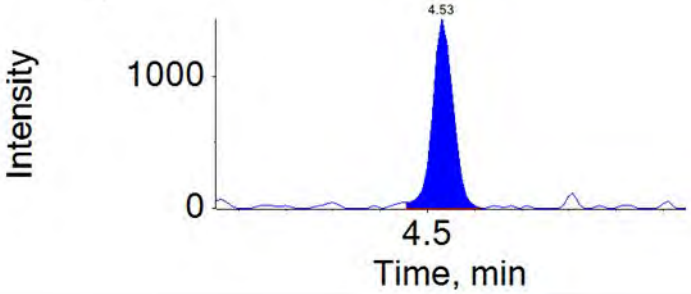
By HMK at 12:22 pm, 11/15/18

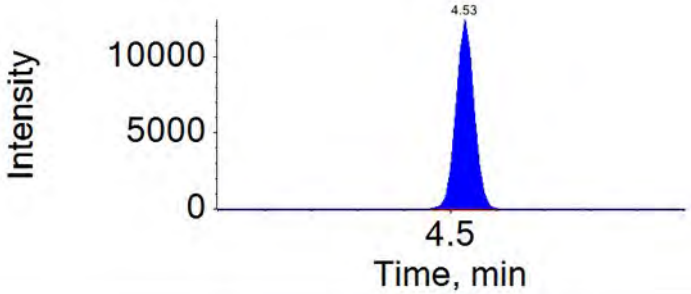
Component: PFHpA
Primary Mass: 363.0 / 319.0



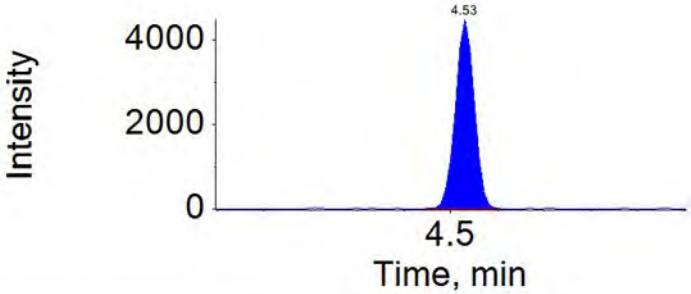
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



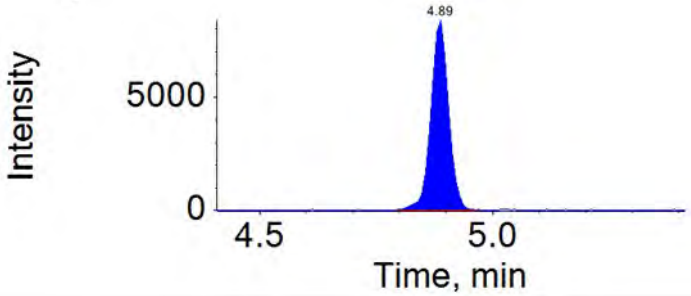
Component: PFHxS
Primary Mass: 399.0 / 80.0



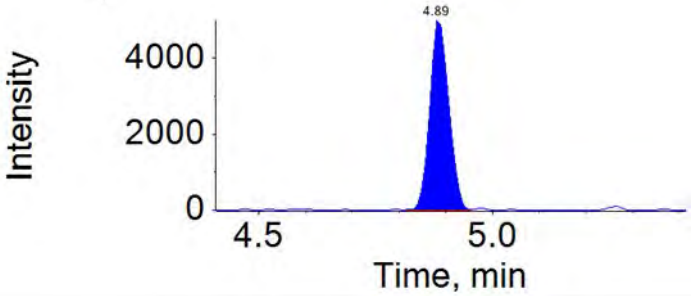
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



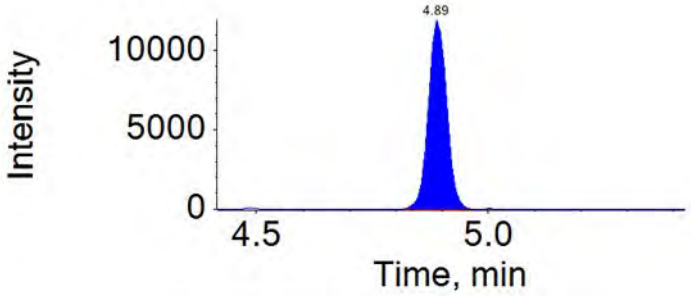
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



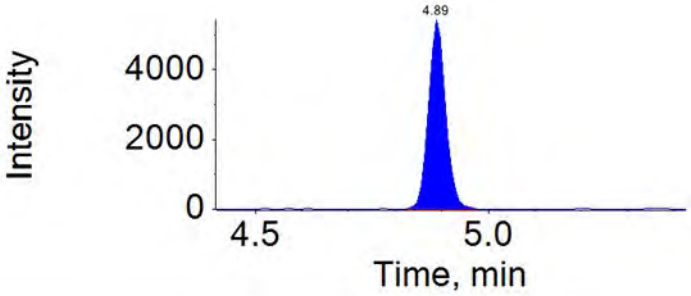
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



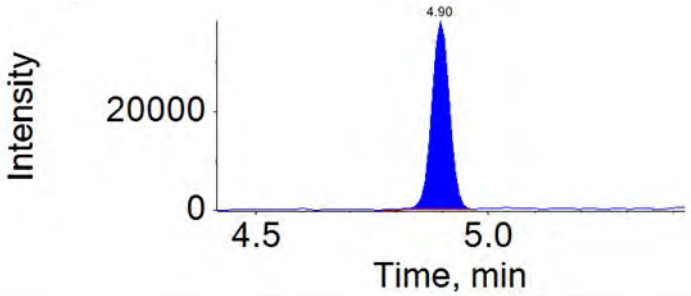
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



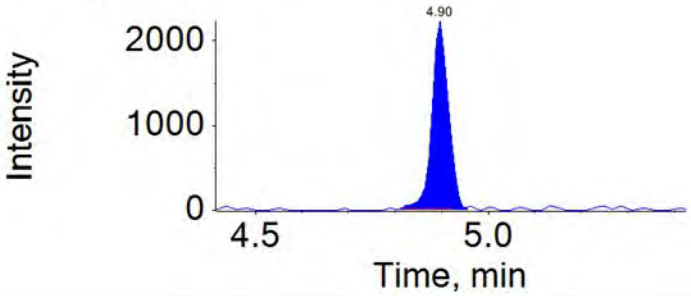
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

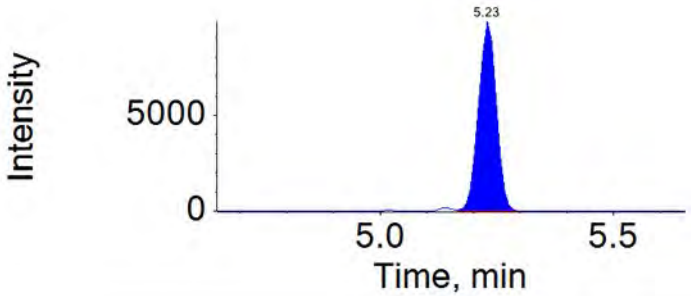
Component: PFOA
Primary Mass: 413.0 / 369.0



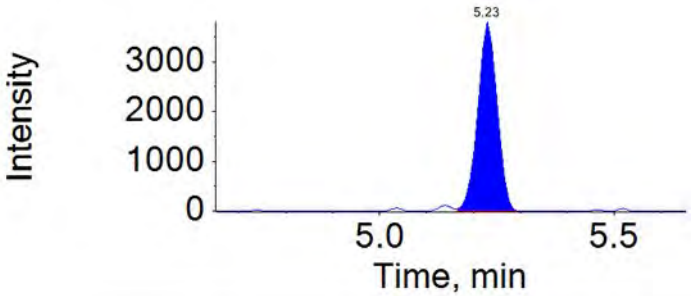
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



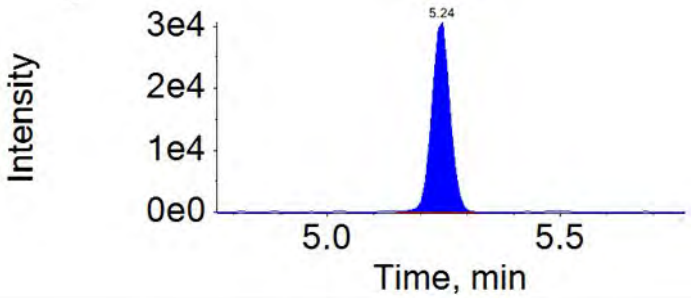
Component: PFOS
Primary Mass: 499.0 / 80.0



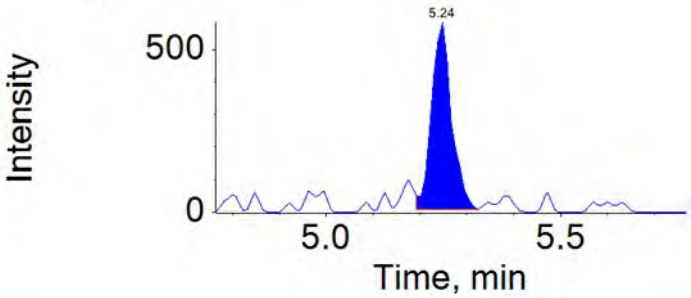
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



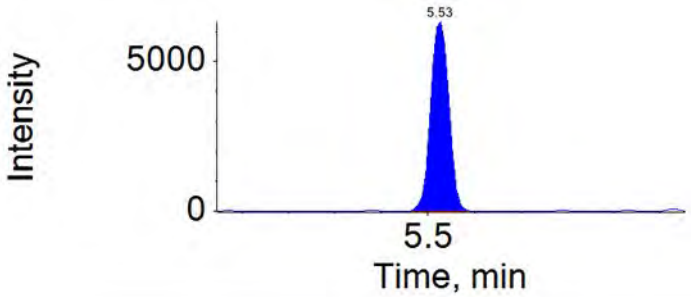
Component: PFNA
Primary Mass: 463.0 / 419.0



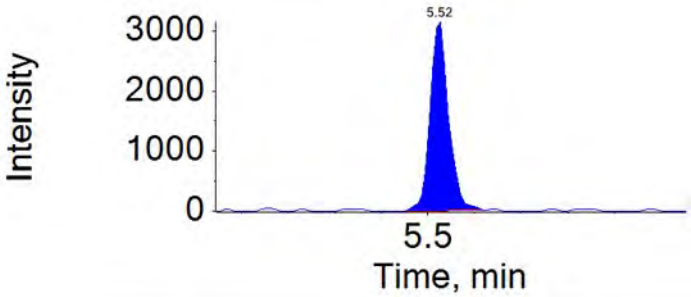
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



APPROVED
By MCD at 4:51 pm, 11/14/18

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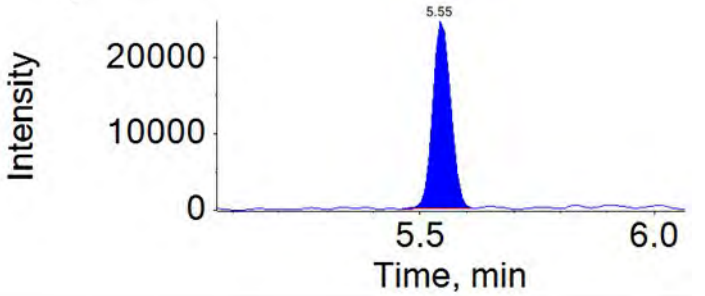
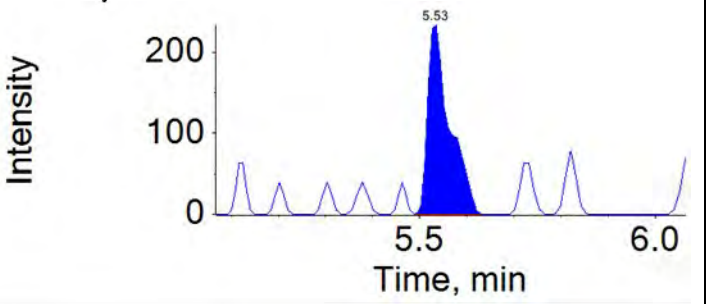
By HMK at 12:22 pm, 11/15/18

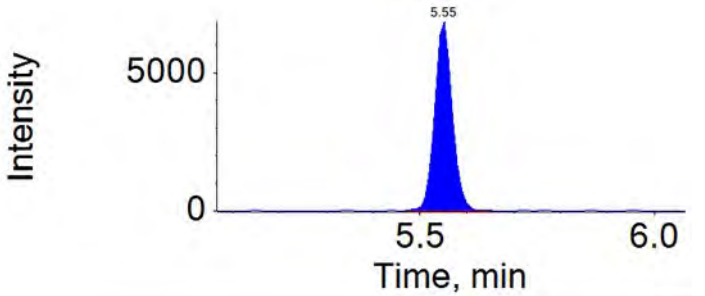
Component: PFDA
Primary Mass: 513.0 / 469.0



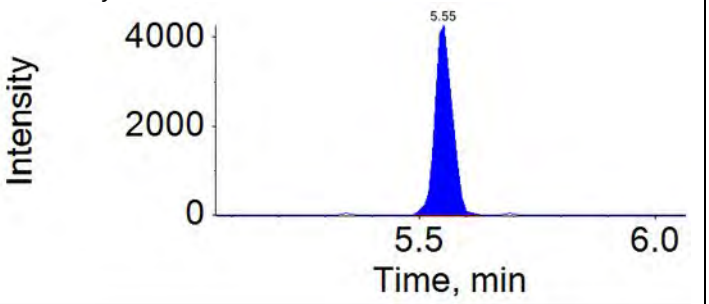
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



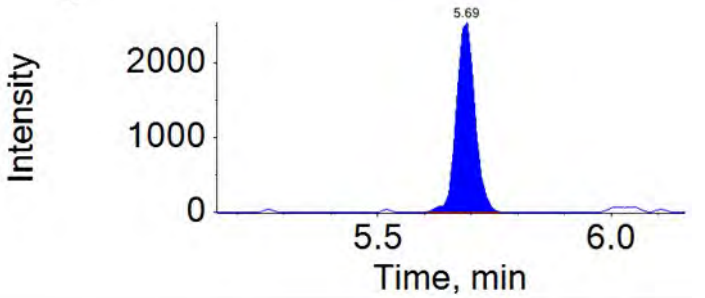
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



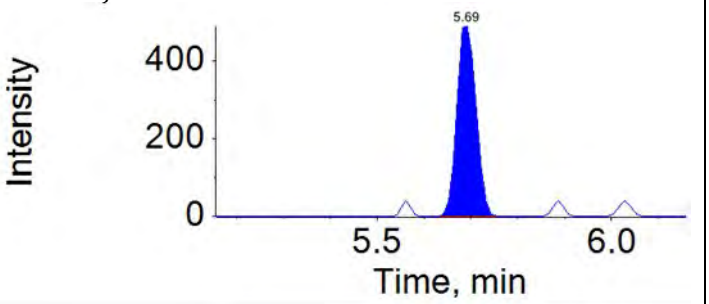
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



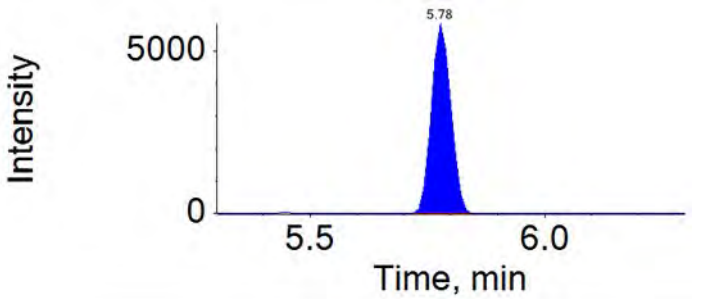
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



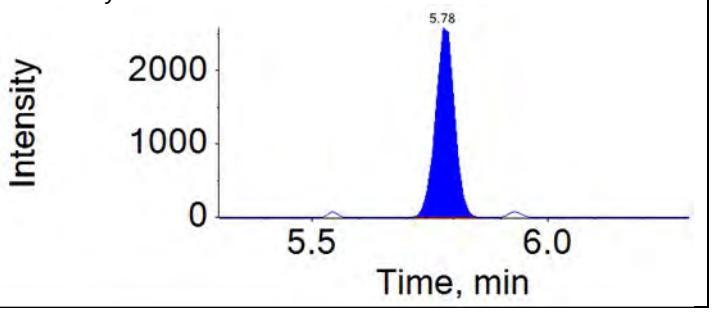
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



APPROVED
By MCD at 4:51 pm, 11/14/18

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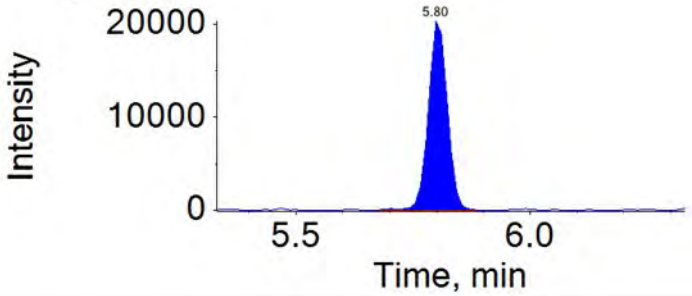
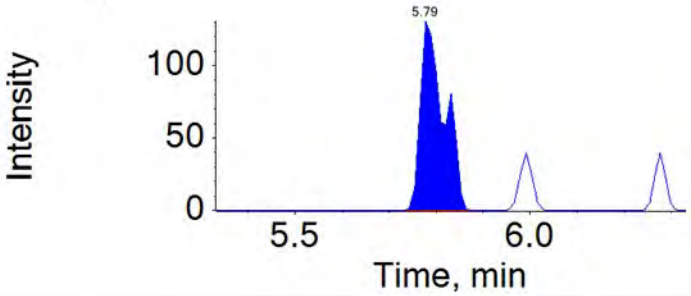
By HMK at 12:22 pm, 11/15/18

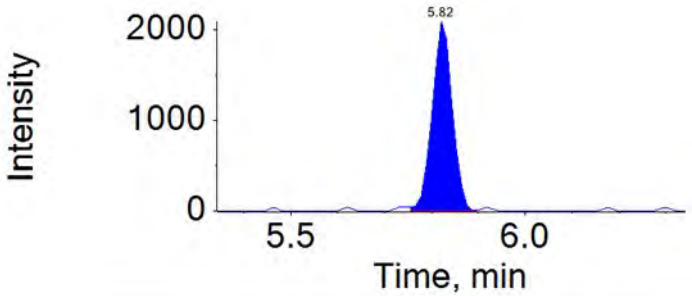
Component: PFUnDA
Primary Mass: 563.0 / 519.0



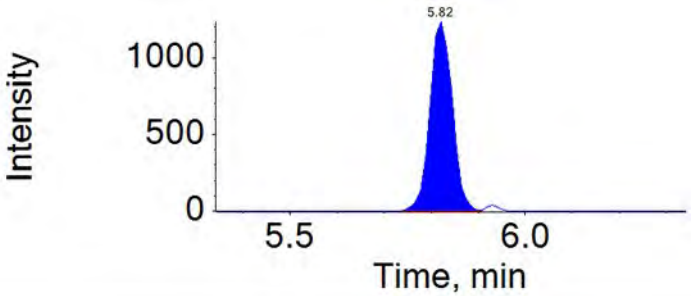
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



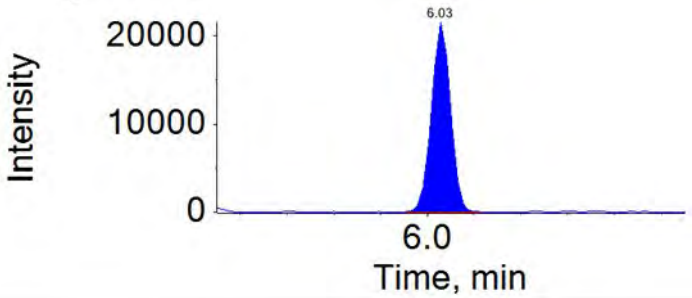
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



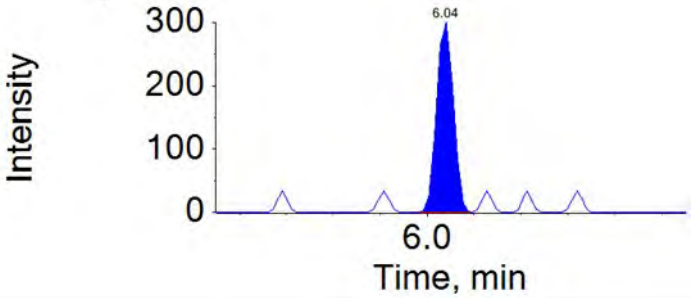
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



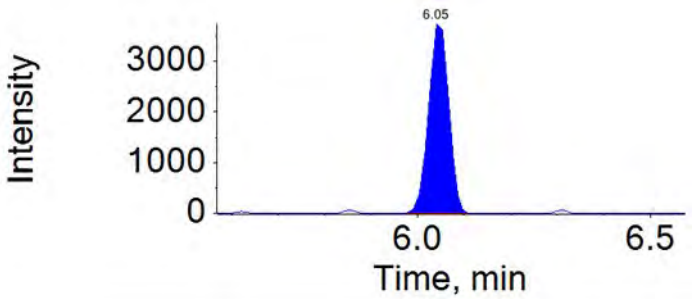
Component: PFDoDA
Primary Mass: 613.0 / 569.0



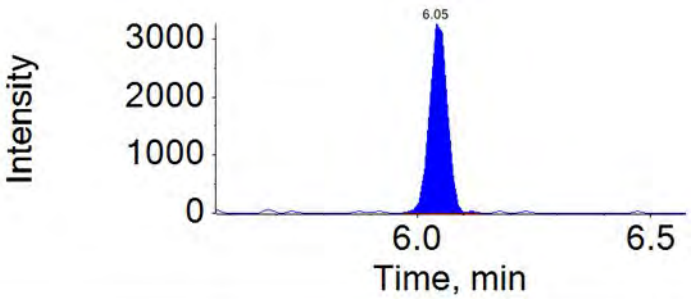
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



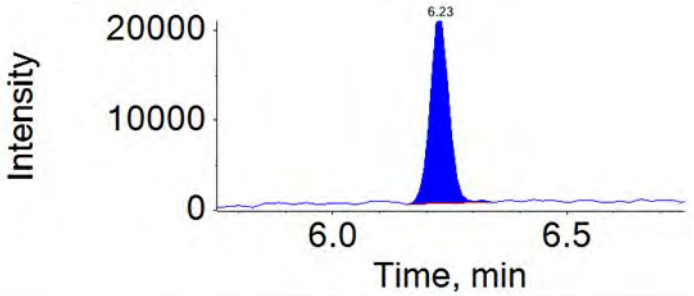
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



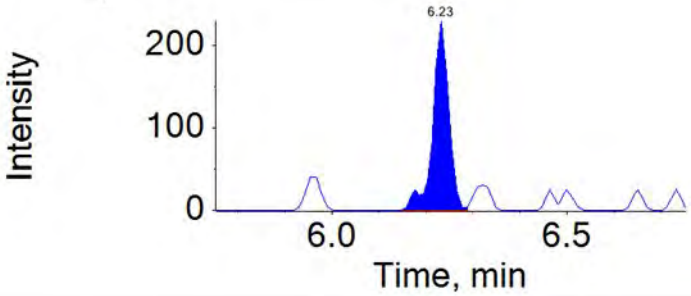
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



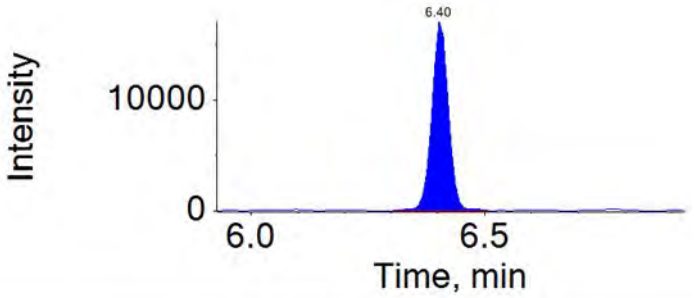
Component: PFTrDA
Primary Mass: 663.0 / 619.0



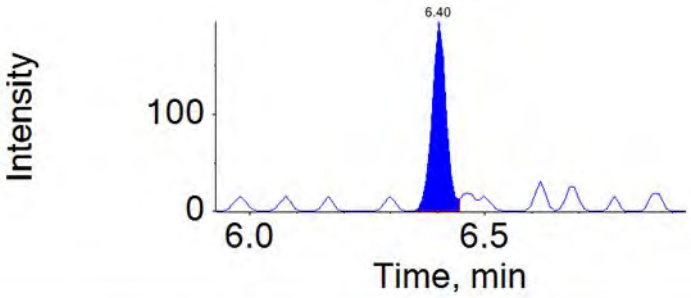
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



