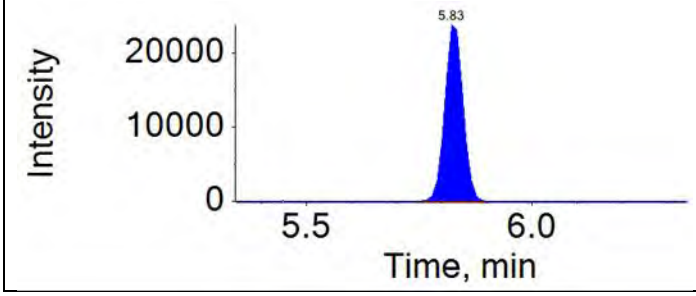
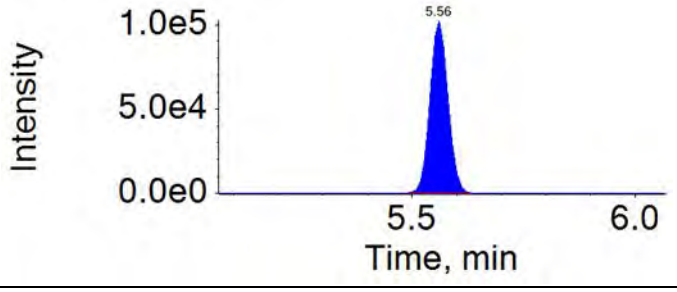
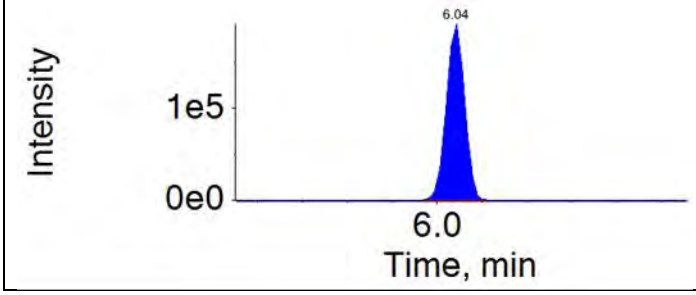
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

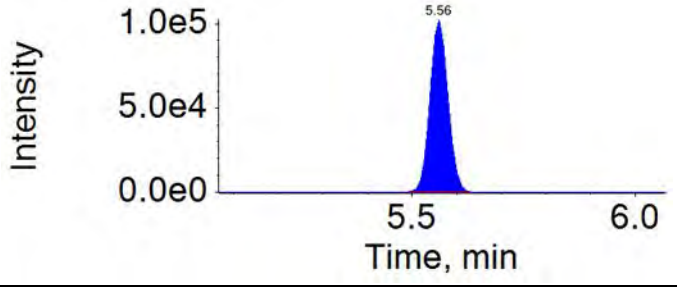
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



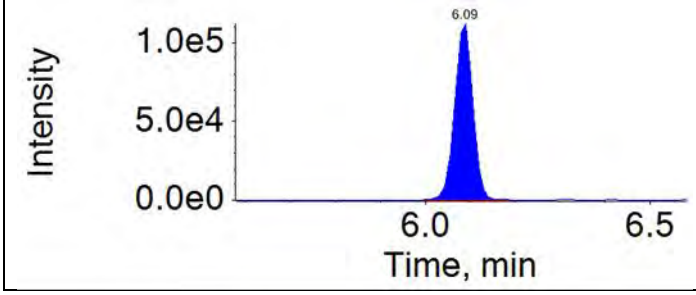


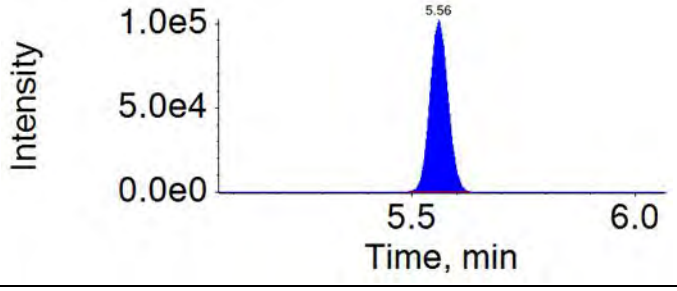
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



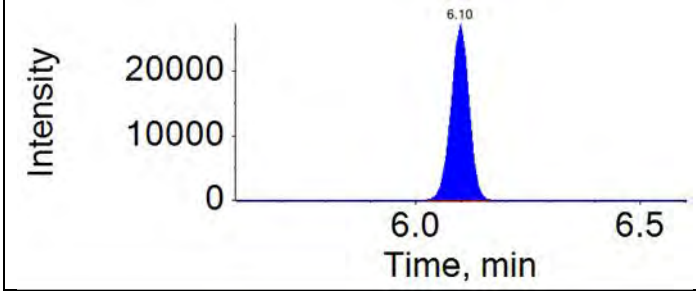


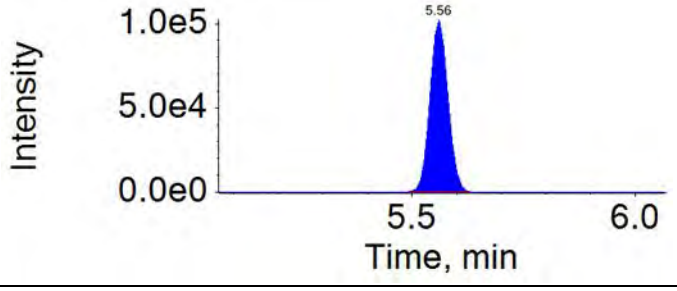
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



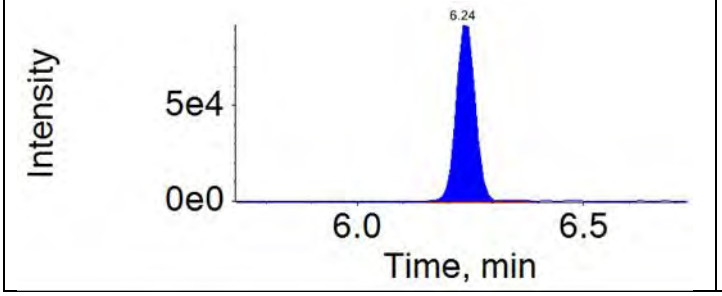


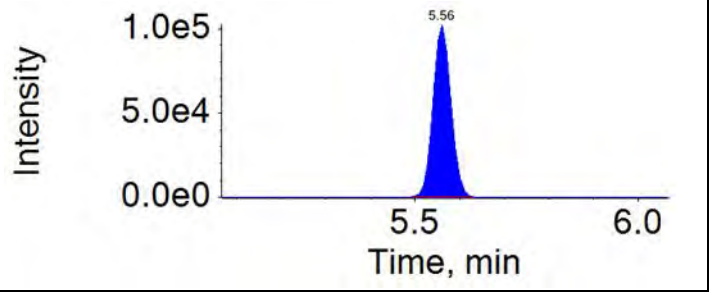
APPROVED
By JPT at 10:23 am, 11/13/18

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

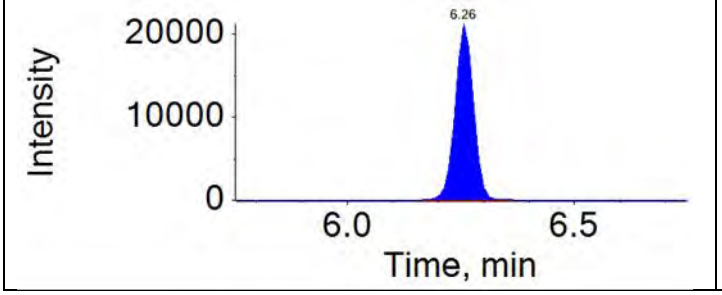
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

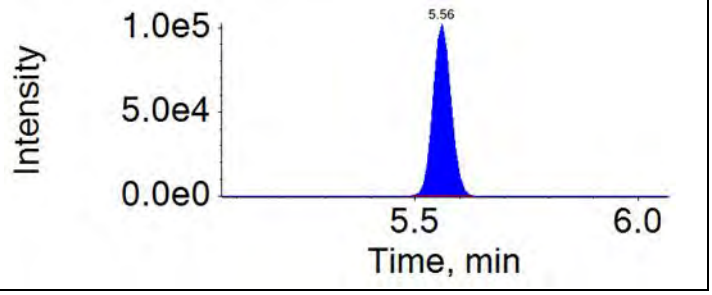
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



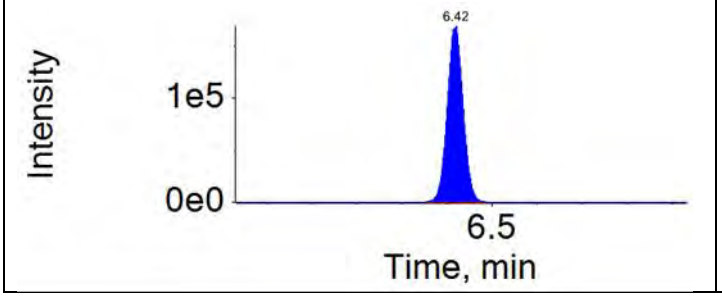


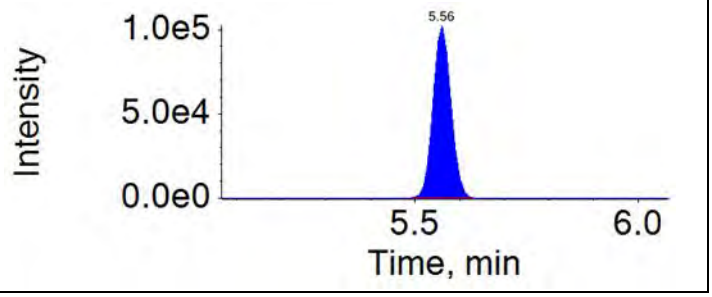
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



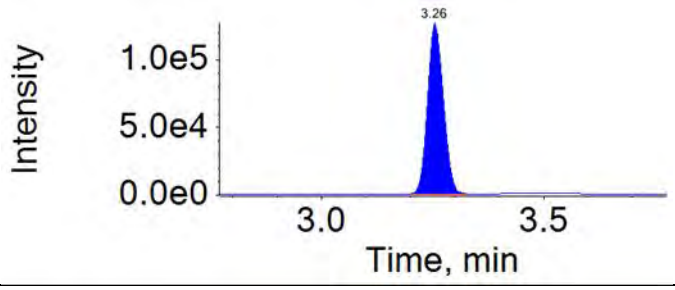


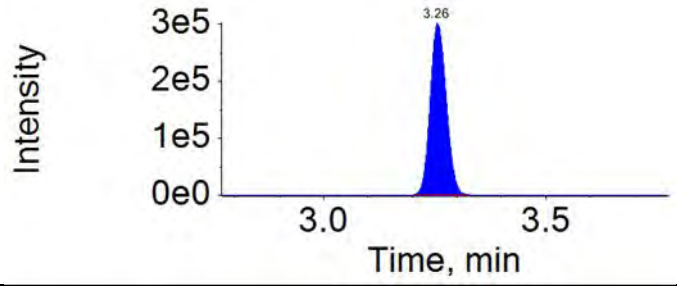
APPROVED
By JPT at 10:23 am, 11/13/18

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

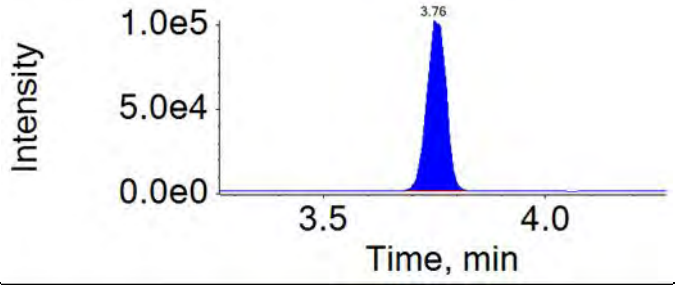
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

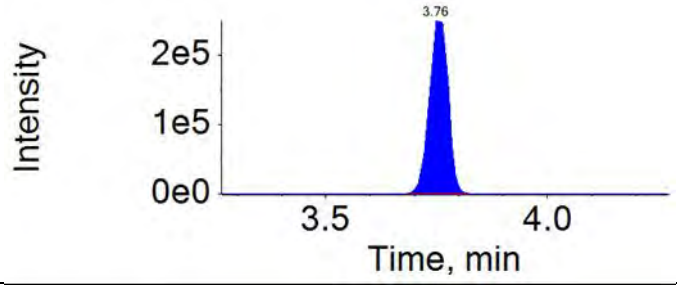
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



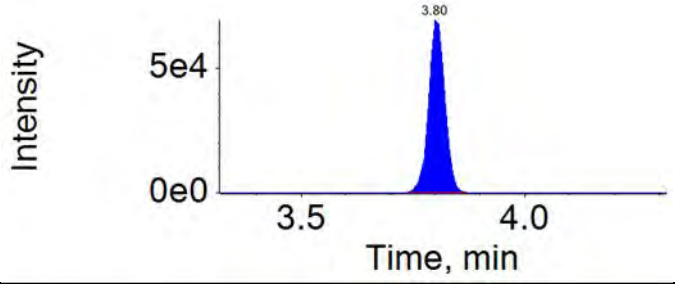


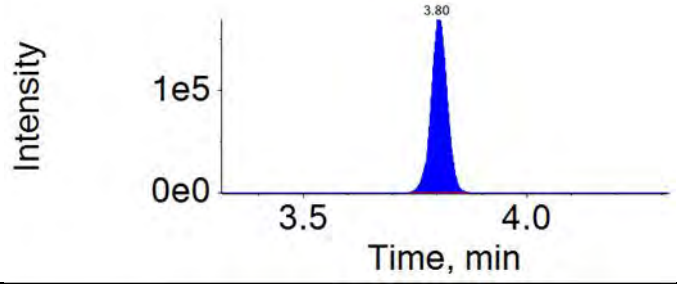
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



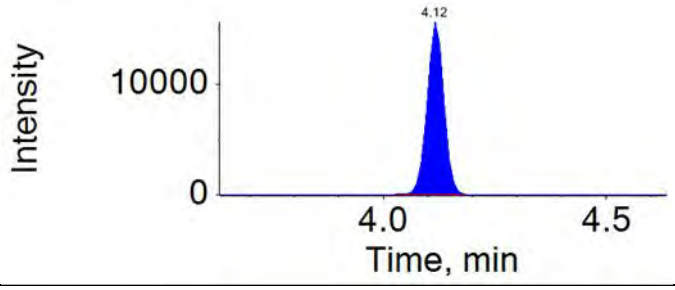


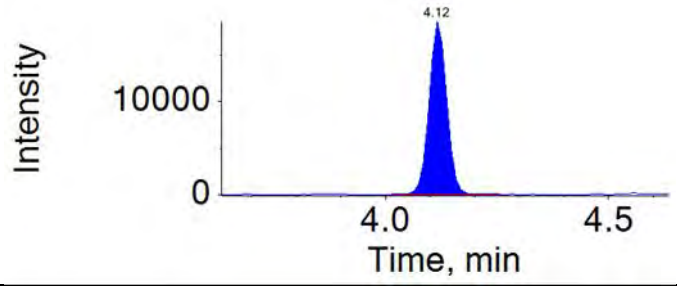
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



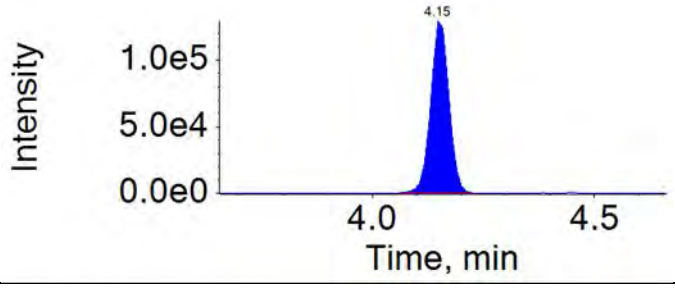


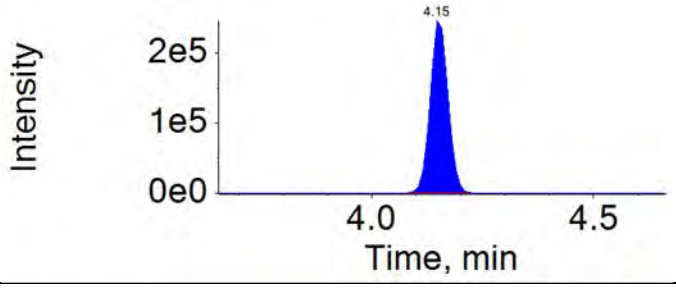
APPROVED
By JPT at 10:23 am, 11/13/18

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

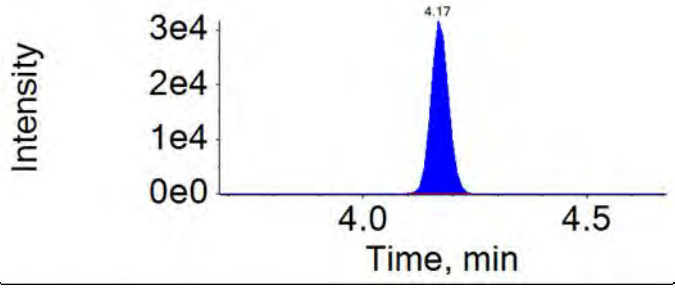
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

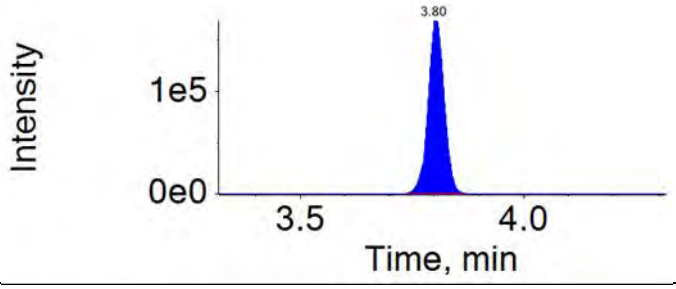
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



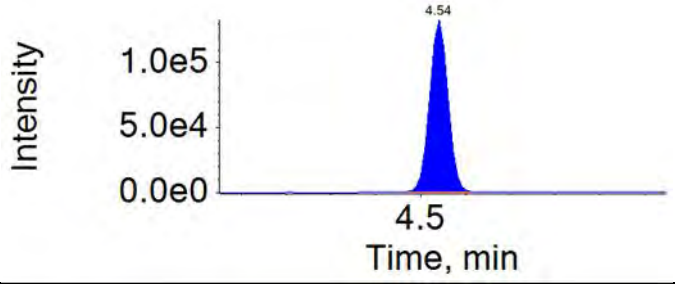


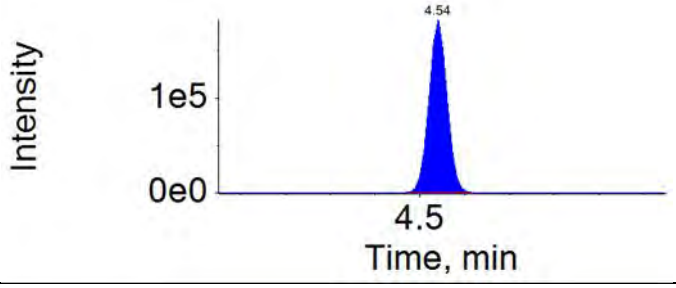
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



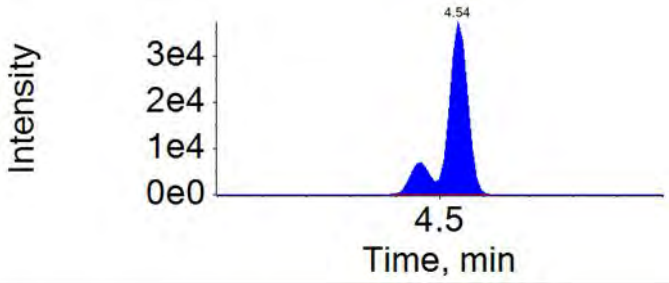


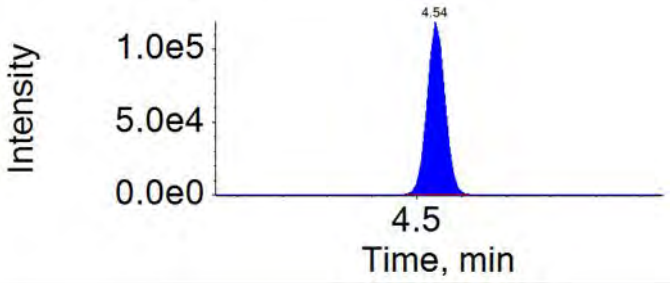
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





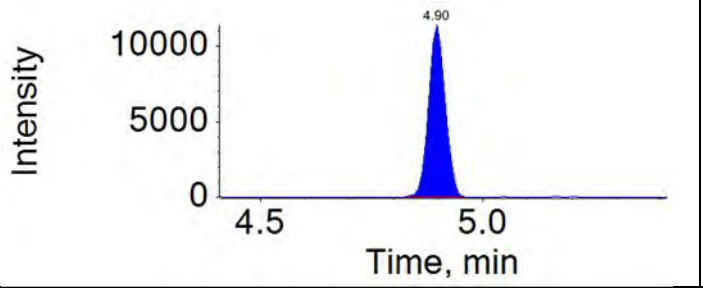
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

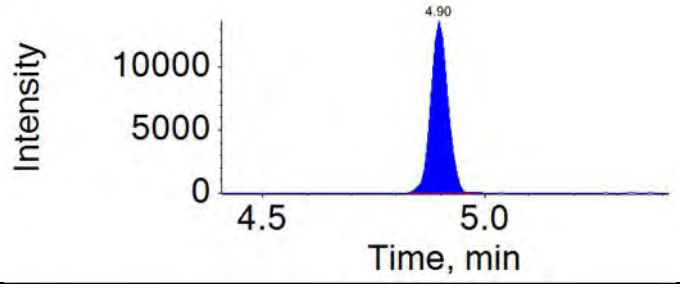




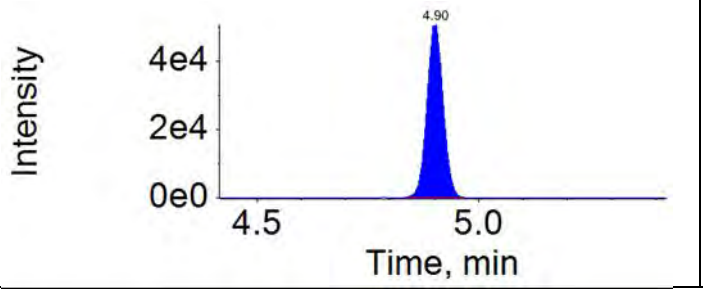
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

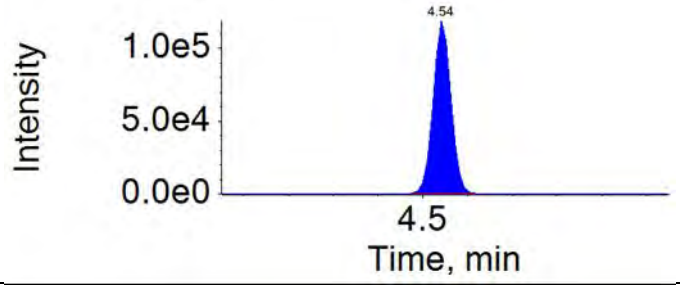
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



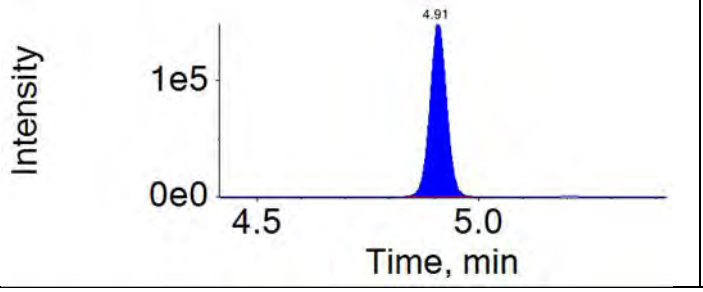


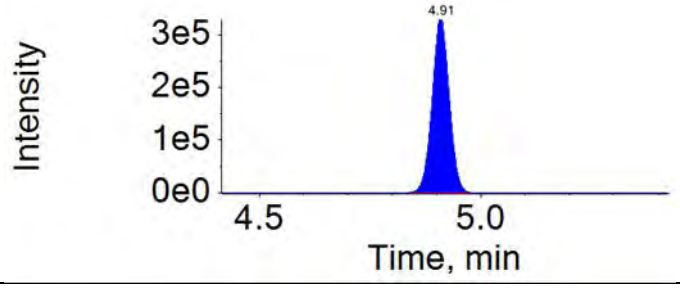
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



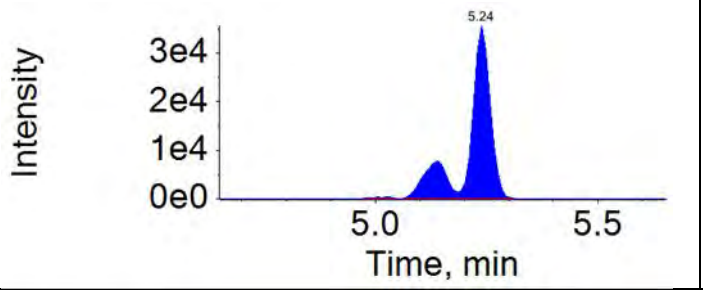


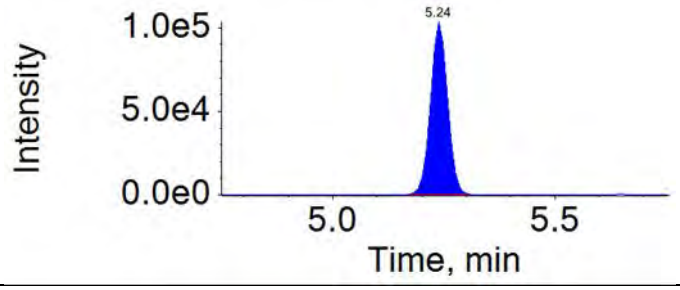
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



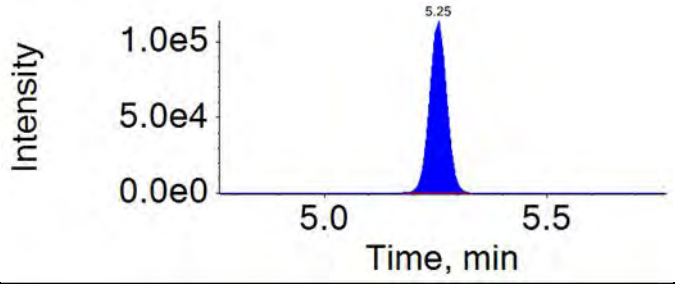


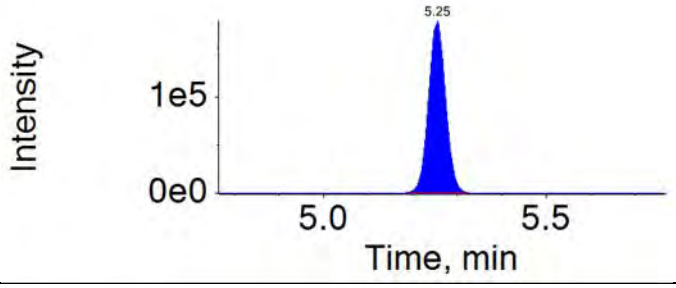
APPROVED
By JPT at 10:23 am, 11/13/18

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

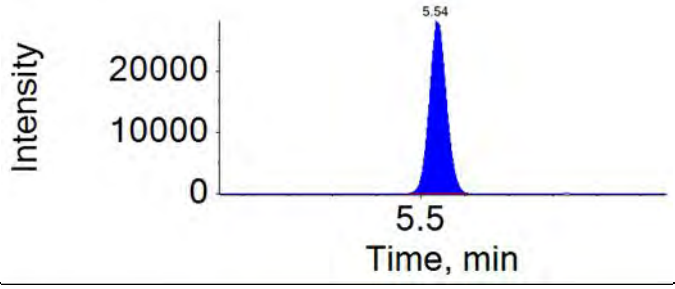
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

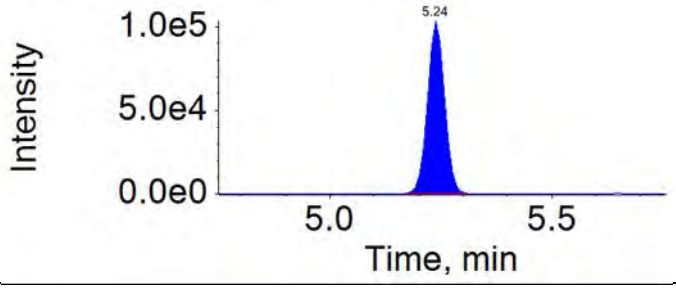
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



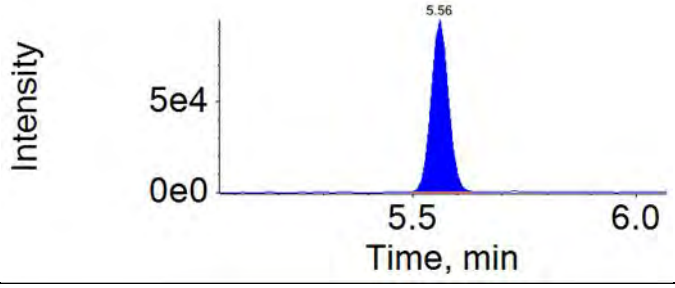


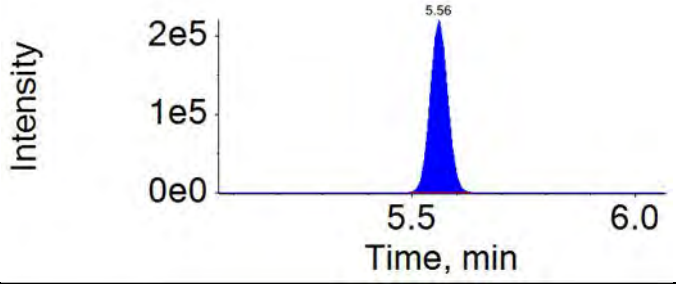
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



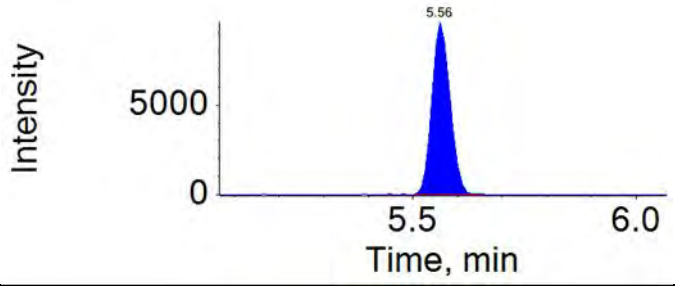


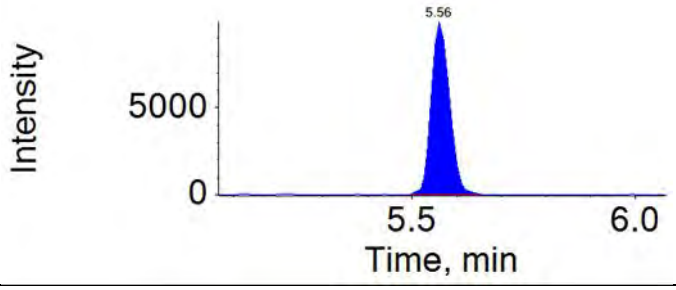
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



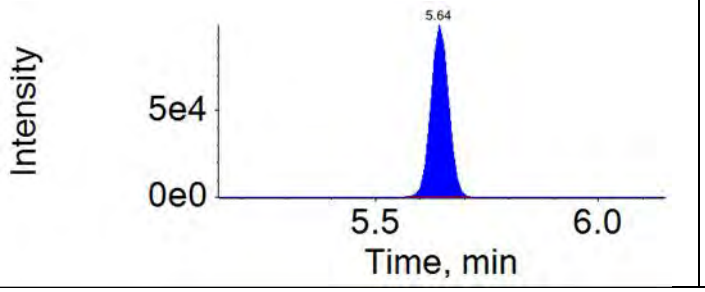


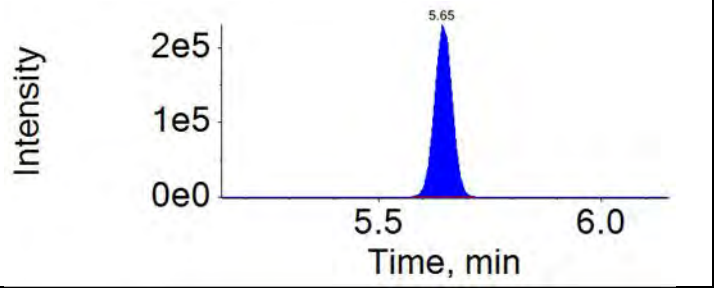
APPROVED
By JPT at 10:23 am, 11/13/18

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

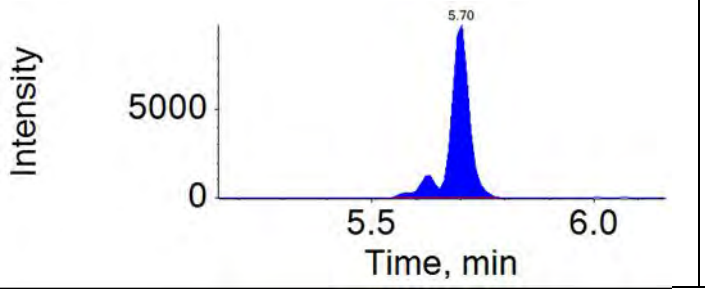
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

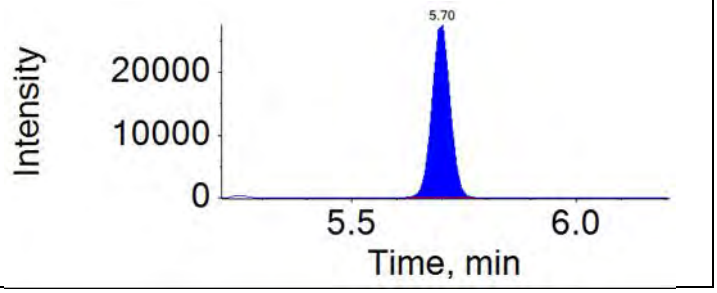
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



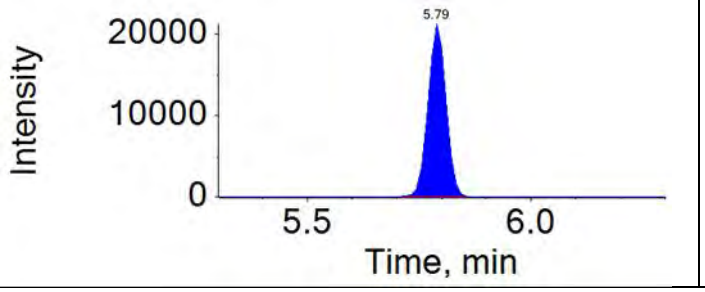


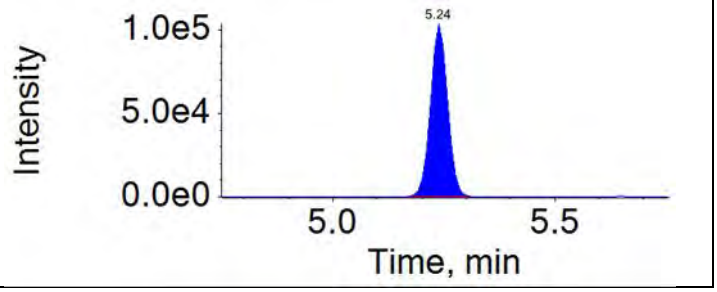
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



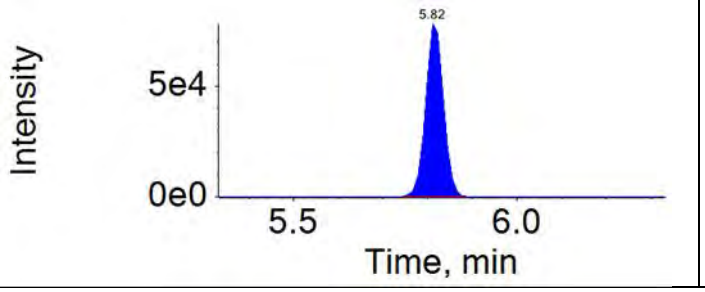


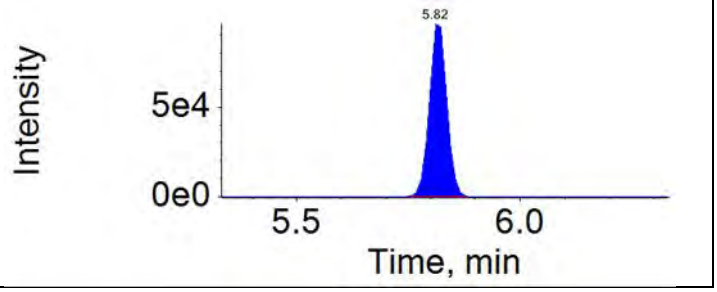
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



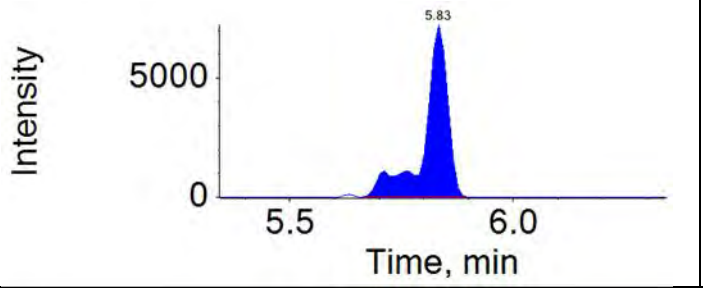


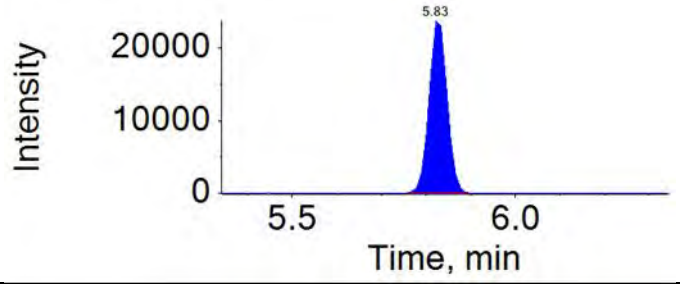
APPROVED
By JPT at 10:23 am, 11/13/18

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

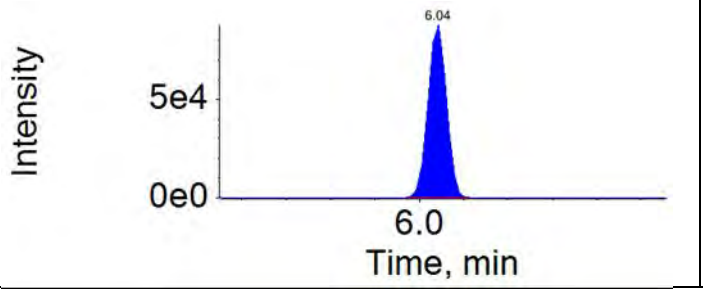
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

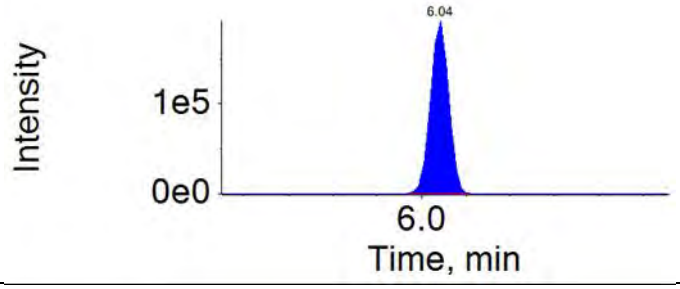
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



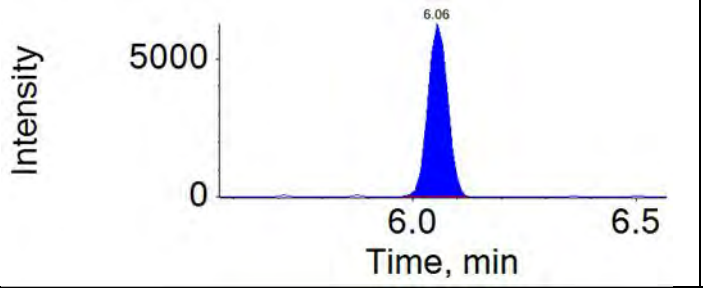


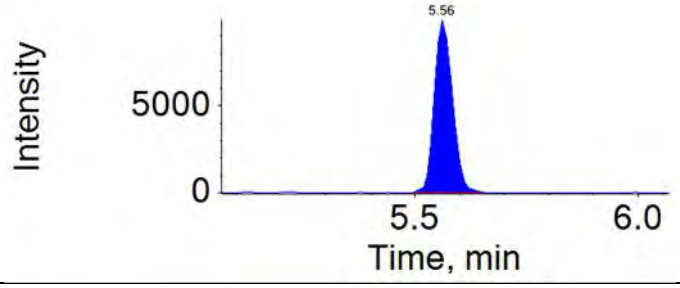
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



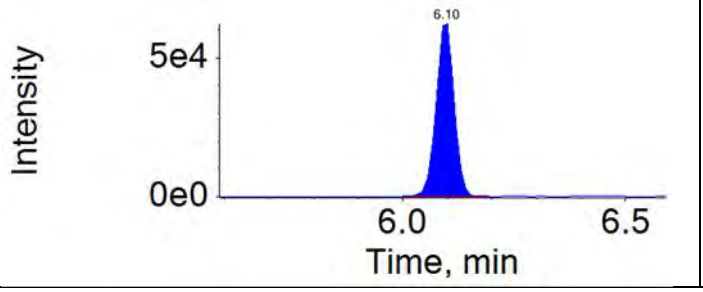


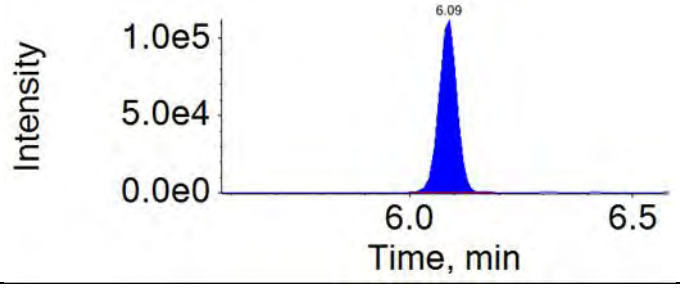
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



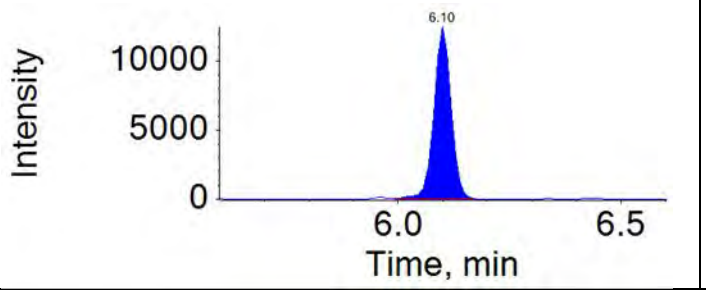


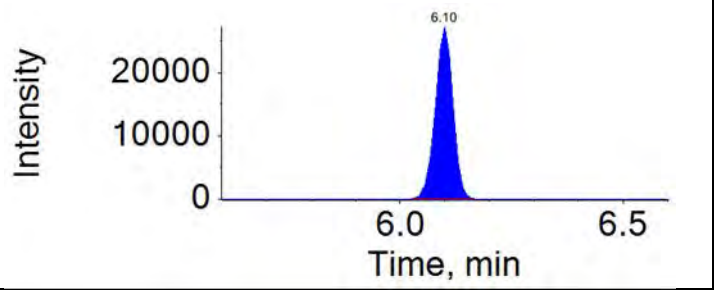
APPROVED
By JPT at 10:23 am, 11/13/18

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

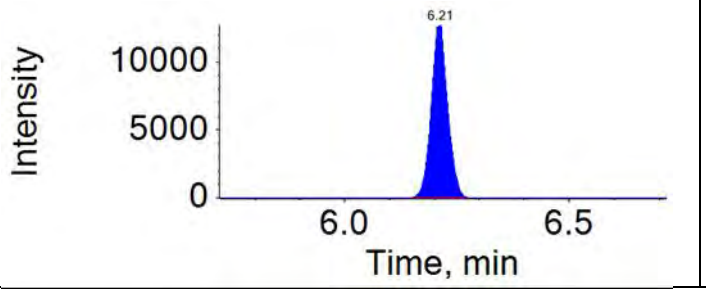
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

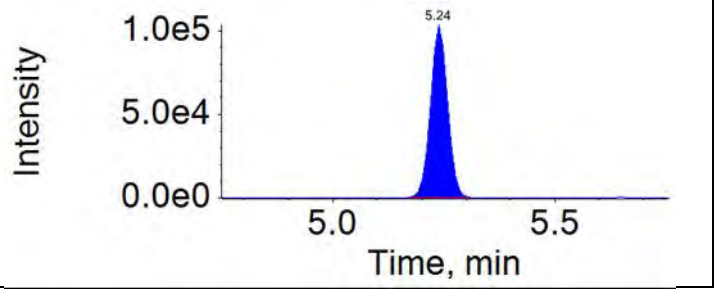
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



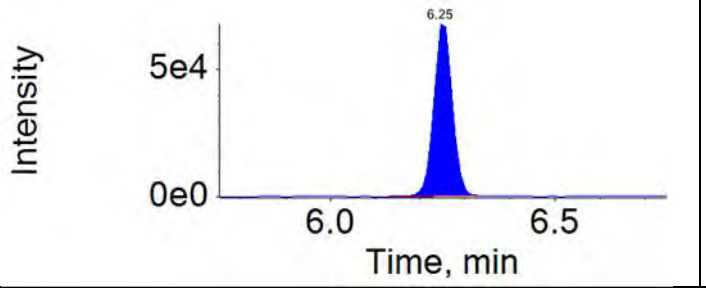


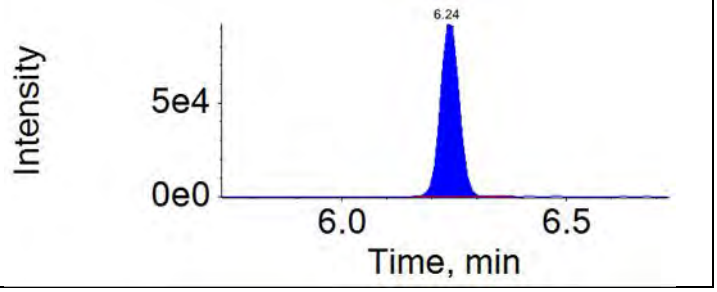
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



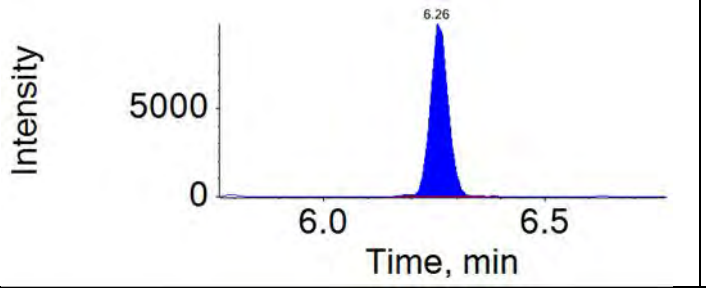


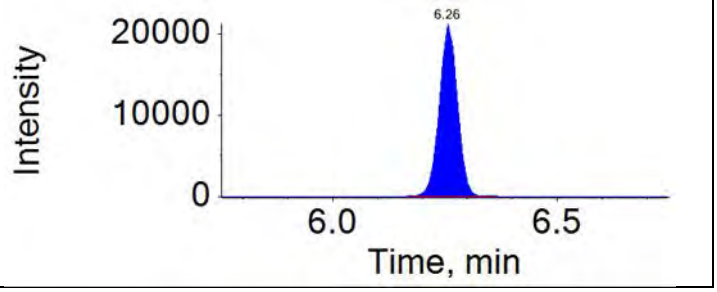
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



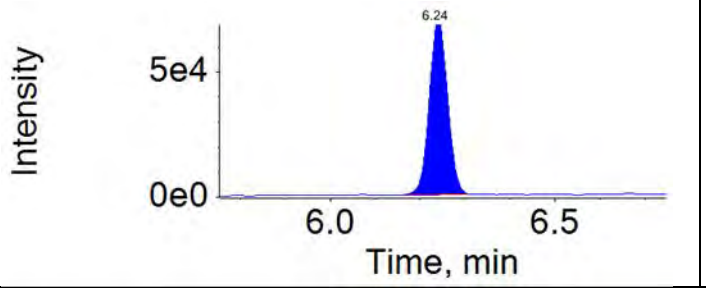


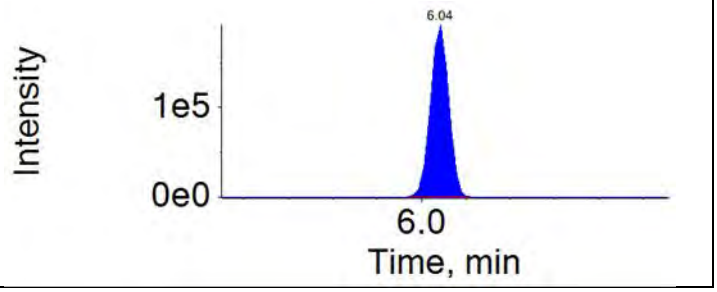
APPROVED
By JPT at 10:23 am, 11/13/18

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

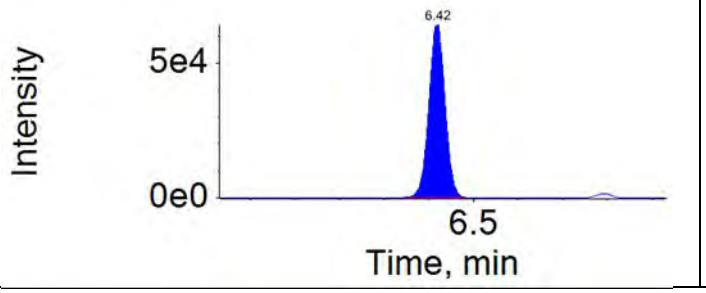
ICAL Name: 18NOV12DCAL **Result Table:** 18NOV12DCCV3-11 11/13/2018 10:08:47 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

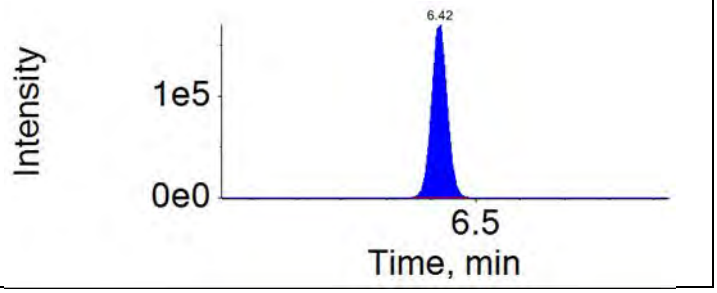
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



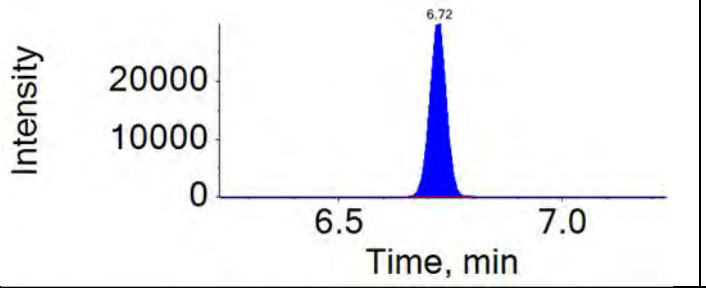


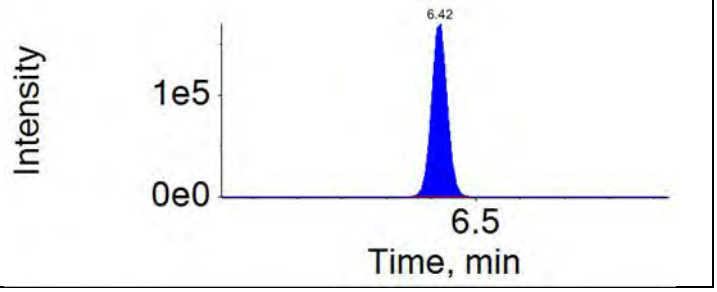
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



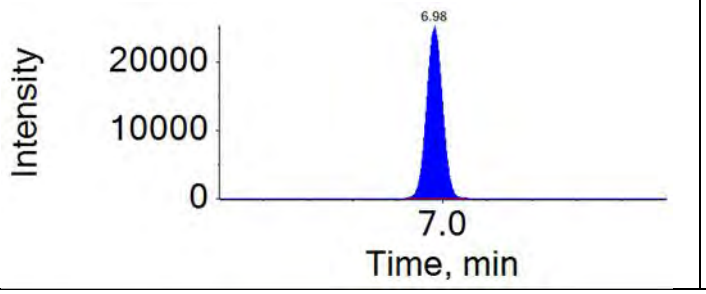


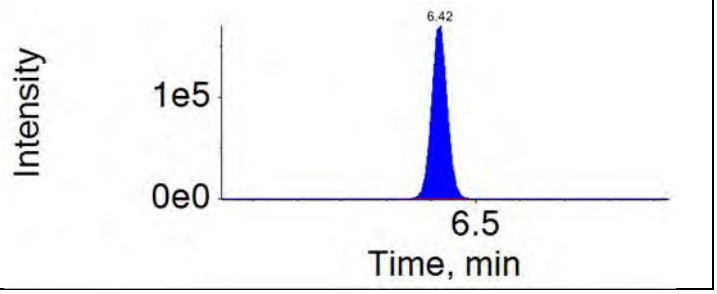
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



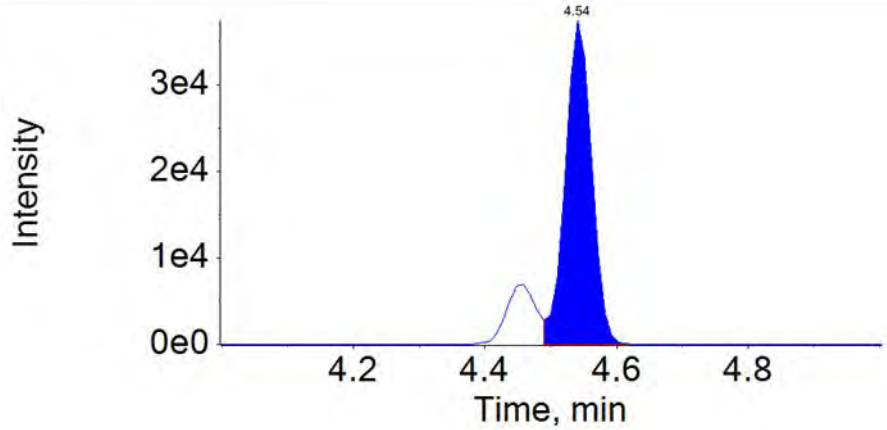


APPROVED
By JPT at 10:23 am, 11/13/18

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

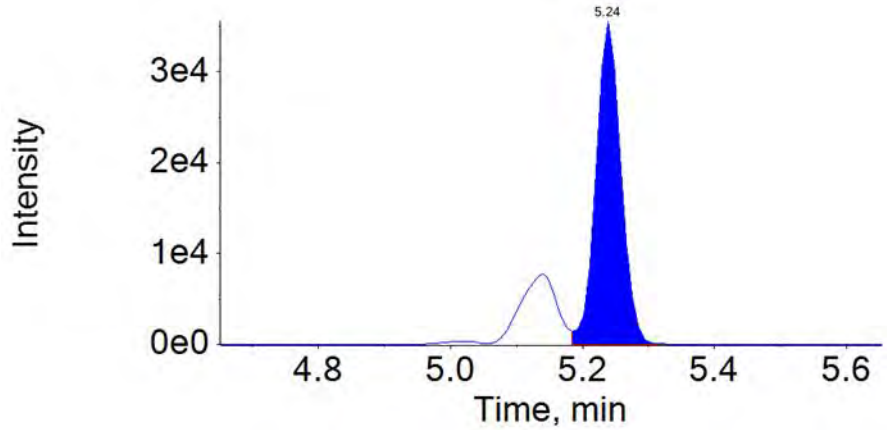
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
104761.0
Mass Range:
399.0 / 80.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



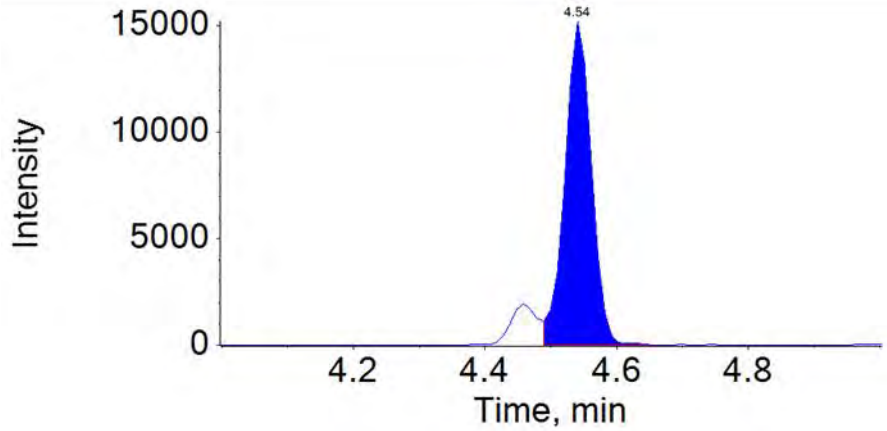
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
93525.1
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
42787.8
Mass Range:
399.0 / 99.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



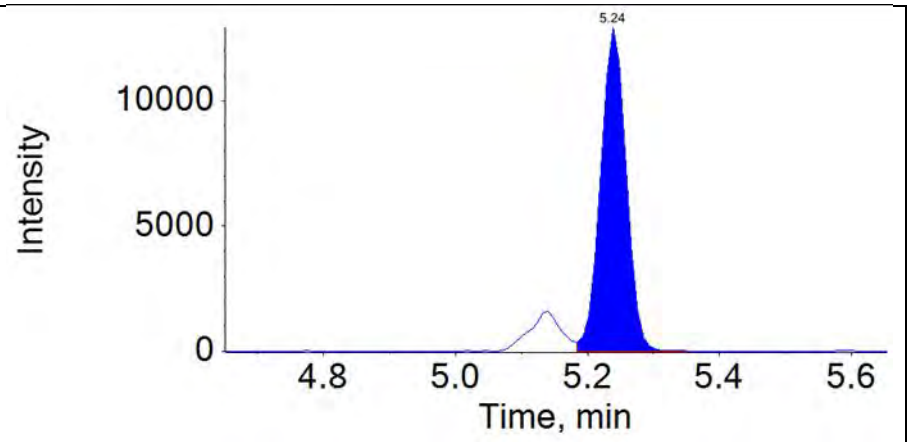
Integration Comment: incorrect integration

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

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

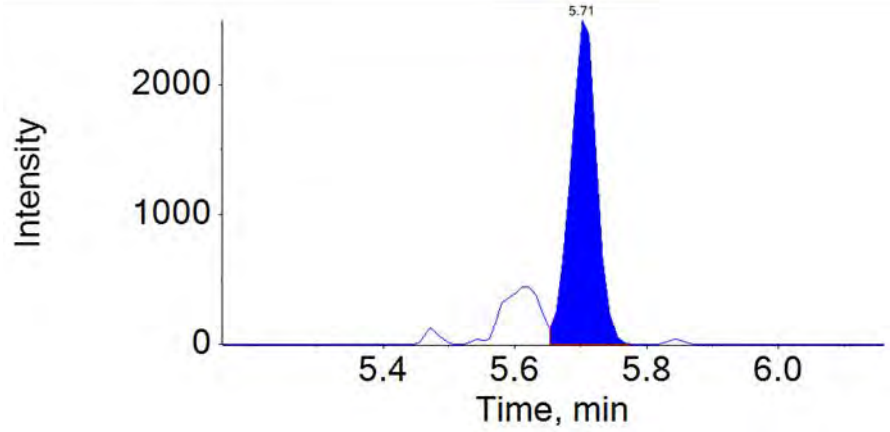
Results Table Name: 18NOV12DCCV3-11
Results Table Date: 11/13/2018 10:08:47 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
34887.1
Mass Range:
499.0 / 99.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
6895.2
Mass Range:
570.0 / 483.0
File Name:
18NOV12D-82.wiff
Sample Name:
CCV8_CAL3



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

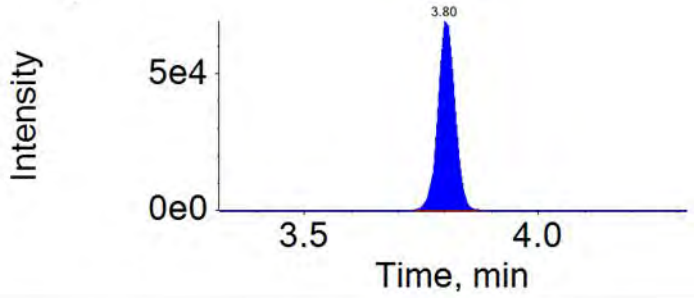
Sample Name: CCV8_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV12D-82.wiff

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	174556.6	A	N/A	1.0000			
PFBS_2	3.80	1.00	64739.5	A	N/A	0.3709	2	50	
4:2-FTS	4.12	1.00	40895.9	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	22735.8	A	N/A	0.5559		#NA!	
PFHxA	4.15	1.00	370004.4	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4252.5	A	N/A	0.0115	-2	50	
PFPeS	4.17	1.10	87020.0	A	N/A	1.0000			
PFPeS_2	4.17	1.10	43669.9	A	N/A	0.5018	-3	50	
PFHpA	4.54	1.00	376582.7	A	N/A	1.0000			
PFHpA_2	4.54	1.00	20517.6	A	N/A	0.0545	-3	50	
PFHxS	4.54	1.00	126141.7	M	N/A	1.0000			
PFHxS_2	4.54	1.00	48045.1	M	N/A	0.3809	10	50	
6:2-FTS	4.90	1.00	29590.6	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	20427.6	A	N/A	0.6903		#NA!	
PFHpS	4.90	1.08	129790.5	A	N/A	1.0000			
PFHpS_2	4.90	1.08	51129.8	A	N/A	0.3939	-3	50	
PFOA	4.91	1.00	391470.4	A	N/A	1.0000			
PFOA_2	4.91	1.00	20589.3	A	N/A	0.0526	-8	50	
PFOS	5.24	1.00	124465.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	40271.6	M	N/A	0.3236	9	50	
PFNA	5.25	1.00	305412.4	A	N/A	1.0000			
PFNA_2	5.25	1.00	5417.6	A	N/A	0.0177	-22	50	
PFNS	5.54	1.06	74922.2	A	N/A	1.0000			
PFNS_2	5.54	1.06	34558.7	A	N/A	0.4613	-3	50	
PFDA	5.56	1.00	252739.7	A	N/A	1.0000			
PFDA_2	5.56	1.00	1779.7	A	N/A	0.0070	-11	50	
8:2-FTS	5.56	1.00	27233.9	A	N/A	1.0000			
8:2 FTS_2	5.56	1.00	15755.0	A	N/A	0.5785		#NA!	
NMeFOSAA	5.70	1.00	29635.8	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	8696.0	M	N/A	0.2934	13	50	
PFDS	5.79	1.11	59015.9	A	N/A	1.0000			
PFDS_2	5.79	1.11	31929.9	A	N/A	0.5410	6	50	
PFUnDA	5.82	1.00	216603.5	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	520.0	A	N/A	0.0024	-57	50	OOS
NEtFOSAA	5.83	1.00	26318.1	A	N/A	1.0000			
NEtFOSAA_2	5.83	1.00	20595.4	A	N/A	0.7826	9	50	
PFDoDA	6.04	1.00	256189.7	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	3179.6	A	N/A	0.0124	-19	50	
10:2-FTS	6.06	1.09	19300.5	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	12710.3	A	N/A	0.6585		#NA!	
PFTrDA	6.24	1.03	195104.3	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	1193.2	A	N/A	0.0061	-28	50	
PFTeDA	6.42	1.00	162073.2	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	927.6	A	N/A	0.0057	-8	50	
PFHxDA	6.72	1.05	79275.5	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4542.2	A	N/A	0.0573	-15	50	
PFODA	6.98	1.09	61825.4	A	N/A	1.0000			
PFODA_2	6.98	1.09	1623.1	A	N/A	0.0263	-5	50	

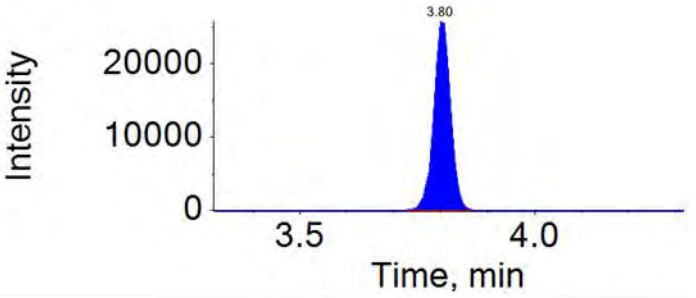
APPROVED
By JPT at 10:23 am, 11/13/18

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

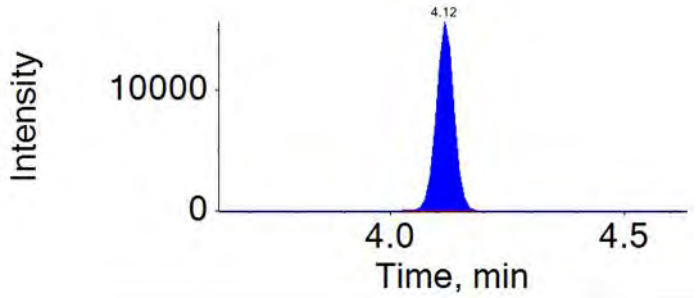
Component: PFBS
Primary Mass: 299.0 / 80.0



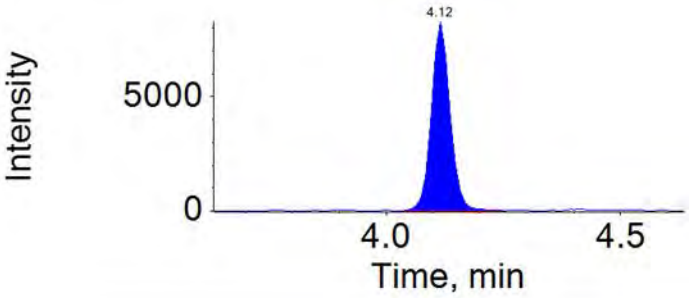
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



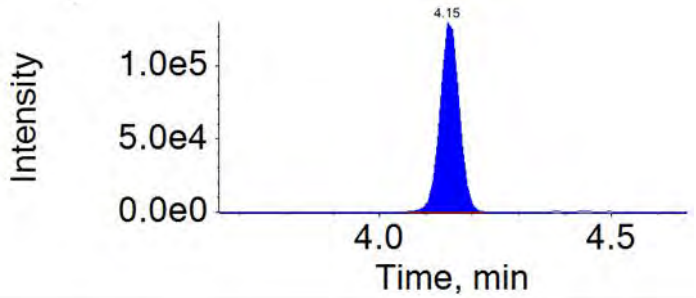
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



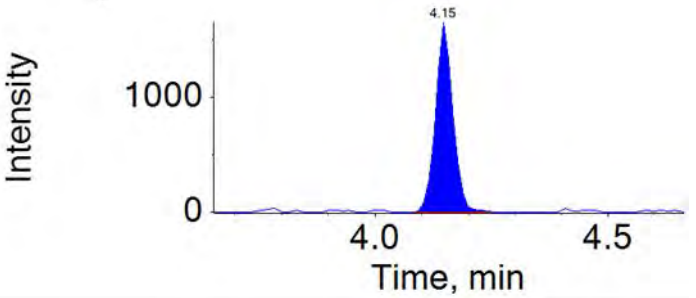
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



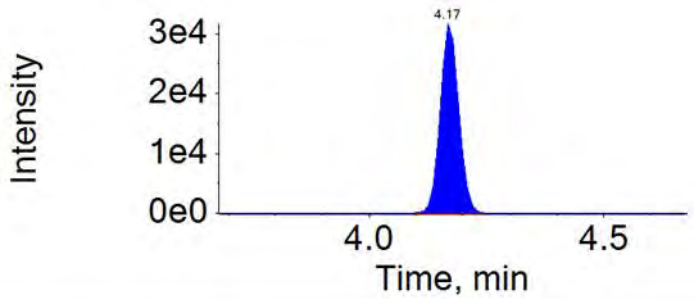
Component: PFHxA
Primary Mass: 313.0 / 269.0



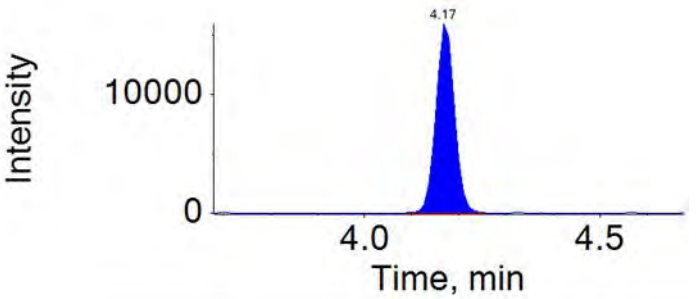
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



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

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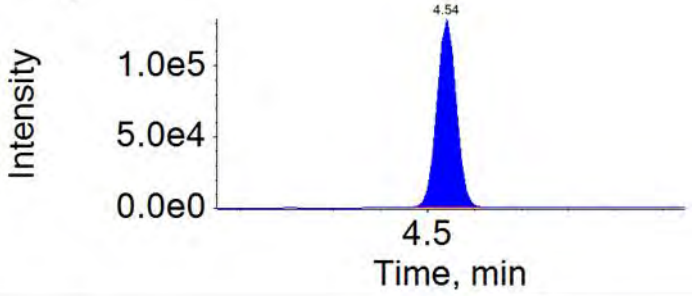
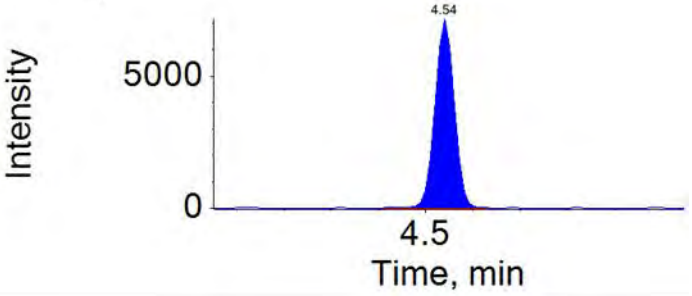
By umar at 5:20 pm, 11/13/18

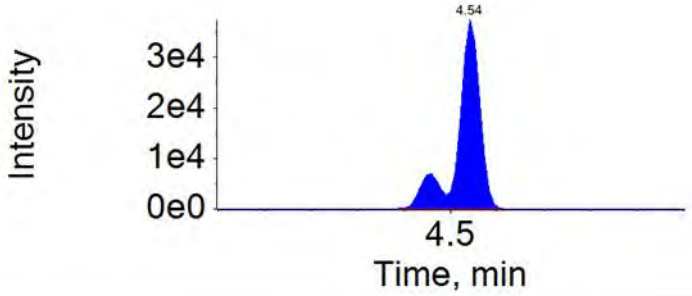
Component: PFHpA
Primary Mass: 363.0 / 319.0



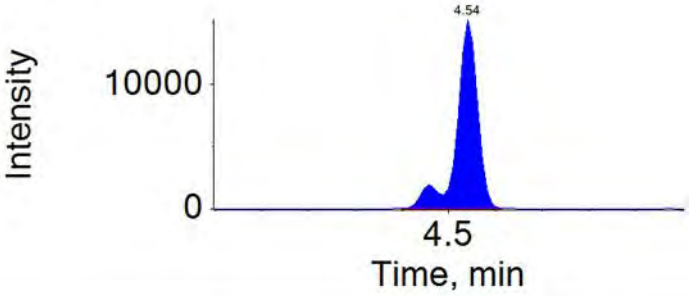
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



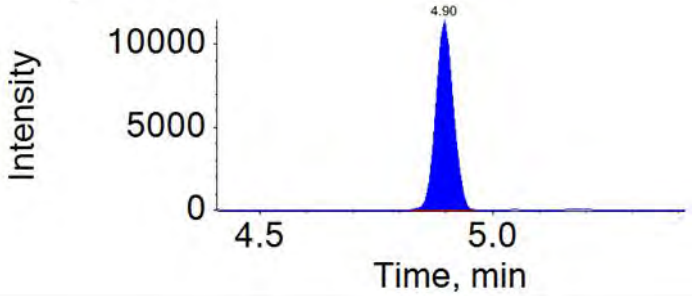
Component: PFHxS
Primary Mass: 399.0 / 80.0



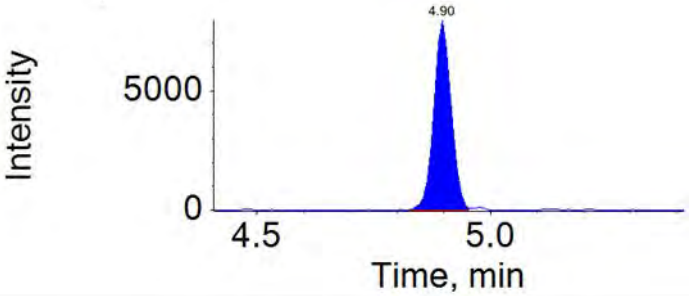
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



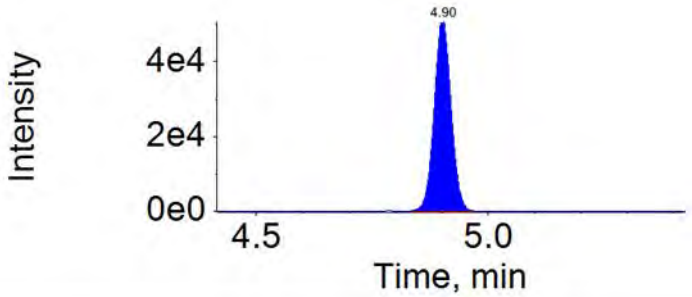
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



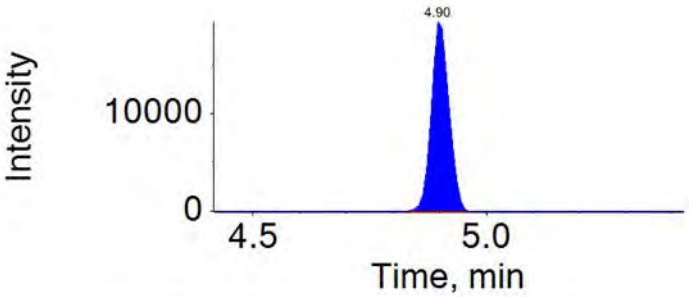
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



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

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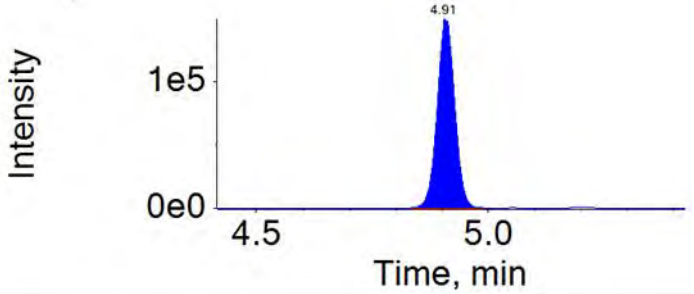
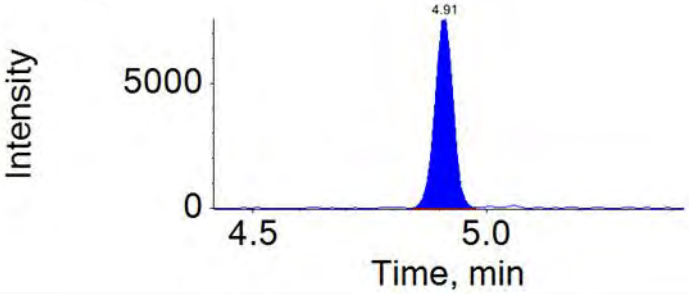
By umar at 5:20 pm, 11/13/18

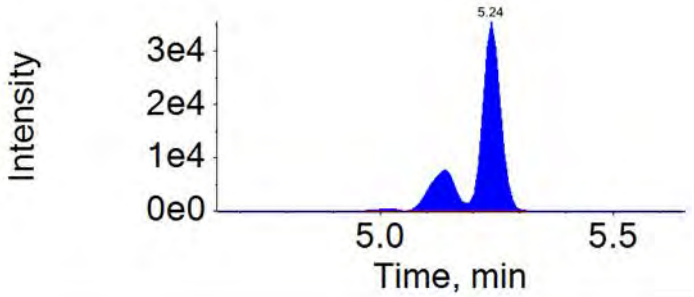
Component: PFOA
Primary Mass: 413.0 / 369.0



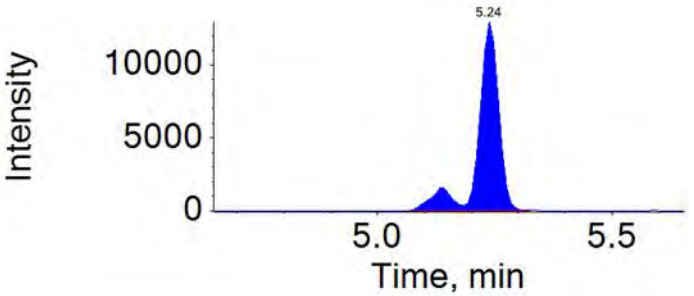
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



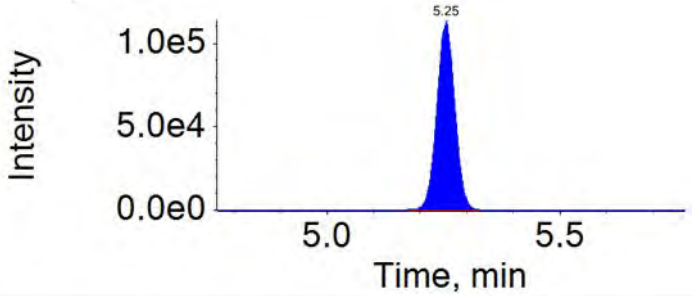
Component: PFOS
Primary Mass: 499.0 / 80.0



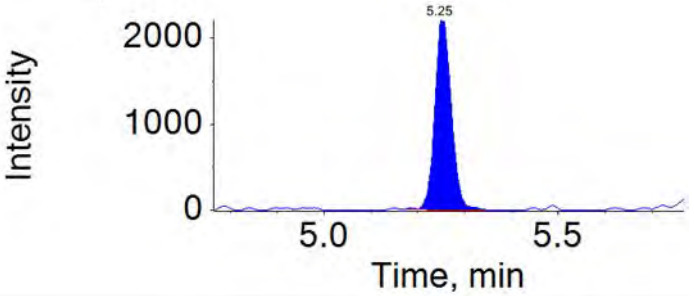
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



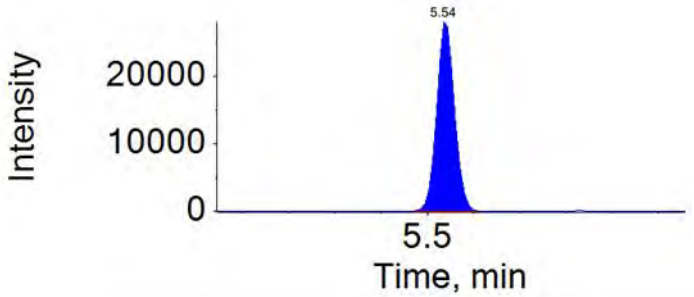
Component: PFNA
Primary Mass: 463.0 / 419.0



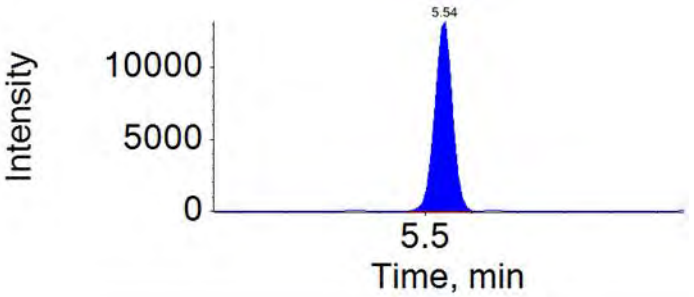
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



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

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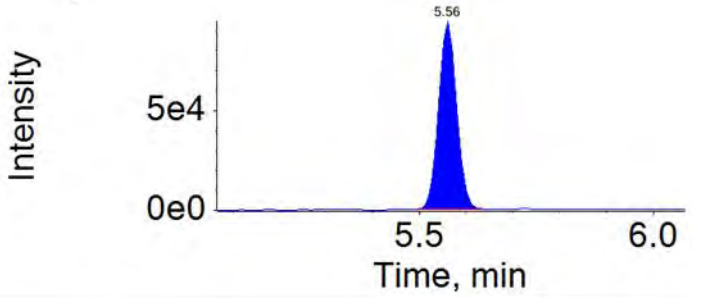
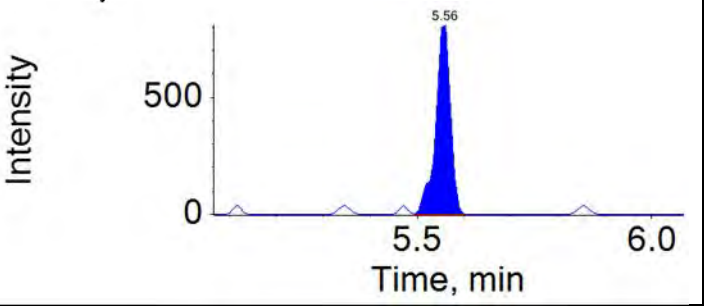
By umar at 5:20 pm, 11/13/18

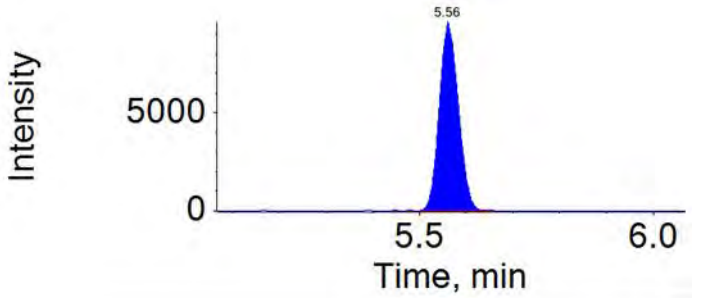
Component: PFDA
Primary Mass: 513.0 / 469.0



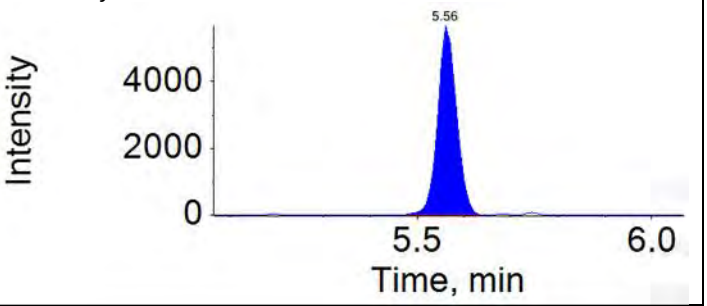
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



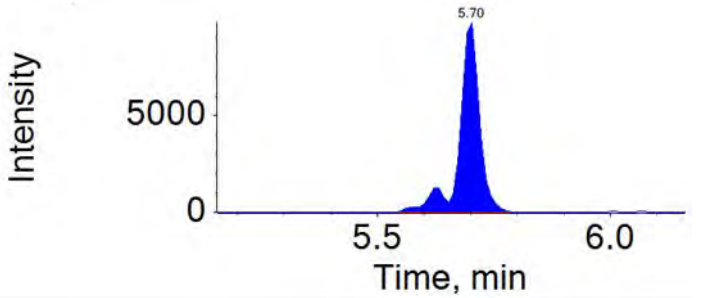
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



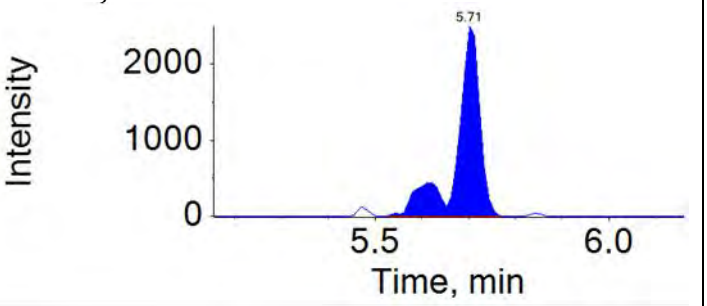
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



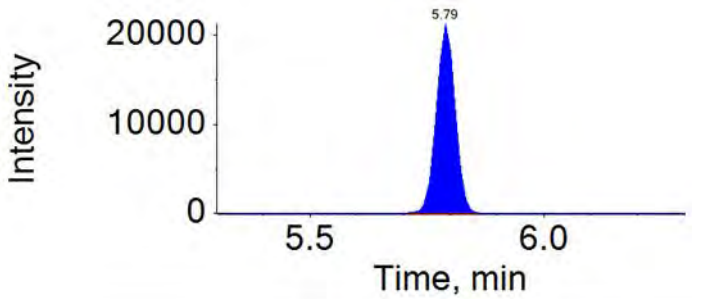
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



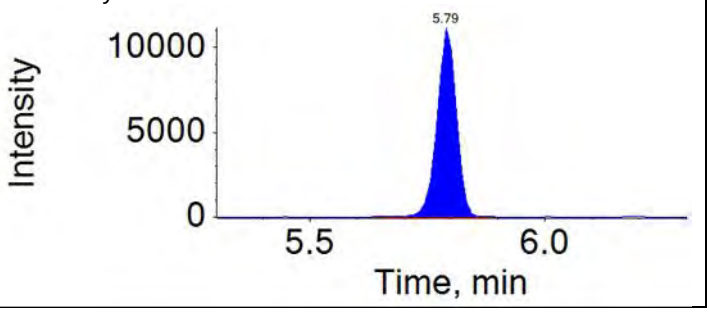
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



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

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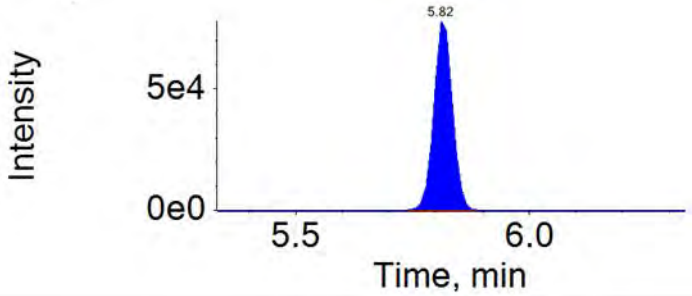
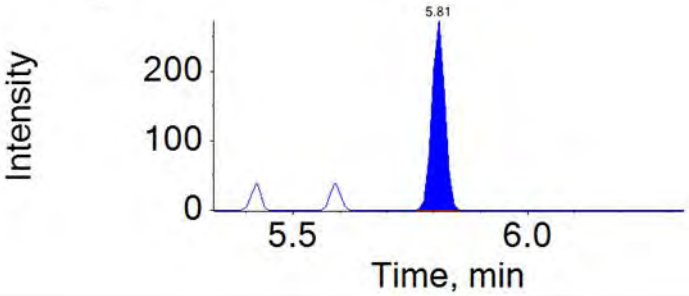
By umar at 5:20 pm, 11/13/18

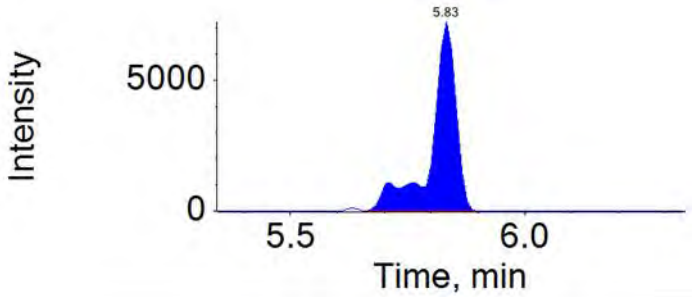
Component: PFUnDA
Primary Mass: 563.0 / 519.0



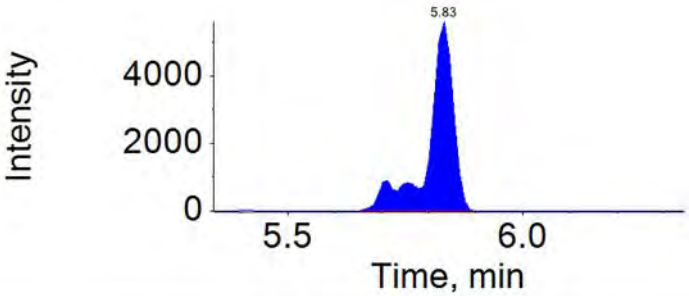
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



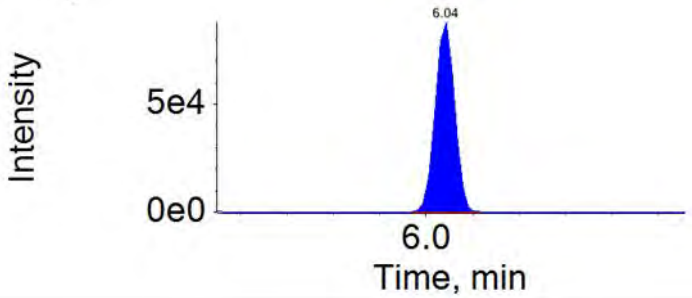
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



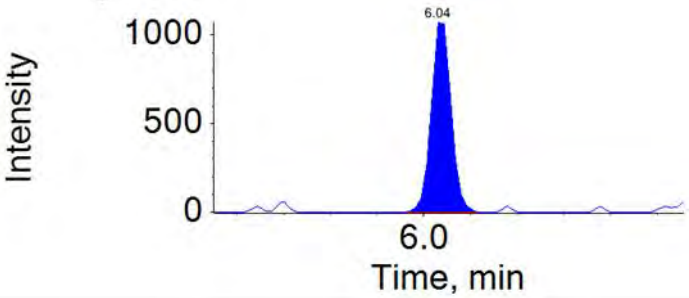
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



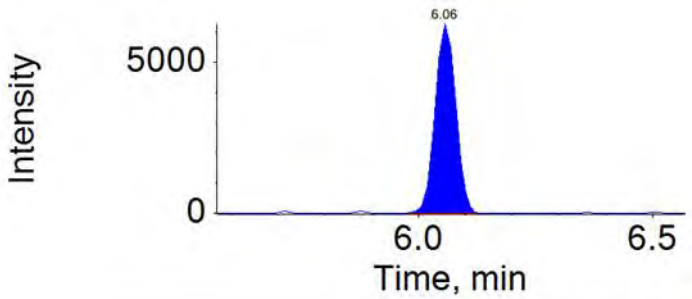
Component: PFDoDA
Primary Mass: 613.0 / 569.0



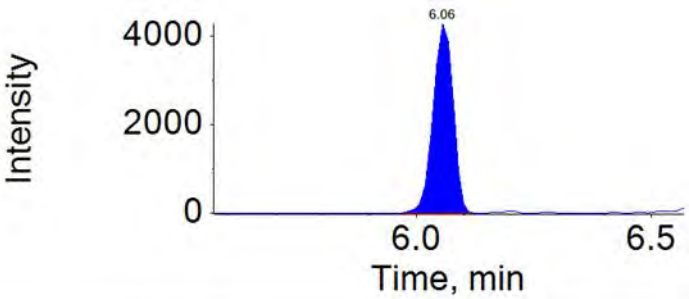
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



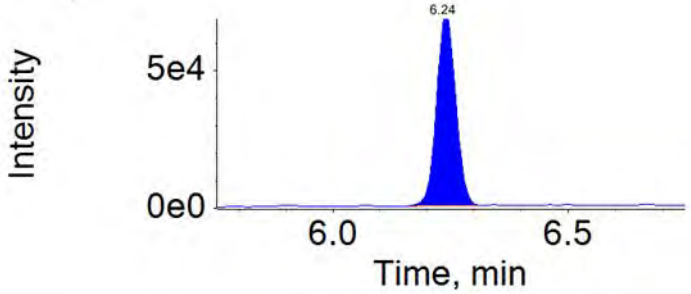
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



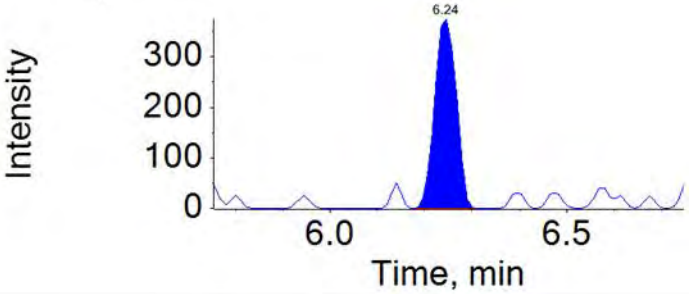
APPROVED
By JPT at 10:23 am, 11/13/18

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

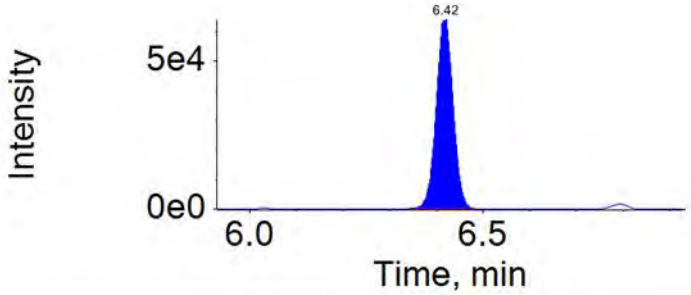
Component: PFTrDA
Primary Mass: 663.0 / 619.0



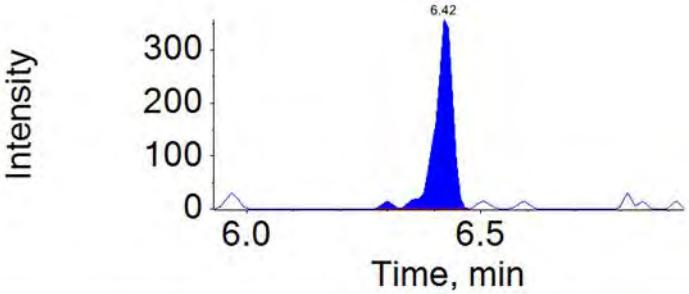
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



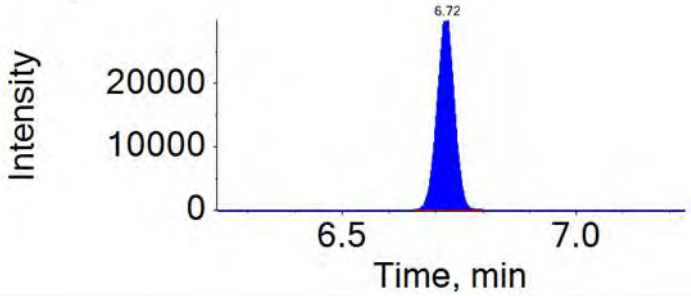
Component: PFTeDA
Primary Mass: 713.0 / 669.0



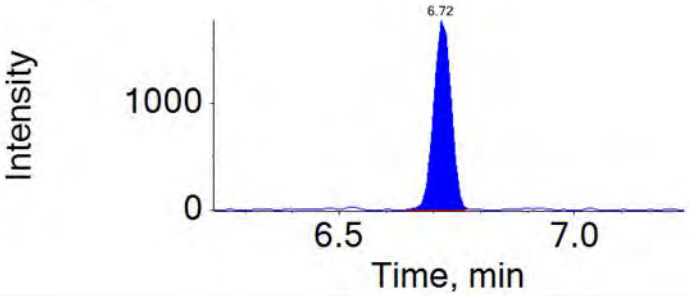
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



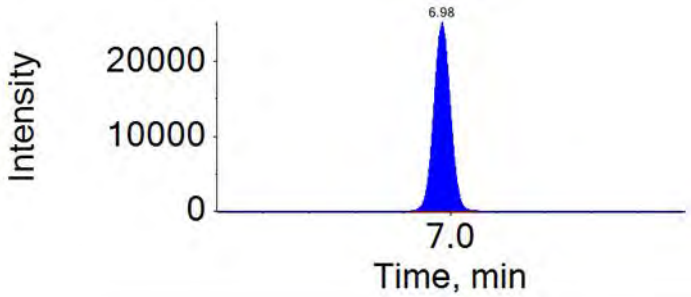
Component: PFHxDA
Primary Mass: 813.0 / 769.0



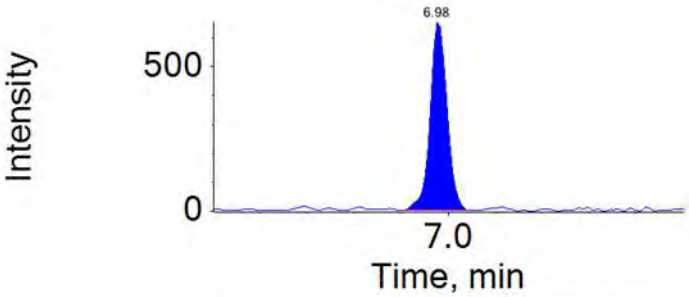
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



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

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18NOV28DCAL-06.wiff	11/28/2018 1:42:10 PM	CALBRN11833C	CAL1
18NOV28DCAL-07.wiff	11/28/2018 1:51:13 PM	CALBRN21833C	CAL2
18NOV28DCAL-08.wiff	11/28/2018 2:00:13 PM	CALBRN31833B	CAL3
18NOV28DCAL-09.wiff	11/28/2018 2:09:13 PM	CALBRN41833B	CAL4
18NOV28DCAL-10.wiff	11/28/2018 2:18:16 PM	CALBRN51833B	CAL5
18NOV28DCAL-11.wiff	11/28/2018 2:27:16 PM	CALBRN61833B	CAL6
18NOV28DCAL-12.wiff	11/28/2018 2:36:16 PM	CALBRN71833B	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	887248.9
CAL3	13C2-PFOA	498501.6
CAL3	13C4-PFOS	283214.2
CAL3	13C2-PFDA	441790.6

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

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

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Response Factor Table

Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r^2	OOS
PFBA	1.080	0.888	1.015	0.915	0.953	0.891	N/A	7	20		0.999	
PFPeA	1.146	0.858	1.164	0.972	1.027	N/A	N/A	11	20		0.997	
PFBS	1.048	0.856	1.054	0.915	0.956	0.951	0.964	7	20		1.000	
4:2-FTS	1.863	1.681	1.998	1.784	1.847	1.760	1.708	6	20		0.999	
PFHxA	1.451	1.216	1.377	1.252	1.229	N/A	N/A	7	20		0.999	
PFPeS	0.506	0.448	0.528	0.456	0.472	0.446	0.463	6	20		0.999	
PFHpA	1.943	1.531	1.813	1.585	1.614	N/A	N/A	9	20		0.999	
PFHxS	1.004	0.803	1.016	0.911	1.002	0.973	1.040	8	20		0.999	
6:2-FTS	2.165	1.891	2.059	2.052	1.835	1.766	N/A	7	20		0.998	
PFHpS	1.044	0.805	0.986	0.926	0.943	0.954	0.947	7	20		1.000	
PFOA	1.031	0.860	1.063	1.011	0.988	0.950	N/A	7	20		0.999	
PFOS	1.059	0.938	1.163	1.051	1.126	1.119	1.160	7	20		0.999	
PFNA	1.496	1.303	1.470	1.315	1.403	1.256	N/A	6	20		0.997	
PFNS	0.763	0.638	0.735	0.777	0.756	0.755	0.758	6	20		1.000	
PFDA	0.983	0.901	1.042	0.908	0.922	0.863	0.880	6	20		0.999	
8:2-FTS	2.600	2.366	2.661	2.405	2.587	N/A	N/A	5	20		0.999	
PFOSA	1.045	0.925	1.050	0.976	1.003	0.980	N/A	4	20		1.000	
NMeFOSAA	0.755	0.760	0.870	0.777	0.807	0.800	0.770	5	20		0.999	
PFDS	0.533	0.491	0.644	0.594	0.609	0.592	0.608	8	20		1.000	
PFUnDA	1.551	1.312	1.564	1.466	1.465	1.452	1.350	6	20		0.998	
NEtFOSAA	0.994	0.958	1.016	0.921	1.027	1.030	1.034	4	20		1.000	
PFDoDA	1.137	0.896	1.115	0.896	0.918	0.904	N/A	11	20		0.999	
10:2-FTS	2.409	2.294	2.697	2.170	2.584	2.172	2.078	9	20		0.994	
NMePFOSAE	1.232	1.162	1.330	1.183	1.252	1.229	1.152	5	20		0.999	
NMePFOSA	0.955	0.904	1.028	0.928	0.970	0.938	0.940	4	20		1.000	
PFDoS	0.310	0.304	0.325	0.333	0.321	0.319	0.343	4	20		0.999	
NEtPFOSAE	1.702	1.382	1.766	1.478	1.516	1.392	1.348	10	20		0.998	
NEtPFOSA	1.208	0.986	1.184	1.112	1.104	1.170	1.090	6	20		0.999	
PFTrDA	1.034	0.859	1.068	0.881	0.826	0.812	N/A	11	20		0.998	
PFTeDA	0.975	0.858	1.016	0.886	0.921	0.861	N/A	6	20		0.999	
PFHxDA	0.549	0.429	0.516	0.455	0.493	0.431	0.426	10	20		0.997	
PFODA	0.411	0.354	0.413	0.374	0.405	0.373	0.370	6	20		0.999	

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

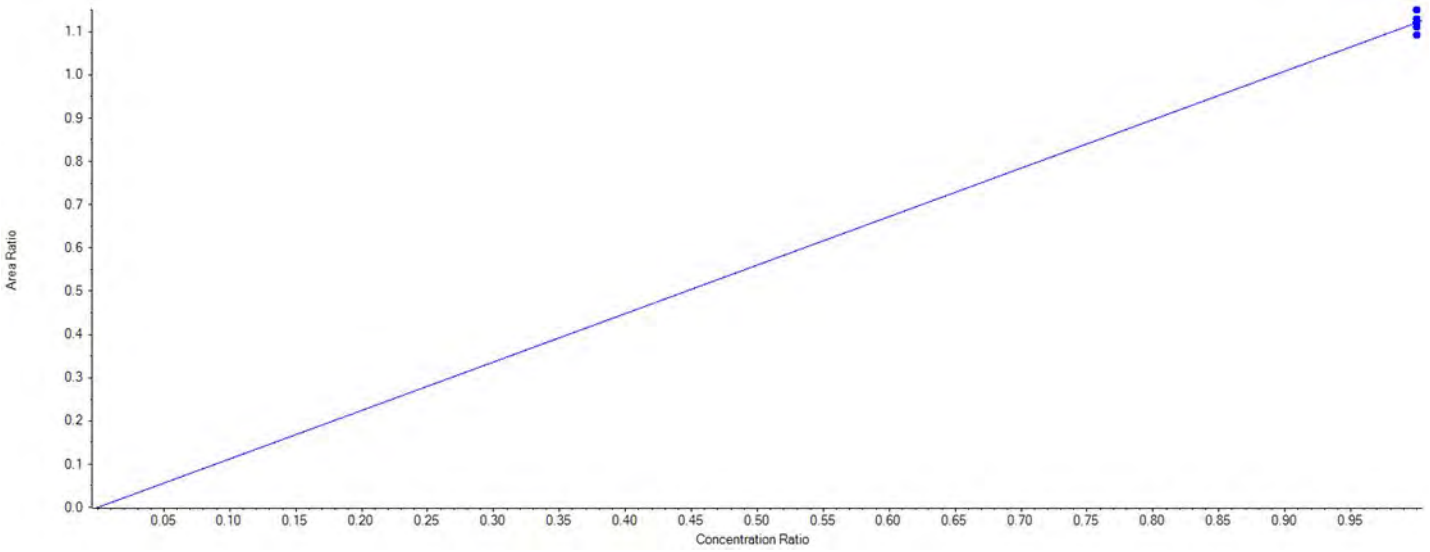
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFBA

y = 1.12068 x (std. dev. = 0.01800) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1018752.8	907350.543	True	5.00	1.123	3.28	1.000	5.000	5.009	0	30	
CAL2	1033122.1	898154.232	True	5.00	1.150	3.27	1.000	5.000	5.132	3	30	
CAL3	993144.1	887248.863	True	5.00	1.119	3.28	1.000	5.000	4.994	0	30	
CAL4	974000.9	892443.927	True	5.00	1.091	3.28	1.000	5.000	4.869	-3	30	
CAL5	951695.0	857159.817	True	5.00	1.110	3.28	1.000	5.000	4.954	-1	30	
CAL6	897566.7	793954.989	True	5.00	1.131	3.27	1.000	5.000	5.044	1	30	
CAL7	803704.8	717475.737	True	5.00	1.120	3.27	1.000	5.000	4.998	0	30	

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

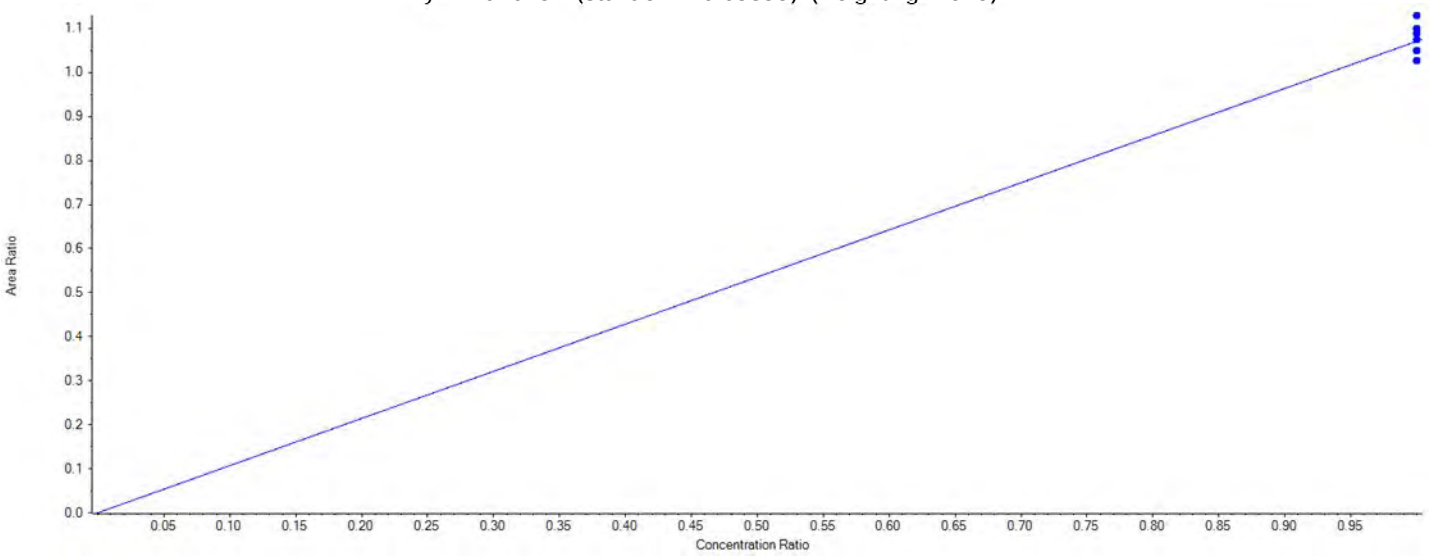
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFPeA

y = 1.07075 x (std. dev. = 0.03855) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	975339.0	907350.543	True	5.00	1.075	3.77	1.150	5.000	5.019	0	30	
CAL2	1014125.0	898154.232	True	5.00	1.129	3.77	1.150	5.000	5.273	5	30	
CAL3	910953.7	887248.863	True	5.00	1.027	3.78	1.150	5.000	4.794	-4	30	
CAL4	915824.6	892443.927	True	5.00	1.026	3.77	1.150	5.000	4.792	-4	30	
CAL5	900153.4	857159.817	True	5.00	1.050	3.78	1.150	5.000	4.904	-2	30	
CAL6	872922.6	793954.989	True	5.00	1.099	3.77	1.150	5.000	5.134	3	30	
CAL7	781113.8	717475.737	True	5.00	1.089	3.77	1.150	5.000	5.084	2	30	

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

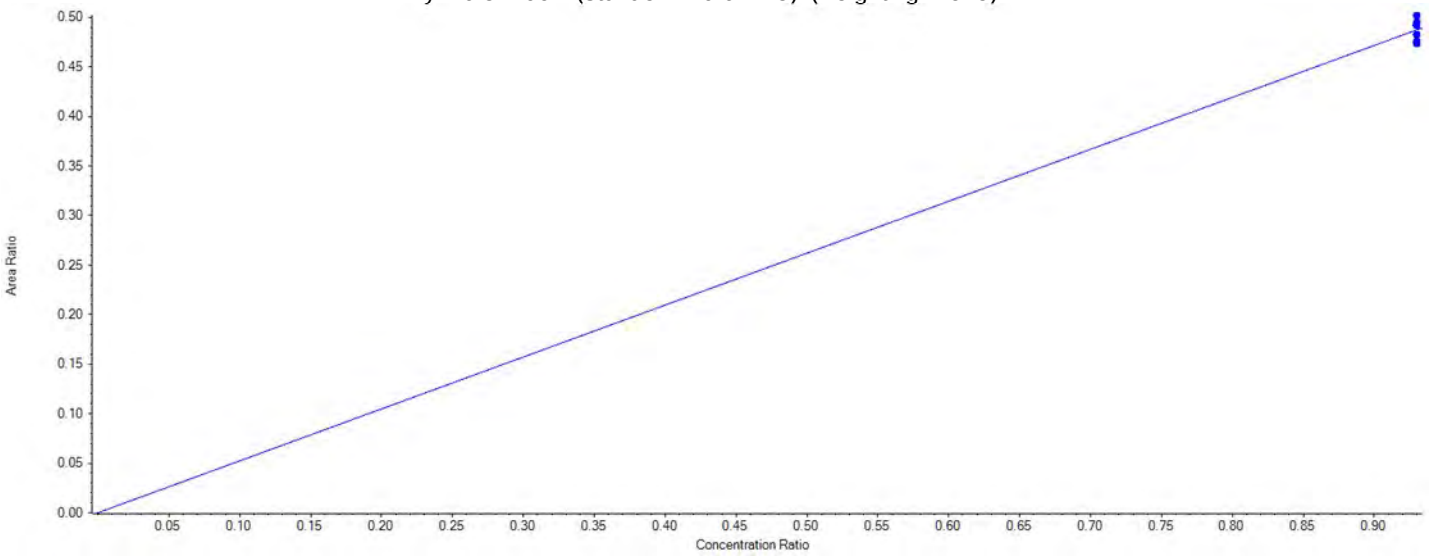
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFBS

y = 0.52409 x (std. dev. = 0.01145) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	437838.9	907350.543	True	5.00	0.483	3.82	1.160	4.650	4.604	-1	30	
CAL2	442149.9	898154.232	True	5.00	0.492	3.82	1.160	4.650	4.697	1	30	
CAL3	419929.2	887248.863	True	5.00	0.473	3.82	1.170	4.650	4.515	-3	30	
CAL4	424041.3	892443.927	True	5.00	0.475	3.82	1.160	4.650	4.533	-3	30	
CAL5	424059.2	857159.817	True	5.00	0.495	3.83	1.160	4.650	4.720	2	30	
CAL6	398441.3	793954.989	True	5.00	0.502	3.82	1.160	4.650	4.788	3	30	
CAL7	352994.8	717475.737	True	5.00	0.492	3.82	1.160	4.650	4.694	1	30	

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

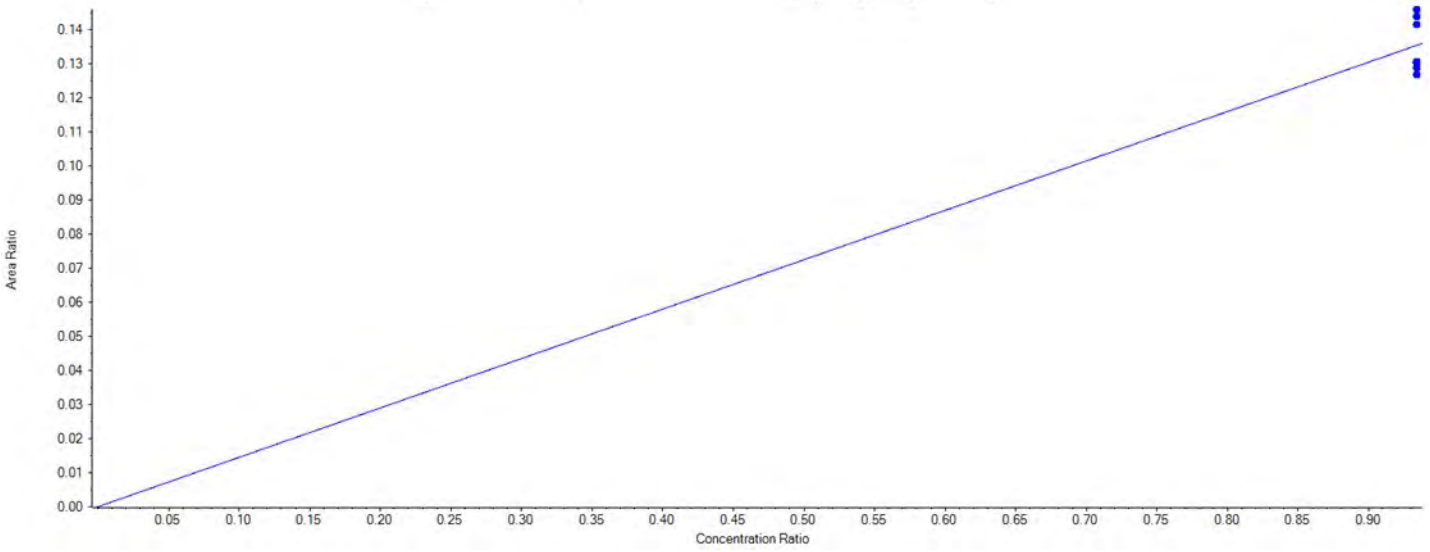
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-4:2-FTS

y = 0.14509 x (std. dev. = 0.00860) (weighting: None)



Extraction Standard Calibration Verification

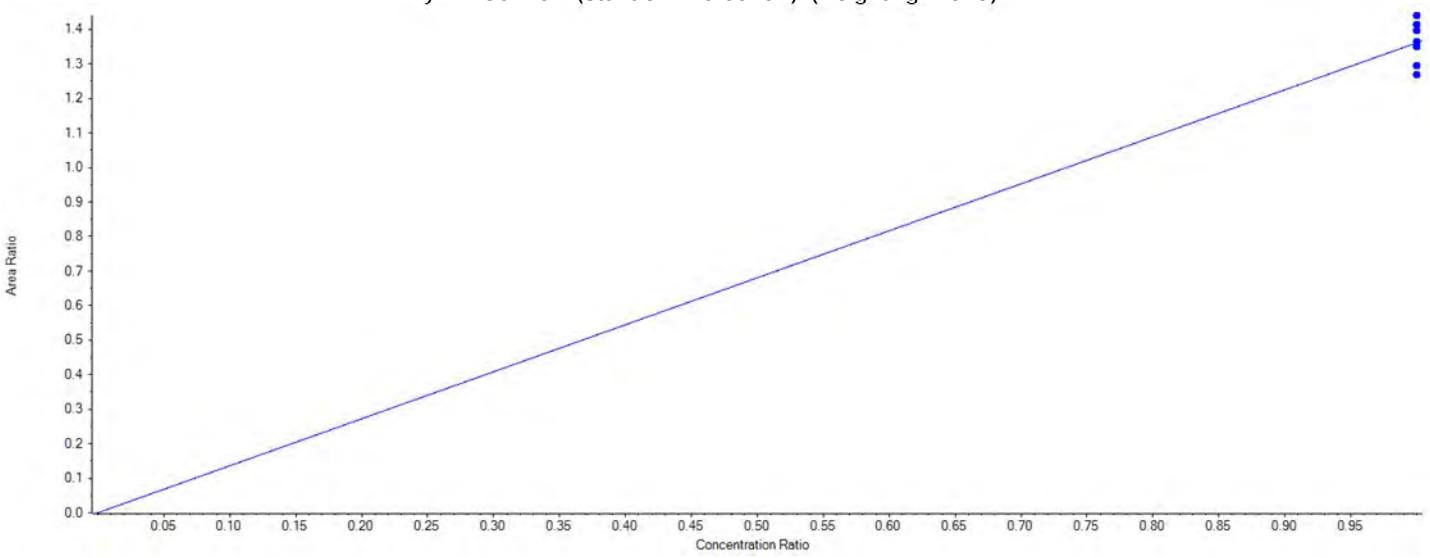
Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	75119.1	521822.847	True	5.00	0.144	4.13	0.840	4.670	4.961	6	30	
CAL2	72067.1	493545.206	True	5.00	0.146	4.13	0.840	4.670	5.032	8	30	
CAL3	70629.1	498501.619	True	5.00	0.142	4.14	0.840	4.670	4.883	5	30	
CAL4	67043.7	528506.765	True	5.00	0.127	4.13	0.840	4.670	4.372	-6	30	
CAL5	67423.0	516457.167	True	5.00	0.131	4.14	0.840	4.670	4.499	-4	30	
CAL6	65255.4	499608.504	True	5.00	0.131	4.13	0.840	4.670	4.501	-4	30	
CAL7	62236.8	482796.463	True	5.00	0.129	4.13	0.840	4.670	4.442	-5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFHxA

y = 1.36129 x (std. dev. = 0.06204) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	728340.5	521822.847	True	5.00	1.396	4.17	0.850	5.000	5.127	3	30	
CAL2	697229.0	493545.206	True	5.00	1.413	4.16	0.850	5.000	5.189	4	30	
CAL3	717900.1	498501.619	True	5.00	1.440	4.17	0.850	5.000	5.290	6	30	
CAL4	670407.7	528506.765	True	5.00	1.268	4.17	0.850	5.000	4.659	-7	30	
CAL5	704953.5	516457.167	True	5.00	1.365	4.17	0.850	5.000	5.014	0	30	
CAL6	675219.8	499608.504	True	5.00	1.351	4.16	0.850	5.000	4.964	-1	30	
CAL7	625449.8	482796.463	True	5.00	1.295	4.16	0.850	5.000	4.758	-5	30	

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

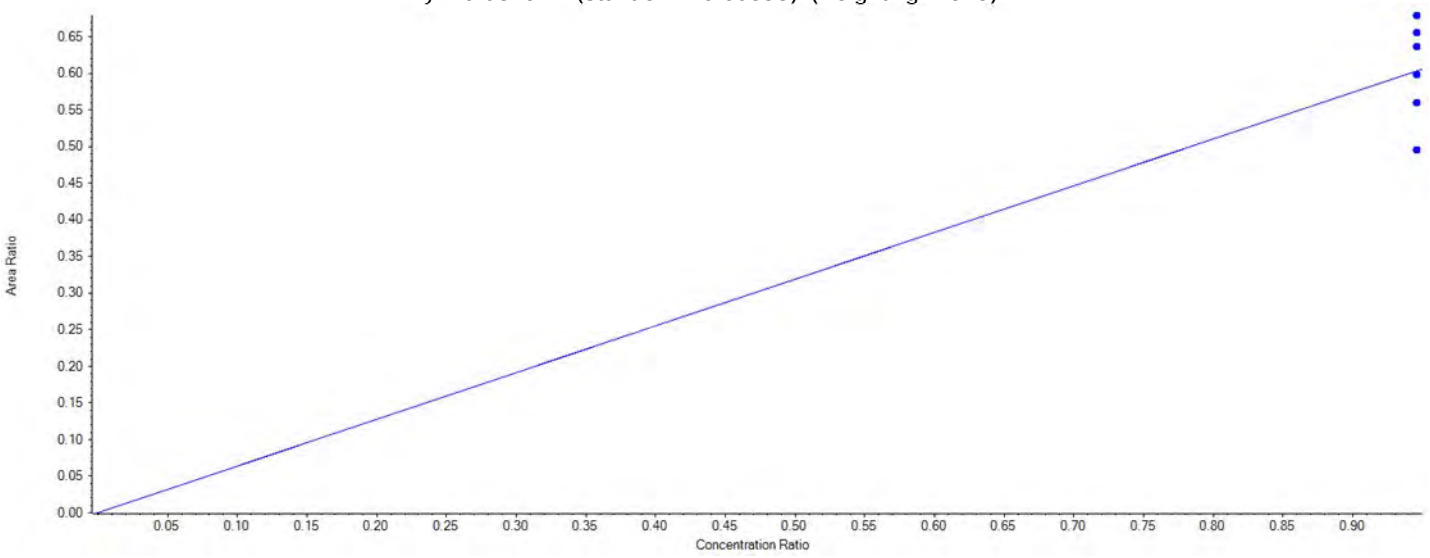
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFHxS

y = 0.63794 x (std. dev. = 0.06553) (weighting: None)



Extraction Standard Calibration Verification

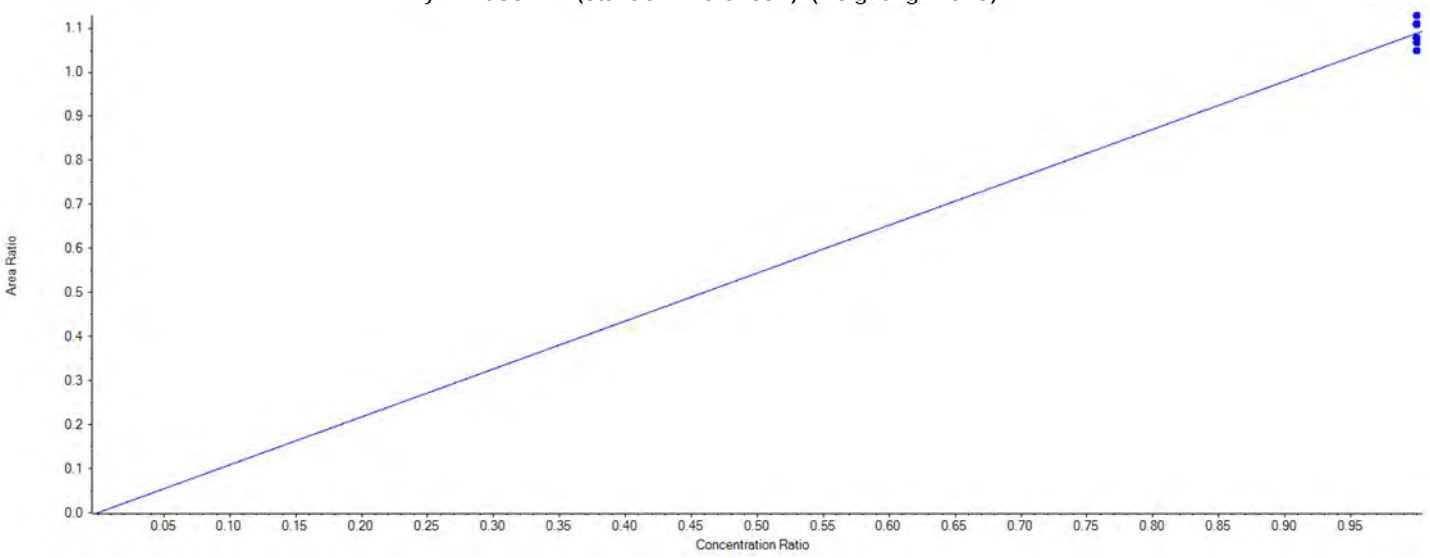
Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	331982.9	521822.847	True	5.00	0.636	4.56	0.930	4.730	4.986	5	30	
CAL2	335129.7	493545.206	True	5.00	0.679	4.55	0.930	4.730	5.322	13	30	
CAL3	326982.4	498501.619	True	5.00	0.656	4.56	0.930	4.730	5.141	9	30	
CAL4	316393.3	528506.765	True	5.00	0.599	4.56	0.930	4.730	4.692	-1	30	
CAL5	309184.7	516457.167	True	5.00	0.599	4.56	0.930	4.730	4.692	-1	30	
CAL6	279894.6	499608.504	True	5.00	0.560	4.55	0.930	4.730	4.391	-7	30	
CAL7	239327.4	482796.463	True	5.00	0.496	4.56	0.930	4.730	3.885	-18	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFHpA

y = 1.08817 x (std. dev. = 0.02857) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	547365.1	521822.847	True	5.00	1.049	4.55	0.920	5.000	4.820	-4	30	
CAL2	547372.0	493545.206	True	5.00	1.109	4.55	0.920	5.000	5.096	2	30	
CAL3	535993.3	498501.619	True	5.00	1.075	4.56	0.920	5.000	4.940	-1	30	
CAL4	563673.9	528506.765	True	5.00	1.067	4.55	0.920	5.000	4.901	-2	30	
CAL5	556455.9	516457.167	True	5.00	1.077	4.56	0.920	5.000	4.951	-1	30	
CAL6	555281.5	499608.504	True	5.00	1.111	4.55	0.920	5.000	5.107	2	30	
CAL7	544866.9	482796.463	True	5.00	1.129	4.55	0.920	5.000	5.186	4	30	

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

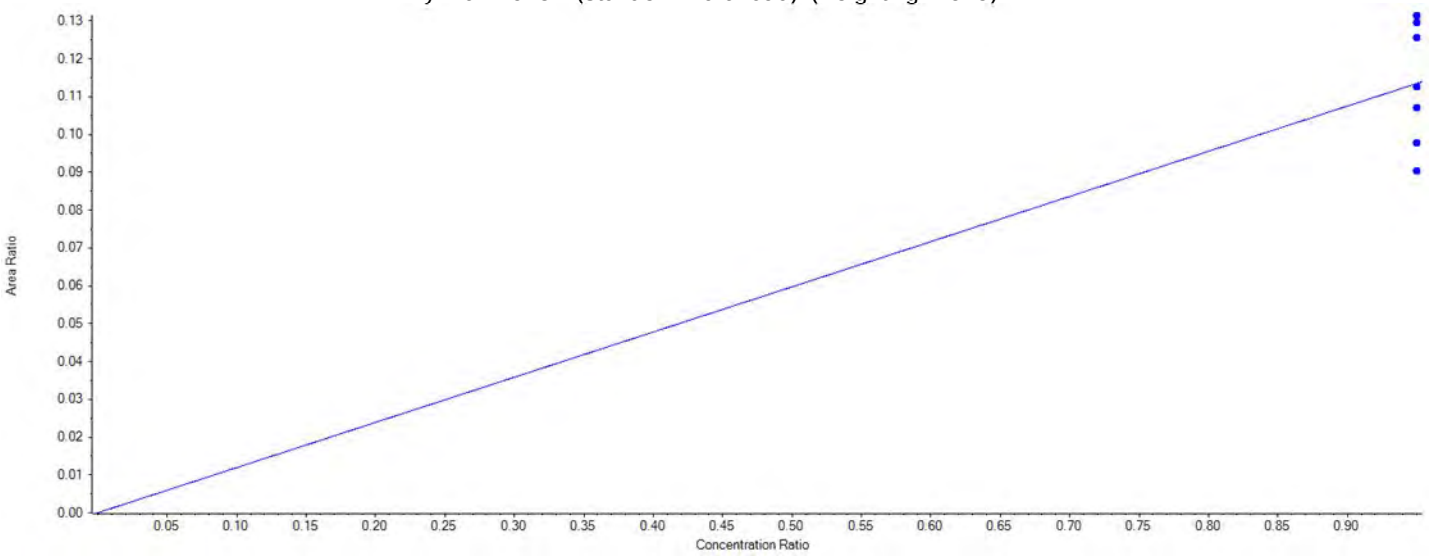
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-6:2-FTS

y = 0.11945 x (std. dev. = 0.01690) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	65543.8	521822.847	True	5.00	0.126	4.91	1.000	4.750	5.258	11	30	
CAL2	63922.7	493545.206	True	5.00	0.130	4.91	1.000	4.750	5.422	14	30	
CAL3	65518.3	498501.619	True	5.00	0.131	4.92	1.000	4.750	5.502	16	30	
CAL4	56580.1	528506.765	True	5.00	0.107	4.91	1.000	4.750	4.481	-6	30	
CAL5	58122.8	516457.167	True	5.00	0.113	4.92	1.000	4.750	4.711	-1	30	
CAL6	48807.6	499608.504	True	5.00	0.098	4.91	1.000	4.750	4.089	-14	30	
CAL7	43678.3	482796.463	True	5.00	0.090	4.91	1.000	4.750	3.787	-20	30	

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

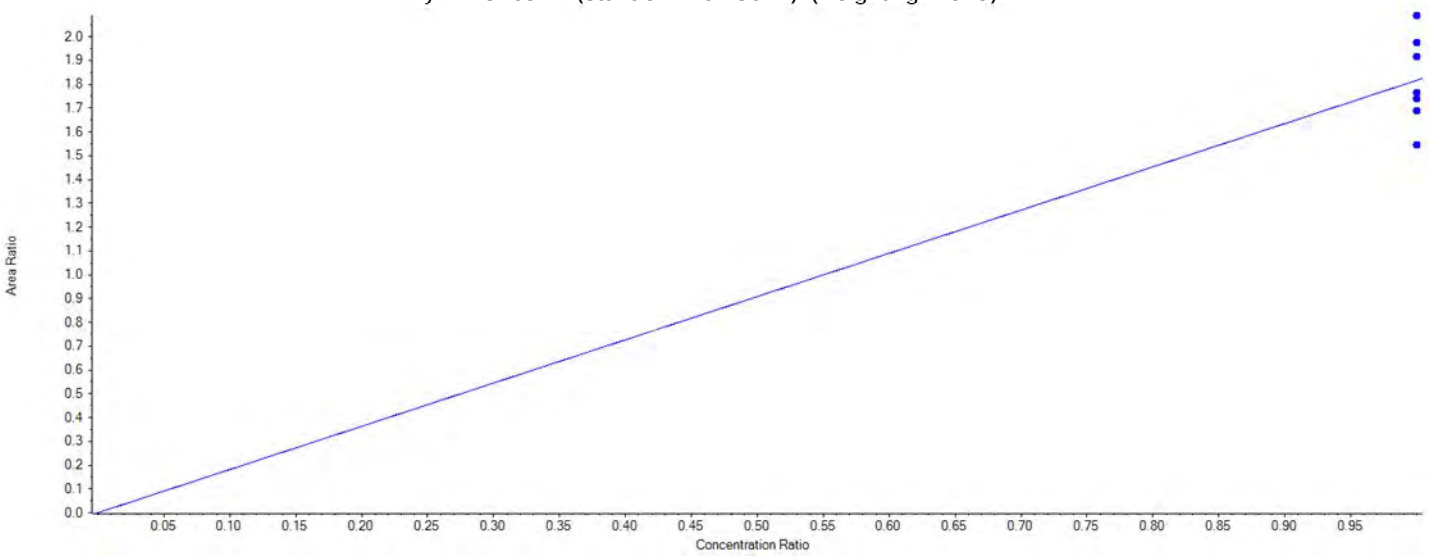
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOA

y = 1.81654 x (std. dev. = 0.18621) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1030597.9	521822.847	True	5.00	1.975	4.92	1.000	5.000	5.436	9	30	
CAL2	1030866.6	493545.206	True	5.00	2.089	4.92	1.000	5.000	5.749	15	30	
CAL3	954678.0	498501.619	True	5.00	1.915	4.93	1.000	5.000	5.271	5	30	
CAL4	918995.3	528506.765	True	5.00	1.739	4.92	1.000	5.000	4.786	-4	30	
CAL5	911756.1	516457.167	True	5.00	1.765	4.93	1.000	5.000	4.859	-3	30	
CAL6	843522.3	499608.504	True	5.00	1.688	4.92	1.000	5.000	4.647	-7	30	
CAL7	745616.3	482796.463	True	5.00	1.544	4.92	1.000	5.000	4.251	-15	30	

