Ion Ratio Report

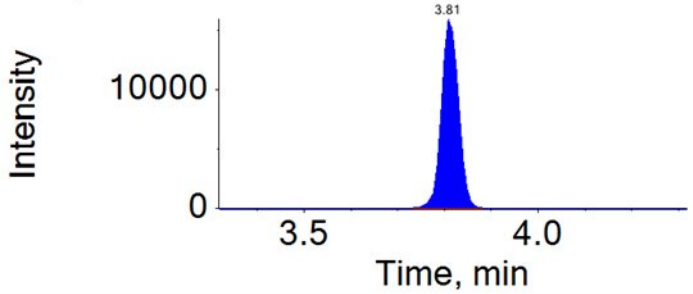
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-05.wiff

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	40715.3	A	N/A	0.3906			
PFBS_2	3.81	1.00	15902.0	A	N/A	0.3906	8	50	
4:2-FTS	4.12	1.00	11234.3	A	N/A	0.5979			
4:2 FTS_2	4.13	1.00	6716.5	A	N/A	0.5979		#NA!	
PFHxA	4.16	1.00	94419.1	A	N/A	0.0129			
PFHxA_2	4.16	1.00	1215.5	A	N/A	0.0129	10	50	
PFPeS	4.18	1.10	22520.0	A	N/A	0.5041			
PFPeS_2	4.18	1.10	11351.9	A	N/A	0.5041	-3	50	
PFHpA	4.55	1.00	94703.4	A	N/A	0.0563			
PFHpA_2	4.55	1.00	5331.7	A	N/A	0.0563	0	50	
PFHxS	4.55	1.00	31116.0	M	N/A	0.3316			
PFHxS_2	4.55	1.00	10319.5	A	N/A	0.3316	-3	50	
6:2-FTS	4.91	1.00	7251.1	A	N/A	0.6715			
6:2 FTS_2	4.91	1.00	4869.2	A	N/A	0.6715		#NA!	
PFHpS	4.91	1.08	33565.2	A	N/A	0.3376			
PFHpS_2	4.91	1.08	11331.8	A	N/A	0.3376	-17	50	
PFOA	4.92	1.00	97268.8	A	N/A	0.0544			
PFOA_2	4.91	1.00	5290.4	A	N/A	0.0544	-3	50	
PFOS	5.25	1.00	29101.9	M	N/A	0.3621			
PFOS_2	5.25	1.00	10538.2	M	N/A	0.3621	22	50	
PFNA	5.26	1.00	74726.2	A	N/A	0.0205			
PFNA_2	5.27	1.00	1528.2	A	N/A	0.0205	-11	50	
PFNS	5.54	1.06	21280.8	A	N/A	0.4311			
PFNS_2	5.54	1.06	9173.8	M	N/A	0.4311	-11	50	
PFDA	5.56	1.00	61208.1	A	N/A	0.0038			
PFDA_2	5.55	1.00	232.9	A	N/A	0.0038	-53	50	OOS
8:2-FTS	5.56	1.00	6888.9	A	N/A	0.5073			
8:2 FTS_2	5.57	1.00	3494.5	M	N/A	0.5073		#NA!	
NMeFOSAA	5.70	1.00	7803.6	M	N/A	0.3014			
NMeFOSAA_2	5.71	1.00	2352.3	A	N/A	0.3014	17	50	
PFDS	5.80	1.11	16863.0	A	N/A	0.4542			
PFDS_2	5.80	1.11	7659.4	A	N/A	0.4542	-12	50	
PFUnDA	5.82	1.00	50785.7	A	N/A	0.0026			
PFUnDA_2	5.84	1.00	129.8	A	N/A	0.0026	-56	50	OOS
NEtFOSAA	5.83	1.00	6353.1	M	N/A	0.6384			
NEtFOSAA_2	5.84	1.00	4055.6	M	N/A	0.6384	-12	50	
PFDoDA	6.05	1.00	56256.7	A	N/A	0.0155			
PFDoDA_2	6.05	1.00	870.7	A	N/A	0.0155	-1	50	
10:2-FTS	6.07	1.09	4386.3	A	N/A	0.7830			
10:2 FTS_2	6.07	1.09	3434.5	A	N/A	0.7830		#NA!	
PFTrDA	6.25	1.03	47478.9	A	N/A	0.0141			
PFTrDA_2	6.25	1.03	667.5	A	N/A	0.0141	64	50	OOS
PFTeDA	6.43	1.00	37143.0	A	N/A	0.0027			
PFTeDA_2	6.45	1.00	100.7	A	N/A	0.0027	-57	50	OOS
PFHxDA	6.73	1.05	19260.7	A	N/A	0.0722			
PFHxDA_2	6.73	1.05	1390.3	A	N/A	0.0722	6	50	
PFODA	6.99	1.09	14710.9	A	N/A	0.0258			
PFODA_2	6.99	1.09	379.6	A	N/A	0.0258	-7	50	

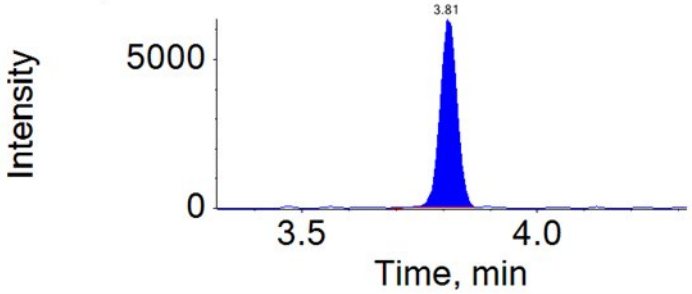
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

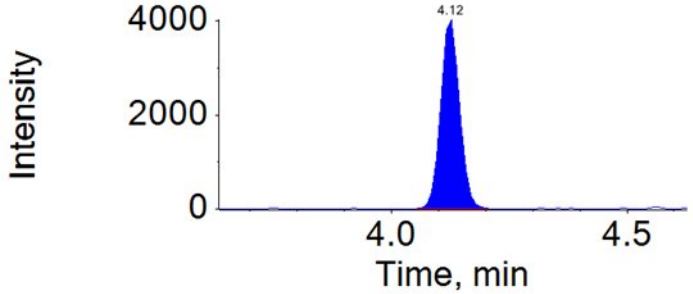
Component: PFBS
Primary Mass: 299.0 / 80.0



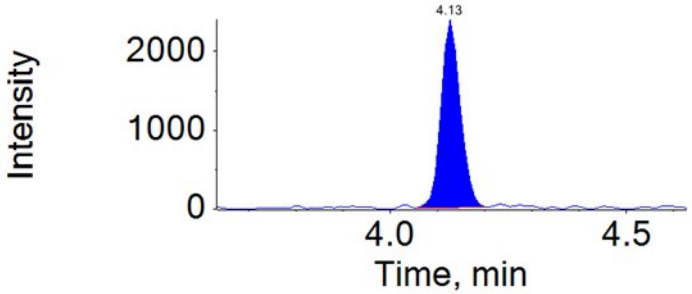
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



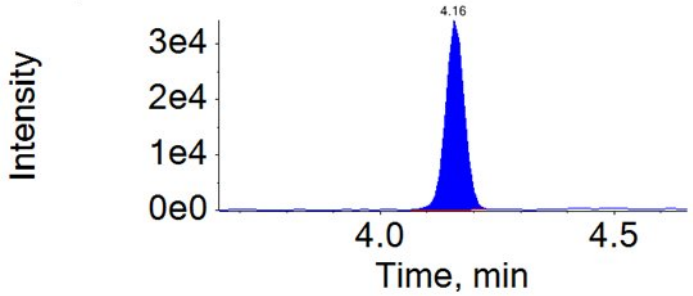
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



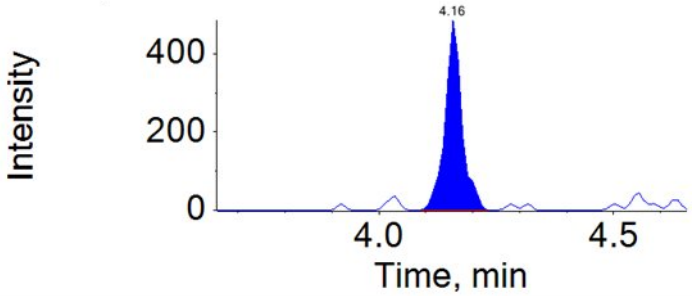
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



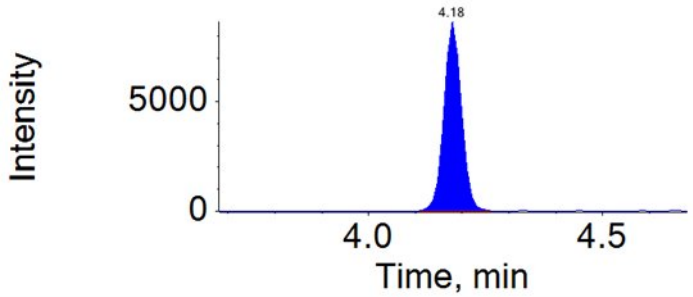
Component: PFHxA
Primary Mass: 313.0 / 269.0



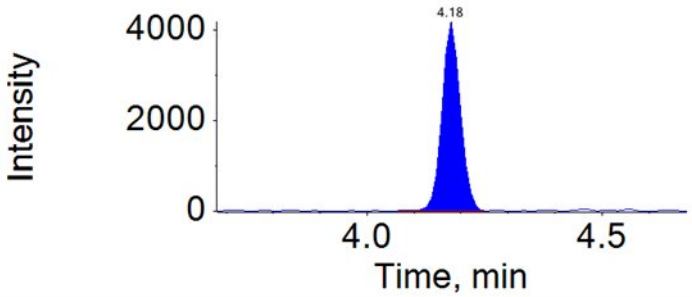
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



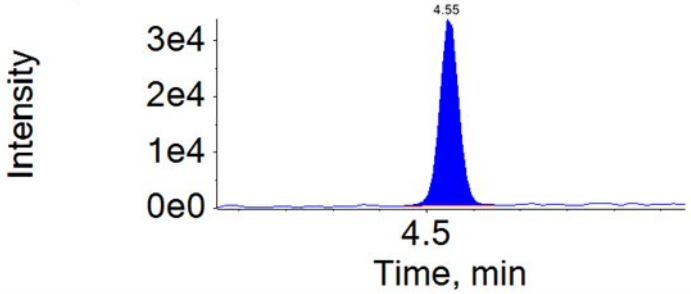
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



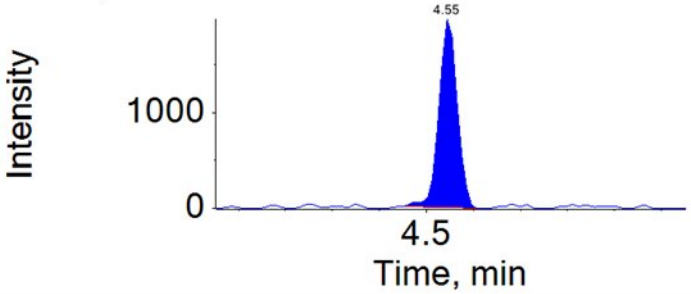
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

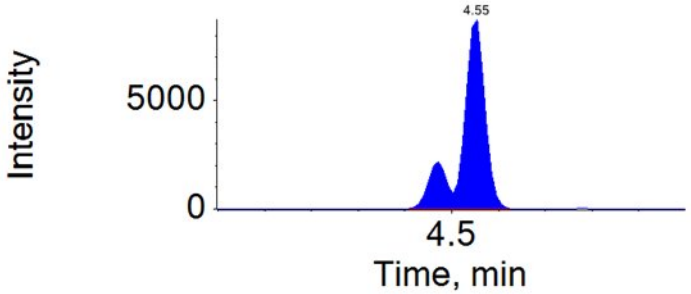
Component: PFHpA
Primary Mass: 363.0 / 319.0



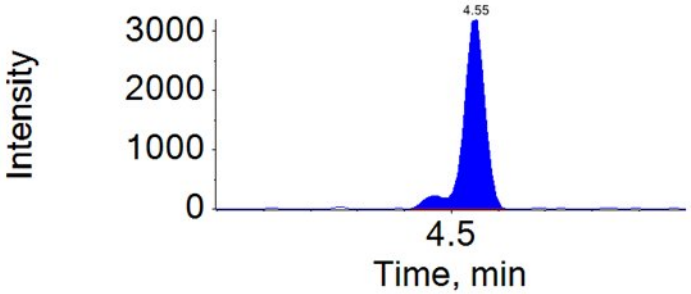
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



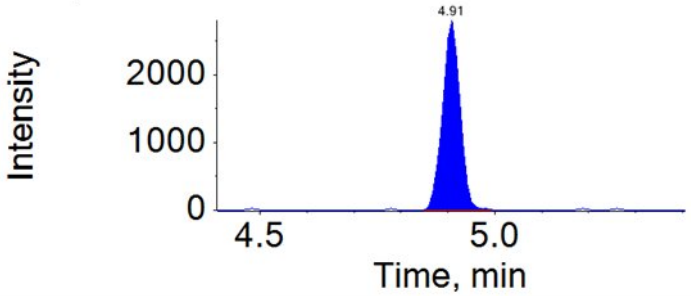
Component: PFHxS
Primary Mass: 399.0 / 80.0



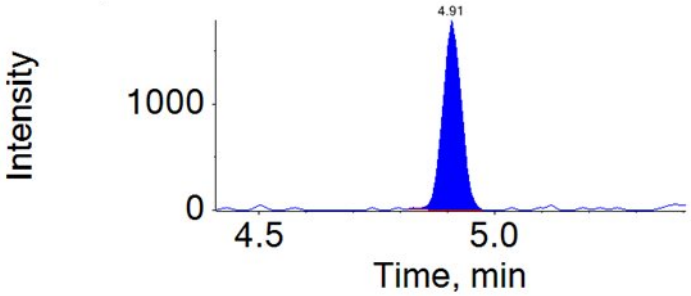
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



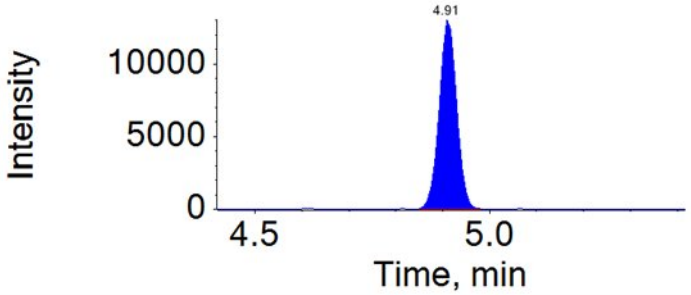
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



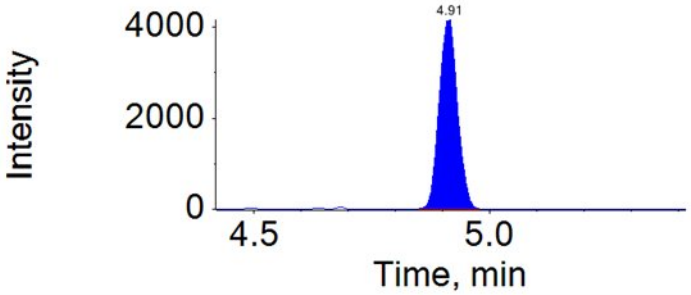
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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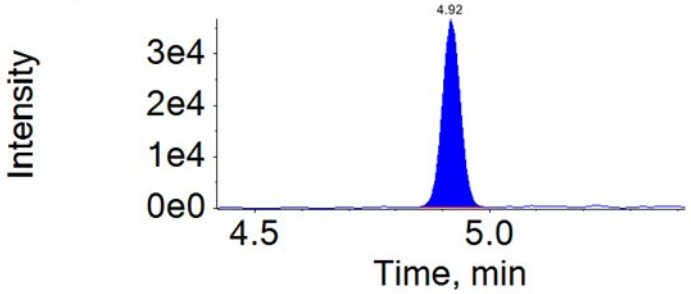
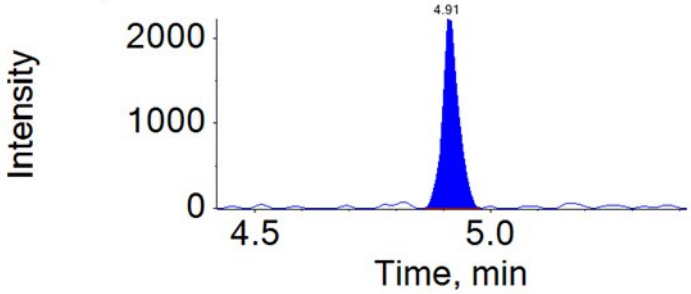
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

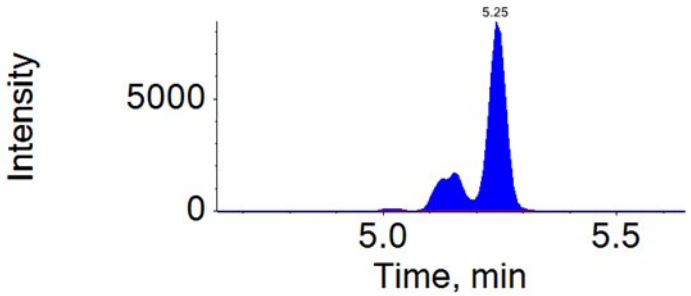
Component: PFOA
Primary Mass: 413.0 / 369.0



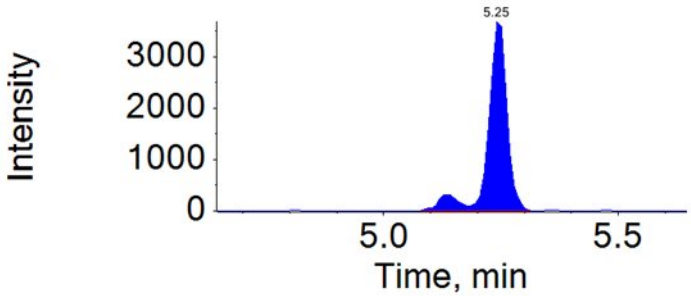
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



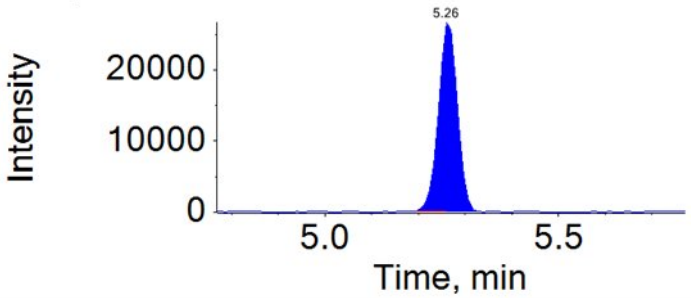
Component: PFOS
Primary Mass: 499.0 / 80.0



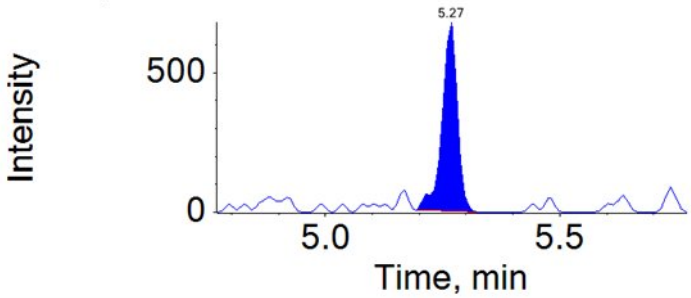
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



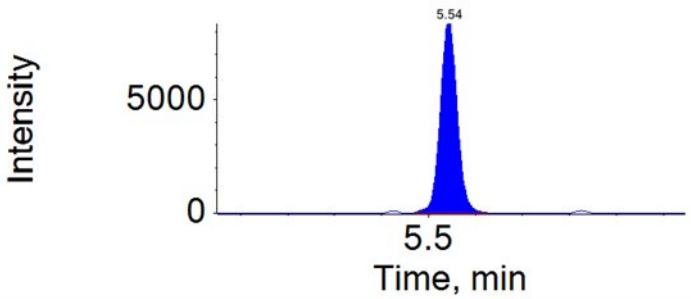
Component: PFNA
Primary Mass: 463.0 / 419.0



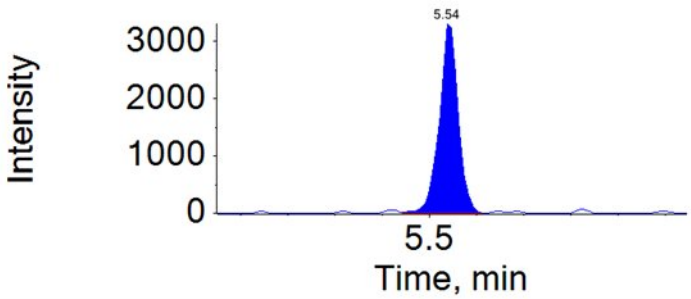
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



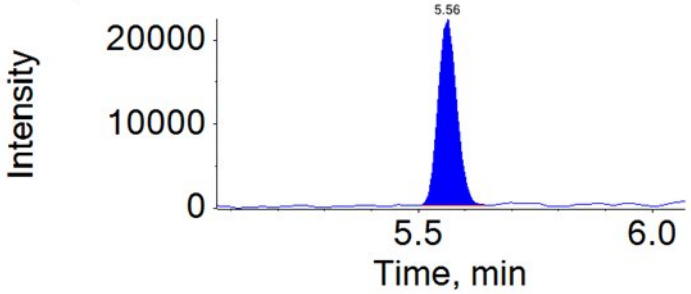
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



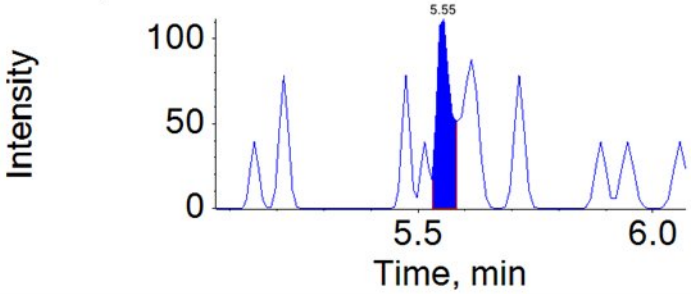
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

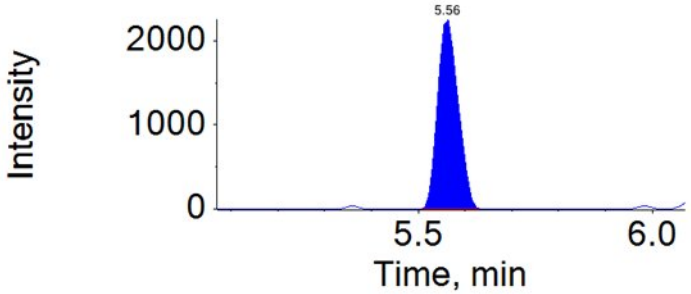
Component: PFDA
Primary Mass: 513.0 / 469.0



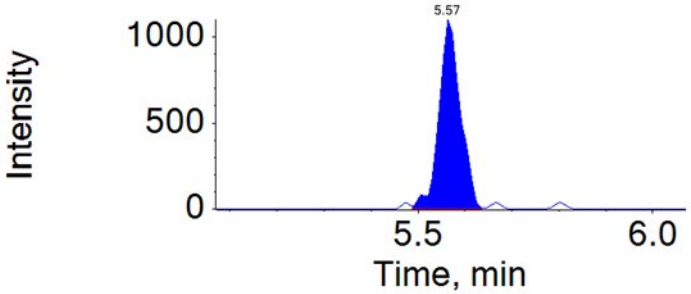
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



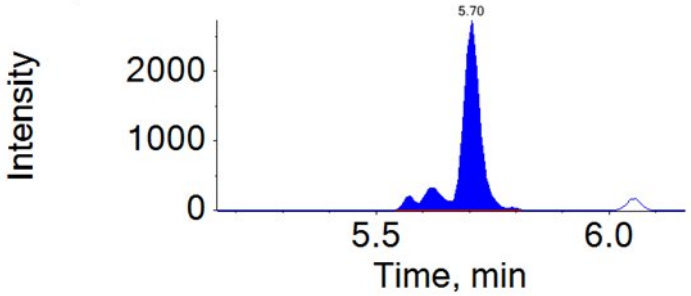
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



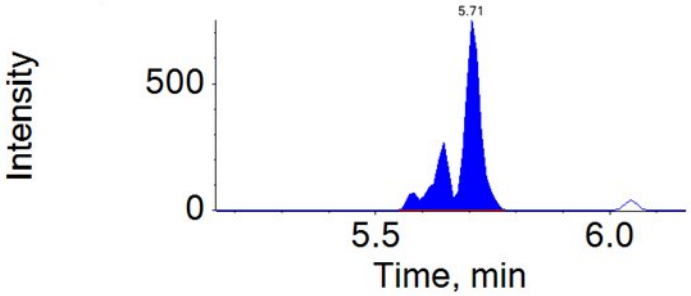
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



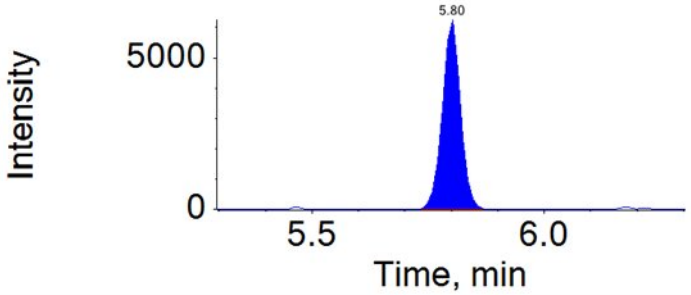
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



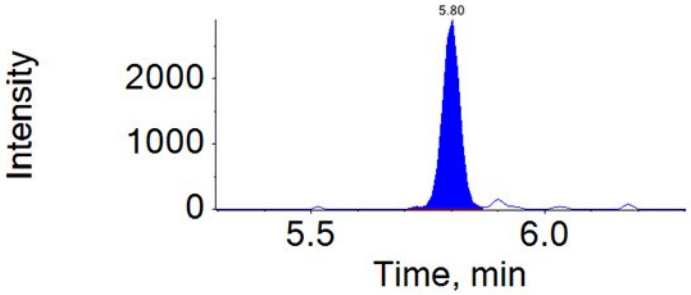
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



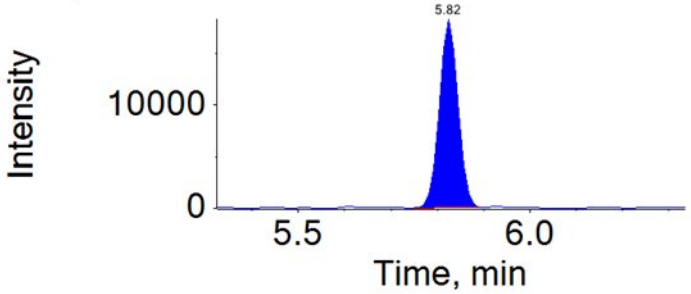
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



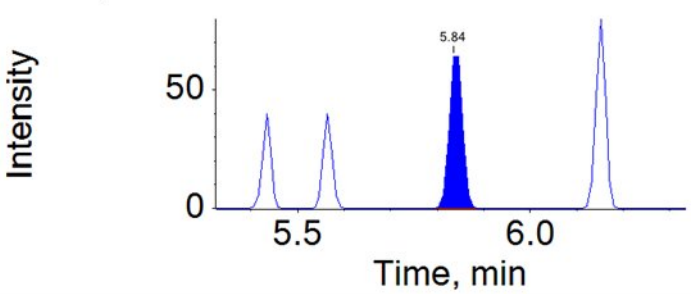
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

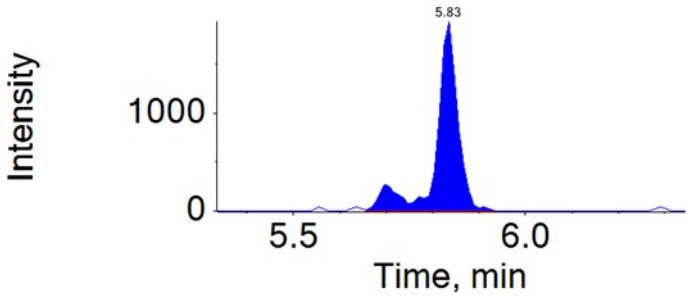
Component: PFUnDA
Primary Mass: 563.0 / 519.0



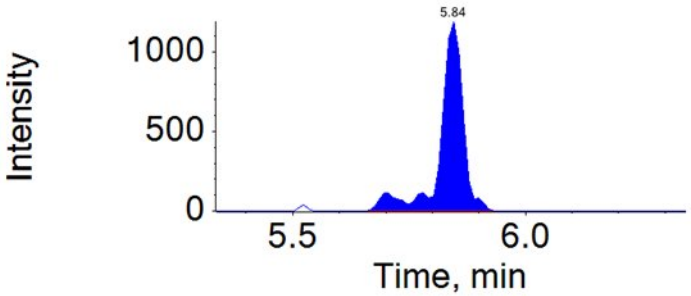
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



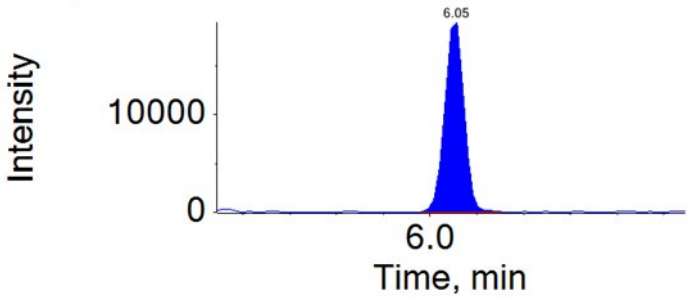
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



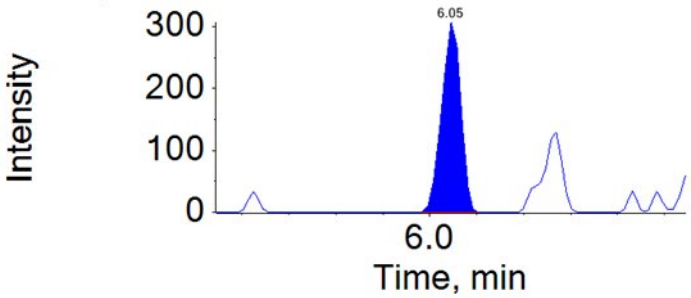
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



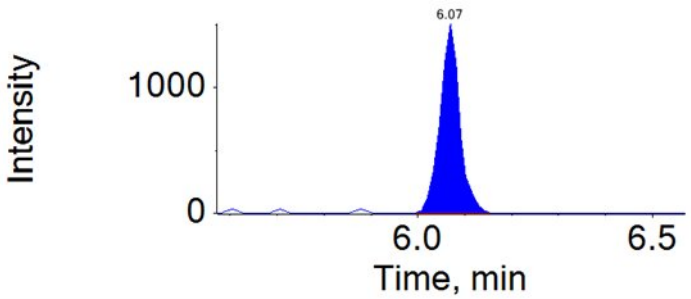
Component: PFDoDA
Primary Mass: 613.0 / 569.0



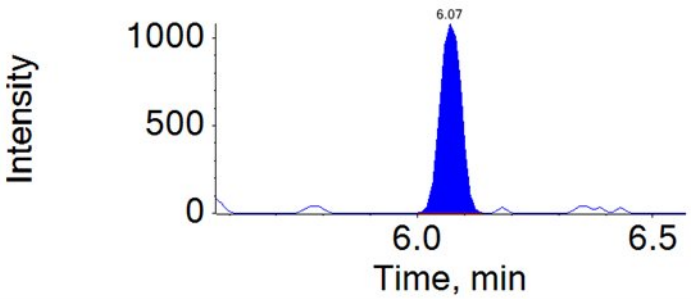
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



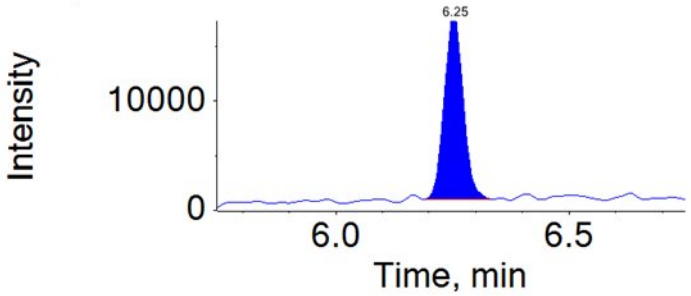
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



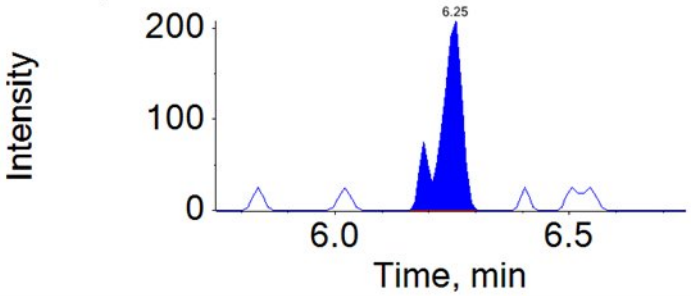
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

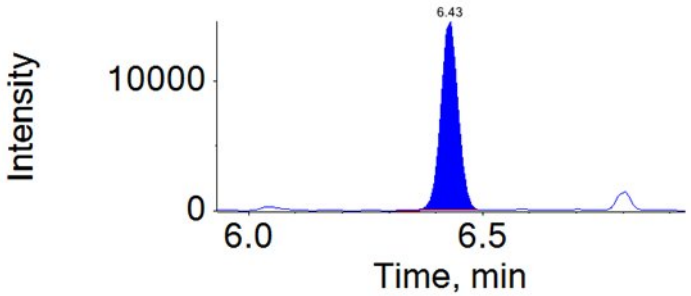
Component: PFTrDA
Primary Mass: 663.0 / 619.0



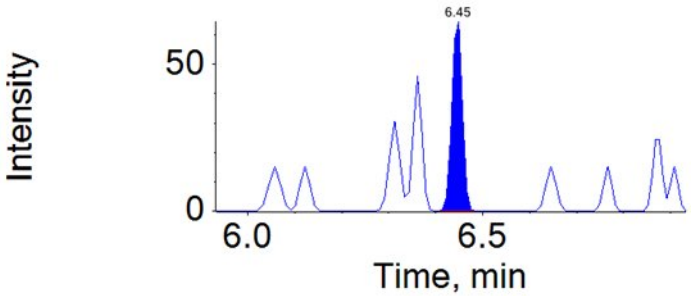
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



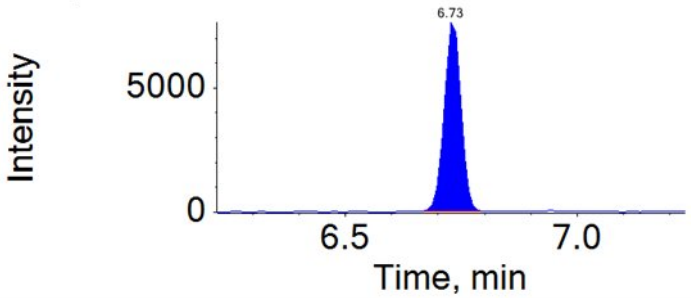
Component: PFTeDA
Primary Mass: 713.0 / 669.0



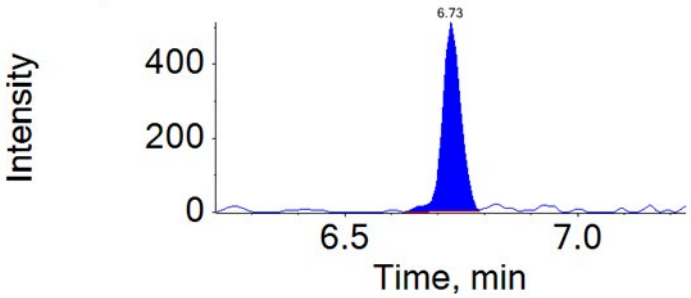
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



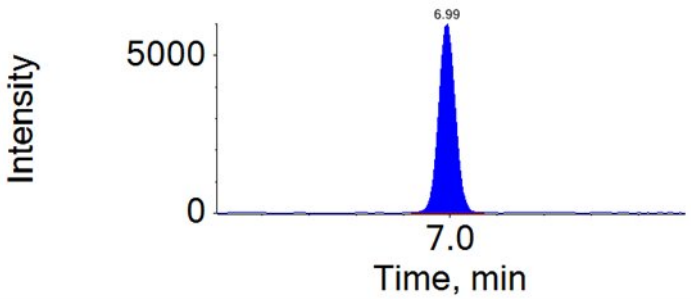
Component: PFHxDA
Primary Mass: 813.0 / 769.0



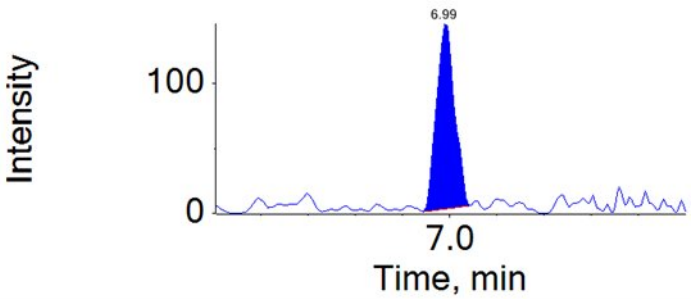
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV12D-06.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-12T17:30:36
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV1-2
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	700678.2	659926.2	6	50	
13C2-PFOA	5.0	501862.4	450219.7	11	50	
13C4-PFOS	4.8	265827.8	249205.8	7	50	
13C2-PFDA	5.0	313532.3	278743.9	12	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	778338.6	13C3-PFBA	700678.2	1.111	5.000	4.980	100	70-130	
E13C5-PFPeA	771183.8	13C3-PFBA	700678.2	1.101	5.000	4.937	99	70-130	
E13C3-PFBS	454738.5	13C3-PFBA	700678.2	0.649	4.650	4.581	99	70-130	
E13C2-4:2-FTS	54302.6	13C2-PFOA	501862.4	0.108	4.670	4.819	103	70-130	
E13C5-PFHxA	679071.8	13C2-PFOA	501862.4	1.353	5.000	4.888	98	70-130	
E13C3-PFHxS	344474.4	13C2-PFOA	501862.4	0.686	4.730	4.710	100	70-130	
E13C4-PFHpA	532521.5	13C2-PFOA	501862.4	1.061	5.000	4.780	96	70-130	
E13C2-6:2-FTS	37008.0	13C2-PFOA	501862.4	0.074	4.750	4.934	104	70-130	
E13C8-PFOA	918519.6	13C2-PFOA	501862.4	1.830	5.000	5.043	101	70-130	
E13C8-PFOS	289403.4	13C4-PFOS	265827.8	1.089	4.780	4.824	101	70-130	
E13C9-PFNA	484906.2	13C4-PFOS	265827.8	1.824	5.000	5.086	102	70-130	
E13C6-PFDA	652793.5	13C2-PFDA	313532.3	2.082	5.000	4.859	97	70-130	
E13C2-8:2-FTS	30551.9	13C2-PFDA	313532.3	0.097	4.790	4.860	101	70-130	
E13C8-PFOSA	652323.3	13C2-PFDA	313532.3	2.081	5.000	4.613	92	70-130	
Ed3-NMeFOSAA	76377.2	13C2-PFDA	313532.3	0.244	5.000	4.397	88	70-130	
E13C7-PFUnDA	271896.6	13C2-PFDA	313532.3	0.867	5.000	5.035	101	70-130	
Ed5-NEtFOSAA	60822.1	13C2-PFDA	313532.3	0.194	5.000	4.104	82	70-130	
E13C2-PFDoDA	565062.9	13C2-PFDA	313532.3	1.802	5.000	4.679	94	70-130	
Ed7-NMePFOSAE	349234.7	13C2-PFDA	313532.3	1.114	5.000	4.820	96	70-130	
Ed3-NMePFOSA	80586.7	13C2-PFDA	313532.3	0.257	5.000	4.670	93	70-130	
Ed9-NEtPFOSAE	267606.0	13C2-PFDA	313532.3	0.854	5.000	4.439	89	70-130	
Ed5-NEtPFOSA	61370.7	13C2-PFDA	313532.3	0.196	5.000	4.592	92	70-130	
E13C2-PFTeDA	416788.0	13C2-PFDA	313532.3	1.329	5.000	4.667	93	70-130	

APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

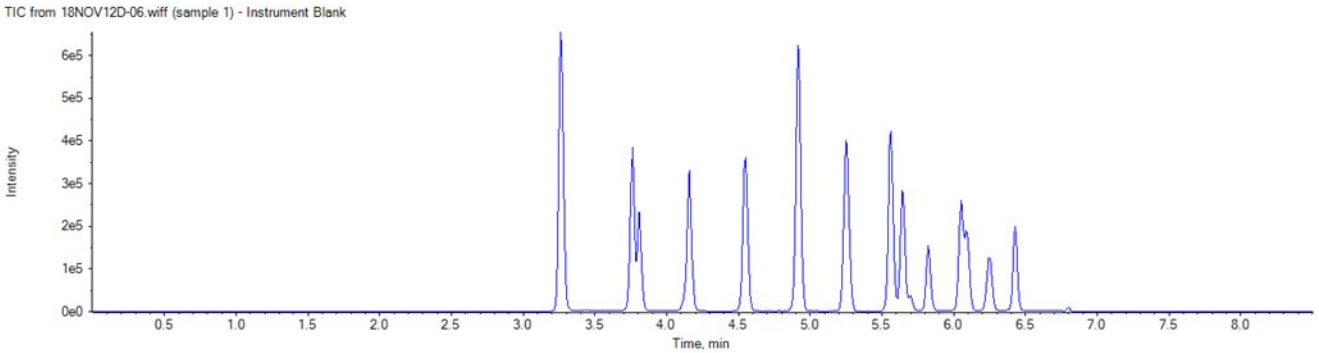
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-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	778338.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	771183.8	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	454738.5	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	54302.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	679071.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	454738.5	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	532521.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	344474.4	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	37008.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	344474.4	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	918519.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	484906.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	652793.5	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30551.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	652323.3	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	76377.2	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	271896.6	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	60822.1	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	565062.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	30551.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	349234.7	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	80586.7	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	289403.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	267606.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	61370.7	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	565062.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	416788.0	N/A	

Total Ion Chromatogram

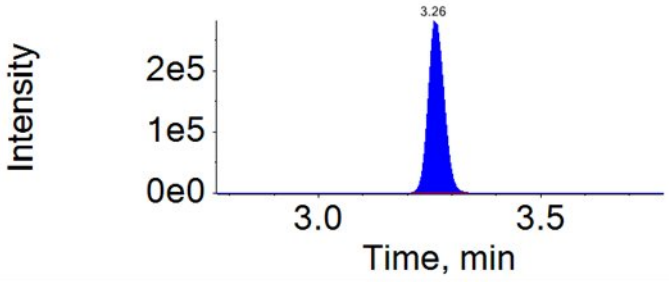


APPROVED
By MCD at 7:46 pm, 11/12/18

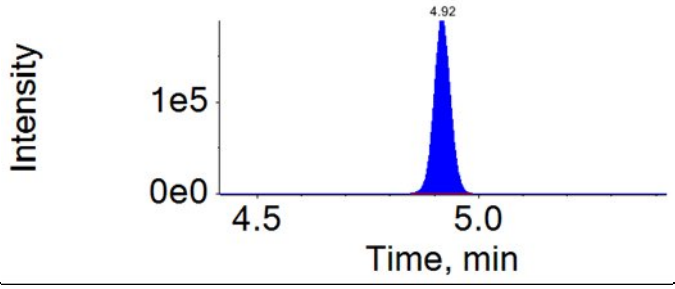
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

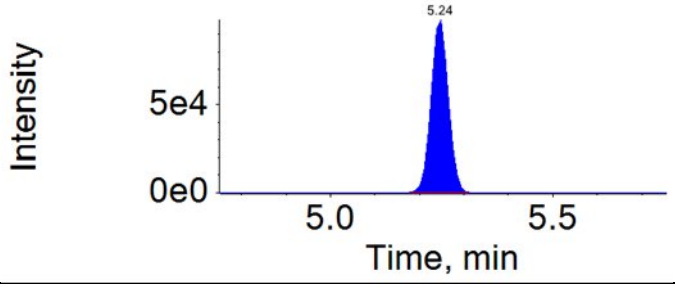
Injection Standard: 13C3-PFBA
216.0 / 172.0



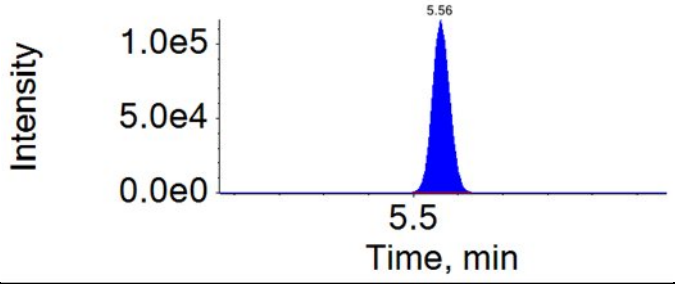
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



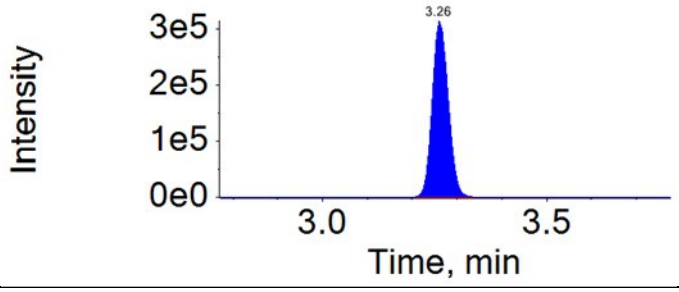
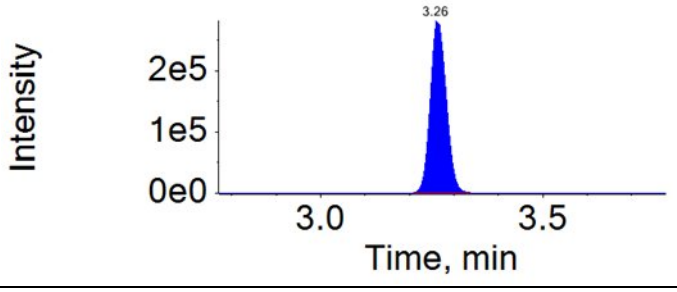
Injection Standard: 13C2-PFDA
515.0 / 470.0

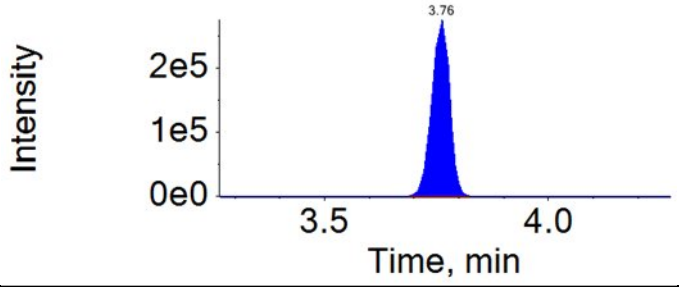
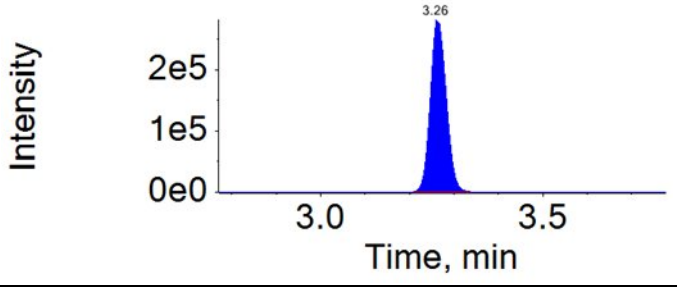


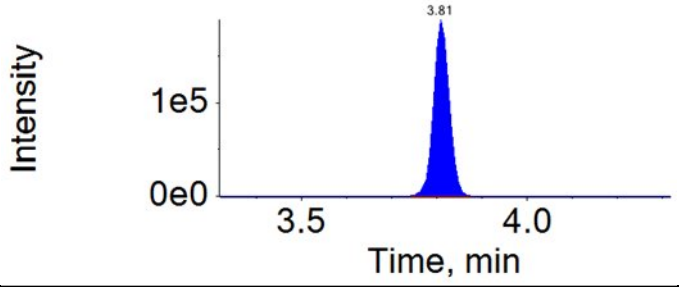
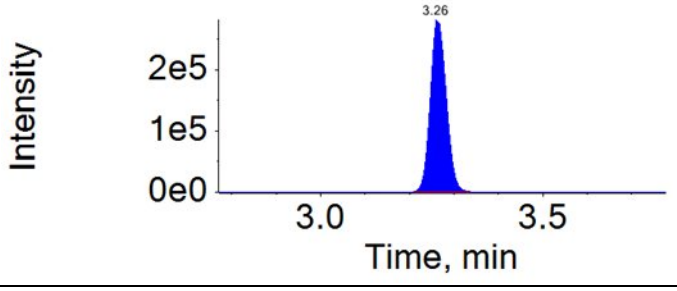
APPROVED
By MCD at 7:46 pm, 11/12/18

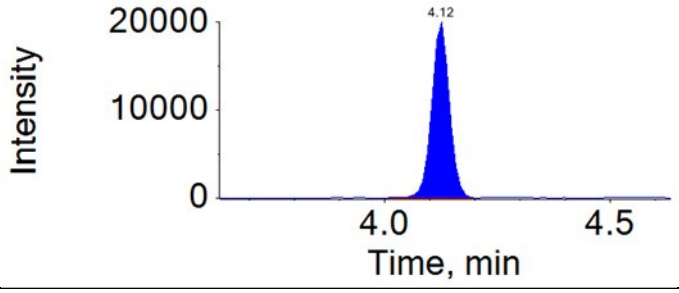
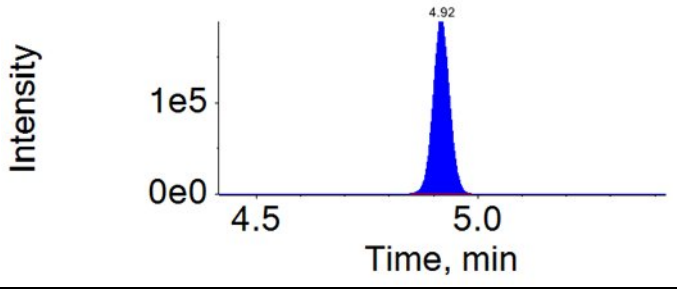
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 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
	

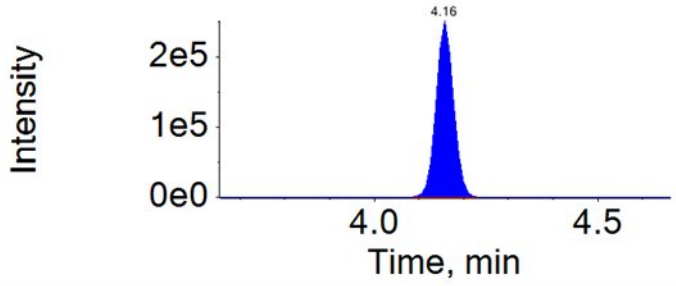
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

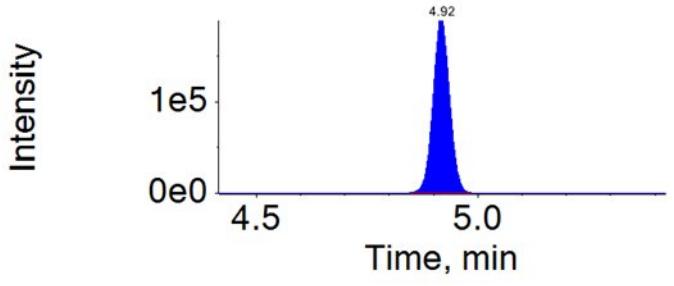
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

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

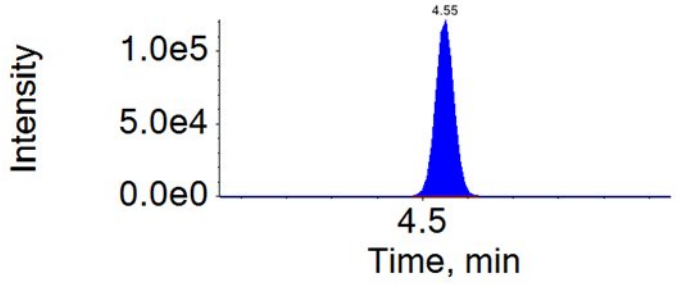
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

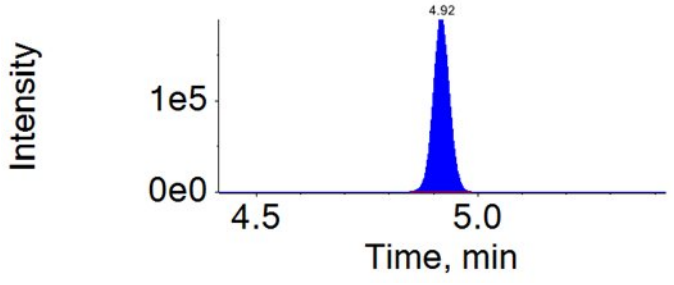
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



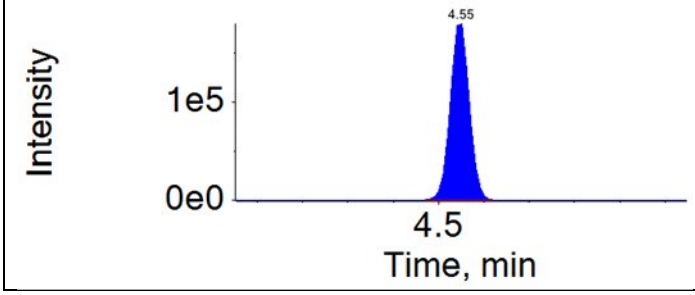


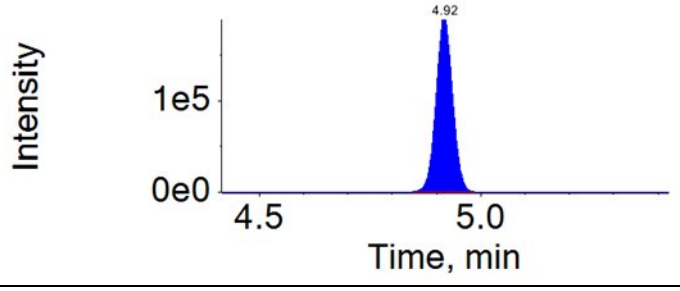
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



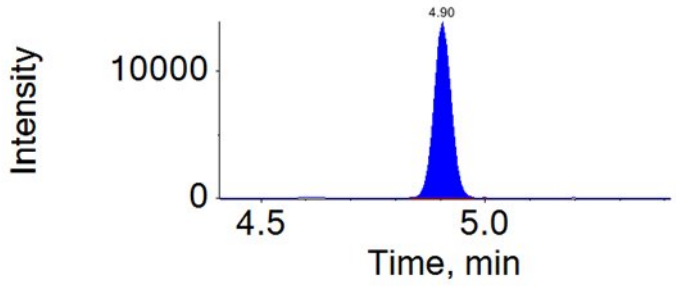


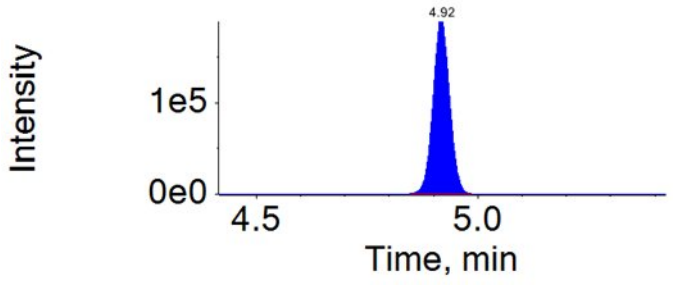
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



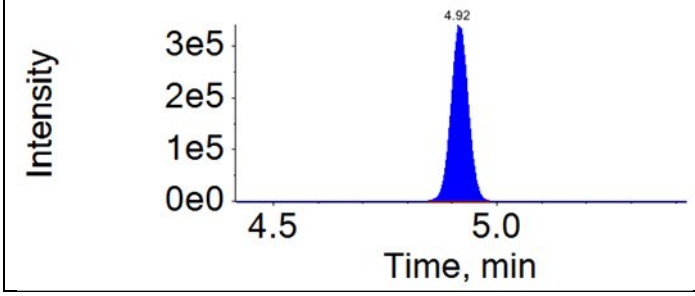


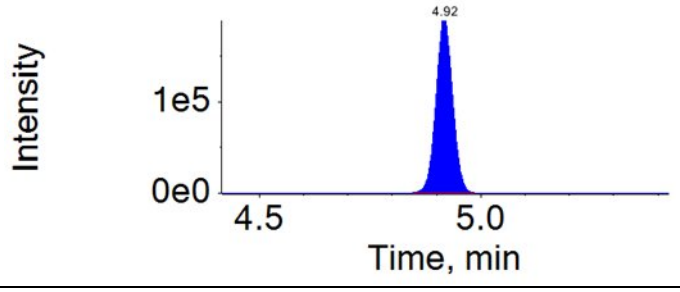
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

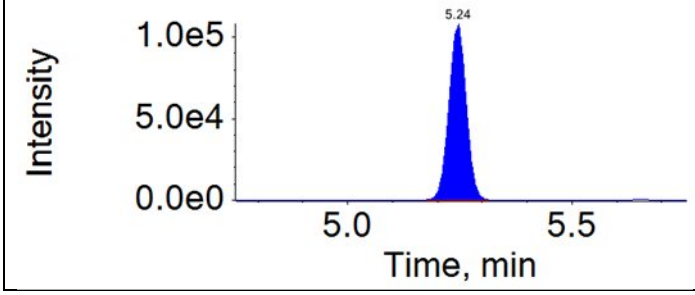
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

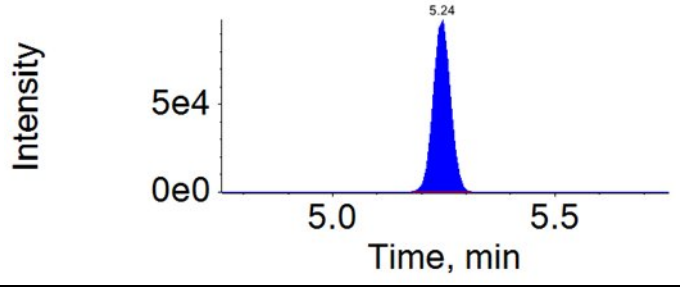
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



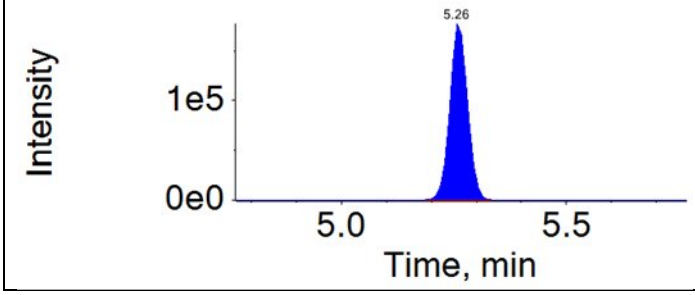


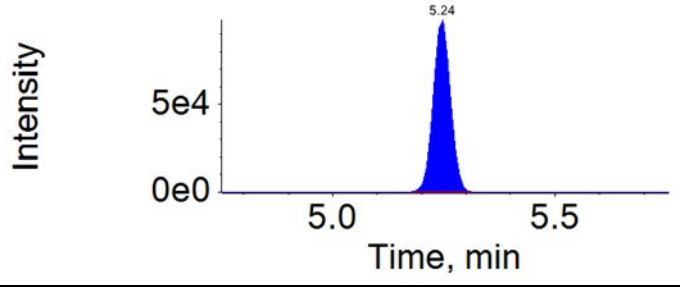
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



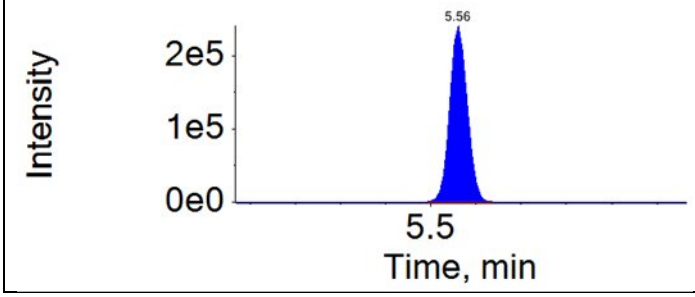


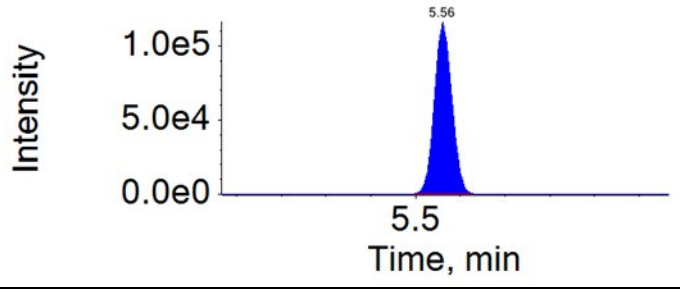
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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

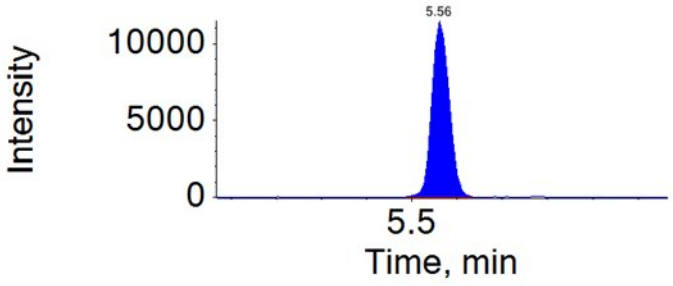
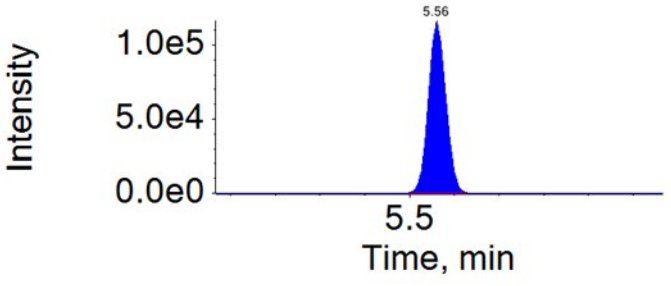


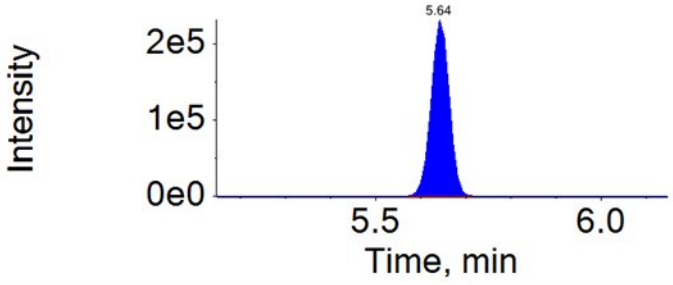
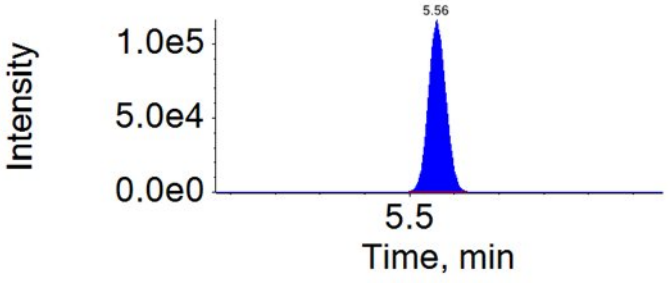


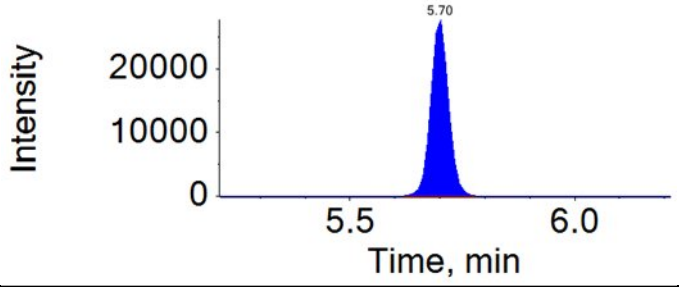
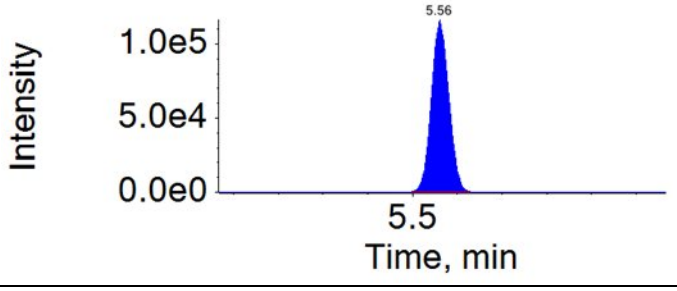
APPROVED
By MCD at 7:46 pm, 11/12/18

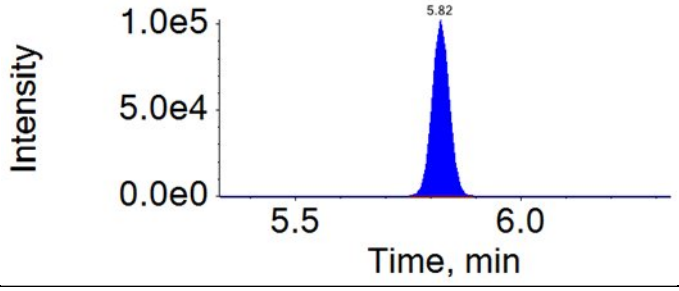
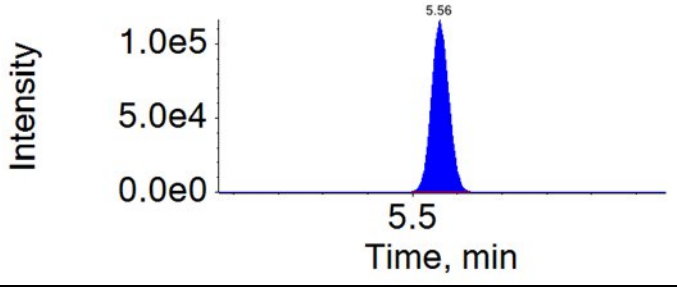
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

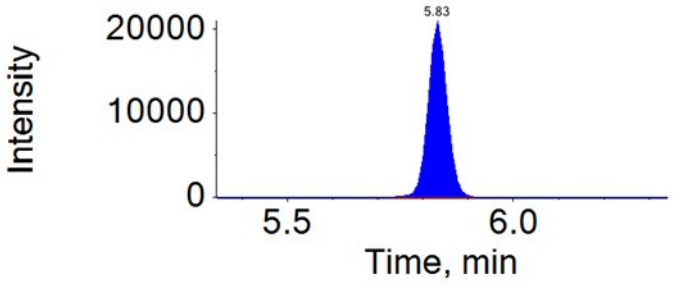
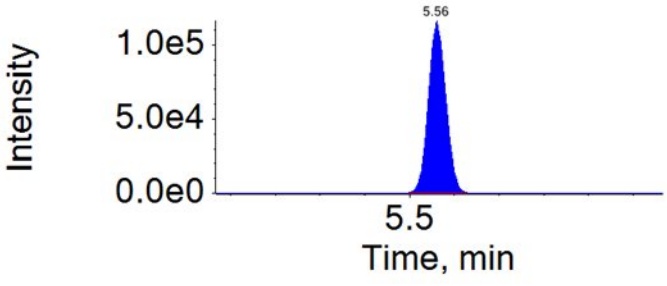
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

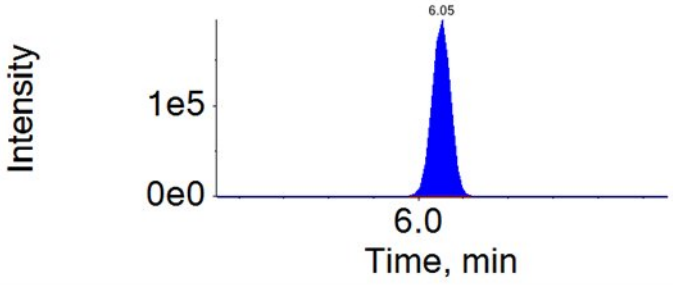
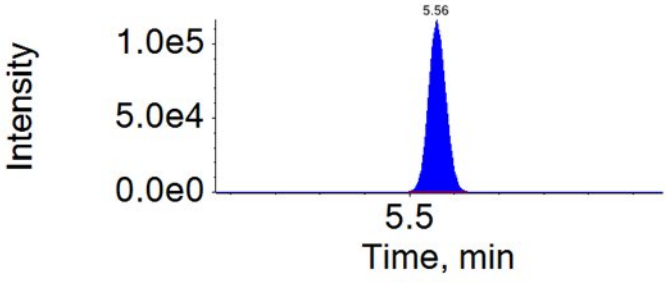
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

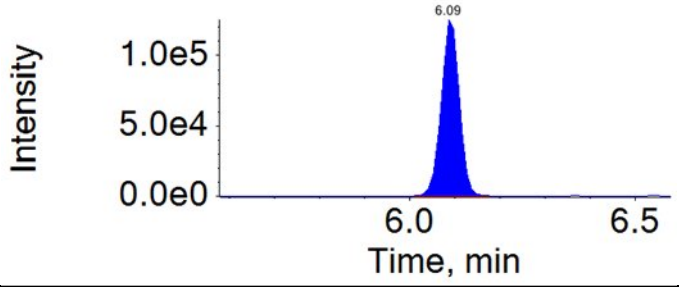
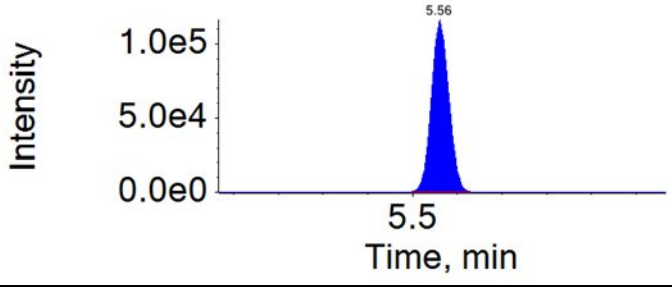
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

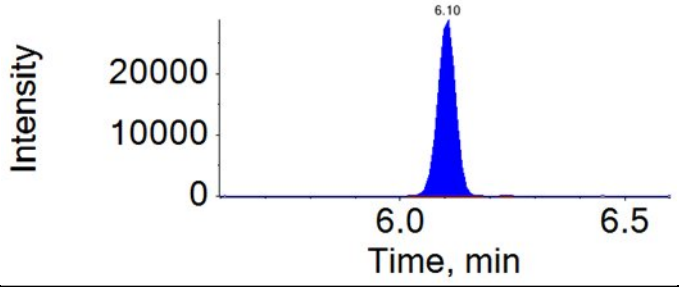
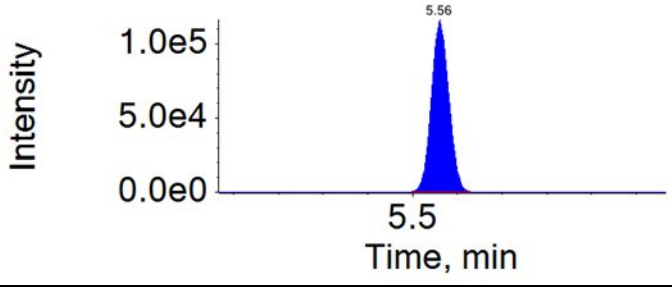
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 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
	

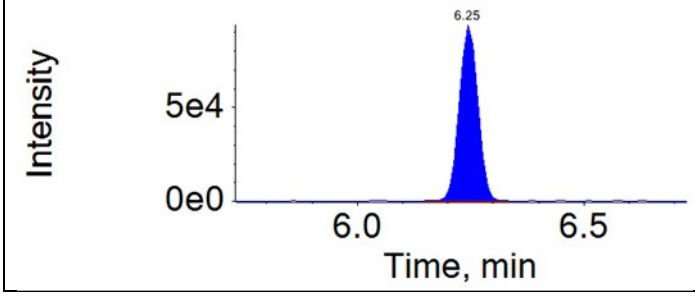
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

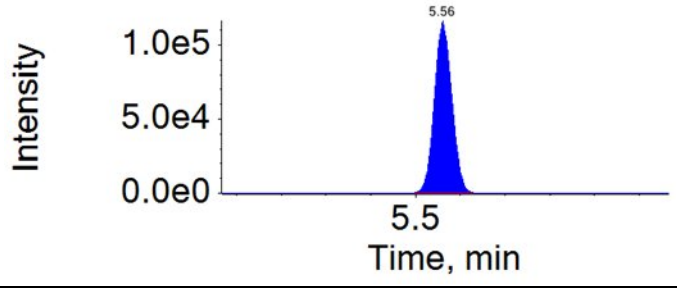
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

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

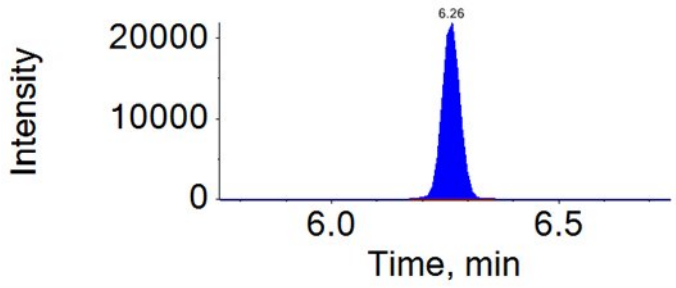
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

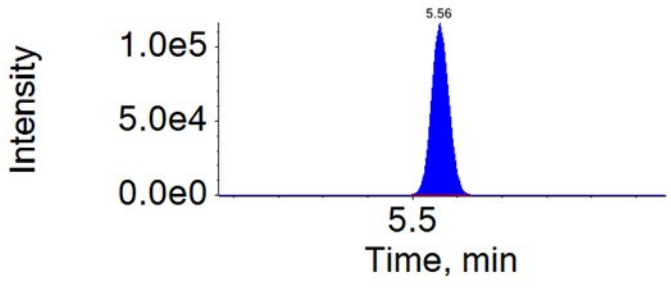
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



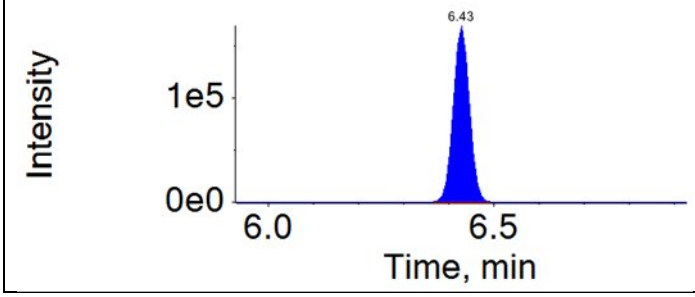


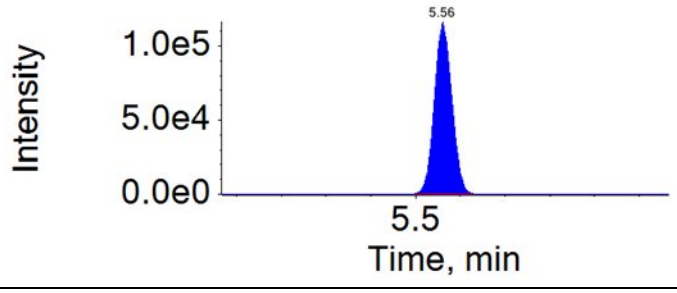
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



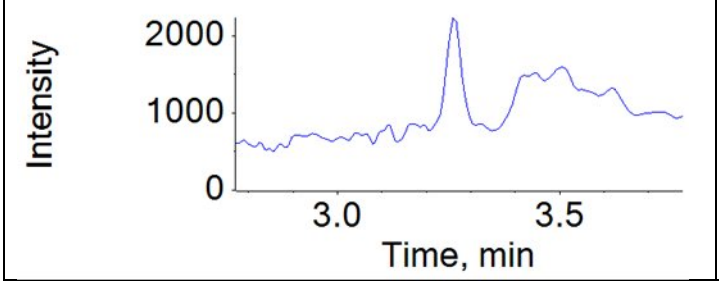


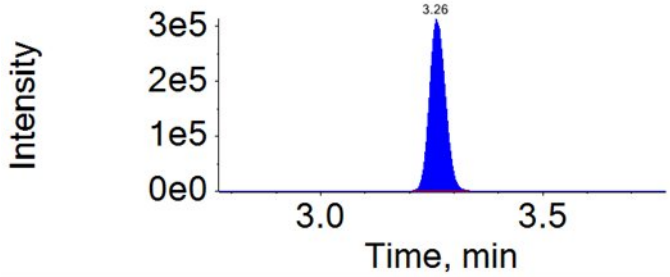
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

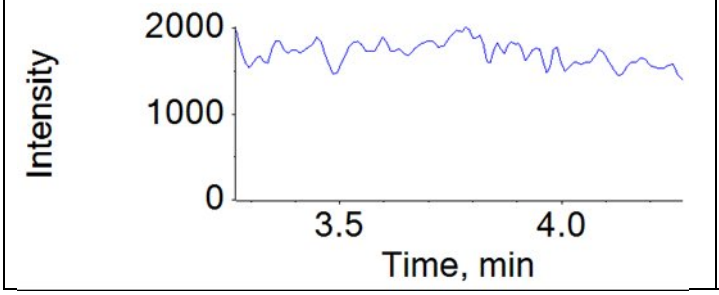
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

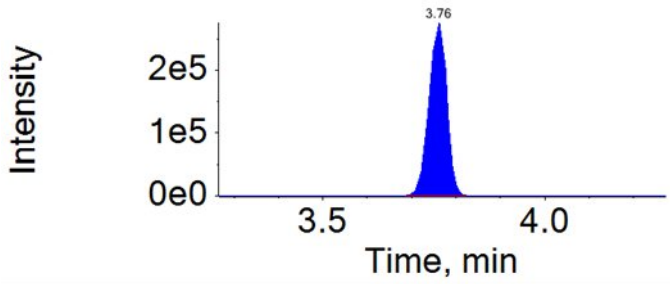
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



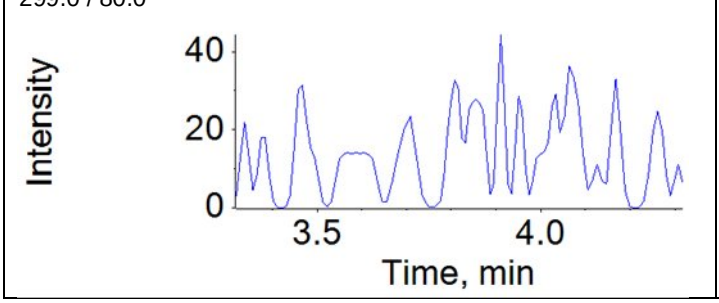


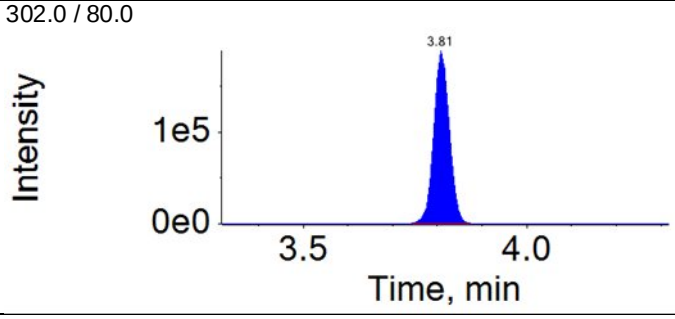
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



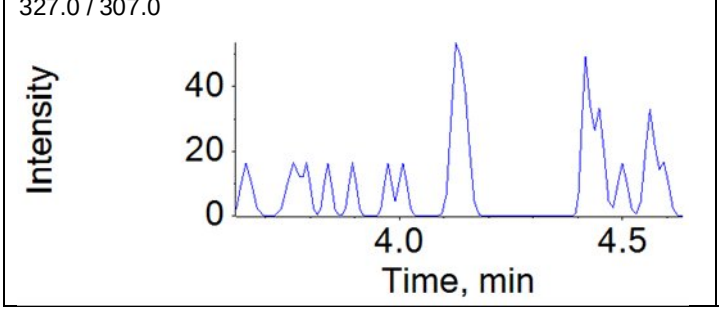


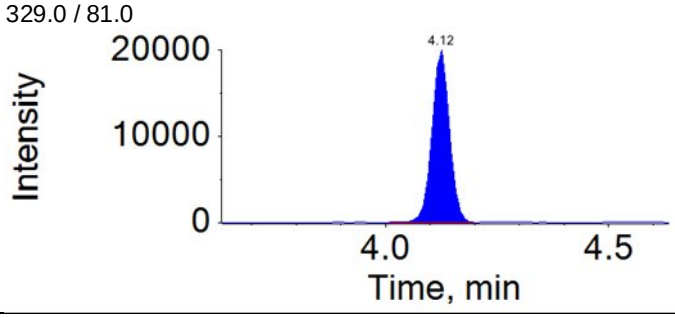
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



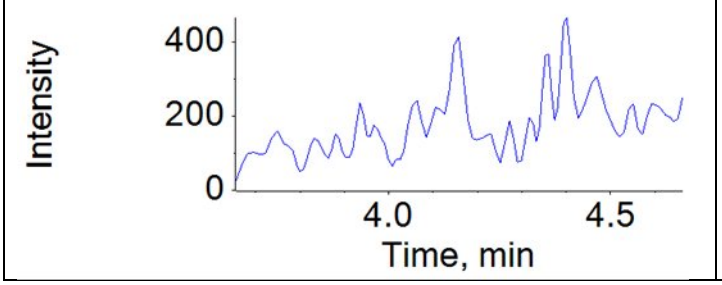


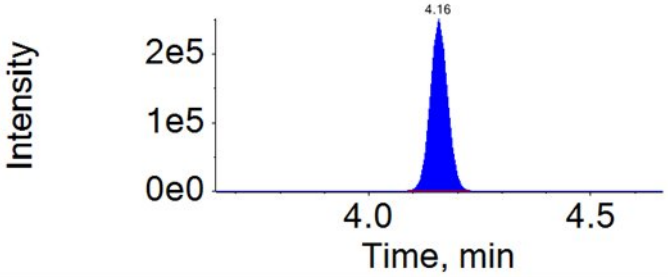
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

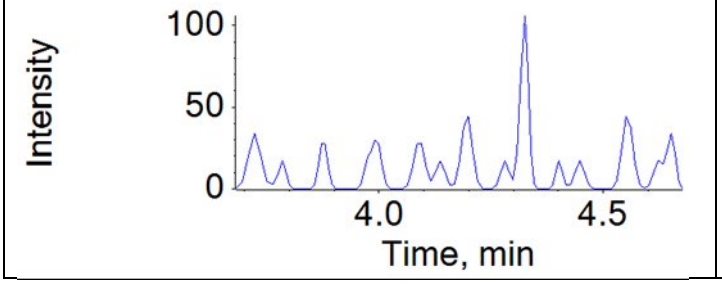
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

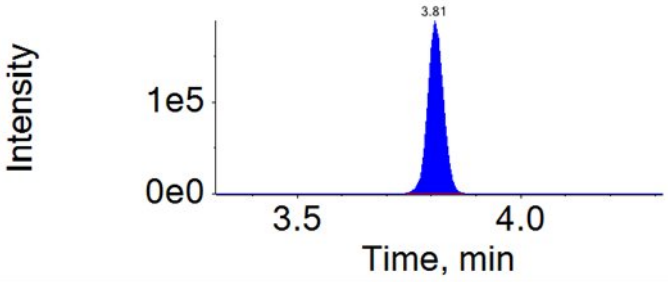
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



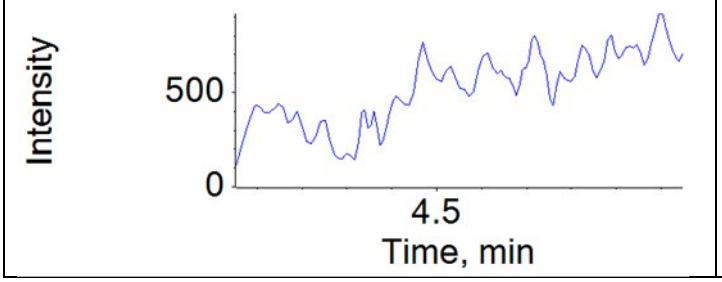


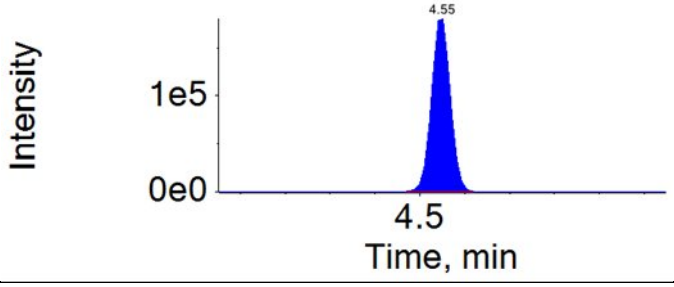
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



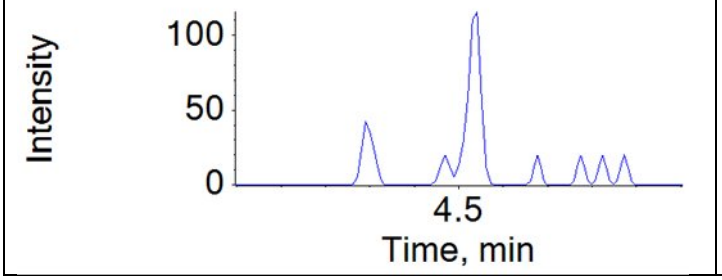


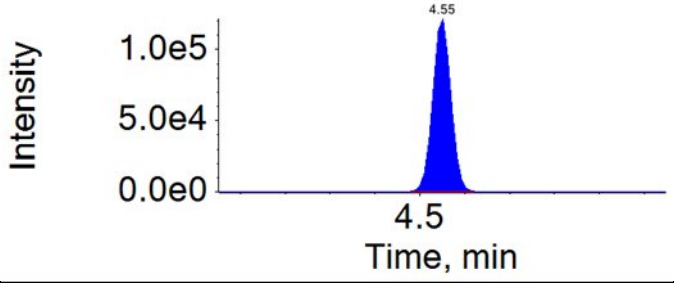
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

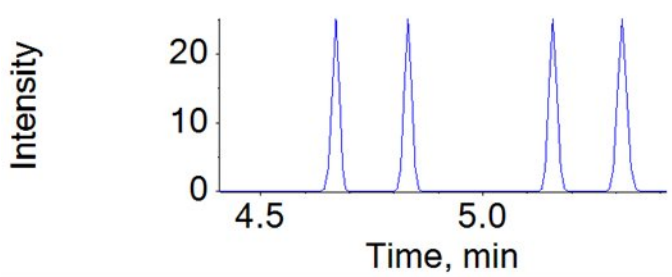
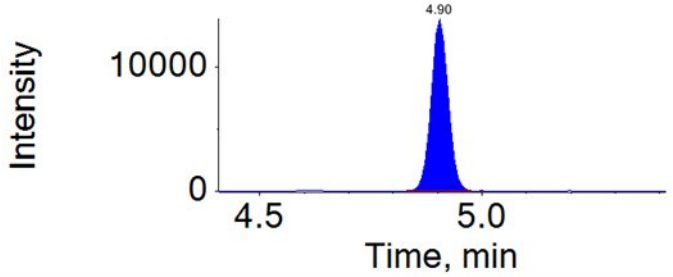


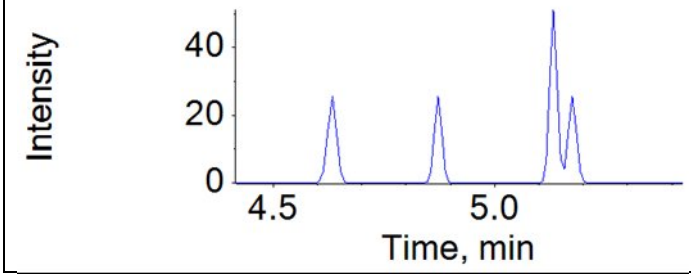
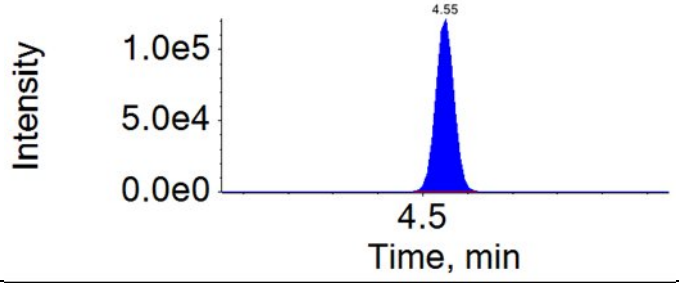


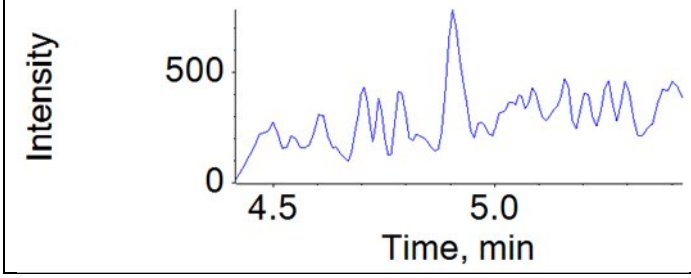
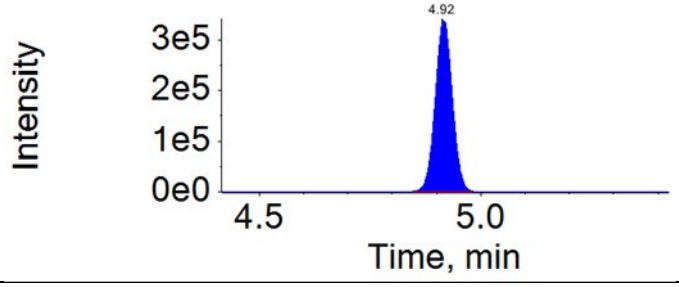
APPROVED
By MCD at 7:46 pm, 11/12/18

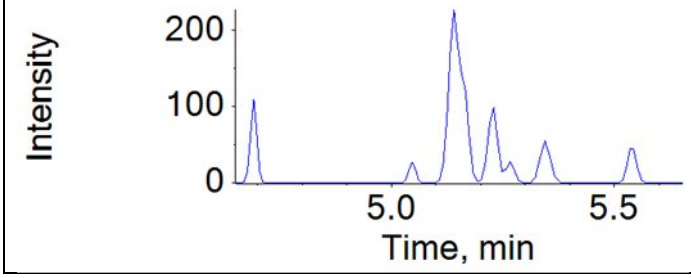
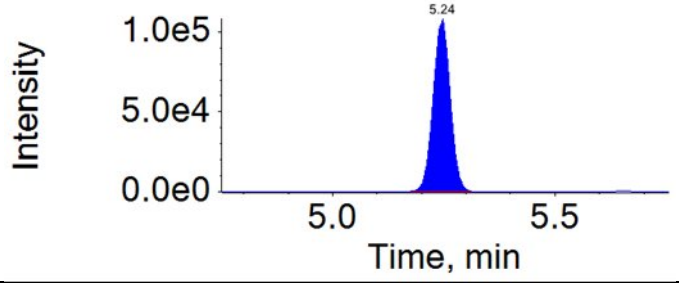
REVIEWED
By HMK at 11:56 am, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 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
	

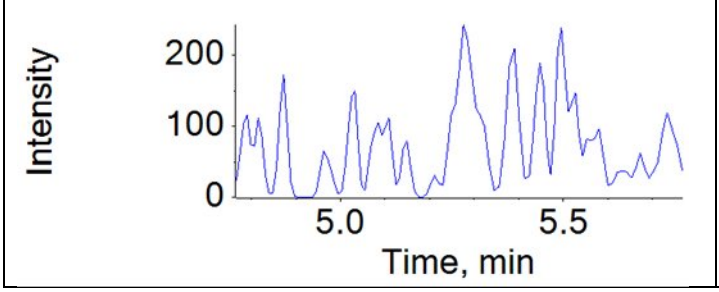
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

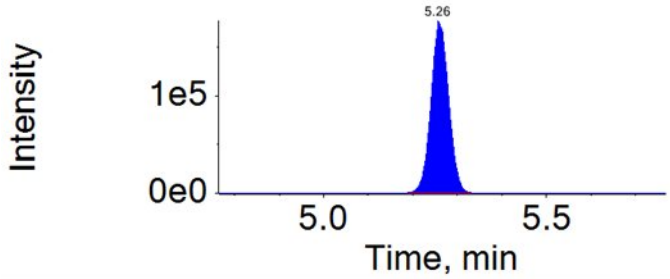
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

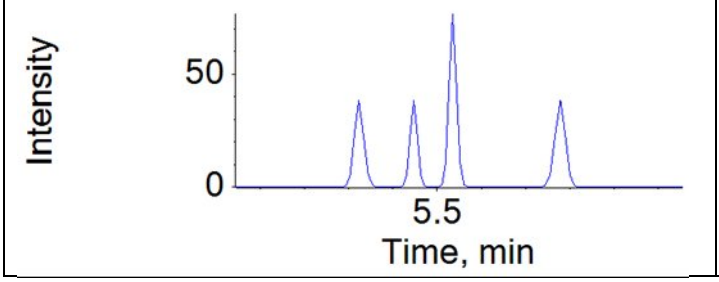
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

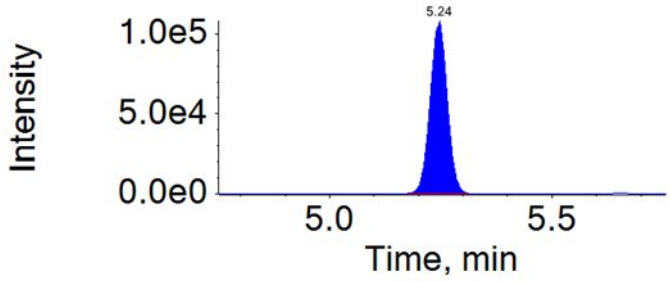
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



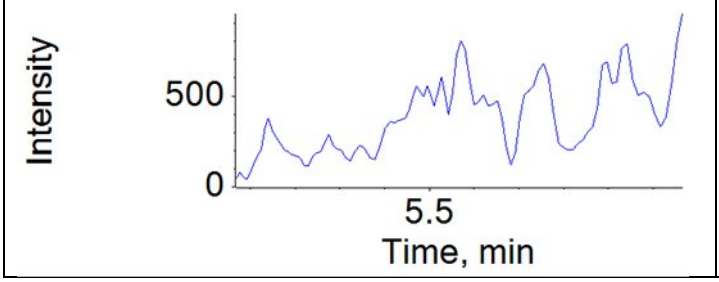


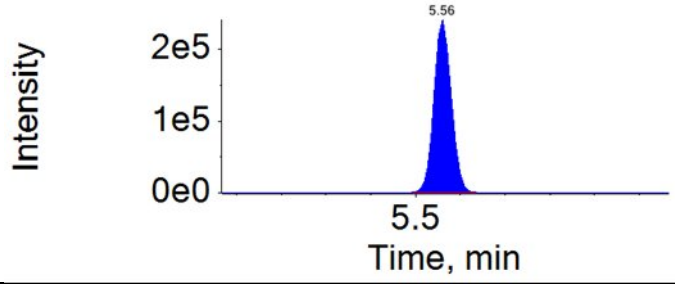
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



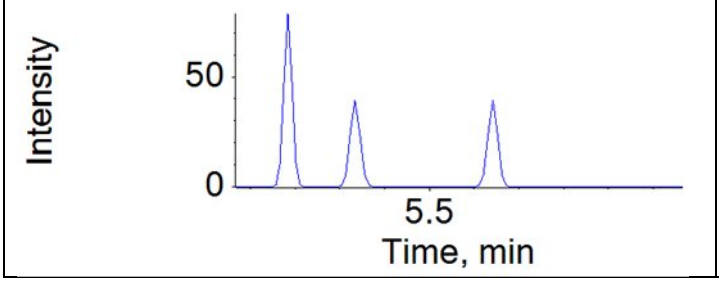


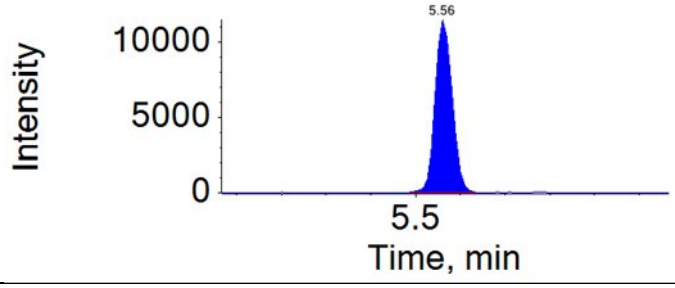
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



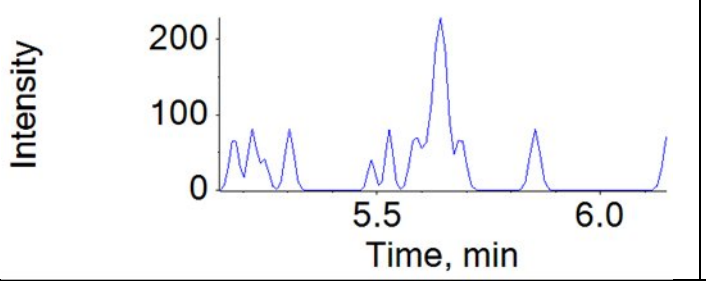


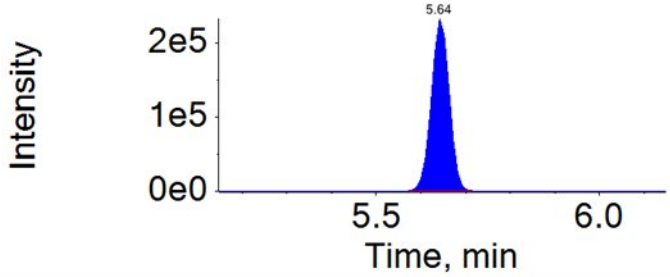
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

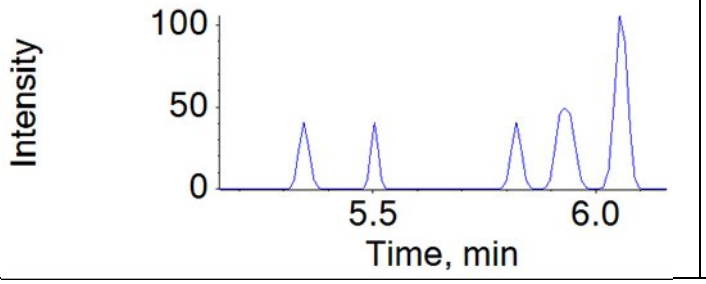
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

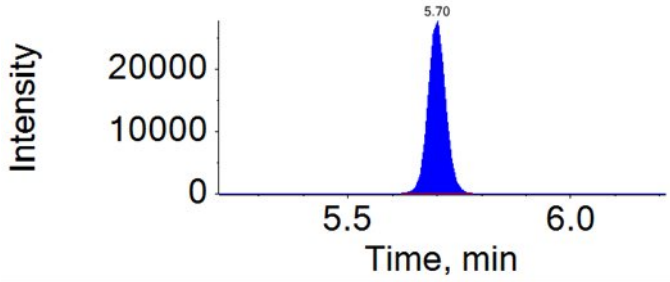
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



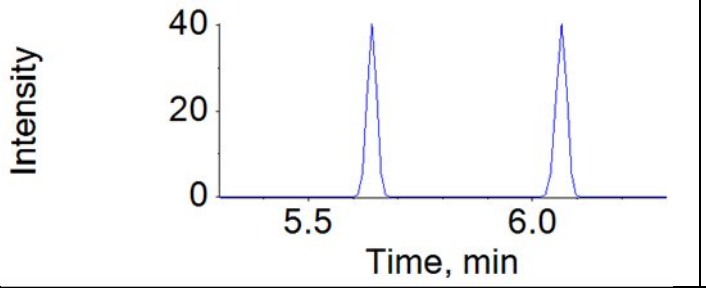


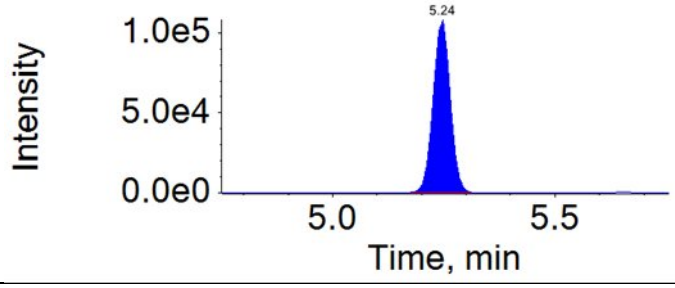
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



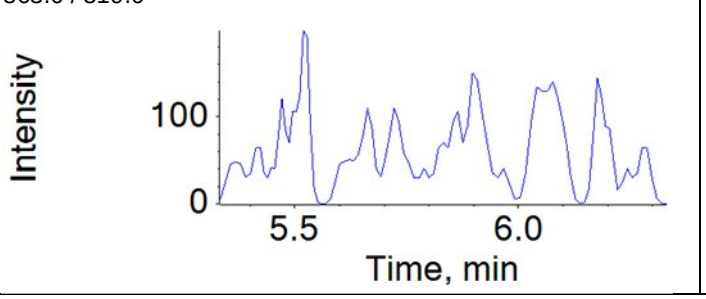


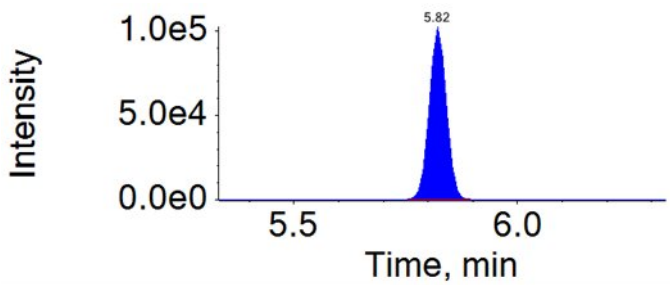
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



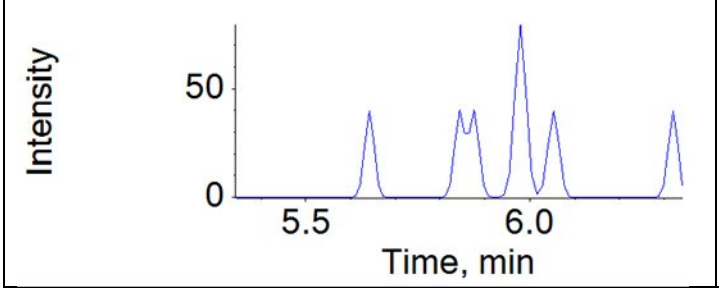


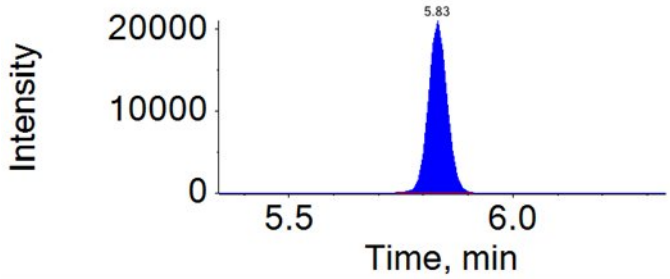
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

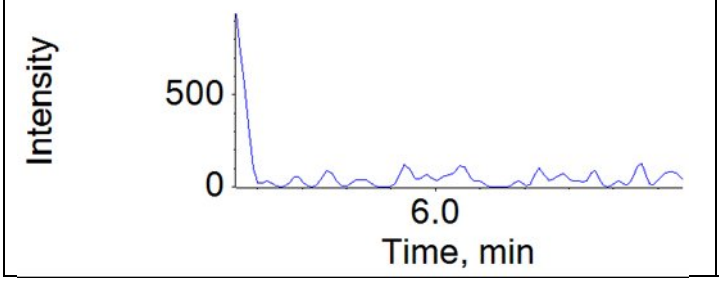
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

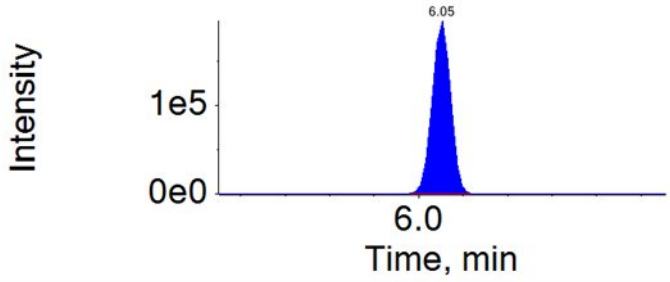
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



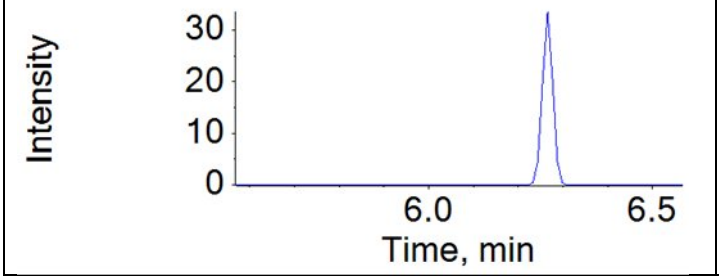


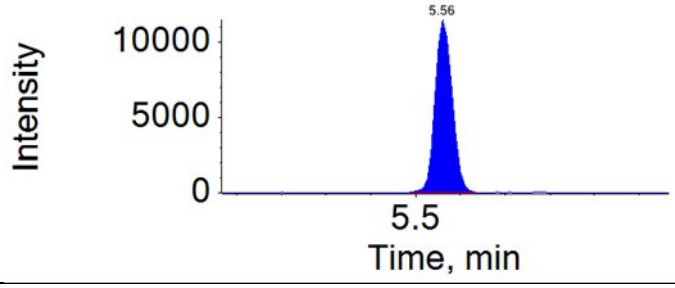
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



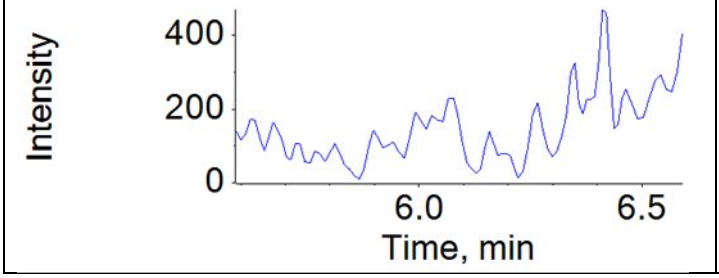


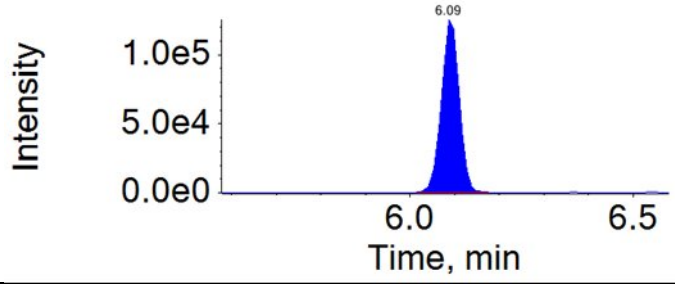
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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





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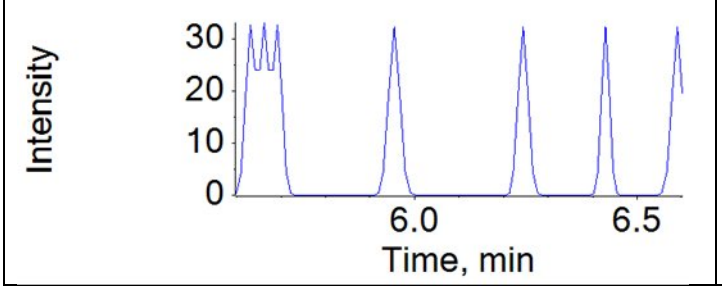
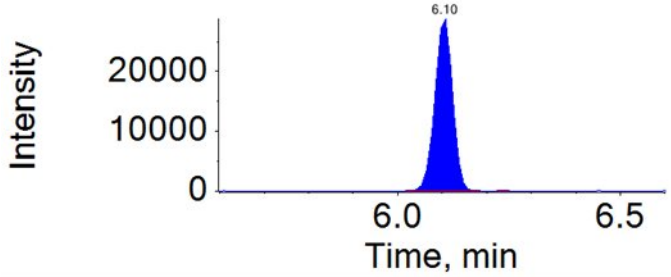
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

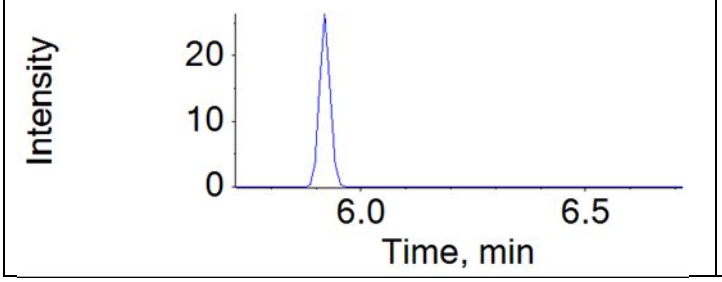
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

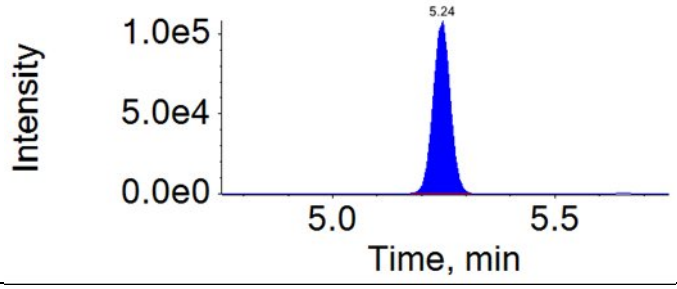
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



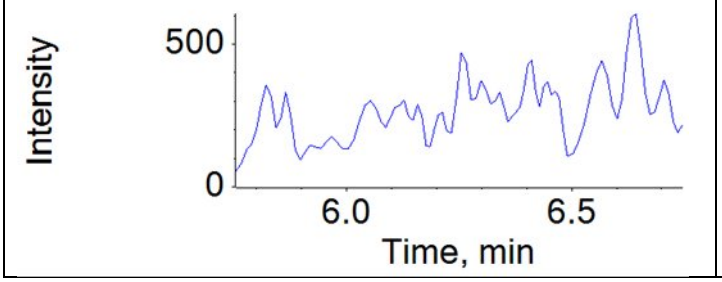


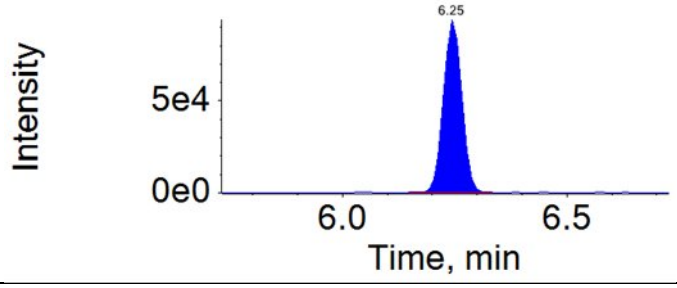
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



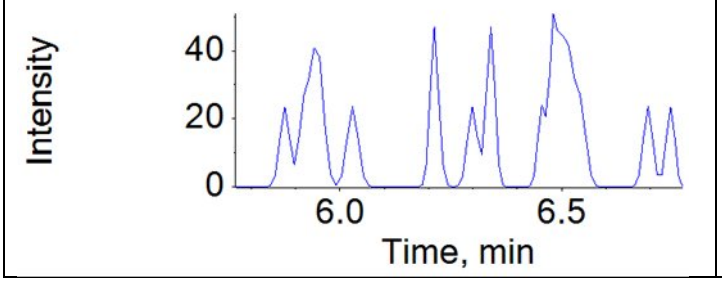


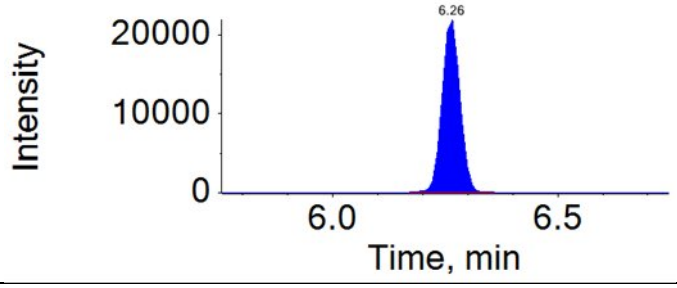
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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





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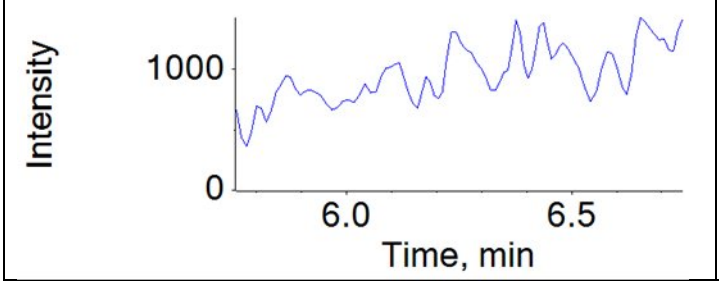
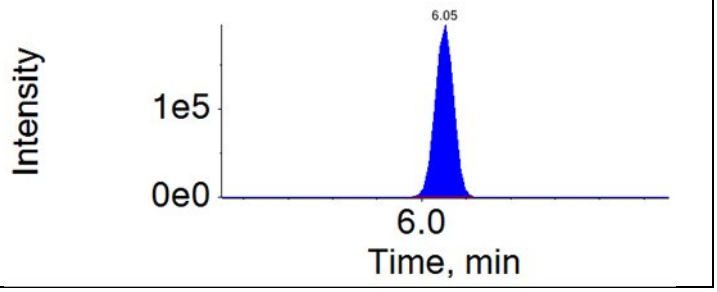
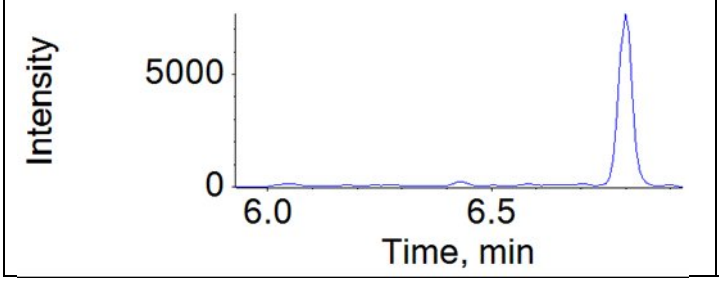
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV1-2 11/12/2018 7:40:04 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

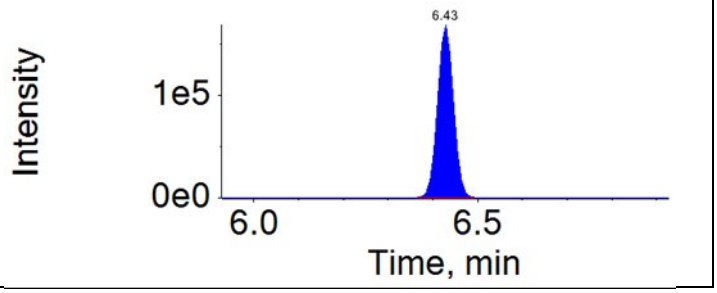
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



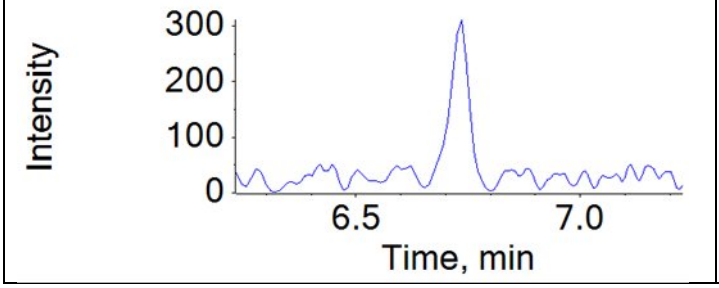


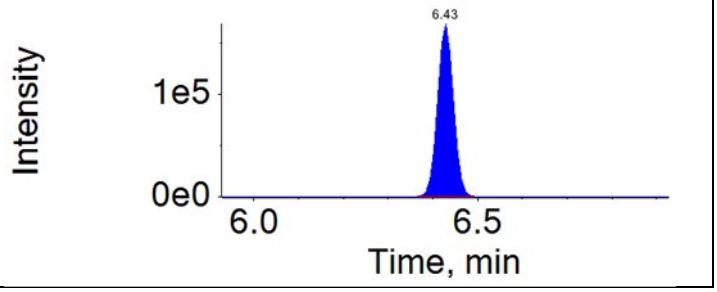
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



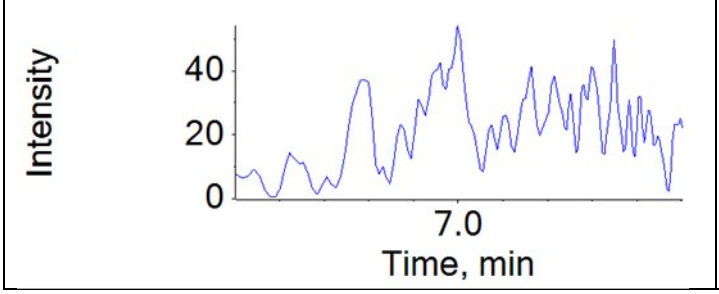


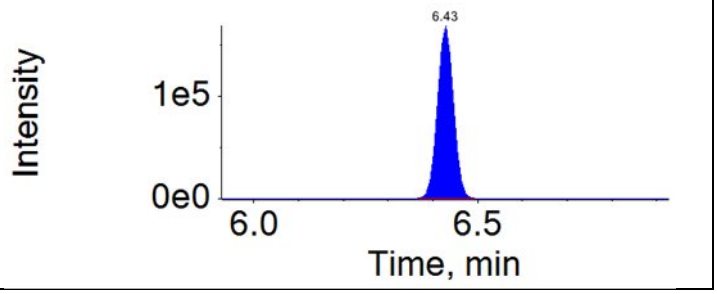
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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





APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Ion Ratio Report

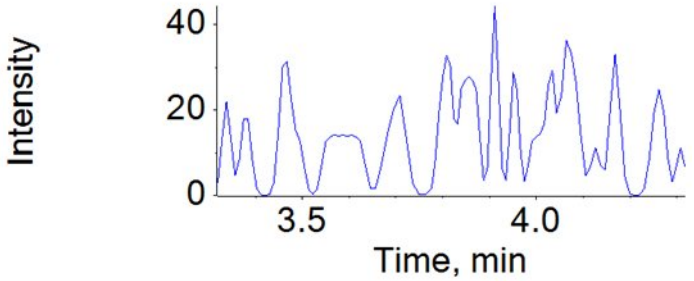
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-06.wiff

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	

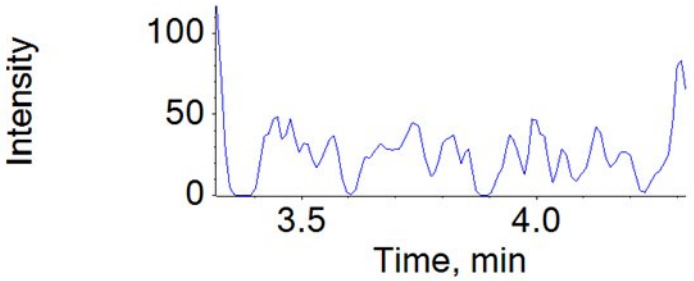
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

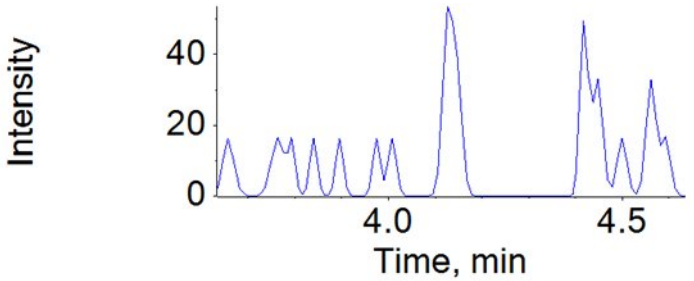
Component: PFBS
Primary Mass: 299.0 / 80.0



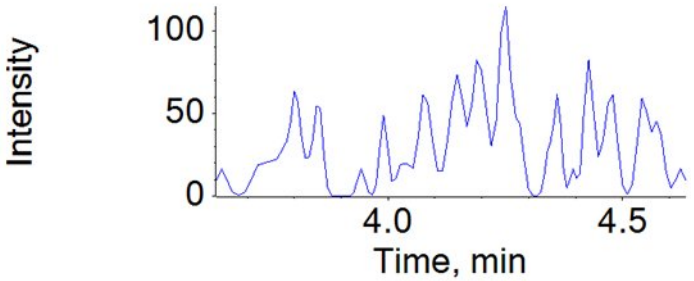
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



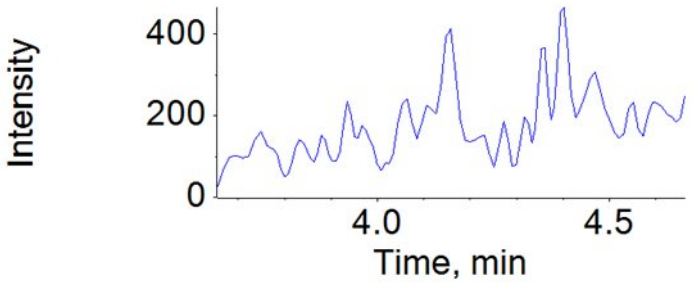
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



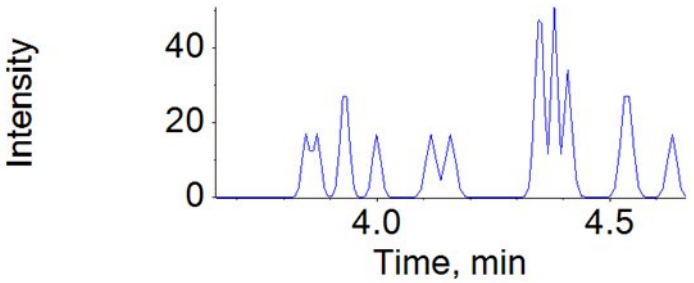
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



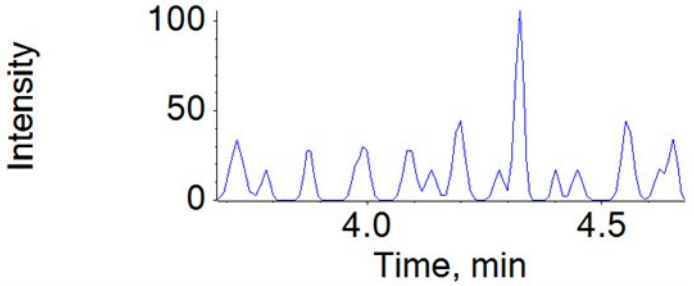
Component: PFHxA
Primary Mass: 313.0 / 269.0



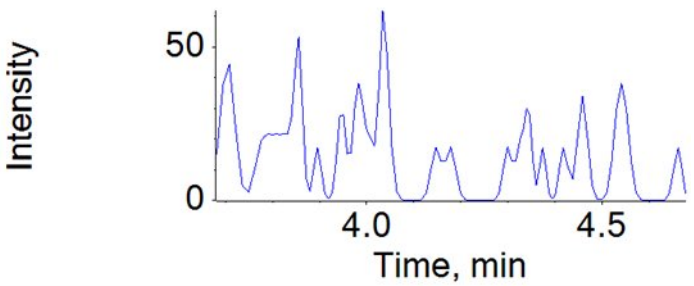
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



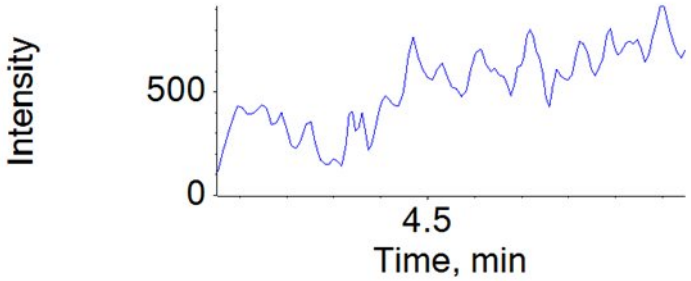
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



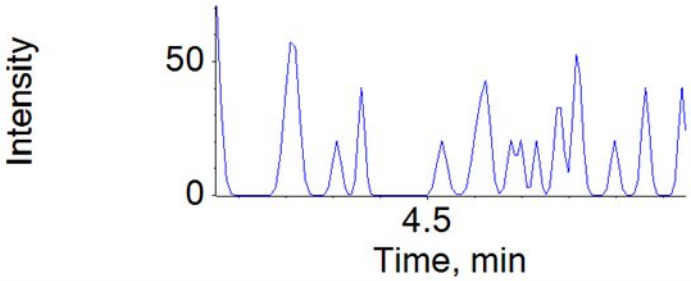
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

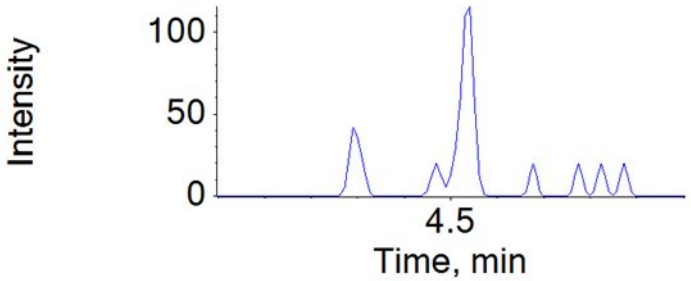
Component: PFHpA
Primary Mass: 363.0 / 319.0



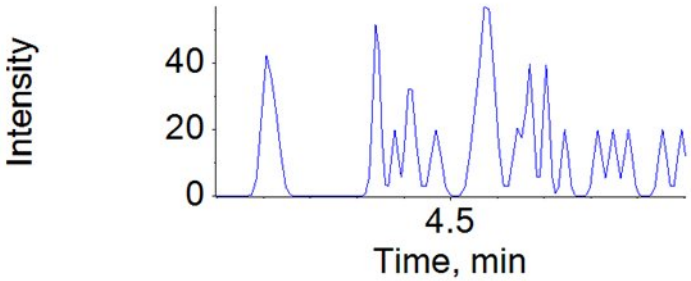
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



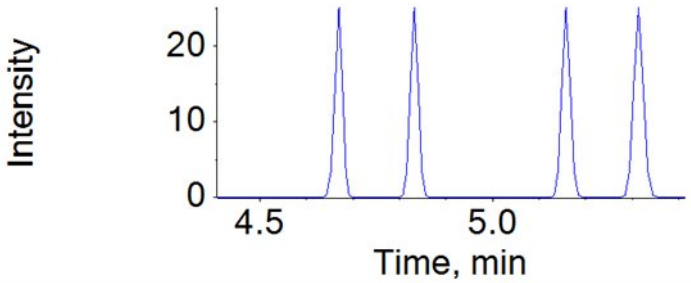
Component: PFHxS
Primary Mass: 399.0 / 80.0



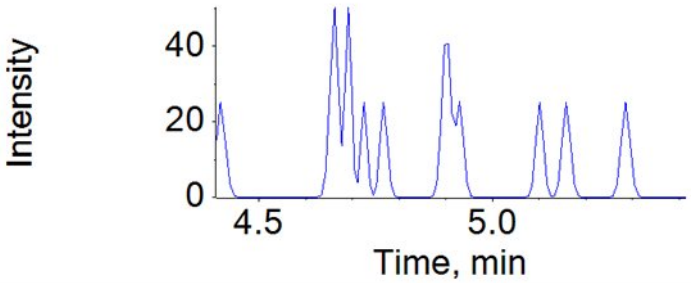
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



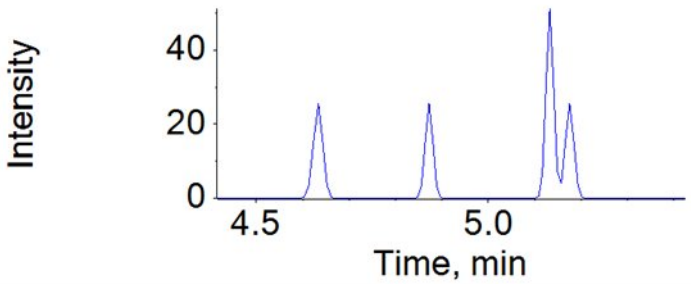
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



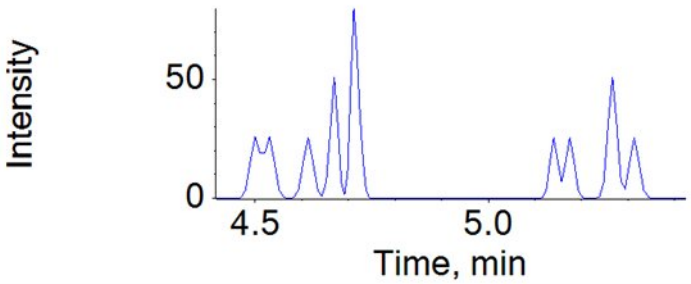
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



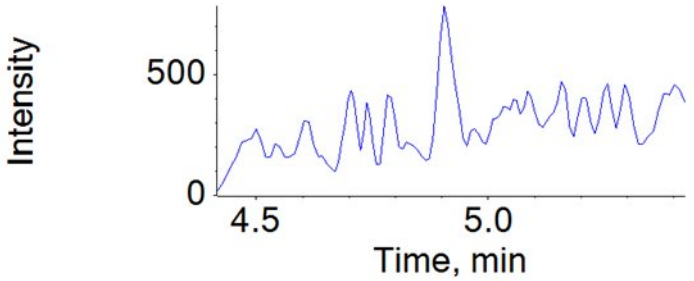
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



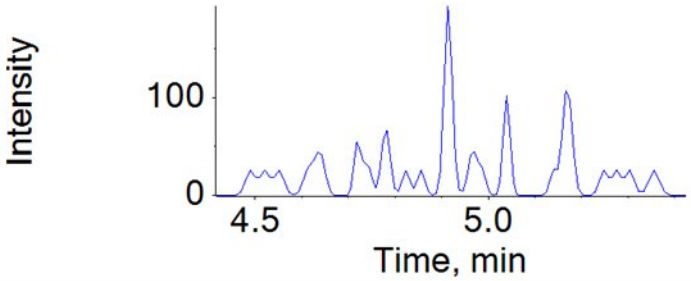
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

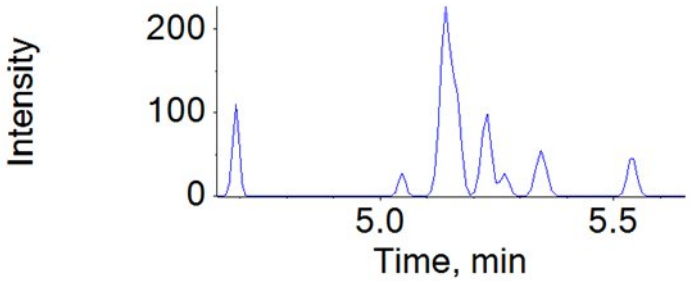
Component: PFOA
Primary Mass: 413.0 / 369.0



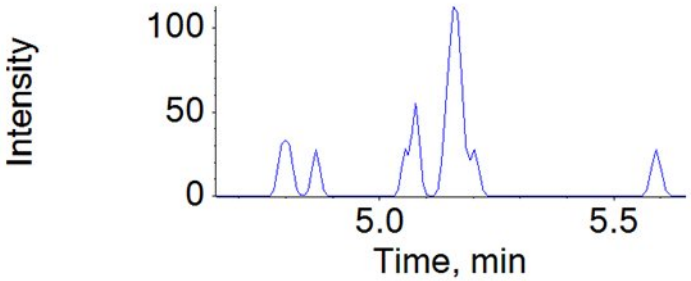
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



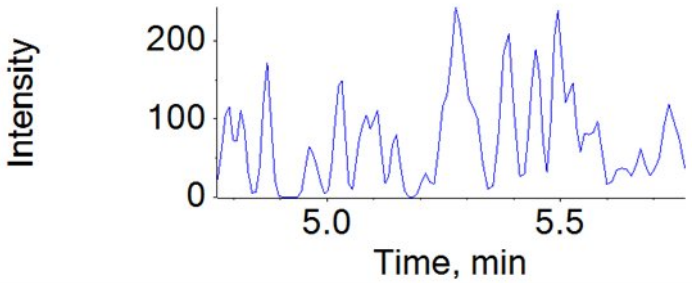
Component: PFOS
Primary Mass: 499.0 / 80.0



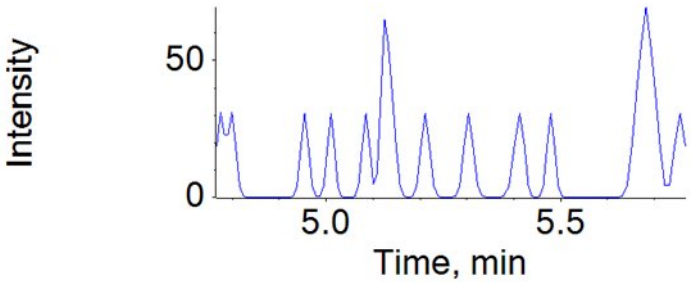
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



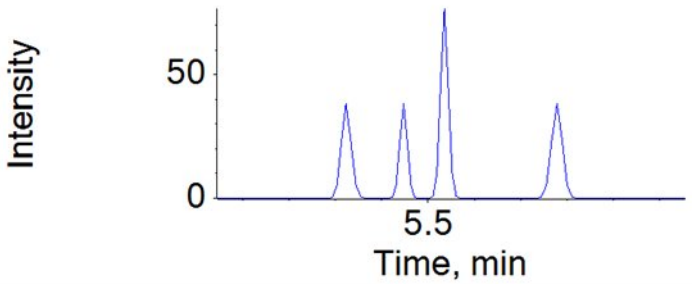
Component: PFNA
Primary Mass: 463.0 / 419.0



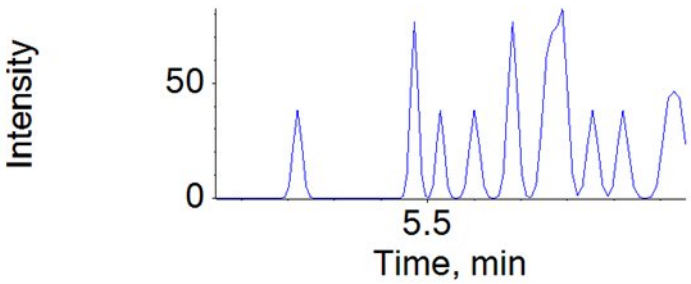
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



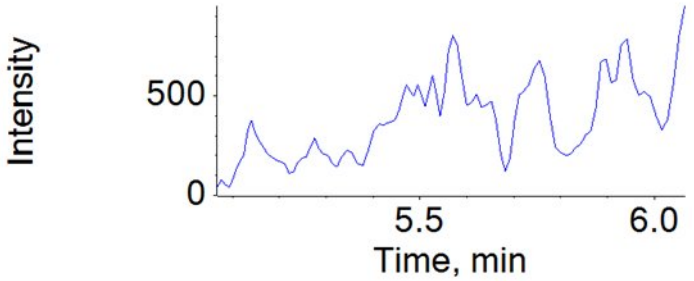
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



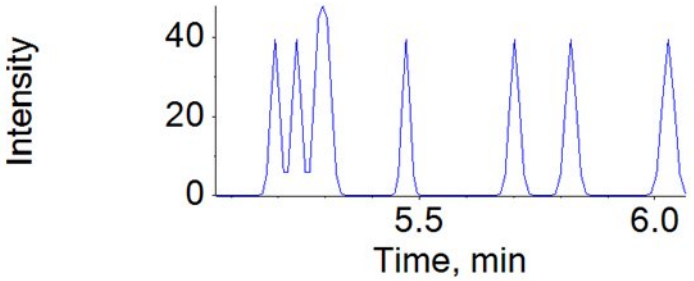
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

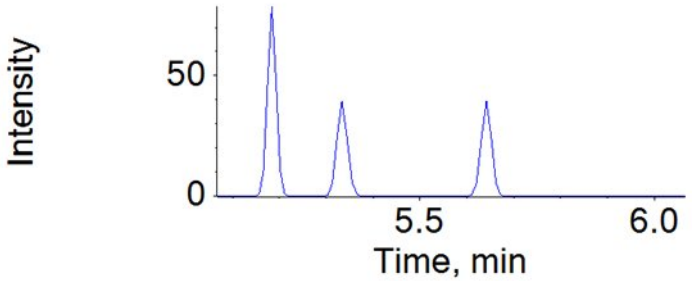
Component: PFDA
Primary Mass: 513.0 / 469.0



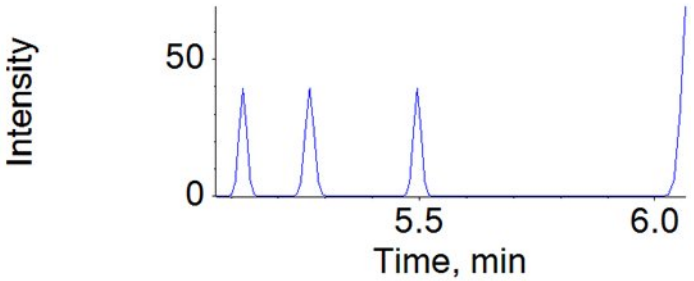
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



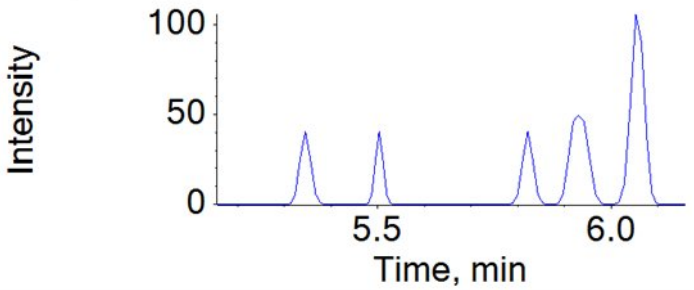
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



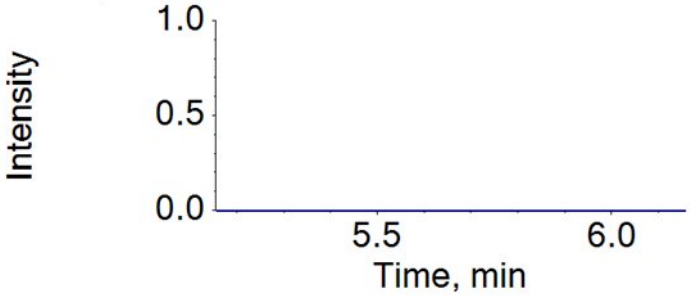
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



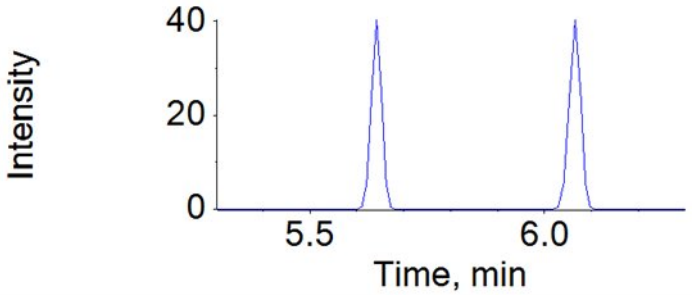
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



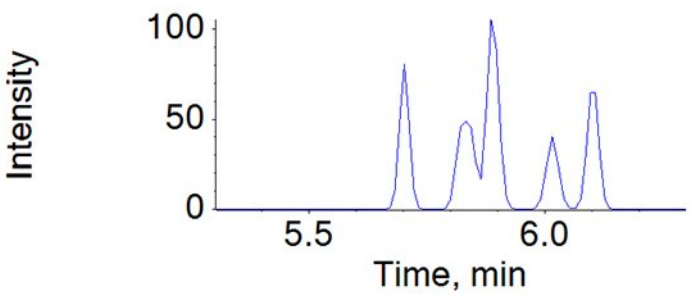
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



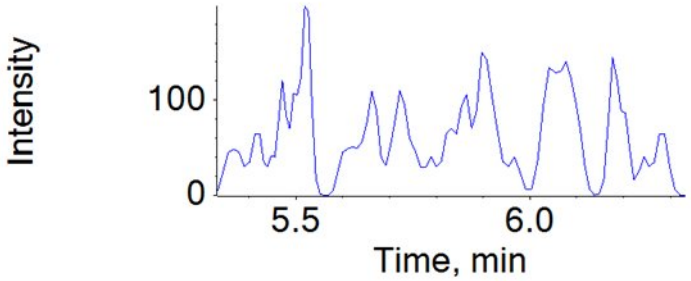
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



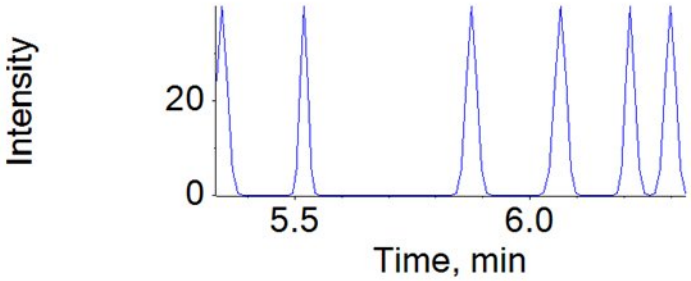
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

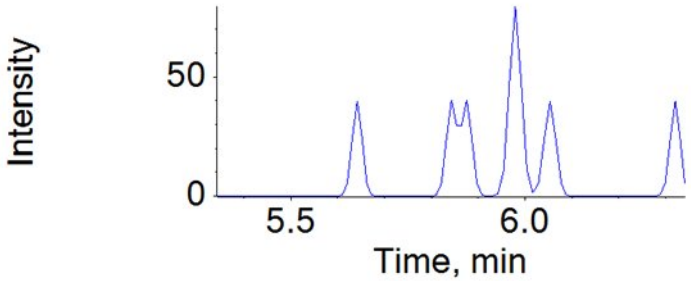
Component: PFUnDA
Primary Mass: 563.0 / 519.0



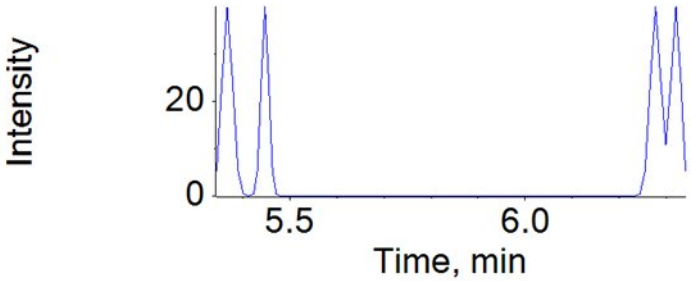
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



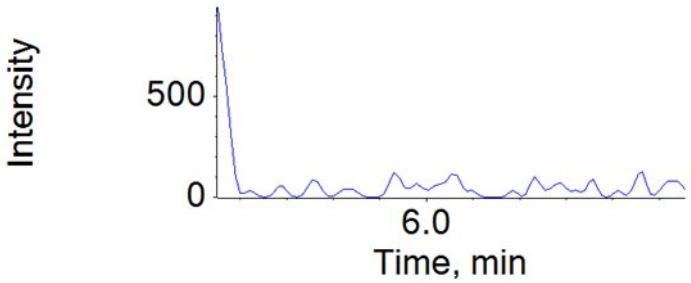
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



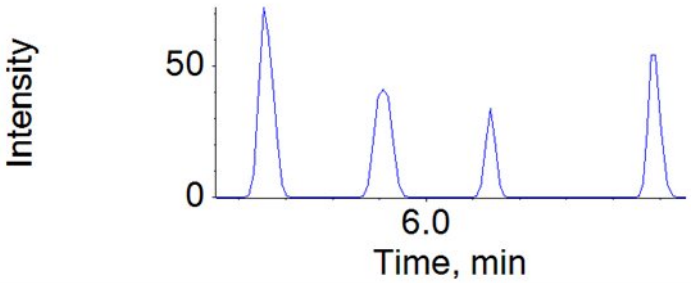
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



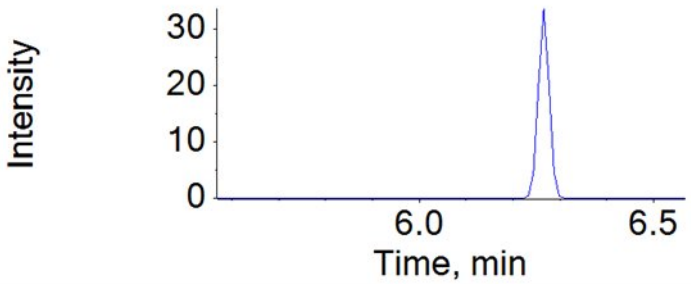
Component: PFDoDA
Primary Mass: 613.0 / 569.0



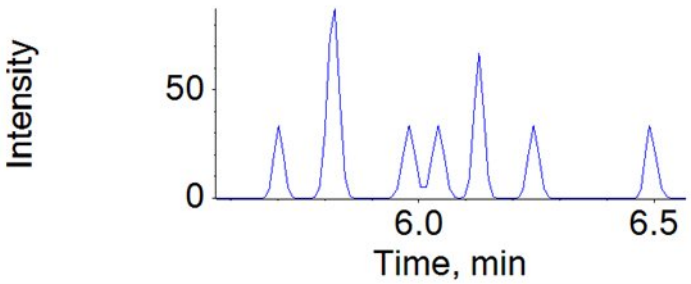
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



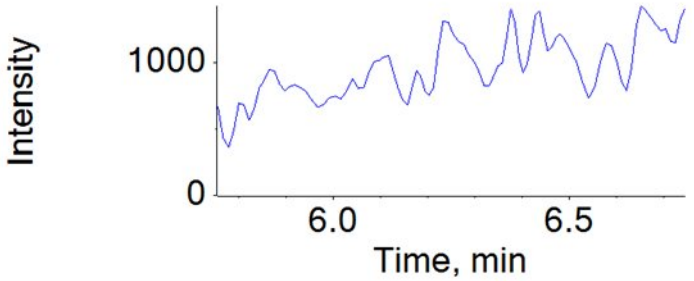
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



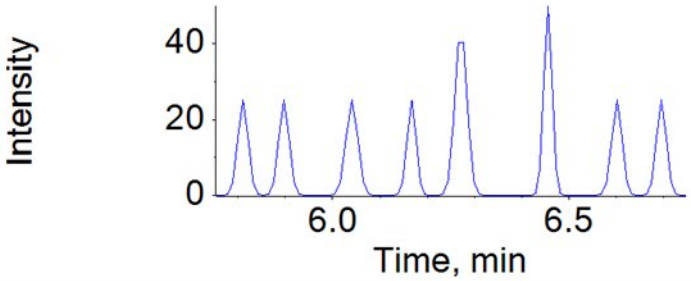
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

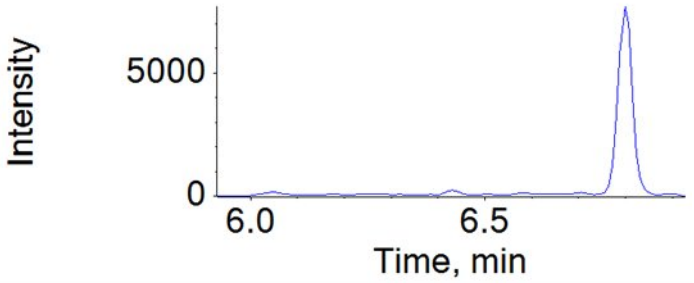
Component: PFTrDA
Primary Mass: 663.0 / 619.0



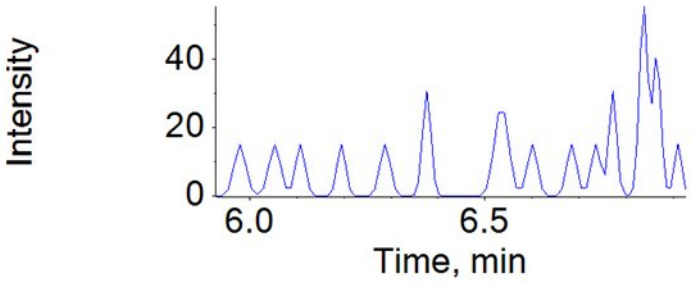
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



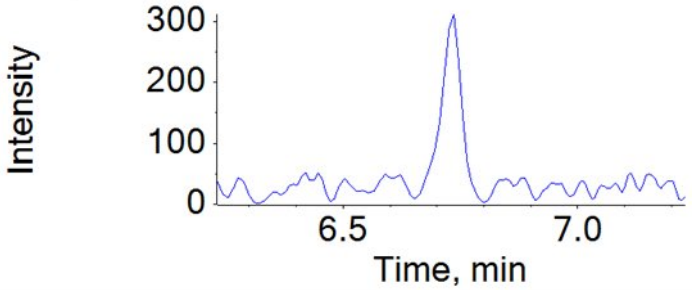
Component: PFTeDA
Primary Mass: 713.0 / 669.0



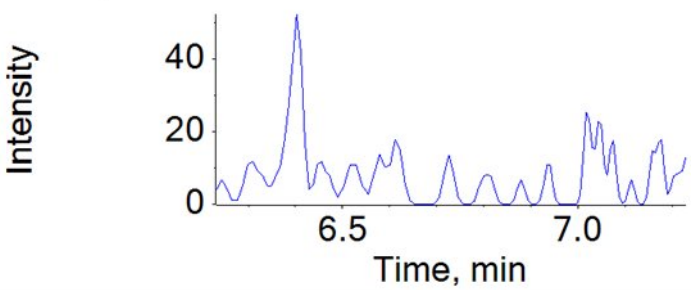
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



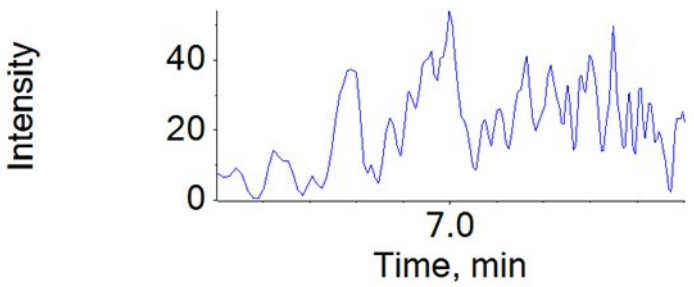
Component: PFHxDA
Primary Mass: 813.0 / 769.0



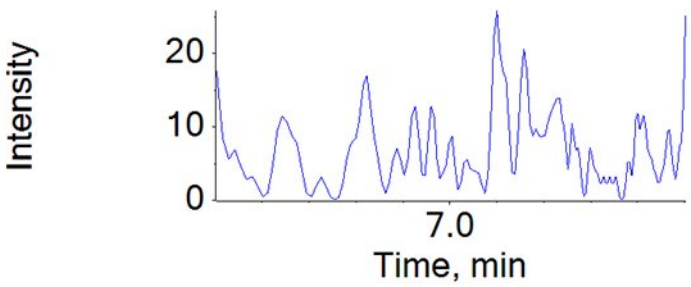
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



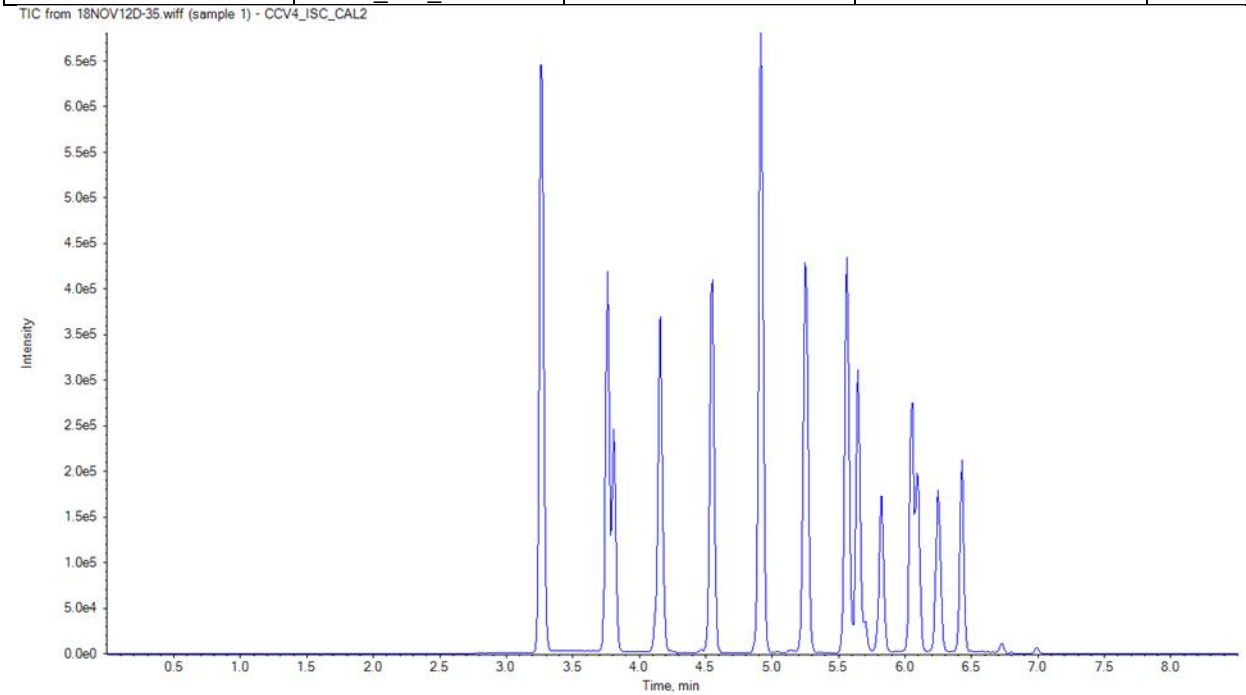
APPROVED
By MCD at 7:46 pm, 11/12/18

REVIEWED
By HMK at 11:56 am, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18NOV12D-35.wiff	2018-11-12T21:52:30



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	662643.9	659926.2	0	50	
13C2-PFOA	5.0	470112.9	450219.7	4	50	
13C4-PFOS	4.8	247168.2	249205.8	-1	50	
13C2-PFDA	5.0	270194.6	278743.9	-3	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18NOV12D-35.wiff	2018-11-12T21:52:30

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	81355.7	10	13C4-PFBA	761470.2	5.0	0.107	3.26	1.000	0.600	0.592	-1	30	
PFPeA	78311.0	11	13C5-PFPeA	766187.7	5.0	0.102	3.76	1.000	0.600	0.592	-1	30	
PFBS	45066.2	11	13C3-PFBS	435960.5	4.7	0.103	3.81	1.000	0.531	0.492	-7	30	
4:2-FTS	10399.0	11	13C2-4:2-FTS	46493.3	4.7	0.224	4.12	1.000	0.560	0.607	8	30	
PFHxA	91487.0	12	13C5-PFHxA	682454.5	5.0	0.134	4.16	1.000	0.600	0.560	-7	30	
PFPeS	22954.6	11	13C3-PFBS	435960.5	4.7	0.053	4.18	1.100	0.563	0.511	-9	30	
PFHpA	95466.7	12	13C4-PFHpA	507062.5	5.0	0.188	4.55	1.000	0.600	0.624	4	30	
PFHxS	32219.2	19	13C3-PFHxS	324049.4	4.7	0.099	4.55	1.000	0.547	0.482	-12	30	
6:2-FTS	6911.2	11	13C2-6:2-FTS	31714.0	4.8	0.218	4.90	1.000	0.569	0.527	-7	30	
PFHpS	33929.7	10	13C3-PFHxS	324049.4	4.7	0.105	4.91	1.080	0.571	0.551	-3	30	
PFOA	97123.0	11	13C8-PFOA	938643.1	5.0	0.103	4.92	1.000	0.600	0.553	-8	30	
PFOS	33092.8	22	13C8-PFOS	293508.5	4.8	0.113	5.24	1.000	0.555	0.493	-11	30	
PFNA	82024.9	11	13C9-PFNA	466005.3	5.0	0.176	5.26	1.000	0.600	0.635	6	30	
PFNS	22070.4	11	13C8-PFOS	293508.5	4.8	0.075	5.54	1.060	0.576	0.526	-9	30	
PFDA	67587.3	11	13C6-PFDA	631646.0	5.0	0.107	5.56	1.000	0.600	0.567	-5	30	
8:2-FTS	6168.3	13	13C2-8:2-FTS	28179.3	4.8	0.219	5.57	1.000	0.575	0.510	-11	30	
PFOSA	63630.4	11	13C8-PFOSA	632253.0	5.0	0.101	5.65	1.000	0.600	0.492	-18	30	
NMeFOSAA	6931.1	17	d3-NMeFOSAA	68965.6	5.0	0.101	5.70	1.000	0.600	0.568	-5	30	
PFDS	15622.4	11	13C8-PFOS	293508.5	4.8	0.053	5.80	1.110	0.578	0.482	-17	30	
PFUnDA	55755.4	12	13C7-PFUnDA	256922.3	5.0	0.217	5.82	1.000	0.600	0.567	-5	30	
NEtFOSAA	6578.7	22	d5-NEtFOSAA	68297.8	5.0	0.096	5.84	1.000	0.600	0.505	-16	30	
PFDoDA	58154.0	12	13C2-PFDoDA	555217.8	5.0	0.105	6.05	1.000	0.600	0.533	-11	30	
10:2-FTS	5269.4	11	13C2-8:2-FTS	28179.3	4.8	0.187	6.07	1.090	0.578	0.623	8	30	
NMePFOSAE	46567.8	12	d7-NMePFOSAE	326619.4	5.0	0.143	6.10	1.000	0.600	0.593	-1	30	
NMePFOSA	8464.3	12	d3-NMePFOSA	77734.4	5.0	0.109	6.11	1.000	0.600	0.537	-10	30	
PFDoS	7308.9	11	13C8-PFOS	293508.5	4.8	0.025	6.22	1.190	0.581	0.436	-25	30	
NEtPFOSAE	45841.7	12	d9-NEtPFOSAE	275174.5	5.0	0.167	6.26	1.000	0.600	0.534	-11	30	
NEtPFOSA	8144.5	12	d5-NEtPFOSA	60796.0	5.0	0.134	6.27	1.000	0.600	0.615	3	30	
PFTrDA	50331.5	11	13C2-PFDoDA	555217.8	5.0	0.091	6.25	1.030	0.600	0.572	-5	30	
PFTeDA	39345.2	10	13C2-PFTeDA	397518.7	5.0	0.099	6.43	1.000	0.600	0.555	-8	30	
PFHxDA	19492.8	11	13C2-PFTeDA	397518.7	5.0	0.049	6.73	1.050	0.600	0.584	-3	30	
PFODA	15126.3	10	13C2-PFTeDA	397518.7	5.0	0.038	6.99	1.090	0.600	0.530	-12	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV4_ISC_CAL2			**Data File:**		18NOV12D-35.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-12T21:52:30
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	662643.9	659926.2	0	50	
13C2-PFOA	5.0	470112.9	450219.7	4	50	
13C4-PFOS	4.8	247168.2	249205.8	-1	50	
13C2-PFDA	5.0	270194.6	278743.9	-3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	761470.2	13C3-PFBA	662643.9	1.149	5.000	5.152	103	70-130	
E13C5-PFPeA	766187.7	13C3-PFBA	662643.9	1.156	5.000	5.186	104	70-130	
E13C3-PFBS	435960.5	13C3-PFBA	662643.9	0.658	4.650	4.644	100	70-130	
E13C2-4:2-FTS	46493.3	13C2-PFOA	470112.9	0.099	4.670	4.405	94	70-130	
E13C5-PFHxA	682454.5	13C2-PFOA	470112.9	1.452	5.000	5.244	105	70-130	
E13C3-PFHxS	324049.4	13C2-PFOA	470112.9	0.689	4.730	4.730	100	70-130	
E13C4-PFHpA	507062.5	13C2-PFOA	470112.9	1.079	5.000	4.859	97	70-130	
E13C2-6:2-FTS	31714.0	13C2-PFOA	470112.9	0.067	4.750	4.513	95	70-130	
E13C8-PFOA	938643.1	13C2-PFOA	470112.9	1.997	5.000	5.501	110	70-130	
E13C8-PFOS	293508.5	13C4-PFOS	247168.2	1.187	4.780	5.262	110	70-130	
E13C9-PFNA	466005.3	13C4-PFOS	247168.2	1.885	5.000	5.257	105	70-130	
E13C6-PFDA	631646.0	13C2-PFDA	270194.6	2.338	5.000	5.455	109	70-130	
E13C2-8:2-FTS	28179.3	13C2-PFDA	270194.6	0.104	4.790	5.201	109	70-130	
E13C8-PFOSA	632253.0	13C2-PFDA	270194.6	2.340	5.000	5.188	104	70-130	
Ed3-NMeFOSAA	68965.6	13C2-PFDA	270194.6	0.255	5.000	4.607	92	70-130	
E13C7-PFUnDA	256922.3	13C2-PFDA	270194.6	0.951	5.000	5.521	110	70-130	
Ed5-NEtFOSAA	68297.8	13C2-PFDA	270194.6	0.253	5.000	5.348	107	70-130	
E13C2-PFDoDA	555217.8	13C2-PFDA	270194.6	2.055	5.000	5.335	107	70-130	
Ed7-NMePFOSAE	326619.4	13C2-PFDA	270194.6	1.209	5.000	5.231	105	70-130	
Ed3-NMePFOSA	77734.4	13C2-PFDA	270194.6	0.288	5.000	5.227	105	70-130	
Ed9-NEtPFOSAE	275174.5	13C2-PFDA	270194.6	1.018	5.000	5.297	106	70-130	
Ed5-NEtPFOSA	60796.0	13C2-PFDA	270194.6	0.225	5.000	5.278	106	70-130	
E13C2-PFTeDA	397518.7	13C2-PFDA	270194.6	1.471	5.000	5.165	103	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

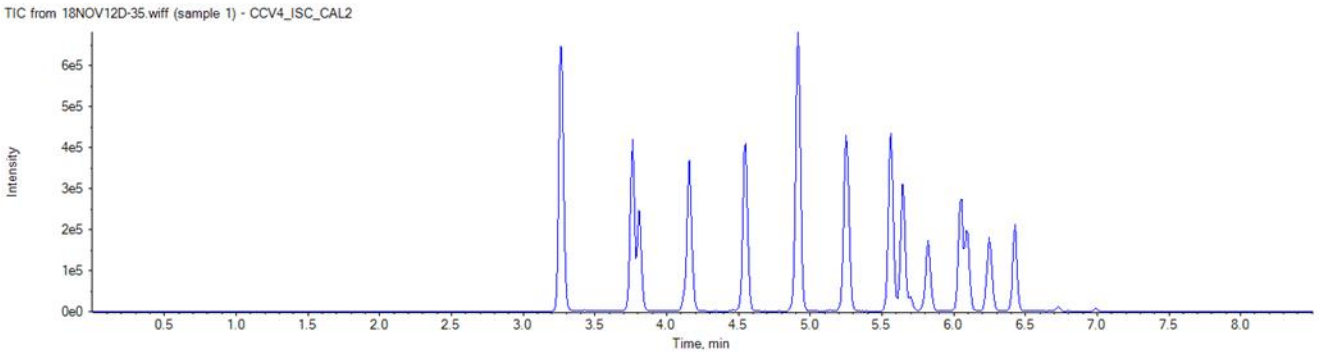
Analyte Quantitation Peak Table

Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-35.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	81355.7		A	13C4-PFBA	3.26	761470.2	0.107	0.592
PFPeA	3.76	1.000	78311.0		A	13C5-PFPeA	3.76	766187.7	0.102	0.592
PFBS	3.81	1.000	45066.2		A	13C3-PFBS	3.81	435960.5	0.103	0.492
4:2-FTS	4.12	1.000	10399.0		A	13C2-4:2-FTS	4.12	46493.3	0.224	0.607
PFHxA	4.16	1.000	91487.0		A	13C5-PFHxA	4.16	682454.5	0.134	0.560
PFPeS	4.18	1.100	22954.6		A	13C3-PFBS	3.81	435960.5	0.053	0.511
PFHpA	4.55	1.000	95466.7		M	13C4-PFHpA	4.55	507062.5	0.188	0.624
PFHxS	4.55	1.000	32219.2		M	13C3-PFHxS	4.55	324049.4	0.099	0.482
6:2-FTS	4.90	1.000	6911.2		A	13C2-6:2-FTS	4.90	31714.0	0.218	0.527
PFHpS	4.91	1.080	33929.7		A	13C3-PFHxS	4.55	324049.4	0.105	0.551
PFOA	4.92	1.000	97123.0		A	13C8-PFOA	4.92	938643.1	0.103	0.553
PFOS	5.24	1.000	33092.8		M	13C8-PFOS	5.24	293508.5	0.113	0.493
PFNA	5.26	1.000	82024.9		M	13C9-PFNA	5.26	466005.3	0.176	0.635
PFNS	5.54	1.060	22070.4		A	13C8-PFOS	5.24	293508.5	0.075	0.526
PFDA	5.56	1.000	67587.3		M	13C6-PFDA	5.56	631646.0	0.107	0.567
8:2-FTS	5.57	1.000	6168.3		A	13C2-8:2-FTS	5.57	28179.3	0.219	0.510
PFOSA	5.65	1.000	63630.4		A	13C8-PFOSA	5.65	632253.0	0.101	0.492
NMeFOSAA	5.70	1.000	6931.1		A	d3-NMeFOSAA	5.70	68965.6	0.101	0.568
PFDS	5.80	1.110	15622.4		A	13C8-PFOS	5.24	293508.5	0.053	0.482
PFUnDA	5.82	1.000	55755.4		M	13C7-PFUnDA	5.82	256922.3	0.217	0.567
NEtFOSAA	5.84	1.000	6578.7		A	d5-NEtFOSAA	5.83	68297.8	0.096	0.505
PFDoDA	6.05	1.000	58154.0		A	13C2-PFDoDA	6.05	555217.8	0.105	0.533
10:2-FTS	6.07	1.090	5269.4		A	13C2-8:2-FTS	5.57	28179.3	0.187	0.623
NMePFOSAE	6.10	1.000	46567.8		A	d7-NMePFOSAE	6.09	326619.4	0.143	0.593
NMePFOSA	6.11	1.000	8464.3		A	d3-NMePFOSA	6.10	77734.4	0.109	0.537
PFDoS	6.22	1.190	7308.9		M	13C8-PFOS	5.24	293508.5	0.025	0.436
NEtPFOSAE	6.26	1.000	45841.7		M	d9-NEtPFOSAE	6.24	275174.5	0.167	0.534
NEtPFOSA	6.27	1.000	8144.5		A	d5-NEtPFOSA	6.26	60796.0	0.134	0.615
PFTrDA	6.25	1.030	50331.5		M	13C2-PFDoDA	6.05	555217.8	0.091	0.572
PFTeDA	6.43	1.000	39345.2		M	13C2-PFTeDA	6.43	397518.7	0.099	0.555
PFHxDA	6.73	1.050	19492.8		A	13C2-PFTeDA	6.43	397518.7	0.049	0.584
PFODA	6.99	1.090	15126.3		A	13C2-PFTeDA	6.43	397518.7	0.038	0.530

Total Ion Chromatogram

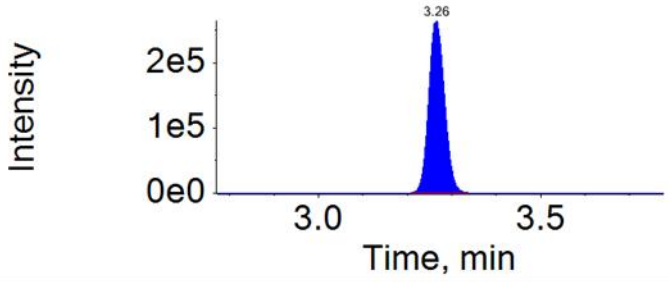


APPROVED
By JPT at 10:23 am, 11/13/18

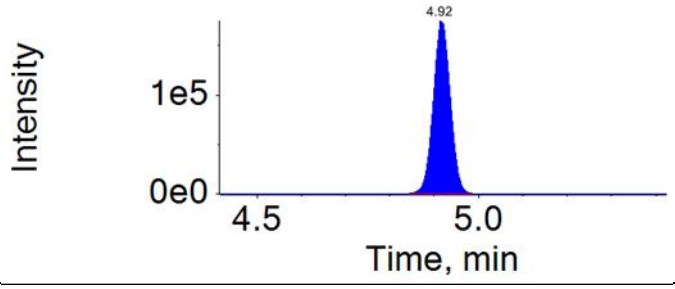
REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

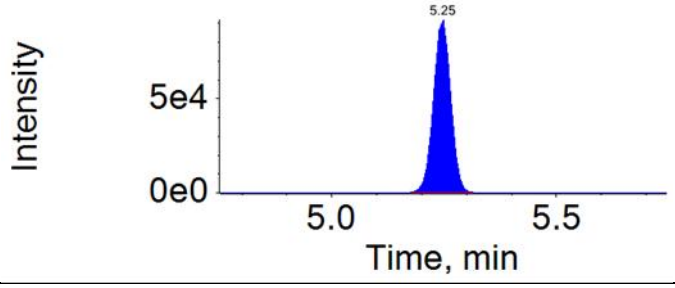
Injection Standard: 13C3-PFBA
216.0 / 172.0



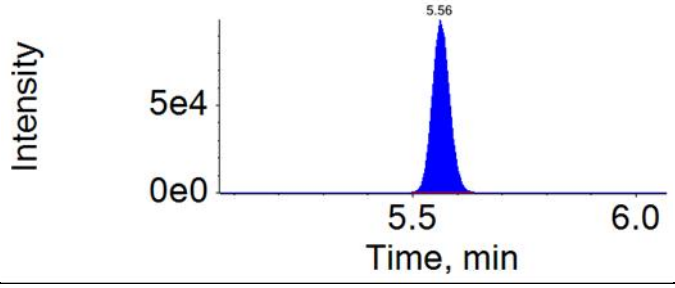
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

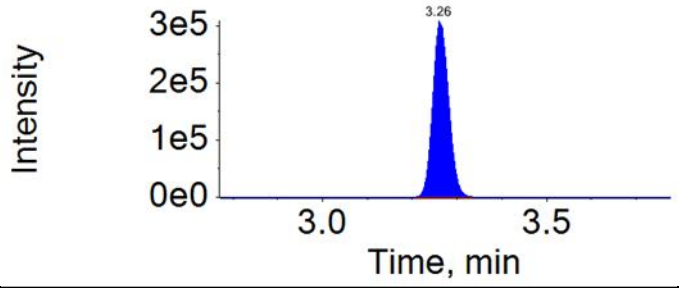


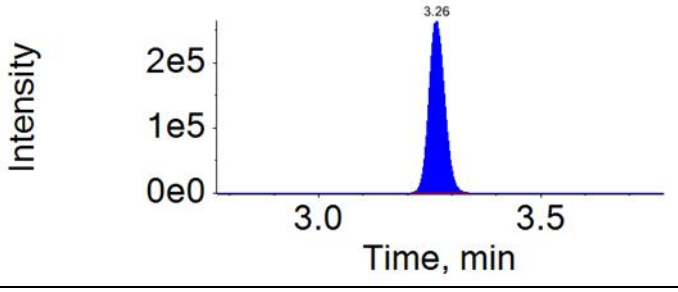
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

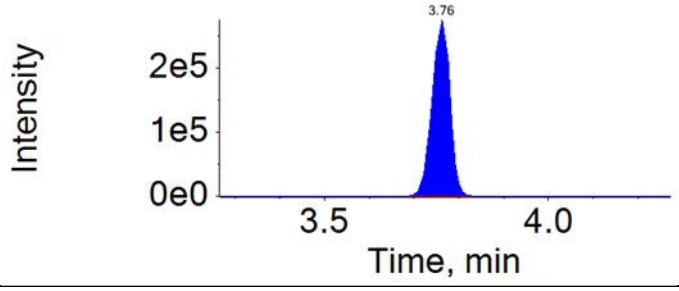
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

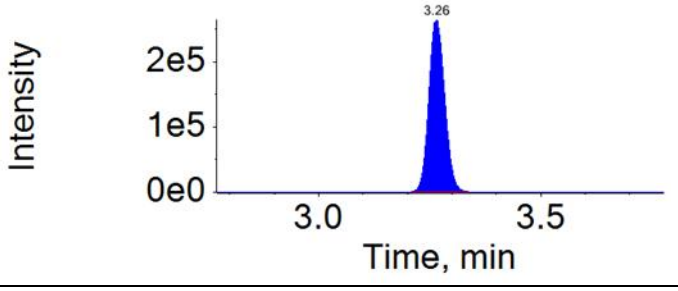
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



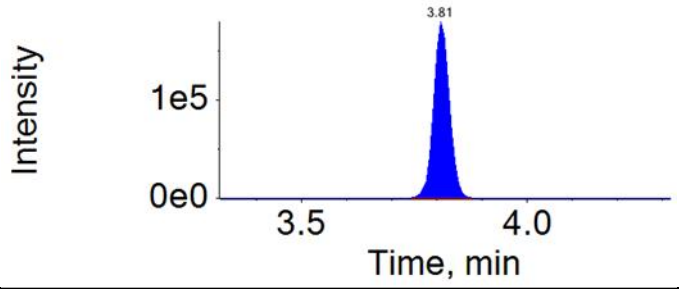


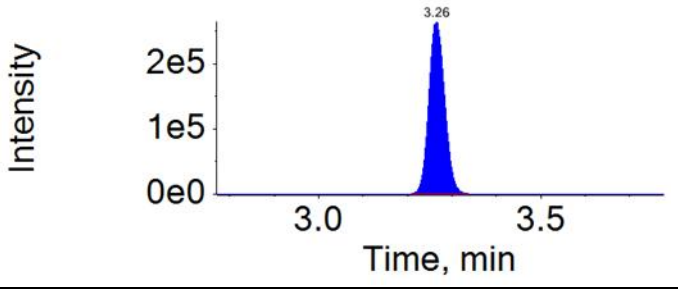
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



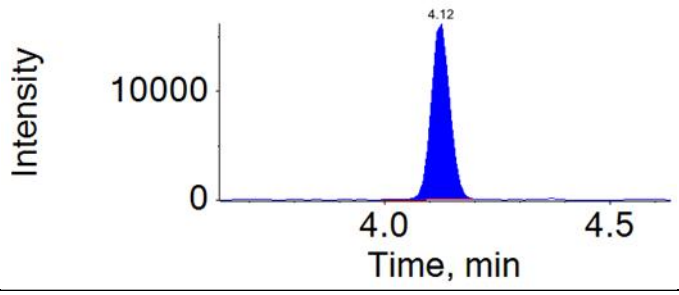


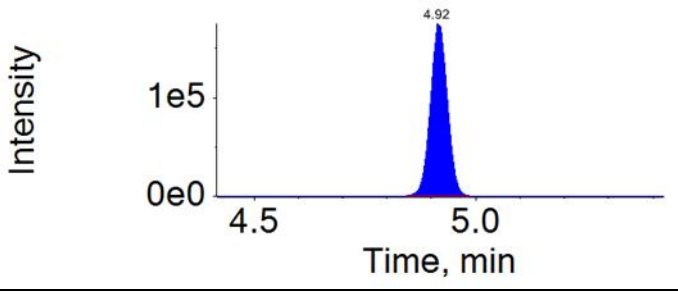
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





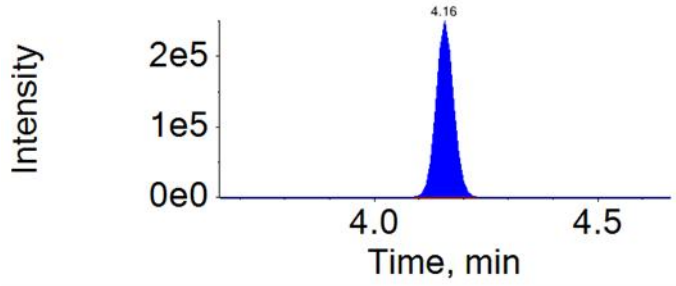
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

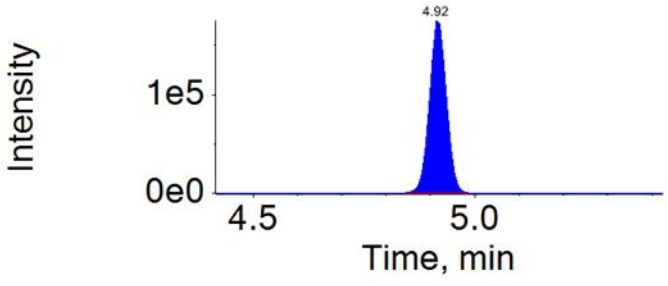




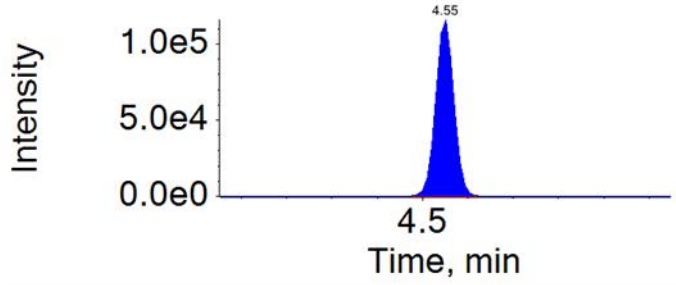
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

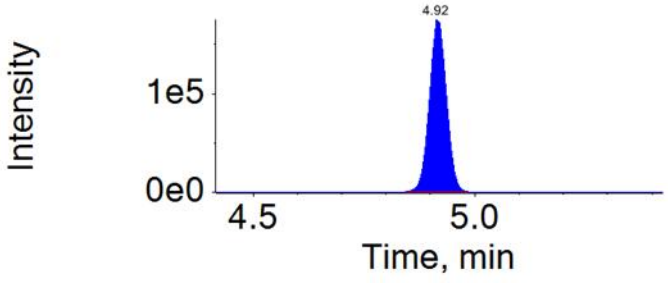
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



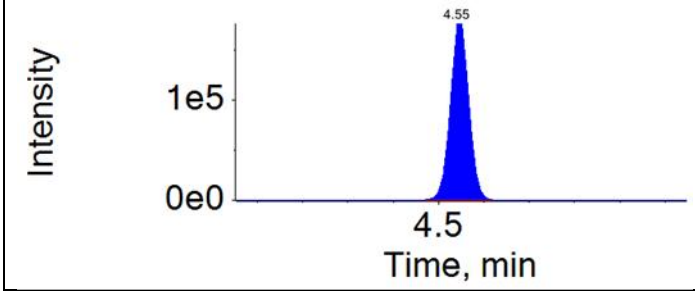


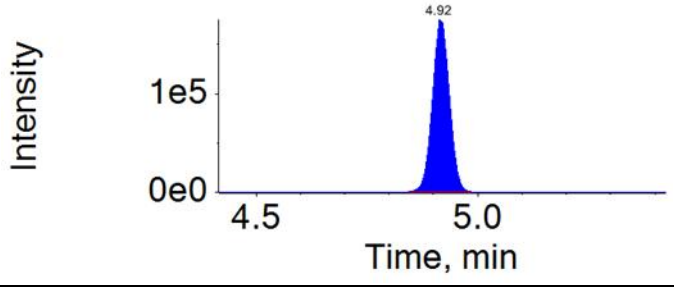
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



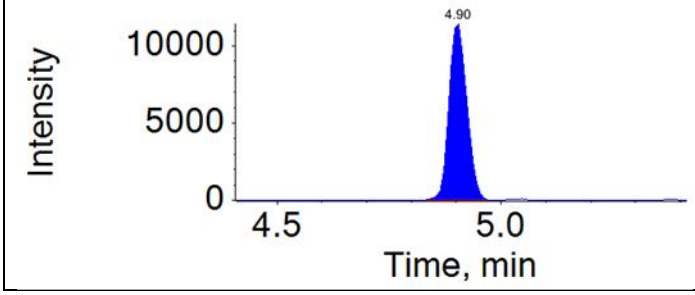


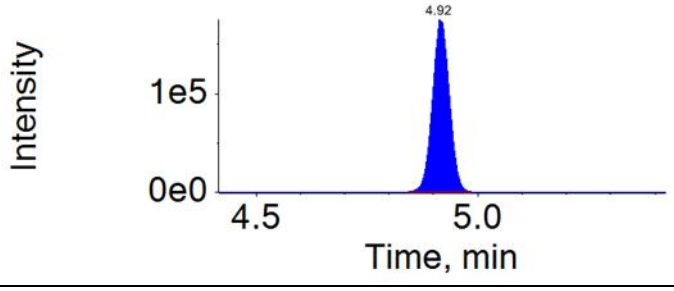
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

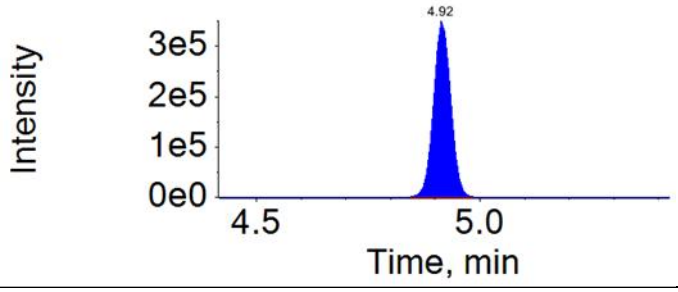
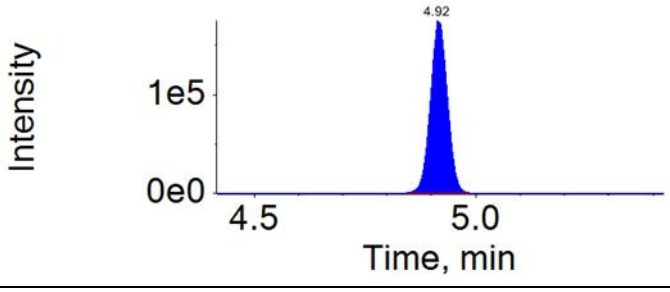


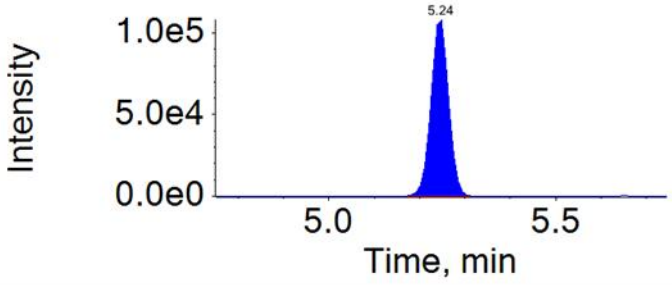
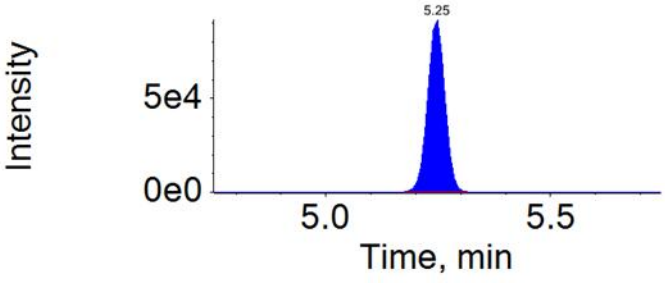


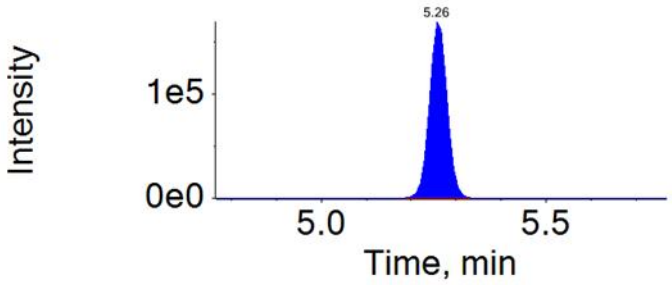
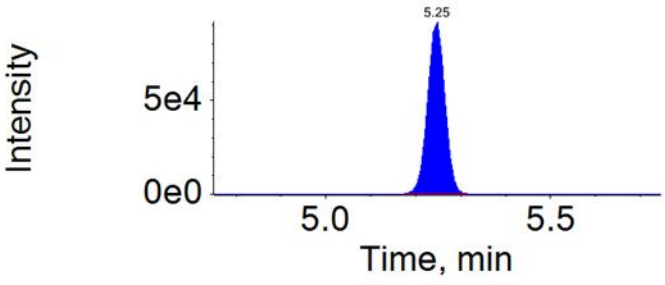
APPROVED
By JPT at 10:23 am, 11/13/18

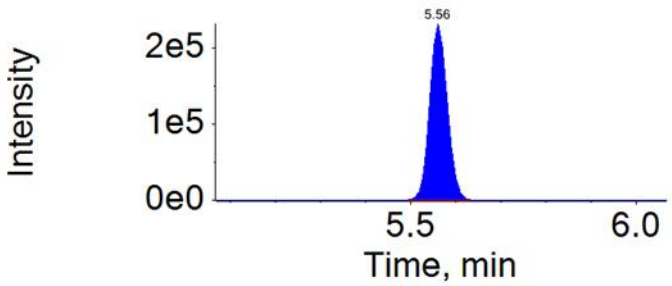
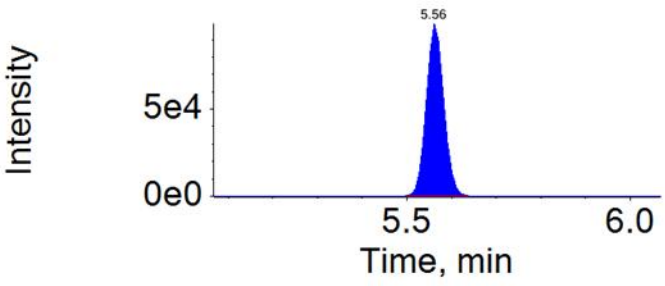
REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

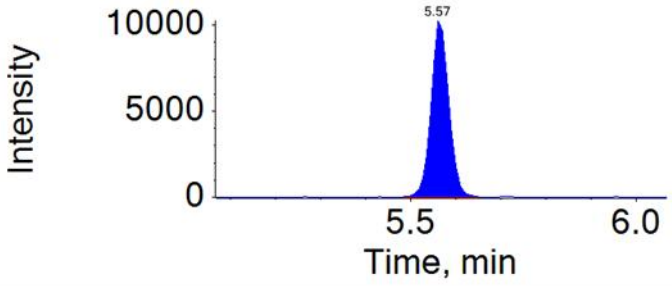
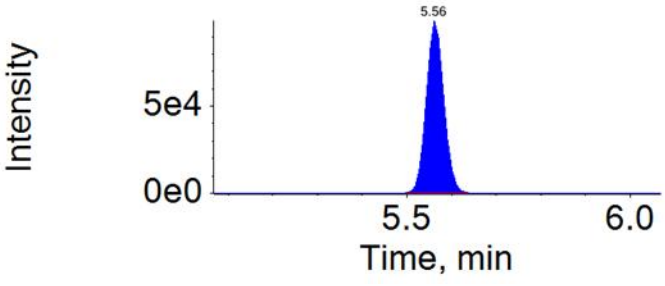
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

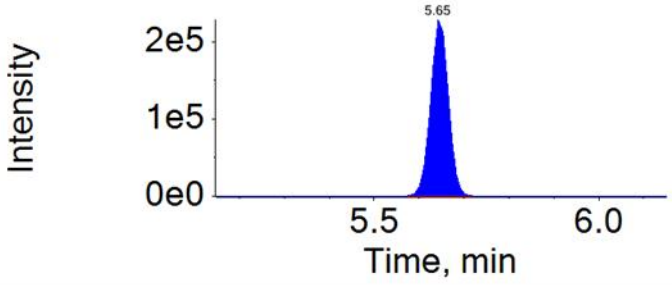
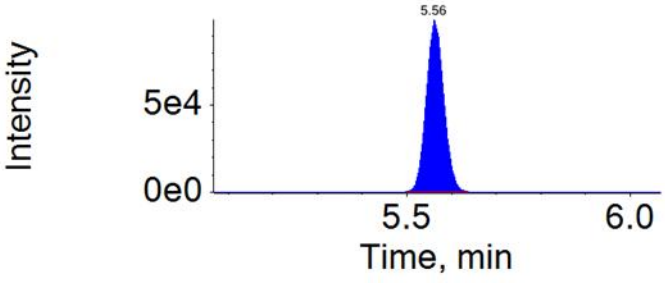
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

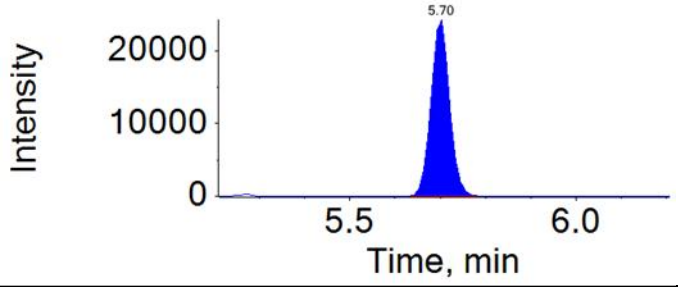
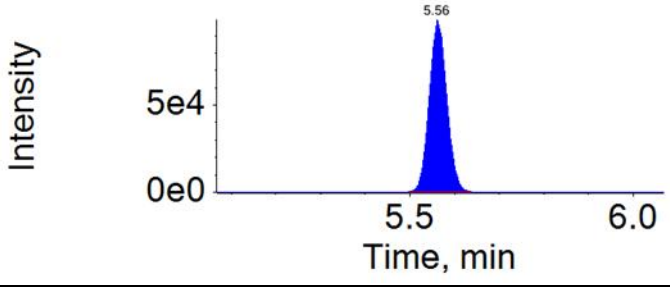
APPROVED
By JPT at 10:23 am, 11/13/18

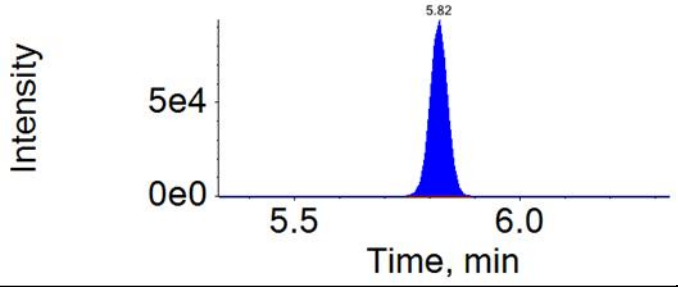
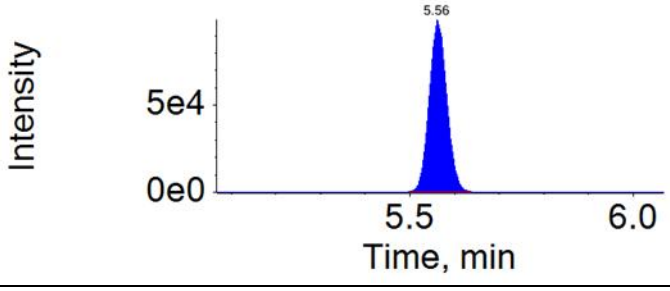
REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

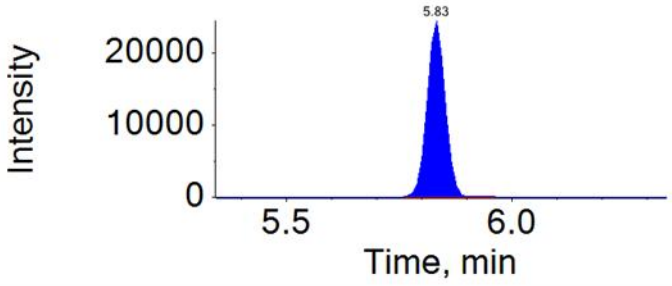
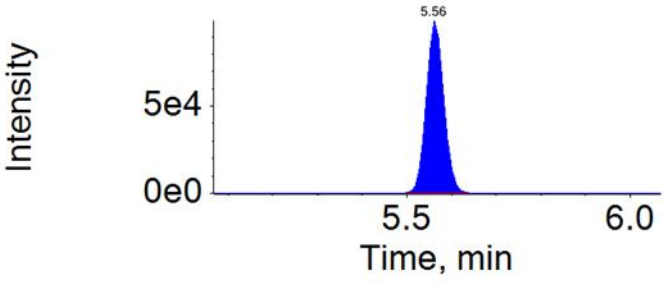
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

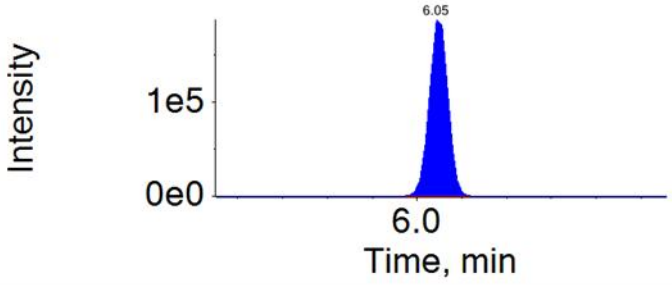
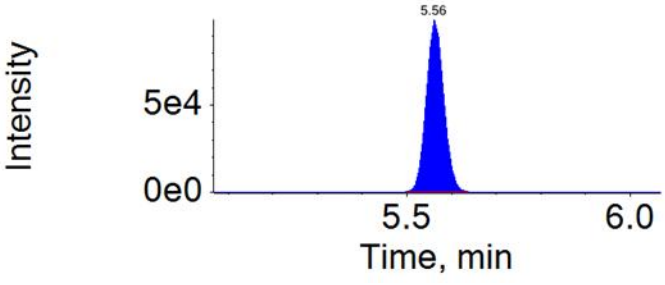
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

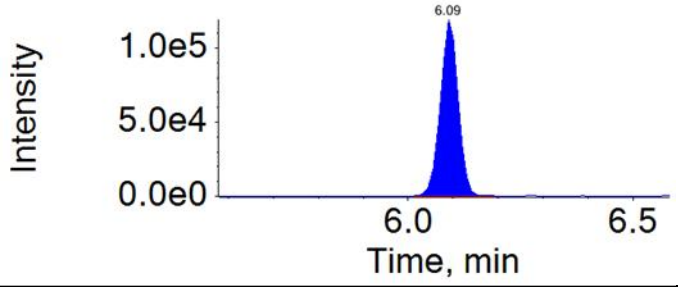
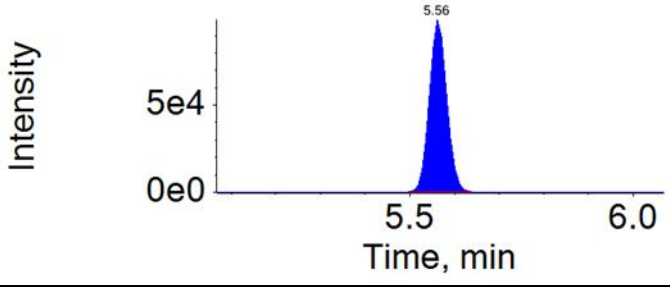
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

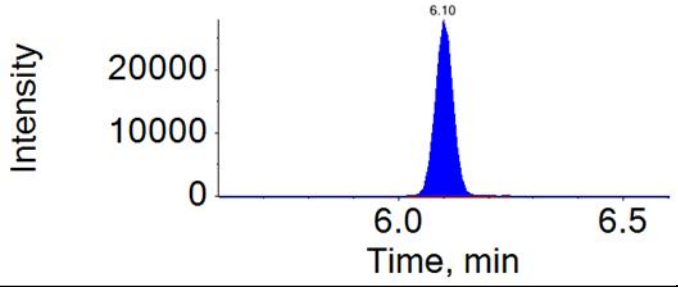
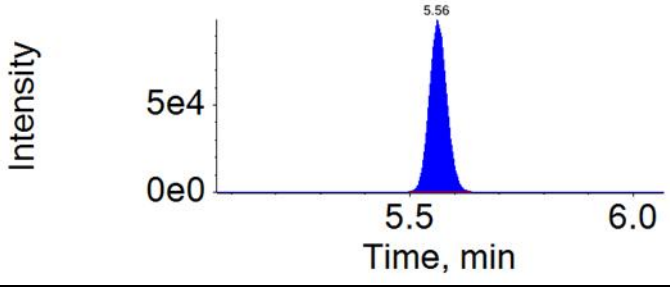
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

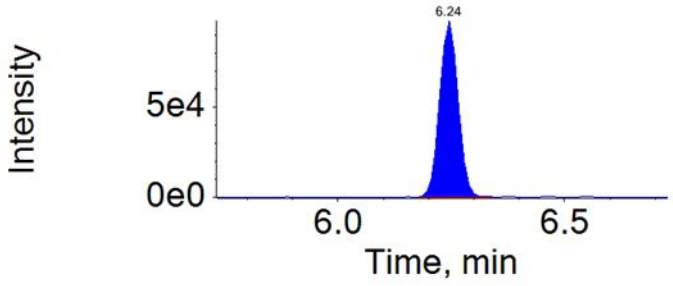
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

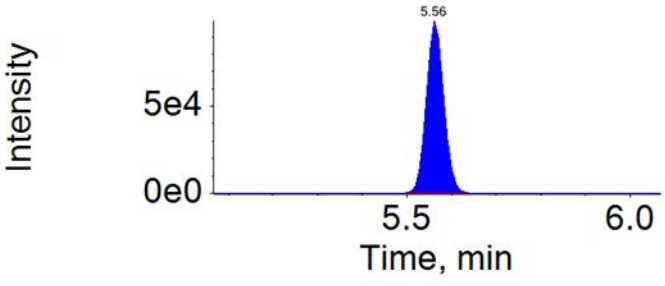
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

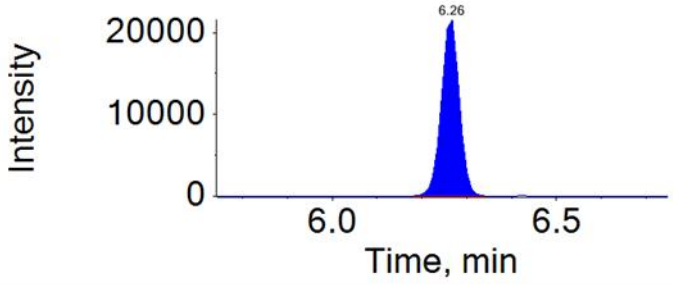
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

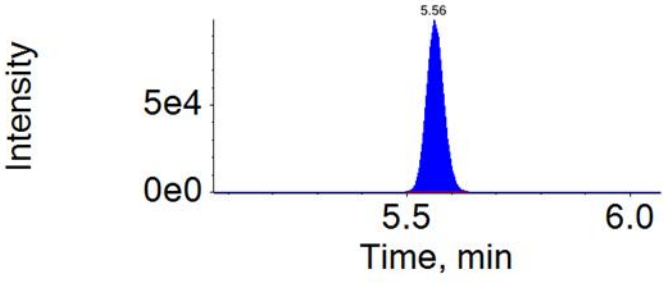
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



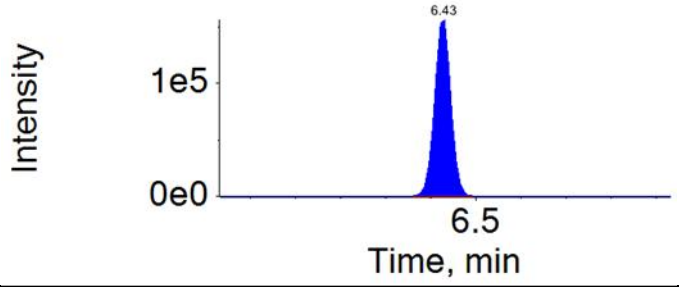


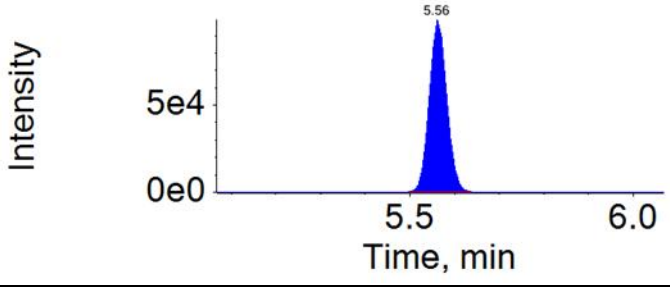
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



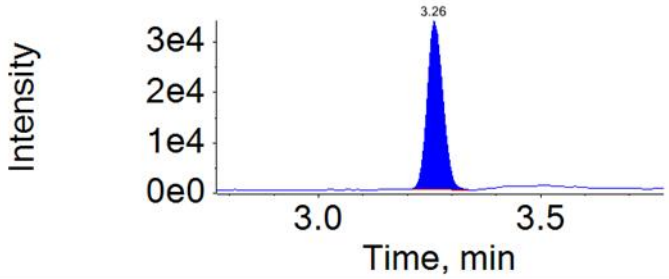


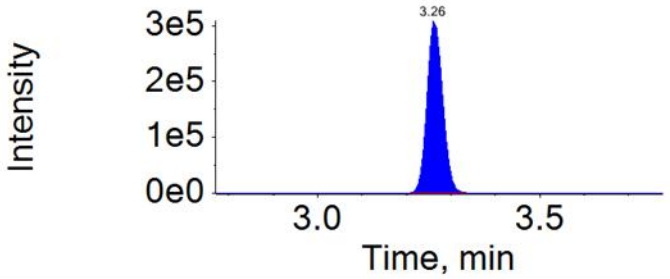
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

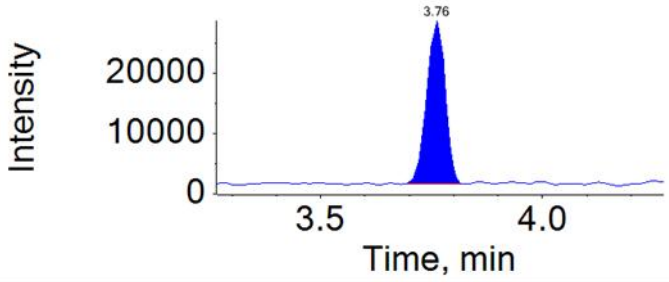
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

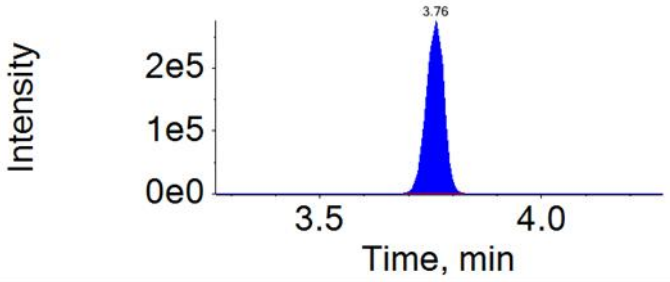
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



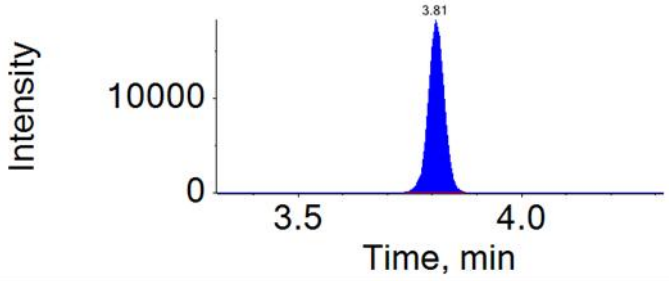


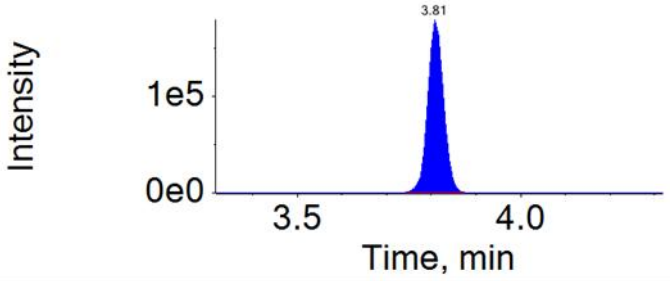
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



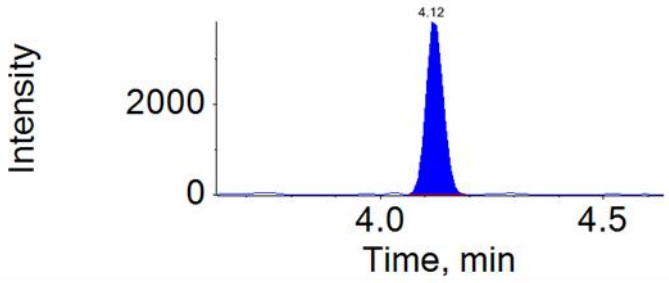


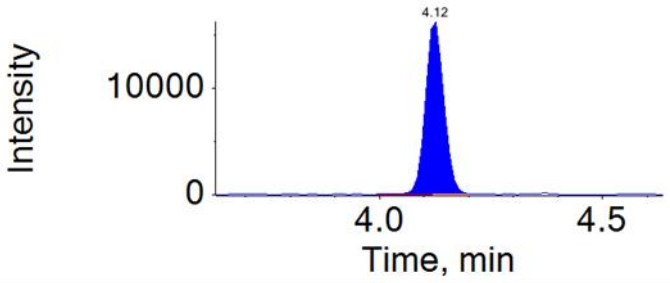
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



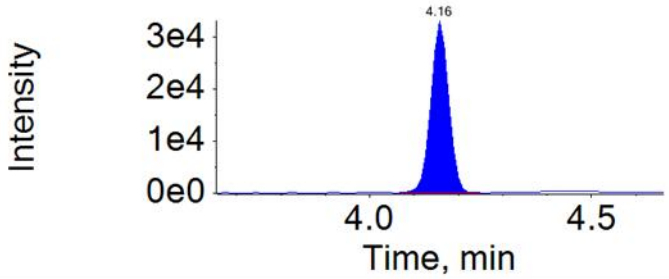


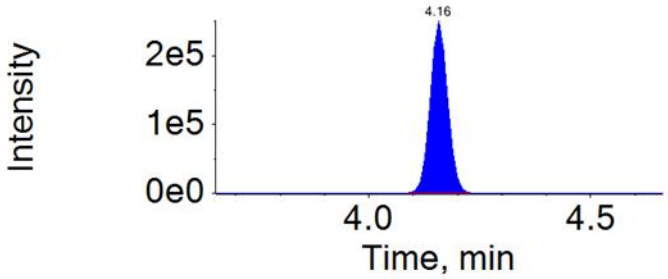
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

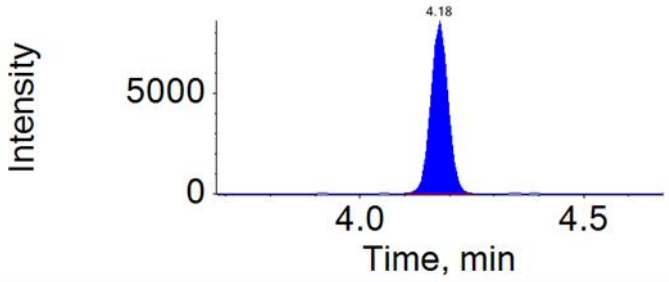
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

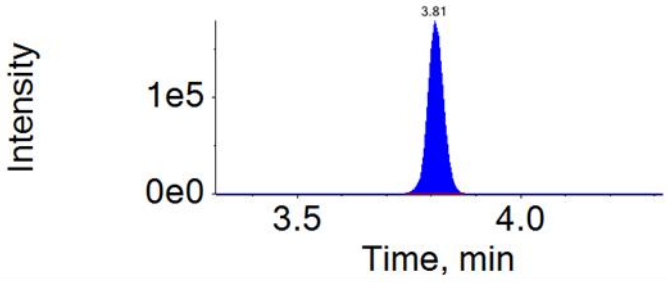
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



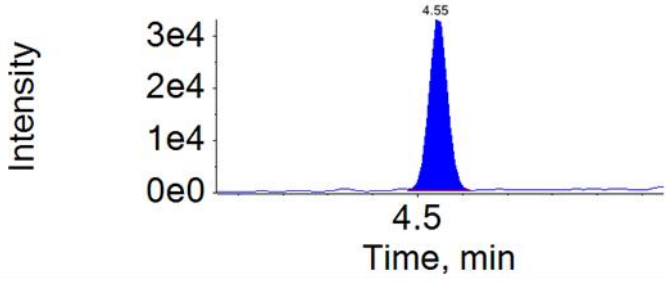


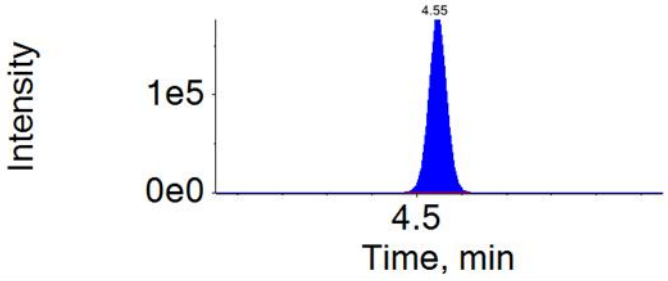
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



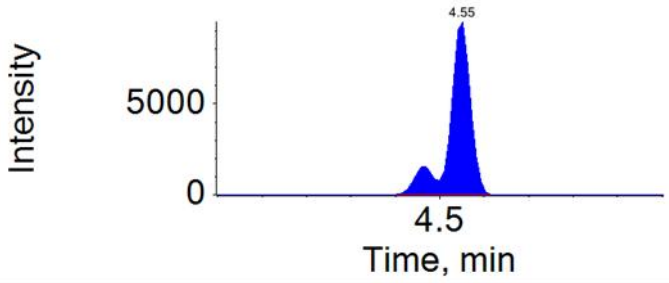


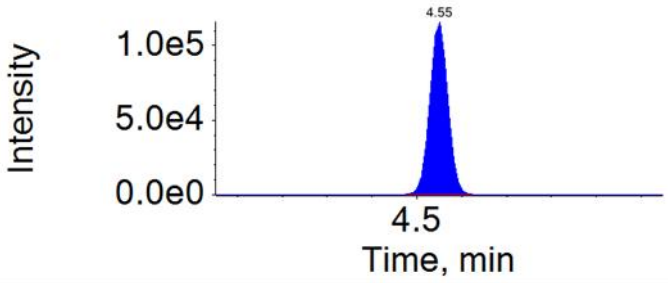
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



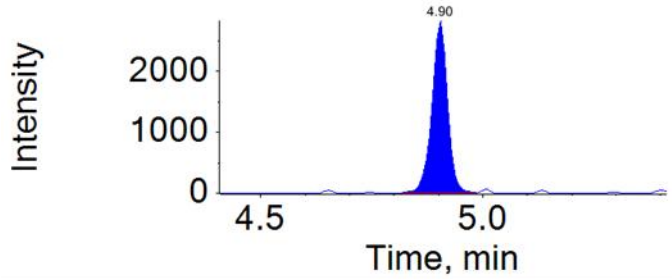


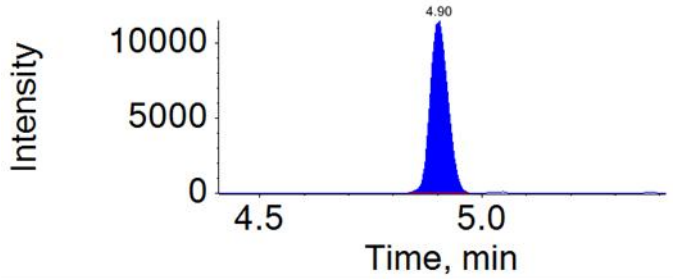
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

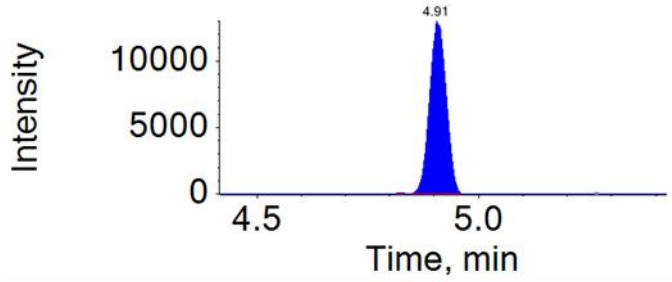
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

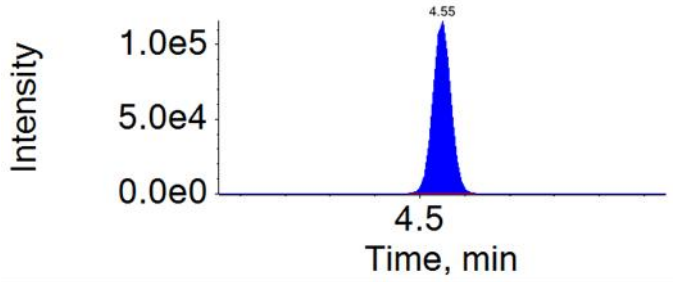
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



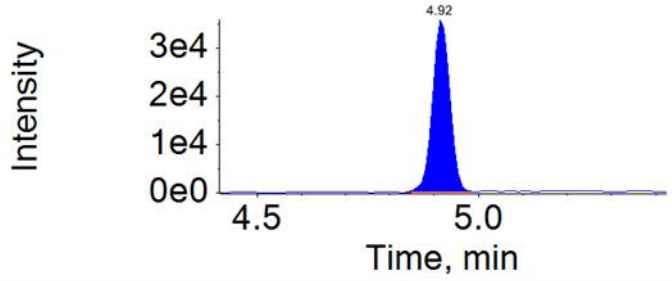


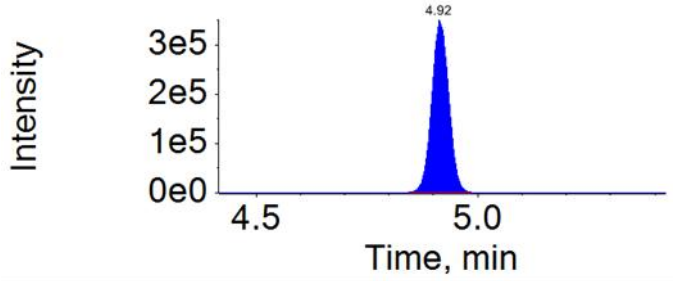
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



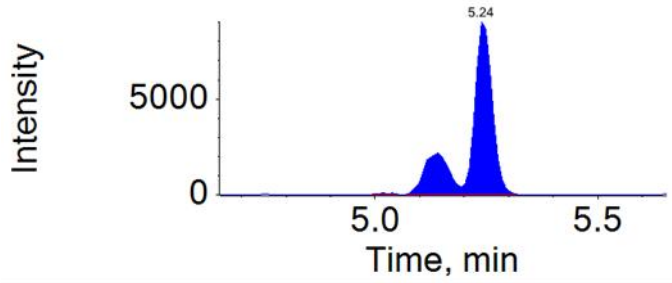


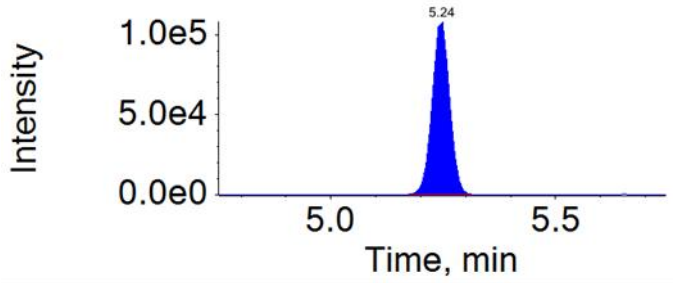
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



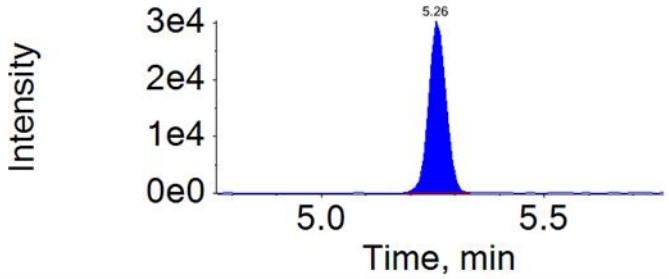


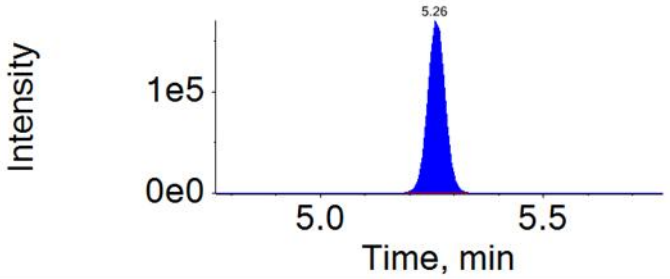
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

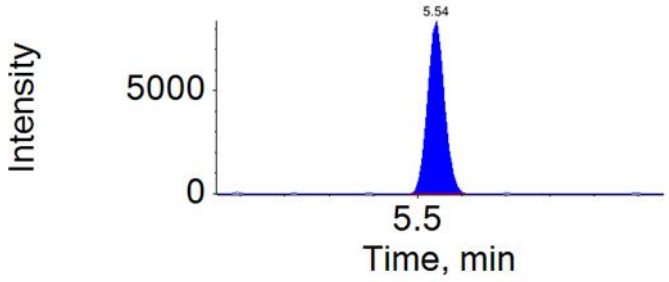
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

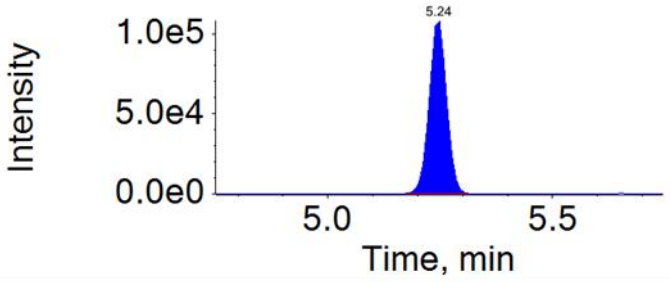
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



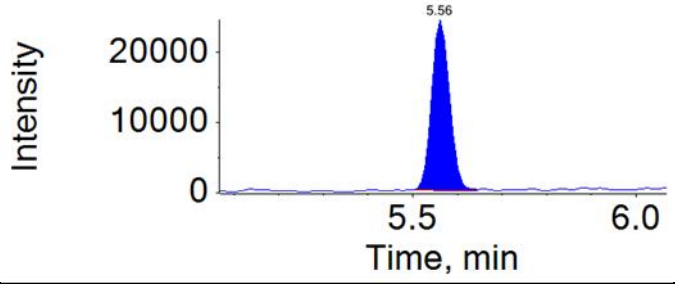


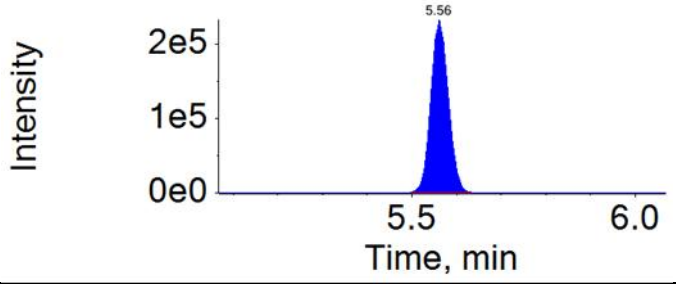
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



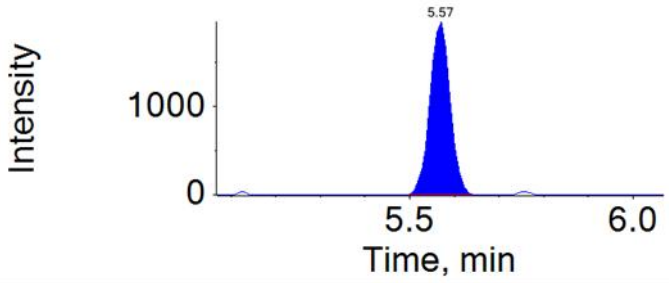


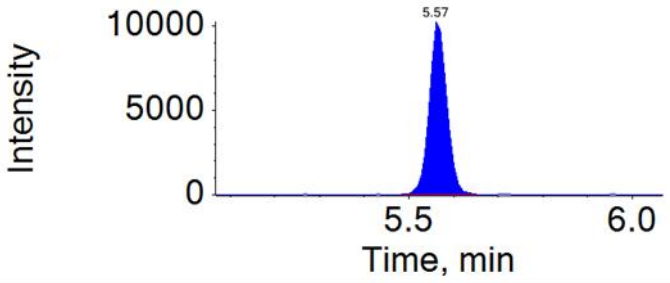
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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

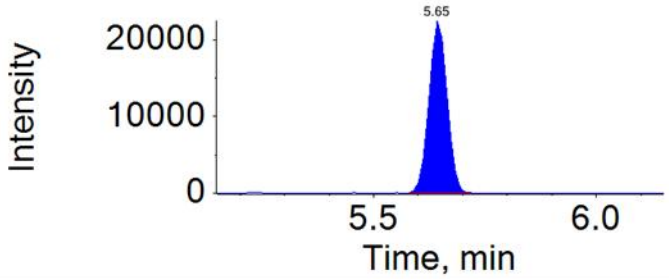
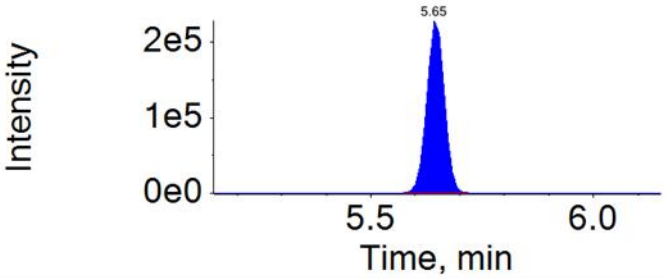


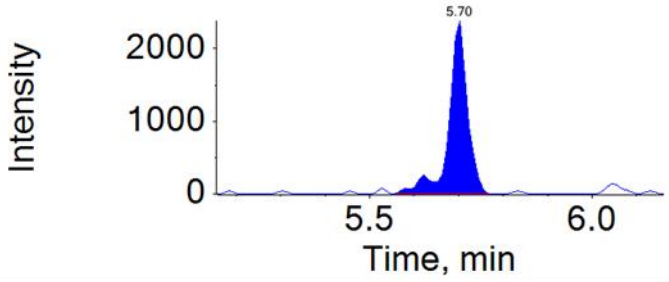
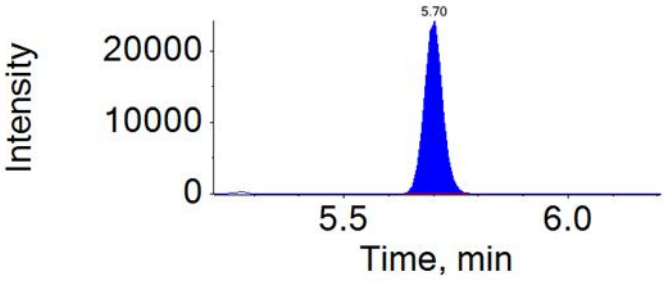


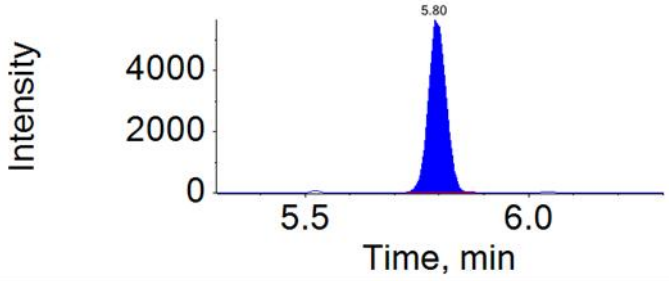
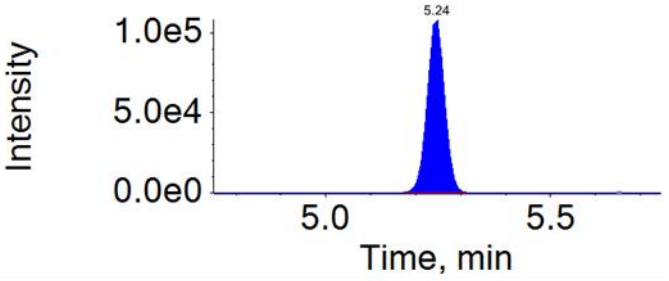
APPROVED
By JPT at 10:23 am, 11/13/18

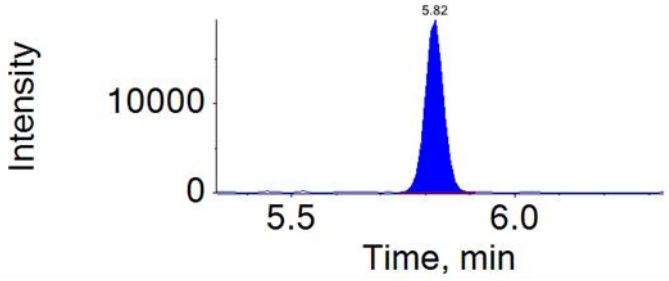
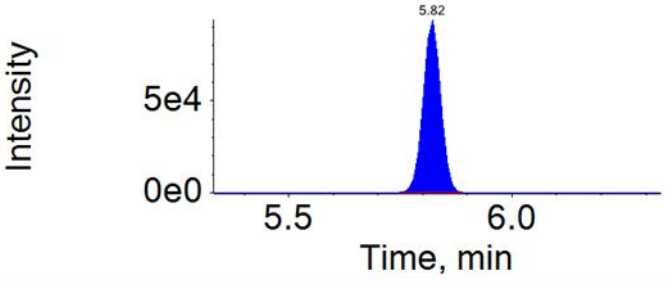
REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

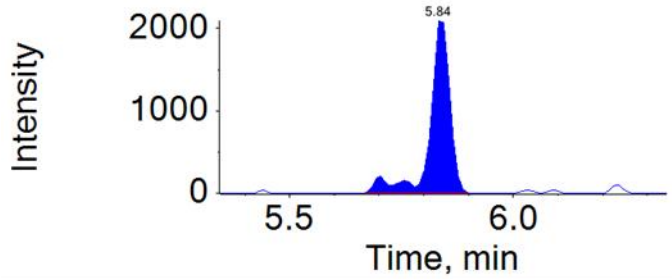
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

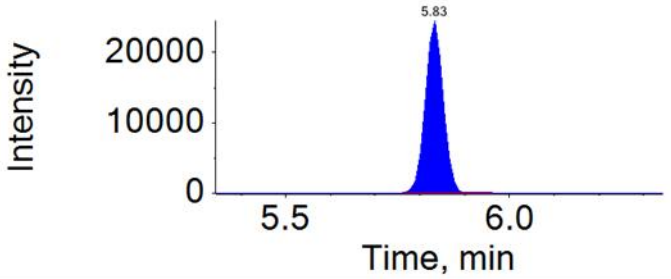
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

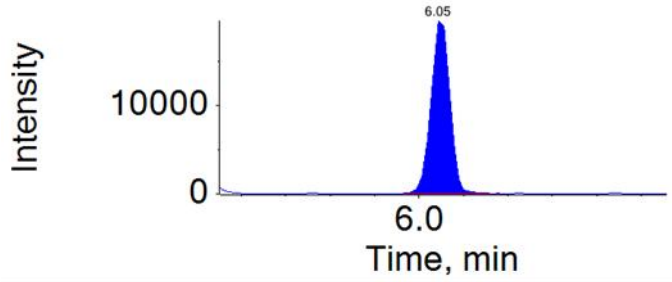
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

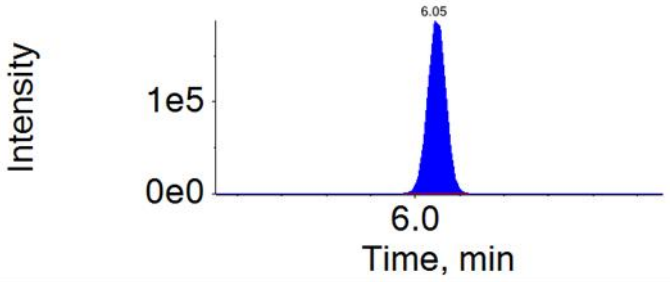
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



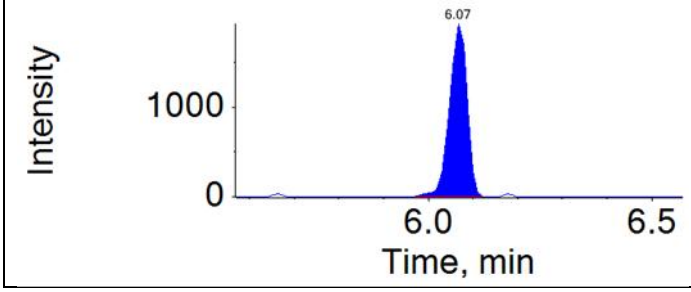


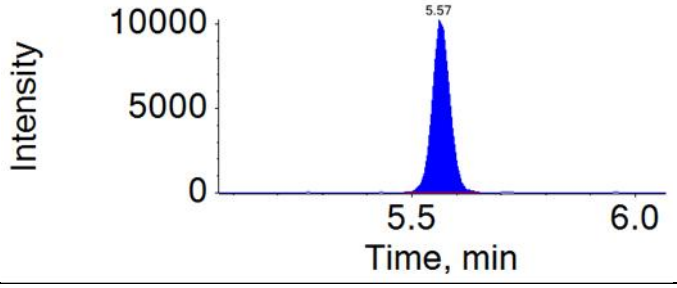
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



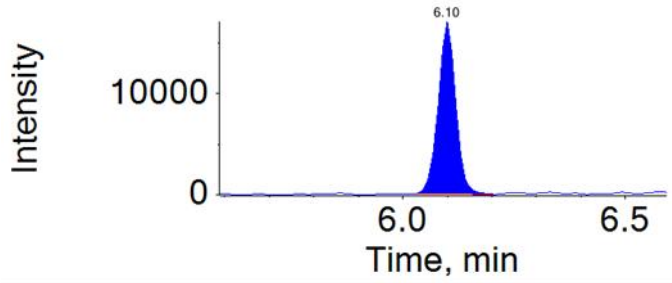


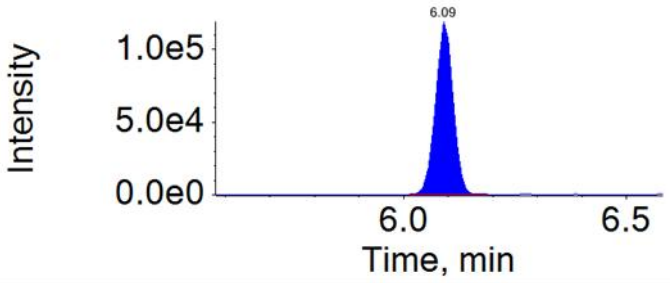
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



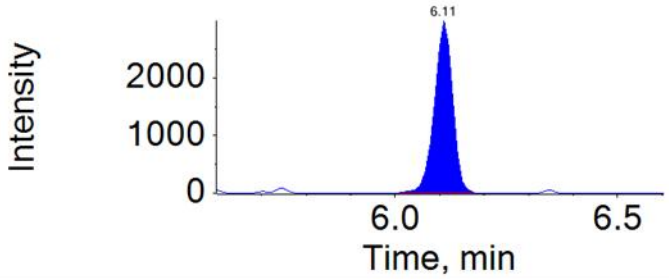


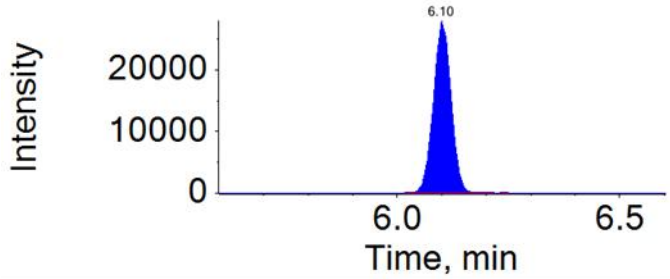
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

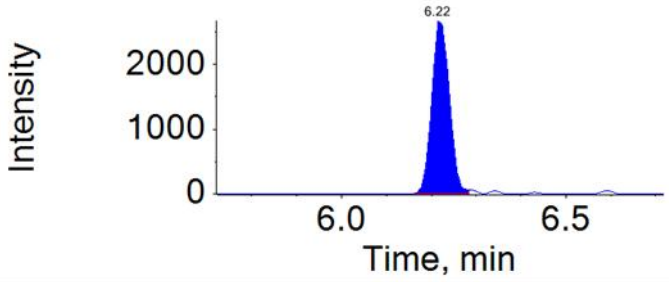
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

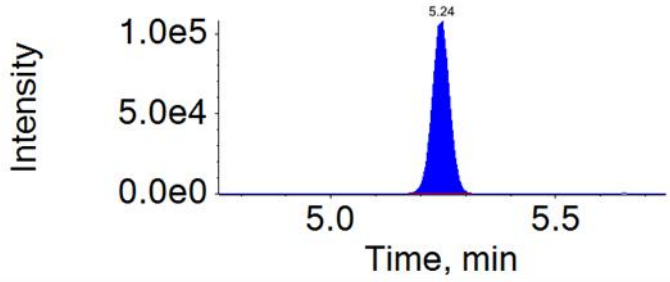
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



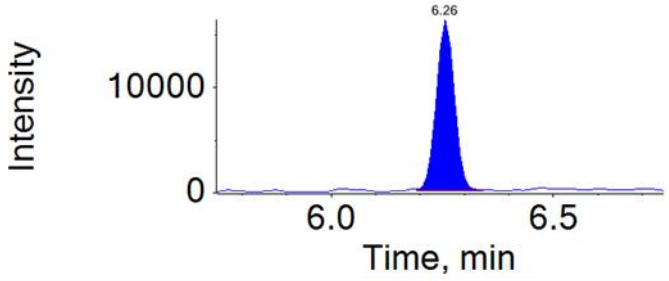


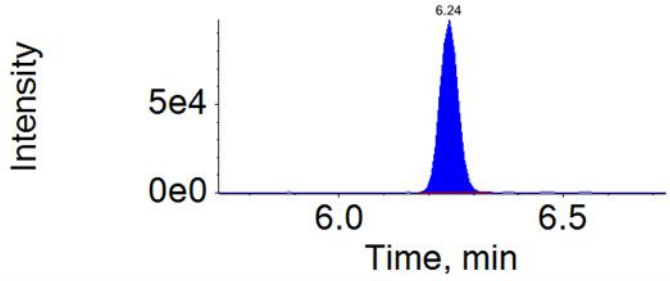
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



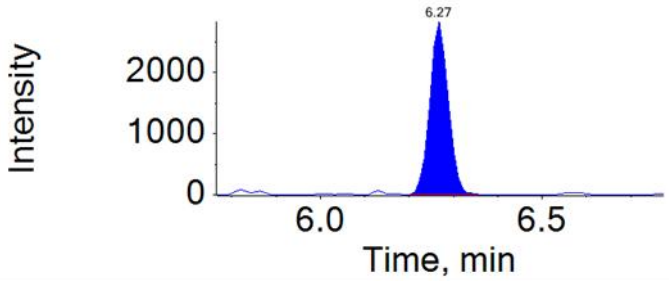


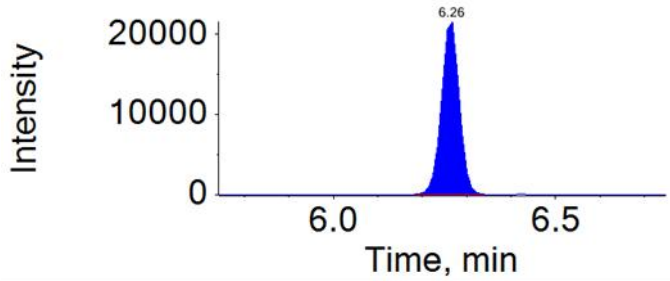
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



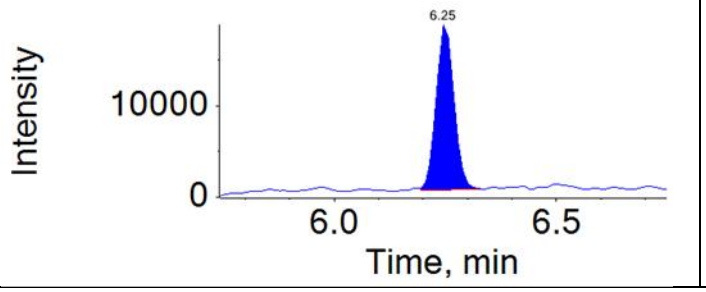


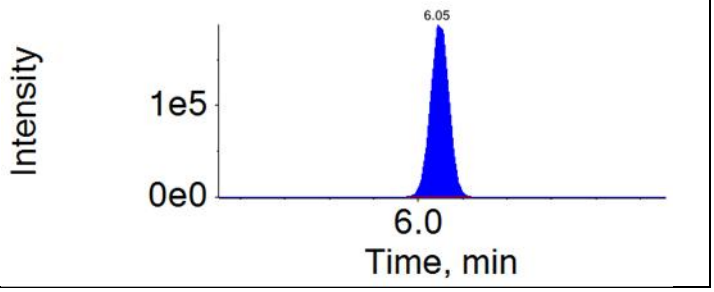
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

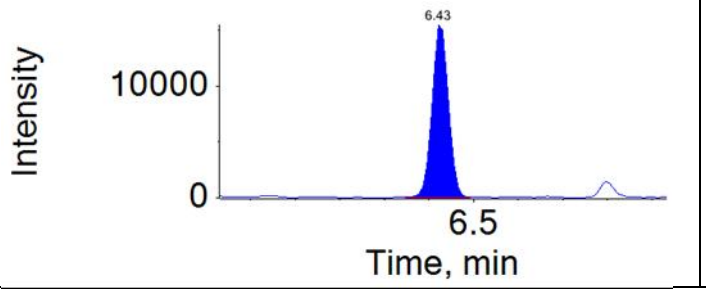
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

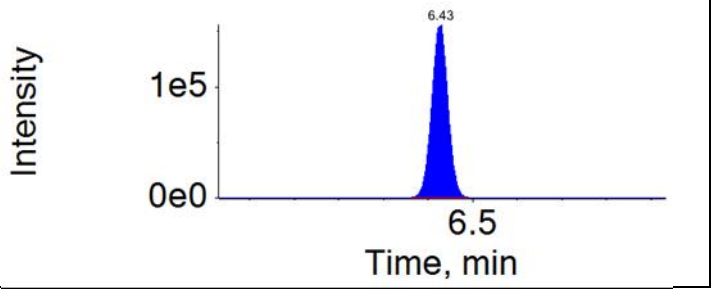
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



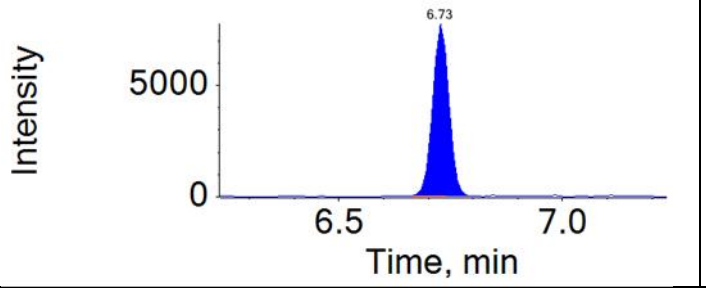


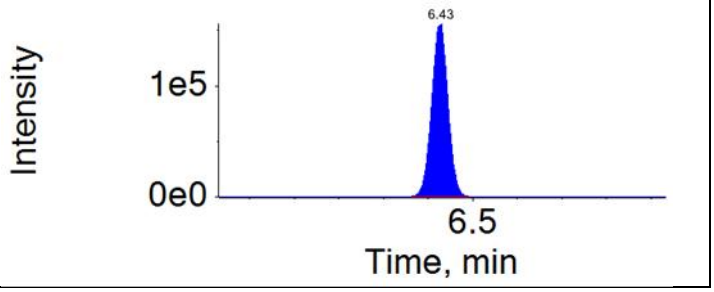
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



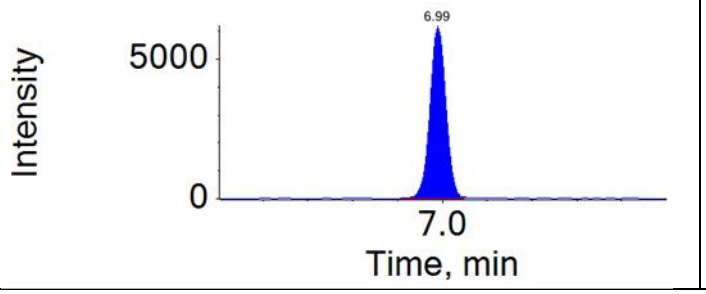


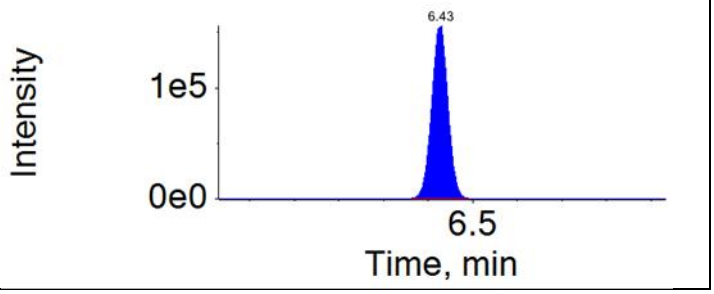
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



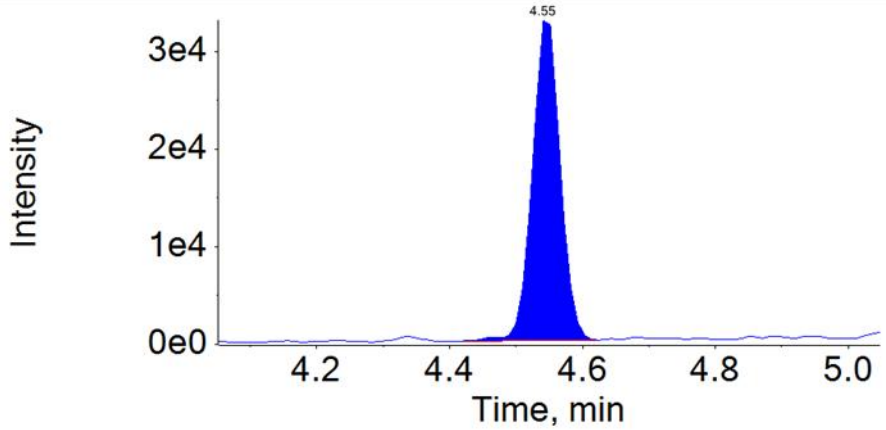


APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

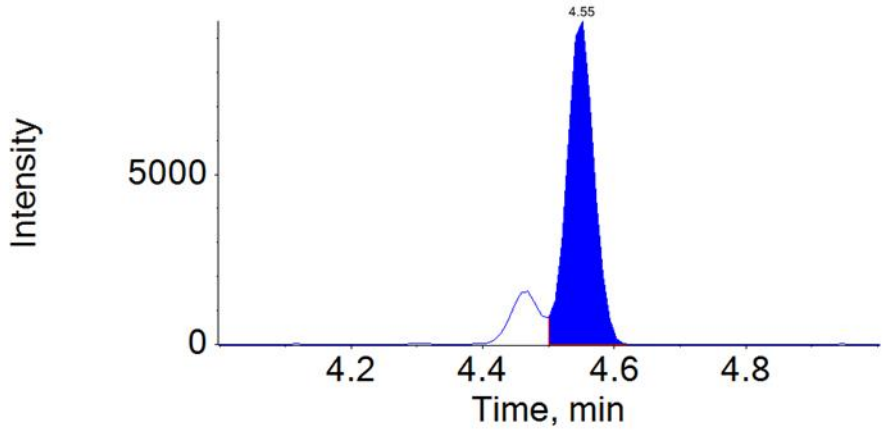
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA
RT (min.):
4.55
Peak Area:
96170.5
Mass Range:
363.0 / 319.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



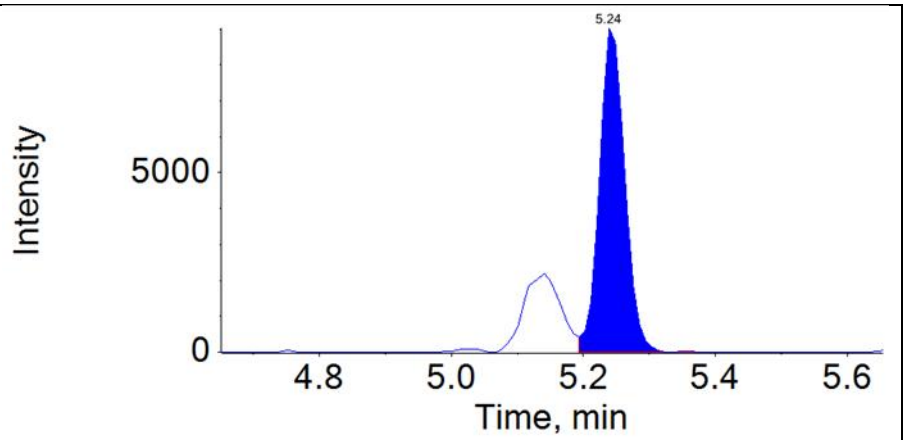
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
27302.7
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
24229.2
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



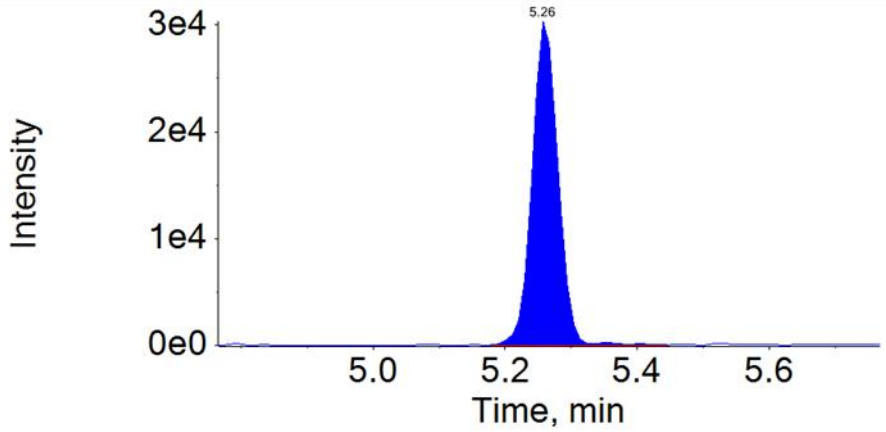
Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

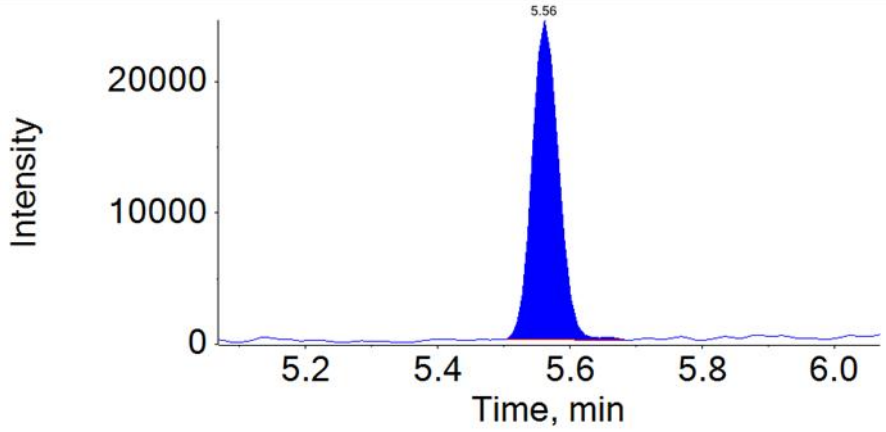
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFNA
RT (min.):
5.26
Peak Area:
82791.6
Mass Range:
463.0 / 419.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



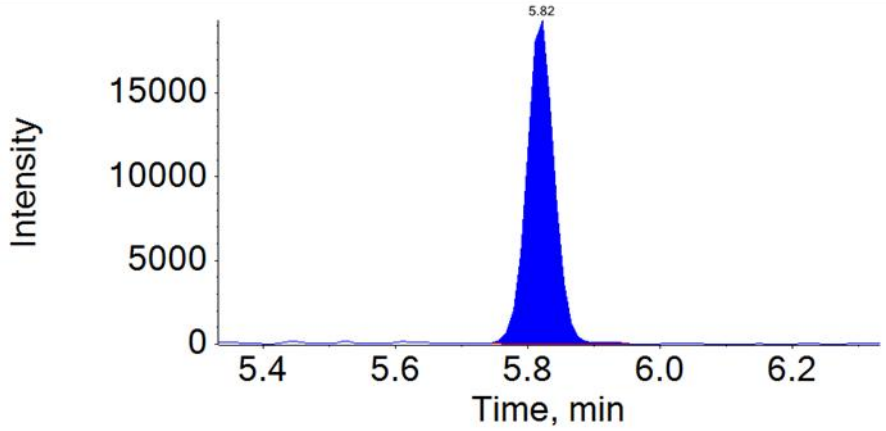
Integration Comment: incorrect integration

Component Name:
PFDA
RT (min.):
5.56
Peak Area:
67959.2
Mass Range:
513.0 / 469.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFUnDA
RT (min.):
5.82
Peak Area:
56017.4
Mass Range:
563.0 / 519.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2

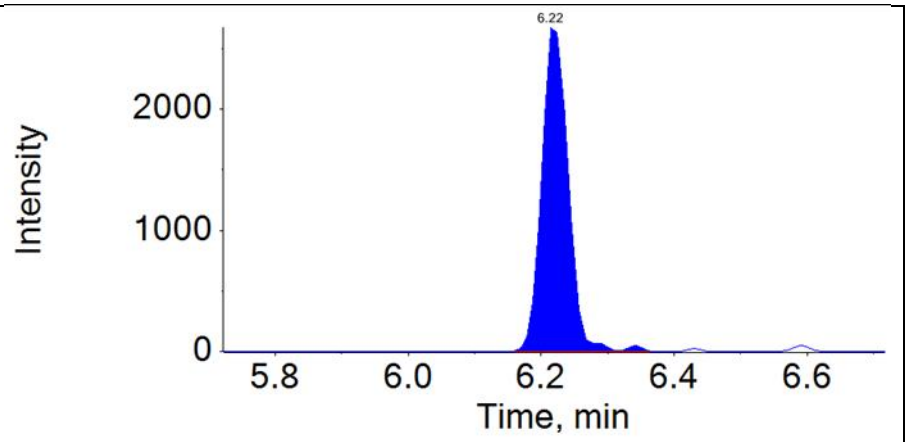


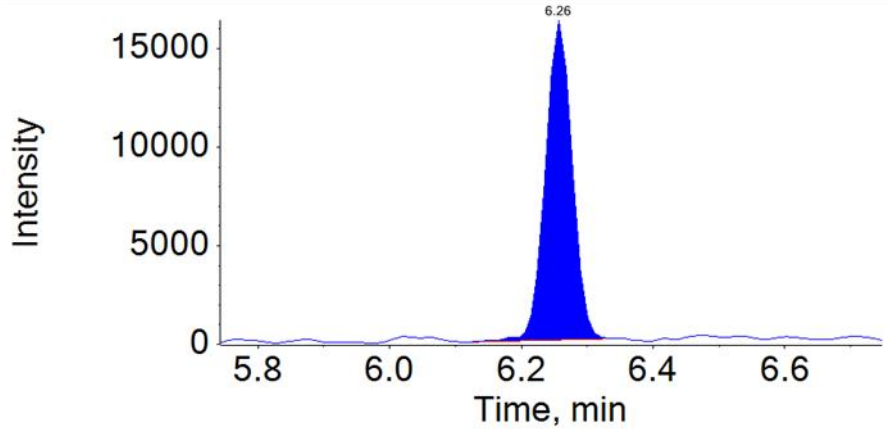
Integration Comment: incorrect integration

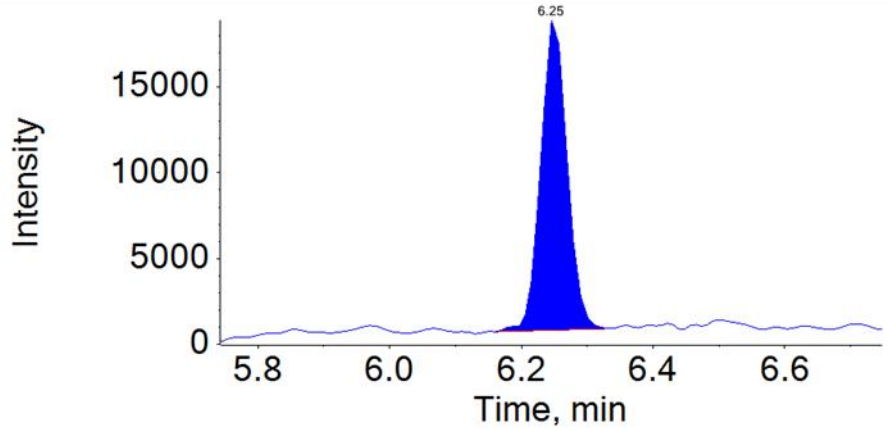
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFDoS **RT (min.):** 6.22 **Peak Area:** 7462.8 **Mass Range:** 699.0 / 80.0 **File Name:** 18NOV12D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtPFOSAE **RT (min.):** 6.26 **Peak Area:** 45832.0 **Mass Range:** 630.0 / 59.0 **File Name:** 18NOV12D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

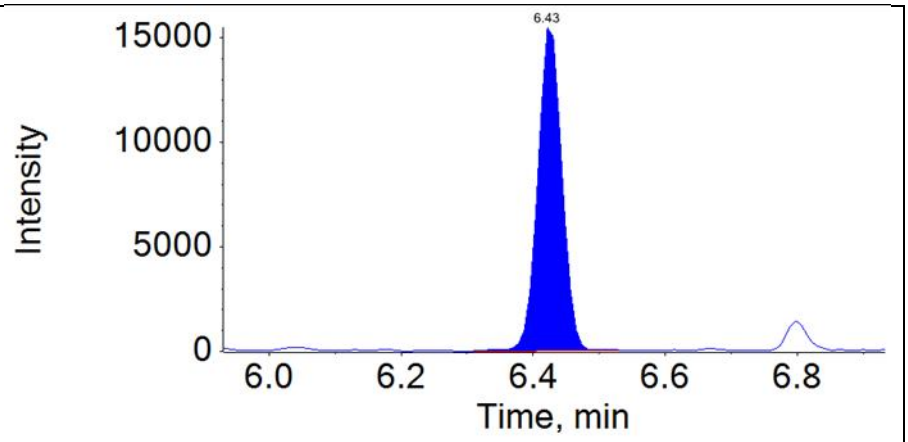
Component Name: PFTrDA **RT (min.):** 6.25 **Peak Area:** 50513.7 **Mass Range:** 663.0 / 619.0 **File Name:** 18NOV12D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

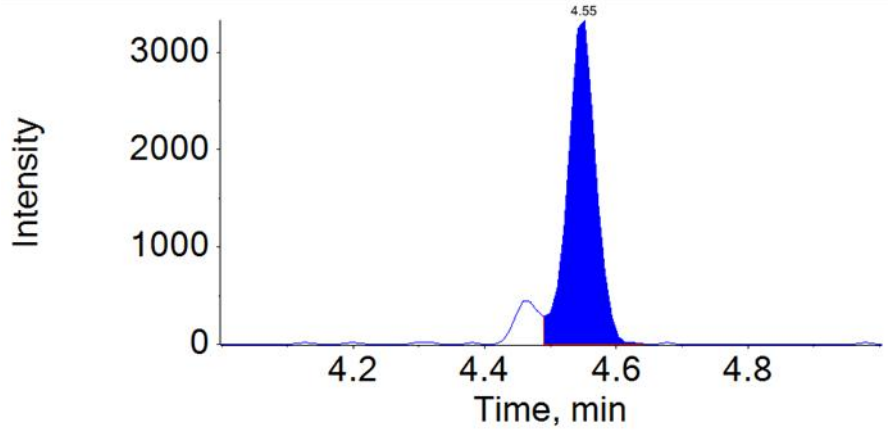
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTeDA
RT (min.):
6.43
Peak Area:
39604.0
Mass Range:
713.0 / 669.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



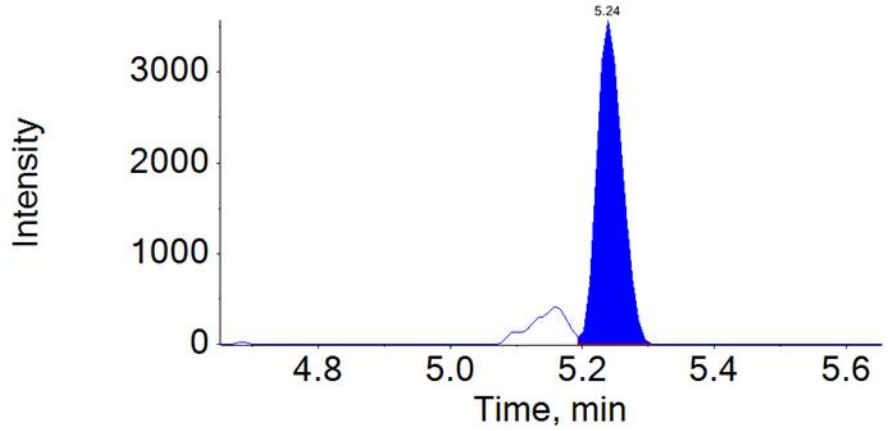
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
9996.3
Mass Range:
399.0 / 99.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
9504.5
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

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

Ion Ratio Report

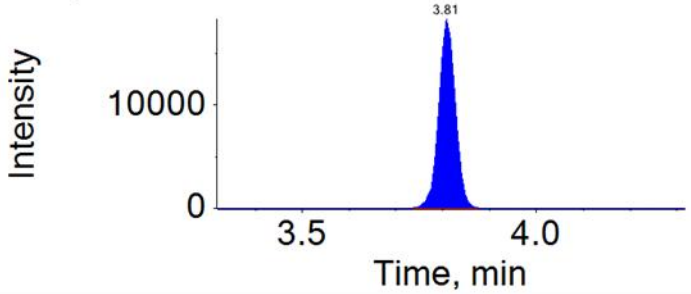
Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-35.wiff

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	45066.2	A	N/A	1.0000			
PFBS_2	3.81	1.00	15952.7	A	N/A	0.3540	-3	50	
4:2-FTS	4.12	1.00	10399.0	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	6992.0	A	N/A	0.6724		#NA!	
PFHxA	4.16	1.00	91487.0	A	N/A	1.0000			
PFHxA_2	4.16	1.00	995.2	A	N/A	0.0109	-7	50	
PFPeS	4.18	1.10	22954.6	A	N/A	1.0000			
PFPeS_2	4.18	1.10	11412.4	A	N/A	0.4972	-4	50	
PFHpA	4.55	1.00	95466.7	M	N/A	1.0000			
PFHpA_2	4.55	1.00	5313.6	A	N/A	0.0557	-1	50	
PFHxS	4.55	1.00	32219.2	M	N/A	1.0000			
PFHxS_2	4.55	1.00	11166.8	M	N/A	0.3466	1	50	
6:2-FTS	4.90	1.00	6911.2	A	N/A	1.0000			
6:2 FTS_2	4.91	1.00	4687.2	A	N/A	0.6782		#NA!	
PFHpS	4.91	1.08	33929.7	A	N/A	1.0000			
PFHpS_2	4.91	1.08	12017.9	A	N/A	0.3542	-13	50	
PFOA	4.92	1.00	97123.0	A	N/A	1.0000			
PFOA_2	4.92	1.00	5333.5	A	N/A	0.0549	-3	50	
PFOS	5.24	1.00	33092.8	M	N/A	1.0000			
PFOS_2	5.24	1.00	11082.0	M	N/A	0.3349	13	50	
PFNA	5.26	1.00	82024.9	M	N/A	1.0000			
PFNA_2	5.26	1.00	1804.0	A	N/A	0.0220	-3	50	
PFNS	5.54	1.06	22070.4	A	N/A	1.0000			
PFNS_2	5.54	1.06	8279.5	A	N/A	0.3751	-21	50	
PFDA	5.56	1.00	67587.3	M	N/A	1.0000			
PFDA_2	5.57	1.00	335.5	A	N/A	0.0050	-37	50	
8:2-FTS	5.57	1.00	6168.3	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	3024.9	A	N/A	0.4904		#NA!	
NMeFOSAA	5.70	1.00	6931.1	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	1049.7	A	N/A	0.1514	-41	50	
PFDS	5.80	1.11	15622.4	A	N/A	1.0000			
PFDS_2	5.79	1.10	7430.8	A	N/A	0.4756	-7	50	
PFUnDA	5.82	1.00	55755.4	M	N/A	1.0000			
PFUnDA_2	5.84	1.00	194.6	A	N/A	0.0035	-37	50	
NEtFOSAA	5.84	1.00	6578.7	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	3627.2	A	N/A	0.5513	-23	50	
PFDoDA	6.05	1.00	58154.0	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	979.6	A	N/A	0.0168	9	50	
10:2-FTS	6.07	1.09	5269.4	A	N/A	1.0000			
10:2 FTS_2	6.07	1.09	3638.3	A	N/A	0.6905		#NA!	
PFTrDA	6.25	1.03	50331.5	M	N/A	1.0000			
PFTrDA_2	6.23	1.03	309.7	A	N/A	0.0062	-28	50	
PFTeDA	6.43	1.00	39345.2	M	N/A	1.0000			
PFTeDA_2	6.42	1.00	381.1	A	N/A	0.0097	56	50	OOS
PFHxDA	6.73	1.05	19492.8	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1310.1	A	N/A	0.0672	-1	50	
PFODA	6.99	1.09	15126.3	A	N/A	1.0000			
PFODA_2	6.98	1.09	470.7	A	N/A	0.0311	13	50	

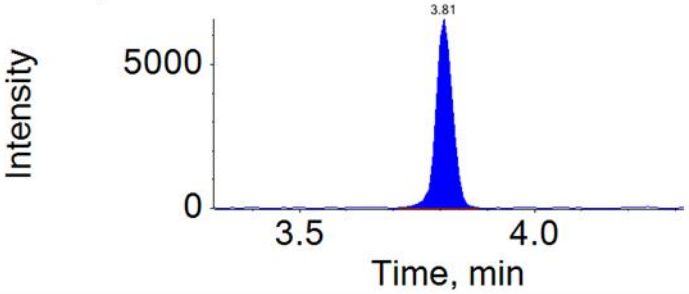
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

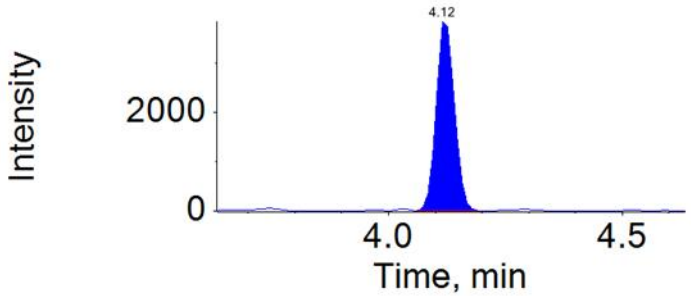
Component: PFBS
Primary Mass: 299.0 / 80.0



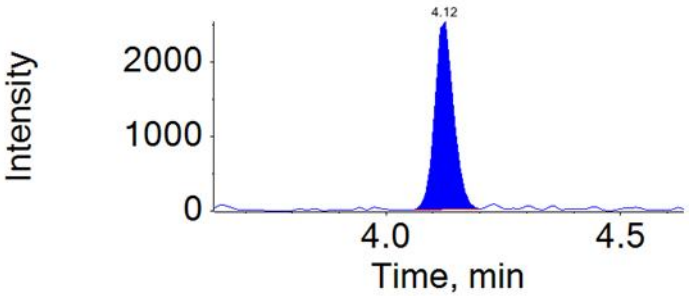
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



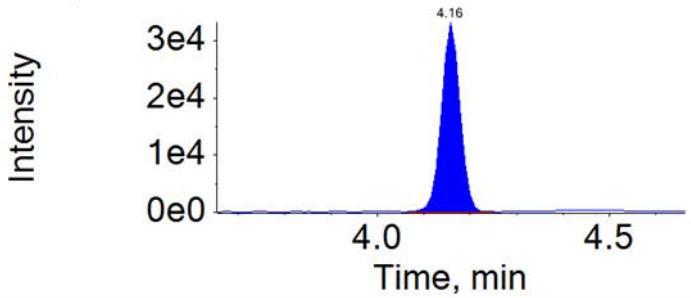
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



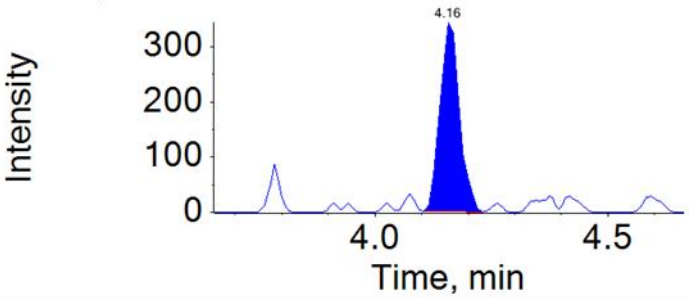
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



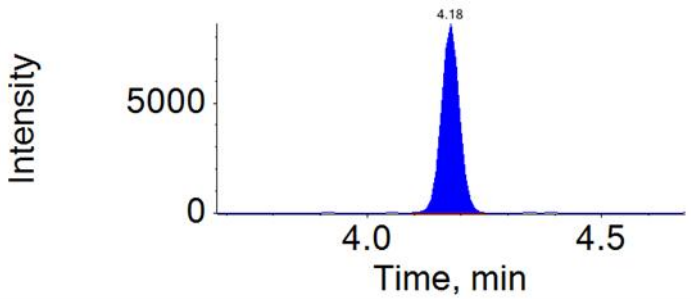
Component: PFHxA
Primary Mass: 313.0 / 269.0



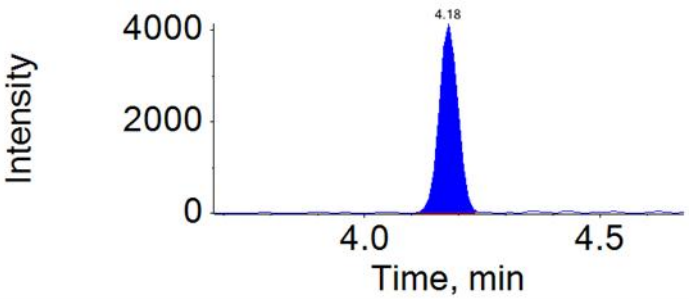
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



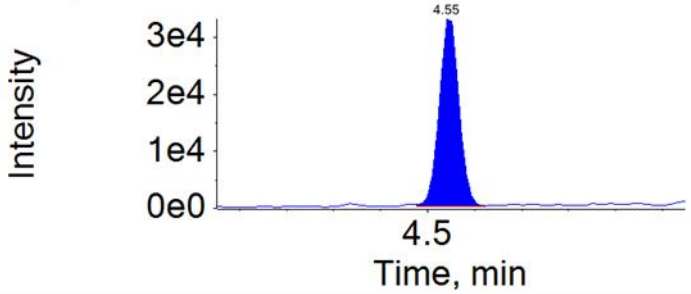
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



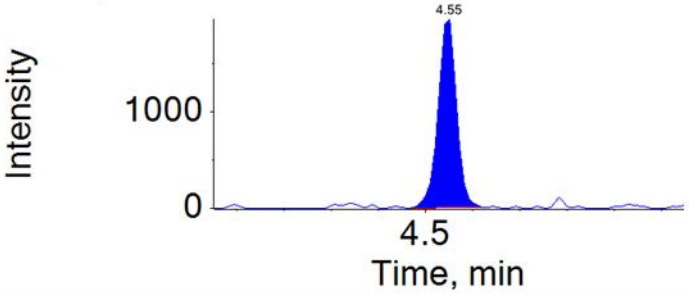
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

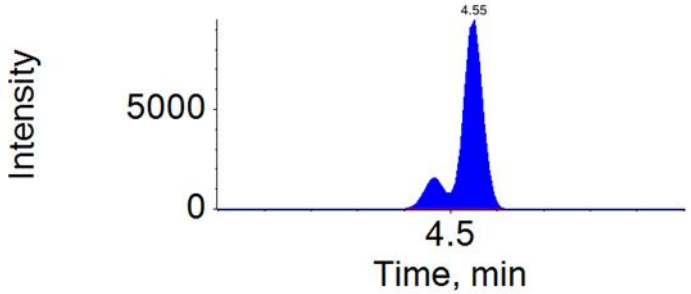
Component: PFHpA
Primary Mass: 363.0 / 319.0



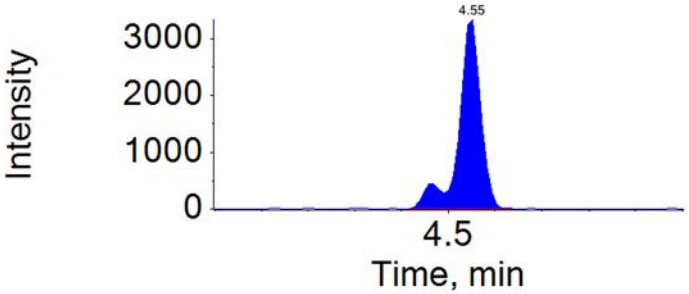
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



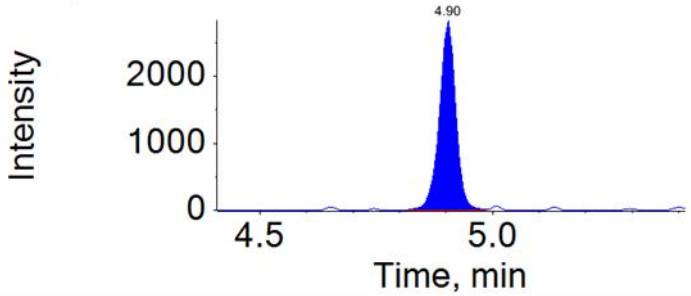
Component: PFHxS
Primary Mass: 399.0 / 80.0



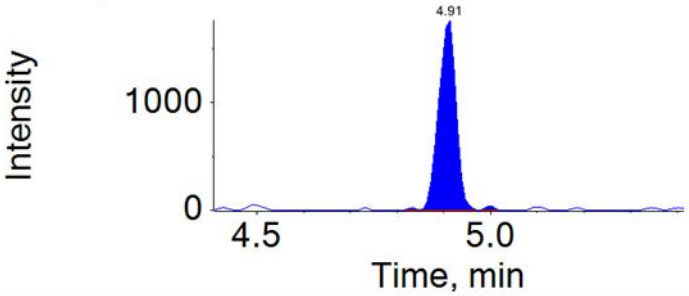
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



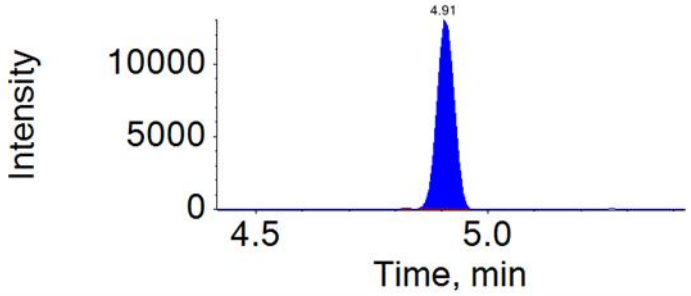
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



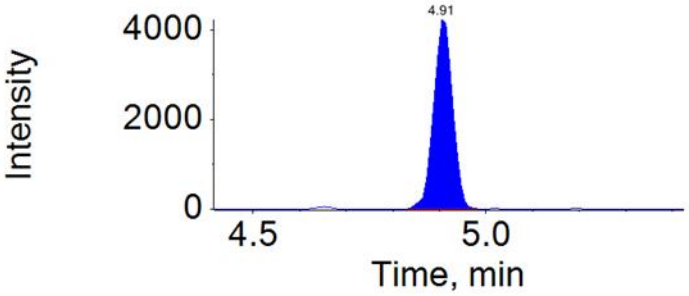
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



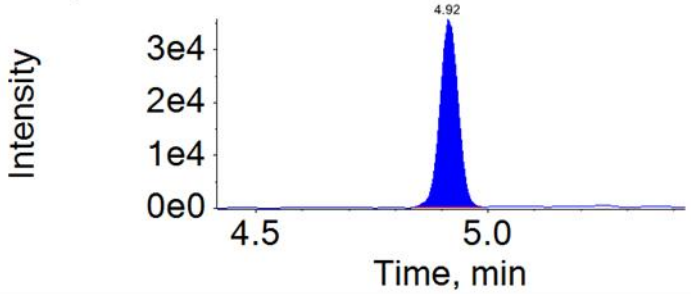
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



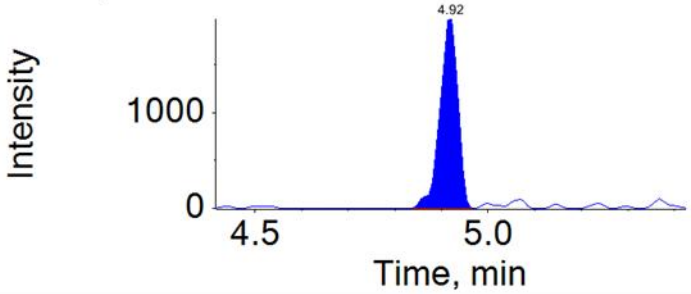
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

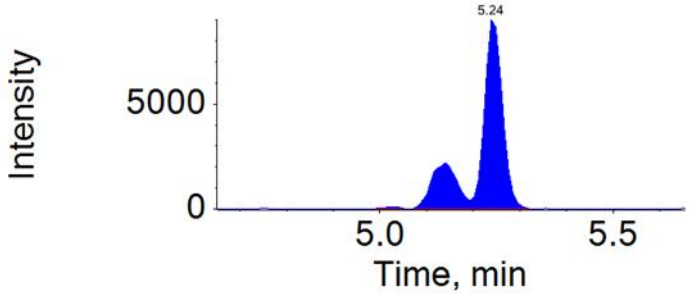
Component: PFOA
Primary Mass: 413.0 / 369.0



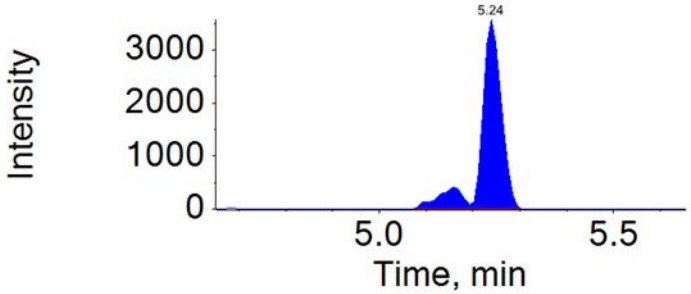
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



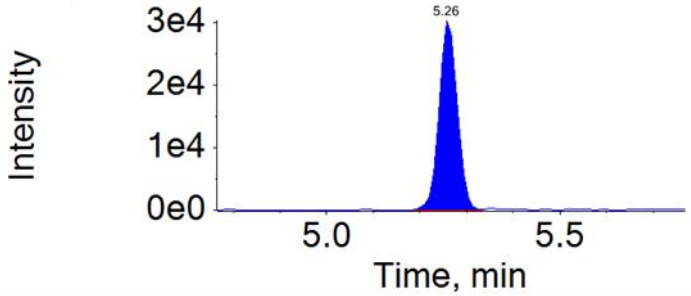
Component: PFOS
Primary Mass: 499.0 / 80.0



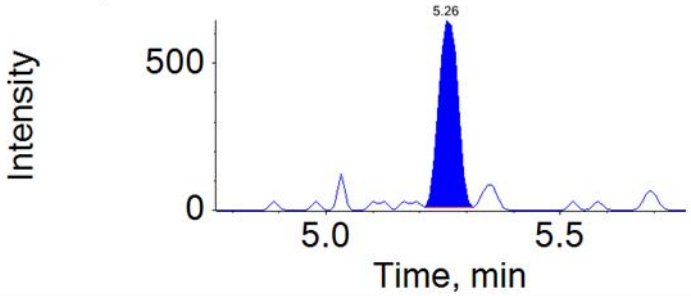
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



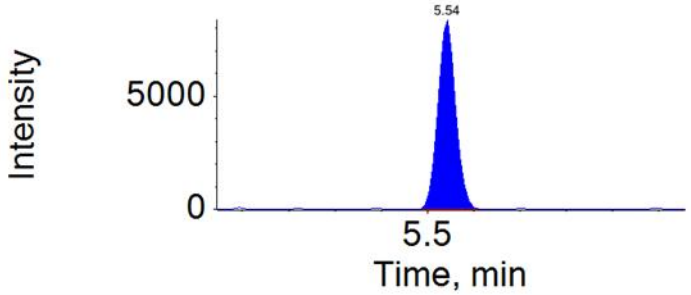
Component: PFNA
Primary Mass: 463.0 / 419.0



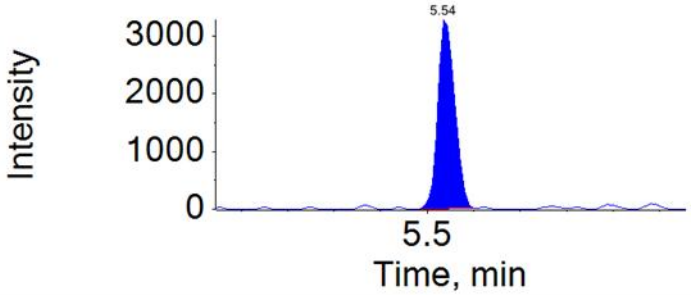
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



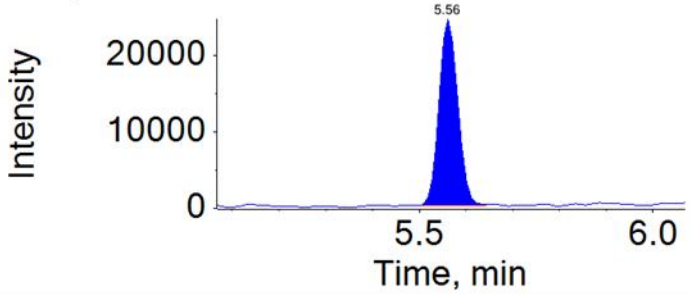
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



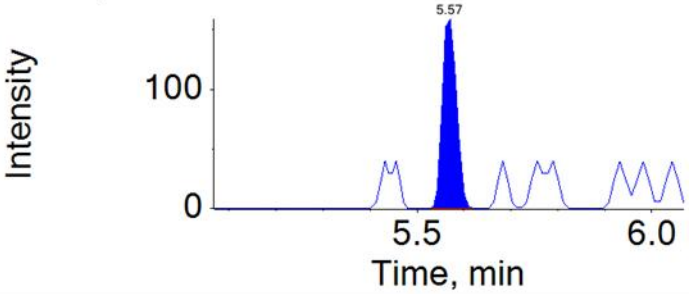
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

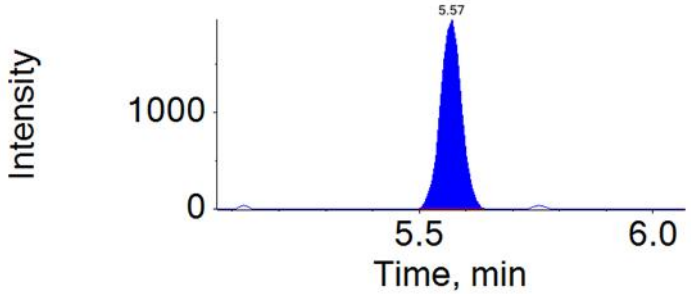
Component: PFDA
Primary Mass: 513.0 / 469.0



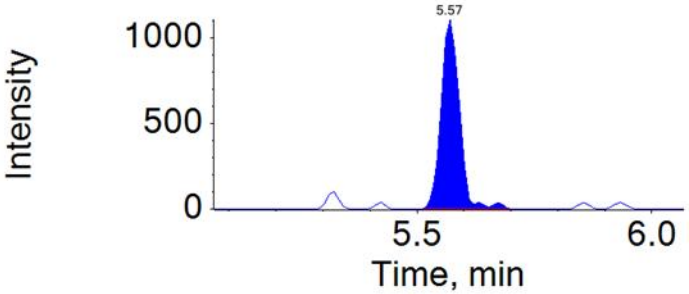
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



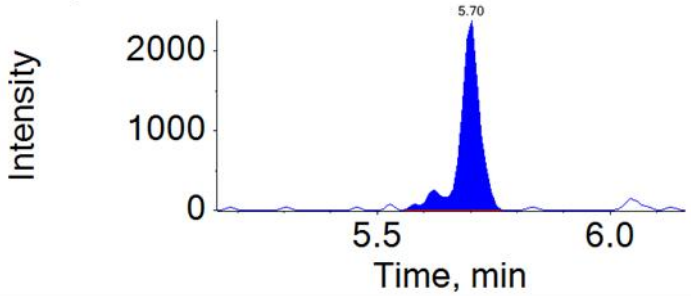
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



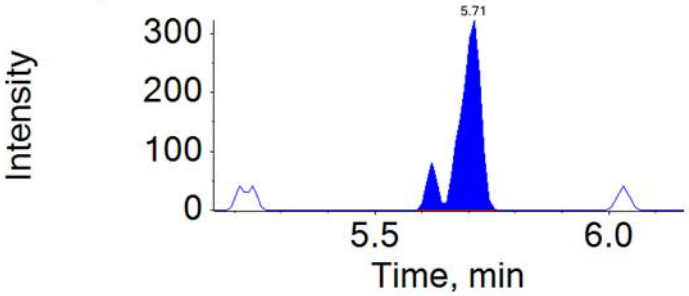
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



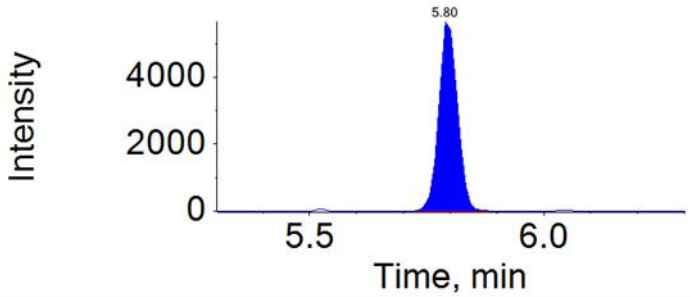
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



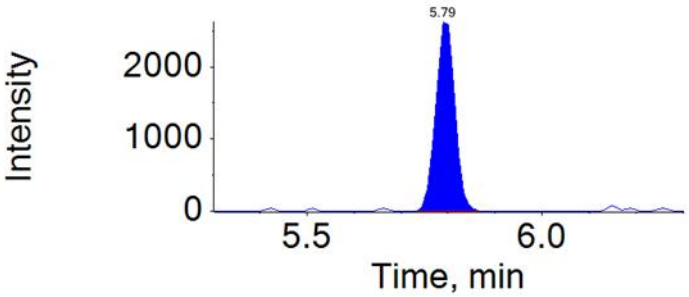
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



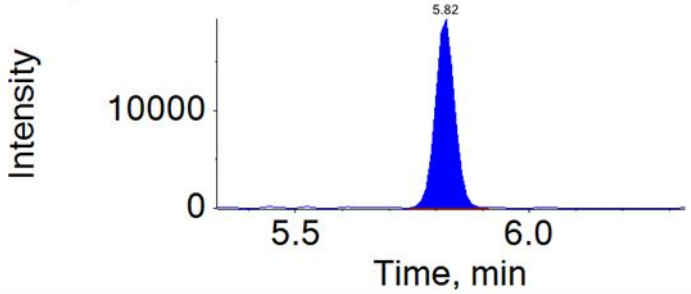
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



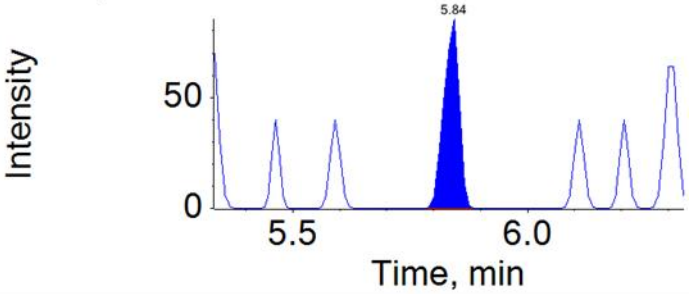
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

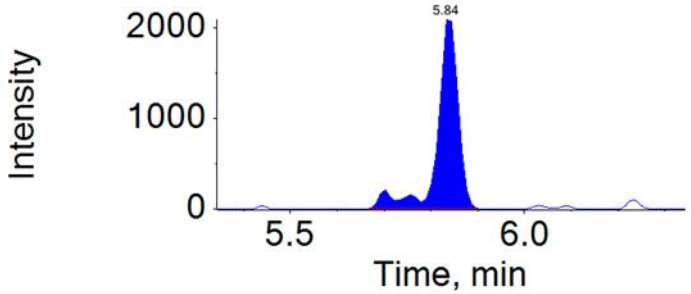
Component: PFUnDA
Primary Mass: 563.0 / 519.0



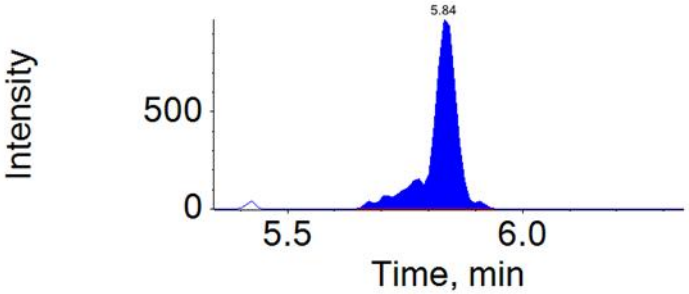
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



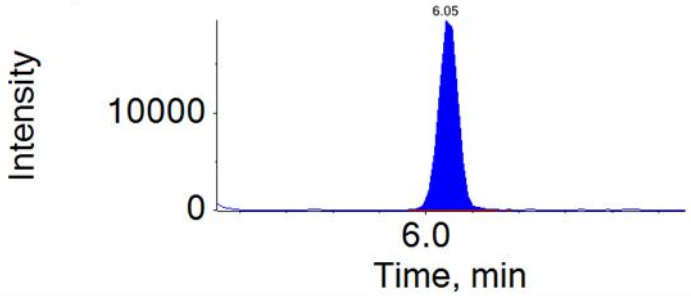
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



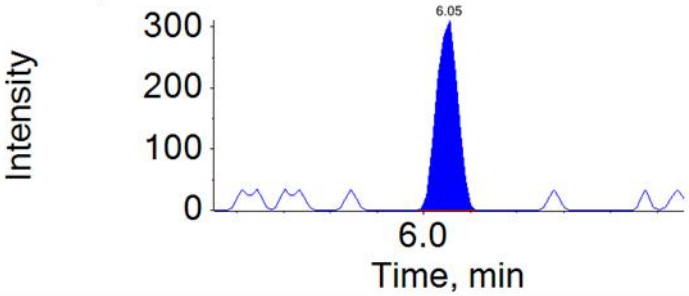
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



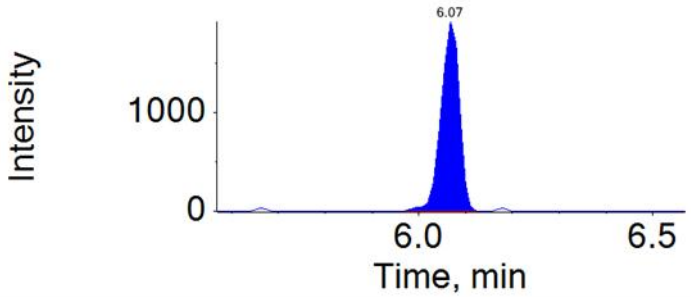
Component: PFDoDA
Primary Mass: 613.0 / 569.0



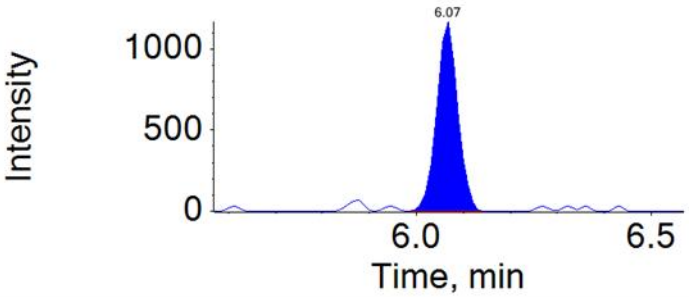
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



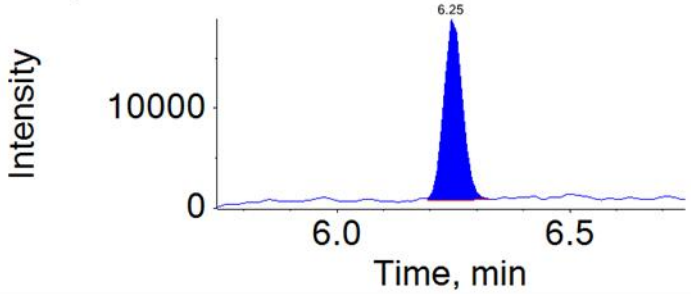
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



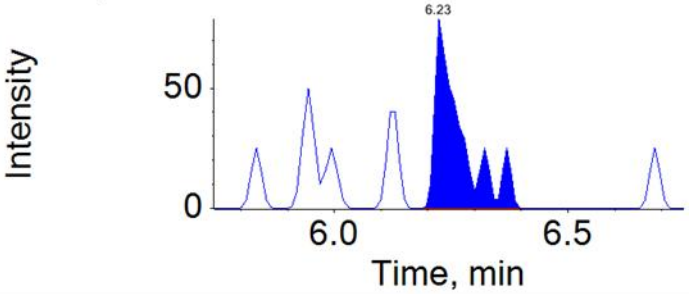
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

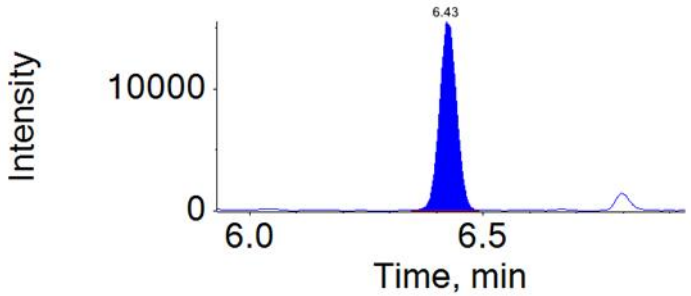
Component: PFTrDA
Primary Mass: 663.0 / 619.0