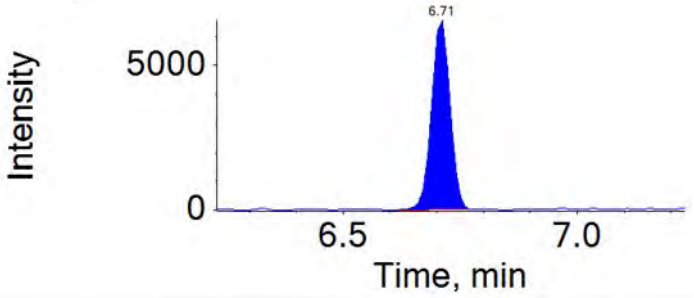
Component: PFTeDA
Primary Mass: 713.0 / 669.0



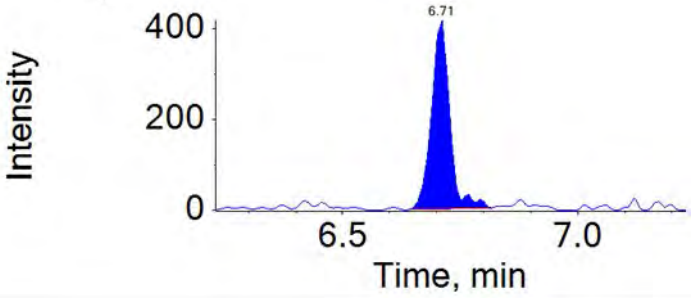
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



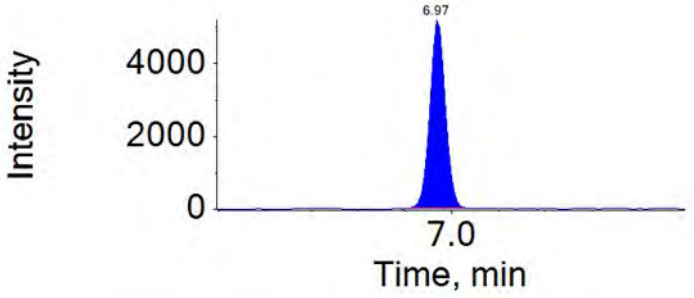
Component: PFHxDA
Primary Mass: 813.0 / 769.0



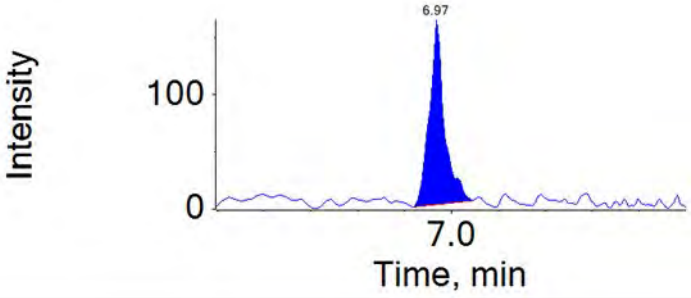
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



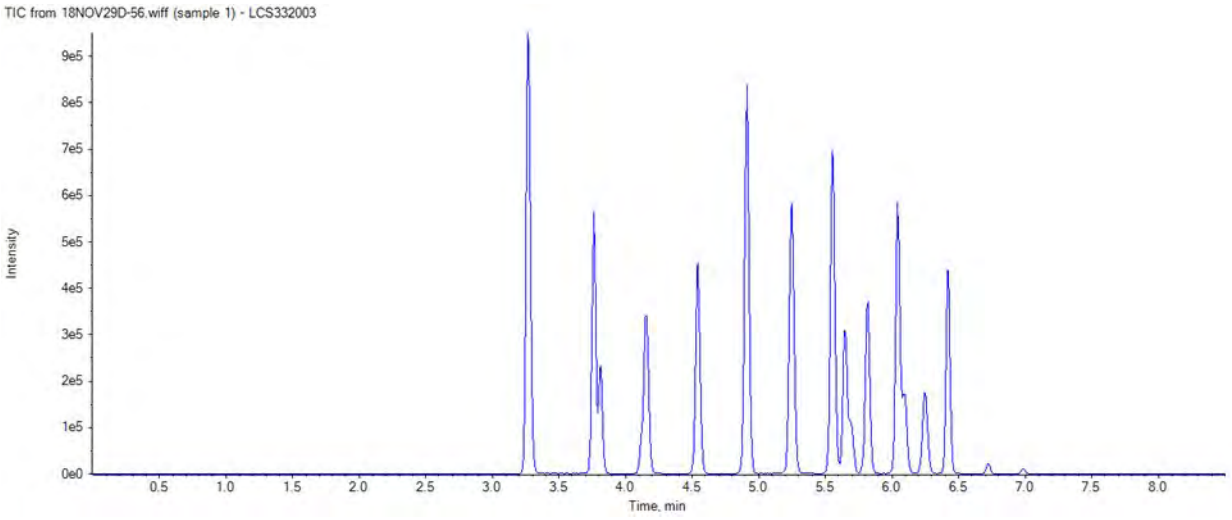
APPROVED
By MCD at 4:51 pm, 11/14/18

REVIEWED
By HMK at 12:22 pm, 11/15/18

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

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



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

REVIEWED
By HMK at 2:27 pm, 12/6/18

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	
PFTrDA	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

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

REVIEWED
By HMK at 2:27 pm, 12/6/18

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

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **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	

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

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

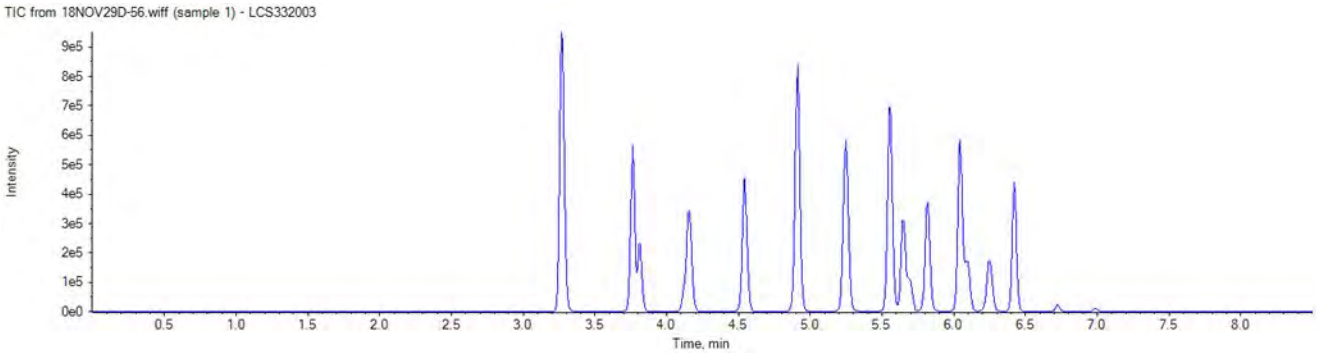
Analyte Quantitation Peak Table

Sample Name: LCS332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-56.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	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
PFDoDA	6.04	1.000	127385.4		A	13C2-PFDoDA	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
PFDoS	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
PFTrDA	6.24	1.030	125876.8		A	13C2-PFDoDA	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

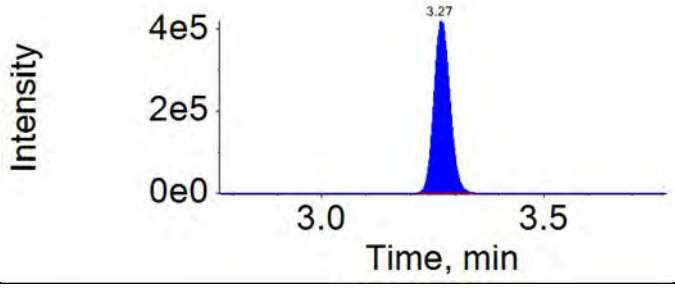


APPROVED
By MCD at 10:13 pm, 11/30/18

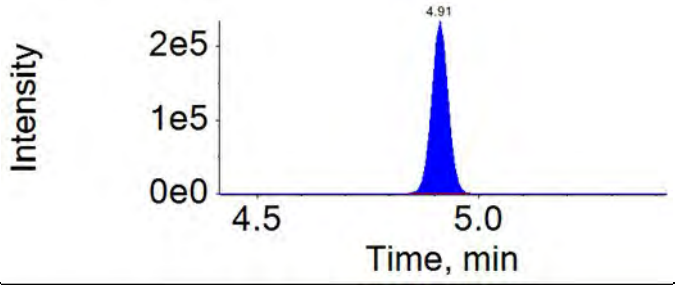
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

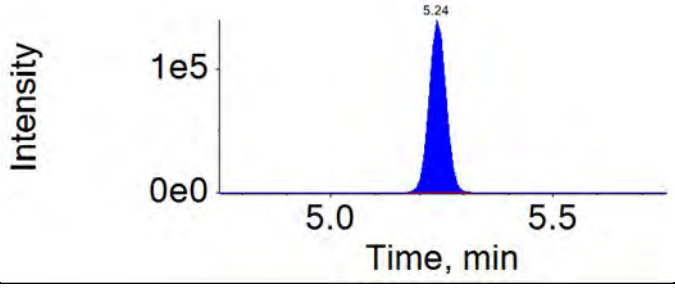
Injection Standard: 13C3-PFBA
216.0 / 172.0



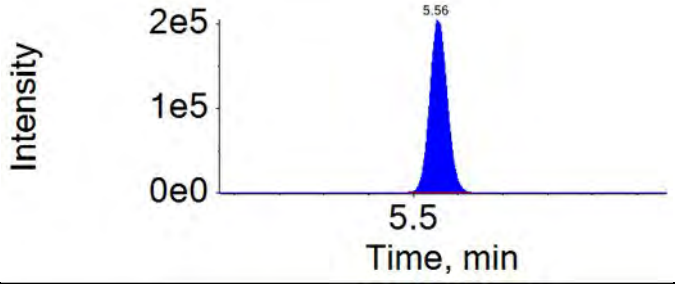
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

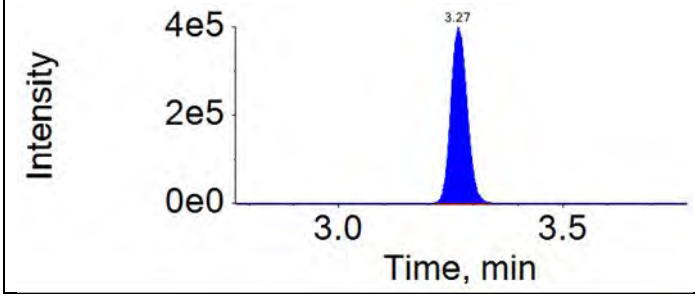


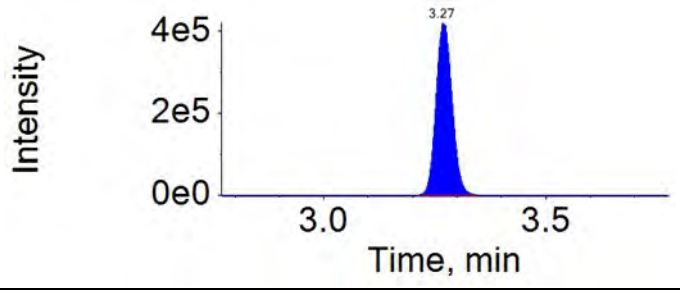
Injection Standard: 13C2-PFDA
515.0 / 470.0



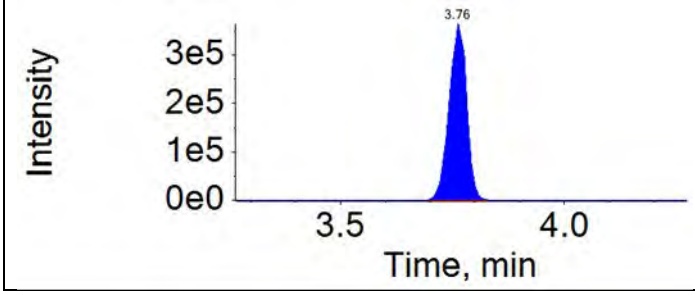
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

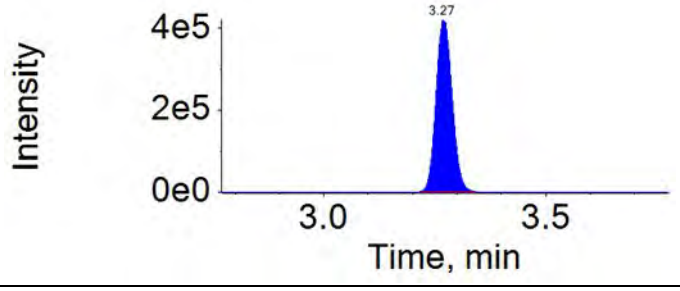
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



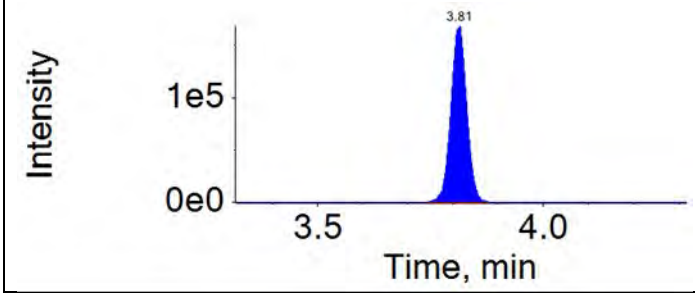


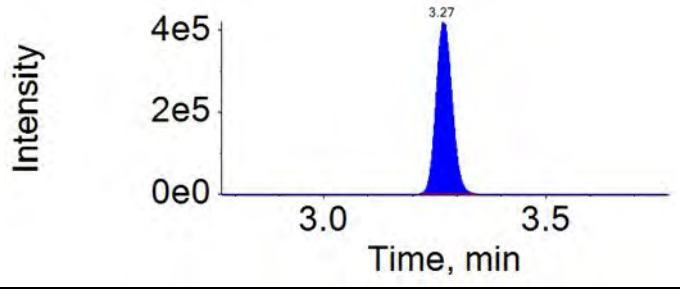
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



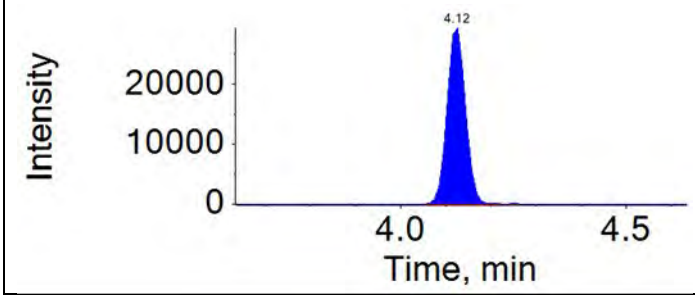


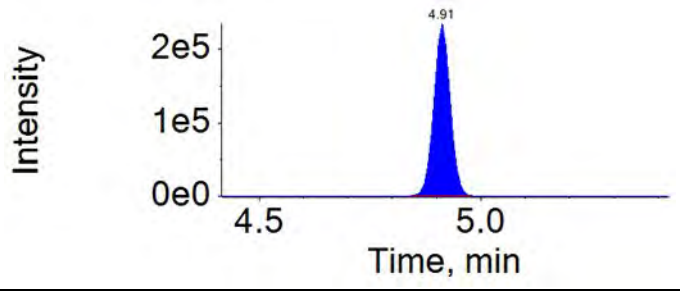
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

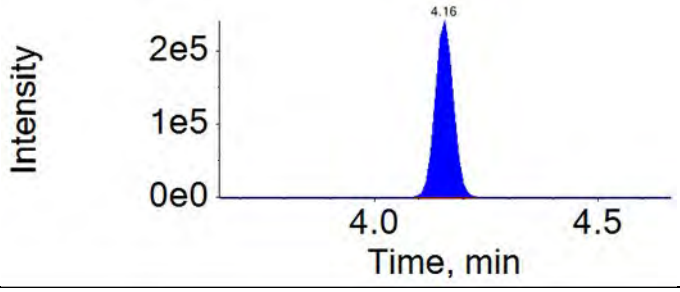
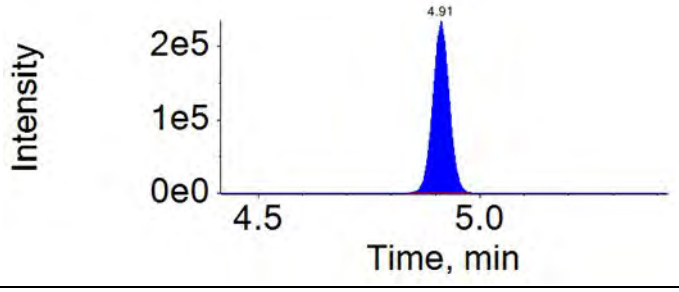


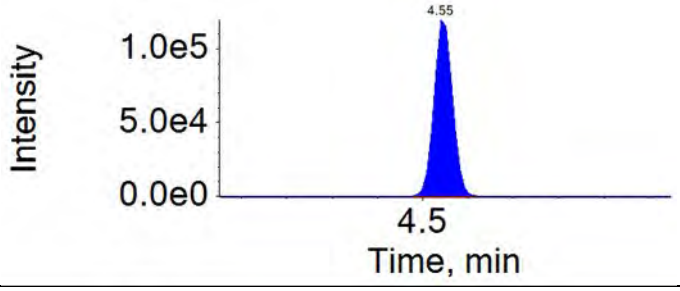
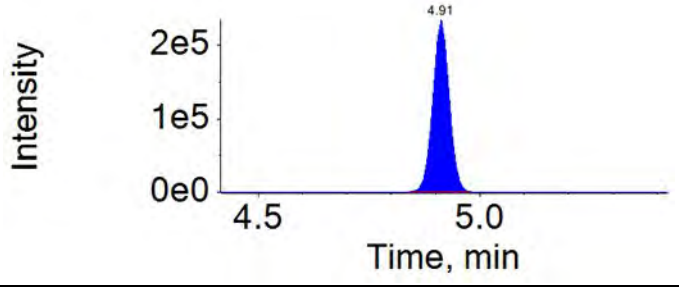


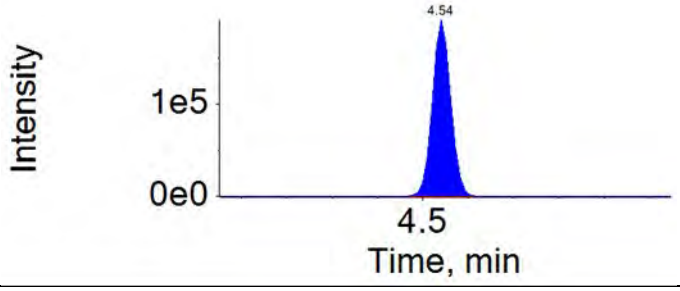
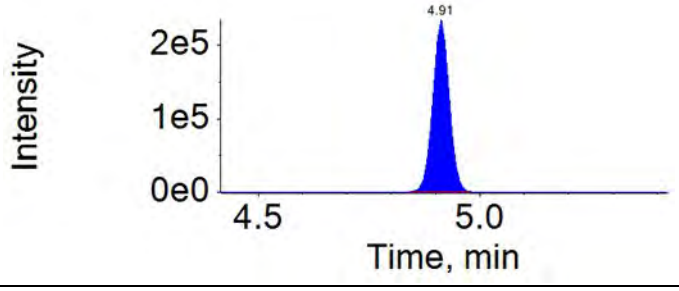
APPROVED
By MCD at 10:13 pm, 11/30/18

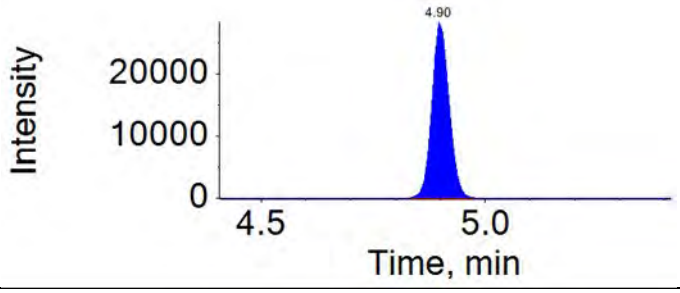
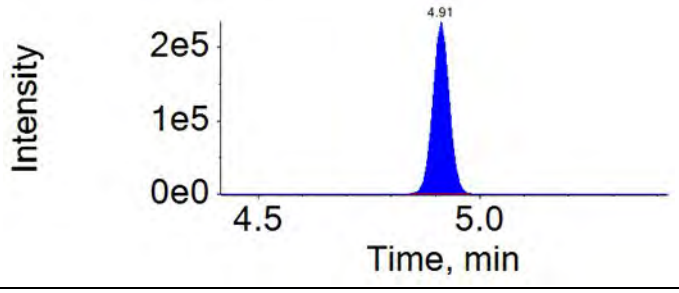
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

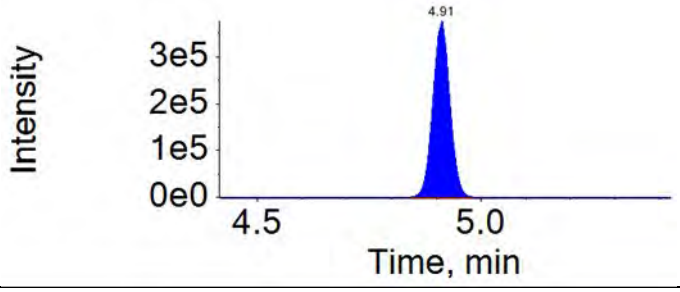
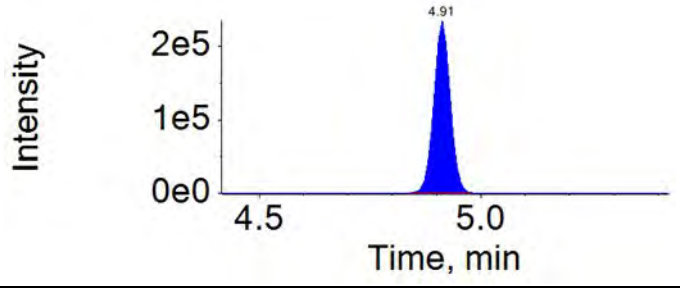
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

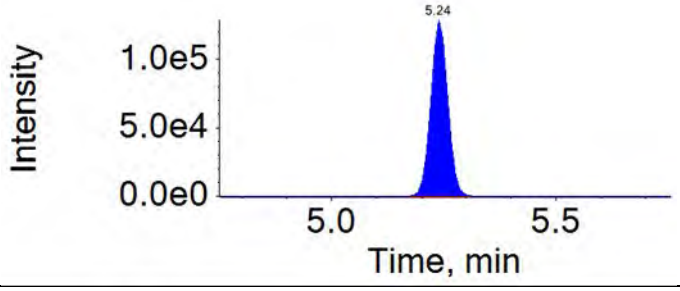
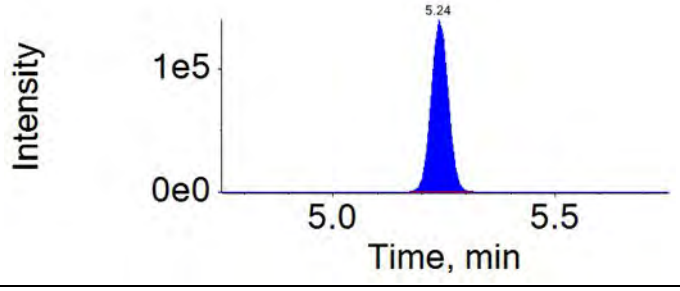
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

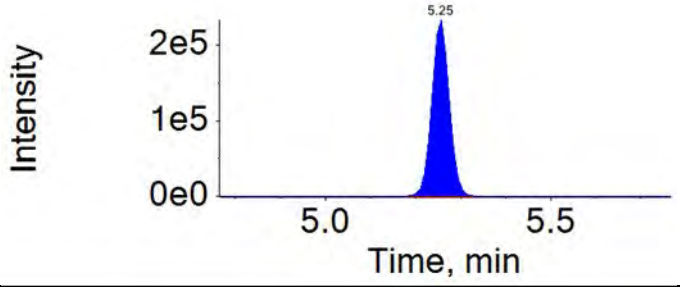
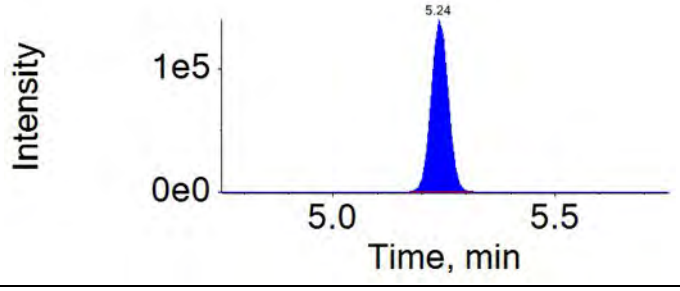
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