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

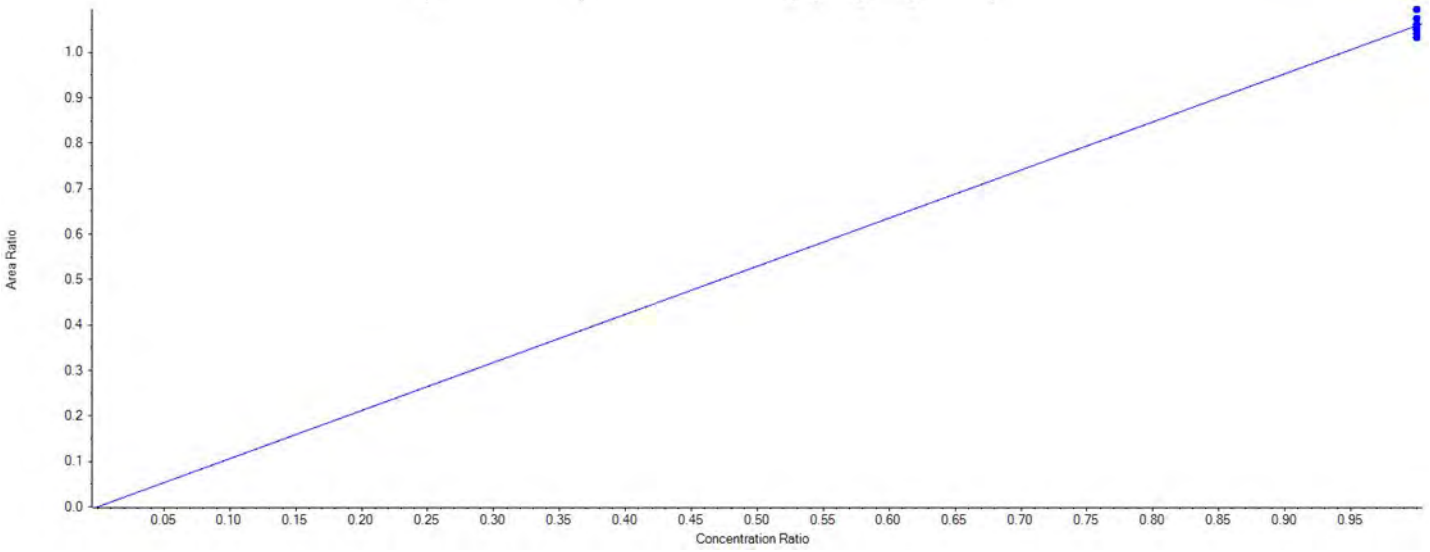
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOS

y = 1.05888 x (std. dev. = 0.02078) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	318525.4	296225.157	True	4.78	1.075	5.25	1.000	4.780	4.854	2	30	
CAL2	313894.3	295669.685	True	4.78	1.062	5.25	1.000	4.780	4.792	0	30	
CAL3	309913.7	283214.231	True	4.78	1.094	5.26	1.000	4.780	4.940	3	30	
CAL4	296147.5	281778.555	True	4.78	1.051	5.25	1.000	4.780	4.744	-1	30	
CAL5	299574.5	287732.638	True	4.78	1.041	5.26	1.000	4.780	4.700	-2	30	
CAL6	279204.4	264408.934	True	4.78	1.056	5.25	1.000	4.780	4.767	0	30	
CAL7	250004.2	242045.223	True	4.78	1.033	5.25	1.000	4.780	4.663	-2	30	

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

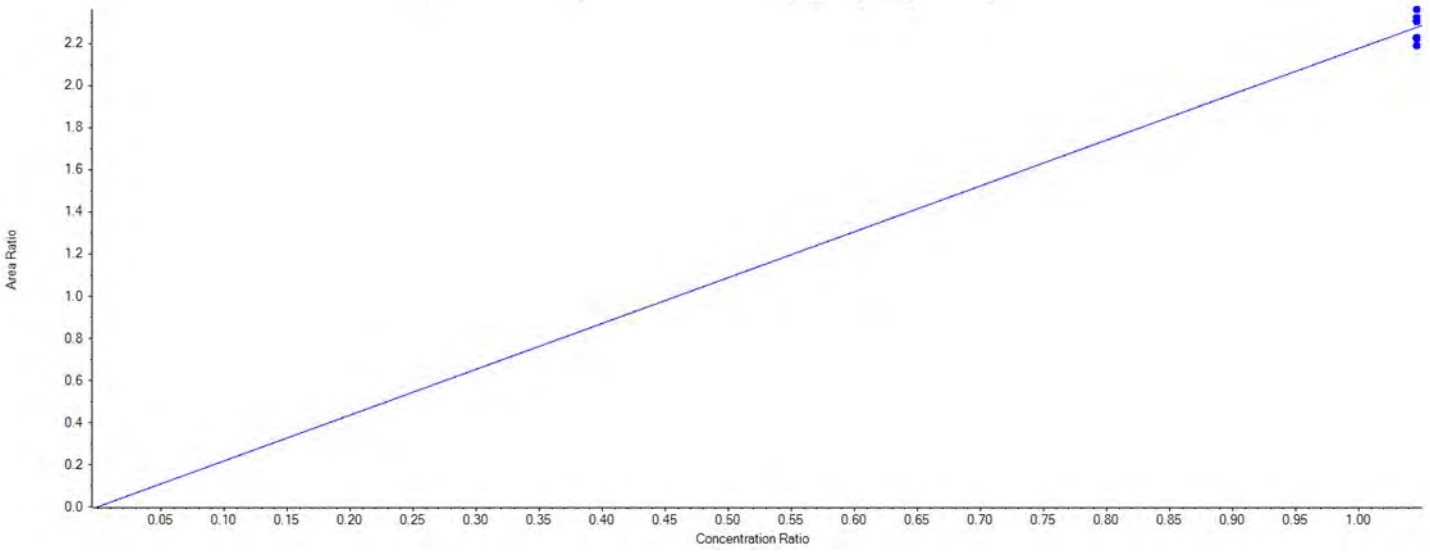
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C9-PFNA

y = 2.17630 x (std. dev. = 0.05982) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	659714.6	296225.157	True	4.78	2.227	5.27	1.000	5.000	4.892	-2	30	
CAL2	682380.7	295669.685	True	4.78	2.308	5.26	1.000	5.000	5.069	1	30	
CAL3	629954.6	283214.231	True	4.78	2.224	5.27	1.000	5.000	4.885	-2	30	
CAL4	648727.0	281778.555	True	4.78	2.302	5.27	1.000	5.000	5.057	1	30	
CAL5	630201.5	287732.638	True	4.78	2.190	5.27	1.000	5.000	4.811	-4	30	
CAL6	624202.7	264408.934	True	4.78	2.361	5.26	1.000	5.000	5.185	4	30	
CAL7	562206.9	242045.223	True	4.78	2.323	5.27	1.000	5.000	5.102	2	30	

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

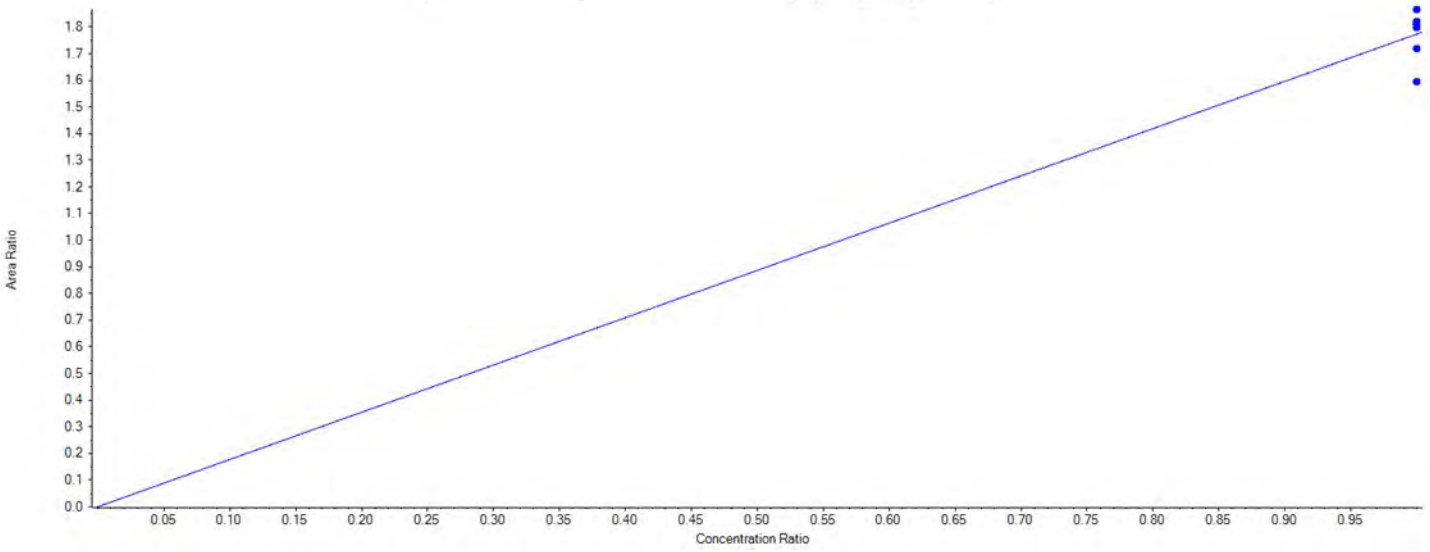
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C6-PFDA

y = 1.77338 x (std. dev. = 0.09043) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	855362.9	476146.560	True	5.00	1.796	5.57	1.000	5.000	5.065	1	30	
CAL2	839100.7	460926.236	True	5.00	1.820	5.56	1.000	5.000	5.133	3	30	
CAL3	824072.9	441790.617	True	5.00	1.865	5.57	1.000	5.000	5.259	5	30	
CAL4	841970.5	489439.830	True	5.00	1.720	5.57	1.000	5.000	4.850	-3	30	
CAL5	833462.1	460232.679	True	5.00	1.811	5.57	1.000	5.000	5.106	2	30	
CAL6	758832.8	419913.240	True	5.00	1.807	5.56	1.000	5.000	5.095	2	30	
CAL7	645932.5	405454.995	True	5.00	1.593	5.57	1.000	5.000	4.492	-10	30	

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

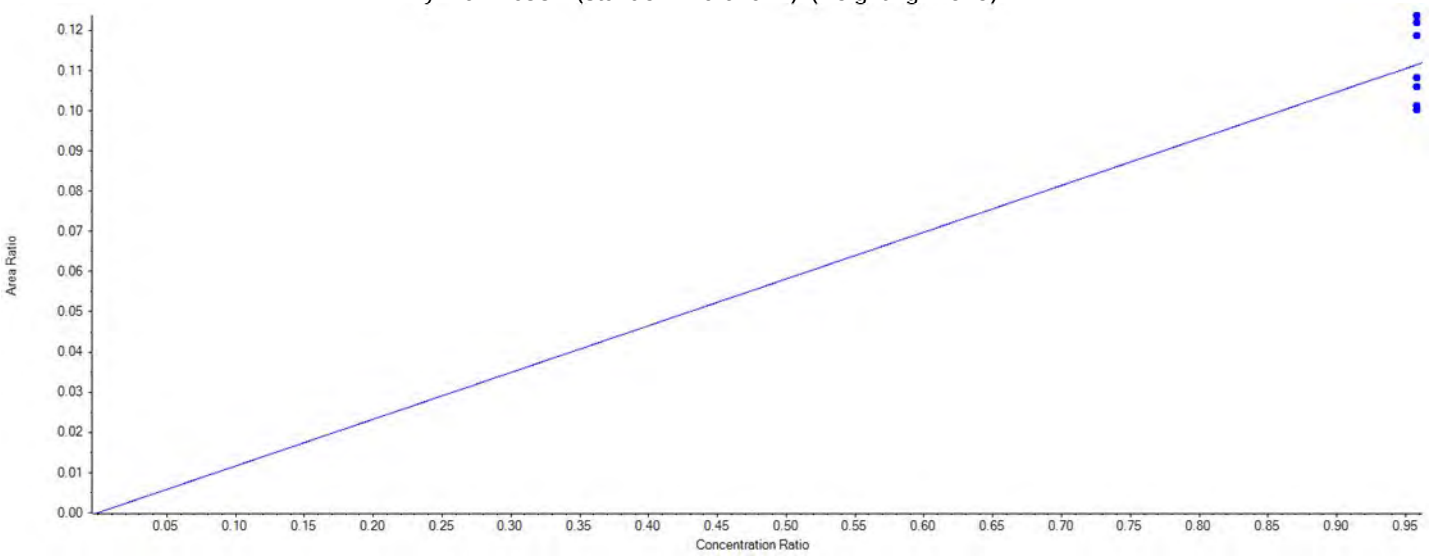
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-8:2-FTS

y = 0.11633 x (std. dev. = 0.01027) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	58895.0	476146.560	True	5.00	0.124	5.57	1.000	4.790	5.316	11	30	
CAL2	54757.9	460926.236	True	5.00	0.119	5.57	1.000	4.790	5.106	7	30	
CAL3	53847.1	441790.617	True	5.00	0.122	5.58	1.000	4.790	5.239	9	30	
CAL4	52961.9	489439.830	True	5.00	0.108	5.57	1.000	4.790	4.651	-3	30	
CAL5	46142.4	460232.679	True	5.00	0.100	5.58	1.000	4.790	4.309	-10	30	
CAL6	44487.5	419913.240	True	5.00	0.106	5.57	1.000	4.790	4.553	-5	30	
CAL7	41093.0	405454.995	True	5.00	0.101	5.57	1.000	4.790	4.356	-9	30	

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

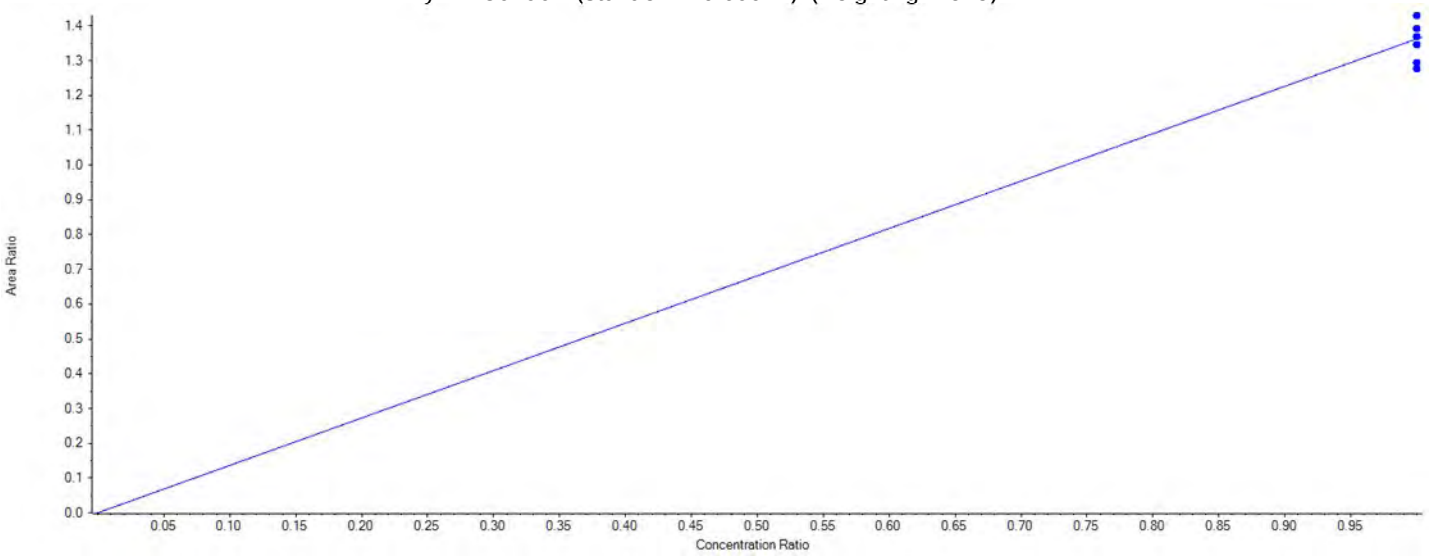
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOSA

y = 1.36266 x (std. dev. = 0.06042) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	662264.7	476146.560	True	5.00	1.391	5.65	1.020	5.000	5.104	2	30	
CAL2	658778.5	460926.236	True	5.00	1.429	5.65	1.020	5.000	5.244	5	30	
CAL3	631627.9	441790.617	True	5.00	1.430	5.66	1.020	5.000	5.246	5	30	
CAL4	625021.8	489439.830	True	5.00	1.277	5.65	1.020	5.000	4.686	-6	30	
CAL5	596189.5	460232.679	True	5.00	1.295	5.66	1.020	5.000	4.753	-5	30	
CAL6	565326.0	419913.240	True	5.00	1.346	5.65	1.020	5.000	4.940	-1	30	
CAL7	555500.5	405454.995	True	5.00	1.370	5.65	1.020	5.000	5.027	1	30	

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

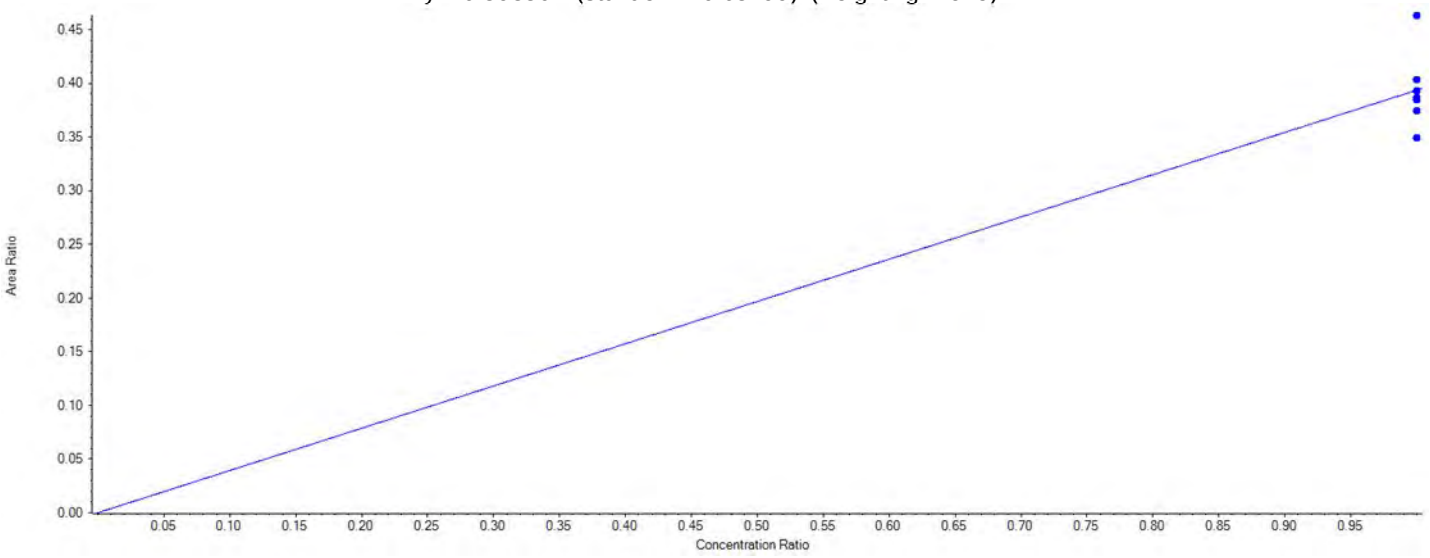
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMeFOSAA

y = 0.39380 x (std. dev. = 0.03499) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	220597.3	476146.560	True	5.00	0.463	5.71	1.030	5.000	5.882	18	30	
CAL2	181261.2	460926.236	True	5.00	0.393	5.70	1.020	5.000	4.993	0	30	
CAL3	178338.1	441790.617	True	5.00	0.404	5.71	1.020	5.000	5.125	3	30	
CAL4	171203.9	489439.830	True	5.00	0.350	5.71	1.030	5.000	4.441	-11	30	
CAL5	172574.2	460232.679	True	5.00	0.375	5.71	1.020	5.000	4.761	-5	30	
CAL6	161673.3	419913.240	True	5.00	0.385	5.70	1.030	5.000	4.888	-2	30	
CAL7	156760.8	405454.995	True	5.00	0.387	5.71	1.030	5.000	4.909	-2	30	

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

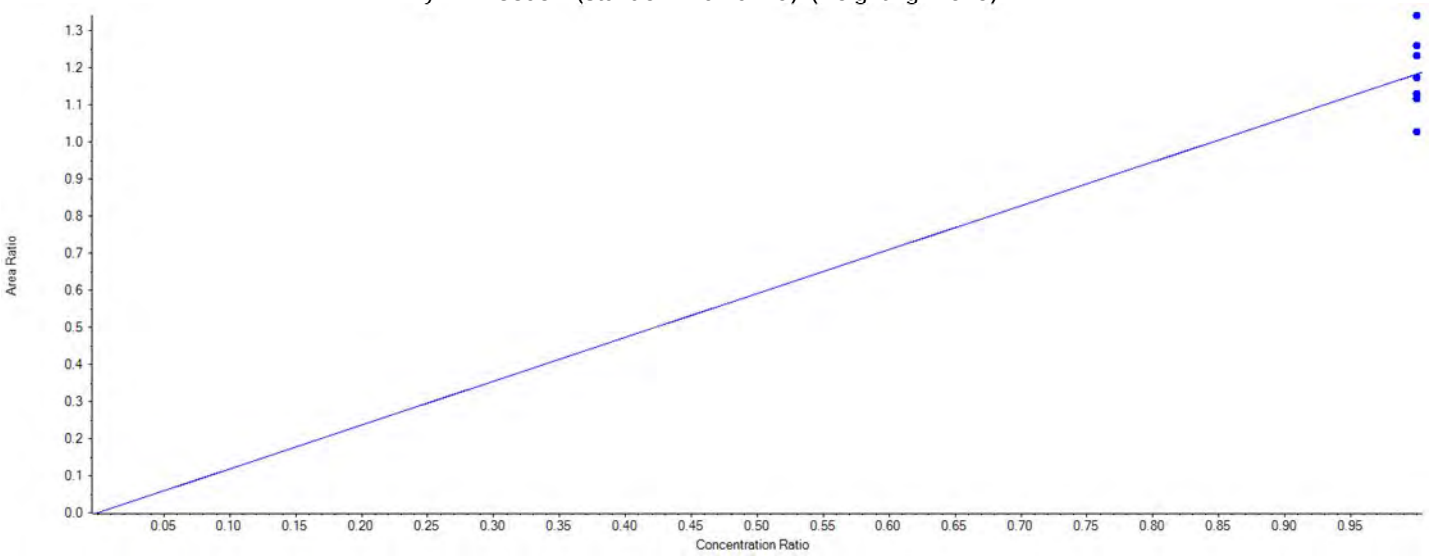
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C7-PFUnDA

y = 1.18305 x (std. dev. = 0.10419) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	587155.4	476146.560	True	5.00	1.233	5.83	1.050	5.000	5.212	4	30	
CAL2	581207.0	460926.236	True	5.00	1.261	5.82	1.050	5.000	5.329	7	30	
CAL3	592495.7	441790.617	True	5.00	1.341	5.83	1.050	5.000	5.668	13	30	
CAL4	546359.3	489439.830	True	5.00	1.116	5.83	1.050	5.000	4.718	-6	30	
CAL5	539842.9	460232.679	True	5.00	1.173	5.83	1.050	5.000	4.957	-1	30	
CAL6	474122.1	419913.240	True	5.00	1.129	5.82	1.050	5.000	4.772	-5	30	
CAL7	416723.9	405454.995	True	5.00	1.028	5.83	1.050	5.000	4.344	-13	30	

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

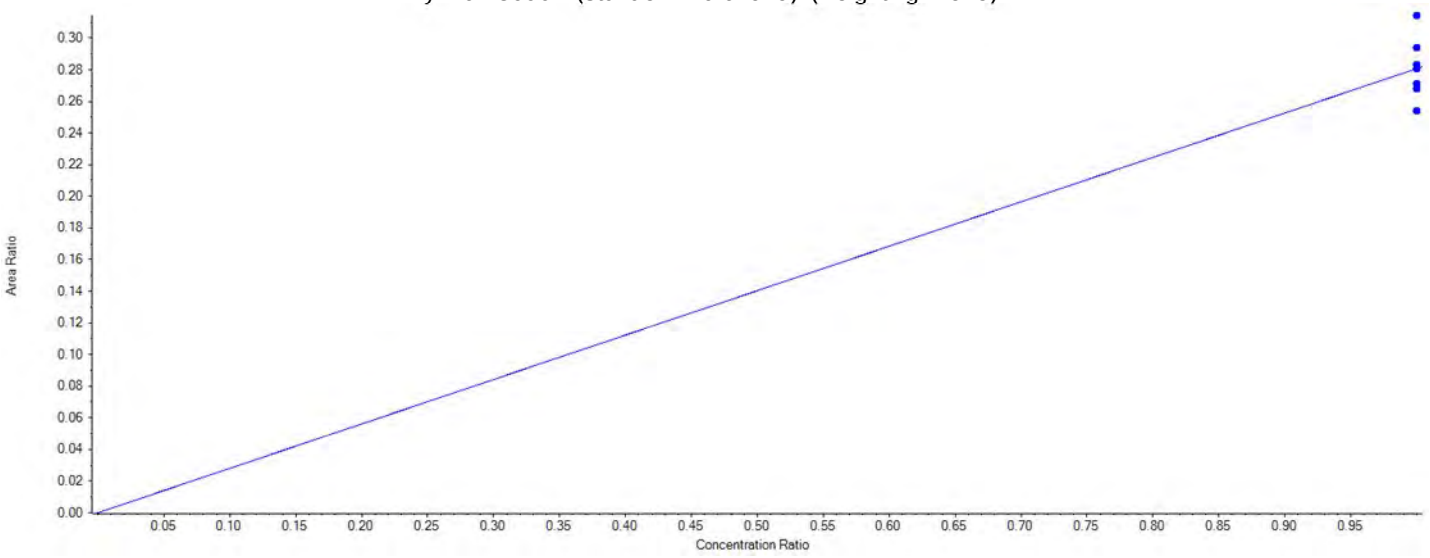
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtFOSAA

y = 0.28066 x (std. dev. = 0.01949) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	127543.5	476146.560	True	5.00	0.268	5.84	1.050	5.000	4.772	-5	30	
CAL2	144803.2	460926.236	True	5.00	0.314	5.83	1.050	5.000	5.597	12	30	
CAL3	129810.7	441790.617	True	5.00	0.294	5.84	1.050	5.000	5.235	5	30	
CAL4	138500.8	489439.830	True	5.00	0.283	5.84	1.050	5.000	5.041	1	30	
CAL5	124785.0	460232.679	True	5.00	0.271	5.85	1.050	5.000	4.830	-3	30	
CAL6	117934.2	419913.240	True	5.00	0.281	5.83	1.050	5.000	5.004	0	30	
CAL7	102891.6	405454.995	True	5.00	0.254	5.84	1.050	5.000	4.521	-10	30	

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

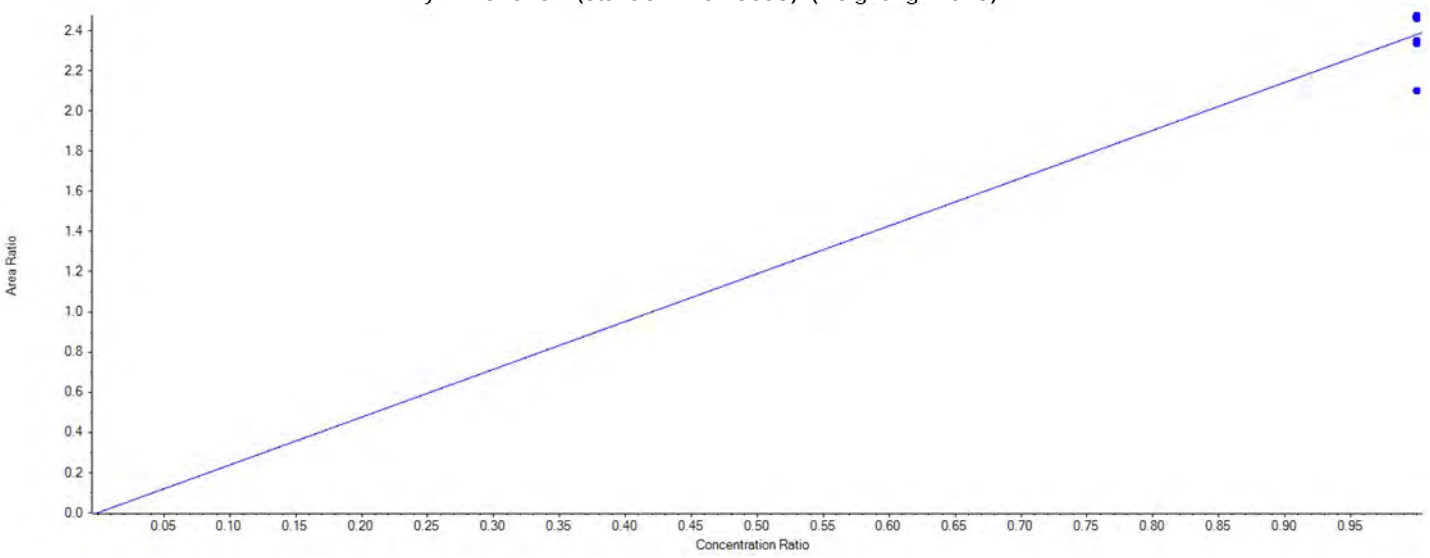
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFDoDA

y = 2.37975 x (std. dev. = 0.13603) (weighting: None)



Extraction Standard Calibration Verification

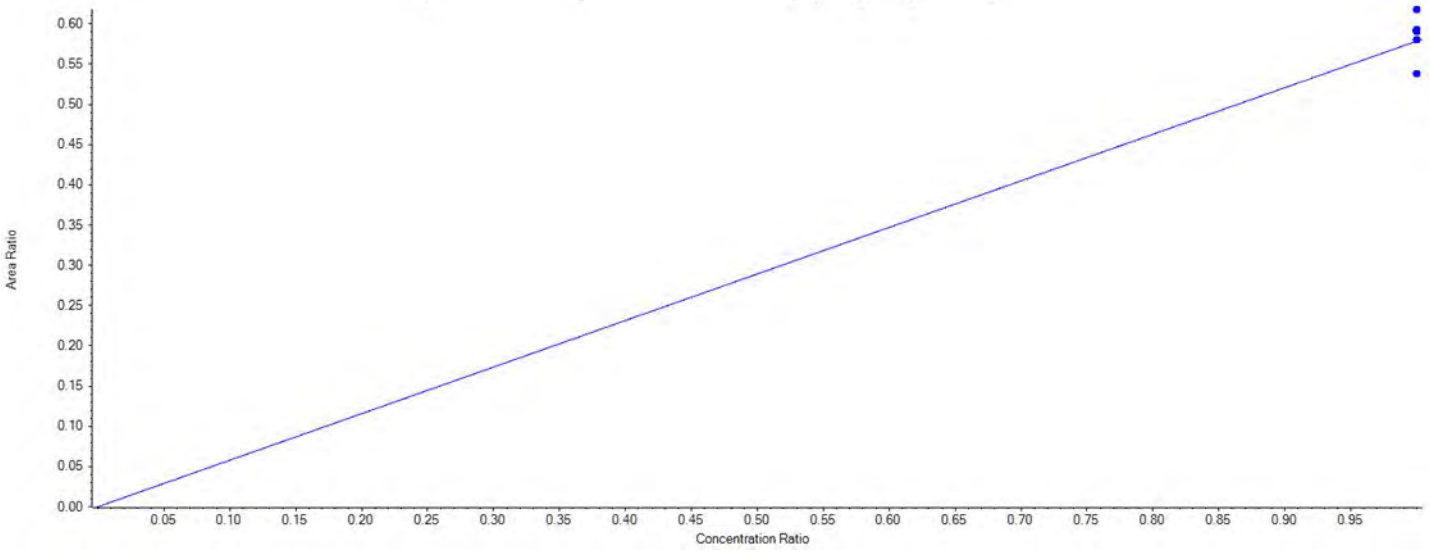
Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1173339.1	476146.560	True	5.00	2.464	6.06	1.090	5.000	5.178	4	30	
CAL2	1140522.3	460926.236	True	5.00	2.474	6.05	1.090	5.000	5.199	4	30	
CAL3	1091194.9	441790.617	True	5.00	2.470	6.06	1.090	5.000	5.189	4	30	
CAL4	1150927.4	489439.830	True	5.00	2.352	6.06	1.090	5.000	4.941	-1	30	
CAL5	1133027.9	460232.679	True	5.00	2.462	6.06	1.090	5.000	5.173	3	30	
CAL6	980215.4	419913.240	True	5.00	2.334	6.05	1.090	5.000	4.905	-2	30	
CAL7	852235.6	405454.995	True	5.00	2.102	6.06	1.090	5.000	4.416	-12	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed7-NMePFOSAE

y = 0.57855 x (std. dev. = 0.02979) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	281912.7	476146.560	True	5.00	0.592	6.09	1.090	5.000	5.117	2	30	
CAL2	272071.3	460926.236	True	5.00	0.590	6.09	1.090	5.000	5.101	2	30	
CAL3	256577.3	441790.617	True	5.00	0.581	6.10	1.090	5.000	5.019	0	30	
CAL4	263412.8	489439.830	True	5.00	0.538	6.10	1.090	5.000	4.651	-7	30	
CAL5	247663.8	460232.679	True	5.00	0.538	6.10	1.090	5.000	4.651	-7	30	
CAL6	248871.1	419913.240	True	5.00	0.593	6.09	1.100	5.000	5.122	2	30	
CAL7	250467.6	405454.995	True	5.00	0.618	6.10	1.090	5.000	5.339	7	30	

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

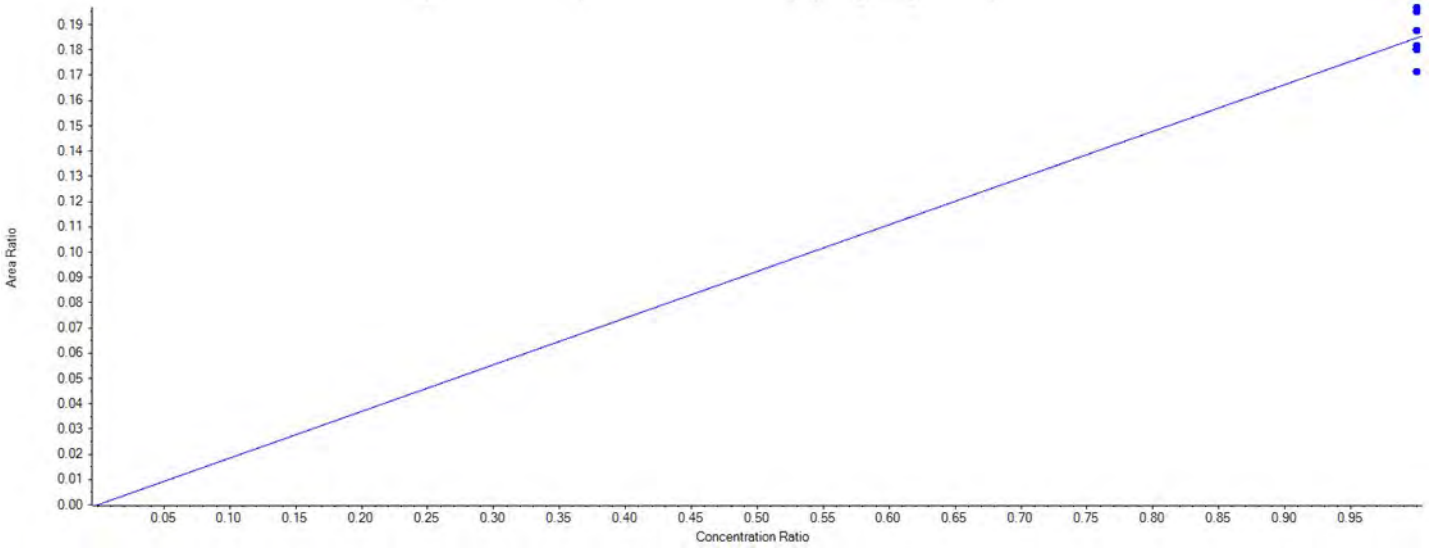
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMePFOSA

y = 0.18475 x (std. dev. = 0.00902) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	85678.0	476146.560	True	5.00	0.180	6.11	1.100	5.000	4.870	-3	30	
CAL2	86471.7	460926.236	True	5.00	0.188	6.10	1.100	5.000	5.077	2	30	
CAL3	80294.1	441790.617	True	5.00	0.182	6.11	1.100	5.000	4.919	-2	30	
CAL4	83886.6	489439.830	True	5.00	0.171	6.11	1.100	5.000	4.639	-7	30	
CAL5	83129.0	460232.679	True	5.00	0.181	6.11	1.100	5.000	4.888	-2	30	
CAL6	81949.3	419913.240	True	5.00	0.195	6.10	1.100	5.000	5.282	6	30	
CAL7	79780.2	405454.995	True	5.00	0.197	6.11	1.100	5.000	5.325	7	30	

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

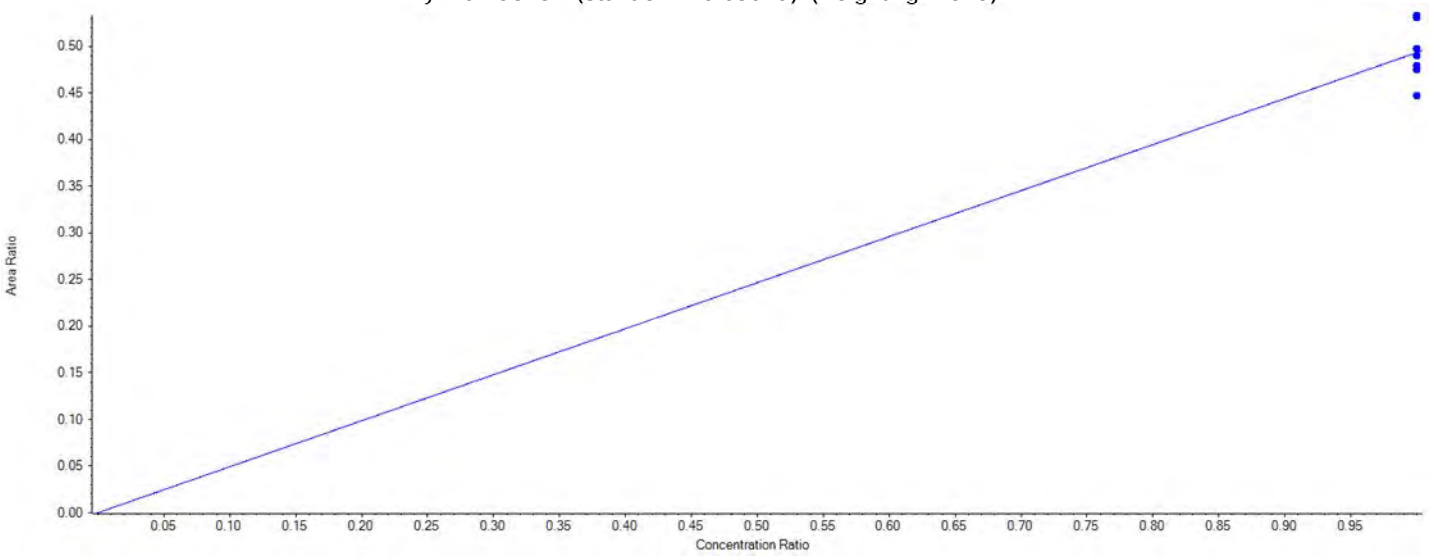
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed9-NEtPFOSAE

y = 0.49318 x (std. dev. = 0.03079) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	226256.0	476146.560	True	5.00	0.475	6.25	1.120	5.000	4.818	-4	30	
CAL2	229050.7	460926.236	True	5.00	0.497	6.24	1.120	5.000	5.038	1	30	
CAL3	216571.5	441790.617	True	5.00	0.490	6.25	1.120	5.000	4.970	-1	30	
CAL4	218635.8	489439.830	True	5.00	0.447	6.25	1.120	5.000	4.529	-9	30	
CAL5	220689.9	460232.679	True	5.00	0.480	6.26	1.120	5.000	4.861	-3	30	
CAL6	222924.1	419913.240	True	5.00	0.531	6.24	1.120	5.000	5.382	8	30	
CAL7	216042.0	405454.995	True	5.00	0.533	6.25	1.120	5.000	5.402	8	30	

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

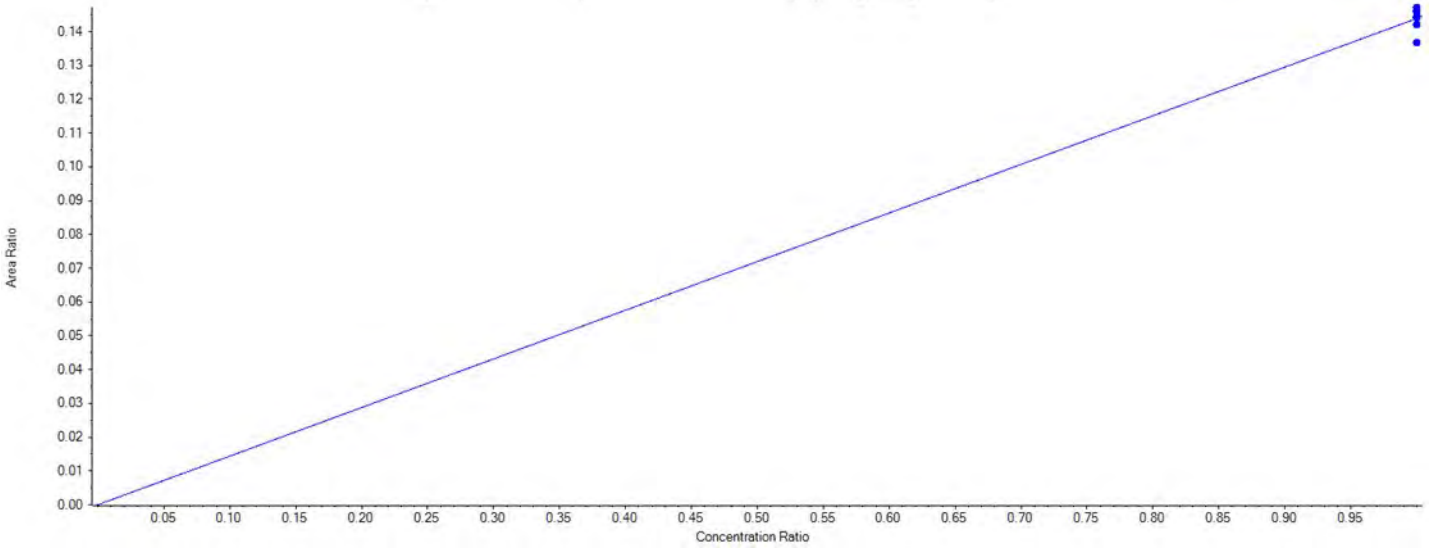
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtPFOSA

y = 0.14390 x (std. dev. = 0.00352) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	70050.4	476146.560	True	5.00	0.147	6.27	1.130	5.000	5.112	2	30	
CAL2	66646.8	460926.236	True	5.00	0.145	6.26	1.130	5.000	5.024	0	30	
CAL3	64623.7	441790.617	True	5.00	0.146	6.27	1.130	5.000	5.083	2	30	
CAL4	66966.4	489439.830	True	5.00	0.137	6.27	1.130	5.000	4.754	-5	30	
CAL5	66384.6	460232.679	True	5.00	0.144	6.27	1.130	5.000	5.012	0	30	
CAL6	59705.8	419913.240	True	5.00	0.142	6.26	1.130	5.000	4.941	-1	30	
CAL7	59209.1	405454.995	True	5.00	0.146	6.27	1.130	5.000	5.074	1	30	

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

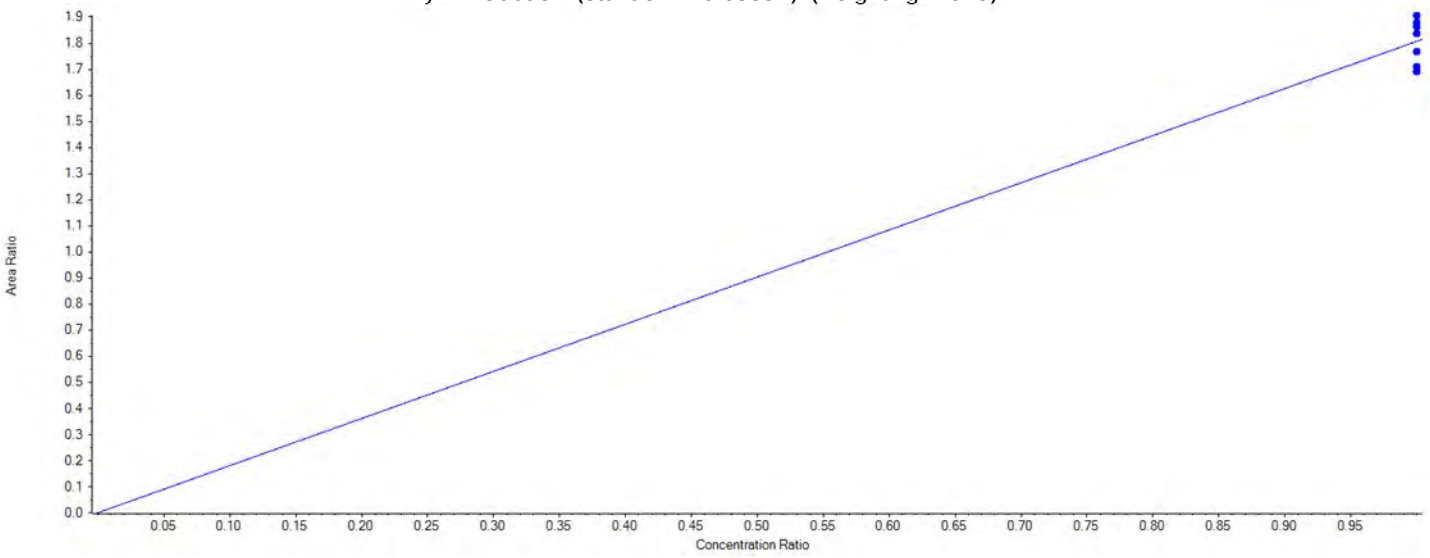
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFTeDA

y = 1.80693 x (std. dev. = 0.08557) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	873945.6	476146.560	True	5.00	1.835	6.43	1.160	5.000	5.079	2	30	
CAL2	858145.1	460926.236	True	5.00	1.862	6.43	1.150	5.000	5.152	3	30	
CAL3	841931.1	441790.617	True	5.00	1.906	6.43	1.150	5.000	5.273	5	30	
CAL4	826670.0	489439.830	True	5.00	1.689	6.43	1.160	5.000	4.674	-7	30	
CAL5	786107.5	460232.679	True	5.00	1.708	6.44	1.150	5.000	4.726	-5	30	
CAL6	789168.4	419913.240	True	5.00	1.879	6.43	1.160	5.000	5.200	4	30	
CAL7	717297.7	405454.995	True	5.00	1.769	6.43	1.160	5.000	4.895	-2	30	

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

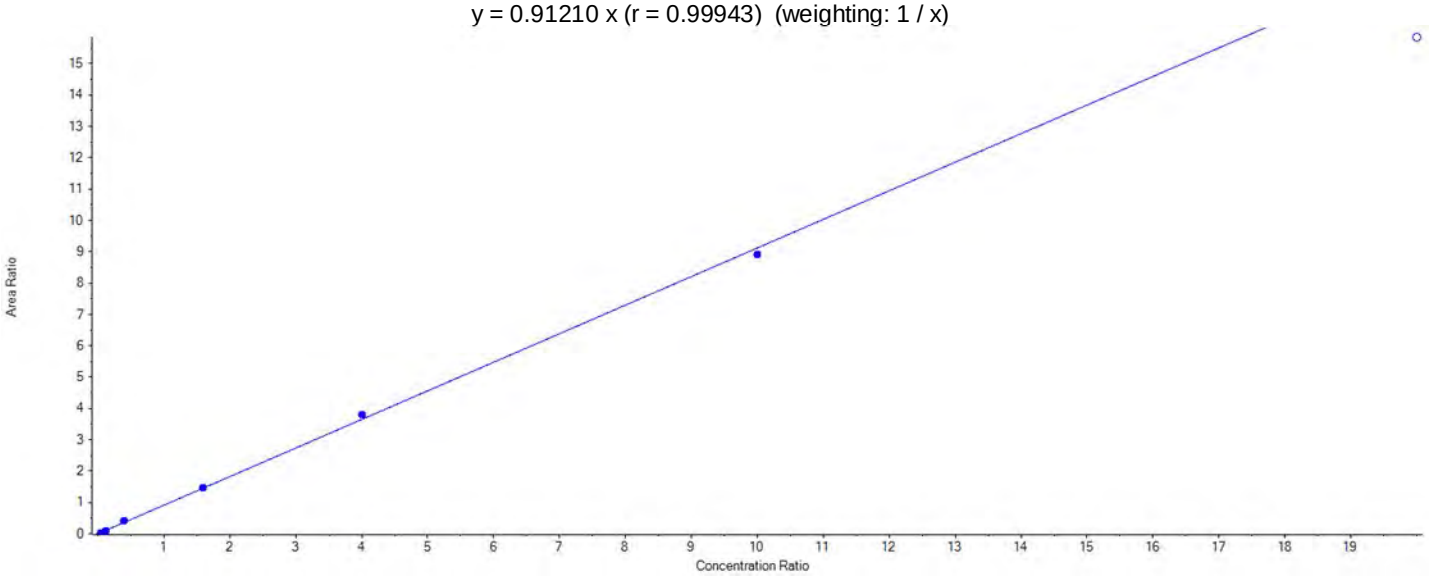
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFBA

y = 0.91210 x (r = 0.99943) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	43996.2	249.7	1018752.836	True	5.00	0.043	3.28	1.000	0.200	0.237	18	30	
CAL2	110036.6	487.6	1033122.100	True	5.00	0.107	3.27	1.000	0.600	0.584	-3	30	
CAL3	403055.8	822.1	993144.063	True	5.00	0.406	3.28	1.000	2.000	2.225	11	30	
CAL4	1425164.4	1298.8	974000.882	True	5.00	1.463	3.28	1.000	8.000	8.021	0	30	
CAL5	3627061.5	1931.2	951694.967	True	5.00	3.811	3.28	1.000	20.000	20.892	4	30	
CAL6	7996964.8	2615.4	897566.729	True	5.00	8.910	3.27	1.000	50.000	48.841	-2	30	
CAL7	12734942.7	3050.8	803704.793	False	5.00	15.845	3.27	1.000	100.000	86.862	-13	30	

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

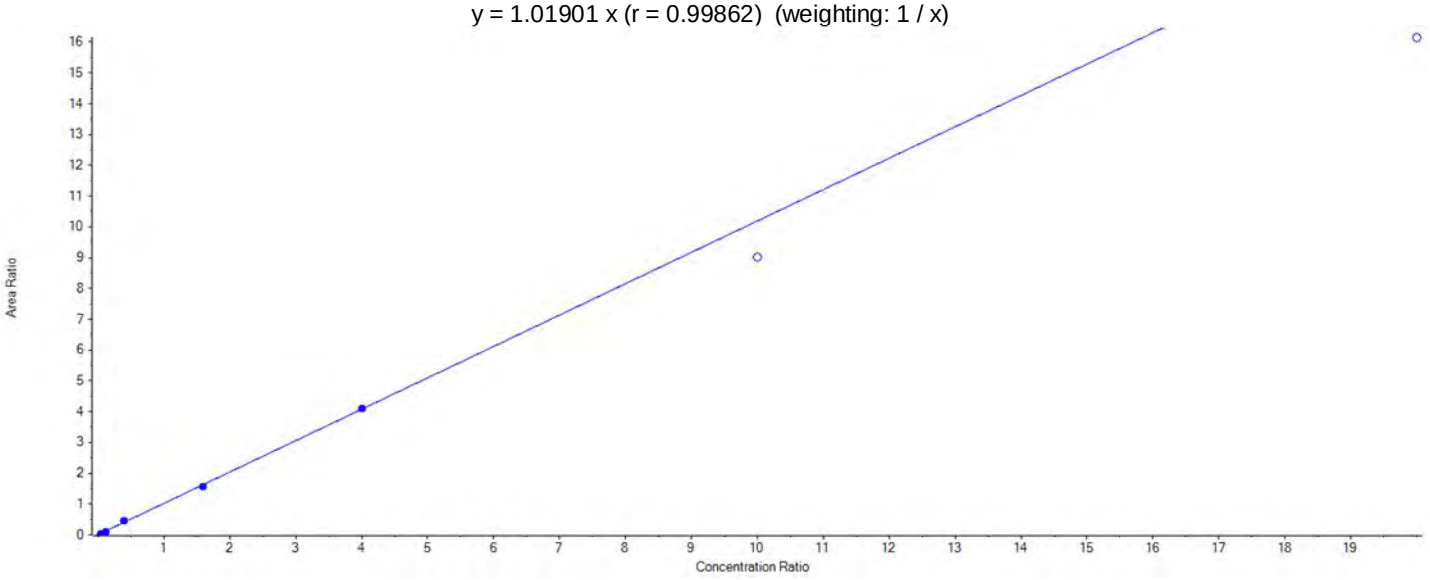
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFPeA

y = 1.01901 x (r = 0.99862) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeA Area	S/N	13C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	44706.1	168.1	975339.046	True	5.00	0.046	3.77	1.000	0.200	0.225	12	30	
CAL2	104393.1	258.3	1014125.030	True	5.00	0.103	3.77	1.000	0.600	0.505	-16	30	
CAL3	424089.1	470.0	910953.705	True	5.00	0.466	3.78	1.000	2.000	2.284	14	30	
CAL4	1424845.3	869.3	915824.561	True	5.00	1.556	3.77	1.000	8.000	7.634	-5	30	
CAL5	3696889.3	1332.4	900153.389	True	5.00	4.107	3.78	1.000	20.000	20.152	1	30	
CAL6	7873655.4	2197.1	872922.614	False	5.00	9.020	3.77	1.000	50.000	44.258	-11	30	
CAL7	12611040.3	1779.7	781113.823	False	5.00	16.145	3.77	1.000	100.000	79.219	-21	30	

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

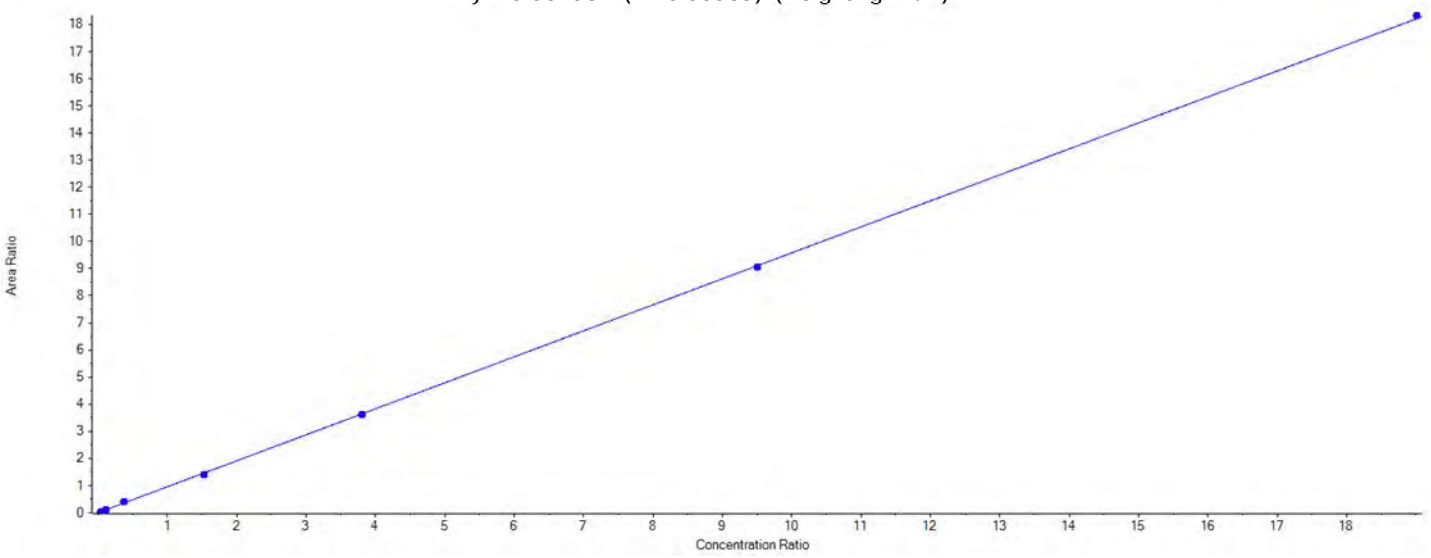
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFBS

y = 0.95795 x (r = 0.99985) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	17465.3	759.3	437838.938	True	4.65	0.040	3.82	1.000	0.177	0.194	9	30	
CAL2	43237.4	921.9	442149.949	True	4.65	0.098	3.81	1.000	0.531	0.475	-11	30	
CAL3	168534.1	2117.3	419929.218	True	4.65	0.401	3.82	1.000	1.770	1.948	10	30	
CAL4	590590.2	3233.1	424041.313	True	4.65	1.393	3.82	1.000	7.080	6.761	-5	30	
CAL5	1542881.7	3193.4	424059.219	True	4.65	3.638	3.82	1.000	17.700	17.661	0	30	
CAL6	3600470.8	4364.1	398441.322	True	4.65	9.036	3.82	1.000	44.200	43.864	-1	30	
CAL7	6468971.4	4045.2	352994.776	True	4.65	18.326	3.82	1.000	88.400	88.956	1	30	

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

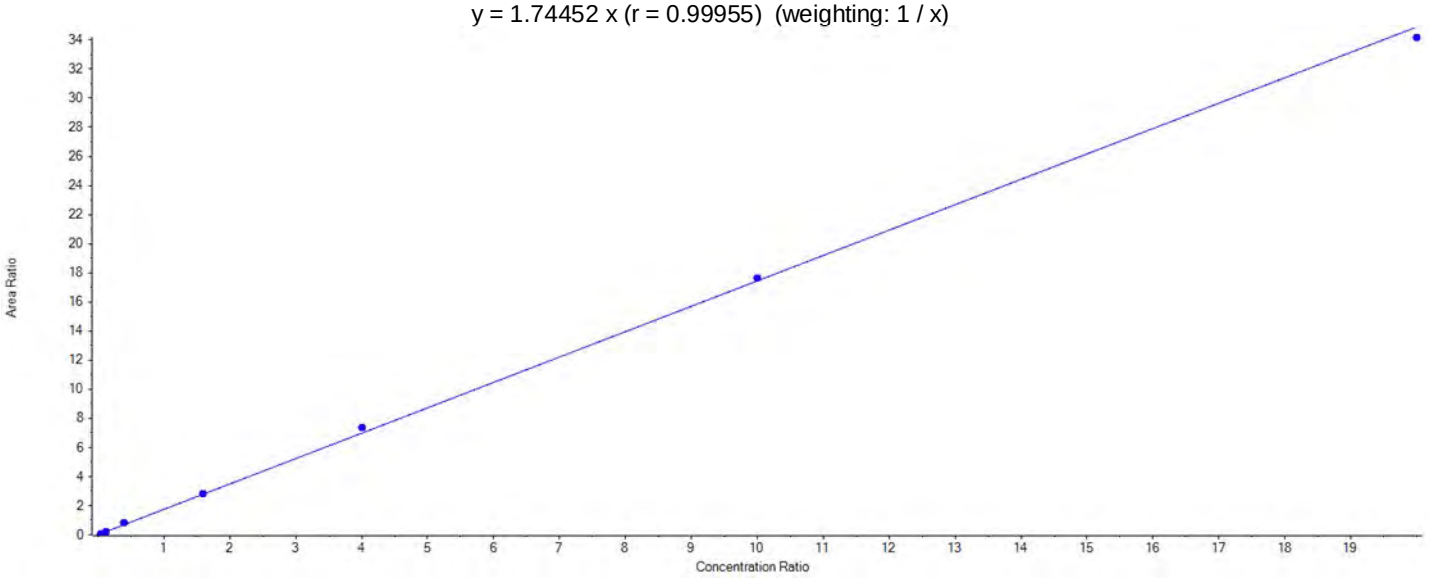
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

4:2-FTS

y = 1.74452 x (r = 0.99955) (weighting: 1 / x)



Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5603.8	2243.2	75119.122	True	4.67	0.075	4.13	1.000	0.187	0.200	7	30	
CAL2	14524.8	4777.1	72067.149	True	4.67	0.202	4.13	1.000	0.560	0.540	-4	30	
CAL3	56502.5	1225.4	70629.114	True	4.67	0.800	4.14	1.000	1.870	2.142	15	30	
CAL4	191344.6	1753.2	67043.698	True	4.67	2.854	4.13	1.000	7.470	7.640	2	30	
CAL5	498650.7	4269.7	67422.965	True	4.67	7.396	4.14	1.000	18.700	19.798	6	30	
CAL6	1148569.2	2995.6	65255.390	True	4.67	17.601	4.13	1.000	46.700	47.117	1	30	
CAL7	2126148.2	3609.5	62236.773	True	4.67	34.162	4.13	1.000	93.400	91.451	-2	30	

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

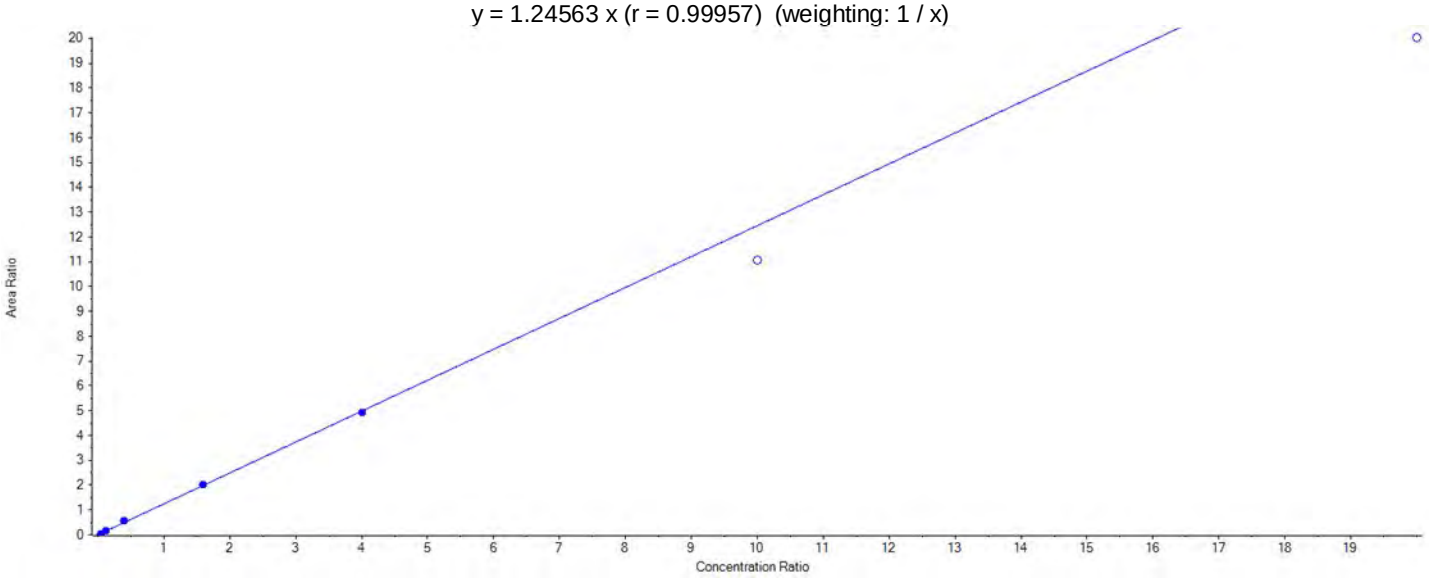
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxA

y = 1.24563 x (r = 0.99957) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42281.8	270.9	728340.451	True	5.00	0.058	4.17	1.000	0.200	0.233	17	30	
CAL2	101713.2	383.4	697229.019	True	5.00	0.146	4.16	1.000	0.600	0.586	-2	30	
CAL3	395421.4	731.7	717900.058	True	5.00	0.551	4.17	1.000	2.000	2.211	11	30	
CAL4	1343216.4	1177.9	670407.711	True	5.00	2.004	4.16	1.000	8.000	8.042	1	30	
CAL5	3464657.3	1836.2	704953.498	True	5.00	4.915	4.17	1.000	20.000	19.728	-1	30	
CAL6	7468739.1	2191.3	675219.804	False	5.00	11.061	4.16	1.000	50.000	44.400	-11	30	
CAL7	12530843.0	2376.6	625449.752	False	5.00	20.035	4.16	1.000	100.000	80.421	-20	30	

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

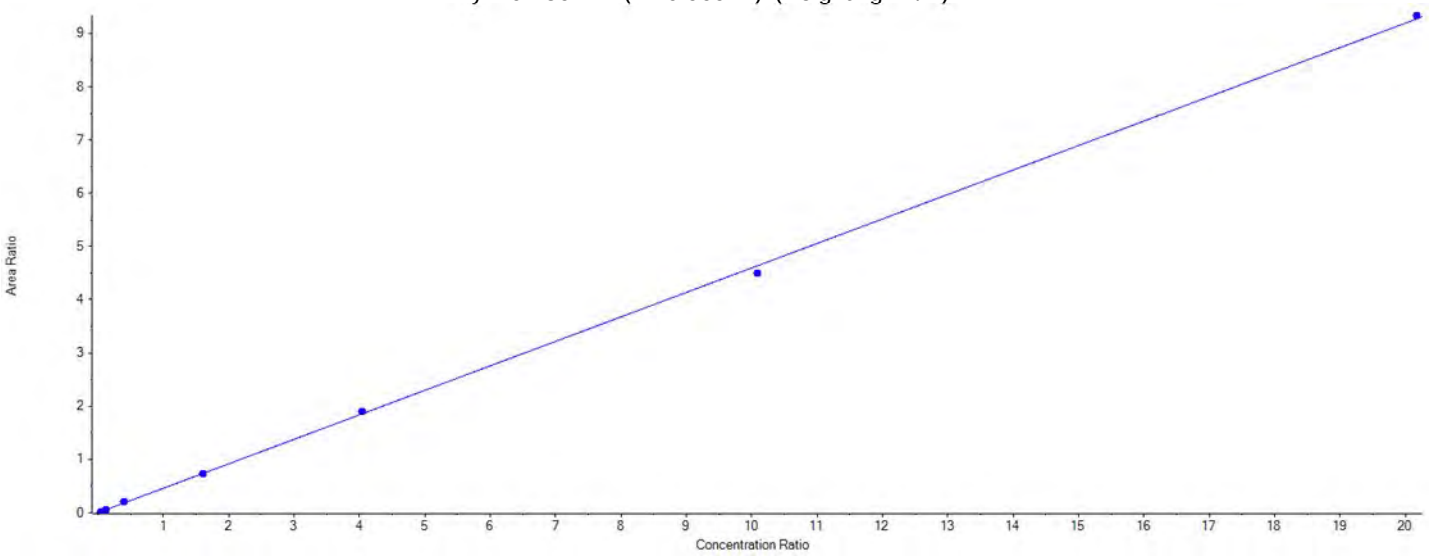
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFPeS

y = 0.45971 x (r = 0.99971) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	8956.0	383.7	437838.938	True	4.65	0.020	4.19	1.100	0.188	0.207	10	30	
CAL2	24007.2	778.6	442149.949	True	4.65	0.054	4.18	1.100	0.563	0.549	-2	30	
CAL3	89559.7	2347.5	419929.218	True	4.65	0.213	4.19	1.100	1.880	2.157	15	30	
CAL4	311741.6	2021.0	424041.313	True	4.65	0.735	4.19	1.100	7.500	7.436	-1	30	
CAL5	809728.0	3003.6	424059.219	True	4.65	1.909	4.19	1.100	18.800	19.314	3	30	
CAL6	1793808.0	3890.0	398441.322	True	4.65	4.502	4.18	1.100	46.900	45.538	-3	30	
CAL7	3295381.6	3138.3	352994.776	True	4.65	9.335	4.18	1.100	93.800	94.429	1	30	

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

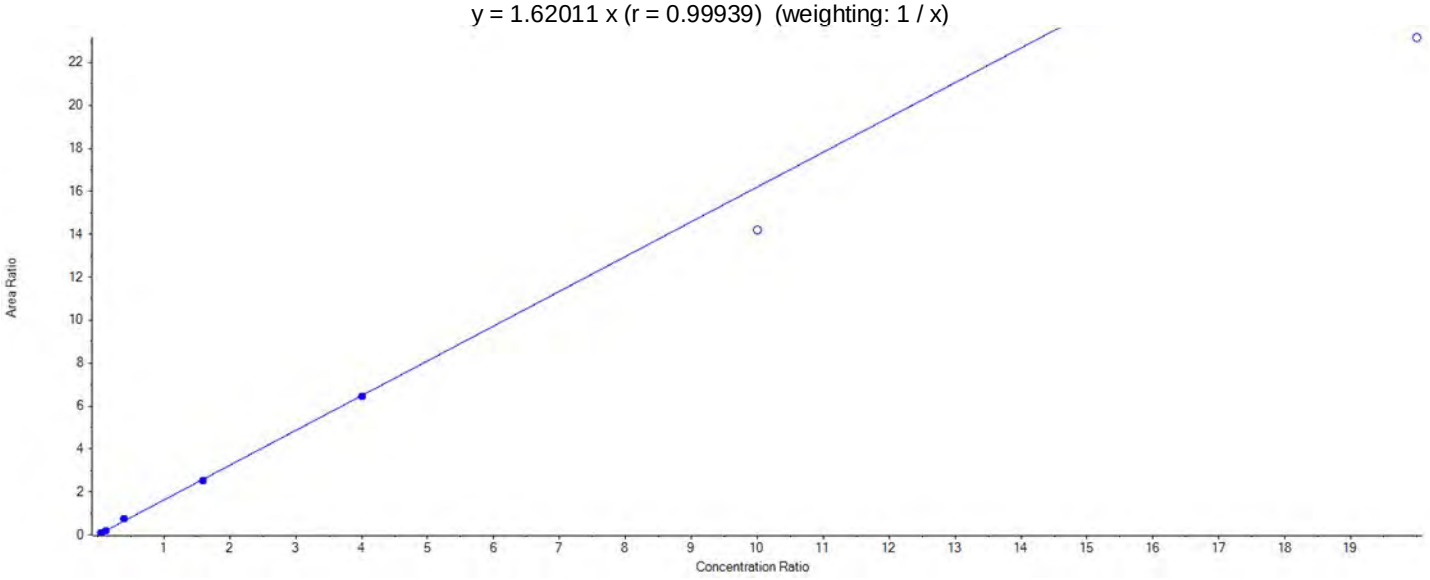
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHpA

y = 1.62011 x (r = 0.99939) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpA Area	S/N	13C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42530.6	366.7	547365.130	True	5.00	0.078	4.56	1.000	0.200	0.240	20	30	
CAL2	100593.8	599.3	547371.985	True	5.00	0.184	4.55	1.000	0.600	0.567	-5	30	
CAL3	388626.7	1091.3	535993.324	True	5.00	0.725	4.56	1.000	2.000	2.238	12	30	
CAL4	1429895.3	2152.8	563673.949	True	5.00	2.537	4.55	1.000	8.000	7.829	-2	30	
CAL5	3592806.2	2355.3	556455.908	True	5.00	6.457	4.56	1.000	20.000	19.926	0	30	
CAL6	7873271.2	3361.6	555281.473	False	5.00	14.179	4.55	1.000	50.000	43.759	-12	30	
CAL7	12619701.6	2617.8	544866.925	False	5.00	23.161	4.55	1.000	100.000	71.480	-29	30	

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

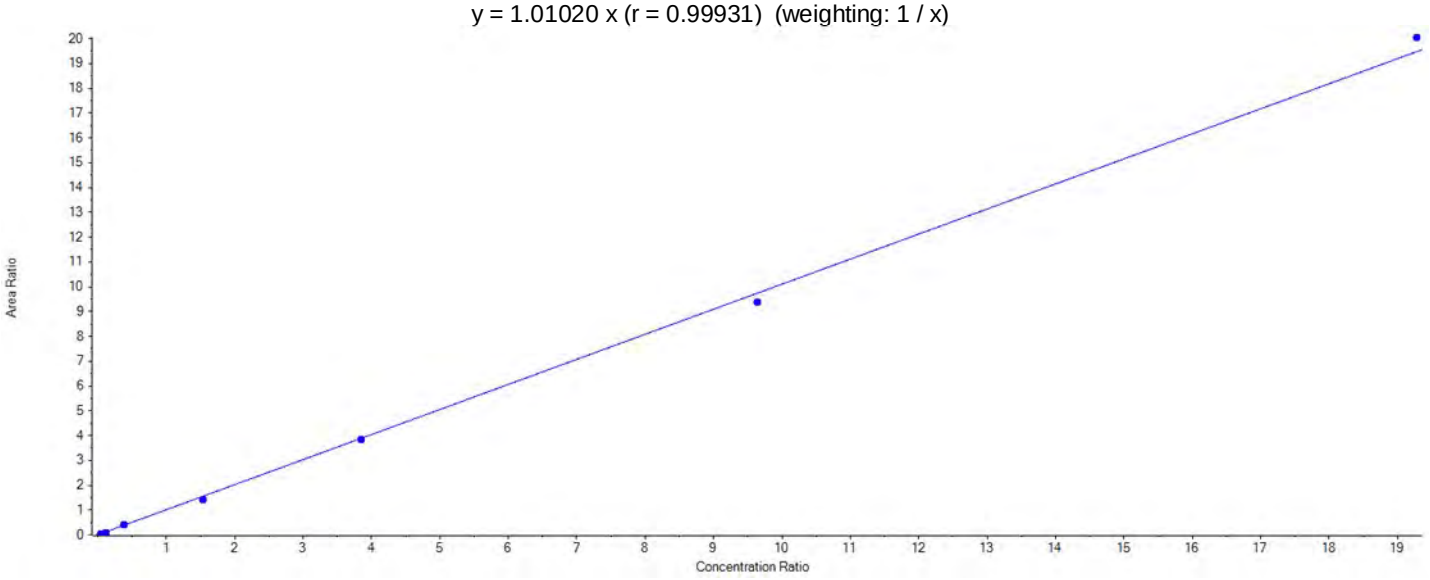
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxS

y = 1.01020 x (r = 0.99931) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	12830.8	10643.6	331982.904	True	4.73	0.039	4.56	1.000	0.182	0.181	-1	30	
CAL2	31104.5	1568.4	335129.691	True	4.73	0.093	4.55	1.000	0.547	0.435	-21	30	
CAL3	127889.2	1553.1	326982.370	True	4.73	0.391	4.56	1.000	1.820	1.831	1	30	
CAL4	444626.0	1772.0	316393.280	True	4.73	1.405	4.56	1.000	7.300	6.580	-10	30	
CAL5	1191482.7	2091.1	309184.702	True	4.73	3.854	4.56	1.000	18.200	18.044	-1	30	
CAL6	2625950.9	1900.1	279894.643	True	4.73	9.382	4.55	1.000	45.600	43.929	-4	30	
CAL7	4797026.7	1752.4	239327.412	True	4.73	20.044	4.55	1.000	91.200	93.850	3	30	

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

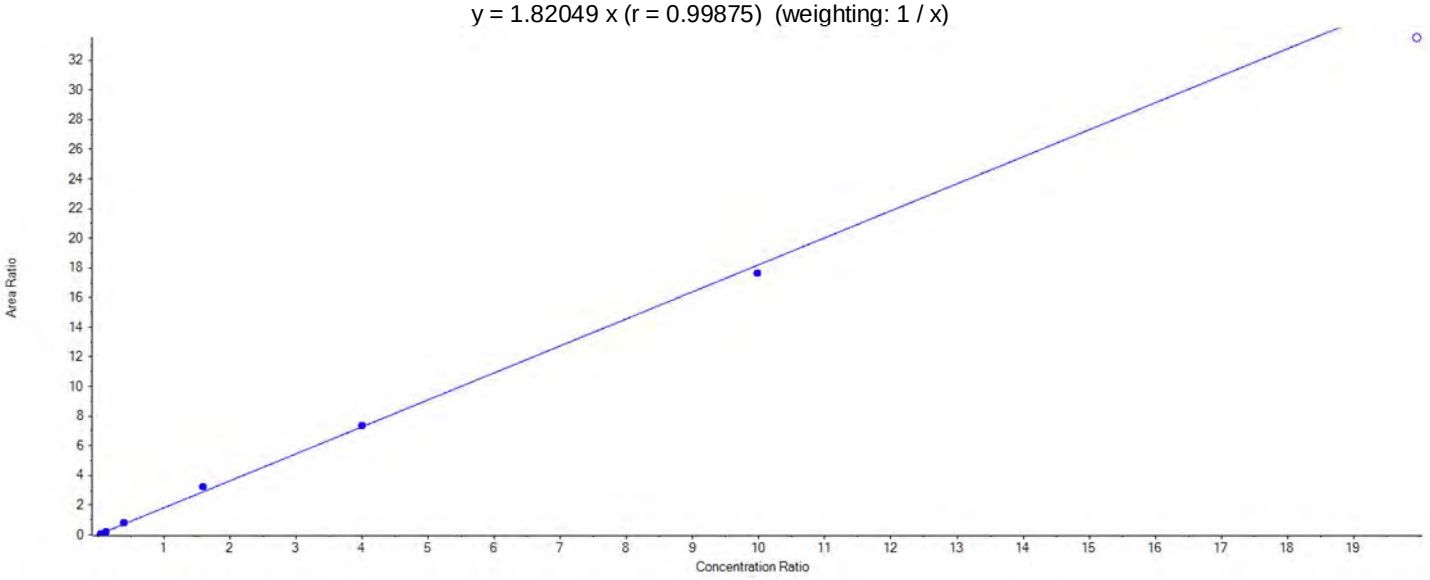
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

6:2-FTS

y = 1.82049 x (r = 0.99875) (weighting: 1 / x)



Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5676.7	534.7	65543.766	True	4.75	0.087	4.91	1.000	0.190	0.226	19	30	
CAL2	14479.8	1089.2	63922.654	True	4.75	0.227	4.91	1.000	0.569	0.591	4	30	
CAL3	53951.0	2408.1	65518.288	True	4.75	0.823	4.92	1.000	1.900	2.149	13	30	
CAL4	185311.5	2003.0	56580.079	True	4.75	3.275	4.91	1.000	7.580	8.546	13	30	
CAL5	426727.7	3587.1	58122.789	True	4.75	7.342	4.92	1.000	19.000	19.156	1	30	
CAL6	859948.6	2867.7	48807.560	True	4.75	17.619	4.90	1.000	47.400	45.972	-3	30	
CAL7	1464447.0	3167.3	43678.325	False	4.75	33.528	4.91	1.000	94.800	87.481	-8	30	

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

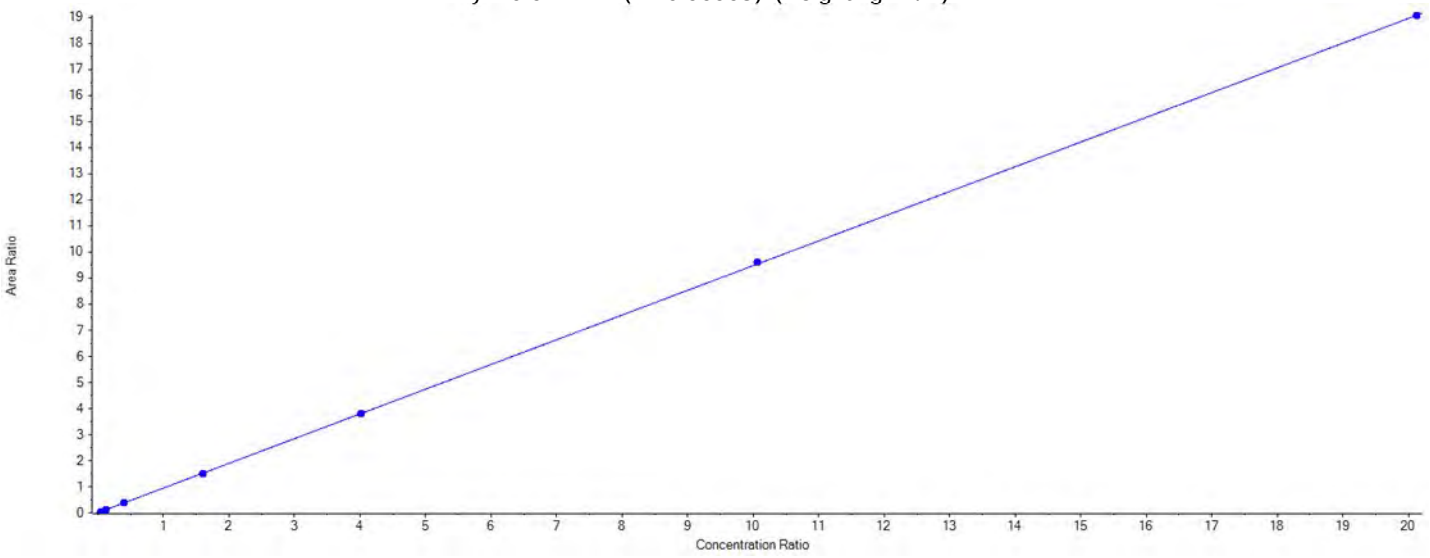
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHpS

y = 0.94774 x (r = 0.99993) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13921.8	19272.6	331982.904	True	4.73	0.042	4.92	1.080	0.190	0.209	10	30	
CAL2	32553.7	4447.1	335129.691	True	4.73	0.097	4.91	1.080	0.571	0.485	-15	30	
CAL3	129450.9	9073.5	326982.370	True	4.73	0.396	4.92	1.080	1.900	1.976	4	30	
CAL4	471580.6	3167.3	316393.280	True	4.73	1.490	4.92	1.080	7.610	7.439	-2	30	
CAL5	1171216.6	2826.6	309184.702	True	4.73	3.788	4.92	1.080	19.000	18.906	0	30	
CAL6	2686833.3	2573.7	279894.643	True	4.73	9.599	4.91	1.080	47.600	47.909	1	30	
CAL7	4562639.6	2438.6	239327.412	True	4.73	19.064	4.91	1.080	95.200	95.147	0	30	

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

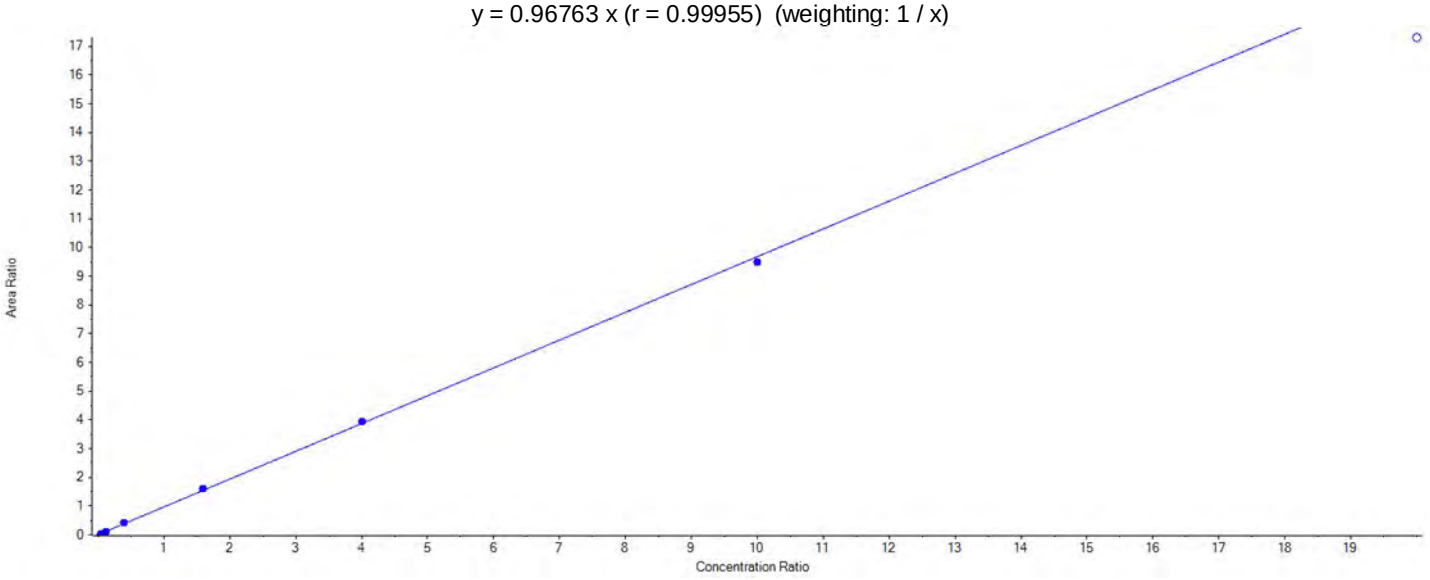
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOA

y = 0.96763 x (r = 0.99955) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42517.4	185.7	1030597.916	True	5.00	0.041	4.93	1.000	0.200	0.213	7	30	
CAL2	106420.8	337.5	1030866.619	True	5.00	0.103	4.92	1.000	0.600	0.533	-11	30	
CAL3	405879.4	495.1	954677.960	True	5.00	0.425	4.93	1.000	2.000	2.197	10	30	
CAL4	1486960.4	1291.2	918995.325	True	5.00	1.618	4.92	1.000	8.000	8.361	5	30	
CAL5	3601538.3	1584.3	911756.077	True	5.00	3.950	4.93	1.000	20.000	20.411	2	30	
CAL6	8012665.3	1863.3	843522.332	True	5.00	9.499	4.92	1.000	50.000	49.084	-2	30	
CAL7	12900182.7	2063.6	745616.325	False	5.00	17.301	4.92	1.000	100.000	89.401	-11	30	

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

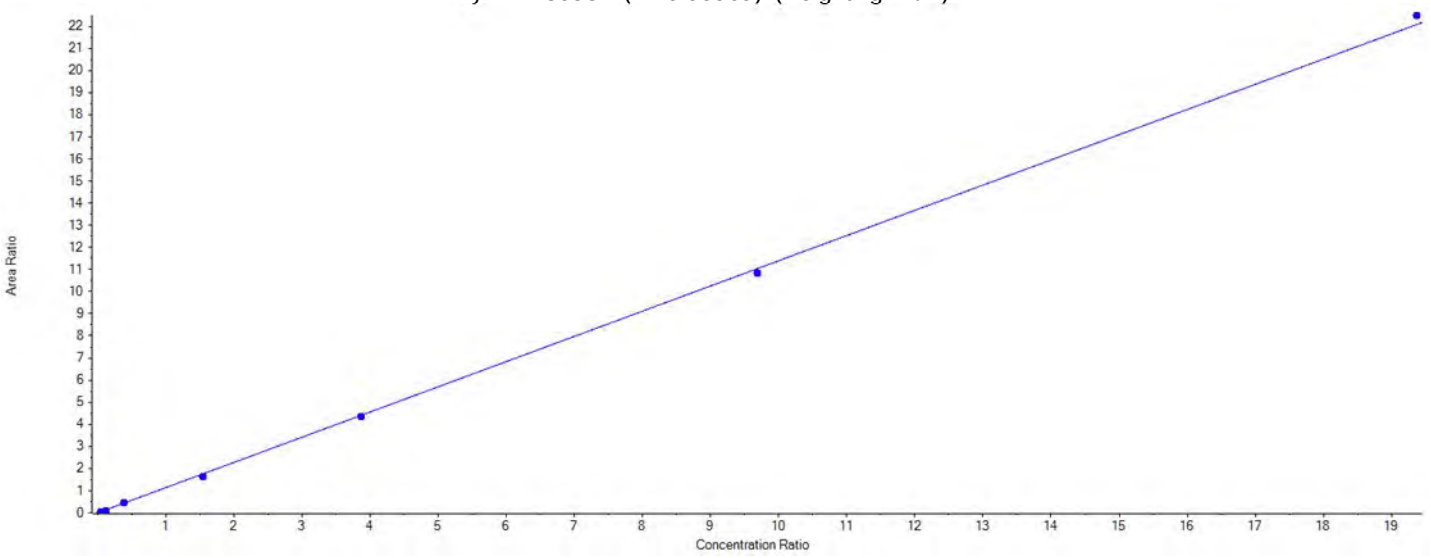
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOS

y = 1.13953 x (r = 0.99969) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13060.0	1060.4	318525.429	True	4.78	0.041	5.25	1.000	0.185	0.172	-7	30	
CAL2	34203.6	972.6	313894.271	True	4.78	0.109	5.25	1.000	0.555	0.457	-18	30	
CAL3	139506.6	732.7	309913.737	True	4.78	0.450	5.26	1.000	1.850	1.888	2	30	
CAL4	481950.0	1137.9	296147.525	True	4.78	1.627	5.25	1.000	7.400	6.826	-8	30	
CAL5	1305020.5	988.3	299574.476	True	4.78	4.356	5.26	1.000	18.500	18.273	-1	30	
CAL6	3026664.4	1448.1	279204.362	True	4.78	10.840	5.25	1.000	46.300	45.472	-2	30	
CAL7	5620329.0	1278.0	250004.233	True	4.78	22.481	5.25	1.000	92.600	94.301	2	30	

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

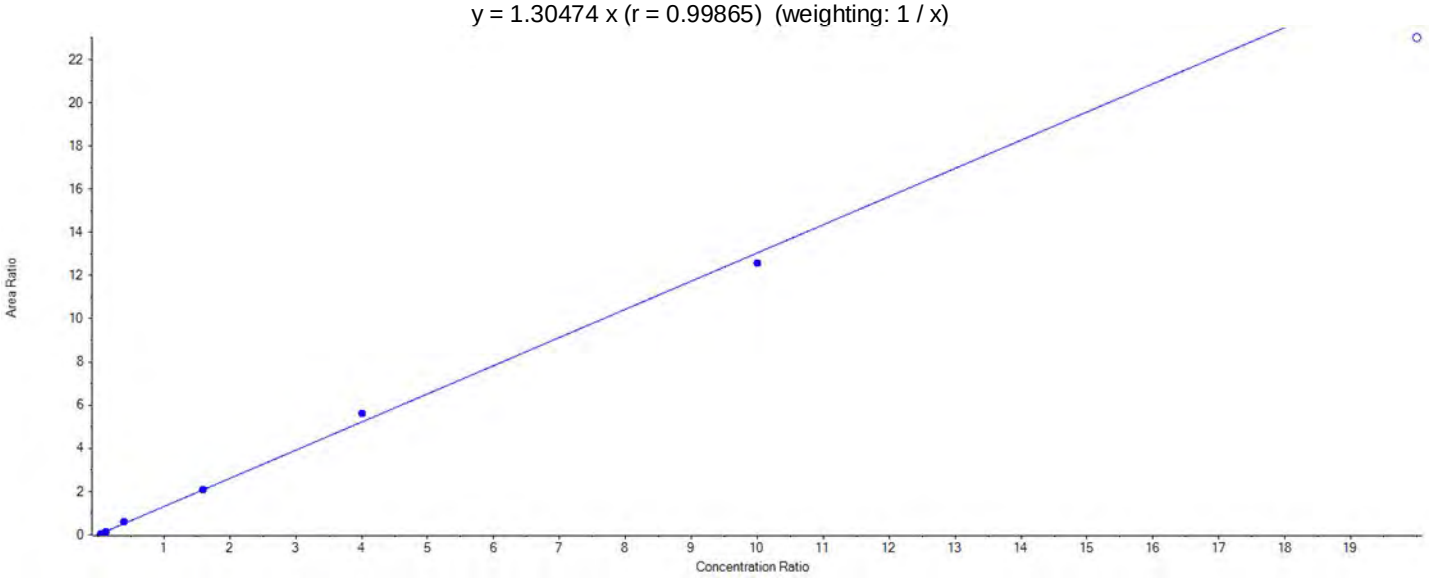
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFNA

y = 1.30474 x (r = 0.99865) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39485.1	336.0	659714.648	True	5.00	0.060	5.27	1.000	0.200	0.229	15	30	
CAL2	106720.9	560.6	682380.696	True	5.00	0.156	5.26	1.000	0.600	0.599	0	30	
CAL3	370292.0	1397.5	629954.590	True	5.00	0.588	5.27	1.000	2.000	2.253	13	30	
CAL4	1365056.4	2099.1	648727.023	True	5.00	2.104	5.27	1.000	8.000	8.064	1	30	
CAL5	3536255.1	3740.5	630201.519	True	5.00	5.611	5.27	1.000	20.000	21.504	8	30	
CAL6	7843086.9	3448.1	624202.702	True	5.00	12.565	5.26	1.000	50.000	48.151	-4	30	
CAL7	12939629.1	3220.8	562206.893	False	5.00	23.016	5.27	1.000	100.000	88.201	-12	30	

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

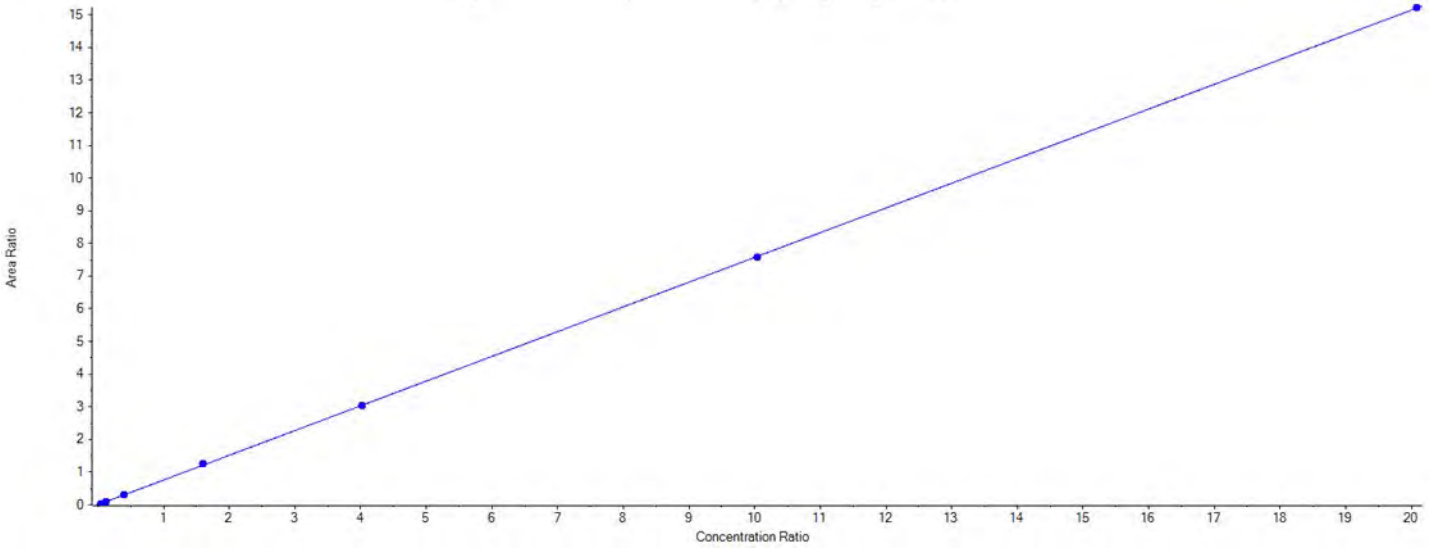
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFNS

y = 0.75705 x (r = 0.99994) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	9756.6	2226.5	318525.429	True	4.78	0.031	5.55	1.060	0.192	0.193	1	30	
CAL2	24149.9	10822.9	313894.271	True	4.78	0.077	5.54	1.060	0.576	0.486	-16	30	
CAL3	91471.0	43486.9	309913.737	True	4.78	0.295	5.55	1.060	1.920	1.864	-3	30	
CAL4	369833.4	4460.8	296147.525	True	4.78	1.249	5.55	1.060	7.680	7.885	3	30	
CAL5	909879.2	4615.6	299574.476	True	4.78	3.037	5.55	1.060	19.200	19.177	0	30	
CAL6	2116661.5	2721.3	279204.362	True	4.78	7.581	5.54	1.060	48.000	47.867	0	30	
CAL7	3804945.2	2191.8	250004.233	True	4.78	15.220	5.54	1.060	96.000	96.096	0	30	

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

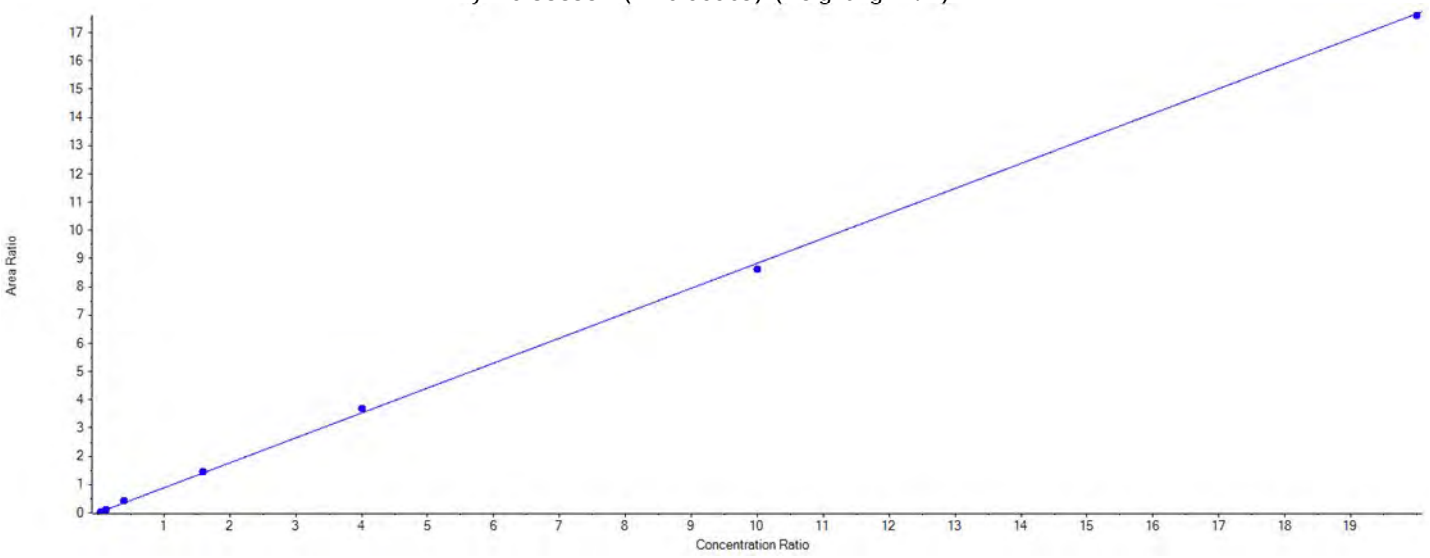
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDA

y = 0.88335 x (r = 0.99965) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	33621.2	252.1	855362.920	True	5.00	0.039	5.57	1.000	0.200	0.222	11	30	
CAL2	90730.3	547.0	839100.670	True	5.00	0.108	5.57	1.000	0.600	0.612	2	30	
CAL3	343523.0	1010.2	824072.930	True	5.00	0.417	5.57	1.000	2.000	2.360	18	30	
CAL4	1223810.4	1419.5	841970.480	True	5.00	1.454	5.57	1.000	8.000	8.227	3	30	
CAL5	3072749.0	2173.2	833462.150	True	5.00	3.687	5.57	1.000	20.000	20.868	4	30	
CAL6	6551370.5	3228.5	758832.768	True	5.00	8.633	5.56	1.000	50.000	48.868	-2	30	
CAL7	11371047.0	2538.0	645932.474	True	5.00	17.604	5.57	1.000	100.000	99.643	0	30	

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

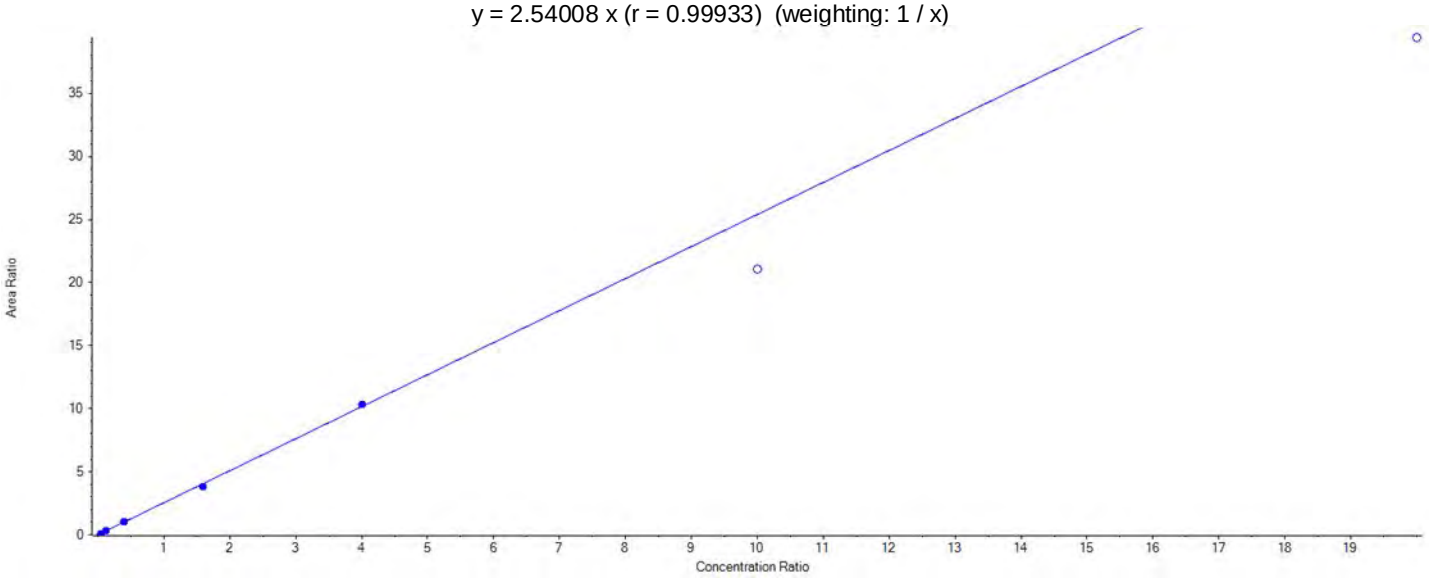
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

8:2-FTS

y = 2.54008 x (r = 0.99933) (weighting: 1 / x)



Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6138.7	138.9	58895.024	True	4.79	0.104	5.57	1.000	0.192	0.197	2	30	
CAL2	15550.2	278.8	54757.914	True	4.79	0.284	5.57	1.000	0.575	0.536	-7	30	
CAL3	57433.9	686.2	53847.149	True	4.79	1.067	5.57	1.000	1.920	2.011	5	30	
CAL4	203687.7	1309.3	52961.880	True	4.79	3.846	5.57	1.000	7.660	7.253	-5	30	
CAL5	478390.1	1550.6	46142.417	True	4.79	10.368	5.58	1.000	19.200	19.551	2	30	
CAL6	938590.1	1617.4	44487.495	False	4.79	21.098	5.57	1.000	47.900	39.786	-17	30	
CAL7	1620286.0	2884.0	41093.046	False	4.79	39.430	5.57	1.000	95.800	74.355	-22	30	

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

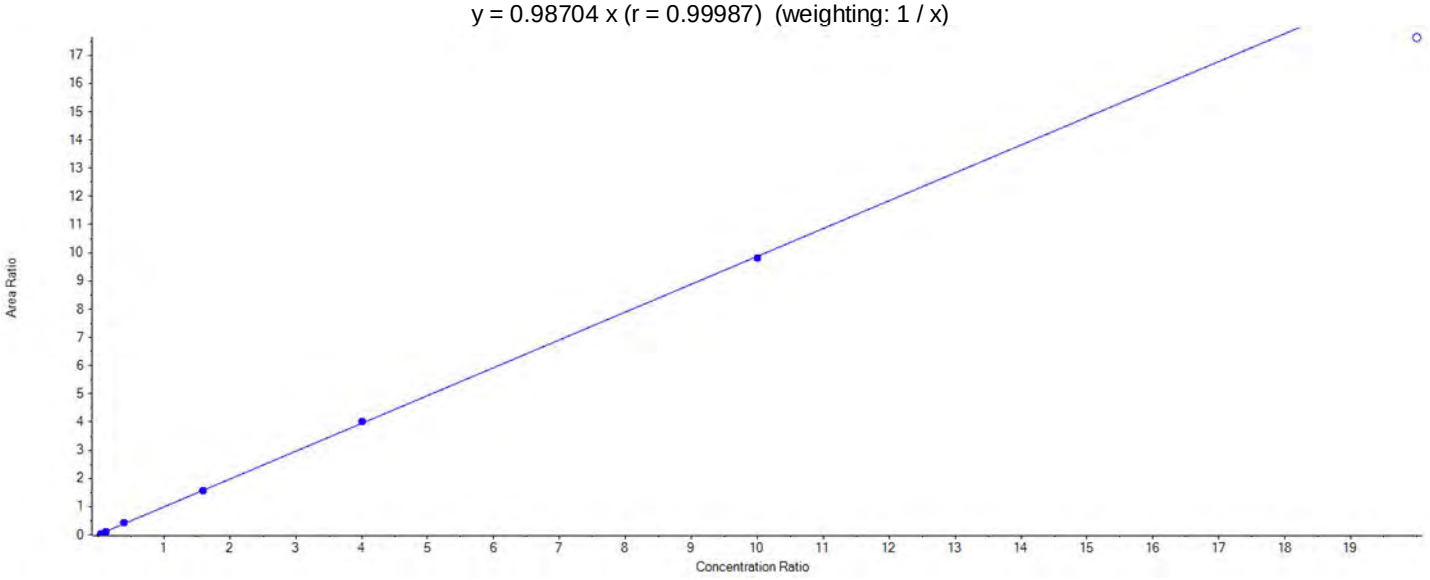
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFOSA

y = 0.98704 x (r = 0.99987) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOSA Area	S/N	13C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27693.0	14496.4	662264.748	True	5.00	0.042	5.65	1.000	0.200	0.212	6	30	
CAL2	73112.3	749.8	658778.467	True	5.00	0.111	5.65	1.000	0.600	0.562	-6	30	
CAL3	265394.0	1340.3	631627.878	True	5.00	0.420	5.66	1.000	2.000	2.128	6	30	
CAL4	976434.1	2479.8	625021.840	True	5.00	1.562	5.65	1.000	8.000	7.914	-1	30	
CAL5	2392584.6	2838.0	596189.464	True	5.00	4.013	5.66	1.000	20.000	20.329	2	30	
CAL6	5541493.1	2884.6	565326.016	True	5.00	9.802	5.65	1.000	50.000	49.655	-1	30	
CAL7	9792009.5	2446.5	555500.490	False	5.00	17.627	5.65	1.000	100.000	89.294	-11	30	

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

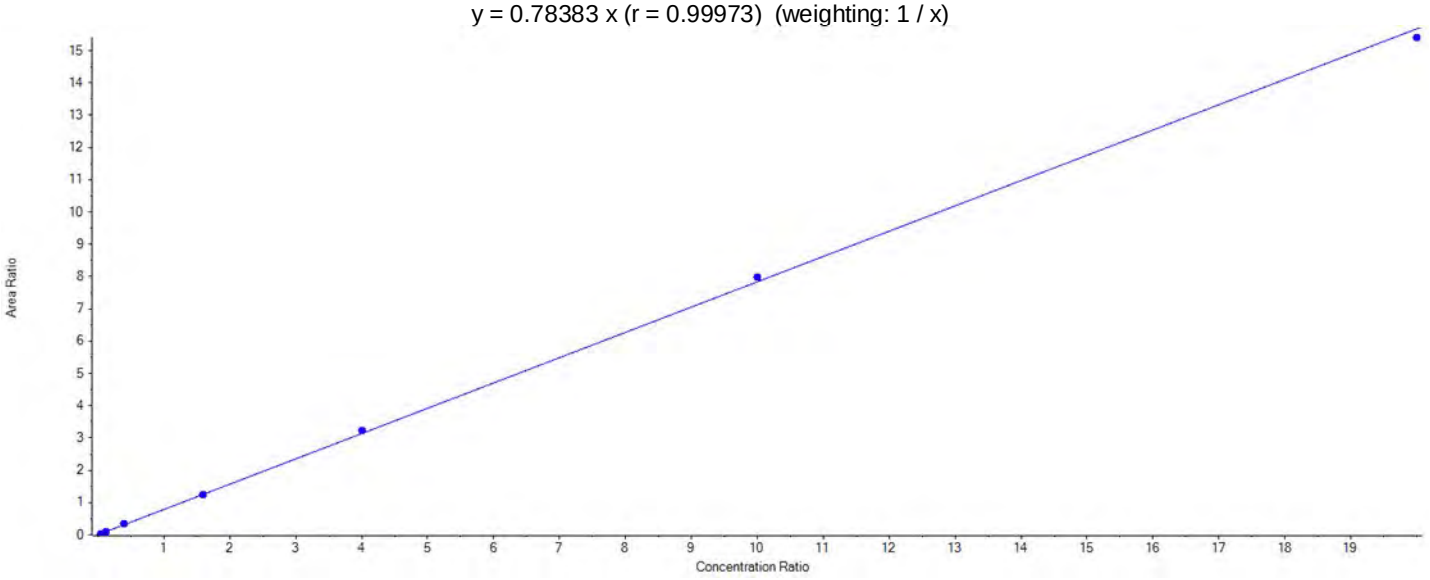
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NMeFOSAA

y = 0.78383 x (r = 0.99973) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6661.0	153.4	220597.274	True	5.00	0.030	5.71	1.000	0.200	0.193	-4	30	
CAL2	16533.1	308.9	181261.245	True	5.00	0.091	5.70	1.000	0.600	0.582	-3	30	
CAL3	62054.8	533.8	178338.072	True	5.00	0.348	5.71	1.000	2.000	2.220	11	30	
CAL4	212775.3	1656.4	171203.949	True	5.00	1.243	5.71	1.000	8.000	7.928	-1	30	
CAL5	557354.6	1407.3	172574.166	True	5.00	3.230	5.71	1.000	20.000	20.602	3	30	
CAL6	1292829.8	1422.7	161673.270	True	5.00	7.997	5.70	1.000	50.000	51.010	2	30	
CAL7	2414874.8	1441.0	156760.846	True	5.00	15.405	5.71	1.000	100.000	98.267	-2	30	

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

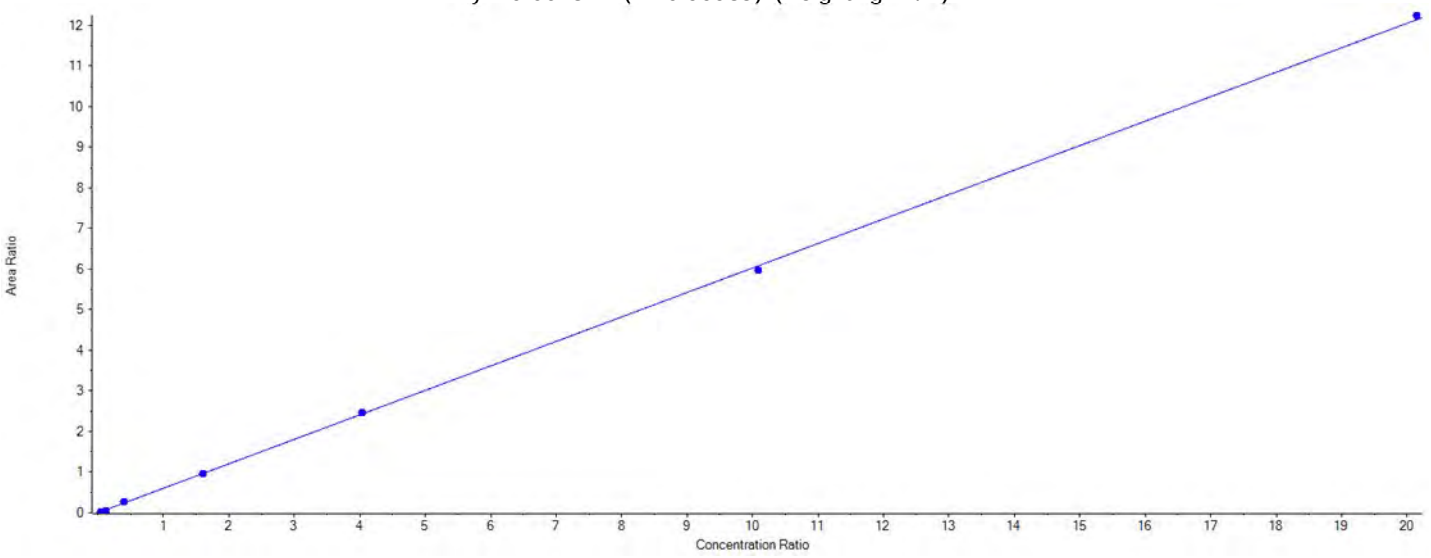
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDS

y = 0.60287 x (r = 0.99985) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6850.7	4223.9	318525.429	True	4.78	0.022	5.81	1.110	0.193	0.171	-12	30	
CAL2	18654.8	1288.4	313894.271	True	4.78	0.059	5.80	1.100	0.578	0.471	-18	30	
CAL3	80537.4	288059.6	309913.737	True	4.78	0.260	5.80	1.100	1.930	2.060	7	30	
CAL4	283198.5	3741.0	296147.525	True	4.78	0.956	5.80	1.100	7.700	7.582	-2	30	
CAL5	737231.9	1757.0	299574.476	True	4.78	2.461	5.81	1.100	19.300	19.512	1	30	
CAL6	1665920.2	2887.4	279204.362	True	4.78	5.967	5.80	1.100	48.200	47.309	-2	30	
CAL7	3061543.5	4095.0	250004.233	True	4.78	12.246	5.80	1.110	96.300	97.096	1	30	

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

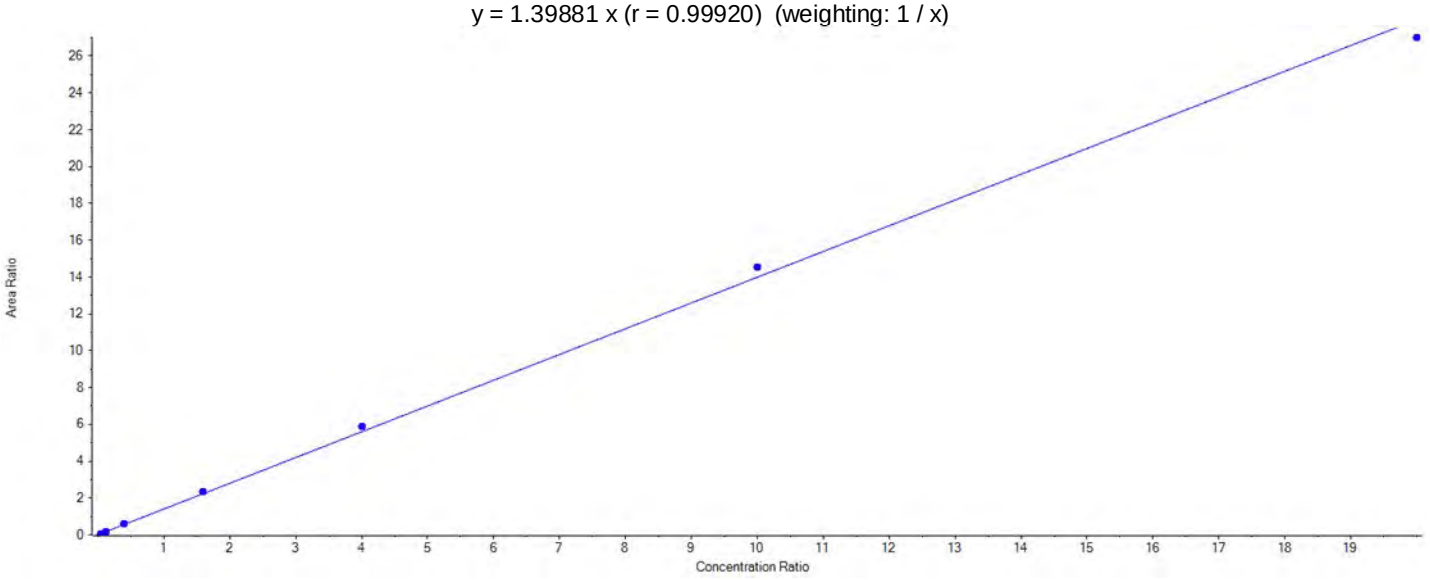
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFUnDA

y = 1.39881 x (r = 0.99920) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	36428.0	274.5	587155.422	True	5.00	0.062	5.82	1.000	0.200	0.222	11	30	
CAL2	91490.4	441.2	581206.992	True	5.00	0.157	5.82	1.000	0.600	0.563	-6	30	
CAL3	370693.6	883.5	592495.657	True	5.00	0.626	5.83	1.000	2.000	2.236	12	30	
CAL4	1281938.5	1471.5	546359.257	True	5.00	2.346	5.83	1.000	8.000	8.387	5	30	
CAL5	3163283.8	2050.7	539842.914	True	5.00	5.860	5.83	1.000	20.000	20.945	5	30	
CAL6	6885622.6	2756.7	474122.075	True	5.00	14.523	5.82	1.000	50.000	51.912	4	30	
CAL7	11254483.8	2696.8	416723.902	True	5.00	27.007	5.83	1.000	100.000	96.536	-3	30	

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

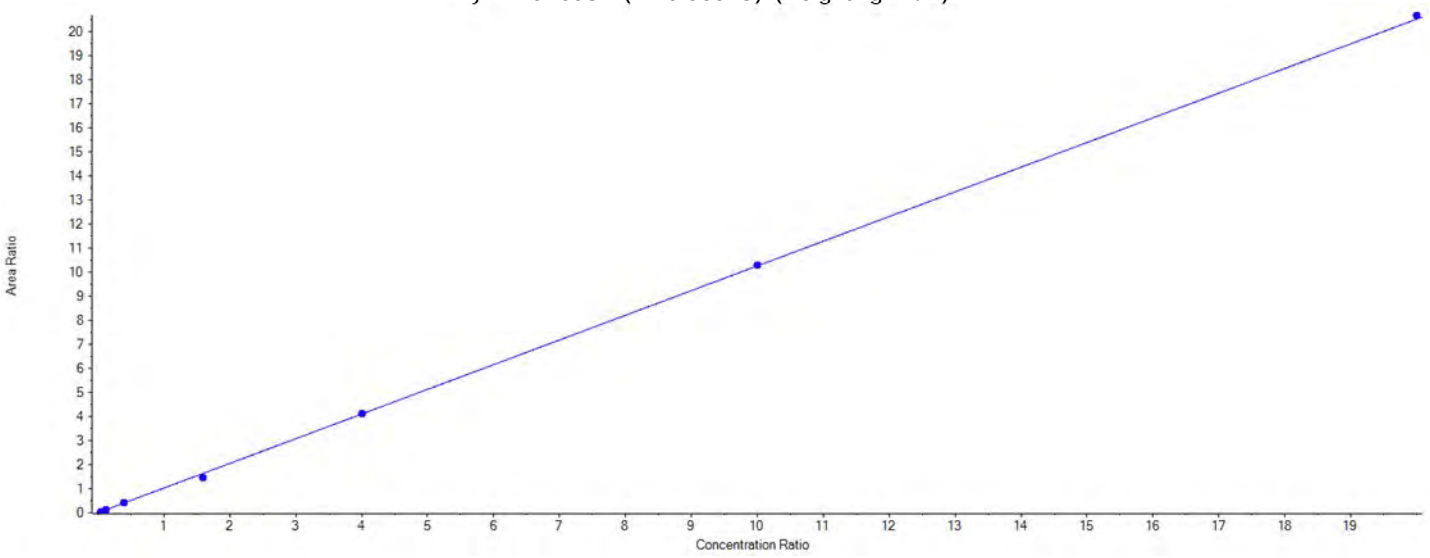
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtFOSAA

y = 1.02663 x (r = 0.99975) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5069.2	122.5	127543.478	True	5.00	0.040	5.85	1.000	0.200	0.194	-3	30	
CAL2	16643.3	670.6	144803.235	True	5.00	0.115	5.84	1.000	0.600	0.560	-7	30	
CAL3	52769.5	534.0	129810.704	True	5.00	0.407	5.84	1.000	2.000	1.980	-1	30	
CAL4	204048.6	1145.4	138500.791	True	5.00	1.473	5.84	1.000	8.000	7.175	-10	30	
CAL5	512792.4	1631.6	124785.046	True	5.00	4.109	5.85	1.000	20.000	20.014	0	30	
CAL6	1214766.4	1707.9	117934.241	True	5.00	10.300	5.84	1.000	50.000	50.166	0	30	
CAL7	2127663.4	1866.1	102891.604	True	5.00	20.679	5.85	1.000	100.000	100.712	1	30	

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

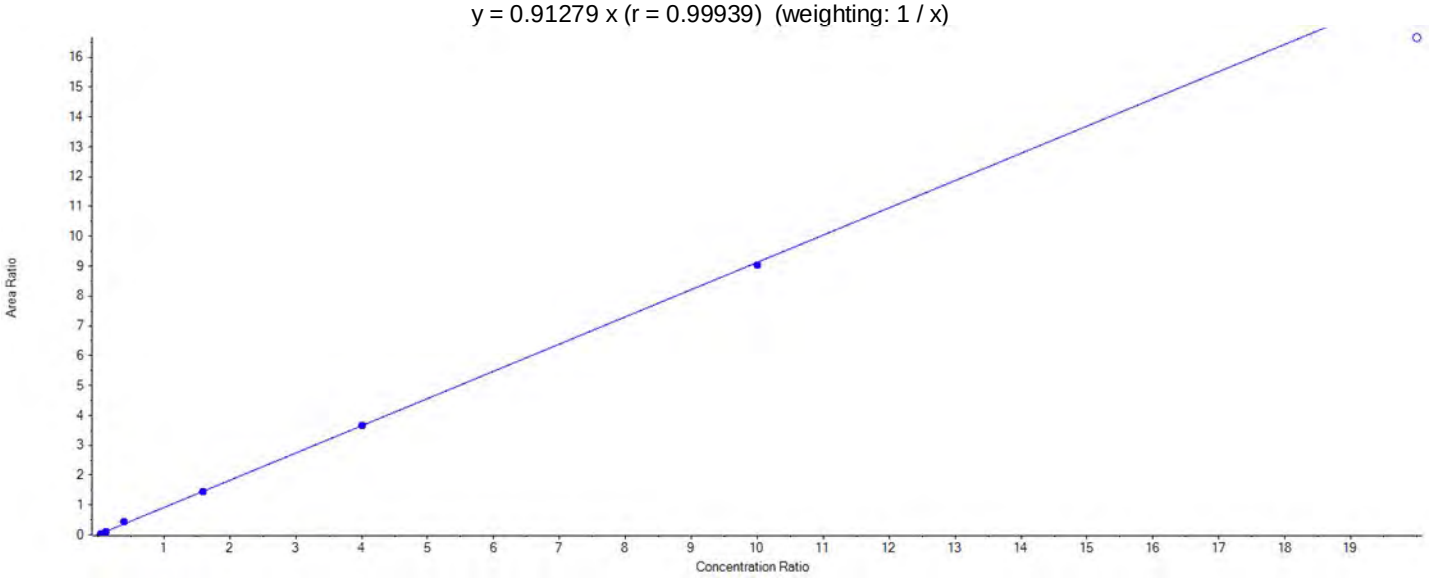
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDoDA

y = 0.91279 x (r = 0.99939) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	53386.6	440.3	1173339.125	True	5.00	0.045	6.06	1.000	0.200	0.249	25	30	
CAL2	122586.0	435.7	1140522.314	True	5.00	0.107	6.05	1.000	0.600	0.589	-2	30	
CAL3	486489.2	1014.9	1091194.874	True	5.00	0.446	6.06	1.000	2.000	2.442	22	30	
CAL4	1650301.1	2076.9	1150927.360	True	5.00	1.434	6.06	1.000	8.000	7.854	-2	30	
CAL5	4161895.9	2283.1	1133027.856	True	5.00	3.673	6.06	1.000	20.000	20.121	1	30	
CAL6	8865844.7	2437.0	980215.411	True	5.00	9.045	6.05	1.000	50.000	49.545	-1	30	
CAL7	14195839.1	2288.5	852235.609	False	5.00	16.657	6.06	1.000	100.000	91.243	-9	30	

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

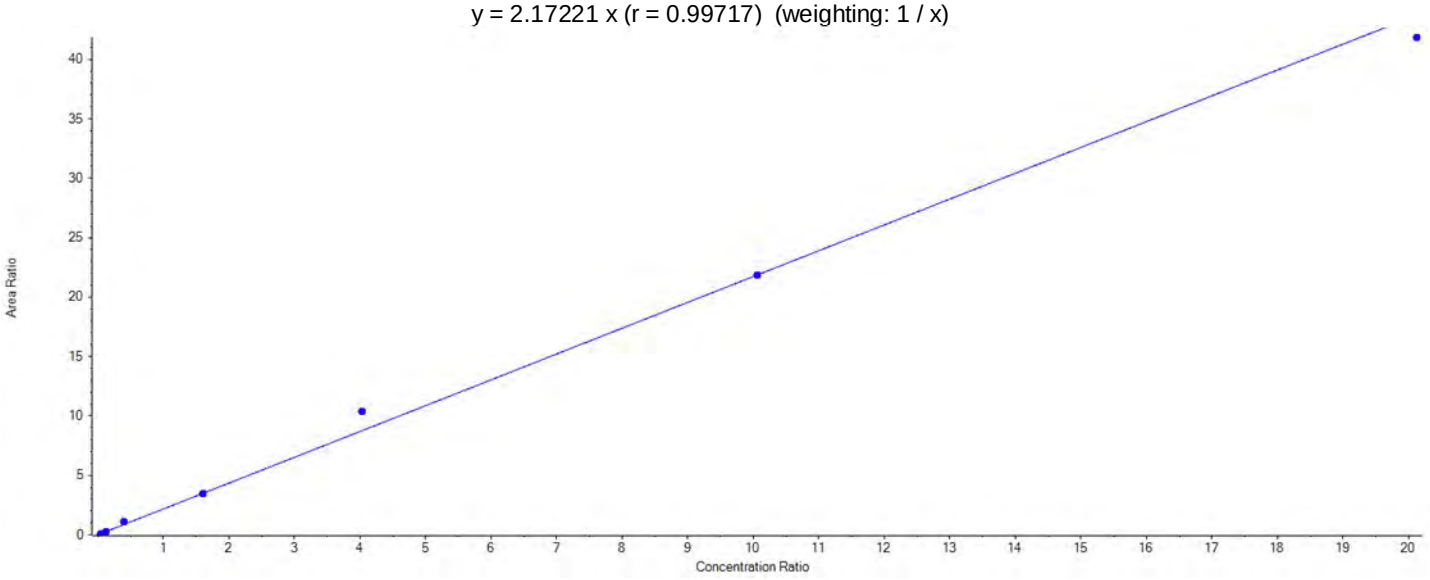
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

10:2-FTS

y = 2.17221 x (r = 0.99717) (weighting: 1 / x)



Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5717.7	1172.1	58895.024	True	4.79	0.097	6.07	1.090	0.193	0.214	11	30	
CAL2	15157.8	2880.5	54757.914	True	4.79	0.277	6.07	1.090	0.578	0.610	6	30	
CAL3	58508.2	2664.2	53847.149	True	4.79	1.087	6.07	1.090	1.930	2.396	24	30	
CAL4	184968.5	809.2	52961.880	True	4.79	3.492	6.08	1.090	7.710	7.701	0	30	
CAL5	480384.1	12789.5	46142.417	True	4.79	10.411	6.08	1.090	19.300	22.957	19	30	
CAL6	972346.8	3139.7	44487.495	True	4.79	21.857	6.07	1.090	48.200	48.197	0	30	
CAL7	1718827.3	2423.5	41093.046	True	4.79	41.828	6.08	1.090	96.400	92.235	-4	30	