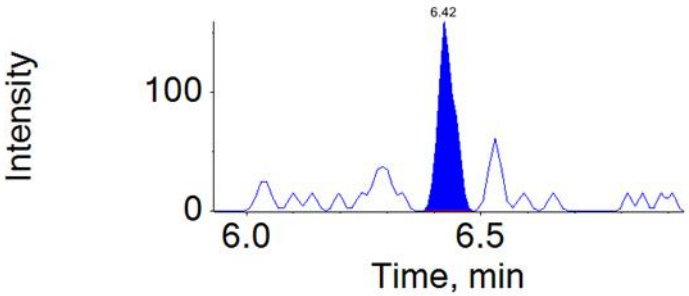
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



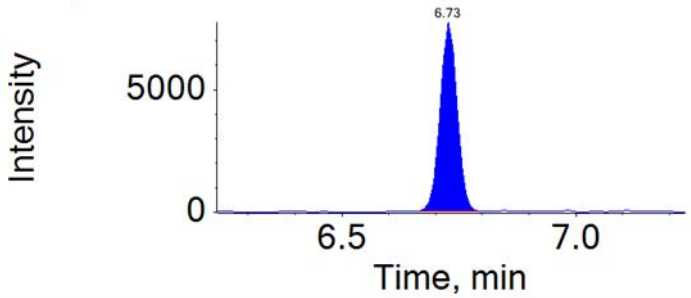
Component: PFTeDA
Primary Mass: 713.0 / 669.0



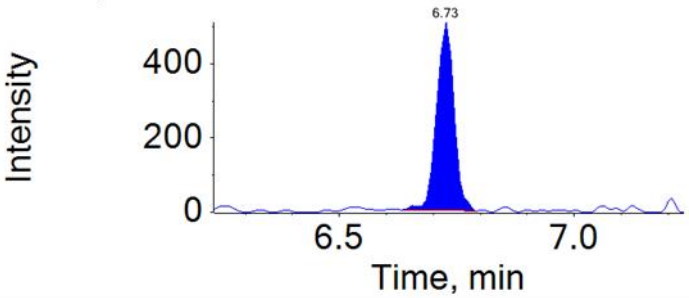
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



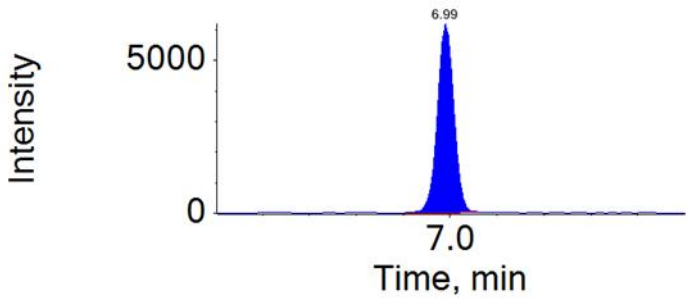
Component: PFHxDA
Primary Mass: 813.0 / 769.0



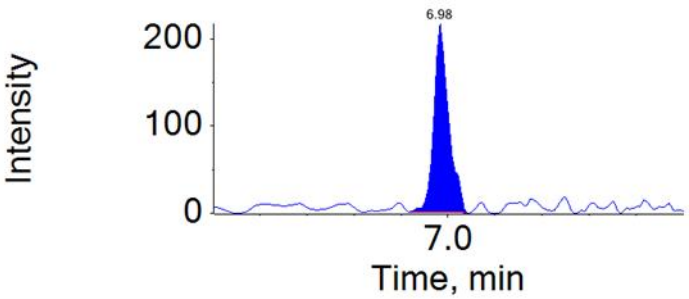
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



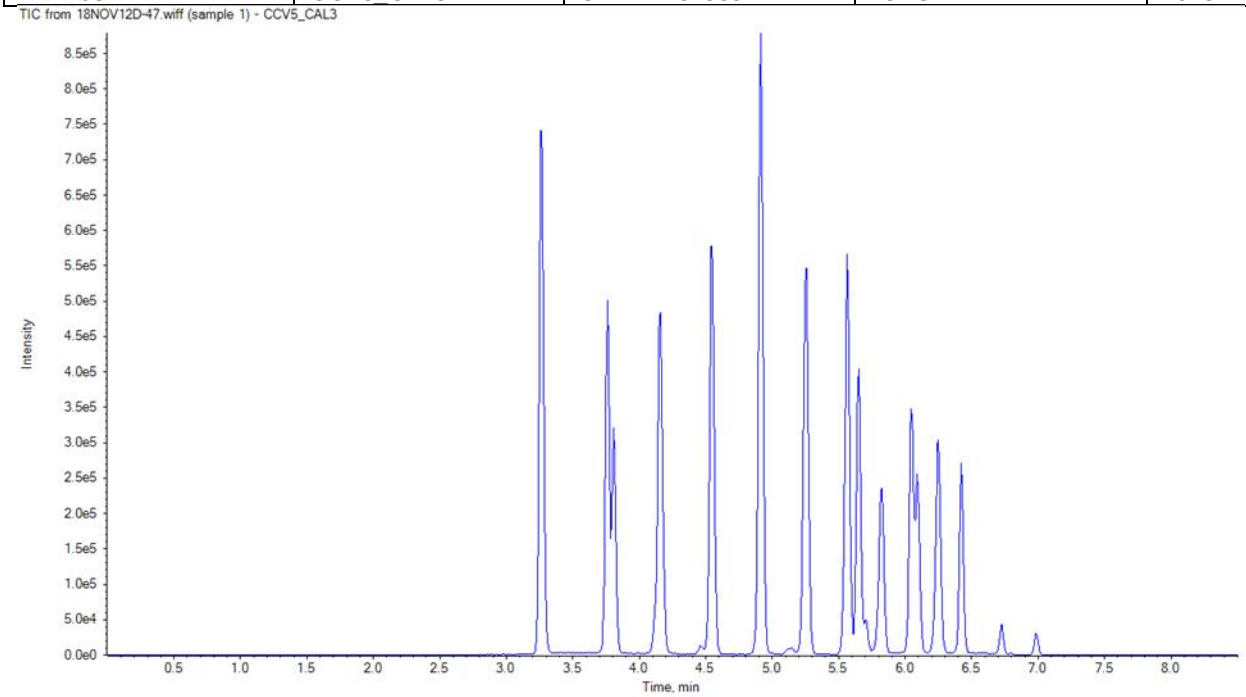
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV12D-47.wiff	2018-11-12T23:40:51



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	666975.7	659926.2	1	50	
13C2-PFOA	5.0	454871.2	450219.7	1	50	
13C4-PFOS	4.8	255041.1	249205.8	2	50	
13C2-PFDA	5.0	291392.8	278743.9	5	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV12D-47.wiff	2018-11-12T23:40:51

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	304975.4	10	13C4-PFBA	742444.1	5.0	0.411	3.26	1.000	2.000	2.276	14	30	
PFPeA	308632.6	11	13C5-PFPeA	737433.0	5.0	0.419	3.76	1.000	2.000	2.423	21	30	
PFBS	165427.2	11	13C3-PFBS	424887.0	4.7	0.389	3.81	1.000	1.770	1.852	5	30	
4:2-FTS	38851.7	12	13C2-4:2-FTS	47151.8	4.7	0.824	4.12	1.000	1.870	2.237	20	30	
PFHxA	365563.6	12	13C5-PFHxA	687672.6	5.0	0.532	4.16	1.000	2.000	2.220	11	30	
PFPeS	87775.5	11	13C3-PFBS	424887.0	4.7	0.207	4.18	1.100	1.880	2.006	7	30	
PFHpA	376810.4	11	13C4-PFHpA	531811.9	5.0	0.709	4.55	1.000	2.000	2.349	17	30	
PFHxS	127858.7	18	13C3-PFHxS	309819.0	4.7	0.413	4.55	1.000	1.820	2.001	10	30	
6:2-FTS	30668.9	11	13C2-6:2-FTS	34831.5	4.8	0.880	4.90	1.000	1.900	2.131	12	30	
PFHpS	119438.7	11	13C3-PFHxS	309819.0	4.7	0.386	4.91	1.080	1.900	2.029	7	30	
PFOA	376978.4	11	13C8-PFOA	934753.5	5.0	0.403	4.91	1.000	2.000	2.154	8	30	
PFOS	128651.5	22	13C8-PFOS	285105.1	4.8	0.451	5.24	1.000	1.850	1.973	7	30	
PFNA	318183.9	11	13C9-PFNA	473402.6	5.0	0.672	5.26	1.000	2.000	2.424	21	30	
PFNS	80390.2	11	13C8-PFOS	285105.1	4.8	0.282	5.54	1.060	1.920	1.973	3	30	
PFDA	265515.8	11	13C6-PFDA	624437.3	5.0	0.425	5.57	1.000	2.000	2.254	13	30	
8:2-FTS	25376.4	12	13C2-8:2-FTS	24755.6	4.8	1.025	5.57	1.000	1.920	2.390	24	30	
PFOSA	273529.9	11	13C8-PFOSA	649519.3	5.0	0.421	5.65	1.000	2.000	2.057	3	30	
NMeFOSAA	30069.3	18	d3-NMeFOSAA	70907.5	5.0	0.424	5.71	1.000	2.000	2.397	20	30	
PFDS	61496.7	11	13C8-PFOS	285105.1	4.8	0.216	5.80	1.110	1.930	1.954	1	30	
PFUnDA	209468.8	11	13C7-PFUnDA	242166.8	5.0	0.865	5.82	1.000	2.000	2.261	13	30	
NEtFOSAA	23415.4	22	d5-NEtFOSAA	66681.2	5.0	0.351	5.84	1.000	2.000	1.841	-8	30	
PFDoDA	225352.6	12	13C2-PFDoDA	548478.1	5.0	0.411	6.05	1.000	2.000	2.092	5	30	
10:2-FTS	17725.4	11	13C2-8:2-FTS	24755.6	4.8	0.716	6.07	1.090	1.930	2.385	24	30	
NMePFOSAE	163205.9	12	d7-NMePFOSAE	309773.1	5.0	0.527	6.10	1.000	2.000	2.193	10	30	
NMePFOSA	27500.1	11	d3-NMePFOSA	78865.3	5.0	0.349	6.10	1.000	2.000	1.720	-14	30	
PFDoS	32137.7	11	13C8-PFOS	285105.1	4.8	0.113	6.22	1.190	1.940	1.974	2	30	
NEtPFOSAE	191934.6	11	d9-NEtPFOSAE	268953.4	5.0	0.714	6.25	1.000	2.000	2.290	14	30	
NEtPFOSA	24494.8	11	d5-NEtPFOSA	62108.3	5.0	0.394	6.27	1.000	2.000	1.811	-9	30	
PFTrDA	193520.3	11	13C2-PFDoDA	548478.1	5.0	0.353	6.24	1.030	2.000	2.227	11	30	
PFTeDA	162067.3	10	13C2-PFTeDA	397928.9	5.0	0.407	6.42	1.000	2.000	2.283	14	30	
PFHxDA	75958.0	11	13C2-PFTeDA	397928.9	5.0	0.191	6.73	1.050	2.000	2.274	14	30	
PFODA	63018.4	10	13C2-PFTeDA	397928.9	5.0	0.158	6.99	1.090	2.000	2.206	10	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name:	18NOV12DCAL	**Result Table:**	18NOV12DCCV3-11	11/13/2018 10:08:47 AM
QMethod Name:	18AUG20QM	**Acquisition Method:**	18AUG13_3uL.dam	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV5_CAL3			**Data File:**		18NOV12D-47.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-12T23:40:51
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	666975.7	659926.2	1	50	
13C2-PFOA	5.0	454871.2	450219.7	1	50	
13C4-PFOS	4.8	255041.1	249205.8	2	50	
13C2-PFDA	5.0	291392.8	278743.9	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	742444.1	13C3-PFBA	666975.7	1.113	5.000	4.991	100	70-130	
E13C5-PFPeA	737433.0	13C3-PFBA	666975.7	1.106	5.000	4.959	99	70-130	
E13C3-PFBS	424887.0	13C3-PFBA	666975.7	0.637	4.650	4.497	97	70-130	
E13C2-4:2-FTS	47151.8	13C2-PFOA	454871.2	0.104	4.670	4.617	99	70-130	
E13C5-PFHxA	687672.6	13C2-PFOA	454871.2	1.512	5.000	5.461	109	70-130	
E13C3-PFHxS	309819.0	13C2-PFOA	454871.2	0.681	4.730	4.674	99	70-130	
E13C4-PFHpA	531811.9	13C2-PFOA	454871.2	1.169	5.000	5.267	105	70-130	
E13C2-6:2-FTS	34831.5	13C2-PFOA	454871.2	0.077	4.750	5.123	108	70-130	
E13C8-PFOA	934753.5	13C2-PFOA	454871.2	2.055	5.000	5.662	113	70-130	
E13C8-PFOS	285105.1	13C4-PFOS	255041.1	1.118	4.780	4.953	104	70-130	
E13C9-PFNA	473402.6	13C4-PFOS	255041.1	1.856	5.000	5.175	104	70-130	
E13C6-PFDA	624437.3	13C2-PFDA	291392.8	2.143	5.000	5.001	100	70-130	
E13C2-8:2-FTS	24755.6	13C2-PFDA	291392.8	0.085	4.790	4.237	88	70-130	
E13C8-PFOSA	649519.3	13C2-PFDA	291392.8	2.229	5.000	4.942	99	70-130	
Ed3-NMeFOSAA	70907.5	13C2-PFDA	291392.8	0.243	5.000	4.392	88	70-130	
E13C7-PFUnDA	242166.8	13C2-PFDA	291392.8	0.831	5.000	4.825	97	70-130	
Ed5-NEtFOSAA	66681.2	13C2-PFDA	291392.8	0.229	5.000	4.841	97	70-130	
E13C2-PFDoDA	548478.1	13C2-PFDA	291392.8	1.882	5.000	4.887	98	70-130	
Ed7-NMePFOSAE	309773.1	13C2-PFDA	291392.8	1.063	5.000	4.600	92	70-130	
Ed3-NMePFOSA	78865.3	13C2-PFDA	291392.8	0.271	5.000	4.917	98	70-130	
Ed9-NEtPFOSAE	268953.4	13C2-PFDA	291392.8	0.923	5.000	4.801	96	70-130	
Ed5-NEtPFOSA	62108.3	13C2-PFDA	291392.8	0.213	5.000	5.000	100	70-130	
E13C2-PFTeDA	397928.9	13C2-PFDA	291392.8	1.366	5.000	4.794	96	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

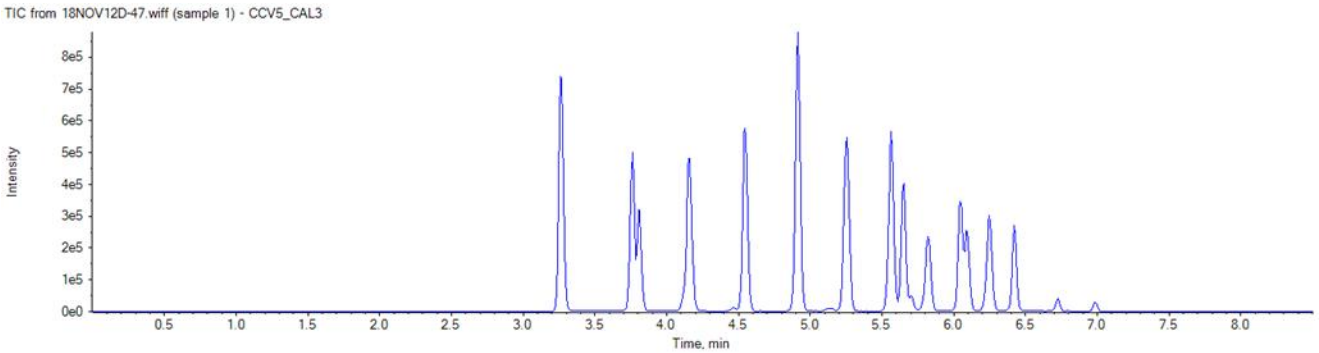
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12D-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	304975.4		A	13C4-PFBA	3.26	742444.1	0.411	2.276
PFPeA	3.76	1.000	308632.6		A	13C5-PFPeA	3.76	737433.0	0.419	2.423
PFBS	3.81	1.000	165427.2		A	13C3-PFBS	3.81	424887.0	0.389	1.852
4:2-FTS	4.12	1.000	38851.7		A	13C2-4:2-FTS	4.12	47151.8	0.824	2.237
PFHxA	4.16	1.000	365563.6		A	13C5-PFHxA	4.16	687672.6	0.532	2.220
PFPeS	4.18	1.100	87775.5		A	13C3-PFBS	3.81	424887.0	0.207	2.006
PFHpA	4.55	1.000	376810.4		A	13C4-PFHpA	4.55	531811.9	0.709	2.349
PFHxS	4.55	1.000	127858.7		M	13C3-PFHxS	4.55	309819.0	0.413	2.001
6:2-FTS	4.90	1.000	30668.9		A	13C2-6:2-FTS	4.90	34831.5	0.880	2.131
PFHpS	4.91	1.080	119438.7		A	13C3-PFHxS	4.55	309819.0	0.386	2.029
PFOA	4.91	1.000	376978.4		A	13C8-PFOA	4.91	934753.5	0.403	2.154
PFOS	5.24	1.000	128651.5		M	13C8-PFOS	5.24	285105.1	0.451	1.973
PFNA	5.26	1.000	318183.9		A	13C9-PFNA	5.26	473402.6	0.672	2.424
PFNS	5.54	1.060	80390.2		A	13C8-PFOS	5.24	285105.1	0.282	1.973
PFDA	5.57	1.000	265515.8		A	13C6-PFDA	5.57	624437.3	0.425	2.254
8:2-FTS	5.57	1.000	25376.4		A	13C2-8:2-FTS	5.57	24755.6	1.025	2.390
PFOSA	5.65	1.000	273529.9		A	13C8-PFOSA	5.65	649519.3	0.421	2.057
NMeFOSAA	5.71	1.000	30069.3		M	d3-NMeFOSAA	5.70	70907.5	0.424	2.397
PFDS	5.80	1.110	61496.7		A	13C8-PFOS	5.24	285105.1	0.216	1.954
PFUnDA	5.82	1.000	209468.8		A	13C7-PFUnDA	5.82	242166.8	0.865	2.261
NEtFOSAA	5.84	1.000	23415.4		M	d5-NEtFOSAA	5.83	66681.2	0.351	1.841
PFDoDA	6.05	1.000	225352.6		A	13C2-PFDoDA	6.05	548478.1	0.411	2.092
10:2-FTS	6.07	1.090	17725.4		A	13C2-8:2-FTS	5.57	24755.6	0.716	2.385
NMePFOSAE	6.10	1.000	163205.9		A	d7-NMePFOSAE	6.09	309773.1	0.527	2.193
NMePFOSA	6.10	1.000	27500.1		M	d3-NMePFOSA	6.10	78865.3	0.349	1.720
PFDoS	6.22	1.190	32137.7		A	13C8-PFOS	5.24	285105.1	0.113	1.974
NEtPFOSAE	6.25	1.000	191934.6		A	d9-NEtPFOSAE	6.24	268953.4	0.714	2.290
NEtPFOSA	6.27	1.000	24494.8		A	d5-NEtPFOSA	6.26	62108.3	0.394	1.811
PFTrDA	6.24	1.030	193520.3		A	13C2-PFDoDA	6.05	548478.1	0.353	2.227
PFTeDA	6.42	1.000	162067.3		A	13C2-PFTeDA	6.42	397928.9	0.407	2.283
PFHxDA	6.73	1.050	75958.0		A	13C2-PFTeDA	6.42	397928.9	0.191	2.274
PFODA	6.99	1.090	63018.4		A	13C2-PFTeDA	6.42	397928.9	0.158	2.206

Total Ion Chromatogram

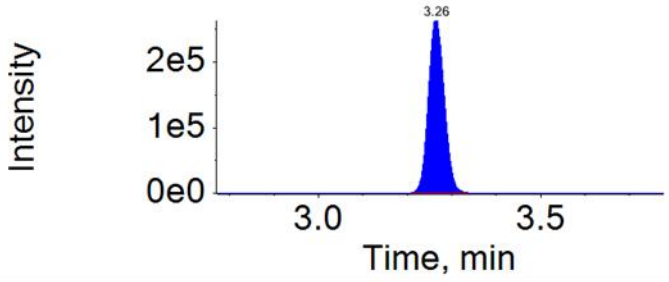


APPROVED
By JPT at 10:23 am, 11/13/18

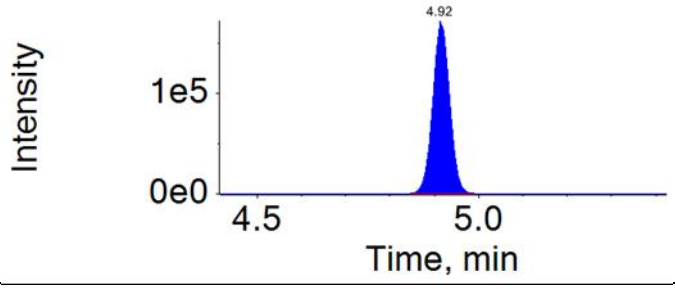
REVIEWED
By HMK at 2:17 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

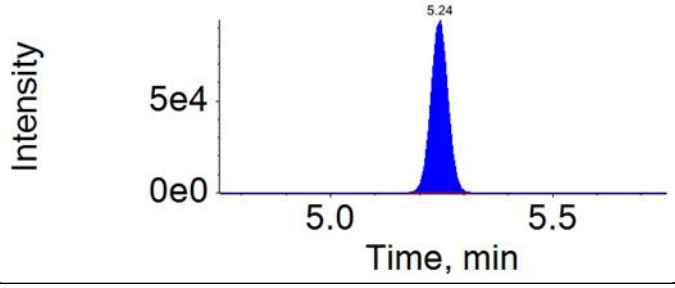
Injection Standard: 13C3-PFBA
216.0 / 172.0



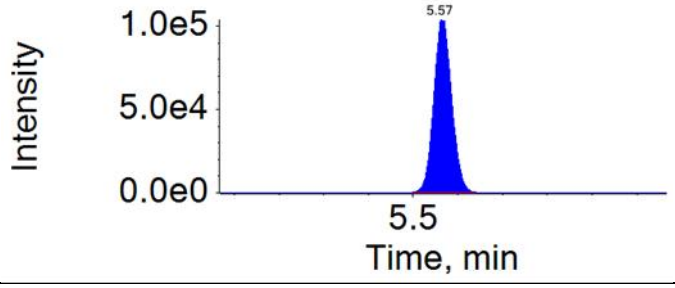
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

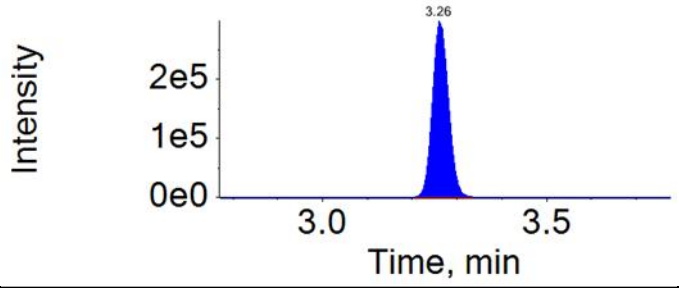


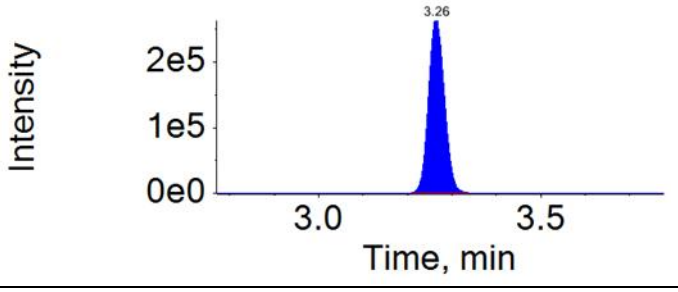
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

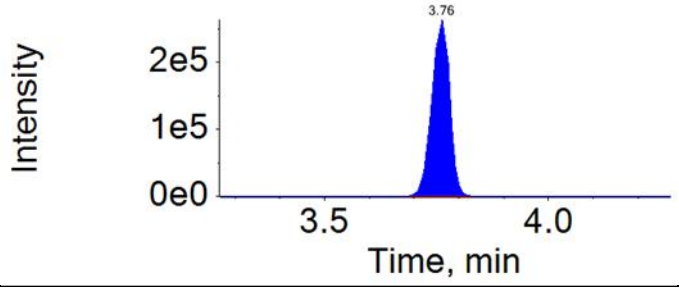
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

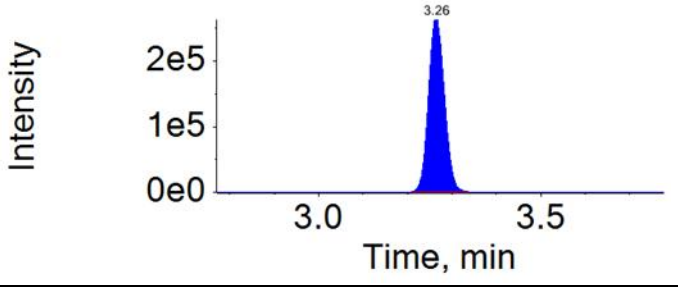
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



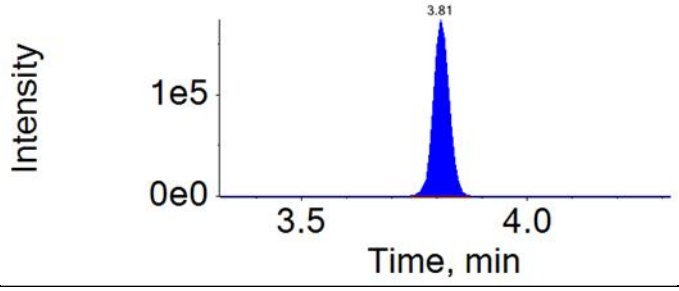


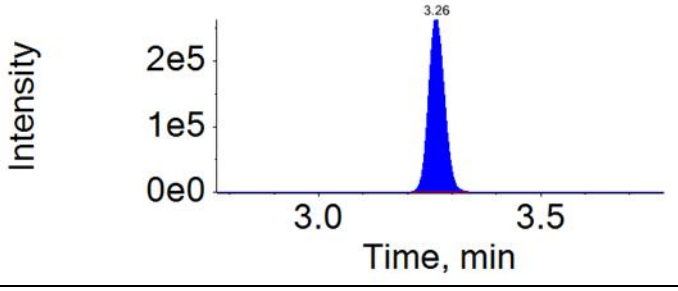
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



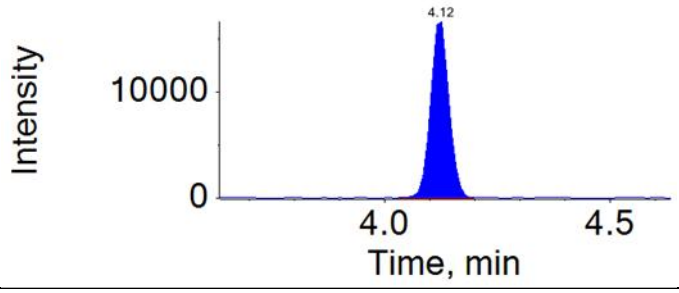


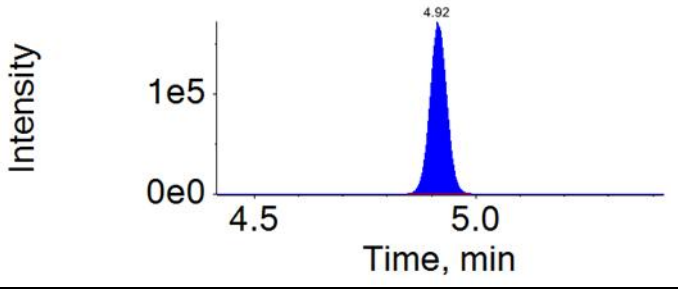
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



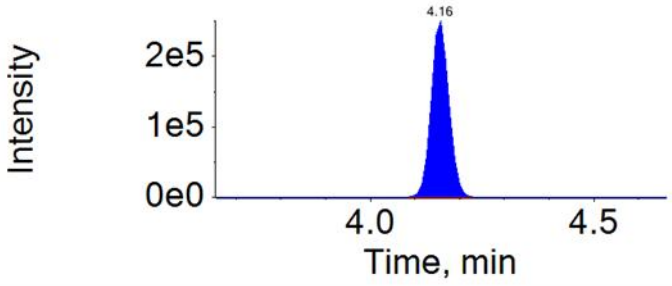
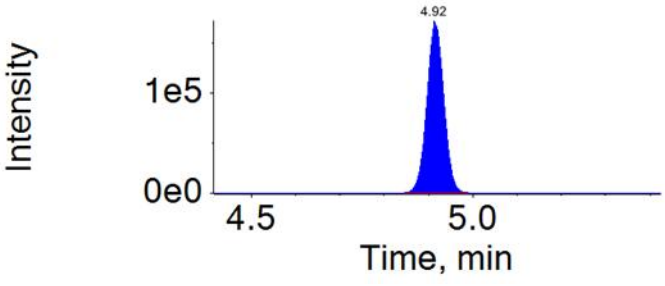


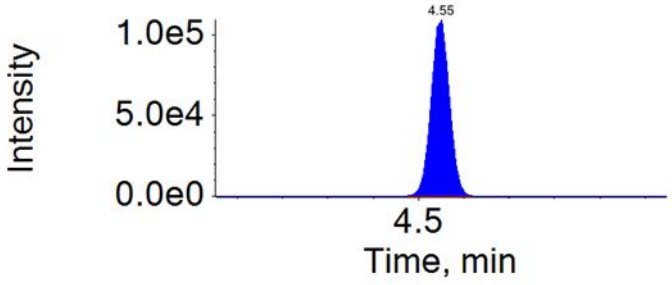
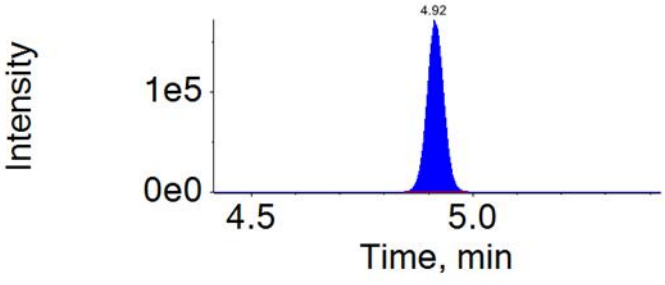
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

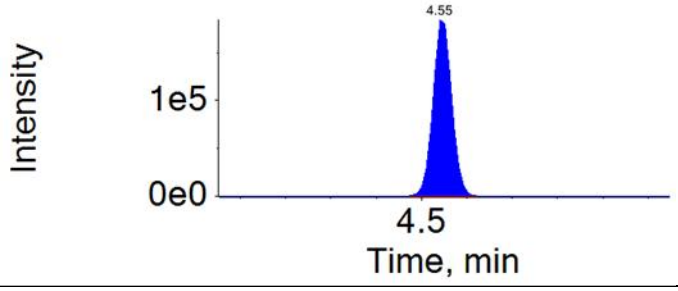
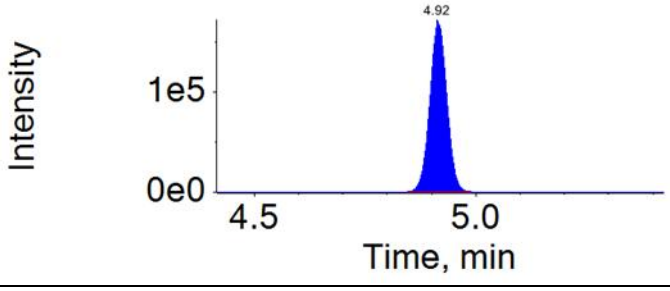


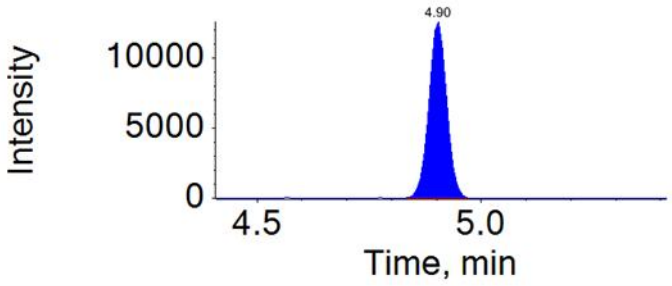
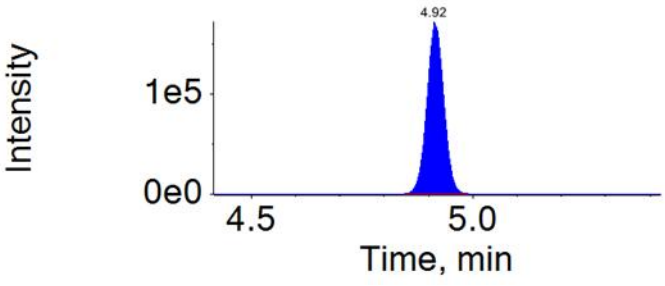


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

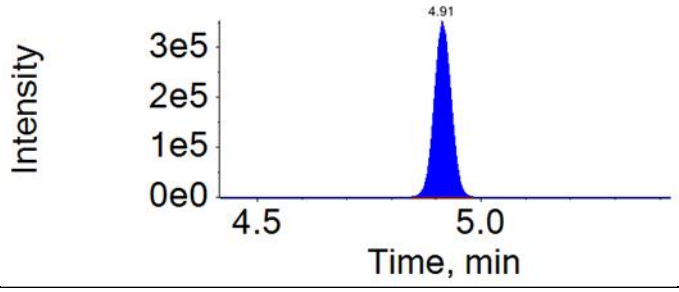
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

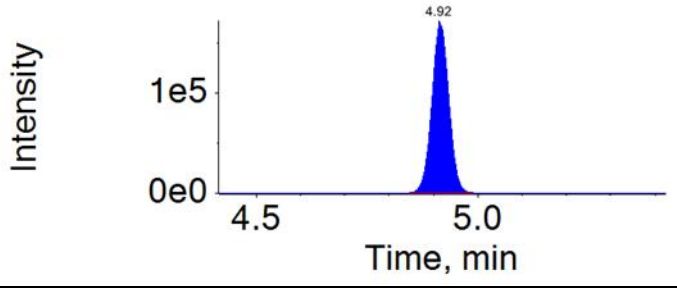
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

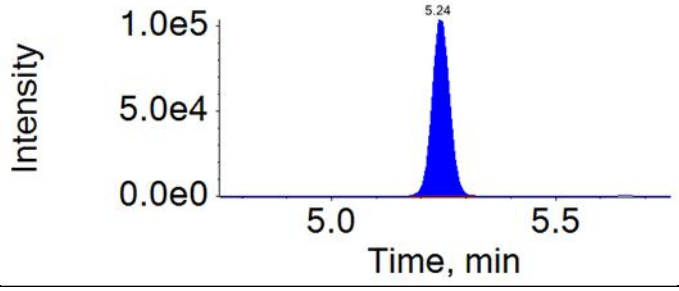
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

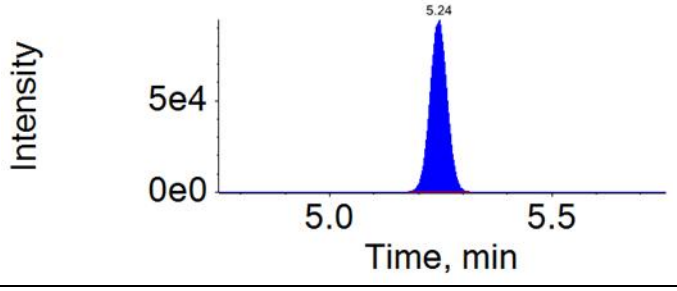
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



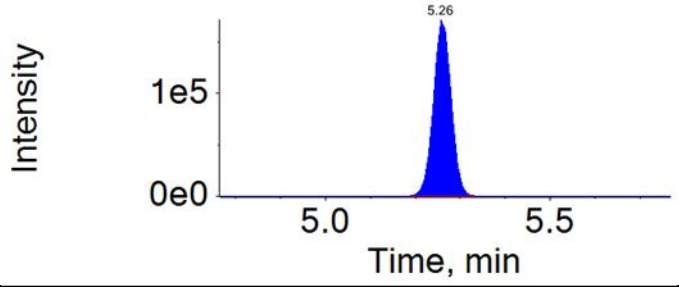


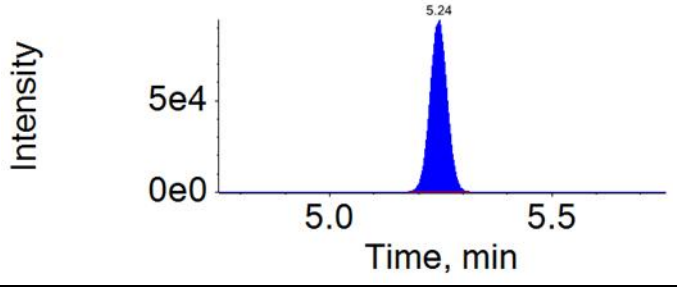
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



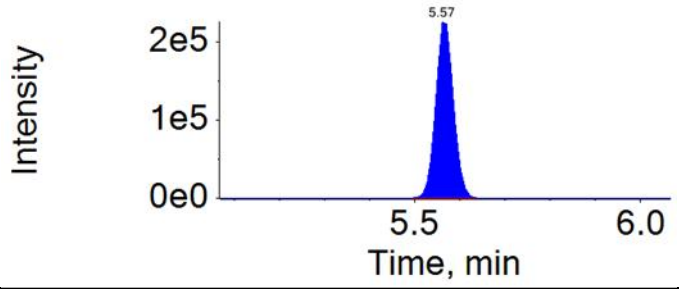


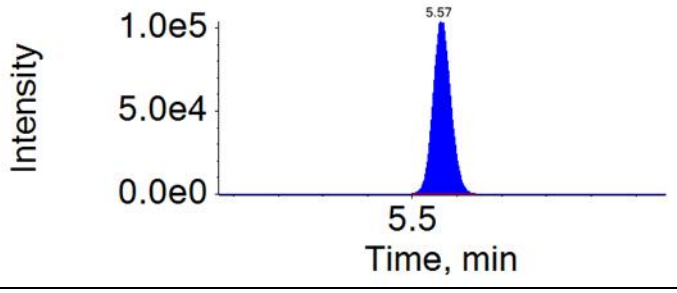
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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



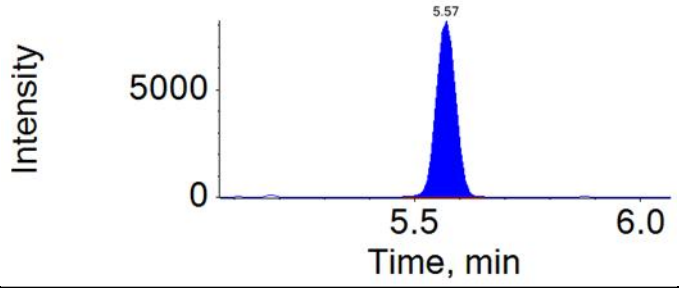


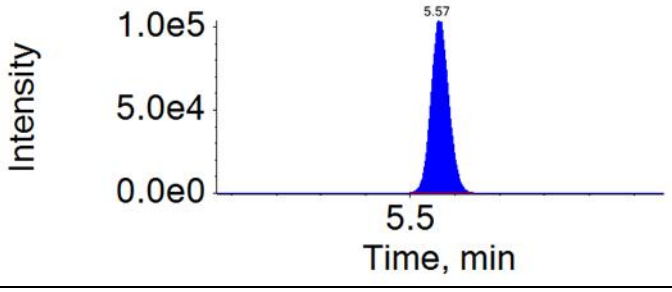
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

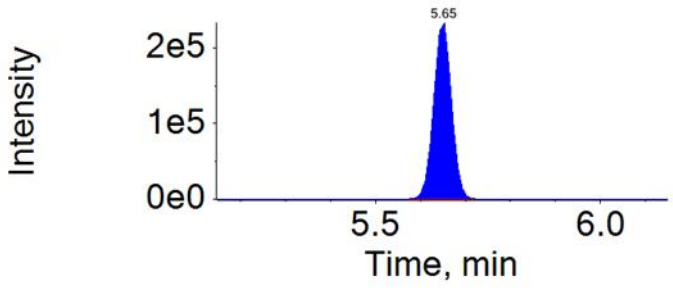
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

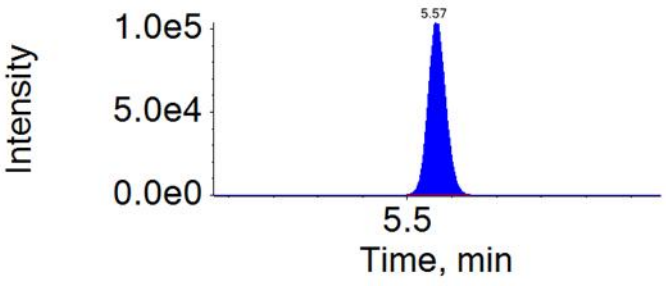
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



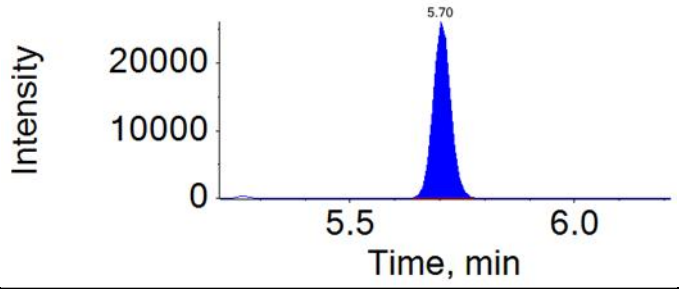


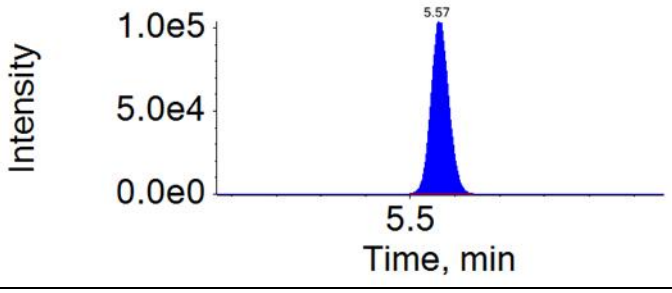
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



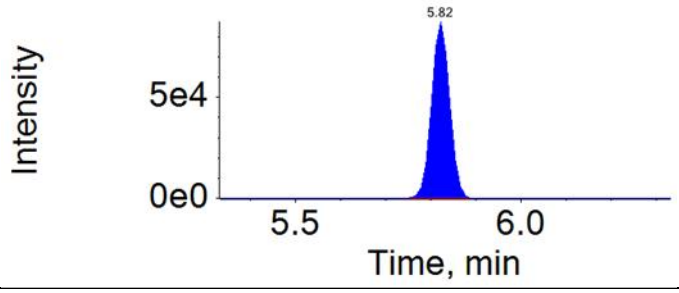


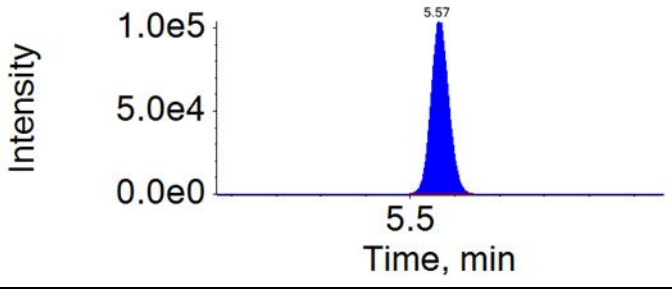
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





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



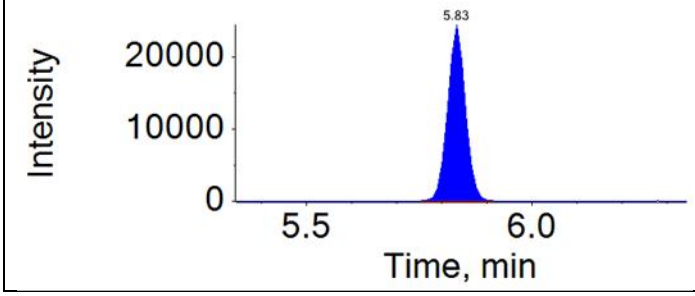


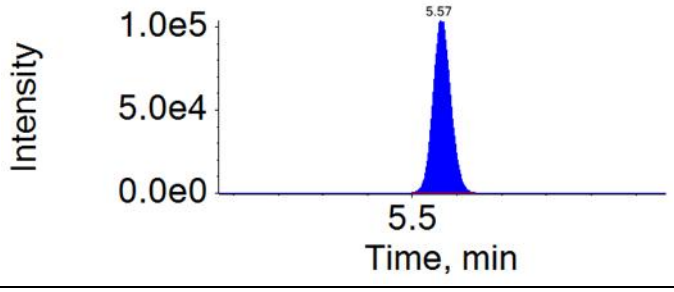
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

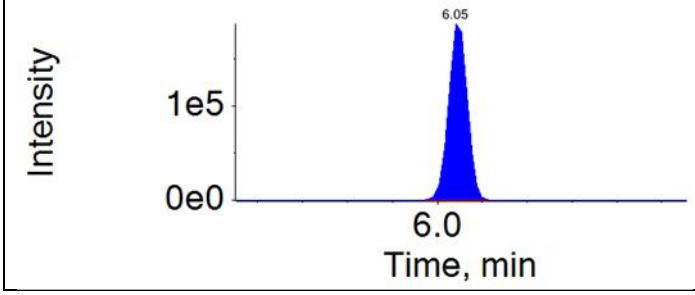
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

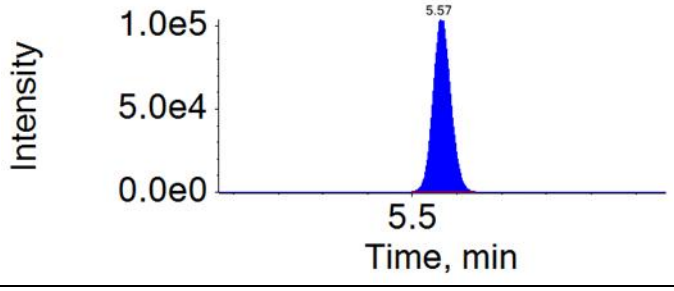
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



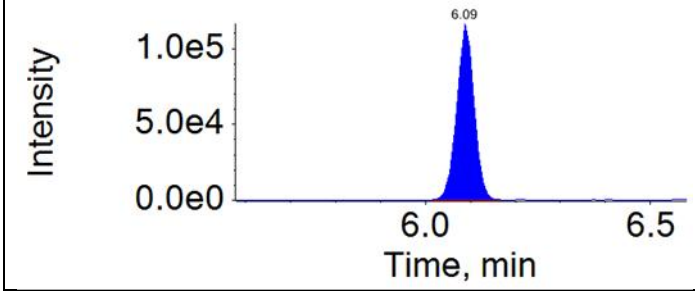


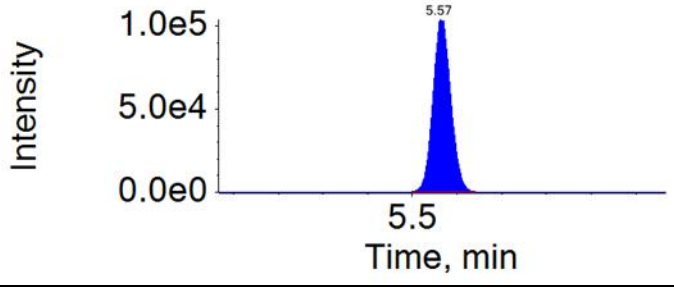
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



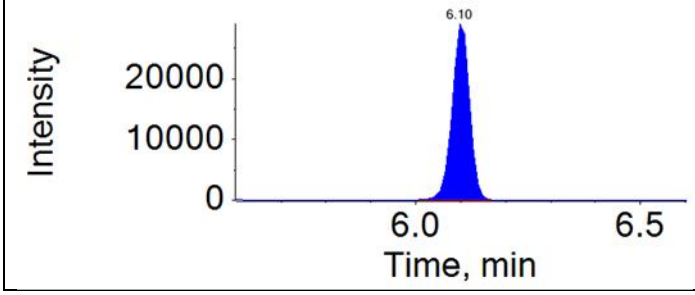


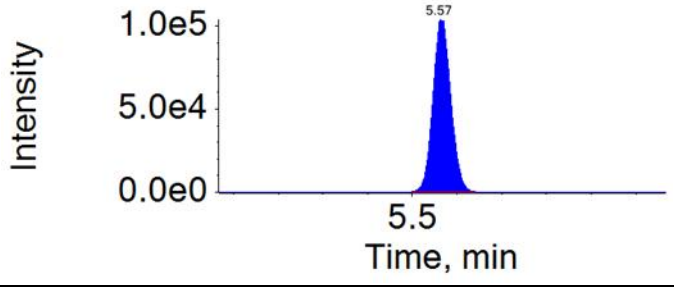
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



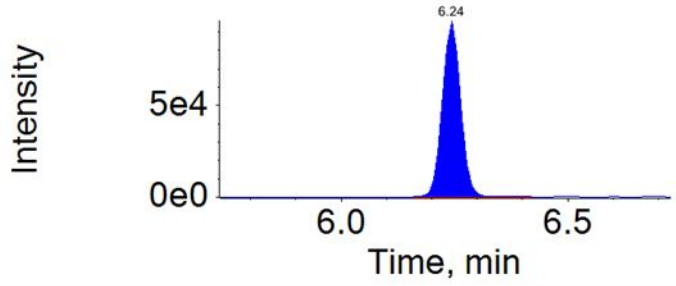


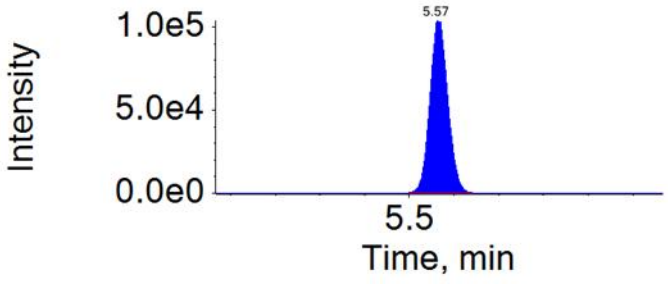
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

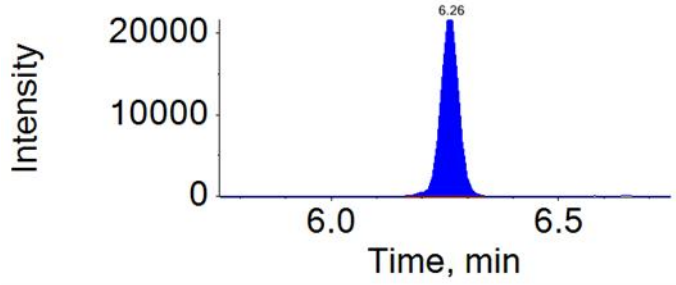
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

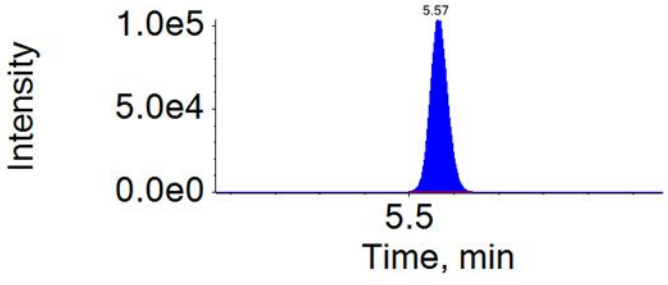
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



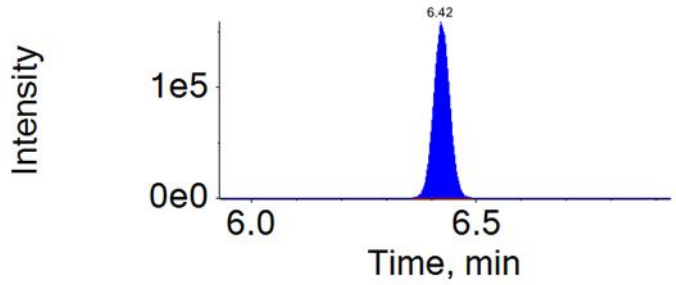


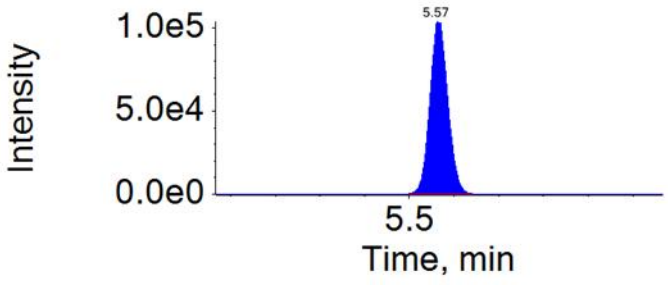
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



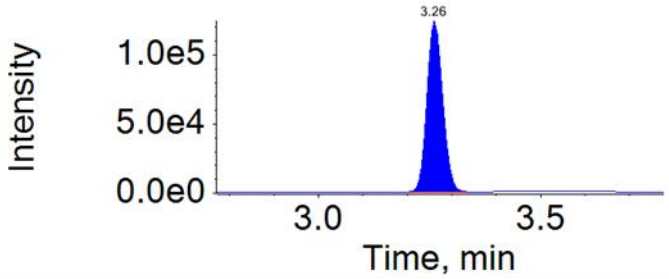


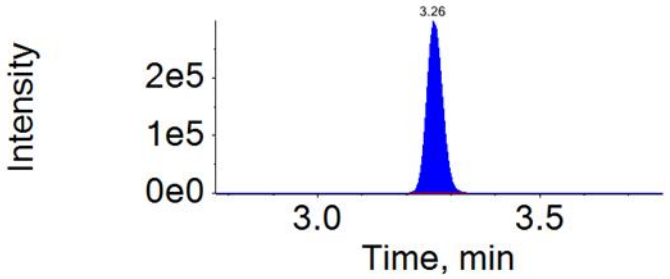
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

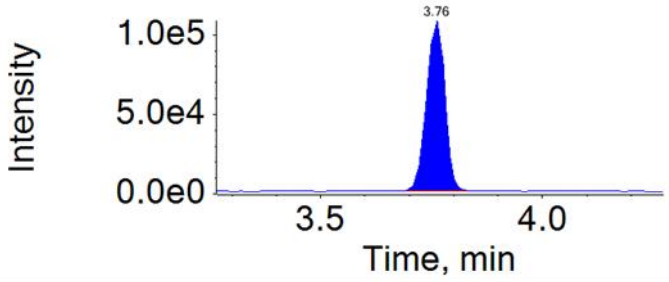
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

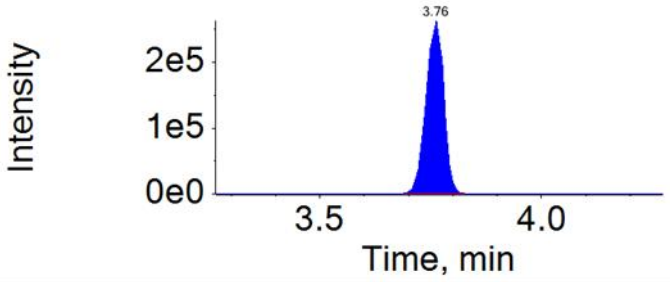
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



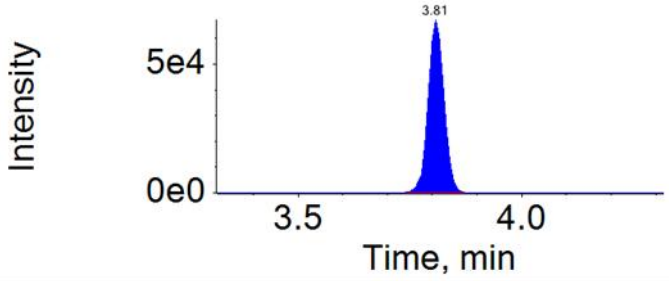


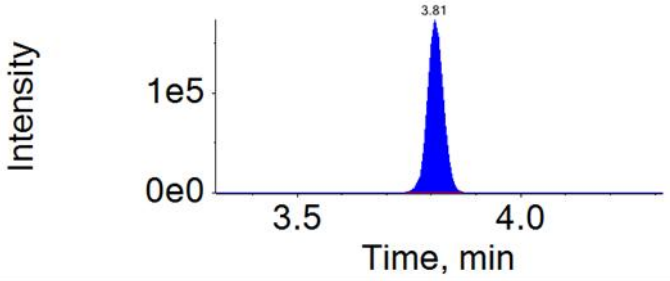
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



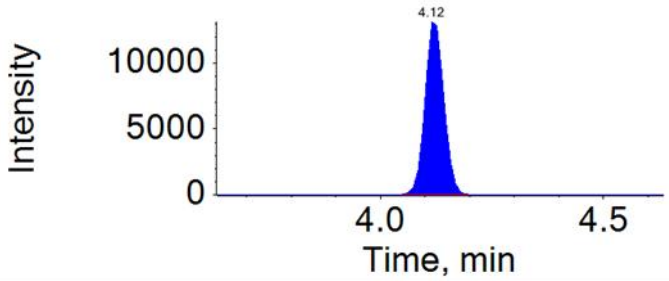


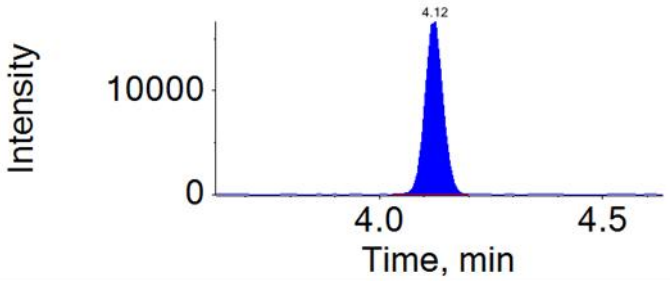
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



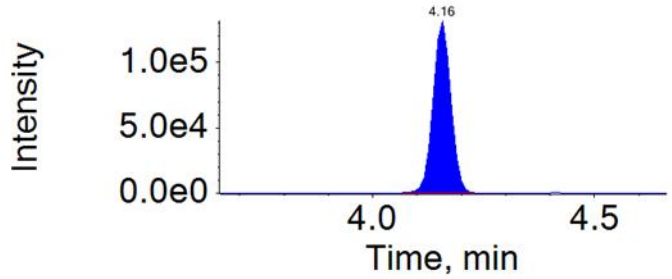


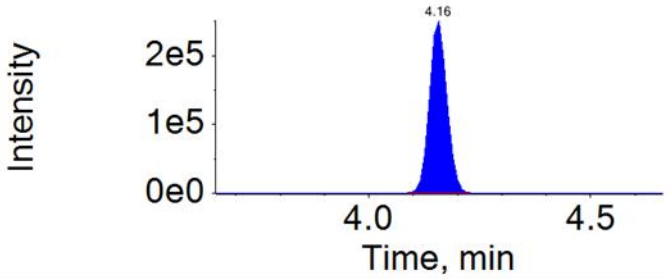
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

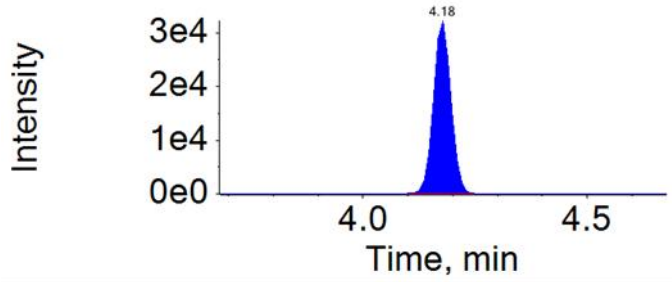
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

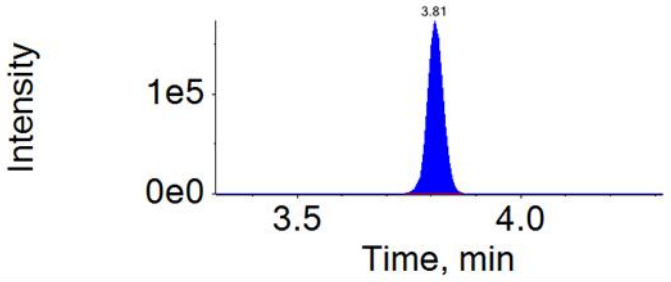
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



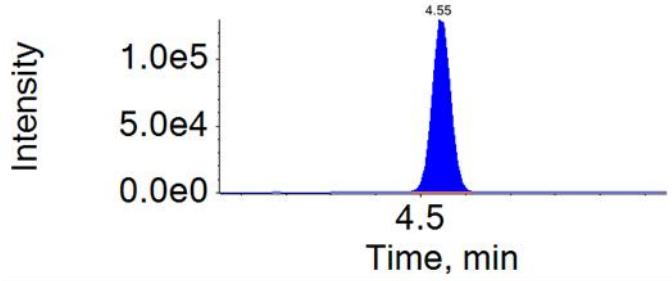


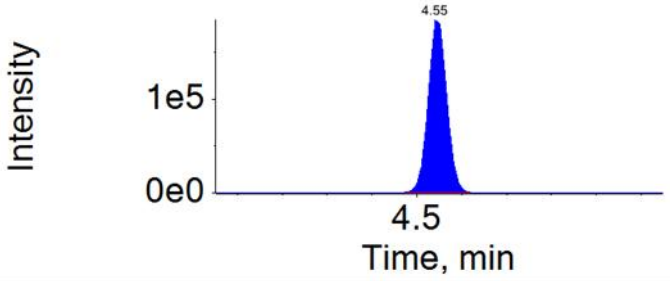
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



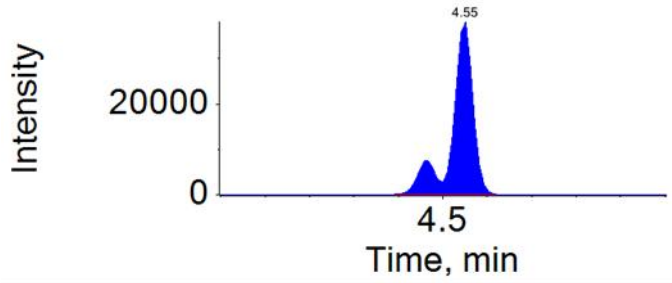


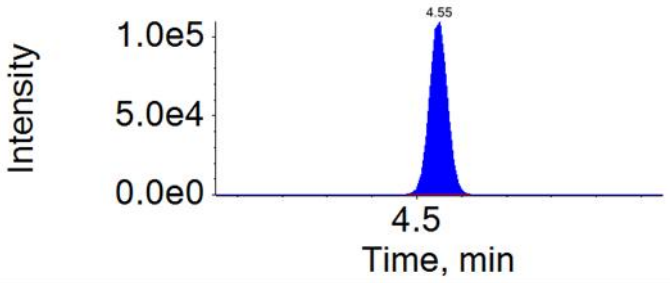
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



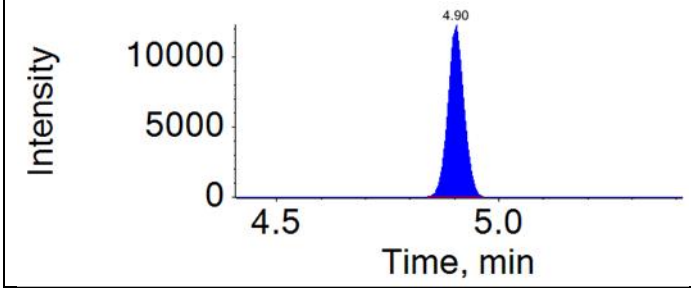


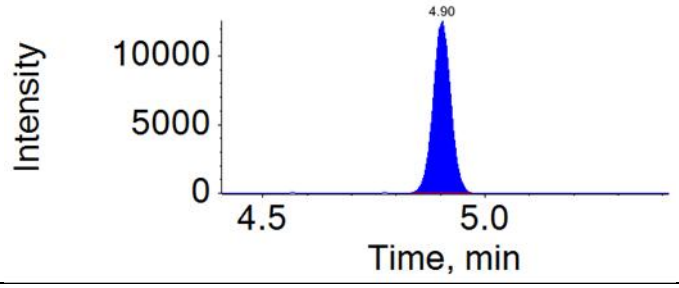
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

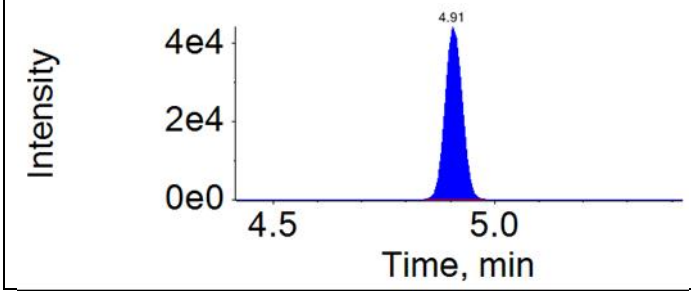
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

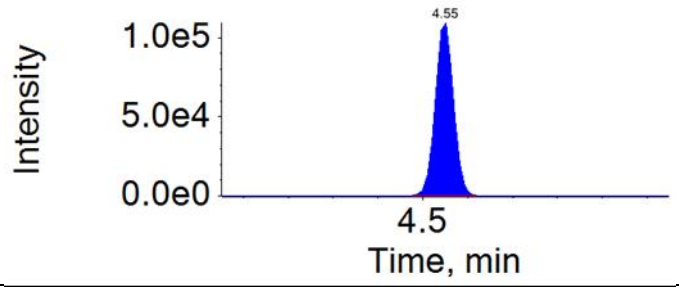
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



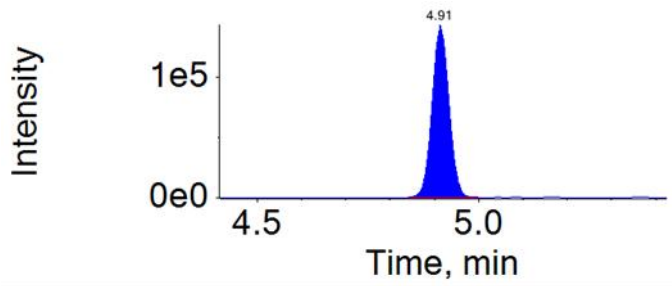


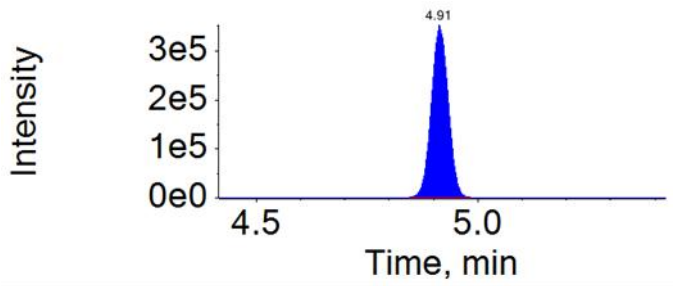
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



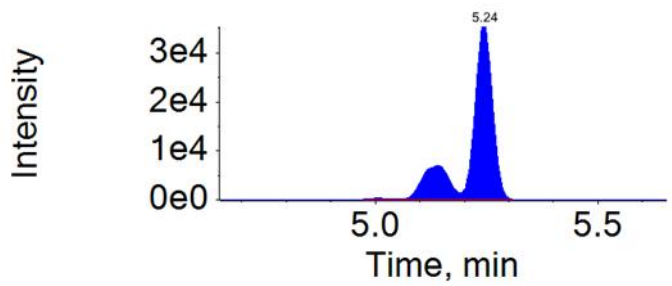


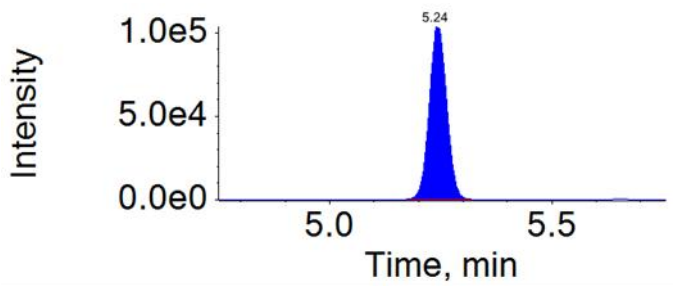
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



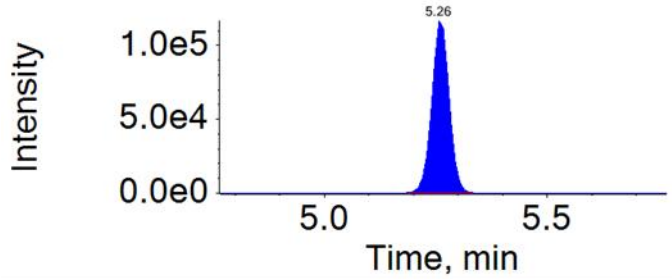


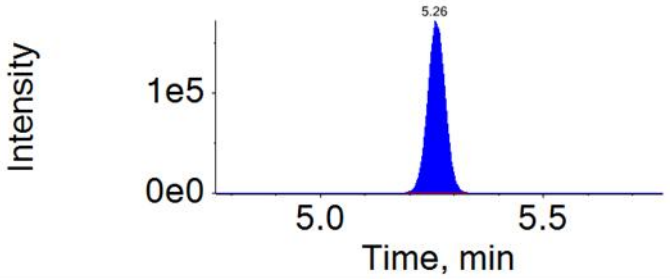
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

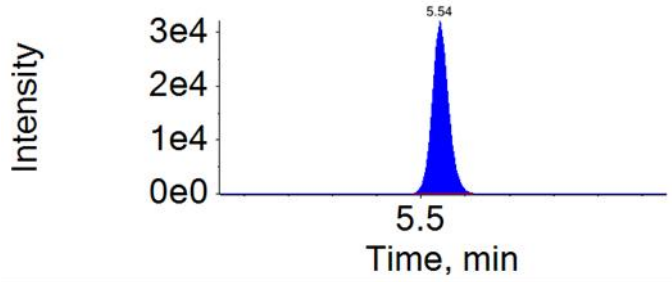
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

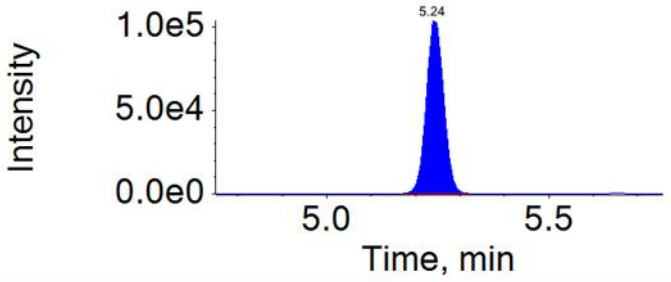
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



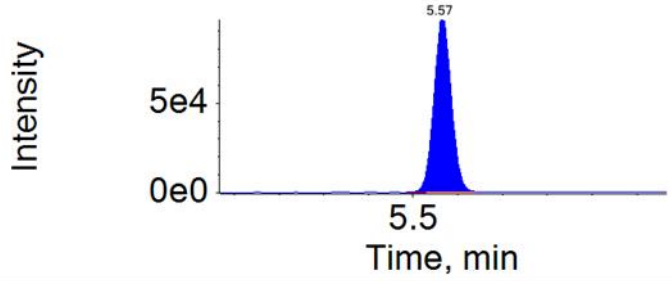


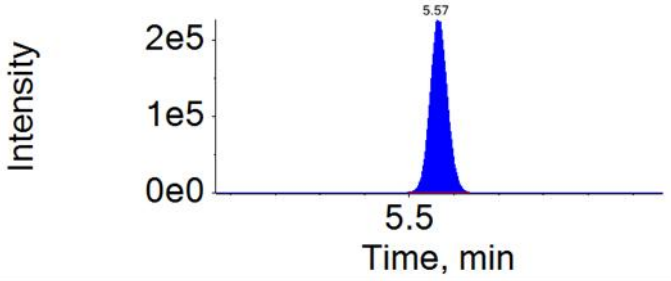
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



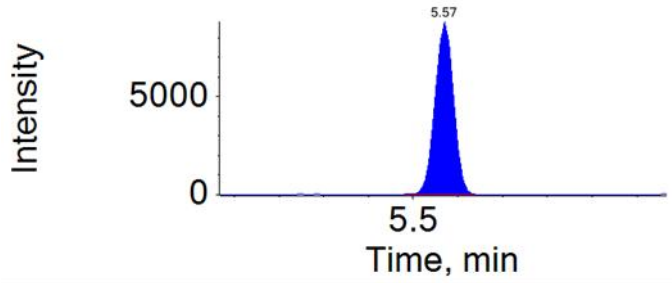


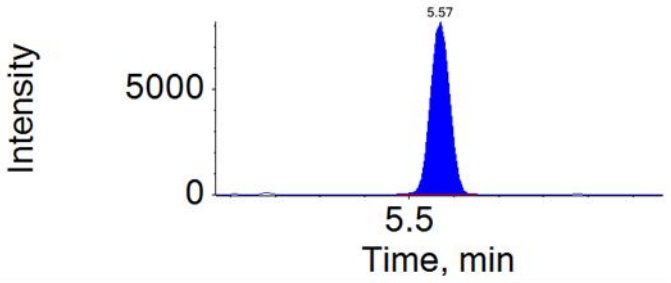
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



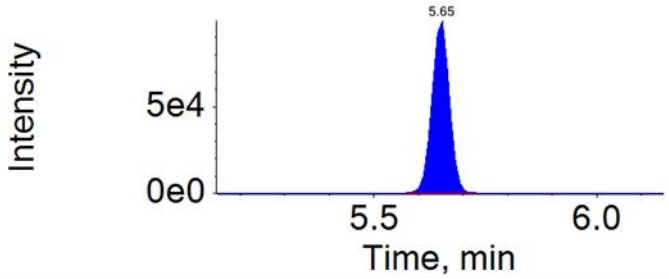


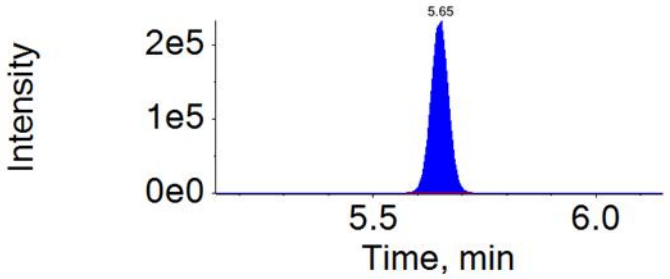
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

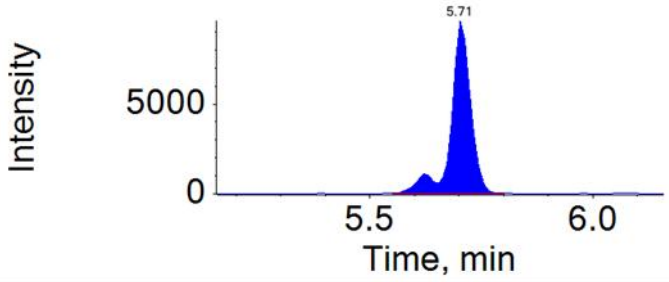
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

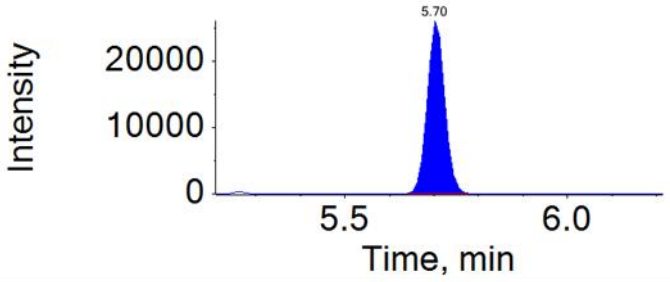
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



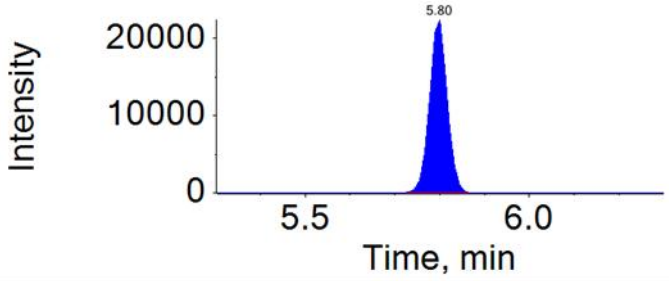


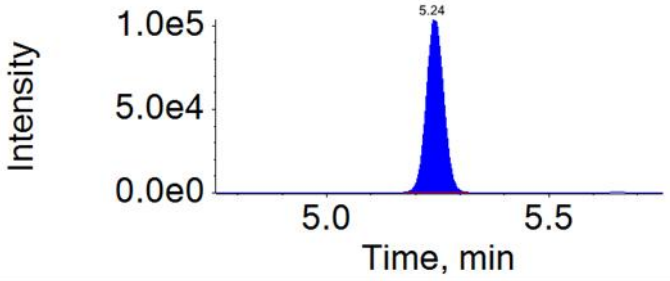
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



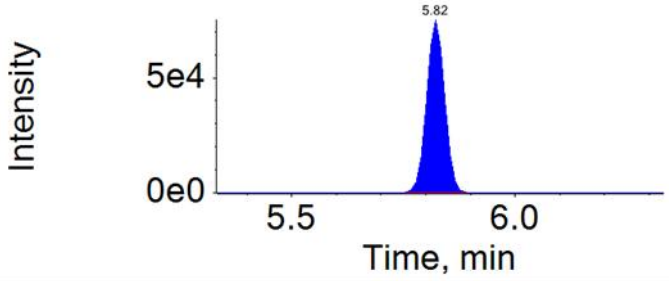


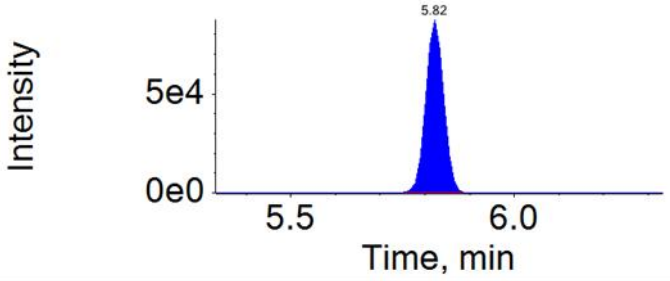
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



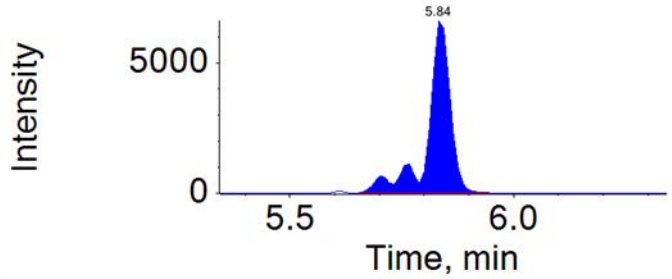


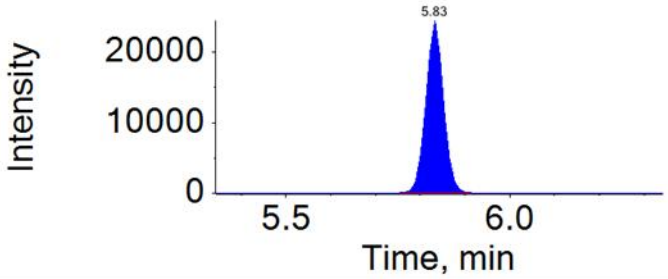
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

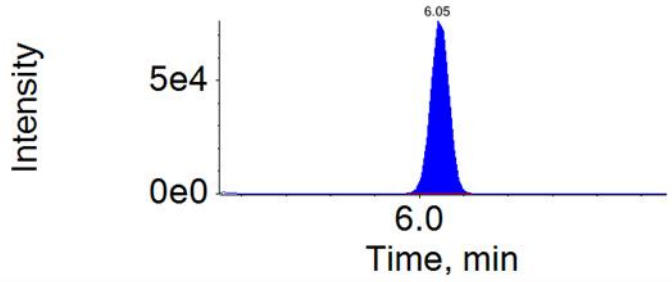
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

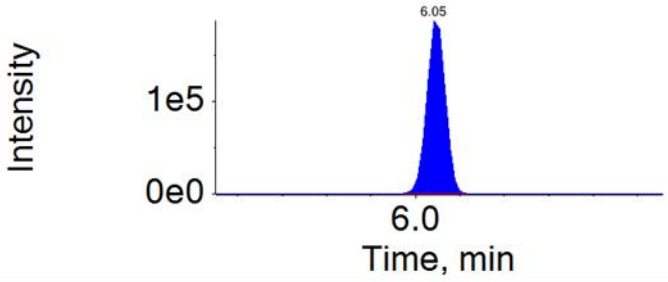
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



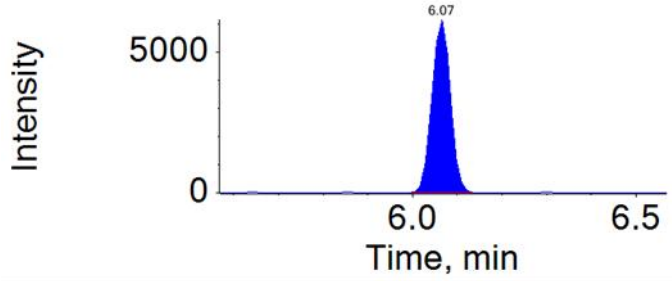


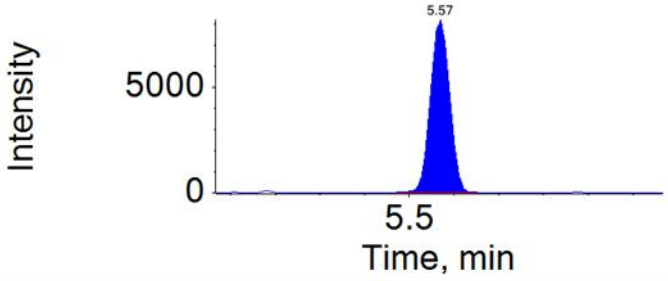
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



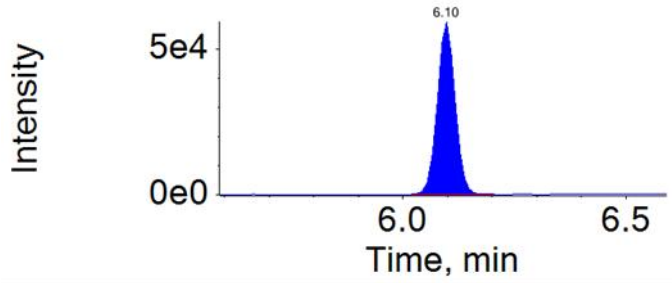


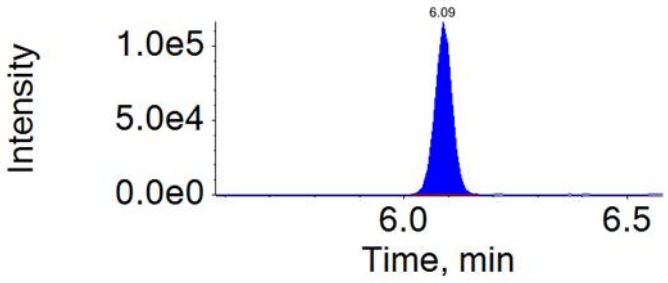
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



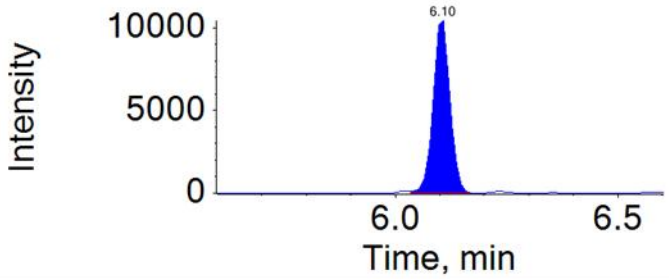


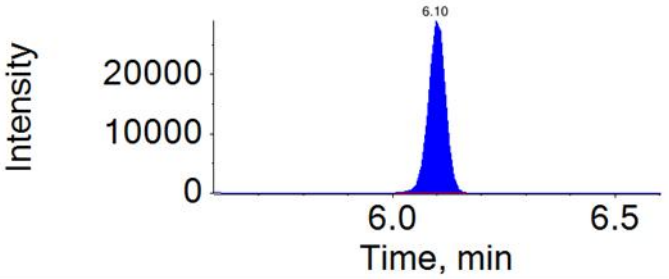
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

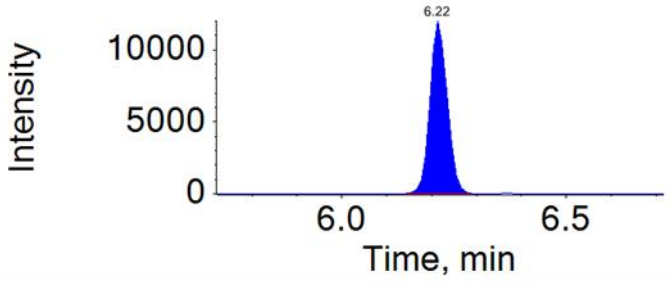
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

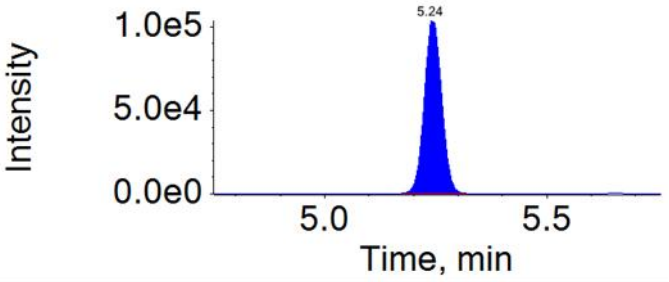
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



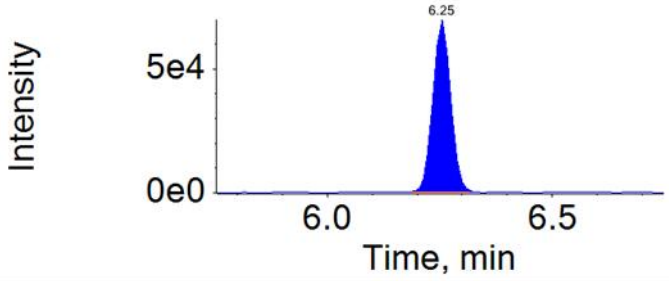


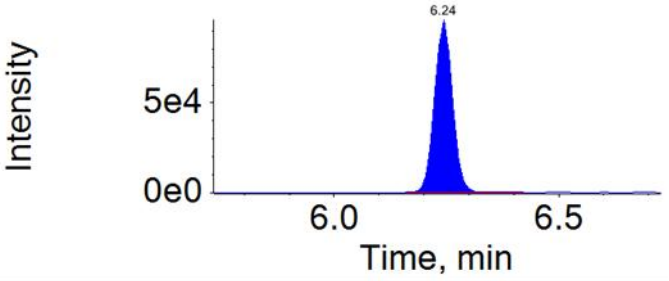
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



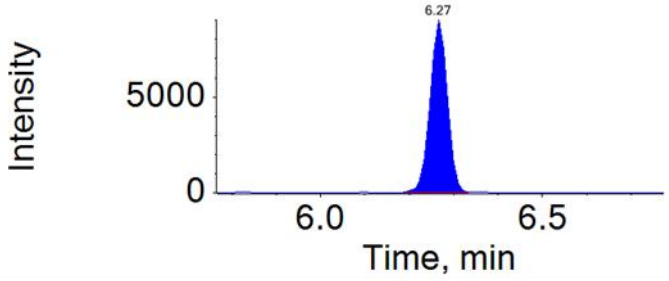


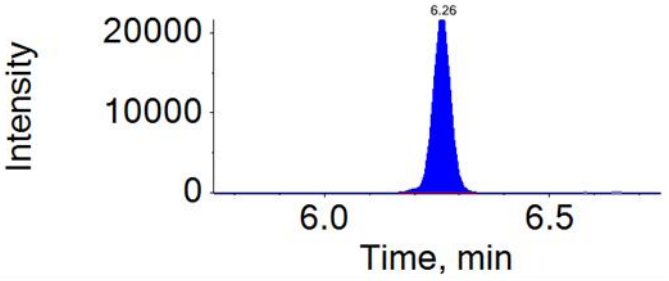
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



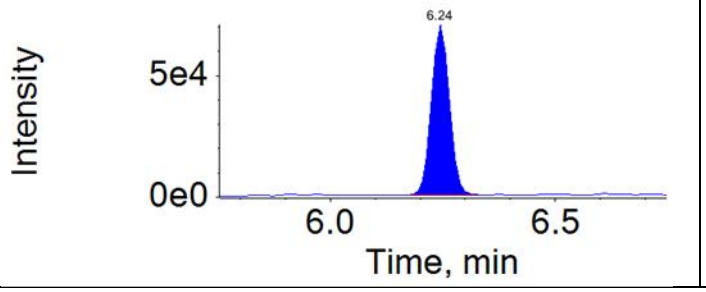


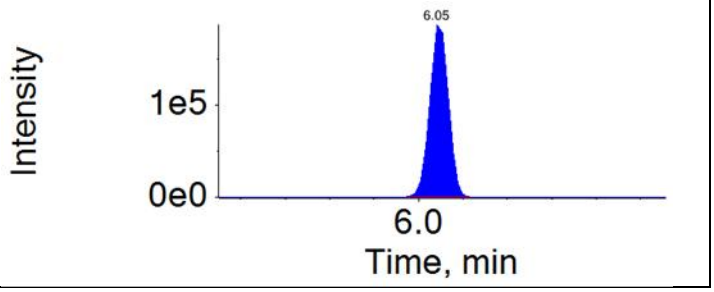
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

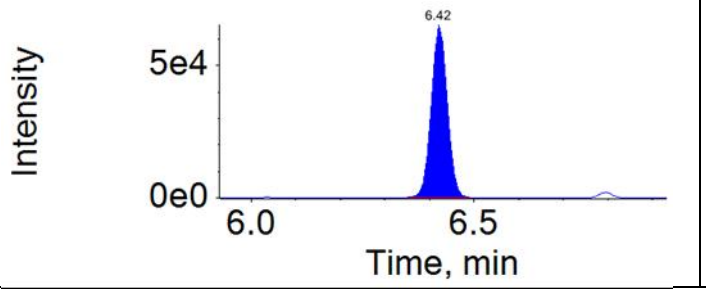
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

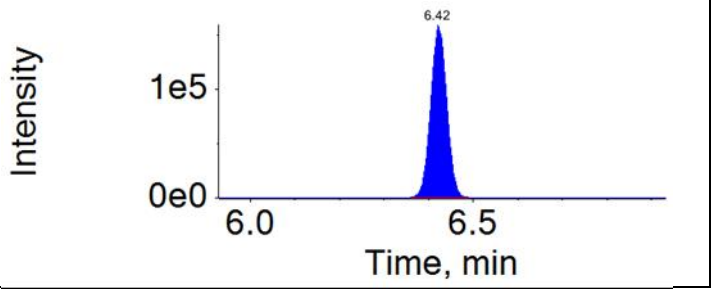
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



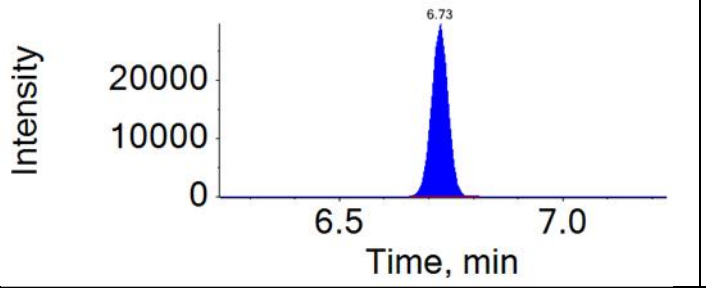


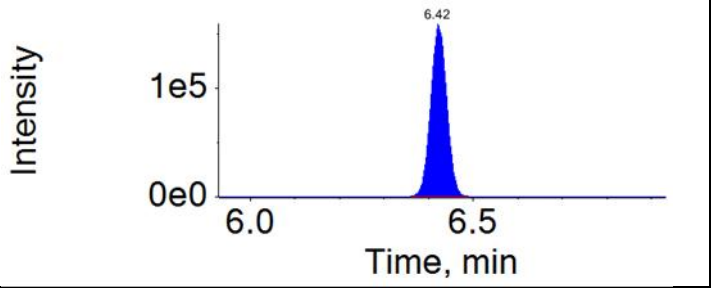
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



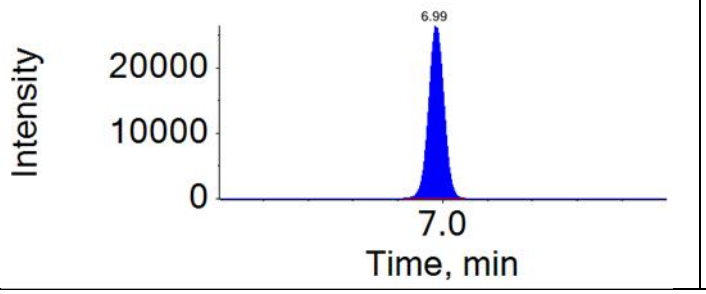


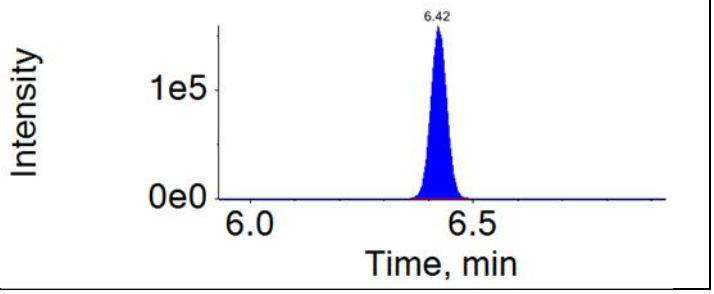
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



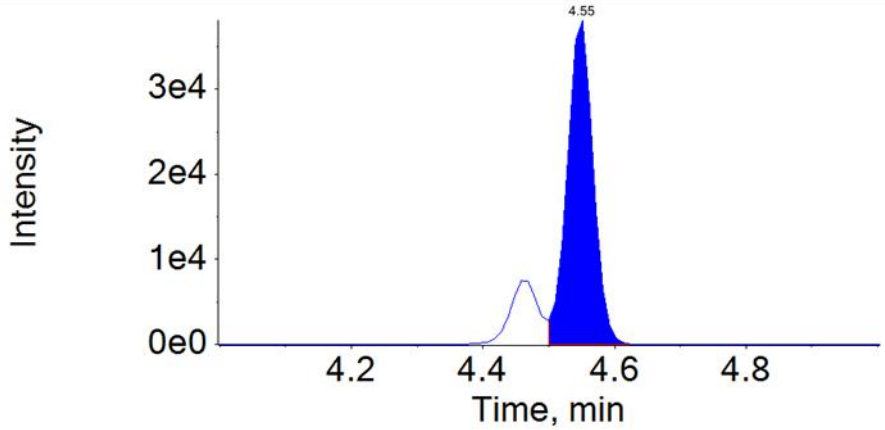


APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

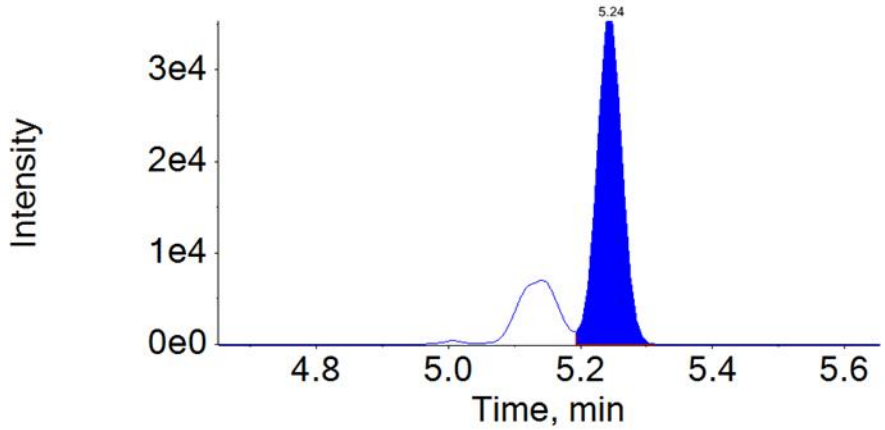
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
105284.3
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-47.wiff
Sample Name:
CCV5_CAL3



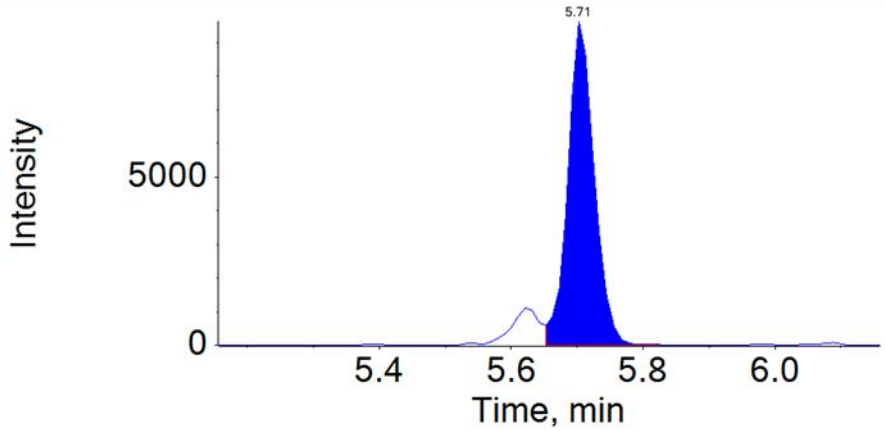
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
96903.6
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-47.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
26847.5
Mass Range:
570.0 / 419.0
File Name:
18NOV12D-47.wiff
Sample Name:
CCV5_CAL3

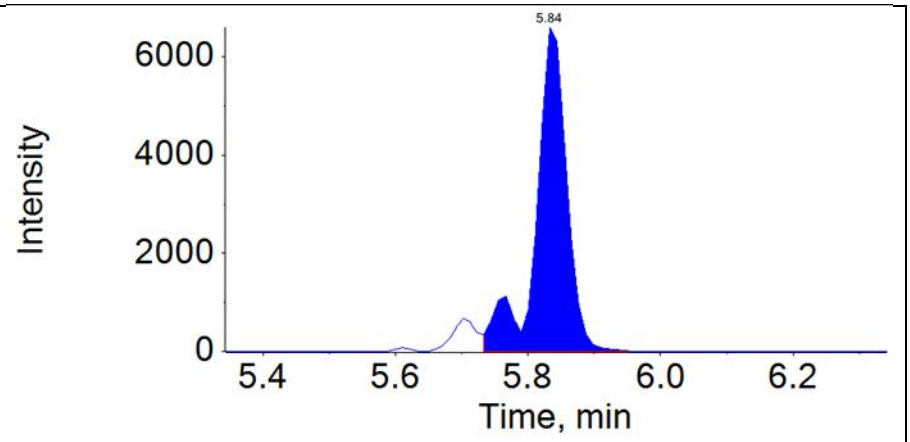


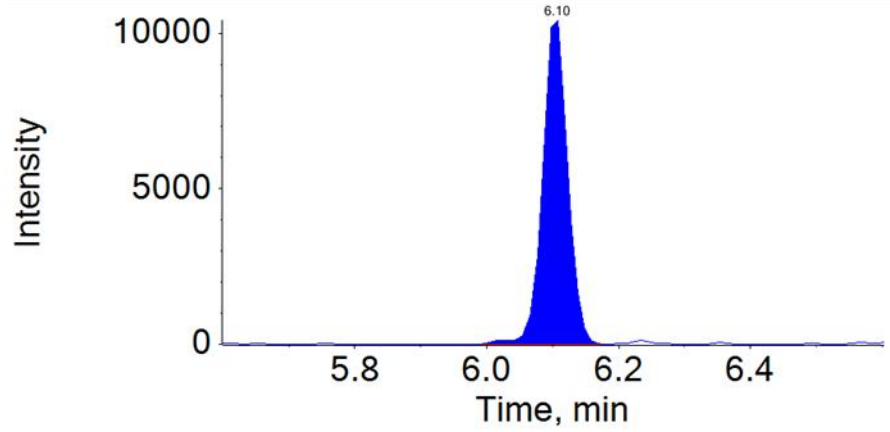
Integration Comment: incorrect integration

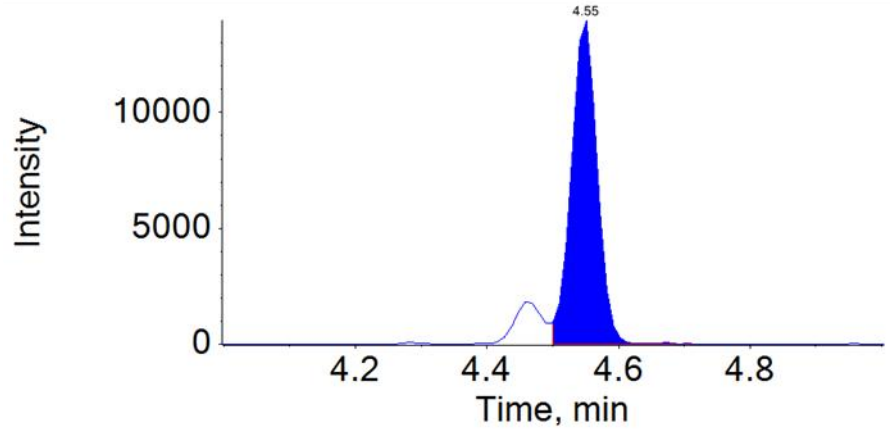
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.84 **Peak Area:** 21704.5 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV12D-47.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

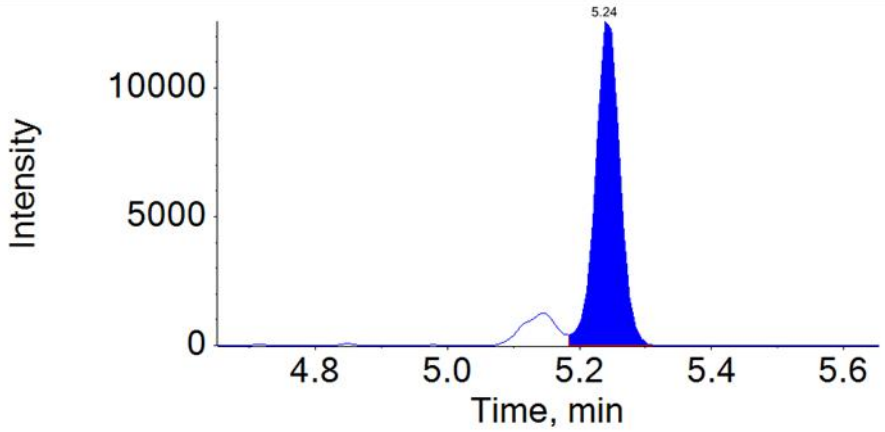
Component Name: NMePFOSA **RT (min.):** 6.10 **Peak Area:** 27745.0 **Mass Range:** 512.0 / 169.0 **File Name:** 18NOV12D-47.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

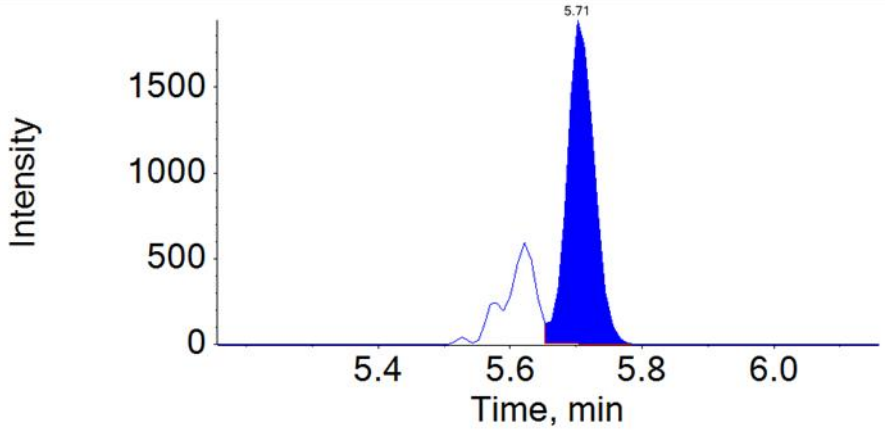
Component Name: PFHxS_2 **RT (min.):** 4.55 **Peak Area:** 38497.5 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12D-47.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 32591.5 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12D-47.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: NMeFOSAA_2 **RT (min.):** 5.71 **Peak Area:** 5403.8 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV12D-47.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

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

Ion Ratio Report

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12D-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	3.81	1.00	165427.2	A	N/A	1.0000			
PFBS_2	3.81	1.00	61838.2	A	N/A	0.3738	3	50	
4:2-FTS	4.12	1.00	38851.7	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	24495.3	A	N/A	0.6305		#NA!	
PFHxA	4.16	1.00	365563.6	A	N/A	1.0000			
PFHxA_2	4.15	1.00	3762.3	A	N/A	0.0103	-12	50	
PFPeS	4.18	1.10	87775.5	A	N/A	1.0000			
PFPeS_2	4.18	1.10	47226.3	A	N/A	0.5380	4	50	
PFHpA	4.55	1.00	376810.4	A	N/A	1.0000			
PFHpA_2	4.55	1.00	21339.2	A	N/A	0.0566	1	50	
PFHxS	4.55	1.00	127858.7	M	N/A	1.0000			
PFHxS_2	4.55	1.00	43902.1	M	N/A	0.3434	0	50	
6:2-FTS	4.90	1.00	30668.9	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	20145.0	A	N/A	0.6569		#NA!	
PFHpS	4.91	1.08	119438.7	A	N/A	1.0000			
PFHpS_2	4.91	1.08	49399.8	A	N/A	0.4136	2	50	
PFOA	4.91	1.00	376978.4	A	N/A	1.0000			
PFOA_2	4.91	1.00	20499.8	A	N/A	0.0544	-4	50	
PFOS	5.24	1.00	128651.5	M	N/A	1.0000			
PFOS_2	5.24	1.00	37187.5	M	N/A	0.2891	-3	50	
PFNA	5.26	1.00	318183.9	A	N/A	1.0000			
PFNA_2	5.26	1.00	6246.3	A	N/A	0.0196	-13	50	
PFNS	5.54	1.06	80390.2	A	N/A	1.0000			
PFNS_2	5.54	1.06	38649.2	A	N/A	0.4808	1	50	
PFDA	5.57	1.00	265515.8	A	N/A	1.0000			
PFDA_2	5.57	1.00	1991.3	A	N/A	0.0075	-5	50	
8:2-FTS	5.57	1.00	25376.4	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	16804.9	A	N/A	0.6622		#NA!	
NMeFOSAA	5.71	1.00	30069.3	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	7266.1	M	N/A	0.2416	-7	50	
PFDS	5.80	1.11	61496.7	A	N/A	1.0000			
PFDS_2	5.80	1.11	28243.7	A	N/A	0.4593	-10	50	
PFUnDA	5.82	1.00	209468.8	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	653.6	A	N/A	0.0031	-44	50	
NEtFOSAA	5.84	1.00	23415.4	M	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	15937.5	A	N/A	0.6806	-5	50	
PFDoDA	6.05	1.00	225352.6	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	3462.1	A	N/A	0.0154	0	50	
10:2-FTS	6.07	1.09	17725.4	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	11952.8	A	N/A	0.6743		#NA!	
PFTrDA	6.24	1.03	193520.3	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	1313.4	A	N/A	0.0068	-21	50	
PFTeDA	6.42	1.00	162067.3	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	1144.7	A	N/A	0.0071	14	50	
PFHxDA	6.73	1.05	75958.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4336.8	A	N/A	0.0571	-16	50	
PFODA	6.99	1.09	63018.4	A	N/A	1.0000			
PFODA_2	6.98	1.09	1639.9	A	N/A	0.0260	-6	50	

APPROVED
By JPT at 10:23 am, 11/13/18

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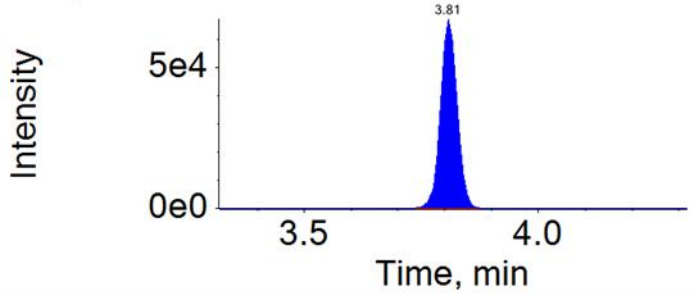
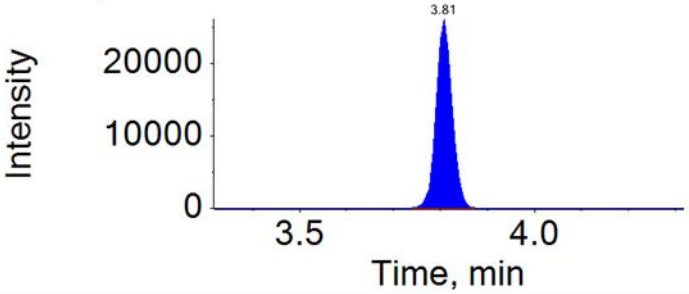
By HMK at 2:17 pm, 11/13/18

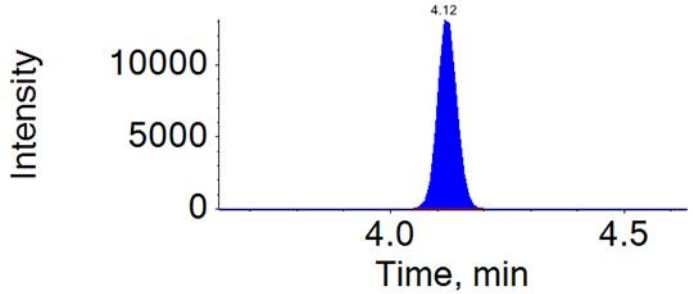
Component: PFBS
Primary Mass: 299.0 / 80.0



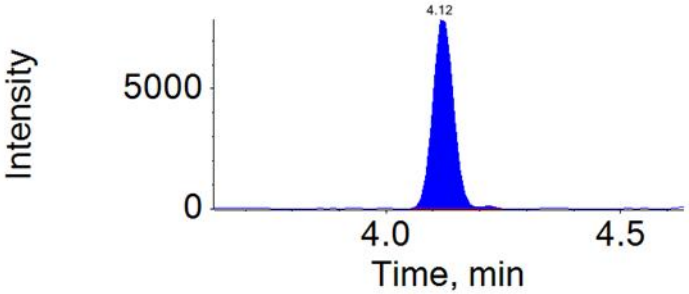
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



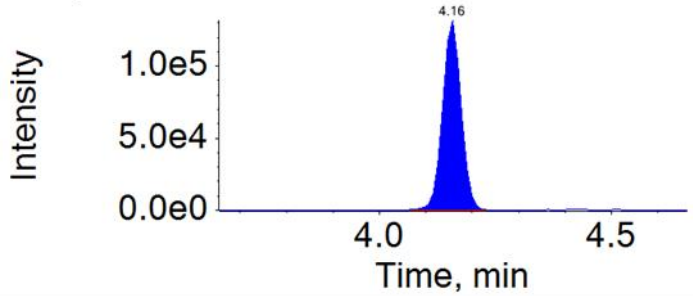
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



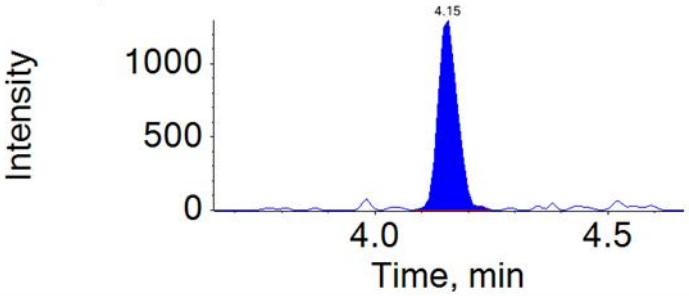
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



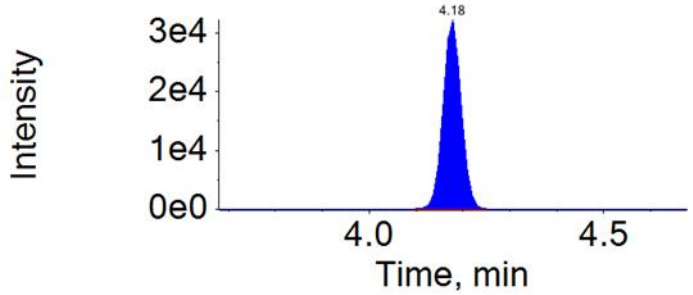
Component: PFHxA
Primary Mass: 313.0 / 269.0



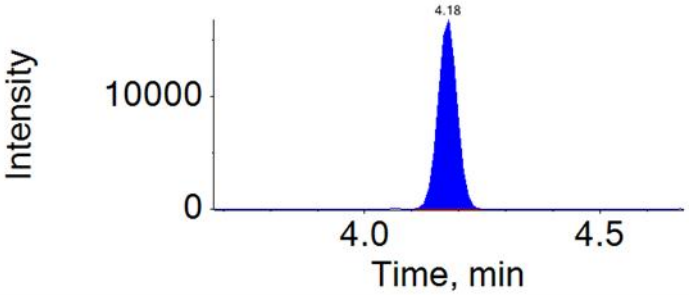
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



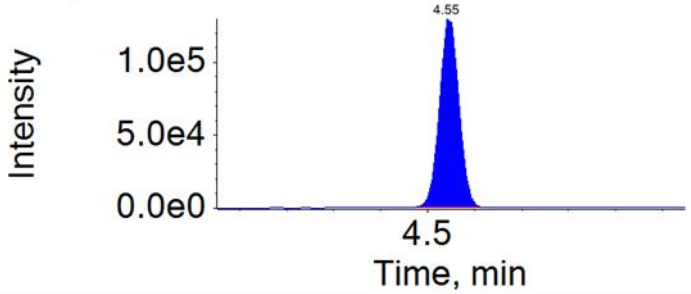
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



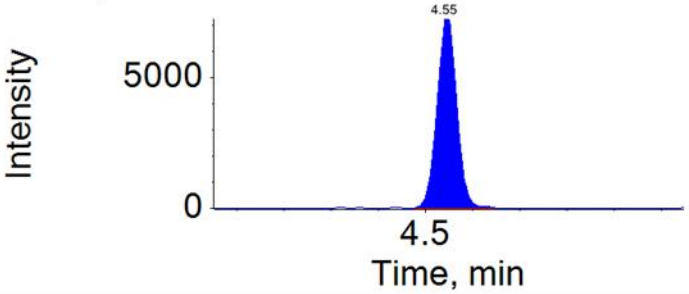
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

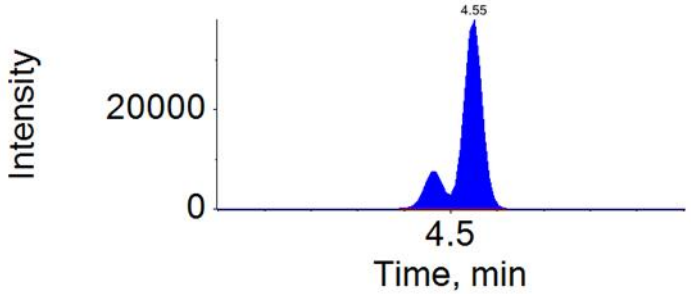
Component: PFHpA
Primary Mass: 363.0 / 319.0



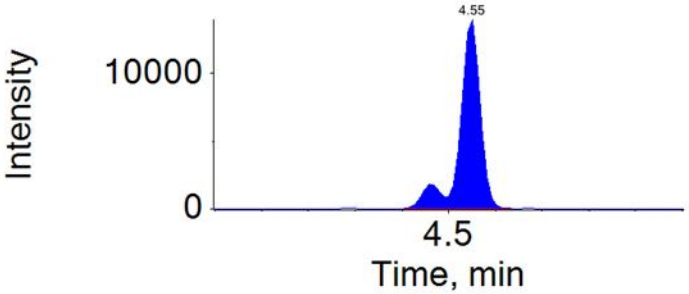
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



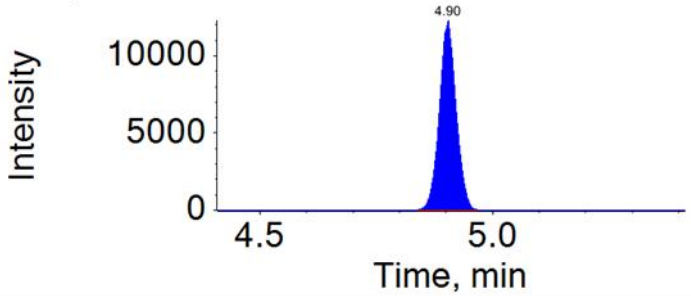
Component: PFHxS
Primary Mass: 399.0 / 80.0



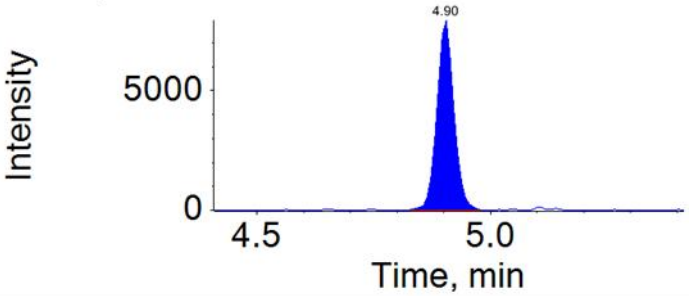
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



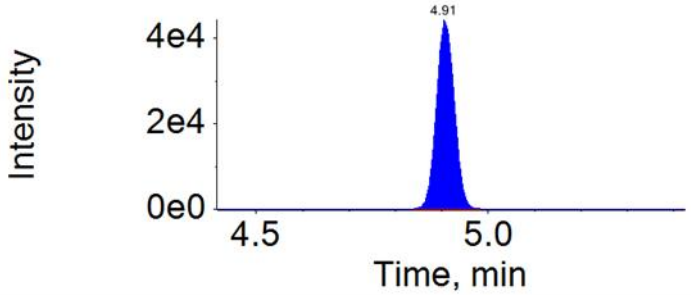
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



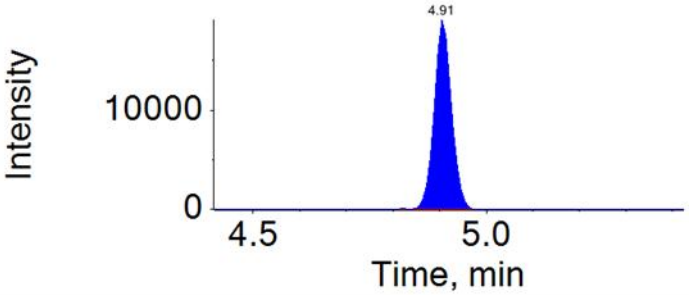
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



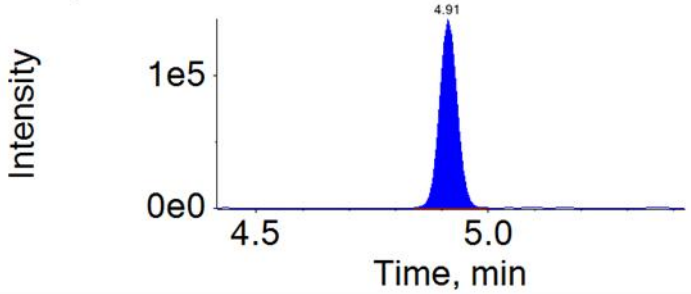
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



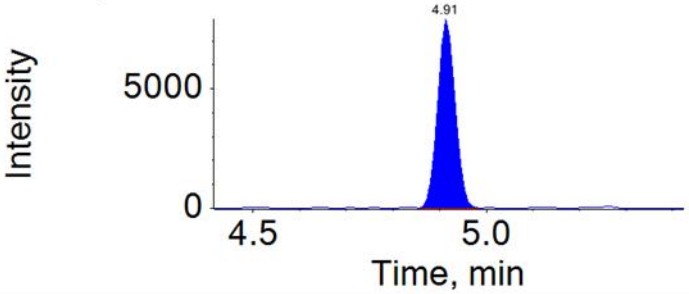
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

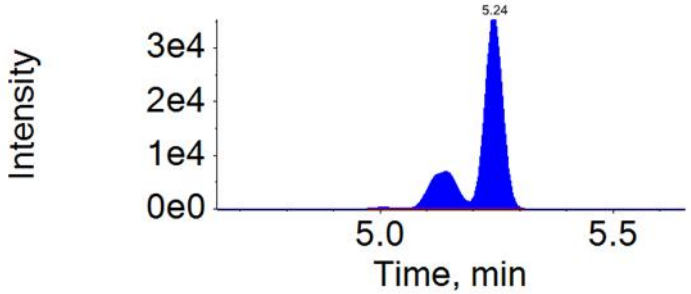
Component: PFOA
Primary Mass: 413.0 / 369.0



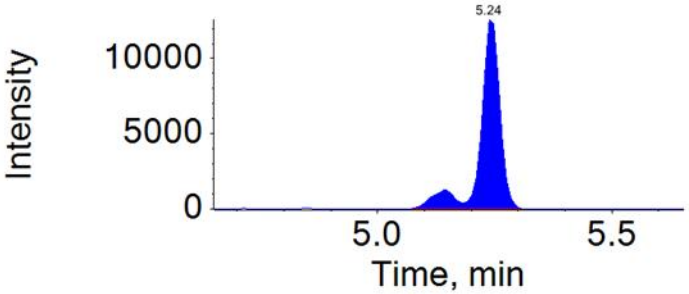
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



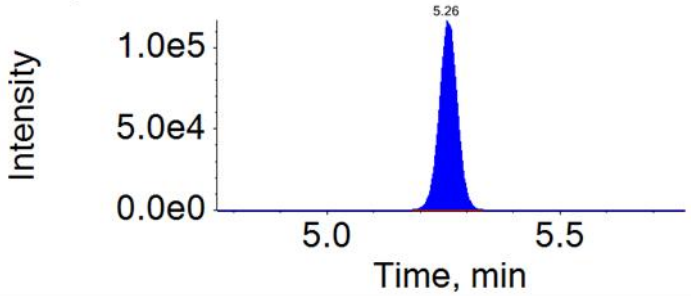
Component: PFOS
Primary Mass: 499.0 / 80.0



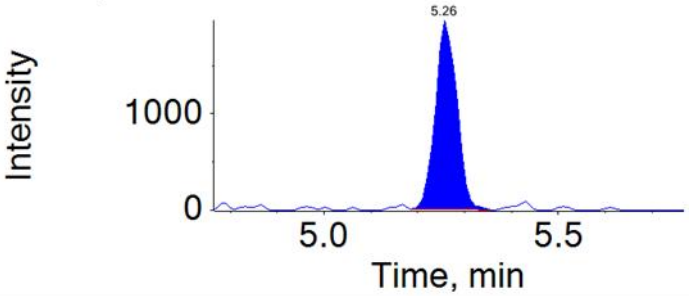
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



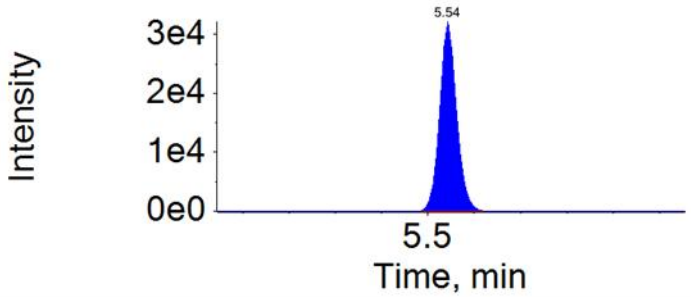
Component: PFNA
Primary Mass: 463.0 / 419.0



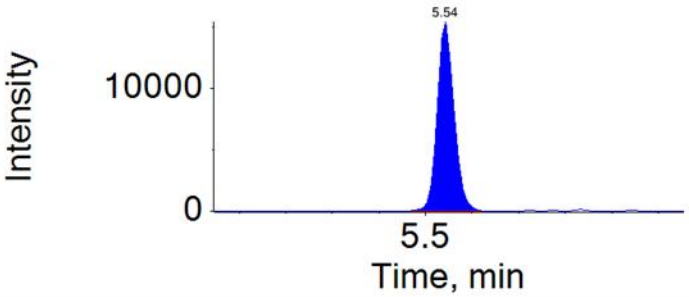
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



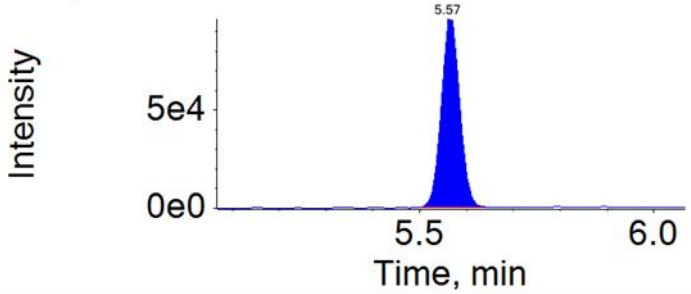
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



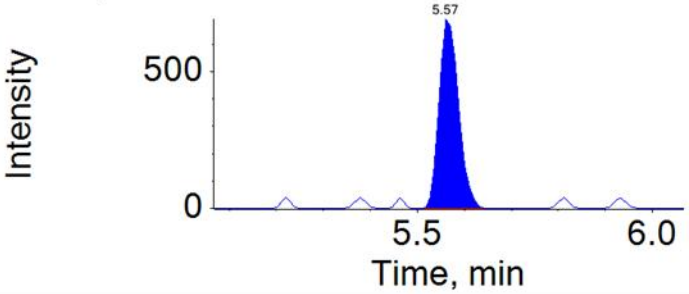
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

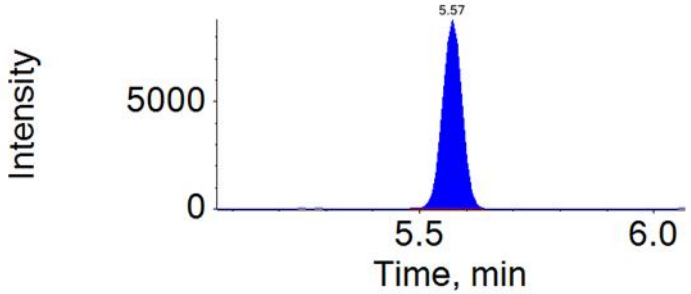
Component: PFDA
Primary Mass: 513.0 / 469.0



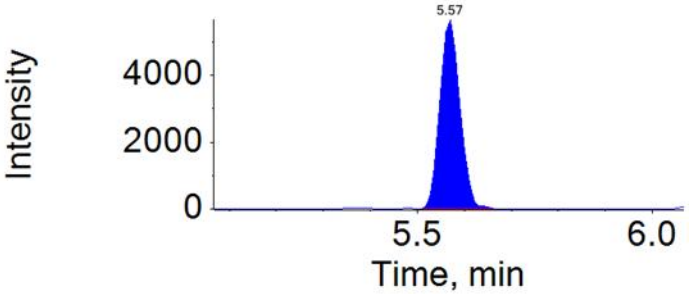
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



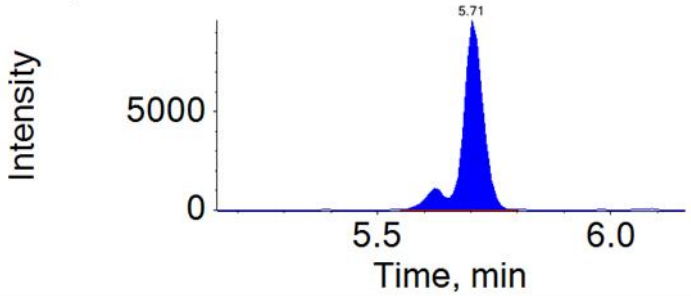
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



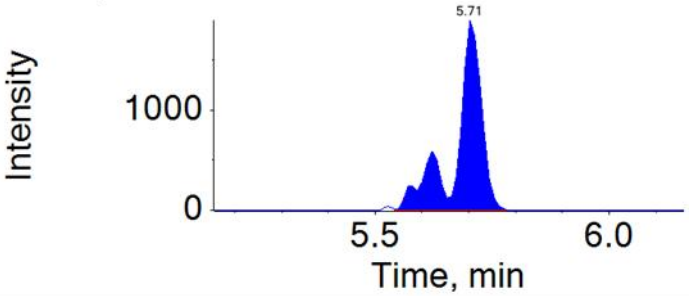
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



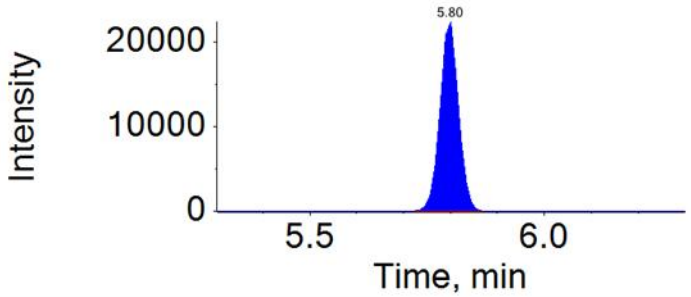
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



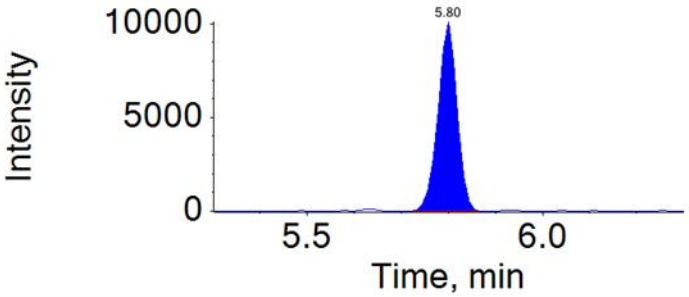
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



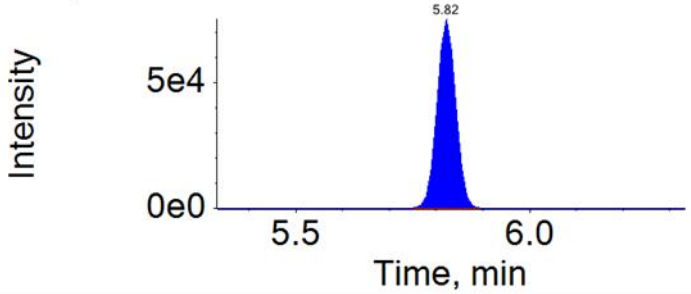
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



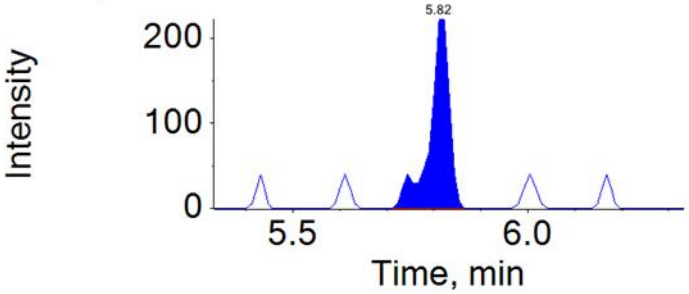
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

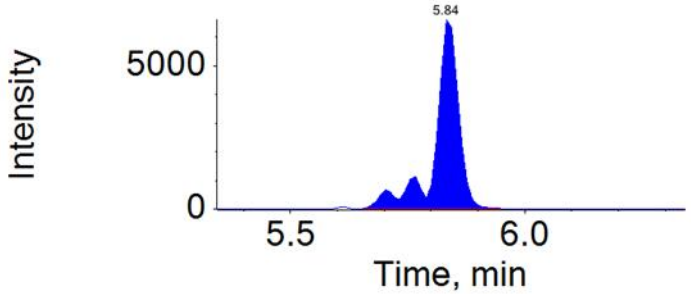
Component: PFUnDA
Primary Mass: 563.0 / 519.0



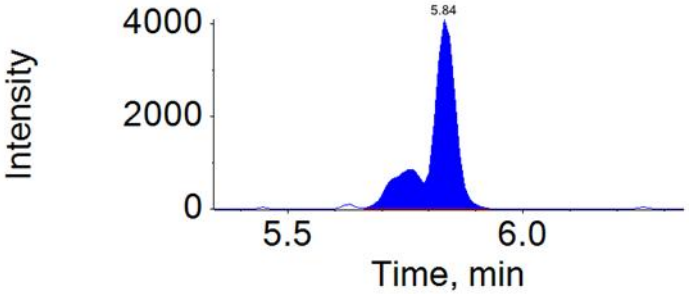
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



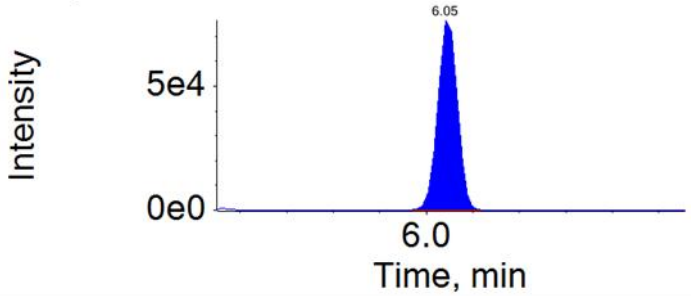
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



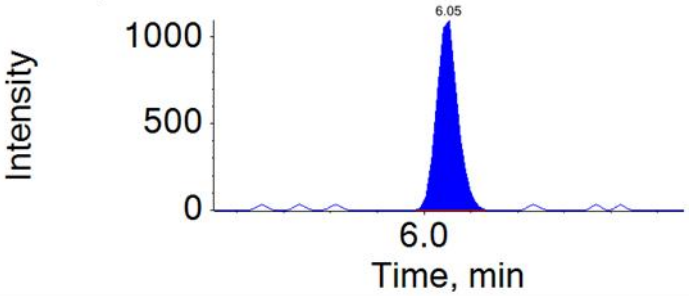
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



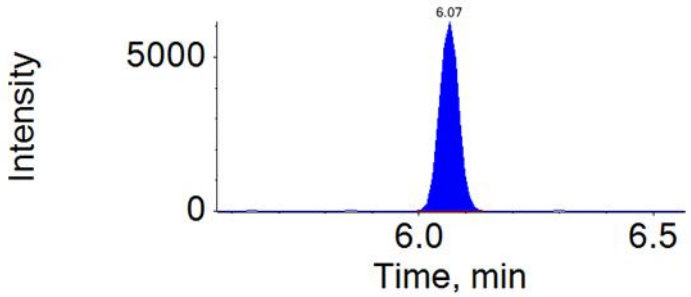
Component: PFDoDA
Primary Mass: 613.0 / 569.0



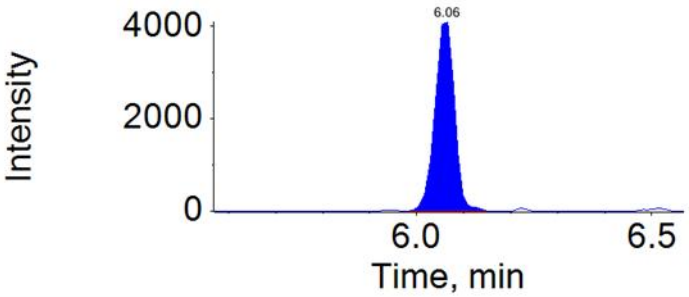
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



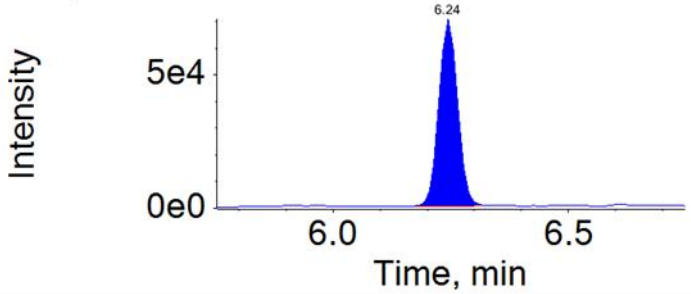
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



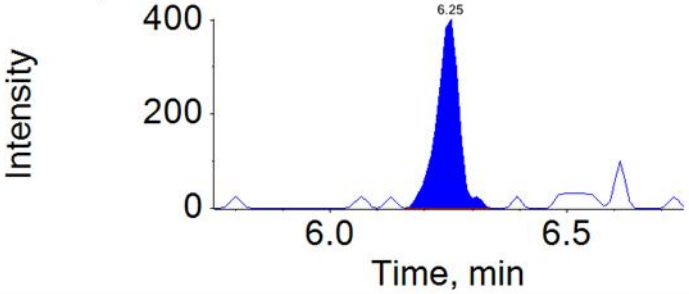
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

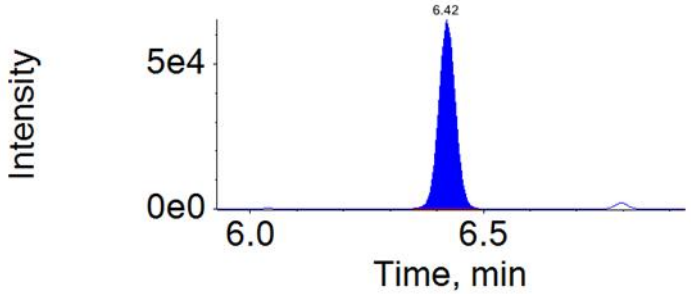
Component: PFTrDA
Primary Mass: 663.0 / 619.0



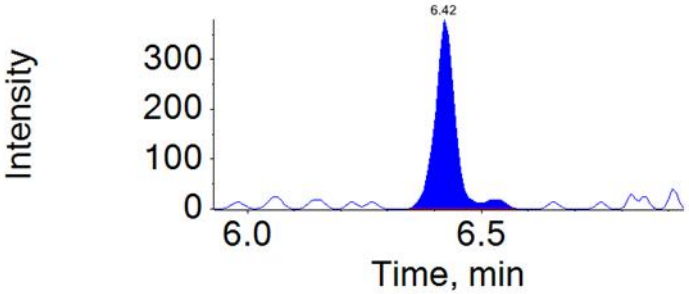
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



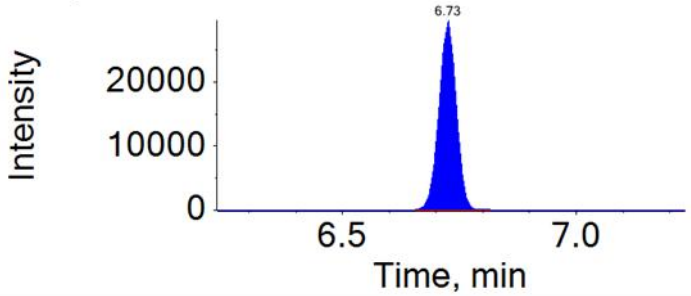
Component: PFTeDA
Primary Mass: 713.0 / 669.0



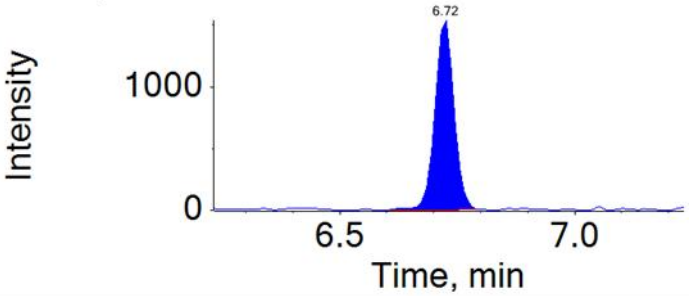
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



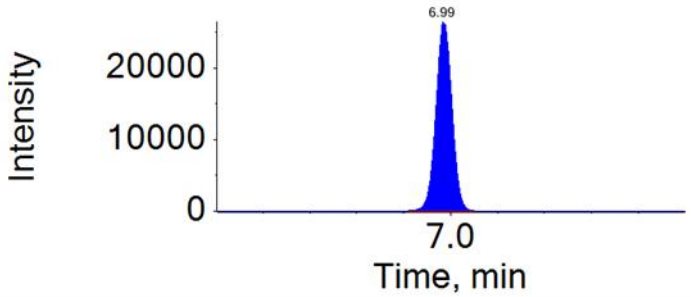
Component: PFHxDA
Primary Mass: 813.0 / 769.0



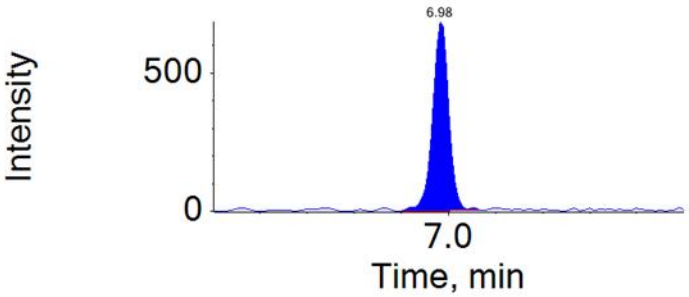
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



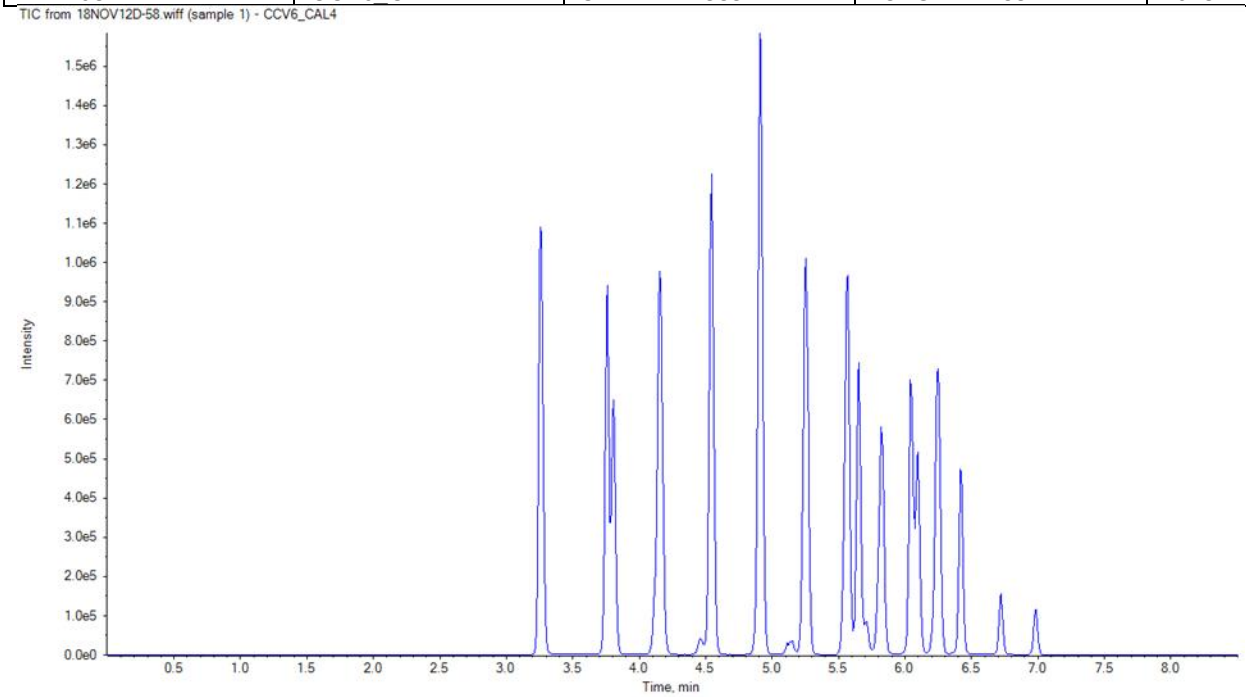
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By HMK at 2:17 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV12D-58.wiff	2018-11-13T01:20:06



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	694943.9	659926.2	5	50	
13C2-PFOA	5.0	519786.2	450219.7	15	50	
13C4-PFOS	4.8	270198.2	249205.8	8	50	
13C2-PFDA	5.0	316423.1	278743.9	14	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV12D-58.wiff	2018-11-13T01:20:06

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	1105568.8	10	13C4-PFBA	760029.1	5.0	1.455	3.26	1.000	8.000	8.058	1	30	
PFPeA	1127259.1	11	13C5-PFPeA	759638.3	5.0	1.484	3.76	1.000	8.000	8.590	7	30	
PFBS	650121.6	10	13C3-PFBS	446027.4	4.7	1.458	3.81	1.000	7.080	6.933	-2	30	
4:2-FTS	150233.4	11	13C2-4:2-FTS	54881.6	4.7	2.737	4.12	1.000	7.470	7.432	-1	30	
PFHxA	1348987.8	12	13C5-PFHxA	695243.0	5.0	1.940	4.15	1.000	8.000	8.101	1	30	
PFPeS	319026.2	11	13C3-PFBS	446027.4	4.7	0.715	4.17	1.100	7.500	6.944	-7	30	
PFHpA	1384443.9	12	13C4-PFHpA	541625.6	5.0	2.556	4.54	1.000	8.000	8.473	6	30	
PFHxS	517754.3	19	13C3-PFHxS	339752.8	4.7	1.524	4.55	1.000	7.300	7.389	1	30	
6:2-FTS	113664.7	11	13C2-6:2-FTS	33652.2	4.8	3.378	4.90	1.000	7.580	8.173	8	30	
PFHpS	467674.4	11	13C3-PFHxS	339752.8	4.7	1.377	4.91	1.080	7.610	7.246	-5	30	
PFOA	1421585.9	11	13C8-PFOA	883150.2	5.0	1.610	4.91	1.000	8.000	8.597	7	30	
PFOS	478066.3	22	13C8-PFOS	282689.5	4.8	1.691	5.24	1.000	7.400	7.395	0	30	
PFNA	1179828.0	12	13C9-PFNA	501340.6	5.0	2.353	5.26	1.000	8.000	8.486	6	30	
PFNS	300128.1	11	13C8-PFOS	282689.5	4.8	1.062	5.54	1.060	7.680	7.428	-3	30	
PFDA	961061.7	11	13C6-PFDA	647591.8	5.0	1.484	5.57	1.000	8.000	7.868	-2	30	
8:2-FTS	96931.6	11	13C2-8:2-FTS	25579.6	4.8	3.789	5.57	1.000	7.660	8.835	15	30	
PFOSA	1008057.1	11	13C8-PFOSA	641137.8	5.0	1.572	5.65	1.000	8.000	7.680	-4	30	
NMeFOSAA	108210.9	19	d3-NMeFOSAA	73403.0	5.0	1.474	5.71	1.000	8.000	8.332	4	30	
PFDS	229123.3	11	13C8-PFOS	282689.5	4.8	0.811	5.80	1.110	7.700	7.344	-5	30	
PFUnDA	804226.7	11	13C7-PFUnDA	266920.0	5.0	3.013	5.82	1.000	8.000	7.877	-2	30	
NEtFOSAA	95358.9	21	d5-NEtFOSAA	69388.5	5.0	1.374	5.84	1.000	8.000	7.204	-10	30	
PFDoDA	903550.9	12	13C2-PFDoDA	564228.7	5.0	1.601	6.04	1.000	8.000	8.155	2	30	
10:2-FTS	67615.6	11	13C2-8:2-FTS	25579.6	4.8	2.643	6.06	1.090	7.710	8.805	14	30	
NMePFOSAE	663106.2	11	d7-NMePFOSAE	318171.3	5.0	2.084	6.10	1.000	8.000	8.674	8	30	
NMePFOSA	117948.1	11	d3-NMePFOSA	75466.9	5.0	1.563	6.10	1.000	8.000	7.710	-4	30	
PFDoS	118024.9	11	13C8-PFOS	282689.5	4.8	0.418	6.21	1.190	7.740	7.312	-6	30	
NEtPFOSAE	685532.3	11	d9-NEtPFOSAE	281982.8	5.0	2.431	6.25	1.000	8.000	7.800	-3	30	
NEtPFOSA	103077.1	11	d5-NEtPFOSA	56290.4	5.0	1.831	6.27	1.000	8.000	8.410	5	30	
PFTrDA	775027.4	11	13C2-PFDoDA	564228.7	5.0	1.374	6.24	1.030	8.000	8.670	8	30	
PFTeDA	594227.5	11	13C2-PFTeDA	403537.1	5.0	1.473	6.42	1.000	8.000	8.255	3	30	
PFHxDA	290625.8	11	13C2-PFTeDA	403537.1	5.0	0.720	6.72	1.050	8.000	8.580	7	30	
PFODA	248289.9	10	13C2-PFTeDA	403537.1	5.0	0.615	6.98	1.090	8.000	8.569	7	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV12D-58.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-13T01:20:06
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	694943.9	659926.2	5	50	
13C2-PFOA	5.0	519786.2	450219.7	15	50	
13C4-PFOS	4.8	270198.2	249205.8	8	50	
13C2-PFDA	5.0	316423.1	278743.9	14	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	760029.1	13C3-PFBA	694943.9	1.094	5.000	4.903	98	70-130	
E13C5-PFPeA	759638.3	13C3-PFBA	694943.9	1.093	5.000	4.903	98	70-130	
E13C3-PFBS	446027.4	13C3-PFBA	694943.9	0.642	4.650	4.531	97	70-130	
E13C2-4:2-FTS	54881.6	13C2-PFOA	519786.2	0.106	4.670	4.703	101	70-130	
E13C5-PFHxA	695243.0	13C2-PFOA	519786.2	1.338	5.000	4.832	97	70-130	
E13C3-PFHxS	339752.8	13C2-PFOA	519786.2	0.654	4.730	4.485	95	70-130	
E13C4-PFHpA	541625.6	13C2-PFOA	519786.2	1.042	5.000	4.694	94	70-130	
E13C2-6:2-FTS	33652.2	13C2-PFOA	519786.2	0.065	4.750	4.332	91	70-130	
E13C8-PFOA	883150.2	13C2-PFOA	519786.2	1.699	5.000	4.681	94	70-130	
E13C8-PFOS	282689.5	13C4-PFOS	270198.2	1.046	4.780	4.636	97	70-130	
E13C9-PFNA	501340.6	13C4-PFOS	270198.2	1.855	5.000	5.173	103	70-130	
E13C6-PFDA	647591.8	13C2-PFDA	316423.1	2.047	5.000	4.776	96	70-130	
E13C2-8:2-FTS	25579.6	13C2-PFDA	316423.1	0.081	4.790	4.032	84	70-130	
E13C8-PFOSA	641137.8	13C2-PFDA	316423.1	2.026	5.000	4.492	90	70-130	
Ed3-NMeFOSAA	73403.0	13C2-PFDA	316423.1	0.232	5.000	4.187	84	70-130	
E13C7-PFUnDA	266920.0	13C2-PFDA	316423.1	0.844	5.000	4.898	98	70-130	
Ed5-NEtFOSAA	69388.5	13C2-PFDA	316423.1	0.219	5.000	4.639	93	70-130	
E13C2-PFDoDA	564228.7	13C2-PFDA	316423.1	1.783	5.000	4.630	93	70-130	
Ed7-NMePFOSAE	318171.3	13C2-PFDA	316423.1	1.006	5.000	4.351	87	70-130	
Ed3-NMePFOSA	75466.9	13C2-PFDA	316423.1	0.239	5.000	4.333	87	70-130	
Ed9-NEtPFOSAE	281982.8	13C2-PFDA	316423.1	0.891	5.000	4.635	93	70-130	
Ed5-NEtPFOSA	56290.4	13C2-PFDA	316423.1	0.178	5.000	4.173	83	70-130	
E13C2-PFTeDA	403537.1	13C2-PFDA	316423.1	1.275	5.000	4.477	90	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

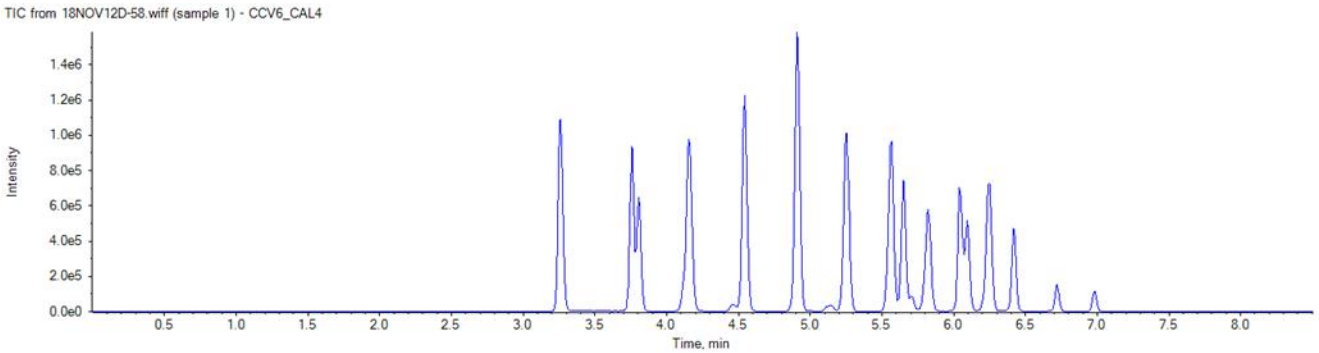
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12D-58.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	1105568.8		A	13C4-PFBA	3.26	760029.1	1.455	8.058
PFPeA	3.76	1.000	1127259.1		A	13C5-PFPeA	3.76	759638.3	1.484	8.590
PFBS	3.81	1.000	650121.6		A	13C3-PFBS	3.81	446027.4	1.458	6.933
4:2-FTS	4.12	1.000	150233.4		A	13C2-4:2-FTS	4.12	54881.6	2.737	7.432
PFHxA	4.15	1.000	1348987.8		A	13C5-PFHxA	4.15	695243.0	1.940	8.101
PFPeS	4.17	1.100	319026.2		A	13C3-PFBS	3.81	446027.4	0.715	6.944
PFHpA	4.54	1.000	1384443.9		A	13C4-PFHpA	4.54	541625.6	2.556	8.473
PFHxS	4.55	1.000	517754.3		M	13C3-PFHxS	4.55	339752.8	1.524	7.389
6:2-FTS	4.90	1.000	113664.7		A	13C2-6:2-FTS	4.90	33652.2	3.378	8.173
PFHpS	4.91	1.080	467674.4		A	13C3-PFHxS	4.55	339752.8	1.377	7.246
PFOA	4.91	1.000	1421585.9		A	13C8-PFOA	4.91	883150.2	1.610	8.597
PFOS	5.24	1.000	478066.3		M	13C8-PFOS	5.24	282689.5	1.691	7.395
PFNA	5.26	1.000	1179828.0		A	13C9-PFNA	5.26	501340.6	2.353	8.486
PFNS	5.54	1.060	300128.1		A	13C8-PFOS	5.24	282689.5	1.062	7.428
PFDA	5.57	1.000	961061.7		A	13C6-PFDA	5.57	647591.8	1.484	7.868
8:2-FTS	5.57	1.000	96931.6		A	13C2-8:2-FTS	5.57	25579.6	3.789	8.835
PFOSA	5.65	1.000	1008057.1		A	13C8-PFOSA	5.65	641137.8	1.572	7.680
NMeFOSAA	5.71	1.000	108210.9		M	d3-NMeFOSAA	5.71	73403.0	1.474	8.332
PFDS	5.80	1.110	229123.3		A	13C8-PFOS	5.24	282689.5	0.811	7.344
PFUnDA	5.82	1.000	804226.7		A	13C7-PFUnDA	5.82	266920.0	3.013	7.877
NEtFOSAA	5.84	1.000	95358.9		A	d5-NEtFOSAA	5.84	69388.5	1.374	7.204
PFDoDA	6.04	1.000	903550.9		A	13C2-PFDoDA	6.04	564228.7	1.601	8.155
10:2-FTS	6.06	1.090	67615.6		A	13C2-8:2-FTS	5.57	25579.6	2.643	8.805
NMePFOSAE	6.10	1.000	663106.2		A	d7-NMePFOSAE	6.09	318171.3	2.084	8.674
NMePFOSA	6.10	1.000	117948.1		A	d3-NMePFOSA	6.10	75466.9	1.563	7.710
PFDoS	6.21	1.190	118024.9		A	13C8-PFOS	5.24	282689.5	0.418	7.312
NEtPFOSAE	6.25	1.000	685532.3		A	d9-NEtPFOSAE	6.24	281982.8	2.431	7.800
NEtPFOSA	6.27	1.000	103077.1		A	d5-NEtPFOSA	6.26	56290.4	1.831	8.410
PFTrDA	6.24	1.030	775027.4		A	13C2-PFDoDA	6.04	564228.7	1.374	8.670
PFTeDA	6.42	1.000	594227.5		A	13C2-PFTeDA	6.42	403537.1	1.473	8.255
PFHxDA	6.72	1.050	290625.8		A	13C2-PFTeDA	6.42	403537.1	0.720	8.580
PFODA	6.98	1.090	248289.9		A	13C2-PFTeDA	6.42	403537.1	0.615	8.569

Total Ion Chromatogram

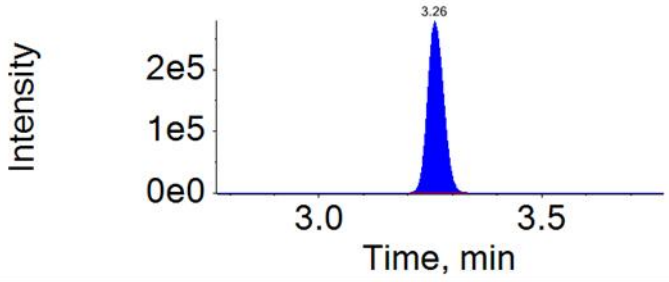


APPROVED
By JPT at 10:23 am, 11/13/18

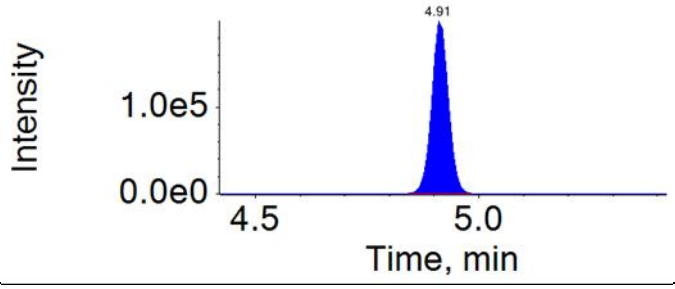
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

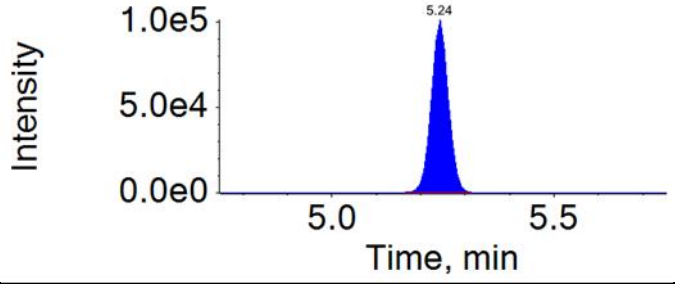
Injection Standard: 13C3-PFBA
216.0 / 172.0



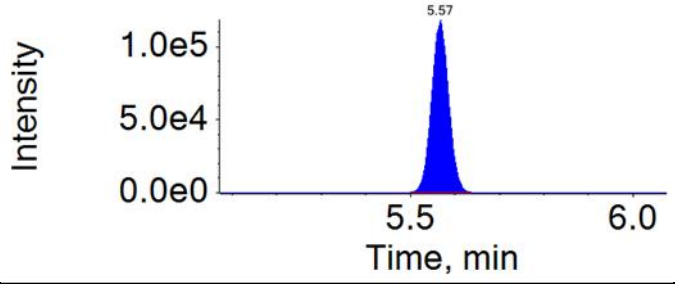
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

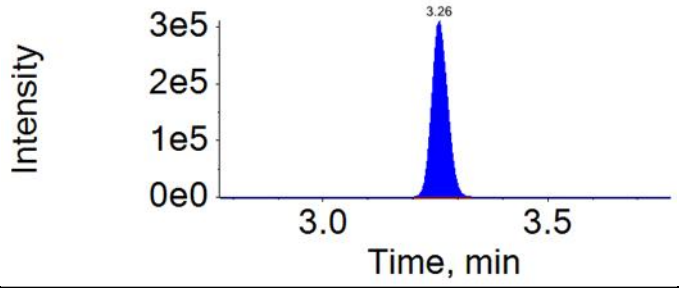


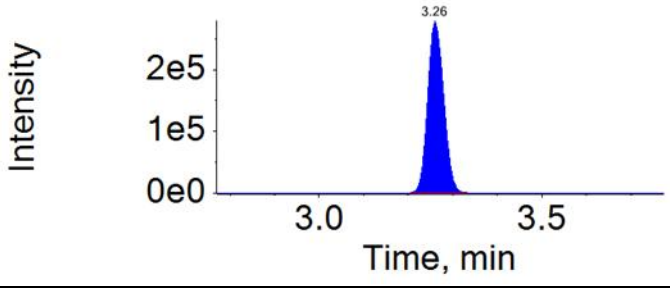
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

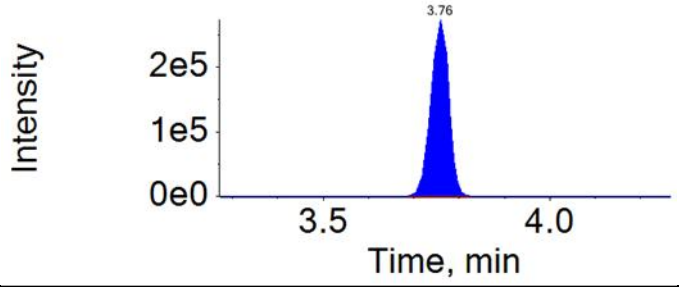
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

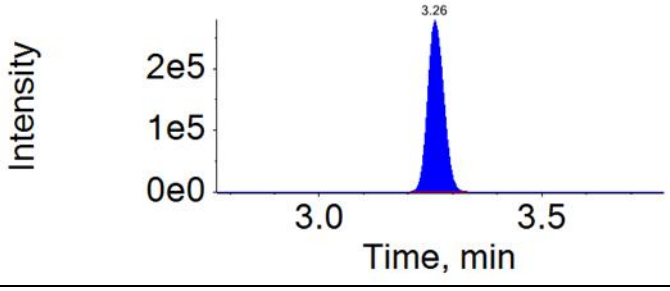
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



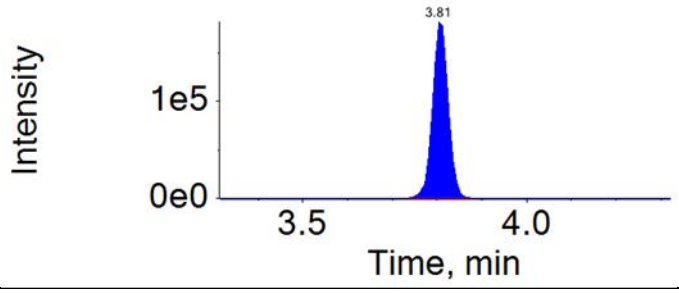


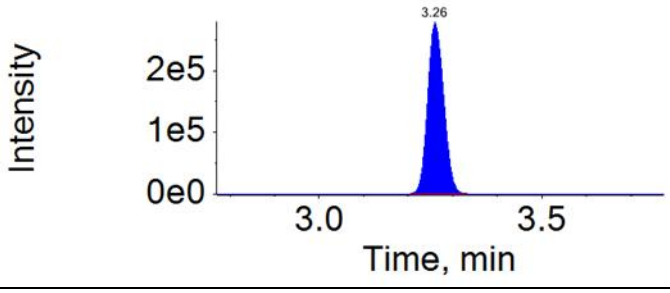
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



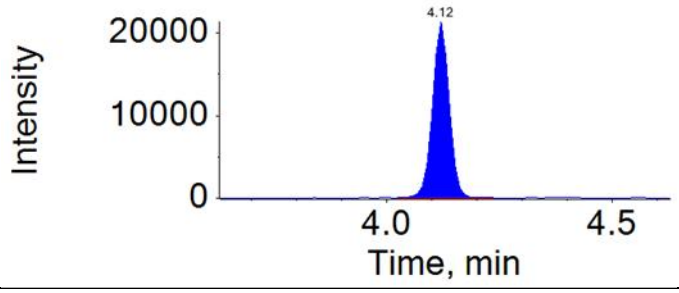


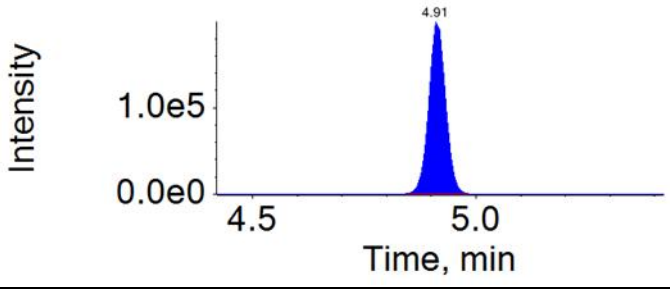
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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

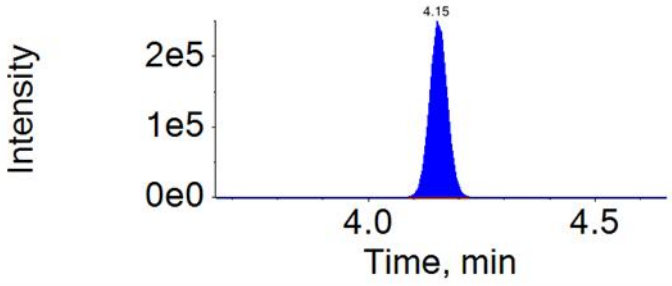
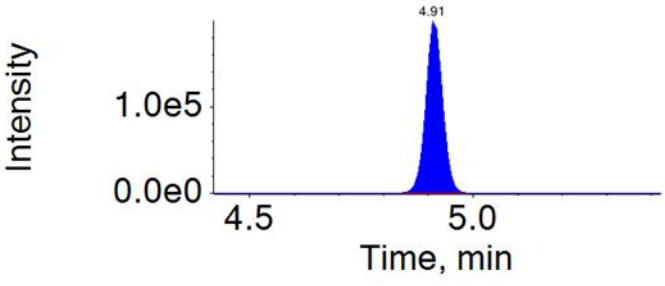


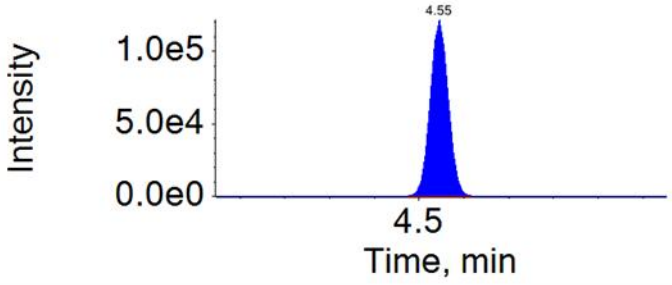
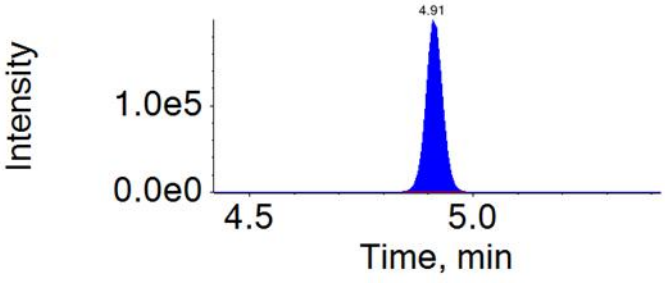


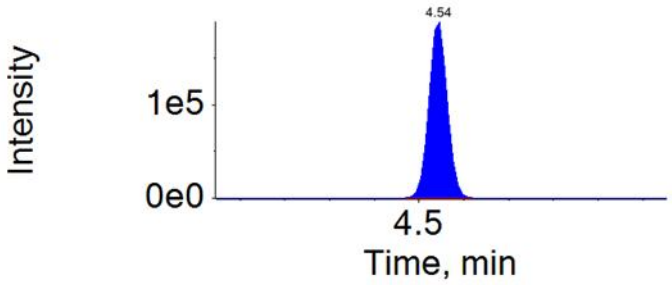
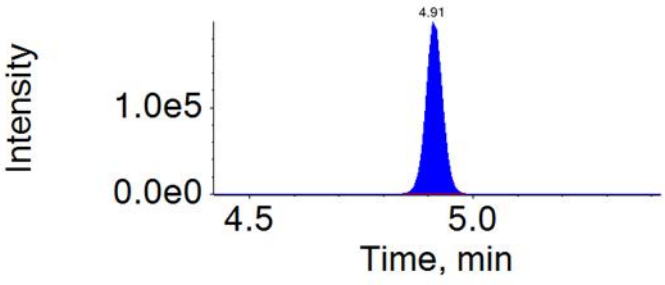
APPROVED
By JPT at 10:23 am, 11/13/18

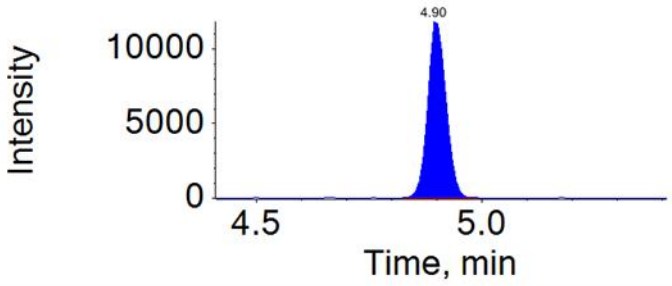
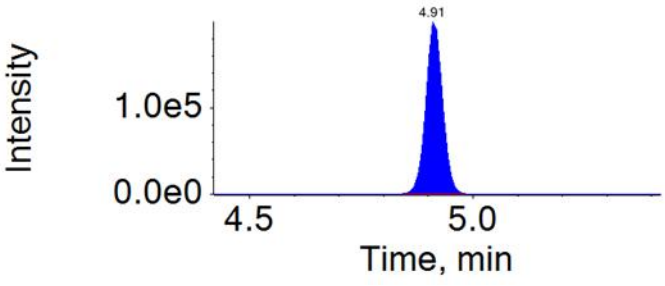
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

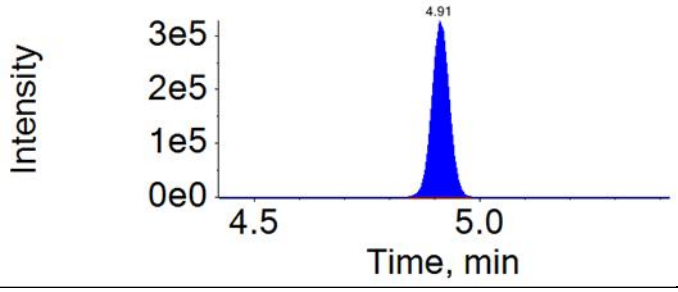
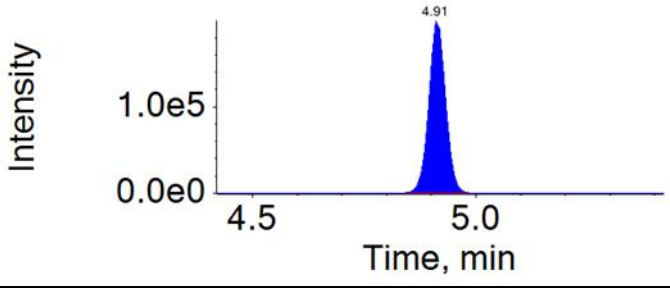
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

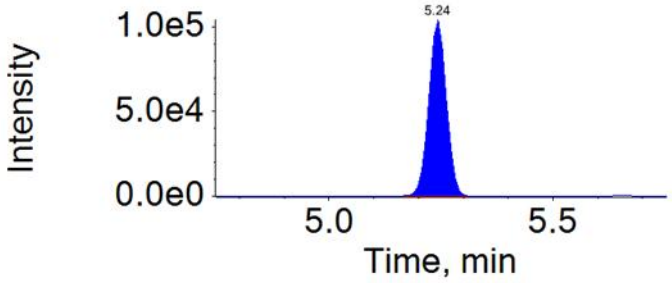
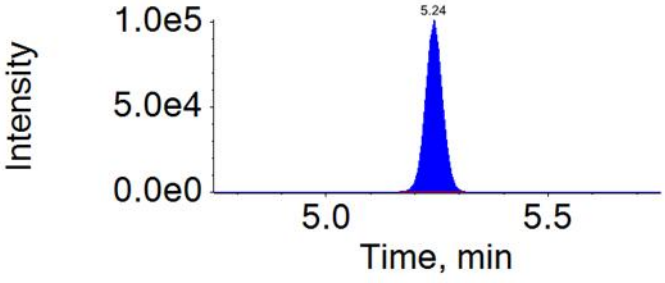
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

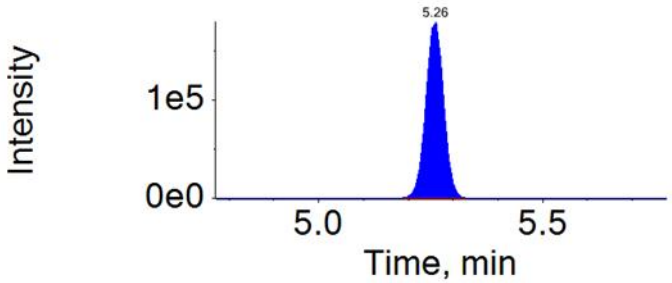
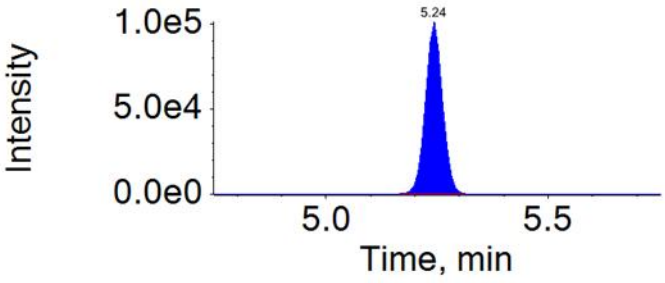
APPROVED
By JPT at 10:23 am, 11/13/18

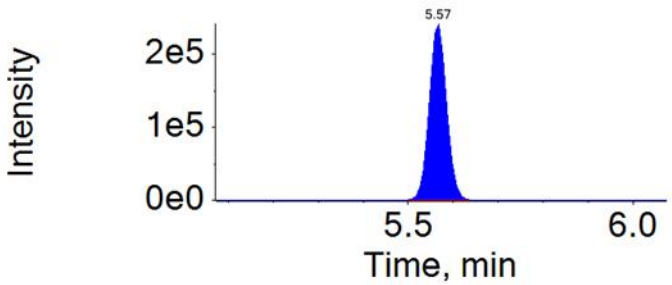
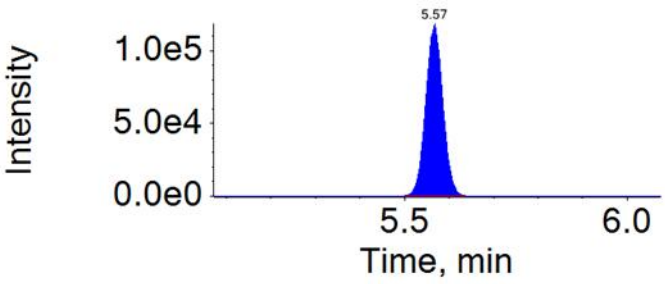
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

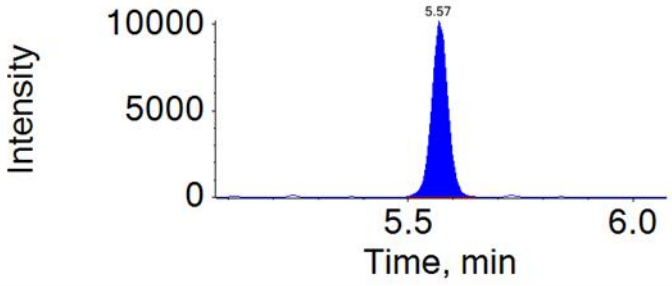
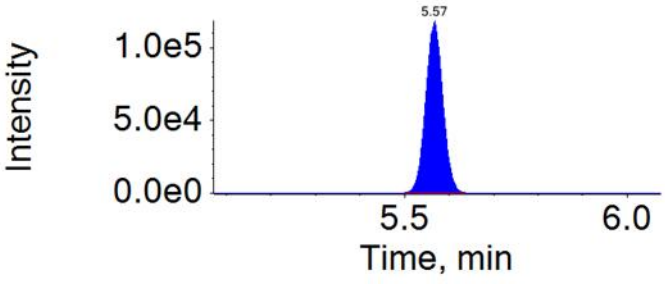
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

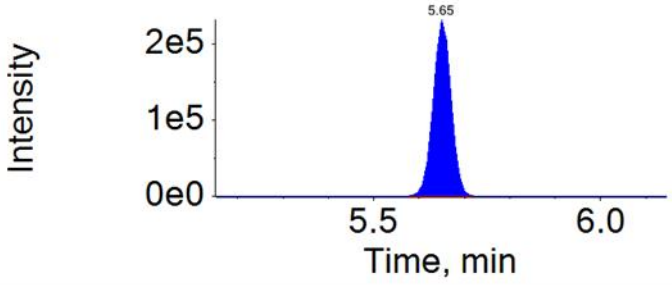
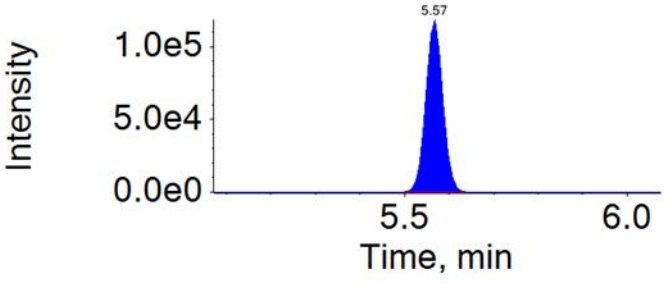
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

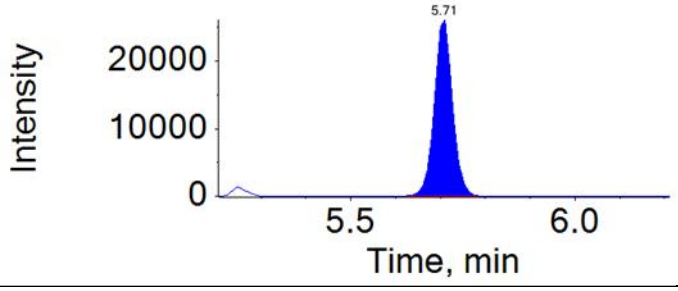
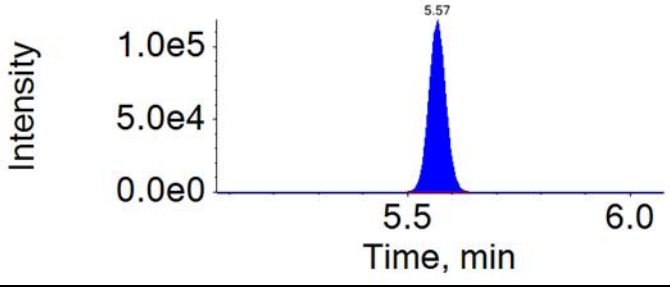
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

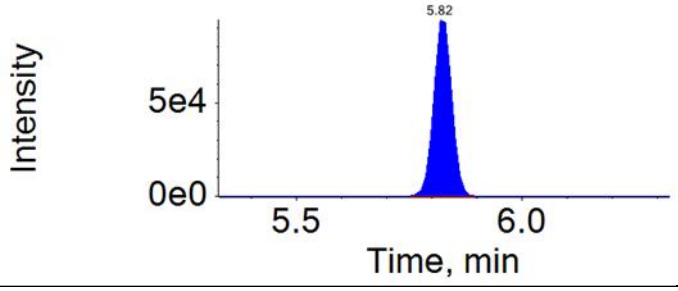
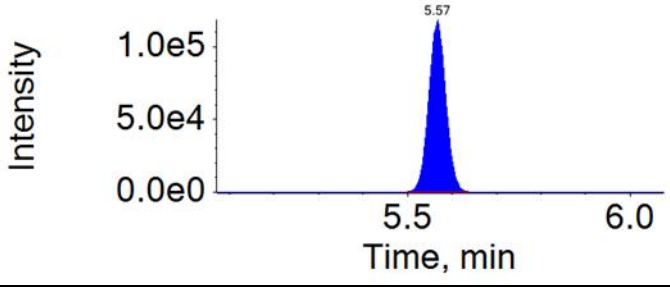
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

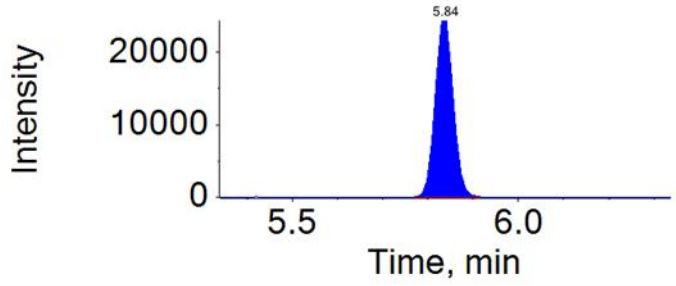
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

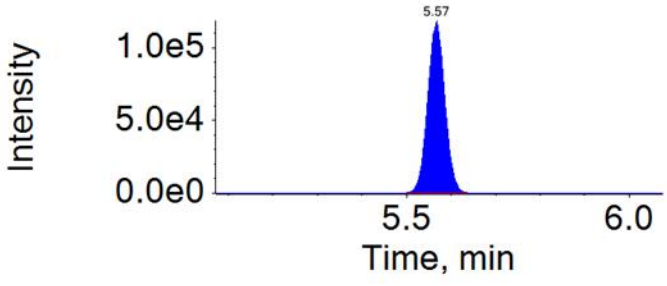
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

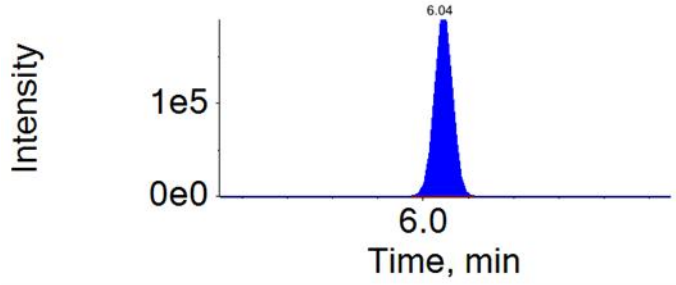
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

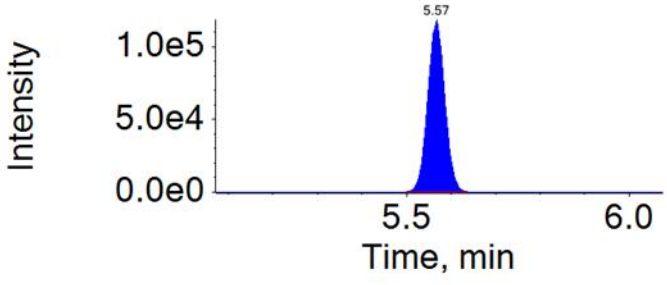
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



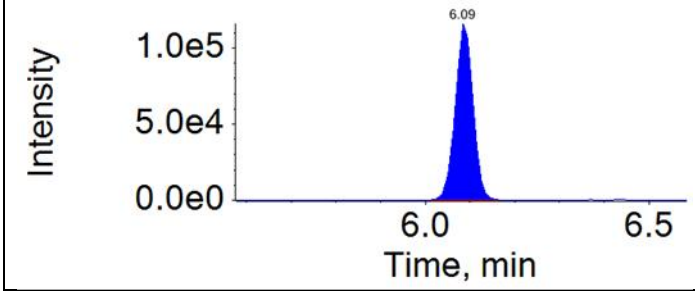


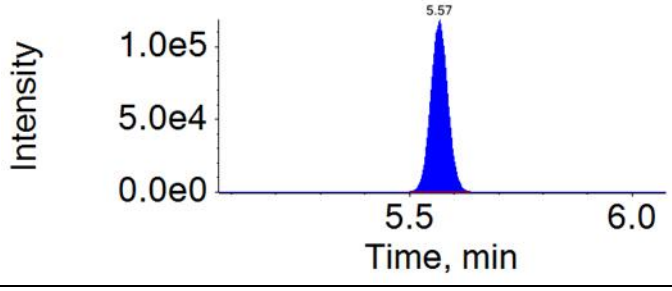
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



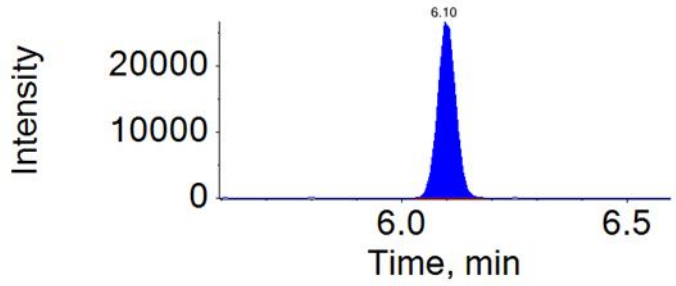


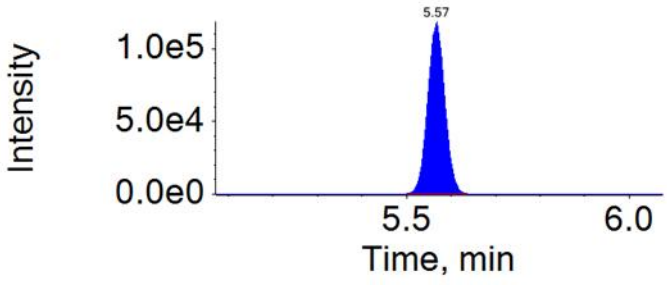
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



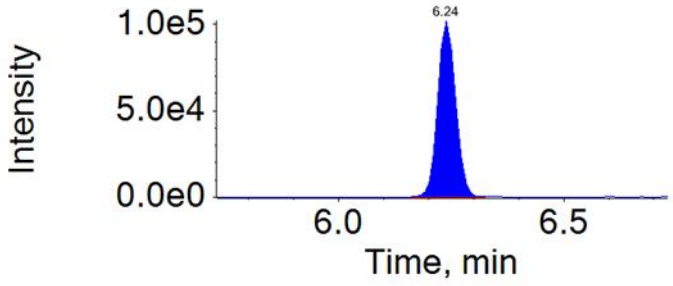


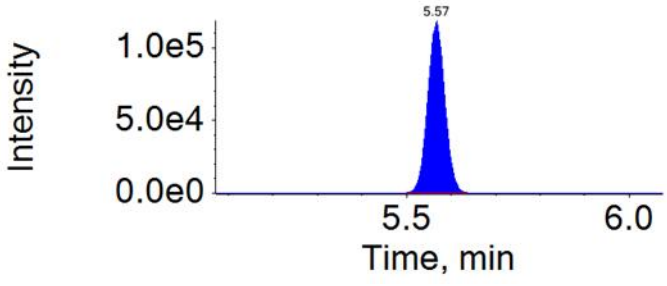
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

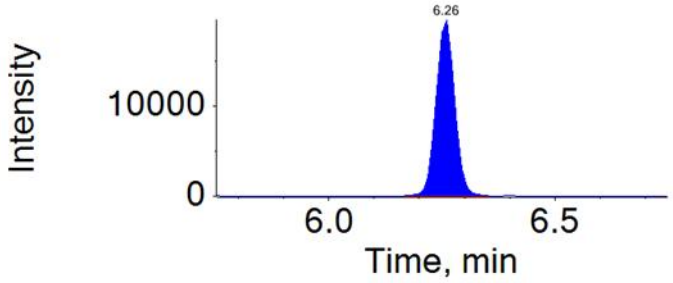
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

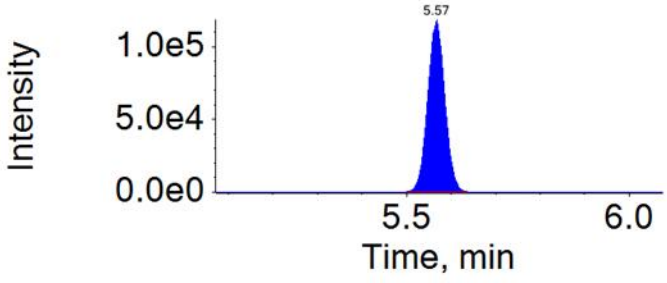
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



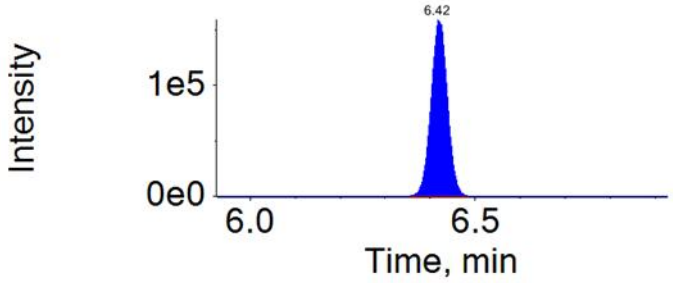


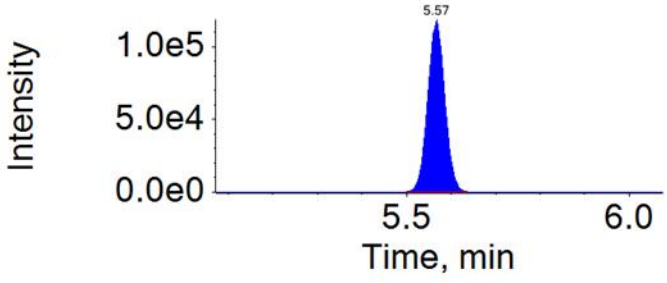
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



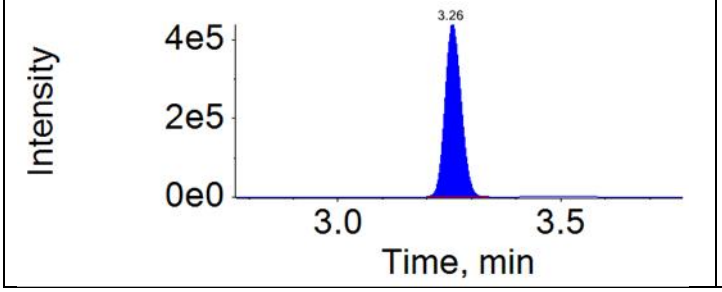


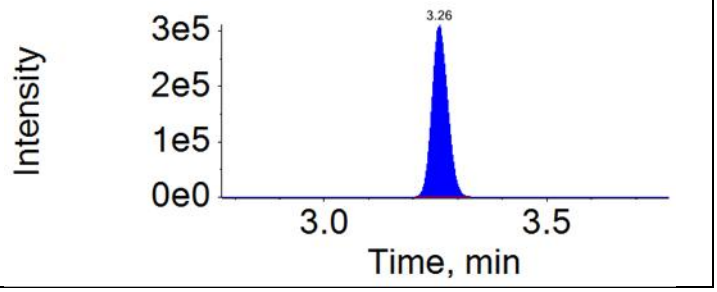
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

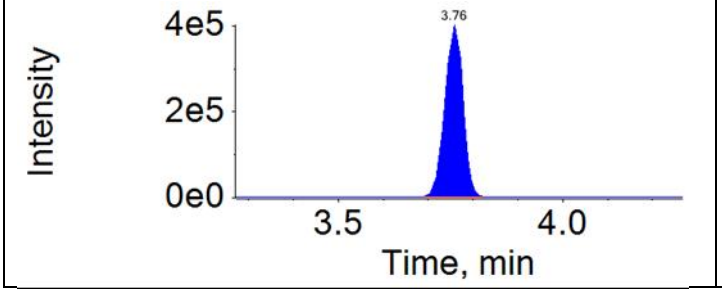
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

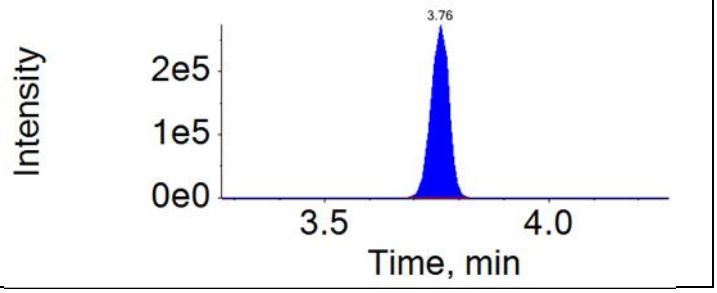
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



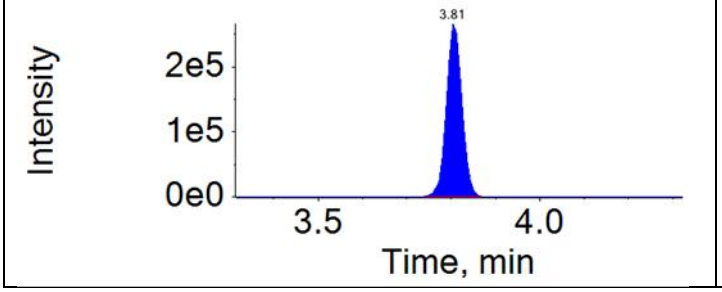


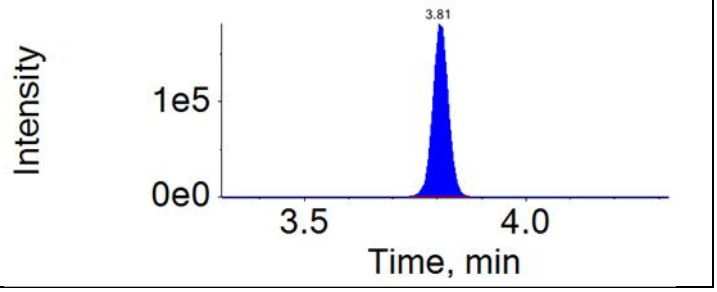
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



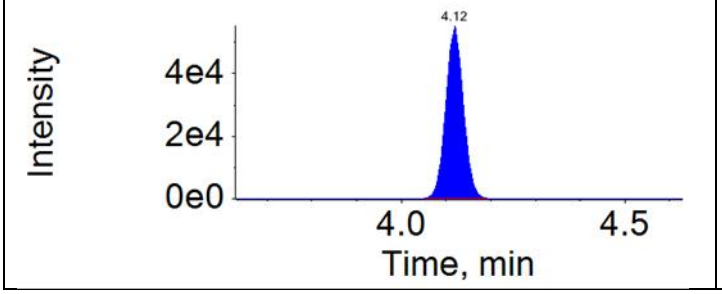


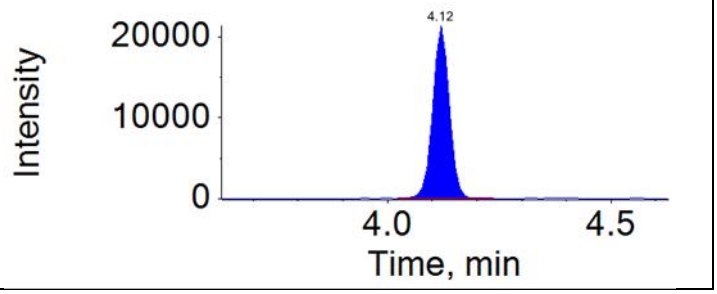
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



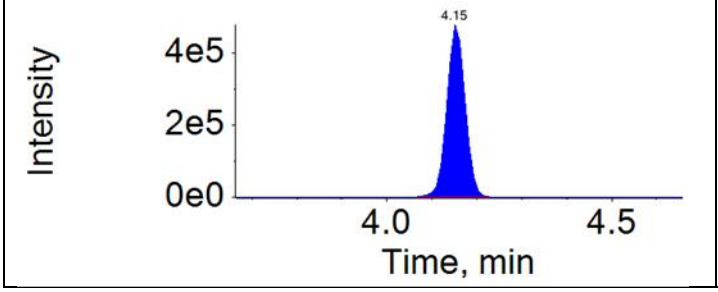


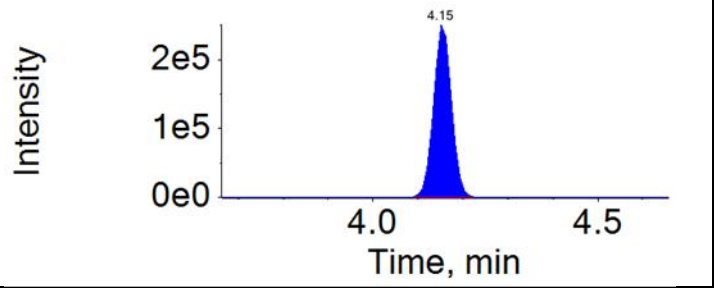
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

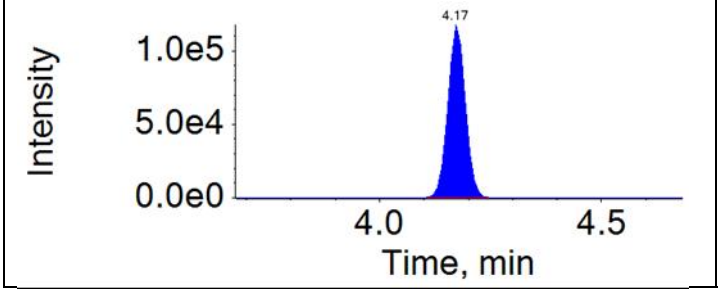
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

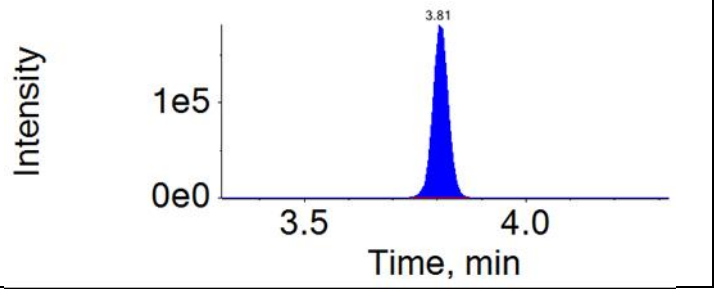
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



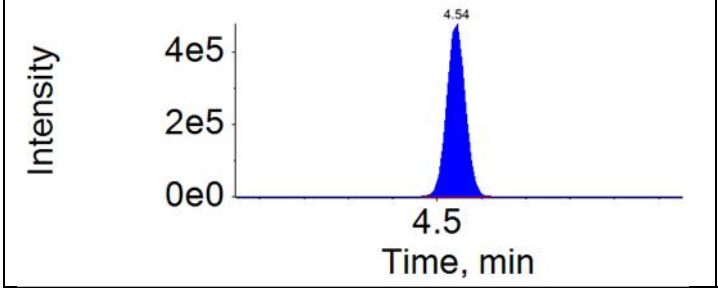


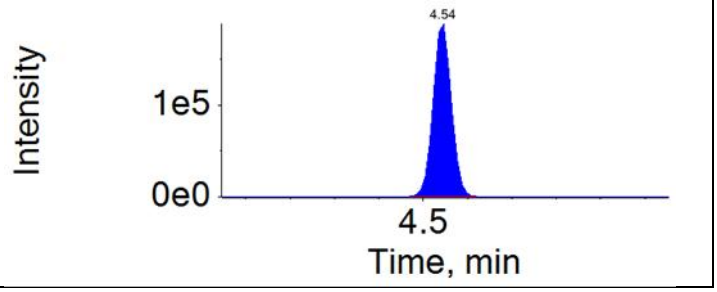
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



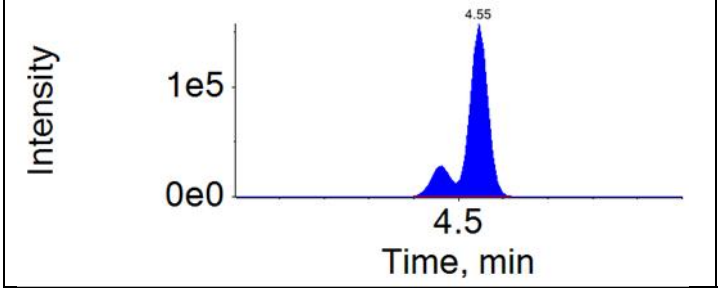


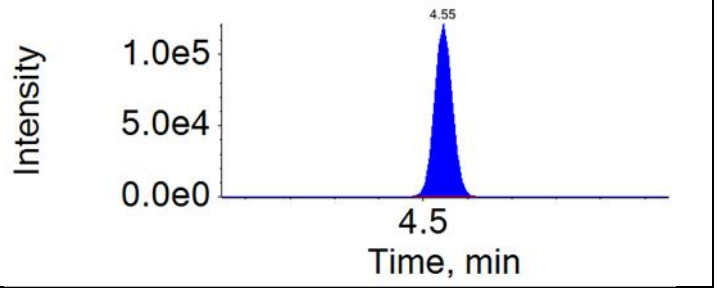
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



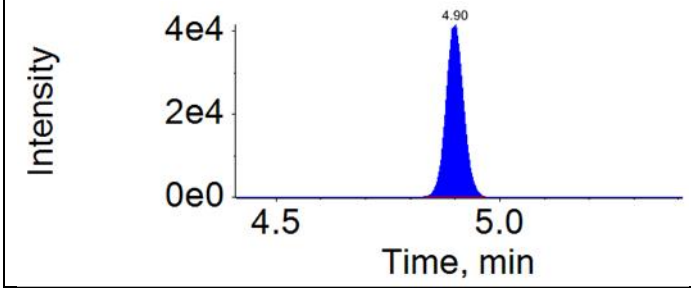


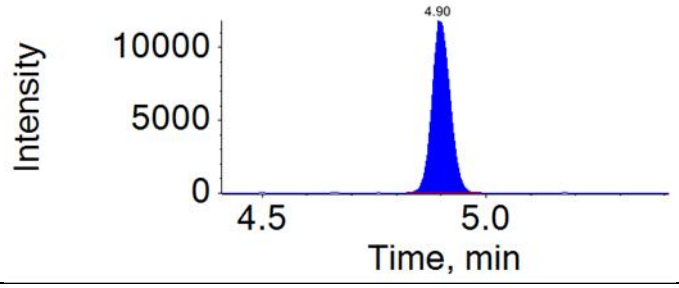
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

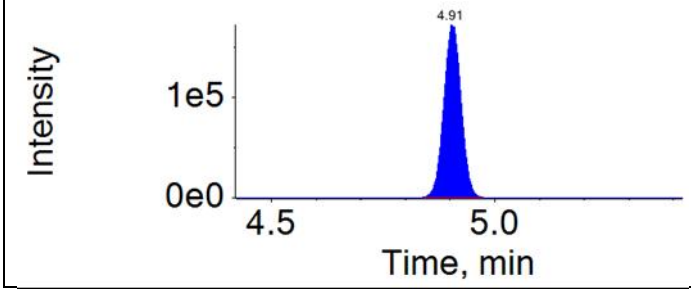
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

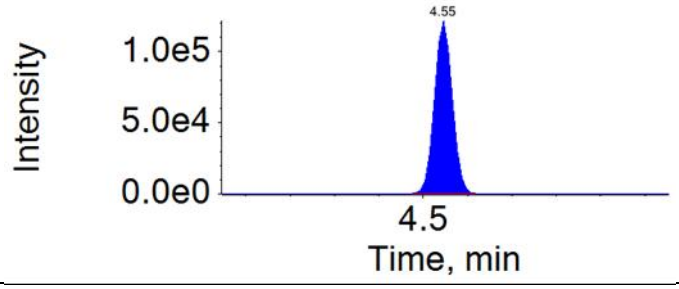
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



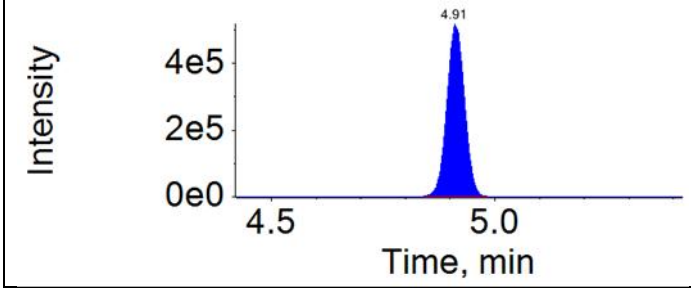


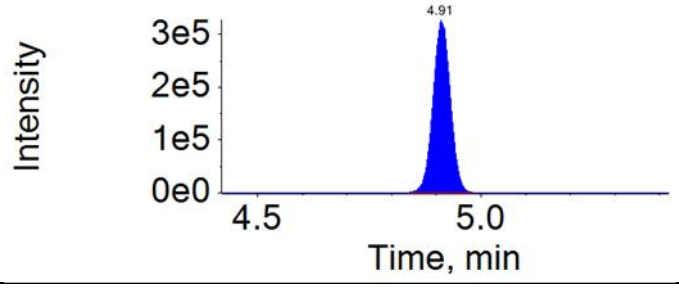
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



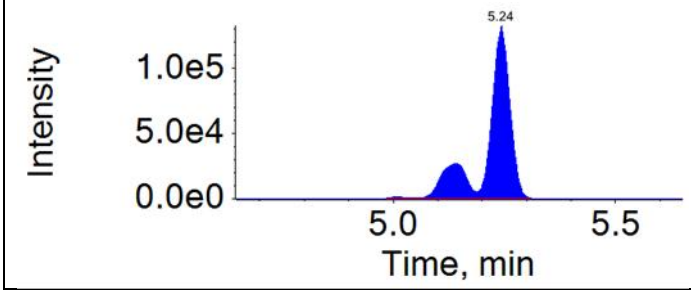


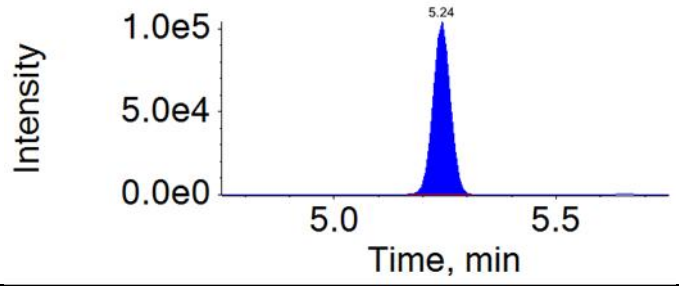
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



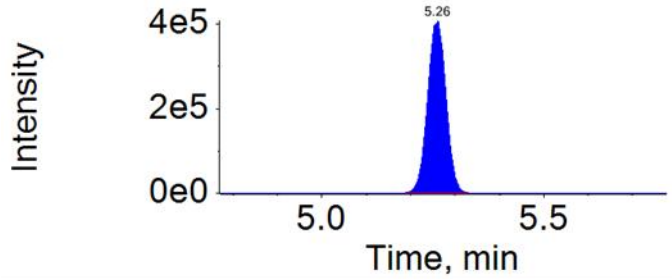


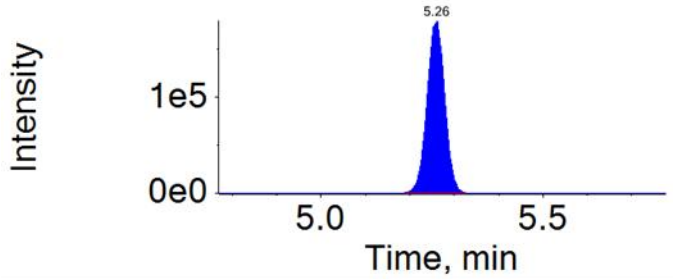
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

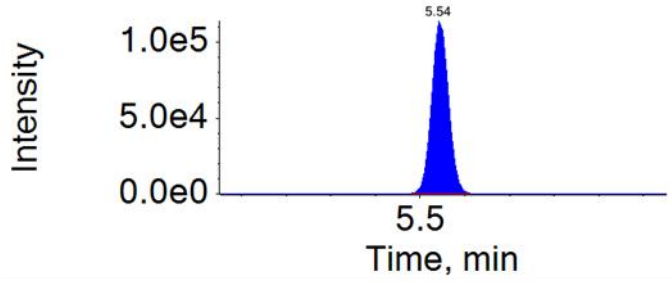
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

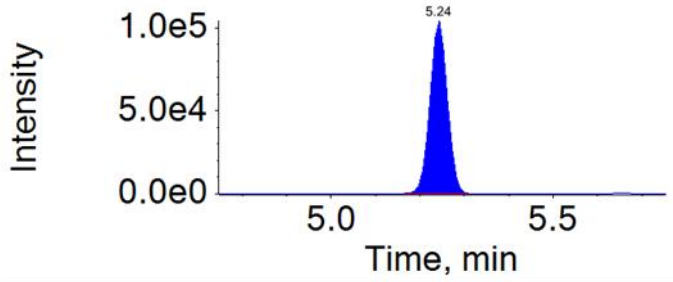
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



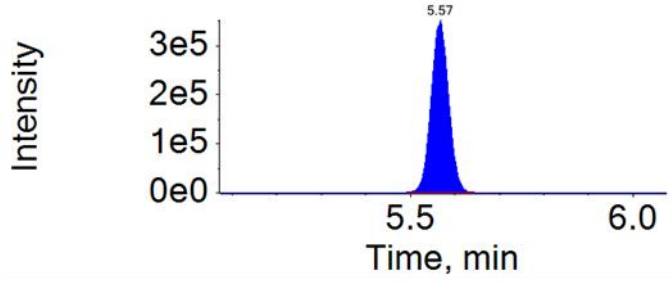


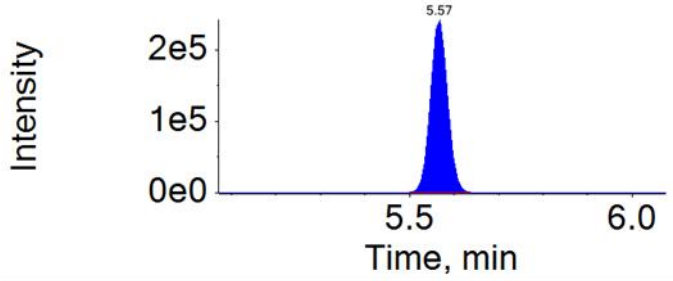
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



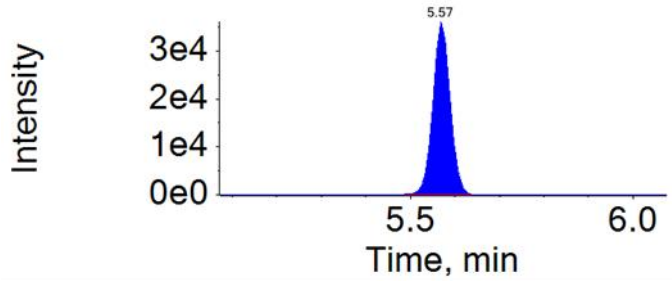


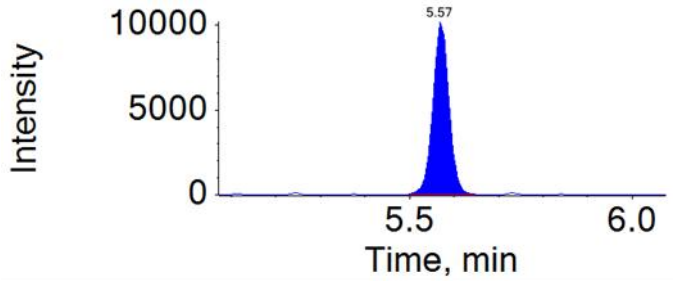
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



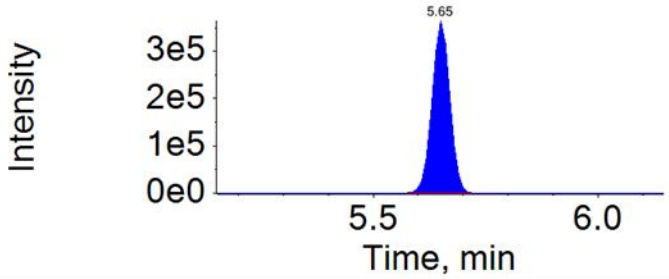


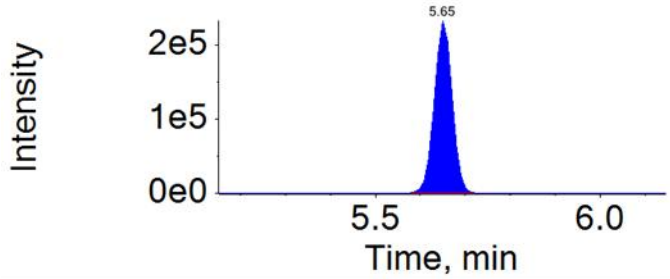
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

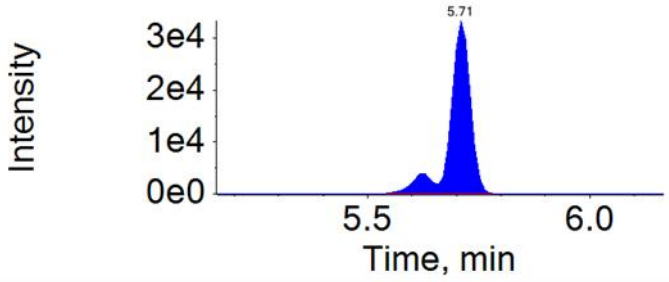
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

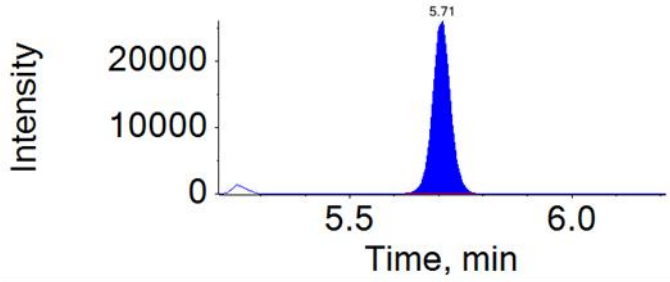
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



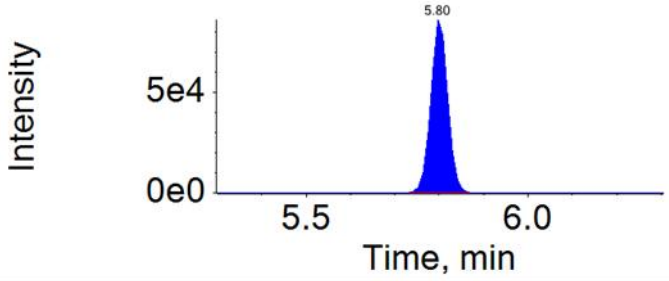


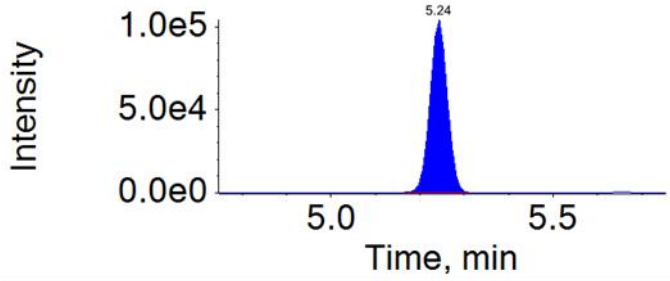
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



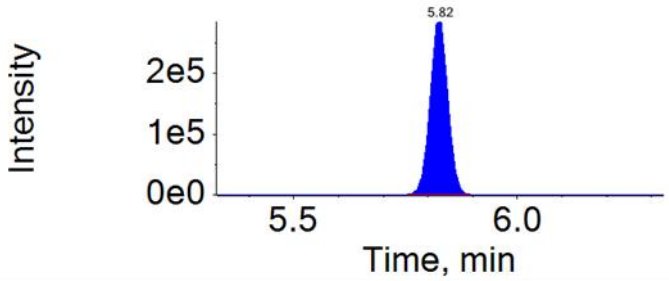


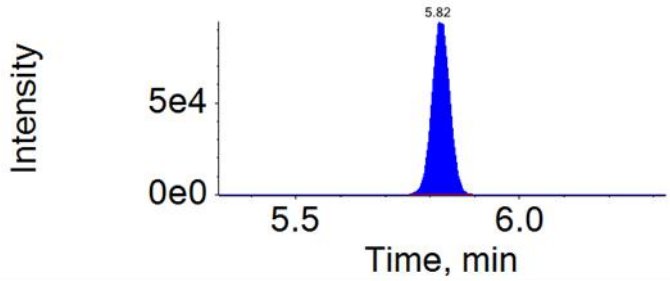
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



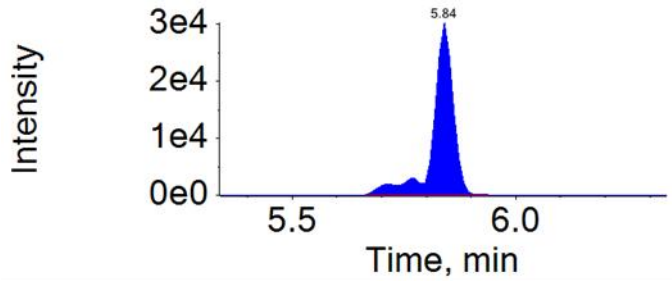


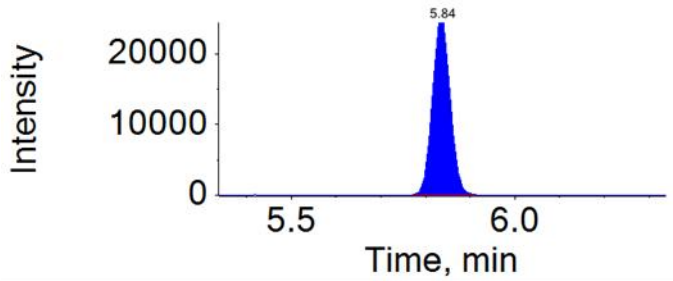
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

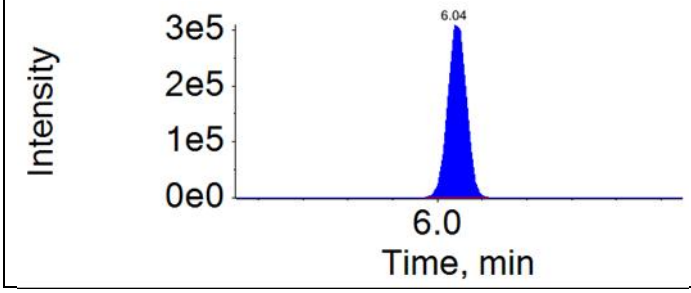
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

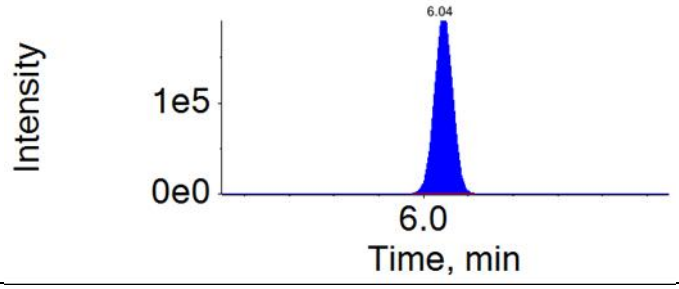
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



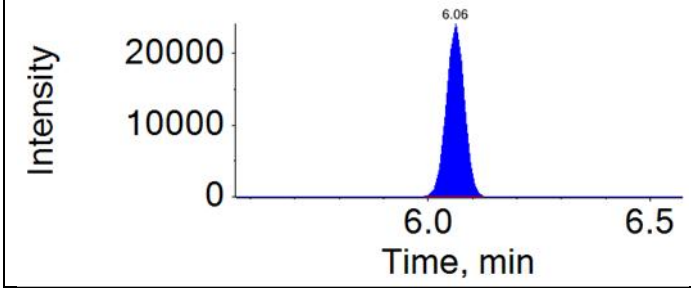


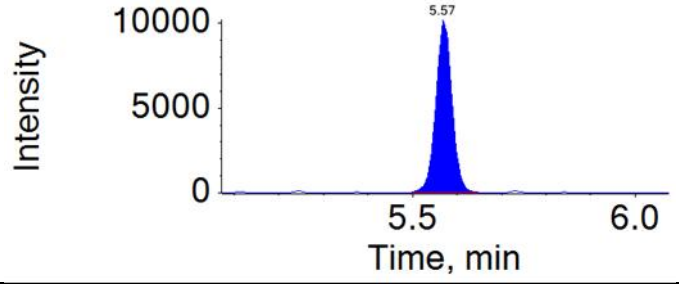
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



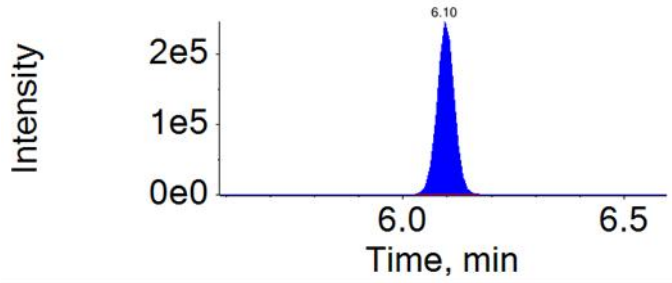


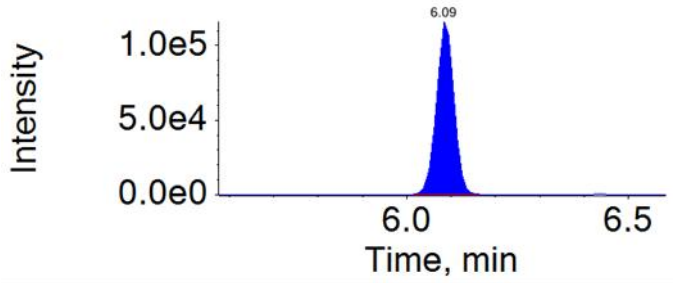
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





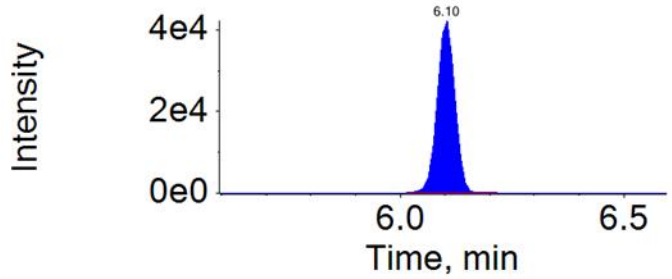
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

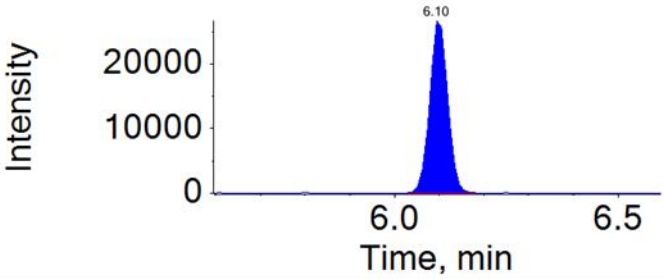




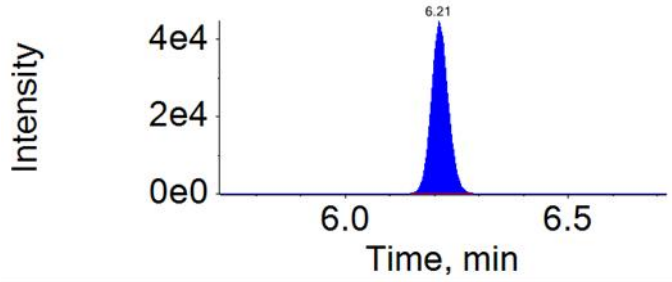
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

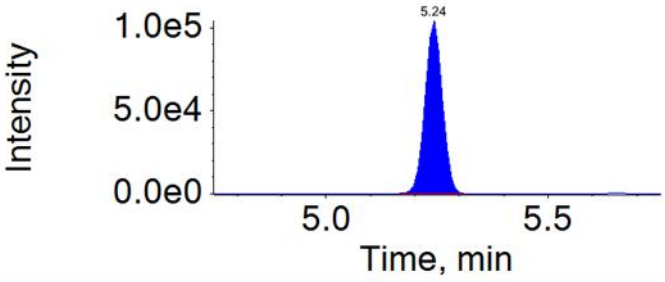
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



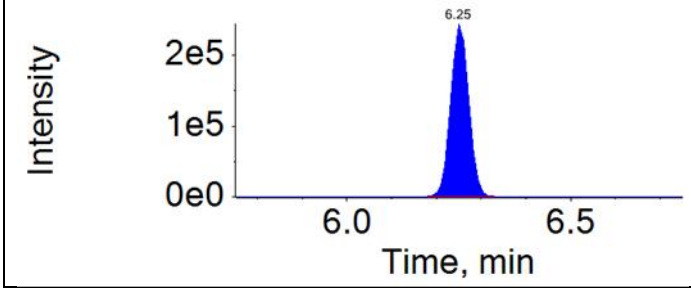


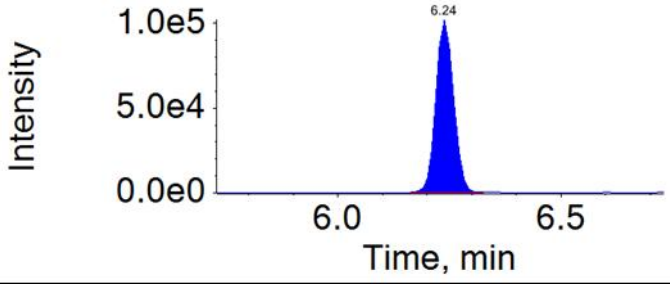
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



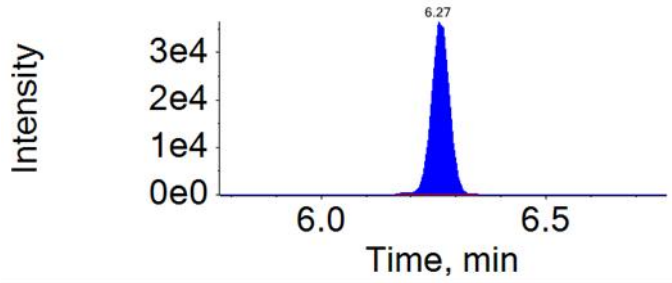


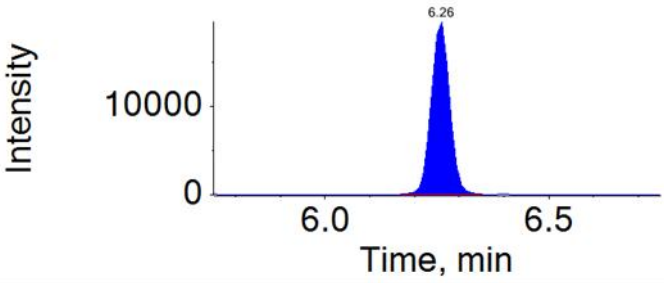
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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

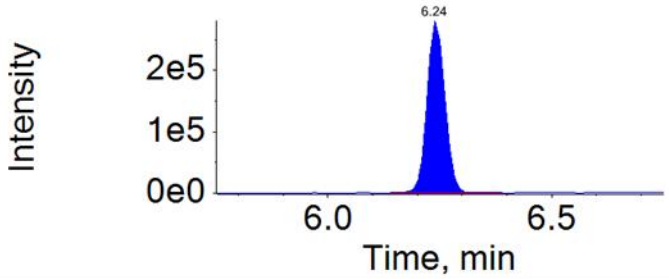
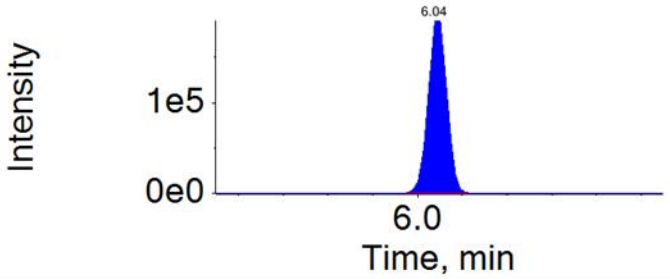


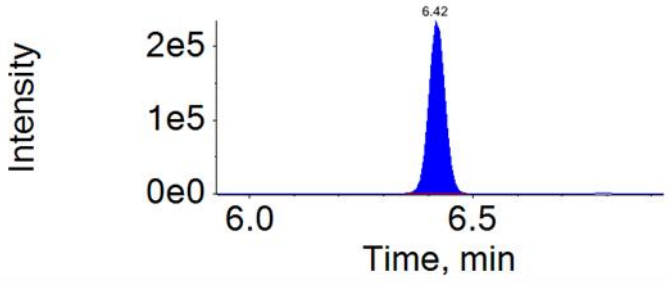
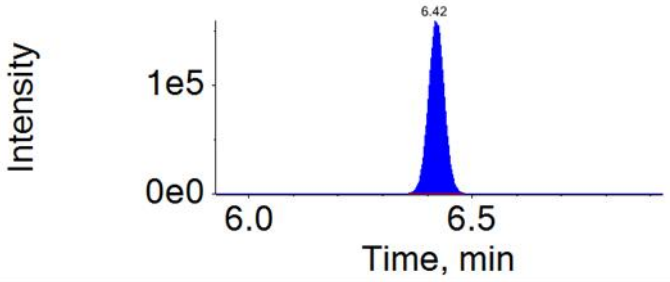


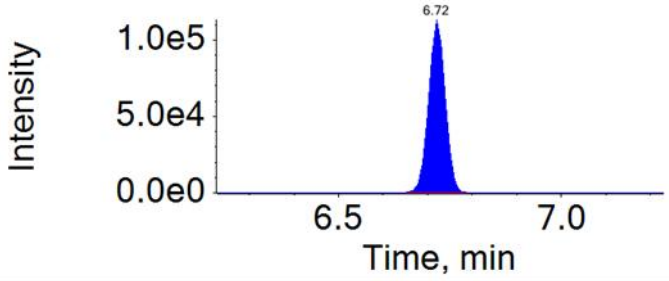
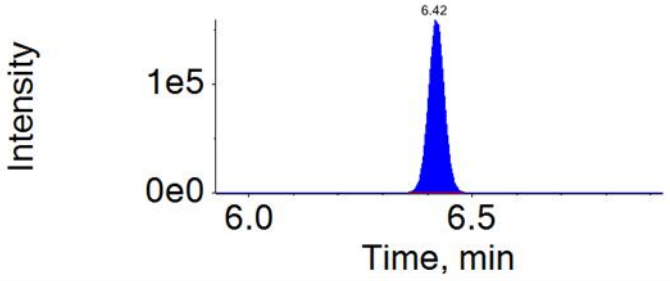
APPROVED
By JPT at 10:23 am, 11/13/18

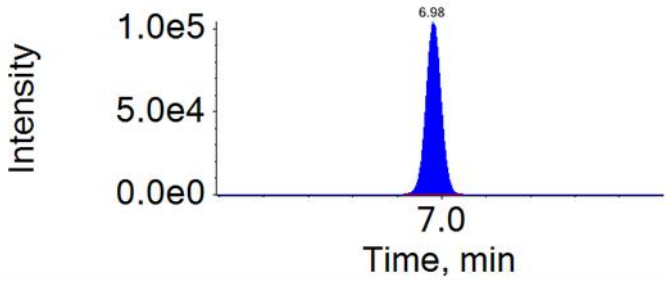
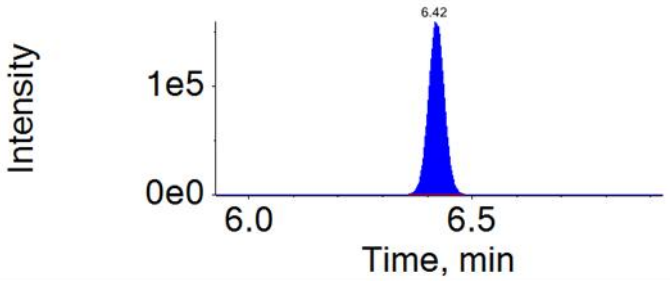
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

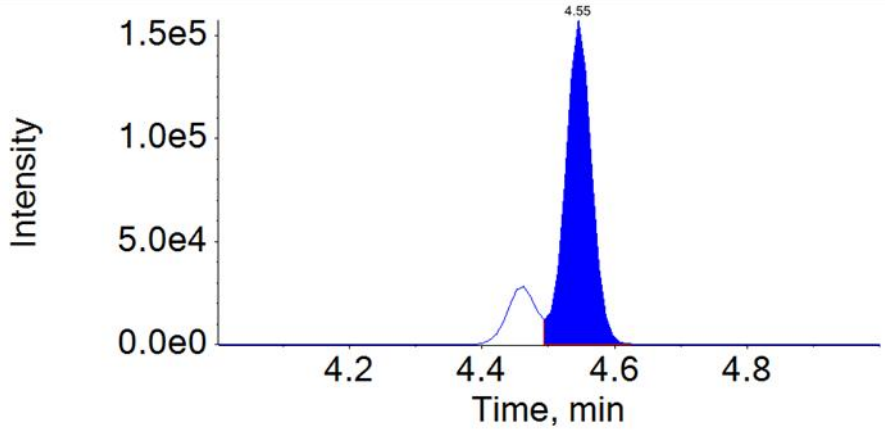
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

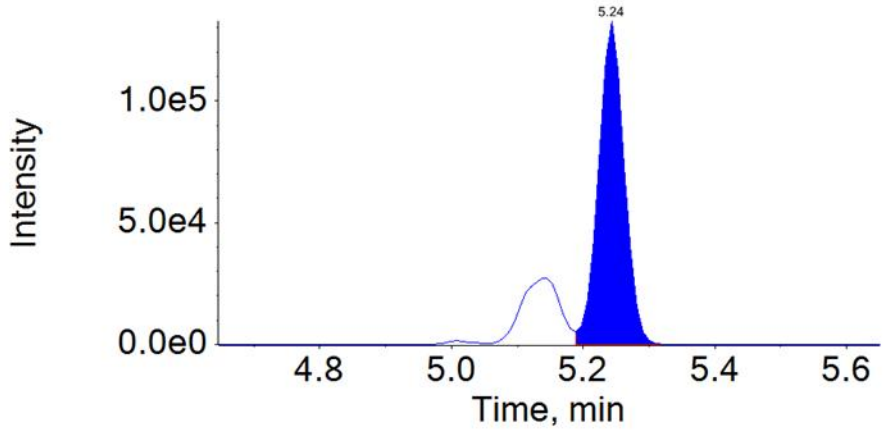
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
432351.5
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



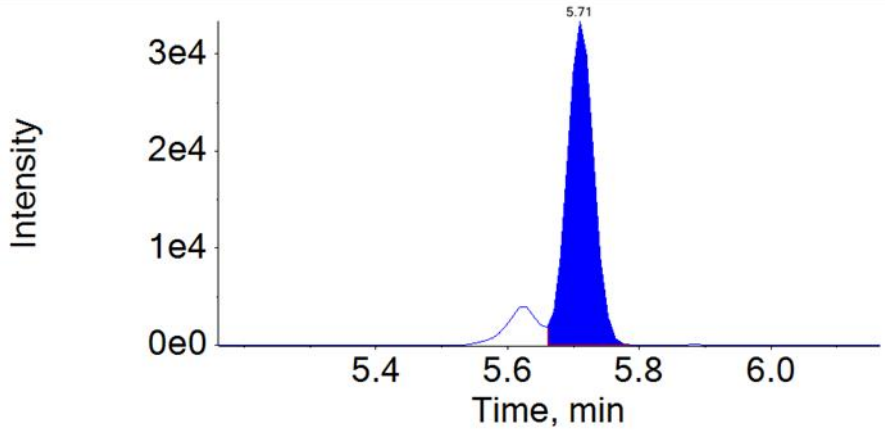
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
361424.2
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
94532.6
Mass Range:
570.0 / 419.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



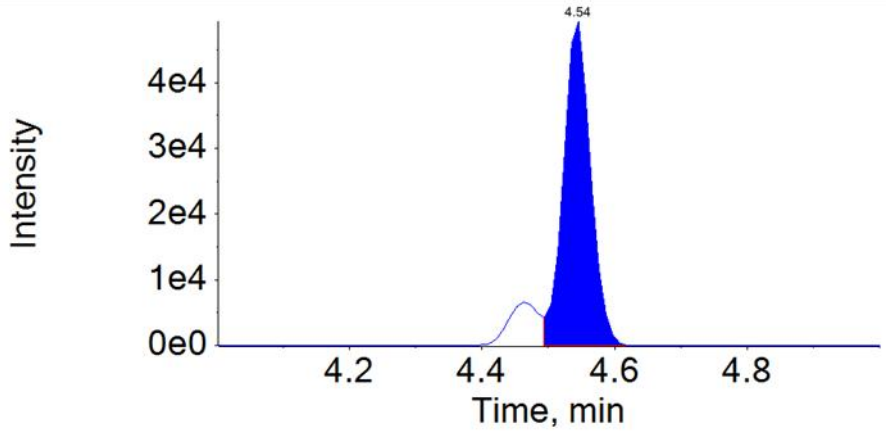
Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

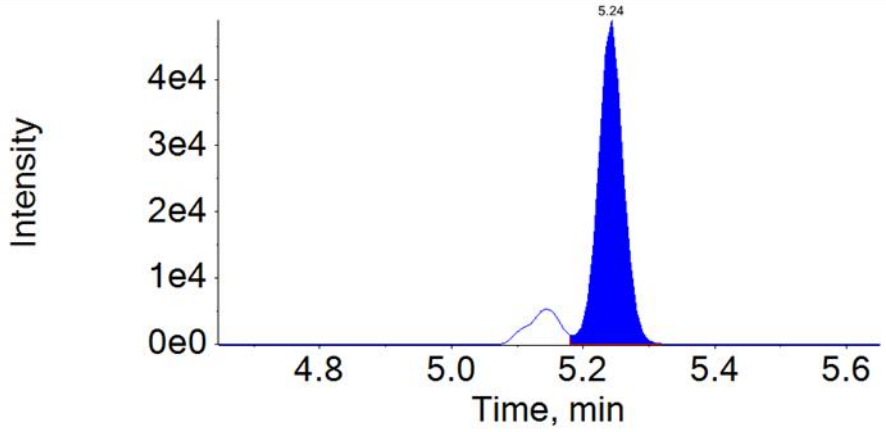
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
141111.7
Mass Range:
399.0 / 99.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



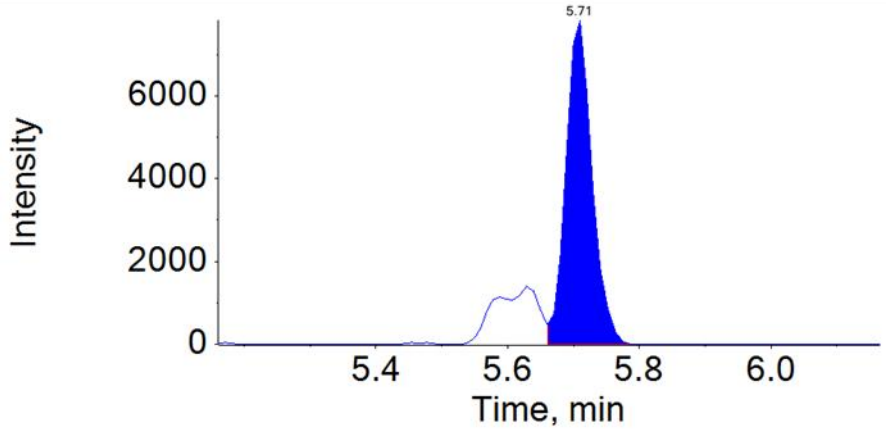
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
129888.3
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
21702.3
Mass Range:
570.0 / 483.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



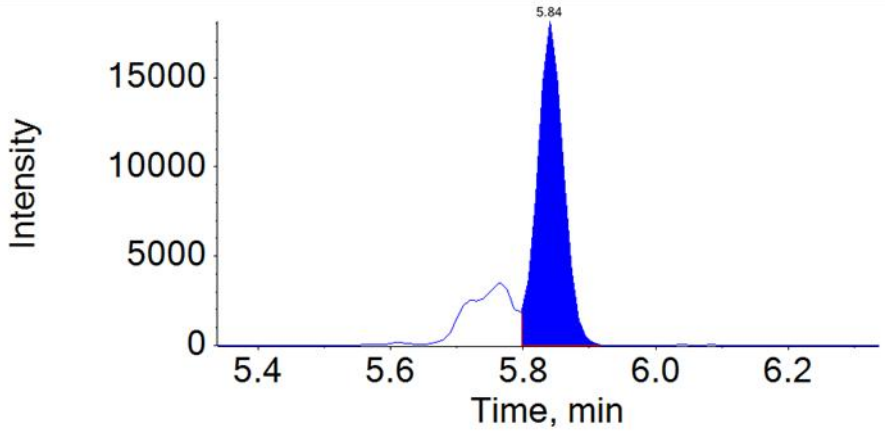
Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
49487.3
Mass Range:
584.0 / 526.0
File Name:
18NOV12D-58.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

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

Ion Ratio Report

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV12D-58.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	650121.6	A	N/A	1.0000			
PFBS_2	3.81	1.00	243270.4	A	N/A	0.3742	3	50	
4:2-FTS	4.12	1.00	150233.4	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	86381.2	A	N/A	0.5750		#NA!	
PFHxA	4.15	1.00	1348987.8	A	N/A	1.0000			
PFHxA_2	4.15	1.00	15975.5	A	N/A	0.0118	1	50	
PFPeS	4.17	1.10	319026.2	A	N/A	1.0000			
PFPeS_2	4.17	1.10	173011.5	A	N/A	0.5423	4	50	
PFHpA	4.54	1.00	1384443.9	A	N/A	1.0000			
PFHpA_2	4.54	1.00	75585.8	A	N/A	0.0546	-3	50	
PFHxS	4.55	1.00	517754.3	M	N/A	1.0000			
PFHxS_2	4.54	1.00	162008.9	M	N/A	0.3129	-9	50	
6:2-FTS	4.90	1.00	113664.7	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	72576.8	A	N/A	0.6385		#NA!	
PFHpS	4.91	1.08	467674.4	A	N/A	1.0000			
PFHpS_2	4.90	1.08	189233.9	A	N/A	0.4046	0	50	
PFOA	4.91	1.00	1421585.9	A	N/A	1.0000			
PFOA_2	4.91	1.00	80586.2	A	N/A	0.0567	0	50	
PFOS	5.24	1.00	478066.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	148120.8	M	N/A	0.3098	4	50	
PFNA	5.26	1.00	1179828.0	A	N/A	1.0000			
PFNA_2	5.26	1.00	21195.4	A	N/A	0.0180	-21	50	
PFNS	5.54	1.06	300128.1	A	N/A	1.0000			
PFNS_2	5.54	1.06	138703.3	A	N/A	0.4621	-3	50	
PFDA	5.57	1.00	961061.7	A	N/A	1.0000			
PFDA_2	5.57	1.00	6570.1	A	N/A	0.0068	-14	50	
8:2-FTS	5.57	1.00	96931.6	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	57612.2	A	N/A	0.5944		#NA!	
NMeFOSAA	5.71	1.00	108210.9	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	28218.3	M	N/A	0.2608	1	50	
PFDS	5.80	1.11	229123.3	A	N/A	1.0000			
PFDS_2	5.80	1.11	110030.8	A	N/A	0.4802	-6	50	
PFUnDA	5.82	1.00	804226.7	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	3771.3	A	N/A	0.0047	-15	50	
NEtFOSAA	5.84	1.00	95358.9	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	66089.1	M	N/A	0.6931	-4	50	
PFDoDA	6.04	1.00	903550.9	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	10723.7	A	N/A	0.0119	-23	50	
10:2-FTS	6.06	1.09	67615.6	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	44602.5	A	N/A	0.6596		#NA!	
PFTrDA	6.24	1.03	775027.4	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	7327.0	A	N/A	0.0095	11	50	
PFTeDA	6.42	1.00	594227.5	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	3706.9	A	N/A	0.0062	0	50	
PFHxDA	6.72	1.05	290625.8	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	17475.7	A	N/A	0.0601	-11	50	
PFODA	6.98	1.09	248289.9	A	N/A	1.0000			
PFODA_2	6.98	1.09	6003.1	A	N/A	0.0242	-12	50	

APPROVED
By JPT at 10:23 am, 11/13/18

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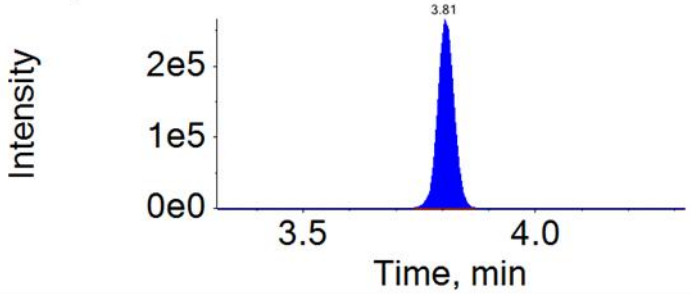
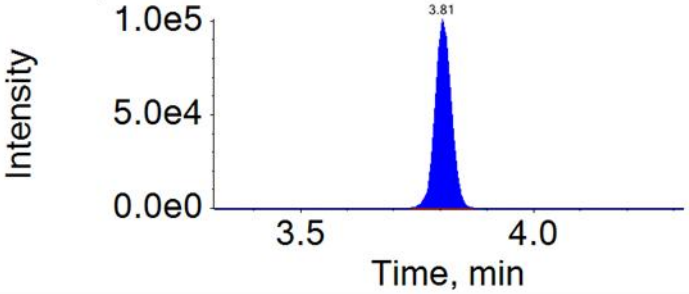
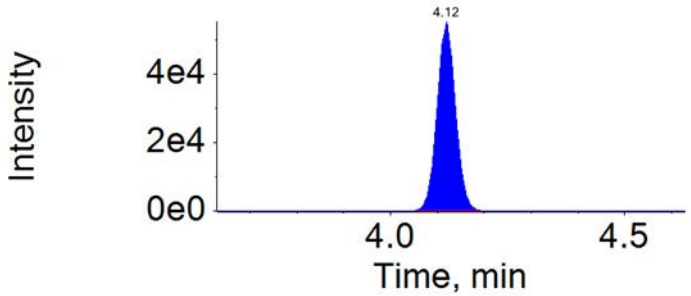
Component: PFBS
Primary Mass: 299.0 / 80.0



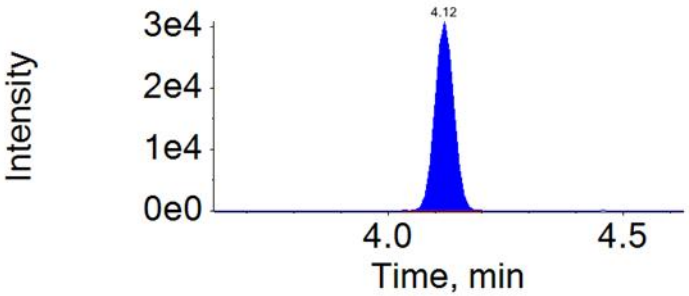
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



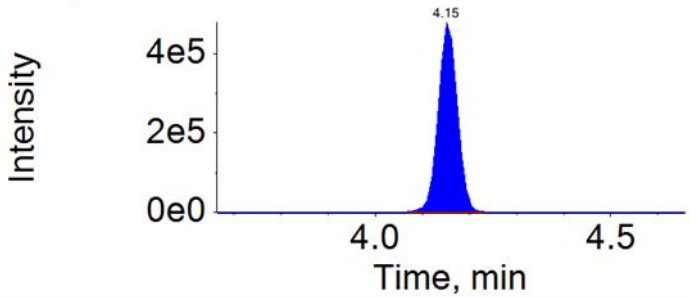
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



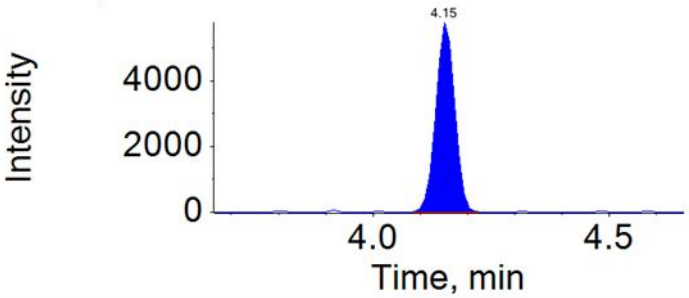
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



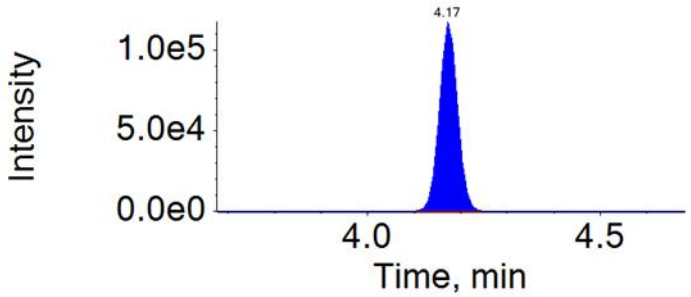
Component: PFHxA
Primary Mass: 313.0 / 269.0



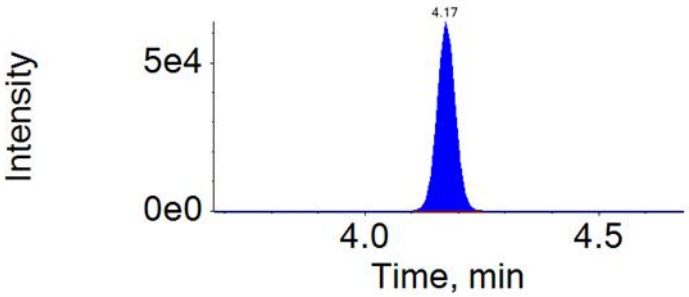
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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By JPT at 10:23 am, 11/13/18

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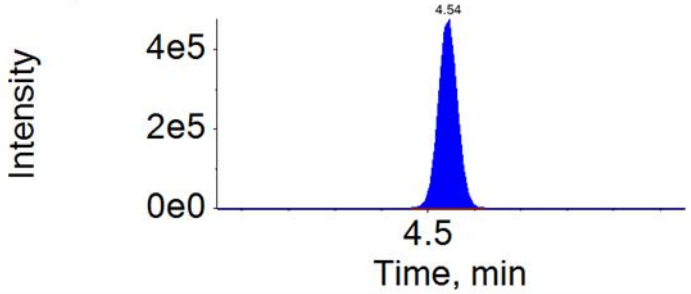
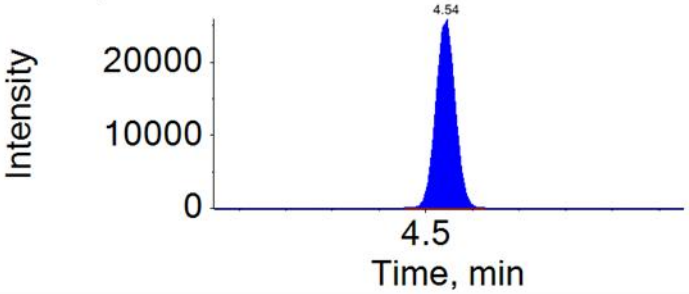
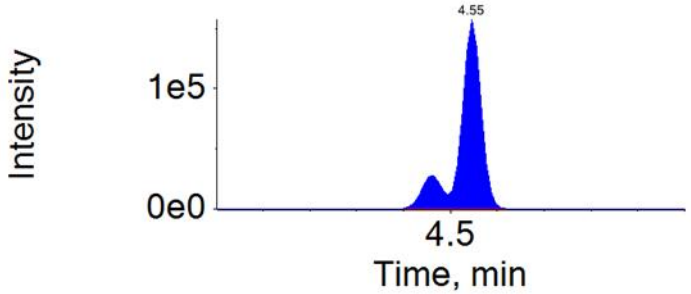
Component: PFHpA
Primary Mass: 363.0 / 319.0



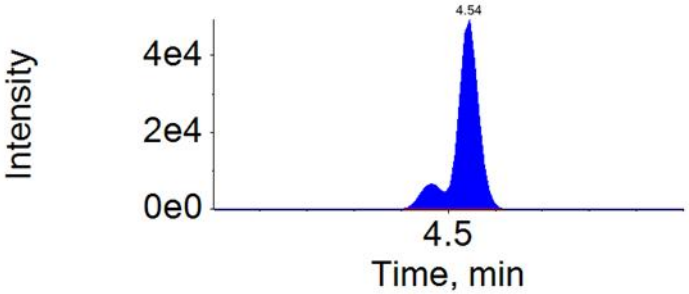
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



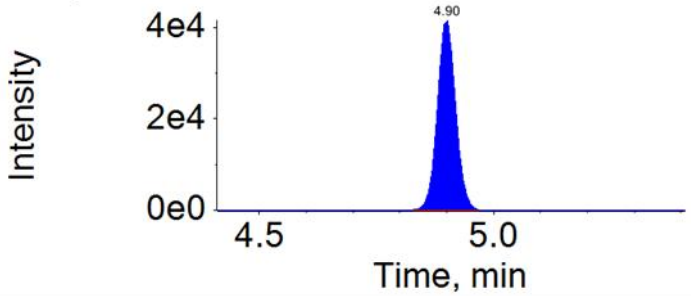
Component: PFHxS
Primary Mass: 399.0 / 80.0



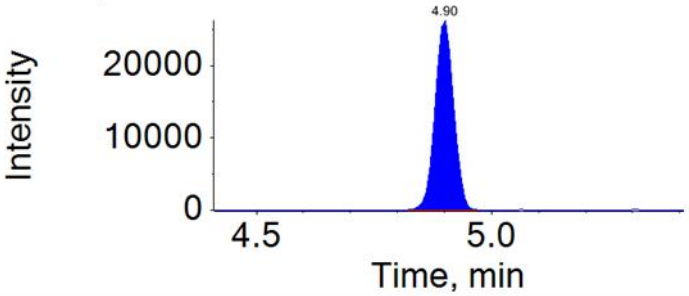
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



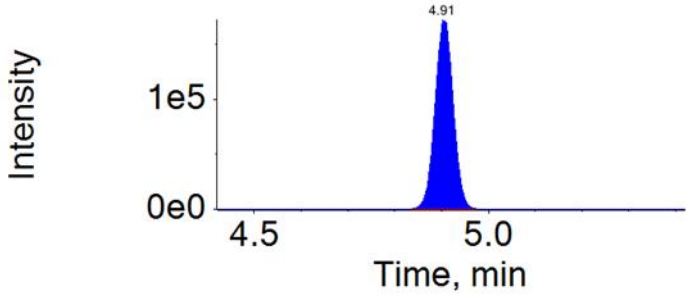
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



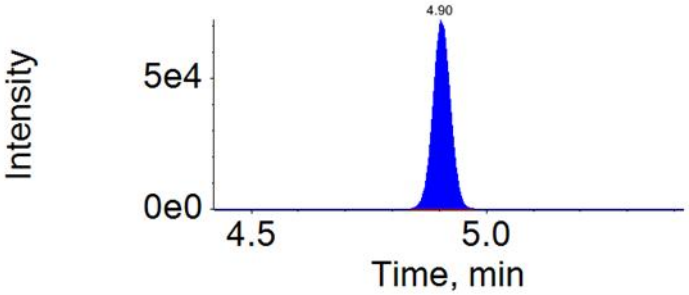
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By JPT at 10:23 am, 11/13/18

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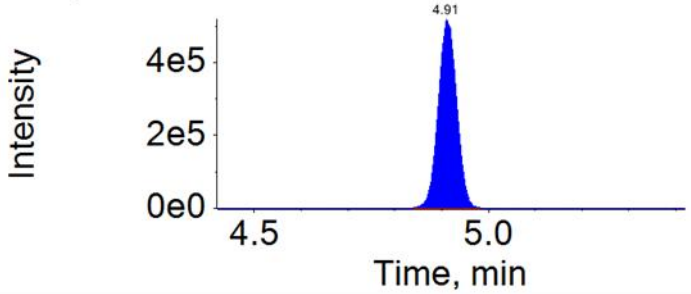
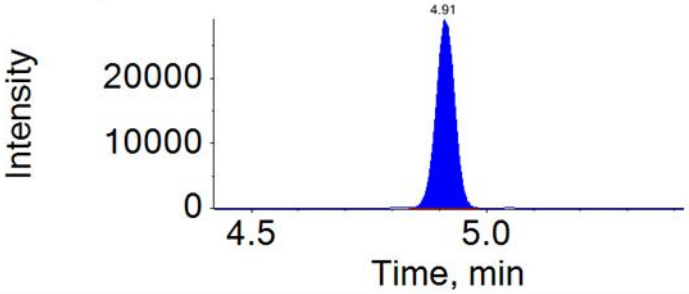
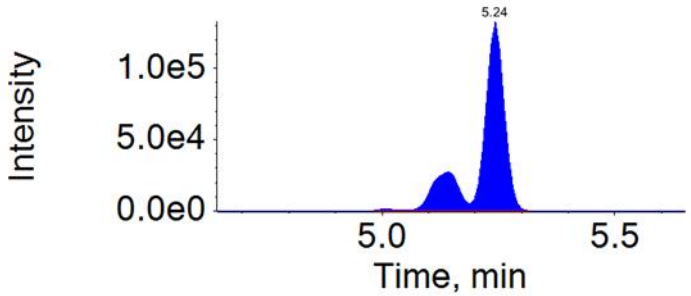
Component: PFOA
Primary Mass: 413.0 / 369.0



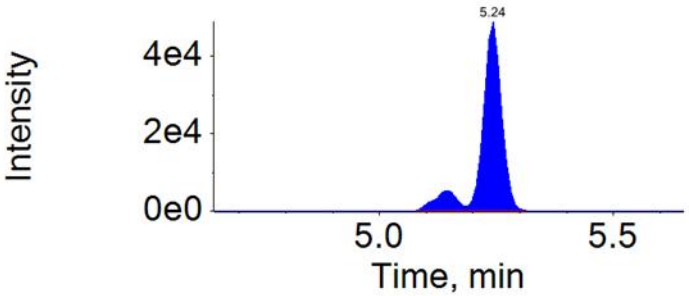
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



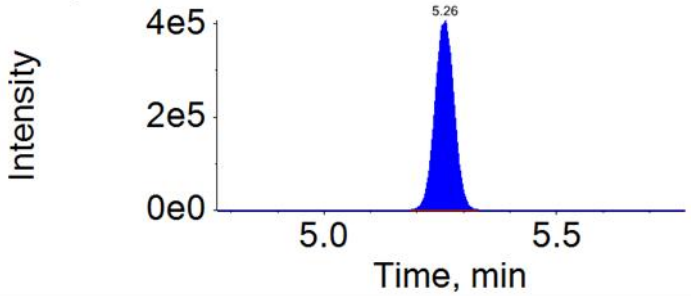
Component: PFOS
Primary Mass: 499.0 / 80.0



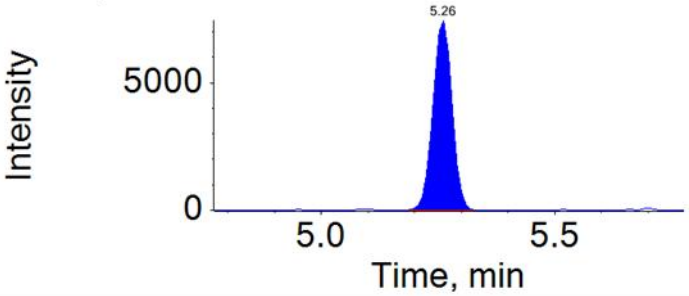
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



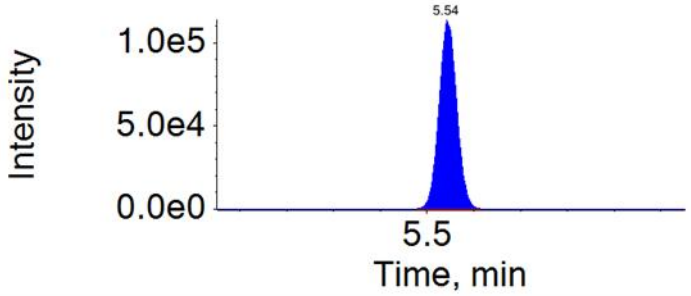
Component: PFNA
Primary Mass: 463.0 / 419.0



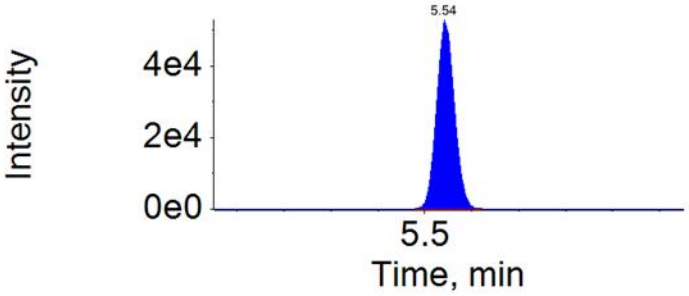
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



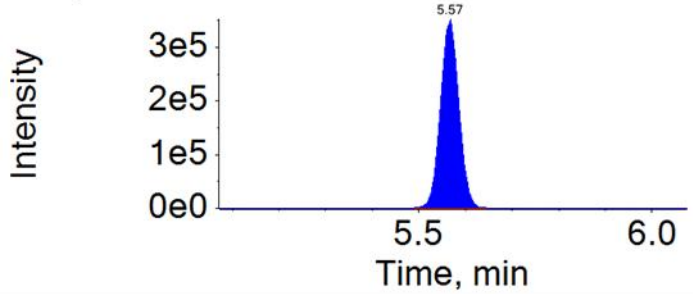
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



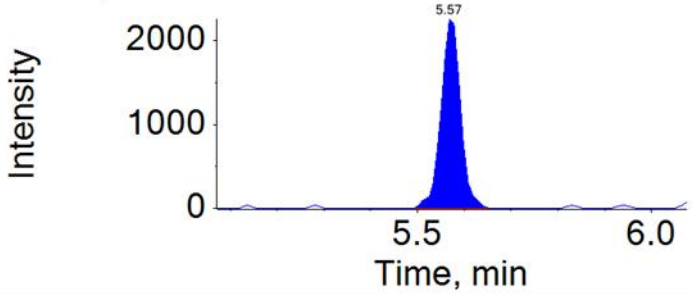
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

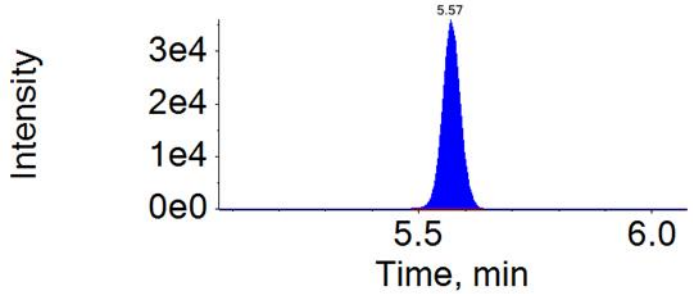
Component: PFDA
Primary Mass: 513.0 / 469.0



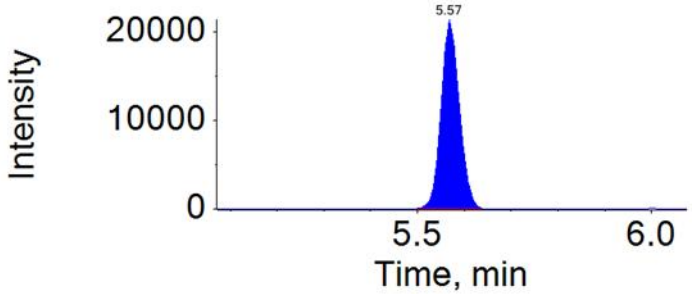
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



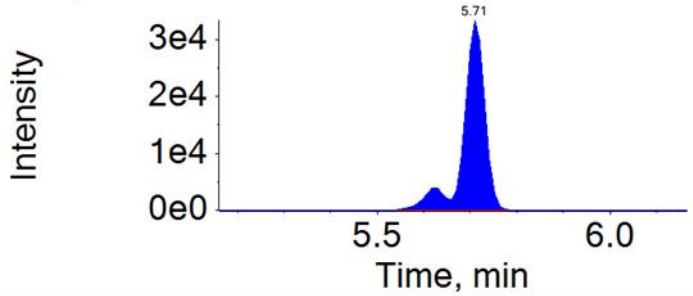
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



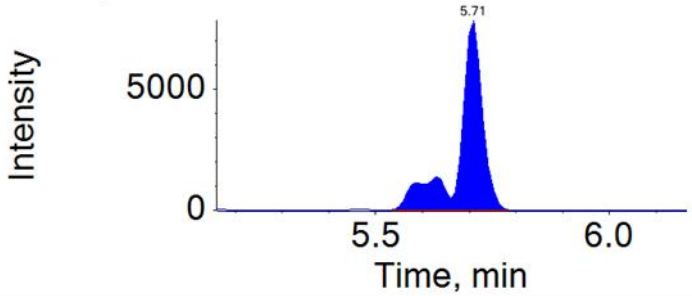
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



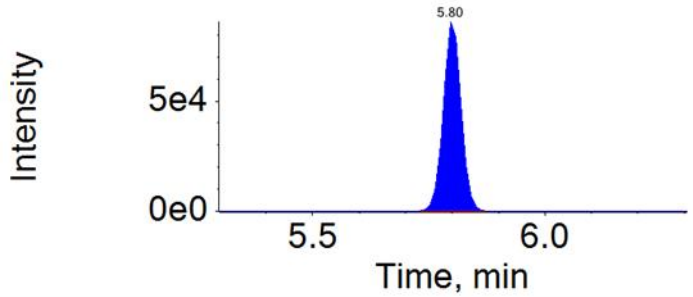
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



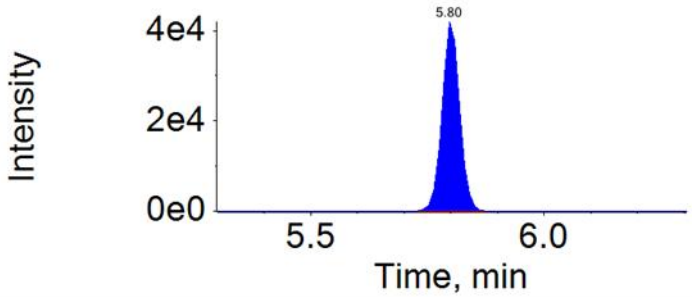
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



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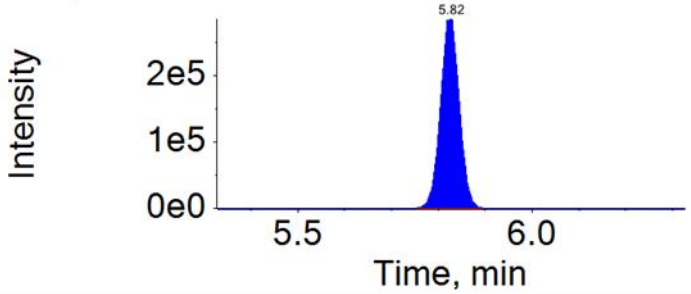
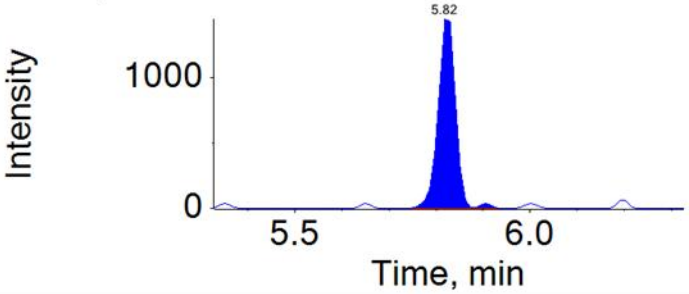
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

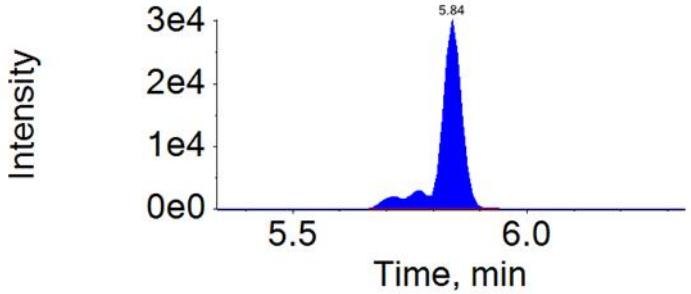
Component: PFUnDA
Primary Mass: 563.0 / 519.0



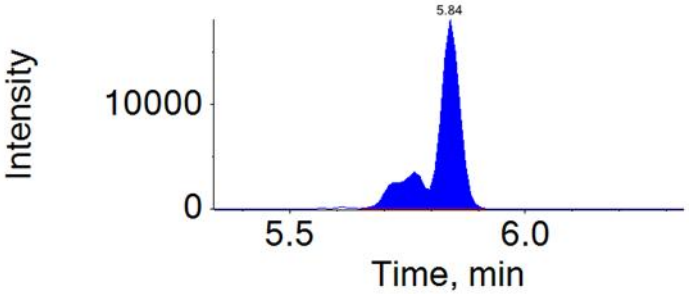
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



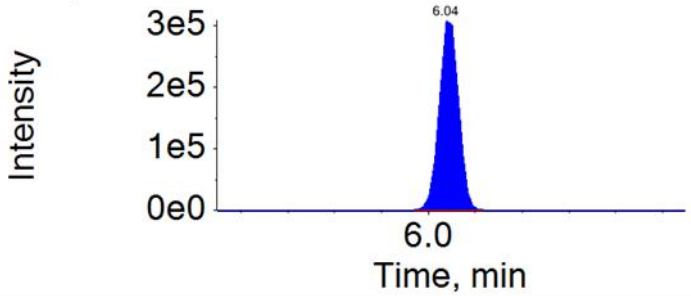
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



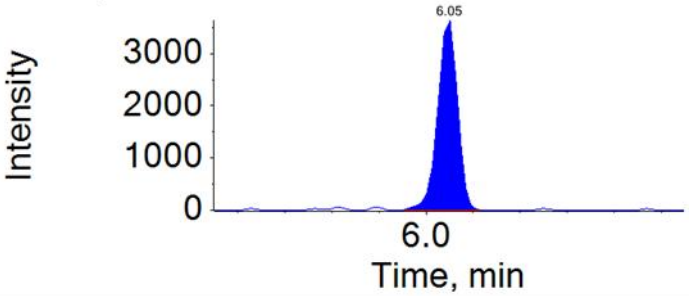
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



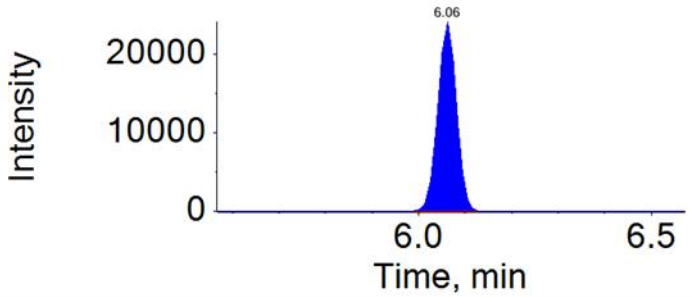
Component: PFDoDA
Primary Mass: 613.0 / 569.0



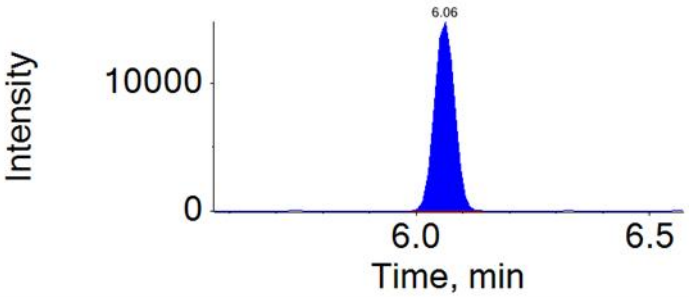
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



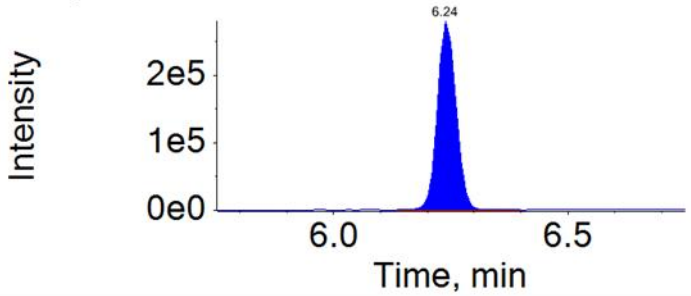
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



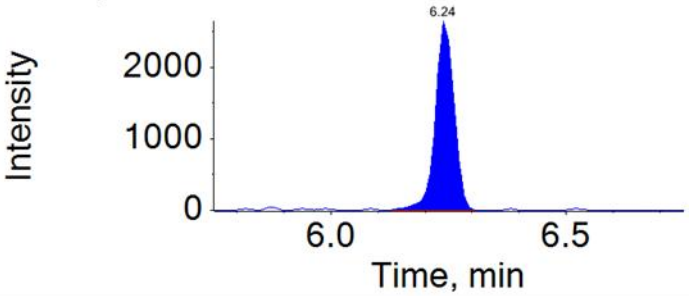
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

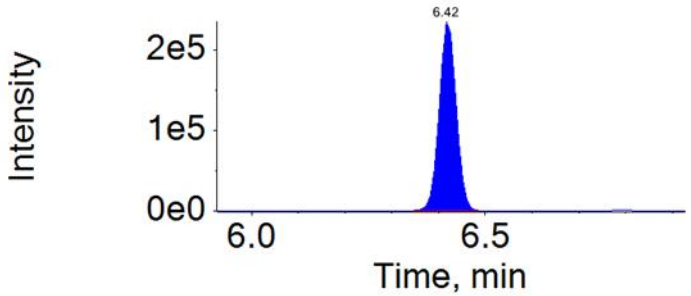
Component: PFTrDA
Primary Mass: 663.0 / 619.0



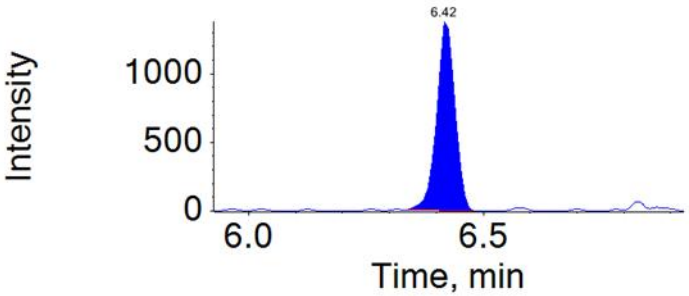
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



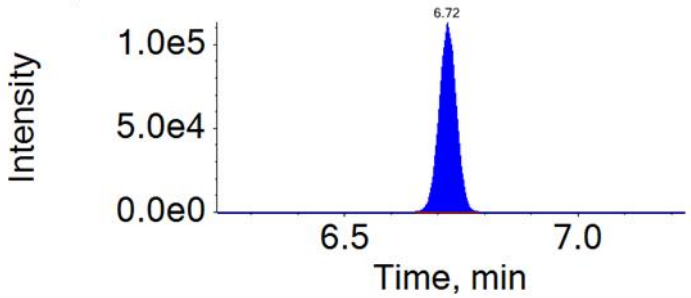
Component: PFTeDA
Primary Mass: 713.0 / 669.0



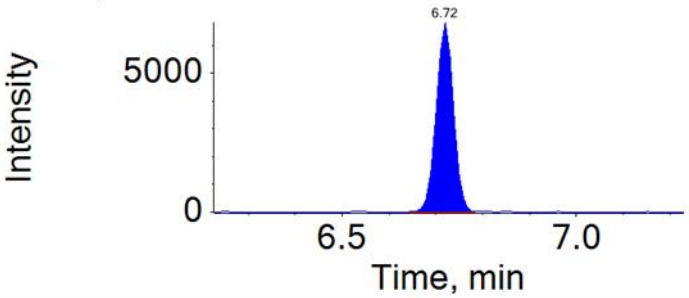
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



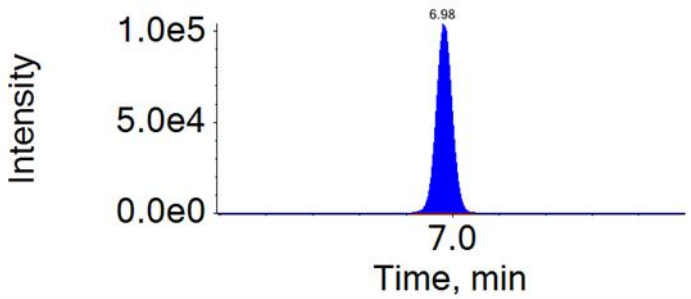
Component: PFHxDA
Primary Mass: 813.0 / 769.0



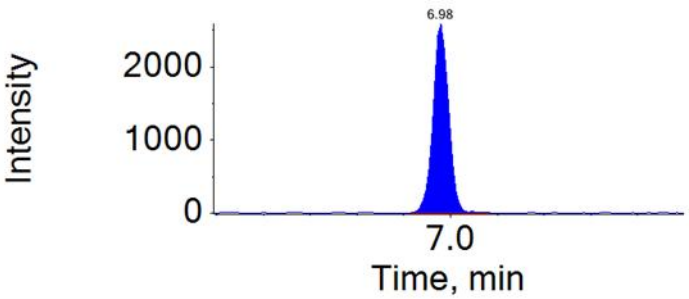
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



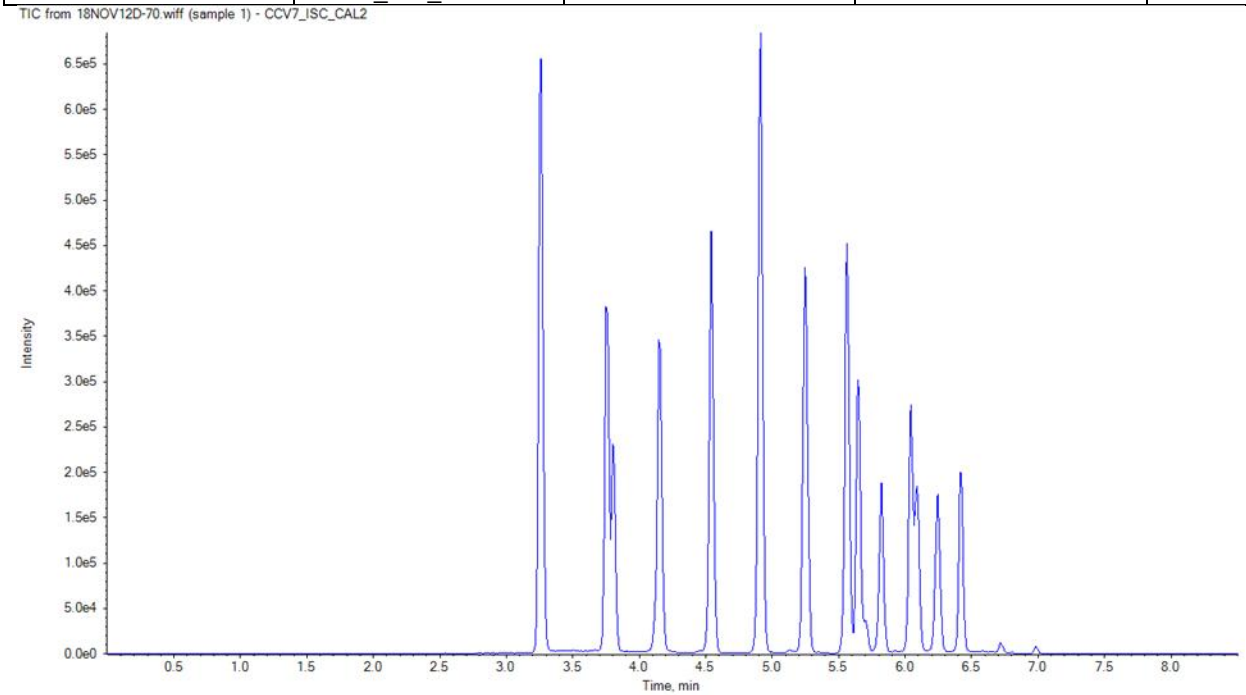
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV12D-70.wiff	2018-11-13T03:08:33



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	663781.9	659926.2	1	50	
13C2-PFOA	5.0	463595.2	450219.7	3	50	
13C4-PFOS	4.8	244885.7	249205.8	-2	50	
13C2-PFDA	5.0	281284.5	278743.9	1	50	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV12D-70.wiff	2018-11-13T03:08:33

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	80318.1	10	13C4-PFBA	759787.8	5.0	0.106	3.26	1.000	0.600	0.586	-2	30	
PFPeA	76199.0	11	13C5-PFPeA	776046.0	5.0	0.098	3.76	1.000	0.600	0.568	-5	30	
PFBS	43573.8	11	13C3-PFBS	433513.6	4.7	0.101	3.81	1.000	0.531	0.478	-10	30	
4:2-FTS	9044.8	11	13C2-4:2-FTS	45962.1	4.7	0.197	4.12	1.000	0.560	0.534	-5	30	
PFHxA	92374.7	12	13C5-PFHxA	675841.6	5.0	0.137	4.15	1.000	0.600	0.571	-5	30	
PFPeS	21331.8	11	13C3-PFBS	433513.6	4.7	0.049	4.17	1.100	0.563	0.478	-15	30	
PFHpA	94858.7	12	13C4-PFHpA	548919.2	5.0	0.173	4.54	1.000	0.600	0.573	-5	30	
PFHxS	31706.8	19	13C3-PFHxS	324722.8	4.7	0.098	4.54	1.000	0.547	0.473	-13	30	
6:2-FTS	8300.2	11	13C2-6:2-FTS	33444.9	4.8	0.248	4.90	1.000	0.569	0.601	6	30	
PFHpS	30342.3	11	13C3-PFHxS	324722.8	4.7	0.093	4.90	1.080	0.571	0.492	-14	30	
PFOA	99368.2	11	13C8-PFOA	925500.2	5.0	0.107	4.91	1.000	0.600	0.573	-4	30	
PFOS	30080.0	21	13C8-PFOS	271222.4	4.8	0.111	5.24	1.000	0.555	0.485	-13	30	
PFNA	75174.3	11	13C9-PFNA	455669.1	5.0	0.165	5.26	1.000	0.600	0.595	-1	30	
PFNS	17303.4	11	13C8-PFOS	271222.4	4.8	0.064	5.54	1.060	0.576	0.446	-23	30	
PFDA	69571.5	11	13C6-PFDA	652264.3	5.0	0.107	5.56	1.000	0.600	0.565	-6	30	
8:2-FTS	6246.5	13	13C2-8:2-FTS	25907.8	4.8	0.241	5.56	1.000	0.575	0.562	-2	30	
PFOSA	69637.2	11	13C8-PFOSA	621232.7	5.0	0.112	5.65	1.000	0.600	0.548	-9	30	
NMeFOSAA	8320.3	12	d3-NMeFOSAA	74991.5	5.0	0.111	5.71	1.000	0.600	0.627	5	30	
PFDS	15378.4	12	13C8-PFOS	271222.4	4.8	0.057	5.79	1.110	0.578	0.514	-11	30	
PFUnDA	56318.9	11	13C7-PFUnDA	260836.6	5.0	0.216	5.82	1.000	0.600	0.564	-6	30	
NEtFOSAA	5863.7	21	d5-NEtFOSAA	69408.4	5.0	0.084	5.83	1.000	0.600	0.443	-26	30	
PFDoDA	56183.0	11	13C2-PFDoDA	539910.7	5.0	0.104	6.04	1.000	0.600	0.530	-12	30	
10:2-FTS	4429.6	11	13C2-8:2-FTS	25907.8	4.8	0.171	6.07	1.090	0.578	0.569	-1	30	
NMePFOSAE	46046.4	12	d7-NMePFOSAE	316077.1	5.0	0.146	6.10	1.000	0.600	0.606	1	30	
NMePFOSA	8444.8	12	d3-NMePFOSA	77538.7	5.0	0.109	6.10	1.000	0.600	0.537	-10	30	
PFDoS	8181.4	11	13C8-PFOS	271222.4	4.8	0.030	6.21	1.190	0.581	0.528	-9	30	
NEtPFOSAE	45451.8	11	d9-NEtPFOSAE	260793.4	5.0	0.174	6.25	1.000	0.600	0.559	-7	30	
NEtPFOSA	8349.0	11	d5-NEtPFOSA	56766.8	5.0	0.147	6.26	1.000	0.600	0.675	13	30	
PFTrDA	50194.4	11	13C2-PFDoDA	539910.7	5.0	0.093	6.24	1.030	0.600	0.587	-2	30	
PFTeDA	38146.4	10	13C2-PFTeDA	409036.5	5.0	0.093	6.42	1.000	0.600	0.523	-13	30	
PFHxDA	19541.0	11	13C2-PFTeDA	409036.5	5.0	0.048	6.72	1.050	0.600	0.569	-5	30	
PFODA	15536.1	10	13C2-PFTeDA	409036.5	5.0	0.038	6.98	1.090	0.600	0.529	-12	30	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV12D-70.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T03:08:33
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	663781.9	659926.2	1	50	
13C2-PFOA	5.0	463595.2	450219.7	3	50	
13C4-PFOS	4.8	244885.7	249205.8	-2	50	
13C2-PFDA	5.0	281284.5	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	759787.8	13C3-PFBA	663781.9	1.145	5.000	5.132	103	70-130	
E13C5-PFPeA	776046.0	13C3-PFBA	663781.9	1.169	5.000	5.244	105	70-130	
E13C3-PFBS	433513.6	13C3-PFBA	663781.9	0.653	4.650	4.610	99	70-130	
E13C2-4:2-FTS	45962.1	13C2-PFOA	463595.2	0.099	4.670	4.416	95	70-130	
E13C5-PFHxA	675841.6	13C2-PFOA	463595.2	1.458	5.000	5.266	105	70-130	
E13C3-PFHxS	324722.8	13C2-PFOA	463595.2	0.700	4.730	4.806	102	70-130	
E13C4-PFHpA	548919.2	13C2-PFOA	463595.2	1.184	5.000	5.334	107	70-130	
E13C2-6:2-FTS	33444.9	13C2-PFOA	463595.2	0.072	4.750	4.827	102	70-130	
E13C8-PFOA	925500.2	13C2-PFOA	463595.2	1.996	5.000	5.500	110	70-130	
E13C8-PFOS	271222.4	13C4-PFOS	244885.7	1.108	4.780	4.907	103	70-130	
E13C9-PFNA	455669.1	13C4-PFOS	244885.7	1.861	5.000	5.188	104	70-130	
E13C6-PFDA	652264.3	13C2-PFDA	281284.5	2.319	5.000	5.411	108	70-130	
E13C2-8:2-FTS	25907.8	13C2-PFDA	281284.5	0.092	4.790	4.593	96	70-130	
E13C8-PFOSA	621232.7	13C2-PFDA	281284.5	2.209	5.000	4.896	98	70-130	
Ed3-NMeFOSAA	74991.5	13C2-PFDA	281284.5	0.267	5.000	4.812	96	70-130	
E13C7-PFUnDA	260836.6	13C2-PFDA	281284.5	0.927	5.000	5.384	108	70-130	
Ed5-NEtFOSAA	69408.4	13C2-PFDA	281284.5	0.247	5.000	5.220	104	70-130	
E13C2-PFDoDA	539910.7	13C2-PFDA	281284.5	1.919	5.000	4.984	100	70-130	
Ed7-NMePFOSAE	316077.1	13C2-PFDA	281284.5	1.124	5.000	4.863	97	70-130	
Ed3-NMePFOSA	77538.7	13C2-PFDA	281284.5	0.276	5.000	5.008	100	70-130	
Ed9-NEtPFOSAE	260793.4	13C2-PFDA	281284.5	0.927	5.000	4.822	96	70-130	
Ed5-NEtPFOSA	56766.8	13C2-PFDA	281284.5	0.202	5.000	4.734	95	70-130	
E13C2-PFTeDA	409036.5	13C2-PFDA	281284.5	1.454	5.000	5.105	102	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

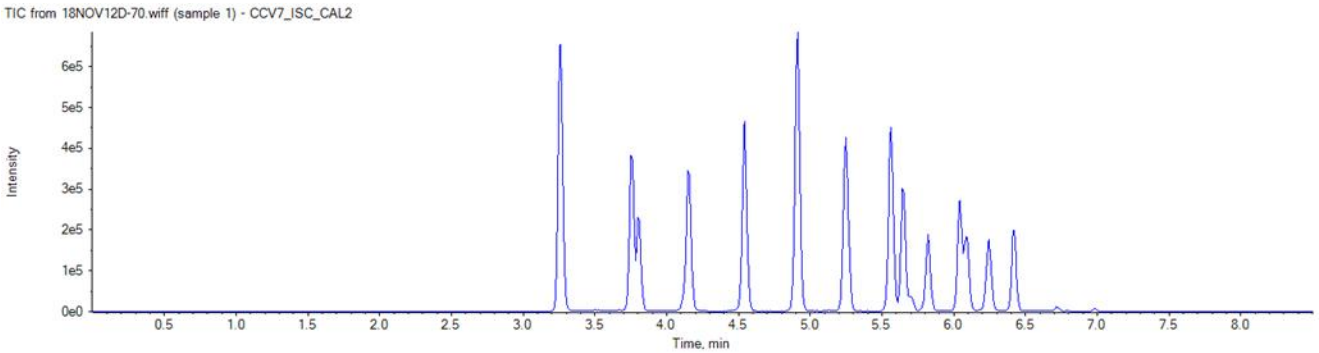
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-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	80318.1		A	13C4-PFBA	3.26	759787.8	0.106	0.586
PFPeA	3.76	1.000	76199.0		M	13C5-PFPeA	3.76	776046.0	0.098	0.568
PFBS	3.81	1.000	43573.8		A	13C3-PFBS	3.81	433513.6	0.101	0.478
4:2-FTS	4.12	1.000	9044.8		A	13C2-4:2-FTS	4.12	45962.1	0.197	0.534
PFHxA	4.15	1.000	92374.7		A	13C5-PFHxA	4.15	675841.6	0.137	0.571
PFPeS	4.17	1.100	21331.8		A	13C3-PFBS	3.81	433513.6	0.049	0.478
PFHpA	4.54	1.000	94858.7		A	13C4-PFHpA	4.54	548919.2	0.173	0.573
PFHxS	4.54	1.000	31706.8		M	13C3-PFHxS	4.54	324722.8	0.098	0.473
6:2-FTS	4.90	1.000	8300.2		A	13C2-6:2-FTS	4.90	33444.9	0.248	0.601
PFHpS	4.90	1.080	30342.3		A	13C3-PFHxS	4.54	324722.8	0.093	0.492
PFOA	4.91	1.000	99368.2		A	13C8-PFOA	4.91	925500.2	0.107	0.573
PFOS	5.24	1.000	30080.0		M	13C8-PFOS	5.24	271222.4	0.111	0.485
PFNA	5.26	1.000	75174.3		A	13C9-PFNA	5.26	455669.1	0.165	0.595
PFNS	5.54	1.060	17303.4		A	13C8-PFOS	5.24	271222.4	0.064	0.446
PFDA	5.56	1.000	69571.5		A	13C6-PFDA	5.56	652264.3	0.107	0.565
8:2-FTS	5.56	1.000	6246.5		A	13C2-8:2-FTS	5.57	25907.8	0.241	0.562
PFOSA	5.65	1.000	69637.2		A	13C8-PFOSA	5.65	621232.7	0.112	0.548
NMeFOSAA	5.71	1.000	8320.3		A	d3-NMeFOSAA	5.70	74991.5	0.111	0.627
PFDS	5.79	1.110	15378.4		A	13C8-PFOS	5.24	271222.4	0.057	0.514
PFUnDA	5.82	1.000	56318.9		A	13C7-PFUnDA	5.82	260836.6	0.216	0.564
NEtFOSAA	5.83	1.000	5863.7		M	d5-NEtFOSAA	5.83	69408.4	0.084	0.443
PFDoDA	6.04	1.000	56183.0		A	13C2-PFDoDA	6.04	539910.7	0.104	0.530
10:2-FTS	6.07	1.090	4429.6		A	13C2-8:2-FTS	5.57	25907.8	0.171	0.569
NMePFOSAE	6.10	1.000	46046.4		A	d7-NMePFOSAE	6.09	316077.1	0.146	0.606
NMePFOSA	6.10	1.000	8444.8		A	d3-NMePFOSA	6.10	77538.7	0.109	0.537
PFDoS	6.21	1.190	8181.4		A	13C8-PFOS	5.24	271222.4	0.030	0.528
NEtPFOSAE	6.25	1.000	45451.8		A	d9-NEtPFOSAE	6.24	260793.4	0.174	0.559
NEtPFOSA	6.26	1.000	8349.0		M	d5-NEtPFOSA	6.26	56766.8	0.147	0.675
PFTrDA	6.24	1.030	50194.4		A	13C2-PFDoDA	6.04	539910.7	0.093	0.587
PFTeDA	6.42	1.000	38146.4		A	13C2-PFTeDA	6.42	409036.5	0.093	0.523
PFHxDA	6.72	1.050	19541.0		A	13C2-PFTeDA	6.42	409036.5	0.048	0.569
PFODA	6.98	1.090	15536.1		A	13C2-PFTeDA	6.42	409036.5	0.038	0.529