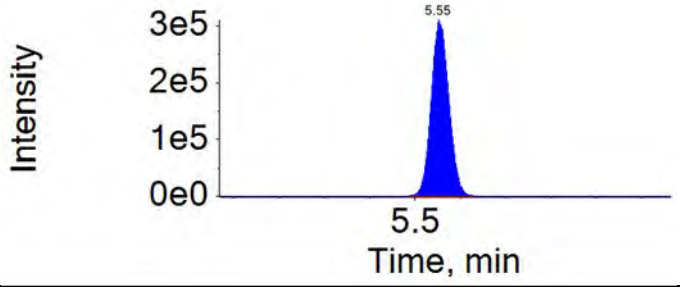
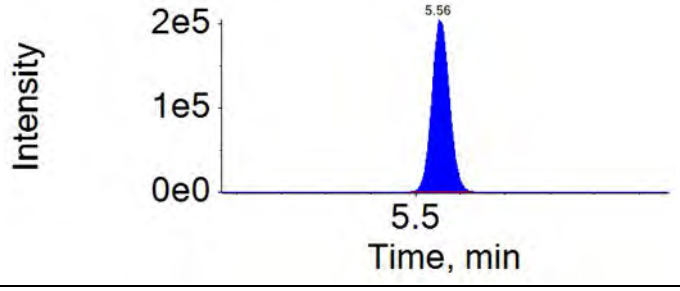
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

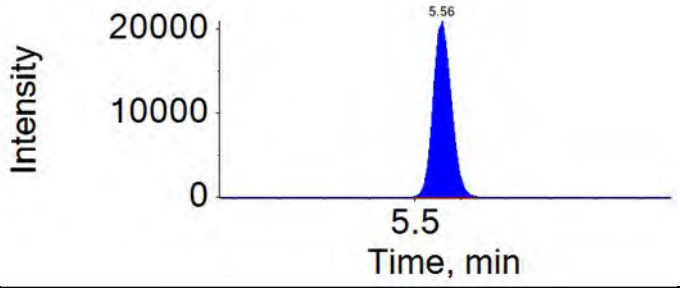
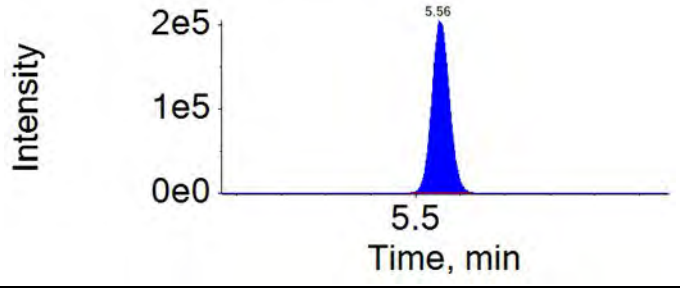
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

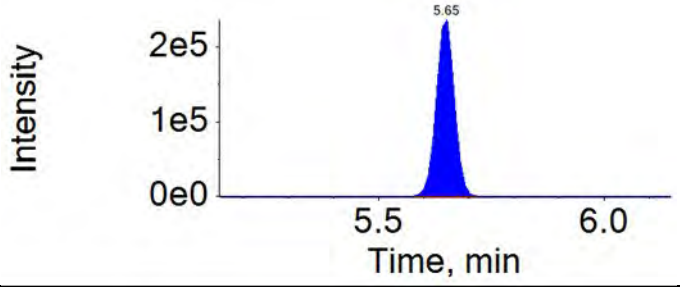
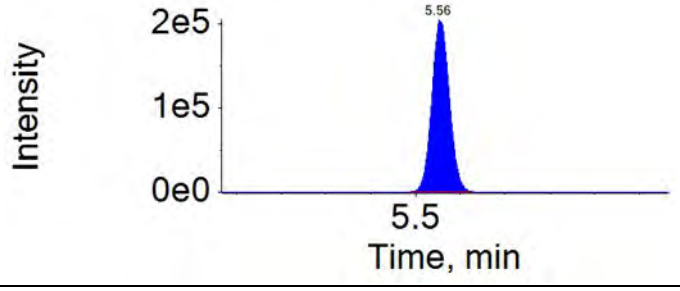
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

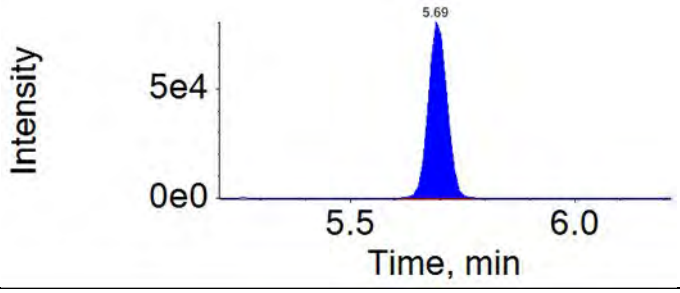
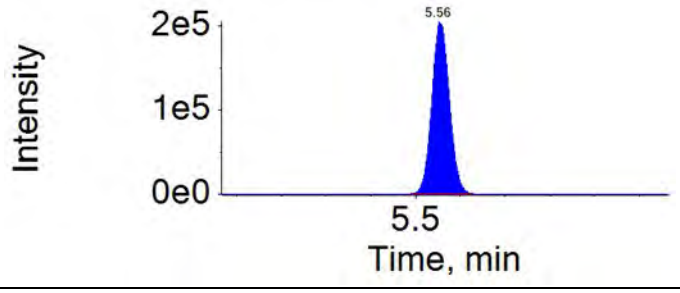
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

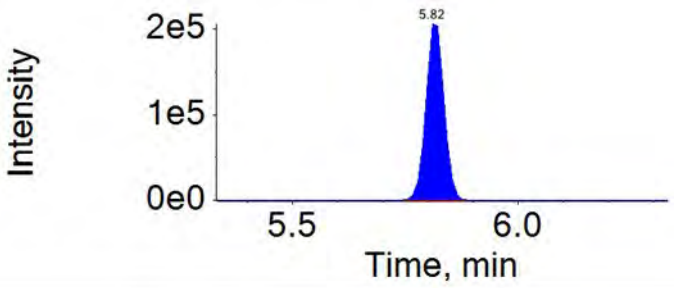
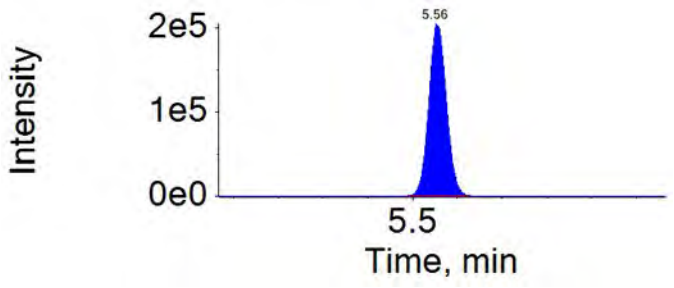
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

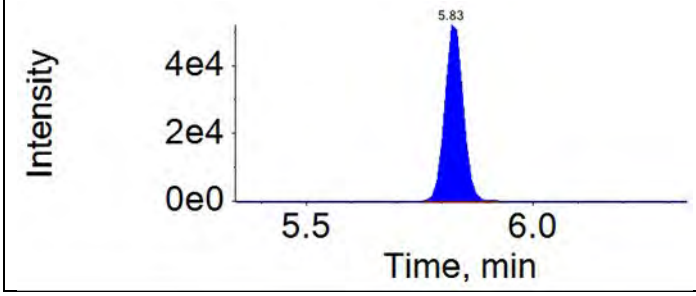
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

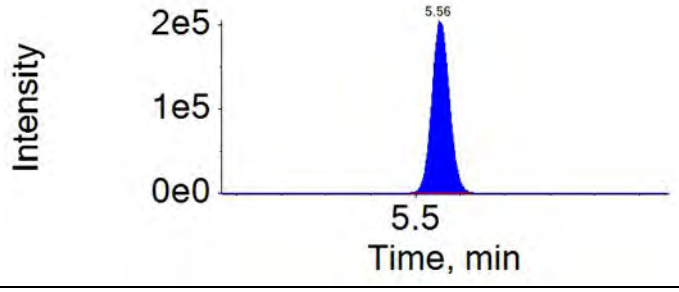
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

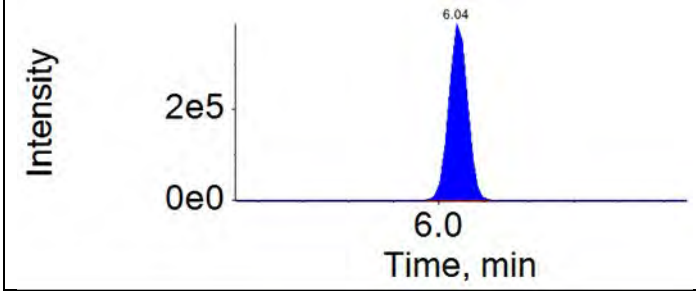
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

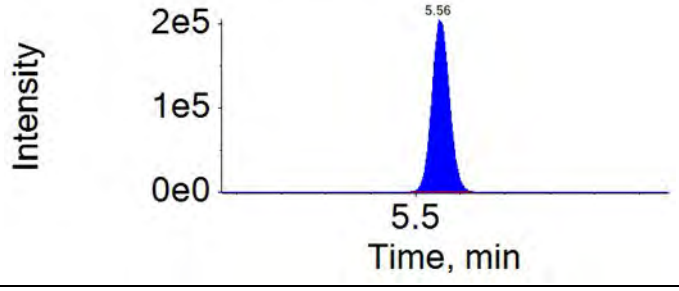
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



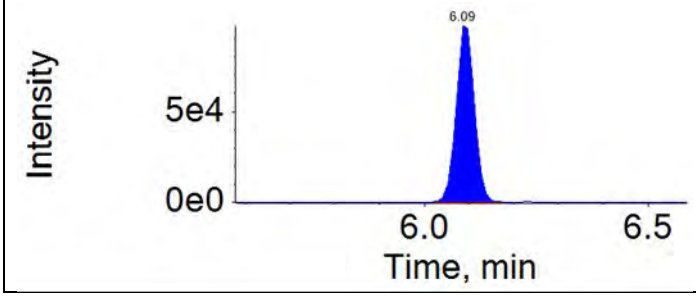


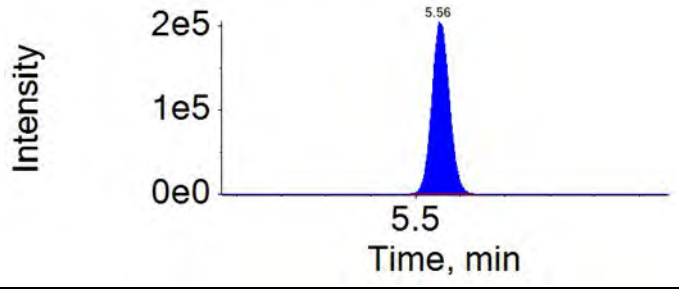
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



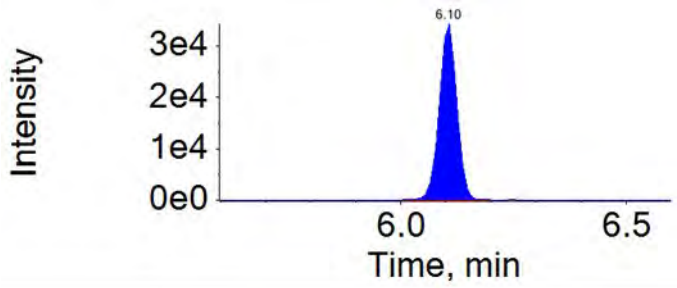


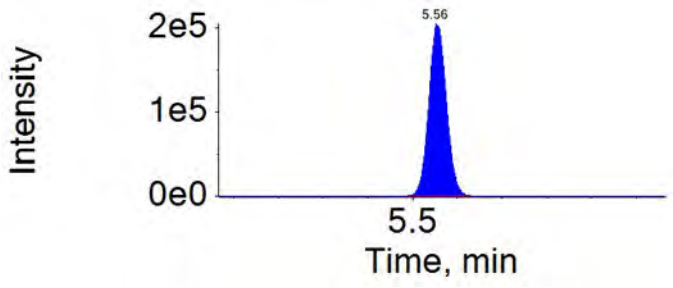
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



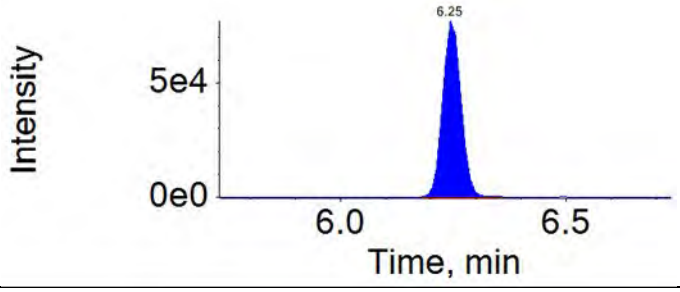


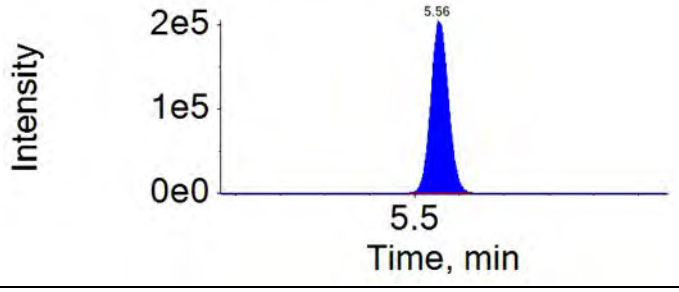
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

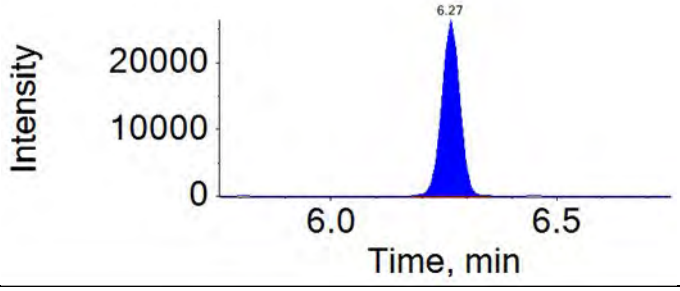
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

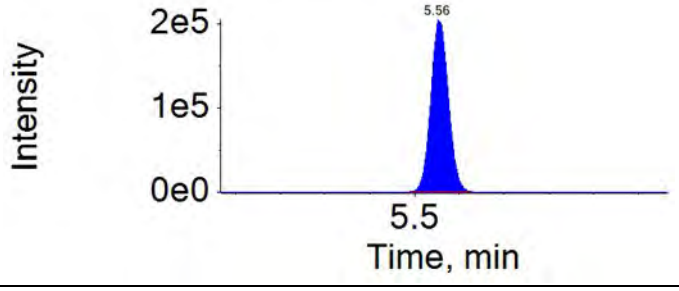
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



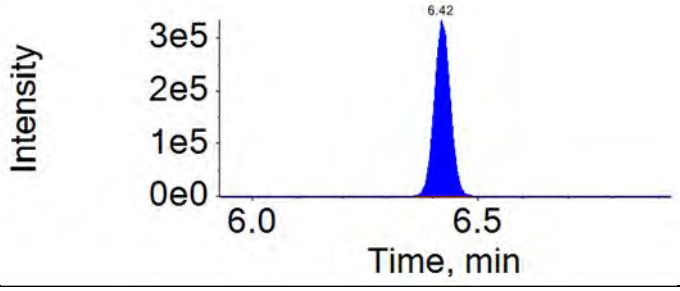


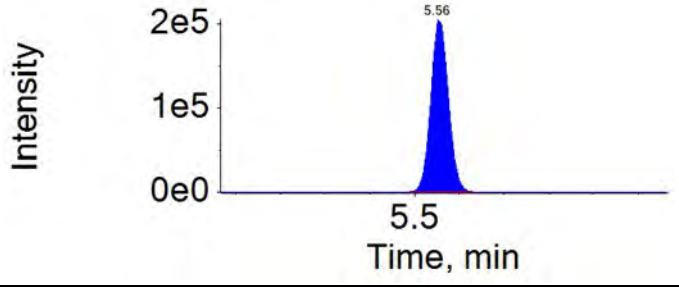
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

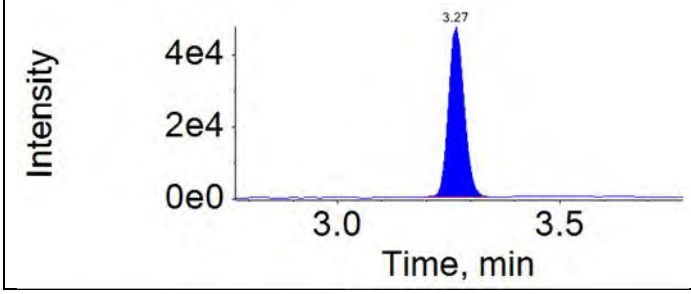
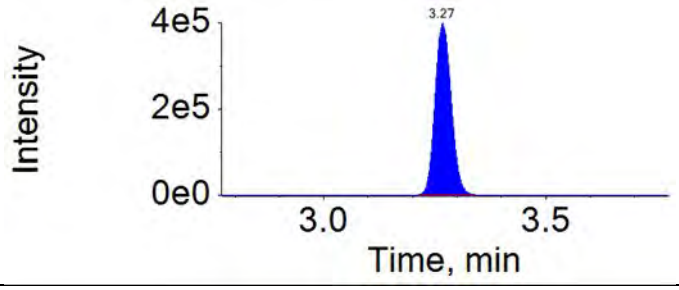


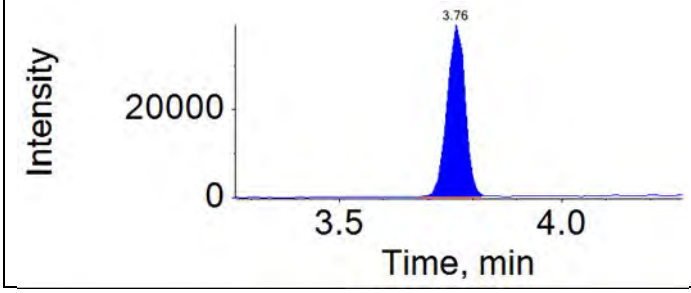
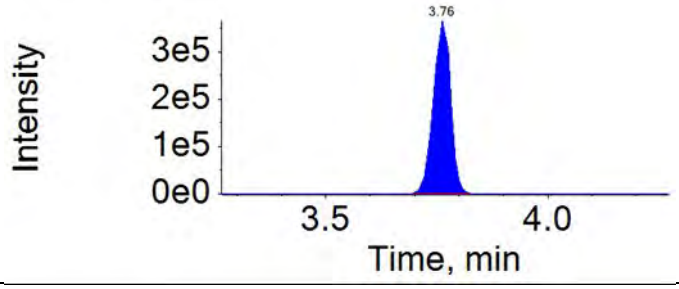


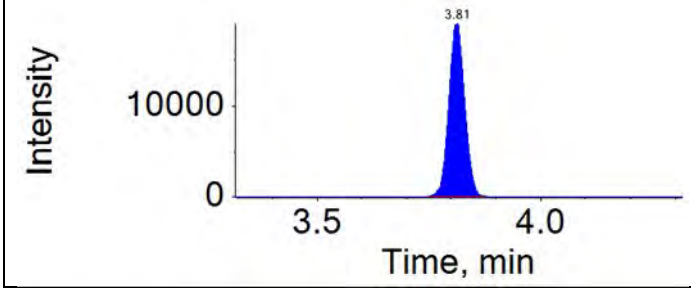
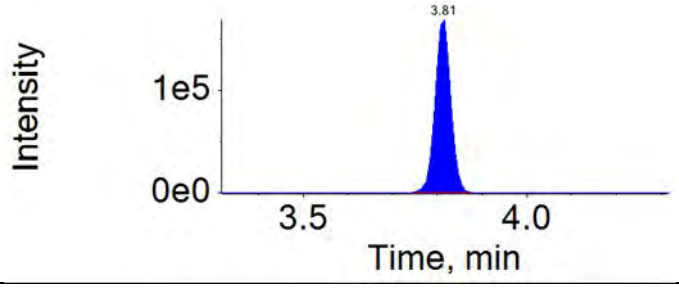
APPROVED
By MCD at 10:13 pm, 11/30/18

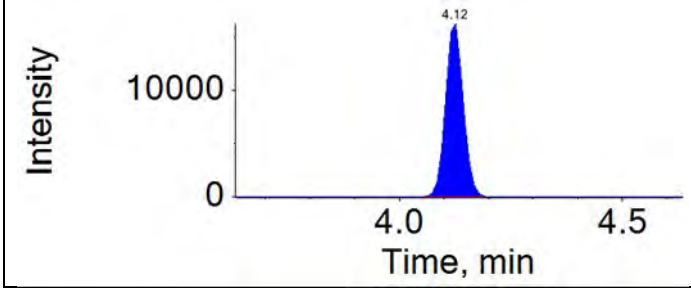
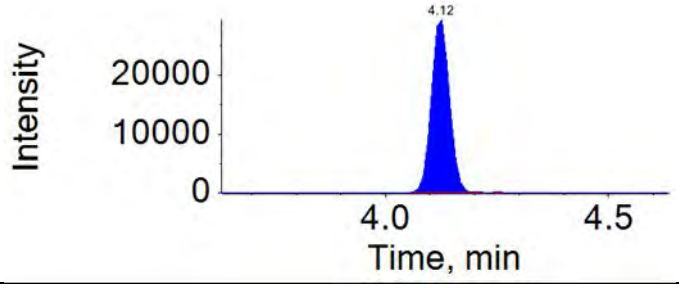
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

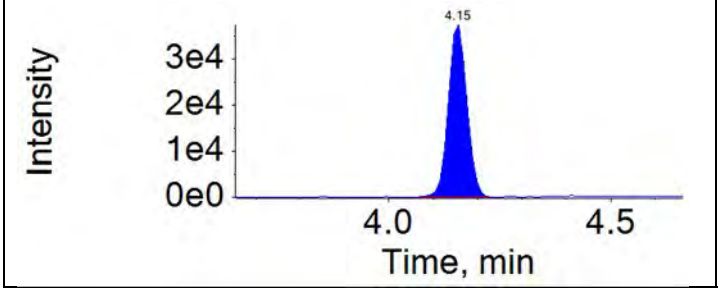
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

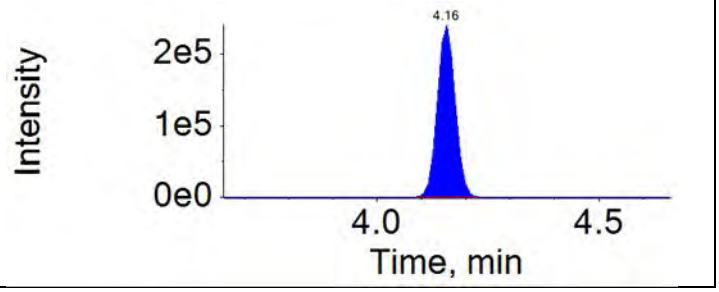
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

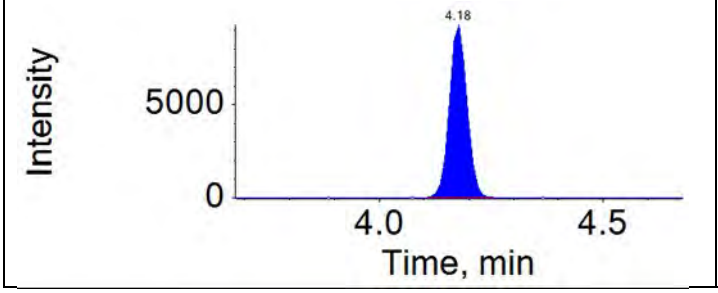
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

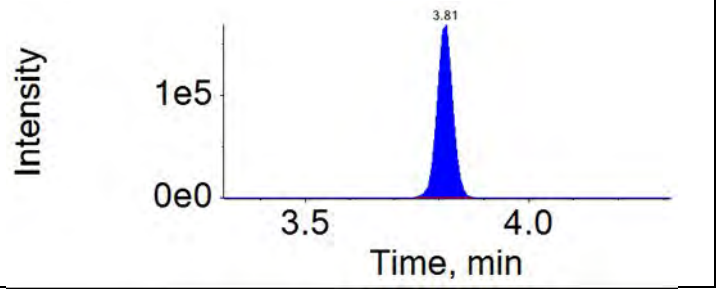
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