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

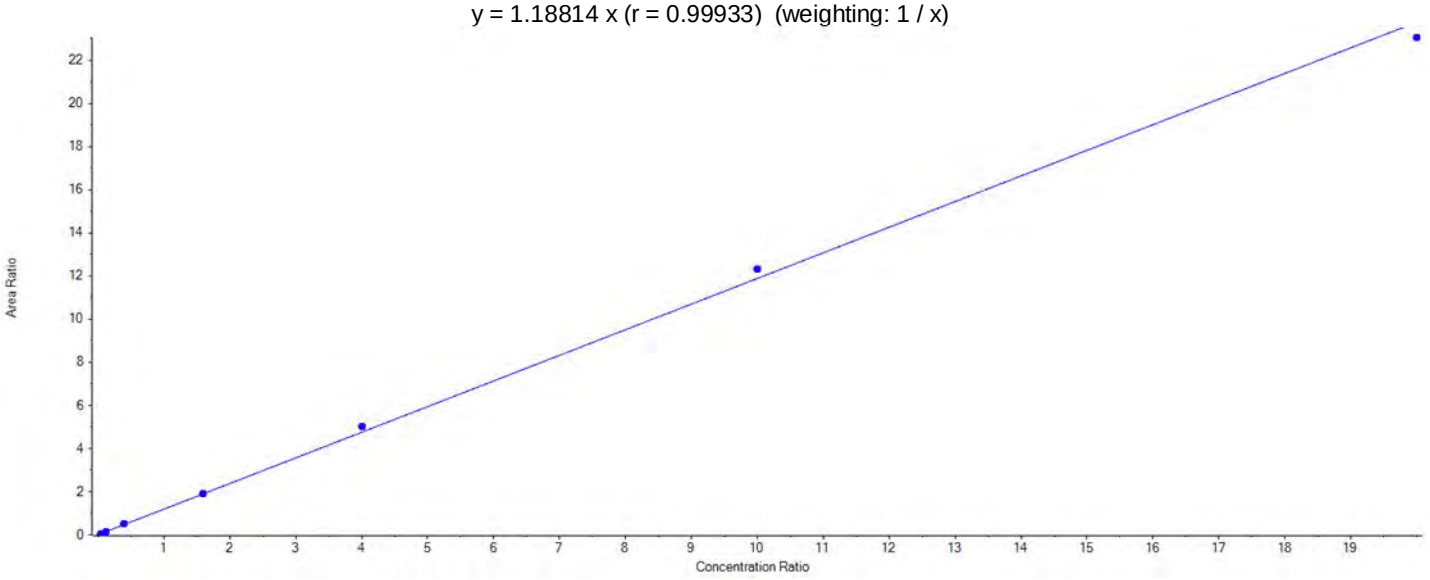
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSAE

y = 1.18814 x (r = 0.99933) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13889.2	162.0	281912.738	True	5.00	0.049	6.10	1.000	0.200	0.207	4	30	
CAL2	37932.7	340.7	272071.295	True	5.00	0.139	6.10	1.000	0.600	0.587	-2	30	
CAL3	136518.3	546.2	256577.302	True	5.00	0.532	6.11	1.000	2.000	2.239	12	30	
CAL4	498735.8	911.9	263412.818	True	5.00	1.893	6.11	1.000	8.000	7.968	0	30	
CAL5	1240182.1	1072.1	247663.757	True	5.00	5.008	6.11	1.000	20.000	21.073	5	30	
CAL6	3059430.5	1565.7	248871.057	True	5.00	12.293	6.10	1.000	50.000	51.733	3	30	
CAL7	5772837.2	1358.0	250467.595	True	5.00	23.048	6.11	1.000	100.000	96.993	-3	30	

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

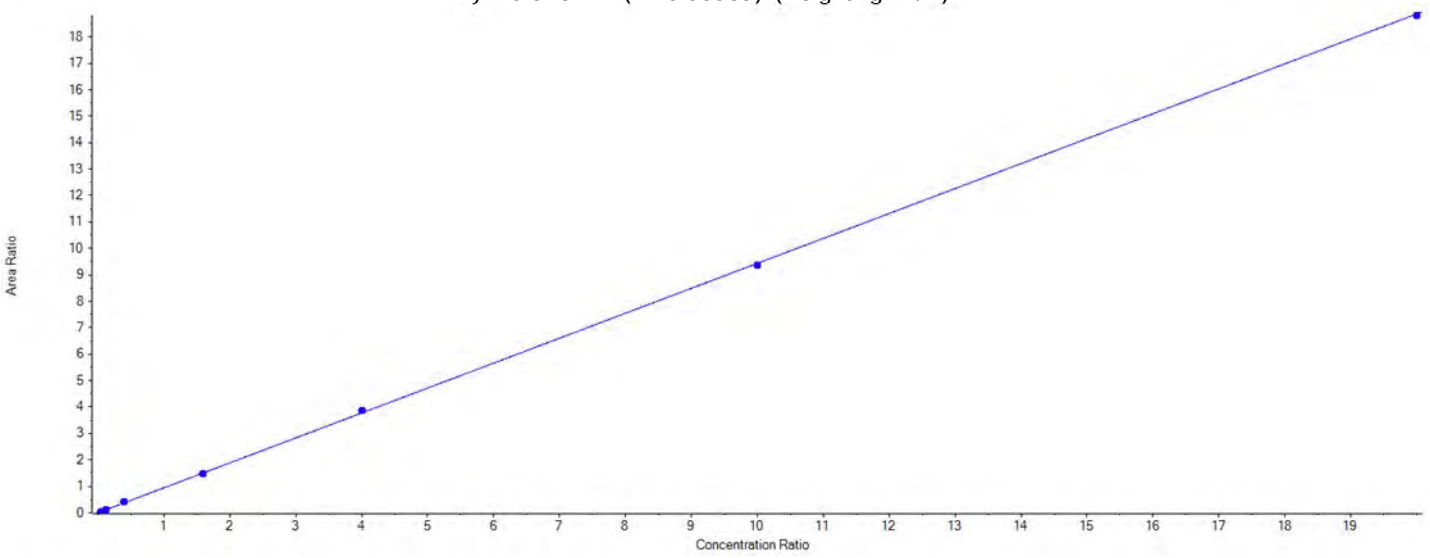
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSA

y = 0.94317 x (r = 0.99989) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3274.2	928.4	85677.959	True	5.00	0.038	6.11	1.000	0.200	0.203	1	30	
CAL2	9381.3	543.9	86471.674	True	5.00	0.108	6.11	1.000	0.600	0.575	-4	30	
CAL3	33009.7	588.1	80294.101	True	5.00	0.411	6.11	1.000	2.000	2.179	9	30	
CAL4	124582.5	1113.8	83886.643	True	5.00	1.485	6.11	1.000	8.000	7.873	-2	30	
CAL5	322671.1	1106.7	83129.042	True	5.00	3.882	6.12	1.000	20.000	20.577	3	30	
CAL6	768521.6	1393.3	81949.264	True	5.00	9.378	6.11	1.000	50.000	49.716	-1	30	
CAL7	1500056.2	1711.5	79780.244	True	5.00	18.802	6.11	1.000	100.000	99.677	0	30	

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

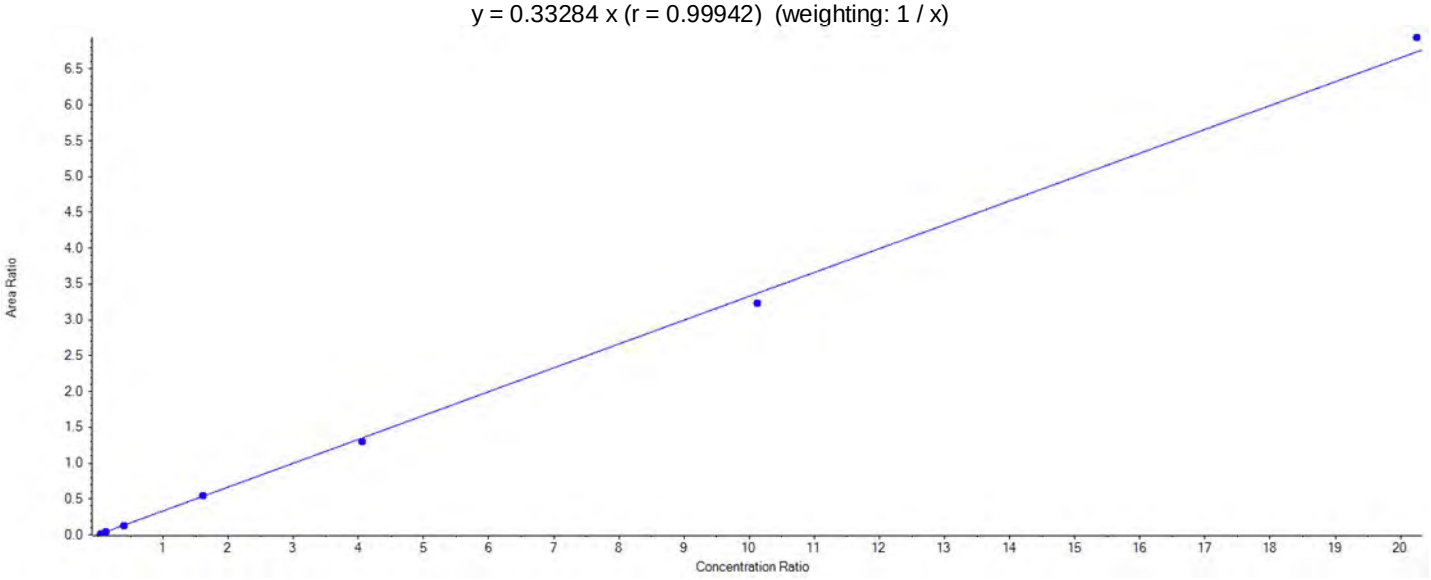
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFDoS

y = 0.33284 x (r = 0.99942) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	4012.1	80345.8	318525.429	True	4.78	0.013	6.23	1.190	0.194	0.181	-7	30	
CAL2	11606.3	870710.1	313894.271	True	4.78	0.037	6.22	1.190	0.581	0.531	-9	30	
CAL3	40838.1	5802.7	309913.737	True	4.78	0.132	6.23	1.180	1.940	1.892	-2	30	
CAL4	159682.3	51383.7	296147.525	True	4.78	0.539	6.23	1.190	7.740	7.744	0	30	
CAL5	390444.7	2445.2	299574.476	True	4.78	1.303	6.23	1.190	19.400	18.718	-4	30	
CAL6	900508.4	3292.0	279204.362	True	4.78	3.225	6.22	1.190	48.400	46.320	-4	30	
CAL7	1735049.5	2191.9	250004.233	True	4.78	6.940	6.22	1.190	96.800	99.670	3	30	

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

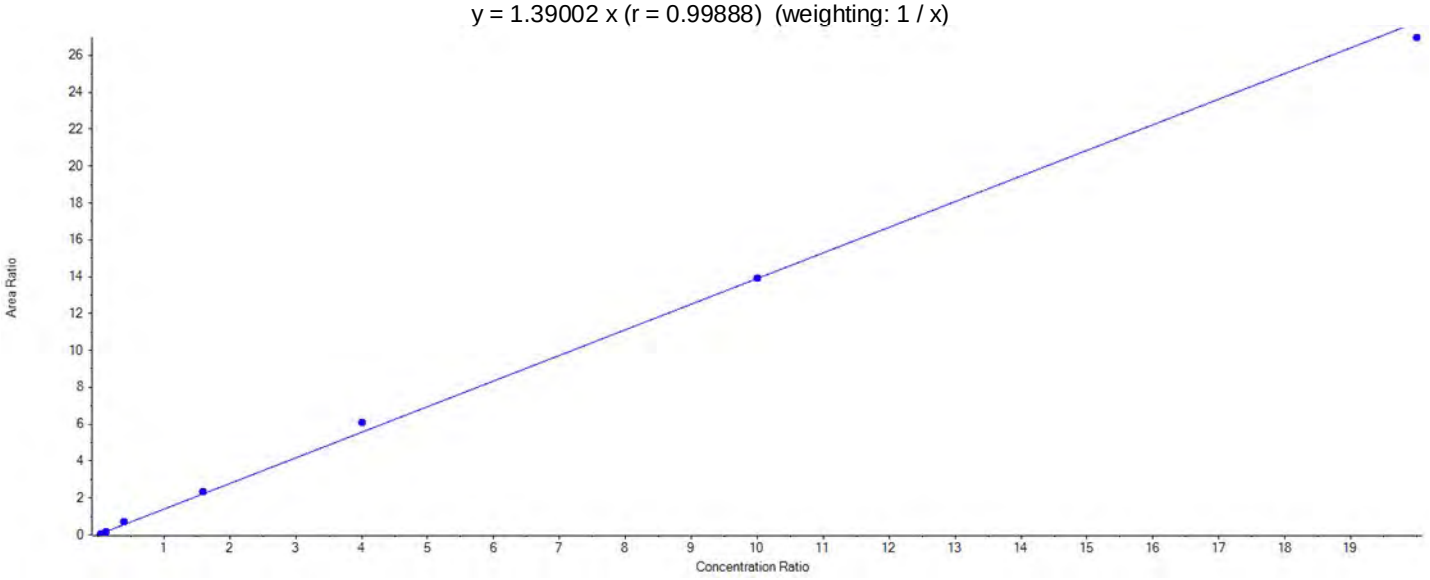
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSAE

y = 1.39002 x (r = 0.99888) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	15402.7	148.0	226256.026	True	5.00	0.068	6.26	1.000	0.200	0.245	22	30	
CAL2	37977.7	267.1	229050.658	True	5.00	0.166	6.26	1.000	0.600	0.596	-1	30	
CAL3	152952.1	535.6	216571.501	True	5.00	0.706	6.26	1.000	2.000	2.540	27	30	
CAL4	516882.1	779.8	218635.780	True	5.00	2.364	6.26	1.000	8.000	8.504	6	30	
CAL5	1338584.5	1109.4	220689.862	True	5.00	6.065	6.27	1.000	20.000	21.818	9	30	
CAL6	3104174.6	1257.6	222924.109	True	5.00	13.925	6.26	1.000	50.000	50.088	0	30	
CAL7	5826370.7	1137.3	216042.000	True	5.00	26.969	6.26	1.000	100.000	97.008	-3	30	

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

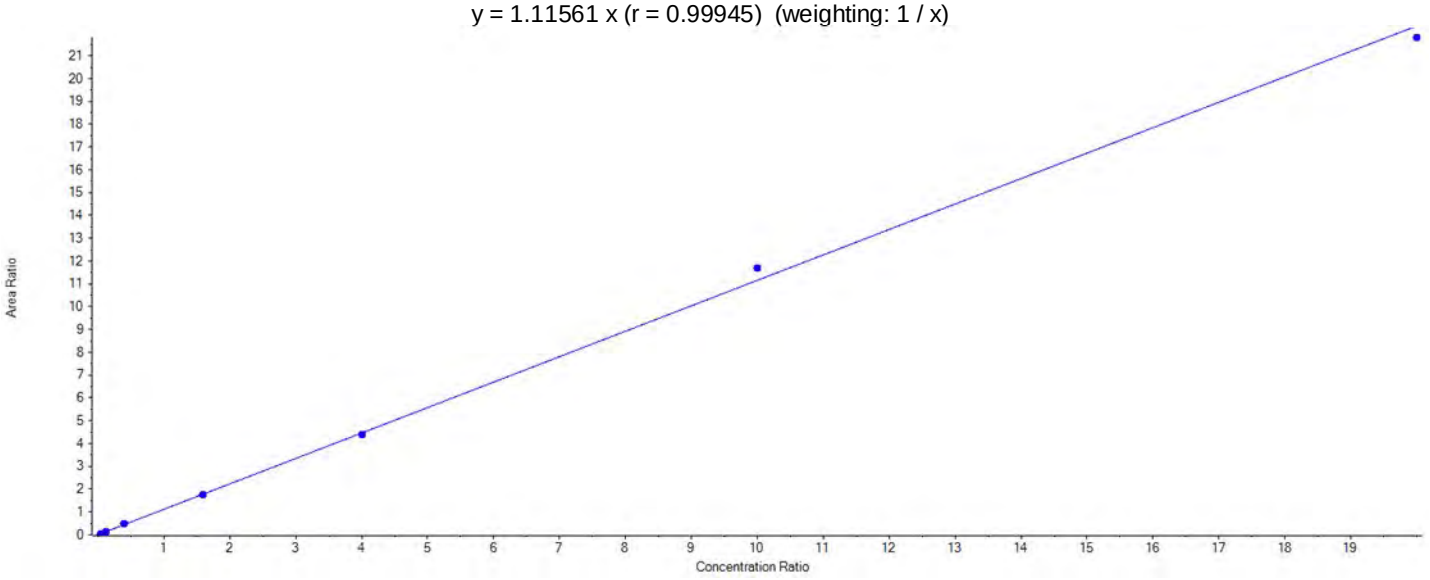
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSA

y = 1.11561 x (r = 0.99945) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3384.4	107.2	70050.412	True	5.00	0.048	6.27	1.000	0.200	0.217	8	30	
CAL2	7883.3	201.2	66646.838	True	5.00	0.118	6.27	1.000	0.600	0.530	-12	30	
CAL3	30595.3	507.0	64623.659	True	5.00	0.473	6.27	1.000	2.000	2.122	6	30	
CAL4	119152.1	624.5	66966.371	True	5.00	1.779	6.28	1.000	8.000	7.975	0	30	
CAL5	293215.8	1053.2	66384.647	True	5.00	4.417	6.28	1.000	20.000	19.796	-1	30	
CAL6	698744.6	1184.9	59705.755	True	5.00	11.703	6.27	1.000	50.000	52.452	5	30	
CAL7	1290814.8	1076.0	59209.120	True	5.00	21.801	6.27	1.000	100.000	97.709	-2	30	

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

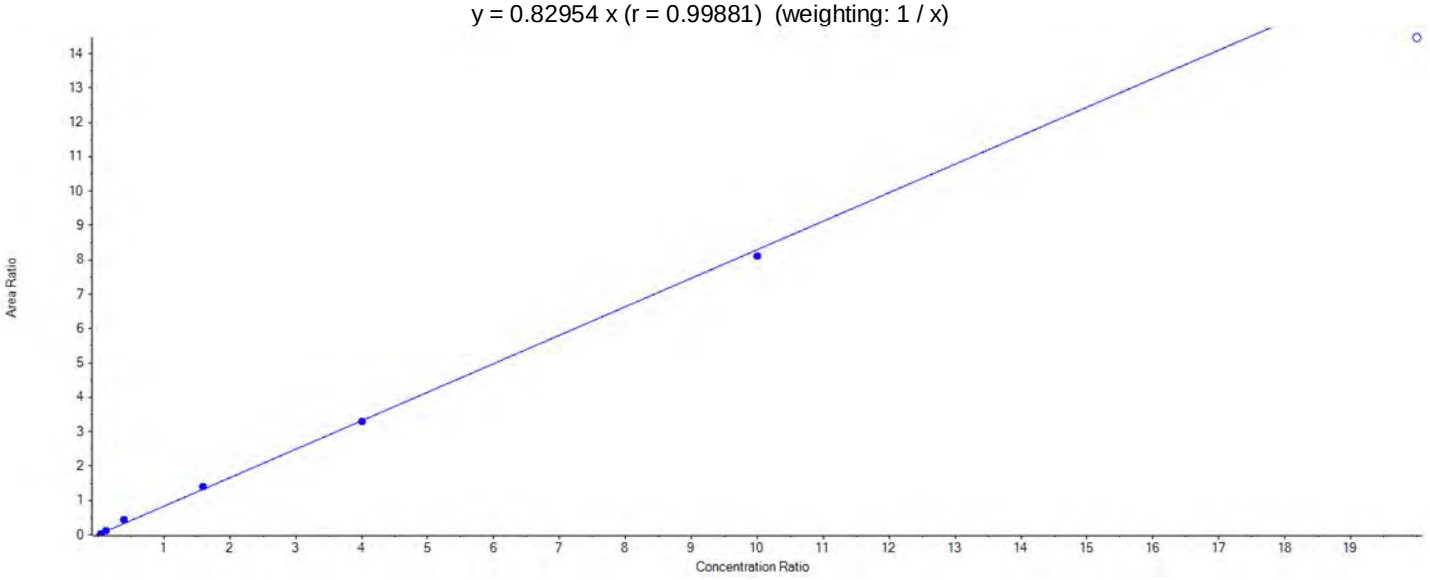
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTrDA

y = 0.82954 x (r = 0.99881) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTrDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	48537.6	415.6	1173339.125	True	5.00	0.041	6.26	1.030	0.200	0.249	25	30	
CAL2	117562.3	613.3	1140522.314	True	5.00	0.103	6.25	1.030	0.600	0.621	4	30	
CAL3	466266.9	1132.7	1091194.874	True	5.00	0.427	6.26	1.030	2.000	2.576	29	30	
CAL4	1622977.7	2016.4	1150927.360	True	5.00	1.410	6.26	1.030	8.000	8.500	6	30	
CAL5	3743763.6	1689.2	1133027.856	True	5.00	3.304	6.26	1.030	20.000	19.916	0	30	
CAL6	7958673.4	2584.3	980215.411	True	5.00	8.119	6.25	1.030	50.000	48.938	-2	30	
CAL7	12329126.1	2217.5	852235.609	False	5.00	14.467	6.26	1.030	100.000	87.197	-13	30	

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

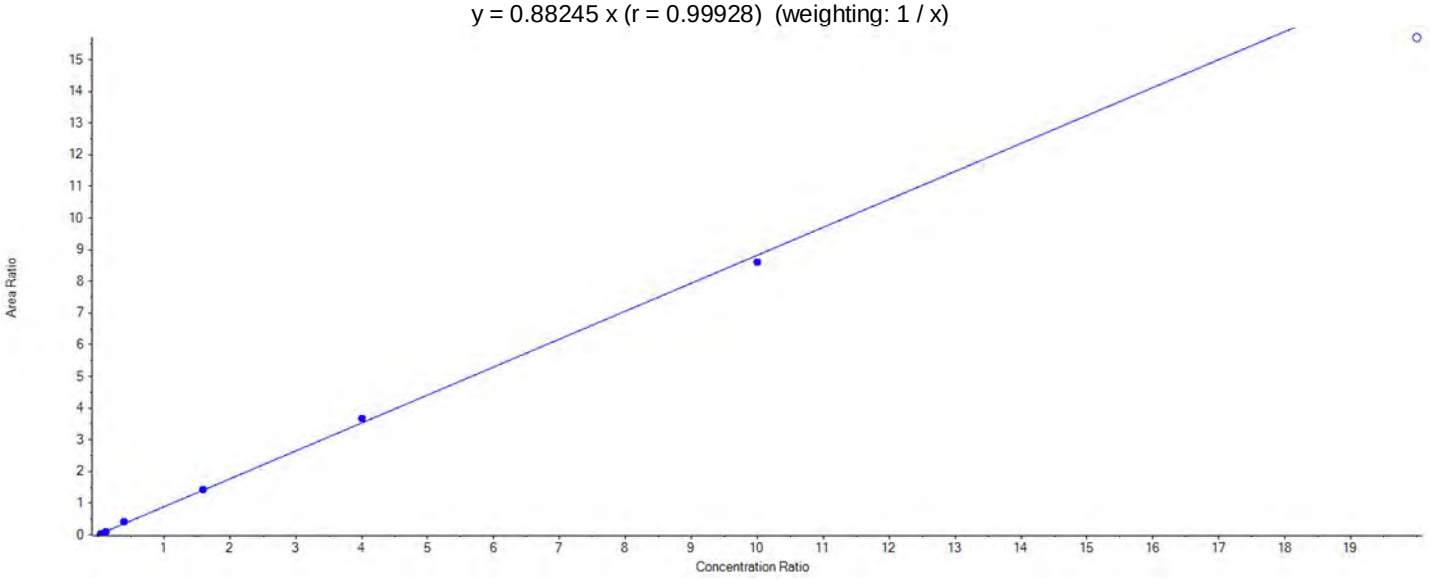
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTeDA

y = 0.88245 x (r = 0.99928) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTeDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	34099.2	261.8	873945.602	True	5.00	0.039	6.43	1.000	0.200	0.221	11	30	
CAL2	88360.3	524.6	858145.146	True	5.00	0.103	6.43	1.000	0.600	0.583	-3	30	
CAL3	342239.8	919.9	841931.091	True	5.00	0.406	6.43	1.000	2.000	2.303	15	30	
CAL4	1172052.0	1455.1	826669.980	True	5.00	1.418	6.43	1.000	8.000	8.033	0	30	
CAL5	2897106.2	1865.2	786107.475	True	5.00	3.685	6.44	1.000	20.000	20.882	4	30	
CAL6	6793735.3	2537.2	789168.429	True	5.00	8.609	6.43	1.000	50.000	48.777	-2	30	
CAL7	11258874.1	2188.3	717297.714	False	5.00	15.696	6.43	1.000	100.000	88.936	-11	30	

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

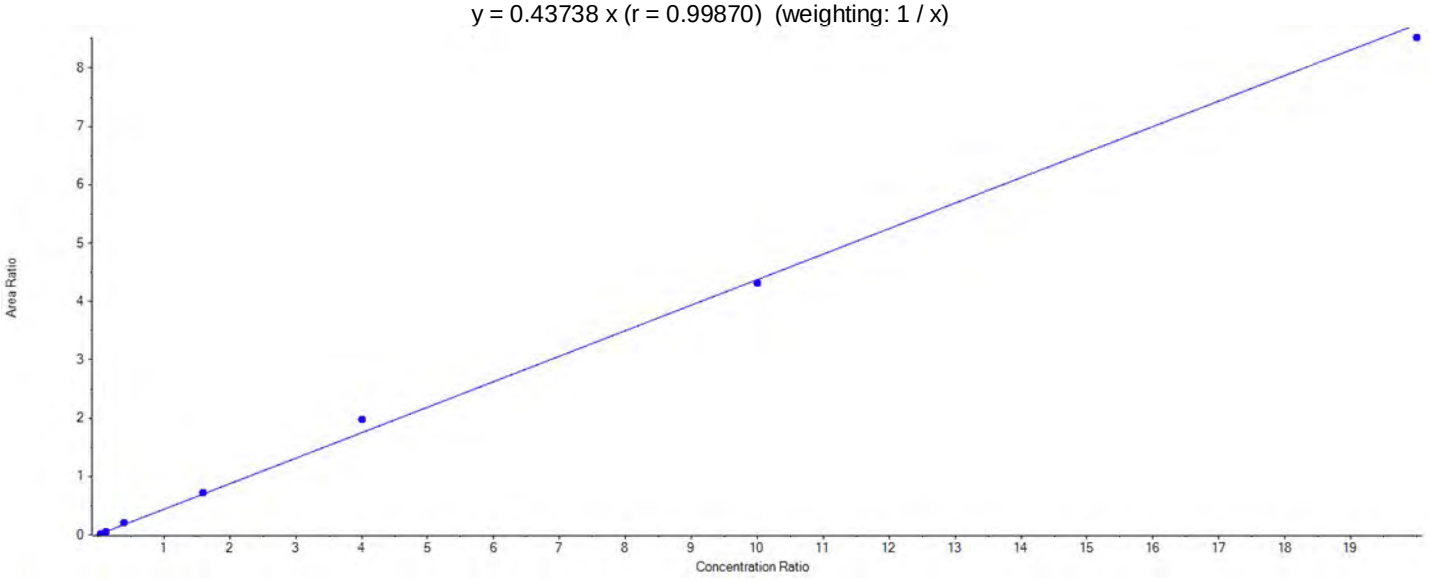
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFHxDA

y = 0.43738 x (r = 0.99870) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	19206.4	679.6	873945.602	True	5.00	0.022	6.74	1.050	0.200	0.251	26	30	
CAL2	44164.6	964.5	858145.146	True	5.00	0.051	6.73	1.050	0.600	0.588	-2	30	
CAL3	173721.0	2652.8	841931.091	True	5.00	0.206	6.74	1.050	2.000	2.359	18	30	
CAL4	601723.8	3198.2	826669.980	True	5.00	0.728	6.74	1.050	8.000	8.321	4	30	
CAL5	1551331.1	2619.4	786107.475	True	5.00	1.973	6.74	1.050	20.000	22.560	13	30	
CAL6	3402004.4	2973.0	789168.429	True	5.00	4.311	6.73	1.050	50.000	49.281	-1	30	
CAL7	6113985.1	2964.4	717297.714	True	5.00	8.524	6.73	1.050	100.000	97.440	-3	30	

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

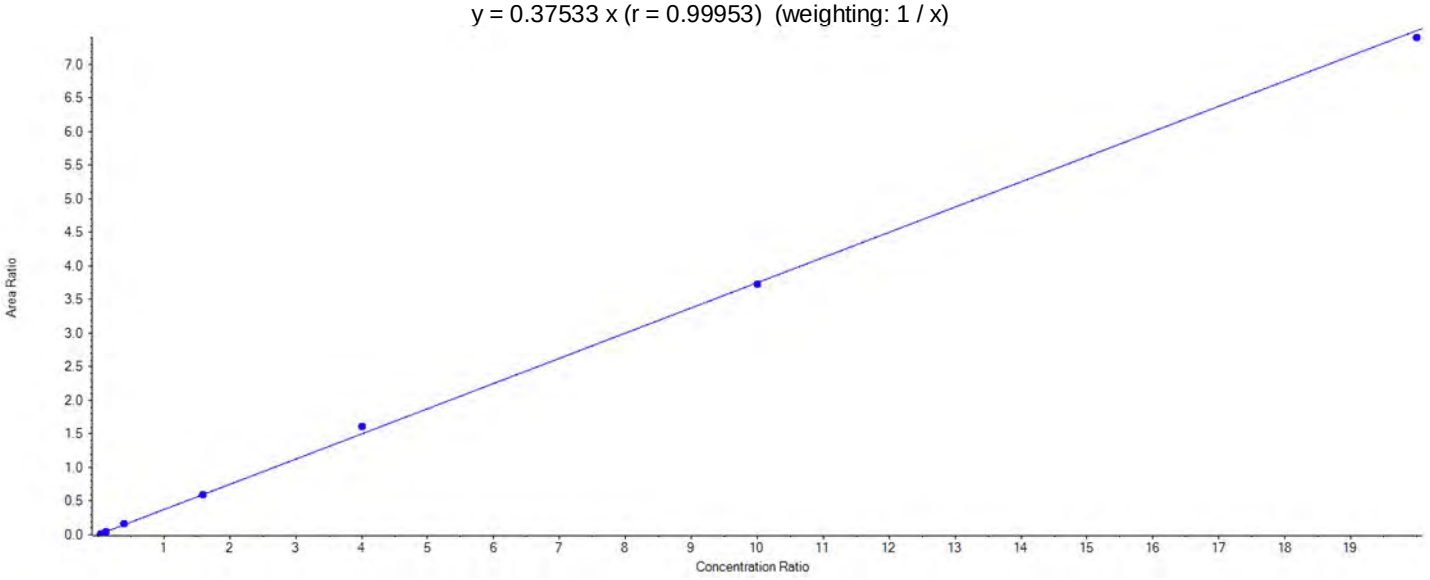
REVIEWED
By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFODA

y = 0.37533 x (r = 0.99953) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFODA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	14378.0	1085.0	873945.602	True	5.00	0.016	7.00	1.090	0.200	0.219	10	30	
CAL2	36421.5	1561.1	858145.146	True	5.00	0.042	6.99	1.090	0.600	0.565	-6	30	
CAL3	139071.5	2402.7	841931.091	True	5.00	0.165	7.00	1.090	2.000	2.201	10	30	
CAL4	494210.7	3411.6	826669.980	True	5.00	0.598	7.00	1.090	8.000	7.964	0	30	
CAL5	1272897.4	4522.2	786107.475	True	5.00	1.619	7.00	1.090	20.000	21.571	8	30	
CAL6	2942000.1	3495.7	789168.429	True	5.00	3.728	6.99	1.090	50.000	49.663	-1	30	
CAL7	5309889.9	3965.5	717297.714	True	5.00	7.403	7.00	1.090	100.000	98.616	-1	30	

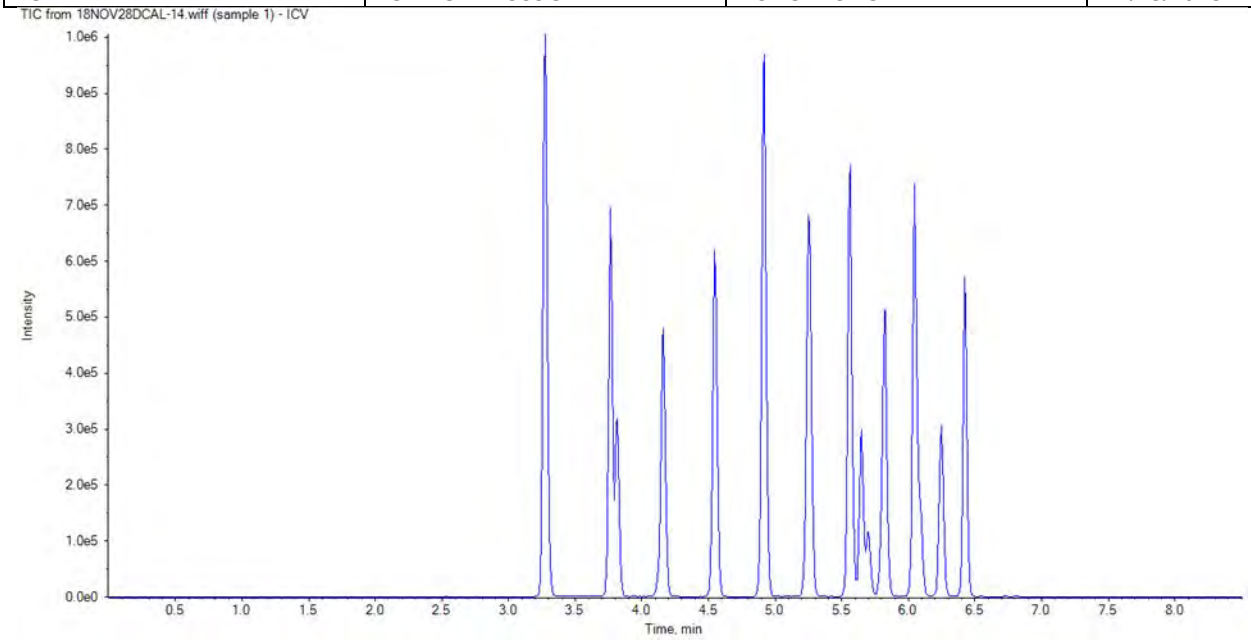
APPROVED
By MCD at 3:40 pm, 1/10/19

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

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV28DCAL-14.wiff	11/28/2018 2:54:22 PM



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	909586.4	887248.9	2.5	50	
13C2-PFOA	5.000	531347.1	498501.6	6.6	50	
13C4-PFOS	4.780	296756.3	283214.2	4.8	50	
13C2-PFDA	5.000	468972.3	441790.6	6.2	50	

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

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

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV28DCAL-14.wiff	11/28/2018 2:54:22 PM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	387187.0	13C4-PFBA	992615.758	5.00	0.390	3.27	1.00	2.000	2.138	7	30	
PFPeA	377961.6	13C5-PFPeA	975580.855	5.00	0.387	3.77	1.00	2.000	1.901	-5	30	
PFBS	159425.0	13C3-PFBS	446010.999	4.65	0.357	3.81	1.00	1.769	1.735	-2	30	
4:2-FTS	N/A	13C2-4:2-FTS	68184.320	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	369137.1	13C5-PFHxA	699371.272	5.00	0.528	4.16	1.00	2.000	2.119	6	30	
PFPeS	N/A	13C3-PFBS	446010.999	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHpA	373590.8	13C4-PFHpA	556403.086	5.00	0.671	4.55	1.00	2.000	2.072	4	30	
PFHxS	125085.3	13C3-PFHxS	317108.955	4.73	0.394	4.55	1.00	1.890	1.847	-2	30	
6:2-FTS	N/A	13C2-6:2-FTS	63350.515	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	131043.1	13C3-PFHxS	317108.955	4.73	0.413	4.91	1.08	1.900	2.062	9	30	
PFOA	404358.9	13C8-PFOA	1001731.379	5.00	0.404	4.92	1.00	2.000	2.086	4	30	
PFOS	122334.6	13C8-PFOS	316117.130	4.78	0.387	5.25	1.00	1.910	1.623	-15	30	
PFNA	351872.0	13C9-PFNA	647064.116	5.00	0.544	5.26	1.00	2.000	2.084	4	30	
PFNS	N/A	13C8-PFOS	316117.130	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	325191.9	13C6-PFDA	857032.881	5.00	0.379	5.56	1.00	2.000	2.148	7	30	
8:2-FTS	N/A	13C2-8:2-FTS	51912.864	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	637370.645	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	74168.8	d3-NMeFOSAA	183040.018	5.00	0.405	5.70	1.00	2.000	2.585	29	30	
PFDS	72374.3	13C8-PFOS	316117.130	4.78	0.229	5.79	1.10	1.930	1.815	-6	30	
PFUnDA	354099.8	13C7-PFUnDA	559327.431	5.00	0.633	5.82	1.00	2.000	2.263	13	30	
NEtFOSAA	57367.9	d5-NEtFOSAA	140839.958	5.00	0.407	5.83	1.00	2.000	1.984	-1	30	
PFDoDA	427818.9	13C2-PFDoDA	1134142.098	5.00	0.377	6.05	1.00	2.000	2.066	3	30	
10:2-FTS	N/A	13C2-8:2-FTS	51912.864	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	262732.239	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	81059.543	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDoS	N/A	13C8-PFOS	316117.130	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	227167.682	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	67297.847	5.00	N/A	N/A	N/A	0.000	N/A		30	

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

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

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18NOV28DCAL **QMethod Name:** 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM **Acquisition Method:** 18AUG13_3uL.dam

PFTrDA	416758.4	13C2-PFDoDA	1134142.098	5.00	0.367	6.25	1.03	2.000	2.215	11	30	
PFTeDA	312632.1	13C2-PFTeDA	820071.667	5.00	0.381	6.42	1.00	2.000	2.160	8	30	
PFHxDA	N/A	13C2-PFTeDA	820071.667	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	820071.667	5.00	N/A	N/A	N/A	0.000	N/A		30	

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

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

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL1			**Data File:**		18NOV28DCAL-06.wiff
Sample ID:	CALBRN11833C			**Acquis Date:**		2018-11-28T13:42:10
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	3			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	907350.5	887248.9	2	50	
13C2-PFOA	5.0	521822.9	498501.6	5	50	
13C4-PFOS	4.8	296225.2	283214.2	5	50	
13C2-PFDA	5.0	476146.6	441790.6	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1018752.8	13C3-PFBA	907350.5	1.123	5.000	5.009	100	70-130	
E13C5-PFPeA	975339.1	13C3-PFBA	907350.5	1.075	5.000	5.019	100	70-130	
E13C3-PFBS	437838.9	13C3-PFBA	907350.5	0.483	4.650	4.604	99	70-130	
E13C2-4:2-FTS	75119.1	13C2-PFOA	521822.9	0.144	4.670	4.961	106	70-130	
E13C5-PFHxA	728340.5	13C2-PFOA	521822.9	1.396	5.000	5.127	103	70-130	
E13C3-PFHxS	331982.9	13C2-PFOA	521822.9	0.636	4.730	4.986	105	70-130	
E13C4-PFHpA	547365.1	13C2-PFOA	521822.9	1.049	5.000	4.820	96	70-130	
E13C2-6:2-FTS	65543.8	13C2-PFOA	521822.9	0.126	4.750	5.258	111	70-130	
E13C8-PFOA	1030597.9	13C2-PFOA	521822.9	1.975	5.000	5.436	109	70-130	
E13C8-PFOS	318525.4	13C4-PFOS	296225.2	1.075	4.780	4.854	102	70-130	
E13C9-PFNA	659714.7	13C4-PFOS	296225.2	2.227	5.000	4.892	98	70-130	
E13C6-PFDA	855362.9	13C2-PFDA	476146.6	1.796	5.000	5.065	101	70-130	
E13C2-8:2-FTS	58895.0	13C2-PFDA	476146.6	0.124	4.790	5.316	111	70-130	
E13C8-PFOSA	662264.8	13C2-PFDA	476146.6	1.391	5.000	5.104	102	70-130	
Ed3-NMeFOSAA	220597.3	13C2-PFDA	476146.6	0.463	5.000	5.882	118	70-130	
E13C7-PFUnDA	587155.4	13C2-PFDA	476146.6	1.233	5.000	5.212	104	70-130	
Ed5-NEtFOSAA	127543.5	13C2-PFDA	476146.6	0.268	5.000	4.772	95	70-130	
E13C2-PFDoDA	1173339.1	13C2-PFDA	476146.6	2.464	5.000	5.178	104	70-130	
Ed7-NMePFOSAE	281912.7	13C2-PFDA	476146.6	0.592	5.000	5.117	102	70-130	
Ed3-NMePFOSA	85678.0	13C2-PFDA	476146.6	0.180	5.000	4.870	97	70-130	
Ed9-NEtPFOSAE	226256.0	13C2-PFDA	476146.6	0.475	5.000	4.818	96	70-130	
Ed5-NEtPFOSA	70050.4	13C2-PFDA	476146.6	0.147	5.000	5.112	102	70-130	
E13C2-PFTeDA	873945.6	13C2-PFDA	476146.6	1.835	5.000	5.079	102	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:21 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

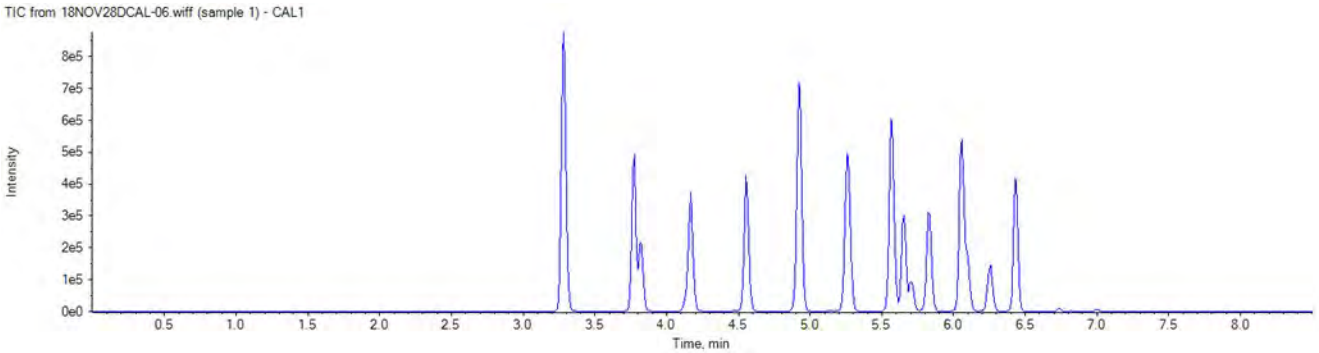
Analyte Quantitation Peak Table

Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	43996.2		A	13C4-PFBA	3.28	1018752.8	0.043	0.237
PFPeA	3.77	1.000	44706.1		A	13C5-PFPeA	3.77	975339.1	0.046	0.225
PFBS	3.82	1.000	17465.3		A	13C3-PFBS	3.82	437838.9	0.040	0.194
4:2-FTS	4.13	1.000	5603.9		A	13C2-4:2-FTS	4.13	75119.1	0.075	0.200
PFHxA	4.17	1.000	42281.8		A	13C5-PFHxA	4.17	728340.5	0.058	0.233
PFPeS	4.19	1.100	8956.0		A	13C3-PFBS	3.82	437838.9	0.020	0.207
PFHpA	4.56	1.000	42530.6		A	13C4-PFHpA	4.55	547365.1	0.078	0.240
PFHxS	4.56	1.000	12830.8		M	13C3-PFHxS	4.56	331982.9	0.039	0.181
6:2-FTS	4.91	1.000	5676.8		A	13C2-6:2-FTS	4.91	65543.8	0.087	0.226
PFHpS	4.92	1.080	13921.8		A	13C3-PFHxS	4.56	331982.9	0.042	0.209
PFOA	4.93	1.000	42517.4		A	13C8-PFOA	4.92	1030597.9	0.041	0.213
PFOS	5.25	1.000	13060.0		M	13C8-PFOS	5.25	318525.4	0.041	0.172
PFNA	5.27	1.000	39485.1		A	13C9-PFNA	5.27	659714.7	0.060	0.229
PFNS	5.55	1.060	9756.6		A	13C8-PFOS	5.25	318525.4	0.031	0.193
PFDA	5.57	1.000	33621.2		A	13C6-PFDA	5.57	855362.9	0.039	0.222
8:2-FTS	5.57	1.000	6138.7		A	13C2-8:2-FTS	5.57	58895.0	0.104	0.197
PFOSA	5.65	1.000	27693.0		A	13C8-PFOSA	5.65	662264.8	0.042	0.212
NMeFOSAA	5.71	1.000	6661.0		M	d3-NMeFOSAA	5.71	220597.3	0.030	0.193
PFDS	5.81	1.110	6850.7		A	13C8-PFOS	5.25	318525.4	0.022	0.171
PFUnDA	5.82	1.000	36428.0		A	13C7-PFUnDA	5.83	587155.4	0.062	0.222
NEtFOSAA	5.85	1.000	5069.2		M	d5-NEtFOSAA	5.84	127543.5	0.040	0.194
PFDoDA	6.06	1.000	53386.6		A	13C2-PFDoDA	6.06	1173339.1	0.045	0.249
10:2-FTS	6.07	1.090	5717.7		A	13C2-8:2-FTS	5.57	58895.0	0.097	0.214
NMePFOSAE	6.10	1.000	13889.2		A	d7-NMePFOSAE	6.09	281912.7	0.049	0.207
NMePFOSA	6.11	1.000	3274.2		A	d3-NMePFOSA	6.11	85678.0	0.038	0.203
PFDoS	6.23	1.190	4012.1		A	13C8-PFOS	5.25	318525.4	0.013	0.181
NEtPFOSAE	6.26	1.000	15402.7		A	d9-NEtPFOSAE	6.25	226256.0	0.068	0.245
NEtPFOSA	6.27	1.000	3384.4		A	d5-NEtPFOSA	6.27	70050.4	0.048	0.217
PFTrDA	6.26	1.030	48537.6		A	13C2-PFDoDA	6.06	1173339.1	0.041	0.249
PFTeDA	6.43	1.000	34099.2		A	13C2-PFTeDA	6.43	873945.6	0.039	0.221
PFHxDA	6.74	1.050	19206.4		A	13C2-PFTeDA	6.43	873945.6	0.022	0.251
PFODA	7.00	1.090	14378.0		A	13C2-PFTeDA	6.43	873945.6	0.016	0.219

Total Ion Chromatogram

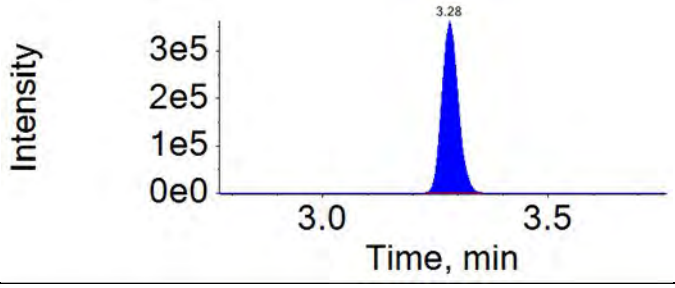


APPROVED
By MCD at 5:00 pm, 11/28/18

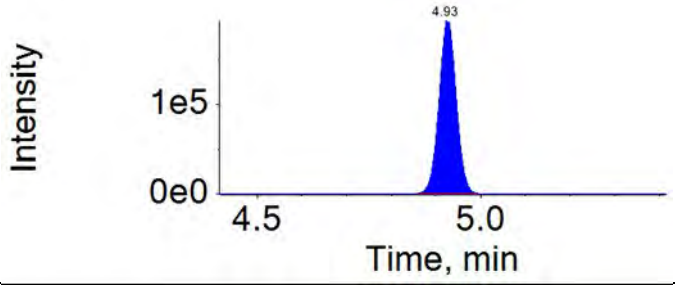
REVIEWED
By HMK at 12:21 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

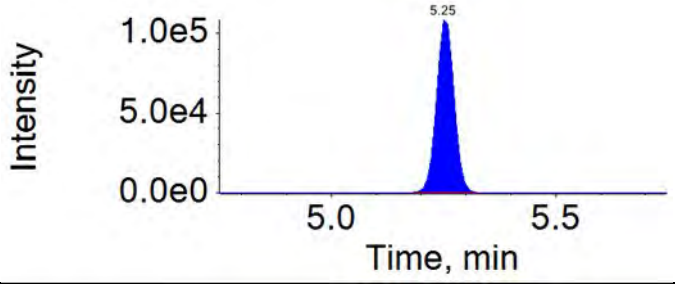
Injection Standard: 13C3-PFBA
216.0 / 172.0



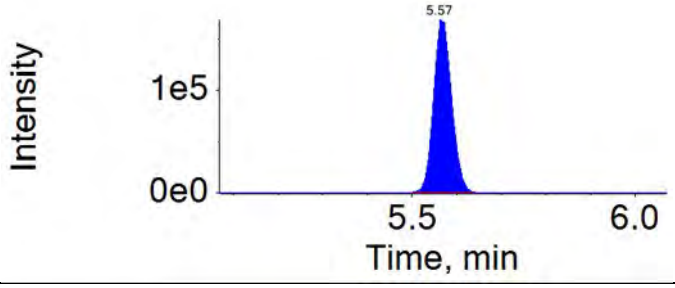
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

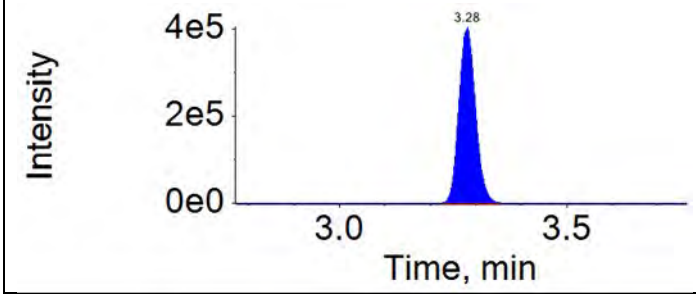


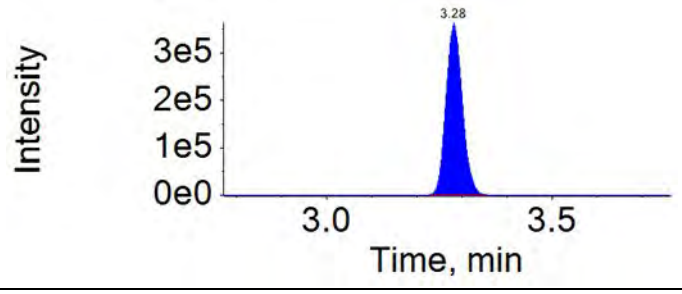
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:21 pm, 11/29/18

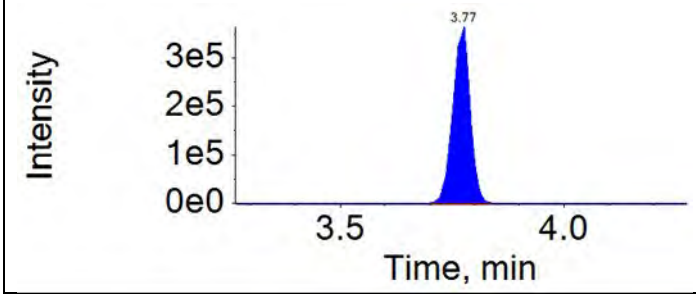
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

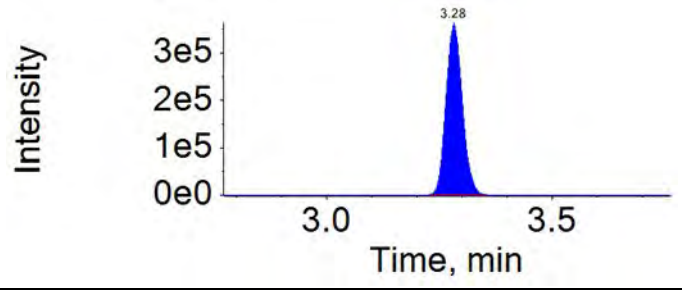
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



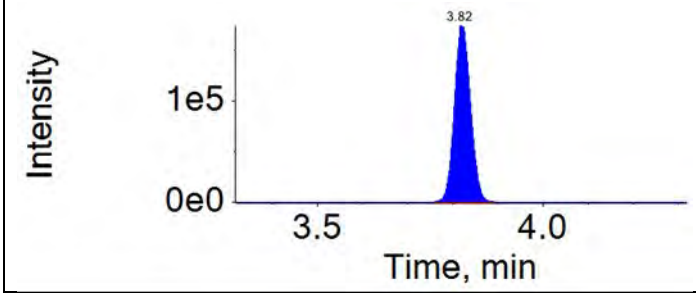


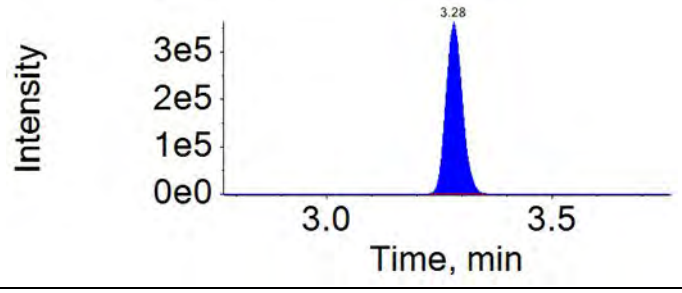
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



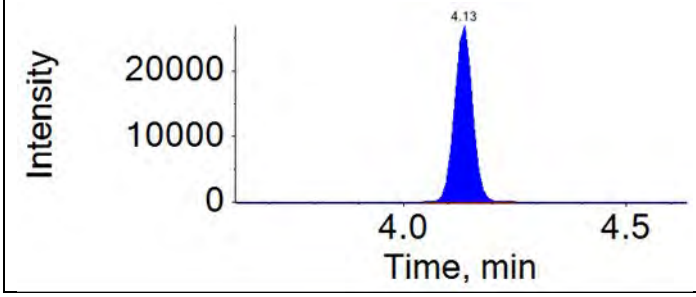


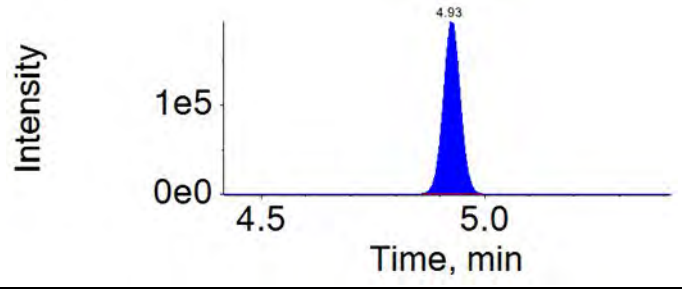
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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



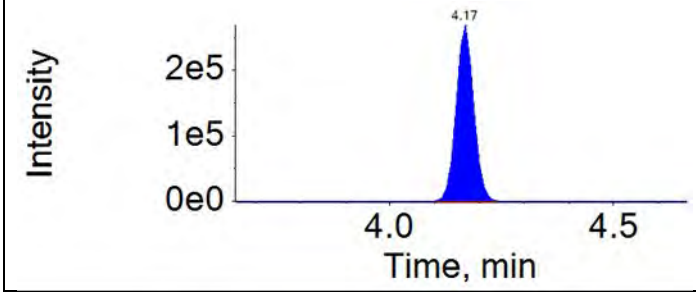


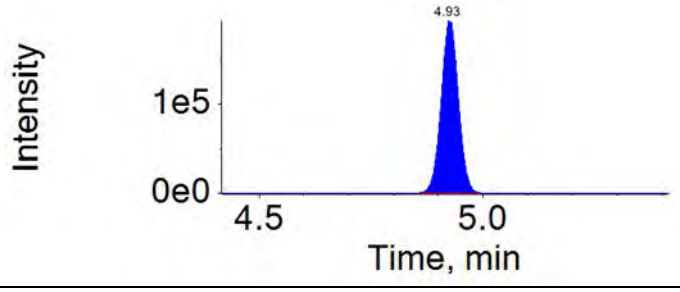
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:21 pm, 11/29/18

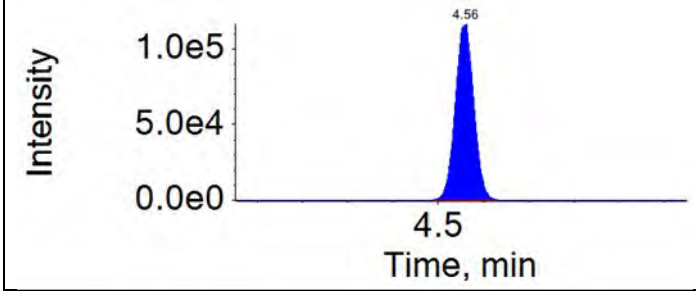
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

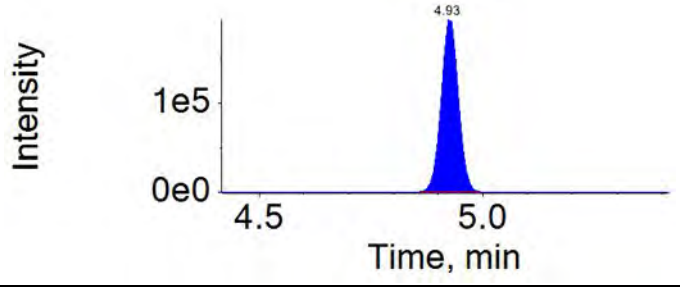
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



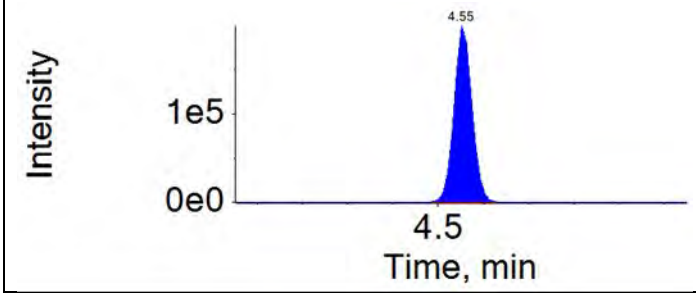


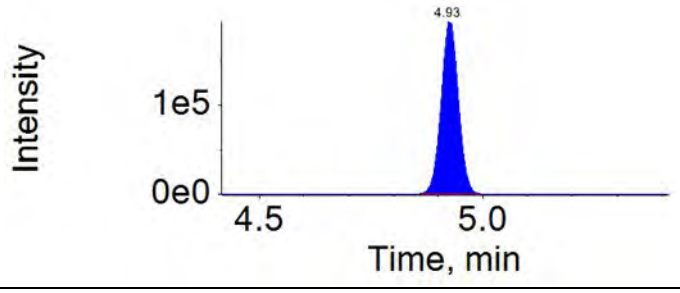
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



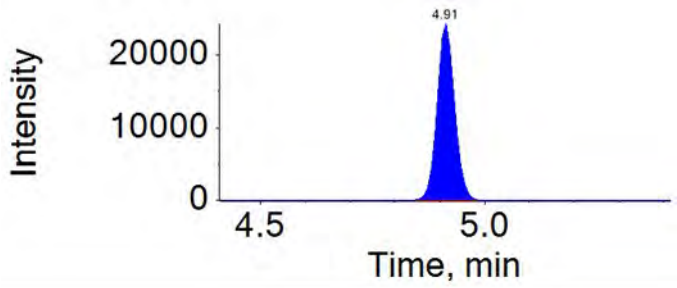


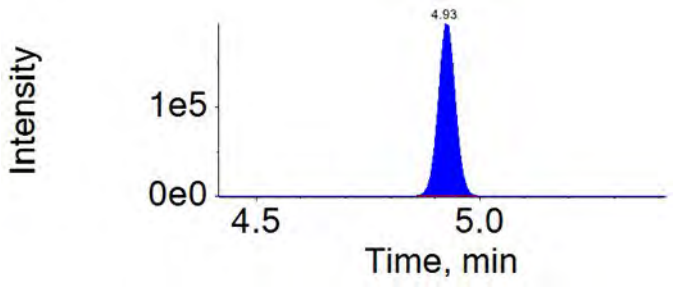
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

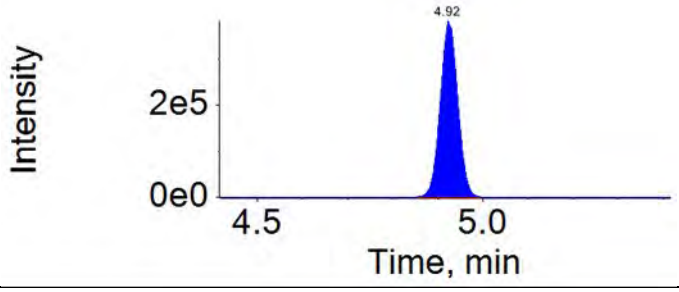
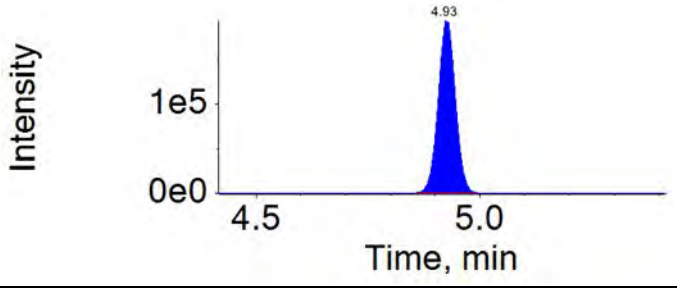


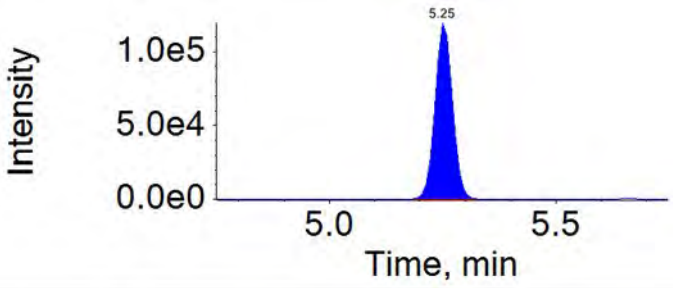
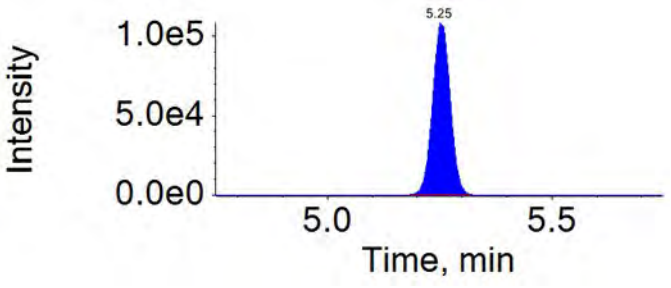


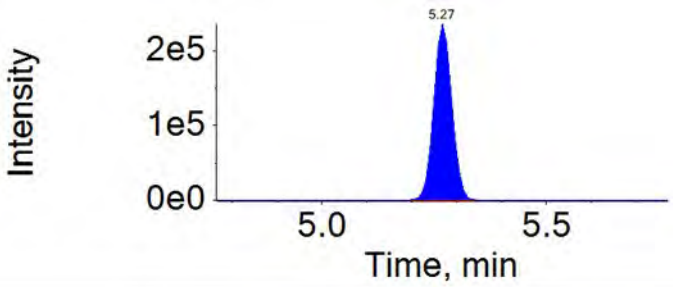
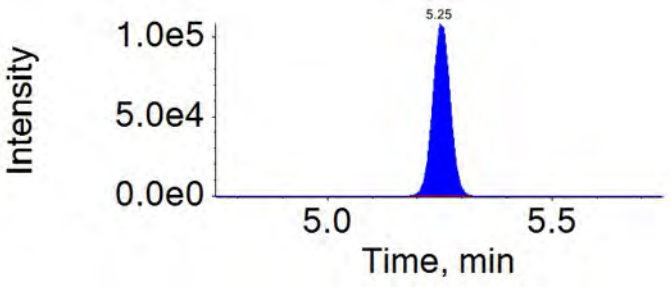
APPROVED
By MCD at 5:00 pm, 11/28/18

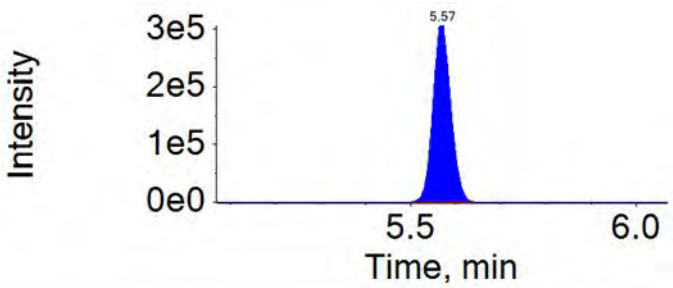
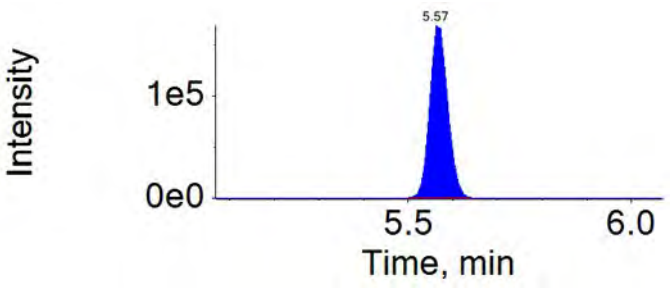
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

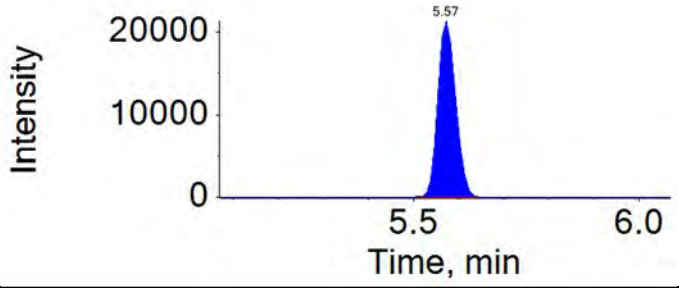
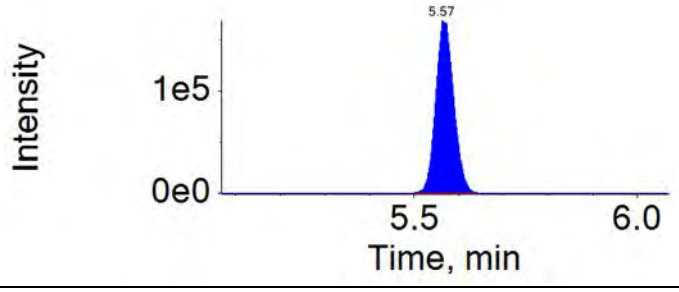
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

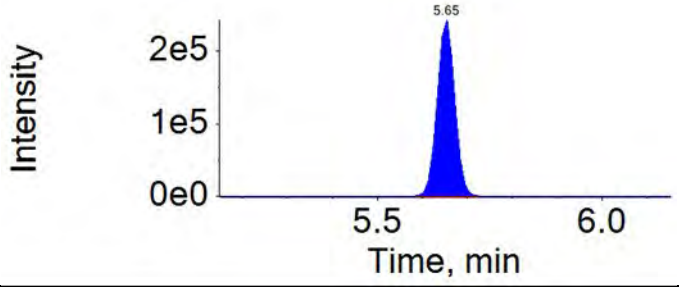
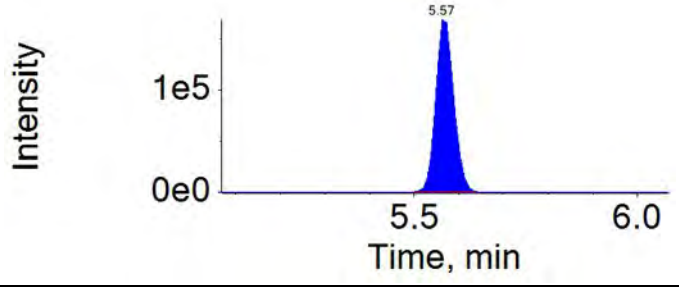
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

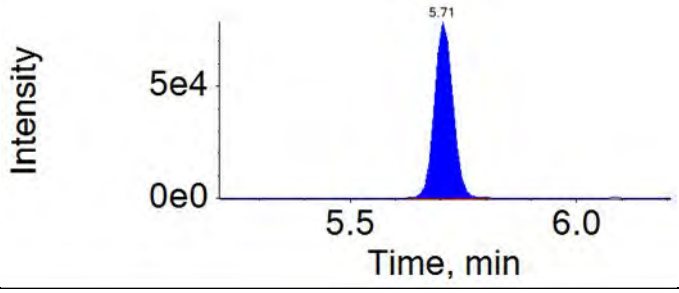
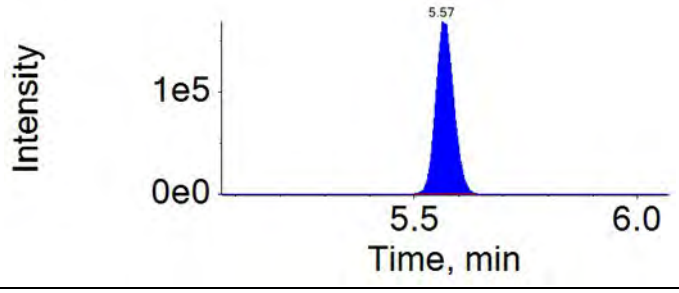
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

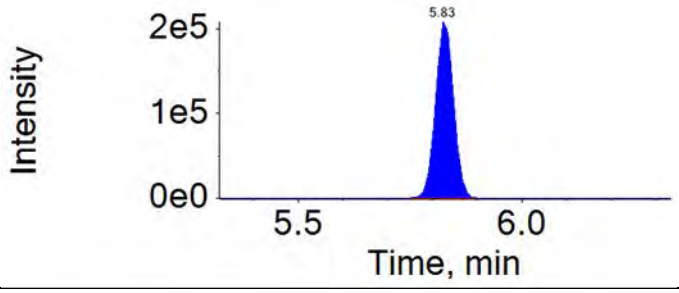
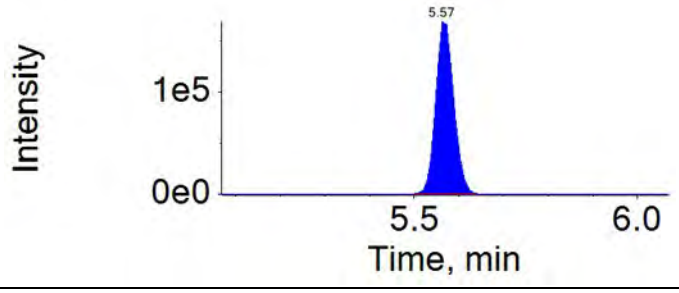
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

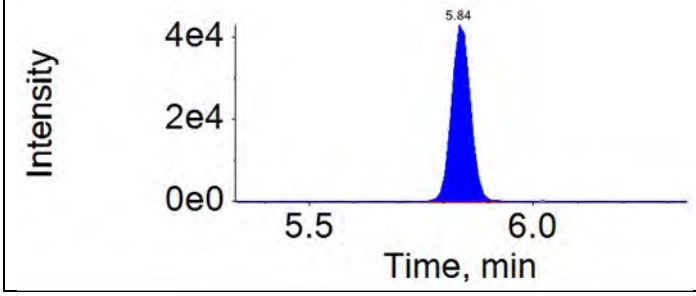
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

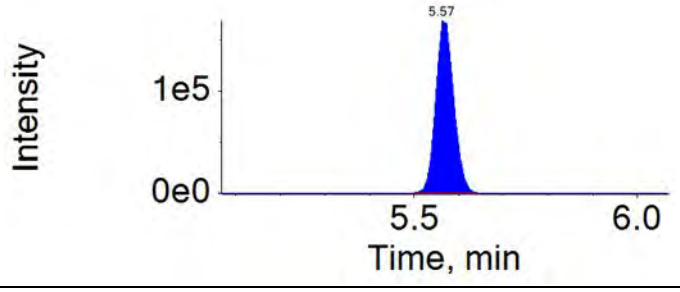
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

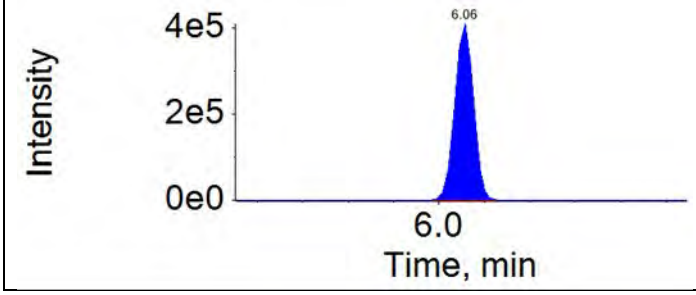
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

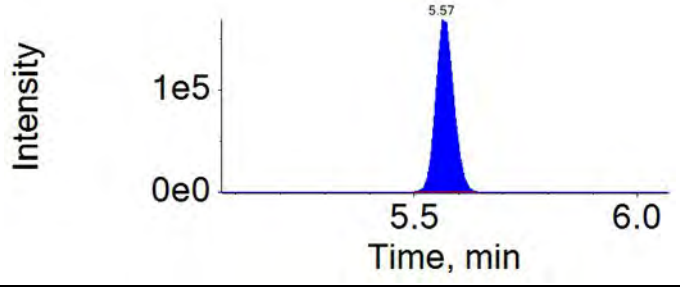
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



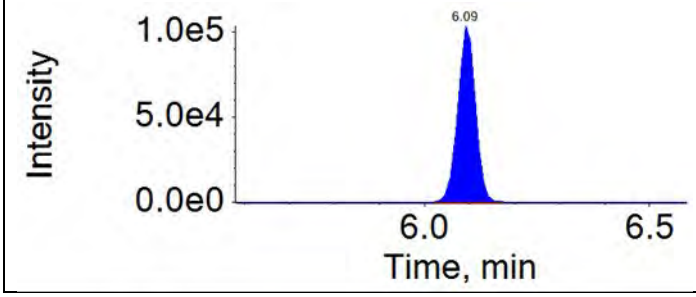


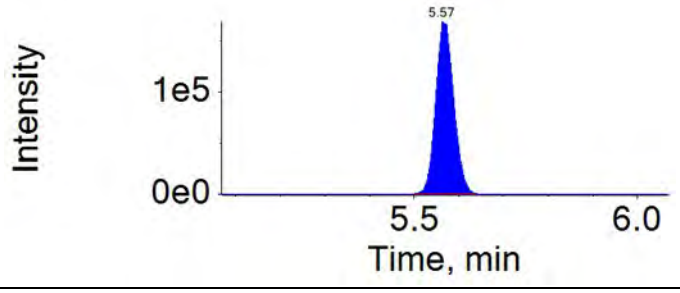
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



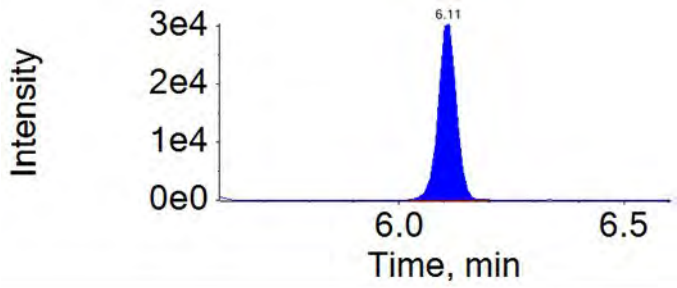


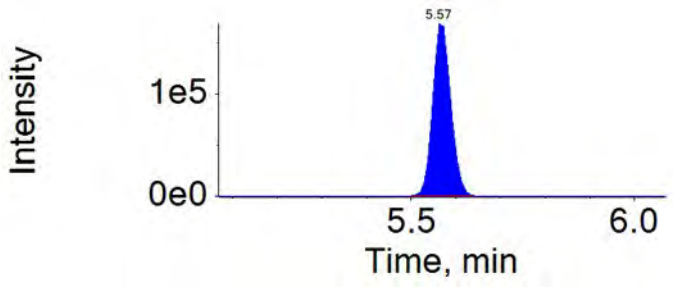
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



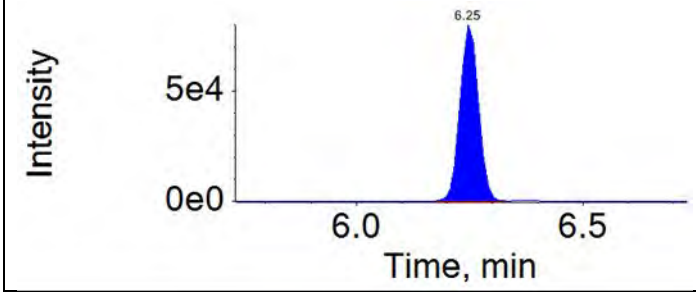


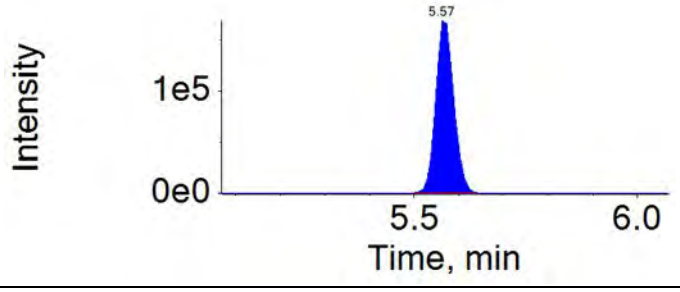
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

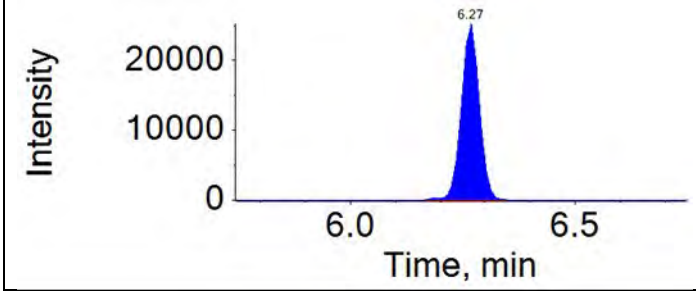
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

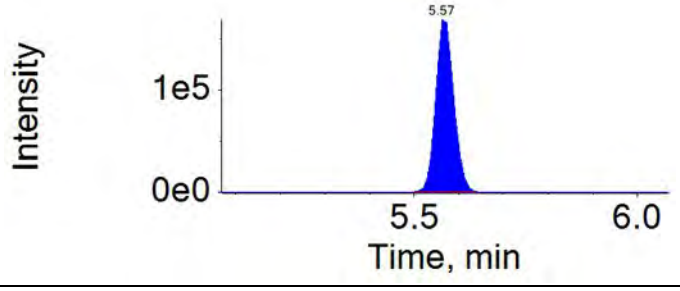
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



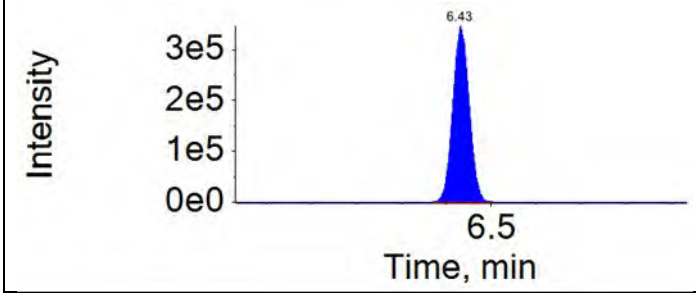


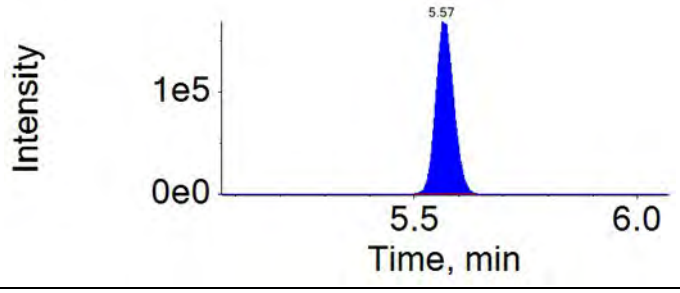
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



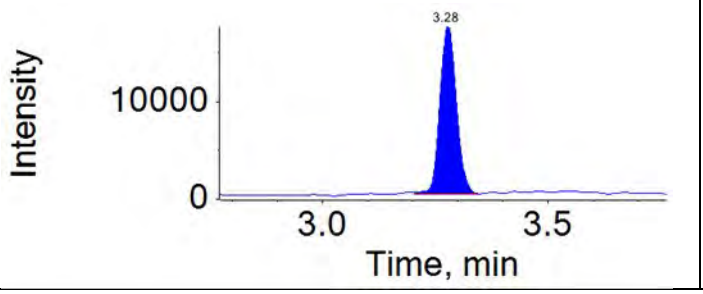


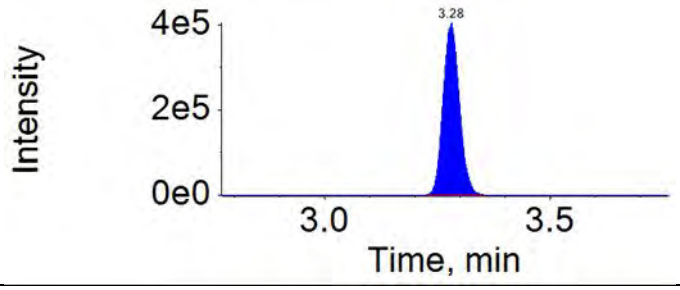
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

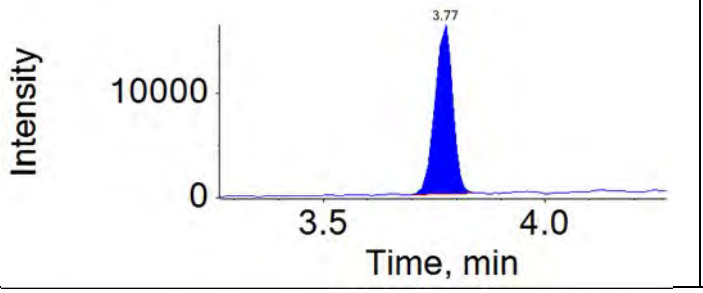
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

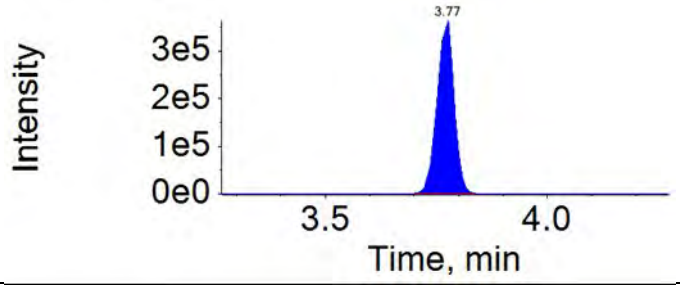
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



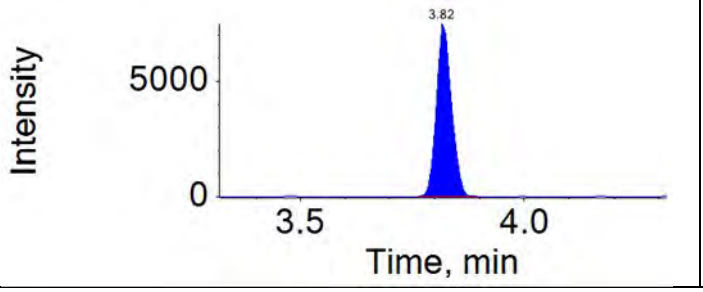


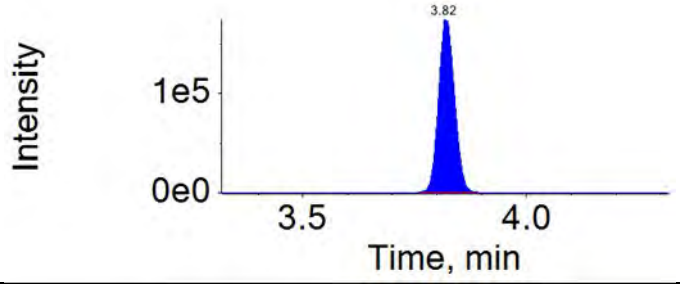
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



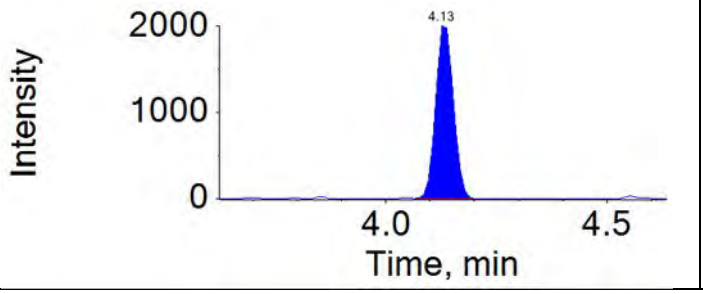


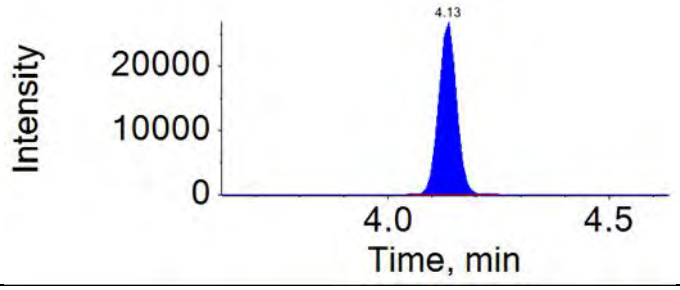
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



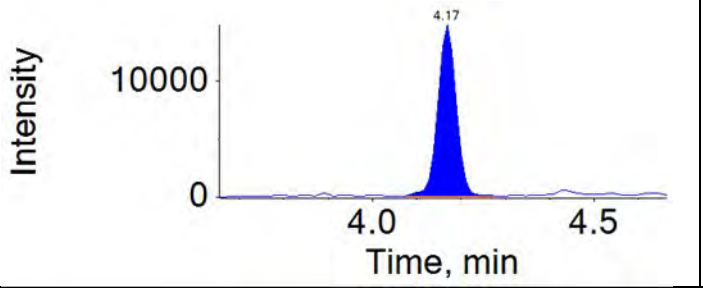


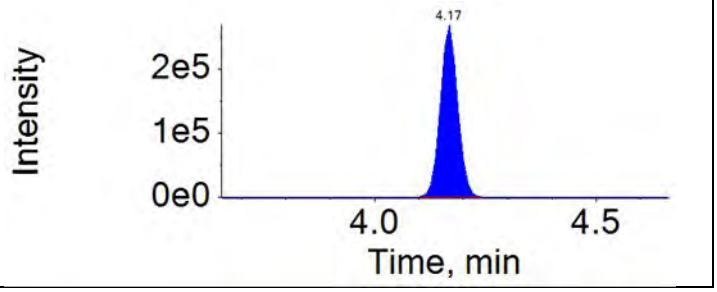
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

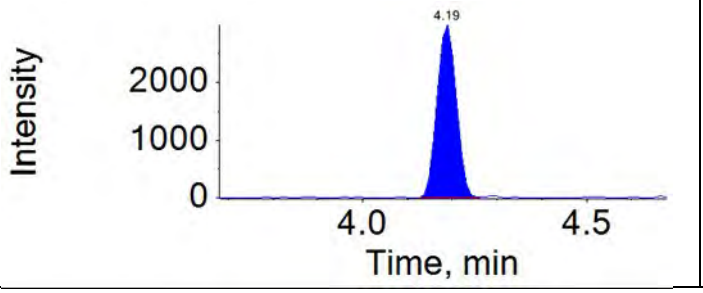
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

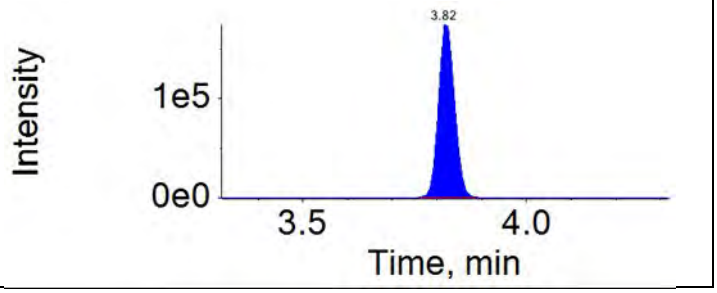
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



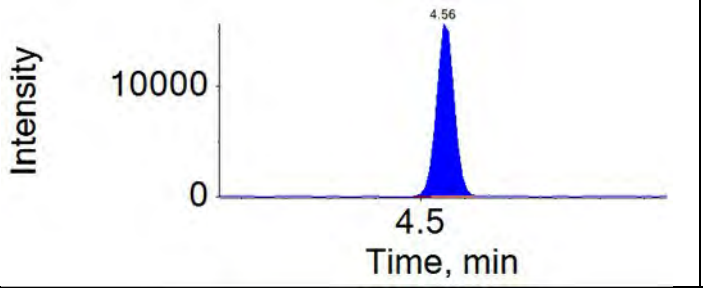


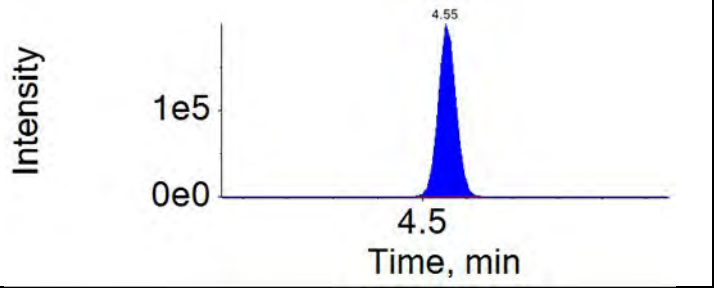
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



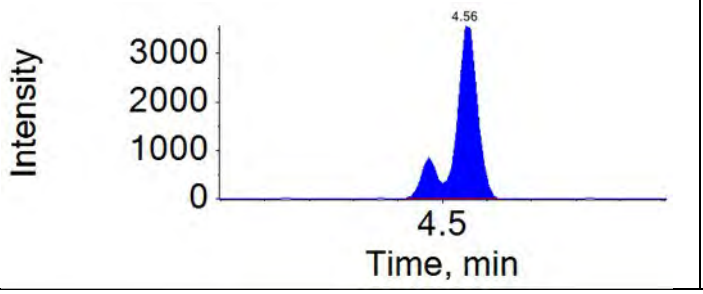


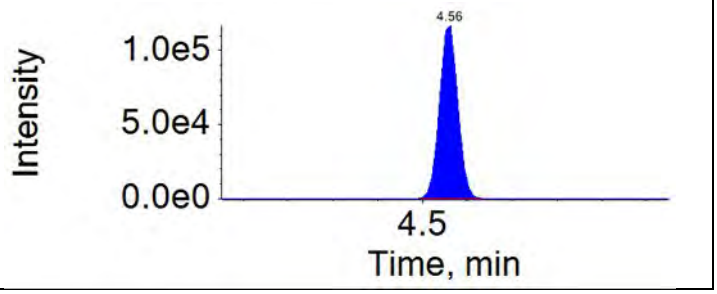
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

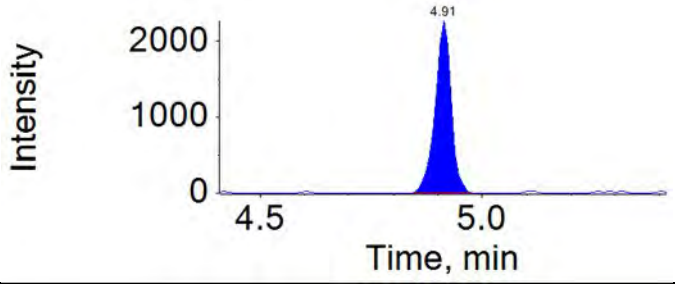
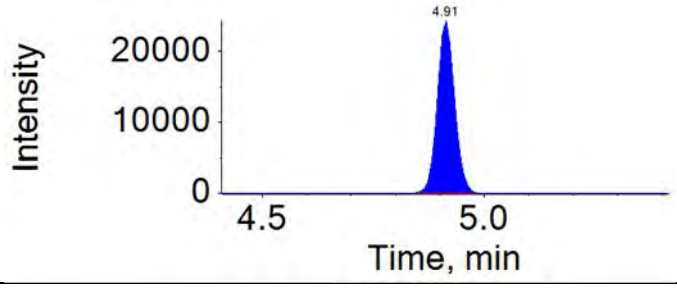


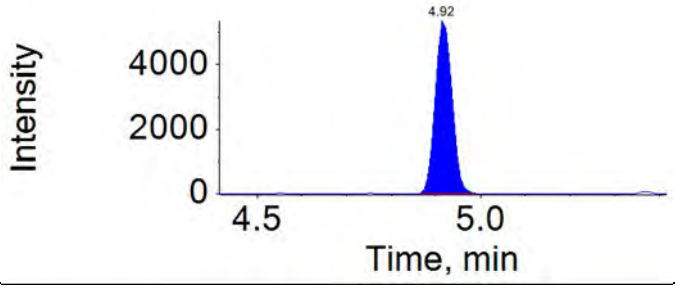
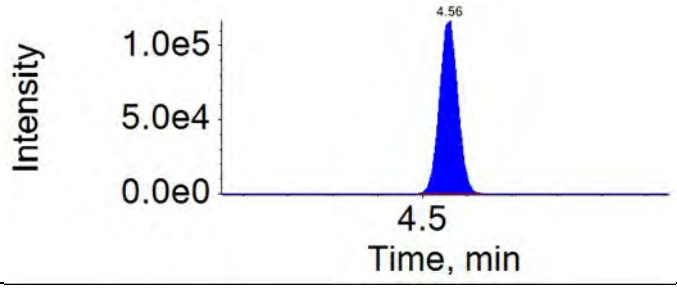


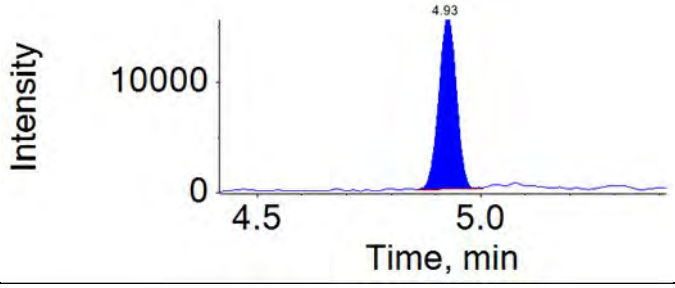
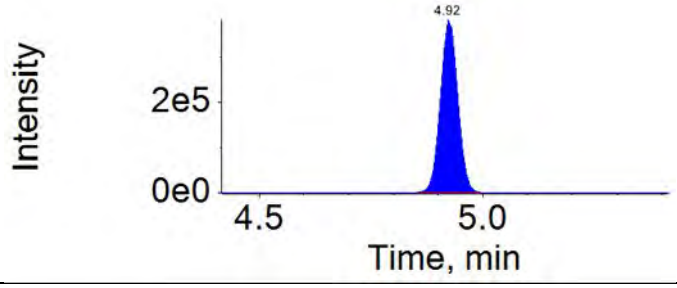
APPROVED
By MCD at 5:00 pm, 11/28/18

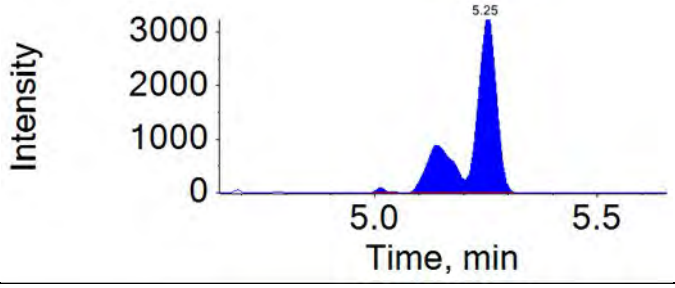
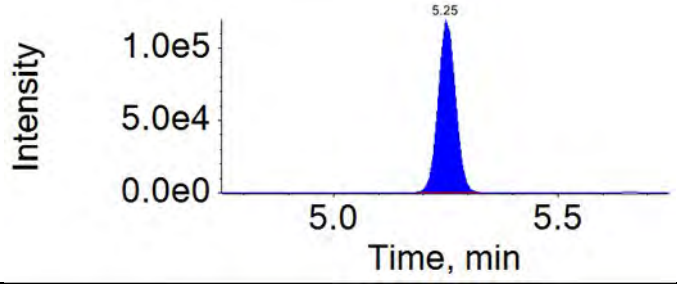
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

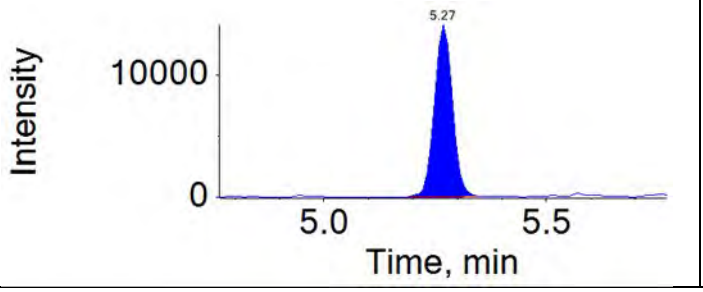
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

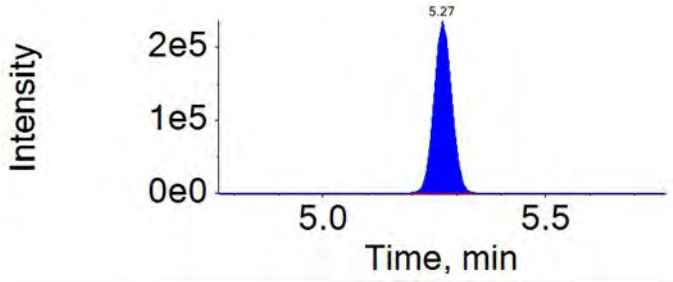
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

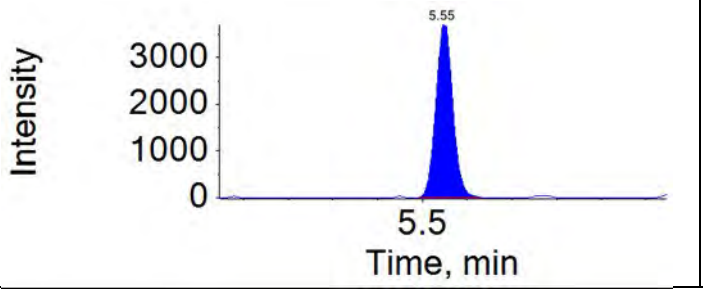
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

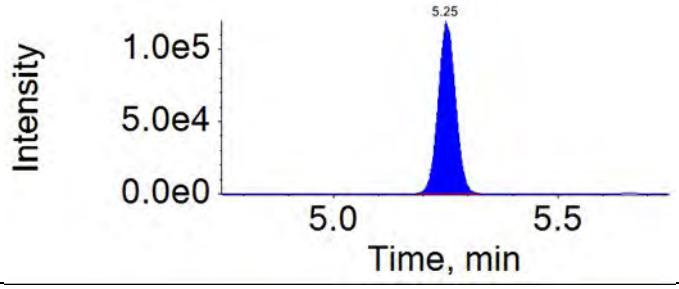
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



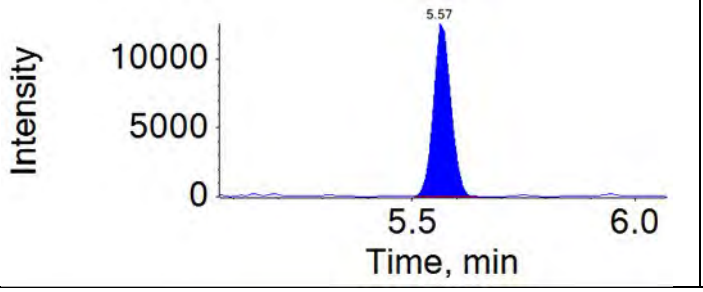


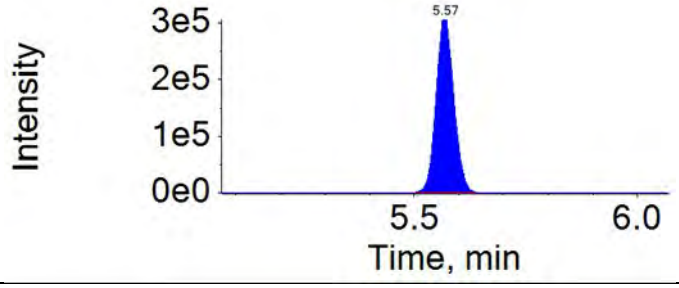
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



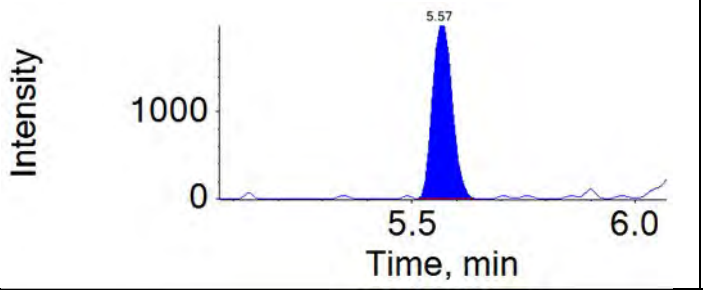


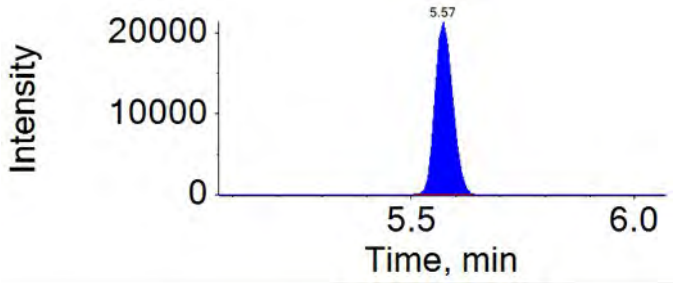
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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

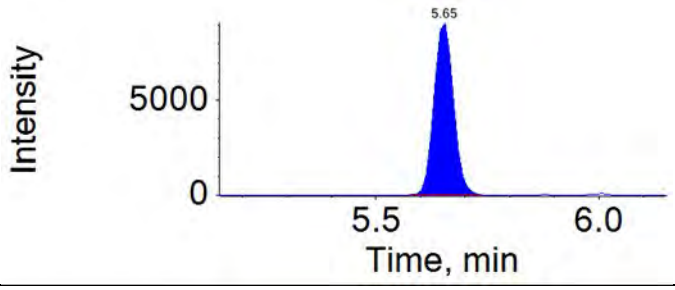
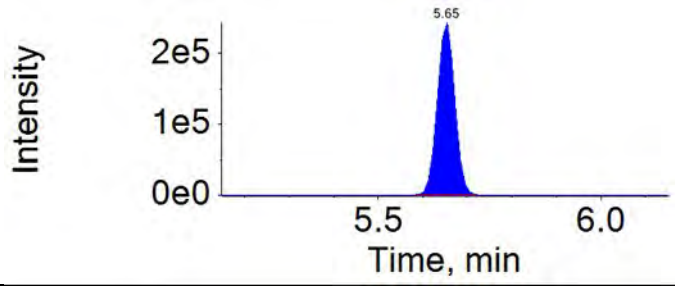


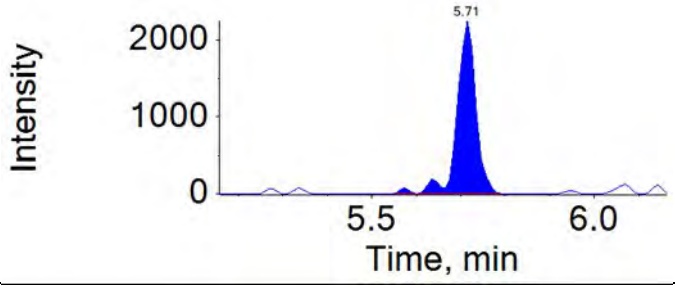
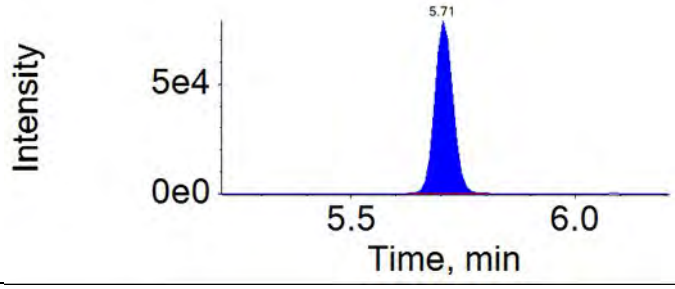


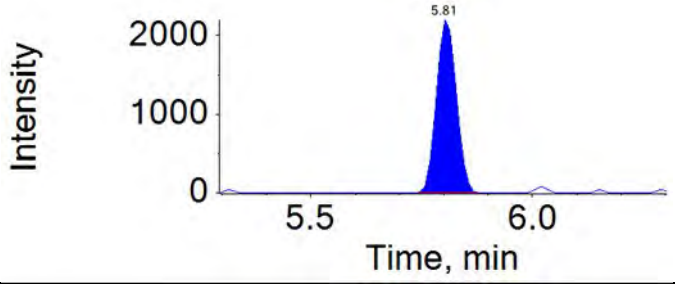
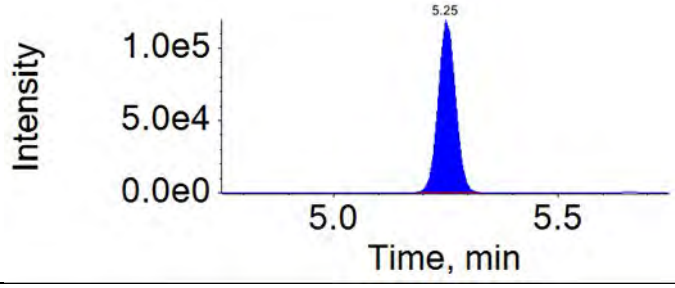
APPROVED
By MCD at 5:00 pm, 11/28/18

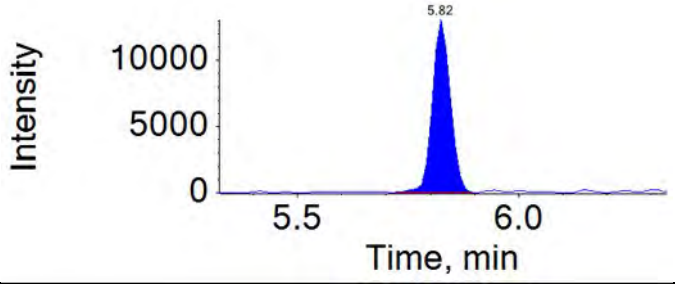
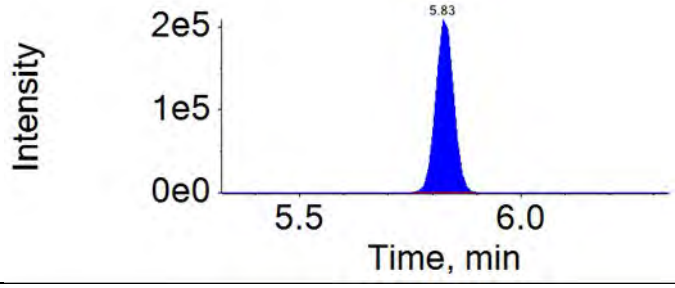
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

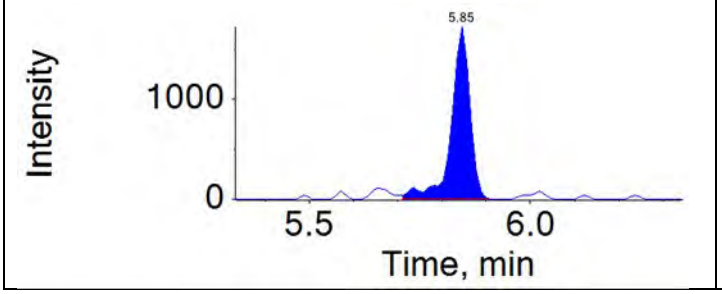
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

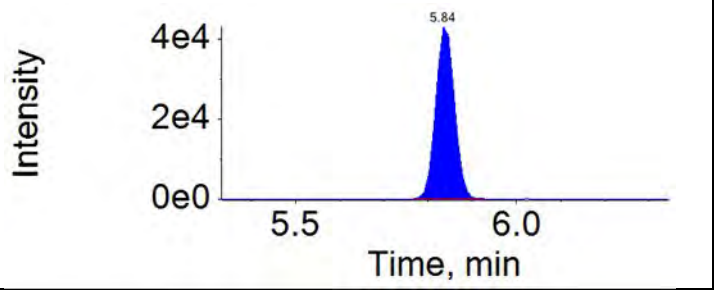
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

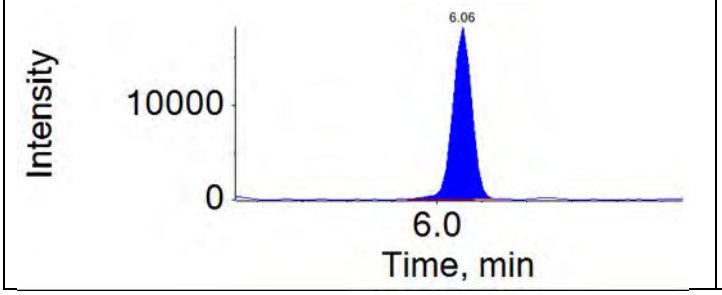
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

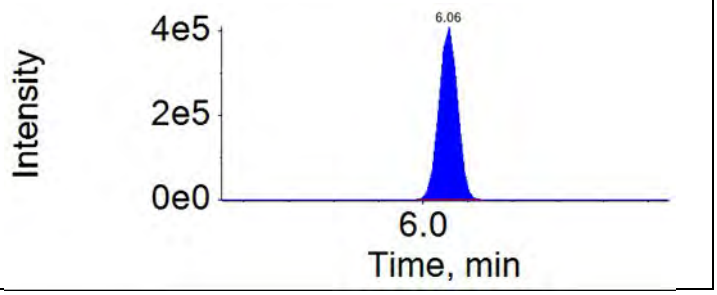
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



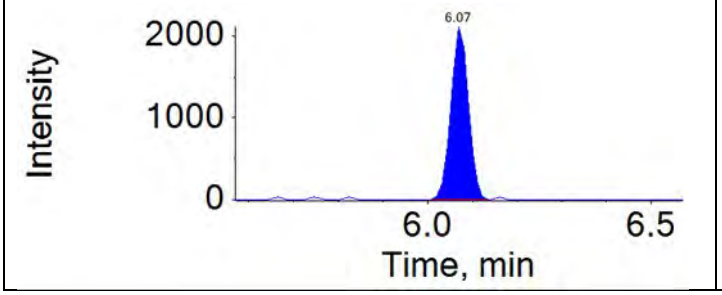


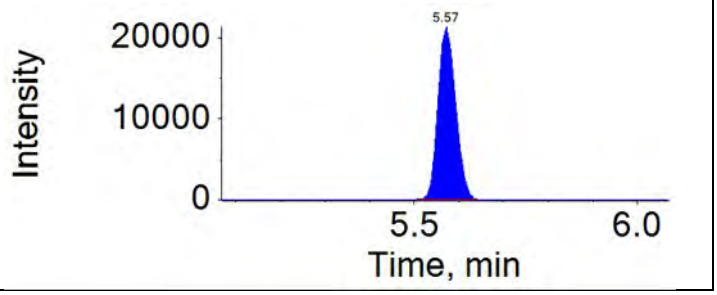
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



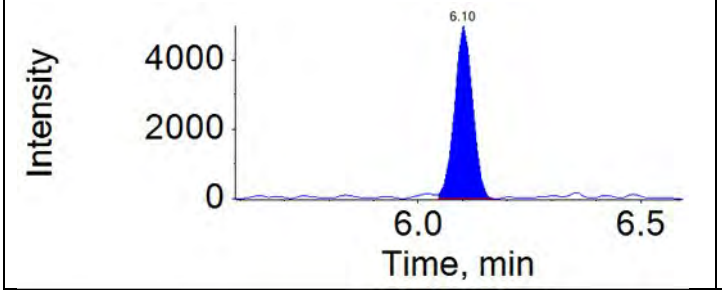


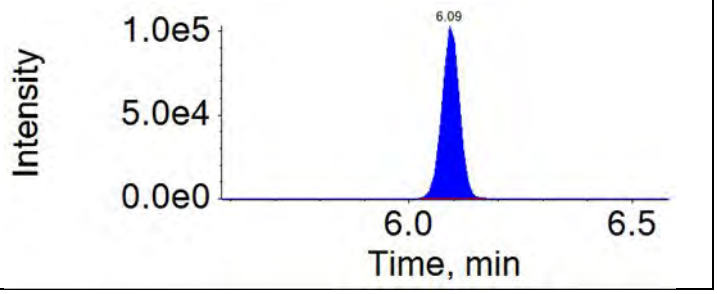
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



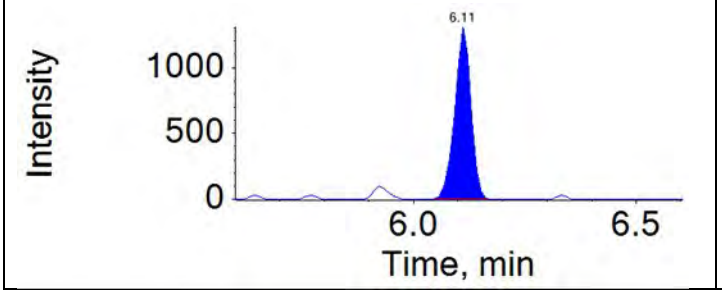


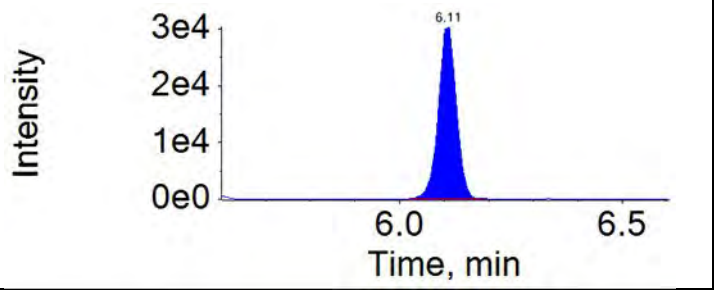
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

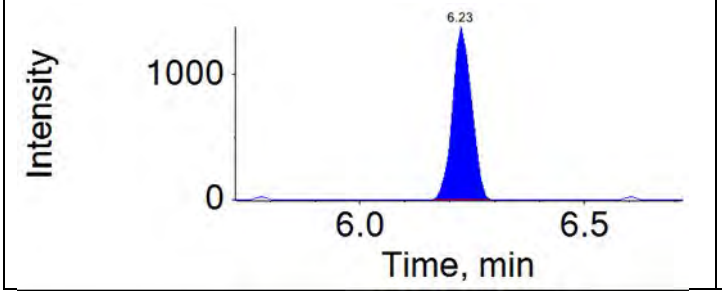
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

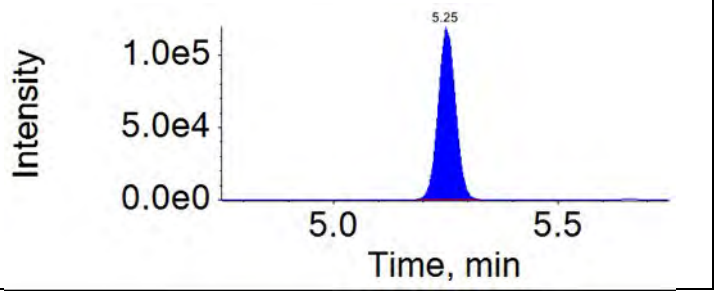
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



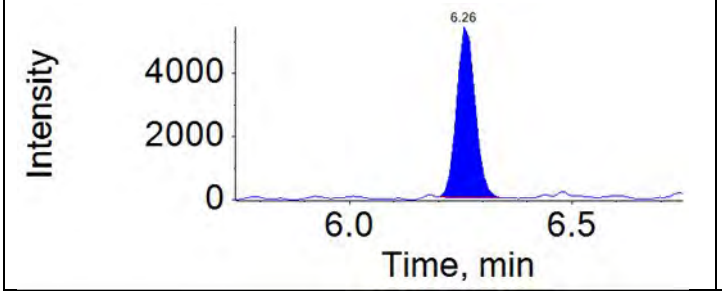


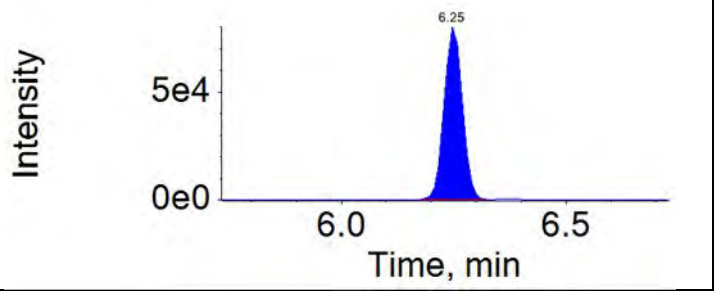
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



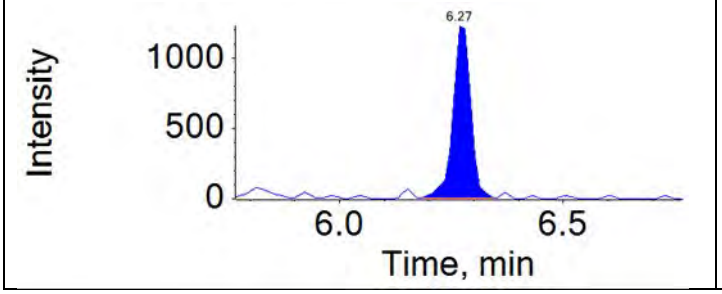


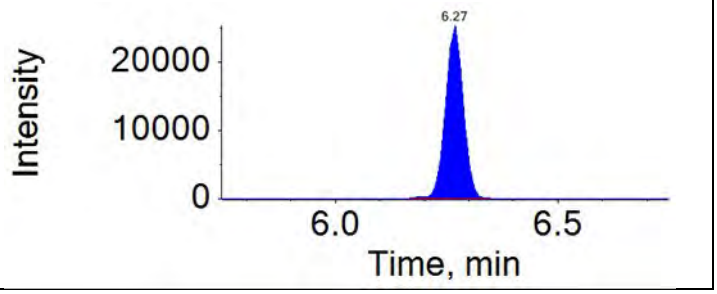
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



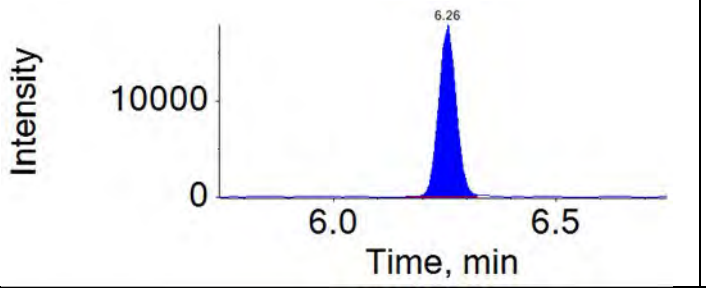


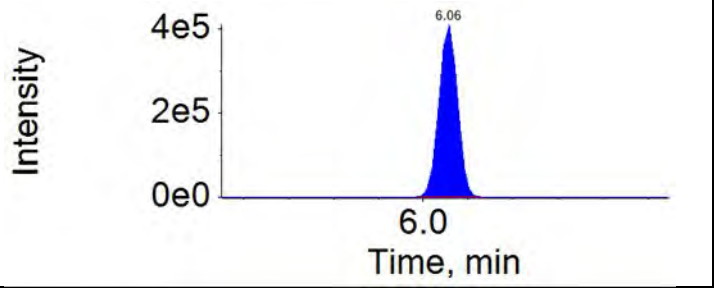
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

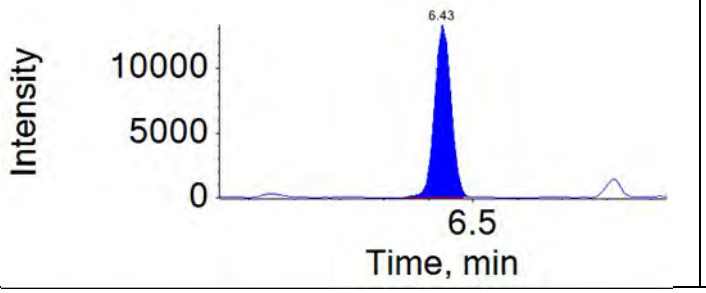
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

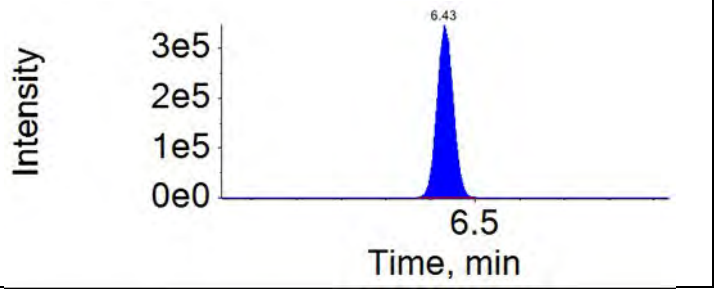
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



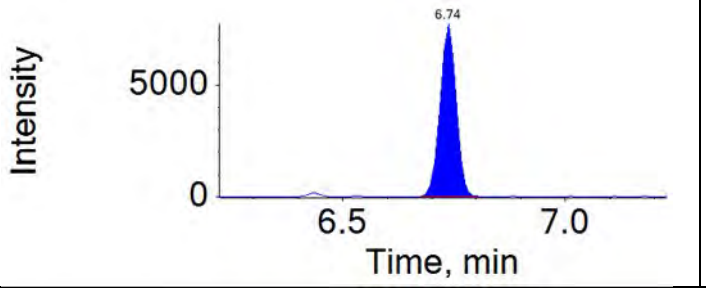


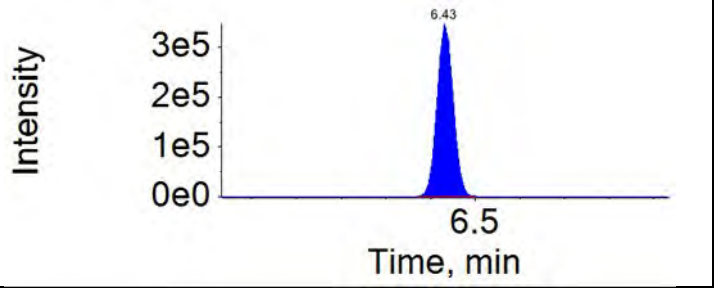
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



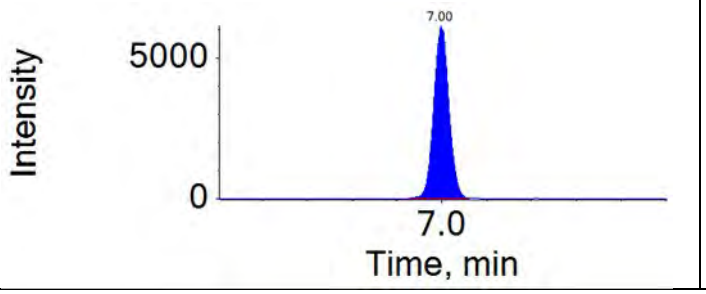


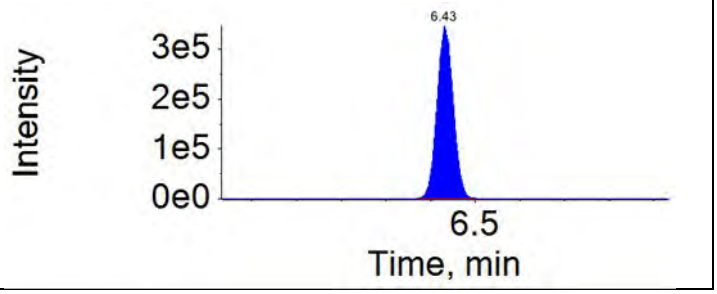
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



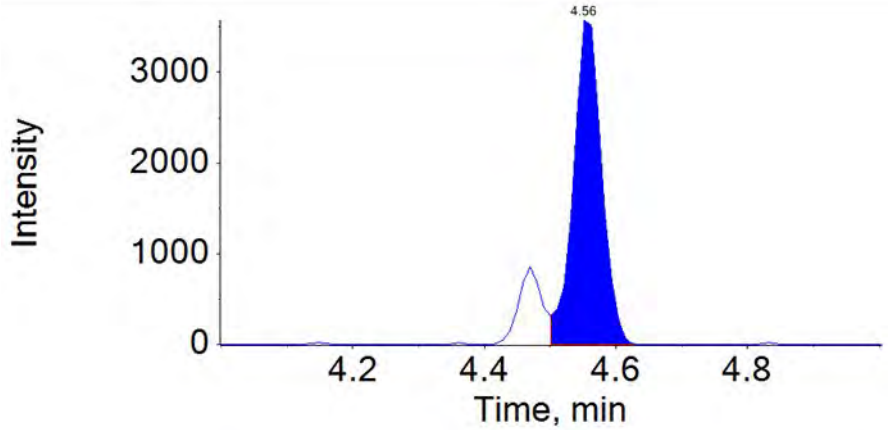


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

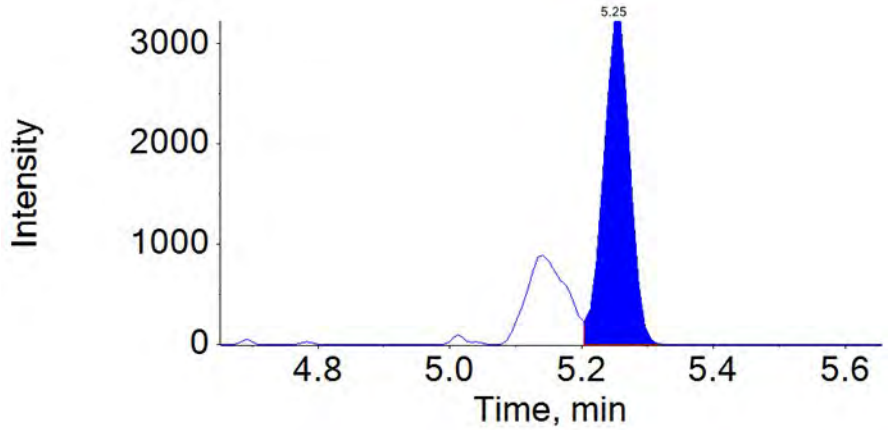
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
10746.52
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



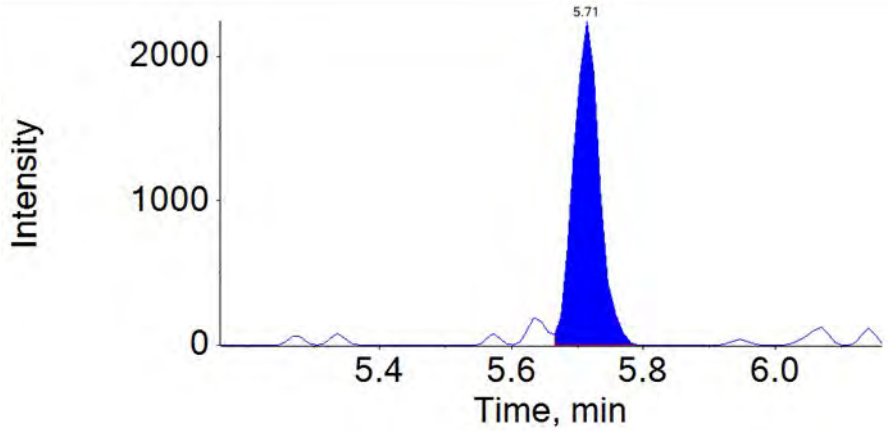
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
9112.28
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
6150.80
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



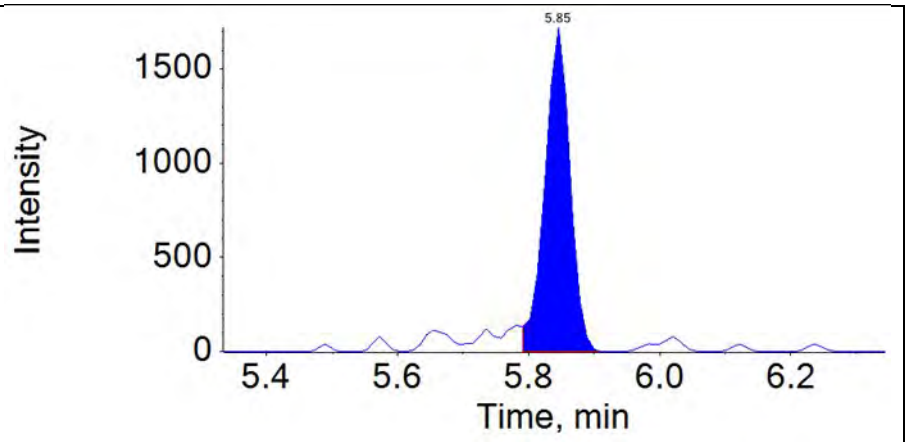
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

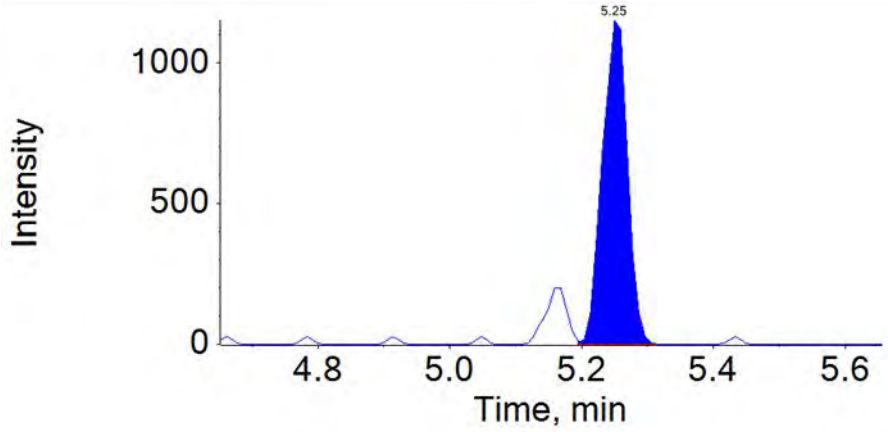
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
4598.18
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



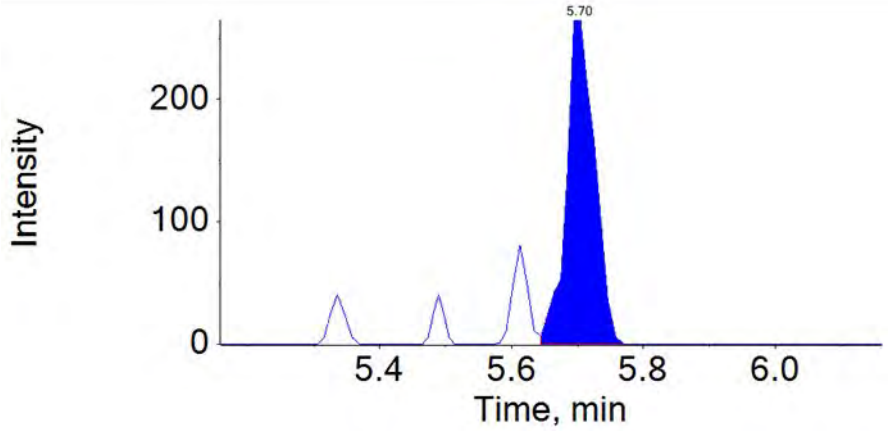
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
3075.05
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
797.95
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