Total Ion Chromatogram

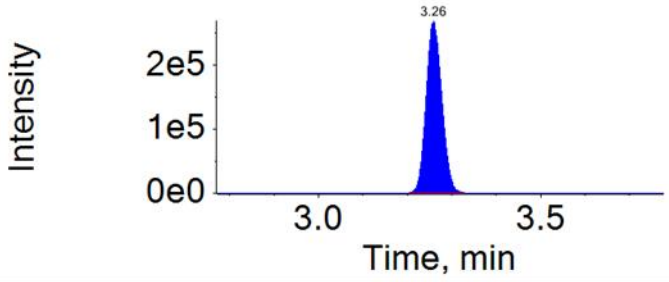


APPROVED
By JPT at 10:23 am, 11/13/18

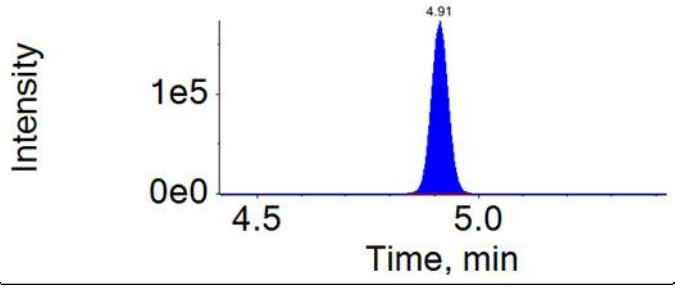
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

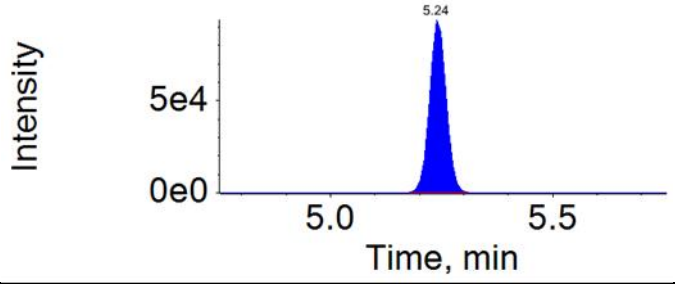
Injection Standard: 13C3-PFBA
216.0 / 172.0



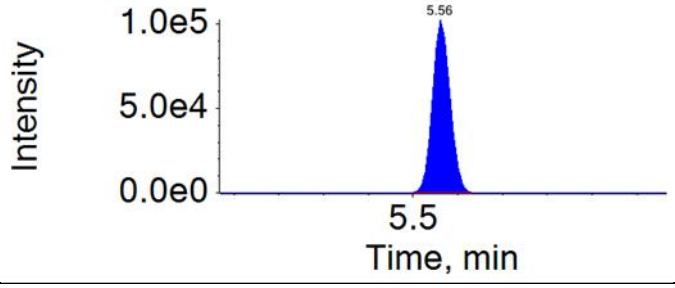
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

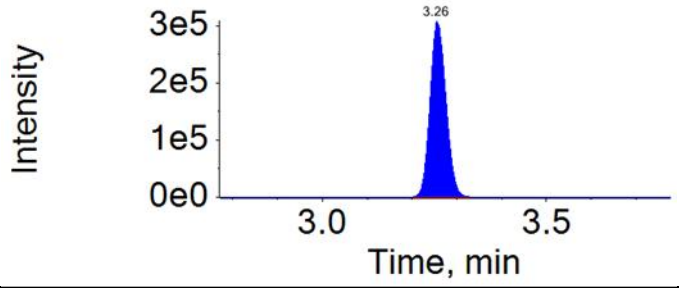


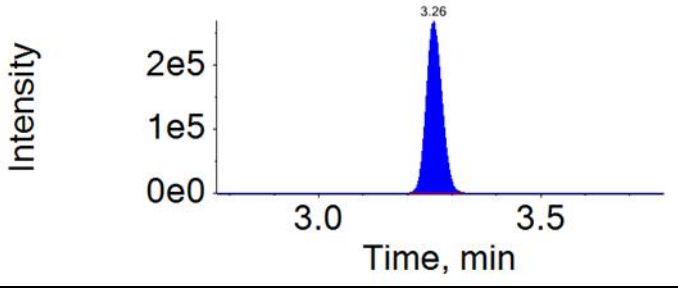
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

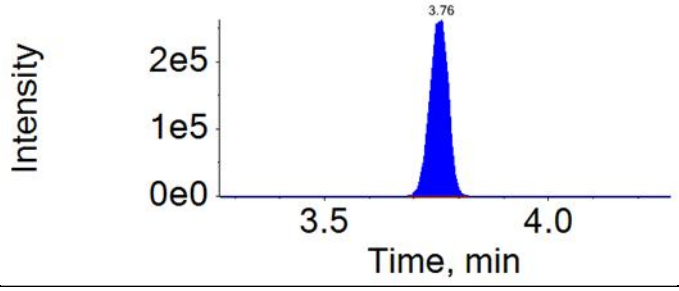
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

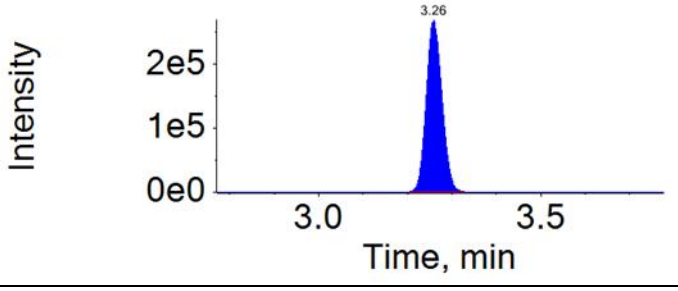
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



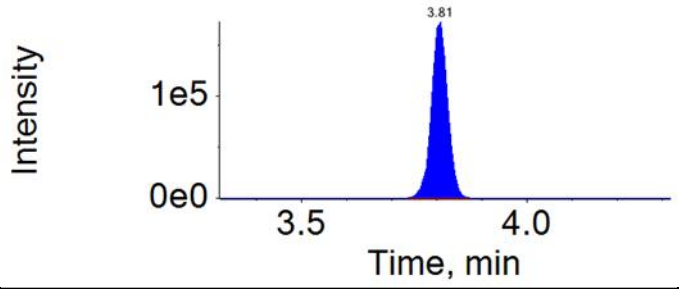


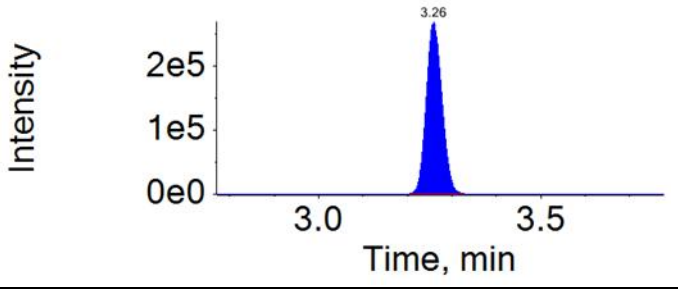
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



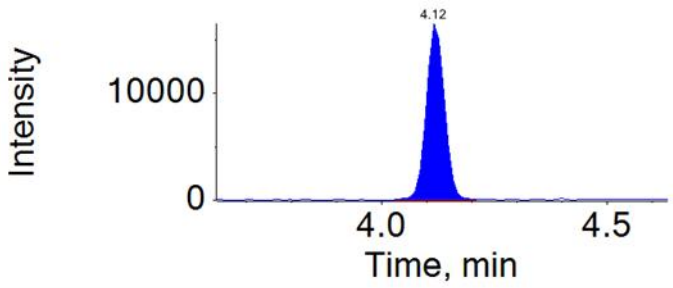


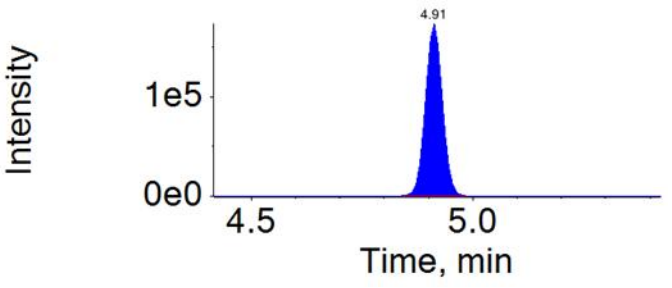
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





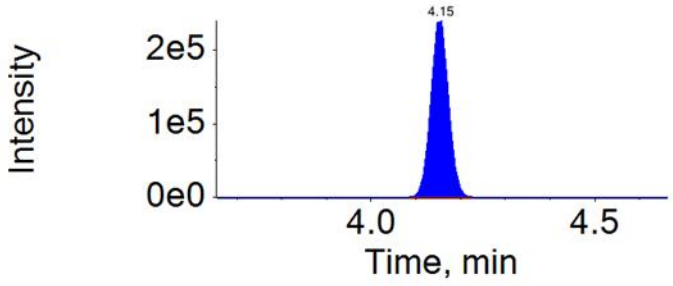
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

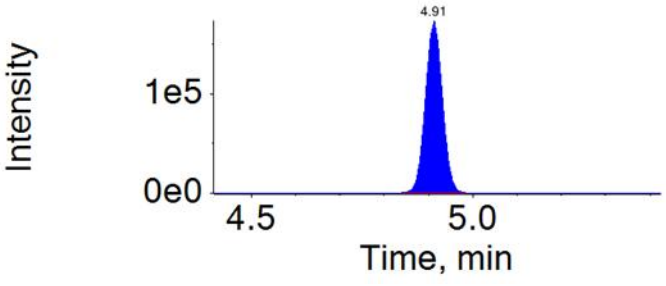




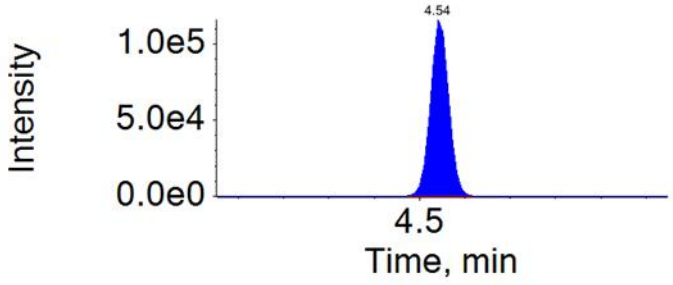
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

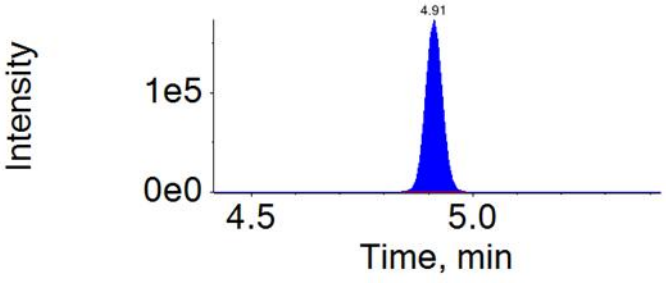
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



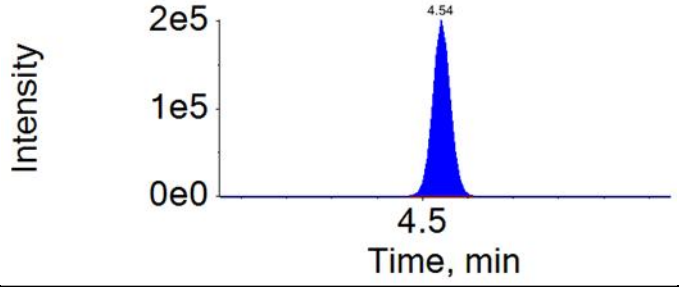


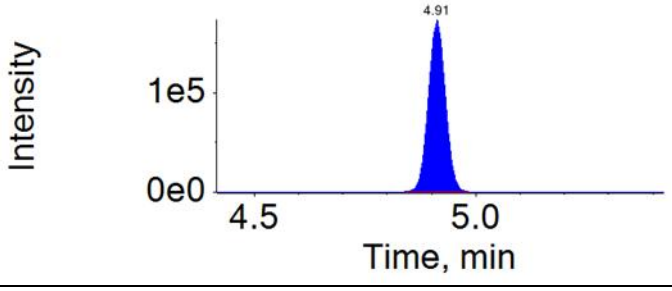
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



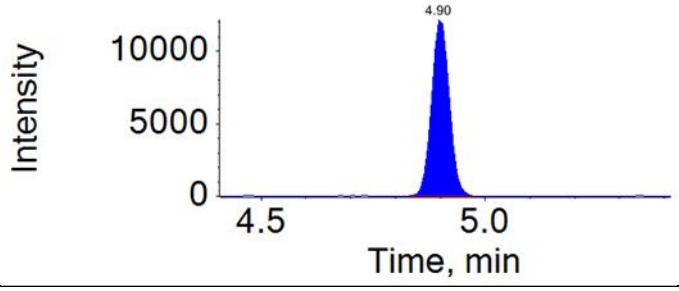


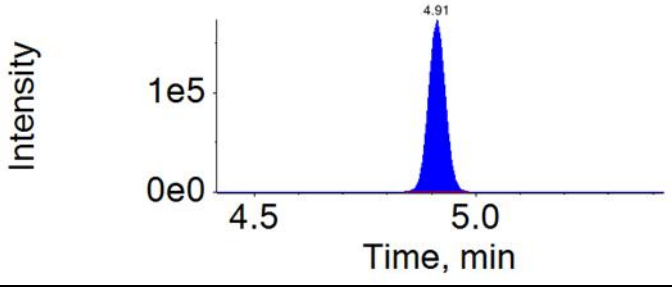
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

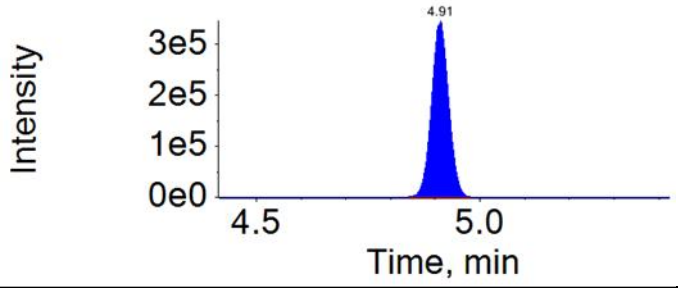
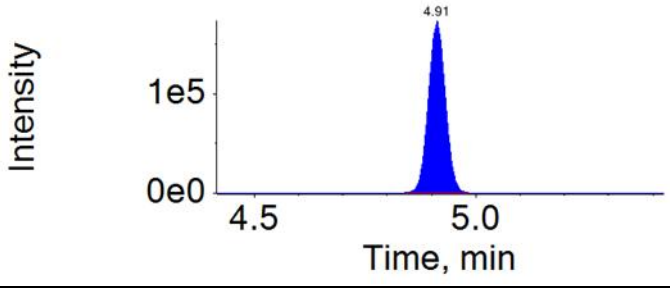


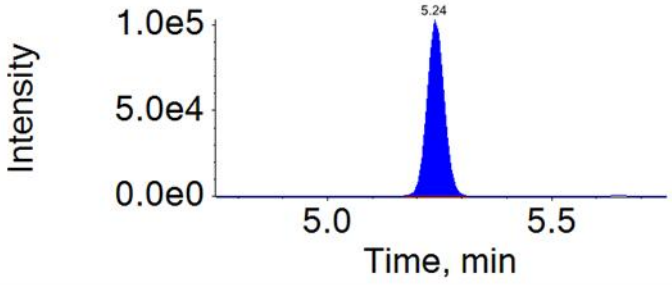
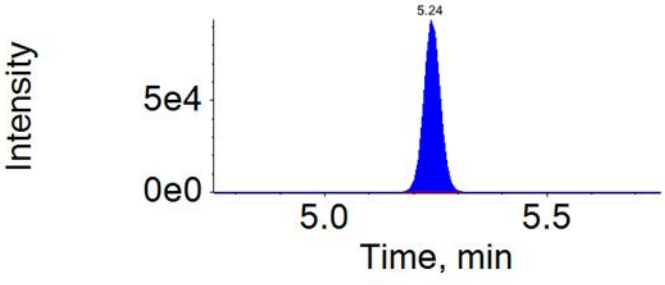


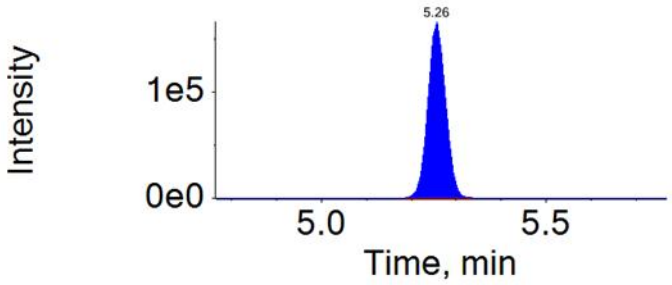
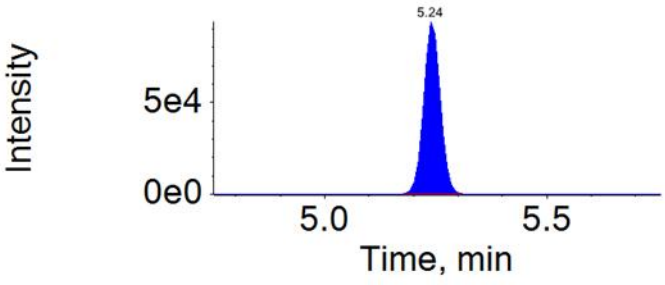
APPROVED
By JPT at 10:23 am, 11/13/18

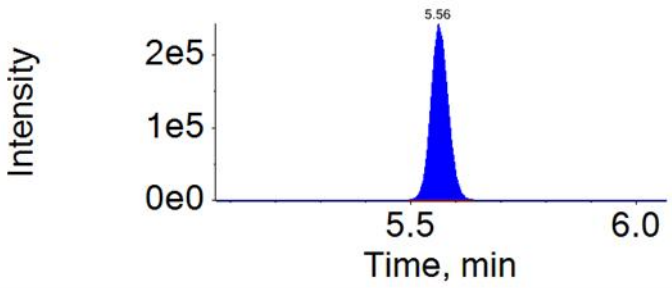
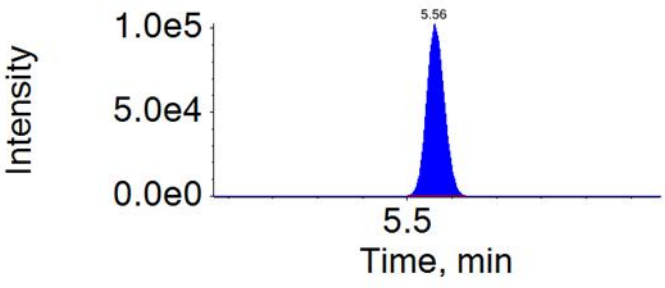
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

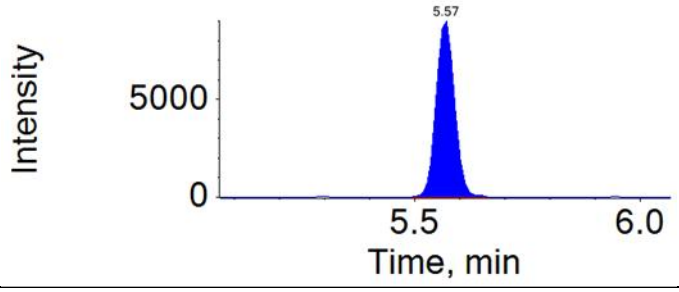
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

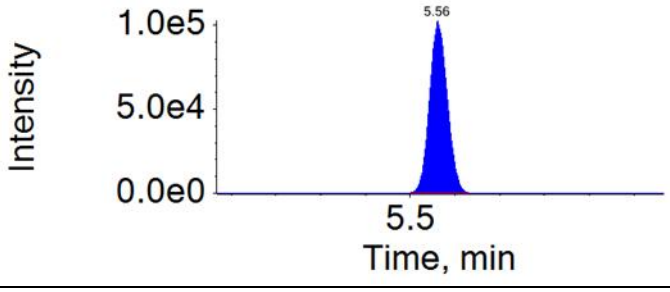
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

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

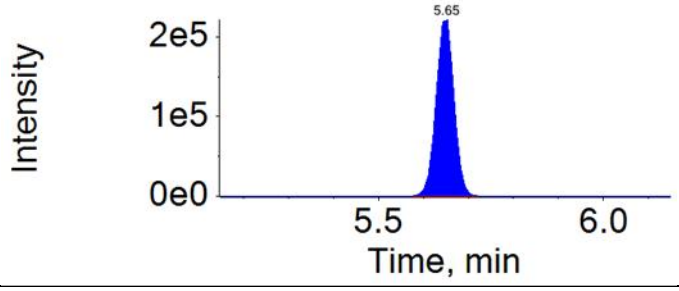
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

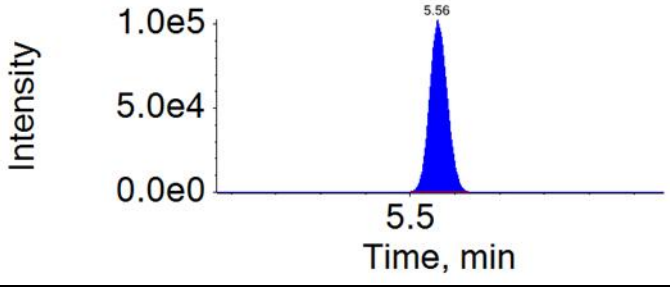
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



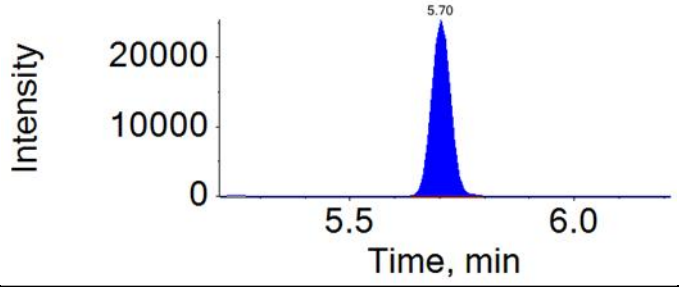


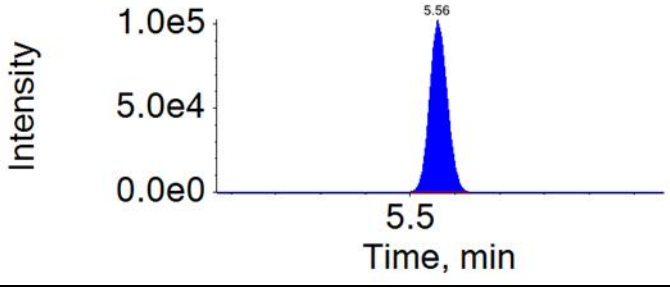
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



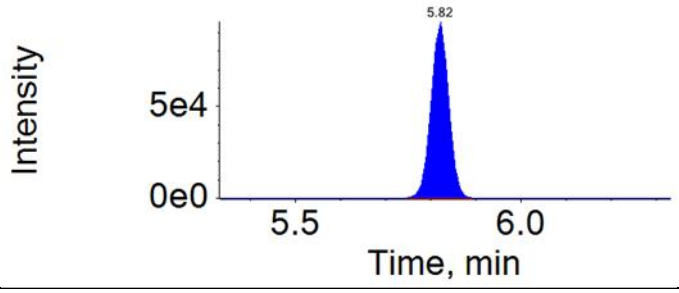


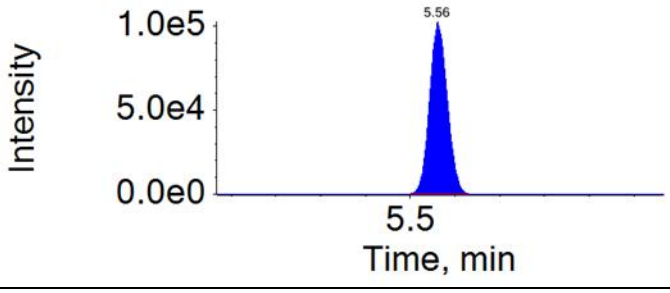
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





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

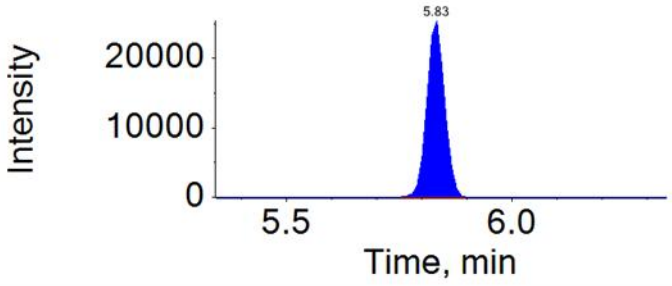
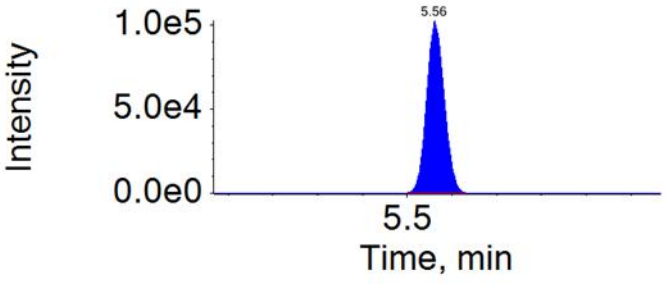


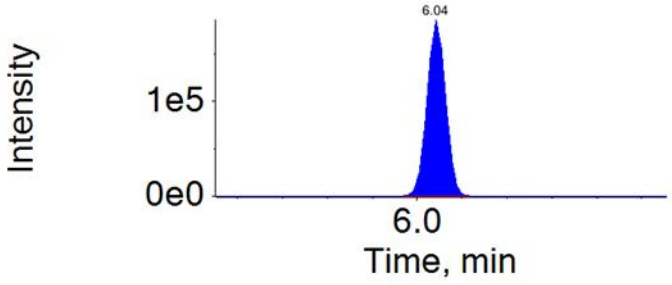
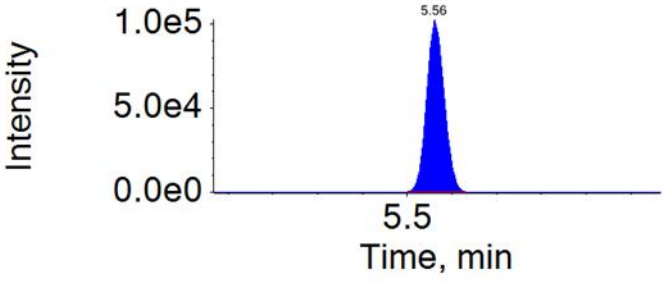


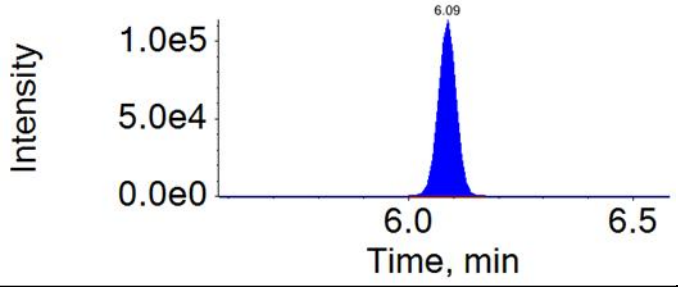
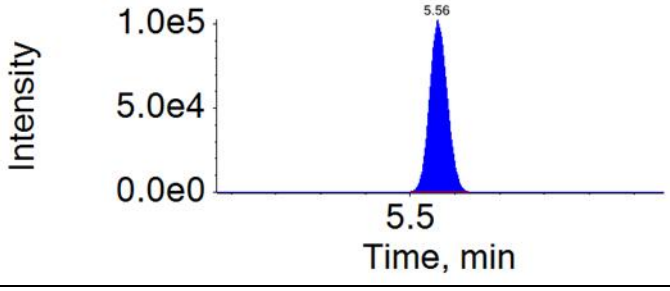
APPROVED
By JPT at 10:23 am, 11/13/18

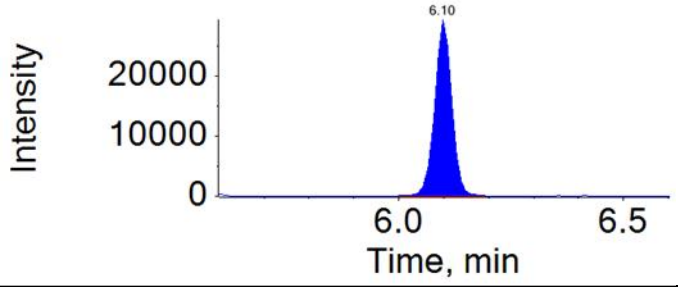
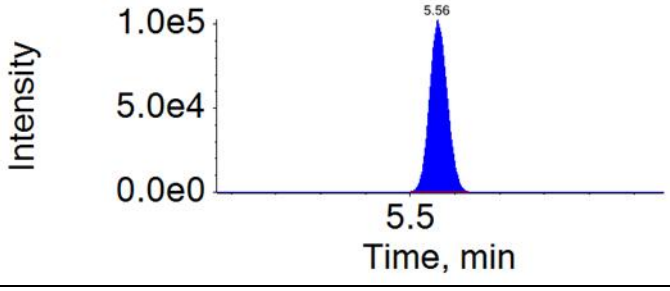
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

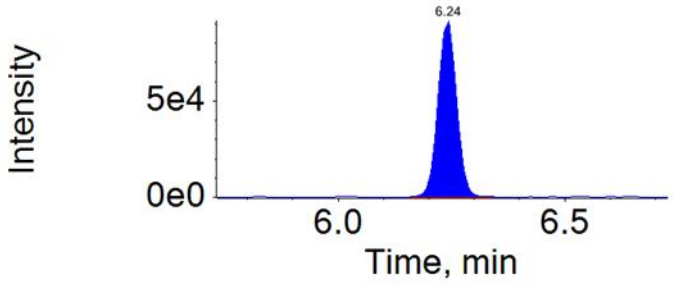
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

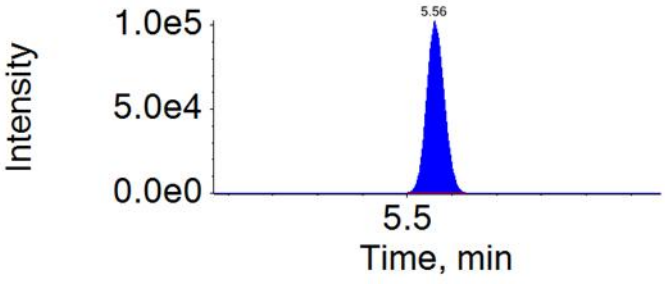
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

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

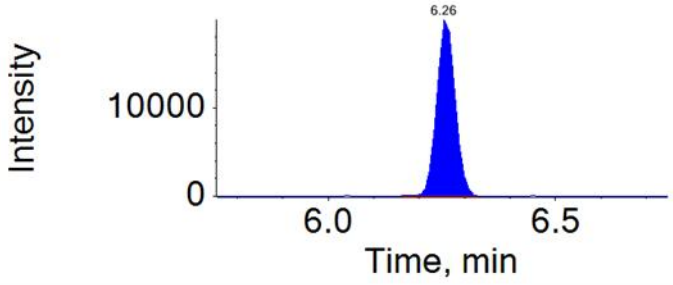
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

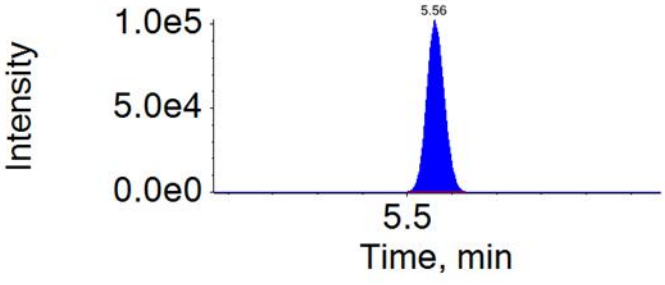
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



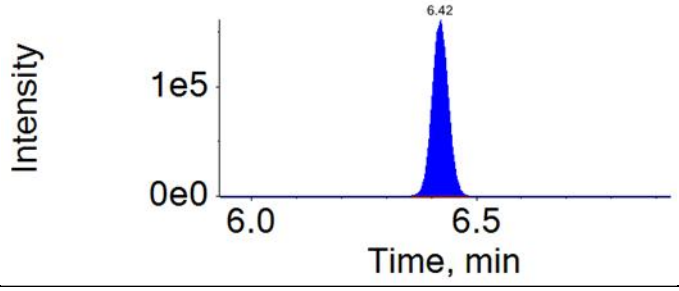


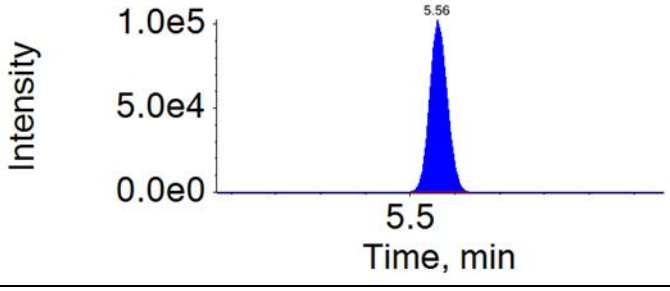
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



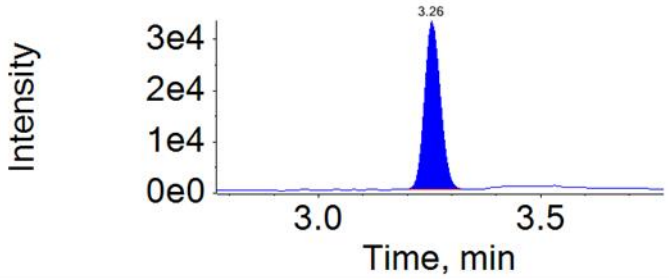


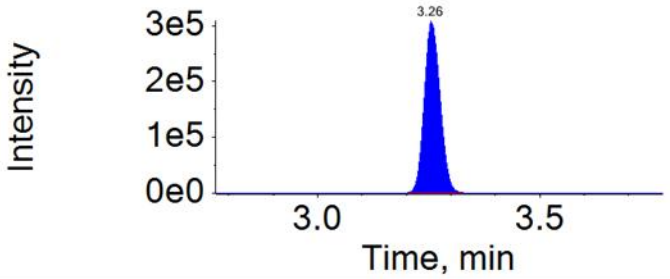
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

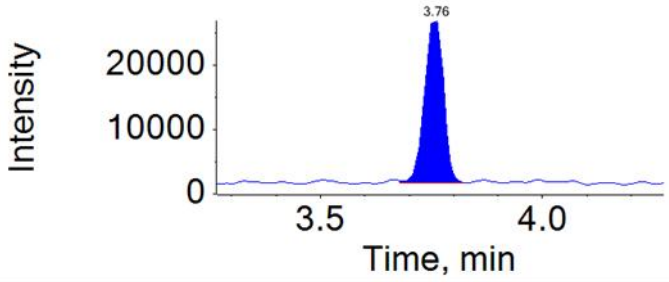
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

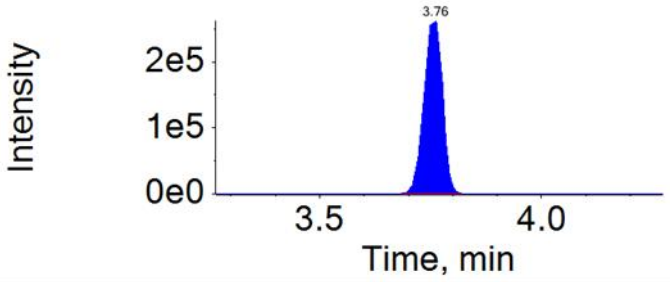
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



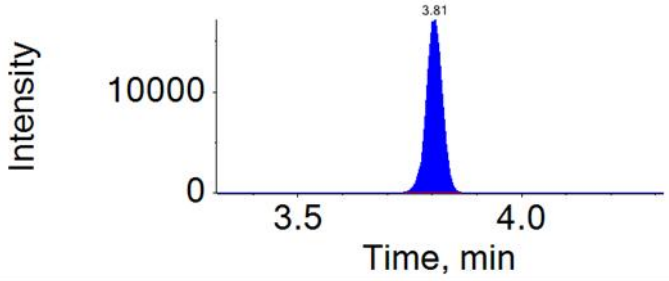


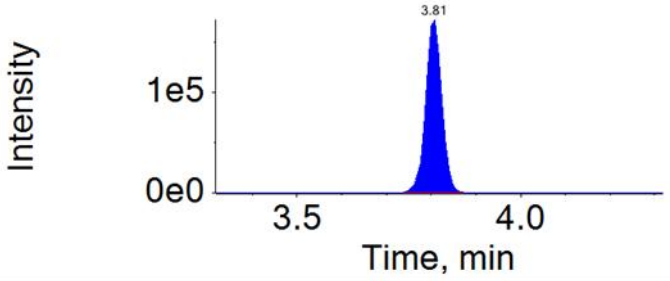
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



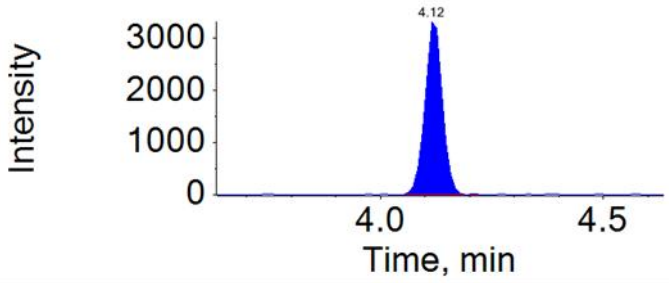


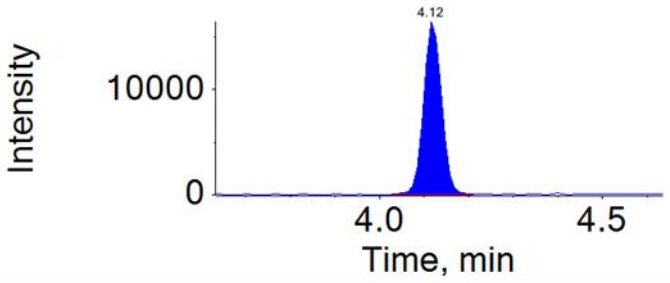
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



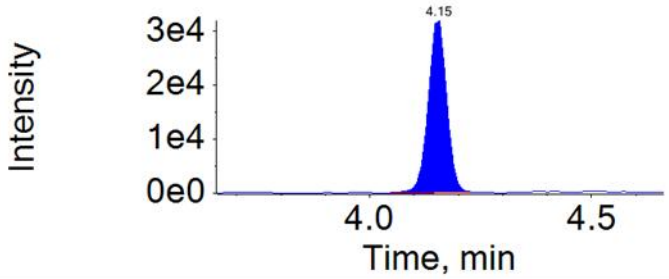


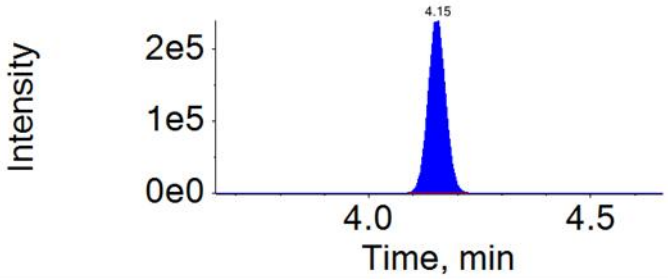
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

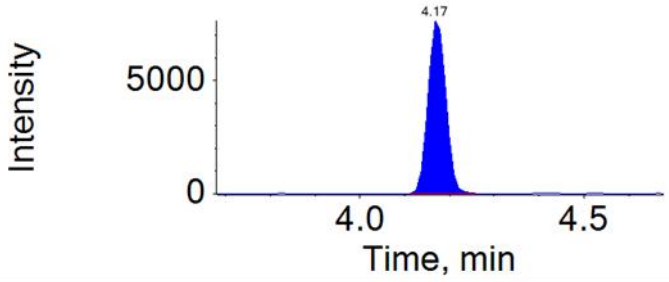
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

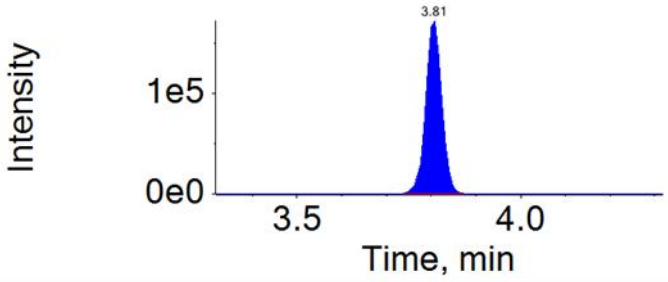
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



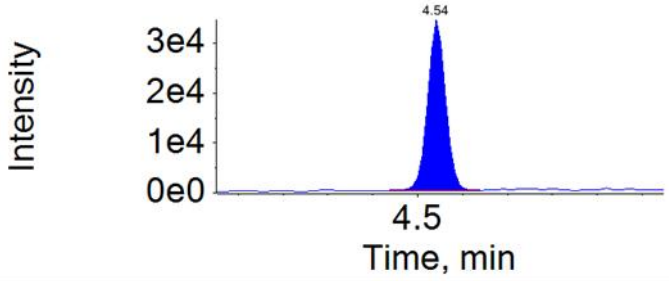


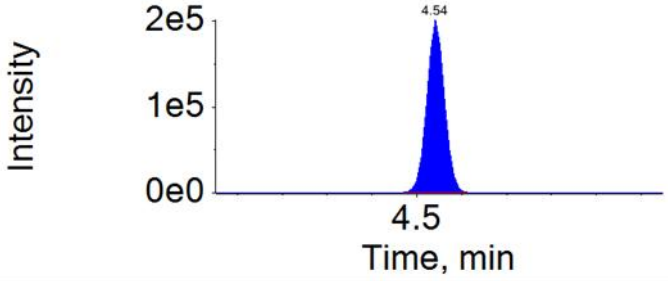
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



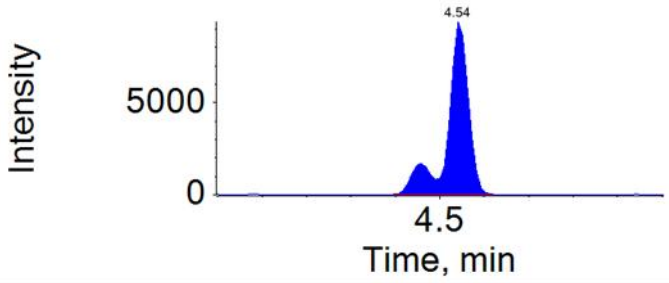


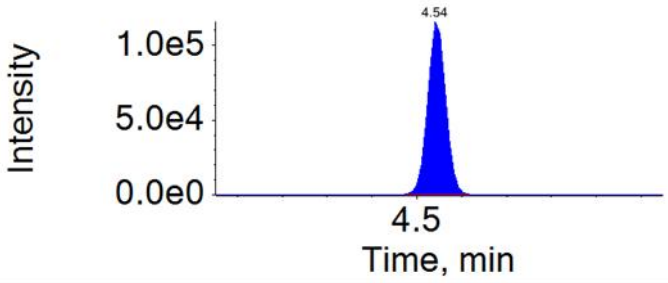
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

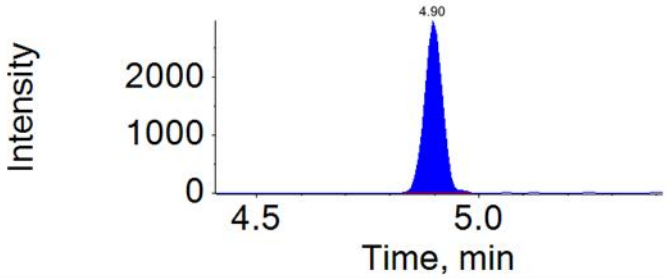
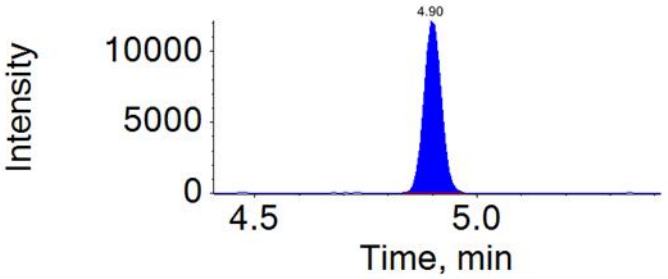


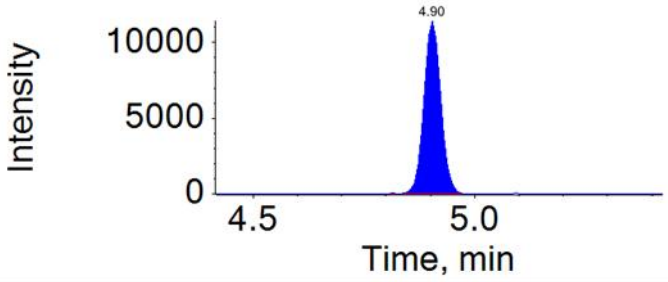
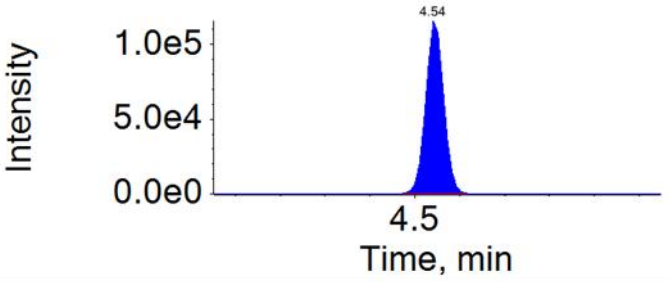


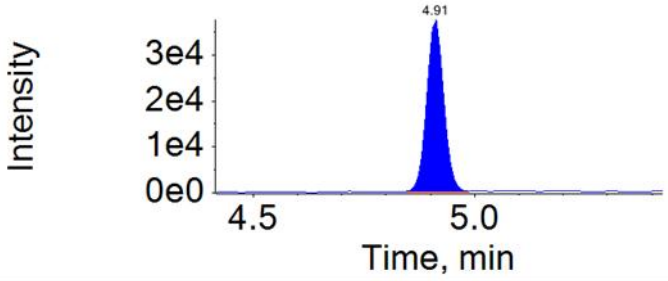
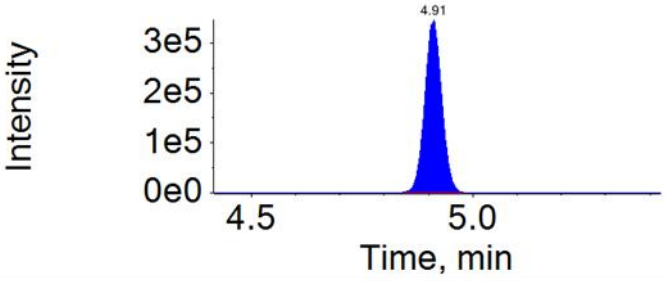
APPROVED
By JPT at 10:23 am, 11/13/18

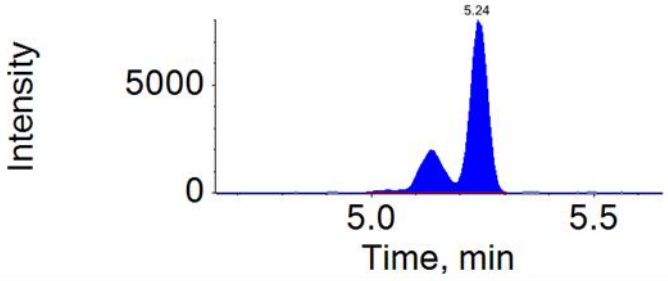
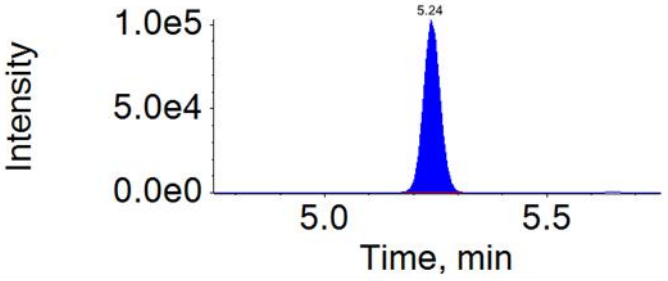
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

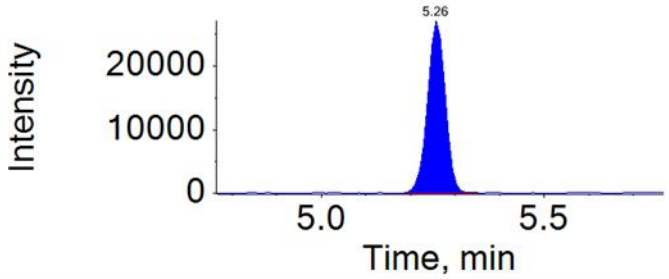
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

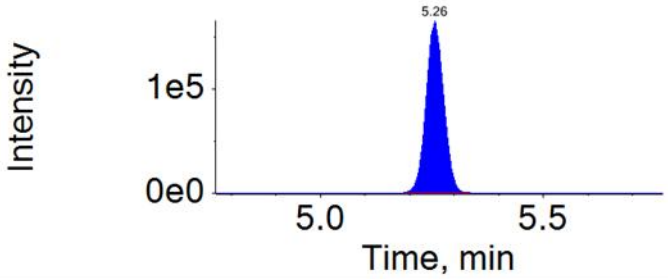
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

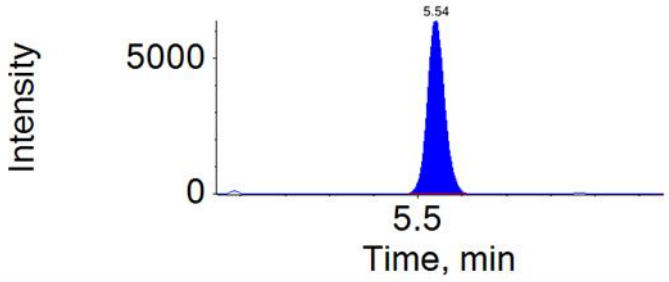
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

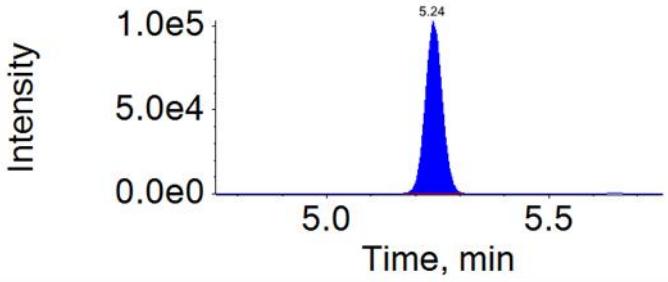
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



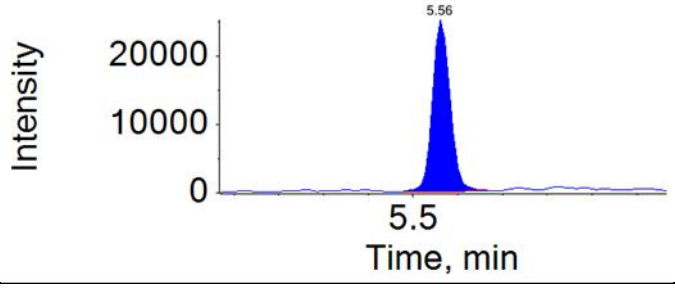


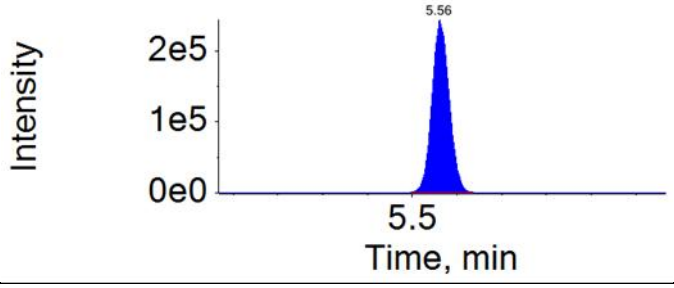
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



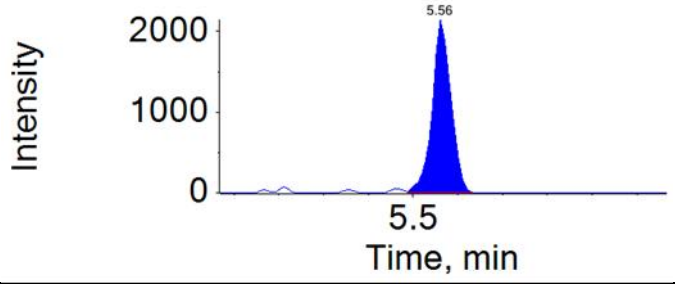


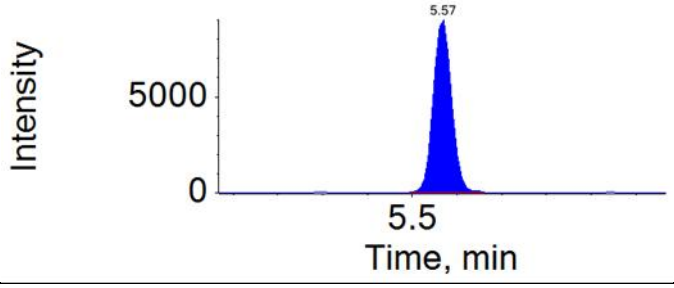
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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

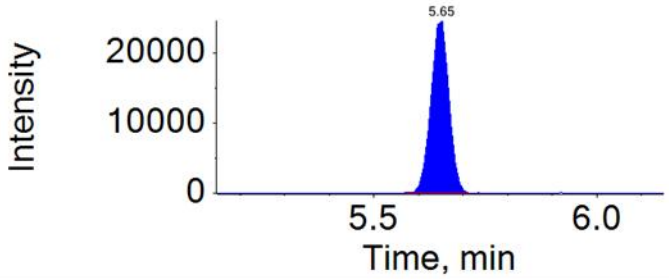
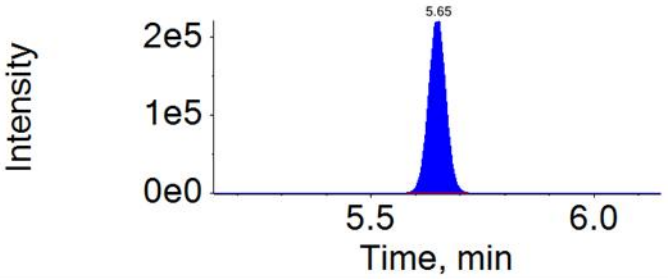


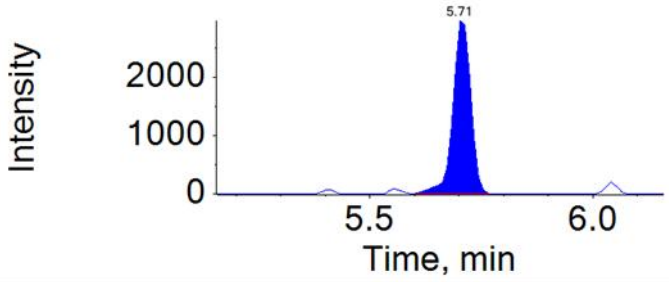
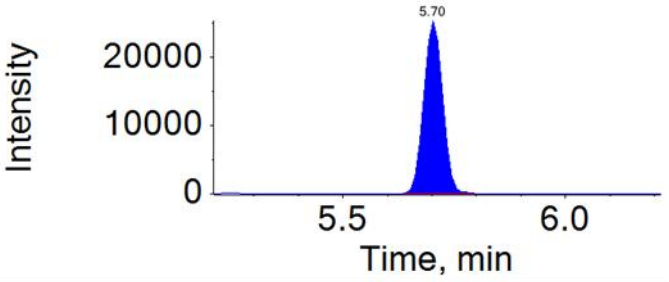


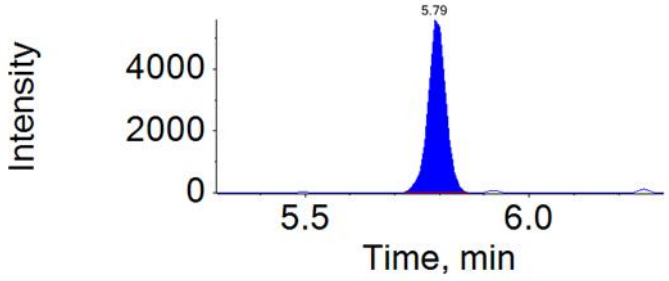
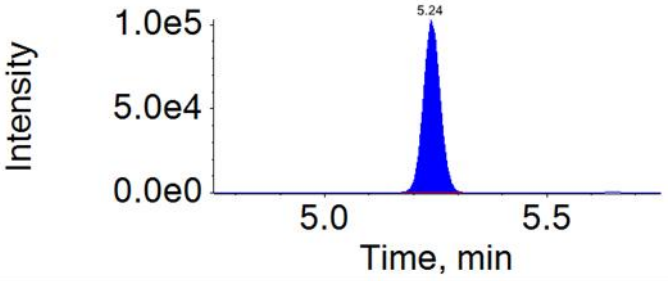
APPROVED
By JPT at 10:23 am, 11/13/18

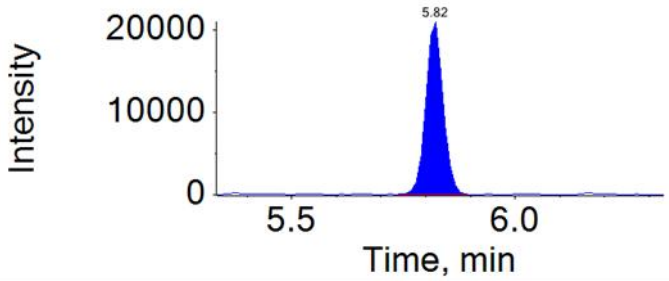
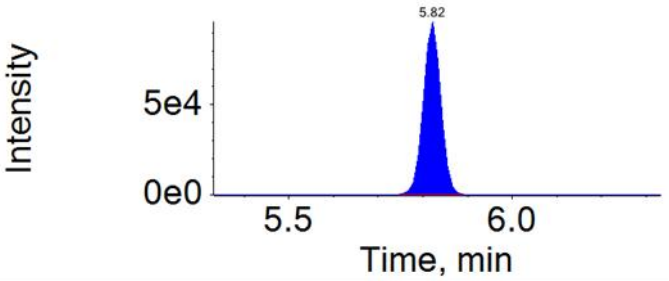
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

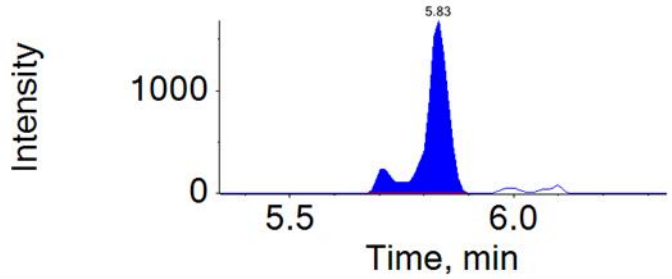
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

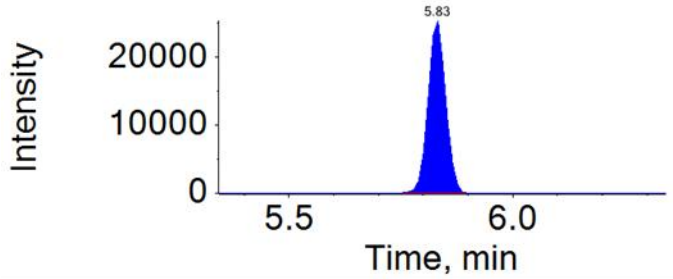
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

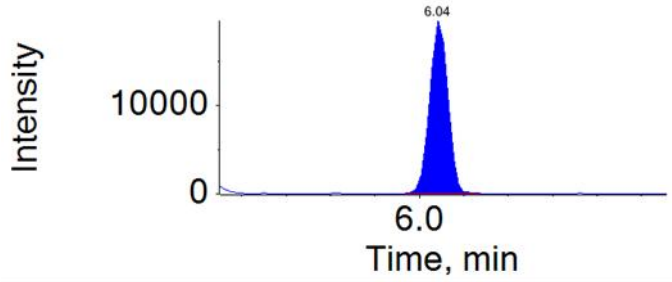
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

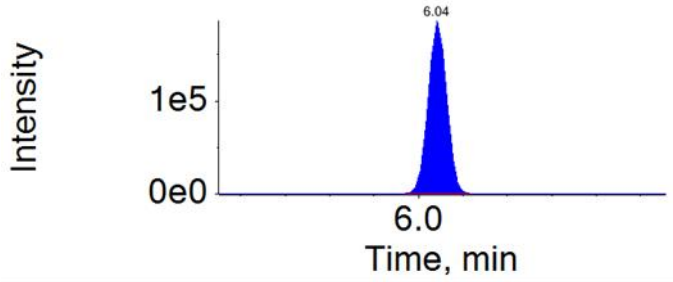
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



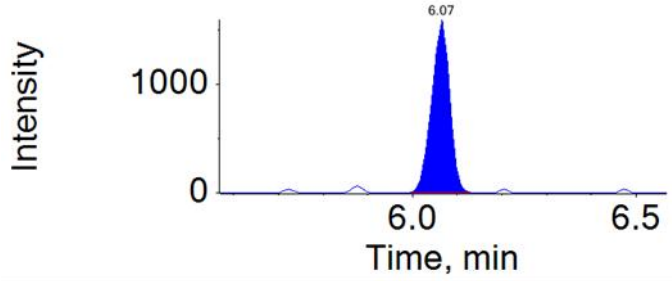


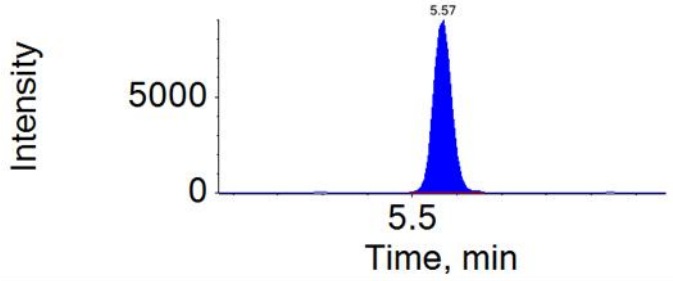
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



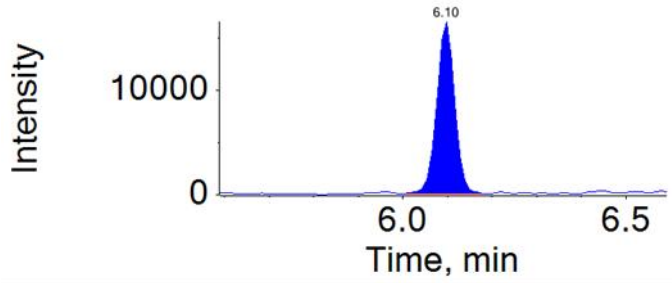


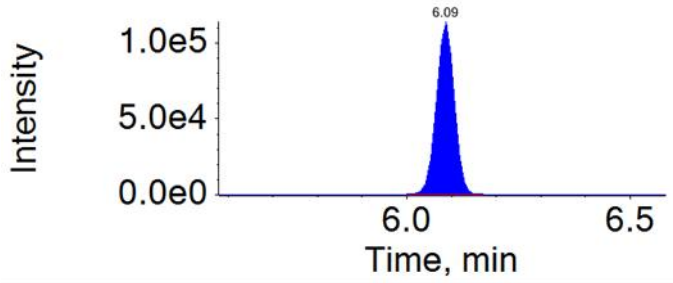
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



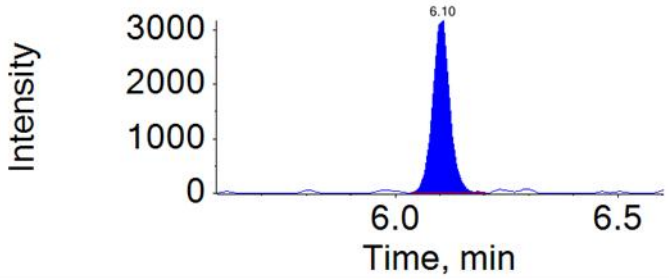


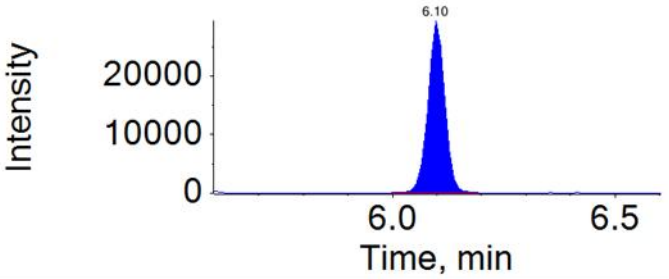
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

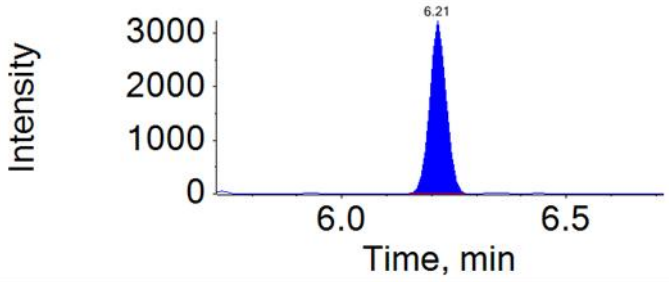
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

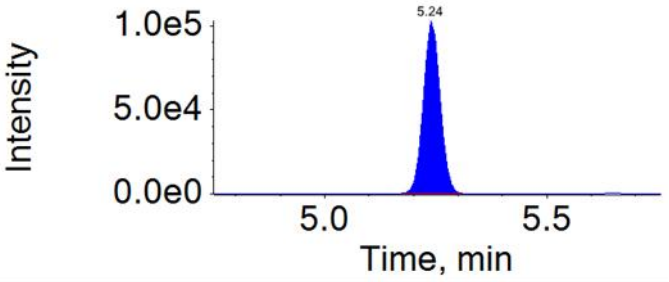
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



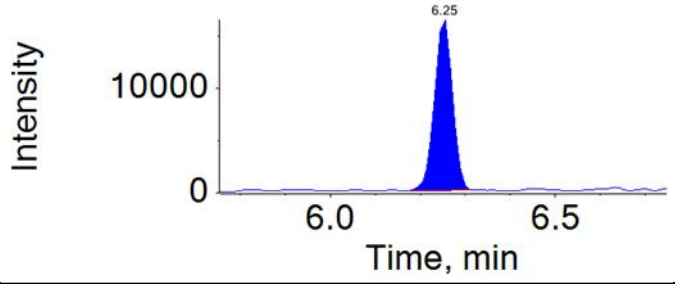


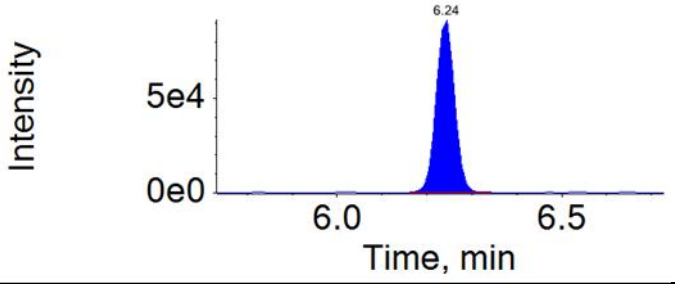
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



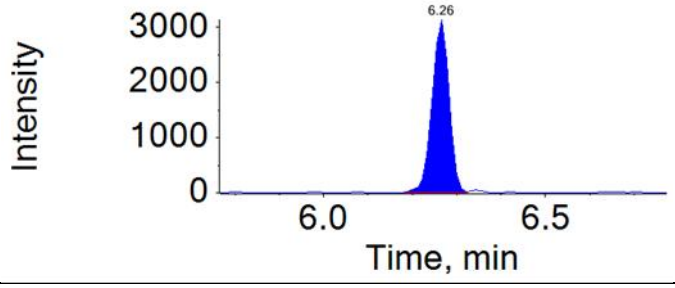


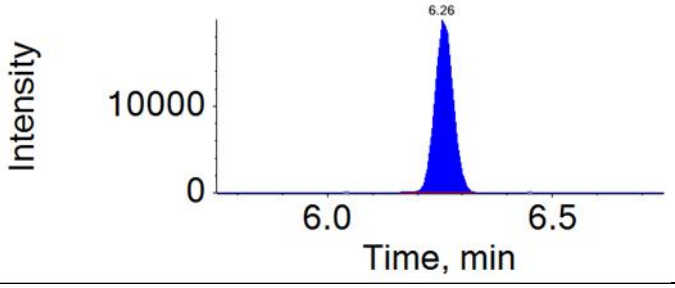
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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

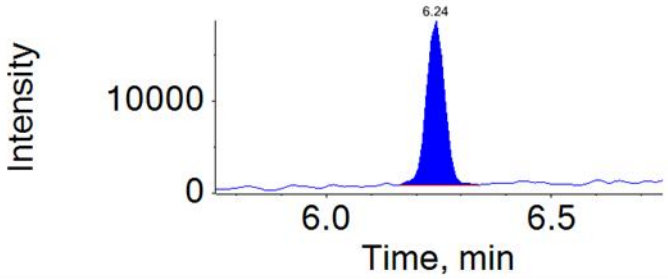
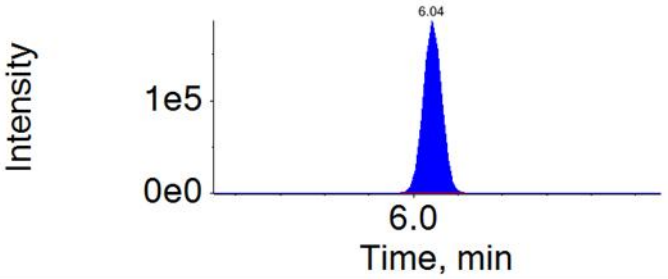


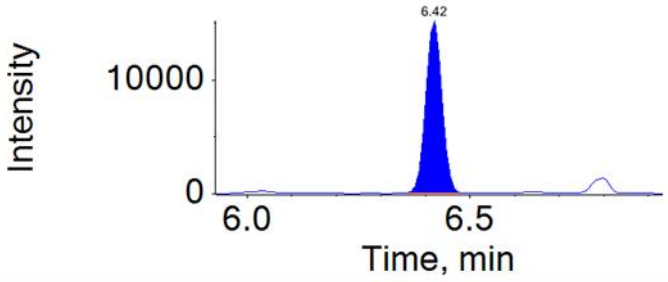
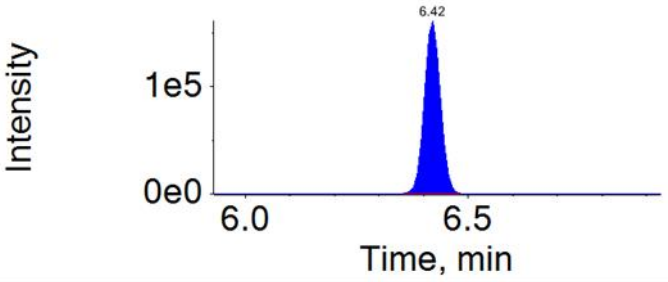


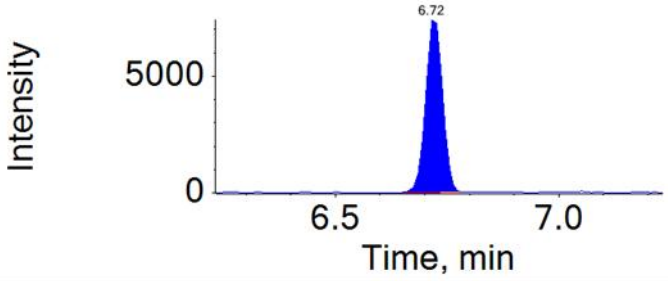
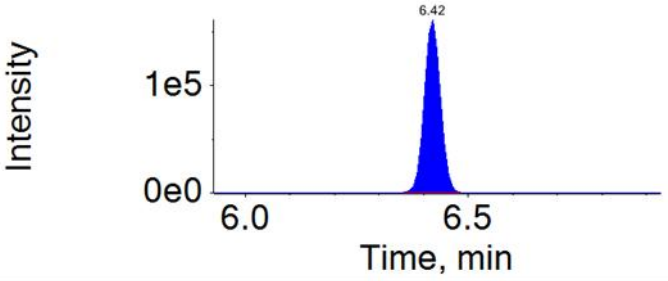
APPROVED
By JPT at 10:23 am, 11/13/18

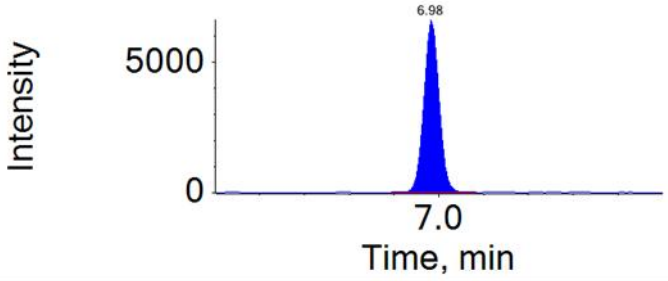
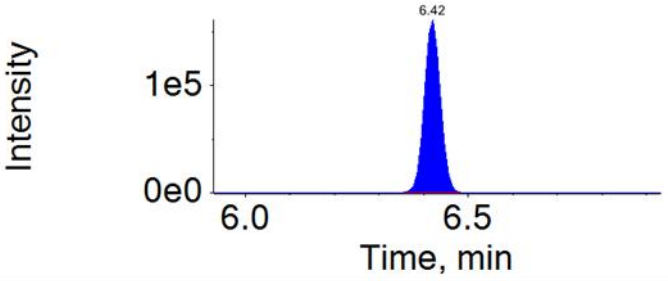
REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 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
	

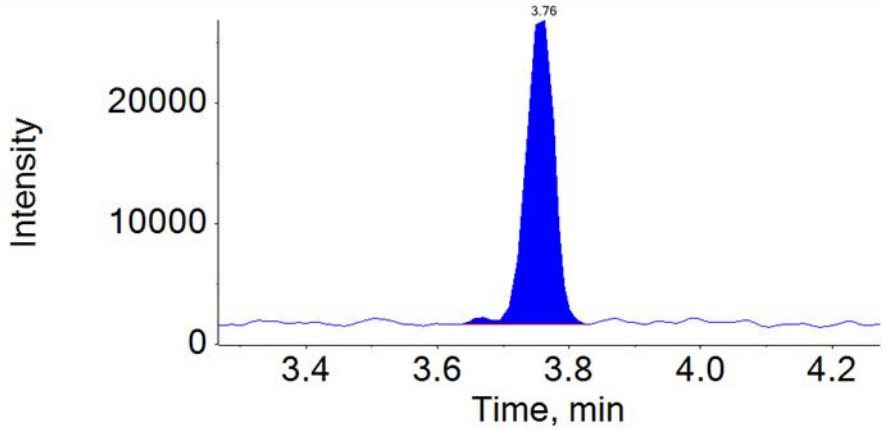
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

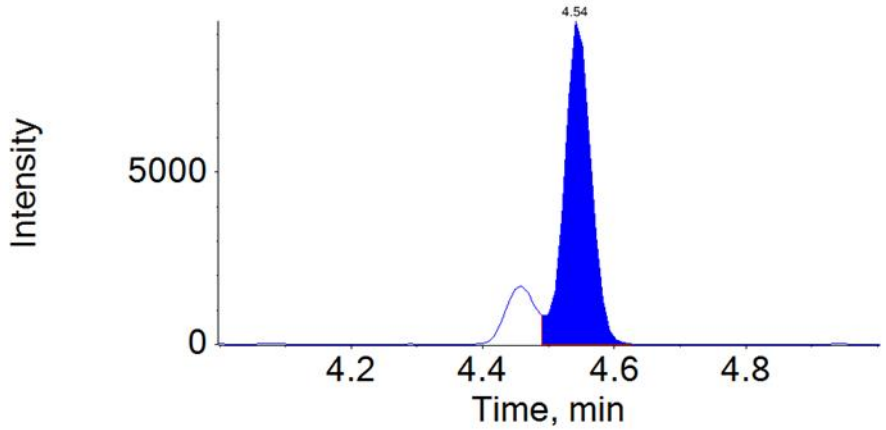
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFPeA
RT (min.):
3.76
Peak Area:
77158.8
Mass Range:
263.0 / 219.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



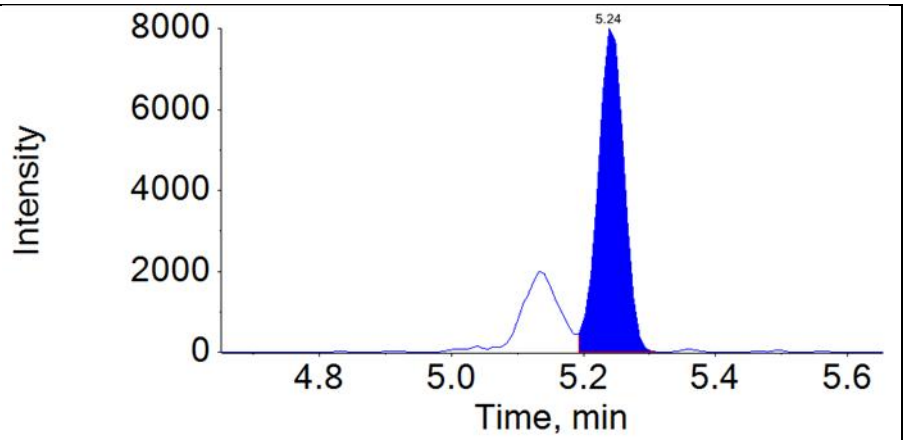
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
26470.9
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
21977.8
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-70.wiff
Sample Name:
CCV7_ISC_CAL2

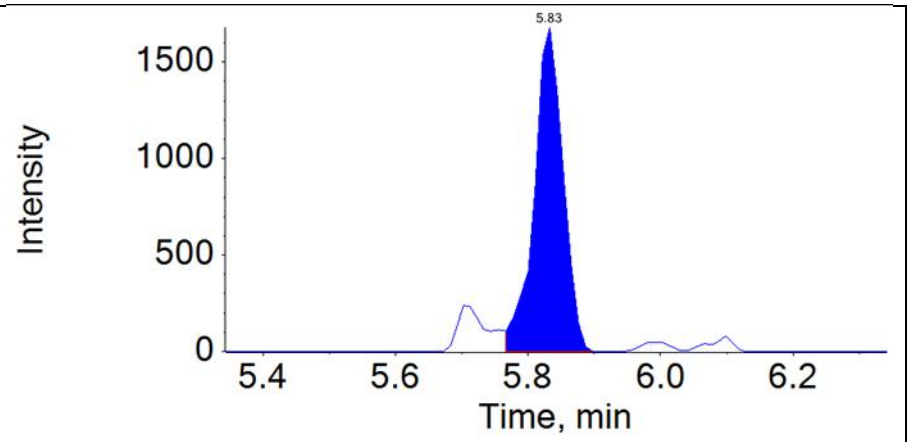


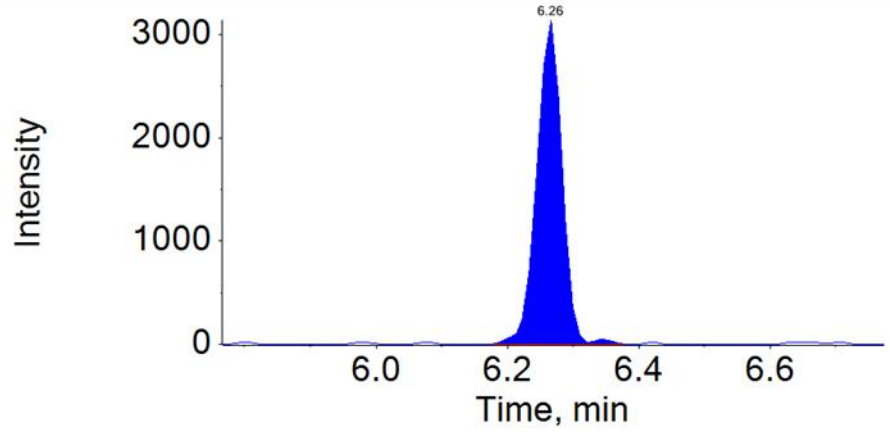
Integration Comment: incorrect integration

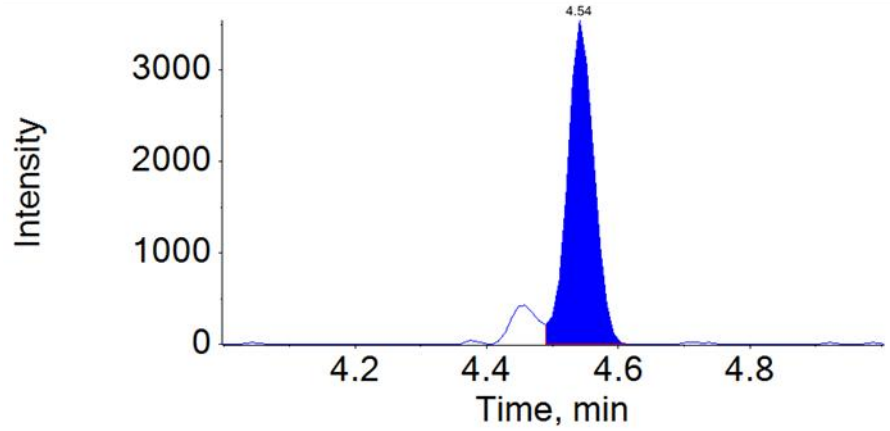
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 5119.1 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

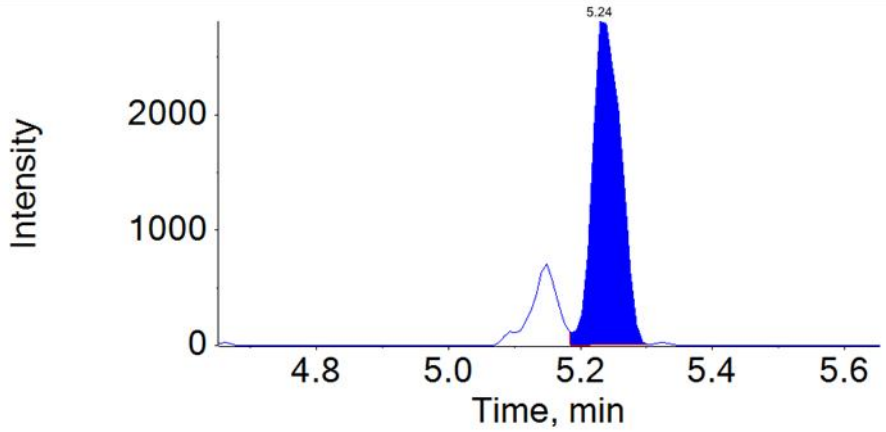
Component Name: NEtPFOSA **RT (min.):** 6.26 **Peak Area:** 8447.3 **Mass Range:** 526.0 / 169.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

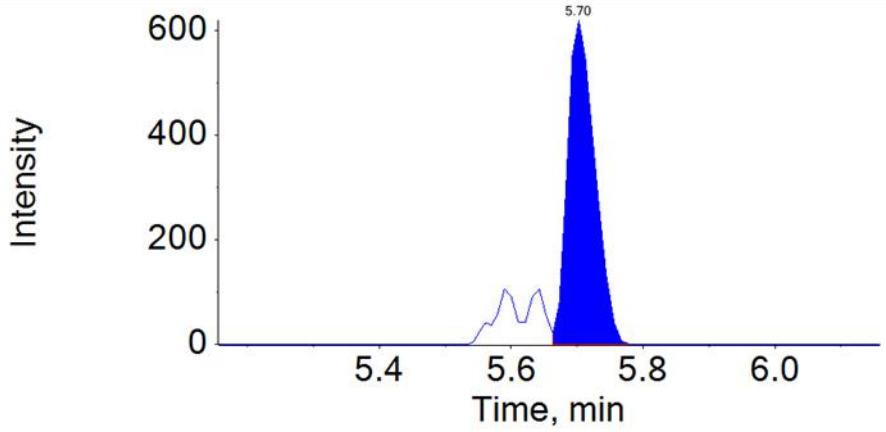
Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 9897.8 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

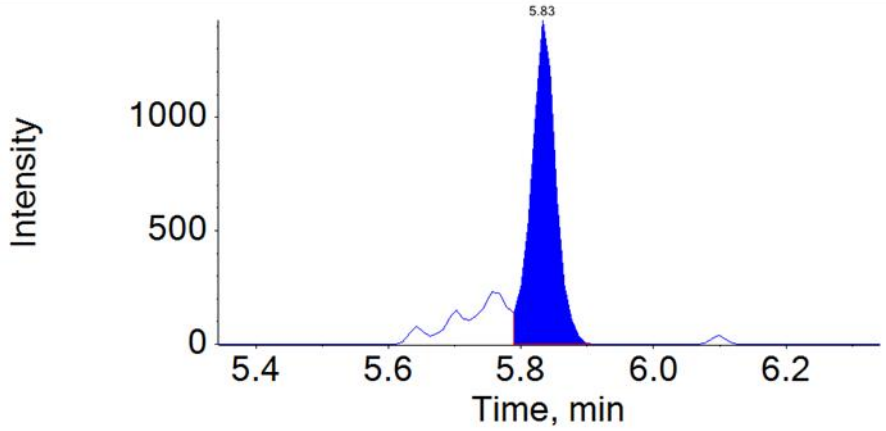
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 8459.9 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NMeFOSAA_2 **RT (min.):** 5.70 **Peak Area:** 1794.8 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.83 **Peak Area:** 3613.8 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV12D-70.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM

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

Ion Ratio Report

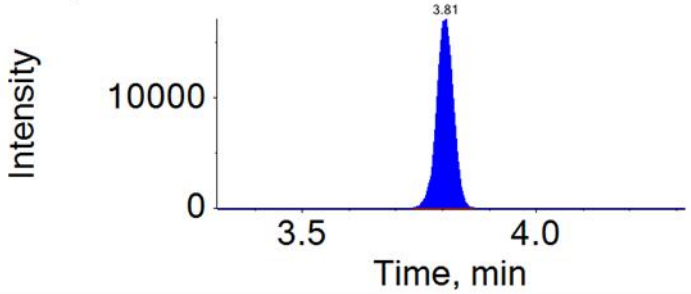
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV12D-70.wiff

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	43573.8	A	N/A	1.0000			
PFBS_2	3.80	1.00	17445.6	A	N/A	0.4004	10	50	
4:2-FTS	4.12	1.00	9044.8	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	6229.6	A	N/A	0.6887		#NA!	
PFHxA	4.15	1.00	92374.7	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1107.4	A	N/A	0.0120	2	50	
PFPeS	4.17	1.10	21331.8	A	N/A	1.0000			
PFPeS_2	4.17	1.10	11531.1	A	N/A	0.5406	4	50	
PFHpA	4.54	1.00	94858.7	A	N/A	1.0000			
PFHpA_2	4.54	1.00	4516.1	A	N/A	0.0476	-15	50	
PFHxS	4.54	1.00	31706.8	M	N/A	1.0000			
PFHxS_2	4.54	1.00	11135.3	M	N/A	0.3512	2	50	
6:2-FTS	4.90	1.00	8300.2	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	4721.0	A	N/A	0.5688		#NA!	
PFHpS	4.90	1.08	30342.3	A	N/A	1.0000			
PFHpS_2	4.90	1.08	12955.9	A	N/A	0.4270	5	50	
PFOA	4.91	1.00	99368.2	A	N/A	1.0000			
PFOA_2	4.91	1.00	5384.6	A	N/A	0.0542	-5	50	
PFOS	5.24	1.00	30080.0	M	N/A	1.0000			
PFOS_2	5.24	1.00	10448.0	M	N/A	0.3473	17	50	
PFNA	5.26	1.00	75174.3	A	N/A	1.0000			
PFNA_2	5.26	1.00	1731.3	A	N/A	0.0230	2	50	
PFNS	5.54	1.06	17303.4	A	N/A	1.0000			
PFNS_2	5.54	1.06	8456.6	A	N/A	0.4887	2	50	
PFDA	5.56	1.00	69571.5	A	N/A	1.0000			
PFDA_2	5.56	1.00	219.0	A	N/A	0.0031	-60	50	OOS
8:2-FTS	5.56	1.00	6246.5	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	4176.8	A	N/A	0.6687		#NA!	
NMeFOSAA	5.71	1.00	8320.3	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2229.5	M	N/A	0.2680	4	50	
PFDS	5.79	1.11	15378.4	A	N/A	1.0000			
PFDS_2	5.80	1.11	5748.8	A	N/A	0.3738	-27	50	
PFUnDA	5.82	1.00	56318.9	A	N/A	1.0000			
PFUnDA_2	5.85	1.00	389.3	A	N/A	0.0069	25	50	
NEtFOSAA	5.83	1.00	5863.7	M	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	4774.4	M	N/A	0.8142	13	50	
PFDoDA	6.04	1.00	56183.0	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	677.7	A	N/A	0.0121	-22	50	
10:2-FTS	6.07	1.09	4429.6	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	2884.8	A	N/A	0.6513		#NA!	
PFTrDA	6.24	1.03	50194.4	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	466.1	A	N/A	0.0093	9	50	
PFTeDA	6.42	1.00	38146.4	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	320.1	A	N/A	0.0084	35	50	
PFHxDA	6.72	1.05	19541.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1036.2	A	N/A	0.0530	-22	50	
PFODA	6.98	1.09	15536.1	A	N/A	1.0000			
PFODA_2	6.98	1.09	478.3	A	N/A	0.0308	12	50	

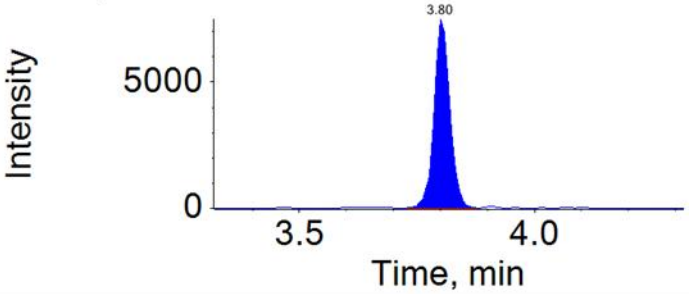
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

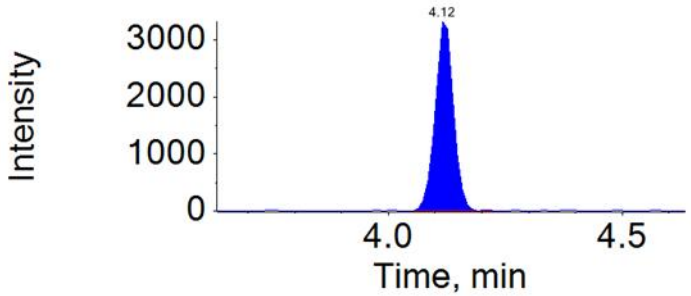
Component: PFBS
Primary Mass: 299.0 / 80.0



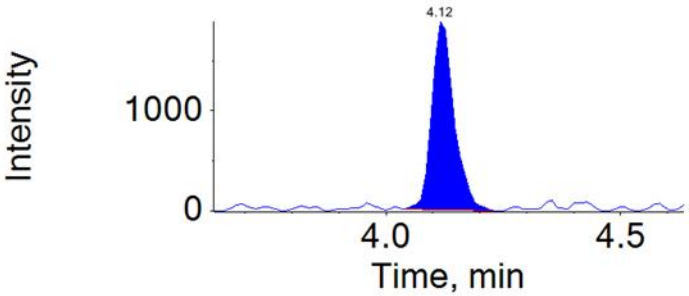
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



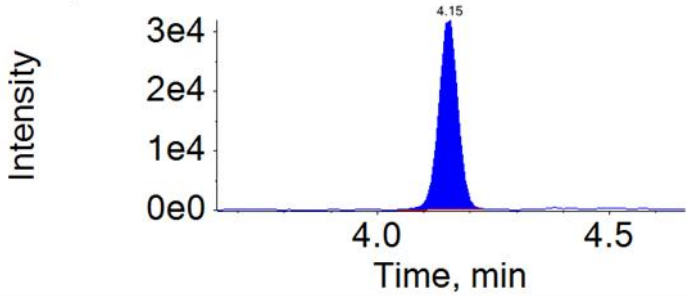
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



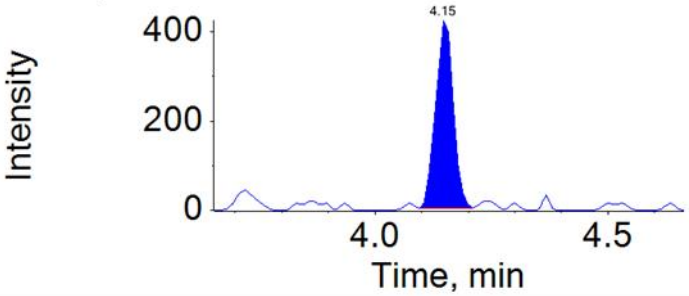
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



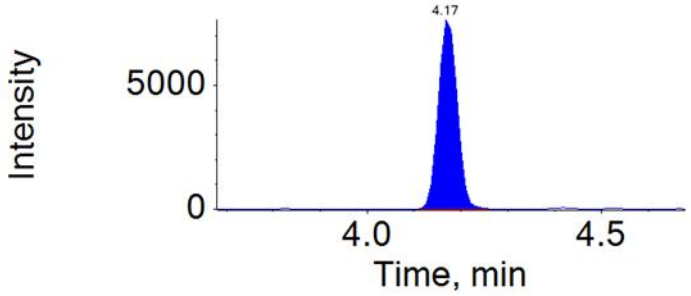
Component: PFHxA
Primary Mass: 313.0 / 269.0



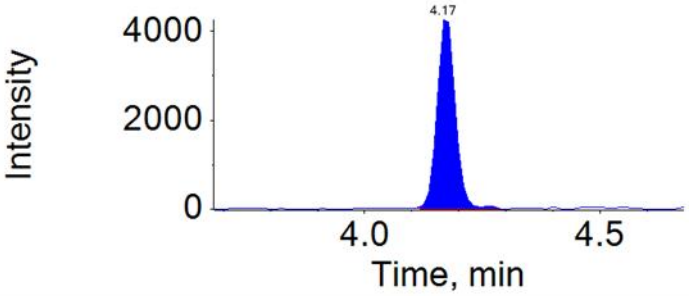
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



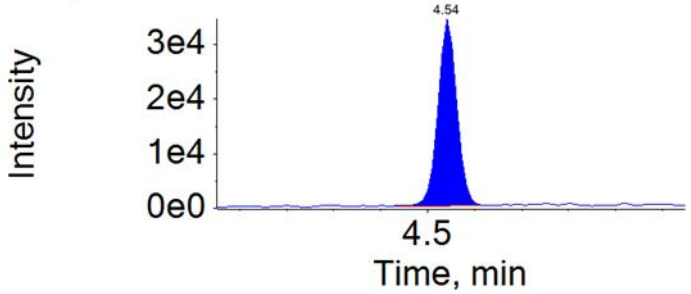
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



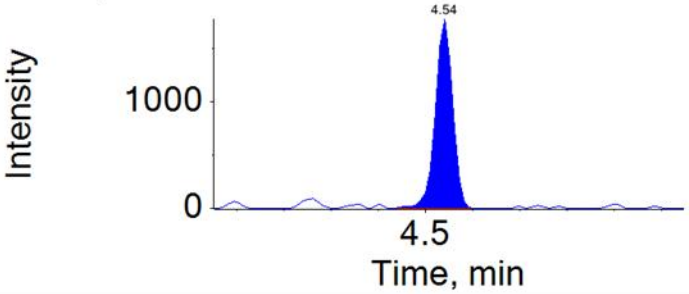
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

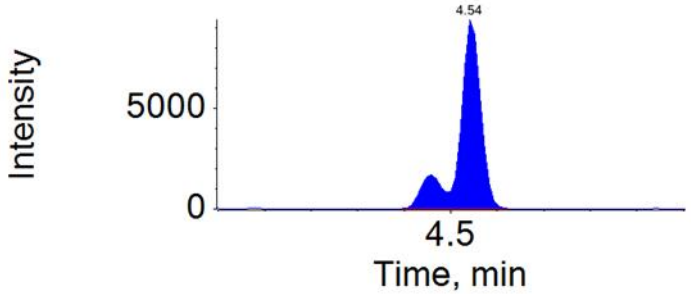
Component: PFHpA
Primary Mass: 363.0 / 319.0



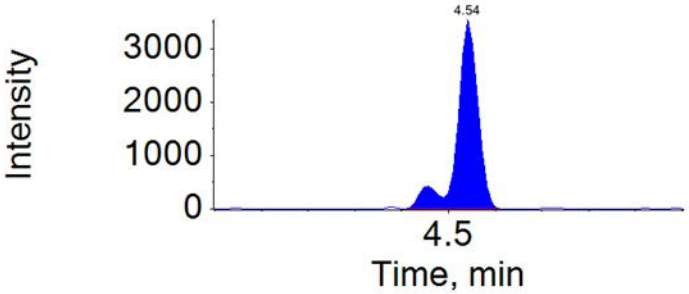
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



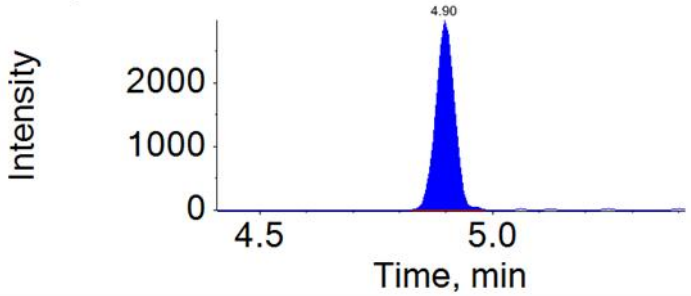
Component: PFHxS
Primary Mass: 399.0 / 80.0



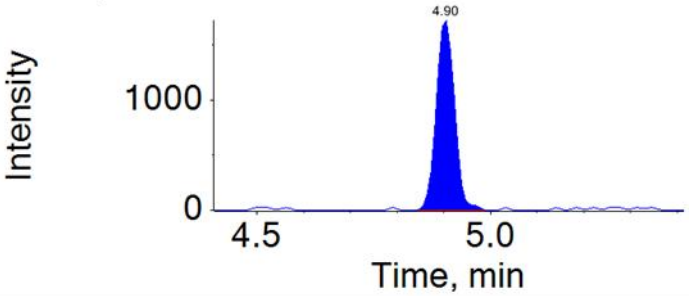
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



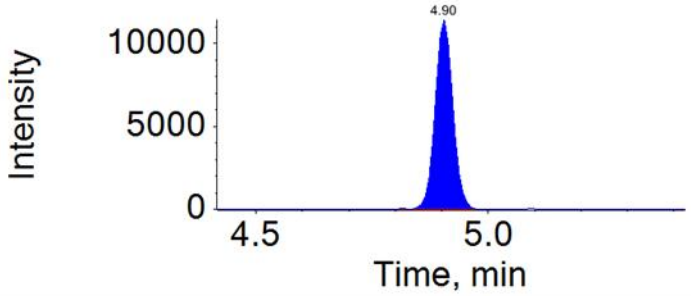
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



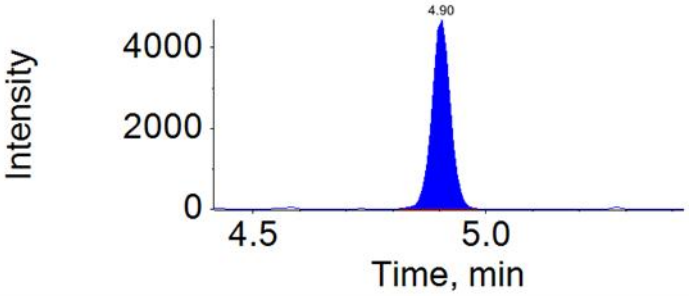
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



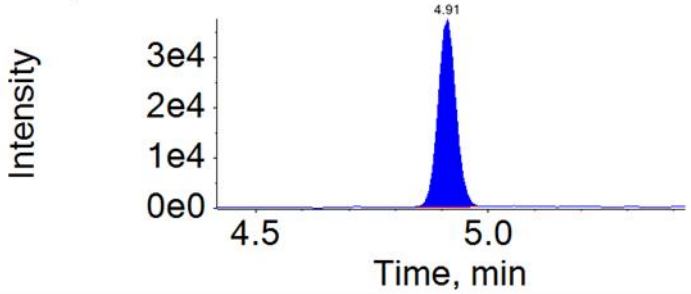
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



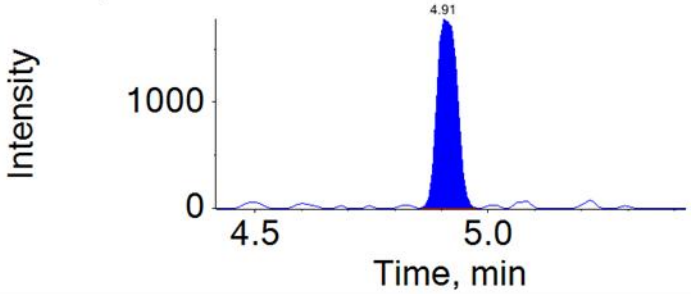
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

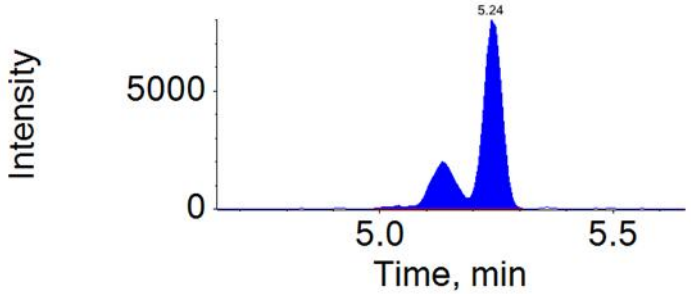
Component: PFOA
Primary Mass: 413.0 / 369.0



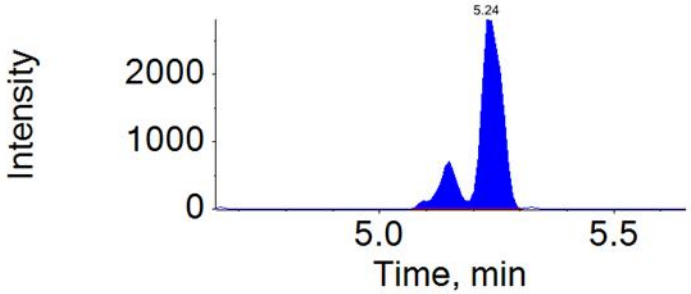
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



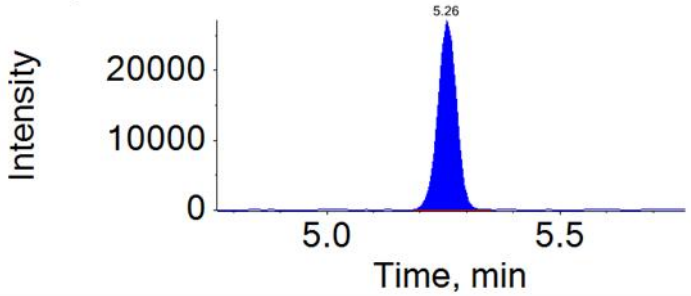
Component: PFOS
Primary Mass: 499.0 / 80.0



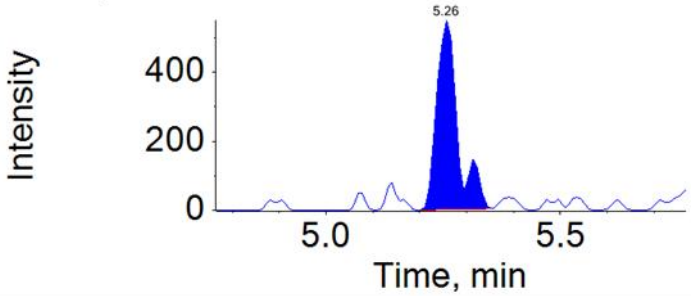
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



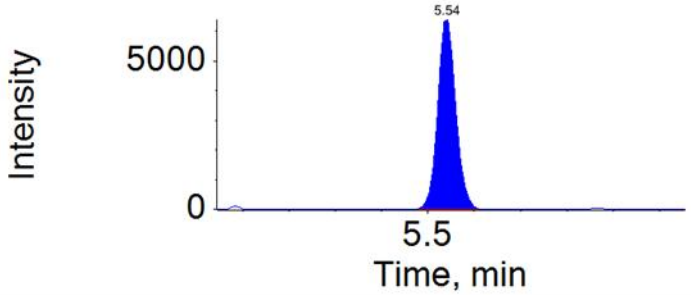
Component: PFNA
Primary Mass: 463.0 / 419.0



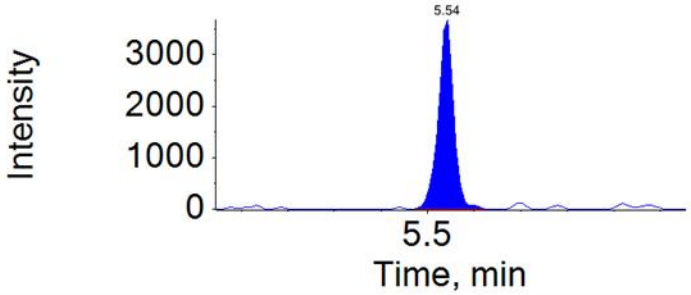
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



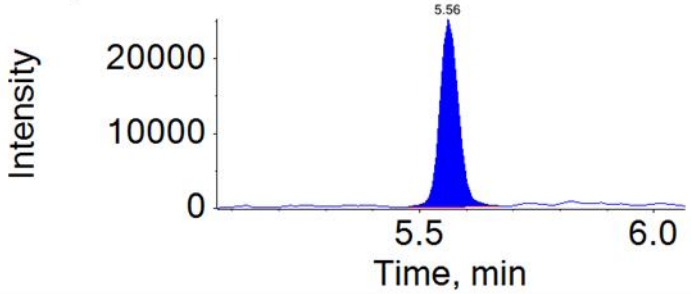
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



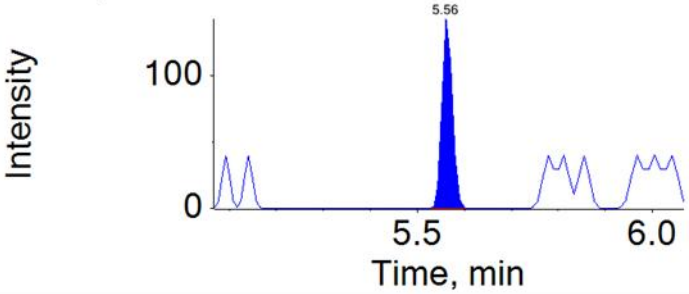
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

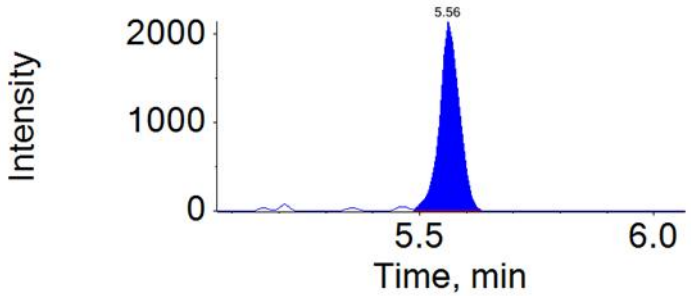
Component: PFDA
Primary Mass: 513.0 / 469.0



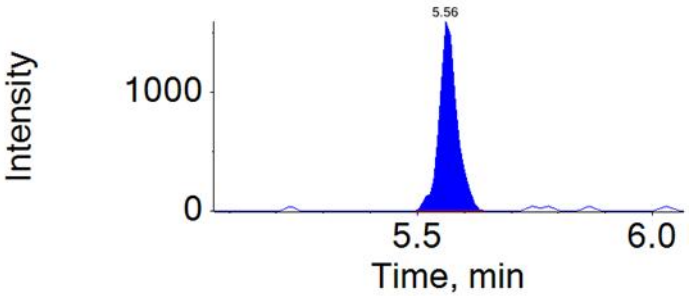
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



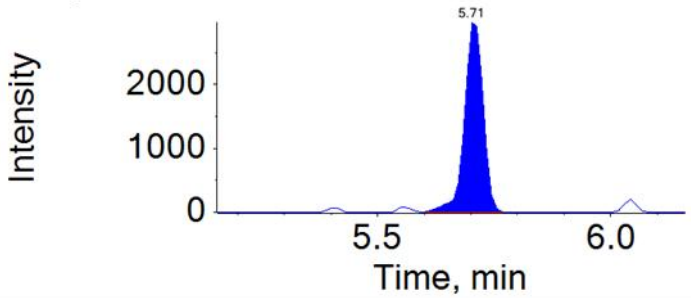
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



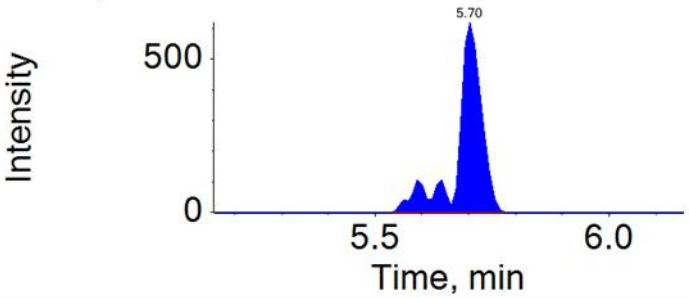
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



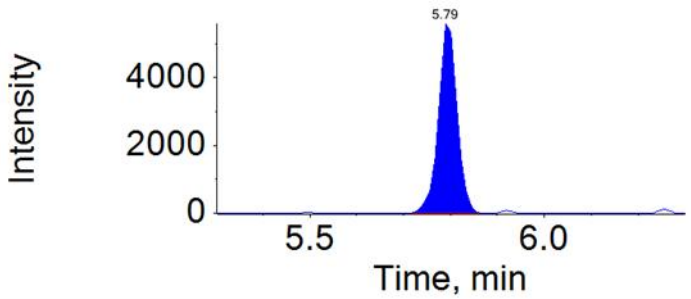
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



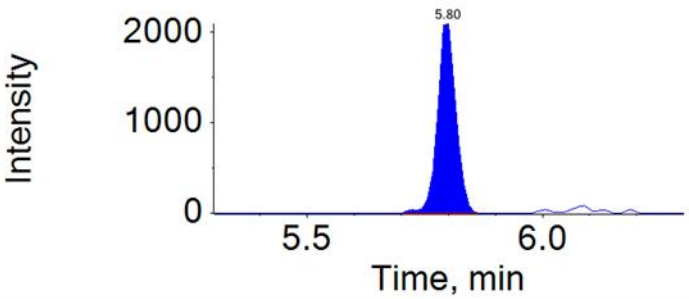
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



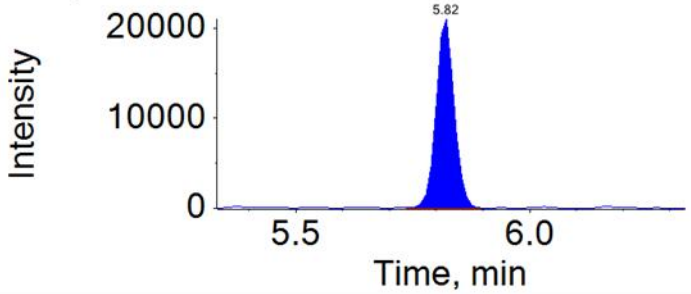
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



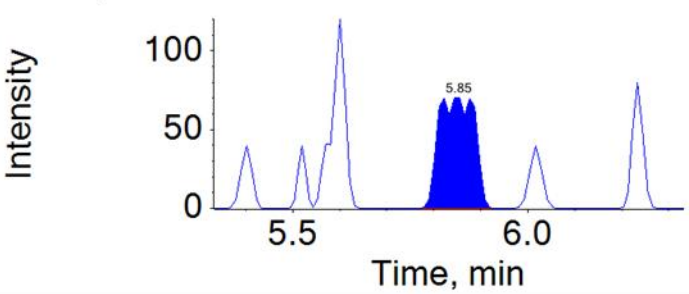
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

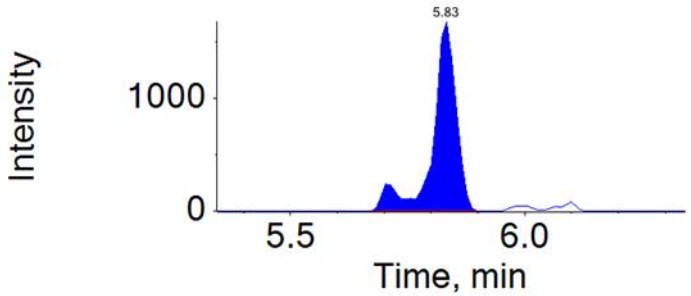
Component: PFUnDA
Primary Mass: 563.0 / 519.0



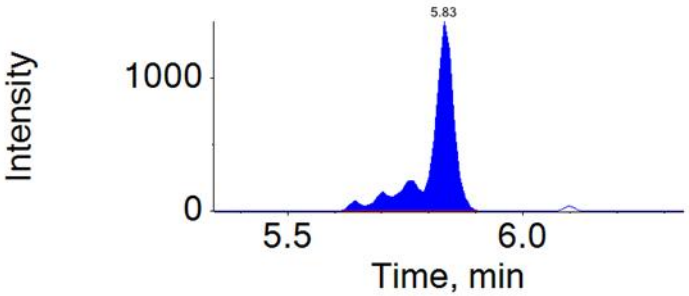
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



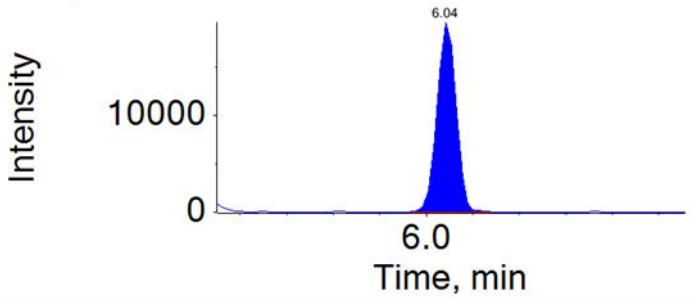
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



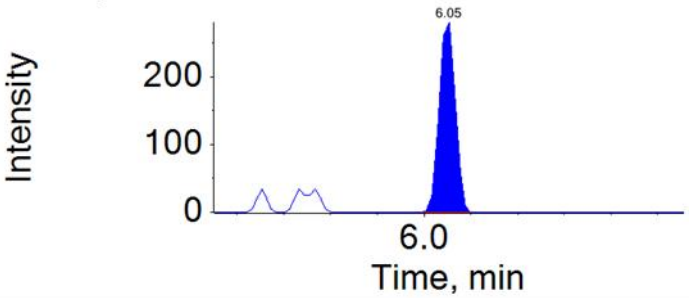
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



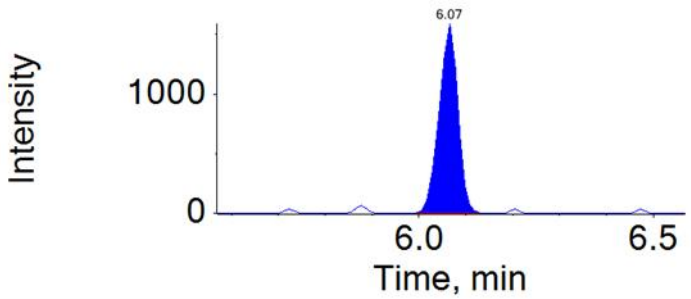
Component: PFDoDA
Primary Mass: 613.0 / 569.0



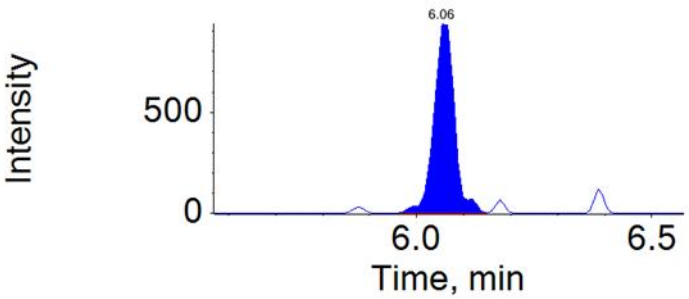
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



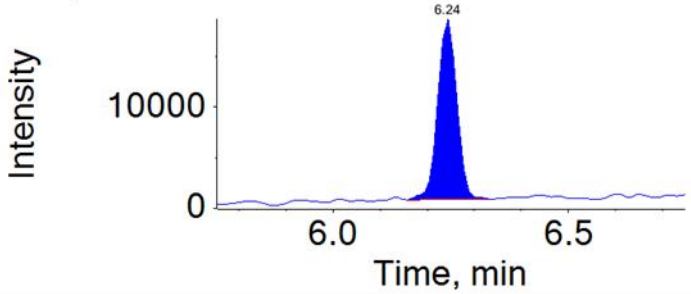
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



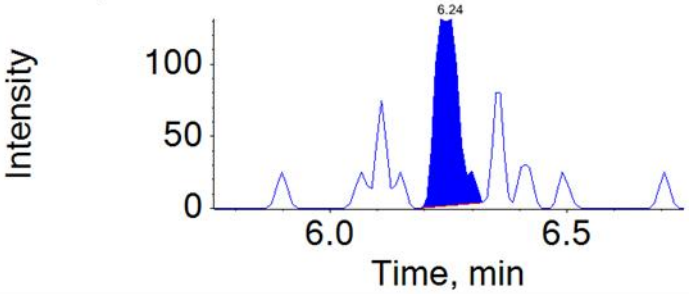
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

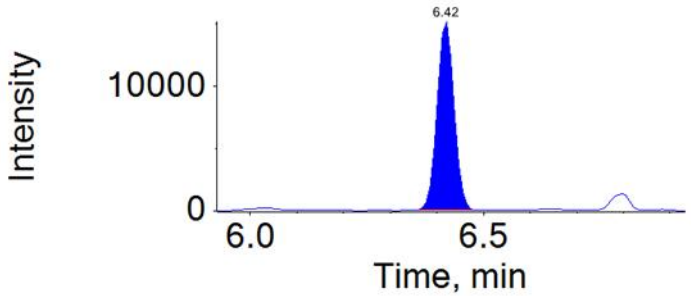
Component: PFTrDA
Primary Mass: 663.0 / 619.0



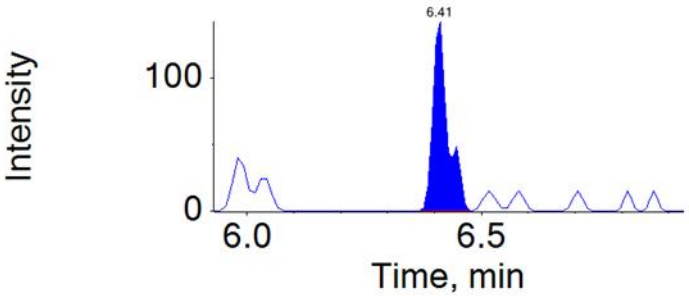
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



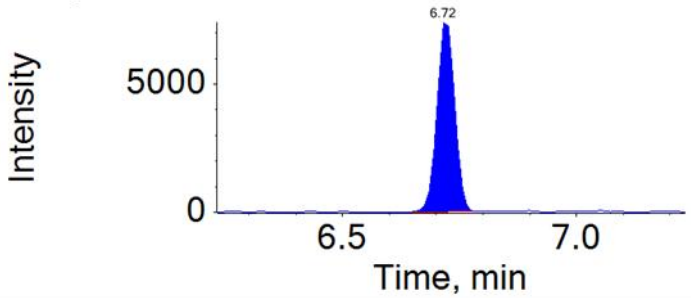
Component: PFTeDA
Primary Mass: 713.0 / 669.0



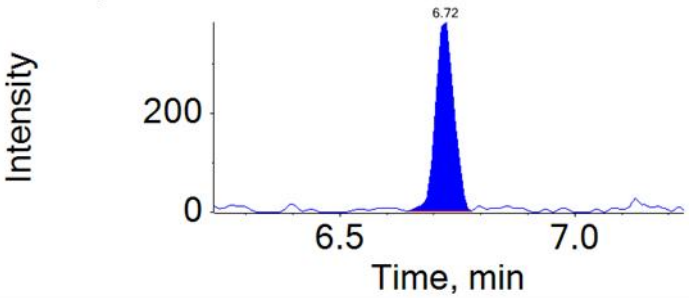
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



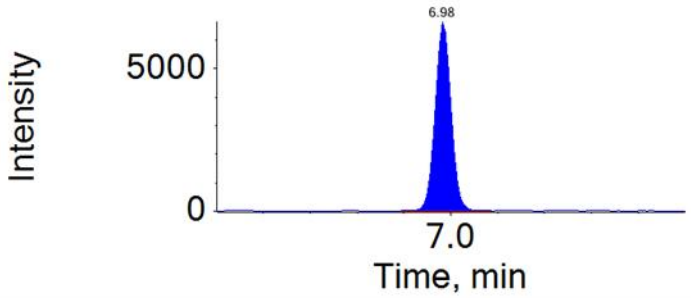
Component: PFHxDA
Primary Mass: 813.0 / 769.0



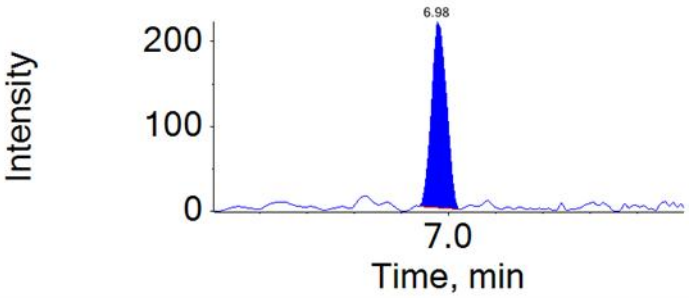
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By umar at 5:20 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV12D-71.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-13T03:17:33
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV12DCCV3-11
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	697321.6	659926.2	6	50	
13C2-PFOA	5.0	497803.7	450219.7	11	50	
13C4-PFOS	4.8	275021.7	249205.8	10	50	
13C2-PFDA	5.0	301663.5	278743.9	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	771621.7	13C3-PFBA	697321.6	1.107	5.000	4.961	99	70-130	
E13C5-PFPeA	783833.6	13C3-PFBA	697321.6	1.124	5.000	5.042	101	70-130	
E13C3-PFBS	456189.9	13C3-PFBA	697321.6	0.654	4.650	4.618	99	70-130	
E13C2-4:2-FTS	52339.5	13C2-PFOA	497803.7	0.105	4.670	4.683	100	70-130	
E13C5-PFHxA	673746.3	13C2-PFOA	497803.7	1.353	5.000	4.889	98	70-130	
E13C3-PFHxS	357291.6	13C2-PFOA	497803.7	0.718	4.730	4.925	104	70-130	
E13C4-PFHpA	553727.4	13C2-PFOA	497803.7	1.112	5.000	5.011	100	70-130	
E13C2-6:2-FTS	41520.7	13C2-PFOA	497803.7	0.083	4.750	5.580	117	70-130	
E13C8-PFOA	964074.5	13C2-PFOA	497803.7	1.937	5.000	5.336	107	70-130	
E13C8-PFOS	303765.2	13C4-PFOS	275021.7	1.105	4.780	4.894	102	70-130	
E13C9-PFNA	511665.4	13C4-PFOS	275021.7	1.860	5.000	5.187	104	70-130	
E13C6-PFDA	682687.0	13C2-PFDA	301663.5	2.263	5.000	5.281	106	70-130	
E13C2-8:2-FTS	28451.6	13C2-PFDA	301663.5	0.094	4.790	4.704	98	70-130	
E13C8-PFOSA	662257.7	13C2-PFDA	301663.5	2.195	5.000	4.867	97	70-130	
Ed3-NMeFOSAA	73048.1	13C2-PFDA	301663.5	0.242	5.000	4.371	87	70-130	
E13C7-PFUnDA	275514.1	13C2-PFDA	301663.5	0.913	5.000	5.303	106	70-130	
Ed5-NEtFOSAA	69016.7	13C2-PFDA	301663.5	0.229	5.000	4.840	97	70-130	
E13C2-PFDoDA	600781.2	13C2-PFDA	301663.5	1.992	5.000	5.171	103	70-130	
Ed7-NMePFOSAE	344641.0	13C2-PFDA	301663.5	1.142	5.000	4.944	99	70-130	
Ed3-NMePFOSA	77204.1	13C2-PFDA	301663.5	0.256	5.000	4.650	93	70-130	
Ed9-NEtPFOSAE	284074.7	13C2-PFDA	301663.5	0.942	5.000	4.898	98	70-130	
Ed5-NEtPFOSA	60467.1	13C2-PFDA	301663.5	0.200	5.000	4.702	94	70-130	
E13C2-PFTeDA	417729.5	13C2-PFDA	301663.5	1.385	5.000	4.861	97	70-130	

APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

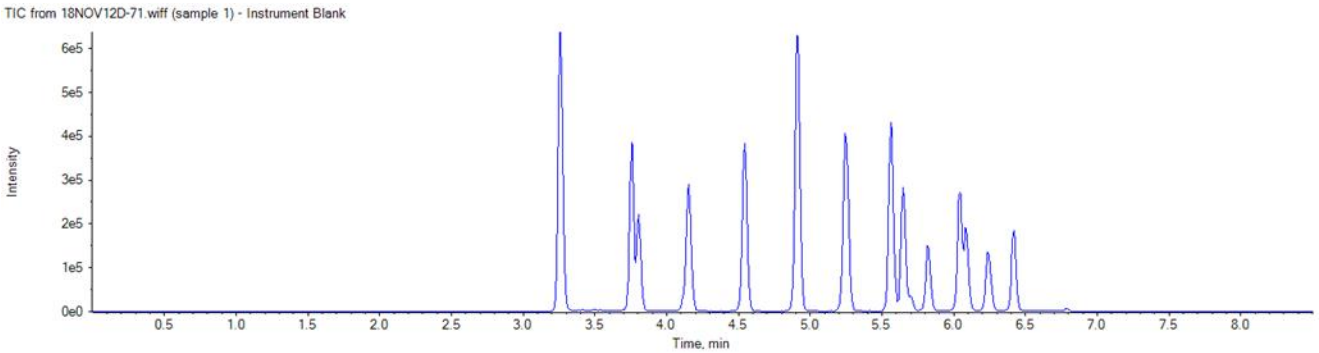
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-71.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	771621.7	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	783833.6	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456189.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	52339.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	673746.3	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456189.9	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	553727.4	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	357291.6	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	41520.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	357291.6	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	964074.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	511665.4	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	682687.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	28451.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	662257.7	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	73048.1	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	275514.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	69016.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	600781.2	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	28451.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	344641.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	77204.1	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	303765.2	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	284074.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	60467.1	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	600781.2	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	417729.5	N/A	

Total Ion Chromatogram

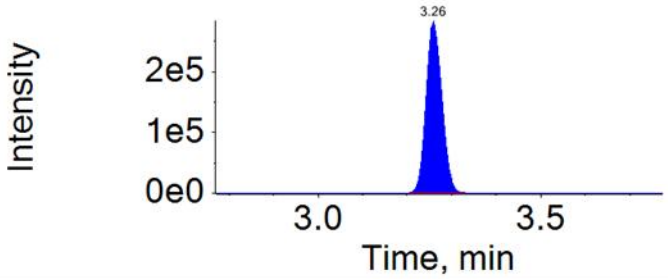


APPROVED
By JPT at 10:23 am, 11/13/18

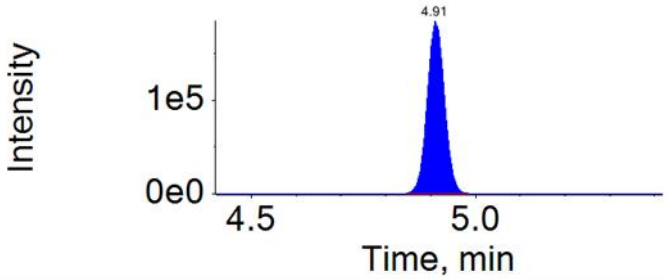
REVIEWED
By UMJS at 3:32 pm, 11/26/18

ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

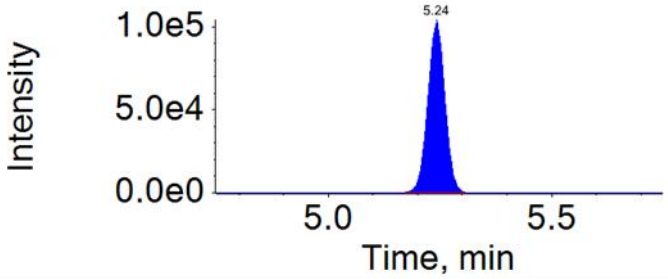
Injection Standard: 13C3-PFBA
216.0 / 172.0



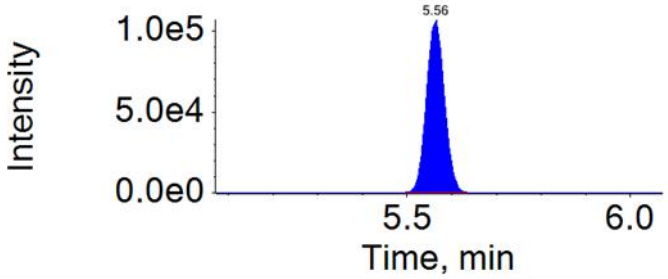
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

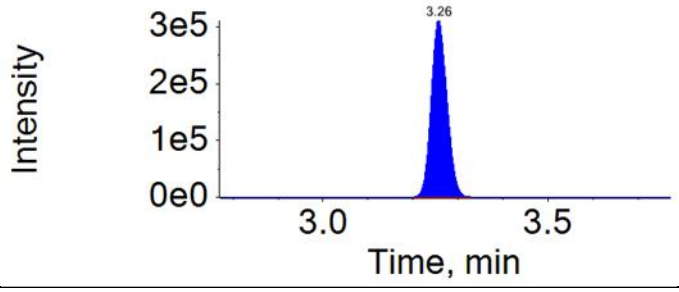


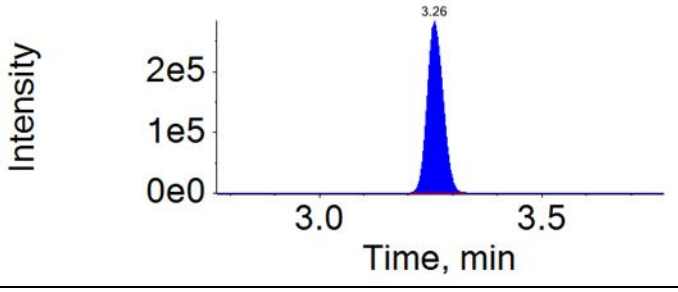
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

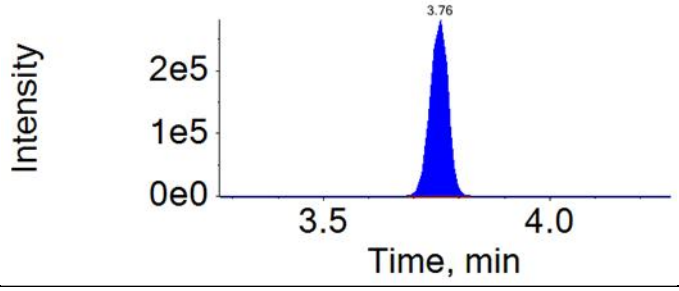
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

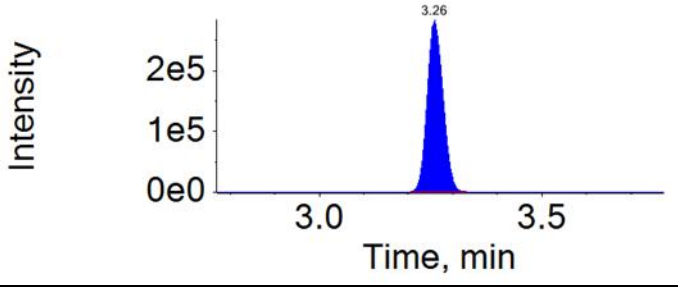
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



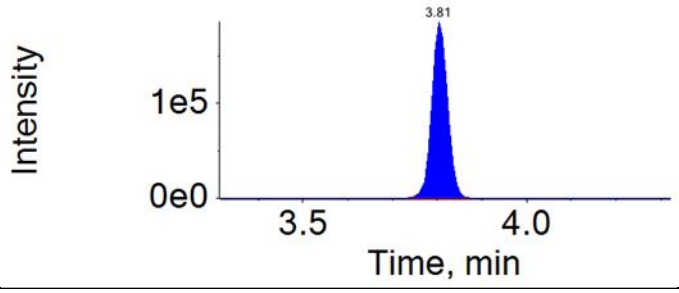


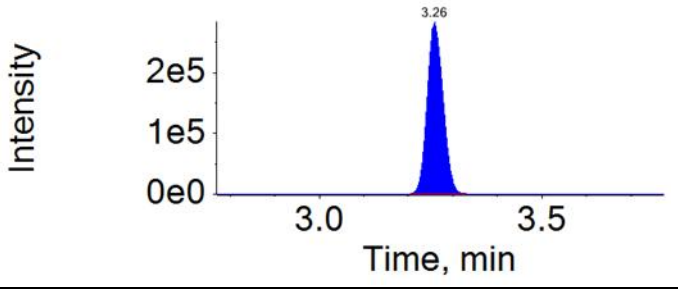
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



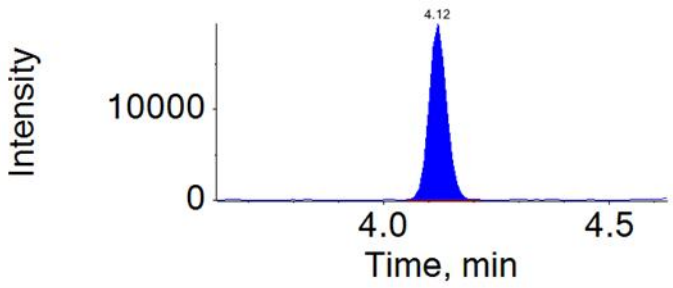


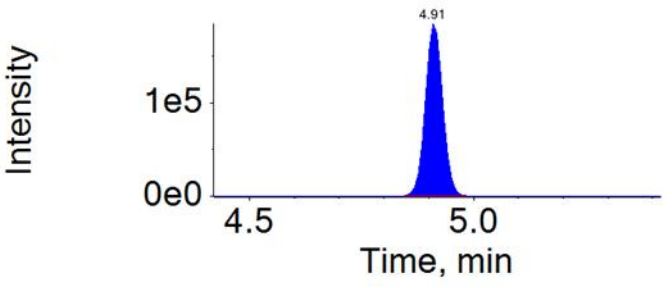
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





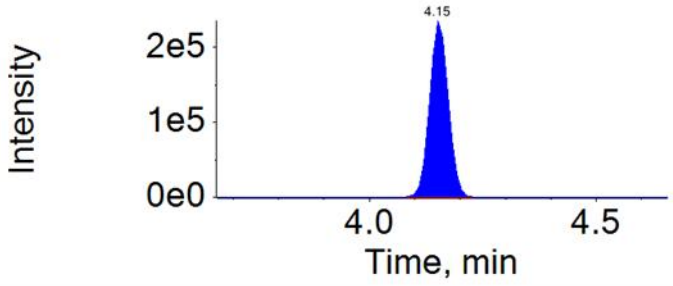
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

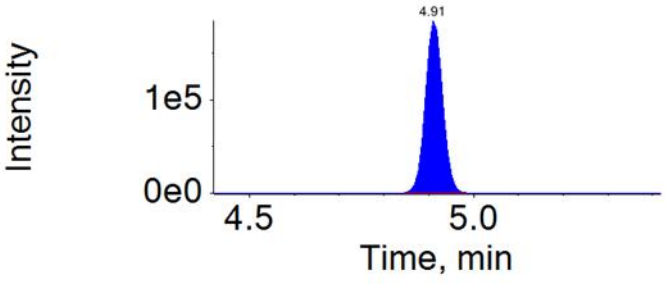




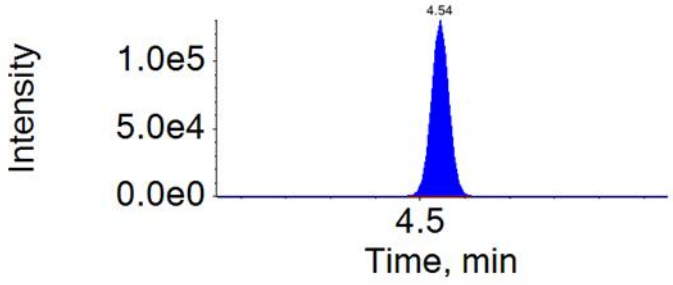
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

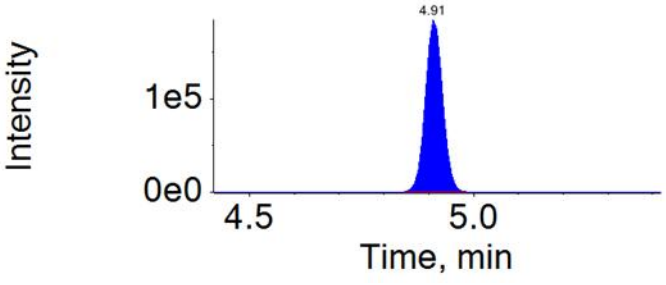
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



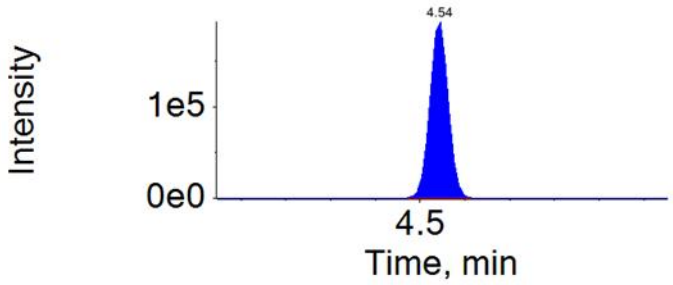


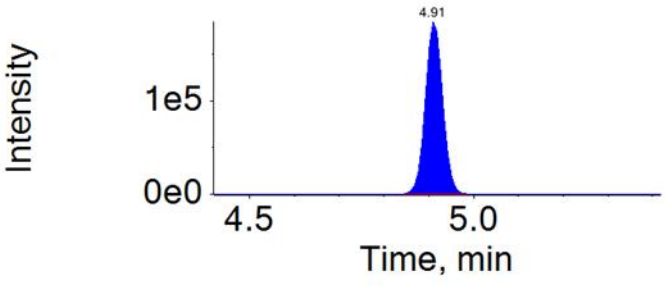
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



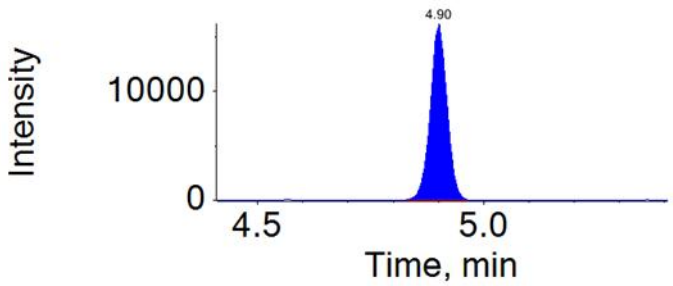


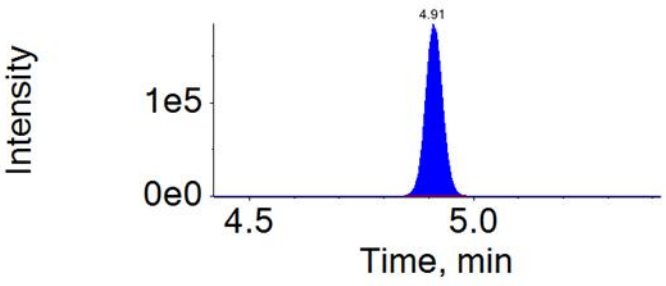
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0



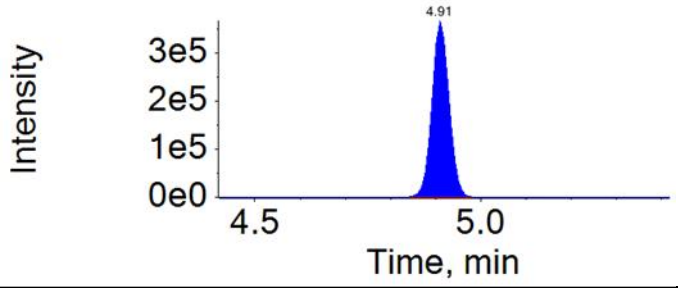
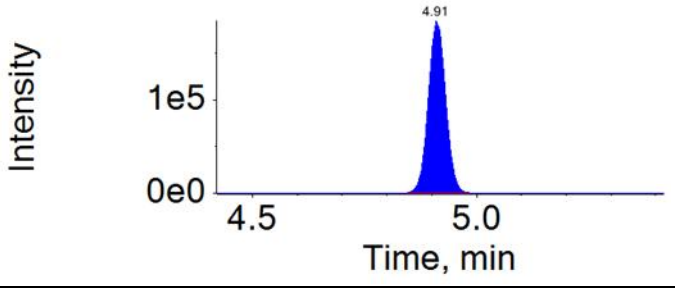


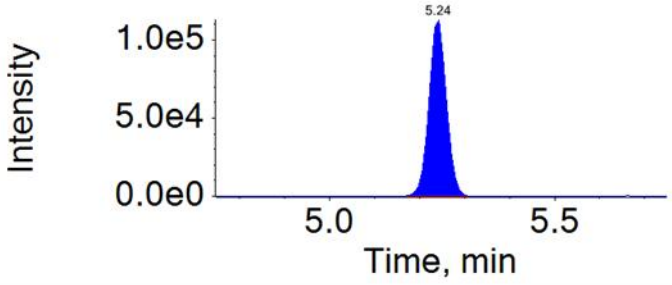
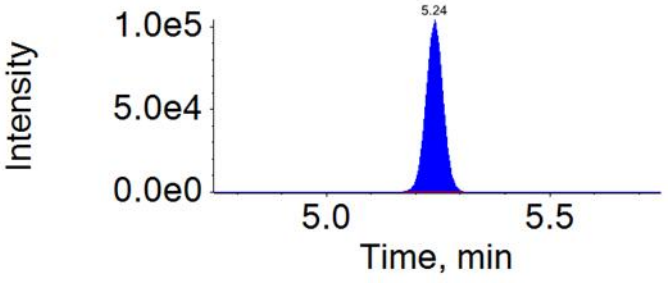
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

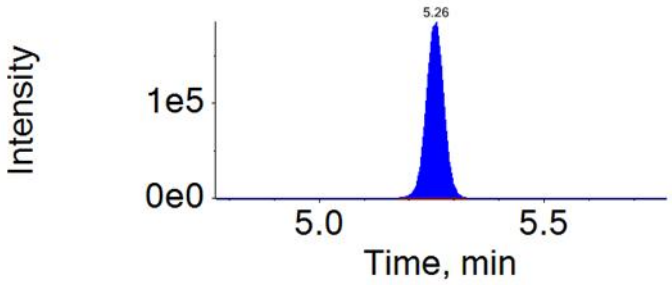
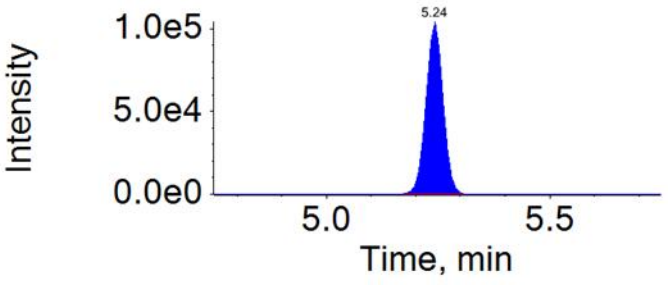


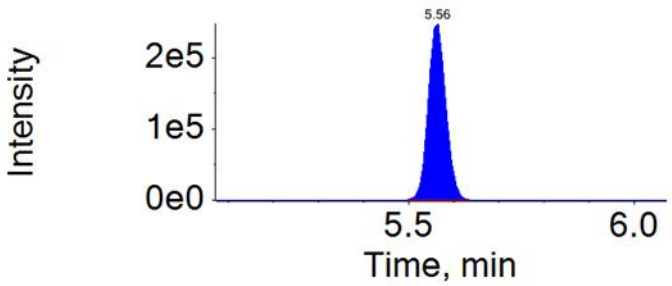
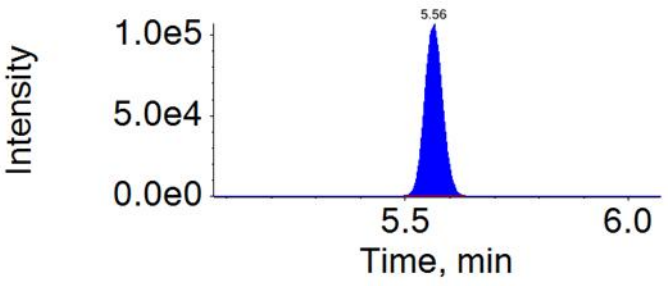


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

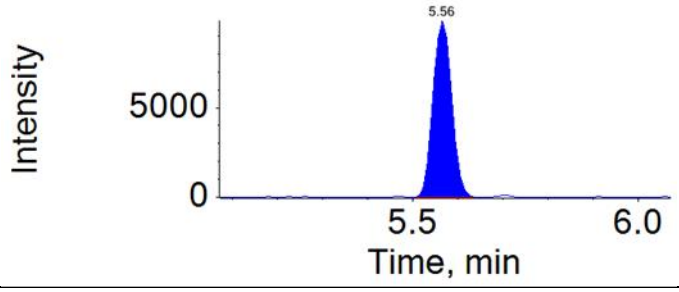
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

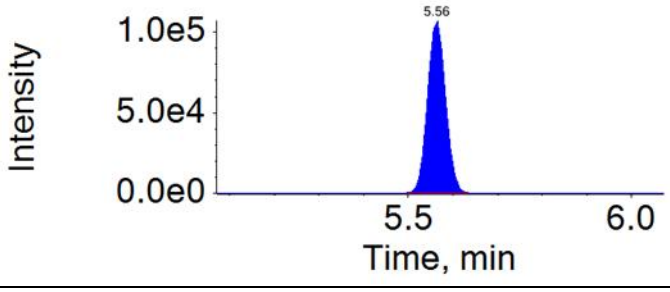
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

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

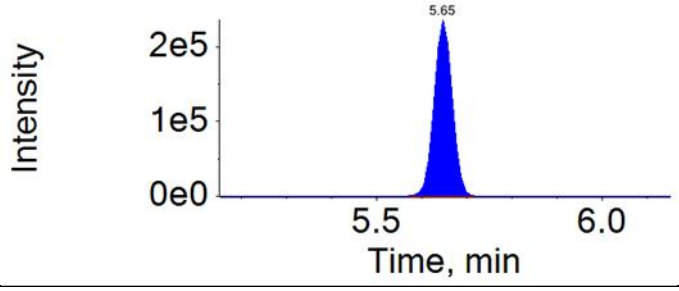
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

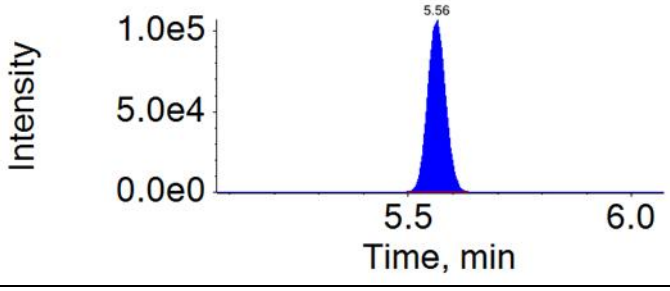
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



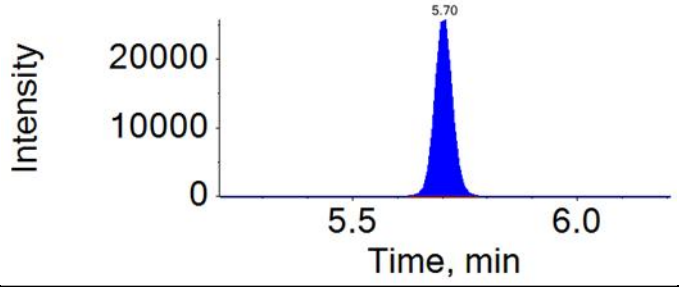


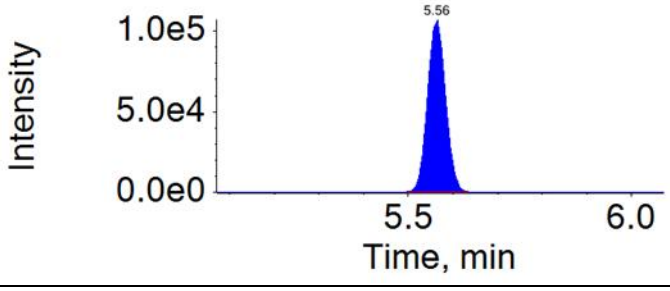
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



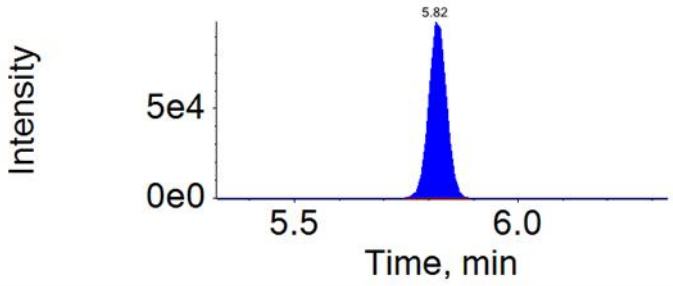


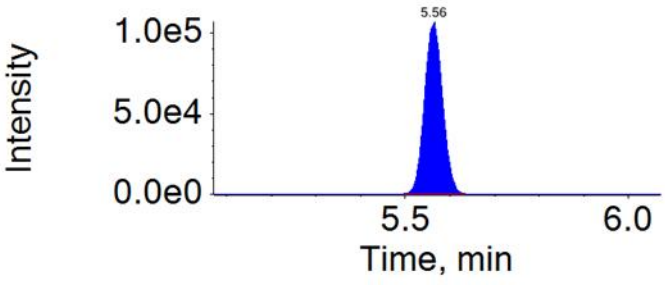
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



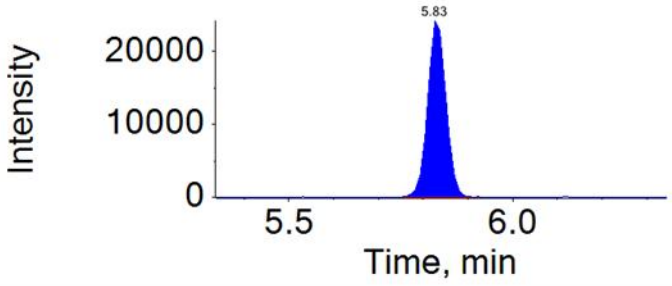
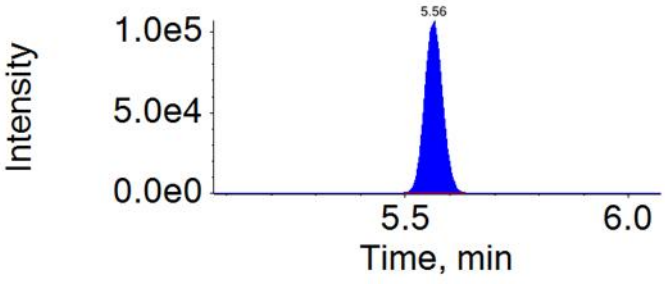


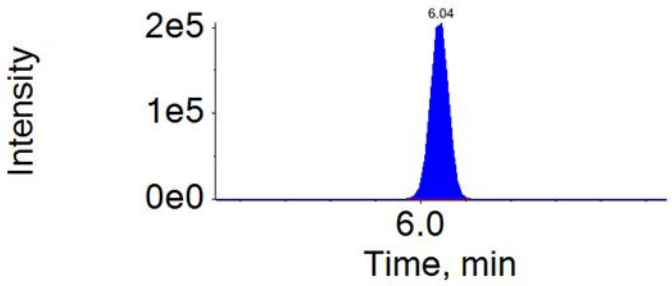
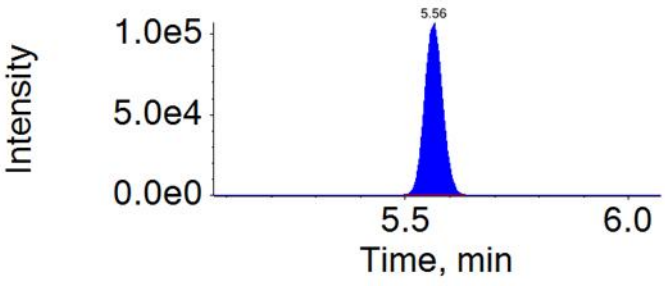
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

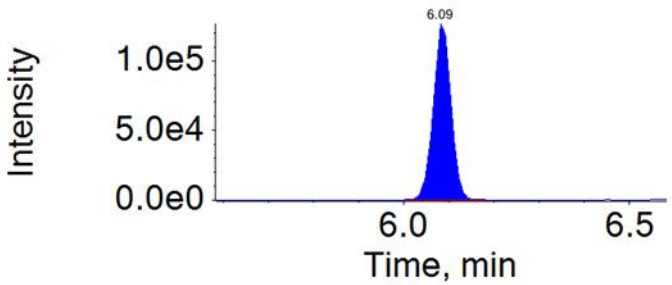
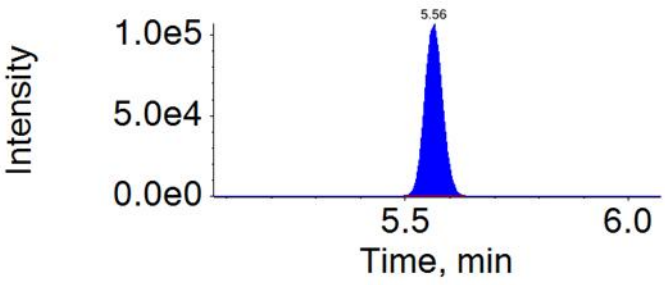


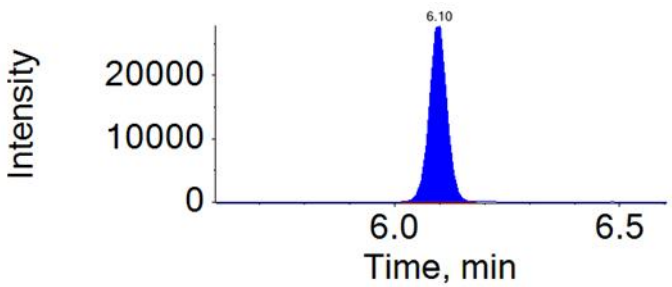
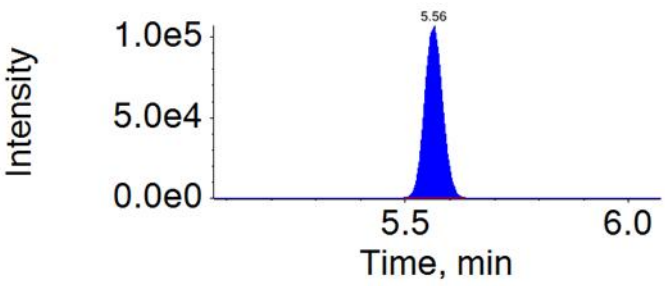


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

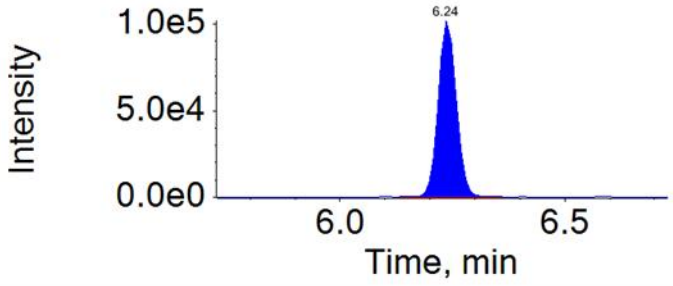
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

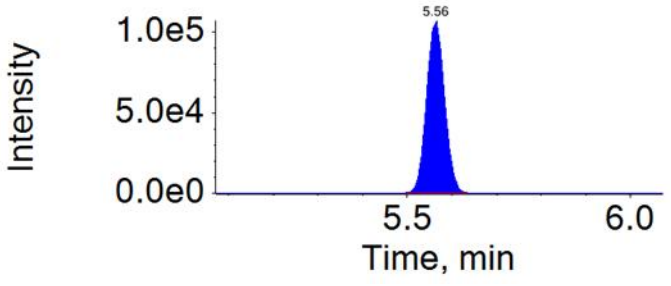
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

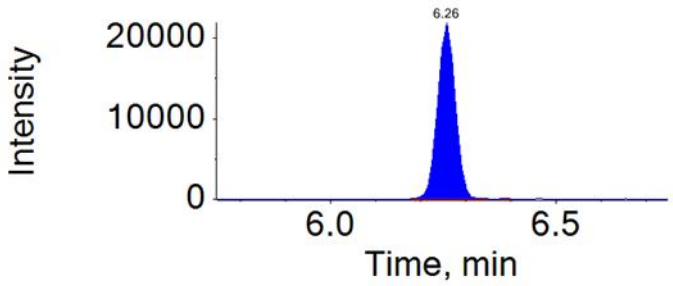
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

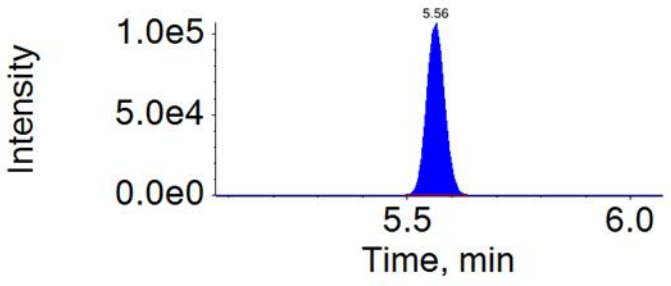
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



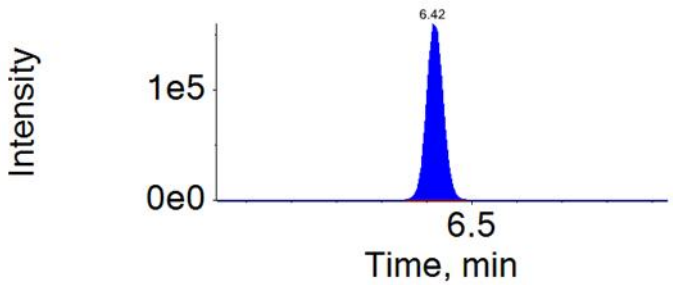


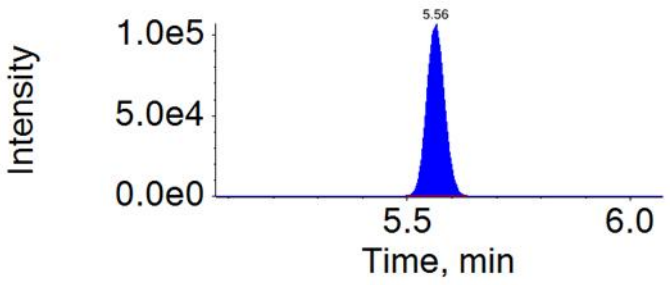
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



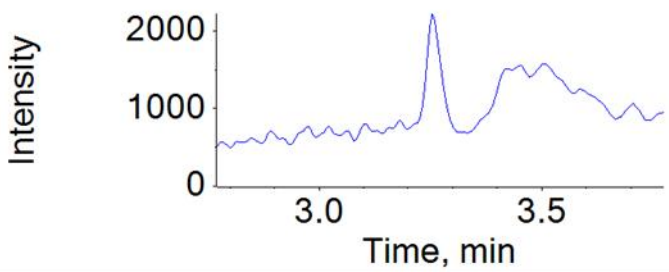


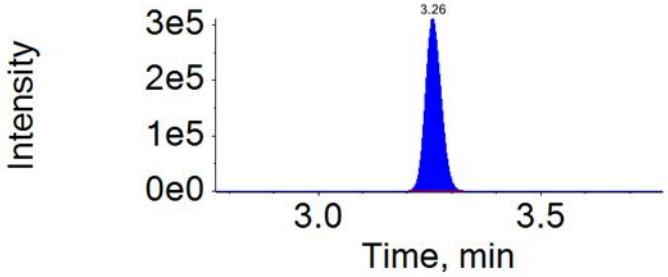
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

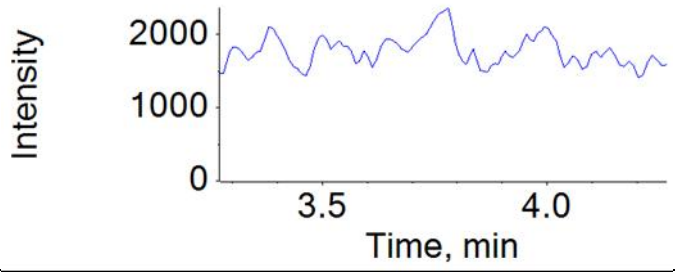
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

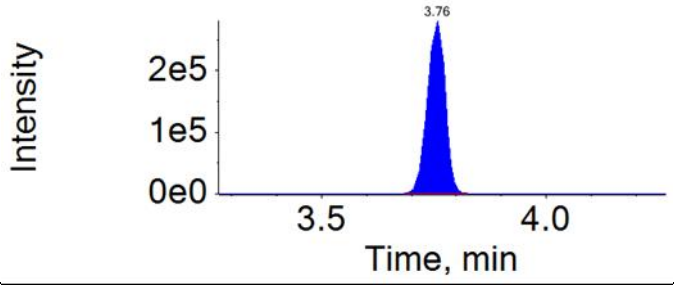
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



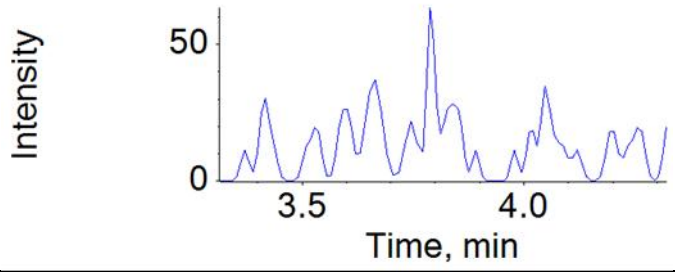


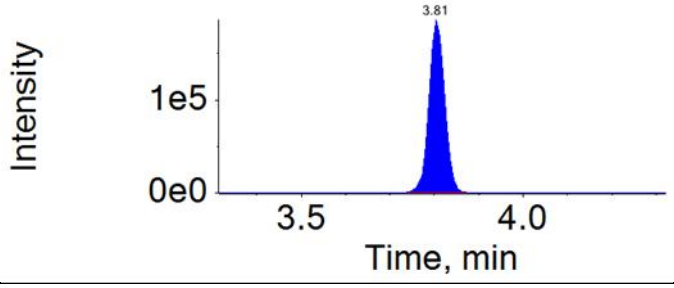
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



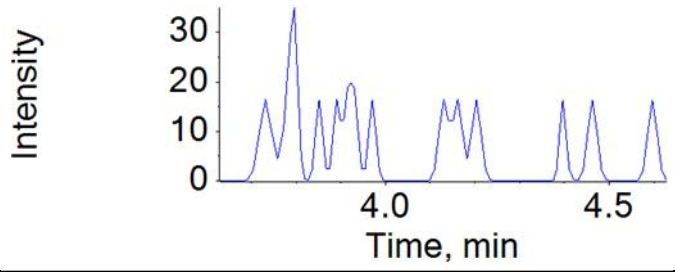


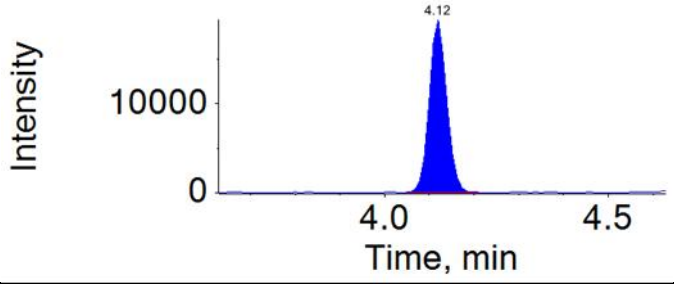
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



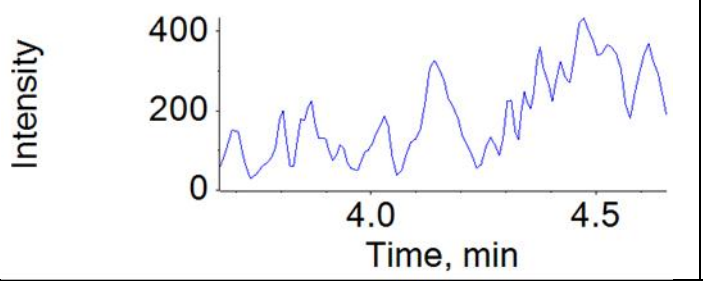


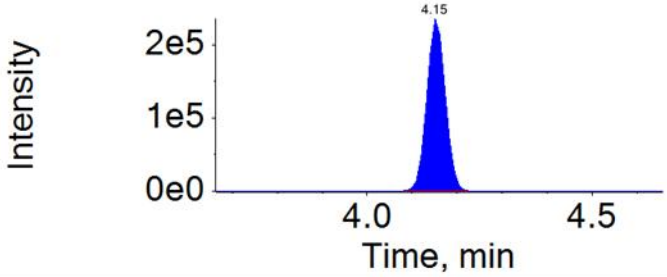
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

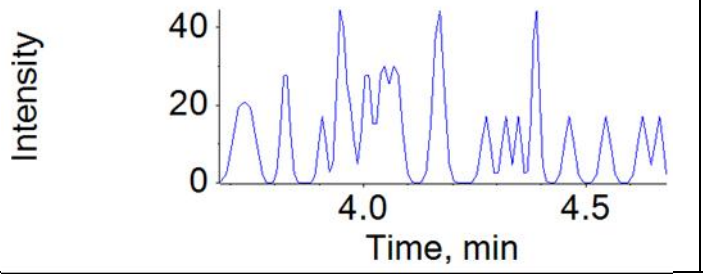
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

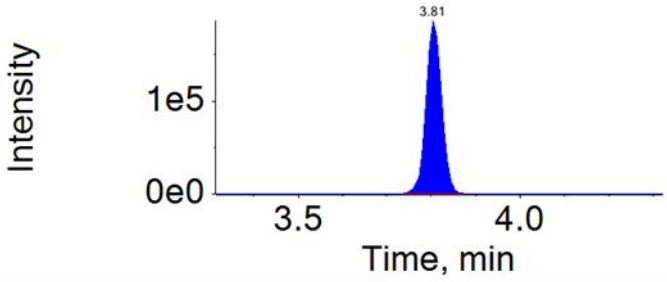
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



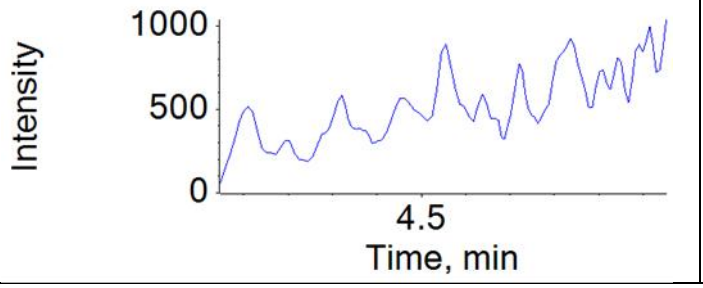


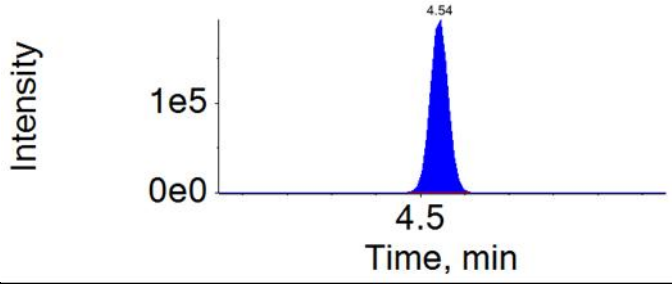
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



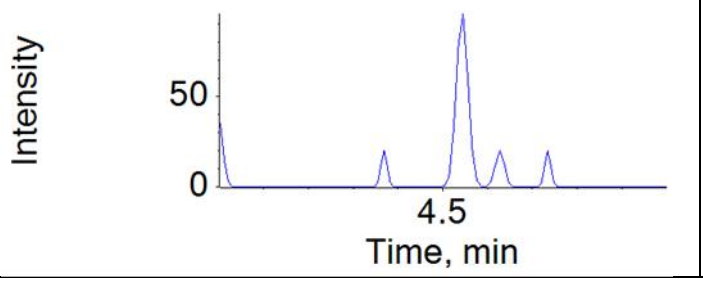


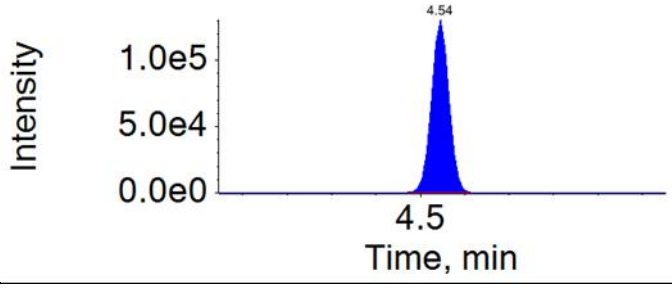
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



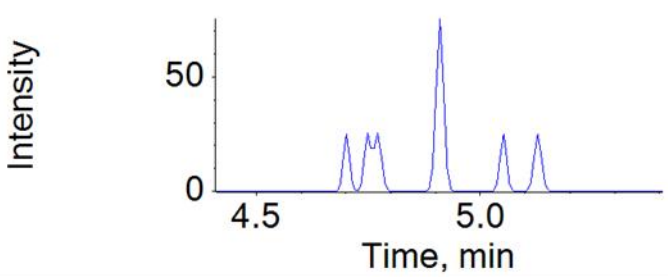
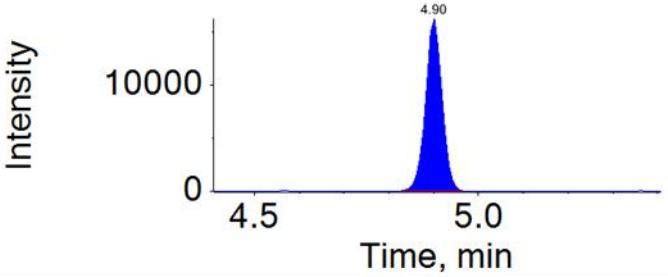


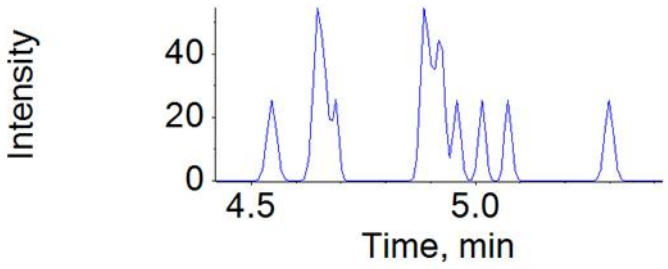
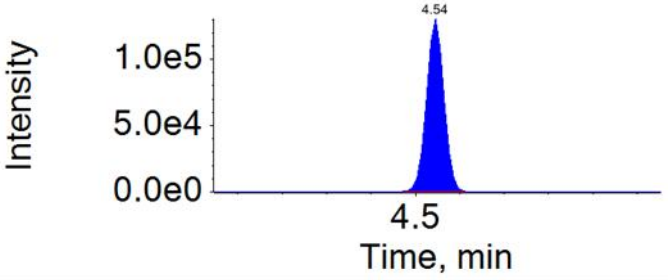
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

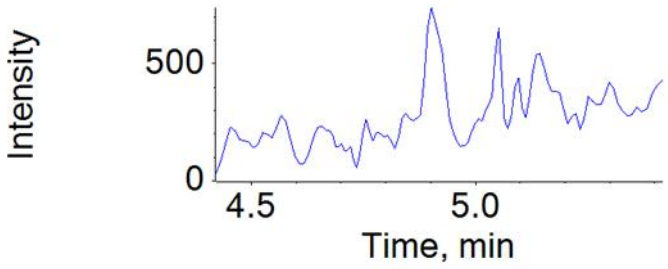
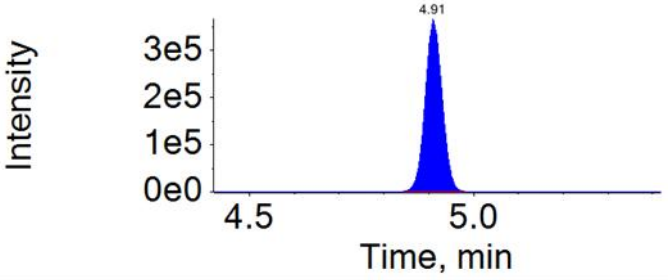


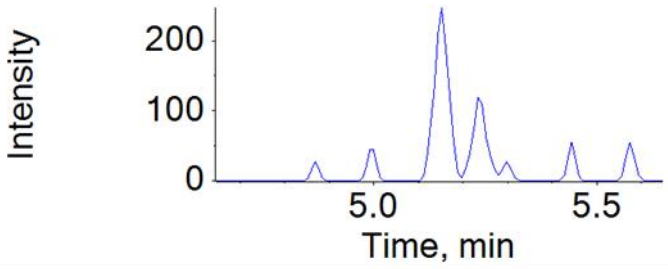
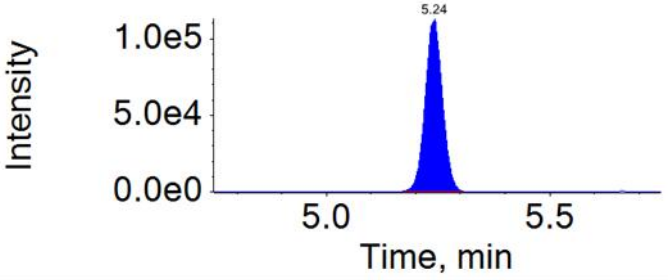


ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

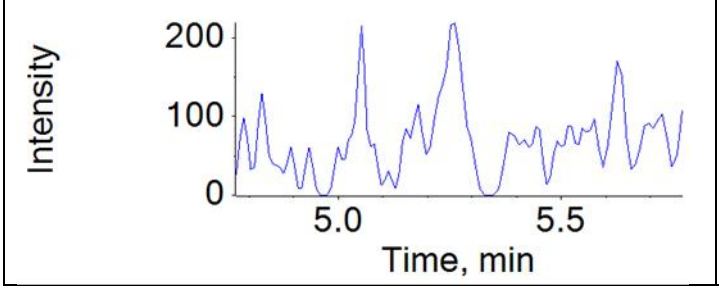
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

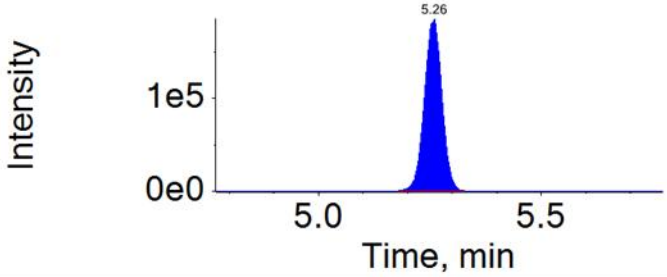
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

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

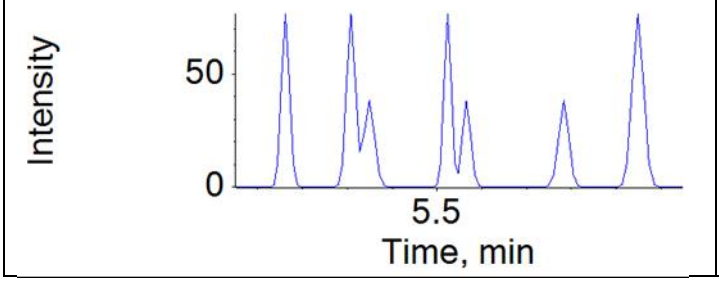
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

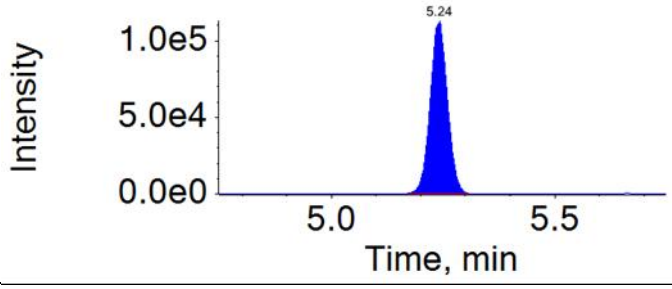
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



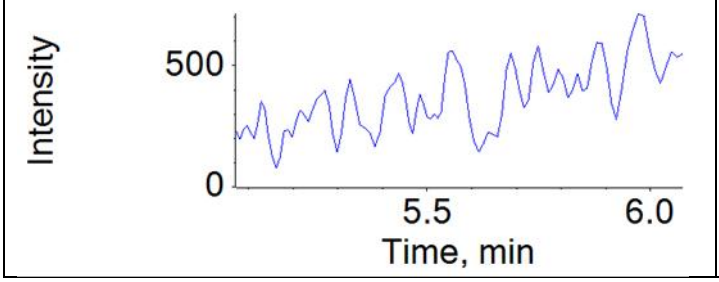


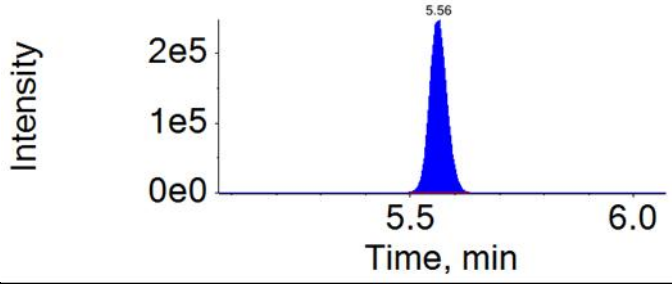
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



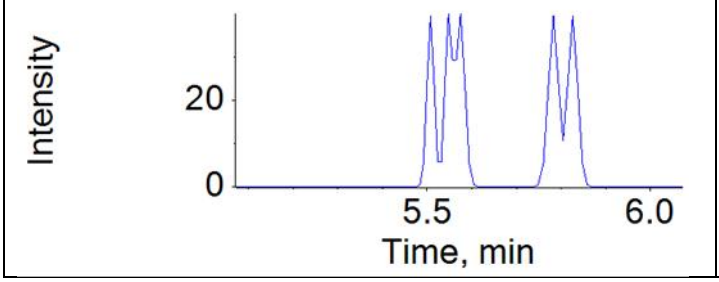


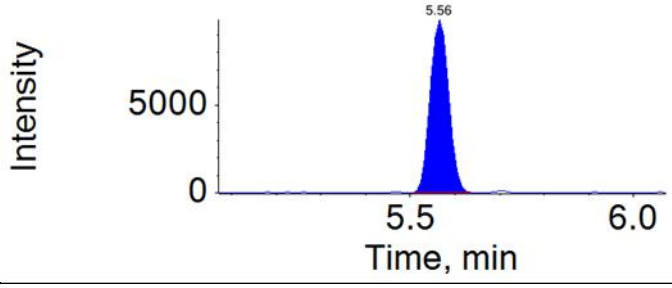
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



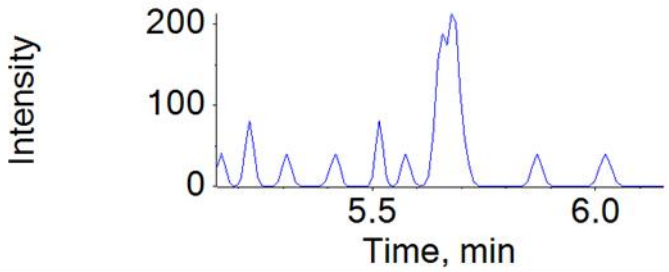


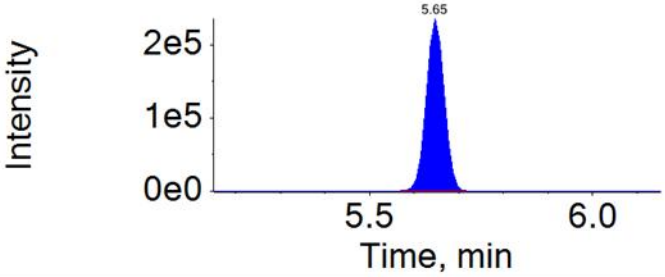
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

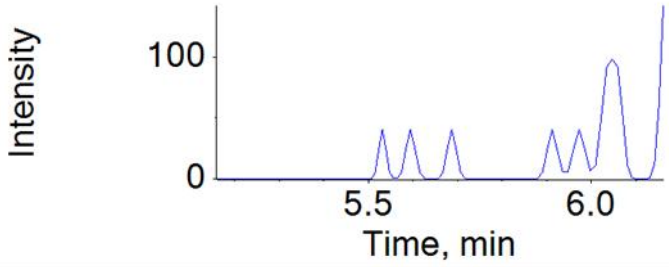
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

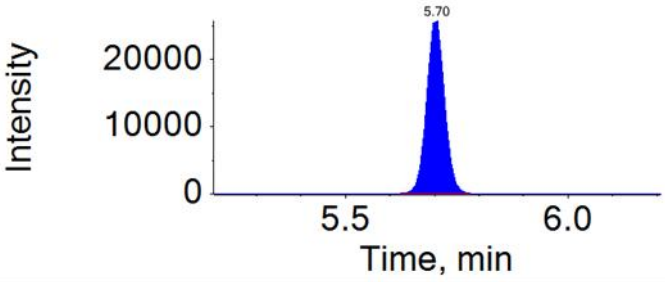
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



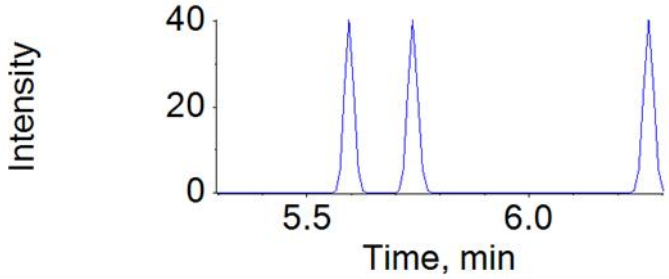


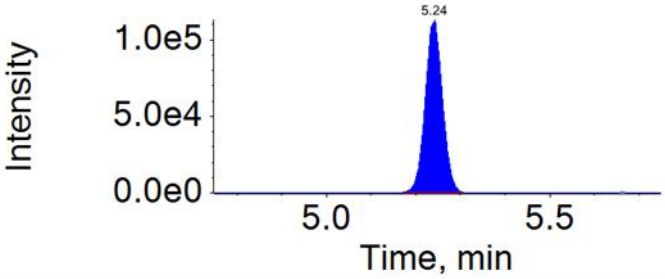
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



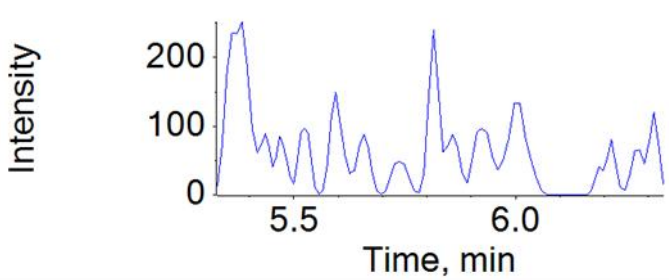


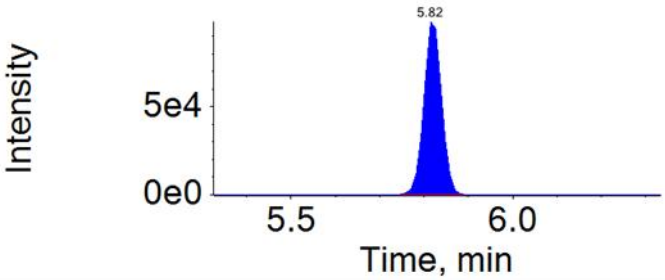
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



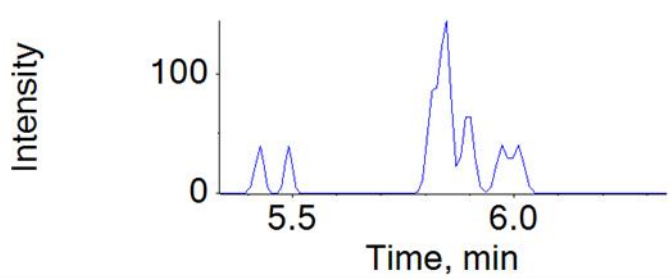


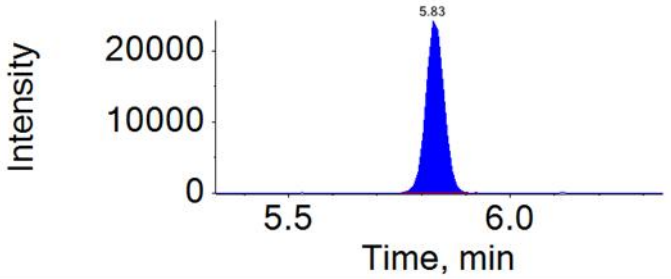
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

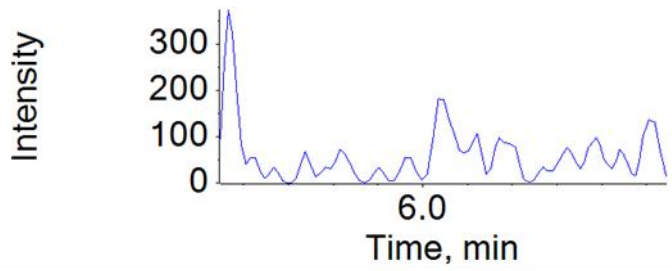
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

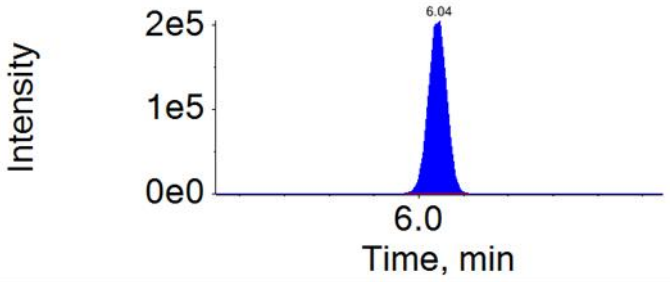
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



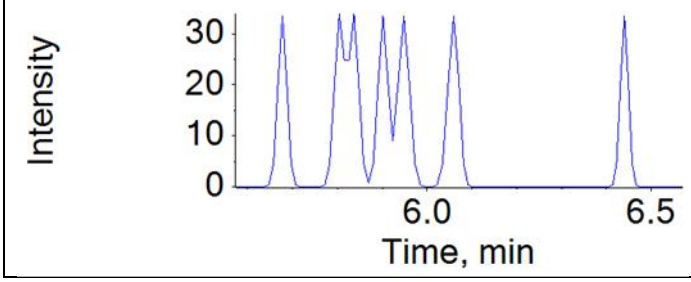


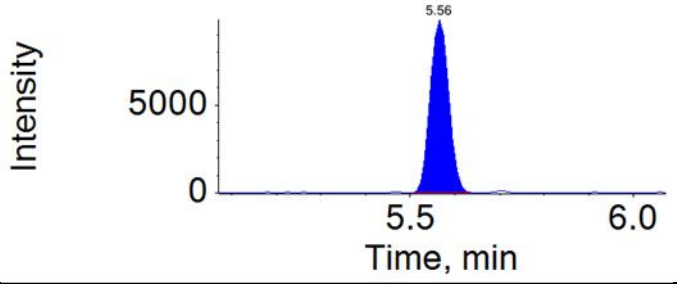
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



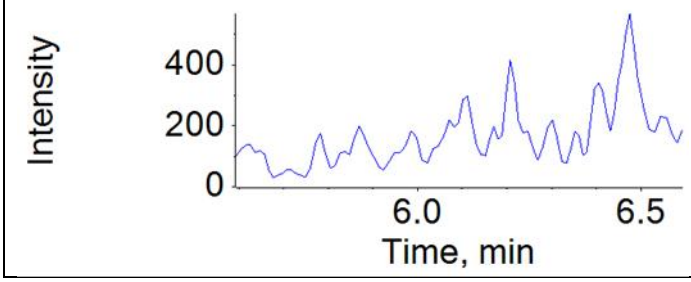


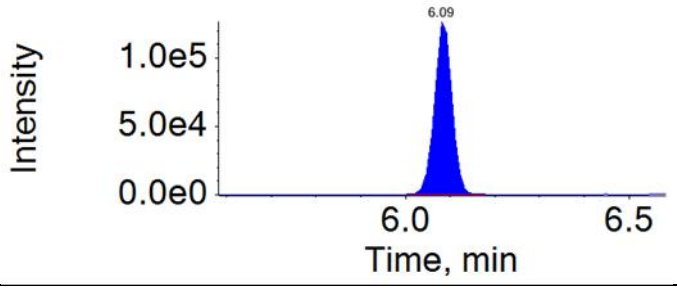
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





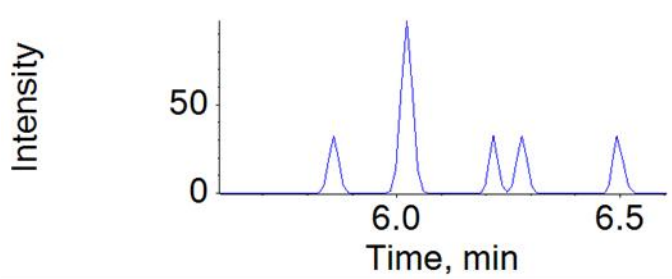
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

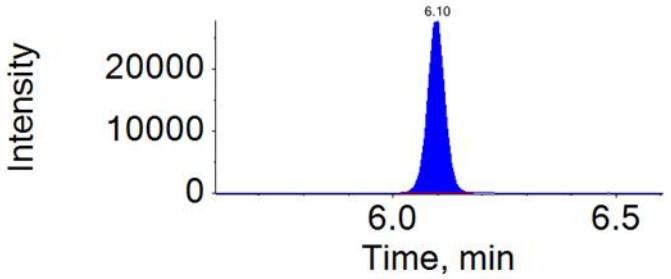




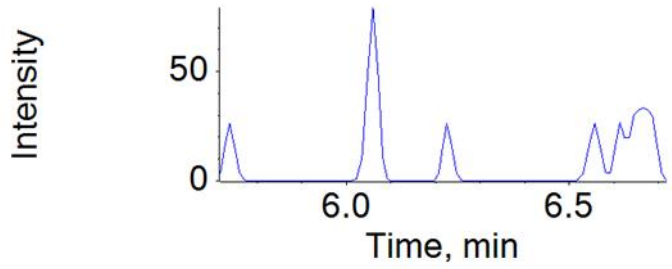
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

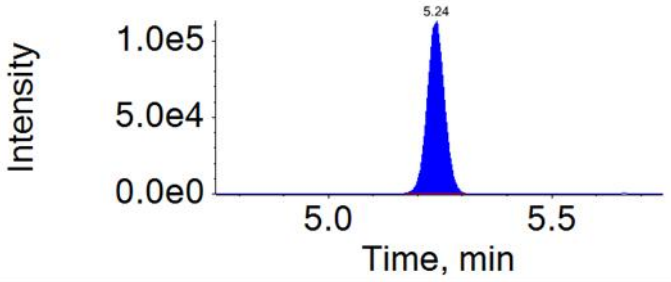
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



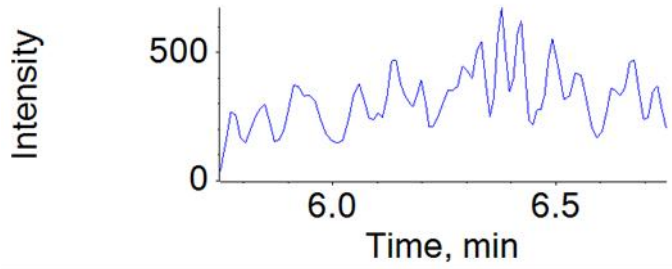


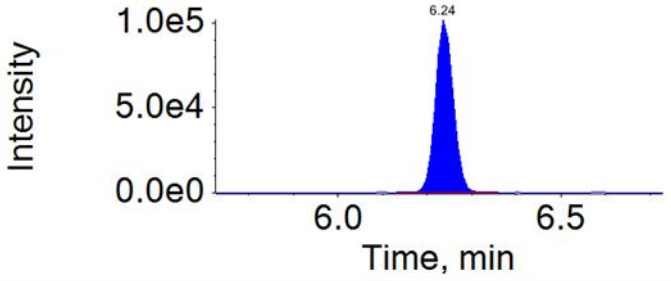
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



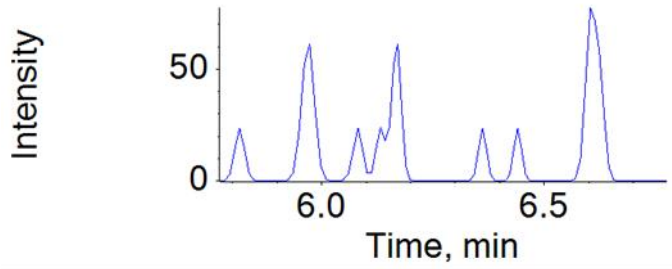


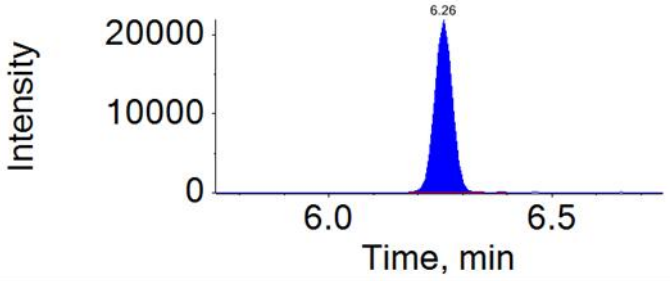
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





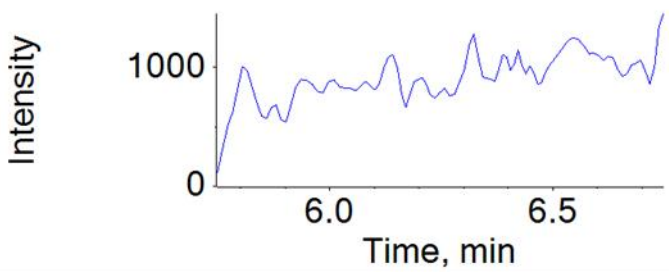
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

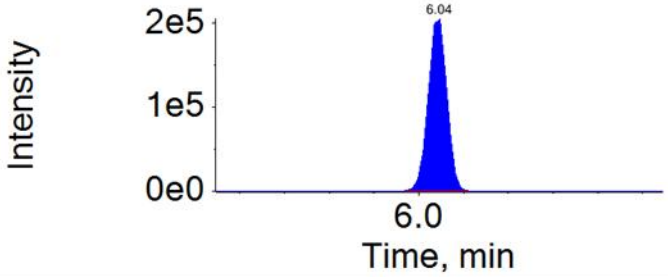




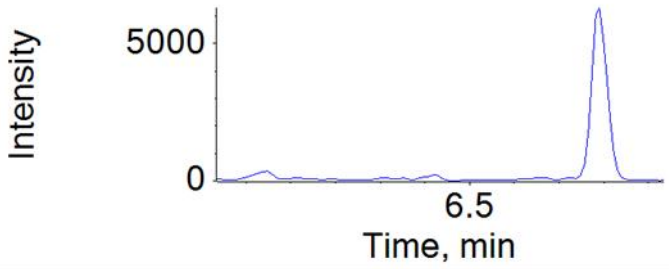
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

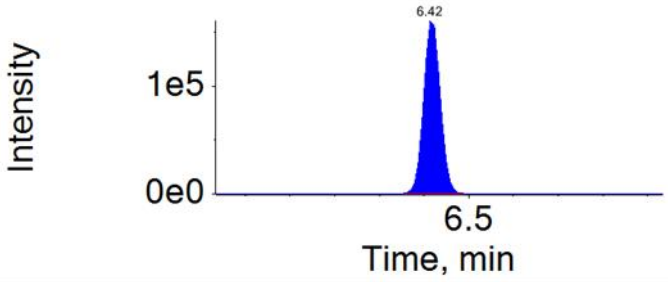
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



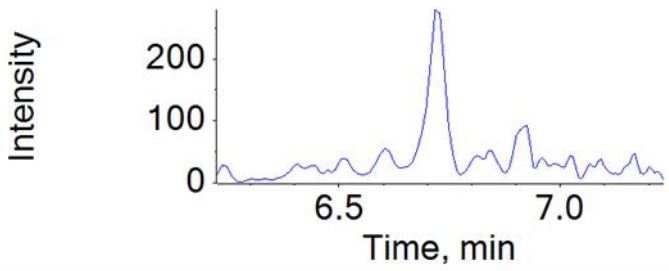


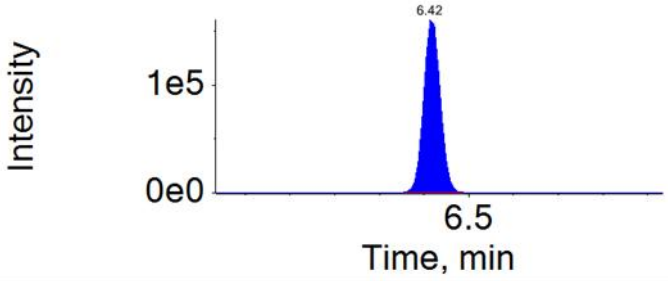
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



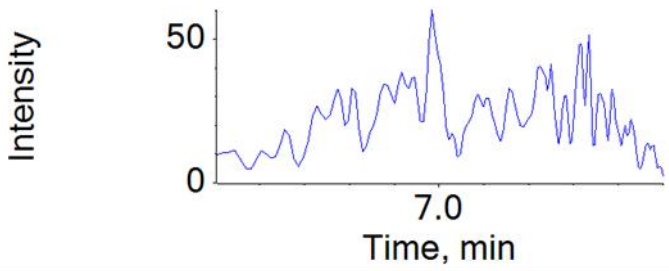


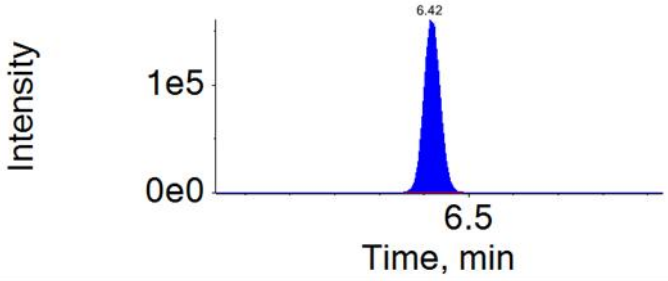
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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





APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

Ion Ratio Report

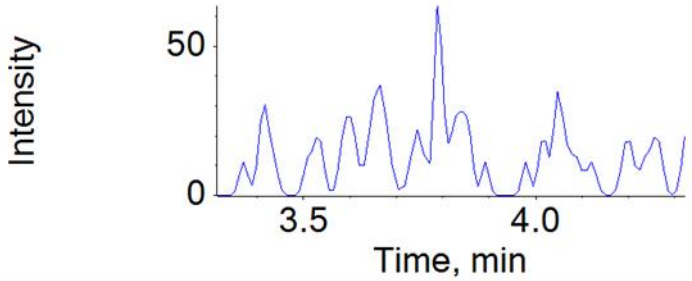
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV12D-71.wiff

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	

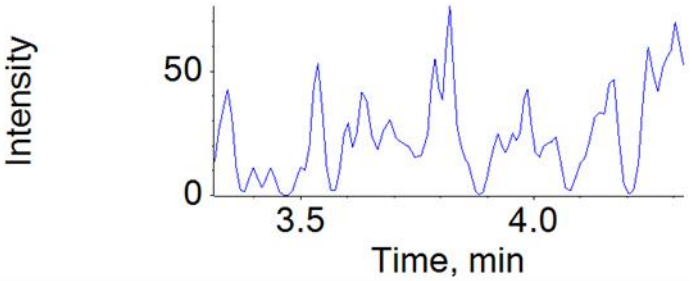
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

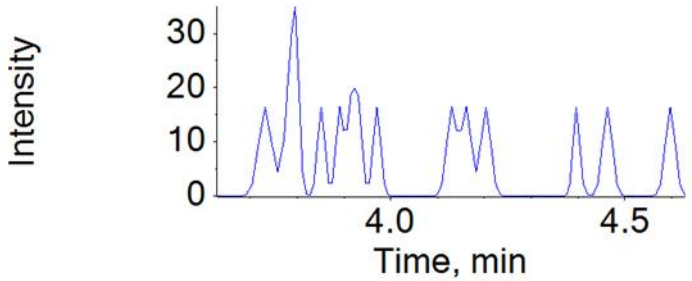
Component: PFBS
Primary Mass: 299.0 / 80.0



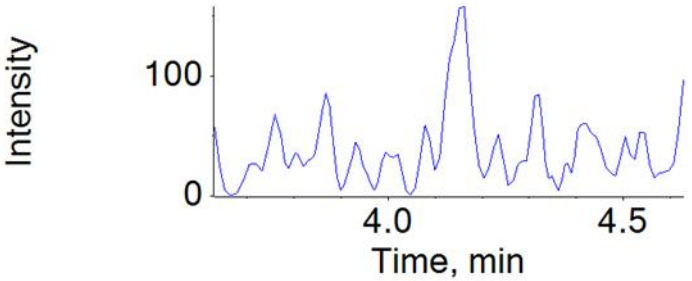
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



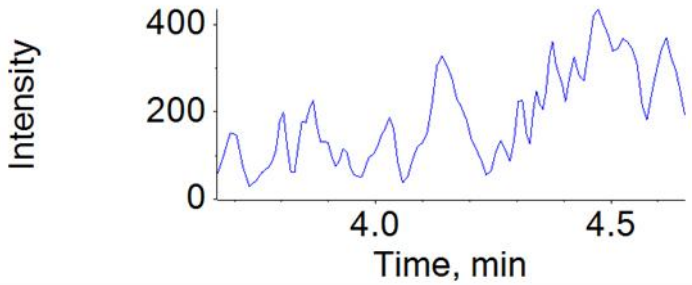
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



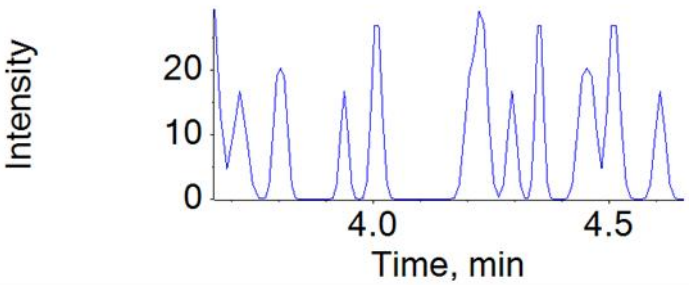
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



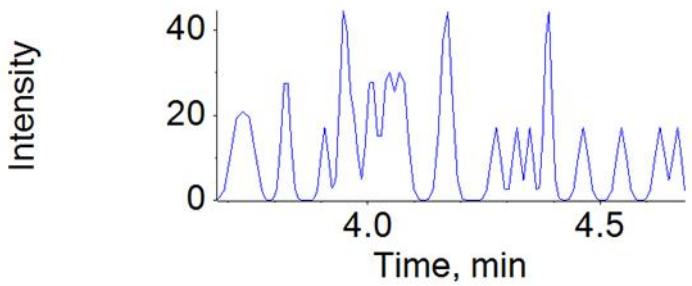
Component: PFHxA
Primary Mass: 313.0 / 269.0



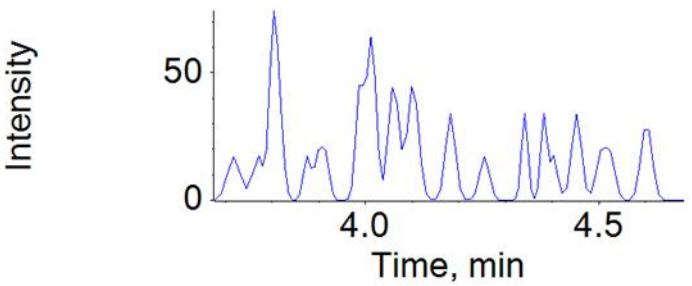
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



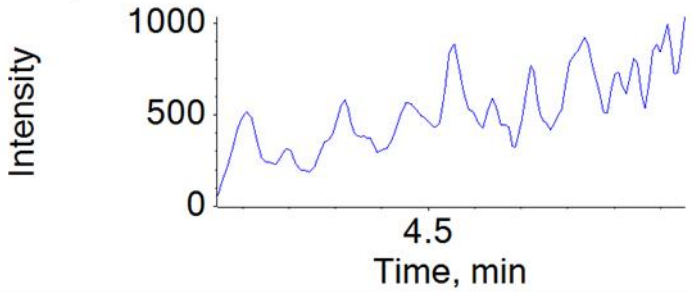
Component: PFPeS
Primary Mass: 349.0 / 80.0



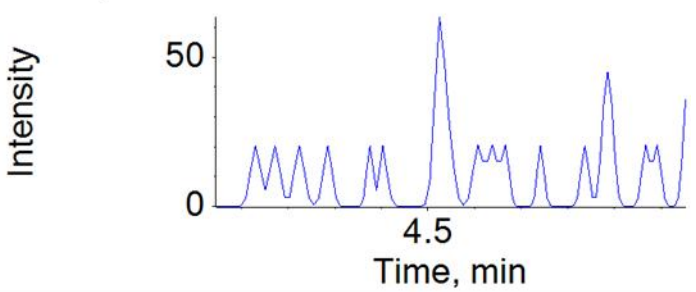
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



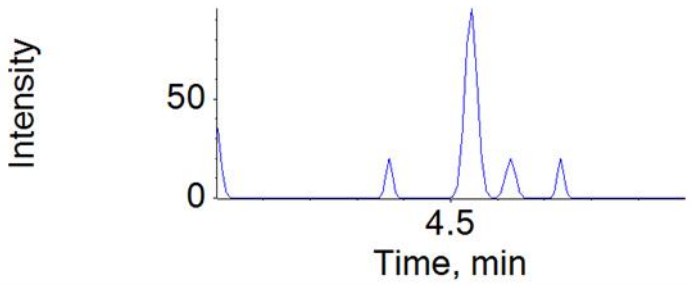
Component: PFHpA
Primary Mass: 363.0 / 319.0



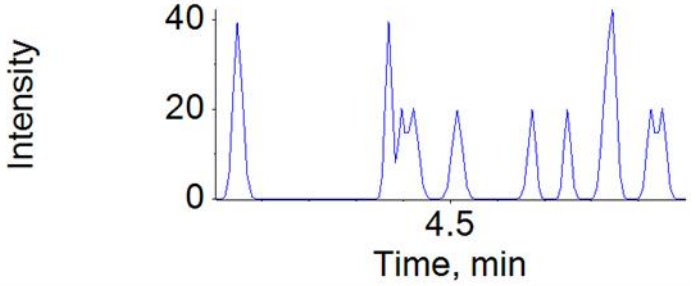
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



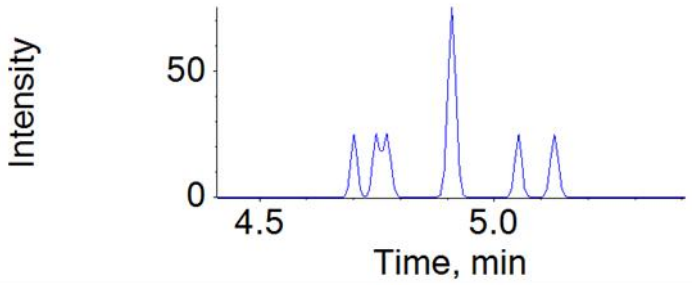
Component: PFHxS
Primary Mass: 399.0 / 80.0



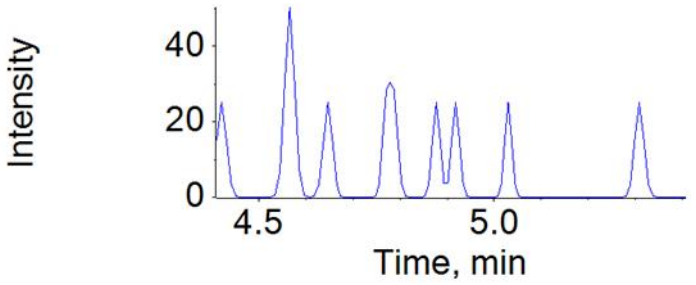
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



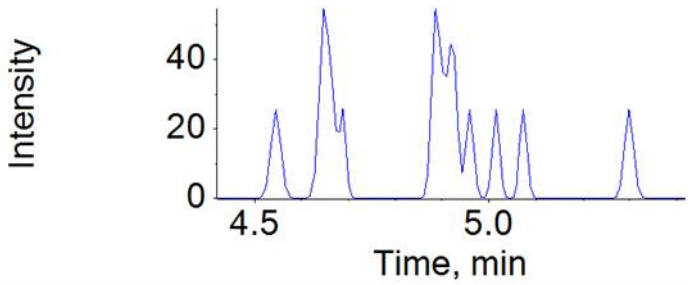
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



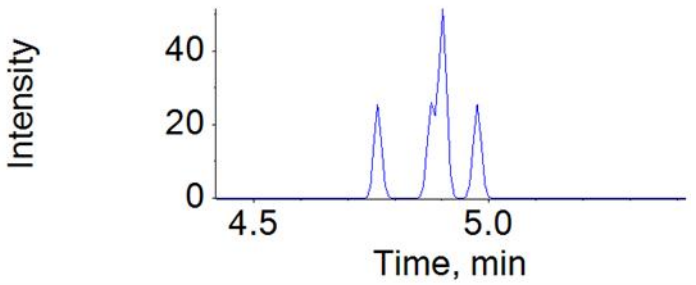
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



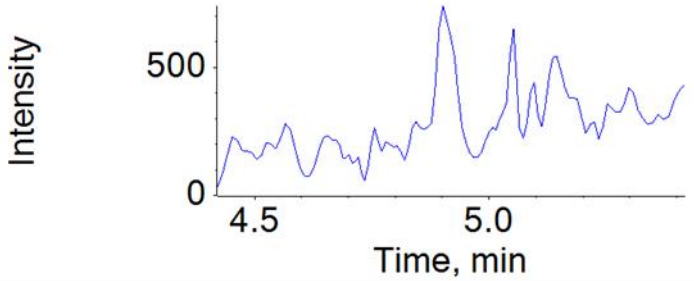
Component: PFHpS
Primary Mass: 449.0 / 80.0



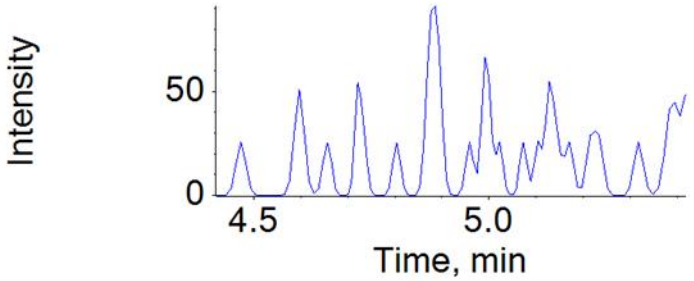
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



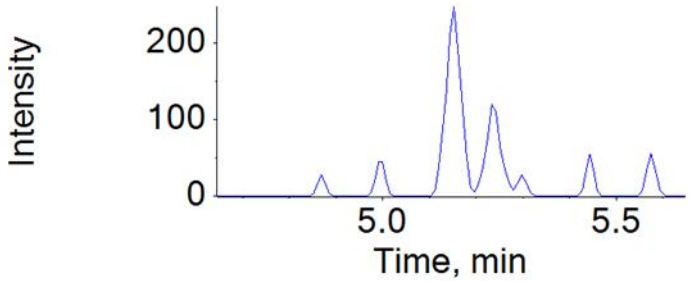
Component: PFOA
Primary Mass: 413.0 / 369.0



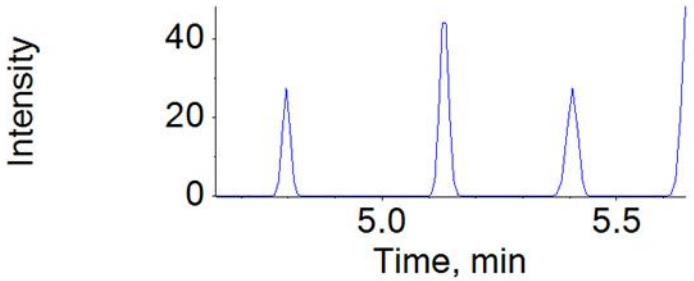
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



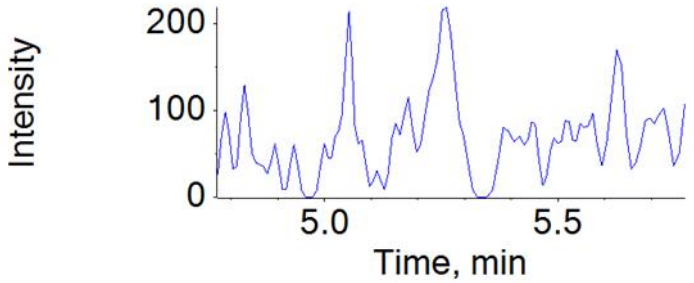
Component: PFOS
Primary Mass: 499.0 / 80.0



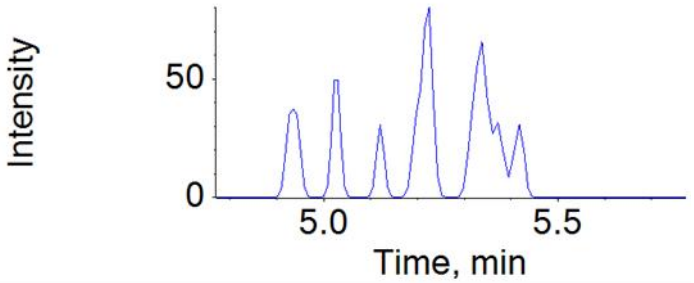
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



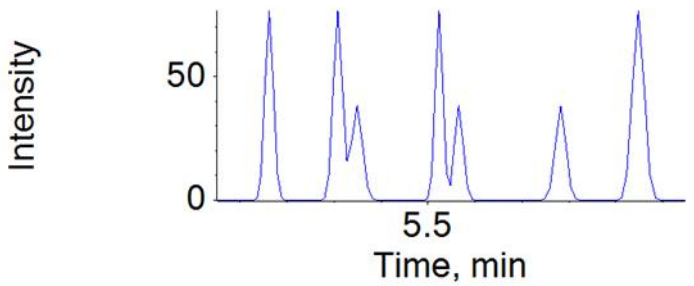
Component: PFNA
Primary Mass: 463.0 / 419.0



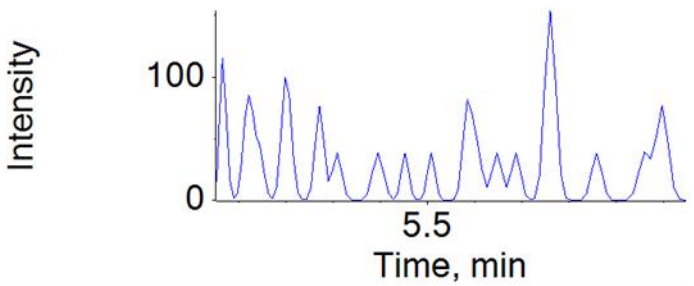
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



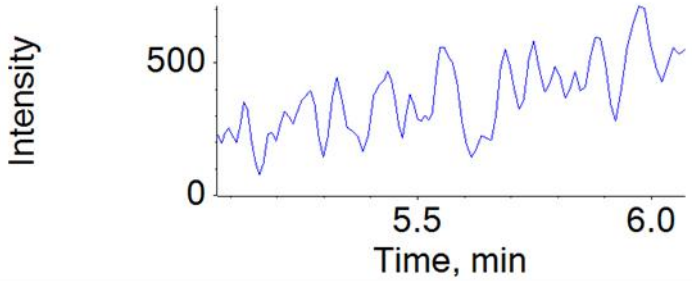
Component: PFNS
Primary Mass: 549.0 / 80.0



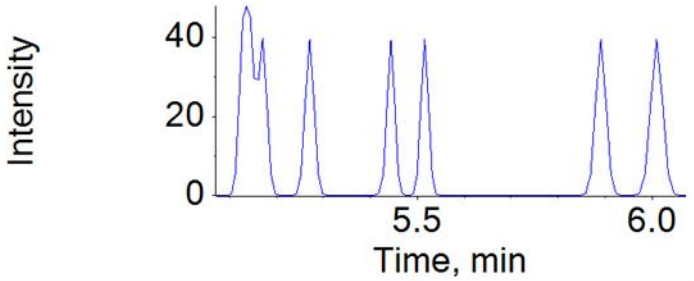
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



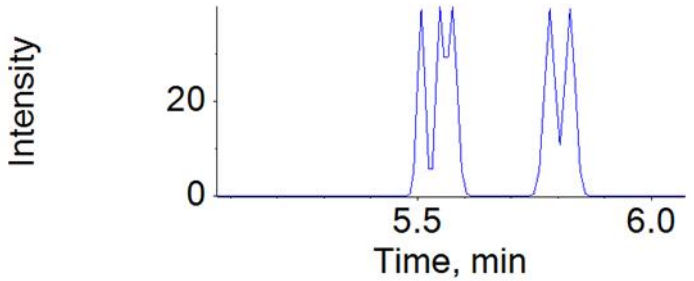
Component: PFDA
Primary Mass: 513.0 / 469.0



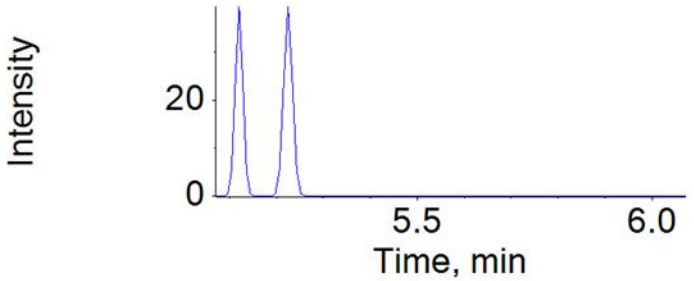
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



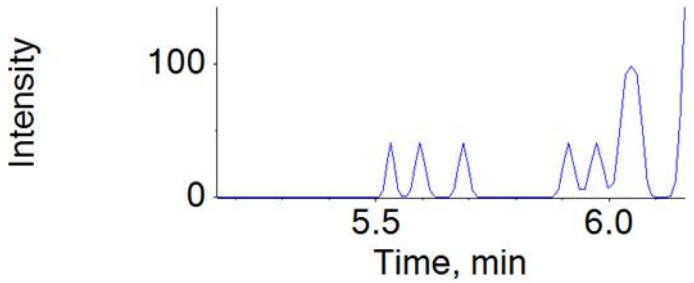
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



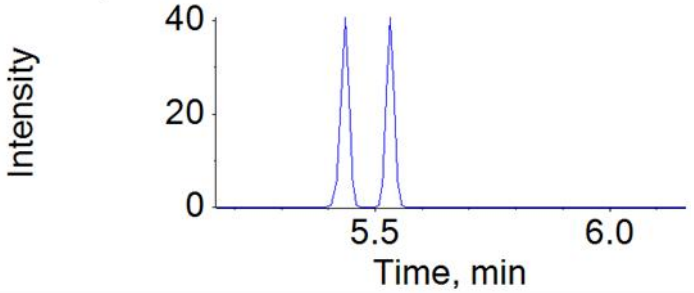
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



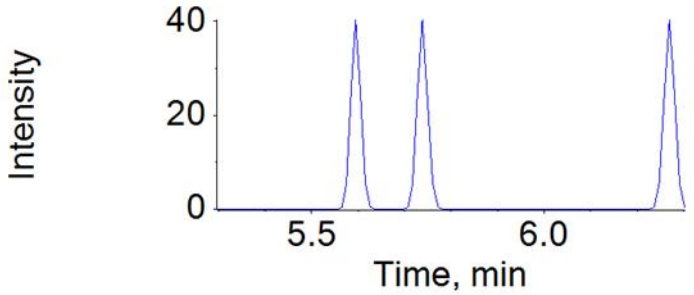
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



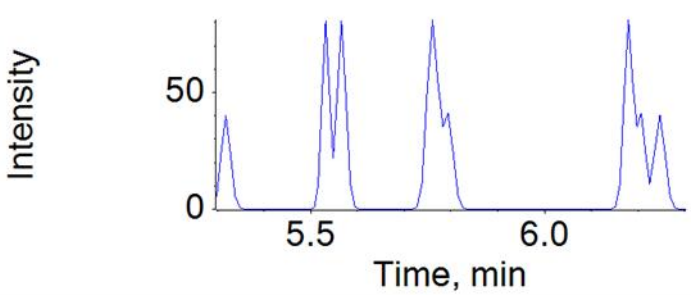
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



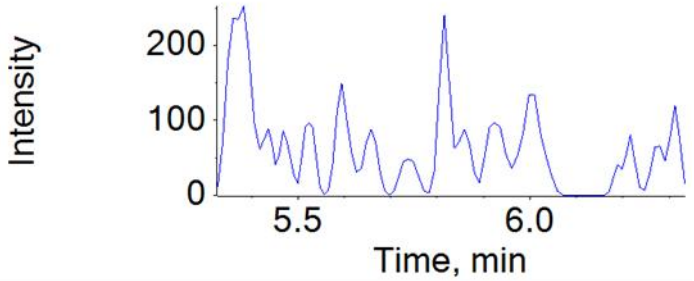
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



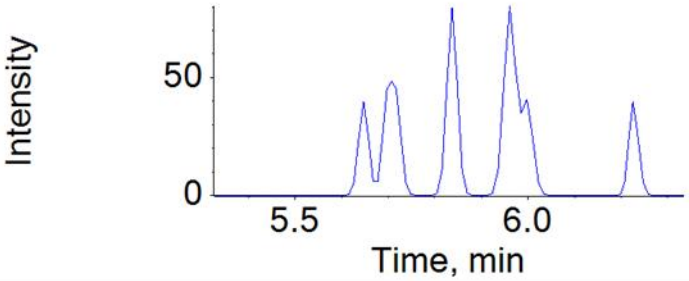
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

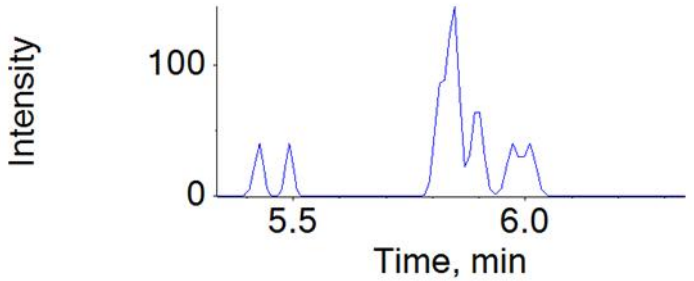
Component: PFUnDA
Primary Mass: 563.0 / 519.0



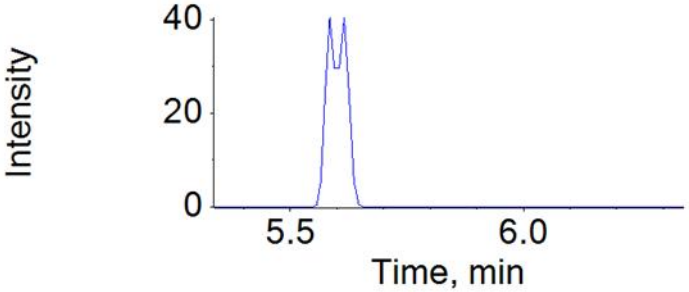
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



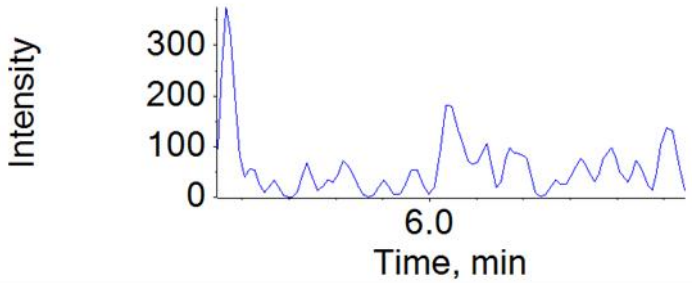
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



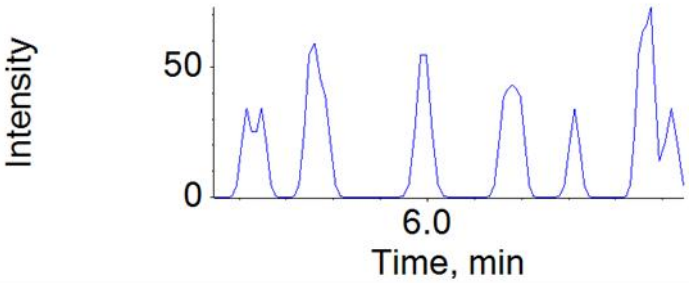
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



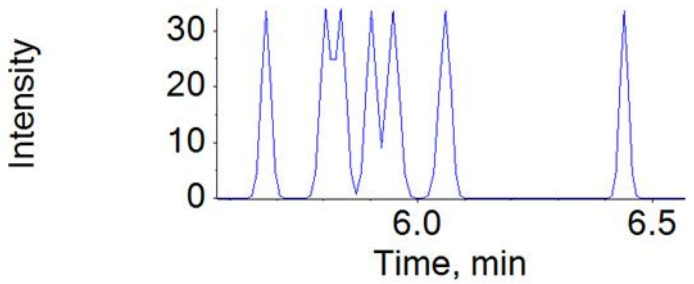
Component: PFDoDA
Primary Mass: 613.0 / 569.0



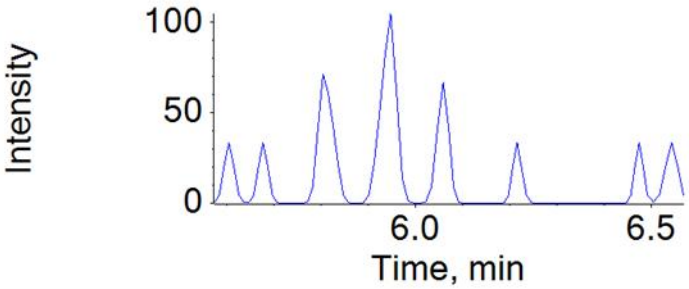
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



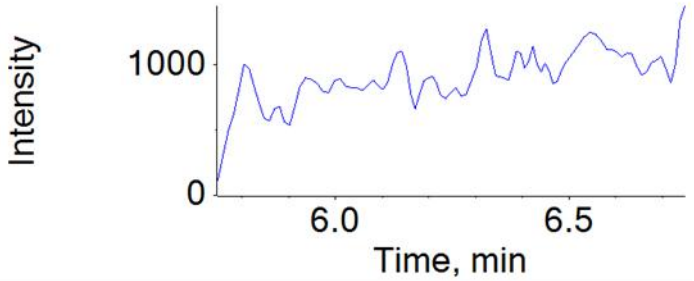
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



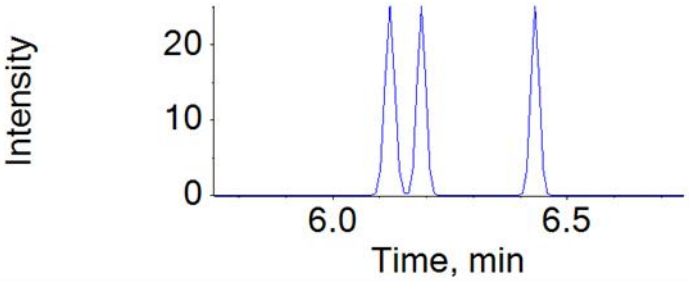
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



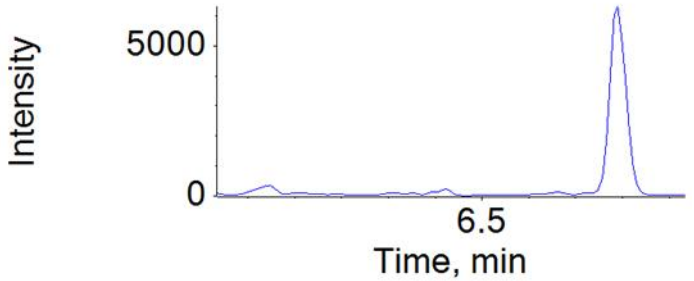
Component: PFTrDA
Primary Mass: 663.0 / 619.0



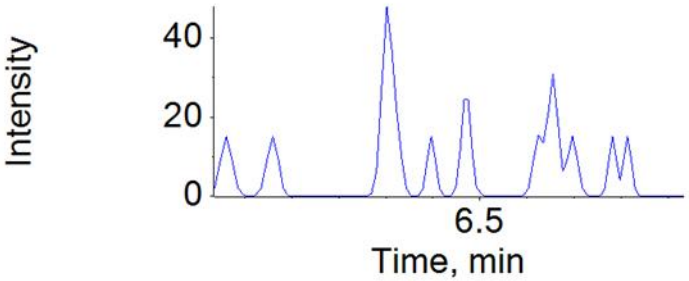
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



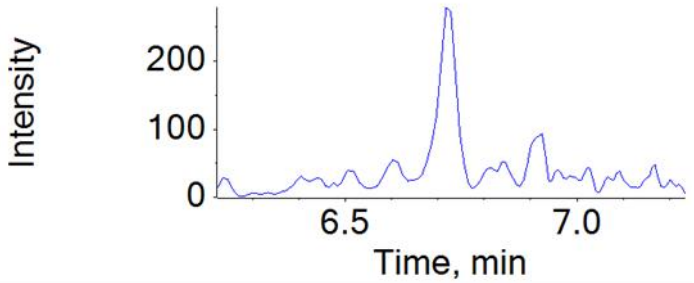
Component: PFTeDA
Primary Mass: 713.0 / 669.0



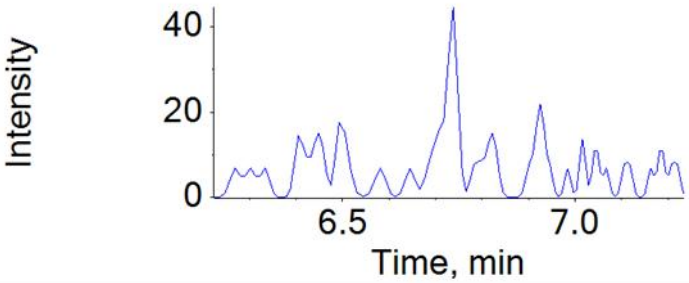
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



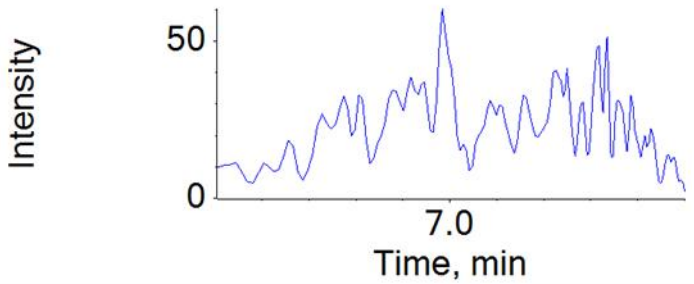
Component: PFHxDA
Primary Mass: 813.0 / 769.0



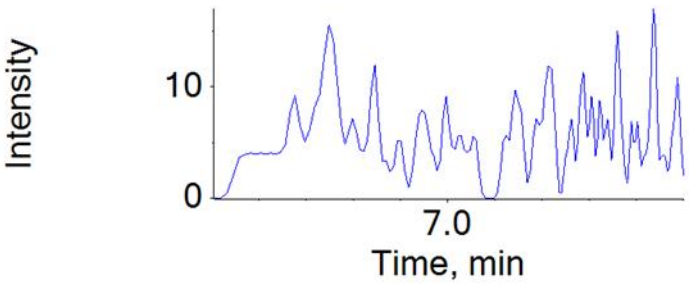
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



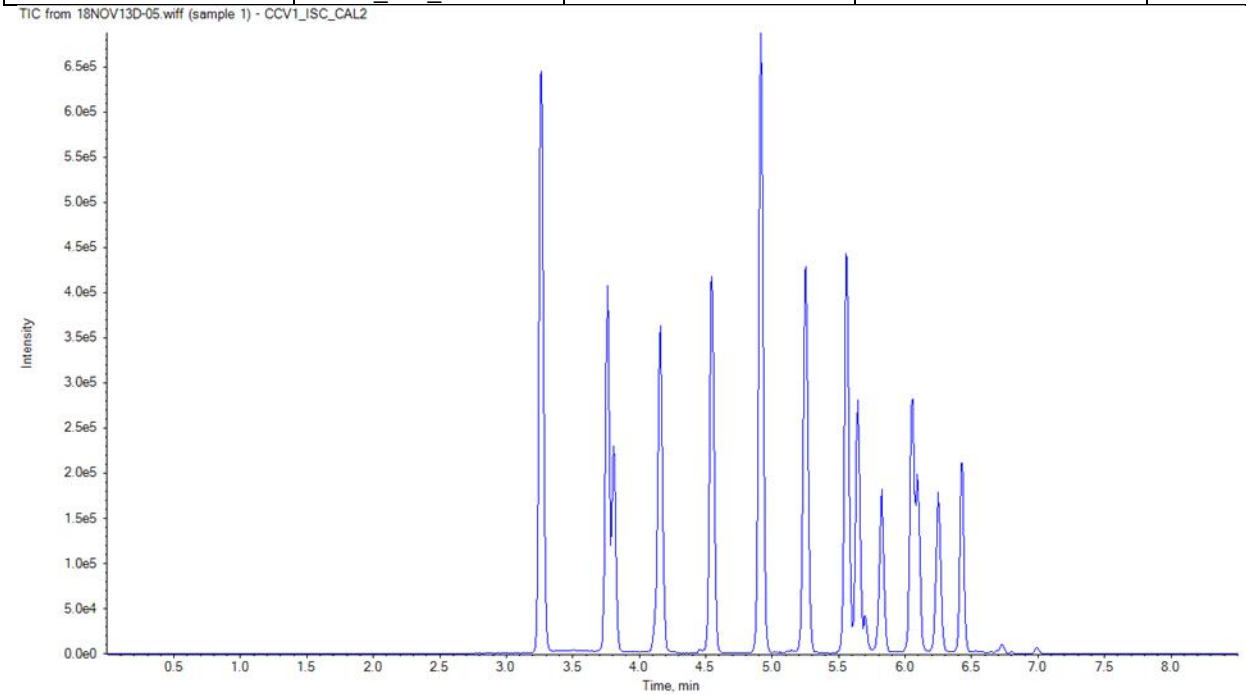
APPROVED
By JPT at 10:23 am, 11/13/18

REVIEWED
By UMJS at 3:32 pm, 11/26/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV13D-05.wiff	2018-11-13T09:44:02



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	661126.9	659926.2	0	50	
13C2-PFOA	5.0	466902.6	450219.7	4	50	
13C4-PFOS	4.8	247446.9	249205.8	-1	50	
13C2-PFDA	5.0	295381.6	278743.9	6	50	

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

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

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV13D-05.wiff	2018-11-13T09:44:02

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	80023.3	10	13C4-PFBA	766812.0	5.0	0.104	3.26	1.000	0.600	0.578	-4	30	
PFPeA	76472.6	11	13C5-PFPeA	751025.9	5.0	0.102	3.76	1.000	0.600	0.589	-2	30	
PFBS	41984.3	11	13C3-PFBS	427122.1	4.7	0.098	3.81	1.000	0.531	0.468	-12	30	
4:2-FTS	9629.9	12	13C2-4:2-FTS	54897.9	4.7	0.175	4.12	1.000	0.560	0.476	-15	30	
PFHxA	96444.0	12	13C5-PFHxA	705940.0	5.0	0.137	4.16	1.000	0.600	0.570	-5	30	
PFPeS	22297.9	11	13C3-PFBS	427122.1	4.7	0.052	4.18	1.100	0.563	0.507	-10	30	
PFHpA	93659.5	12	13C4-PFHpA	545224.8	5.0	0.172	4.55	1.000	0.600	0.569	-5	30	
PFHxS	34111.0	18	13C3-PFHxS	315188.2	4.7	0.108	4.55	1.000	0.547	0.525	-4	30	
6:2-FTS	9221.0	11	13C2-6:2-FTS	36348.0	4.8	0.254	4.90	1.000	0.569	0.614	8	30	
PFHpS	30798.1	11	13C3-PFHxS	315188.2	4.7	0.098	4.91	1.080	0.571	0.514	-10	30	
PFOA	100905.0	11	13C8-PFOA	916289.6	5.0	0.110	4.92	1.000	0.600	0.588	-2	30	
PFOS	34555.4	22	13C8-PFOS	283234.2	4.8	0.122	5.24	1.000	0.555	0.534	-4	30	
PFNA	70400.6	11	13C9-PFNA	459889.6	5.0	0.153	5.26	1.000	0.600	0.552	-8	30	
PFNS	17583.2	10	13C8-PFOS	283234.2	4.8	0.062	5.54	1.060	0.576	0.434	-25	30	
PFDA	68441.3	11	13C6-PFDA	633571.3	5.0	0.108	5.56	1.000	0.600	0.573	-5	30	
8:2-FTS	5551.6	11	13C2-8:2-FTS	28239.6	4.8	0.197	5.56	1.000	0.575	0.458	-20	30	
PFOSA	70097.0	12	13C8-PFOSA	581964.0	5.0	0.120	5.64	1.000	0.600	0.588	-2	30	
NMeFOSAA	7238.6	17	d3-NMeFOSAA	75677.4	5.0	0.096	5.71	1.000	0.600	0.541	-10	30	
PFDS	14746.9	12	13C8-PFOS	283234.2	4.8	0.052	5.80	1.110	0.578	0.472	-18	30	
PFUnDA	55065.8	12	13C7-PFUnDA	262614.2	5.0	0.210	5.82	1.000	0.600	0.548	-9	30	
NEtFOSAA	8391.3	19	d5-NEtFOSAA	67382.4	5.0	0.125	5.84	1.000	0.600	0.653	9	30	
PFDoDA	63306.6	12	13C2-PFDoDA	563416.3	5.0	0.112	6.05	1.000	0.600	0.572	-5	30	
10:2-FTS	4315.1	11	13C2-8:2-FTS	28239.6	4.8	0.153	6.07	1.090	0.578	0.509	-12	30	
NMePFOSAE	46107.4	12	d7-NMePFOSAE	315627.9	5.0	0.146	6.10	1.000	0.600	0.608	1	30	
NMePFOSA	7580.7	13	d3-NMePFOSA	81274.6	5.0	0.093	6.11	1.000	0.600	0.460	-23	30	
PFDoS	7907.3	11	13C8-PFOS	283234.2	4.8	0.028	6.22	1.190	0.581	0.489	-16	30	
NEtPFOSAE	46594.2	12	d9-NEtPFOSAE	264447.2	5.0	0.176	6.26	1.000	0.600	0.565	-6	30	
NEtPFOSA	7426.1	11	d5-NEtPFOSA	57059.6	5.0	0.130	6.27	1.000	0.600	0.598	0	30	
PFTrDA	52911.8	12	13C2-PFDoDA	563416.3	5.0	0.094	6.25	1.030	0.600	0.593	-1	30	
PFTeDA	38686.6	11	13C2-PFTeDA	412151.2	5.0	0.094	6.43	1.000	0.600	0.526	-12	30	
PFHxDA	18605.8	11	13C2-PFTeDA	412151.2	5.0	0.045	6.73	1.050	0.600	0.538	-10	30	
PFODA	15935.1	10	13C2-PFTeDA	412151.2	5.0	0.039	6.99	1.090	0.600	0.538	-10	30	

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

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

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

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:	CCV1_ISC_CAL2			**Data File:**		18NOV13D-05.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T09:44:02
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**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: 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	661126.9	659926.2	0	50	
13C2-PFOA	5.0	466902.6	450219.7	4	50	
13C4-PFOS	4.8	247446.9	249205.8	-1	50	
13C2-PFDA	5.0	295381.6	278743.9	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	766812.0	13C3-PFBA	661126.9	1.160	5.000	5.200	104	70-130	
E13C5-PFPeA	751025.9	13C3-PFBA	661126.9	1.136	5.000	5.095	102	70-130	
E13C3-PFBS	427122.1	13C3-PFBA	661126.9	0.646	4.650	4.561	98	70-130	
E13C2-4:2-FTS	54897.9	13C2-PFOA	466902.6	0.118	4.670	5.237	112	70-130	
E13C5-PFHxA	705940.0	13C2-PFOA	466902.6	1.512	5.000	5.462	109	70-130	
E13C3-PFHxS	315188.2	13C2-PFOA	466902.6	0.675	4.730	4.632	98	70-130	
E13C4-PFHpA	545224.8	13C2-PFOA	466902.6	1.168	5.000	5.261	105	70-130	
E13C2-6:2-FTS	36348.0	13C2-PFOA	466902.6	0.078	4.750	5.209	110	70-130	
E13C8-PFOA	916289.6	13C2-PFOA	466902.6	1.962	5.000	5.407	108	70-130	
E13C8-PFOS	283234.2	13C4-PFOS	247446.9	1.145	4.780	5.072	106	70-130	
E13C9-PFNA	459889.6	13C4-PFOS	247446.9	1.859	5.000	5.182	104	70-130	
E13C6-PFDA	633571.3	13C2-PFDA	295381.6	2.145	5.000	5.005	100	70-130	
E13C2-8:2-FTS	28239.6	13C2-PFDA	295381.6	0.096	4.790	4.768	100	70-130	
E13C8-PFOSA	581964.0	13C2-PFDA	295381.6	1.970	5.000	4.368	87	70-130	
Ed3-NMeFOSAA	75677.4	13C2-PFDA	295381.6	0.256	5.000	4.625	92	70-130	
E13C7-PFUnDA	262614.2	13C2-PFDA	295381.6	0.889	5.000	5.162	103	70-130	
Ed5-NEtFOSAA	67382.4	13C2-PFDA	295381.6	0.228	5.000	4.826	97	70-130	
E13C2-PFDoDA	563416.3	13C2-PFDA	295381.6	1.907	5.000	4.952	99	70-130	
Ed7-NMePFOSAE	315627.9	13C2-PFDA	295381.6	1.069	5.000	4.624	92	70-130	
Ed3-NMePFOSA	81274.6	13C2-PFDA	295381.6	0.275	5.000	4.999	100	70-130	
Ed9-NEtPFOSAE	264447.2	13C2-PFDA	295381.6	0.895	5.000	4.656	93	70-130	
Ed5-NEtPFOSA	57059.6	13C2-PFDA	295381.6	0.193	5.000	4.531	91	70-130	
E13C2-PFTeDA	412151.2	13C2-PFDA	295381.6	1.395	5.000	4.899	98	70-130	

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

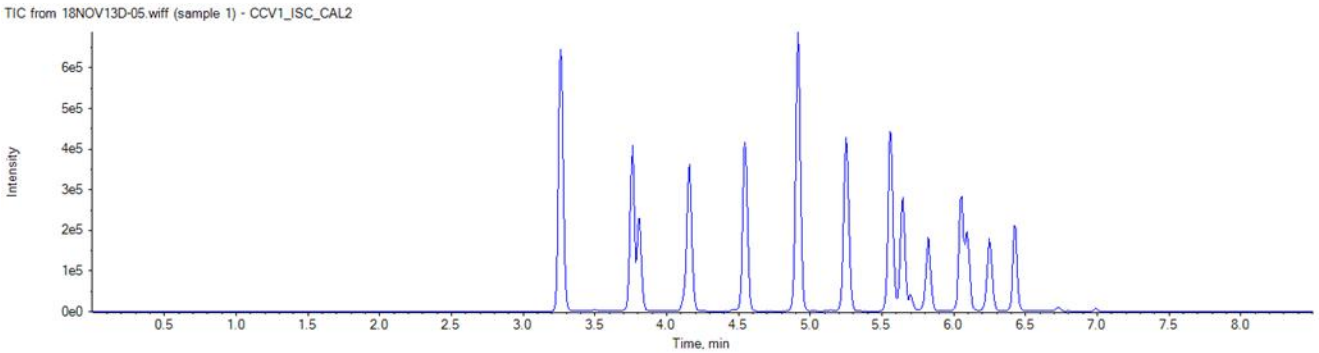
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-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	80023.3		A	13C4-PFBA	3.26	766812.0	0.104	0.578
PFPeA	3.76	1.000	76472.6		A	13C5-PFPeA	3.76	751025.9	0.102	0.589
PFBS	3.81	1.000	41984.3		A	13C3-PFBS	3.81	427122.1	0.098	0.468
4:2-FTS	4.12	1.000	9629.9		M	13C2-4:2-FTS	4.12	54897.9	0.175	0.476
PFHxA	4.16	1.000	96444.0		A	13C5-PFHxA	4.16	705940.0	0.137	0.570
PFPeS	4.18	1.100	22297.9		A	13C3-PFBS	3.81	427122.1	0.052	0.507
PFHpA	4.55	1.000	93659.5		A	13C4-PFHpA	4.55	545224.8	0.172	0.569
PFHxS	4.55	1.000	34111.0		M	13C3-PFHxS	4.55	315188.2	0.108	0.525
6:2-FTS	4.90	1.000	9221.0		M	13C2-6:2-FTS	4.90	36348.0	0.254	0.614
PFHpS	4.91	1.080	30798.1		A	13C3-PFHxS	4.55	315188.2	0.098	0.514
PFOA	4.92	1.000	100905.0		A	13C8-PFOA	4.91	916289.6	0.110	0.588
PFOS	5.24	1.000	34555.4		M	13C8-PFOS	5.24	283234.2	0.122	0.534
PFNA	5.26	1.000	70400.6		A	13C9-PFNA	5.26	459889.6	0.153	0.552
PFNS	5.54	1.060	17583.2		A	13C8-PFOS	5.24	283234.2	0.062	0.434
PFDA	5.56	1.000	68441.3		A	13C6-PFDA	5.56	633571.3	0.108	0.573
8:2-FTS	5.56	1.000	5551.6		A	13C2-8:2-FTS	5.56	28239.6	0.197	0.458
PFOSA	5.64	1.000	70097.0		A	13C8-PFOSA	5.64	581964.0	0.120	0.588
NMeFOSAA	5.71	1.000	7238.6		A	d3-NMeFOSAA	5.70	75677.4	0.096	0.541
PFDS	5.80	1.110	14746.9		A	13C8-PFOS	5.24	283234.2	0.052	0.472
PFUnDA	5.82	1.000	55065.8		A	13C7-PFUnDA	5.82	262614.2	0.210	0.548
NEtFOSAA	5.84	1.000	8391.3		M	d5-NEtFOSAA	5.83	67382.4	0.125	0.653
PFDoDA	6.05	1.000	63306.6		A	13C2-PFDoDA	6.05	563416.3	0.112	0.572
10:2-FTS	6.07	1.090	4315.1		A	13C2-8:2-FTS	5.56	28239.6	0.153	0.509
NMePFOSAE	6.10	1.000	46107.4		A	d7-NMePFOSAE	6.09	315627.9	0.146	0.608
NMePFOSA	6.11	1.000	7580.7		A	d3-NMePFOSA	6.10	81274.6	0.093	0.460
PFDoS	6.22	1.190	7907.3		A	13C8-PFOS	5.24	283234.2	0.028	0.489
NEtPFOSAE	6.26	1.000	46594.2		A	d9-NEtPFOSAE	6.25	264447.2	0.176	0.565
NEtPFOSA	6.27	1.000	7426.1		A	d5-NEtPFOSA	6.26	57059.6	0.130	0.598
PFTrDA	6.25	1.030	52911.8		M	13C2-PFDoDA	6.05	563416.3	0.094	0.593
PFTeDA	6.43	1.000	38686.6		A	13C2-PFTeDA	6.43	412151.2	0.094	0.526
PFHxDA	6.73	1.050	18605.8		A	13C2-PFTeDA	6.43	412151.2	0.045	0.538
PFODA	6.99	1.090	15935.1		A	13C2-PFTeDA	6.43	412151.2	0.039	0.538

Total Ion Chromatogram

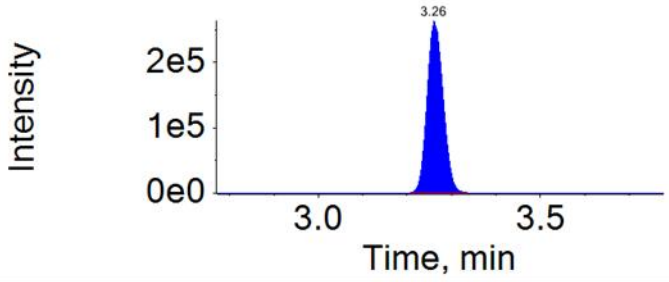


APPROVED
By JPT at 4:33 pm, 11/13/18

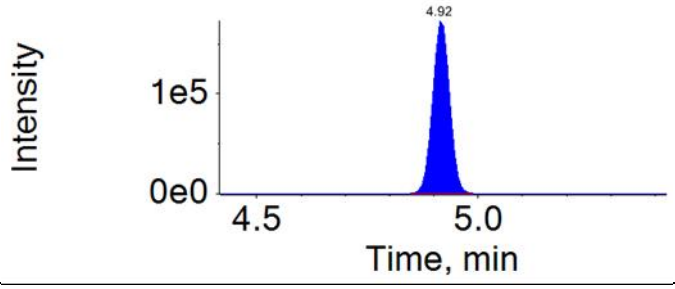
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

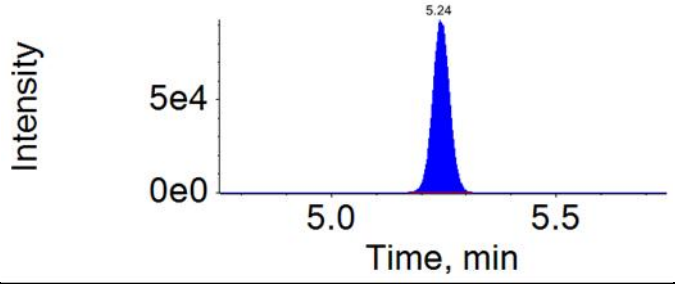
Injection Standard: 13C3-PFBA
216.0 / 172.0



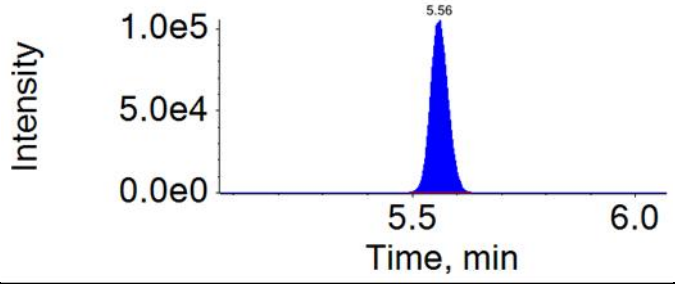
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

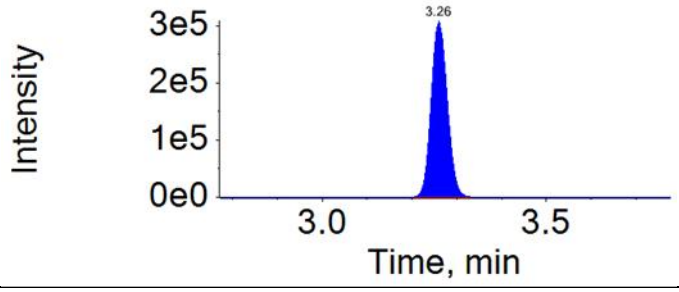


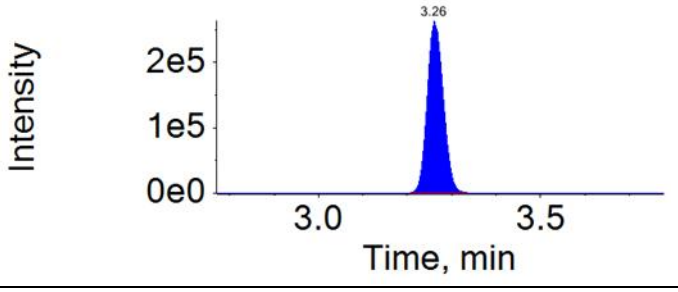
APPROVED
By JPT at 4:33 pm, 11/13/18

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

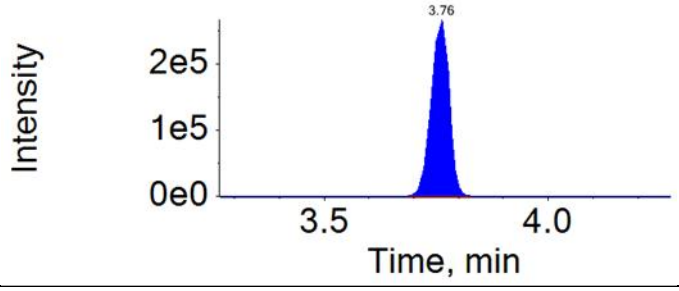
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

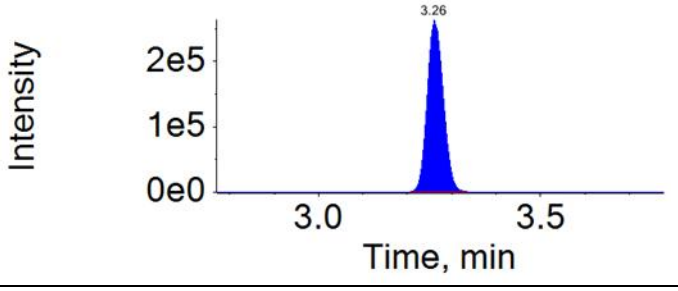
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



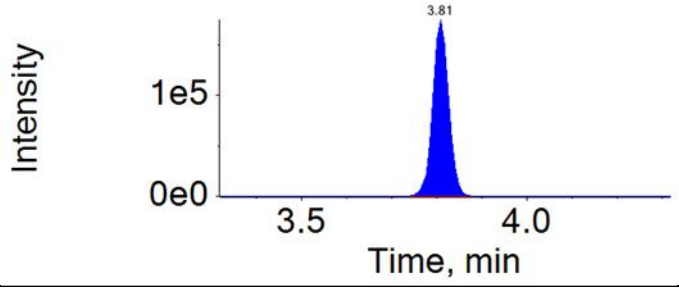


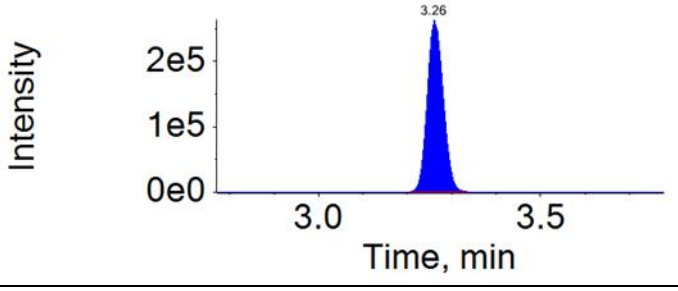
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



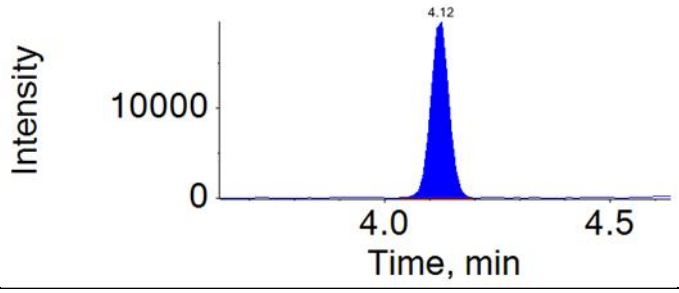


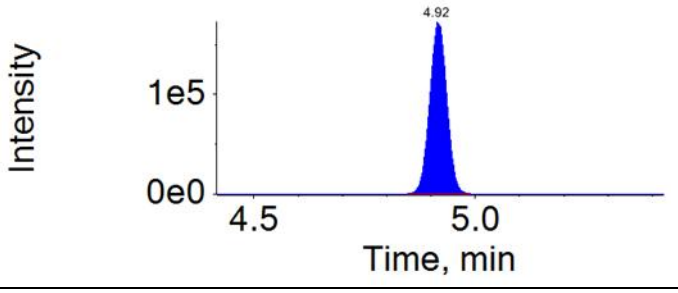
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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

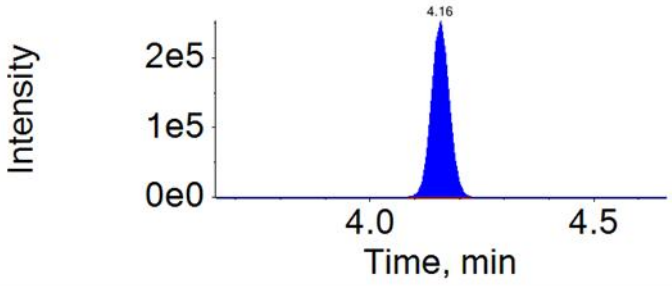
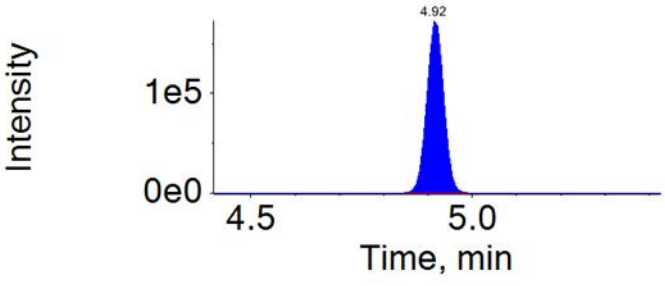


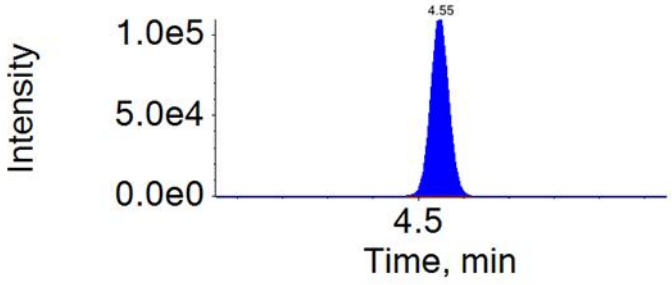
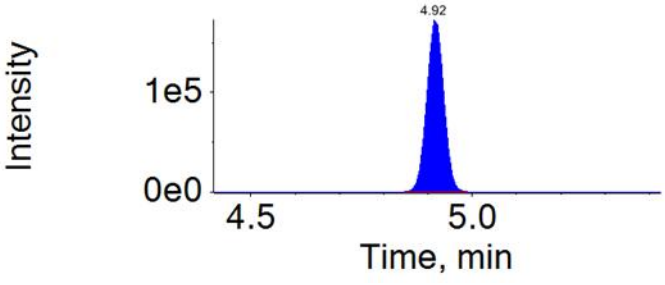


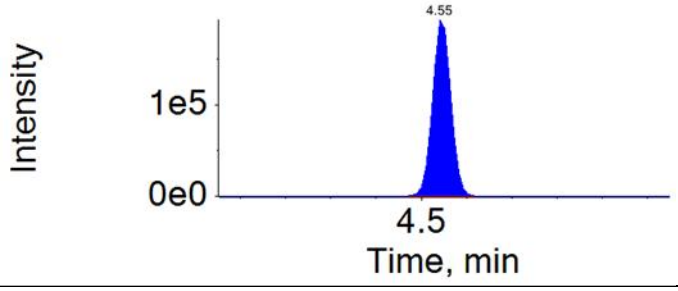
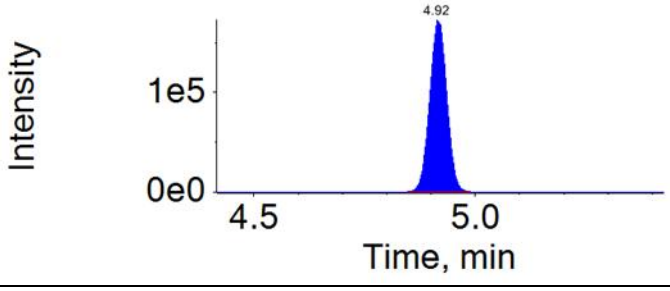
APPROVED
By JPT at 4:33 pm, 11/13/18

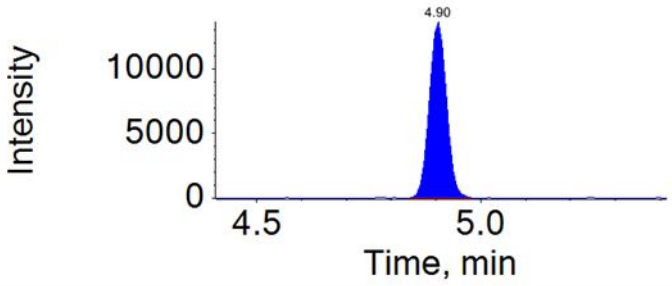
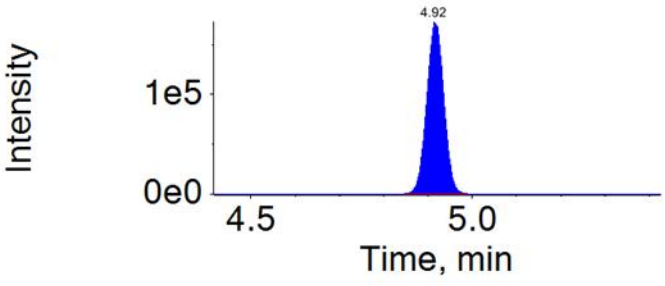
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

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
	

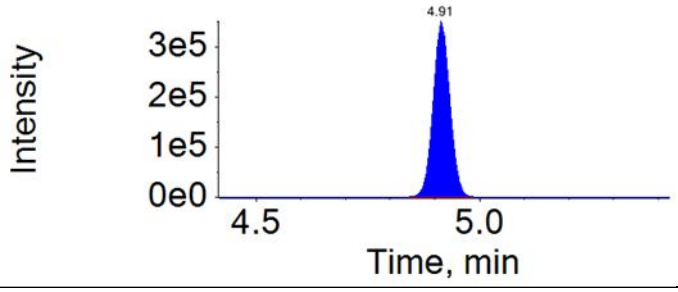
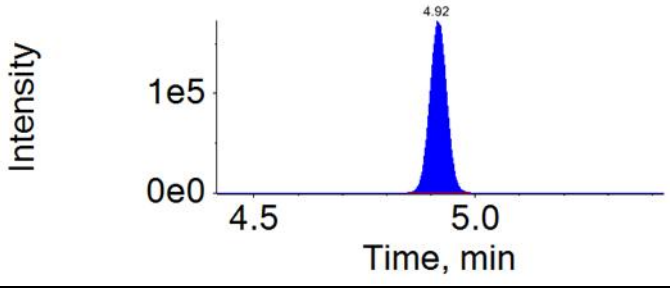
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

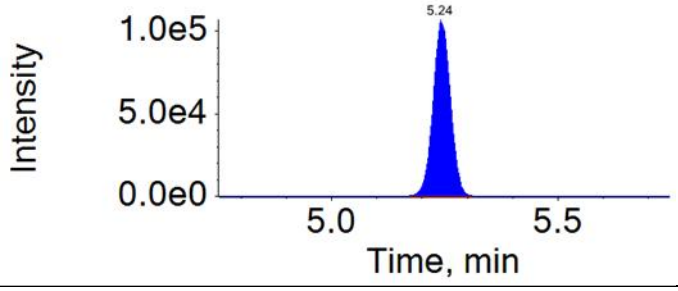
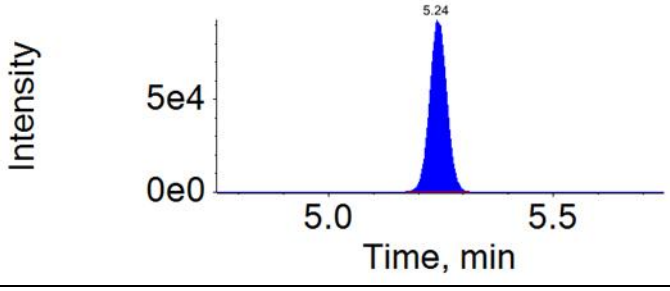
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

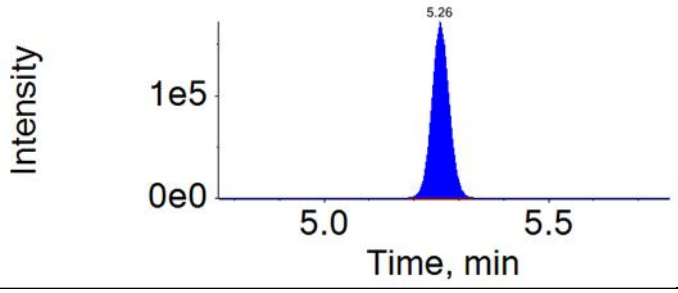
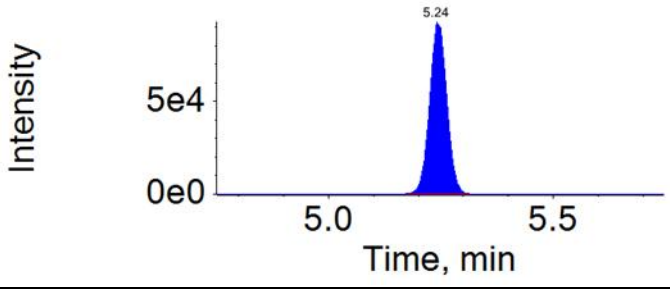
APPROVED
By JPT at 4:33 pm, 11/13/18

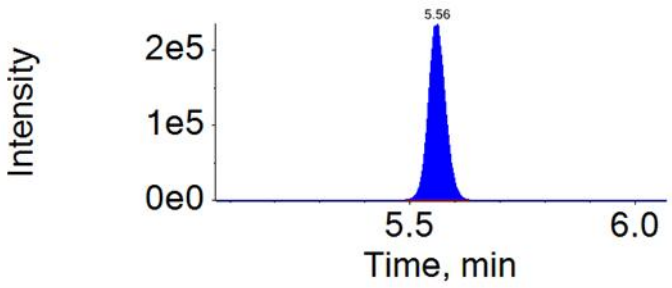
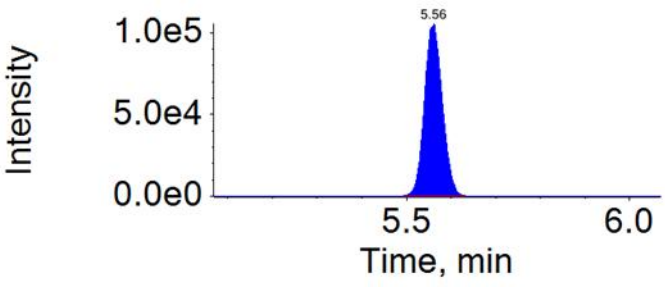
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

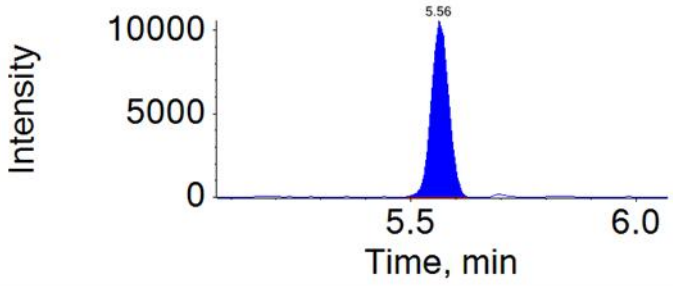
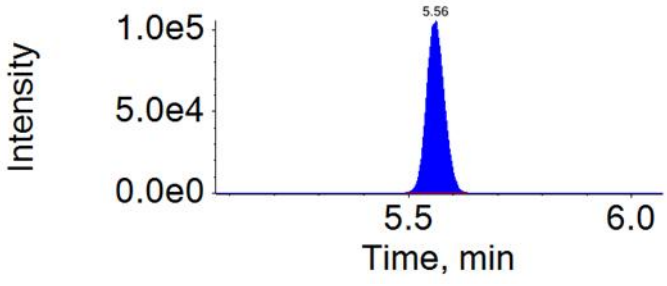
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

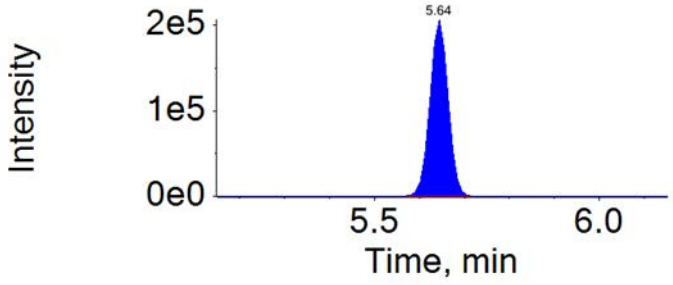
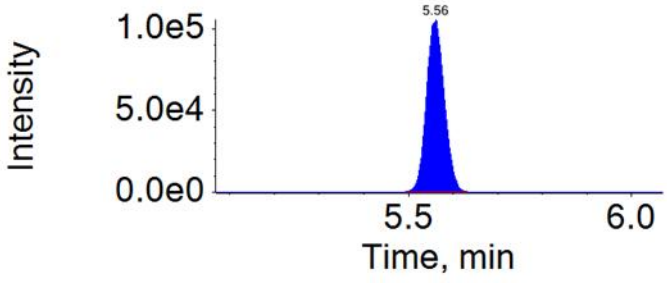
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

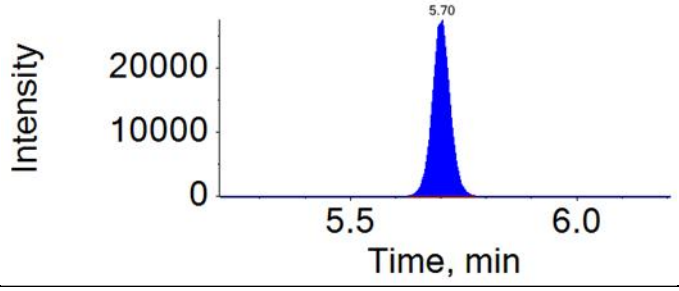
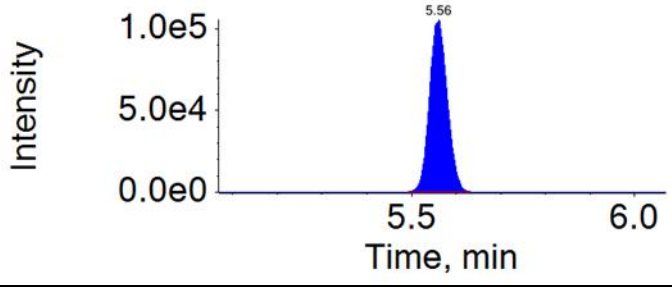
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

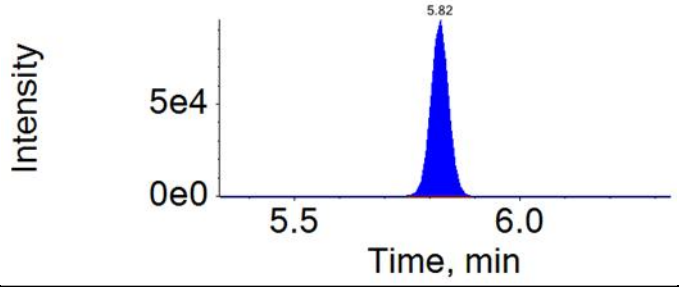
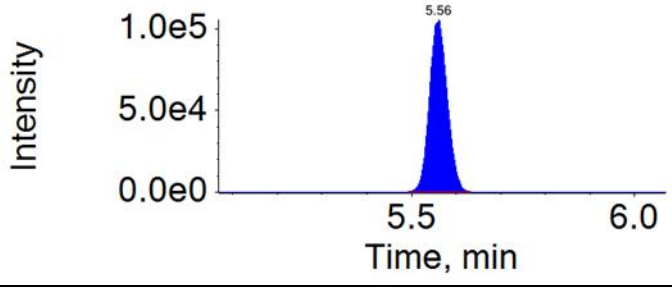
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 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
	

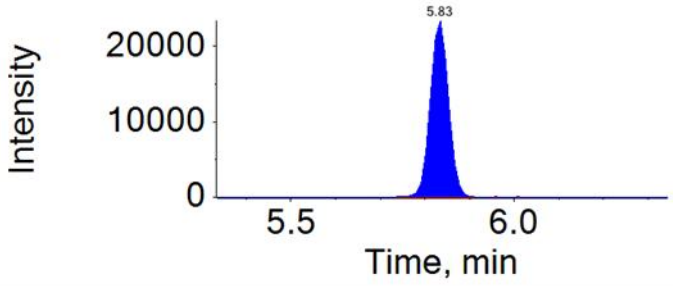
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

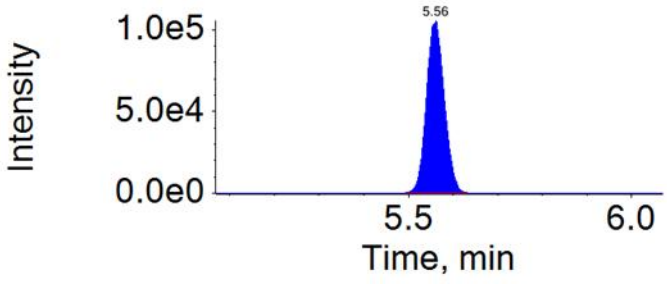
APPROVED
By JPT at 4:33 pm, 11/13/18

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

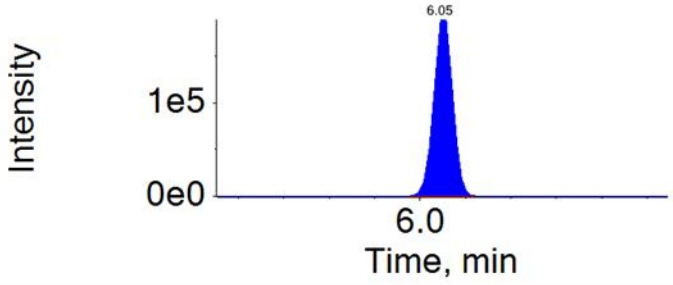
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

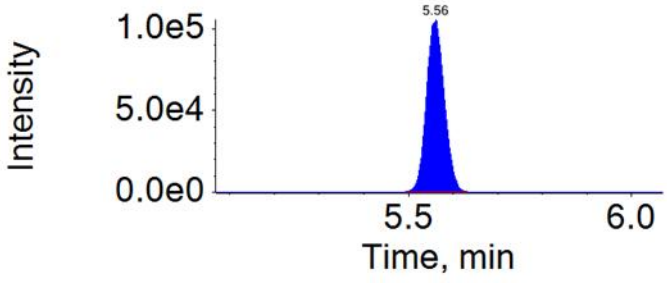
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



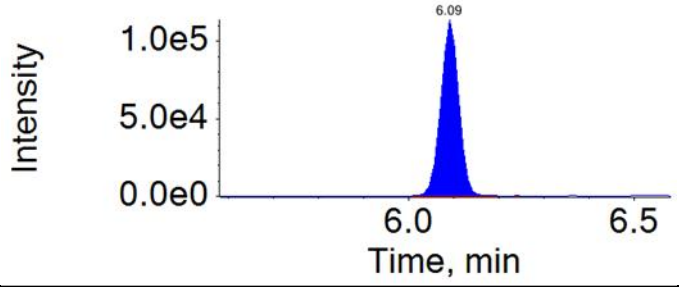


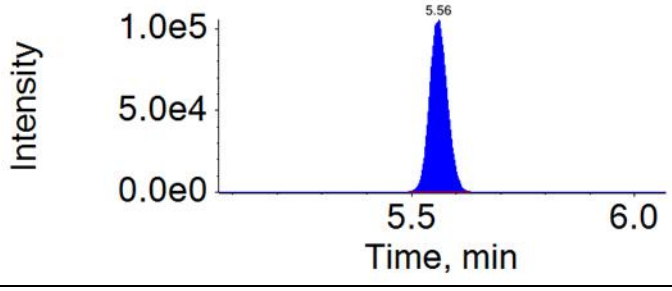
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



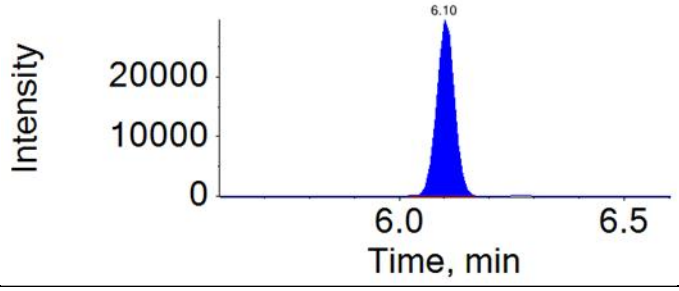


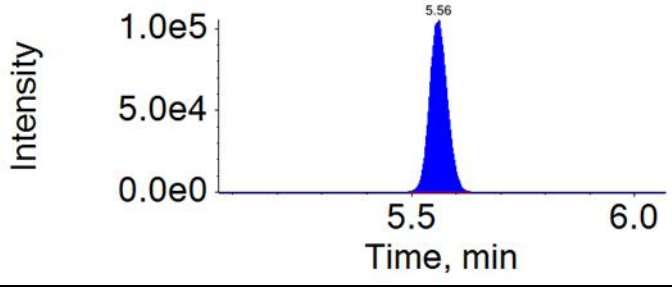
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



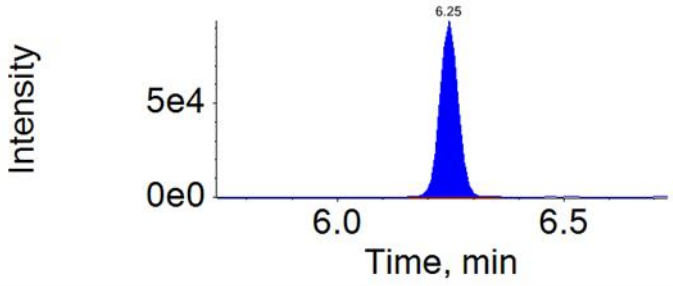


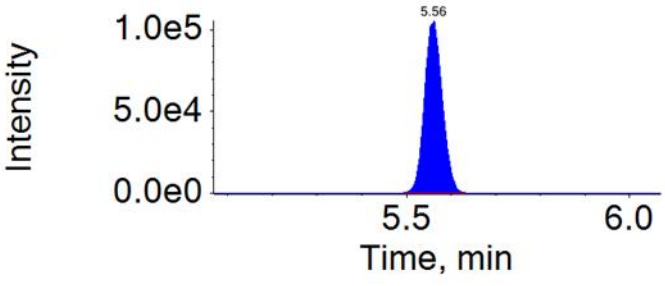
APPROVED
By JPT at 4:33 pm, 11/13/18

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

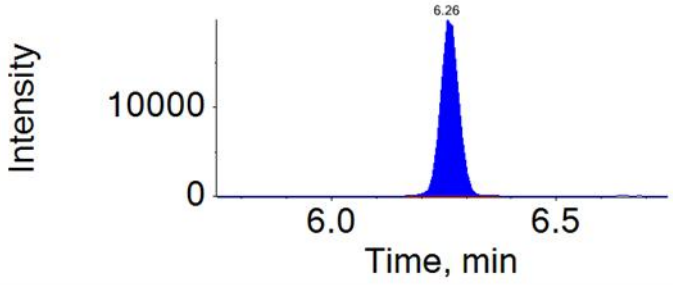
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

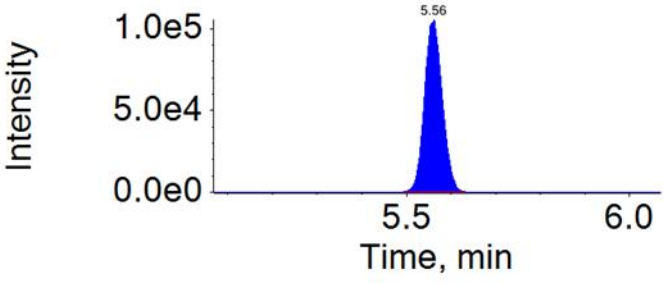
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



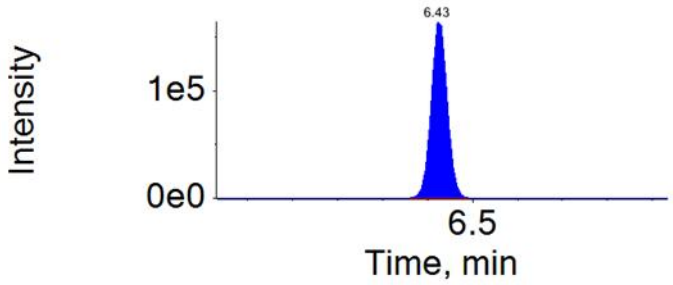


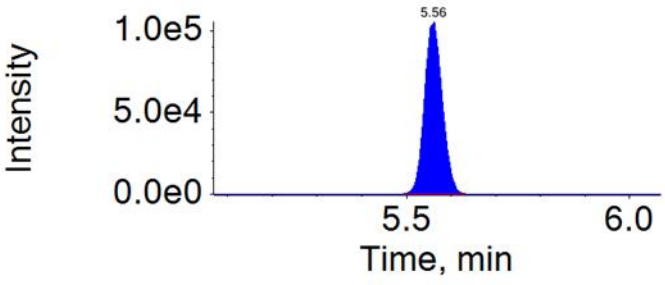
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



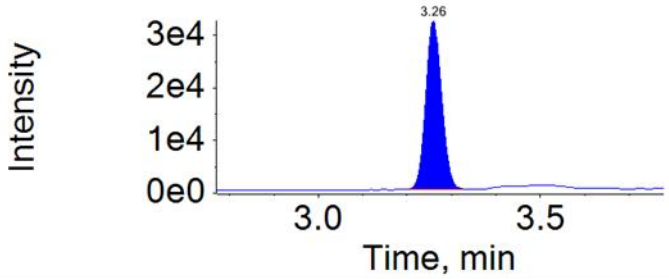


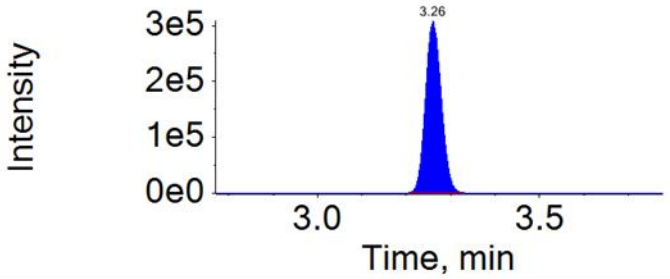
APPROVED
By JPT at 4:33 pm, 11/13/18

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

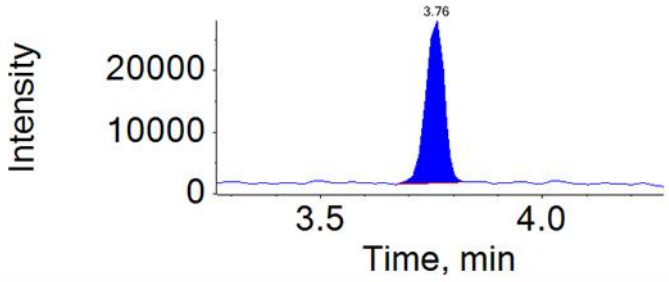
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

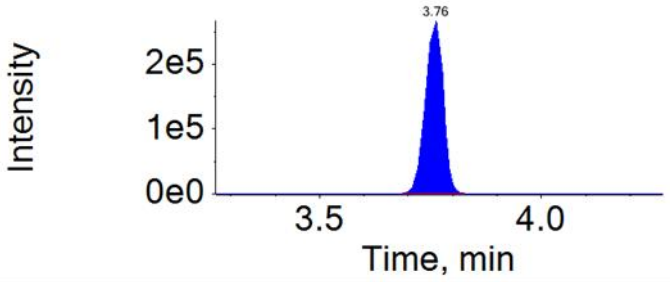
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



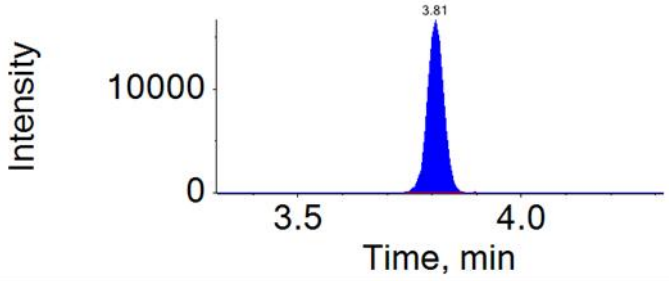


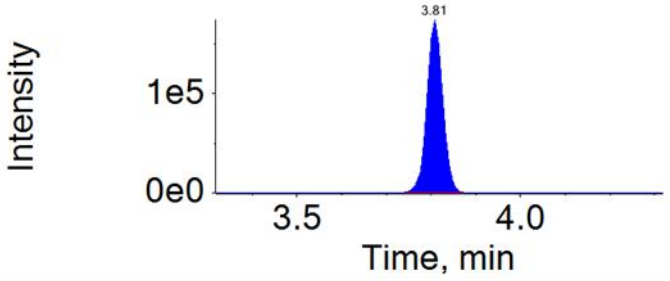
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



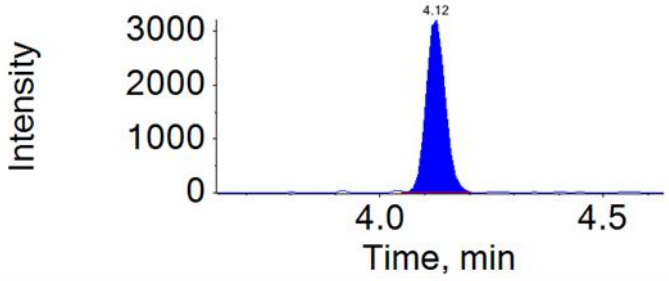


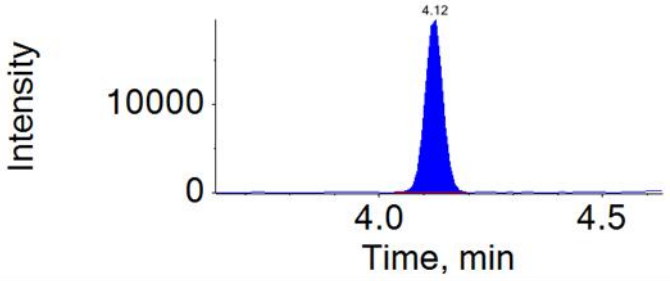
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



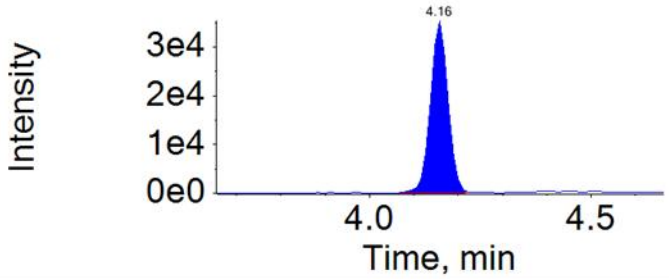


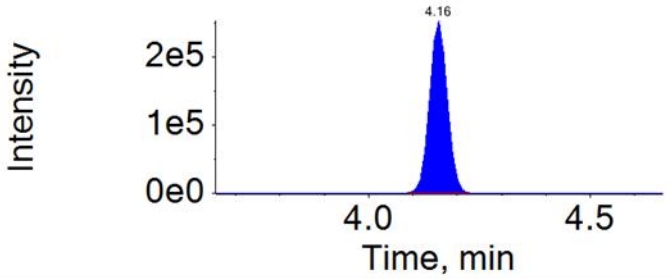
APPROVED
By JPT at 4:33 pm, 11/13/18

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

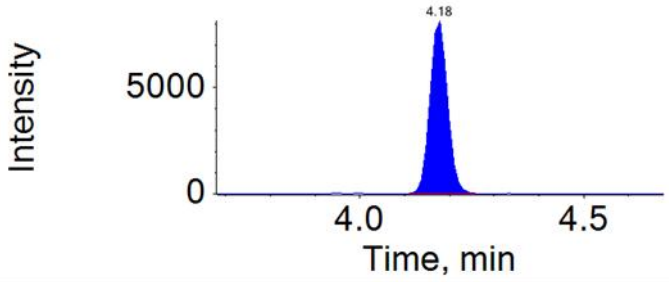
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

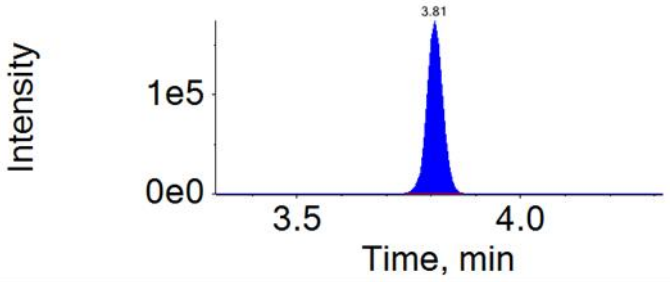
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