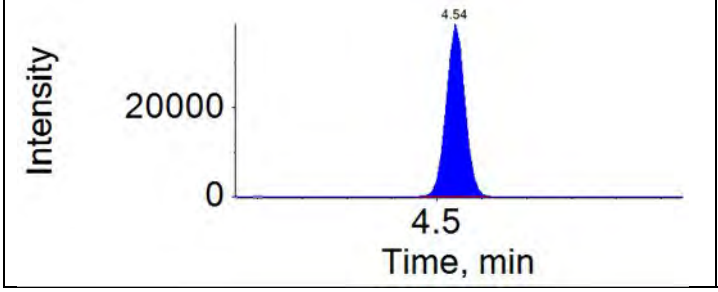


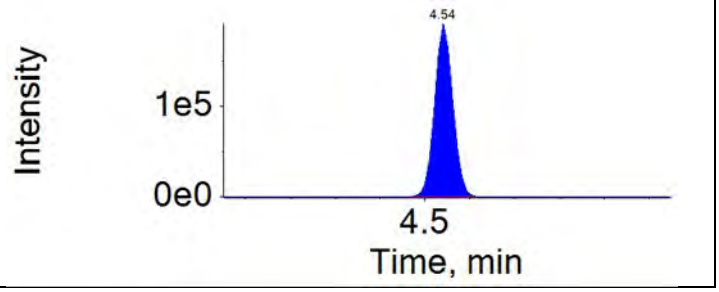
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



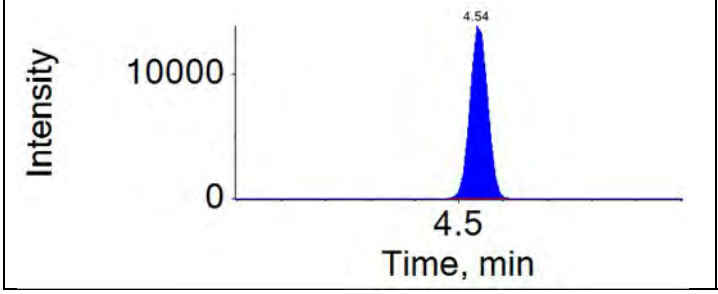


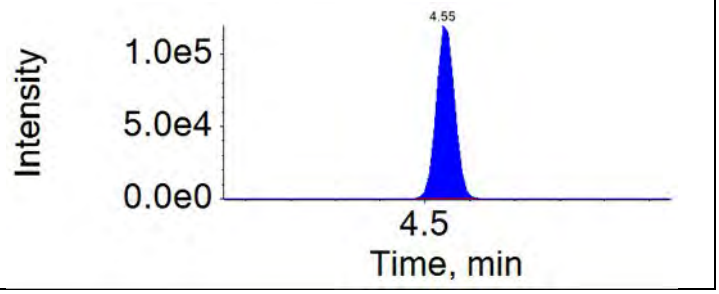
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



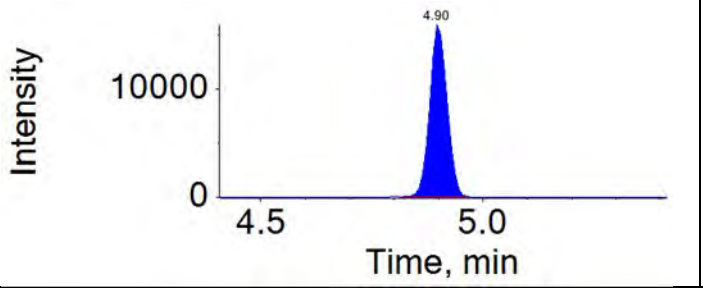


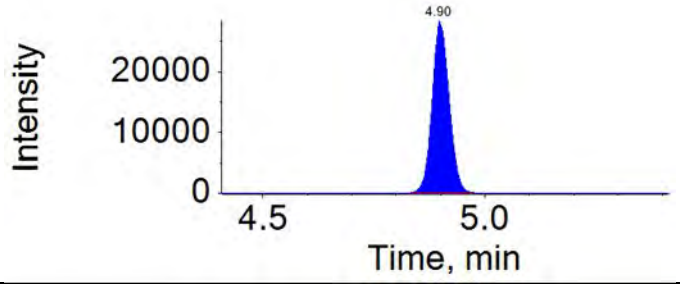
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

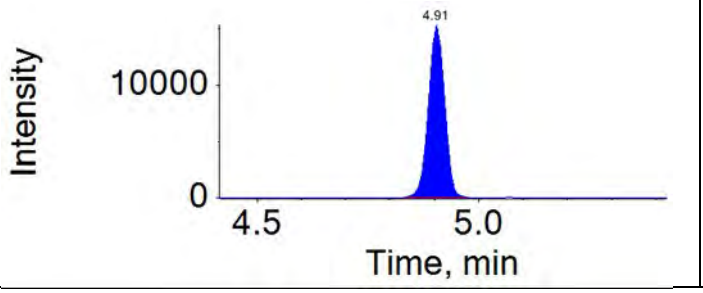
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

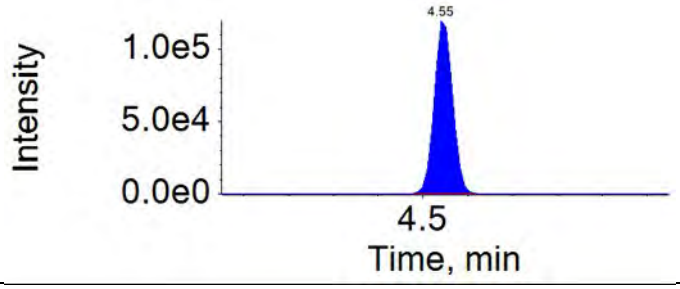
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



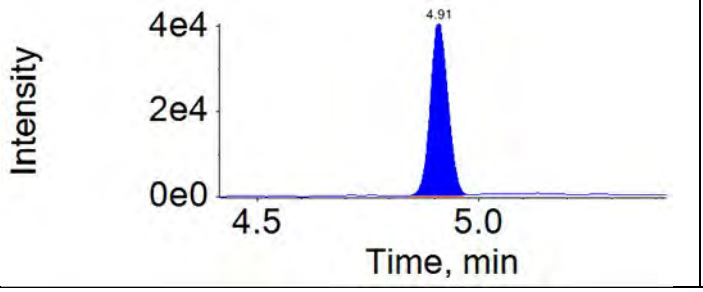


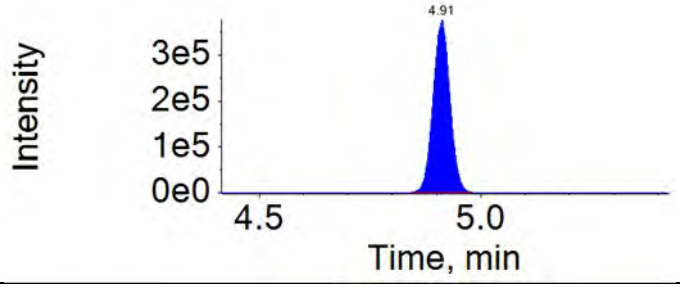
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



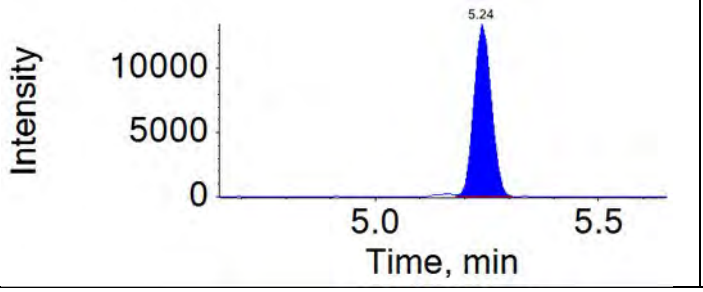


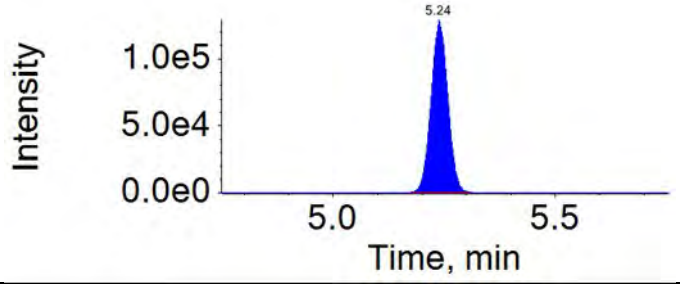
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



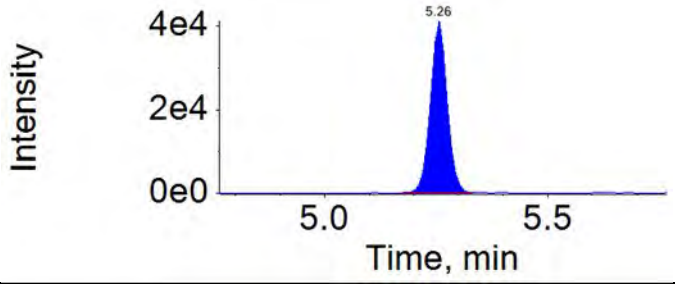


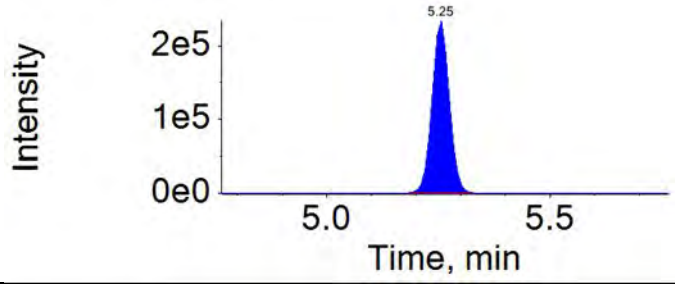
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

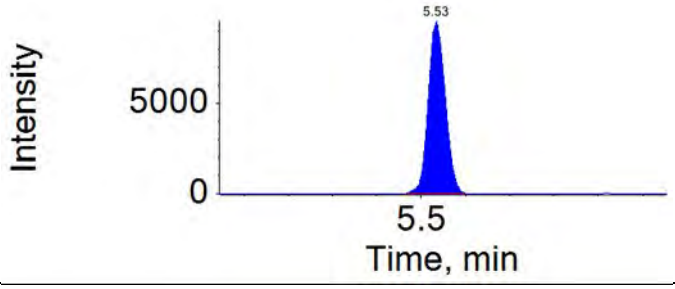
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

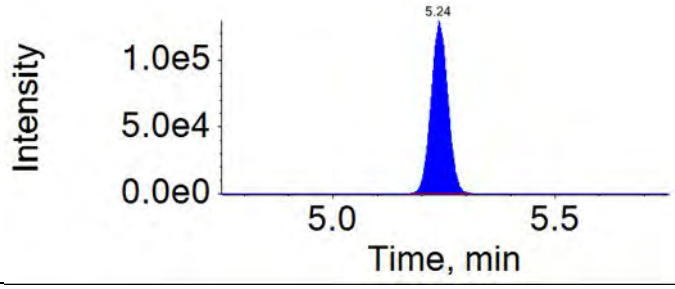
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



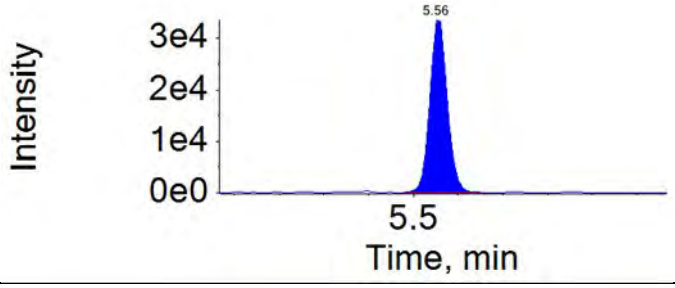


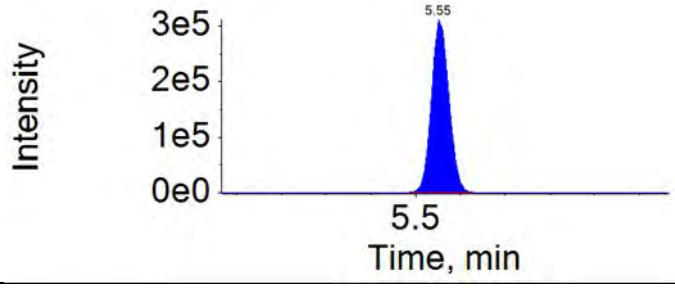
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



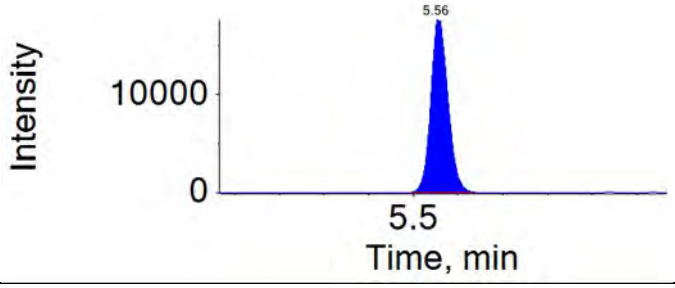


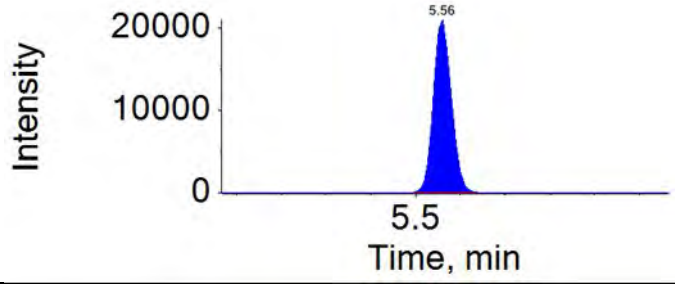
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

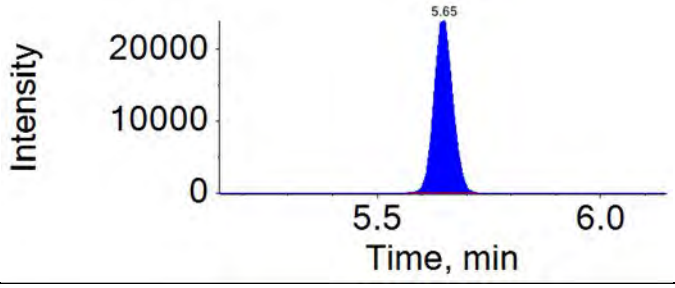
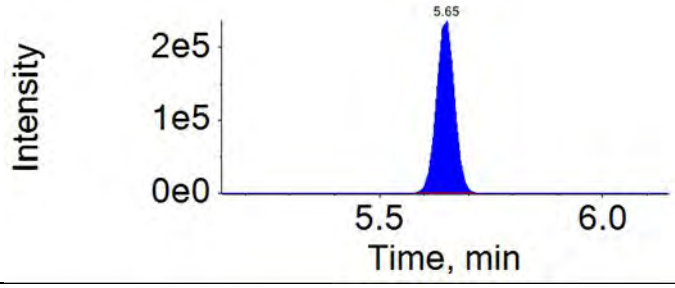


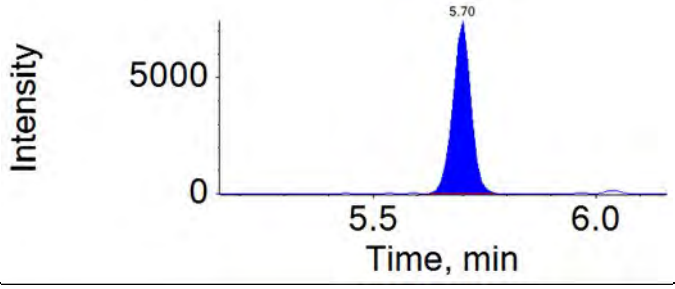
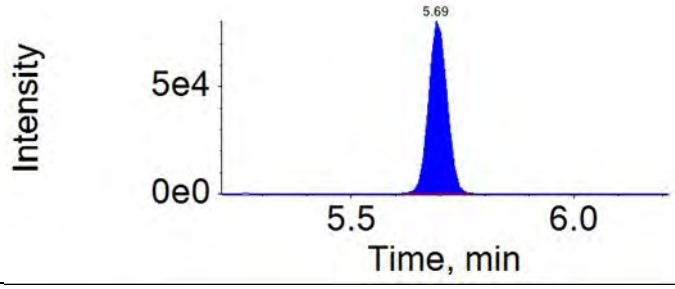


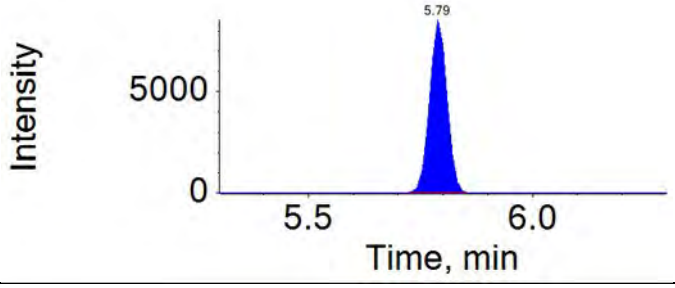
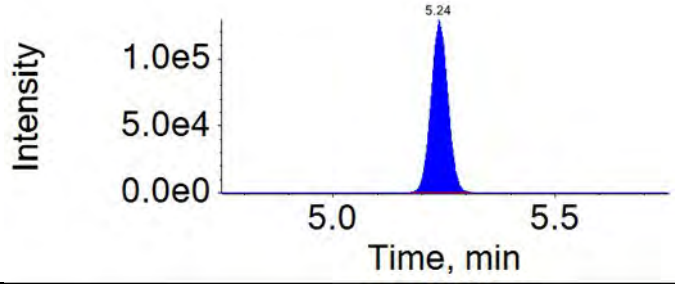
APPROVED
By MCD at 10:13 pm, 11/30/18

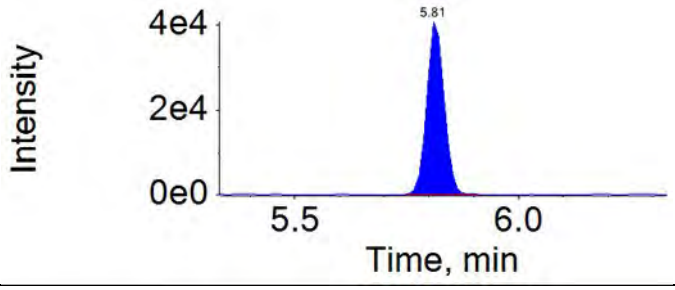
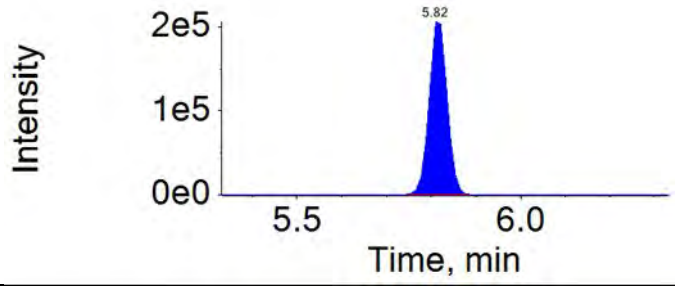
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

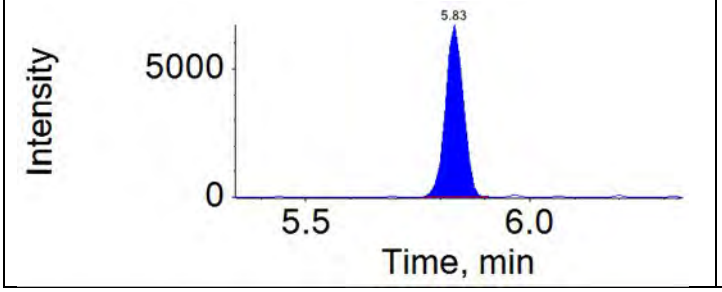
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

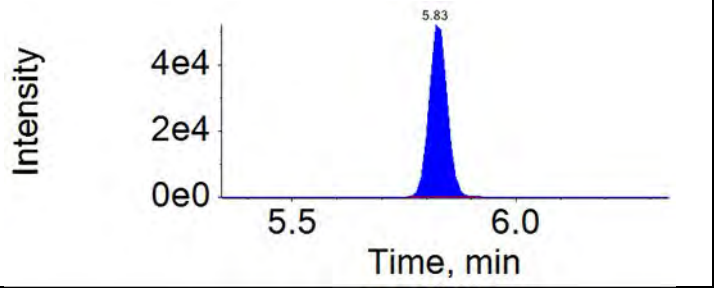
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

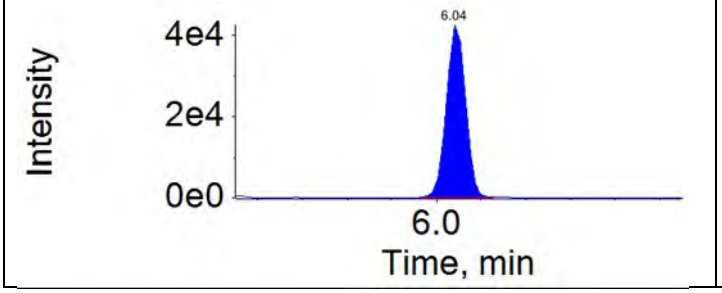
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

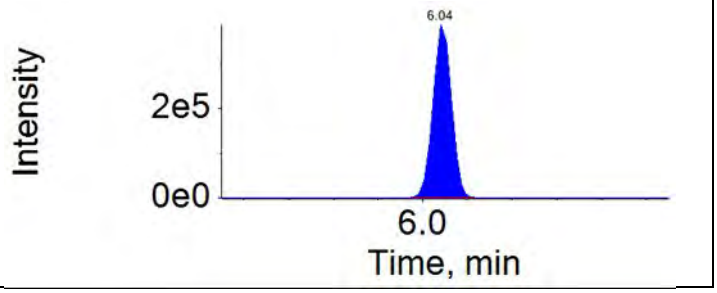
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



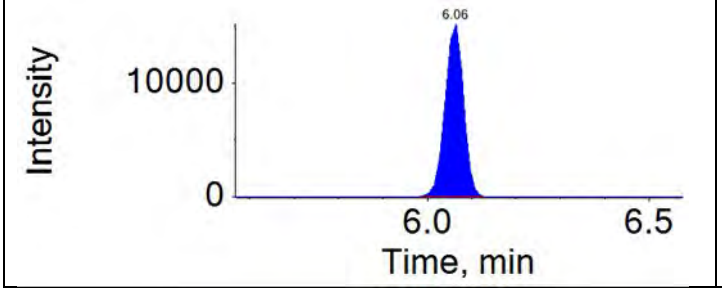


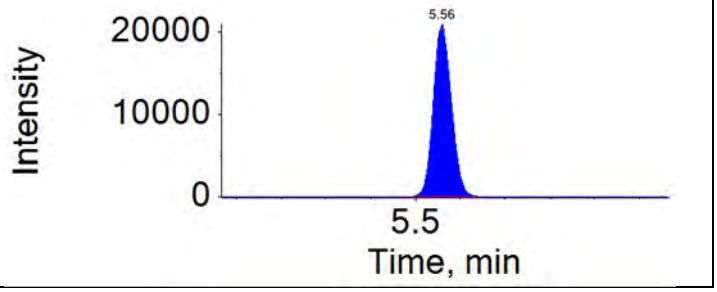
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



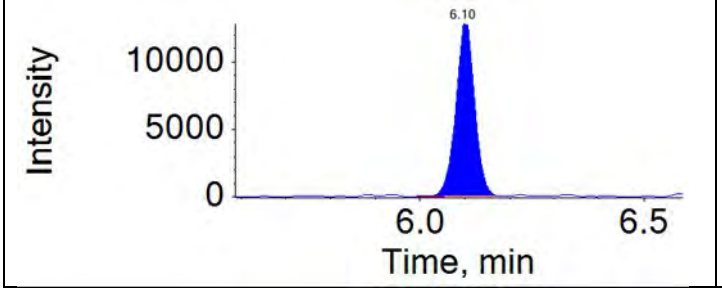


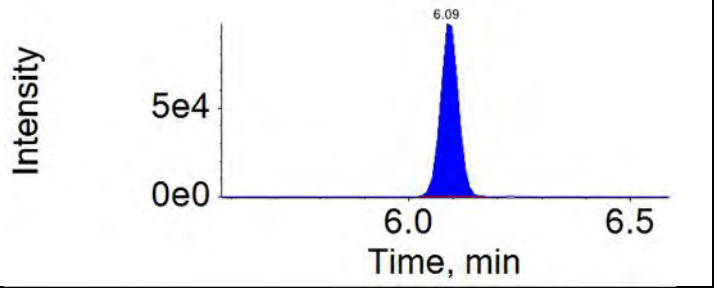
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