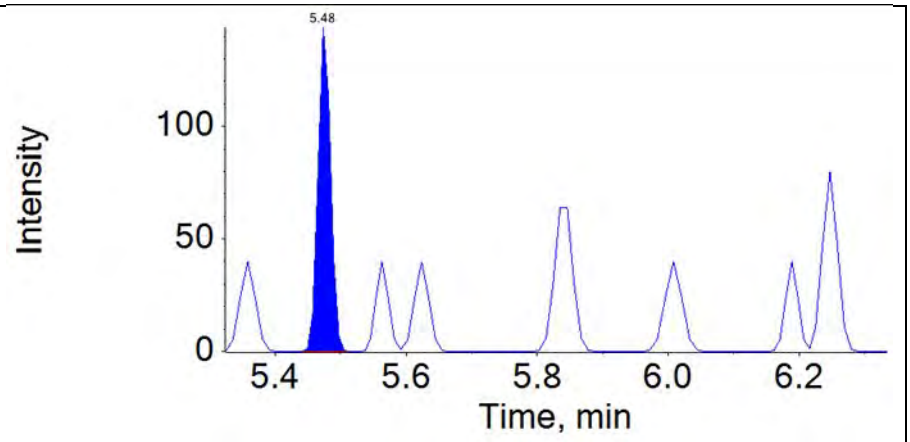
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

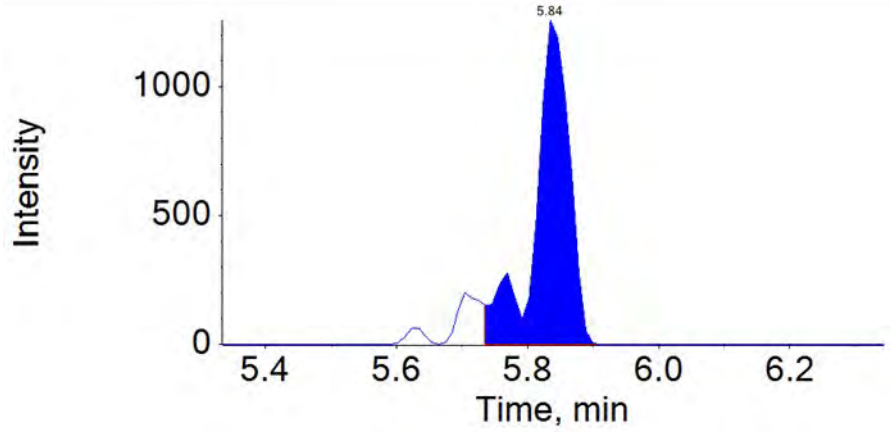
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFUnDA_2
RT (min.):
5.48
Peak Area:
191.73
Mass Range:
563.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



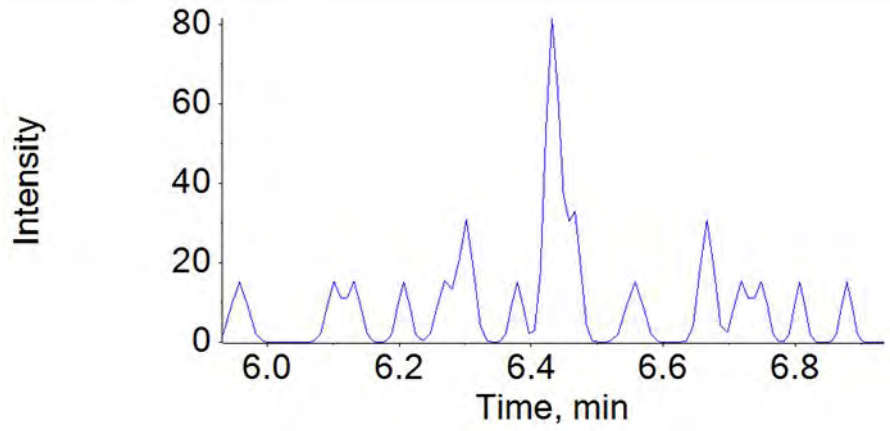
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
4606.52
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

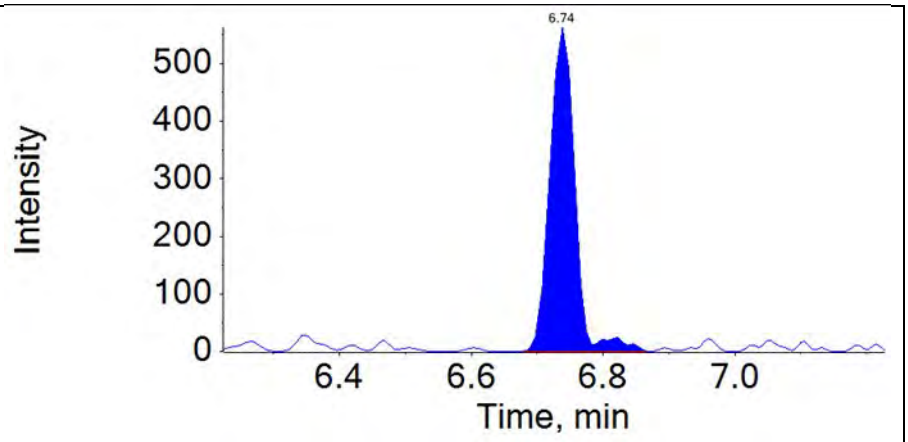
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Component Name:
PFHxDA_2
RT (min.):
6.74
Peak Area:
1494.10
Mass Range:
813.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

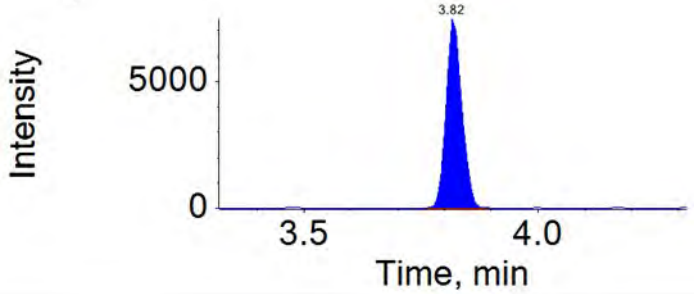
Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	17465.33	A	0.3655	0.3500			
PFBS_2	3.82	1.00	6112.35	A	0.3655	0.3500	-4	50	
4:2-FTS	4.13	1.00	5603.85	A	0.6383	0.6370			
4:2-FTS_2	4.14	1.00	3569.81	A	0.6383	0.6370	0	50	
PFHxA	4.17	1.00	42281.82	A	0.0103	0.0074			
PFHxA_2	4.16	1.00	313.30	A	0.0103	0.0074	-28	50	
PFPeS	4.19	1.10	8955.98	A	0.4976	0.5230			
PFPeS_2	4.18	1.10	4684.40	A	0.4976	0.5230	5	50	
PFHpA	4.56	1.00	42530.61	A	0.0557	0.0604			
PFHpA_2	4.55	1.00	2568.03	A	0.0557	0.0604	8	50	
PFHxS	4.56	1.00	12830.81	M	0.3693	0.3957			
PFHxS_2	4.56	1.00	5077.16	A	0.3693	0.3957	7	50	
6:2-FTS	4.91	1.00	5676.75	A	0.6625	0.7816			
6:2-FTS_2	4.91	1.00	4436.90	A	0.6625	0.7816	18	50	
PFHpS	4.92	1.08	13921.77	A	0.3915	0.3588			
PFHpS_2	4.92	1.08	4994.54	A	0.3915	0.3588	-8	50	
PFOA	4.93	1.00	42517.38	A	0.0573	0.0573			
PFOA_2	4.93	1.00	2436.09	A	0.0573	0.0573	0	50	
PFOS	5.25	1.00	13060.03	M	0.2960	0.2736			
PFOS_2	5.25	1.00	3573.10	M	0.2960	0.2736	-8	50	
PFNA	5.27	1.00	39485.10	A	0.0201	0.0194			
PFNA_2	5.27	1.00	766.34	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	9756.60	A	0.4794	0.4912			
PFNS_2	5.55	1.06	4792.59	A	0.4794	0.4912	2	50	
PFDA	5.57	1.00	33621.18	A	0.0075	0.0082			
PFDA_2	5.57	1.00	276.74	A	0.0075	0.0082	10	50	
8:2-FTS	5.57	1.00	6138.74	A	0.5380	0.4422			
8:2-FTS_2	5.57	1.00	2714.43	A	0.5380	0.4422	-18	50	
NMeFOSAA	5.71	1.00	6660.95	M	0.2305	0.1393			
NMeFOSAA_2	5.70	1.00	927.90	M	0.2305	0.1393	-40	50	
PFDS	5.81	1.11	6850.74	A	0.5356	0.6929			
PFDS_2	5.80	1.10	4746.55	A	0.5356	0.6929	29	50	
PFUnDA	5.82	1.00	36428.01	A	0.0038	0.0036			
PFUnDA_2	5.84	1.00	129.75	M	0.0038	0.0036	-6	50	
NEtFOSAA	5.85	1.00	5069.19	M	0.7356	1.0075			
NEtFOSAA_2	5.84	1.00	5107.05	M	0.7356	1.0075	37	50	
PFDoDA	6.06	1.00	53386.61	A	0.0130	0.0169			
PFDoDA_2	6.06	1.00	904.01	A	0.0130	0.0169	30	50	
10:2-FTS	6.07	1.09	5717.74	A	0.6989	0.8898			
10:2-FTS_2	6.07	1.09	5087.40	A	0.6989	0.8898	27	50	
PFTrDA	6.26	1.03	48537.57	A	0.0090	0.0125			
PFTrDA_2	6.26	1.03	607.67	A	0.0090	0.0125	39	50	
PFTeDA	6.43	1.00	34099.24	A	0.0056	0.0053			
PFTeDA_2	6.43	1.00	180.96	M	0.0056	0.0053	-5	50	
PFHxDA	6.74	1.05	19206.41	A	0.0646	0.0740			
PFHxDA_2	6.74	1.05	1422.14	M	0.0646	0.0740	15	50	
PFODA	7.00	1.09	14377.98	A	0.0264	0.0304			
PFODA_2	7.00	1.09	436.46	A	0.0264	0.0304	15	50	

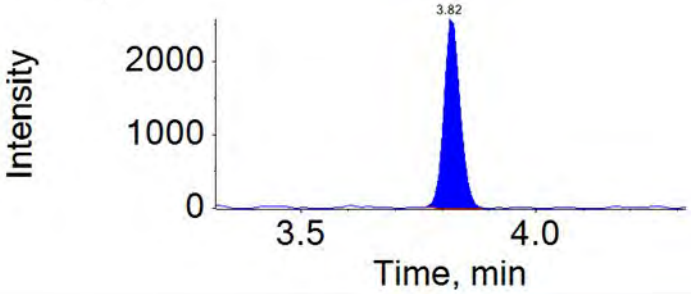
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

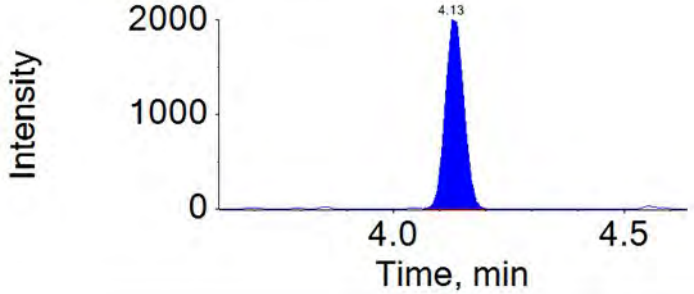
Component: PFBS
Primary Mass: 299.0 / 80.0



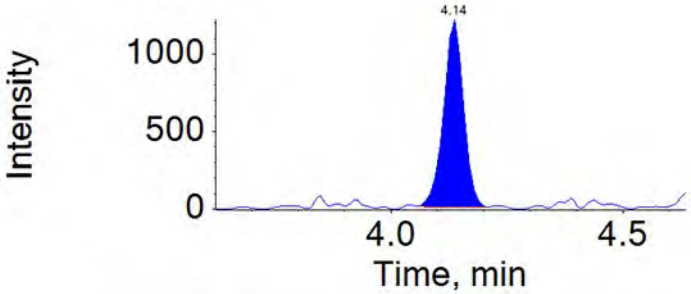
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



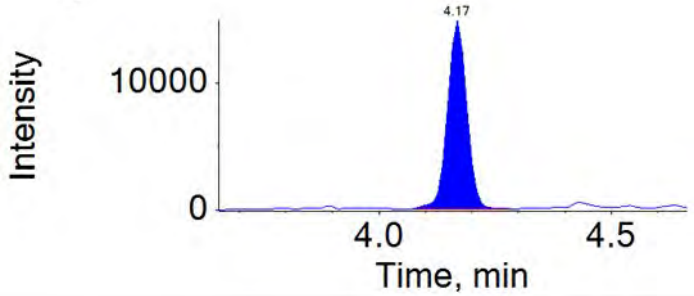
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



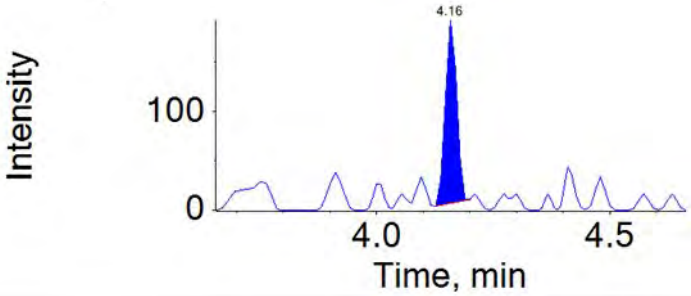
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



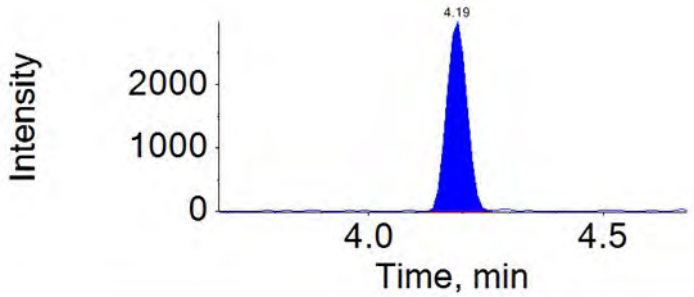
Component: PFHxA
Primary Mass: 313.0 / 269.0



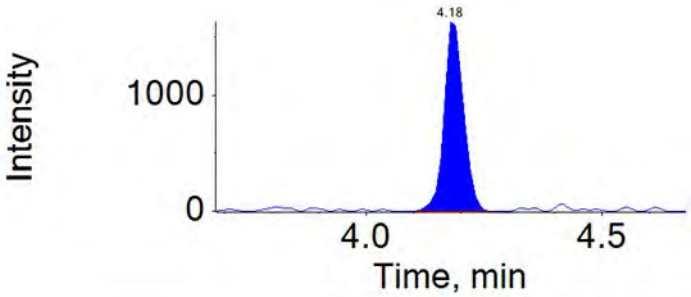
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



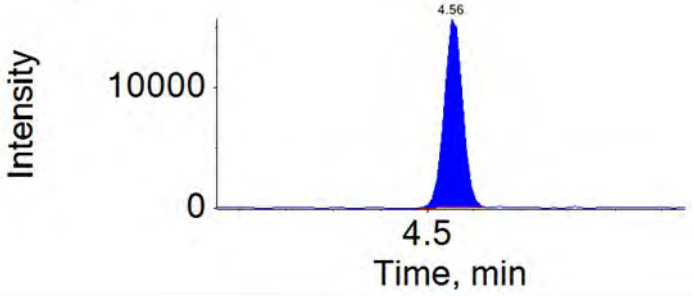
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



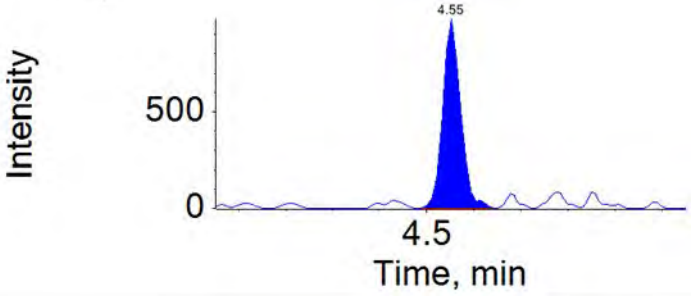
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

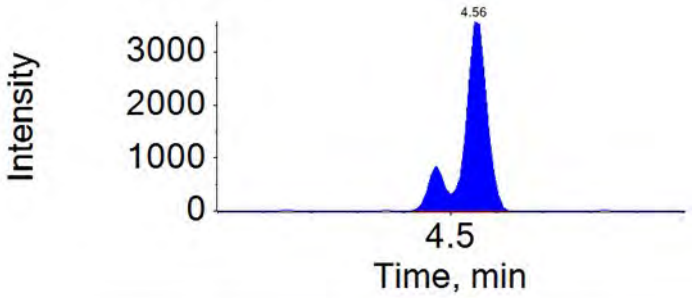
Component: PFHpA
Primary Mass: 363.0 / 319.0



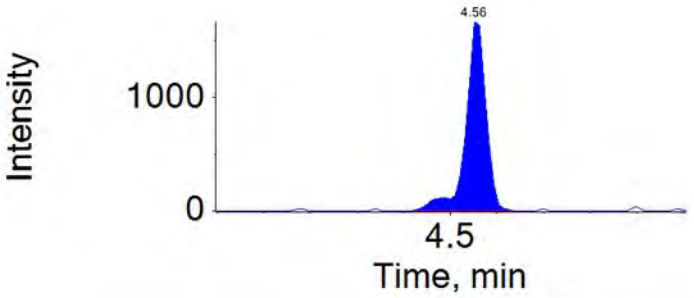
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



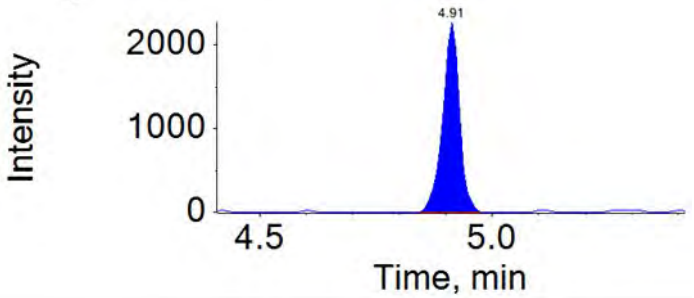
Component: PFHxS
Primary Mass: 399.0 / 80.0



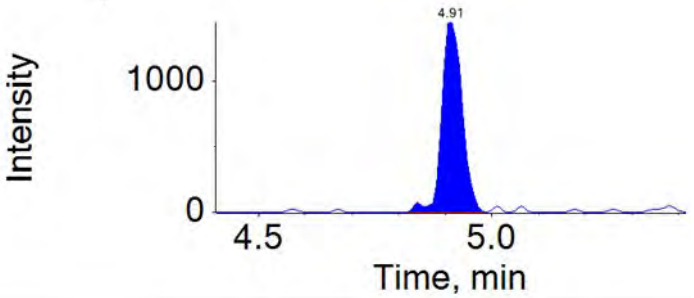
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



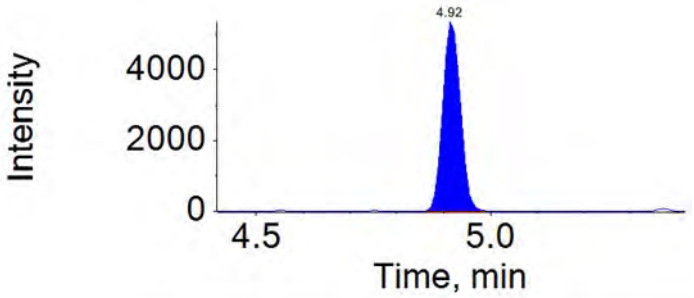
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



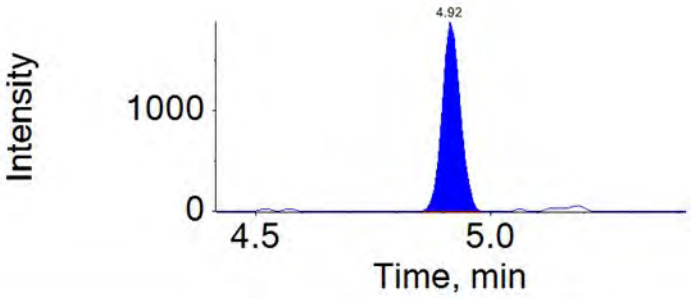
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



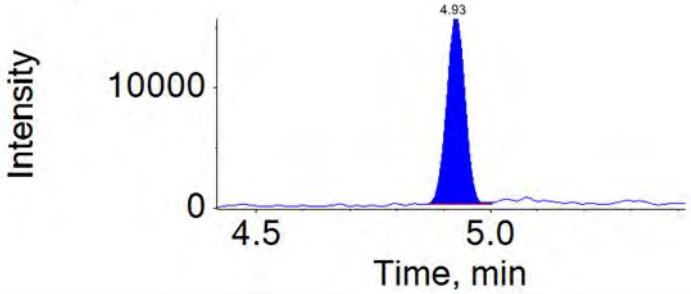
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



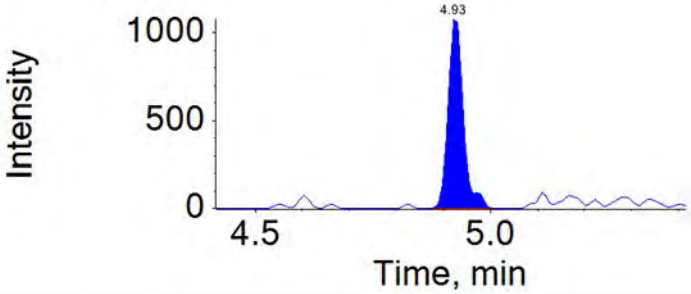
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

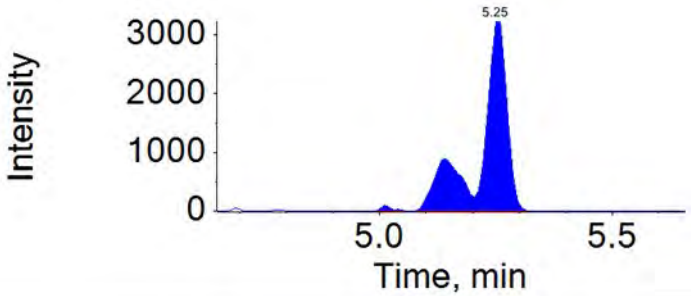
Component: PFOA
Primary Mass: 413.0 / 369.0



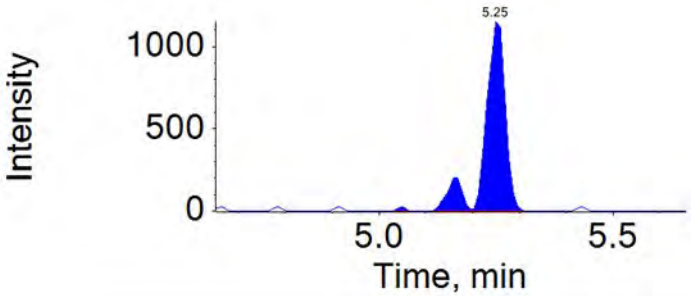
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



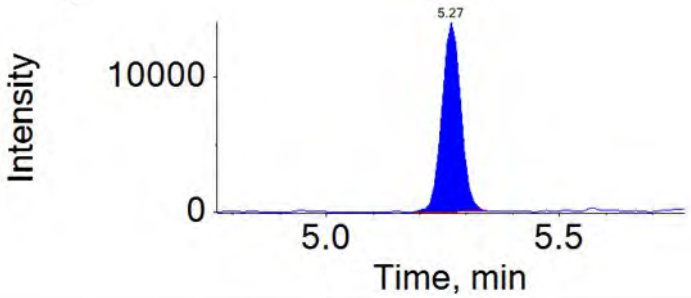
Component: PFOS
Primary Mass: 499.0 / 80.0



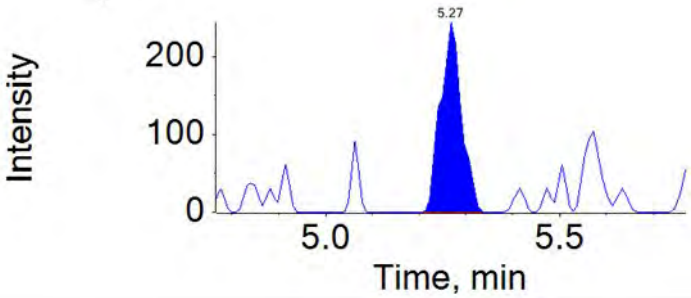
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



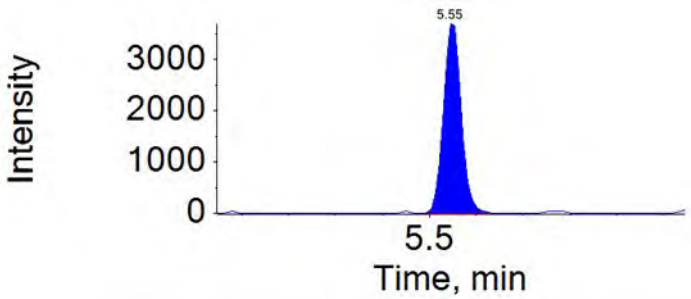
Component: PFNA
Primary Mass: 463.0 / 419.0



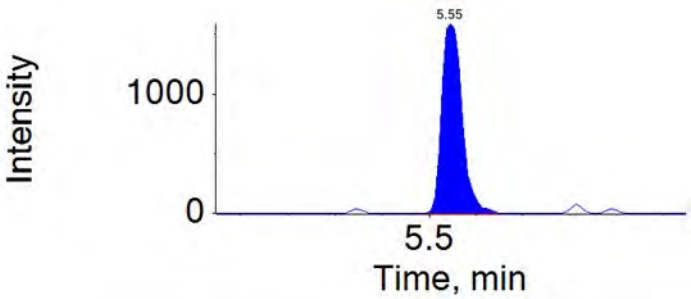
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



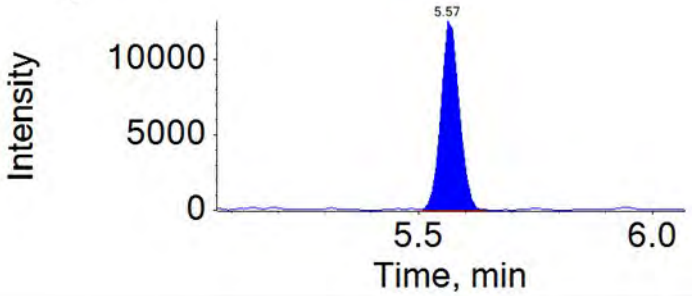
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



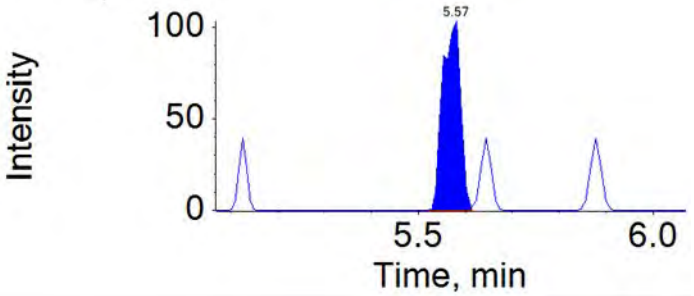
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

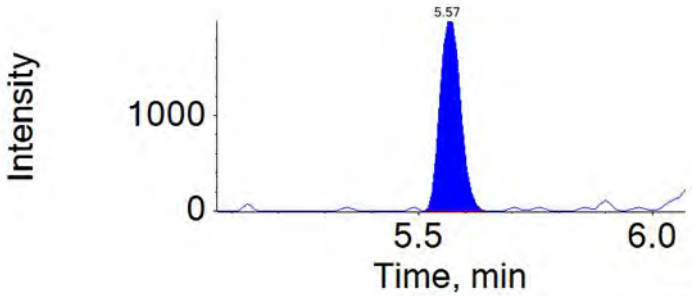
Component: PFDA
Primary Mass: 513.0 / 469.0



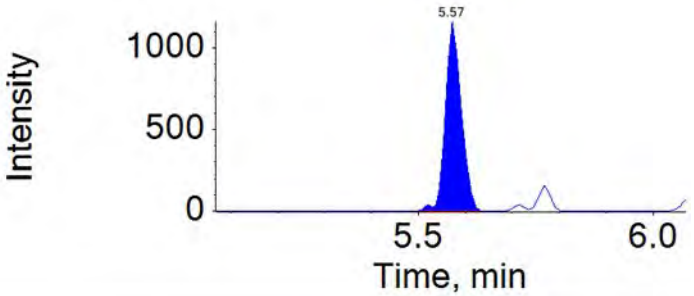
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



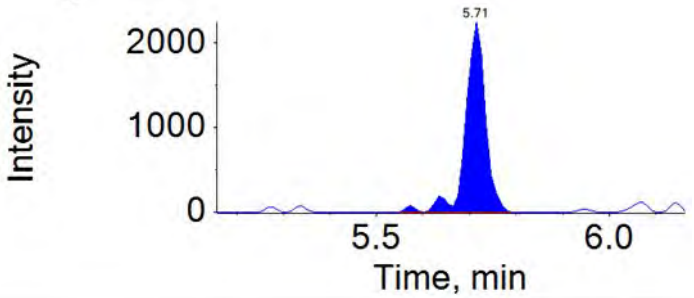
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



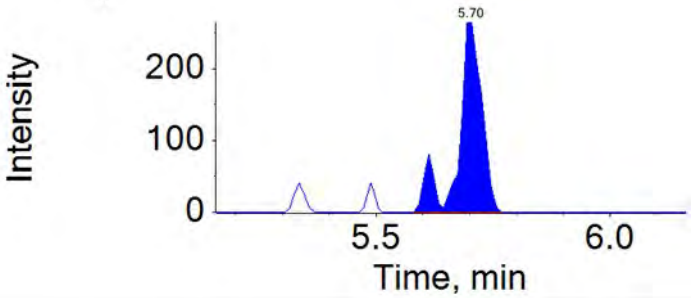
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



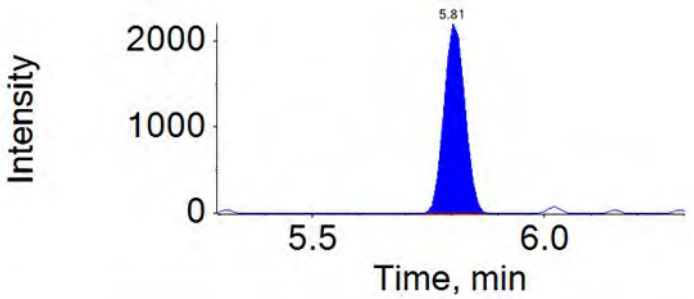
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



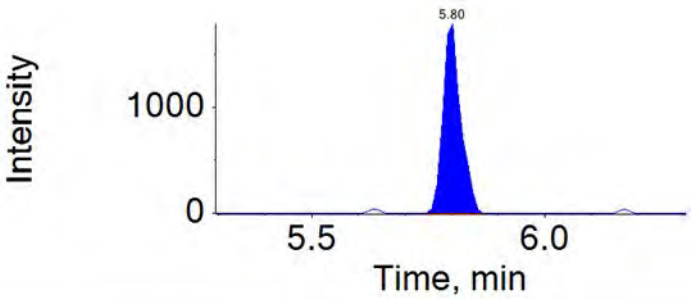
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



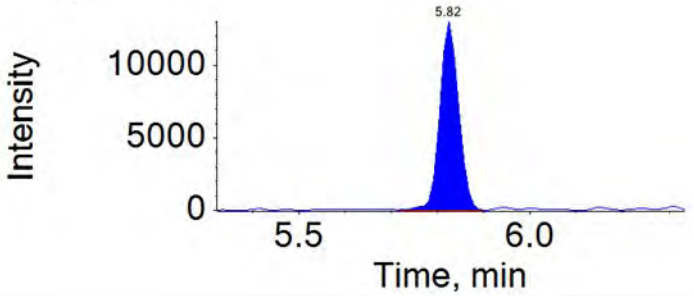
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



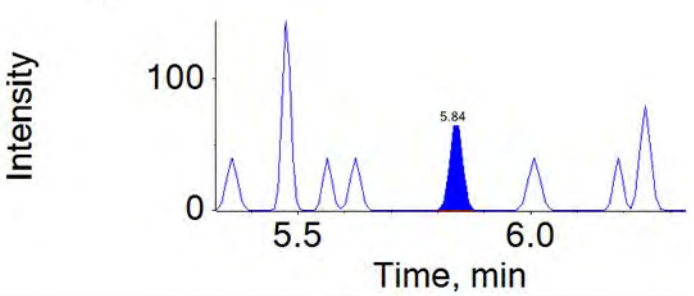
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

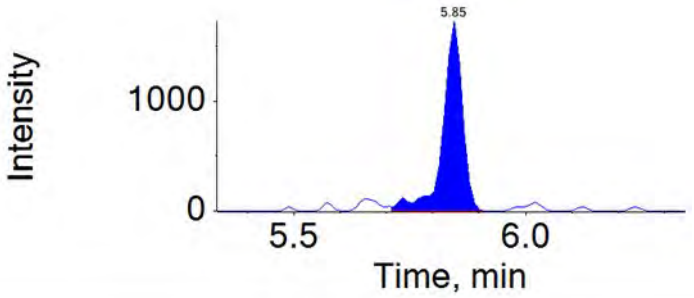
Component: PFUnDA
Primary Mass: 563.0 / 519.0



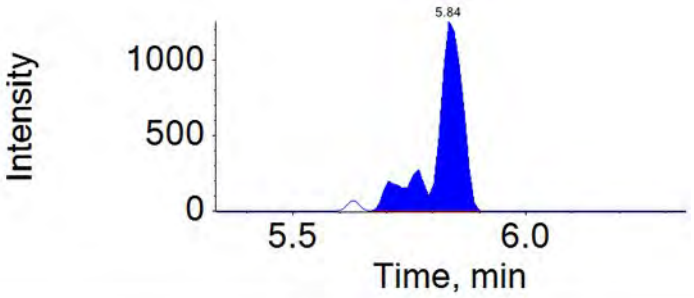
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



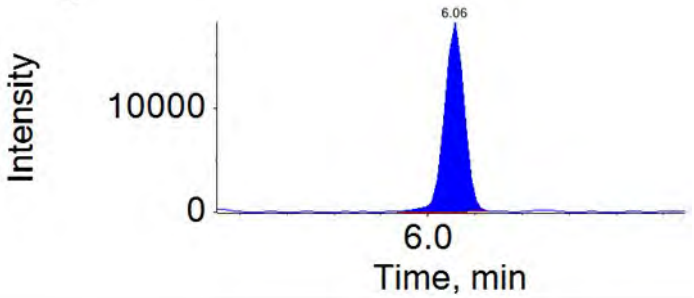
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



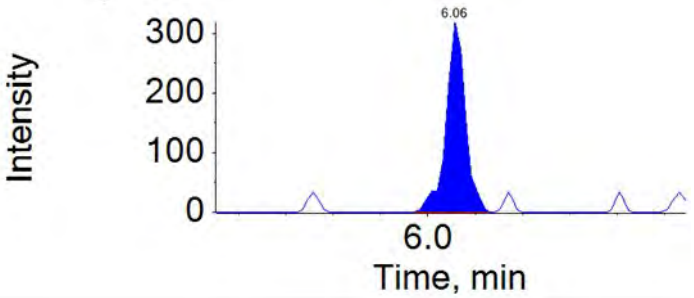
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



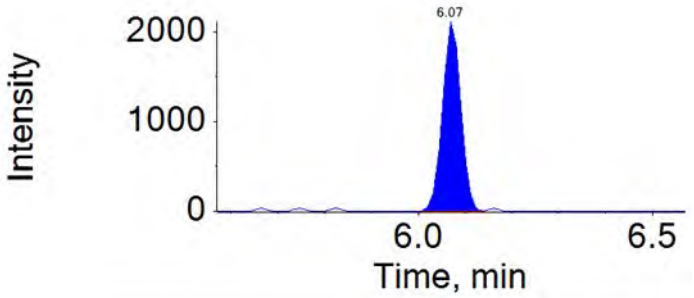
Component: PFDoDA
Primary Mass: 613.0 / 569.0



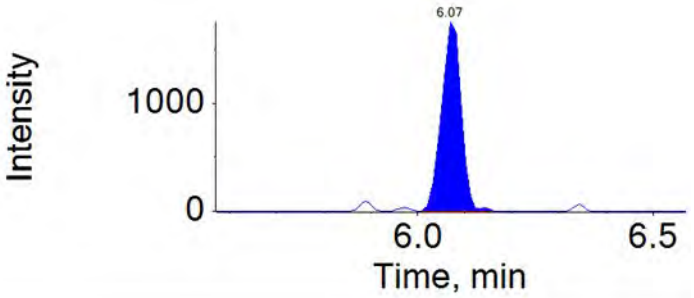
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



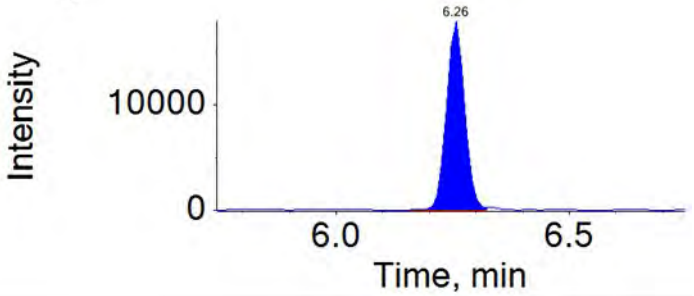
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



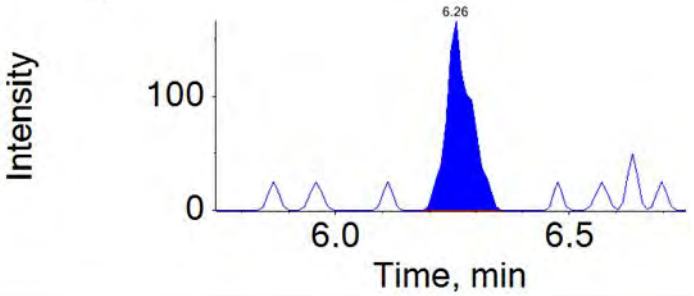
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

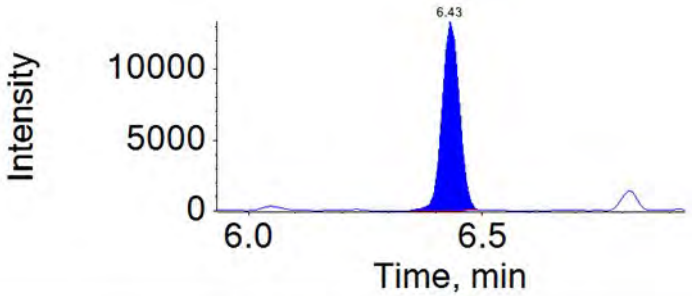
Component: PFTrDA
Primary Mass: 663.0 / 619.0



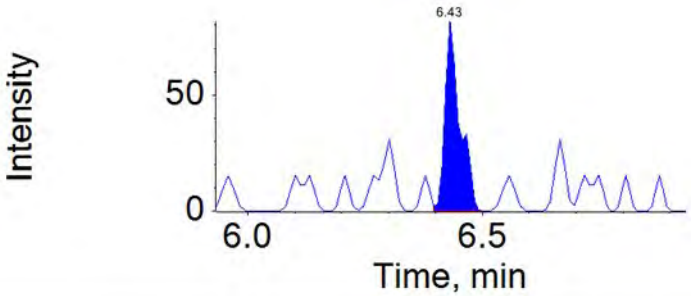
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



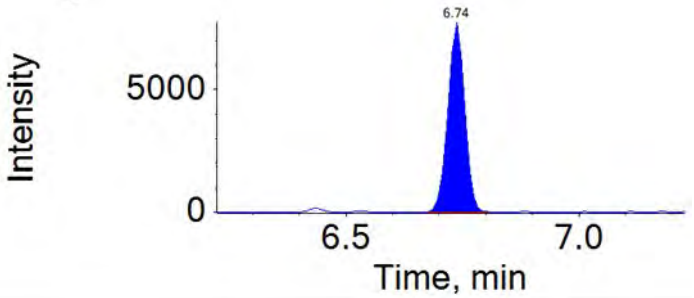
Component: PFTeDA
Primary Mass: 713.0 / 669.0



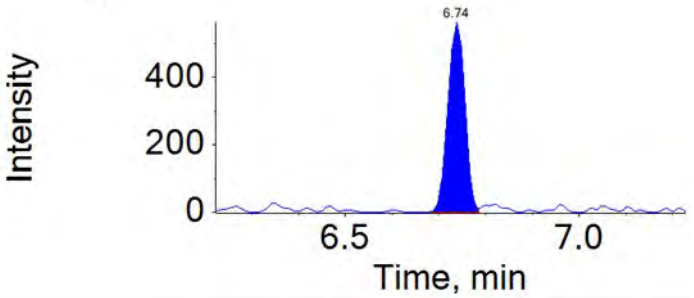
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



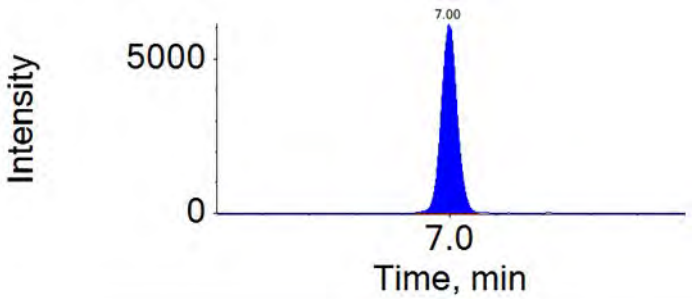
Component: PFHxDA
Primary Mass: 813.0 / 769.0



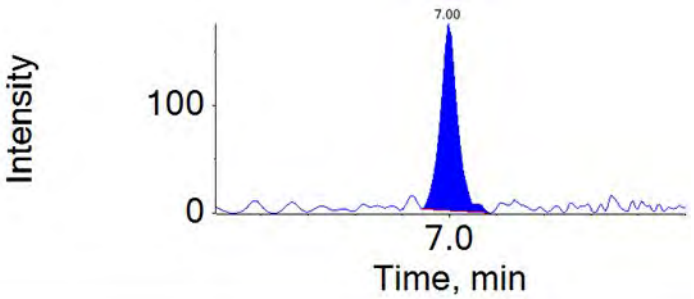
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL2			**Data File:**		18NOV28DCAL-07.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-28T13:51:13
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898154.2	887248.9	1	50	
13C2-PFOA	5.0	493545.2	498501.6	-1	50	
13C4-PFOS	4.8	295669.7	283214.2	4	50	
13C2-PFDA	5.0	460926.2	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1033122.1	13C3-PFBA	898154.2	1.150	5.000	5.132	103	70-130	
E13C5-PFPeA	1014125.0	13C3-PFBA	898154.2	1.129	5.000	5.273	105	70-130	
E13C3-PFBS	442150.0	13C3-PFBA	898154.2	0.492	4.650	4.697	101	70-130	
E13C2-4:2-FTS	72067.2	13C2-PFOA	493545.2	0.146	4.670	5.032	108	70-130	
E13C5-PFHxA	697229.0	13C2-PFOA	493545.2	1.413	5.000	5.189	104	70-130	
E13C3-PFHxS	335129.7	13C2-PFOA	493545.2	0.679	4.730	5.322	113	70-130	
E13C4-PFHpA	547372.0	13C2-PFOA	493545.2	1.109	5.000	5.096	102	70-130	
E13C2-6:2-FTS	63922.7	13C2-PFOA	493545.2	0.130	4.750	5.422	114	70-130	
E13C8-PFOA	1030866.6	13C2-PFOA	493545.2	2.089	5.000	5.749	115	70-130	
E13C8-PFOS	313894.3	13C4-PFOS	295669.7	1.062	4.780	4.792	100	70-130	
E13C9-PFNA	682380.7	13C4-PFOS	295669.7	2.308	5.000	5.069	101	70-130	
E13C6-PFDA	839100.7	13C2-PFDA	460926.2	1.820	5.000	5.133	103	70-130	
E13C2-8:2-FTS	54757.9	13C2-PFDA	460926.2	0.119	4.790	5.106	107	70-130	
E13C8-PFOSA	658778.5	13C2-PFDA	460926.2	1.429	5.000	5.244	105	70-130	
Ed3-NMeFOSAA	181261.3	13C2-PFDA	460926.2	0.393	5.000	4.993	100	70-130	
E13C7-PFUnDA	581207.0	13C2-PFDA	460926.2	1.261	5.000	5.329	107	70-130	
Ed5-NEtFOSAA	144803.2	13C2-PFDA	460926.2	0.314	5.000	5.597	112	70-130	
E13C2-PFDoDA	1140522.3	13C2-PFDA	460926.2	2.474	5.000	5.199	104	70-130	
Ed7-NMePFOSAE	272071.3	13C2-PFDA	460926.2	0.590	5.000	5.101	102	70-130	
Ed3-NMePFOSA	86471.7	13C2-PFDA	460926.2	0.188	5.000	5.077	102	70-130	
Ed9-NEtPFOSAE	229050.7	13C2-PFDA	460926.2	0.497	5.000	5.038	101	70-130	
Ed5-NEtPFOSA	66646.8	13C2-PFDA	460926.2	0.145	5.000	5.024	100	70-130	
E13C2-PFTeDA	858145.2	13C2-PFDA	460926.2	1.862	5.000	5.152	103	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

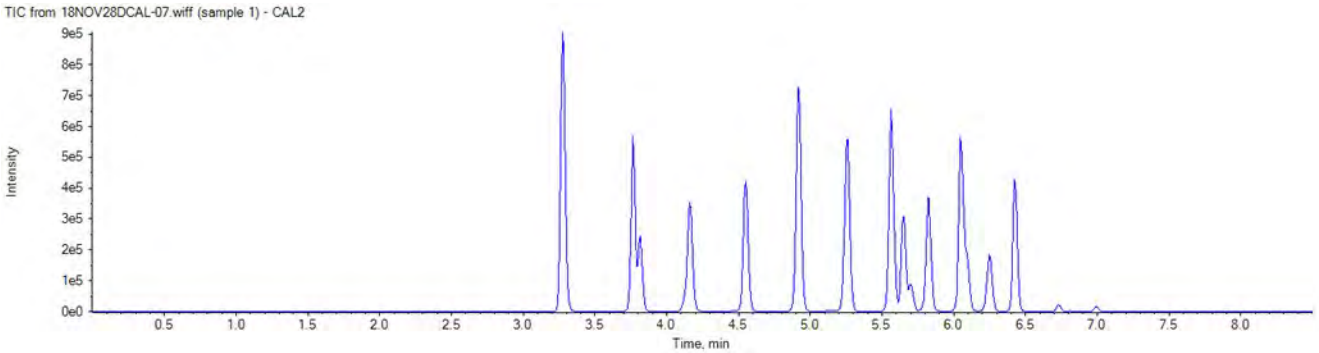
Analyte Quantitation Peak Table

Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-07.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	110036.6		A	13C4-PFBA	3.27	1033122.1	0.107	0.584
PFPeA	3.77	1.000	104393.1		A	13C5-PFPeA	3.77	1014125.0	0.103	0.505
PFBS	3.81	1.000	43237.4		A	13C3-PFBS	3.82	442150.0	0.098	0.475
4:2-FTS	4.13	1.000	14524.8		A	13C2-4:2-FTS	4.13	72067.2	0.202	0.540
PFHxA	4.16	1.000	101713.2		A	13C5-PFHxA	4.16	697229.0	0.146	0.586
PFPeS	4.18	1.100	24007.3		A	13C3-PFBS	3.82	442150.0	0.054	0.549
PFHpA	4.55	1.000	100593.8		A	13C4-PFHpA	4.55	547372.0	0.184	0.567
PFHxS	4.55	1.000	31104.5		M	13C3-PFHxS	4.55	335129.7	0.093	0.435
6:2-FTS	4.91	1.000	14479.8		A	13C2-6:2-FTS	4.91	63922.7	0.227	0.591
PFHpS	4.91	1.080	32553.7		A	13C3-PFHxS	4.55	335129.7	0.097	0.485
PFOA	4.92	1.000	106420.8		A	13C8-PFOA	4.92	1030866.6	0.103	0.533
PFOS	5.25	1.000	34203.6		M	13C8-PFOS	5.25	313894.3	0.109	0.457
PFNA	5.26	1.000	106720.9		A	13C9-PFNA	5.26	682380.7	0.156	0.599
PFNS	5.54	1.060	24149.9		A	13C8-PFOS	5.25	313894.3	0.077	0.486
PFDA	5.57	1.000	90730.3		A	13C6-PFDA	5.56	839100.7	0.108	0.612
8:2-FTS	5.57	1.000	15550.2		A	13C2-8:2-FTS	5.57	54757.9	0.284	0.536
PFOSA	5.65	1.000	73112.3		A	13C8-PFOSA	5.65	658778.5	0.111	0.562
NMeFOSAA	5.70	1.000	16533.1		A	d3-NMeFOSAA	5.70	181261.3	0.091	0.582
PFDS	5.80	1.100	18654.8		A	13C8-PFOS	5.25	313894.3	0.059	0.471
PFUnDA	5.82	1.000	91490.4		A	13C7-PFUnDA	5.82	581207.0	0.157	0.563
NEtFOSAA	5.84	1.000	16643.3		A	d5-NEtFOSAA	5.83	144803.2	0.115	0.560
PFDoDA	6.05	1.000	122586.0		A	13C2-PFDoDA	6.05	1140522.3	0.107	0.589
10:2-FTS	6.07	1.090	15157.8		A	13C2-8:2-FTS	5.57	54757.9	0.277	0.610
NMePFOSAE	6.10	1.000	37932.7		A	d7-NMePFOSAE	6.09	272071.3	0.139	0.587
NMePFOSA	6.11	1.000	9381.3		A	d3-NMePFOSA	6.10	86471.7	0.108	0.575
PFDoS	6.22	1.190	11606.3		A	13C8-PFOS	5.25	313894.3	0.037	0.531
NEtPFOSAE	6.26	1.000	37977.7		A	d9-NEtPFOSAE	6.24	229050.7	0.166	0.596
NEtPFOSA	6.27	1.000	7883.3		A	d5-NEtPFOSA	6.26	66646.8	0.118	0.530
PFTrDA	6.25	1.030	117562.3		A	13C2-PFDoDA	6.05	1140522.3	0.103	0.621
PFTeDA	6.43	1.000	88360.3		A	13C2-PFTeDA	6.43	858145.2	0.103	0.583
PFHxDA	6.73	1.050	44164.6		A	13C2-PFTeDA	6.43	858145.2	0.051	0.588
PFODA	6.99	1.090	36421.5		A	13C2-PFTeDA	6.43	858145.2	0.042	0.565

Total Ion Chromatogram

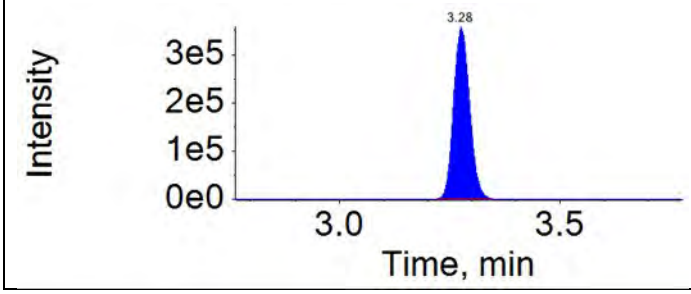


APPROVED
By MCD at 5:00 pm, 11/28/18

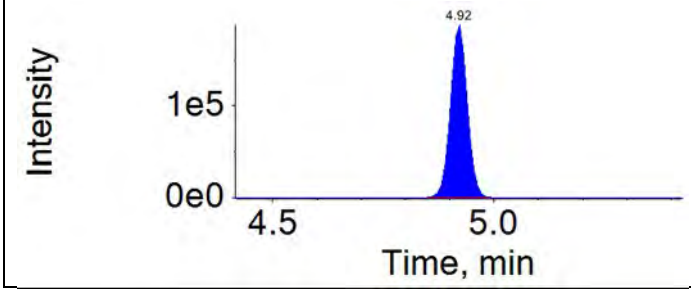
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

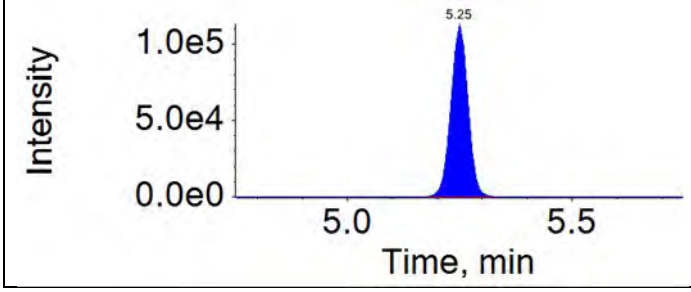
Injection Standard: 13C3-PFBA
216.0 / 172.0



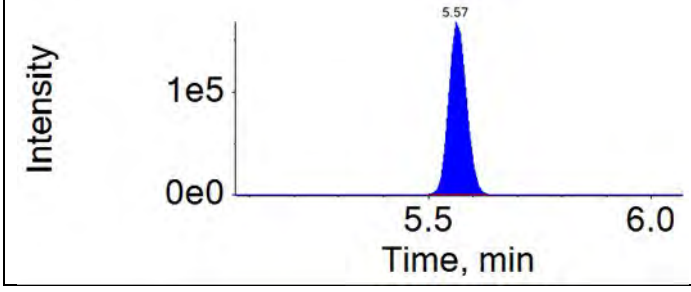
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

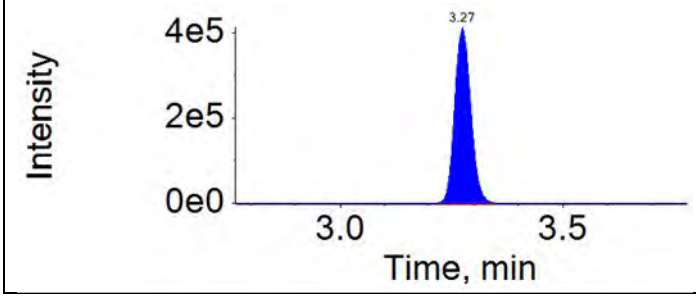


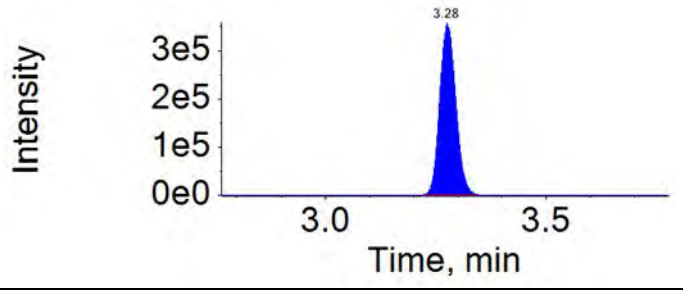
Injection Standard: 13C2-PFDA
515.0 / 470.0



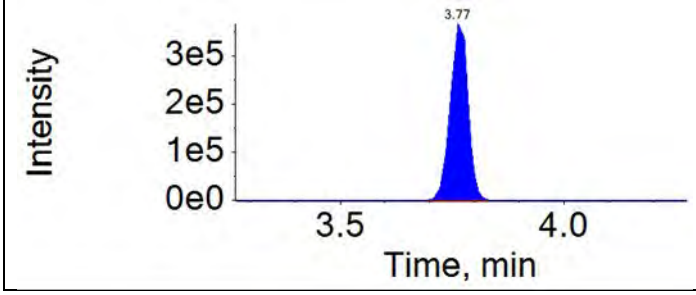
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

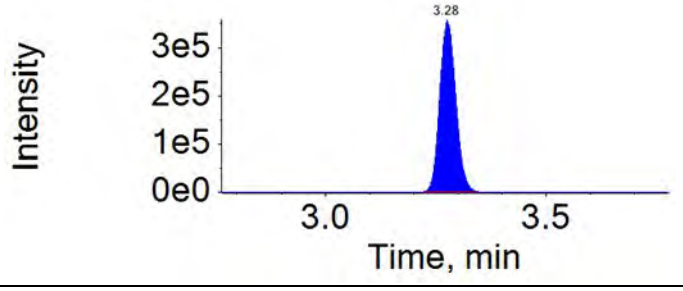
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



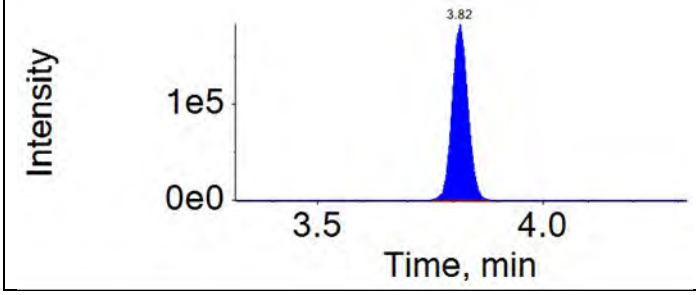


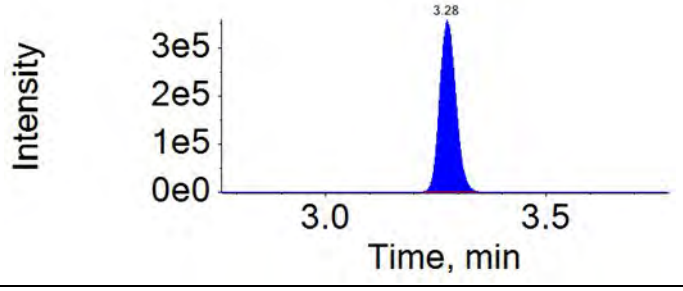
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



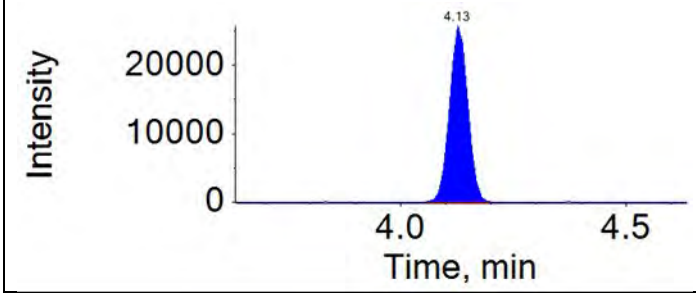


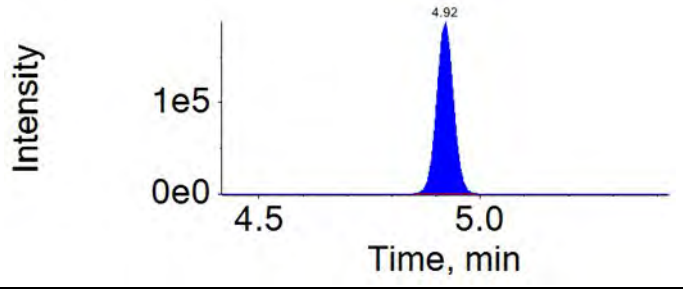
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





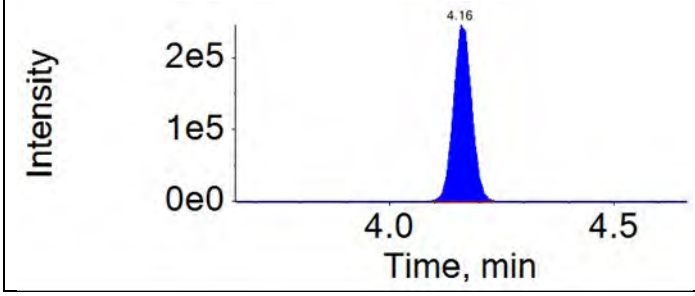
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

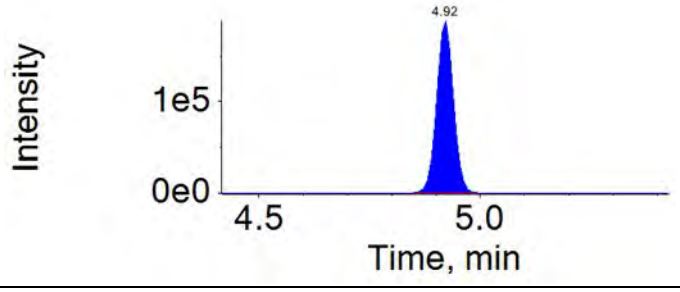




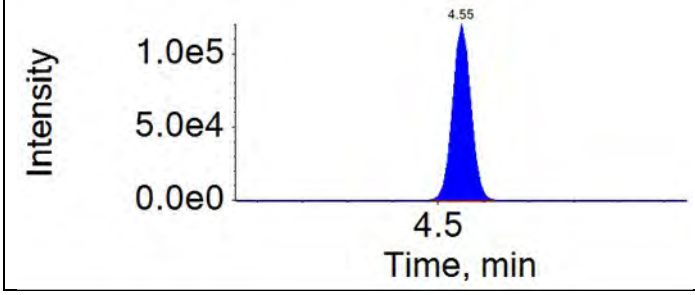
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

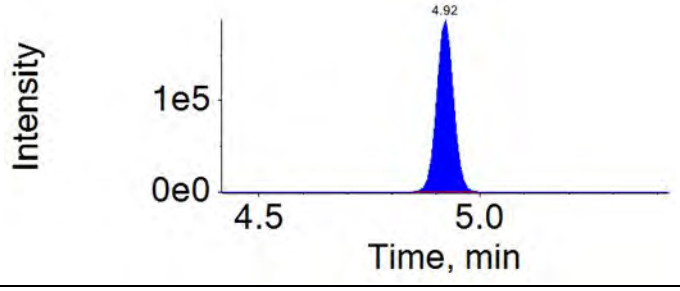
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



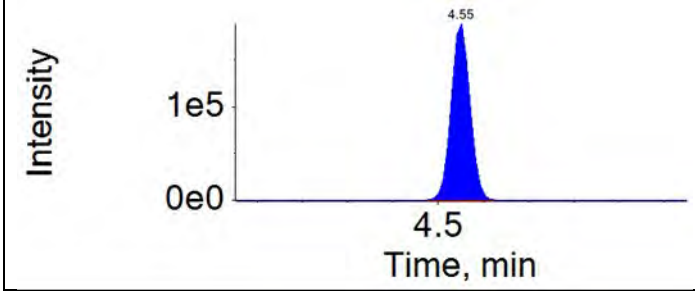


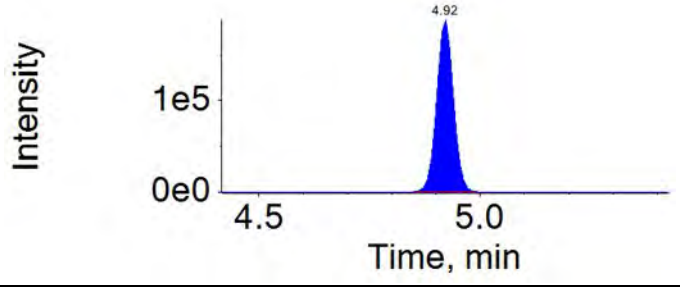
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



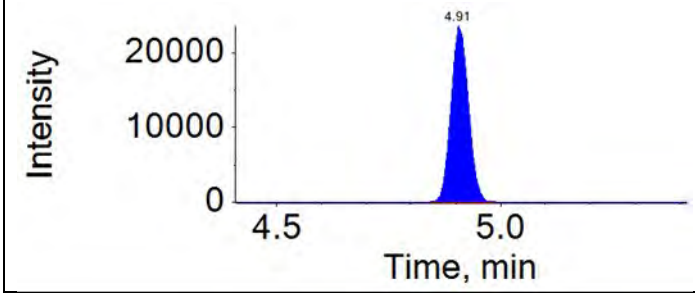


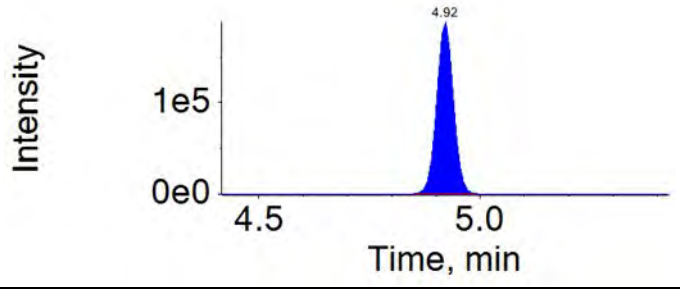
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

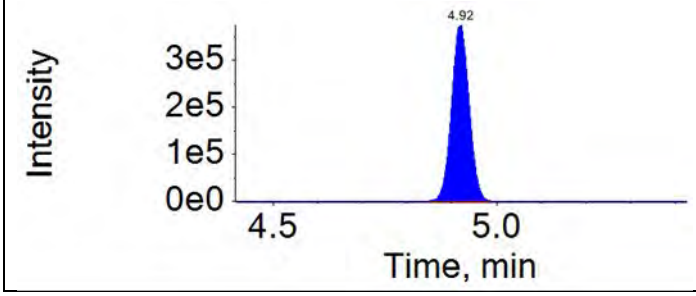
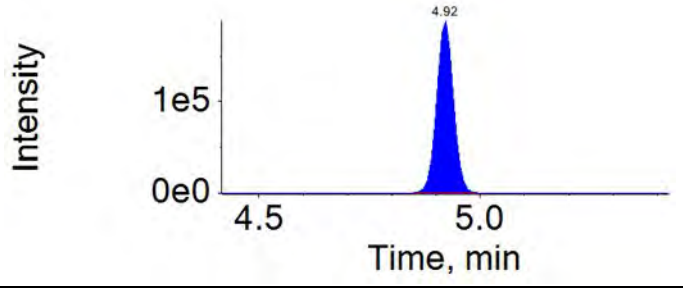


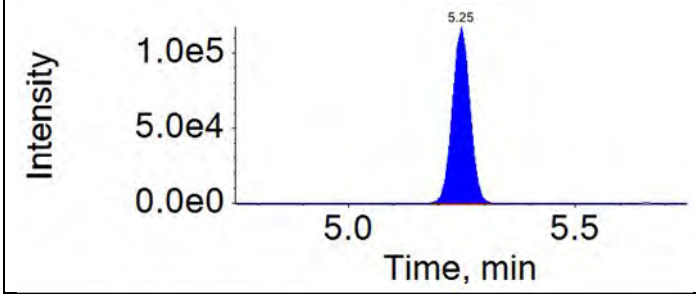
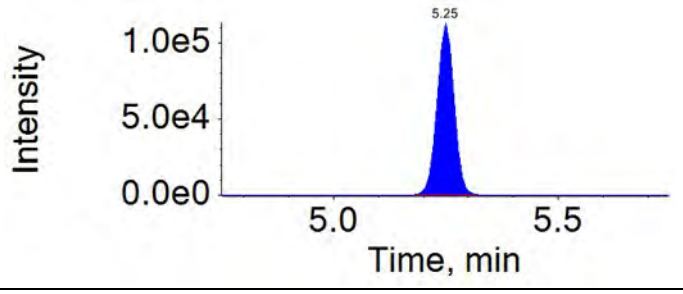


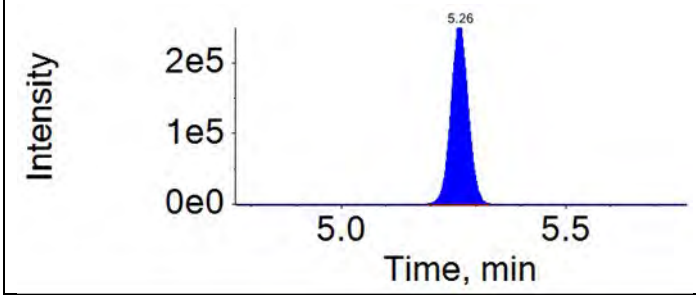
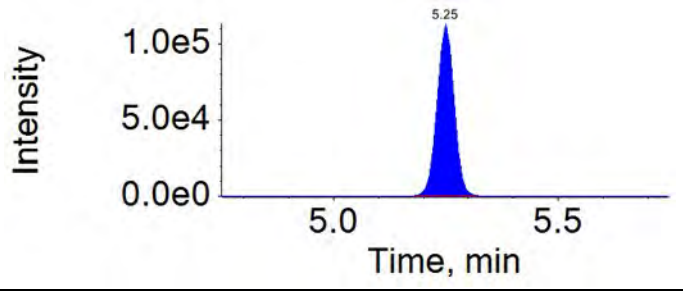
APPROVED
By MCD at 5:00 pm, 11/28/18

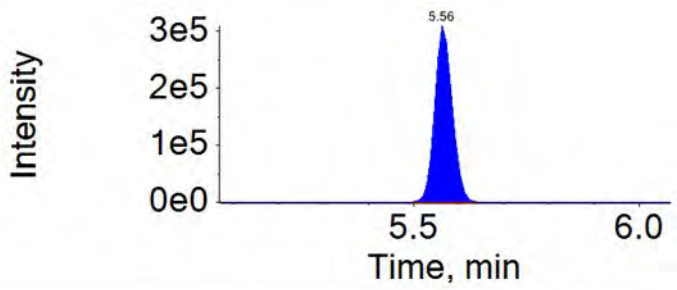
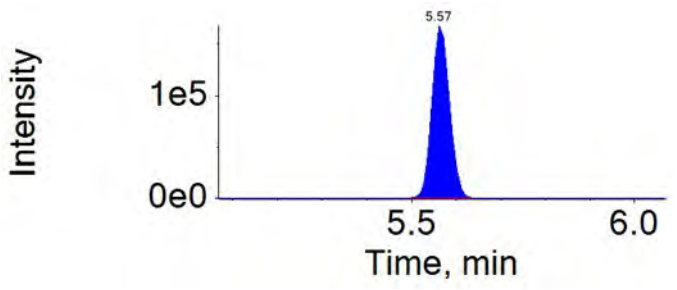
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

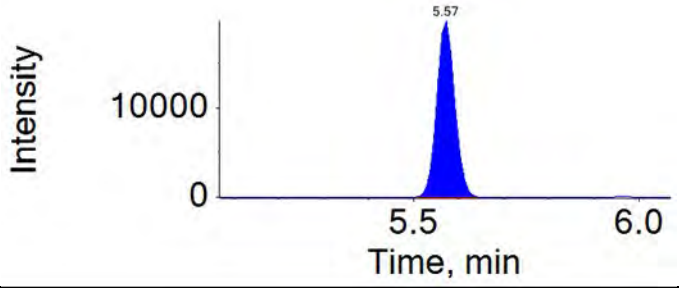
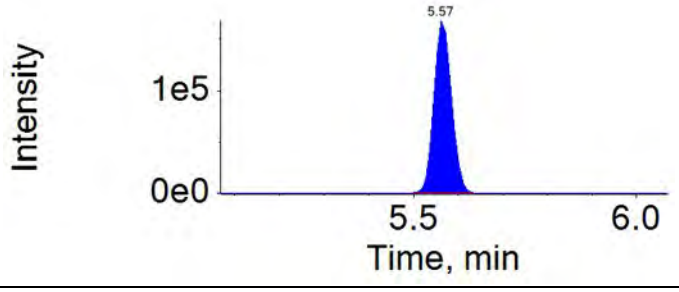
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

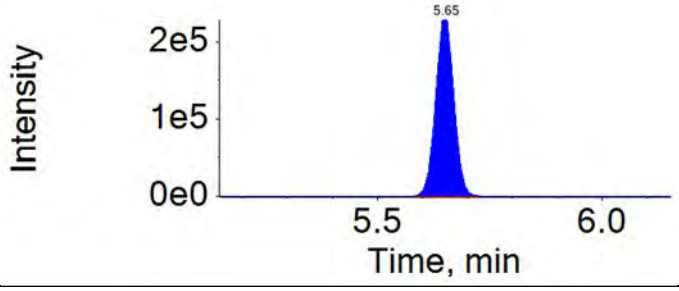
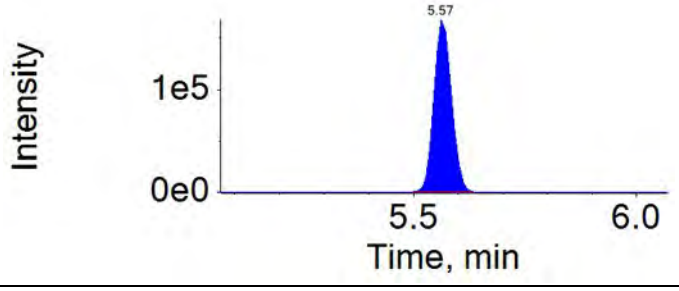
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

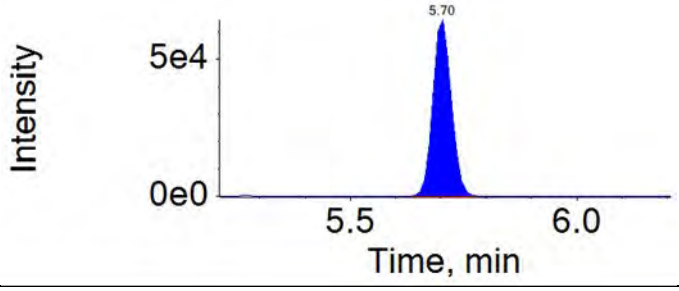
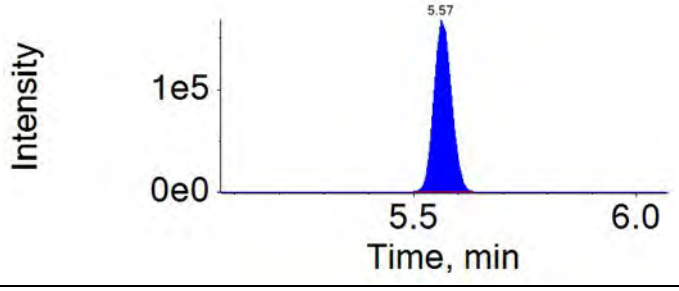
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

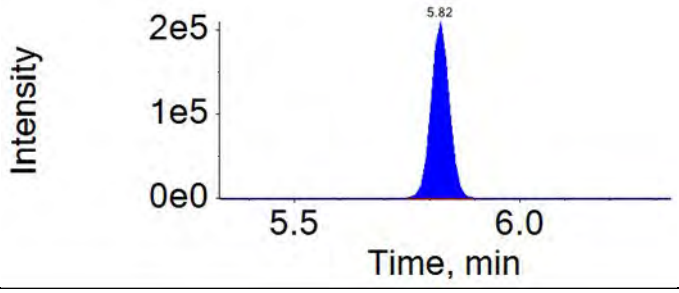
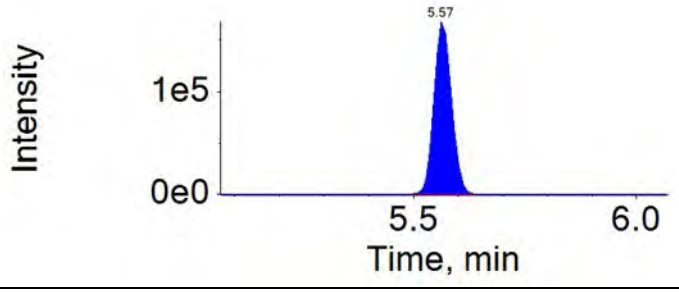
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

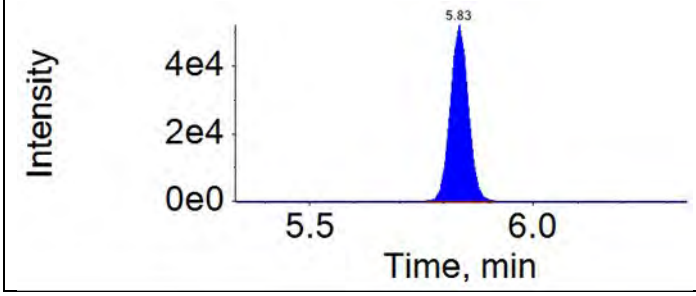
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

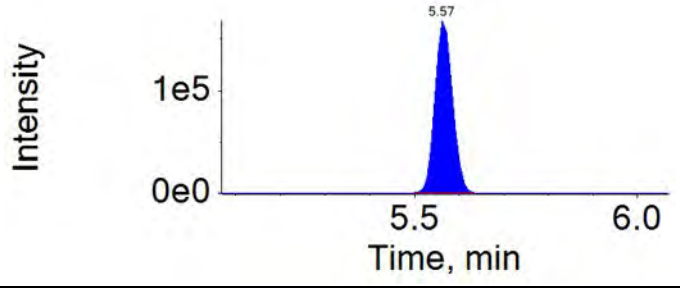
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

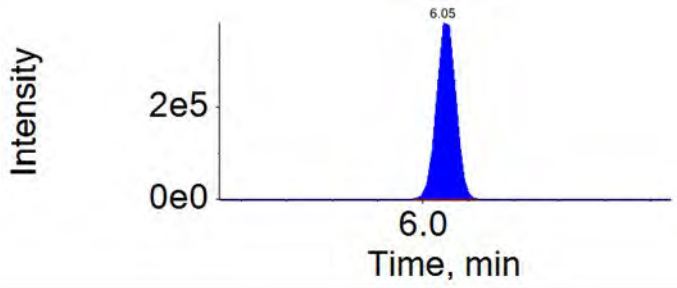
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

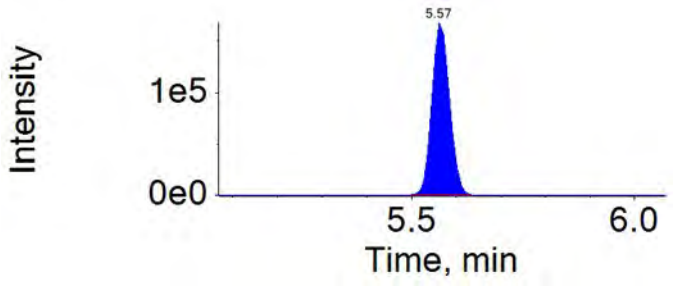
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



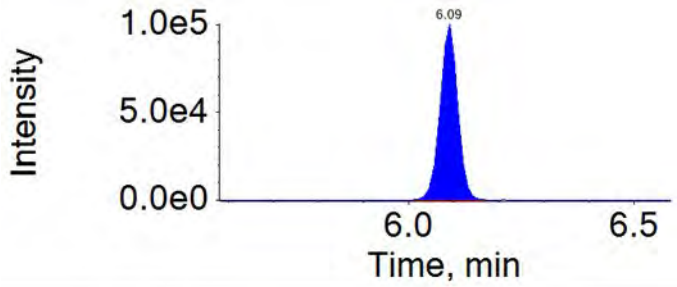


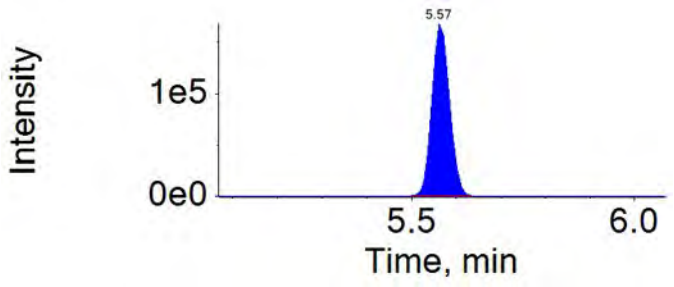
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



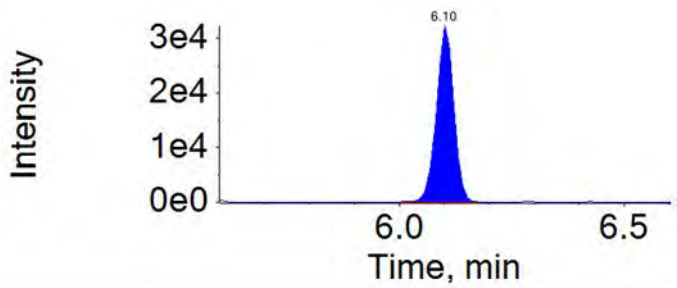


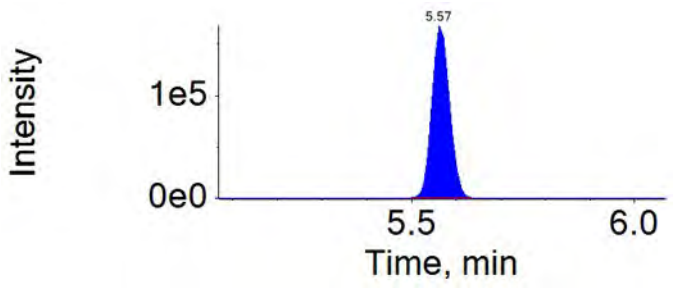
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



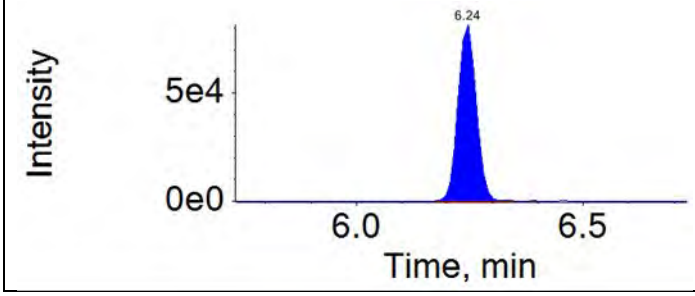


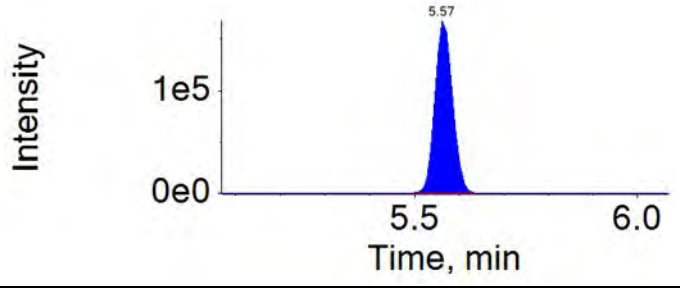
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

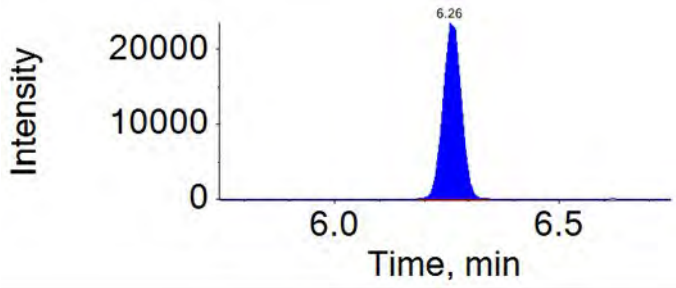
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

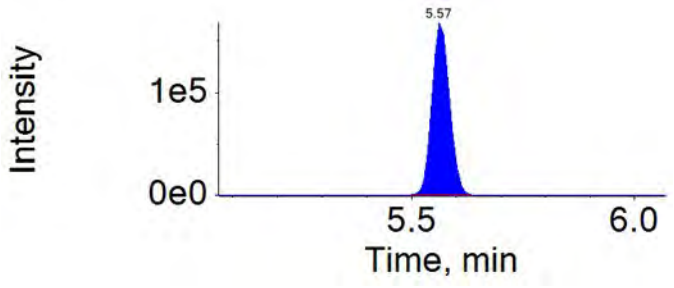
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



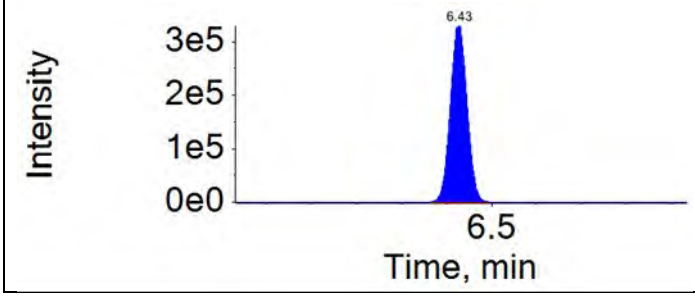


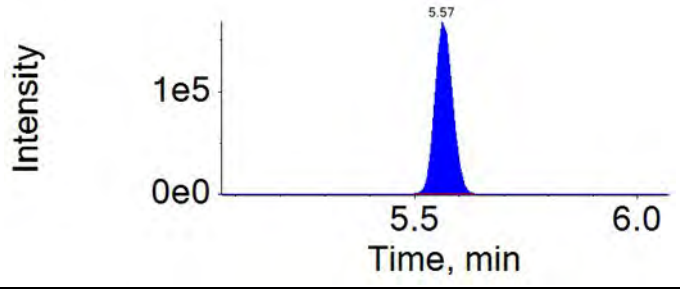
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



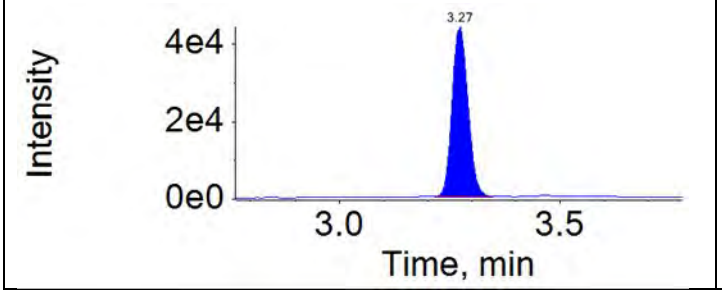


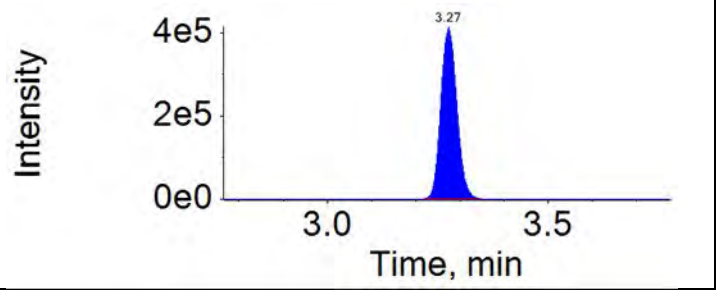
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

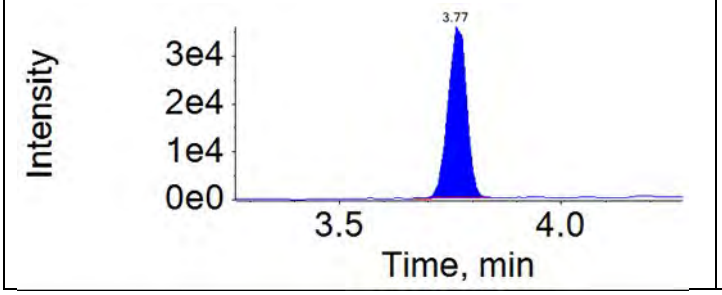
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

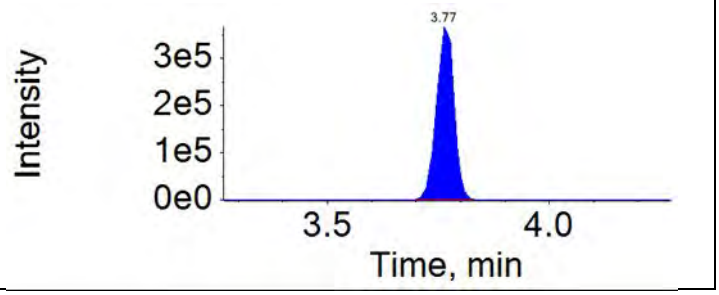
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



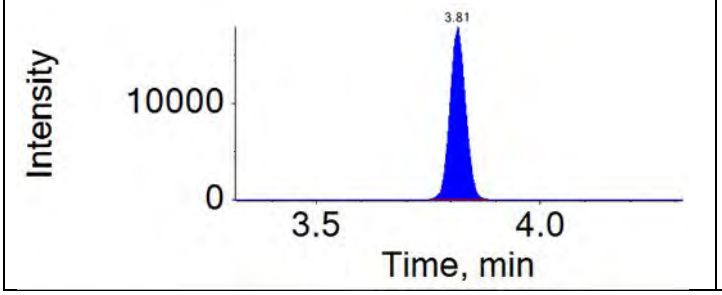


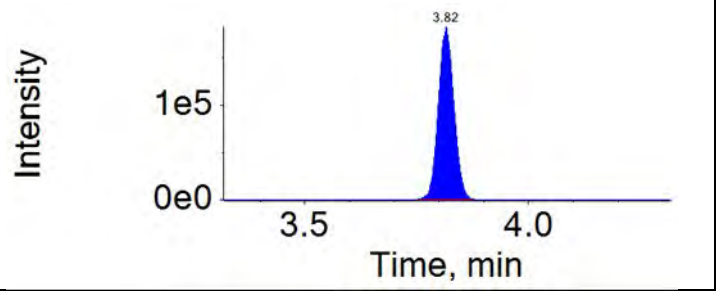
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



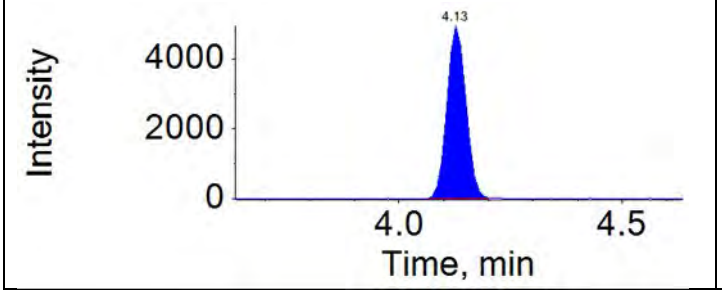


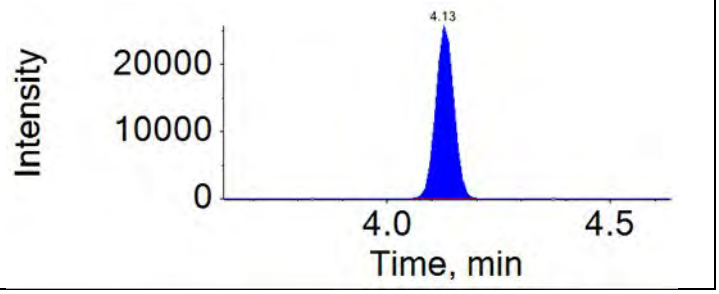
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



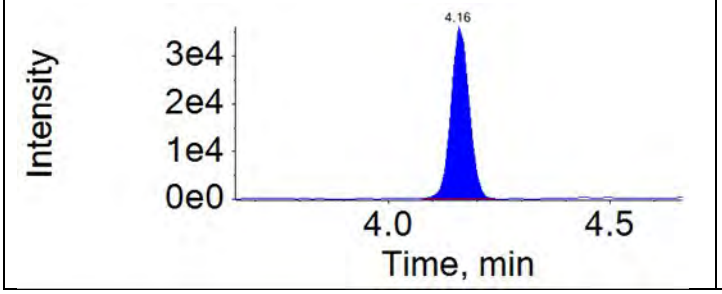


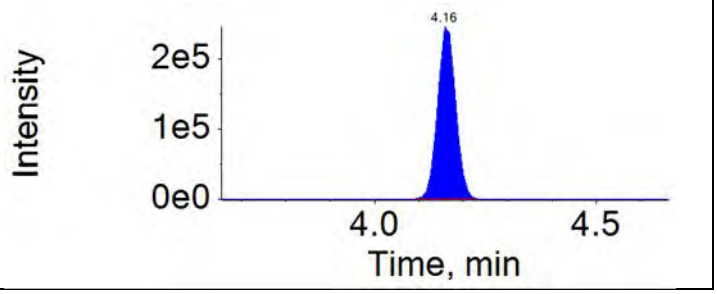
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

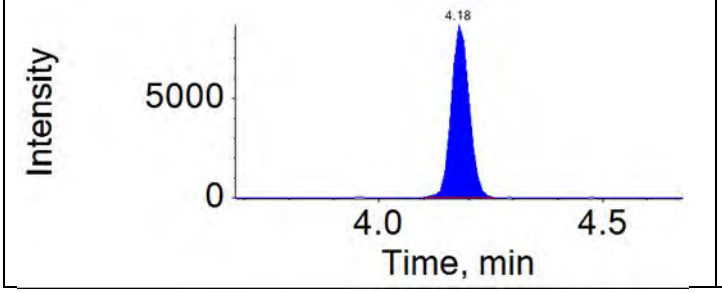
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

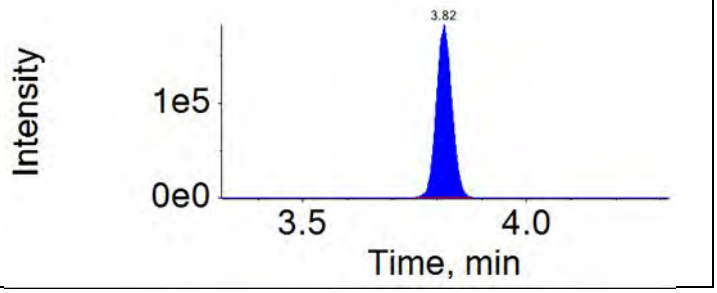
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



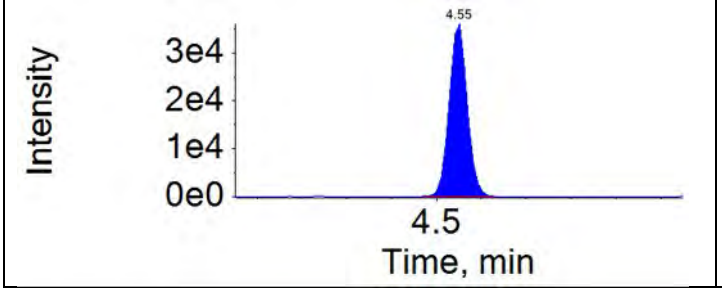


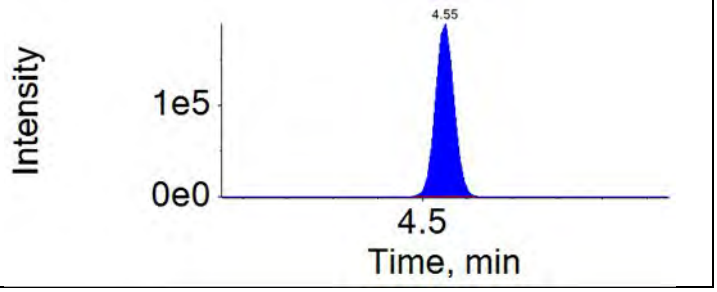
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



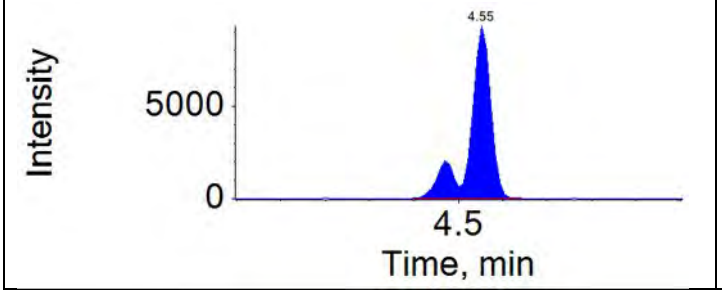


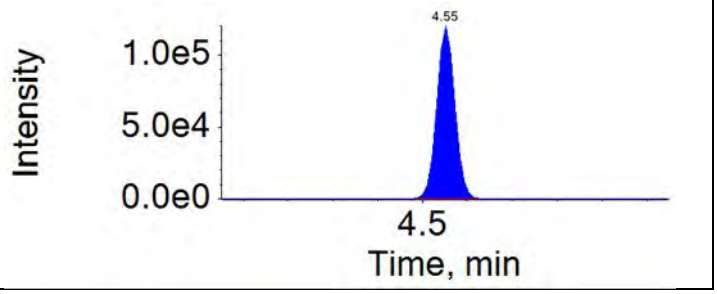
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

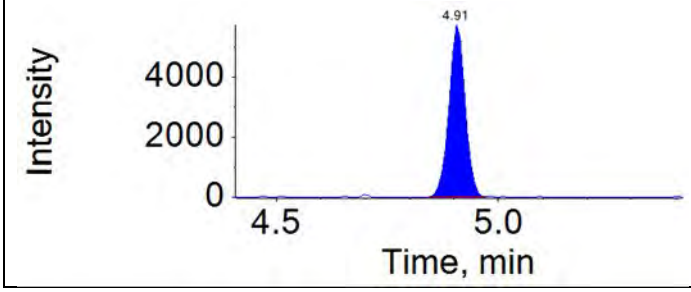
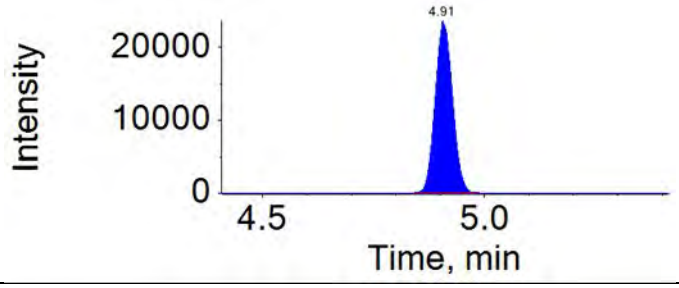


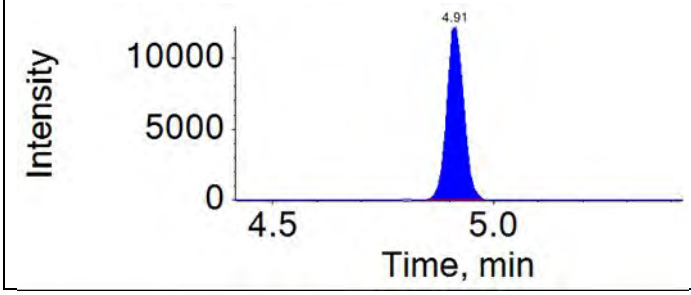
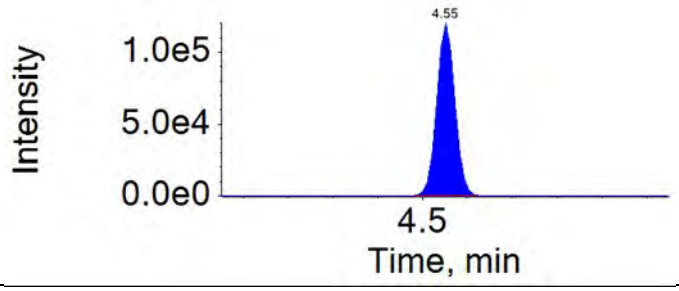


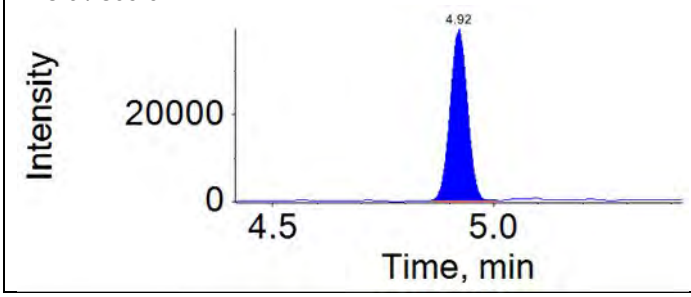
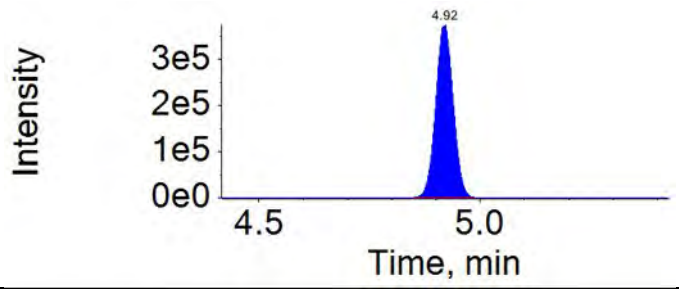
APPROVED
By MCD at 5:00 pm, 11/28/18

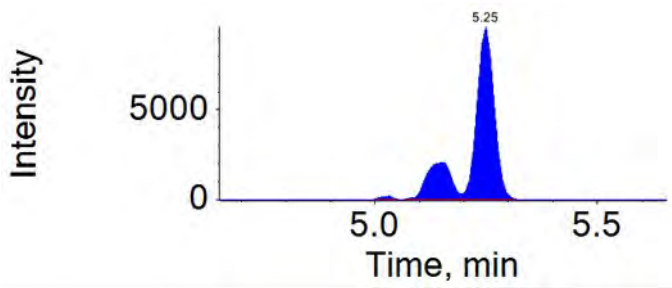
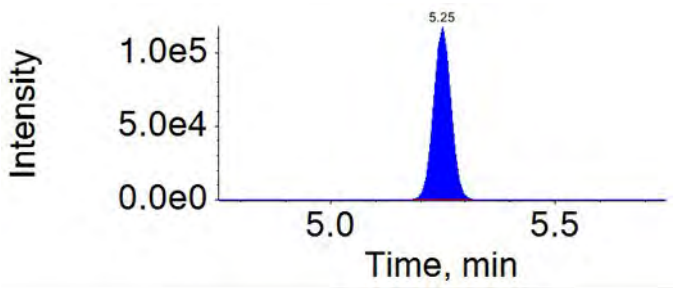
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

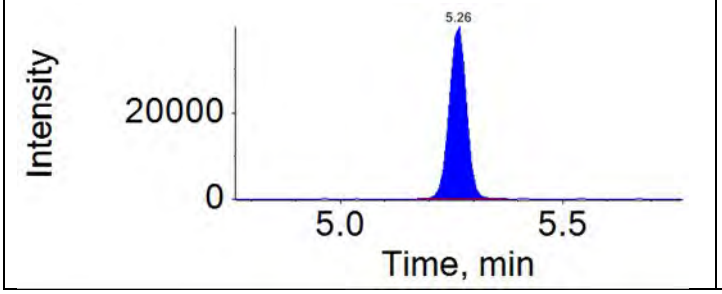
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

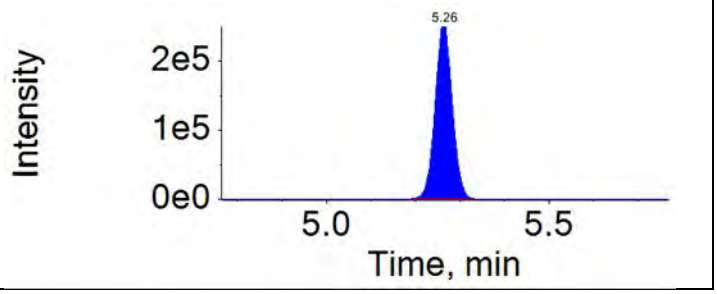
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

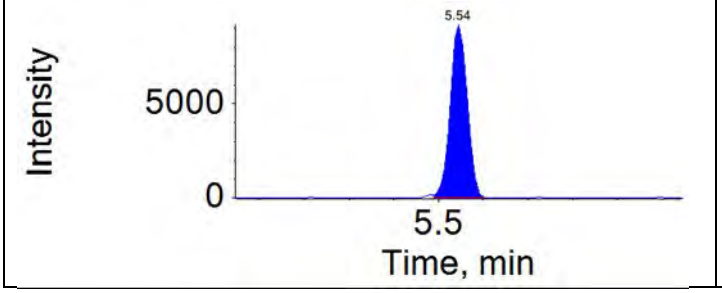
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

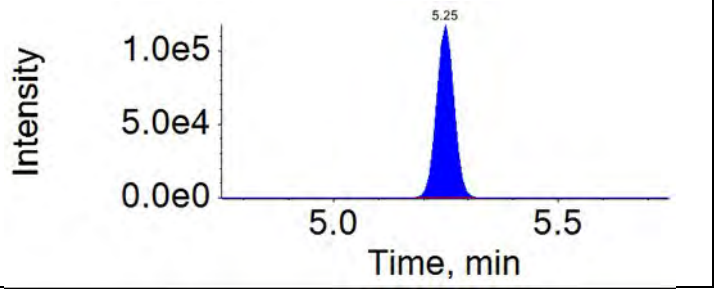
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



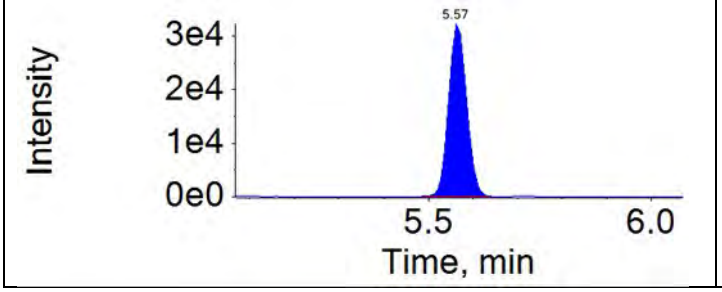


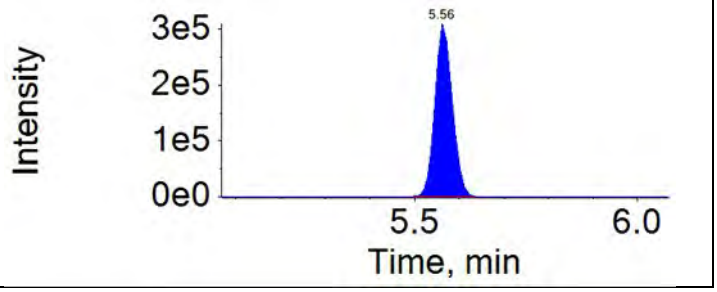
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



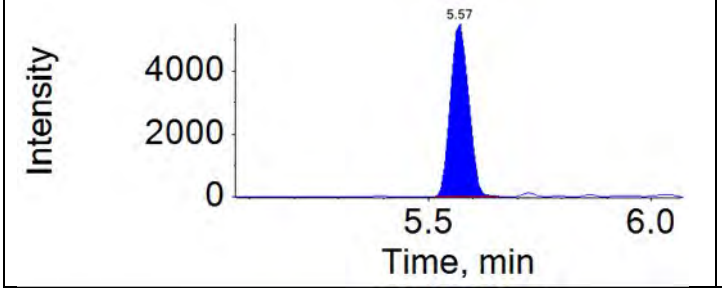


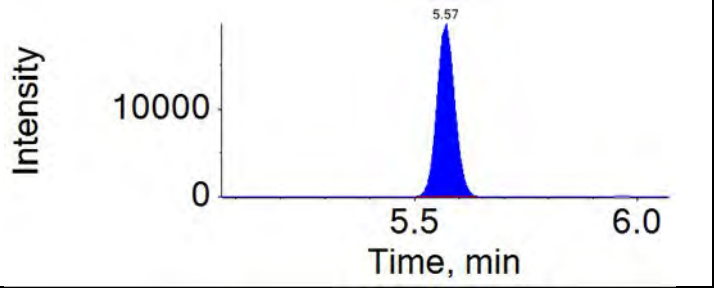
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



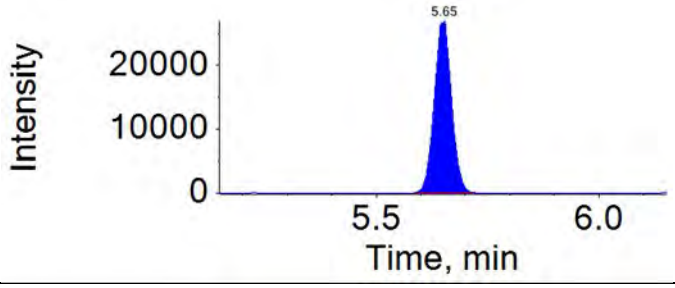


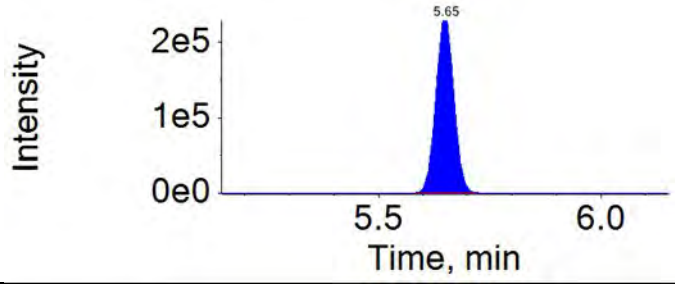
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

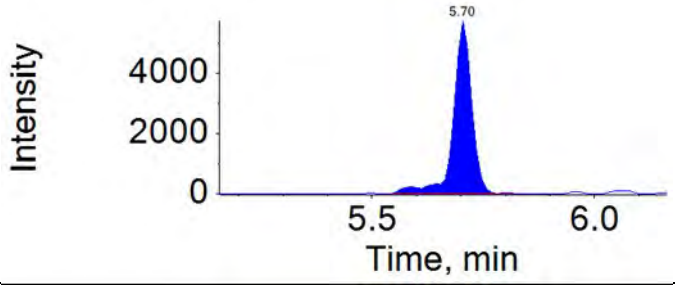
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

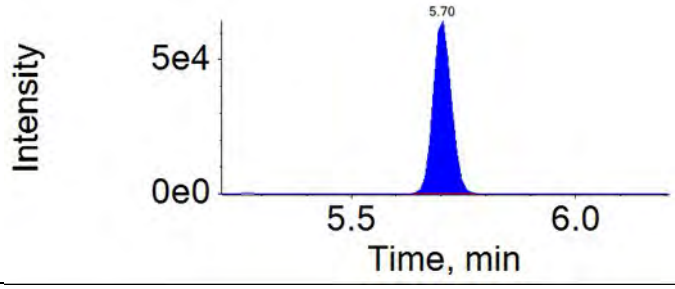
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



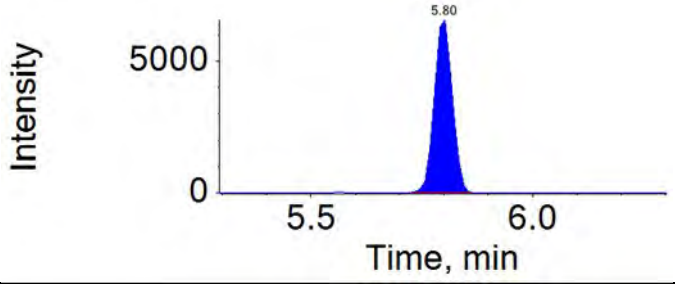


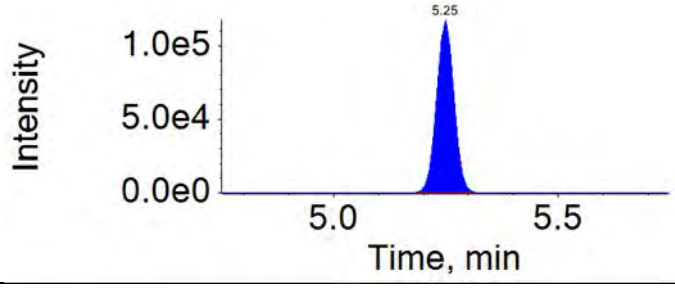
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



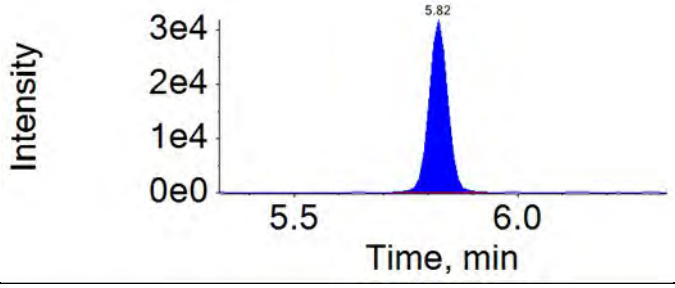


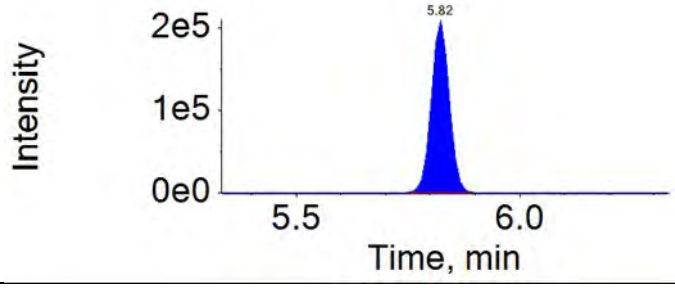
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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

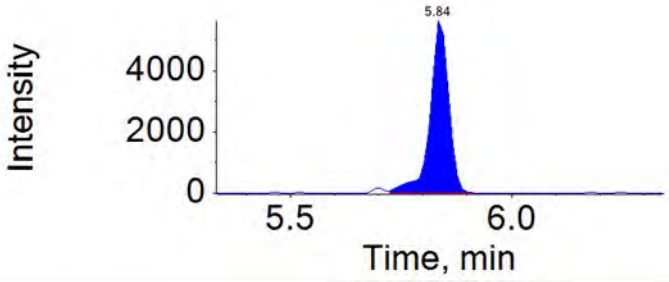
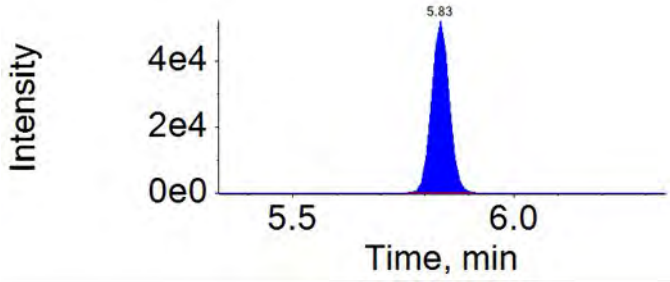


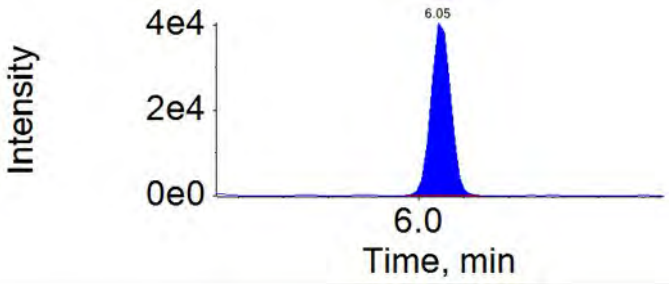
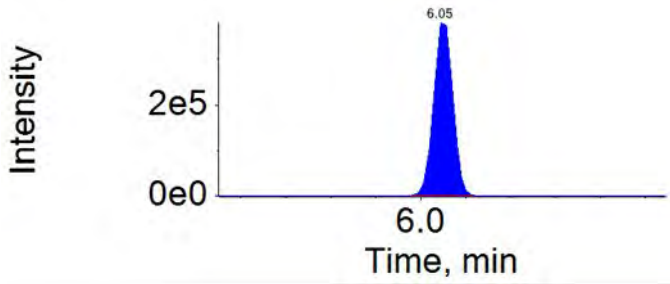


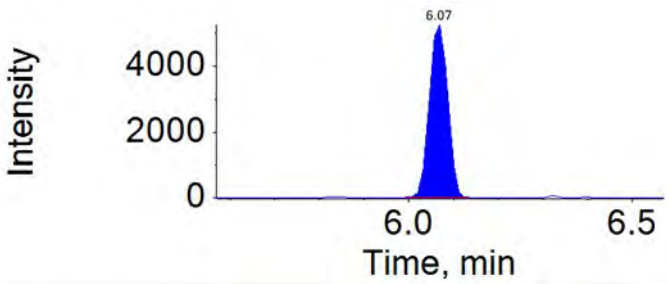
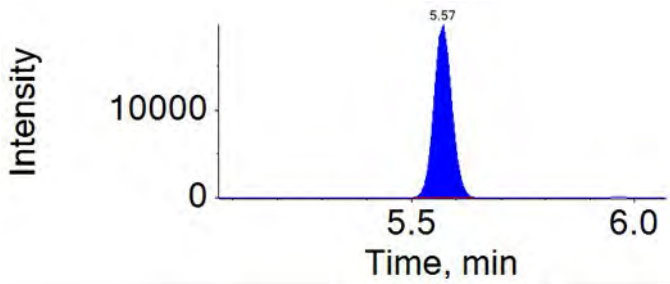
APPROVED
By MCD at 5:00 pm, 11/28/18

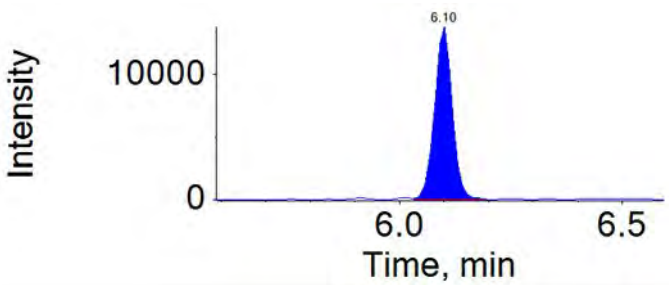
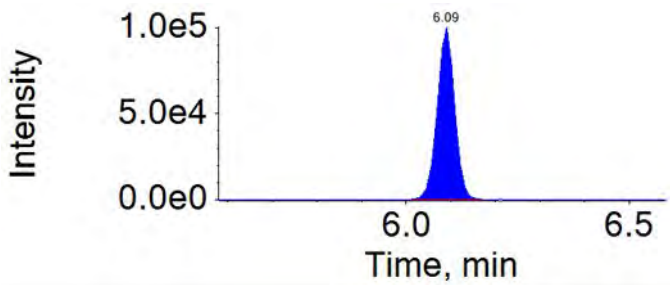
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

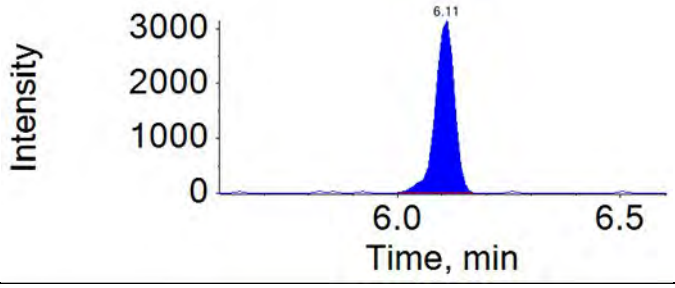
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

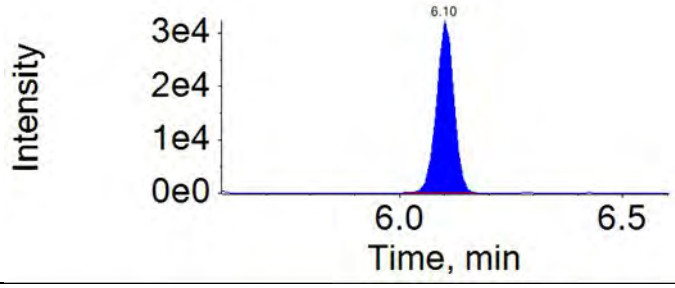
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

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

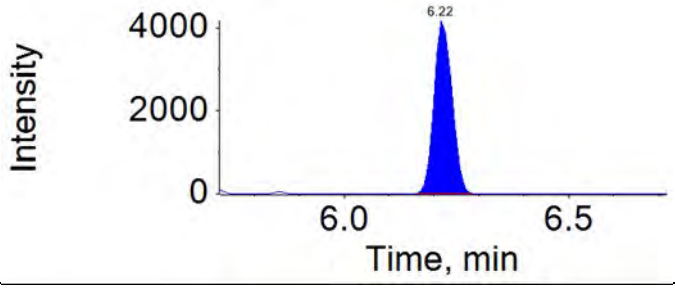
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

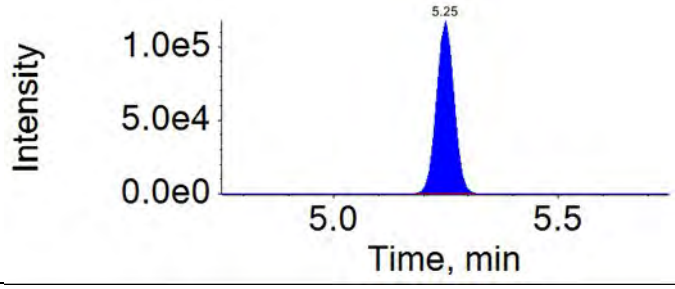
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



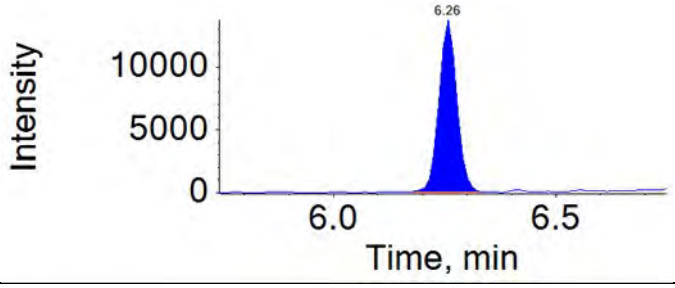


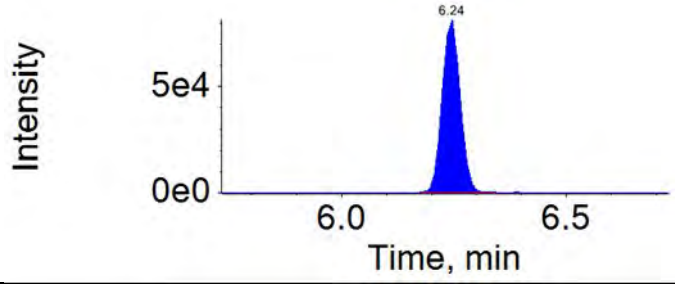
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



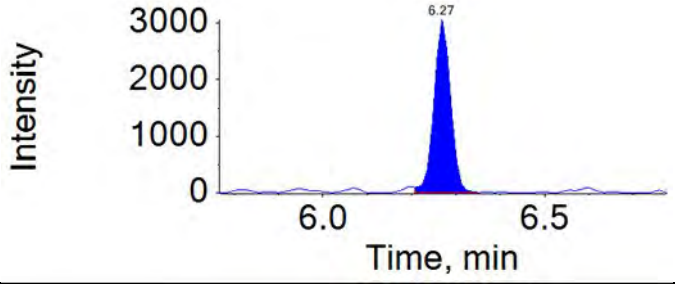


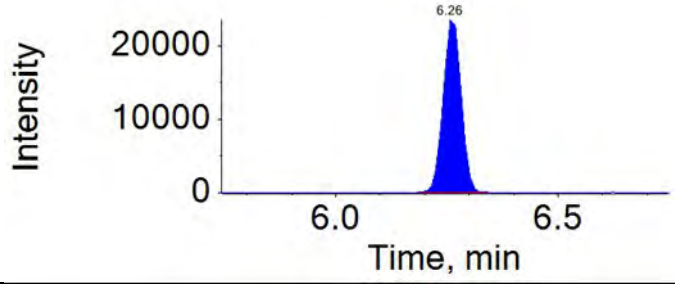
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



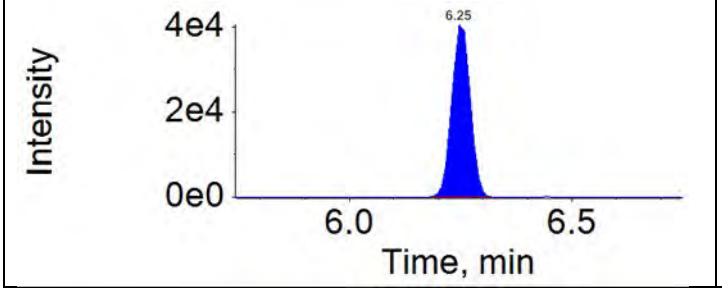


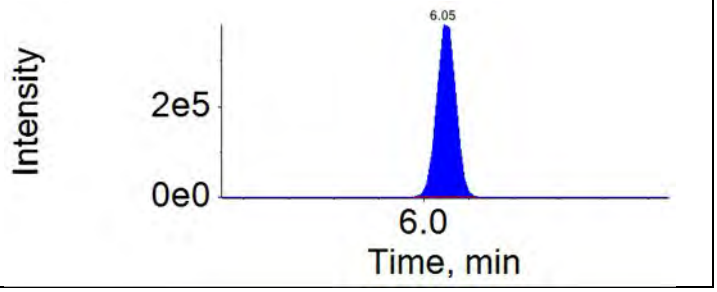
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

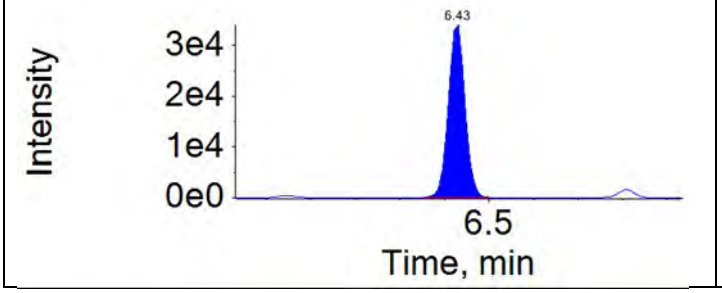
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

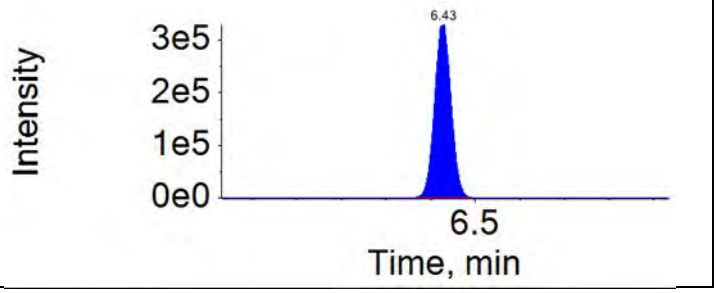
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



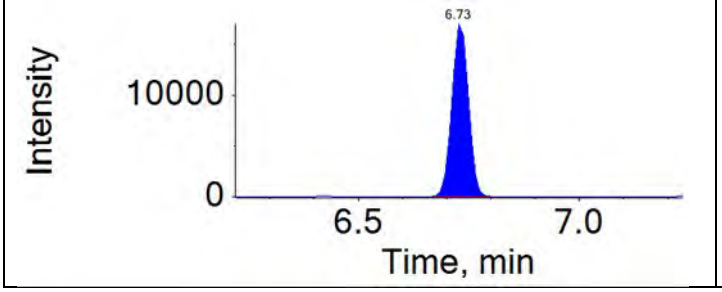


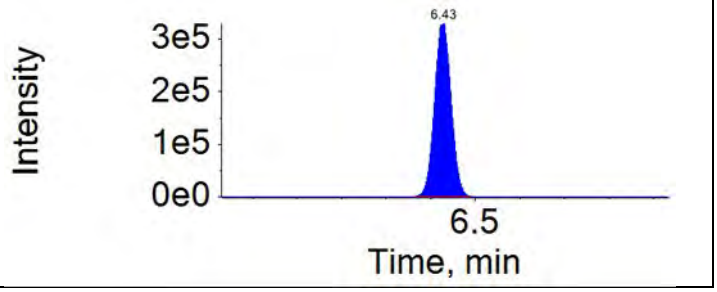
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



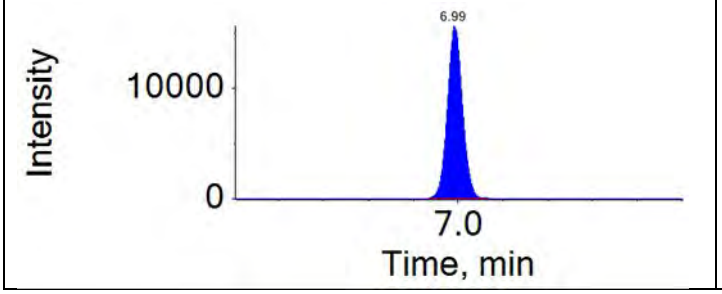


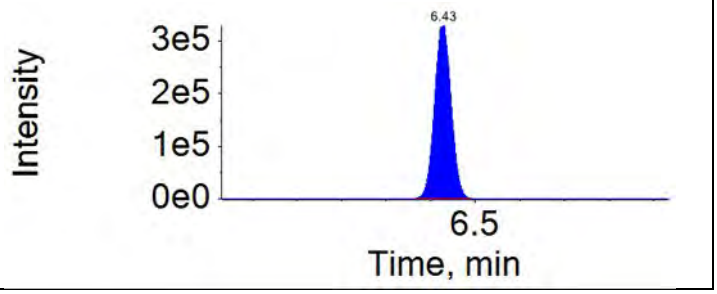
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



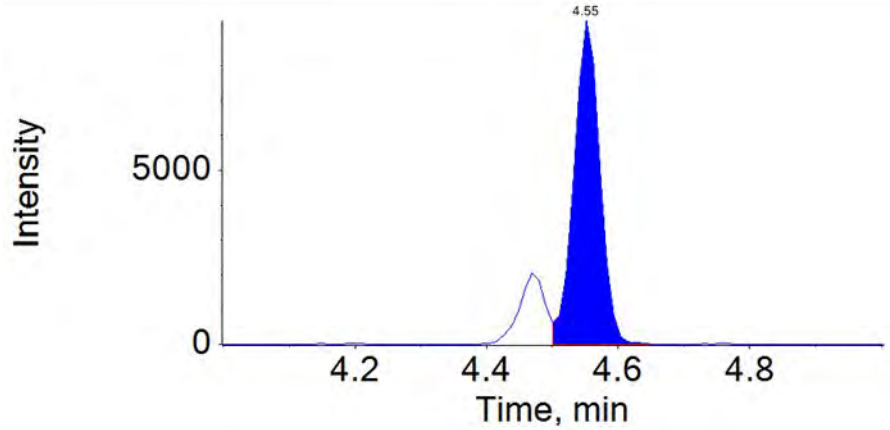


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

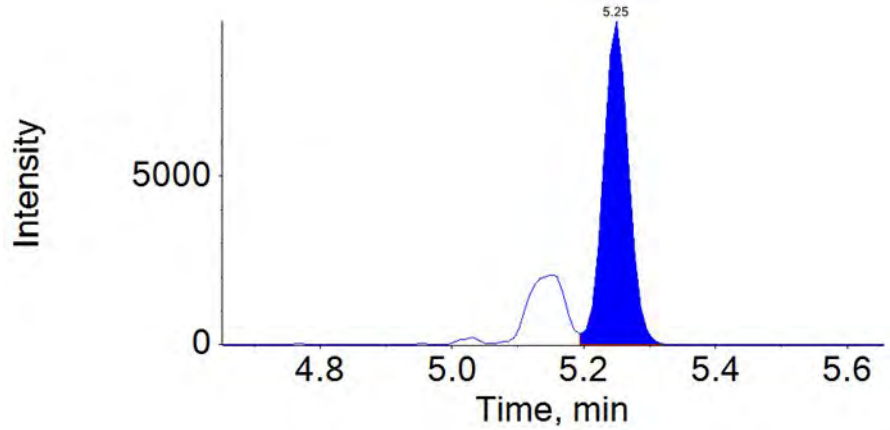
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
25567.97
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