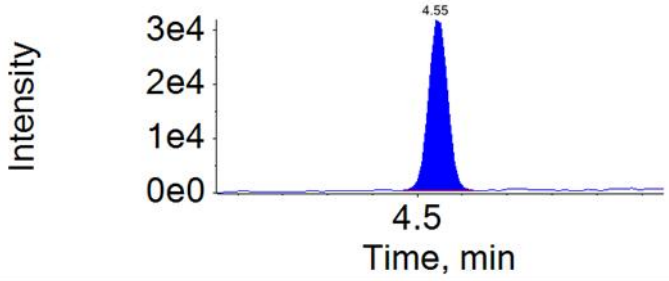


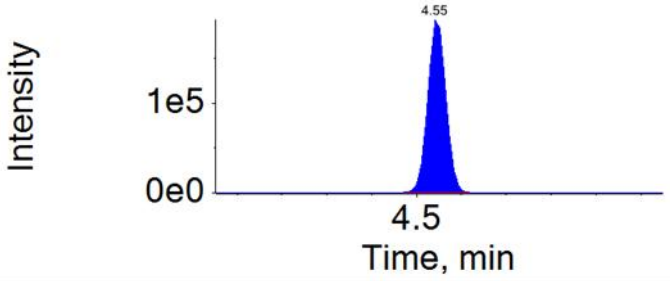
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



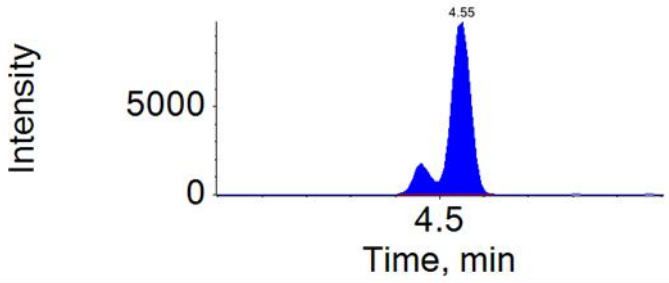


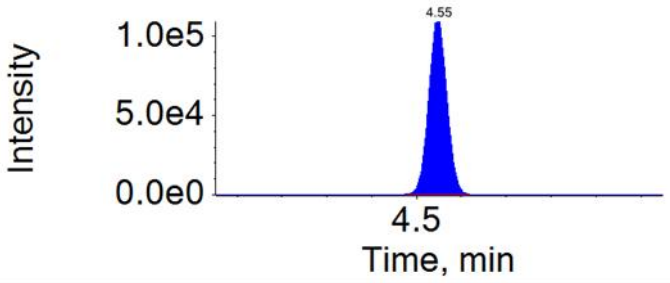
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

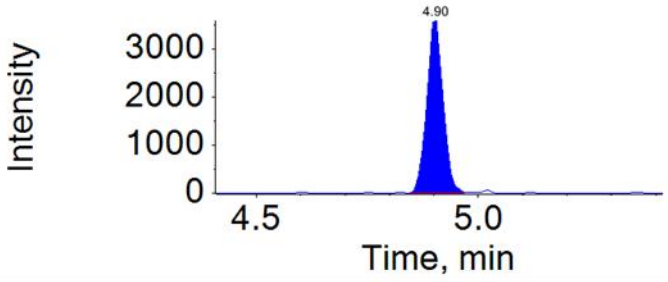
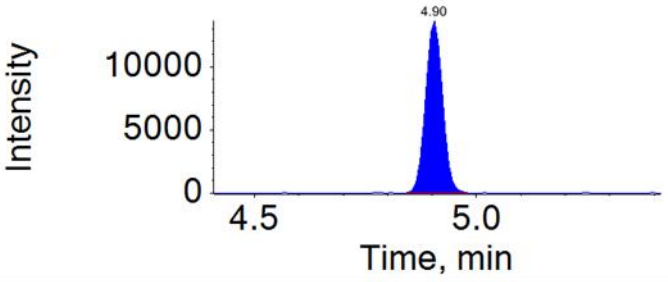


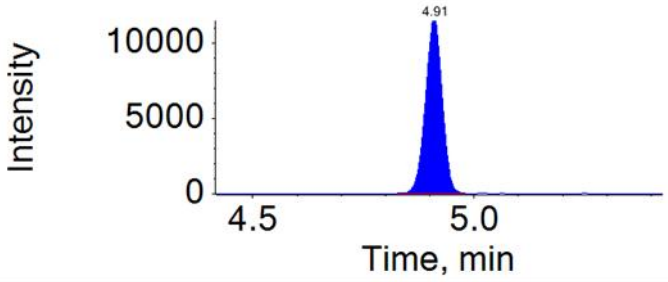
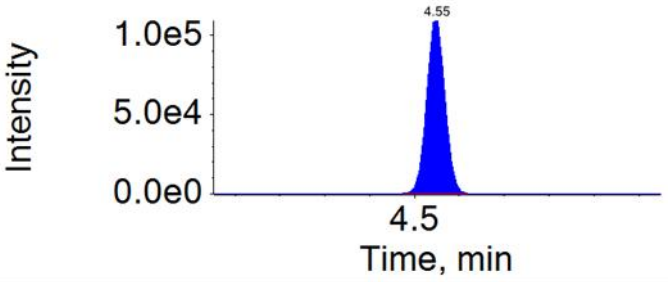


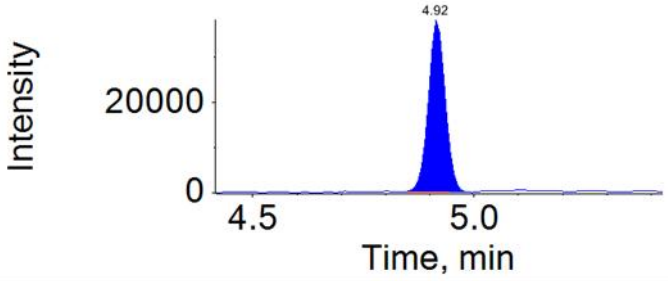
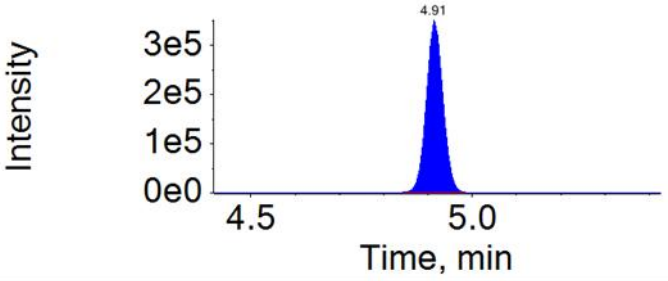
APPROVED
By JPT at 4:33 pm, 11/13/18

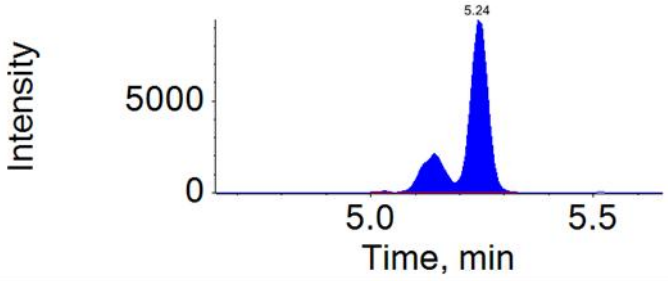
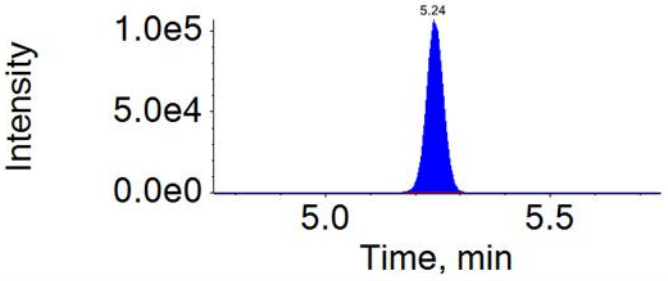
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

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
	

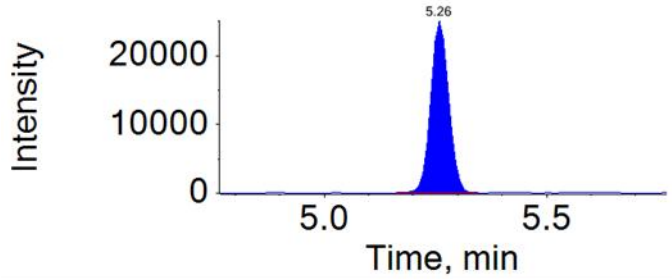
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

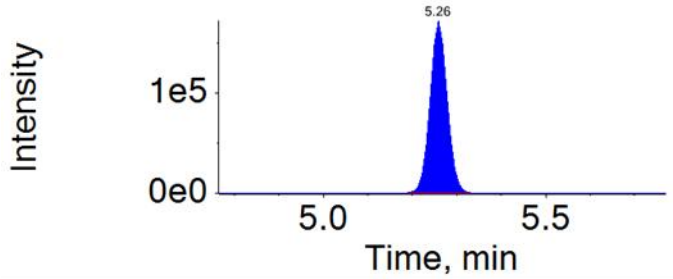
APPROVED
By JPT at 4:33 pm, 11/13/18

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

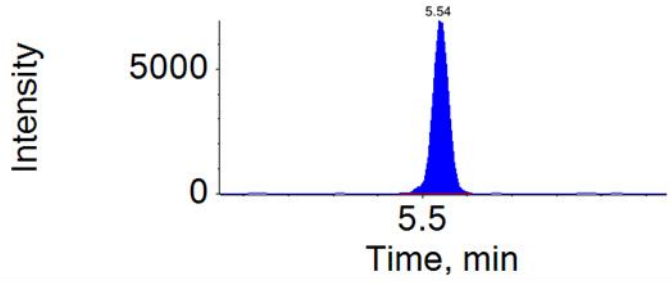
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

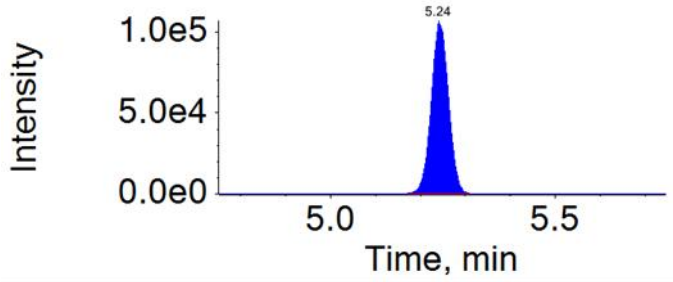
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



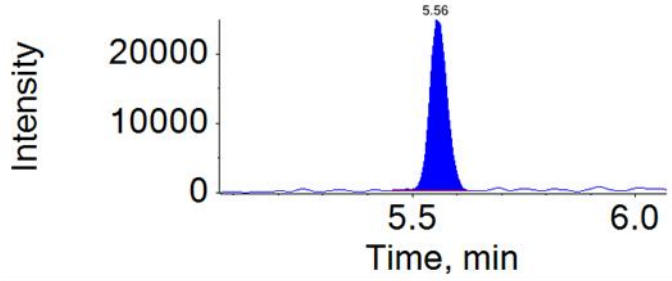


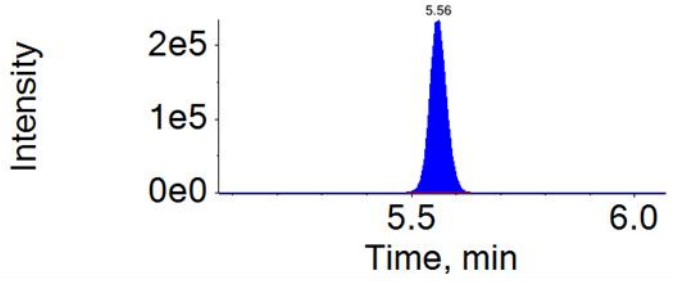
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



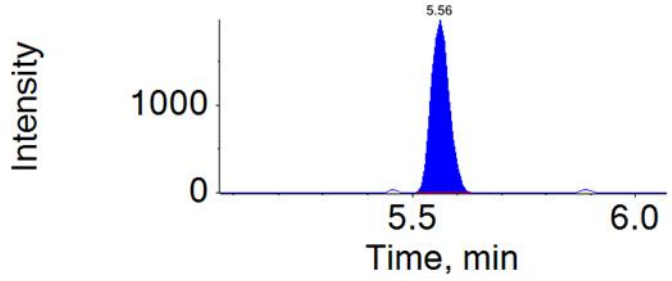


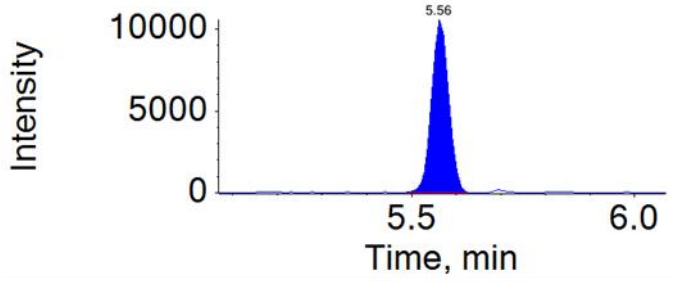
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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

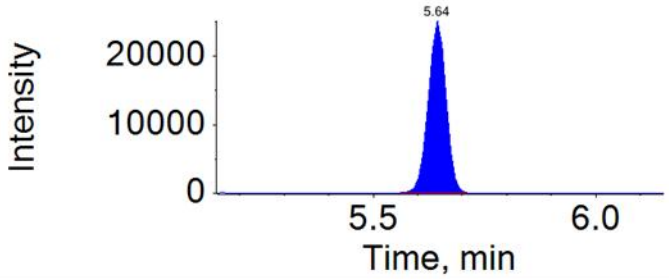
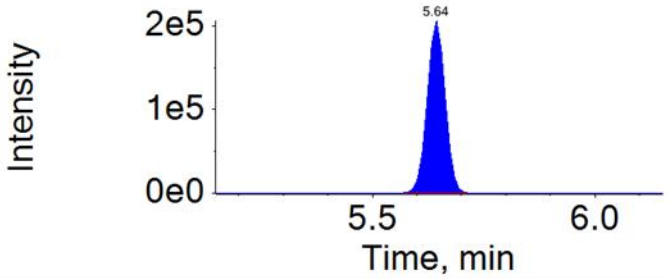


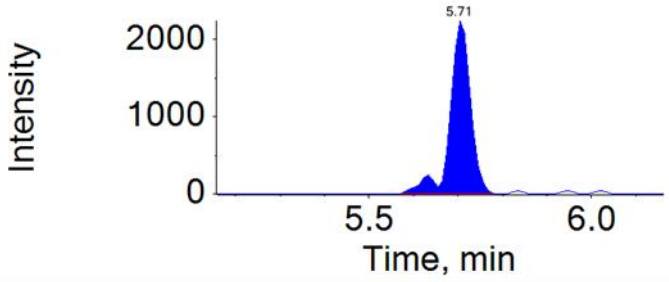
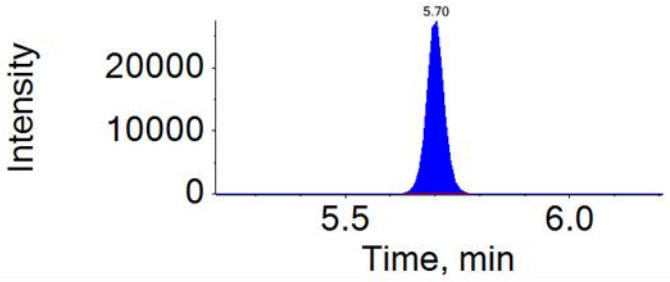


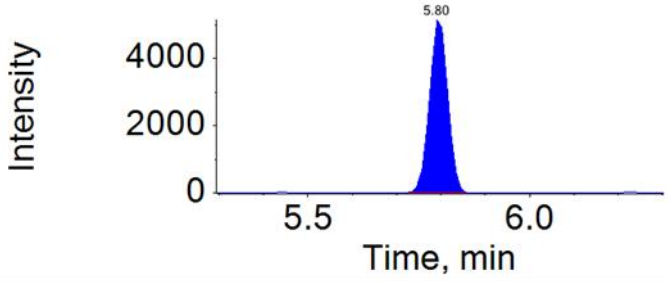
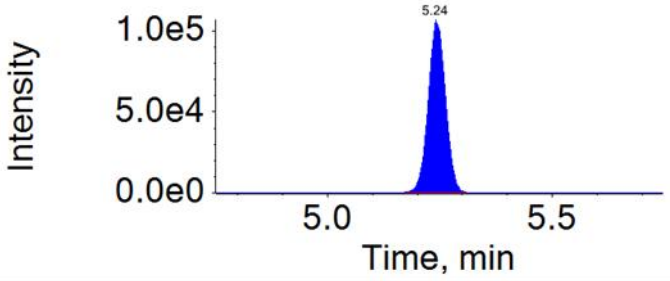
APPROVED
By JPT at 4:33 pm, 11/13/18

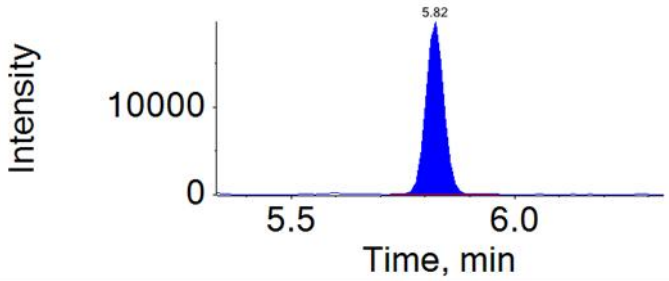
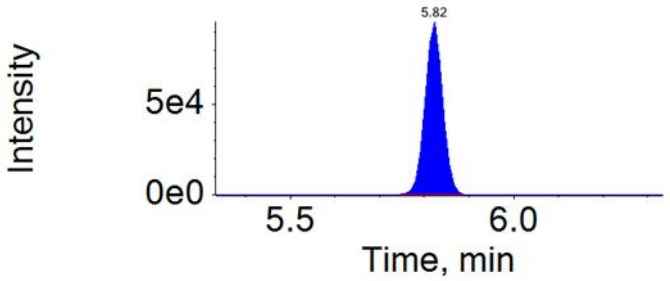
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

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
	

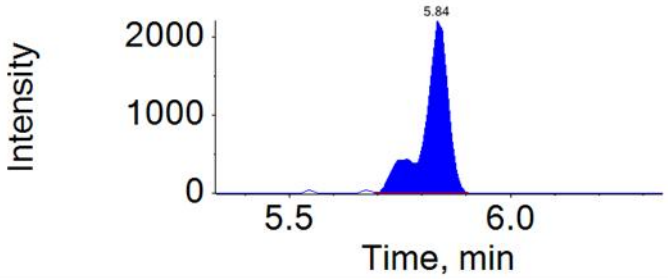
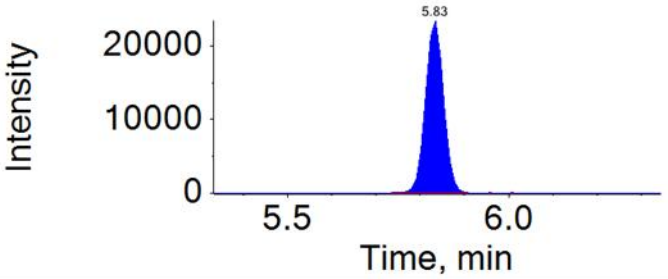
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

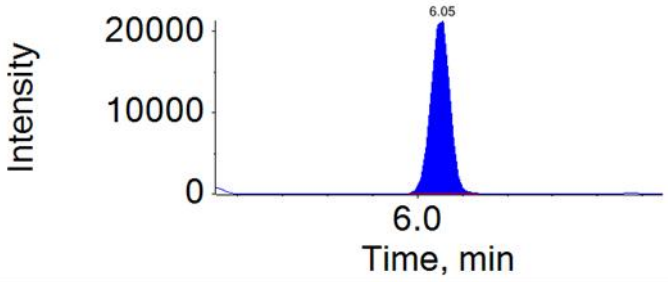
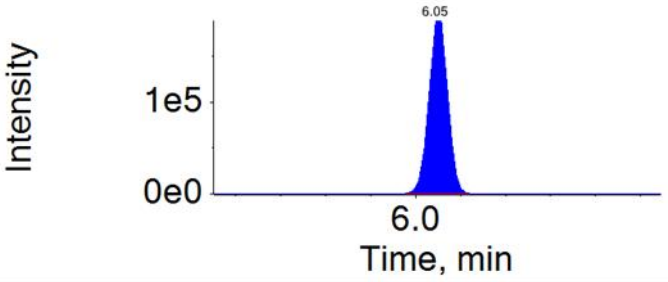
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

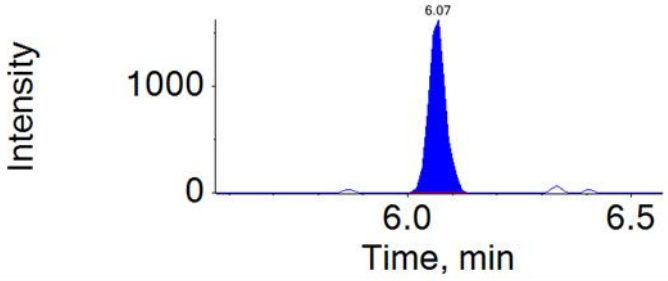
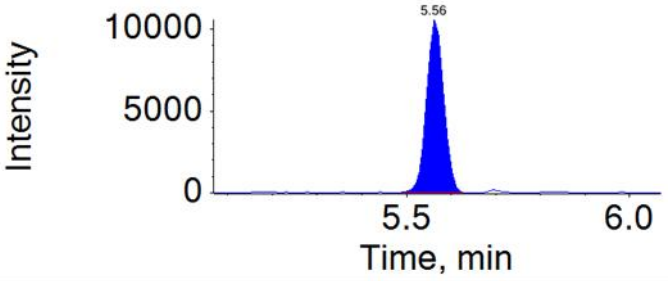
APPROVED
By JPT at 4:33 pm, 11/13/18

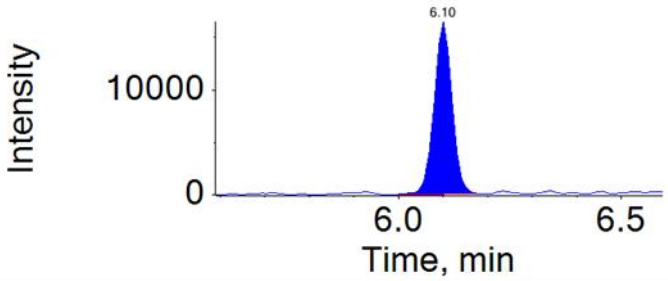
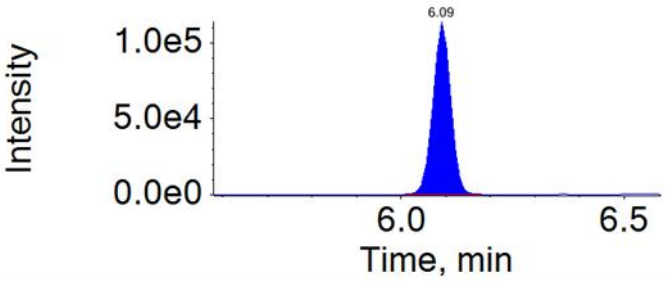
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

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
	

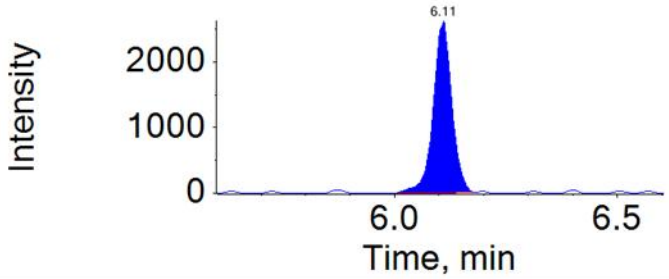
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

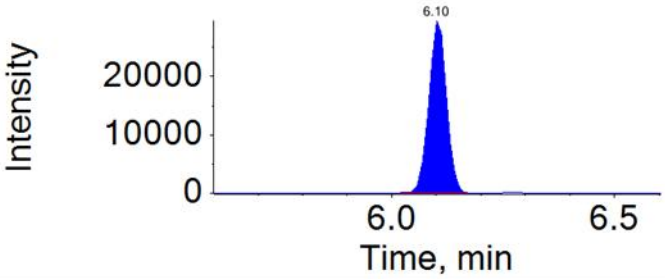
APPROVED
By JPT at 4:33 pm, 11/13/18

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

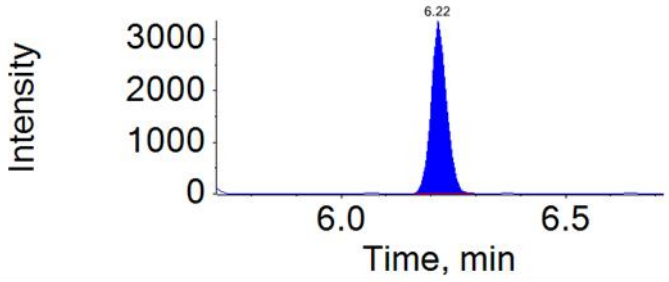
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

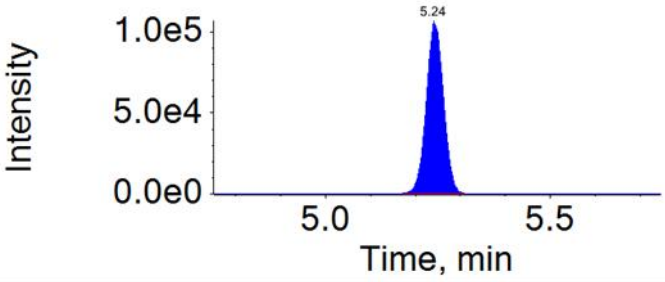
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



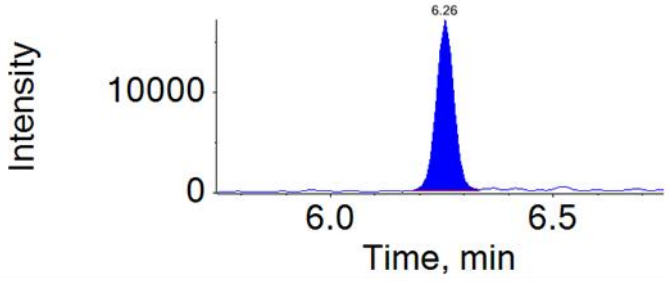


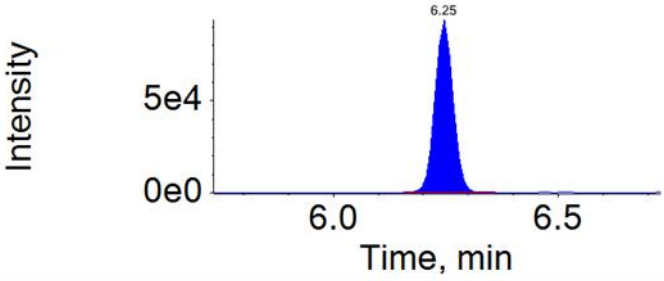
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



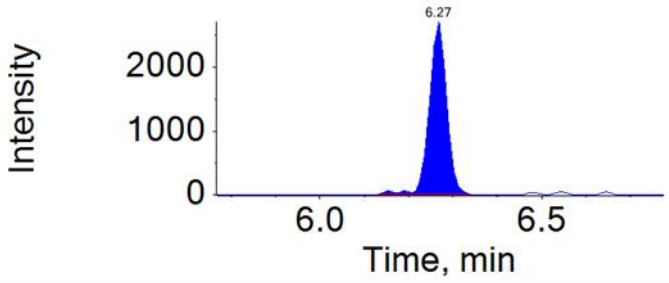


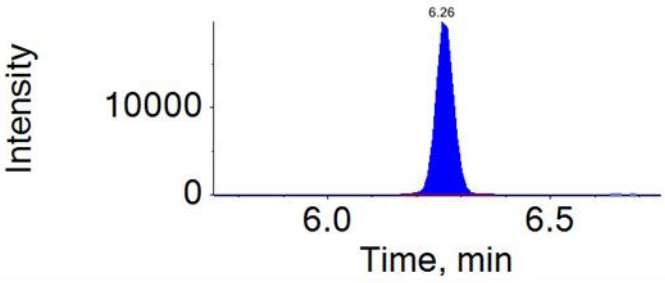
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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

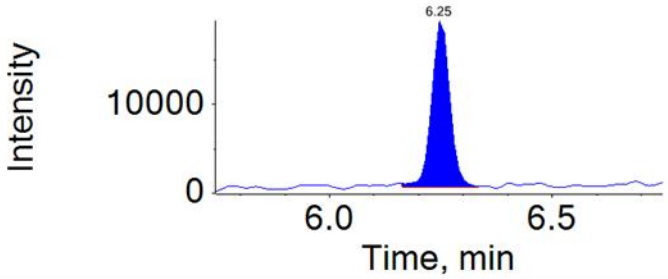
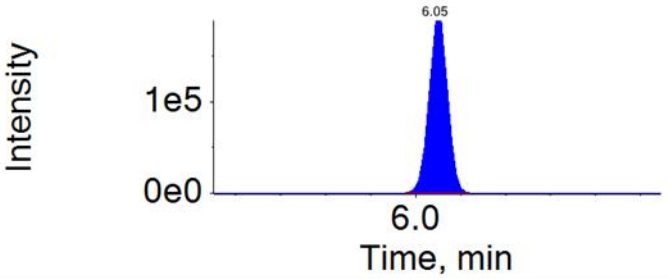


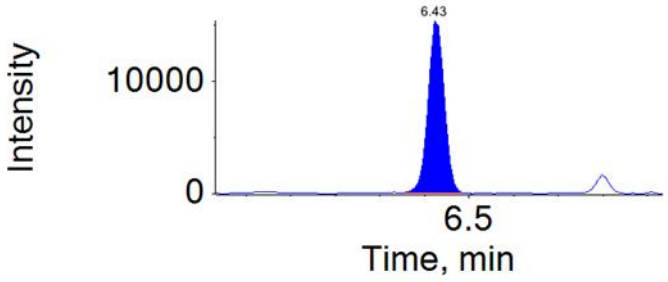
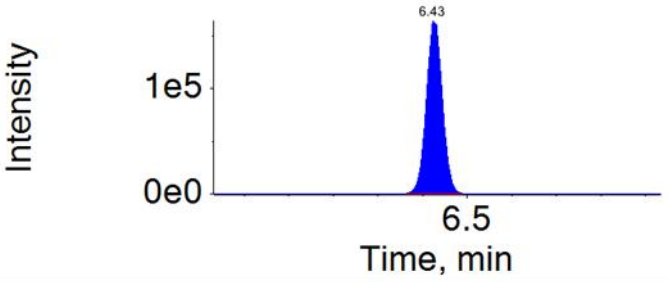


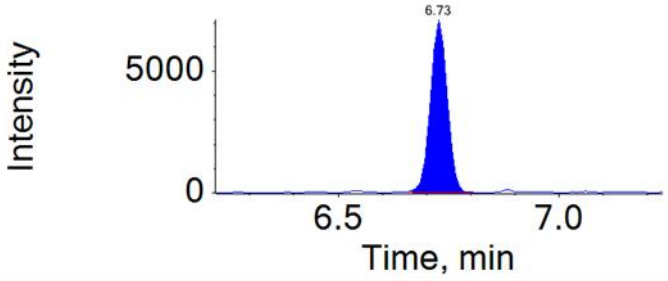
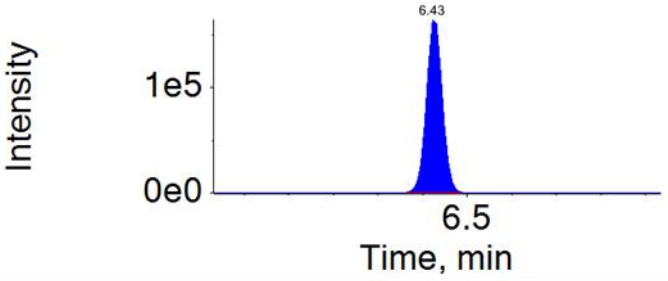
APPROVED
By JPT at 4:33 pm, 11/13/18

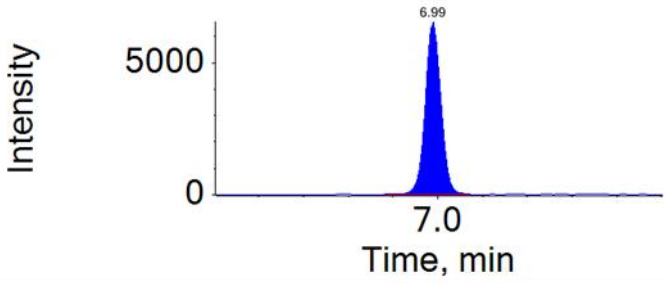
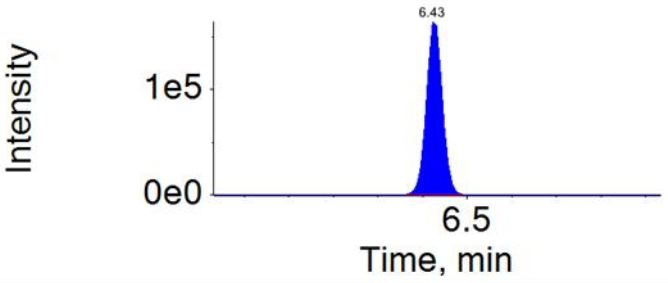
REVIEWED
By HMK at 1:48 pm, 11/14/18

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

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
	

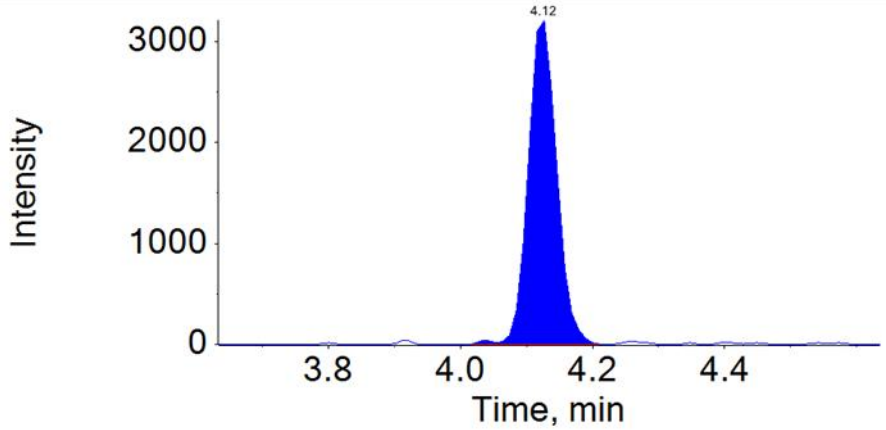
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

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

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

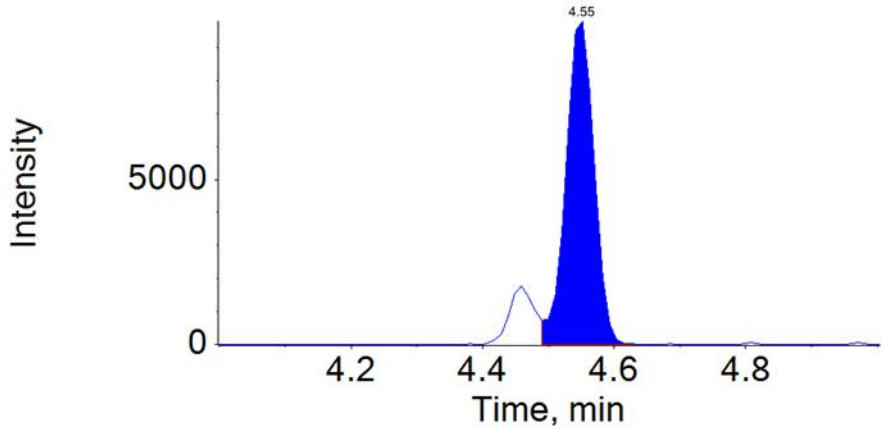
Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
4:2-FTS
RT (min.):
4.12
Peak Area:
9681.3
Mass Range:
327.0 / 307.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



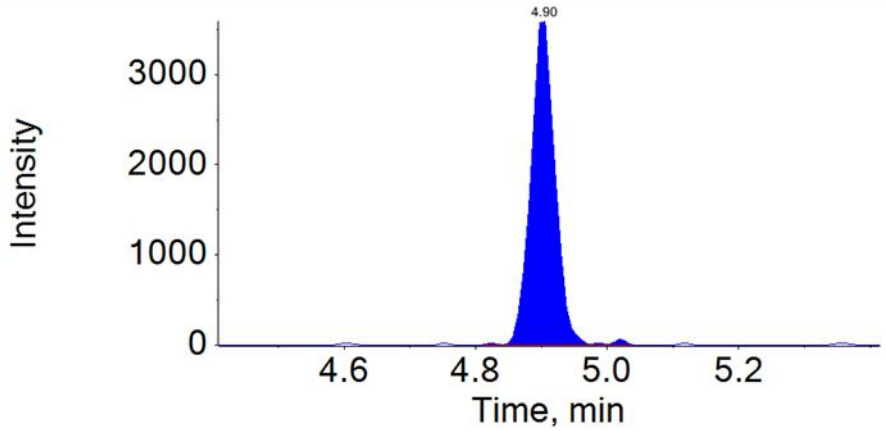
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
29488.0
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
6:2-FTS
RT (min.):
4.90
Peak Area:
9370.4
Mass Range:
427.0 / 407.0
File Name:
18NOV13D-05.wiff
Sample Name:
CCV1_ISC_CAL2

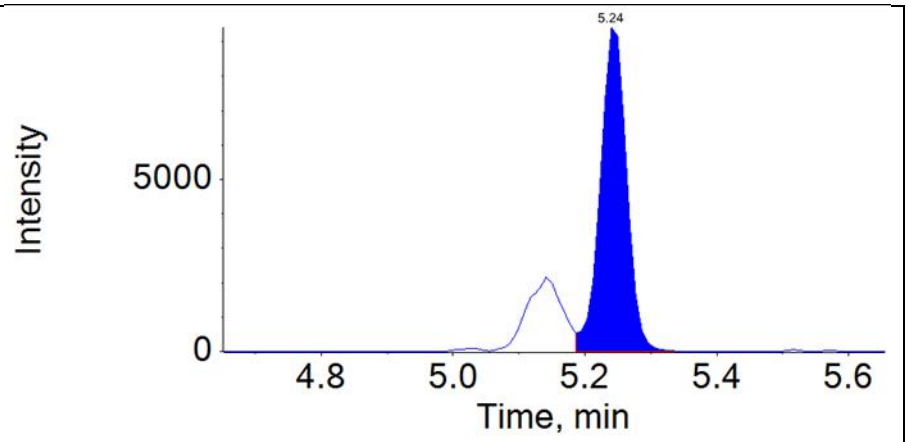


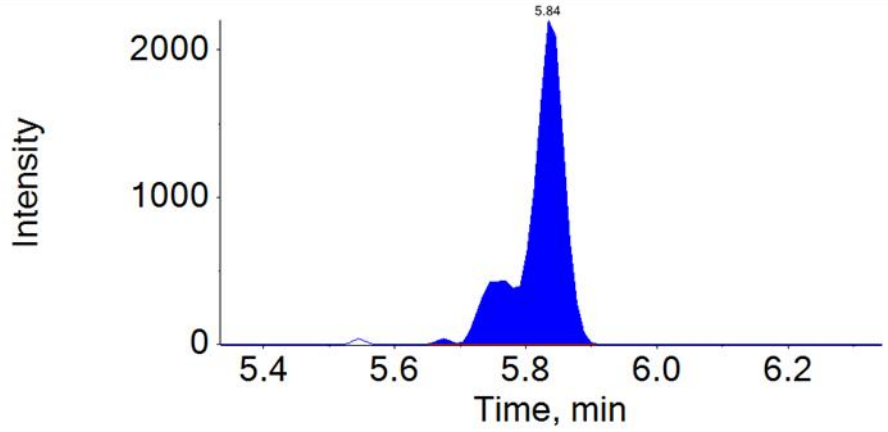
Integration Comment: incorrect integration

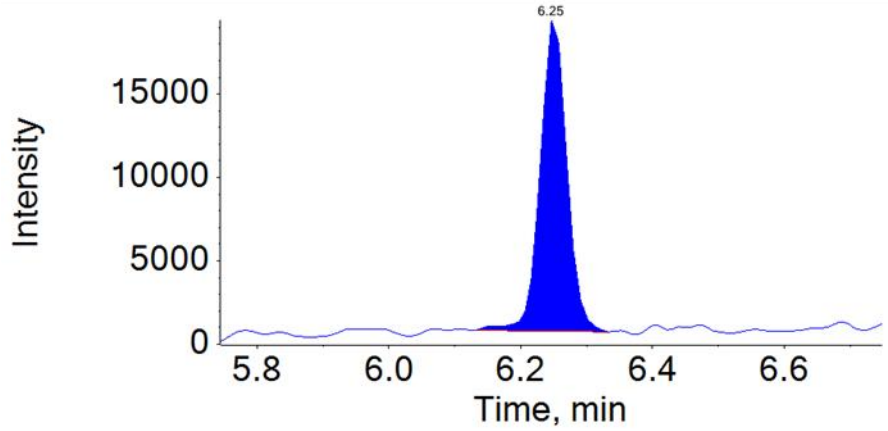
APPROVED
By JPT at 4:33 pm, 11/13/18

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 26298.4 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

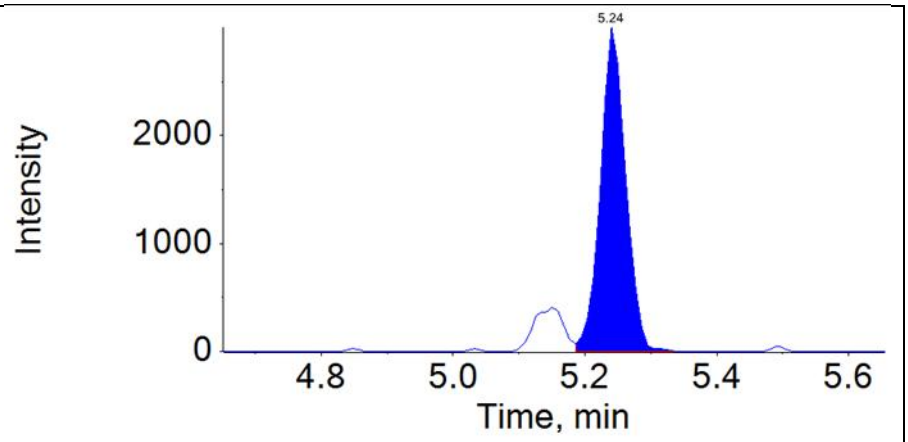
Component Name: NEtFOSAA **RT (min.):** 5.84 **Peak Area:** 8449.1 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

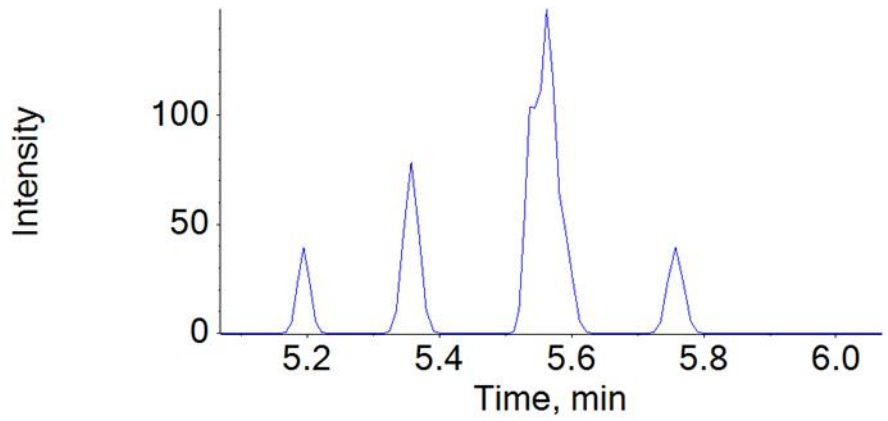
Component Name: PFTrDA **RT (min.):** 6.25 **Peak Area:** 52734.4 **Mass Range:** 663.0 / 619.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

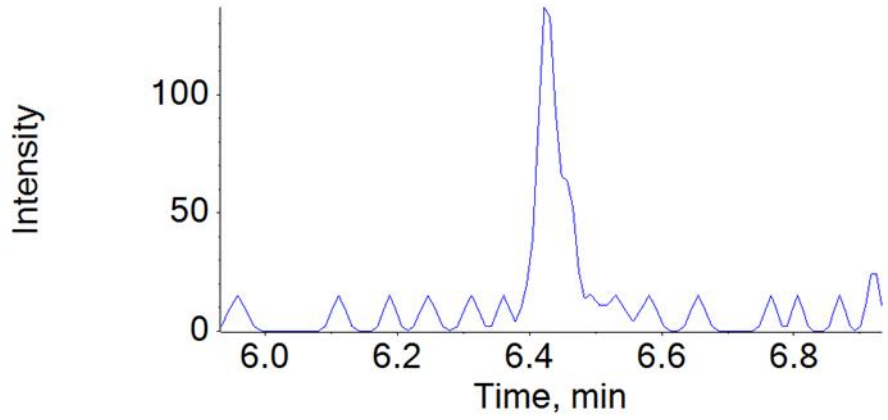
APPROVED
By JPT at 4:33 pm, 11/13/18

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 7996.8 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV13D-05.wiff **Sample Name:** CCV1_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-05.wiff **Sample Name:** CCV1_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:** 18NOV13D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

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

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM

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

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

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

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

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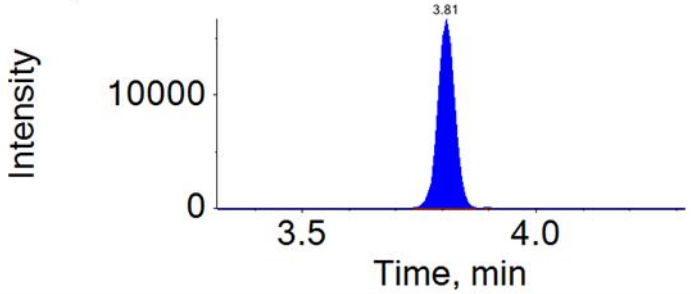
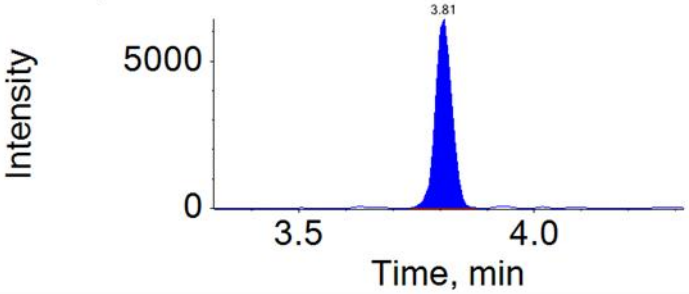
By HMK at 1:48 pm, 11/14/18

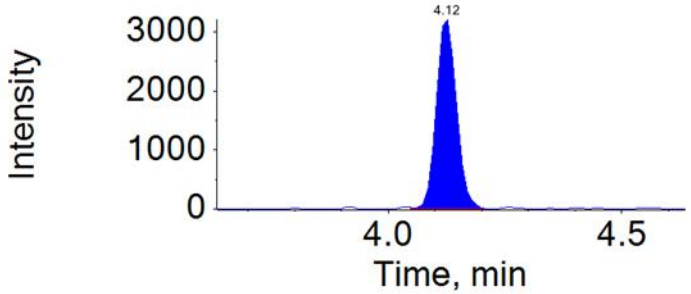
Component: PFBS
Primary Mass: 299.0 / 80.0



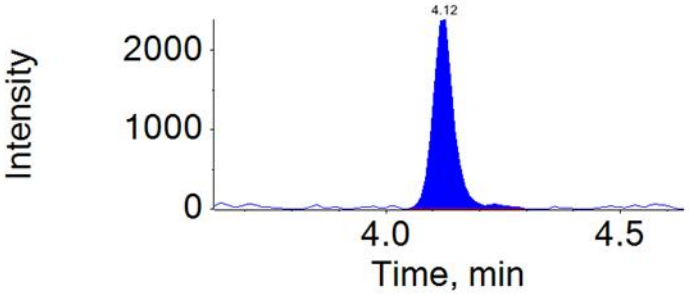
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



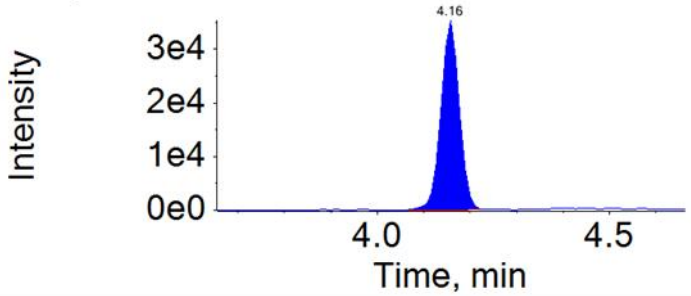
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



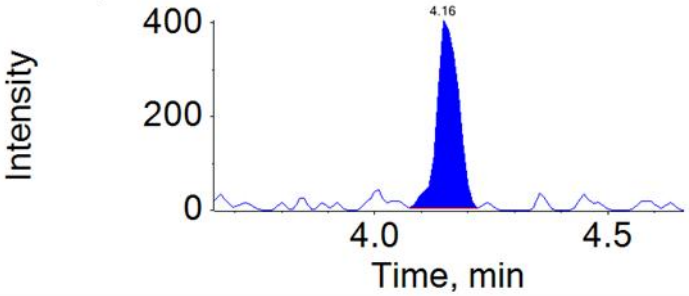
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



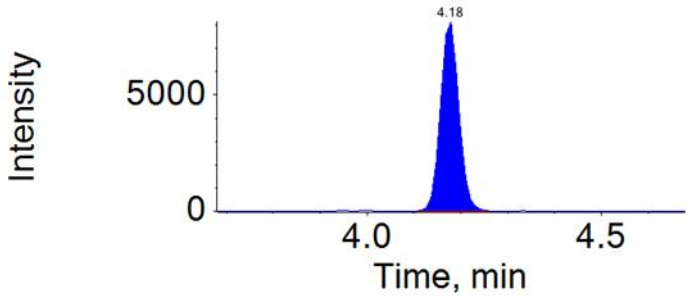
Component: PFHxA
Primary Mass: 313.0 / 269.0



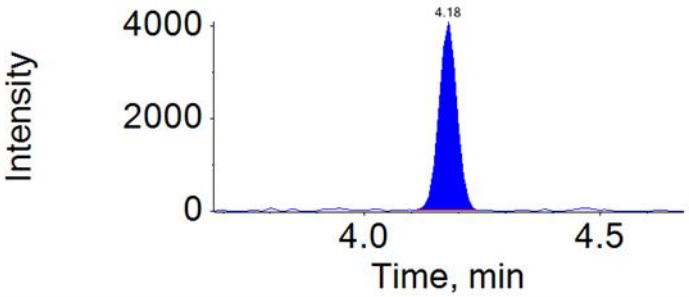
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



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

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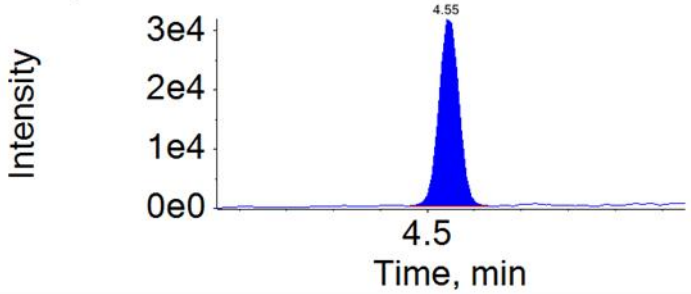
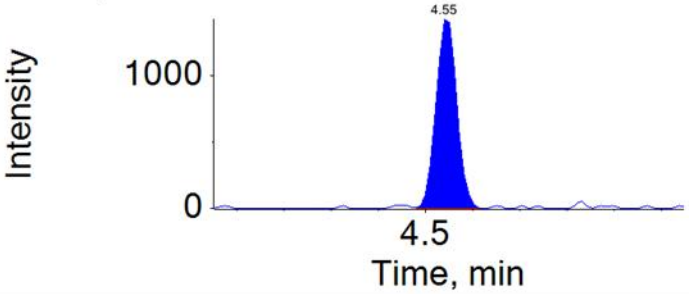
By HMK at 1:48 pm, 11/14/18

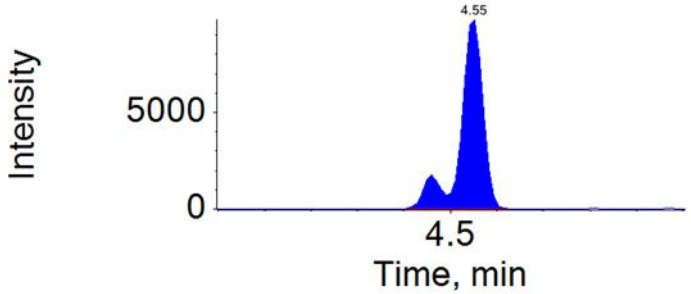
Component: PFHpA
Primary Mass: 363.0 / 319.0



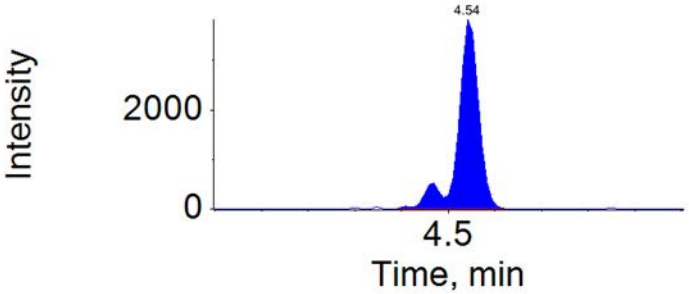
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



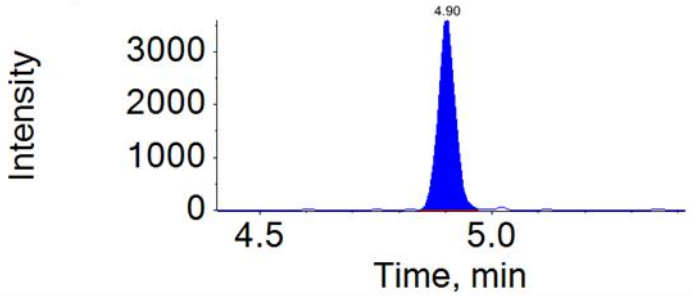
Component: PFHxS
Primary Mass: 399.0 / 80.0



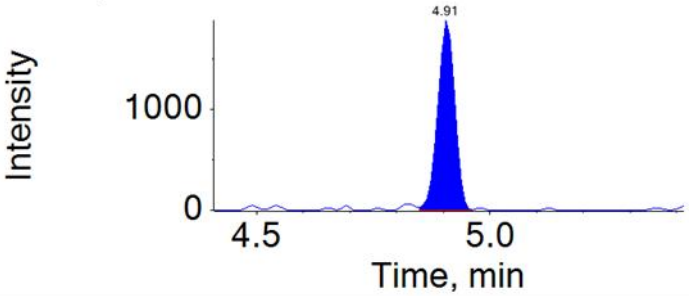
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



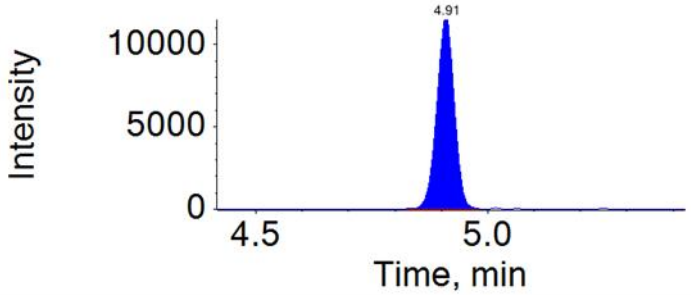
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



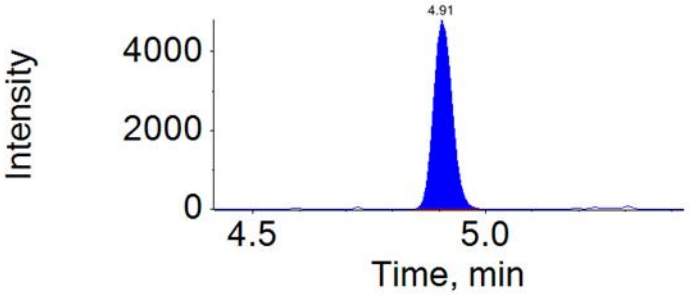
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



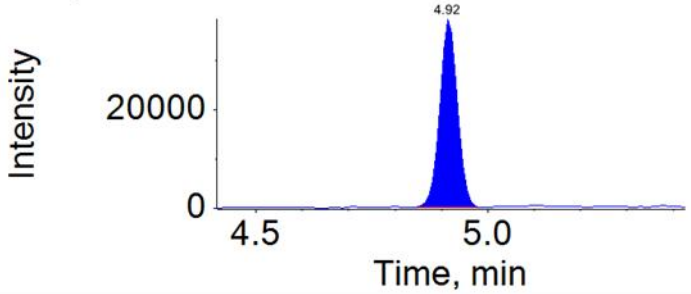
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



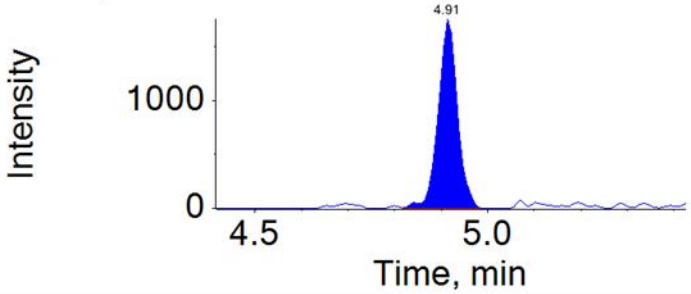
APPROVED
By JPT at 4:33 pm, 11/13/18

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

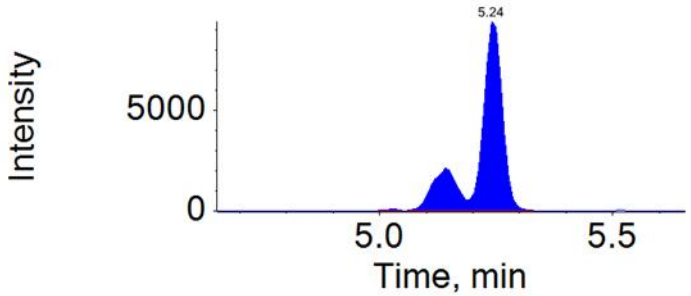
Component: PFOA
Primary Mass: 413.0 / 369.0



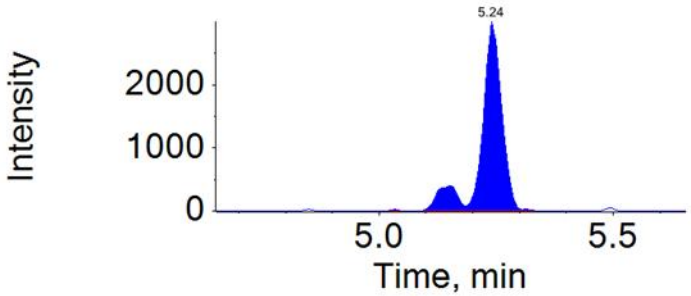
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



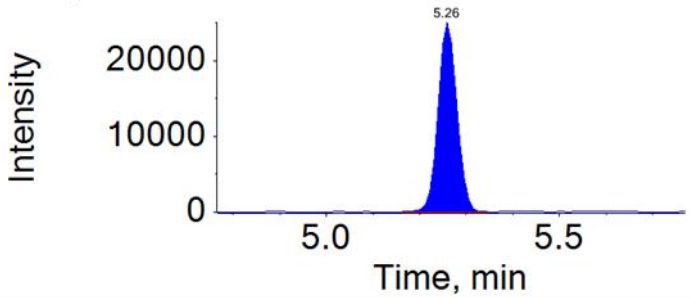
Component: PFOS
Primary Mass: 499.0 / 80.0



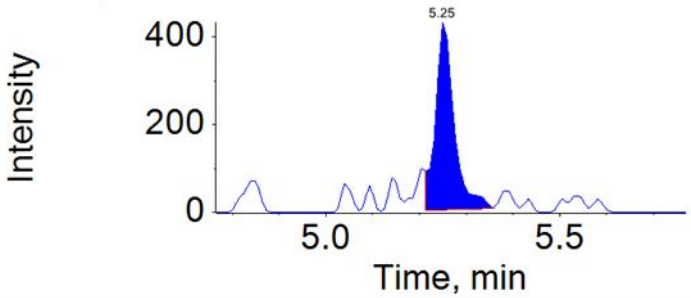
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



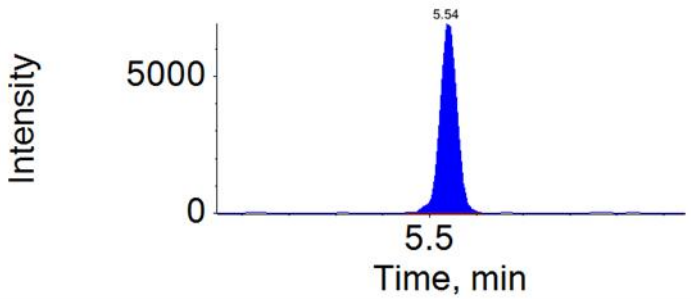
Component: PFNA
Primary Mass: 463.0 / 419.0



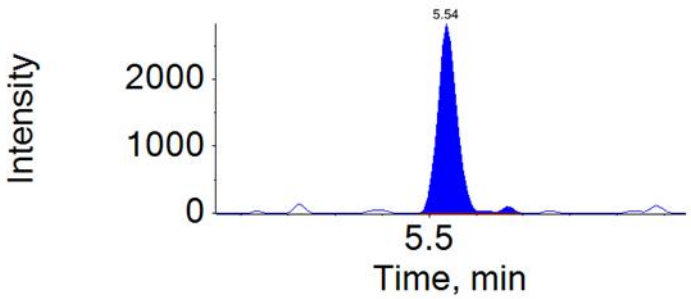
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



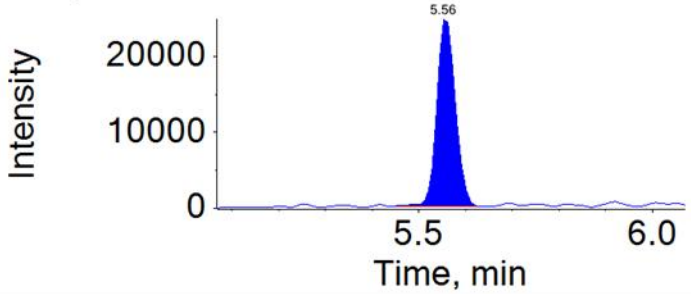
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



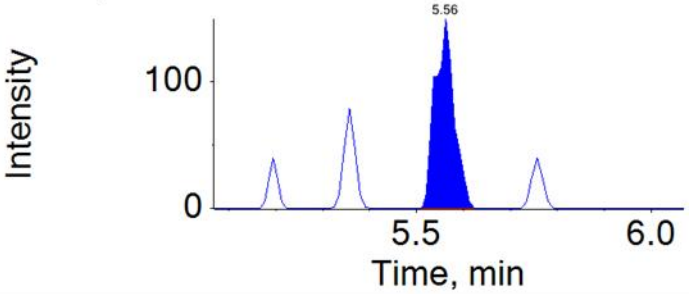
APPROVED
By JPT at 4:33 pm, 11/13/18

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

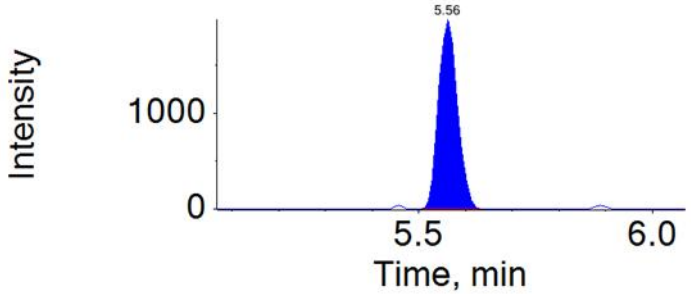
Component: PFDA
Primary Mass: 513.0 / 469.0



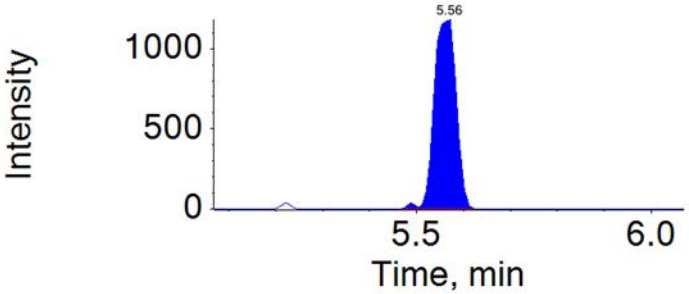
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



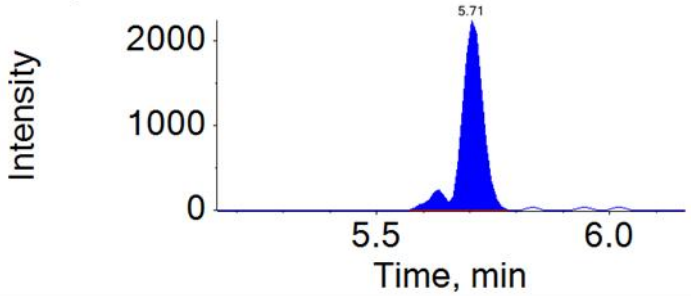
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



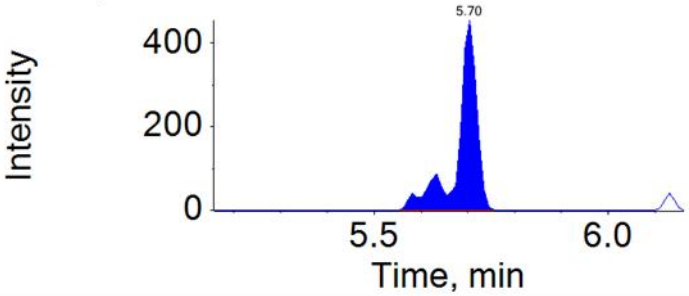
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



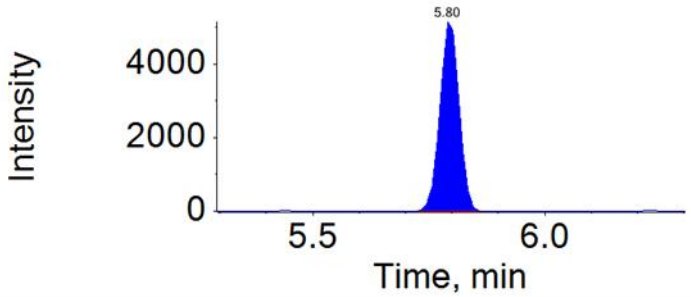
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



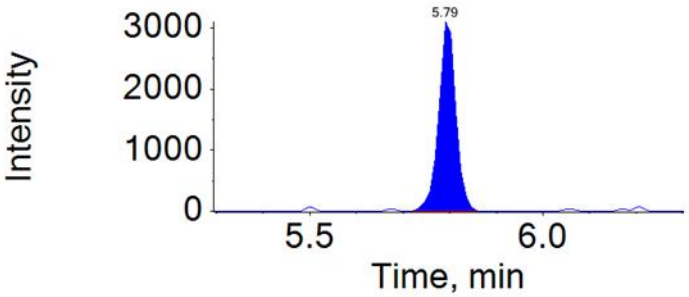
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



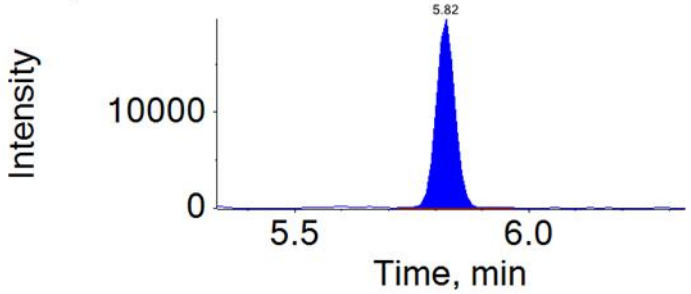
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



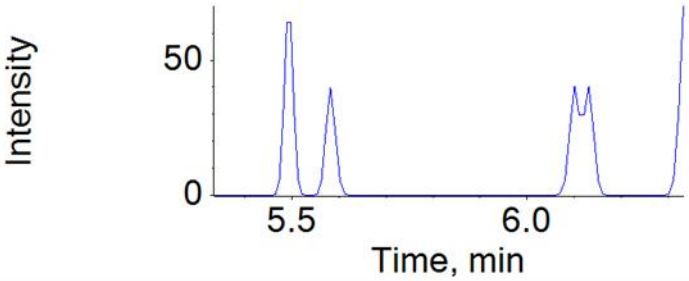
APPROVED
By JPT at 4:33 pm, 11/13/18

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

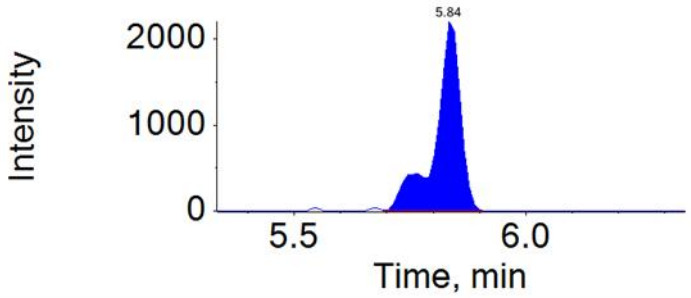
Component: PFUnDA
Primary Mass: 563.0 / 519.0



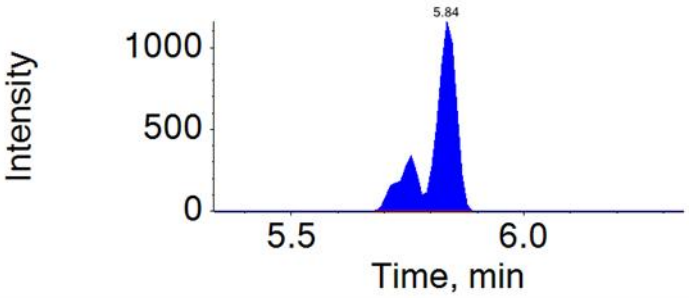
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



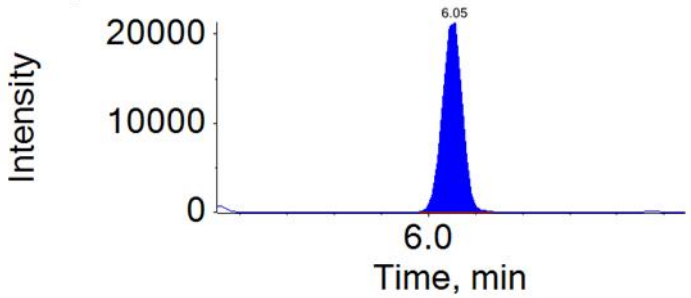
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



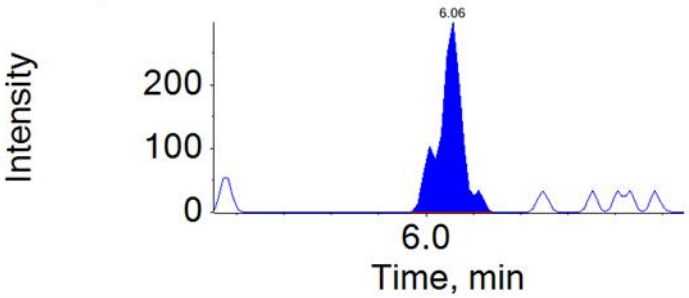
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



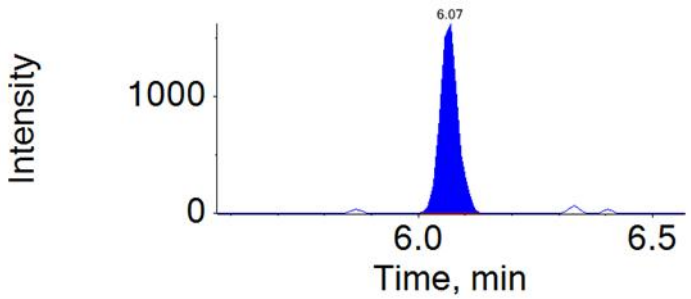
Component: PFDoDA
Primary Mass: 613.0 / 569.0



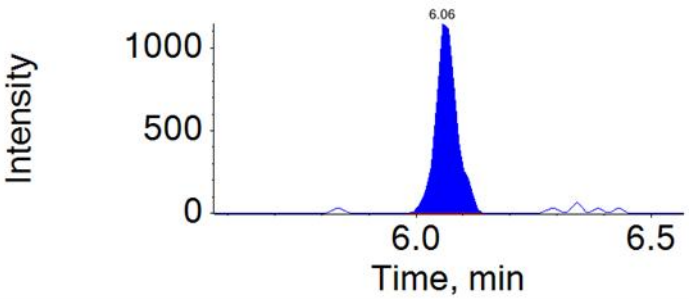
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



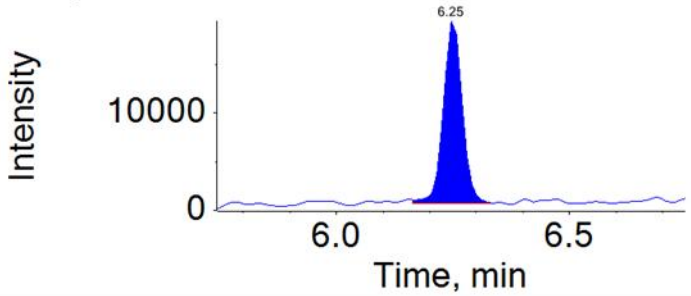
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



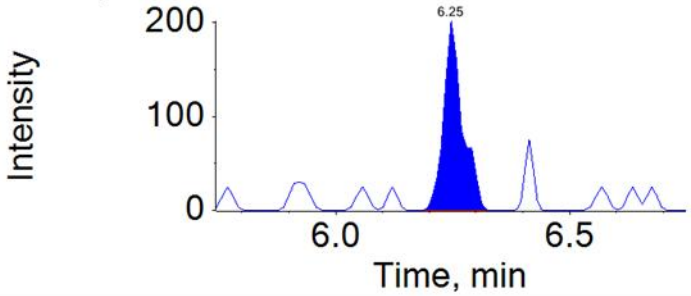
APPROVED
By JPT at 4:33 pm, 11/13/18

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

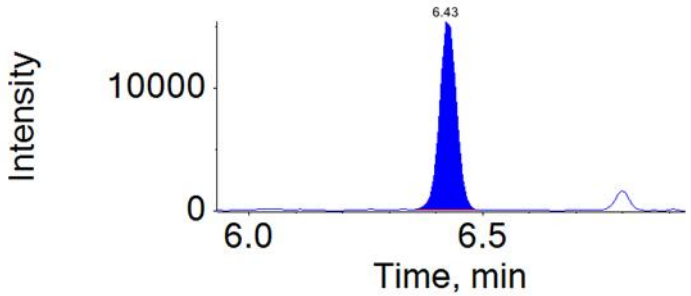
Component: PFTrDA
Primary Mass: 663.0 / 619.0



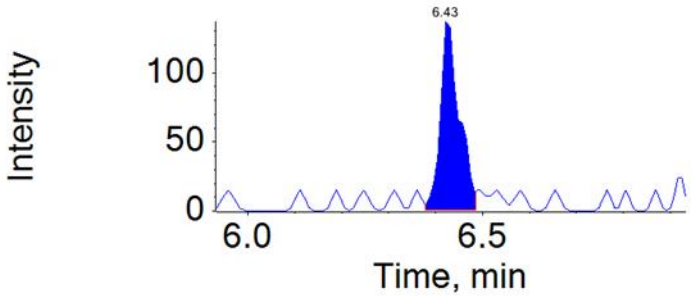
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



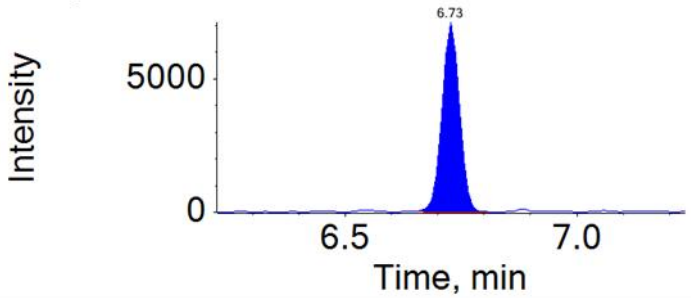
Component: PFTeDA
Primary Mass: 713.0 / 669.0



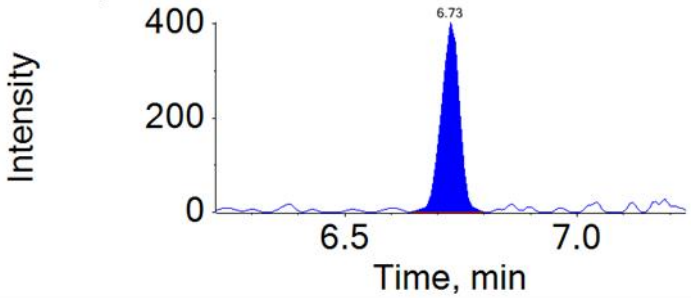
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



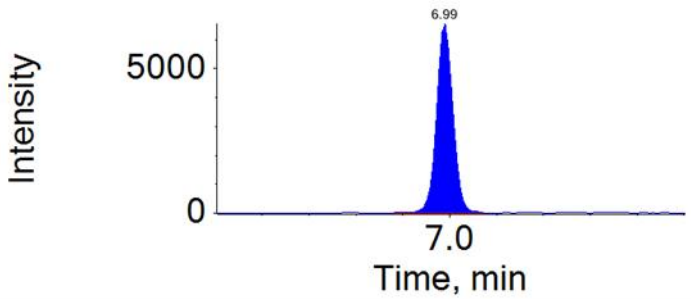
Component: PFHxDA
Primary Mass: 813.0 / 769.0



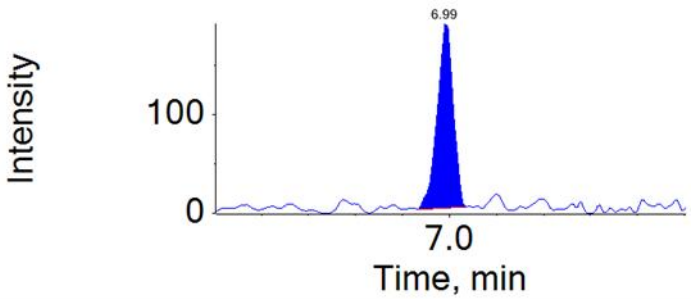
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



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

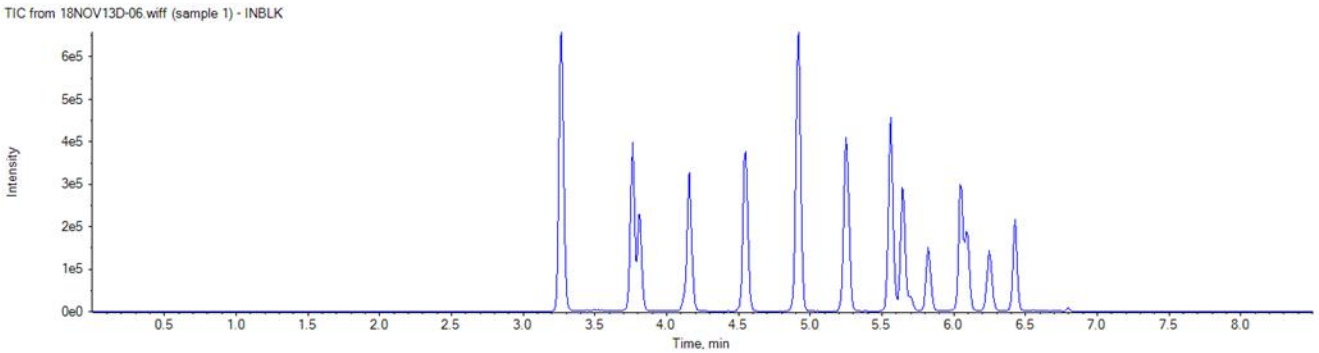
Analyte Quantitation Peak Table

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

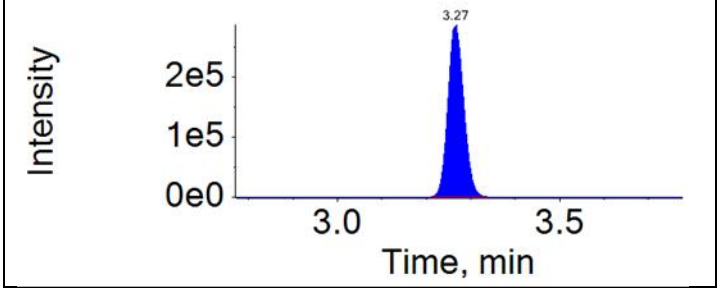


APPROVED
By JPT at 4:33 pm, 11/13/18

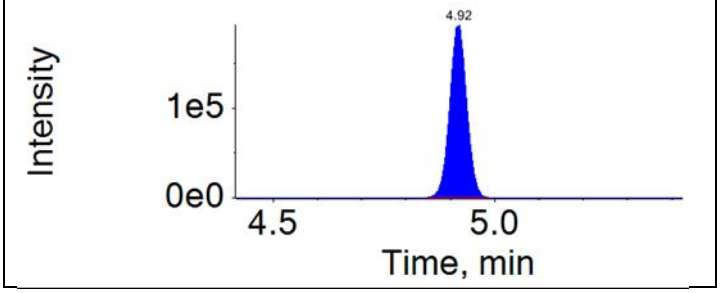
REVIEWED
By umar at 5:40 pm, 11/13/18

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

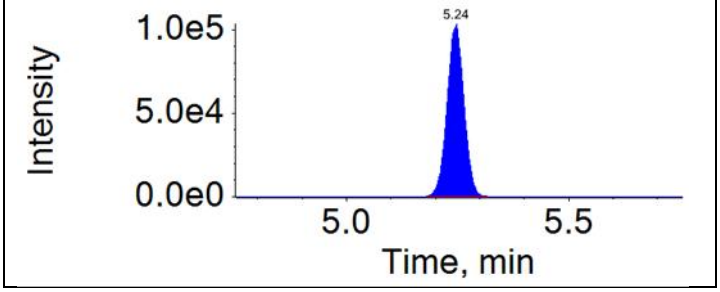
Injection Standard: 13C3-PFBA
216.0 / 172.0



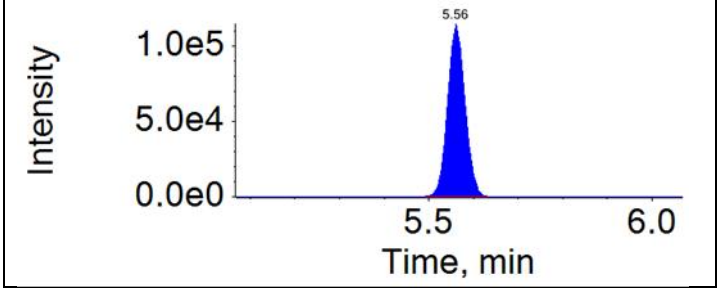
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

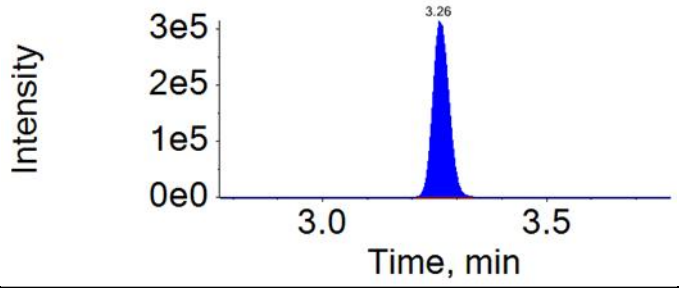


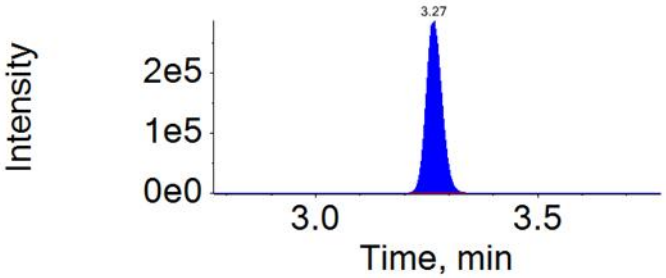
APPROVED
By JPT at 4:33 pm, 11/13/18

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

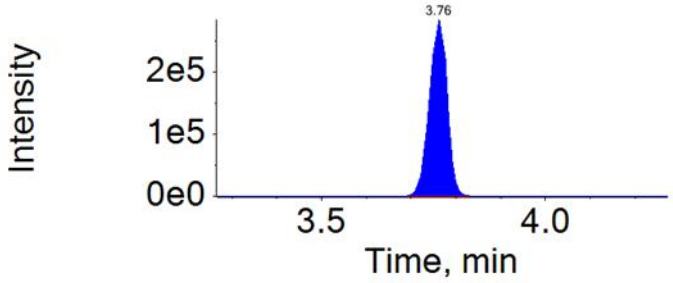
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

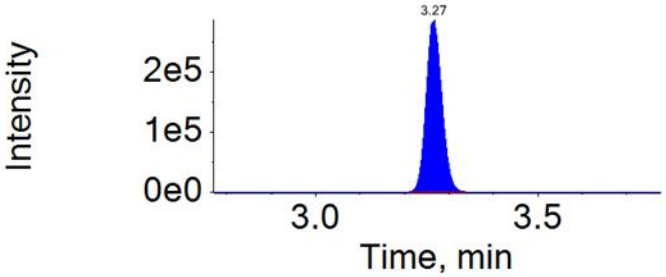
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



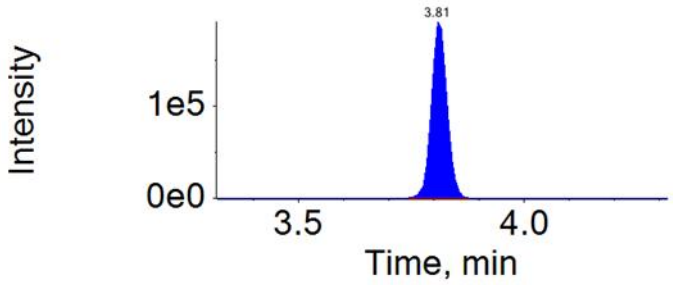


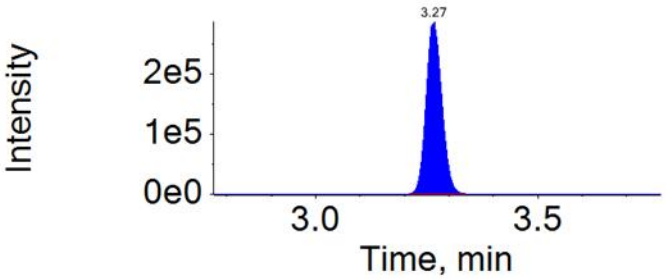
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



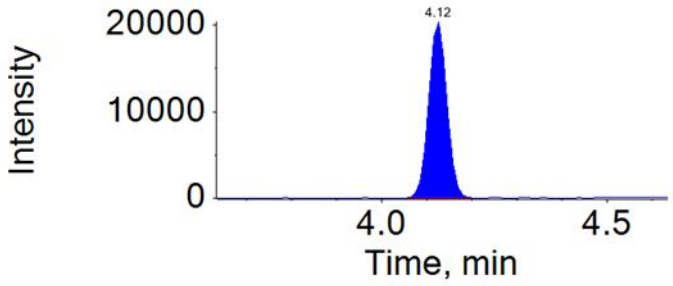


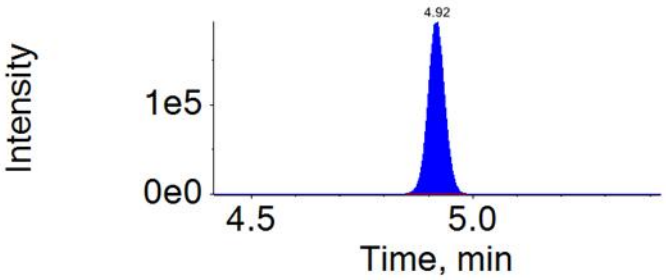
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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

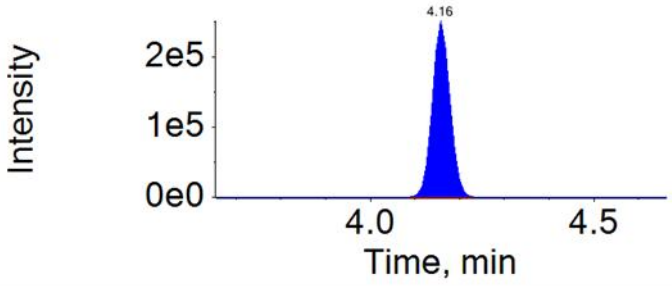
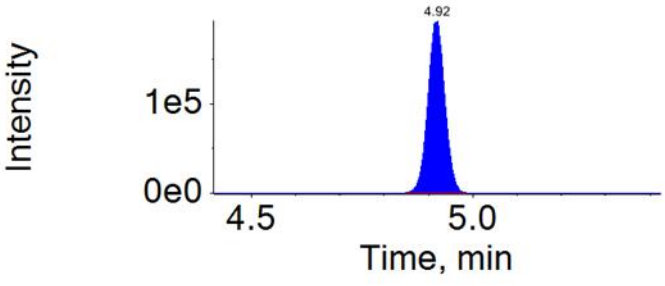


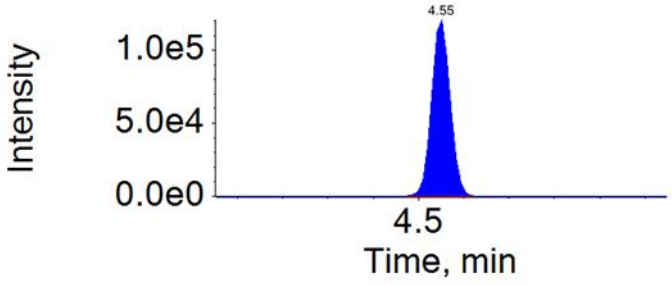
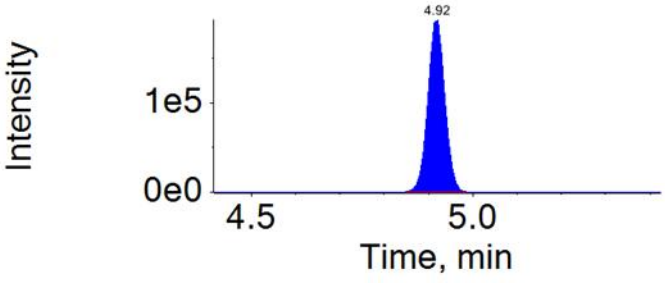


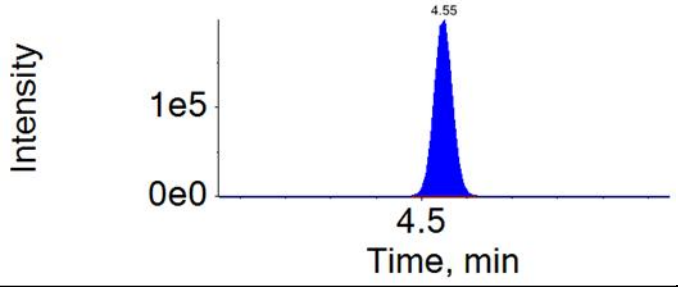
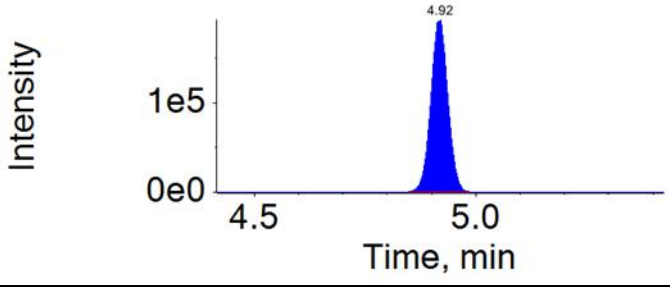
APPROVED
By JPT at 4:33 pm, 11/13/18

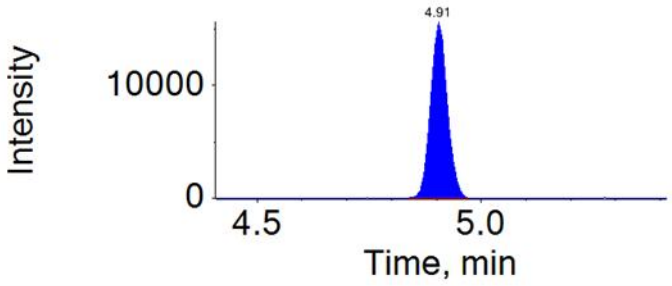
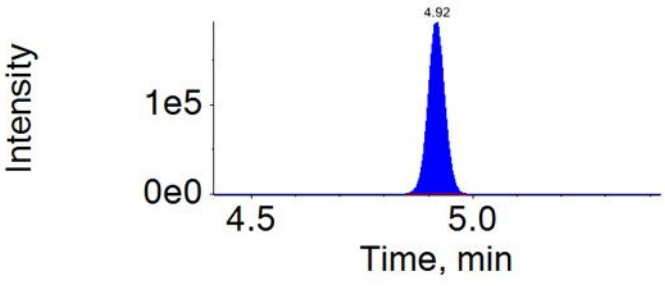
REVIEWED
By umar at 5:40 pm, 11/13/18

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
	

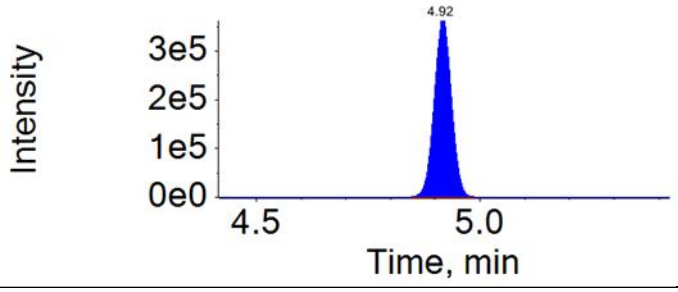
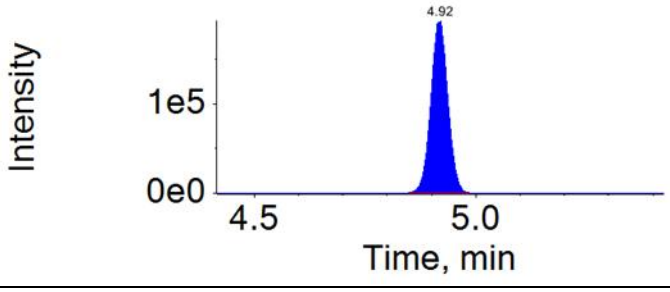
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

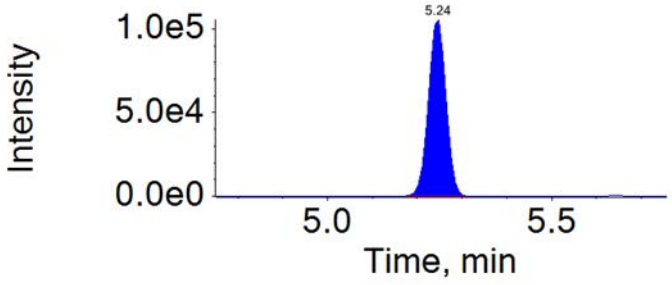
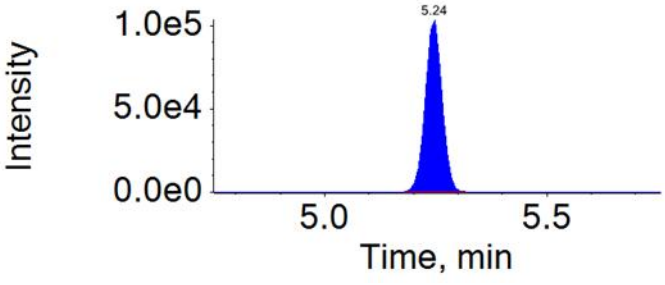
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

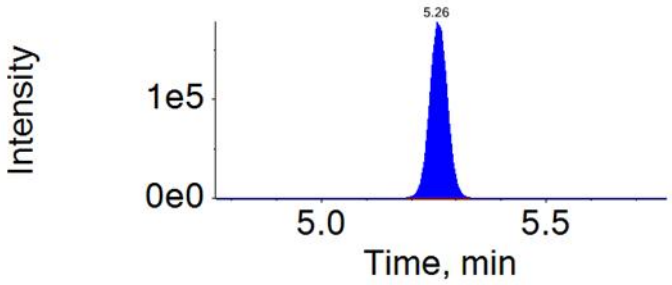
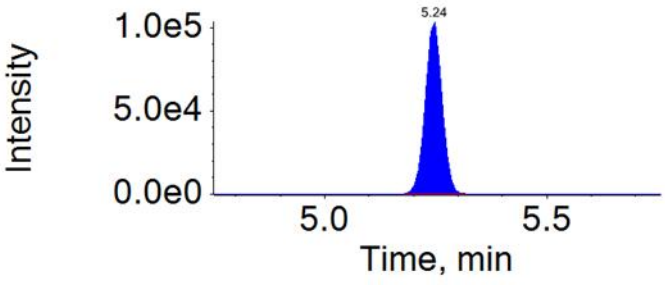
APPROVED
By JPT at 4:33 pm, 11/13/18

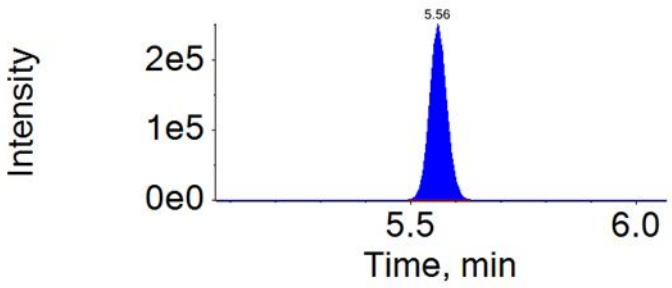
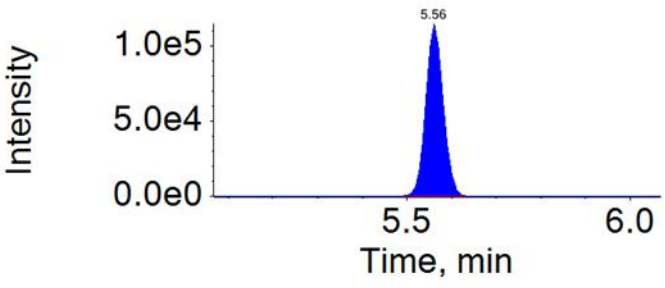
REVIEWED
By umar at 5:40 pm, 11/13/18

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

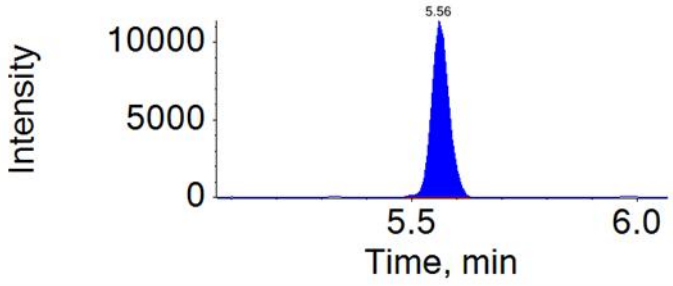
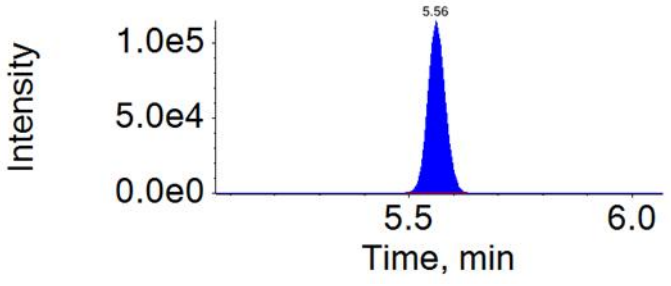
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

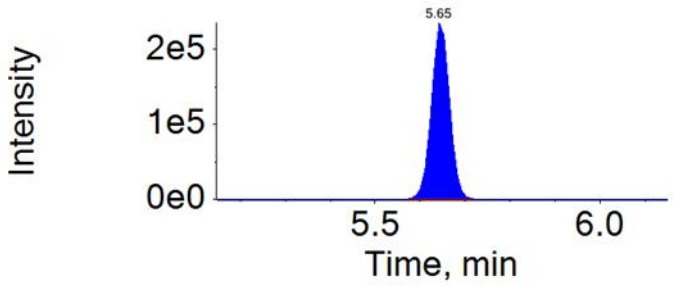
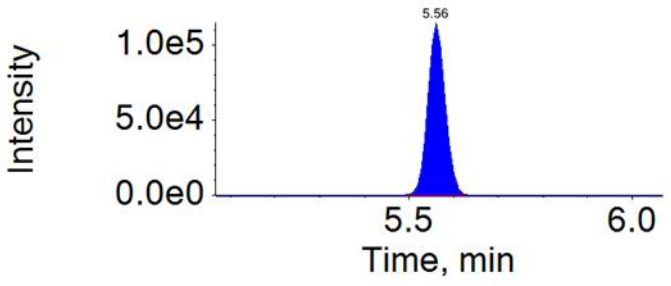
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

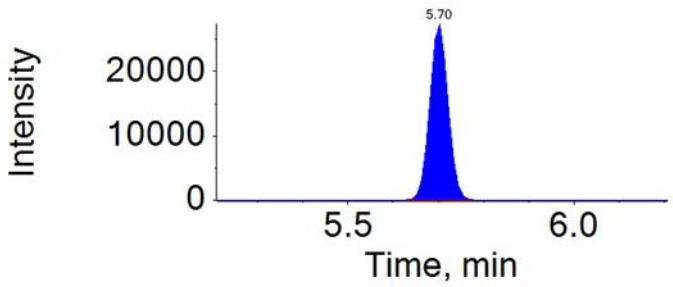
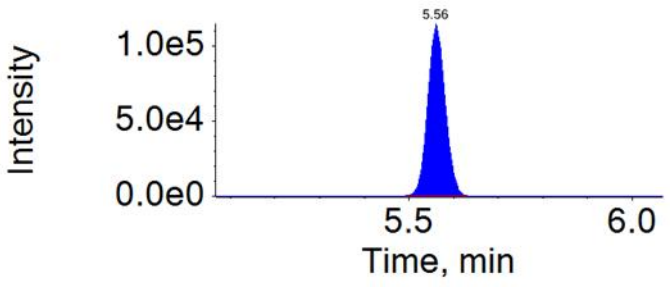
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

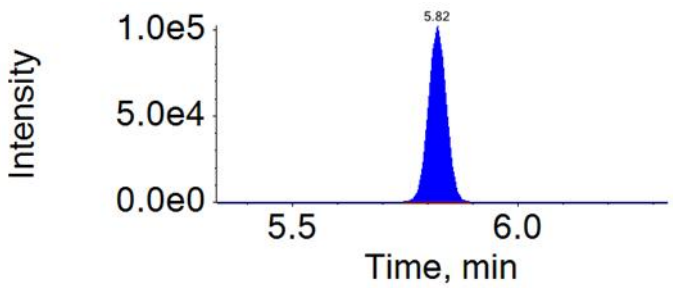
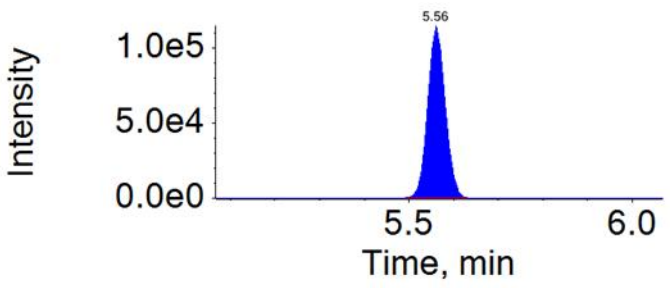
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

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

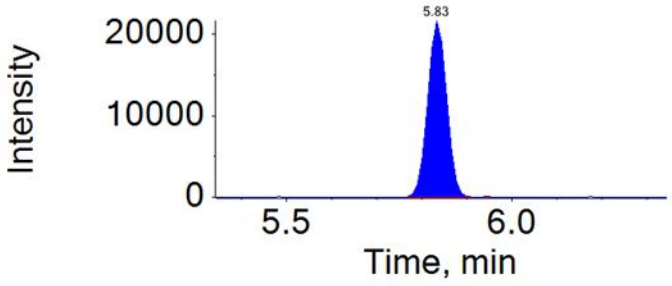
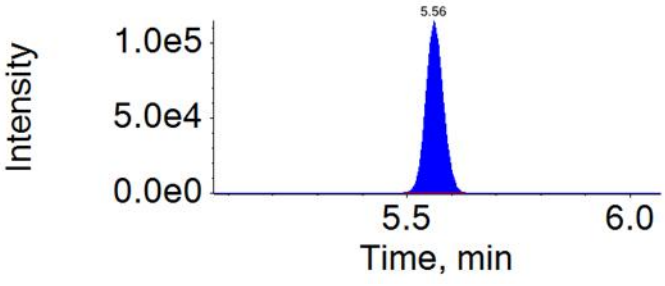
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

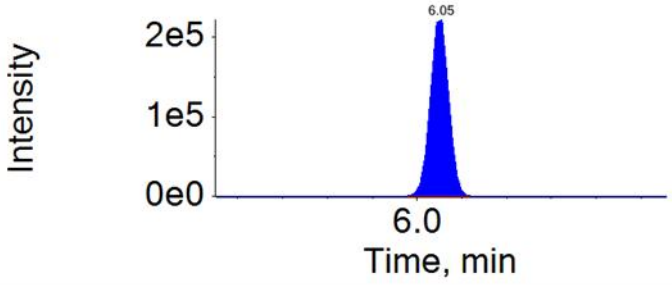
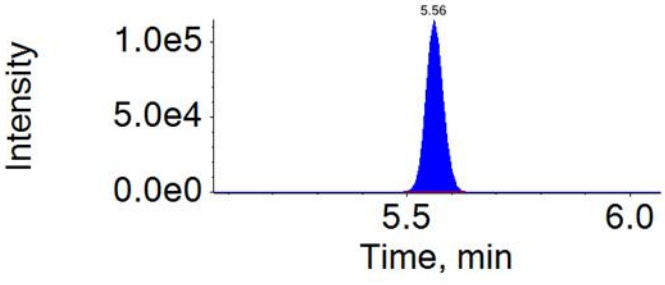
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

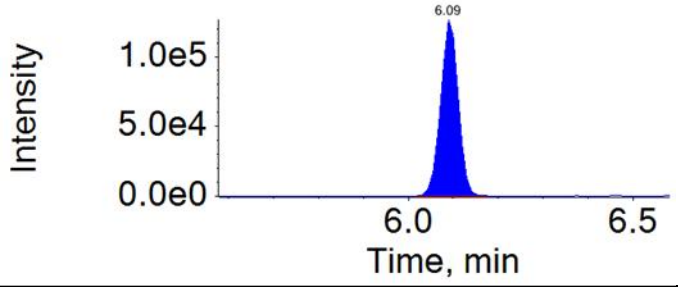
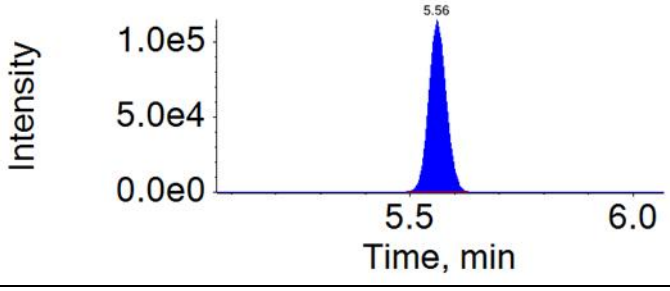
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

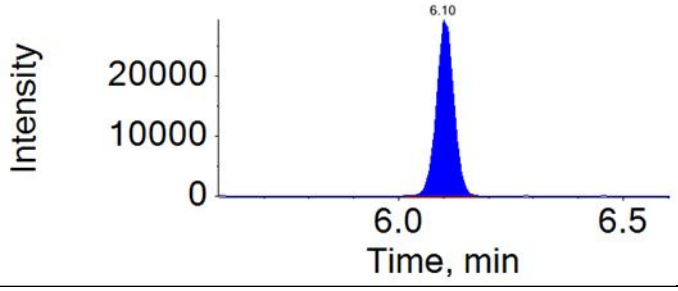
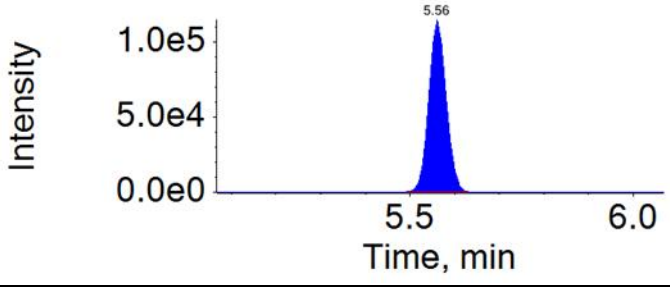
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

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
	

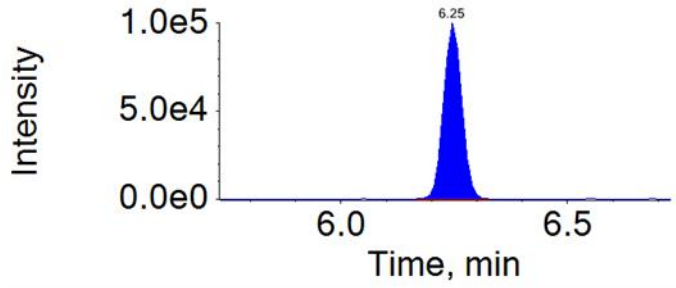
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

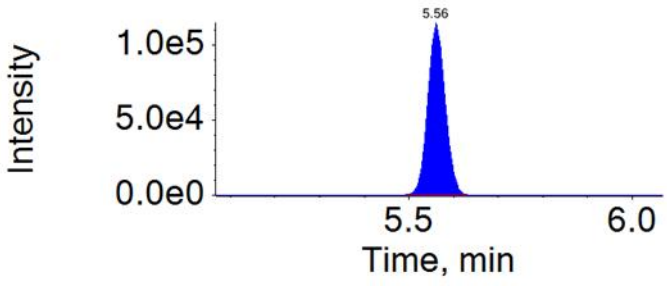
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

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

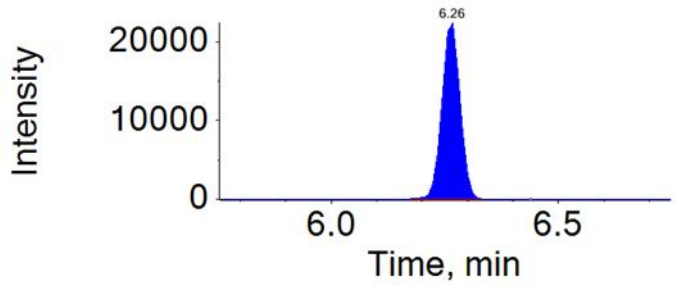
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

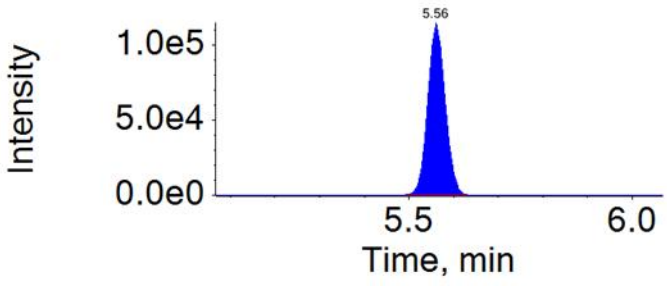
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



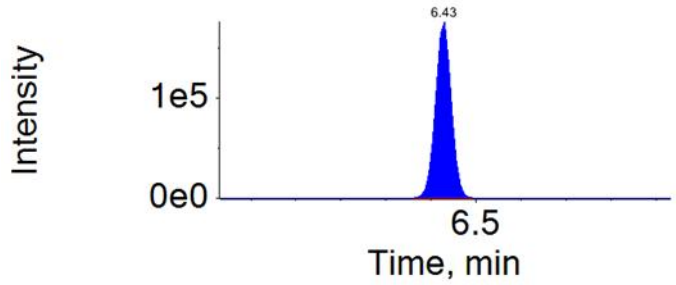


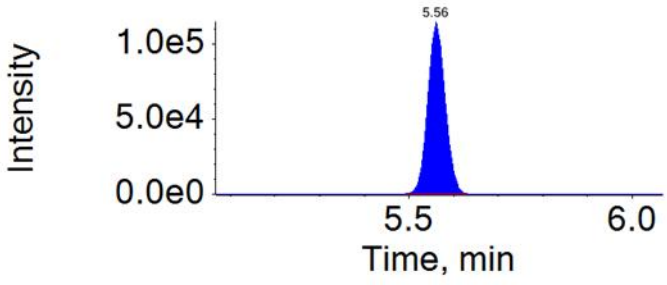
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



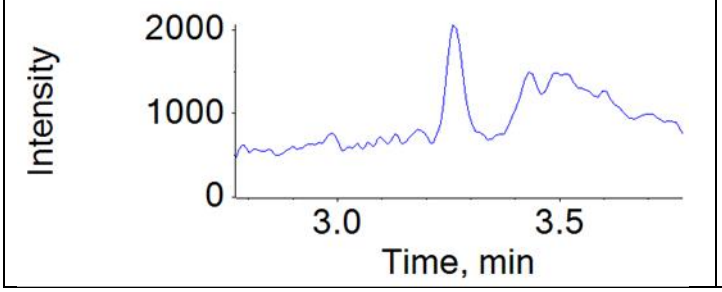


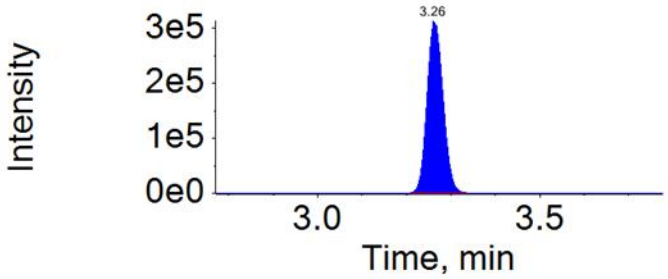
APPROVED
By JPT at 4:33 pm, 11/13/18

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

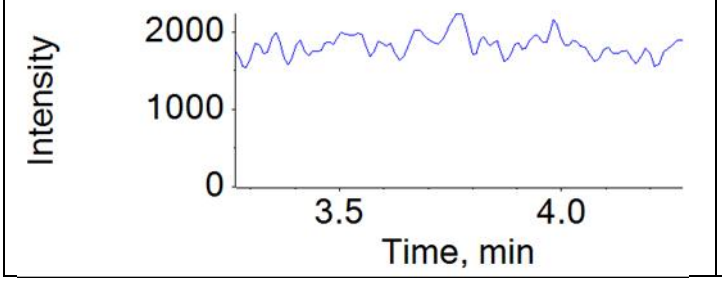
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

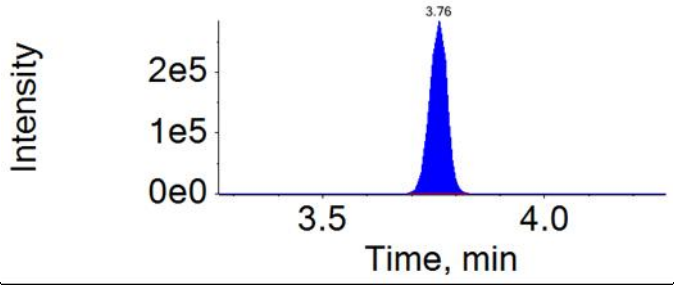
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



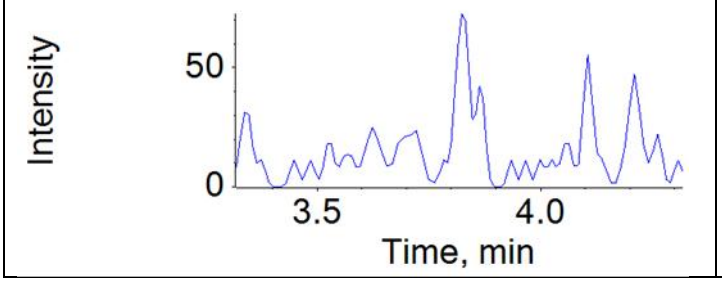


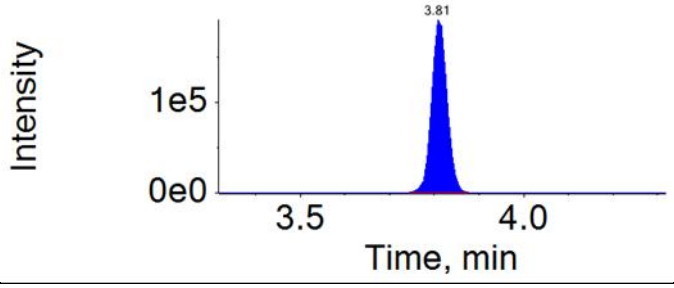
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



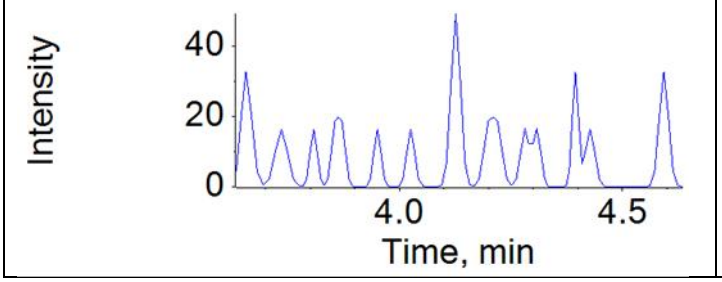


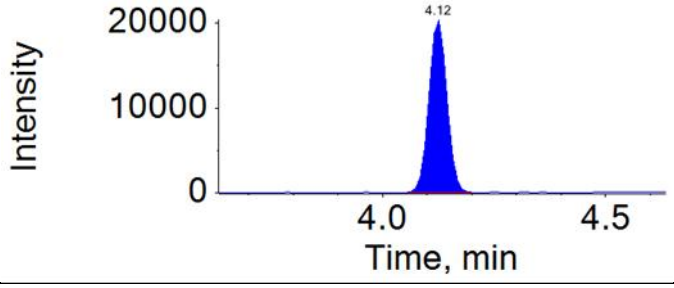
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



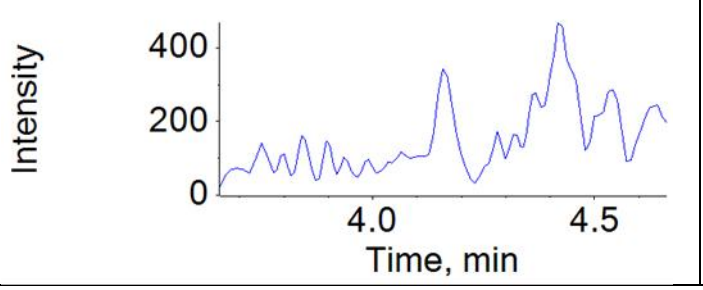


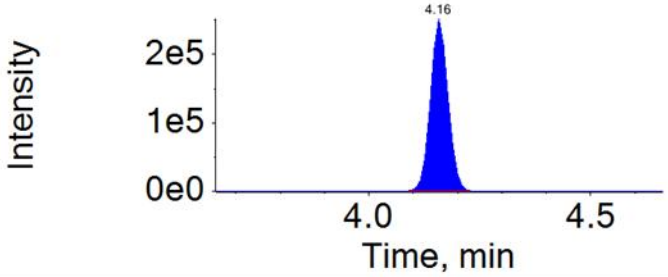
APPROVED
By JPT at 4:33 pm, 11/13/18

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

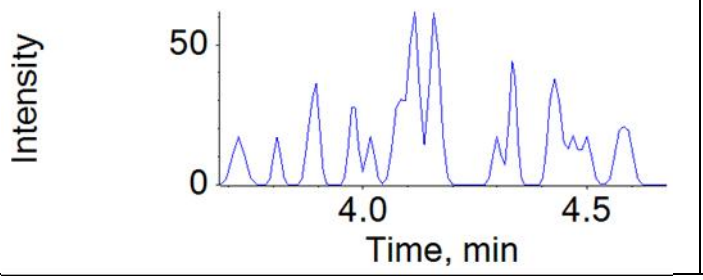
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

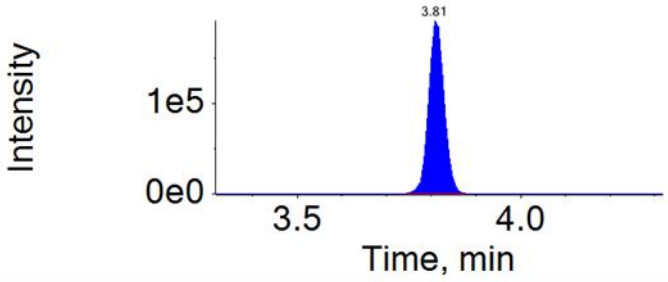
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



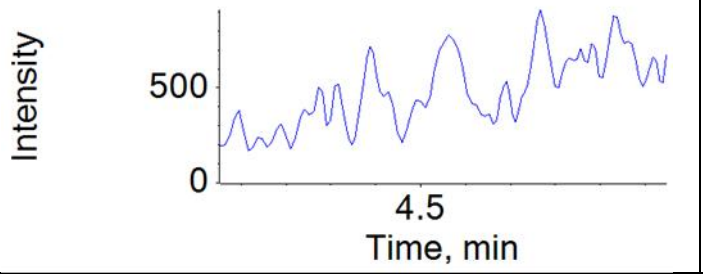


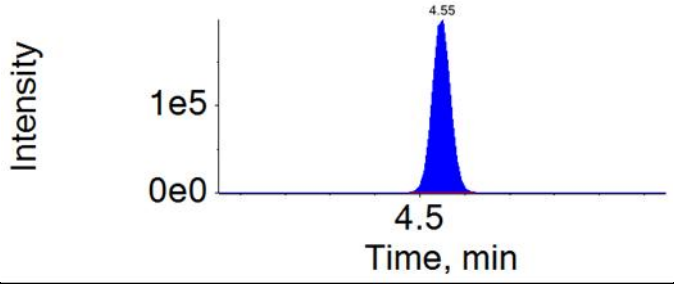
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



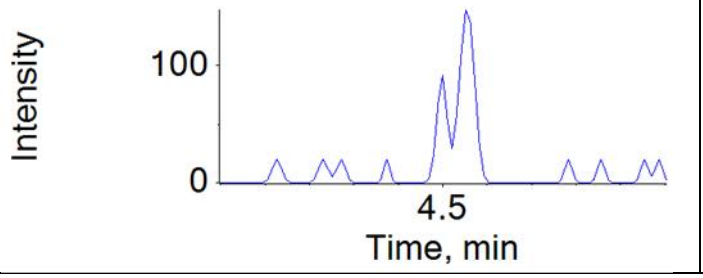


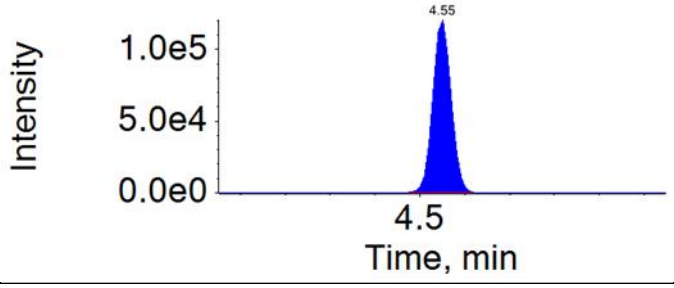
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



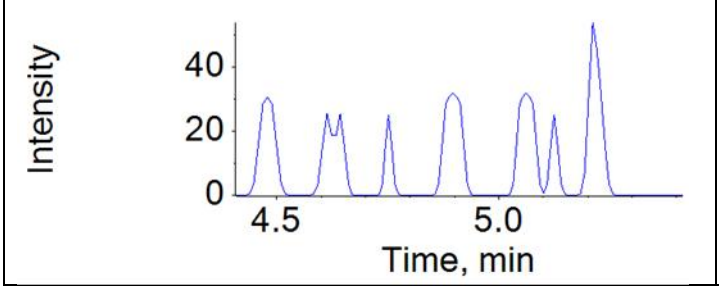


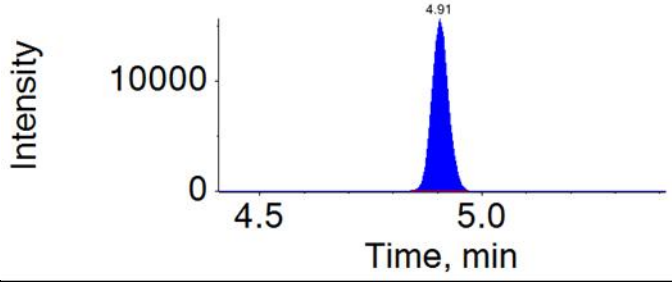
APPROVED
By JPT at 4:33 pm, 11/13/18

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

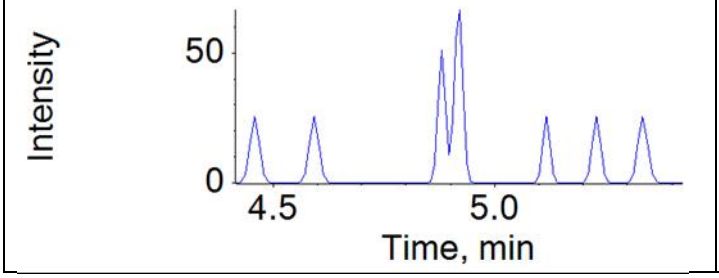
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

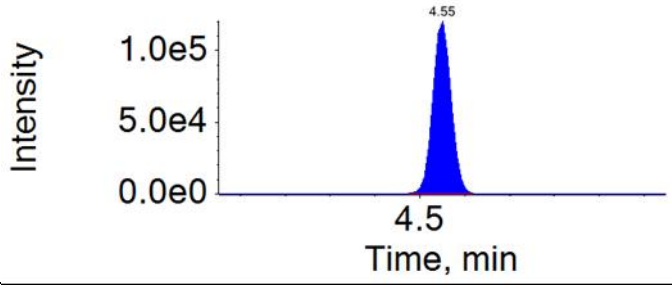
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



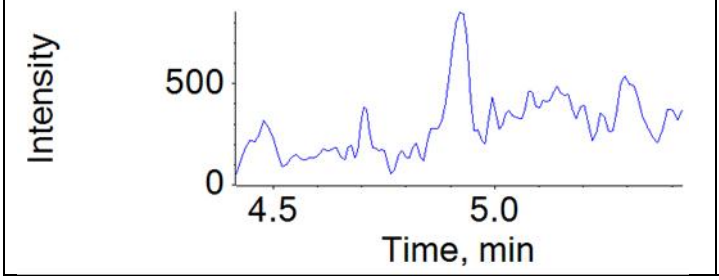


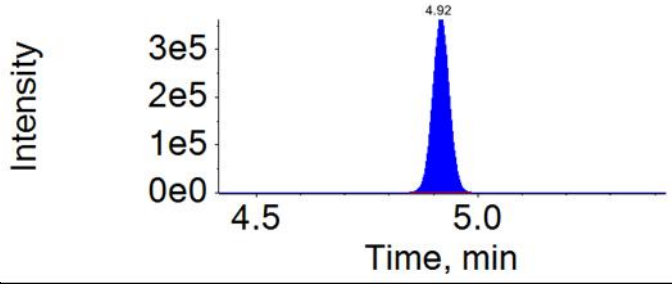
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



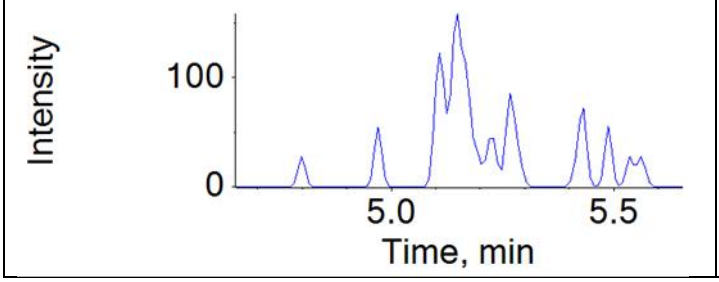


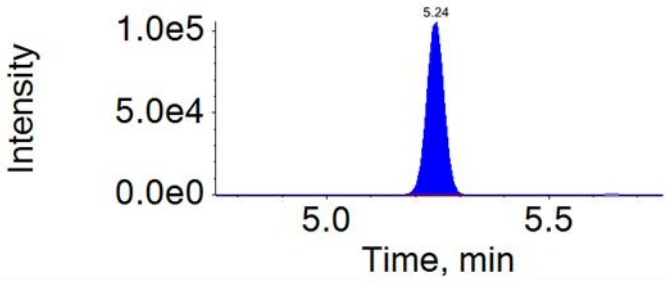
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



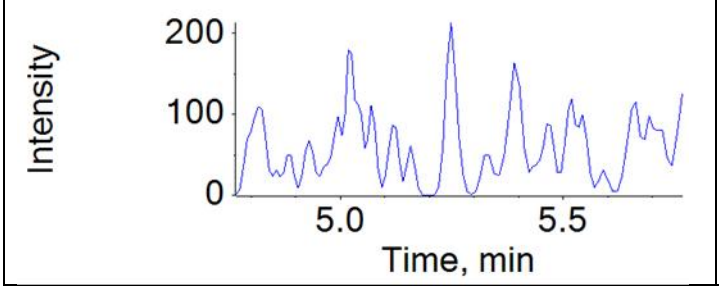


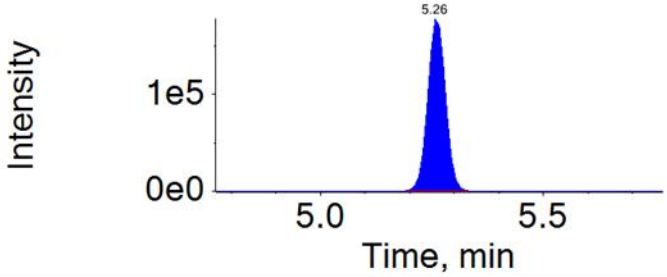
APPROVED
By JPT at 4:33 pm, 11/13/18

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

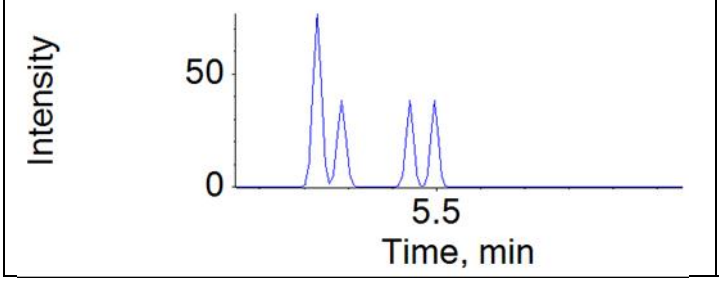
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

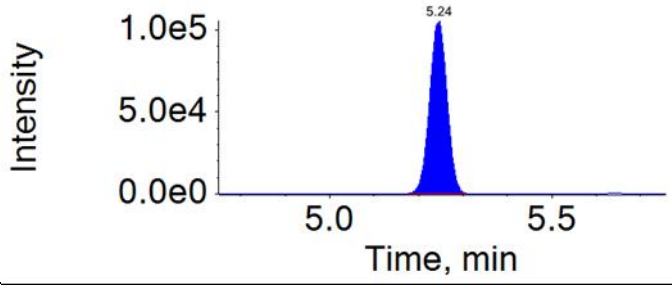
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



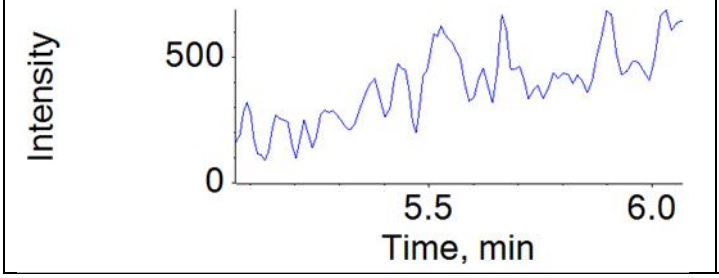


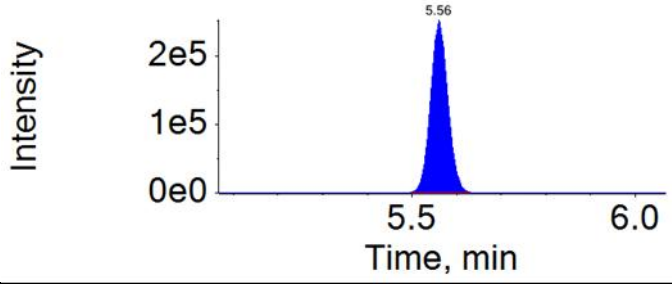
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



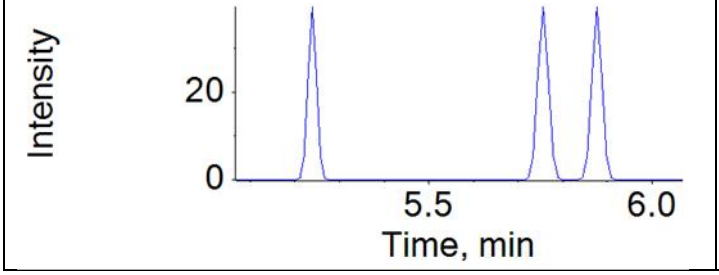


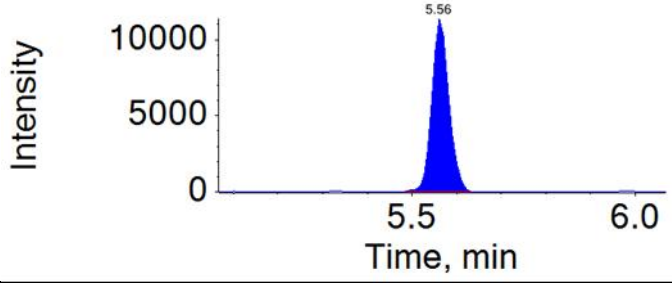
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



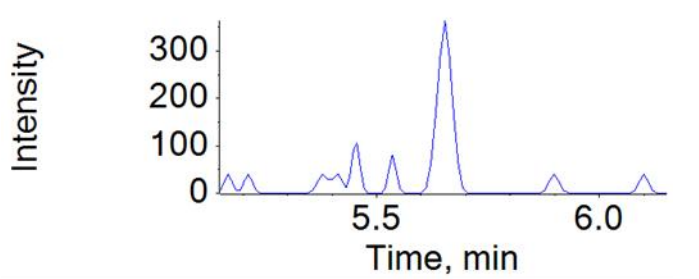


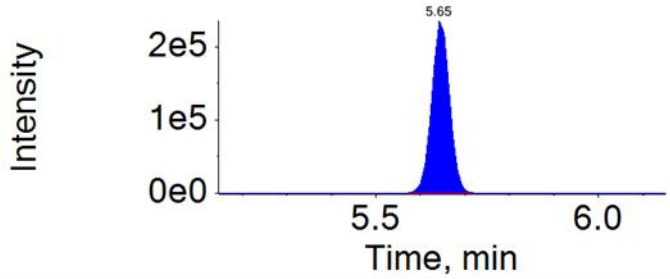
APPROVED
By JPT at 4:33 pm, 11/13/18

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

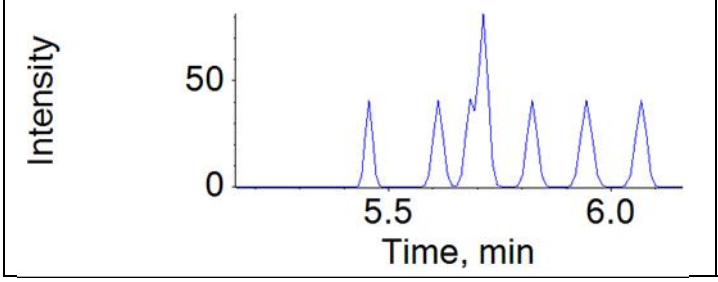
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

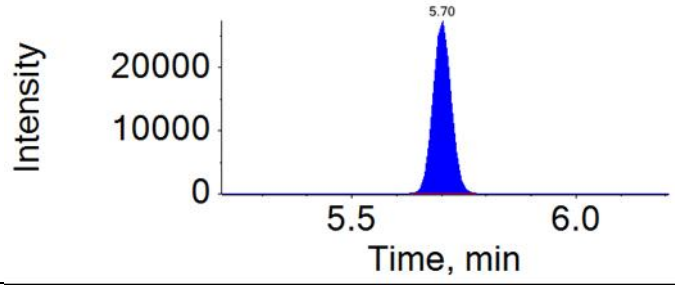
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



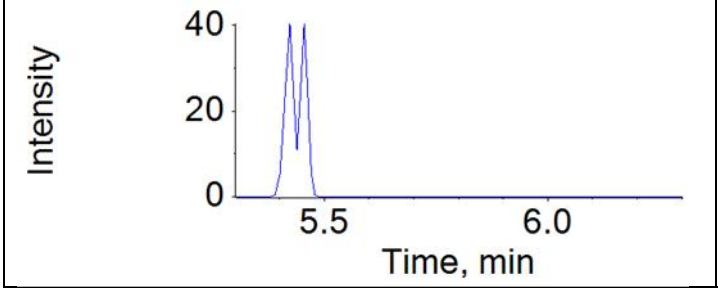


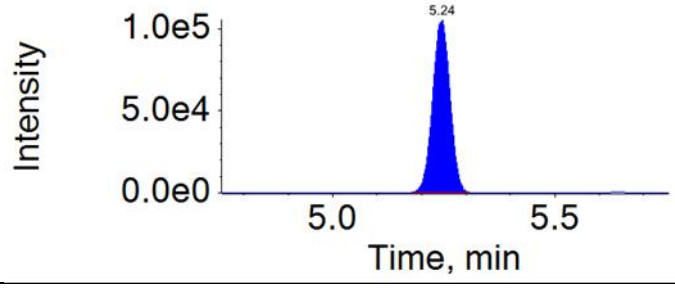
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



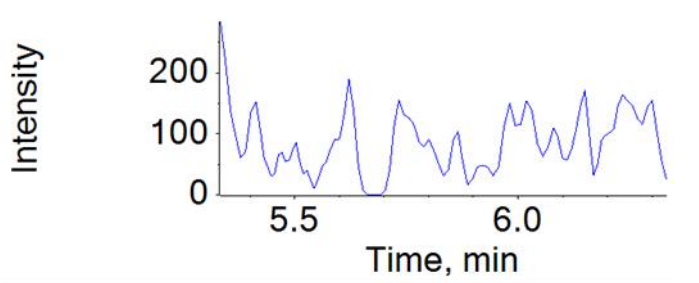


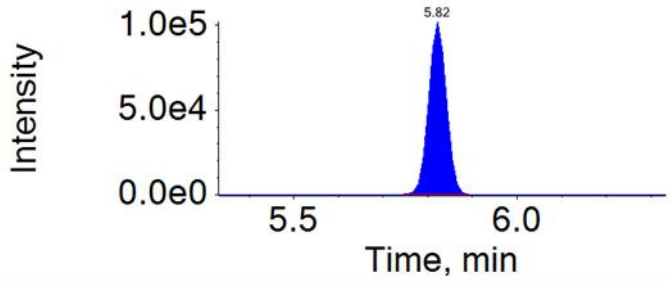
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



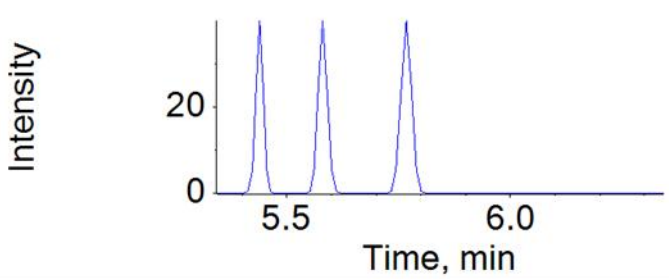


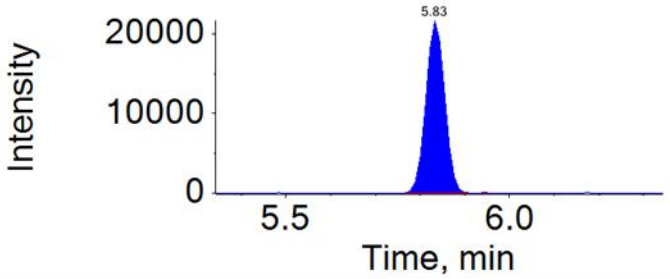
APPROVED
By JPT at 4:33 pm, 11/13/18

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

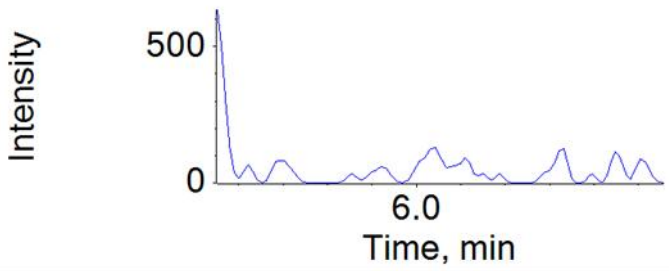
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

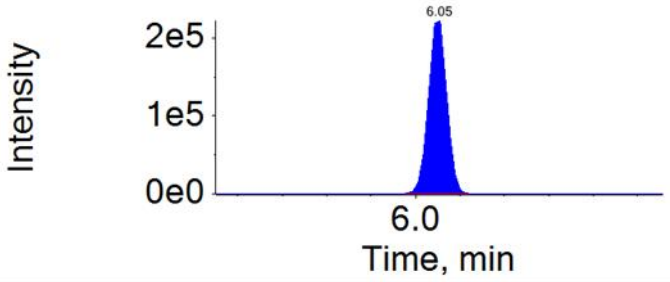
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



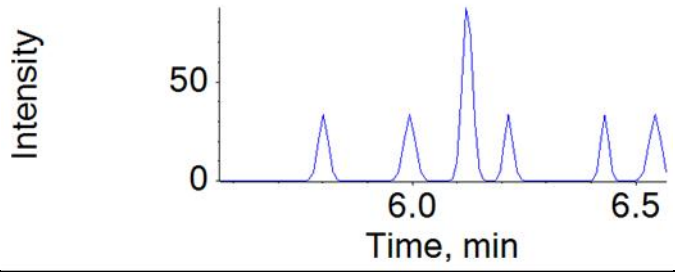


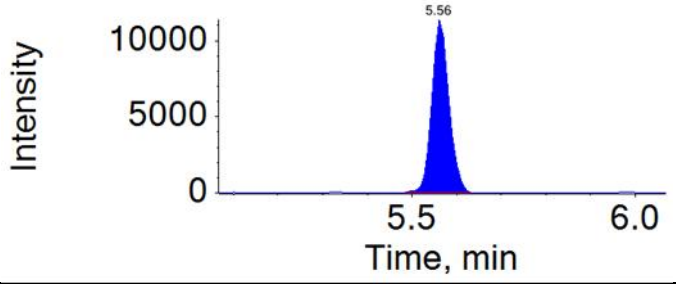
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



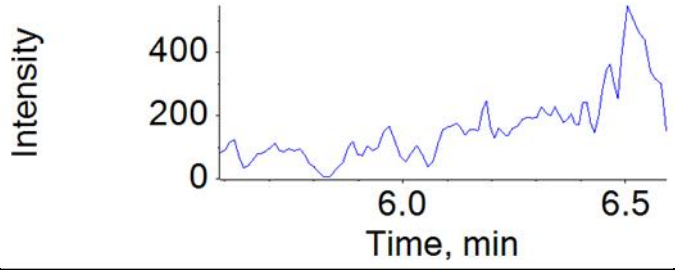


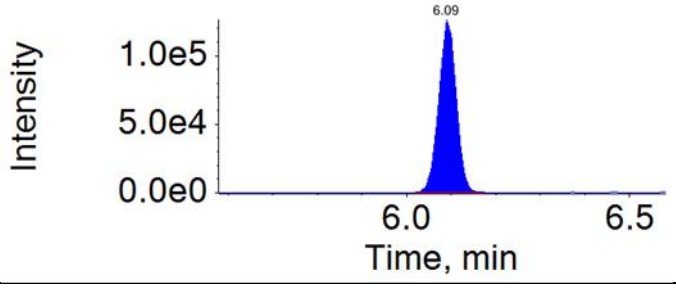
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



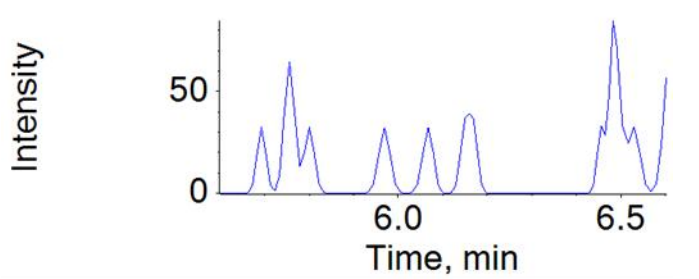


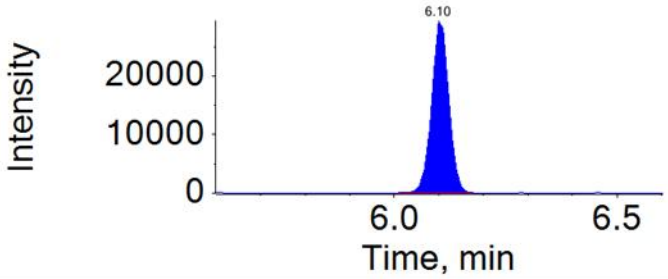
APPROVED
By JPT at 4:33 pm, 11/13/18

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

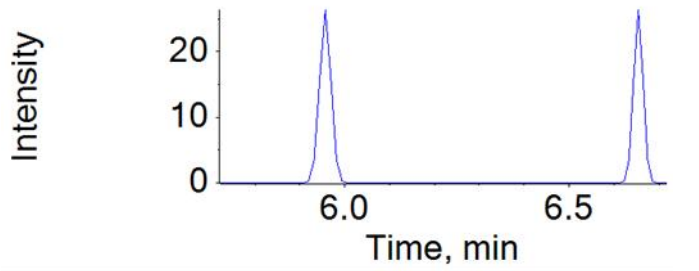
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

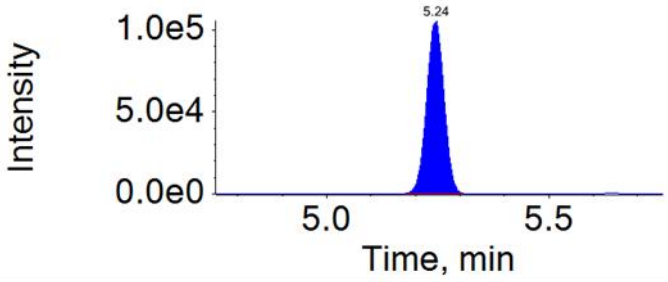
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



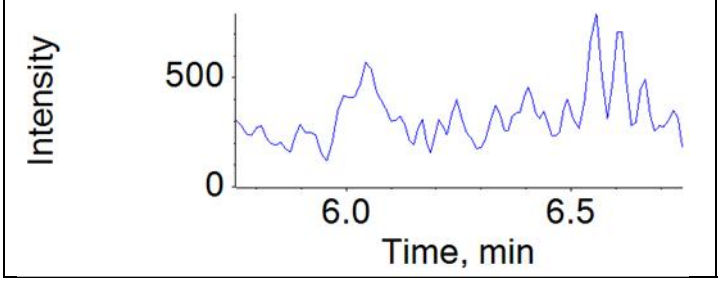


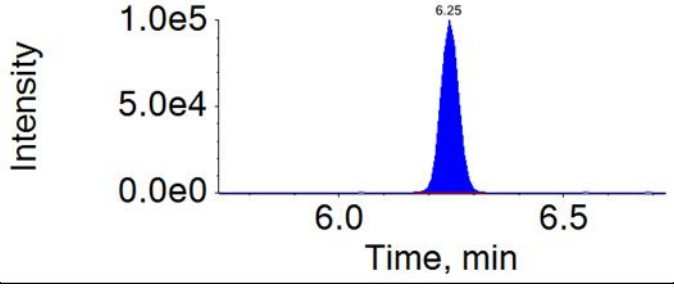
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



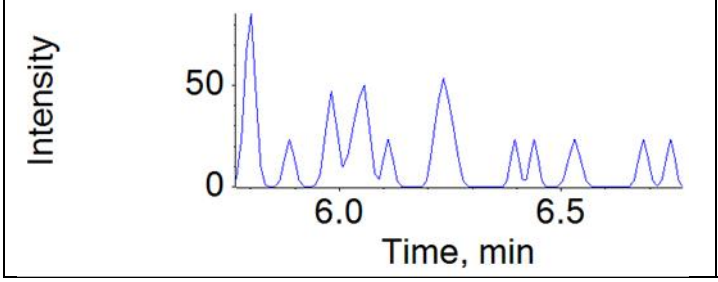


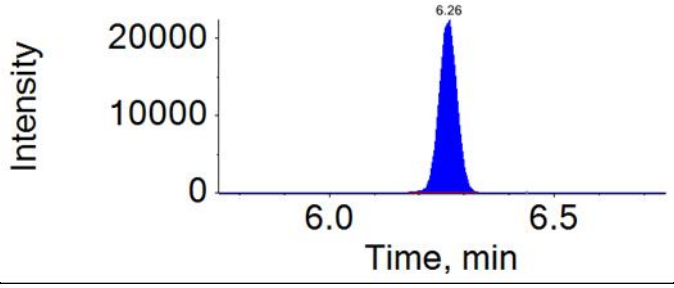
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



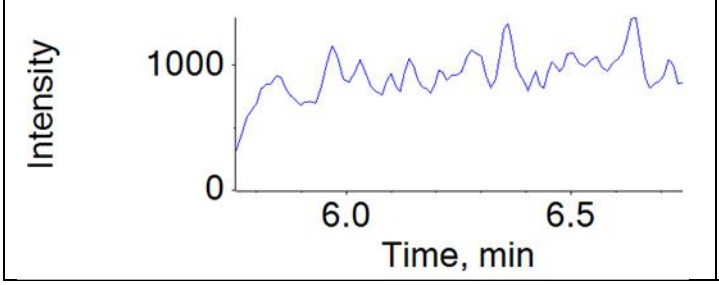


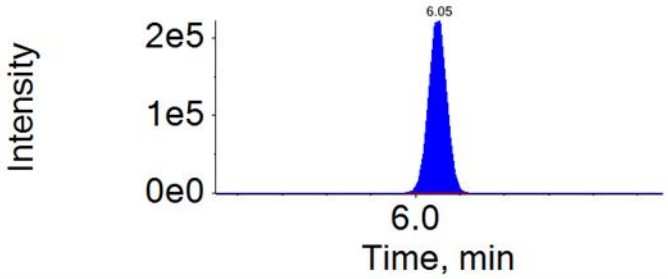
APPROVED
By JPT at 4:33 pm, 11/13/18

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

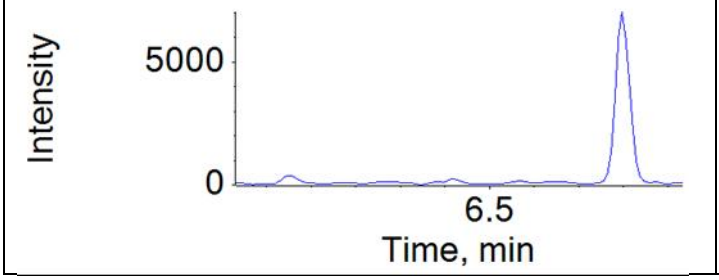
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

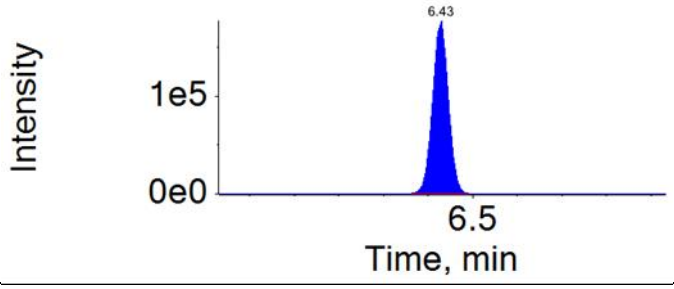
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



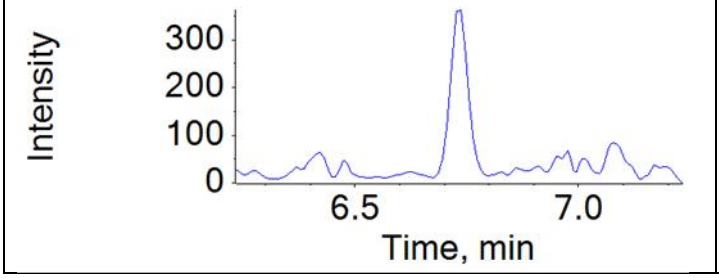


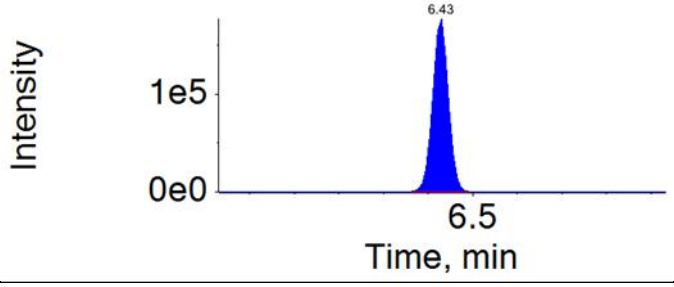
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



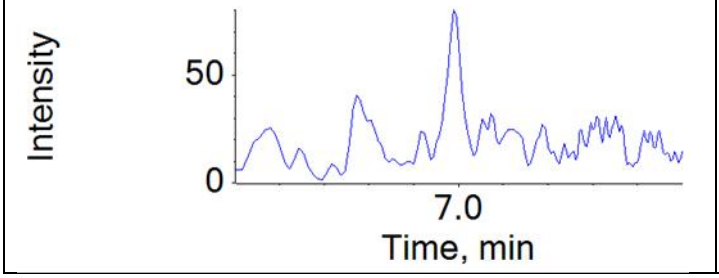


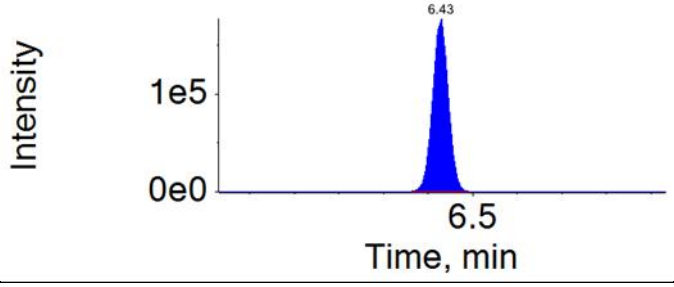
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

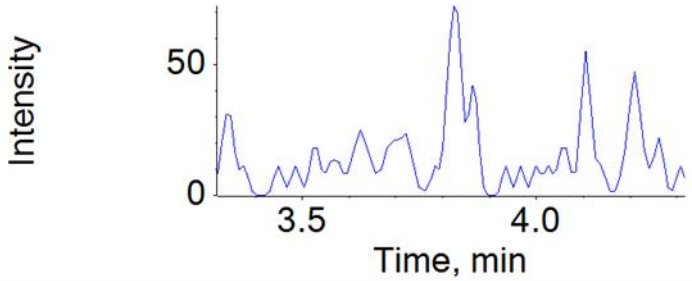
Sample Name: INBLK **Instrument Name:** LM27631 **File Name:** 18NOV13D-06.wiff

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	

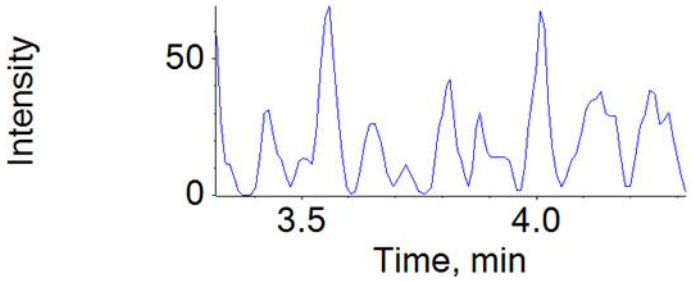
APPROVED
By JPT at 4:33 pm, 11/13/18

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

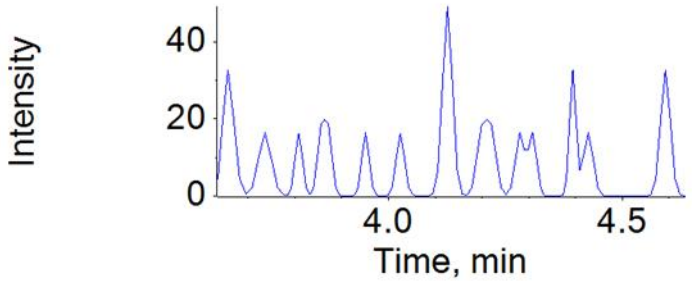
Component: PFBS
Primary Mass: 299.0 / 80.0



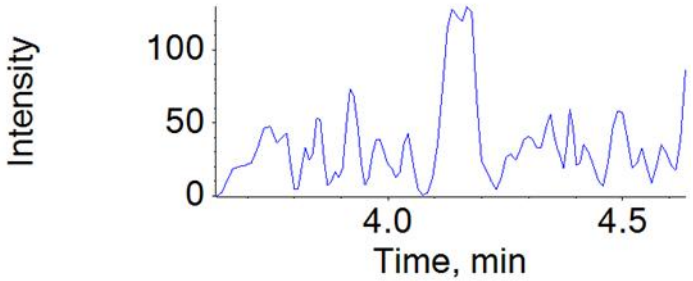
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



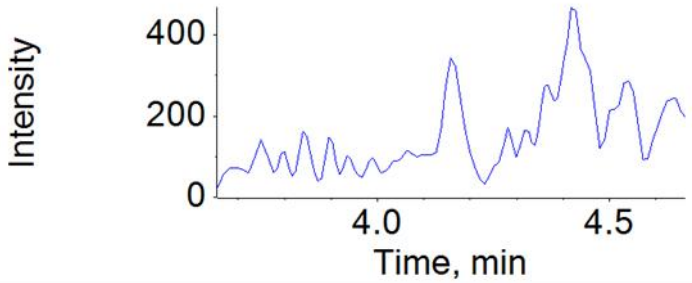
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



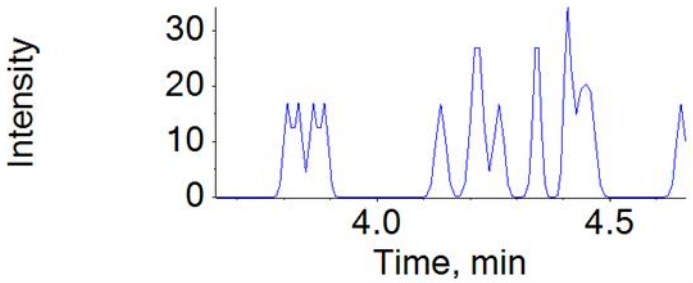
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



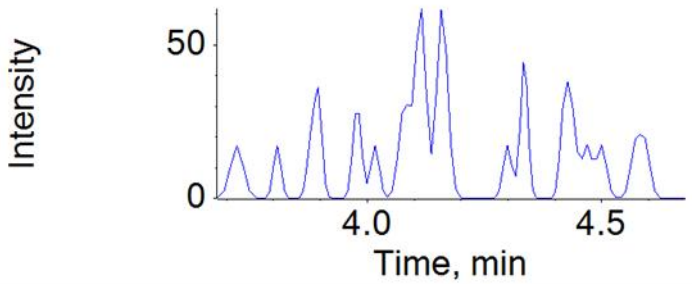
Component: PFHxA
Primary Mass: 313.0 / 269.0



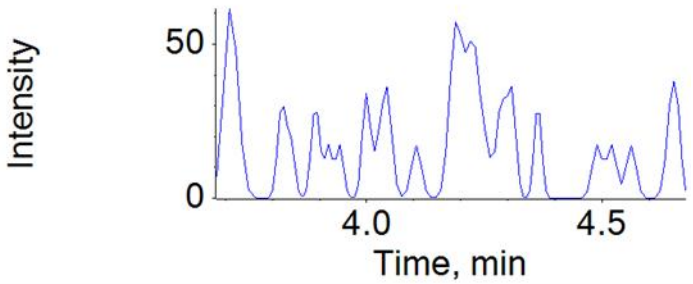
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



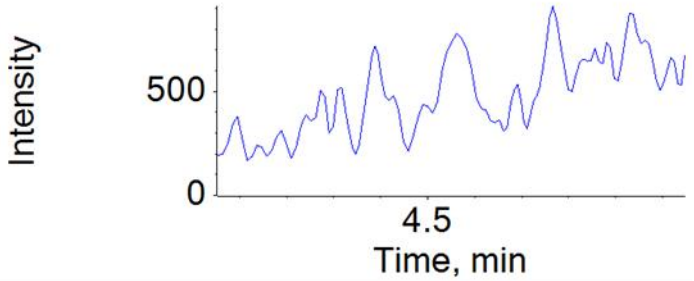
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



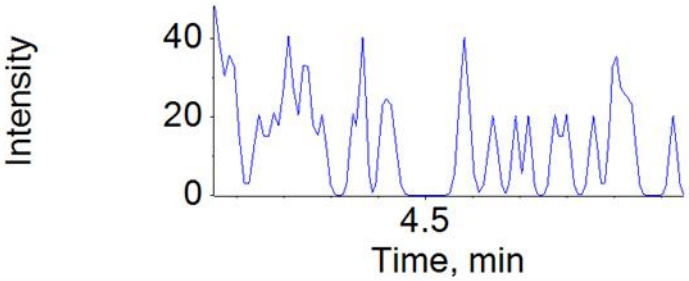
APPROVED
By JPT at 4:33 pm, 11/13/18

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

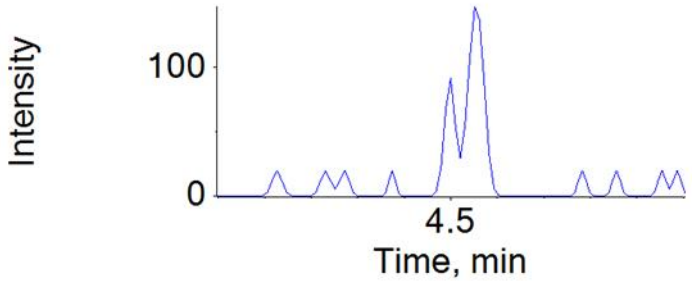
Component: PFHpA
Primary Mass: 363.0 / 319.0



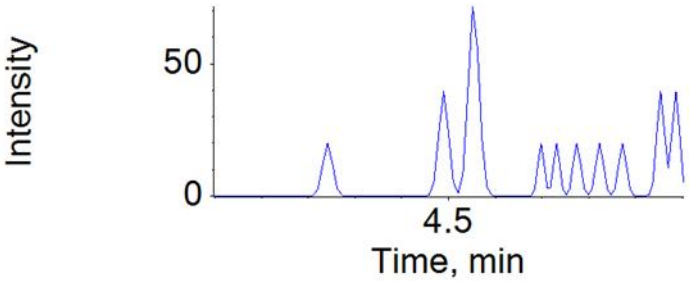
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



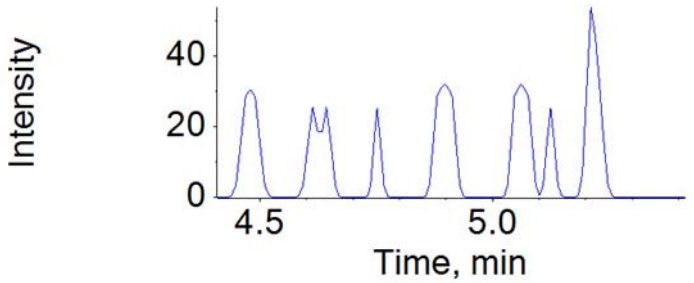
Component: PFHxS
Primary Mass: 399.0 / 80.0



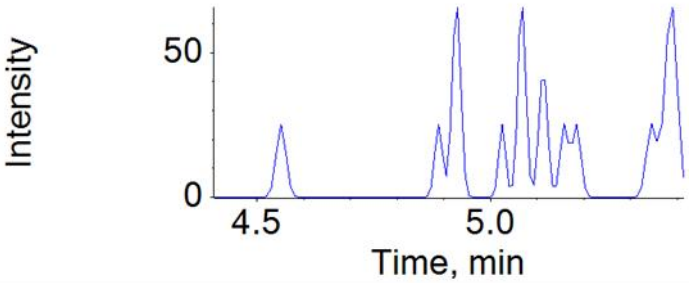
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



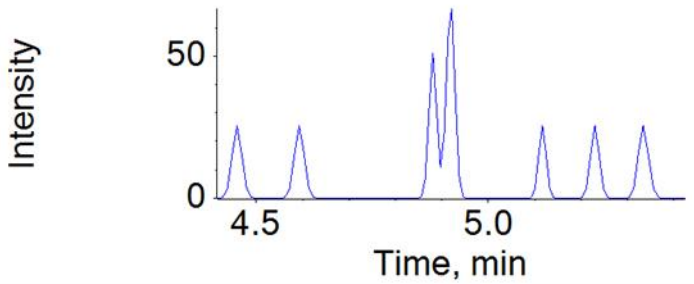
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



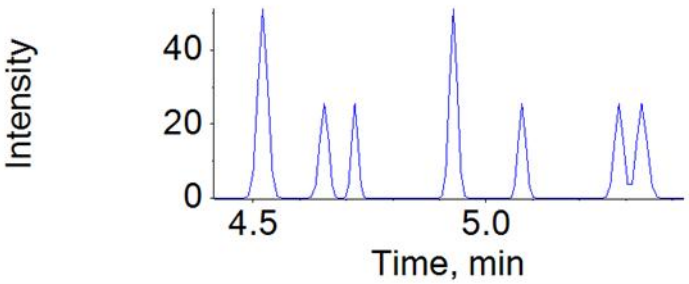
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



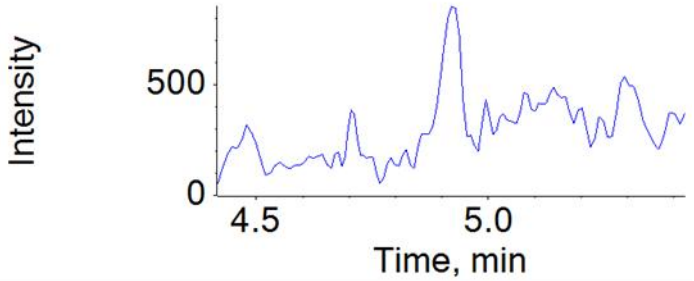
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



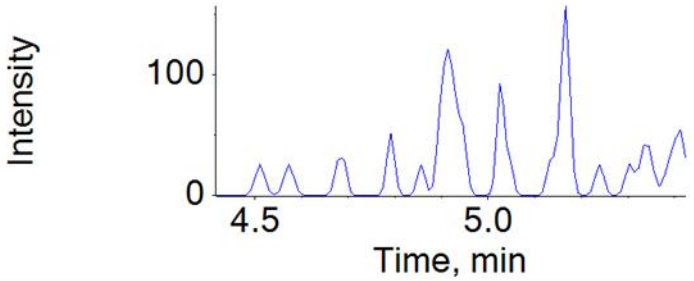
APPROVED
By JPT at 4:33 pm, 11/13/18

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

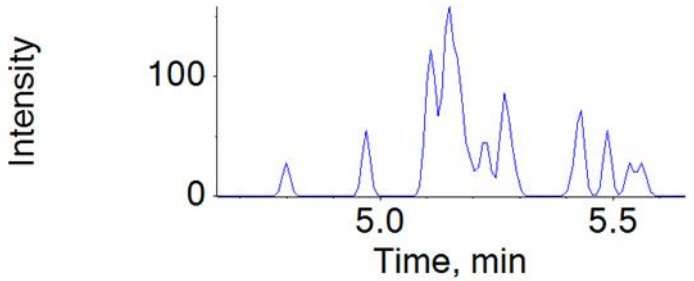
Component: PFOA
Primary Mass: 413.0 / 369.0



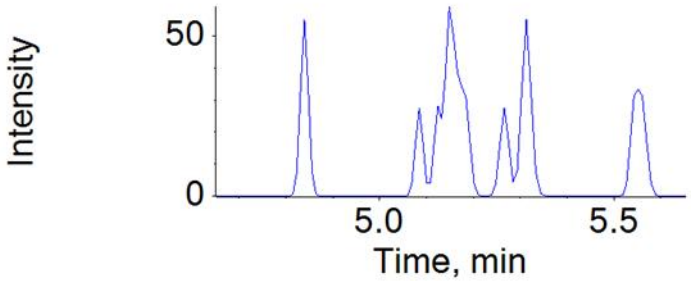
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



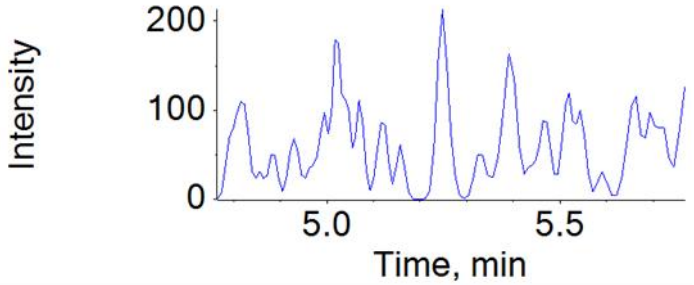
Component: PFOS
Primary Mass: 499.0 / 80.0



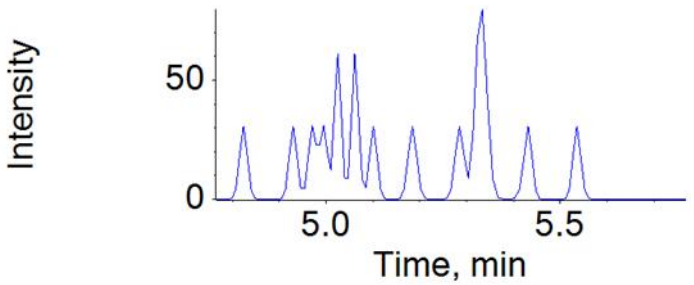
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



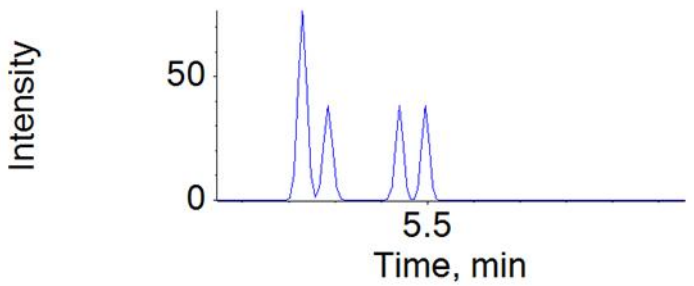
Component: PFNA
Primary Mass: 463.0 / 419.0



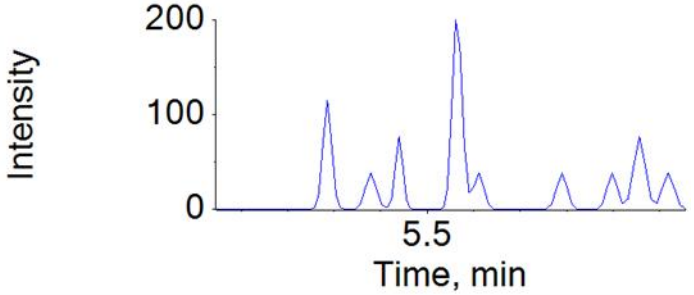
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



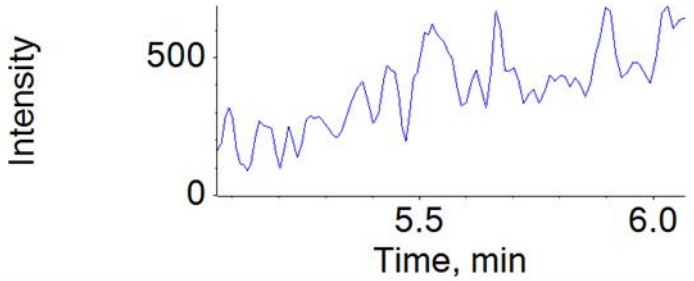
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



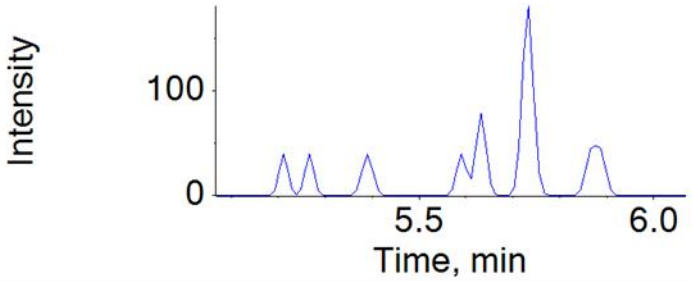
APPROVED
By JPT at 4:33 pm, 11/13/18

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

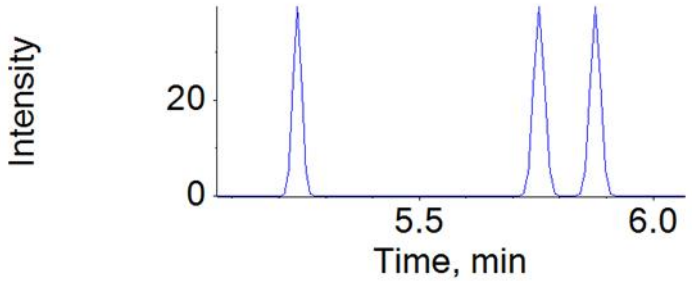
Component: PFDA
Primary Mass: 513.0 / 469.0



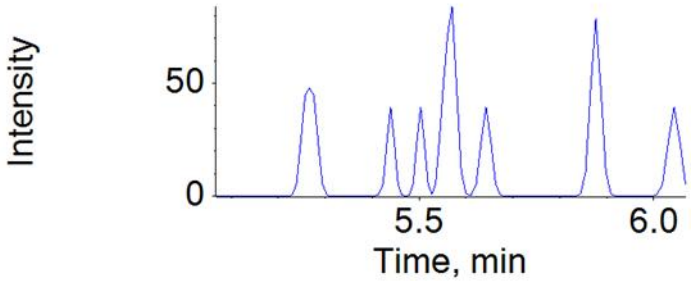
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



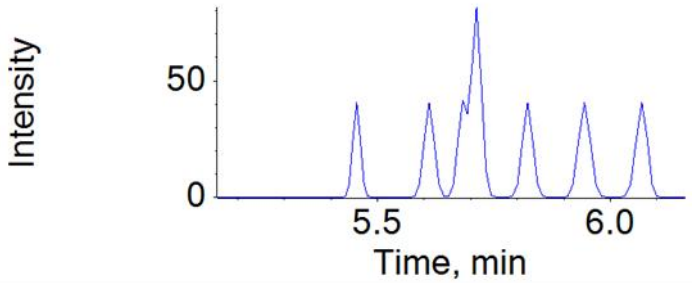
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



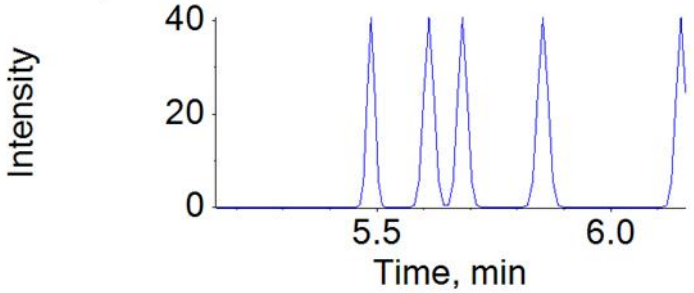
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



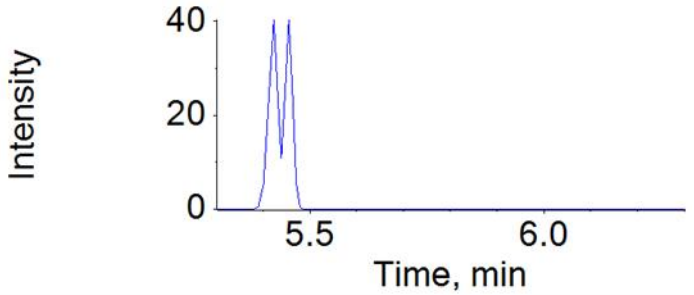
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



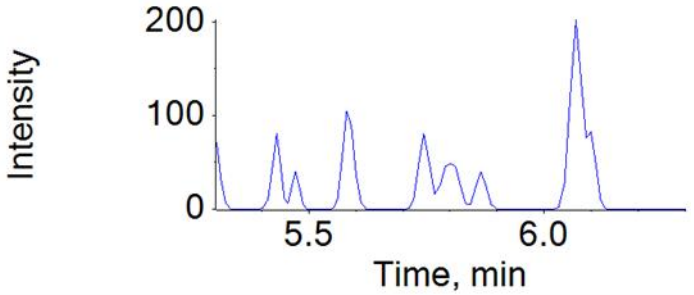
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



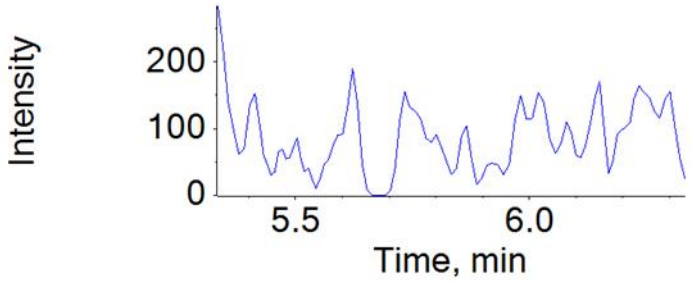
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



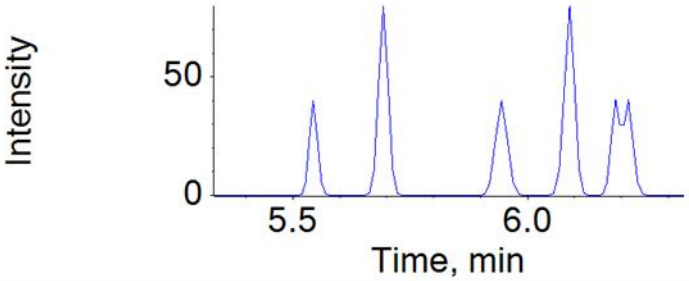
APPROVED
By JPT at 4:33 pm, 11/13/18

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

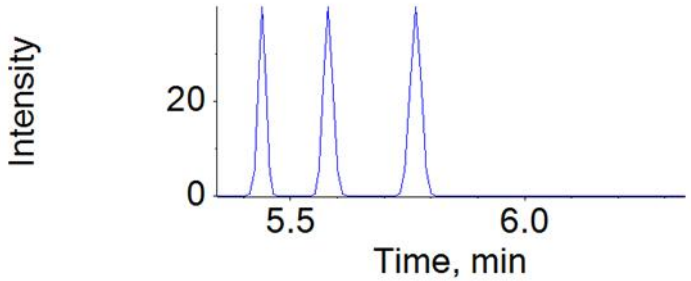
Component: PFUnDA
Primary Mass: 563.0 / 519.0



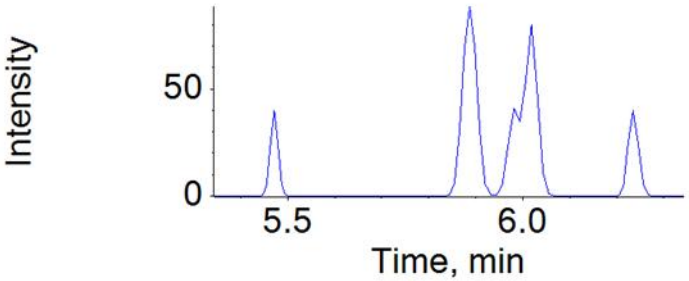
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



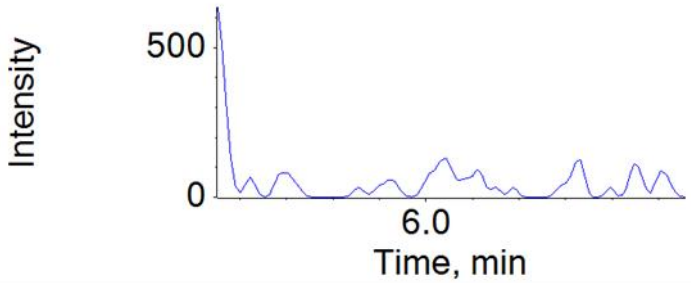
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



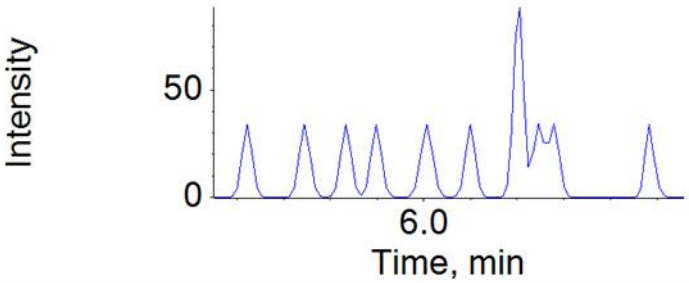
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



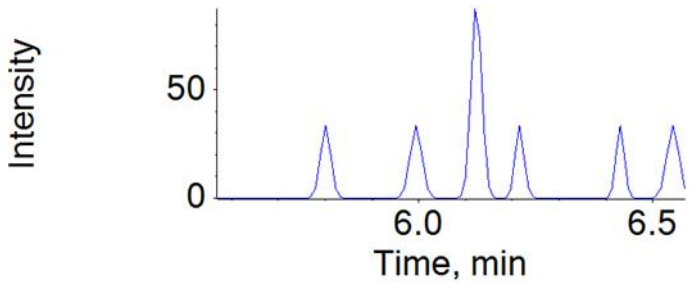
Component: PFDoDA
Primary Mass: 613.0 / 569.0



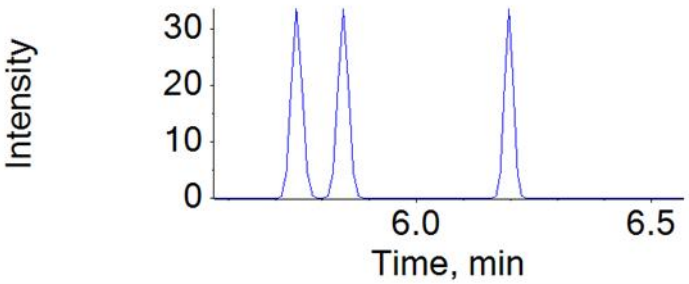
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



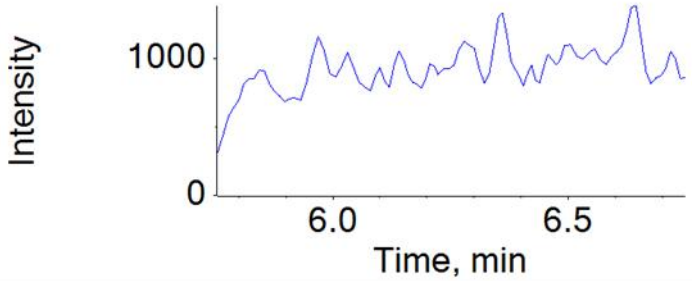
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



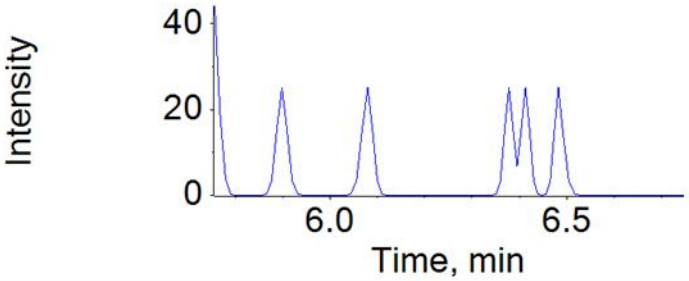
APPROVED
By JPT at 4:33 pm, 11/13/18

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

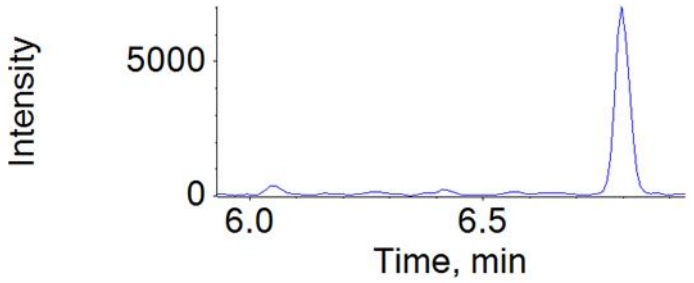
Component: PFTrDA
Primary Mass: 663.0 / 619.0



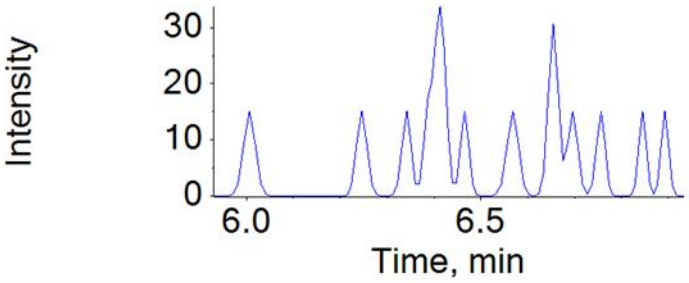
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



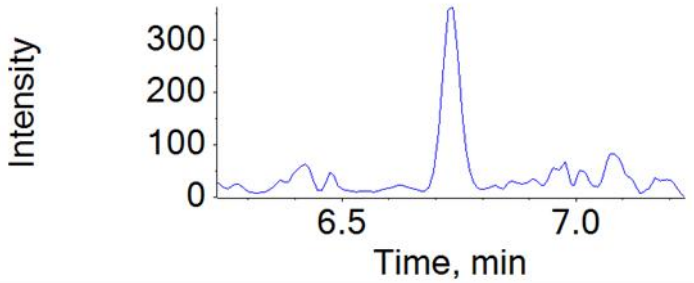
Component: PFTeDA
Primary Mass: 713.0 / 669.0



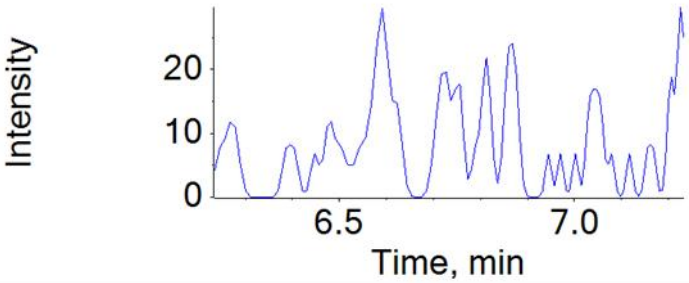
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



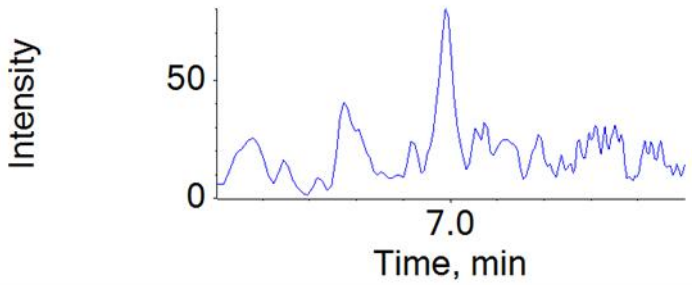
Component: PFHxDA
Primary Mass: 813.0 / 769.0



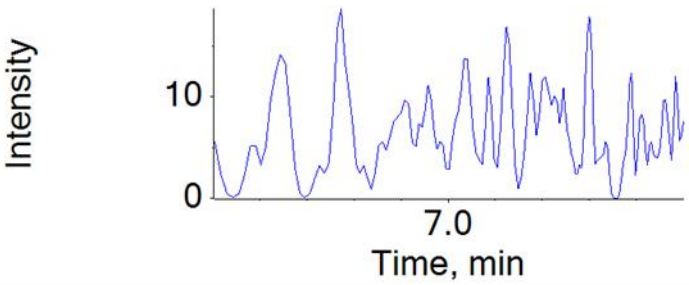
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



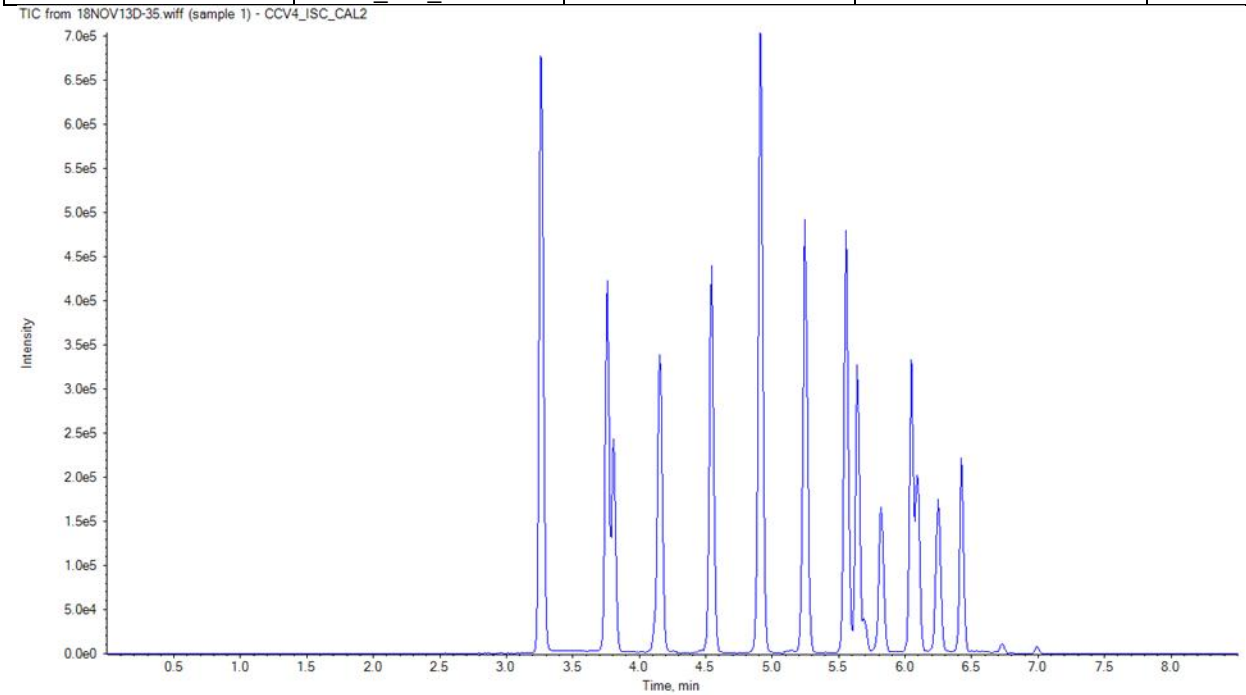
APPROVED
By JPT at 4:33 pm, 11/13/18

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

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18NOV13D-35.wiff	2018-11-13T14:50:05



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	676507.8	661126.9	2	50	
13C2-PFOA	5.0	456340.5	466902.6	-2	50	
13C4-PFOS	4.8	243882.3	247446.9	-1	50	
13C2-PFDA	5.0	295199.0	295381.6	0	50	

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

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

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18NOV13D-35.wiff	2018-11-13T14:50:05

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	83542.0	10	13C4-PFBA	793411.2	5.0	0.105	3.26	1.000	0.600	0.583	-3	30	
PFPeA	79594.8	11	13C5-PFPeA	772163.1	5.0	0.103	3.76	1.000	0.600	0.597	-1	30	
PFBS	45706.2	10	13C3-PFBS	434935.5	4.7	0.105	3.81	1.000	0.531	0.500	-6	30	
4:2-FTS	10413.5	11	13C2-4:2-FTS	51183.2	4.7	0.203	4.12	1.000	0.560	0.552	-1	30	
PFHxA	96228.3	12	13C5-PFHxA	684967.5	5.0	0.140	4.16	1.000	0.600	0.587	-2	30	
PFPeS	22230.8	11	13C3-PFBS	434935.5	4.7	0.051	4.17	1.100	0.563	0.496	-12	30	
PFHpA	102421.2	12	13C4-PFHpA	539414.2	5.0	0.190	4.54	1.000	0.600	0.629	5	30	
PFHxS	33058.8	18	13C3-PFHxS	320032.3	4.7	0.103	4.54	1.000	0.547	0.501	-8	30	
6:2-FTS	9288.1	12	13C2-6:2-FTS	35426.1	4.8	0.262	4.90	1.000	0.569	0.634	12	30	
PFHpS	32964.6	11	13C3-PFHxS	320032.3	4.7	0.103	4.91	1.080	0.571	0.542	-5	30	
PFOA	100522.0	11	13C8-PFOA	945889.4	5.0	0.106	4.91	1.000	0.600	0.568	-5	30	
PFOS	33602.8	22	13C8-PFOS	279193.2	4.8	0.120	5.24	1.000	0.555	0.526	-5	30	
PFNA	77741.1	12	13C9-PFNA	537019.1	5.0	0.145	5.26	1.000	0.600	0.522	-13	30	
PFNS	21345.1	11	13C8-PFOS	279193.2	4.8	0.076	5.54	1.060	0.576	0.535	-7	30	
PFDA	67467.8	11	13C6-PFDA	644545.7	5.0	0.105	5.56	1.000	0.600	0.555	-8	30	
8:2-FTS	5464.6	11	13C2-8:2-FTS	28375.5	4.8	0.193	5.56	1.000	0.575	0.449	-22	30	
PFOSA	65447.7	11	13C8-PFOSA	663223.9	5.0	0.099	5.64	1.000	0.600	0.482	-20	30	
NMeFOSAA	6912.0	19	d3-NMeFOSAA	77244.4	5.0	0.089	5.70	1.000	0.600	0.506	-16	30	
PFDS	15131.2	11	13C8-PFOS	279193.2	4.8	0.054	5.79	1.110	0.578	0.491	-15	30	
PFUnDA	62038.1	12	13C7-PFUnDA	262457.8	5.0	0.236	5.82	1.000	0.600	0.618	3	30	
NEtFOSAA	7265.9	20	d5-NEtFOSAA	70492.9	5.0	0.103	5.84	1.000	0.600	0.540	-10	30	
PFDoDA	68920.5	11	13C2-PFDoDA	597021.0	5.0	0.115	6.05	1.000	0.600	0.588	-2	30	
10:2-FTS	3993.2	12	13C2-8:2-FTS	28375.5	4.8	0.141	6.06	1.090	0.578	0.469	-19	30	
NMePFOSAE	45689.8	11	d7-NMePFOSAE	335666.4	5.0	0.136	6.10	1.000	0.600	0.567	-6	30	
NMePFOSA	9603.5	12	d3-NMePFOSA	77091.0	5.0	0.125	6.10	1.000	0.600	0.615	2	30	
PFDoS	7558.1	11	13C8-PFOS	279193.2	4.8	0.027	6.22	1.190	0.581	0.474	-18	30	
NEtPFOSAE	46931.6	11	d9-NEtPFOSAE	267308.0	5.0	0.176	6.26	1.000	0.600	0.563	-6	30	
NEtPFOSA	7335.3	12	d5-NEtPFOSA	60704.4	5.0	0.121	6.27	1.000	0.600	0.555	-8	30	
PFTrDA	52009.4	11	13C2-PFDoDA	597021.0	5.0	0.087	6.25	1.030	0.600	0.550	-8	30	
PFTeDA	40149.8	10	13C2-PFTeDA	406531.9	5.0	0.099	6.42	1.000	0.600	0.554	-8	30	
PFHxDA	19788.9	11	13C2-PFTeDA	406531.9	5.0	0.049	6.73	1.050	0.600	0.580	-3	30	
PFODA	16708.0	10	13C2-PFTeDA	406531.9	5.0	0.041	6.99	1.090	0.600	0.572	-5	30	

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

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

Instrument Sensitivity Check/ Continuing Calibration Verfication

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

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

Sample Name:	CCV4_ISC_CAL2			**Data File:**		18NOV13D-35.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-13T14:50:05
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**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	676507.8	661126.9	2	50	
13C2-PFOA	5.0	456340.5	466902.6	-2	50	
13C4-PFOS	4.8	243882.3	247446.9	-1	50	
13C2-PFDA	5.0	295199.0	295381.6	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	793411.2	13C3-PFBA	676507.8	1.173	5.000	5.258	105	70-130	
E13C5-PFPeA	772163.1	13C3-PFBA	676507.8	1.141	5.000	5.119	102	70-130	
E13C3-PFBS	434935.5	13C3-PFBA	676507.8	0.643	4.650	4.538	98	70-130	
E13C2-4:2-FTS	51183.2	13C2-PFOA	456340.5	0.112	4.670	4.995	107	70-130	
E13C5-PFHxA	684967.5	13C2-PFOA	456340.5	1.501	5.000	5.422	108	70-130	
E13C3-PFHxS	320032.3	13C2-PFOA	456340.5	0.701	4.730	4.812	102	70-130	
E13C4-PFHpA	539414.2	13C2-PFOA	456340.5	1.182	5.000	5.325	107	70-130	
E13C2-6:2-FTS	35426.1	13C2-PFOA	456340.5	0.078	4.750	5.194	109	70-130	
E13C8-PFOA	945889.4	13C2-PFOA	456340.5	2.073	5.000	5.711	114	70-130	
E13C8-PFOS	279193.2	13C4-PFOS	243882.3	1.145	4.780	5.072	106	70-130	
E13C9-PFNA	537019.1	13C4-PFOS	243882.3	2.202	5.000	6.139	123	70-130	
E13C6-PFDA	644545.7	13C2-PFDA	295199.0	2.183	5.000	5.095	102	70-130	
E13C2-8:2-FTS	28375.5	13C2-PFDA	295199.0	0.096	4.790	4.794	100	70-130	
E13C8-PFOSA	663223.9	13C2-PFDA	295199.0	2.247	5.000	4.981	100	70-130	
Ed3-NMeFOSAA	77244.4	13C2-PFDA	295199.0	0.262	5.000	4.723	94	70-130	
E13C7-PFUnDA	262457.8	13C2-PFDA	295199.0	0.889	5.000	5.162	103	70-130	
Ed5-NEtFOSAA	70492.9	13C2-PFDA	295199.0	0.239	5.000	5.052	101	70-130	
E13C2-PFDoDA	597021.0	13C2-PFDA	295199.0	2.022	5.000	5.251	105	70-130	
Ed7-NMePFOSAE	335666.4	13C2-PFDA	295199.0	1.137	5.000	4.921	98	70-130	
Ed3-NMePFOSA	77091.0	13C2-PFDA	295199.0	0.261	5.000	4.745	95	70-130	
Ed9-NEtPFOSAE	267308.0	13C2-PFDA	295199.0	0.906	5.000	4.710	94	70-130	
Ed5-NEtPFOSA	60704.4	13C2-PFDA	295199.0	0.206	5.000	4.824	96	70-130	
E13C2-PFTeDA	406531.9	13C2-PFDA	295199.0	1.377	5.000	4.835	97	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

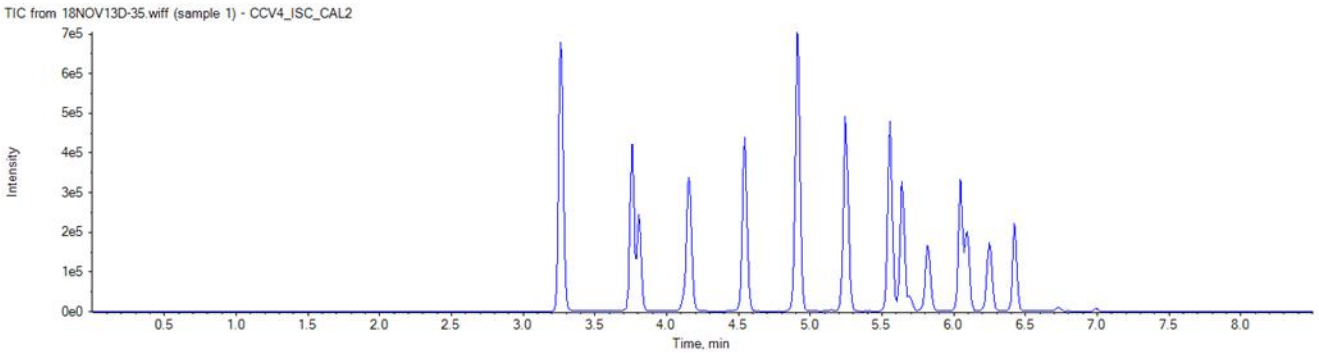
Analyte Quantitation Peak Table

Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-35.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	83542.0		A	13C4-PFBA	3.26	793411.2	0.105	0.583
PFPeA	3.76	1.000	79594.8		A	13C5-PFPeA	3.76	772163.1	0.103	0.597
PFBS	3.81	1.000	45706.2		A	13C3-PFBS	3.81	434935.5	0.105	0.500
4:2-FTS	4.12	1.000	10413.5		A	13C2-4:2-FTS	4.12	51183.2	0.203	0.552
PFHxA	4.16	1.000	96228.3		A	13C5-PFHxA	4.16	684967.5	0.140	0.587
PFPeS	4.17	1.100	22230.8		A	13C3-PFBS	3.81	434935.5	0.051	0.496
PFHpA	4.54	1.000	102421.2		A	13C4-PFHpA	4.54	539414.2	0.190	0.629
PFHxS	4.54	1.000	33058.8		M	13C3-PFHxS	4.54	320032.3	0.103	0.501
6:2-FTS	4.90	1.000	9288.1		A	13C2-6:2-FTS	4.90	35426.1	0.262	0.634
PFHpS	4.91	1.080	32964.6		A	13C3-PFHxS	4.54	320032.3	0.103	0.542
PFOA	4.91	1.000	100522.0		A	13C8-PFOA	4.91	945889.4	0.106	0.568
PFOS	5.24	1.000	33602.8		M	13C8-PFOS	5.24	279193.2	0.120	0.526
PFNA	5.26	1.000	77741.1		A	13C9-PFNA	5.25	537019.1	0.145	0.522
PFNS	5.54	1.060	21345.1		A	13C8-PFOS	5.24	279193.2	0.076	0.535
PFDA	5.56	1.000	67467.8		A	13C6-PFDA	5.55	644545.7	0.105	0.555
8:2-FTS	5.56	1.000	5464.6		M	13C2-8:2-FTS	5.56	28375.5	0.193	0.449
PFOSA	5.64	1.000	65447.7		A	13C8-PFOSA	5.64	663223.9	0.099	0.482
NMeFOSAA	5.70	1.000	6912.0		M	d3-NMeFOSAA	5.70	77244.4	0.089	0.506
PFDS	5.79	1.110	15131.2		A	13C8-PFOS	5.24	279193.2	0.054	0.491
PFUnDA	5.82	1.000	62038.1		A	13C7-PFUnDA	5.82	262457.8	0.236	0.618
NEtFOSAA	5.84	1.000	7265.9		A	d5-NEtFOSAA	5.83	70492.9	0.103	0.540
PFDoDA	6.05	1.000	68920.5		A	13C2-PFDoDA	6.05	597021.0	0.115	0.588
10:2-FTS	6.06	1.090	3993.2		A	13C2-8:2-FTS	5.56	28375.5	0.141	0.469
NMePFOSAE	6.10	1.000	45689.8		M	d7-NMePFOSAE	6.09	335666.4	0.136	0.567
NMePFOSA	6.10	1.000	9603.5		M	d3-NMePFOSA	6.10	77091.0	0.125	0.615
PFDoS	6.22	1.190	7558.1		A	13C8-PFOS	5.24	279193.2	0.027	0.474
NEtPFOSAE	6.26	1.000	46931.6		A	d9-NEtPFOSAE	6.24	267308.0	0.176	0.563
NEtPFOSA	6.27	1.000	7335.3		A	d5-NEtPFOSA	6.26	60704.4	0.121	0.555
PFTrDA	6.25	1.030	52009.4		A	13C2-PFDoDA	6.05	597021.0	0.087	0.550
PFTeDA	6.42	1.000	40149.8		A	13C2-PFTeDA	6.42	406531.9	0.099	0.554
PFHxDA	6.73	1.050	19788.9		A	13C2-PFTeDA	6.42	406531.9	0.049	0.580
PFODA	6.99	1.090	16708.0		A	13C2-PFTeDA	6.42	406531.9	0.041	0.572

Total Ion Chromatogram

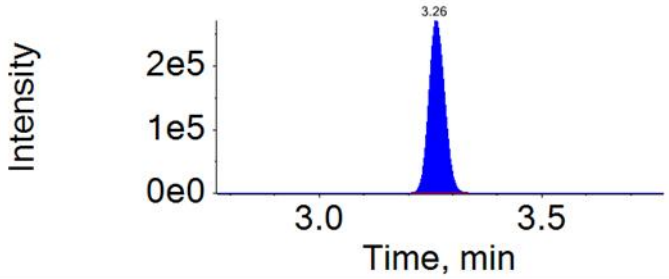


APPROVED
By JPT at 4:33 pm, 11/13/18

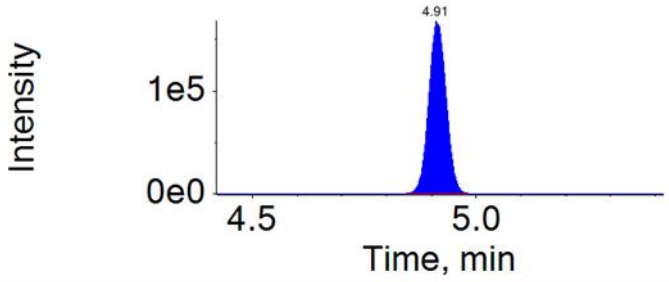
REVIEWED
By umar at 5:40 pm, 11/13/18

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

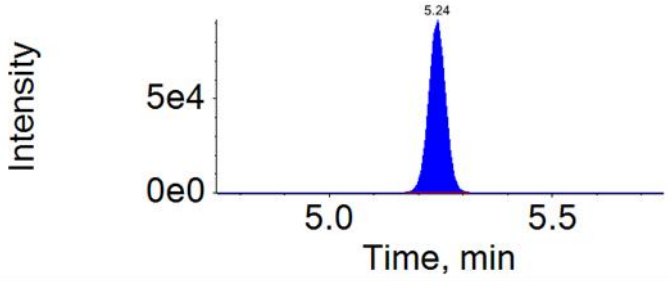
Injection Standard: 13C3-PFBA
216.0 / 172.0



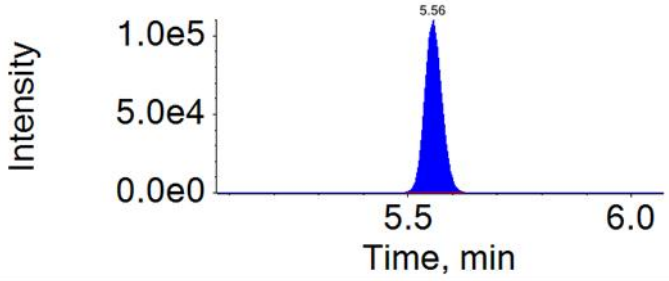
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



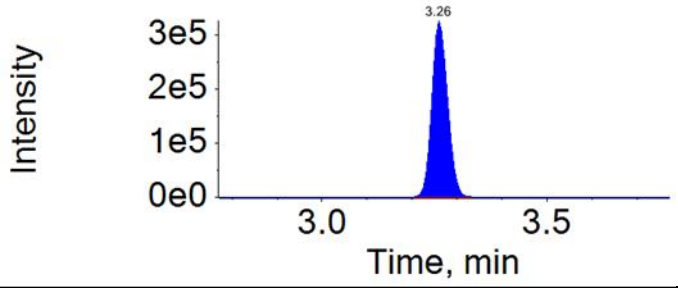
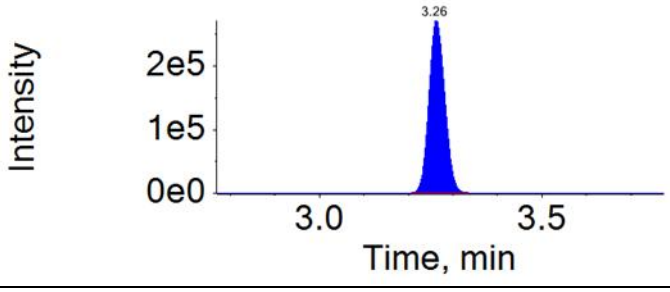
Injection Standard: 13C2-PFDA
515.0 / 470.0

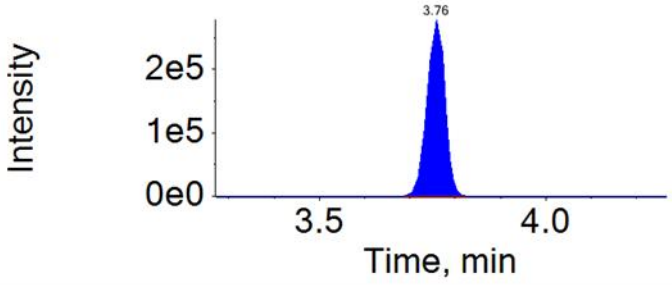
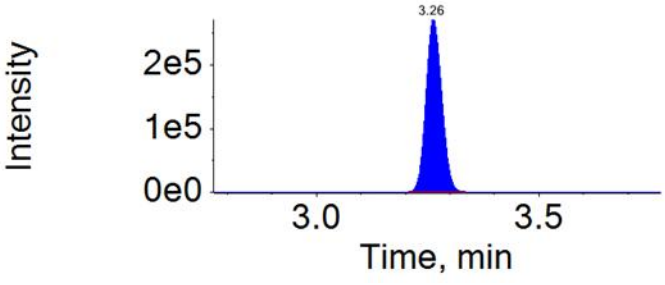


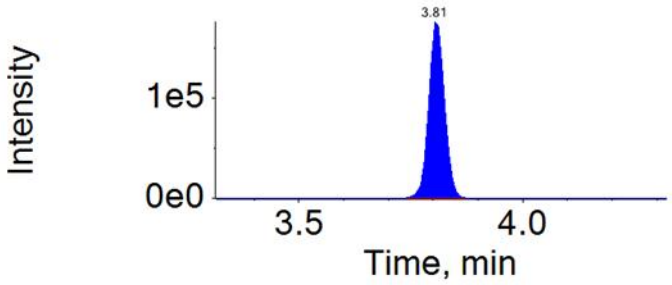
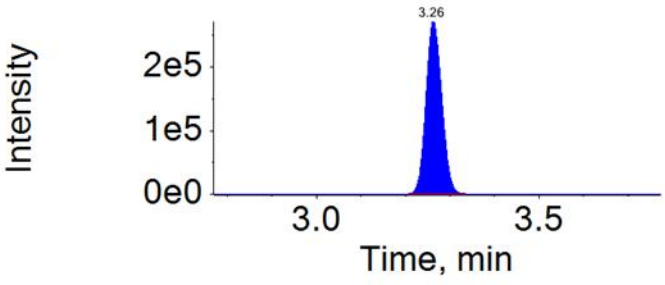
APPROVED
By JPT at 4:33 pm, 11/13/18

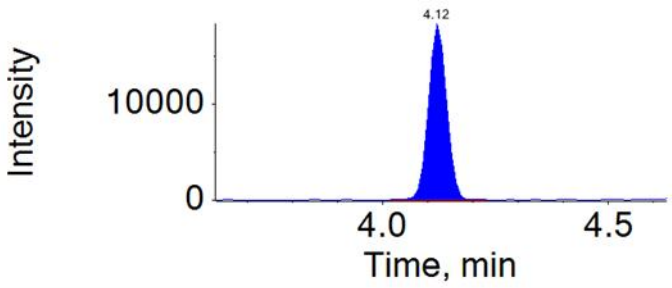
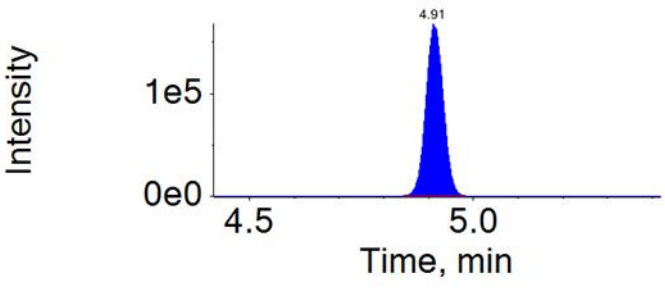
REVIEWED
By umar at 5:40 pm, 11/13/18

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
	

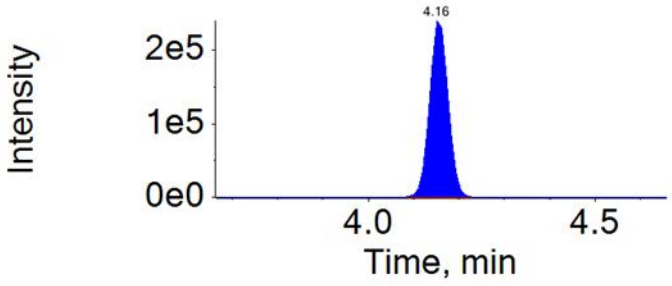
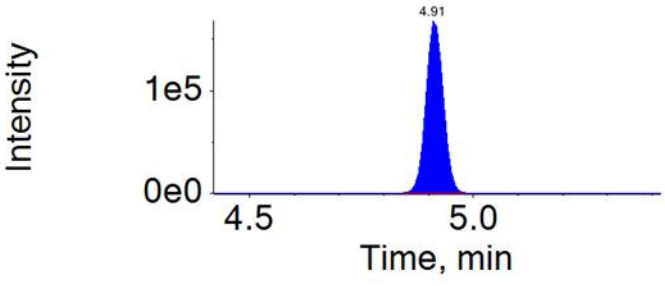
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

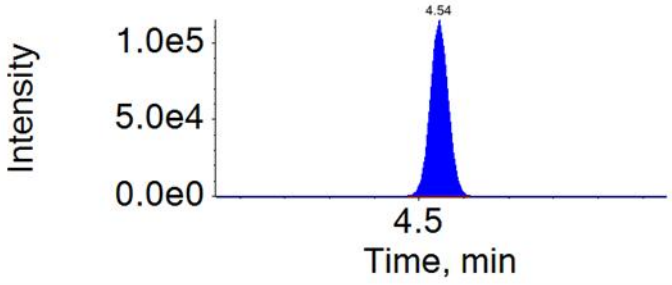
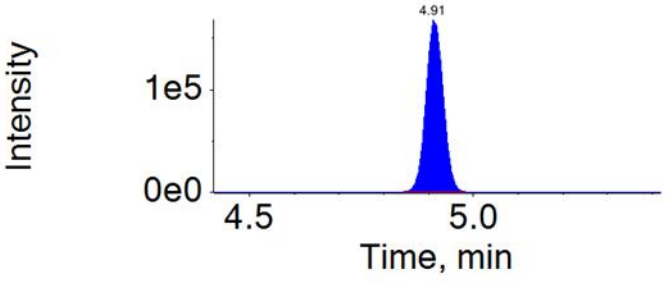
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

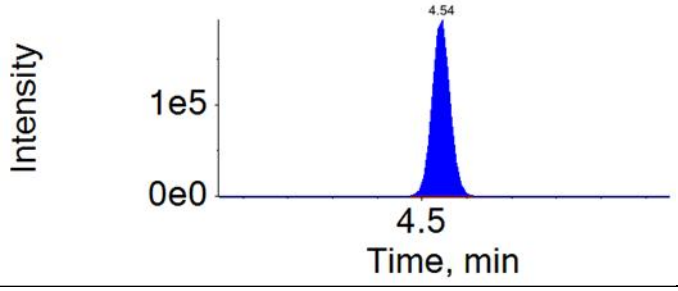
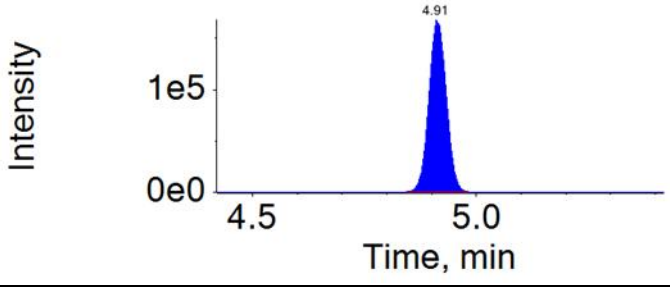
APPROVED
By JPT at 4:33 pm, 11/13/18

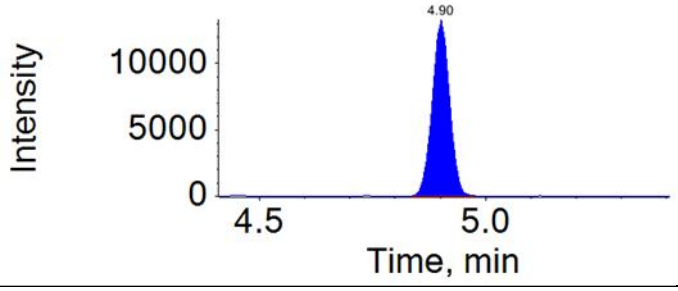
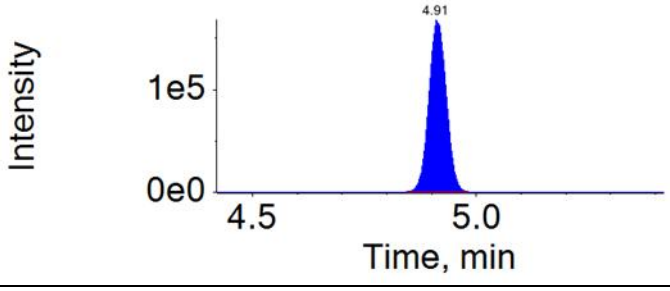
REVIEWED
By umar at 5:40 pm, 11/13/18

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
	

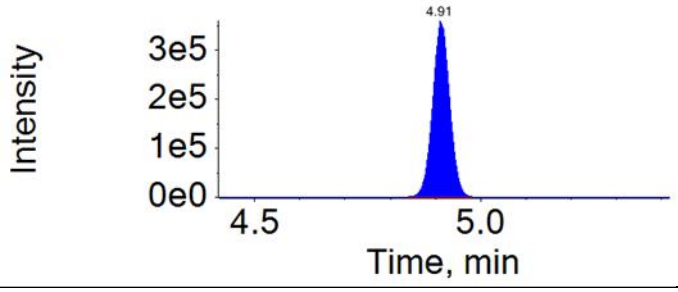
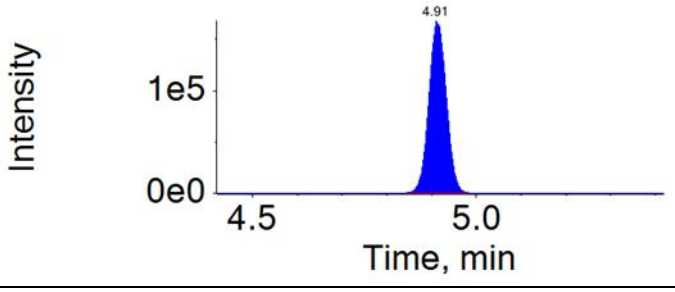
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

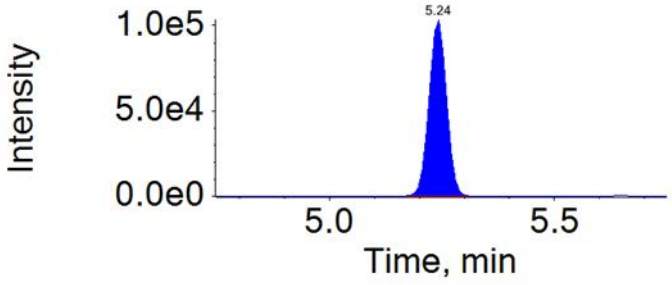
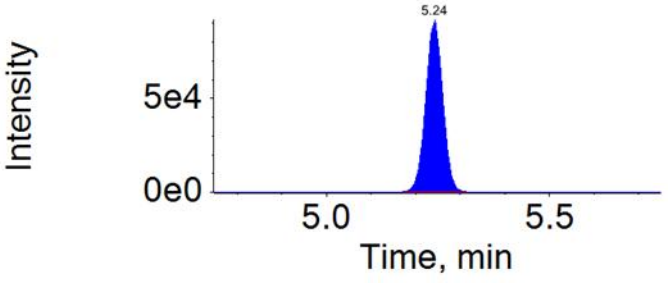
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

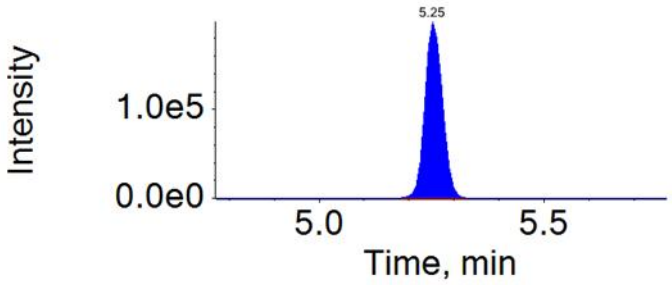
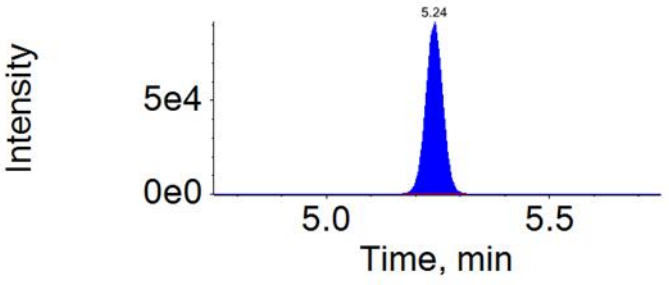
APPROVED
By JPT at 4:33 pm, 11/13/18

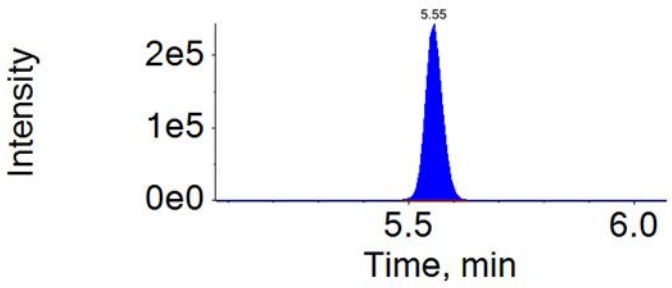
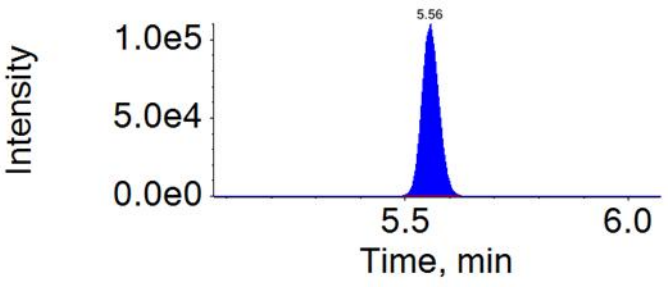
REVIEWED
By umar at 5:40 pm, 11/13/18

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

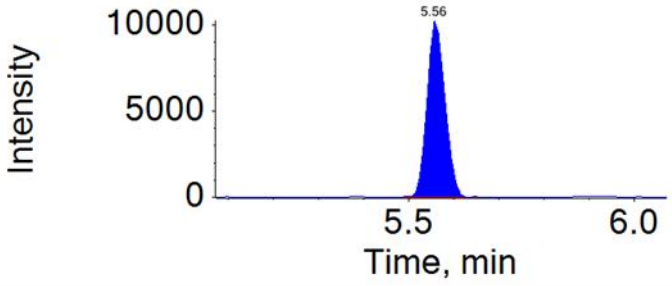
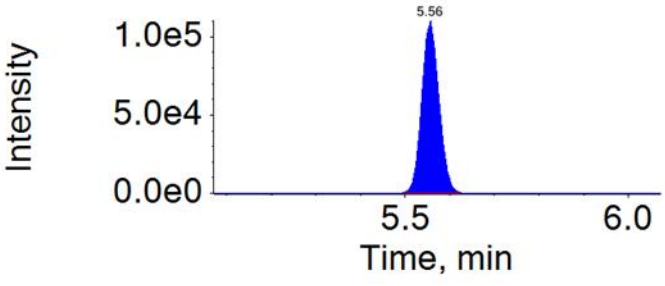
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

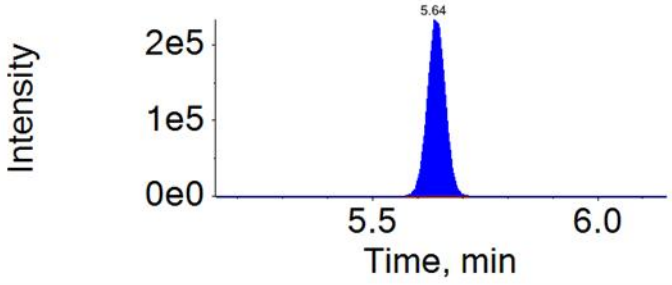
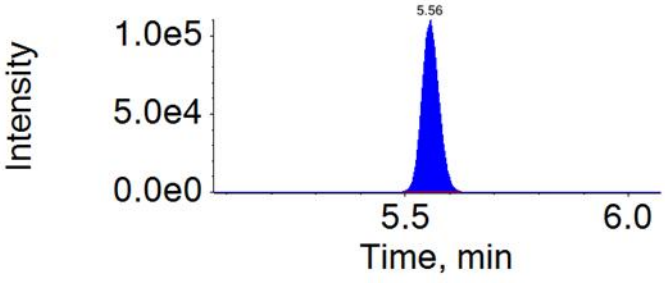
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

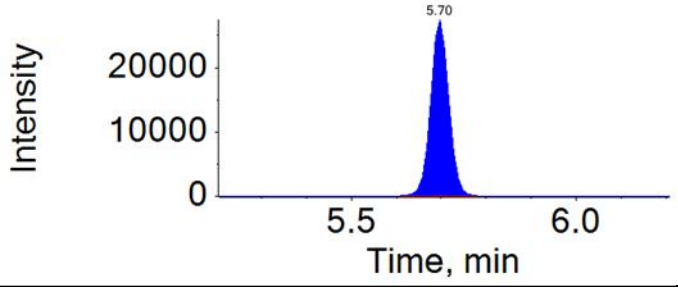
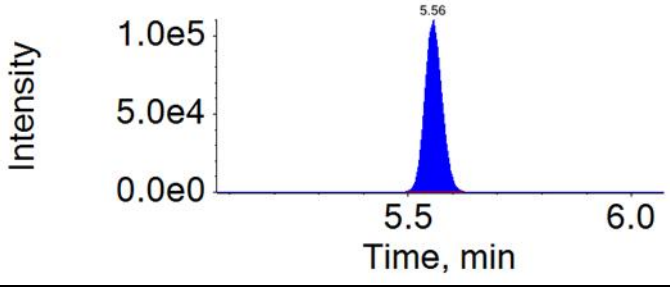
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

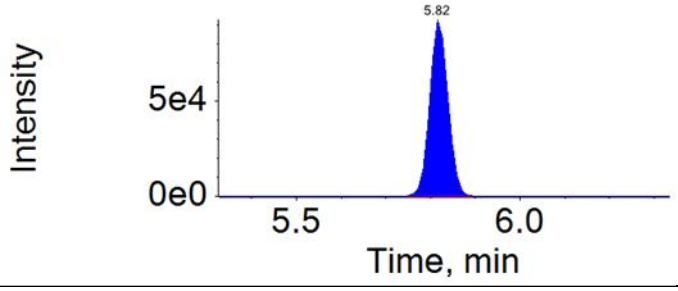
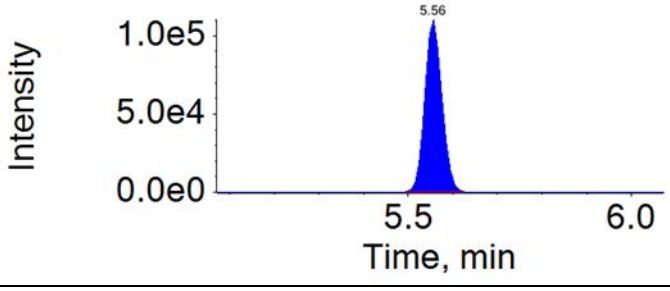
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

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

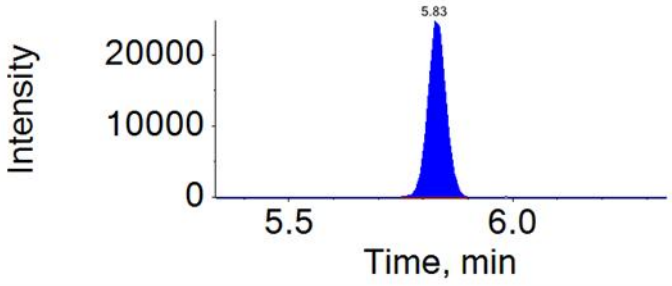
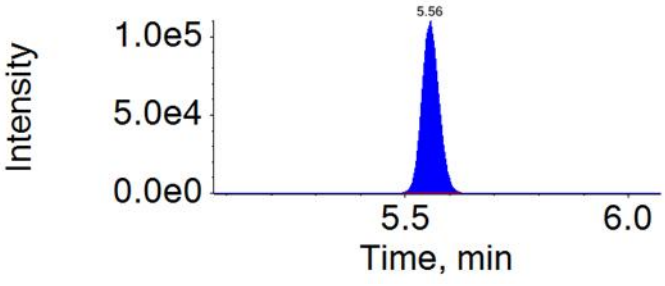
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

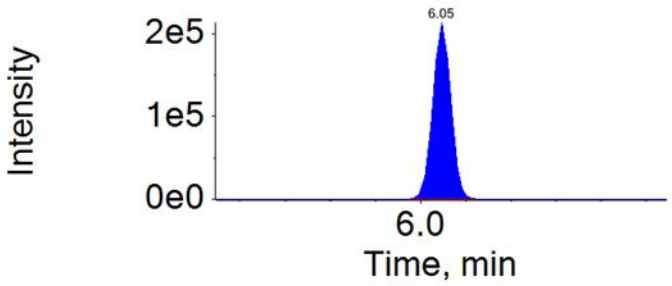
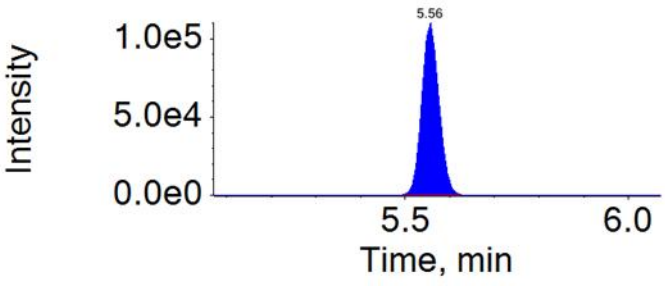
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

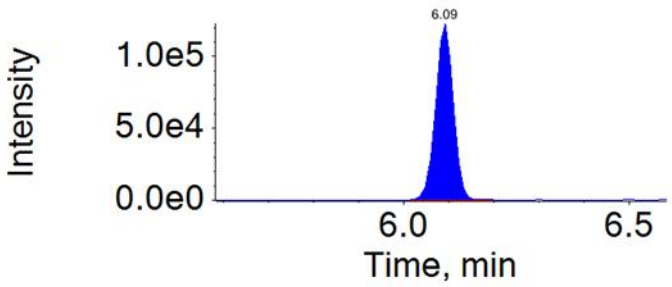
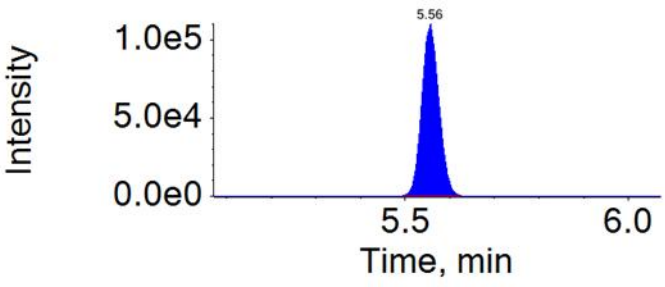
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

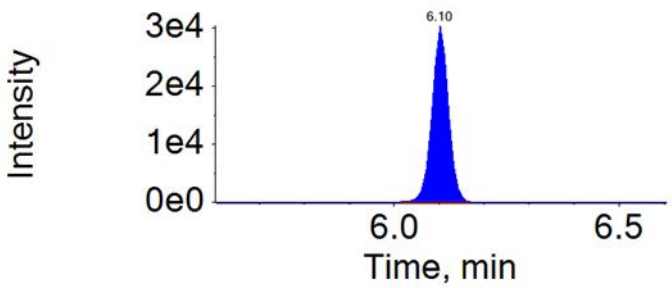
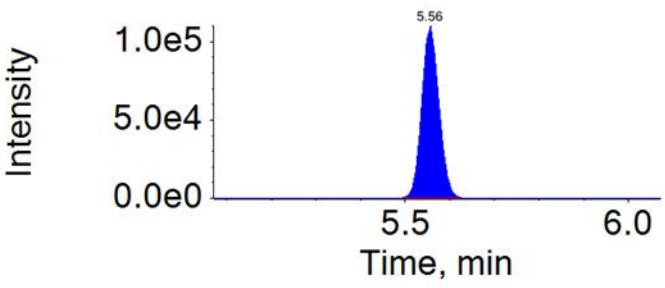
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

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
	

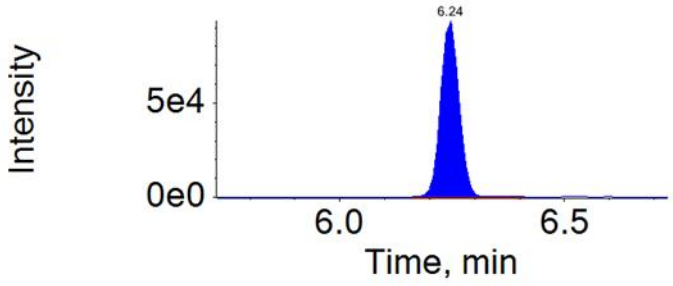
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

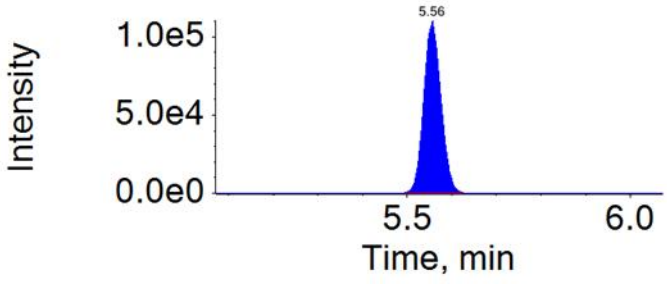
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

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

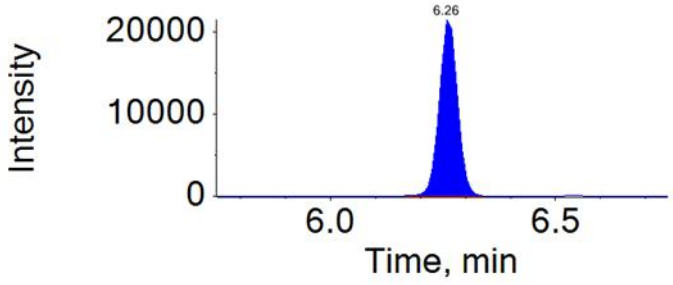
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

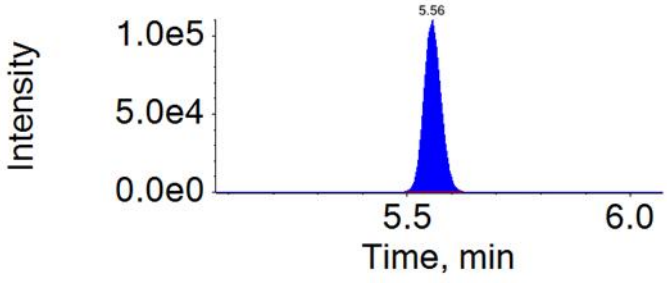
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



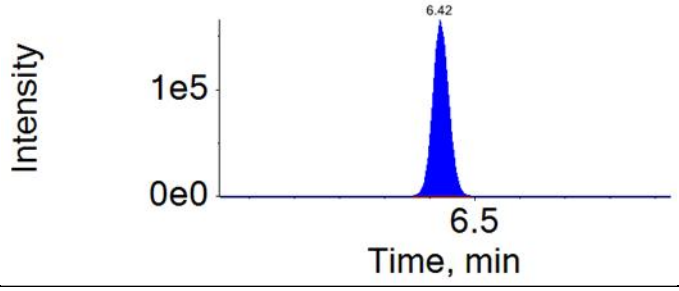


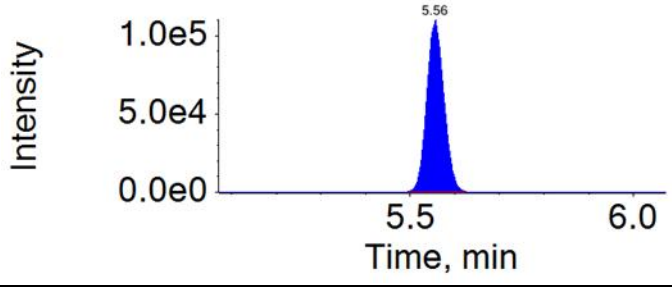
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



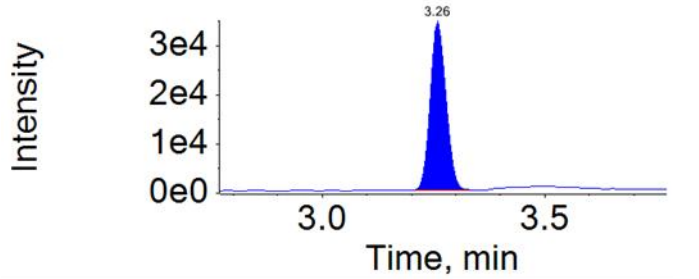


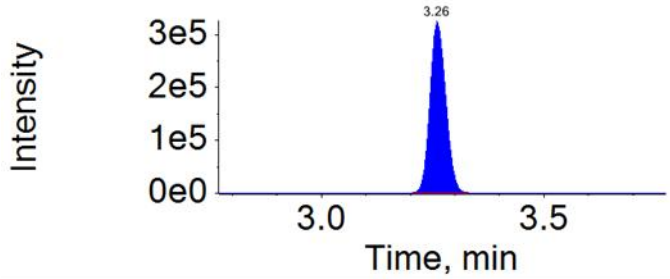
APPROVED
By JPT at 4:33 pm, 11/13/18

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

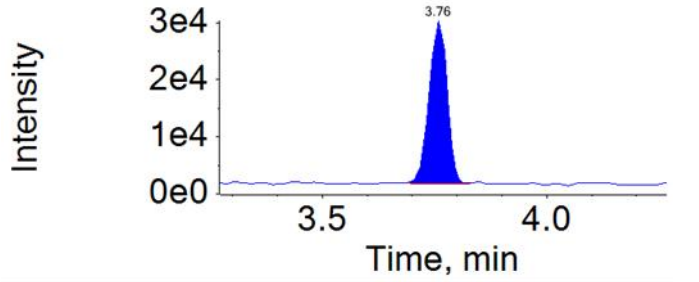
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

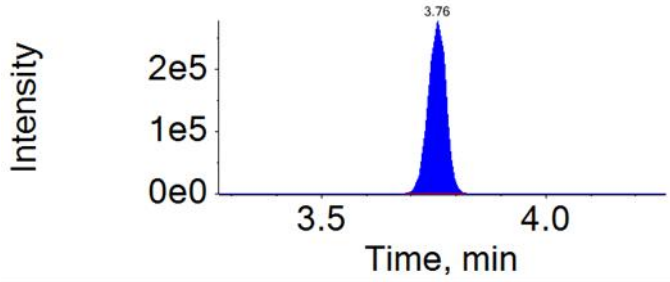
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



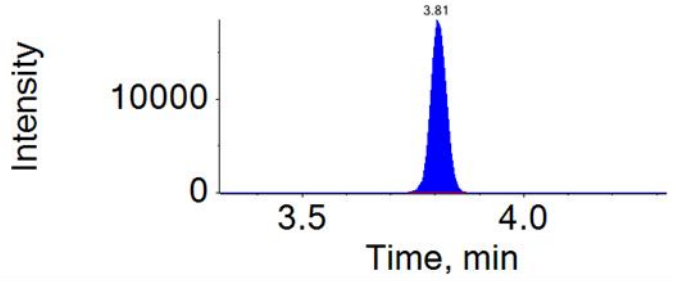


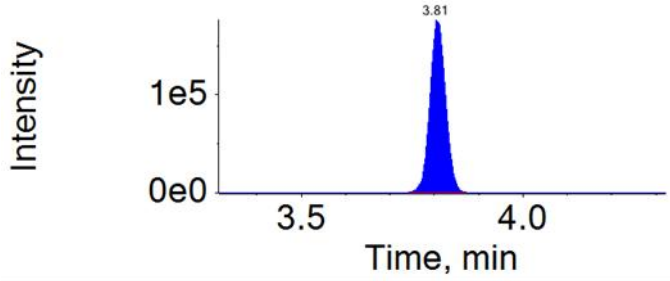
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



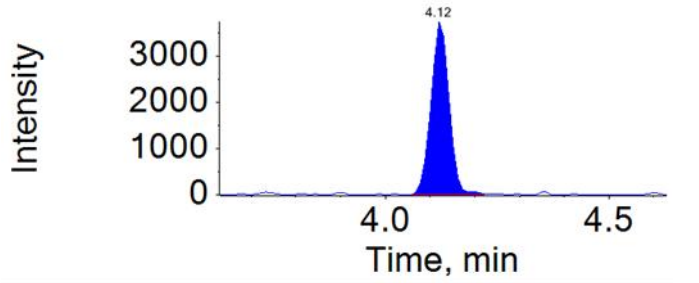


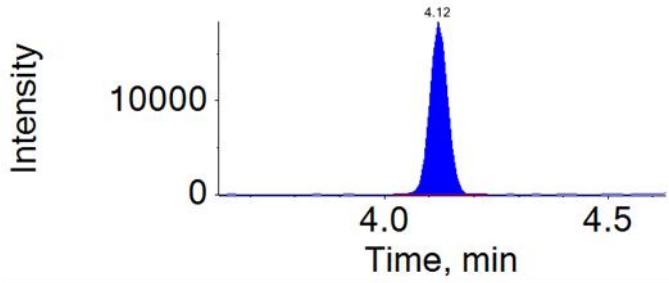
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



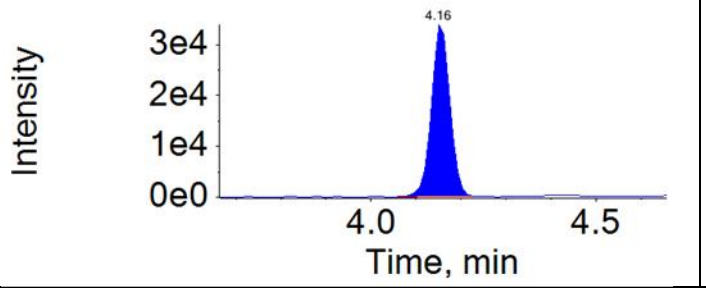


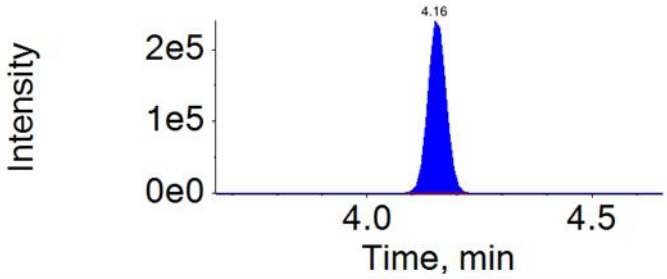
APPROVED
By JPT at 4:33 pm, 11/13/18

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

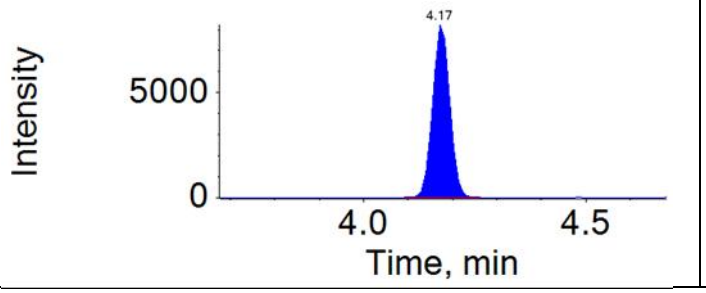
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

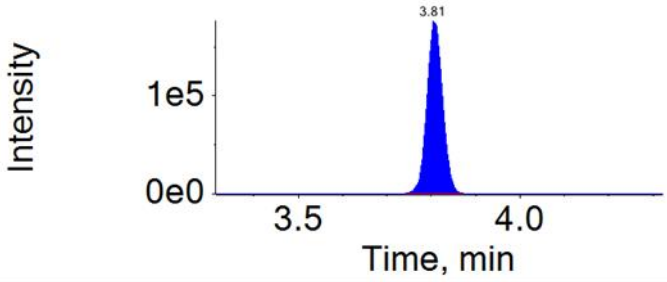
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



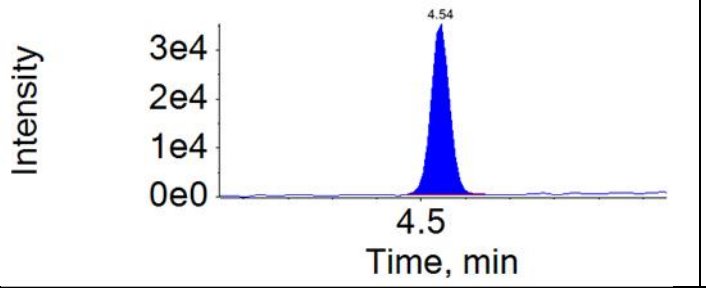


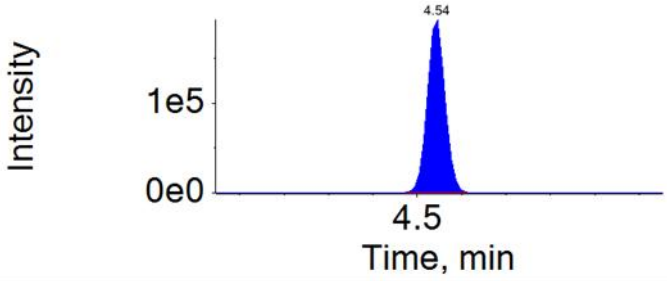
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



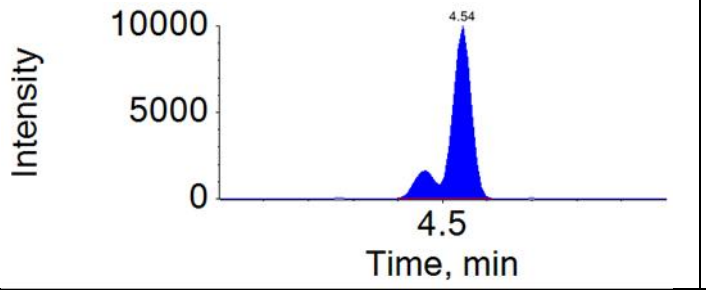


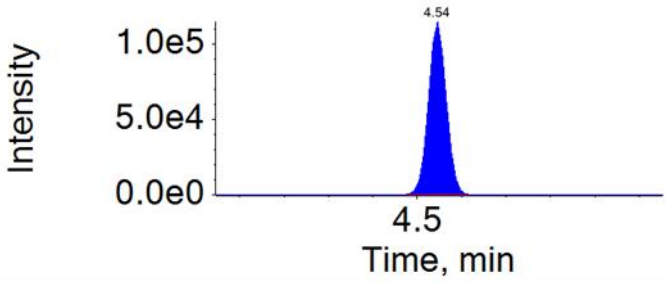
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

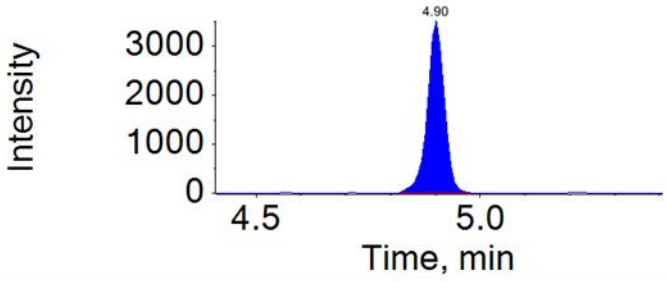
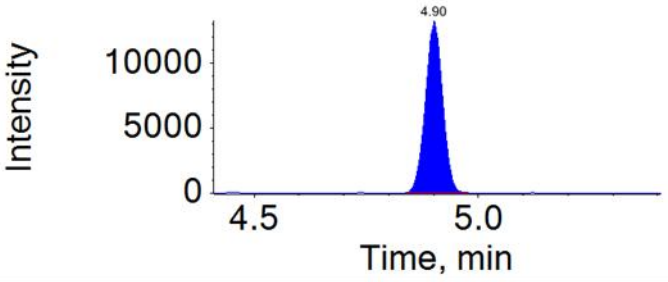


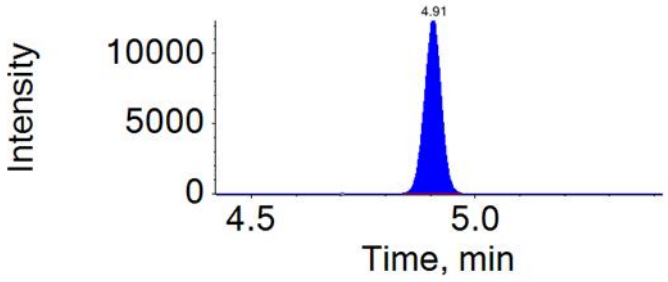
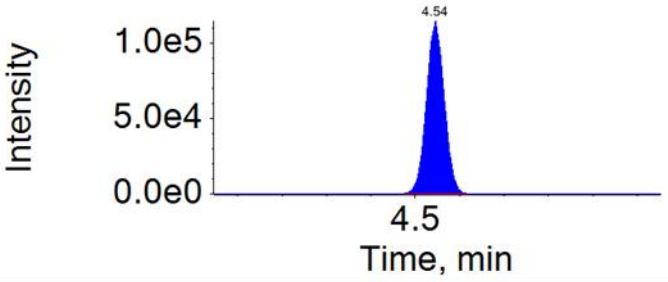


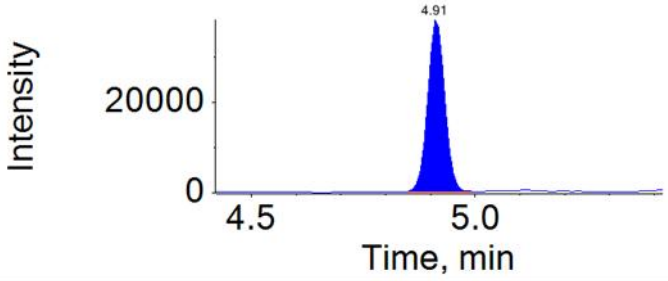
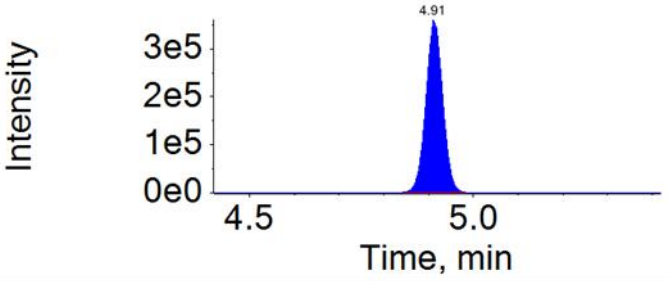
APPROVED
By JPT at 4:33 pm, 11/13/18

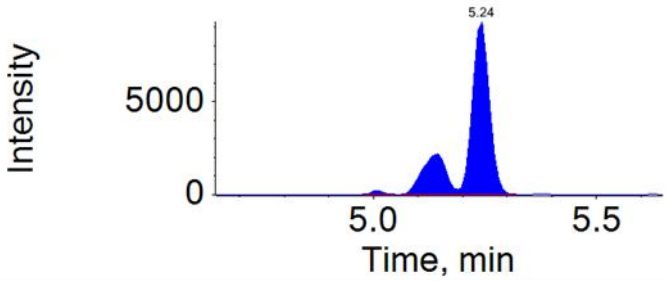
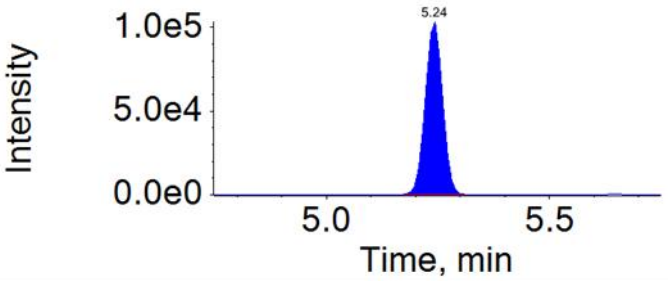
REVIEWED
By umar at 5:40 pm, 11/13/18

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

Analyte: 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
	

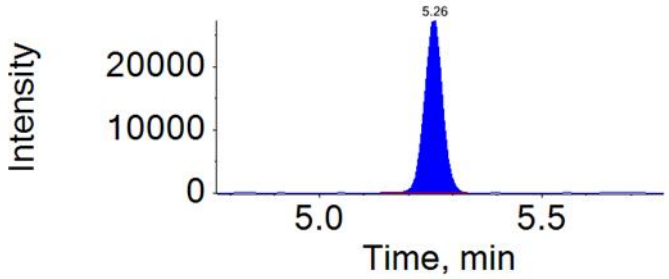
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

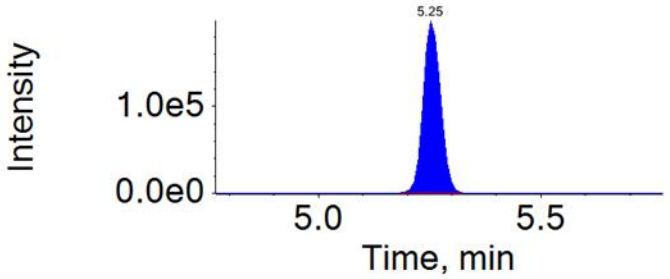
APPROVED
By JPT at 4:33 pm, 11/13/18

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

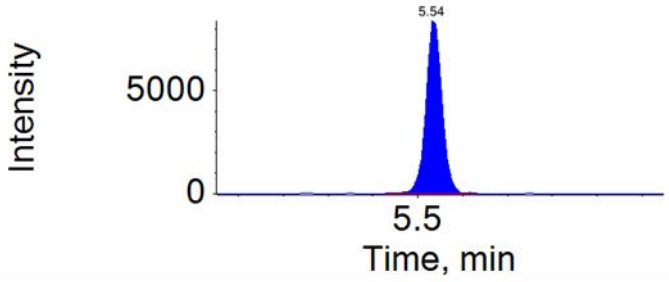
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

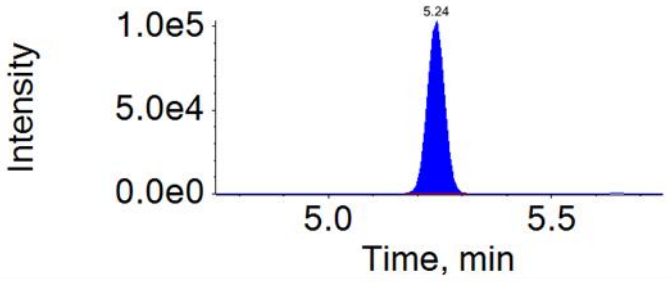
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



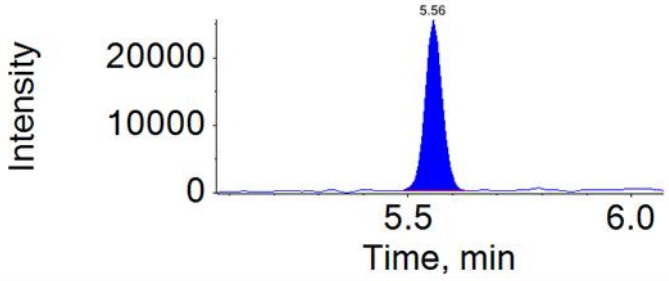


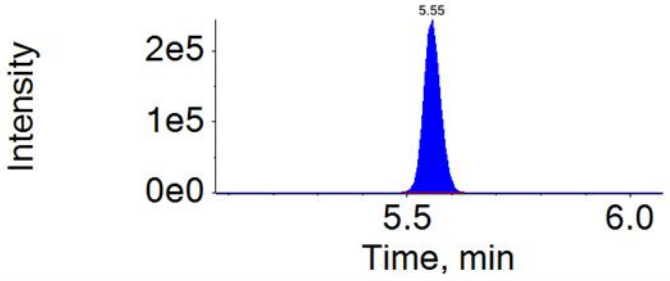
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



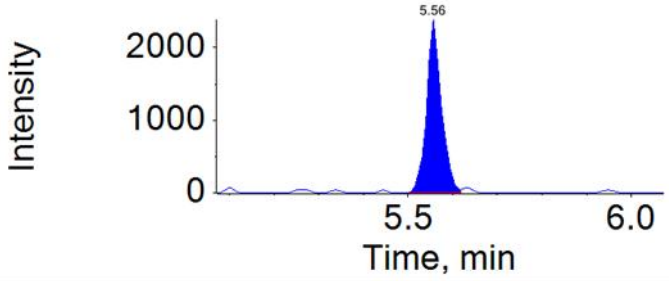


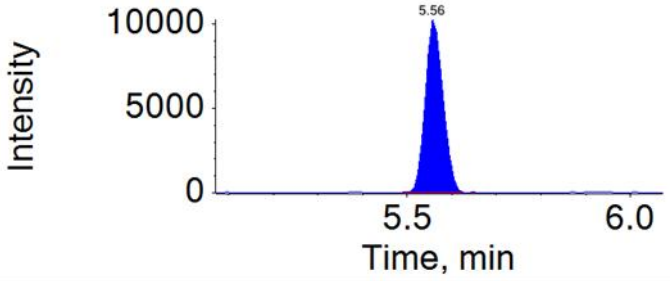
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



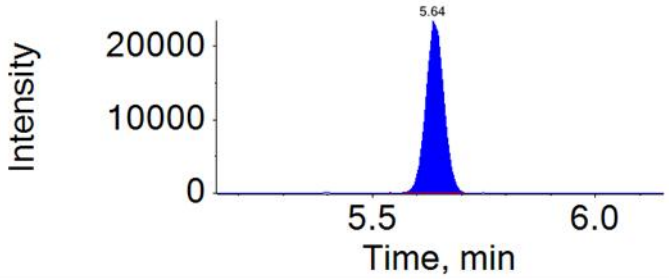


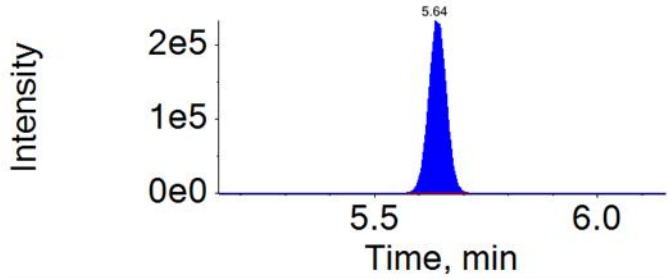
APPROVED
By JPT at 4:33 pm, 11/13/18

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

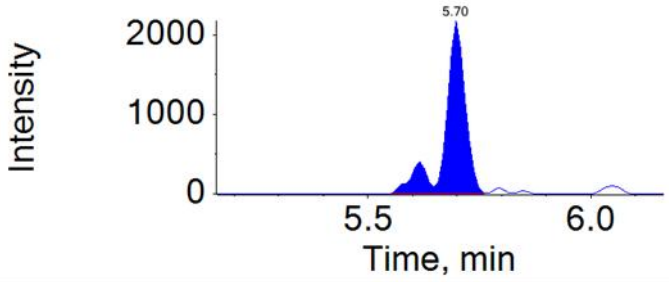
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

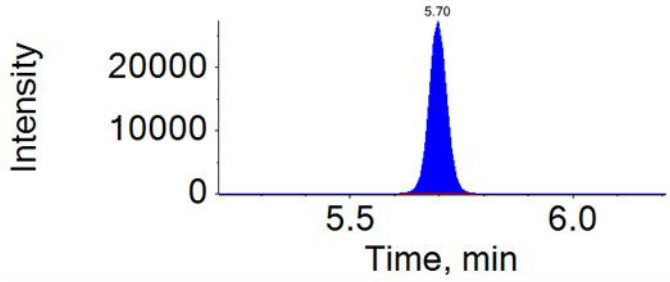
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



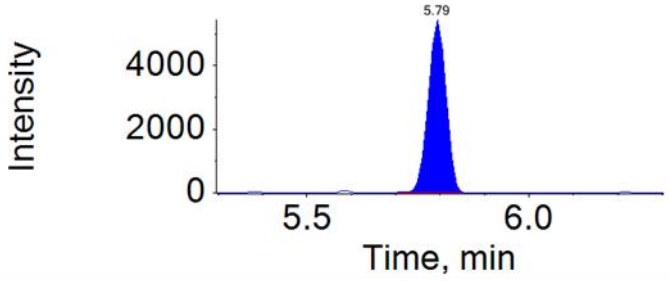


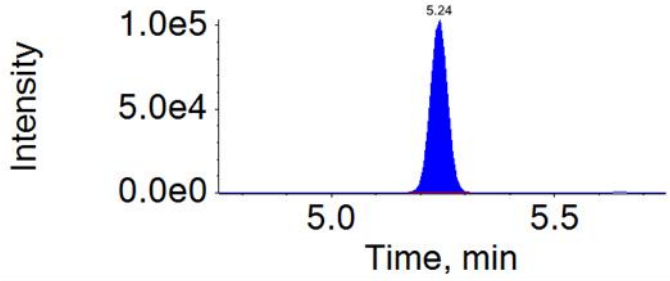
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



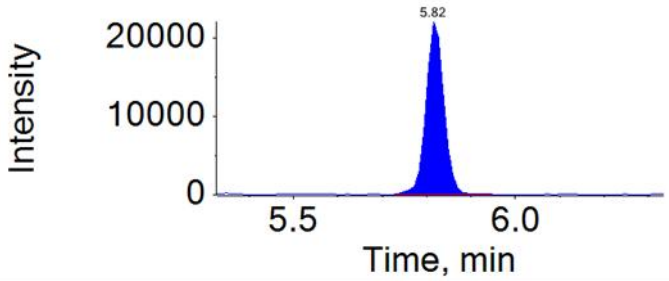


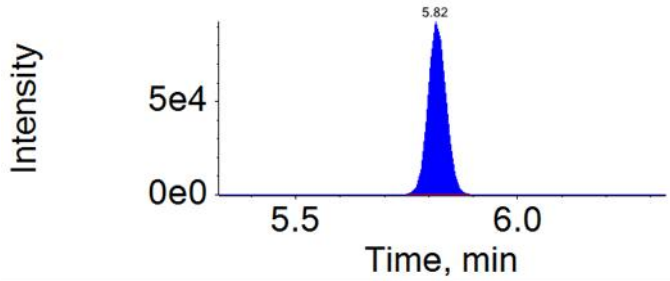
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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

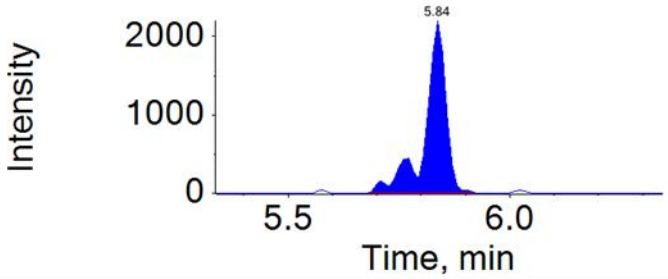
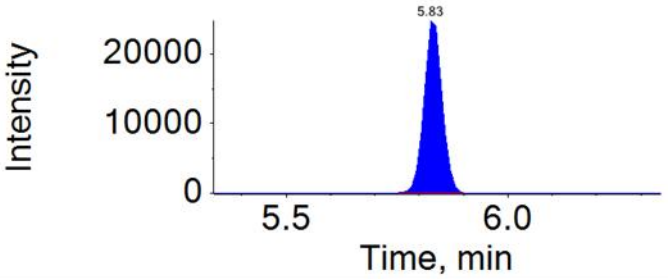


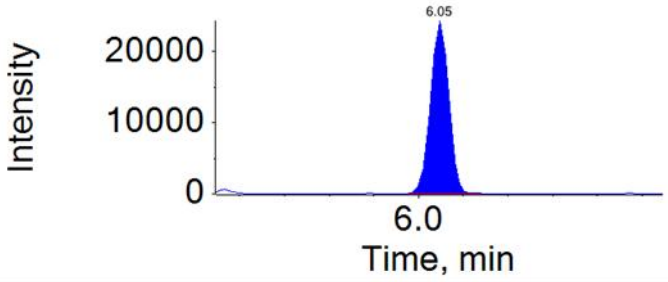
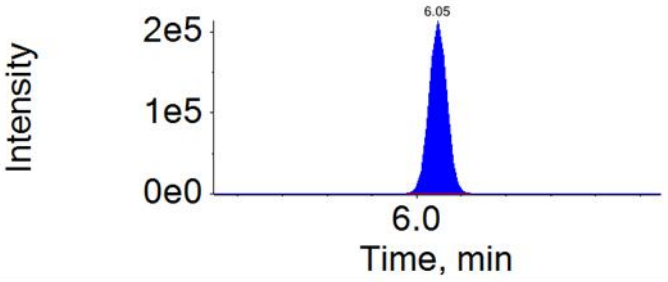


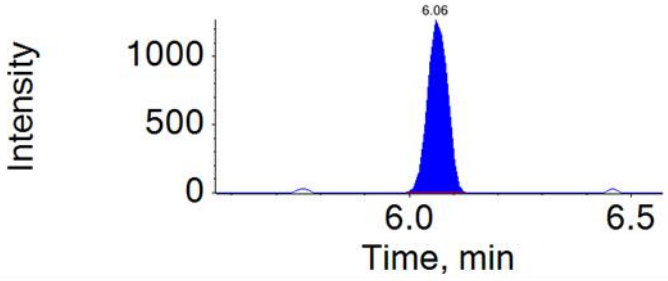
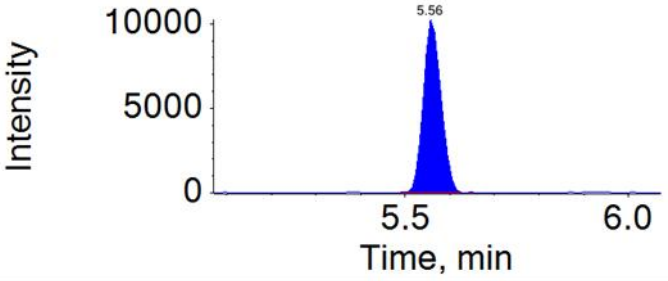
APPROVED
By JPT at 4:33 pm, 11/13/18

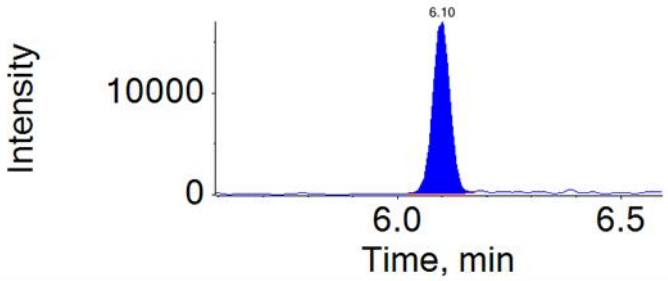
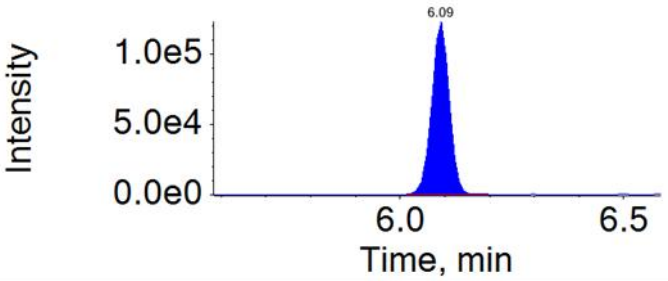
REVIEWED
By umar at 5:40 pm, 11/13/18

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
	

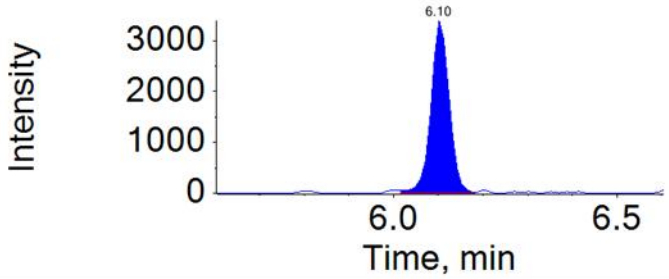
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

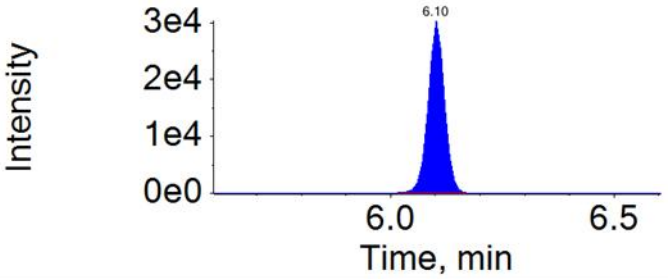
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

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

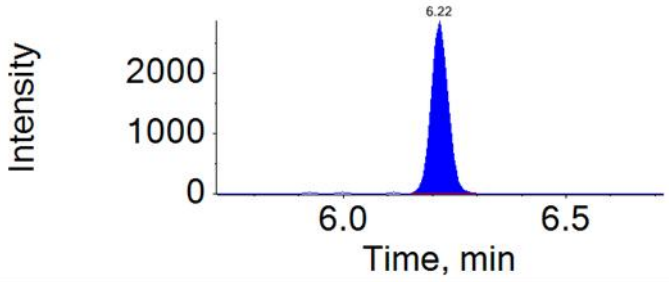
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV1-4 11/13/2018 4:25:30 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

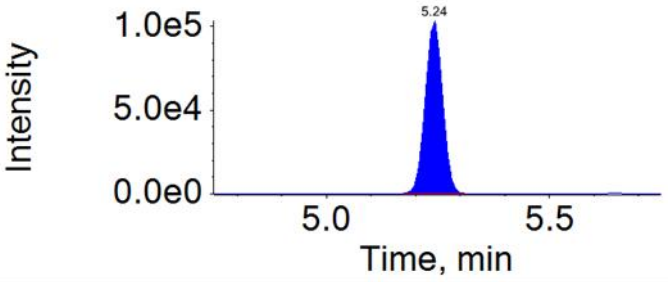
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



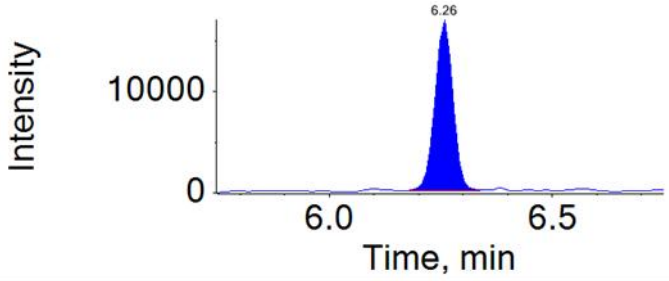


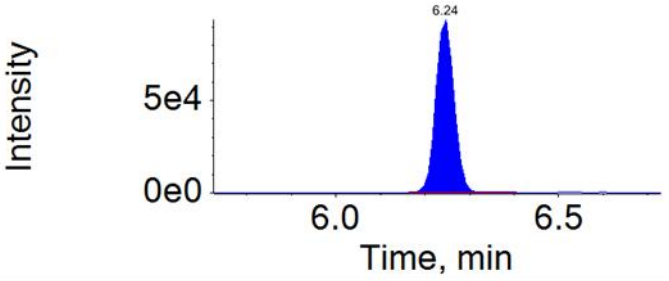
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



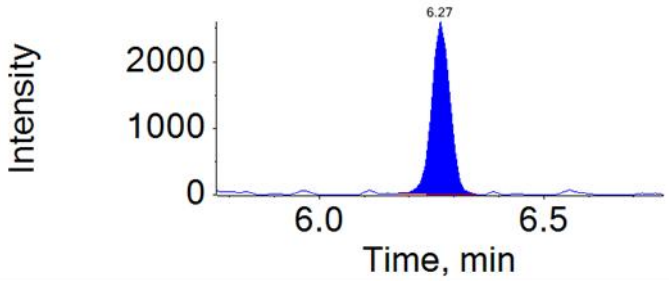


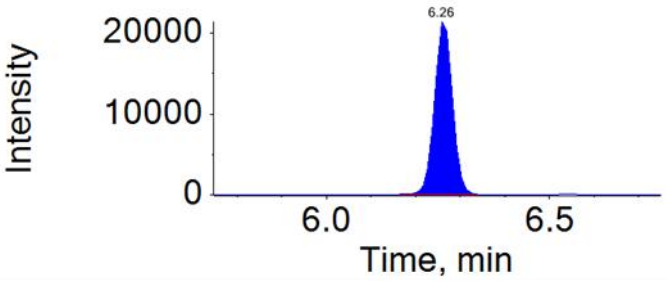
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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

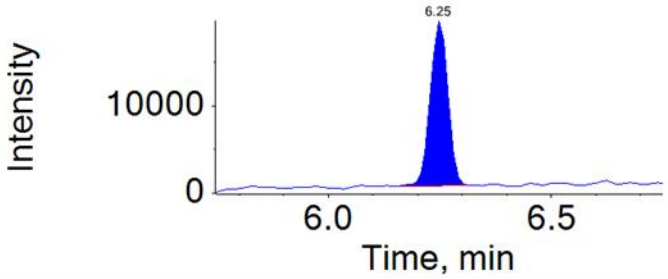
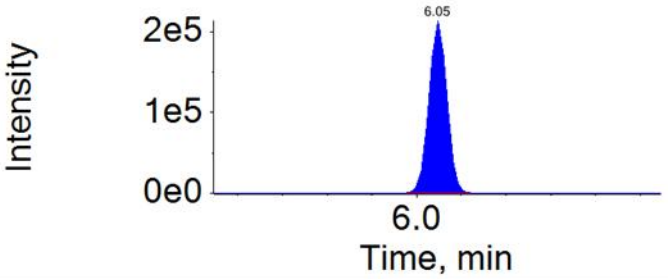


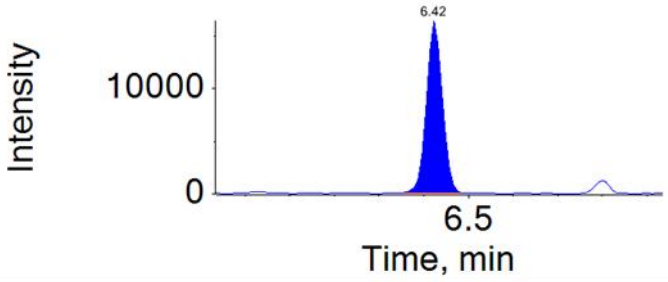
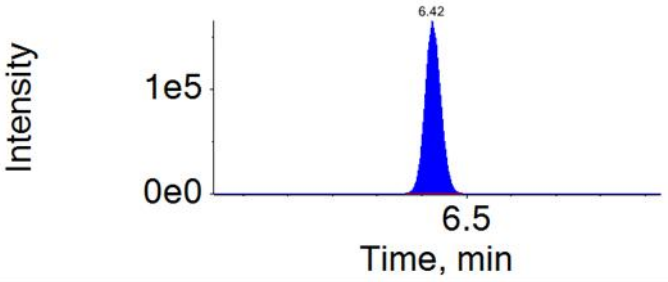


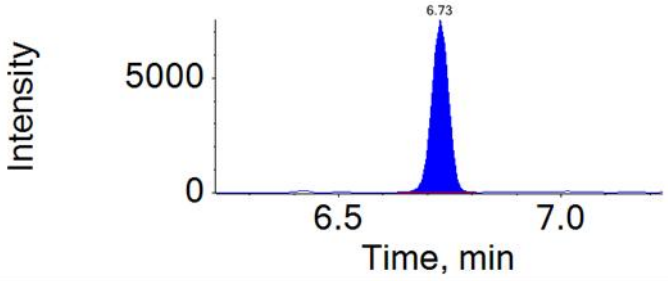
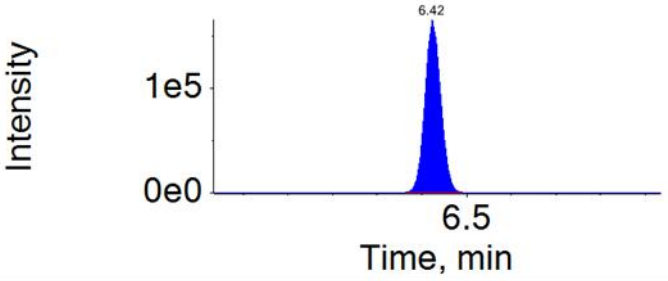
APPROVED
By JPT at 4:33 pm, 11/13/18

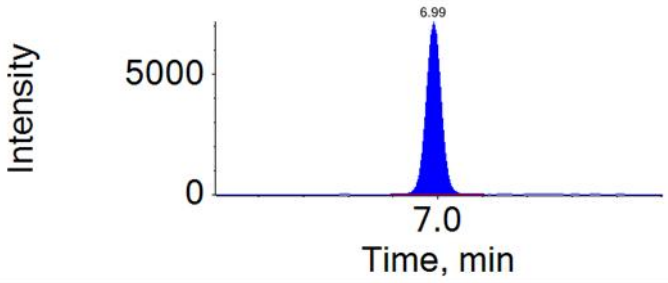
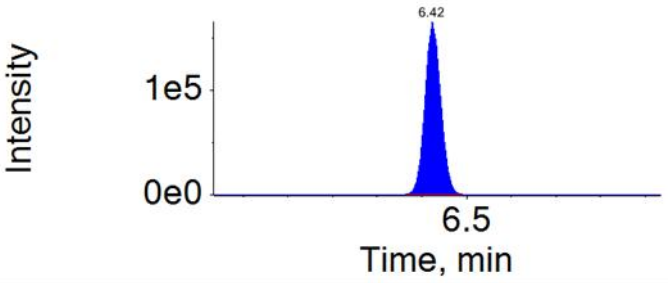
REVIEWED
By umar at 5:40 pm, 11/13/18

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

Analyte: 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
	

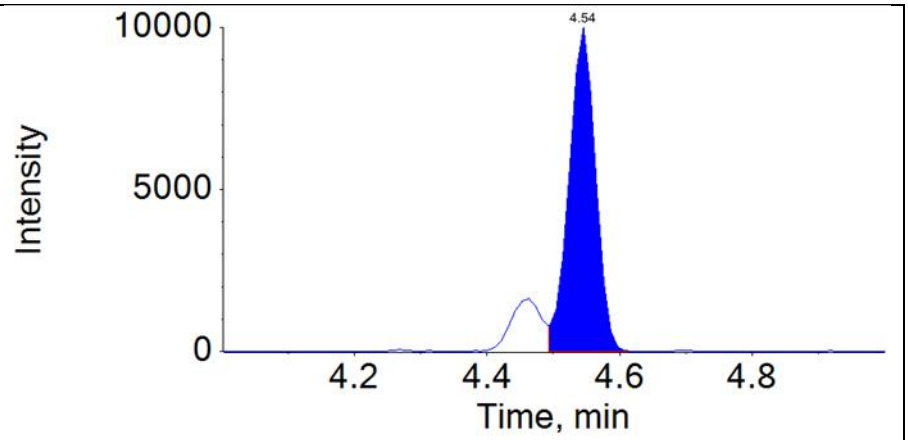
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

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

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

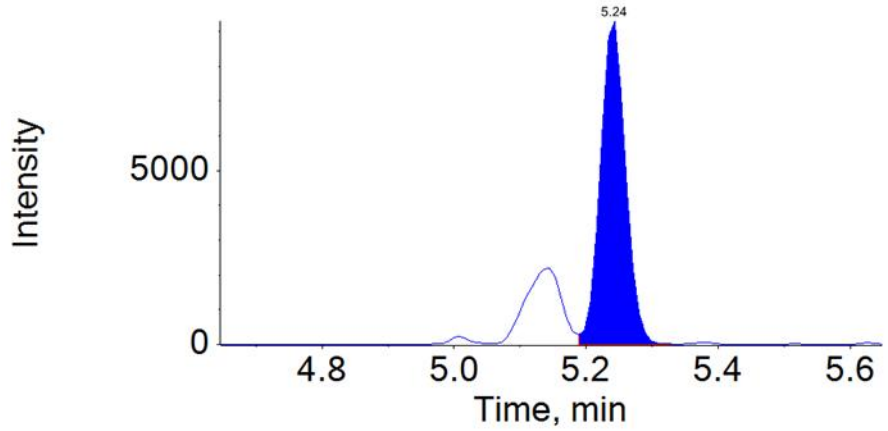
Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
27828.5
Mass Range:
399.0 / 80.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



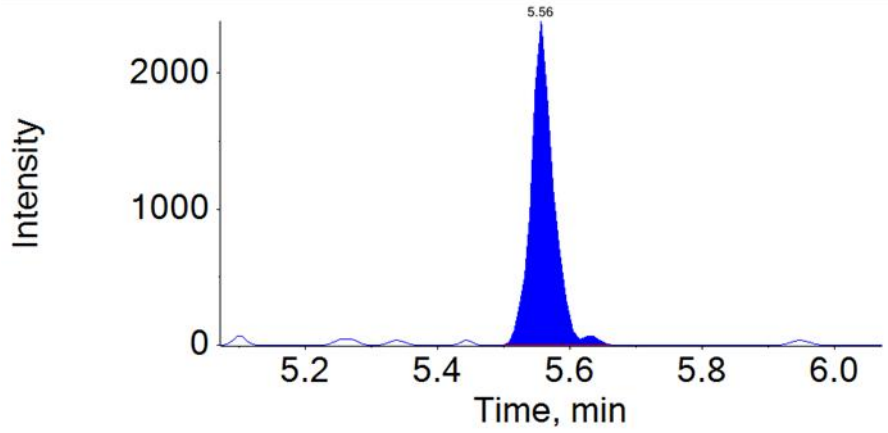
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
24662.1
Mass Range:
499.0 / 80.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
8:2-FTS
RT (min.):
5.56
Peak Area:
5576.8
Mass Range:
527.0 / 507.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



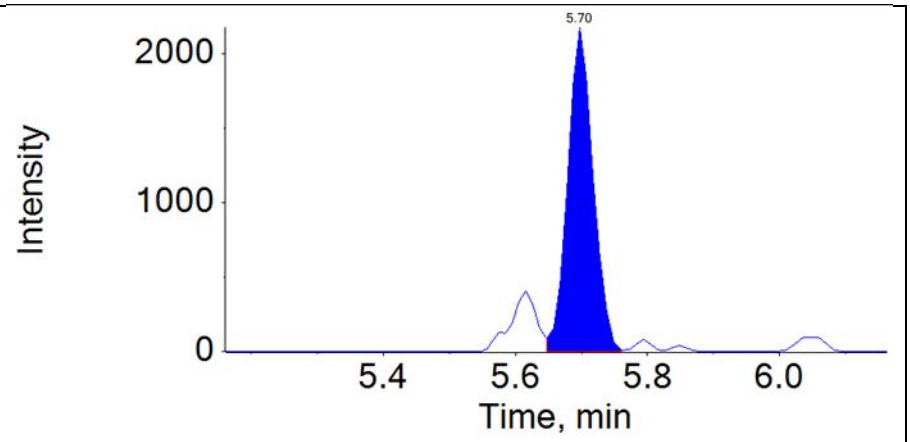
Integration Comment: incorrect integration

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

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

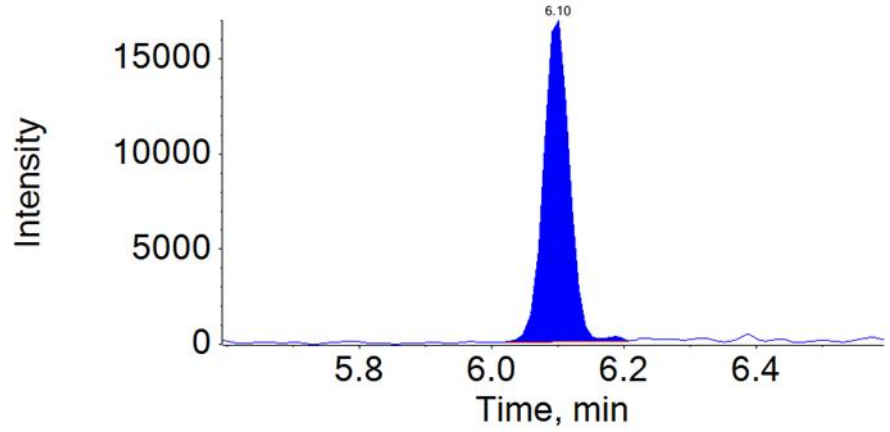
Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
5812.0
Mass Range:
570.0 / 419.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



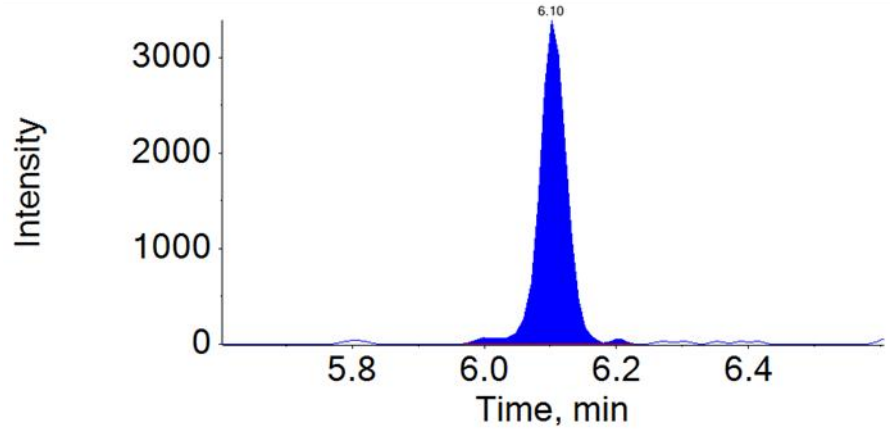
Integration Comment: incorrect integration

Component Name:
NMePFOSAE
RT (min.):
6.10
Peak Area:
46010.6
Mass Range:
616.0 / 59.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
9829.6
Mass Range:
512.0 / 169.0
File Name:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2

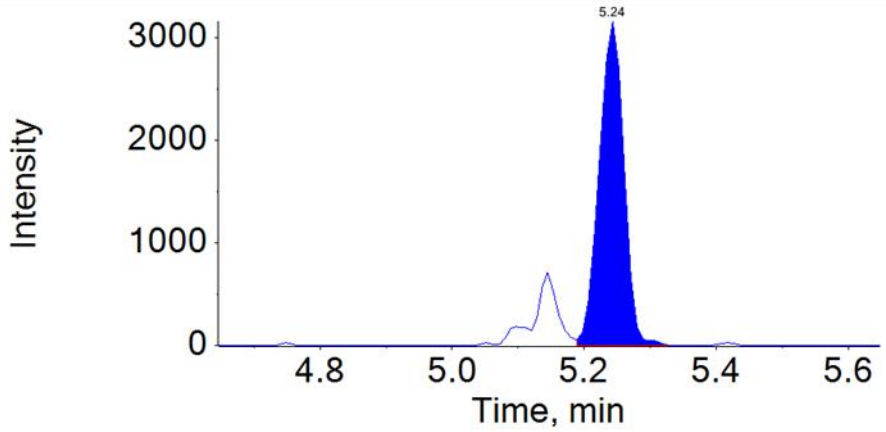


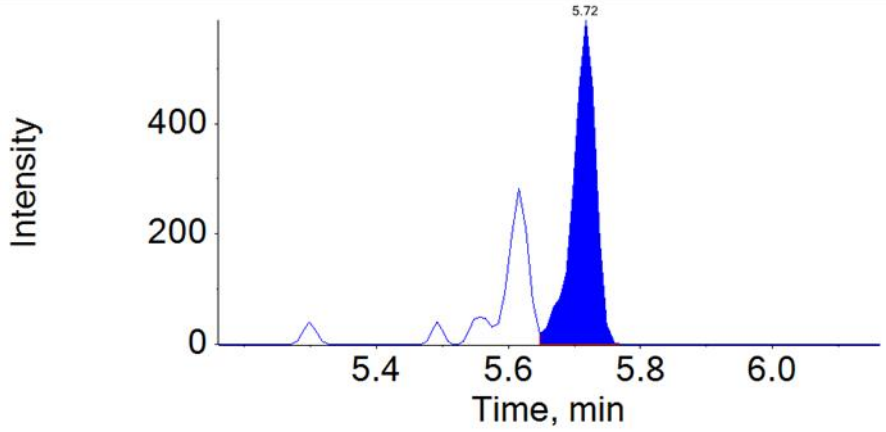
Integration Comment: incorrect integration

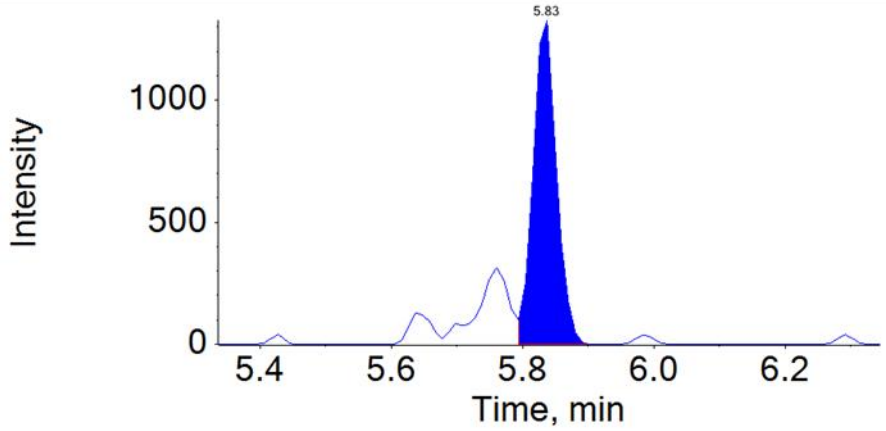
APPROVED
By JPT at 4:33 pm, 11/13/18

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 8265.4 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV13D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NMeFOSAA_2 **RT (min.):** 5.72 **Peak Area:** 1422.6 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV13D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