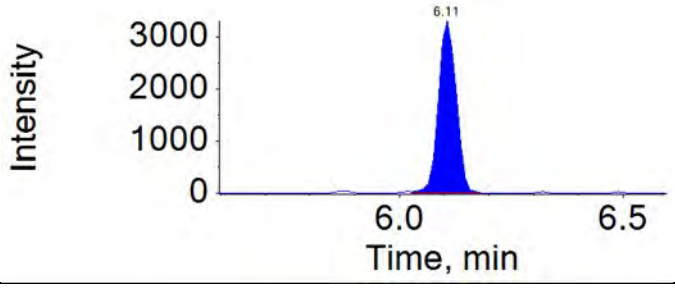
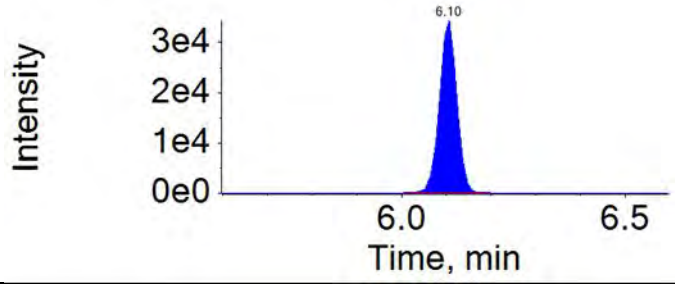


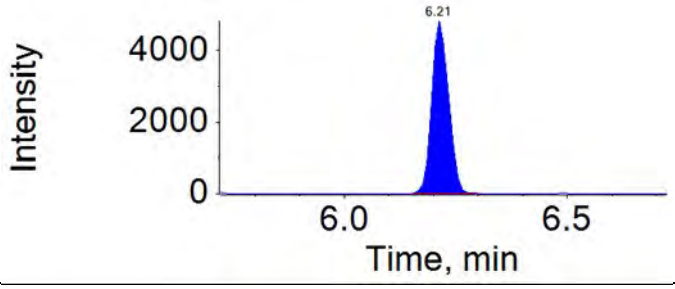
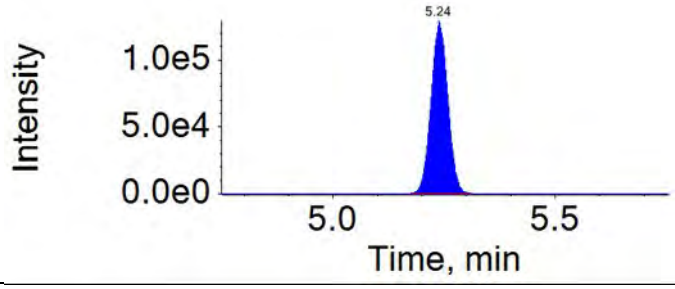


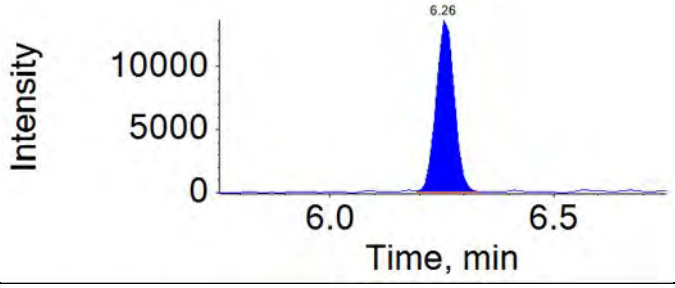
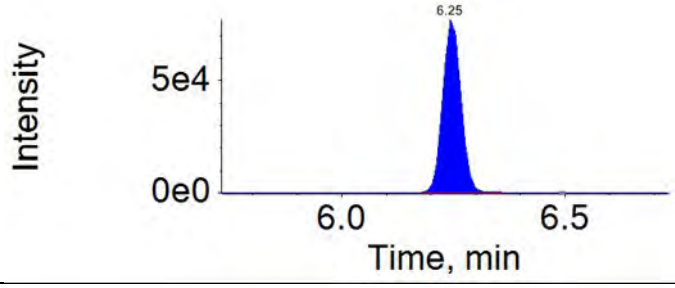
APPROVED
By MCD at 10:13 pm, 11/30/18

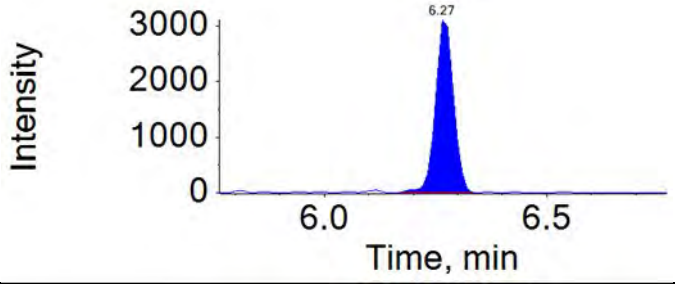
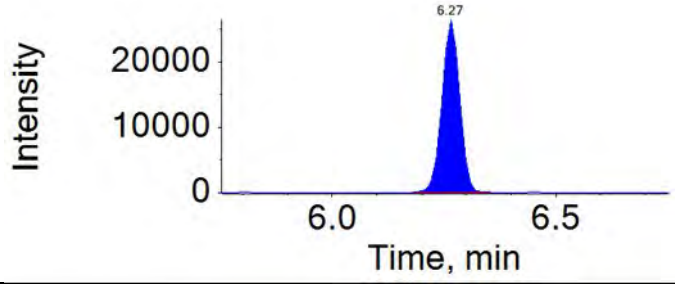
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0
	

Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0
	

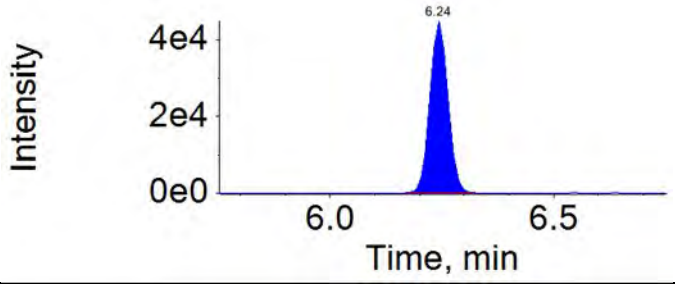
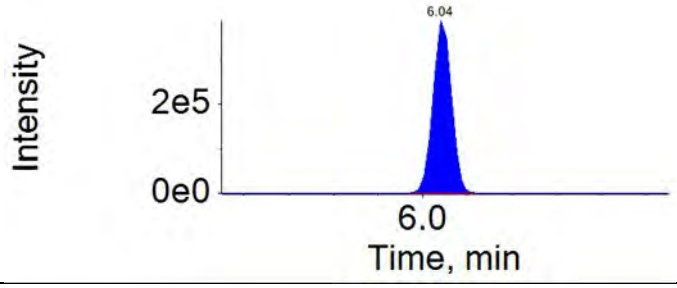
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0
	

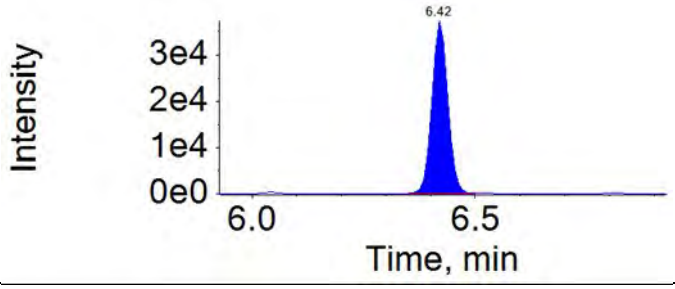
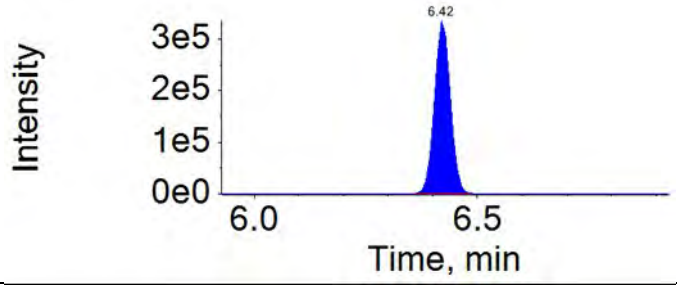
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0
	

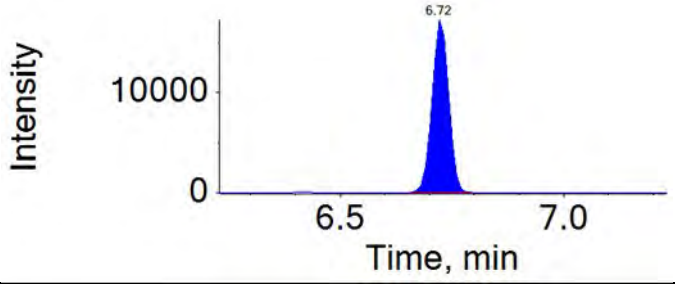
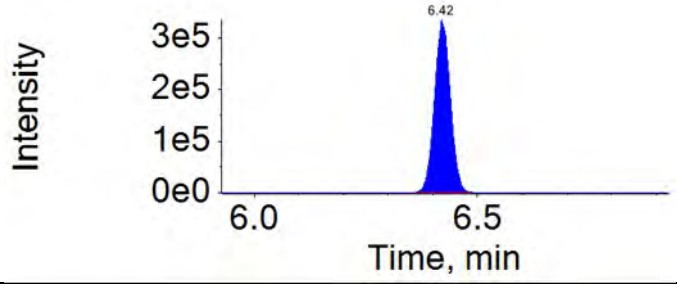
APPROVED
By MCD at 10:13 pm, 11/30/18

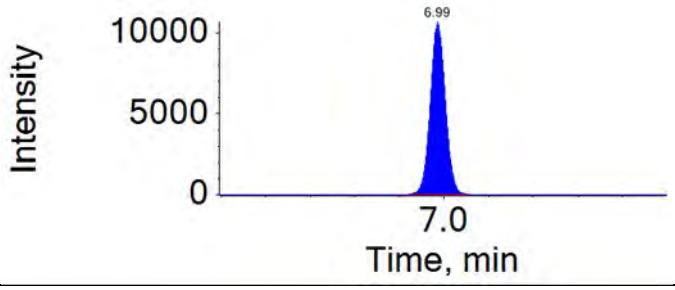
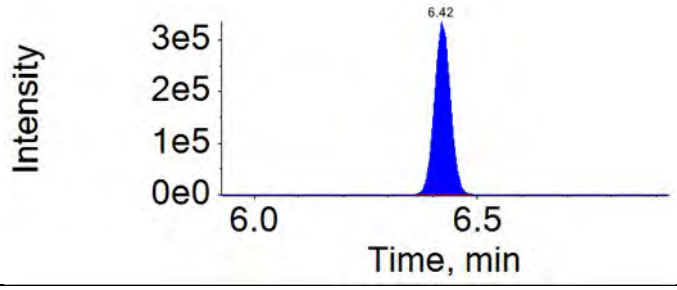
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

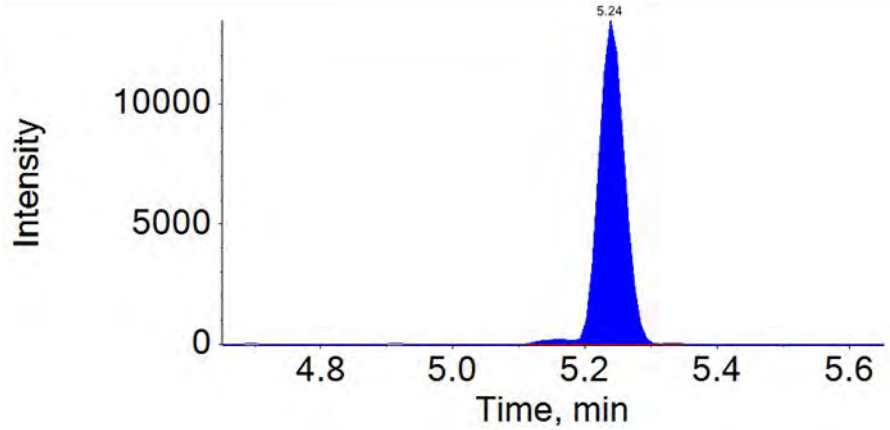
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

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

REVIEWED
By HMK at 2:27 pm, 12/6/18

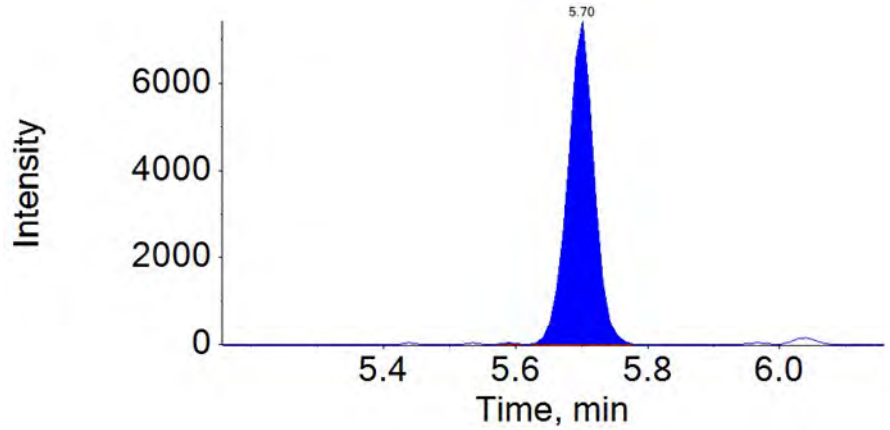
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



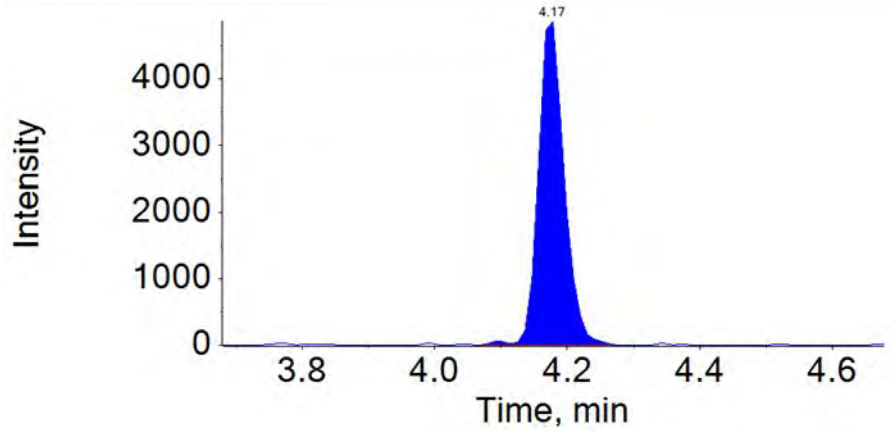
Integration Comment: incorrect integration

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

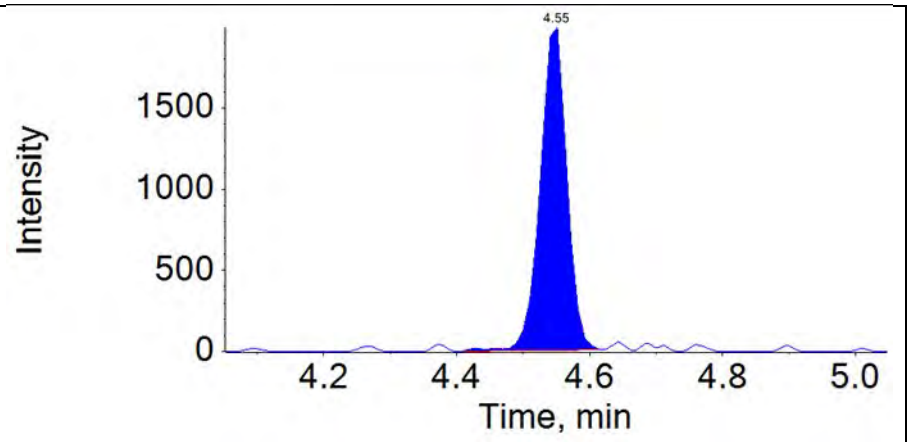


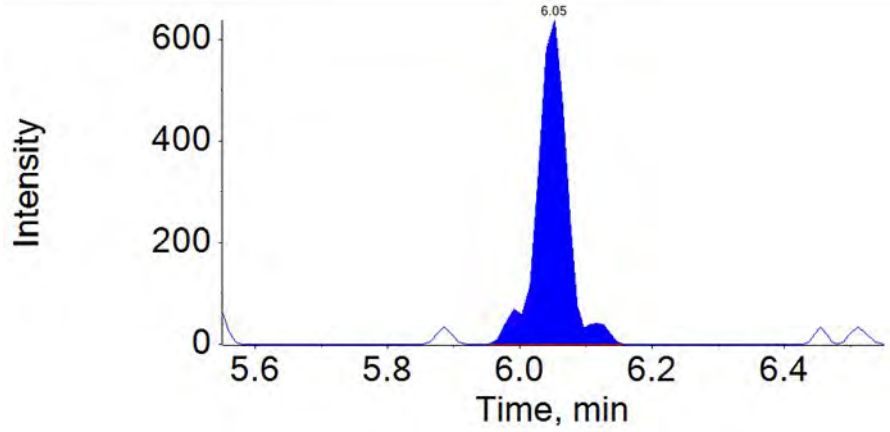
Integration Comment: incorrect integration

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

REVIEWED
By HMK at 2:27 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

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

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

REVIEWED
By HMK at 2:27 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 2:27 pm, 12/6/18

Ion Ratio Report

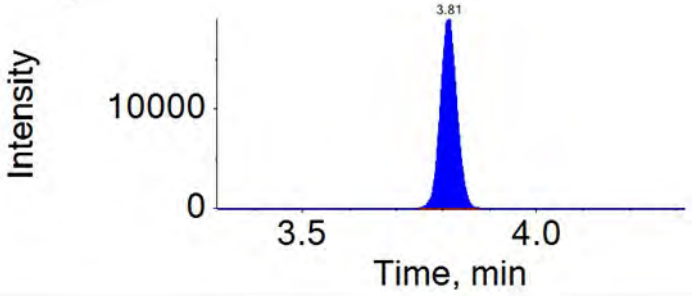
Sample Name: LCS332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-56.wiff

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	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	
PFTrDA	6.24	1.03	125876.8	A	N/A	0.0108			
PFTrDA_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	

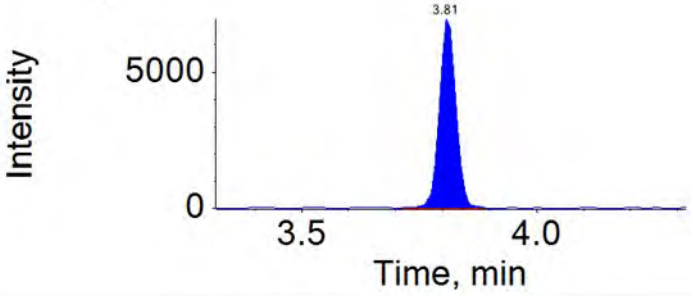
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

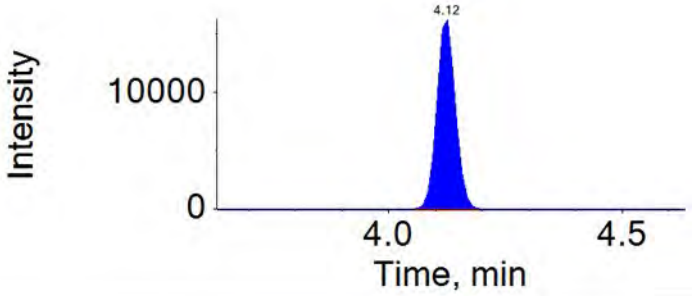
Component: PFBS
Primary Mass: 299.0 / 80.0



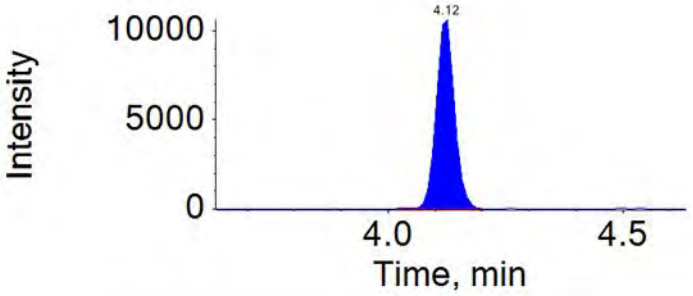
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



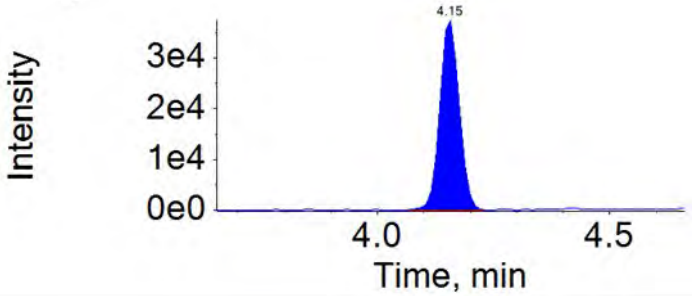
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



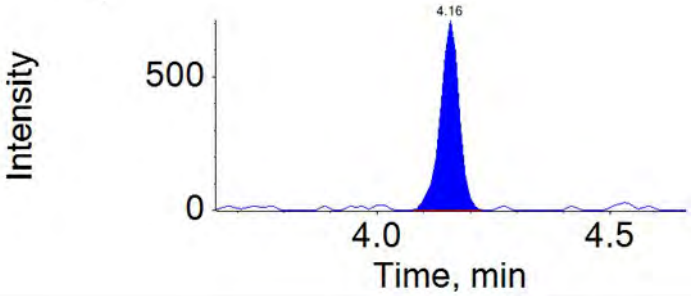
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



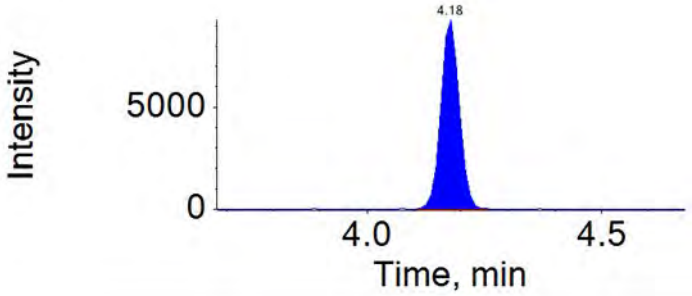
Component: PFHxA
Primary Mass: 313.0 / 269.0



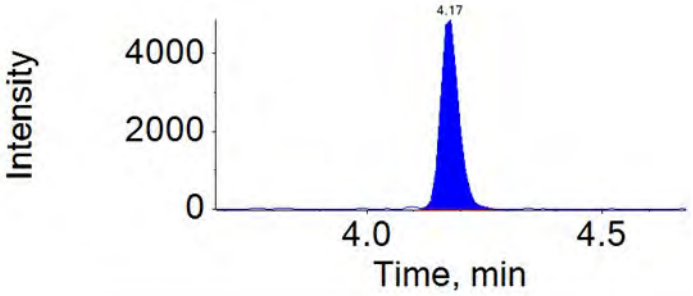
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



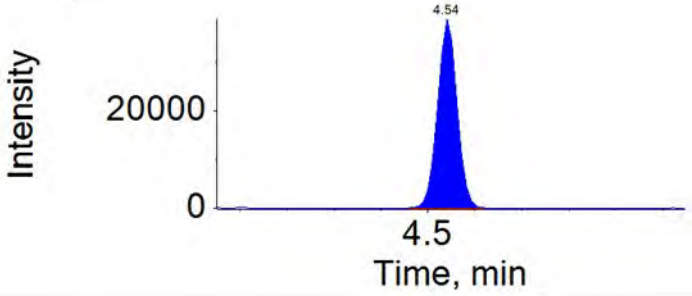
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



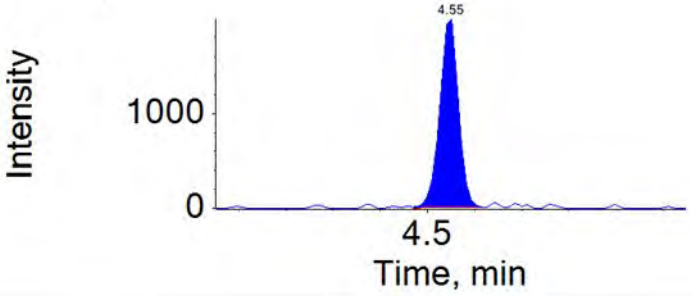
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

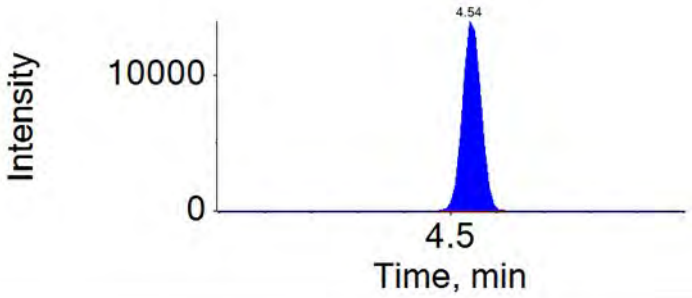
Component: PFHpA
Primary Mass: 363.0 / 319.0