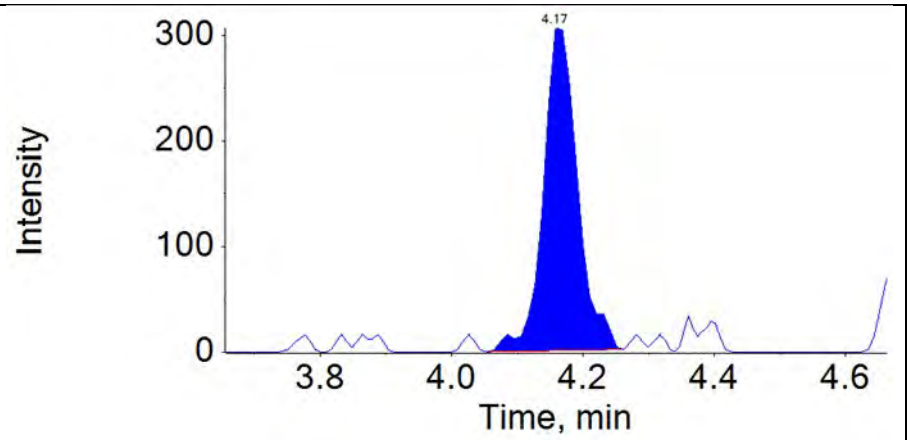
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
25590.10
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
4.17
Peak Area:
1118.24
Mass Range:
313.0 / 119.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



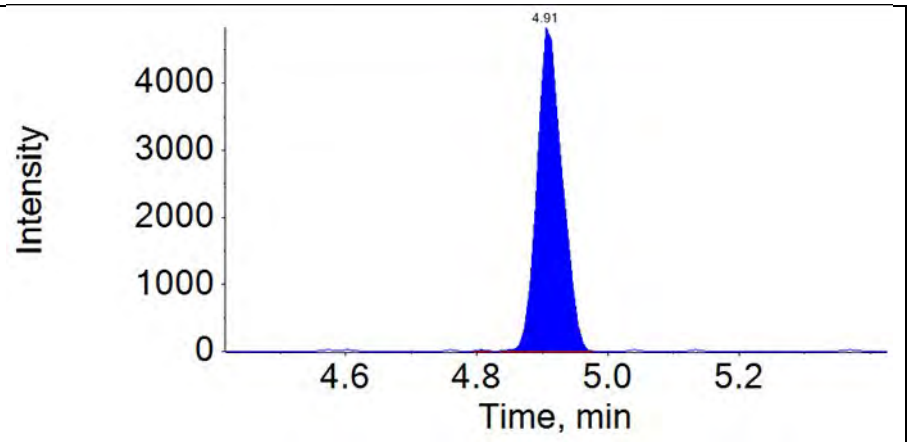
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

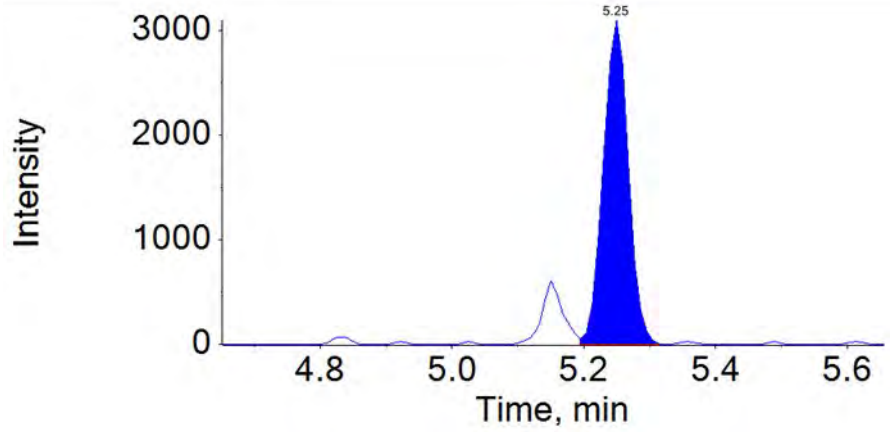
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpS_2
RT (min.):
4.91
Peak Area:
12887.35
Mass Range:
449.0 / 99.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



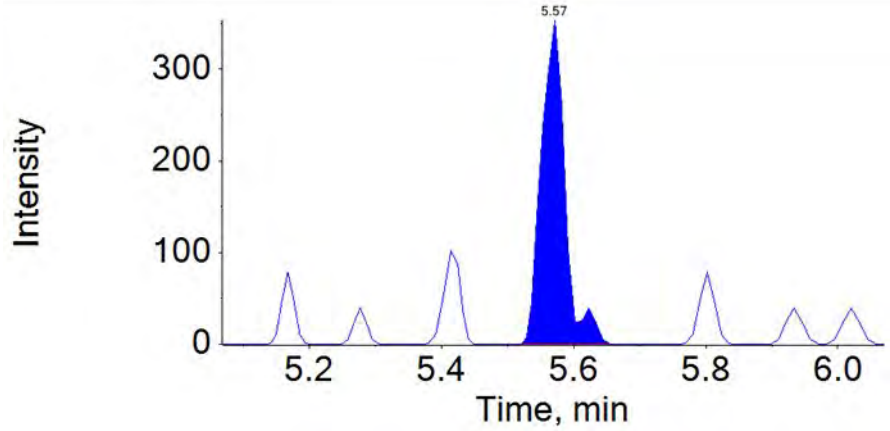
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
8192.52
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
886.81
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



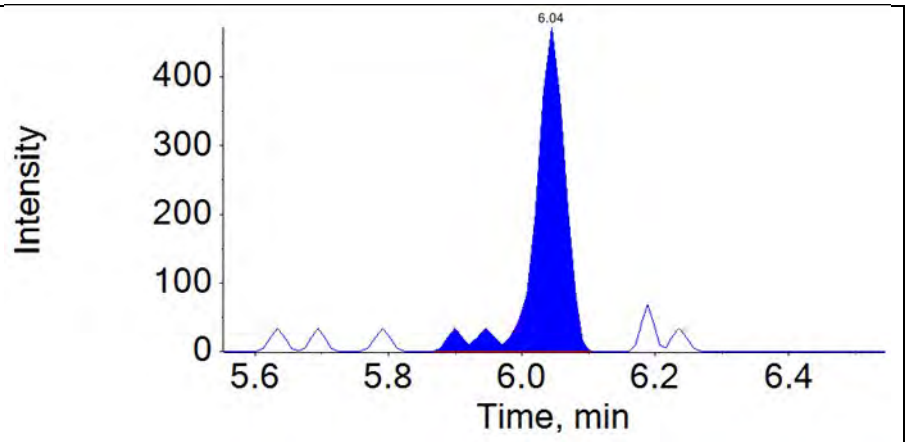
Integration Comment: incorrect integration

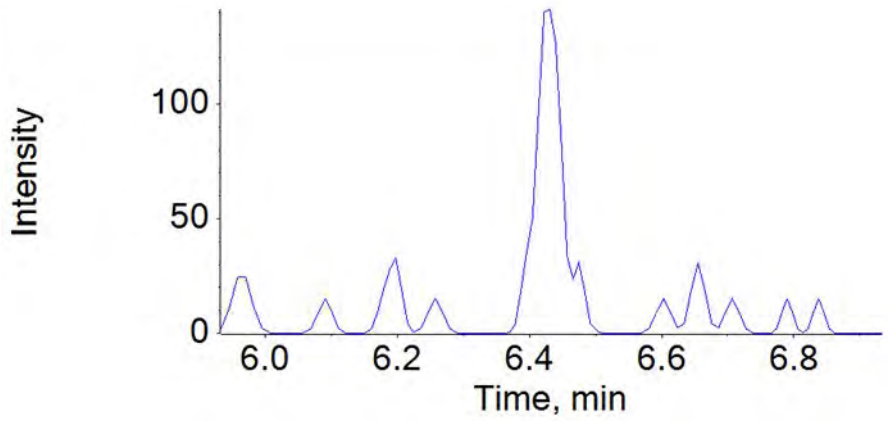
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Component Name: PFDoDA_2 **RT (min.):** 6.04 **Peak Area:** 1485.68 **Mass Range:** 613.0 / 169.0 **File Name:** 18NOV28DCAL-07.wiff **Sample Name:** CAL2	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV28DCAL-07.wiff **Sample Name:** CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

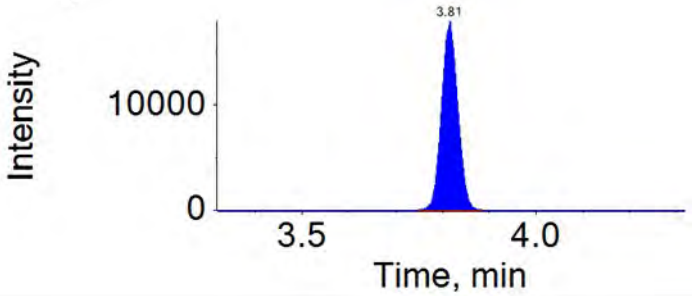
Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-07.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43237.36	A	0.3655	0.3673			
PFBS_2	3.81	1.00	15879.57	A	0.3655	0.3673	0	50	
4:2-FTS	4.13	1.00	14524.83	A	0.6383	0.6894			
4:2-FTS_2	4.13	1.00	10014.03	A	0.6383	0.6894	8	50	
PFHxA	4.16	1.00	101713.19	A	0.0103	0.0108			
PFHxA_2	4.17	1.00	1097.96	M	0.0103	0.0108	4	50	
PFPeS	4.18	1.10	24007.25	A	0.4976	0.4701			
PFPeS_2	4.18	1.10	11284.85	A	0.4976	0.4701	-6	50	
PFHpA	4.55	1.00	100593.81	A	0.0557	0.0562			
PFHpA_2	4.55	1.00	5648.69	A	0.0557	0.0562	1	50	
PFHxS	4.55	1.00	31104.49	M	0.3693	0.4064			
PFHxS_2	4.55	1.00	12640.83	A	0.3693	0.4064	10	50	
6:2-FTS	4.91	1.00	14479.84	A	0.6625	0.5750			
6:2-FTS_2	4.91	1.00	8326.49	A	0.6625	0.5750	-13	50	
PFHpS	4.91	1.08	32553.66	A	0.3915	0.3950			
PFHpS_2	4.91	1.08	12858.96	M	0.3915	0.3950	1	50	
PFOA	4.92	1.00	106420.83	A	0.0573	0.0580			
PFOA_2	4.92	1.00	6175.90	A	0.0573	0.0580	1	50	
PFOS	5.25	1.00	34203.58	M	0.2960	0.2799			
PFOS_2	5.25	1.00	9573.24	M	0.2960	0.2799	-5	50	
PFNA	5.26	1.00	106720.90	A	0.0201	0.0208			
PFNA_2	5.26	1.00	2222.59	A	0.0201	0.0208	4	50	
PFNS	5.54	1.06	24149.87	A	0.4794	0.4687			
PFNS_2	5.55	1.06	11319.26	A	0.4794	0.4687	-2	50	
PFDA	5.57	1.00	90730.27	A	0.0075	0.0091			
PFDA_2	5.57	1.00	822.55	M	0.0075	0.0091	21	50	
8:2-FTS	5.57	1.00	15550.17	A	0.5380	0.4749			
8:2-FTS_2	5.57	1.00	7384.51	A	0.5380	0.4749	-12	50	
NMeFOSAA	5.70	1.00	16533.06	A	0.2305	0.2819			
NMeFOSAA_2	5.70	1.00	4660.20	A	0.2305	0.2819	22	50	
PFDS	5.80	1.10	18654.75	A	0.5356	0.5747			
PFDS_2	5.80	1.10	10721.43	A	0.5356	0.5747	7	50	
PFUnDA	5.82	1.00	91490.40	A	0.0038	0.0043			
PFUnDA_2	5.83	1.00	389.41	A	0.0038	0.0043	12	50	
NEtFOSAA	5.84	1.00	16643.25	A	0.7356	0.5363			
NEtFOSAA_2	5.84	1.00	8925.35	A	0.7356	0.5363	-27	50	
PFDoDA	6.05	1.00	122586.00	A	0.0130	0.0112			
PFDoDA_2	6.04	1.00	1368.20	M	0.0130	0.0112	-14	50	
10:2-FTS	6.07	1.09	15157.77	A	0.6989	0.5470			
10:2-FTS_2	6.07	1.09	8291.25	A	0.6989	0.5470	-22	50	
PFTrDA	6.25	1.03	117562.28	A	0.0090	0.0079			
PFTrDA_2	6.25	1.03	932.63	A	0.0090	0.0079	-12	50	
PFTeDA	6.43	1.00	88360.25	A	0.0056	0.0048			
PFTeDA_2	6.43	1.00	423.54	M	0.0056	0.0048	-15	50	
PFHxDA	6.73	1.05	44164.63	A	0.0646	0.0656			
PFHxDA_2	6.73	1.05	2895.58	A	0.0646	0.0656	2	50	
PFODA	6.99	1.09	36421.52	A	0.0264	0.0257			
PFODA_2	6.99	1.09	935.28	A	0.0264	0.0257	-3	50	

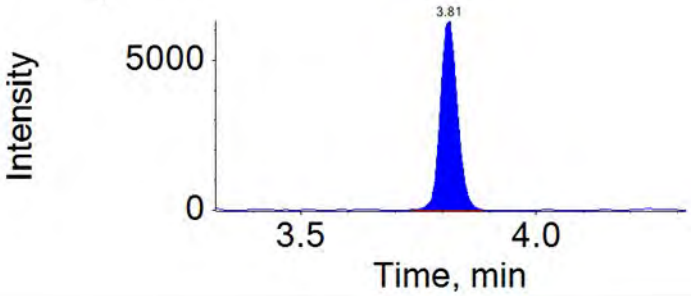
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

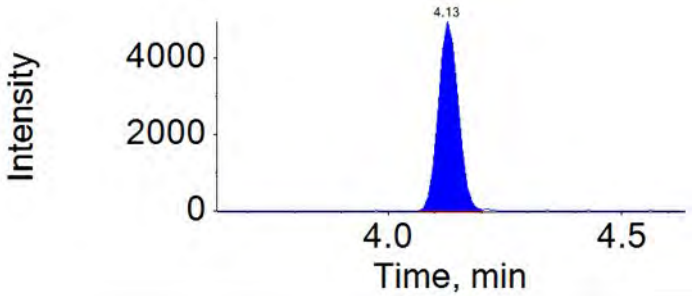
Component: PFBS
Primary Mass: 299.0 / 80.0



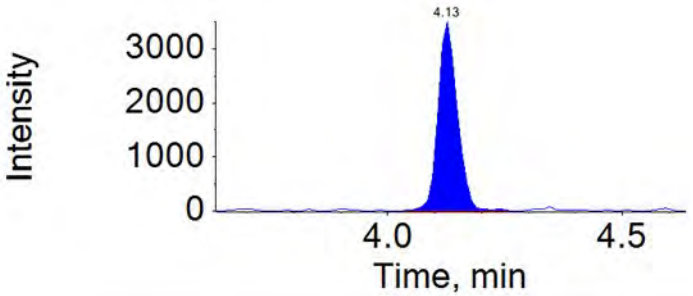
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



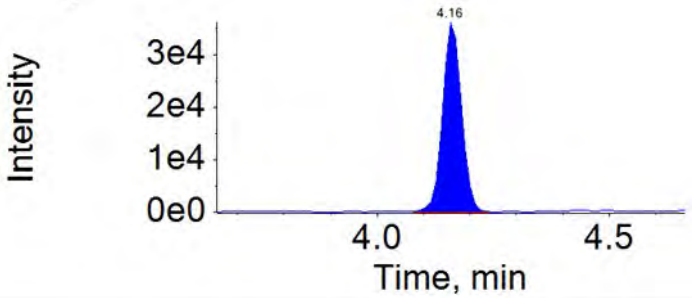
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



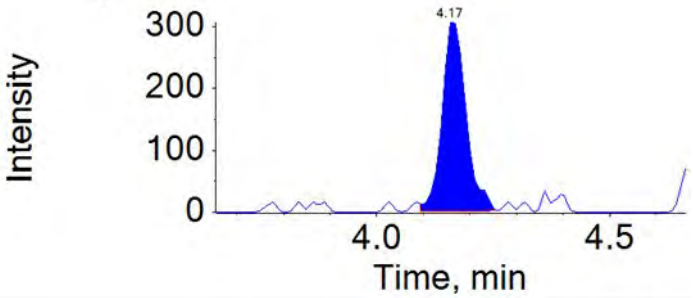
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



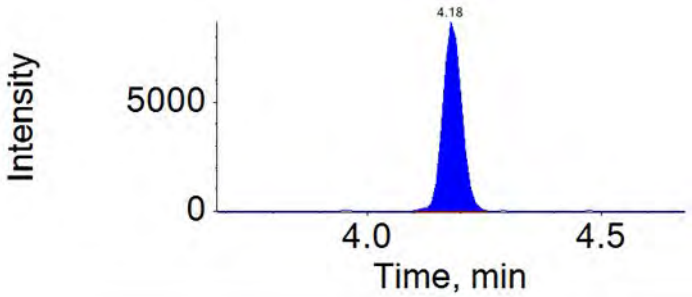
Component: PFHxA
Primary Mass: 313.0 / 269.0



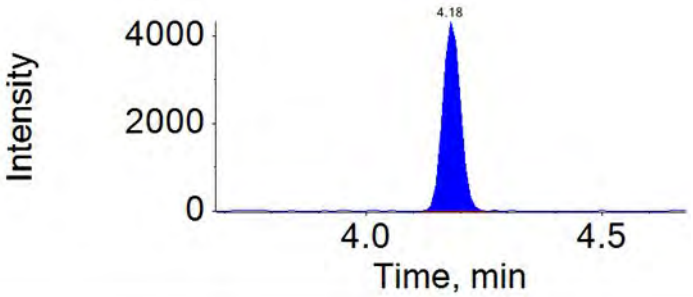
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



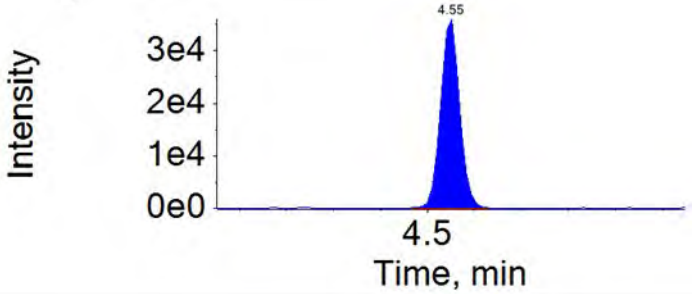
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



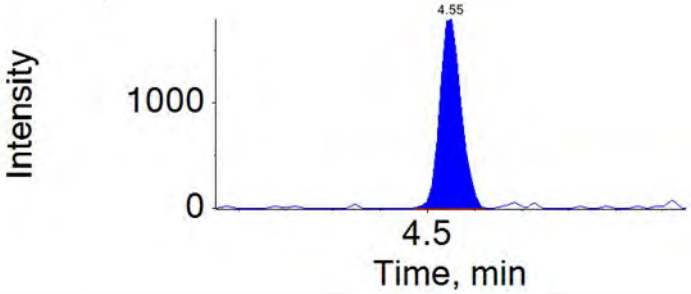
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

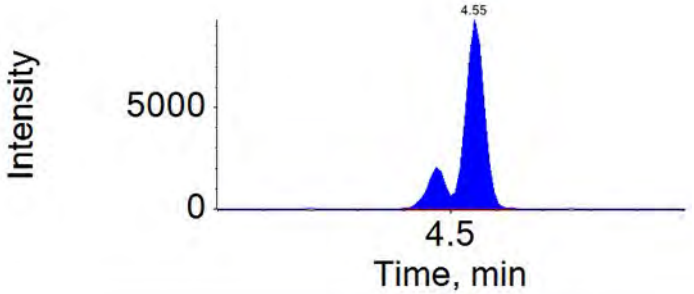
Component: PFHpA
Primary Mass: 363.0 / 319.0



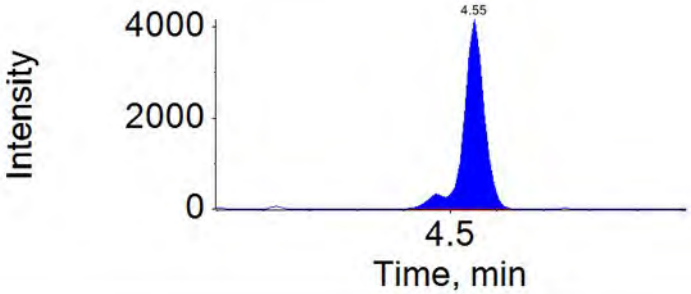
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



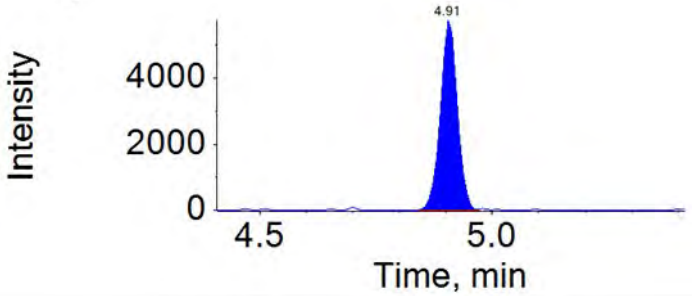
Component: PFHxS
Primary Mass: 399.0 / 80.0



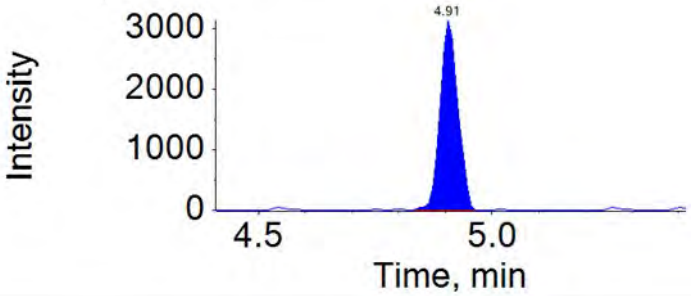
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



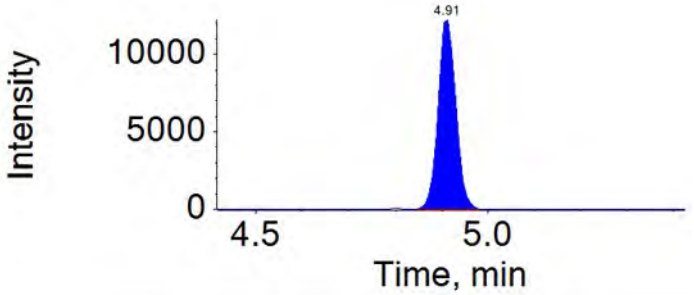
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



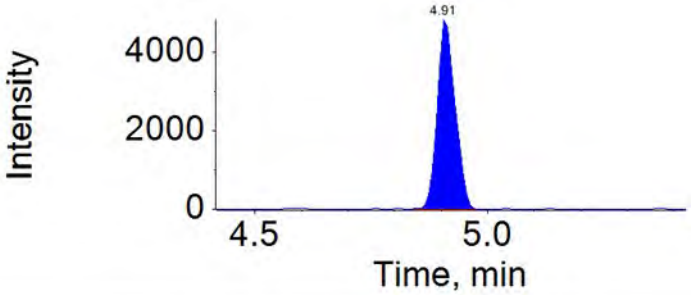
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



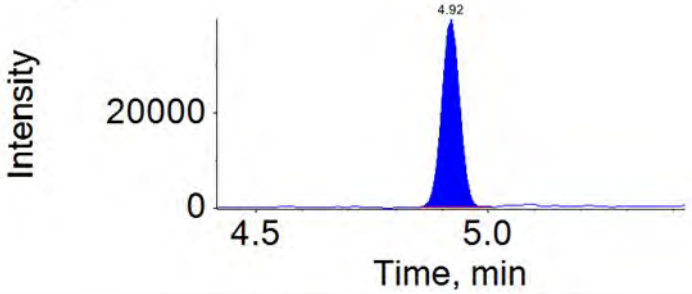
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



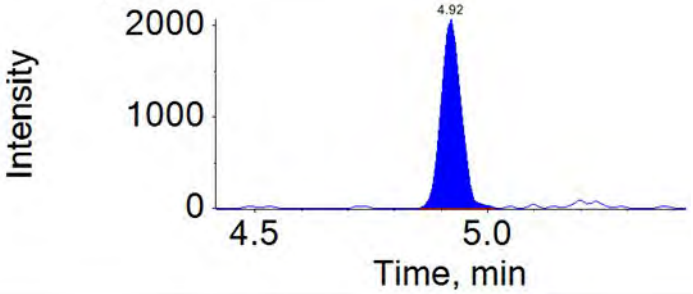
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

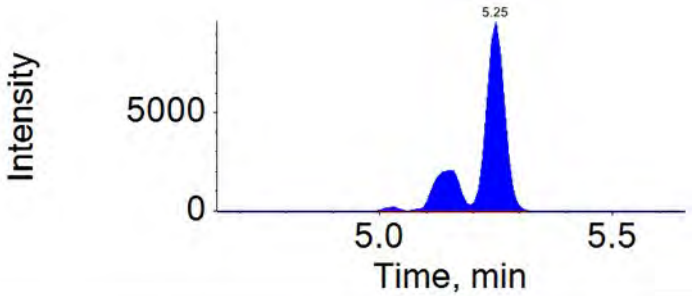
Component: PFOA
Primary Mass: 413.0 / 369.0



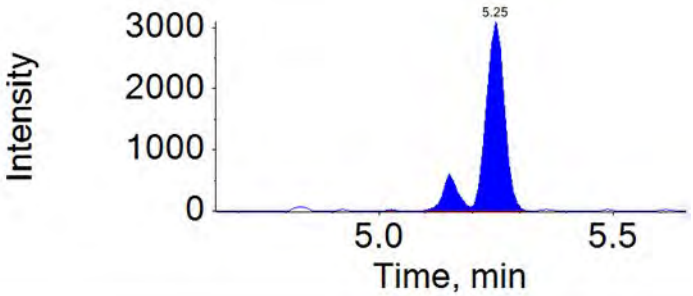
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



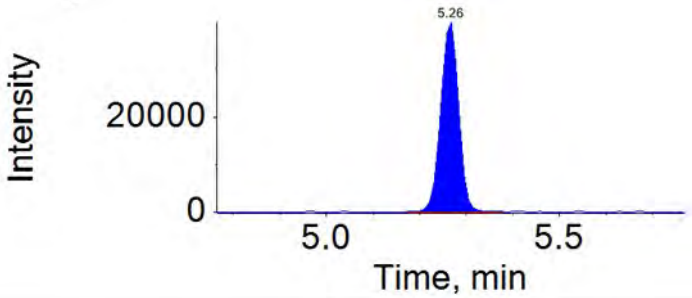
Component: PFOS
Primary Mass: 499.0 / 80.0



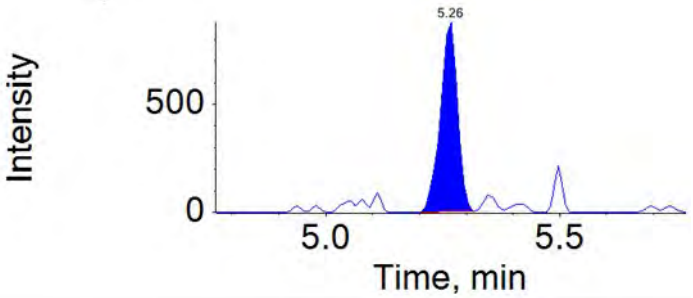
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



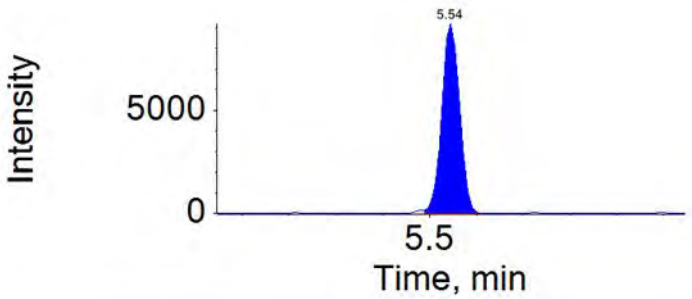
Component: PFNA
Primary Mass: 463.0 / 419.0



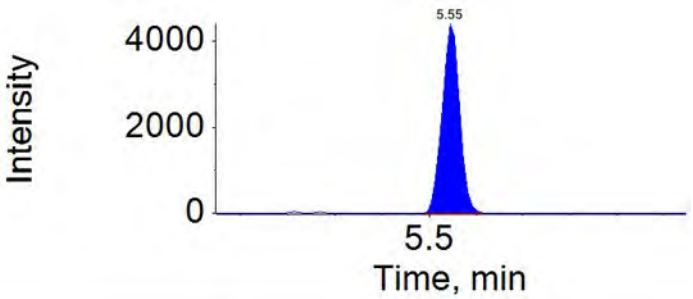
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



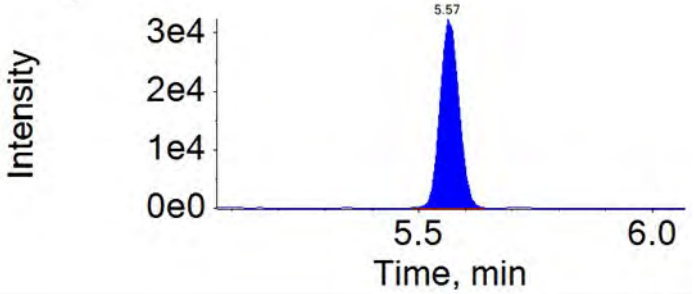
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



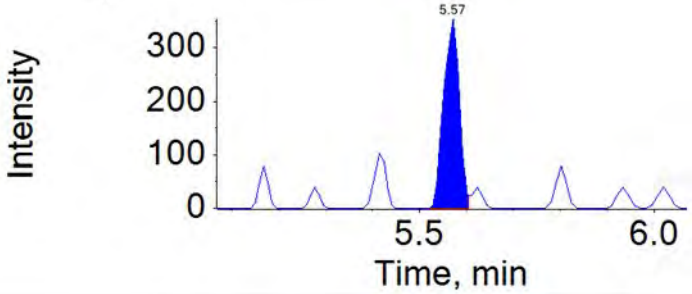
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

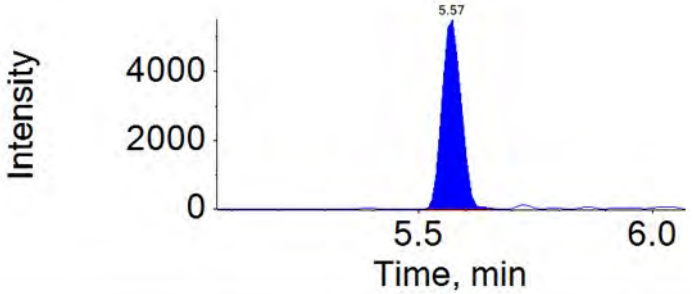
Component: PFDA
Primary Mass: 513.0 / 469.0



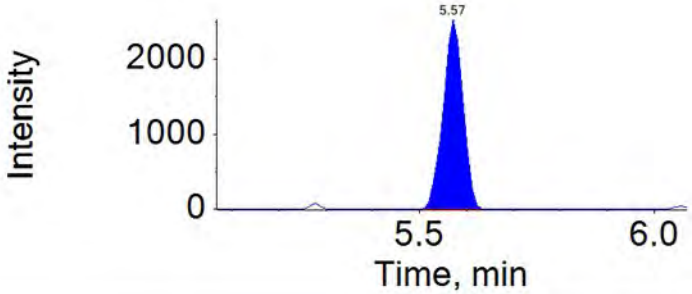
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



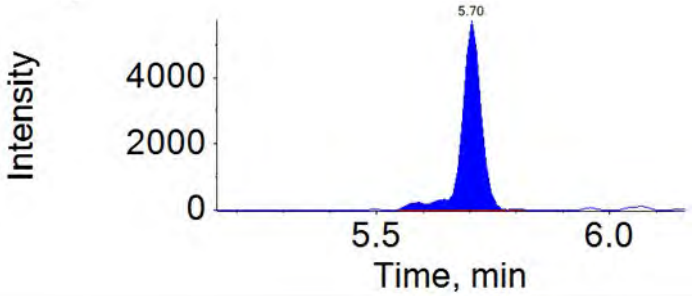
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



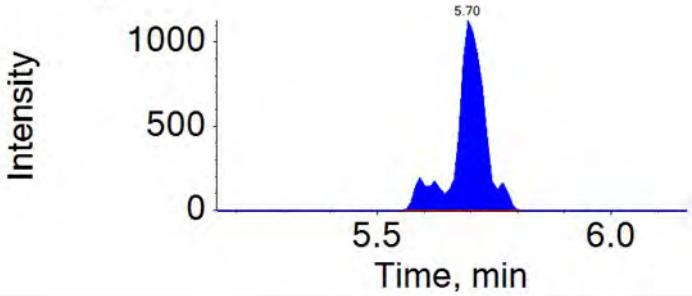
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



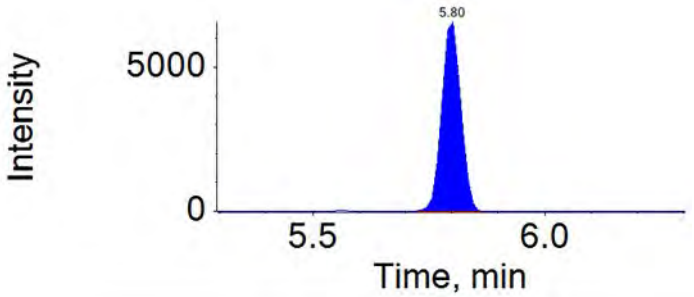
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



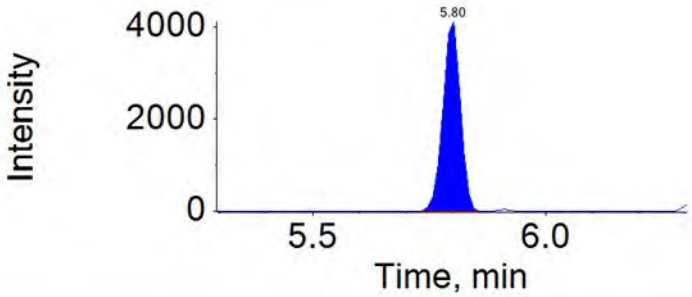
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



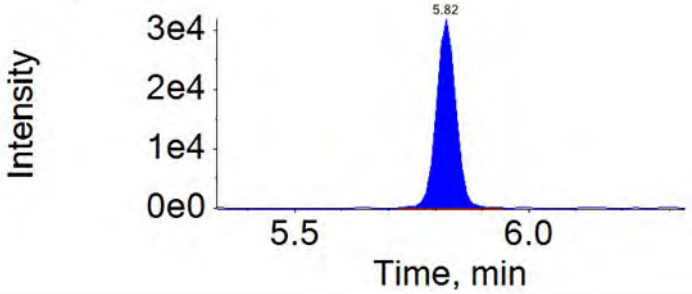
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



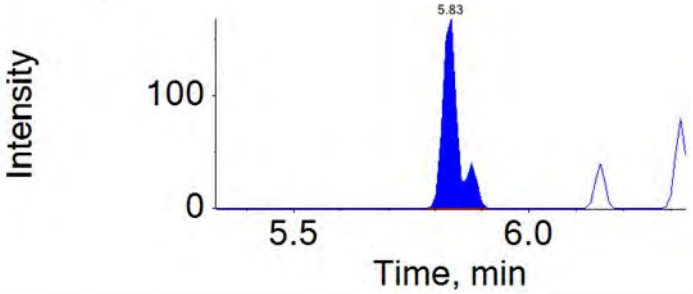
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

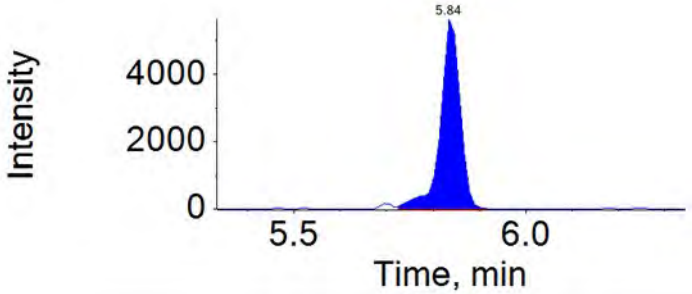
Component: PFUnDA
Primary Mass: 563.0 / 519.0



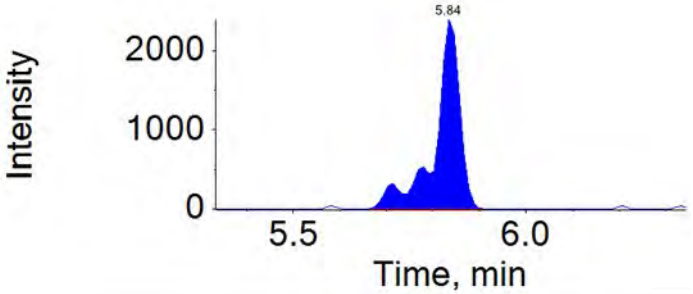
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



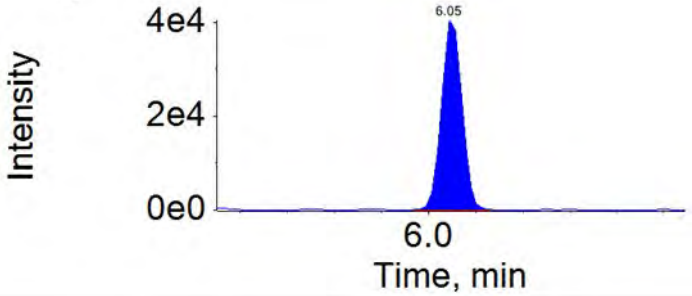
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



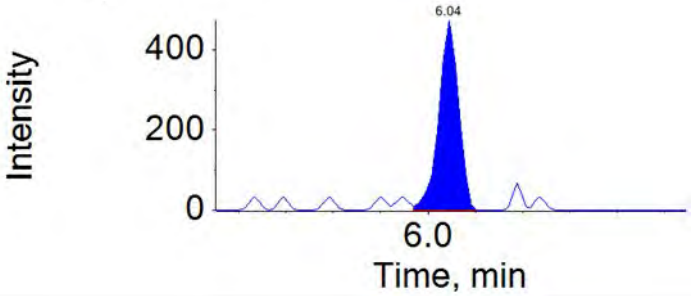
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



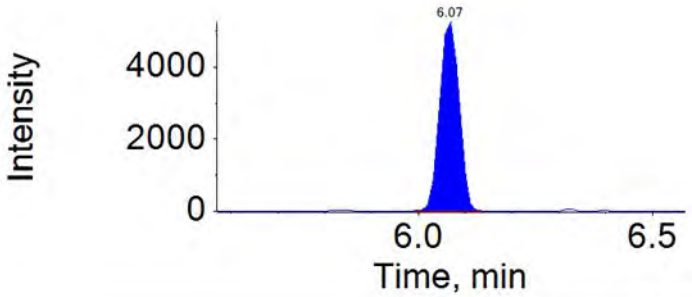
Component: PFDoDA
Primary Mass: 613.0 / 569.0



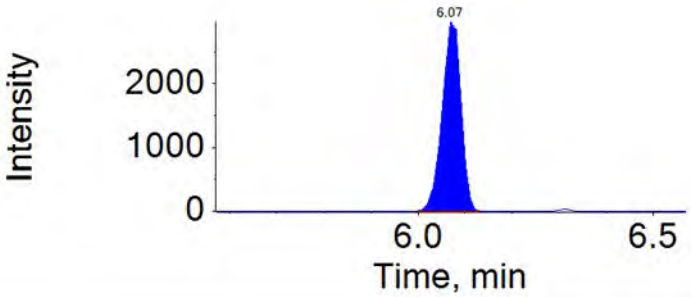
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



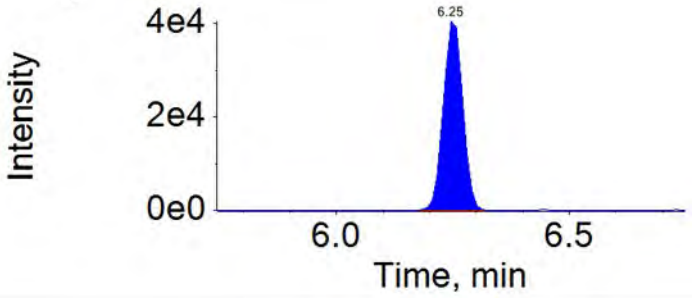
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



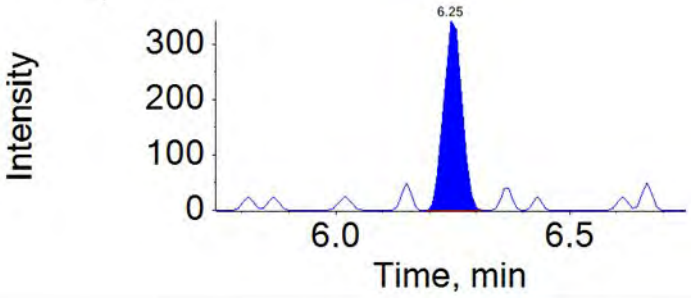
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

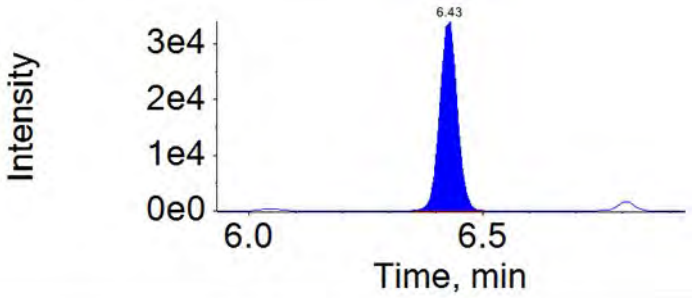
Component: PFTrDA
Primary Mass: 663.0 / 619.0



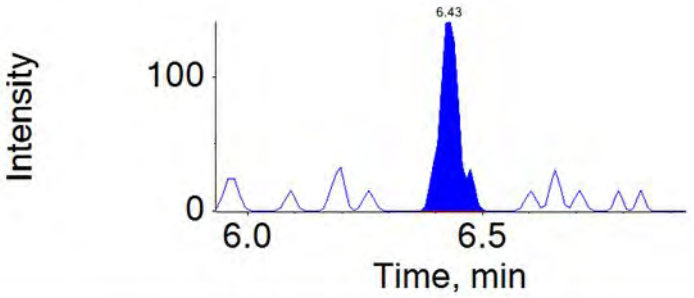
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



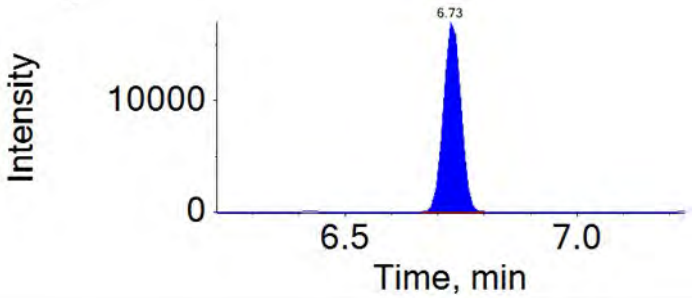
Component: PFTeDA
Primary Mass: 713.0 / 669.0



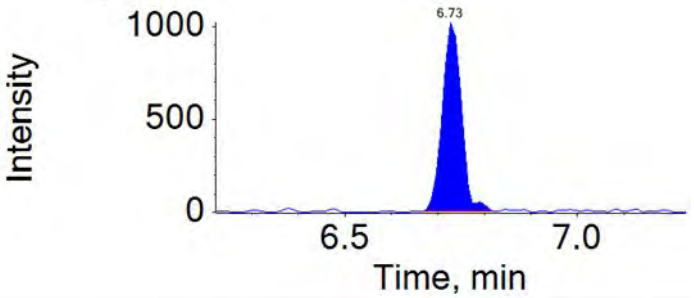
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



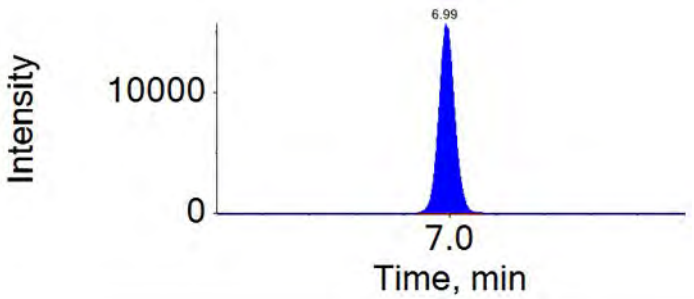
Component: PFHxDA
Primary Mass: 813.0 / 769.0



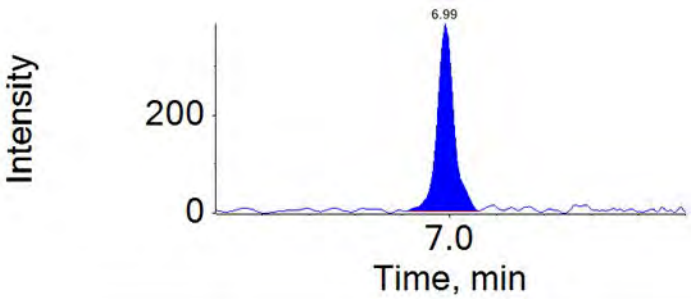
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL3			**Data File:**		18NOV28DCAL-08.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-28T14:00:13
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	887248.9	887248.9	0	50	
13C2-PFOA	5.0	498501.6	498501.6	0	50	
13C4-PFOS	4.8	283214.2	283214.2	0	50	
13C2-PFDA	5.0	441790.6	441790.6	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	993144.1	13C3-PFBA	887248.9	1.119	5.000	4.994	100	70-130	
E13C5-PFPeA	910953.7	13C3-PFBA	887248.9	1.027	5.000	4.794	96	70-130	
E13C3-PFBS	419929.2	13C3-PFBA	887248.9	0.473	4.650	4.515	97	70-130	
E13C2-4:2-FTS	70629.1	13C2-PFOA	498501.6	0.142	4.670	4.883	105	70-130	
E13C5-PFHxA	717900.1	13C2-PFOA	498501.6	1.440	5.000	5.290	106	70-130	
E13C3-PFHxS	326982.4	13C2-PFOA	498501.6	0.656	4.730	5.141	109	70-130	
E13C4-PFHpA	535993.3	13C2-PFOA	498501.6	1.075	5.000	4.940	99	70-130	
E13C2-6:2-FTS	65518.3	13C2-PFOA	498501.6	0.131	4.750	5.502	116	70-130	
E13C8-PFOA	954678.0	13C2-PFOA	498501.6	1.915	5.000	5.271	105	70-130	
E13C8-PFOS	309913.7	13C4-PFOS	283214.2	1.094	4.780	4.940	103	70-130	
E13C9-PFNA	629954.6	13C4-PFOS	283214.2	2.224	5.000	4.885	98	70-130	
E13C6-PFDA	824072.9	13C2-PFDA	441790.6	1.865	5.000	5.259	105	70-130	
E13C2-8:2-FTS	53847.2	13C2-PFDA	441790.6	0.122	4.790	5.239	109	70-130	
E13C8-PFOSA	631627.9	13C2-PFDA	441790.6	1.430	5.000	5.246	105	70-130	
Ed3-NMeFOSAA	178338.1	13C2-PFDA	441790.6	0.404	5.000	5.125	103	70-130	
E13C7-PFUnDA	592495.7	13C2-PFDA	441790.6	1.341	5.000	5.668	113	70-130	
Ed5-NEtFOSAA	129810.7	13C2-PFDA	441790.6	0.294	5.000	5.235	105	70-130	
E13C2-PFDoDA	1091194.9	13C2-PFDA	441790.6	2.470	5.000	5.189	104	70-130	
Ed7-NMePFOSAE	256577.3	13C2-PFDA	441790.6	0.581	5.000	5.019	100	70-130	
Ed3-NMePFOSA	80294.1	13C2-PFDA	441790.6	0.182	5.000	4.919	98	70-130	
Ed9-NEtPFOSAE	216571.5	13C2-PFDA	441790.6	0.490	5.000	4.970	99	70-130	
Ed5-NEtPFOSA	64623.7	13C2-PFDA	441790.6	0.146	5.000	5.083	102	70-130	
E13C2-PFTeDA	841931.1	13C2-PFDA	441790.6	1.906	5.000	5.273	105	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

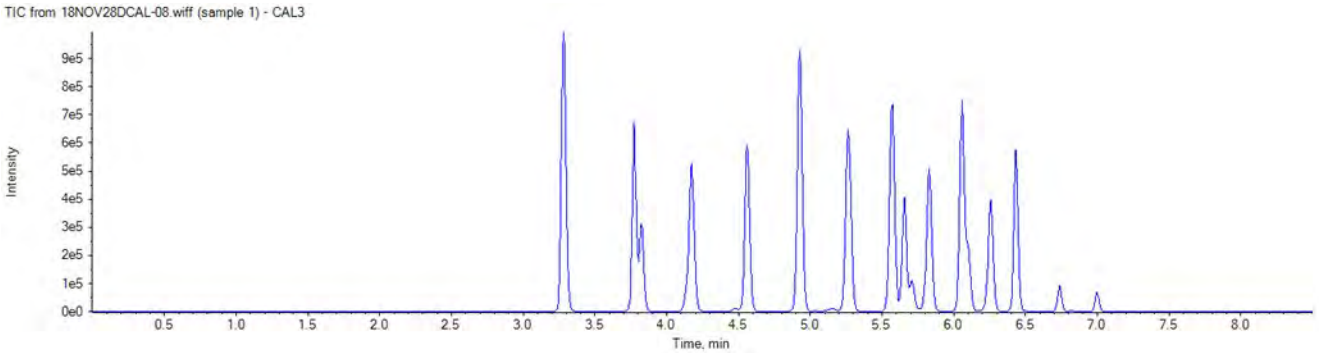
Analyte Quantitation Peak Table

Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-08.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	403055.9		A	13C4-PFBA	3.28	993144.1	0.406	2.225
PFPeA	3.78	1.000	424089.1		A	13C5-PFPeA	3.78	910953.7	0.466	2.284
PFBS	3.82	1.000	168534.1		A	13C3-PFBS	3.82	419929.2	0.401	1.948
4:2-FTS	4.14	1.000	56502.5		A	13C2-4:2-FTS	4.14	70629.1	0.800	2.142
PFHxA	4.17	1.000	395421.4		A	13C5-PFHxA	4.17	717900.1	0.551	2.211
PFPeS	4.19	1.100	89559.7		A	13C3-PFBS	3.82	419929.2	0.213	2.157
PFHpA	4.56	1.000	388626.7		A	13C4-PFHpA	4.56	535993.3	0.725	2.238
PFHxS	4.56	1.000	127889.2		M	13C3-PFHxS	4.56	326982.4	0.391	1.831
6:2-FTS	4.92	1.000	53951.0		A	13C2-6:2-FTS	4.92	65518.3	0.823	2.149
PFHpS	4.92	1.080	129450.9		A	13C3-PFHxS	4.56	326982.4	0.396	1.976
PFOA	4.93	1.000	405879.4		A	13C8-PFOA	4.93	954678.0	0.425	2.197
PFOS	5.26	1.000	139506.6		M	13C8-PFOS	5.26	309913.7	0.450	1.888
PFNA	5.27	1.000	370292.0		A	13C9-PFNA	5.27	629954.6	0.588	2.253
PFNS	5.55	1.060	91471.0		A	13C8-PFOS	5.26	309913.7	0.295	1.864
PFDA	5.57	1.000	343523.0		A	13C6-PFDA	5.57	824072.9	0.417	2.360
8:2-FTS	5.57	1.000	57433.9		A	13C2-8:2-FTS	5.58	53847.2	1.067	2.011
PFOSA	5.66	1.000	265394.0		A	13C8-PFOSA	5.66	631627.9	0.420	2.128
NMeFOSAA	5.71	1.000	62054.8		A	d3-NMeFOSAA	5.71	178338.1	0.348	2.220
PFDS	5.80	1.100	80537.4		A	13C8-PFOS	5.26	309913.7	0.260	2.060
PFUnDA	5.83	1.000	370693.6		A	13C7-PFUnDA	5.83	592495.7	0.626	2.236
NEtFOSAA	5.84	1.000	52769.5		M	d5-NEtFOSAA	5.84	129810.7	0.407	1.980
PFDoDA	6.06	1.000	486489.2		A	13C2-PFDoDA	6.06	1091194.9	0.446	2.442
10:2-FTS	6.07	1.090	58508.2		A	13C2-8:2-FTS	5.58	53847.2	1.087	2.396
NMePFOSAE	6.11	1.000	136518.3		A	d7-NMePFOSAE	6.10	256577.3	0.532	2.239
NMePFOSA	6.11	1.000	33009.7		A	d3-NMePFOSA	6.11	80294.1	0.411	2.179
PFDoS	6.23	1.180	40838.1		A	13C8-PFOS	5.26	309913.7	0.132	1.892
NEtPFOSAE	6.26	1.000	152952.1		A	d9-NEtPFOSAE	6.25	216571.5	0.706	2.540
NEtPFOSA	6.27	1.000	30595.3		A	d5-NEtPFOSA	6.27	64623.7	0.473	2.122
PFTrDA	6.26	1.030	466266.9		A	13C2-PFDoDA	6.06	1091194.9	0.427	2.576
PFTeDA	6.43	1.000	342239.8		A	13C2-PFTeDA	6.43	841931.1	0.406	2.303
PFHxDA	6.74	1.050	173721.0		A	13C2-PFTeDA	6.43	841931.1	0.206	2.359
PFODA	7.00	1.090	139071.5		A	13C2-PFTeDA	6.43	841931.1	0.165	2.201

Total Ion Chromatogram

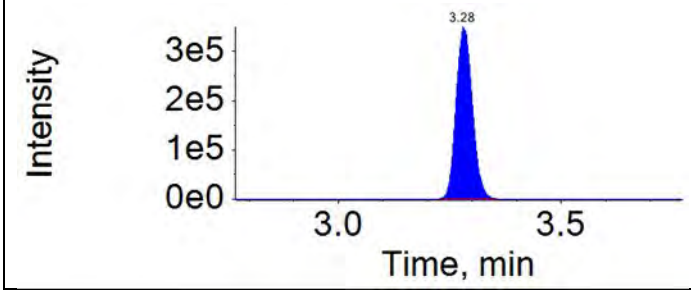


APPROVED
By MCD at 5:00 pm, 11/28/18

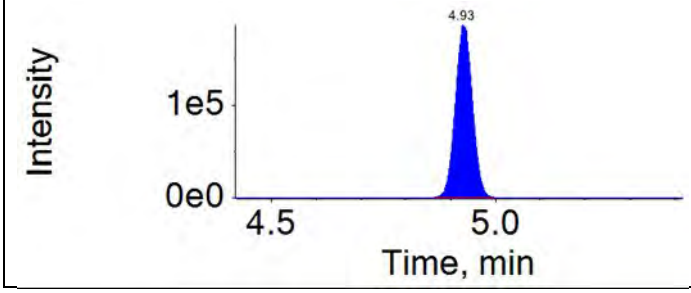
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

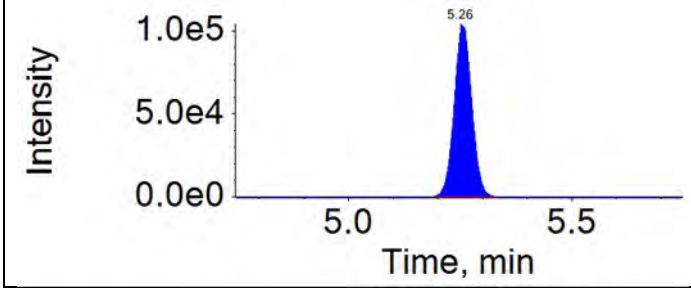
Injection Standard: 13C3-PFBA
216.0 / 172.0



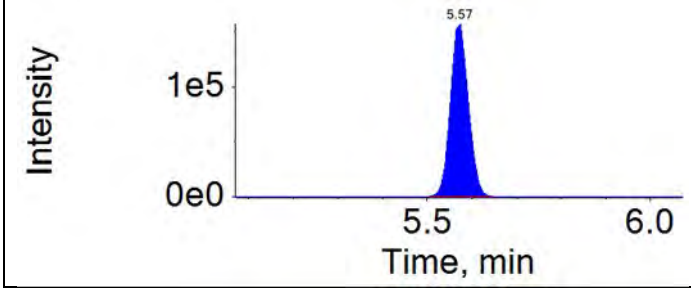
Injection Standard: 13C2-PFOA
415.0 / 370.0



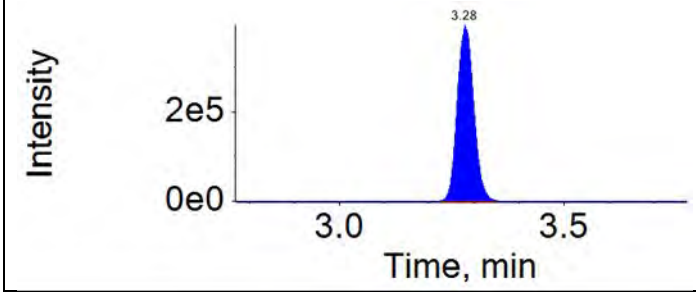
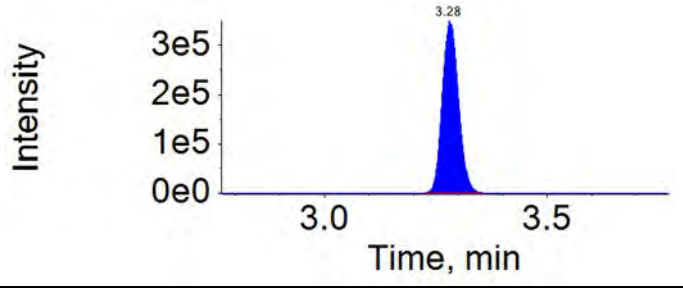
Injection Standard: 13C4-PFOS
503.0 / 80.0

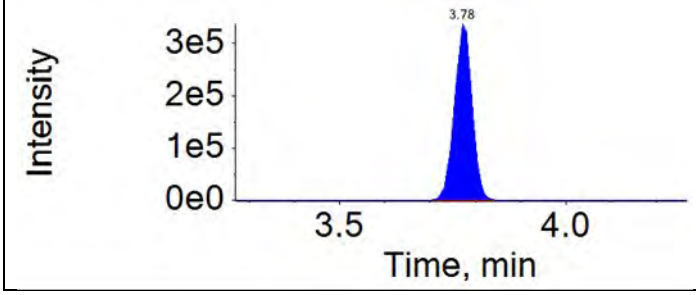
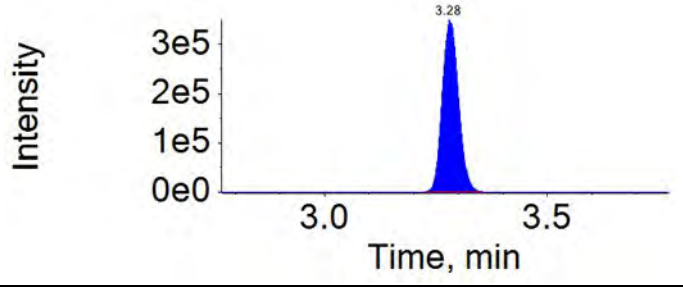


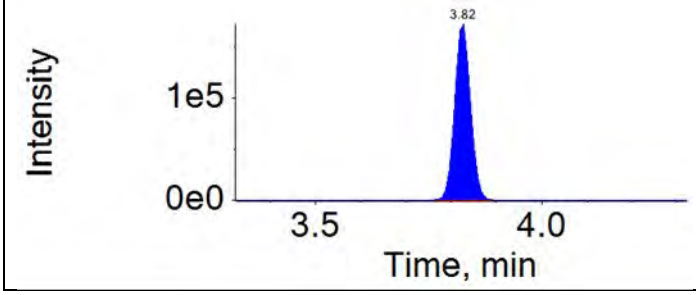
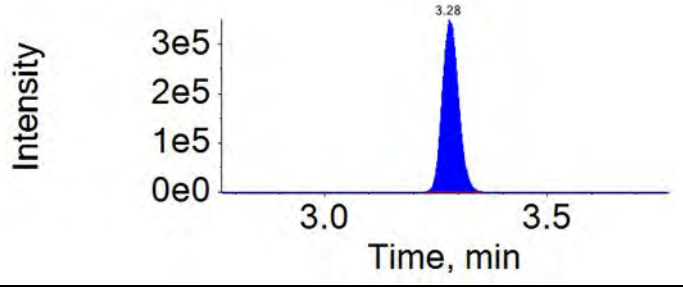
Injection Standard: 13C2-PFDA
515.0 / 470.0

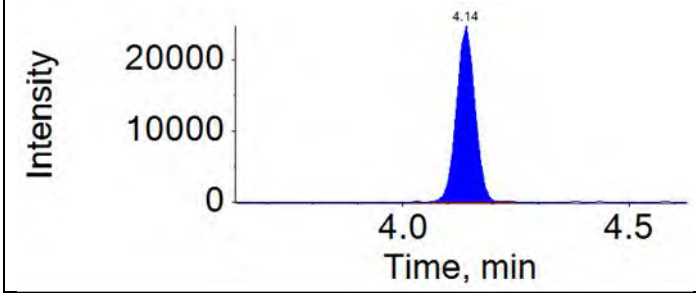
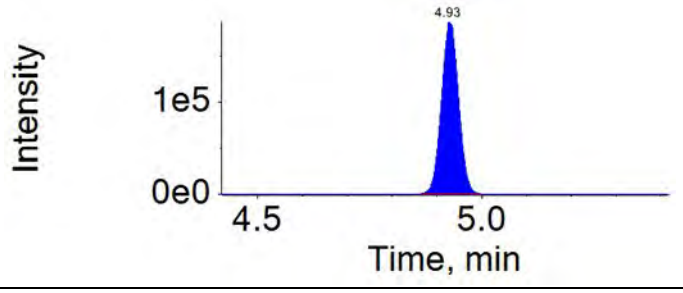


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

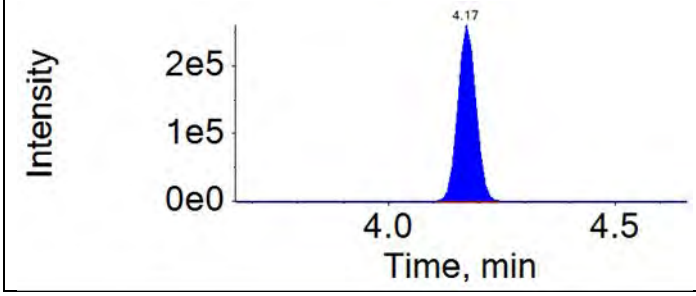
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

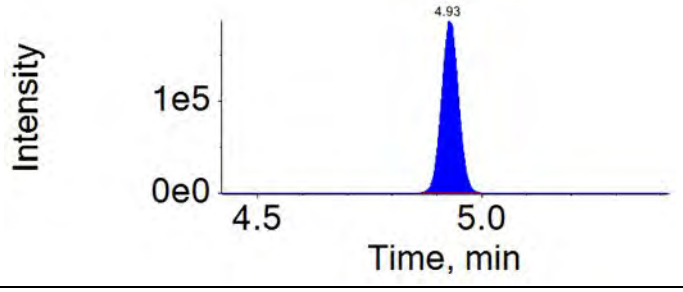
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

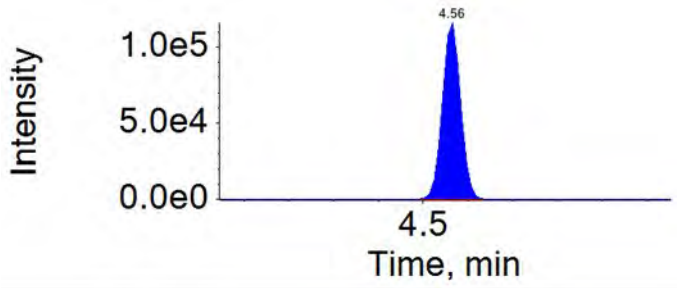
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

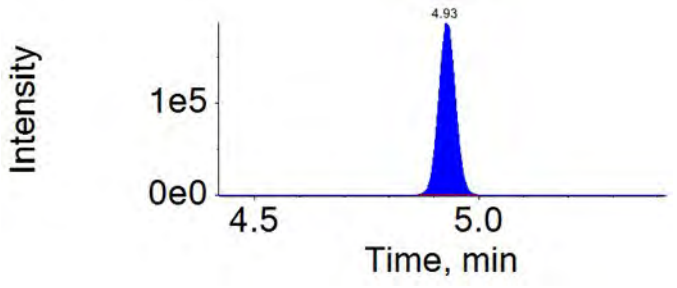
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



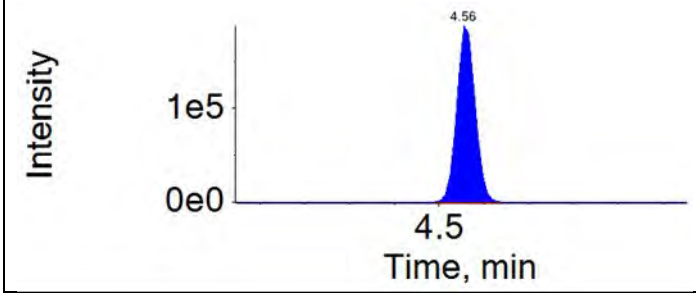


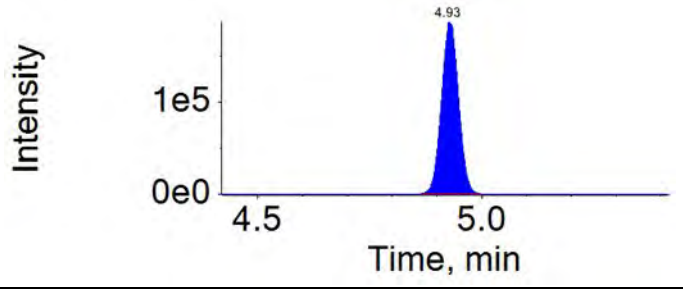
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



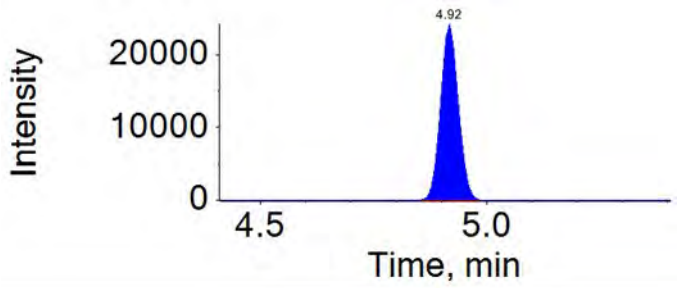


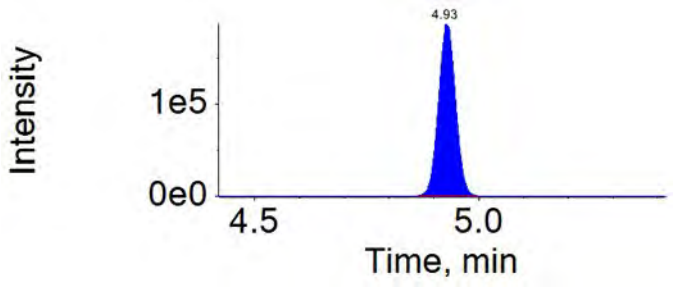
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



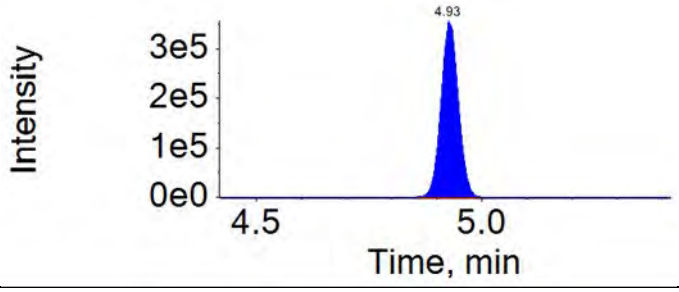


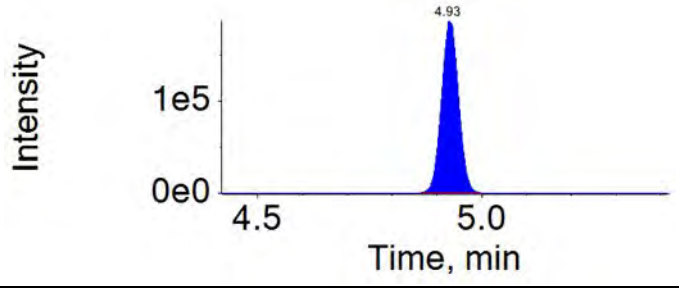
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

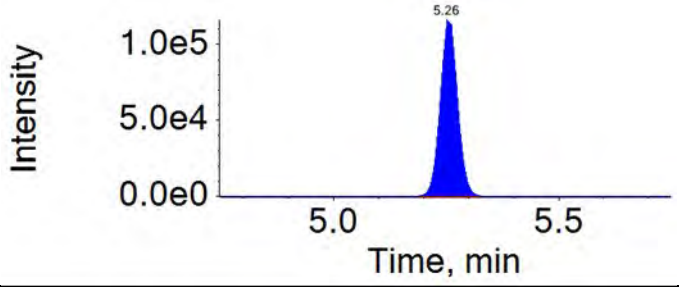
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

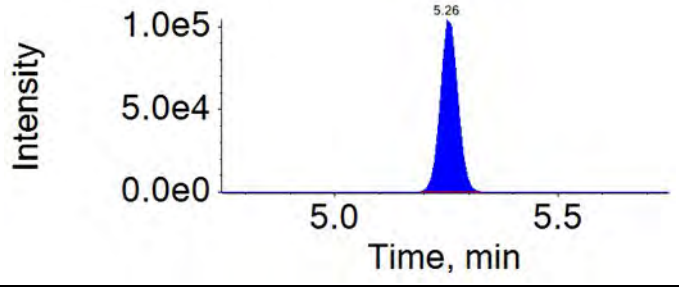
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



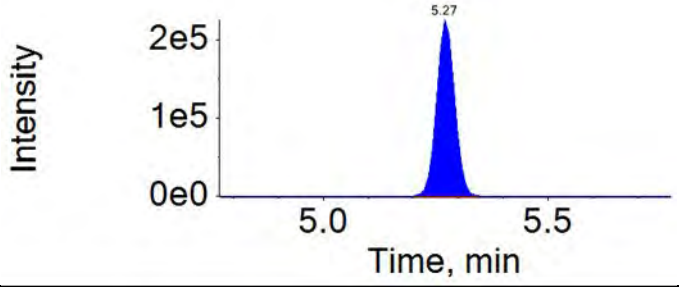


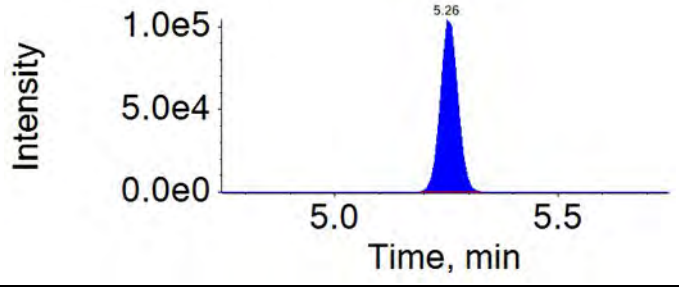
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



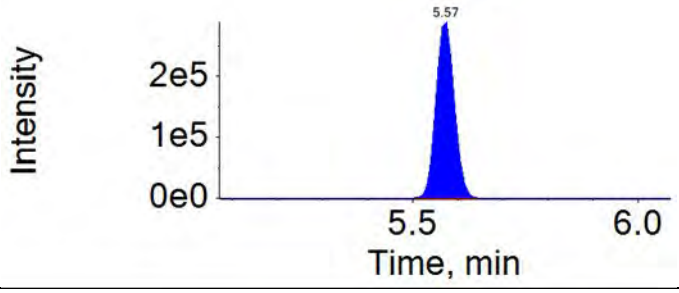


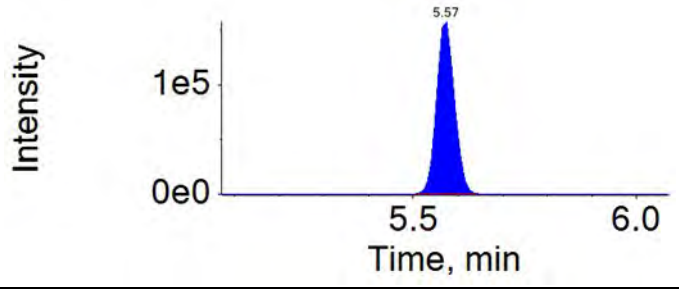
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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



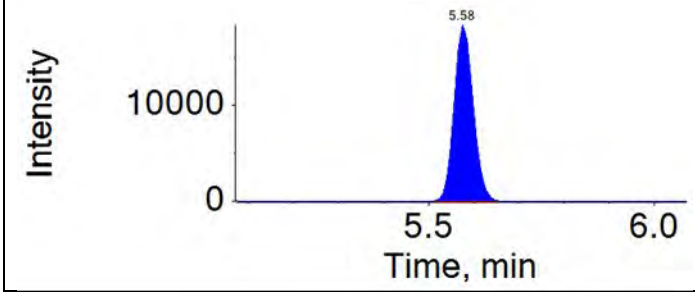


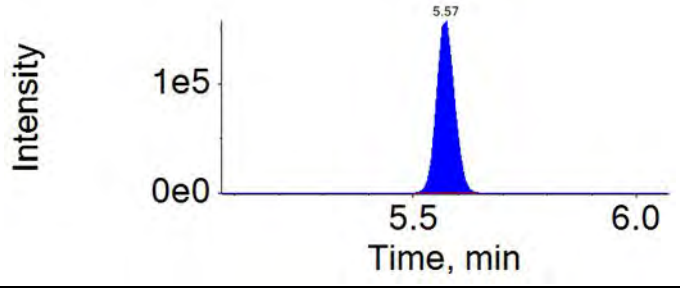
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

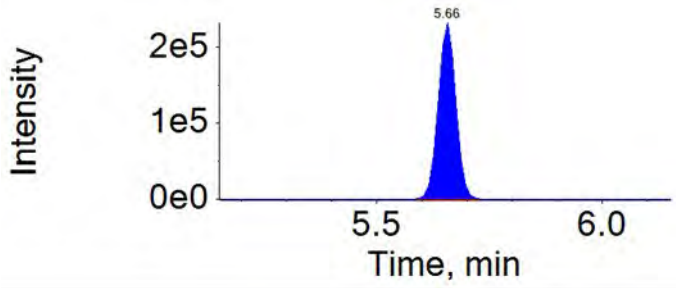
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

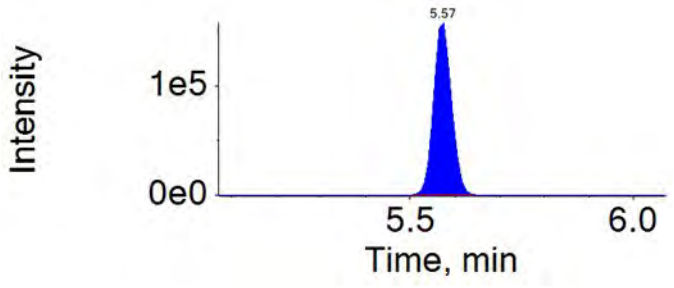
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



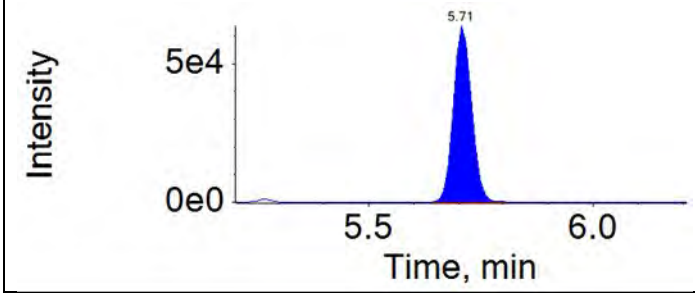


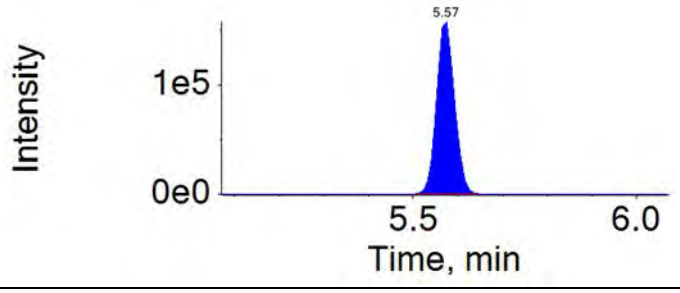
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



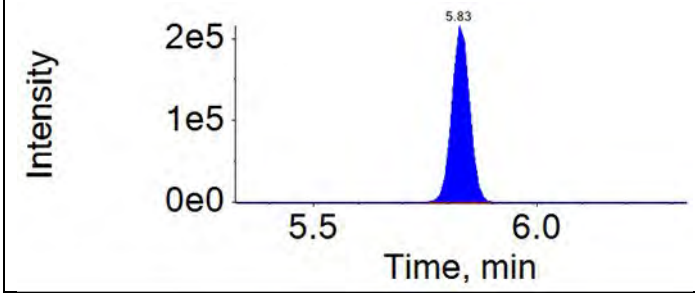


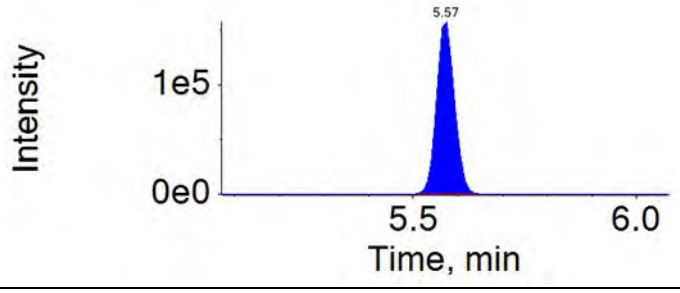
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





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



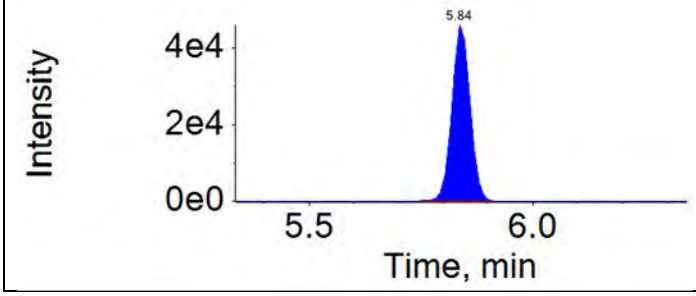


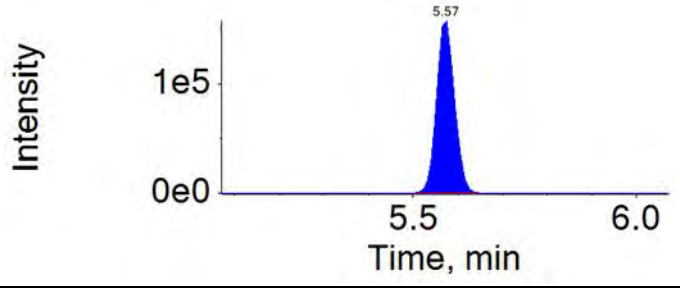
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

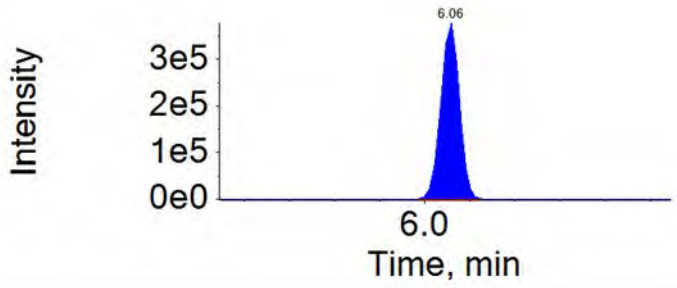
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

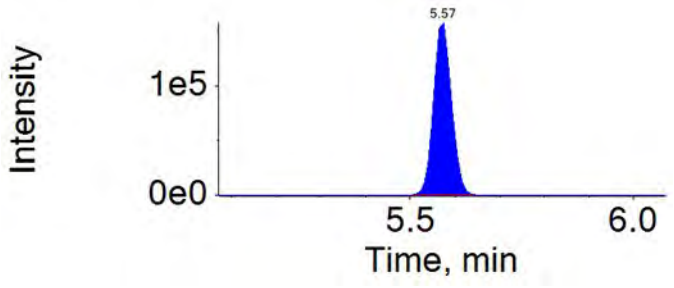
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



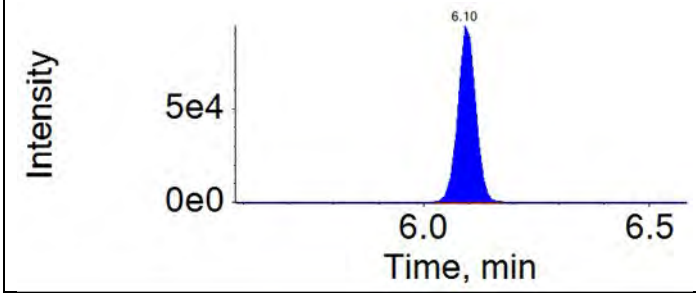


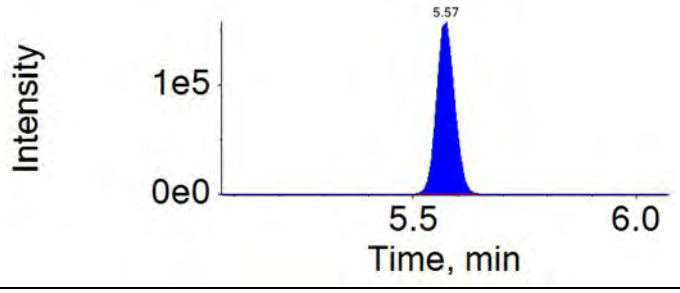
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



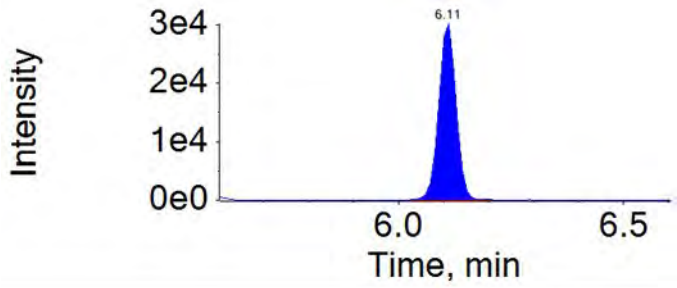


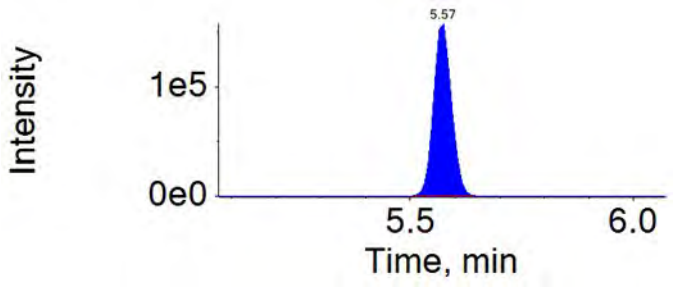
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



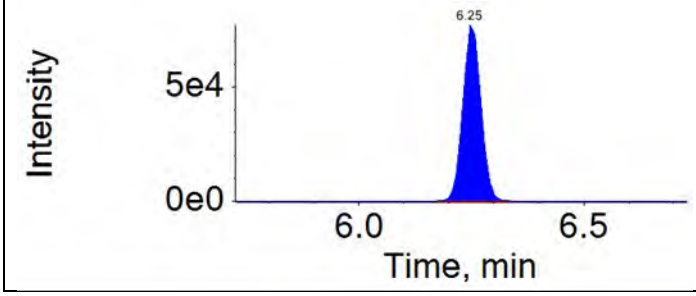


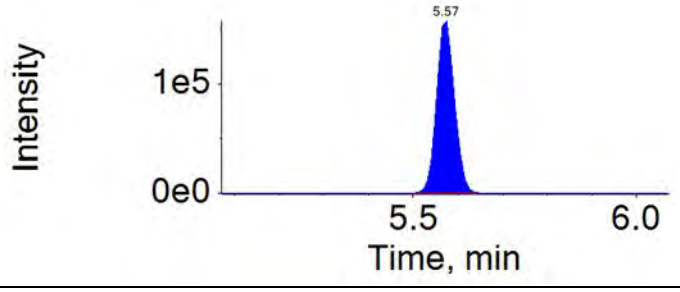
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

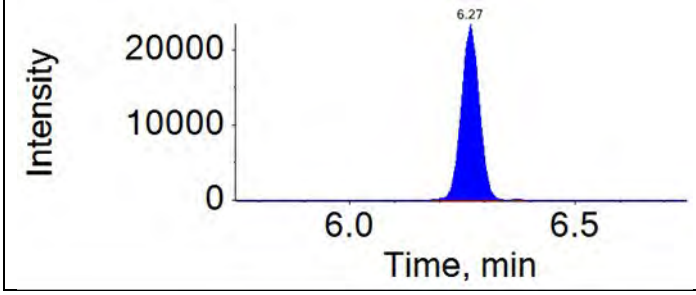
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

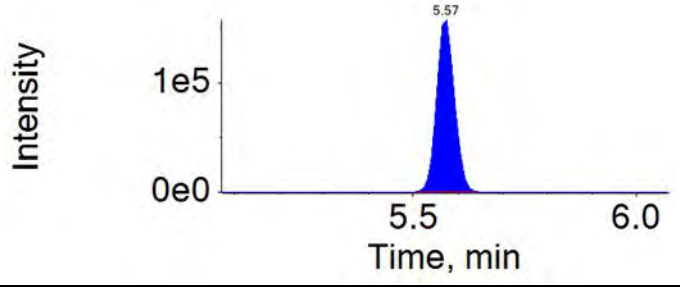
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



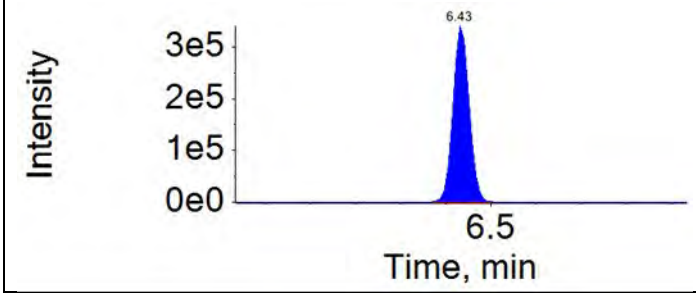


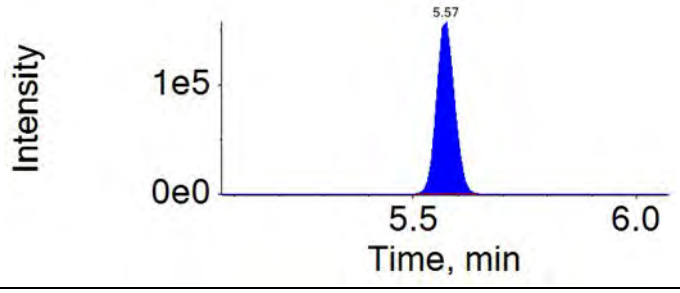
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





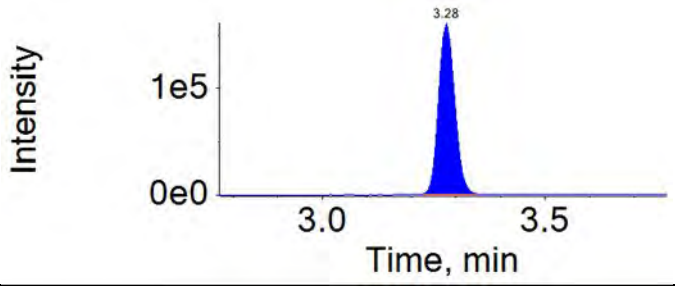
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

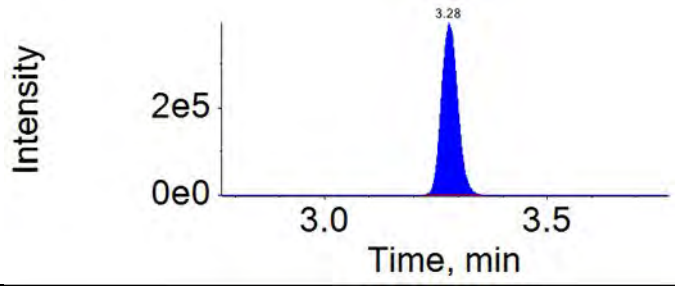




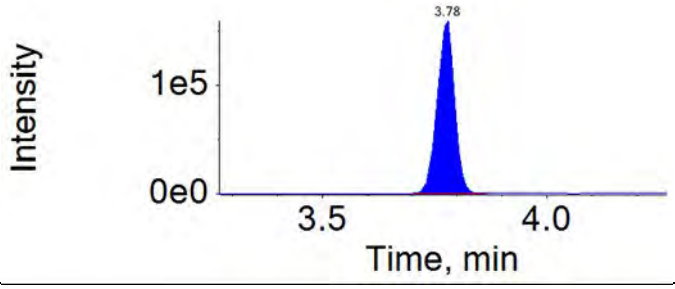
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

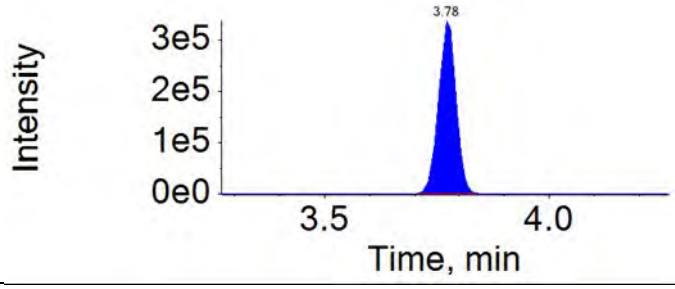
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



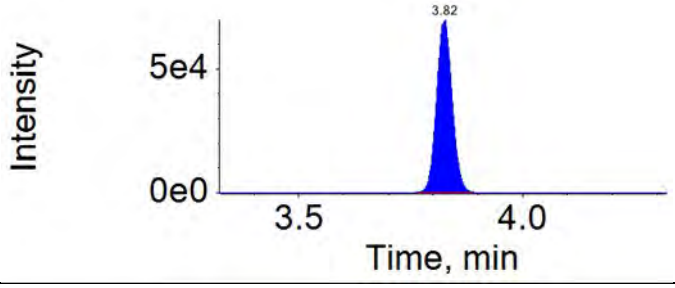


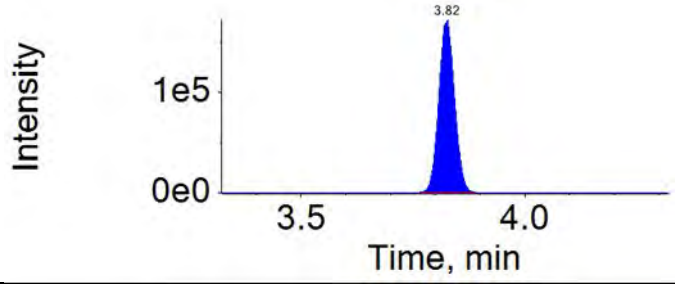
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



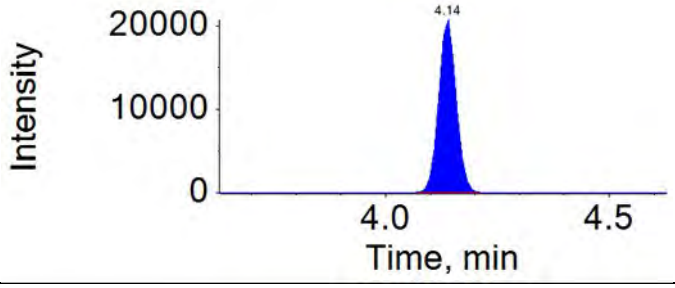


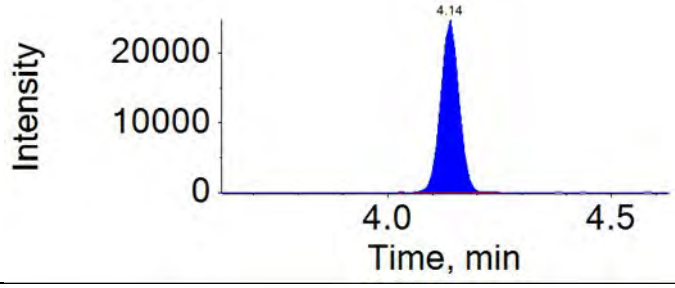
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



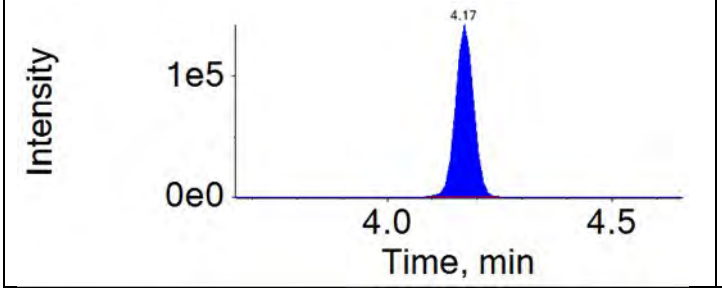


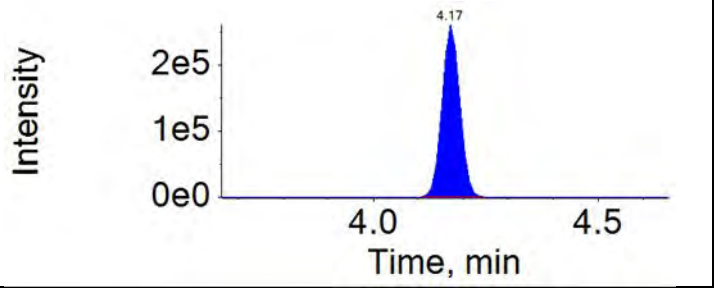
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

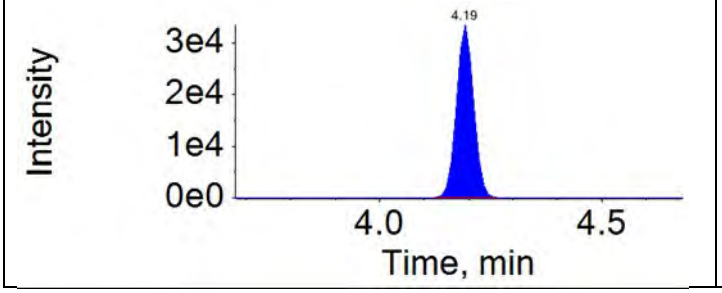
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

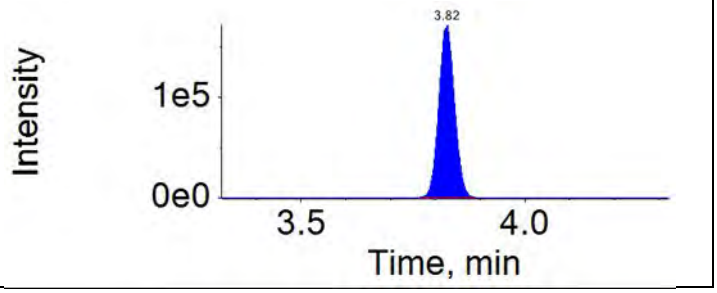
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



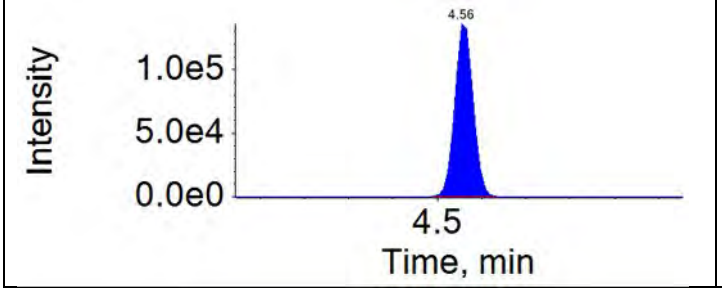


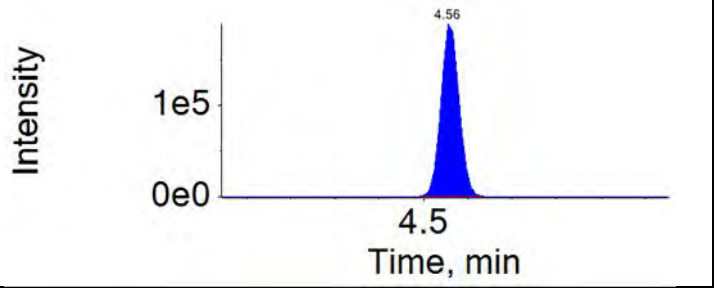
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



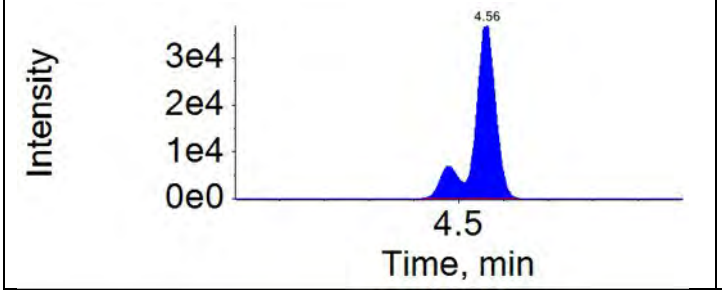


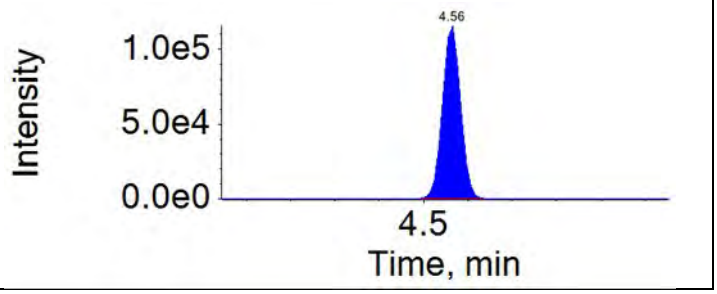
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



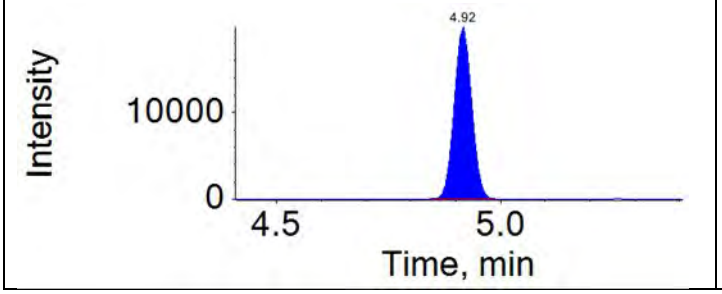


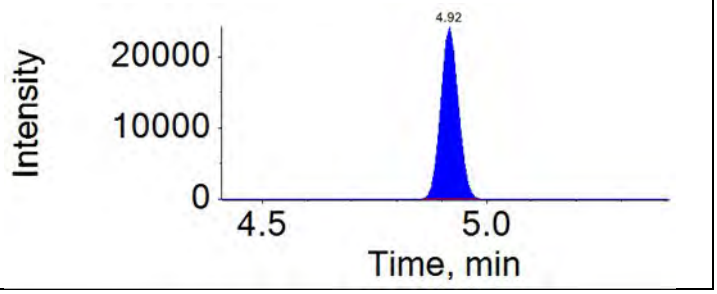
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

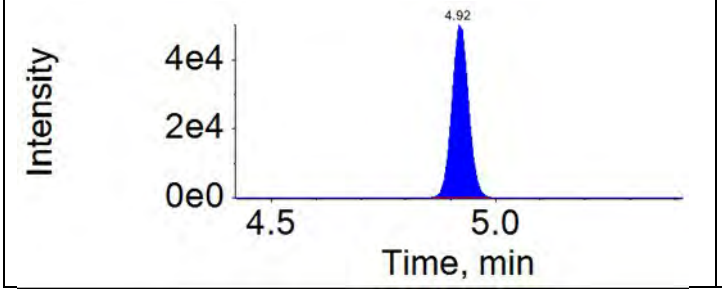
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

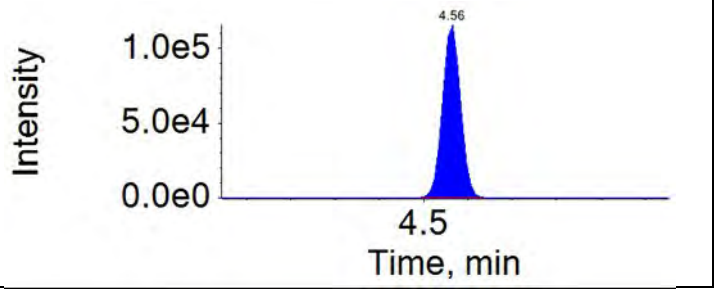
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



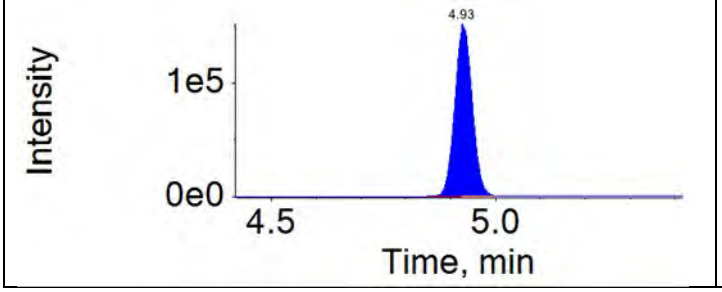


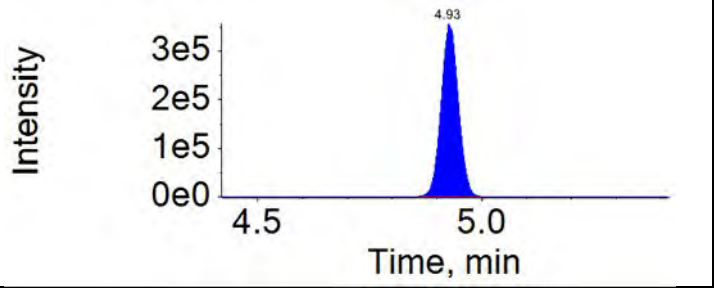
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



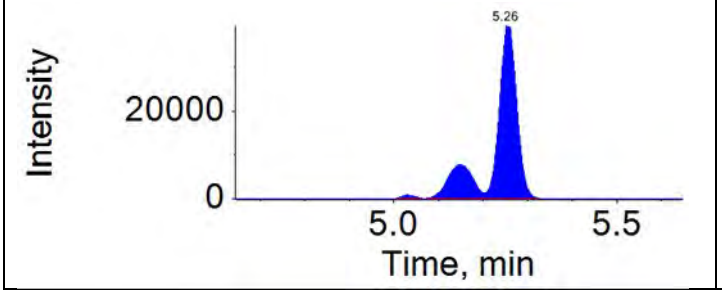


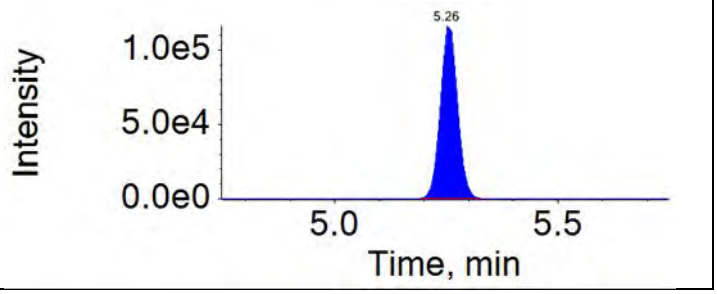
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



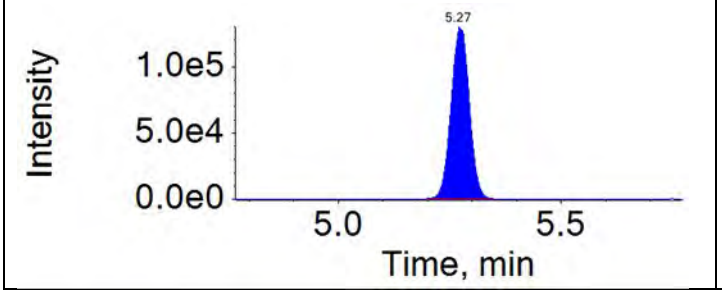


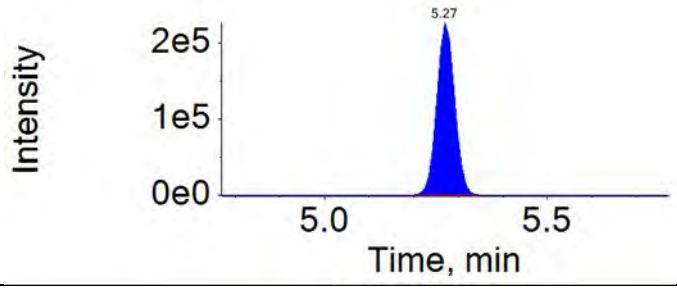
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

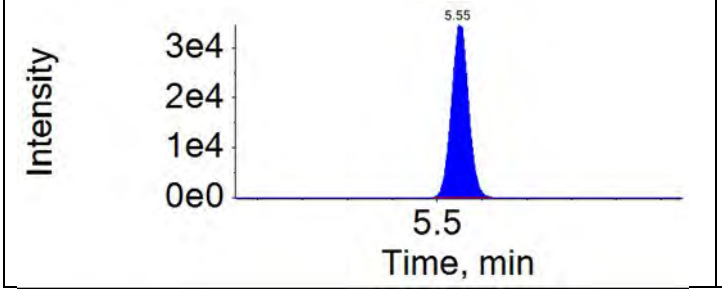
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

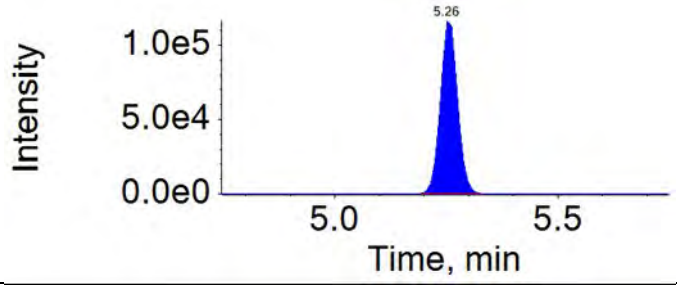
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



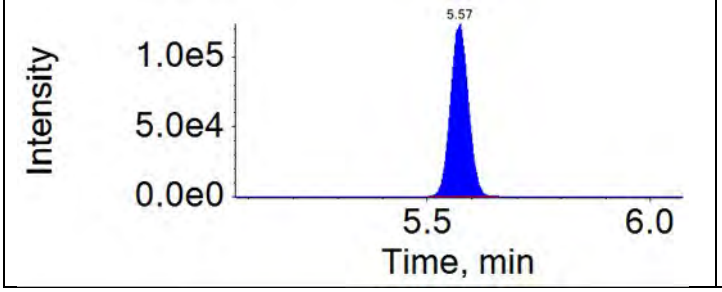


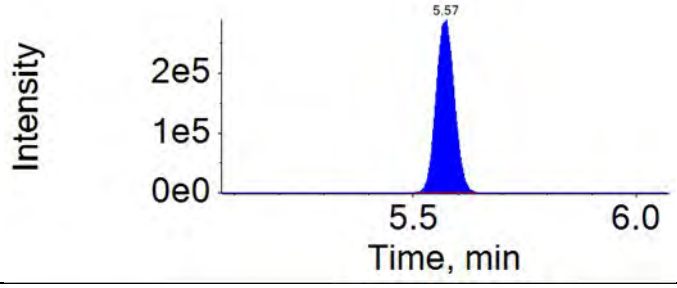
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



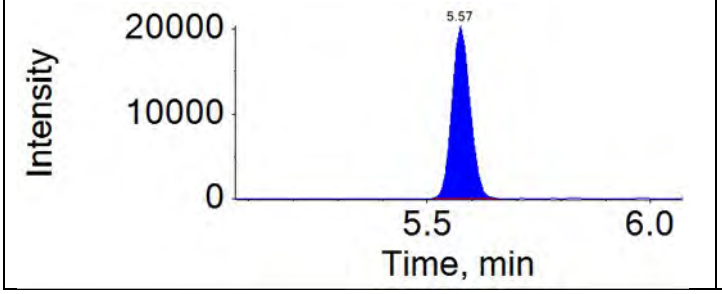


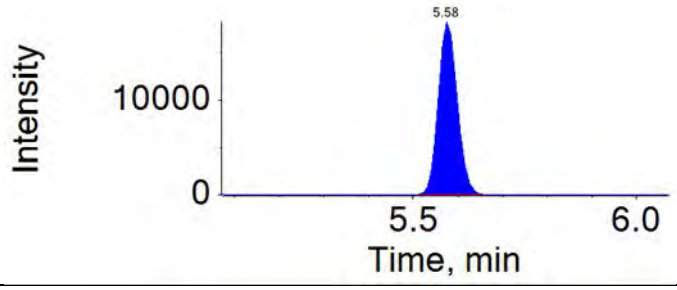
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



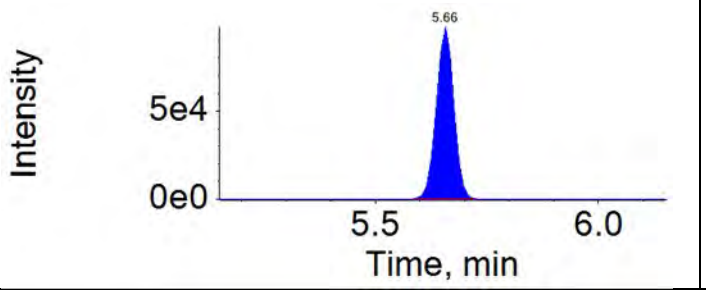


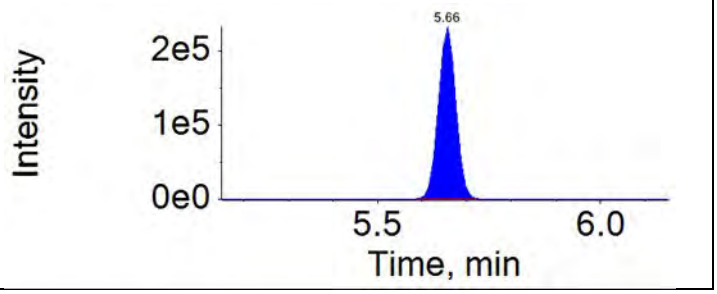
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

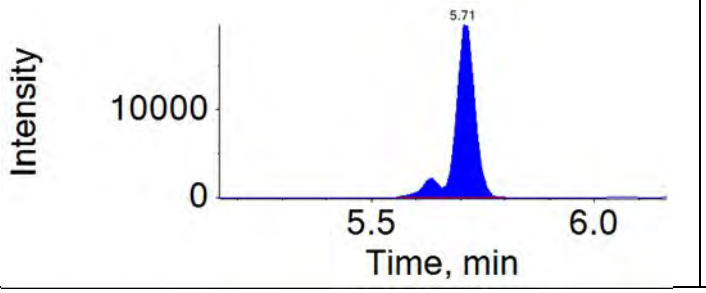
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

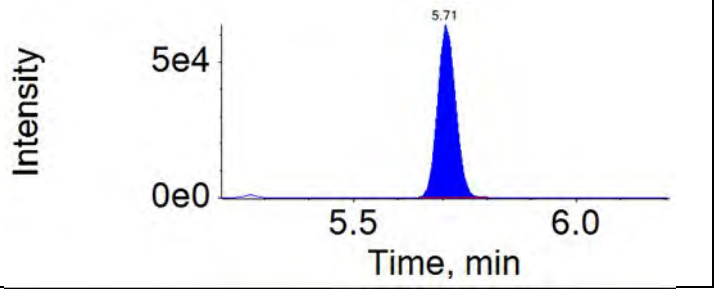
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



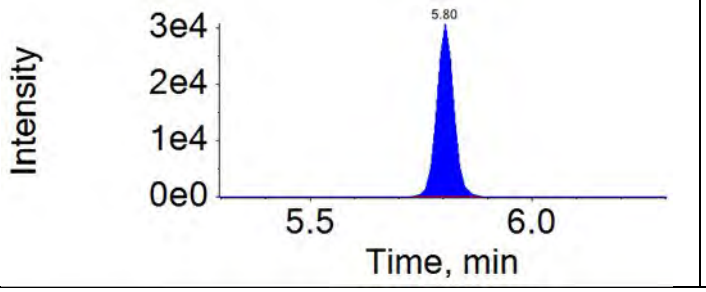


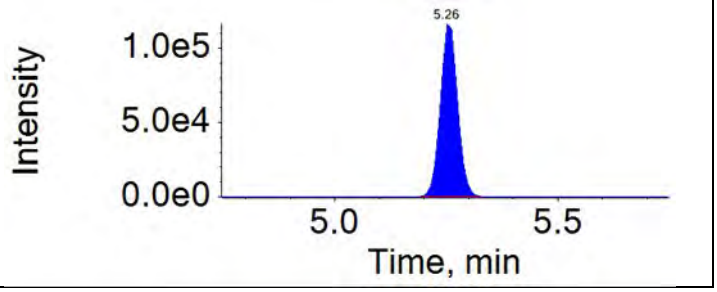
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



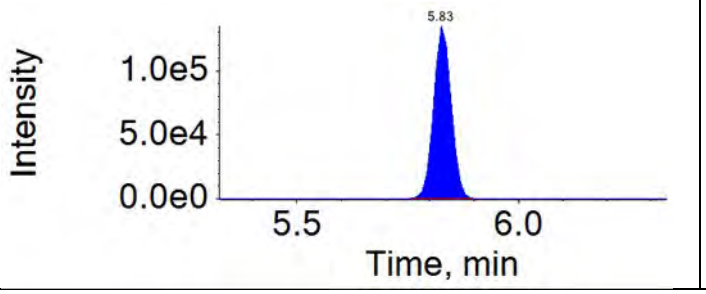


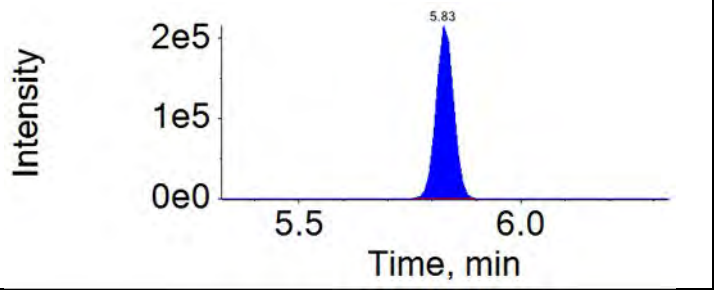
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



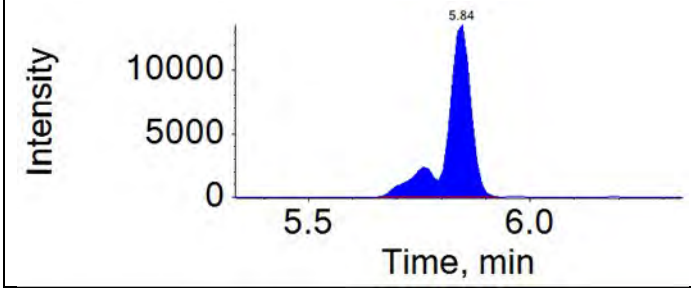


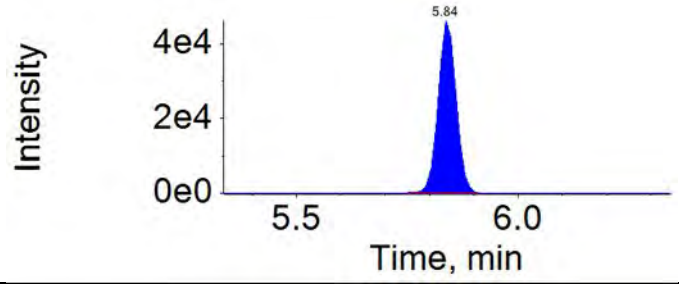
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

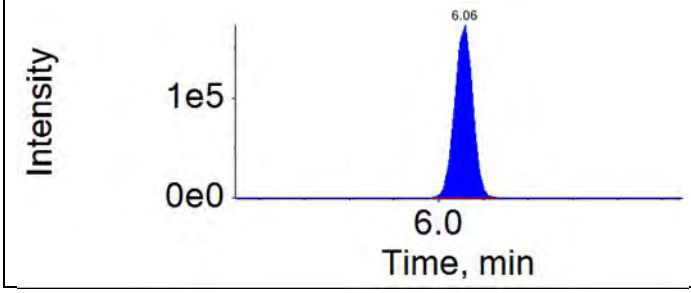
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

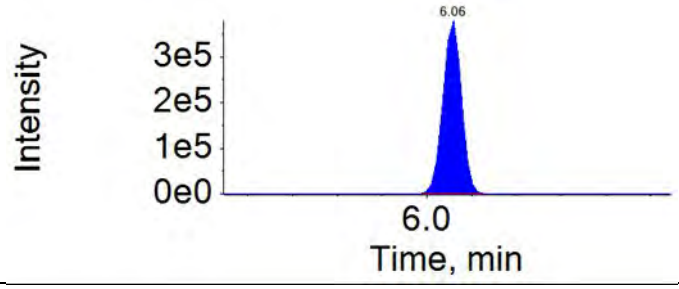
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



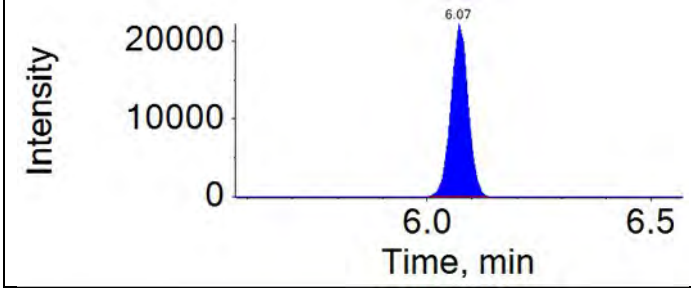


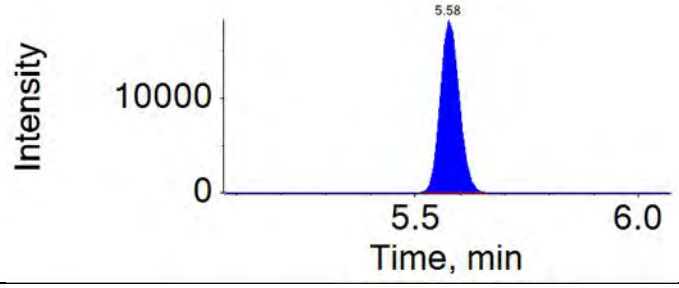
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



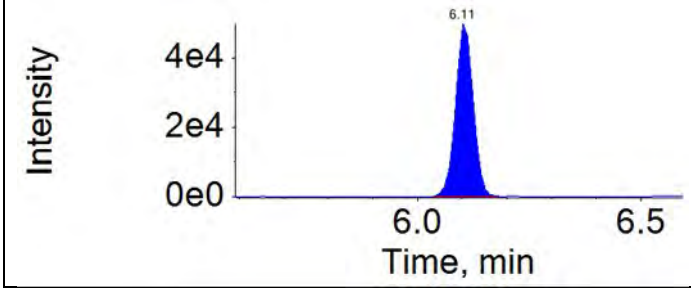


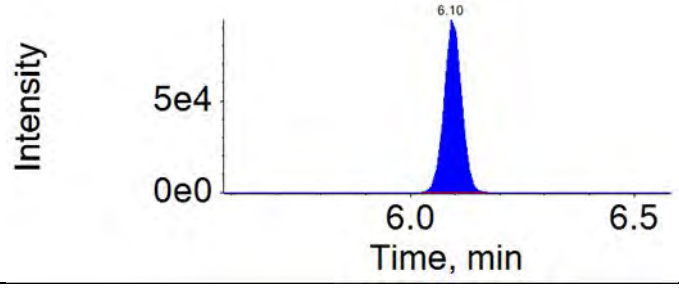
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



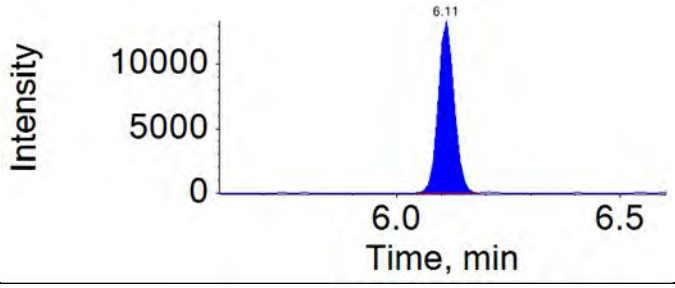


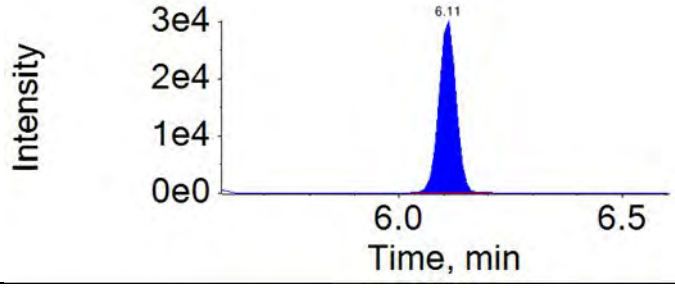
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

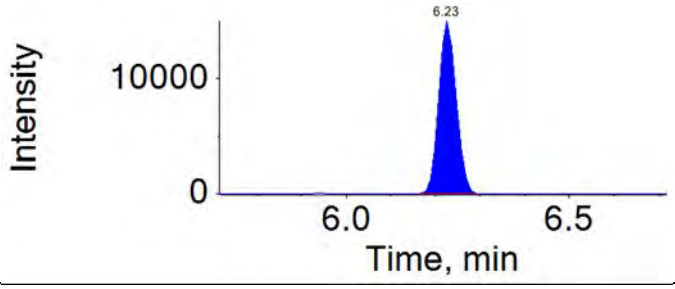
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

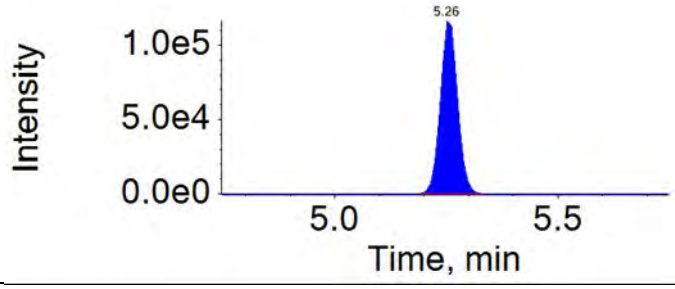
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



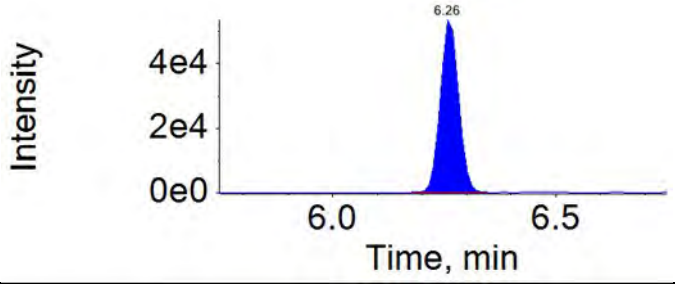


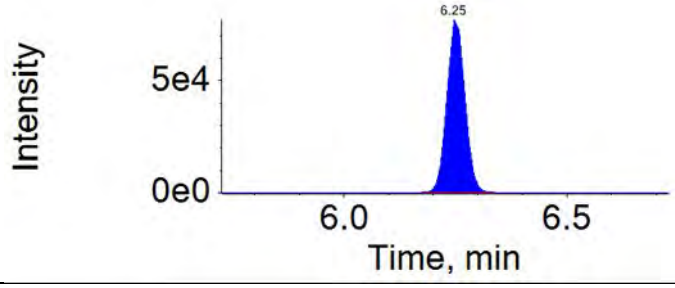
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



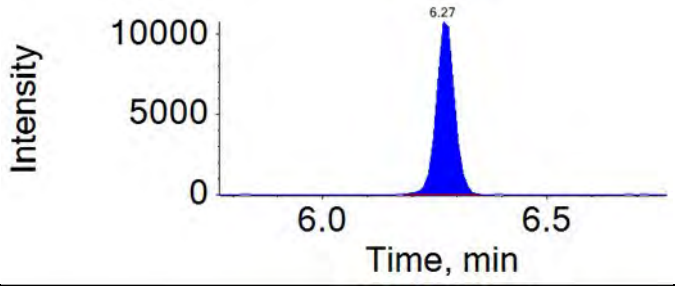


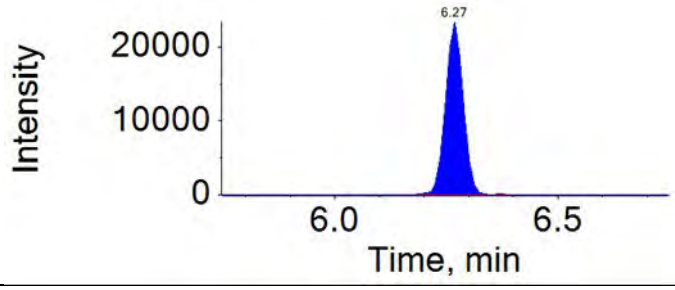
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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

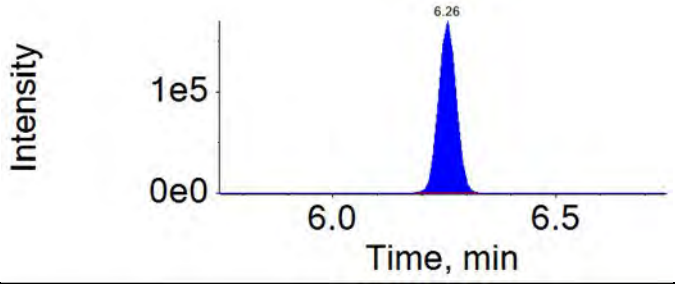
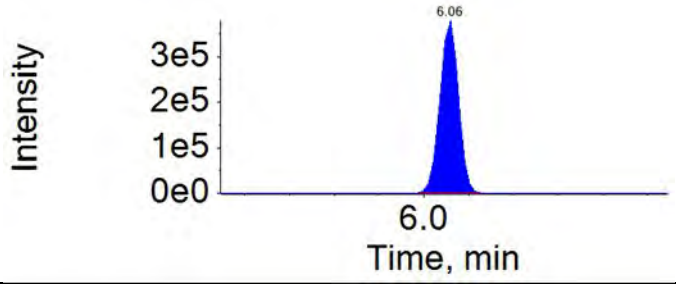


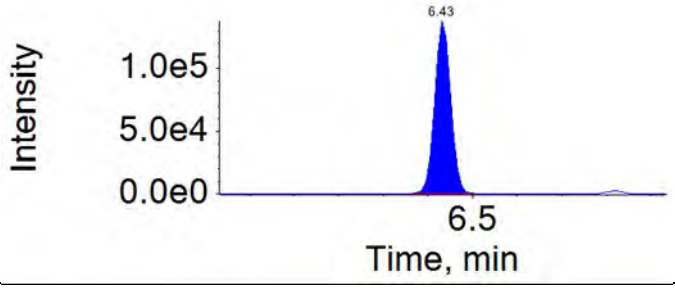
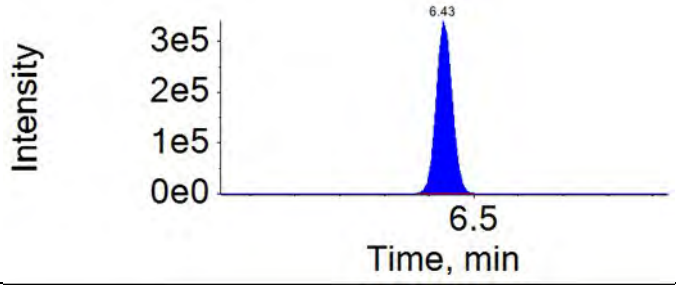


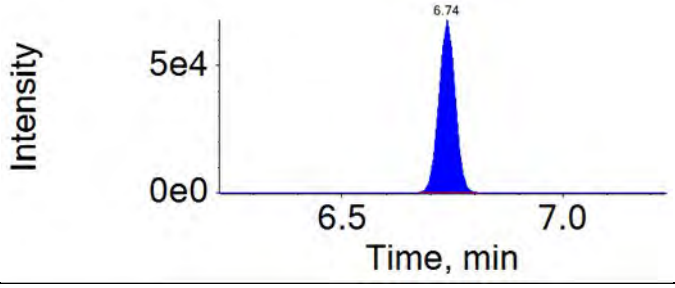
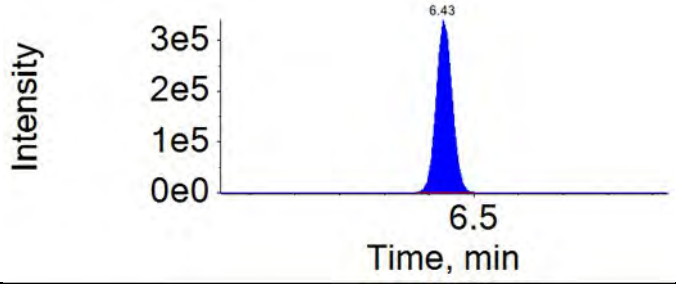
APPROVED
By MCD at 5:00 pm, 11/28/18

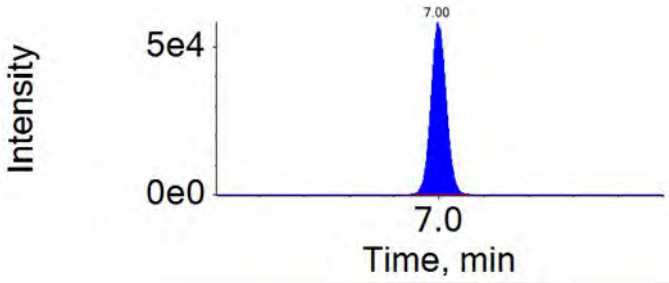
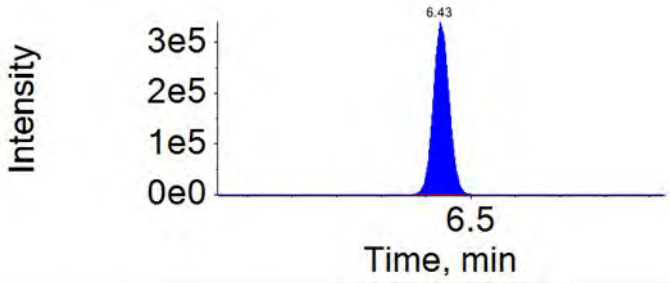
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