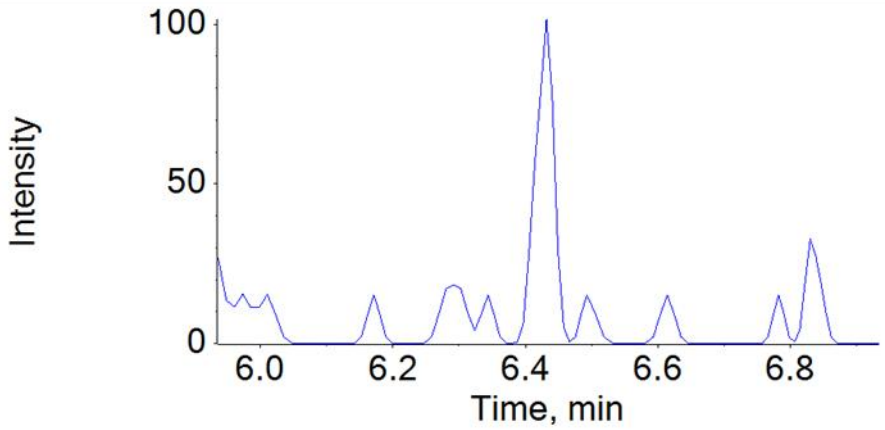
Component Name: NEtFOSAA_2 **RT (min.):** 5.83 **Peak Area:** 3291.8 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV13D-35.wiff **Sample Name:** CCV4_ISC_CAL2	 **Integration Comment:** incorrect integration

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

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 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:
18NOV13D-35.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

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

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

Results Table Name: 18NOV13DCCV1-4
Results Table Date: 11/13/2018 4:25:30 PM

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

Ion Ratio Report

Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV13D-35.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	45706.2	A	N/A	1.0000			
PFBS_2	3.81	1.00	16037.7	A	N/A	0.3509	-4	50	
4:2-FTS	4.12	1.00	10413.5	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	7231.1	A	N/A	0.6944		#NA!	
PFHxA	4.16	1.00	96228.3	A	N/A	1.0000			
PFHxA_2	4.16	1.00	1183.9	A	N/A	0.0123	5	50	
PFPeS	4.17	1.10	22230.8	A	N/A	1.0000			
PFPeS_2	4.18	1.10	11943.1	A	N/A	0.5372	3	50	
PFHpA	4.54	1.00	102421.2	A	N/A	1.0000			
PFHpA_2	4.54	1.00	5606.1	A	N/A	0.0547	-3	50	
PFHxS	4.54	1.00	33058.8	M	N/A	1.0000			
PFHxS_2	4.55	1.00	11347.0	A	N/A	0.3432	13	50	
6:2-FTS	4.90	1.00	9288.1	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	4792.0	A	N/A	0.5159		#NA!	
PFHpS	4.91	1.08	32964.6	A	N/A	1.0000			
PFHpS_2	4.91	1.08	13090.4	A	N/A	0.3971	-2	50	
PFOA	4.91	1.00	100522.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	6112.2	A	N/A	0.0608	7	50	
PFOS	5.24	1.00	33602.8	M	N/A	1.0000			
PFOS_2	5.24	1.00	10043.5	M	N/A	0.2989	16	50	
PFNA	5.26	1.00	77741.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	1184.6	A	N/A	0.0152	-34	50	
PFNS	5.54	1.06	21345.1	A	N/A	1.0000			
PFNS_2	5.54	1.06	9263.0	A	N/A	0.4340	-9	50	
PFDA	5.56	1.00	67467.8	A	N/A	1.0000			
PFDA_2	5.56	1.00	520.0	A	N/A	0.0077	-3	50	
8:2-FTS	5.56	1.00	5464.6	M	N/A	1.0000			
8:2 FTS_2	5.56	1.00	4909.2	A	N/A	0.8984		#NA!	
NMeFOSAA	5.70	1.00	6912.0	M	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	2101.5	M	N/A	0.3040	43	50	
PFDS	5.79	1.11	15131.2	A	N/A	1.0000			
PFDS_2	5.79	1.11	5584.3	A	N/A	0.3691	-27	50	
PFUnDA	5.82	1.00	62038.1	A	N/A	1.0000			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	5.84	1.00	7265.9	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	4347.4	M	N/A	0.5983	3	50	
PFDoDA	6.05	1.00	68920.5	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	437.0	A	N/A	0.0063	-61	50	OOS
10:2-FTS	6.06	1.09	3993.2	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	3262.3	A	N/A	0.8170		#NA!	
PFTrDA	6.25	1.03	52009.4	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	687.4	A	N/A	0.0132	43	50	
PFTeDA	6.42	1.00	40149.8	A	N/A	1.0000			
PFTeDA_2	6.43	1.00	200.5	M	N/A	0.0050	-22	50	
PFHxDA	6.73	1.05	19788.9	A	N/A	1.0000			
PFHxDA_2	6.74	1.05	1120.2	A	N/A	0.0566	-16	50	
PFODA	6.99	1.09	16708.0	A	N/A	1.0000			
PFODA_2	6.99	1.09	461.4	A	N/A	0.0276	2	50	

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

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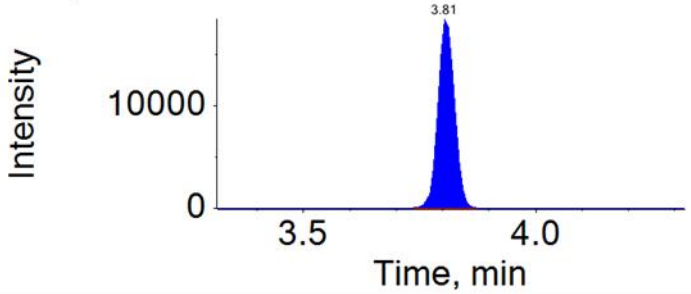
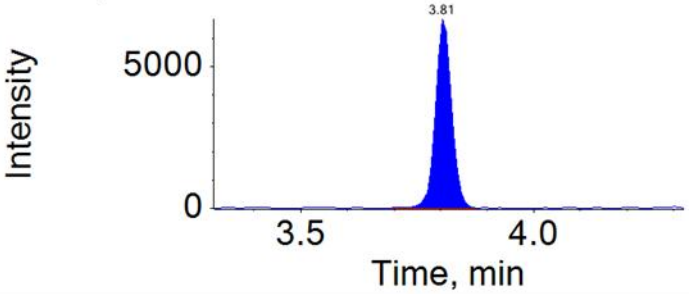
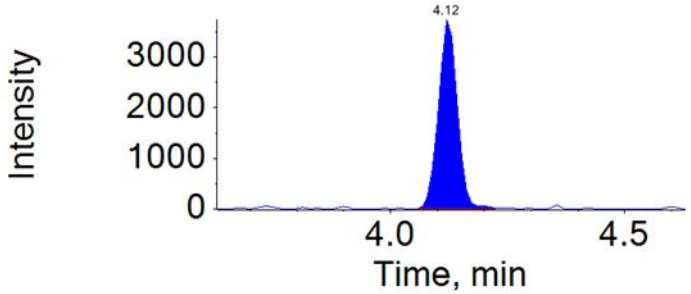
Component: PFBS
Primary Mass: 299.0 / 80.0



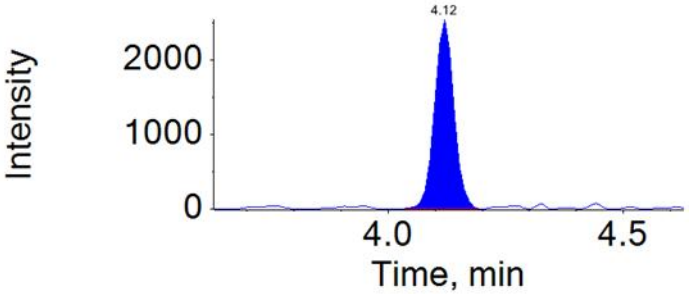
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



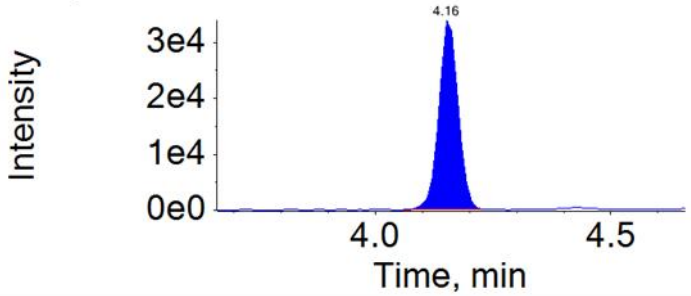
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



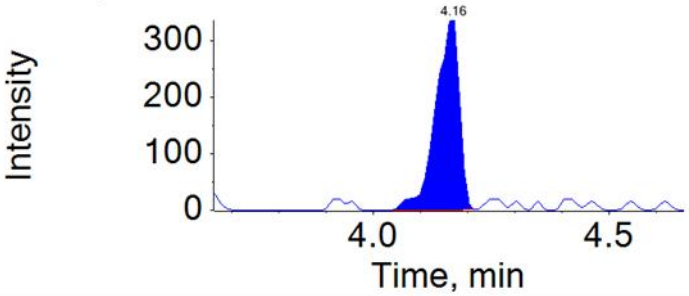
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



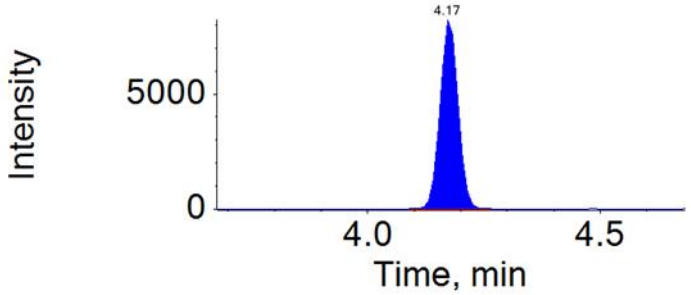
Component: PFHxA
Primary Mass: 313.0 / 269.0



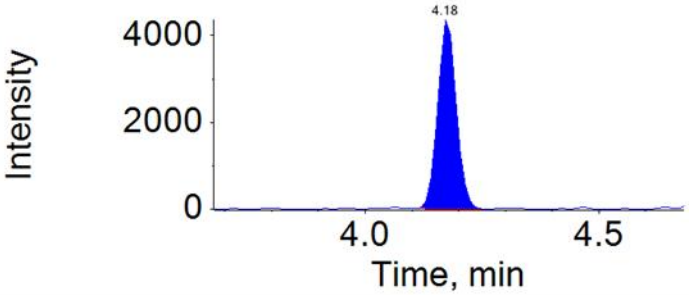
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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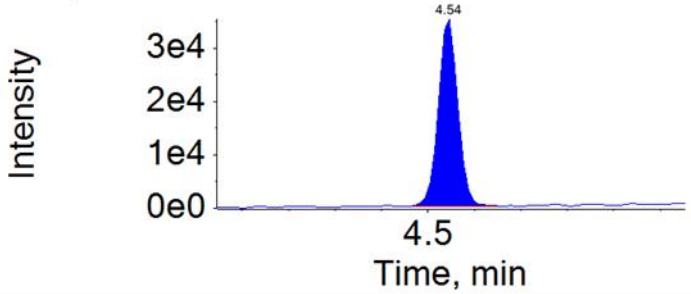
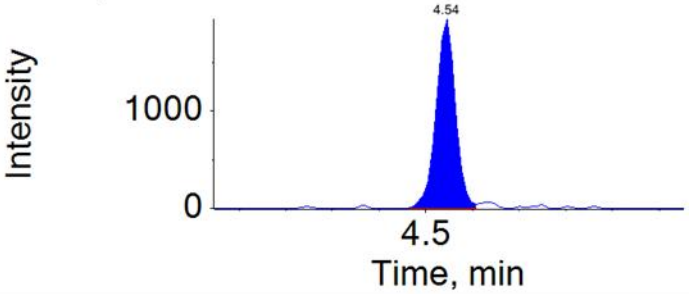
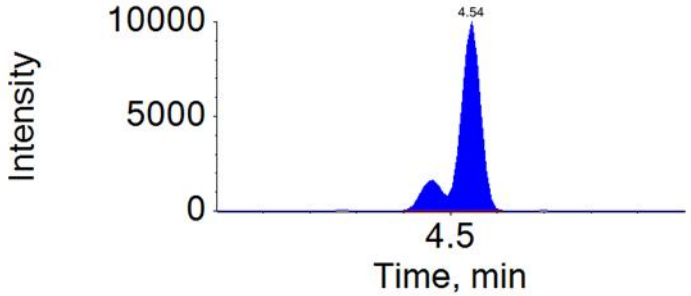
Component: PFHpA
Primary Mass: 363.0 / 319.0



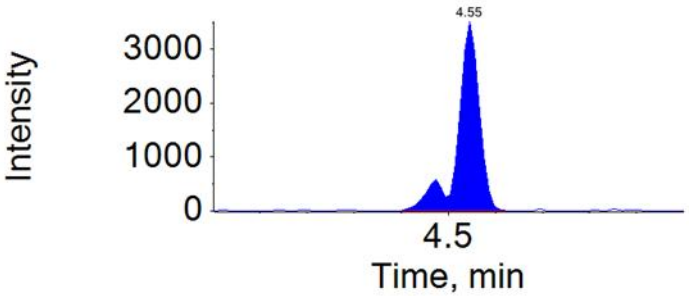
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



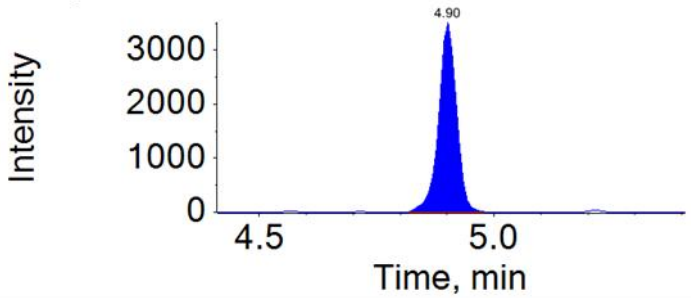
Component: PFHxS
Primary Mass: 399.0 / 80.0



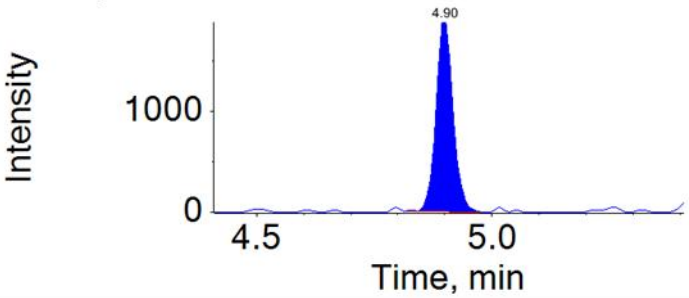
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



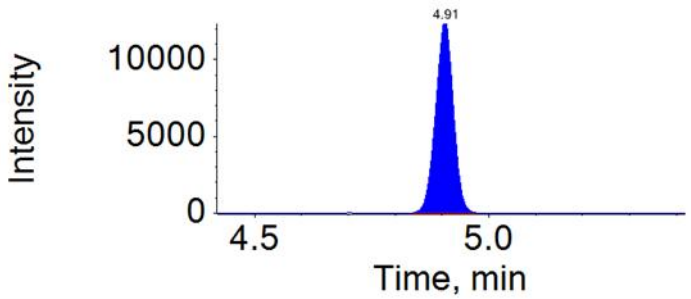
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



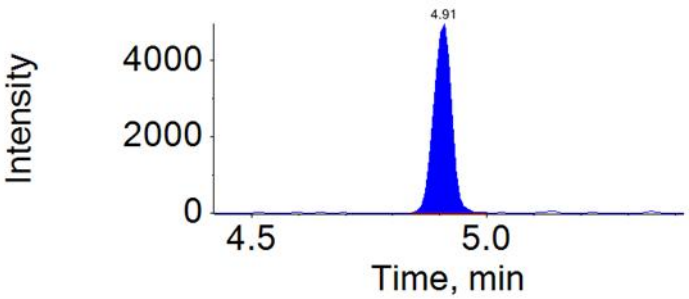
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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

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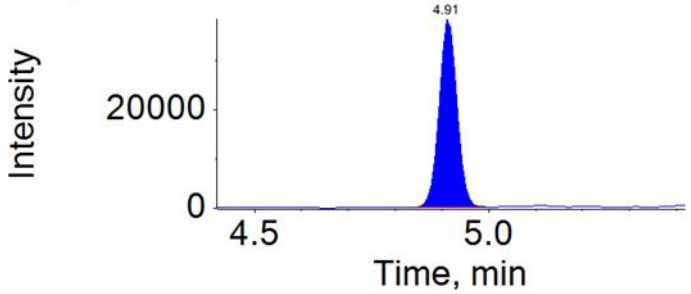
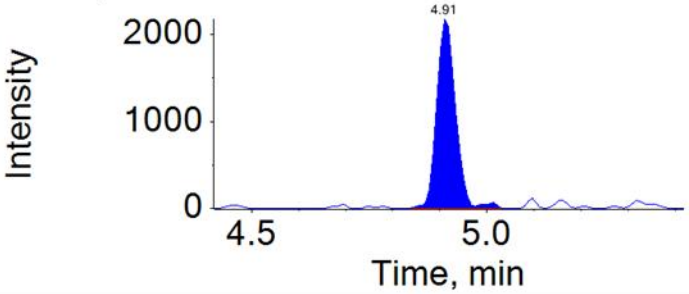
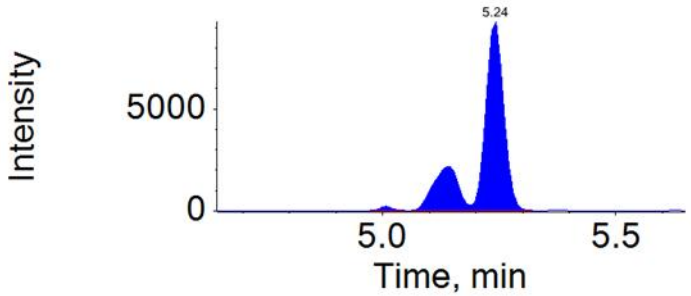
Component: PFOA
Primary Mass: 413.0 / 369.0



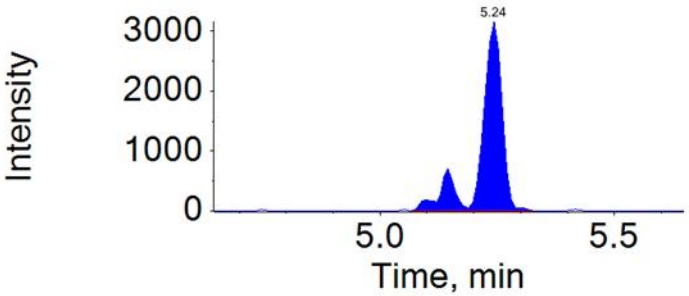
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



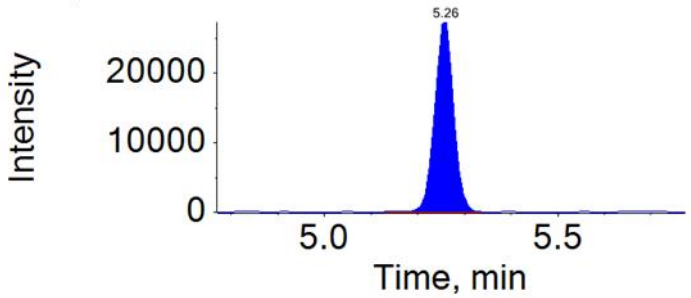
Component: PFOS
Primary Mass: 499.0 / 80.0



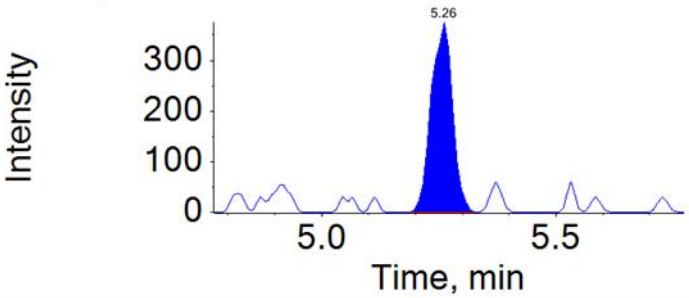
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



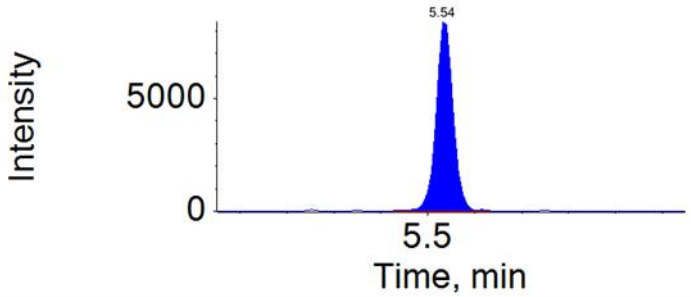
Component: PFNA
Primary Mass: 463.0 / 419.0



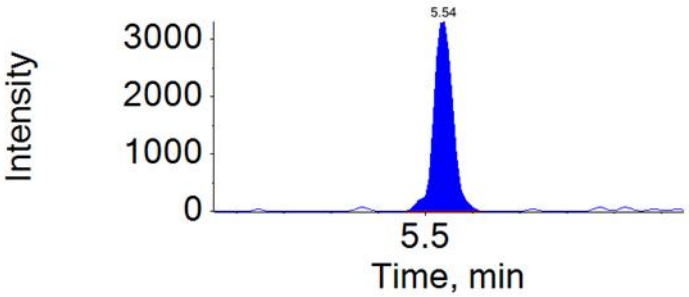
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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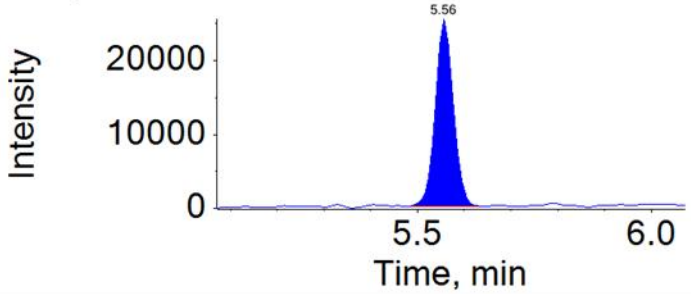
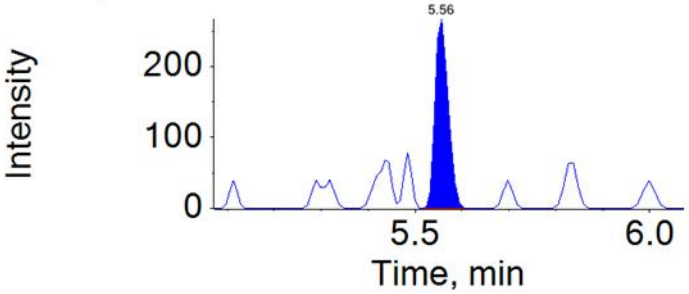
REVIEWED
By umar at 5:40 pm, 11/13/18

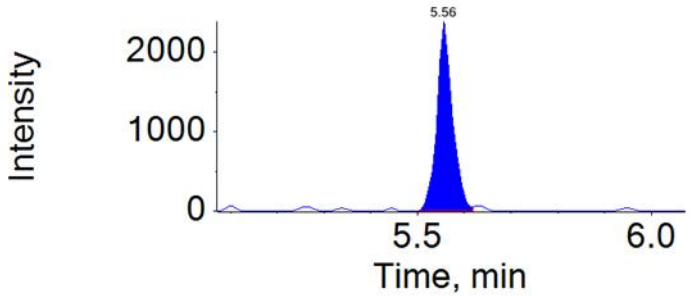
Component: PFDA
Primary Mass: 513.0 / 469.0



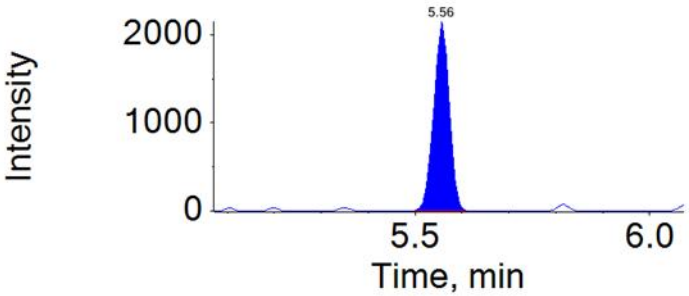
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



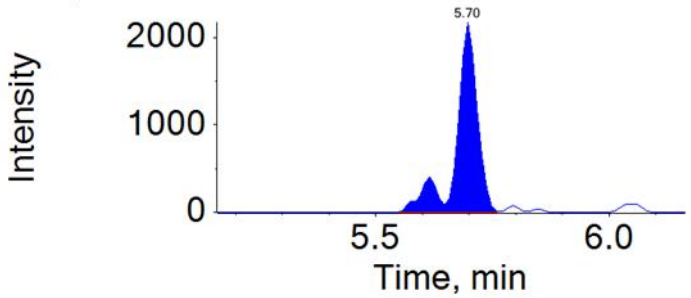
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



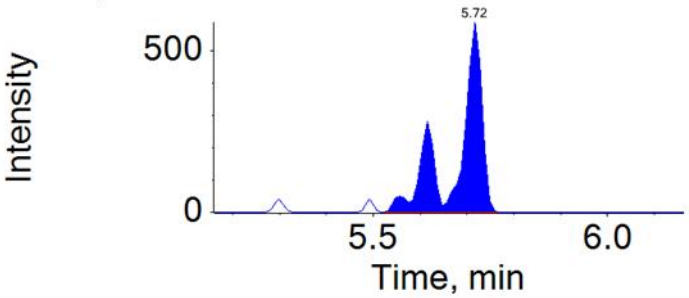
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



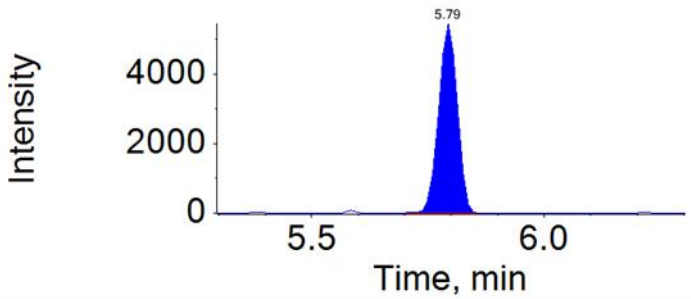
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



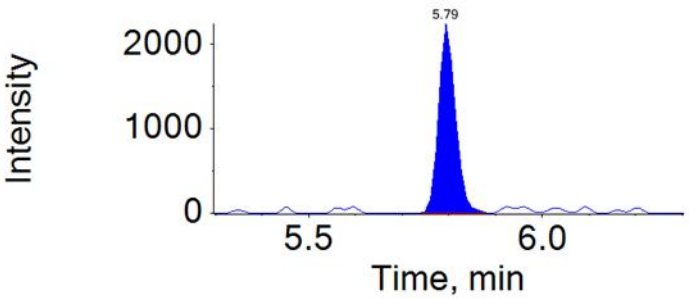
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



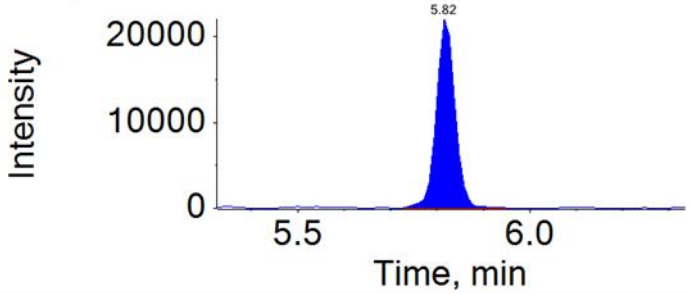
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



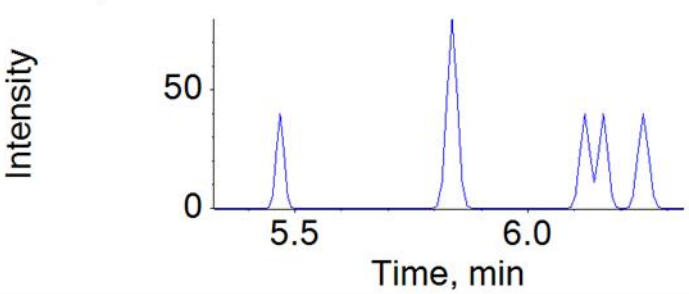
APPROVED
By JPT at 4:33 pm, 11/13/18

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

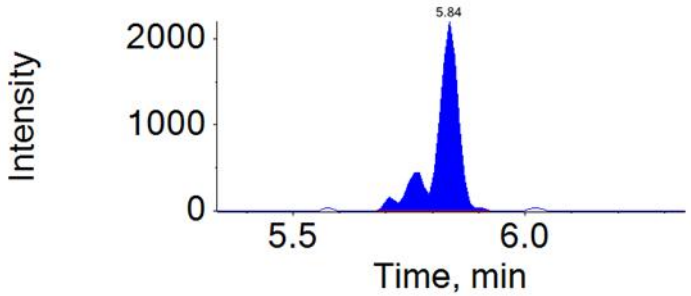
Component: PFUnDA
Primary Mass: 563.0 / 519.0



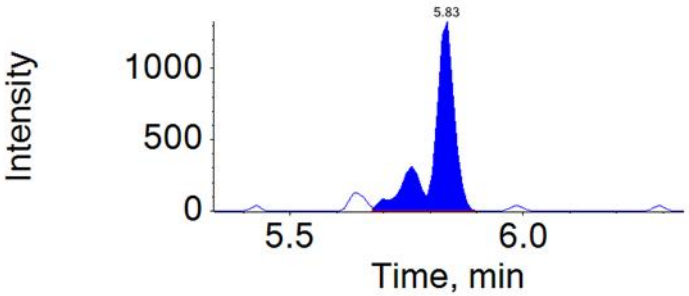
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



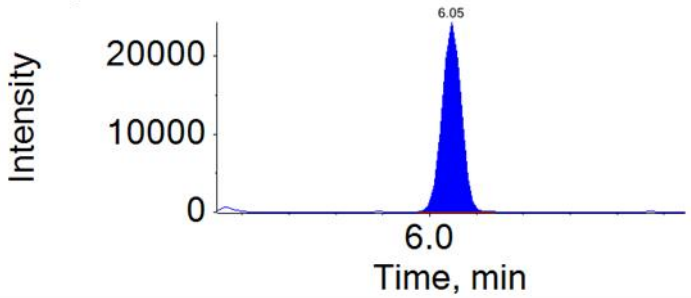
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



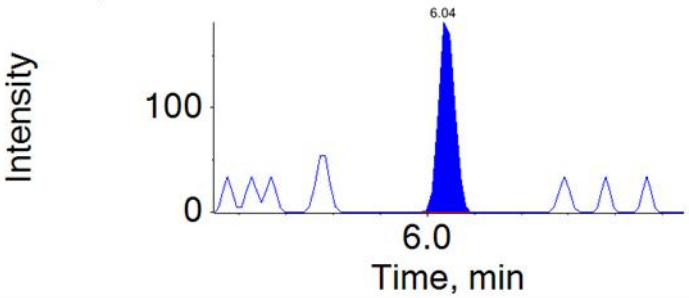
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



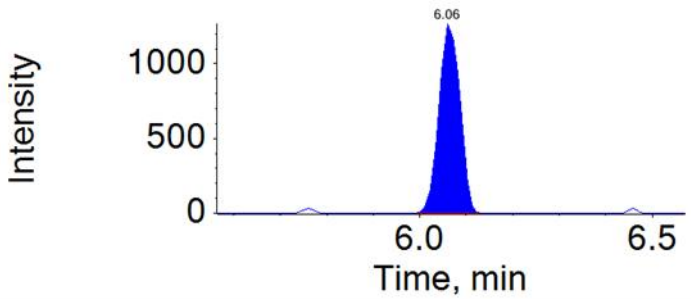
Component: PFDoDA
Primary Mass: 613.0 / 569.0



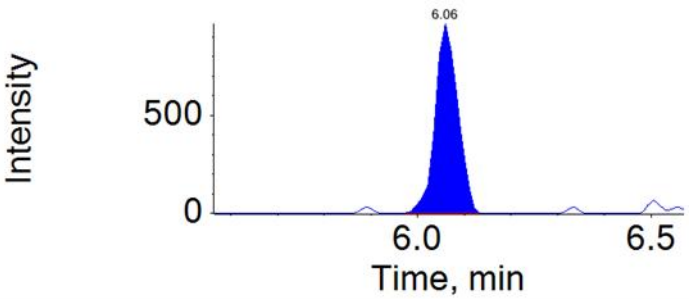
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



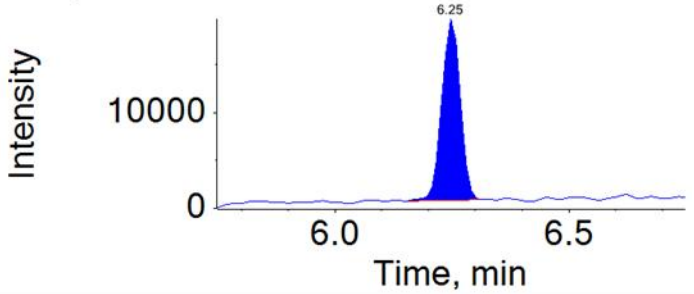
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



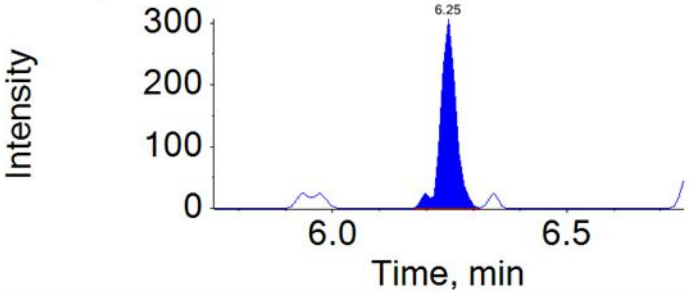
APPROVED
By JPT at 4:33 pm, 11/13/18

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

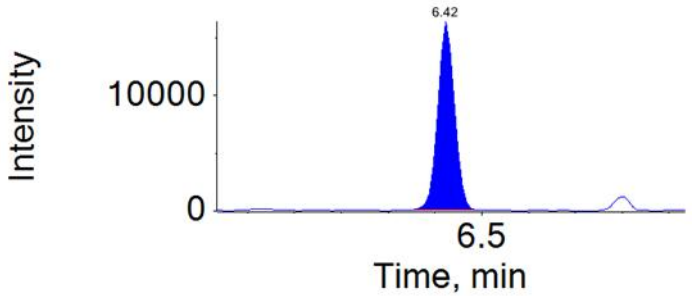
Component: PFTrDA
Primary Mass: 663.0 / 619.0



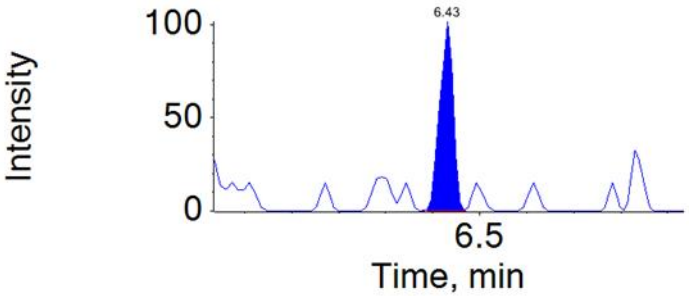
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



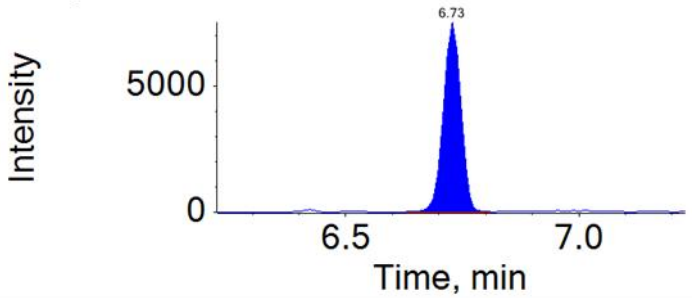
Component: PFTeDA
Primary Mass: 713.0 / 669.0



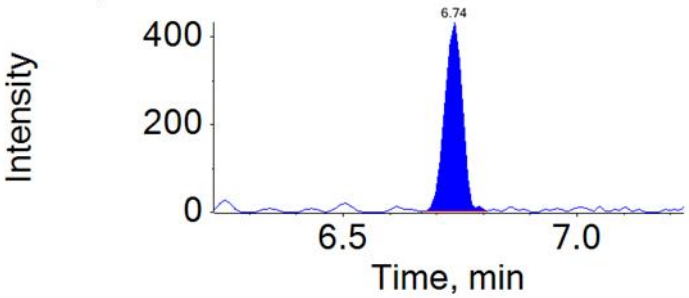
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



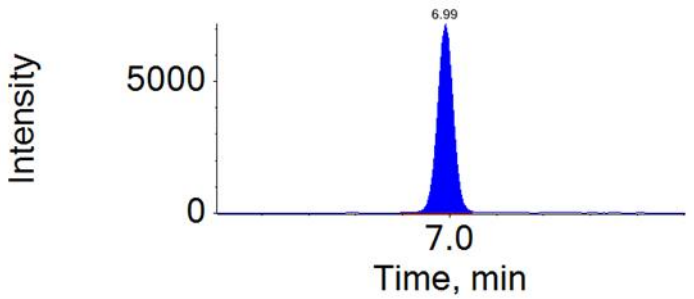
Component: PFHxDA
Primary Mass: 813.0 / 769.0



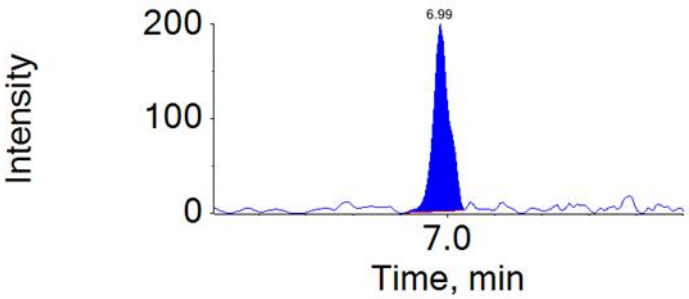
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



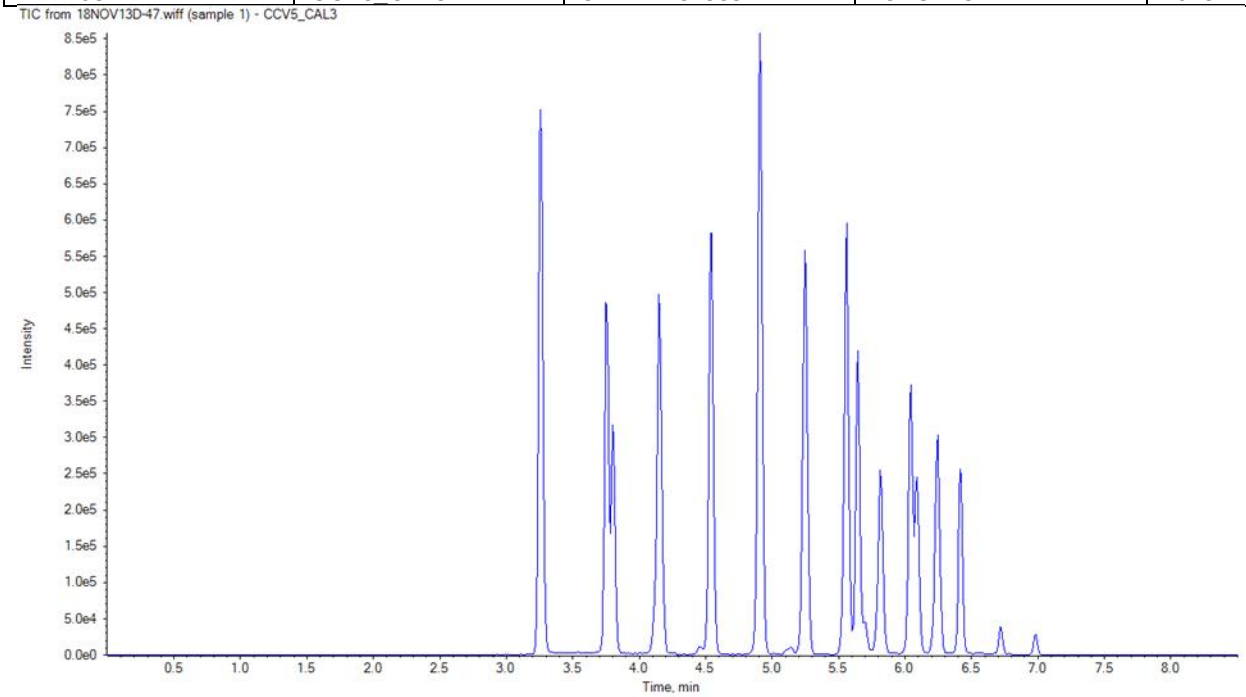
APPROVED
By JPT at 4:33 pm, 11/13/18

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
QMethod Name: 18AUG20QM
Result Table: 18NOV13DCCV5 11/13/2018 4:55:52 PM
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

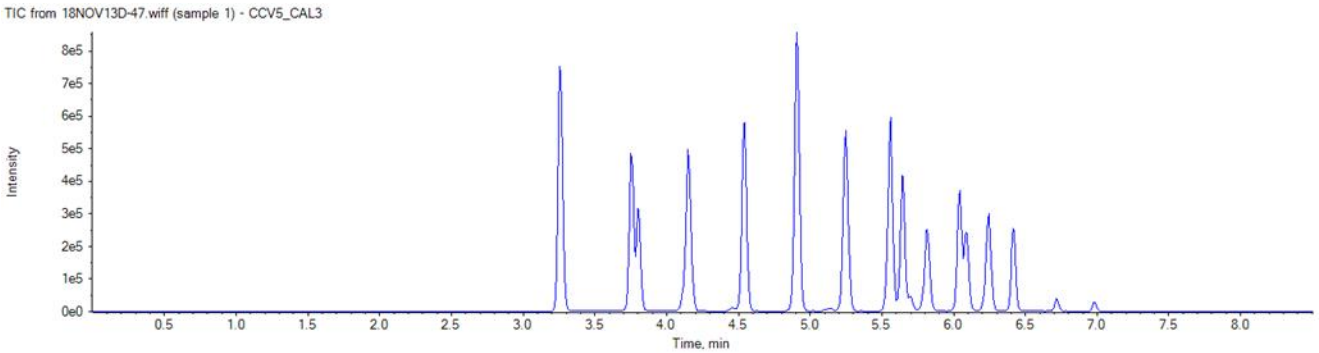
Analyte Quantitation Peak Table

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

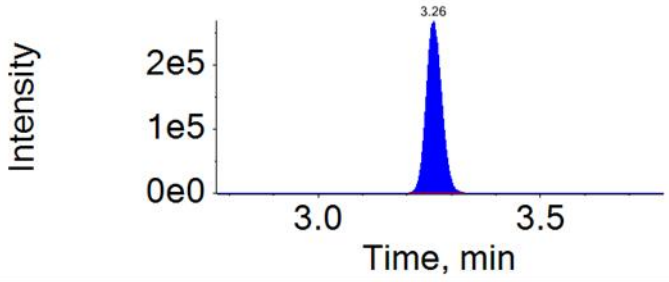


APPROVED
By JPT at 5:00 pm, 11/13/18

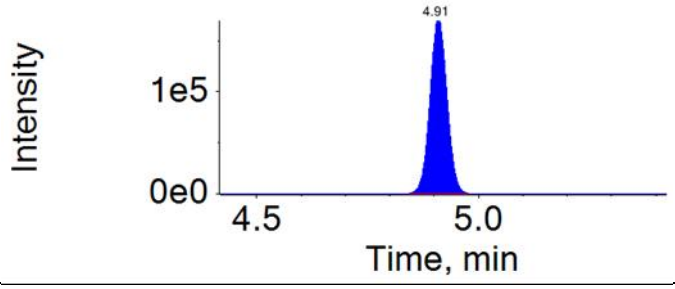
REVIEWED
By umar at 5:42 pm, 11/13/18

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

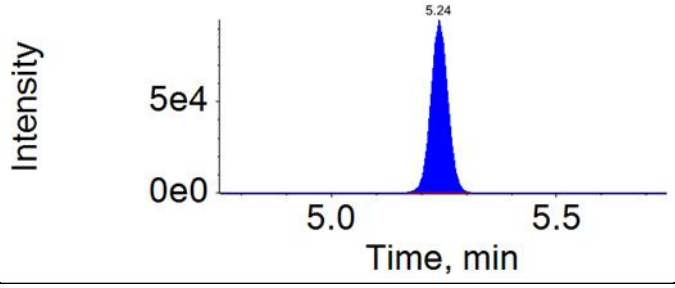
Injection Standard: 13C3-PFBA
216.0 / 172.0



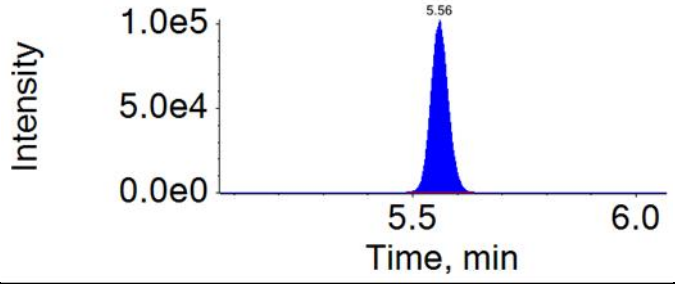
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

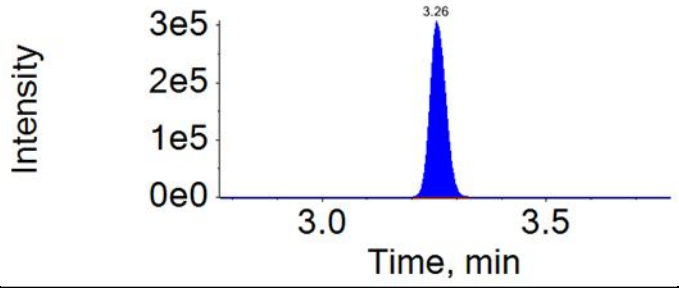


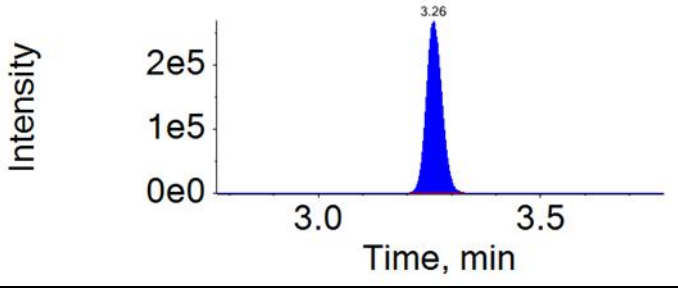
APPROVED
By JPT at 5:00 pm, 11/13/18

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

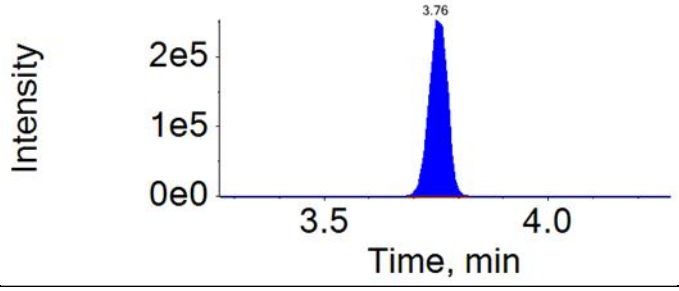
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

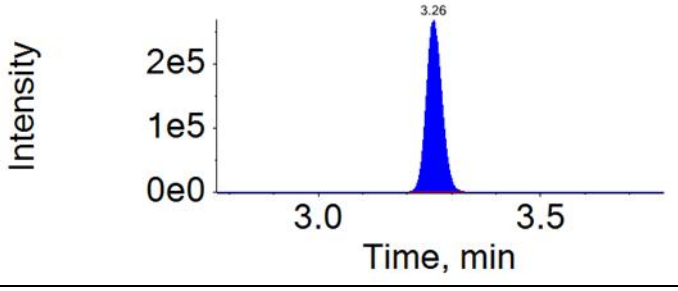
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



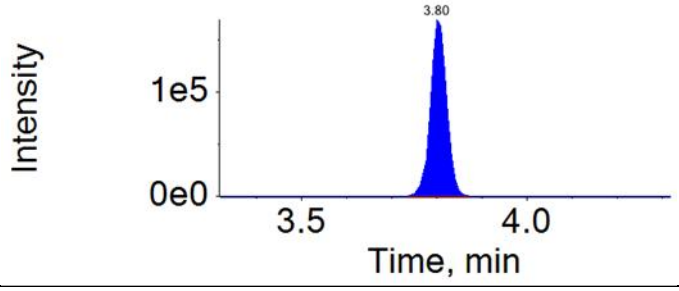


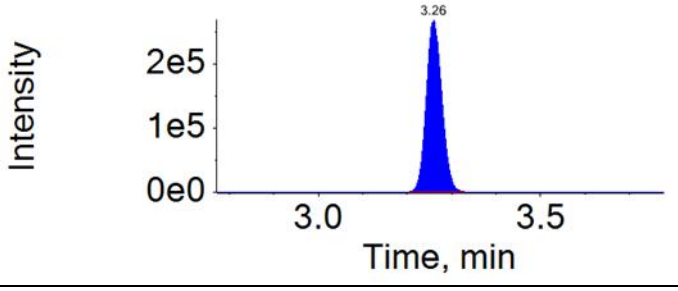
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



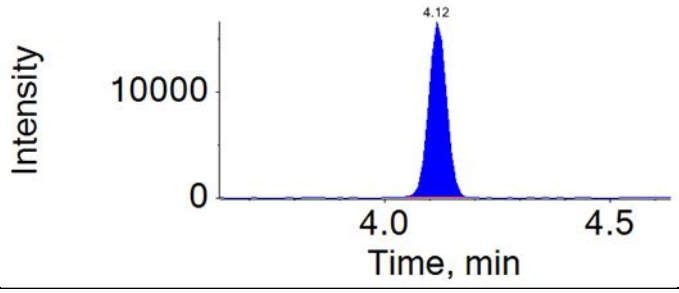


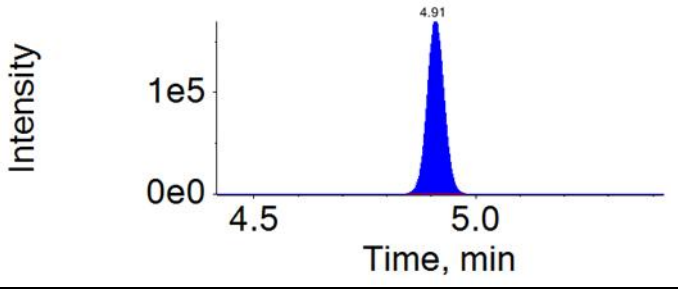
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





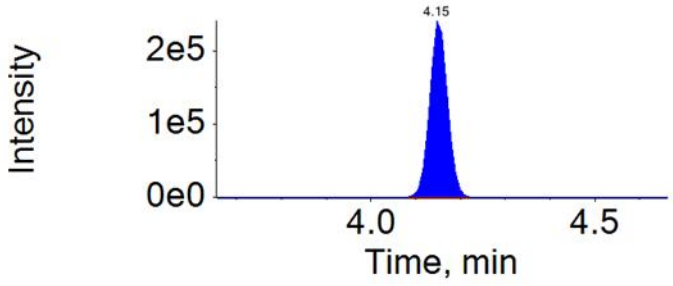
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

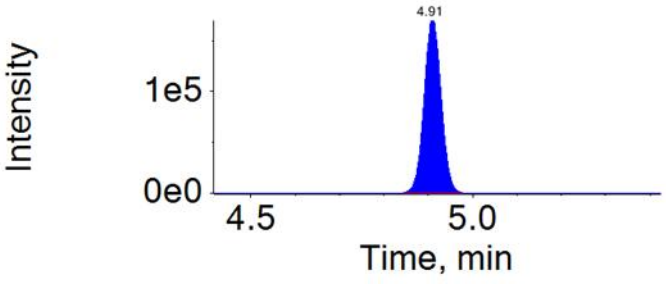




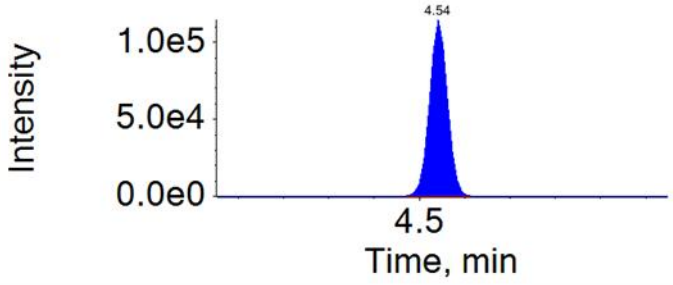
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

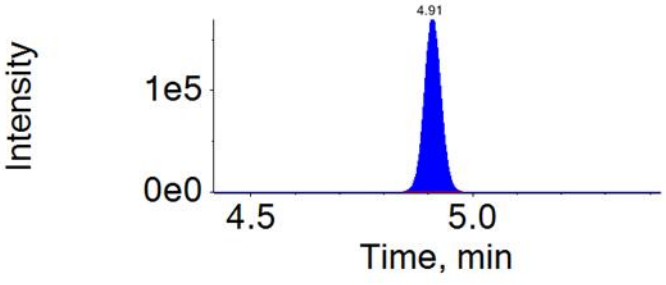
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



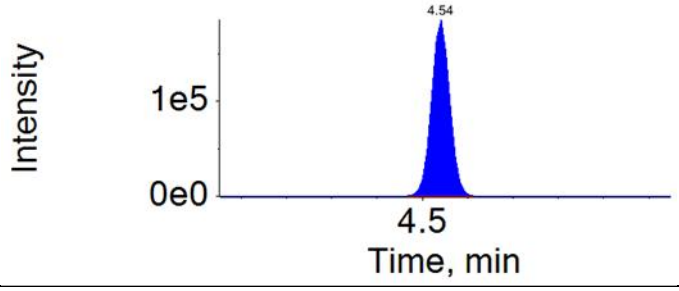


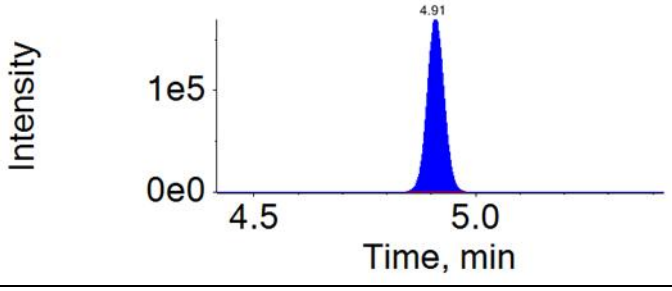
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



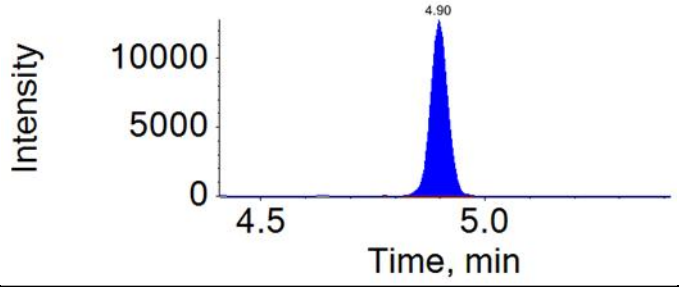


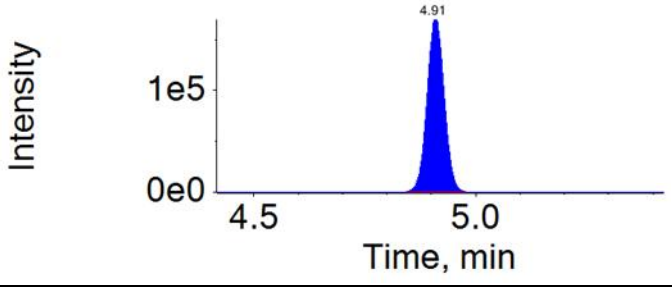
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



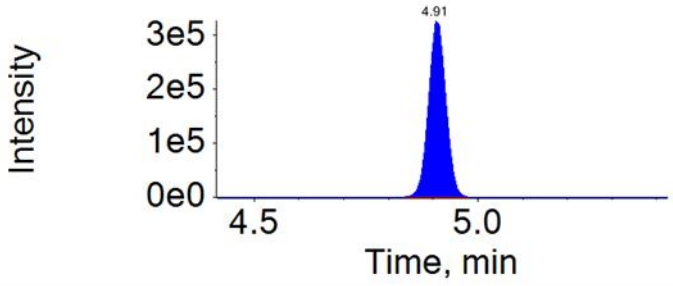


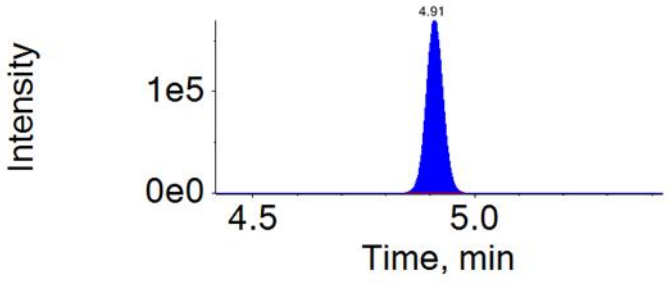
APPROVED
By JPT at 5:00 pm, 11/13/18

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

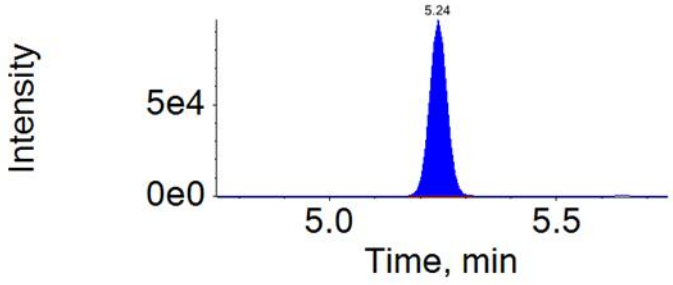
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

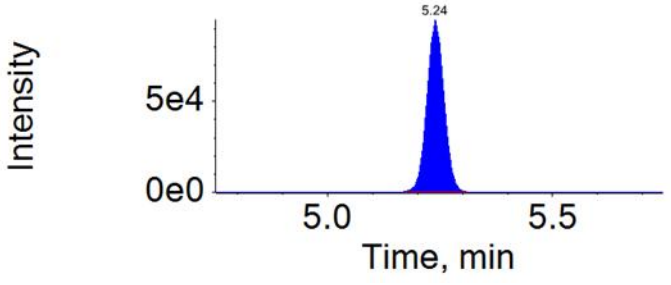
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



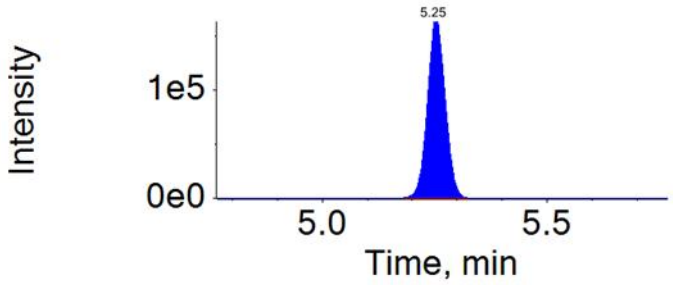


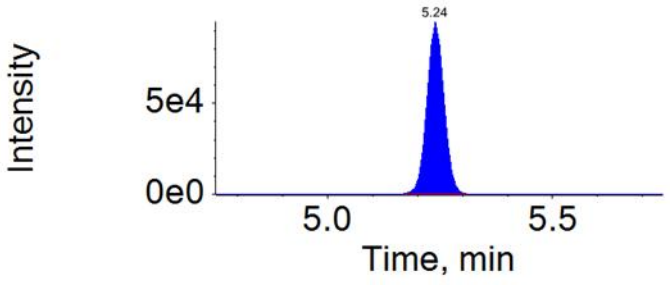
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



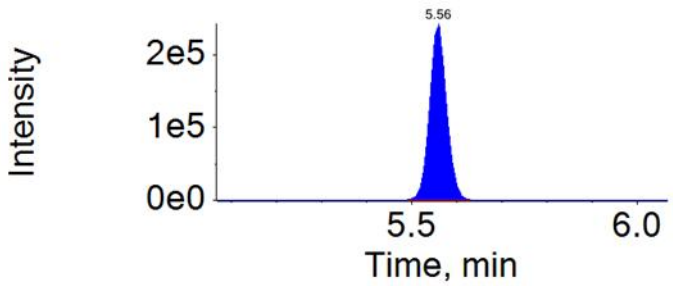


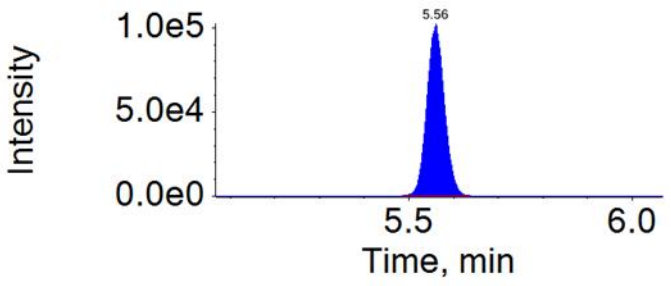
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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



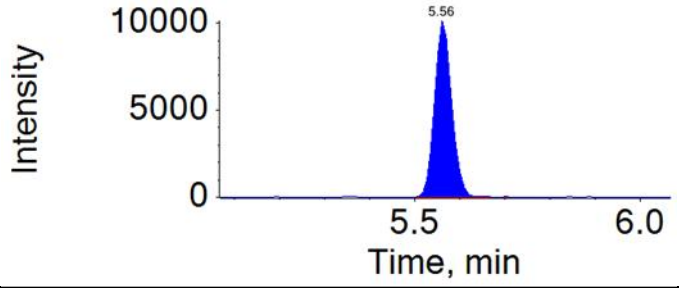


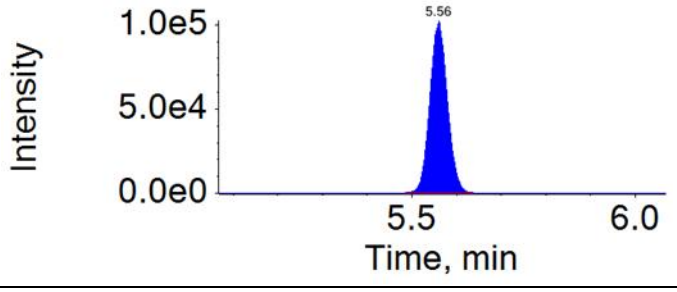
APPROVED
By JPT at 5:00 pm, 11/13/18

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

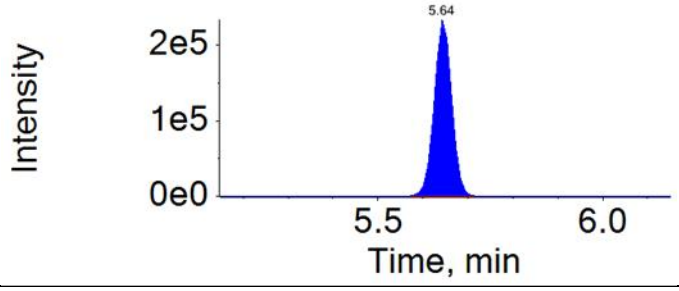
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

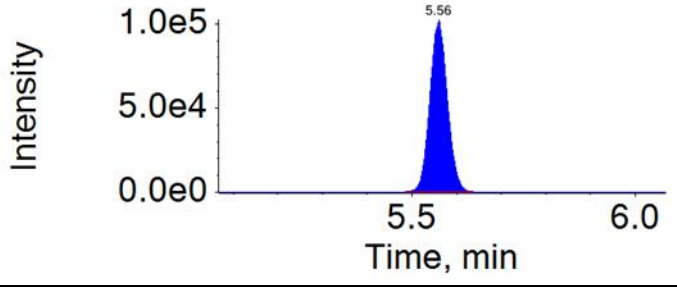
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



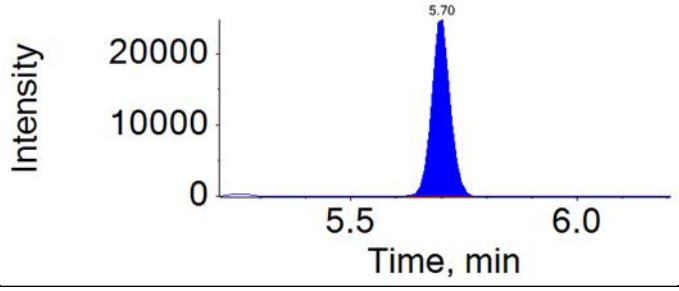


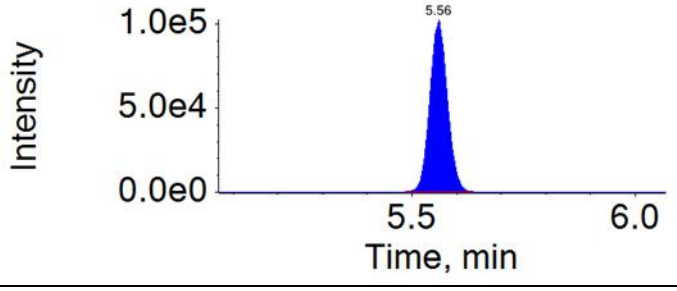
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



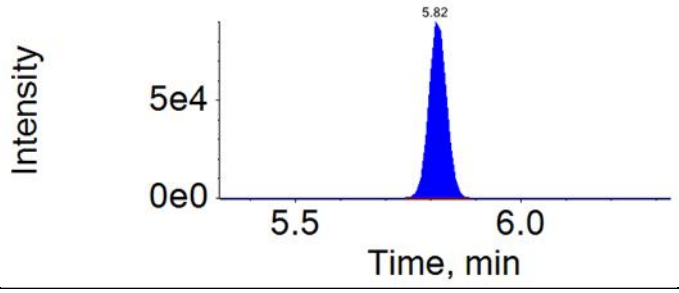


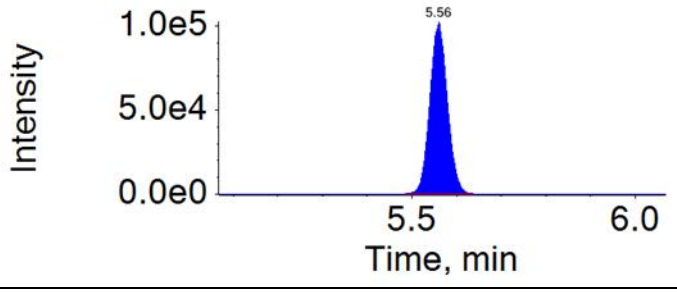
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





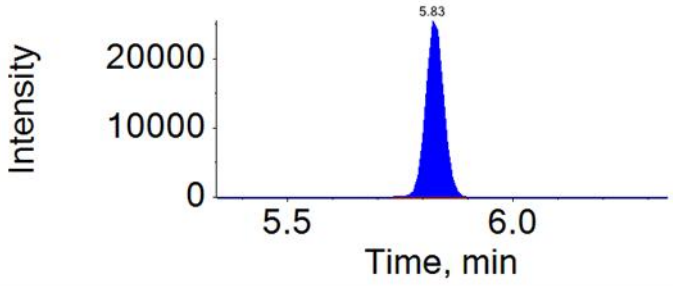
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

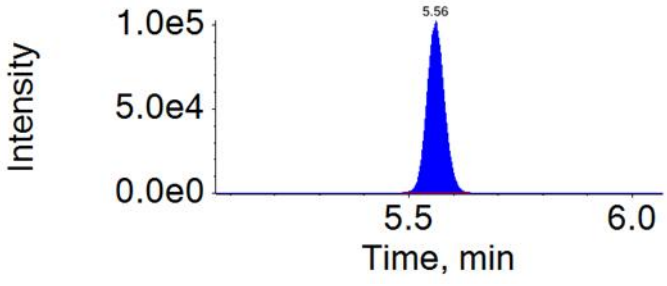




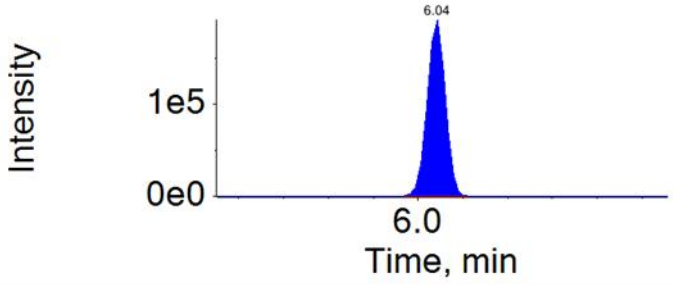
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

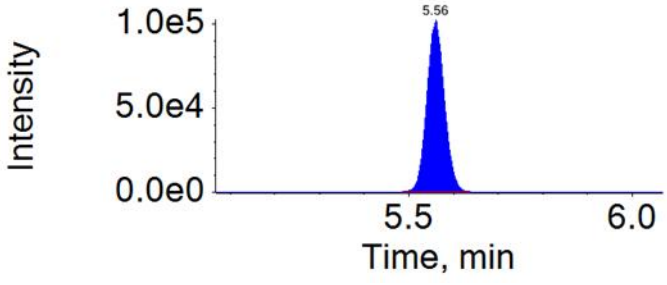
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



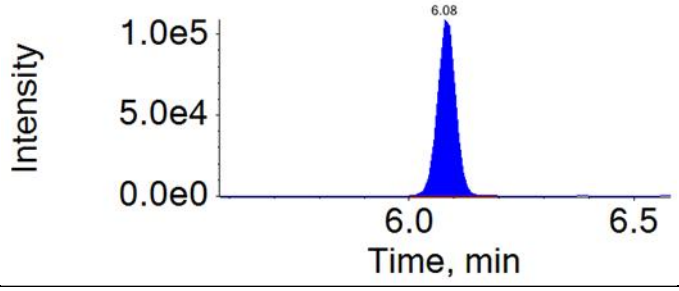


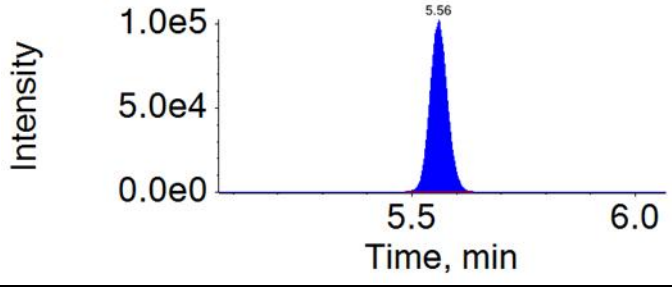
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



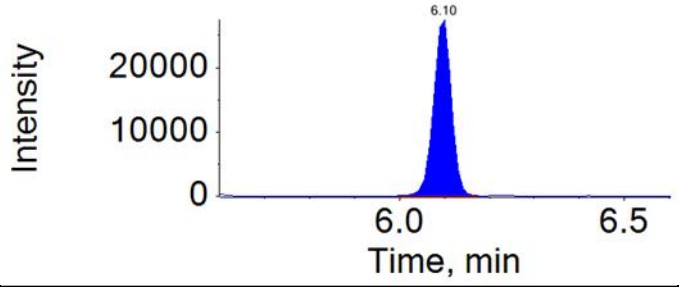


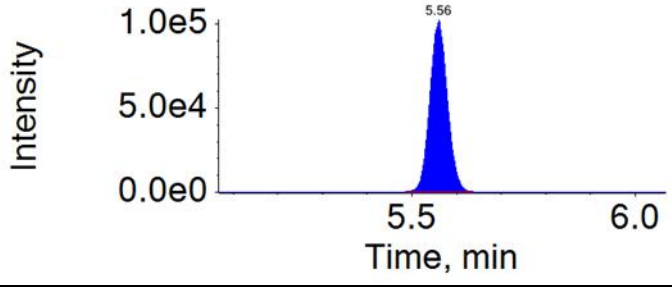
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



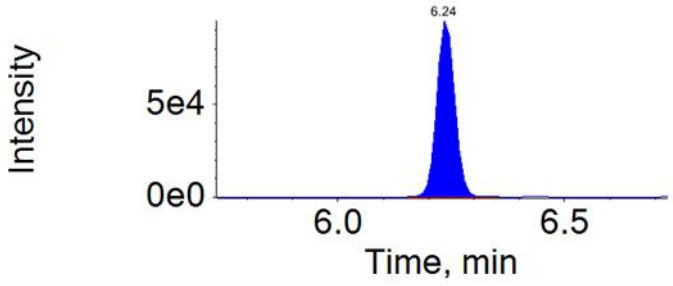


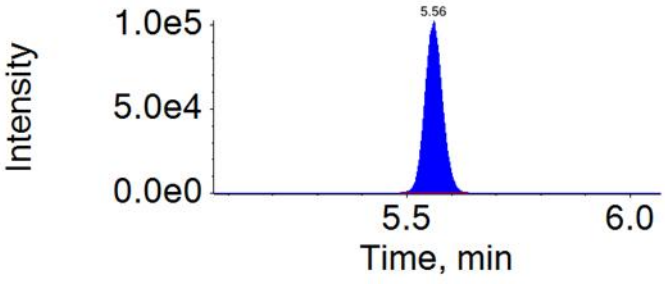
APPROVED
By JPT at 5:00 pm, 11/13/18

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

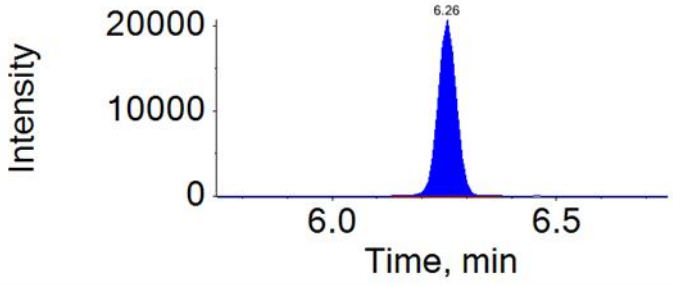
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

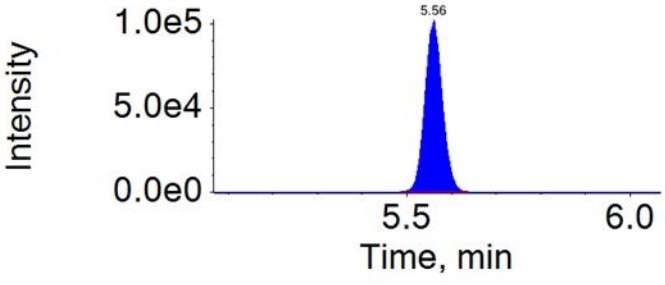
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



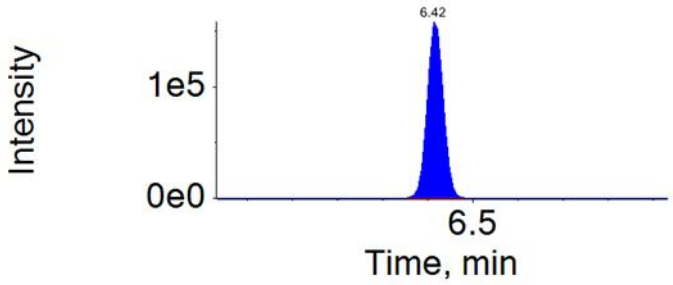


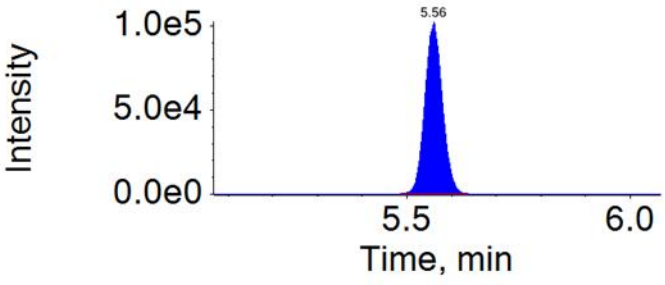
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



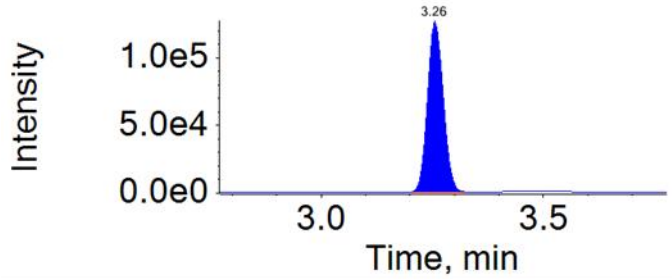


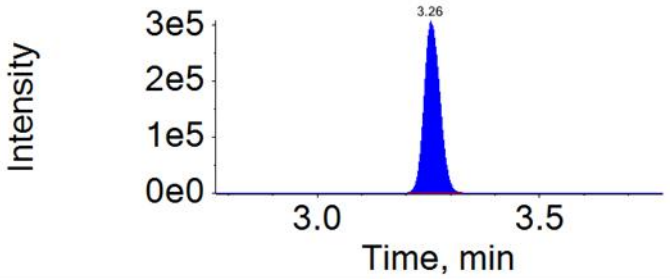
APPROVED
By JPT at 5:00 pm, 11/13/18

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

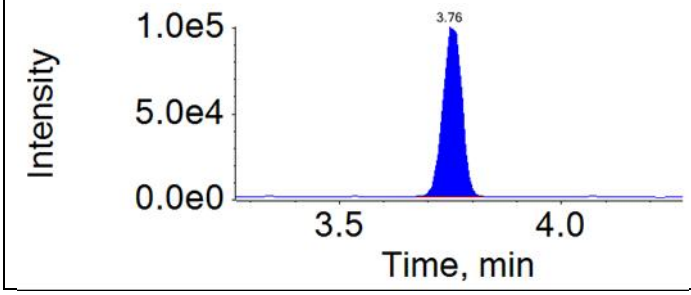
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

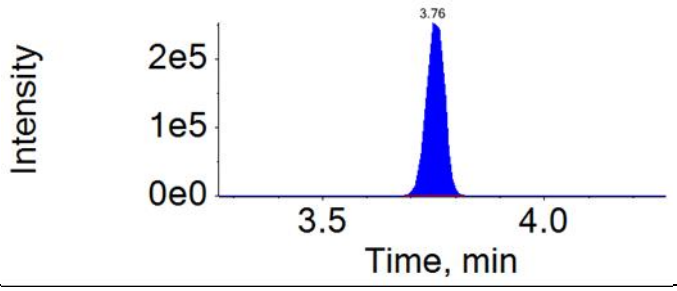
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



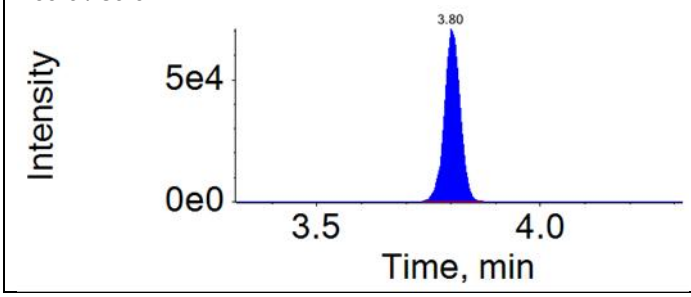


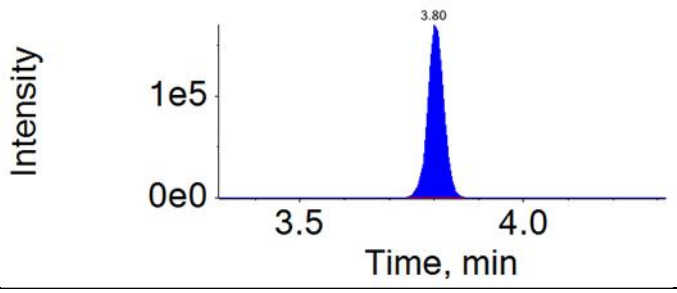
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



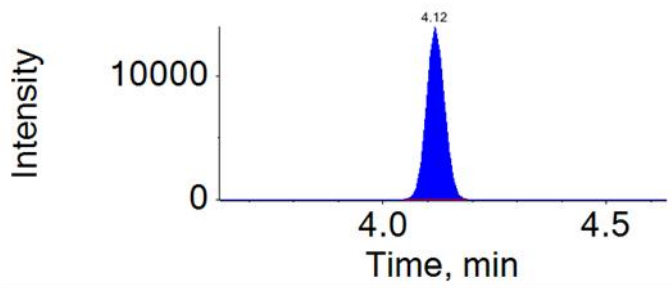


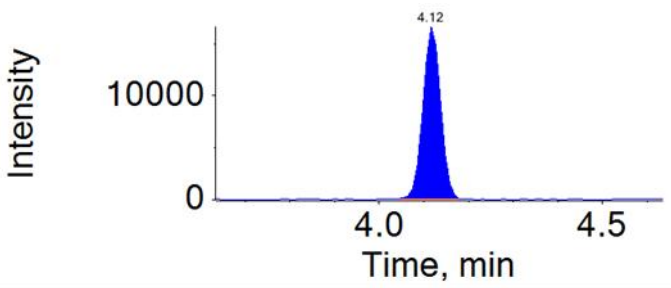
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



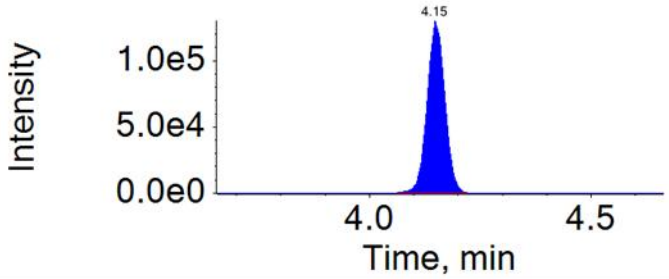


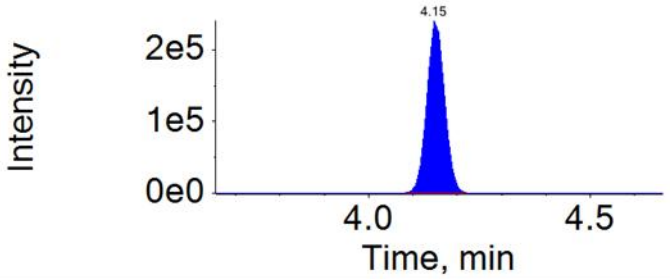
APPROVED
By JPT at 5:00 pm, 11/13/18

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

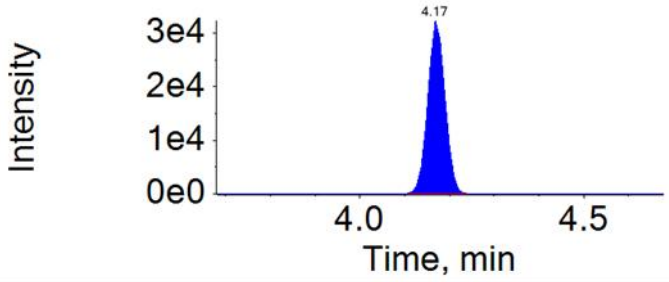
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

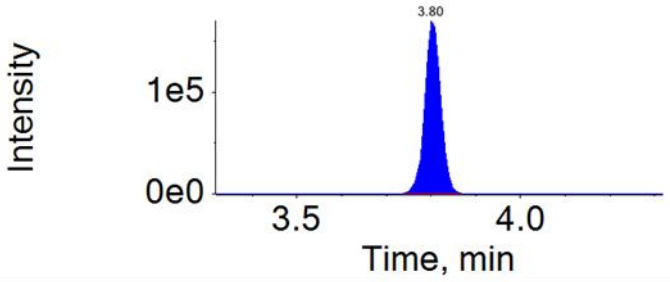
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



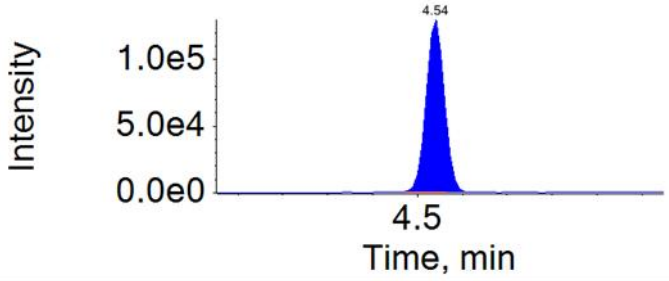


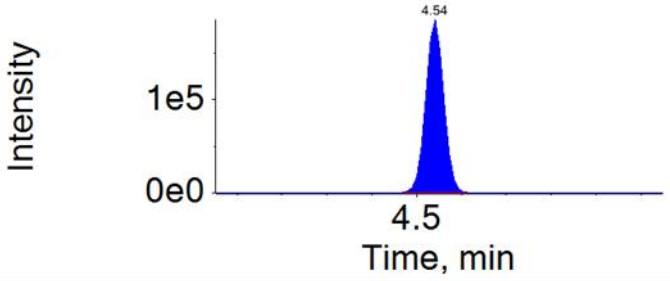
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



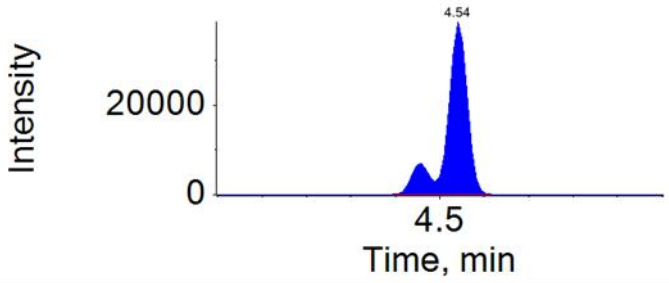


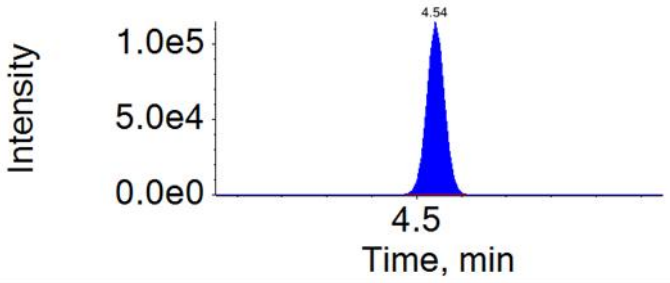
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

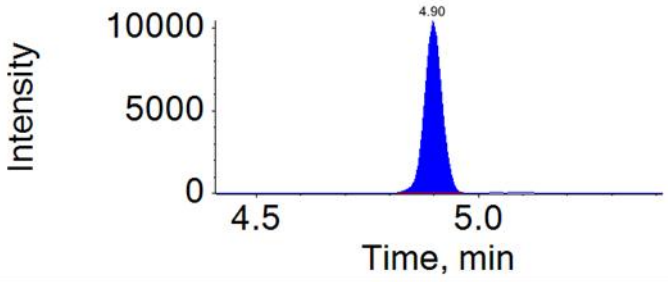
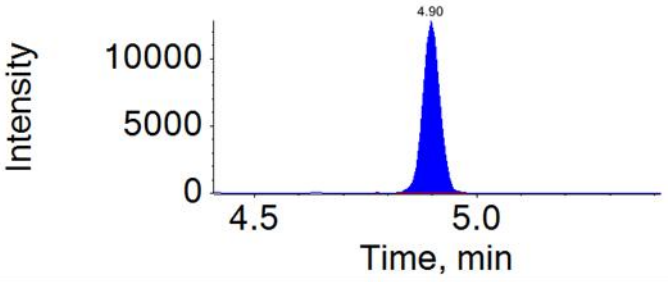


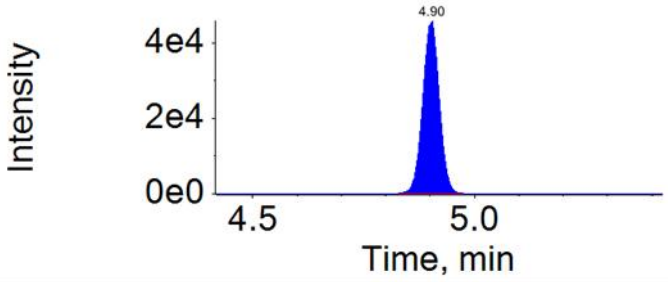
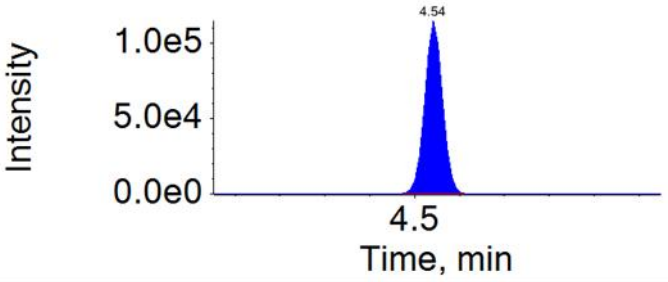


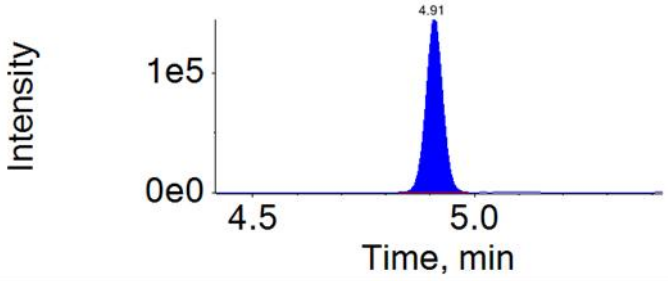
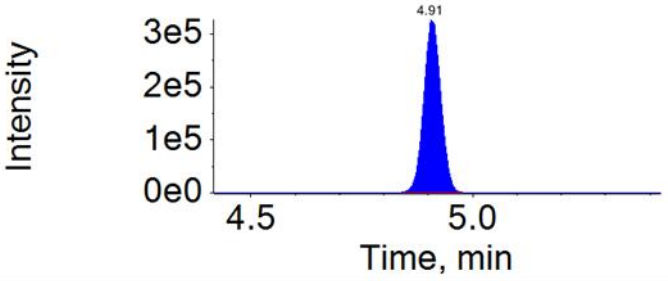
APPROVED
By JPT at 5:00 pm, 11/13/18

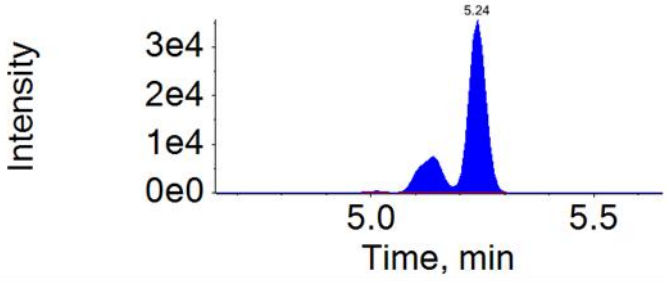
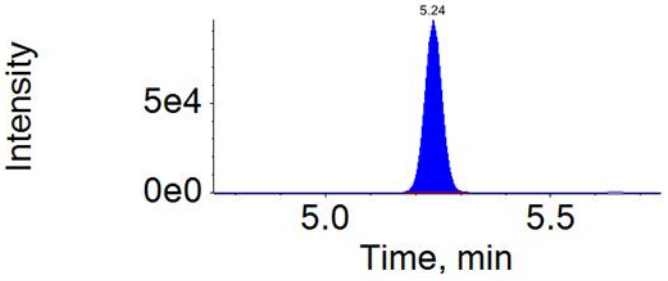
REVIEWED
By umar at 5:42 pm, 11/13/18

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
	

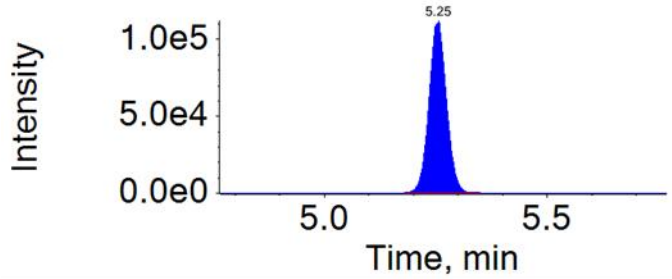
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

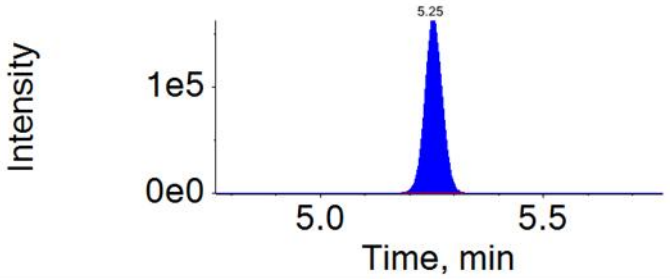
APPROVED
By JPT at 5:00 pm, 11/13/18

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

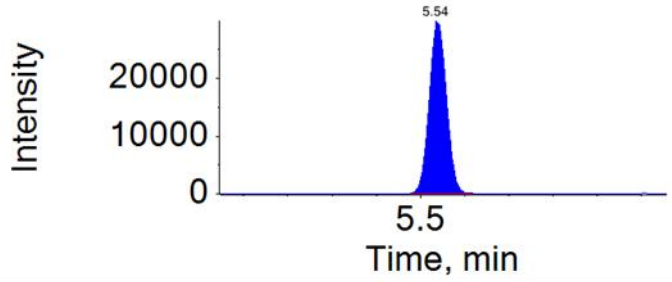
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

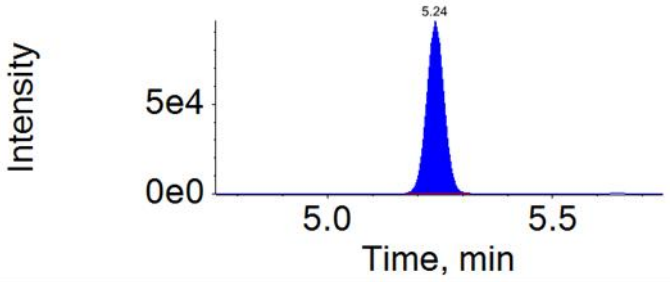
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



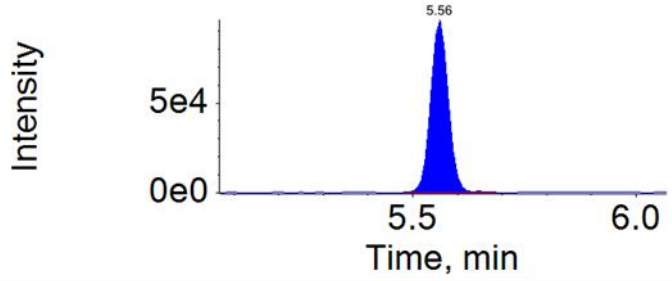


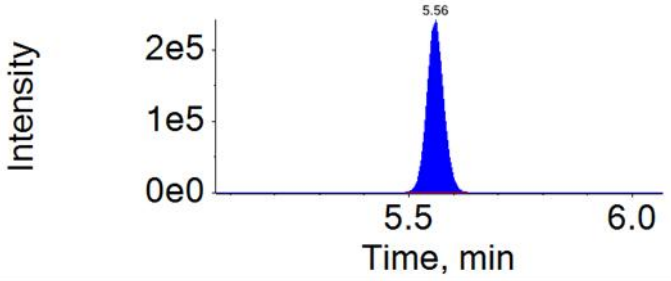
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



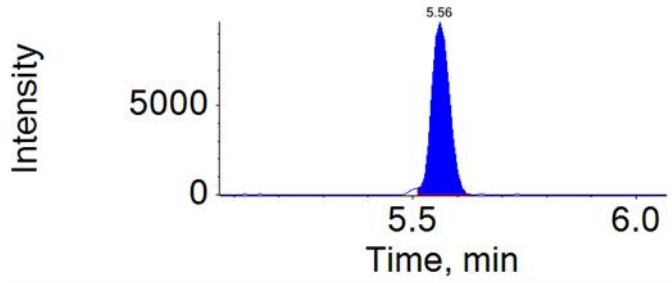


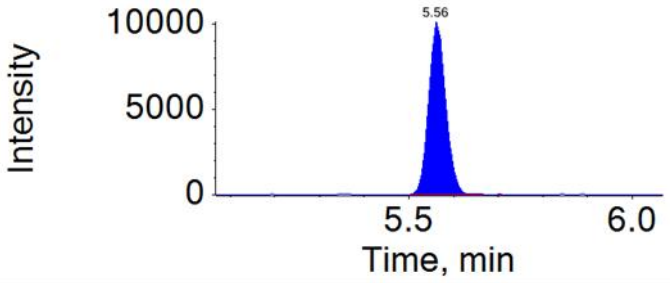
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



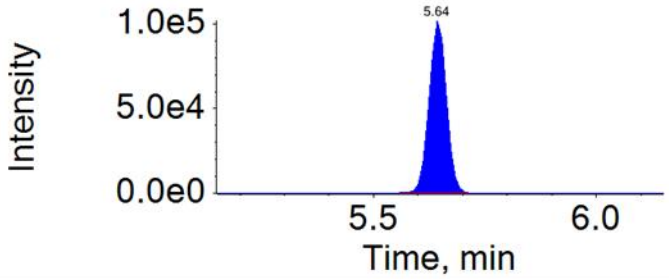


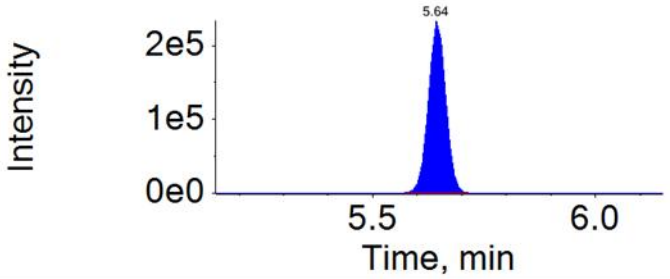
APPROVED
By JPT at 5:00 pm, 11/13/18

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

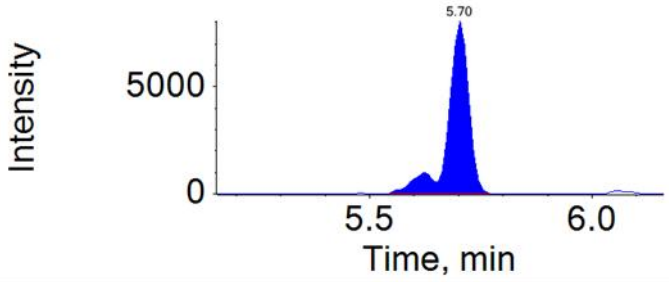
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

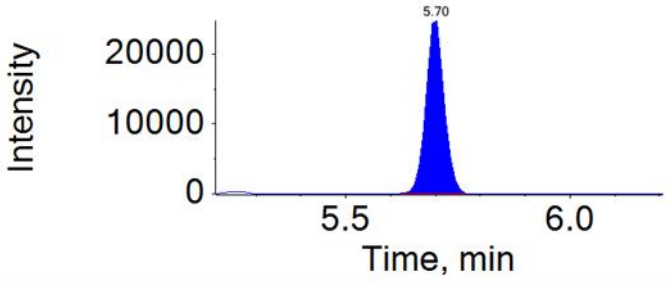
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



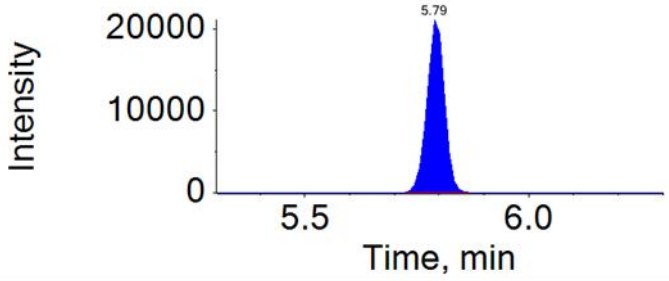


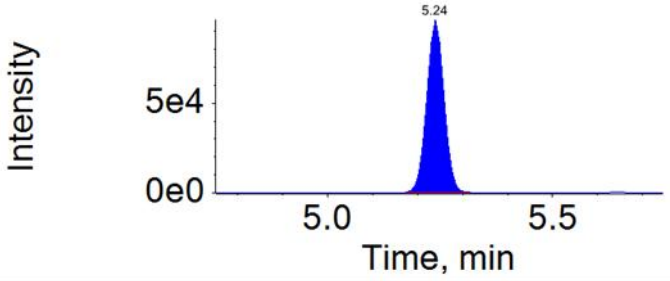
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



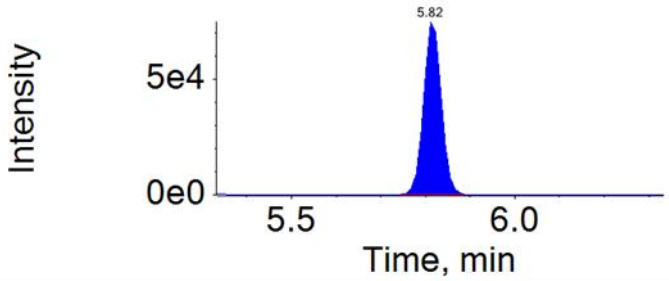


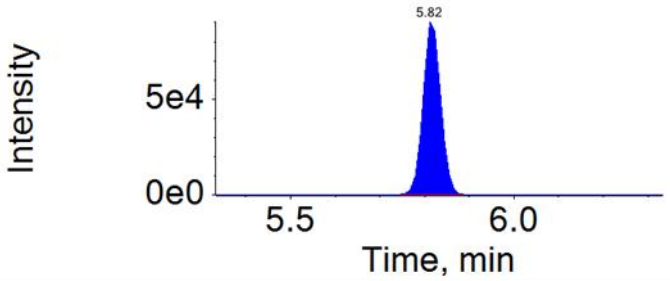
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



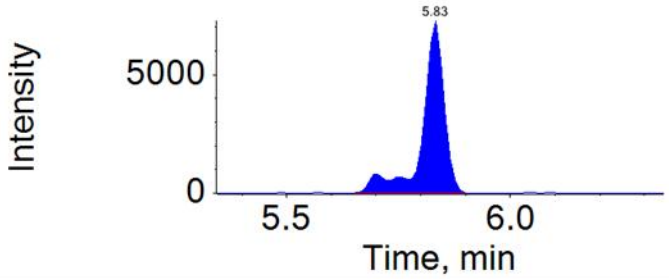


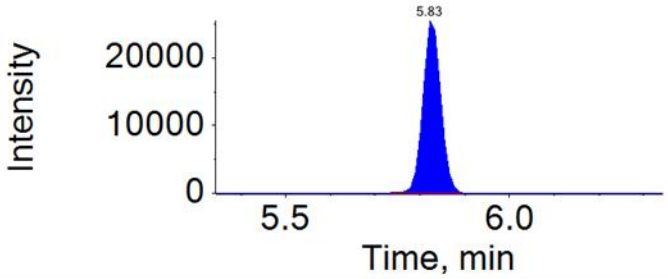
APPROVED
By JPT at 5:00 pm, 11/13/18

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

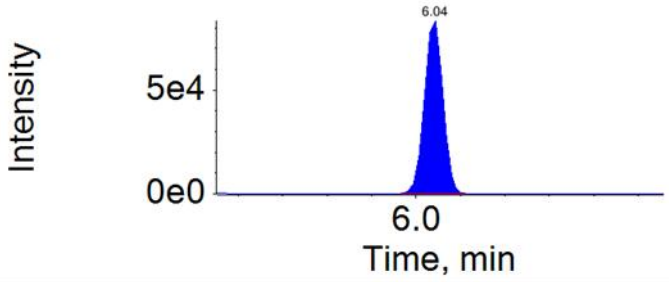
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

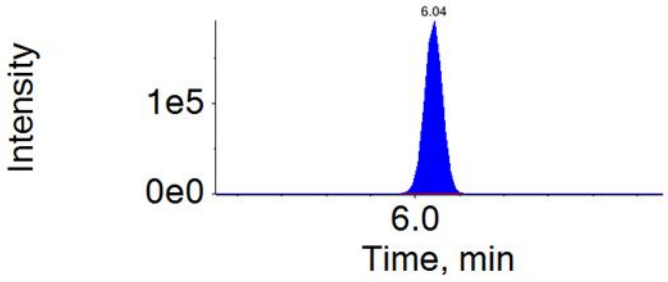
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



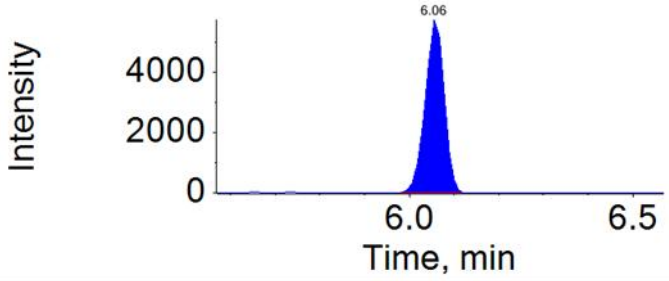


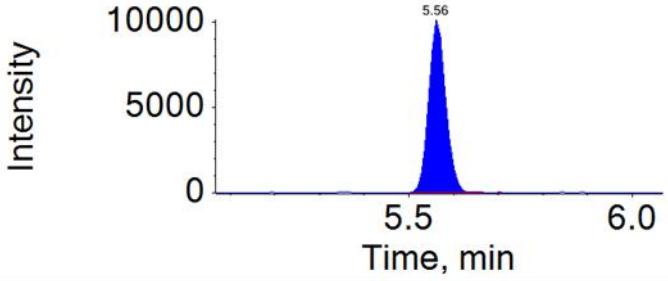
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



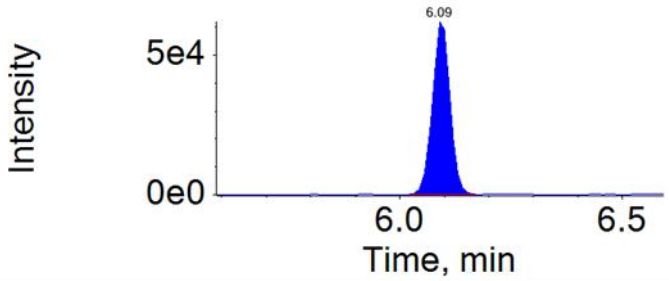


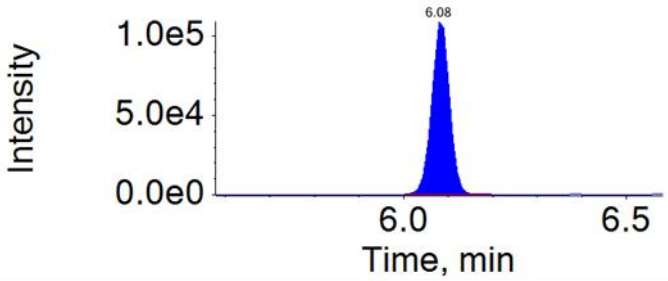
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



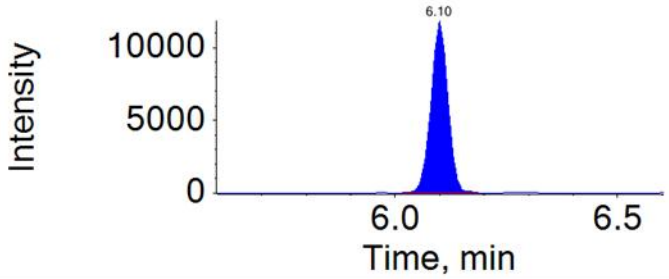


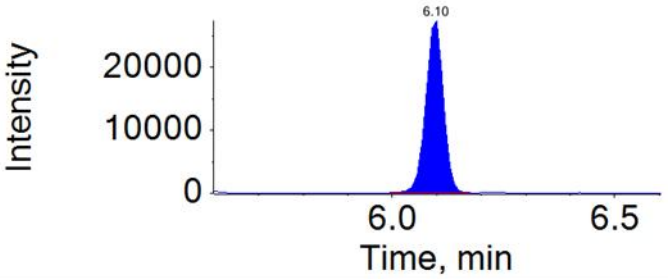
APPROVED
By JPT at 5:00 pm, 11/13/18

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

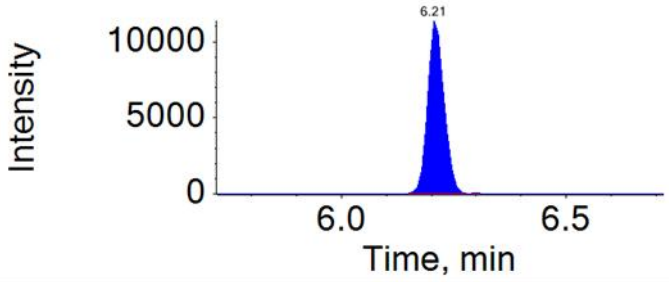
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

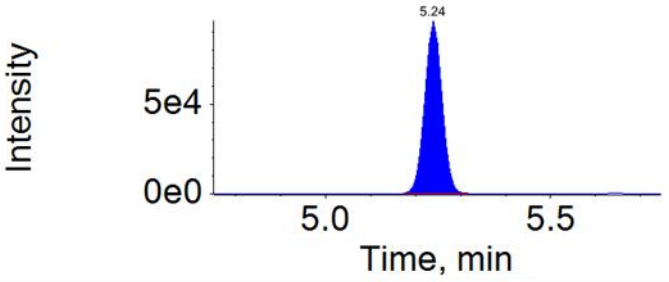
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



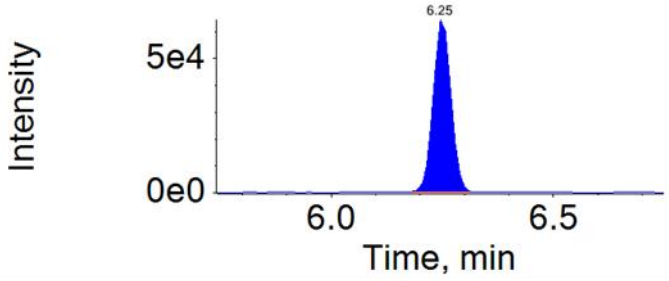


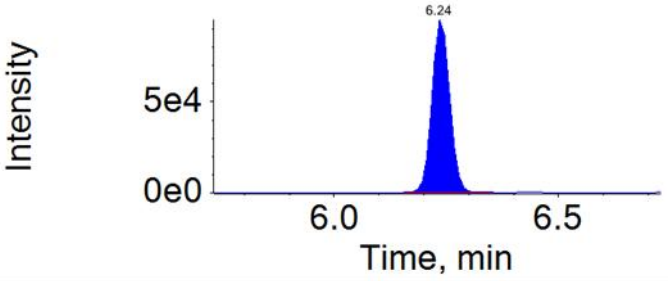
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



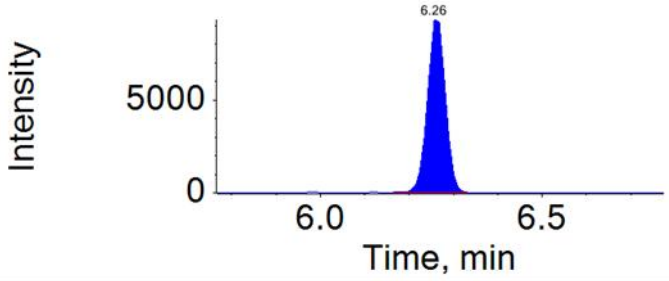


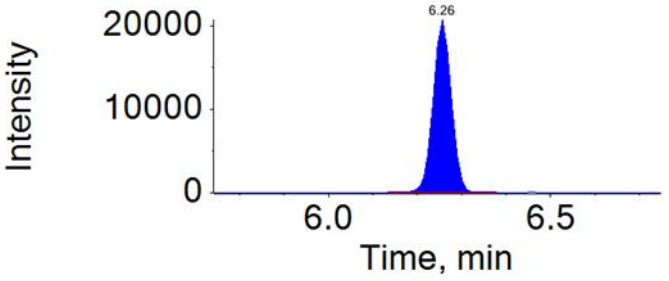
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



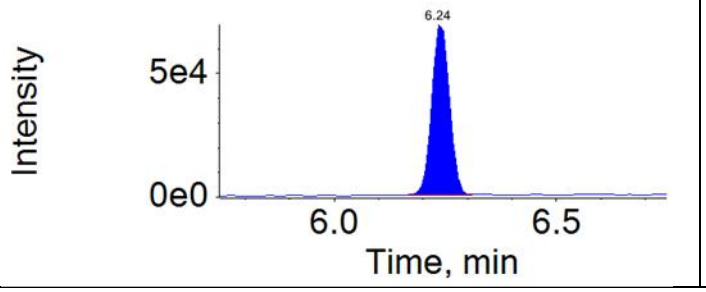


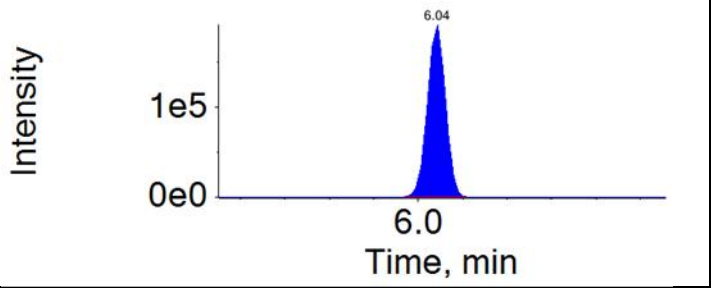
APPROVED
By JPT at 5:00 pm, 11/13/18

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

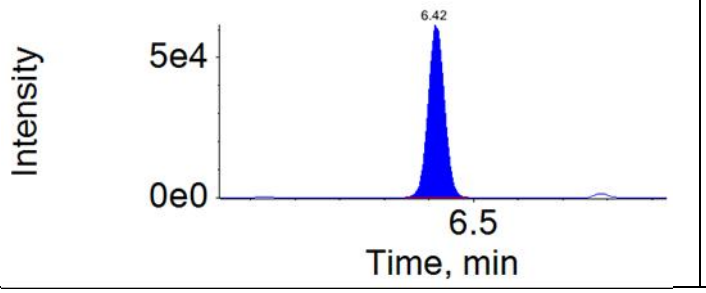
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV13DCCV5 11/13/2018 4:55:52 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

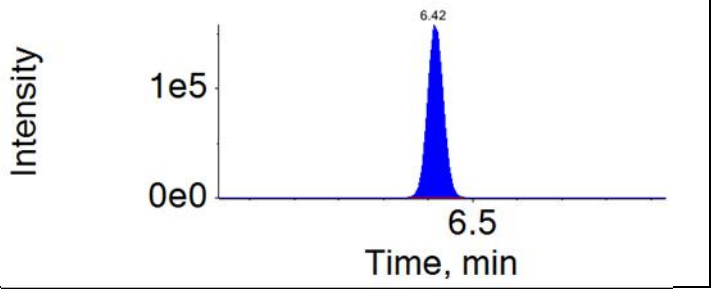
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



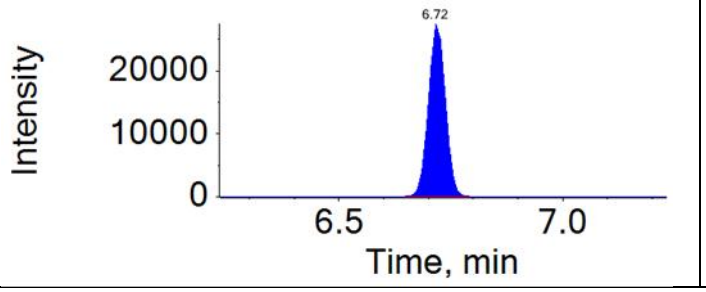


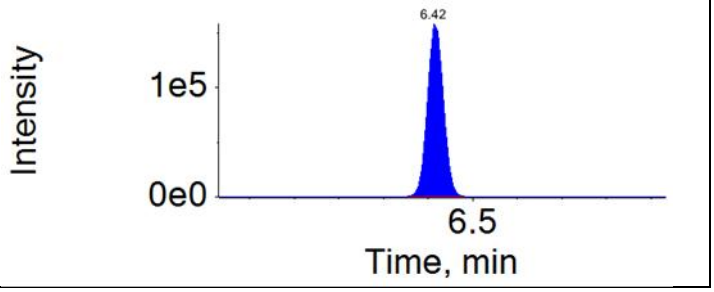
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



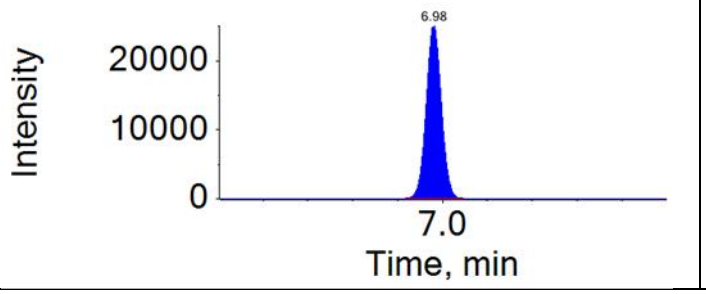


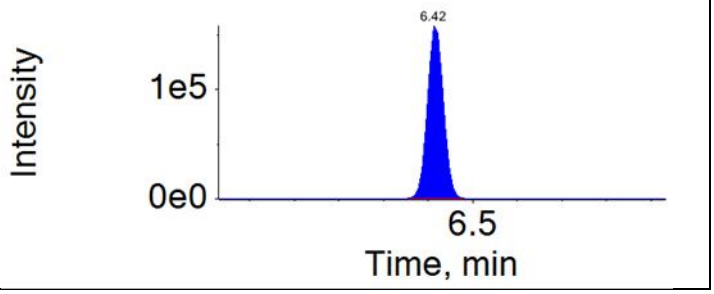
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



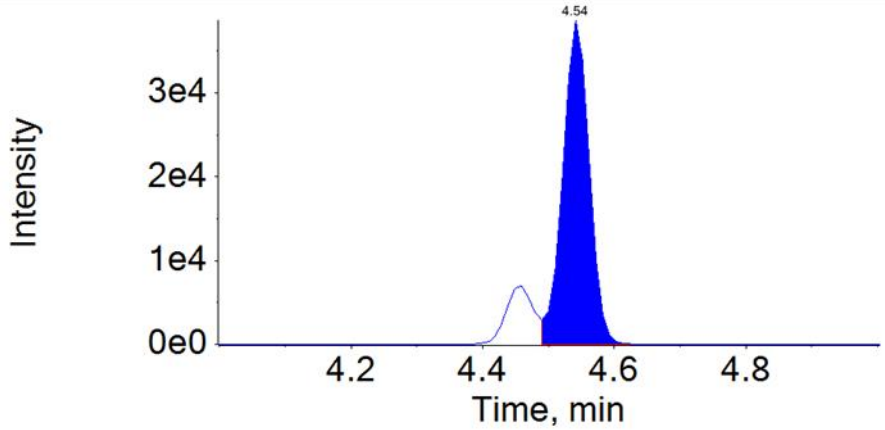


APPROVED
By JPT at 5:00 pm, 11/13/18

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

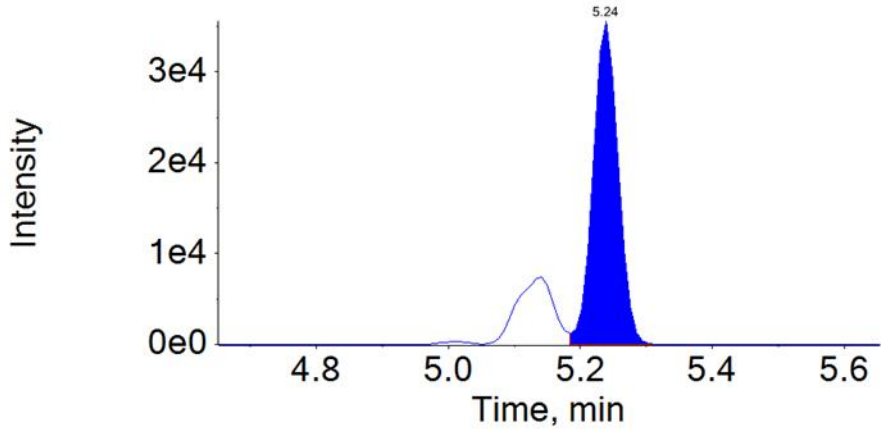
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



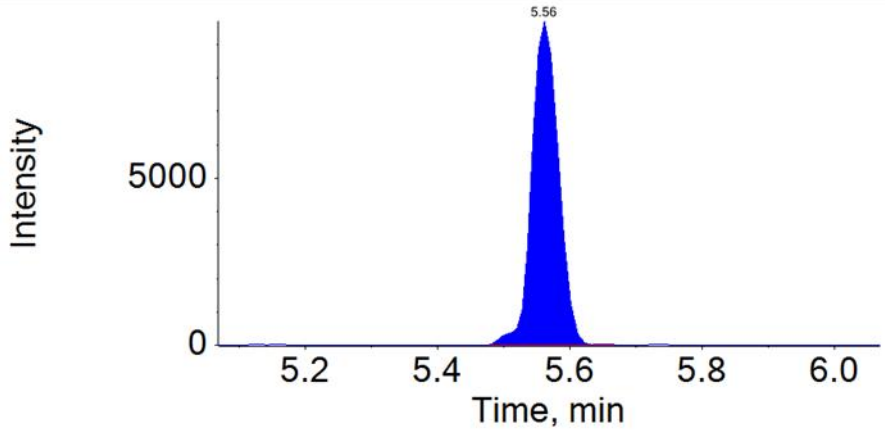
Integration Comment: incorrect integration

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



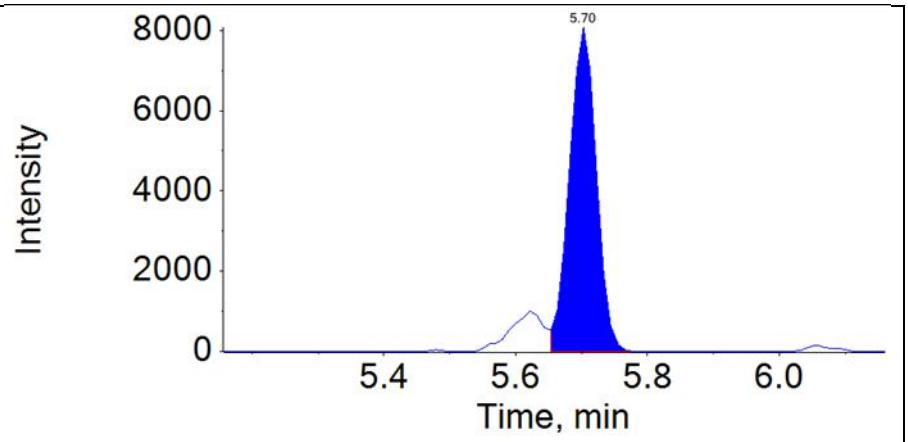
Integration Comment: incorrect integration

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

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

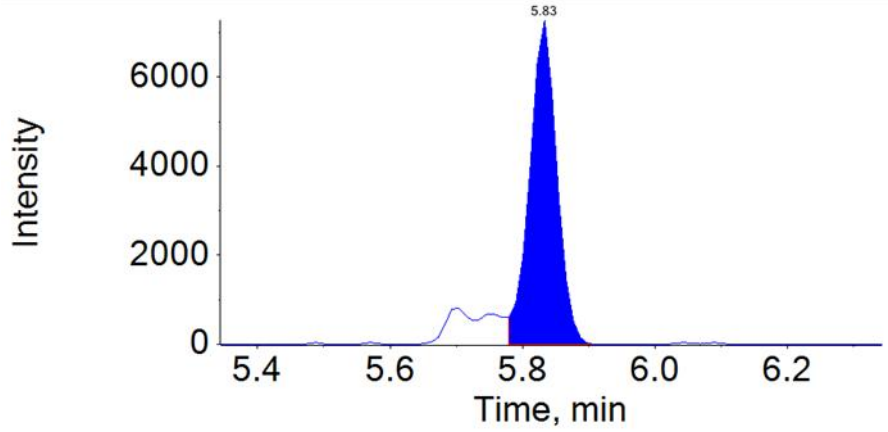
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



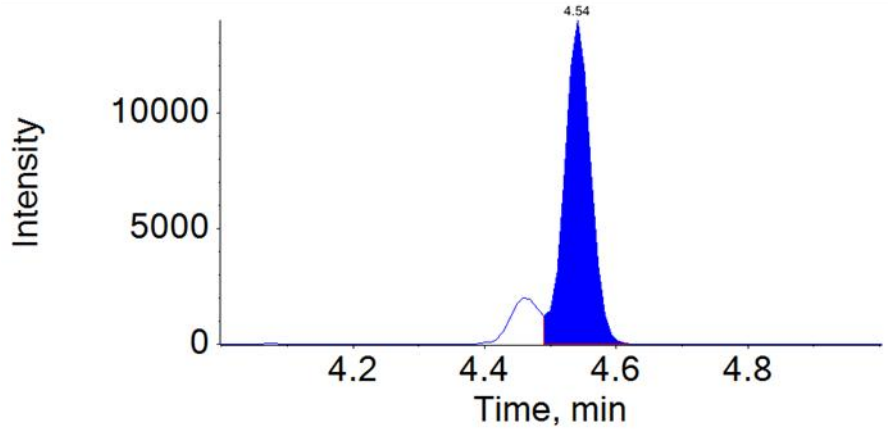
Integration Comment: incorrect integration

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



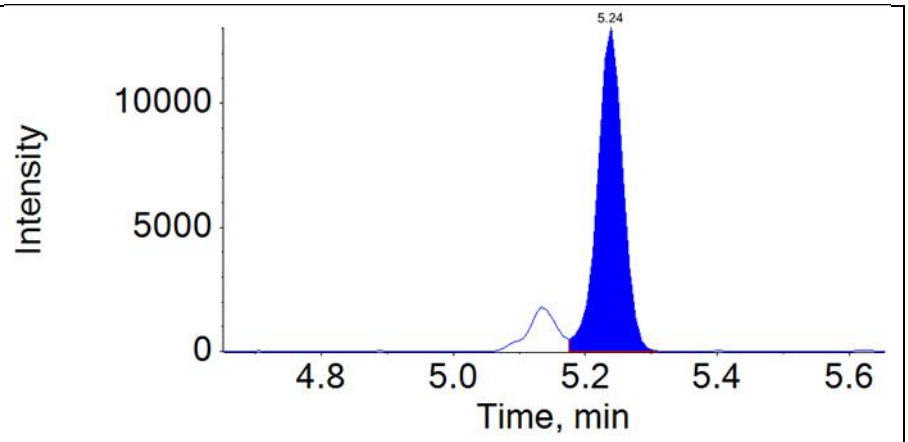
Integration Comment: incorrect integration

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

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

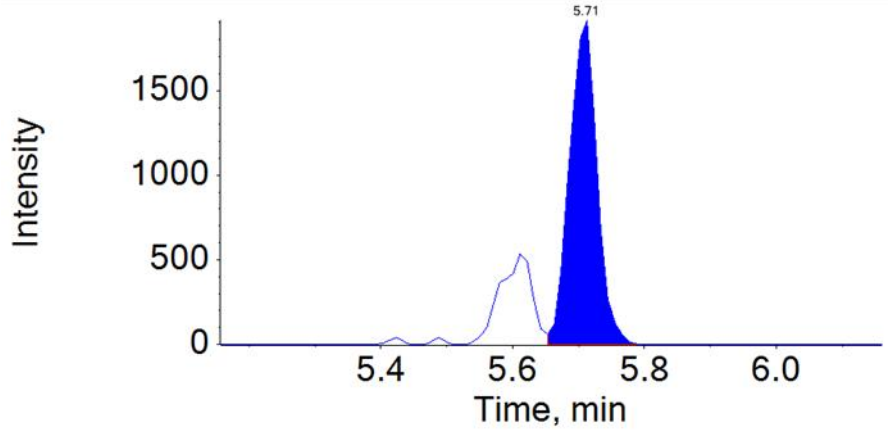
Results Table Name: 18NOV13DCCV5
Results Table Date: 11/13/2018 4:55:52 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



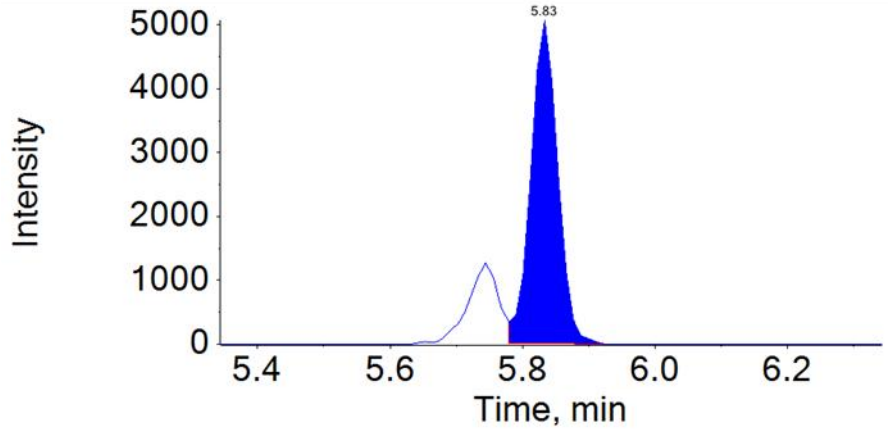
Integration Comment: incorrect integration

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

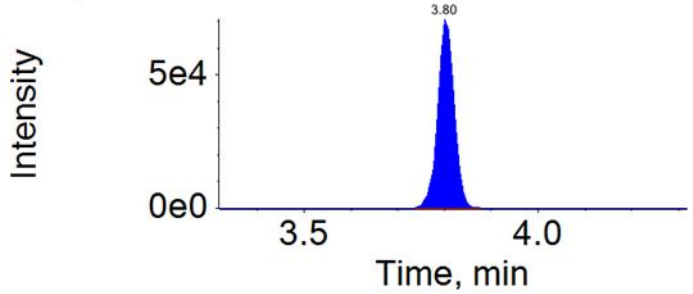
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV13D-47.wiff

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	

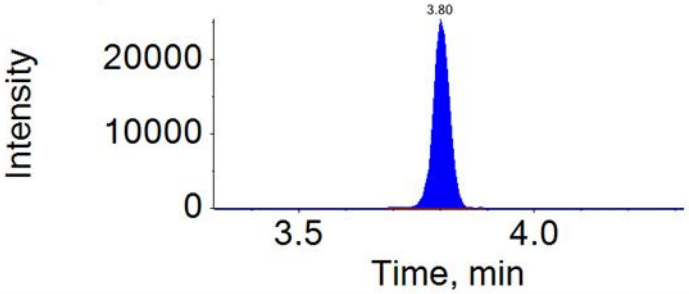
APPROVED
By JPT at 5:00 pm, 11/13/18

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

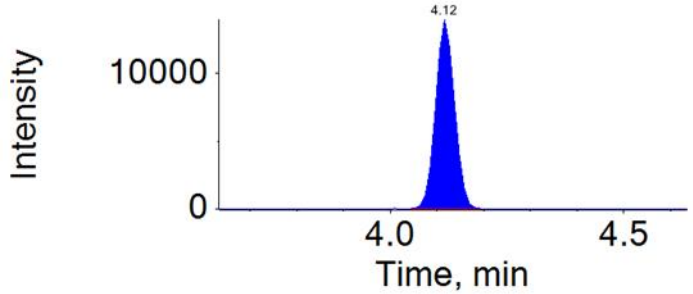
Component: PFBS
Primary Mass: 299.0 / 80.0



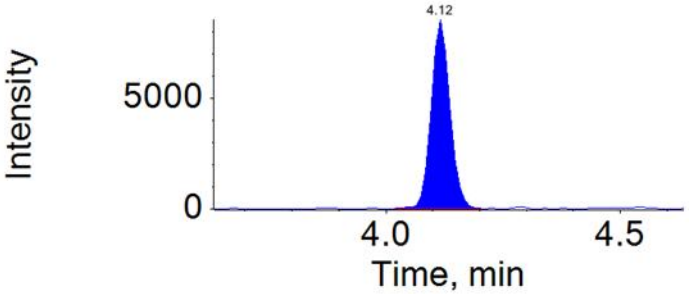
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



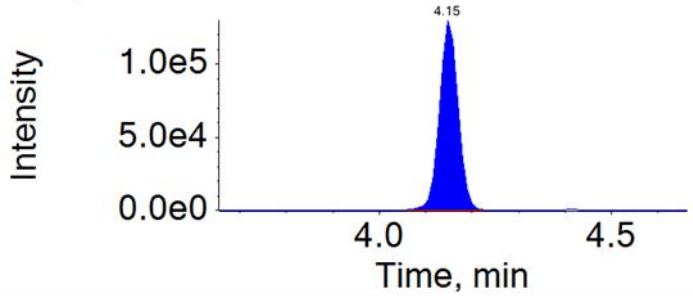
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



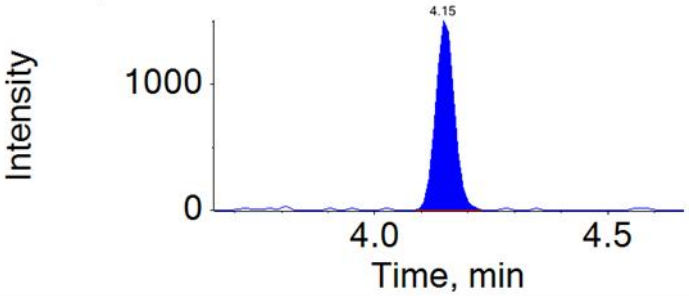
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



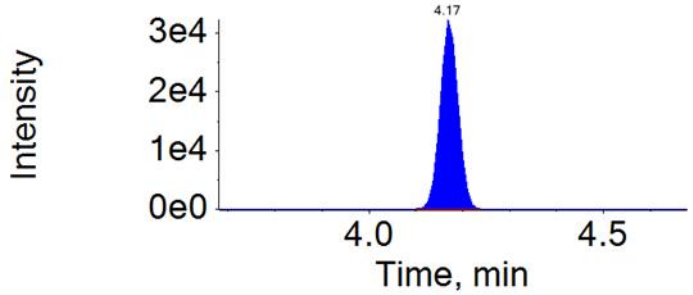
Component: PFHxA
Primary Mass: 313.0 / 269.0



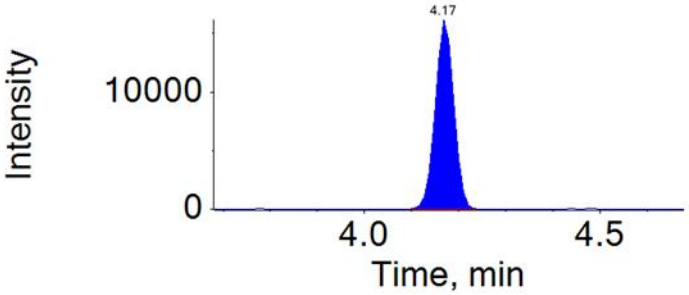
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



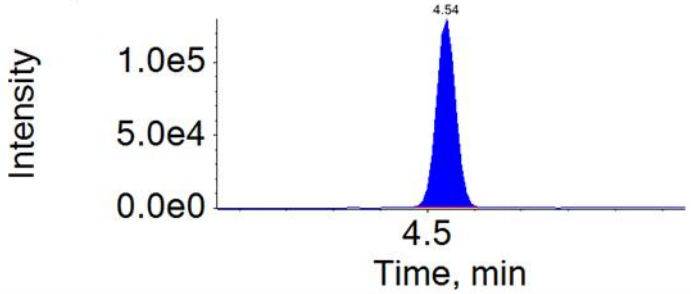
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



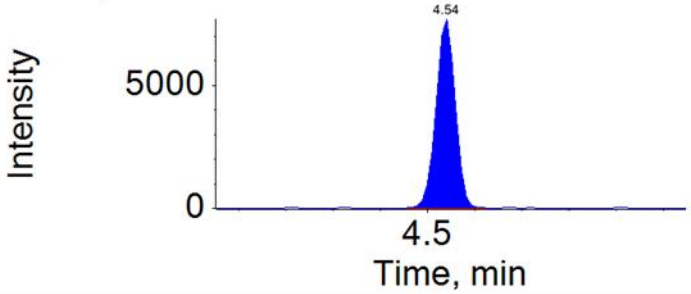
APPROVED
By JPT at 5:00 pm, 11/13/18

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

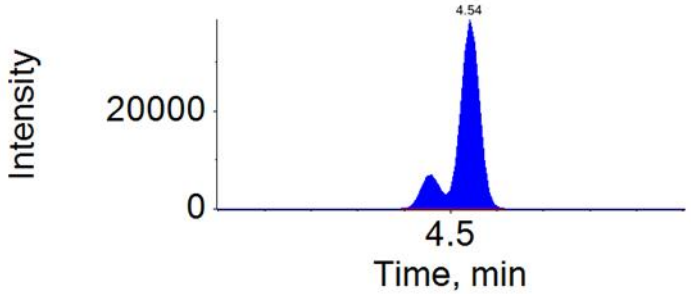
Component: PFHpA
Primary Mass: 363.0 / 319.0



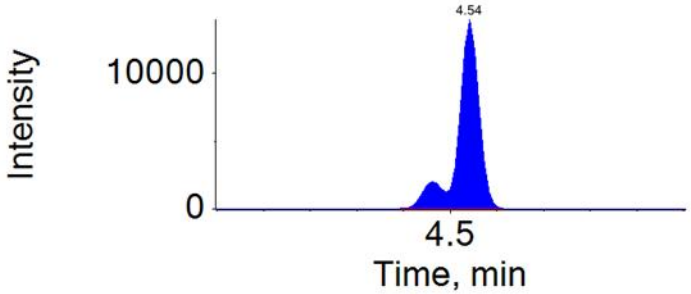
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



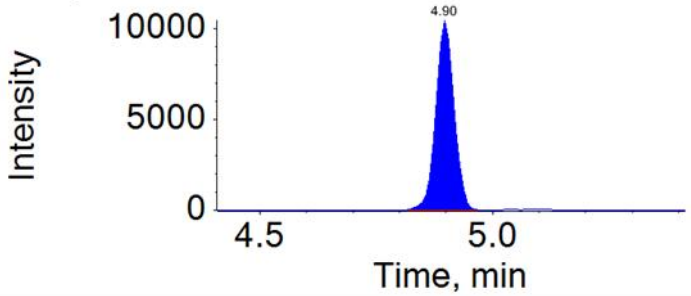
Component: PFHxS
Primary Mass: 399.0 / 80.0



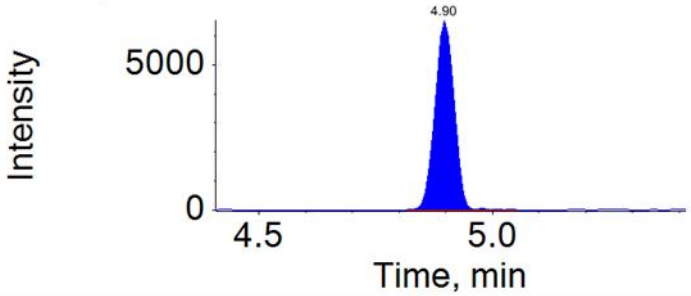
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



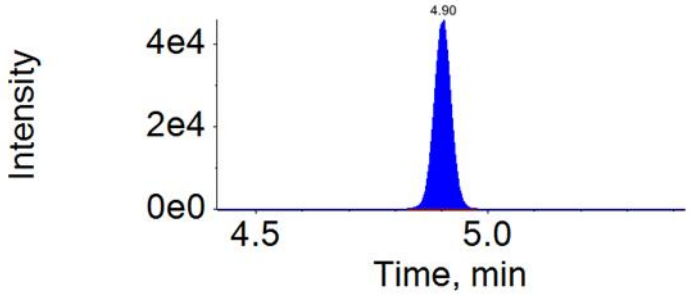
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



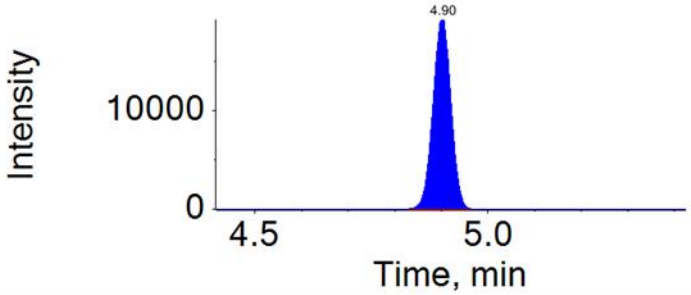
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



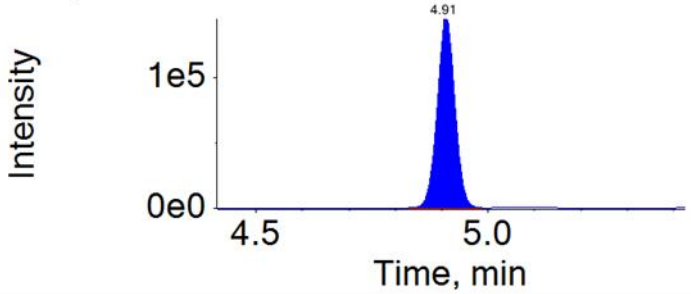
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



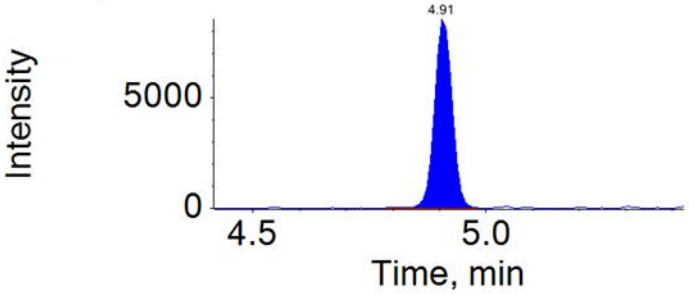
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

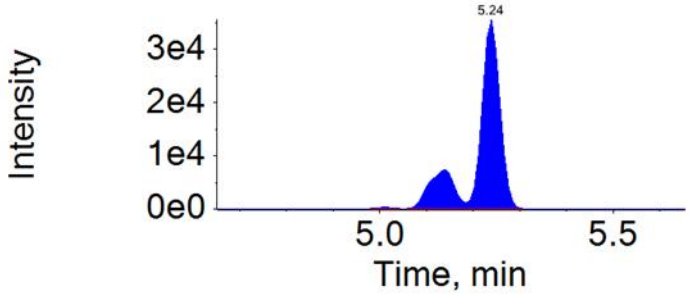
Component: PFOA
Primary Mass: 413.0 / 369.0



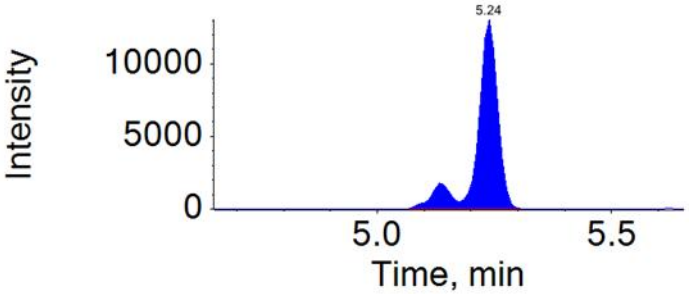
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



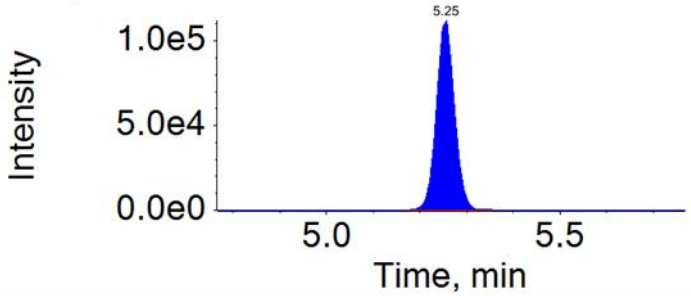
Component: PFOS
Primary Mass: 499.0 / 80.0



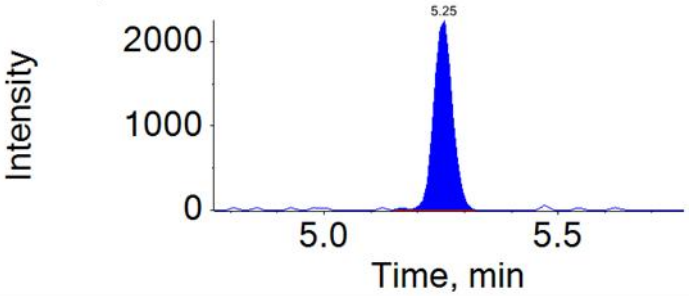
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



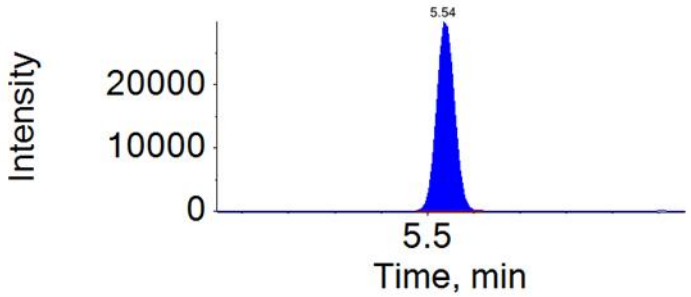
Component: PFNA
Primary Mass: 463.0 / 419.0



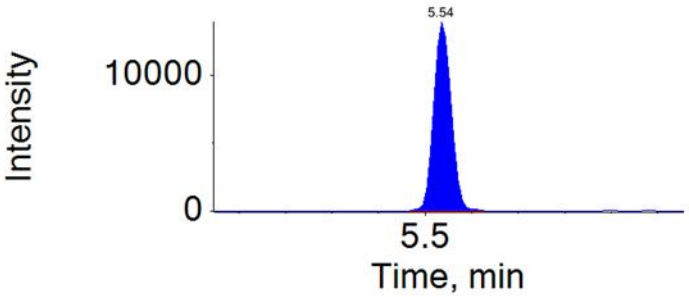
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



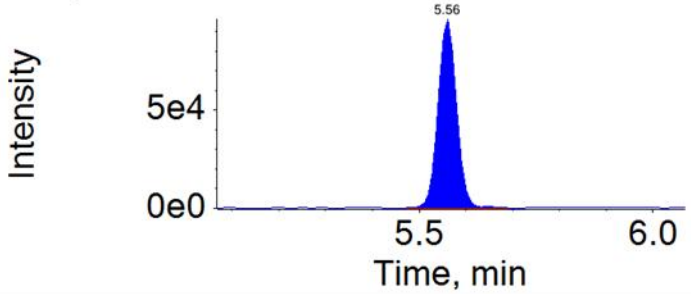
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



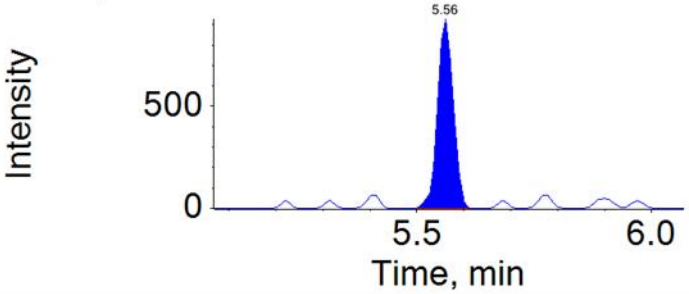
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

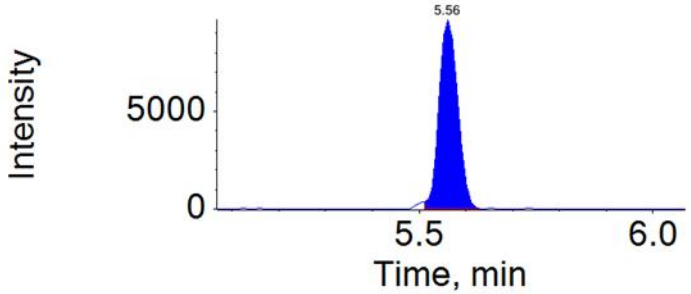
Component: PFDA
Primary Mass: 513.0 / 469.0



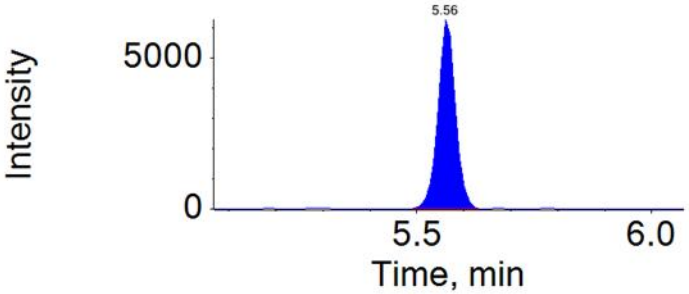
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



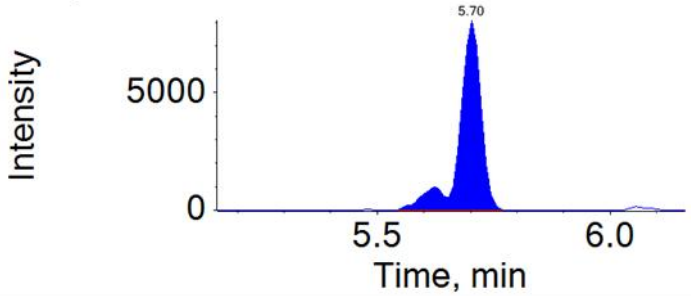
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



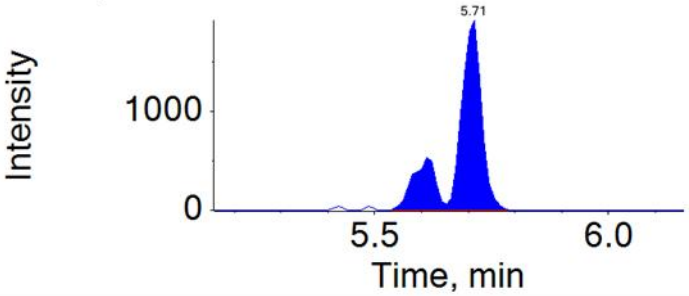
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



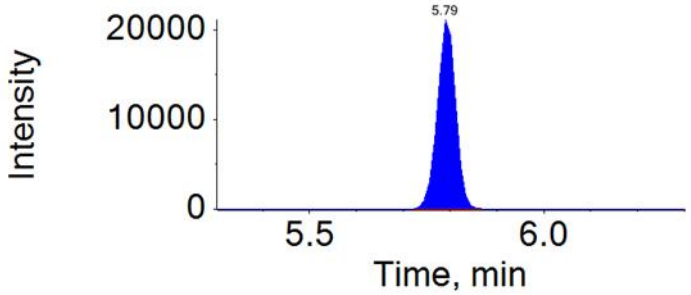
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



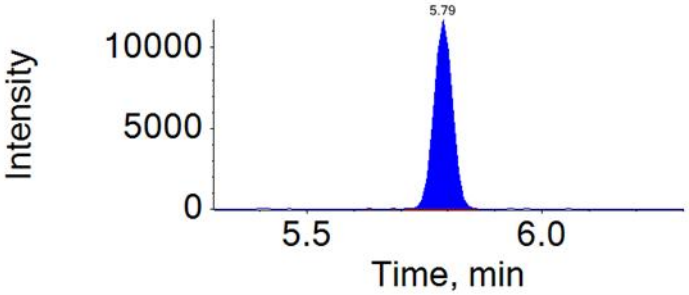
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



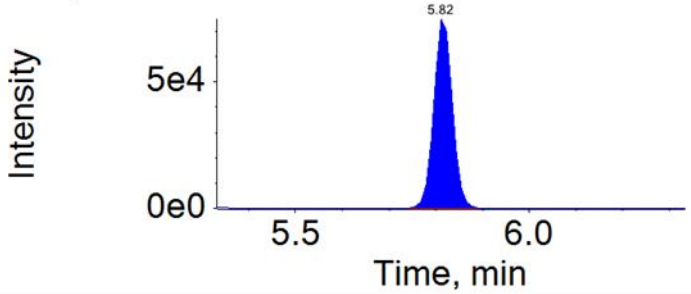
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



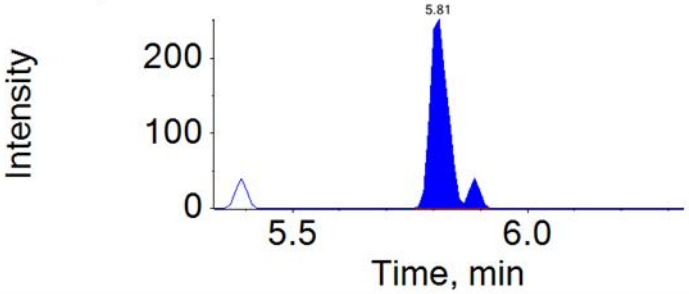
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

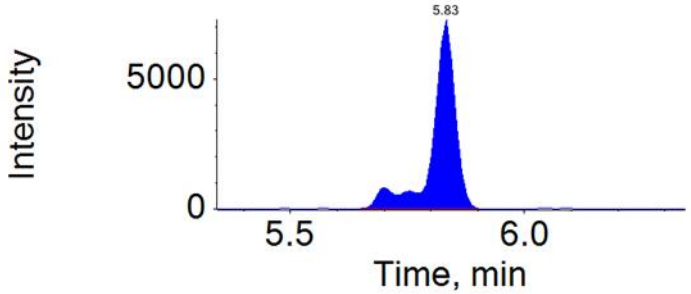
Component: PFUnDA
Primary Mass: 563.0 / 519.0



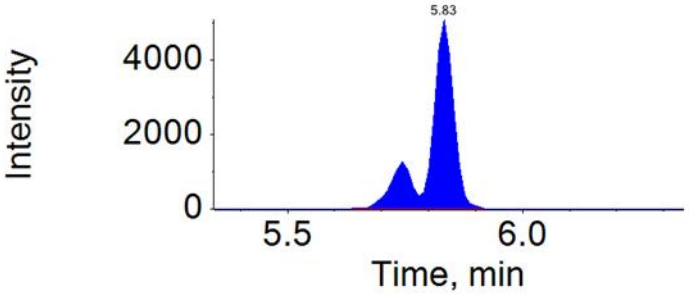
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



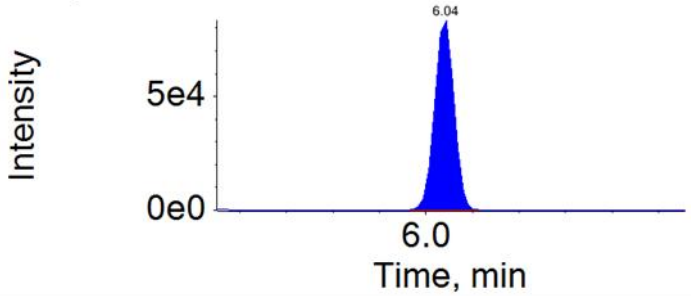
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



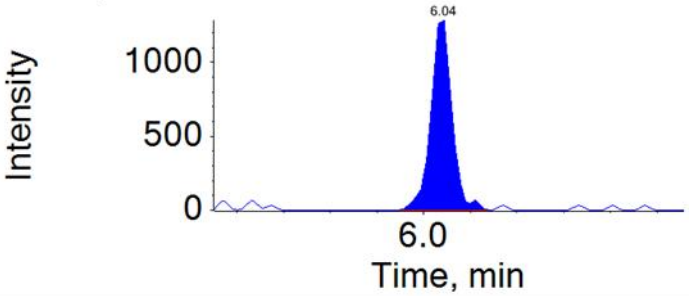
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



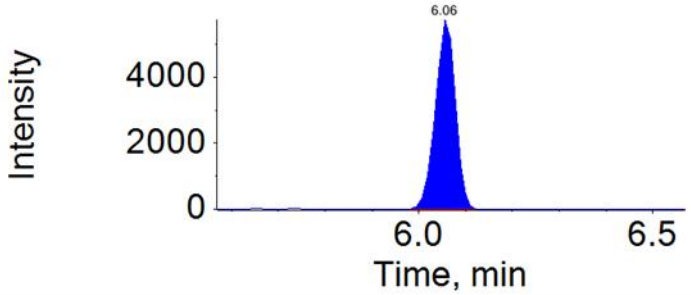
Component: PFDoDA
Primary Mass: 613.0 / 569.0



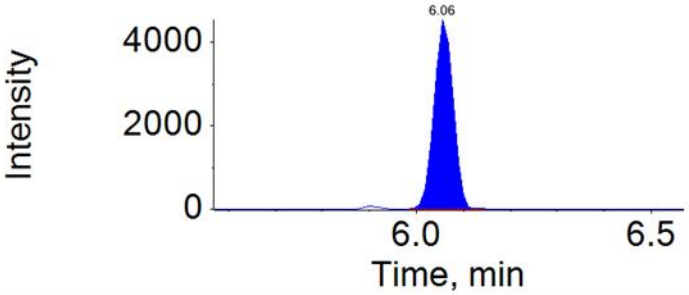
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



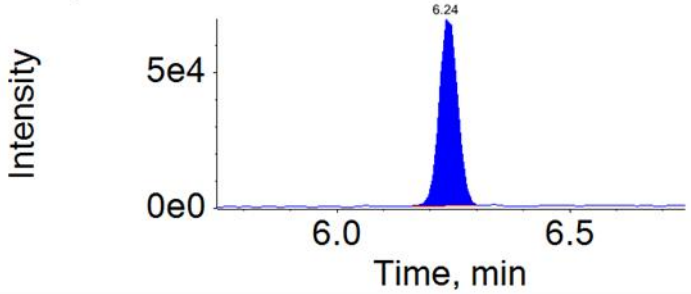
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



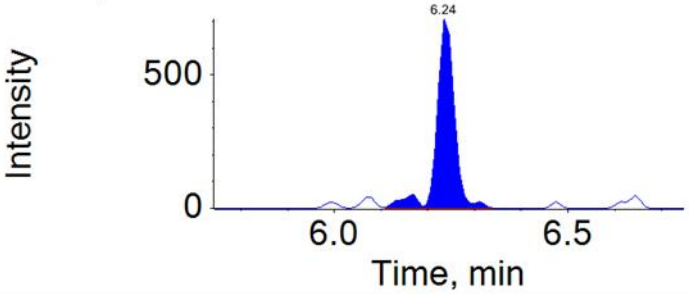
APPROVED
By JPT at 5:00 pm, 11/13/18

REVIEWED
By umar at 5:42 pm, 11/13/18

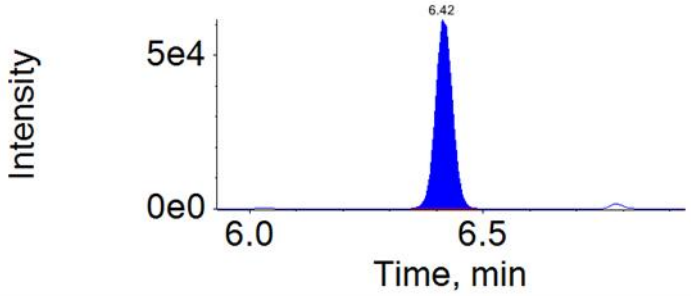
Component: PFTrDA
Primary Mass: 663.0 / 619.0



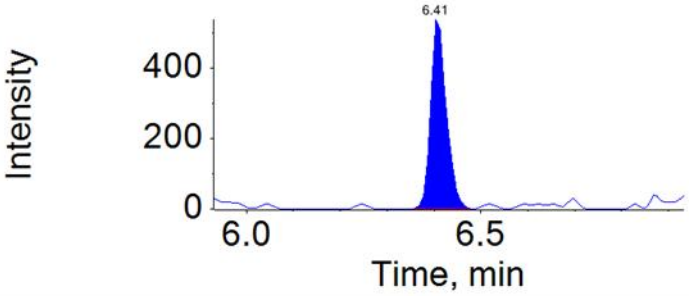
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



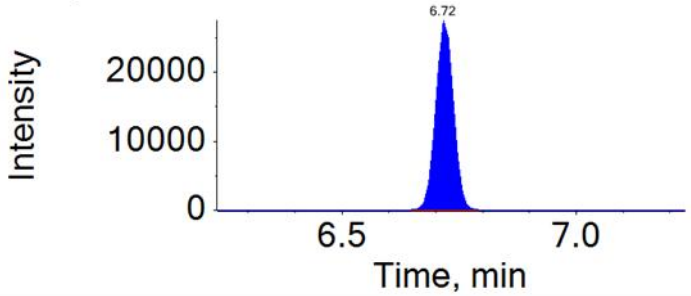
Component: PFTeDA
Primary Mass: 713.0 / 669.0



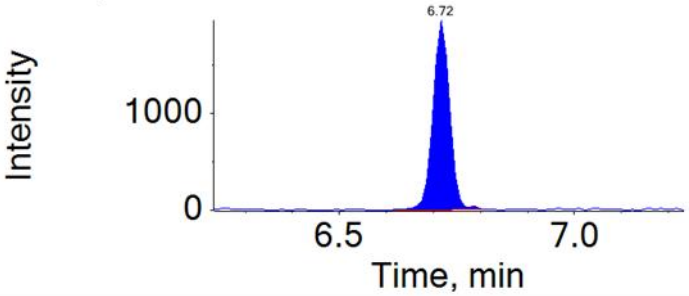
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



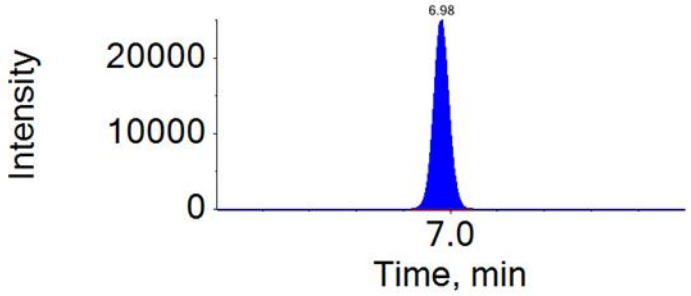
Component: PFHxDA
Primary Mass: 813.0 / 769.0



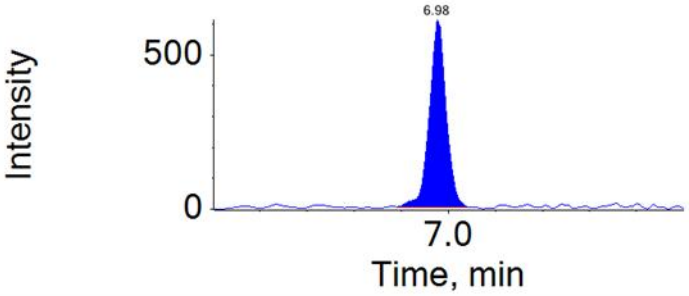
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



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

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

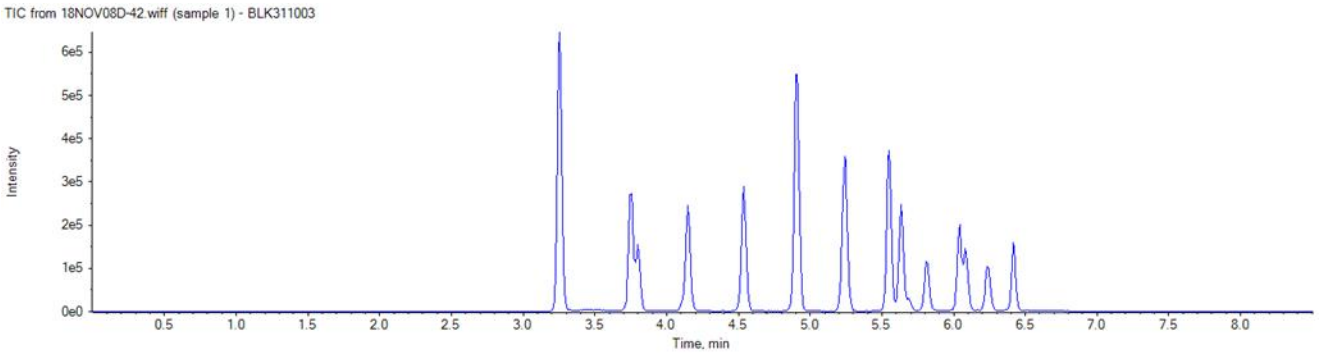
Analyte Quantitation Peak Table

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

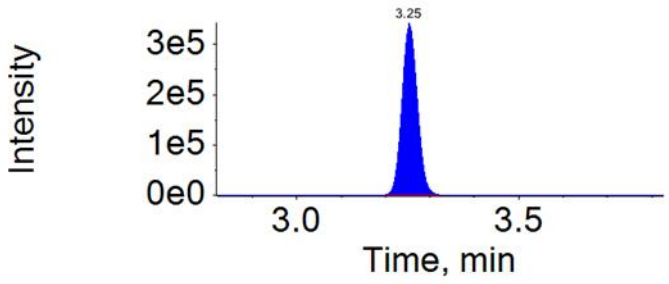


APPROVED
By JPT at 1:25 pm, 11/9/18

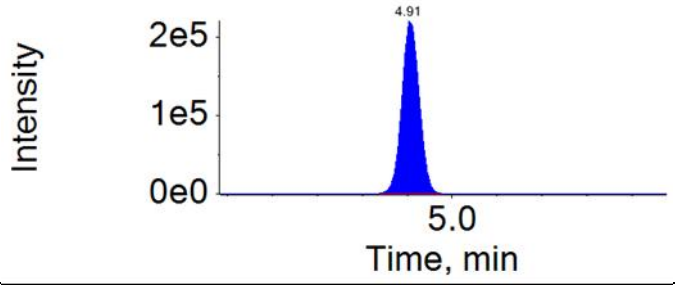
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

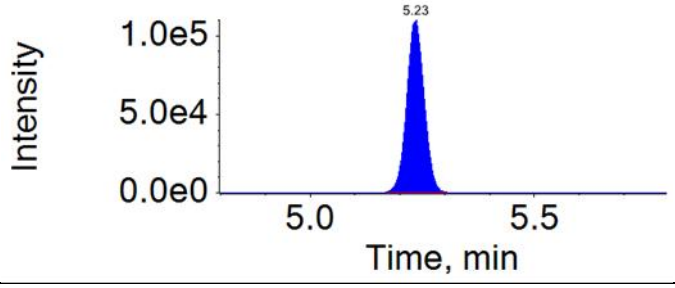
Injection Standard: 13C3-PFBA
216.0 / 172.0



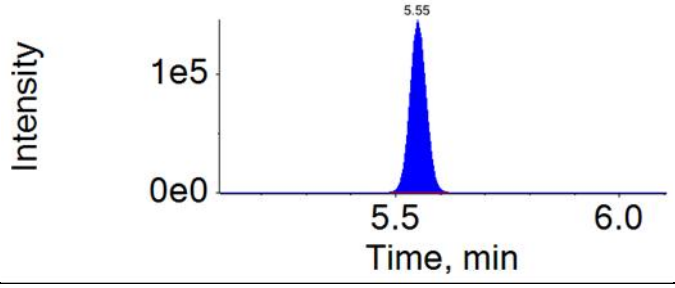
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

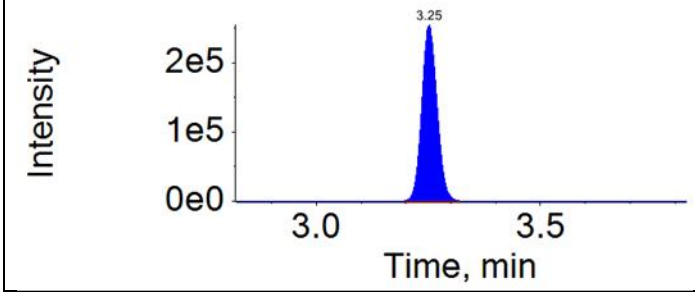


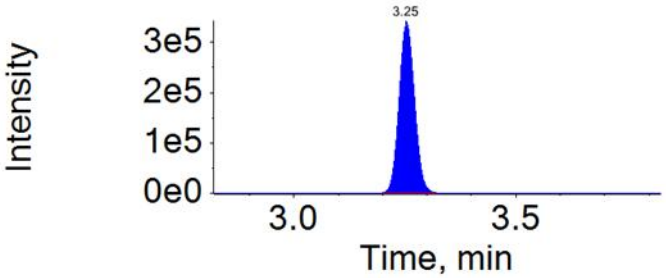
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

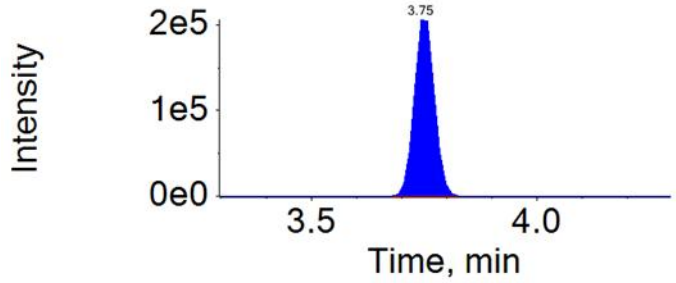
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

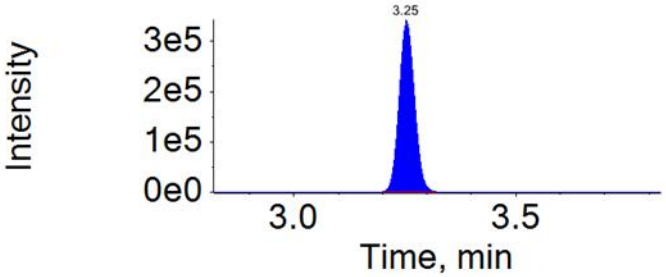
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



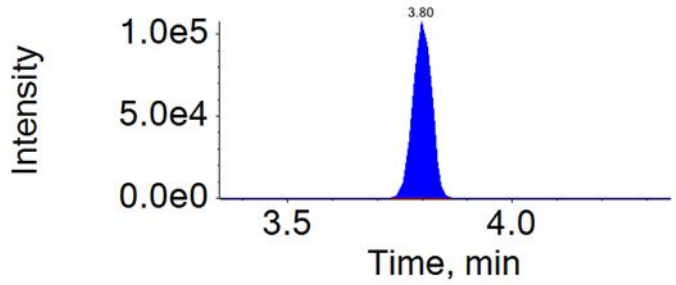


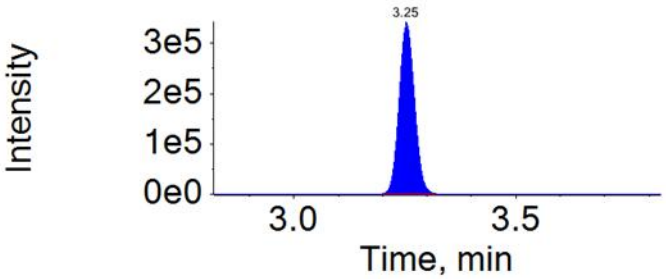
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



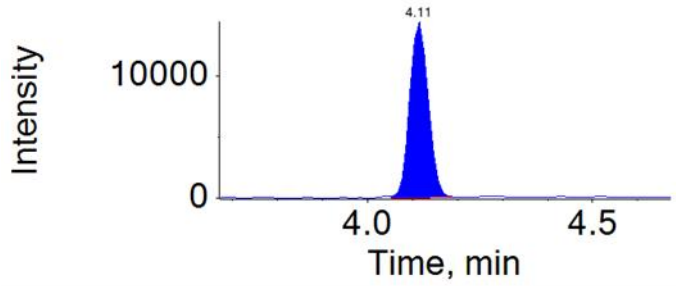


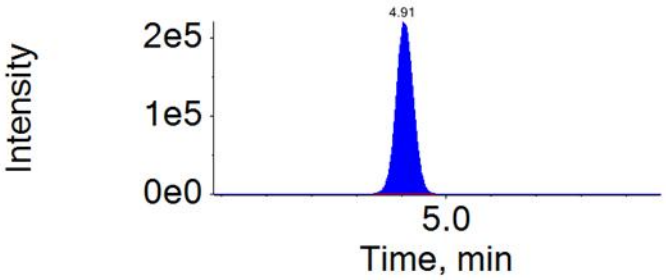
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



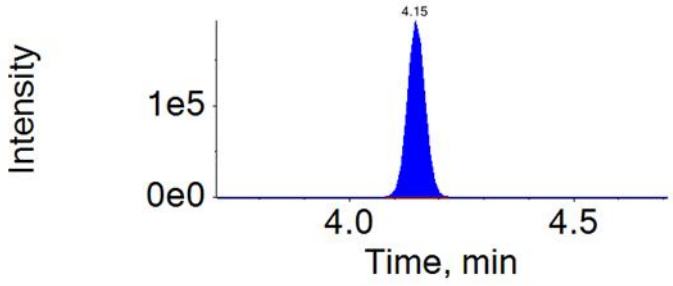


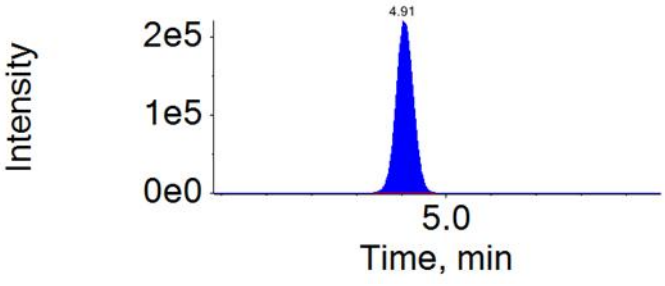
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

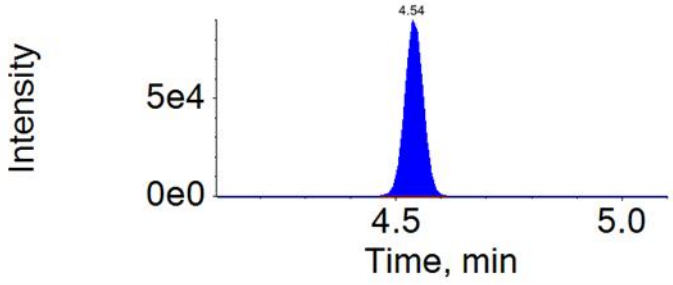
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

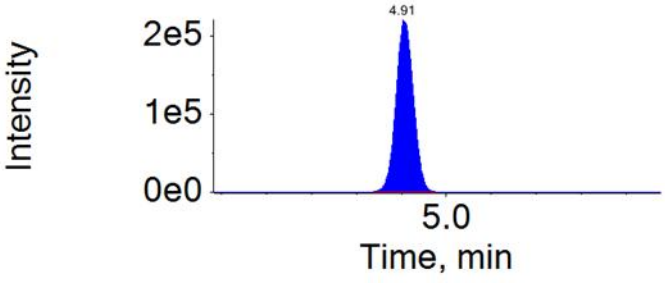
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



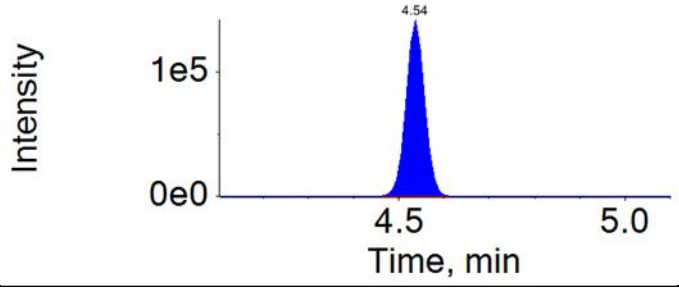


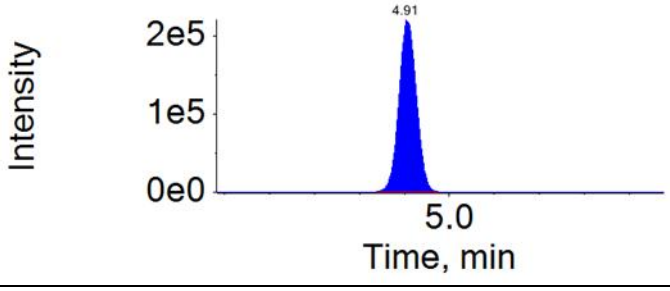
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



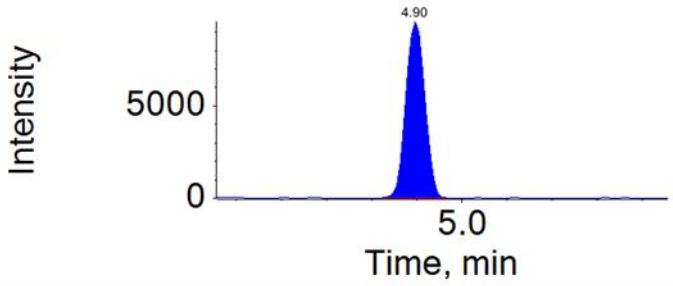


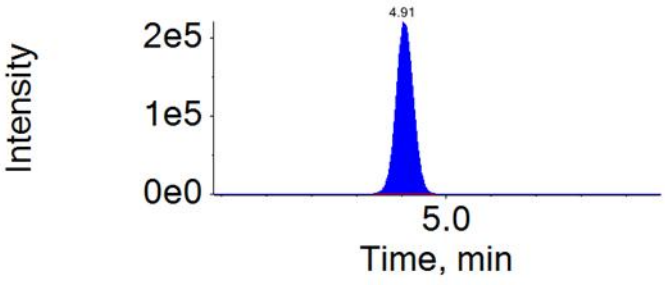
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

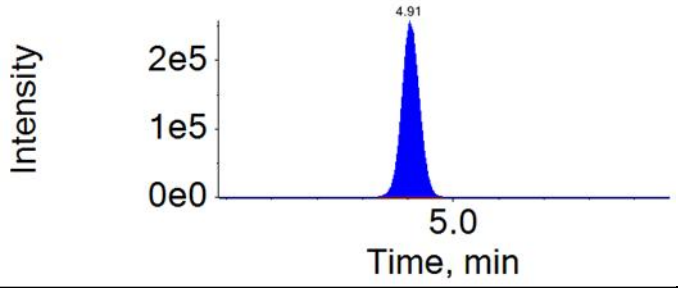
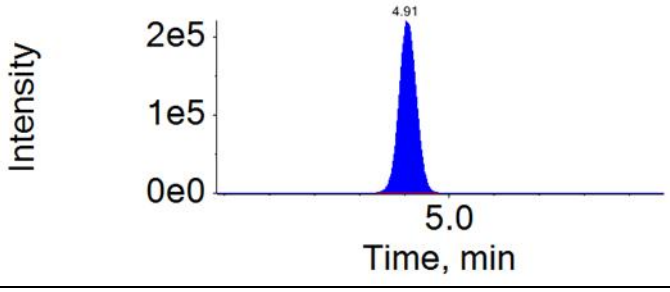


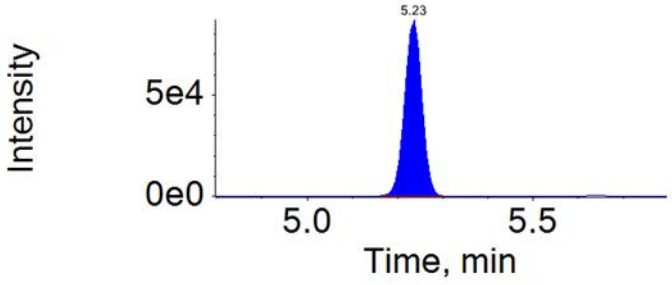
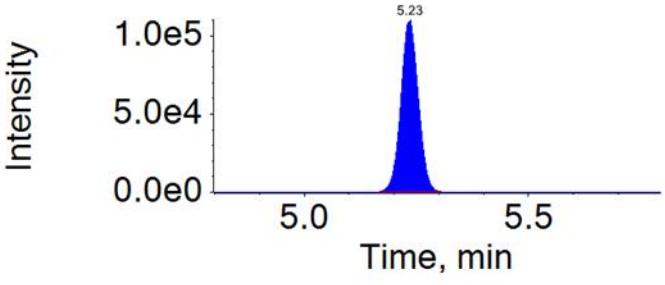


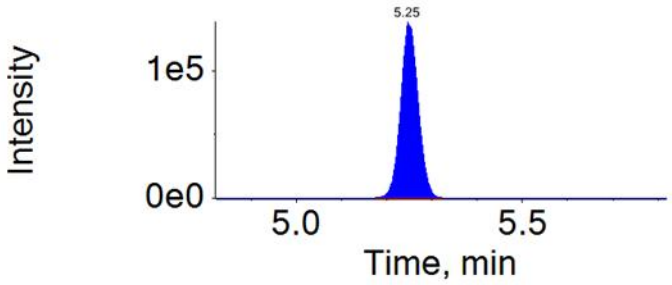
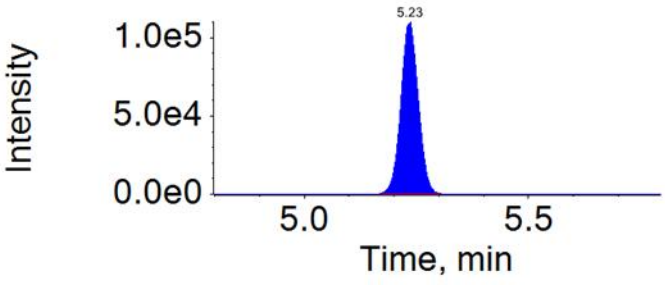
APPROVED
By JPT at 1:25 pm, 11/9/18

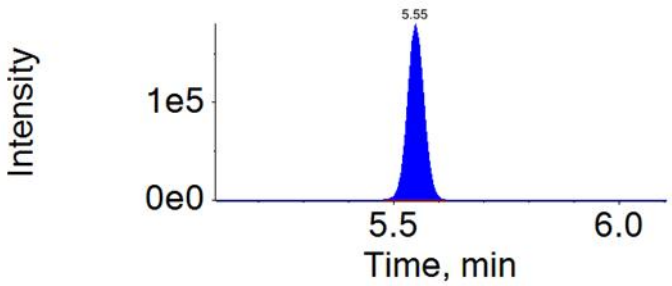
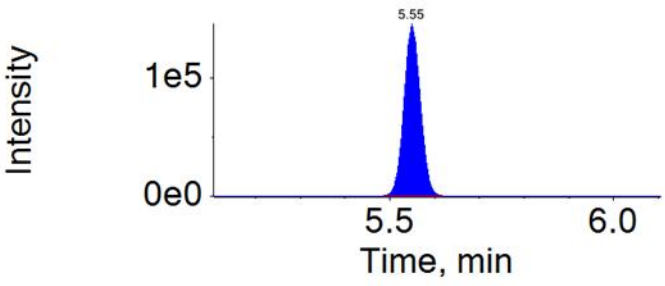
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

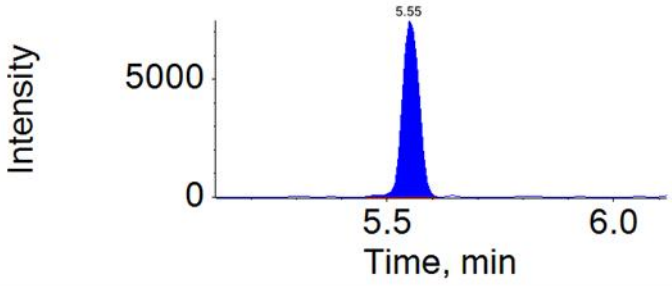
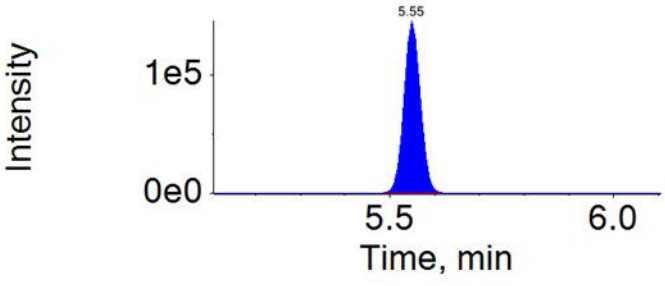
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

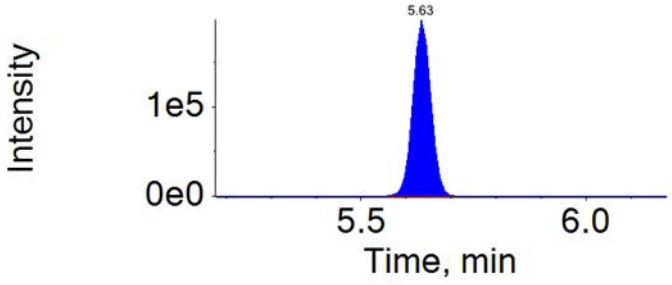
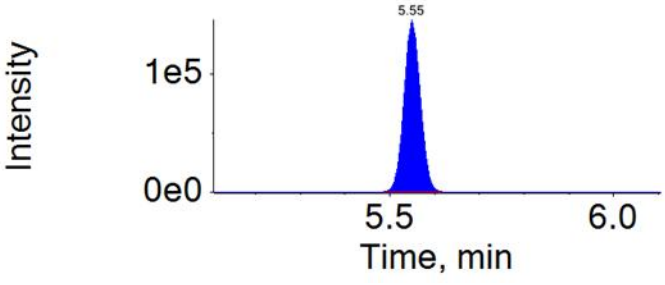
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

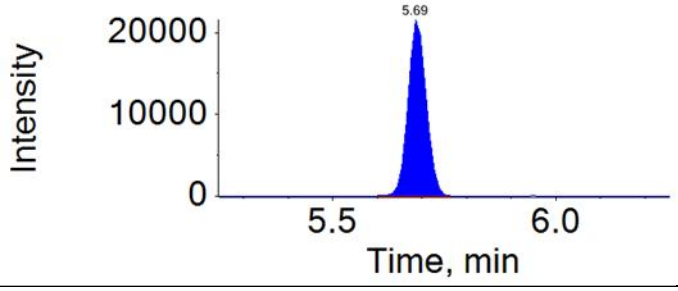
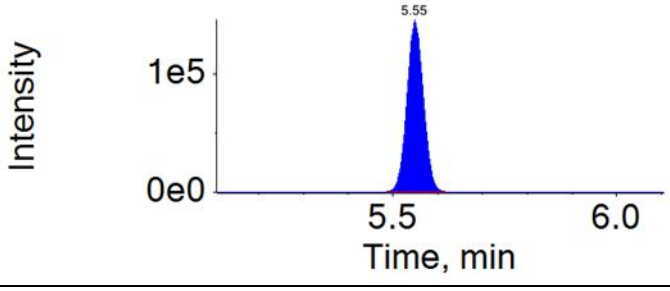
APPROVED
By JPT at 1:25 pm, 11/9/18

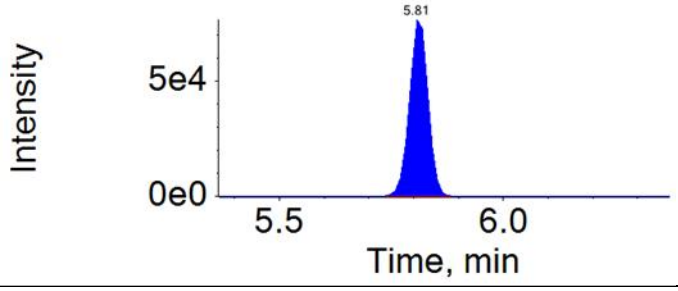
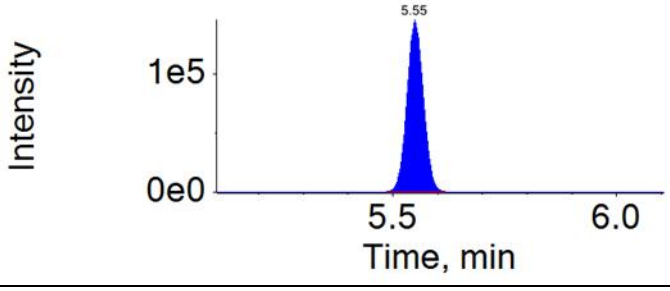
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

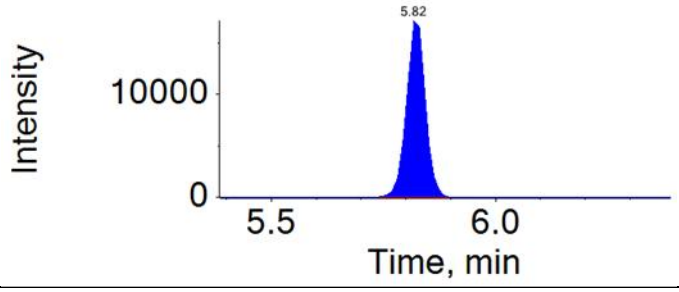
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

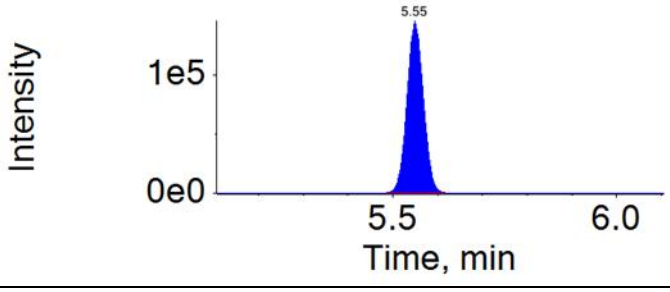
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

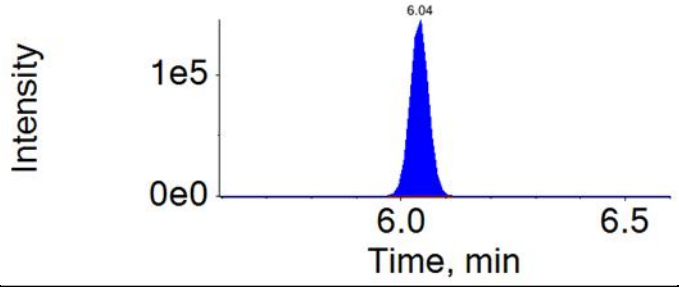
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

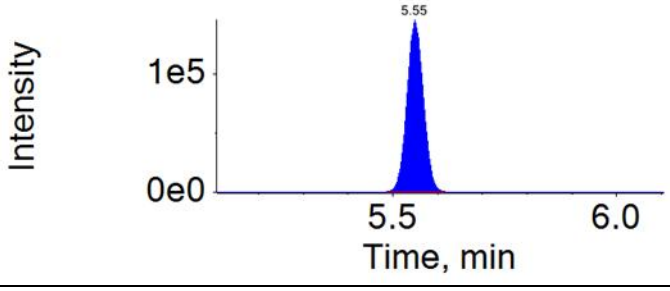
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



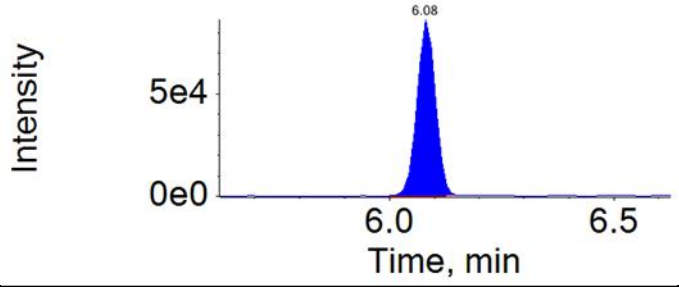


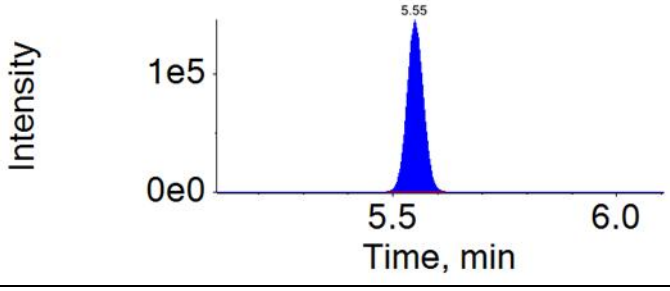
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



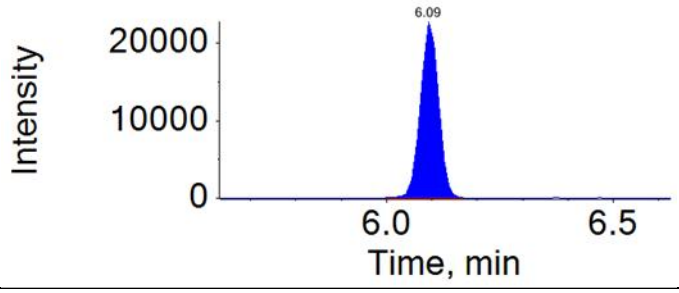


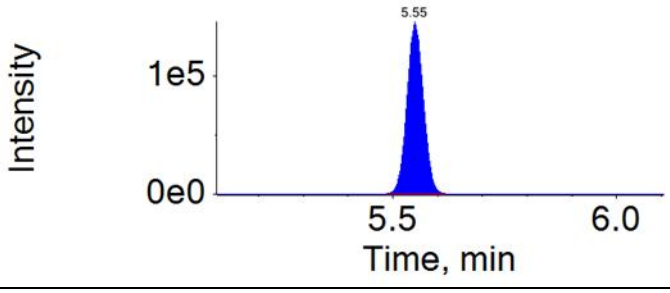
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



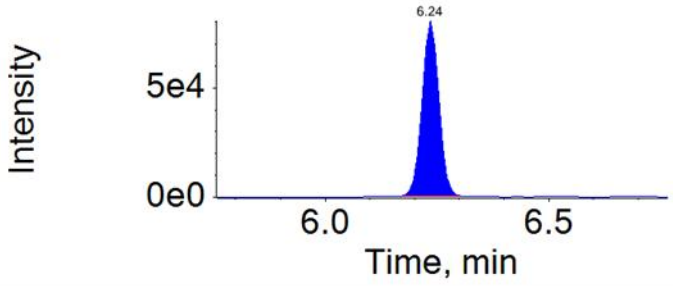


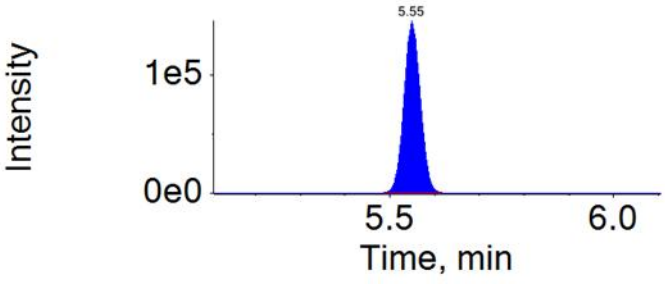
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

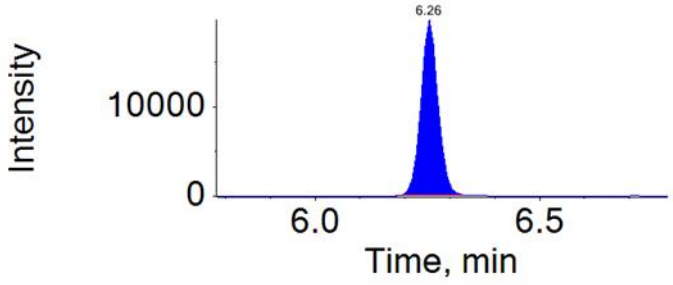
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

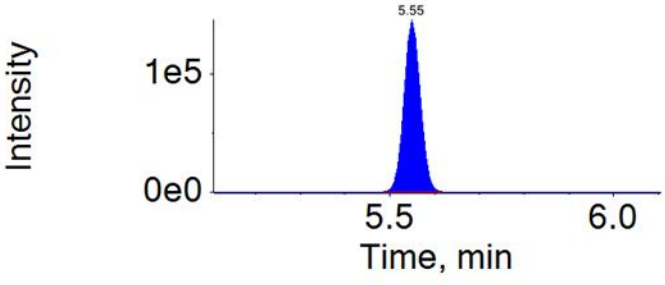
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



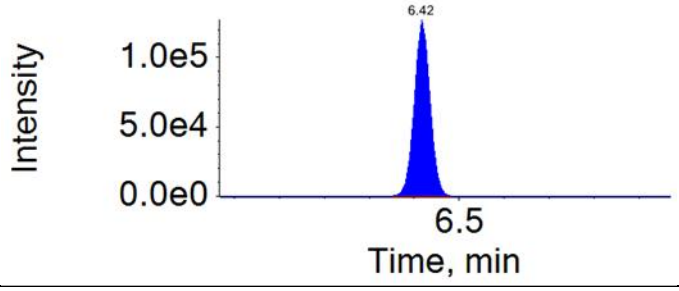


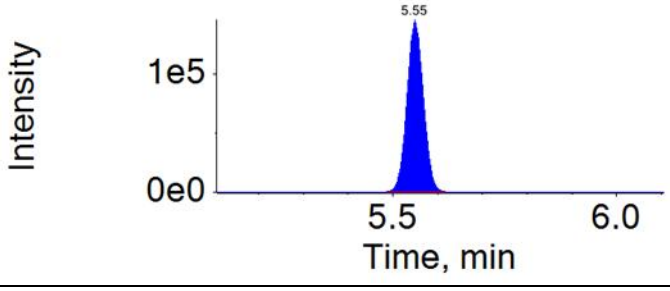
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



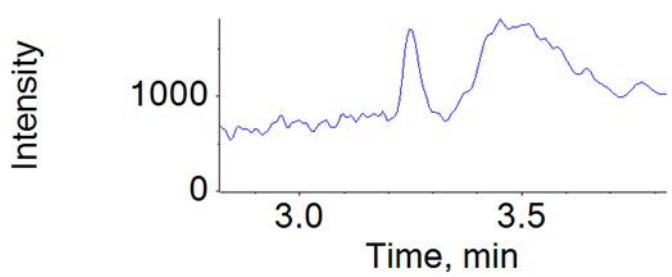


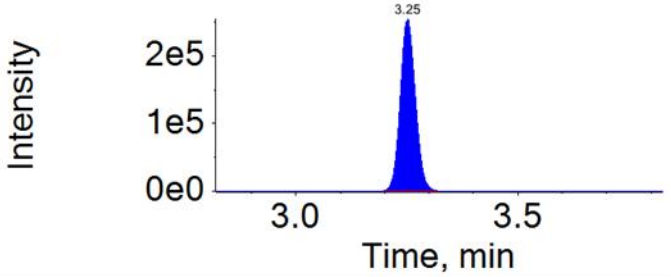
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

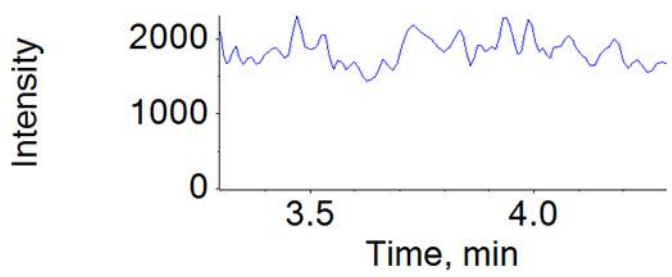
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

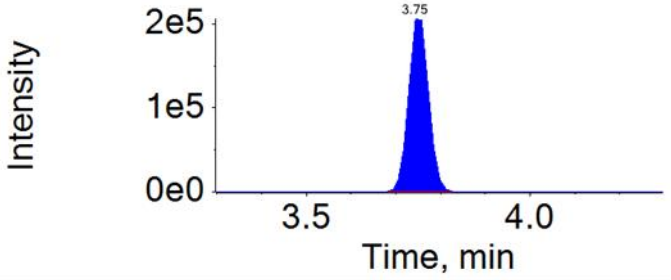
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



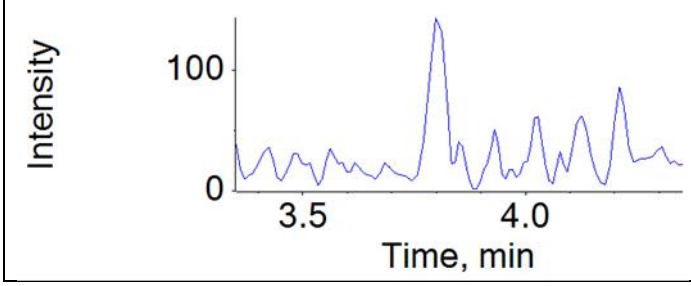


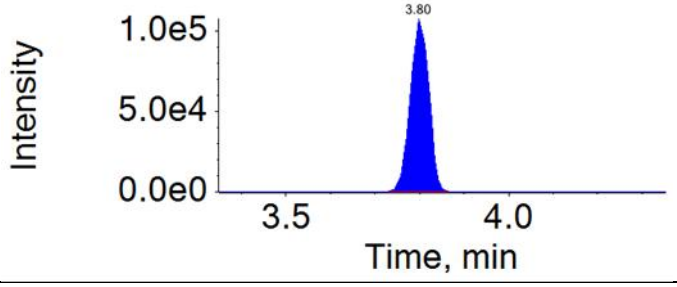
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



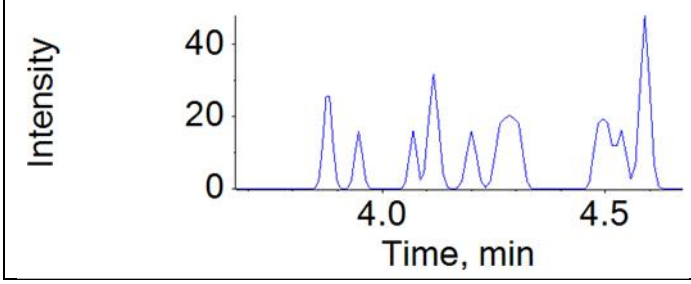


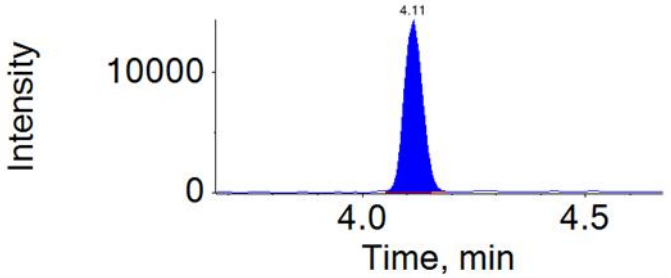
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



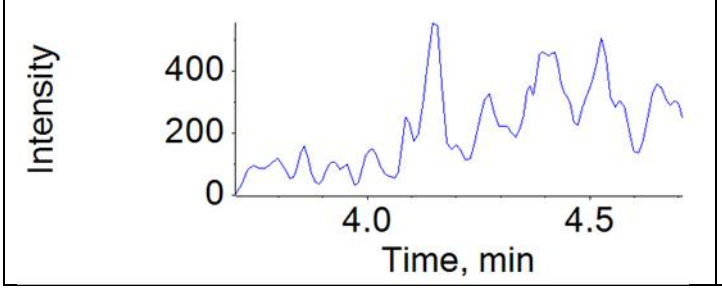


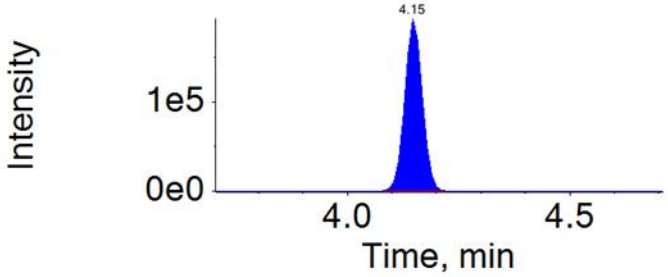
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

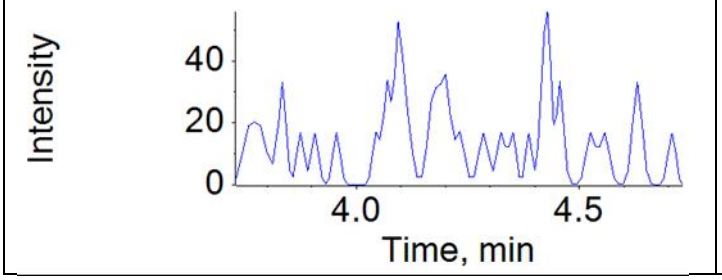
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

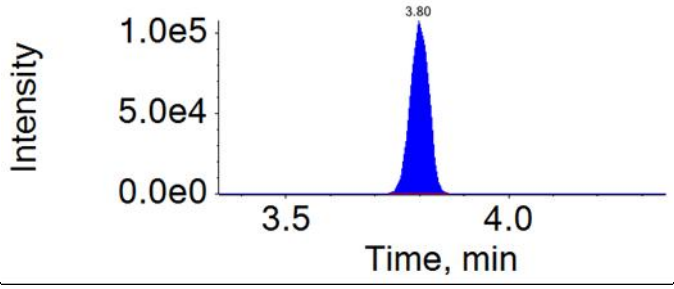
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



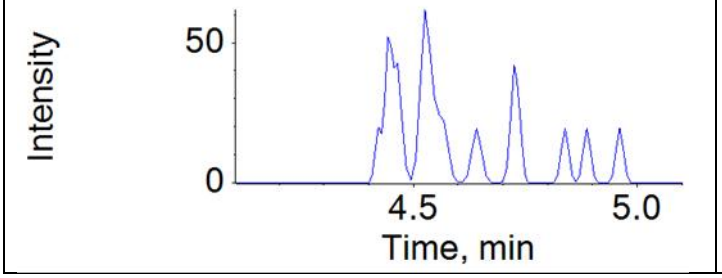


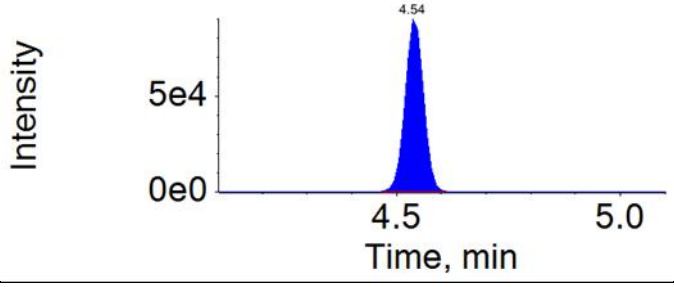
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



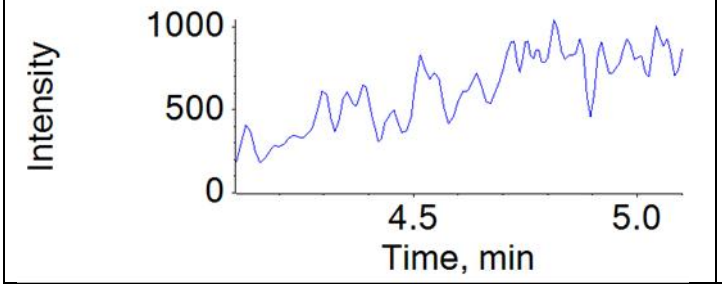


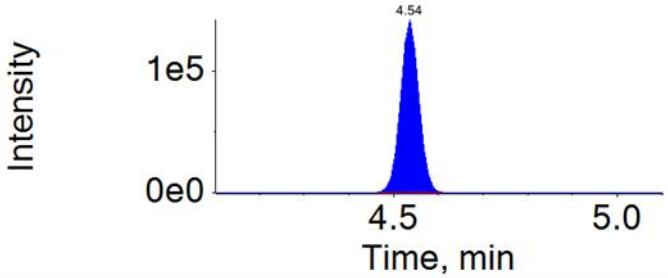
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



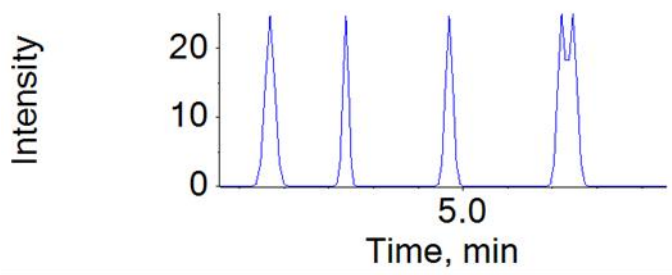


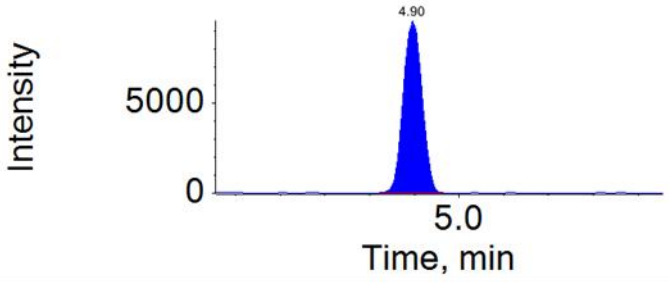
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

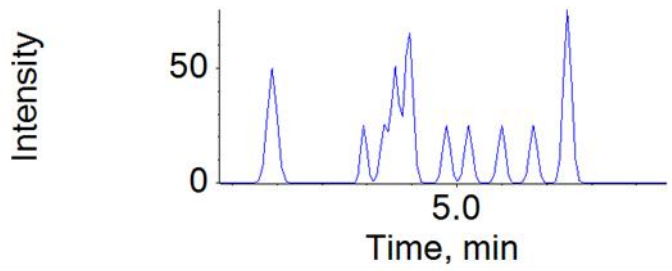
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

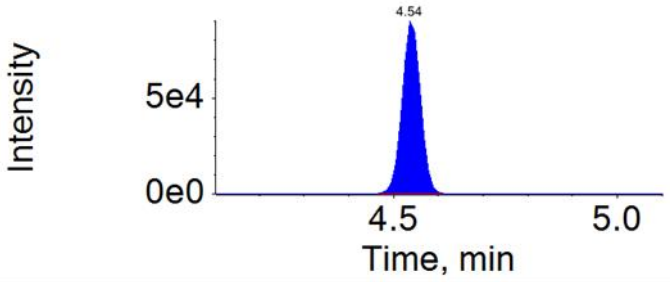
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



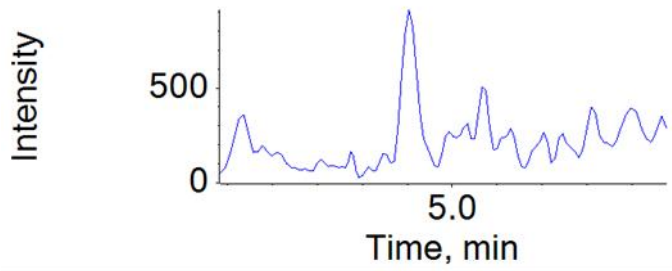


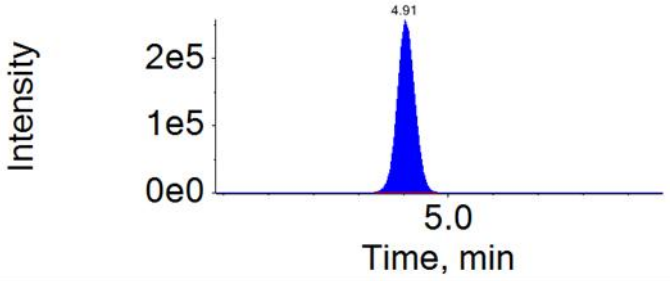
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



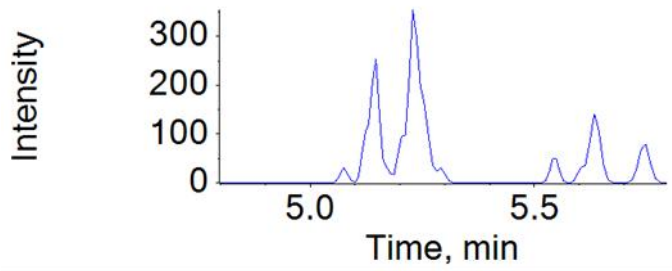


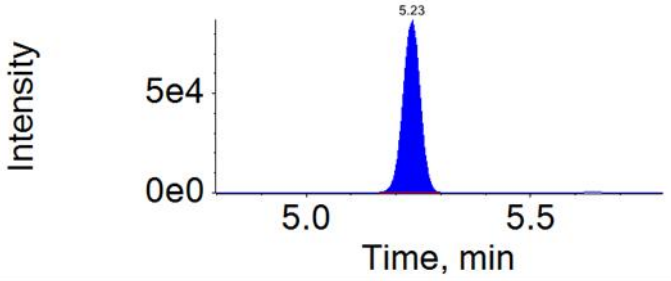
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



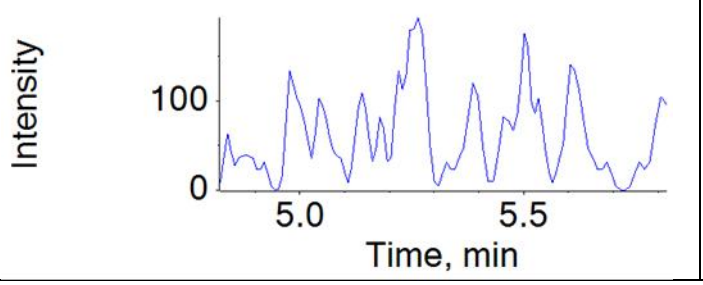


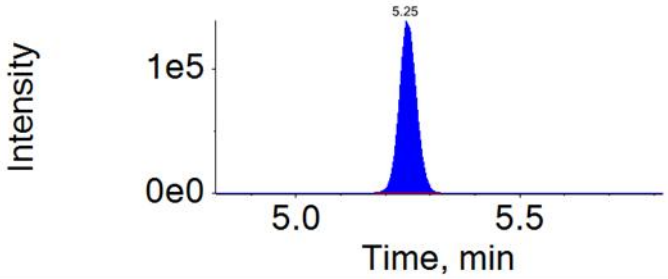
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

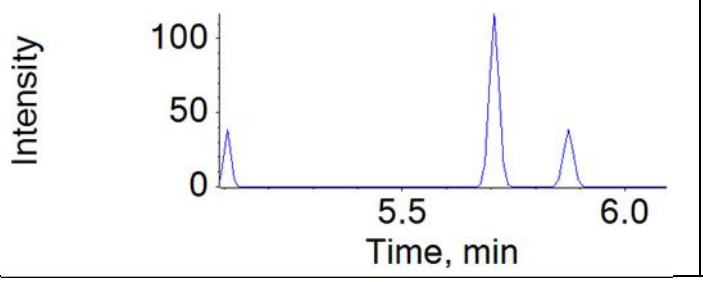
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

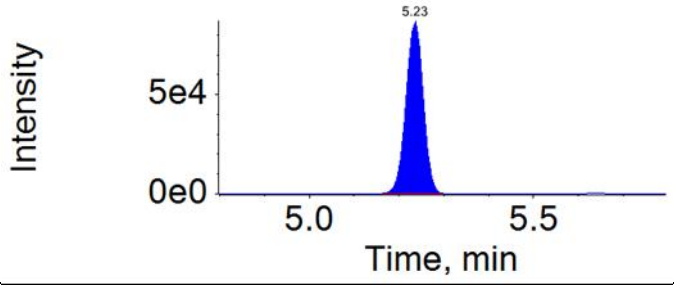
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



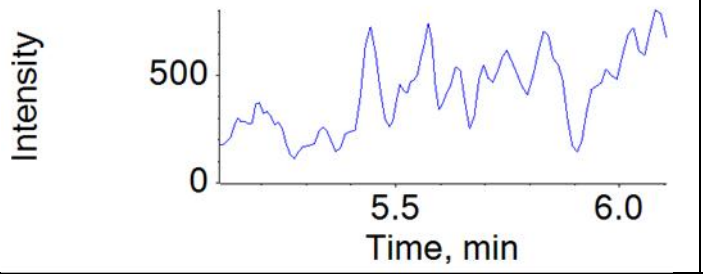


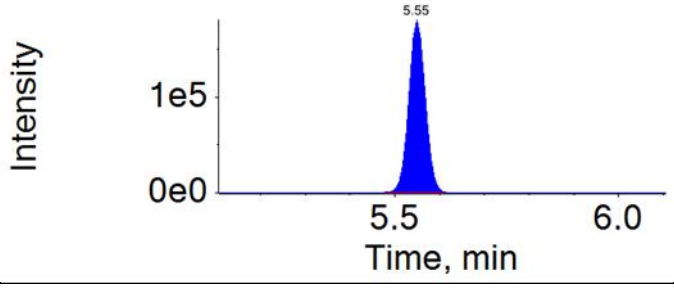
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



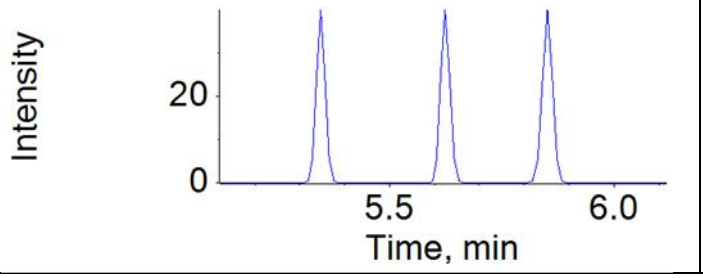


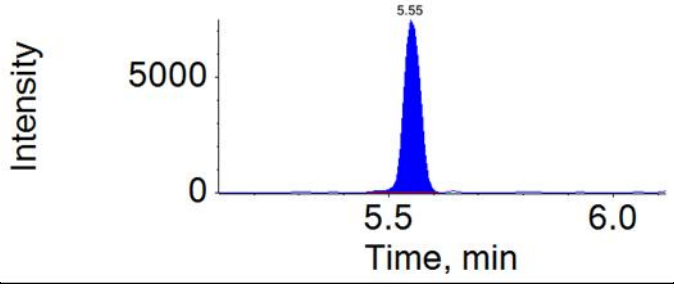
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



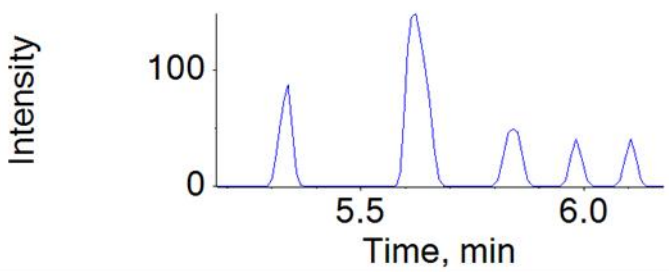


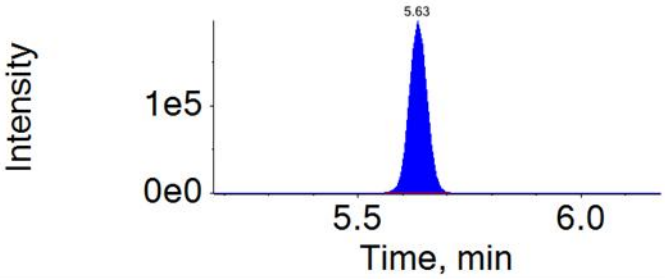
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

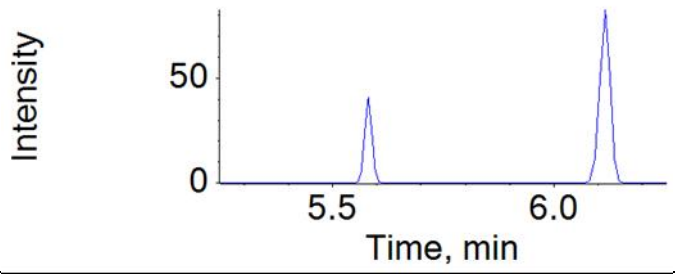
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

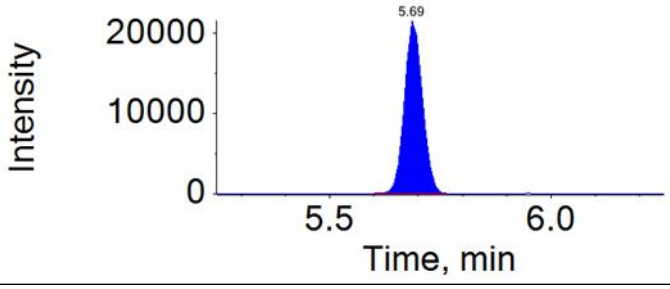
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



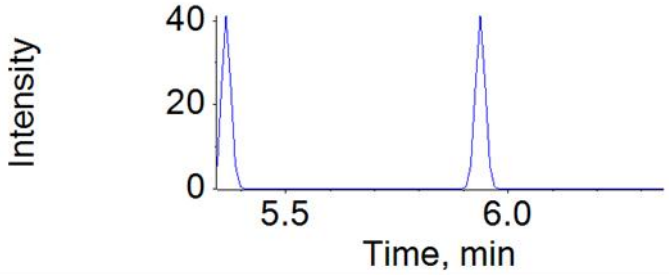


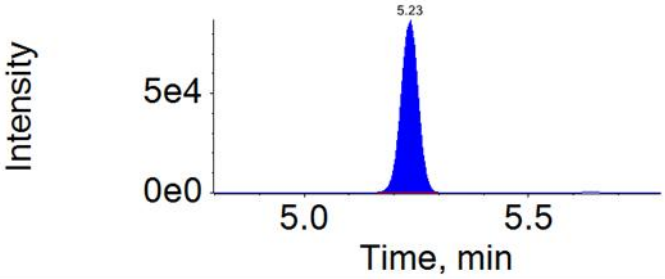
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



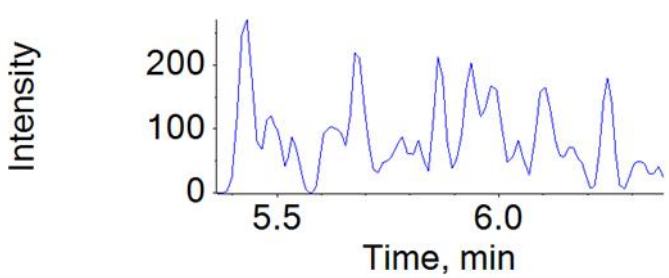


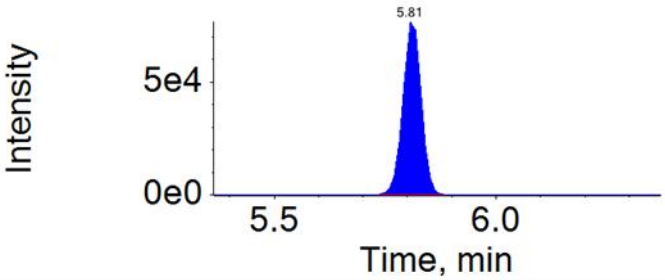
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



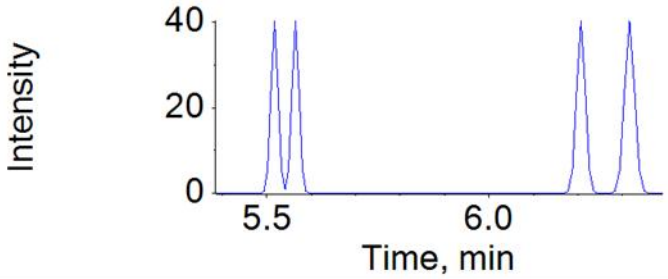


APPROVED
By JPT at 1:25 pm, 11/9/18

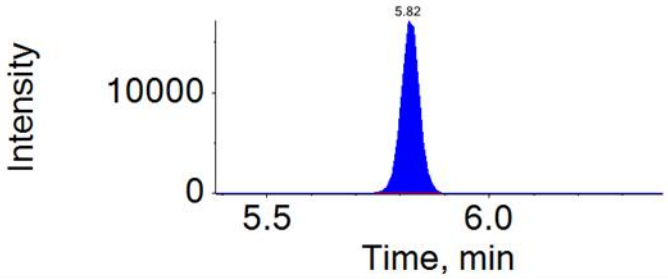
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

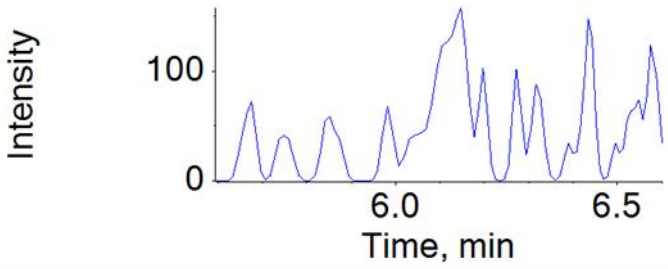
Analyte: NEtFOSAA
584.0 / 419.0



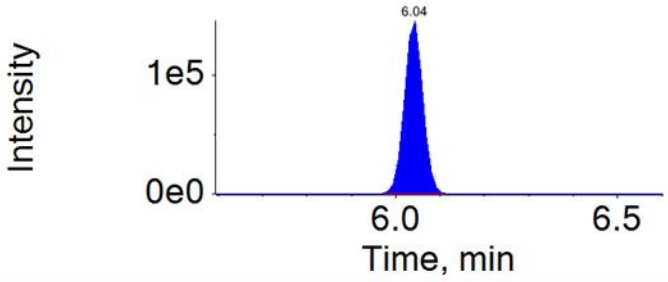
Extraction Standard: d5-NEtFOSAA
589.0 / 419.0



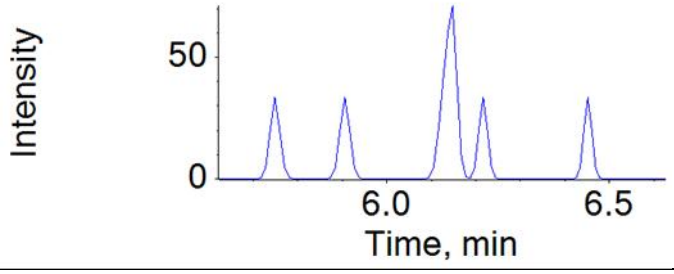
Analyte: PFDoDA
613.0 / 569.0



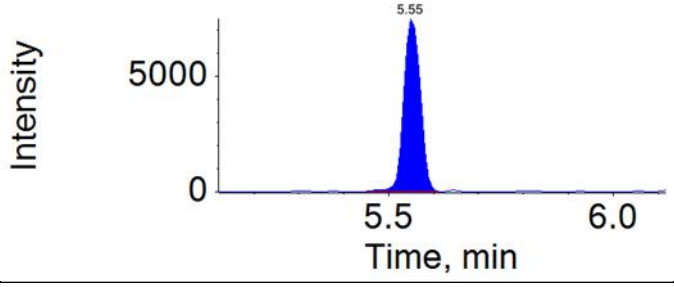
Extraction Standard: 13C2-PFDoDA
615.0 / 570.0



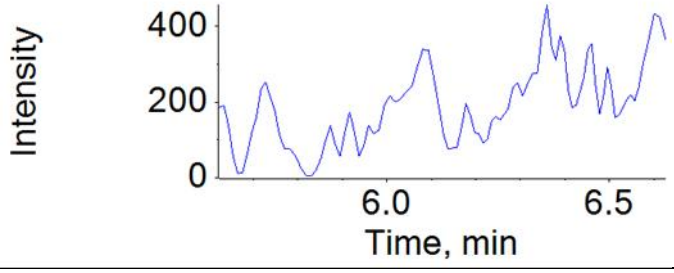
Analyte: 10:2-FTS
627.0 / 607.0



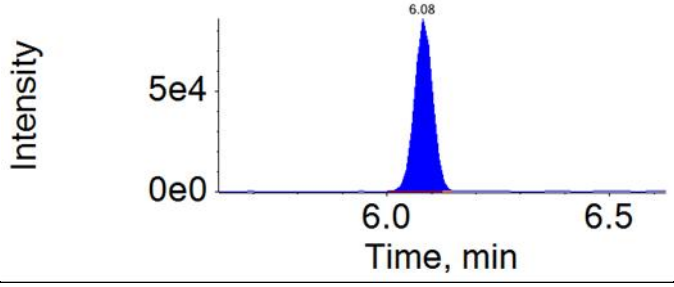
Extraction Standard: 13C2-8:2-FTS
529.0 / 81.0



Analyte: NMePFOSAE
616.0 / 59.0



Extraction Standard: d7-NMePFOSAE
623.0 / 59.0

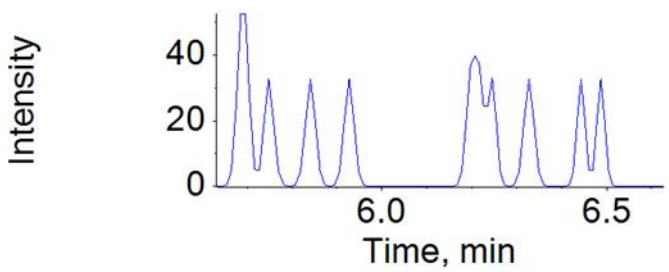


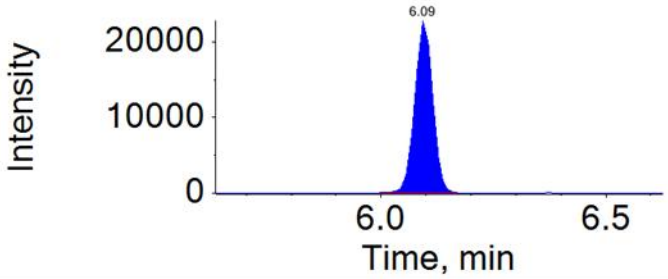
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

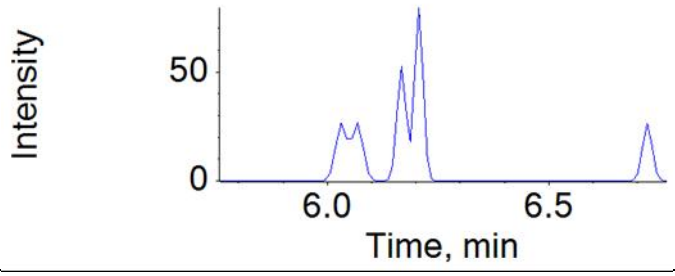
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

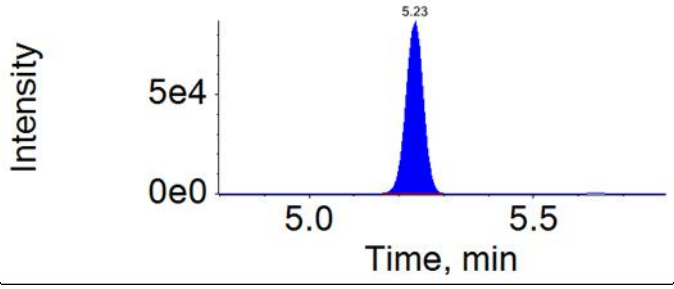
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



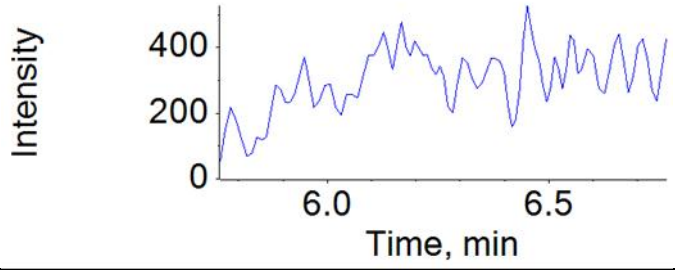


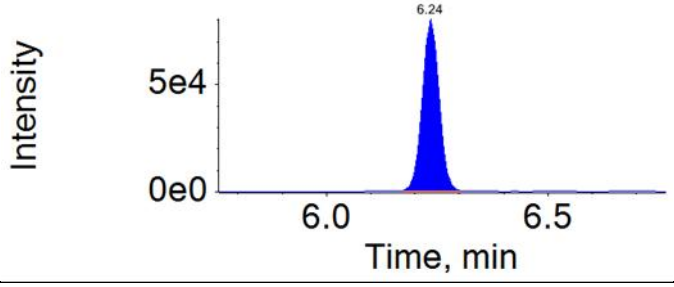
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



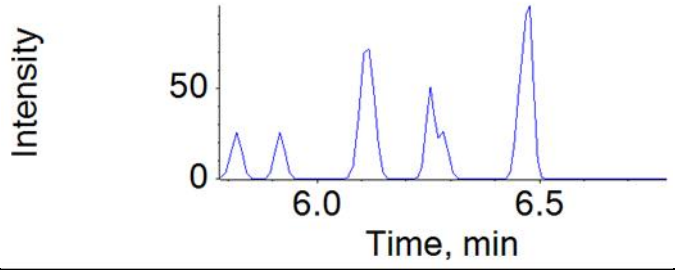


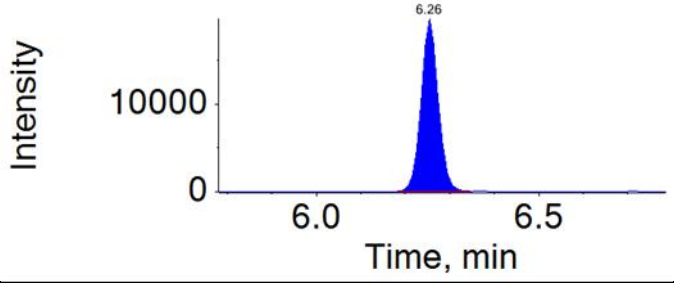
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



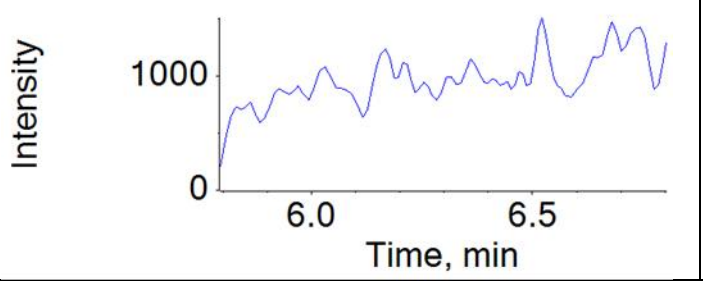


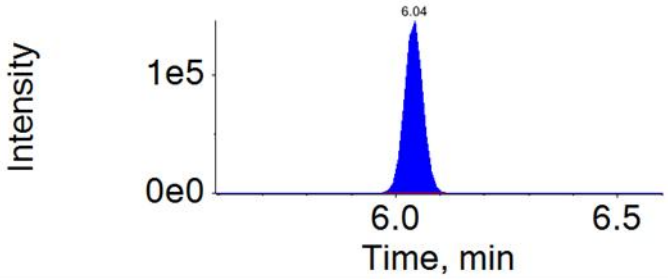
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

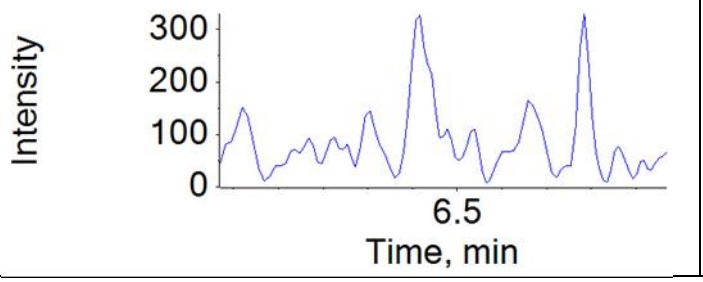
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

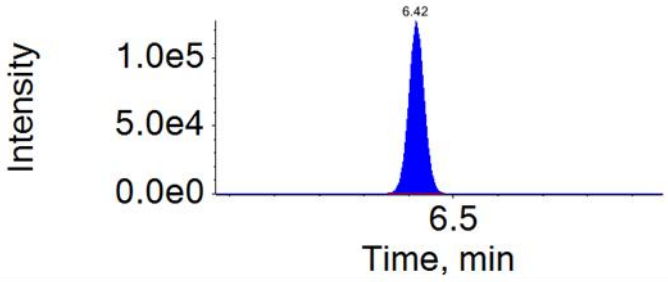
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



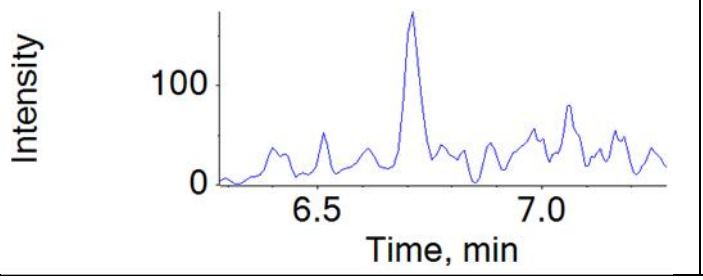


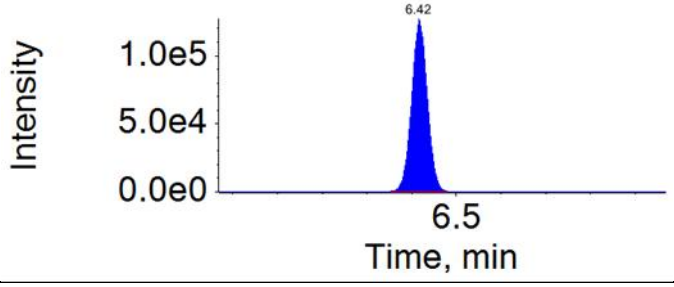
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



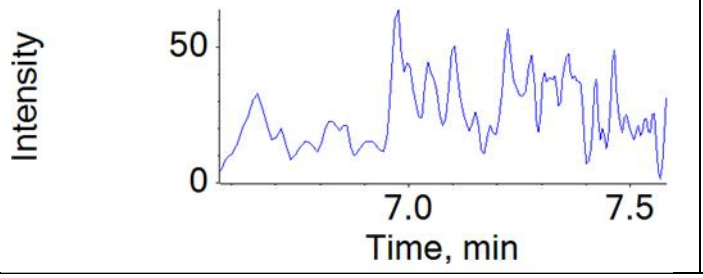


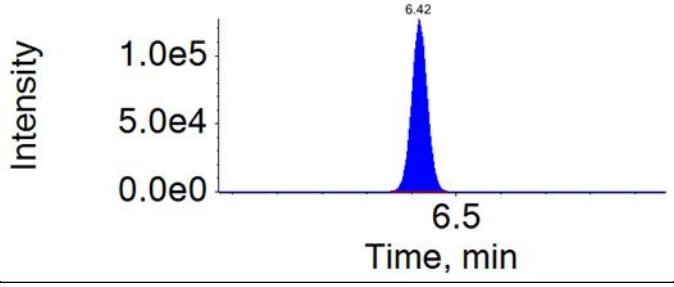
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

Ion Ratio Report

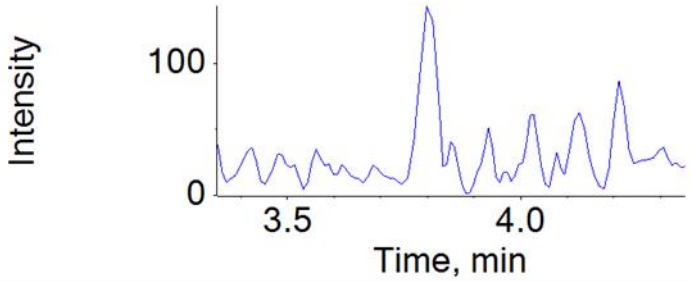
Sample Name: BLK311003 **Instrument Name:** LM27631 **File Name:** 18NOV08D-42.wiff

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	

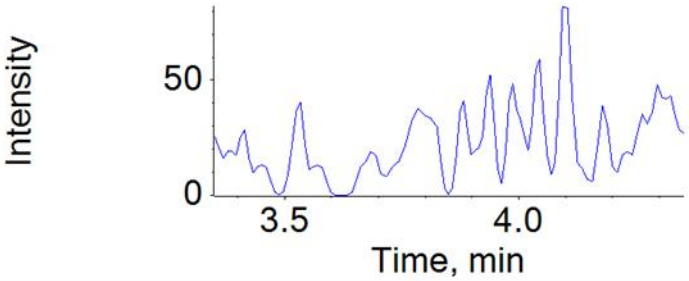
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

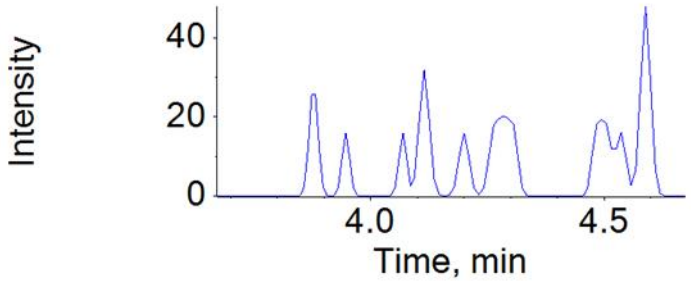
Component: PFBS
Primary Mass: 299.0 / 80.0



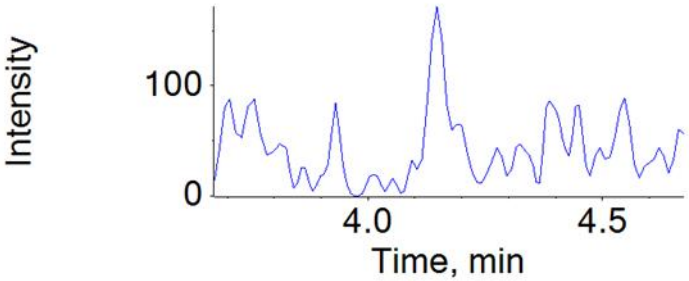
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



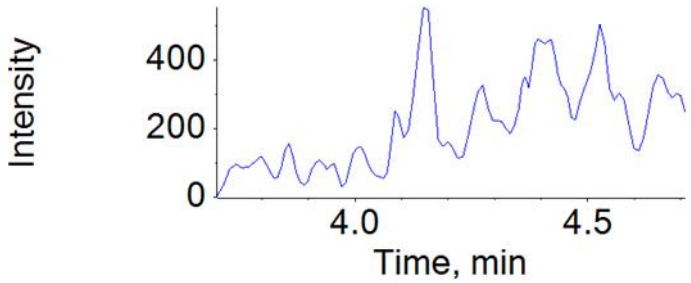
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



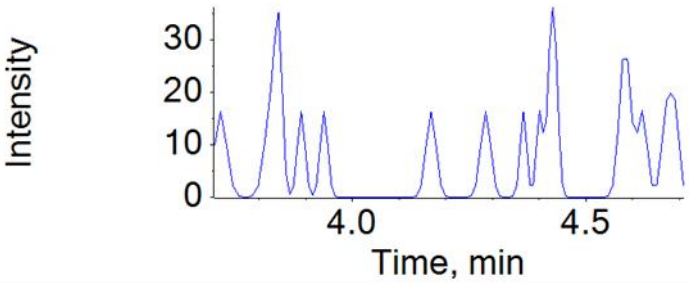
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



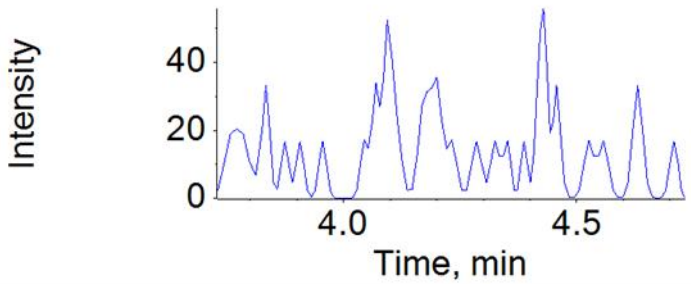
Component: PFHxA
Primary Mass: 313.0 / 269.0



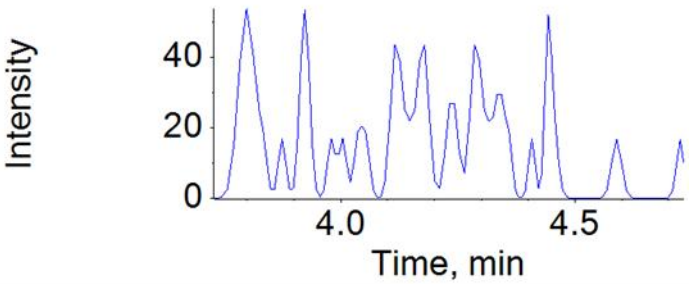
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



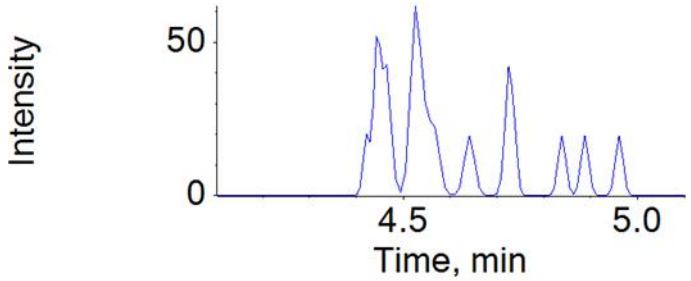
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



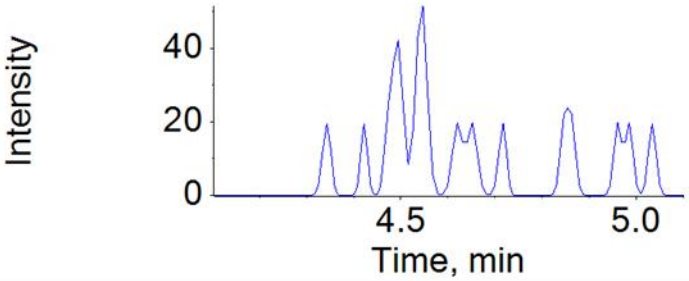
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

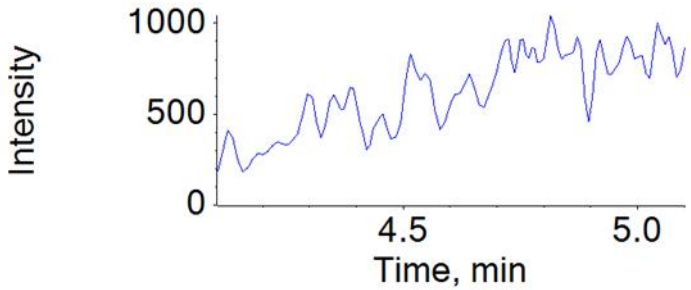
Component: PFHxS
Primary Mass: 399.0 / 80.0



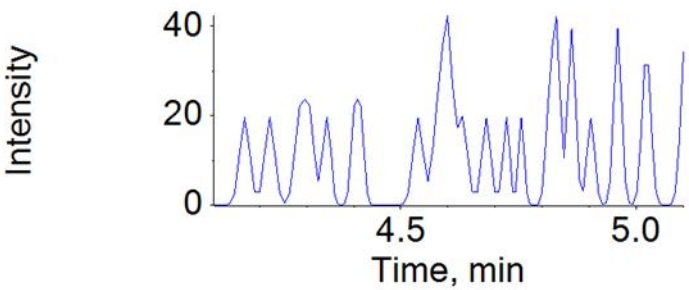
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



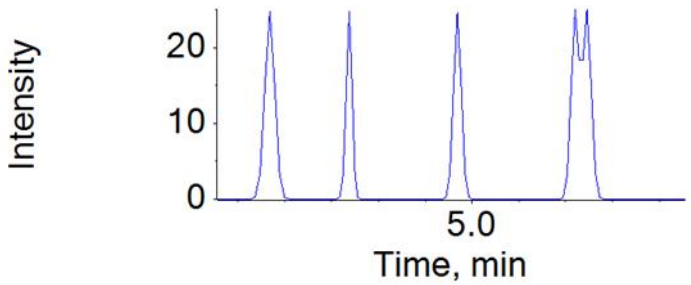
Component: PFHpA
Primary Mass: 363.0 / 319.0



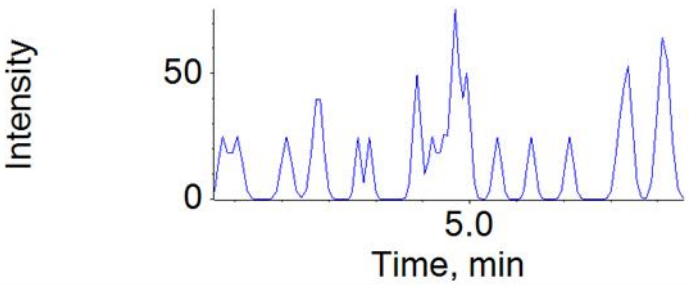
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



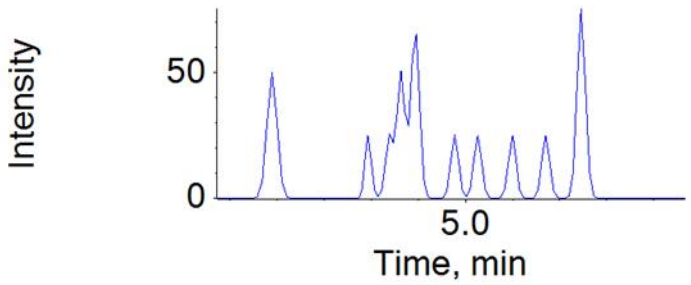
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



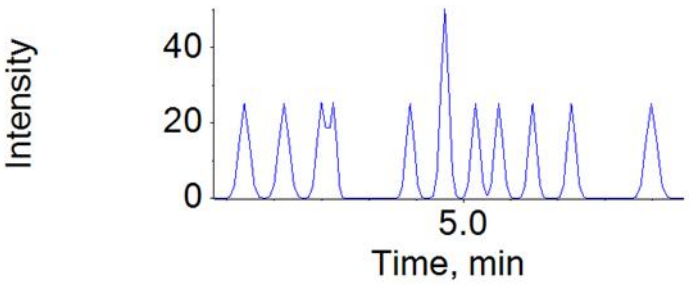
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



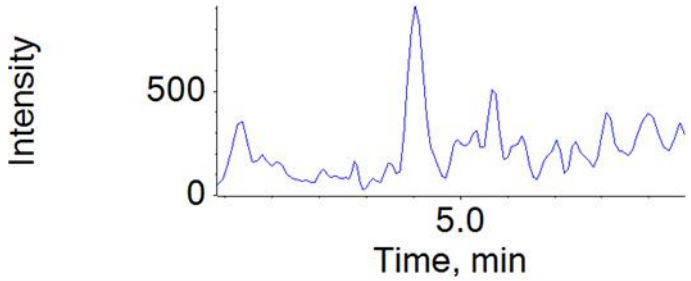
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



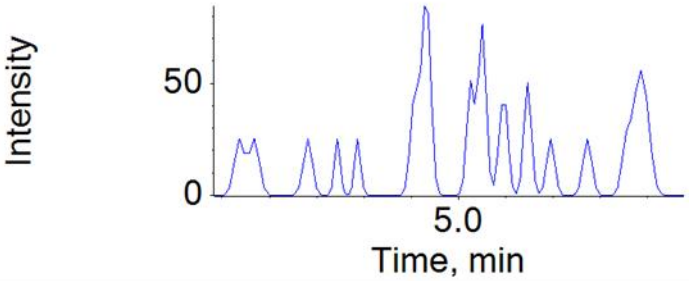
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

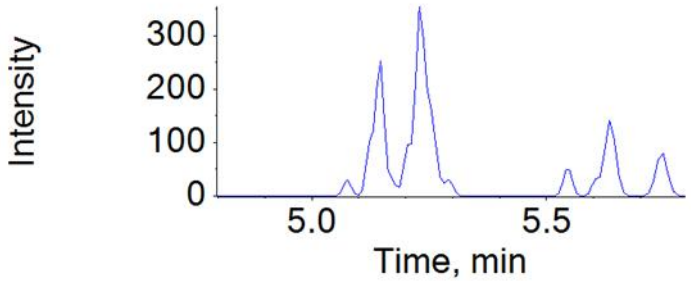
Component: PFOA
Primary Mass: 413.0 / 369.0



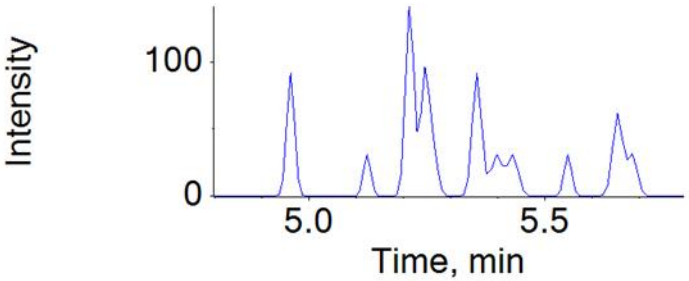
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



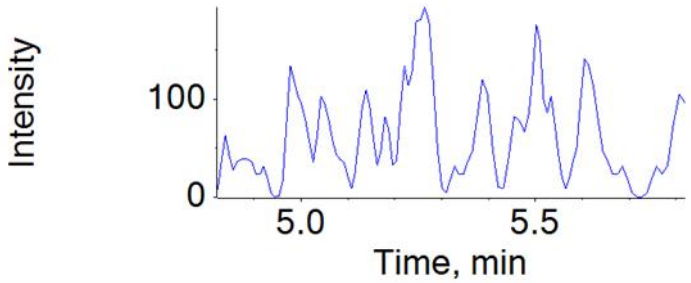
Component: PFOS
Primary Mass: 499.0 / 80.0



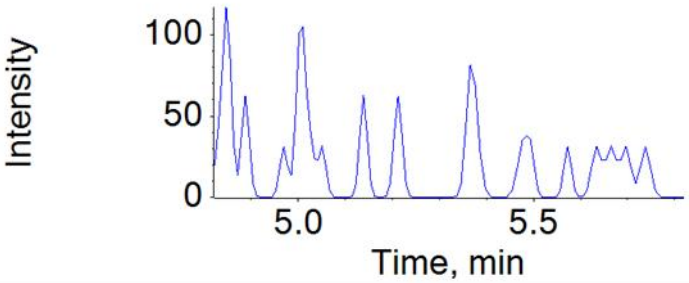
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



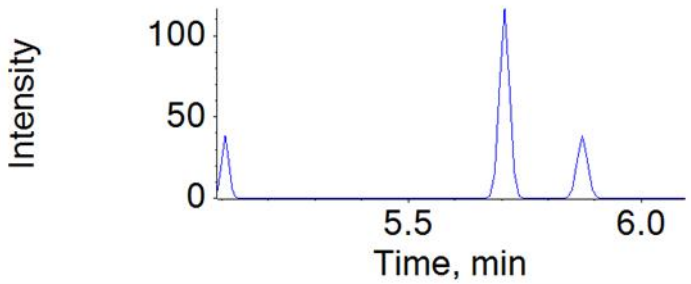
Component: PFNA
Primary Mass: 463.0 / 419.0



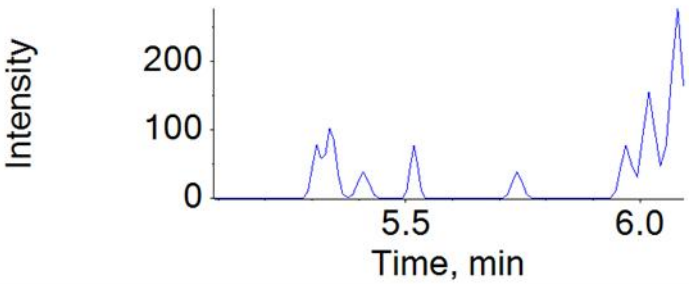
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



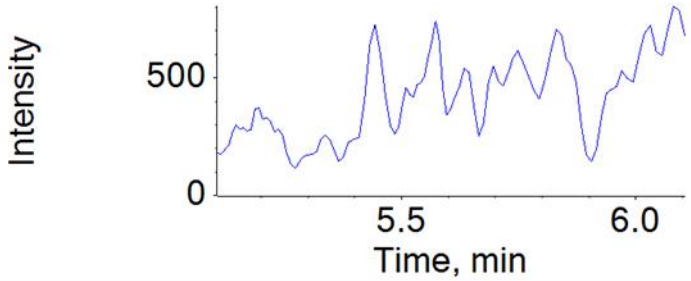
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



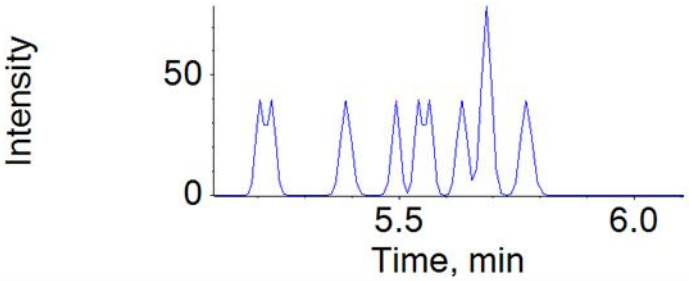
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

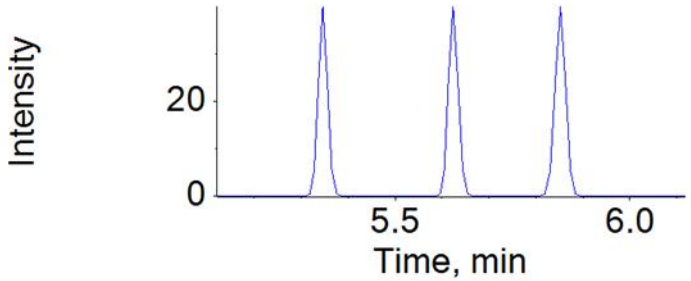
Component: PFDA
Primary Mass: 513.0 / 469.0



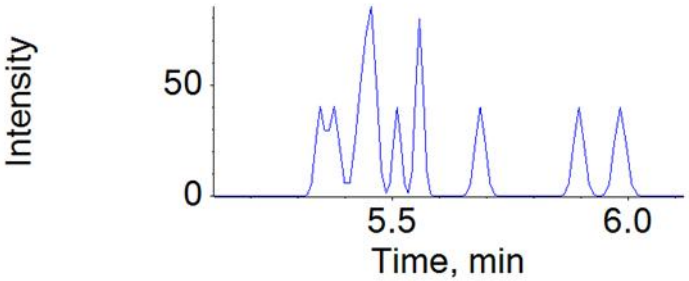
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



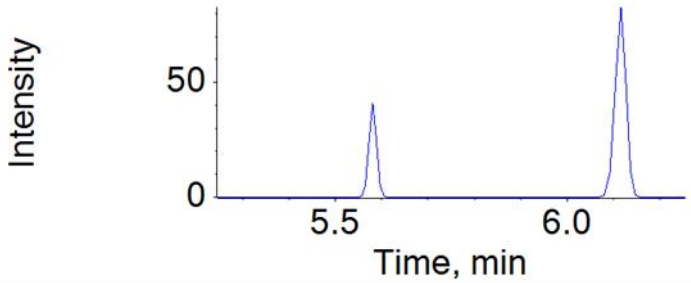
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



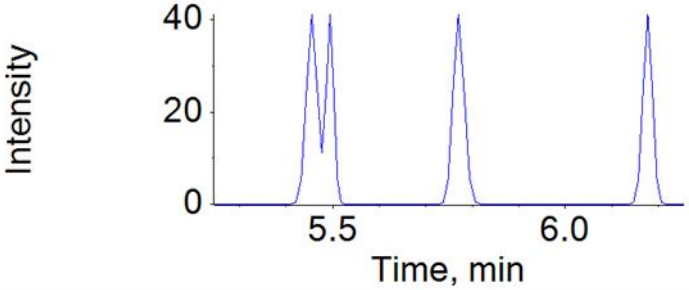
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



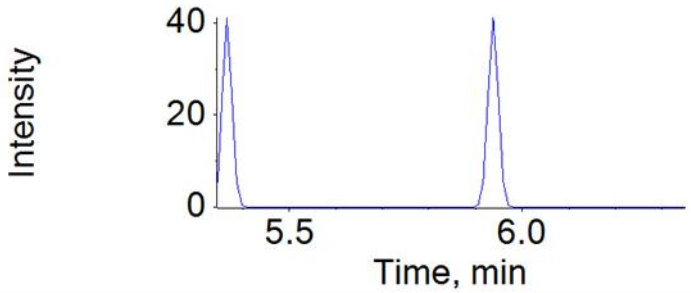
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



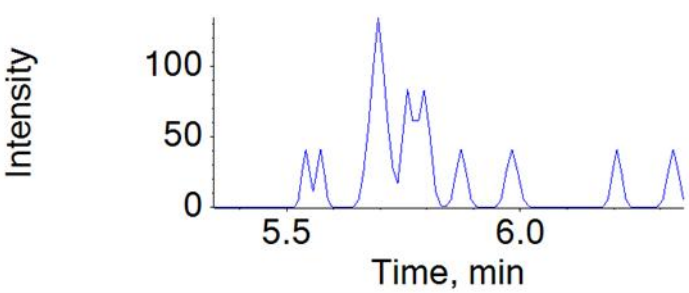
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



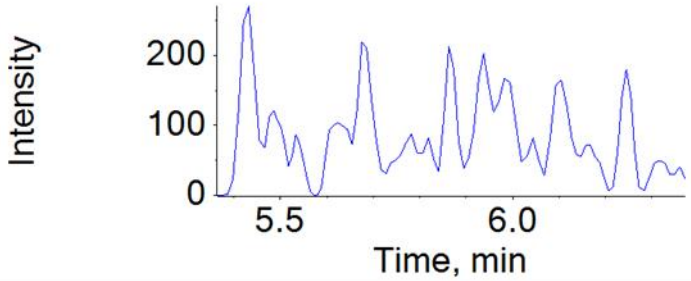
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



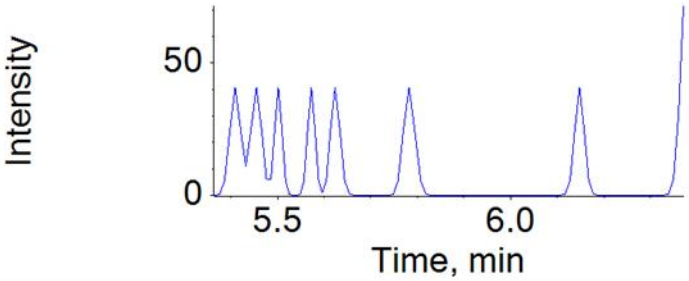
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

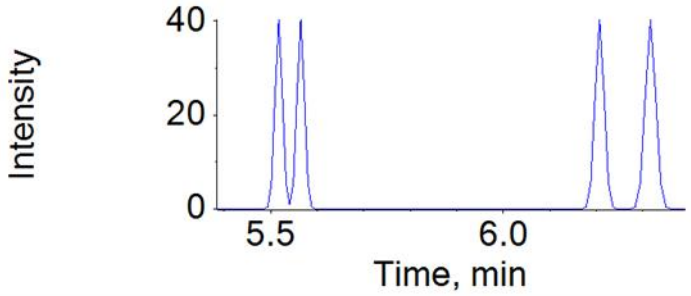
Component: PFUnDA
Primary Mass: 563.0 / 519.0



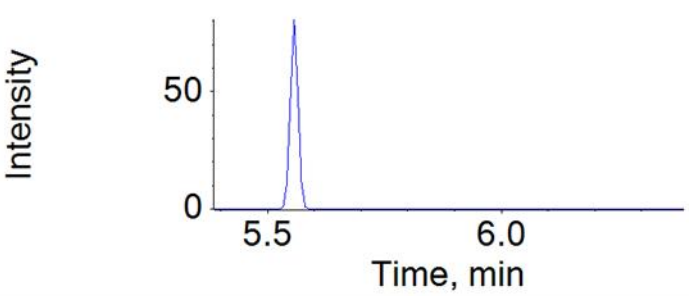
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



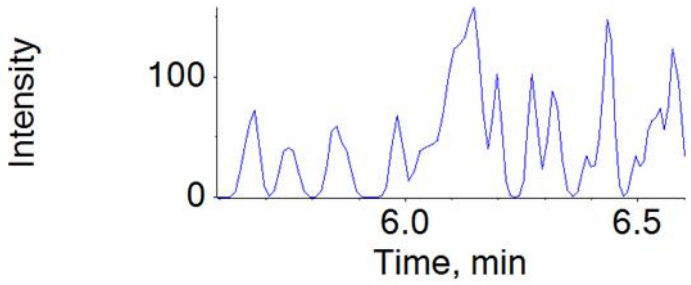
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



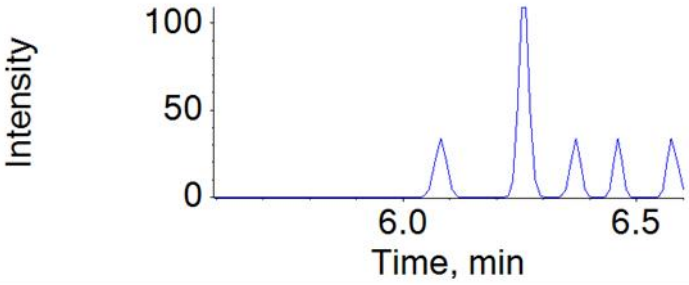
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



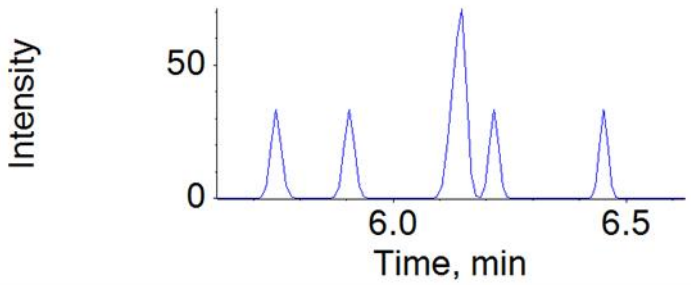
Component: PFDoDA
Primary Mass: 613.0 / 569.0



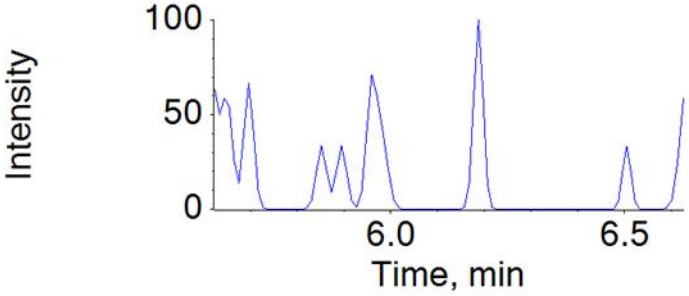
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



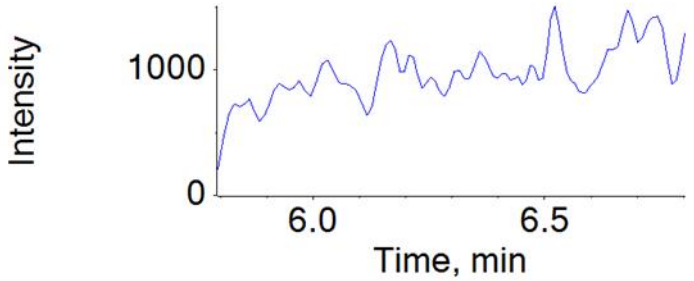
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



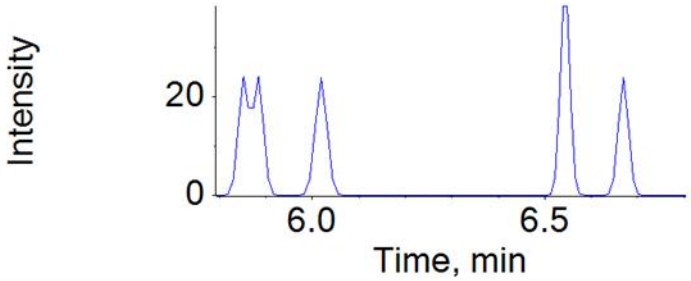
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

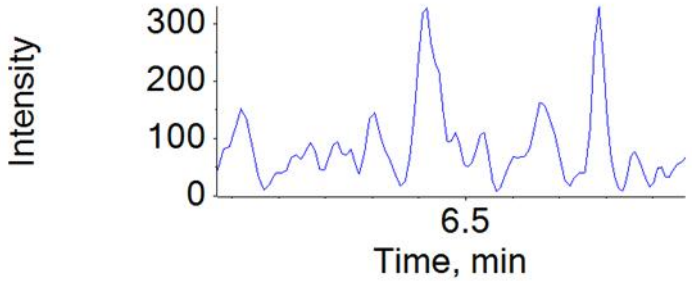
Component: PFTrDA
Primary Mass: 663.0 / 619.0



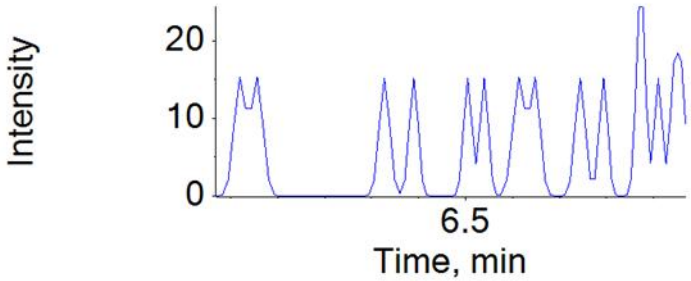
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



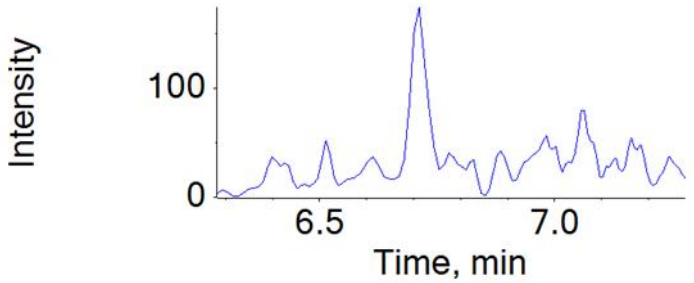
Component: PFTeDA
Primary Mass: 713.0 / 669.0



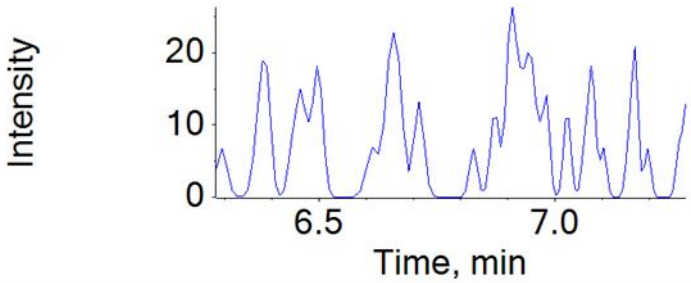
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



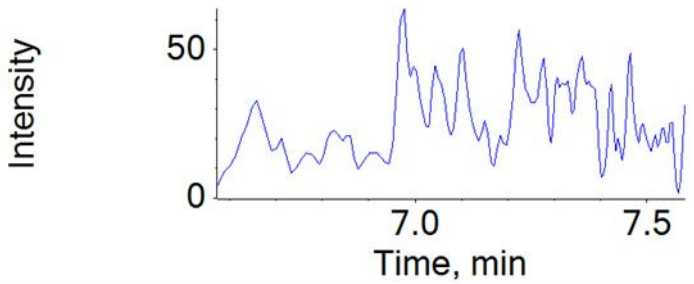
Component: PFHxDA
Primary Mass: 813.0 / 769.0



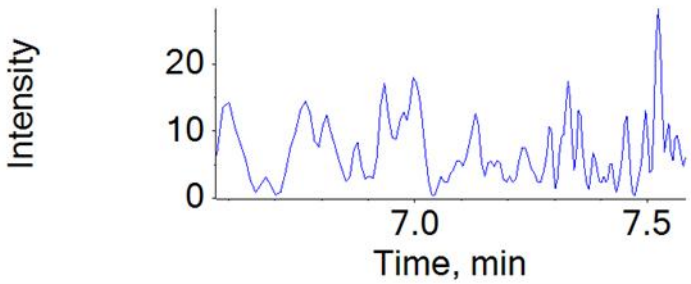
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



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: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK314006			**Data File:**		18NOV12D-40.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18314006			**Acquis Date:**		2018-11-12T22:37:42
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	69			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18314006
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18314006			**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: 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	698915.4	659926.2	6	50	
13C2-PFOA	5.0	492840.4	450219.7	9	50	
13C4-PFOS	4.8	264794.3	249205.8	6	50	
13C2-PFDA	5.0	301445.5	278743.9	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	692271.6	13C3-PFBA	698915.4	0.990	20.000	17.763	89	50-150	
E13C5-PFPeA	677034.2	13C3-PFBA	698915.4	0.969	20.000	17.379	87	50-150	
E13C3-PFBS	376236.7	13C3-PFBA	698915.4	0.538	18.600	15.200	82	50-150	
E13C2-4:2-FTS	41314.6	13C2-PFOA	492840.4	0.084	18.680	14.934	80	50-150	
E13C5-PFHxA	614399.9	13C2-PFOA	492840.4	1.247	20.000	18.013	90	50-150	
E13C3-PFHxS	276003.3	13C2-PFOA	492840.4	0.560	18.920	15.371	81	50-150	
E13C4-PFHpA	492739.1	13C2-PFOA	492840.4	1.000	20.000	18.017	90	50-150	
E13C2-6:2-FTS	30853.4	13C2-PFOA	492840.4	0.063	19.000	16.754	88	50-150	
E13C8-PFOA	806624.7	13C2-PFOA	492840.4	1.637	20.000	18.037	90	50-150	
E13C8-PFOS	239491.5	13C4-PFOS	264794.3	0.904	19.120	16.030	84	50-150	
E13C9-PFNA	424569.7	13C4-PFOS	264794.3	1.603	20.000	17.882	89	50-150	
E13C6-PFDA	559866.0	13C2-PFDA	301445.5	1.857	20.000	17.336	87	50-150	
E13C2-8:2-FTS	24199.6	13C2-PFDA	301445.5	0.080	19.160	16.014	84	50-150	
E13C8-PFOSA	555701.3	13C2-PFDA	301445.5	1.843	20.000	16.348	82	50-150	
Ed3-NMeFOSAA	71138.7	13C2-PFDA	301445.5	0.236	20.000	17.039	85	50-150	
E13C7-PFUnDA	227675.4	13C2-PFDA	301445.5	0.755	20.000	17.540	88	50-150	
Ed5-NEtFOSAA	53508.7	13C2-PFDA	301445.5	0.178	20.000	15.022	75	50-150	
E13C2-PFDoDA	427853.7	13C2-PFDA	301445.5	1.419	20.000	14.740	74	50-150	
Ed7-NMePFOSAE	138805.2	13C2-PFDA	301445.5	0.460	20.000	7.971	40	50-150	OOS
Ed3-NMePFOSA	39443.3	13C2-PFDA	301445.5	0.131	20.000	9.509	48	50-150	OOS
Ed9-NEtPFOSAE	116741.3	13C2-PFDA	301445.5	0.387	20.000	8.057	40	50-150	OOS
Ed5-NEtPFOSA	28831.0	13C2-PFDA	301445.5	0.096	20.000	8.974	45	50-150	OOS
E13C2-PFTeDA	306470.8	13C2-PFDA	301445.5	1.017	20.000	14.277	71	50-150	

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

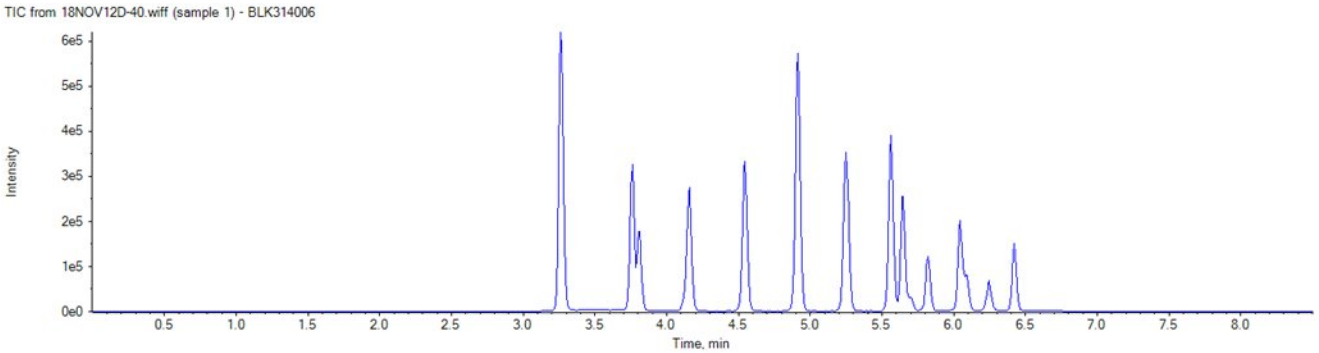
Analyte Quantitation Peak Table

Sample Name: BLK314006 **Instrument Name:** LM27631 **File Name:** 18NOV12D-40.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	692271.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	677034.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	376236.7	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	41314.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	614399.9	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	376236.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	492739.1	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	276003.3	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	30853.4	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	276003.3	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	806624.7	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	239491.5	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	424569.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	239491.5	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	559866.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	24199.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	555701.3	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	71138.7	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	239491.5	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	227675.4	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	53508.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	427853.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	24199.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	138805.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	39443.3	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	239491.5	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	116741.3	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	28831.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	427853.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306470.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306470.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	306470.8	N/A	

Total Ion Chromatogram

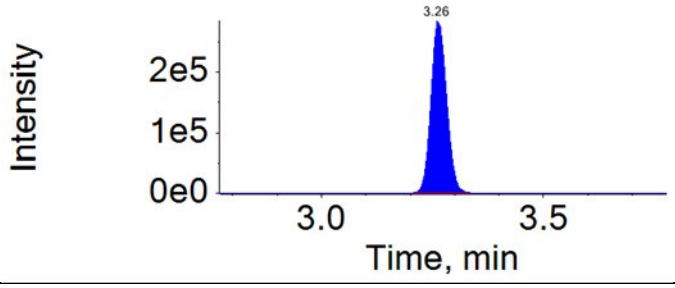


APPROVED
By MCD at 8:21 pm, 11/13/18

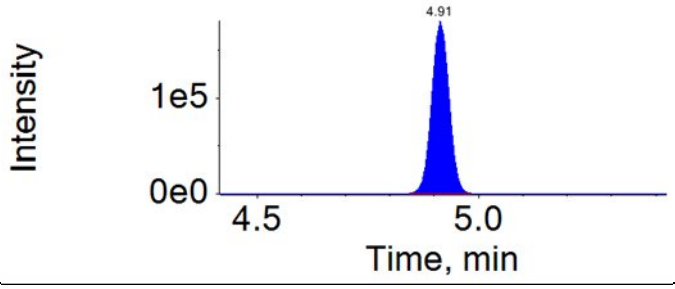
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

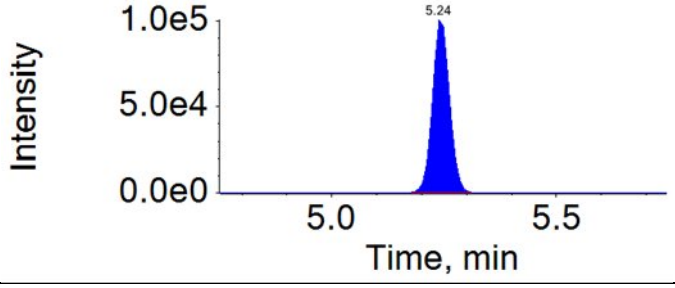
Injection Standard: 13C3-PFBA
216.0 / 172.0



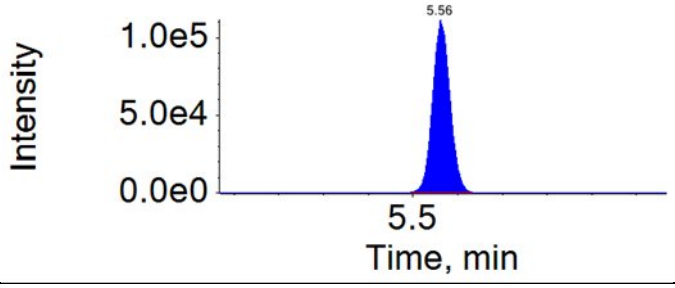
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

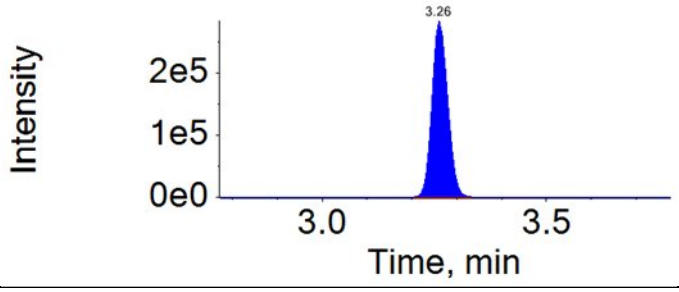


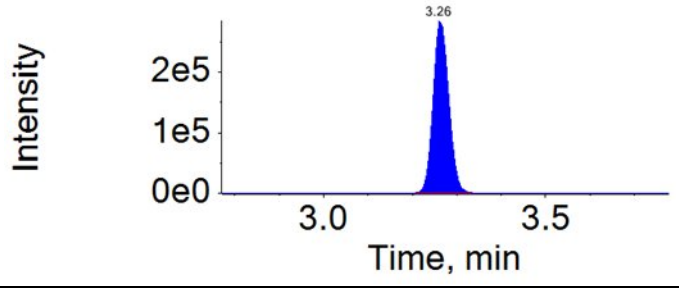
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

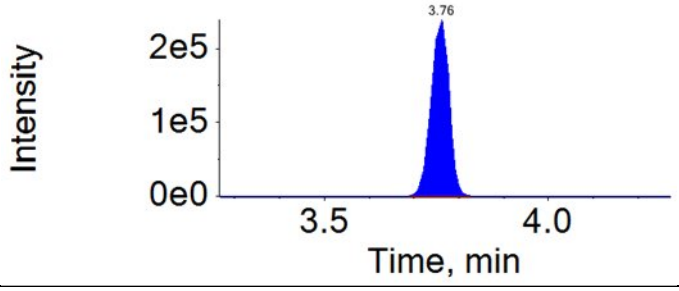
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

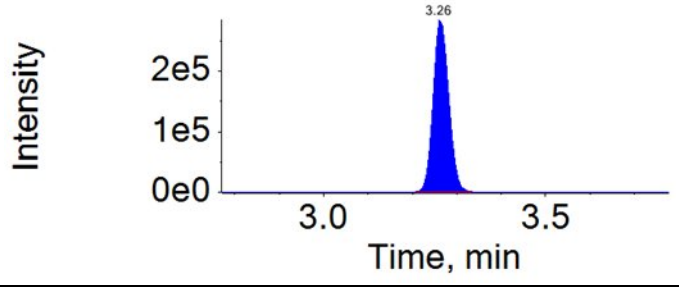
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



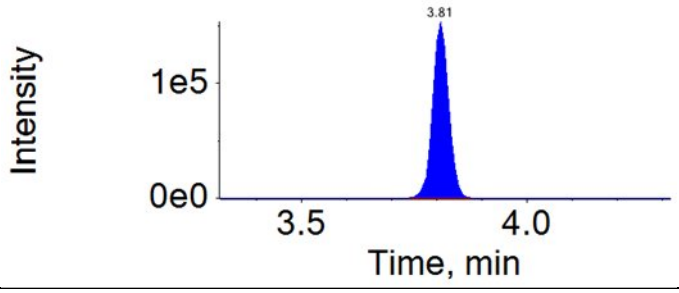


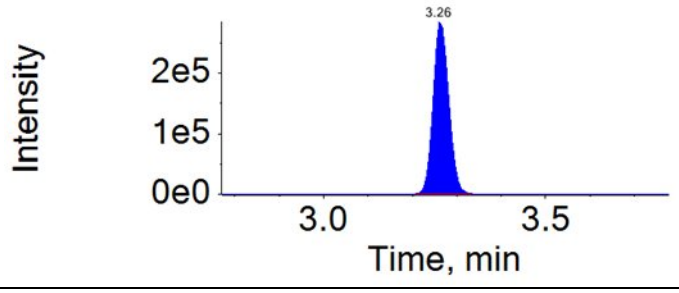
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



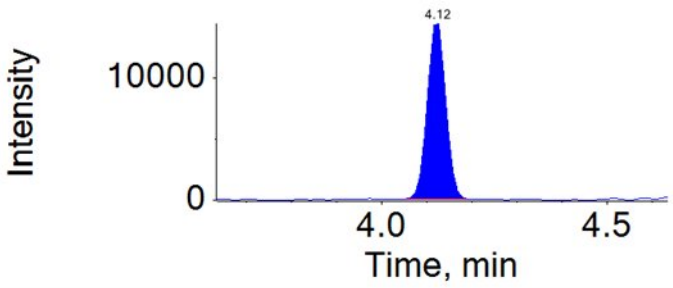


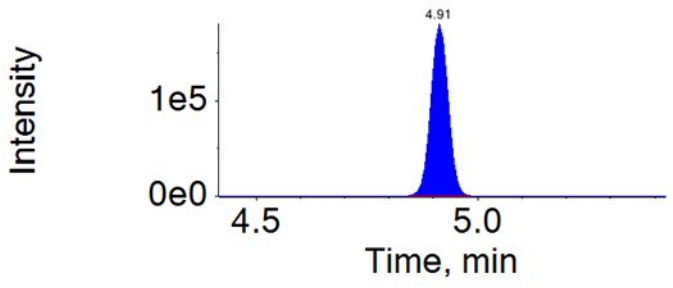
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



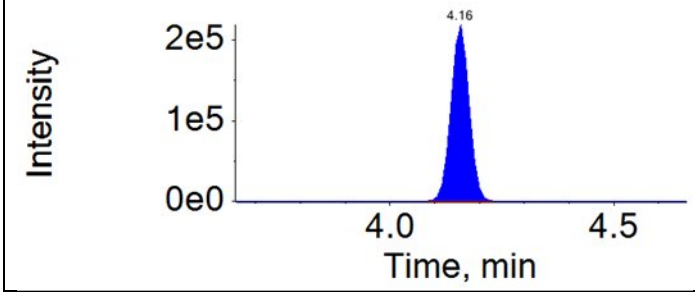


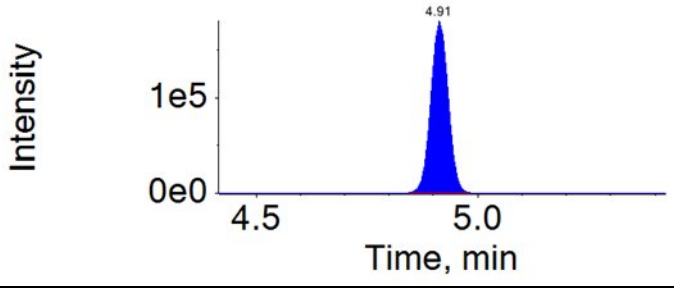
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

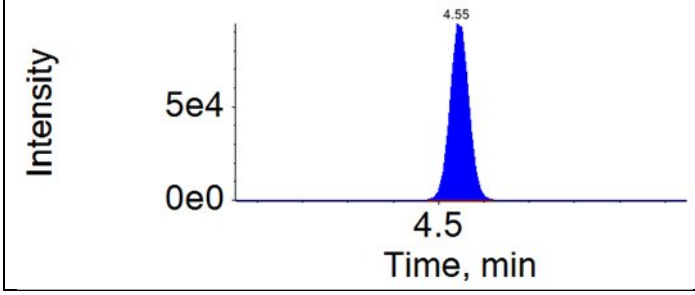
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

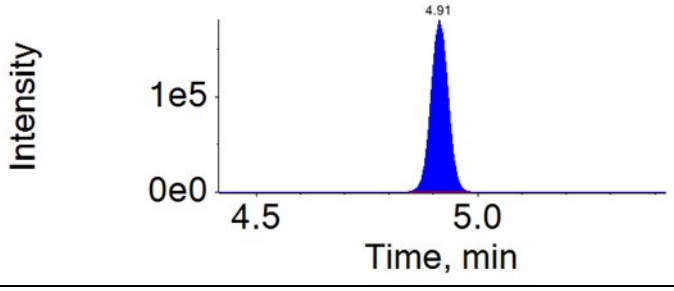
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



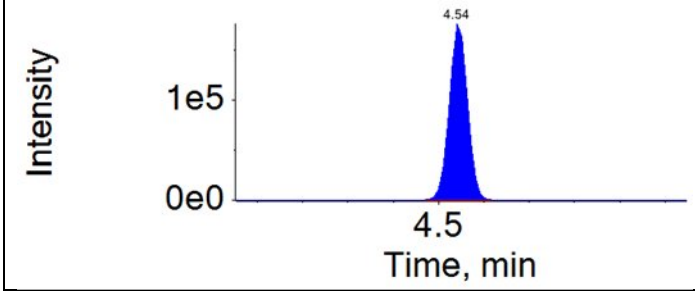


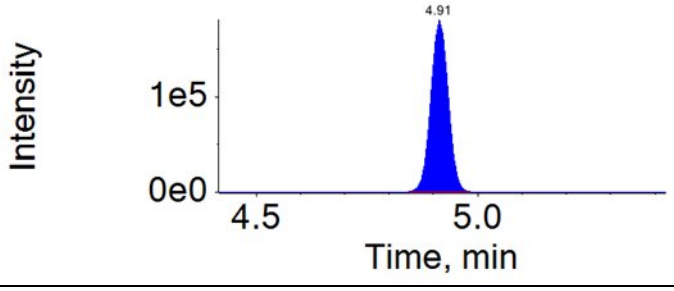
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



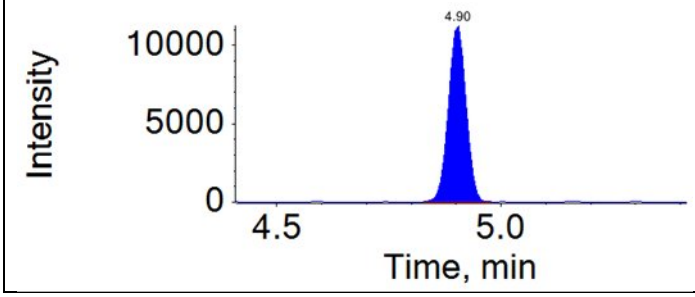


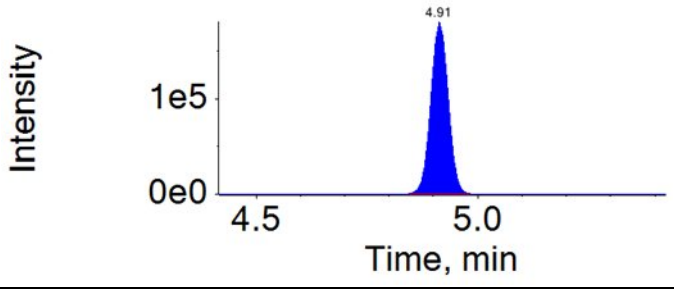
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

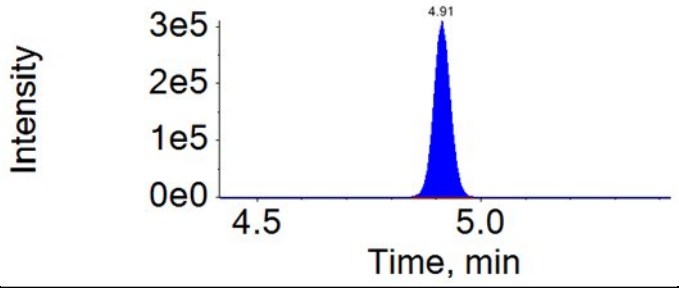
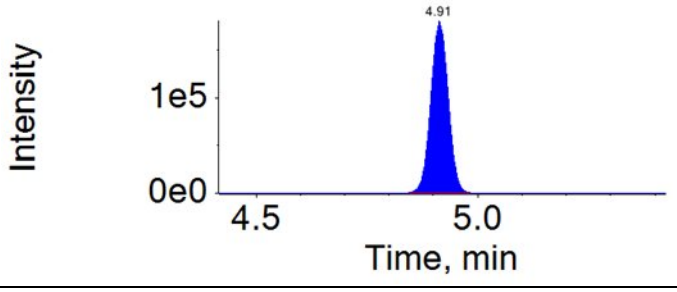