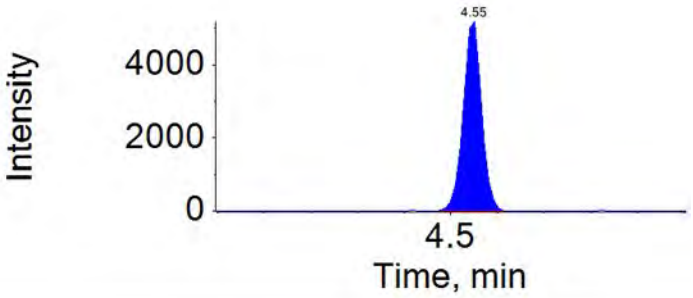
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



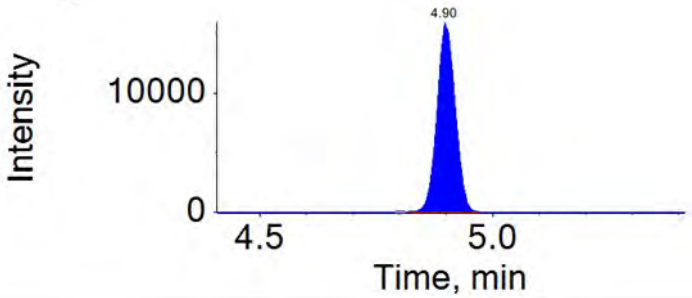
Component: PFHxS
Primary Mass: 399.0 / 80.0



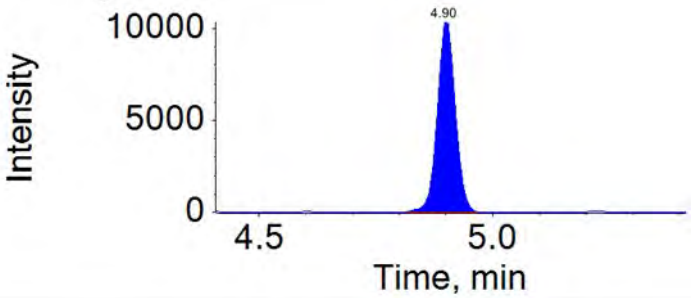
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



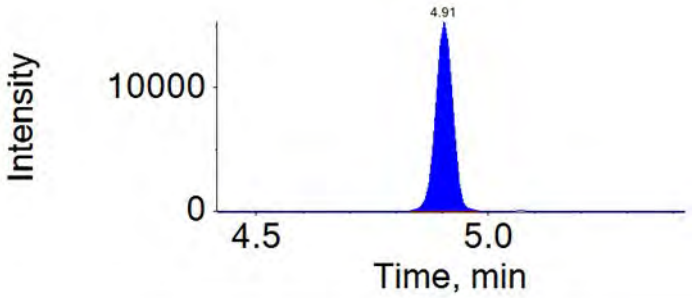
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



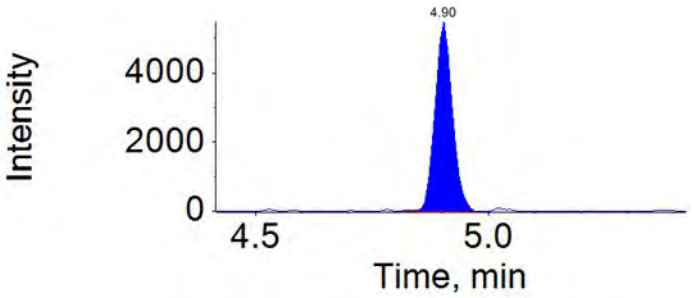
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



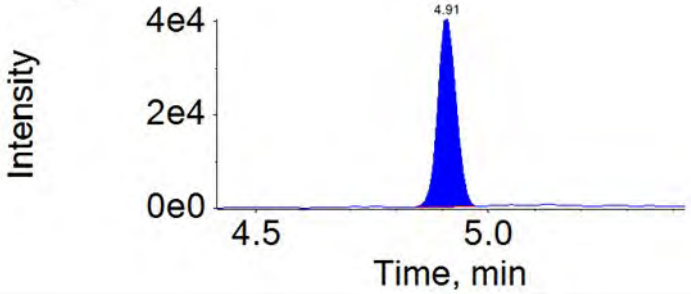
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



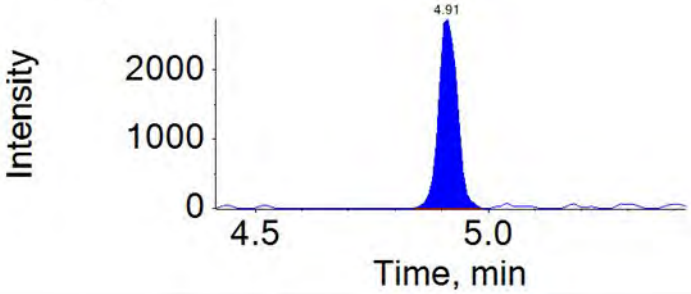
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

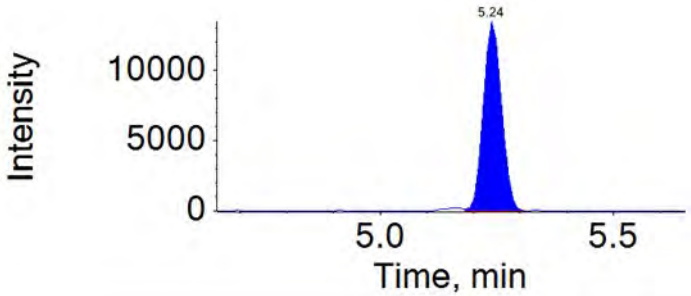
Component: PFOA
Primary Mass: 413.0 / 369.0



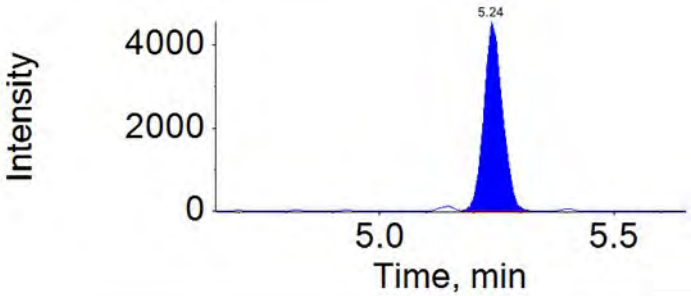
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



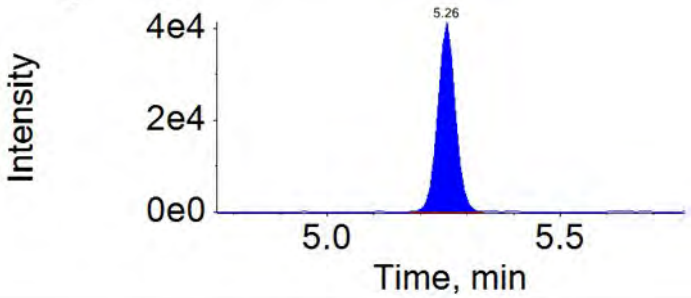
Component: PFOS
Primary Mass: 499.0 / 80.0



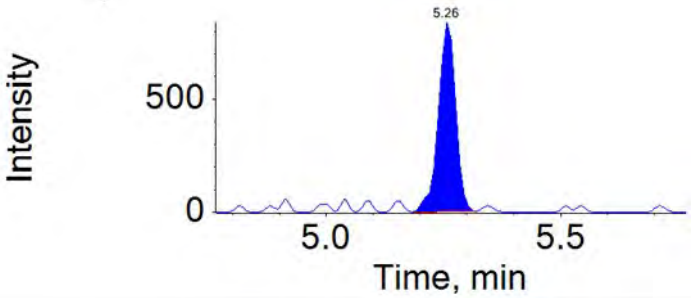
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



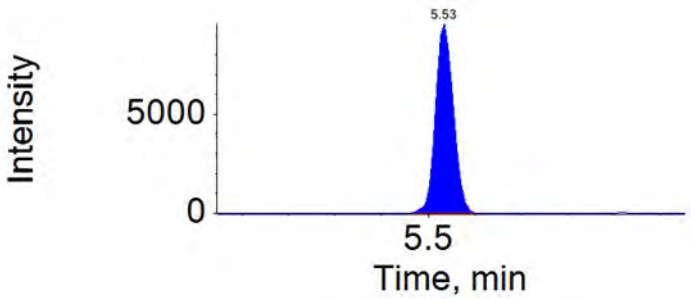
Component: PFNA
Primary Mass: 463.0 / 419.0



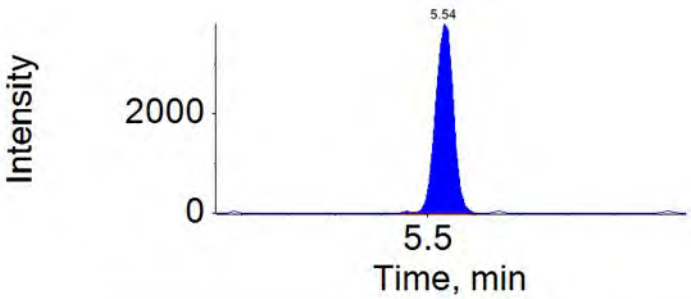
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



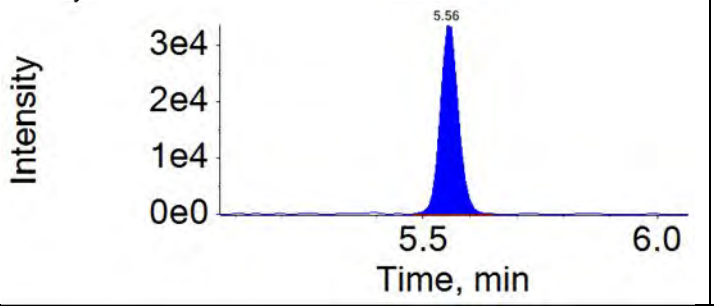
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



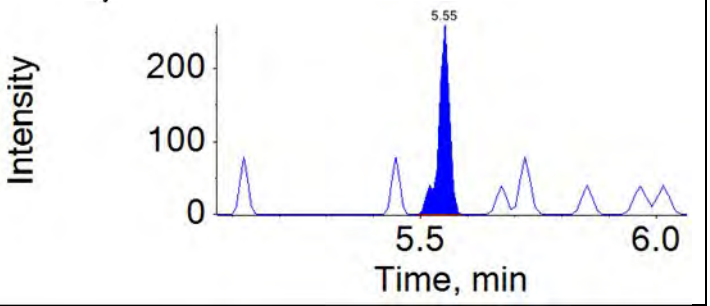
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

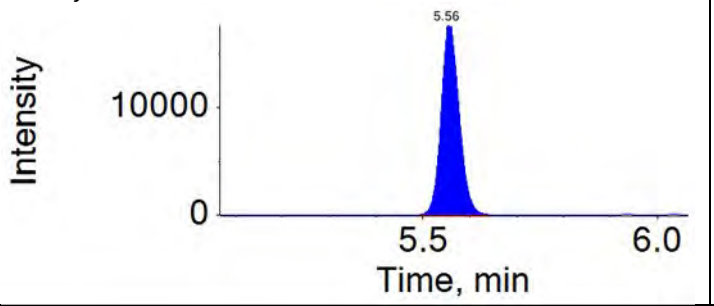
Component: PFDA
Primary Mass: 513.0 / 469.0



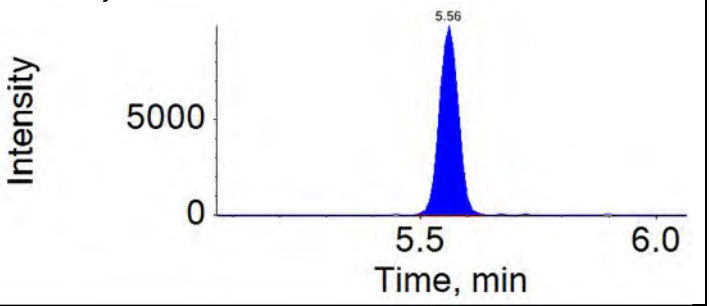
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



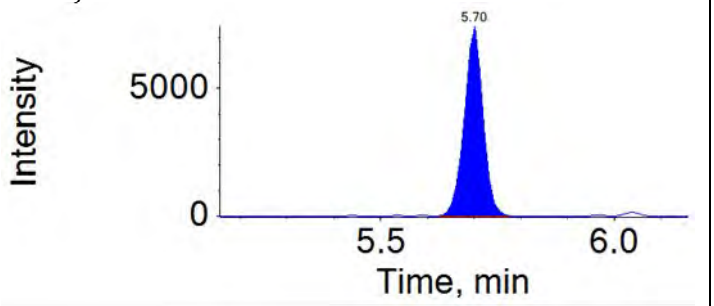
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



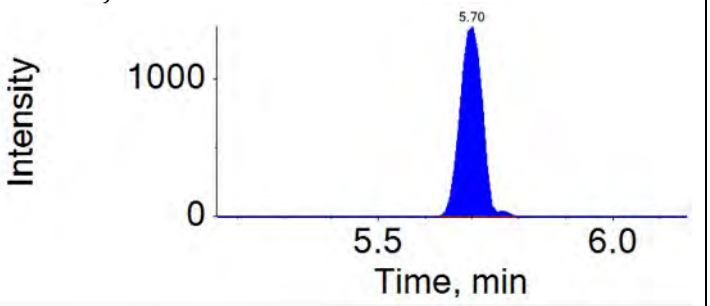
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



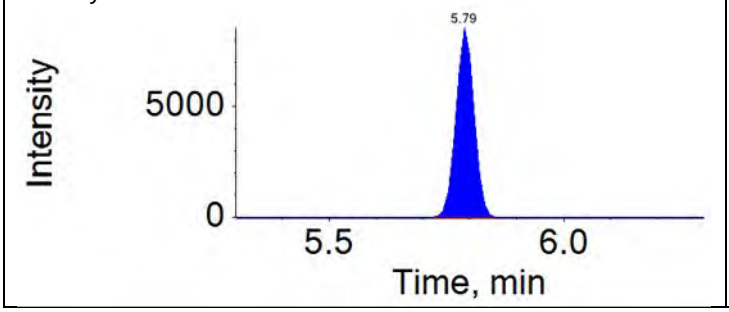
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



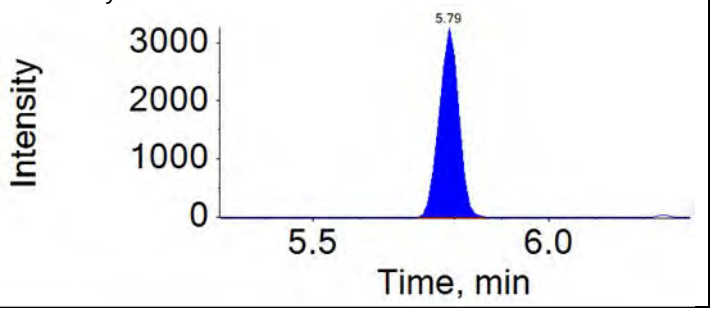
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



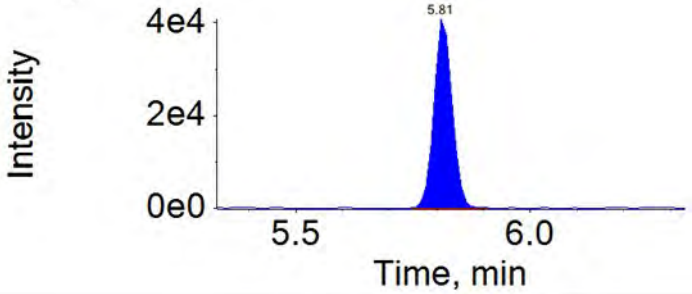
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



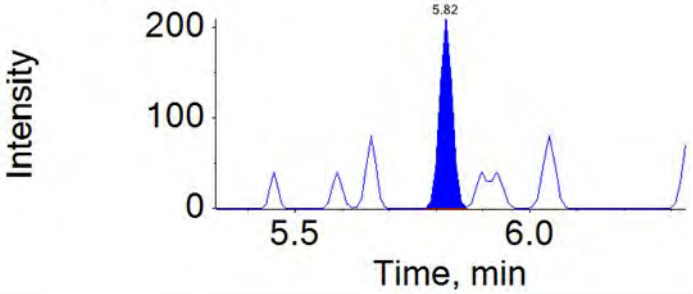
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

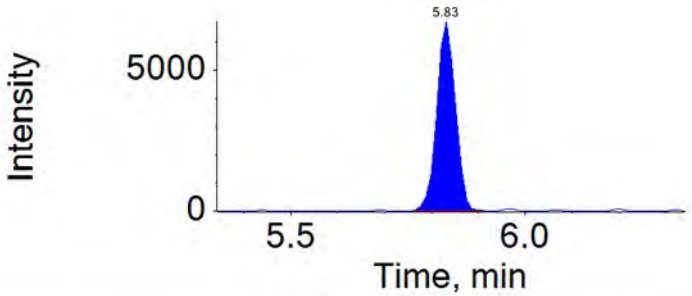
Component: PFUnDA
Primary Mass: 563.0 / 519.0



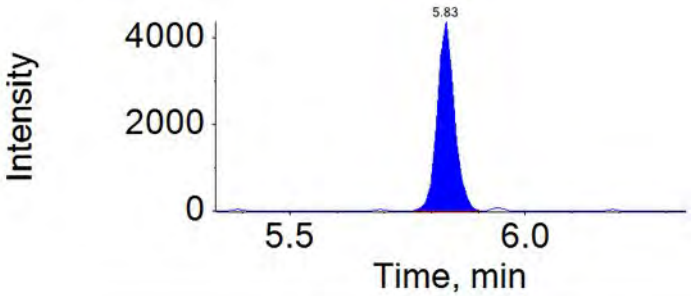
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



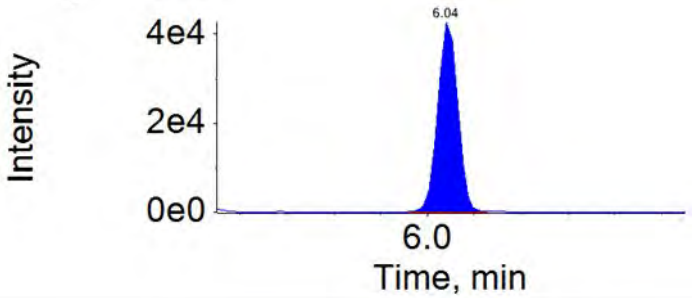
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



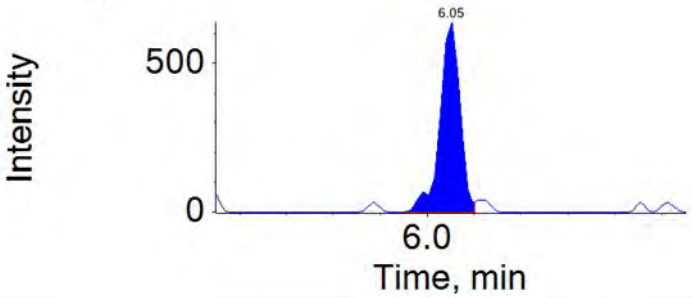
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



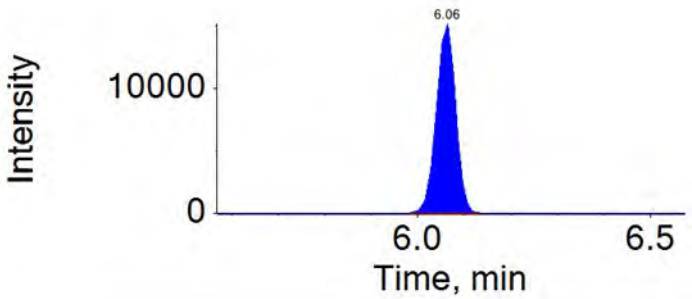
Component: PFDoDA
Primary Mass: 613.0 / 569.0



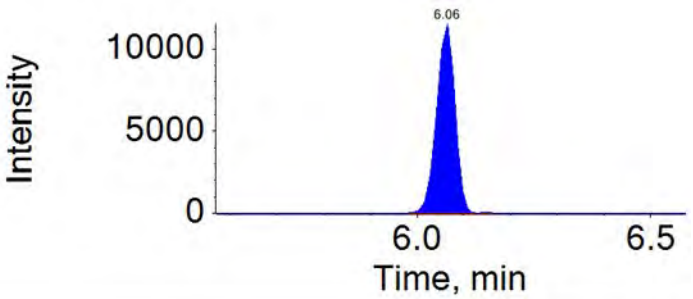
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



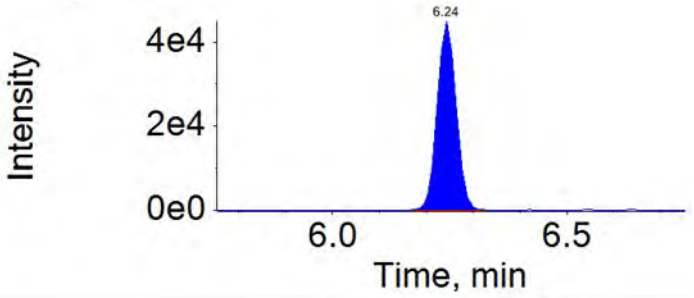
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



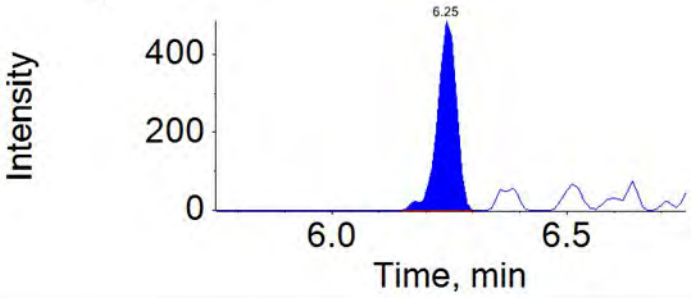
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

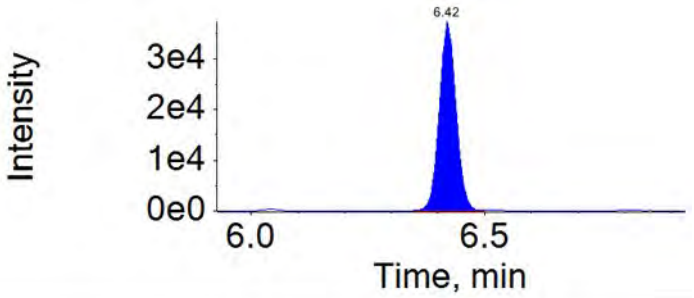
Component: PFTrDA
Primary Mass: 663.0 / 619.0



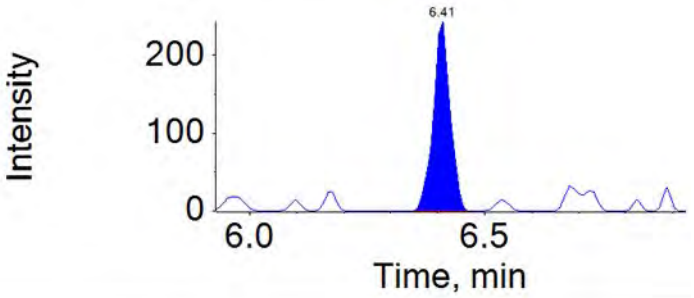
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



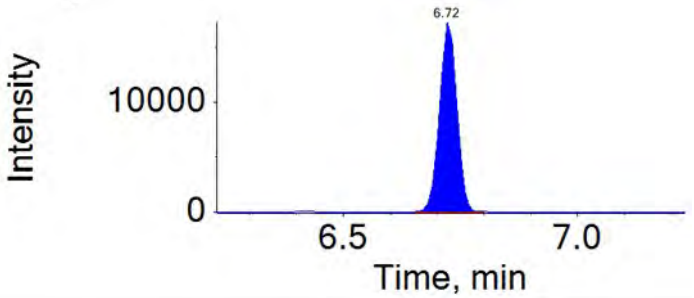
Component: PFTeDA
Primary Mass: 713.0 / 669.0



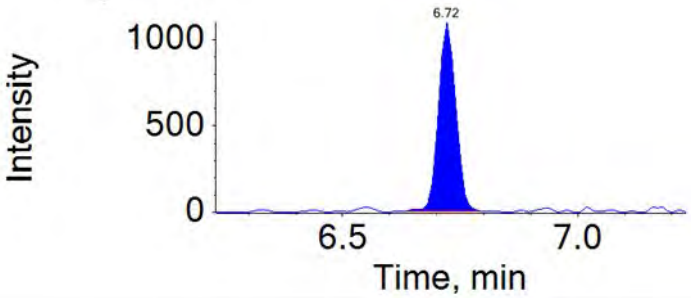
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



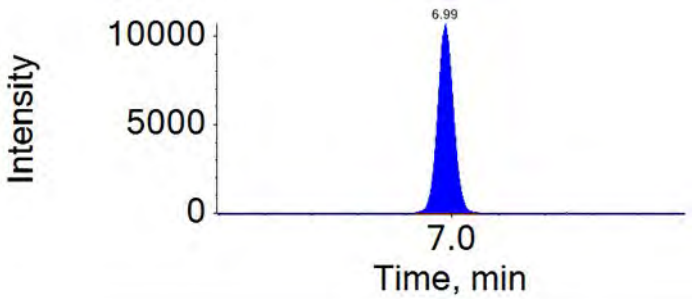
Component: PFHxDA
Primary Mass: 813.0 / 769.0