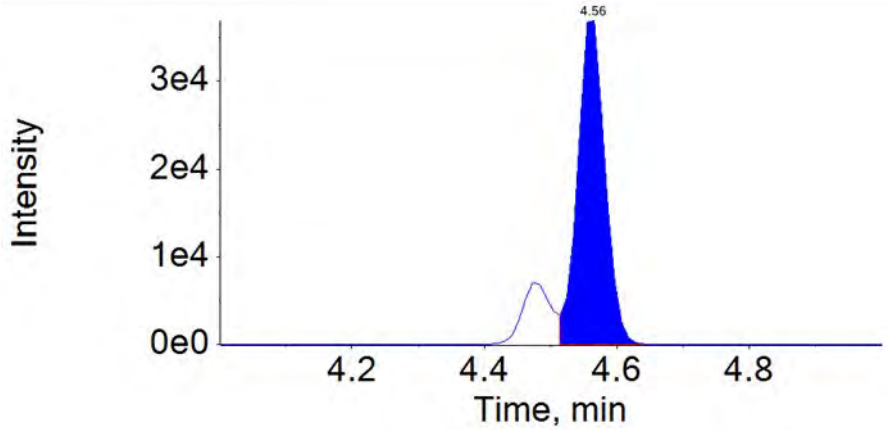
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

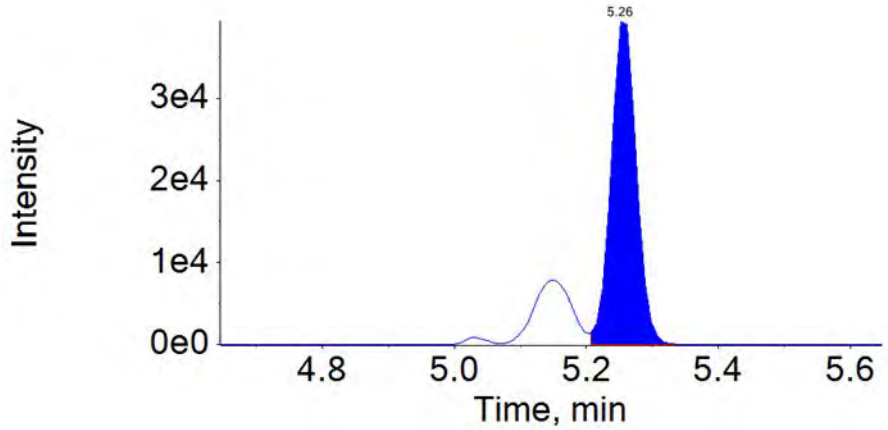
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
106597.62
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



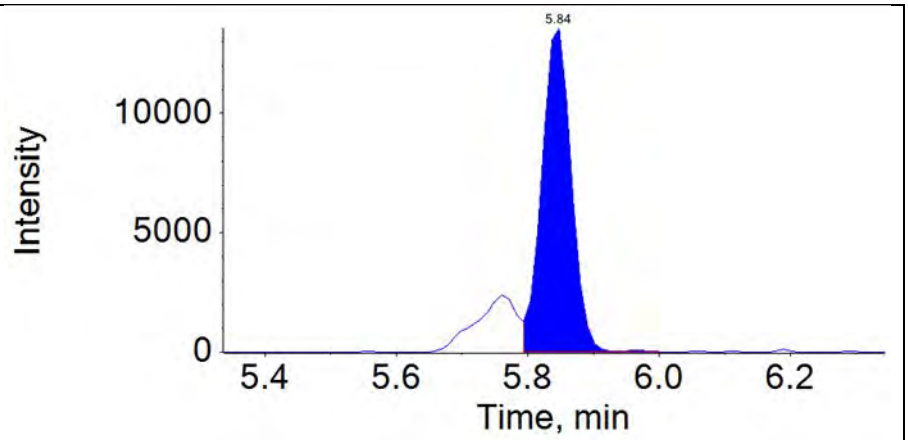
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.26
Peak Area:
105925.26
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
42641.99
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



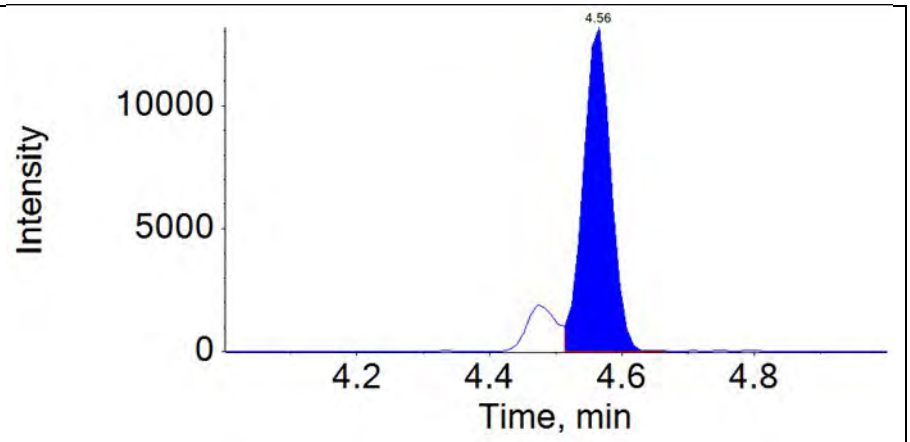
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

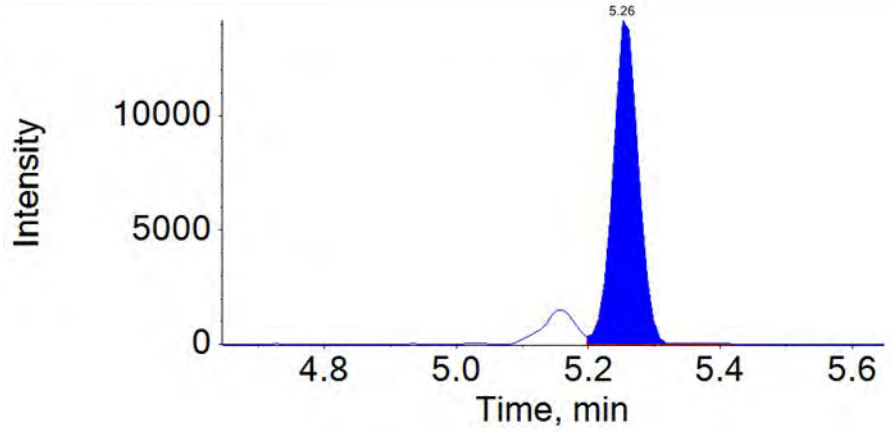
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
37946.39
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



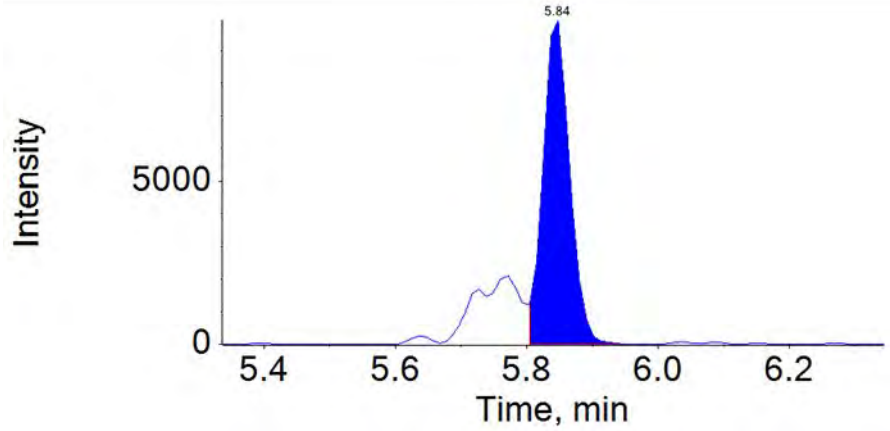
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
38423.09
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
27991.83
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

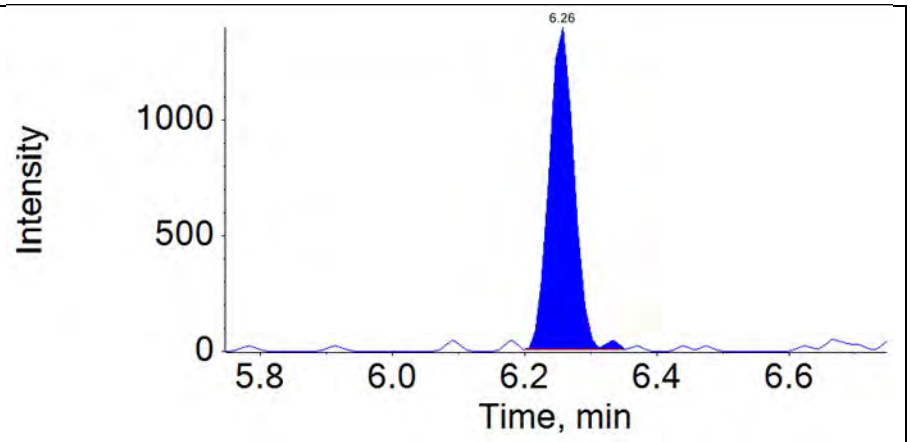
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

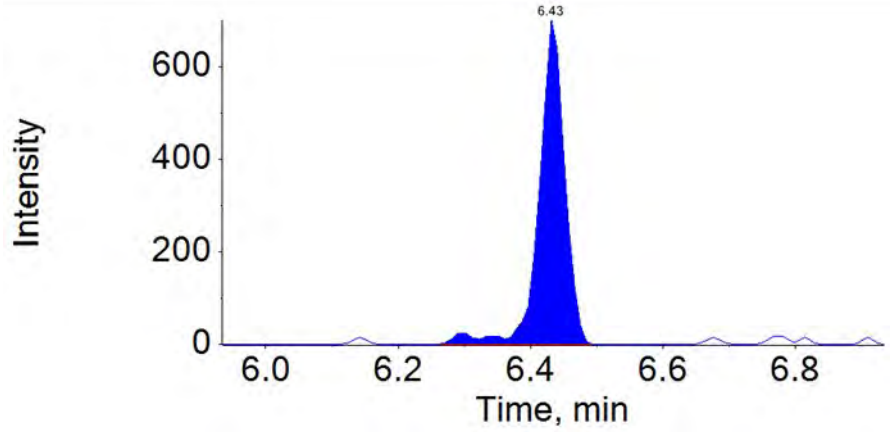
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.26
Peak Area:
3672.17
Mass Range:
663.0 / 169.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
6.43
Peak Area:
1900.22
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-08.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	168534.11	A	0.3655	0.3659			
PFBS_2	3.82	1.00	61662.80	A	0.3655	0.3659	0	50	
4:2-FTS	4.14	1.00	56502.46	A	0.6383	0.6021			
4:2-FTS_2	4.14	1.00	34020.61	A	0.6383	0.6021	-6	50	
PFHxA	4.17	1.00	395421.36	A	0.0103	0.0110			
PFHxA_2	4.18	1.00	4355.12	A	0.0103	0.0110	7	50	
PFPeS	4.19	1.10	89559.66	A	0.4976	0.4878			
PFPeS_2	4.19	1.10	43683.81	A	0.4976	0.4878	-2	50	
PFHpA	4.56	1.00	388626.66	A	0.0557	0.0548			
PFHpA_2	4.56	1.00	21286.44	A	0.0557	0.0548	-2	50	
PFHxS	4.56	1.00	127889.21	M	0.3693	0.3421			
PFHxS_2	4.56	1.00	43748.70	M	0.3693	0.3421	-7	50	
6:2-FTS	4.92	1.00	53951.03	A	0.6625	0.6864			
6:2-FTS_2	4.92	1.00	37034.45	A	0.6625	0.6864	4	50	
PFHpS	4.92	1.08	129450.89	A	0.3915	0.3990			
PFHpS_2	4.92	1.08	51651.50	A	0.3915	0.3990	2	50	
PFOA	4.93	1.00	405879.42	A	0.0573	0.0559			
PFOA_2	4.93	1.00	22683.88	A	0.0573	0.0559	-2	50	
PFOS	5.26	1.00	139506.62	M	0.2960	0.3122			
PFOS_2	5.26	1.00	43549.51	M	0.2960	0.3122	5	50	
PFNA	5.27	1.00	370292.03	A	0.0201	0.0194			
PFNA_2	5.27	1.00	7190.40	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	91471.00	A	0.4794	0.4837			
PFNS_2	5.55	1.06	44242.69	A	0.4794	0.4837	1	50	
PFDA	5.57	1.00	343523.00	A	0.0075	0.0062			
PFDA_2	5.58	1.00	2142.58	A	0.0075	0.0062	-17	50	
8:2-FTS	5.57	1.00	57433.88	A	0.5380	0.6364			
8:2-FTS_2	5.57	1.00	36548.28	A	0.5380	0.6364	18	50	
NMeFOSAA	5.71	1.00	62054.84	A	0.2305	0.1960			
NMeFOSAA_2	5.71	1.00	12164.14	A	0.2305	0.1960	-15	50	
PFDS	5.80	1.10	80537.37	A	0.5356	0.4311			
PFDS_2	5.80	1.10	34716.06	A	0.5356	0.4311	-20	50	
PFUnDA	5.83	1.00	370693.61	A	0.0038	0.0032			
PFUnDA_2	5.83	1.00	1171.38	A	0.0038	0.0032	-17	50	
NEtFOSAA	5.84	1.00	52769.46	M	0.7356	0.7268			
NEtFOSAA_2	5.84	1.00	38354.97	M	0.7356	0.7268	-1	50	
PFDoDA	6.06	1.00	486489.15	A	0.0130	0.0107			
PFDoDA_2	6.06	1.00	5227.64	A	0.0130	0.0107	-18	50	
10:2-FTS	6.07	1.09	58508.21	A	0.6989	0.5755			
10:2-FTS_2	6.07	1.09	33673.51	A	0.6989	0.5755	-18	50	
PFTrDA	6.26	1.03	466266.85	A	0.0090	0.0078			
PFTrDA_2	6.26	1.03	3621.63	M	0.0090	0.0078	-14	50	
PFTeDA	6.43	1.00	342239.84	A	0.0056	0.0053			
PFTeDA_2	6.43	1.00	1811.16	M	0.0056	0.0053	-6	50	
PFHxDA	6.74	1.05	173721.02	A	0.0646	0.0595			
PFHxDA_2	6.74	1.05	10340.87	A	0.0646	0.0595	-8	50	
PFODA	7.00	1.09	139071.53	A	0.0264	0.0248			
PFODA_2	7.00	1.09	3451.82	A	0.0264	0.0248	-6	50	

APPROVED
By MCD at 5:00 pm, 11/28/18

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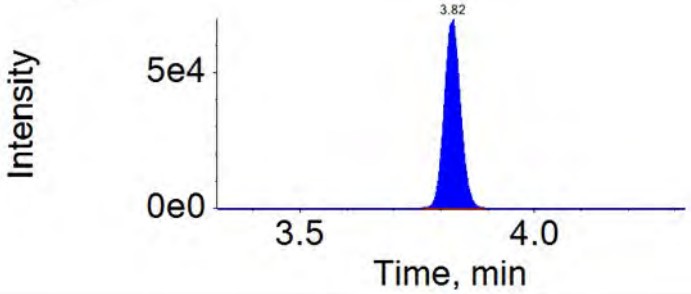
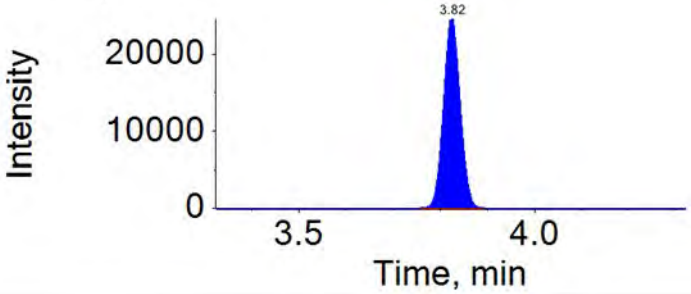
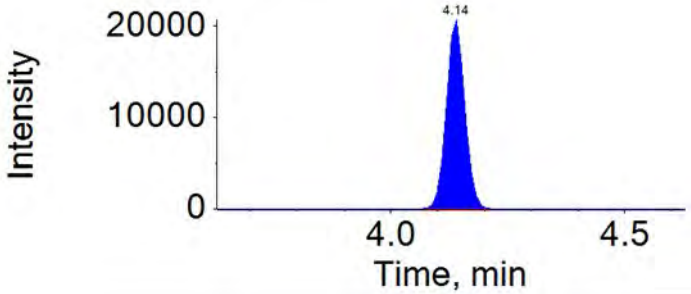
Component: PFBS
Primary Mass: 299.0 / 80.0



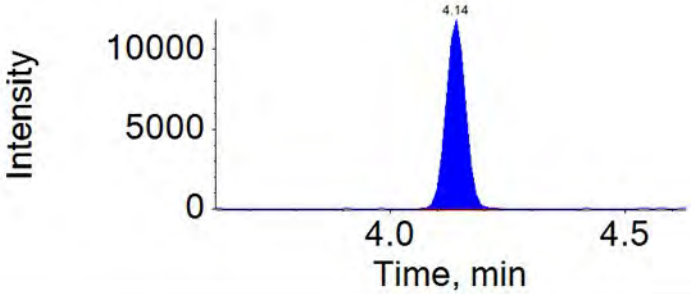
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



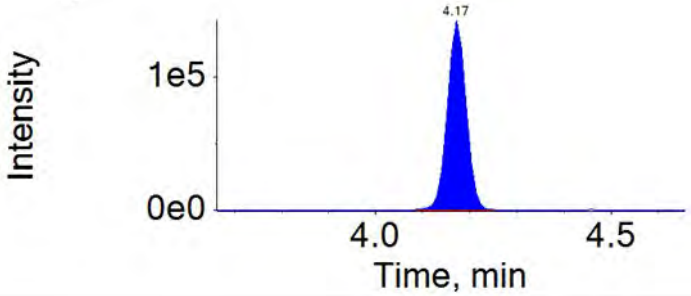
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



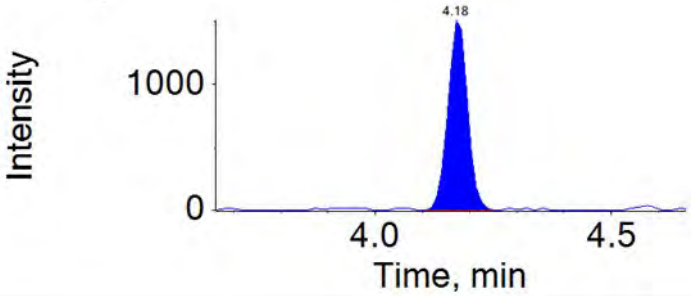
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



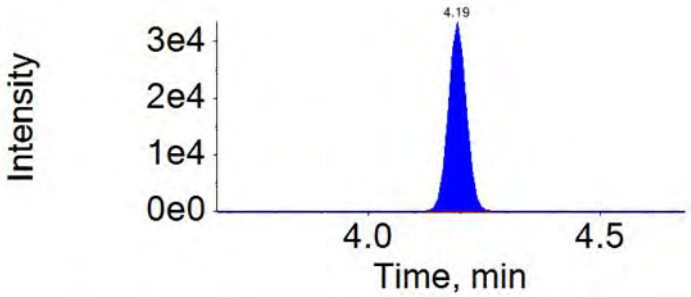
Component: PFHxA
Primary Mass: 313.0 / 269.0



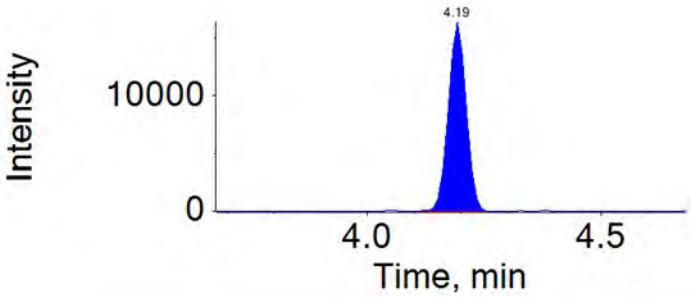
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 5:00 pm, 11/28/18

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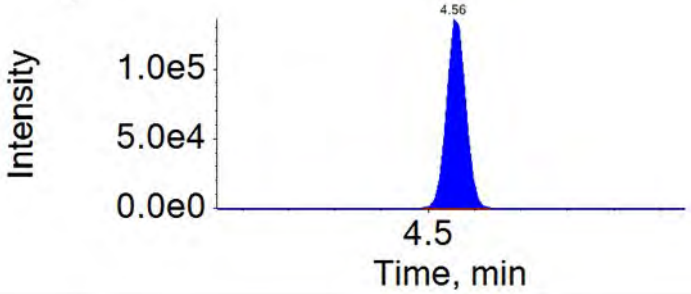
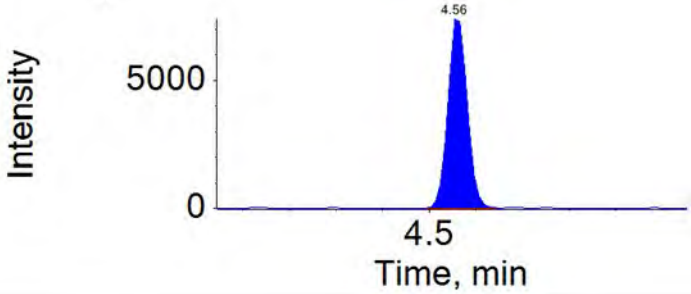
By HMK at 12:22 pm, 11/29/18

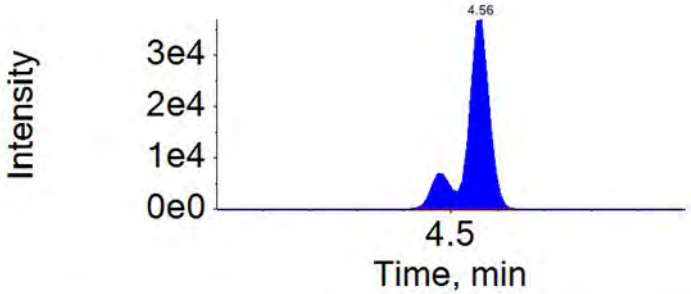
Component: PFHpA
Primary Mass: 363.0 / 319.0



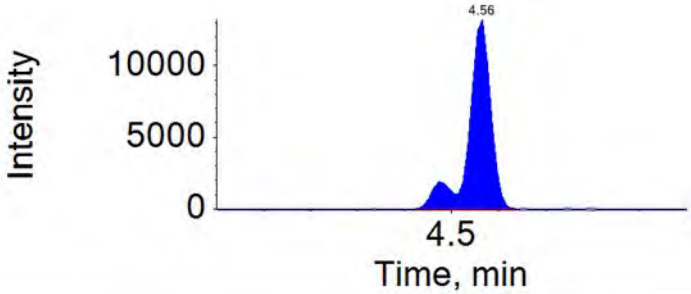
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



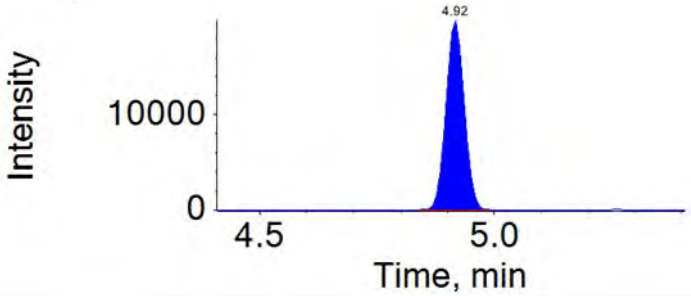
Component: PFHxS
Primary Mass: 399.0 / 80.0



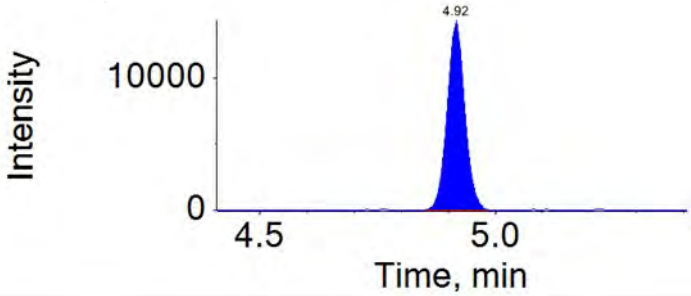
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



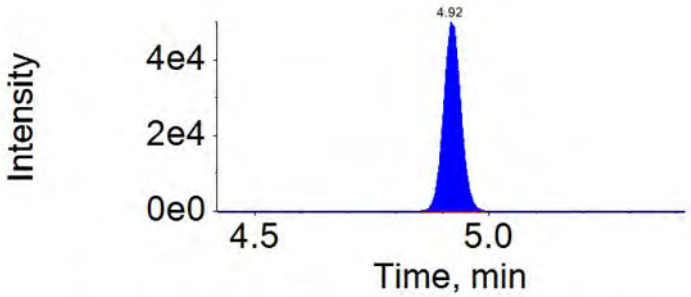
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



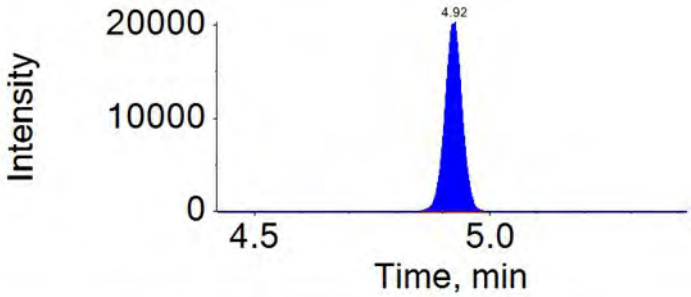
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



APPROVED
By MCD at 5:00 pm, 11/28/18

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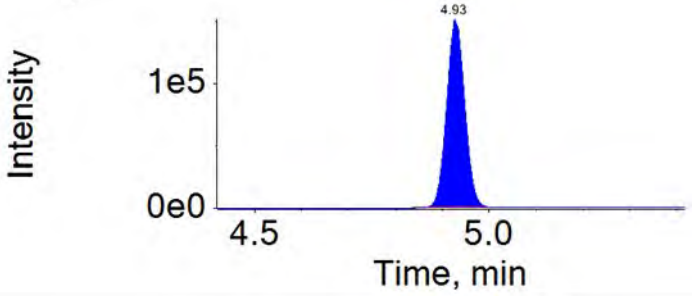
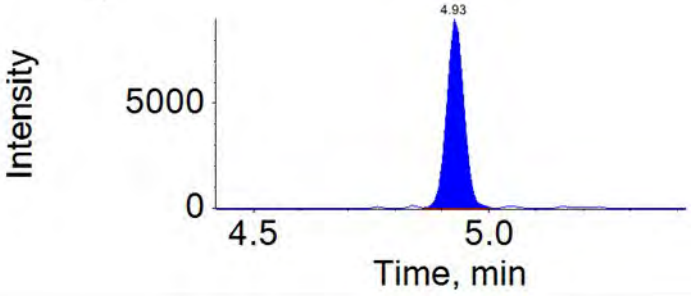
By HMK at 12:22 pm, 11/29/18

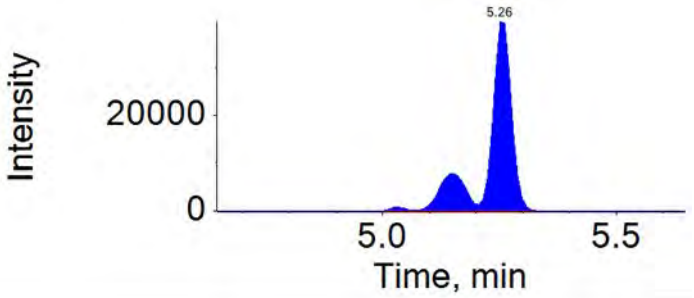
Component: PFOA
Primary Mass: 413.0 / 369.0



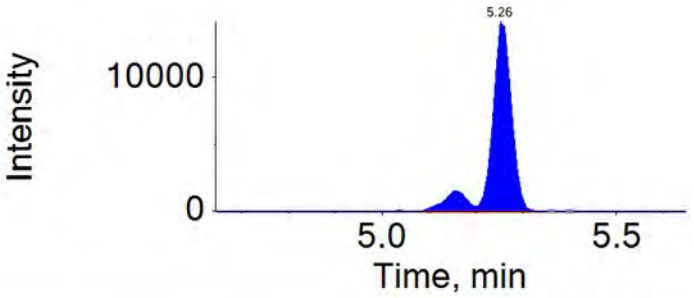
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



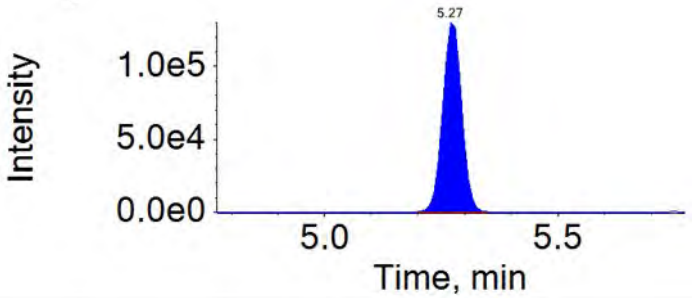
Component: PFOS
Primary Mass: 499.0 / 80.0



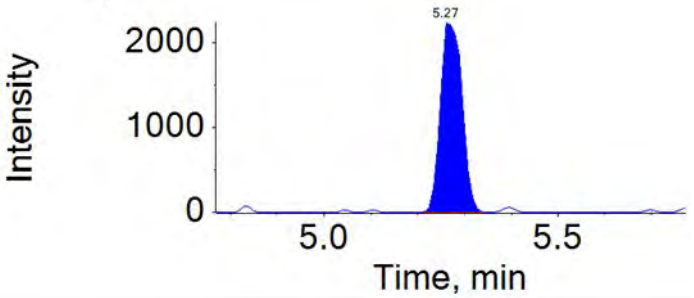
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



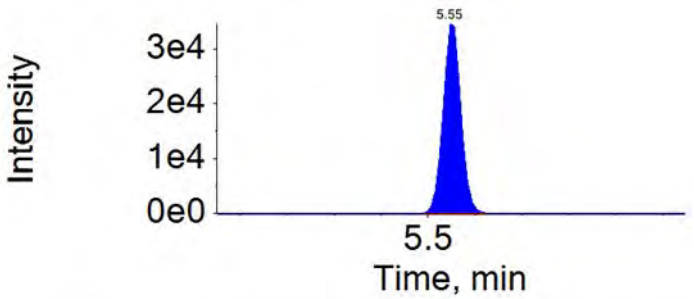
Component: PFNA
Primary Mass: 463.0 / 419.0



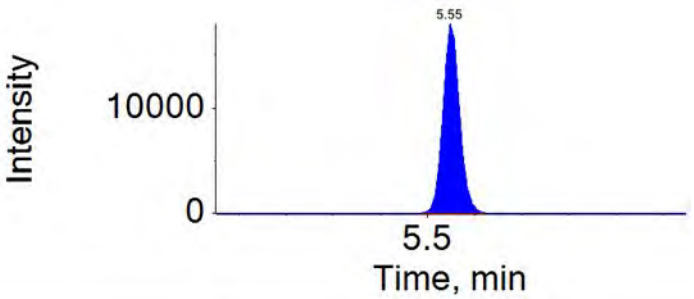
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



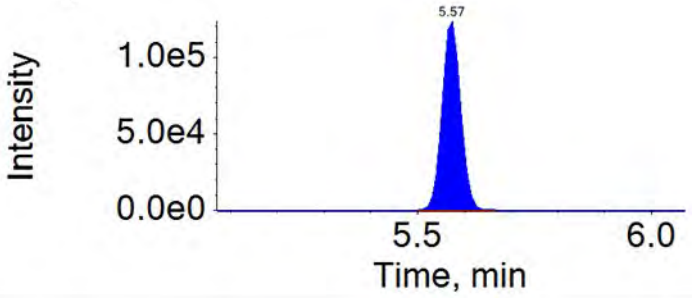
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



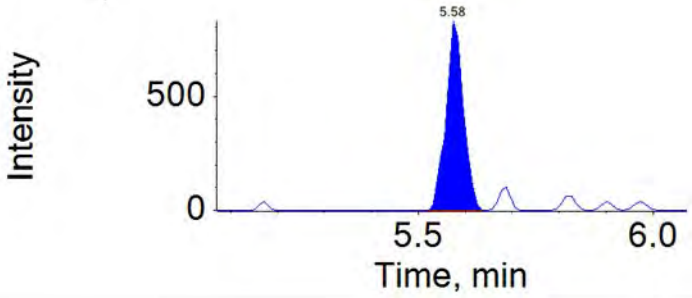
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

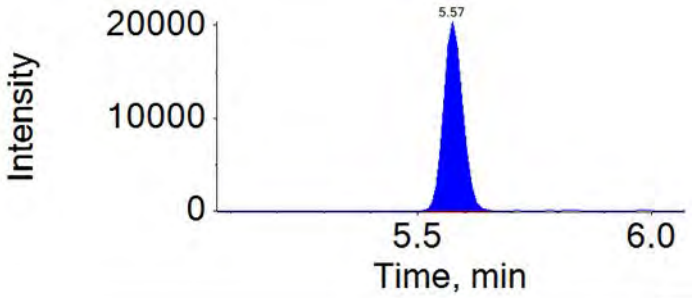
Component: PFDA
Primary Mass: 513.0 / 469.0



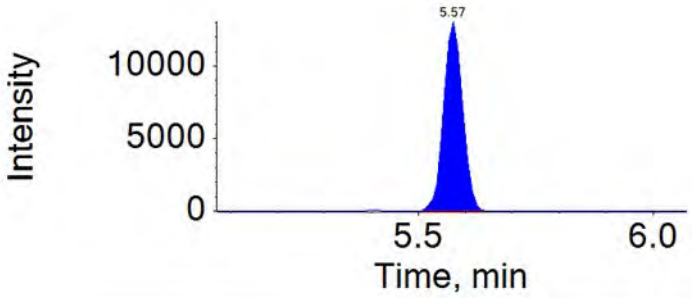
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



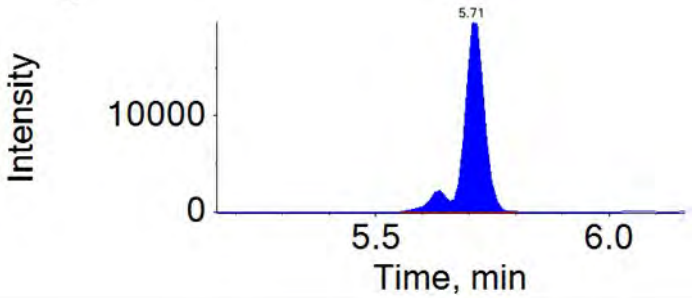
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



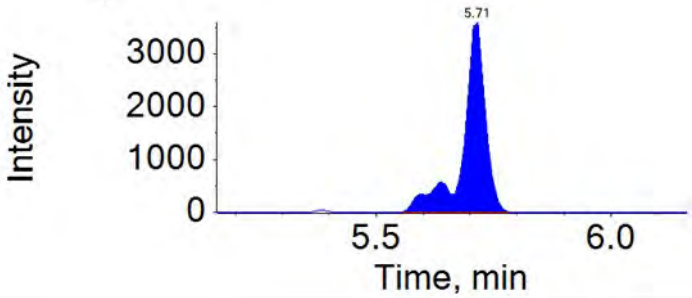
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



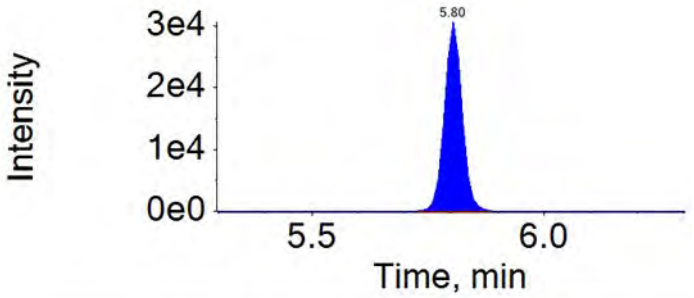
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



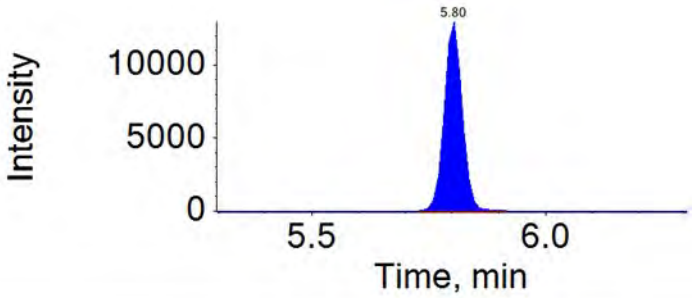
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



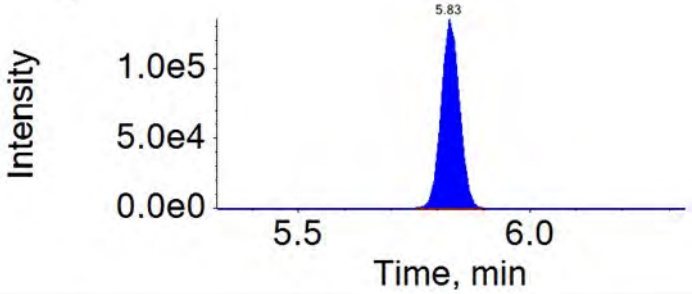
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



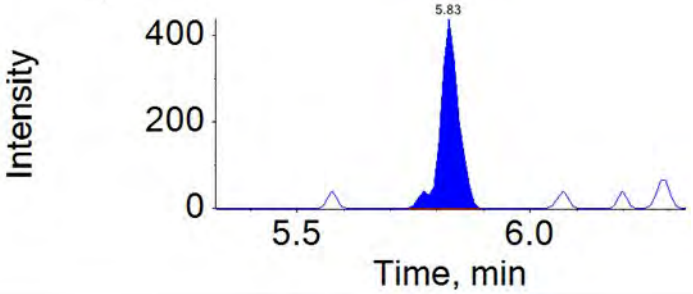
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

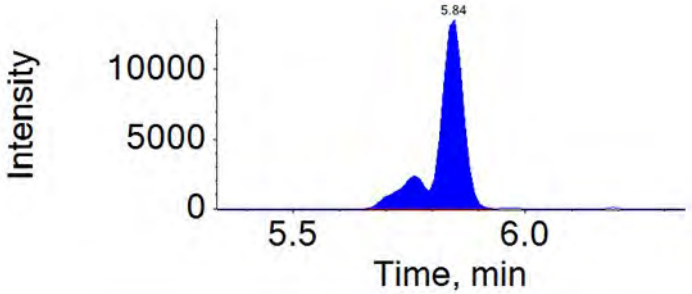
Component: PFUnDA
Primary Mass: 563.0 / 519.0



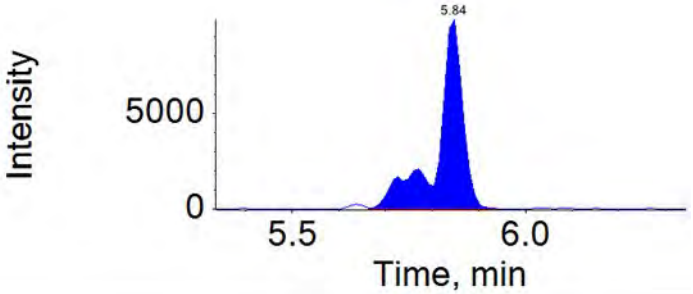
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



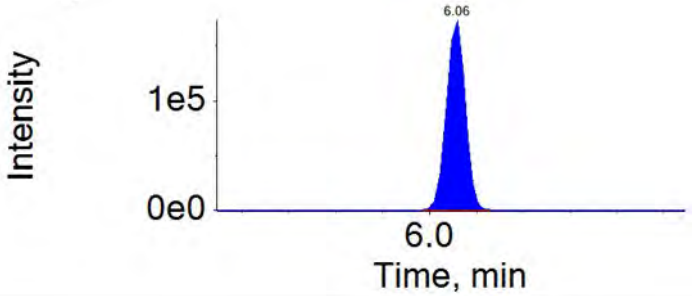
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



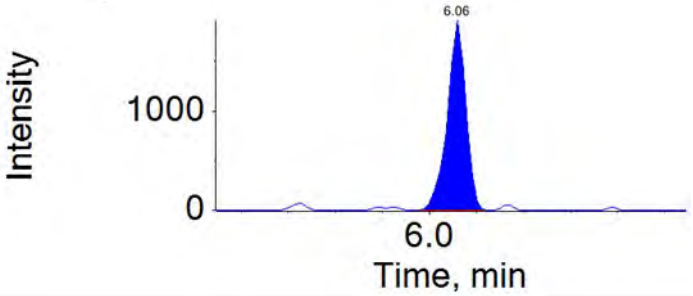
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



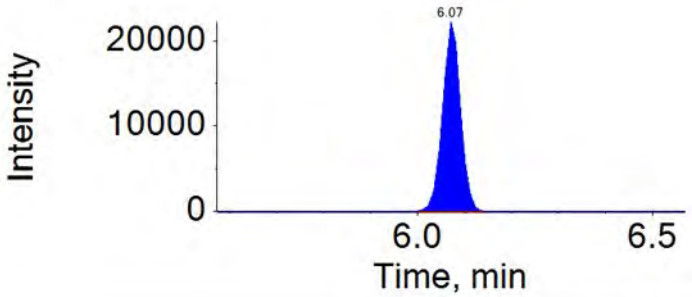
Component: PFDoDA
Primary Mass: 613.0 / 569.0



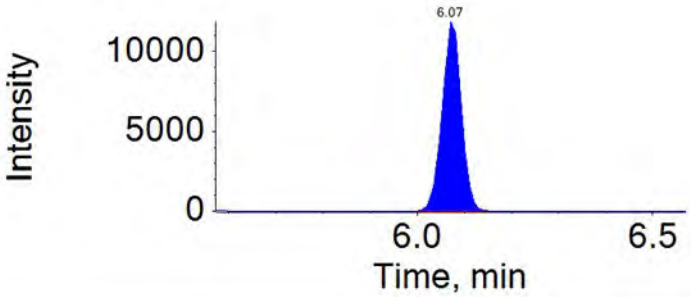
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



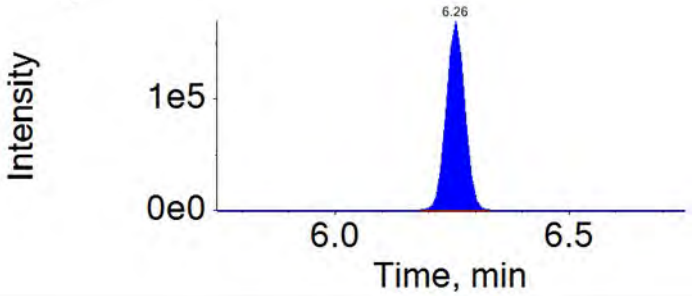
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



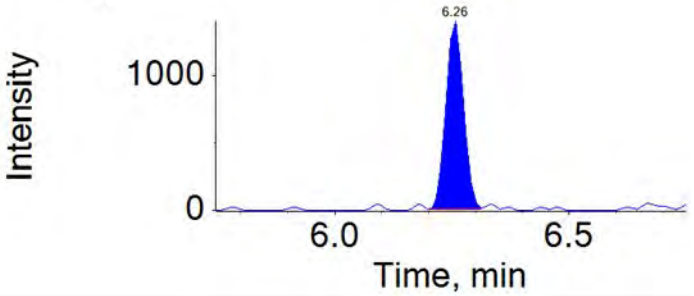
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

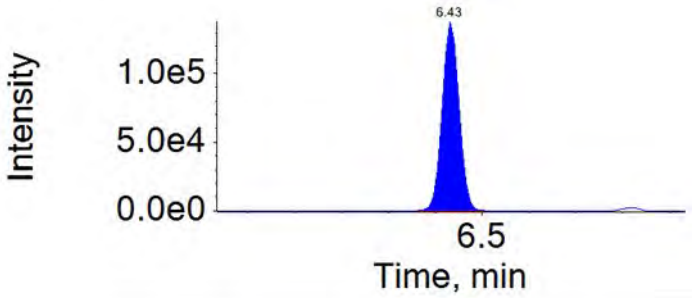
Component: PFTrDA
Primary Mass: 663.0 / 619.0



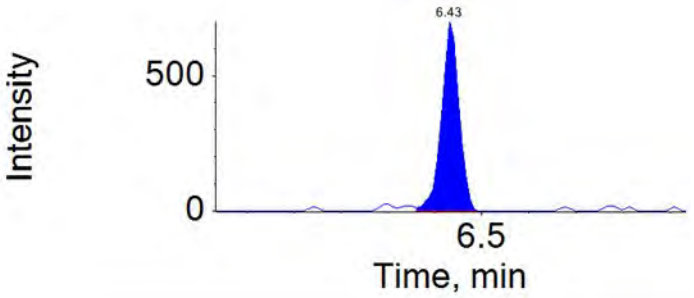
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



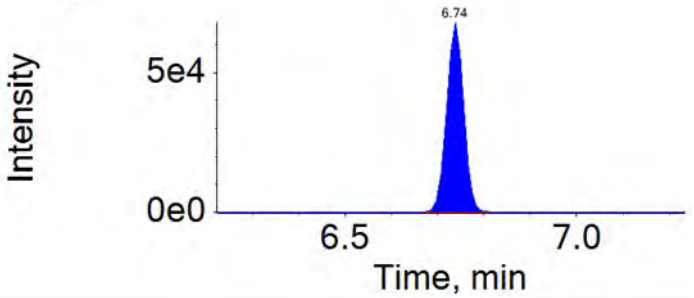
Component: PFTeDA
Primary Mass: 713.0 / 669.0



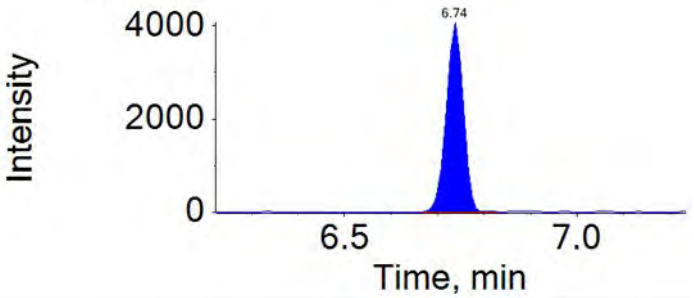
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



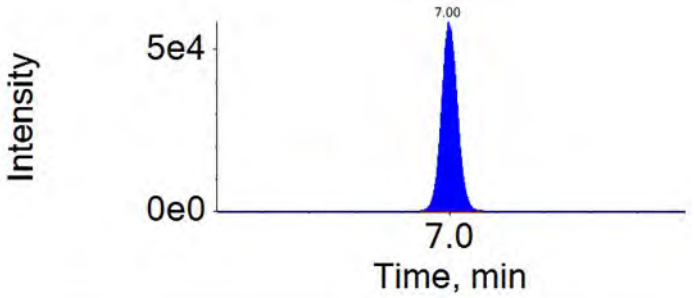
Component: PFHxDA
Primary Mass: 813.0 / 769.0



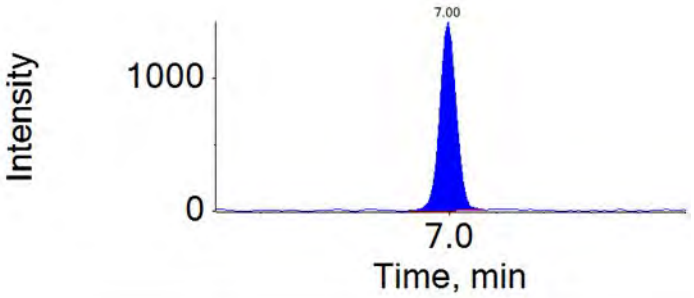
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL4			**Data File:**		18NOV28DCAL-09.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-28T14:09:13
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892443.9	887248.9	1	50	
13C2-PFOA	5.0	528506.8	498501.6	6	50	
13C4-PFOS	4.8	281778.6	283214.2	-1	50	
13C2-PFDA	5.0	489439.8	441790.6	11	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	974000.9	13C3-PFBA	892443.9	1.091	5.000	4.869	97	70-130	
E13C5-PFPeA	915824.6	13C3-PFBA	892443.9	1.026	5.000	4.792	96	70-130	
E13C3-PFBS	424041.3	13C3-PFBA	892443.9	0.475	4.650	4.533	97	70-130	
E13C2-4:2-FTS	67043.7	13C2-PFOA	528506.8	0.127	4.670	4.372	94	70-130	
E13C5-PFHxA	670407.7	13C2-PFOA	528506.8	1.268	5.000	4.659	93	70-130	
E13C3-PFHxS	316393.3	13C2-PFOA	528506.8	0.599	4.730	4.692	99	70-130	
E13C4-PFHpA	563674.0	13C2-PFOA	528506.8	1.067	5.000	4.901	98	70-130	
E13C2-6:2-FTS	56580.1	13C2-PFOA	528506.8	0.107	4.750	4.481	94	70-130	
E13C8-PFOA	918995.3	13C2-PFOA	528506.8	1.739	5.000	4.786	96	70-130	
E13C8-PFOS	296147.5	13C4-PFOS	281778.6	1.051	4.780	4.744	99	70-130	
E13C9-PFNA	648727.0	13C4-PFOS	281778.6	2.302	5.000	5.057	101	70-130	
E13C6-PFDA	841970.5	13C2-PFDA	489439.8	1.720	5.000	4.850	97	70-130	
E13C2-8:2-FTS	52961.9	13C2-PFDA	489439.8	0.108	4.790	4.651	97	70-130	
E13C8-PFOSA	625021.8	13C2-PFDA	489439.8	1.277	5.000	4.686	94	70-130	
Ed3-NMeFOSAA	171204.0	13C2-PFDA	489439.8	0.350	5.000	4.441	89	70-130	
E13C7-PFUnDA	546359.3	13C2-PFDA	489439.8	1.116	5.000	4.718	94	70-130	
Ed5-NEtFOSAA	138500.8	13C2-PFDA	489439.8	0.283	5.000	5.041	101	70-130	
E13C2-PFDoDA	1150927.4	13C2-PFDA	489439.8	2.352	5.000	4.941	99	70-130	
Ed7-NMePFOSAE	263412.8	13C2-PFDA	489439.8	0.538	5.000	4.651	93	70-130	
Ed3-NMePFOSA	83886.6	13C2-PFDA	489439.8	0.171	5.000	4.639	93	70-130	
Ed9-NEtPFOSAE	218635.8	13C2-PFDA	489439.8	0.447	5.000	4.529	91	70-130	
Ed5-NEtPFOSA	66966.4	13C2-PFDA	489439.8	0.137	5.000	4.754	95	70-130	
E13C2-PFTeDA	826670.0	13C2-PFDA	489439.8	1.689	5.000	4.674	93	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

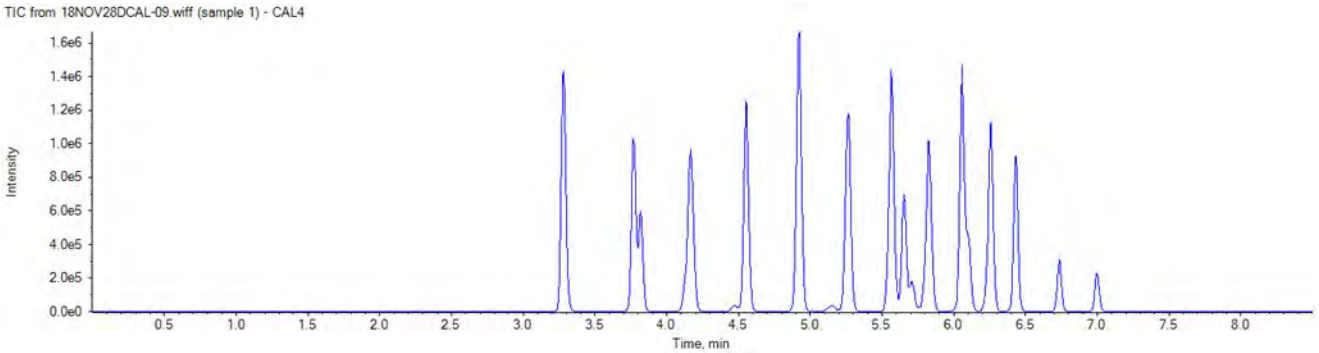
Analyte Quantitation Peak Table

Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-09.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	1425164.4		A	13C4-PFBA	3.28	974000.9	1.463	8.021
PFPeA	3.77	1.000	1424845.3		A	13C5-PFPeA	3.77	915824.6	1.556	7.634
PFBS	3.82	1.000	590590.3		A	13C3-PFBS	3.82	424041.3	1.393	6.761
4:2-FTS	4.13	1.000	191344.6		A	13C2-4:2-FTS	4.13	67043.7	2.854	7.640
PFHxA	4.16	1.000	1343216.4		A	13C5-PFHxA	4.17	670407.7	2.004	8.042
PFPeS	4.19	1.100	311741.6		A	13C3-PFBS	3.82	424041.3	0.735	7.436
PFHpA	4.55	1.000	1429895.3		A	13C4-PFHpA	4.55	563674.0	2.537	7.829
PFHxS	4.56	1.000	444626.0		M	13C3-PFHxS	4.56	316393.3	1.405	6.580
6:2-FTS	4.91	1.000	185311.5		A	13C2-6:2-FTS	4.91	56580.1	3.275	8.546
PFHpS	4.92	1.080	471580.6		A	13C3-PFHxS	4.56	316393.3	1.490	7.439
PFOA	4.92	1.000	1486960.4		A	13C8-PFOA	4.92	918995.3	1.618	8.361
PFOS	5.25	1.000	481950.0		M	13C8-PFOS	5.25	296147.5	1.627	6.826
PFNA	5.27	1.000	1365056.4		A	13C9-PFNA	5.27	648727.0	2.104	8.064
PFNS	5.55	1.060	369833.4		A	13C8-PFOS	5.25	296147.5	1.249	7.885
PFDA	5.57	1.000	1223810.4		A	13C6-PFDA	5.57	841970.5	1.454	8.227
8:2-FTS	5.57	1.000	203687.7		A	13C2-8:2-FTS	5.57	52961.9	3.846	7.253
PFOSA	5.65	1.000	976434.1		A	13C8-PFOSA	5.65	625021.8	1.562	7.914
NMeFOSAA	5.71	1.000	212775.3		M	d3-NMeFOSAA	5.71	171204.0	1.243	7.928
PFDS	5.80	1.100	283198.5		A	13C8-PFOS	5.25	296147.5	0.956	7.582
PFUnDA	5.83	1.000	1281938.5		A	13C7-PFUnDA	5.83	546359.3	2.346	8.387
NEtFOSAA	5.84	1.000	204048.6		M	d5-NEtFOSAA	5.84	138500.8	1.473	7.175
PFDoDA	6.06	1.000	1650301.1		A	13C2-PFDoDA	6.06	1150927.4	1.434	7.854
10:2-FTS	6.08	1.090	184968.5		A	13C2-8:2-FTS	5.57	52961.9	3.492	7.701
NMePFOSAE	6.11	1.000	498735.8		A	d7-NMePFOSAE	6.10	263412.8	1.893	7.968
NMePFOSA	6.11	1.000	124582.5		A	d3-NMePFOSA	6.11	83886.6	1.485	7.873
PFDoS	6.23	1.190	159682.3		A	13C8-PFOS	5.25	296147.5	0.539	7.744
NEtPFOSAE	6.26	1.000	516882.1		A	d9-NEtPFOSAE	6.25	218635.8	2.364	8.504
NEtPFOSA	6.28	1.000	119152.1		A	d5-NEtPFOSA	6.27	66966.4	1.779	7.975
PFTrDA	6.26	1.030	1622977.7		A	13C2-PFDoDA	6.06	1150927.4	1.410	8.500
PFTeDA	6.43	1.000	1172052.0		A	13C2-PFTeDA	6.43	826670.0	1.418	8.033
PFHxDA	6.74	1.050	601723.8		A	13C2-PFTeDA	6.43	826670.0	0.728	8.321
PFODA	7.00	1.090	494210.7		A	13C2-PFTeDA	6.43	826670.0	0.598	7.964

Total Ion Chromatogram

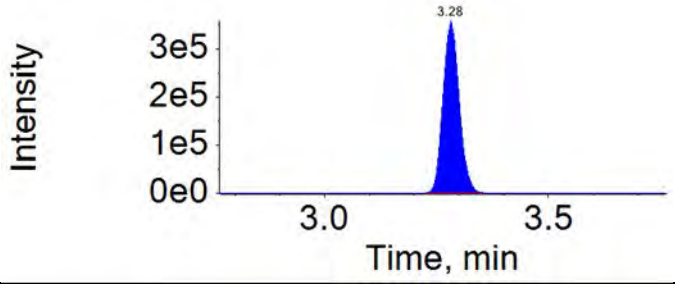


APPROVED
By MCD at 5:00 pm, 11/28/18

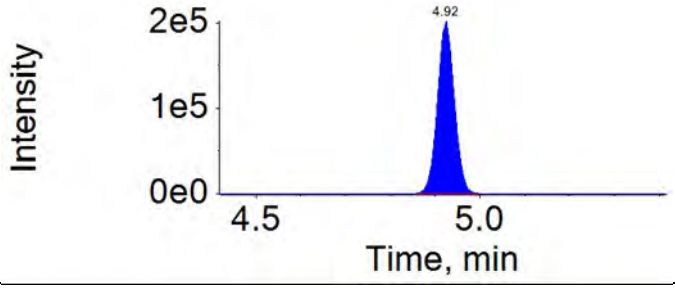
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

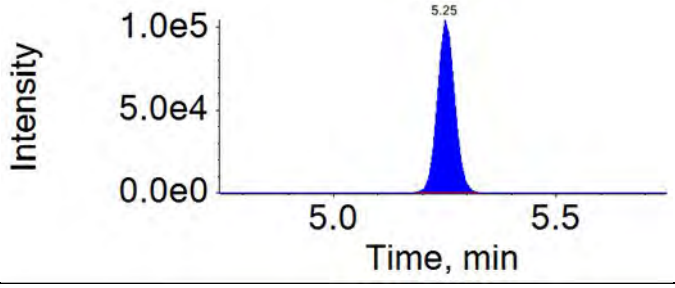
Injection Standard: 13C3-PFBA
216.0 / 172.0



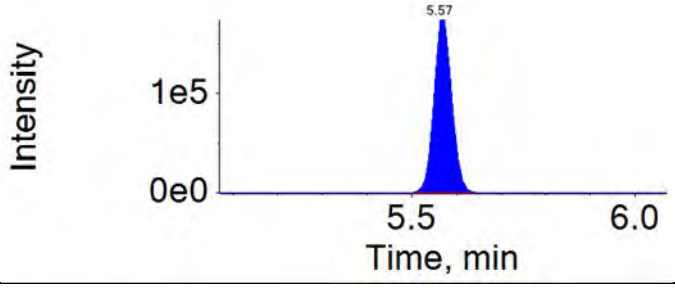
Injection Standard: 13C2-PFOA
415.0 / 370.0



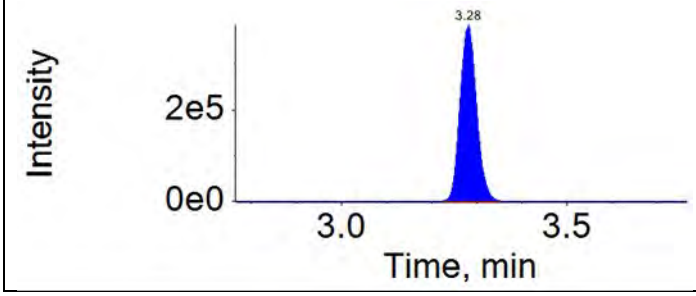
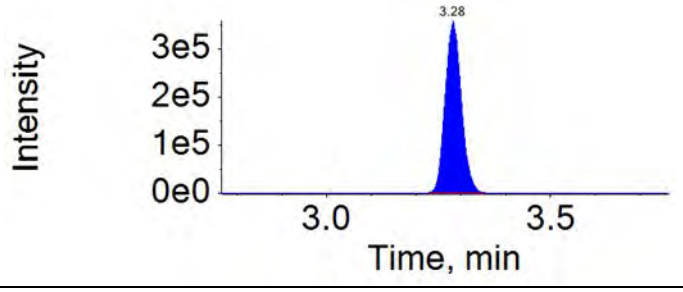
Injection Standard: 13C4-PFOS
503.0 / 80.0

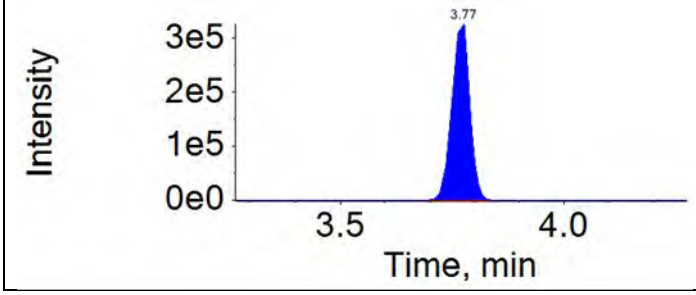
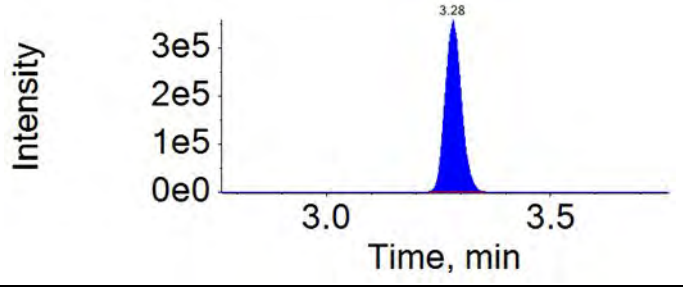


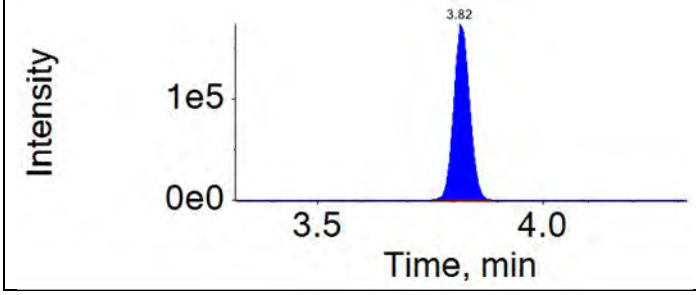
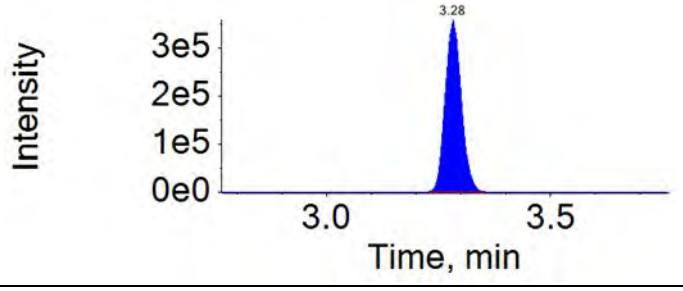
Injection Standard: 13C2-PFDA
515.0 / 470.0

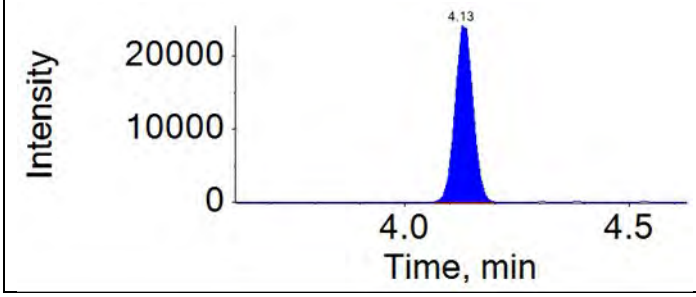
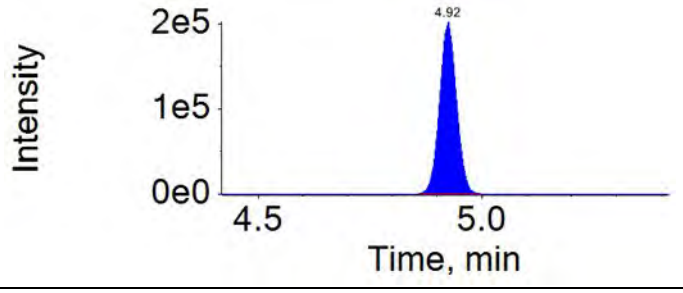


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

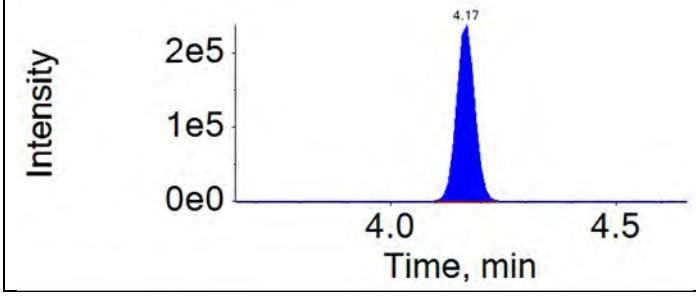
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

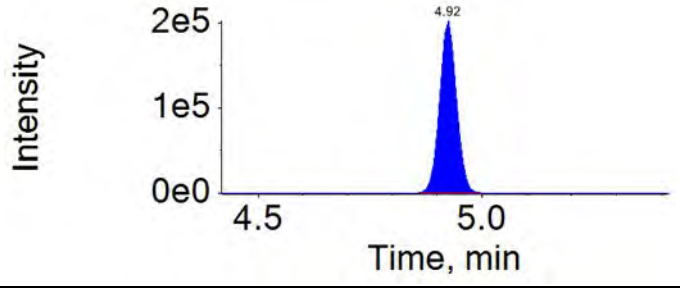
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

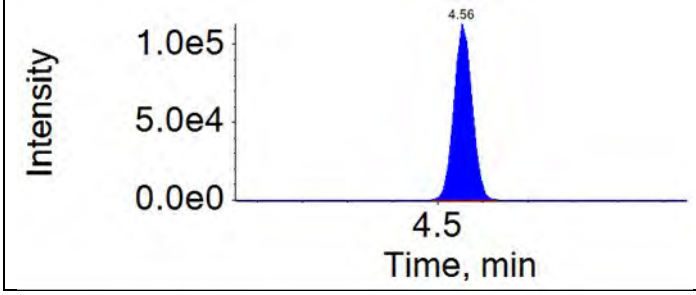
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

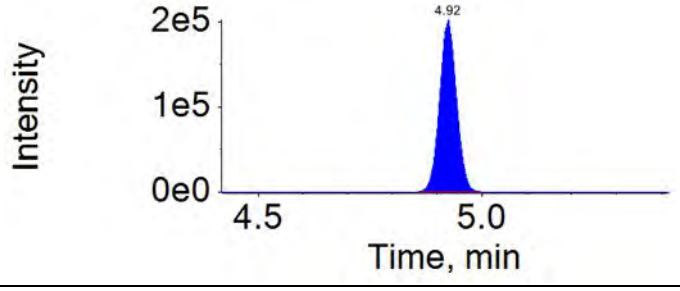
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



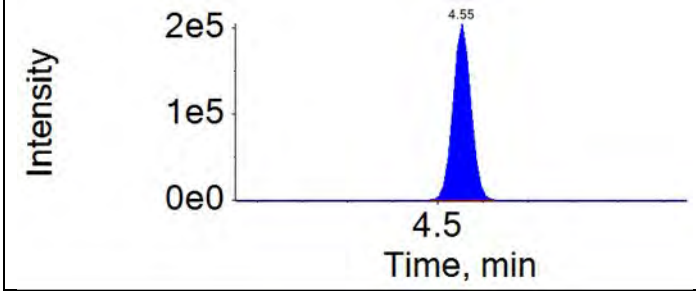


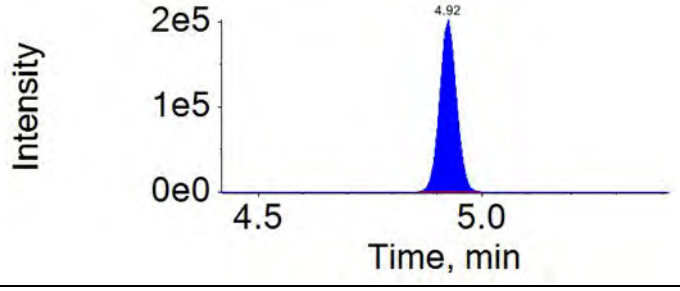
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



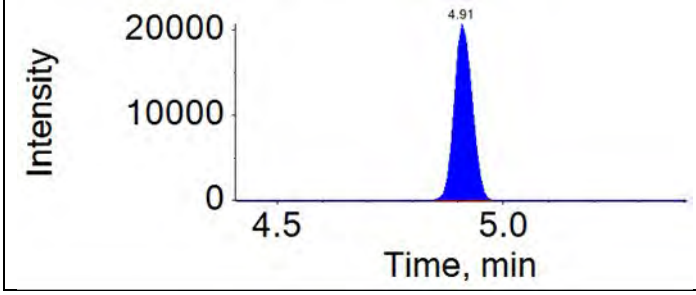


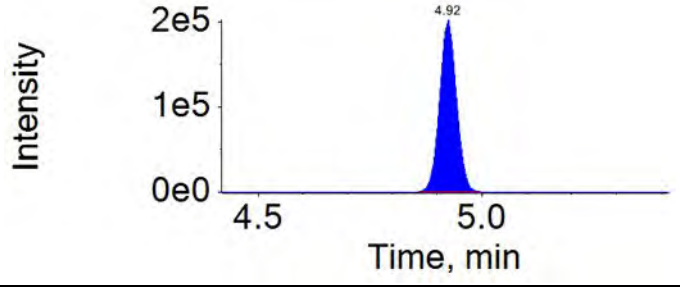
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

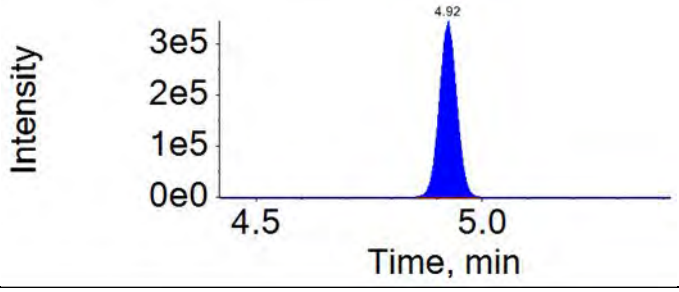
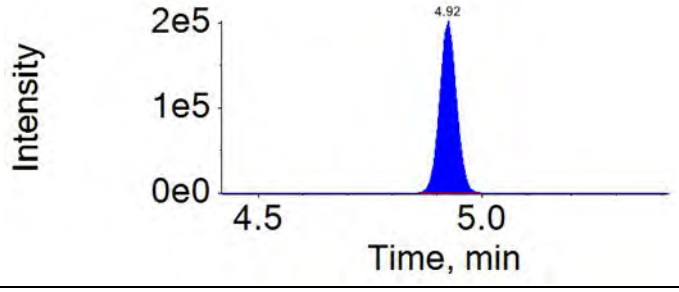


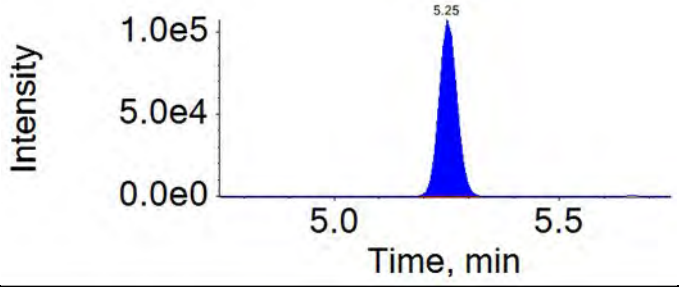
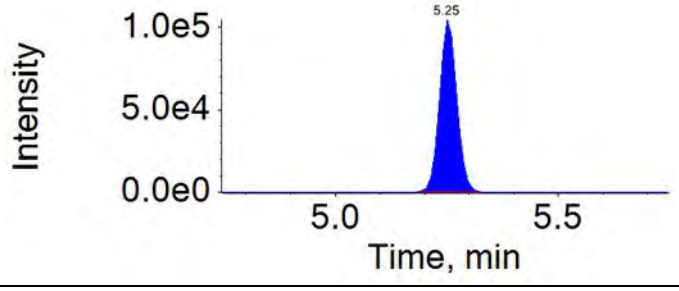


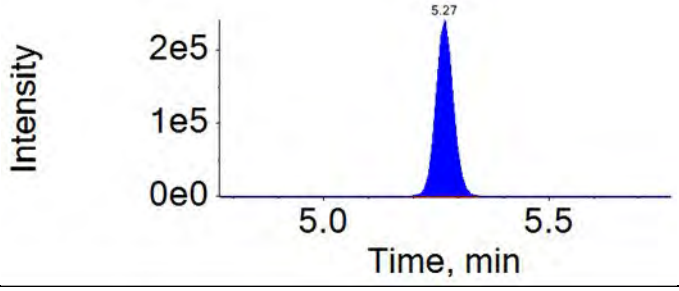
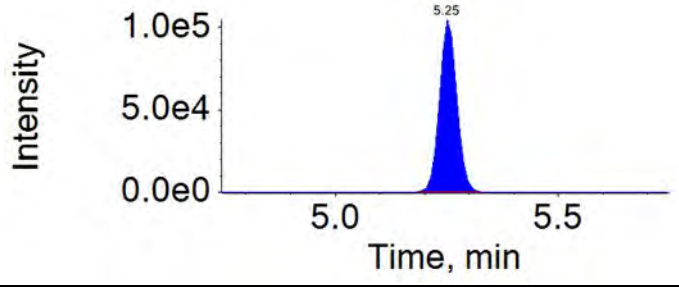
APPROVED
By MCD at 5:00 pm, 11/28/18

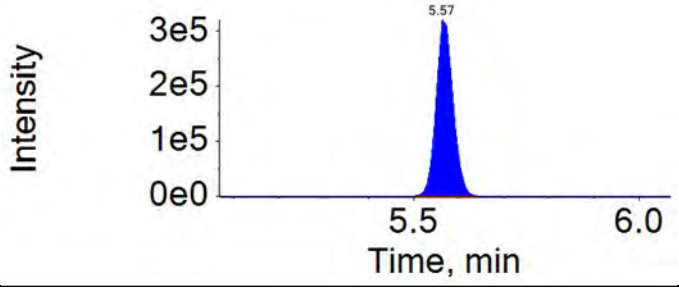
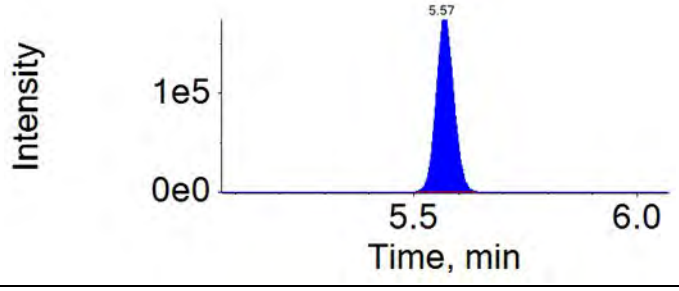
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

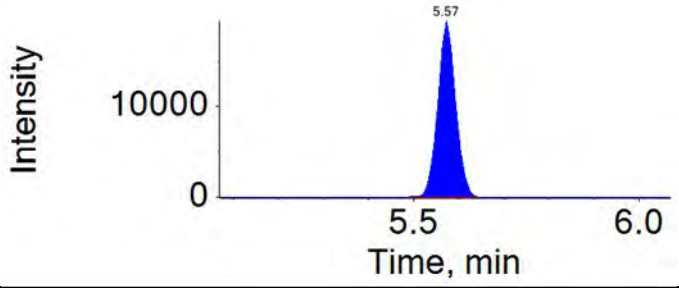
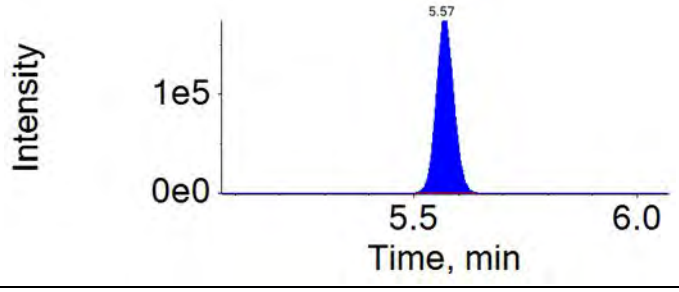
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

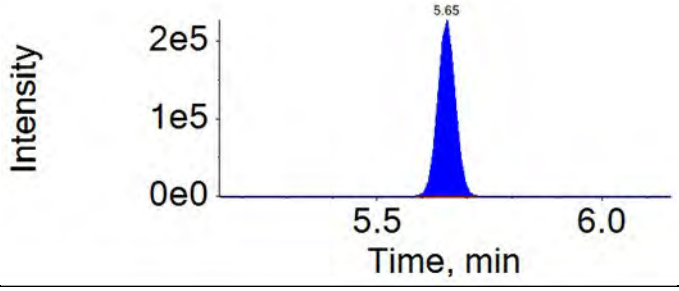
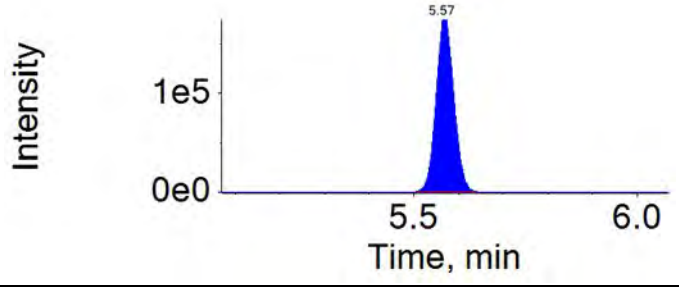
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

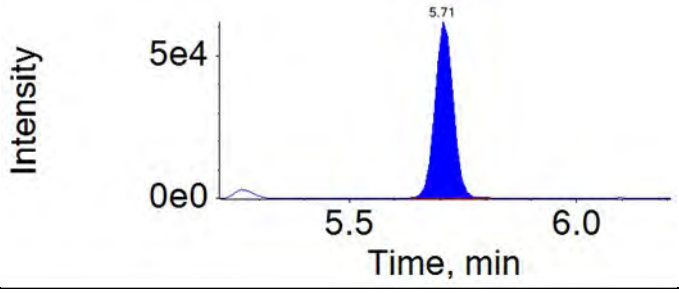
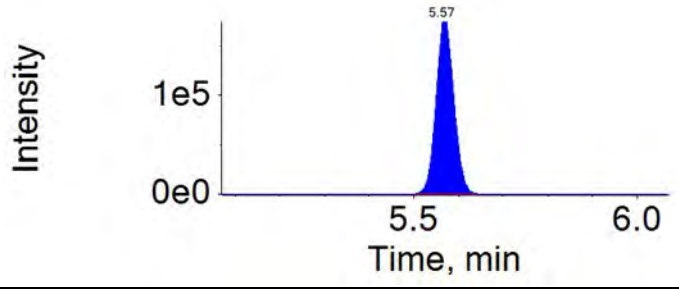
APPROVED
By MCD at 5:00 pm, 11/28/18

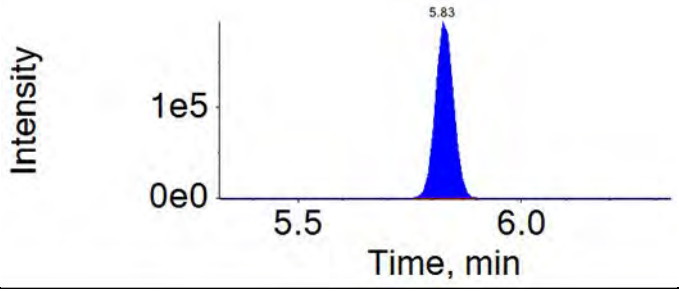
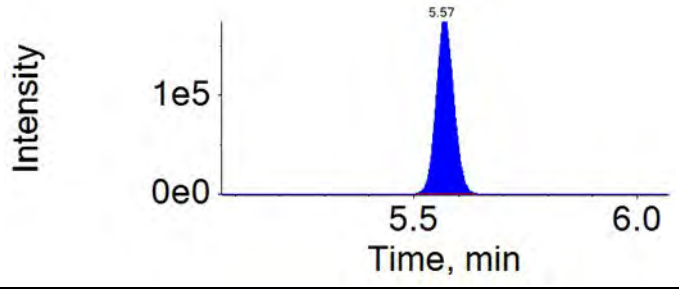
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

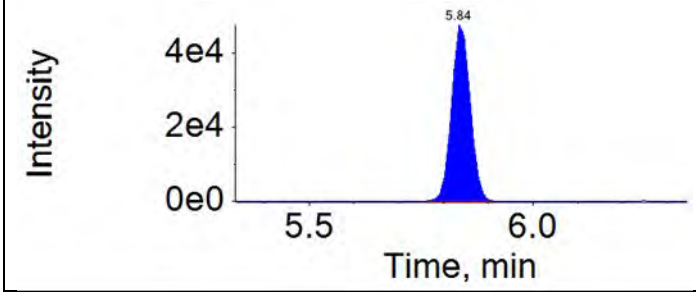
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

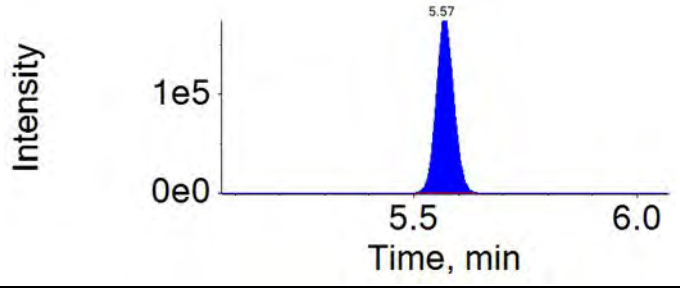
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

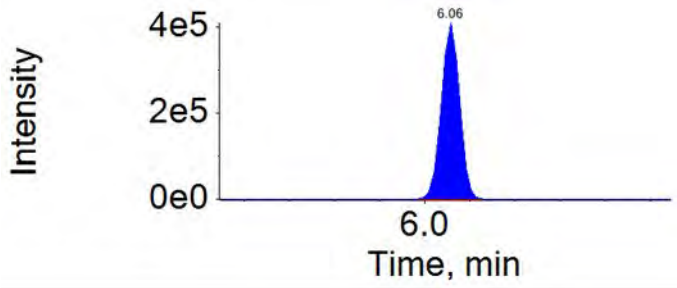
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

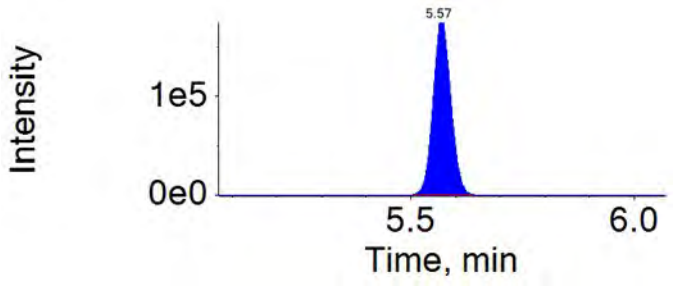
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



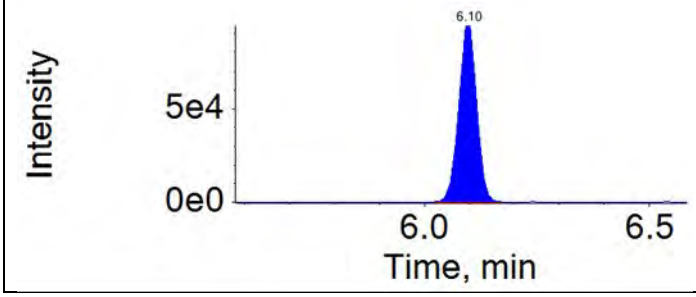


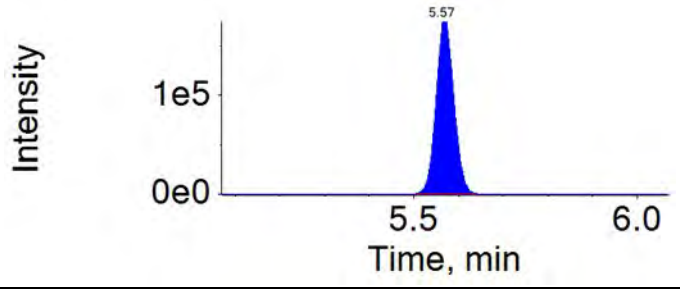
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



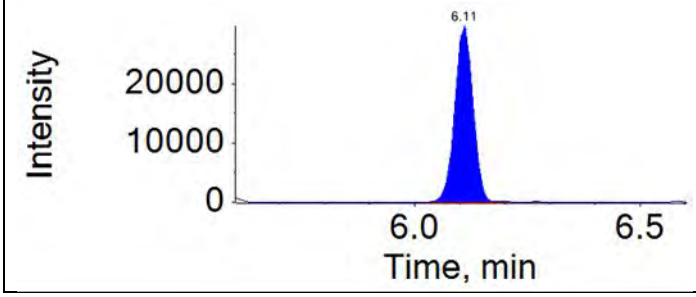


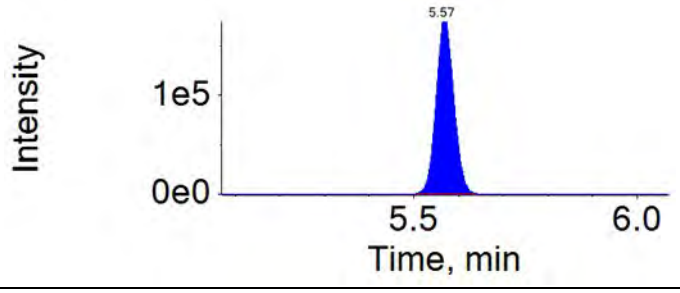
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



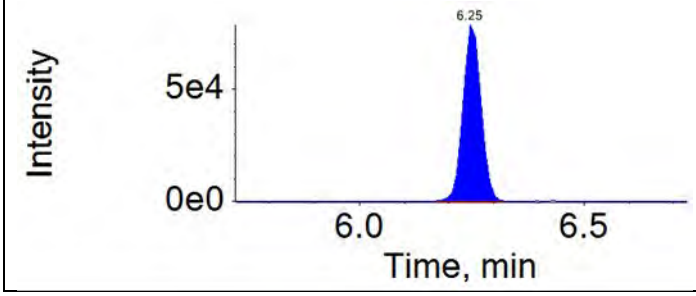


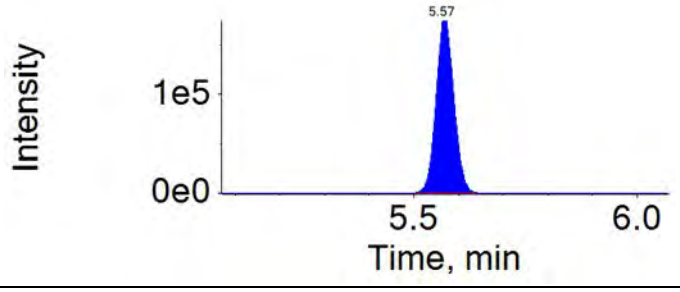
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

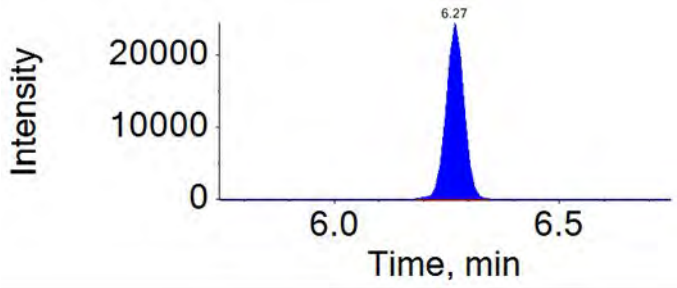
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

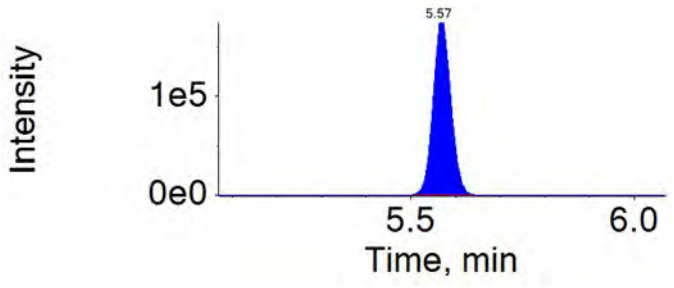
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



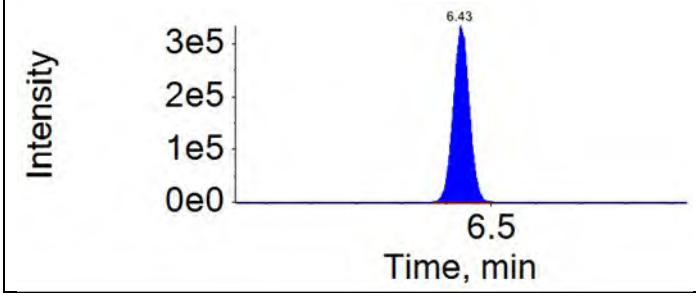


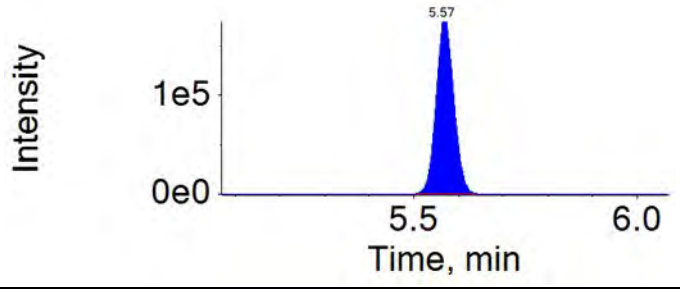
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



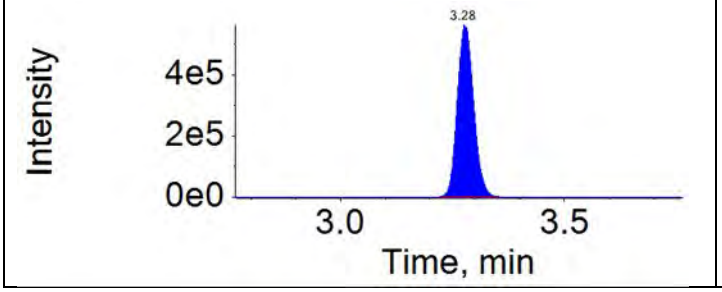


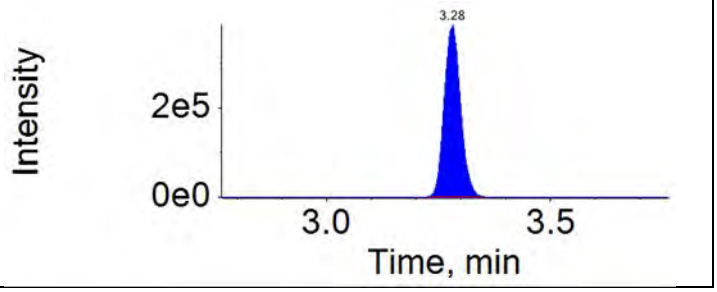
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

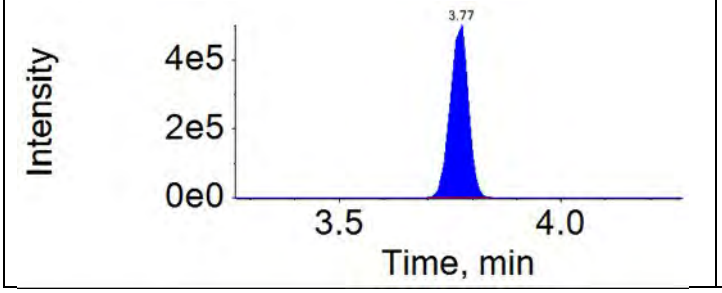
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

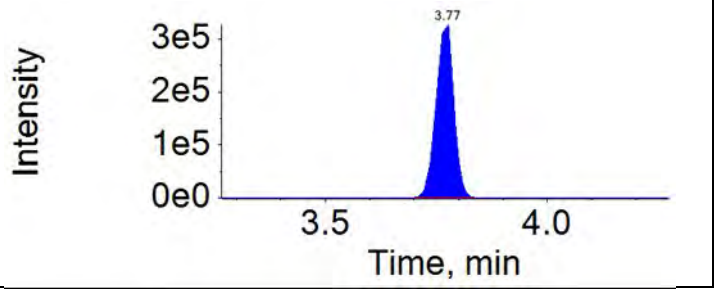
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



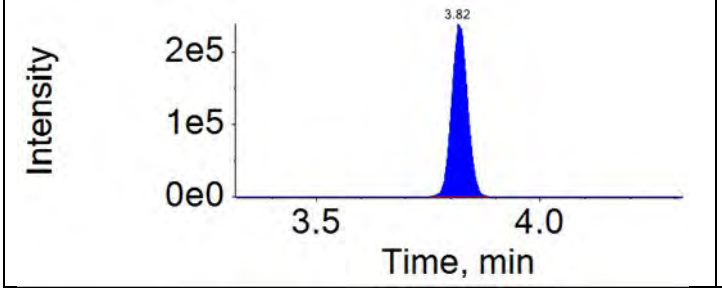


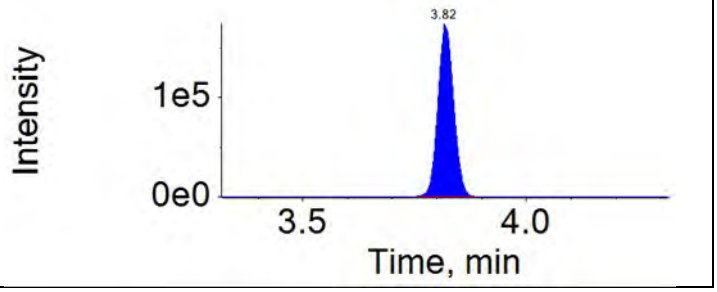
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



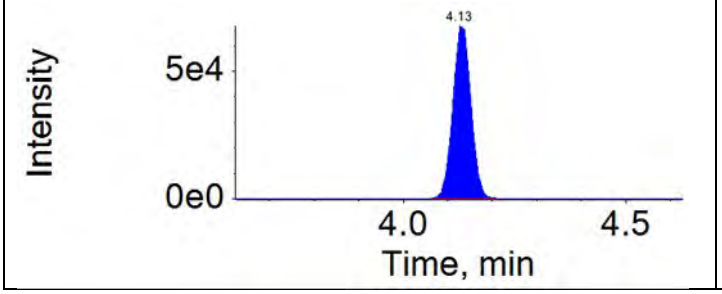


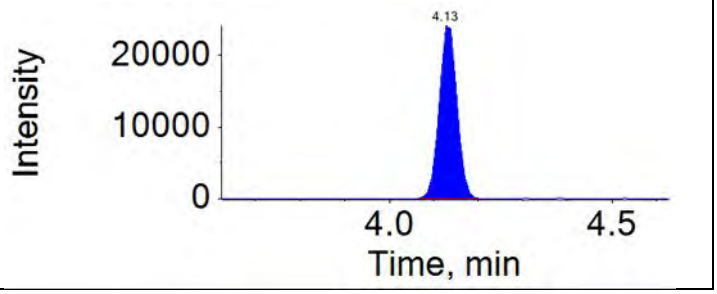
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



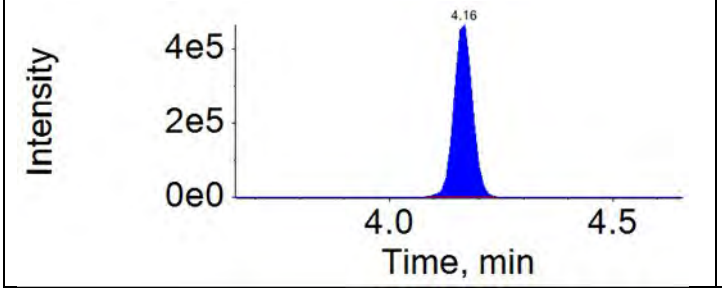


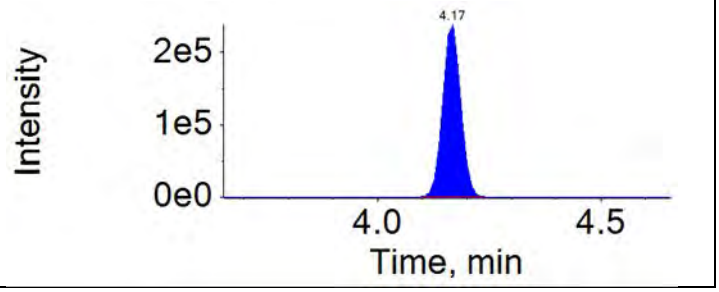
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

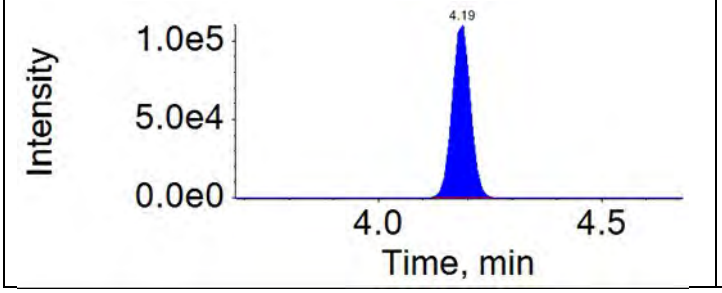
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

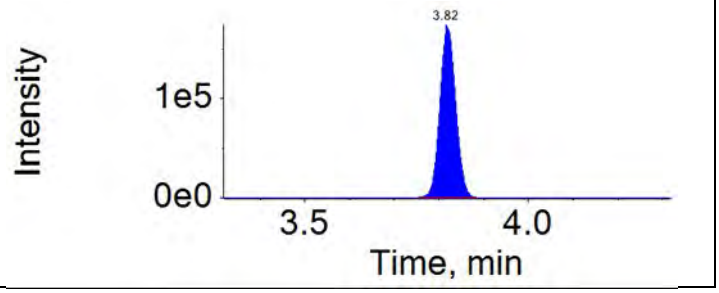
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



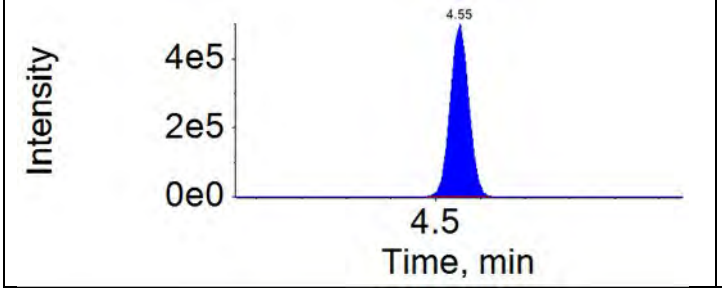


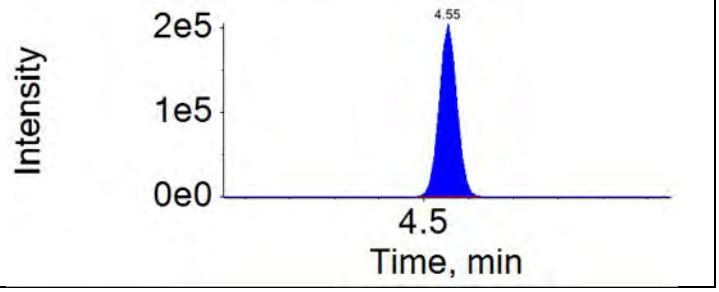
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



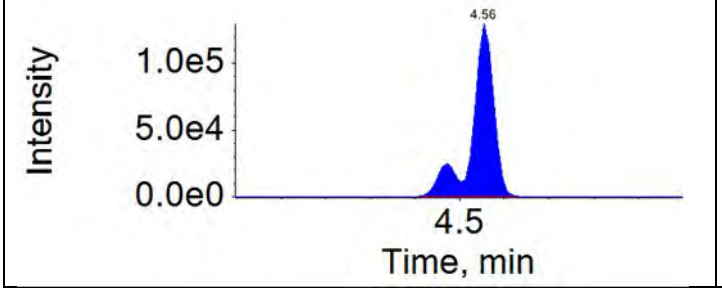


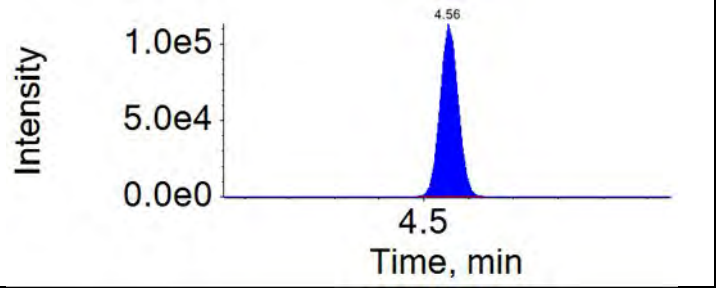
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



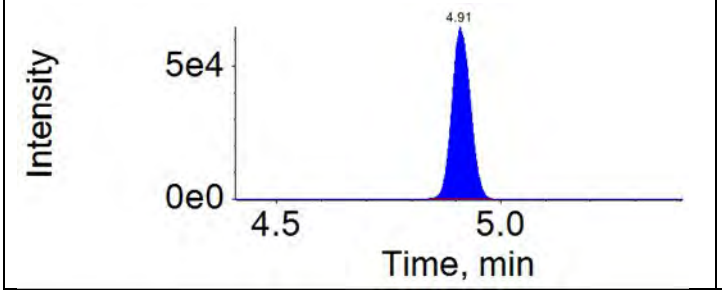


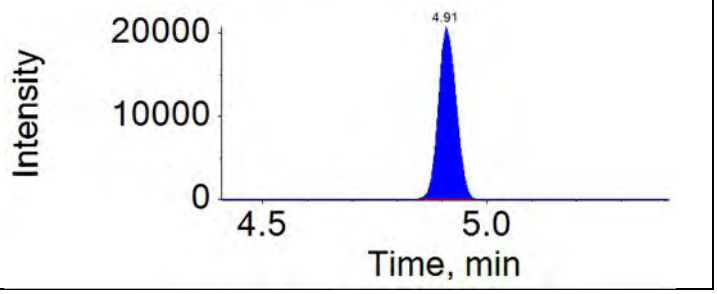
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

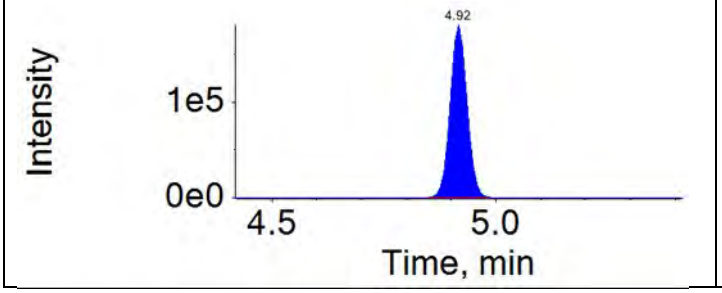
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

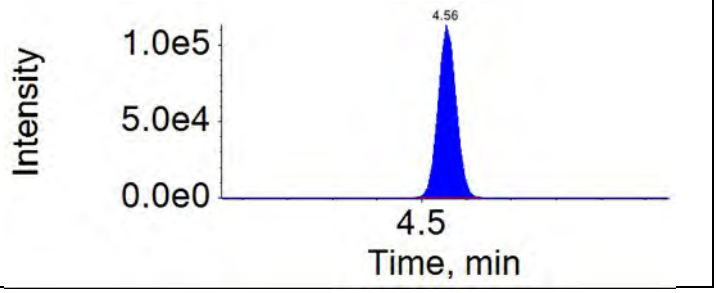
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



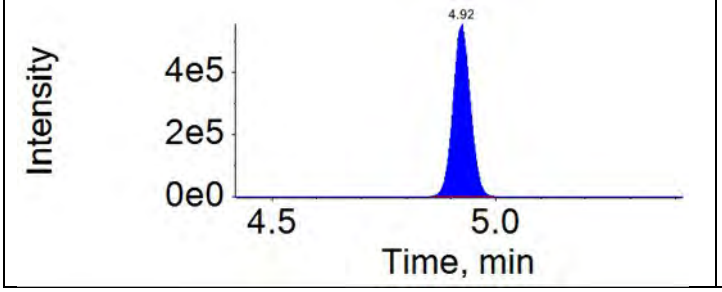


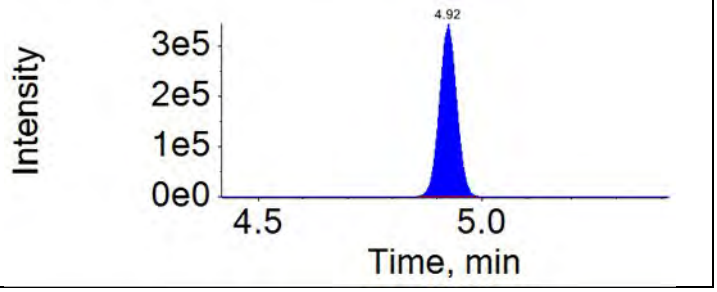
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



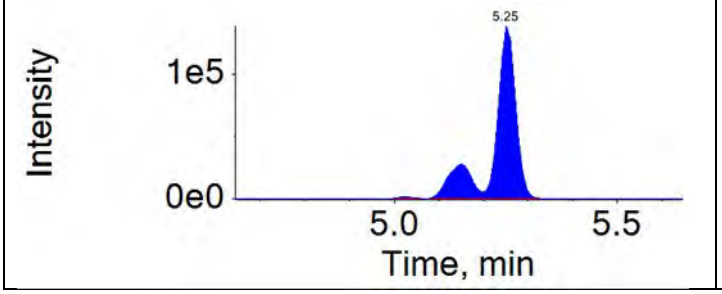


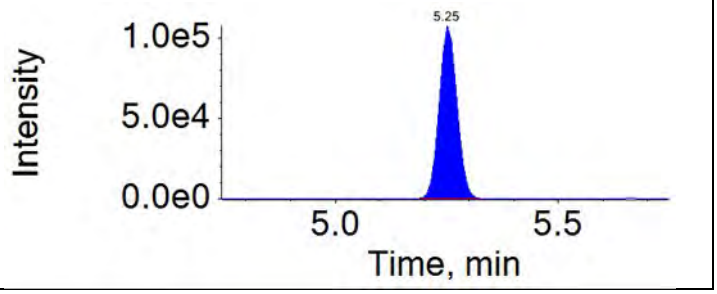
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



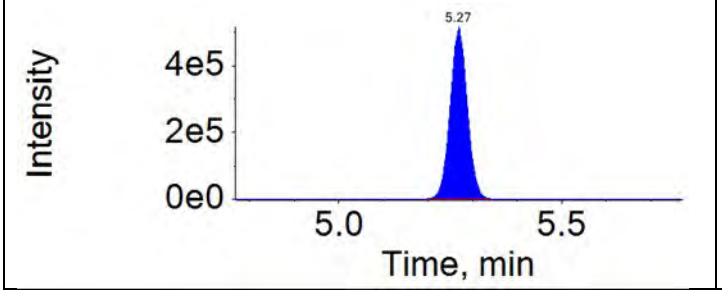


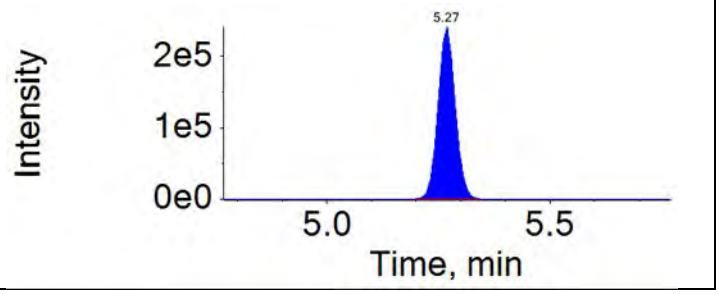
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

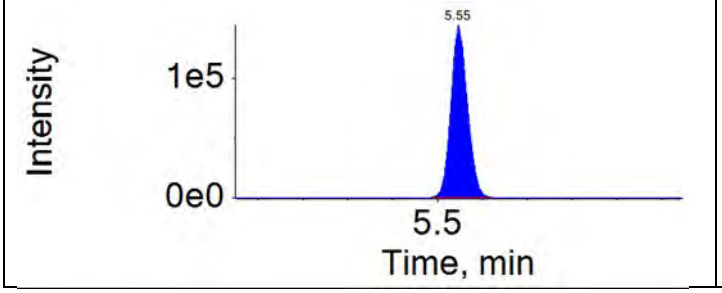
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

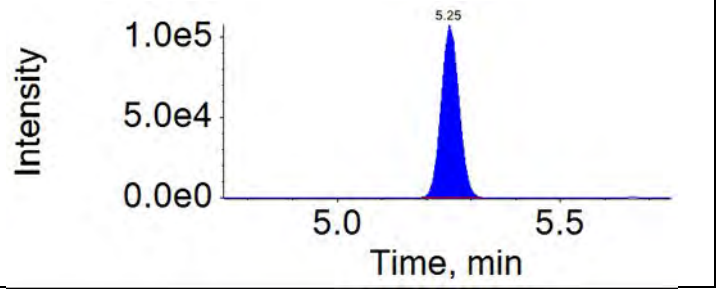
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



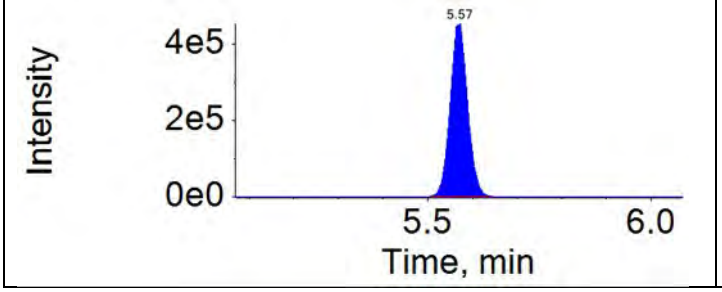


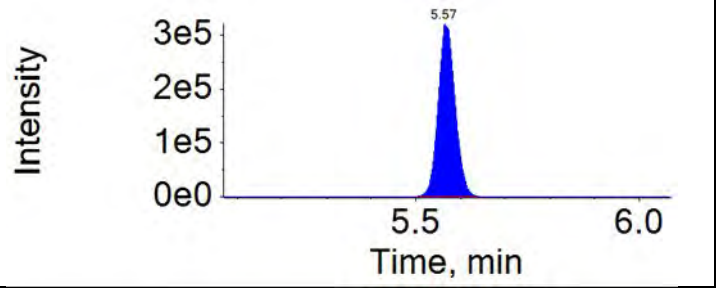
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



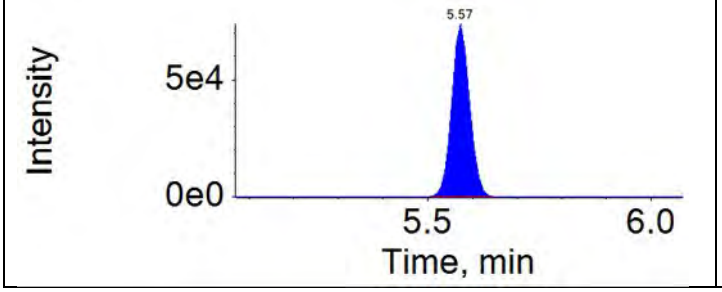


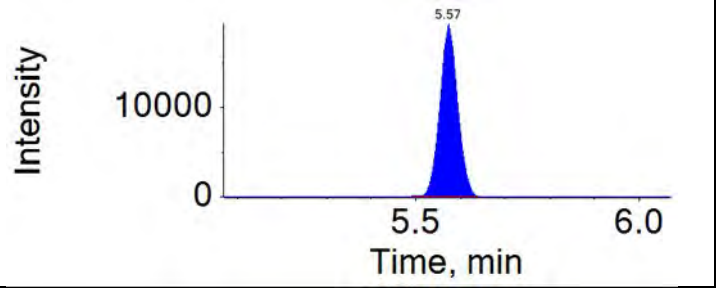
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



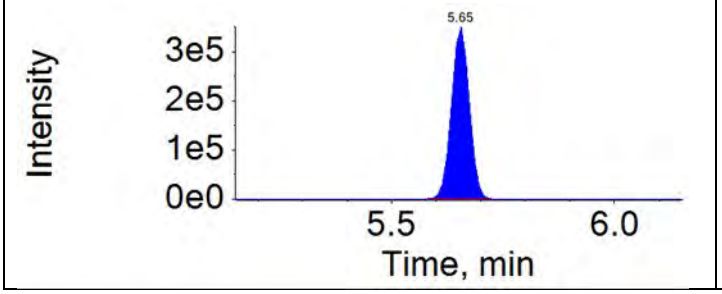


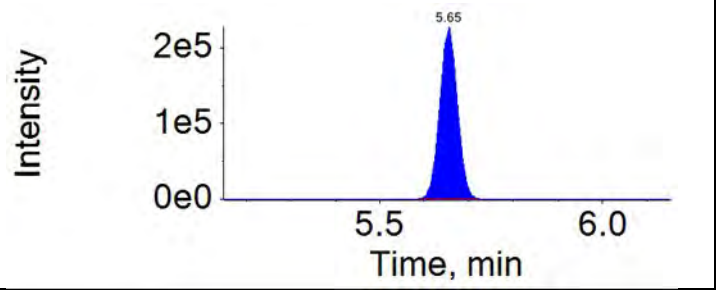
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

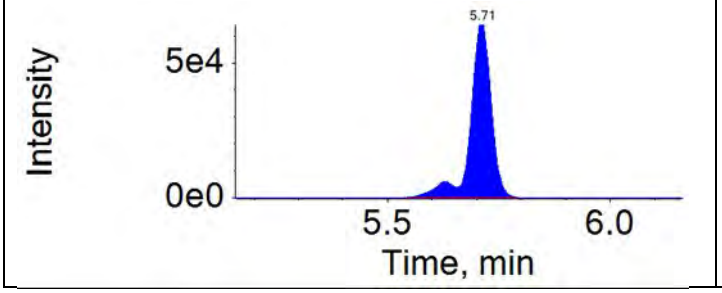
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

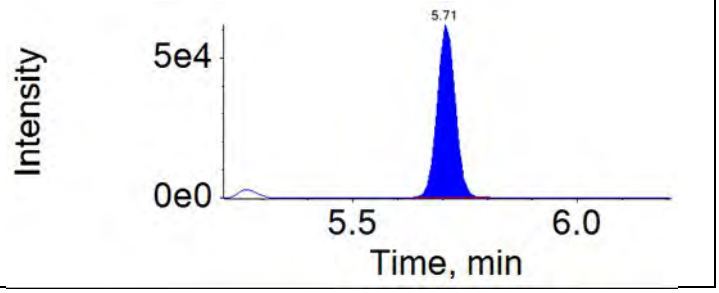
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



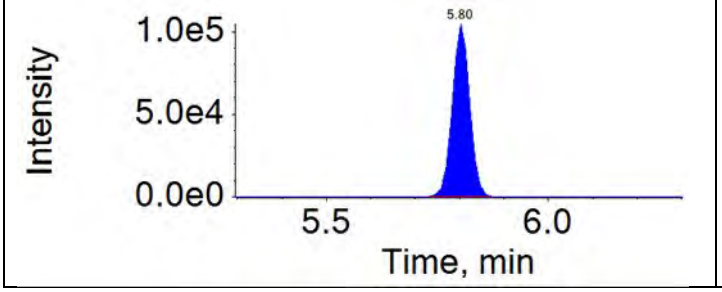


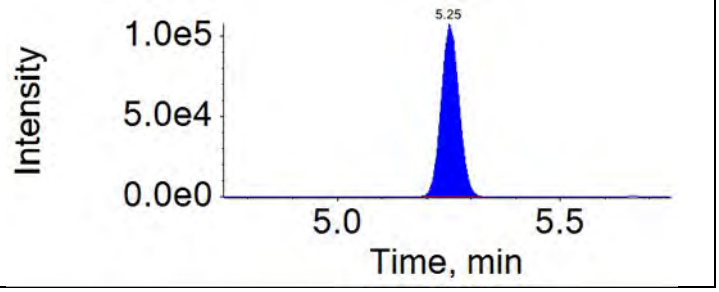
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



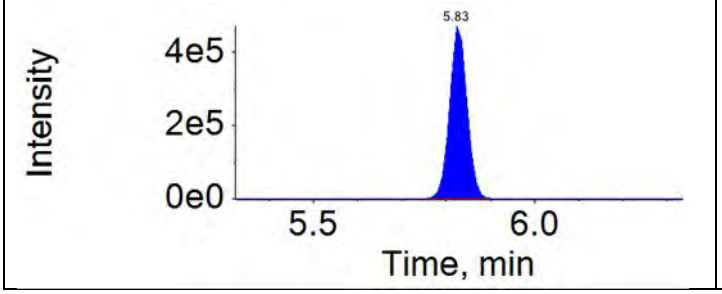


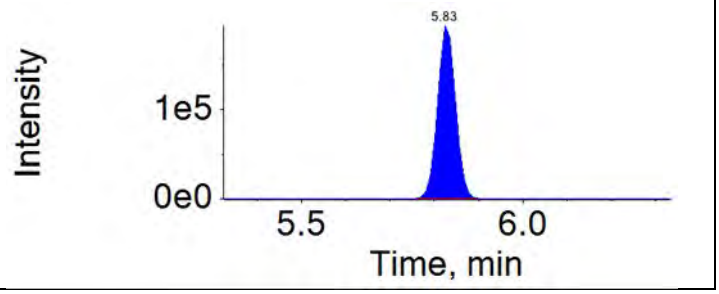
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



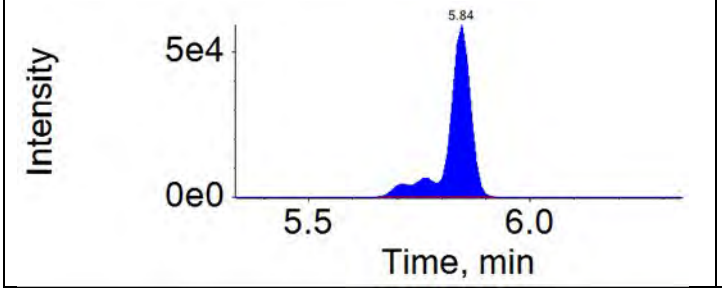


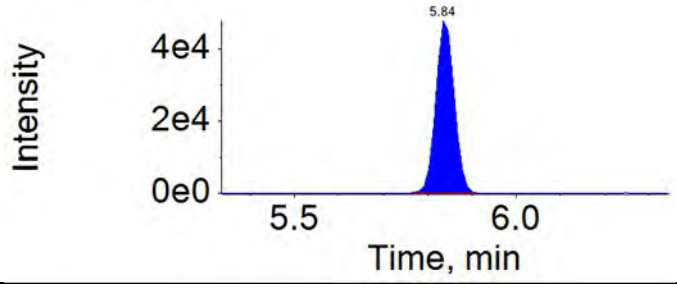
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

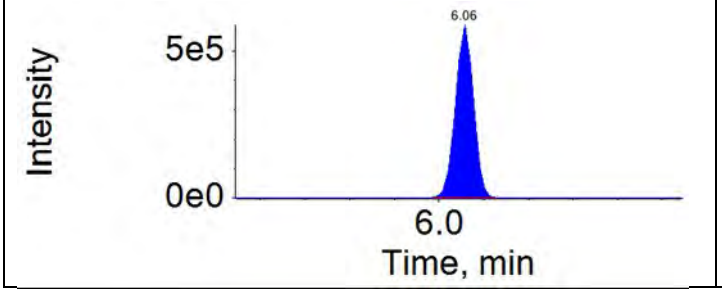
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

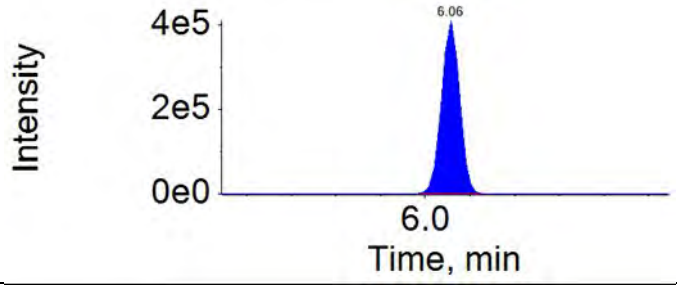
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



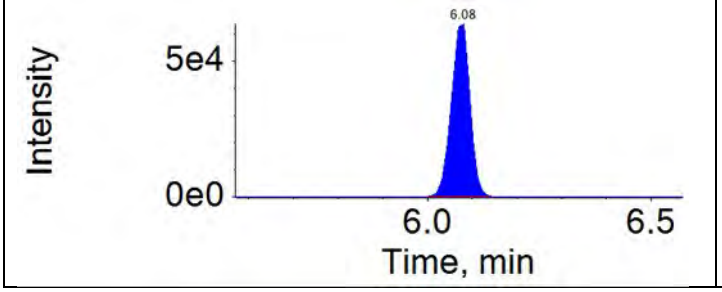


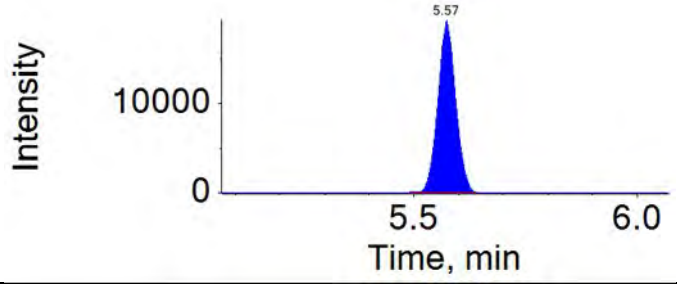
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



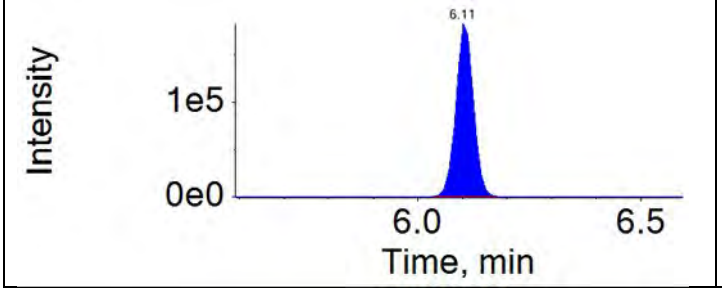


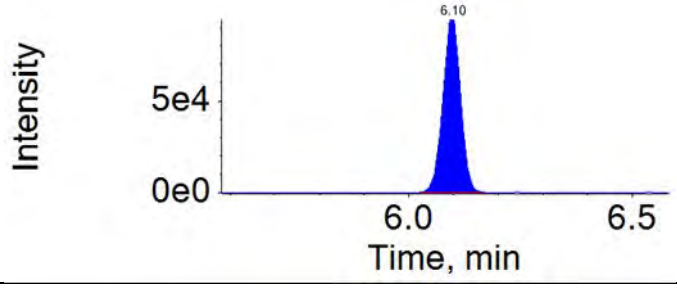
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



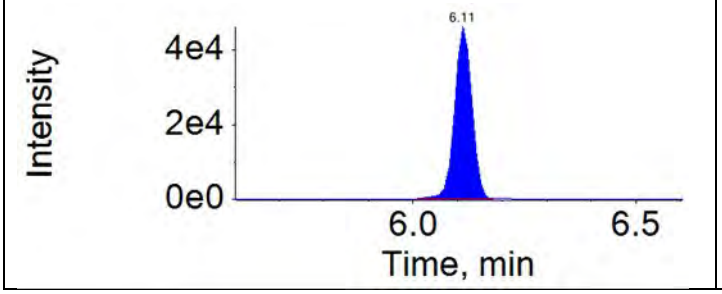


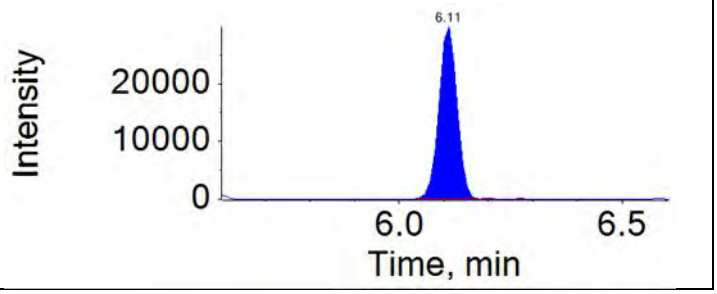
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

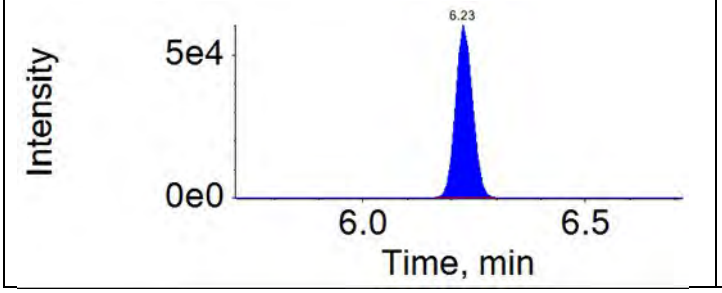
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

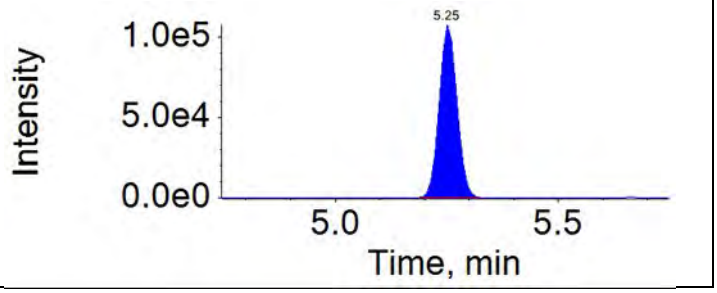
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



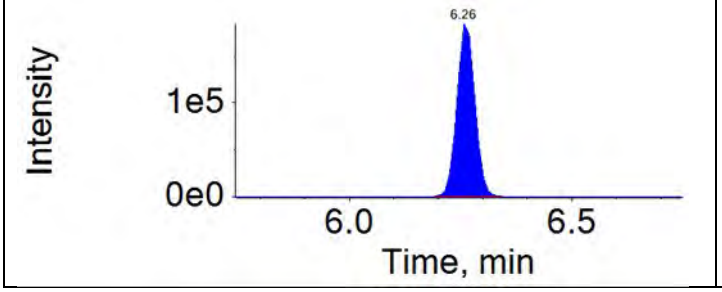


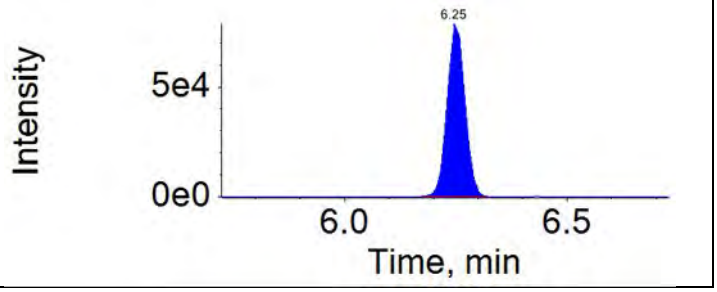
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



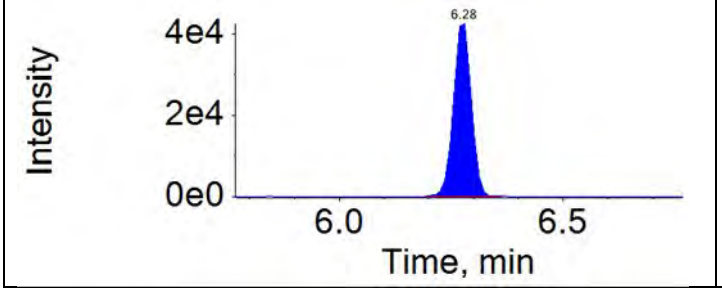


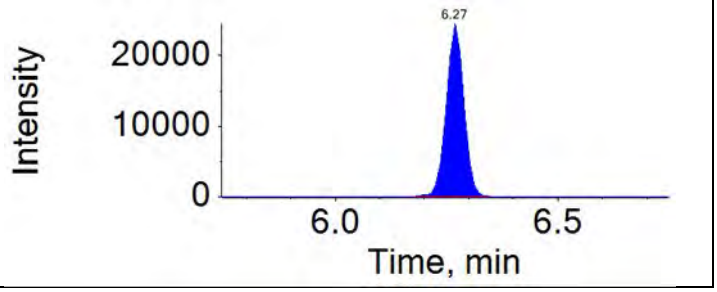
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



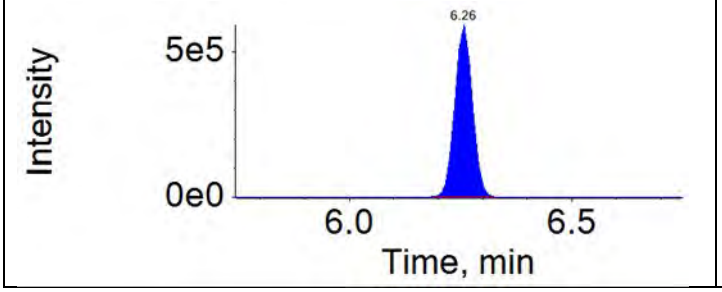


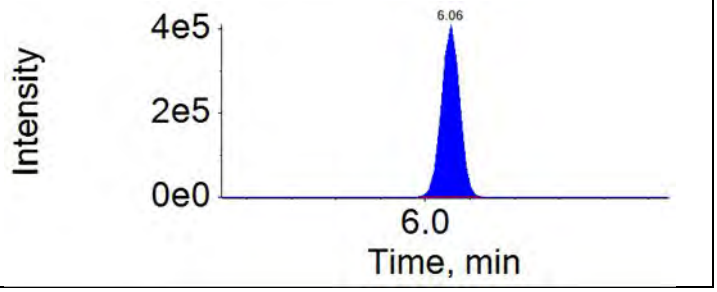
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