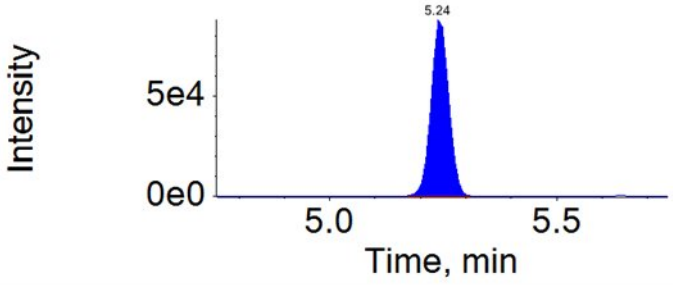
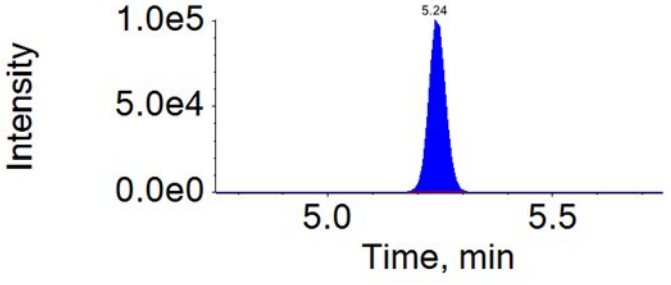


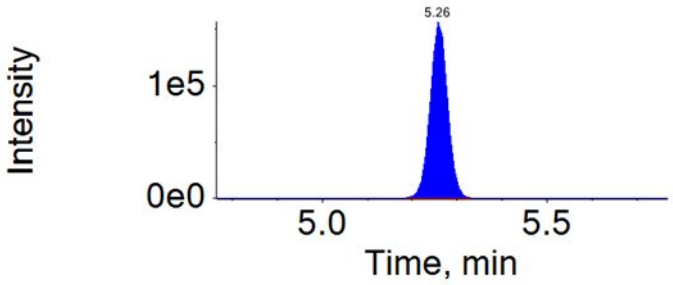
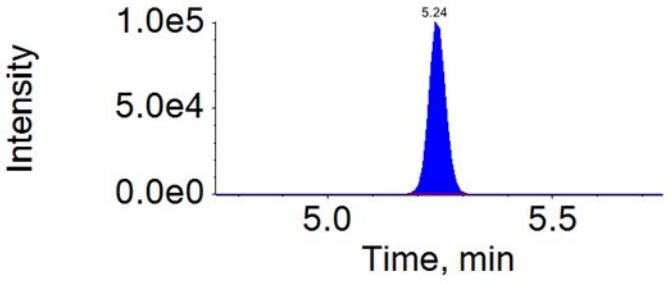
APPROVED
By MCD at 8:21 pm, 11/13/18

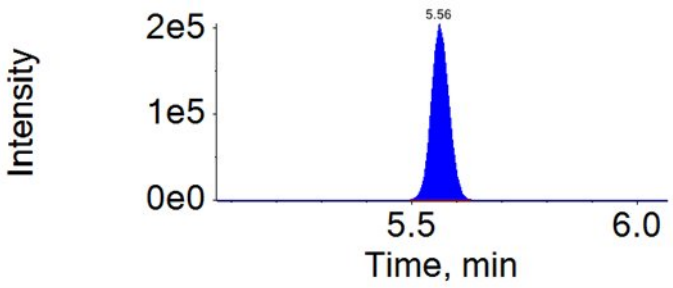
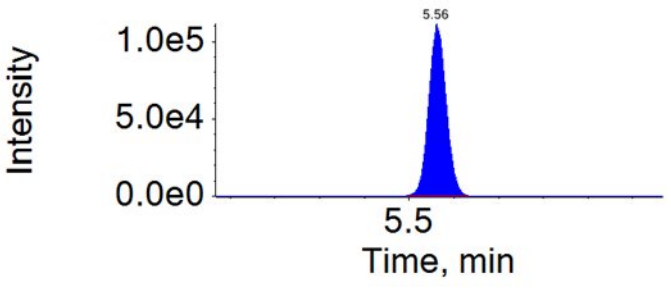
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

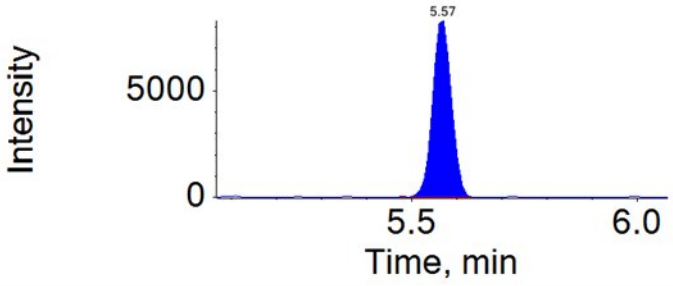
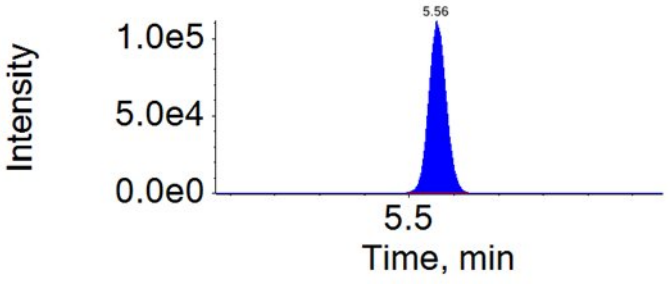
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

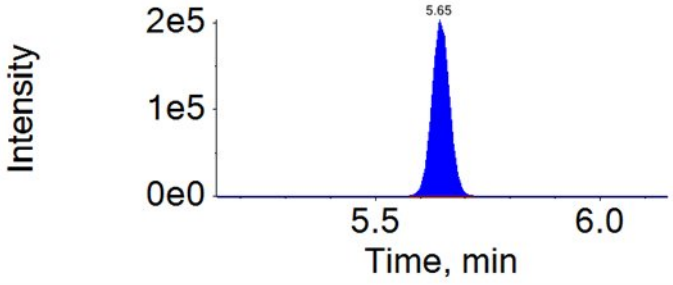
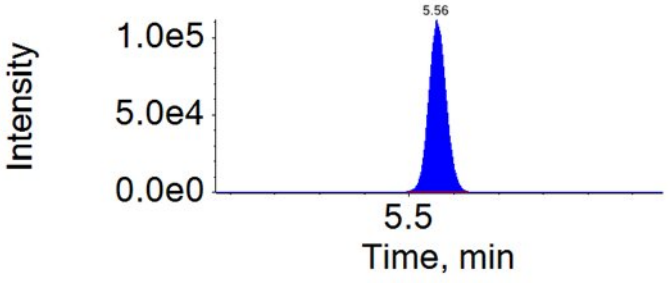
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

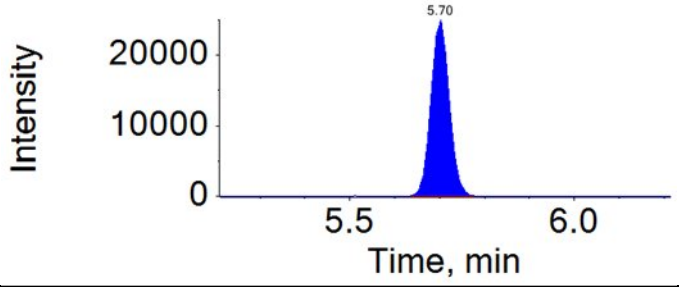
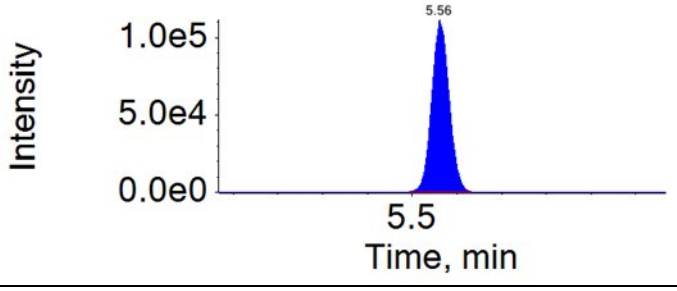
APPROVED
By MCD at 8:21 pm, 11/13/18

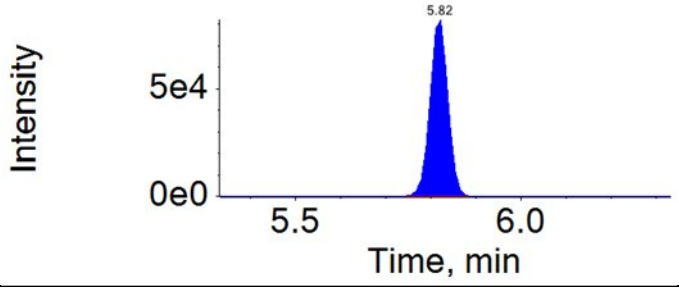
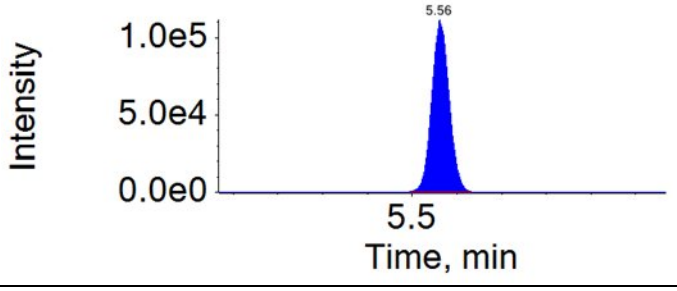
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

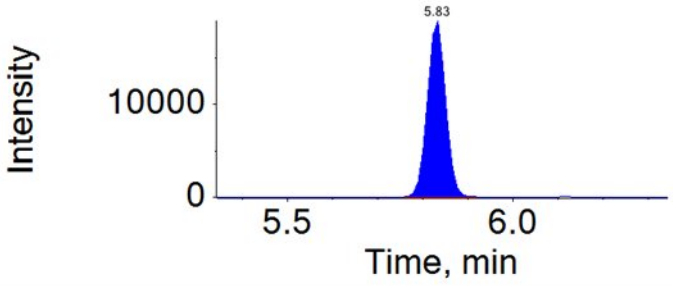
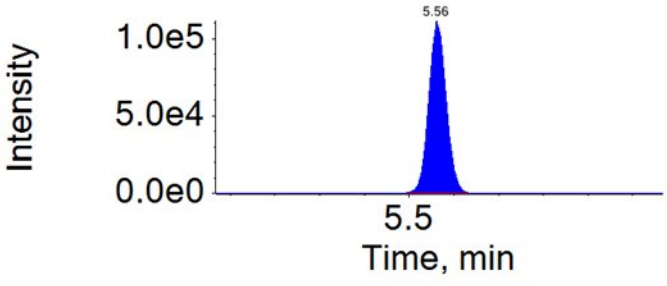
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

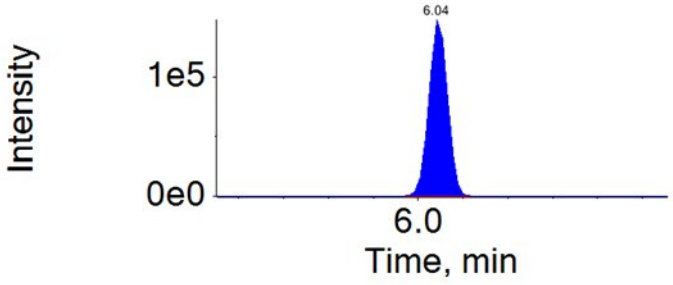
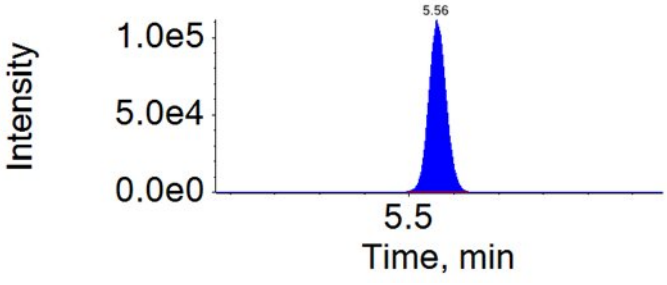
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

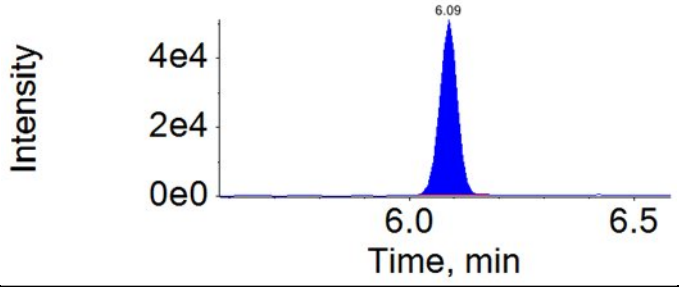
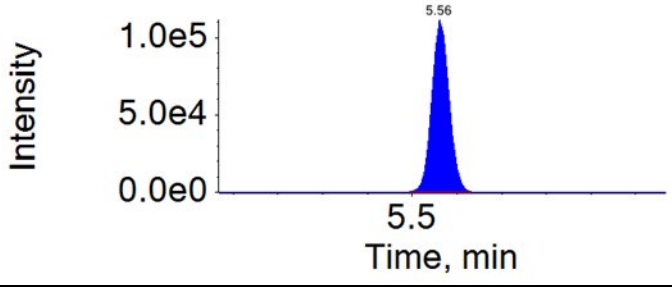
APPROVED
By MCD at 8:21 pm, 11/13/18

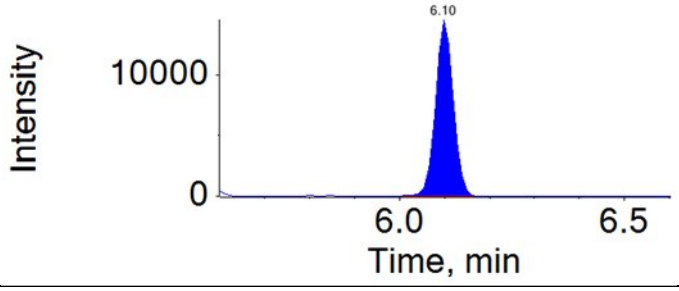
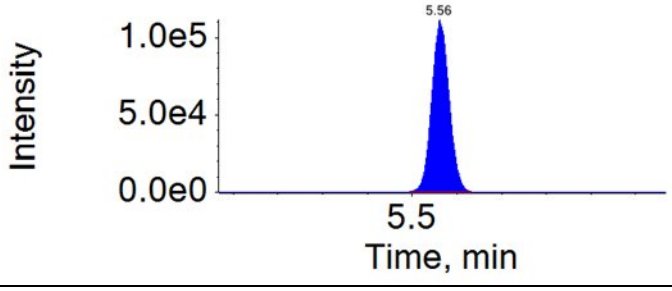
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

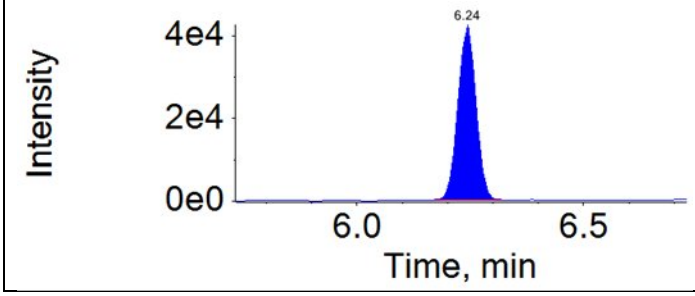
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

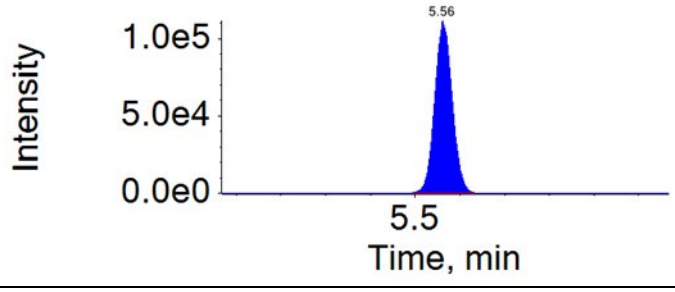
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

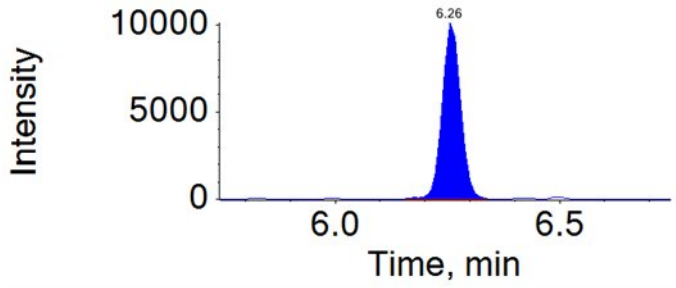
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

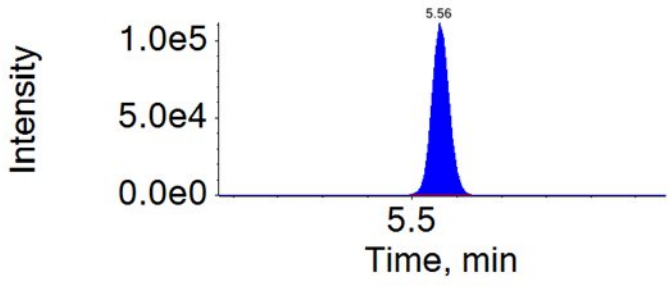
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



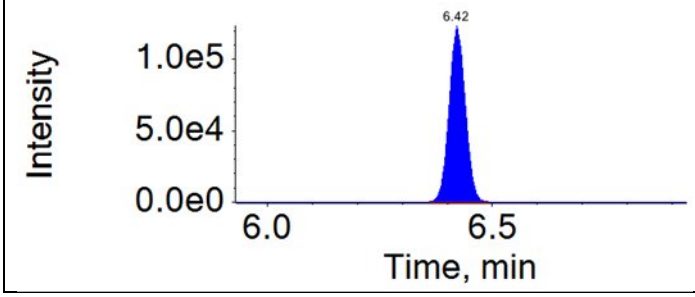


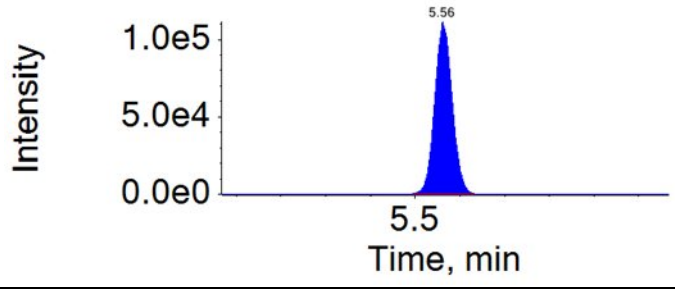
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



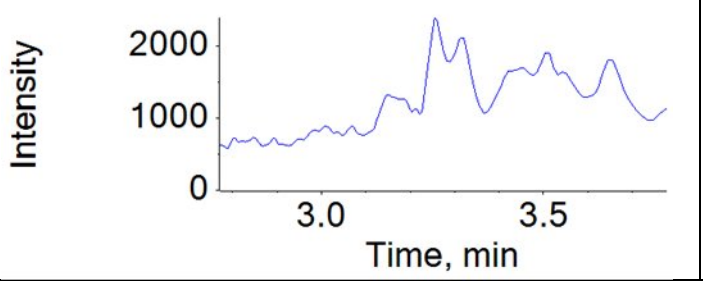


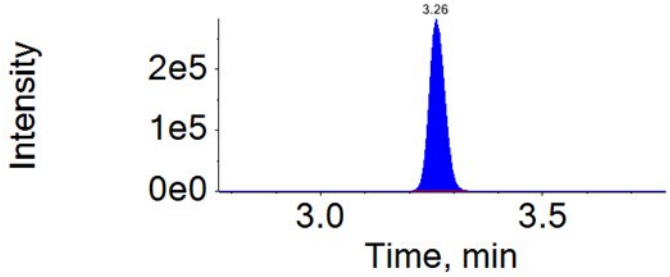
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

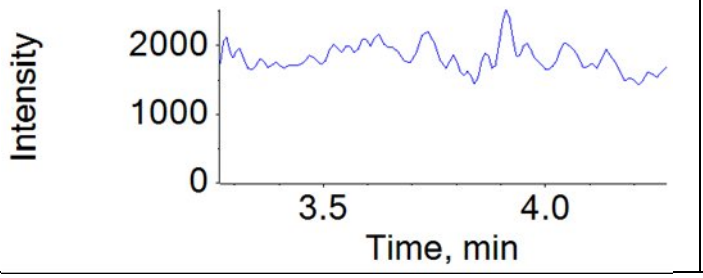
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

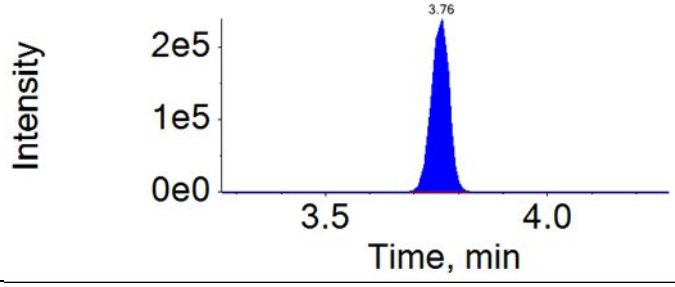
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



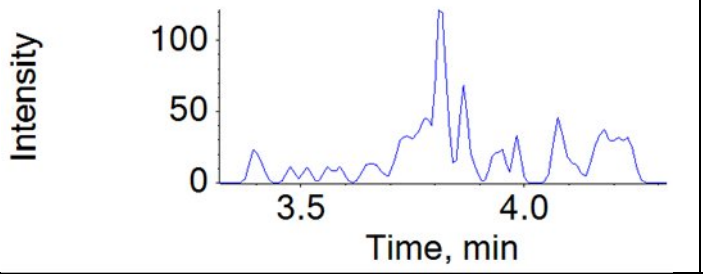


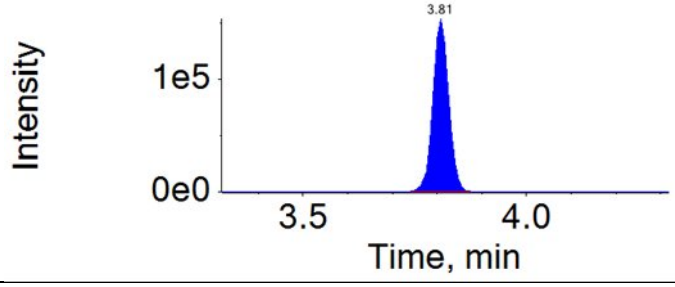
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



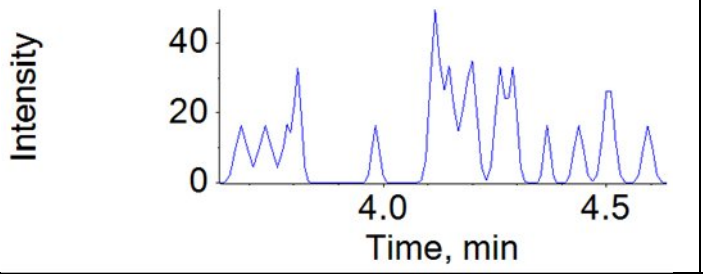


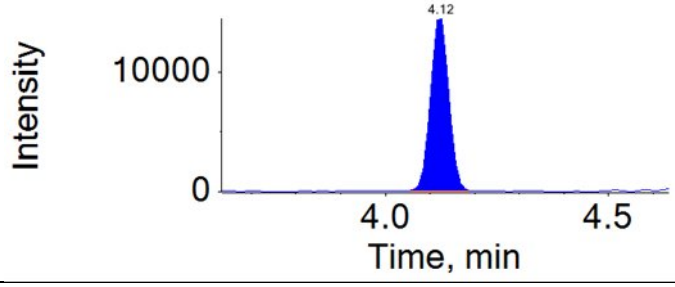
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



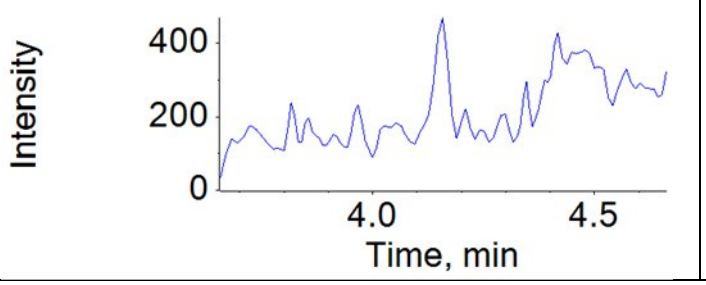


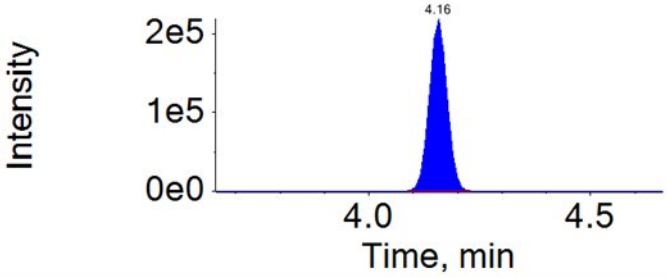
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

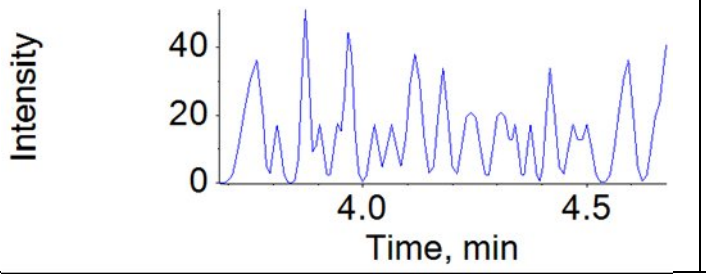
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

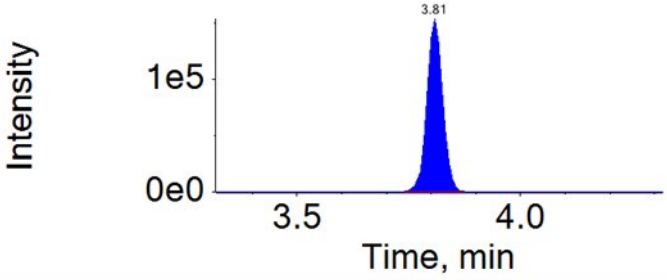
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



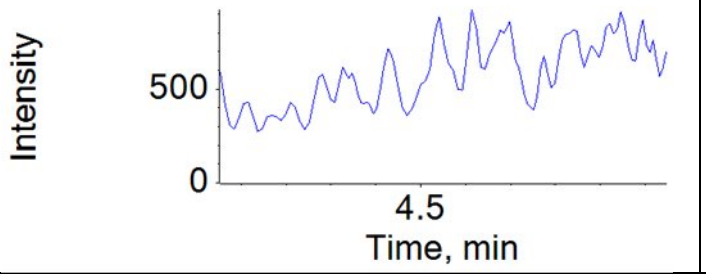


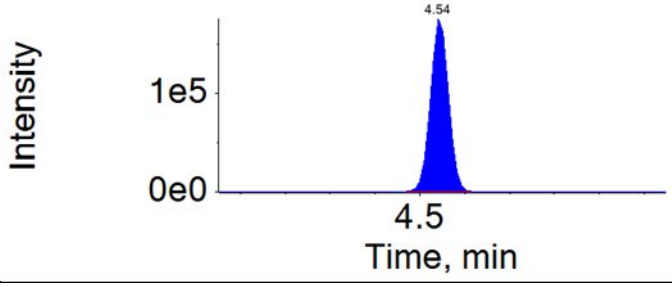
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



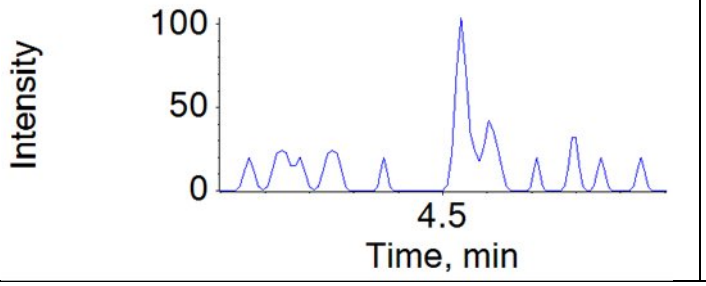


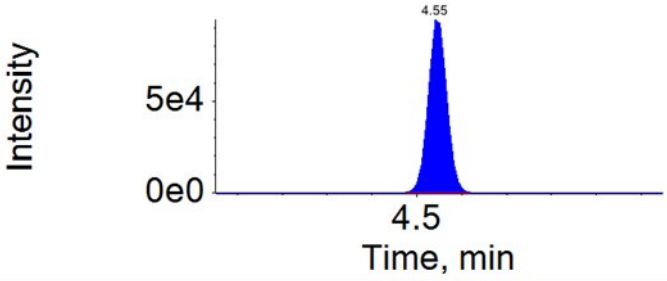
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



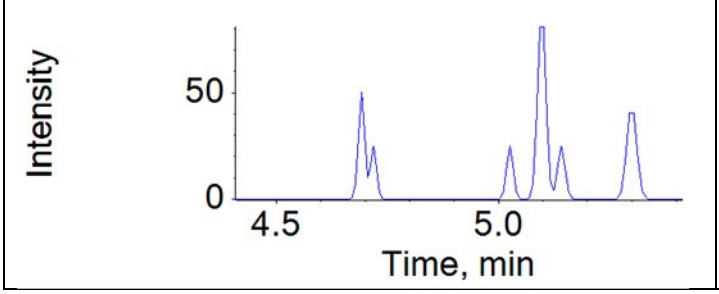


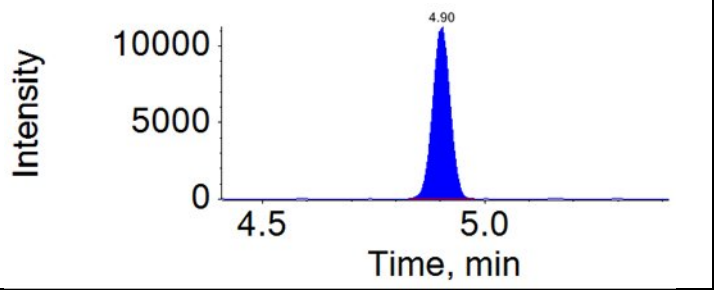
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

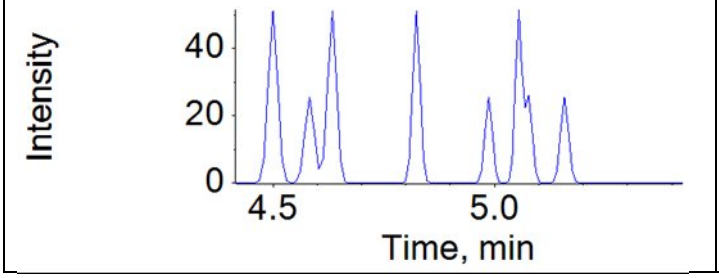
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

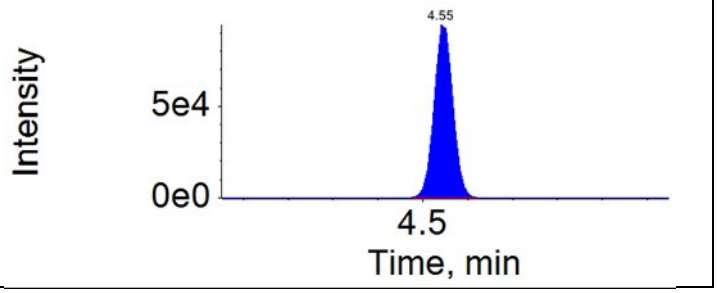
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



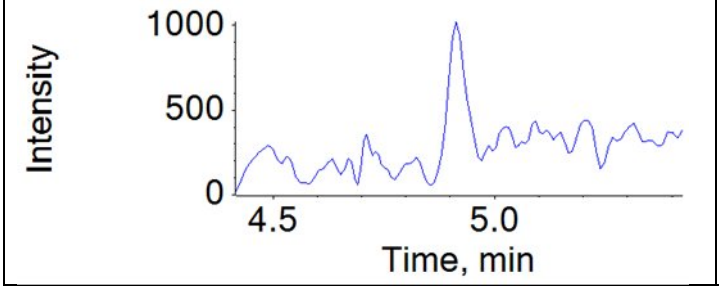


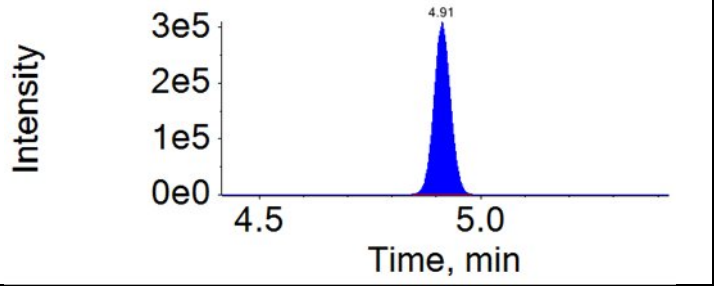
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



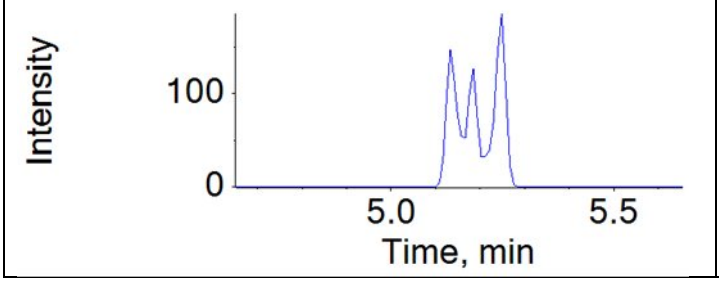


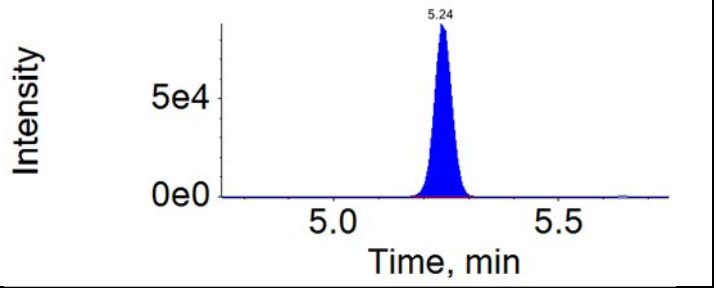
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





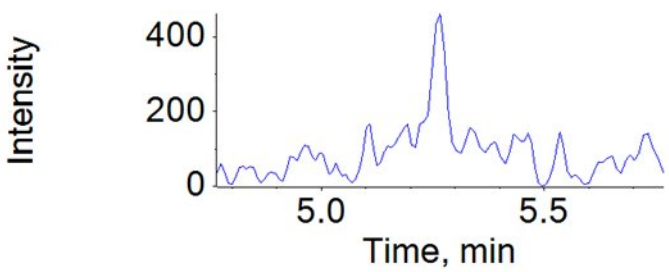
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

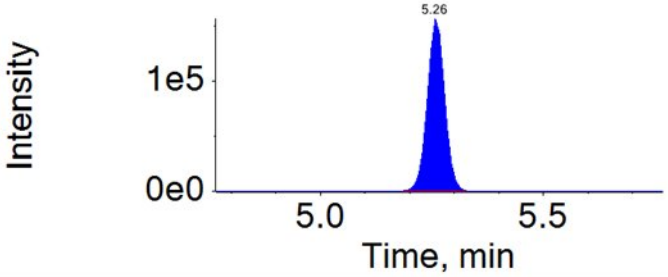




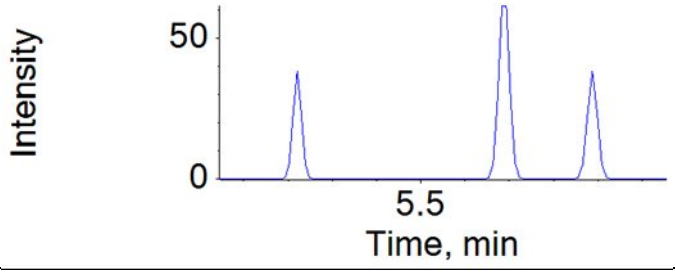
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

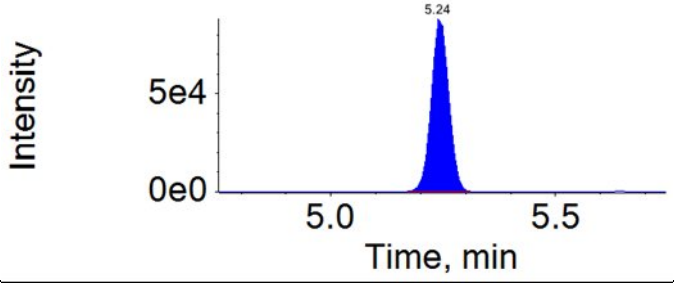
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



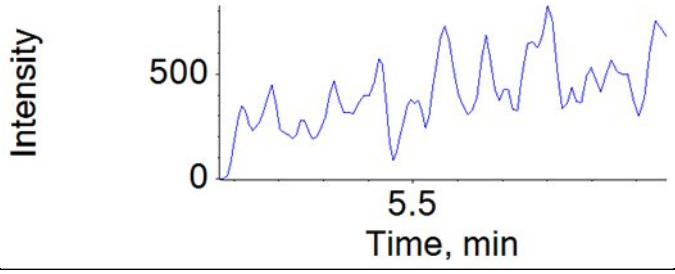


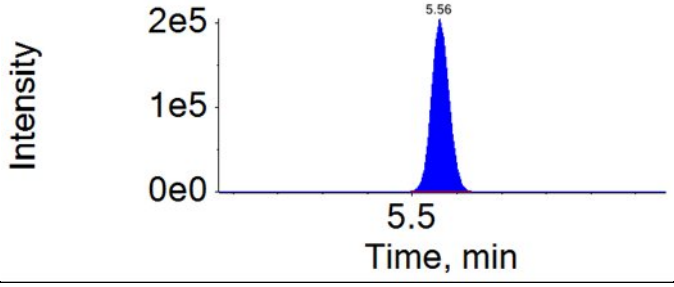
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



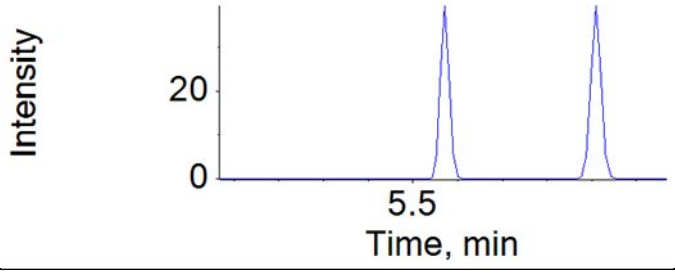


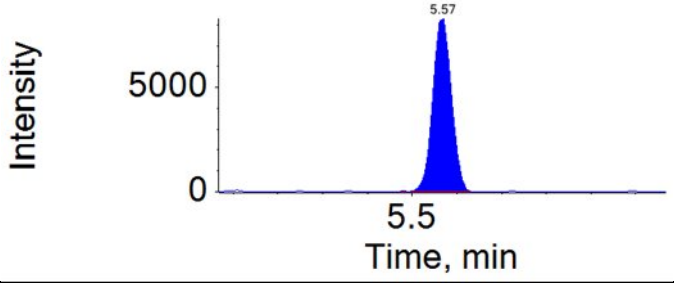
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



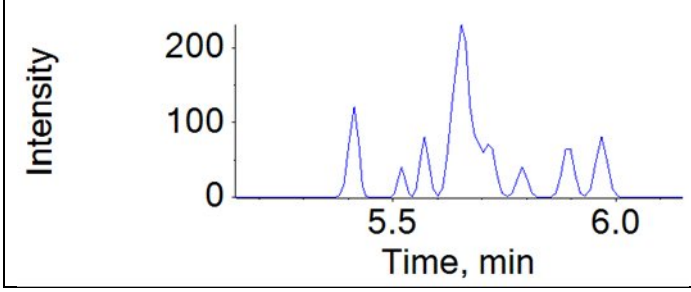


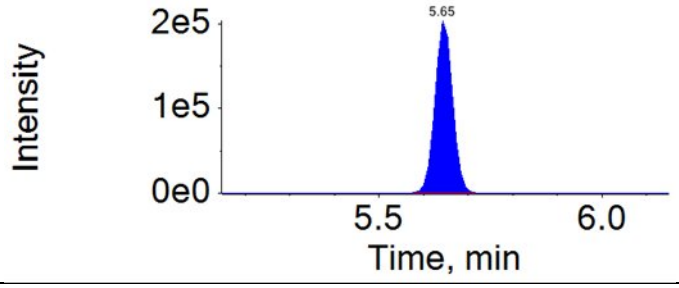
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

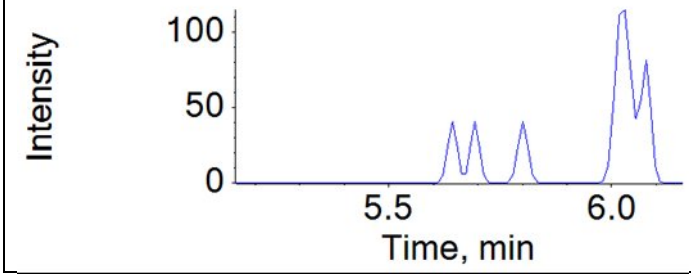
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

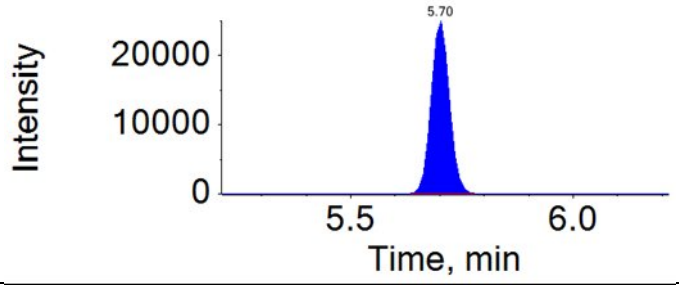
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



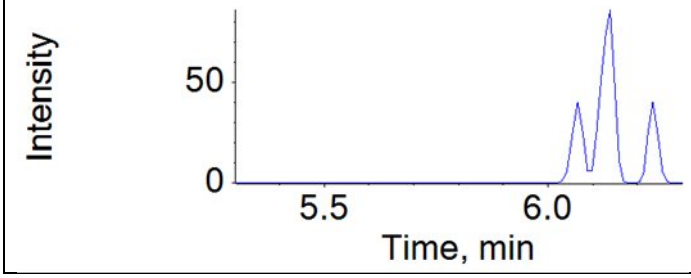


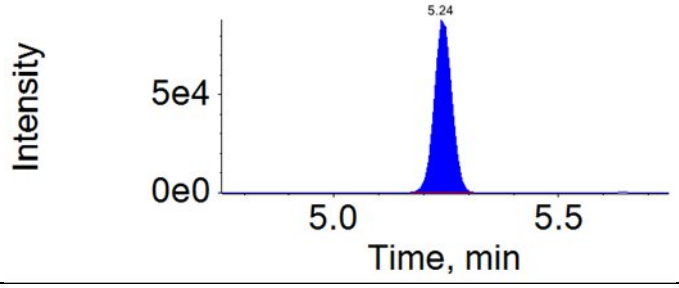
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



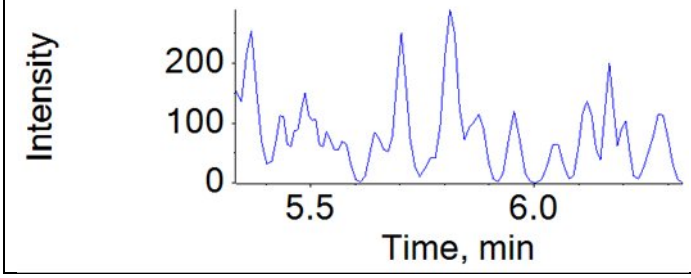


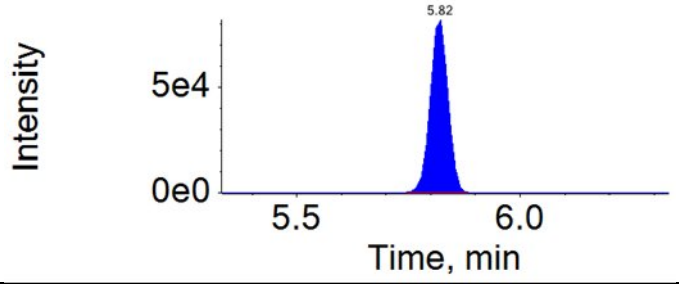
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



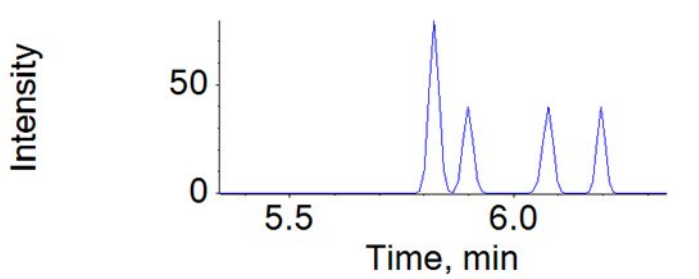


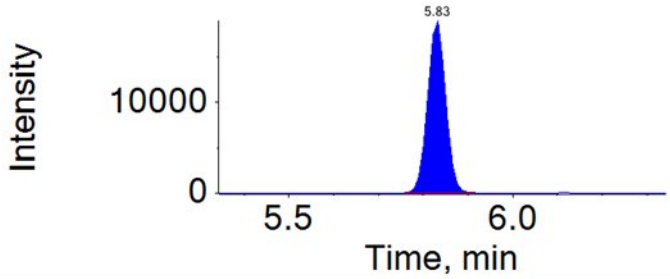
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

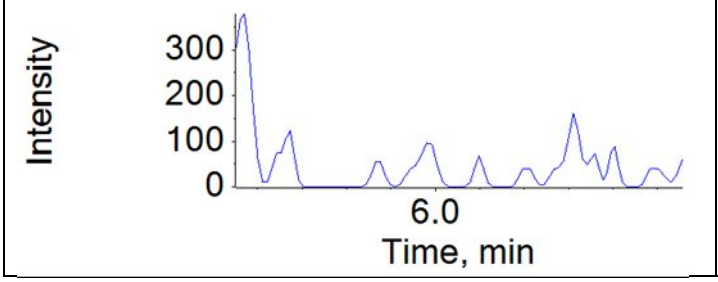
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

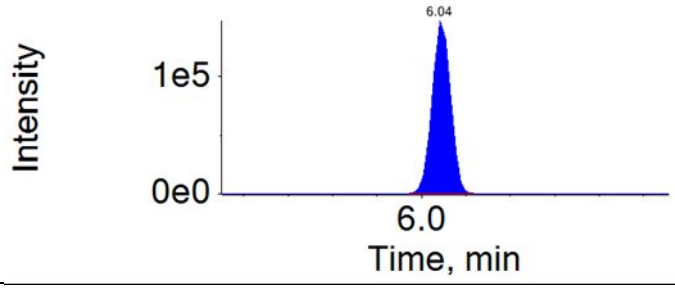
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



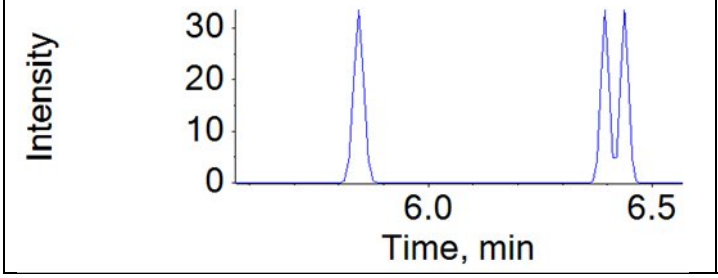


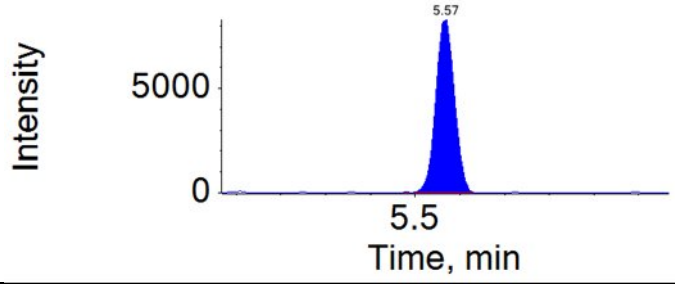
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



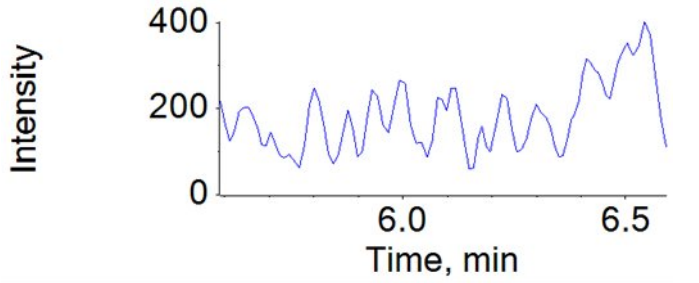


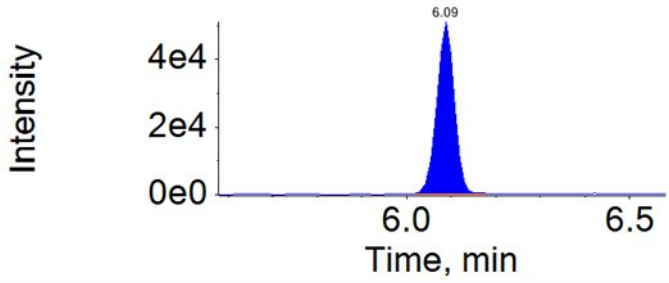
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



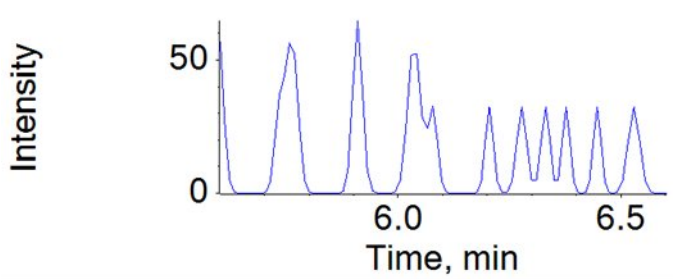


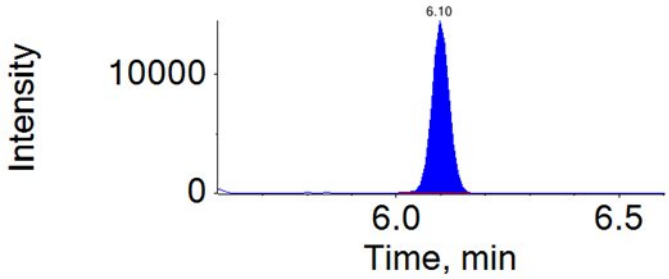
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

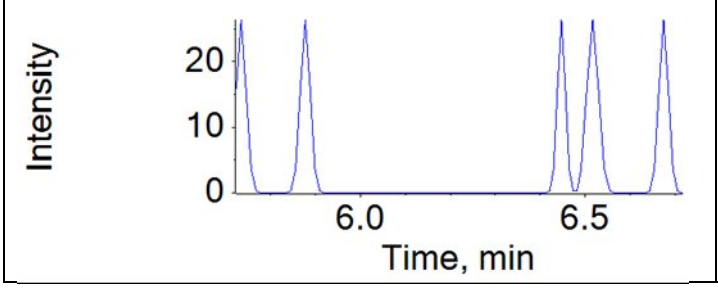
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

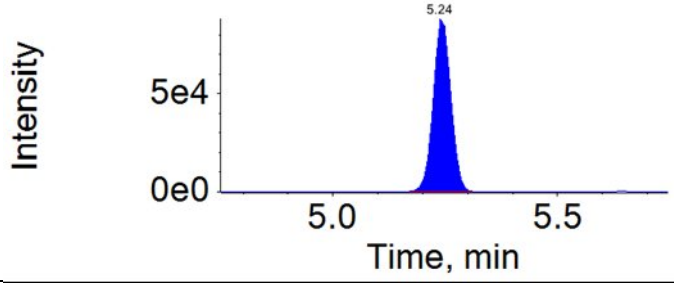
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



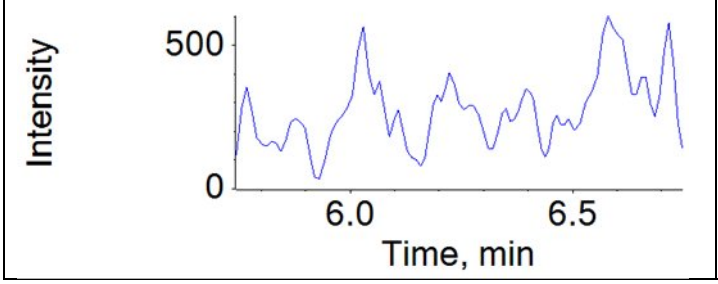


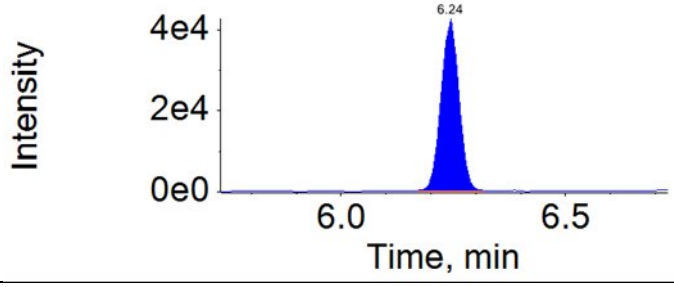
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



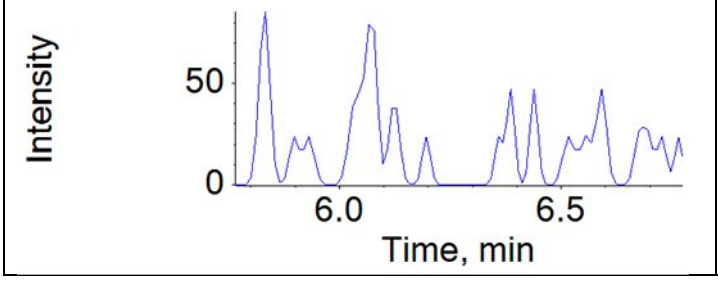


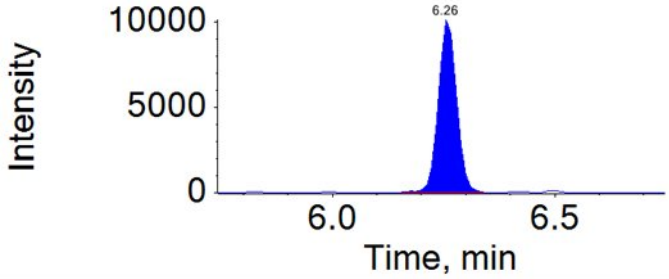
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

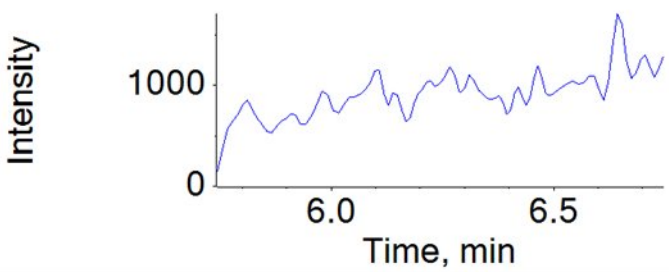
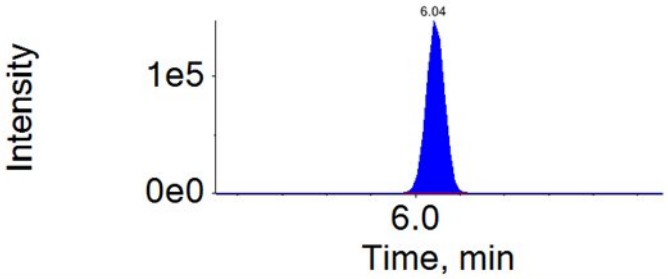


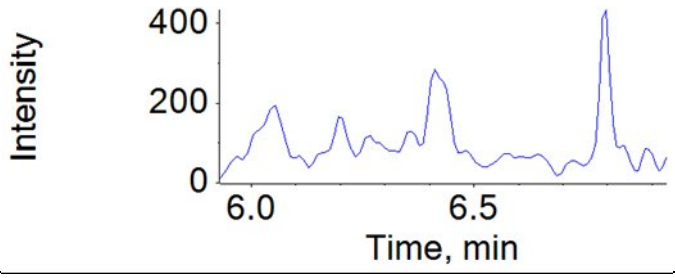
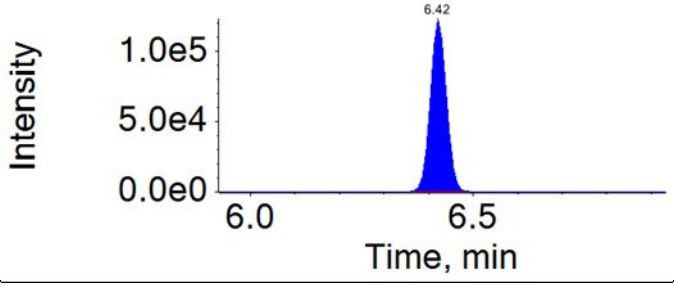


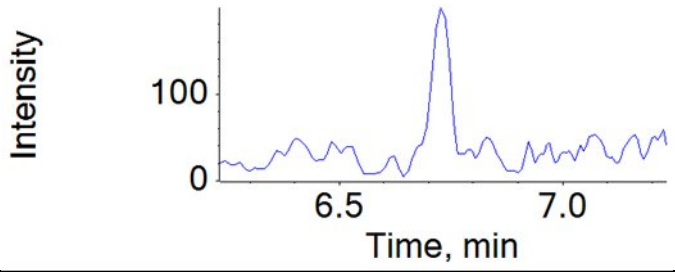
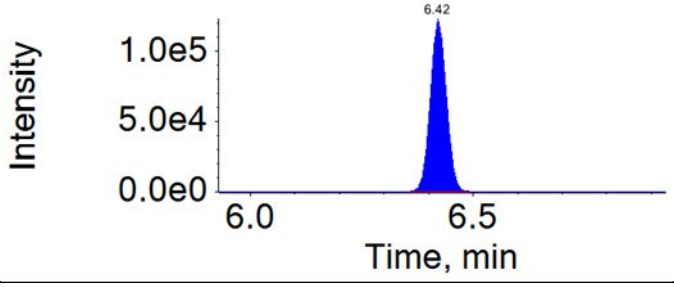
APPROVED
By MCD at 8:21 pm, 11/13/18

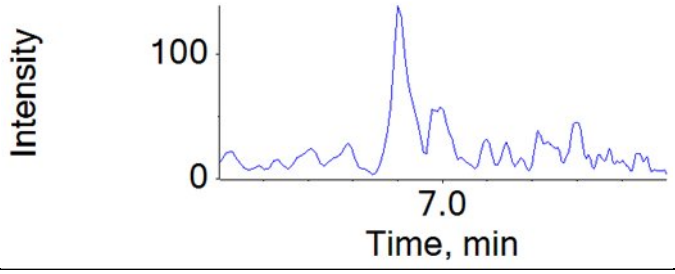
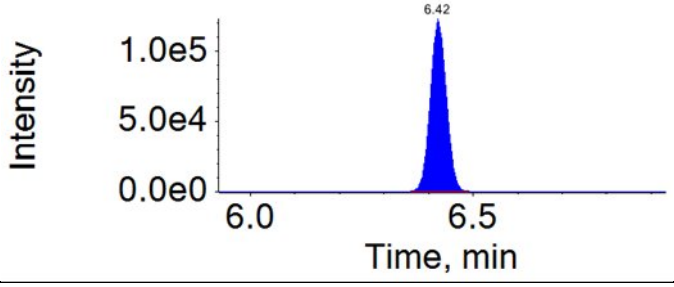
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

Ion Ratio Report

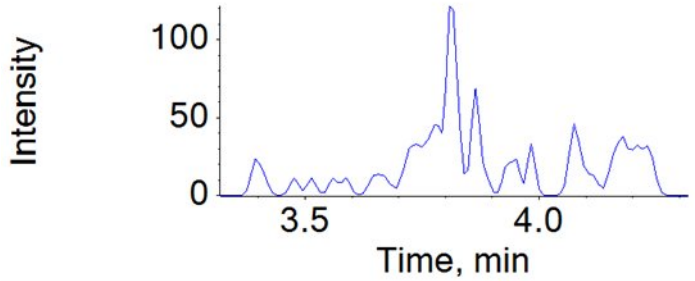
Sample Name: BLK314006 **Instrument Name:** LM27631 **File Name:** 18NOV12D-40.wiff

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	

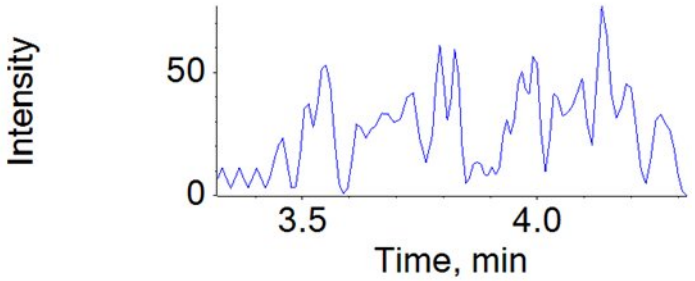
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

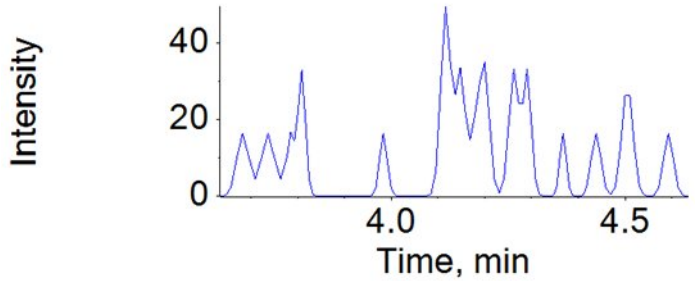
Component: PFBS
Primary Mass: 299.0 / 80.0



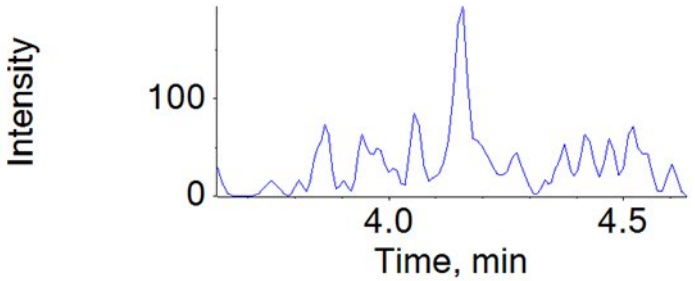
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



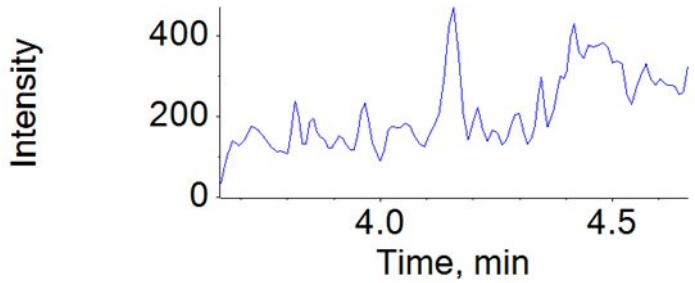
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



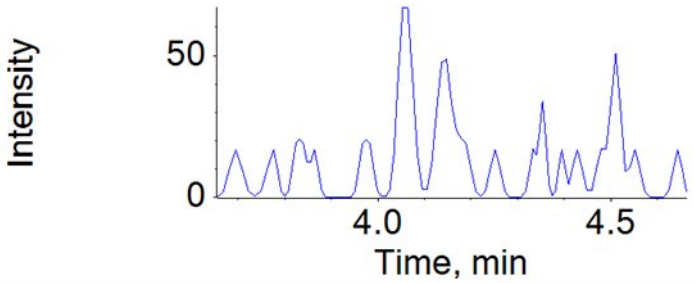
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



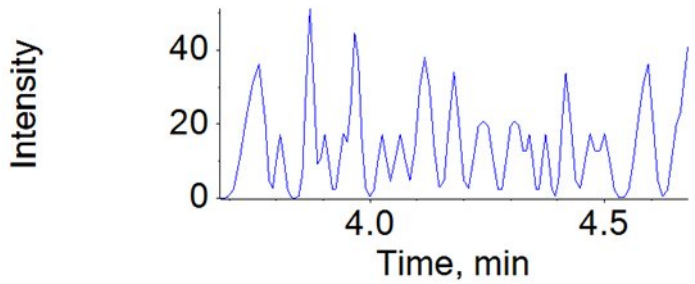
Component: PFHxA
Primary Mass: 313.0 / 269.0



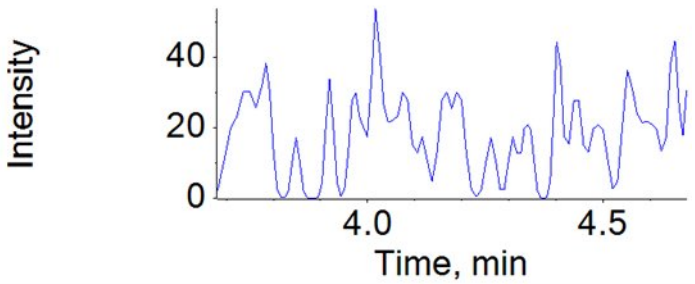
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



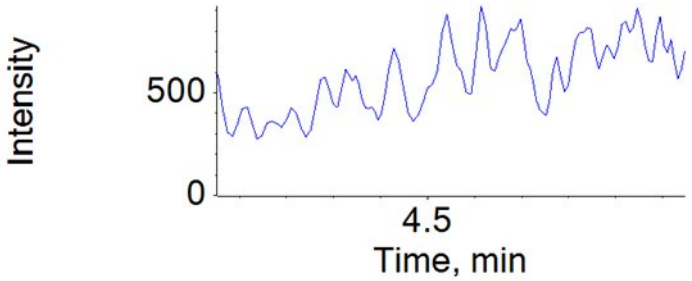
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



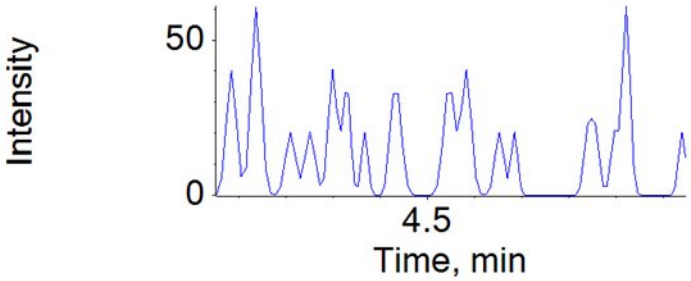
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

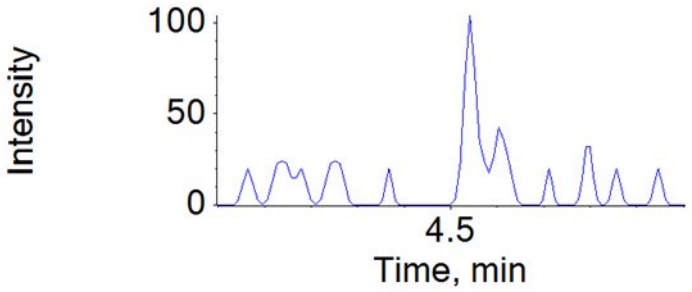
Component: PFHpA
Primary Mass: 363.0 / 319.0



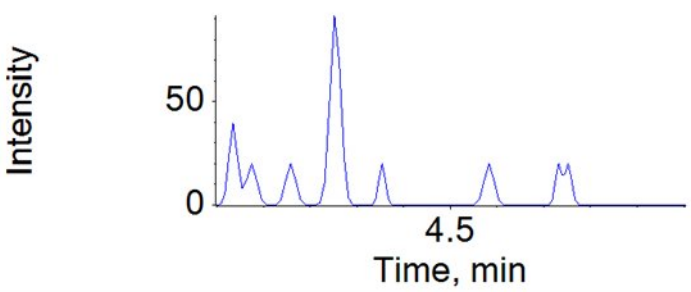
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



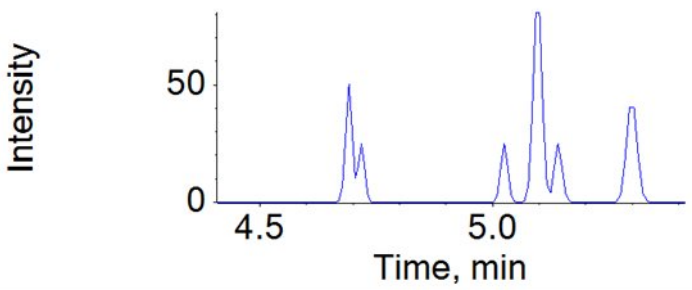
Component: PFHxS
Primary Mass: 399.0 / 80.0



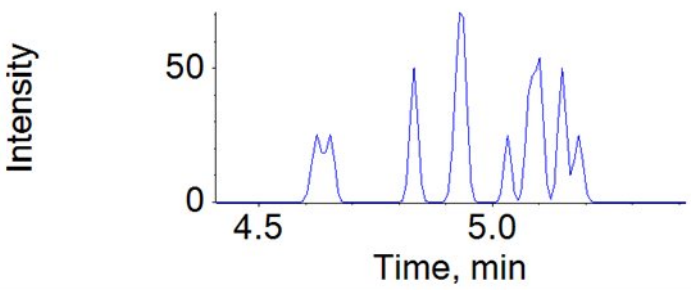
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



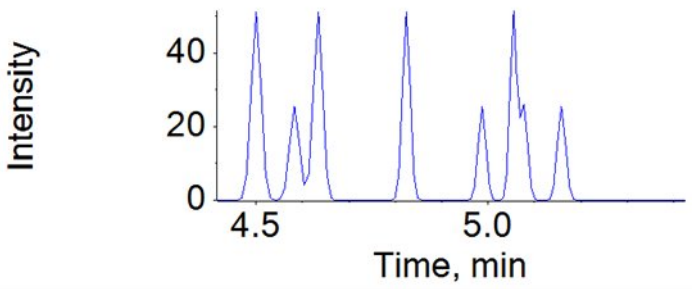
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



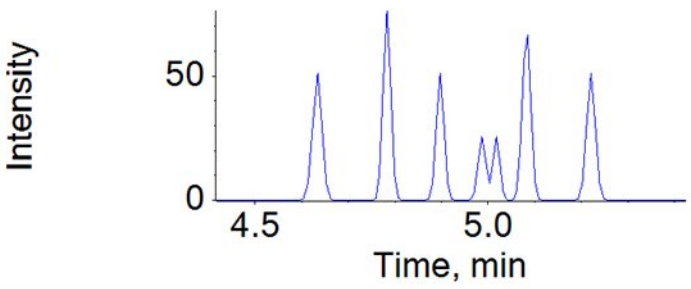
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



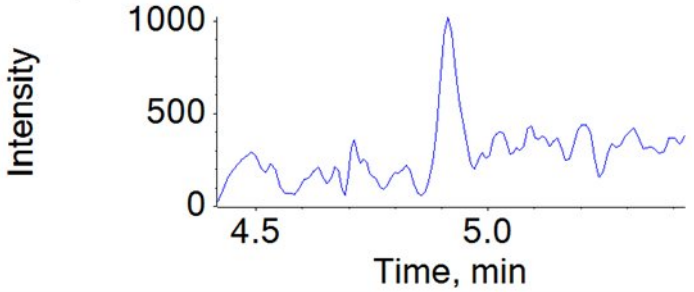
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



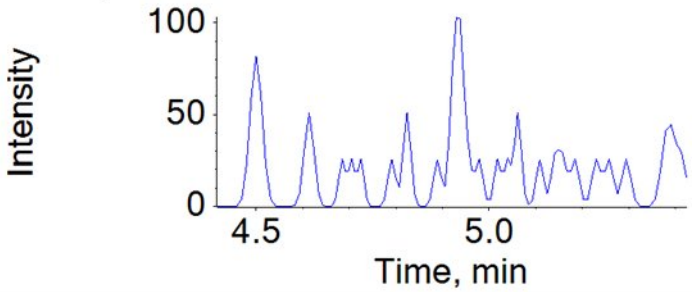
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

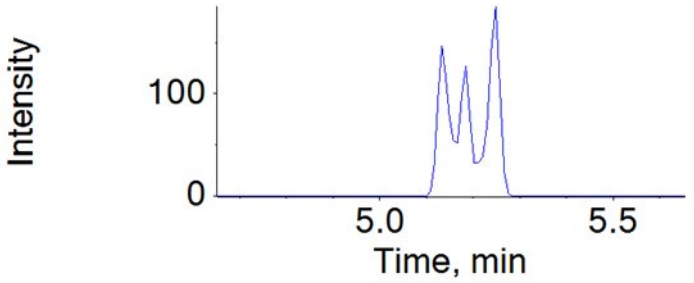
Component: PFOA
Primary Mass: 413.0 / 369.0



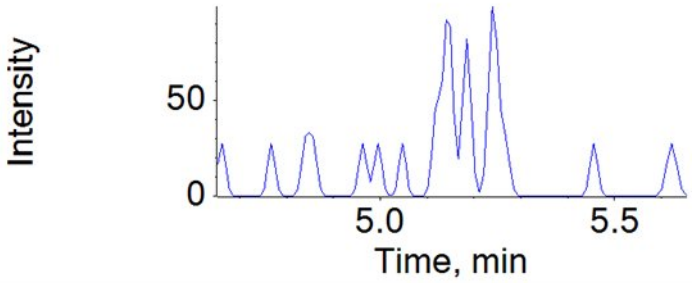
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



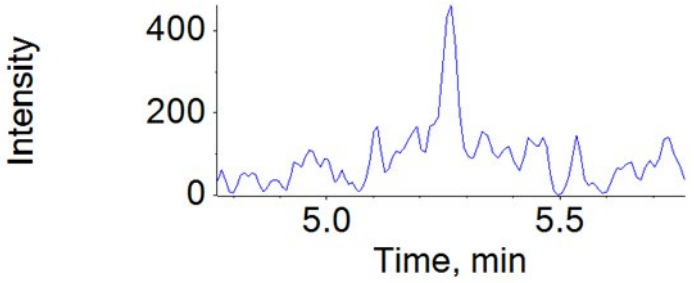
Component: PFOS
Primary Mass: 499.0 / 80.0



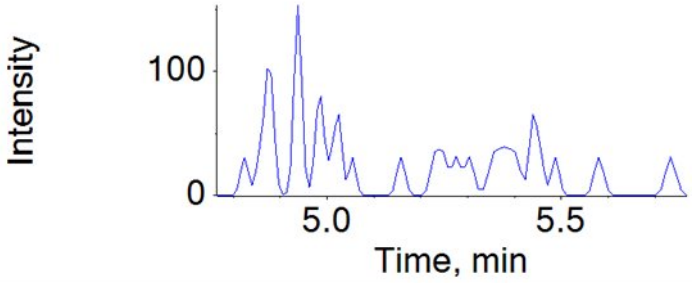
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



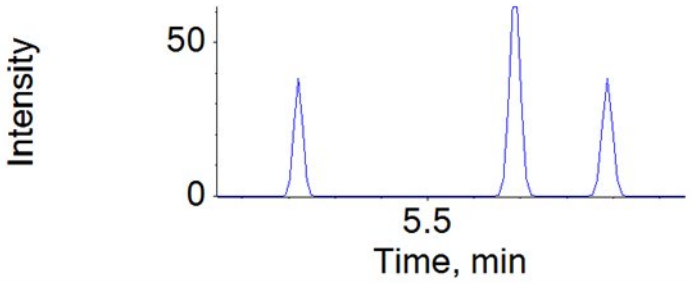
Component: PFNA
Primary Mass: 463.0 / 419.0



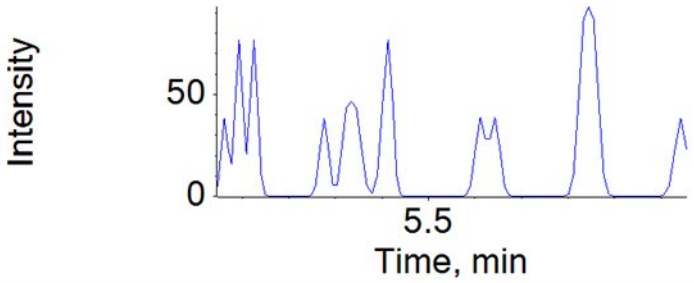
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



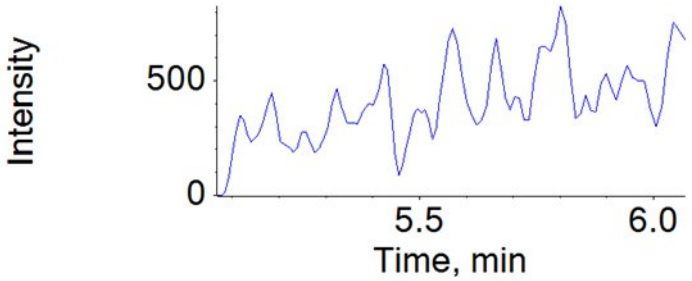
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



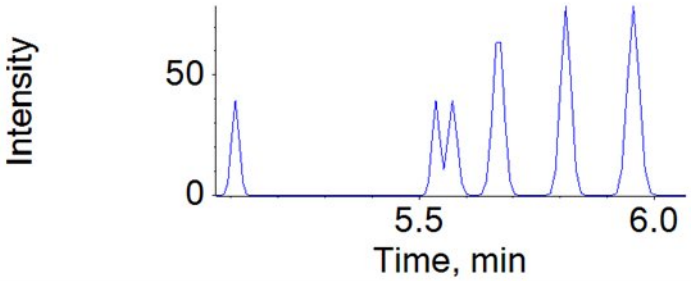
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

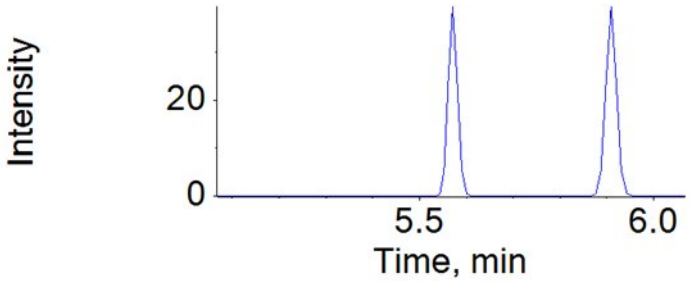
Component: PFDA
Primary Mass: 513.0 / 469.0



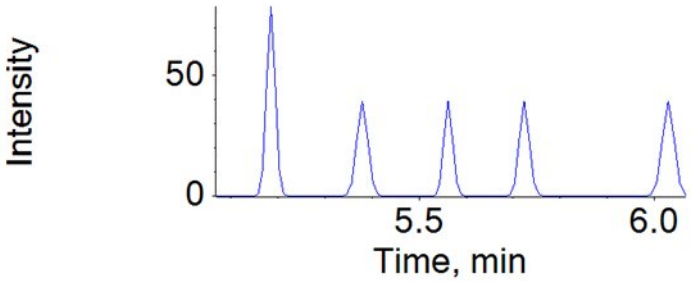
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



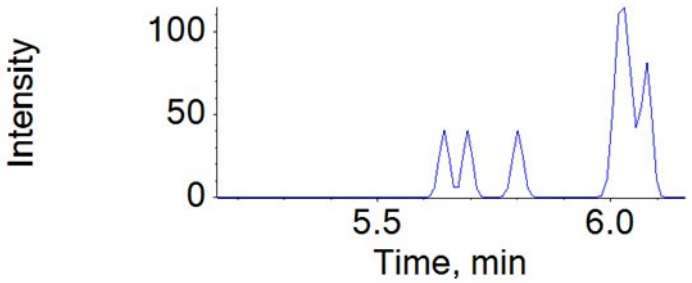
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



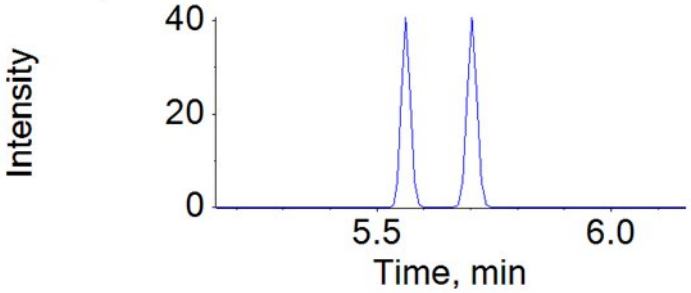
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



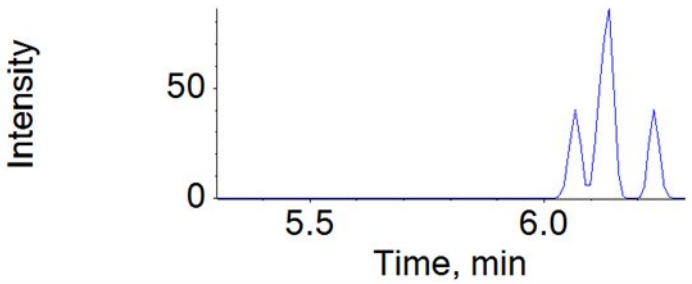
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



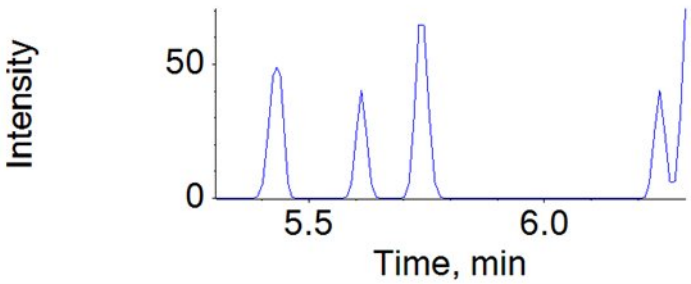
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



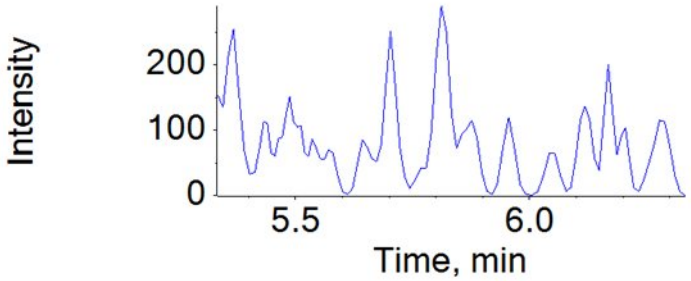
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



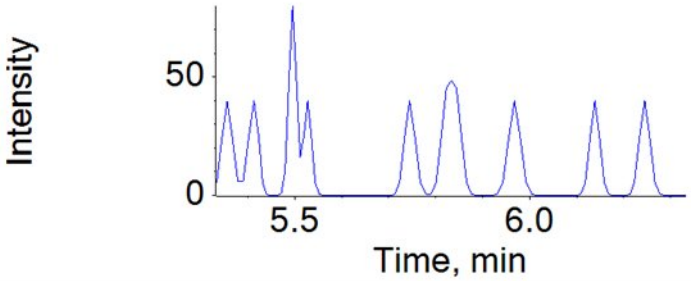
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

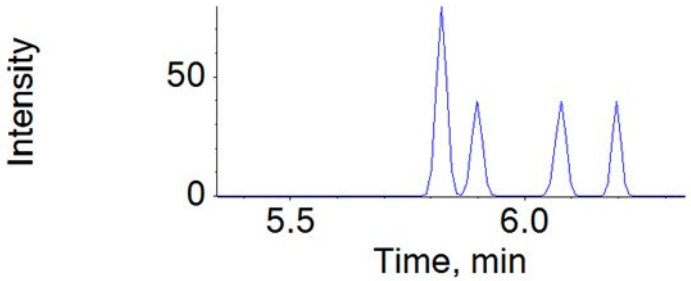
Component: PFUnDA
Primary Mass: 563.0 / 519.0



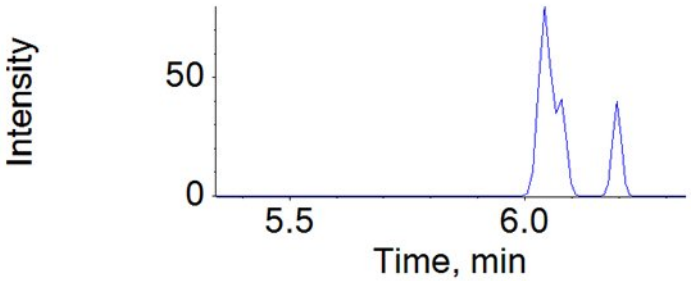
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



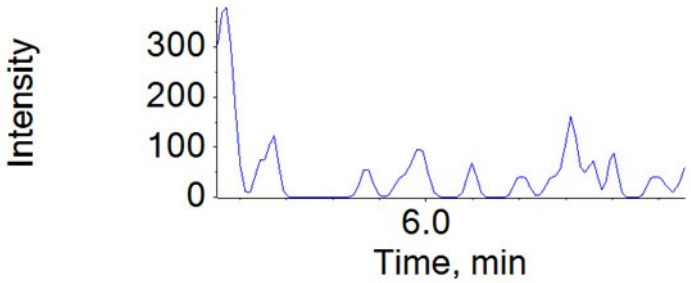
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



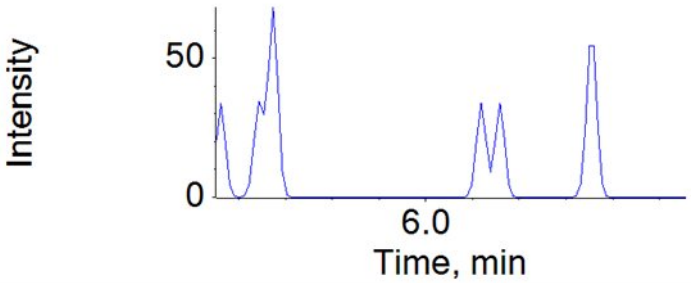
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



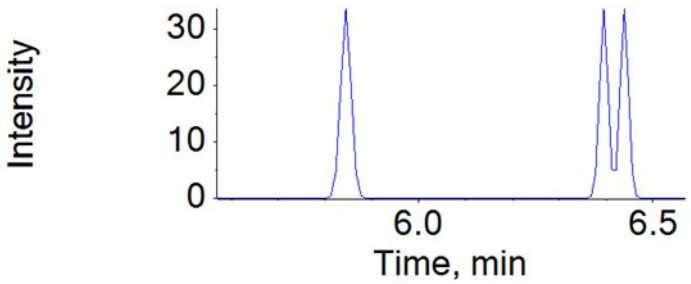
Component: PFDoDA
Primary Mass: 613.0 / 569.0



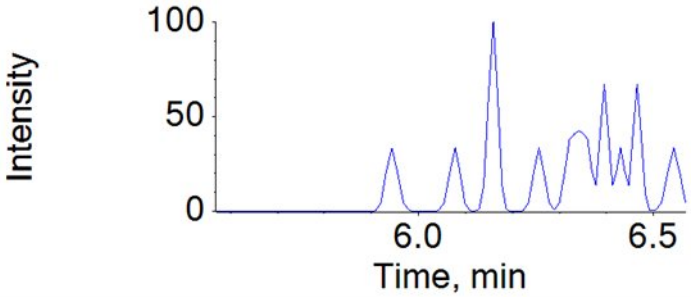
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



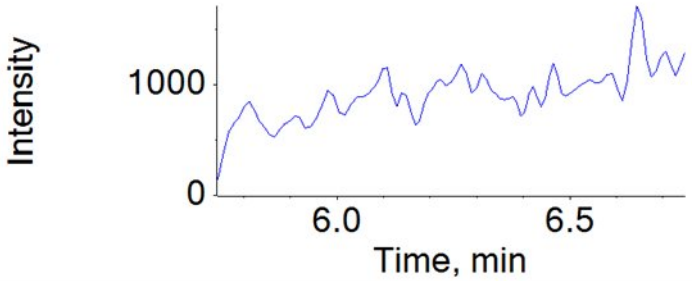
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



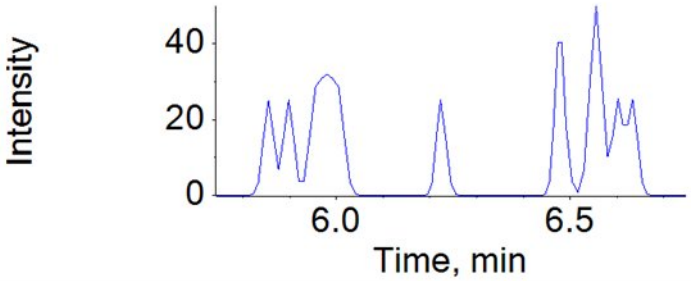
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

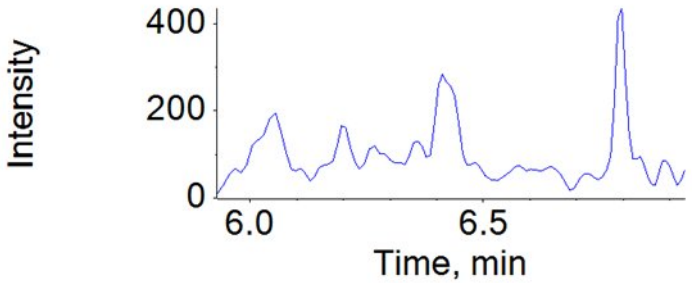
Component: PFTrDA
Primary Mass: 663.0 / 619.0



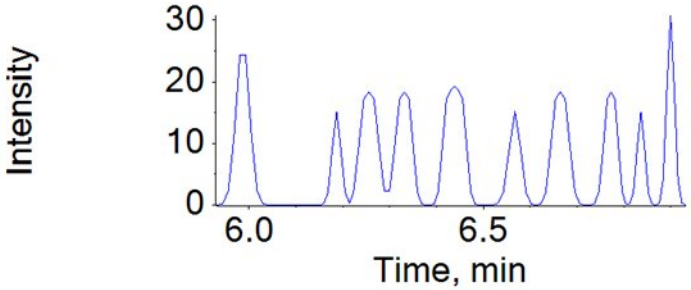
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



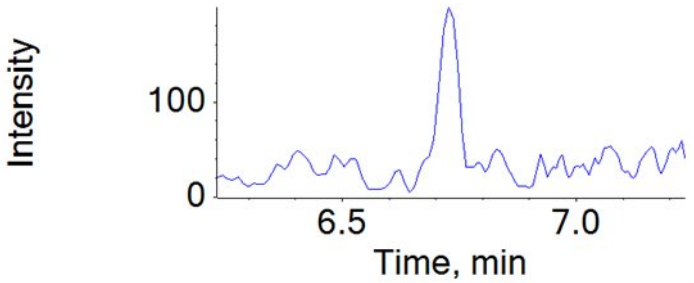
Component: PFTeDA
Primary Mass: 713.0 / 669.0



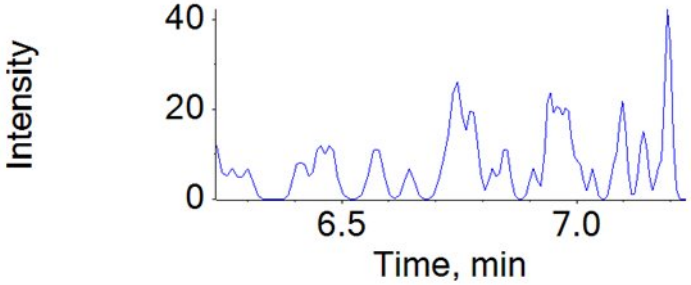
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



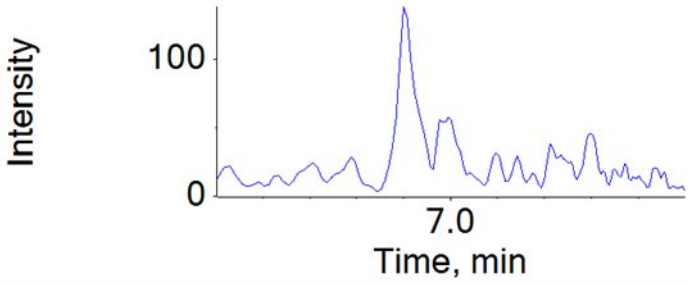
Component: PFHxDA
Primary Mass: 813.0 / 769.0



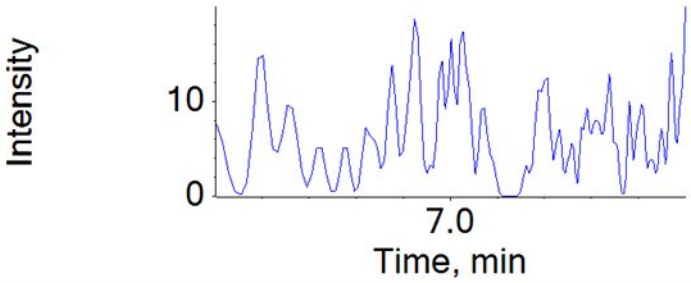
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 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

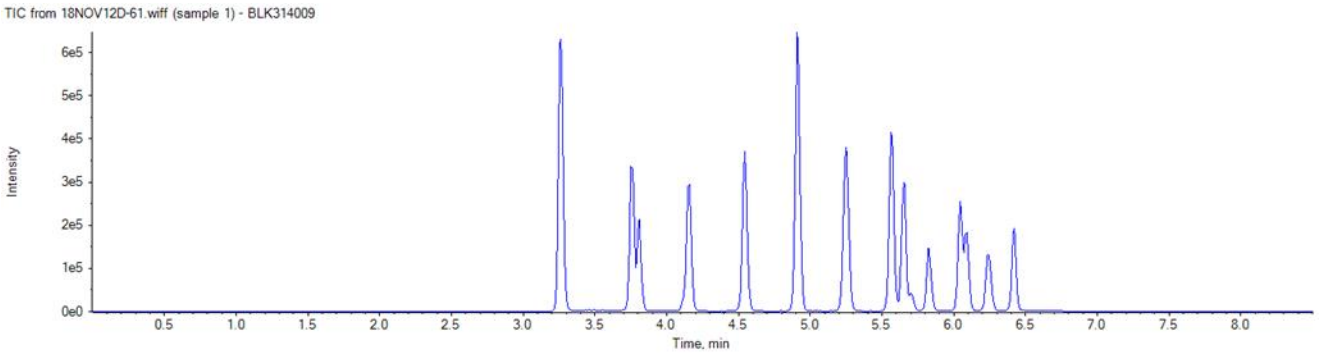
Analyte Quantitation Peak Table

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

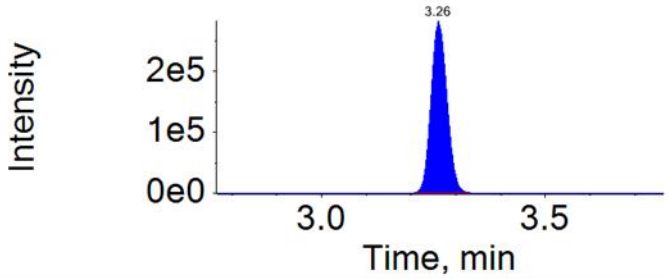


APPROVED
By JPT at 4:11 pm, 11/13/18

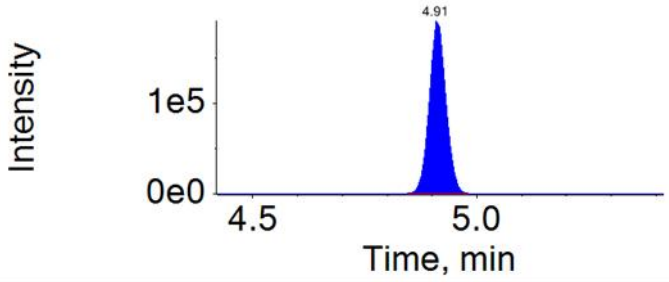
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

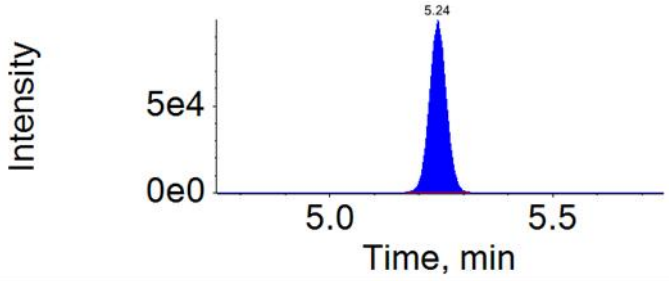
Injection Standard: 13C3-PFBA
216.0 / 172.0



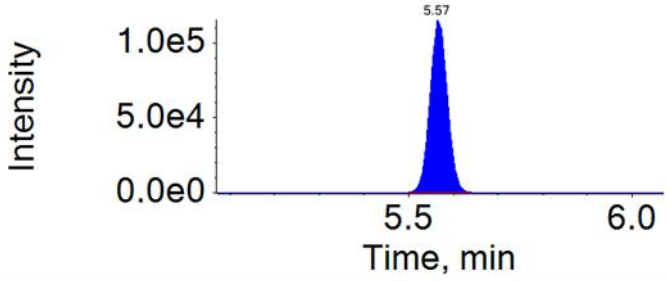
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



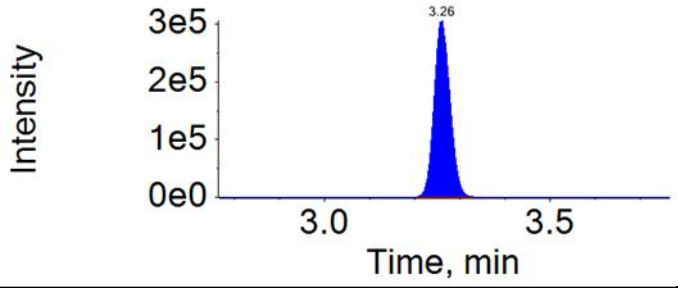
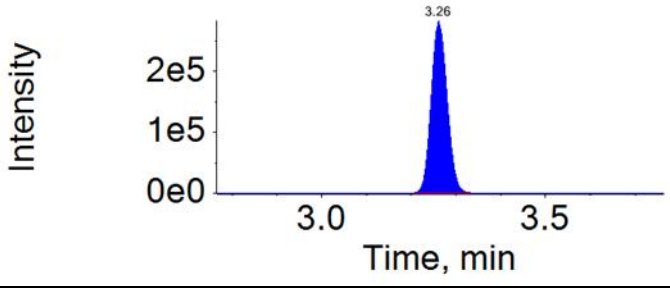
Injection Standard: 13C2-PFDA
515.0 / 470.0

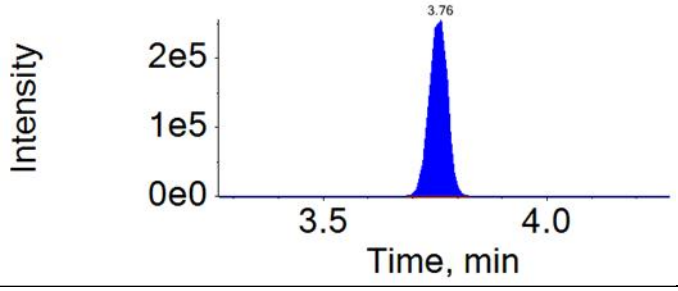
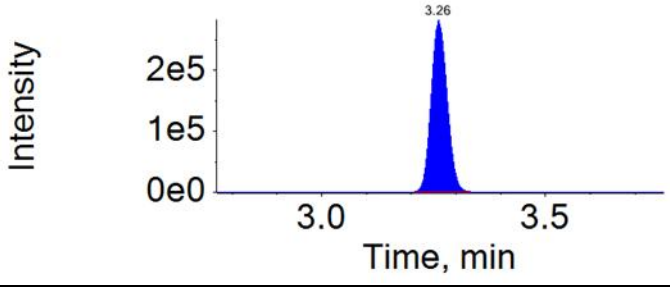


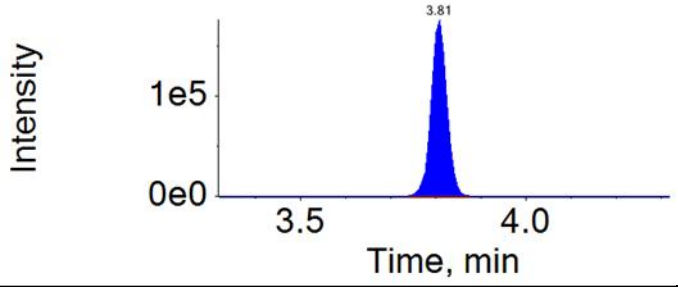
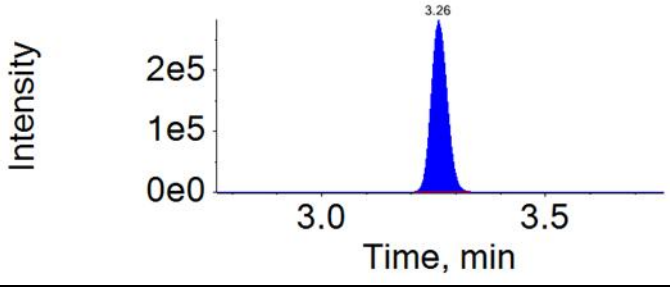
APPROVED
By JPT at 4:11 pm, 11/13/18

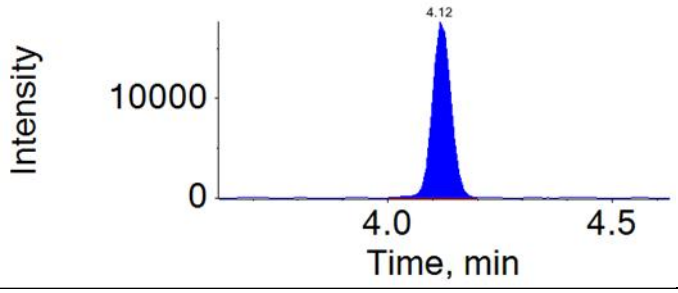
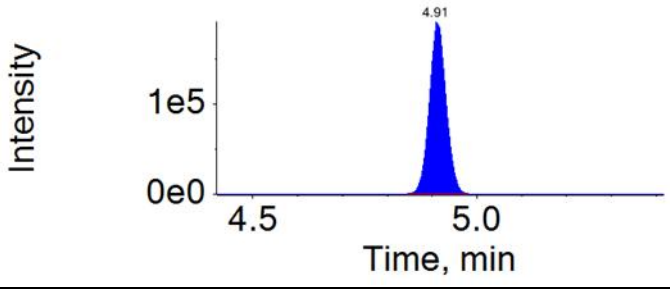
REVIEWED
By umar at 5:37 pm, 11/13/18

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
	

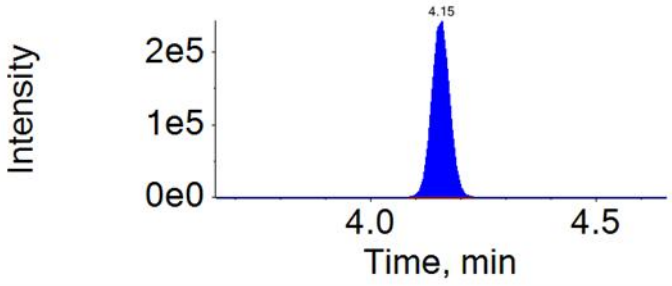
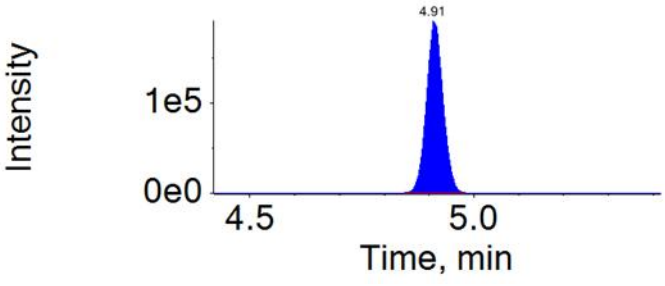
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

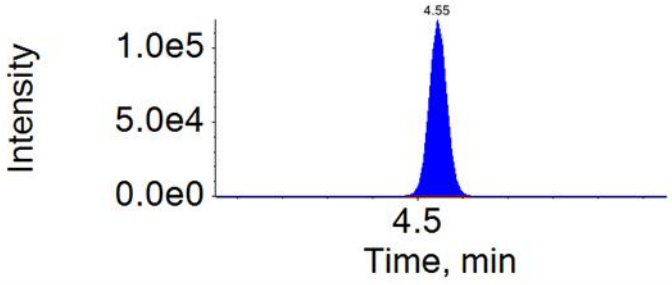
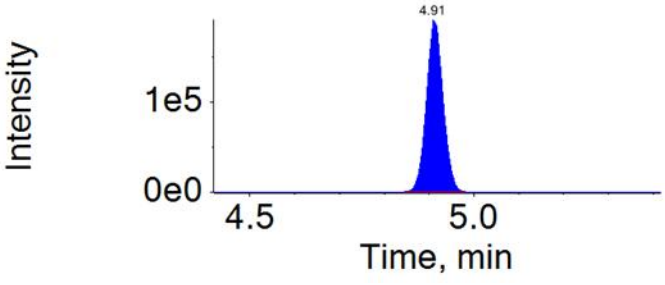
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

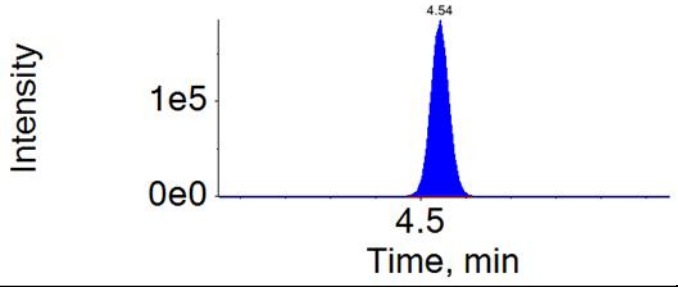
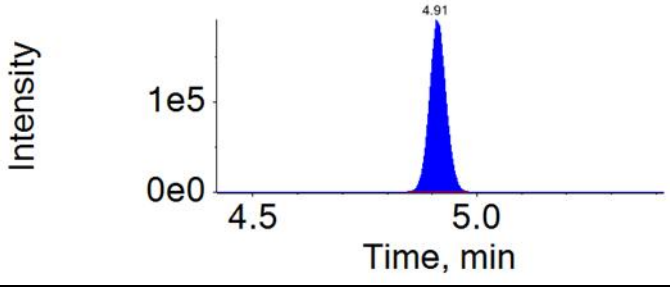
APPROVED
By JPT at 4:11 pm, 11/13/18

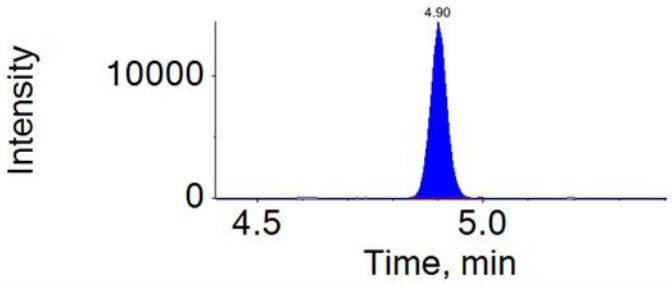
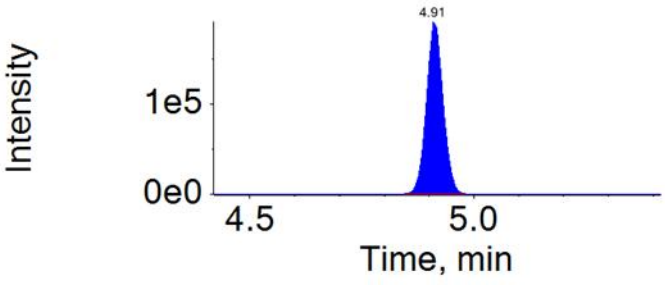
REVIEWED
By umar at 5:37 pm, 11/13/18

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
	

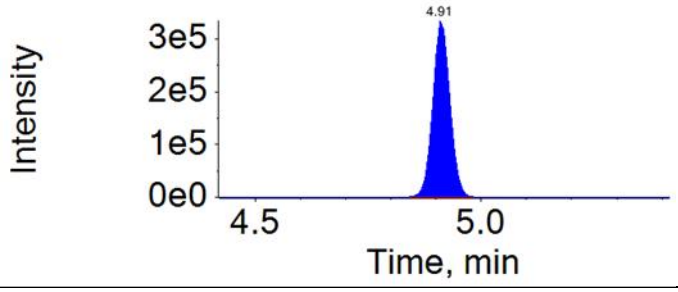
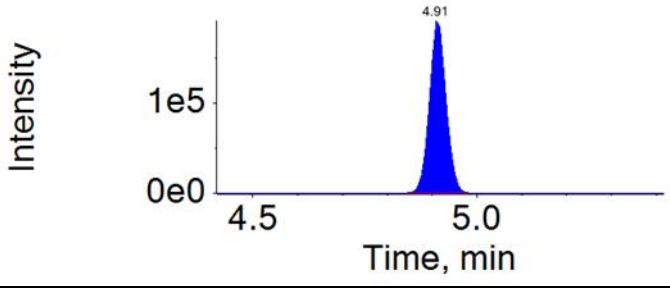
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

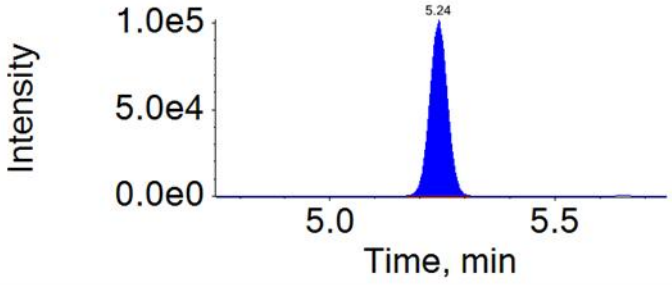
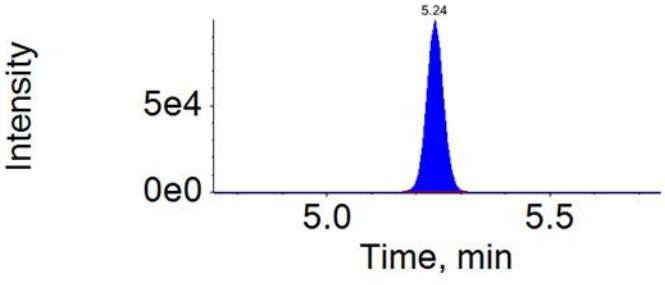
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

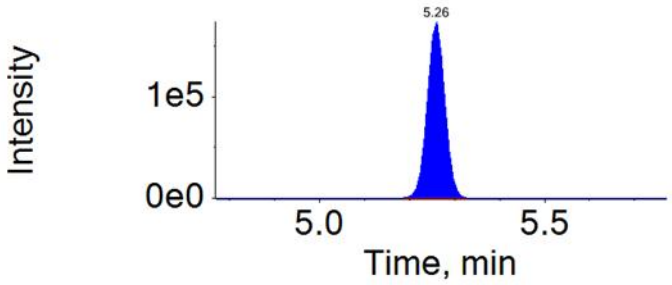
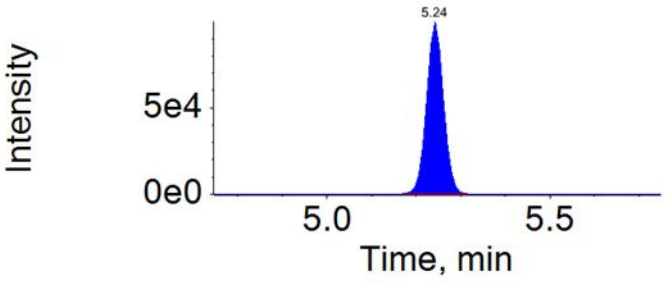
APPROVED
By JPT at 4:11 pm, 11/13/18

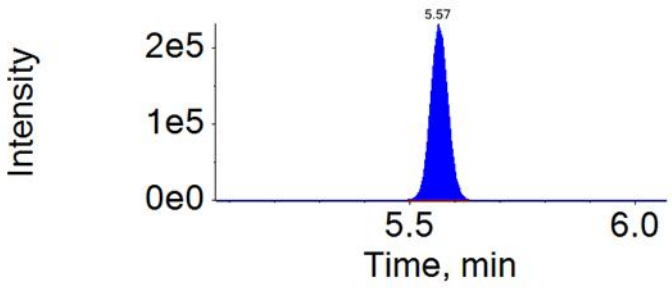
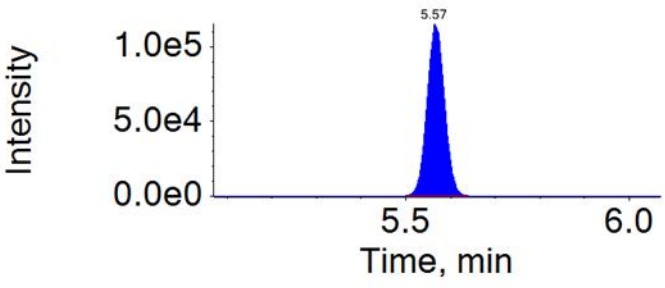
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

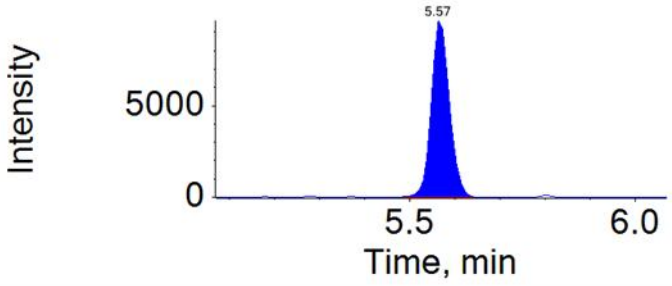
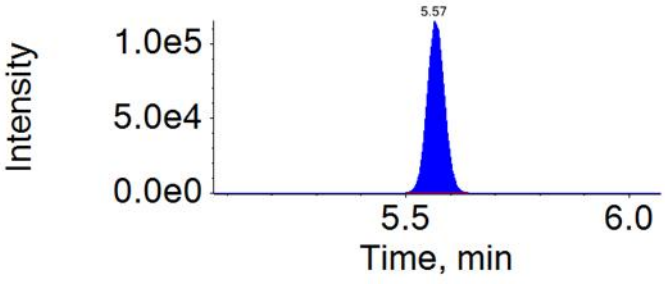
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

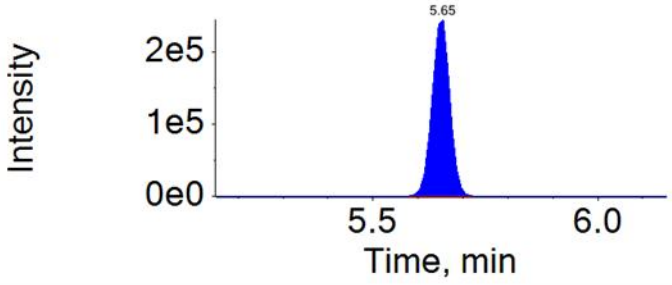
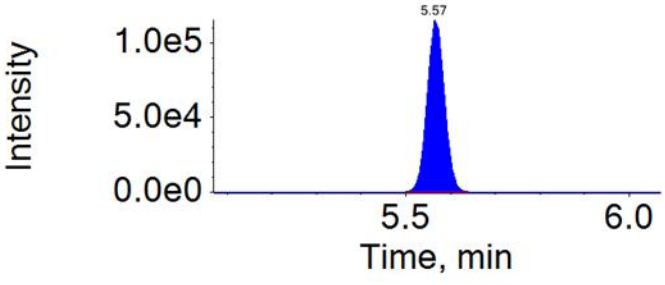
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

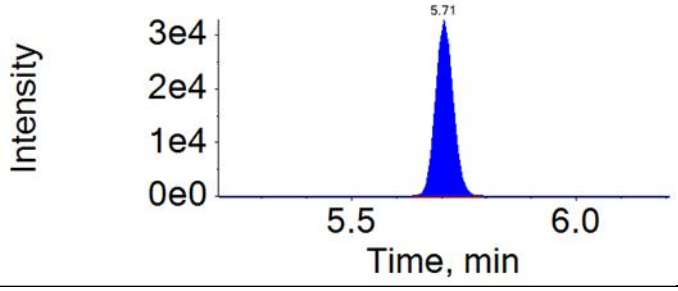
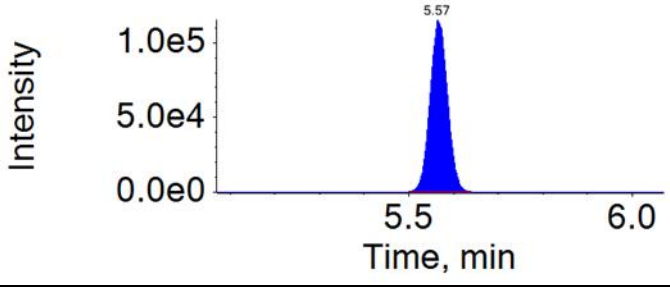
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

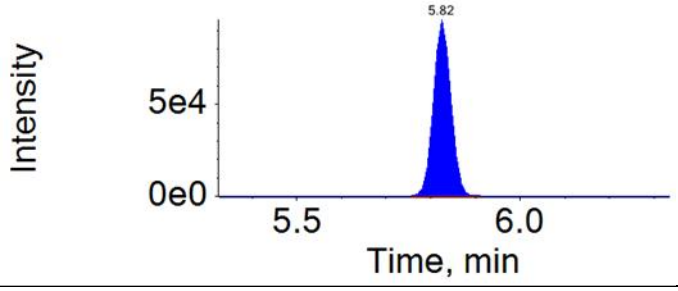
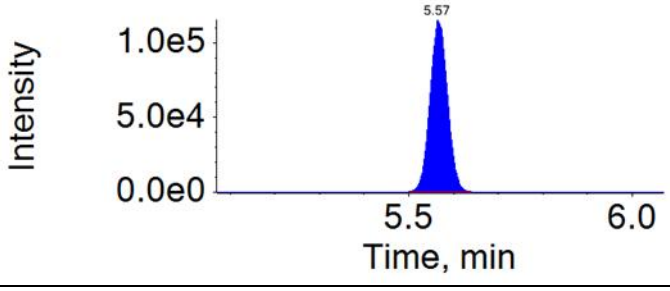
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

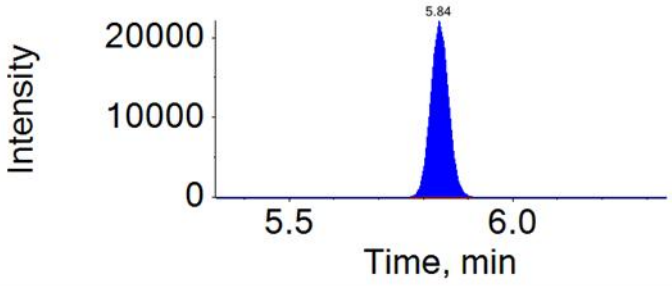
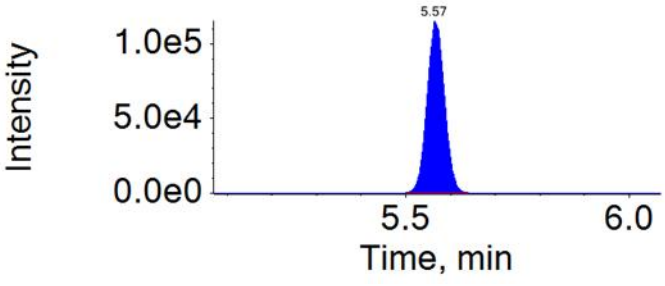
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

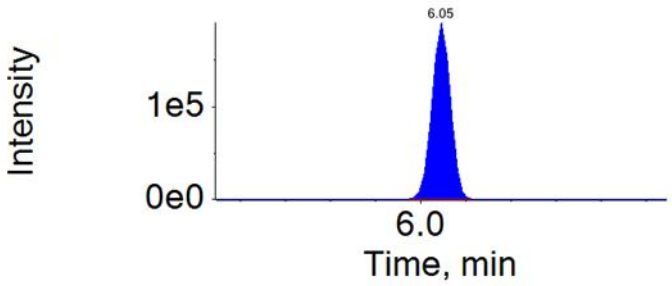
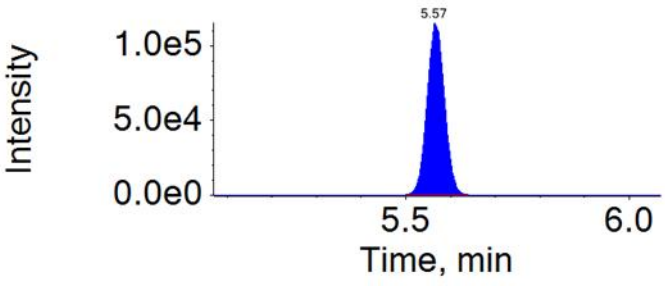
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

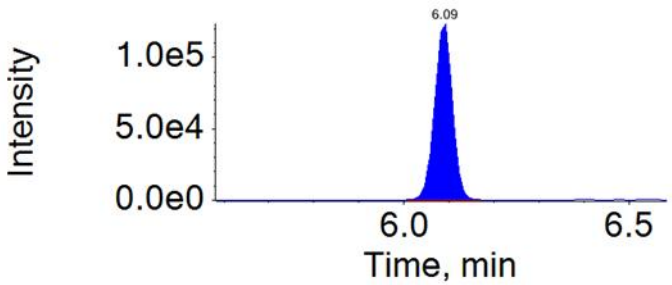
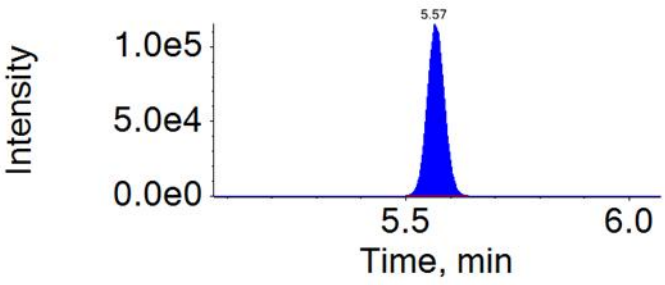
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

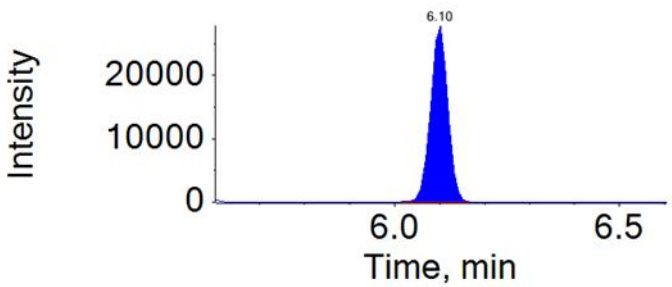
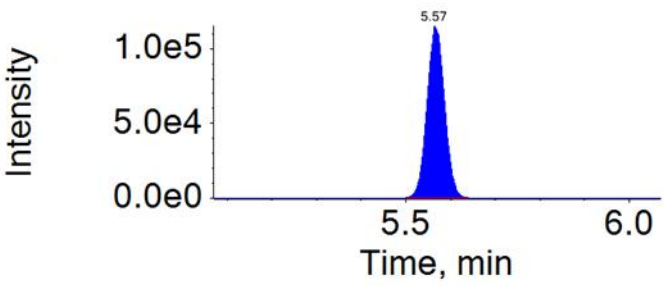
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

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
	

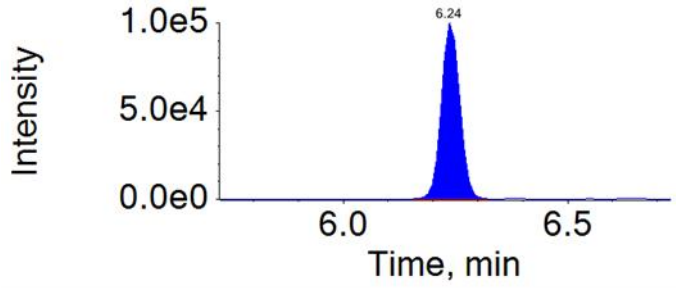
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

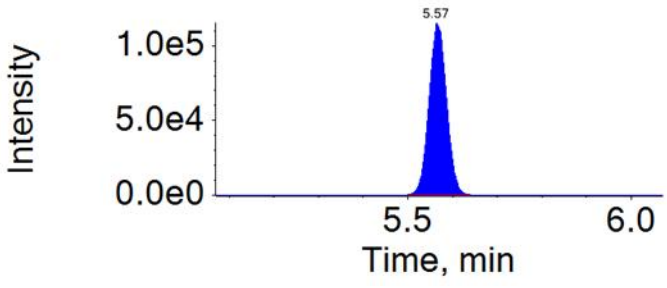
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

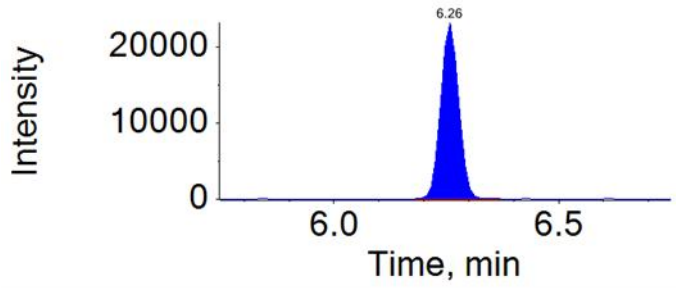
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

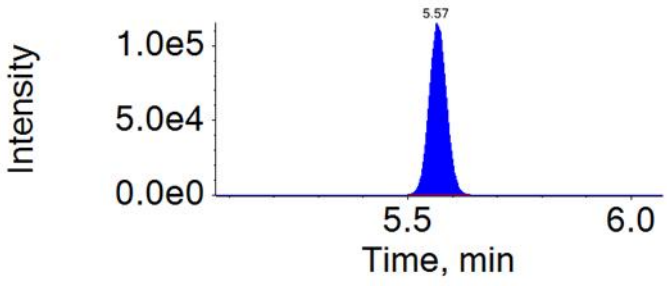
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



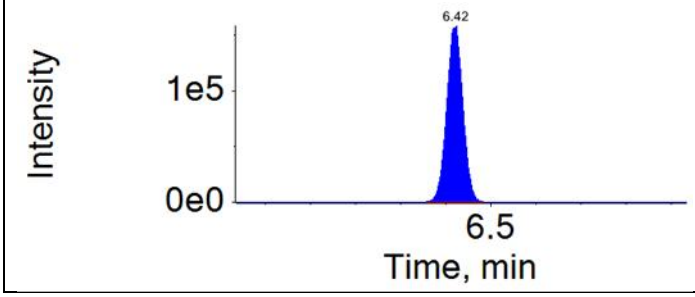


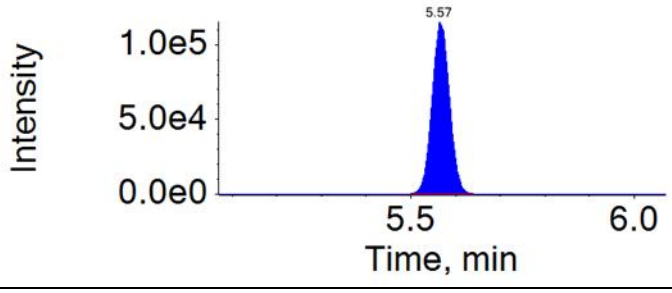
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





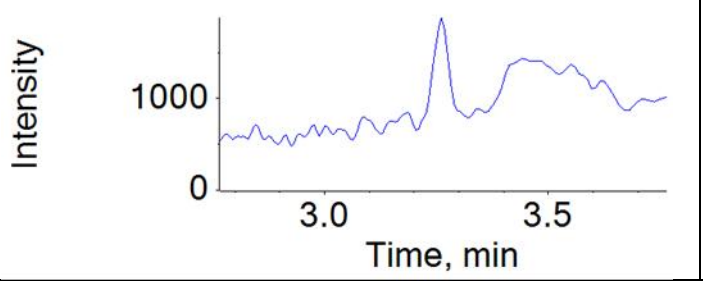
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

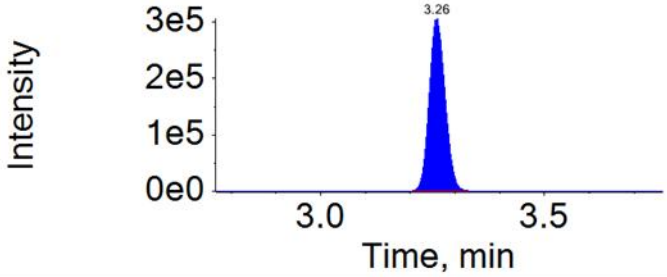




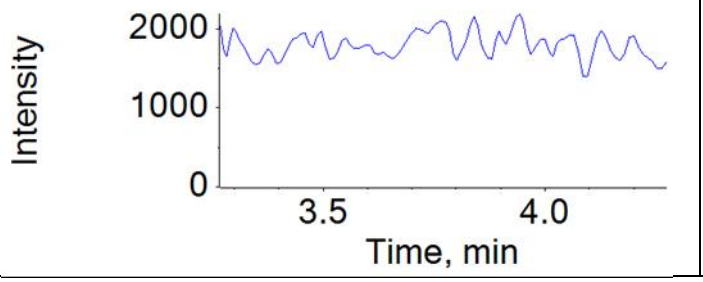
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

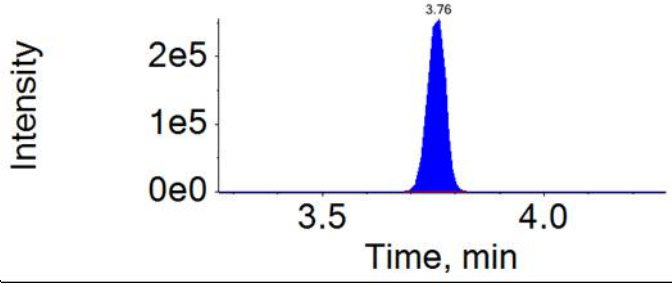
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



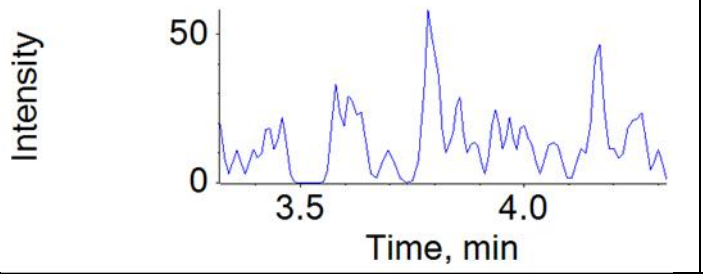


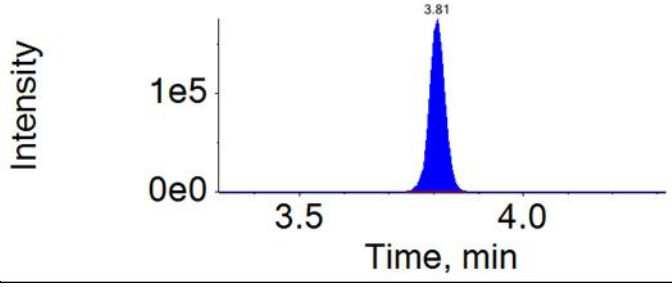
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



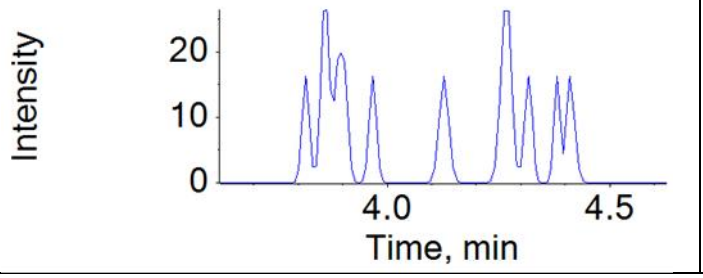


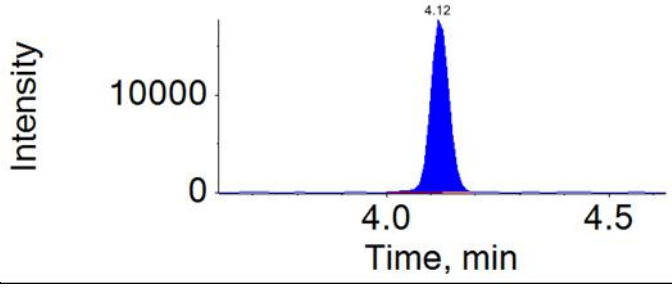
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



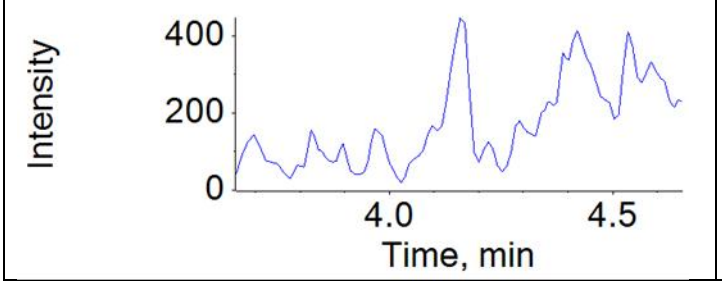


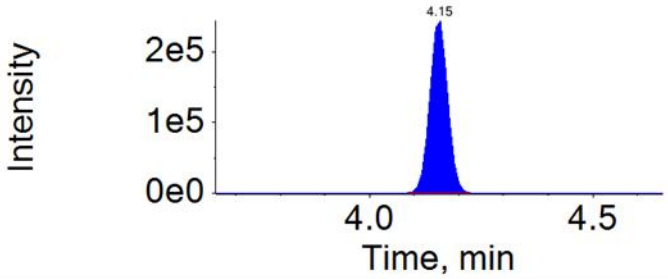
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

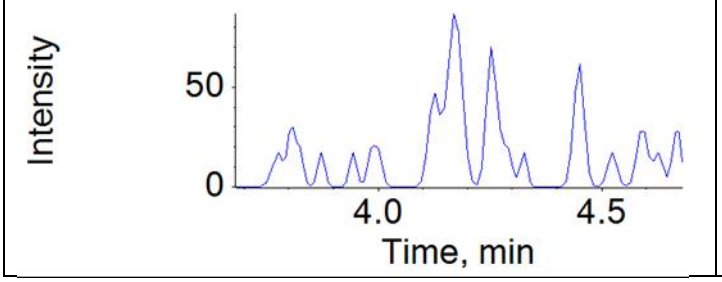
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

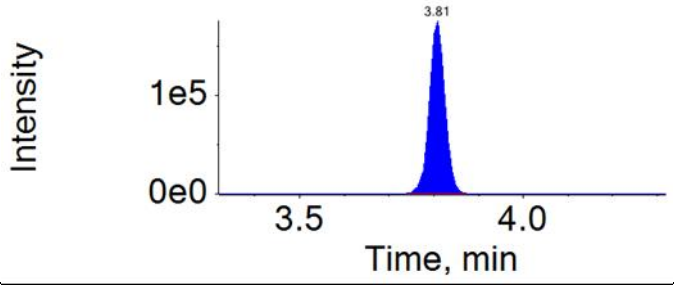
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



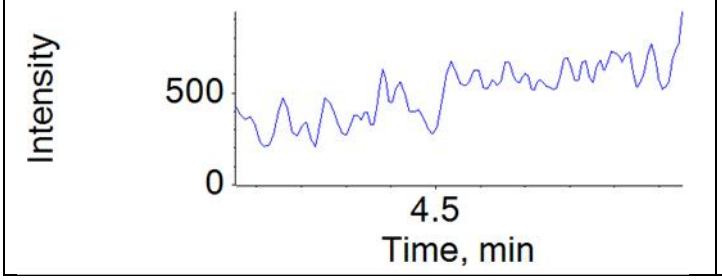


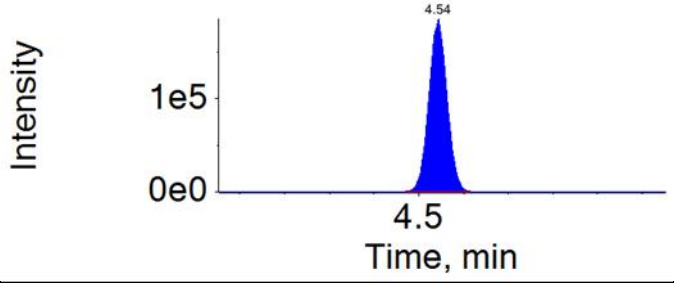
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



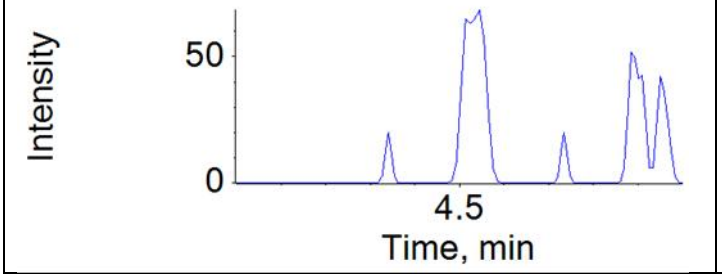


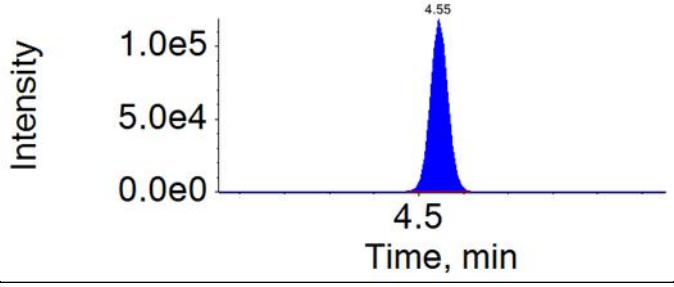
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





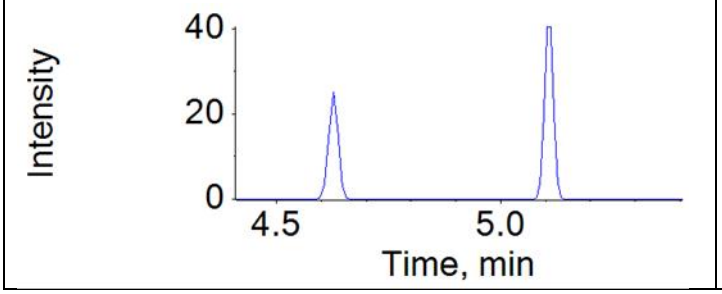
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

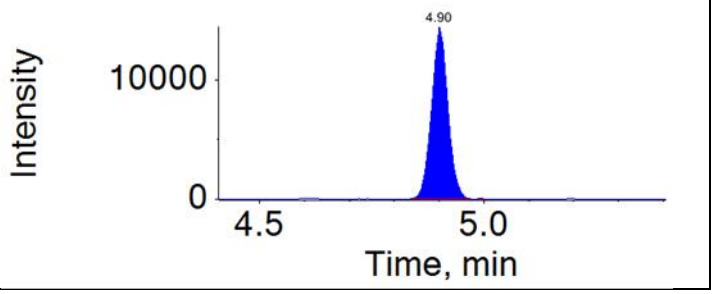




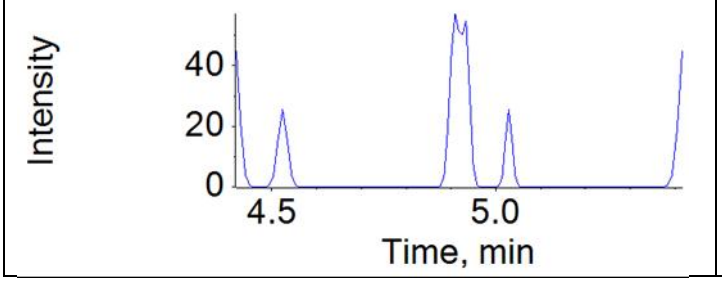
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

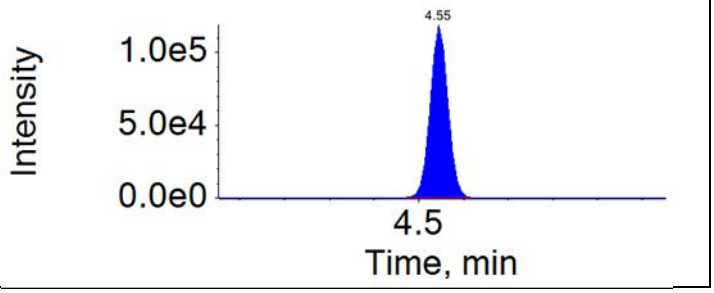
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



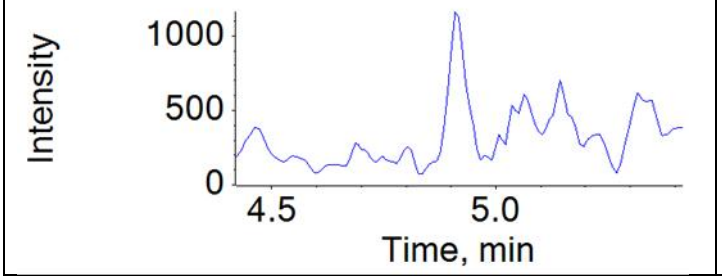


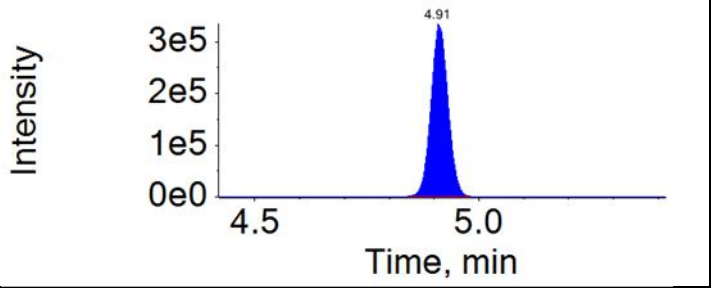
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



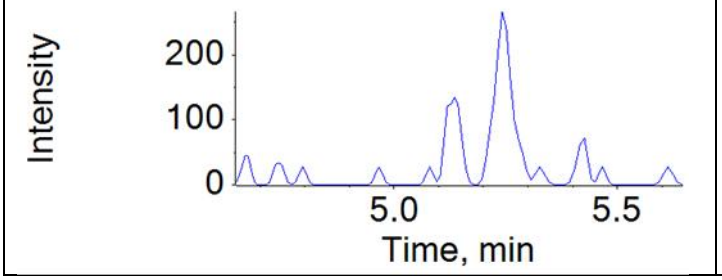


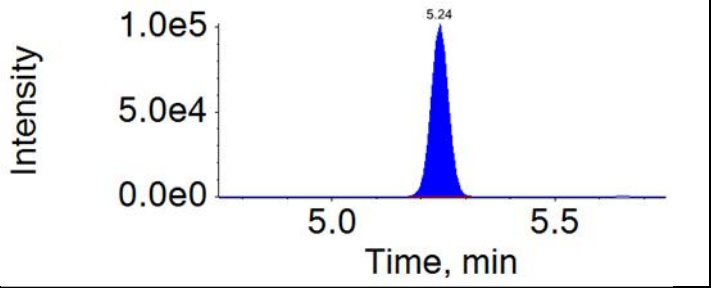
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





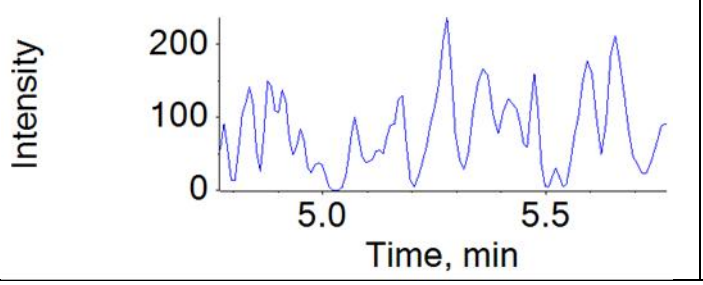
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

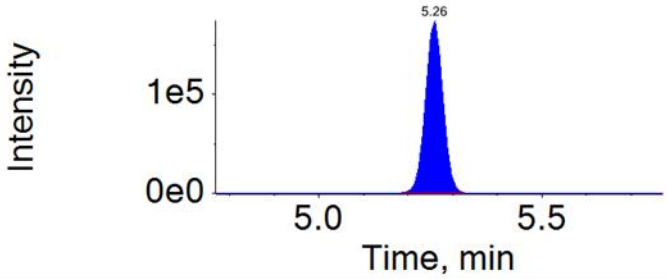




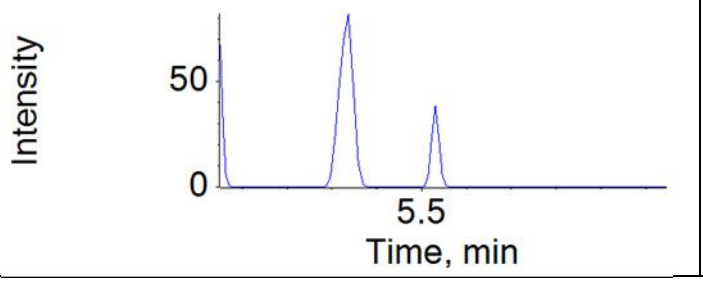
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

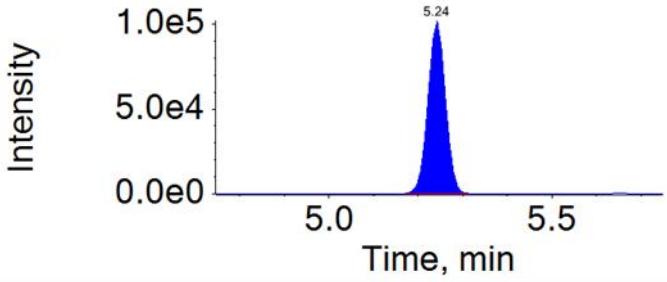
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



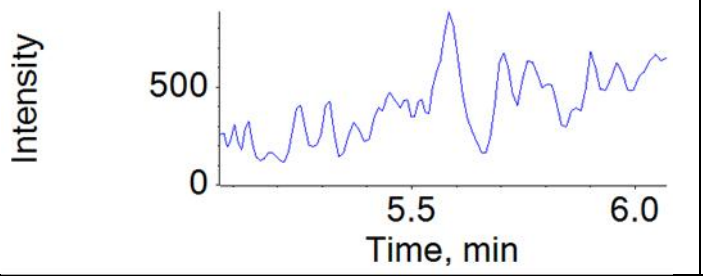


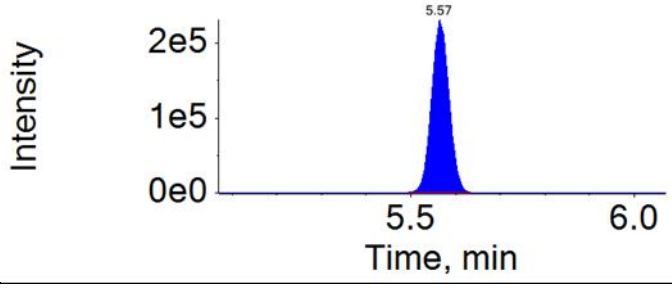
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



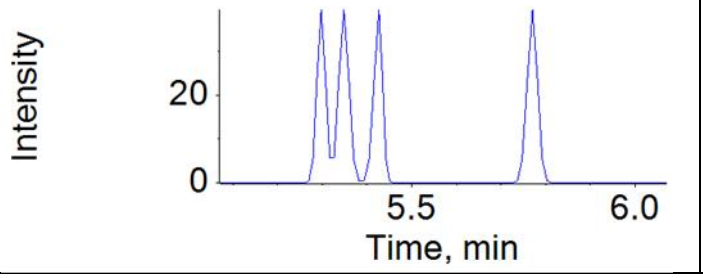


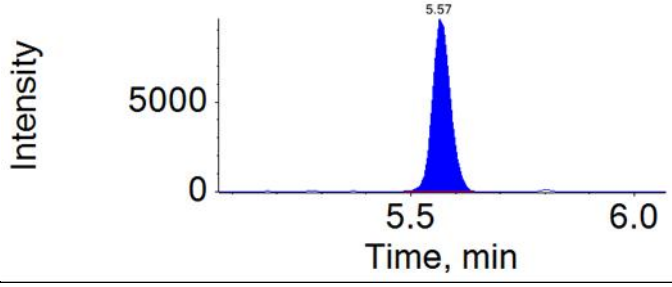
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



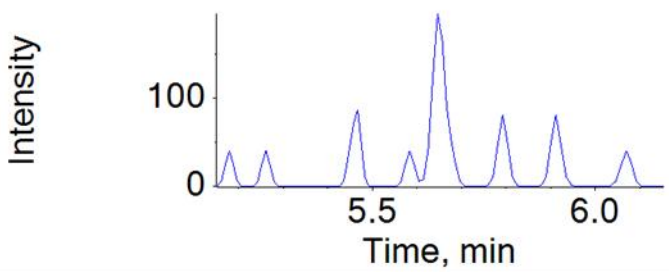


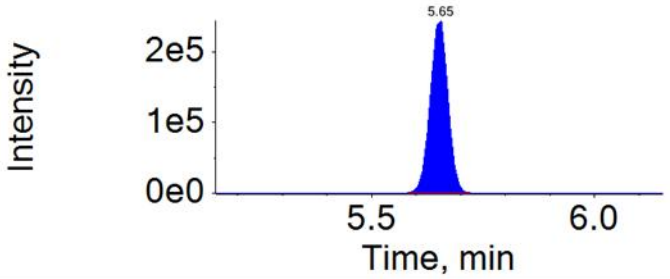
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

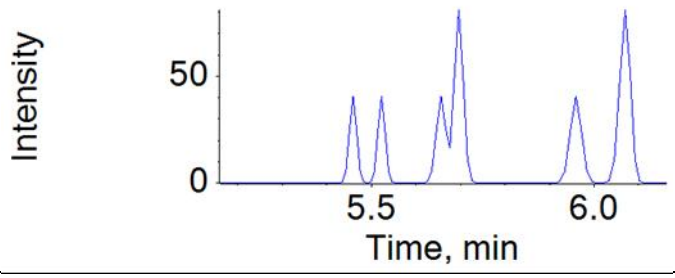
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

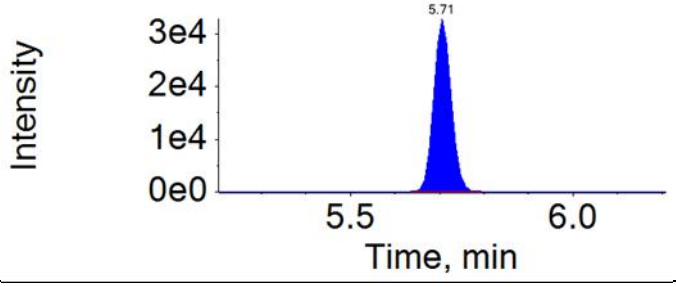
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



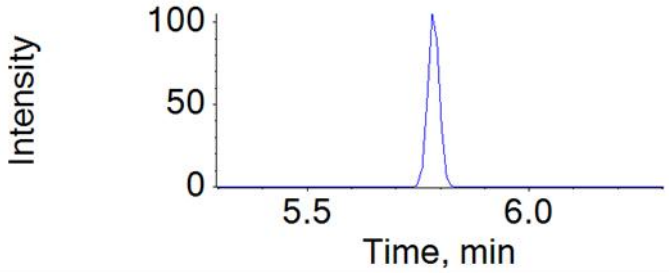


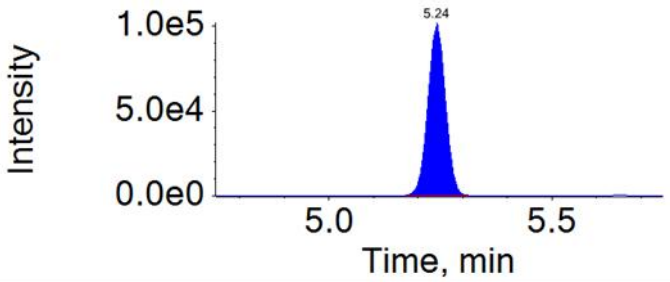
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



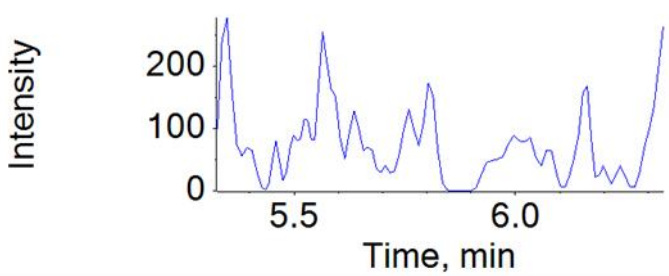


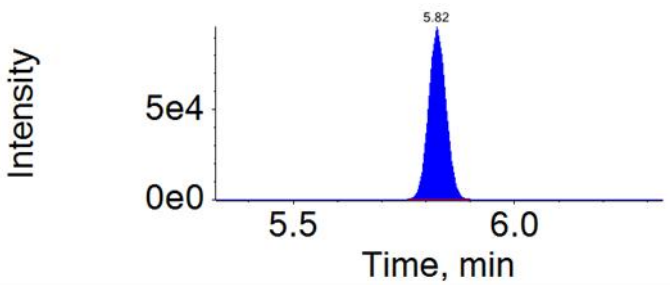
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



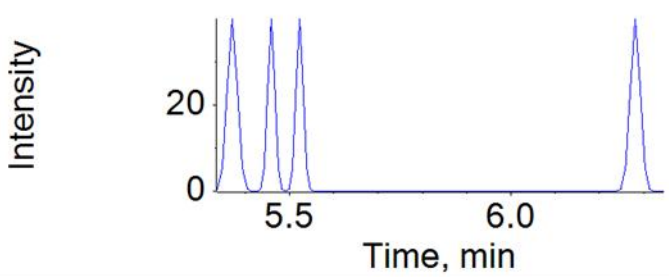


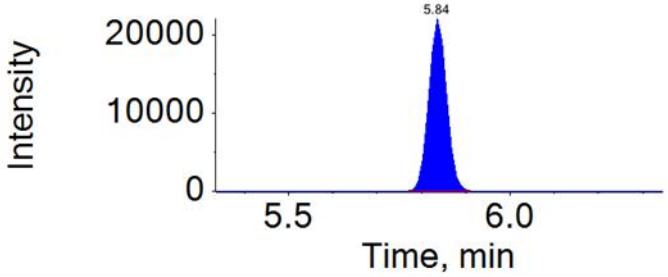
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

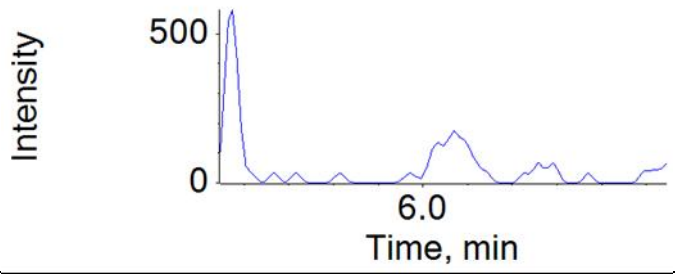
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

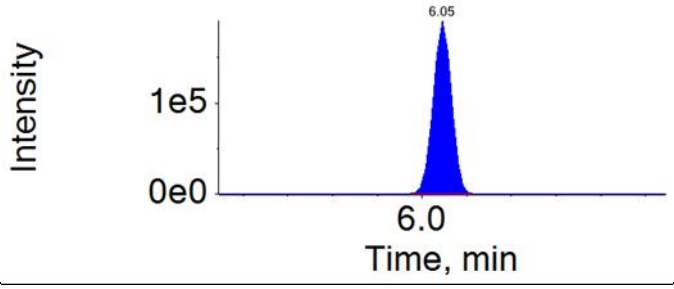
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



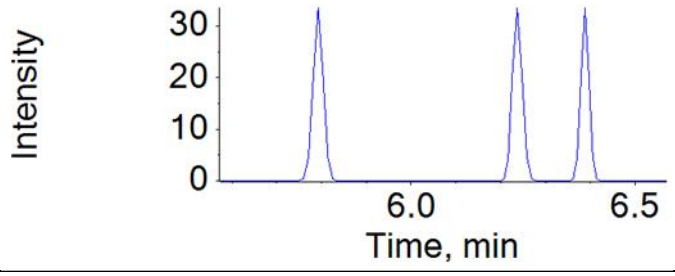


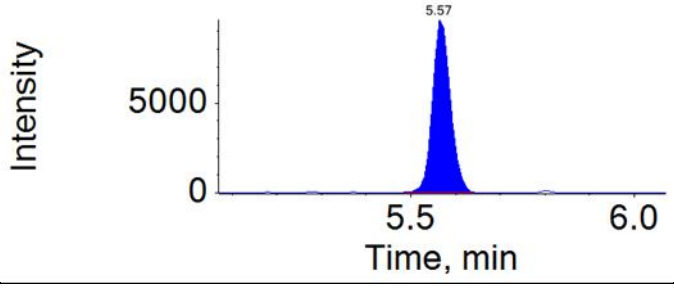
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



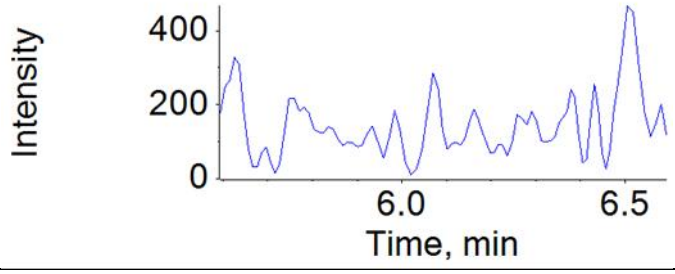


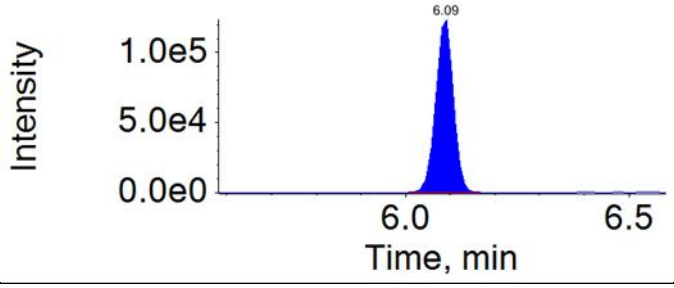
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



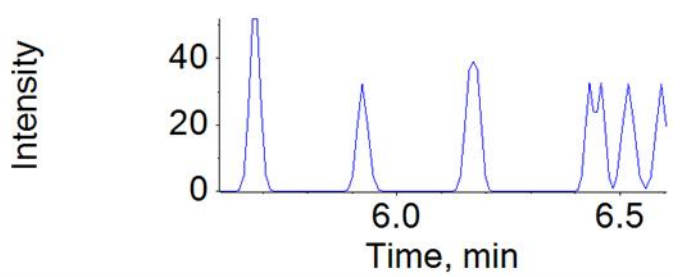


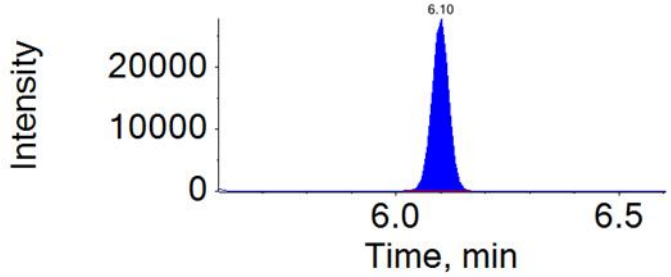
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

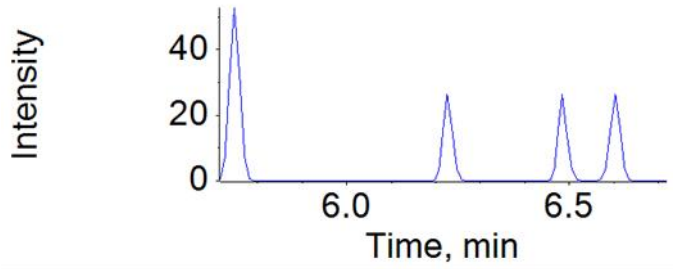
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

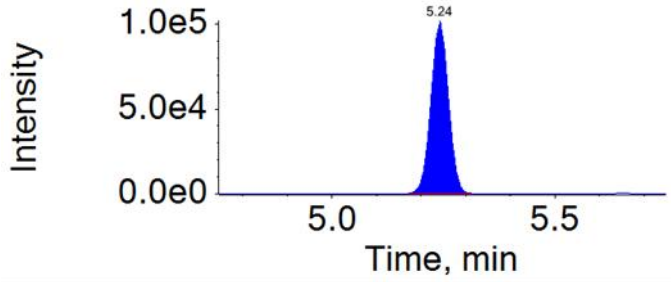
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



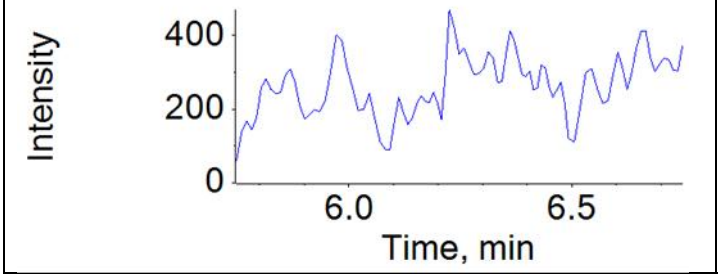


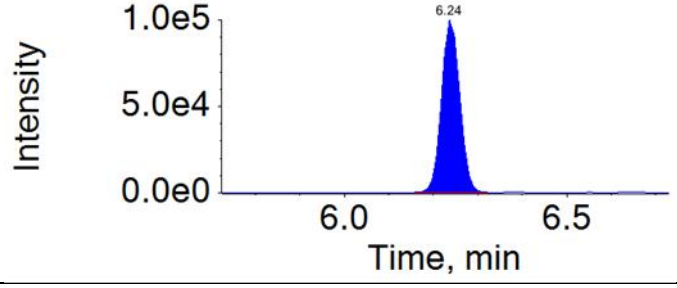
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



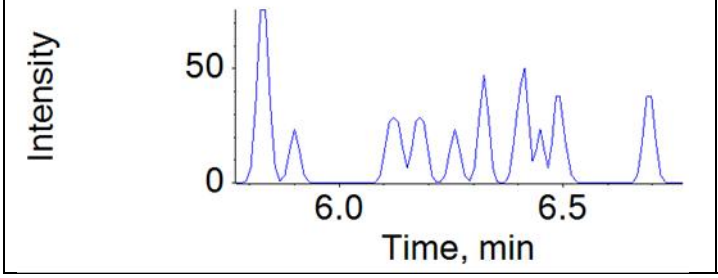


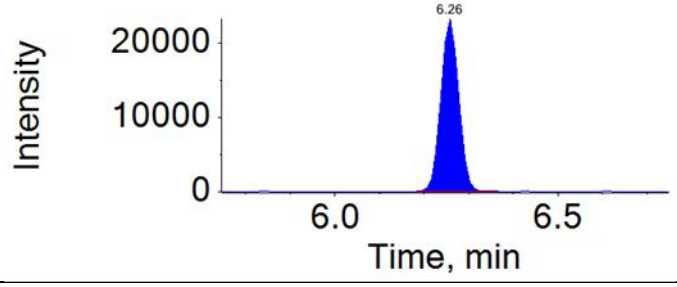
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





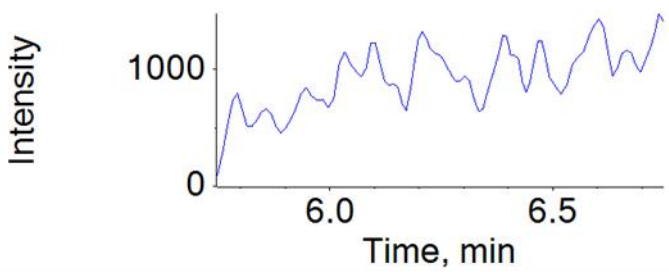
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

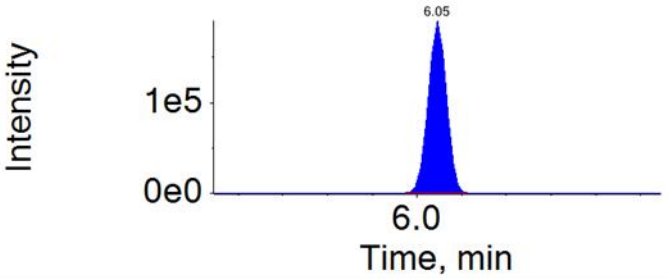




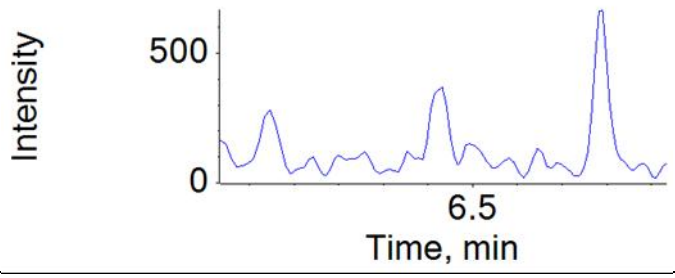
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

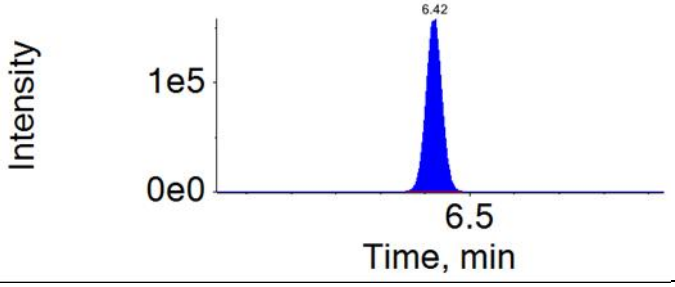
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



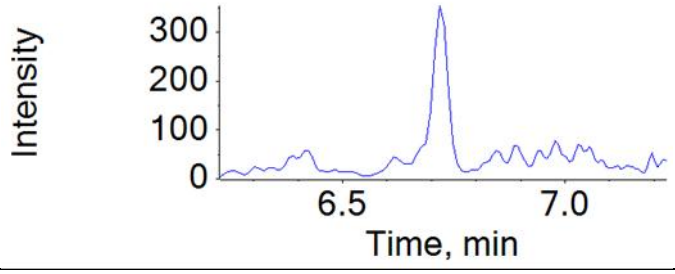


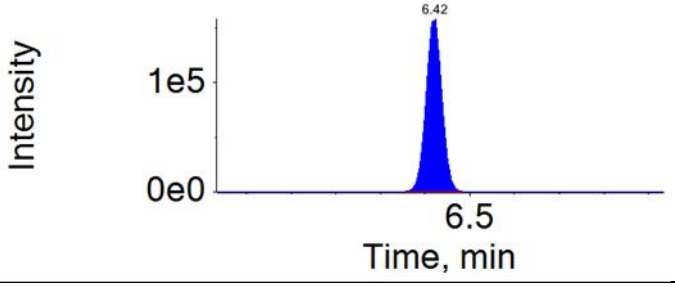
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



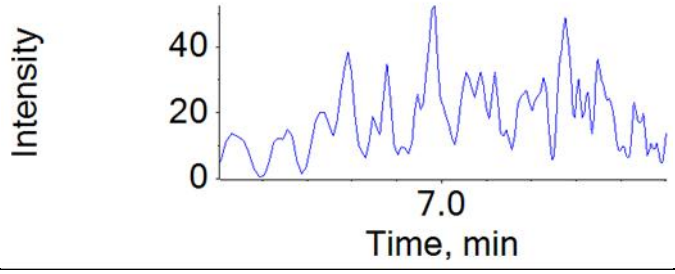


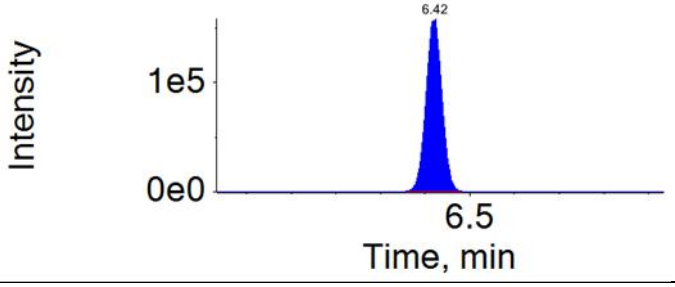
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

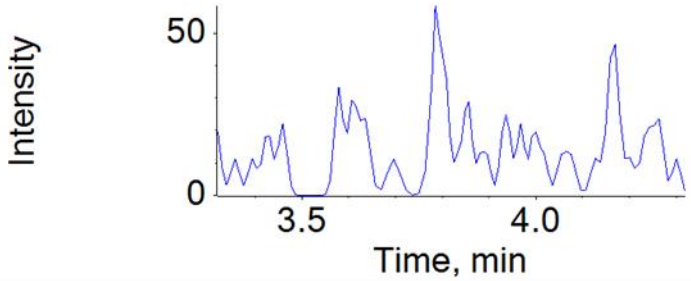
Sample Name: BLK314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-61.wiff

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	

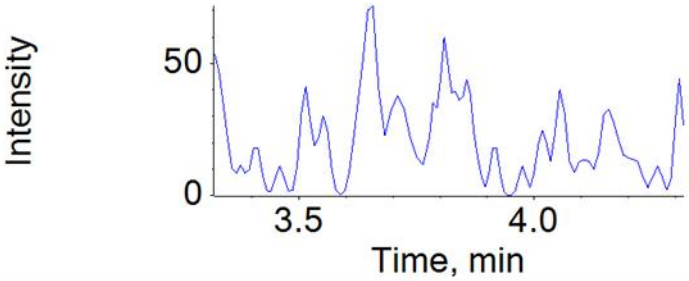
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

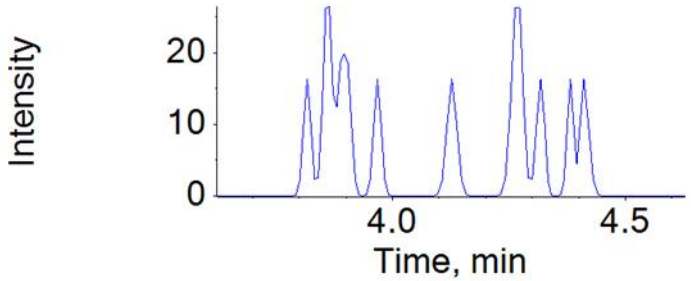
Component: PFBS
Primary Mass: 299.0 / 80.0



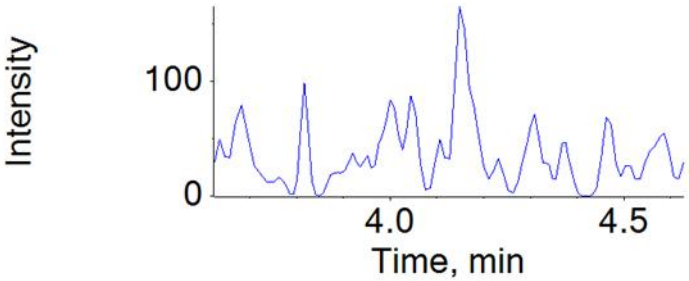
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



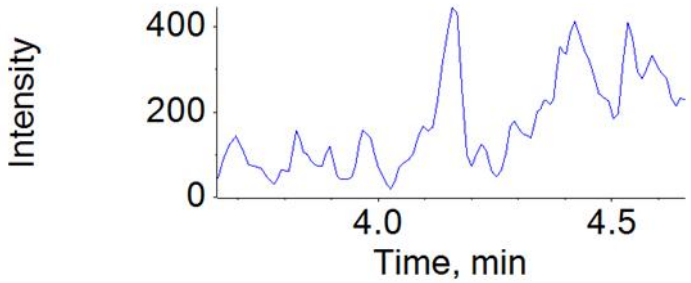
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



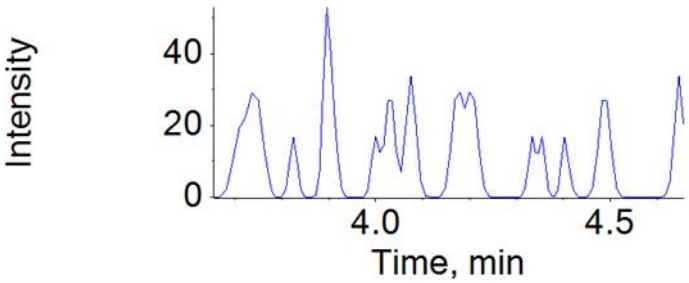
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



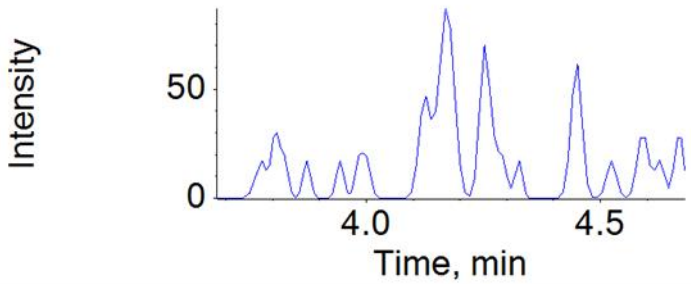
Component: PFHxA
Primary Mass: 313.0 / 269.0



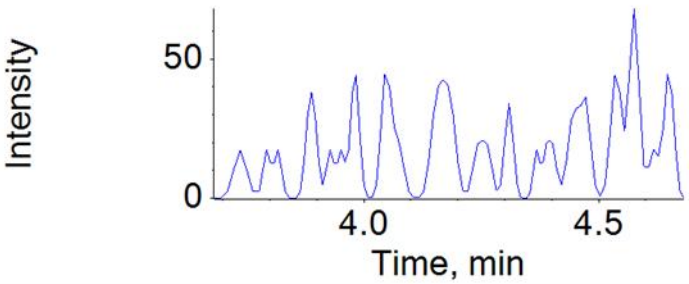
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



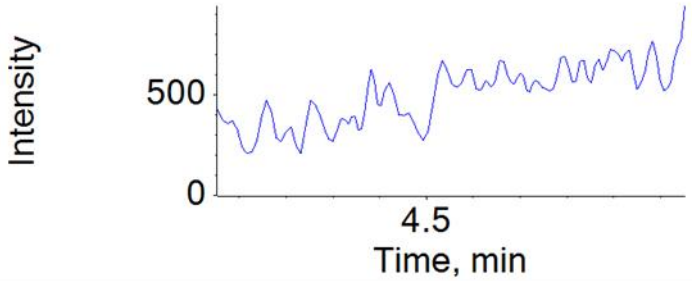
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



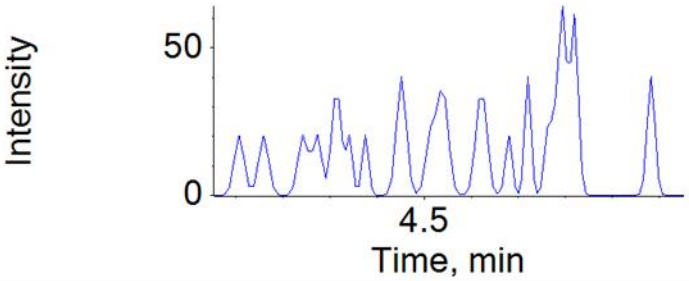
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

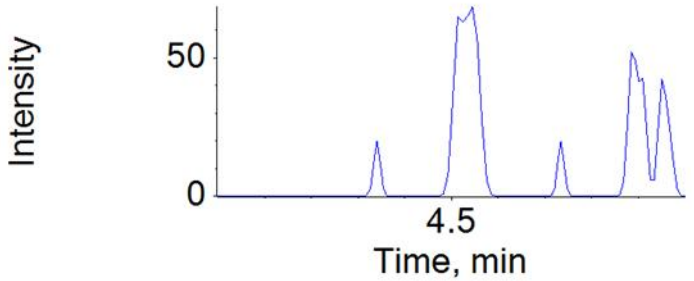
Component: PFHpA
Primary Mass: 363.0 / 319.0



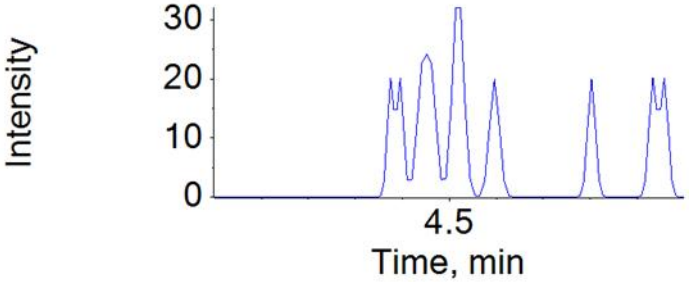
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



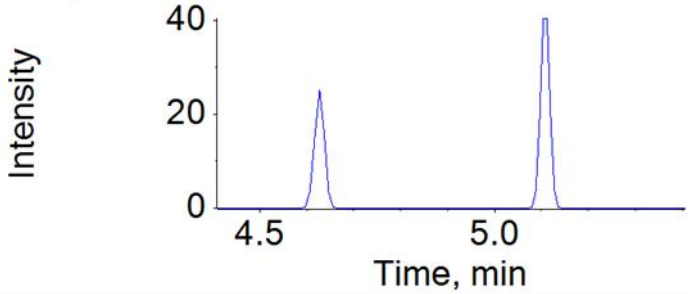
Component: PFHxS
Primary Mass: 399.0 / 80.0



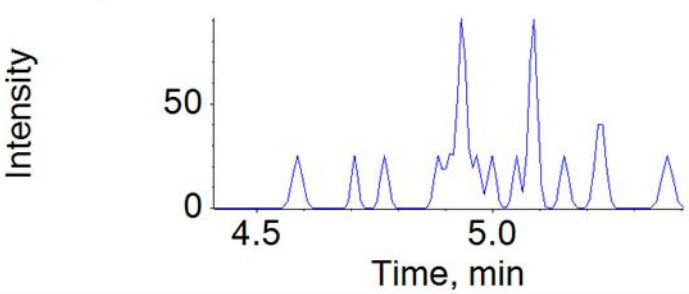
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



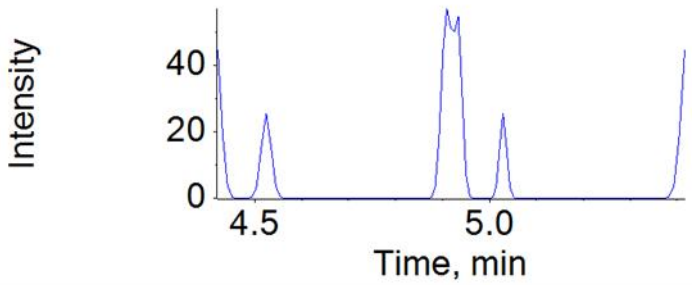
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



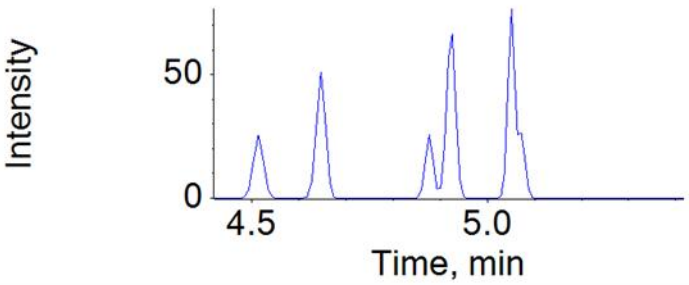
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



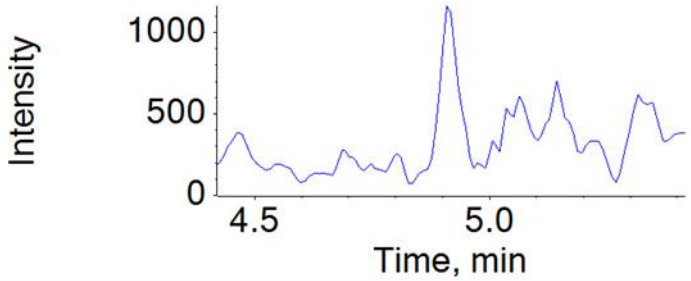
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



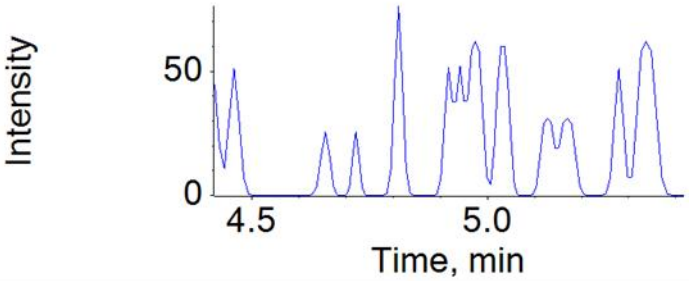
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

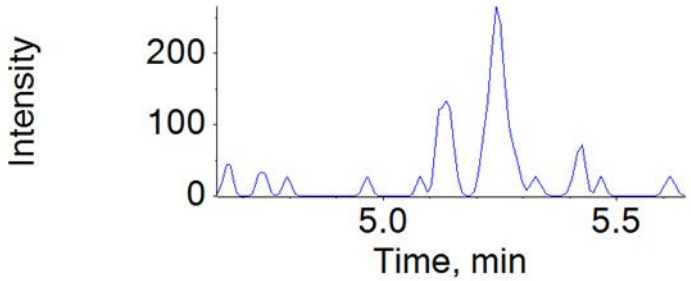
Component: PFOA
Primary Mass: 413.0 / 369.0



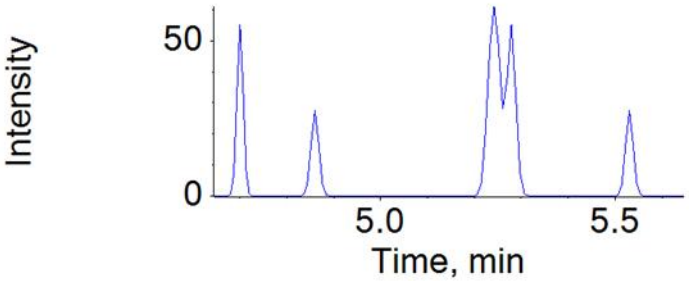
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



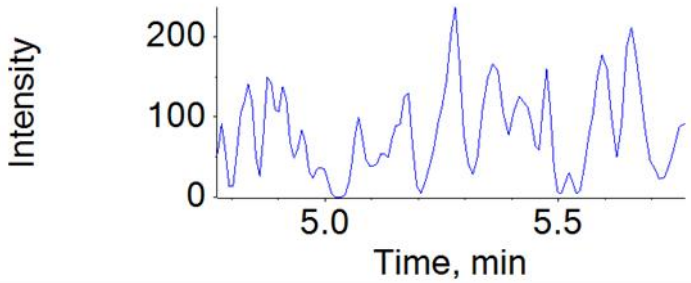
Component: PFOS
Primary Mass: 499.0 / 80.0



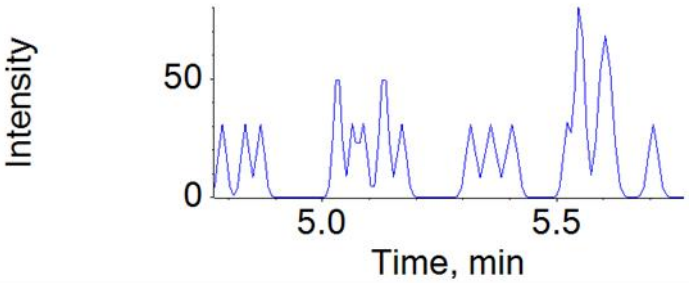
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



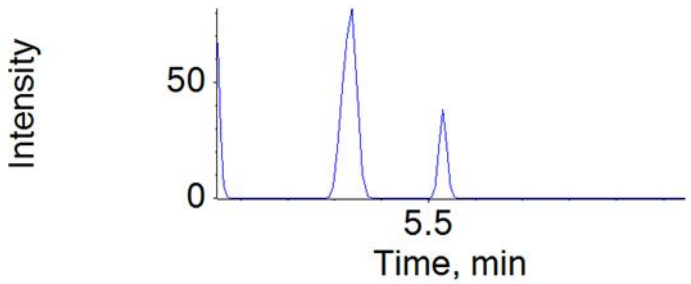
Component: PFNA
Primary Mass: 463.0 / 419.0



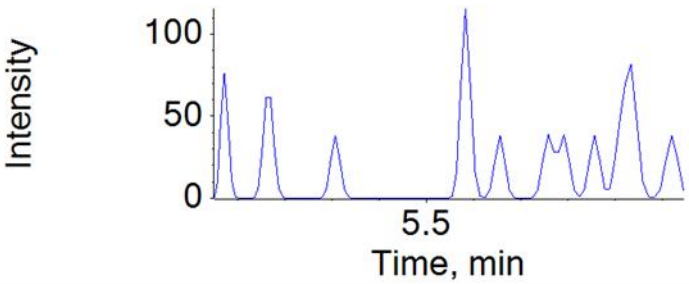
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



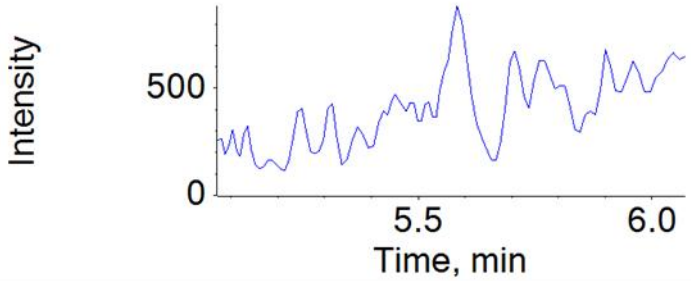
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



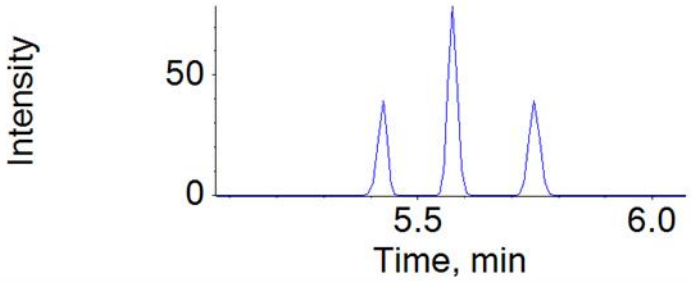
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

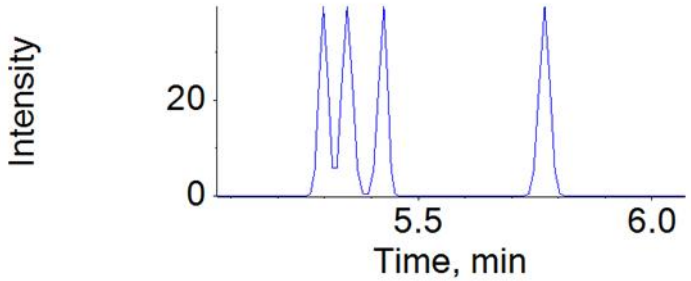
Component: PFDA
Primary Mass: 513.0 / 469.0



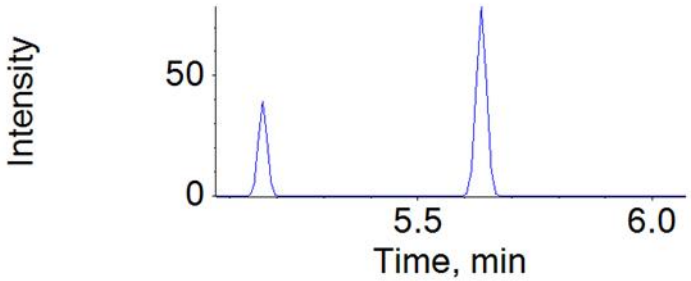
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



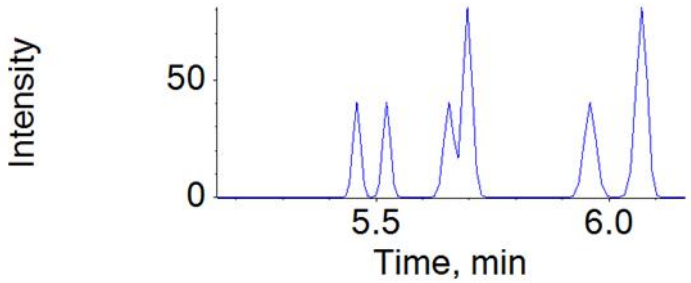
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



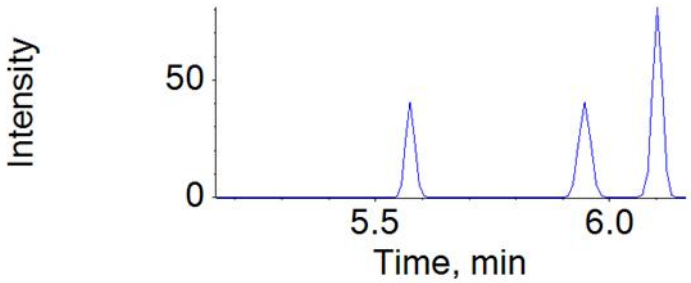
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



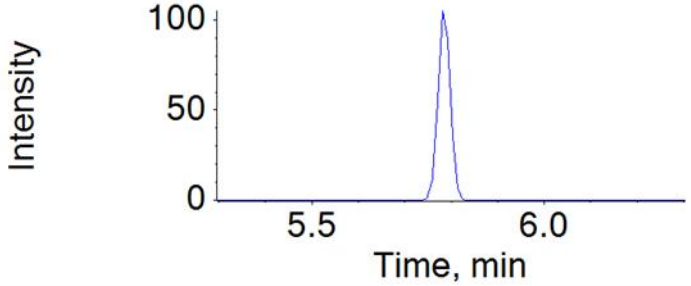
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



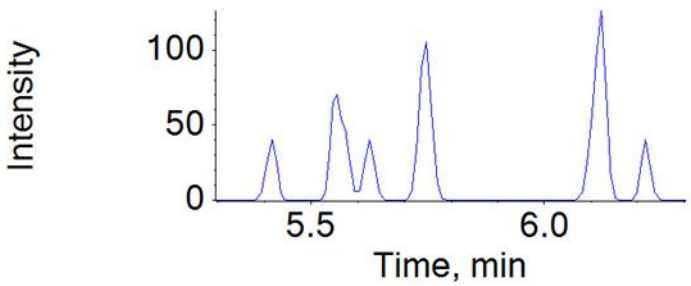
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



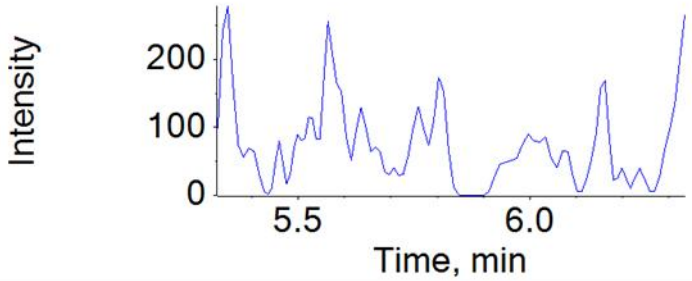
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



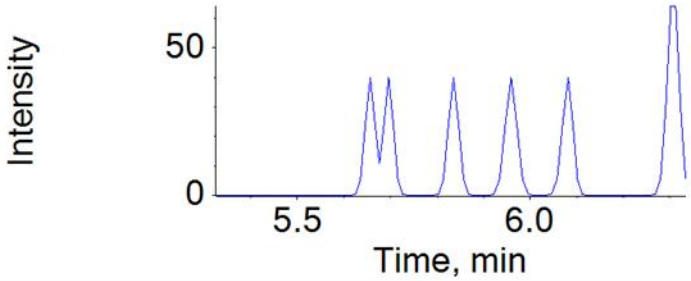
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

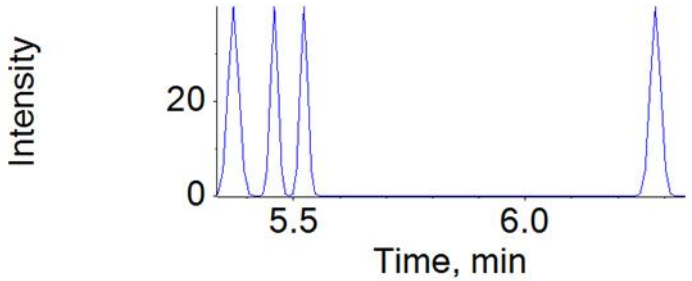
Component: PFUnDA
Primary Mass: 563.0 / 519.0



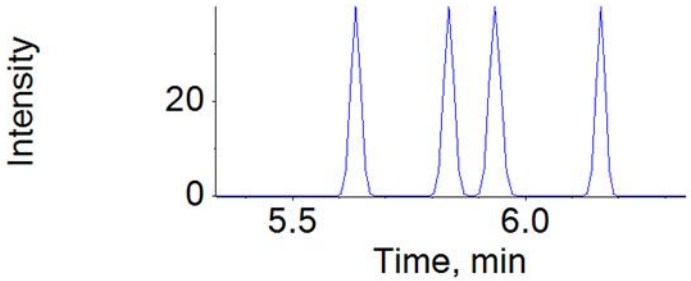
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



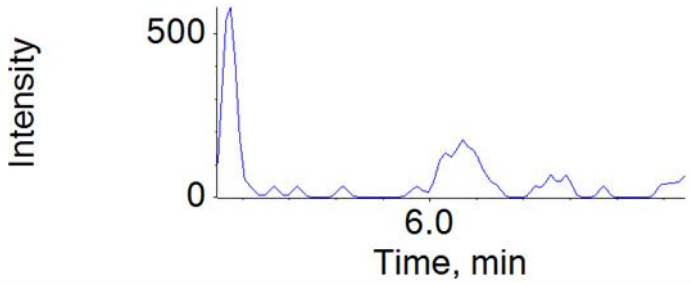
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



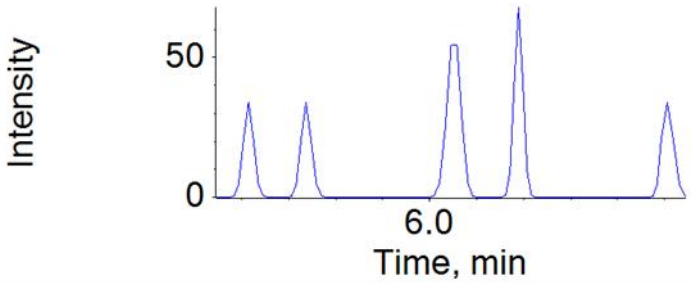
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



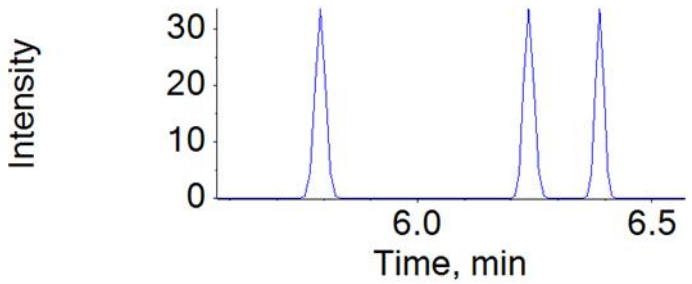
Component: PFDoDA
Primary Mass: 613.0 / 569.0



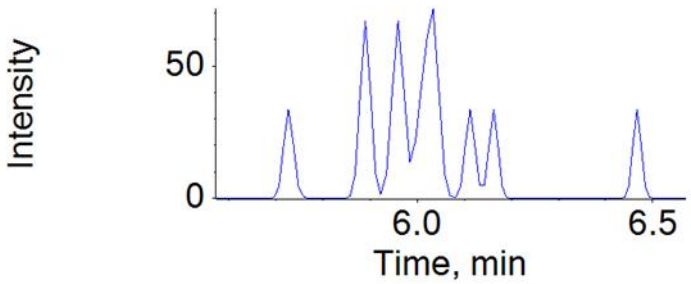
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



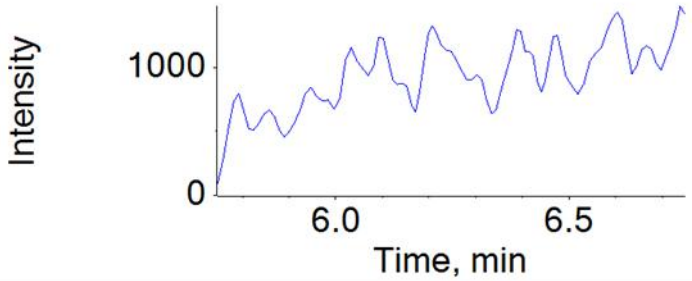
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



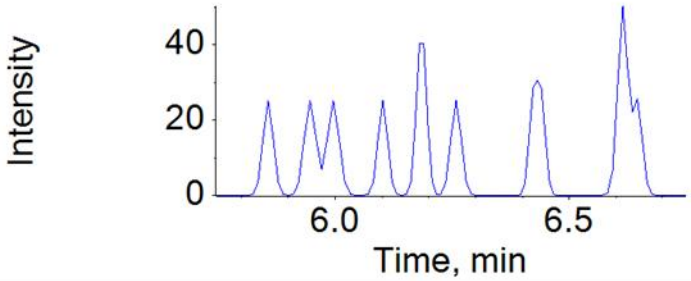
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

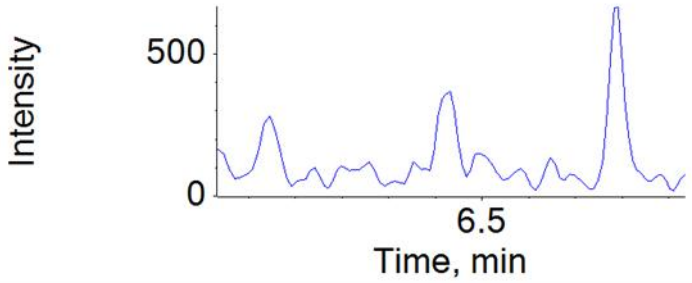
Component: PFTrDA
Primary Mass: 663.0 / 619.0



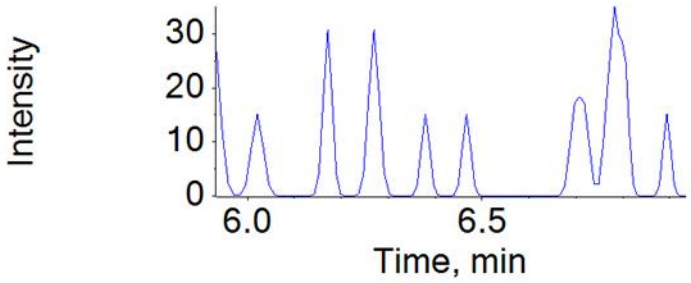
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



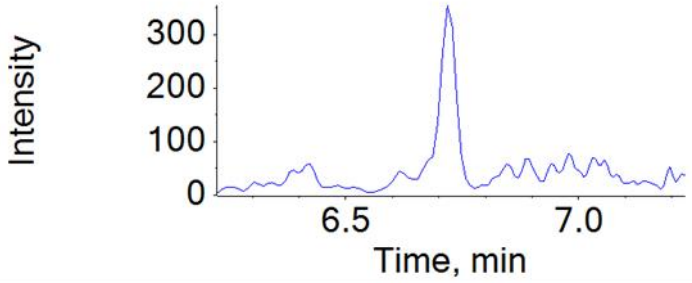
Component: PFTeDA
Primary Mass: 713.0 / 669.0



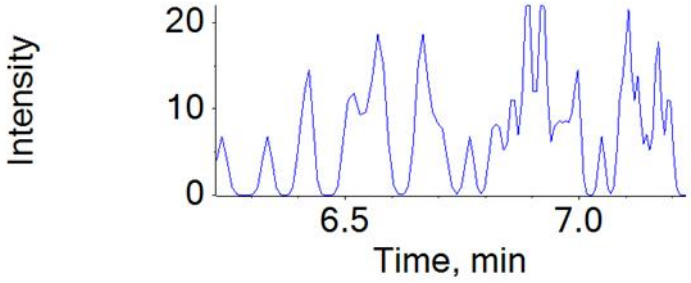
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



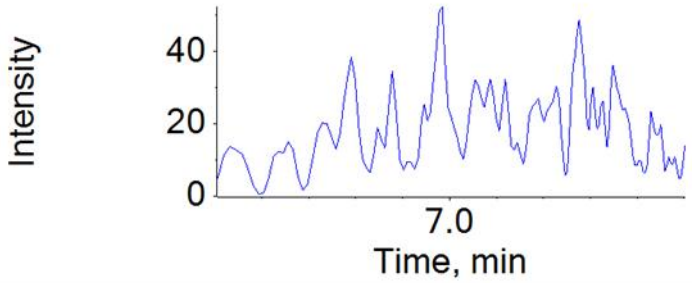
Component: PFHxDA
Primary Mass: 813.0 / 769.0



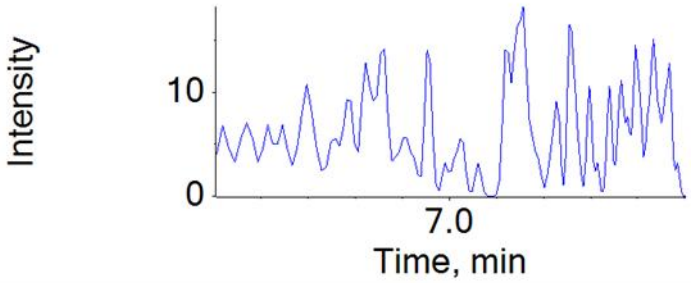
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



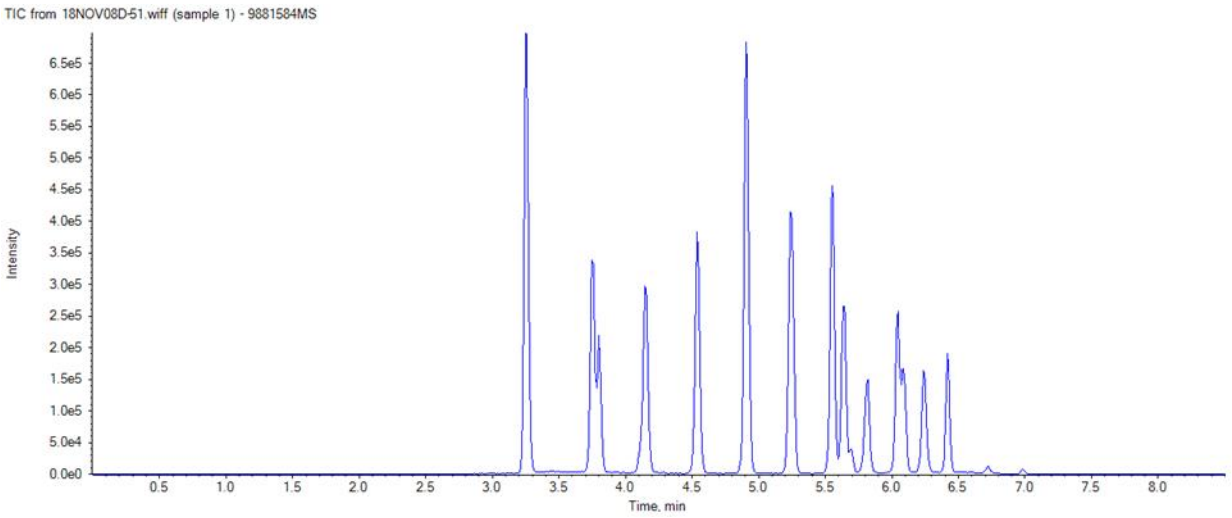
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

Matrix Spike 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	9881584MS	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MS Grab Soil	18NOV08D-51.wiff	2018-11-08T19:19:34



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	812862.7	728839.7	12	50	
13C2-PFOA	5.00	565339.3	491983.1	15	50	
13C4-PFOS	4.78	311202.1	255568.1	22	50	
13C2-PFDA	5.00	350853.7	315407.5	11	50	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Matrix Spike 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	9881584MS	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MS Grab Soil	18NOV08D-51.wiff	2018-11-08T19:19:34

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	51184.5	359931.3	0.142	1.167	1.392	119	70-130	
PFHxA	114164.4	567559.6	0.201	1.320	1.675	127	70-130	
PFHxS	41267.0	284380.3	0.145	1.249	1.428	114	70-130	
PFHpA	114084.1	451457.4	0.253	1.320	1.650	125	70-130	
PFOA	120335.0	792197.9	0.152	1.320	1.661	126	70-130	
PFOS	38996.1	246864.6	0.158	1.262	1.591	126	70-130	
PFNA	98168.0	433895.1	0.226	1.320	1.642	124	70-130	
PFDA	81158.1	533155.4	0.152	1.320	1.626	123	70-130	
NMeFOSAA	9210.8	75218.0	0.122	1.320	1.223	93	70-130	
PFUnDA	66648.5	228827.6	0.291	1.320	1.622	123	70-130	
NEtFOSAA	7072.7	50095.3	0.141	1.320	1.178	89	70-130	
PFDoDA	70881.6	479633.7	0.148	1.320	1.555	118	70-130	
PFTrDA	59665.3	479633.7	0.124	1.320	1.523	115	70-130	
PFTeDA	47045.9	334428.3	0.141	1.320	1.604	121	70-130	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Matrix Spike Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9881584MS			**Data File:**		18NOV08D-51.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MS Grab Soil			**Acquis Date:**		2018-11-08T19:19:34
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	75			**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.:	1.03000			**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	812862.7	728839.7	12	50	
13C2-PFOA	5.0	565339.3	491983.1	15	50	
13C4-PFOS	4.8	311202.1	255568.1	22	50	
13C2-PFDA	5.0	350853.7	315407.5	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
E13C3-PFBS	359931.3	13C3-PFBA	812862.7	0.443	9.029	6.310	70	50-150	
E13C5-PFHxA	567559.6	13C2-PFOA	565339.3	1.004	9.709	7.171	74	50-150	
E13C3-PFHxS	284380.3	13C2-PFOA	565339.3	0.503	9.184	7.012	76	50-150	
E13C4-PFHpA	451457.4	13C2-PFOA	565339.3	0.799	9.709	7.054	73	50-150	
E13C8-PFOA	792197.9	13C2-PFOA	565339.3	1.401	9.709	7.588	78	50-150	
E13C8-PFOS	246864.6	13C4-PFOS	311202.1	0.793	9.282	6.811	73	50-150	
E13C9-PFNA	433895.1	13C4-PFOS	311202.1	1.394	9.709	7.395	76	50-150	
E13C6-PFDA	533155.4	13C2-PFDA	350853.7	1.520	9.709	7.420	76	50-150	
Ed3-NMeFOSAA	75218.0	13C2-PFDA	350853.7	0.214	9.709	7.741	80	50-150	
E13C7-PFUnDA	228827.6	13C2-PFDA	350853.7	0.652	9.709	7.306	75	50-150	
Ed5-NEtFOSAA	50095.3	13C2-PFDA	350853.7	0.143	9.709	6.416	66	50-150	
E13C2-PFDoDA	479633.7	13C2-PFDA	350853.7	1.367	9.709	7.156	74	50-150	
E13C2-PFTeDA	334428.3	13C2-PFDA	350853.7	0.953	9.709	6.663	69	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

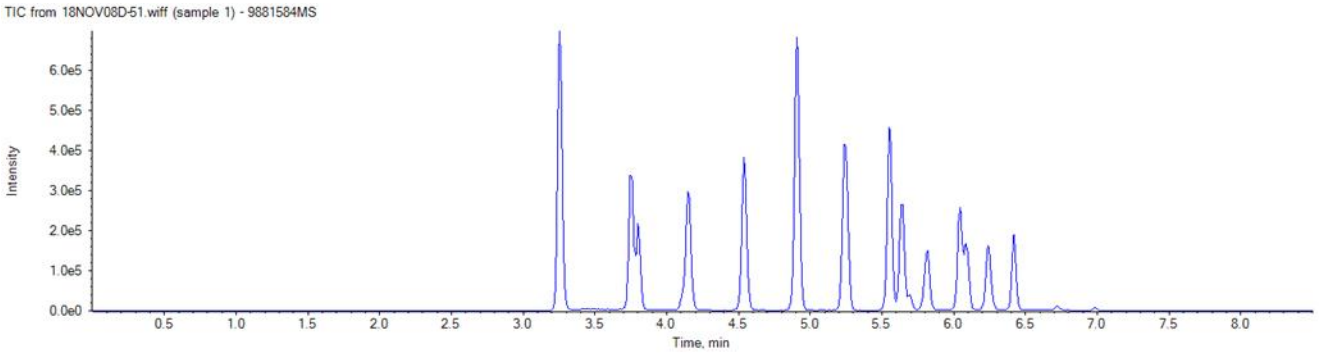
Analyte Quantitation Peak Table

Sample Name: 9881584MS **Instrument Name:** LM27631 **File Name:** 18NOV08D-51.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.03000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.80	1.000	51184.5		A	13C3-PFBS	3.80	359931.3	0.142	1.392
PFHxA	4.15	1.000	114164.4		A	13C5-PFHxA	4.15	567559.6	0.201	1.675
PFHxS	4.54	1.000	41267.0		A	13C3-PFHxS	4.54	284380.3	0.145	1.428
PFHpA	4.54	1.000	114084.1		A	13C4-PFHpA	4.54	451457.4	0.253	1.650
PFOA	4.91	1.000	120335.0		M	13C8-PFOA	4.91	792197.9	0.152	1.661
PFOS	5.24	1.000	38996.1		M	13C8-PFOS	5.24	246864.6	0.158	1.591
PFNA	5.25	1.000	98168.0		A	13C9-PFNA	5.25	433895.1	0.226	1.642
PFDA	5.55	1.000	81158.1		A	13C6-PFDA	5.55	533155.4	0.152	1.626
NMeFOSAA	5.70	1.000	9210.8		M	d3-NMeFOSAA	5.69	75218.0	0.122	1.223
PFUnDA	5.81	1.000	66648.5		A	13C7-PFUnDA	5.81	228827.6	0.291	1.622
NEtFOSAA	5.83	1.000	7072.7		A	d5-NEtFOSAA	5.82	50095.3	0.141	1.178
PFDoDA	6.04	1.000	70881.6		A	13C2-PFDoDA	6.04	479633.7	0.148	1.555
PFTrDA	6.24	1.030	59665.3		A	13C2-PFDoDA	6.04	479633.7	0.124	1.523
PFTeDA	6.42	1.000	47045.9		A	13C2-PFTeDA	6.42	334428.3	0.141	1.604

Total Ion Chromatogram

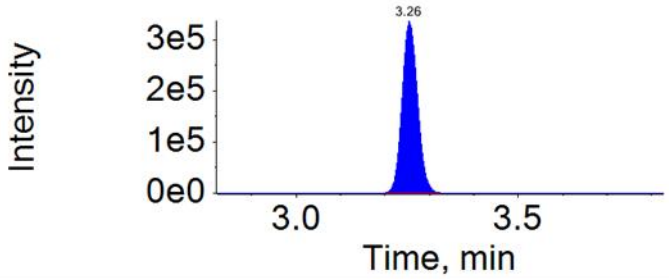


APPROVED
By JPT at 1:25 pm, 11/9/18

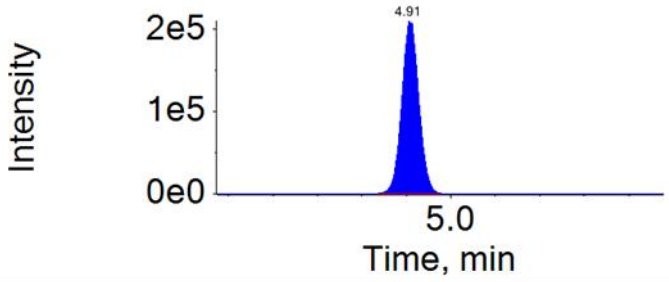
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

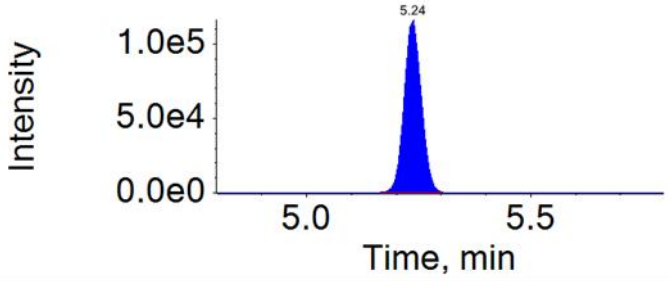
Injection Standard: 13C3-PFBA
216.0 / 172.0



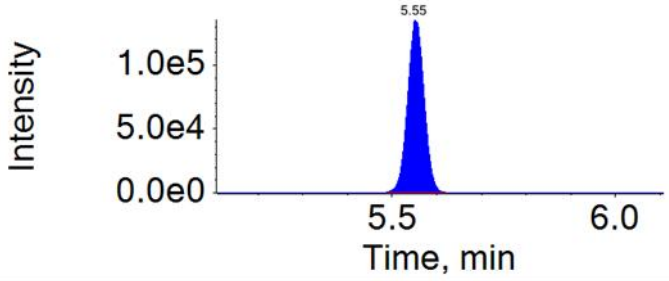
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

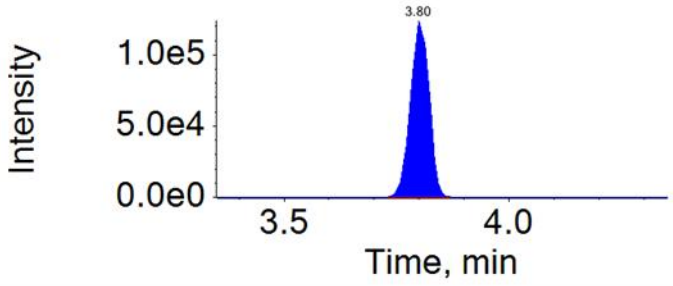


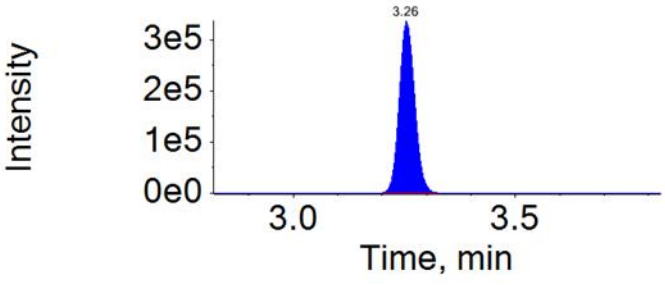
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

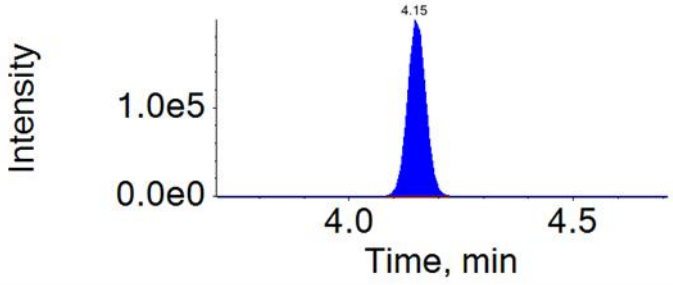
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

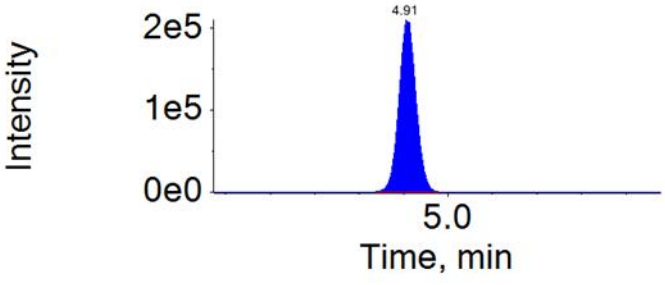
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



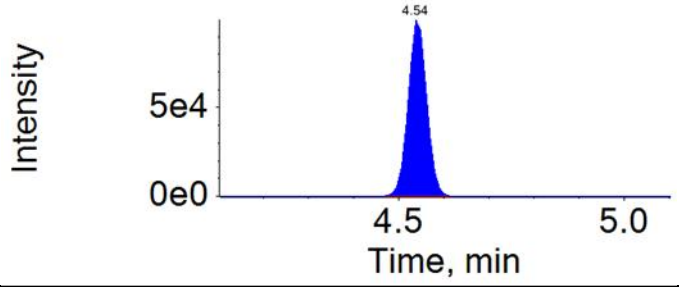


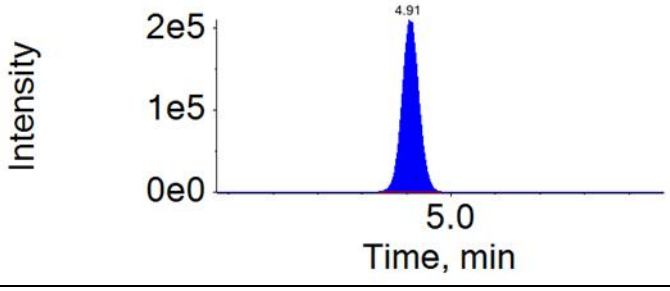
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



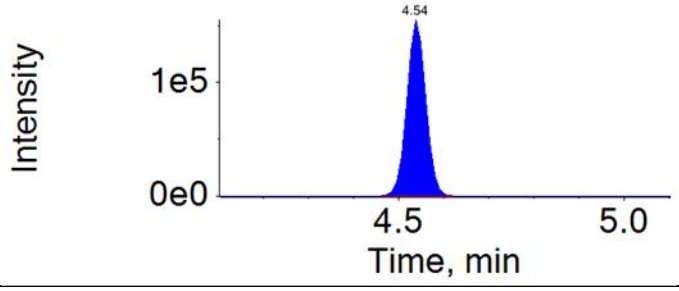


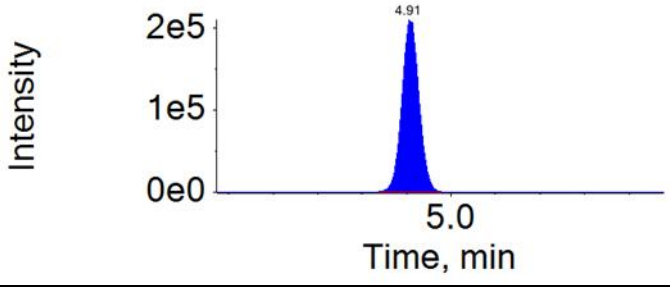
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0





Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0

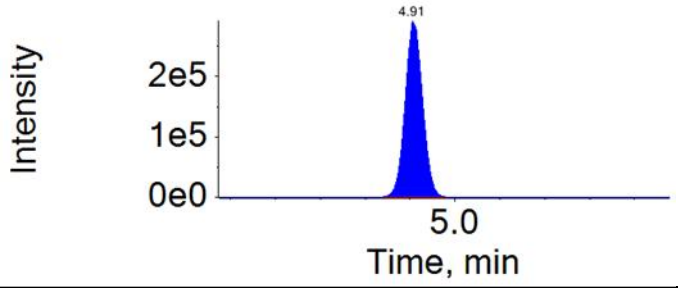
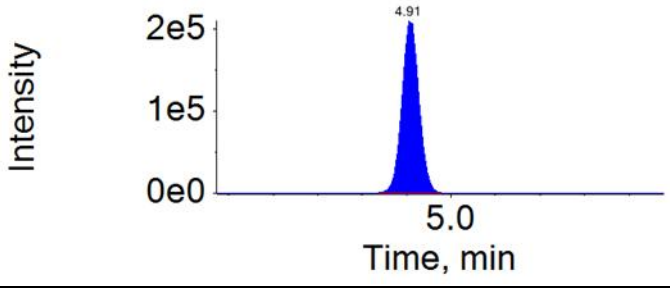


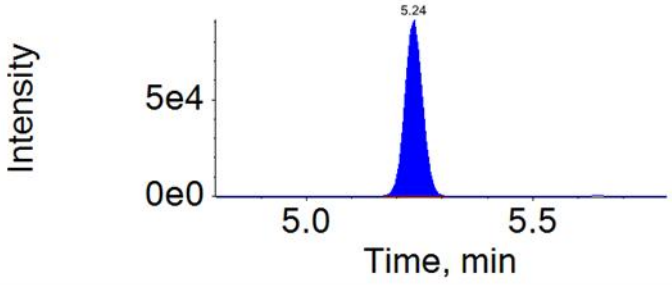
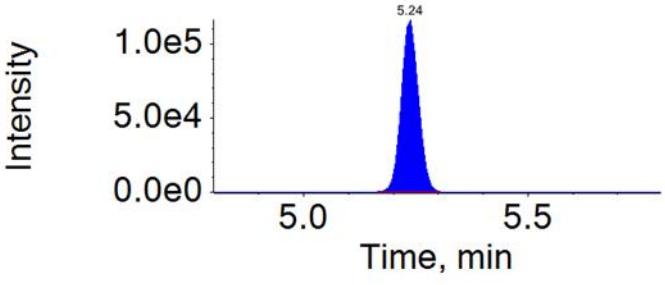


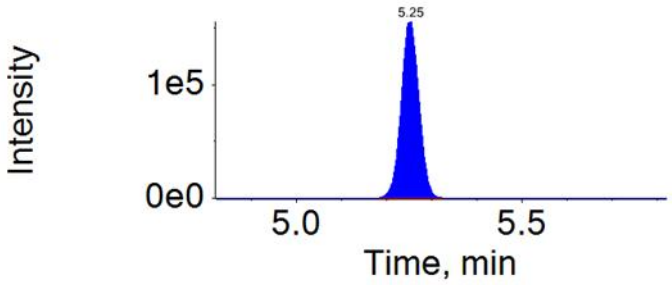
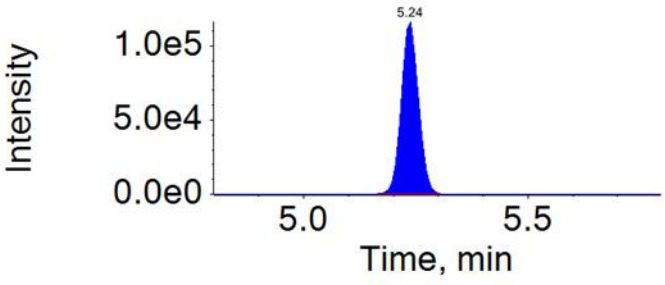
APPROVED
By JPT at 1:25 pm, 11/9/18

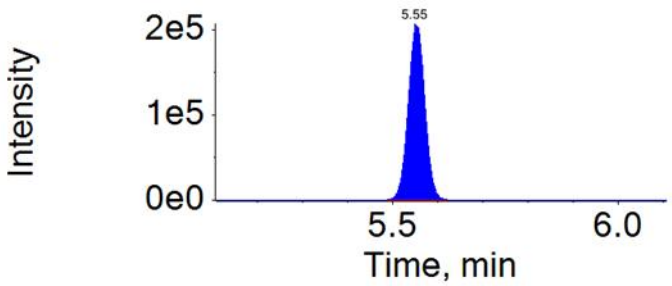
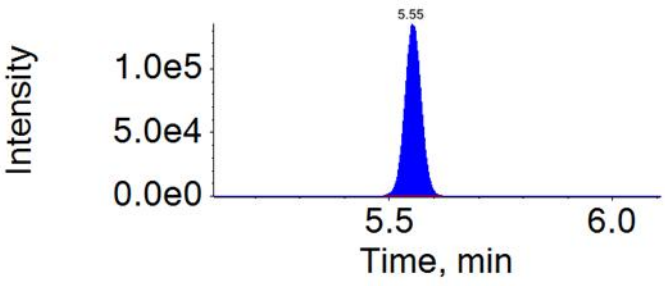
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

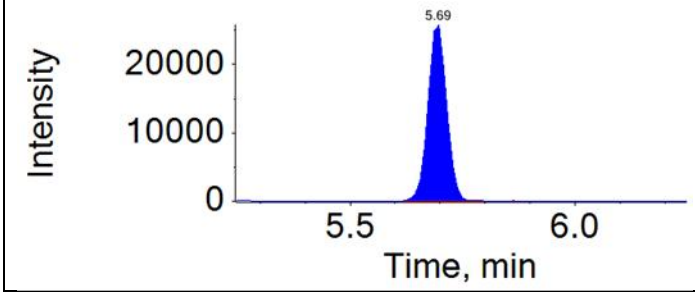
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

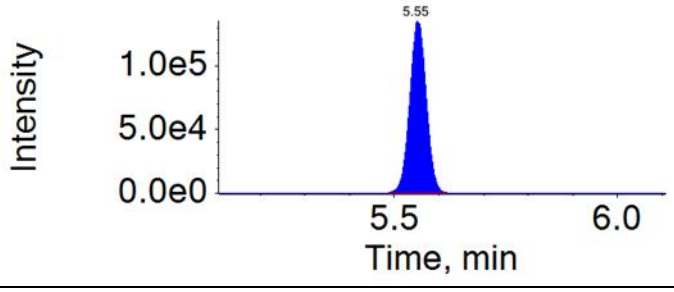
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

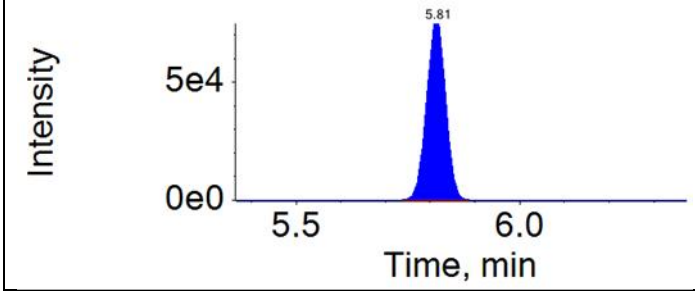
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

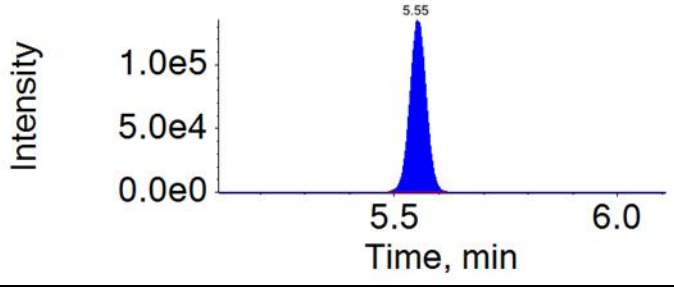
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



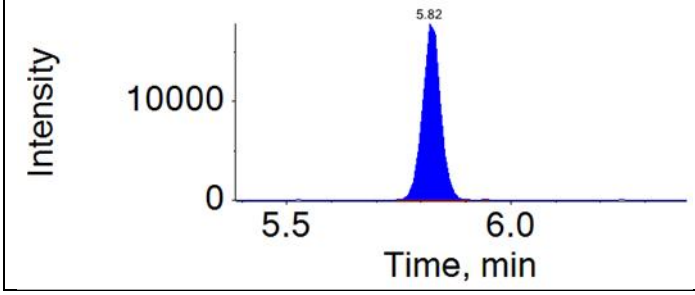


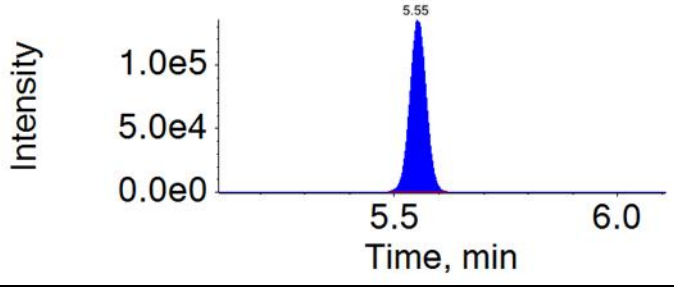
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



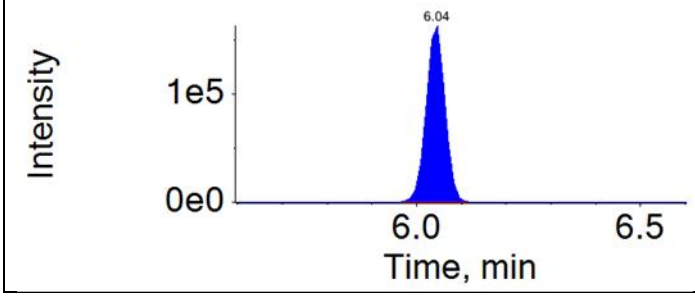


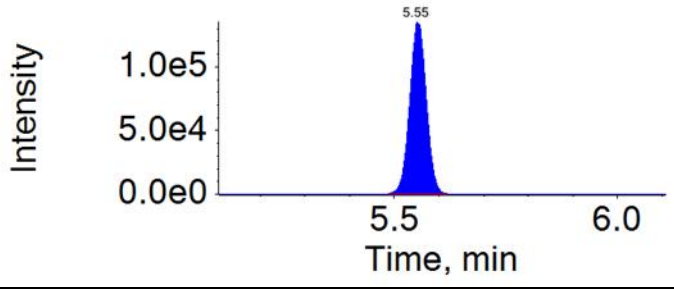
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0

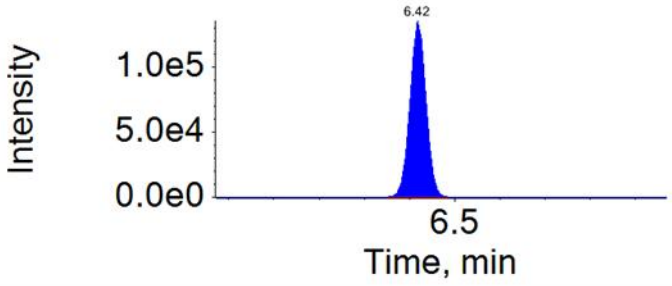
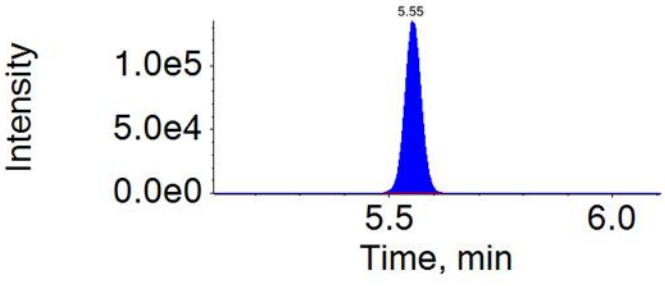




APPROVED
By JPT at 1:25 pm, 11/9/18

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

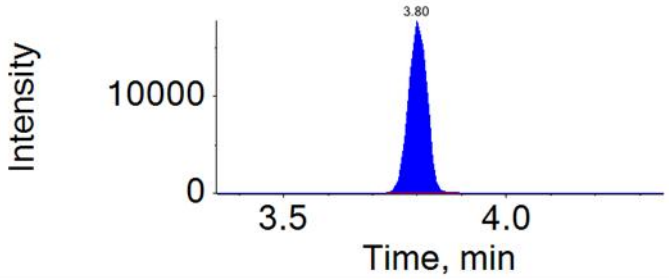
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

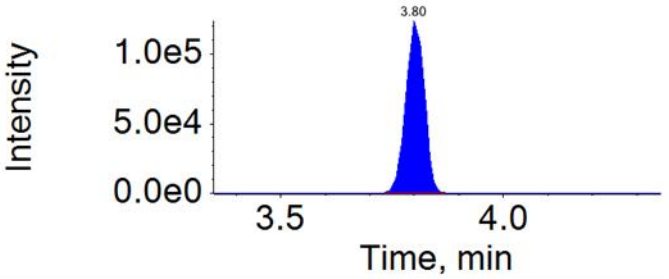
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

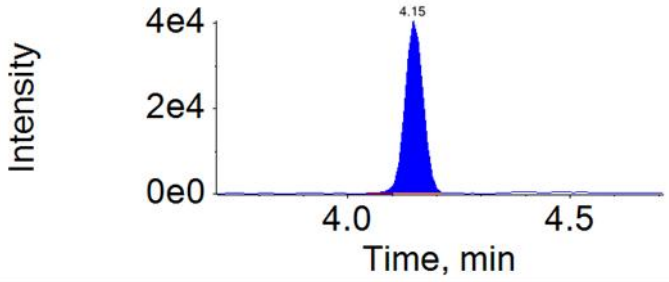
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

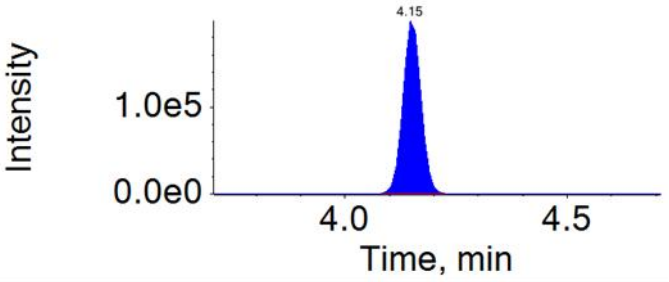
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0



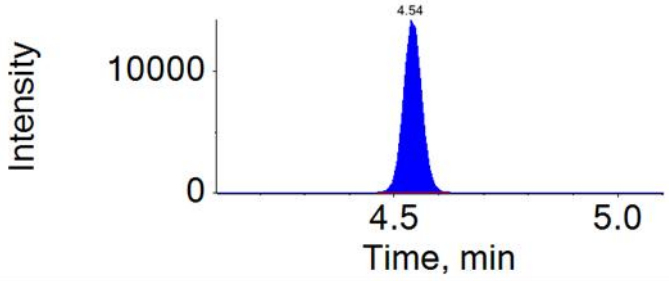


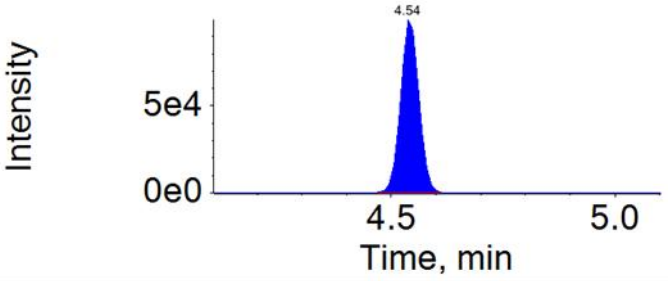
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



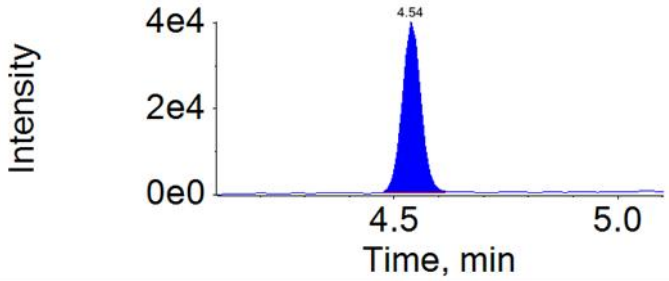


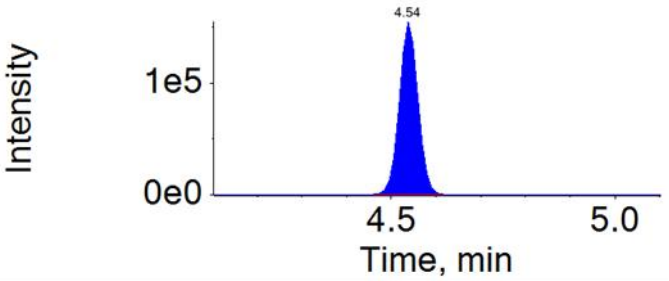
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



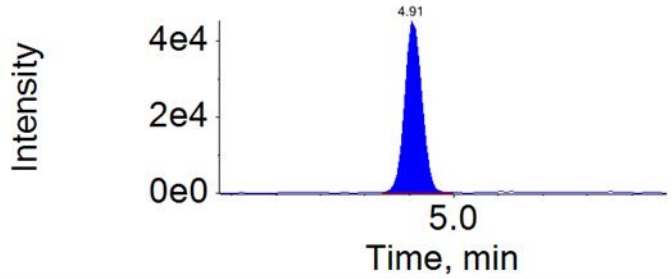


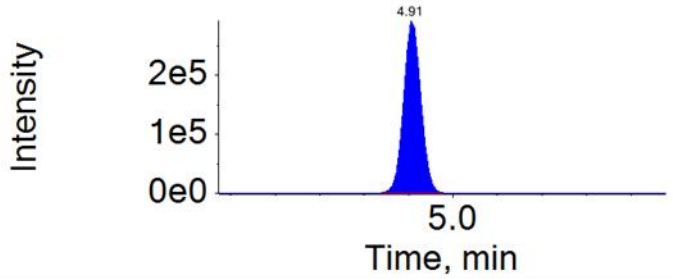
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

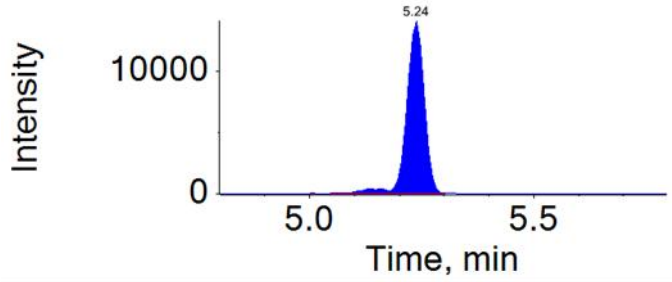
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

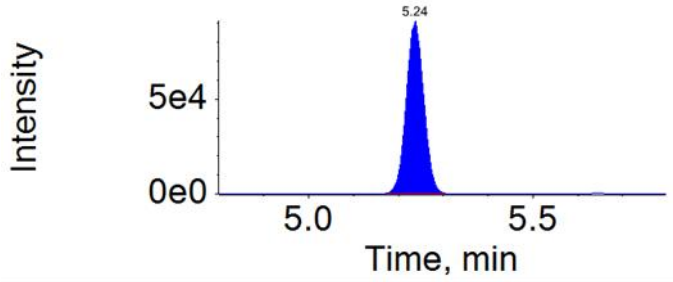
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0



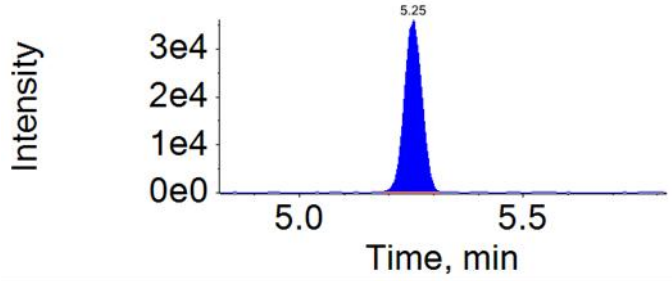


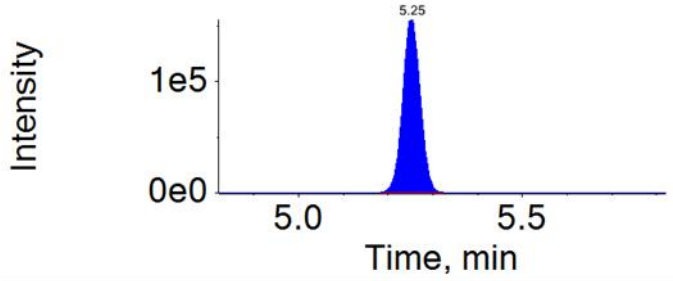
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



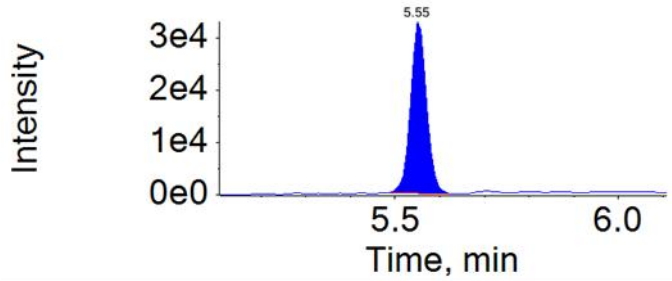


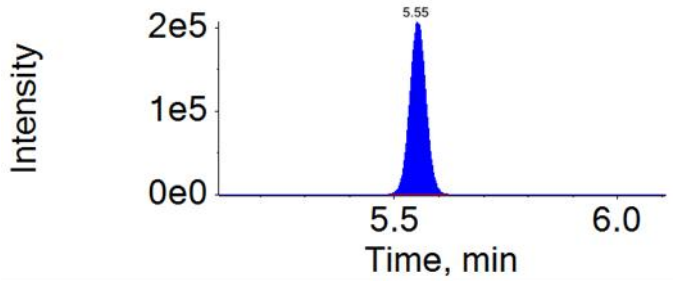
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0





Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0

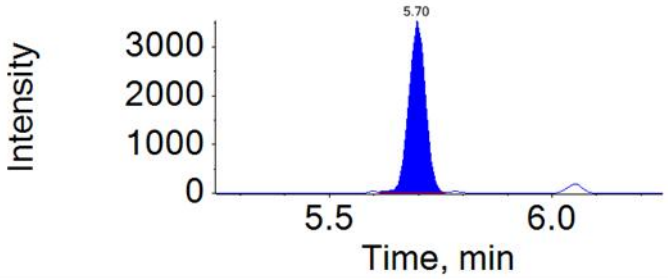
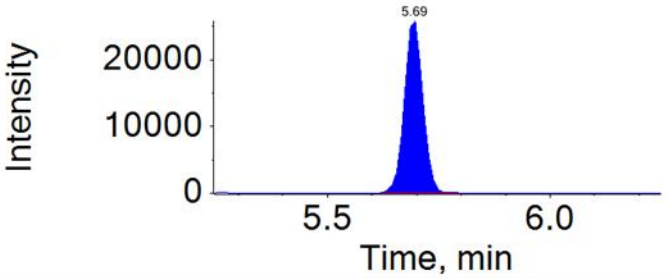


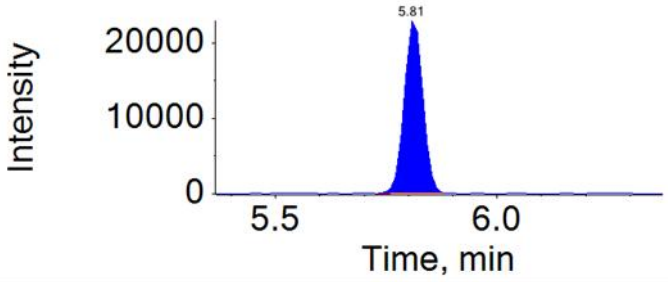
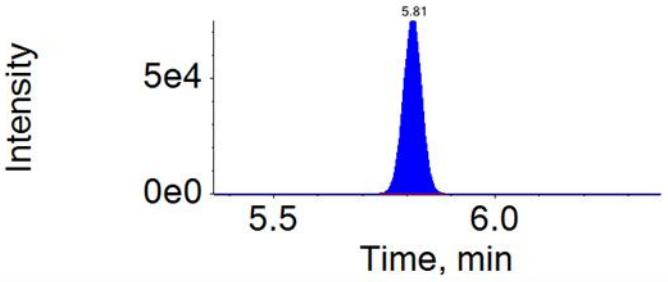


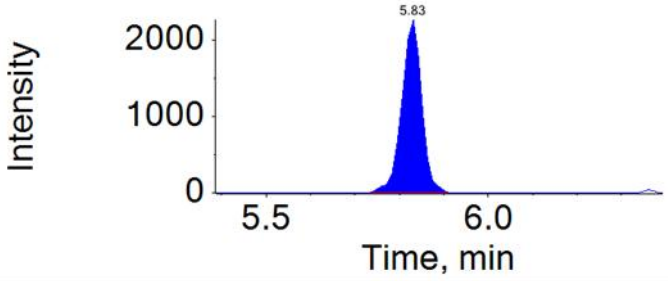
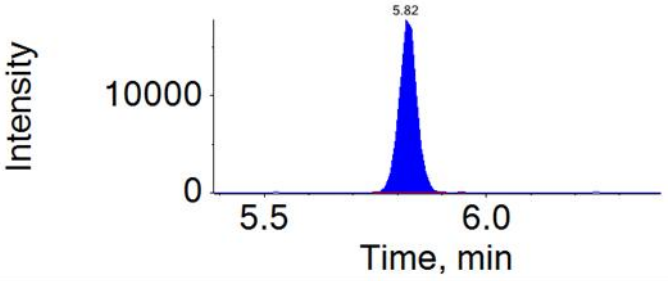
APPROVED
By JPT at 1:25 pm, 11/9/18

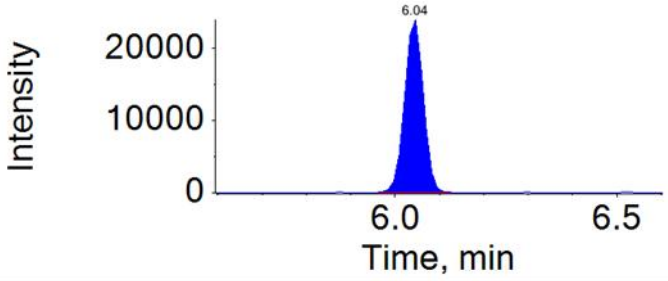
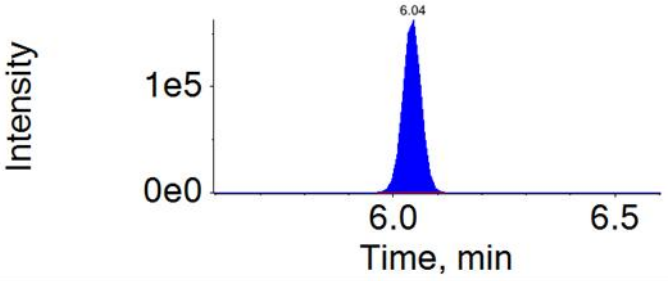
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

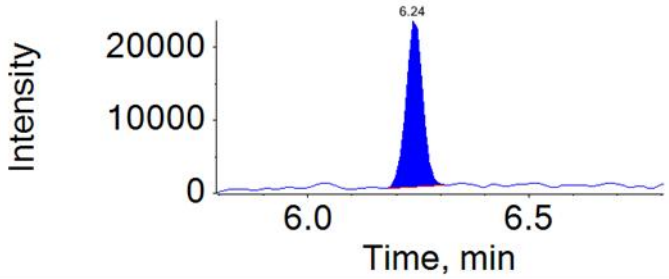
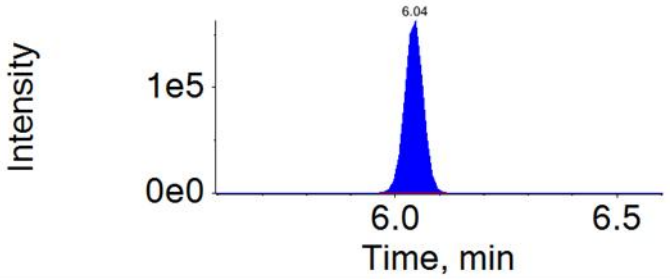
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

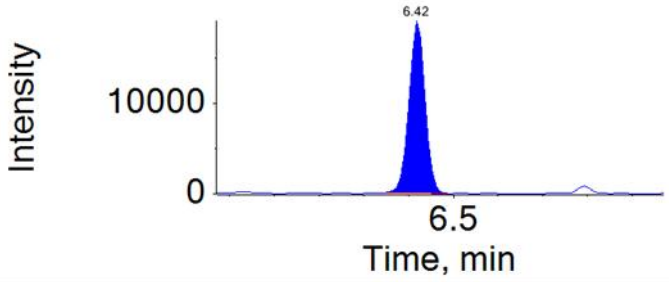
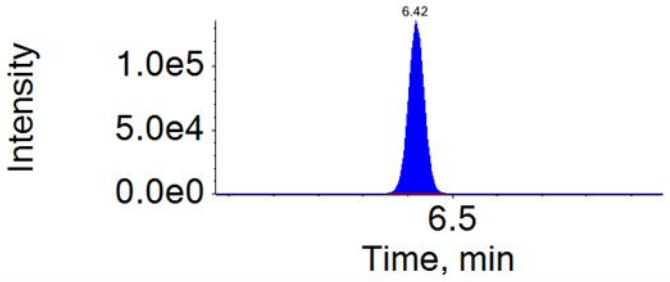
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

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
	

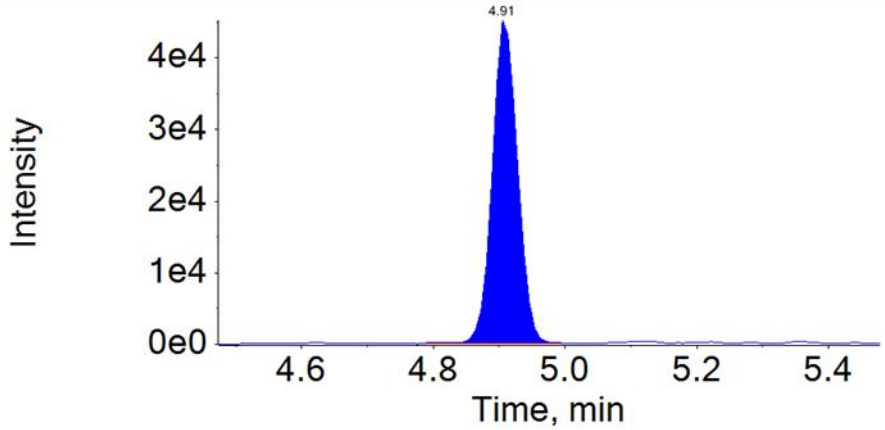
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

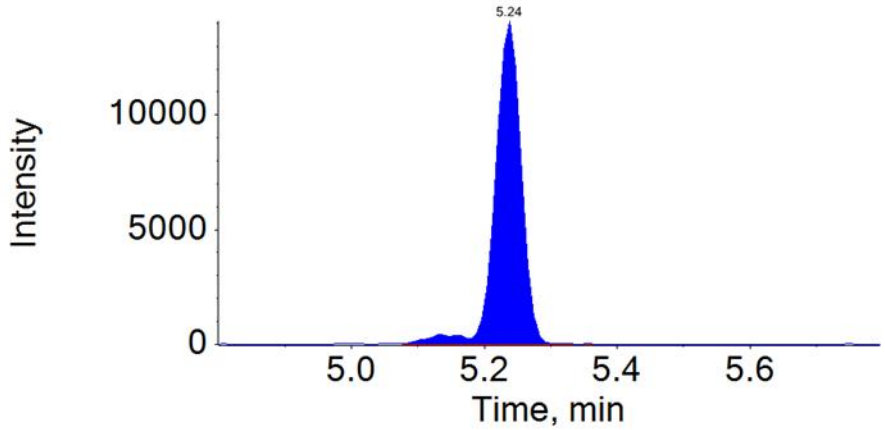
Results Table Name: 18311003
Results Table Date: 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
120473.8
Mass Range:
413.0 / 369.0
File Name:
18NOV08D-51.wiff
Sample Name:
9881584MS



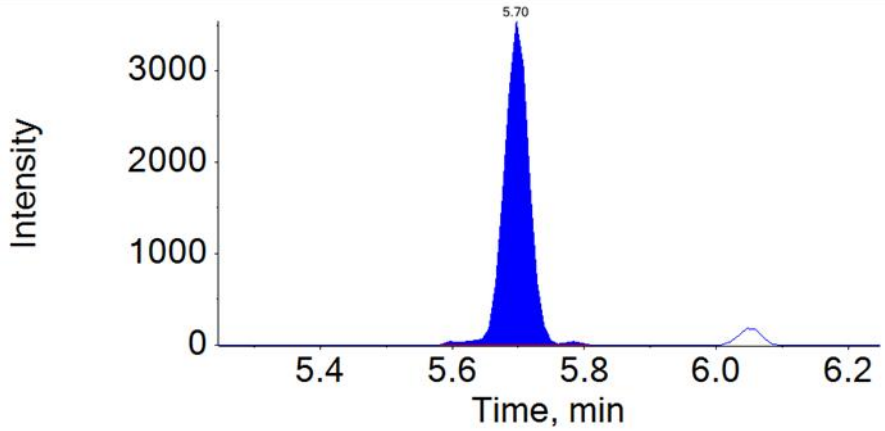
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
38860.9
Mass Range:
499.0 / 80.0
File Name:
18NOV08D-51.wiff
Sample Name:
9881584MS



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
9340.8
Mass Range:
570.0 / 419.0
File Name:
18NOV08D-51.wiff
Sample Name:
9881584MS



Integration Comment: incorrect integration

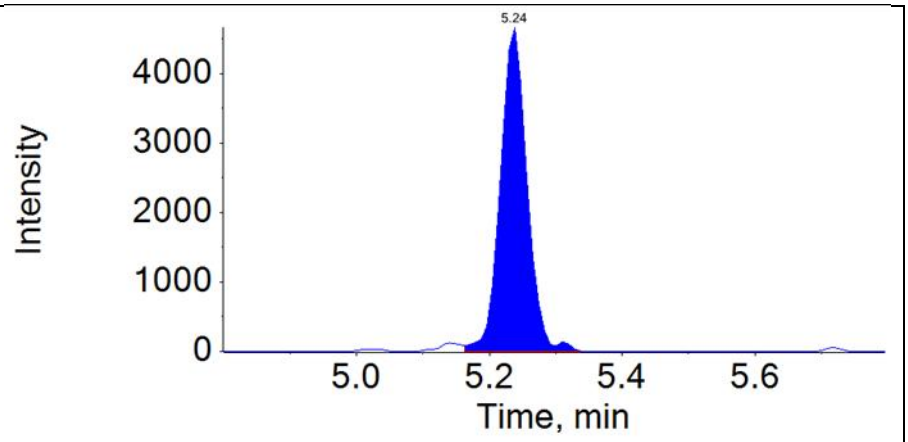
APPROVED
By JPT at 1:25 pm, 11/9/18

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

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
13058.6
Mass Range:
499.0 / 99.0
File Name:
18NOV08D-51.wiff
Sample Name:
9881584MS



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

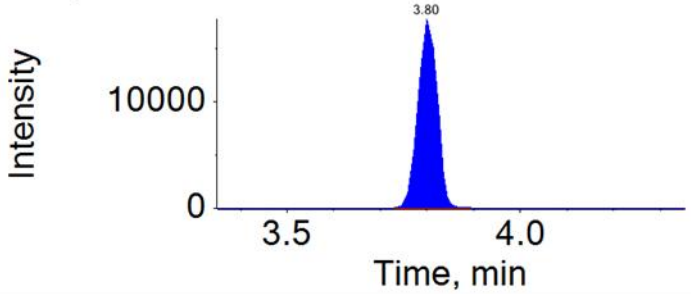
Sample Name: 9881584MS **Instrument Name:** LM27631 **File Name:** 18NOV08D-51.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	51184.5	A	N/A	1.0000			
PFBS_2	3.80	1.00	19718.5	A	N/A	0.3852	8	50	
PFHxA	4.15	1.00	114164.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	973.0	A	N/A	0.0085	-26	50	
PFHxS	4.54	1.00	41267.0	A	N/A	1.0000			
PFHxS_2	4.54	1.00	13519.4	A	N/A	0.3276	-8	50	
PFHpA	4.54	1.00	114084.1	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6357.4	A	N/A	0.0557	-3	50	
PFOA	4.91	1.00	120335.0	M	N/A	1.0000			
PFOA_2	4.91	1.00	6337.9	A	N/A	0.0527	-17	50	
PFOS	5.24	1.00	38996.1	M	N/A	1.0000			
PFOS_2	5.24	1.00	13263.7	M	N/A	0.3401	-3	50	
PFNA	5.25	1.00	98168.0	A	N/A	1.0000			
PFNA_2	5.25	1.00	1853.2	A	N/A	0.0189	-9	50	
PFDA	5.55	1.00	81158.1	A	N/A	1.0000			
PFDA_2	5.55	1.00	463.8	A	N/A	0.0057	1	50	
NMeFOSAA	5.70	1.00	9210.8	M	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	1612.4	A	N/A	0.1751	-21	50	
PFUnDA	5.81	1.00	66648.5	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	290.2	A	N/A	0.0044	38	50	
NEtFOSAA	5.83	1.00	7072.7	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	4922.6	A	N/A	0.6960	14	50	
PFDoDA	6.04	1.00	70881.6	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	1319.3	A	N/A	0.0186	70	50	OOS
PFTrDA	6.24	1.03	59665.3	A	N/A	1.0000			
PFTrDA_2	6.23	1.03	993.1	A	N/A	0.0166	73	50	OOS
PFTeDA	6.42	1.00	47045.9	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	173.8	A	N/A	0.0037	-33	50	

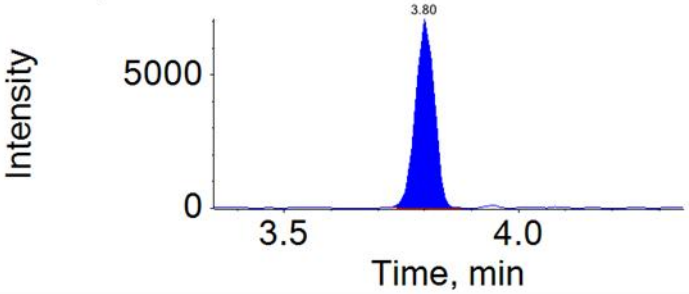
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

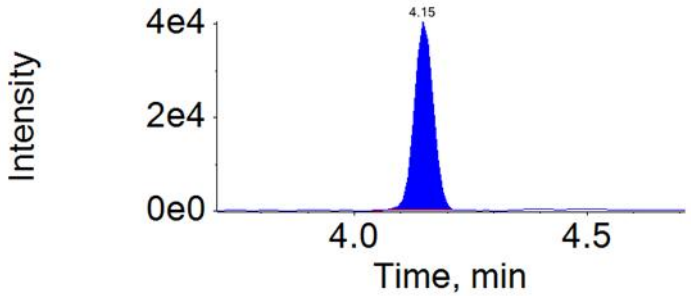
Component: PFBS
Primary Mass: 299.0 / 80.0



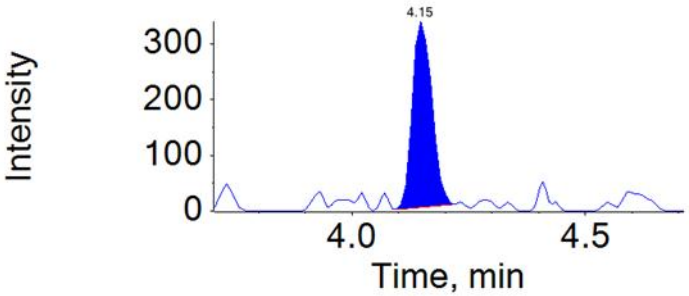
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



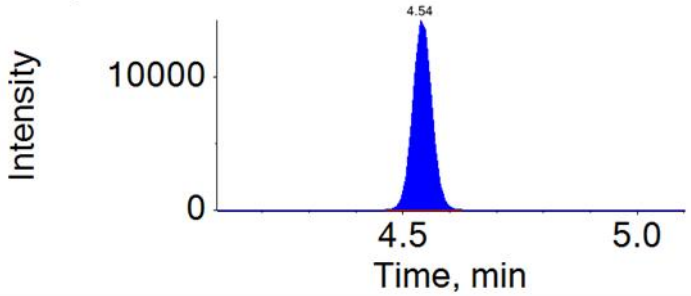
Component: PFHxA
Primary Mass: 313.0 / 269.0



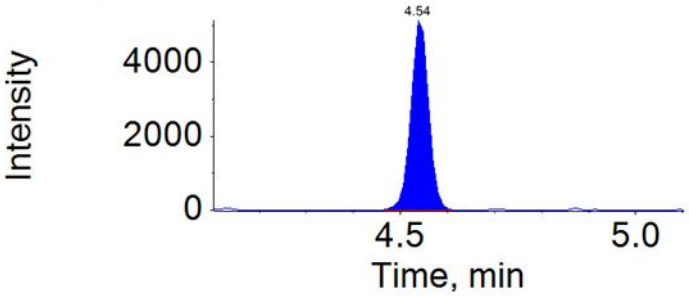
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



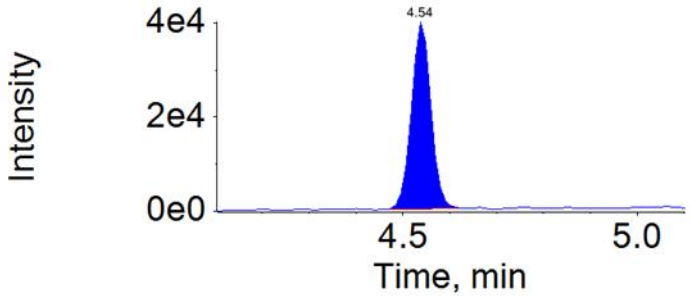
Component: PFHxS
Primary Mass: 399.0 / 80.0



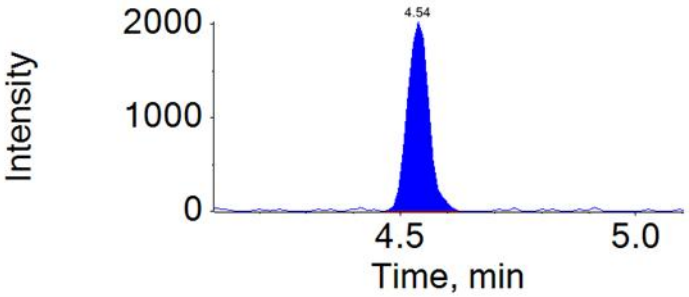
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



Component: PFHpA
Primary Mass: 363.0 / 319.0



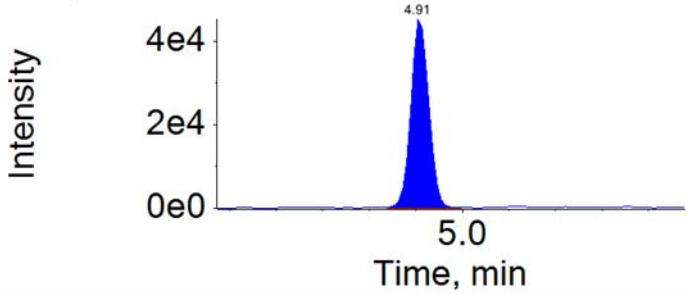
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



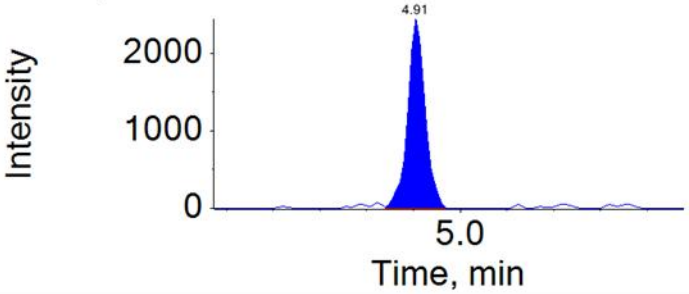
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

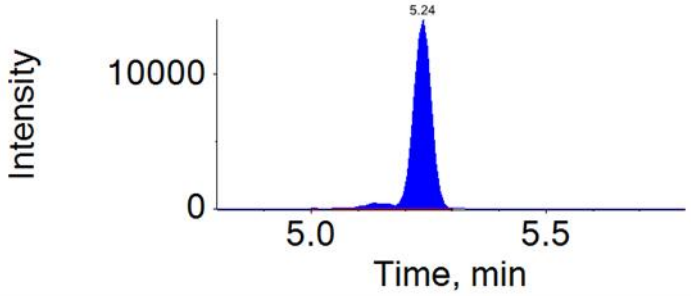
Component: PFOA
Primary Mass: 413.0 / 369.0



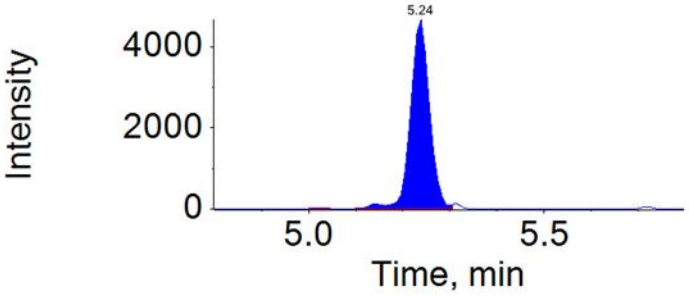
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



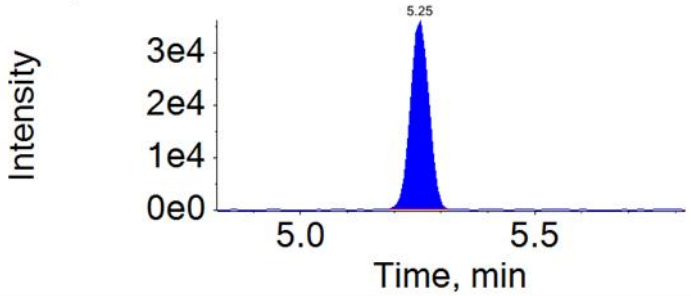
Component: PFOS
Primary Mass: 499.0 / 80.0



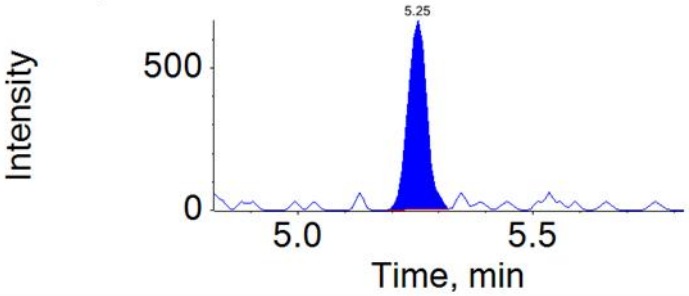
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



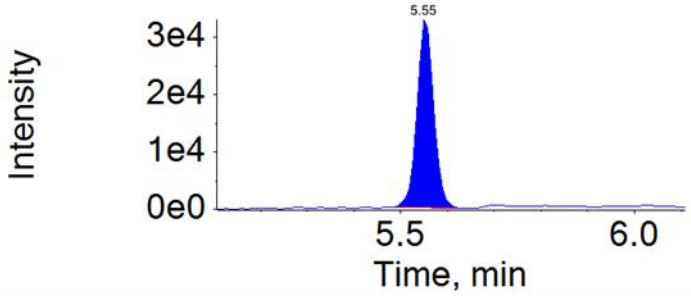
Component: PFNA
Primary Mass: 463.0 / 419.0



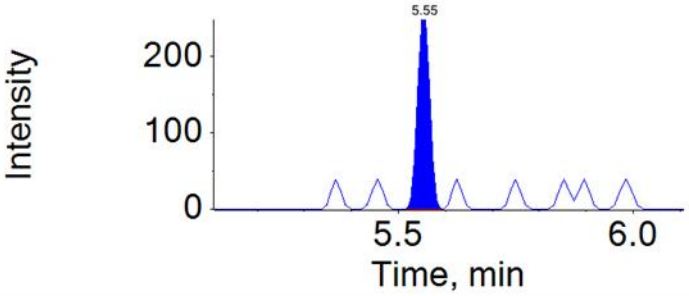
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFDA
Primary Mass: 513.0 / 469.0



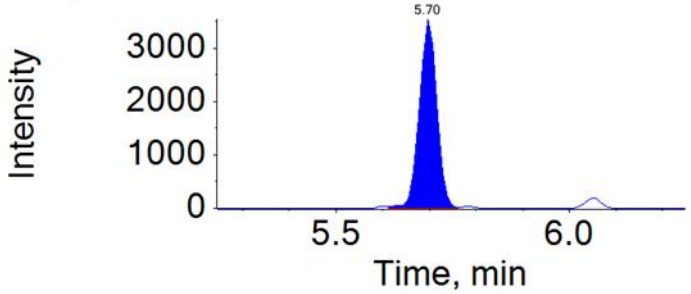
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



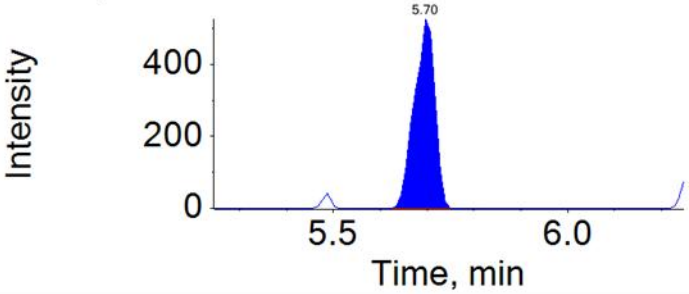
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

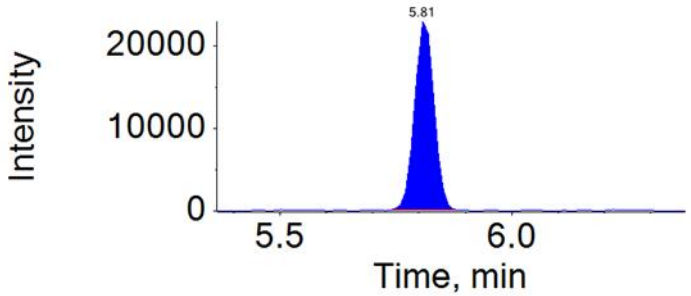
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



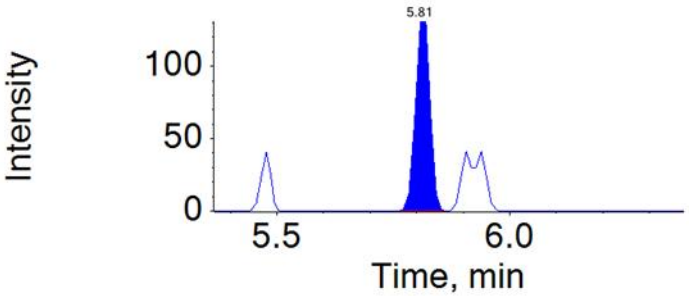
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



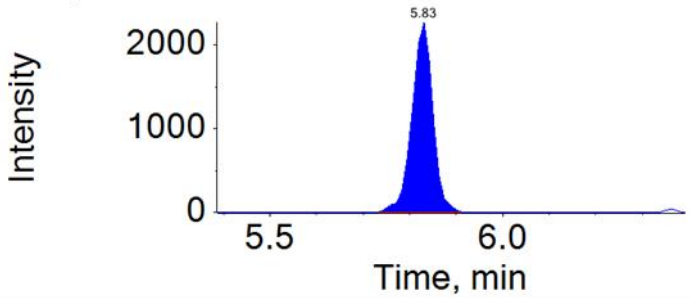
Component: PFUnDA
Primary Mass: 563.0 / 519.0



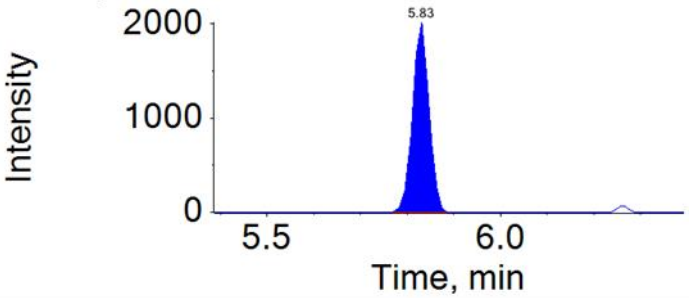
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



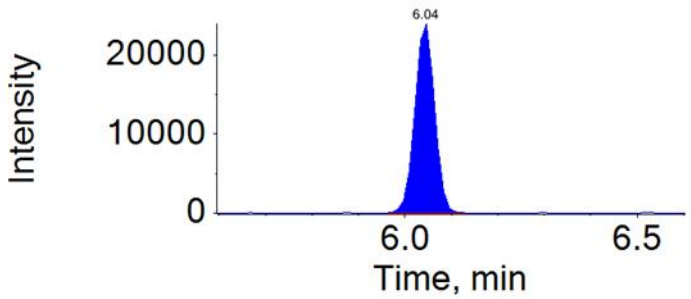
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



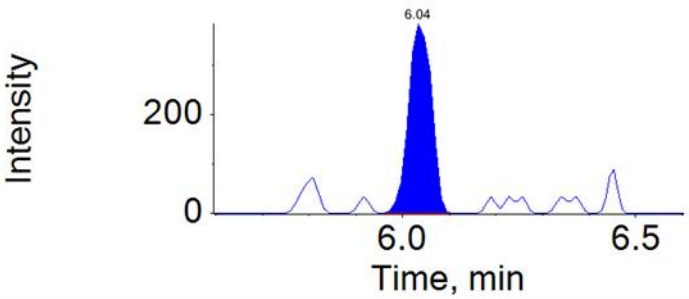
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



Component: PFDoDA
Primary Mass: 613.0 / 569.0



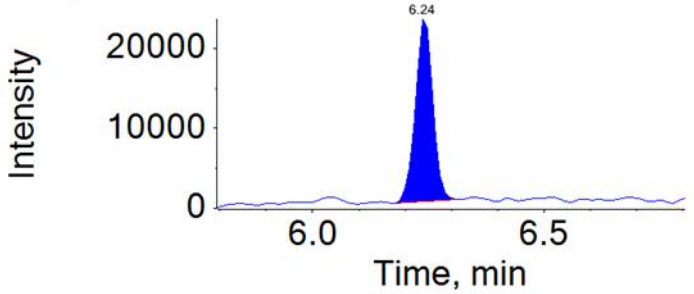
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



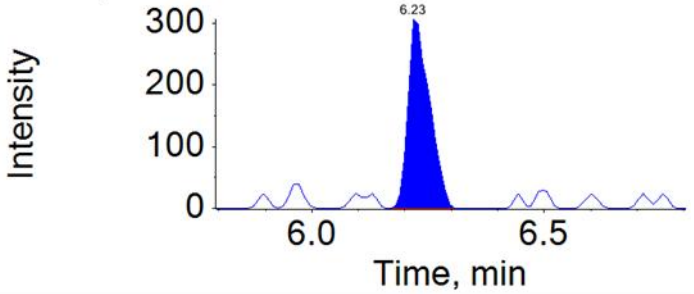
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

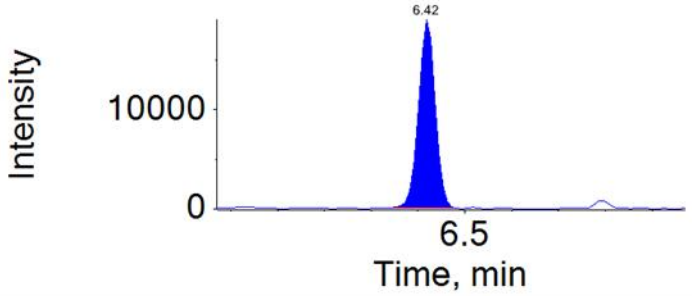
Component: PFTrDA
Primary Mass: 663.0 / 619.0



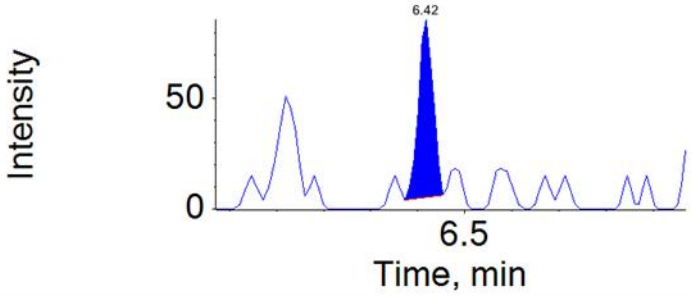
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



Component: PFTeDA
Primary Mass: 713.0 / 669.0



Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



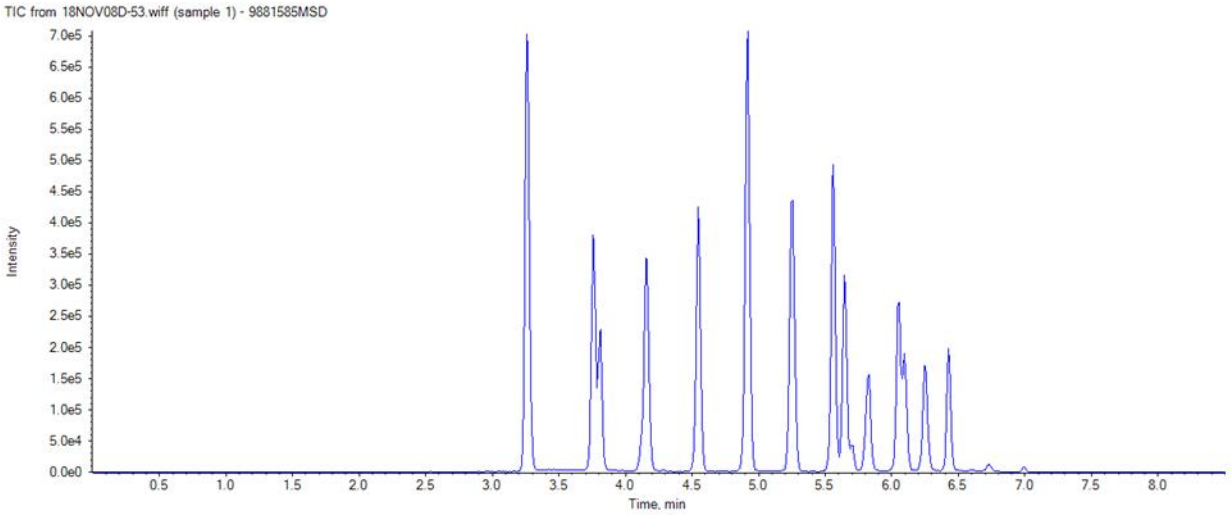
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Matrix Spike 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	9881585MSD	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MSD Grab Soil	18NOV08D-53.wiff	2018-11-08T19:37:37



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	817939.9	728839.7	12	50	
13C2-PFOA	5.00	557672.1	491983.1	13	50	
13C4-PFOS	4.78	303678.5	255568.1	19	50	
13C2-PFDA	5.00	338418.4	315407.5	7	50	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Matrix Spike 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	9881585MSD	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MSD Grab Soil	18NOV08D-53.wiff	2018-11-08T19:37:37

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	53996.1	384779.9	0.140	1.156	1.361	118	70-130	
PFHxA	118402.9	646379.4	0.183	1.308	1.511	116	70-130	
PFHxS	42208.3	297202.3	0.142	1.237	1.384	112	70-130	
PFHpA	119385.3	477426.2	0.250	1.308	1.617	124	70-130	
PFOA	126176.2	827989.0	0.152	1.308	1.650	126	70-130	
PFOS	45203.4	255967.0	0.177	1.250	1.761	141	70-130	OOS
PFNA	102292.1	446985.2	0.229	1.308	1.645	126	70-130	
PFDA	83976.6	561858.5	0.149	1.308	1.581	121	70-130	
NMeFOSAA	11090.6	80400.9	0.138	1.308	1.365	104	70-130	
PFUnDA	62409.5	253537.1	0.246	1.308	1.358	104	70-130	
NEtFOSAA	8735.5	58377.9	0.150	1.308	1.237	95	70-130	
PFDoDA	74892.1	523027.3	0.143	1.308	1.492	114	70-130	
PFTrDA	61099.7	523027.3	0.117	1.308	1.417	108	70-130	
PFTeDA	50939.2	363605.2	0.140	1.308	1.582	121	70-130	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Matrix Spike Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311003 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9881585MSD			**Data File:**		18NOV08D-53.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311003 OU1-CAOC21-S-04-05MSD Grab Soil			**Acquis Date:**		2018-11-08T19:37:37
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	76			**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.:	1.04000			**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	817939.9	728839.7	12	50	
13C2-PFOA	5.0	557672.1	491983.1	13	50	
13C4-PFOS	4.8	303678.5	255568.1	19	50	
13C2-PFDA	5.0	338418.4	315407.5	7	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	384779.9	13C3-PFBA	817939.9	0.470	8.942	6.639	74	50-150	
E13C5-PFHxA	646379.4	13C2-PFOA	557672.1	1.159	9.615	8.199	85	50-150	
E13C3-PFHxS	297202.3	13C2-PFOA	557672.1	0.533	9.096	7.357	81	50-150	
E13C4-PFHpA	477426.2	13C2-PFOA	557672.1	0.856	9.615	7.490	78	50-150	
E13C8-PFOA	827989.0	13C2-PFOA	557672.1	1.485	9.615	7.962	83	50-150	
E13C8-PFOS	255967.0	13C4-PFOS	303678.5	0.843	9.192	7.168	78	50-150	
E13C9-PFNA	446985.2	13C4-PFOS	303678.5	1.472	9.615	7.732	80	50-150	
E13C6-PFDA	561858.5	13C2-PFDA	338418.4	1.660	9.615	8.029	84	50-150	
Ed3-NMeFOSAA	80400.9	13C2-PFDA	338418.4	0.238	9.615	8.496	88	50-150	
E13C7-PFUnDA	253537.1	13C2-PFDA	338418.4	0.749	9.615	8.311	86	50-150	
Ed5-NEtFOSAA	58377.9	13C2-PFDA	338418.4	0.173	9.615	7.677	80	50-150	
E13C2-PFDoDA	523027.3	13C2-PFDA	338418.4	1.546	9.615	8.012	83	50-150	
E13C2-PFTeDA	363605.2	13C2-PFDA	338418.4	1.074	9.615	7.438	77	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

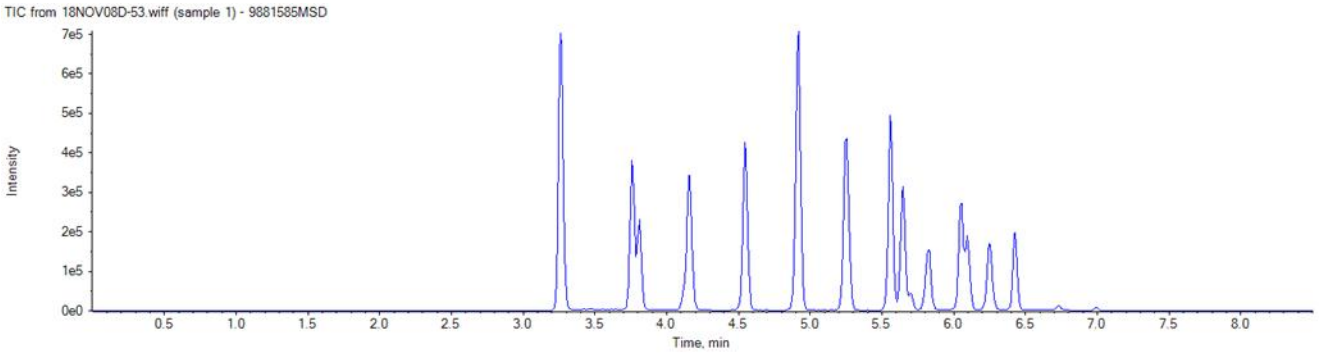
Analyte Quantitation Peak Table

Sample Name: 9881585MSD **Instrument Name:** LM27631 **File Name:** 18NOV08D-53.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.04000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.81	1.000	53996.1		A	13C3-PFBS	3.81	384779.9	0.140	1.361
PFHxA	4.16	1.000	118402.9		A	13C5-PFHxA	4.16	646379.4	0.183	1.511
PFHxS	4.55	1.000	42208.3		A	13C3-PFHxS	4.55	297202.3	0.142	1.384
PFHpA	4.55	1.000	119385.3		A	13C4-PFHpA	4.55	477426.2	0.250	1.617
PFOA	4.92	1.000	126176.2		A	13C8-PFOA	4.92	827989.0	0.152	1.650
PFOS	5.24	1.000	45203.4		M	13C8-PFOS	5.24	255967.0	0.177	1.761
PFNA	5.26	1.000	102292.1		A	13C9-PFNA	5.26	446985.2	0.229	1.645
PFDA	5.56	1.000	83976.6		A	13C6-PFDA	5.56	561858.5	0.149	1.581
NMeFOSAA	5.70	1.000	11090.6		A	d3-NMeFOSAA	5.70	80400.9	0.138	1.365
PFUnDA	5.82	1.000	62409.5		A	13C7-PFUnDA	5.82	253537.1	0.246	1.358
NEtFOSAA	5.84	1.000	8735.5		M	d5-NEtFOSAA	5.83	58377.9	0.150	1.237
PFDoDA	6.05	1.000	74892.1		A	13C2-PFDoDA	6.05	523027.3	0.143	1.492
PFTrDA	6.25	1.030	61099.7		A	13C2-PFDoDA	6.05	523027.3	0.117	1.417
PFTeDA	6.43	1.000	50939.2		A	13C2-PFTeDA	6.43	363605.2	0.140	1.582

Total Ion Chromatogram

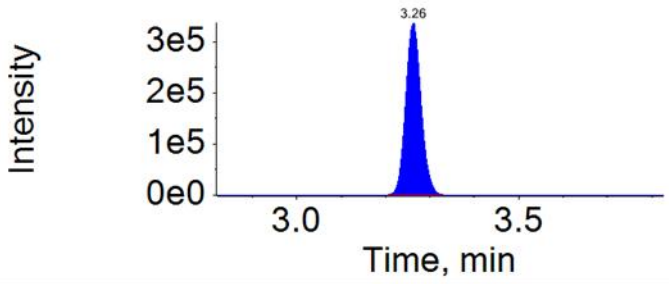


APPROVED
By JPT at 1:25 pm, 11/9/18

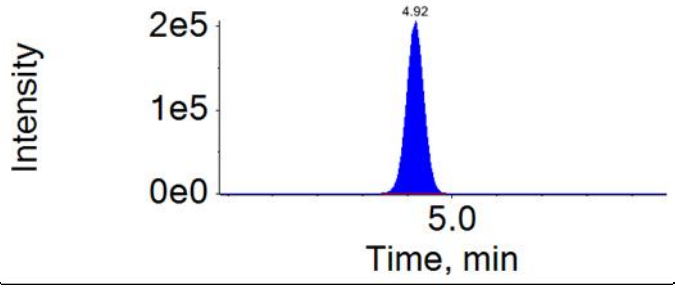
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

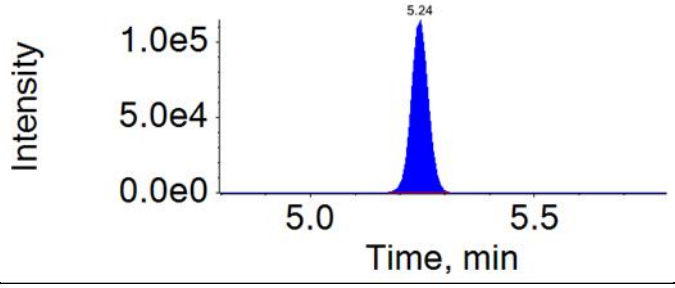
Injection Standard: 13C3-PFBA
216.0 / 172.0



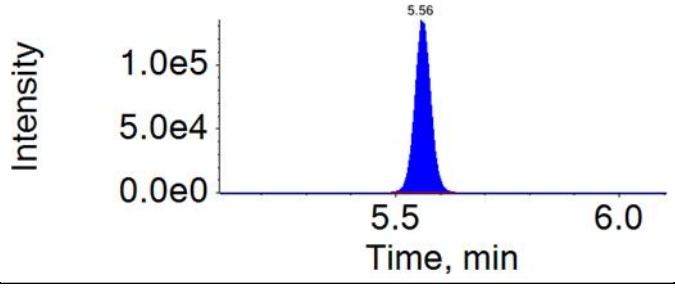
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



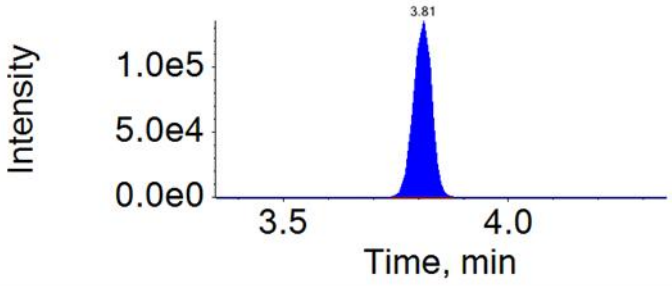
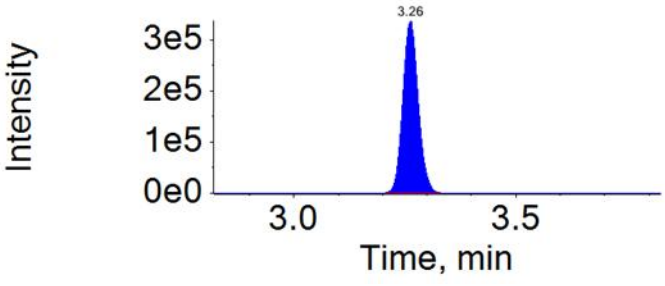
Injection Standard: 13C2-PFDA
515.0 / 470.0

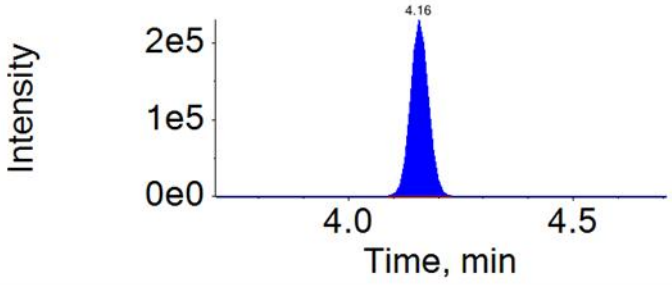
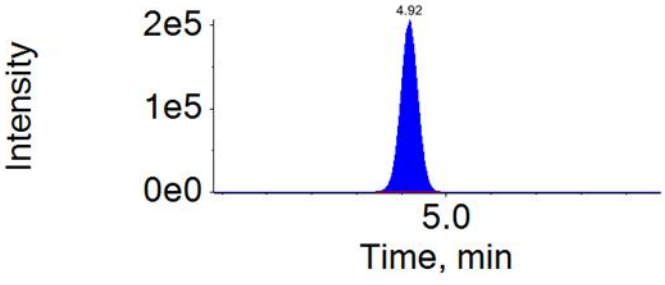


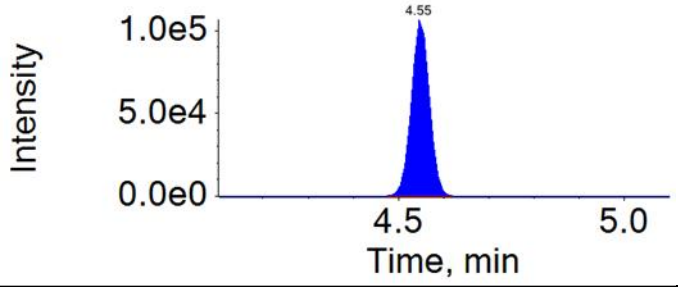
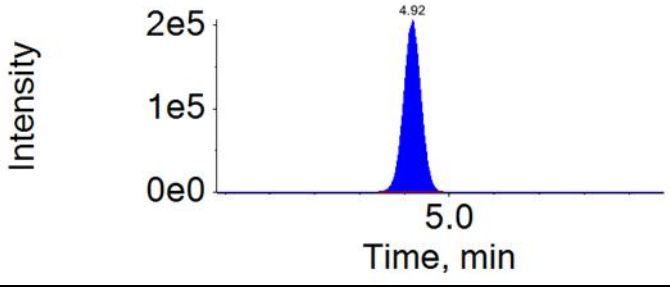
APPROVED
By JPT at 1:25 pm, 11/9/18