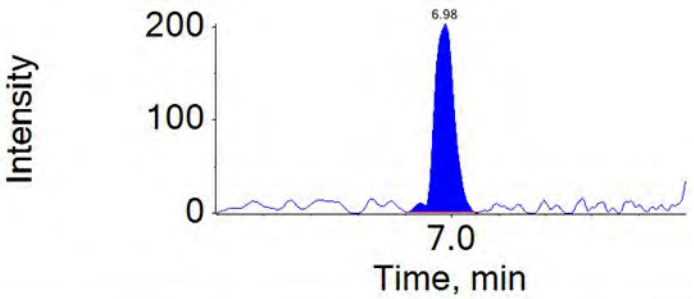
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



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

REVIEWED
By HMK at 2:27 pm, 12/6/18

Preparation Logs

PFAS by LC/MS/MS

Organic Extraction Batchlog

18311003

Assigned to: 12698 Courtney Fatta Reviewed by: JPT12262 Start Date: 11/07/18 Start time: 9:10

Tech 1: CF12698 Tech 2: CF12698

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

mL CF12698 11/07/18

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD (3)

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (~~uL~~)	IS Amt (uL)	BC	Comments
	9881584MS	OU111	1.03	SSMODX1833BY	.05	MSMODX1833AP	.04	1.0	20	170A	
	9881585MSD	OU111	1.04	SSMODX1833BY	.05	MSMODX1833AP	.04	1.0	↓	170A	
	BLANKA	BLK311003	1.0	SSMODX1833BY	.05	N/A	N/A	1.0	↓	Z	
	LCSA	LCS311003	1.0	SSMODX1833BY	.05	MSMODX1833AP	.04	1.0	↓	Z	

Spike Solutions: Witness: PJR9213 Instrument: LM27631

MSMODX1833AP PFAS 537 Native Spike

SSMODX1833BY PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV07DOD - 18NOV08D

(3) mL

~~Port#~~ BS16		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (~~uL~~)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9881573	OU101	1.01	SSMODX1833BY	.05	1.0	20	170a		14478	11/13/2018	N
	2	9881574	OU102	1.00	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	3	9881575	OU103	1.09	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	4	9881576	OU104	1.05	SSMODX1833BY	.05	1.0		170a	Rocks	14478	11/13/2018	N
	5	9881581	OU109	1.09	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	6	9881582	OU110	1.05	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	7	9881583	BKG OU111	1.03	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	8	9881586	OU112	1.08	SSMODX1833BY	.05	1.0		170a	Sand	14478	11/13/2018	N
	9	9881589	OU115	1.06	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	10	9881590	OU116	1.03	SSMODX1833BY	.05	1.0		170a	Sand	14478	11/13/2018	N
	11	9881591	OU117	1.01	SSMODX1833BY	.05	1.0		170a	Large Rock, Sand	14478	11/13/2018	N
	12	9881592	OU118	1.03	SSMODX1833BY	.05	1.0		170a	Sand, with Rocks	14478	11/13/2018	N
	13	9881594	OU120	1.08	SSMODX1833BY	.05	1.0		170a	layer of water, Sand	14478	11/13/2018	N
	14	9881595	OU121	1.07	SSMODX1833BY	.05	1.0		170a		14478	11/13/2018	N
	15	9881596	OU122	1.08	SSMODX1833BY	.05	1.0		170a	Gravel, pebbles	14478	11/13/2018	N
	16	9885111	82252	1.02	SSMODX1833BY	.05	1.0	↓	170a	Sand, Large Rocks	14478	11/15/2018	N

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18311003

Organic Extraction Batchlog **18311003** (3) mL

Port#		Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	17	9885112	82253	1.10	SSMODX1833BY	.05	1.0	20	170a	Red Sand	14478	11/15/2018	N
	18	9885113	82254	1.09	SSMODX1833BY	.05	1.0	↓	170a	Sand, Gravel	14478	11/15/2018	N

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	126981106183 3A
Auto-pipette (dilutions)	N/A SOP 12262 11/9/18 N/A
Auto-pipette (extract vialin	P1000-1
Envi-Carb	1075603
Internal Standard	151830933A
Methanol	DV013-US
Sand	MKBW7349V
Syringe (IS)	PFAS 4
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

CF12698 11/07/18

Balance #	B629764122	Sonic Bath ID	3800A	N-evap	C	25°C	SPE Manifold	N/A

18311003

DF = Dilution Factor FV = Final Volume Documented temps are NIST corrected.

N/A SOP 12262 11/9/18

BSI Page 32 of 32 DF

Organic Extraction Batchlog

18311004

Assigned to: 9213 Pamela Rothharpt Reviewed by: JDT12262 Start Date: 11/7/18 Start time: 7:35

Tech 1: PJR9213 Tech 2: —

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD ③mL PJR9213 11/7/18

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ③ (uL)	IS Amt (uL)	BC	Comments
—	9881538MS	MCLB4	1.05	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00	20	170a	gravel
	9881539MSD	MCLB4	1.10	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00		170a	gravel
	BLANKA	BLK311004	1.00	SSMODX1833BY	0.05	—	—	1.00		Z	
Z	LCSA	LCS311004	↓	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00	↓	Z	

Spike Solutions:
MSMODX1833AP PFAS 537 Native Spike
SSMODX1833BY PFAS 537 Modified Extraction/Surrogate Spik

Witness: CF12698 Instrument: LM27631

Sequence: 18NOV07SOD - 18NOV08D + 18NOV09D

Pos	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ③ (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
1	9881536	MCLB3	1.08	SSMODX1833BY	0.05	1.00	20	170a	gravel	14478	11/13/2018	N
2	9881537	BKG MCLB4	1.04	SSMODX1833BY	0.05	1.00		170a	gravel	14478	11/13/2018	N
3	9881540	MCLB5	1.05	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
4	9881541	MCLB6	1.01	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
5	9881544	MCLB9	1.03	SSMODX1833BY	0.05	1.00		170a	wet stones ⑧DIO	14478	11/13/2018	N
6	9881545	MCLB0	1.10	SSMODX1833BY	0.05	1.00		170a	gravel	14478	11/13/2018	N
7	9883380	SI111	1.02	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
8	9883381	SI112	1.02	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
9	9883386	SI115	1.06	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
10	9883387	SI116	1.02	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
11	9883388	SI117	1.10	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
12	9883389	SI118	1.03	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
13	9883392	I1111	1.01	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
14	9883393	I1112	1.08	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
15	9883394	I1113	1.05	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
16	9883395	I1114	1.04	SSMODX1833BY	0.05	1.00	↓	170a		14478	11/13/2018	N

BS Page 3203 of 3218

⑧ DIO: combined 877µL MeOH (DuoI-US) w/ 22.5µL surrogate (SSMODX1833BX) and 100µL sample extract; vortexed. Dilution internalized w/ 50µL IS1831233A; vortexed. JDT12262 11/9/18

18311004

Organic Extraction Batchlog **18311004**

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ③ ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
7	17	9885114	82255	1.06	SSMODX1833BY	0.05	1.00	20	170a	pebbles	14478	11/15/2018	N
7	18	9885117	82258	1.01	SSMODX1833BY	0.05	1.00	↓	170a		14478	11/15/2018	N

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	254781105183 3A
Auto-pipette (dilutions)	P1000-1 + P100-1
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	IS1830933A
Methanol	DV013-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 11/9/18

PJR9213 11/7/18

Balance #	B629764122	Sonic Bath ID	3800 A	N-evap C	38 °C	SPE Manifold	—

18311004

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 11/9/18

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Organic Extraction Batchlog Assigned to: 12698 Courtney Fatta Reviewed by: MCD 7824 Start Date: 11/08/18 Start time: ~~8~~ 9:45

18312003 Tech 1: CF12698 Tech 2: CF12698

③ CF12698 11/06/18

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD

③ mL CF12698 11/08/18

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments
	9885170MS	22234	1.08	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.0	20	170A	
	9885171MSD	22234	1.05	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.0		170A	
	BLANKA	BLK312003	1.0	SSMODX1833BZ	.05	N/A	N/A	1.0		Z	
	LCSA	LCS312003	1.0	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.0		Z	

Spike Solutions:
MSMODX1833AQ PFAS 537 Native Spike
SSMODX1833BZ PFAS 537 Modified Extraction/Surrogate Spik

Witness: PJ R9213

③ Instrument: ~~LM24~~ LM27631

Sequence: 18NOV07DOD/18NOV09D

③ mL

③ MCD 7824 11/9/18

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9885120	82261	1.06	SSMODX1833BZ	.05	1.0	20	170a	Sand	14478	11/15/2018	N
	2	9885123	82264	1.02	SSMODX1833BZ	.05	1.0		170a	Sand, pebbles	14478	11/15/2018	N
	3	9885124	82265	1.03	SSMODX1833BZ	.05	1.0		170a	Sand, pebbles	14478	11/15/2018	N
	4	9885125	82266	1.03	SSMODX1833BZ	.05	1.0		170a	Rocks, Sand	14478	11/15/2018	N
	5	9885126	82267	1.08	SSMODX1833BZ	.05	1.0		170a	Sand	14478	11/15/2018	N
	6	9885129	82270	1.04	SSMODX1833BZ	.05	1.0		170a	Sand	14478	11/15/2018	N
	7	9885130	82271	1.03	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	8	9885131	82272	1.05	SSMODX1833BZ	.05	1.0		170a	Rocks	14478	11/15/2018	N
	9	9885132	82273	1.05	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	10	9885135	82276	1.01	SSMODX1833BZ	.05	1.0		170a	Sand	14478	11/15/2018	N
	11	9885136	82277	1.07	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	12	9885137	82278	1.02	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	13	9885138	82279	1.01	SSMODX1833BZ	.05	1.0		170a	Rocks	14478	11/15/2018	N
	14	9885168	22233	1.05	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	15	9885169	BKG 22234	1.07	SSMODX1833BZ	.05	1.0		170a		14478	11/15/2018	N
	16	9885172	22235	1.06	SSMODX1833BZ	.05	1.0		170a	Sand, Rocks	14478	11/15/2018	N

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18312003

Organic Extraction Batchlog **18312003**

Port#	Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	126981106/833A
Auto-pipette (dilutions)	
Auto-pipette (extract vialin	P1000-1
Envi-Carb	1075563
Internal Standard	IS1831233A
Methanol	DV013-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCO 7824 11/9/18

CF12698 11/08/18

Balance #	B629764/22	Sonic Bath ID	3800 A	N-evap	A	35°C	SPE Manifold	N/A

18312003

DF = Dilution Factor FV = Final Volume Documented temps are NIST corrected.

NA MCO 7824 11/9/18

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Organic Extraction Batchlog Assigned to: 9213 Pamela Rothharpt Reviewed by: MCD 7824 Start Date: 11/8/18 Start time: 6:50

18312004 Tech 1: PJR9213 Tech 2: ACP26543

Analyses on Batch: PFAS in Water by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14465 PFAS Water Prep - DoD ③ mL PJR9213 11/8/18

Port#	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ③ (~~uL~~)	IS amt (uL)	BC	Comments
4	9884892MS	NS064	289.16	SSMODX1833BY	.025	MSMODX1833AQ	.04	1ml.	20	173a	
5	9884893MSD	NS064	285.27	SSMODX1833BY	.025	MSMODX1833AQ	.04	1ml.	20	173a	
1	BLANKA	BLK312004	250	SSMODX1833BY	.025	———	——	1ml.	20	Z	
2	LCSA	LCS312004	↓	SSMODX1833BY	.025	MSMODX1833AQ	.04	1ml.	20	Z	

Spike Solutions: Witness: RGB 1375 Instrument: LM27631

MSMODX1833AQ PFAS 537 Native Spike

SSMODX1833BY PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV07DOD/18NOV09D

Port#	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ③ (~~uL~~)	IS Amt (uL)	BC	Comments	Analyses	Due Date	Prio
3	1 9884891	BKG NS06	291.21	SSMODX1833BY	.025	1ml.	20	173a		14434	11/15/2018	N
6	2 9884894	NS08	266.41	SSMODX1833BY	.025	1ml.		173a		14434	11/15/2018	N
7	3 9884895	NS08	264.87	SSMODX1833BY	.025	1ml.		173a		14434	11/15/2018	N
8	4 9884896	NS08	254.37	SSMODX1833BY	.025	1ml.		173a		14434	11/15/2018	N
9	5 9884897	NS08	284.81	SSMODX1833BY	.025	1ml.		173a		14434	11/15/2018	N
10	6 9884898	NS09	276.14	SSMODX1833BY	.025	1ml		173a		14434	11/15/2018	N
11	7 9885109	EB 8225(	279.93	SSMODX1833BY	.025	1ml.	20	173a		14434	11/15/2018	N
12	8 9885110	BL 8225·	277.56	SSMODX1833BY	.025	1ml.	20	173a		14434	11/15/2018	N
1	9 9885139	8228:	288.78	SSMODX1833BY	.025	1ml.	20	173a		14434	11/15/2018	N
2	10 9885140	8228:	286.02	SSMODX1833BY	.025	1ml.	20	173a		14434	11/15/2018	N

NPA MCD 7824 11/19/18

18312004

Organic Extraction Batchlog **18312004**

Port#	Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due Date	Prio

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
0.3% NH4OH:MeOH	260431102183 3A
1:1 ACN:MeOH	260431102183 3B
Auto-pipette (dilutions)	—
Auto-pipette (extract vialin	P1000-2
Envi-Carb	1075163
Internal Standard	IS1831233A
Methanol	DN013-US
Milli-Q H2O	HOUSE A372
SPE Cartridge #1	0424575-01
Syringe (IS)	PFAS 7
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 9
Tezma	—

NA MCD 7824 11/19/18

Balance #	BL0297104122	SPE Manifold	8,9	N-evap A	40 C

ACP26543 11/8/18

D = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

18312004

NA MCD 7824 11/19/18

Batch 3258 01-3258

Organic Extraction Batchlog Assigned to: 25478 Danielle McCully Reviewed by: JPT12262 Start Date: 11/11/18 Start time: 16:30

18314009 Tech 1: ODM25478 Tech 2: N/A

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD (2) ml ODM25478 11/11/18

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (uL) (3)	IS Amt (uL)	BC	Comments
	9881540MS	MCLB5MS	1.05	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00	20	170a	
	BLANKA	BLK314009	1.00	SSMODX1833BZ	.05	N/A	-	1.00			
JA	LCSA	LCS314009	1.00	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00		JP	
	LCSDA	LCSD314009	1.00	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00			

Spike Solutions: Witness: DMW10262 Instrument: LM27631

MSMODX1833AQ PFAS 537 Native Spike

SSMODX1833BZ PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV12DOD - 18NOV12D & 18NOV13D

BS1 Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (uL) (3)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9881540 R	MCLB5	1.07	SSMODX1833BZ	.05	1.00	20	170a		14478	11/13/2018	N
	2	9881573 R	OU101	1.08	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	3	9881575 R	OU103	1.04	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	4	9881576 R	OU104	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	5	9881589 R	OU115	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	6	9881595 R	OU121	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	7	9883388 R	SI117	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	8	9883389 R	SI118	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	9	9883393 R	I1112	1.07	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	10	9883394 R	I1113	1.06	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	11	9885112 R	82253	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
	12	9885113 R	82254	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
	13	9885131 R	82272	1.02	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
	14	9885137 R	82278	1.07	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
	15	9885138 R	82279	1.00	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N

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18314009

Organic Extraction Batchlog **18314009**

Port#	Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	265431102183 3A
Auto-pipette (dilutions)	N/A JPT12262 11/13/18
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	IS1831133A
Methanol	DV013-US
Sand	~~MKBW3749V~~ MKBW3749V DAM2TM7K 11/11/18
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

N/A JPT12262 11/13/18

11/11/18 DAM2TM7K

Balance #	B1E2476412	Sonic Bath ID	3800a	N-evap B	30C	SPE Manifold	N/A

18314009

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

N/A JPT12262 11/13/18

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Organic Extraction Batchlog Assigned to: 12698 Courtney Fatta Reviewed by: MCD 7821 Start Date: 11/12/18 Start time: 9:50

18316011 Tech 1: CF12698 Tech 2: —

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

mL CF12698 11/12/18

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD (3)

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments
	9885087MS	82212	1.09	SSMODX1833CA	.05	MSMODX1833AQ	.04	1.0	20	170A	
	9885088MSD	82212	1.03	SSMODX1833CA	.05	MSMODX1833AQ	.04	1.0	↓	170A	
	BLANKA	BLK316011	1.0	SSMODX1833CA	.05	N/A	N/A	1.0	↓	Z	
	LCSA	LCS316011	1.0	SSMODX1833CA	.05	MSMODX1833AQ	.04	1.0	↓	Z	

Spike Solutions: Witness: PJR9213 Instrument: LM27631

MSMODX1833AQ PFAS 537 Native Spike Sequence: 18NOV12D0D/ 18NOV13D

SSMODX1833CA PFAS 537 Modified Extraction/Surrogate Spik (3) mL

BS1 Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9885080 R	82206	1.05	SSMODX1833CA	.05	1.0	20	170a		14478	11/15/2018	N
	2	9885081 R	82207	1.08	SSMODX1833CA	.05	1.0	↓	170a		14478	11/15/2018	N
	3	9885082 R	82208	1.04	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	4	9885085 R	82211	1.01	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	5	9885086 R	BKG 82212	1.06	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	6	9885089 R	82213	1.06	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	7	9885090 R	82214	1.06	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	8	9885092 R	82216	1.04	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	9	9885093 R	82217	1.09	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	10	9885094 R	82218	1.06	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	11	9885095 R	82219	1.08	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	12	9885098 R	82222	1.06	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	13	9885099 R	82223	1.07	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	14	9885100 R	82224	1.10	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	15	9885101 R	82225	1.07	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	16	9885104 R	82228	1.05	SSMODX1833CA	.05	1.0	↓	170a		14478	11/15/2018	N

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18316011

Organic Extraction Batchlog **18316011**

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (3) mL ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
7	17	9885105 R	82229	1.03	SSMODX1833CA	.05	1.0	20	170a		14478	11/15/2018	N
	18	9885106 R	82230	1.03	SSMODX1833CA	.05	1.0	↓	170a		14478	11/15/2018	N
	19	9885118 R	82259	1.04	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N
	20	9885119 R	82260	1.04	SSMODX1833CA	.05	1.0		170a		14478	11/15/2018	N

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	176981112/833A
Auto-pipette (dilutions)	———
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	IS18311 33A
Methanol	DV013-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 11/14/18

Balance # B629764172 | Sonic Bath ID 3800A | N-evap A 24°C | SPE Manifold N/A

18316011

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 11/14/18

Organic Extraction Batchlog

18332003

Assigned to: 12698 Courtney Fatta Reviewed by: MC07824 Start Date: 11/28/18 Start time: 9:45

Tech 1: CF12698 Tech 2: —

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

mL CF12698 11/28/18

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 (3) (uL)	IS Amt (uL)	BC	Comments
	9883383MS	SI113	1.10	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	20	170A	pebbles
	9883384MSD	SI113	1.07	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0		170A	pebbles
	BLANKA	BLK332003	1.0	SSMODX1833CE	.05	N/A	N/A	1.0		Z	
	LCSA	LCS332003	1.0	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0			

Spike Solutions: Witness: PJR9213 Instrument: LM27631

MSMODX1833AU PFAS 537 Native Spike

SSMODX1833CE PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV28DOD/18NOV29D

(3) mL

BS Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
Page 3213 of 3218	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 SI113	1.05	SSMODX1833CE	.05	1.0		170a	pebbles	14478	12/06/2018	N
	4	9883385	SI114	1.01	SSMODX1833CE	.05	1.0		170a	pebbles	14478	12/06/2018	N
	5	9883396	I1115	1.05	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N
	6	9883397	I1116	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

MA MC07824 11/30/18

18332003

Organic Extraction Batchlog **18332003**

Port#	Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	176981127183 3A
Auto-pipette (dilutions)	
Auto-pipette (extract vialin	P1000-3
Envi-Carb	107563
Internal Standard	IS18331337A
Methanol	DV136-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 11/30/18

CF12698 11/28/18

Balance #	B629764127	Sonic Bath ID	3800A	N-evap	A	30°C	SPE Manifold	N/A

18332003

D = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 11/30/18

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Moisture Data

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
9885111	82252
9885112	82253
9885113	82254
9885114	82255
9885117	82258
9885118	82259
9885119	82260
9885120	82261
9885123	82264
9885124	82265
9885125	82266
9885126	82267
9885129	82270
9885130	82271
9885131	82272
9885132	82273
9885133	82274
9885134	82275
9885135	82276
9885136	82277
9885137	82278
9885138	82279

COMMENTS:

Method defined actions are taken for any failed matrix QC.

Laboratory Compliance Quality Control

Analysis Name		LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number:	18313820007A	Sample number(s):	9885111-9885114, 9885117-9885120, 9885123-9885124			
Moisture		100		99-101		
Batch number:	18313820007B	Sample number(s):	9885125-9885126, 9885129-9885131, 9885135-9885138			
Moisture		100		99-101		
Batch number:	18317820003B	Sample number(s):	9885132			
Moisture		100		99-101		
Batch number:	18337820002B	Sample number(s):	9885133-9885134			
Moisture		100		99-101		

MOISTURE

Sample Matrix Quality Control

Analysis Name		BKG Conc	DUP Conc	RPD	RPD Max
Batch number:	18313820007A	Sample number(s):		9885111-9885114, 9885117-9885120, 9885123-9885124	
Moisture		4.4	4.6	5	5
Batch number:	18313820007B	Sample number(s):		9885125-9885126, 9885129-9885131, 9885135-9885138	
Moisture		5.6	6.3	11*	5
Batch number:	18317820003B	Sample number(s):		9885132	
Moisture		13.7	14.7	7*	5
Batch number:	18337820002B	Sample number(s):		9885133-9885134	
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 Data Report

Batch #: 18313820007

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9885111	A	00111	1.0850	5.5600	6.5947	0.90	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885112	A	00111	1.0721	5.6165	6.2247	8.26	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885113	A	00111	1.0641	5.5060	6.4997	1.28	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885114	A	00111	1.0798	5.2426	6.2655	1.09	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885117	A	00111	1.0675	5.5082	6.2801	5.37	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885118BKG	A	00111	1.0796	5.5701	6.4037	4.42	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885118DUP	A	00111	1.0791	5.5344	6.3577	4.62	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885119	A	00111	1.1618	5.6174	6.5909	3.35	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885120	A	00111	1.0833	5.5230	6.4110	3.54	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885123	A	00111	1.0764	5.3444	6.3173	1.94	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885124	A	00111	1.0864	5.2864	6.1730	3.78	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885125	B	00111	1.0691	5.5069	6.2775	5.42	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885126	B	00111	1.0659	5.3650	6.1457	5.32	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885129	B	00111	1.0805	5.7723	6.6624	3.30	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885130	B	00111	1.0698	5.2638	5.8683	8.84	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885131BKG	B	00111	1.0766	5.8694	6.6153	5.63	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885131DUP	B	00111	1.0909	5.8418	6.5642	6.31	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885135	B	00111	1.0721	5.8710	6.8723	1.21	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885136	B	00111	1.0676	5.5416	6.4337	3.17	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885137	B	00111	1.0840	5.8726	6.7484	3.55	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885138	B	00111	1.0600	5.7545	6.2191	10.35	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
LCS 89.5% Std.		00111	1.0561	5.0190	1.5870	89.42	11/ 9/18 (835/LEB)	11/12/18 (236/CW)

Batch #: 18317820003

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9885132BKG	B	00111	1.0668	5.5457	5.8509	13.73	11/13/18 (835/LEB)	11/14/18 (236/CW)
9885132DUP	B	00111	1.0661	5.5042	5.7589	14.74	11/13/18 (835/LEB)	11/14/18 (236/CW)
LCS 89.5% Std.		00111	1.0741	5.0353	1.6093	89.37	11/13/18 (835/LEB)	11/14/18 (236/CW)