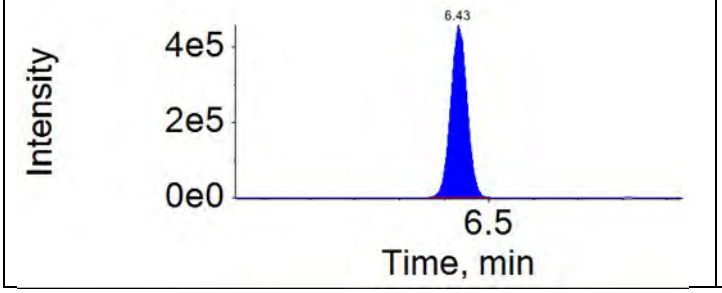
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

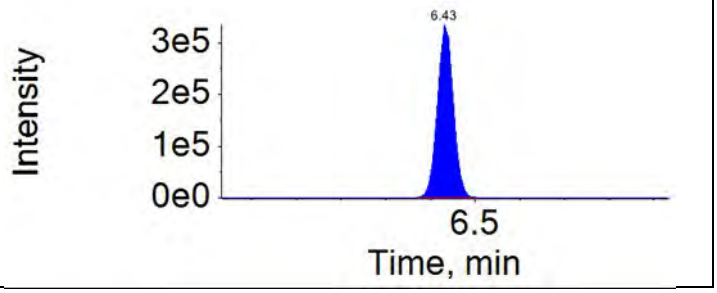
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



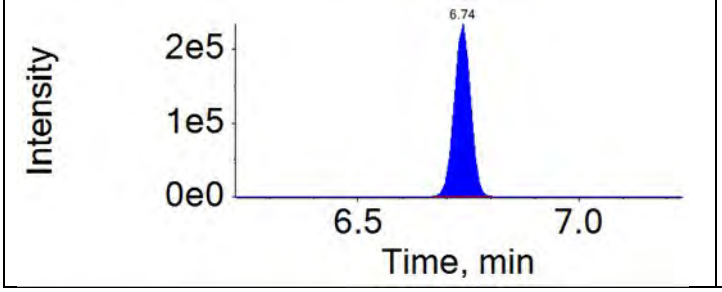


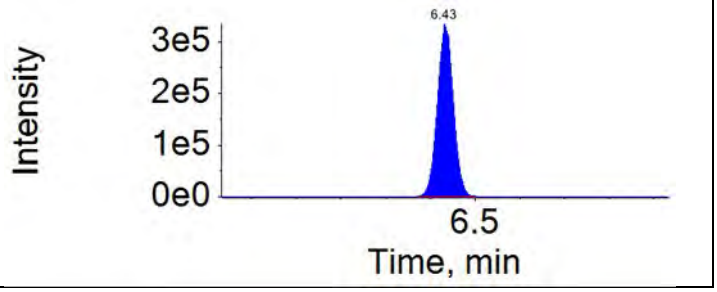
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



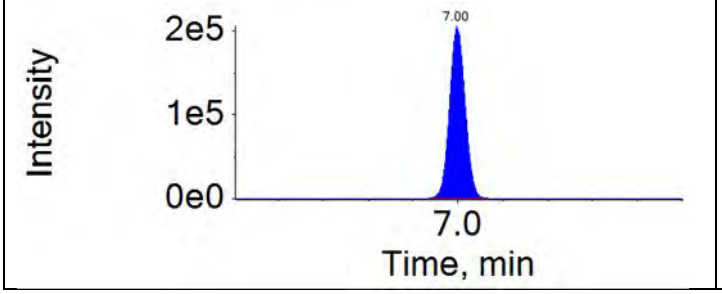


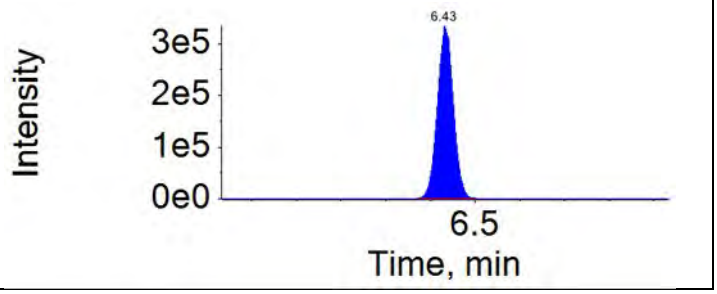
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



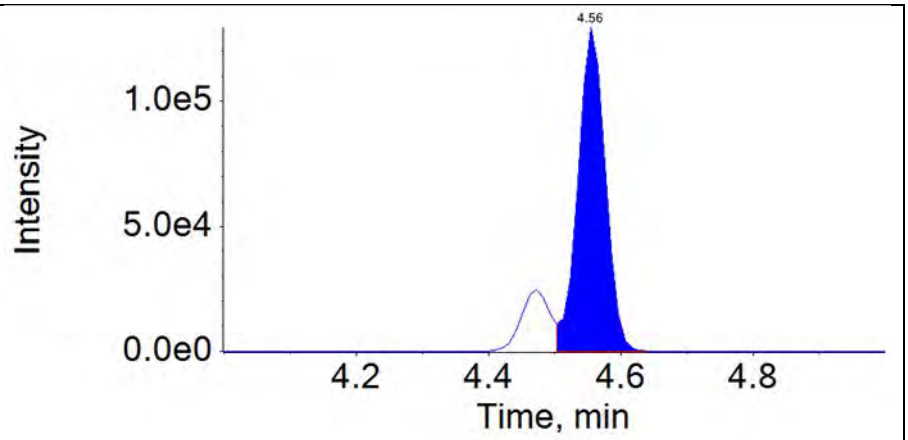


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

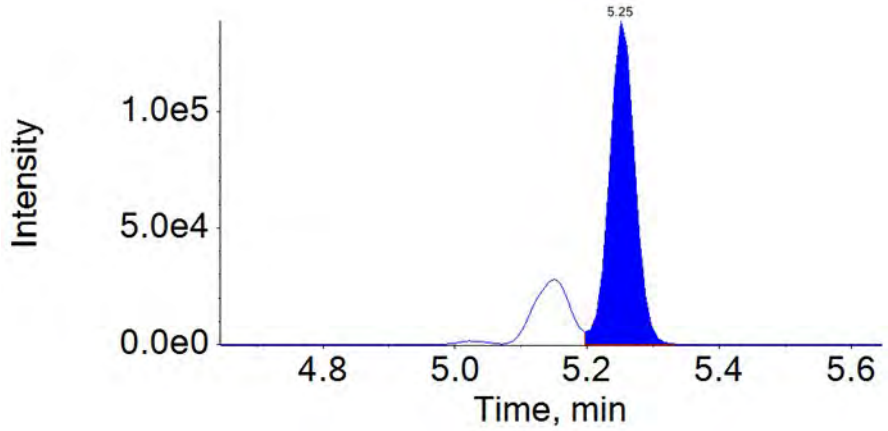
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
371393.69
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



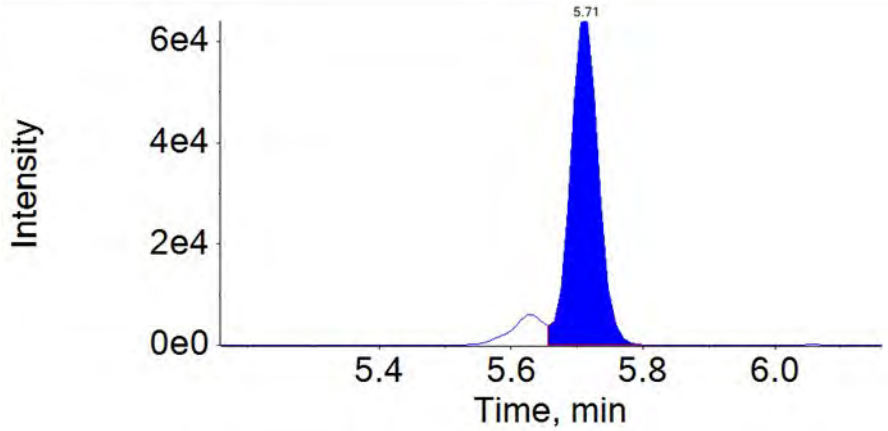
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
370801.21
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
191931.92
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



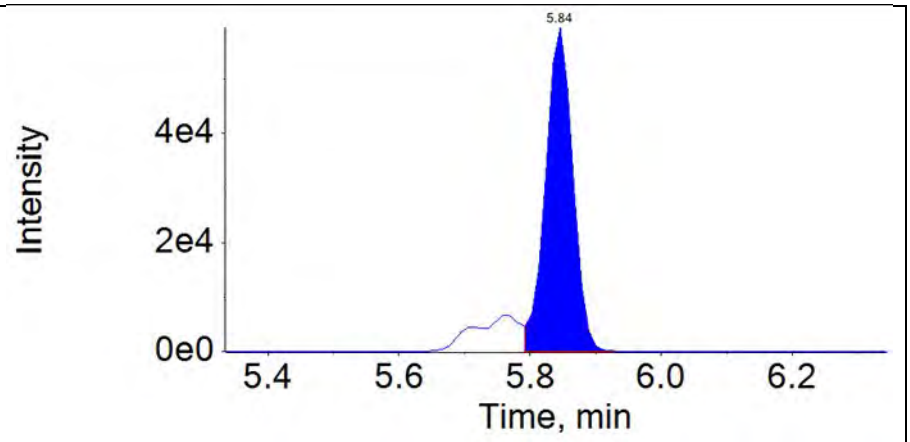
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

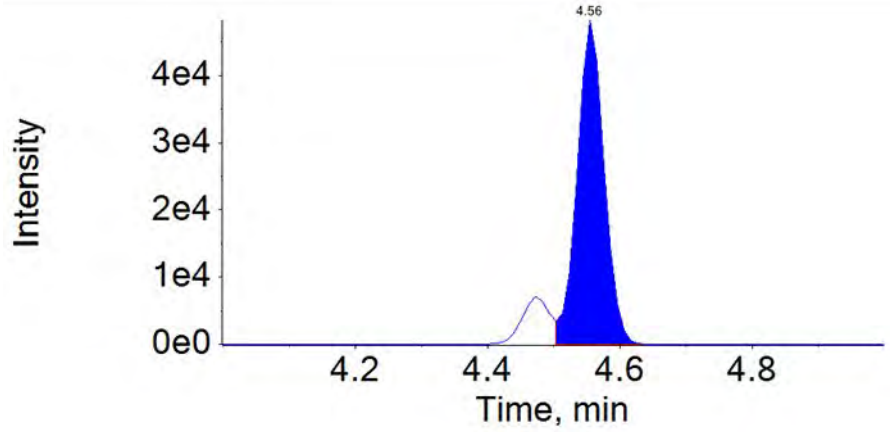
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
171264.64
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



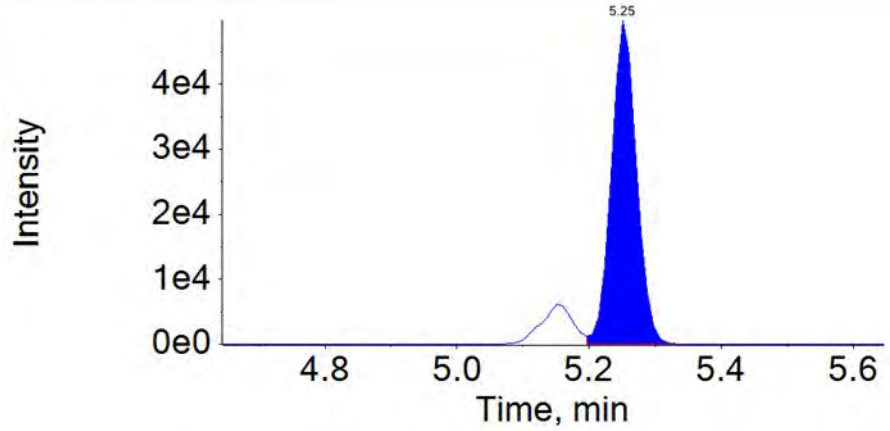
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
136580.68
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
131435.94
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



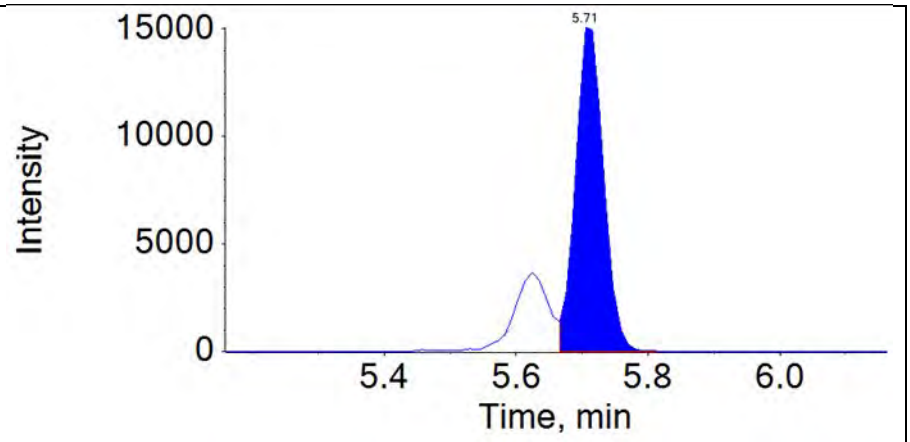
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

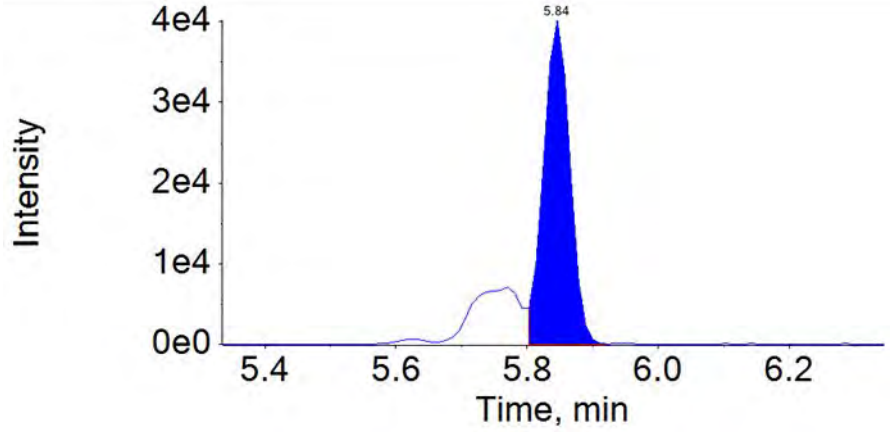
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
44801.82
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
112154.28
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

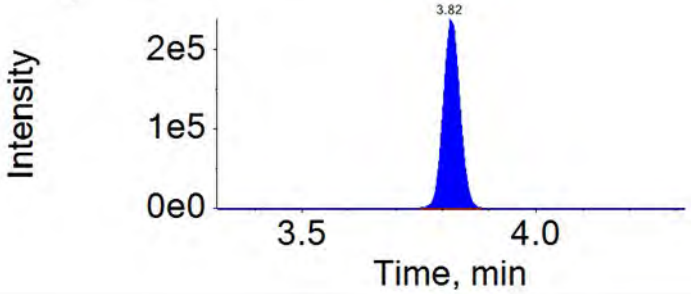
Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-09.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	590590.25	A	0.3655	0.3782			
PFBS_2	3.82	1.00	223343.90	A	0.3655	0.3782	3	50	
4:2-FTS	4.13	1.00	191344.61	A	0.6383	0.6348			
4:2-FTS_2	4.13	1.00	121465.15	A	0.6383	0.6348	-1	50	
PFHxA	4.16	1.00	1343216.41	A	0.0103	0.0115			
PFHxA_2	4.16	1.00	15497.56	A	0.0103	0.0115	12	50	
PFPeS	4.19	1.10	311741.60	A	0.4976	0.5181			
PFPeS_2	4.18	1.10	161508.14	A	0.4976	0.5181	4	50	
PFHpA	4.55	1.00	1429895.33	A	0.0557	0.0548			
PFHpA_2	4.55	1.00	78335.37	A	0.0557	0.0548	-2	50	
PFHxS	4.56	1.00	444626.01	M	0.3693	0.3529			
PFHxS_2	4.56	1.00	156906.17	M	0.3693	0.3529	-4	50	
6:2-FTS	4.91	1.00	185311.52	A	0.6625	0.6163			
6:2-FTS_2	4.91	1.00	114201.19	A	0.6625	0.6163	-7	50	
PFHpS	4.92	1.08	471580.62	A	0.3915	0.4081			
PFHpS_2	4.92	1.08	192431.36	A	0.3915	0.4081	4	50	
PFOA	4.92	1.00	1486960.43	A	0.0573	0.0582			
PFOA_2	4.92	1.00	86577.54	A	0.0573	0.0582	2	50	
PFOS	5.25	1.00	481949.96	M	0.2960	0.3159			
PFOS_2	5.25	1.00	152242.35	M	0.2960	0.3159	7	50	
PFNA	5.27	1.00	1365056.35	A	0.0201	0.0213			
PFNA_2	5.27	1.00	29087.24	A	0.0201	0.0213	6	50	
PFNS	5.55	1.06	369833.35	A	0.4794	0.4744			
PFNS_2	5.55	1.06	175461.18	A	0.4794	0.4744	-1	50	
PFDA	5.57	1.00	1223810.41	A	0.0075	0.0072			
PFDA_2	5.57	1.00	8850.86	A	0.0075	0.0072	-3	50	
8:2-FTS	5.57	1.00	203687.69	A	0.5380	0.5664			
8:2-FTS_2	5.57	1.00	115365.33	A	0.5380	0.5664	5	50	
NMeFOSAA	5.71	1.00	212775.33	M	0.2305	0.2723			
NMeFOSAA_2	5.71	1.00	57947.55	M	0.2305	0.2723	18	50	
PFDS	5.80	1.10	283198.51	A	0.5356	0.5185			
PFDS_2	5.80	1.10	146842.40	A	0.5356	0.5185	-3	50	
PFUnDA	5.83	1.00	1281938.52	A	0.0038	0.0041			
PFUnDA_2	5.83	1.00	5262.94	A	0.0038	0.0041	8	50	
NEtFOSAA	5.84	1.00	204048.64	M	0.7356	0.7330			
NEtFOSAA_2	5.84	1.00	149571.11	M	0.7356	0.7330	0	50	
PFDoDA	6.06	1.00	1650301.08	A	0.0130	0.0137			
PFDoDA_2	6.06	1.00	22542.02	A	0.0130	0.0137	5	50	
10:2-FTS	6.08	1.09	184968.53	A	0.6989	0.7539			
10:2-FTS_2	6.07	1.09	139452.05	A	0.6989	0.7539	8	50	
PFTrDA	6.26	1.03	1622977.68	A	0.0090	0.0088			
PFTrDA_2	6.26	1.03	14275.05	A	0.0090	0.0088	-2	50	
PFTeDA	6.43	1.00	1172052.04	A	0.0056	0.0065			
PFTeDA_2	6.43	1.00	7656.17	A	0.0056	0.0065	16	50	
PFHxDA	6.74	1.05	601723.77	A	0.0646	0.0614			
PFHxDA_2	6.73	1.05	36942.33	A	0.0646	0.0614	-5	50	
PFODA	7.00	1.09	494210.71	A	0.0264	0.0257			
PFODA_2	7.00	1.09	12722.45	A	0.0264	0.0257	-3	50	

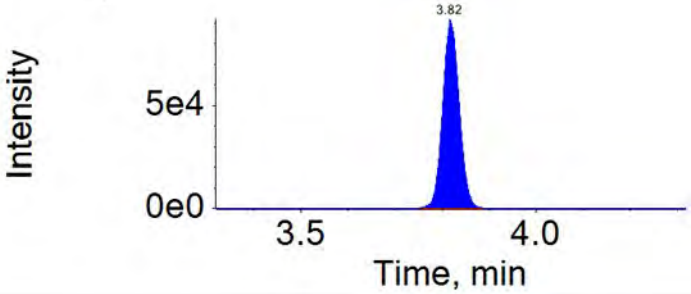
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

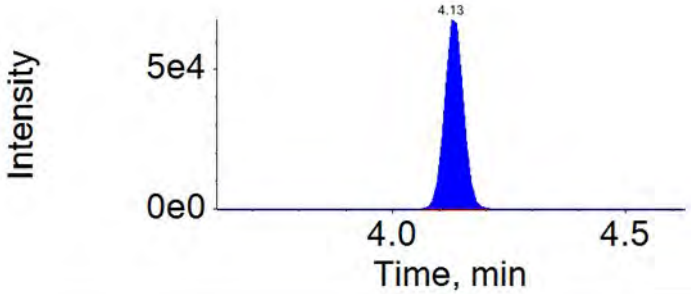
Component: PFBS
Primary Mass: 299.0 / 80.0



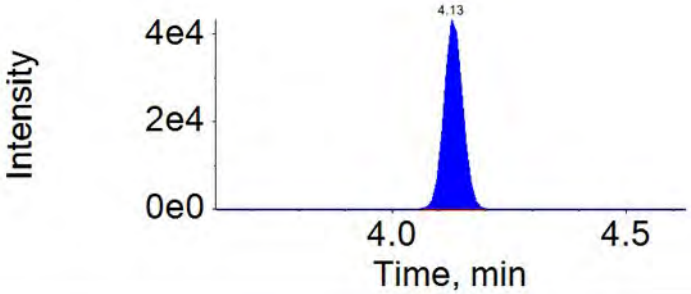
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



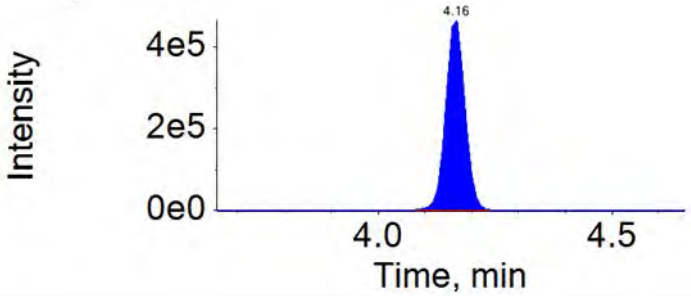
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



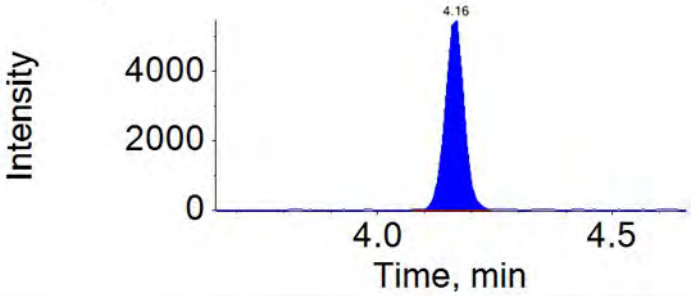
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



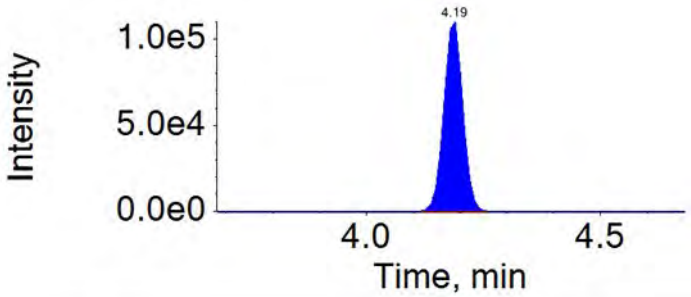
Component: PFHxA
Primary Mass: 313.0 / 269.0



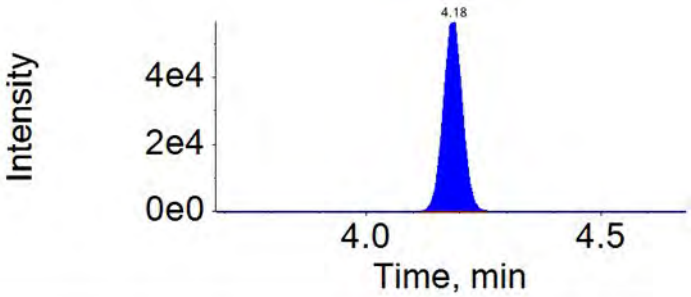
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



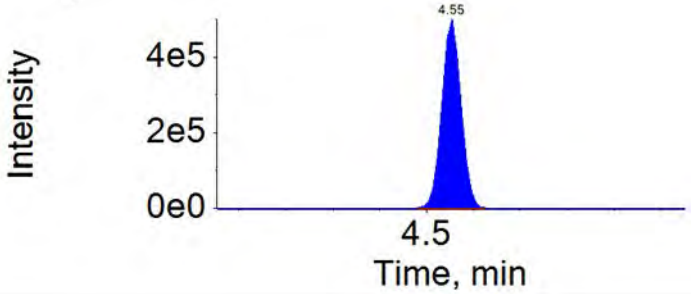
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



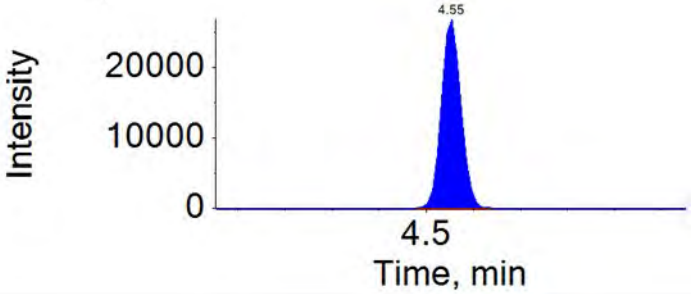
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

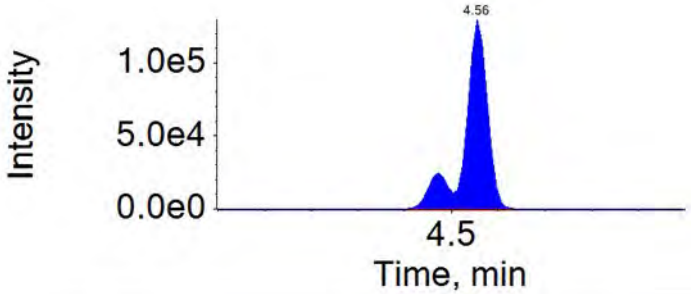
Component: PFHpA
Primary Mass: 363.0 / 319.0



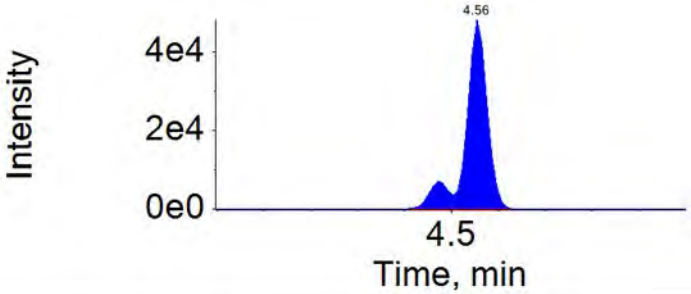
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



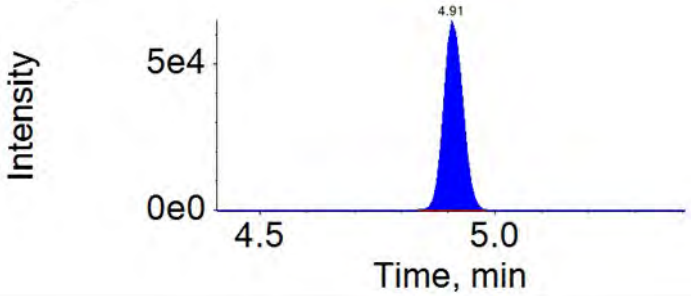
Component: PFHxS
Primary Mass: 399.0 / 80.0



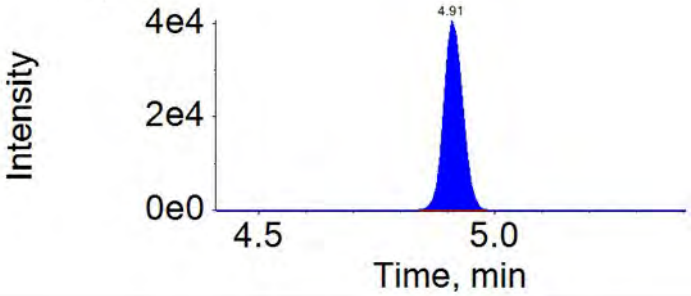
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



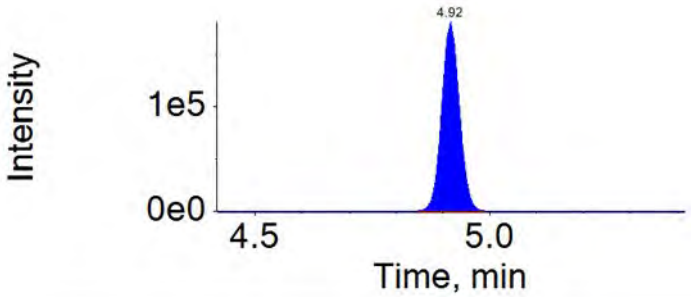
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



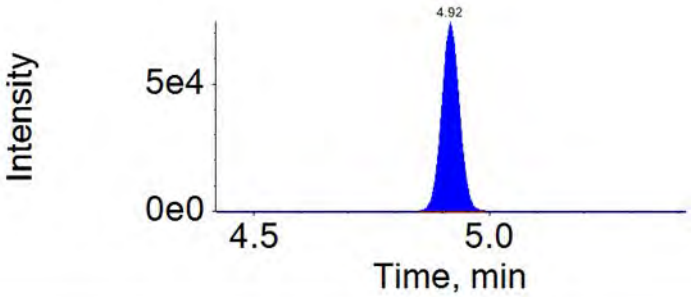
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



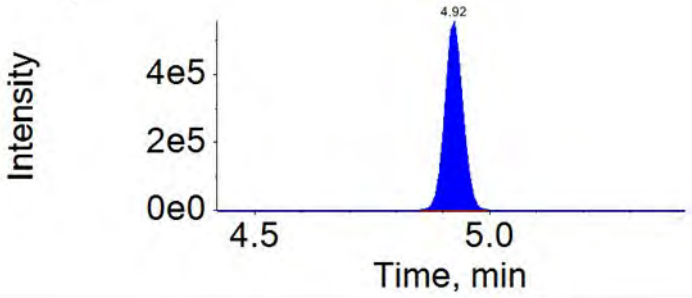
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



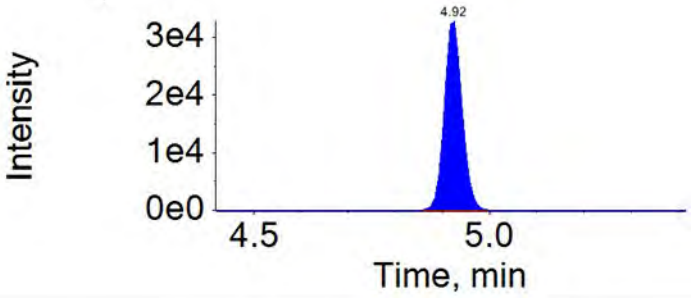
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

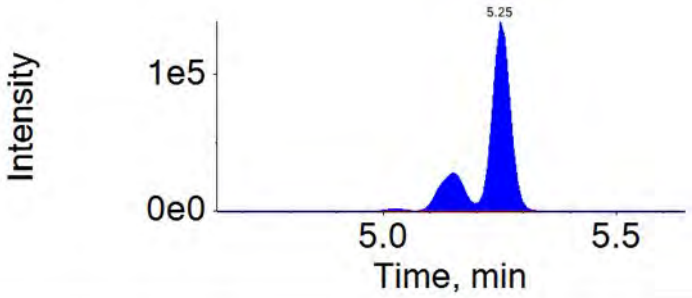
Component: PFOA
Primary Mass: 413.0 / 369.0



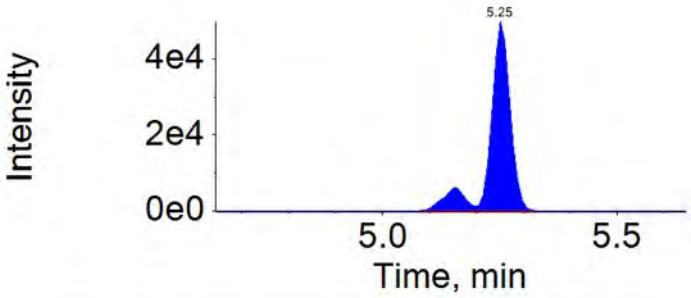
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



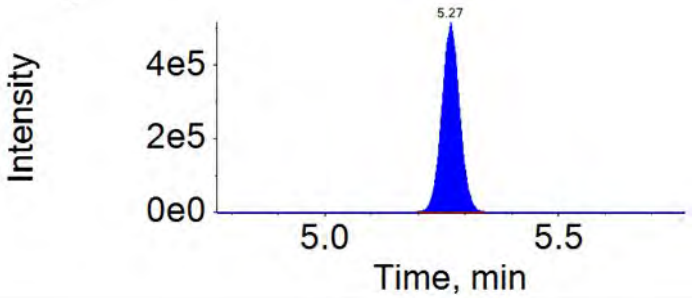
Component: PFOS
Primary Mass: 499.0 / 80.0



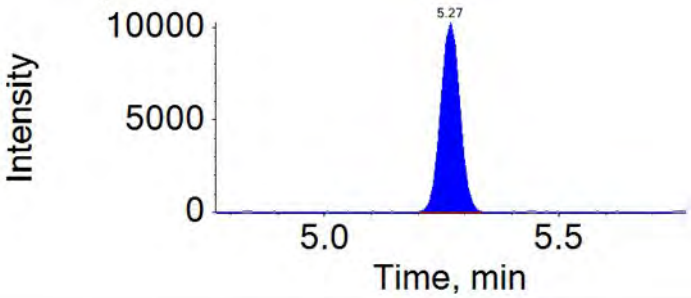
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



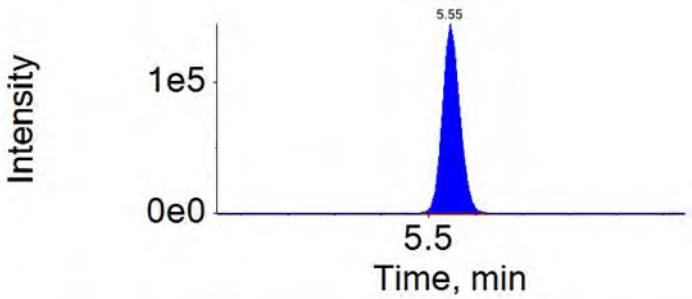
Component: PFNA
Primary Mass: 463.0 / 419.0



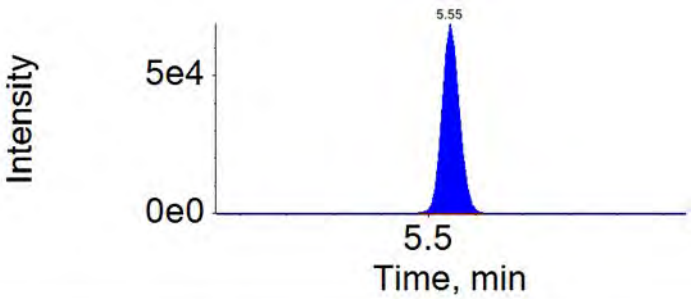
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



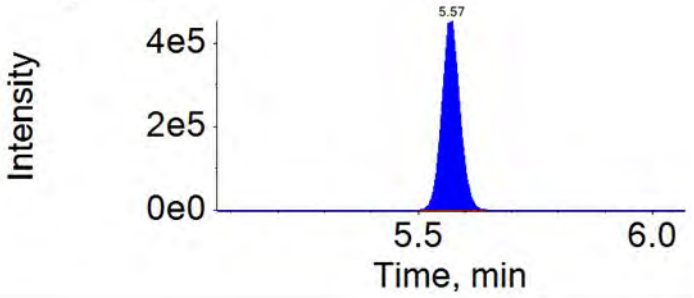
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



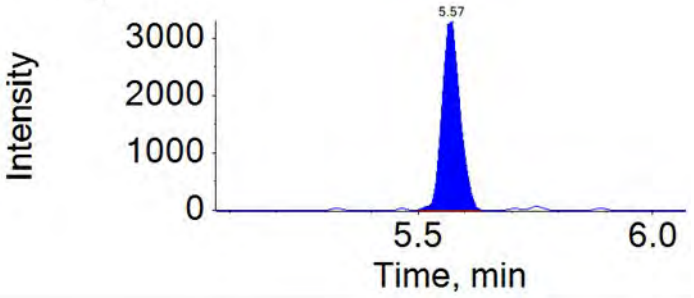
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

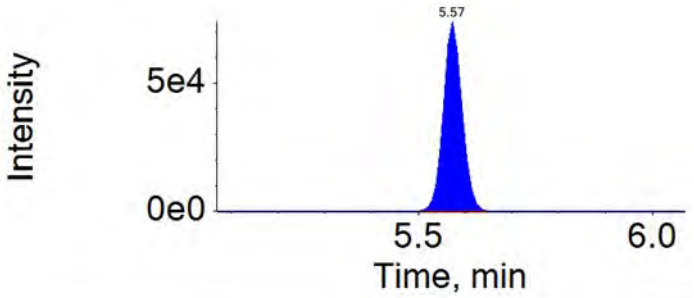
Component: PFDA
Primary Mass: 513.0 / 469.0



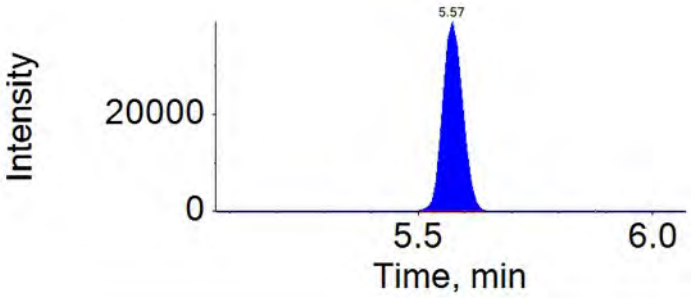
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



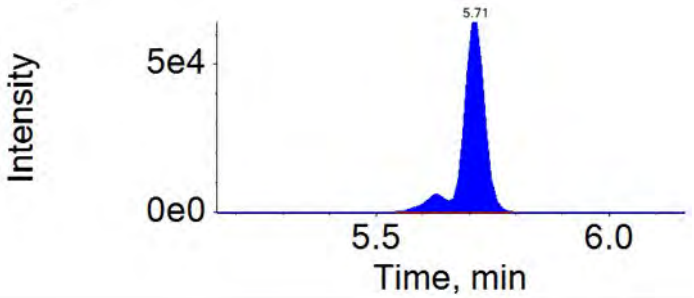
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



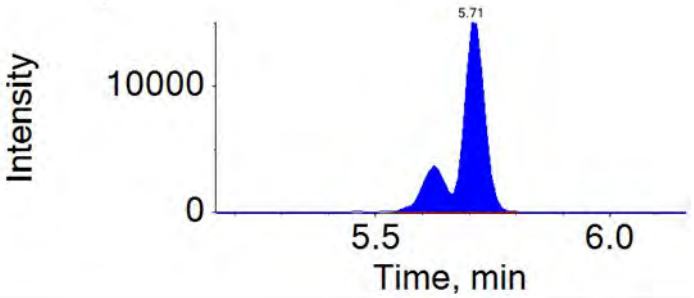
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



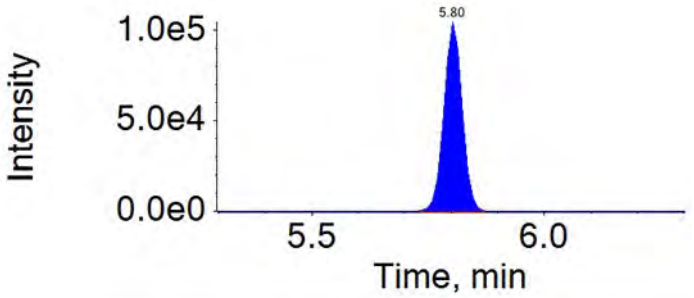
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



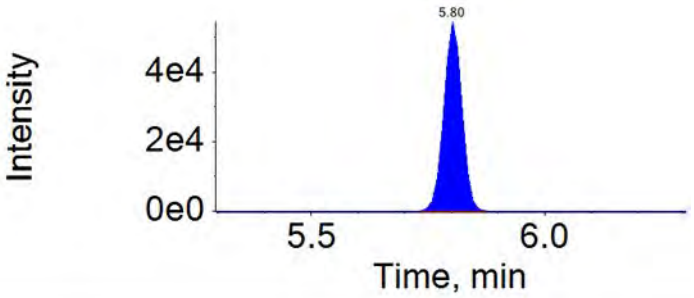
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



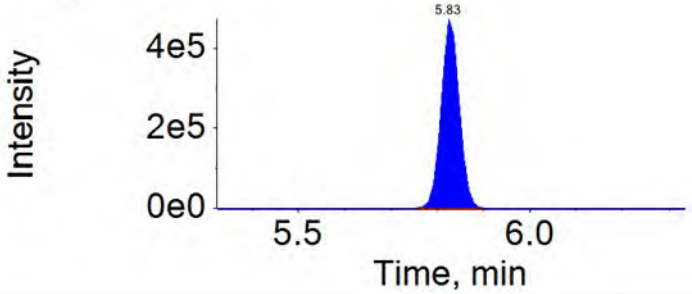
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



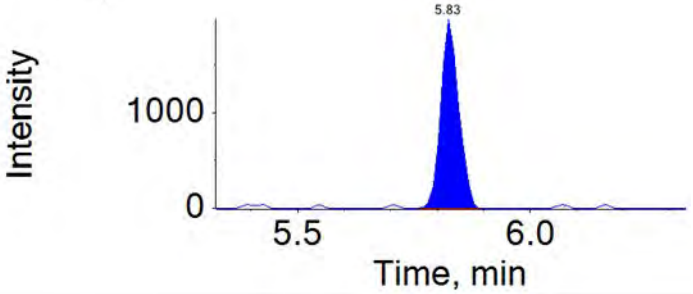
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

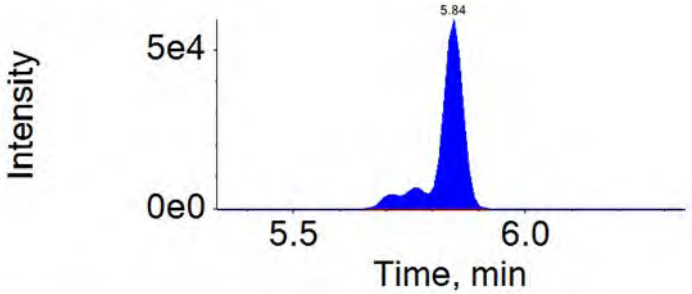
Component: PFUnDA
Primary Mass: 563.0 / 519.0



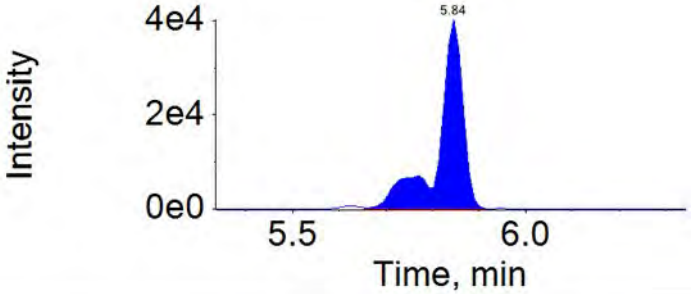
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



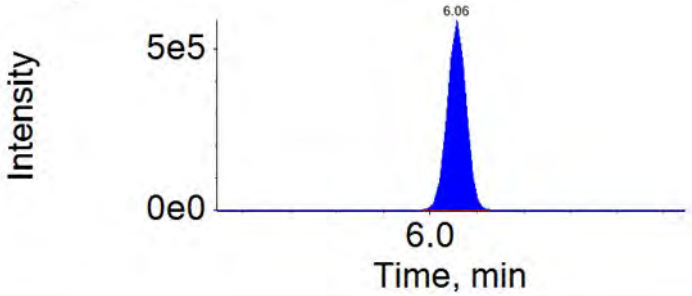
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



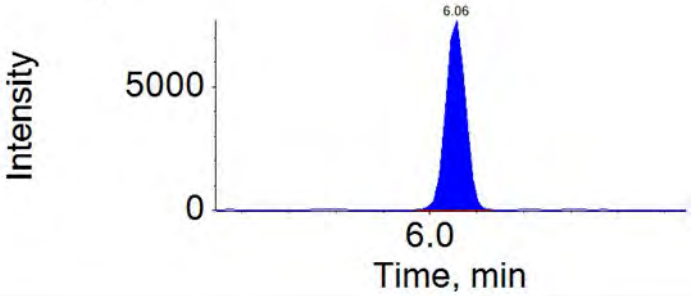
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



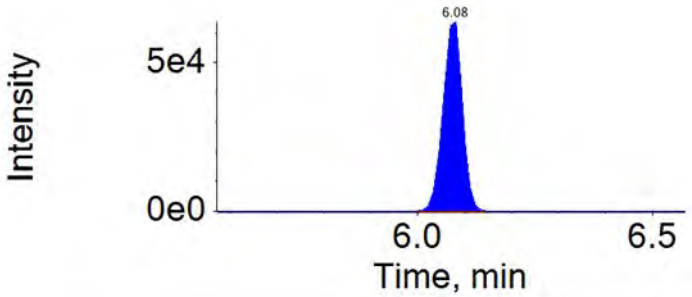
Component: PFDoDA
Primary Mass: 613.0 / 569.0



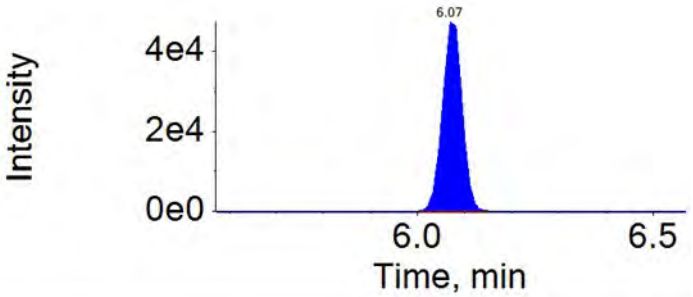
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



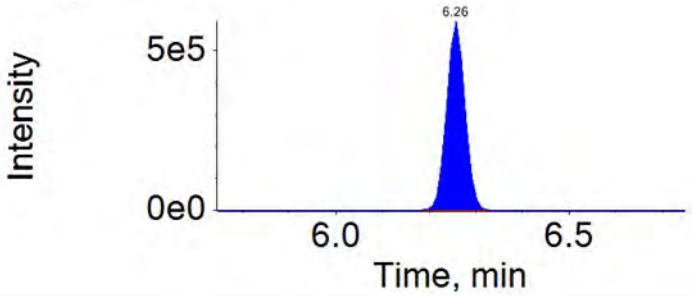
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



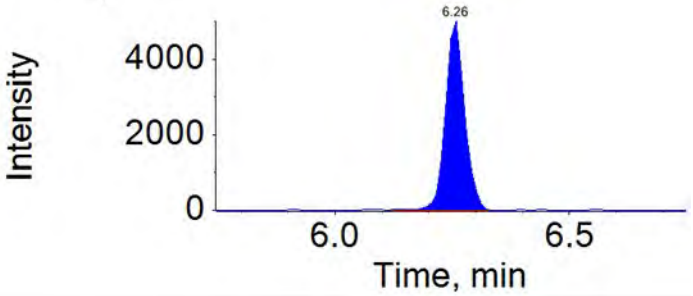
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



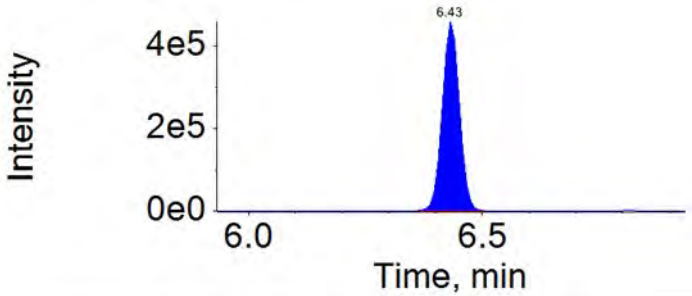
Component: PFTrDA
Primary Mass: 663.0 / 619.0



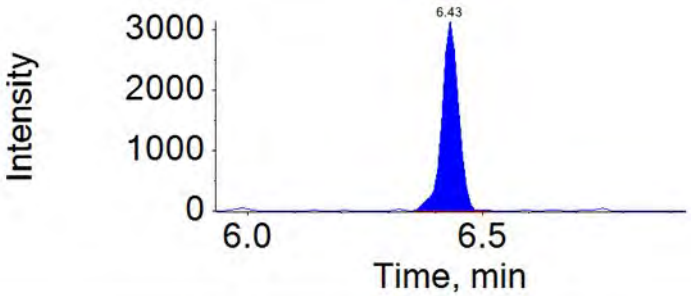
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



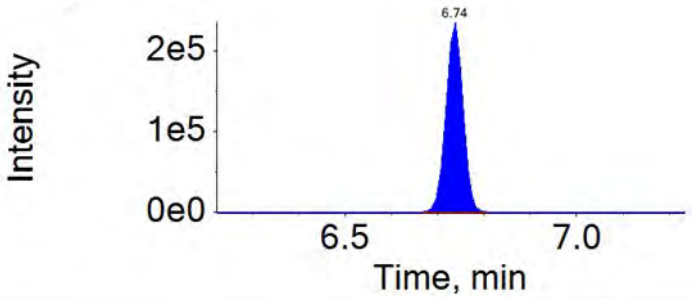
Component: PFTeDA
Primary Mass: 713.0 / 669.0



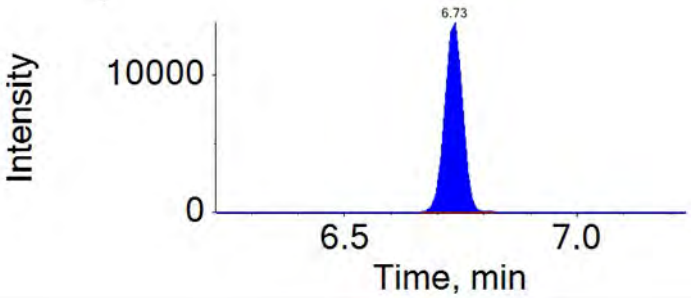
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



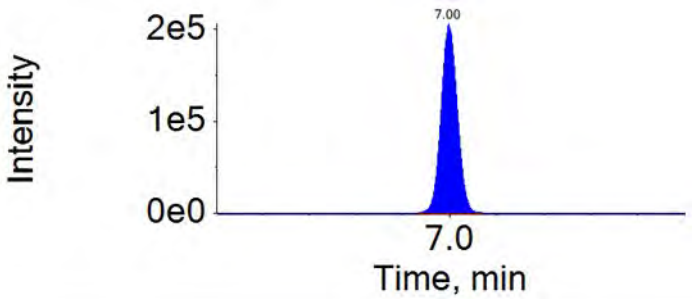
Component: PFHxDA
Primary Mass: 813.0 / 769.0



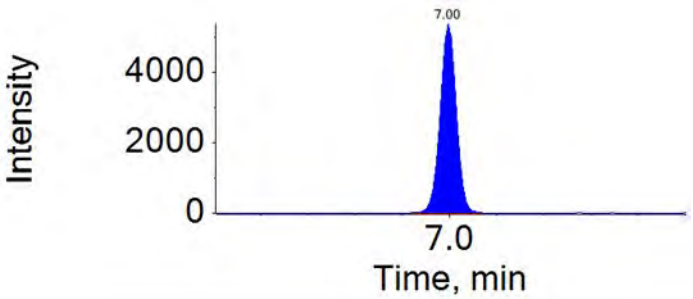
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL5			**Data File:**		18NOV28DCAL-10.wiff
Sample ID:	CALBRN51833B			**Acquis Date:**		2018-11-28T14:18:16
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	7			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	857159.8	887248.9	-3	50	
13C2-PFOA	5.0	516457.2	498501.6	4	50	
13C4-PFOS	4.8	287732.6	283214.2	2	50	
13C2-PFDA	5.0	460232.7	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	951695.0	13C3-PFBA	857159.8	1.110	5.000	4.954	99	70-130	
E13C5-PFPeA	900153.4	13C3-PFBA	857159.8	1.050	5.000	4.904	98	70-130	
E13C3-PFBS	424059.2	13C3-PFBA	857159.8	0.495	4.650	4.720	102	70-130	
E13C2-4:2-FTS	67423.0	13C2-PFOA	516457.2	0.131	4.670	4.499	96	70-130	
E13C5-PFHxA	704953.5	13C2-PFOA	516457.2	1.365	5.000	5.014	100	70-130	
E13C3-PFHxS	309184.7	13C2-PFOA	516457.2	0.599	4.730	4.692	99	70-130	
E13C4-PFHpA	556455.9	13C2-PFOA	516457.2	1.077	5.000	4.951	99	70-130	
E13C2-6:2-FTS	58122.8	13C2-PFOA	516457.2	0.113	4.750	4.711	99	70-130	
E13C8-PFOA	911756.1	13C2-PFOA	516457.2	1.765	5.000	4.859	97	70-130	
E13C8-PFOS	299574.5	13C4-PFOS	287732.6	1.041	4.780	4.700	98	70-130	
E13C9-PFNA	630201.5	13C4-PFOS	287732.6	2.190	5.000	4.811	96	70-130	
E13C6-PFDA	833462.2	13C2-PFDA	460232.7	1.811	5.000	5.106	102	70-130	
E13C2-8:2-FTS	46142.4	13C2-PFDA	460232.7	0.100	4.790	4.309	90	70-130	
E13C8-PFOSA	596189.5	13C2-PFDA	460232.7	1.295	5.000	4.753	95	70-130	
Ed3-NMeFOSAA	172574.2	13C2-PFDA	460232.7	0.375	5.000	4.761	95	70-130	
E13C7-PFUnDA	539842.9	13C2-PFDA	460232.7	1.173	5.000	4.957	99	70-130	
Ed5-NEtFOSAA	124785.1	13C2-PFDA	460232.7	0.271	5.000	4.830	97	70-130	
E13C2-PFDoDA	1133027.9	13C2-PFDA	460232.7	2.462	5.000	5.173	103	70-130	
Ed7-NMePFOSAE	247663.8	13C2-PFDA	460232.7	0.538	5.000	4.651	93	70-130	
Ed3-NMePFOSA	83129.0	13C2-PFDA	460232.7	0.181	5.000	4.888	98	70-130	
Ed9-NEtPFOSAE	220689.9	13C2-PFDA	460232.7	0.480	5.000	4.861	97	70-130	
Ed5-NEtPFOSA	66384.7	13C2-PFDA	460232.7	0.144	5.000	5.012	100	70-130	
E13C2-PFTeDA	786107.5	13C2-PFDA	460232.7	1.708	5.000	4.726	95	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

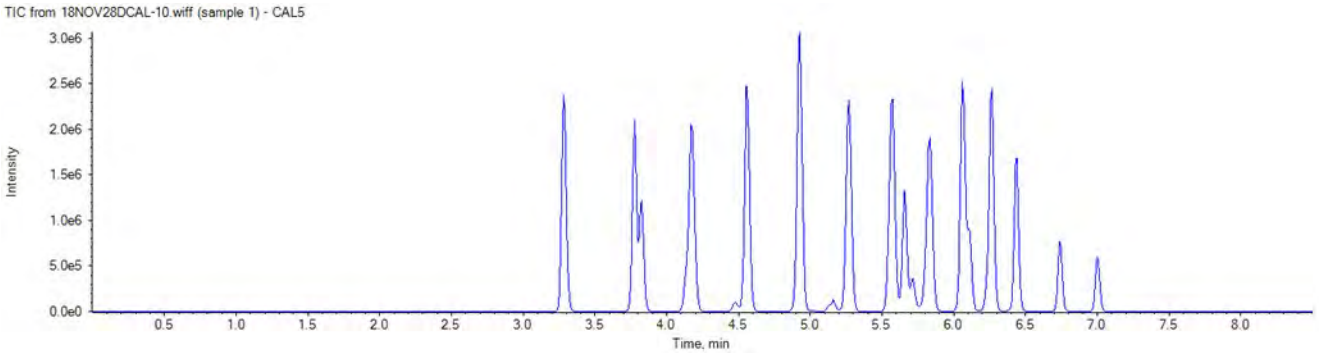
Analyte Quantitation Peak Table

Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-10.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	3627061.5		A	13C4-PFBA	3.28	951695.0	3.811	20.892
PFPeA	3.78	1.000	3696889.3		A	13C5-PFPeA	3.78	900153.4	4.107	20.152
PFBS	3.82	1.000	1542881.7		A	13C3-PFBS	3.83	424059.2	3.638	17.661
4:2-FTS	4.14	1.000	498650.7		A	13C2-4:2-FTS	4.14	67423.0	7.396	19.798
PFHxA	4.17	1.000	3464657.3		A	13C5-PFHxA	4.17	704953.5	4.915	19.728
PFPeS	4.19	1.100	809728.0		A	13C3-PFBS	3.83	424059.2	1.909	19.314
PFHpA	4.56	1.000	3592806.2		A	13C4-PFHpA	4.56	556455.9	6.457	19.926
PFHxS	4.56	1.000	1191482.7		M	13C3-PFHxS	4.56	309184.7	3.854	18.044
6:2-FTS	4.92	1.000	426727.7		A	13C2-6:2-FTS	4.92	58122.8	7.342	19.156
PFHpS	4.92	1.080	1171216.6		A	13C3-PFHxS	4.56	309184.7	3.788	18.906
PFOA	4.93	1.000	3601538.3		A	13C8-PFOA	4.93	911756.1	3.950	20.411
PFOS	5.26	1.000	1305020.5		M	13C8-PFOS	5.26	299574.5	4.356	18.273
PFNA	5.27	1.000	3536255.1		A	13C9-PFNA	5.27	630201.5	5.611	21.504
PFNS	5.55	1.060	909879.2		A	13C8-PFOS	5.26	299574.5	3.037	19.177
PFDA	5.57	1.000	3072749.0		A	13C6-PFDA	5.57	833462.2	3.687	20.868
8:2-FTS	5.58	1.000	478390.1		A	13C2-8:2-FTS	5.58	46142.4	10.368	19.551
PFOSA	5.66	1.000	2392584.6		A	13C8-PFOSA	5.66	596189.5	4.013	20.329
NMeFOSAA	5.71	1.000	557354.6		M	d3-NMeFOSAA	5.71	172574.2	3.230	20.602
PFDS	5.81	1.100	737231.9		A	13C8-PFOS	5.26	299574.5	2.461	19.512
PFUnDA	5.83	1.000	3163283.8		A	13C7-PFUnDA	5.83	539842.9	5.860	20.945
NEtFOSAA	5.85	1.000	512792.4		M	d5-NEtFOSAA	5.85	124785.1	4.109	20.014
PFDoDA	6.06	1.000	4161895.9		A	13C2-PFDoDA	6.06	1133027.9	3.673	20.121
10:2-FTS	6.08	1.090	480384.1		A	13C2-8:2-FTS	5.58	46142.4	10.411	22.957
NMePFOSAE	6.11	1.000	1240182.1		A	d7-NMePFOSAE	6.10	247663.8	5.008	21.073
NMePFOSA	6.12	1.000	322671.1		A	d3-NMePFOSA	6.11	83129.0	3.882	20.577
PFDoS	6.23	1.190	390444.7		A	13C8-PFOS	5.26	299574.5	1.303	18.718
NEtPFOSAE	6.27	1.000	1338584.5		A	d9-NEtPFOSAE	6.26	220689.9	6.065	21.818
NEtPFOSA	6.28	1.000	293215.8		A	d5-NEtPFOSA	6.27	66384.7	4.417	19.796
PFTrDA	6.26	1.030	3743763.6		A	13C2-PFDoDA	6.06	1133027.9	3.304	19.916
PFTeDA	6.44	1.000	2897106.2		A	13C2-PFTeDA	6.44	786107.5	3.685	20.882
PFHxDA	6.74	1.050	1551331.1		A	13C2-PFTeDA	6.44	786107.5	1.973	22.560
PFODA	7.00	1.090	1272897.4		A	13C2-PFTeDA	6.44	786107.5	1.619	21.571

Total Ion Chromatogram

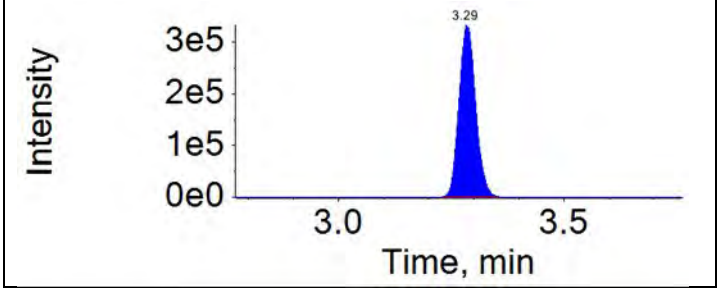


APPROVED
By MCD at 5:00 pm, 11/28/18

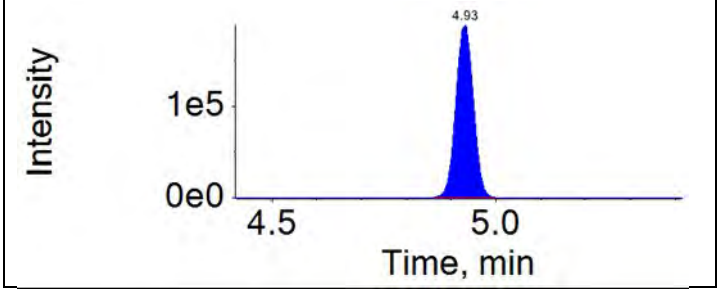
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

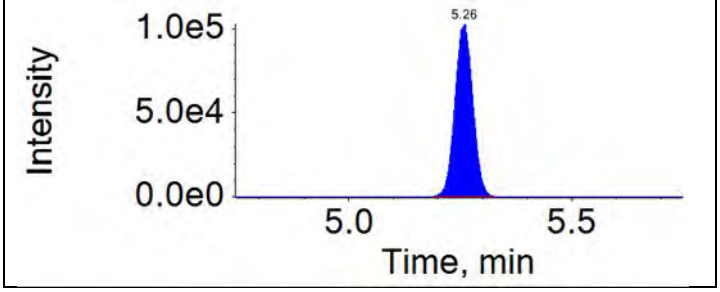
Injection Standard: 13C3-PFBA
216.0 / 172.0



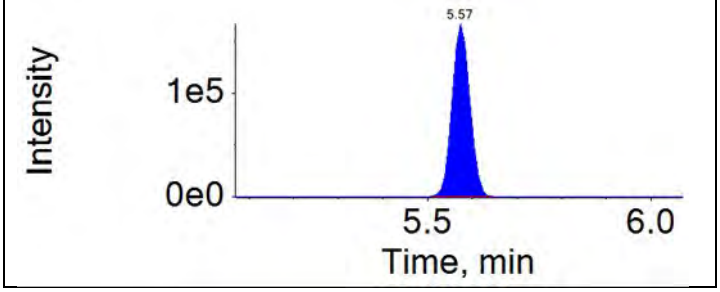
Injection Standard: 13C2-PFOA
415.0 / 370.0



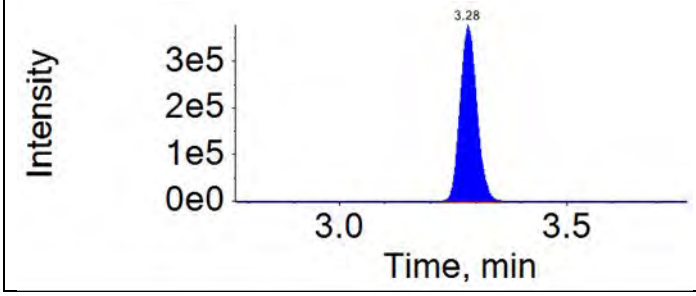
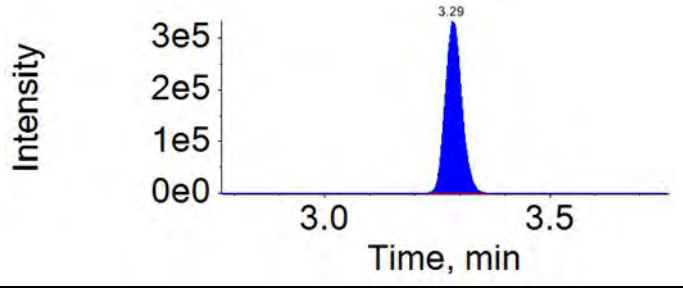
Injection Standard: 13C4-PFOS
503.0 / 80.0

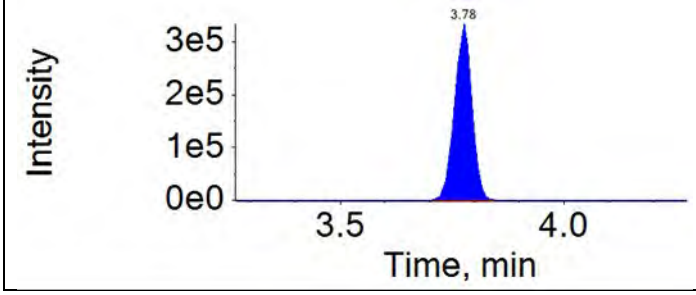
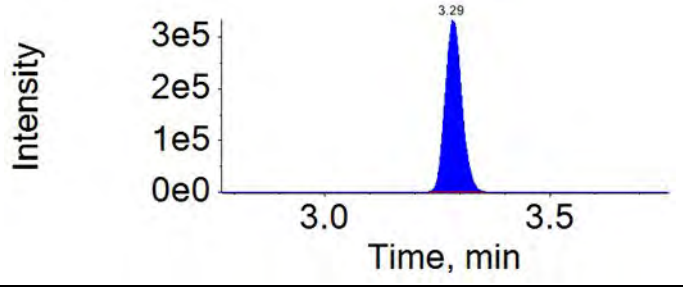


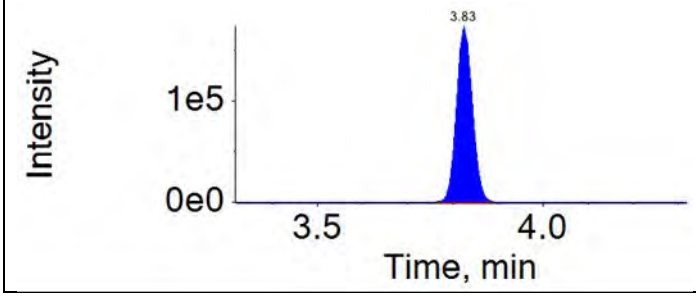
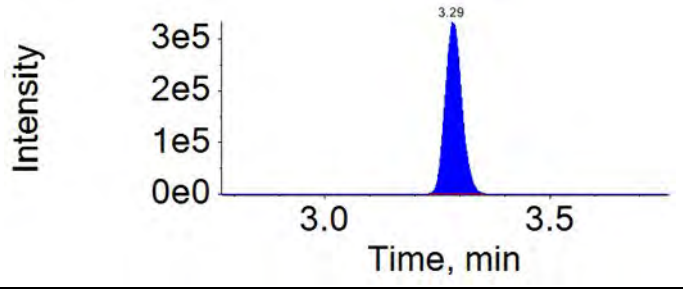
Injection Standard: 13C2-PFDA
515.0 / 470.0

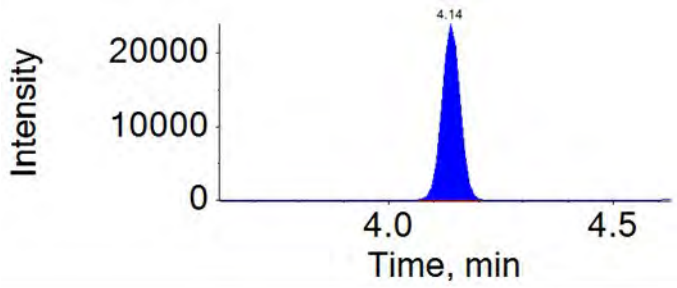
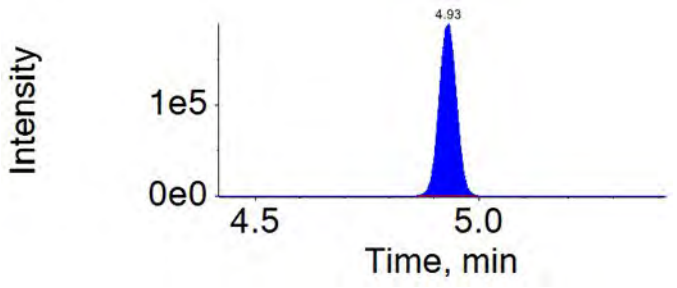


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

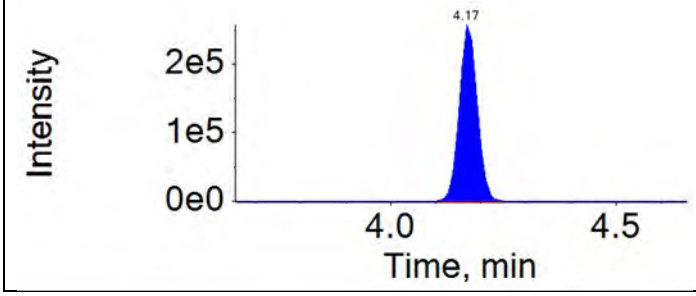
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

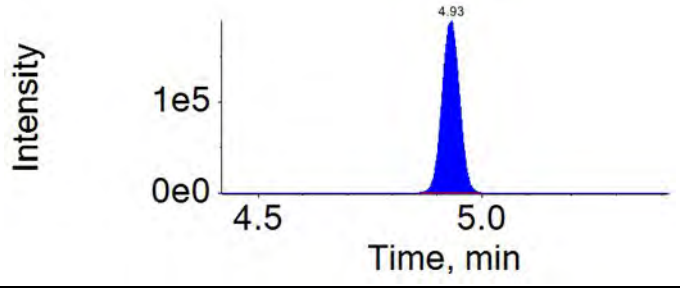
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

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

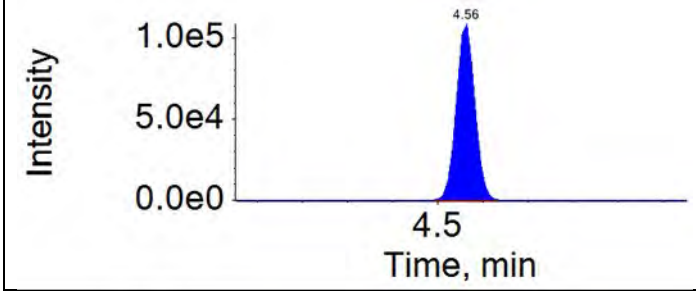
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

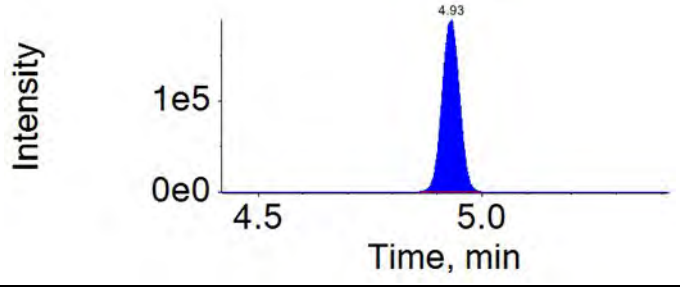
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



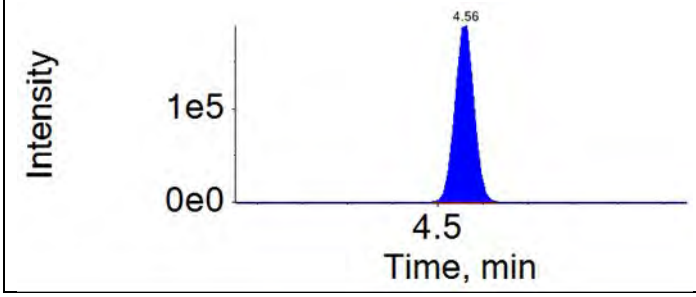


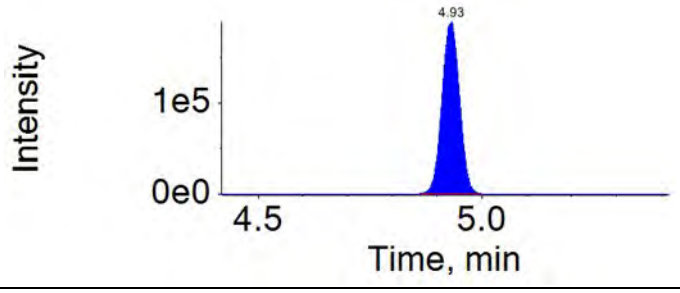
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



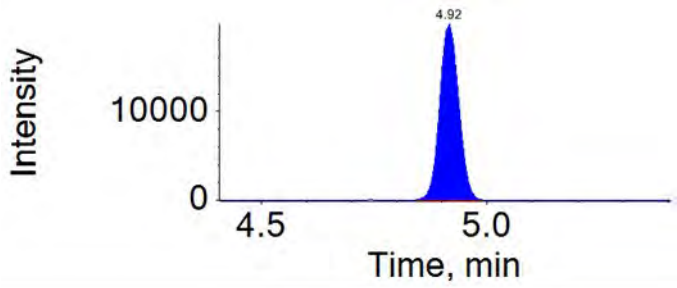


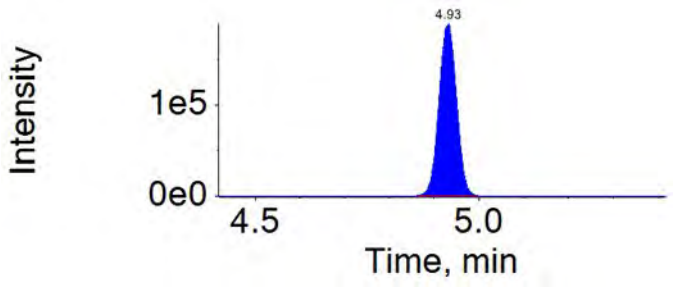
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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

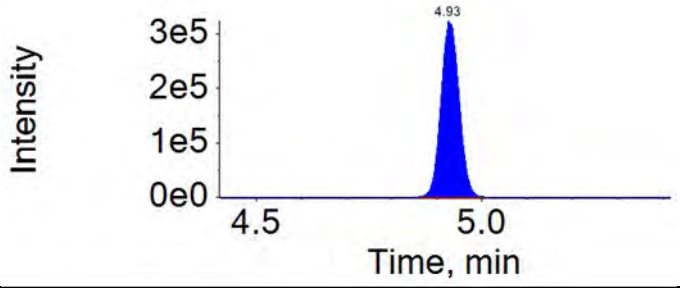
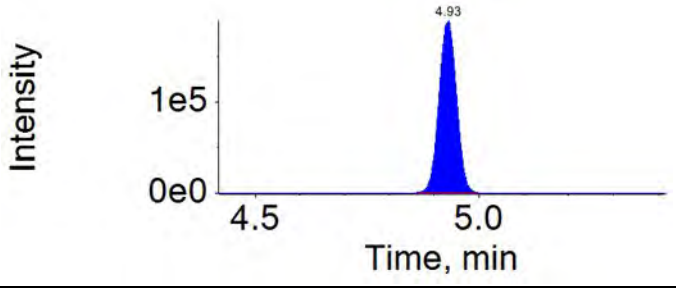


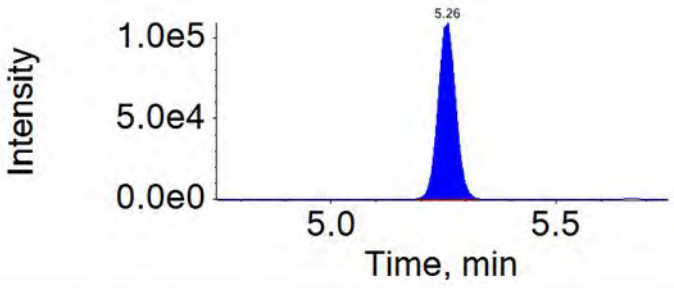
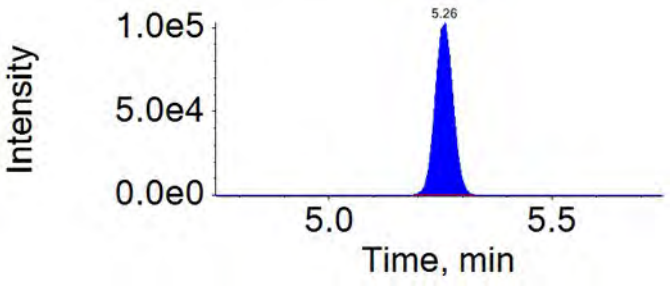


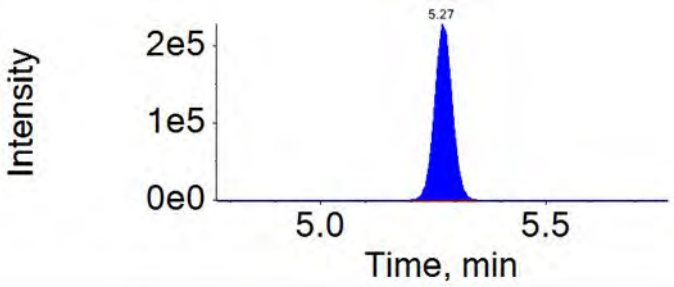
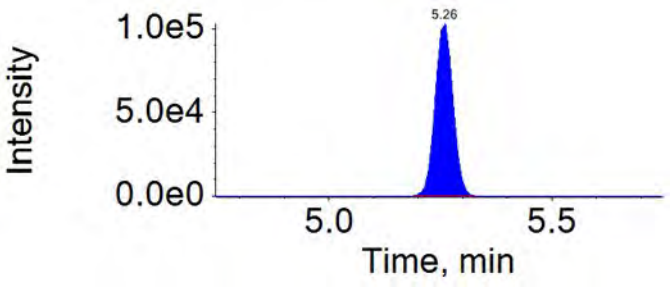
APPROVED
By MCD at 5:00 pm, 11/28/18

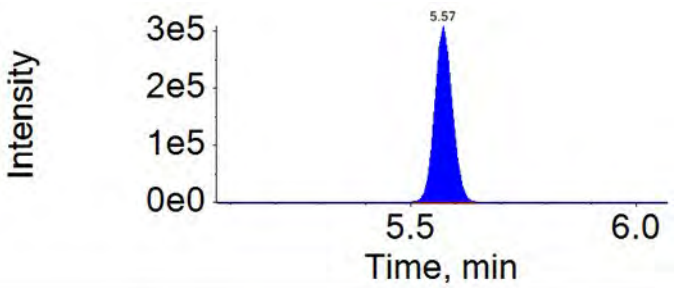
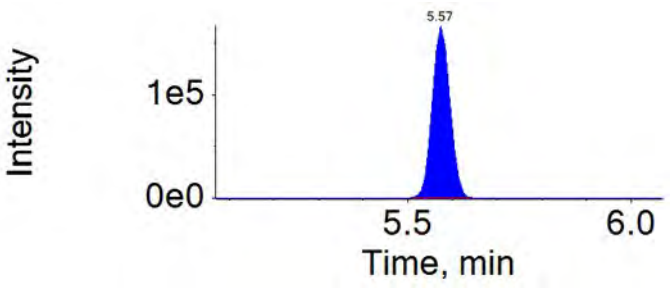
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

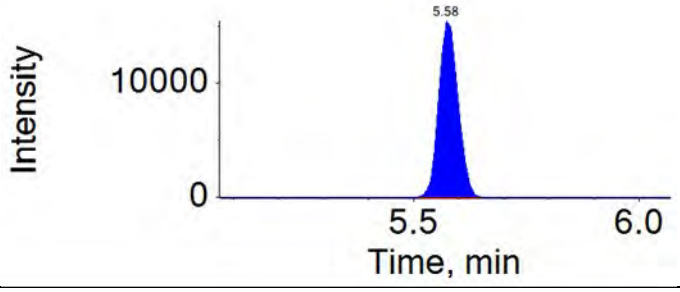
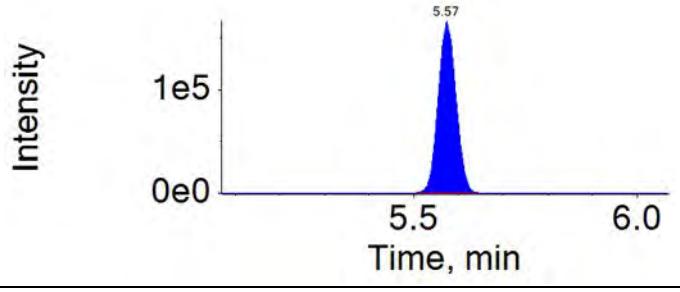
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

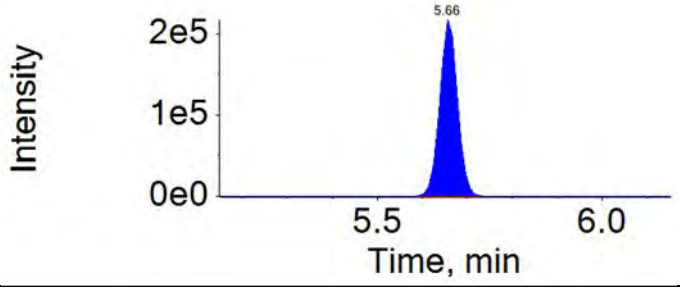
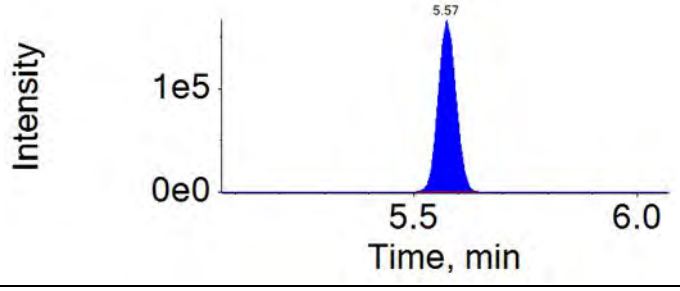
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

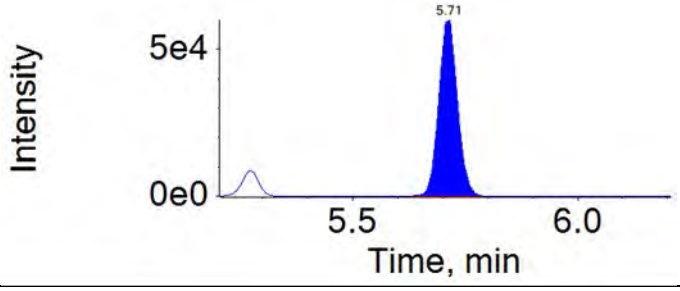
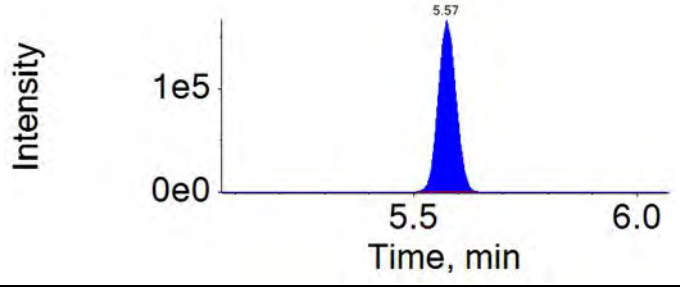
APPROVED
By MCD at 5:00 pm, 11/28/18

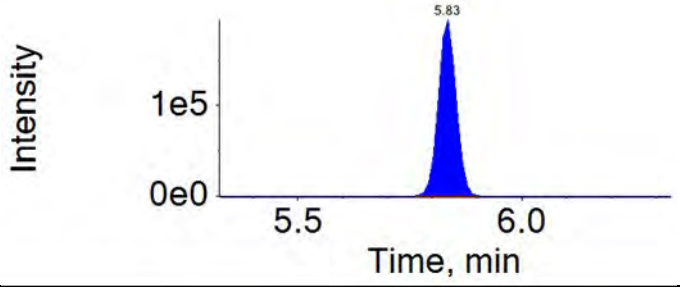
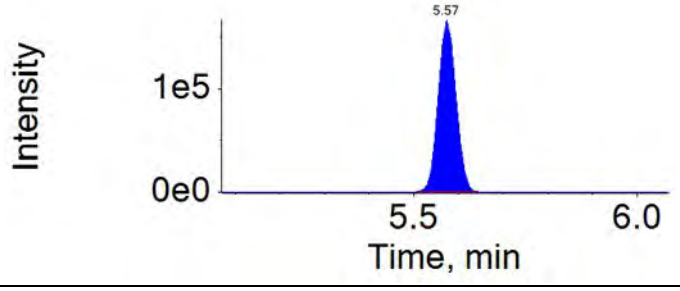
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

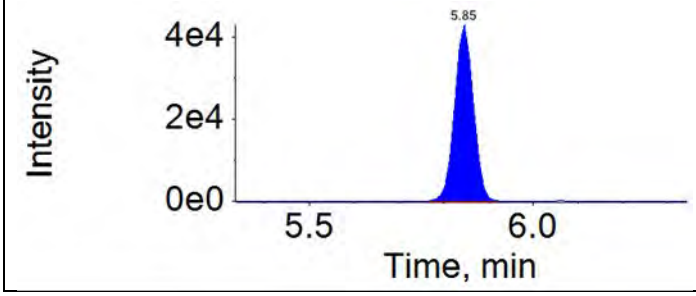
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

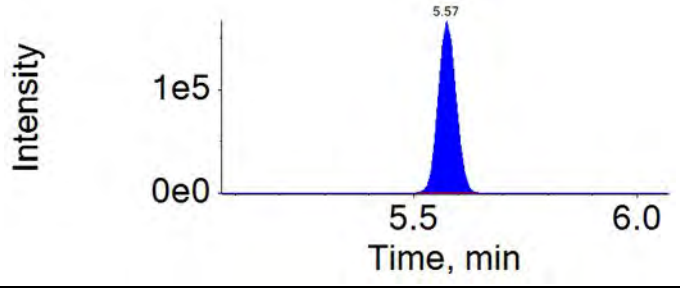
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

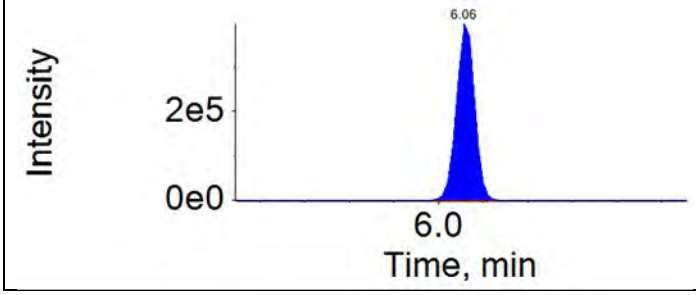
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

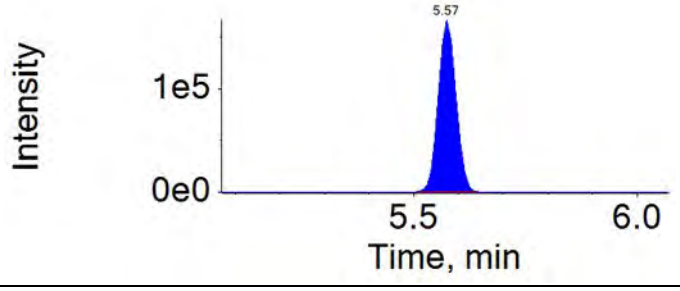
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



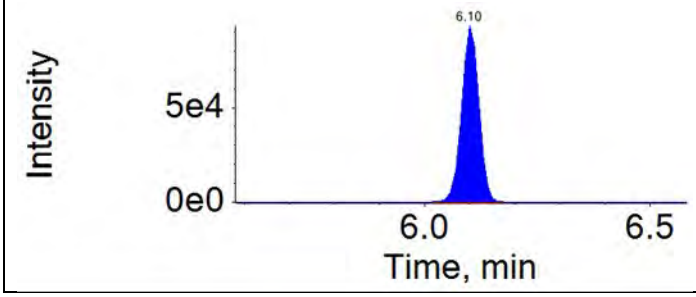


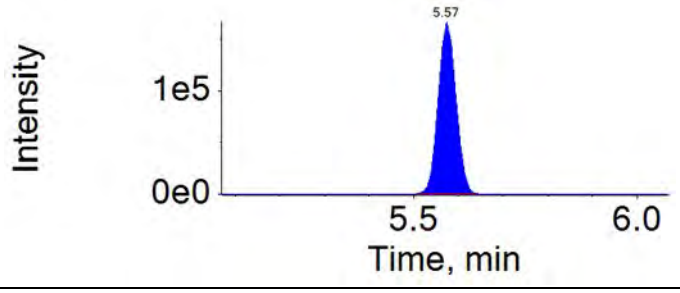
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



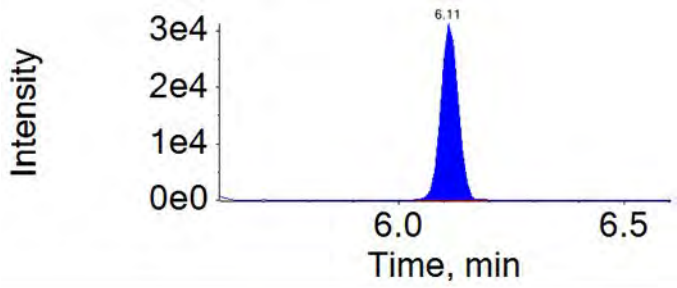


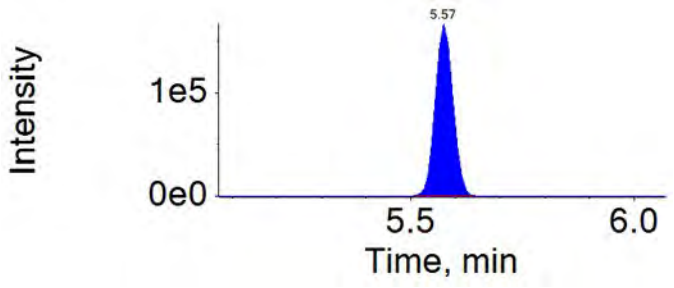
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



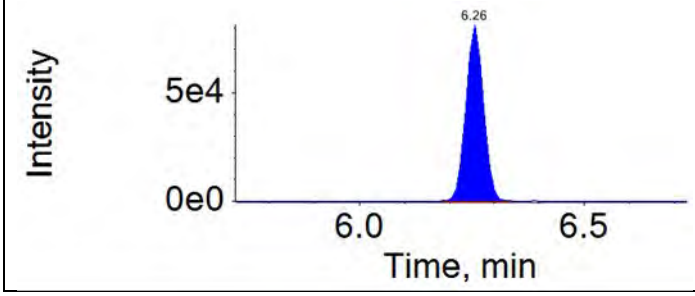


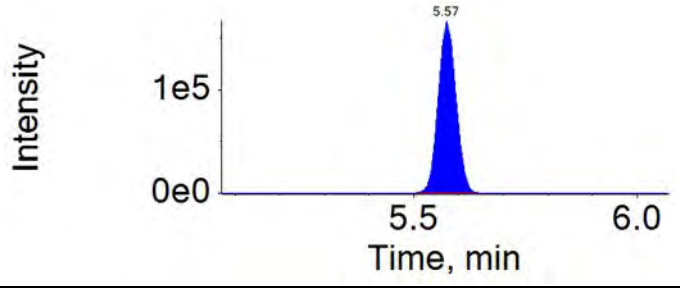
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

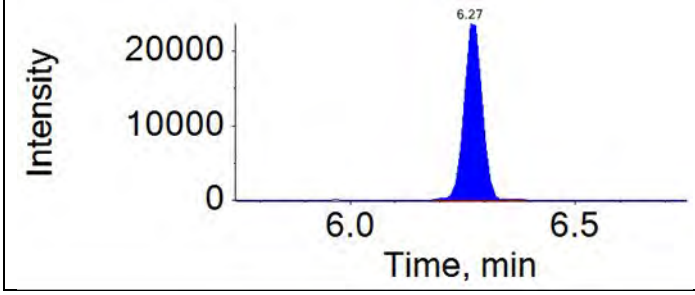
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

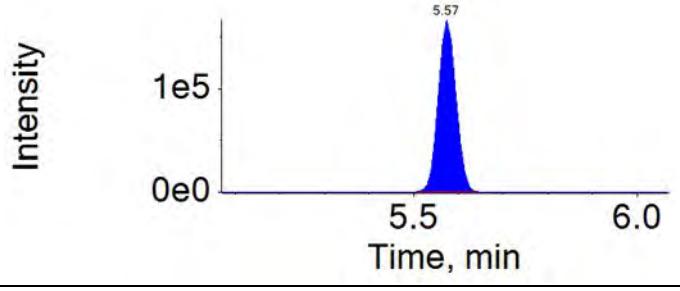
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



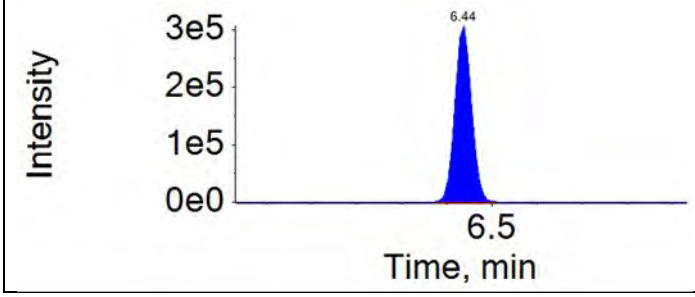


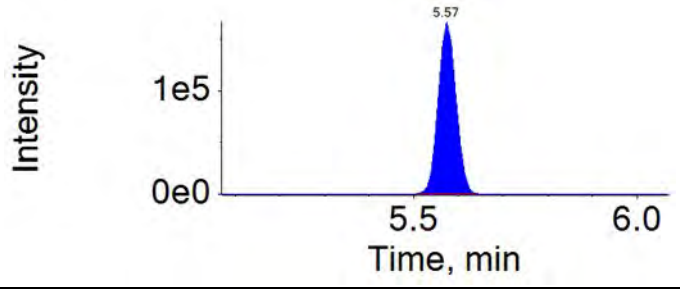
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



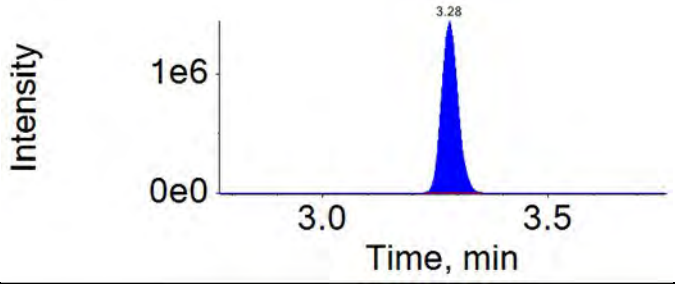


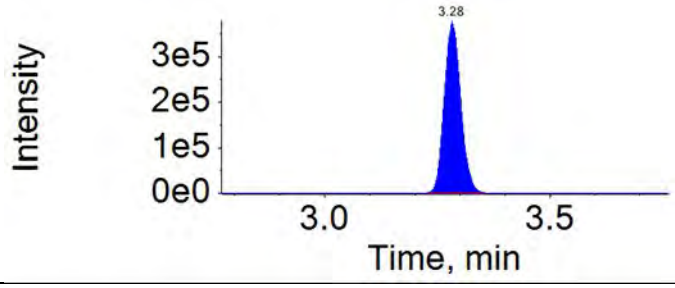
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

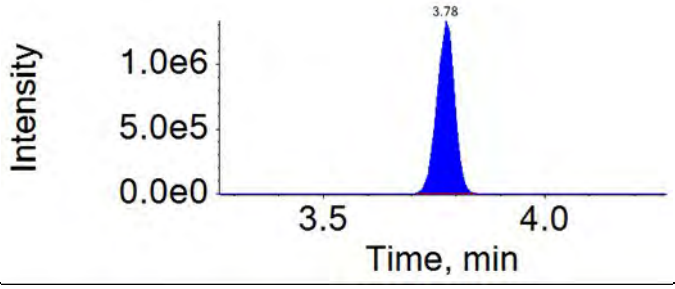
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

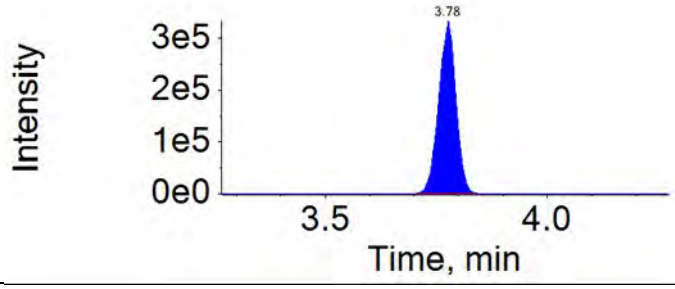
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



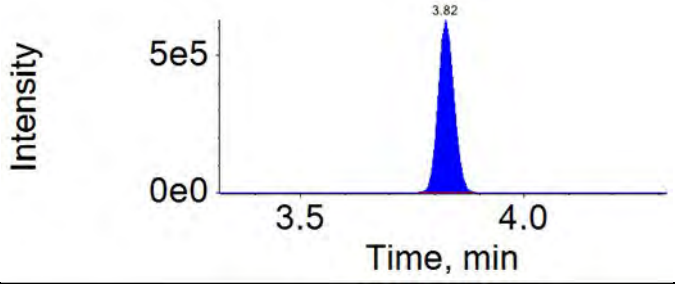


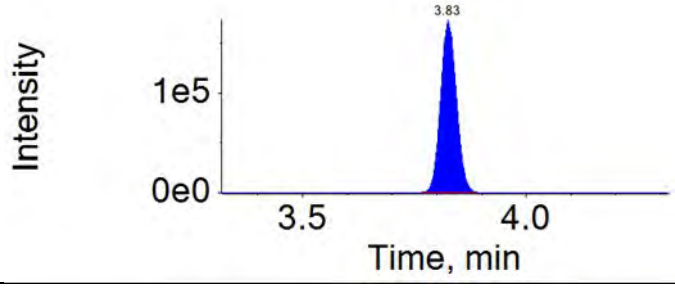
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



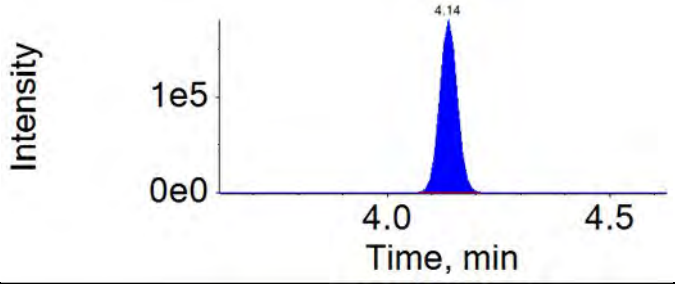


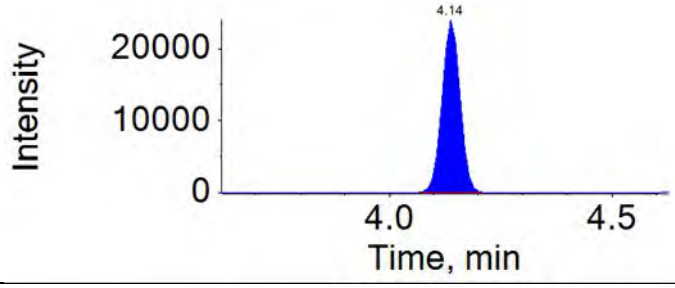
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



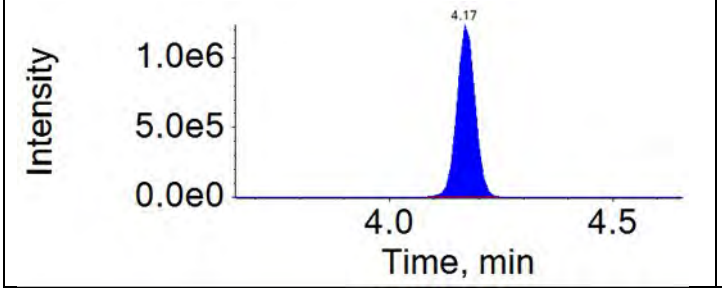


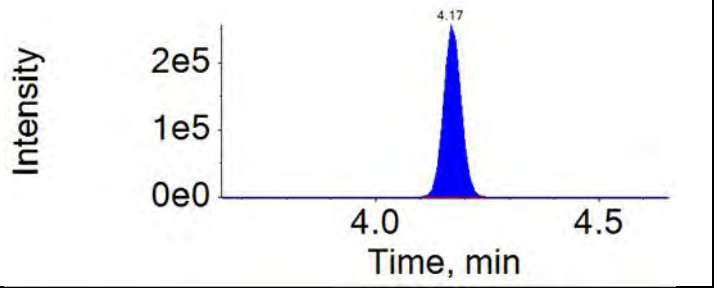
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

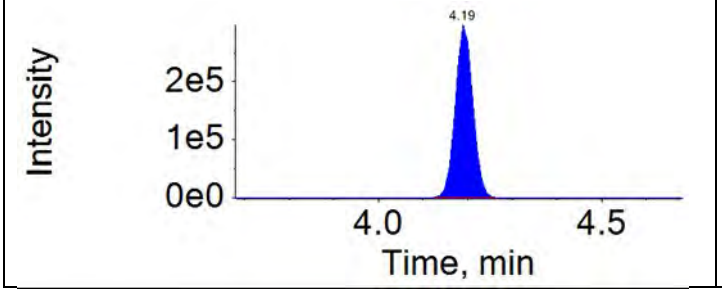
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

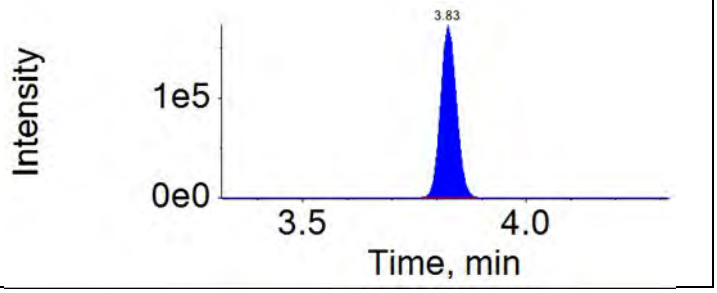
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



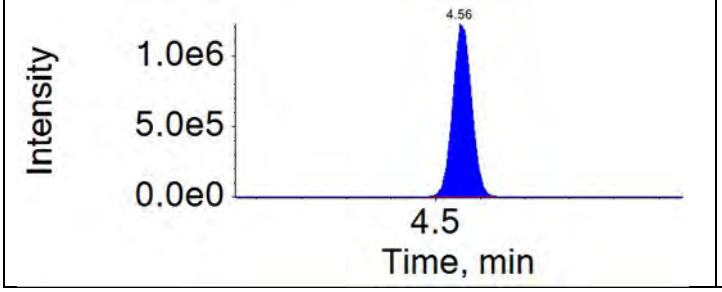


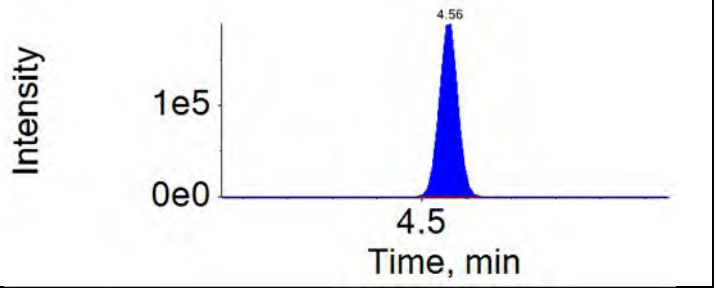
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



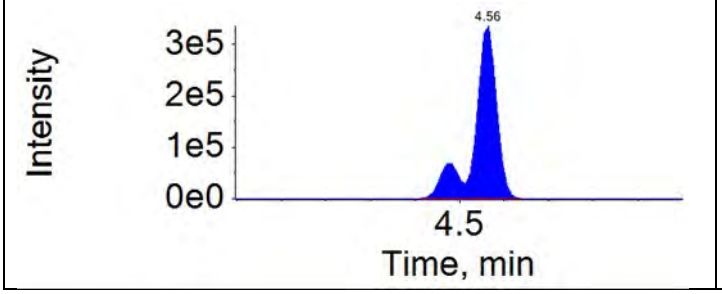


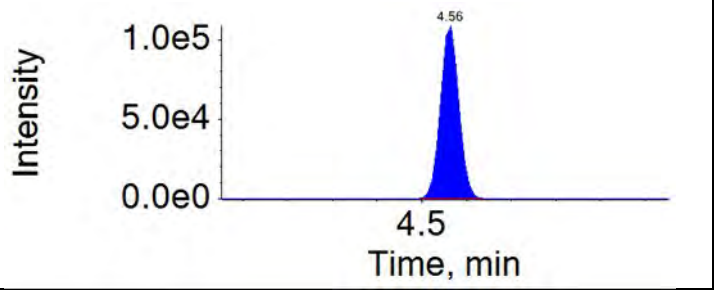
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

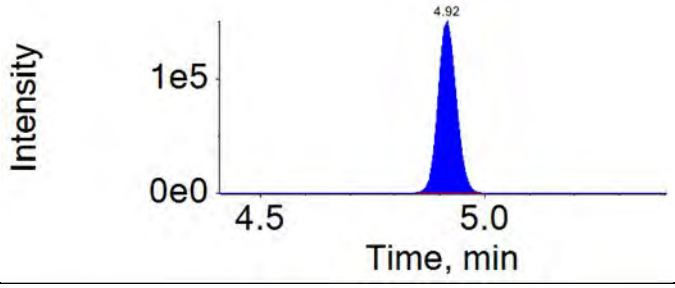
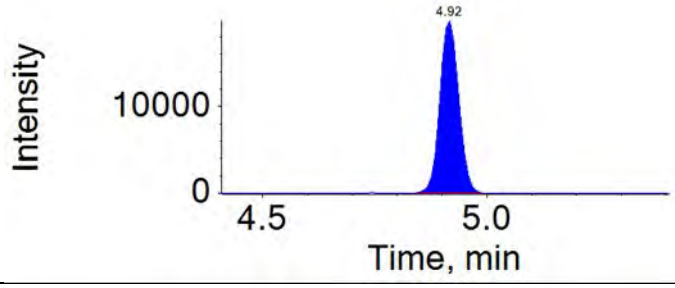


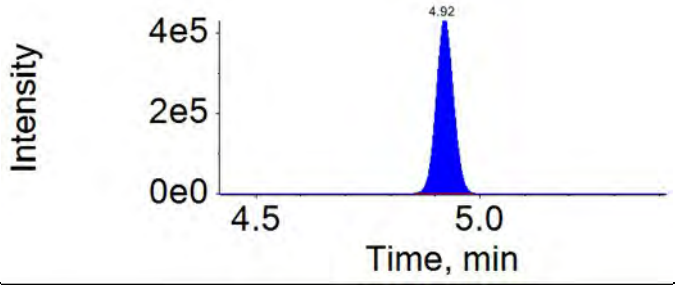
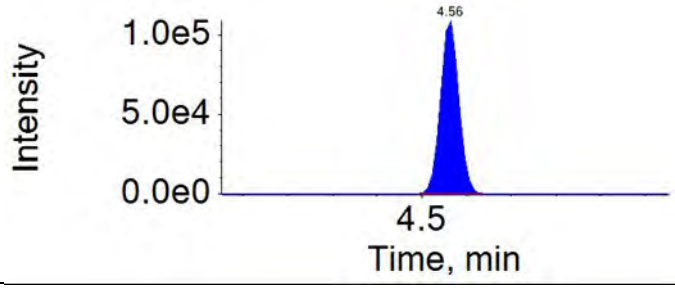


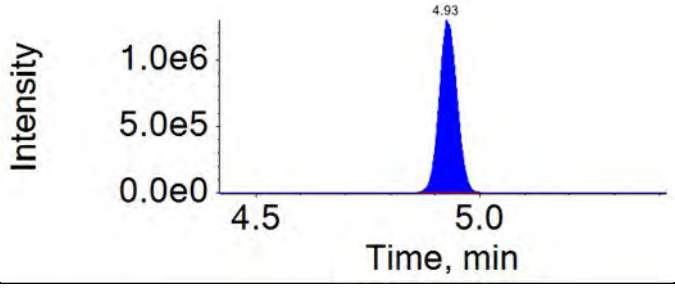
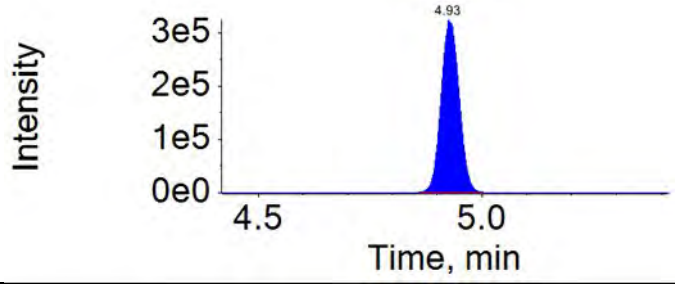
APPROVED
By MCD at 5:00 pm, 11/28/18

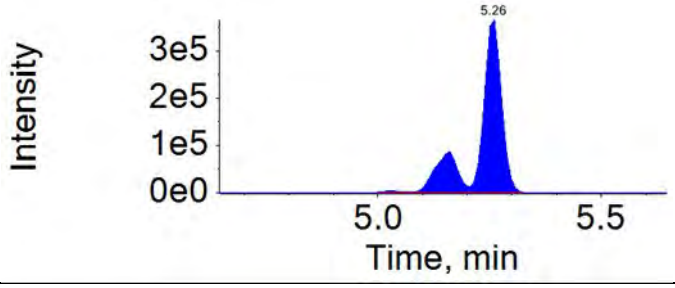
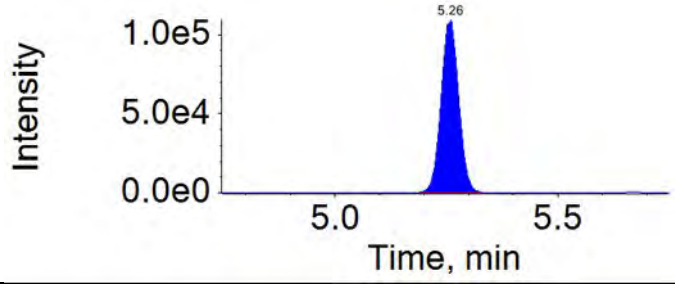
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

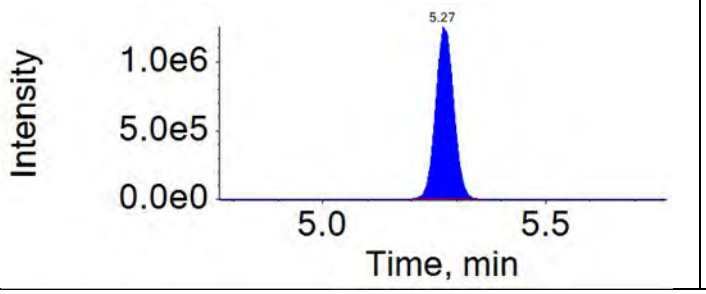
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

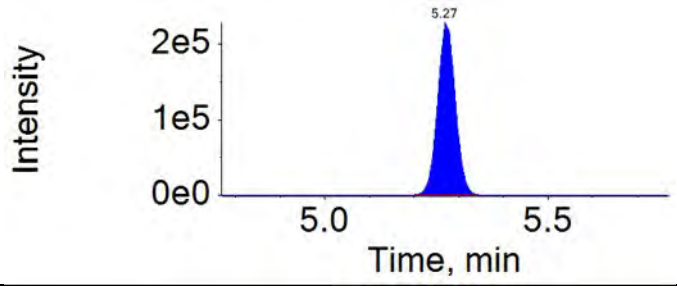
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

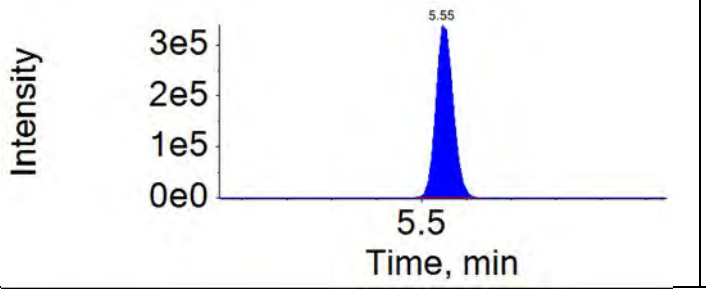
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

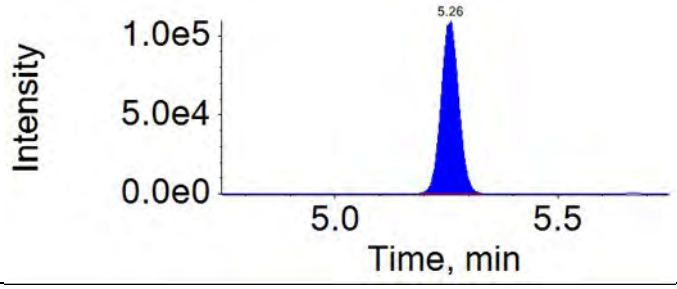
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



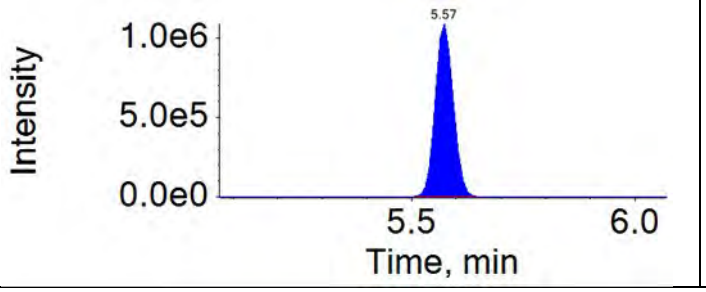


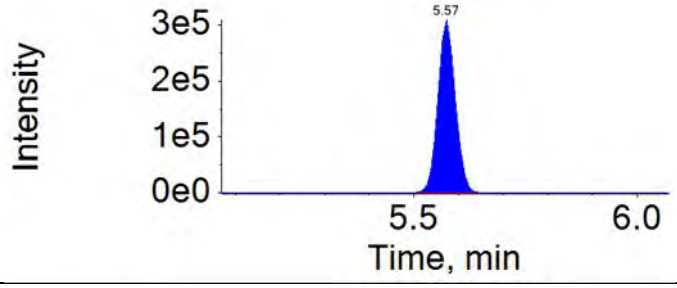
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



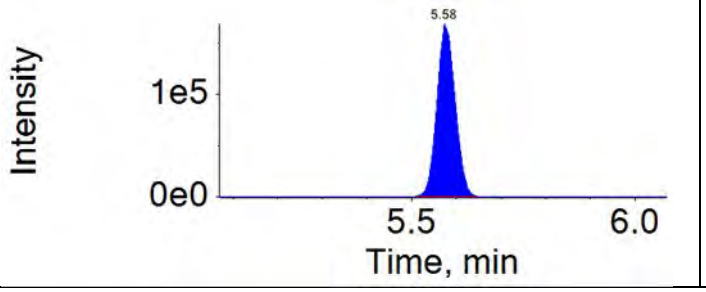


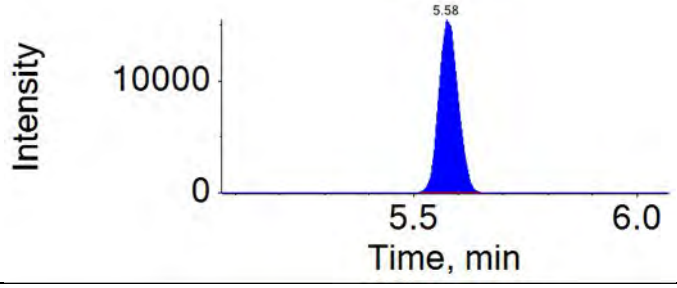
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



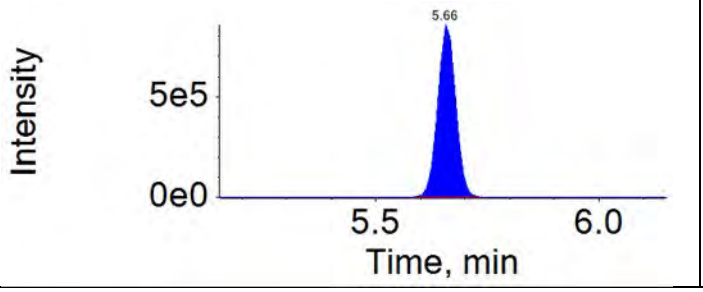


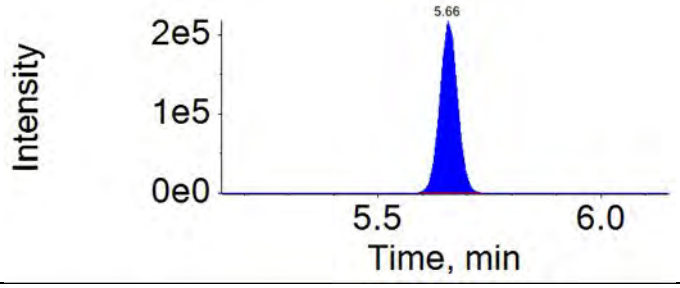
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

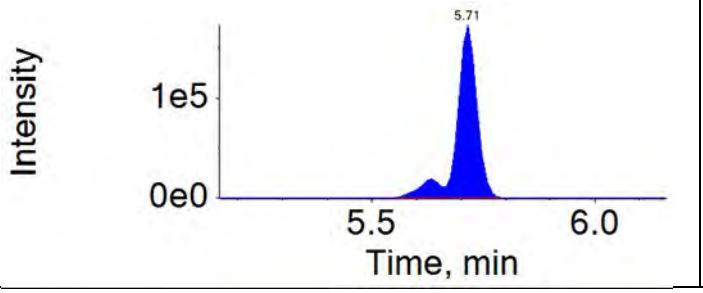
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

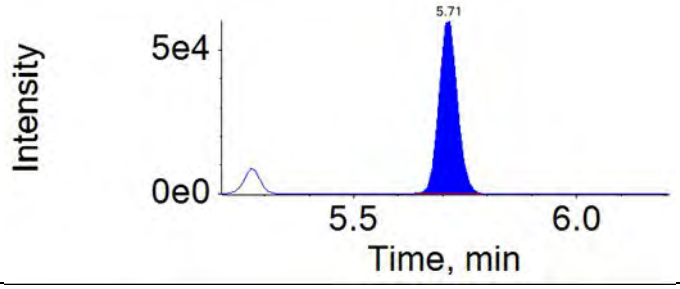
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



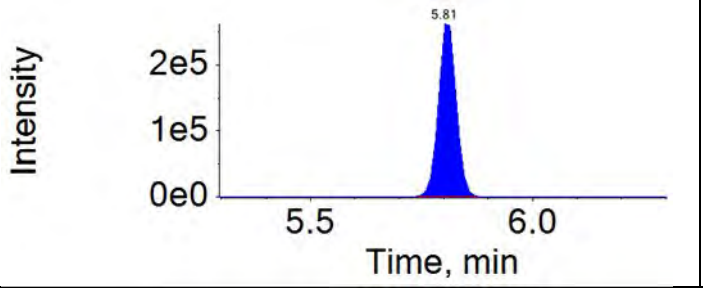


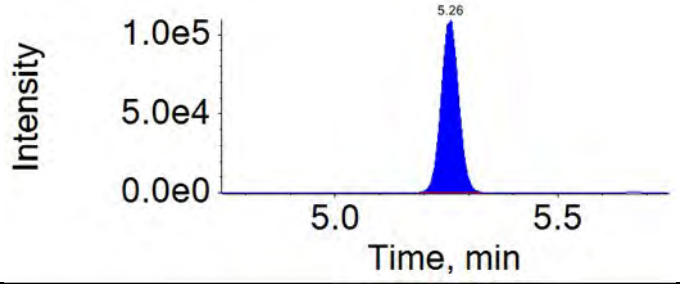
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



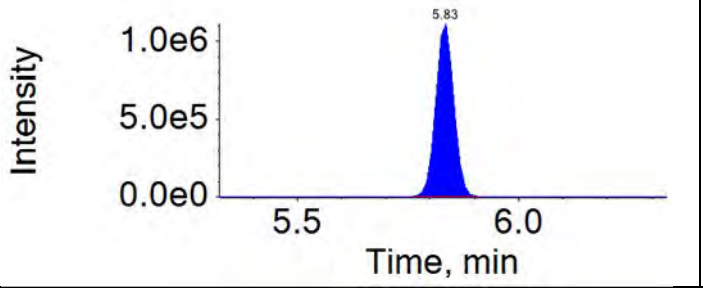


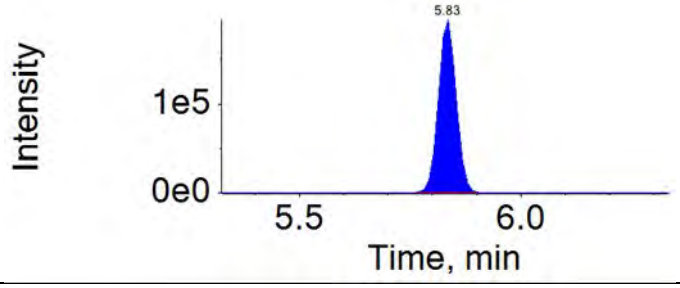
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



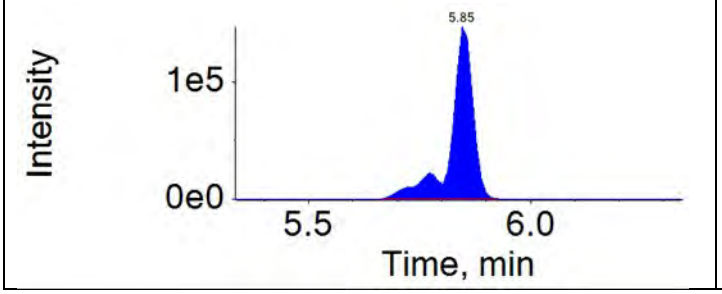


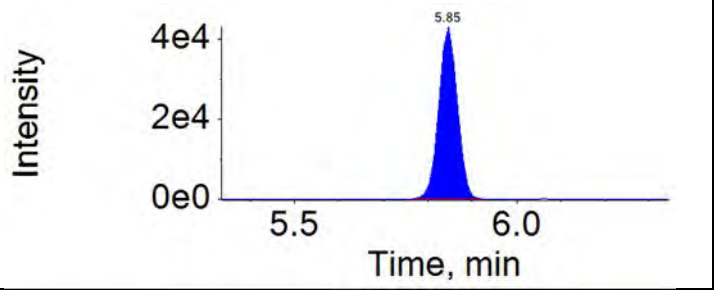
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

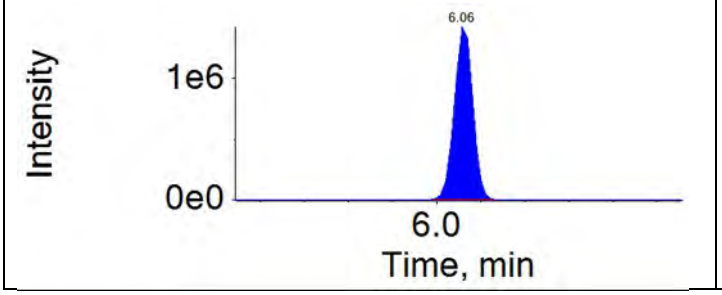
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

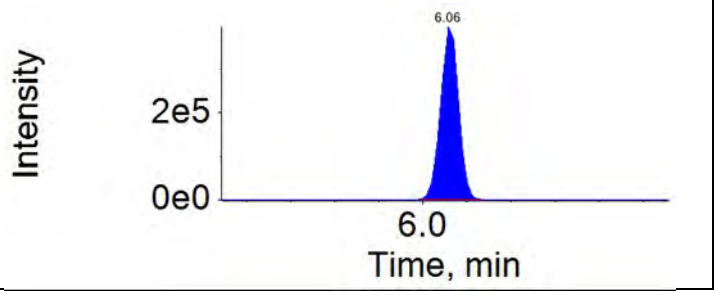
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



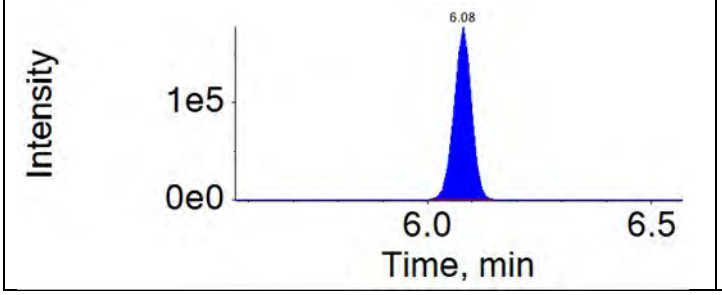


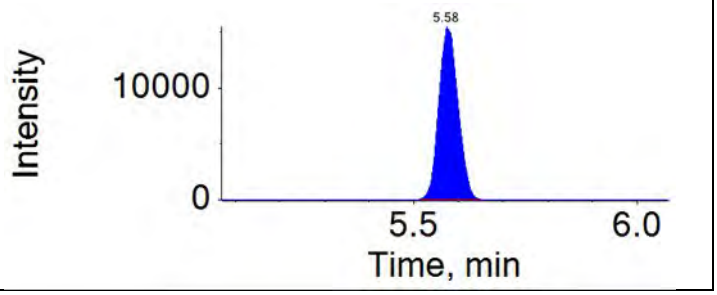
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



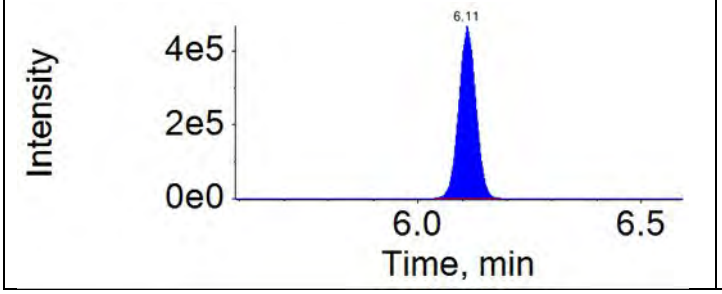


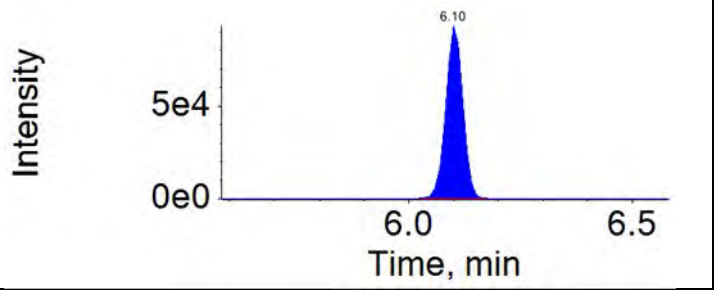
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



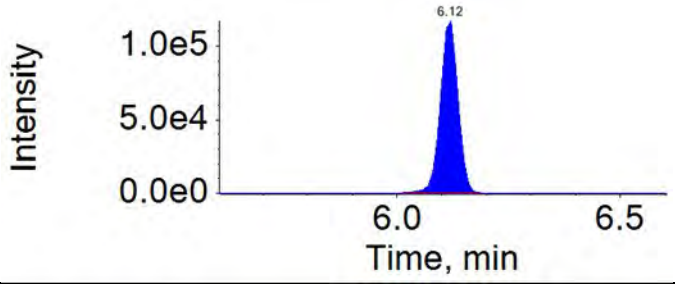


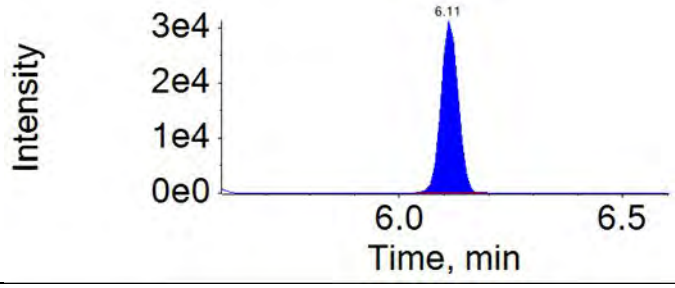
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

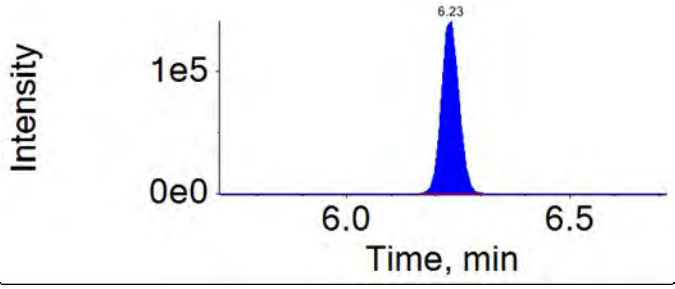
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

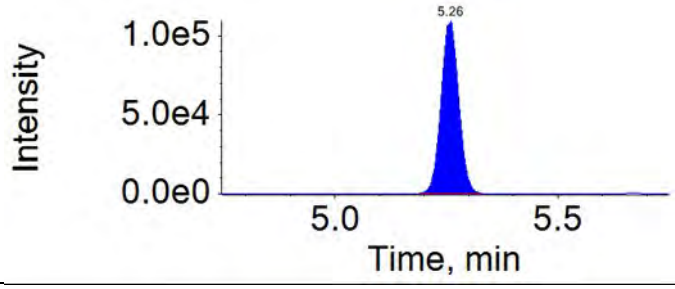
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



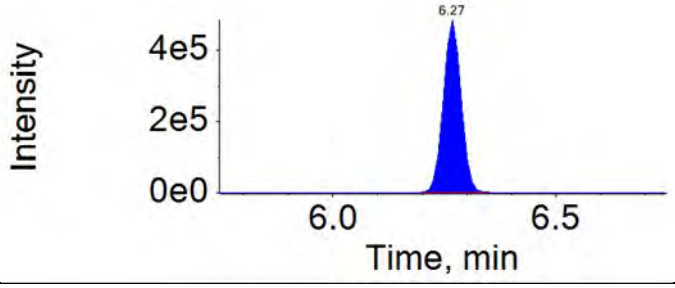


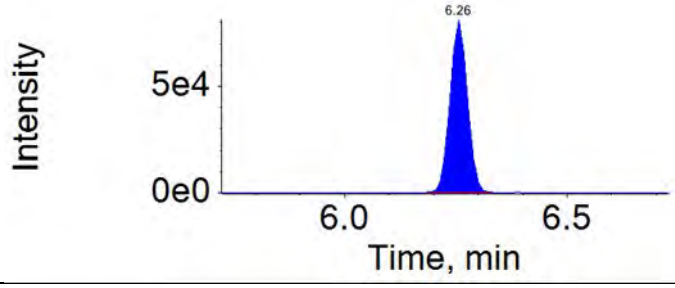
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