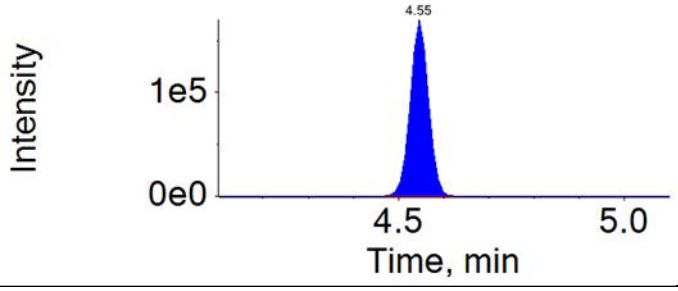
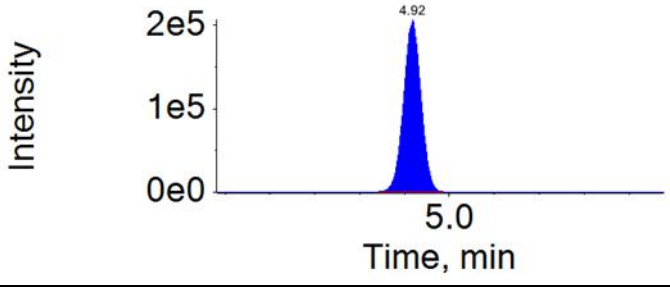
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

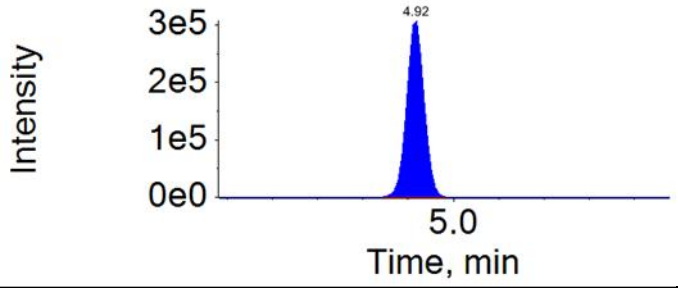
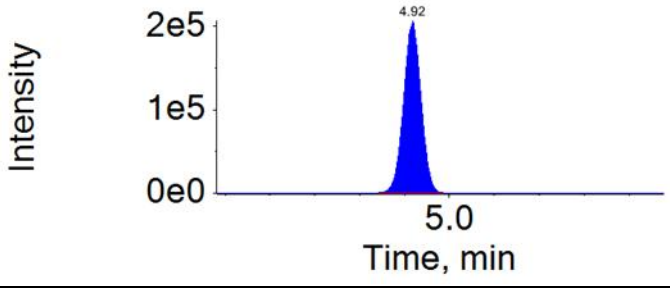
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

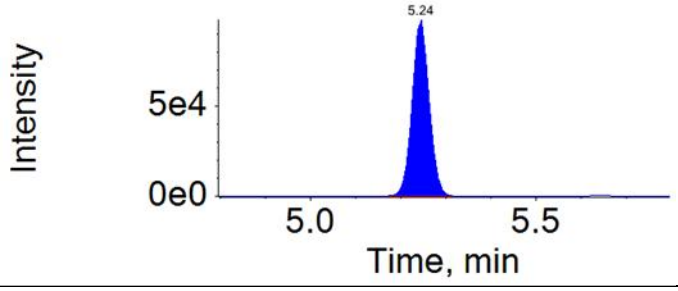
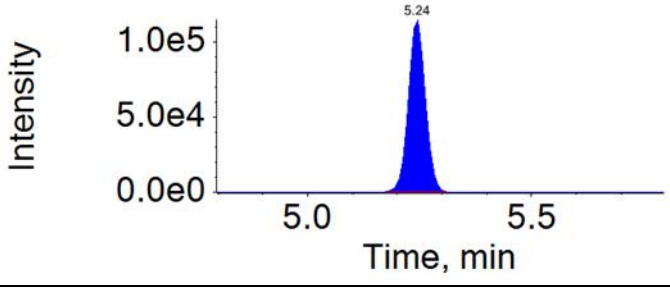
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

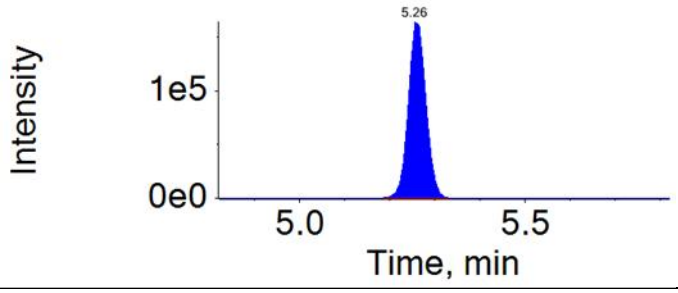
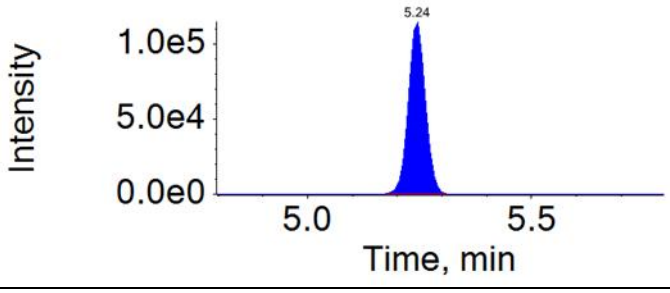
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

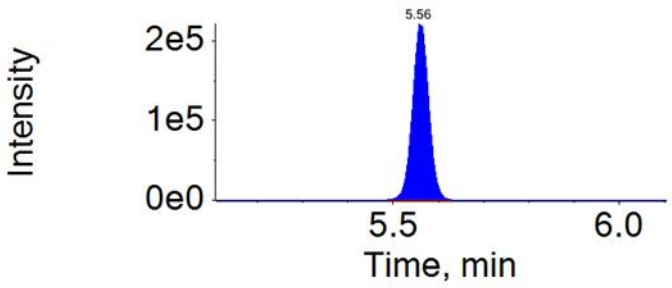
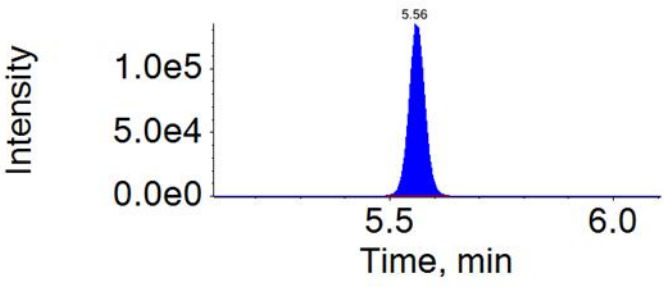
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

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
	

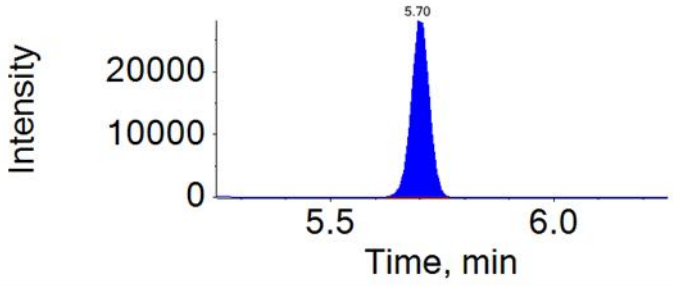
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

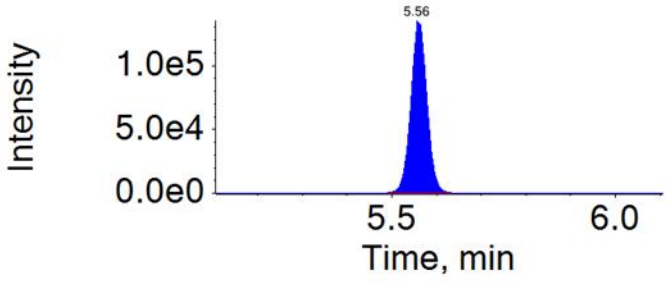
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

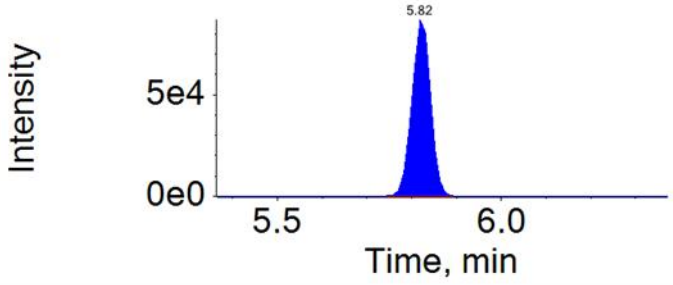
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

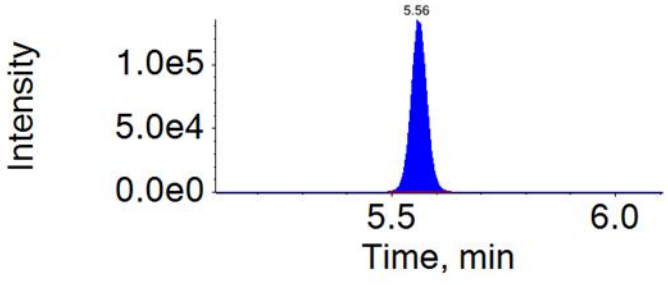
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



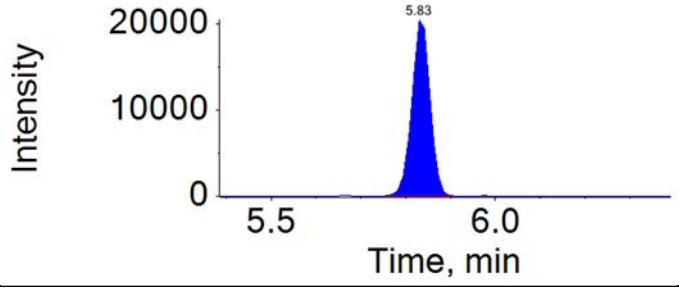


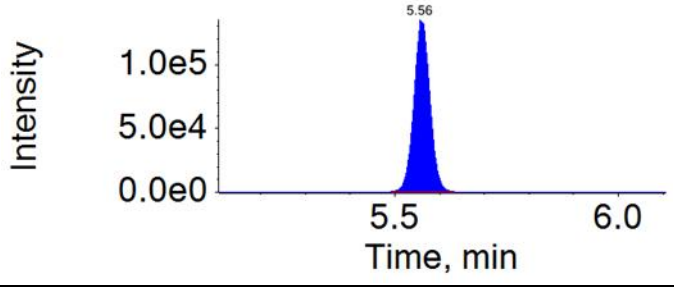
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



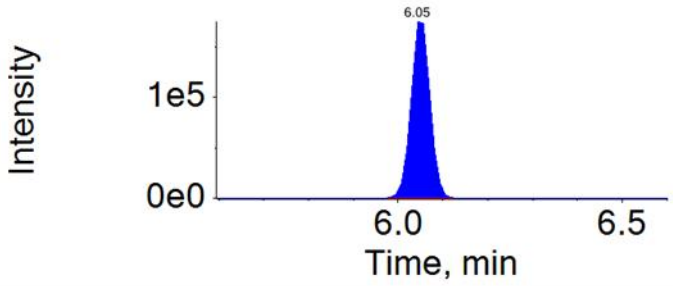


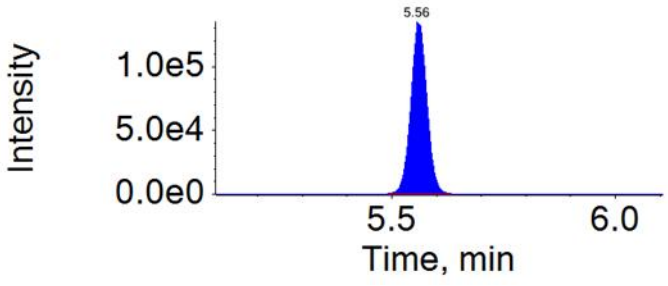
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0

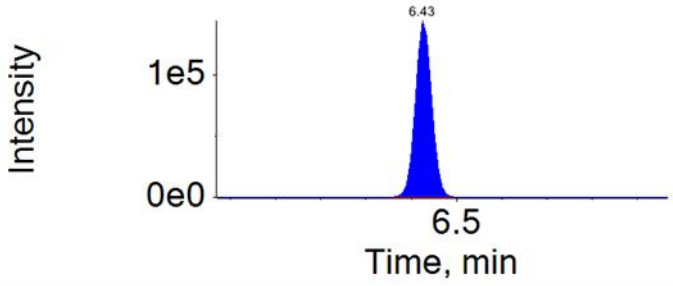
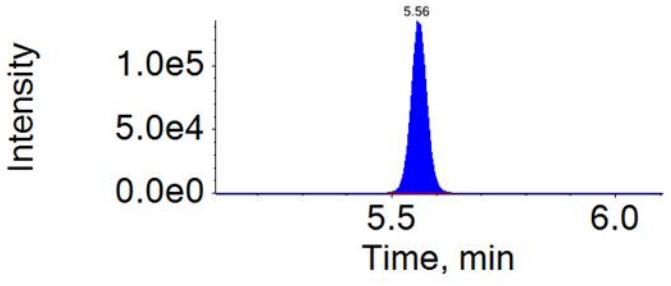




APPROVED
By JPT at 1:25 pm, 11/9/18

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

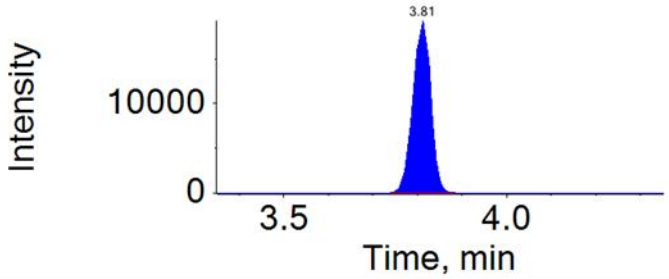
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

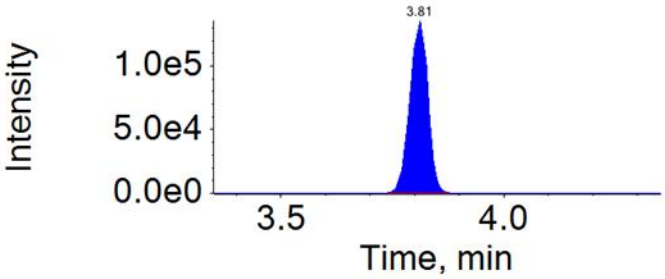
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

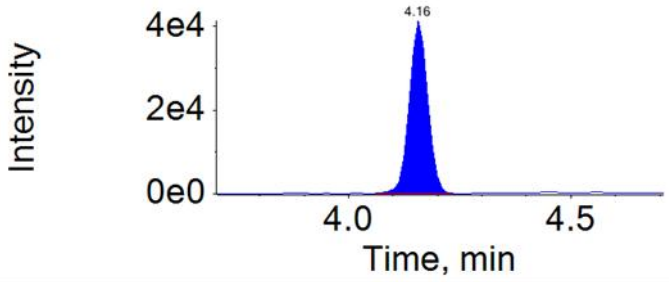
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

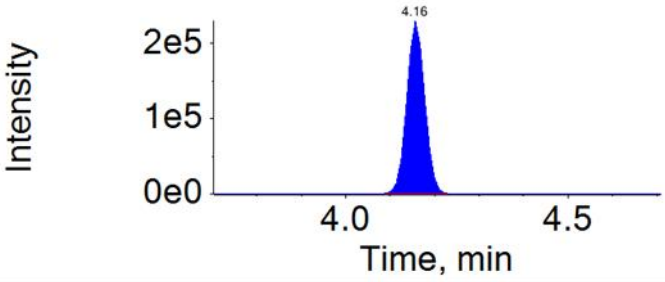
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0



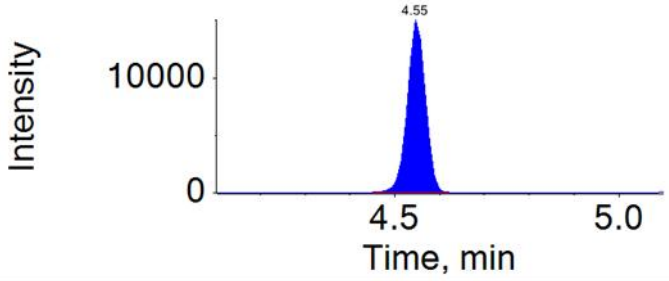


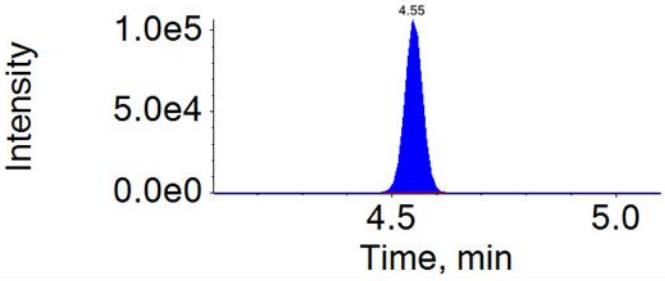
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



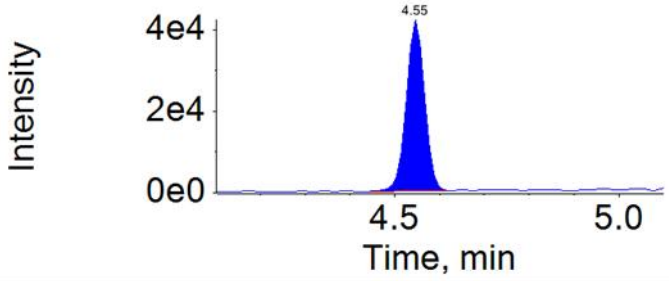


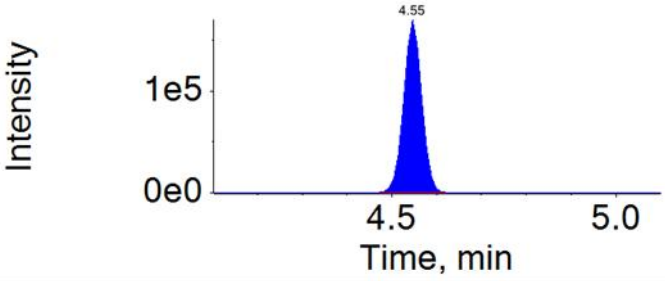
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



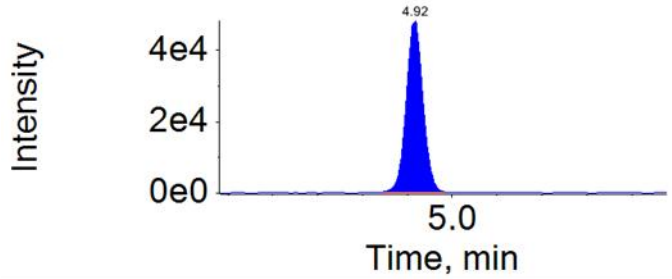


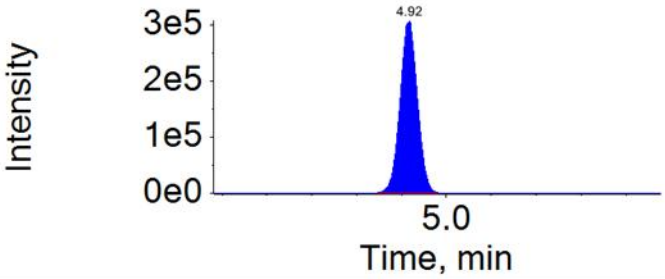
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

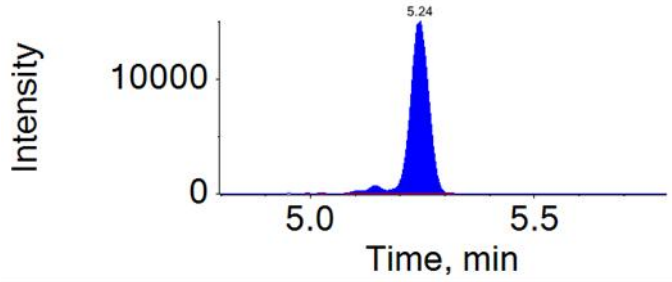
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

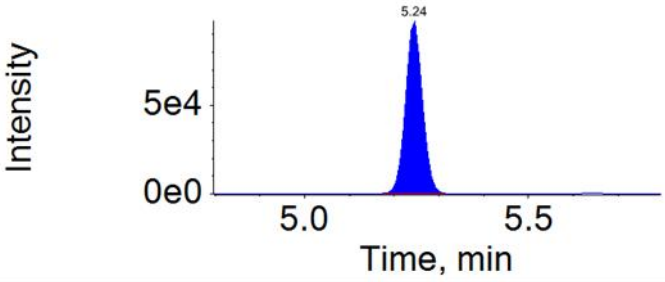
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0



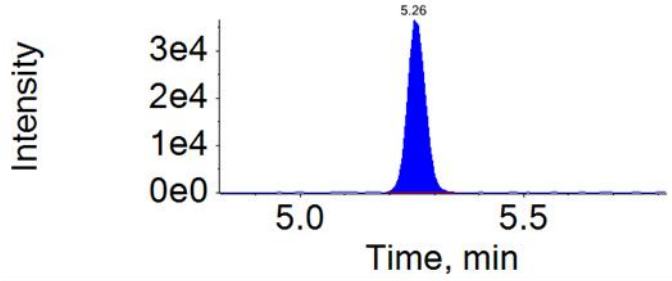


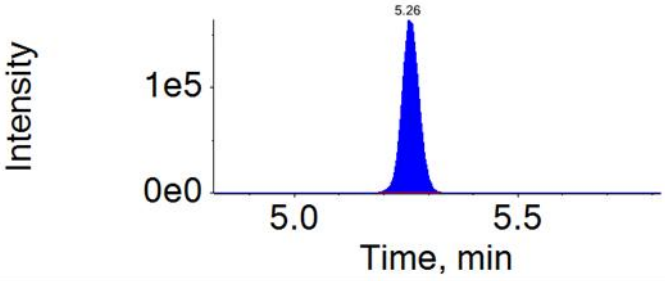
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



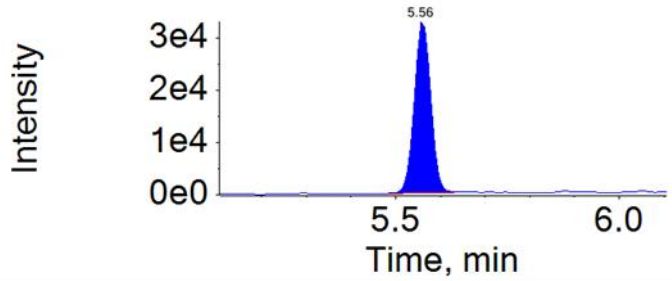


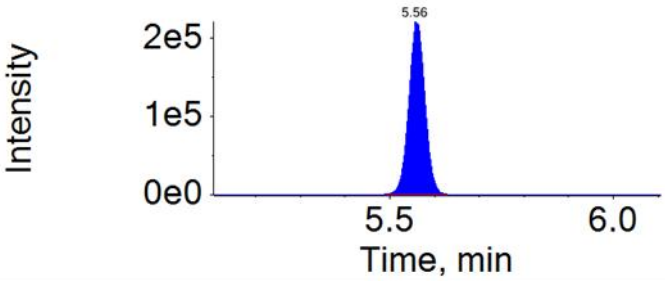
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0





Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0

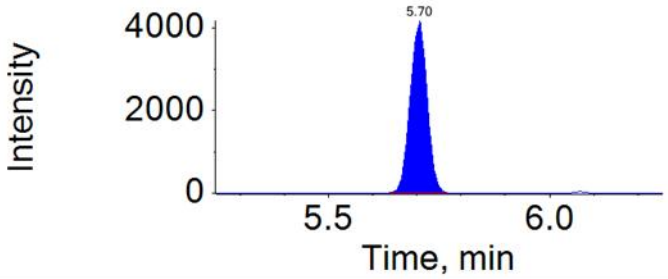
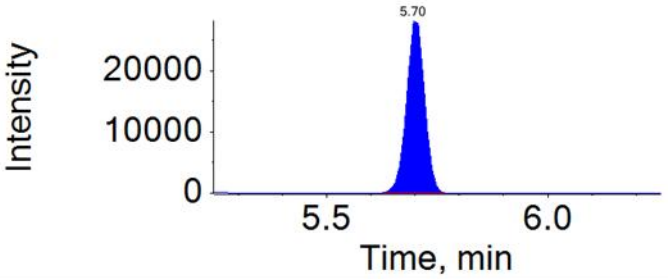


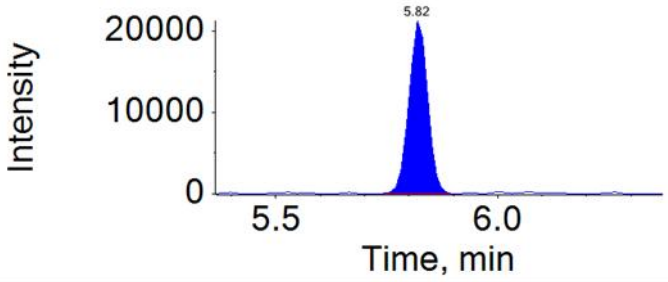
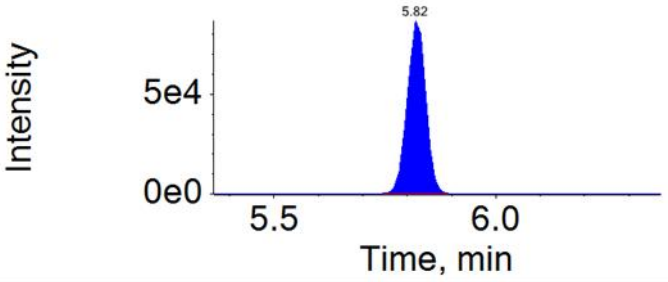


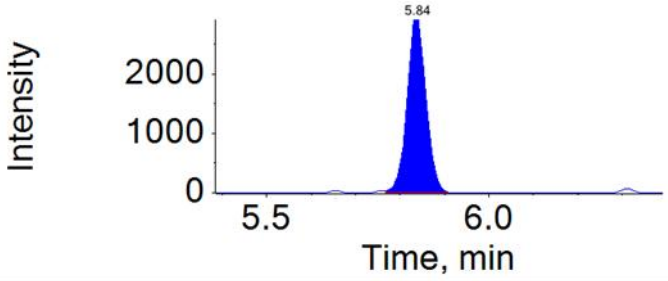
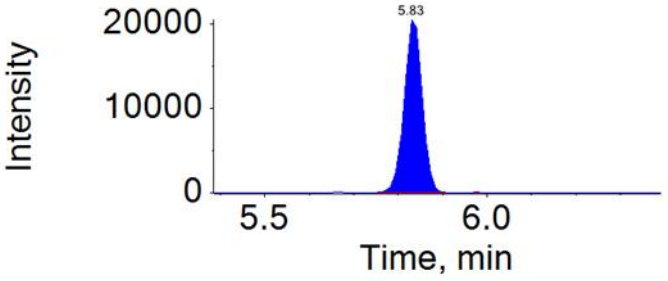
APPROVED
By JPT at 1:25 pm, 11/9/18

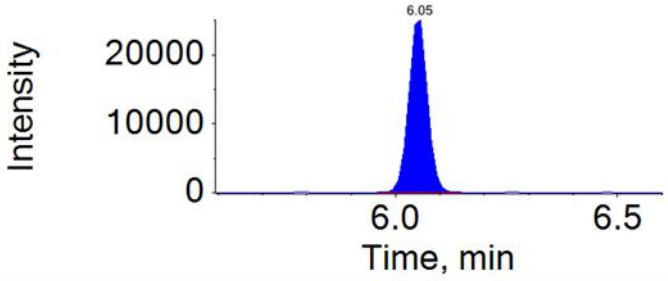
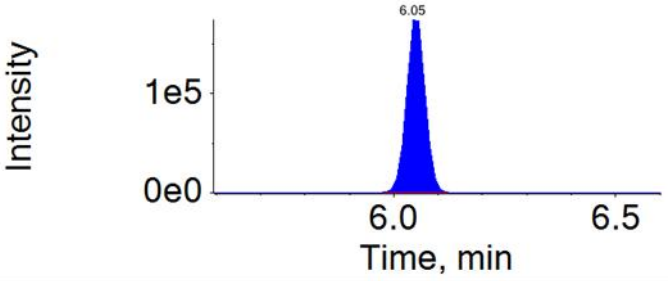
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

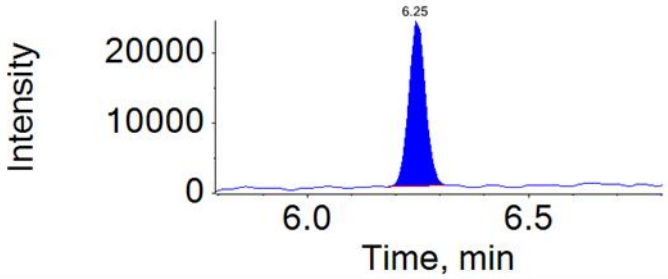
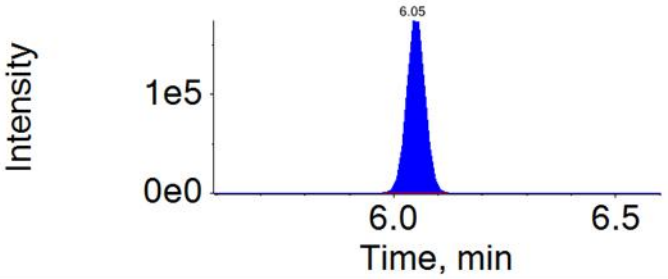
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

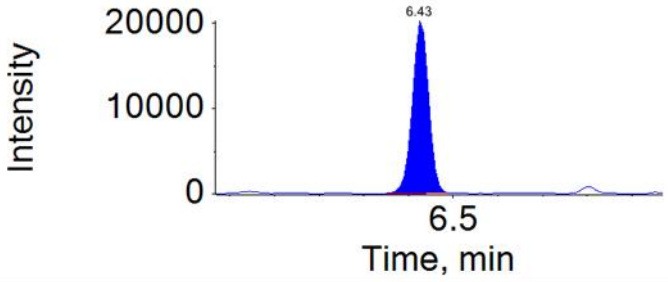
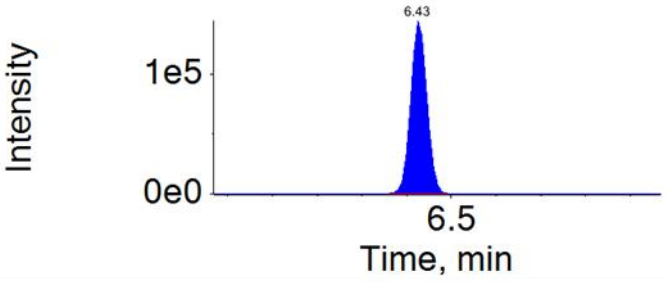
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

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
	

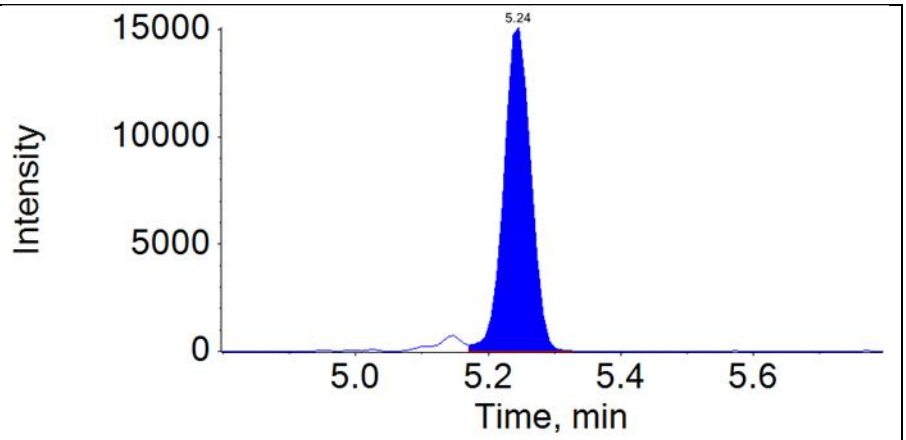
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

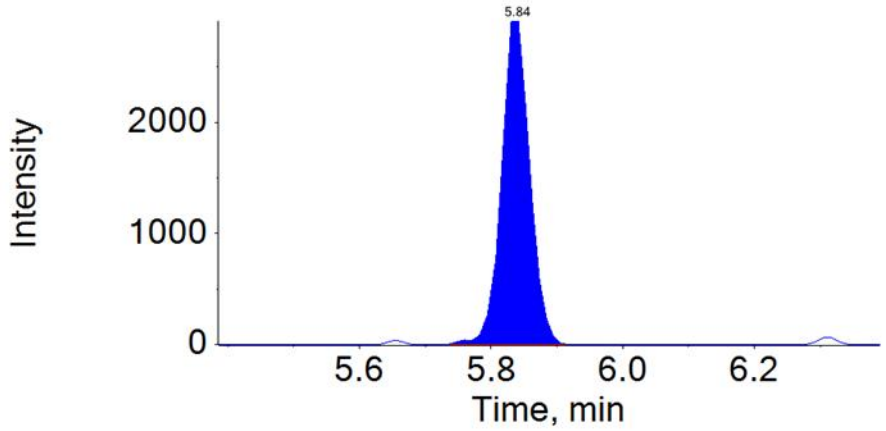
Results Table Name: 18311003
Results Table Date: 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
42966.0
Mass Range:
499.0 / 80.0
File Name:
18NOV08D-53.wiff
Sample Name:
9881585MSD



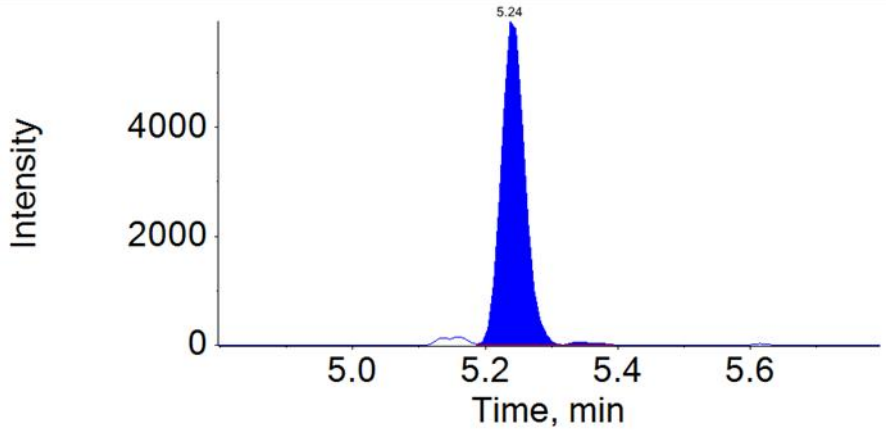
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
8790.4
Mass Range:
584.0 / 419.0
File Name:
18NOV08D-53.wiff
Sample Name:
9881585MSD



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
15049.8
Mass Range:
499.0 / 99.0
File Name:
18NOV08D-53.wiff
Sample Name:
9881585MSD



Integration Comment: incorrect integration

APPROVED
By JPT at 1:25 pm, 11/9/18

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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: 9881585MSD **Instrument Name:** LM27631 **File Name:** 18NOV08D-53.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	53996.1	A	N/A	1.0000			
PFBS_2	3.81	1.00	20572.2	A	N/A	0.3810	7	50	
PFHxA	4.16	1.00	118402.9	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1385.0	A	N/A	0.0117	2	50	
PFHxS	4.55	1.00	42208.3	A	N/A	1.0000			
PFHxS_2	4.55	1.00	15834.9	A	N/A	0.3752	5	50	
PFHpA	4.55	1.00	119385.3	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6497.8	A	N/A	0.0544	-6	50	
PFOA	4.92	1.00	126176.2	A	N/A	1.0000			
PFOA_2	4.92	1.00	7075.3	A	N/A	0.0561	-12	50	
PFOS	5.24	1.00	45203.4	M	N/A	1.0000			
PFOS_2	5.24	1.00	15312.3	M	N/A	0.3387	-3	50	
PFNA	5.26	1.00	102292.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	2395.9	A	N/A	0.0234	13	50	
PFDA	5.56	1.00	83976.6	A	N/A	1.0000			
PFDA_2	5.56	1.00	652.7	A	N/A	0.0078	37	50	
NMeFOSAA	5.70	1.00	11090.6	A	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2785.8	A	N/A	0.2512	14	50	
PFUnDA	5.82	1.00	62409.5	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	68.6	A	N/A	0.0011	-65	50	OOS
NEtFOSAA	5.84	1.00	8735.5	M	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	3988.5	A	N/A	0.4566	-25	50	
PFDoDA	6.05	1.00	74892.1	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	547.3	A	N/A	0.0073	-33	50	
PFTrDA	6.25	1.03	61099.7	A	N/A	1.0000			
PFTrDA_2	6.26	1.03	532.3	A	N/A	0.0087	-9	50	
PFTeDA	6.43	1.00	50939.2	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	271.4	A	N/A	0.0053	-4	50	

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By JPT at 1:25 pm, 11/9/18

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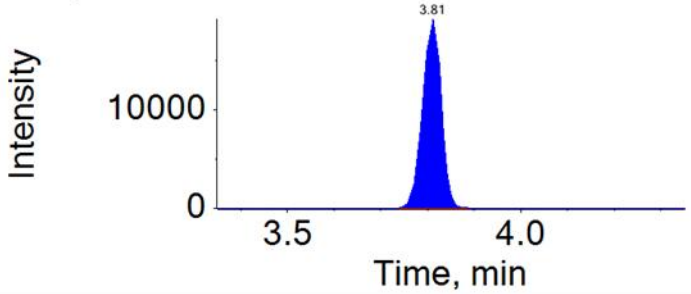
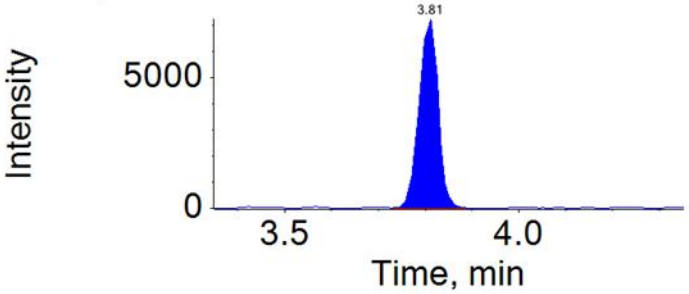
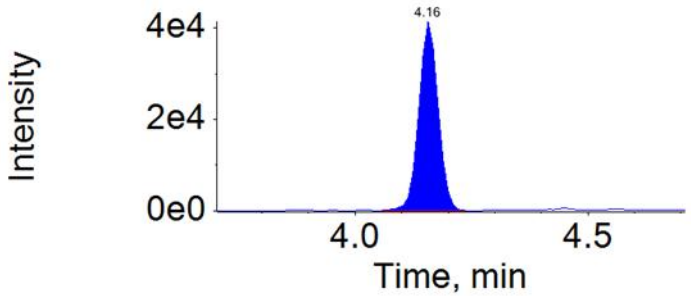
Component: PFBS
Primary Mass: 299.0 / 80.0



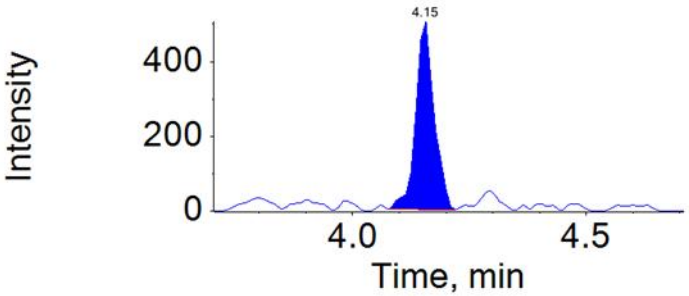
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



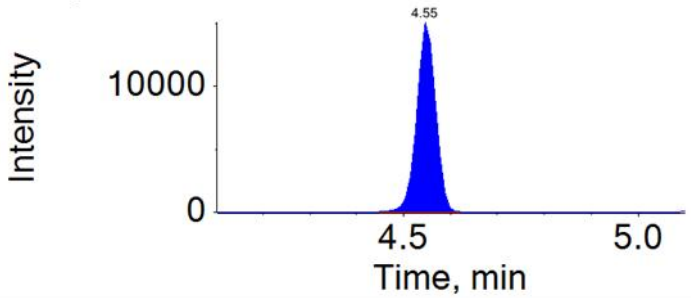
Component: PFHxA
Primary Mass: 313.0 / 269.0



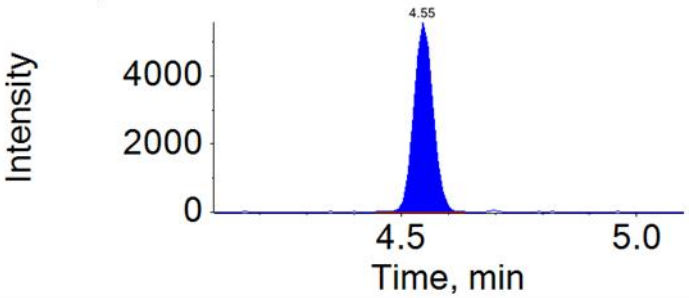
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



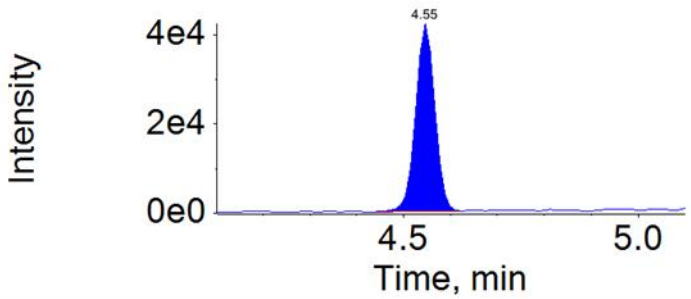
Component: PFHxS
Primary Mass: 399.0 / 80.0



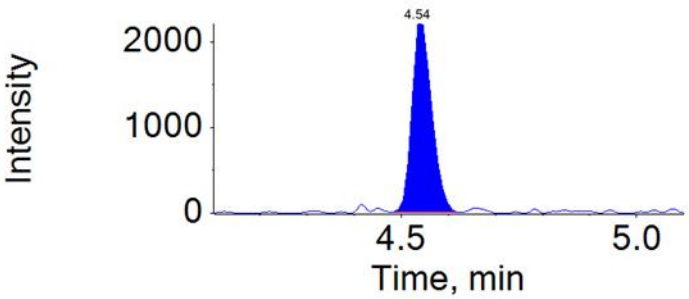
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



Component: PFHpA
Primary Mass: 363.0 / 319.0



Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



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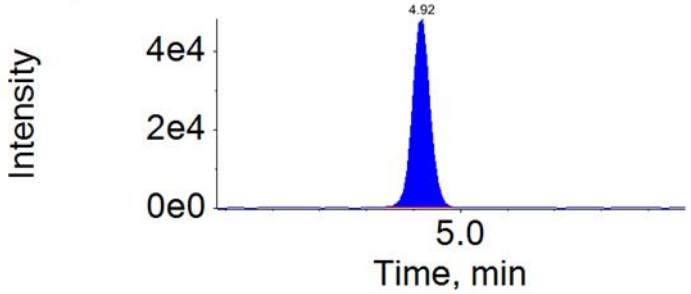
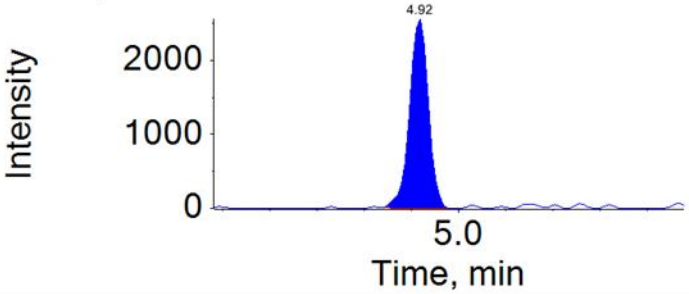
By HMK at 9:20 am, 11/13/18

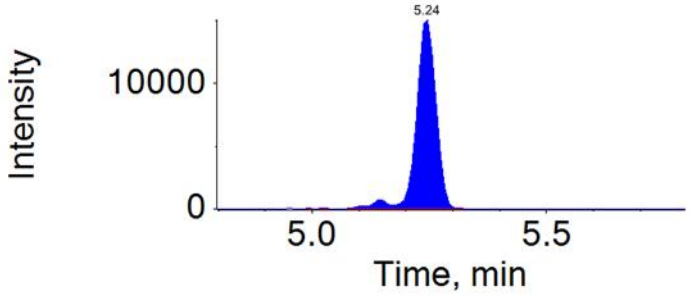
Component: PFOA
Primary Mass: 413.0 / 369.0



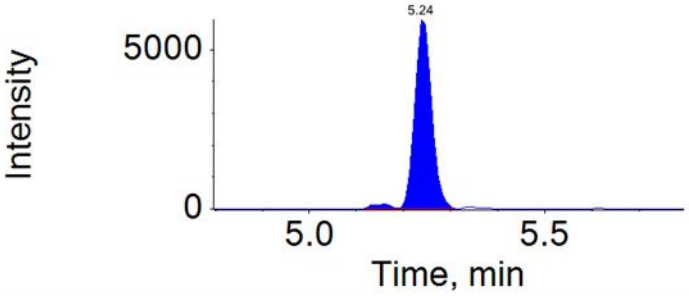
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



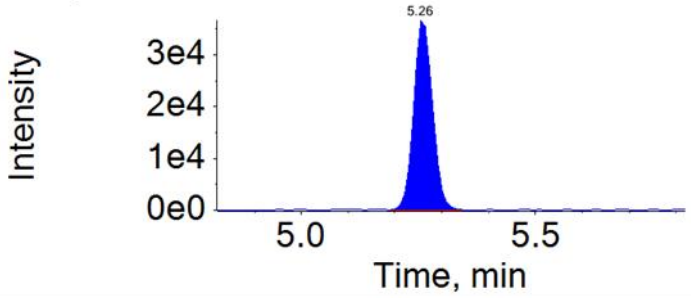
Component: PFOS
Primary Mass: 499.0 / 80.0



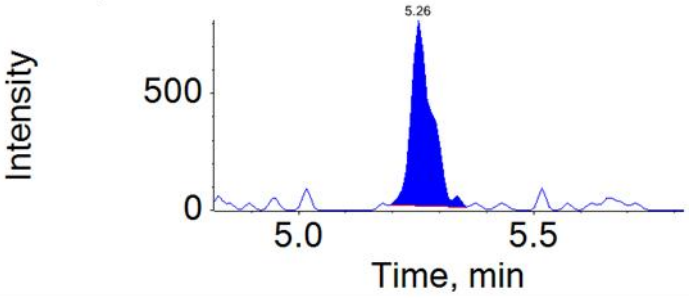
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



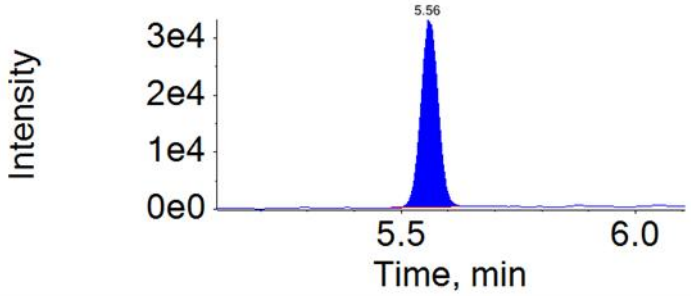
Component: PFNA
Primary Mass: 463.0 / 419.0



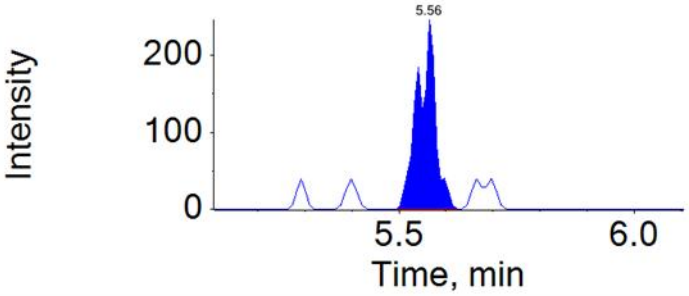
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFDA
Primary Mass: 513.0 / 469.0



Component: PFDA_2
Secondary Mass: 513.0 / 169.0



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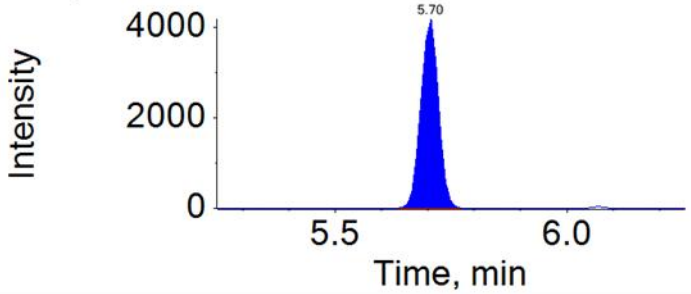
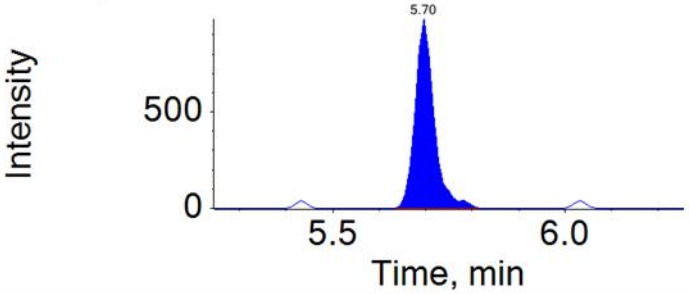
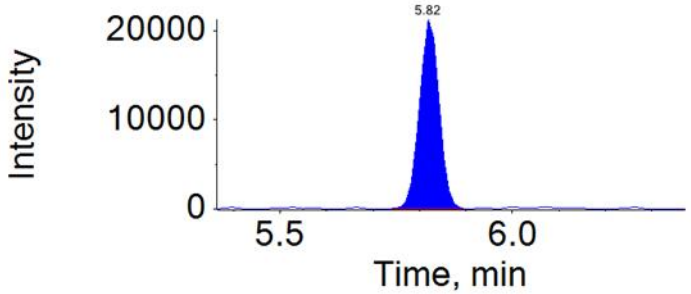
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



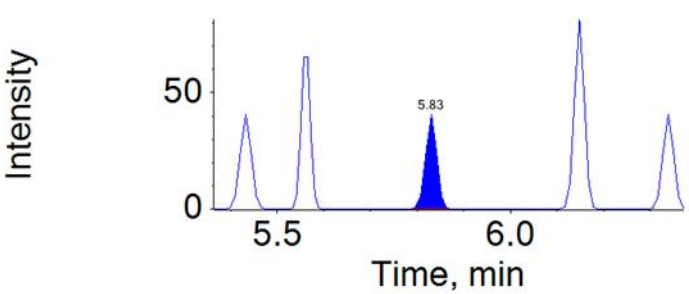
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



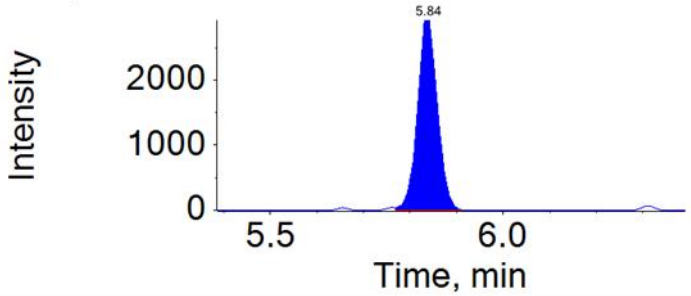
Component: PFUnDA
Primary Mass: 563.0 / 519.0



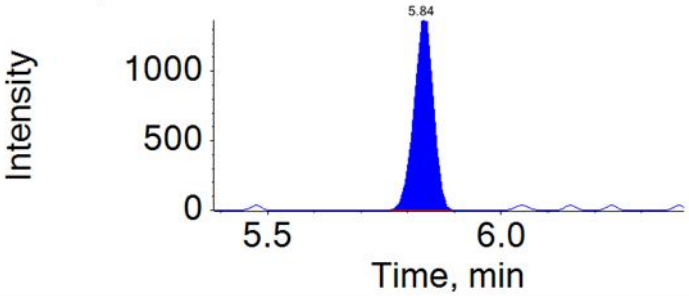
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



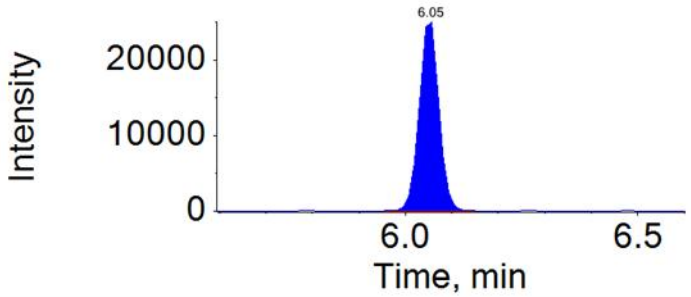
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



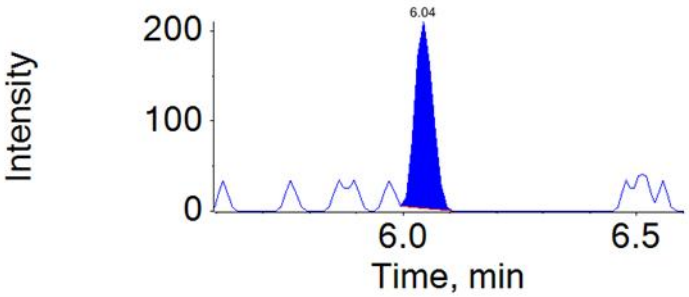
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



Component: PFDoDA
Primary Mass: 613.0 / 569.0



Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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By JPT at 1:25 pm, 11/9/18

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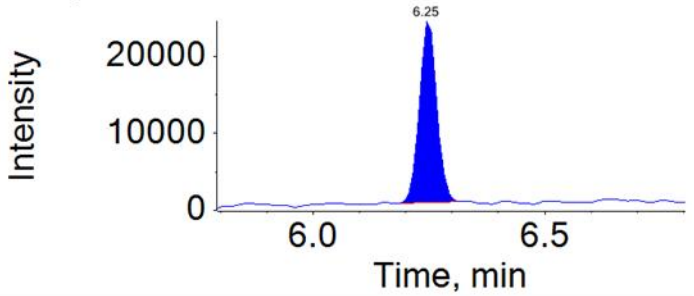
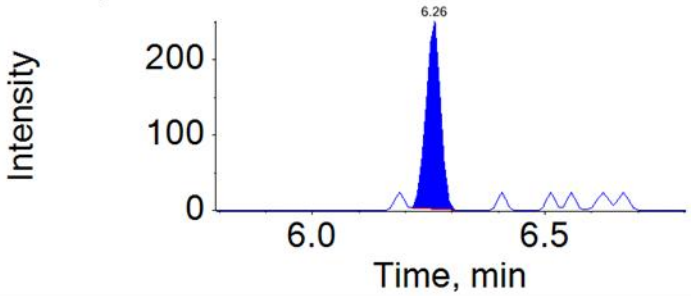
By HMK at 9:20 am, 11/13/18

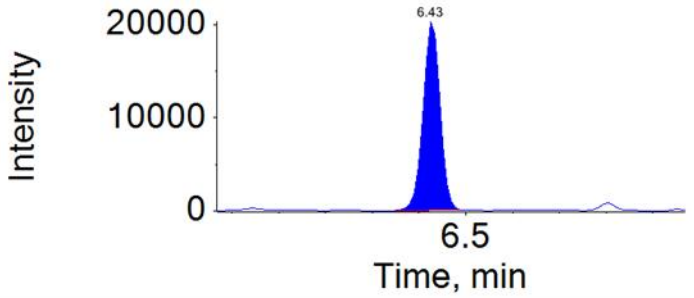
Component: PFTrDA
Primary Mass: 663.0 / 619.0



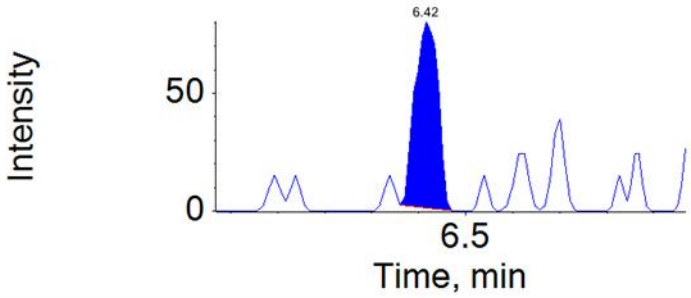
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



Component: PFTeDA
Primary Mass: 713.0 / 669.0



Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



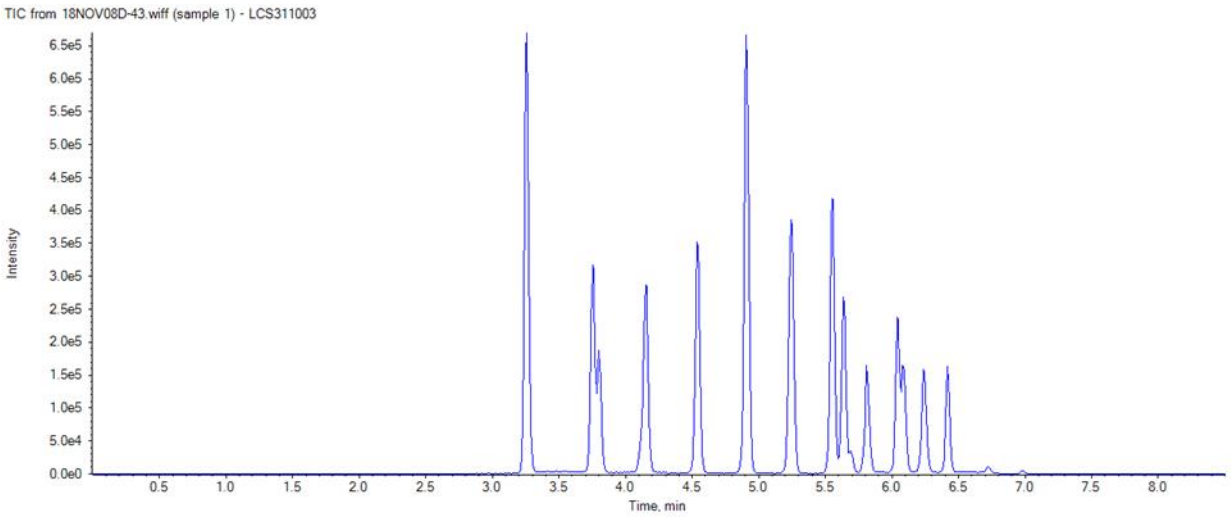
APPROVED
By JPT at 1:25 pm, 11/9/18

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

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

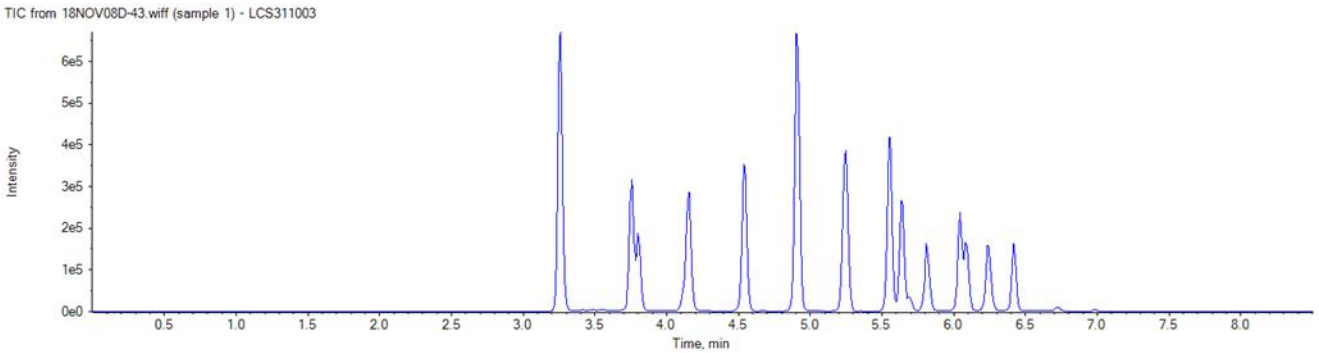
Analyte Quantitation Peak Table

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

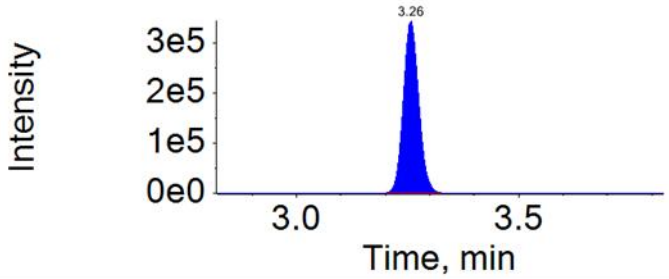


APPROVED
By JPT at 1:25 pm, 11/9/18

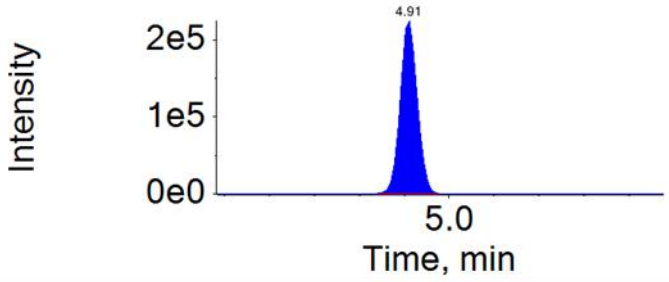
REVIEWED
By HMK at 9:20 am, 11/13/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

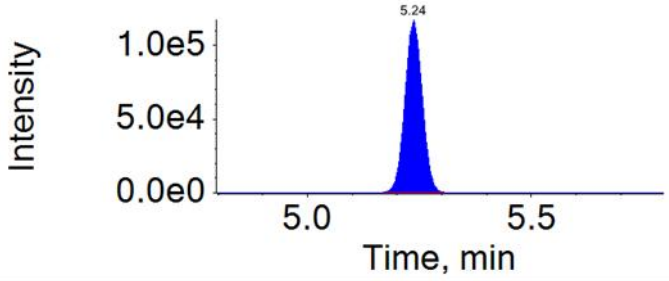
Injection Standard: 13C3-PFBA
216.0 / 172.0



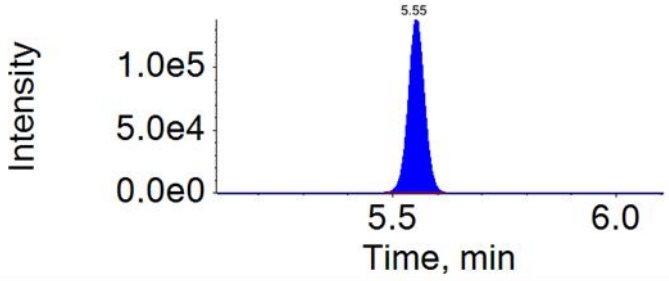
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

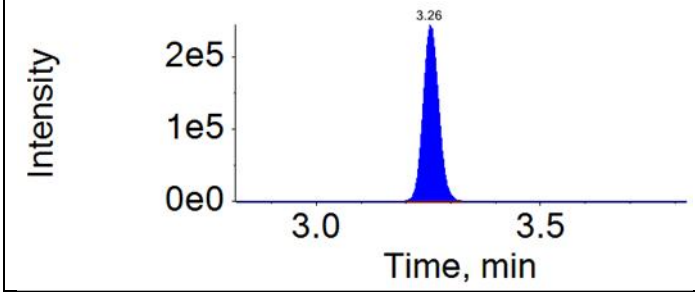


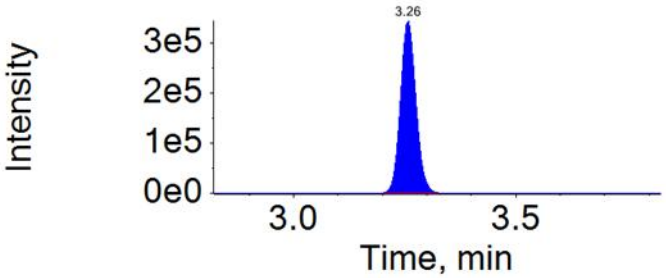
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

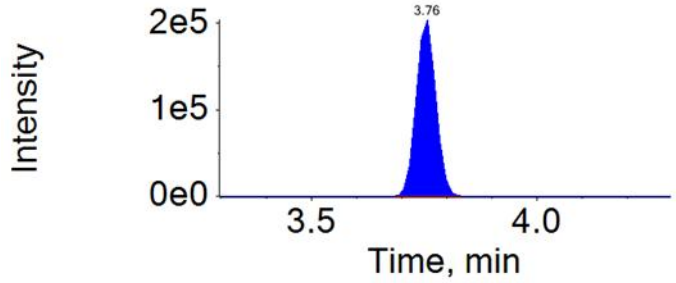
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

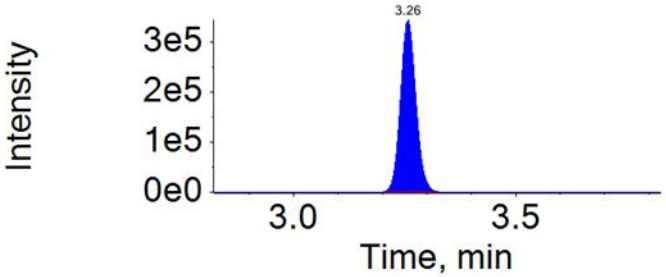
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



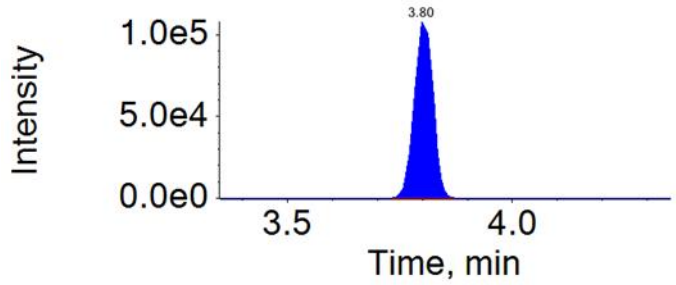


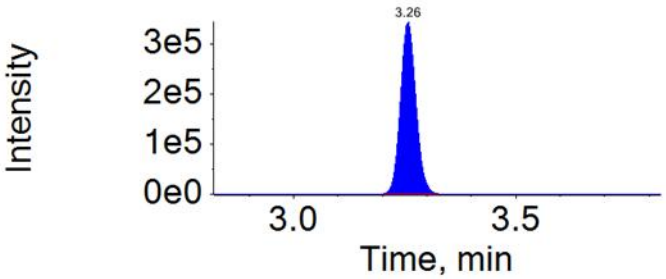
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



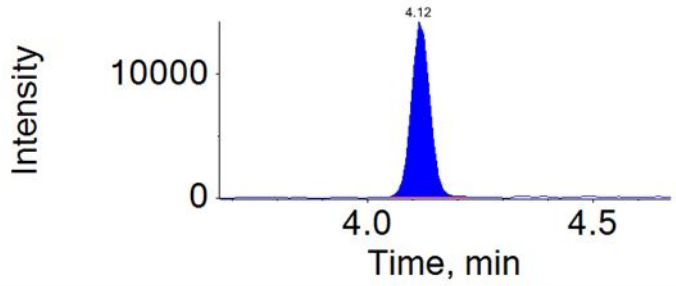


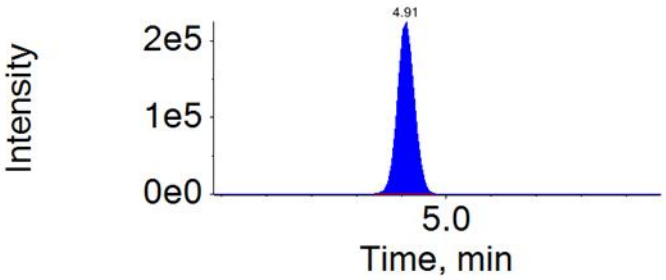
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

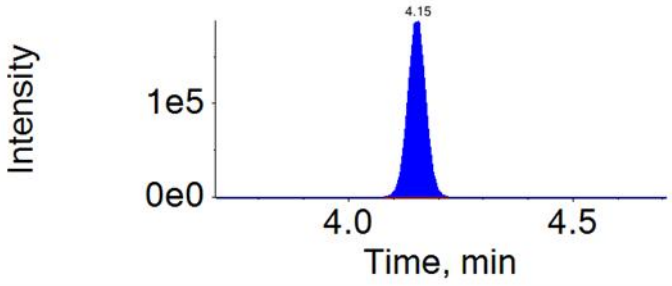
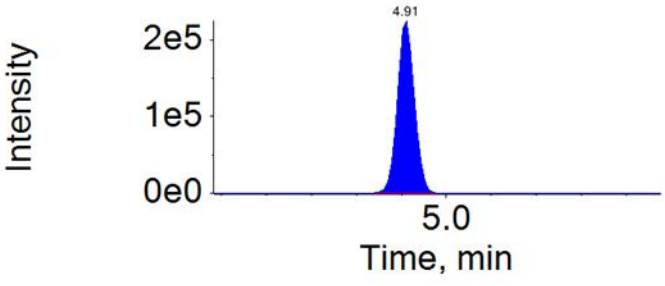


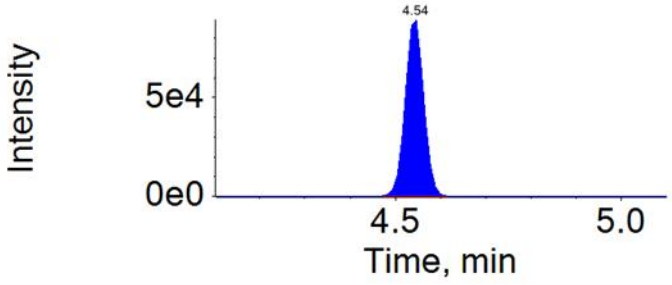
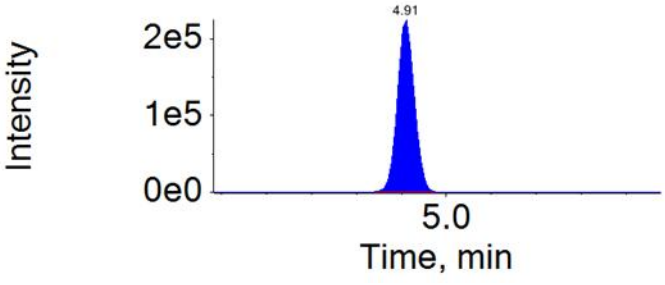


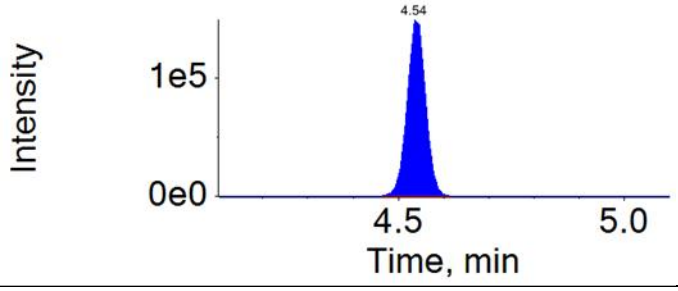
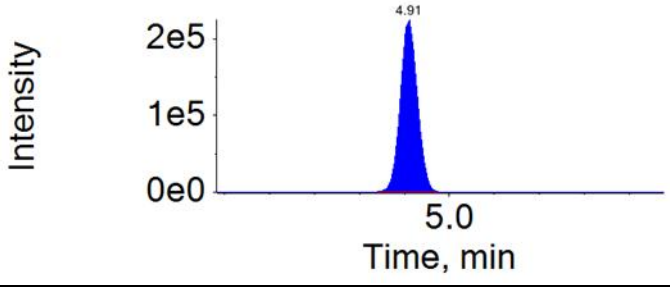
APPROVED
By JPT at 1:25 pm, 11/9/18

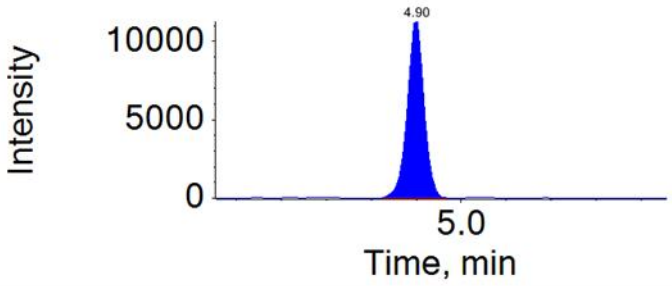
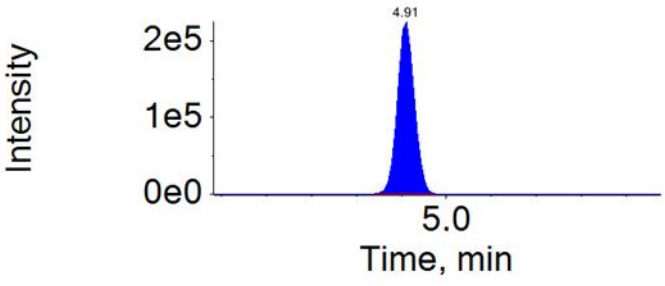
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

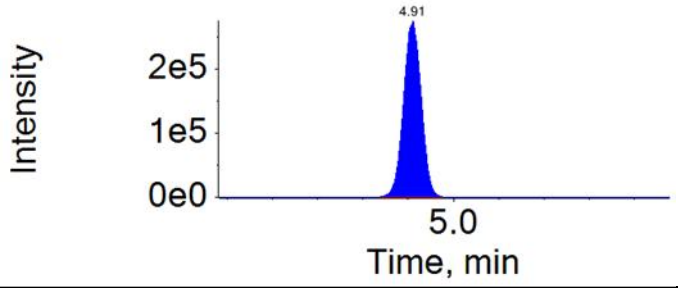
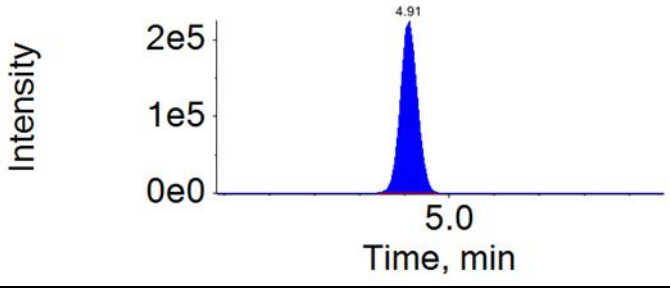
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

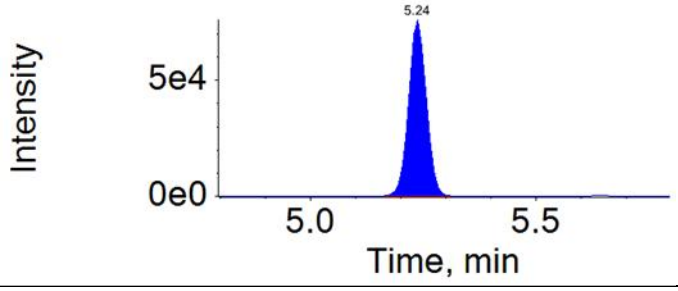
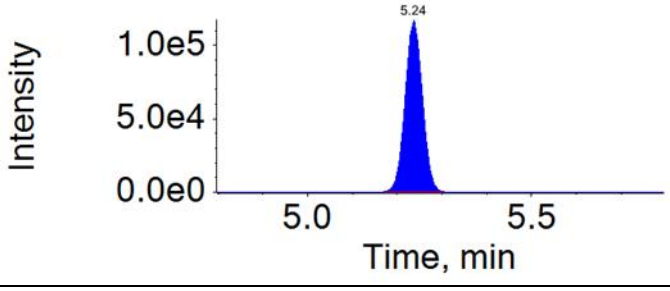
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

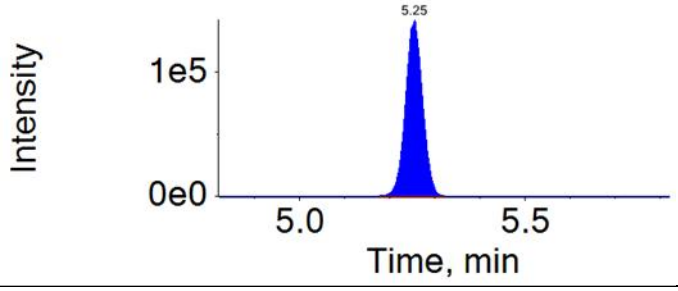
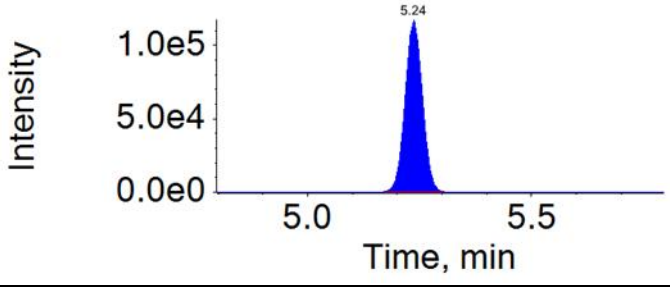
APPROVED
By JPT at 1:25 pm, 11/9/18

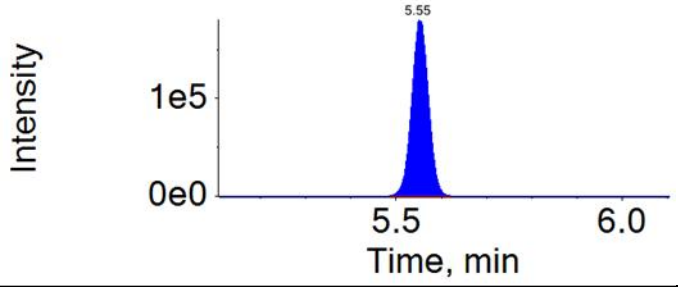
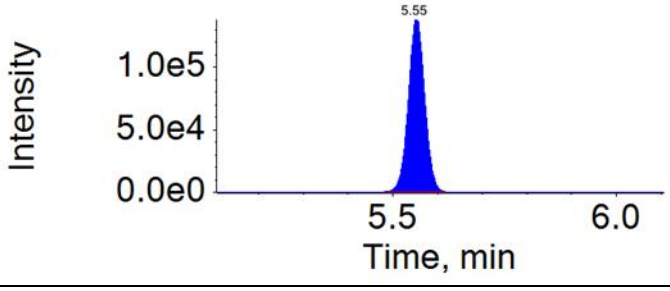
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

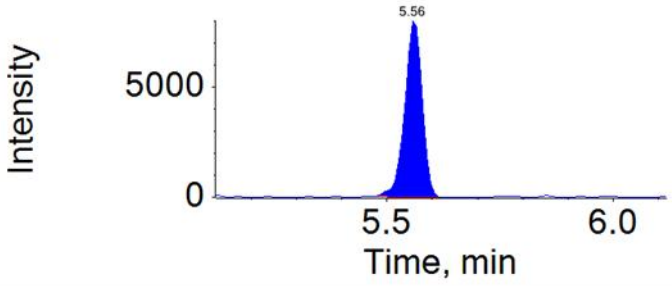
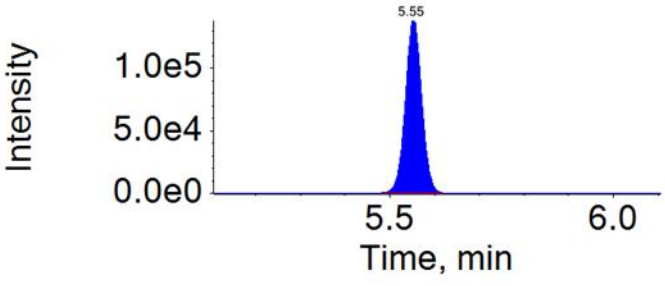
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

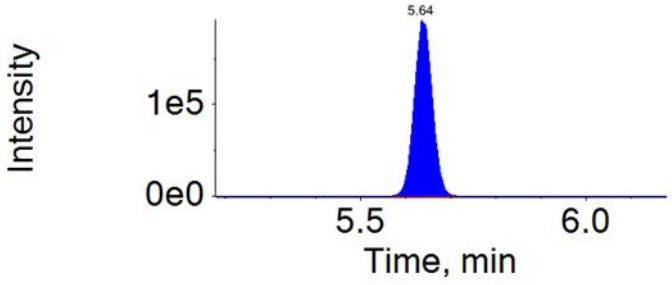
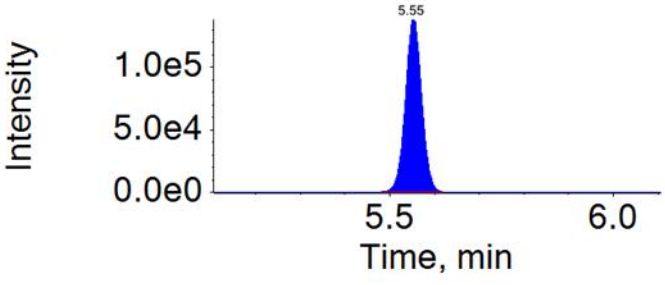
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

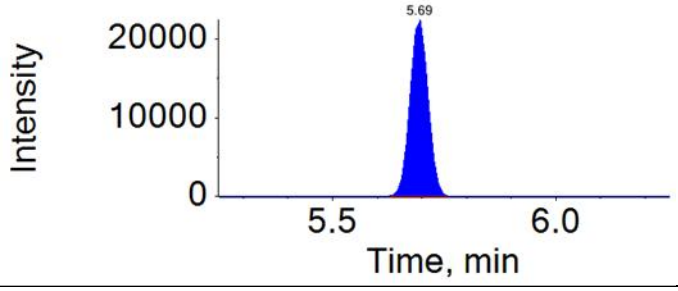
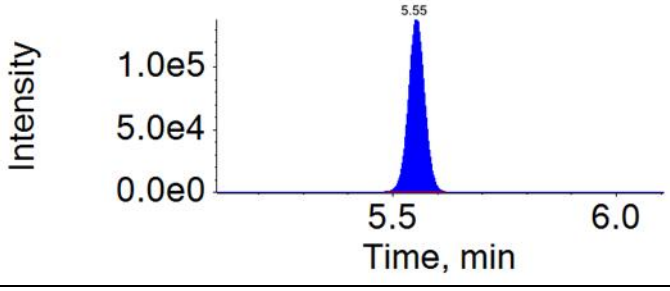
APPROVED
By JPT at 1:25 pm, 11/9/18

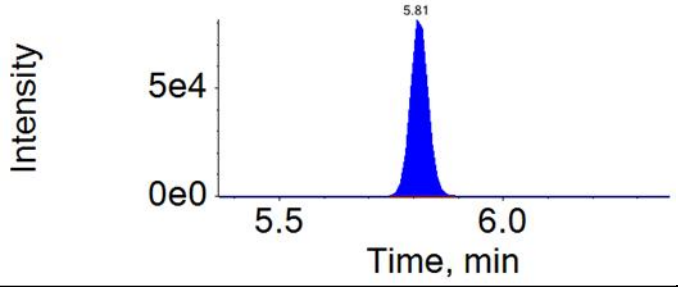
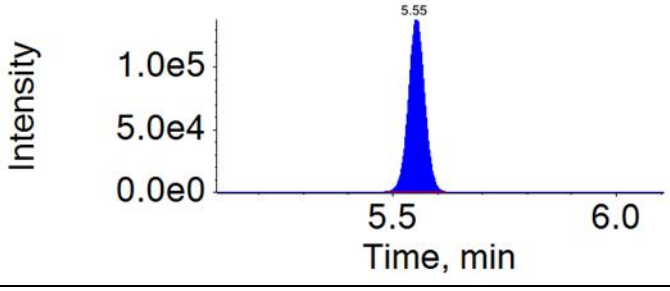
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

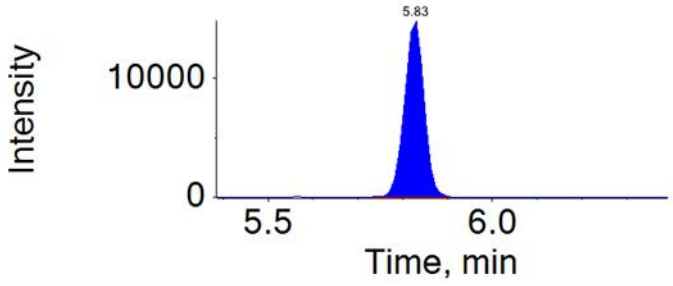
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

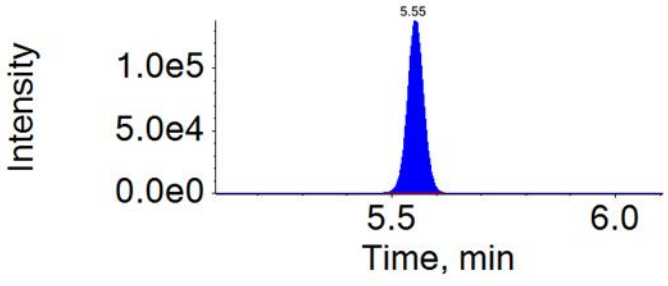
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

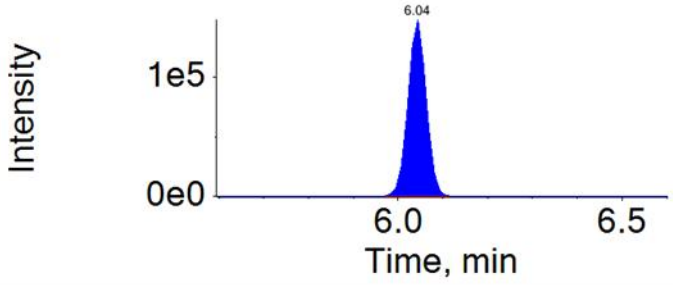
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

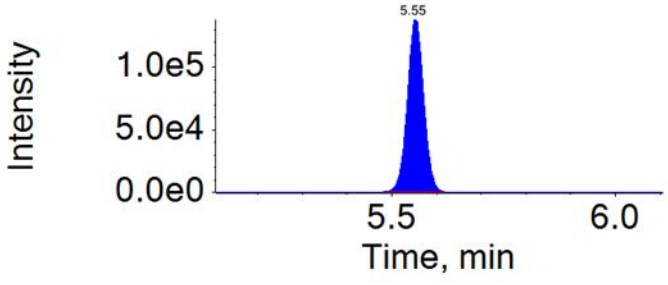
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



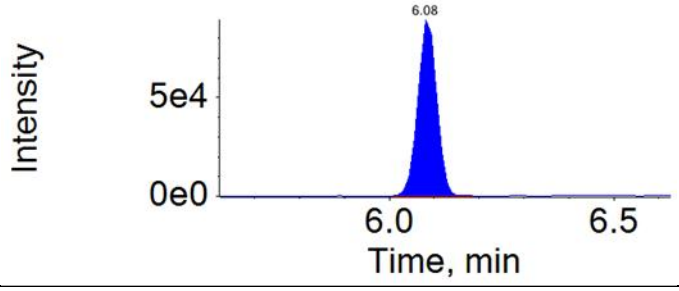


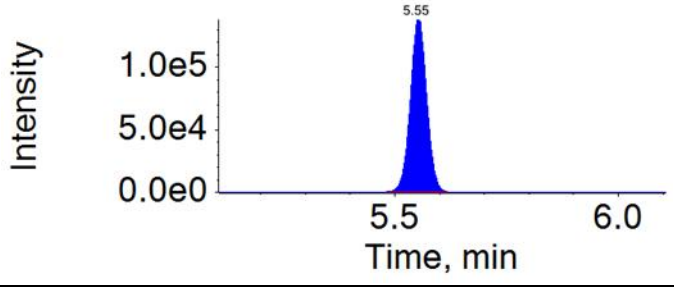
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



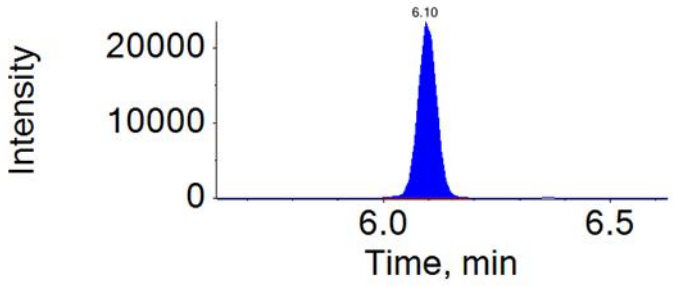


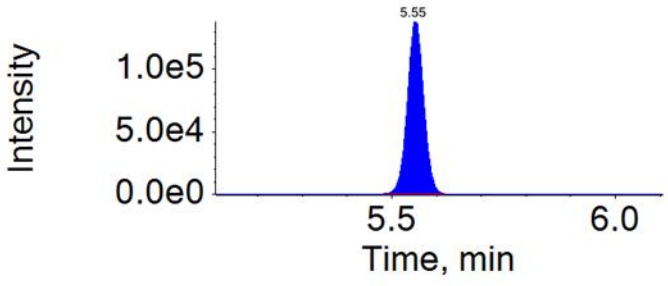
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



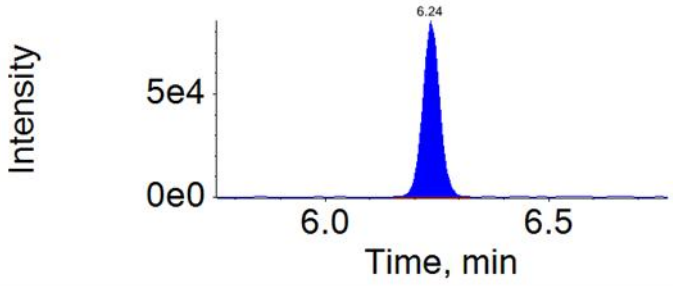


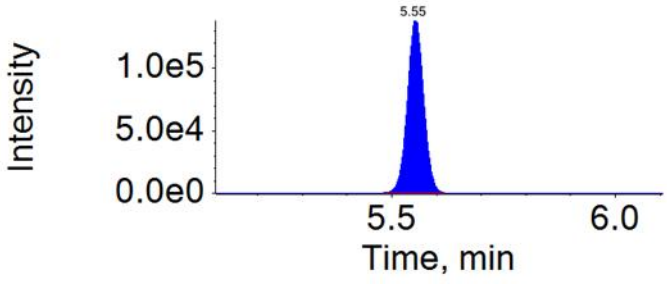
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

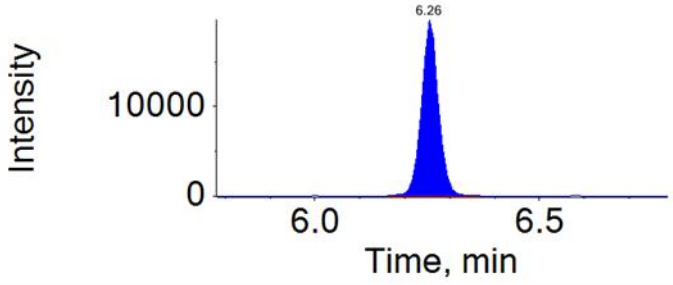
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

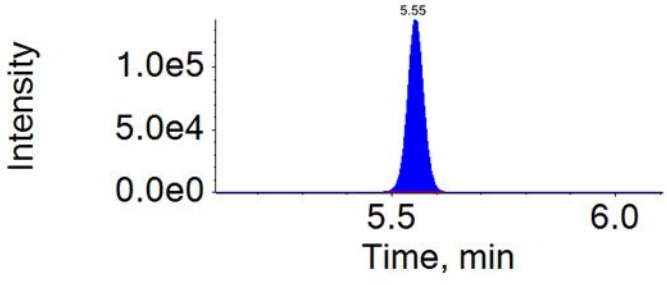
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



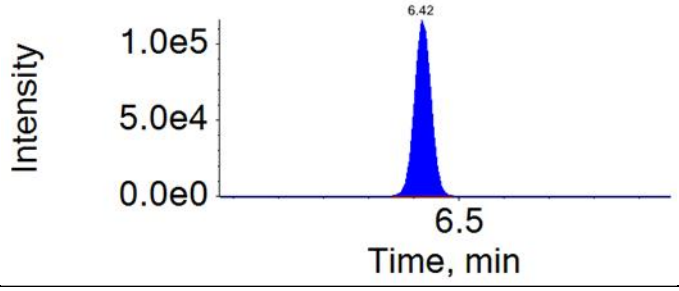


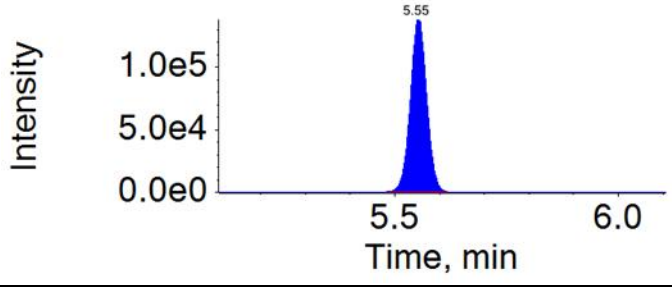
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

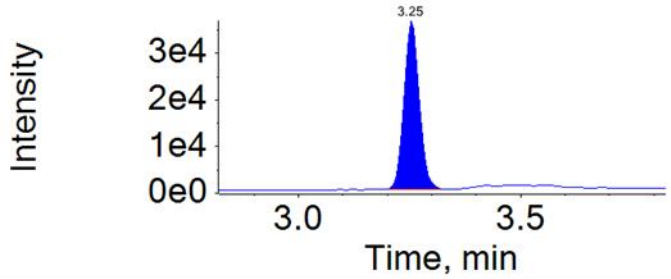
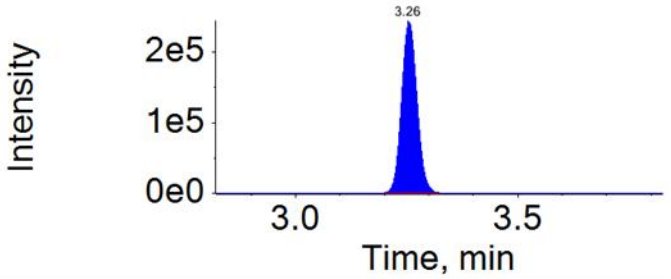


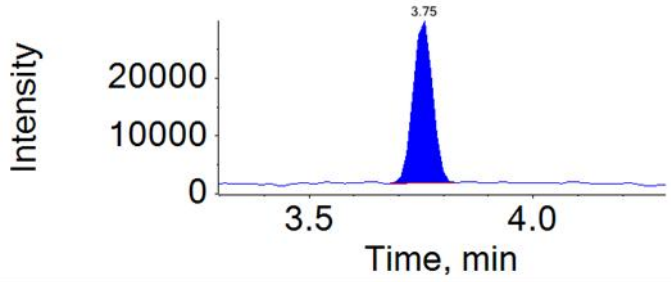
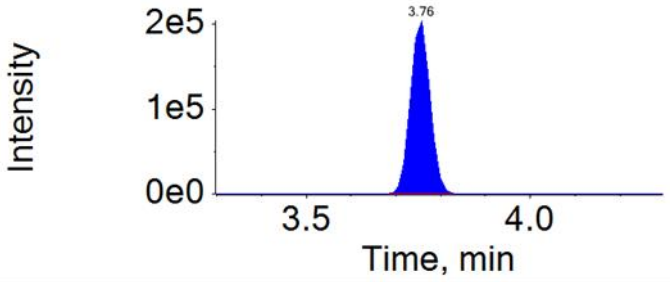


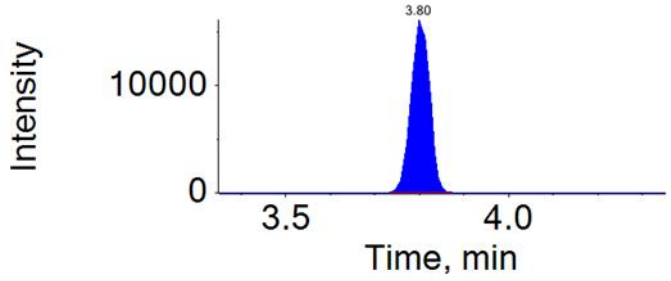
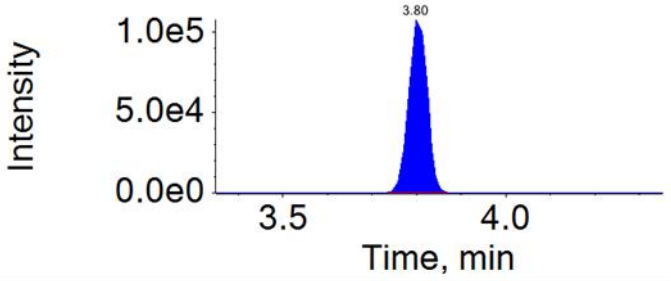
APPROVED
By JPT at 1:25 pm, 11/9/18

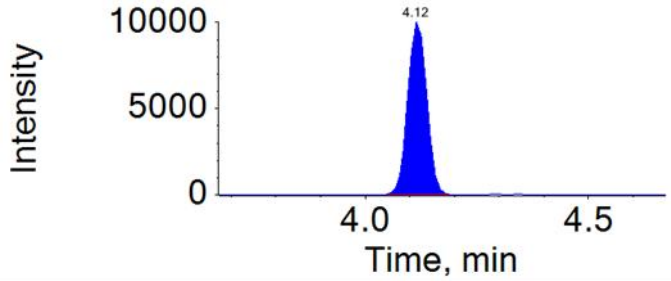
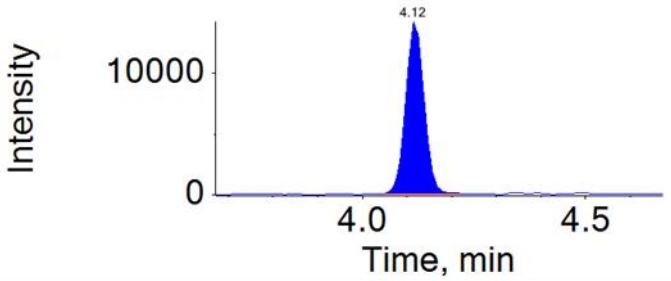
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

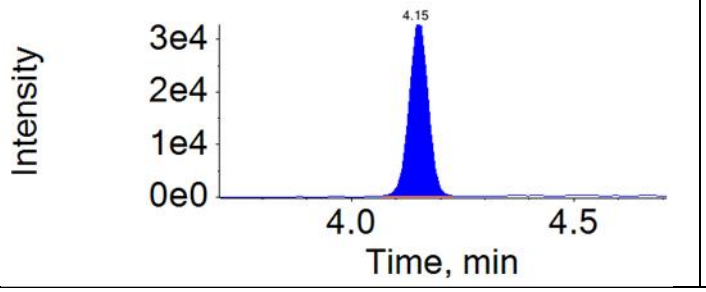
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

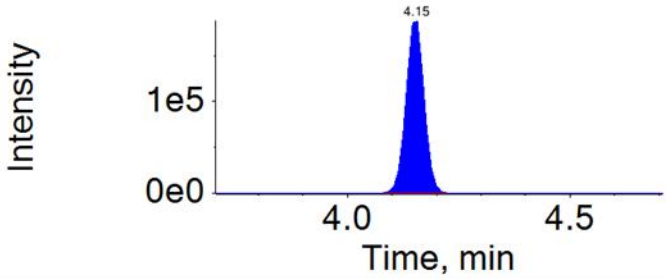
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

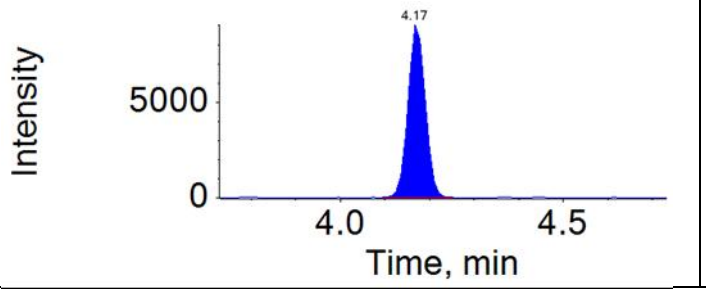
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

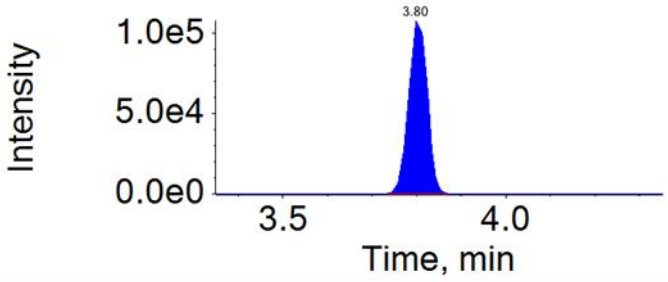
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



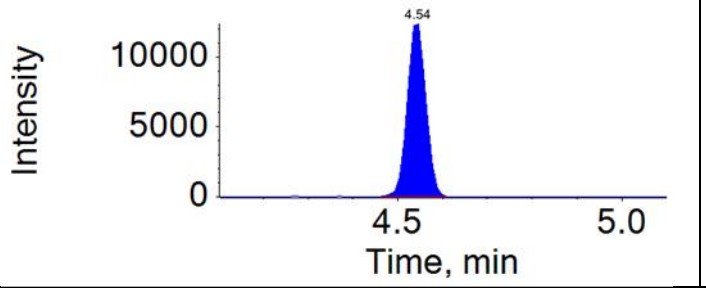


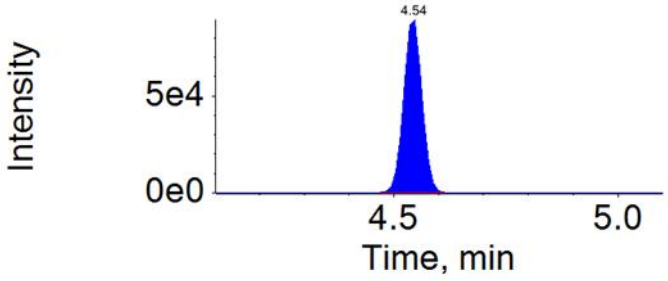
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



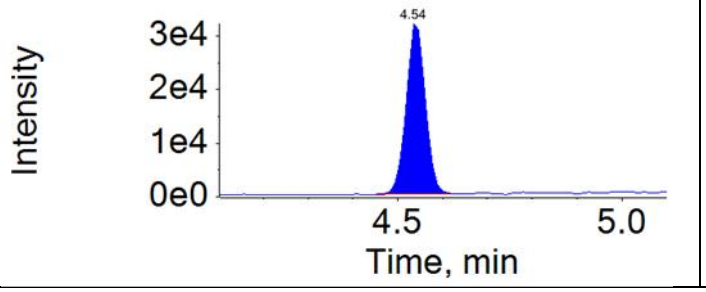


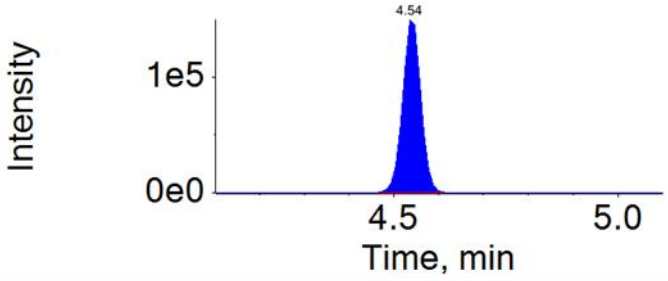
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

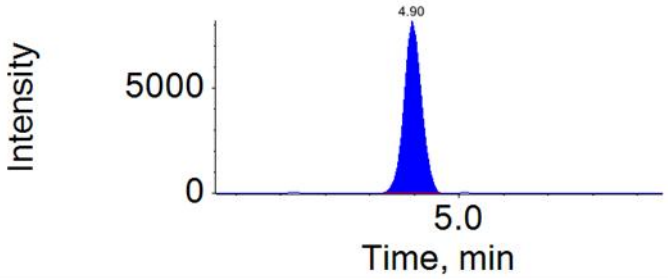
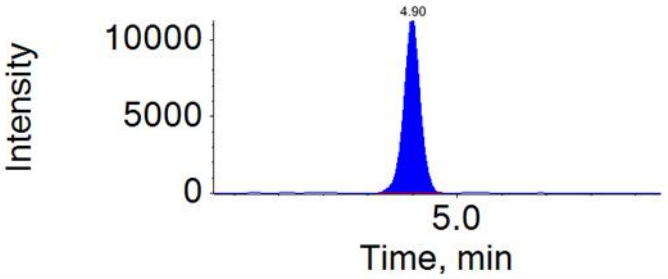


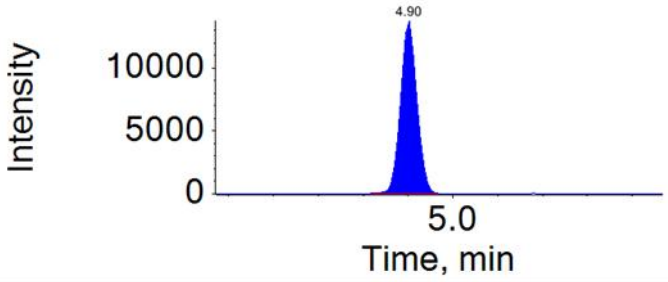
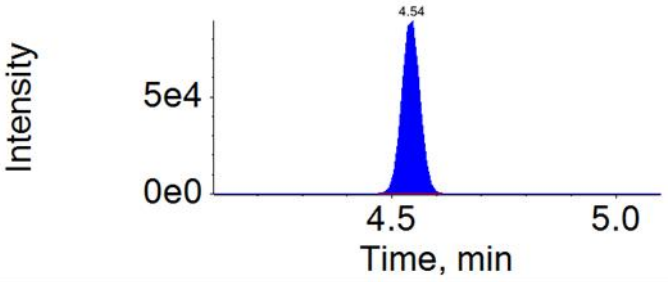


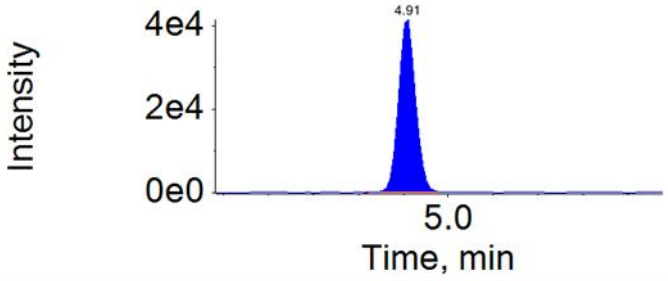
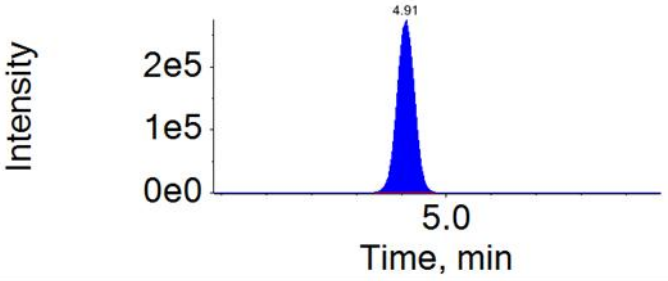
APPROVED
By JPT at 1:25 pm, 11/9/18

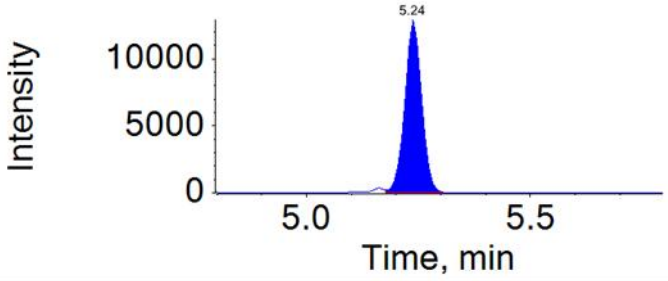
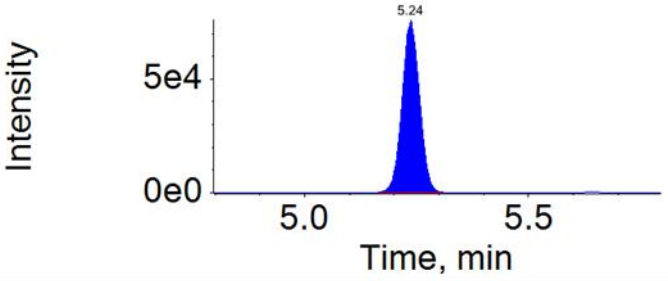
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

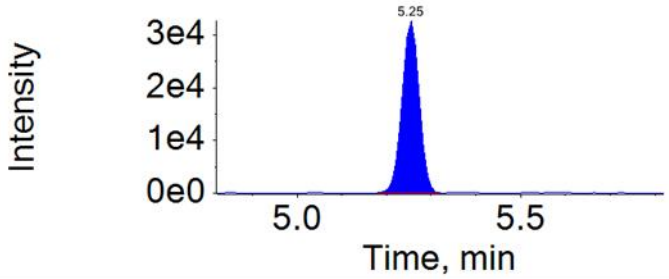
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

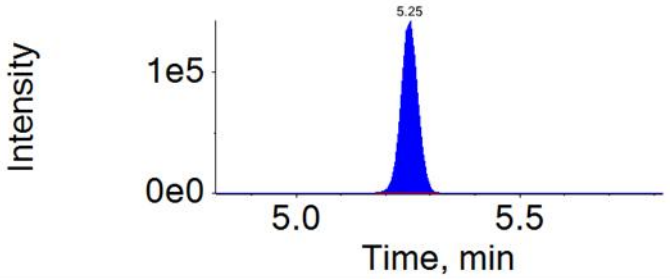
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

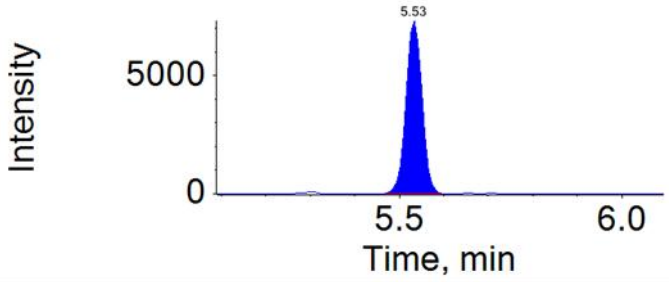
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

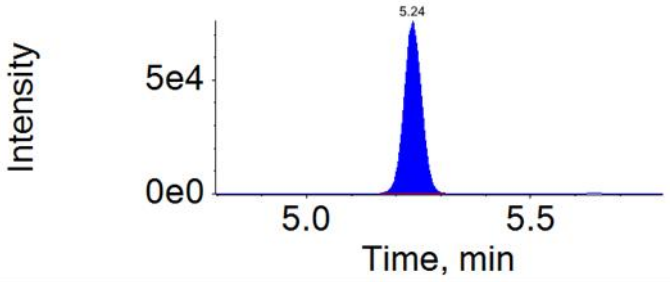
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



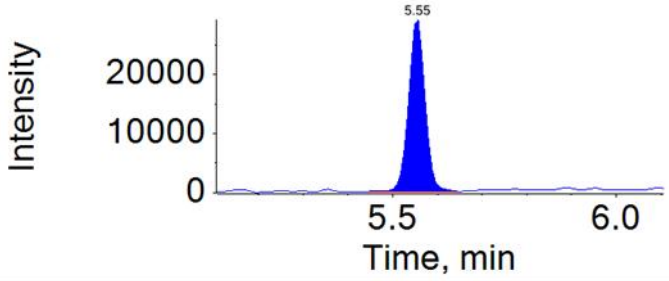


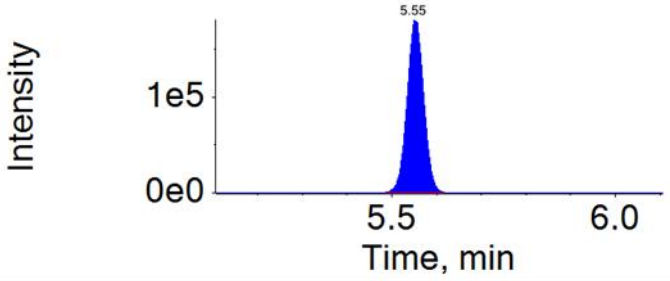
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



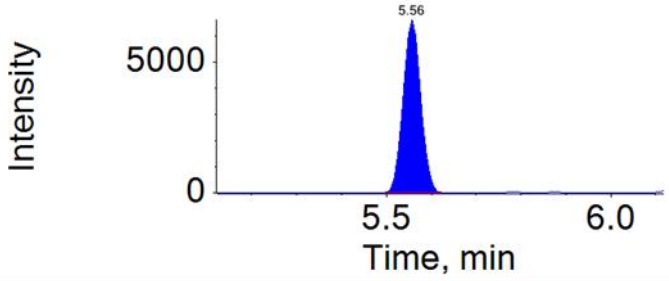


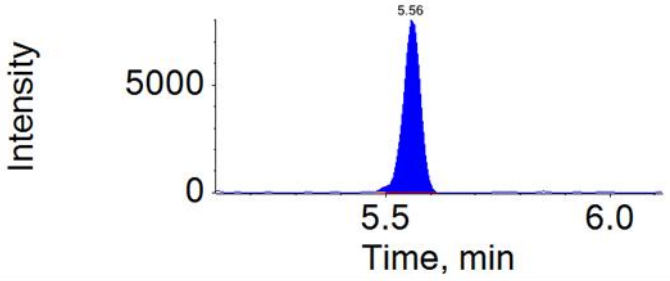
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

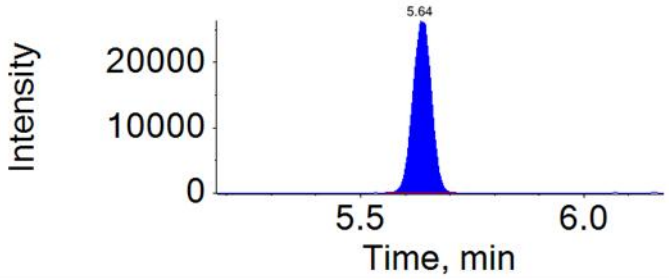
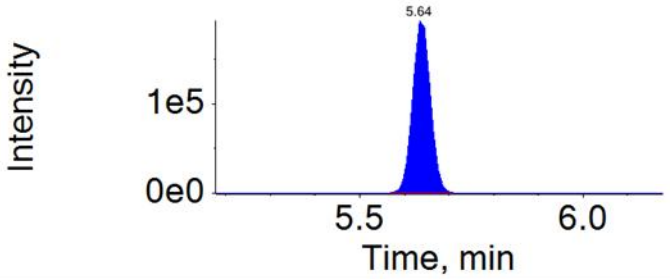


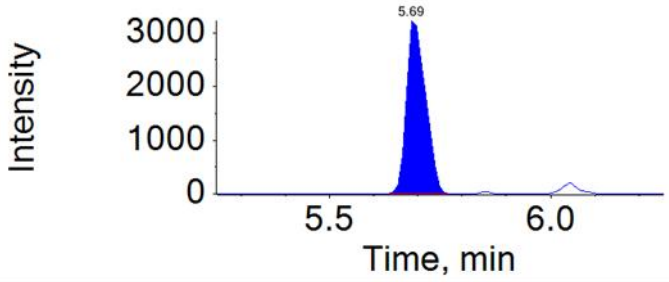
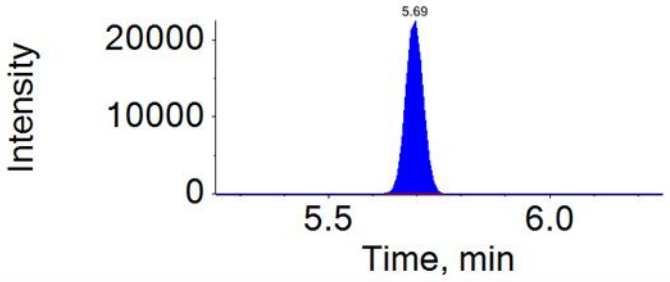


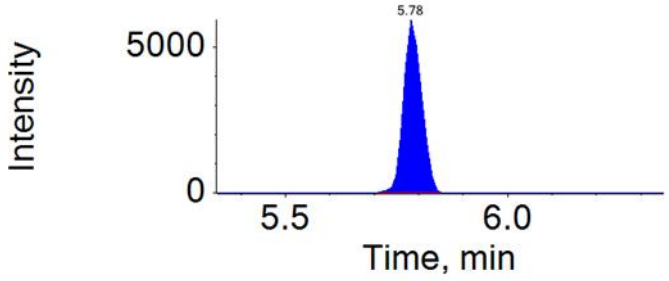
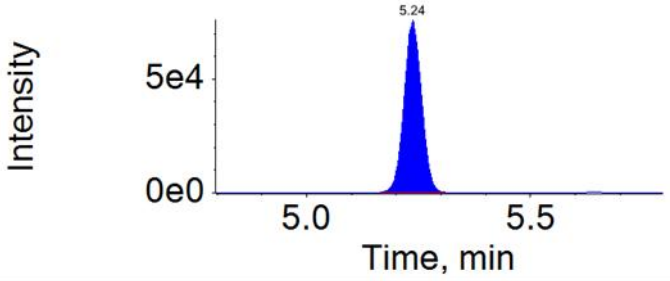
APPROVED
By JPT at 1:25 pm, 11/9/18

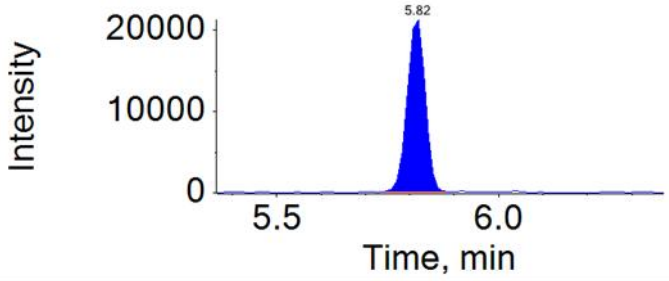
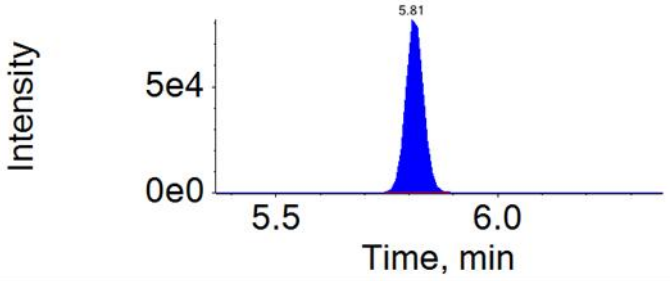
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

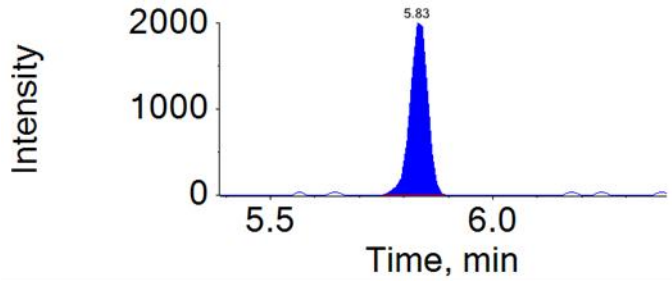
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

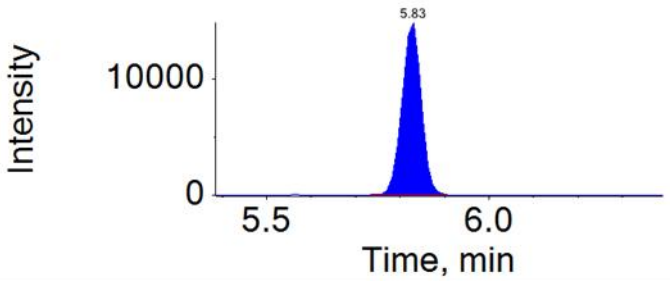
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

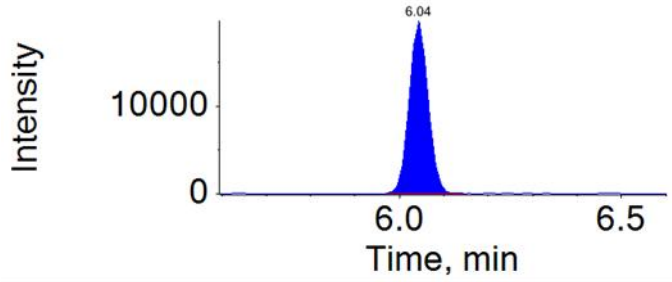
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

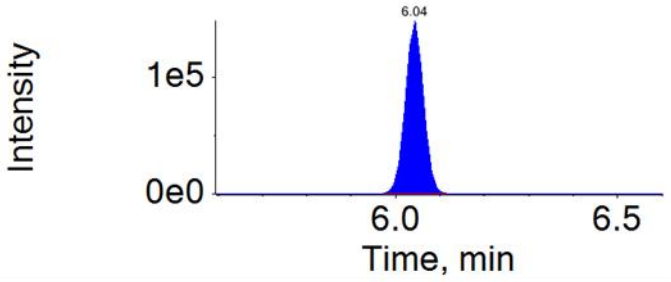
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



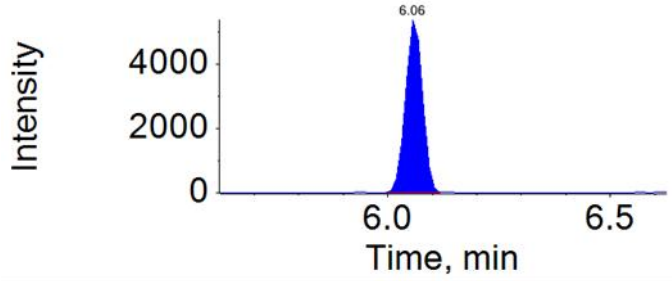


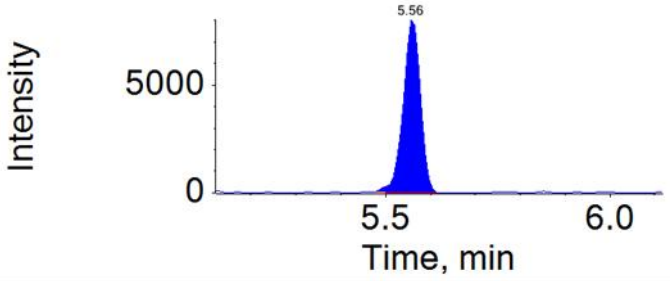
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



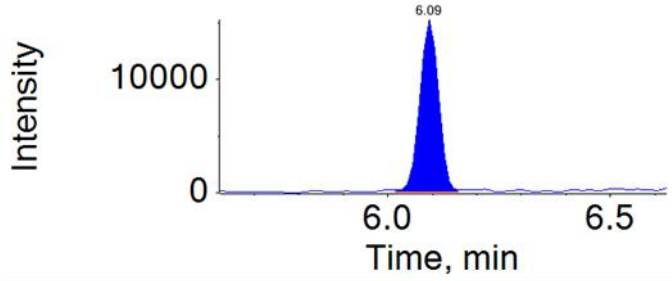


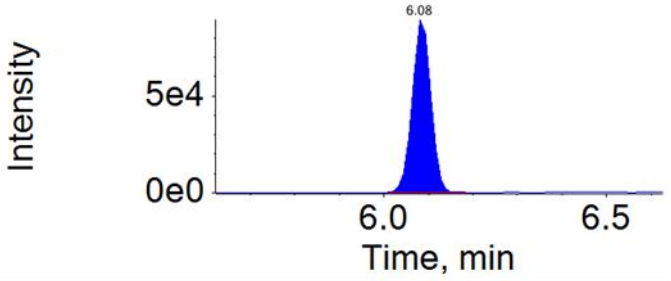
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



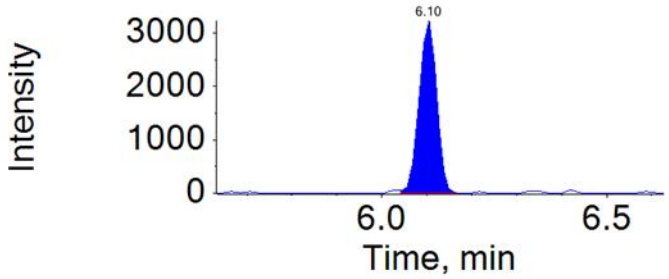


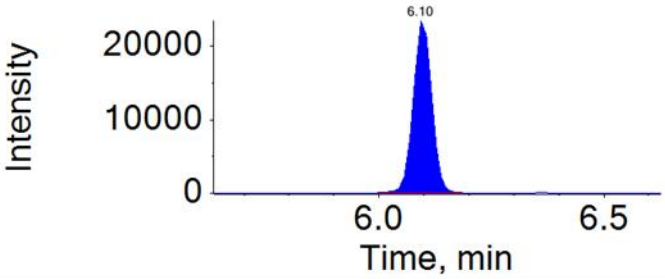
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

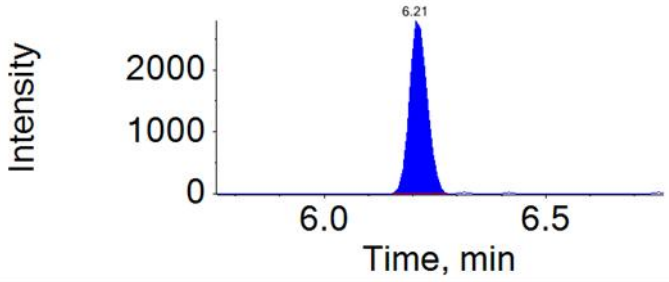
ICAL Name: 18NOV07DCAL **Result Table:** 18311003 11/9/2018 1:08:25 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

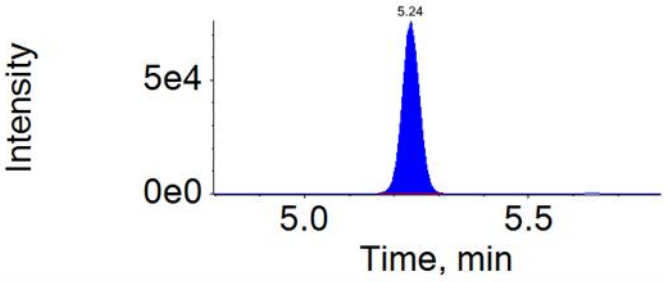
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



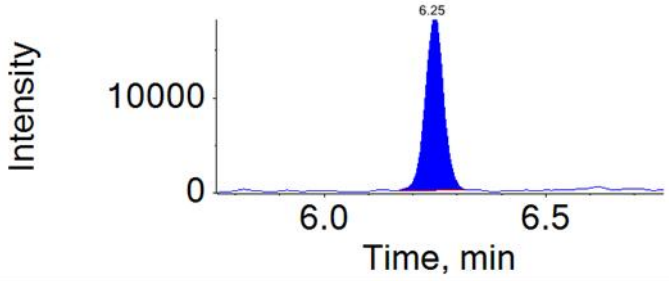


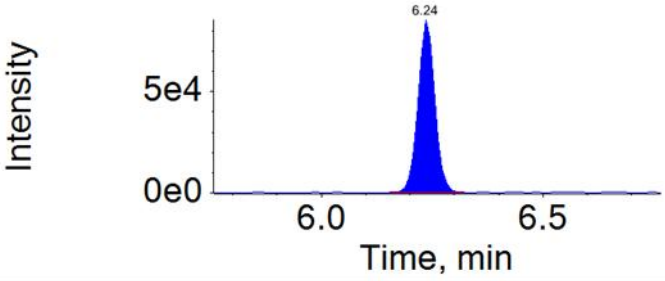
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



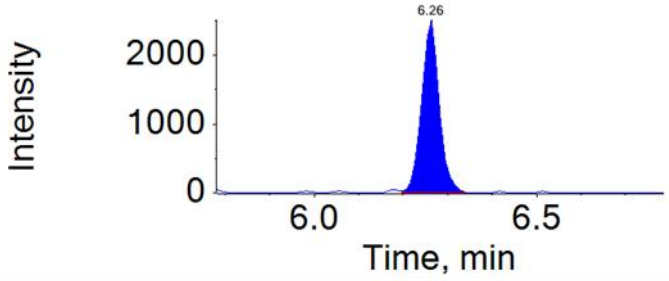


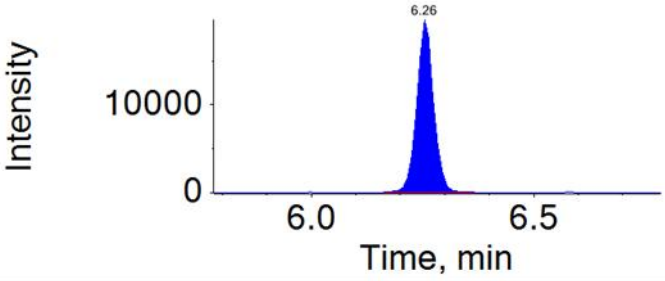
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

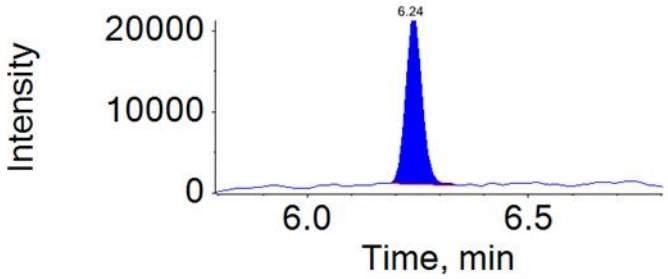
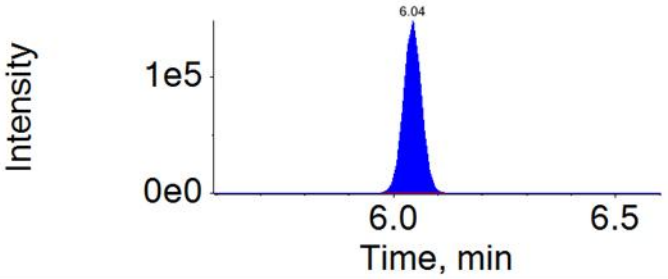


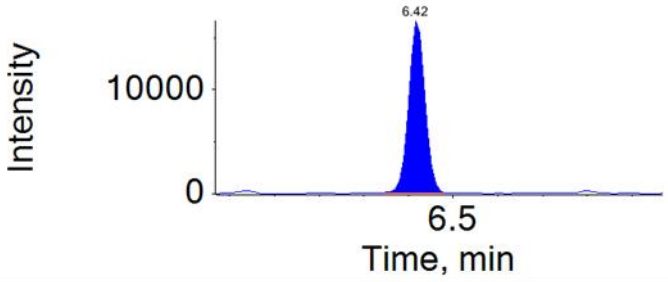
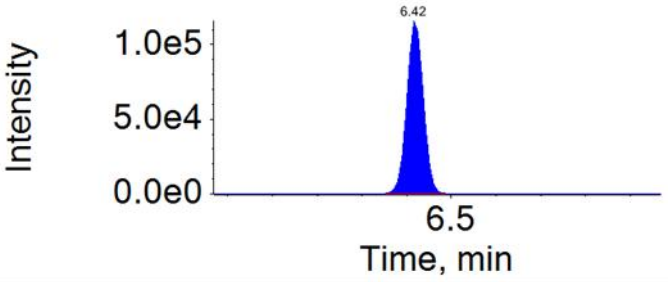


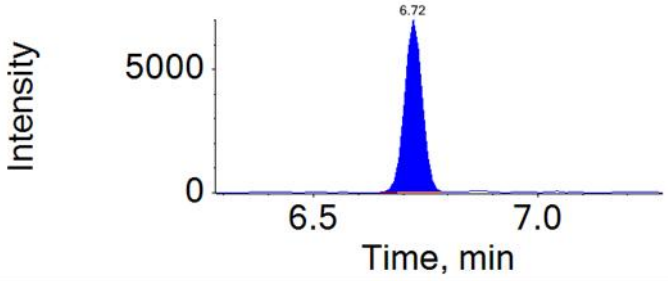
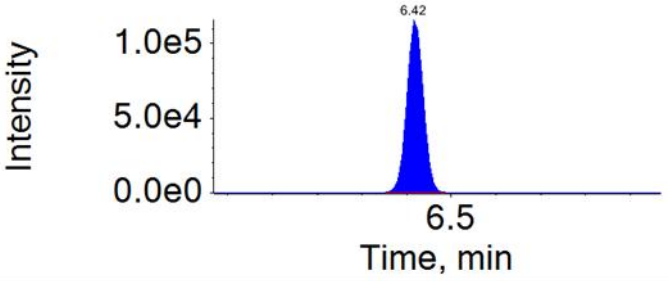
APPROVED
By JPT at 1:25 pm, 11/9/18

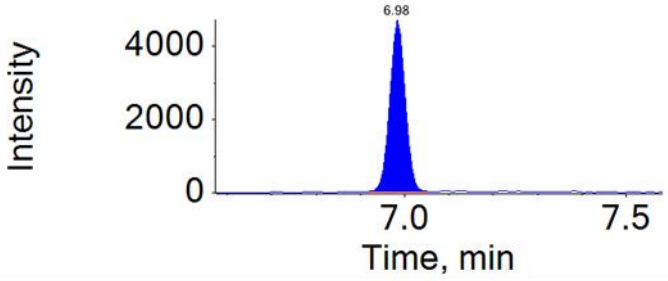
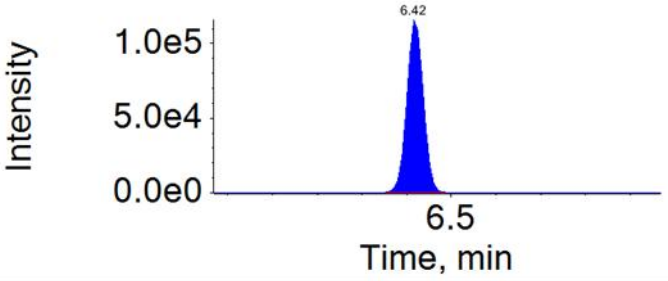
REVIEWED
By HMK at 9:20 am, 11/13/18

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
	

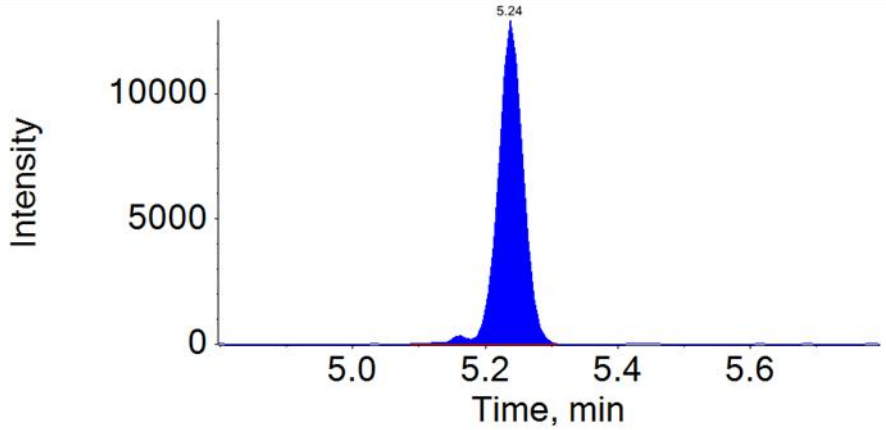
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

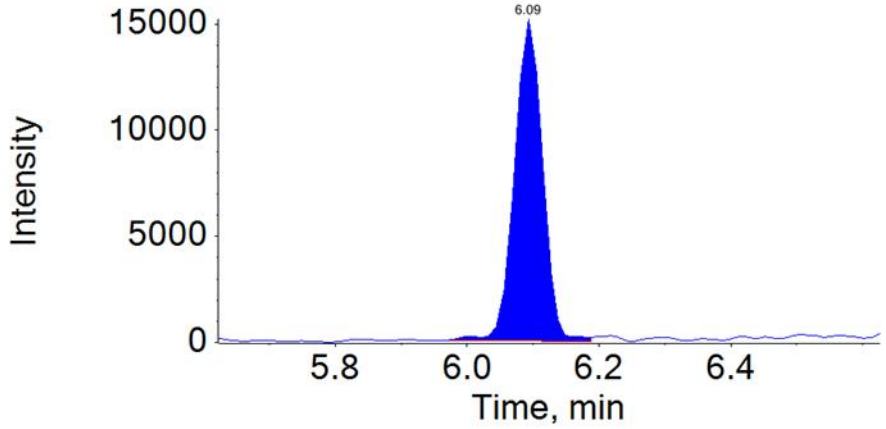
Results Table Name: 18311003
Results Table Date: 11/9/2018 1:08:25 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

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



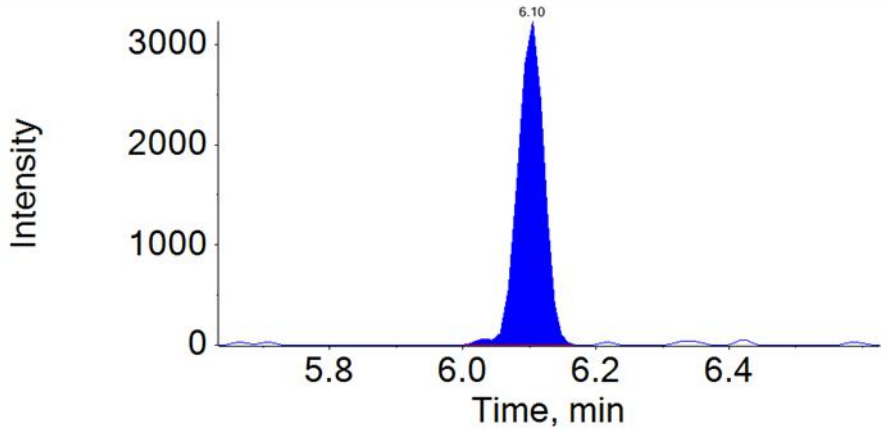
Integration Comment: incorrect integration

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

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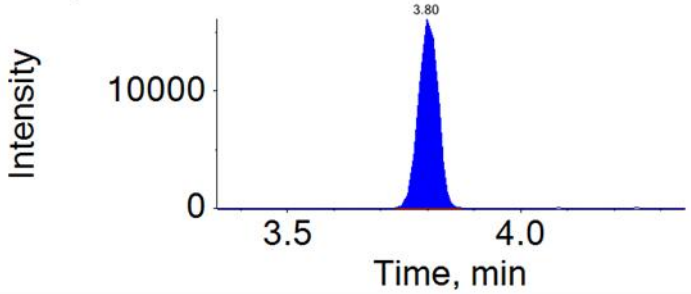
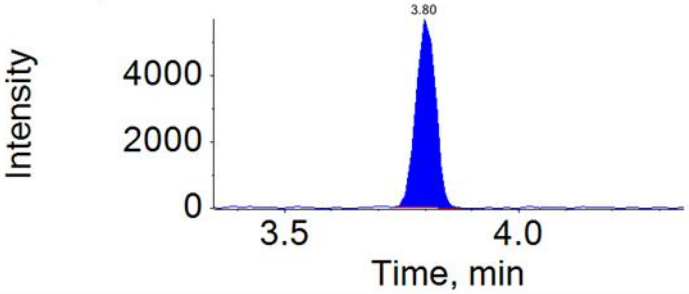
By HMK at 9:20 am, 11/13/18

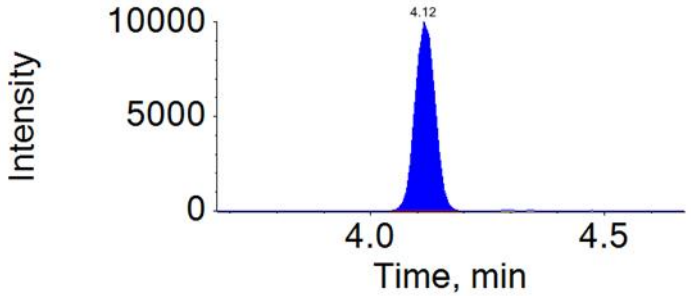
Component: PFBS
Primary Mass: 299.0 / 80.0



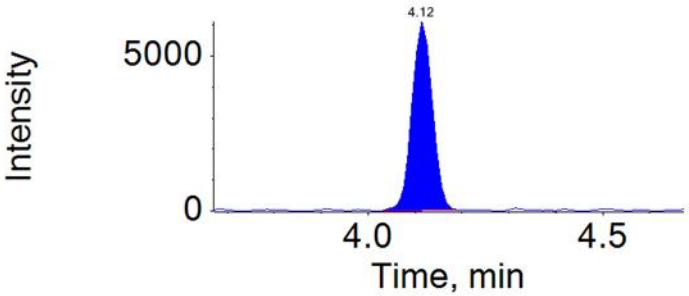
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



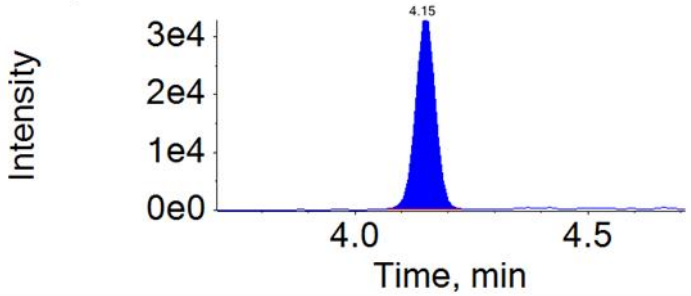
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



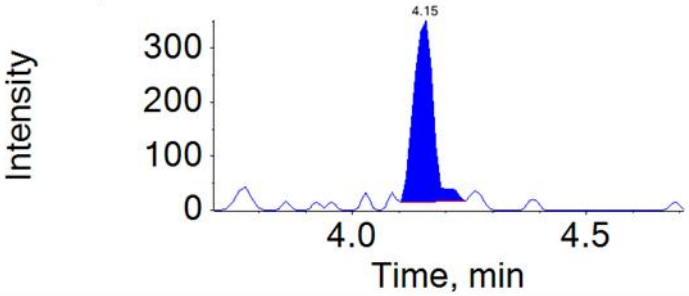
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



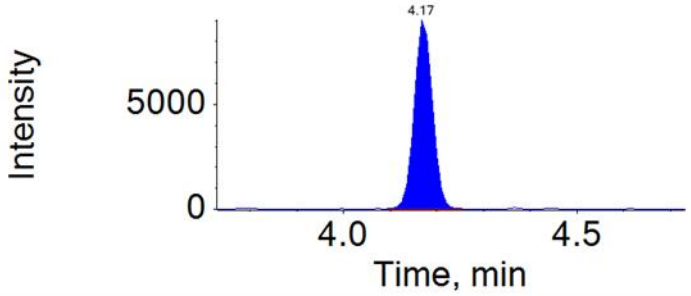
Component: PFHxA
Primary Mass: 313.0 / 269.0



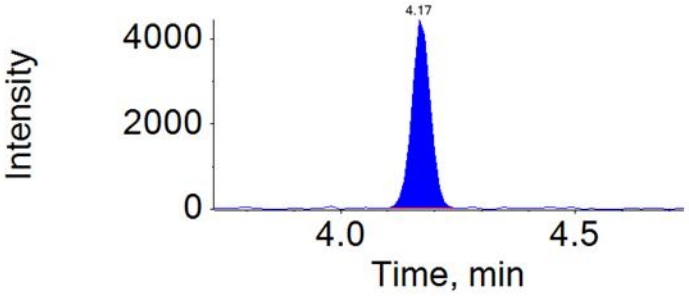
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



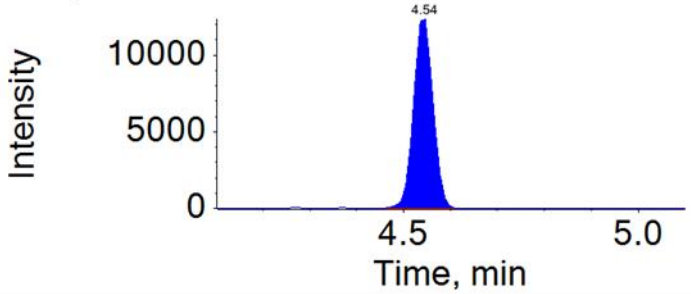
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



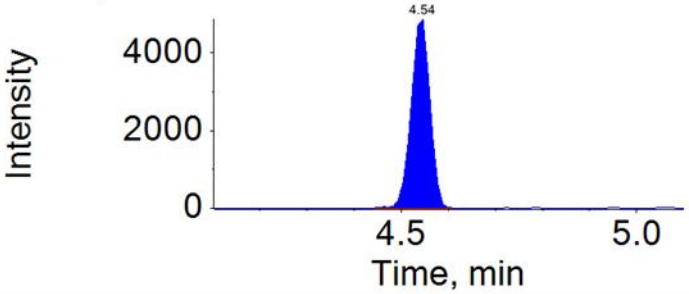
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

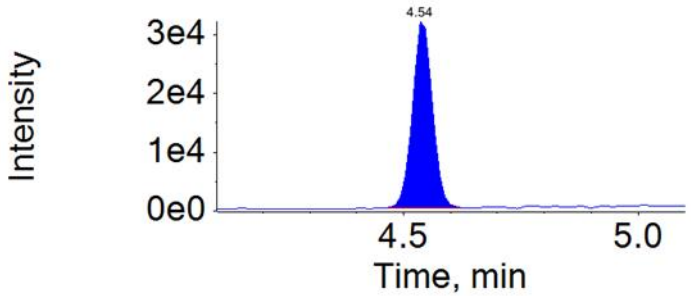
Component: PFHxS
Primary Mass: 399.0 / 80.0



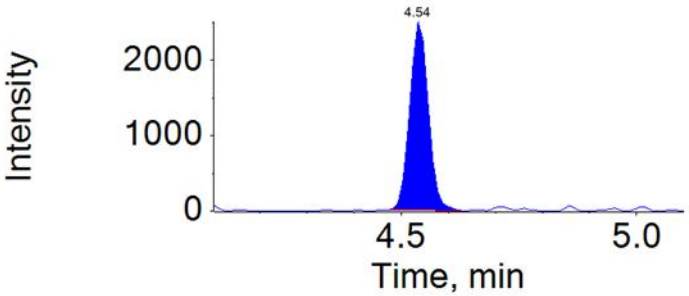
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



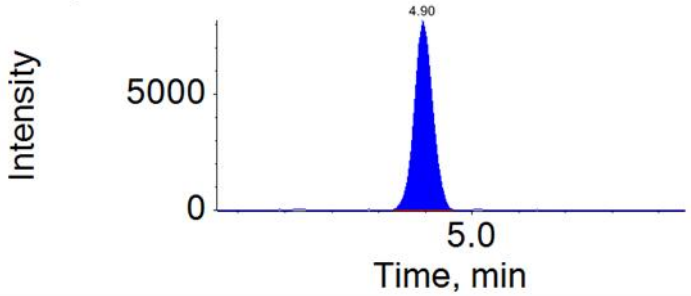
Component: PFHpA
Primary Mass: 363.0 / 319.0



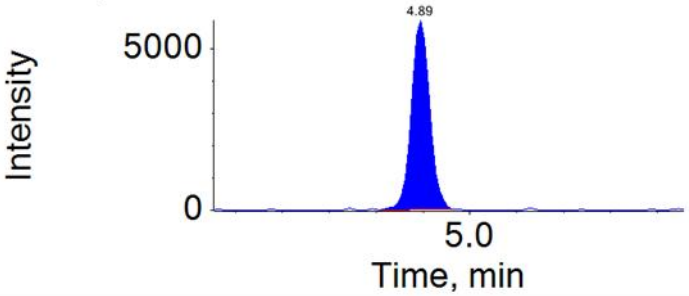
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



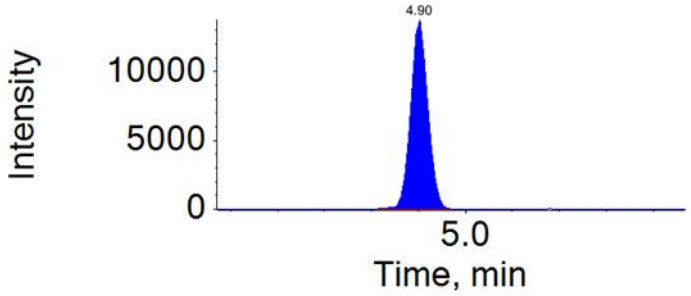
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



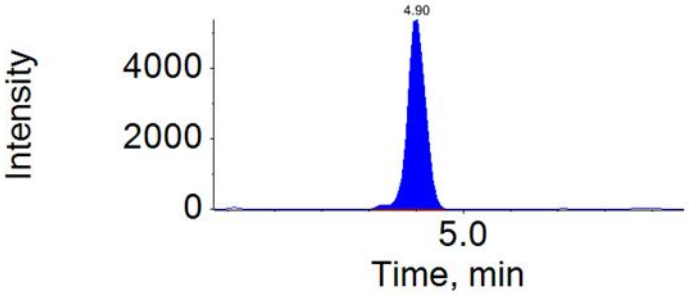
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



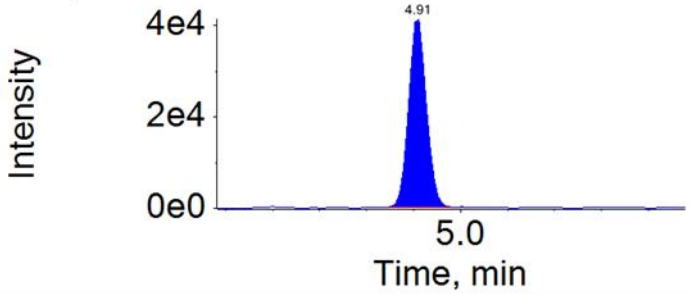
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



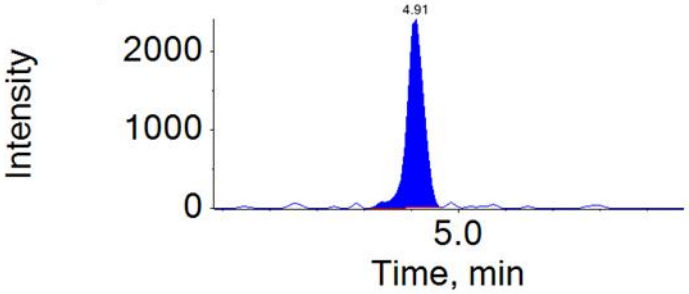
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

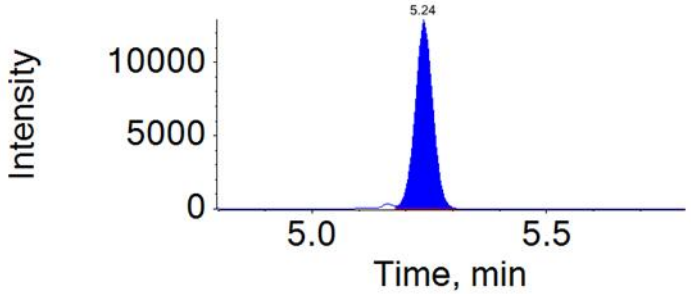
Component: PFOA
Primary Mass: 413.0 / 369.0



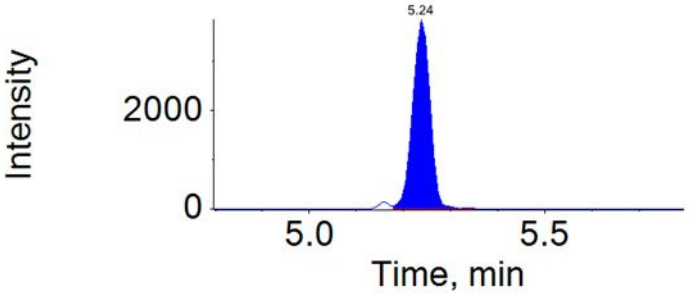
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



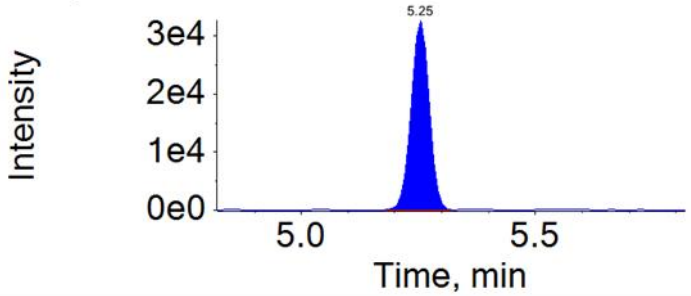
Component: PFOS
Primary Mass: 499.0 / 80.0



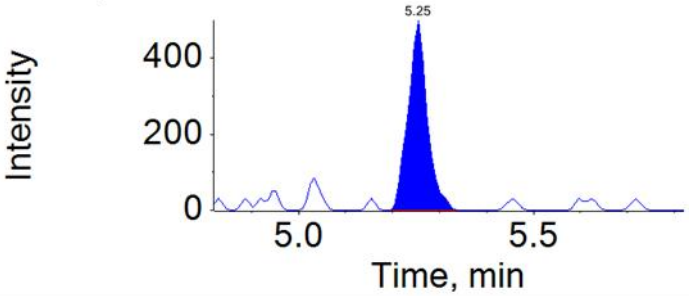
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



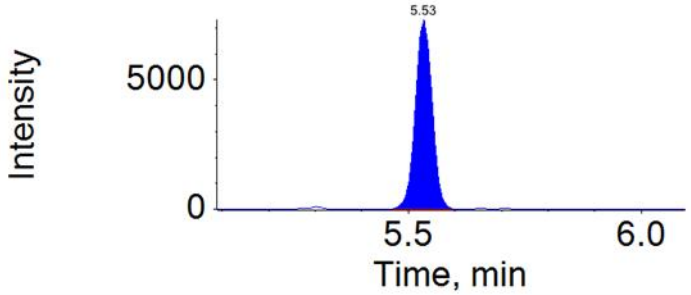
Component: PFNA
Primary Mass: 463.0 / 419.0



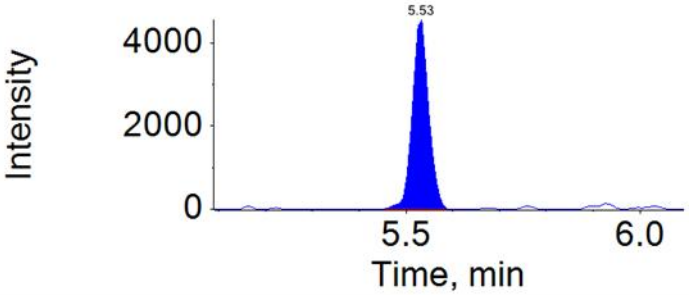
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



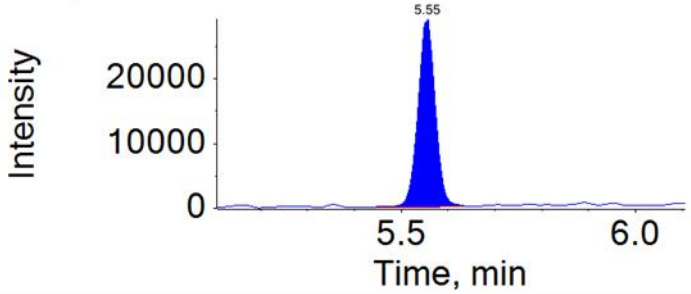
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



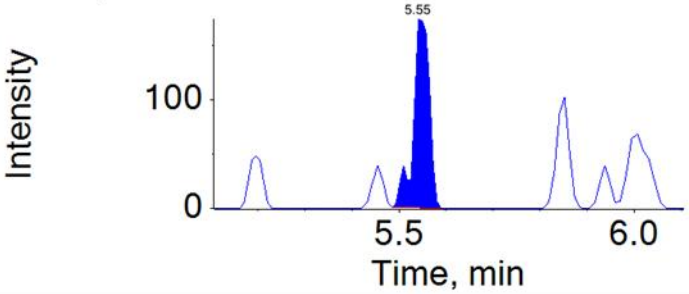
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

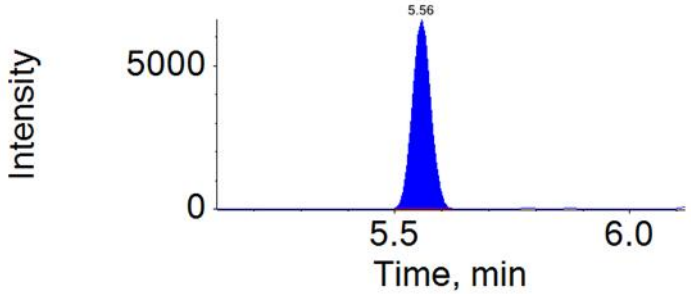
Component: PFDA
Primary Mass: 513.0 / 469.0



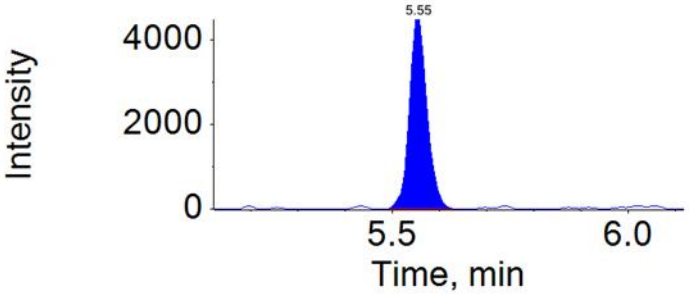
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



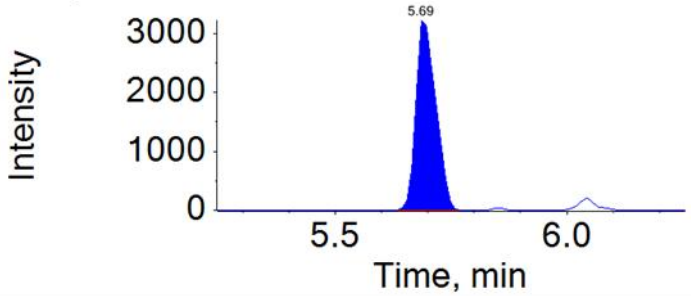
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



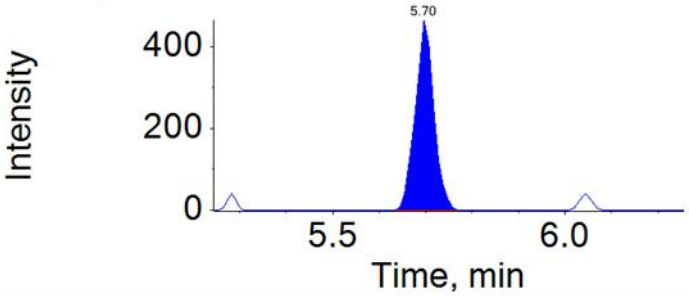
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



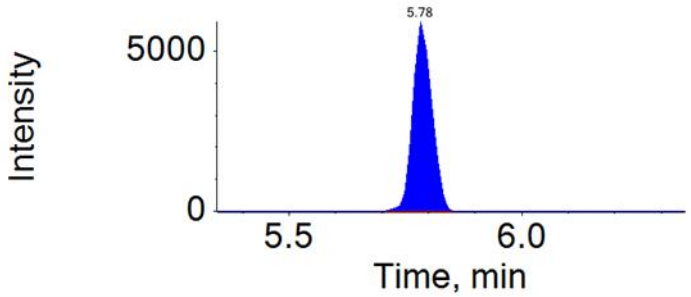
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



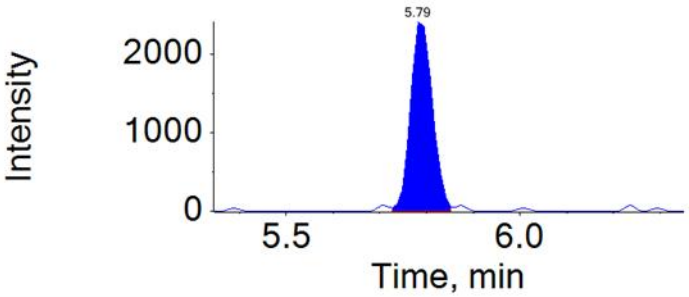
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



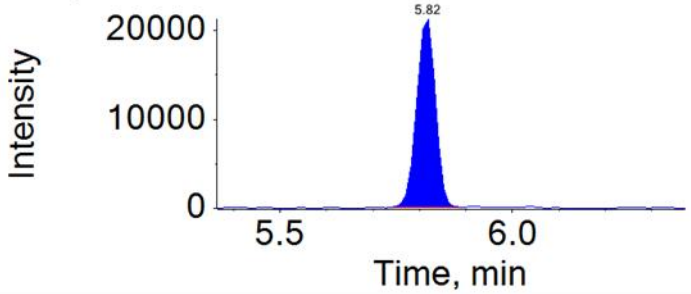
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



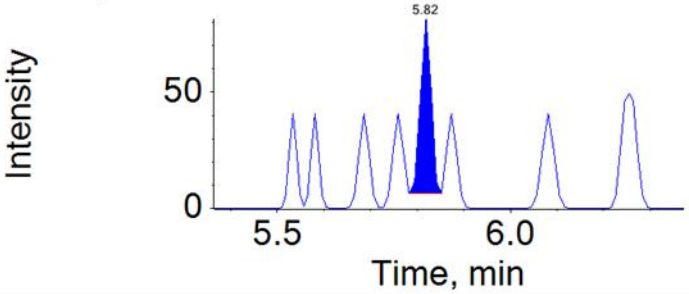
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

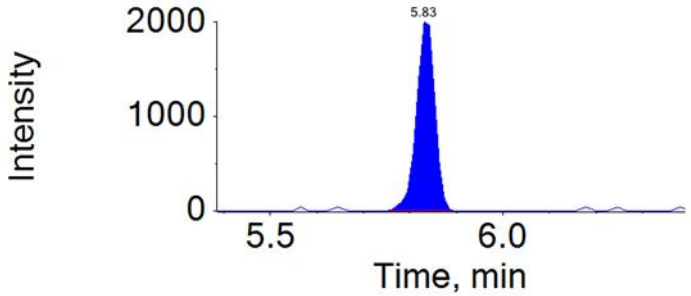
Component: PFUnDA
Primary Mass: 563.0 / 519.0



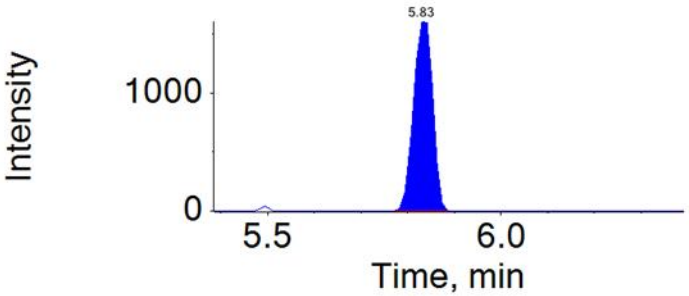
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



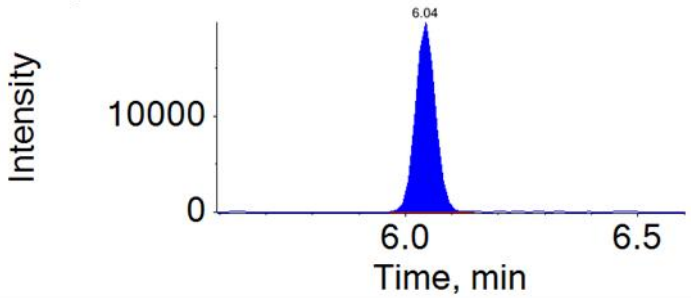
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



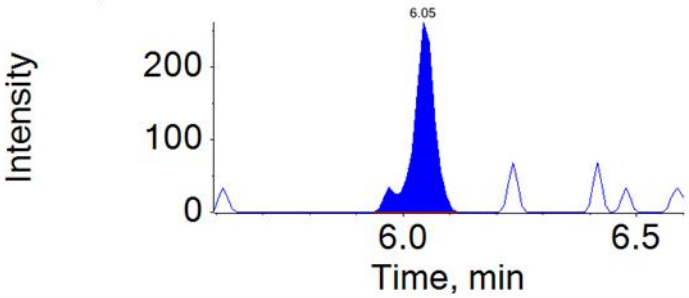
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



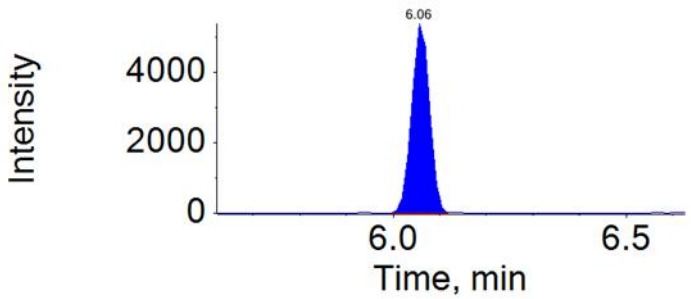
Component: PFDoDA
Primary Mass: 613.0 / 569.0



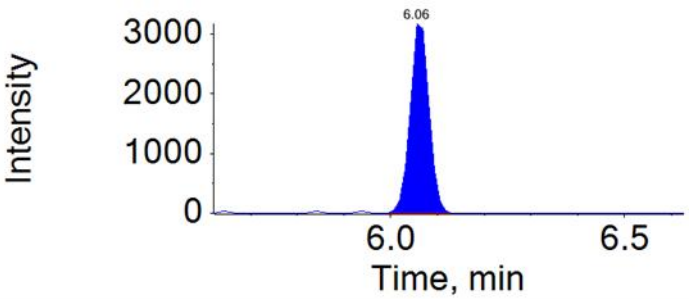
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



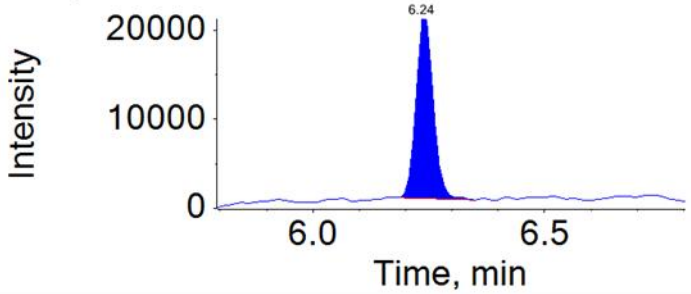
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



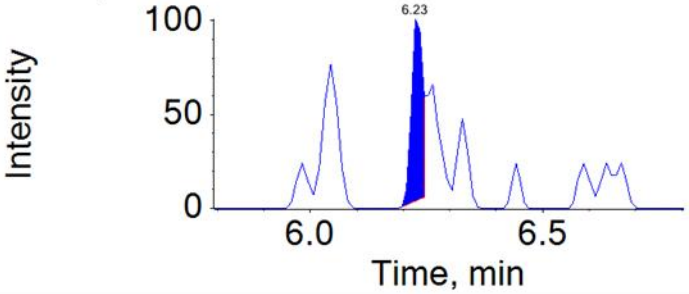
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

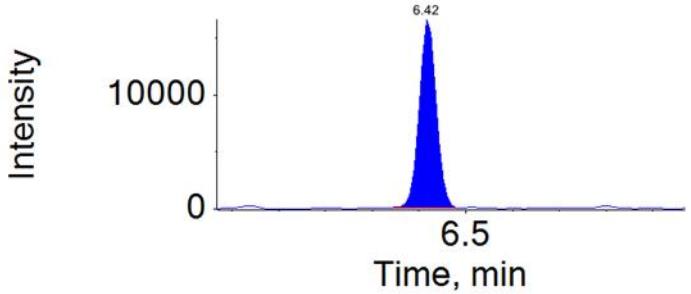
Component: PFTrDA
Primary Mass: 663.0 / 619.0



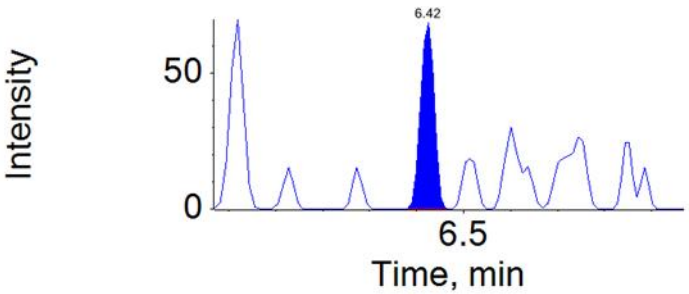
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



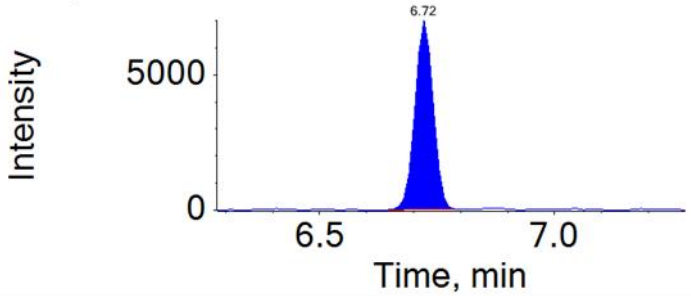
Component: PFTeDA
Primary Mass: 713.0 / 669.0



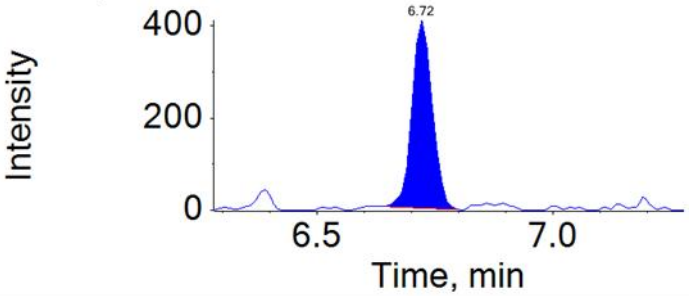
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



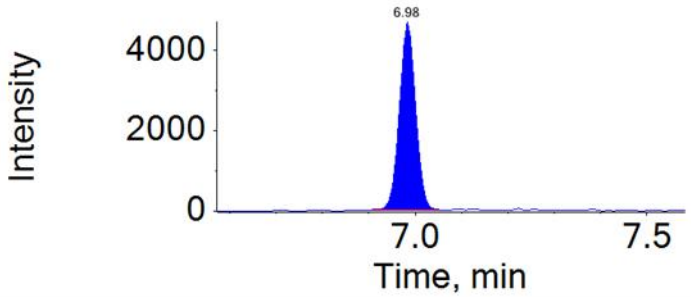
Component: PFHxDA
Primary Mass: 813.0 / 769.0



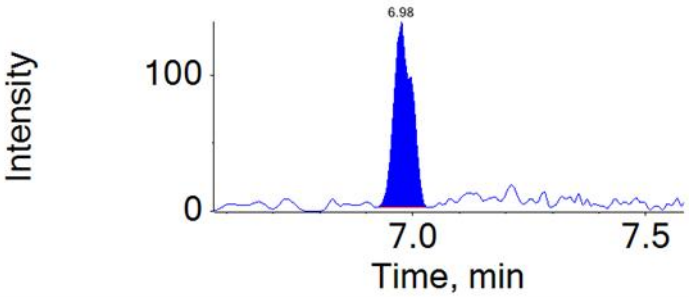
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



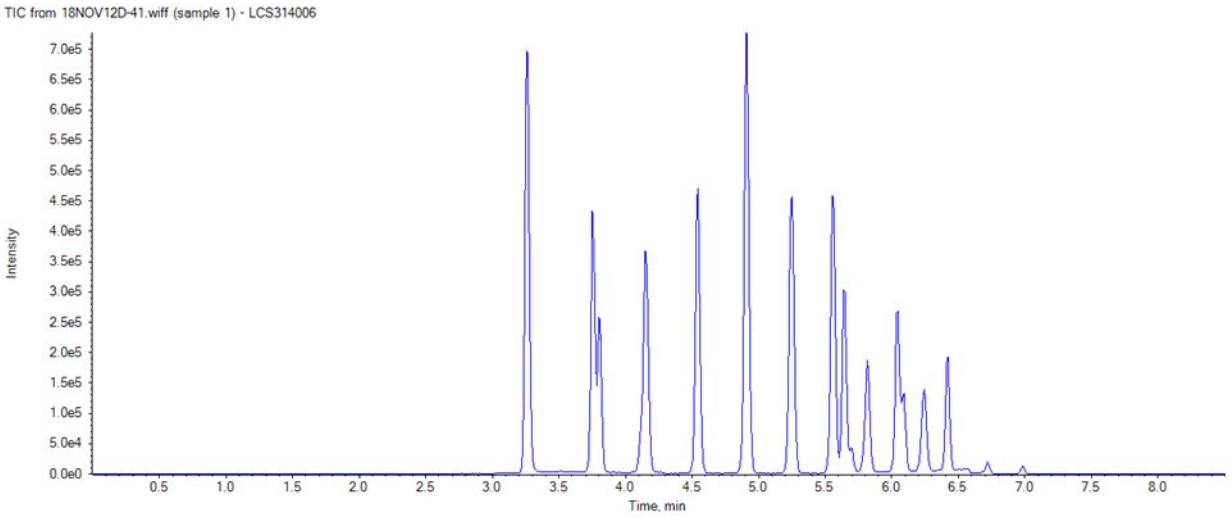
APPROVED
By JPT at 1:25 pm, 11/9/18

REVIEWED
By HMK at 9:20 am, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314006 11/13/2018 8:01:57 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS314006	EPA 537 mod QSM 5.1 table B-15 18314006	18NOV12D-41.wiff	2018-11-12T22:46:42



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	706876.1	659926.2	7	50	
13C2-PFOA	5.00	483545.9	450219.7	7	50	
13C4-PFOS	4.78	262275.4	249205.8	5	50	
13C2-PFDA	5.00	298113.5	278743.9	7	50	

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:01:57 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS314006	EPA 537 mod QSM 5.1 table B-15 18314006	18NOV12D-41.wiff	2018-11-12T22:46:42

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	179929.7	708184.2	0.254	5.440	5.630	103	70-130	
PFPeA	168967.8	716081.1	0.236	5.440	5.464	100	70-130	
PFBS	99212.0	414092.6	0.240	4.812	4.559	95	72-127	
4:2-FTS	58991.6	45111.1	1.308	14.944	14.202	95	70-130	
PFHxA	209595.8	621380.5	0.337	5.440	5.634	104	77-132	
PFPeS	51164.4	414092.6	0.124	5.104	4.798	94	70-130	
PFHpA	208526.1	485736.6	0.429	5.440	5.692	105	75-139	
PFHxS	72480.7	301819.2	0.240	5.144	4.658	91	71-130	
6:2-FTS	47579.1	33888.3	1.404	15.168	13.590	90	70-130	
PFHpS	71132.0	301819.2	0.236	5.176	4.962	96	70-130	
PFOA	209962.6	817159.9	0.257	5.440	5.489	101	76-136	
PFOS	65889.0	248906.0	0.265	5.200	4.630	89	67-134	
PFNA	167593.9	456235.4	0.367	5.440	5.298	97	73-144	
PFNS	40109.3	248906.0	0.161	5.224	4.510	86	70-130	
PFDA	134109.4	568394.2	0.236	5.440	5.003	92	67-141	
8:2-FTS	35879.8	25473.3	1.409	15.328	13.136	86	70-130	
PFOSA	144082.1	557604.3	0.258	5.440	5.048	93	70-130	
NMeFOSAA	14966.5	71282.5	0.210	5.440	4.747	87	67-124	
PFDS	31212.7	248906.0	0.125	5.240	4.545	87	70-130	
PFUnDA	113786.0	221112.8	0.515	5.440	5.381	99	83-132	
NEtFOSAA	13644.6	56588.7	0.241	5.440	5.056	93	60-131	
PFDoDA	116138.3	463160.1	0.251	5.440	5.107	94	72-137	
10:2-FTS	21978.0	25473.3	0.863	15.424	11.495	75	70-130	
NMePFOSAE	59770.8	182355.5	0.328	5.440	5.457	100	70-130	
NMePFOSA	10453.8	41138.5	0.254	5.440	5.014	92	70-130	
PFDoS	16848.0	248906.0	0.068	5.280	4.742	90	70-130	
NEtPFOSAE	57115.2	146773.2	0.389	5.440	4.994	92	70-130	
NEtPFOSA	7599.7	30795.2	0.247	5.440	4.533	83	70-130	
PFTrDA	100743.9	463160.1	0.218	5.440	5.491	101	57-137	
PFTeDA	75418.9	325803.6	0.231	5.440	5.190	95	70-142	
PFHxDA	33841.9	325803.6	0.104	5.440	4.950	91	70-130	
PFODA	26124.9	325803.6	0.080	5.440	4.467	82	70-130	

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM
Result Table: 18314006 11/13/2018 8:01:57 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	LCS314006			**Data File:**		18NOV12D-41.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18314006			**Acquis Date:**		2018-11-12T22:46:42
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	70			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18314006
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV12DCAL
Batch Number:	18314006			**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: 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	706876.1	659926.2	7	50	
13C2-PFOA	5.0	483545.9	450219.7	7	50	
13C4-PFOS	4.8	262275.4	249205.8	5	50	
13C2-PFDA	5.0	298113.5	278743.9	7	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	708184.2	13C3-PFBA	706876.1	1.002	20.000	17.967	90	50-150	
E13C5-PFPeA	716081.1	13C3-PFBA	706876.1	1.013	20.000	18.175	91	50-150	
E13C3-PFBS	414092.6	13C3-PFBA	706876.1	0.586	18.600	16.541	89	50-150	
E13C2-4:2-FTS	45111.1	13C2-PFOA	483545.9	0.093	18.680	16.620	89	50-150	
E13C5-PFHxA	621380.5	13C2-PFOA	483545.9	1.285	20.000	18.568	93	50-150	
E13C3-PFHxS	301819.2	13C2-PFOA	483545.9	0.624	18.920	17.132	91	50-150	
E13C4-PFHpA	485736.6	13C2-PFOA	483545.9	1.005	20.000	18.102	91	50-150	
E13C2-6:2-FTS	33888.3	13C2-PFOA	483545.9	0.070	19.000	18.756	99	50-150	
E13C8-PFOA	817159.9	13C2-PFOA	483545.9	1.690	20.000	18.624	93	50-150	
E13C8-PFOS	248906.0	13C4-PFOS	262275.4	0.949	19.120	16.820	88	50-150	
E13C9-PFNA	456235.4	13C4-PFOS	262275.4	1.740	20.000	19.400	97	50-150	
E13C6-PFDA	568394.2	13C2-PFDA	298113.5	1.907	20.000	17.797	89	50-150	
E13C2-8:2-FTS	25473.3	13C2-PFDA	298113.5	0.085	19.160	17.046	89	50-150	
E13C8-PFOSA	557604.3	13C2-PFDA	298113.5	1.870	20.000	16.587	83	50-150	
Ed3-NMeFOSAA	71282.5	13C2-PFDA	298113.5	0.239	20.000	17.264	86	50-150	
E13C7-PFUnDA	221112.8	13C2-PFDA	298113.5	0.742	20.000	17.225	86	50-150	
Ed5-NEtFOSAA	56588.7	13C2-PFDA	298113.5	0.190	20.000	16.064	80	50-150	
E13C2-PFDoDA	463160.1	13C2-PFDA	298113.5	1.554	20.000	16.135	81	50-150	
Ed7-NMePFOSAE	182355.5	13C2-PFDA	298113.5	0.612	20.000	10.588	53	50-150	
Ed3-NMePFOSA	41138.5	13C2-PFDA	298113.5	0.138	20.000	10.029	50	50-150	
Ed9-NEtPFOSAE	146773.2	13C2-PFDA	298113.5	0.492	20.000	10.243	51	50-150	
Ed5-NEtPFOSA	30795.2	13C2-PFDA	298113.5	0.103	20.000	9.693	48	50-150	OOS
E13C2-PFTeDA	325803.6	13C2-PFDA	298113.5	1.093	20.000	15.347	77	50-150	

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

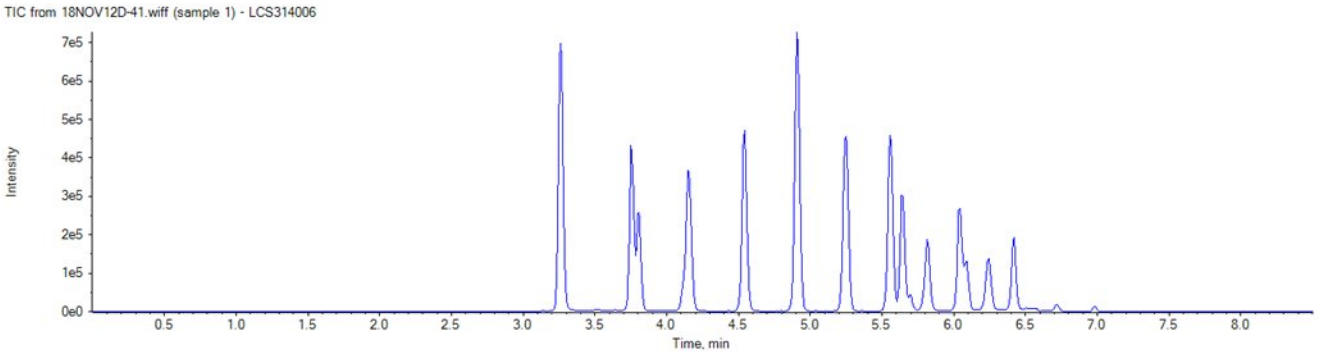
Analyte Quantitation Peak Table

Sample Name: LCS314006 **Instrument Name:** LM27631 **File Name:** 18NOV12D-41.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	179929.7		A	13C4-PFBA	3.26	708184.2	0.254	5.630
PFPeA	3.76	1.000	168967.8		A	13C5-PFPeA	3.76	716081.1	0.236	5.464
PFBS	3.81	1.000	99212.0		A	13C3-PFBS	3.81	414092.6	0.240	4.559
4:2-FTS	4.12	1.000	58991.6		A	13C2-4:2-FTS	4.12	45111.1	1.308	14.202
PFHxA	4.15	1.000	209595.8		A	13C5-PFHxA	4.15	621380.5	0.337	5.634
PFPeS	4.17	1.100	51164.4		A	13C3-PFBS	3.81	414092.6	0.124	4.798
PFHpA	4.54	1.000	208526.1		A	13C4-PFHpA	4.54	485736.6	0.429	5.692
PFHxS	4.54	1.000	72480.7		A	13C3-PFHxS	4.54	301819.2	0.240	4.658
6:2-FTS	4.90	1.000	47579.1		A	13C2-6:2-FTS	4.90	33888.3	1.404	13.590
PFHpS	4.90	1.080	71132.0		A	13C3-PFHxS	4.54	301819.2	0.236	4.962
PFOA	4.91	1.000	209962.6		A	13C8-PFOA	4.91	817159.9	0.257	5.489
PFOS	5.24	1.000	65889.0		M	13C8-PFOS	5.24	248906.0	0.265	4.630
PFNA	5.26	1.000	167593.9		A	13C9-PFNA	5.26	456235.4	0.367	5.298
PFNS	5.54	1.060	40109.3		A	13C8-PFOS	5.24	248906.0	0.161	4.510
PFDA	5.56	1.000	134109.4		A	13C6-PFDA	5.56	568394.2	0.236	5.003
8:2-FTS	5.56	1.000	35879.8		A	13C2-8:2-FTS	5.56	25473.3	1.409	13.136
PFOSA	5.64	1.000	144082.1		A	13C8-PFOSA	5.64	557604.3	0.258	5.048
NMeFOSAA	5.70	1.000	14966.5		A	d3-NMeFOSAA	5.70	71282.5	0.210	4.747
PFDS	5.79	1.110	31212.7		A	13C8-PFOS	5.24	248906.0	0.125	4.545
PFUnDA	5.82	1.000	113786.0		A	13C7-PFUnDA	5.82	221112.8	0.515	5.381
NEtFOSAA	5.83	1.000	13644.6		A	d5-NEtFOSAA	5.83	56588.7	0.241	5.056
PFDoDA	6.04	1.000	116138.3		A	13C2-PFDoDA	6.04	463160.1	0.251	5.107
10:2-FTS	6.06	1.090	21978.0		A	13C2-8:2-FTS	5.56	25473.3	0.863	11.495
NMePFOSAE	6.09	1.000	59770.8		A	d7-NMePFOSAE	6.08	182355.5	0.328	5.457
NMePFOSA	6.10	1.000	10453.8		M	d3-NMePFOSA	6.10	41138.5	0.254	5.014
PFDoS	6.21	1.190	16848.0		M	13C8-PFOS	5.24	248906.0	0.068	4.742
NEtPFOSAE	6.25	1.000	57115.2		A	d9-NEtPFOSAE	6.24	146773.2	0.389	4.994
NEtPFOSA	6.26	1.000	7599.7		A	d5-NEtPFOSA	6.26	30795.2	0.247	4.533
PFTrDA	6.24	1.030	100743.9		A	13C2-PFDoDA	6.04	463160.1	0.218	5.491
PFTeDA	6.42	1.000	75418.9		A	13C2-PFTeDA	6.42	325803.6	0.231	5.190
PFHxDA	6.72	1.050	33841.9		A	13C2-PFTeDA	6.42	325803.6	0.104	4.950
PFODA	6.98	1.090	26124.9		A	13C2-PFTeDA	6.42	325803.6	0.080	4.467

Total Ion Chromatogram

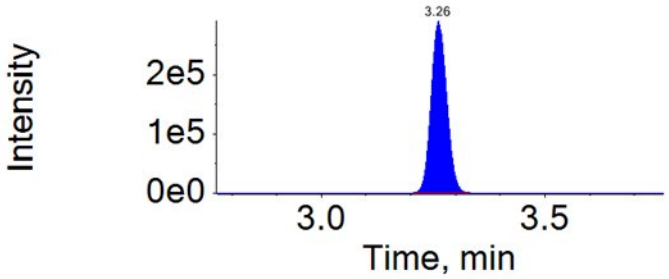


APPROVED
By MCD at 8:21 pm, 11/13/18

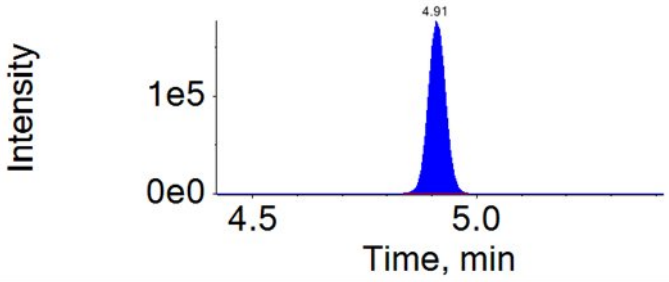
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

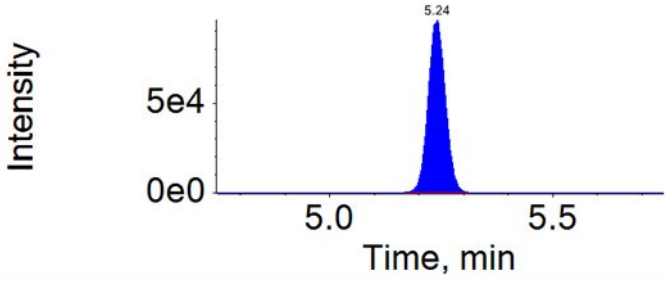
Injection Standard: 13C3-PFBA
216.0 / 172.0



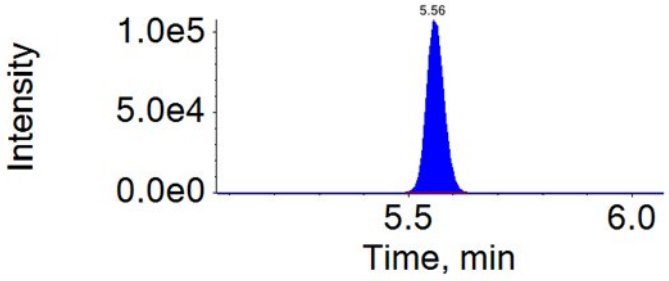
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

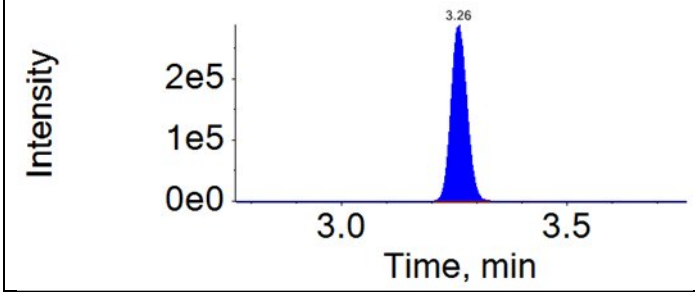


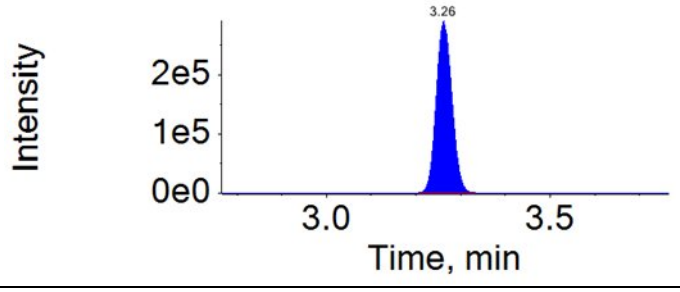
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

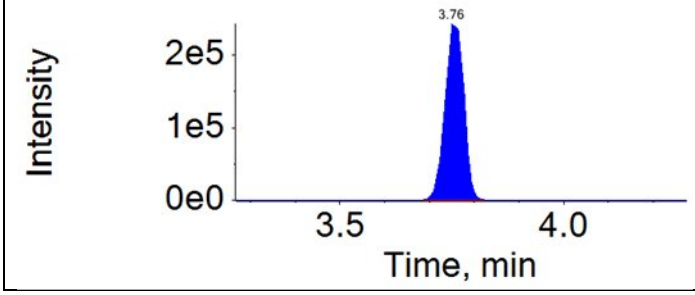
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

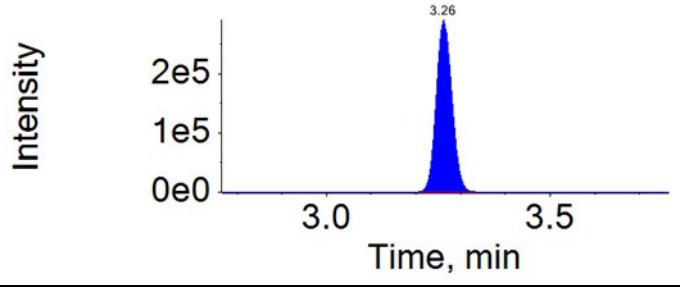
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



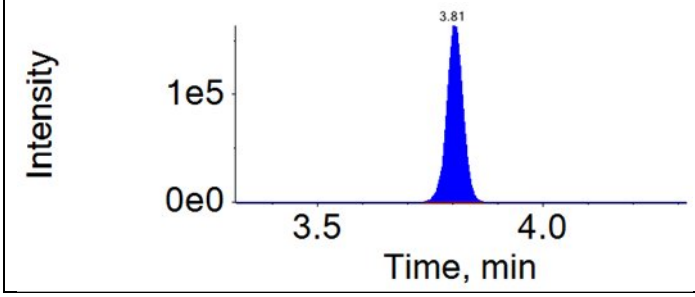


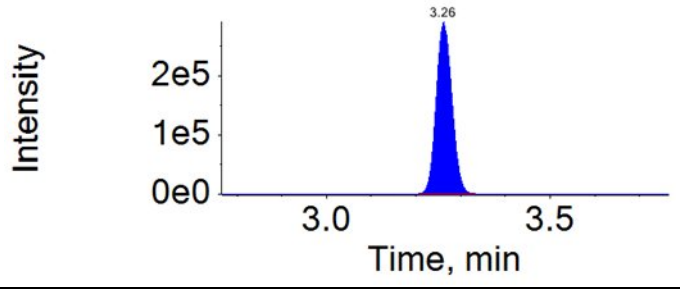
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



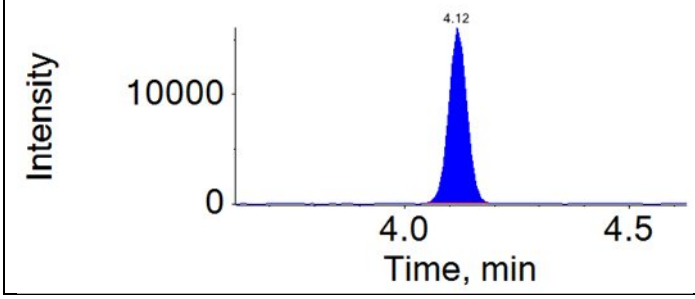


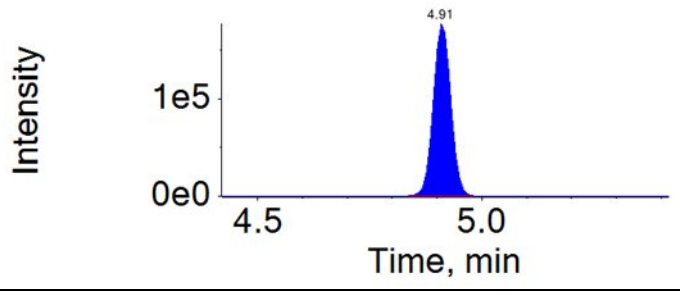
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



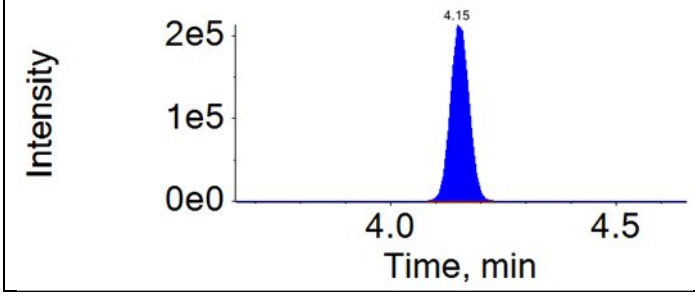


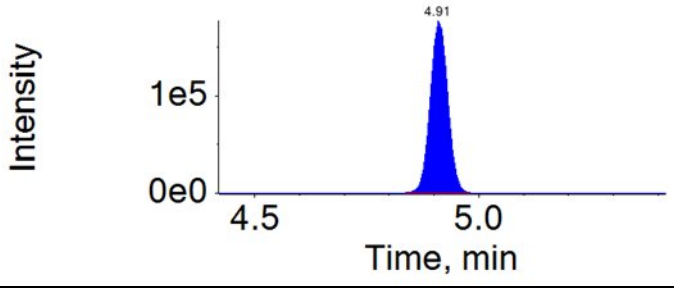
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

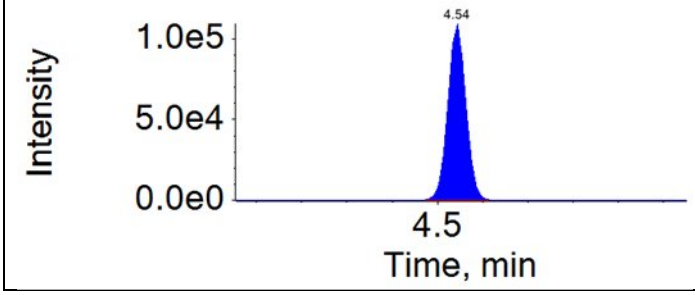
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

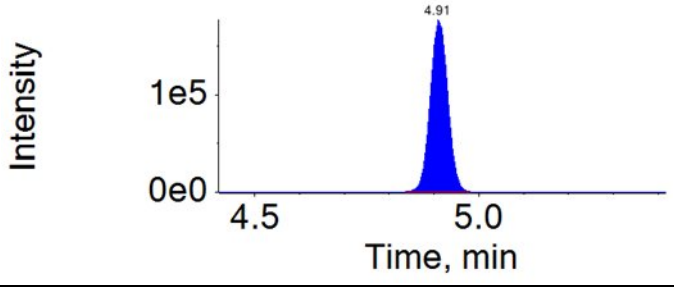
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



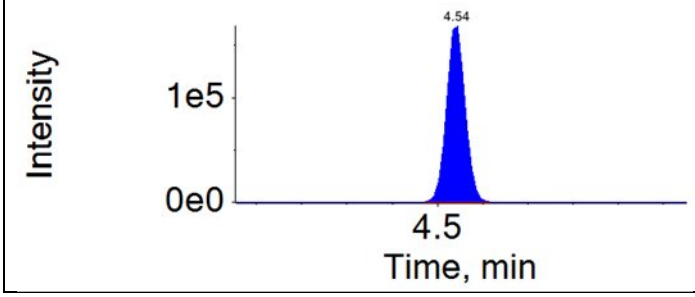


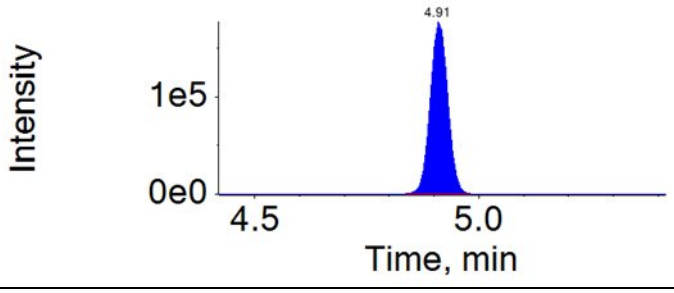
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



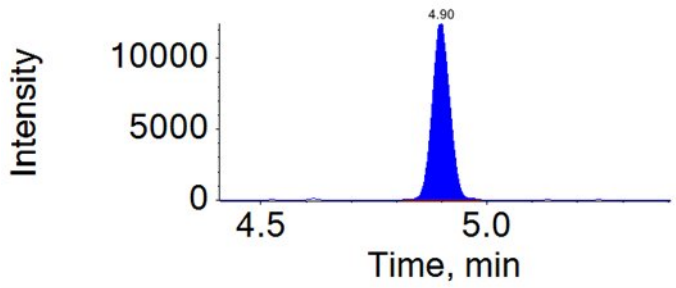


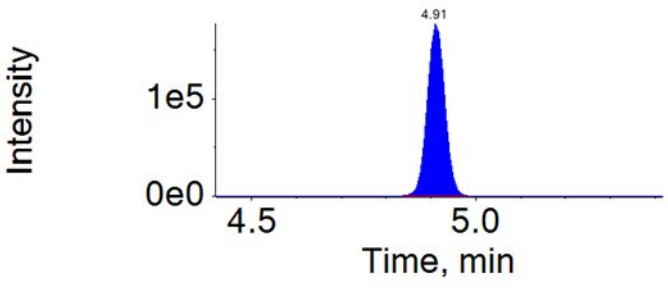
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

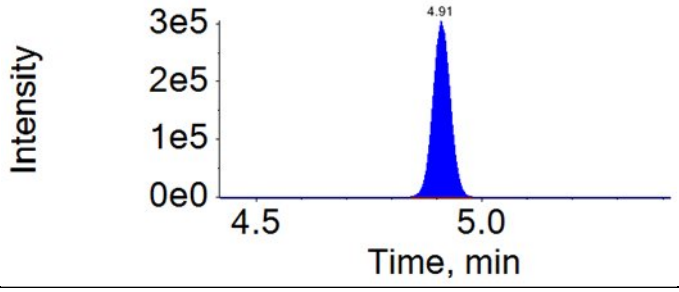
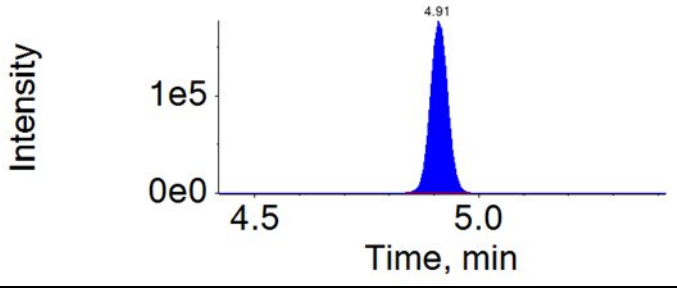


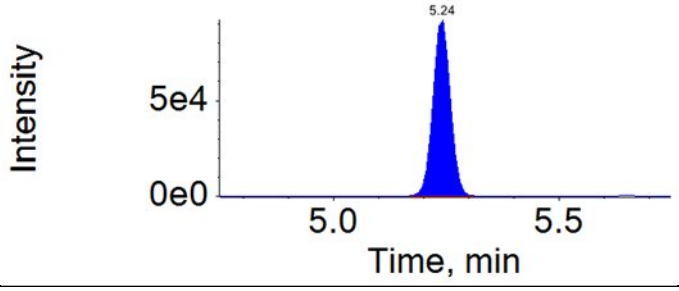
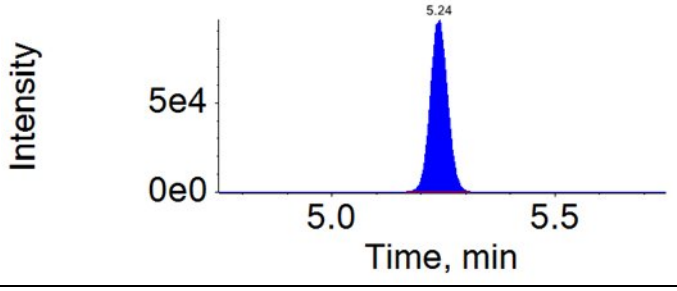


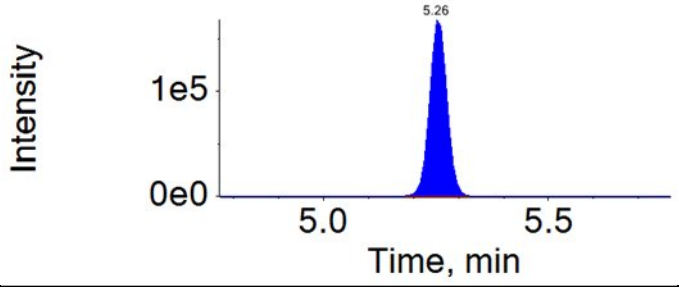
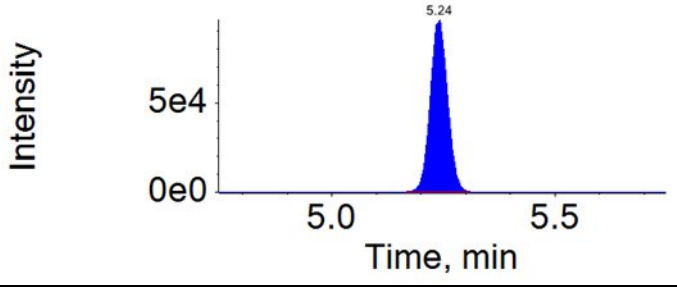
APPROVED
By MCD at 8:21 pm, 11/13/18

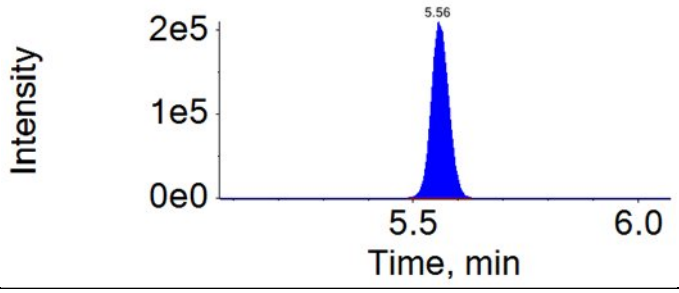
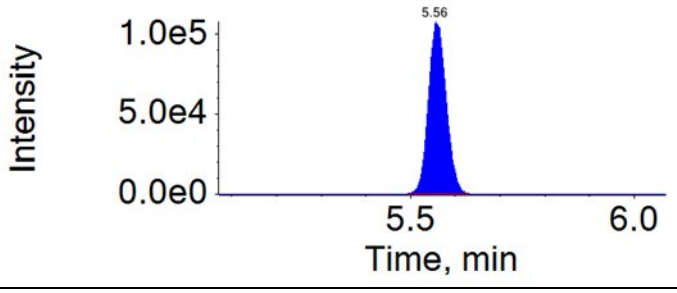
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

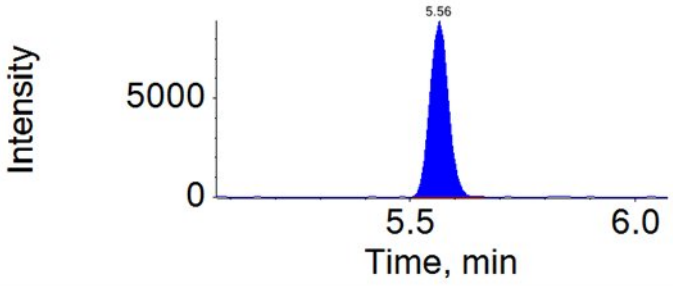
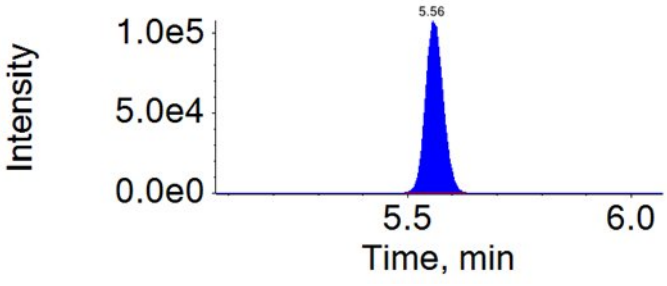
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

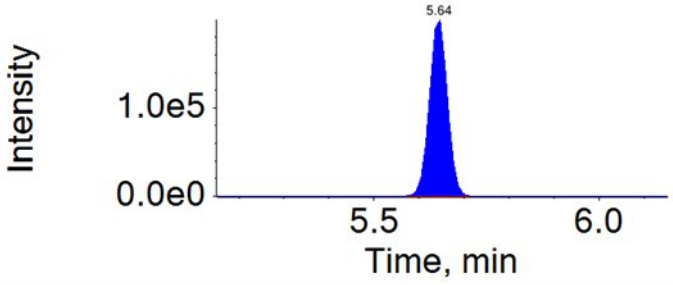
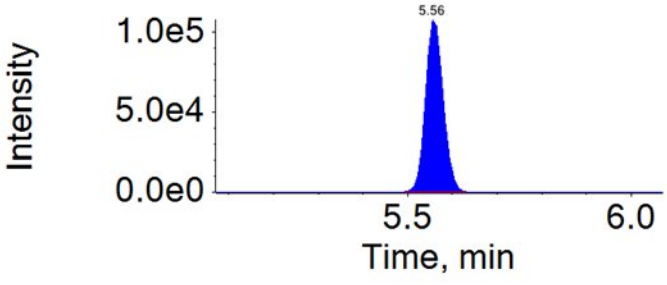
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

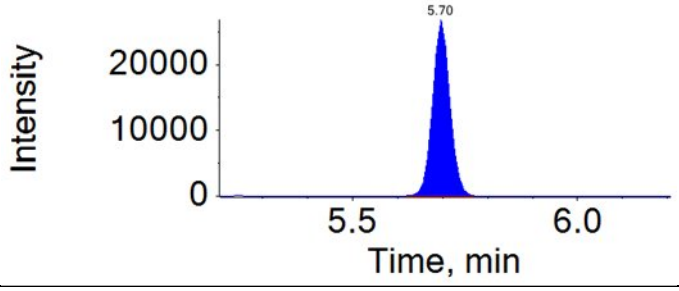
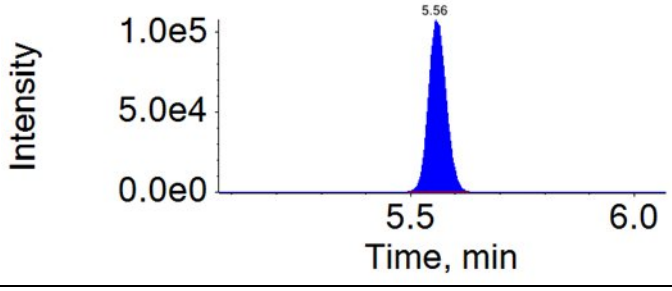
APPROVED
By MCD at 8:21 pm, 11/13/18

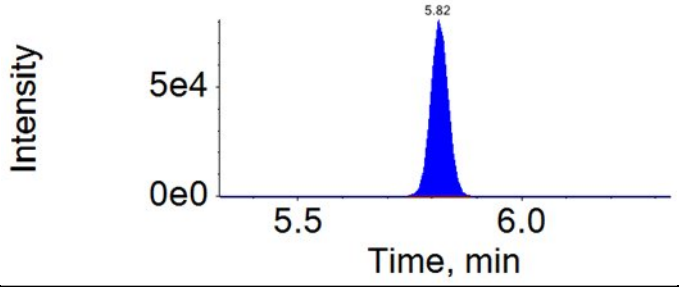
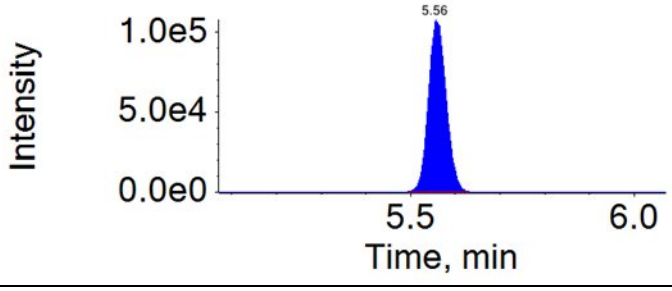
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

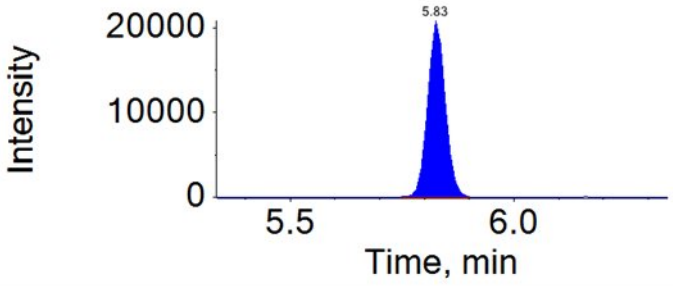
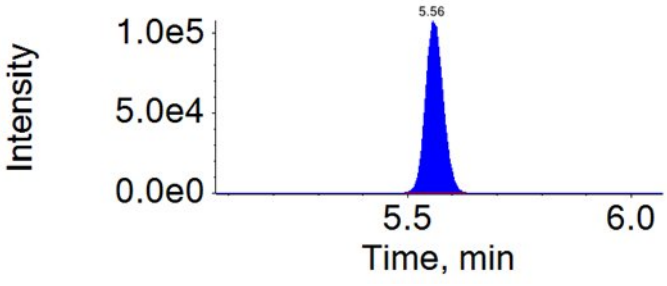
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

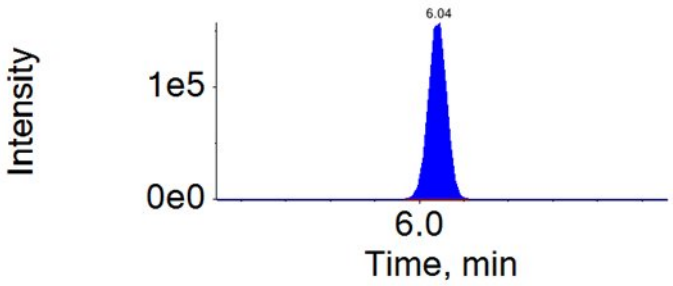
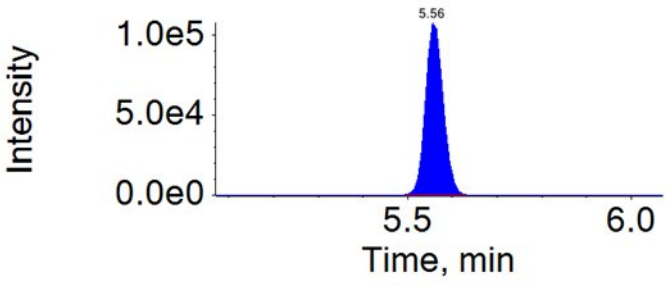
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

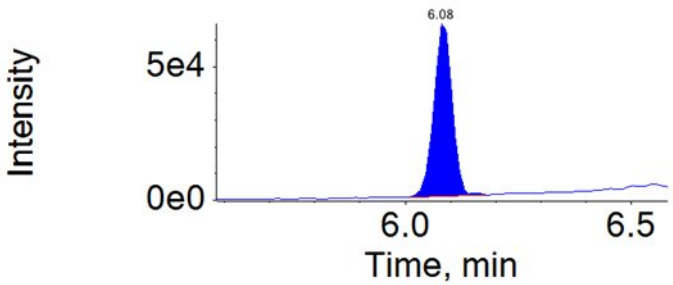
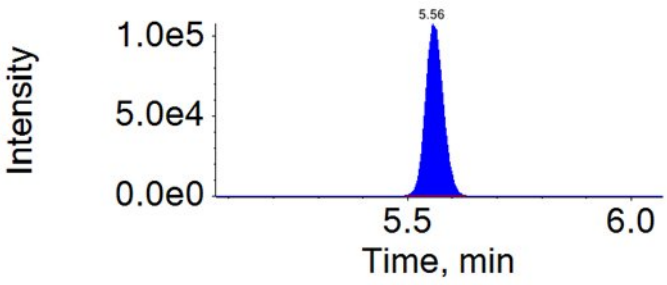
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

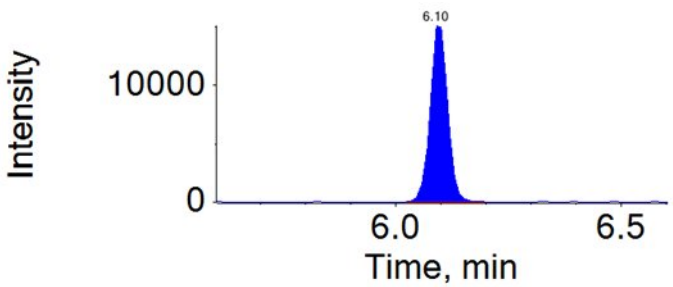
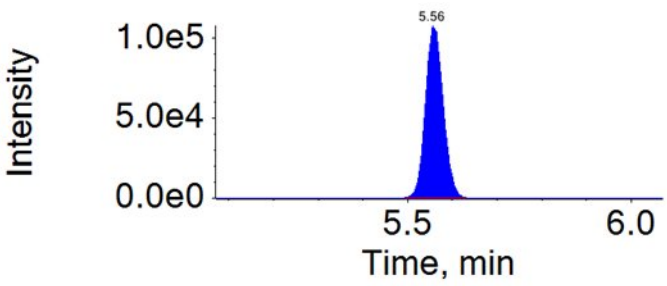
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

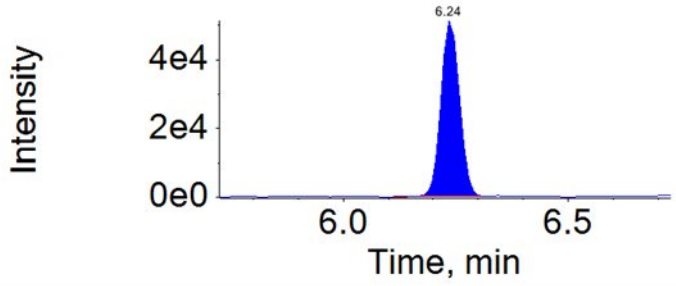
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

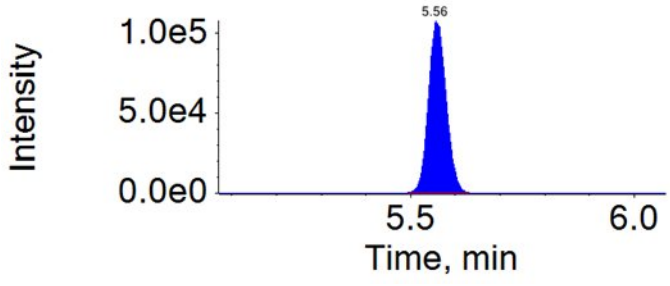
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

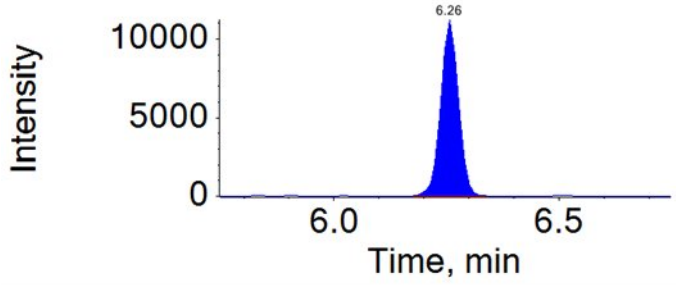
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

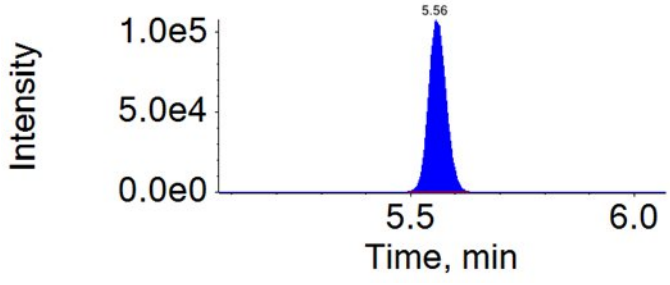
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



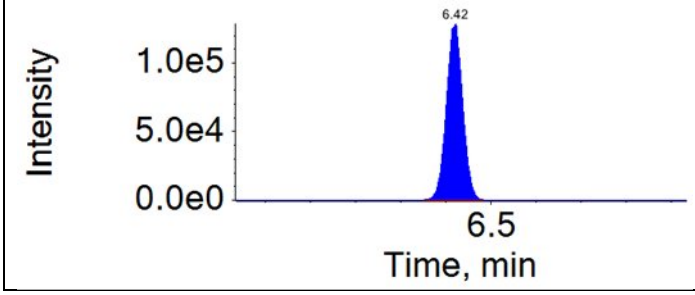


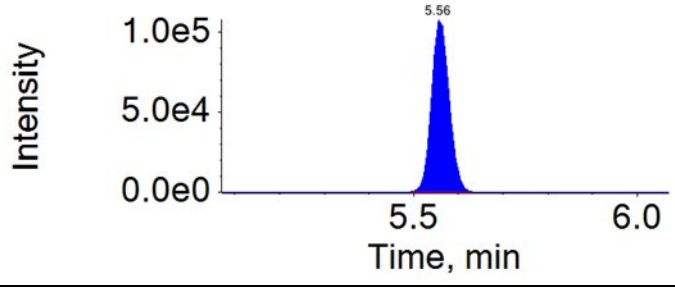
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

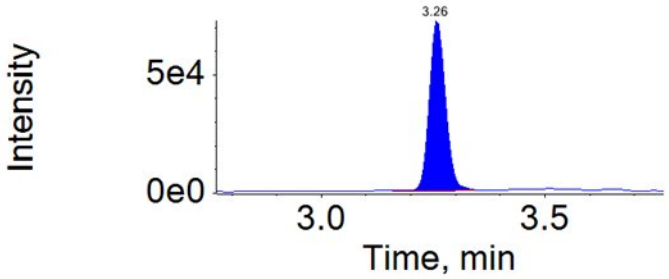
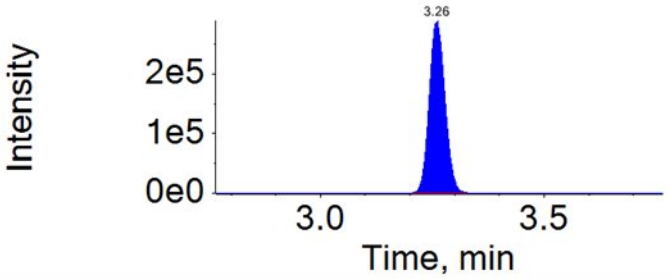


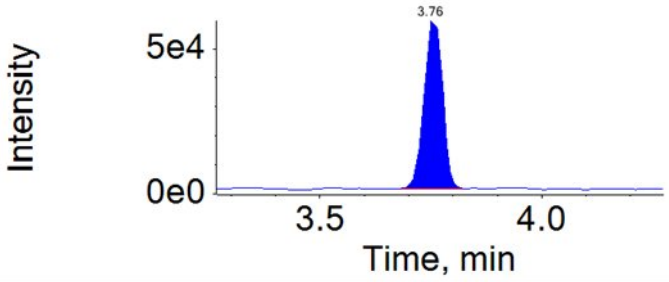
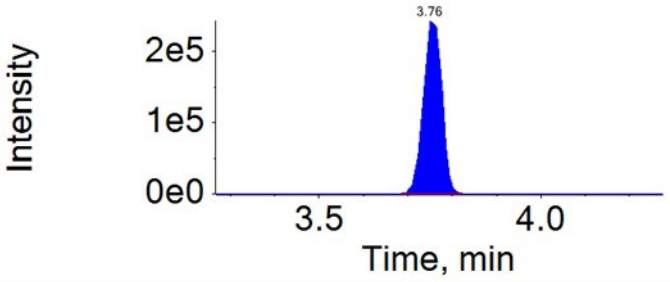


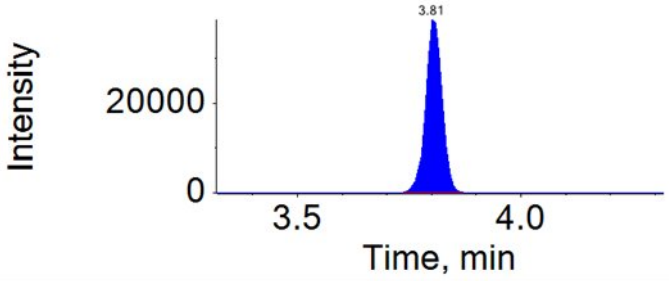
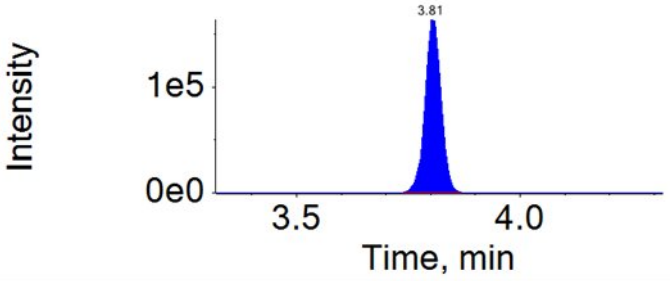
APPROVED
By MCD at 8:21 pm, 11/13/18

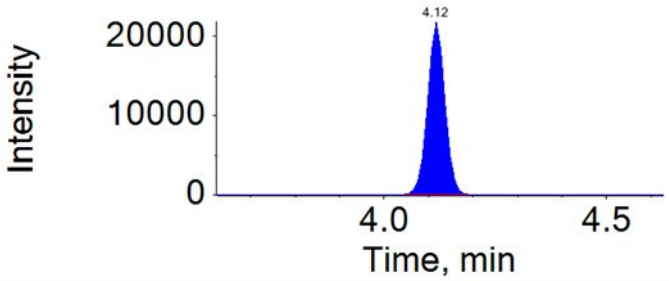
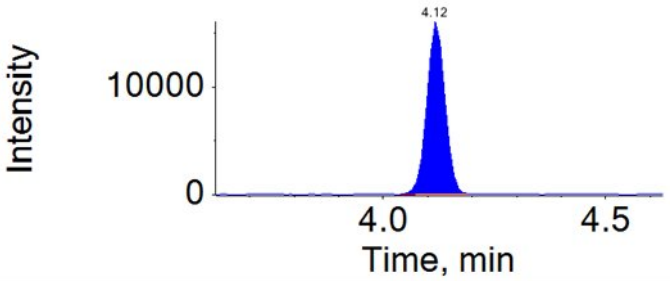
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

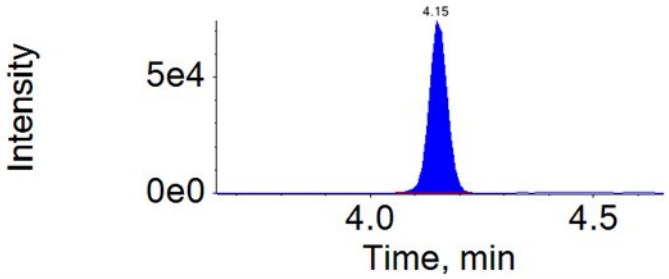
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

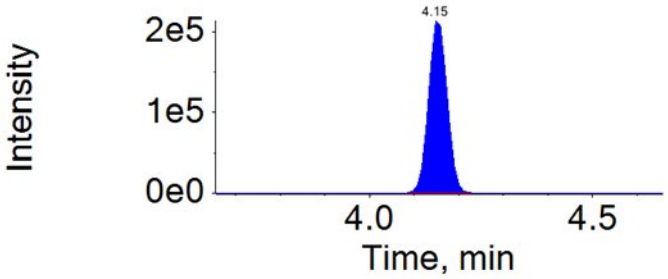
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

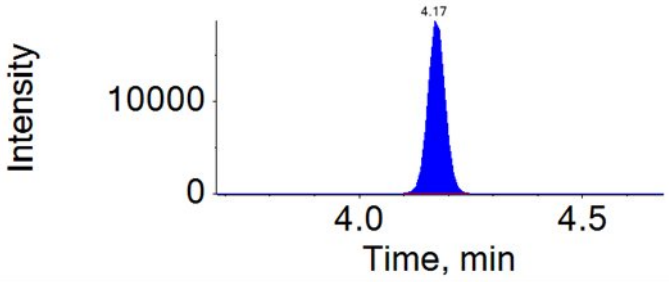
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

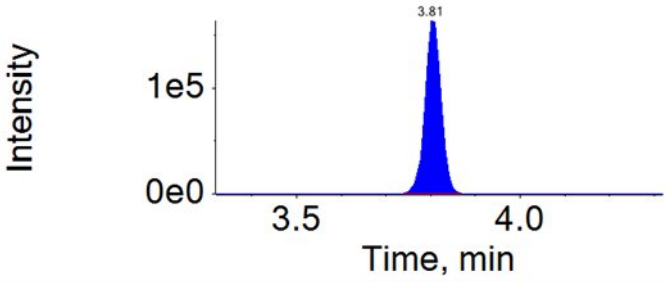
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



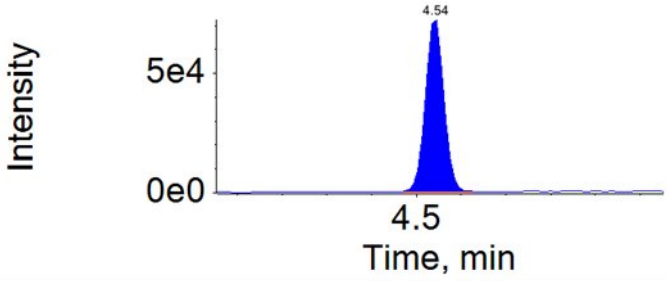


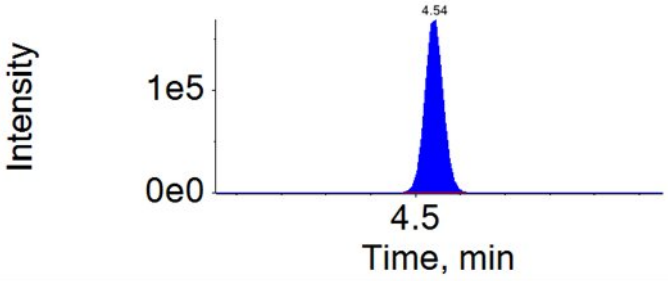
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



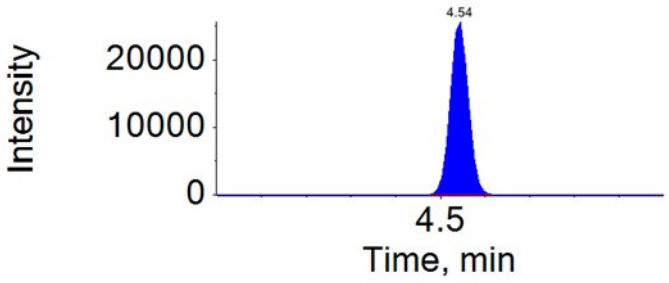


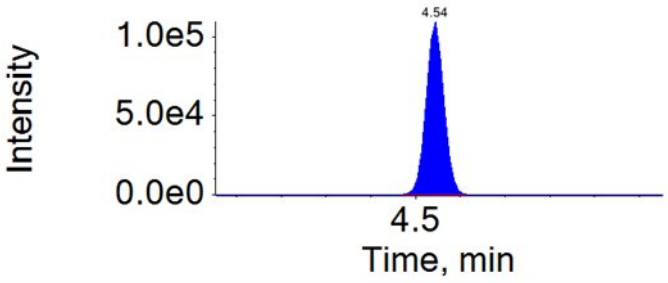
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

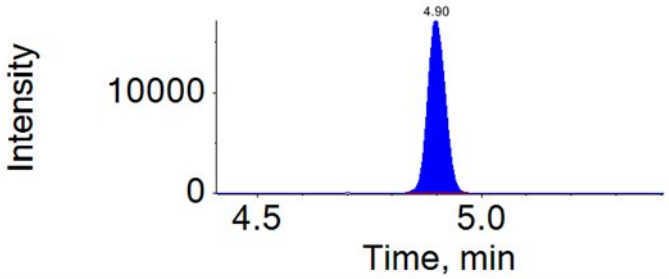
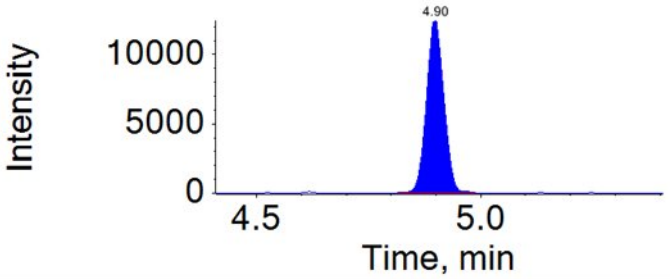


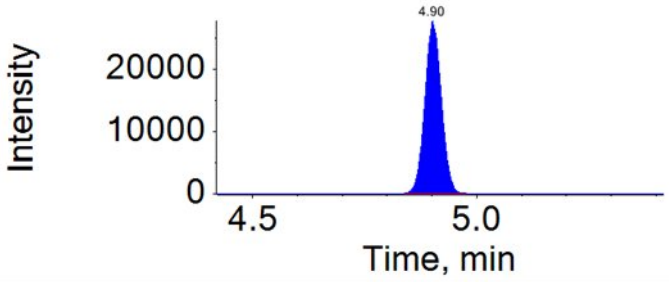
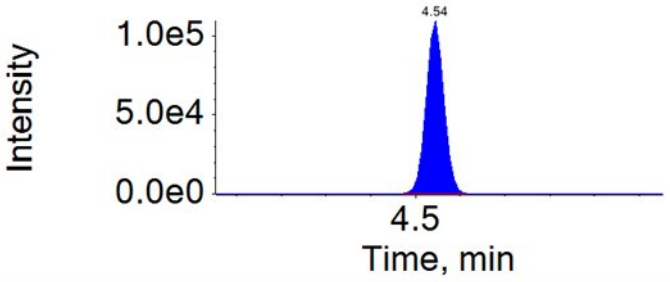


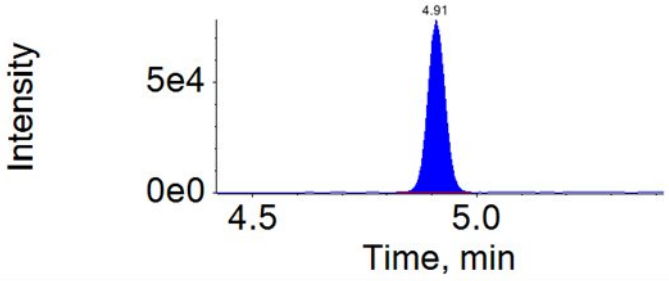
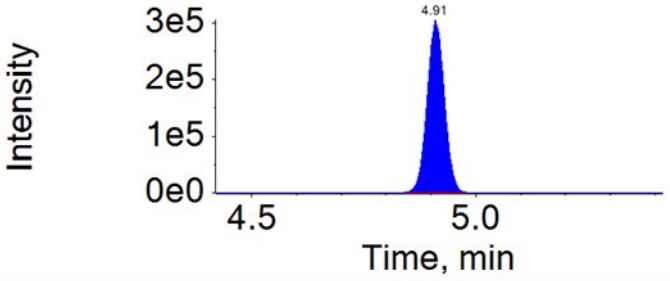
APPROVED
By MCD at 8:21 pm, 11/13/18

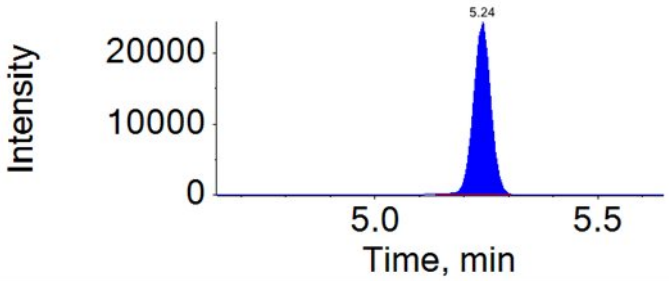
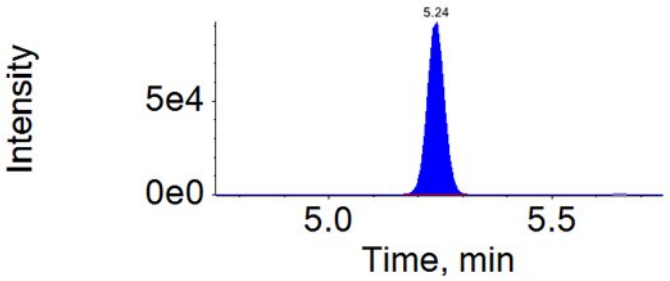
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

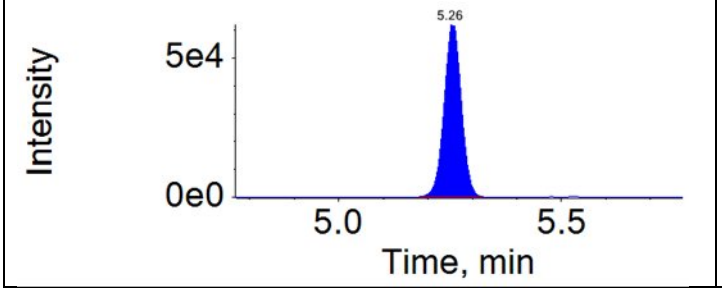
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

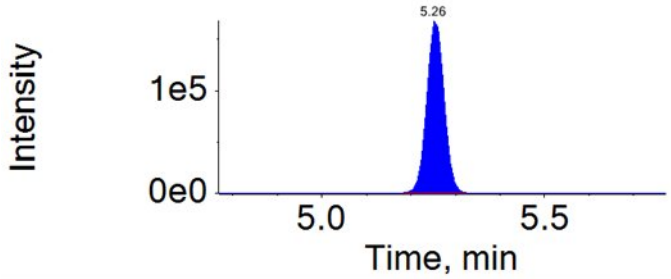
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

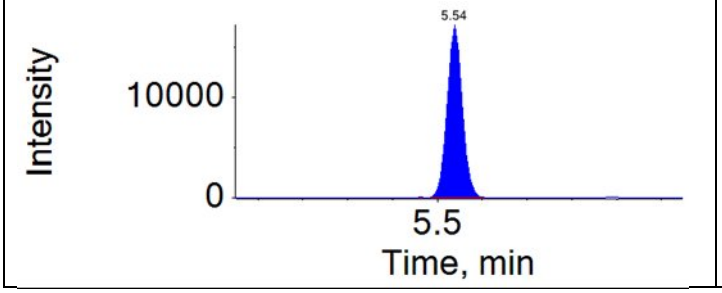
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

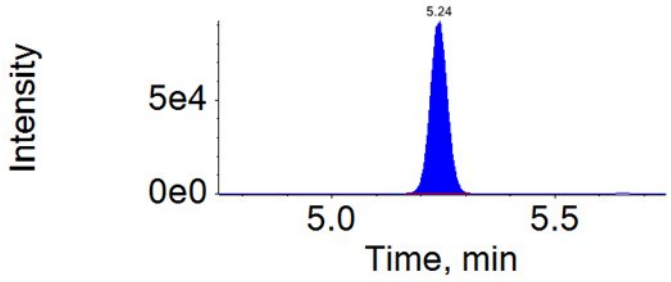
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



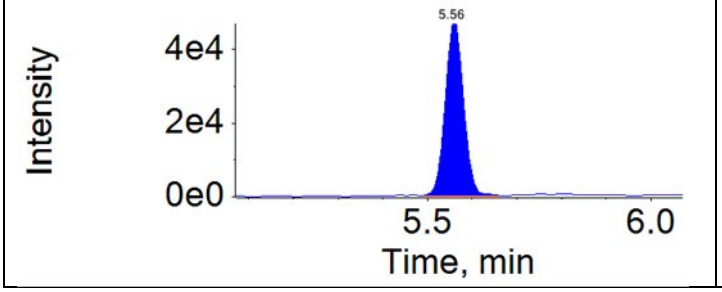


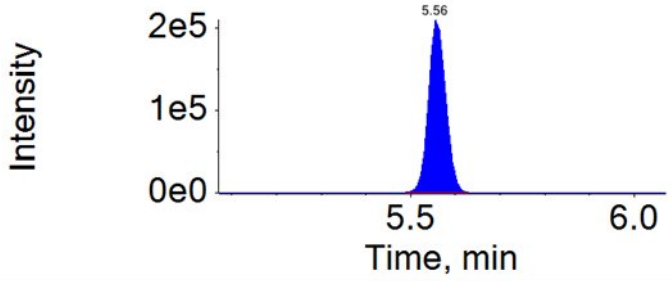
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



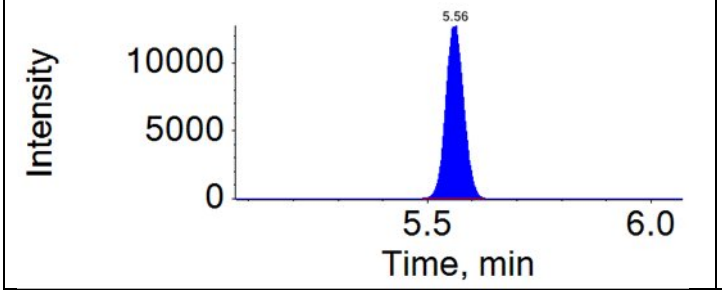


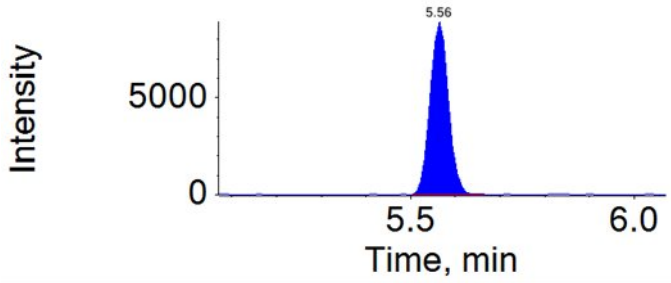
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

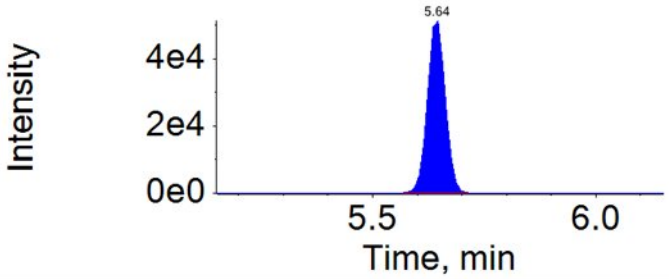
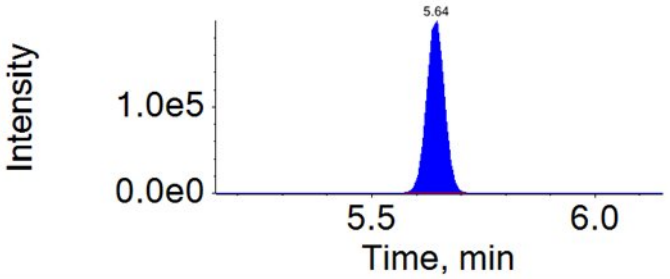


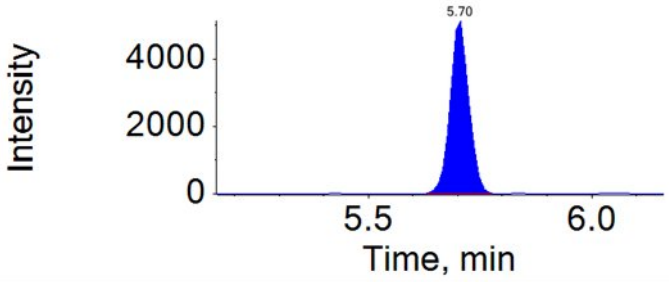
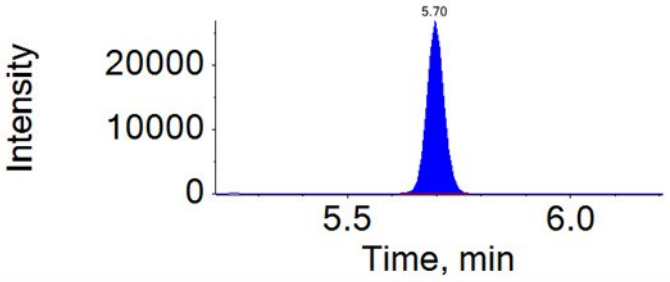


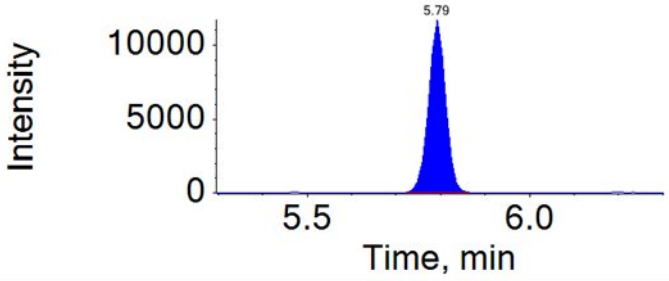
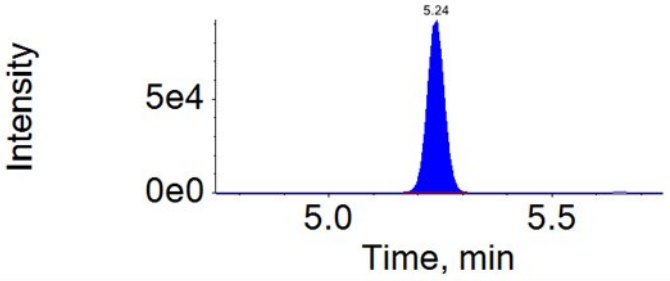
APPROVED
By MCD at 8:21 pm, 11/13/18

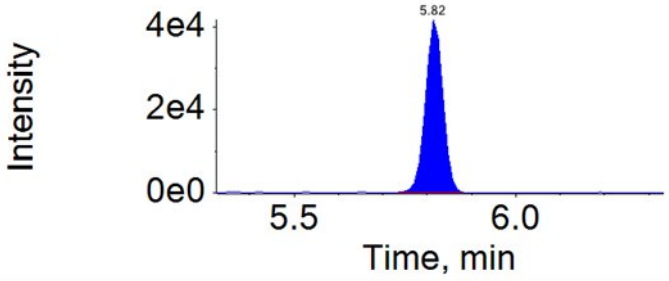
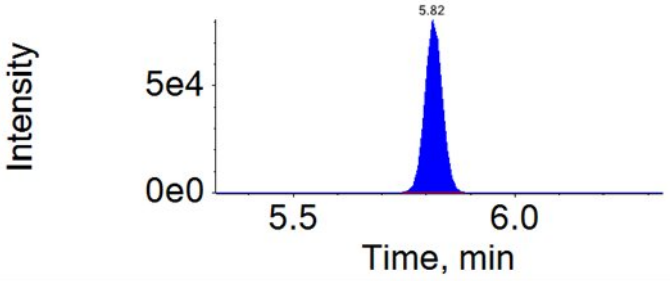
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

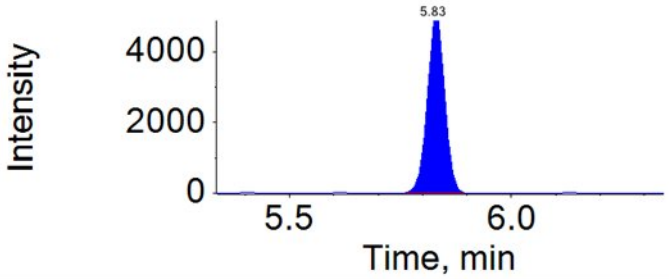
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

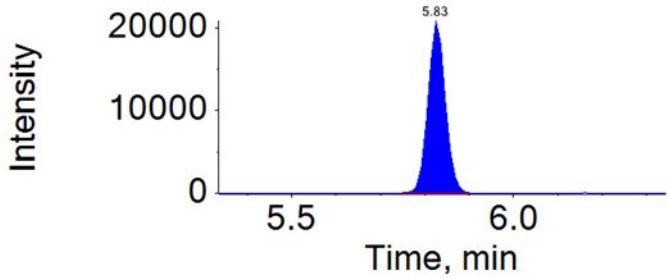
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

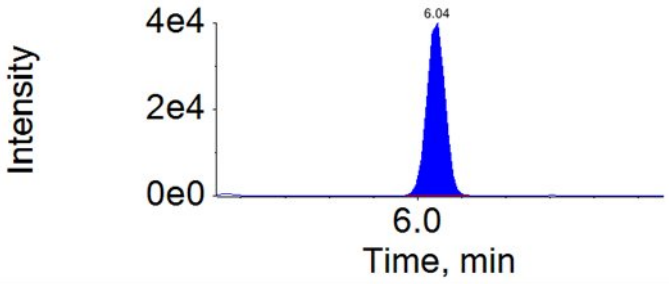
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

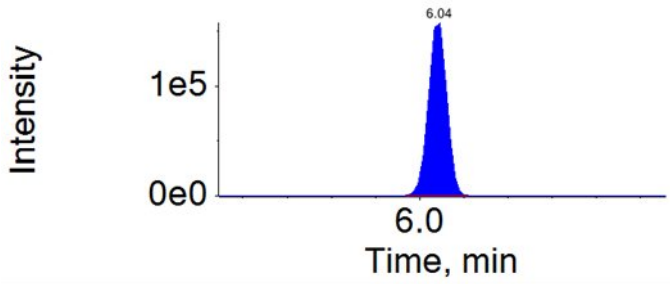
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



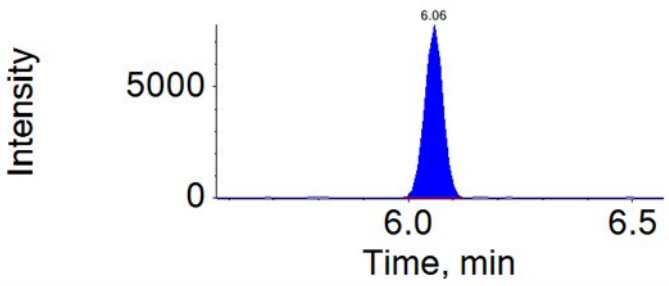


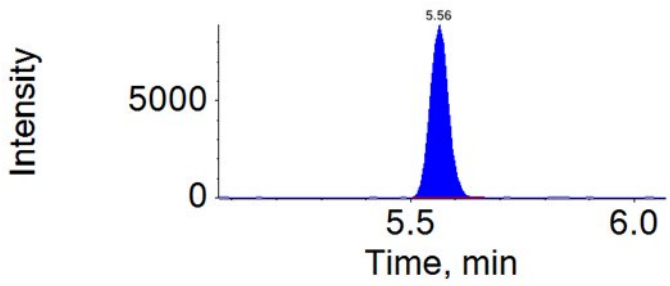
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



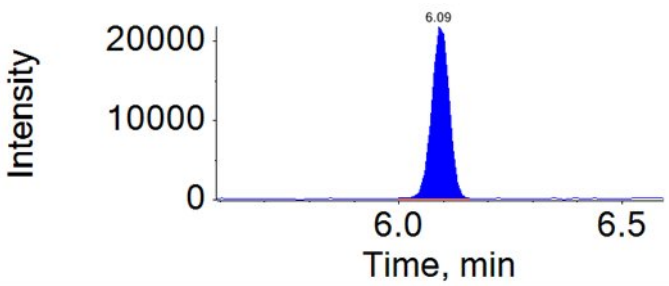


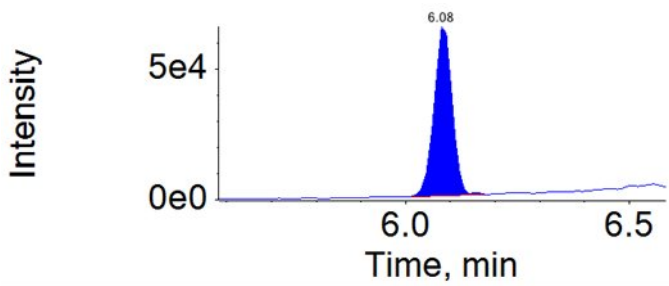
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



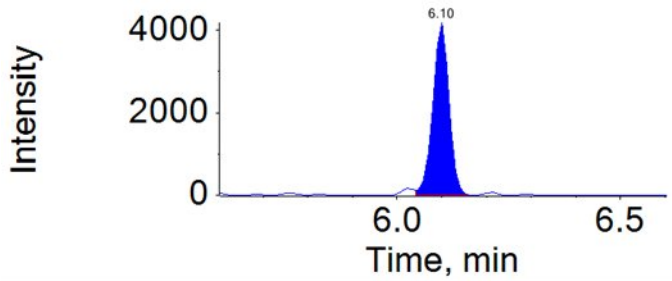


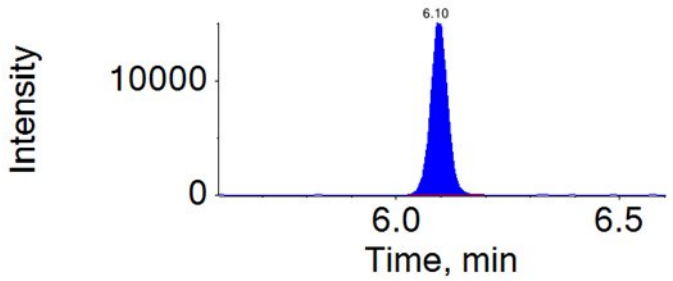
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

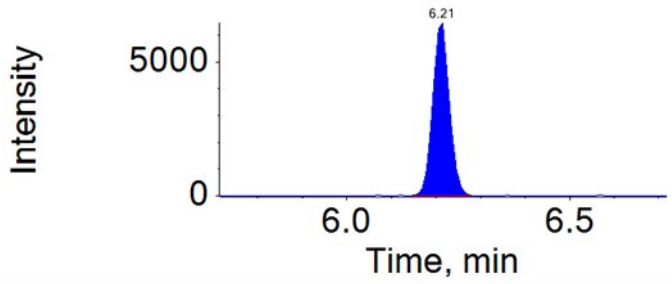
ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

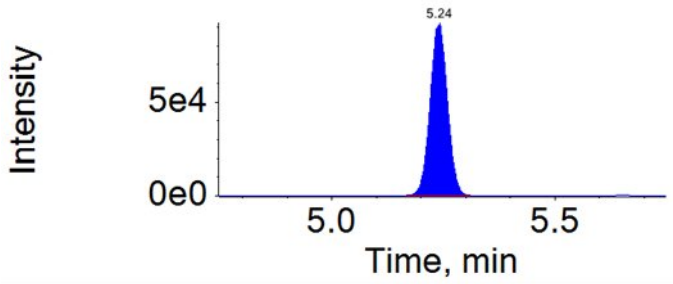
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



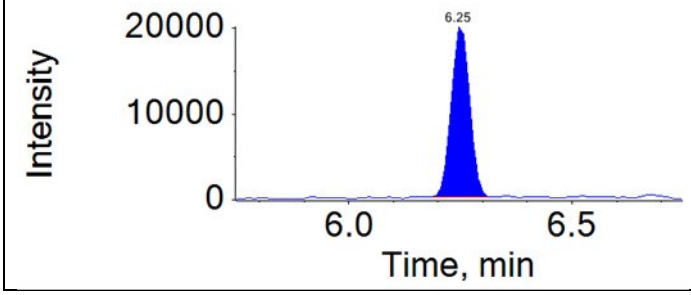


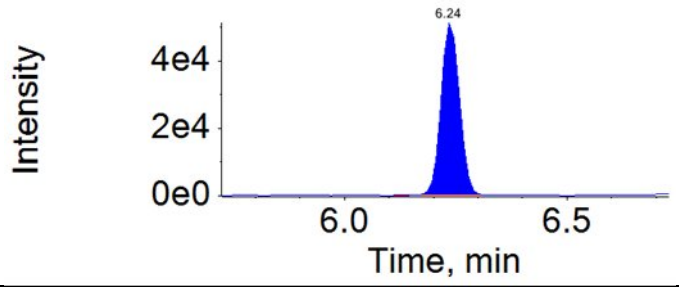
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



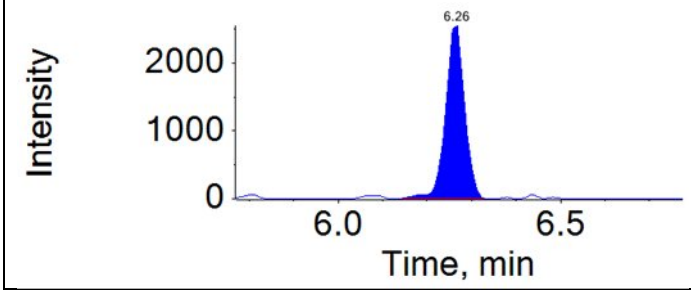


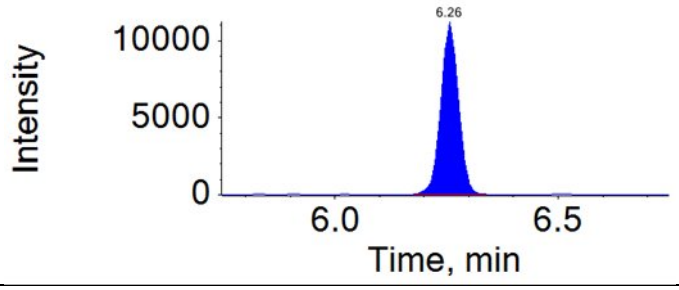
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

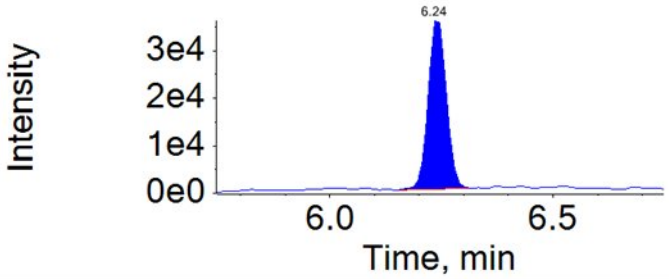
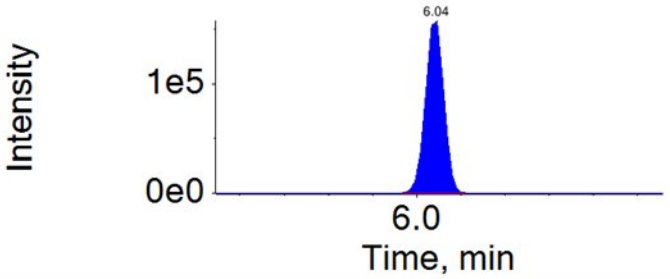


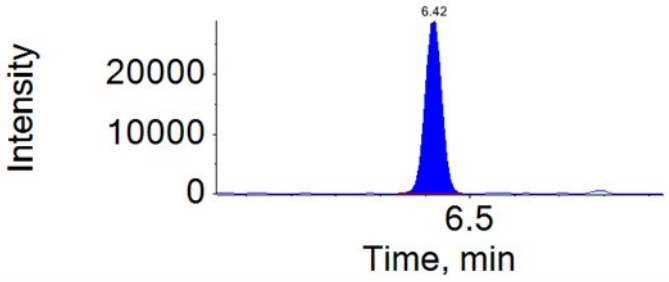
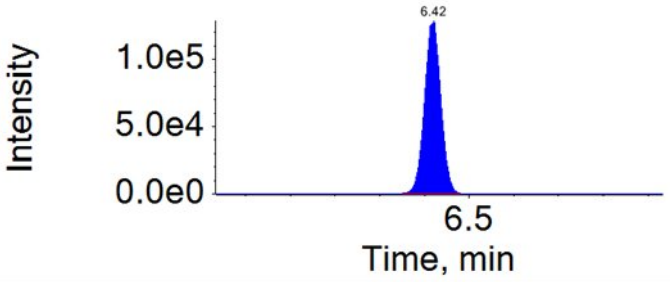


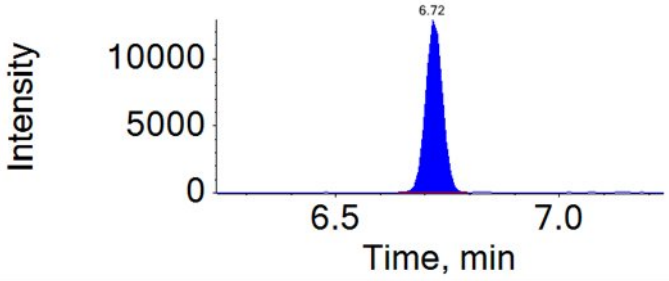
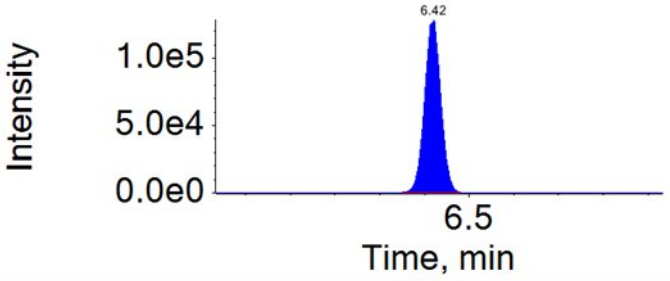
APPROVED
By MCD at 8:21 pm, 11/13/18

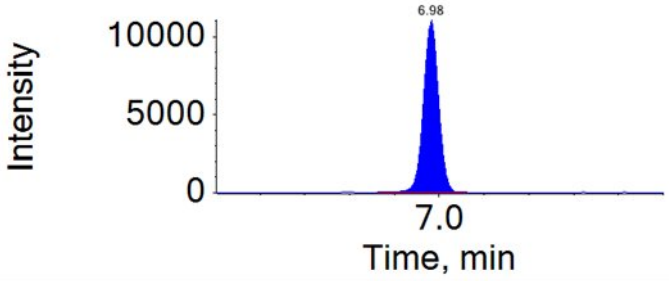
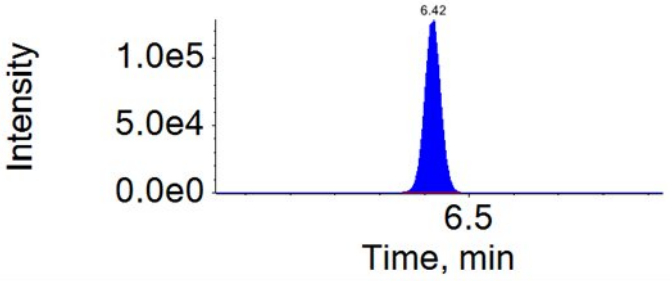
REVIEWED
By umar at 2:04 pm, 11/15/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314006 11/13/2018 8:06:19 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
	

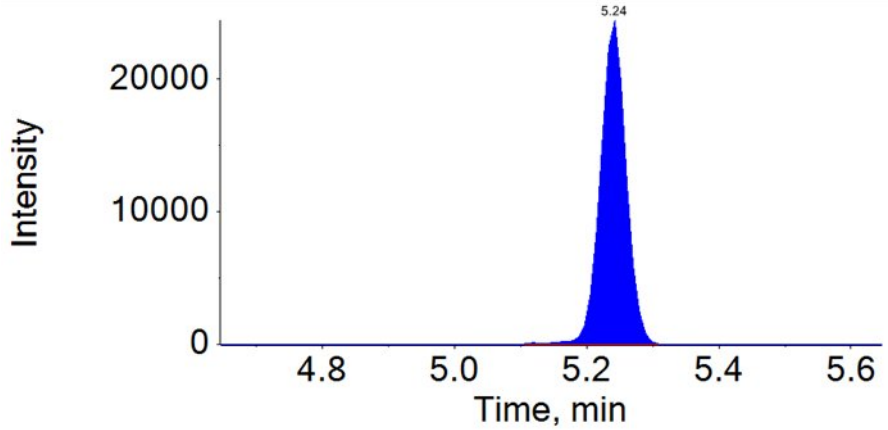
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

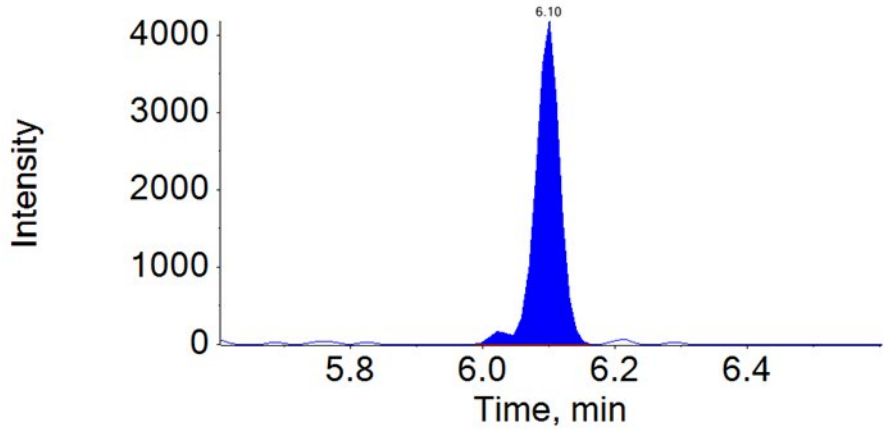
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

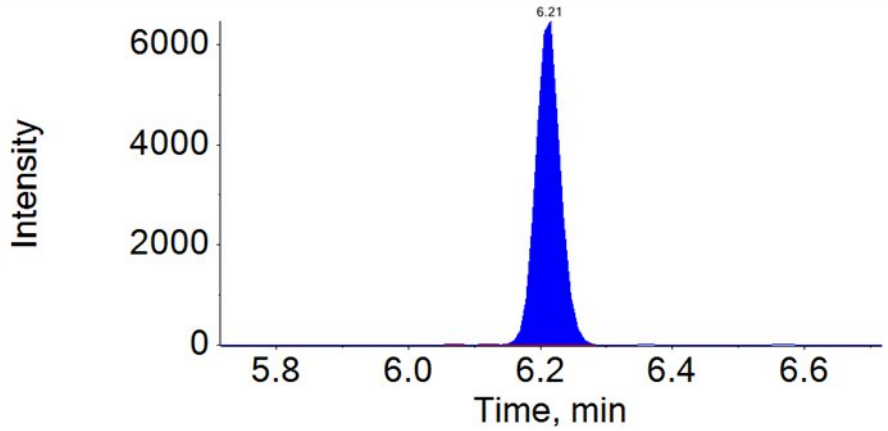
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

Results Table Name: 18314006
Results Table Date: 11/13/2018 8:06:19 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 66117.02 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV12D-41.wiff **Sample Name:** LCS314006	 **Integration Comment:** incorrect integration

Component Name: NMePFOSA **RT (min.):** 6.10 **Peak Area:** 10779.60 **Mass Range:** 512.0 / 169.0 **File Name:** 18NOV12D-41.wiff **Sample Name:** LCS314006	 **Integration Comment:** incorrect integration

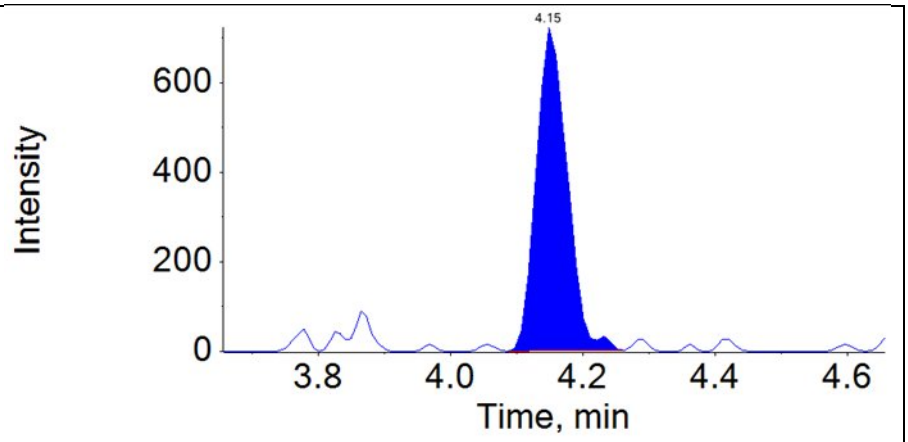
Component Name: PFDoS **RT (min.):** 6.21 **Peak Area:** 16930.10 **Mass Range:** 699.0 / 80.0 **File Name:** 18NOV12D-41.wiff **Sample Name:** LCS314006	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

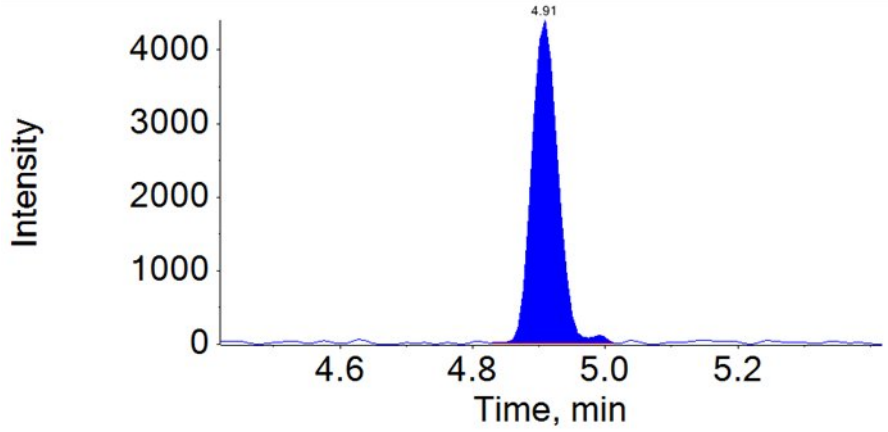
Results Table Name: 18314006
Results Table Date: 11/13/2018 8:06:19 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxA_2
RT (min.):
4.15
Peak Area:
2359.78
Mass Range:
313.0 / 119.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



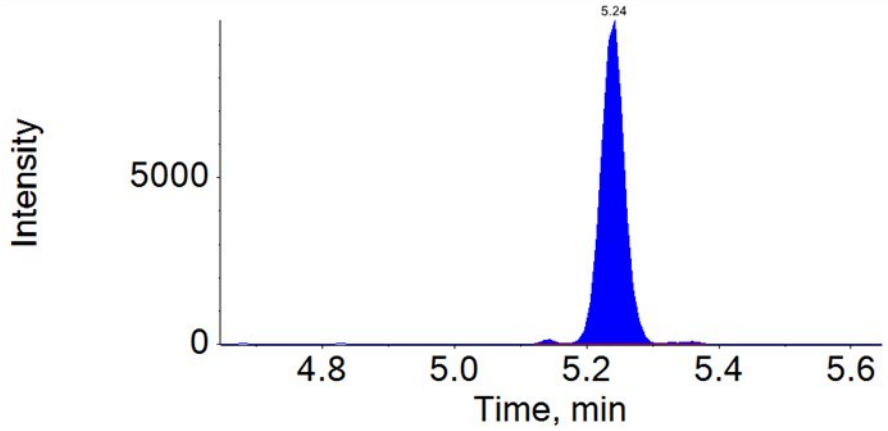
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
12074.80
Mass Range:
413.0 / 169.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
24606.95
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



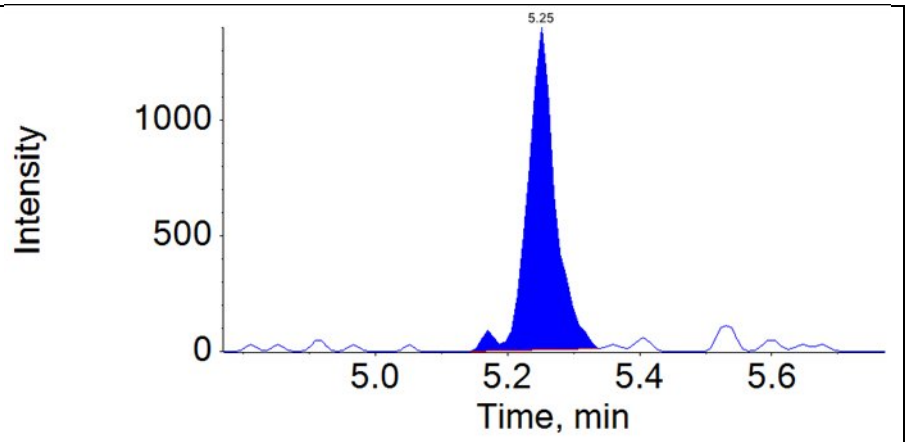
Integration Comment: incorrect integration

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

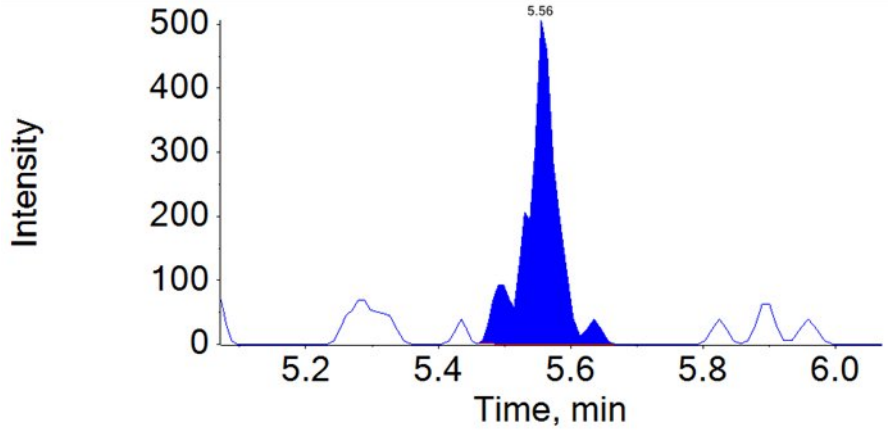
Results Table Name: 18314006
Results Table Date: 11/13/2018 8:06:19 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFNA_2
RT (min.):
5.25
Peak Area:
4073.92
Mass Range:
463.0 / 169.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



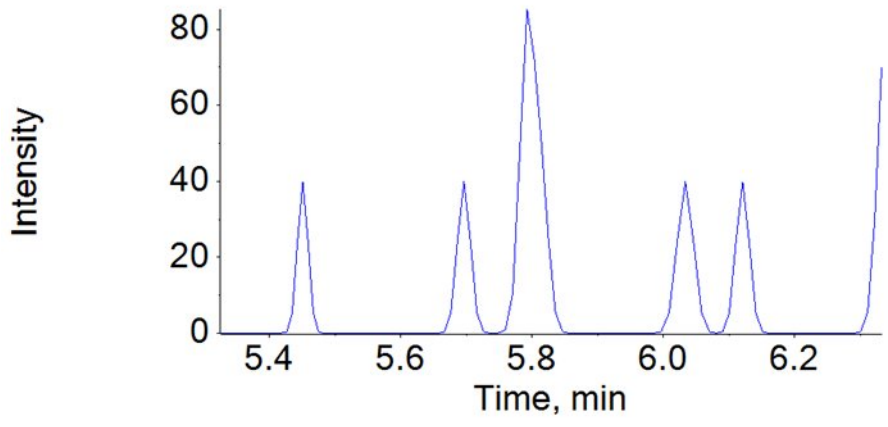
Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
5.56
Peak Area:
1564.49
Mass Range:
513.0 / 169.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



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-41.wiff
Sample Name:
LCS314006



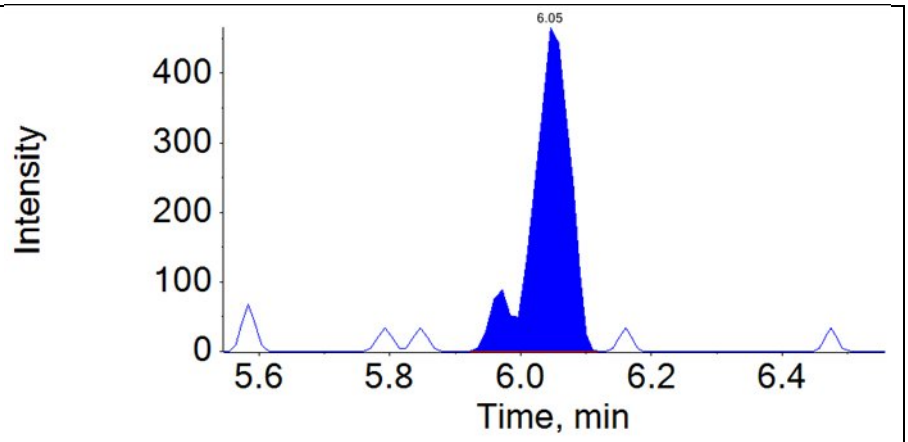
Integration Comment: incorrect integration

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

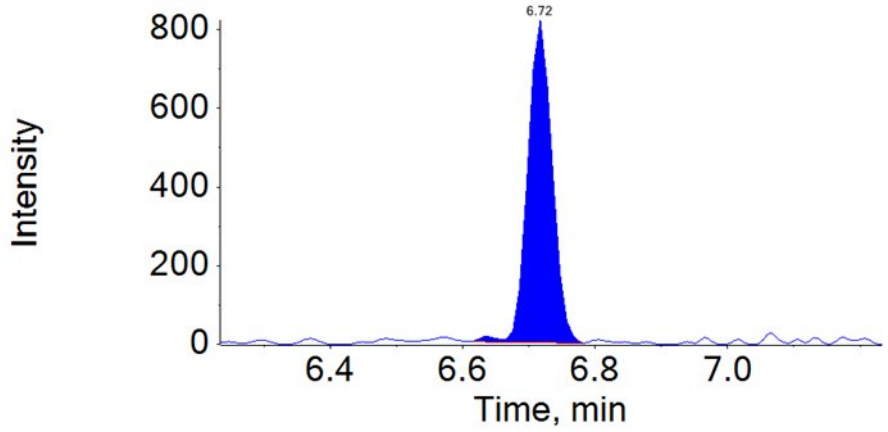
Results Table Name: 18314006
Results Table Date: 11/13/2018 8:06:19 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
1869.24
Mass Range:
613.0 / 169.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



Integration Comment: incorrect integration

Component Name:
PFHxDA_2
RT (min.):
6.72
Peak Area:
2106.92
Mass Range:
813.0 / 169.0
File Name:
18NOV12D-41.wiff
Sample Name:
LCS314006



Integration Comment: incorrect integration

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

Results Table Name: 18314006
Results Table Date: 11/13/2018 8:06:19 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

Ion Ratio Report

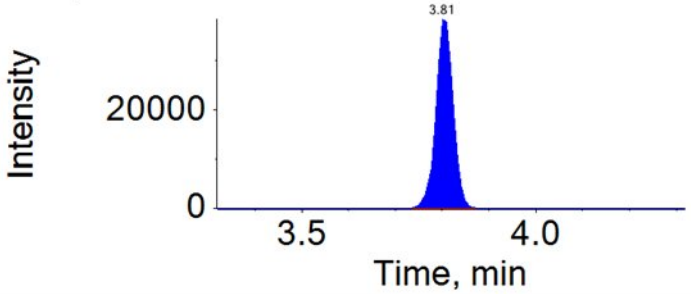
Sample Name: LCS314006 **Instrument Name:** LM27631 **File Name:** 18NOV12D-41.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	99212.04	A	N/A	0.3740			
PFBS_2	3.80	1.00	37104.38	A	N/A	0.3740	3	50	
4:2-FTS	4.12	1.00	58991.61	A	N/A	0.6276			
4:2 FTS_2	4.12	1.00	37021.19	A	N/A	0.6276		#NA!	
PFHxA	4.15	1.00	209595.84	A	N/A	0.0111			
PFHxA_2	4.15	1.00	2328.33	M	N/A	0.0111	-5	50	
PFPeS	4.17	1.10	51164.40	A	N/A	0.5269			
PFPeS_2	4.17	1.10	26958.23	A	N/A	0.5269	2	50	
PFHpA	4.54	1.00	208526.14	A	N/A	0.0581			
PFHpA_2	4.54	1.00	12119.81	A	N/A	0.0581	3	50	
PFHxS	4.54	1.00	72480.70	A	N/A	0.3901			
PFHxS_2	4.54	1.00	28272.49	A	N/A	0.3901	29	50	
6:2-FTS	4.90	1.00	47579.06	A	N/A	0.7030			
6:2 FTS_2	4.90	1.00	33447.06	A	N/A	0.7030		#NA!	
PFHpS	4.90	1.08	71132.03	A	N/A	0.3898			
PFHpS_2	4.90	1.08	27730.32	A	N/A	0.3898	-4	50	
PFOA	4.91	1.00	209962.64	A	N/A	0.0567			
PFOA_2	4.91	1.00	11902.22	M	N/A	0.0567	1	50	
PFOS	5.24	1.00	65888.97	M	N/A	0.3669			
PFOS_2	5.24	1.00	24177.62	M	N/A	0.3669	42	50	
PFNA	5.26	1.00	167593.85	A	N/A	0.0236			
PFNA_2	5.25	1.00	3952.21	M	N/A	0.0236	1	50	
PFNS	5.54	1.06	40109.27	A	N/A	0.5304			
PFNS_2	5.54	1.06	21274.75	A	N/A	0.5304	10	50	
PFDA	5.56	1.00	134109.41	A	N/A	0.0099			
PFDA_2	5.56	1.00	1333.85	M	N/A	0.0099	23	50	
8:2-FTS	5.56	1.00	35879.81	A	N/A	0.6866			
8:2 FTS_2	5.56	1.00	24636.21	A	N/A	0.6866		#NA!	
NMeFOSAA	5.70	1.00	14966.48	A	N/A	0.2603			
NMeFOSAA_2	5.70	1.00	3895.43	A	N/A	0.2603	23	50	
PFDS	5.79	1.11	31212.66	A	N/A	0.5530			
PFDS_2	5.79	1.11	17261.12	A	N/A	0.5530	7	50	
PFUnDA	5.82	1.00	113786.02	A	N/A	0.0017			
PFUnDA_2	5.80	1.00	194.90	M	N/A	0.0017	-60	50	OOS
NEtFOSAA	5.83	1.00	13644.64	A	N/A	0.6067			
NEtFOSAA_2	5.83	1.00	8277.60	A	N/A	0.6067	2	50	
PFDoDA	6.04	1.00	116138.25	A	N/A	0.0144			
PFDoDA_2	6.05	1.00	1671.04	M	N/A	0.0144	-14	50	
10:2-FTS	6.06	1.09	21978.00	A	N/A	0.8322			
10:2 FTS_2	6.06	1.09	18290.80	A	N/A	0.8322		#NA!	
PFTrDA	6.24	1.03	100743.92	A	N/A	0.0109			
PFTrDA_2	6.24	1.03	1095.21	A	N/A	0.0109	16	50	
PFTeDA	6.42	1.00	75418.86	A	N/A	0.0046			
PFTeDA_2	6.42	1.00	347.01	A	N/A	0.0046	-29	50	
PFHxDA	6.72	1.05	33841.92	A	N/A	0.0615			
PFHxDA_2	6.72	1.05	2082.24	M	N/A	0.0615	-10	50	
PFODA	6.98	1.09	26124.89	A	N/A	0.0279			
PFODA_2	6.98	1.09	729.66	A	N/A	0.0279	3	50	

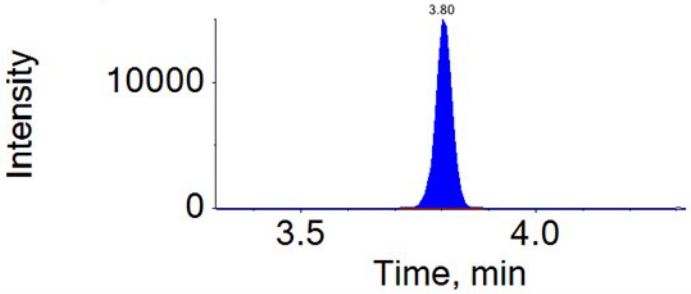
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

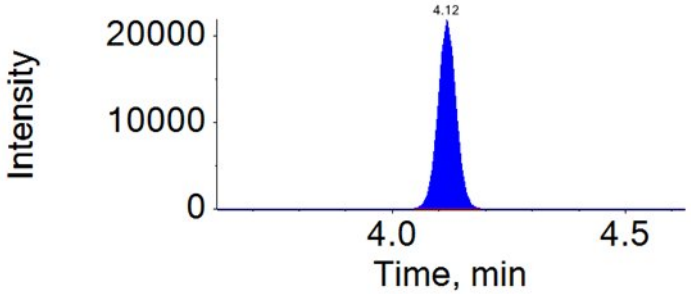
Component: PFBS
Primary Mass: 299.0 / 80.0



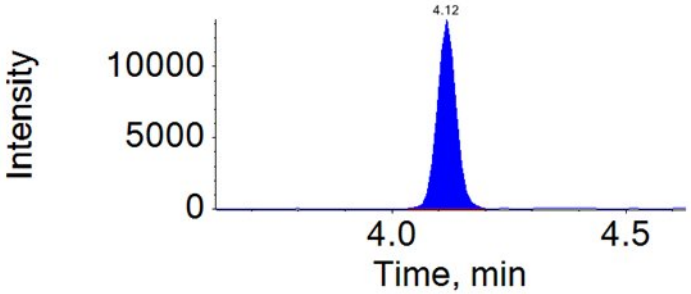
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



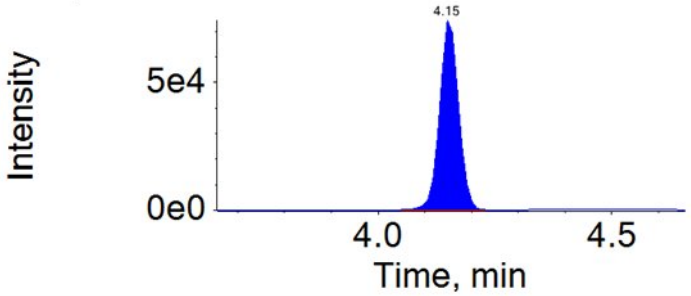
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



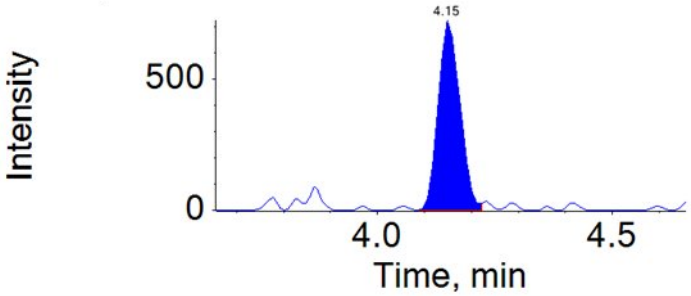
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



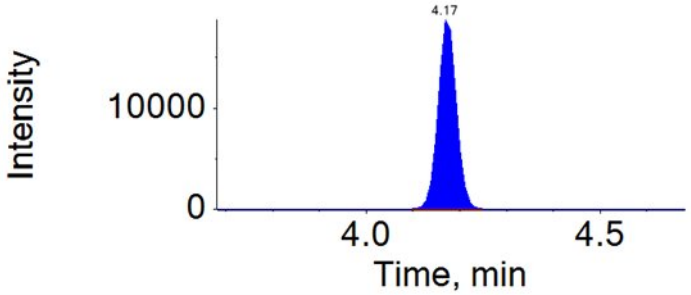
Component: PFHxA
Primary Mass: 313.0 / 269.0



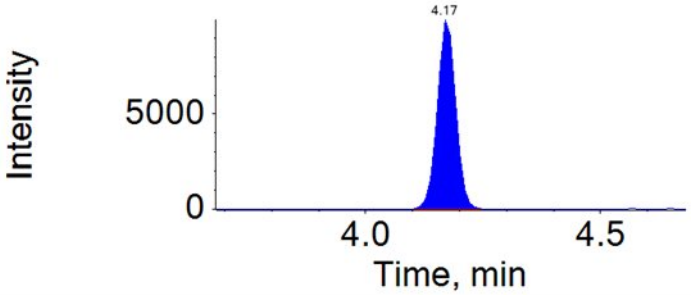
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 8:21 pm, 11/13/18

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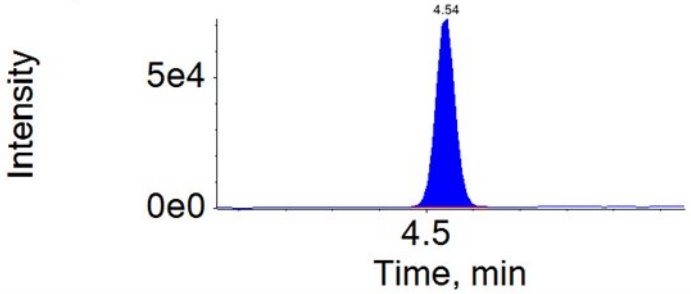
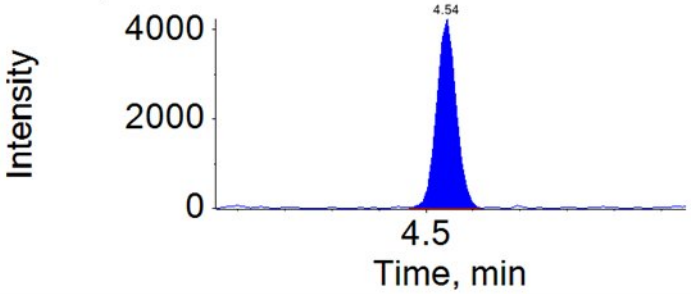
By umar at 2:04 pm, 11/15/18

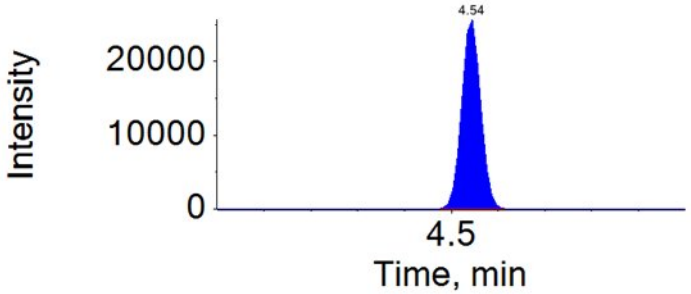
Component: PFHpA
Primary Mass: 363.0 / 319.0



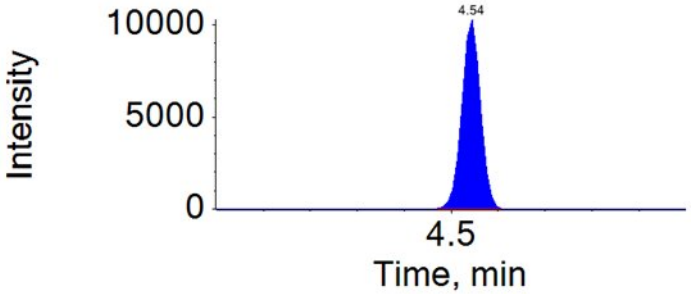
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



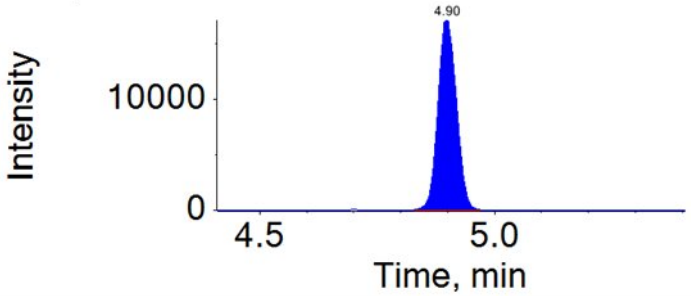
Component: PFHxS
Primary Mass: 399.0 / 80.0



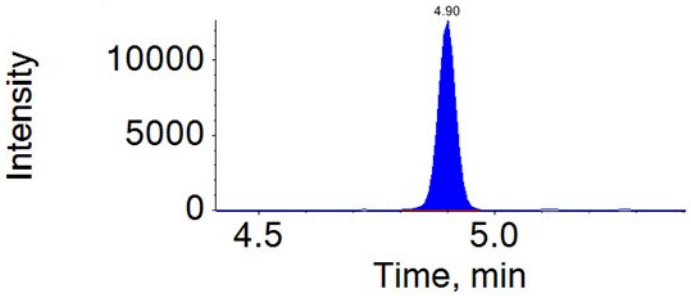
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



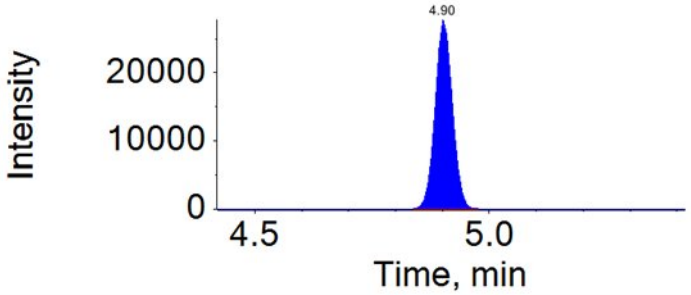
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



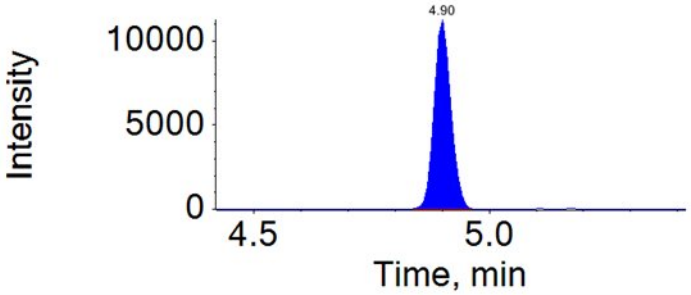
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



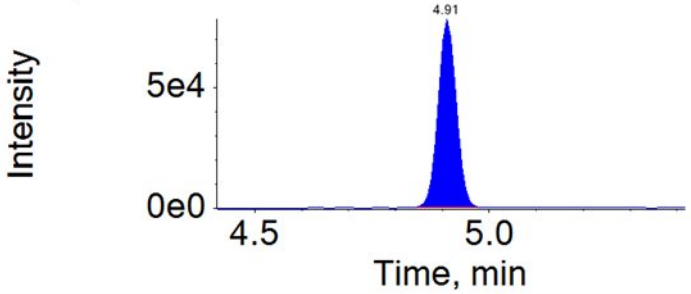
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



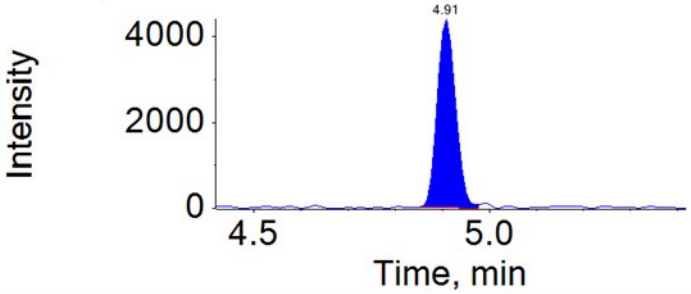
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