Batch #: 18337820002

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9885133	B	00111	1.0826	5.4644	6.2551	5.34	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9885134	B	00111	1.0837	5.1847	6.1812	1.68	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 OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 335-67-1 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 375-95-1 1.1 0 NG_L U N TRG 0.36 0.36 0.36 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 335-76-2 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 2058-94-8 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 307-55-1 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 72629-94-8 1.1 0 NG_L U N TRG 0.54 0.54 0.54 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 376-06-7 1.1 0 NG_L U N TRG 0.54 0.54 0.54 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 307-24-4 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 375-85-9 1.1 0 NG_L U N TRG 0.36 0.36 0.36 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 375-73-5 0.98 0 NG_L U N TRG 0.27 0.27 0.27 0.98 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 355-46-4 0.98 0 NG_L U N TRG 0.36 0.36 0.36 0.98 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 1763-23-1 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 2991-50-6 2.1 0 NG_L U N TRG 0.89 0.89 0.89 2.1 2.7 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-01 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:43:00 9885109 20190118 2006159 0.00 1 1 2355-31-9 2.1 0 NG_L U N TRG 0.89 0.89 0.89 2.1 2.7 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 335-67-1 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 375-95-1 1.1 0 NG_L U N TRG 0.36 0.36 0.36 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 335-76-2 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 2058-94-8 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 307-55-1 1.1 0 NG_L U N TRG 0.45 0.45 0.45 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 72629-94-8 1.1 0 NG_L U N TRG 0.54 0.54 0.54 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109 14:52:00 9885110 20190118 2006159 0.00 1 1 376-06-7 1.1 0 NG_L U N TRG 0.54 0.54 0.54 1.1 1.8 BSI16 18312004 18312004 18312004 18312004 Y N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS

BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 307-24-4 1.1 0 NG_L U N
TRG 0.45 0.45 0.45 1.1 1.8 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 375-85-9 1.1 0 NG_L U N
TRG 0.36 0.36 0.36 1.1 1.8 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 375-73-5 0.99 0 NG_L U N
TRG 0.27 0.27 0.27 0.99 1.8 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 355-46-4 0.99 0 NG_L U N
TRG 0.36 0.36 0.36 0.99 1.8 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 1763-23-1 1.1 0 NG_L U N
TRG 0.45 0.45 0.45 1.1 1.8 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 2991-50-6 2.2 0 NG_L U N
TRG 0.90 0.90 0.90 2.2 2.7 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-W-01-02 537_MOD EUROFINS
BRADY GCE II NONE NA METHOD 000 WP UNK 20181108 06:50:00 20181109
14:52:00 9885110 20190118 2006159 0.00 1 1 2355-31-9 2.2 0 NG_L U N
TRG 0.90 0.90 0.90 2.2 2.7 BSI16
18312004 18312004 18312004 18312004 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 Calculation EUROFINS
BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885111
20190118 2006159 0.00 1 1 0.9 -86 0.90 0.90 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A
18313820007A Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 335-67-1 1.5 1.5 NG_G Y
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 375-95-1 0.67 0 NG_G U N
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 335-76-2 0.67 0 NG_G U N
TRG 0.30 0.30 0.30 0.67 0.99 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 2058-94-8 0.67 0 NG_G U N
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 307-55-1 0.67 0 NG_G U N
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 72629-94-8 0.67 0 NG_G U
N TRG 0.20 0.20 0.20 0.67 0.79
BSI16 18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 376-06-7 0.67 0 NG_G U N
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 307-24-4 0.69 0.69 NG_G J Y
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 375-85-9 0.20 0.20 NG_G J Y
TRG 0.20 0.20 0.20 0.67 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 375-73-5 0.59 0 NG_G U N
TRG 0.20 0.20 0.20 0.59 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 355-46-4 0.85 0.85 NG_G Y
TRG 0.20 0.20 0.20 0.63 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 1763-23-1 0.64 0 NG_G U N
TRG 0.20 0.20 0.20 0.64 0.79 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 2991-50-6 2.0 0 NG_G U N
TRG 0.49 0.49 0.49 2.0 3.0 BSI16
18311003 18311003 18311003 18311003 Y
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BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 09:10:00 20181108
21:07:00 9885111 20190118 2006159 0.00 1 1 0.9 2355-31-9 2.0 0 NG_G U N
TRG 0.49 0.49 0.49 2.0 3.0 BSI16
18311003 18311003 18311003 18311003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 Calculation EUROFINS
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20190118 2006159 0.00 1 1 8.3 -86 8.3 8.3 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A
18313820007A Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 335-67-1 0.72 0 NG_G U N
TRG 0.21 0.21 0.21 0.72 0.85 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 375-95-1 0.72 0 NG_G U N
TRG 0.21 0.21 0.21 0.72 0.85 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 335-76-2 0.72 0 NG_G U N
TRG 0.32 0.32 0.32 0.72 1.1 BSI16
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 2058-94-8 0.72 0 NG_G U N
TRG 0.21 0.21 0.21 0.72 0.85 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 307-55-1 0.72 0 NG_G U N
TRG 0.21 0.21 0.21 0.72 0.85 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:02:00 9885112 20190118 2006159 0.00 1 1 8.3 72629-94-8 0.72 0 NG_G U N
TRG 0.21 0.21 0.21 0.72 0.85 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 376-06-7 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 307-24-4 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 375-85-9 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 375-73-5 0.64 0 NG_G U N TRG
0.21 0.21 0.21 0.64 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 355-46-4 0.68 0 NG_G U N TRG
0.21 0.21 0.21 0.68 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 1763-23-1 0.69 0 NG_G U N TRG
0.21 0.21 0.21 0.69 0.85 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 2991-50-6 2.1 0 NG_G U N TRG
0.53 0.53 0.53 2.1 3.2 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:02:00
9885112 20190118 2006159 0.00 1 1 8.3 2355-31-9 2.1 0 NG_G U N TRG
0.53 0.53 0.53 2.1 3.2 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885113 20190118
2006159 0.00 1 1 1.3 -86 1.3 1.3 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A 18313820007A
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 335-67-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
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9885113 20190118 2006159 0.00 1 1 1.3 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 307-24-4 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
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9885113 20190118 2006159 0.00 1 1 1.3 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 355-46-4 0.64 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 1763-23-1 0.65 0 NG_G U N TRG
0.20 0.20 0.20 0.65 0.80 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 2991-50-6 2.0 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-05 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:11:00
9885113 20190118 2006159 0.00 1 1 1.3 2355-31-9 2.0 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885114 20190118
2006159 0.00 1 1 1.1 -86 1.1 1.1 PCT Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 335-67-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 375-95-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 335-76-2 0.65 0 NG_G U N TRG
0.29 0.29 0.29 0.65 0.95 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 2058-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 307-55-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 72629-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 376-06-7 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 307-24-4 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 375-85-9 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 375-73-5 0.57 0 NG_G U N TRG
0.19 0.19 0.19 0.57 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 355-46-4 0.61 0 NG_G U N TRG
0.19 0.19 0.19 0.61 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 1763-23-1 0.62 0 NG_G U N TRG
0.19 0.19 0.19 0.62 0.76 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 2991-50-6 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-01-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:11:00
9885114 20190118 2006159 0.00 1 1 1.1 2355-31-9 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885117 20190118
2006159 0.00 1 1 5.4 -86 5.4 5.4 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A 18313820007A
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 335-67-1 1.3 1.3 NG_G Y TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 375-95-1 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 335-76-2 0.71 0 NG_G U N TRG
0.31 0.31 0.31 0.71 1.0 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 2058-94-8 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 307-55-1 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 72629-94-8 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 376-06-7 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 307-24-4 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 375-85-9 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 375-73-5 0.63 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 355-46-4 0.48 0.48 NG_G J Y TRG
0.21 0.21 0.21 0.67 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 1763-23-1 0.91 0.91 NG_G Y TRG
0.21 0.21 0.21 0.68 0.84 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 2991-50-6 2.1 0 NG_G U N TRG
0.52 0.52 0.52 2.1 3.1 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 04:20:00
9885117 20190118 2006159 0.00 1 1 5.4 2355-31-9 2.1 0 NG_G U N TRG
0.52 0.52 0.52 2.1 3.1 BSI16 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885118 20190118
2006159 0.00 1 1 4.4 -86 4.4 4.4 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A 18313820007A
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
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0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
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0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 307-24-4 0.54 0.54 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
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9885118 20190118 2006159 0.00 1 1 4.4 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
9885118 20190118 2006159 0.00 1 1 4.4 1763-23-1 0.65 0 NG_G U N TRG
0.20 0.20 0.20 0.65 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:32:00
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Y
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GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885119 20190118
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0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A 18313820007A
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 335-67-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 307-24-4 0.27 0.27 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 375-73-5 0.60 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
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9885119 20190118 2006159 0.00 1 1 3.4 1763-23-1 0.65 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 2991-50-6 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181112 09:50:00 20181113 20:41:00
9885119 20190118 2006159 0.00 1 1 3.4 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI16 18316011 18316011 18316011 18316011
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885120 20190118
2006159 0.00 1 1 3.5 -86 3.5 3.5 PCT Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 335-67-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 375-95-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 335-76-2 0.66 0 NG_G U N TRG
0.29 0.29 0.29 0.66 0.98 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 2058-94-8 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 307-55-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 72629-94-8 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 376-06-7 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 307-24-4 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 375-85-9 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 375-73-5 0.59 0 NG_G U N TRG
0.20 0.20 0.20 0.59 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 355-46-4 0.63 0 NG_G U N TRG
0.20 0.20 0.20 0.63 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:33:00
9885120 20190118 2006159 0.00 1 1 3.5 1763-23-1 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:33:00 9885120 20190118 2006159 0.00 1 1 3.5 2991-50-6 2.0 0 NG_G U N
TRG 0.49 0.49 0.49 2.0 2.9 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-02-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:33:00 9885120 20190118 2006159 0.00 1 1 3.5 2355-31-9 2.0 0 NG_G U N
TRG 0.49 0.49 0.49 2.0 2.9 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 Calculation EUROFINS
BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885123
20190118 2006159 0.00 1 1 1.9 -86 1.9 1.9 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A
18313820007A Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:42:00 9885123 20190118 2006159 0.00 1 1 1.9 335-67-1 0.55 0.55 NG_G J Y
TRG 0.20 0.20 0.20 0.68 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:42:00 9885123 20190118 2006159 0.00 1 1 1.9 375-95-1 0.68 0 NG_G U N
TRG 0.20 0.20 0.20 0.68 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:42:00 9885123 20190118 2006159 0.00 1 1 1.9 335-76-2 0.68 0 NG_G U N
TRG 0.30 0.30 0.30 0.68 1.0 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
05:42:00 9885123 20190118 2006159 0.00 1 1 1.9 2058-94-8 0.68 0 NG_G U N
TRG 0.20 0.20 0.20 0.68 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 307-55-1 0.68 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 307-24-4 1.9 1.9 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 375-85-9 0.30 0.30 NG_G J Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
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9885123 20190118 2006159 0.00 1 1 1.9 375-73-5 0.21 0.21 NG_G J Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 1763-23-1 0.65 0 NG_G U N TRG
0.20 0.20 0.20 0.65 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:42:00
9885123 20190118 2006159 0.00 1 1 1.9 2355-31-9 2.0 0 NG_G U N TRG
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Y
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GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885124 20190118
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0.50 0.50 0.50 0.50 0.50 BSI16 18313820007A 18313820007A 18313820007A
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 335-67-1 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 375-95-1 0.69 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 2058-94-8 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 307-55-1 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 72629-94-8 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 376-06-7 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 307-24-4 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 375-85-9 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 375-73-5 0.61 0 NG_G U N TRG
0.20 0.20 0.20 0.61 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 1763-23-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.81 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 05:51:00
9885124 20190118 2006159 0.00 1 1 3.8 2355-31-9 2.0 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885125 20190118
2006159 0.00 1 1 5.4 -86 5.4 5.4 PCT Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 335-67-1 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 375-95-1 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 335-76-2 0.70 0 NG_G U N TRG
0.31 0.31 0.31 0.70 1.0 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 2058-94-8 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 307-55-1 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 72629-94-8 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 376-06-7 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 307-24-4 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 375-85-9 0.70 0 NG_G U N TRG
0.21 0.21 0.21 0.70 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 375-73-5 0.62 0 NG_G U N TRG
0.21 0.21 0.21 0.62 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 355-46-4 0.66 0 NG_G U N TRG
0.21 0.21 0.21 0.66 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 1763-23-1 0.67 0 NG_G U N TRG
0.21 0.21 0.21 0.67 0.82 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 2991-50-6 2.1 0 NG_G U N TRG
0.51 0.51 0.51 2.1 3.1 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:00:00
9885125 20190118 2006159 0.00 1 1 5.4 2355-31-9 2.1 0 NG_G U N TRG
0.51 0.51 0.51 2.1 3.1 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885126 20190118
2006159 0.00 1 1 5.3 -86 5.3 5.3 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 335-67-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 375-95-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 335-76-2 0.66 0 NG_G U N TRG
0.29 0.29 0.29 0.66 0.98 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 2058-94-8 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 307-55-1 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 72629-94-8 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 376-06-7 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 307-24-4 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 375-85-9 0.66 0 NG_G U N TRG
0.20 0.20 0.20 0.66 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 375-73-5 0.59 0 NG_G U N TRG
0.20 0.20 0.20 0.59 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 355-46-4 0.63 0 NG_G U N TRG
0.20 0.20 0.20 0.63 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 1763-23-1 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.78 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 2.9 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-03-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:09:00
9885126 20190118 2006159 0.00 1 1 5.3 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 2.9 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885129 20190118
2006159 0.00 1 1 3.3 -86 3.3 3.3 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 335-67-1 1.4 1.4 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 375-95-1 0.68 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
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9885129 20190118 2006159 0.00 1 1 3.3 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 307-24-4 2.5 2.5 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 375-85-9 0.21 0.21 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
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0.20 0.20 0.20 0.60 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 355-46-4 5.8 5.8 NG_G Y TRG
0.20 0.20 0.20 0.64 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 1763-23-1 15 15 NG_G Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 2991-50-6 2.0 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-01 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:18:00
9885129 20190118 2006159 0.00 1 1 3.3 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885130 20190118
2006159 0.00 1 1 8.8 -86 8.8 8.8 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 335-67-1 0.71 0.71 NG_G J Y TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 375-95-1 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 335-76-2 0.72 0 NG_G U N TRG
0.32 0.32 0.32 0.72 1.1 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 2058-94-8 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 307-55-1 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 72629-94-8 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 376-06-7 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 307-24-4 0.65 0.65 NG_G J Y TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 375-85-9 0.72 0 NG_G U N TRG
0.21 0.21 0.21 0.72 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 375-73-5 0.32 0.32 NG_G J Y TRG
0.21 0.21 0.21 0.64 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 355-46-4 3.4 3.4 NG_G Y TRG
0.21 0.21 0.21 0.68 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 1763-23-1 1.0 1.0 NG_G Y TRG
0.21 0.21 0.21 0.69 0.85 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 2991-50-6 2.1 0 NG_G U N TRG
0.53 0.53 0.53 2.1 3.2 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-03 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:27:00
9885130 20190118 2006159 0.00 1 1 8.8 2355-31-9 2.1 0 NG_G U N TRG
0.53 0.53 0.53 2.1 3.2 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885131 20190118
2006159 0.00 1 1 5.6 -86 5.6 5.6 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 335-67-1 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 375-95-1 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 335-76-2 0.71 0 NG_G U N TRG
0.31 0.31 0.31 0.71 1.0 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 2058-94-8 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 307-55-1 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 72629-94-8 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 376-06-7 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 307-24-4 0.59 0.59 NG_G J Y TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 375-85-9 0.71 0 NG_G U N TRG
0.21 0.21 0.21 0.71 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 375-73-5 0.33 0.33 NG_G J Y TRG
0.21 0.21 0.21 0.62 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 355-46-4 0.70 0.70 NG_G J Y TRG
0.21 0.21 0.21 0.66 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 1763-23-1 0.68 0 NG_G U N TRG
0.21 0.21 0.21 0.68 0.83 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 2991-50-6 2.1 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-06 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:20:00
9885131 20190118 2006159 0.00 1 1 5.6 2355-31-9 2.1 0 NG_G U N TRG
0.52 0.52 0.52 2.1 3.1 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181113 13:14:00 9885132 20190118
2006159 0.00 1 1 13.7 -86 13.7 13.7 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18317820003B 18317820003B 18317820003B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 335-67-1 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 375-95-1 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 335-76-2 0.75 0 NG_G U N TRG
0.33 0.33 0.33 0.75 1.1 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 2058-94-8 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 307-55-1 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 72629-94-8 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 376-06-7 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 307-24-4 0.87 0.87 NG_G J Y TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 375-85-9 0.75 0 NG_G U N TRG
0.22 0.22 0.22 0.75 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 375-73-5 0.43 0.43 NG_G J Y TRG
0.22 0.22 0.22 0.66 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109 06:54:00
9885132 20190118 2006159 0.00 1 1 13.7 355-46-4 0.52 0.52 NG_G J Y TRG
0.22 0.22 0.22 0.71 0.88 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-08 537_MOD EUROFINS BRADY
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Y
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Y
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Y
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9885133 20190118 2006159 0.00 1 1 5.3 375-95-1 0.69 0 NG_G U N TRG
0.20 0.20 0.20 0.69 0.81 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
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0.20 0.20 0.20 0.69 0.81 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY

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9885133 20190118 2006159 0.00 1 1 5.3 307-55-1 0.69 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
9885133 20190118 2006159 0.00 1 1 5.3 307-24-4 0.69 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-10 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
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GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:52:00
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 Calculation EUROFINS BRADY
GCE II NONE Wet NONE 000 S UNK 20181203 10:37:00 9885134 20190118
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
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0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY

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9885134 20190118 2006159 0.00 1 1 1.7 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
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0.30 0.30 0.30 0.68 1.0 BSI16 18332003 18332003 18332003 18332003
Y
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GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
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0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 307-24-4 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 375-73-5 0.60 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 355-46-4 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 1763-23-1 0.65 0 NG_G U N TRG
0.20 0.20 0.20 0.65 0.80 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY
GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 2991-50-6 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI16 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU7-1037-S-04-12 537_MOD EUROFINS BRADY

GCE II NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 20:02:00
9885134 20190118 2006159 0.00 1 1 1.7 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI16 18332003 18332003 18332003 18332003
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BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885135
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 335-67-1 1.1 1.1 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 2058-94-8 0.68 0 NG_G U N
TRG 0.20 0.20 0.20 0.68 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 72629-94-8 0.68 0 NG_G U N
TRG 0.20 0.20 0.20 0.68 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 307-24-4 0.20 0.20 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 355-46-4 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.80 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 1763-23-1 1.5 1.5 NG_G Y
TRG 0.20 0.20 0.20 0.65 0.80 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 2991-50-6 1.5 1.5 NG_G J Y
TRG 0.50 0.50 0.50 2.0 3.0 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-01 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:03:00 9885135 20190118 2006159 0.00 1 1 1.2 2355-31-9 2.0 0 NG_G U N
TRG 0.50 0.50 0.50 2.0 3.0 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 Calculation EUROFINS
BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885136
20190118 2006159 0.00 1 1 3.2 -86 3.2 3.2 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 0.00 1 1 3.2 335-67-1 1.5 1.5 NG_G Y TRG
0.19 0.19 0.19 0.66 0.77 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 0.00 1 1 3.2 375-85-9 0.24 0.24 NG_G J Y TRG
0.19 0.19 0.19 0.66 0.77 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16 18312003 18312003 18312003 18312003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
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TRG 0.19 0.19 0.19 0.63 0.77 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 0.00 1 1 3.2 2991-50-6 1.0 1.0 NG_G J Y
TRG 0.48 0.48 0.48 1.9 2.9 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-03 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181108 09:45:00 20181109
07:12:00 9885136 20190118 2006159 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 BSI16
18312003 18312003 18312003 18312003 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 Calculation EUROFINS
BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885137
20190118 2006159 0.00 1 1 3.5 -86 3.5 3.5 PCT Y TRG
0.50 0.50 0.50 0.50 0.50 BSI16 18313820007B 18313820007B 18313820007B
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
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Y
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0.19 0.19 0.19 0.66 0.77 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:29:00 9885137 20190118 2006159 0.00 1 1 3.5 335-76-2 0.66 0 NG_G U N TRG
0.29 0.29 0.29 0.66 0.97 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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TRG 0.19 0.19 0.19 0.66 0.77 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:29:00 9885137 20190118 2006159 0.00 1 1 3.5 307-55-1 0.66 0 NG_G U N TRG
0.19 0.19 0.19 0.66 0.77 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:29:00 9885137 20190118 2006159 0.00 1 1 3.5 72629-94-8 0.66 0 NG_G U N
TRG 0.19 0.19 0.19 0.66 0.77 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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0.19 0.19 0.19 0.66 0.77 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:29:00 9885137 20190118 2006159 0.00 1 1 3.5 307-24-4 0.66 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:29:00 9885137 20190118 2006159 0.00 1 1 3.5 375-85-9 0.66 0 NG_G U N TRG
0.19 0.19 0.19 0.66 0.77 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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0.19 0.19 0.19 0.58 0.77 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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TRG 0.48 0.48 0.48 1.9 2.9 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-06 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 Calculation EUROFINS
BRADY GCE II NONE Wet NONE 000 S UNK 20181109 11:37:00 9885138
20190118 2006159 0.00 1 1 10.3 -86 10.3 10.3 PCT Y TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 335-67-1 0.76 0 NG_G U N TRG
0.22 0.22 0.22 0.76 0.89 BSI16 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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TRG 0.22 0.22 0.22 0.76 0.89 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 335-76-2 0.76 0 NG_G U N
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18314009 18314009 18314009 18314009 Y
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BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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N TRG 0.22 0.22 0.22 0.76 0.89
BSI16 18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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TRG 0.22 0.22 0.22 0.76 0.89 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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N TRG 0.22 0.22 0.22 0.76 0.89
BSI16 18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 376-06-7 0.76 0 NG_G U N
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18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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TRG 0.22 0.22 0.22 0.76 0.89 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 375-85-9 0.76 0 NG_G U N
TRG 0.22 0.22 0.22 0.76 0.89 BSI16
18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 1763-23-1 0.72 0 NG_G U
N TRG 0.22 0.22 0.22 0.72 0.89
BSI16 18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS
BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113
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18314009 18314009 18314009 18314009 Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-WWTPW-S-01-08 537_MOD EUROFINS

BRADY GCE II NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 04:38:00 9885138 20190118 2006159 0.00 1 1 10.3 2355-31-9 2.2 0 NG_G U N TRG 0.56 0.56 0.56 2.2 3.3 BSI16 18314009 18314009 18314009 18314009 Y

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

OU7-1037-W-01-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-W-01-01 WP EB N 20181102 08:03:00 01 FT

OU7-1037-W-01-02 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-W-01-02 WP BLK N 20181102 08:05:00 02 FT 02111801

OU7-1037-S-01-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-01-01 SO N N 20181102 08:09:00 01 FT 02111801

OU7-1037-S-01-03 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-01-03 SO N N 20181102 08:23:00 03 FT 02111801

OU7-1037-S-01-05 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-01-05 SO N N 20181102 08:30:00 05 FT 02111801

OU7-1037-S-01-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-01-08 SO N N 20181102 08:34:00 08 FT 02111801

OU7-1037-S-02-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-02-01 SO N N 20181102 08:56:00 01 FT 02111801

OU7-1037-S-02-03 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-02-03 SO N N 20181102 09:11:00 03 FT 02111801

OU7-1037-S-02-06 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-02-06 SO N N 20181102 09:15:00 06 FT 02111801

OU7-1037-S-02-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-02-08 SO N N 20181102 09:18:00 08 FT 02111801

OU7-1037-S-03-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-03-01 SO N N 20181102 09:40:00 01 FT 02111801

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OU7-1037-S-03-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-03-08 SO N N 20181102 10:04:00 08 FT 02111801

OU7-1037-S-04-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-01 SO N N 20181102 10:35:00 01 FT 02111801

OU7-1037-S-04-03 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-03 SO N N 20181102 10:52:00 03 FT 02111801

OU7-1037-S-04-06 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-06 SO N N 20181102 10:56:00 06 FT 02111801

OU7-1037-S-04-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-08 SO N N 20181102 10:58:00 08 FT 02111801

OU7-1037-S-04-10 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-10 SO N N 20181102 11:02:00 10 FT 02111801

OU7-1037-S-04-12 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 1037-S-04-12 SO N N 20181102 11:04:00 12 FT 02111801

OU1-WWTPW-S-01-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 WWTPW-S-01-01 SO N N 20181102 11:27:00 01 FT 02111801

OU1-WWTPW-S-01-03 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 WWTPW-S-01-03 SO N N 20181102 11:55:00 03 FT 02111801

OU1-WWTPW-S-01-06 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 WWTPW-S-01-06 SO N N 20181102 12:00:00 06 FT 02111801

OU1-WWTPW-S-01-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 WWTPW-S-01-08 SO N N 20181102 12:02:00 08 FT 02111801

BLK18311003 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000

SO LB N
LCS18311003 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
BLK18311004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO LB N
LCS18311004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
BLK18312003 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO LB N
LCS18312003 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
BLK18312004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
WP LB N
LCS18312004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
WP BS N
LCS18313820007A N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
DUP18313820007A N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO LR N 20181102 09:11:00
LCS18313820007B N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
DUP18313820007B N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO LR N 20181102 10:56:00
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LCS18314009 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
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SO BD N
BLK18316011 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO LB N
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SO BS N
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SO LR N 20181102 10:58:00
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SO LB N
LCS18332003 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N
LCS18337820002B N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
SO BS N