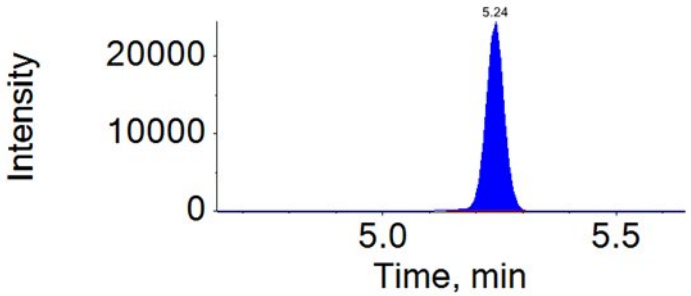
Component: PFOA
Primary Mass: 413.0 / 369.0



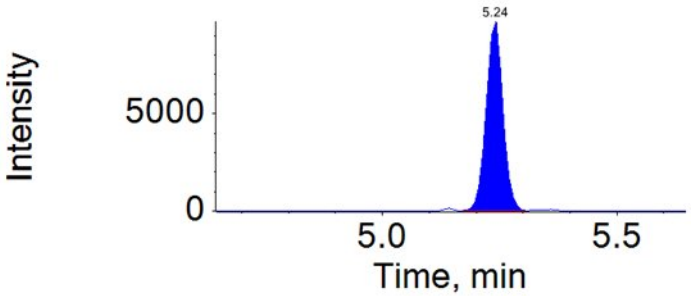
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



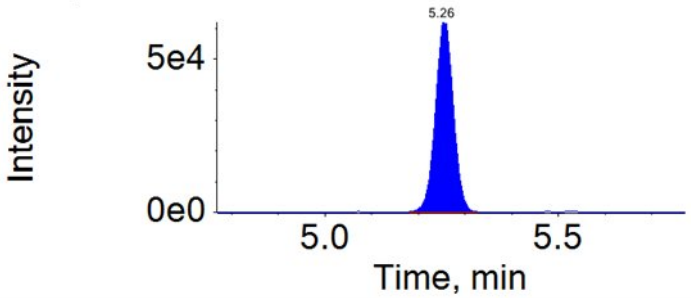
Component: PFOS
Primary Mass: 499.0 / 80.0



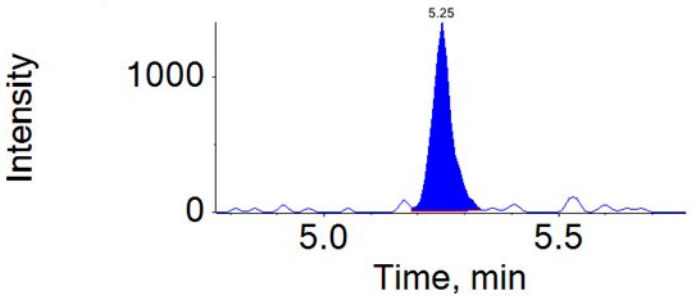
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



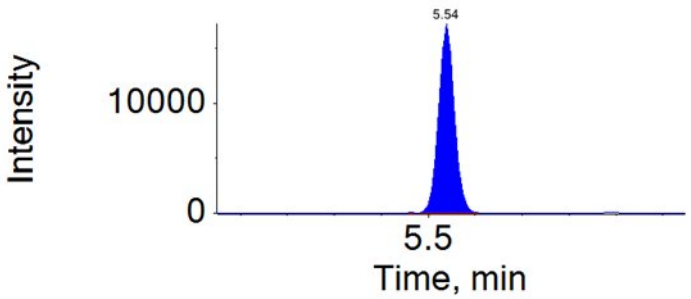
Component: PFNA
Primary Mass: 463.0 / 419.0



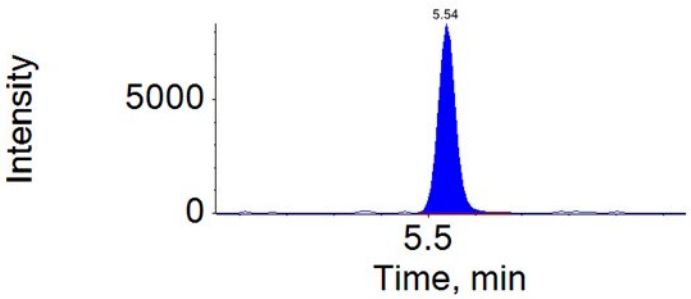
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



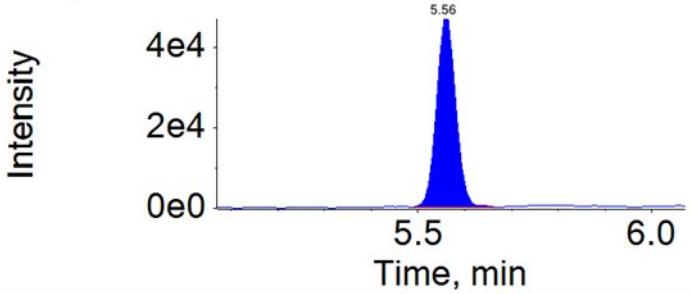
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



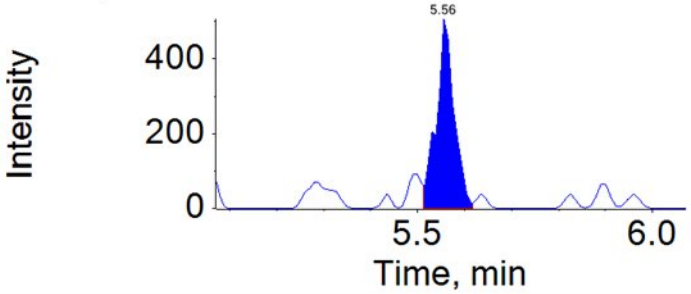
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

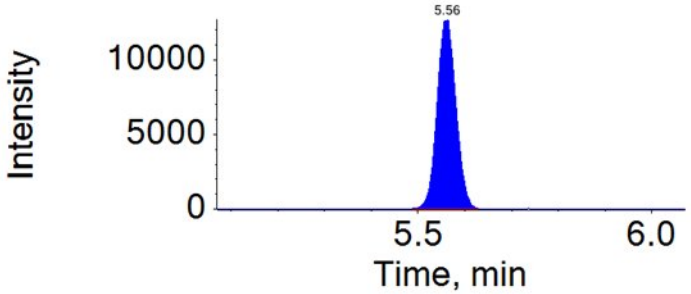
Component: PFDA
Primary Mass: 513.0 / 469.0



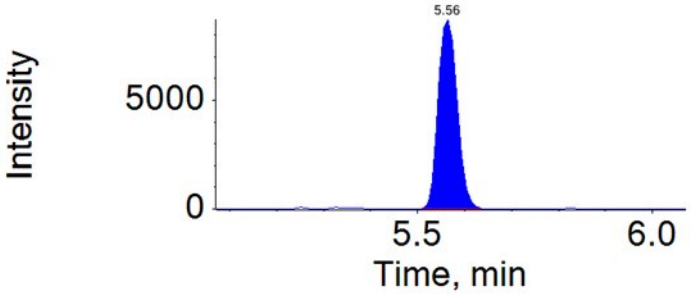
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



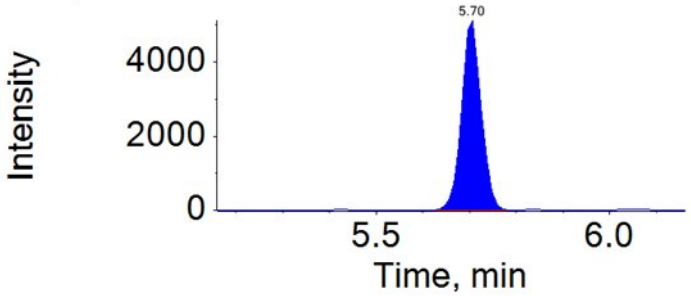
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



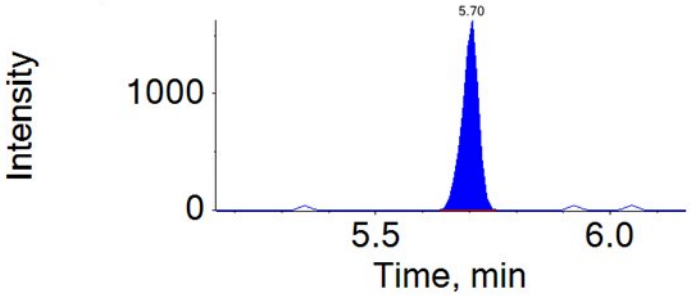
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



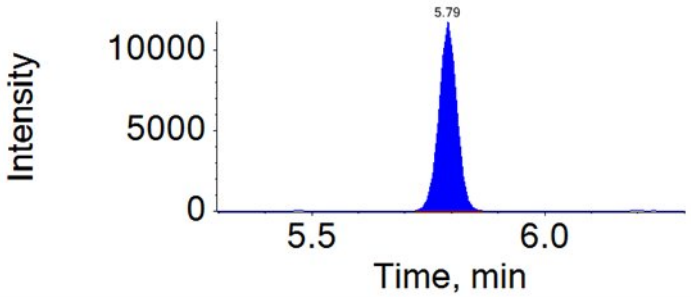
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



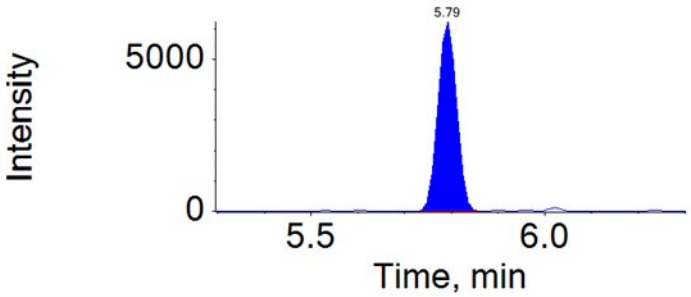
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



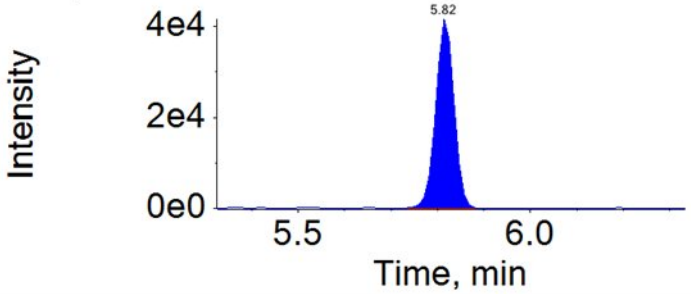
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



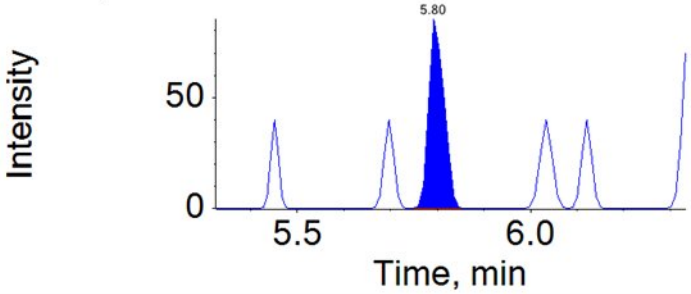
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

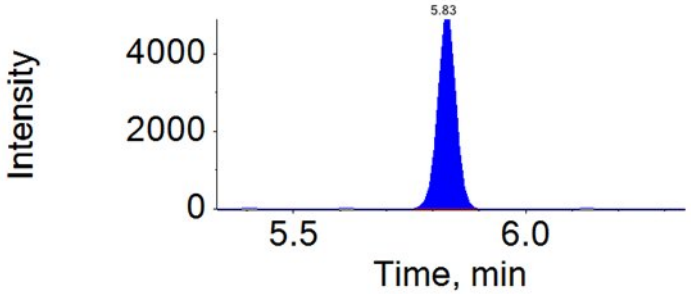
Component: PFUnDA
Primary Mass: 563.0 / 519.0



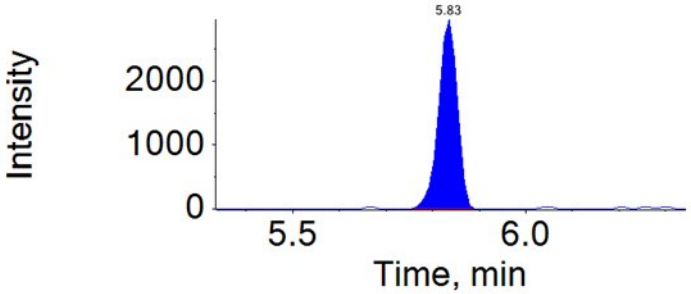
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



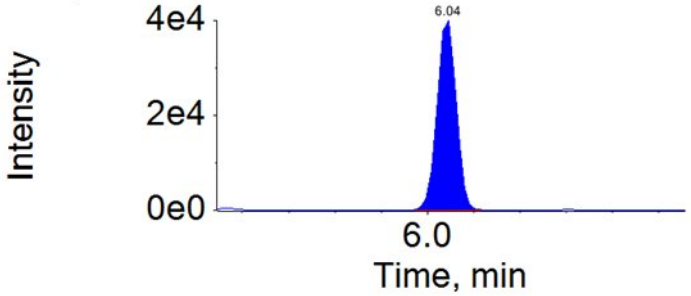
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



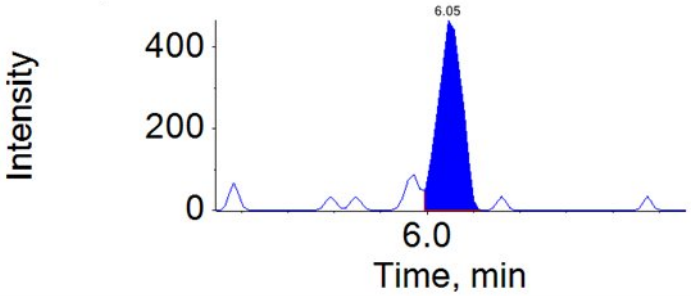
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



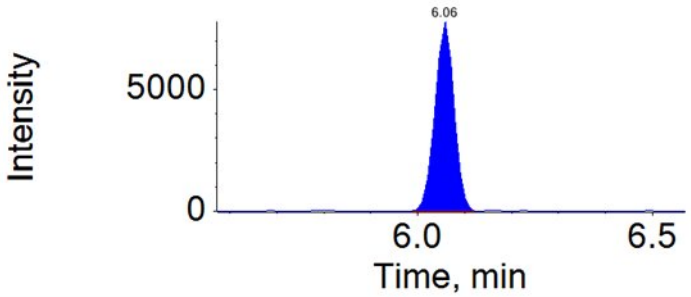
Component: PFDoDA
Primary Mass: 613.0 / 569.0



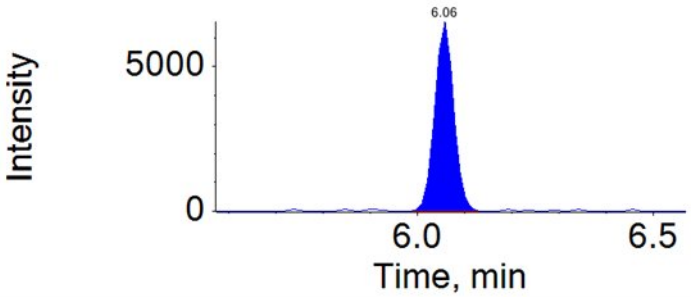
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



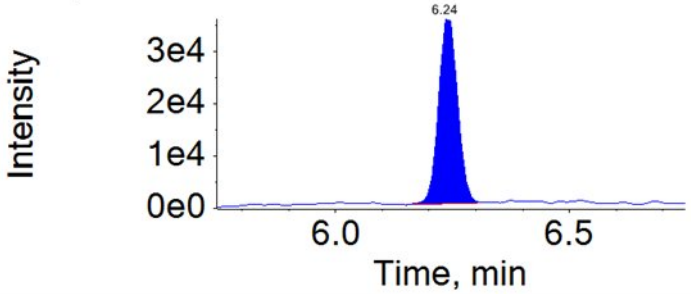
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



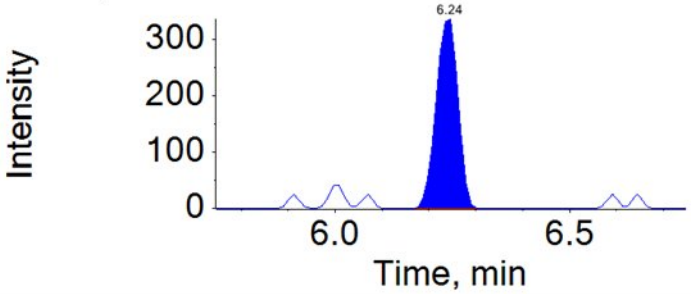
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 11/15/18

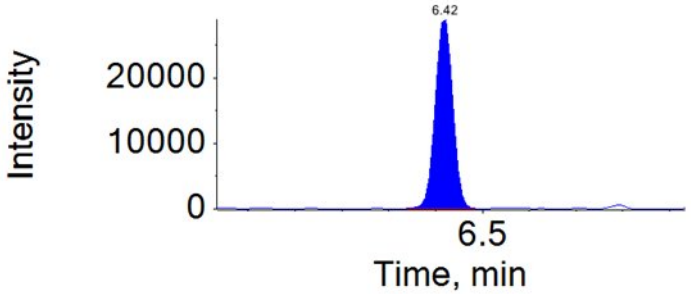
Component: PFTrDA
Primary Mass: 663.0 / 619.0



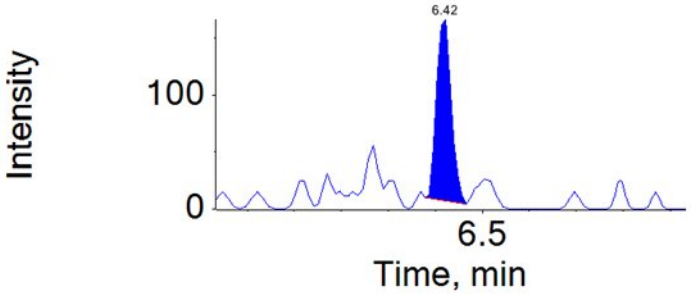
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



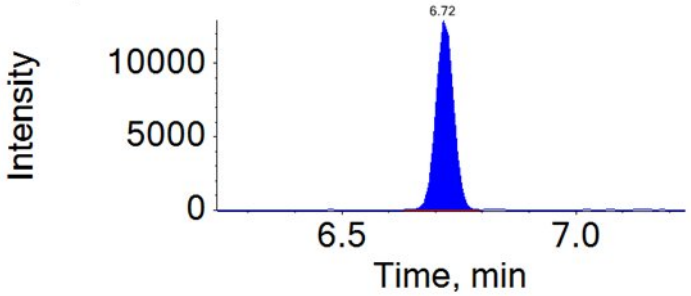
Component: PFTeDA
Primary Mass: 713.0 / 669.0



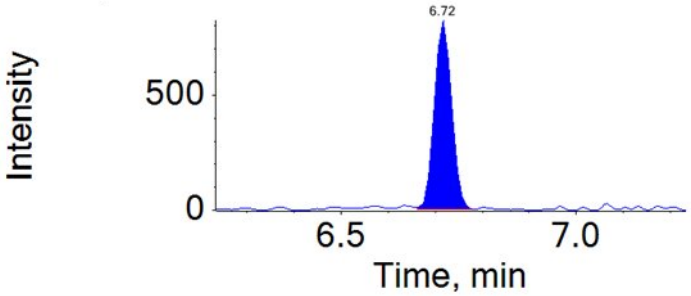
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



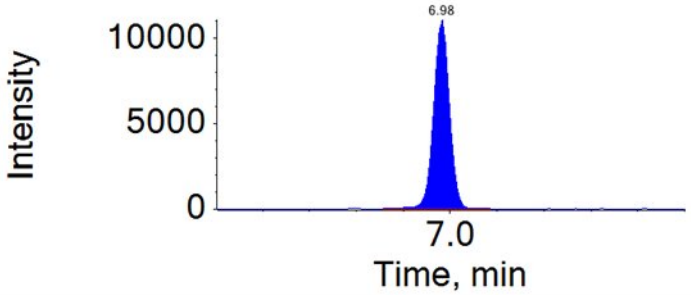
Component: PFHxDA
Primary Mass: 813.0 / 769.0



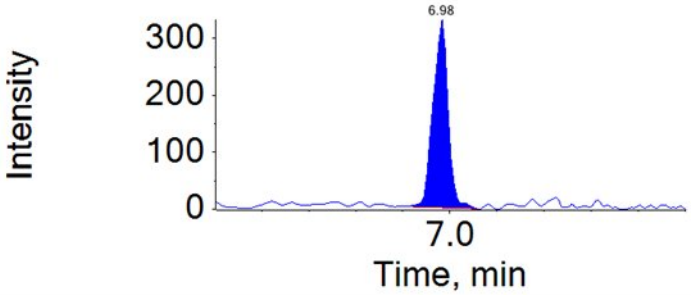
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



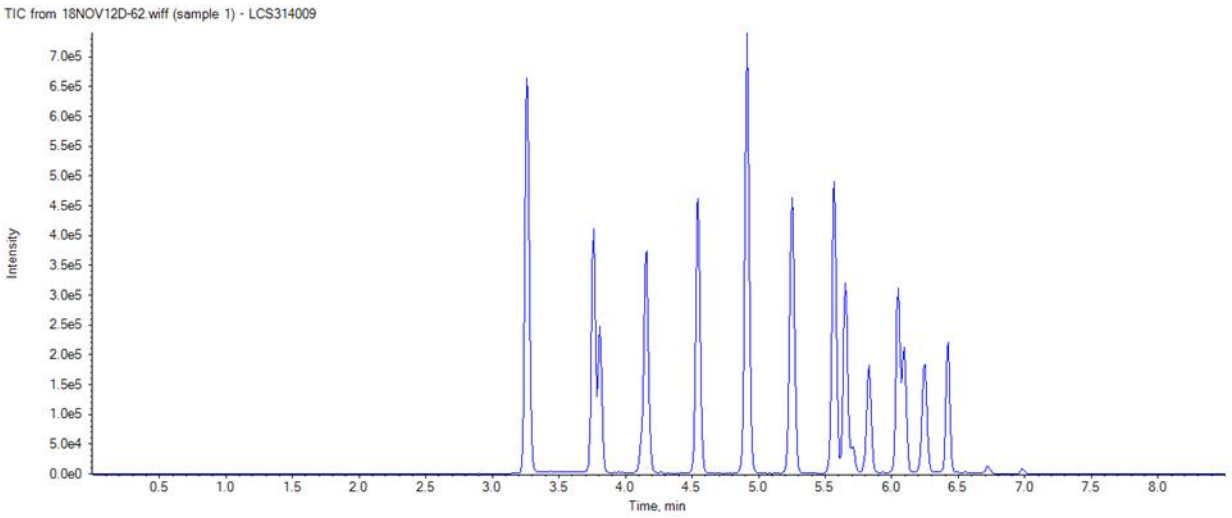
APPROVED
By MCD at 8:21 pm, 11/13/18

REVIEWED
By umar at 2:04 pm, 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

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:	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	

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

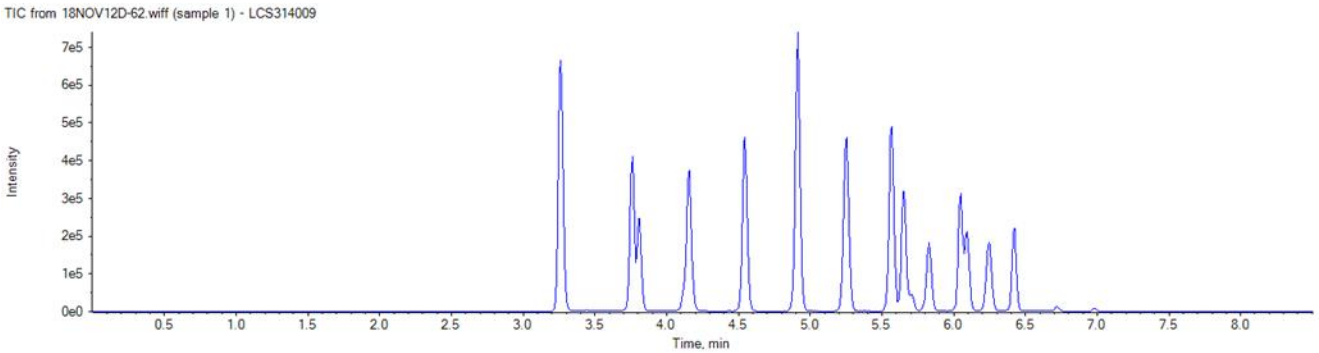
Analyte Quantitation Peak Table

Sample Name: 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

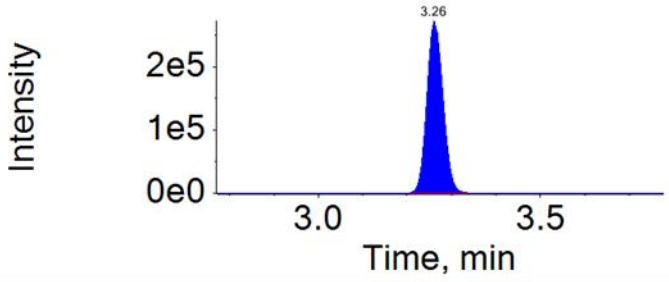


APPROVED
By JPT at 4:11 pm, 11/13/18

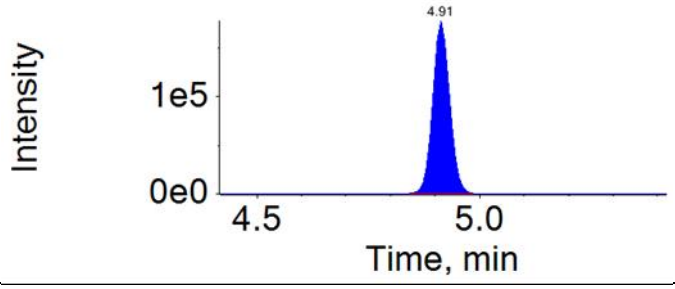
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

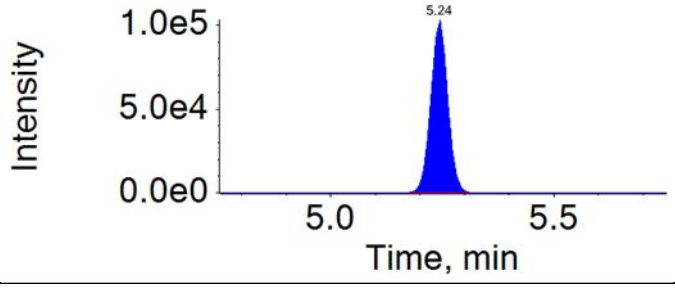
Injection Standard: 13C3-PFBA
216.0 / 172.0



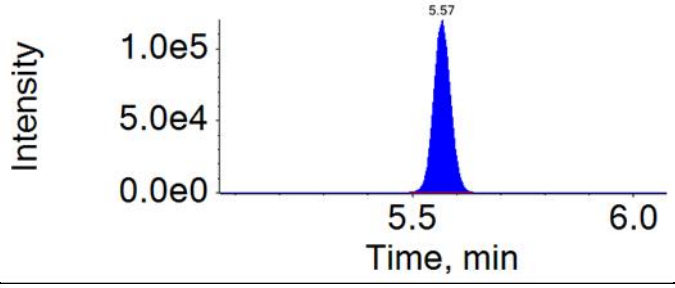
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



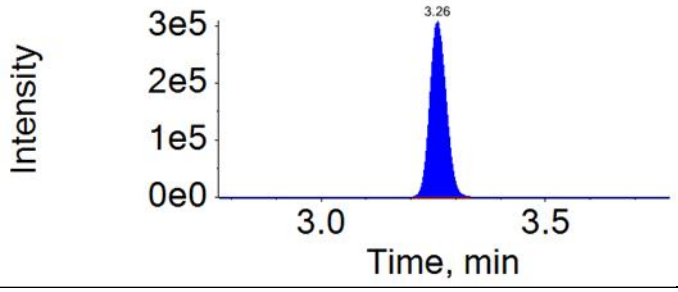
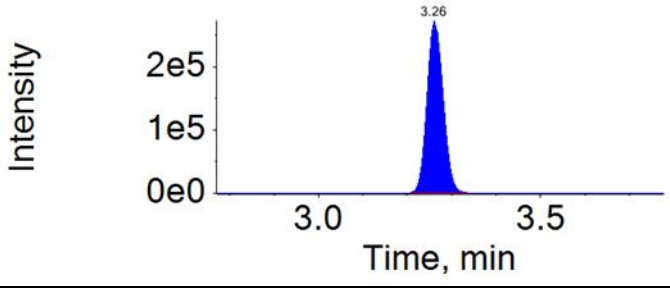
Injection Standard: 13C2-PFDA
515.0 / 470.0

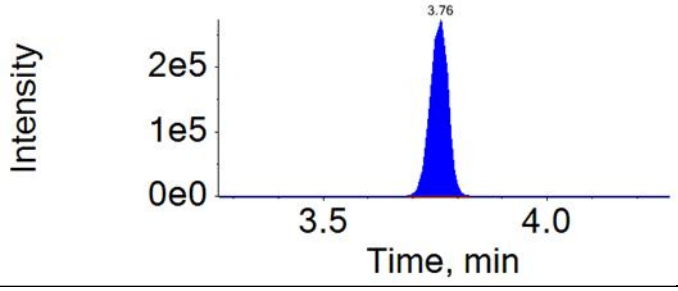
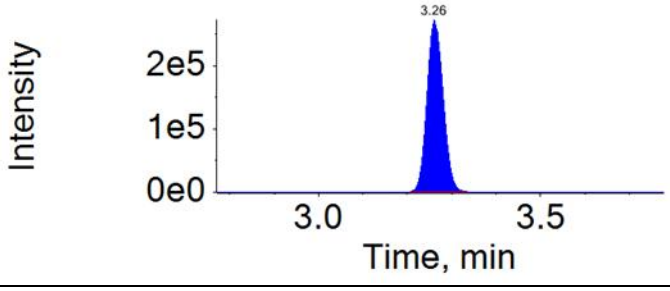


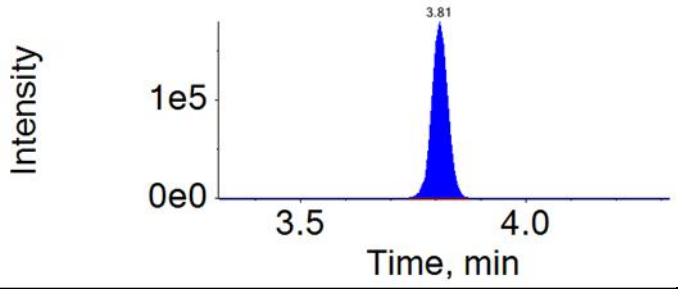
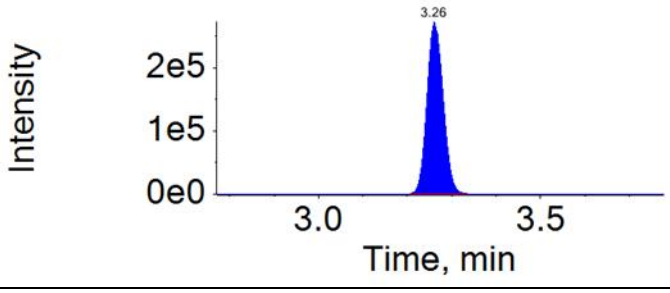
APPROVED
By JPT at 4:11 pm, 11/13/18

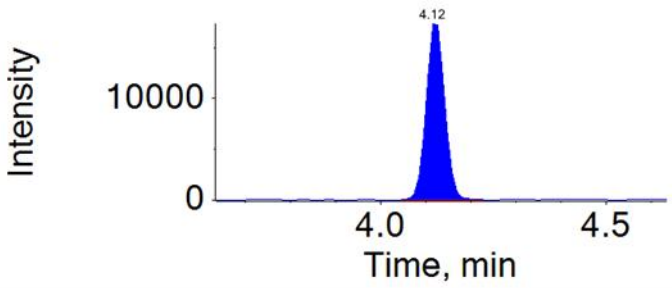
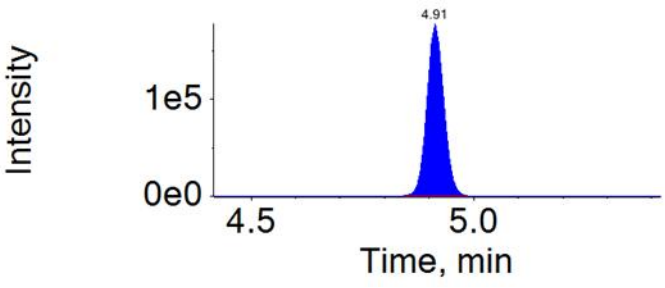
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

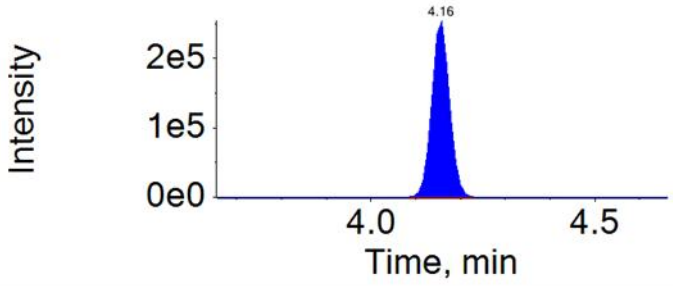
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

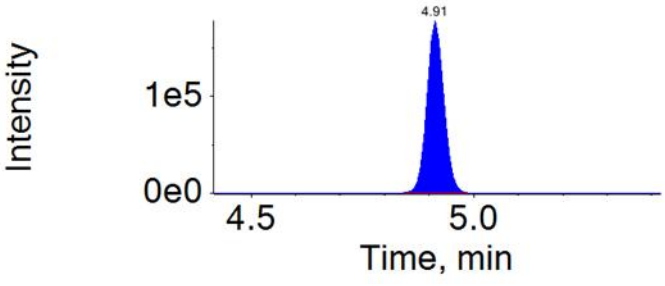
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

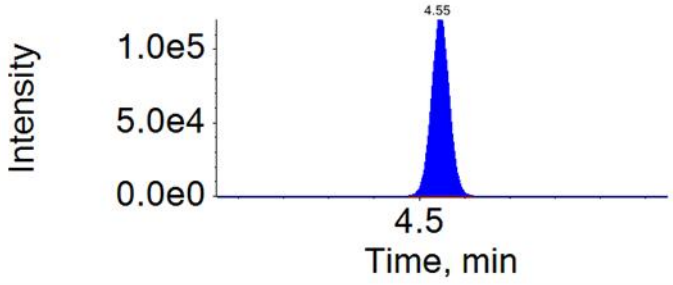
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

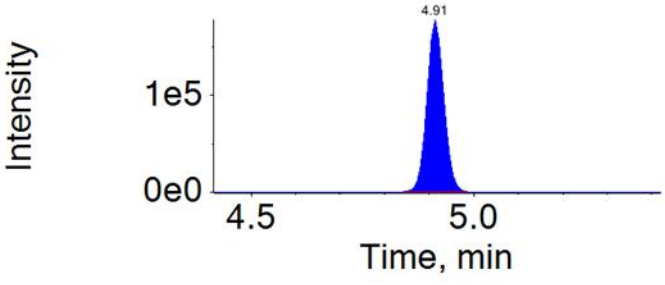
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



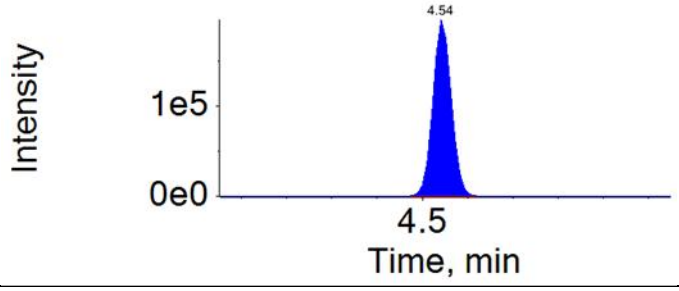


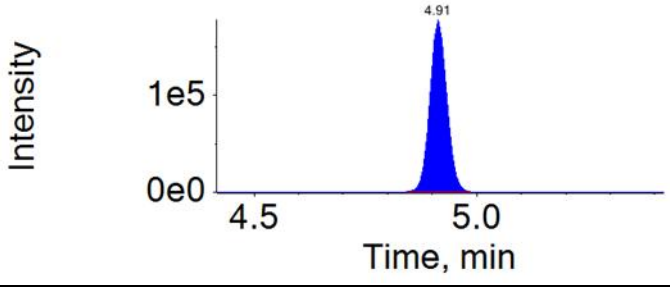
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



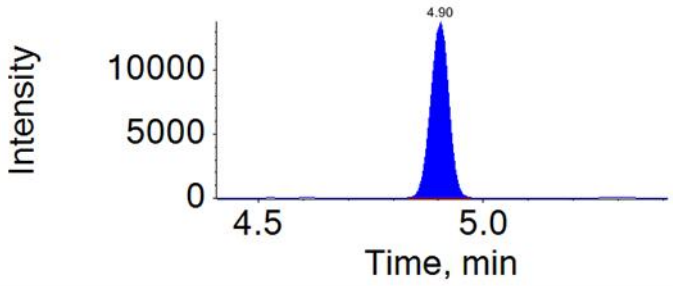


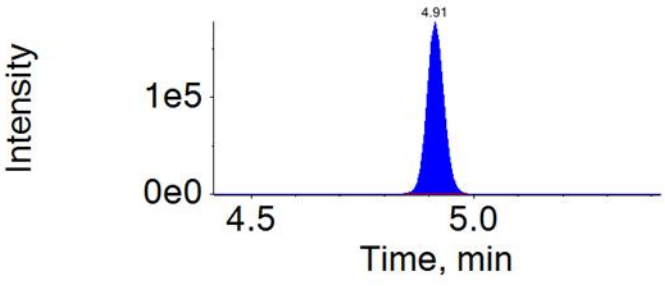
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

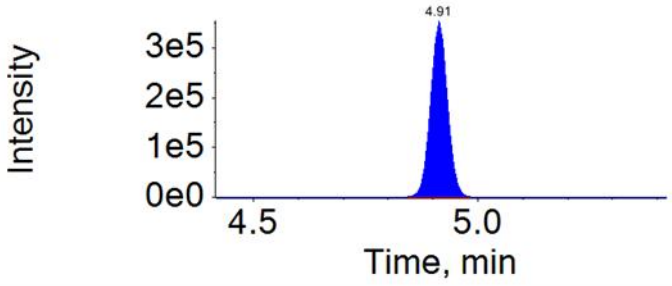
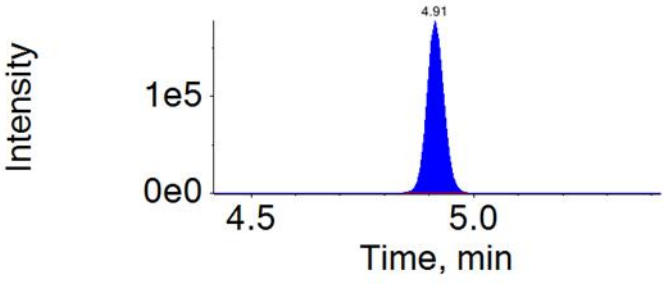


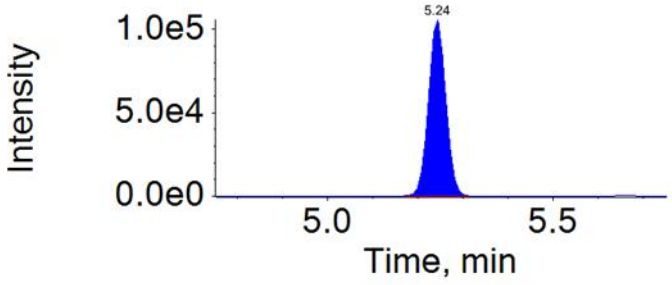
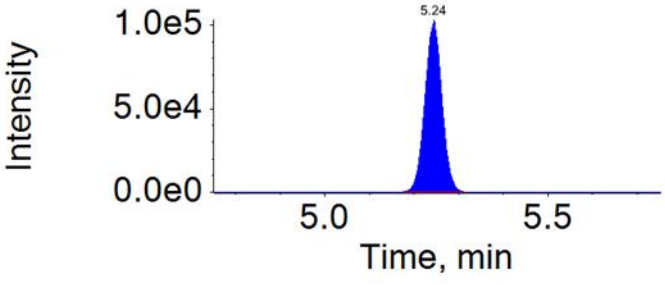


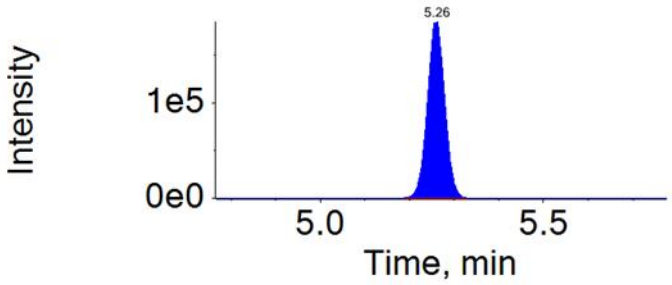
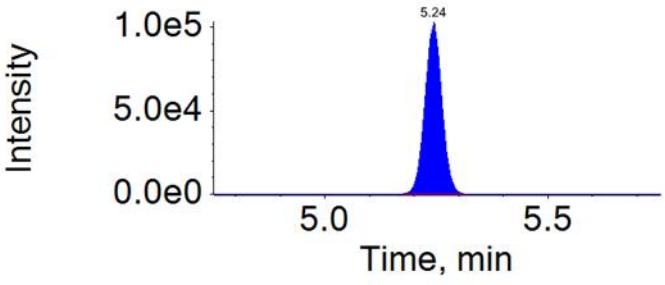
APPROVED
By JPT at 4:11 pm, 11/13/18

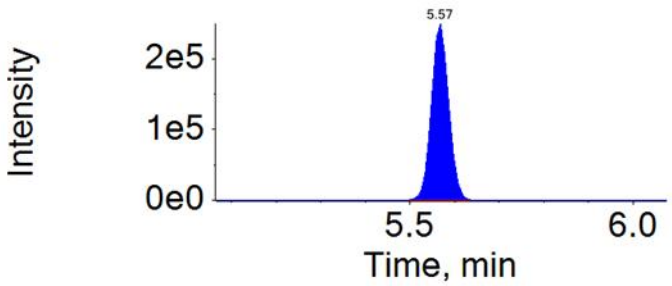
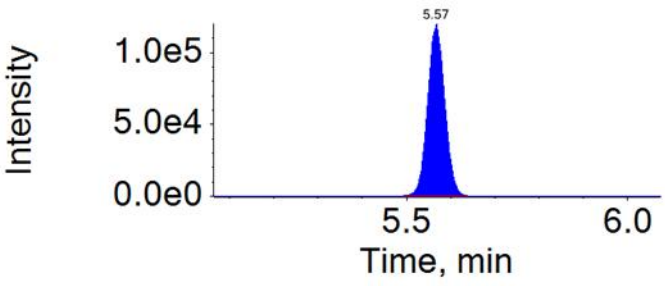
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

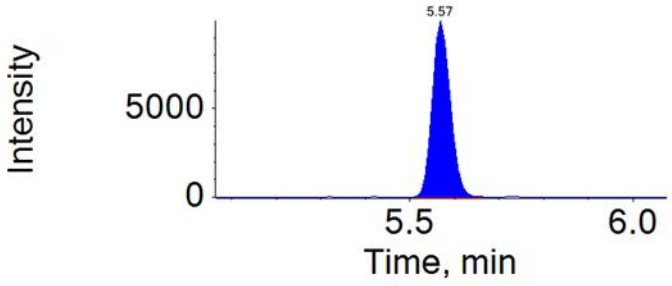
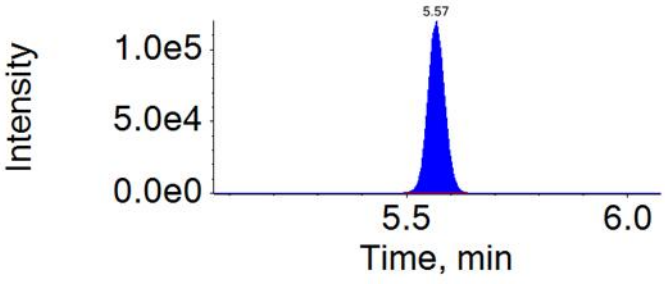
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

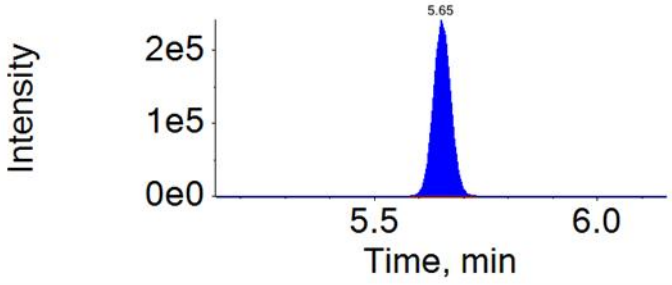
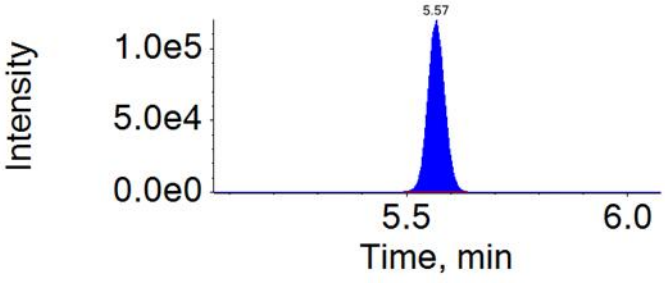
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

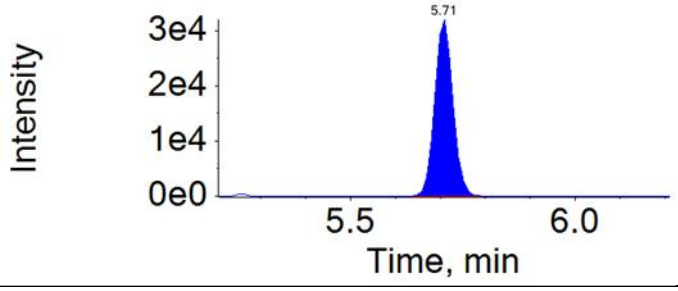
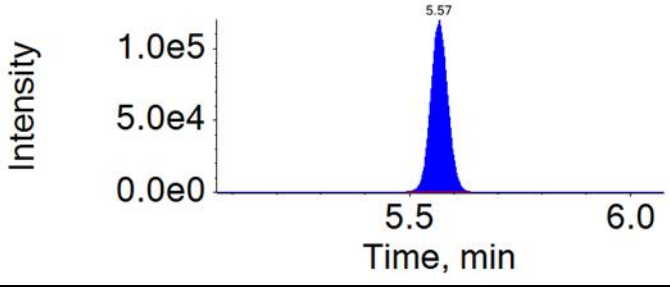
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

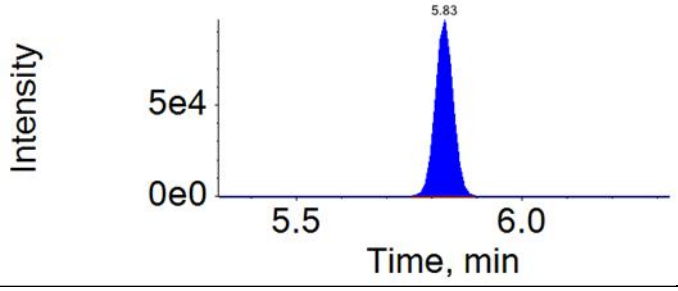
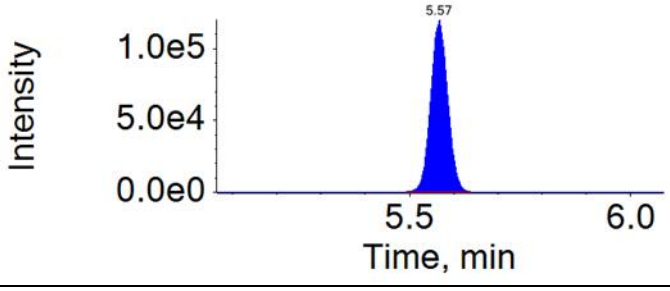
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

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
	

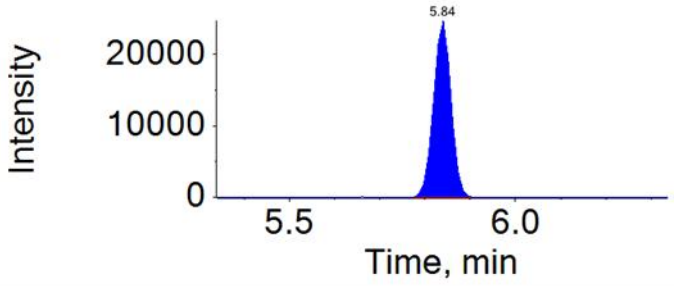
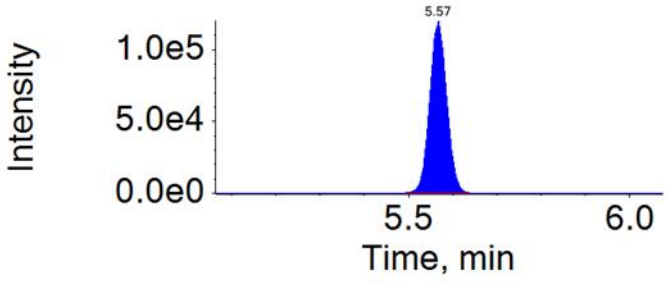
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

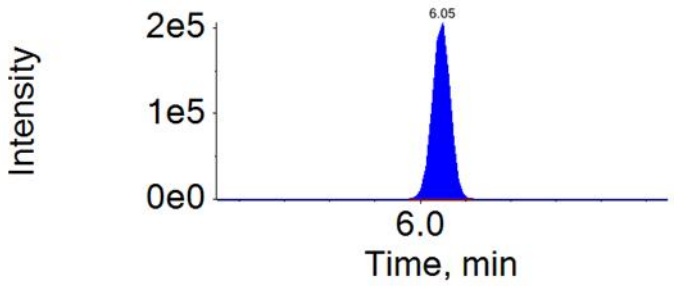
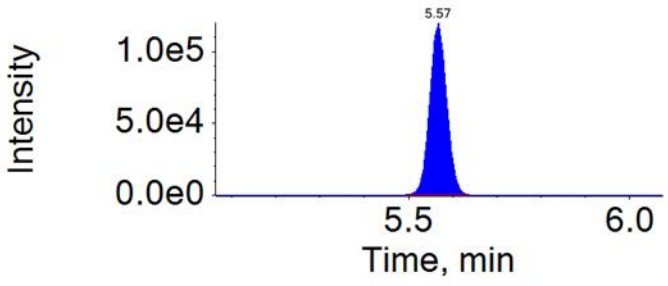
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

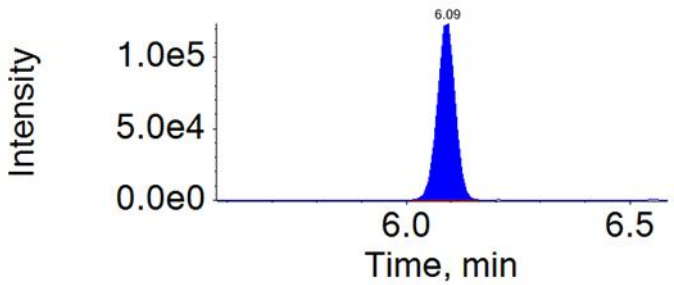
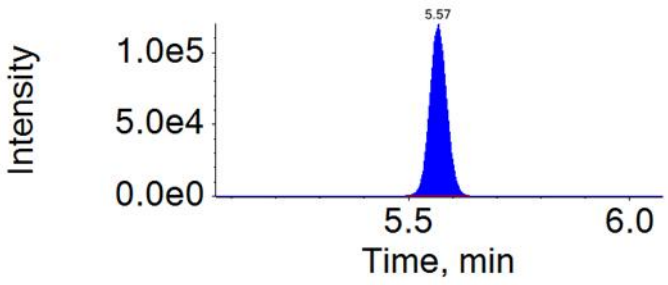
APPROVED
By JPT at 4:11 pm, 11/13/18

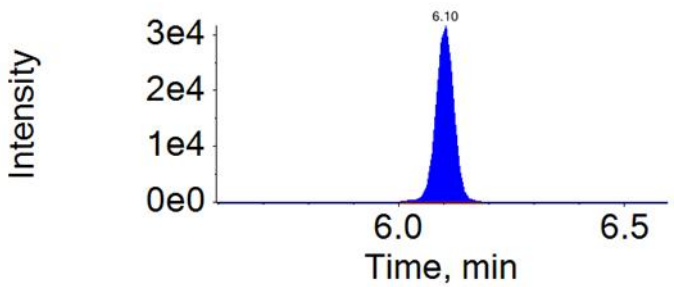
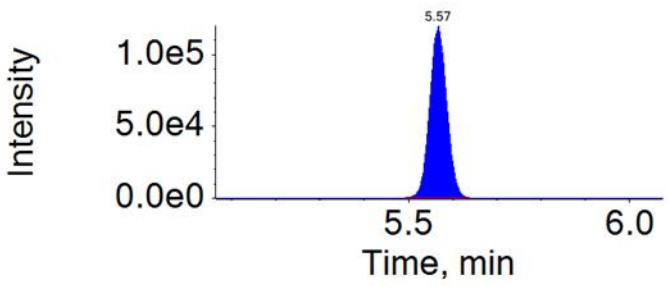
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: 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
	

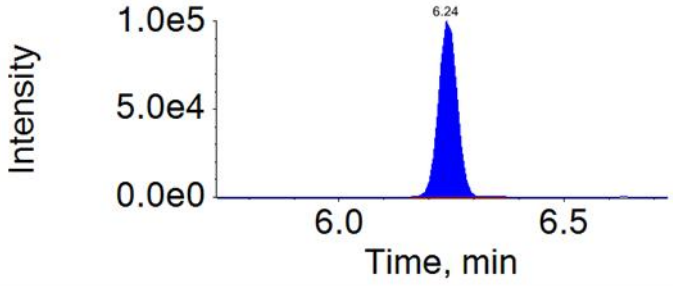
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

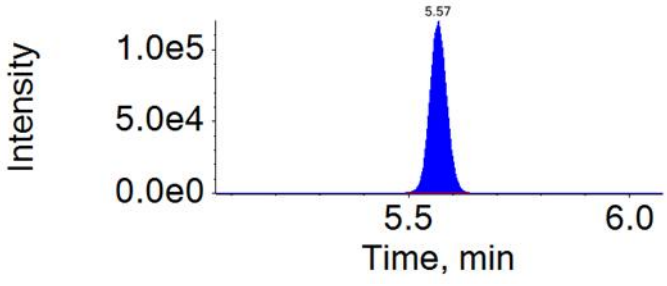
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

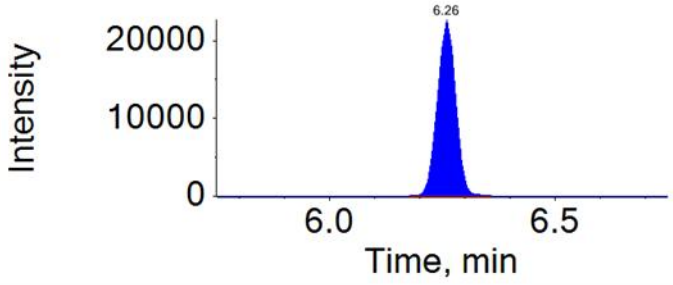
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

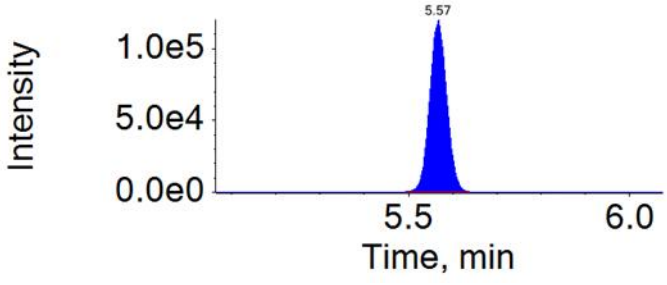
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



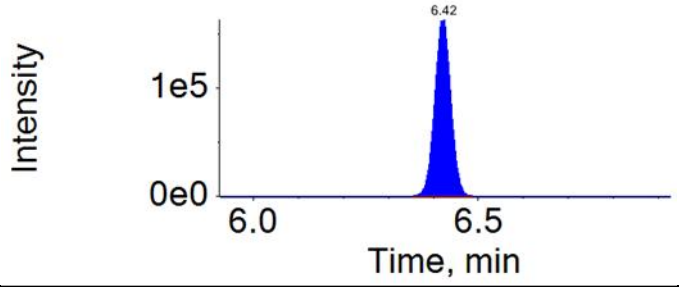


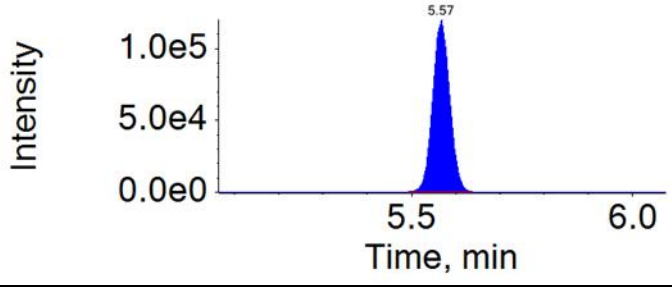
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



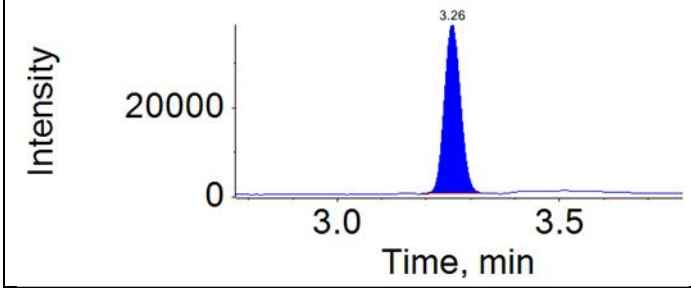


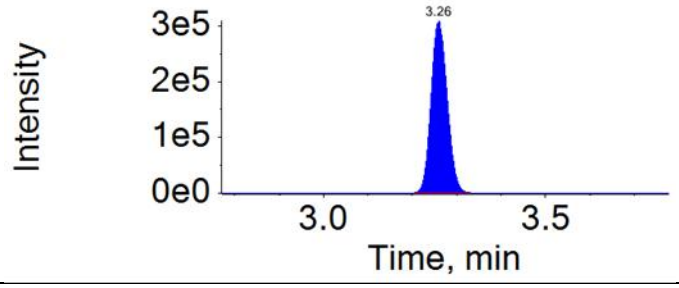
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

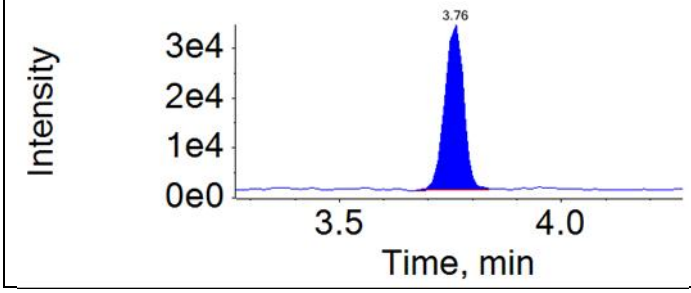
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

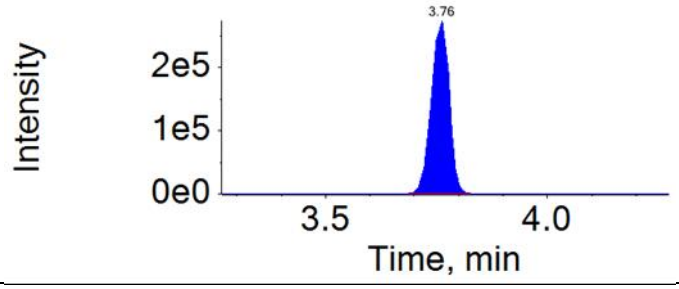
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



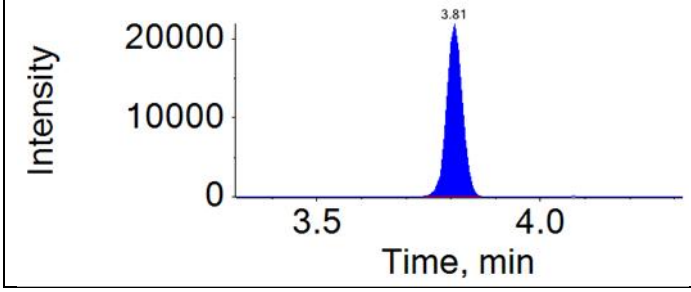


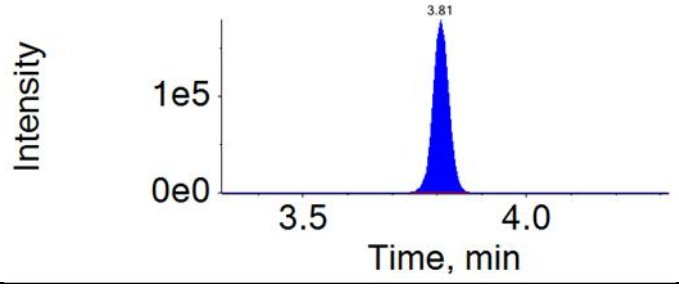
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



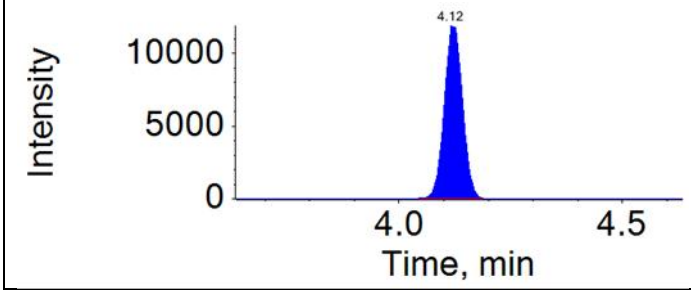


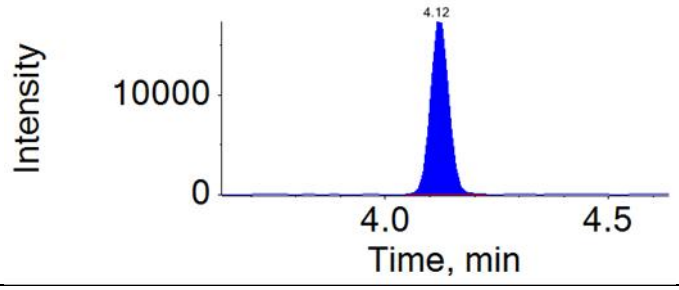
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



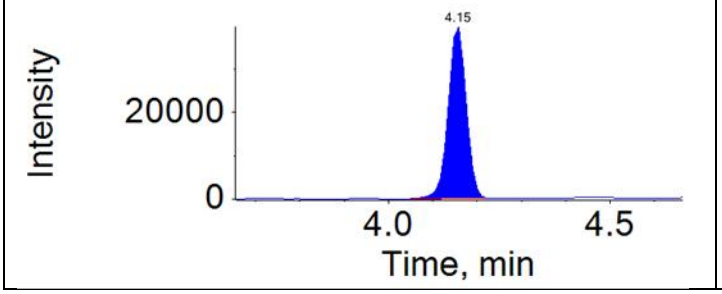


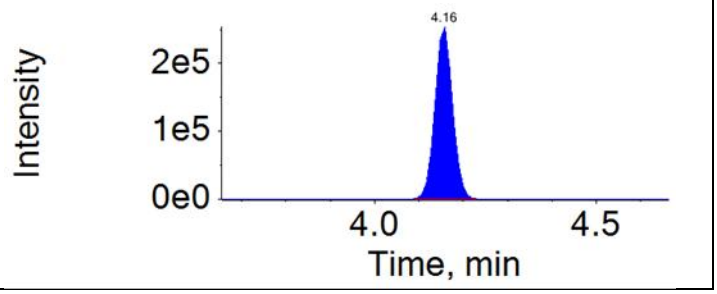
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

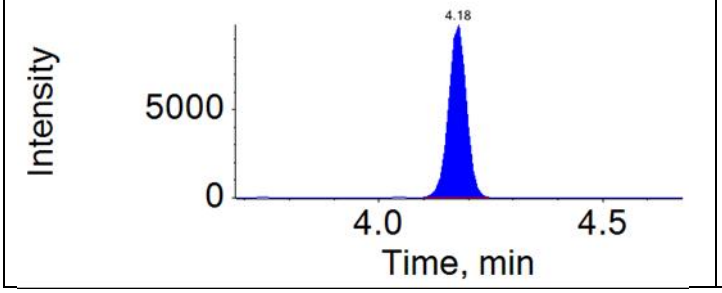
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

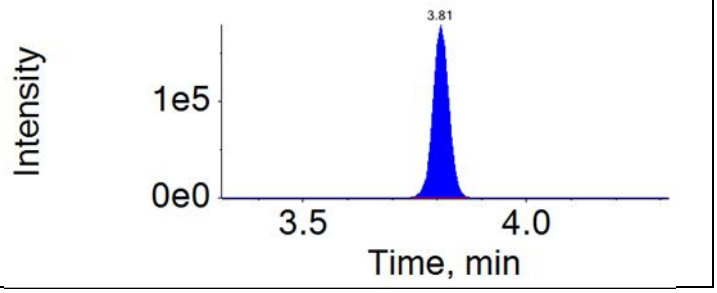
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



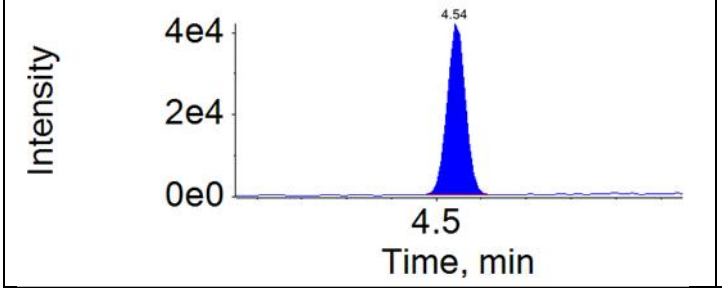


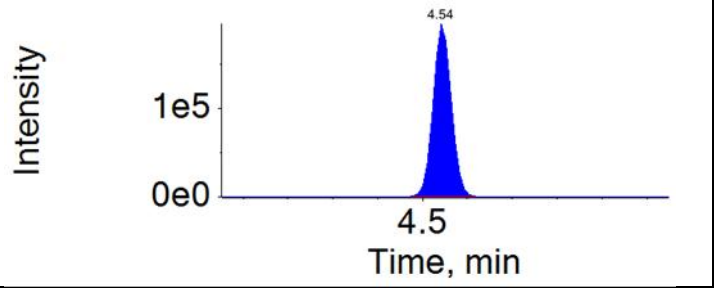
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



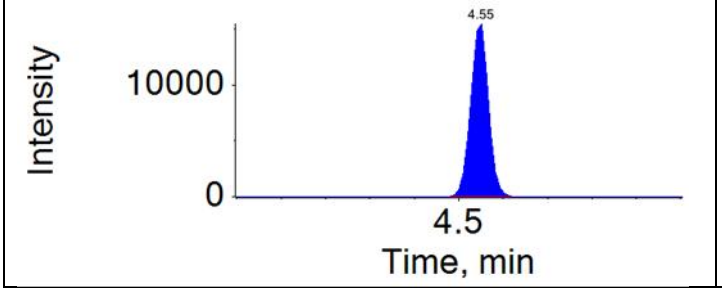


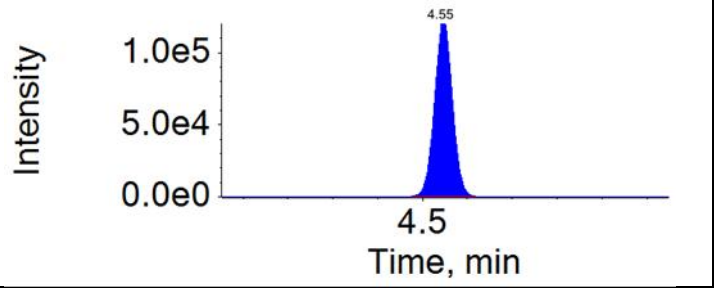
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



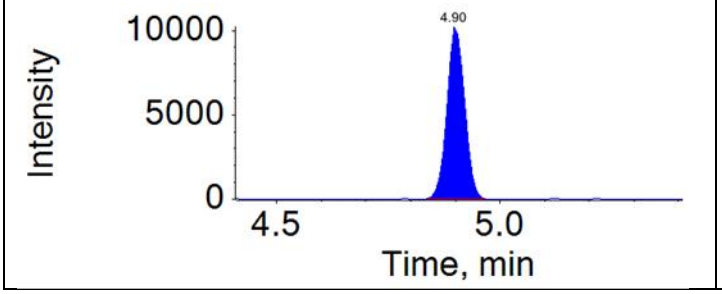


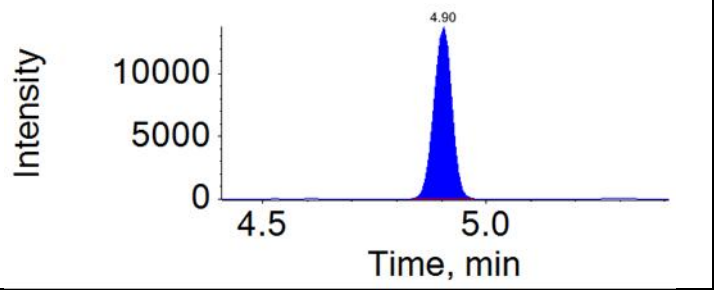
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

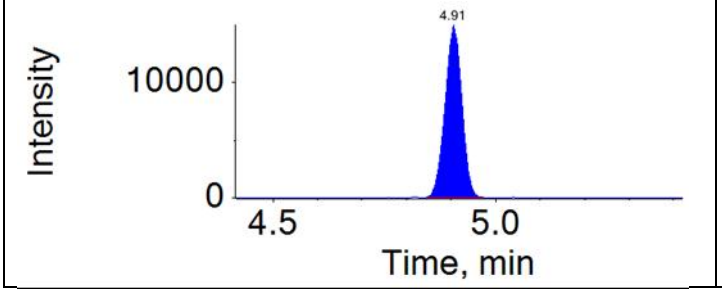
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

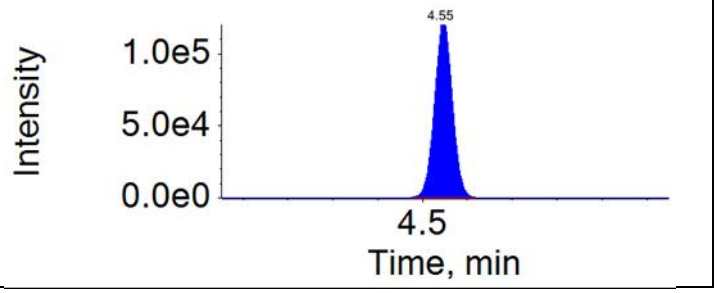
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



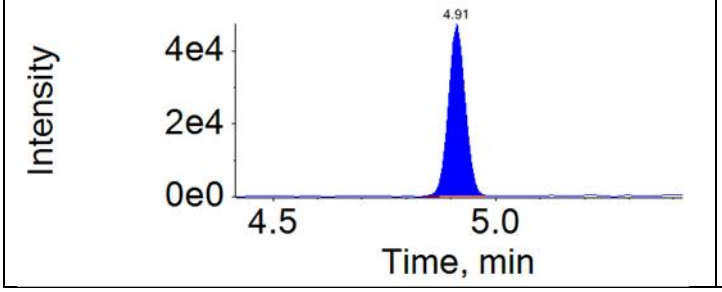


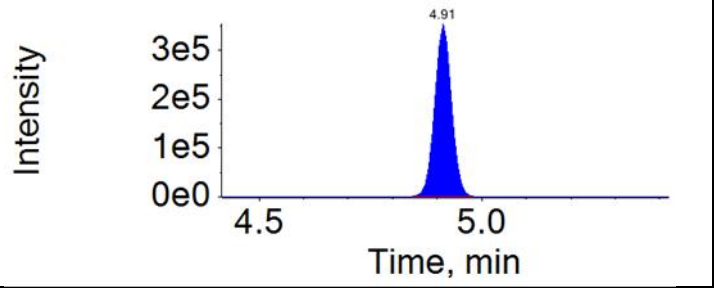
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



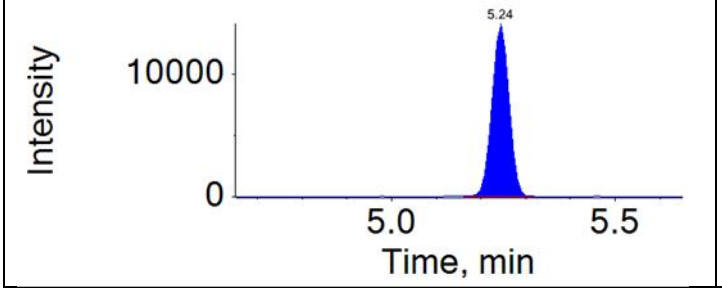


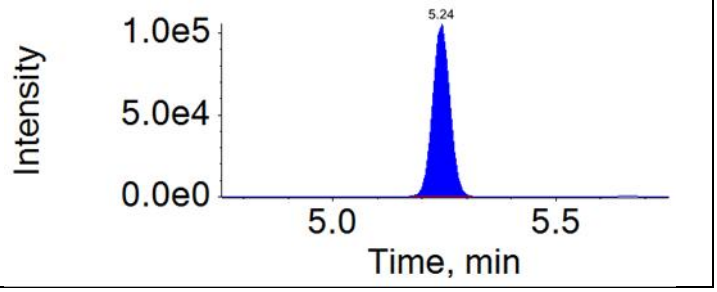
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



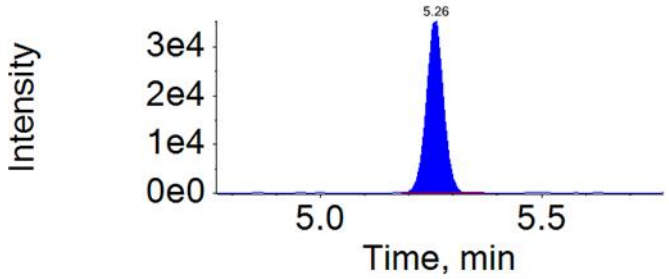


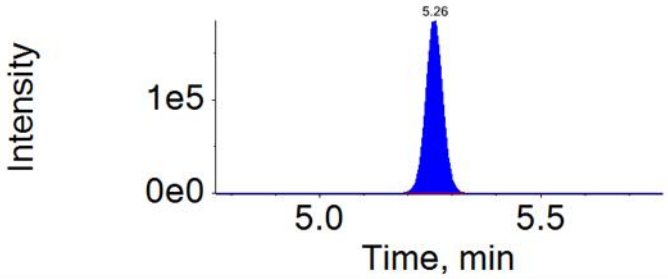
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

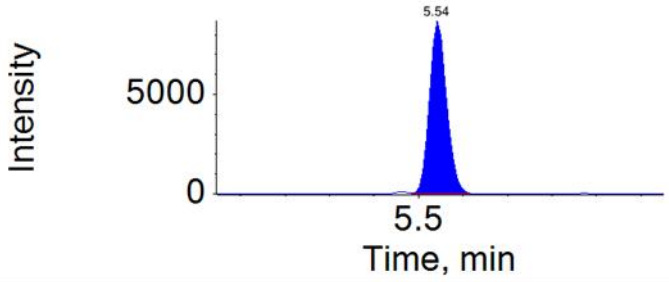
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

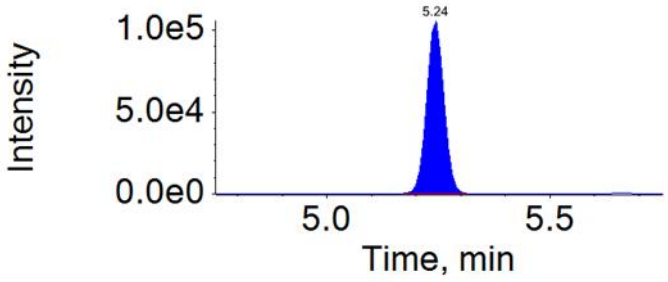
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



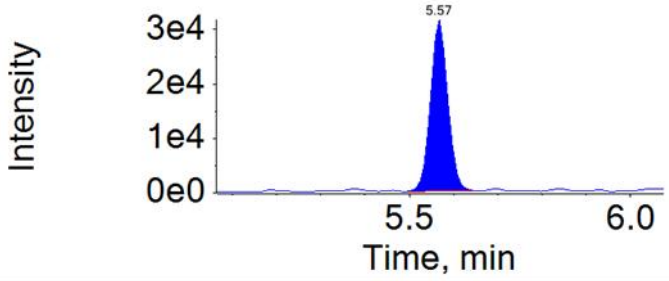


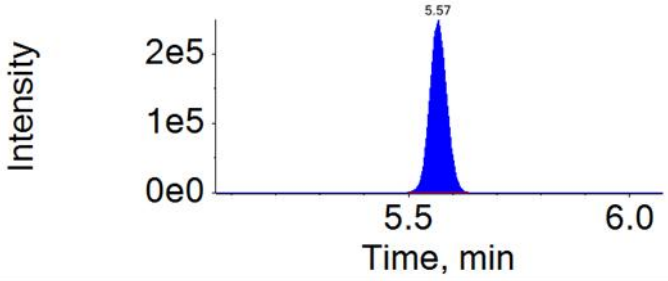
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



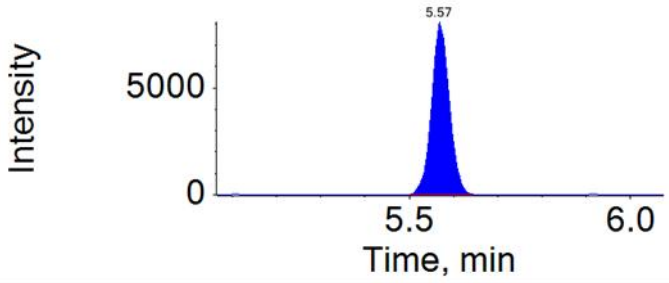


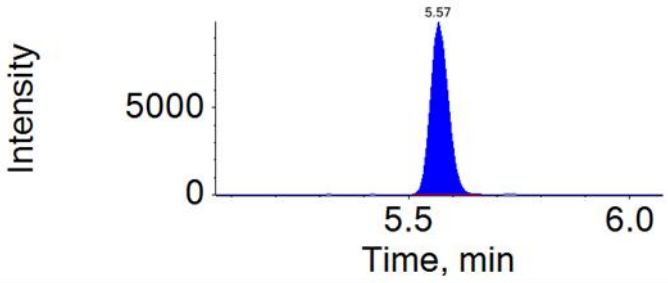
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

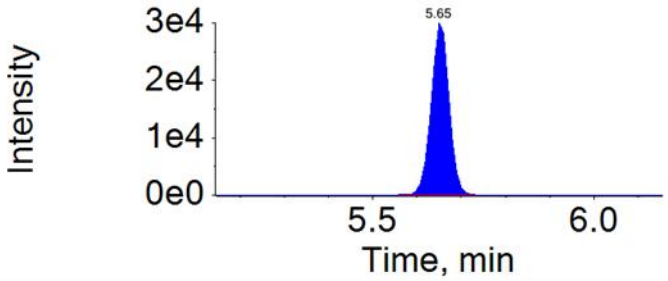
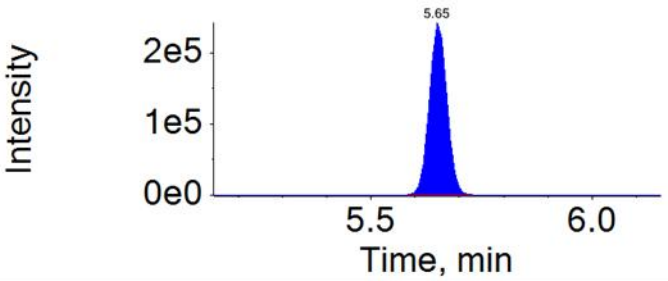


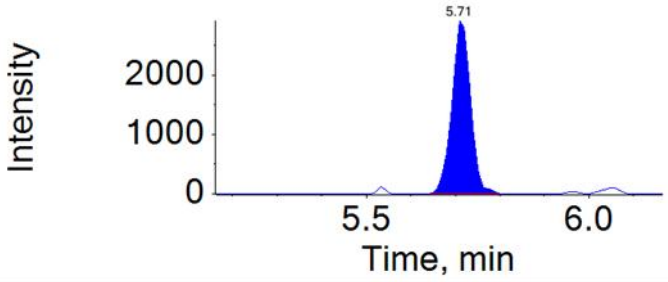
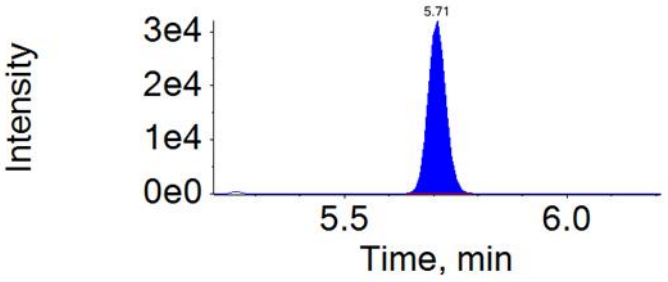


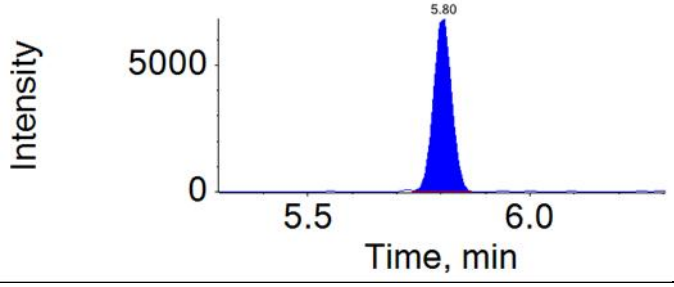
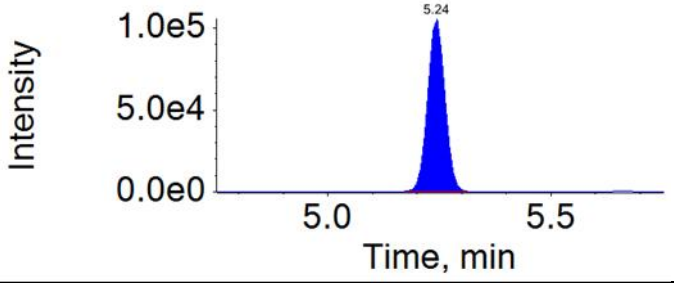
APPROVED
By JPT at 4:11 pm, 11/13/18

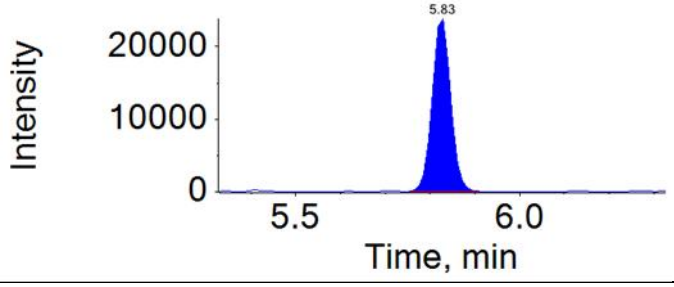
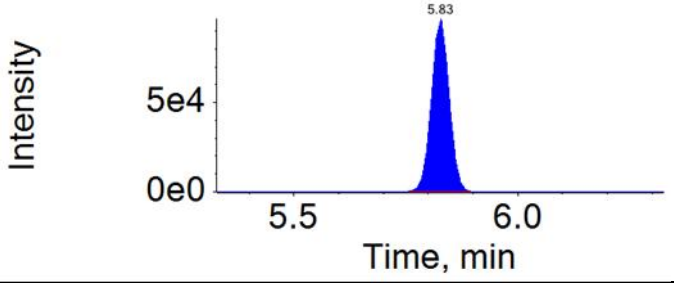
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

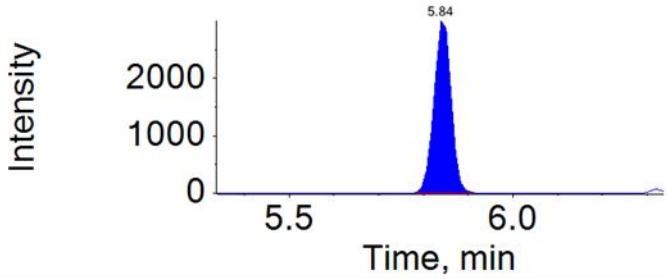
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

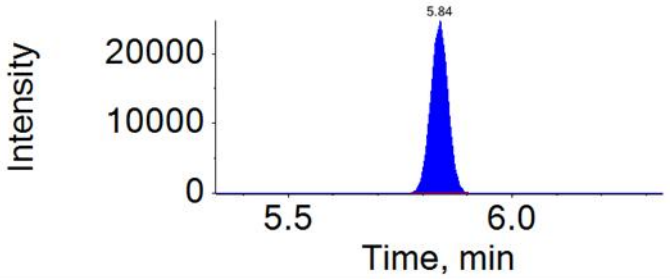
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

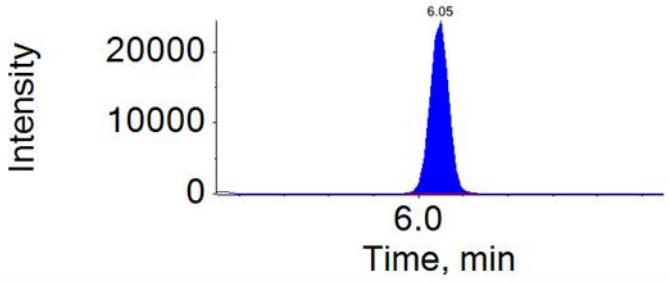
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

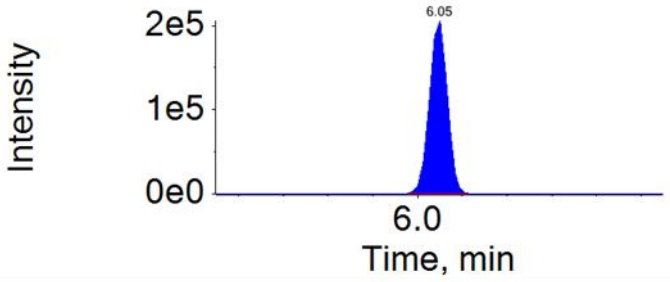
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



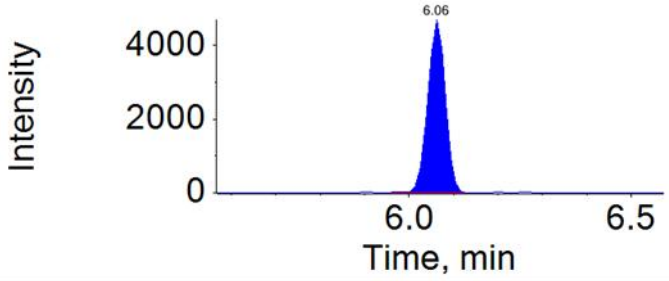


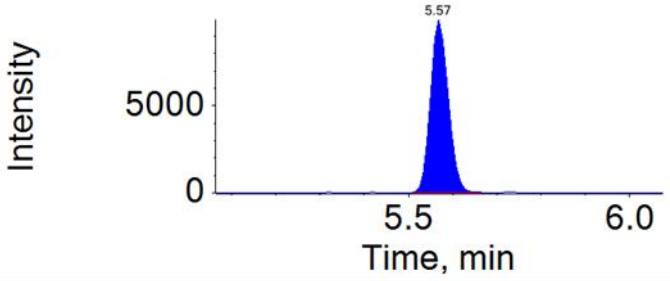
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



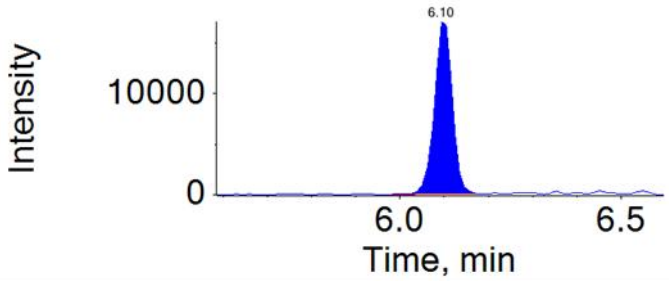


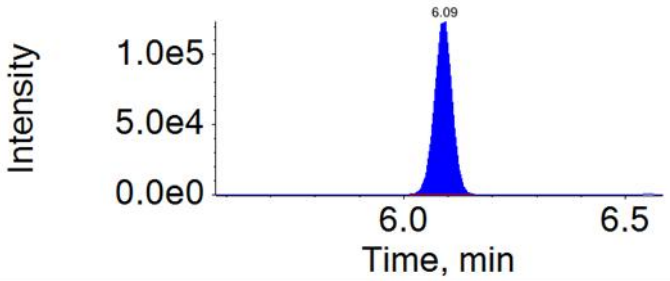
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



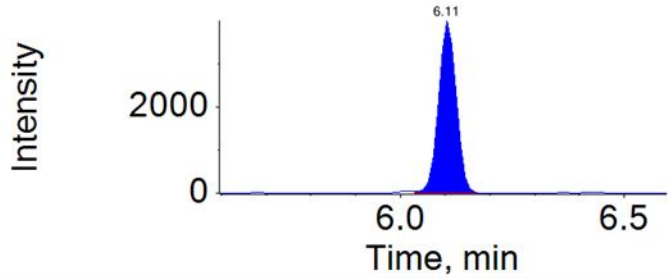


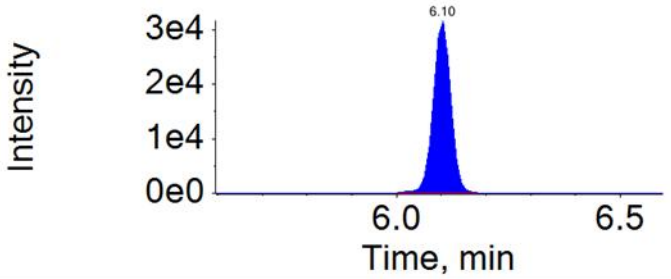
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

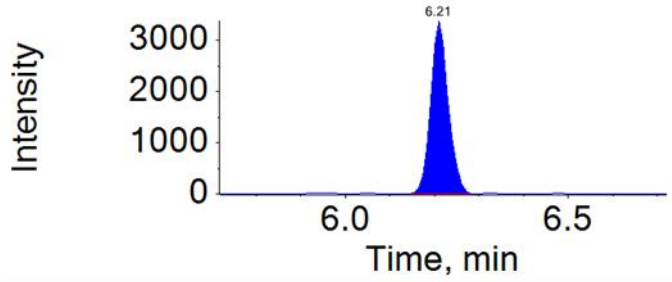
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

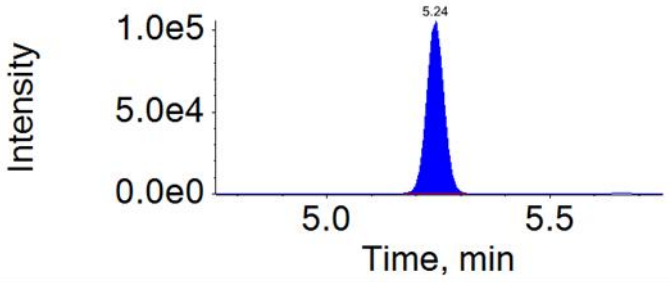
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



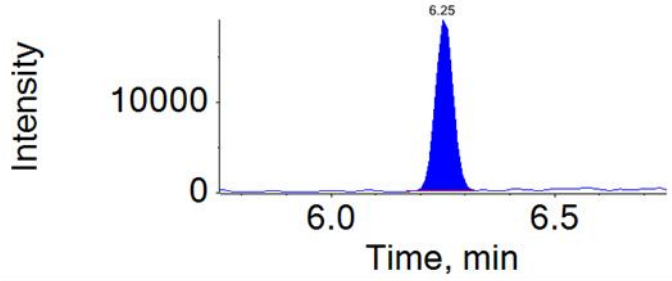


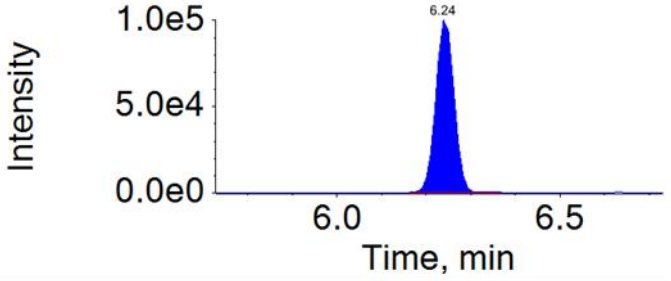
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



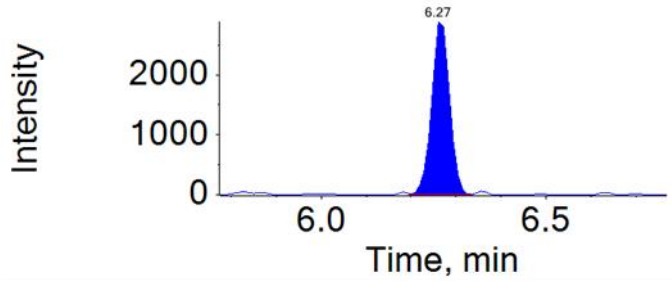


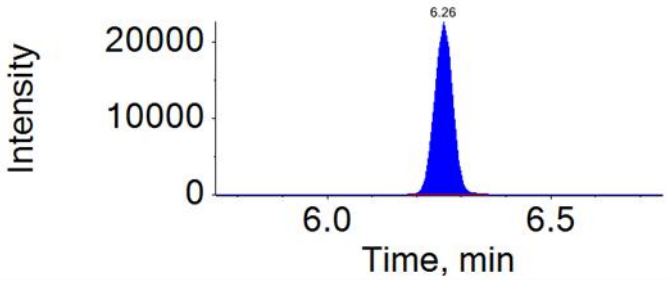
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



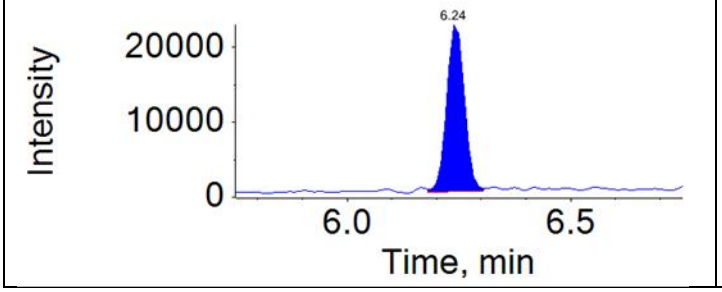


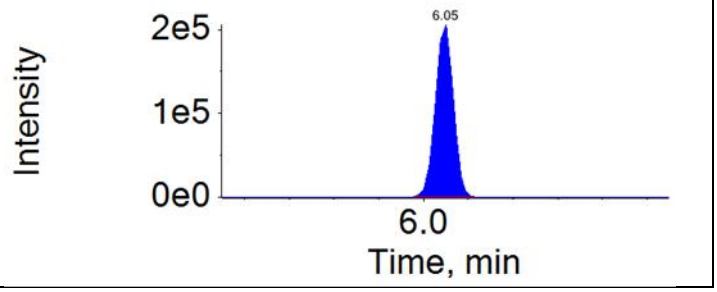
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

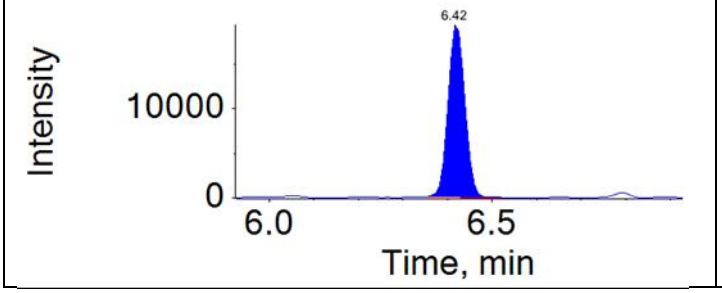
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

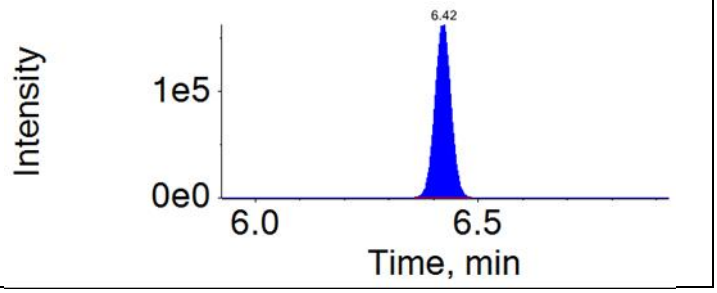
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



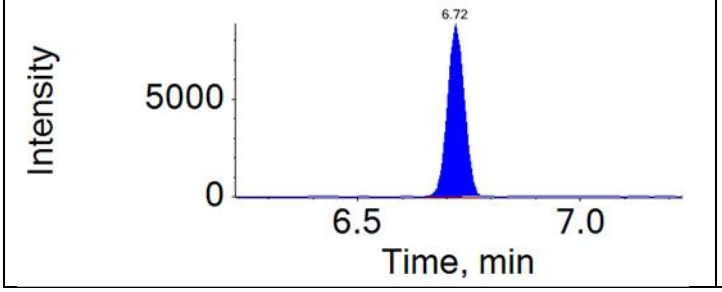


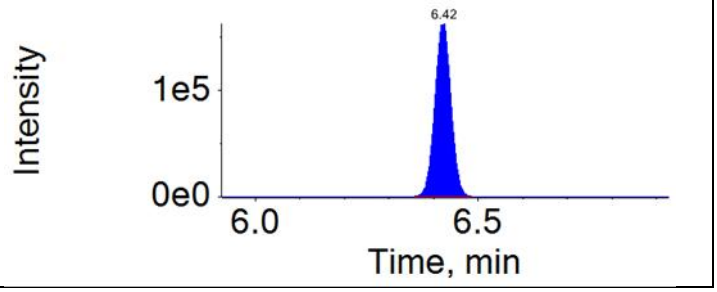
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



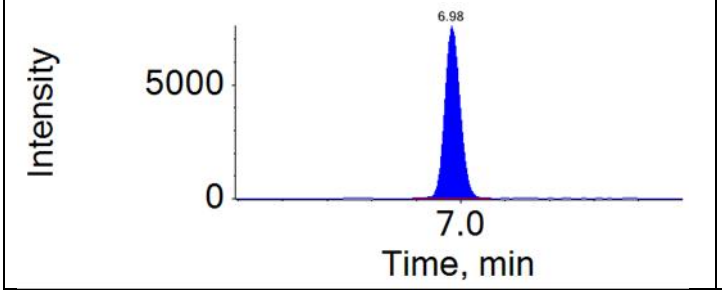


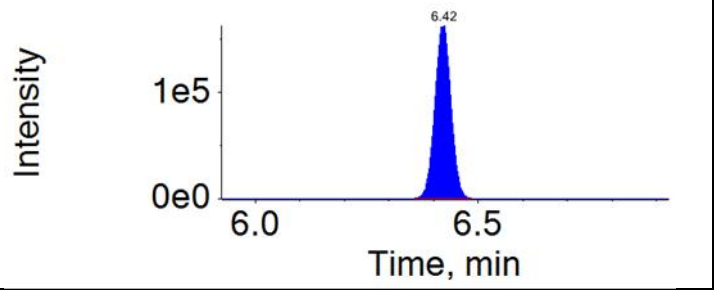
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



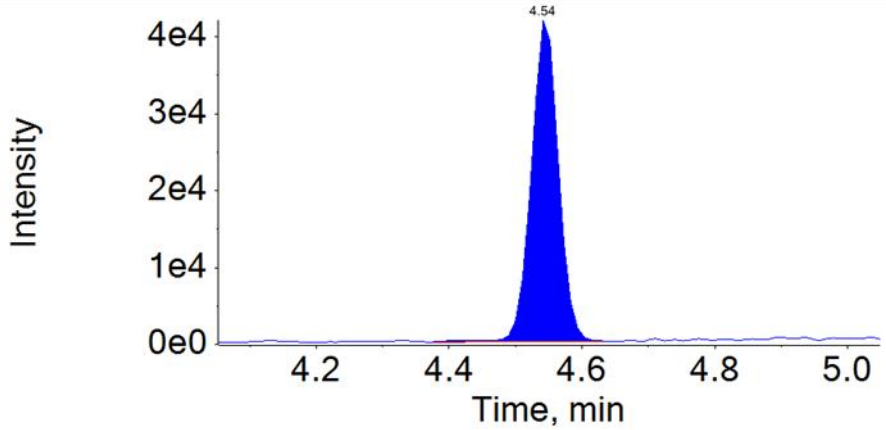


APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

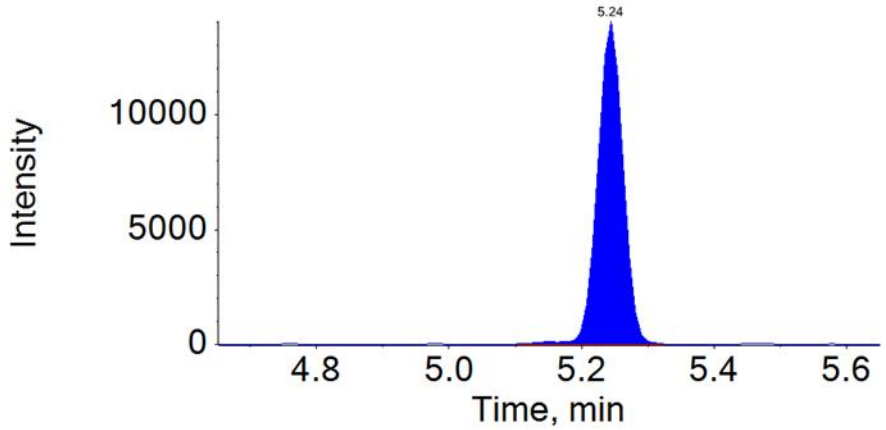
Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



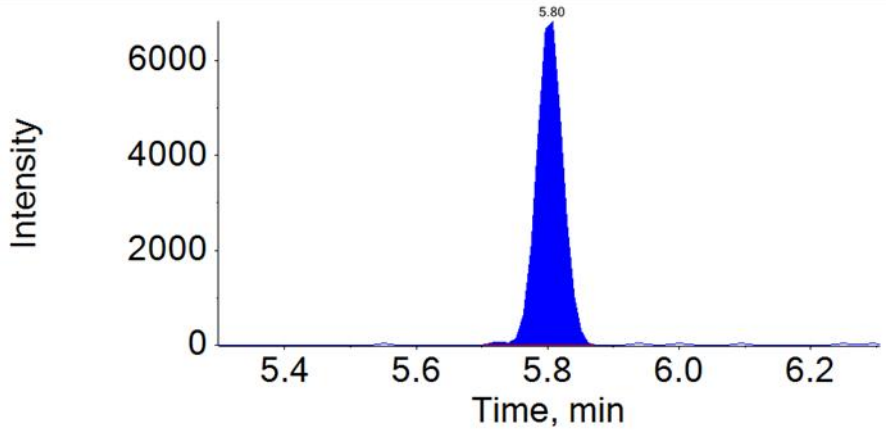
Integration Comment: incorrect integration

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

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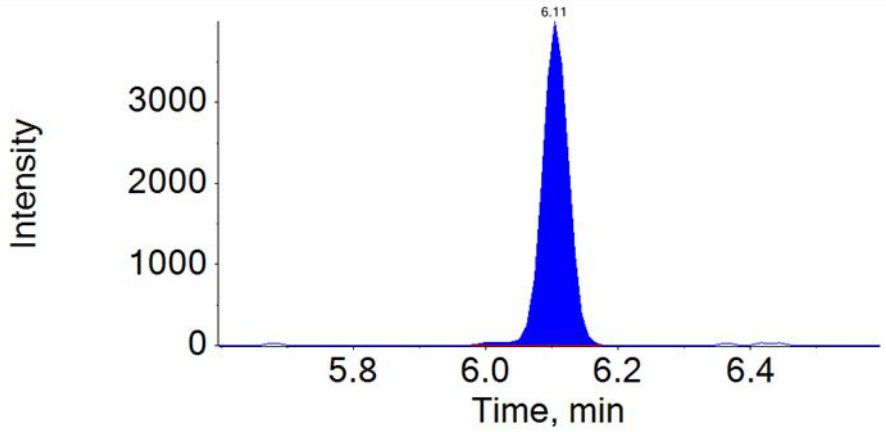
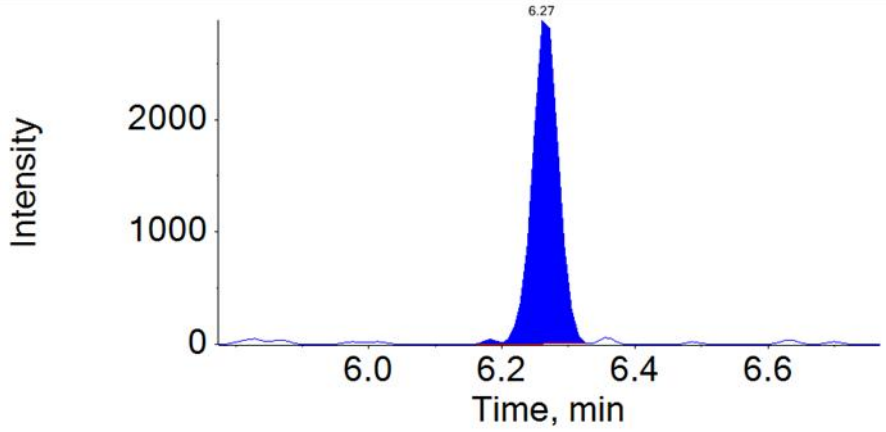
Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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



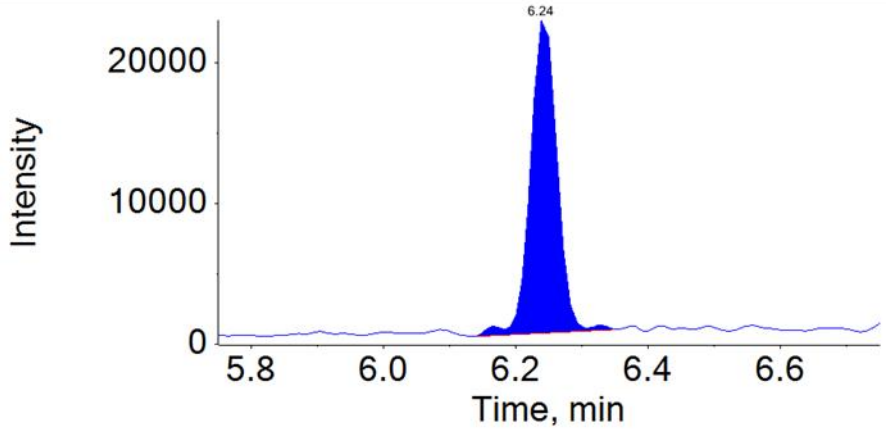
Integration Comment: incorrect integration

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

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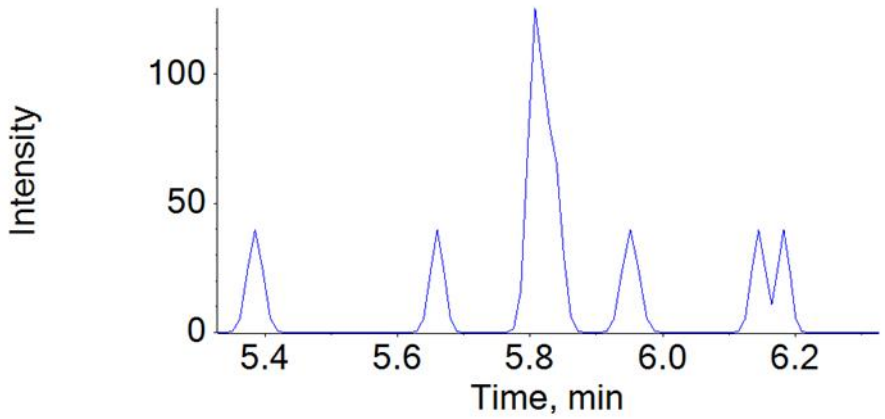
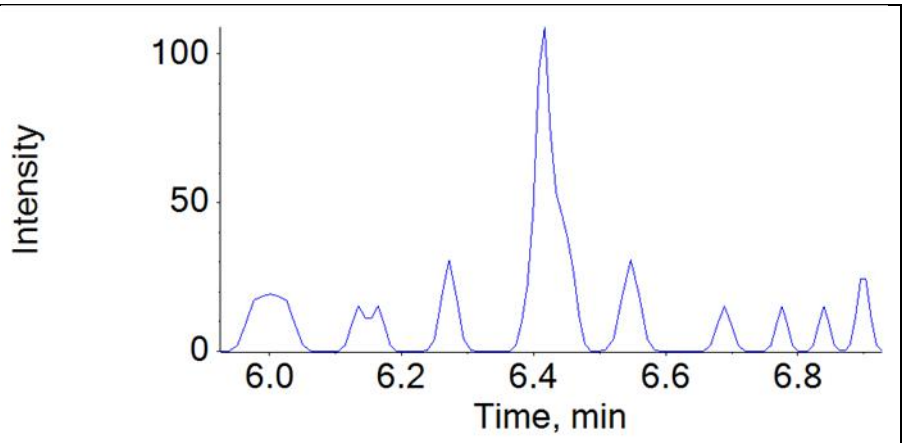
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

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

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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

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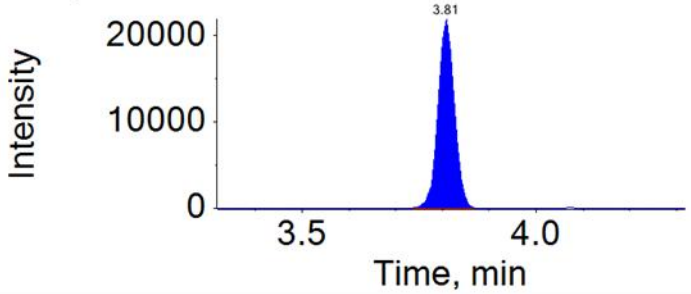
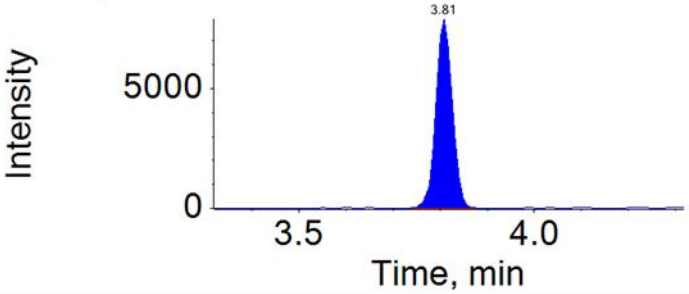
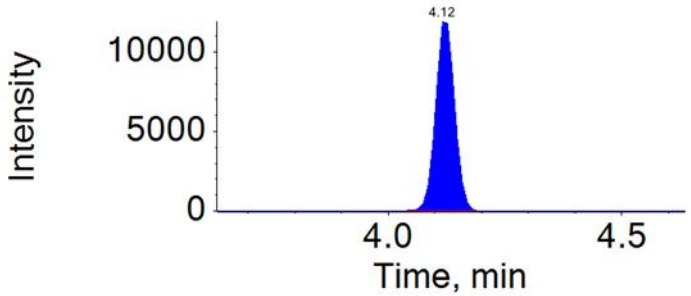
Component: PFBS
Primary Mass: 299.0 / 80.0



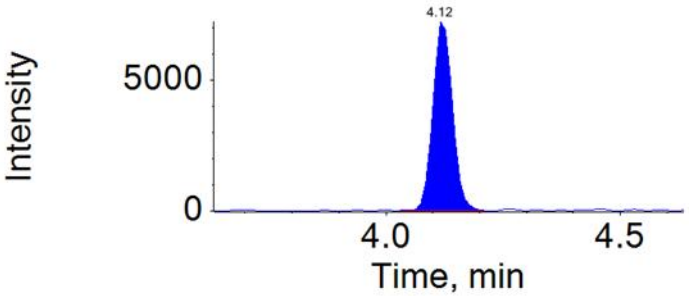
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



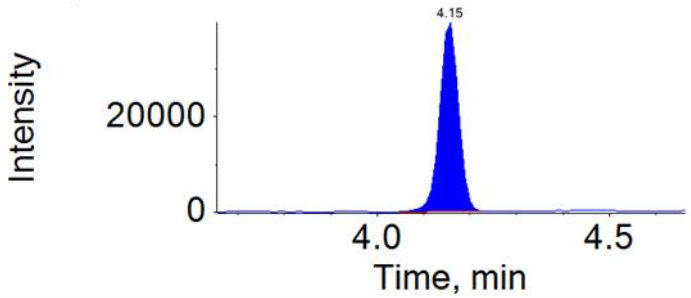
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



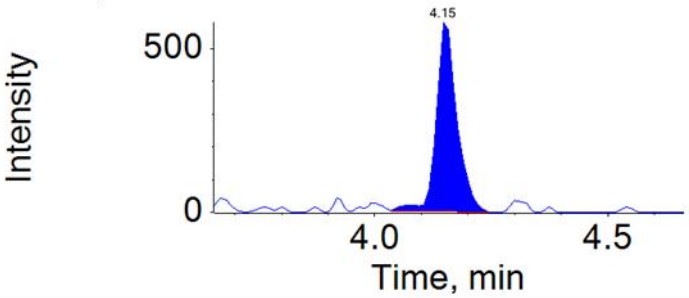
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



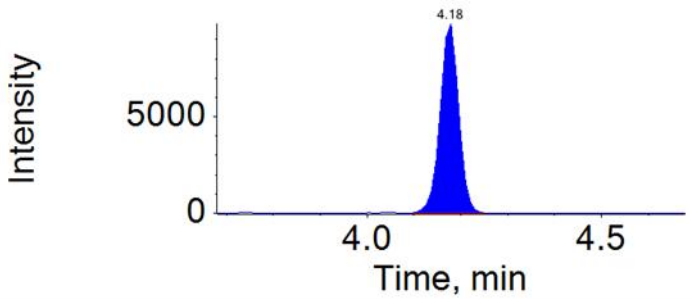
Component: PFHxA
Primary Mass: 313.0 / 269.0



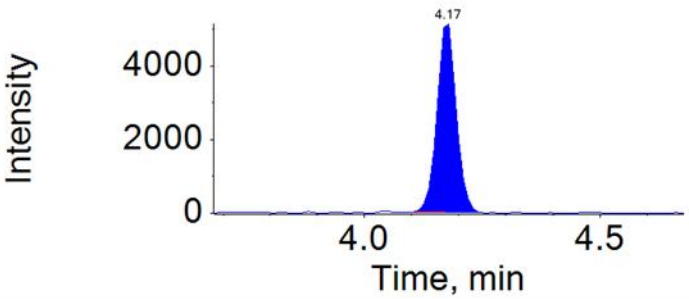
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



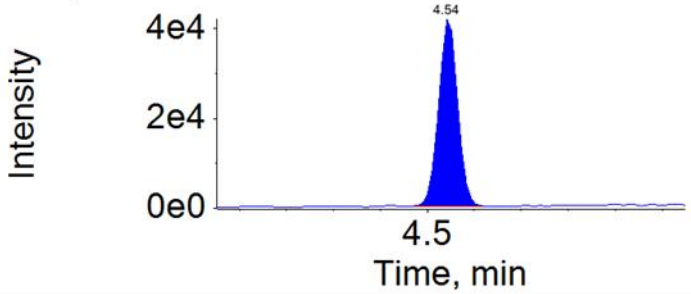
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



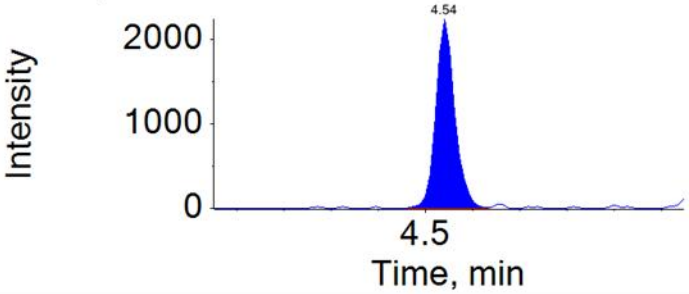
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

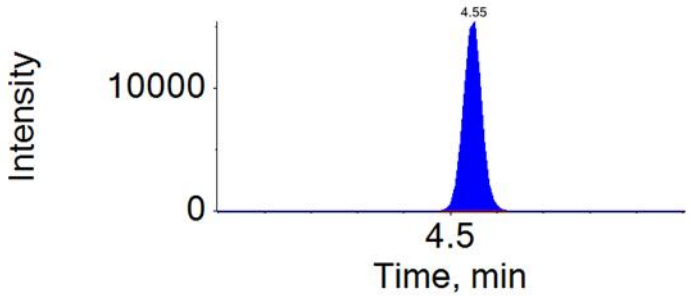
Component: PFHpA
Primary Mass: 363.0 / 319.0



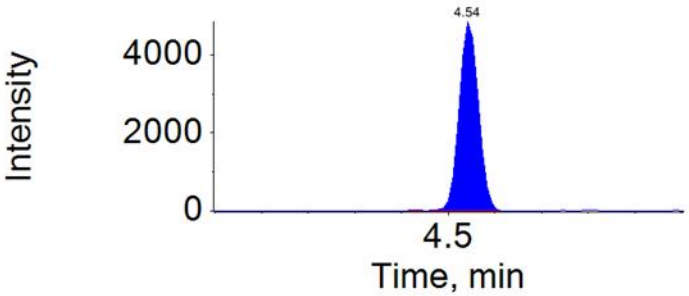
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



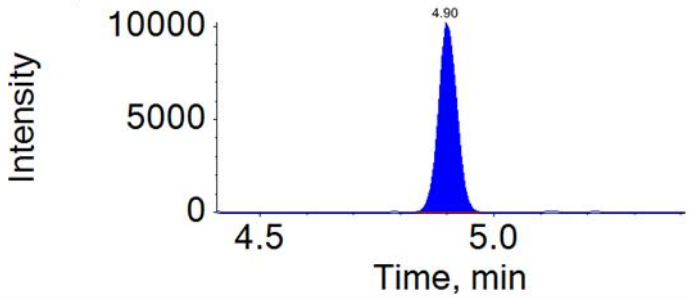
Component: PFHxS
Primary Mass: 399.0 / 80.0



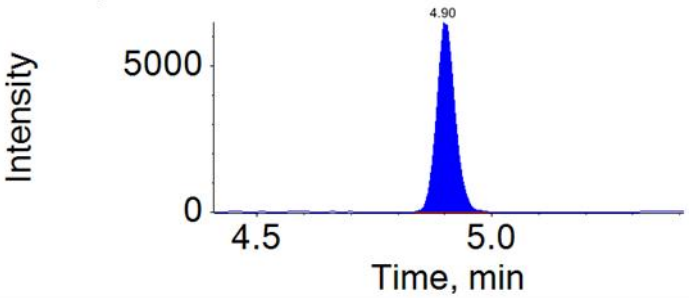
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



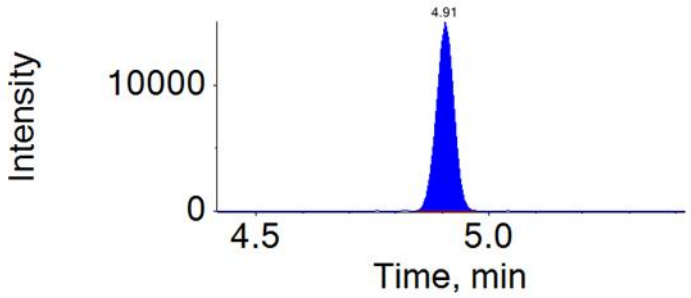
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



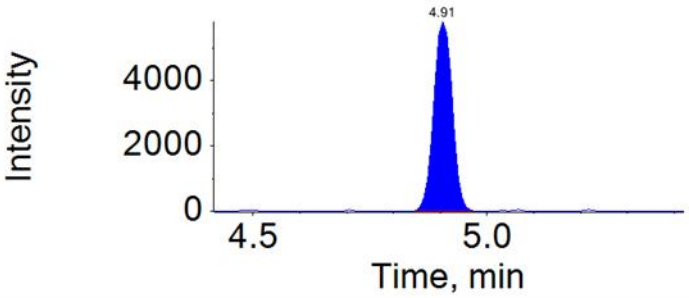
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



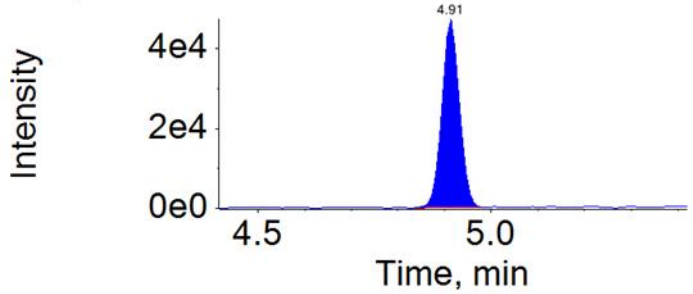
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



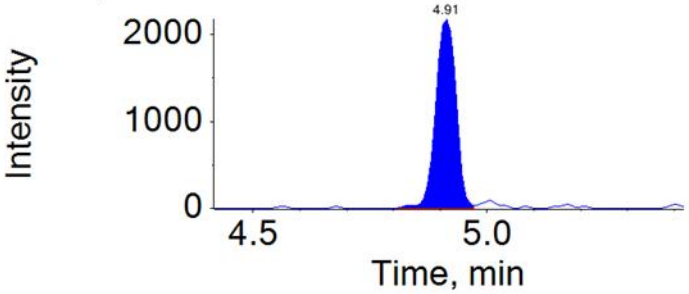
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

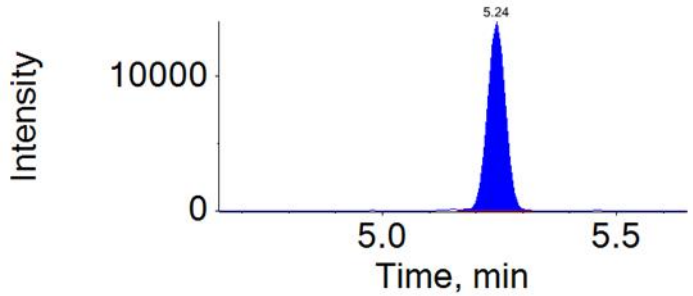
Component: PFOA
Primary Mass: 413.0 / 369.0



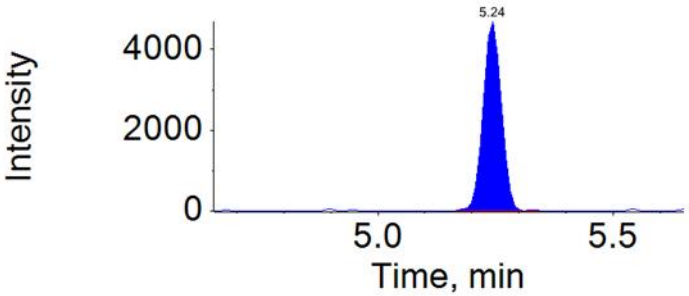
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



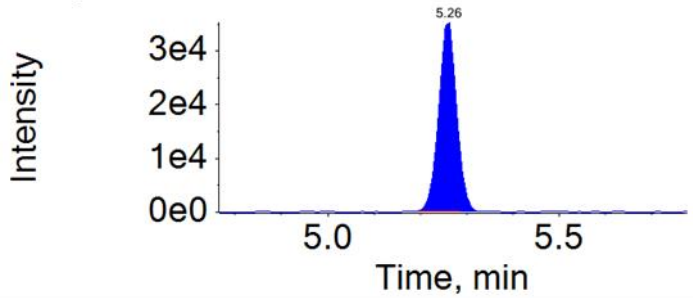
Component: PFOS
Primary Mass: 499.0 / 80.0



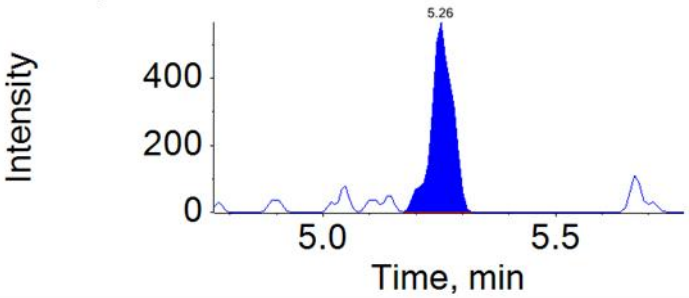
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



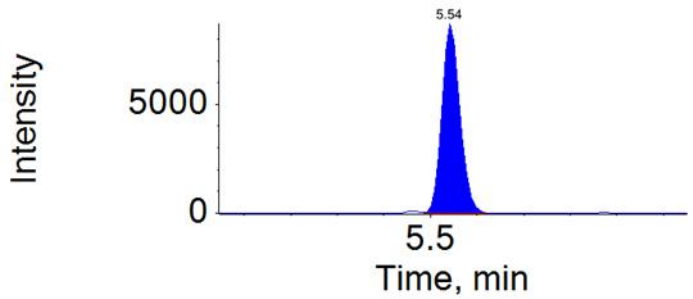
Component: PFNA
Primary Mass: 463.0 / 419.0



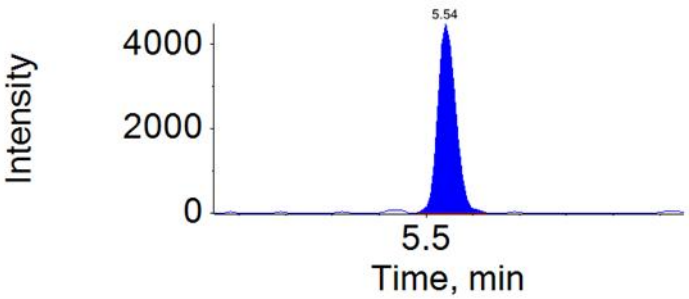
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



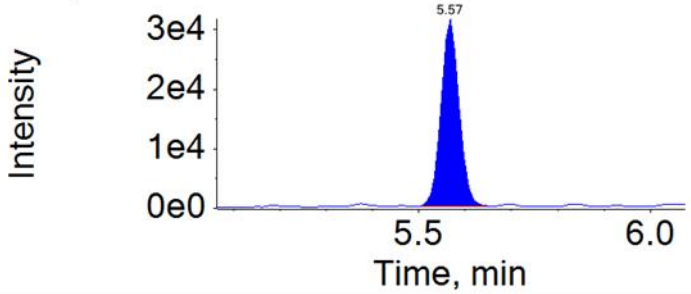
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



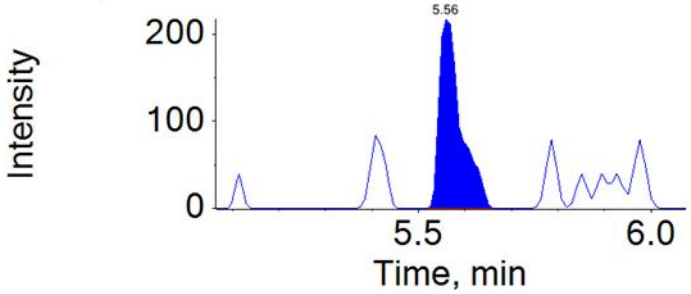
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

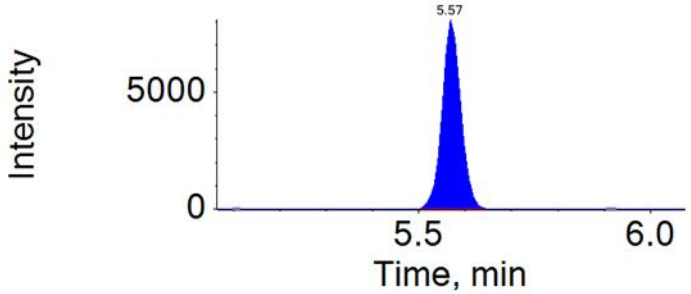
Component: PFDA
Primary Mass: 513.0 / 469.0



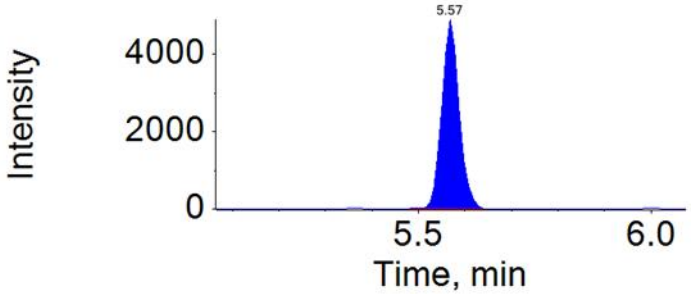
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



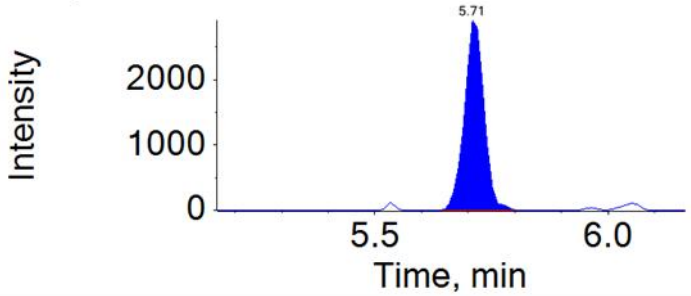
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



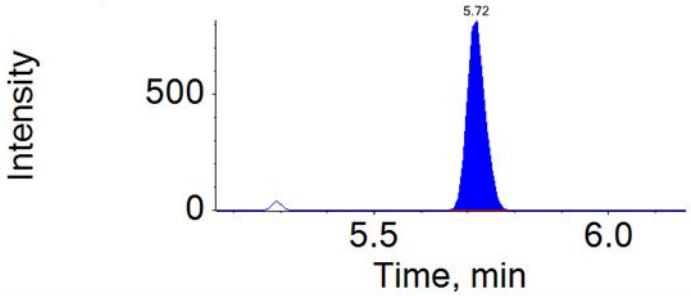
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



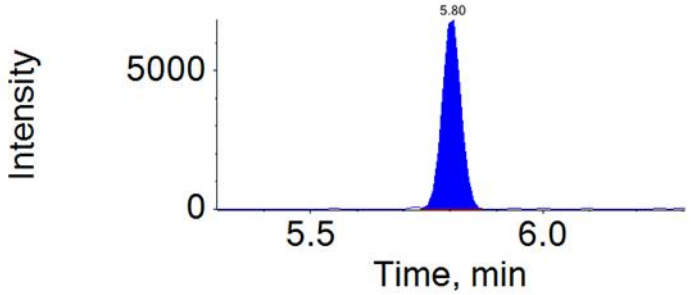
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



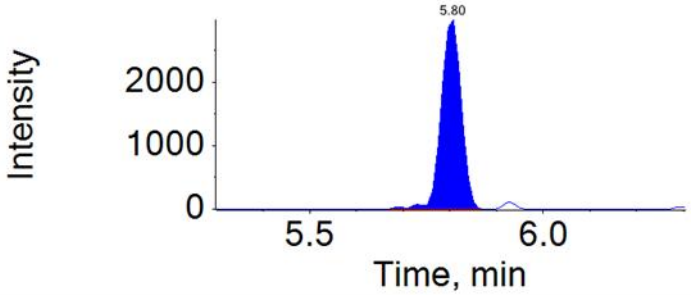
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



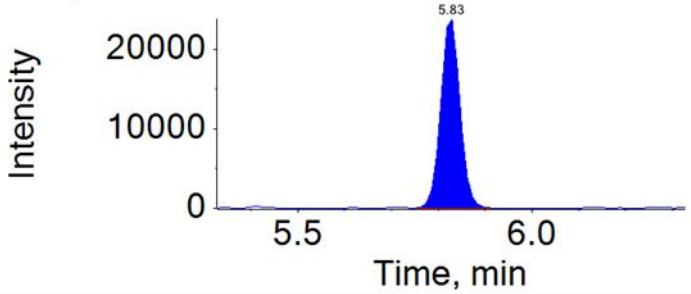
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



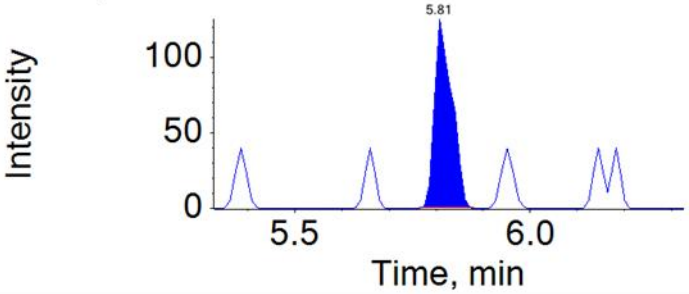
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

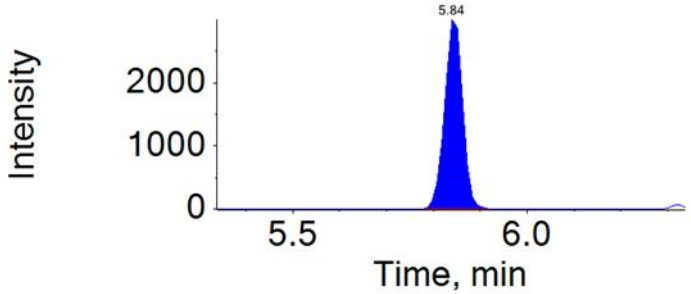
Component: PFUnDA
Primary Mass: 563.0 / 519.0



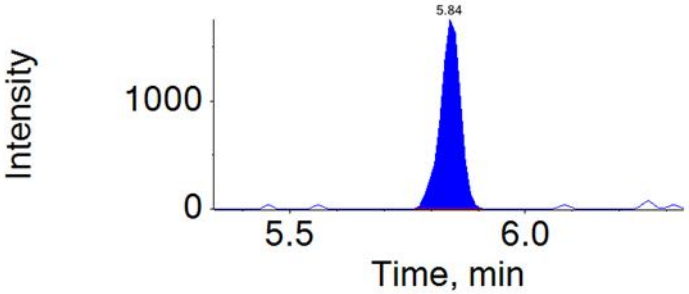
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



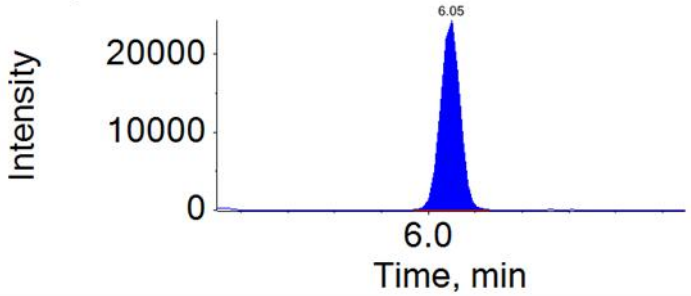
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



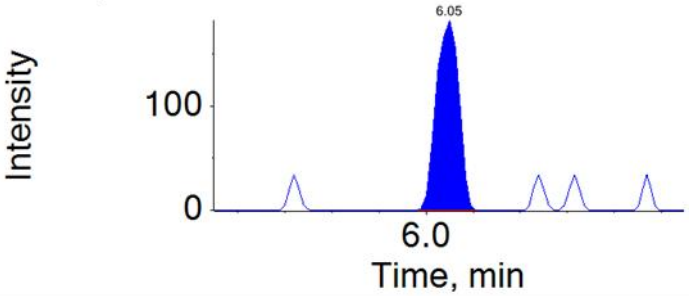
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



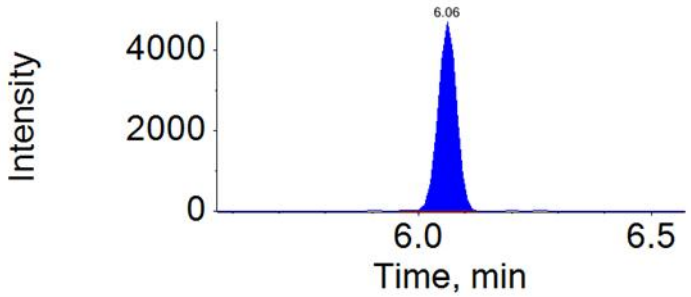
Component: PFDoDA
Primary Mass: 613.0 / 569.0



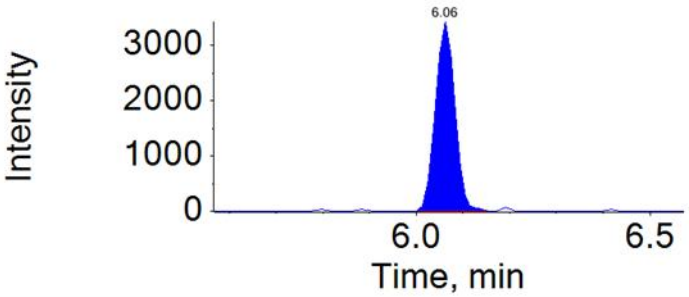
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



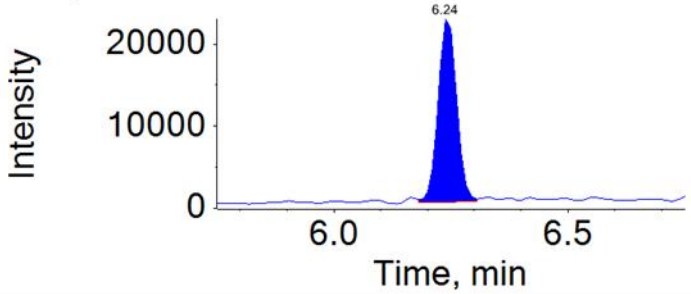
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



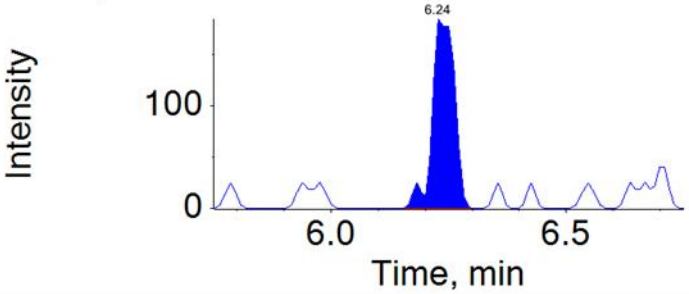
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

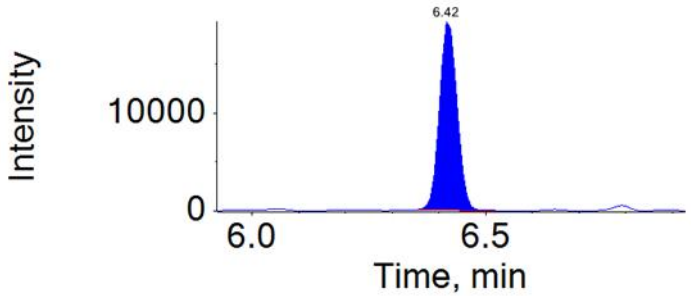
Component: PFTrDA
Primary Mass: 663.0 / 619.0



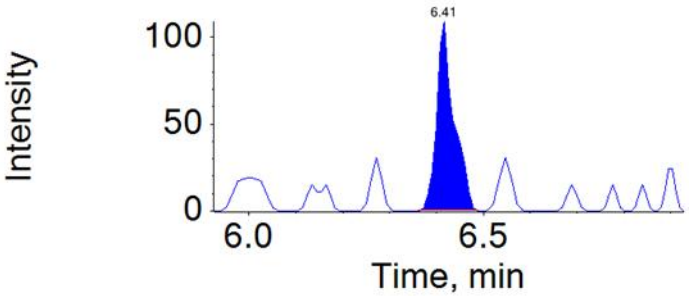
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



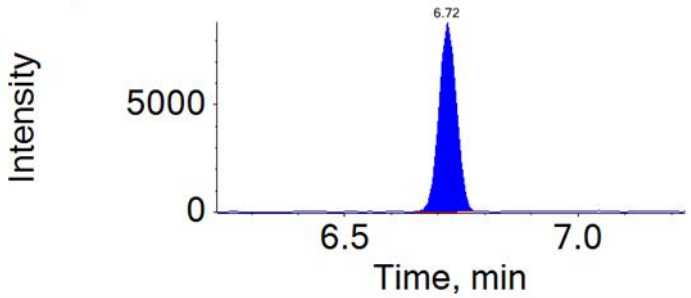
Component: PFTeDA
Primary Mass: 713.0 / 669.0



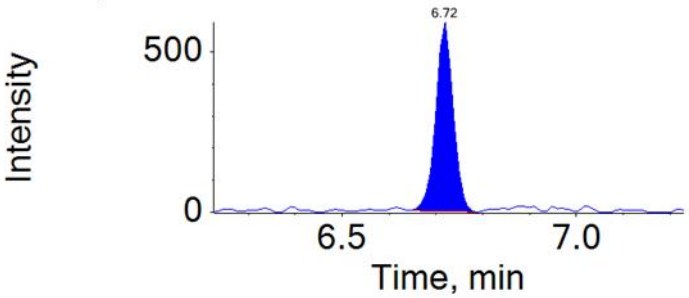
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



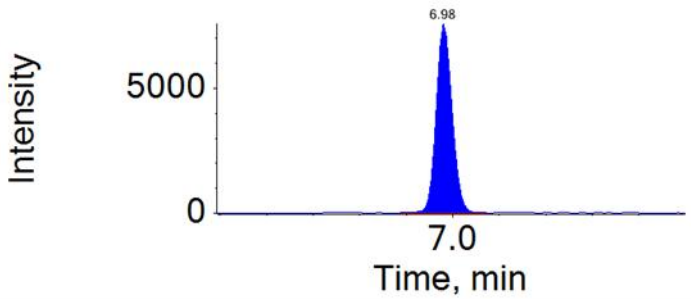
Component: PFHxDA
Primary Mass: 813.0 / 769.0



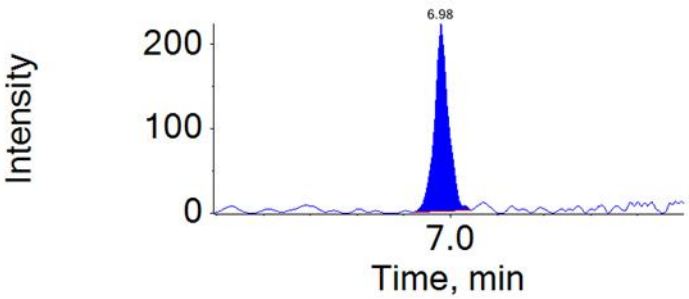
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



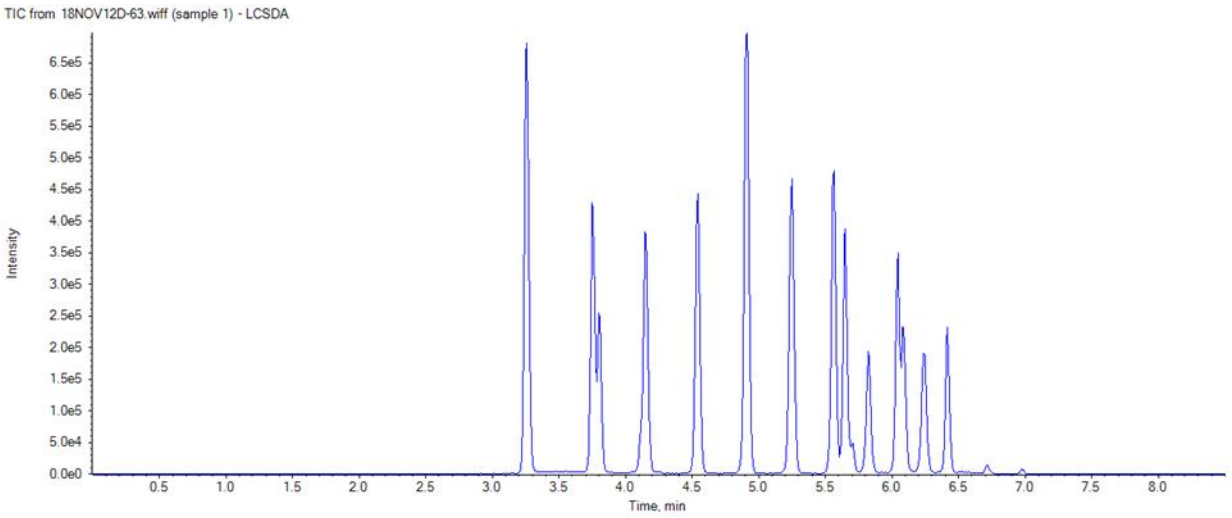
APPROVED
By JPT at 4:11 pm, 11/13/18

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

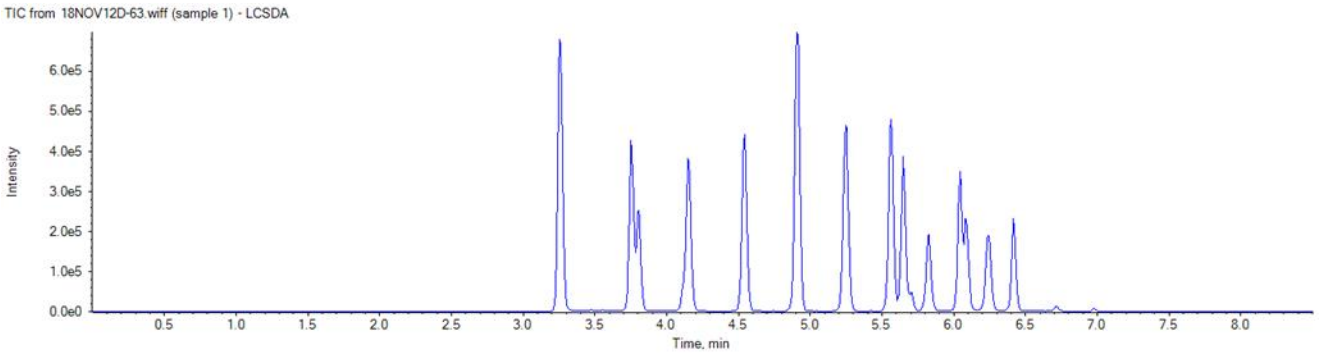
Analyte Quantitation Peak Table

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

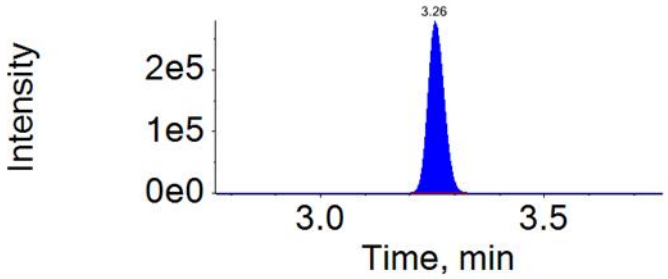


APPROVED
By JPT at 4:11 pm, 11/13/18

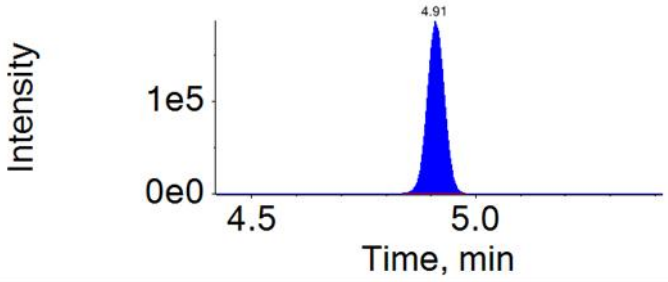
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

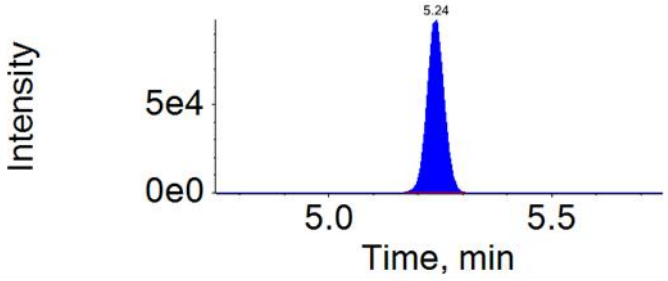
Injection Standard: 13C3-PFBA
216.0 / 172.0



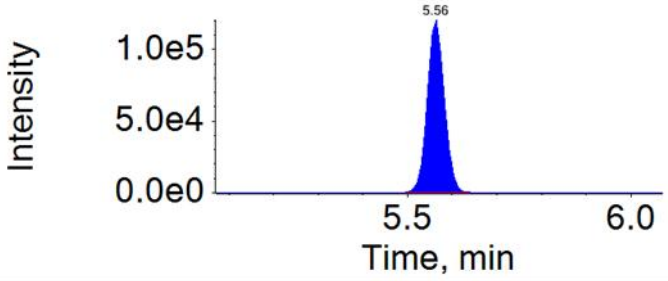
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



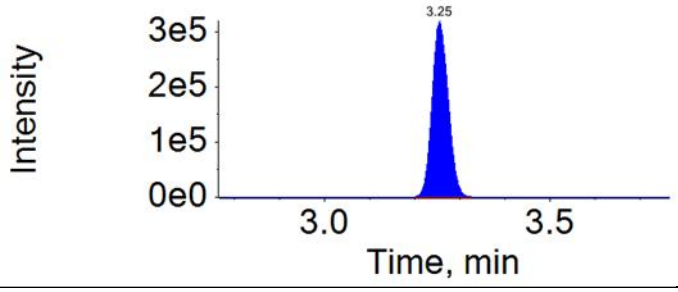
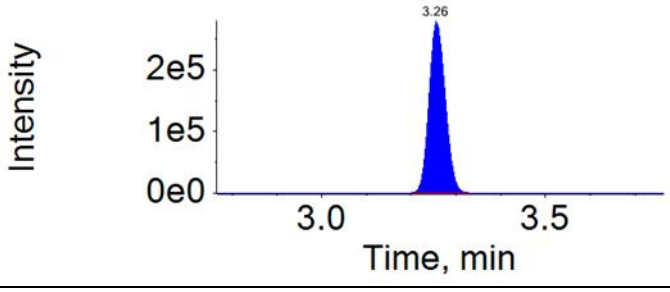
Injection Standard: 13C2-PFDA
515.0 / 470.0

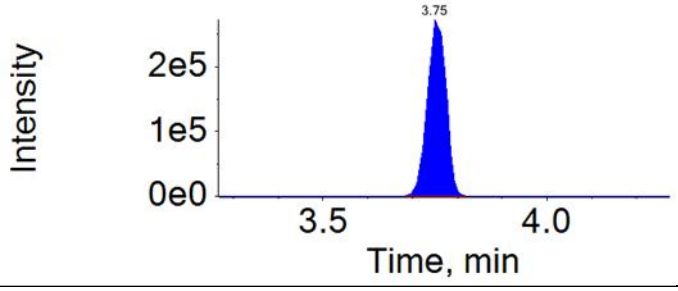
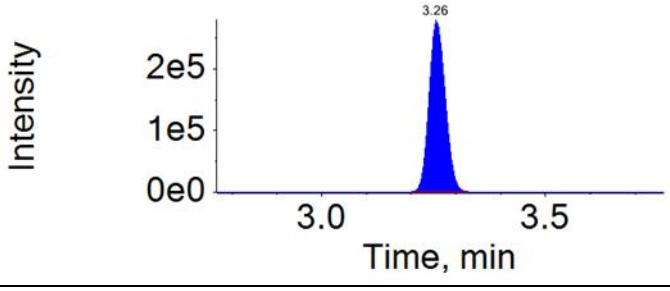


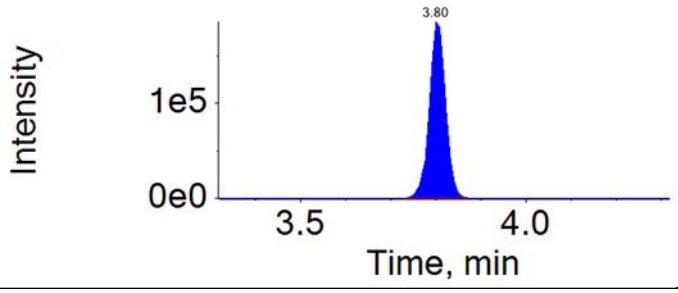
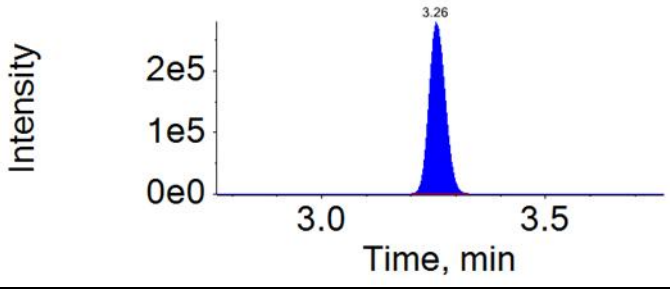
APPROVED
By JPT at 4:11 pm, 11/13/18

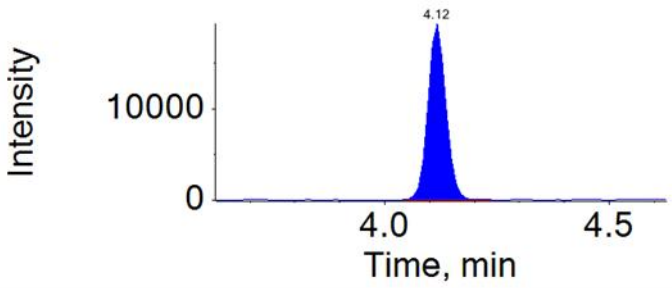
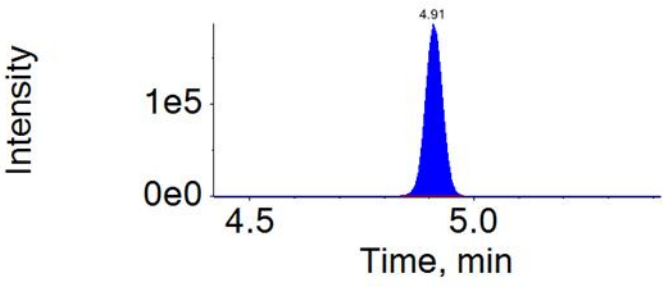
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

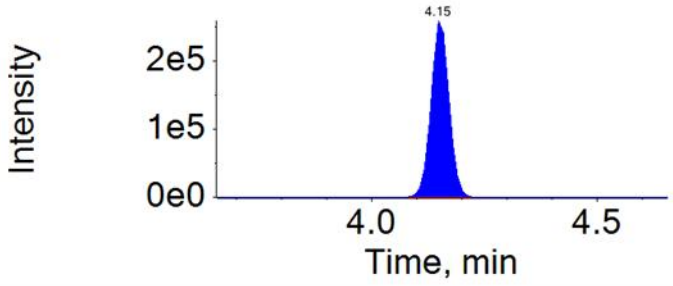
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

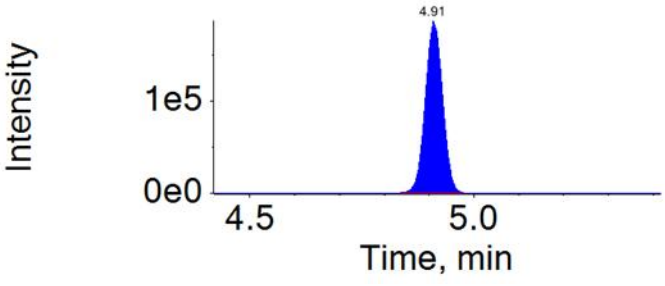
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

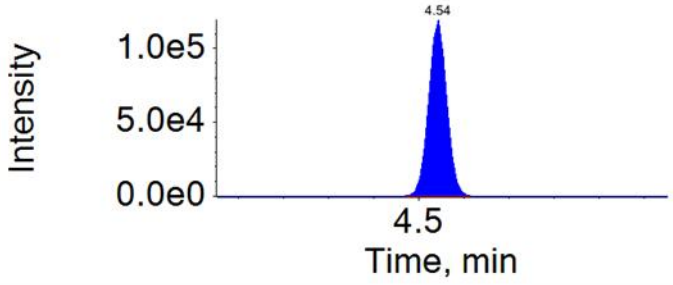
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

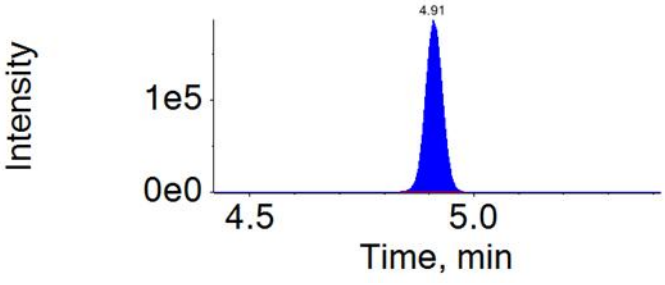
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



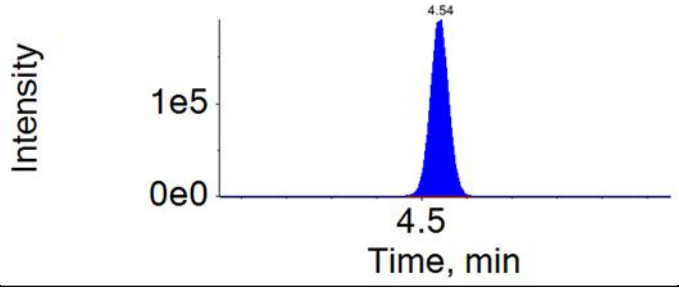


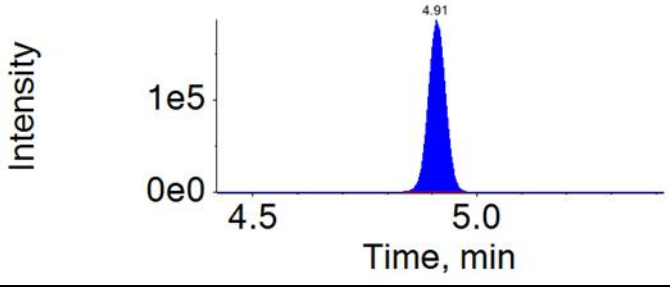
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



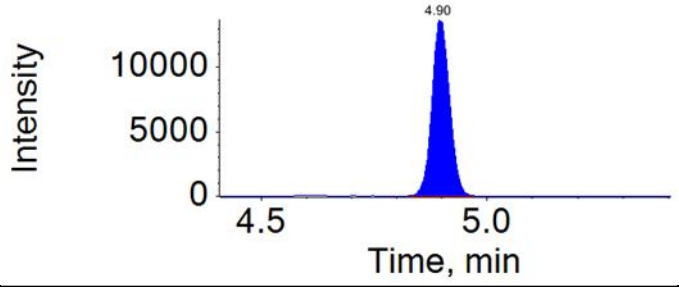


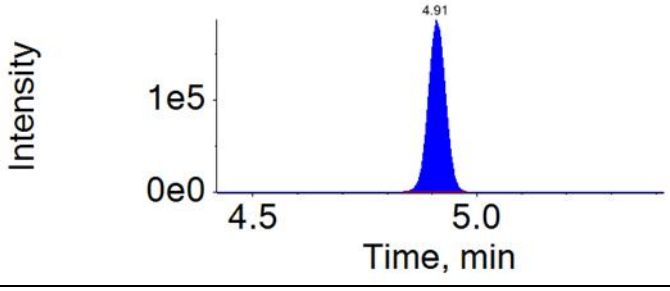
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

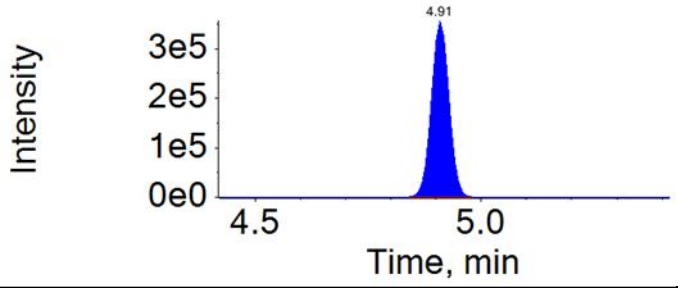
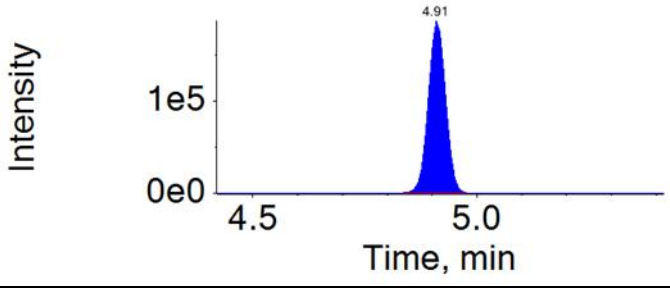


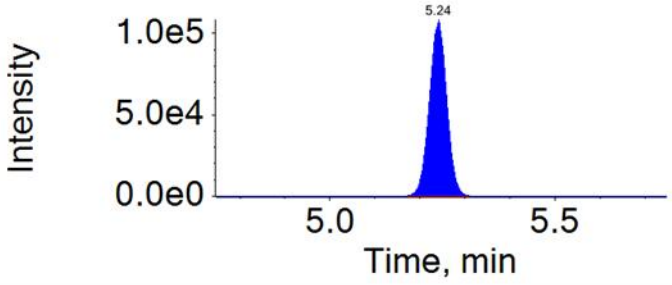
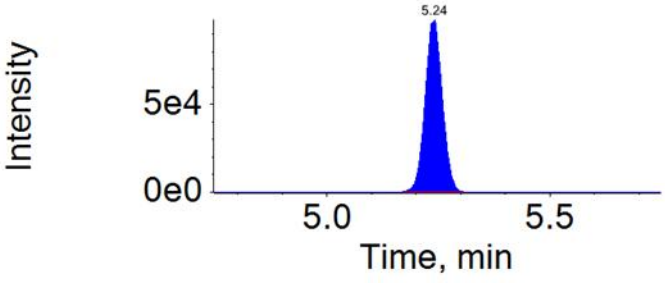


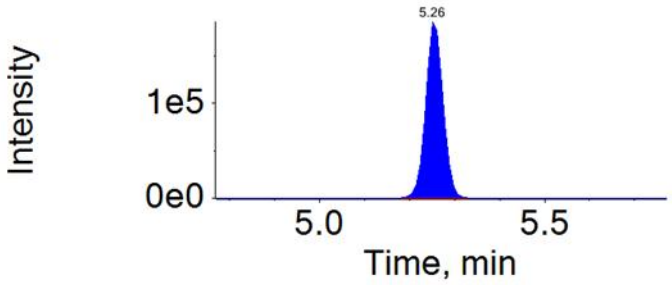
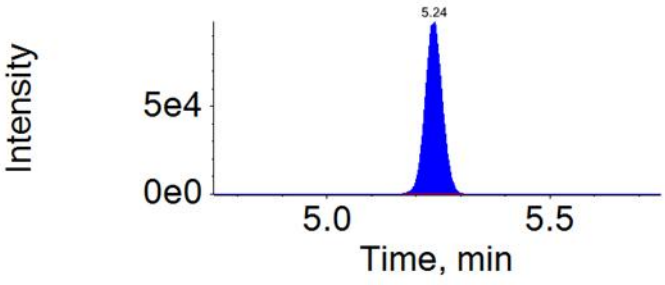
APPROVED
By JPT at 4:11 pm, 11/13/18

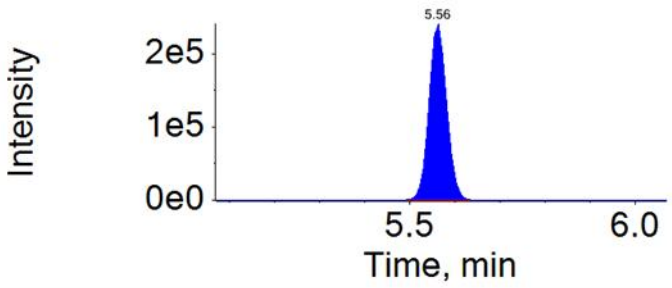
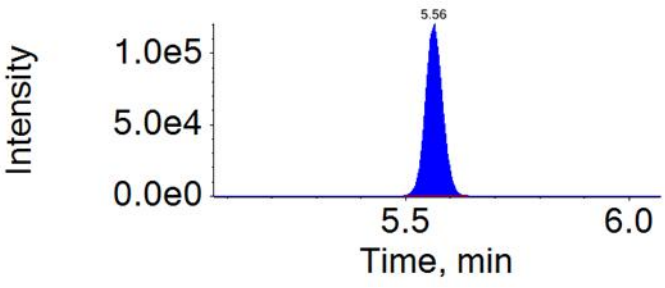
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

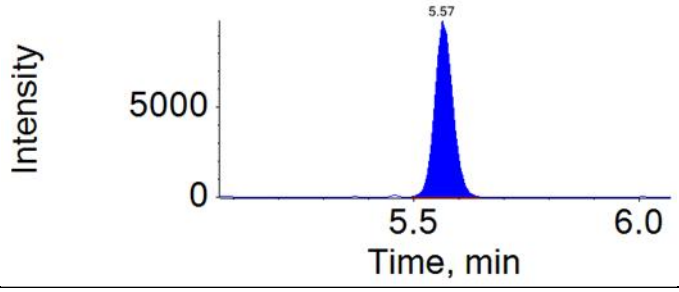
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

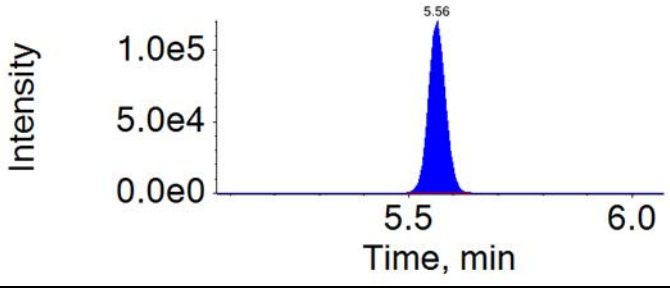
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

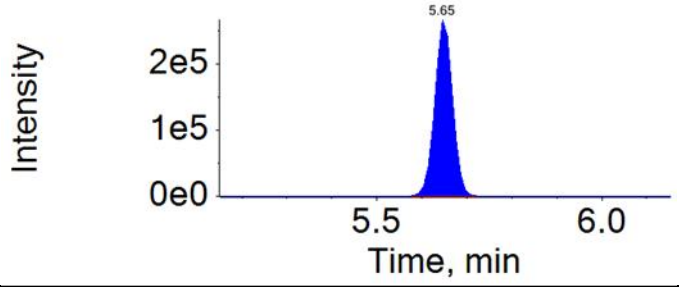
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

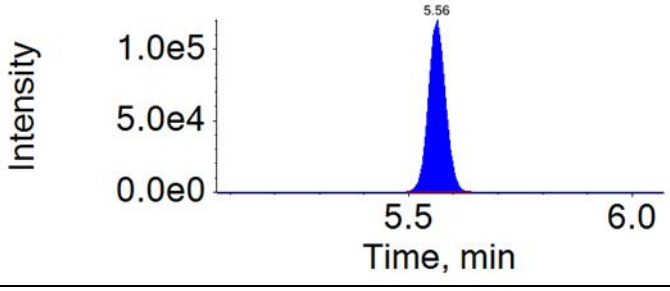
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



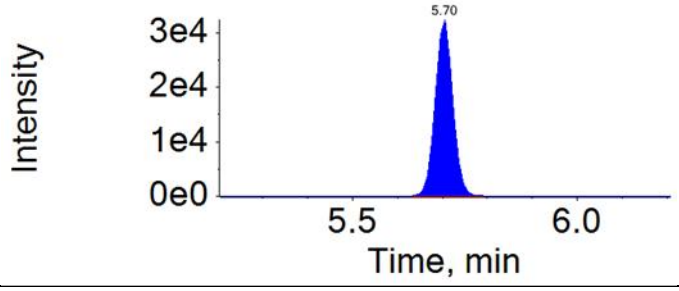


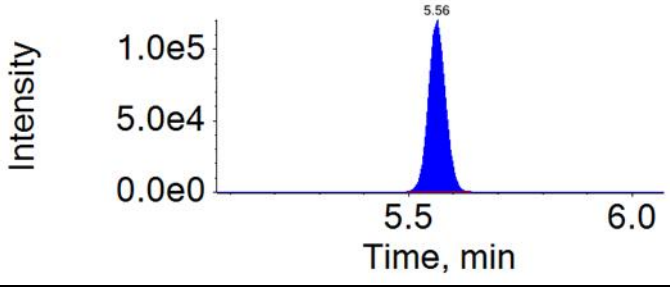
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



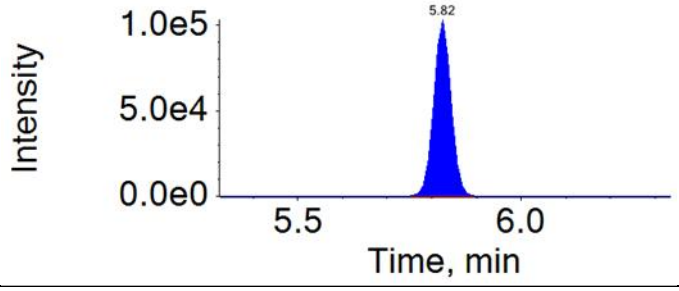


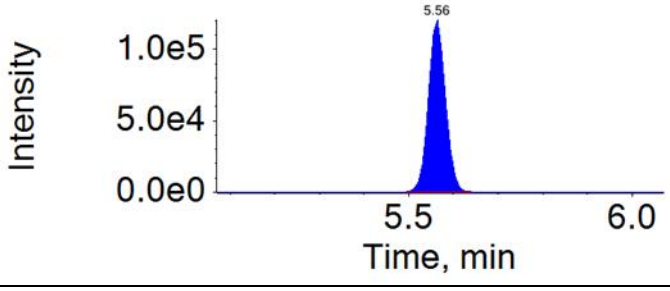
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

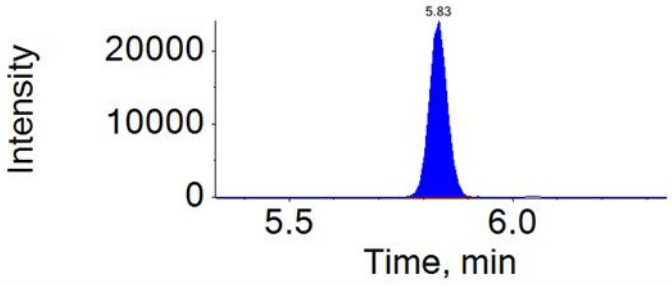
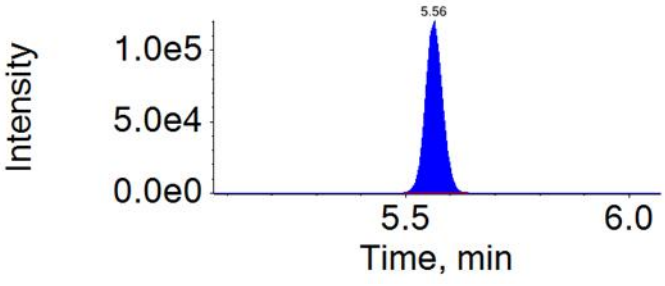


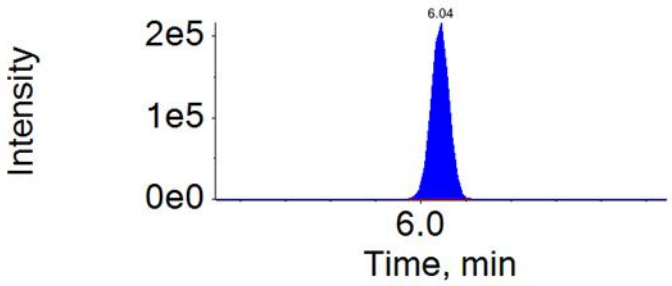
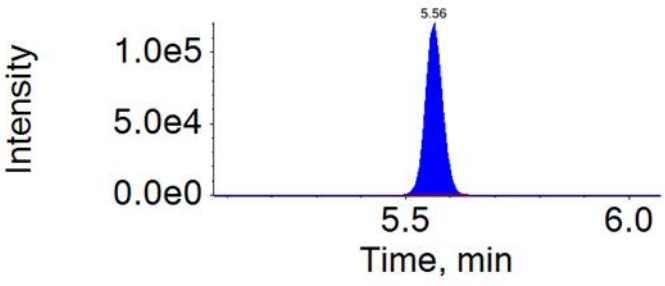


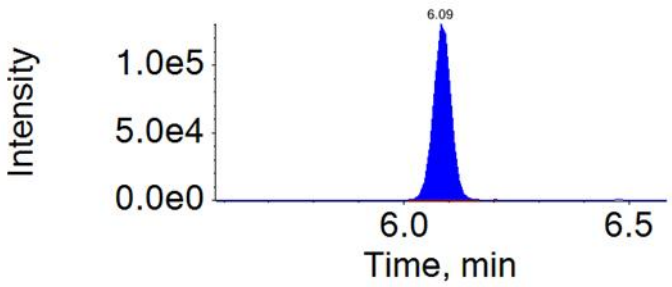
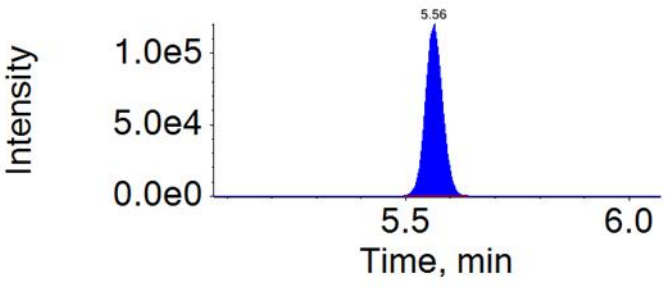
APPROVED
By JPT at 4:11 pm, 11/13/18

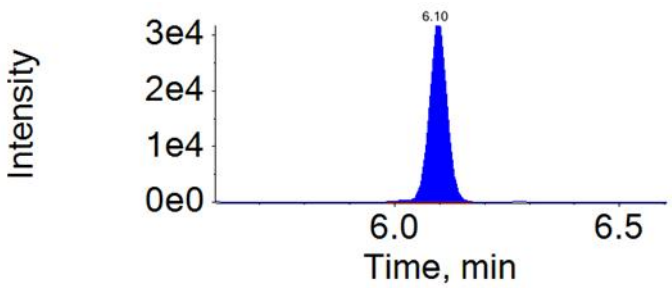
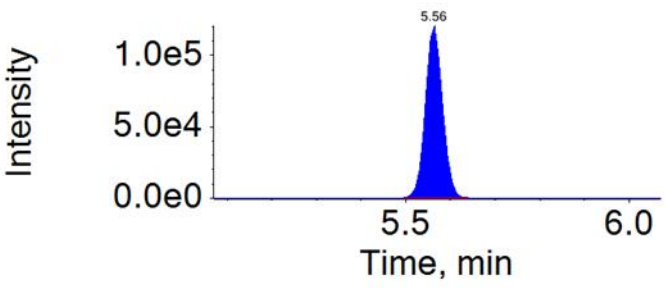
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: 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
	

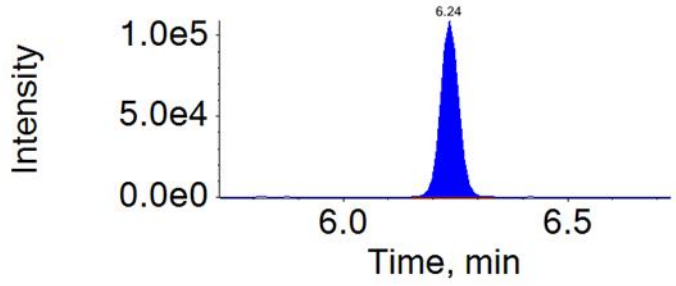
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

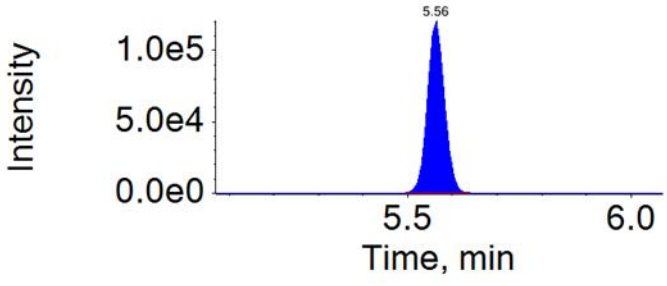
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

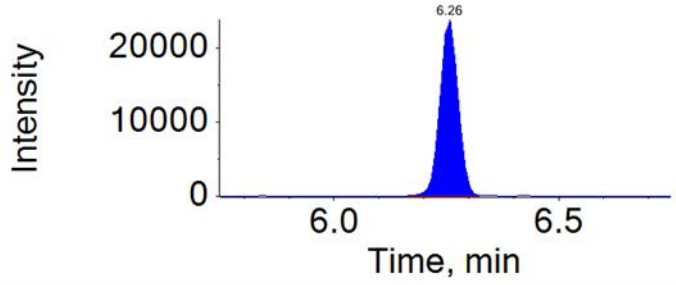
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

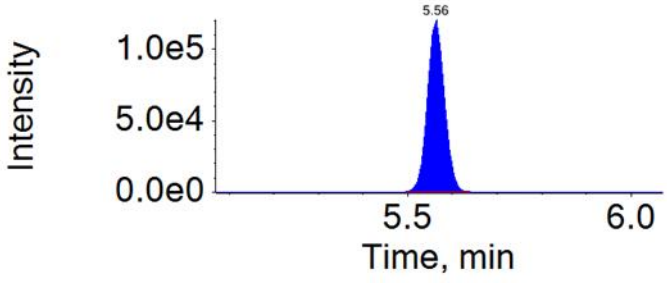
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



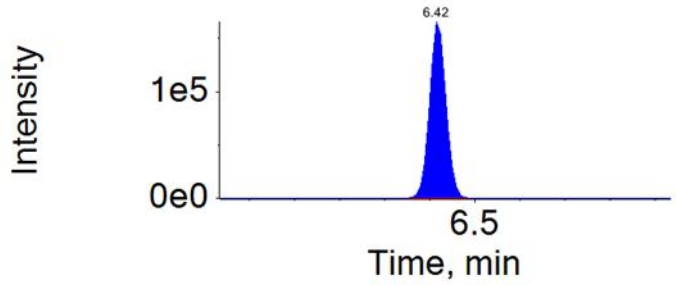


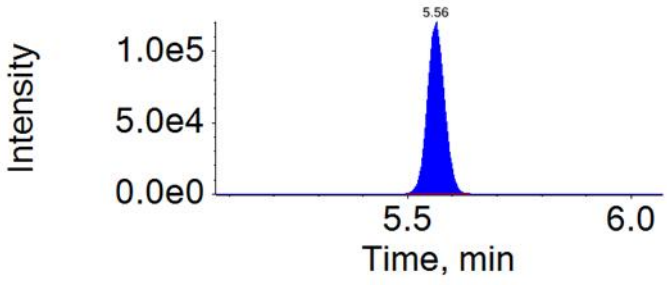
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





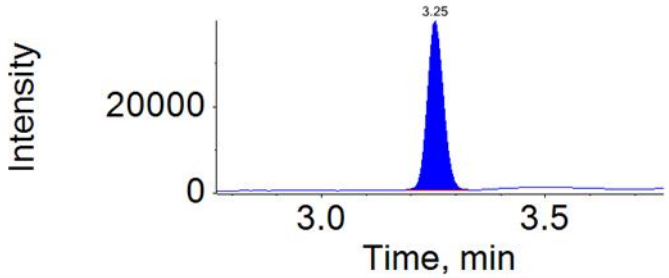
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

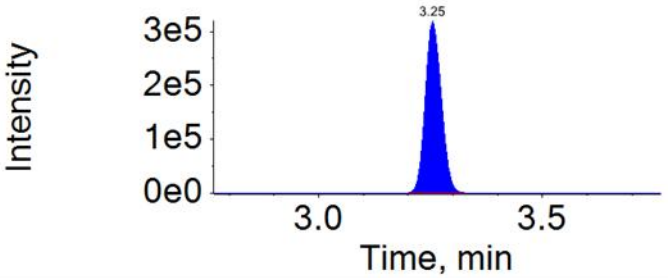




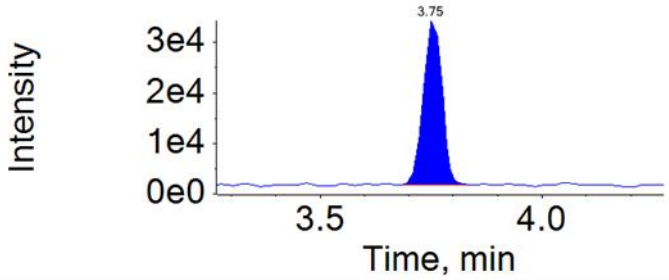
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

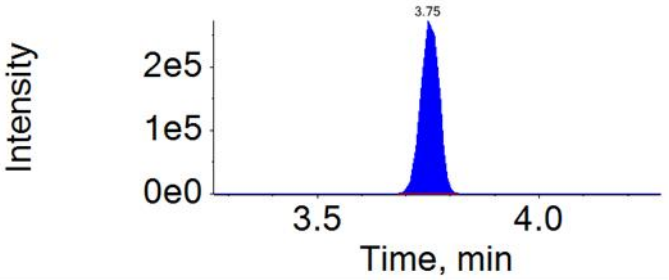
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



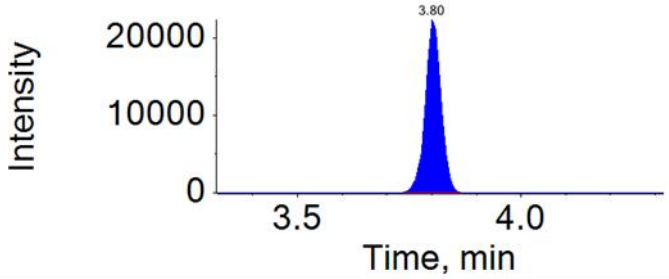


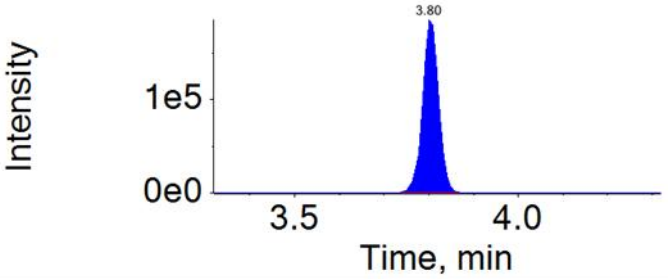
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



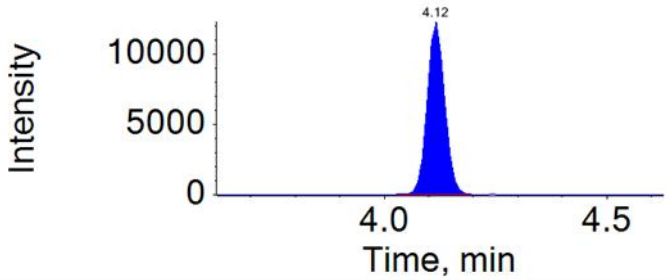


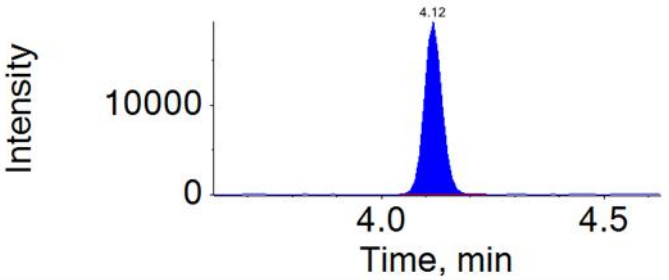
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

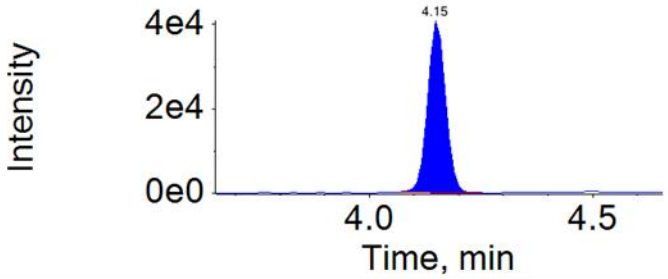
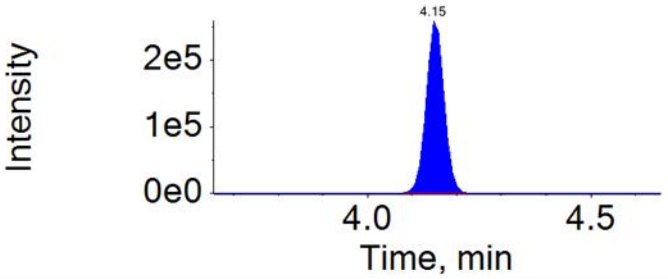


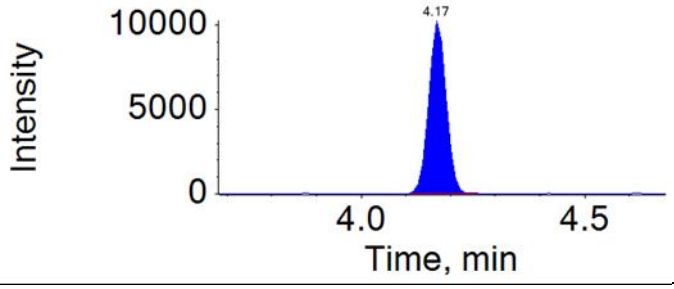
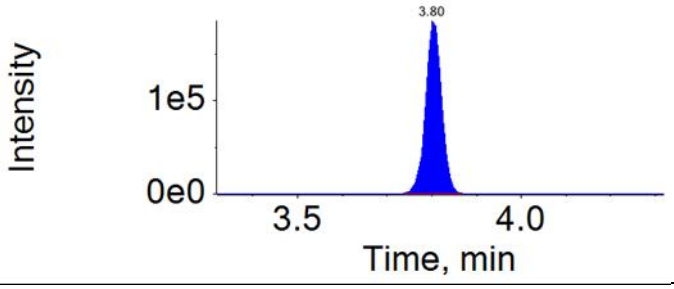


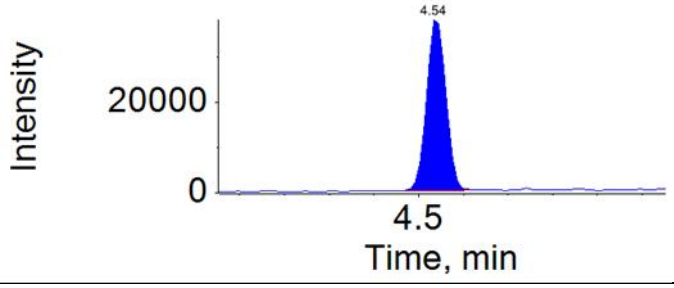
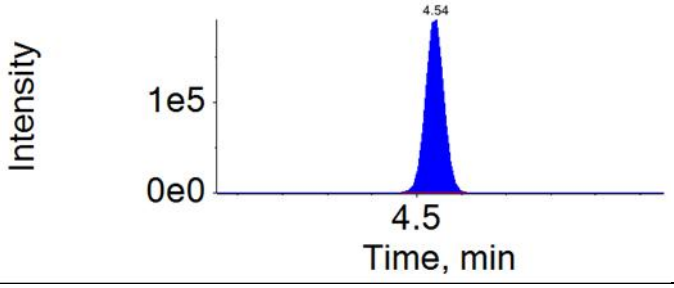
APPROVED
By JPT at 4:11 pm, 11/13/18

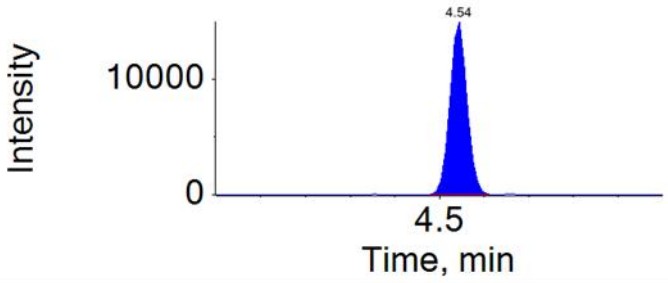
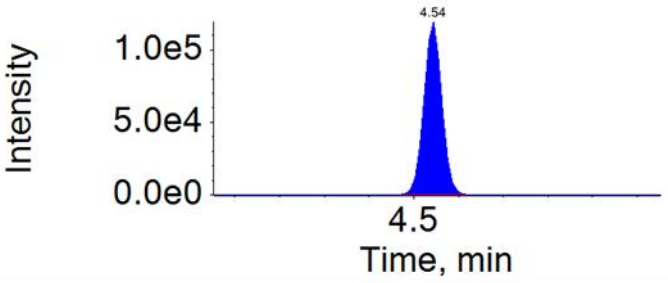
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

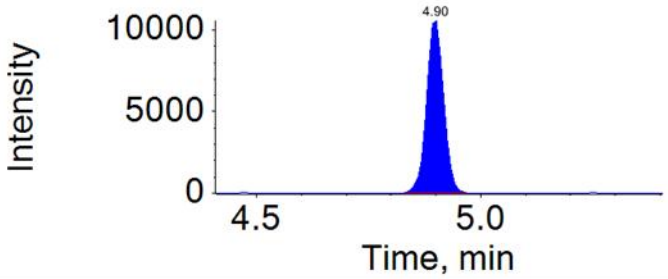
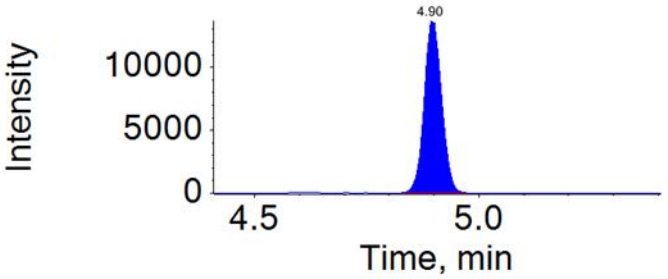
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

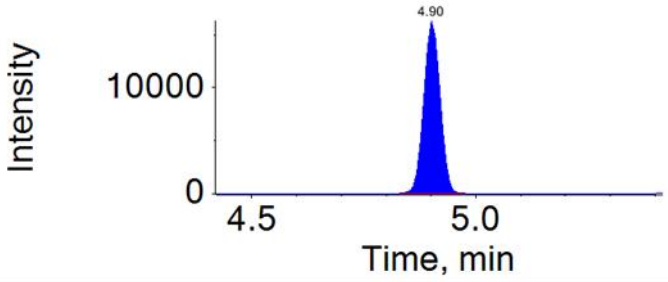
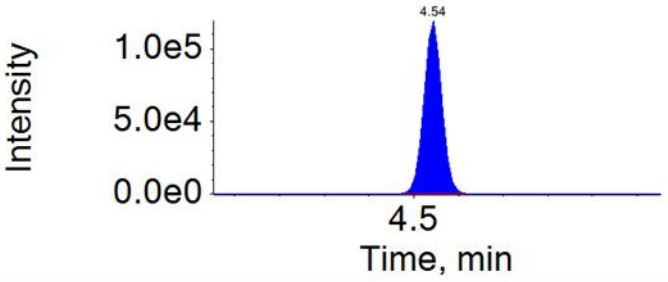
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

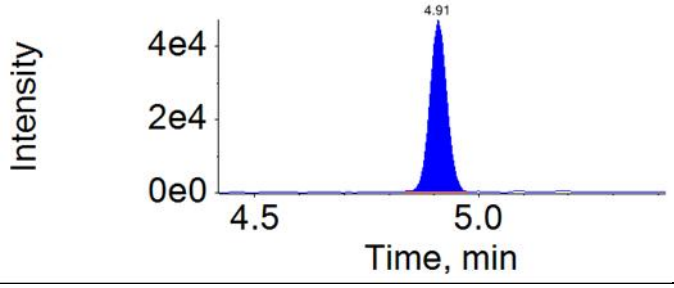
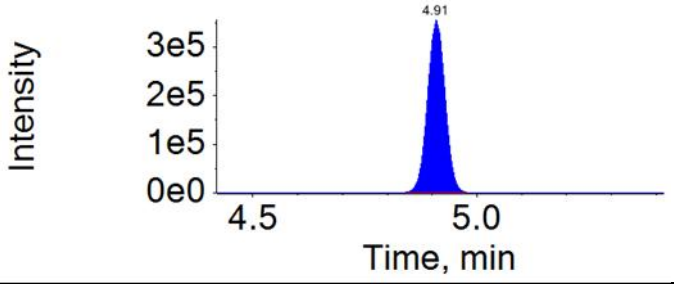
APPROVED
By JPT at 4:11 pm, 11/13/18

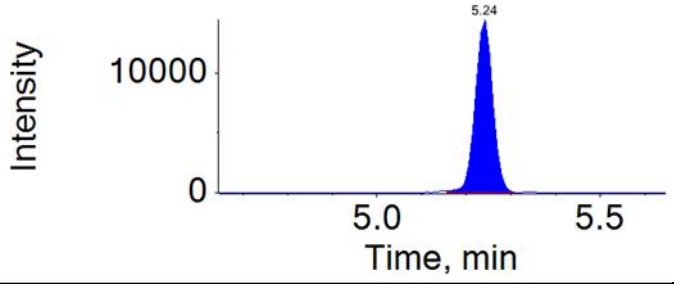
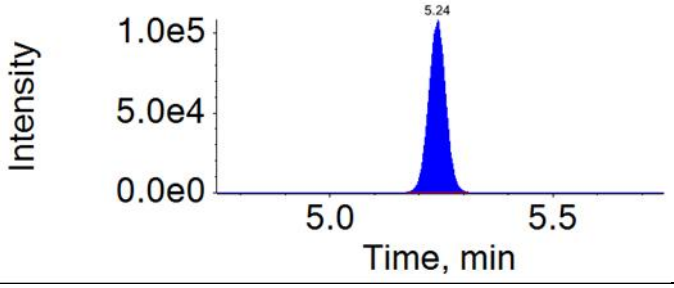
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 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
	

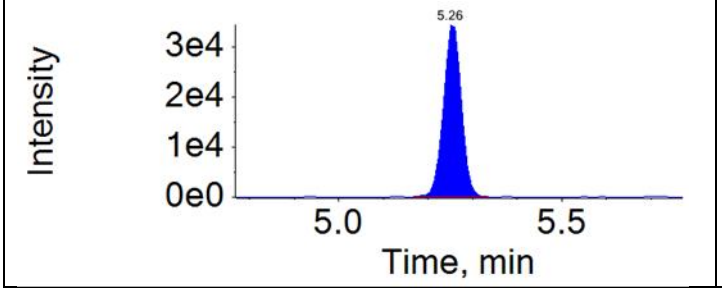
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

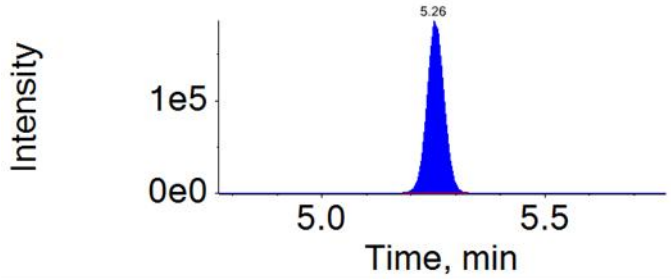
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

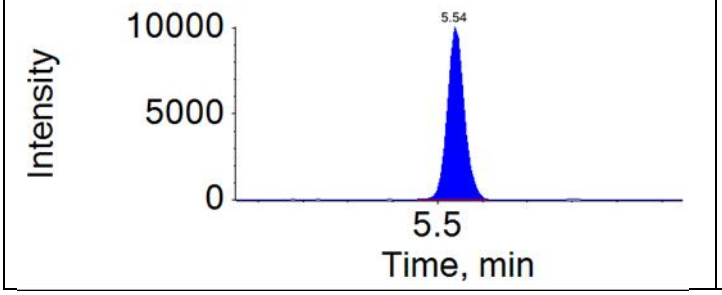
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

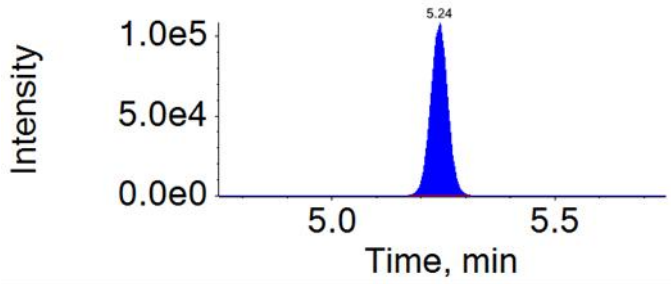
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



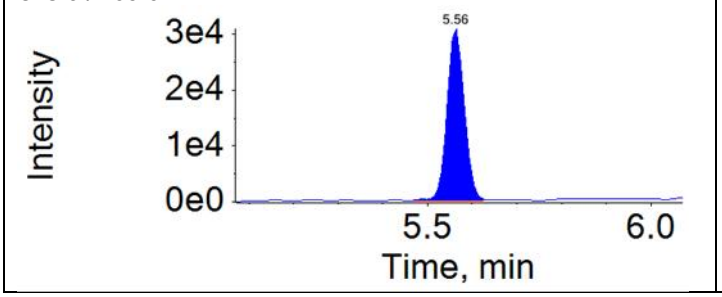


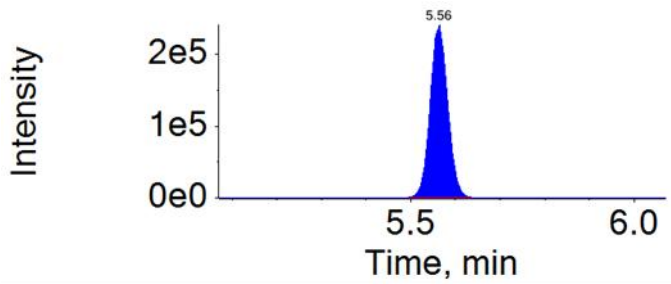
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



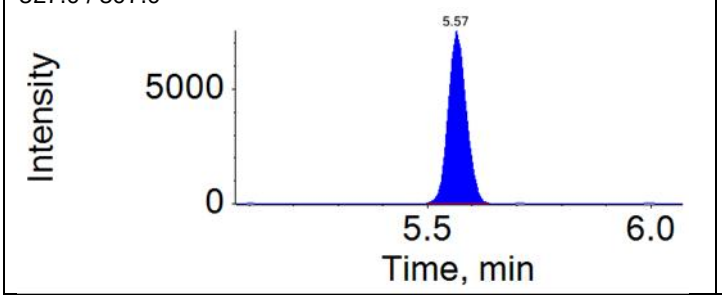


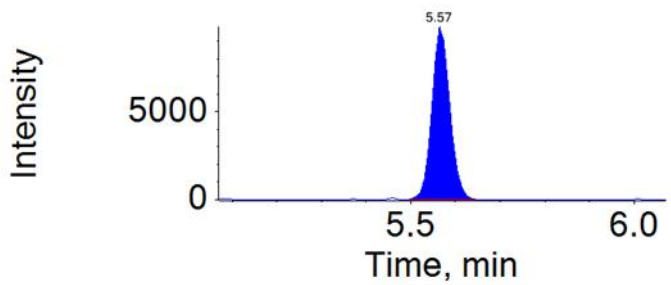
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



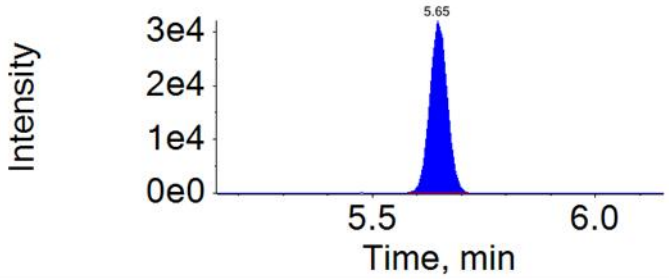


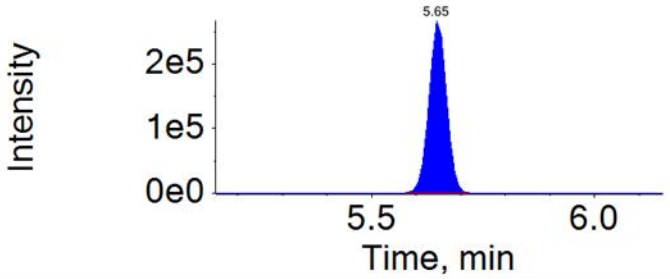
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

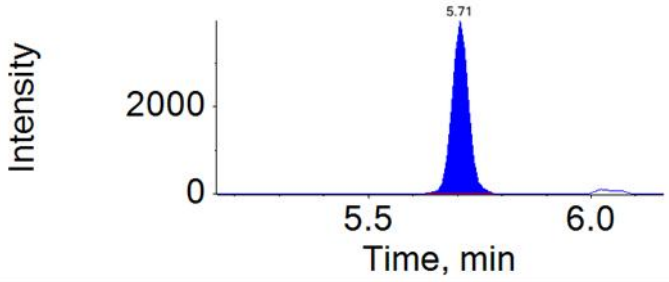
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

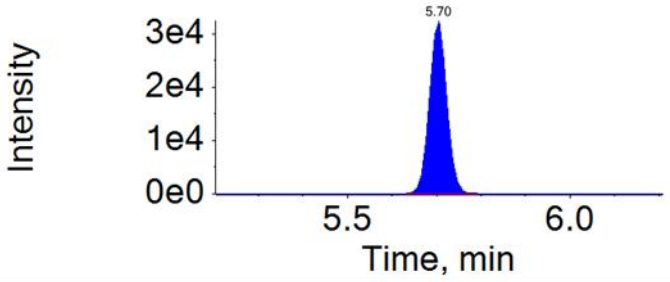
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



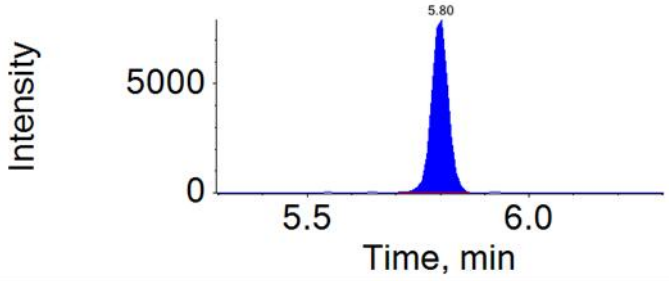


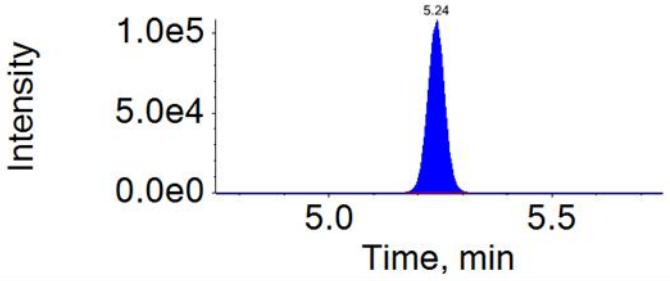
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



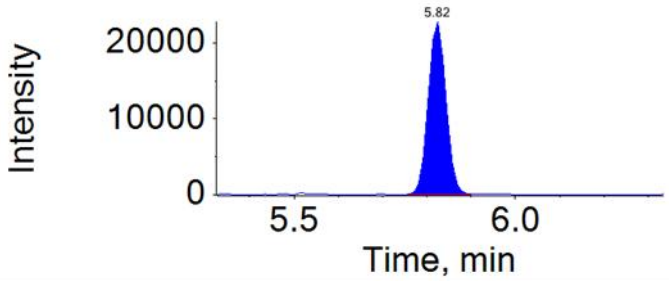


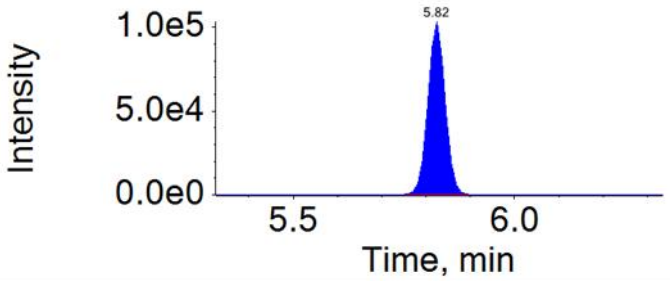
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

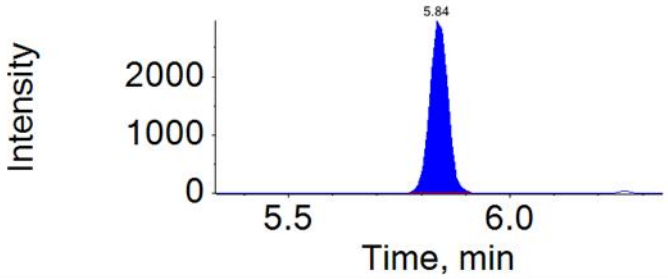
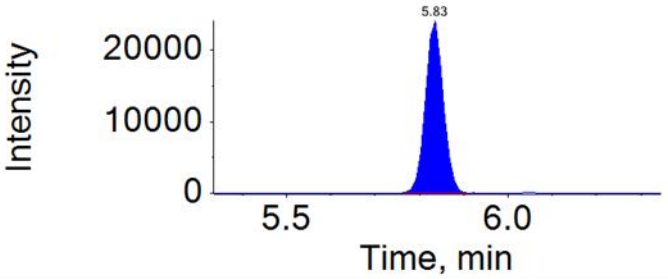


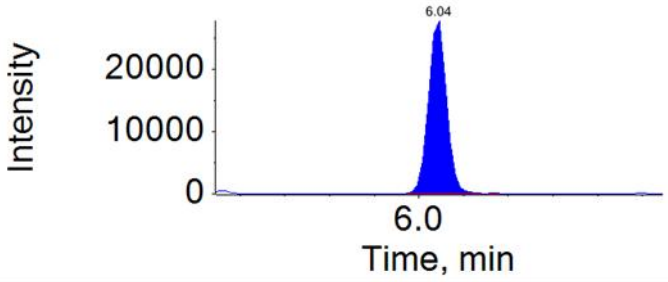
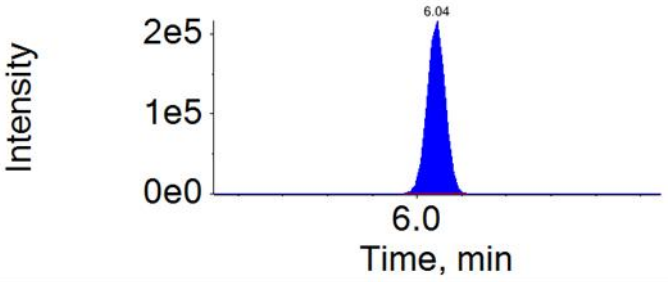


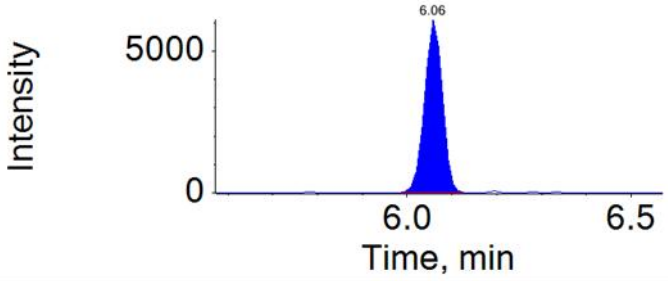
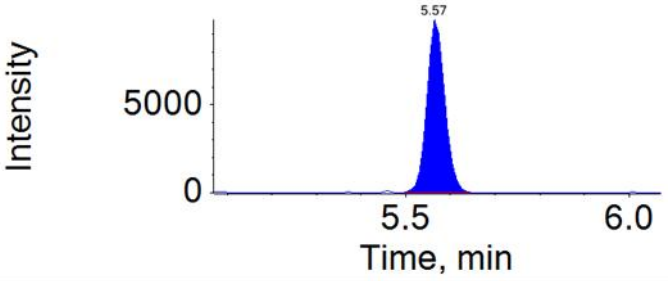
APPROVED
By JPT at 4:11 pm, 11/13/18

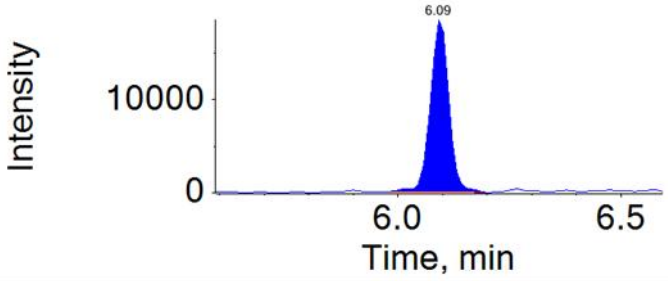
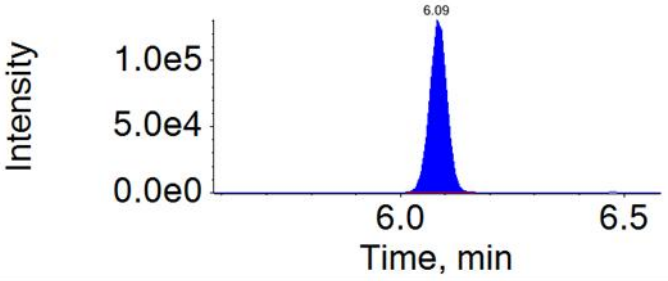
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

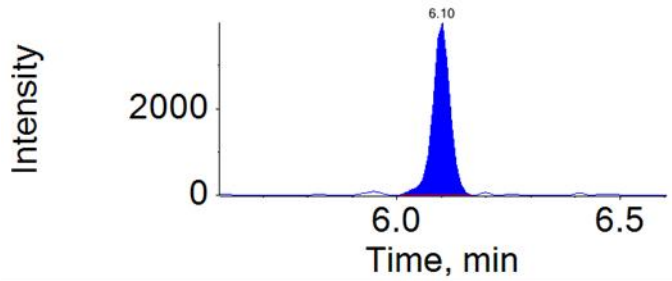
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

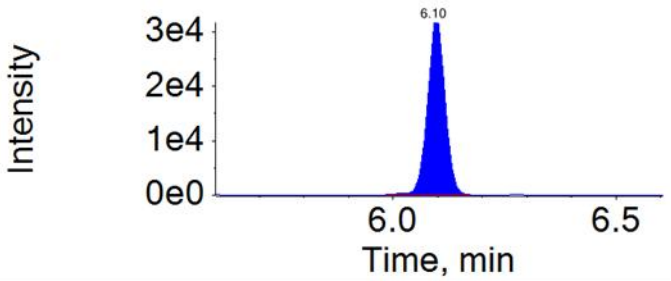
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

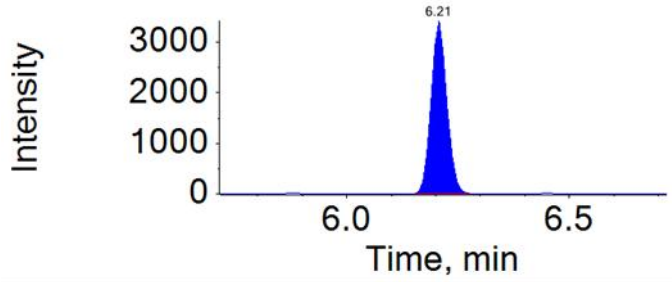
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

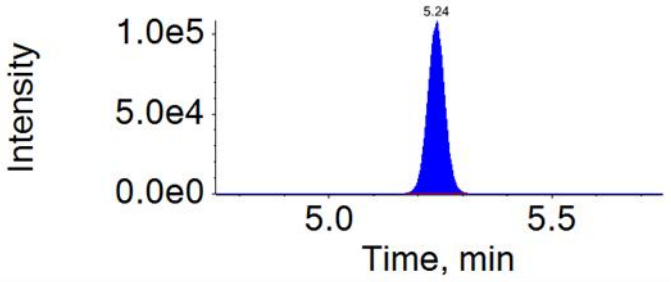
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



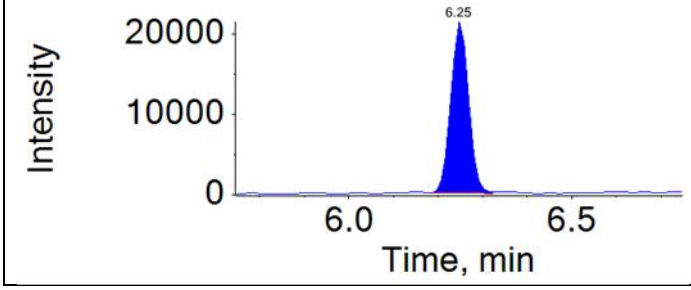


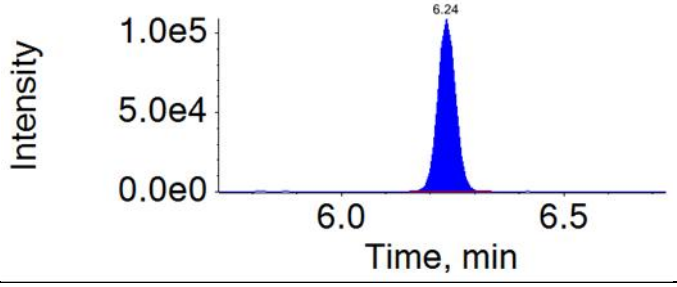
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



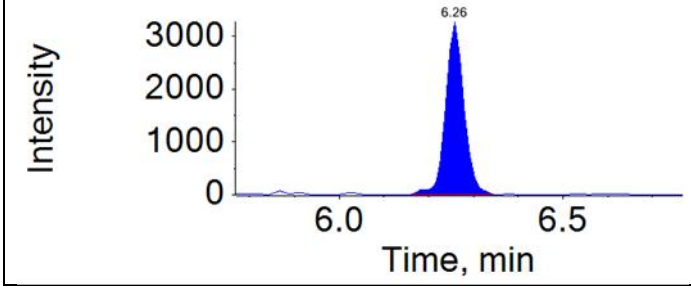


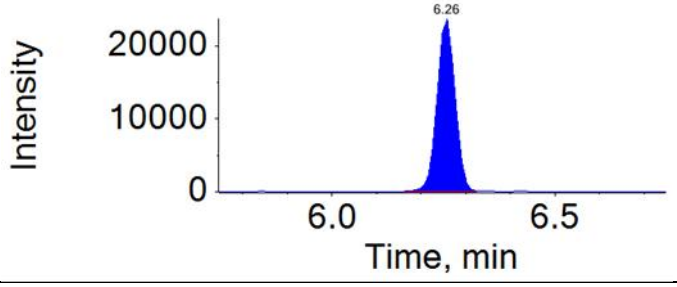
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

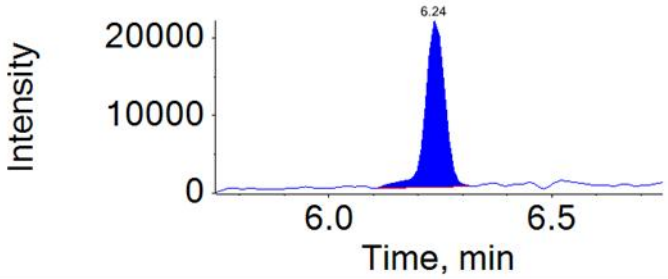
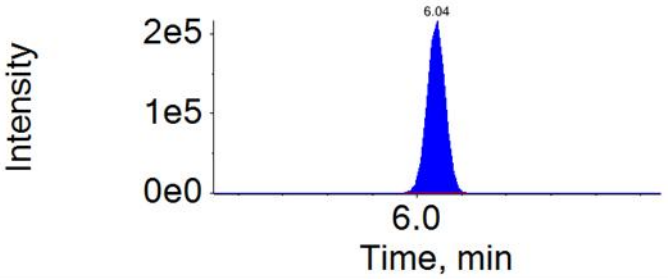


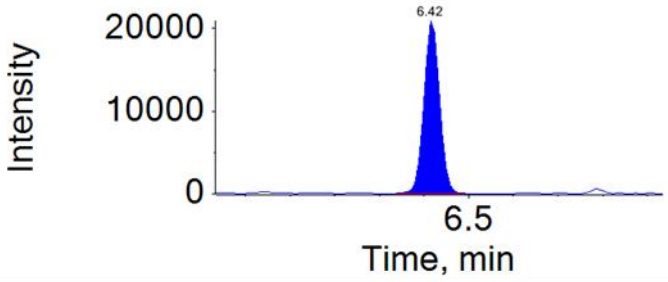
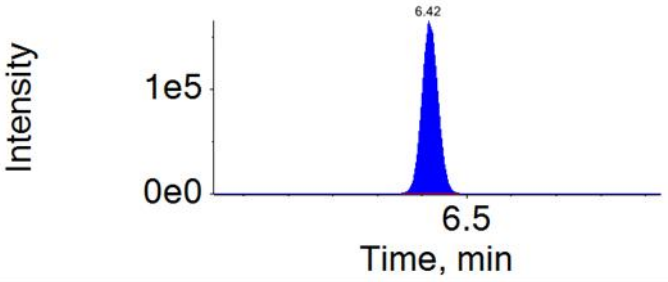


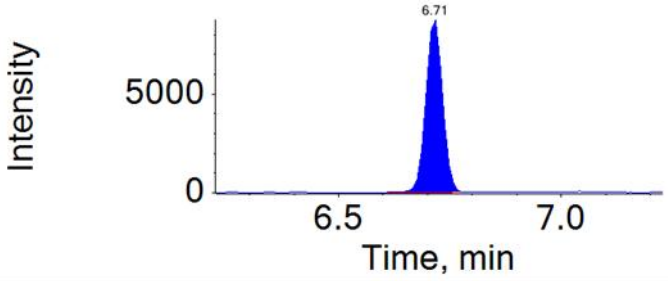
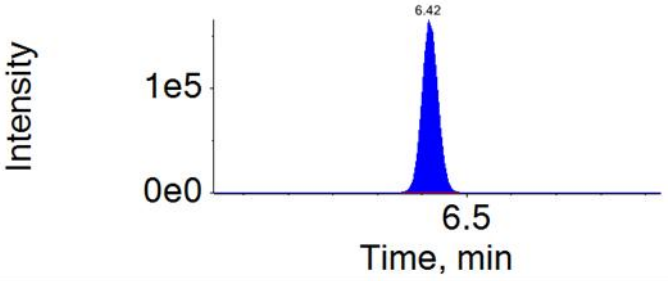
APPROVED
By JPT at 4:11 pm, 11/13/18

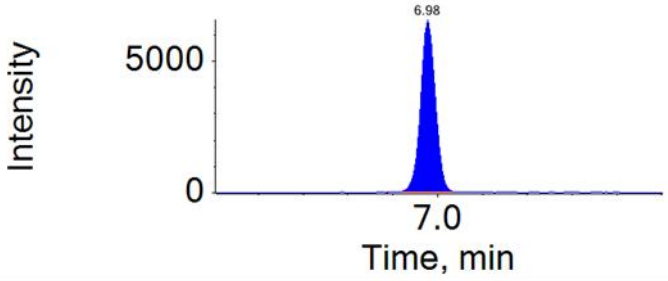
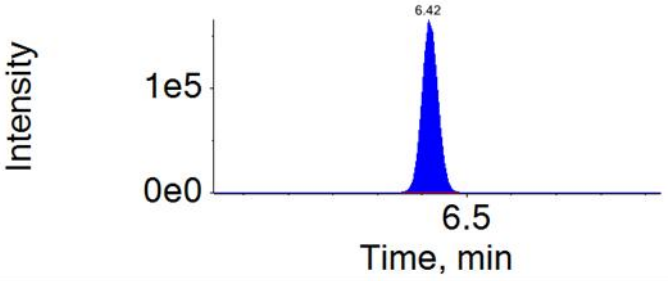
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

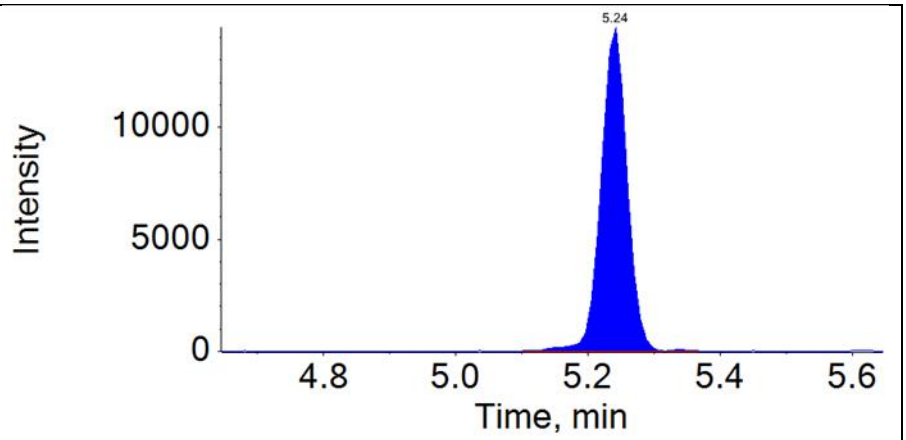
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

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:
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:
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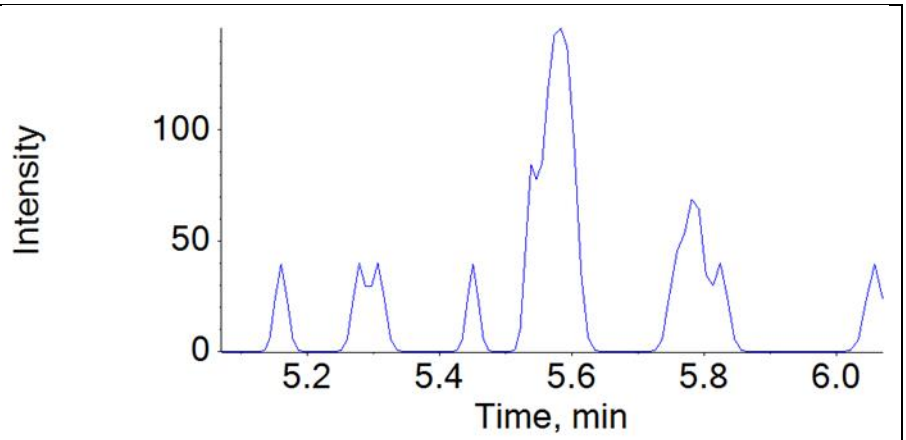
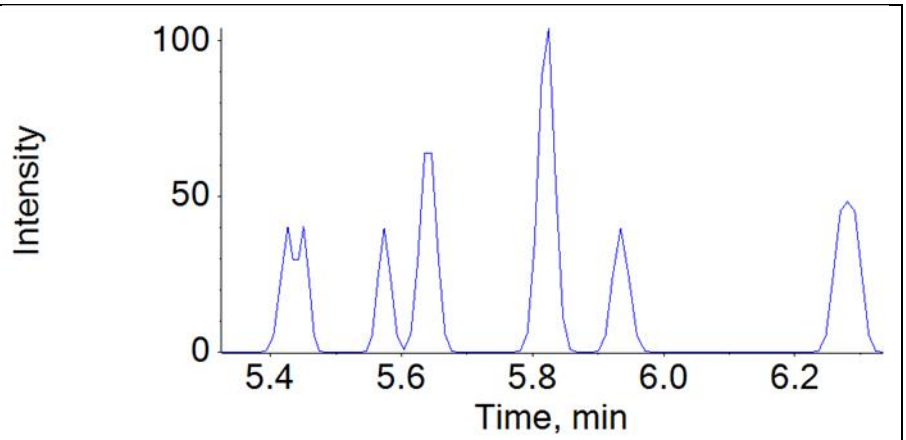


Integration Comment: incorrect integration

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

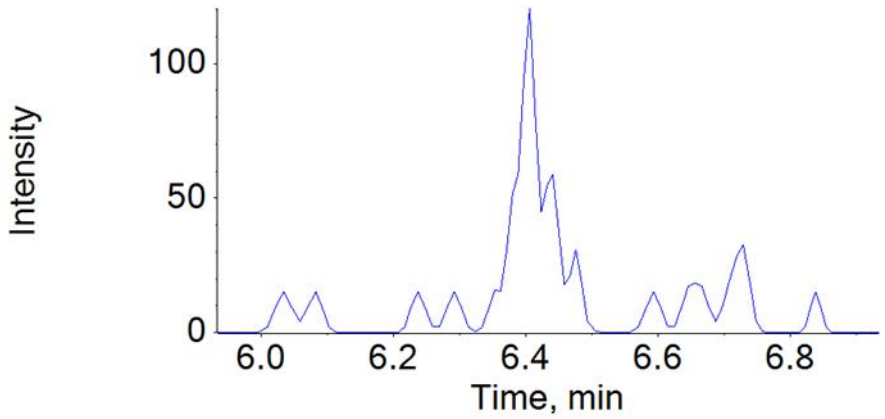
APPROVED
By JPT at 4:11 pm, 11/13/18

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:
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

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

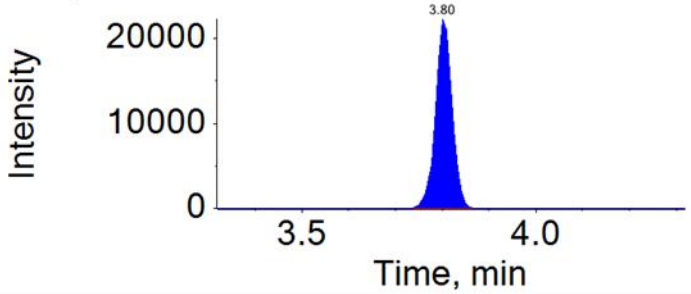
Sample Name: LCSDA **Instrument Name:** LM27631 **File Name:** 18NOV12D-63.wiff

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	

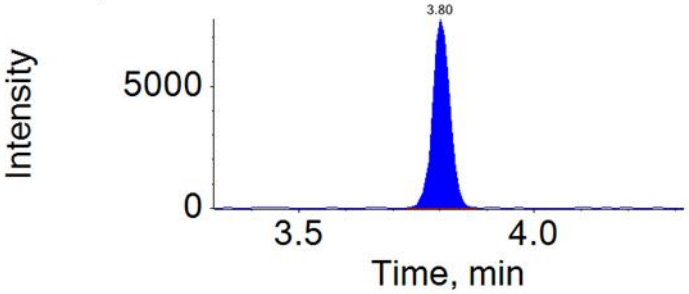
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

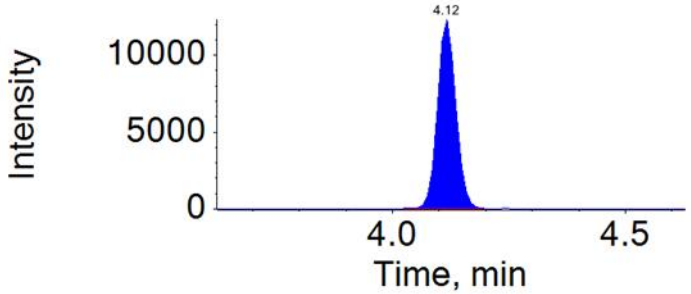
Component: PFBS
Primary Mass: 299.0 / 80.0



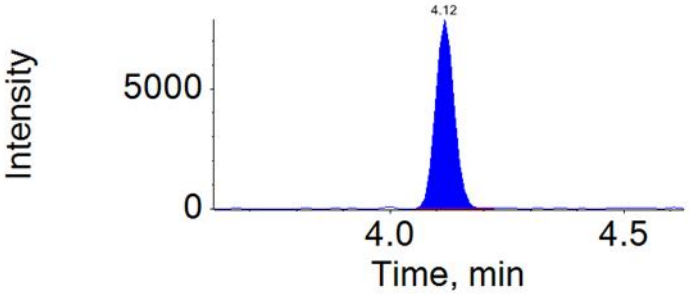
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



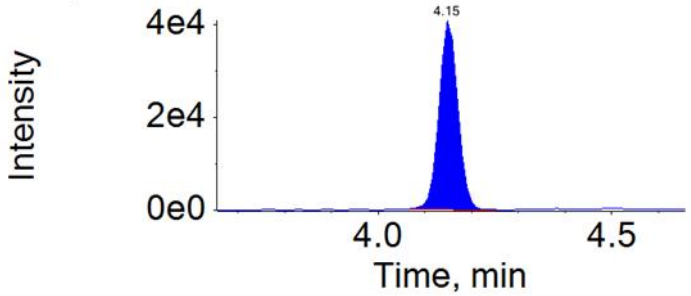
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



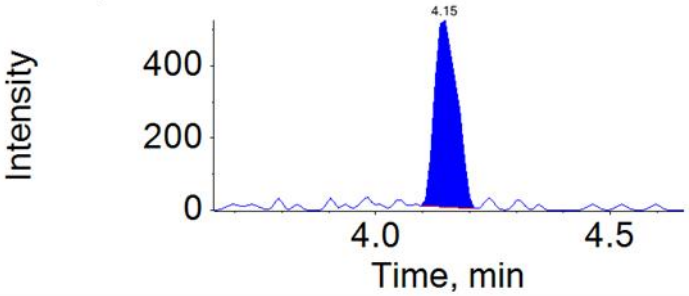
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



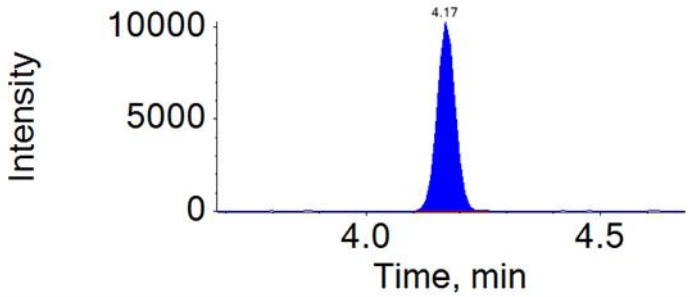
Component: PFHxA
Primary Mass: 313.0 / 269.0



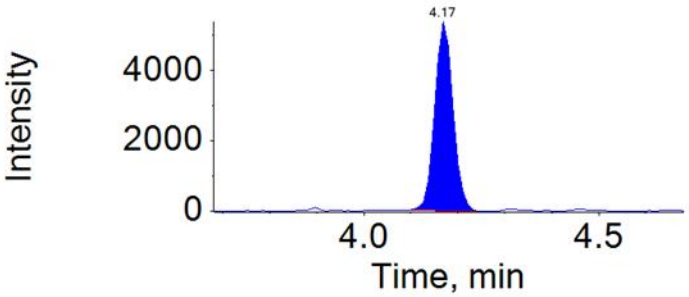
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



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

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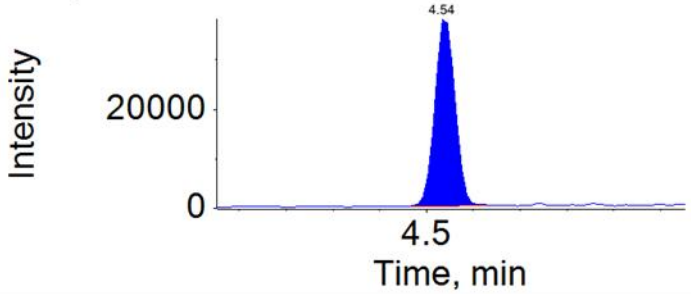
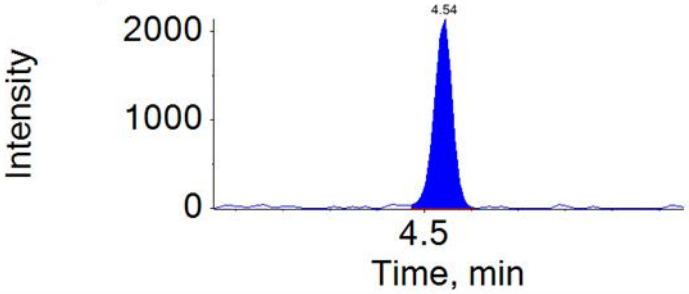
By umar at 5:38 pm, 11/13/18

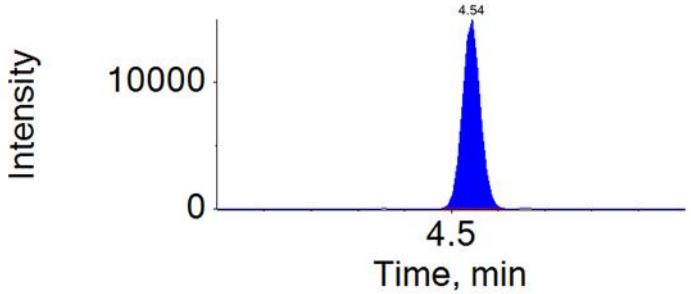
Component: PFHpA
Primary Mass: 363.0 / 319.0



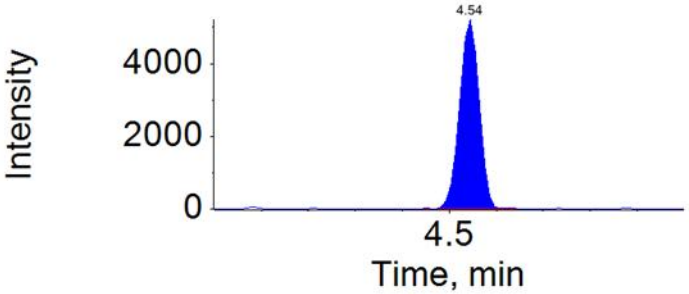
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



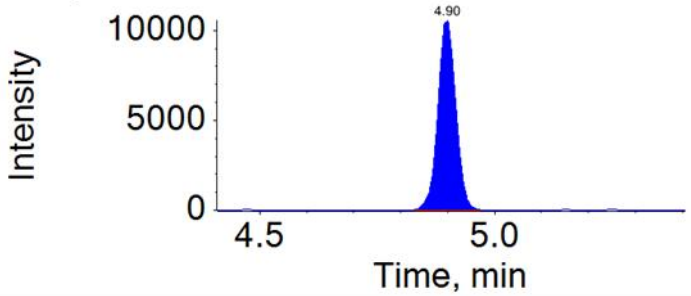
Component: PFHxS
Primary Mass: 399.0 / 80.0



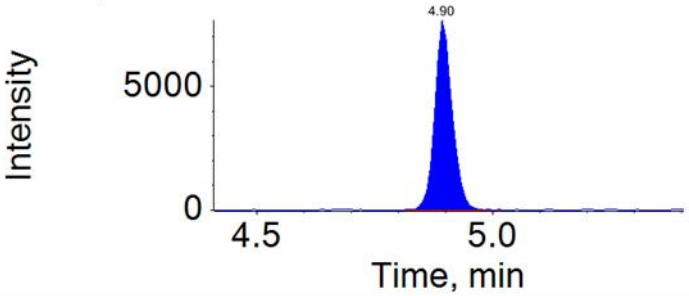
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



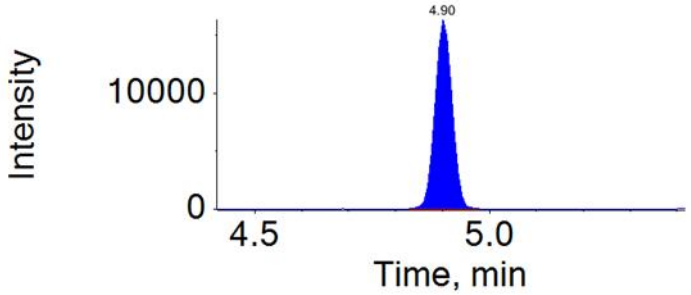
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



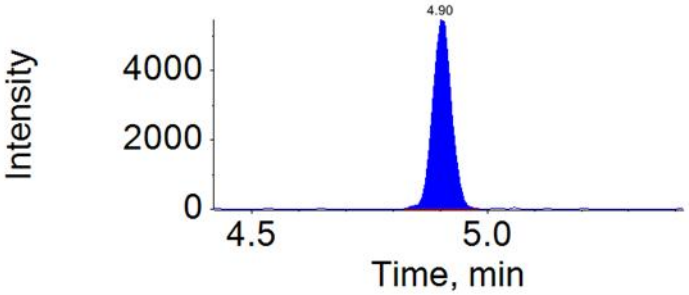
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



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

REVIEWED
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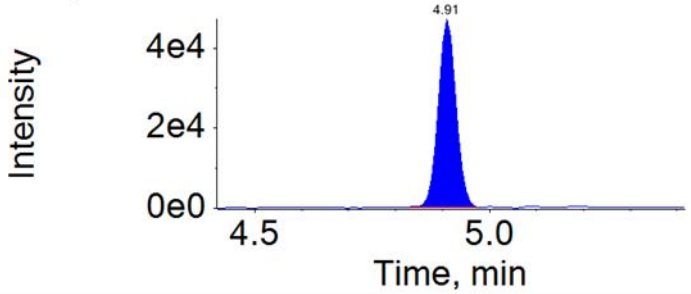
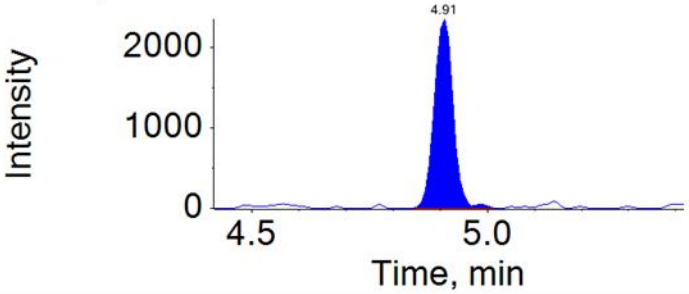
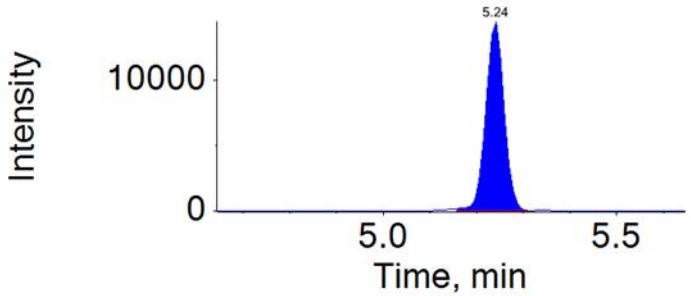
Component: PFOA
Primary Mass: 413.0 / 369.0



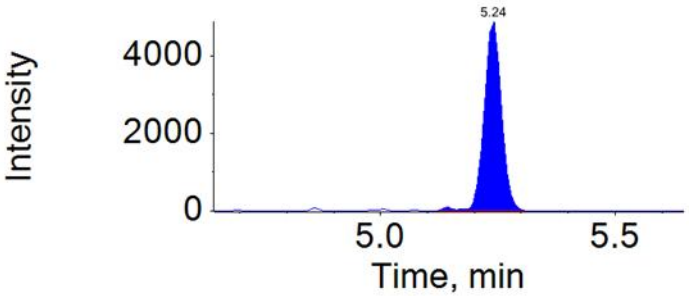
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



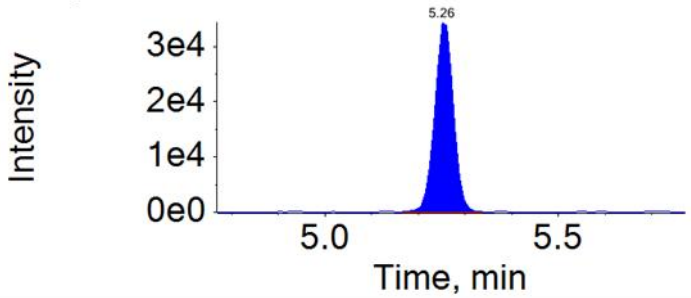
Component: PFOS
Primary Mass: 499.0 / 80.0



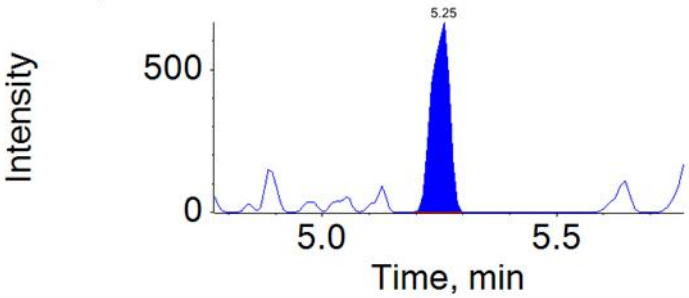
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



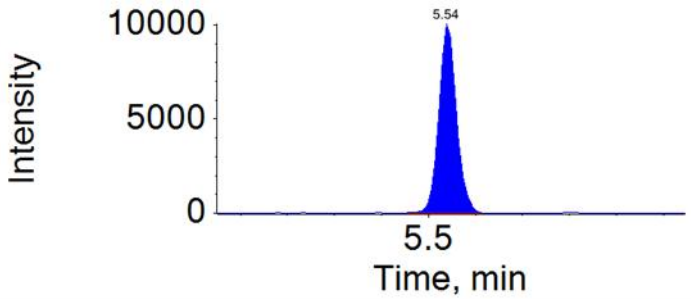
Component: PFNA
Primary Mass: 463.0 / 419.0



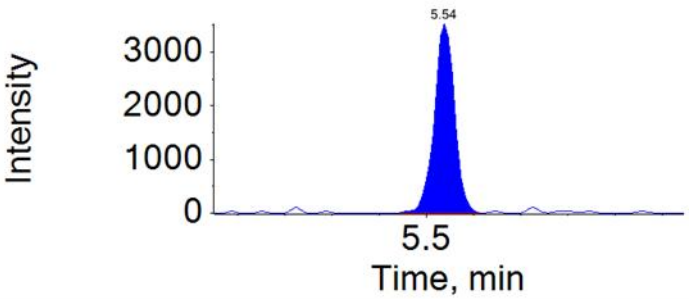
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



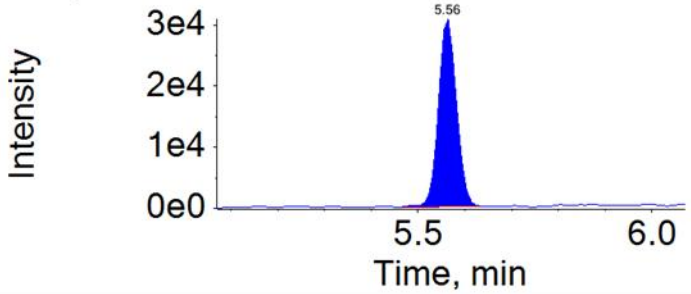
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



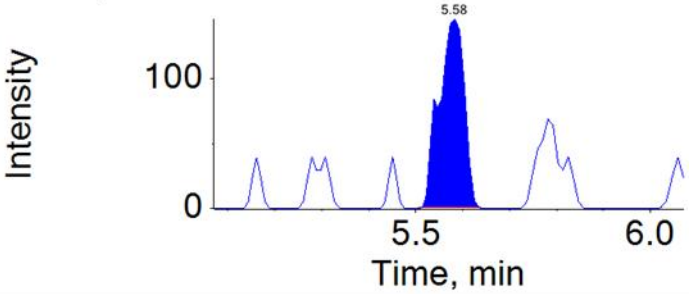
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

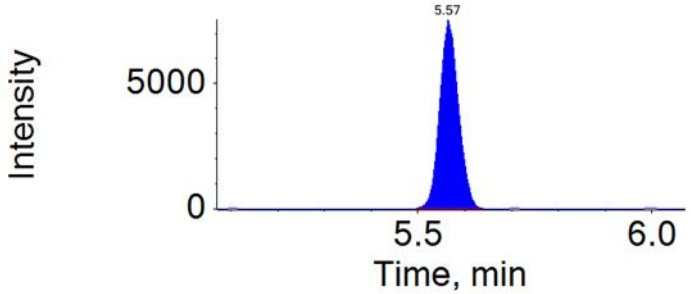
Component: PFDA
Primary Mass: 513.0 / 469.0



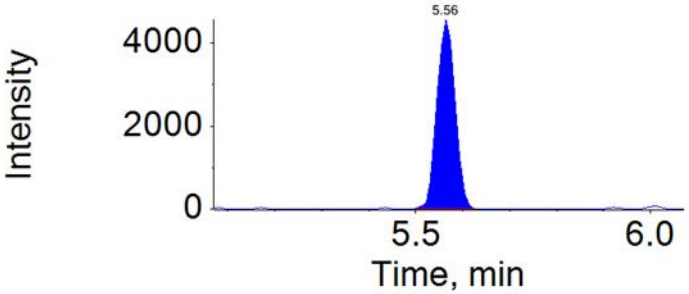
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



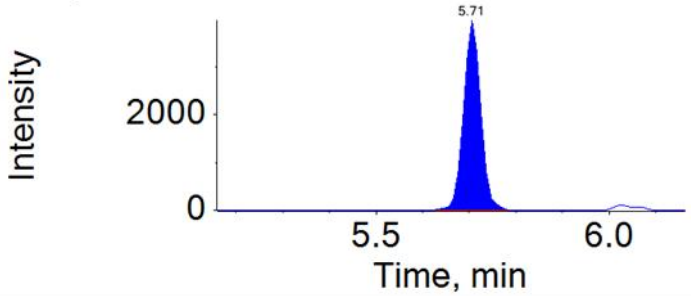
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



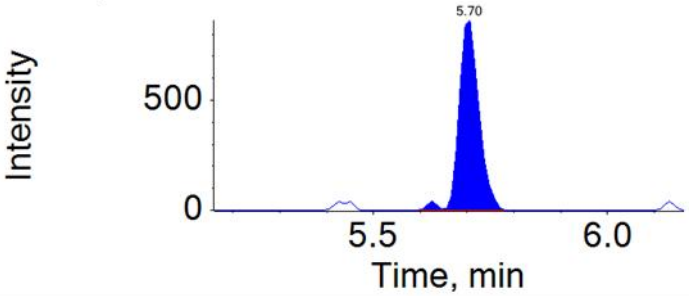
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



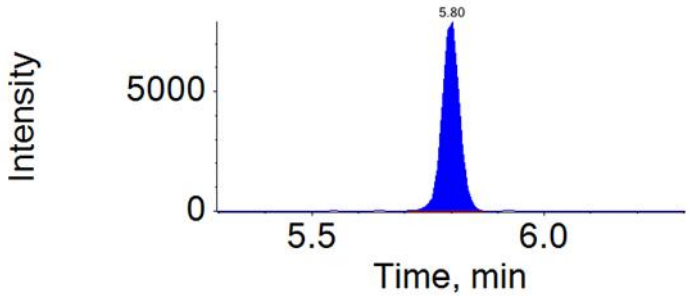
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



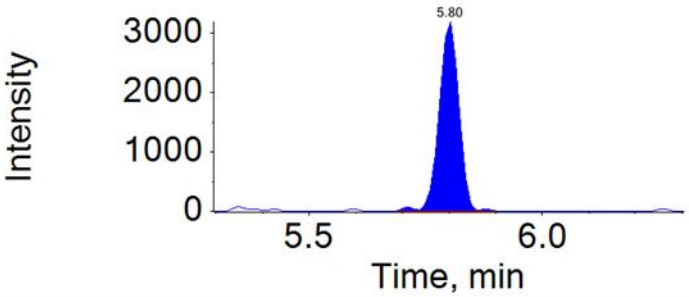
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



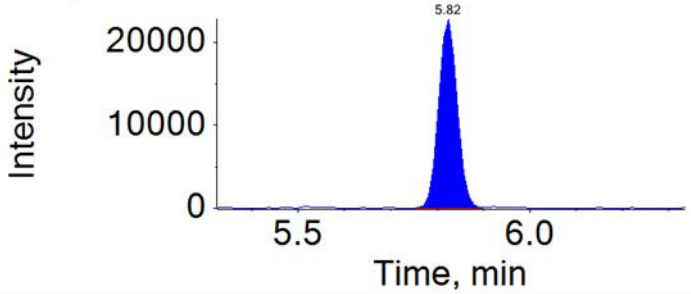
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



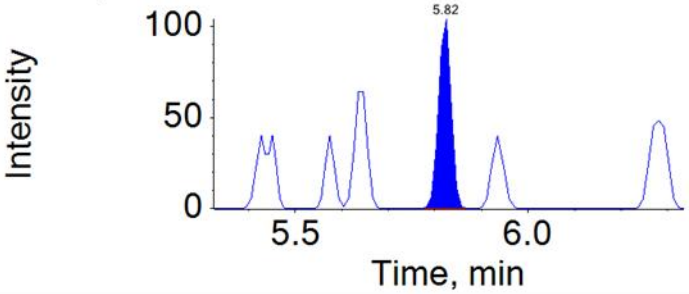
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

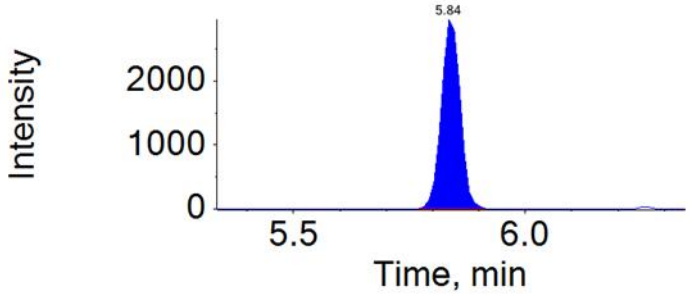
Component: PFUnDA
Primary Mass: 563.0 / 519.0



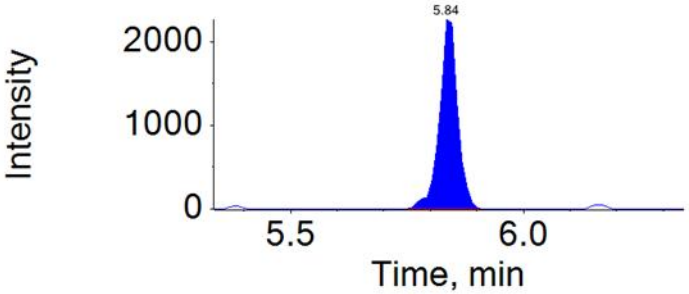
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



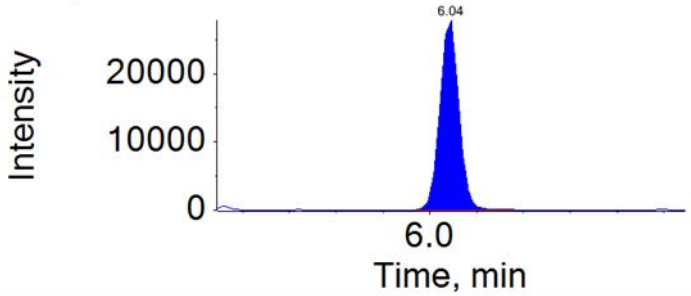
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



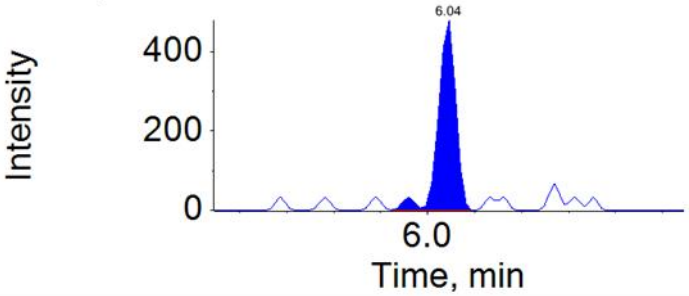
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



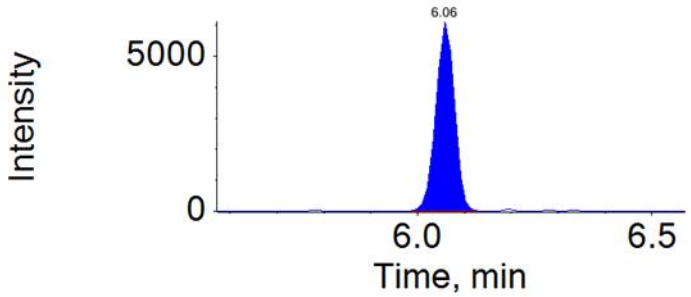
Component: PFDoDA
Primary Mass: 613.0 / 569.0



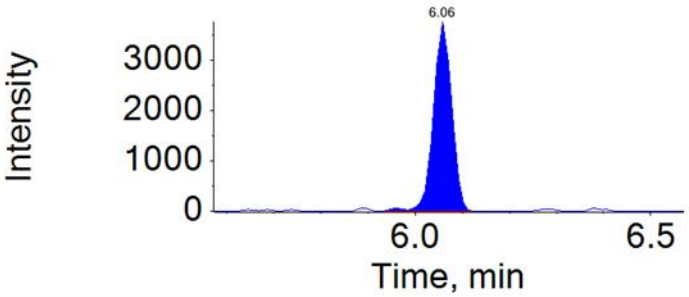
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



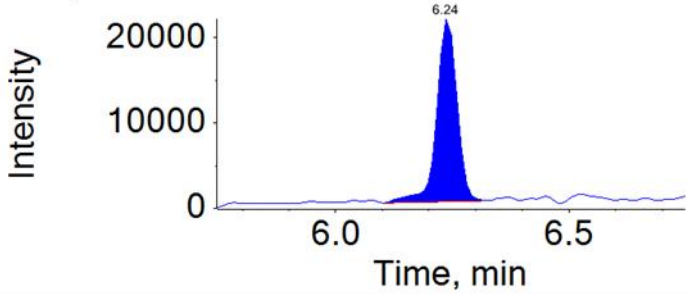
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



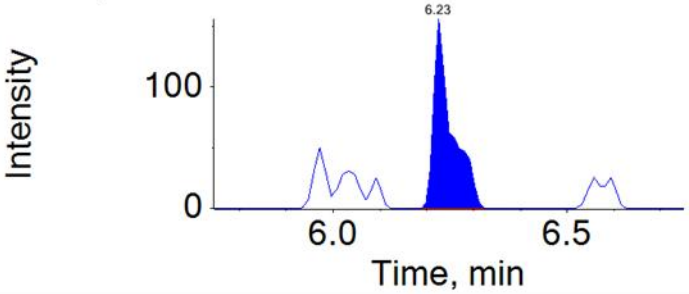
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

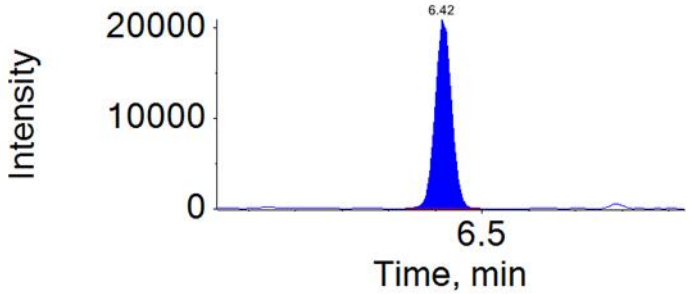
Component: PFTrDA
Primary Mass: 663.0 / 619.0



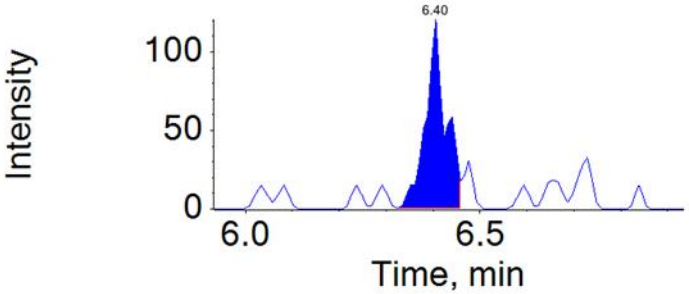
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



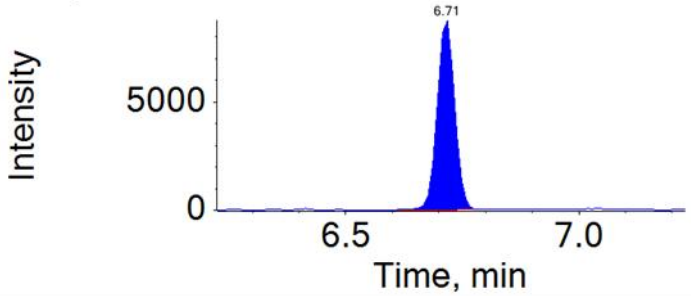
Component: PFTeDA
Primary Mass: 713.0 / 669.0



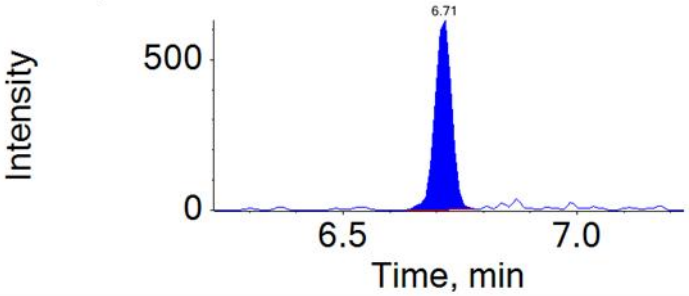
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



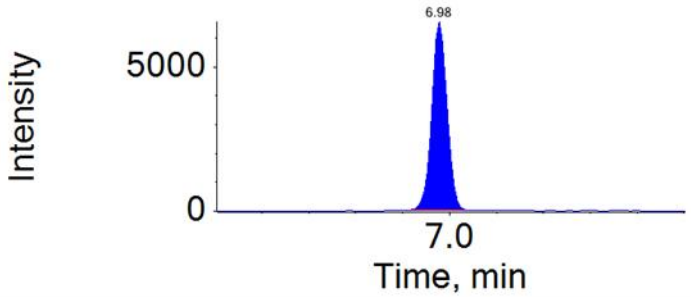
Component: PFHxDA
Primary Mass: 813.0 / 769.0



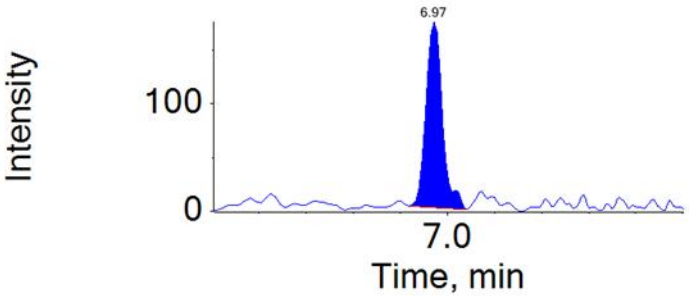
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



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

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	BS#	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	12698110618 33A
Auto-pipette (dilutions)	N/A JPT12262 11/9/18 N/A
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	I518309 33A
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 JPT12262 11/9/18

Organic Extraction Batchlog Assigned to: 25478 Danielle McCully Reviewed by: MCD 7824 Start Date: 11/11/18 Start time: 16:10

18314006 Tech 1: DDM25478 Tech 2: PJR9213

Analyses on Batch: PFAS in Water by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14465 PFAS Water Prep - DoD ③ml DDM25478 11/11/18

Port#	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ③ ~~(uL)~~	IS amt (uL)	BC	Comments
4	9893170MS	19D06	290.06	SSMODX1833BZ	.025	MSMODX1833AQ	.04	1.00	20	173a	
5	9893171MSD	19D06	288.57	SSMODX1833BZ	.025	MSMODX1833AQ	.04	1.00		173a	
1	BLANKA	BLK314006	250	SSMODX1833BZ	.025	N/A	—	1.00		NA	
2	LCSA	LCS314006	250	SSMODX1833BZ	.025	MSMODX1833AQ	.04	1.00			

Spike Solutions: Witness: DMW102422 Instrument: HM27631

MSMODX1833AQ PFAS 537 Native Spike

SSMODX1833BZ PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV12000/18NOV12D

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	9881534 R	MCLE	291.39	SSMODX1833BZ	.025	1.00	20	173b		14434	11/13/2018	N
4	2	9881535 R	MCLE	290.14	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
5	3	9881579 R	RB OU1C	274.95	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
6	4	9881580 R	RB OU1C	269.55	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
7	5	9881925 R	GW1(	295.32	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
8	6	9881942 R	GW9(	294.71	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
9	7	9881979 R	21W3	270.15	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
10	8	9881980 R	21W3	287.42	SSMODX1833BZ	.025	1.00		173b		14434	11/13/2018	N
11	9	9893164 ②	EB 19D0	246.01	SSMODX1833BZ	.025	1.00		173a	opaque brown, sediment	14434	11/20/2018	N
12	10	9893165	EB 19D0	276.67	SSMODX1833BZ	.025	1.00		173a		14434	11/20/2018	N
1	11	9893166	EB 19D0	286.62	SSMODX1833BZ	.025	1.00		173a		14434	11/20/2018	N
2	12	9893167 ②	19D0	252.94	SSMODX1833BZ	.025	1.00		173a	opaque, brown. sediment	14434	11/20/2018	N
3	13	9893169	BKG 19D0	291.48	SSMODX1833BZ	.025	1.00		173a		14434	11/20/2018	N
6	14	9893176	FD 19D0	289.82	SSMODX1833BZ	.025	1.00		173a		14434	11/20/2018	N

② Sample poured into centrifuge tubes, centrifuge for 5min @ 3000 rpms, then decanted into new 250ml bottle. DDM25478 11/11/18

18314006

Organic Extraction Batchlog **18314006**

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	2547811111833A
1:1 ACN:MeOH	2547811111833B
Auto-pipette (dilutions)	—
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	IS1831133A
Methanol	DV013-US
Milli-Q H2O	House A372
SPE Cartridge #1	6424575-01
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 9
Trizma	N/A

NA MCD7824 11/13/18

Balance #	B6207764122	SPE Manifold	11,12	N-evap	B	30 C	PJR9213 11/12/18

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

18314006

NA MCD7824 11/13/18

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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 (3) (uL)	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

BS/SD Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (3) (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
Page 1866 of 1870	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

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 #	BLE2476422	Sonic Bath ID	3800a	N-evap B	30C	SPE Manifold	N/A

18314009

D = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

N/A JPT12262 11/13/18

Moisture Data

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
9881573	OU101
9881574	OU102
9881575	OU103
9881576	OU104
9881581	OU109
9881582	OU110
9881583	OU111BKG
9881584	OU111MS
9881585	OU111MSD
9881586	OU112
9881589	OU115
9881590	OU116
9881591	OU117
9881592	OU118
9881594	OU120
9881595	OU121
9881596	OU122

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: 18311820006A	Sample number(s): 9881573-9881576, 9881581-9881586, 9881589-9881592, 9881594-9881595				
Moisture	100		99-101		
Moisture	100		99-101		
Moisture Duplicate	100		99-101		
Batch number: 18316820002B	Sample number(s): 9881596				
Moisture	100		99-101		

MOISTURE

Sample Matrix Quality Control

Analysis Name	BKG Conc	DUP Conc	RPD	RPD Max
Batch number: 18311820006A	Sample number(s):		9881573-9881576, 9881581-9881586, 9881589-9881592, 9881594-9881595	
Moisture	2.7	2.8	4	5
Moisture	2.7	2.8	4	5
Moisture Duplicate	2.7	2.8	4	5
Batch number: 18316820002B	Sample number(s):		9881596	
Moisture	23.2	21.9	6*	5

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

Moisture Data Report

Batch #: 18311820006

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9881573	A	00111	1.0825	5.7980	6.6286	4.34	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881574	A	00111	1.0785	5.1248	5.8264	7.35	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881575	A	00111	1.0681	5.1944	5.9717	5.60	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881576	A	00111	1.0715	5.9115	6.8811	1.72	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881581	A	00111	1.0504	5.2294	5.9700	5.92	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881582	A	00111	1.0601	5.6773	6.5725	2.90	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881583BKG	A	00111	1.0853	5.3079	6.2520	2.66	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881584MS	A	00118				2.66	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881585MSD	A	00118				2.66	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881585MSD	A	00121	1.0677	5.3868	6.3059	2.76	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881586	A	00111	1.0767	5.7307	6.7477	1.04	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881589	A	00111	1.0774	5.2145	6.2272	1.24	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881590	A	00111	1.0634	5.3564	6.3346	1.59	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881591	A	00111	1.0686	5.8183	6.8409	0.79	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881592	A	00111	1.0663	5.8739	6.9046	0.61	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881594	A	00111	1.0786	5.8674	6.3928	9.43	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
9881595	A	00111	1.0642	5.7936	6.7857	1.24	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)
LCS 89.5% Std.		00111	1.0573	5.0049	1.5886	89.38	11/ 7/18 (835/LEB)	11/ 8/18 (236/CW)

Batch #: 18316820002

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9881596	B	00111	1.0677	5.4267	6.4505	0.81	11/12/18 (835/LEB)	11/13/18 (236/CW)
P891814BKG	B	00111	1.0798	5.2750	5.1287	23.24	11/12/18 (835/LEB)	11/13/18 (236/CW)
P891814DUP	B	00111	1.0833	5.2692	5.2001	21.87	11/12/18 (835/LEB)	11/13/18 (236/CW)
LCS 89.5% Std.		00111	1.0670	5.0397	1.5999	89.43	11/12/18 (835/LEB)	11/13/18 (236/CW)

CONTRACT_ID DO_CTO_NUMBER PHASE INSTALLATION_ID SAMPLE_NAME ANALYTICAL_METHOD LAB_NAME SAMPLE_BASIS
RESULT_TYPE DILUTION RUN_NUMBER SDG RUN_BATCH QC_LEACHATE_METHOD QC_SAMPLE_BASIS QC_EXTRACTION_METHOD
QC_RESULT_TYPE LAB_SAMPLE_TYPE QC_SAMPLE_MEDIUM QC_CLEANUP_METHOD QC_QC_LEVEL QC_LEACHATE_DATE
QC_LEACHATE_TIME QC_EXTRACTION_DATE QC_EXTRACTION_TIME ANALYSIS_DATE ANALYSIS_TIME QC_LAB_SAMPLE_ID
QC_LAB_REPORT_DATE QC_LAB_REPORT_NUMBER QC_FILTER_SIZE QC_DILUTION QC_RUN_NUMBER QC_PERCENT_MOISTURE
QC_PERCENT_LIPID ANALYTE_ID QC_PAREXPECT QC_PAREXPECT_UNITS PERCENT_RECOVERY ANALYTE_VALUE RESULT_UNITS
LAB_QUALIFIER VALIDATOR_QUALIFIER QC_FINAL_QUALIFIER QC_DETECTED GC_COLUMN_TYPE ANALYSIS_RESULT_TYPE
RADIOLOGICAL_ERROR RETENTION_TIME NARRATIVE CONTROL_LIMIT_CODE QC_ACCURACY_UPPER QC_ACCURACY_LOWER
CONTROL_LIMIT_DATE RELATIVE_PCT_DIFF MDL CDL IDL PQL DETECTION_LIMIT VALIDATOR_DET_LIMIT VALIDATOR_MDL CRQL
DL LOD LOQ
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
1763-23-1LC8 NG_G 102 9.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
375-95-1LC9 NG_G 100 9.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
335-76-2LC6 NG_G 93 8.6 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
2355-31-9L NG_G 67 6.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
2058-94-8LC7 NG_G 99 9.1 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
2991-50-6L NG_G 60 5.6 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
307-55-1L NG_G 88 8.1 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
376-06-7L NG_G 85 7.8 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
375-85-9L NG_G 98 9.1 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:23:00 9881573 20190118 2005307 0.00 1 1 4.3
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
375-95-1LC9 NG_G 75 7.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
335-76-2LC6 NG_G 76 7.6 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
2355-31-9L NG_G 53 5.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
2058-94-8LC7 NG_G 79 7.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
2991-50-6L NG_G 55 5.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
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Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
376-06-7L NG_G 71 7.1 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
375-73-5L NG_G 68 6.3 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
307-24-4LC5 NG_G 78 7.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
355-46-4L NG_G 78 7.4 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
375-85-9L NG_G 72 7.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 REG S 2 20181107 09:10:00 20181108 18:25:00 9881574 20190118 2005307 0.00 1 1 7.4
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
1763-23-1LC8 NG_G 101 9.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
375-95-1LC9 NG_G 101 9.7 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
2355-31-9L NG_G 59 5.7 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
2058-94-8LC7 NG_G 107 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
2991-50-6L NG_G 51 4.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
307-55-1L NG_G 92 8.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
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376-06-7L NG_G 94 9.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
375-73-5L NG_G 98 8.8 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
307-24-4LC5 NG_G 102 9.8 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
355-46-4L NG_G 99 9.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
375-85-9L NG_G 99 9.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 02:32:00 9881575 20190118 2005307 0.00 1 1 5.6
335-67-1L NG_G 107 10 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
1763-23-1LC8 NG_G 104 9.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
375-95-1LC9 NG_G 104 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
335-76-2LC6 NG_G 103 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009

Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
2355-31-9L NG_G 55 5.4 NG_G Y NA SUR 150 50 20171212
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2058-94-8LC7 NG_G 102 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
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2991-50-6L NG_G 53 5.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
307-55-1L NG_G 98 9.7 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
376-06-7L NG_G 95 9.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
375-73-5L NG_G 96 8.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
307-24-4LC5 NG_G 101 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
355-46-4L NG_G 98 9.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-05-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009
Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
375-85-9L NG_G 102 10 NG_G Y NA SUR 150 50 20171212
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Wet METHOD 000 REG S 2 20181111 16:30:00 20181113 16:11:00 9881576 20190118 2005307 0.00 1 1 1.7
335-67-1L NG_G 105 10 NG_G Y NA SUR 150 50 20171212
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NA METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100
375-95-1LC9 NG_L 102 19 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01 537_MOD EUROFINS NA 000 1 1 BSI02 18314006
NA METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 335-76-
2LC6 NG_L 80 14 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 2355-31-9L
NG_L 66 12 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 2058-94-
8LC7 NG_L 101 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 2991-50-6L
NG_L 68 12 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 307-55-1L
NG_L 82 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 376-06-7L
NG_L 87 16 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 375-73-5L
NG_L 72 12 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 307-24-4LC5
NG_L 80 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 355-46-4L
NG_L 78 13 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 375-85-9L
NG_L 83 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-01537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:13:00 9881579 20190118 2005307 0.00 1 1 100 335-67-1L
NG_L 84 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA

METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 1763-23-1LC8 NG_L 94 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 375-95-1LC9 NG_L 102 19 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 335-76-2LC6 NG_L 91 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 2355-31-9L NG_L 98 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 2058-94-8LC7 NG_L 92 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 2991-50-6L NG_L 79 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 307-55-1L NG_L 83 15 NG_L Y NA SUR 150 50 20170818
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METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 376-06-7L NG_L 78 14 NG_L Y NA SUR 150 50 20170818
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METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 375-73-5L NG_L 91 16 NG_L Y NA SUR 150 50 20170818
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METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 307-24-4LC5 NG_L 102 19 NG_L Y NA SUR 150 50 20170818
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METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 355-46-4L NG_L 98 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 375-85-9L NG_L 99 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-W-05-02537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BLK W 2 20181111 16:10:00 20181112 23:22:00 9881580 20190118 2005307 0.00 1 1 100 335-67-1L NG_L 102 19 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 1763-23-1LC8 NG_G 69 6.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 375-95-1LC9 NG_G 74 6.8 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 335-76-2LC6 NG_G 70 6.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 2355-31-9L NG_G 66 6.1 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 2058-94-8LC7 NG_G 78 7.1 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 2991-50-6L NG_G 69 6.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 307-55-1L NG_G 69 6.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 376-06-7L NG_G 64 5.9 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 375-73-5L NG_G 68 5.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 307-24-4LC5 NG_G 66 6.1 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet

METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 355-46-4L
NG_G 68 5.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 375-85-9L
NG_G 69 6.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 18:52:00 9881581 20190118 2005307 0.00 1 1 5.9 335-67-1L
NG_G 71 6.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 1763-23-
1LC8 NG_G 70 6.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 375-95-1LC9
NG_G 71 6.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 335-76-2LC6
NG_G 72 6.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 2355-31-9L
NG_G 72 6.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 2058-94-
8LC7 NG_G 71 6.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 2991-50-6L
NG_G 69 6.6 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 307-55-1L
NG_G 68 6.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 376-06-7L
NG_G 65 6.2 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 375-73-5L
NG_G 68 6.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 307-24-4LC5
NG_G 68 6.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 355-46-4L
NG_G 70 6.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 375-85-9L
NG_G 66 6.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-03 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:01:00 9881582 20190118 2005307 0.00 1 1 2.9 335-67-1L
NG_G 73 6.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 1763-23-1LC8
NG_G 71 6.5 NG_G Y NA SUR 150 50 20171212
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METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 375-95-1LC9
NG_G 75 7.2 NG_G Y NA SUR 150 50 20171212
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METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 335-76-2LC6
NG_G 76 7.4 NG_G Y NA SUR 150 50 20171212
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METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 2355-31-9L
NG_G 78 7.6 NG_G Y NA SUR 150 50 20171212
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METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 2058-94-8LC7
NG_G 76 7.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 2991-50-6L
NG_G 71 6.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 307-55-1L
NG_G 74 7.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet

METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 376-06-7L
NG_G 72 7.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 375-73-5L
NG_G 70 6.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 307-24-4LC5
NG_G 74 7.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 355-46-4L
NG_G 77 7.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 375-85-9L
NG_G 69 6.7 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 S 2 20181107 09:10:00 20181108 19:10:00 9881583 20190118 2005307 0.00 1 1 2.7 335-67-1L
NG_G 79 7.7 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 335-67-1 1.3
NG_G 126 1.7 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 1763-23-
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-95-1LC9
9.7 NG_G 76 7.4 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 335-76-2LC6
9.7 NG_G 76 7.4 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2355-31-9L
9.7 NG_G 80 7.7 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2058-94-
8LC7 9.7 NG_G 75 7.3 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2991-50-6L
9.7 NG_G 66 6.4 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 307-55-1L
9.7 NG_G 74 7.2 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 376-06-7L
9.7 NG_G 69 6.7 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-73-5L
9.0 NG_G 70 6.3 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 307-24-4LC5
9.7 NG_G 74 7.2 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 355-46-4L
9.2 NG_G 76 7.0 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-85-9L
9.7 NG_G 73 7.1 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 335-67-1L
9.7 NG_G 78 7.6 NG_G Y NA SUR MSA 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-95-1 1.3
NG_G 124 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 335-76-2 1.3
NG_G 123 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.29 0.29 0.29 0.66 0.97
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2058-94-8
1.3 NG_G 123 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 307-55-1 1.3 NG_G 118 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 72629-94-8 1.3 NG_G 115 1.5 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 376-06-7 1.3 NG_G 122 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 307-24-4 1.3 NG_G 127 1.7 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-85-9 1.3 NG_G 125 1.7 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.66 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 375-73-5 1.2 NG_G 119 1.4 NG_G Y NA TRG MSA 130 70 20170724 0.19 0.19 0.19 0.58 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 355-46-4 1.2 NG_G 114 1.4 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.62 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 1763-23-1 1.5075 NG_G 107 1.6 NG_G Y NA TRG MSA 130 70 20170824 0.19 0.19 0.19 0.63 0.78 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2991-50-6 1.3 NG_G 89 1.2 NG_G J Y NA TRG MSA 130 70 20170824 0.49 0.49 0.49 1.9 2.9 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MS 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MS S 2 20181107 09:10:00 20181108 19:19:00 9881584 20190118 2005307 0.00 1 1 0 2355-31-9 1.3 NG_G 93 1.2 NG_G J Y NA TRG MSA 130 70 20170824 0.49 0.49 0.49 1.9 2.9 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 335-67-1 1.3 NG_G 126 1.7 NG_G Y NA TRG MSP 130 70 20170824 1 0.19 0.19 0.19 0.65 0.77 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 1763-23-1LC8 9.2 NG_G 78 7.2 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 375-95-1LC9 9.6 NG_G 80 7.7 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 335-76-2LC6 9.6 NG_G 84 8.0 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 2355-31-9L 9.6 NG_G 88 8.5 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 2058-94-8LC7 9.6 NG_G 86 8.3 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 2991-50-6L 9.6 NG_G 80 7.7 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 307-55-1L 9.6 NG_G 83 8.0 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 376-06-7L 9.6 NG_G 77 7.4 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 375-73-5L 8.9 NG_G 74 6.6 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 307-24-4LC5 9.6 NG_G 85 8.2 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 355-46-4L 9.1 NG_G 81 7.4 NG_G Y NA SUR MSP 150 50 20171212 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05 MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003

Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 375-85-9L 9.6 NG_G 78 7.5 NG_G Y NA SUR MSP 150 50 20171212

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
335-67-1L 9.6 NG_G 83 8.0 NG_G Y NA SUR MSP 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
375-95-1 1.3 NG_G 126 1.6 NG_G Y NA TRG MSP 130 70 20170824 0 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
335-76-2 1.3 NG_G 121 1.6 NG_G Y NA TRG MSP 130 70 20170824 3 0.29 0.29
0.29 0.65 0.96
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
2058-94-8 1.3 NG_G 104 1.4 NG_G Y NA TRG MSP 130 70 20170824 18 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
307-55-1 1.3 NG_G 114 1.5 NG_G Y NA TRG MSP 130 70 20170824 4 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
72629-94-8 1.3 NG_G 108 1.4 NG_G Y NA TRG MSP 130 70 20170824 7 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
376-06-7 1.3 NG_G 121 1.6 NG_G Y NA TRG MSP 130 70 20170824 1 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
307-24-4 1.3 NG_G 115 1.5 NG_G Y NA TRG MSP 130 70 20170824 10 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
375-85-9 1.3 NG_G 124 1.6 NG_G Y NA TRG MSP 130 70 20170824 2 0.19 0.19
0.19 0.65 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0
375-73-5 1.2 NG_G 118 1.4 NG_G Y NA TRG MSP 130 70 20170724 2 0.19 0.19
0.19 0.58 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 355-46-4
1.2 NG_G 112 1.4 NG_G Y NA TRG MSP 130 70 20170824 3 0.19 0.19 0.19 0.62 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 1763-23-
1 1.4955 NG_G 121 1.8 NG_G Y NA TRG MSP 130 70 20170824 10 0.19 0.19 0.19
0.63 0.77
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 2991-50-
6 1.3 NG_G 95 1.2 NG_G J Y NA TRG MSP 130 70 20170824 5 0.48 0.48 0.48 1.9
2.9
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-05MSD 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003
Wet METHOD 000 MSD S 2 20181107 09:10:00 20181108 19:37:00 9881585 20190118 2005307 0.00 1 1 0 2355-31-
9 1.3 NG_G 104 1.4 NG_G J Y NA TRG MSP 130 70 20170824 11 0.48 0.48 0.48 1.9
2.9
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 1763-23-
1LC8 NG_G 80 7.1 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 375-95-1LC9
NG_G 80 7.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 335-76-2LC6
NG_G 78 7.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 2355-31-9L
NG_G 81 7.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 2058-94-
8LC7 NG_G 80 7.4 NG_G Y NA SUR 150 50 20171212

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 2991-50-6L
NG_G 71 6.6 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 307-55-1L
NG_G 78 7.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 376-06-7L
NG_G 71 6.6 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 375-73-5L
NG_G 74 6.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 307-24-4LC5
NG_G 78 7.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 355-46-4L
NG_G 80 7.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 375-85-9L
NG_G 80 7.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC21-S-04-08 537_MOD EUROFINS Wet 000 1 1 BSI02 18311003 Wet
METHOD 000 REG S 2 20181107 09:10:00 20181108 19:46:00 9881586 20190118 2005307 0.00 1 1 1 335-67-1L
NG_G 85 7.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 1763-23-
1LC8 NG_G 97 9.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 375-95-1LC9
NG_G 94 9.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 335-76-2LC6
NG_G 86 8.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 2355-31-9L
NG_G 53 5.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 2058-94-
8LC7 NG_G 92 9.1 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 2991-50-6L
NG_G 55 5.5 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 307-55-1L
NG_G 90 8.9 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 376-06-7L
NG_G 83 8.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 375-73-5L
NG_G 87 8.0 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 307-24-4LC5
NG_G 89 8.8 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 355-46-4L
NG_G 88 8.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 375-85-9L
NG_G 93 9.2 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-CAOC22-S-01-01 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 REG S 2 20181111 16:30:00 20181113 16:20:00 9881589 20190118 2005307 0.00 1 1 1.2 335-67-1L
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NG_G 69 6.8 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:13:00 9881591 20190118 2005307 0.00 1 1 0.79 2991-50-6L
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:13:00 9881591 20190118 2005307 0.00 1 1 0.79 307-55-1L
NG_G 68 6.7 NG_G Y NA SUR 150 50 20171212
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NG_G 68 6.3 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:22:00 9881592 20190118 2005307 0.00 1 1 0.61 375-95-1LC9
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:22:00 9881592 20190118 2005307 0.00 1 1 0.61 335-76-2LC6
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NG_G 65 6.3 NG_G Y NA SUR 150 50 20171212
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NG_G 72 7.0 NG_G Y NA SUR 150 50 20171212
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NG_G 67 6.2 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:31:00 9881594 20190118 2005307 0.00 1 1 9.4 335-76-2LC6
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METHOD 000 REG S 2 20181107 09:10:00 20181108 20:31:00 9881594 20190118 2005307 0.00 1 1 9.4 376-06-7L
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NG_G 61 5.2 NG_G Y NA SUR 150 50 20171212

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NG_G 72 6.7 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 1763-23-
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 2058-94-
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 2991-50-6L
NG_G 72 7.0 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 307-55-1L
NG_G 64 6.2 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 376-06-7L
NG_G 89 8.6 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 375-73-5L
NG_G 91 8.2 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 307-24-4LC5
NG_G 98 9.5 NG_G Y NA SUR 150 50 20171212
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 355-46-4L
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METHOD 000 REG S 2 20181111 16:30:00 20181113 16:29:00 9881595 20190118 2005307 0.00 1 1 1.2 335-67-1L
NG_G 101 9.8 NG_G Y NA SUR 150 50 20171212
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1.4 NG_G 115 1.6 NG_G J Y NA TRG SRMA 130 70 20170824 0.50 0.50 0.50 2.0 3.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 BS S 2 20181107 14:55:00 L31116Q 20190118 2005307 0.00 1 1 -86 89.5 PCT 100 89.4 PCT
Y NA TRG SRMA 101 99 20130626 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 BS S 2 20181107 14:55:00 L31116Q 20190118 2005307 0.00 1 1 -86 89.5 PCT 100 89.4 PCT
Y NA TRG SRMA 101 99 20130626 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 BS S 2 20181107 14:55:00 L31116Q 20190118 2005307 0.00 1 1 -86 89.5 PCT 100 89.4 PCT
Y NA TRG SRMA 101 99 20130626 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB DUP18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 LR S 2 20181107 14:55:00 P881583D 20190118 2005307 0.00 1 1 -86 2.7 PCT 2.8
PCT Y NA TRG MLR 20130626 4 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB DUP18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 LR S 2 20181107 14:55:00 P881583D 20190118 2005307 0.00 1 1 -86 2.7 PCT 2.8
PCT Y NA TRG MLR 20130626 4 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB DUP18311820006A Calculation EUROFINS Wet 000 1 1 BSI02 18311820006A
Wet NONE 000 LR S 2 20181107 14:55:00 P881583D 20190118 2005307 0.00 1 1 -86 2.7 PCT 2.8
PCT Y NA TRG MLR 20130626 4 0.50 0.50 0.50 0.50 0.50
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 335-67-1 0
NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 1763-23-
1LC8 0 NG_L 84 16 NG_L Y NA SUR 150 50 20170818
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-95-1LC9
0 NG_L 89 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 335-76-2LC6
0 NG_L 87 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2355-31-9L
0 NG_L 85 17 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2058-94-
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2991-50-6L
0 NG_L 75 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 307-55-1L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 376-06-7L
0 NG_L 71 14 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-73-5L
0 NG_L 82 15 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 307-24-4LC5
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METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 355-46-4L
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METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-85-9L
0 NG_L 90 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 335-67-1L
0 NG_L 90 18 NG_L Y NA SUR 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-95-1 0
NG_L 1.2 NG_L U N NA TRG 0.40 0.40 0.40 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 335-76-2 0
NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2058-94-8
0 NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 307-55-1 0
NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 72629-94-8
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METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 376-06-7 0
NG_L 1.2 NG_L U N NA TRG 0.60 0.60 0.60 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 307-24-4 0
NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-85-9 0
NG_L 1.2 NG_L U N NA TRG 0.40 0.40 0.40 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 375-73-5 0
NG_L 1.1 NG_L U N NA TRG 0.30 0.30 0.30 1.1 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 355-46-4 0
NG_L 1.1 NG_L U N NA TRG 0.40 0.40 0.40 1.1 2.0
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METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 1763-23-1
0 NG_L 1.2 NG_L U N NA TRG 0.50 0.50 0.50 1.2 2.0

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2991-50-6
0 NG_L 2.4 NG_L U N NA TRG 1.0 1.0 1.0 2.4 3.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 LB W 2 20181111 16:10:00 20181112 22:37:00 BLK3140B 20190118 2005307 0.00 1 1 100 2355-31-9
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 335-67-1 5.4
NG_L 101 5.5 NG_L Y NA TRG SRMA 136 76 20180523 0.50 0.50 0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 1763-23-
1LC8 19 NG_L 88 17 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 375-95-1LC9
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 335-76-2LC6
20 NG_L 89 18 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 2355-31-9L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 2058-94-
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METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 2991-50-6L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 307-55-1L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 376-06-7L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 375-73-5L
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 307-24-4LC5
20 NG_L 93 19 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 355-46-4L
19 NG_L 91 17 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 375-85-9L
20 NG_L 91 18 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100 335-67-1L
20 NG_L 93 19 NG_L Y NA SUR SRMA 150 50 20170818
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
375-95-1 5.4 NG_L 97 5.3 NG_L Y NA TRG SRMA 144 73 20180523 0.40 0.40
0.40 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
335-76-2 5.4 NG_L 92 5.0 NG_L Y NA TRG SRMA 141 67 20180523 0.50 0.50
0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
2058-94-8 5.4 NG_L 99 5.4 NG_L Y NA TRG SRMA 132 83 20180523 0.50 0.50
0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
307-55-1 5.4 NG_L 94 5.1 NG_L Y NA TRG SRMA 137 72 20180523 0.50 0.50
0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
72629-94-8 5.4 NG_L 101 5.5 NG_L Y NA TRG SRMA 137 57 20180523 0.60 0.60
0.60 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA

METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
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0.60 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
307-24-4 5.4 NG_L 104 5.6 NG_L Y NA TRG SRMA 132 77 20180523 0.50 0.50
0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
375-85-9 5.4 NG_L 105 5.7 NG_L Y NA TRG SRMA 139 75 20180523 0.40 0.40
0.40 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
375-73-5 4.8 NG_L 95 4.6 NG_L Y NA TRG SRMA 127 72 20180523 0.30 0.30
0.30 1.1 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
355-46-4 5.1 NG_L 91 4.7 NG_L Y NA TRG SRMA 130 71 20180523 0.40 0.40
0.40 1.1 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
1763-23-1 5.2 NG_L 89 4.6 NG_L Y NA TRG SRMA 134 67 20180523 0.50 0.50
0.50 1.2 2.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
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1.0 2.4 3.0
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314006 537_MOD EUROFINS NA 000 1 1 BSI02 18314006 NA
METHOD 000 BS W 2 20181111 16:10:00 20181112 22:46:00 LCS3146Q 20190118 2005307 0.00 1 1 100
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1.0 2.4 3.0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
335-67-1 0 NG_G 0.68 NG_G U N NA TRG 0.20 0.20 0.20
0.68 0.80
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
1763-23-1LC8 0 NG_G 98 9.4 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
375-95-1LC9 0 NG_G 101 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
335-76-2LC6 0 NG_G 93 9.3 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
2355-31-9L 0 NG_G 103 10 NG_G Y NA SUR 150 50 20171212
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB BLK18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
2058-94-8LC7 0 NG_G 96 9.6 NG_G Y NA SUR 150 50 20171212
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 307-24-4LC5
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 355-46-4L
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 375-85-9L
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 335-67-1L
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 375-95-1 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 335-76-2 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 2058-94-8
0 NG_G 0.68 NG_G U N NA TRG 0.20 0.20 0.20 0.68 0.80
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 307-55-1 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 72629-94-8
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 376-06-7 0
NG_G 0.68 NG_G U N NA TRG 0.20 0.20 0.20 0.68 0.80
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 307-24-4 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 375-85-9 0
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 375-73-5 0
NG_G 0.60 NG_G U N NA TRG 0.20 0.20 0.20 0.60 0.80
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 355-46-4 0
NG_G 0.64 NG_G U N NA TRG 0.20 0.20 0.20 0.64 0.80
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 1763-23-1
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 2991-50-6
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METHOD 000 LB S 2 20181111 16:30:00 20181113 01:47:00 BLK3140B 20190118 2005307 0.00 1 1 0 2355-31-9
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NG_G 104 1.4 NG_G Y NA TRG SRMA 130 70 20170824 0.20 0.20 0.20 0.68 0.80
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 335-76-2LC6
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 2058-94-
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 307-55-1L
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 376-06-7L
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 307-24-4LC5
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 355-46-4L
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 307-55-1 1.4
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 375-85-9 1.4
NG_G 104 1.4 NG_G Y NA TRG SRMA 130 70 20170824 0.20 0.20 0.20 0.68 0.80
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCS18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 375-73-5 1.2
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METHOD 000 BS S 2 20181111 16:30:00 20181113 01:56:00 LCS3149Q 20190118 2005307 0.00 1 1 0 355-46-4 1.3
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 335-67-1 1.4
NG_G 100 1.4 NG_G Y NA TRG SRMP 130 70 20170824 4 0.20 0.20 0.20 0.68 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 1763-23-
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 375-95-1LC9
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 335-76-2LC6
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 2355-31-9L
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 307-55-1L
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 376-06-7L
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 375-73-5L
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 307-24-4LC5
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 355-46-4L
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 375-95-1 1.4
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 335-76-2 1.4
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 72629-94-8
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N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB LCSD18314009 537_MOD EUROFINS Wet 000 1 1 BSI02 18314009 Wet
METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 376-06-7 1.4
NG_G 101 1.4 NG_G Y NA TRG SRMP 130 70 20170824 0 0.20 0.20 0.20 0.68 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 307-24-4 1.4
NG_G 97 1.3 NG_G Y NA TRG SRMP 130 70 20170824 1 0.20 0.20 0.20 0.68 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 375-85-9 1.4
NG_G 100 1.4 NG_G Y NA TRG SRMP 130 70 20170824 3 0.20 0.20 0.20 0.68 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 375-73-5 1.2
NG_G 93 1.1 NG_G Y NA TRG SRMP 130 70 20170724 2 0.20 0.20 0.20 0.60 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 355-46-4 1.3
NG_G 90 1.2 NG_G Y NA TRG SRMP 130 70 20170824 6 0.20 0.20 0.20 0.64 0.80
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METHOD 000 BD S 2 20181111 16:30:00 20181113 02:05:00 LCS3149Y 20190118 2005307 0.00 1 1 0 2991-50-6
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Wet NONE 000 BS S 2 20181112 13:52:00 L31612Q 20190118 2005307 0.00 1 1 -86 89.5 PCT 100 89.4 PCT
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