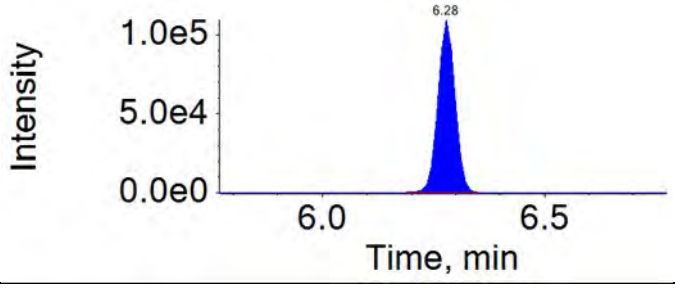


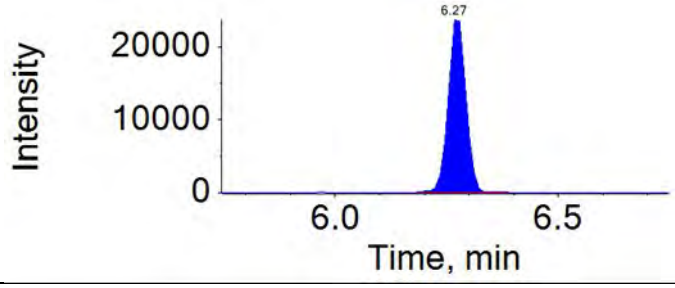
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





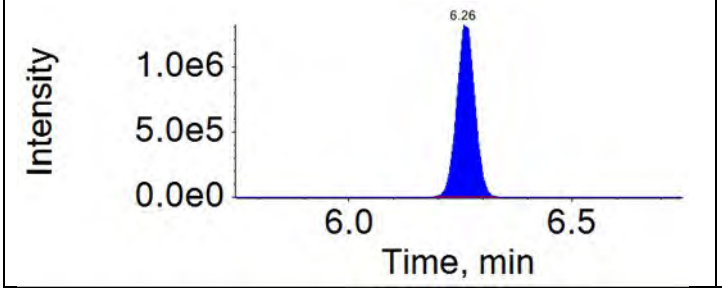
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

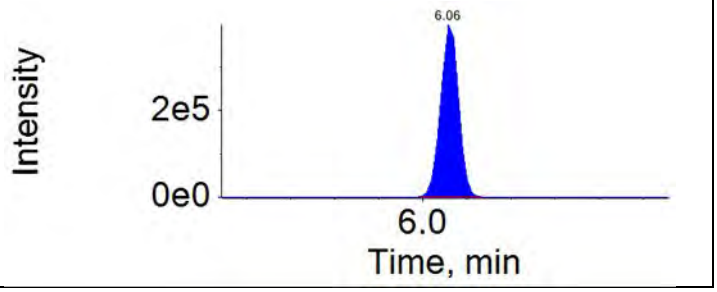




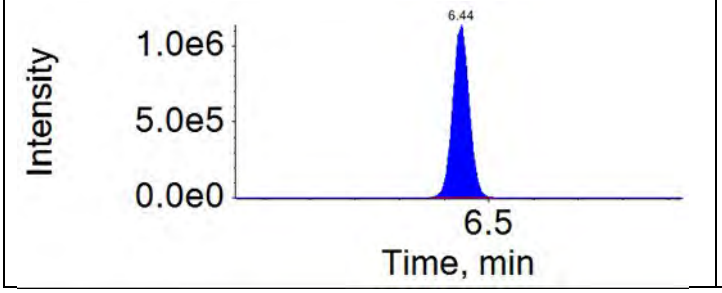
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

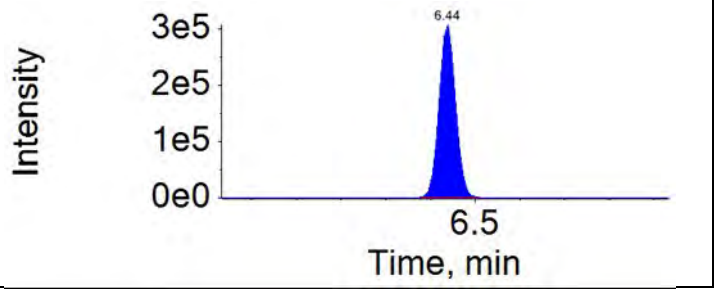
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



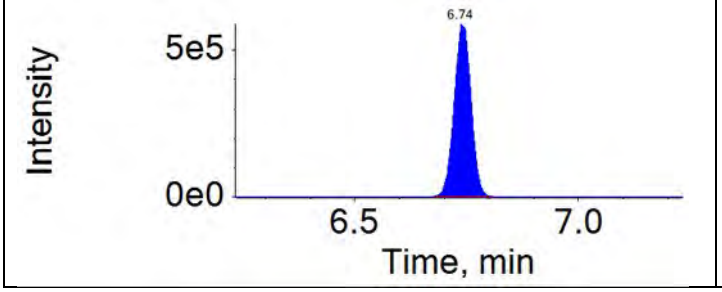


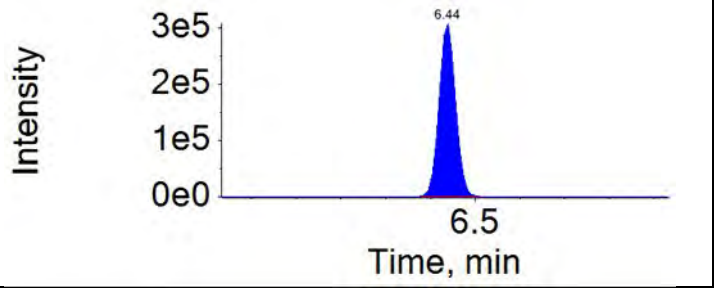
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



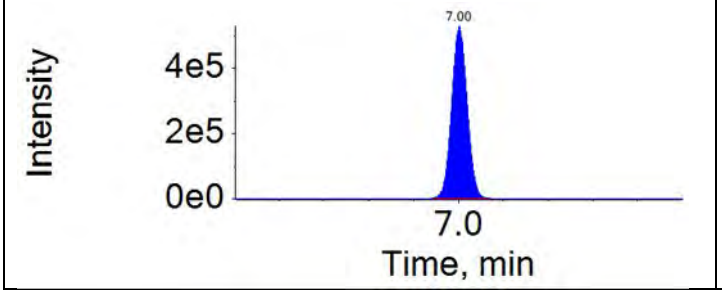


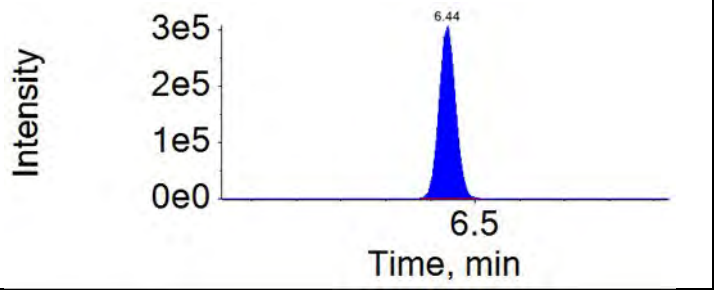
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



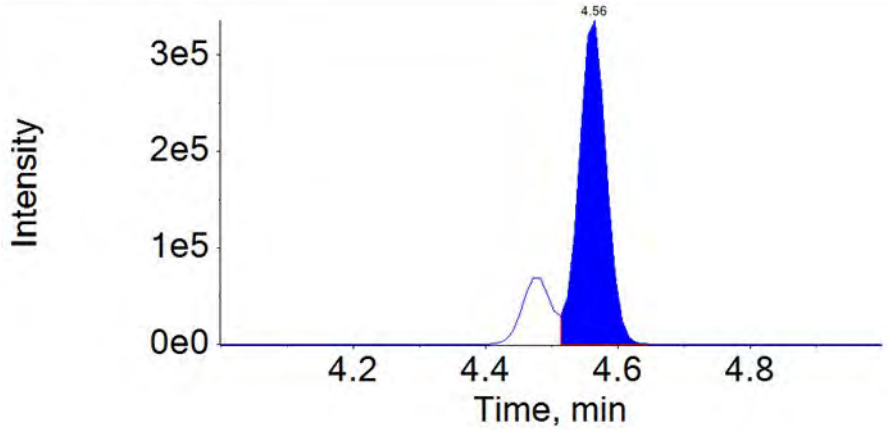


APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

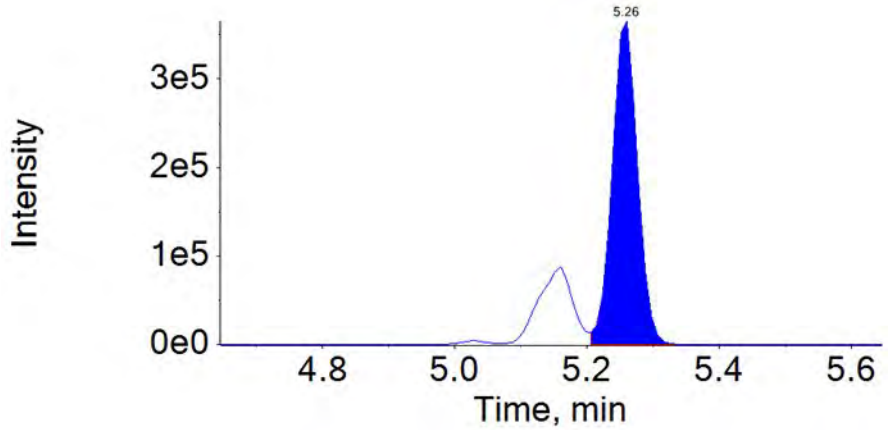
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
976399.82
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



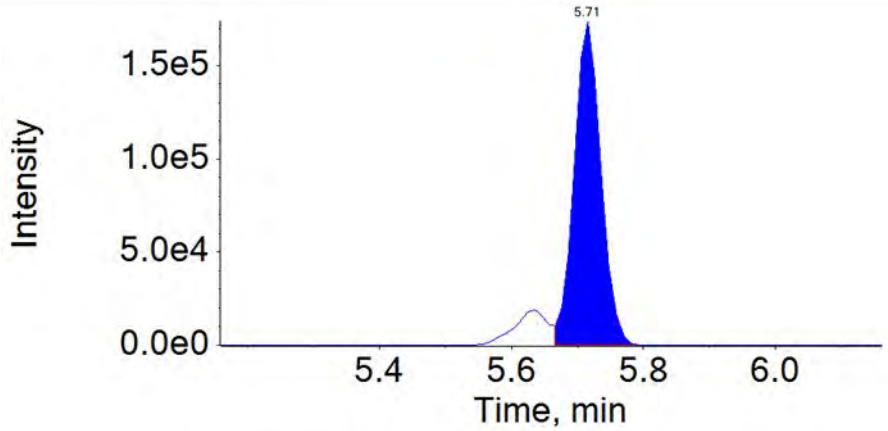
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.26
Peak Area:
977368.32
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
489906.15
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



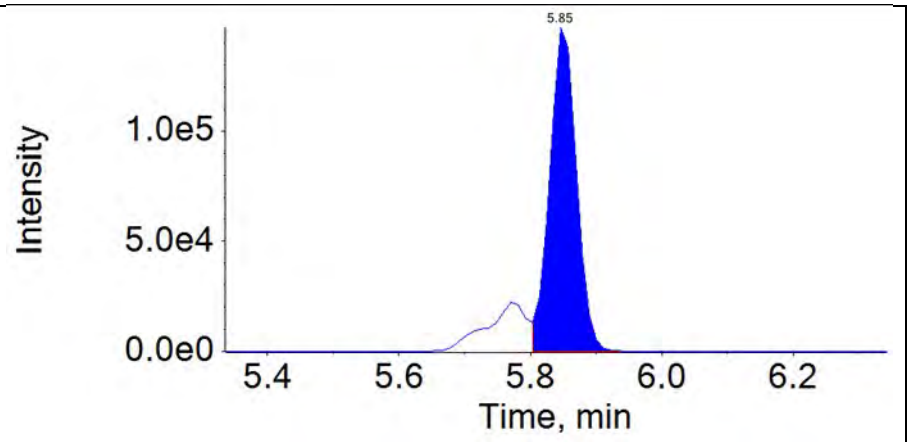
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

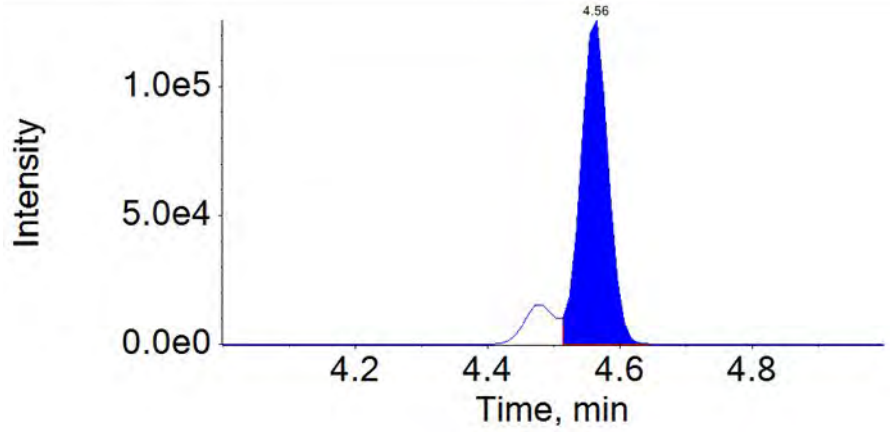
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
417736.88
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



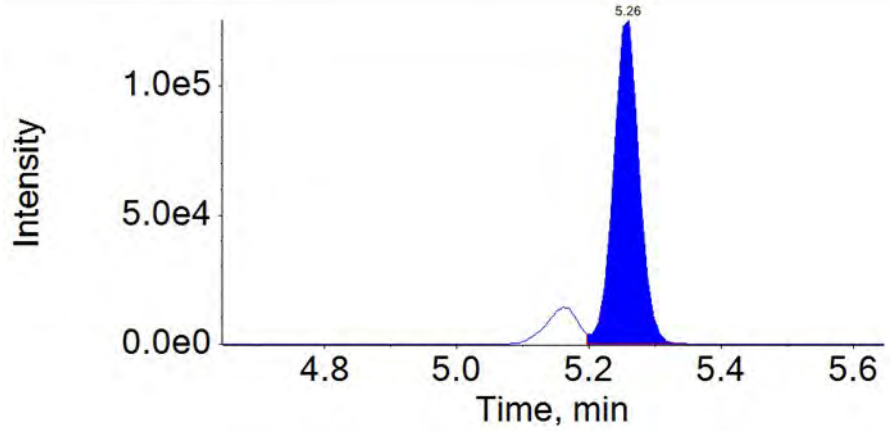
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
364661.03
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
341158.00
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



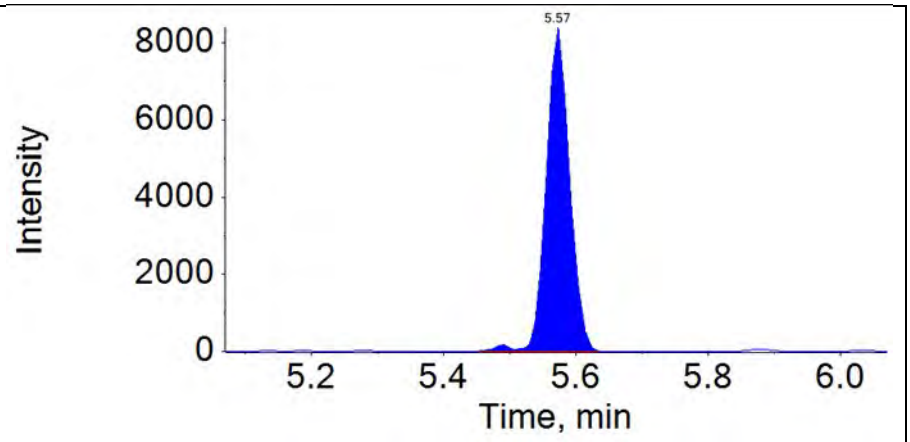
Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

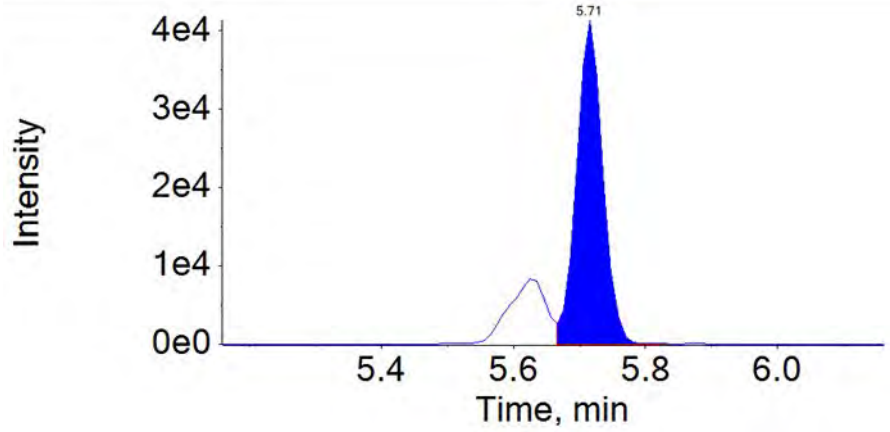
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
20732.67
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



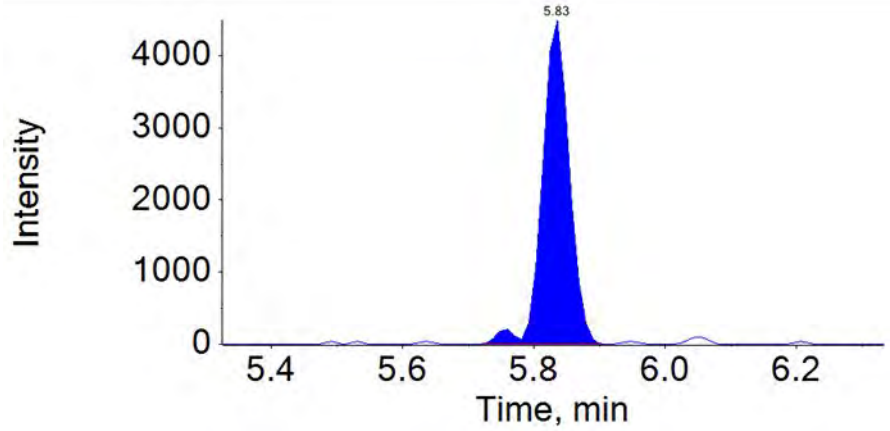
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
113720.56
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
5.83
Peak Area:
12880.94
Mass Range:
563.0 / 169.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

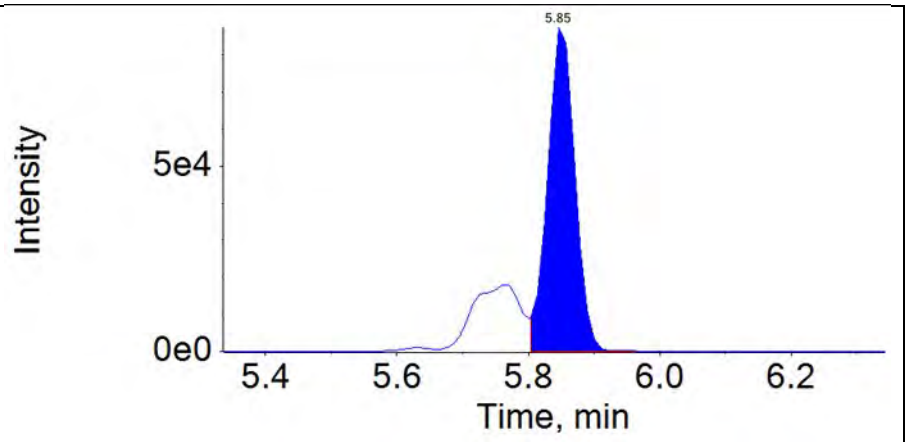
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
253789.74
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

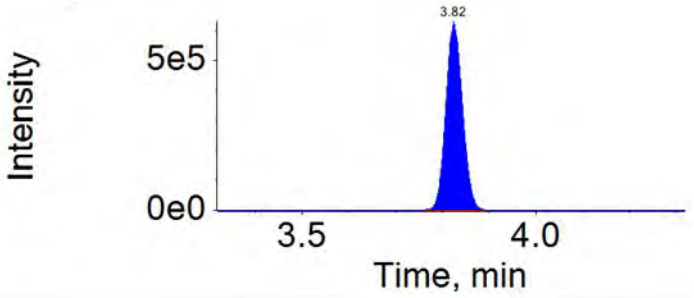
Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-10.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	1542881.65	A	0.3655	0.3660			
PFBS_2	3.82	1.00	564738.60	A	0.3655	0.3660	0	50	
4:2-FTS	4.14	1.00	498650.67	A	0.6383	0.6282			
4:2-FTS_2	4.14	1.00	313233.41	A	0.6383	0.6282	-2	50	
PFHxA	4.17	1.00	3464657.28	A	0.0103	0.0109			
PFHxA_2	4.17	1.00	37840.59	A	0.0103	0.0109	6	50	
PFPeS	4.19	1.10	809727.98	A	0.4976	0.4890			
PFPeS_2	4.19	1.10	395964.11	A	0.4976	0.4890	-2	50	
PFHpA	4.56	1.00	3592806.18	A	0.0557	0.0523			
PFHpA_2	4.56	1.00	187766.14	A	0.0557	0.0523	-6	50	
PFHxS	4.56	1.00	1191482.72	M	0.3693	0.3492			
PFHxS_2	4.56	1.00	416064.44	M	0.3693	0.3492	-5	50	
6:2-FTS	4.92	1.00	426727.66	A	0.6625	0.6532			
6:2-FTS_2	4.92	1.00	278752.30	A	0.6625	0.6532	-1	50	
PFHpS	4.92	1.08	1171216.60	A	0.3915	0.3965			
PFHpS_2	4.92	1.08	464342.40	A	0.3915	0.3965	1	50	
PFOA	4.93	1.00	3601538.31	A	0.0573	0.0569			
PFOA_2	4.93	1.00	205017.31	A	0.0573	0.0569	-1	50	
PFOS	5.26	1.00	1305020.45	M	0.2960	0.2984			
PFOS_2	5.26	1.00	389398.22	M	0.2960	0.2984	1	50	
PFNA	5.27	1.00	3536255.08	A	0.0201	0.0194			
PFNA_2	5.27	1.00	68777.91	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	909879.21	A	0.4794	0.4787			
PFNS_2	5.55	1.06	435583.86	A	0.4794	0.4787	0	50	
PFDA	5.57	1.00	3072749.00	A	0.0075	0.0067			
PFDA_2	5.57	1.00	20445.65	M	0.0075	0.0067	-11	50	
8:2-FTS	5.58	1.00	478390.07	A	0.5380	0.5702			
8:2-FTS_2	5.58	1.00	272796.88	A	0.5380	0.5702	6	50	
NMeFOSAA	5.71	1.00	557354.59	M	0.2305	0.2631			
NMeFOSAA_2	5.71	1.00	146652.83	M	0.2305	0.2631	14	50	
PFDS	5.81	1.10	737231.87	A	0.5356	0.4610			
PFDS_2	5.81	1.10	339890.15	A	0.5356	0.4610	-14	50	
PFUnDA	5.83	1.00	3163283.79	A	0.0038	0.0039			
PFUnDA_2	5.83	1.00	12485.39	M	0.0038	0.0039	4	50	
NEtFOSAA	5.85	1.00	512792.42	M	0.7356	0.6745			
NEtFOSAA_2	5.85	1.00	345864.54	M	0.7356	0.6745	-8	50	
PFDoDA	6.06	1.00	4161895.87	A	0.0130	0.0126			
PFDoDA_2	6.06	1.00	52575.90	A	0.0130	0.0126	-3	50	
10:2-FTS	6.08	1.09	480384.06	A	0.6989	0.7284			
10:2-FTS_2	6.08	1.09	349903.28	A	0.6989	0.7284	4	50	
PFTrDA	6.26	1.03	3743763.62	A	0.0090	0.0080			
PFTrDA_2	6.26	1.03	30122.74	A	0.0090	0.0080	-11	50	
PFTeDA	6.44	1.00	2897106.24	A	0.0056	0.0061			
PFTeDA_2	6.44	1.00	17720.47	A	0.0056	0.0061	9	50	
PFHxDA	6.74	1.05	1551331.12	A	0.0646	0.0623			
PFHxDA_2	6.74	1.05	96698.01	A	0.0646	0.0623	-3	50	
PFODA	7.00	1.09	1272897.40	A	0.0264	0.0256			
PFODA_2	7.00	1.09	32592.46	A	0.0264	0.0256	-3	50	

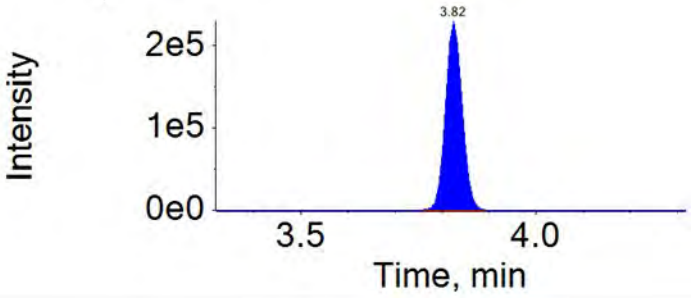
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

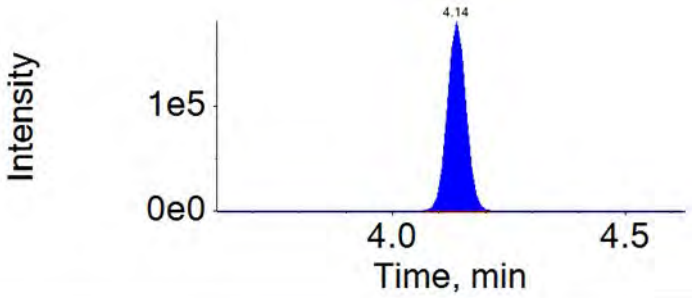
Component: PFBS
Primary Mass: 299.0 / 80.0



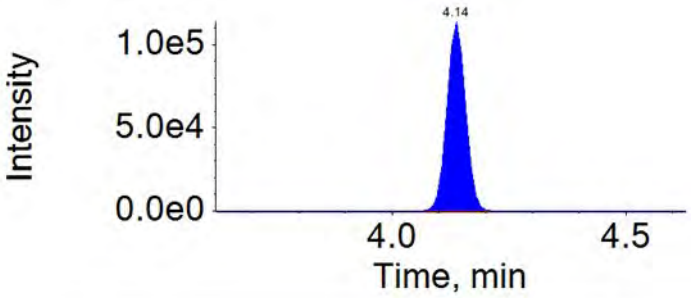
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



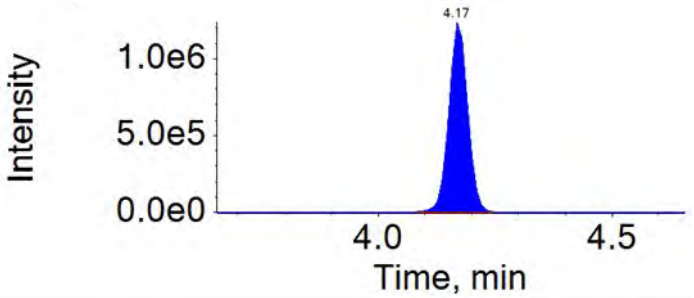
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



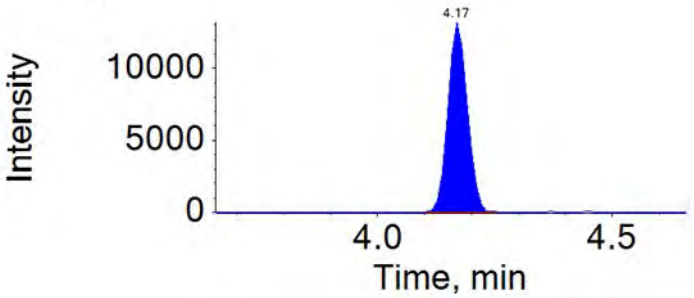
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



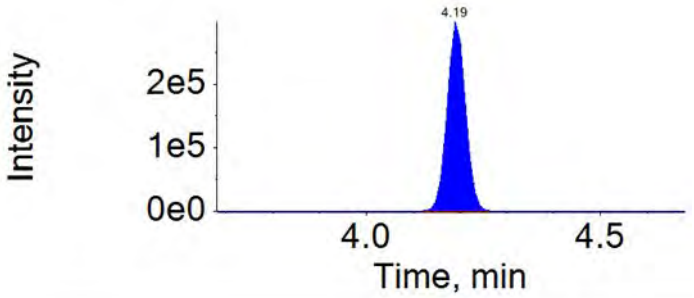
Component: PFHxA
Primary Mass: 313.0 / 269.0



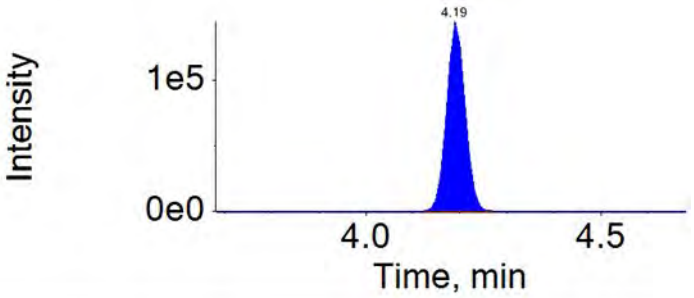
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



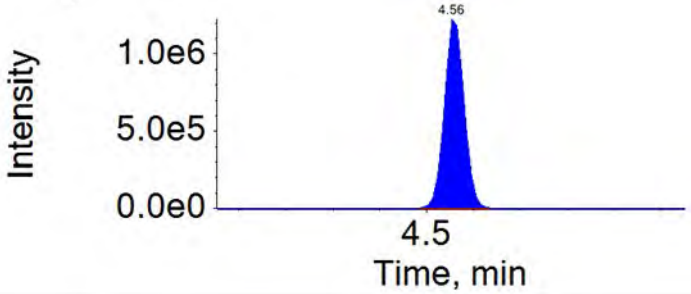
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



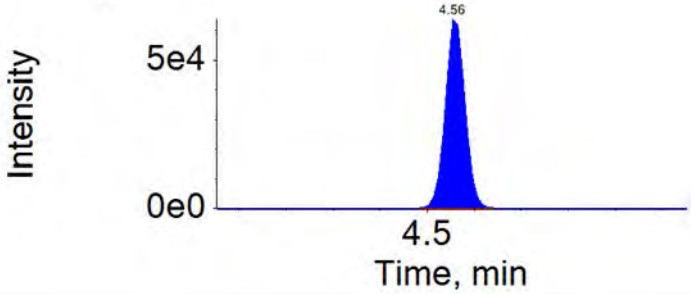
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

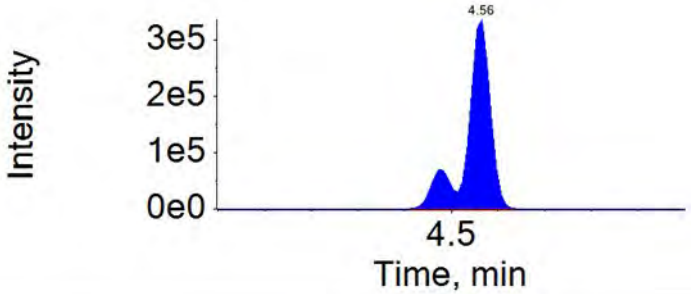
Component: PFHpA
Primary Mass: 363.0 / 319.0



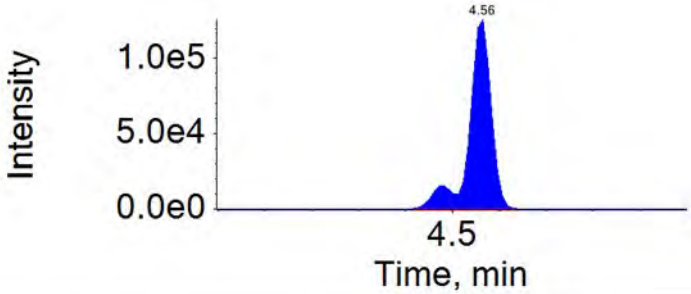
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



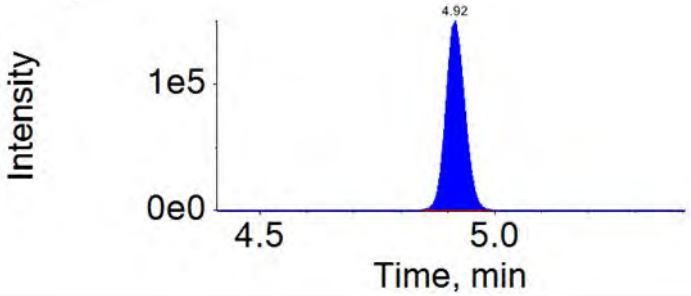
Component: PFHxS
Primary Mass: 399.0 / 80.0



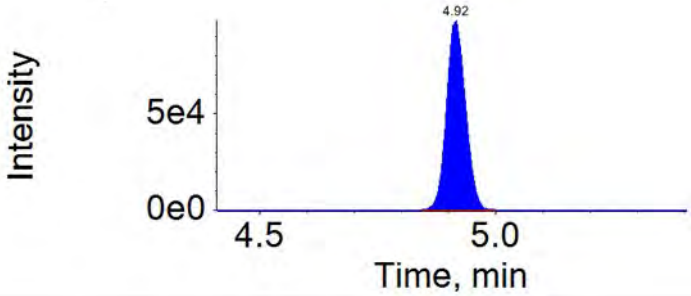
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



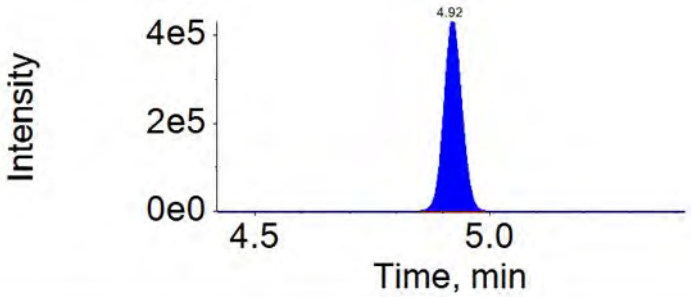
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



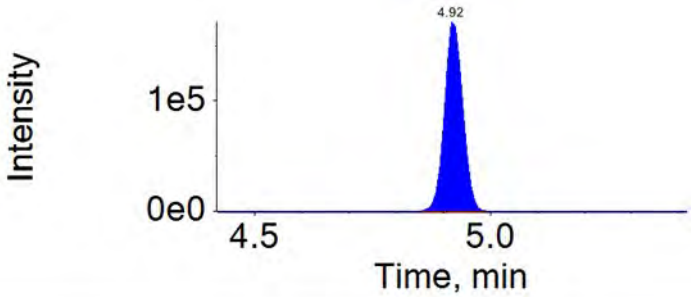
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



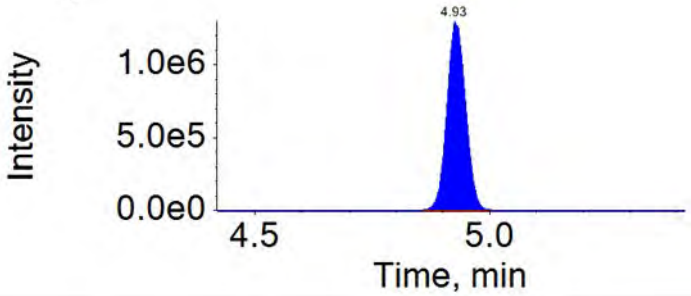
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



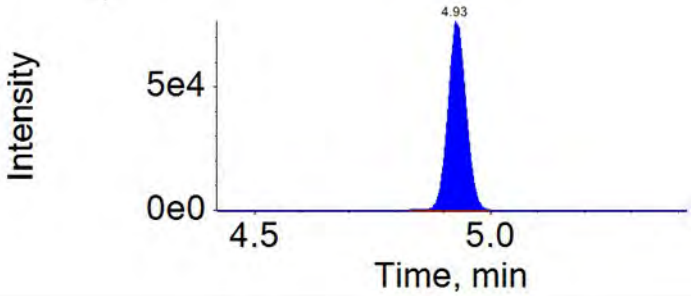
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

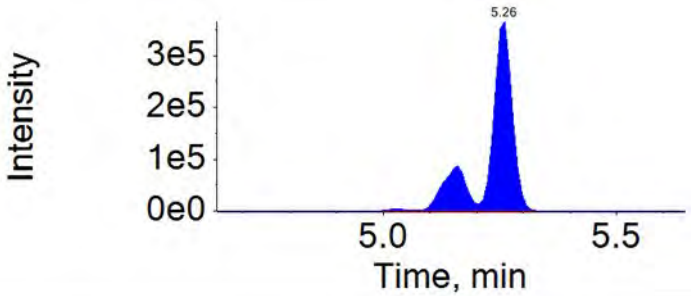
Component: PFOA
Primary Mass: 413.0 / 369.0



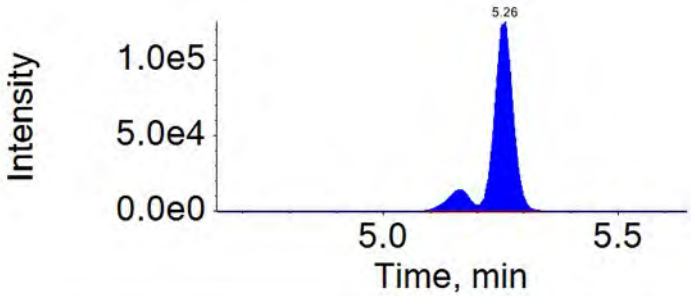
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



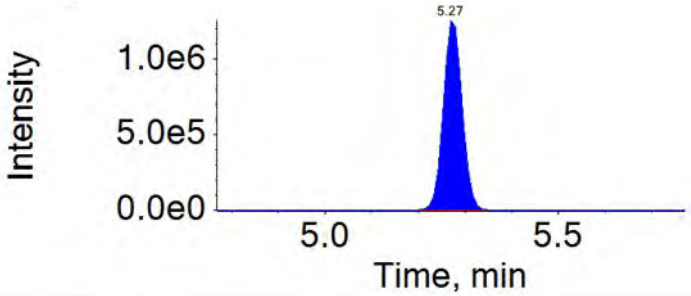
Component: PFOS
Primary Mass: 499.0 / 80.0



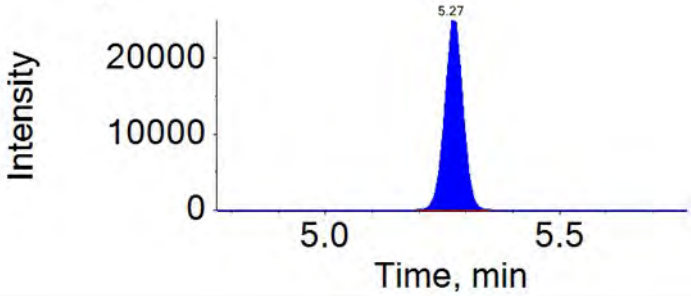
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



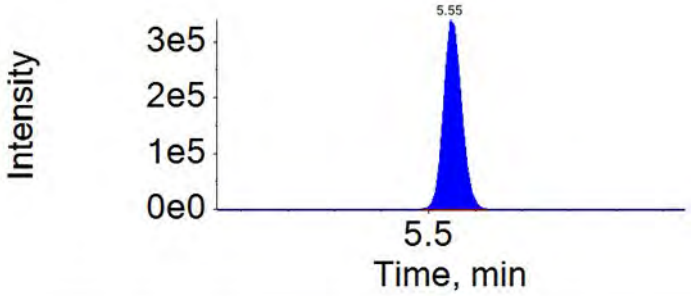
Component: PFNA
Primary Mass: 463.0 / 419.0



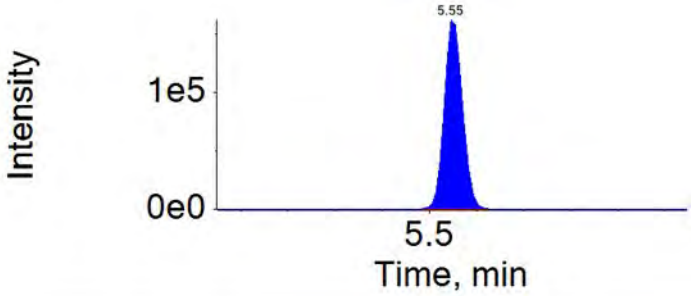
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



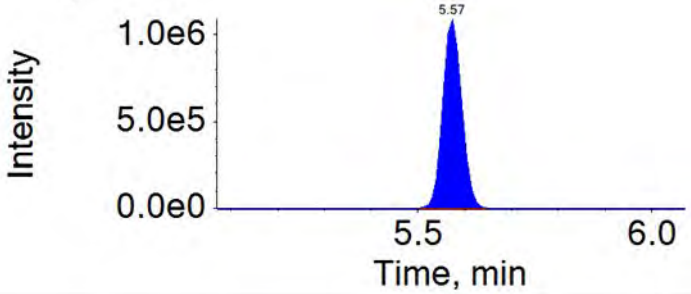
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



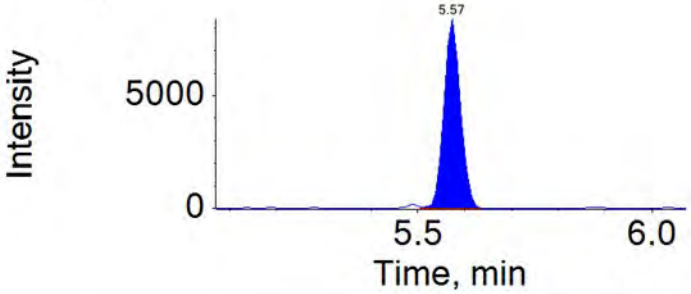
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

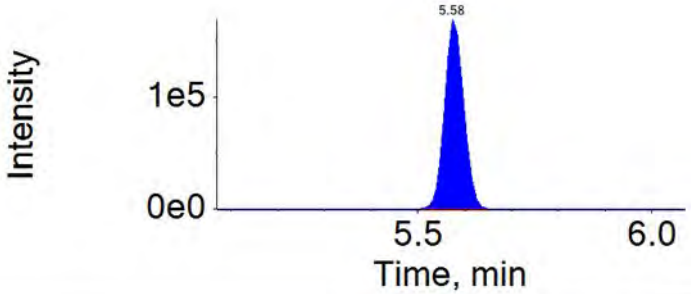
Component: PFDA
Primary Mass: 513.0 / 469.0



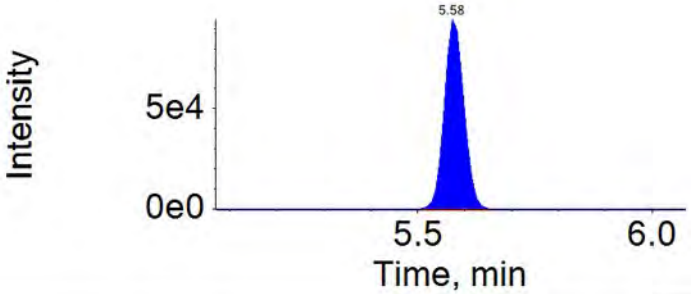
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



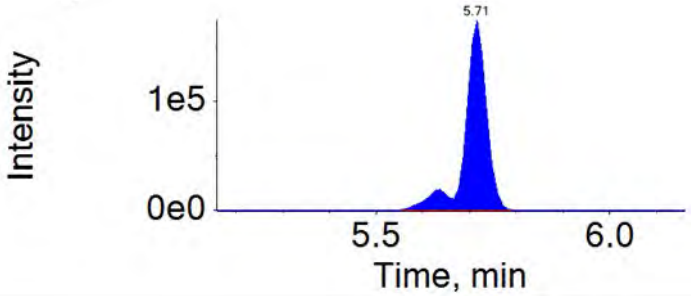
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



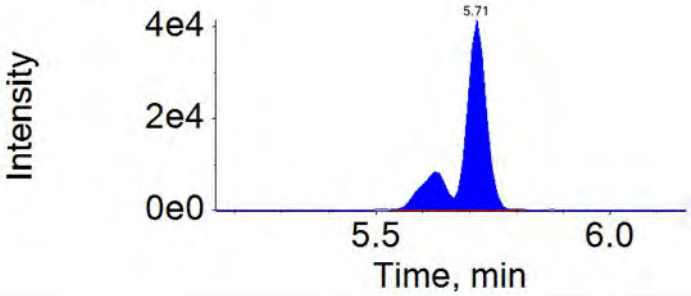
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



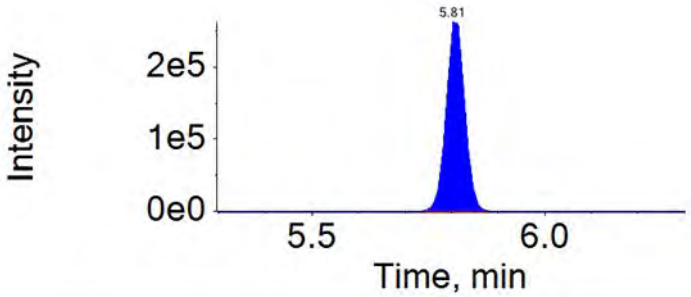
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



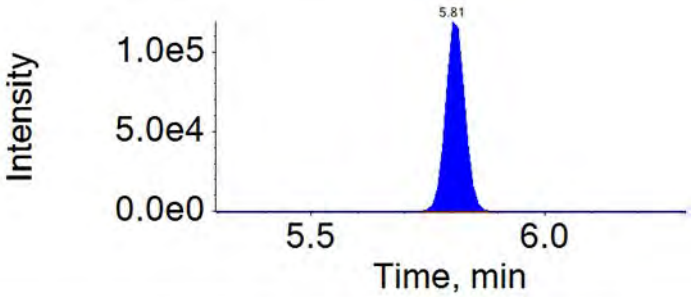
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



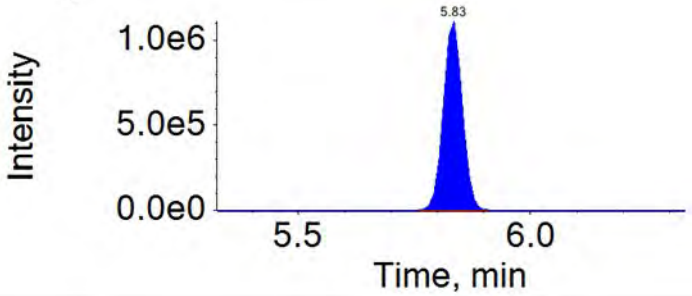
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



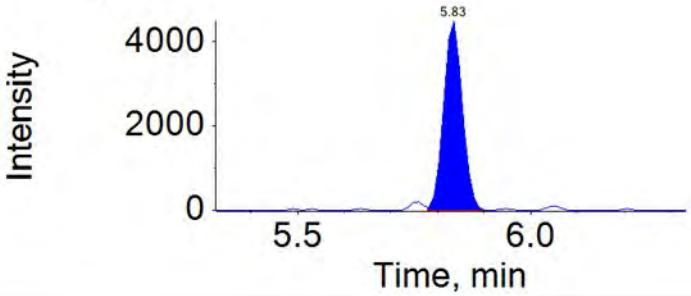
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

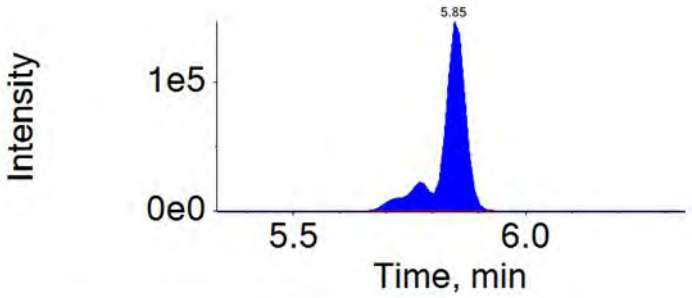
Component: PFUnDA
Primary Mass: 563.0 / 519.0



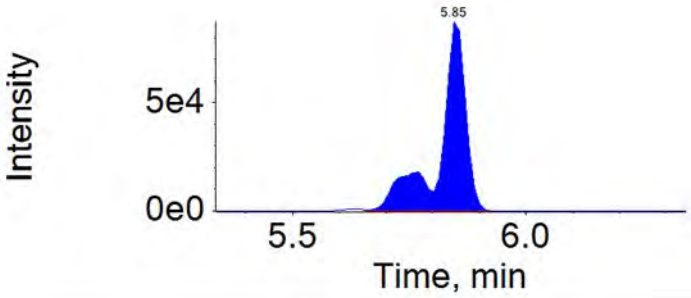
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



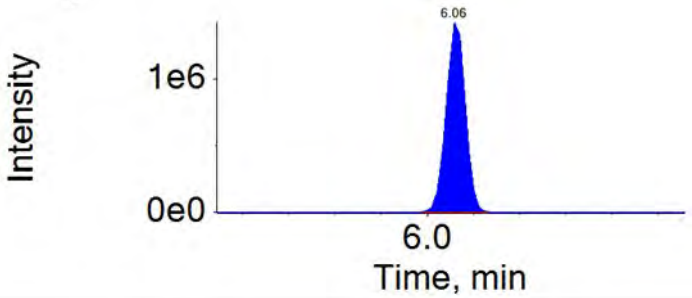
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



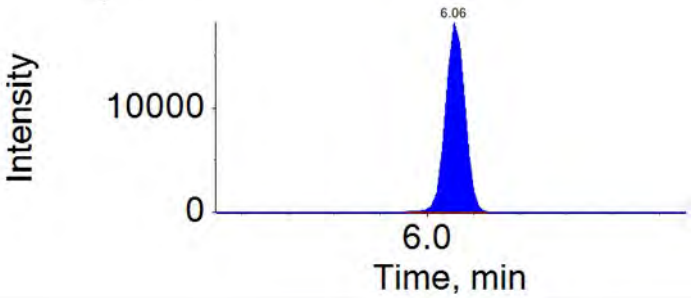
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



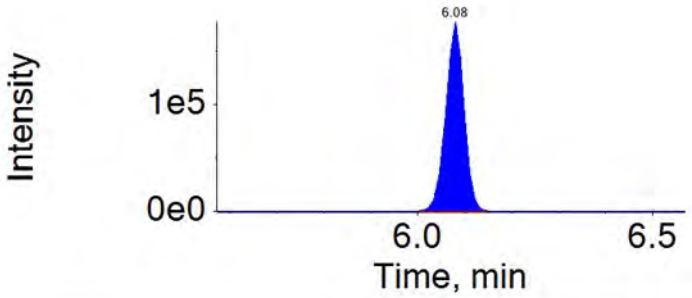
Component: PFDoDA
Primary Mass: 613.0 / 569.0



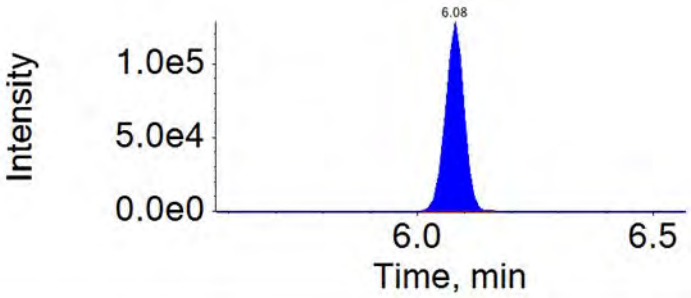
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



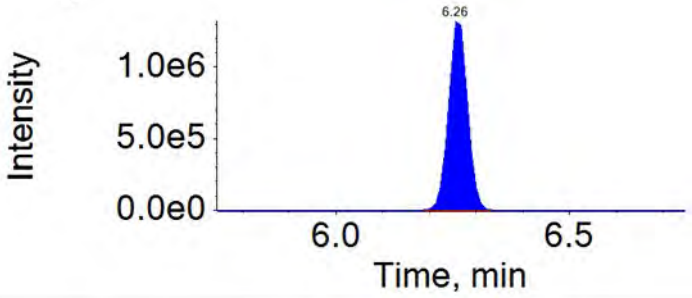
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



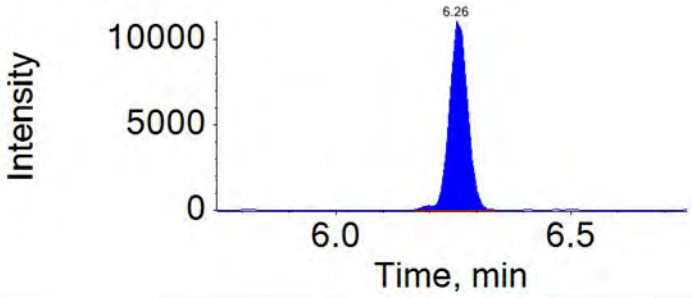
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



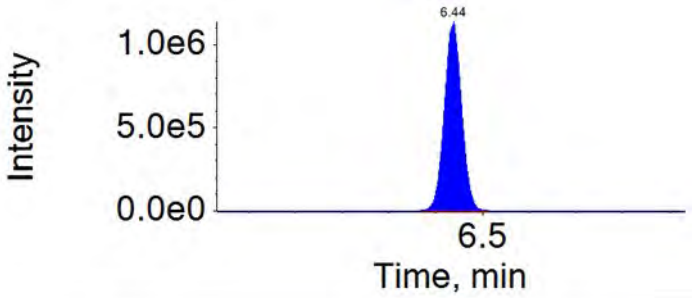
Component: PFTrDA
Primary Mass: 663.0 / 619.0



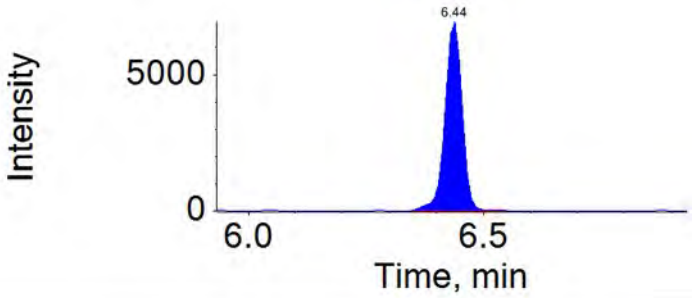
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



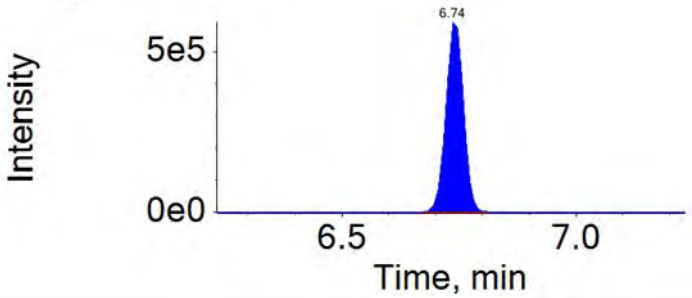
Component: PFTeDA
Primary Mass: 713.0 / 669.0



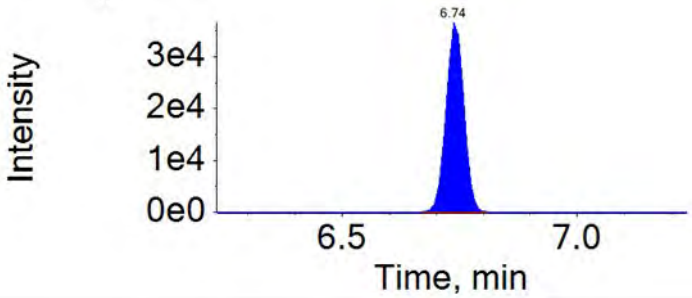
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



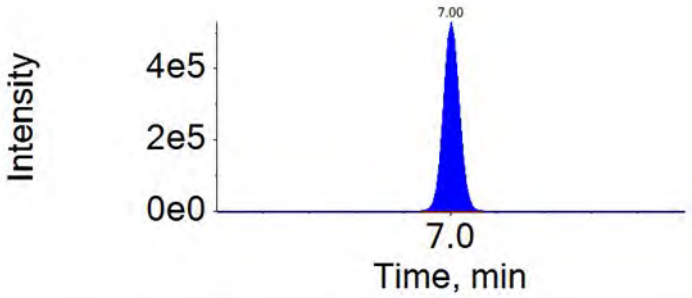
Component: PFHxDA
Primary Mass: 813.0 / 769.0



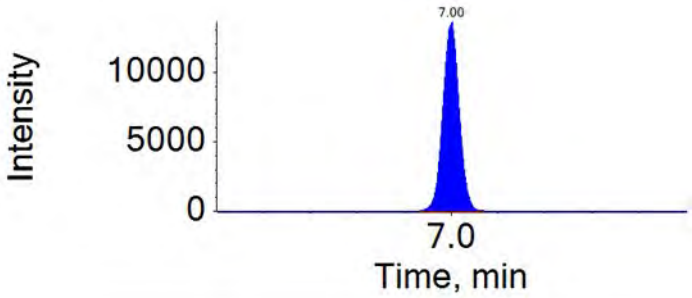
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL6			**Data File:**		18NOV28DCAL-11.wiff
Sample ID:	CALBRN61833B			**Acquis Date:**		2018-11-28T14:27:16
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	8			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	793955.0	887248.9	-11	50	
13C2-PFOA	5.0	499608.5	498501.6	0	50	
13C4-PFOS	4.8	264408.9	283214.2	-7	50	
13C2-PFDA	5.0	419913.2	441790.6	-5	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	897566.7	13C3-PFBA	793955.0	1.131	5.000	5.044	101	70-130	
E13C5-PFPeA	872922.6	13C3-PFBA	793955.0	1.099	5.000	5.134	103	70-130	
E13C3-PFBS	398441.3	13C3-PFBA	793955.0	0.502	4.650	4.788	103	70-130	
E13C2-4:2-FTS	65255.4	13C2-PFOA	499608.5	0.131	4.670	4.501	96	70-130	
E13C5-PFHxA	675219.8	13C2-PFOA	499608.5	1.351	5.000	4.964	99	70-130	
E13C3-PFHxS	279894.6	13C2-PFOA	499608.5	0.560	4.730	4.391	93	70-130	
E13C4-PFHpA	555281.5	13C2-PFOA	499608.5	1.111	5.000	5.107	102	70-130	
E13C2-6:2-FTS	48807.6	13C2-PFOA	499608.5	0.098	4.750	4.089	86	70-130	
E13C8-PFOA	843522.3	13C2-PFOA	499608.5	1.688	5.000	4.647	93	70-130	
E13C8-PFOS	279204.4	13C4-PFOS	264408.9	1.056	4.780	4.767	100	70-130	
E13C9-PFNA	624202.7	13C4-PFOS	264408.9	2.361	5.000	5.185	104	70-130	
E13C6-PFDA	758832.8	13C2-PFDA	419913.2	1.807	5.000	5.095	102	70-130	
E13C2-8:2-FTS	44487.5	13C2-PFDA	419913.2	0.106	4.790	4.553	95	70-130	
E13C8-PFOSA	565326.0	13C2-PFDA	419913.2	1.346	5.000	4.940	99	70-130	
Ed3-NMeFOSAA	161673.3	13C2-PFDA	419913.2	0.385	5.000	4.888	98	70-130	
E13C7-PFUnDA	474122.1	13C2-PFDA	419913.2	1.129	5.000	4.772	95	70-130	
Ed5-NEtFOSAA	117934.2	13C2-PFDA	419913.2	0.281	5.000	5.004	100	70-130	
E13C2-PFDoDA	980215.4	13C2-PFDA	419913.2	2.334	5.000	4.905	98	70-130	
Ed7-NMePFOSAE	248871.1	13C2-PFDA	419913.2	0.593	5.000	5.122	102	70-130	
Ed3-NMePFOSA	81949.3	13C2-PFDA	419913.2	0.195	5.000	5.282	106	70-130	
Ed9-NEtPFOSAE	222924.1	13C2-PFDA	419913.2	0.531	5.000	5.382	108	70-130	
Ed5-NEtPFOSA	59705.8	13C2-PFDA	419913.2	0.142	5.000	4.941	99	70-130	
E13C2-PFTeDA	789168.4	13C2-PFDA	419913.2	1.879	5.000	5.200	104	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

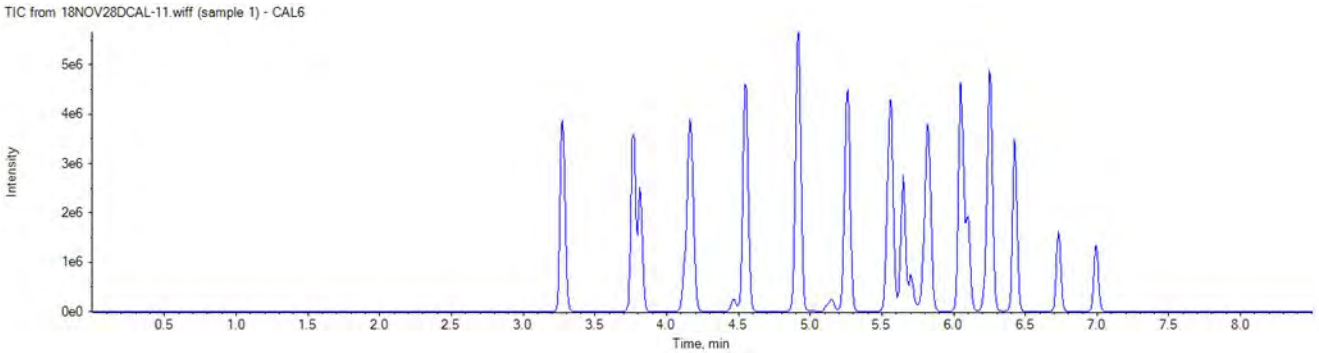
Analyte Quantitation Peak Table

Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-11.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	7996964.8		A	13C4-PFBA	3.27	897566.7	8.910	48.841
PFPeA	3.77	1.000	7873655.4		A	13C5-PFPeA	3.77	872922.6	9.020	44.258
PFBS	3.82	1.000	3600470.8		A	13C3-PFBS	3.82	398441.3	9.036	43.864
4:2-FTS	4.13	1.000	1148569.2		A	13C2-4:2-FTS	4.13	65255.4	17.601	47.117
PFHxA	4.16	1.000	7468739.1		A	13C5-PFHxA	4.16	675219.8	11.061	44.400
PFPeS	4.18	1.100	1793808.0		A	13C3-PFBS	3.82	398441.3	4.502	45.538
PFHpA	4.55	1.000	7873271.2		A	13C4-PFHpA	4.55	555281.5	14.179	43.759
PFHxS	4.55	1.000	2625950.9		M	13C3-PFHxS	4.55	279894.6	9.382	43.929
6:2-FTS	4.90	1.000	859948.6		A	13C2-6:2-FTS	4.91	48807.6	17.619	45.972
PFHpS	4.91	1.080	2686833.3		A	13C3-PFHxS	4.55	279894.6	9.599	47.909
PFOA	4.92	1.000	8012665.3		A	13C8-PFOA	4.92	843522.3	9.499	49.084
PFOS	5.25	1.000	3026664.5		M	13C8-PFOS	5.25	279204.4	10.840	45.472
PFNA	5.26	1.000	7843086.9		A	13C9-PFNA	5.26	624202.7	12.565	48.151
PFNS	5.54	1.060	2116661.5		A	13C8-PFOS	5.25	279204.4	7.581	47.867
PFDA	5.56	1.000	6551370.5		A	13C6-PFDA	5.56	758832.8	8.633	48.868
8:2-FTS	5.57	1.000	938590.1		A	13C2-8:2-FTS	5.57	44487.5	21.098	39.786
PFOSA	5.65	1.000	5541493.1		A	13C8-PFOSA	5.65	565326.0	9.802	49.655
NMeFOSAA	5.70	1.000	1292829.8		A	d3-NMeFOSAA	5.70	161673.3	7.997	51.010
PFDS	5.80	1.100	1665920.2		A	13C8-PFOS	5.25	279204.4	5.967	47.309
PFUnDA	5.82	1.000	6885622.6		A	13C7-PFUnDA	5.82	474122.1	14.523	51.912
NEtFOSAA	5.84	1.000	1214766.4		M	d5-NEtFOSAA	5.83	117934.2	10.300	50.166
PFDoDA	6.05	1.000	8865844.7		A	13C2-PFDoDA	6.05	980215.4	9.045	49.545
10:2-FTS	6.07	1.090	972346.9		A	13C2-8:2-FTS	5.57	44487.5	21.857	48.197
NMePFOSAE	6.10	1.000	3059430.5		A	d7-NMePFOSAE	6.09	248871.1	12.293	51.733
NMePFOSA	6.11	1.000	768521.6		A	d3-NMePFOSA	6.10	81949.3	9.378	49.716
PFDoS	6.22	1.190	900508.4		A	13C8-PFOS	5.25	279204.4	3.225	46.320
NEtPFOSAE	6.26	1.000	3104174.6		A	d9-NEtPFOSAE	6.24	222924.1	13.925	50.088
NEtPFOSA	6.27	1.000	698744.6		A	d5-NEtPFOSA	6.26	59705.8	11.703	52.452
PFTrDA	6.25	1.030	7958673.4		A	13C2-PFDoDA	6.05	980215.4	8.119	48.938
PFTeDA	6.43	1.000	6793735.3		A	13C2-PFTeDA	6.43	789168.4	8.609	48.777
PFHxDA	6.73	1.050	3402004.5		A	13C2-PFTeDA	6.43	789168.4	4.311	49.281
PFODA	6.99	1.090	2942000.1		A	13C2-PFTeDA	6.43	789168.4	3.728	49.663

Total Ion Chromatogram

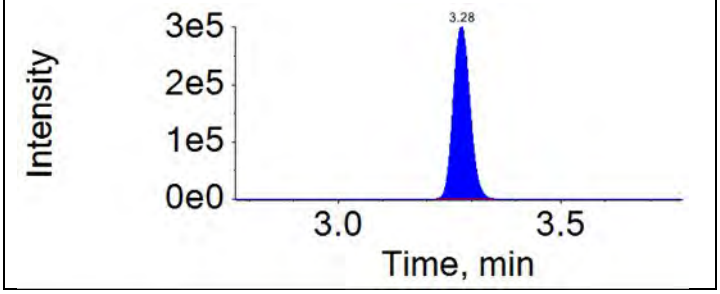


APPROVED
By MCD at 5:00 pm, 11/28/18

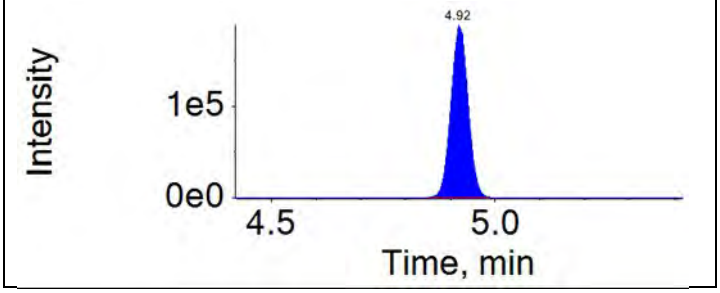
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

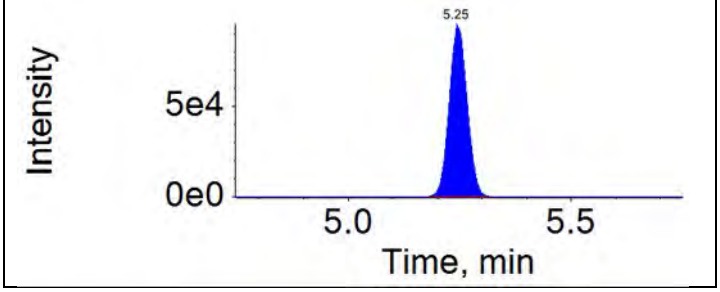
Injection Standard: 13C3-PFBA
216.0 / 172.0



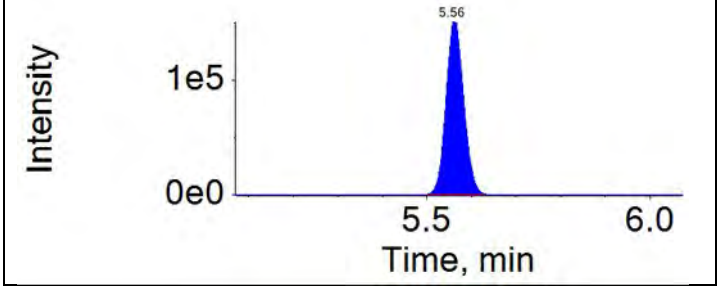
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



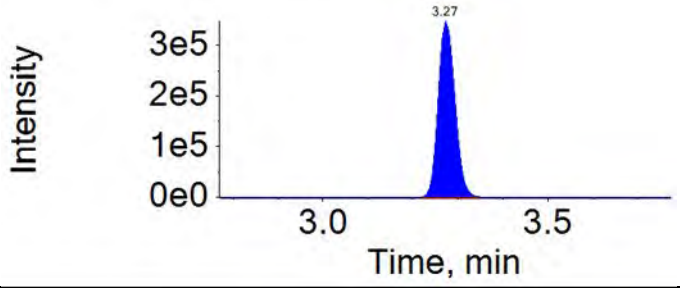
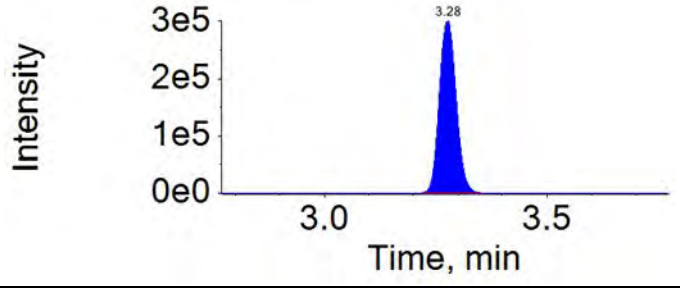
Injection Standard: 13C2-PFDA
515.0 / 470.0

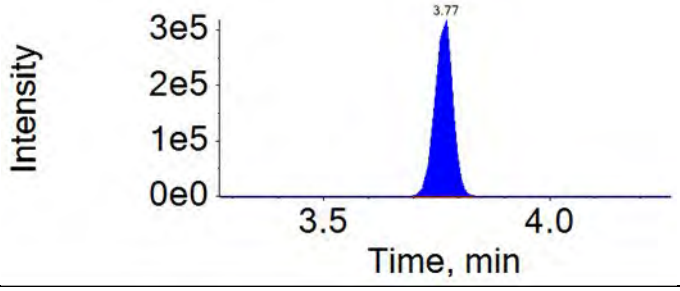
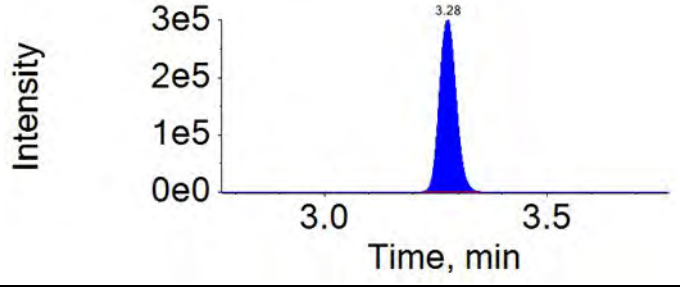


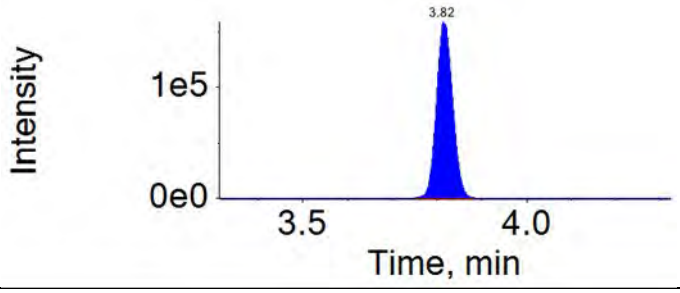
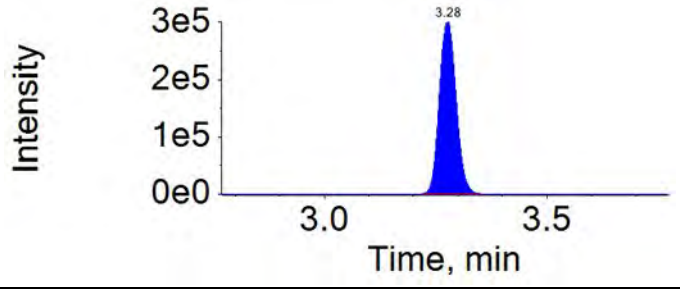
APPROVED
By MCD at 5:00 pm, 11/28/18

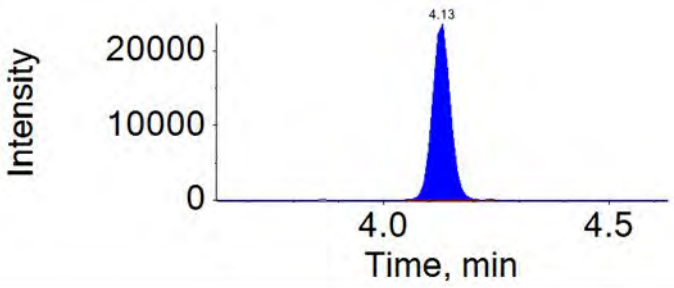
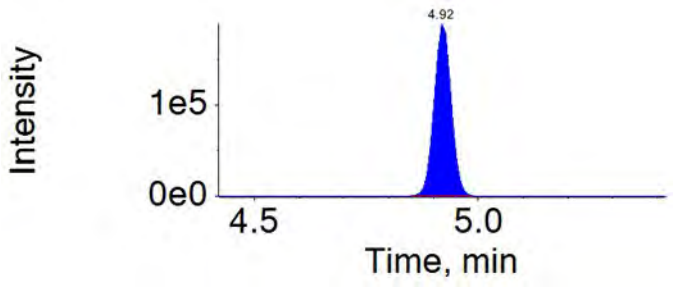
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

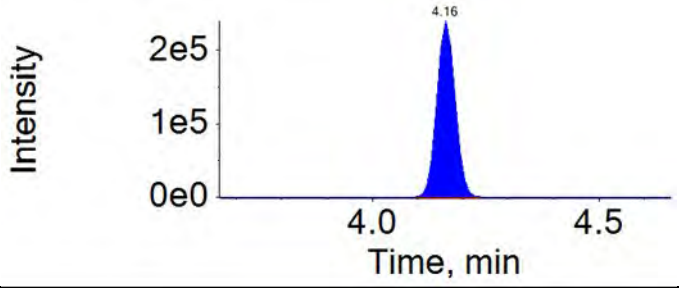
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

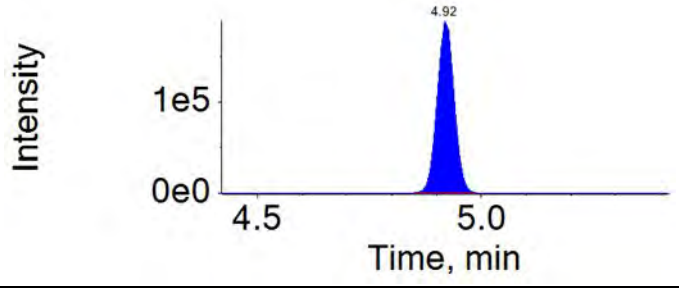
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

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

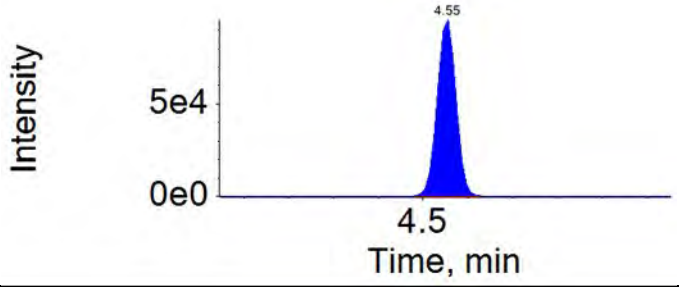
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

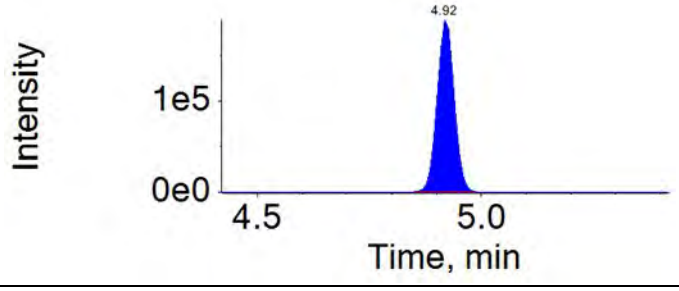
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



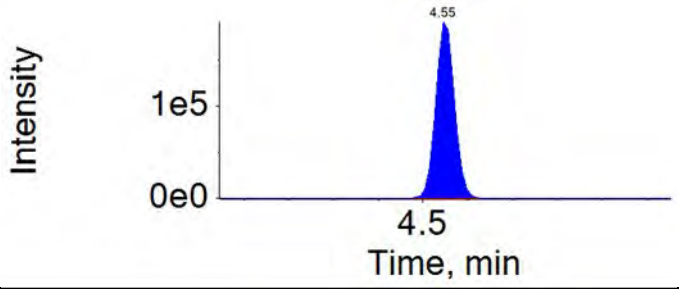


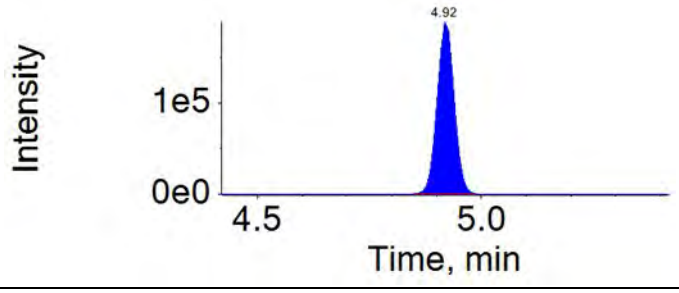
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



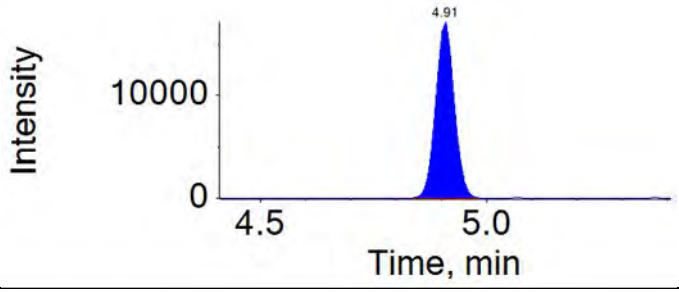


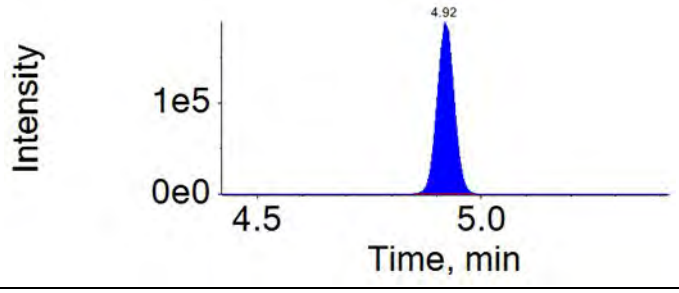
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



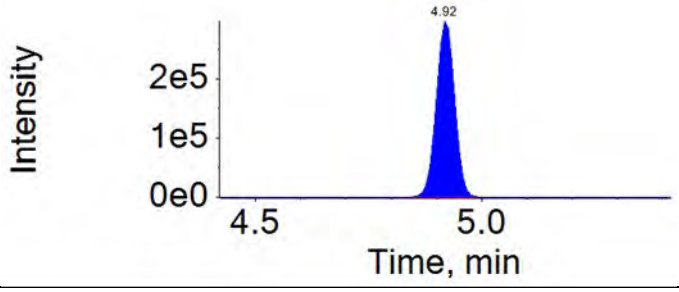


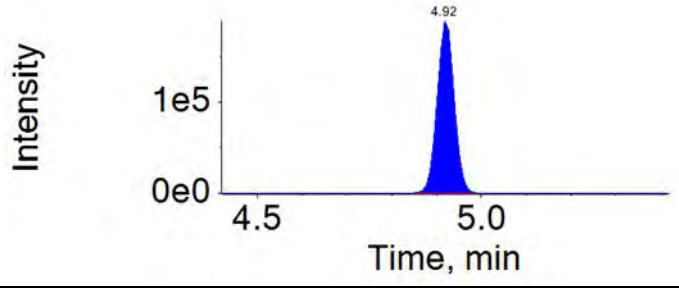
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

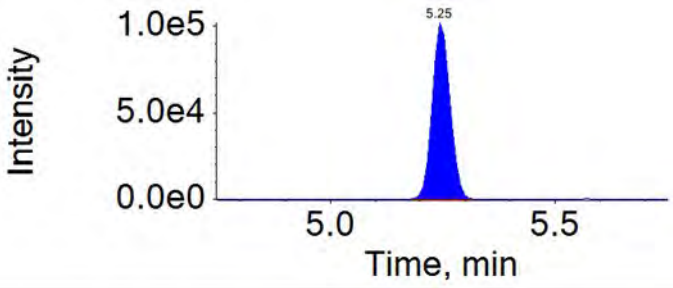
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

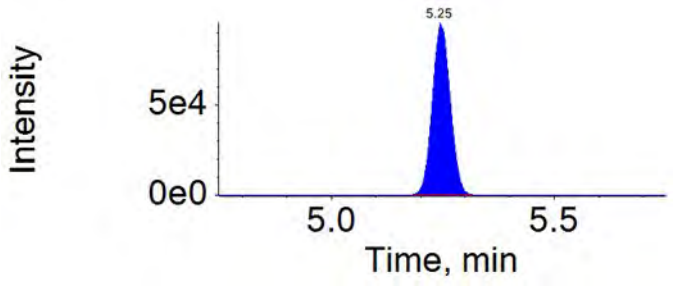
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



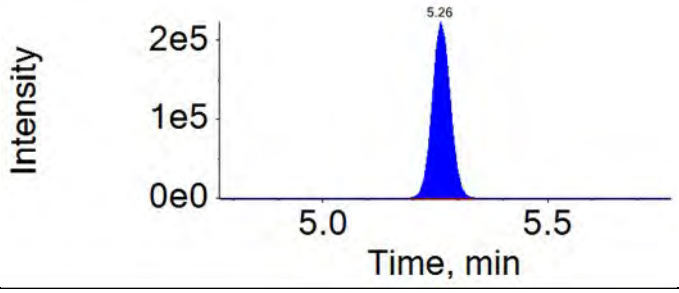


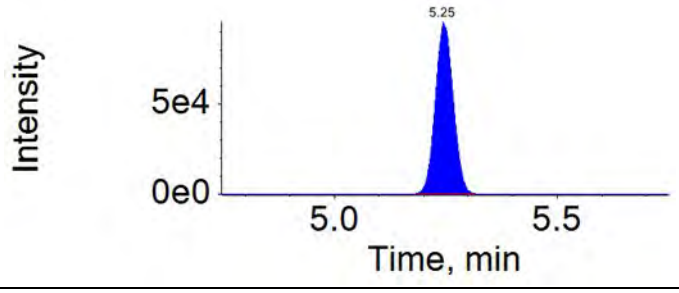
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



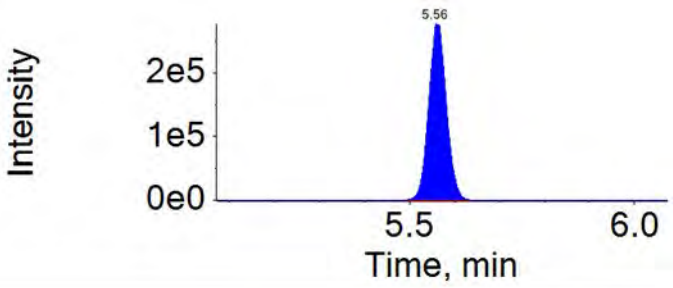


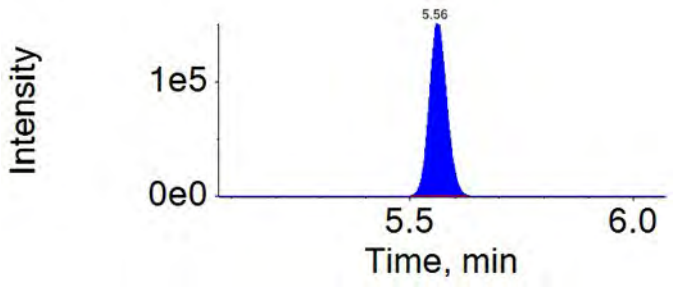
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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

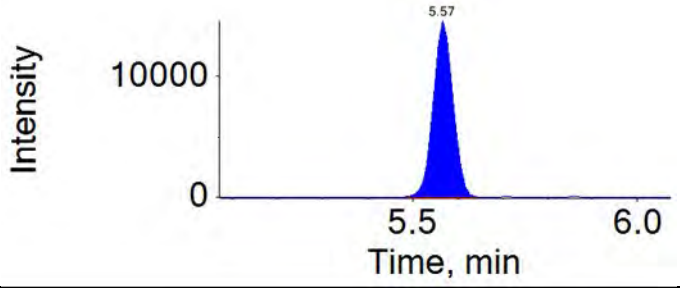
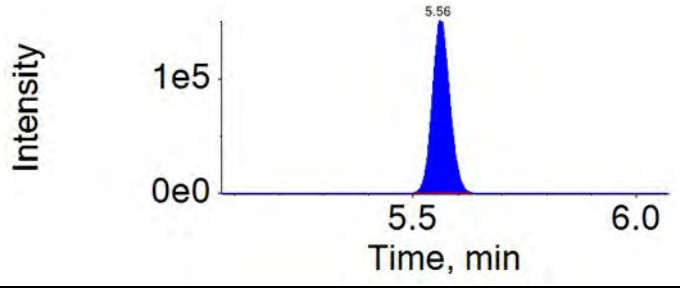


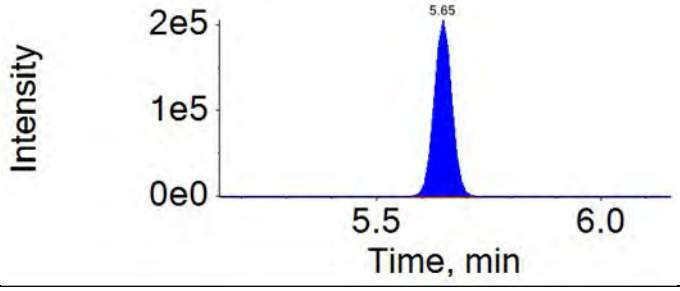
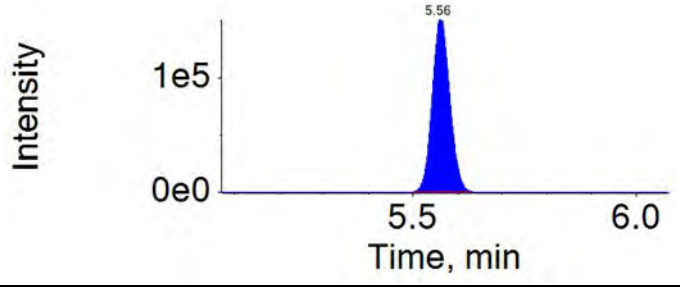


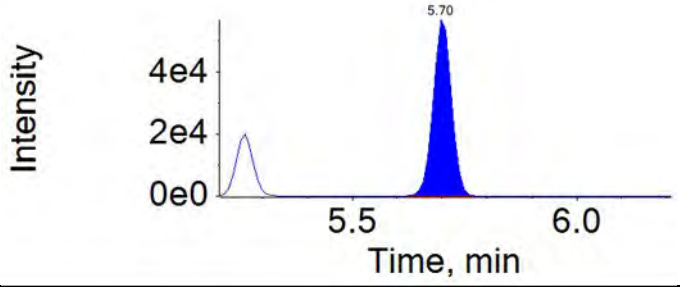
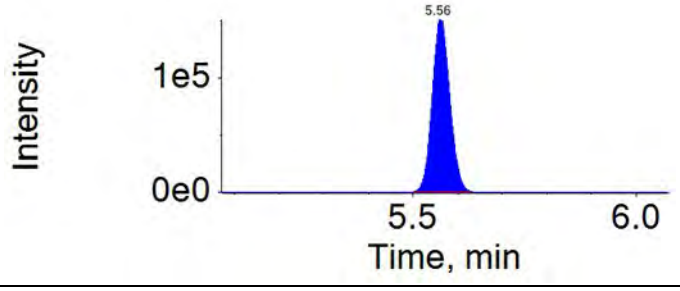
APPROVED
By MCD at 5:00 pm, 11/28/18

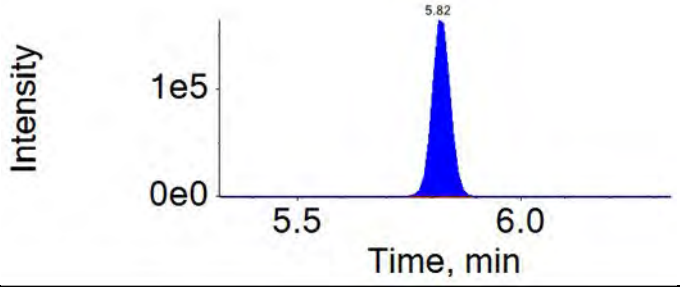
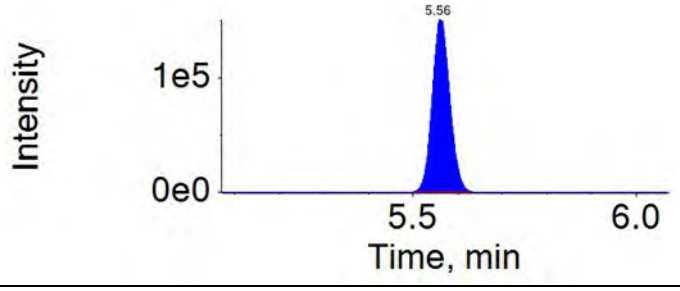
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

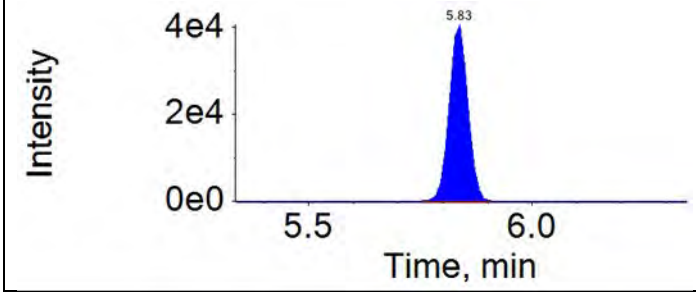
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

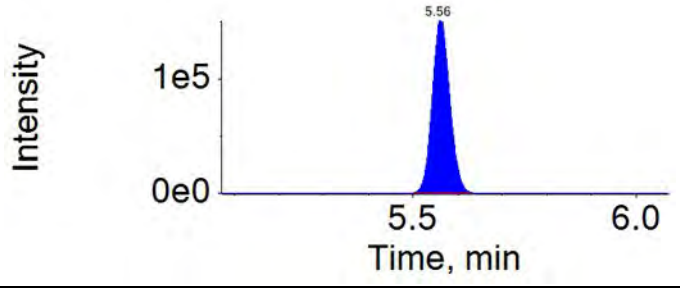
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

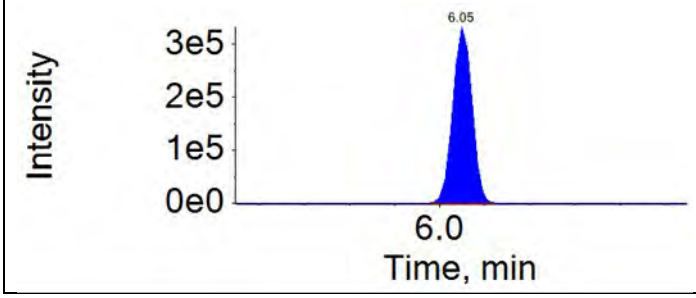
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

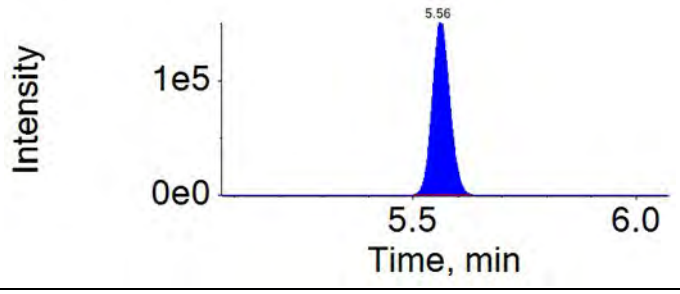
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



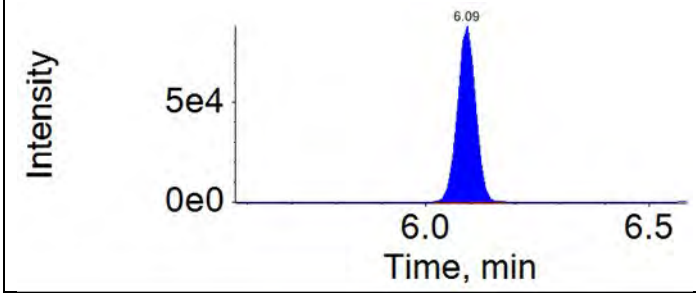


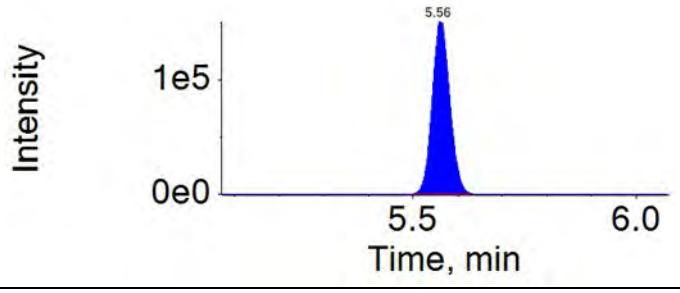
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



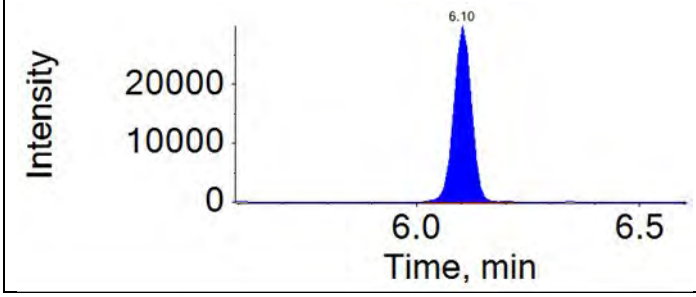


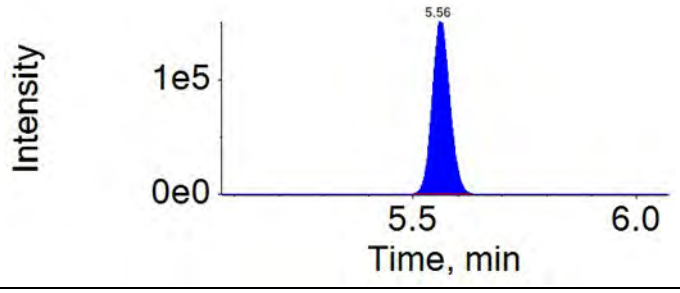
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



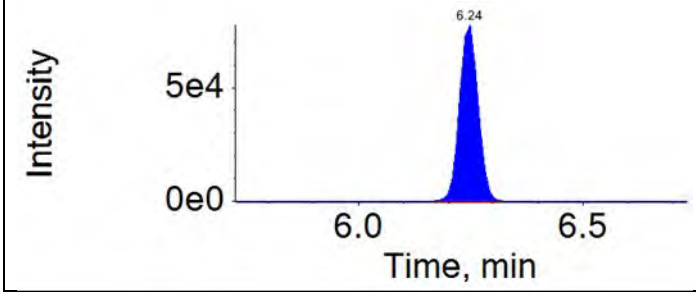


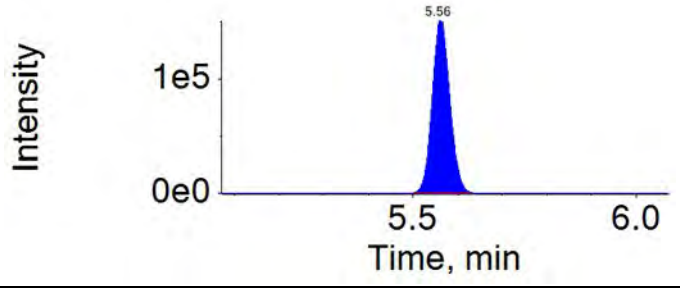
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

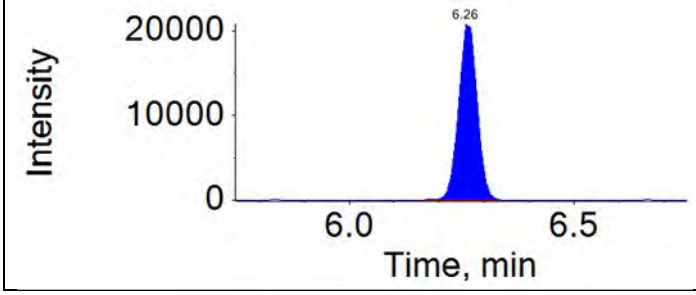
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

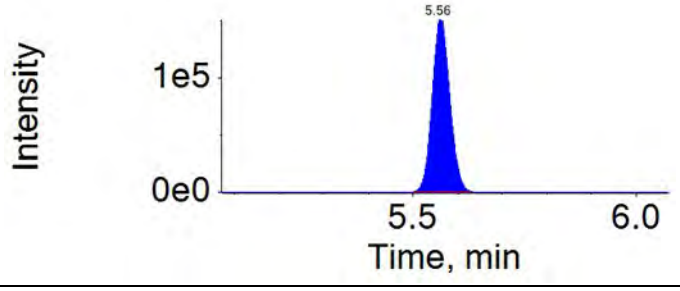
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



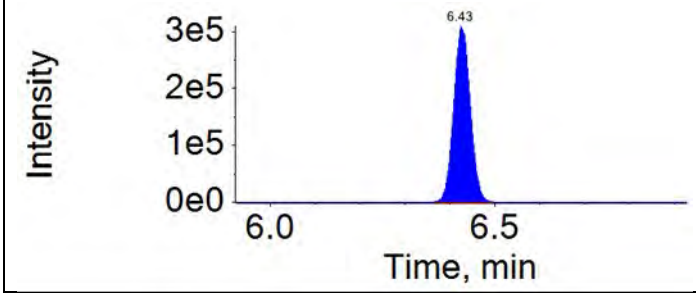


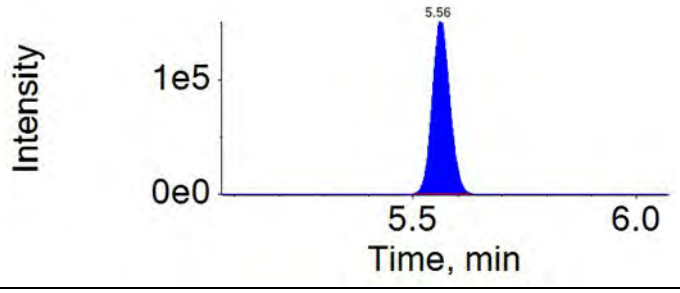
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



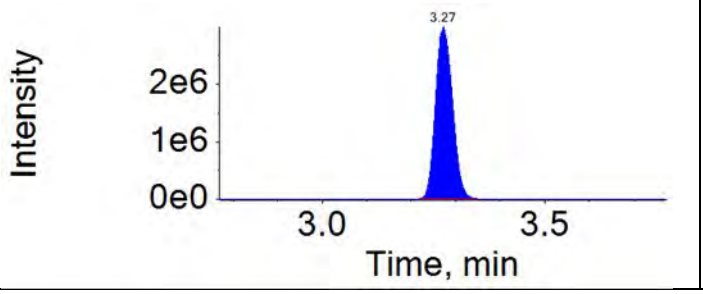


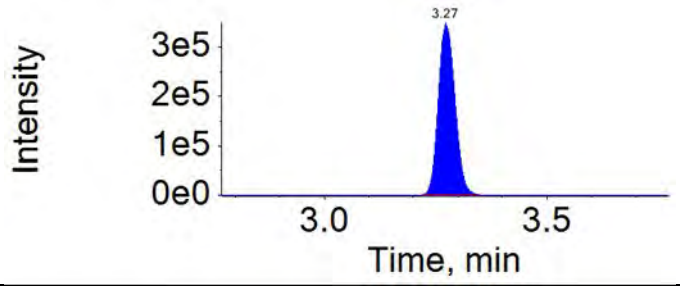
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

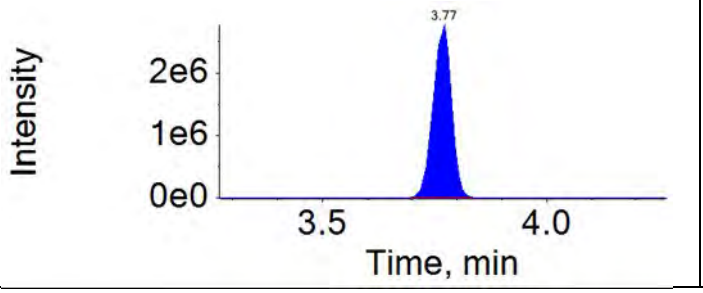
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

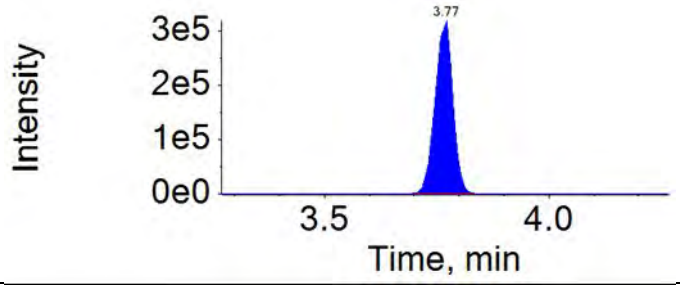
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



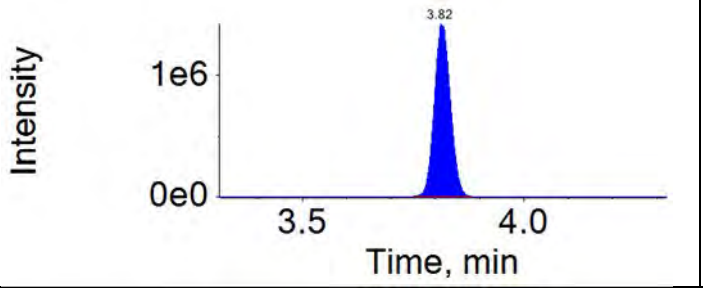


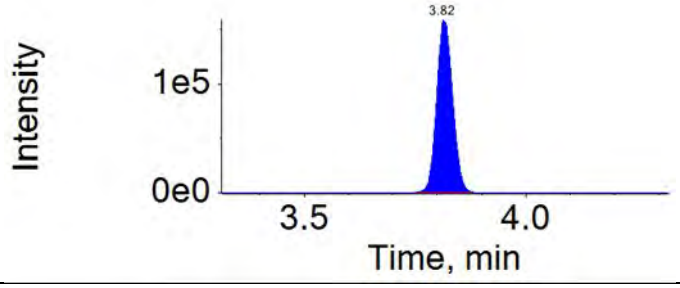
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



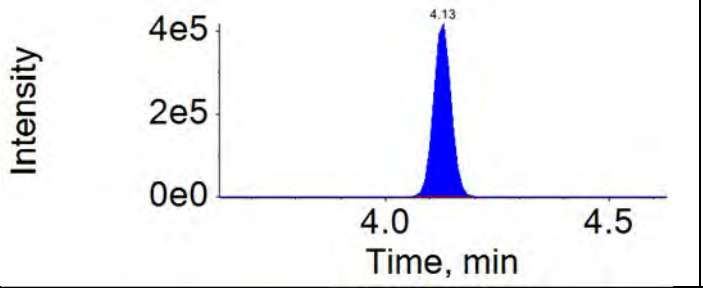


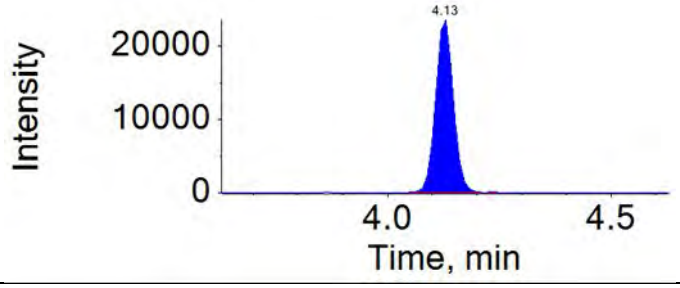
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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





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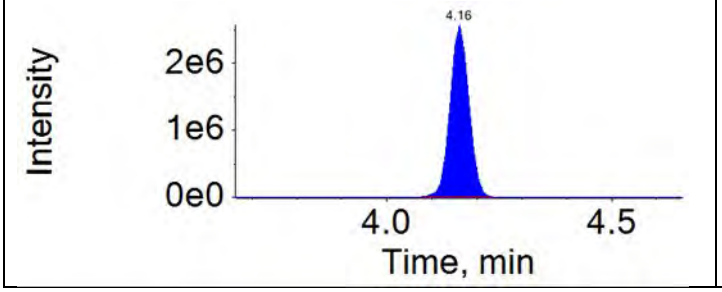
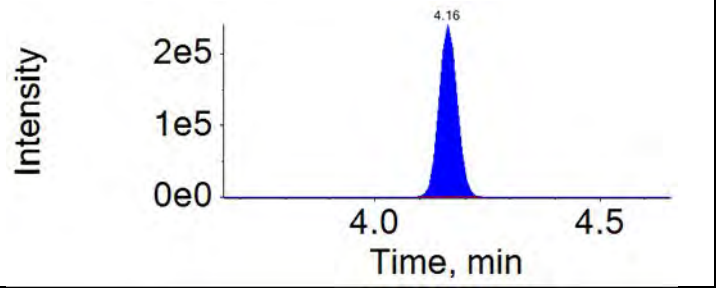
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

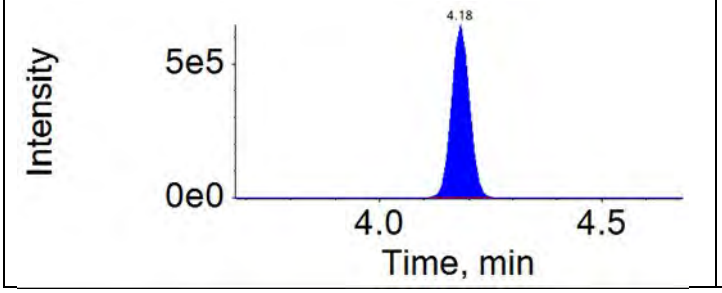
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

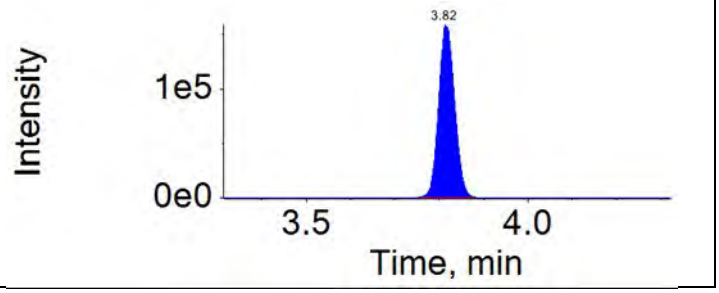
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



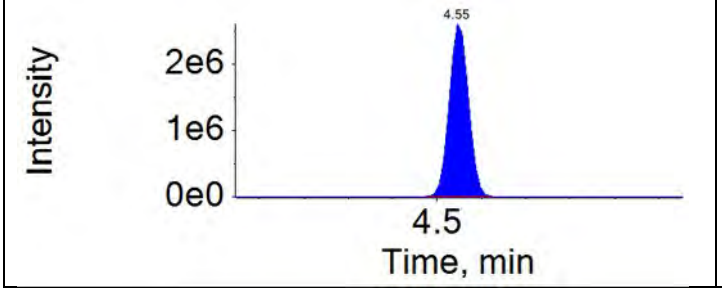


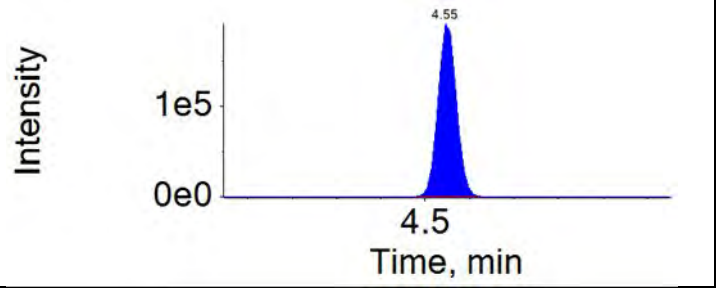
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



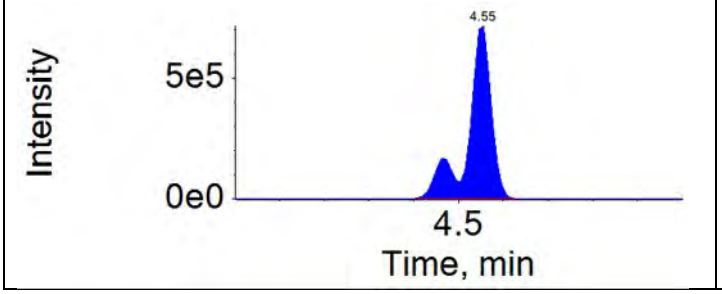


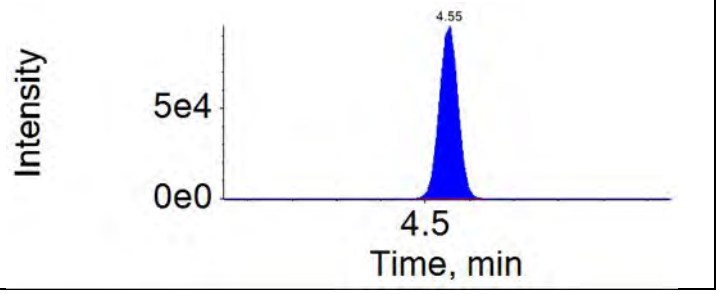
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

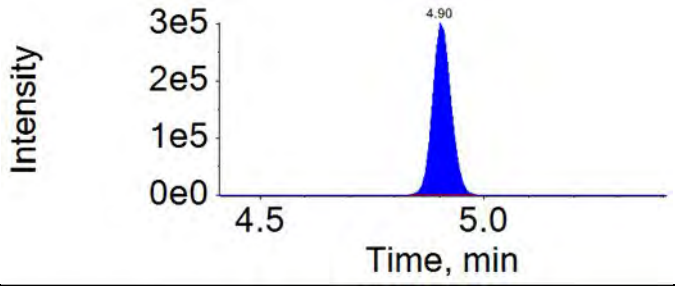
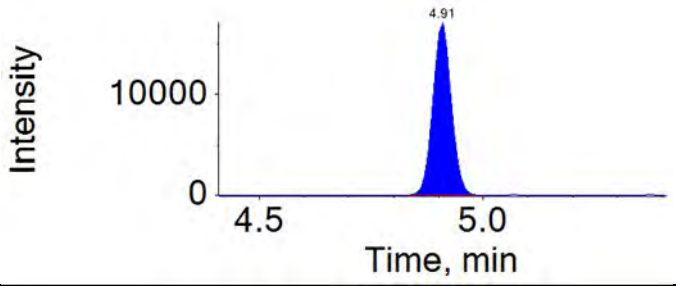


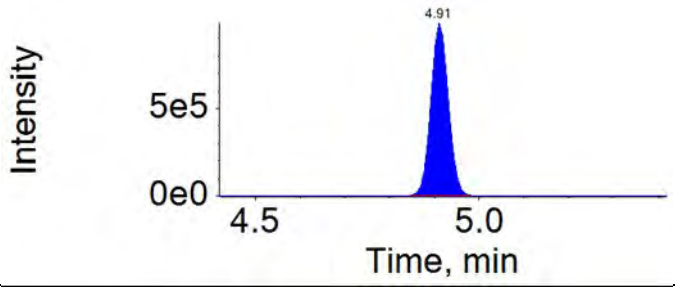
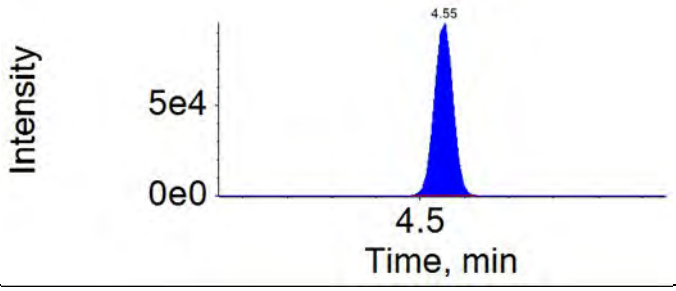


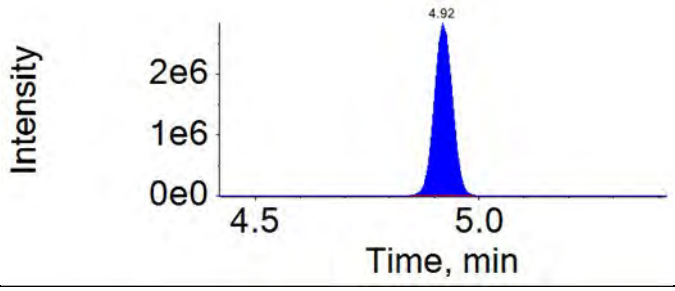
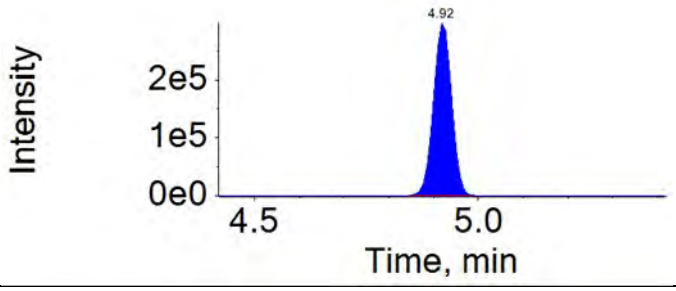
APPROVED
By MCD at 5:00 pm, 11/28/18

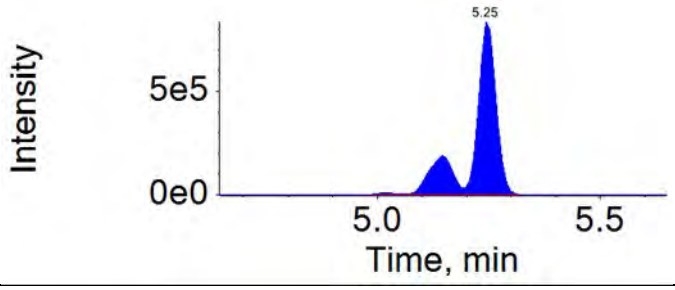
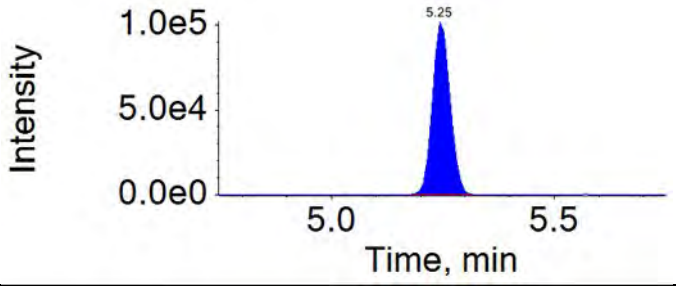
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

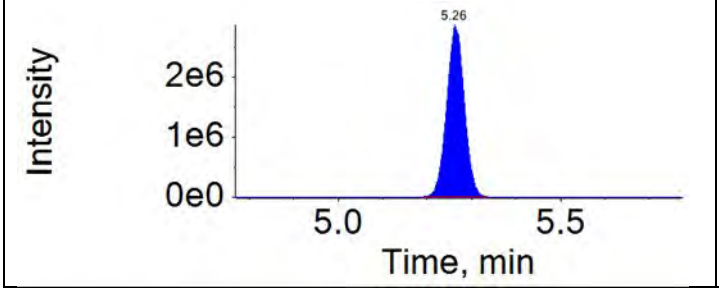
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

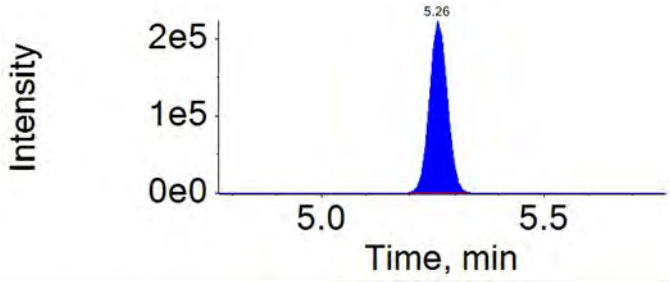
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

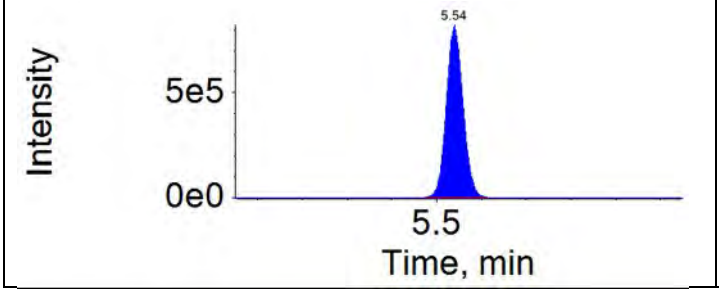
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

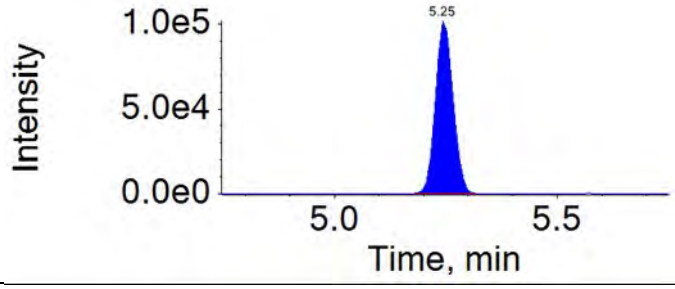
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



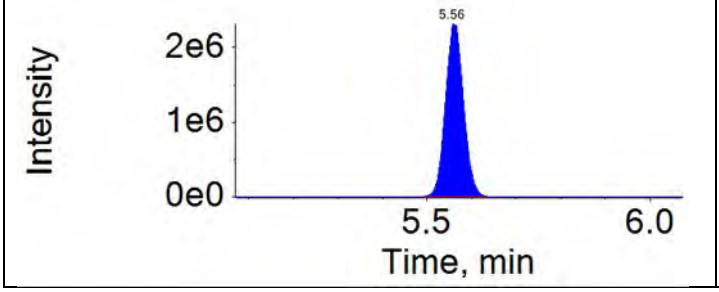


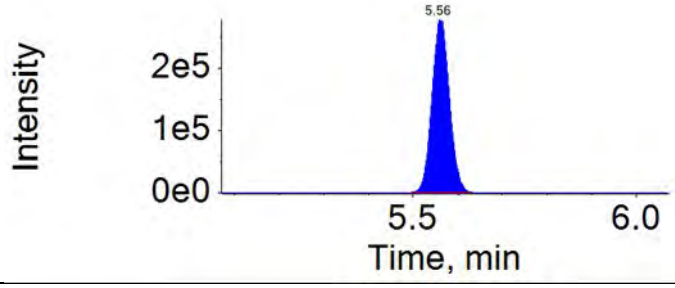
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



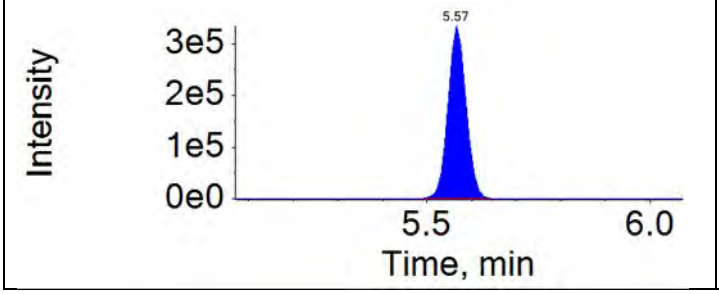


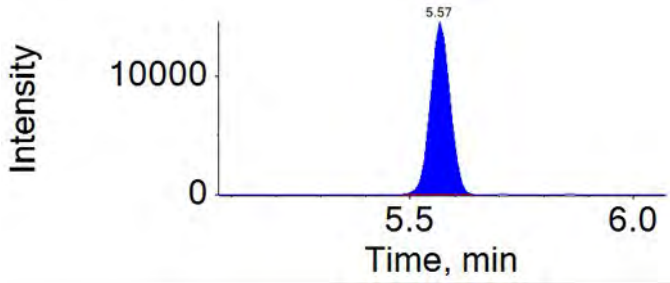
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



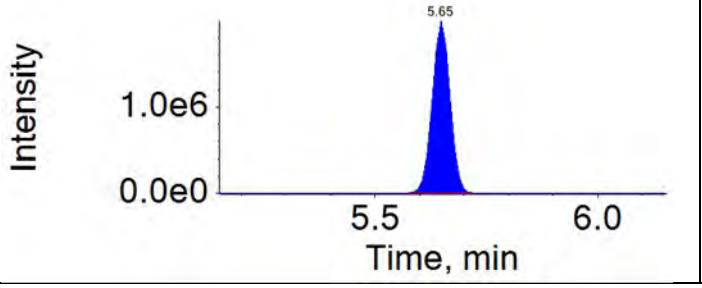


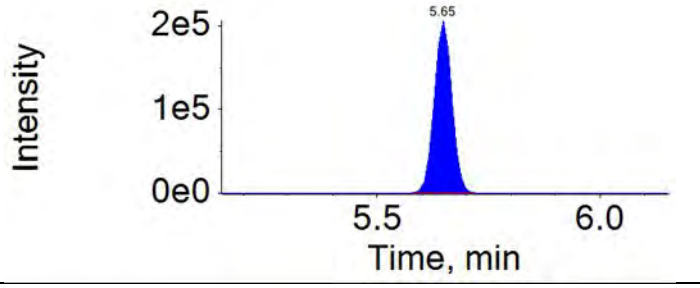
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

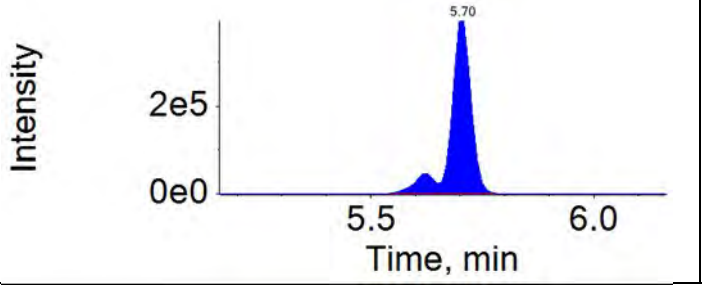
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

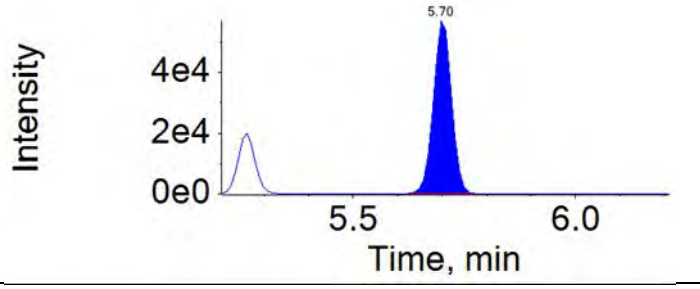
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



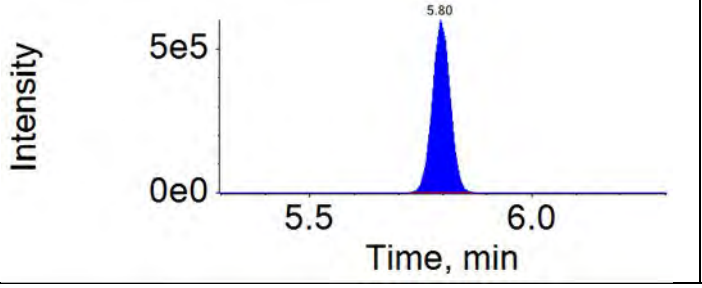


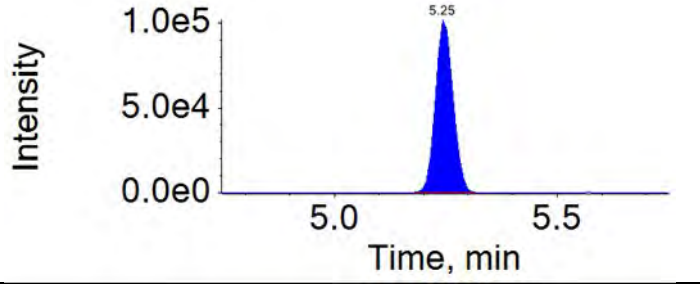
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



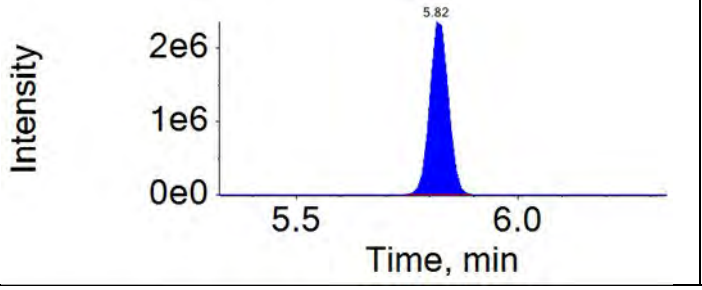


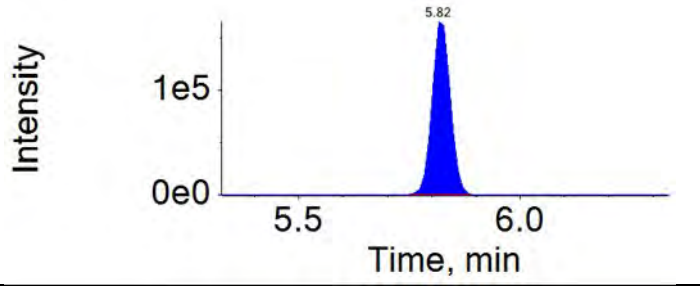
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



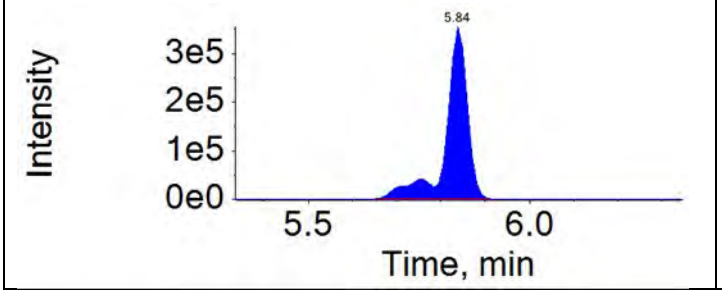


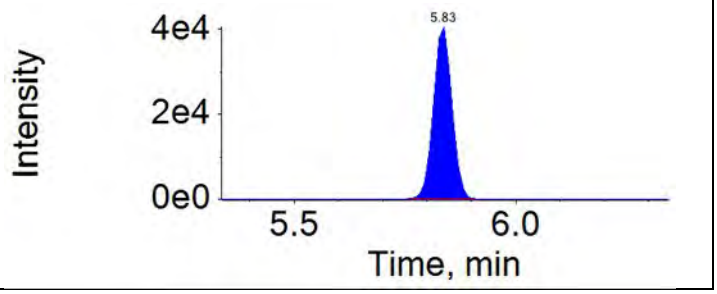
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

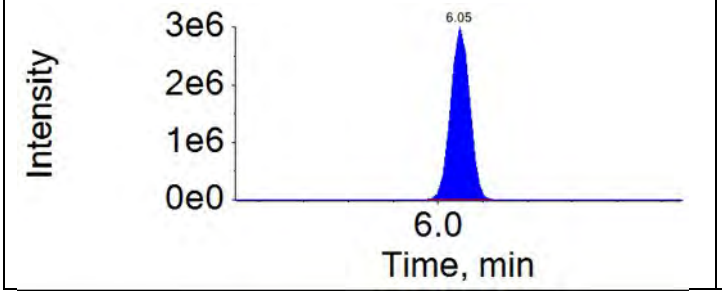
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

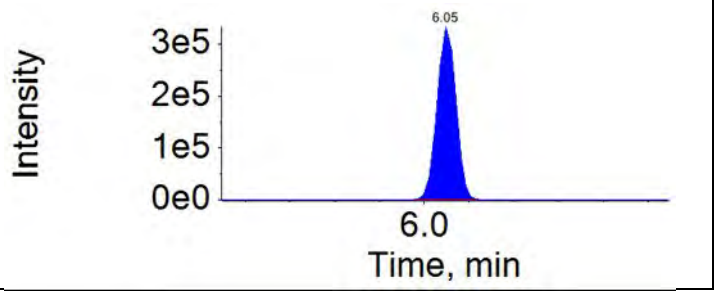
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



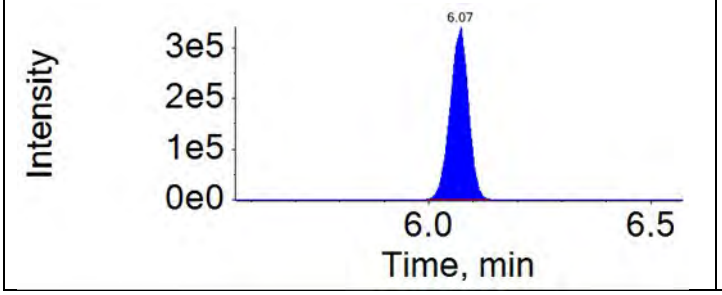


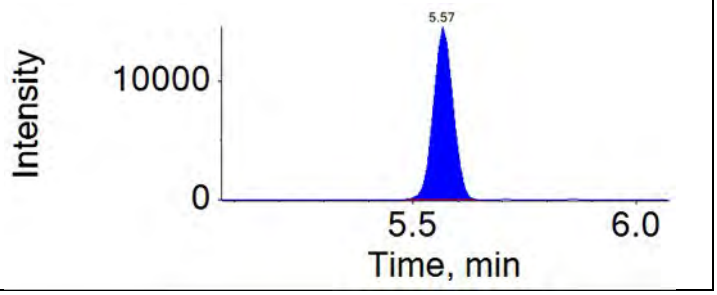
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



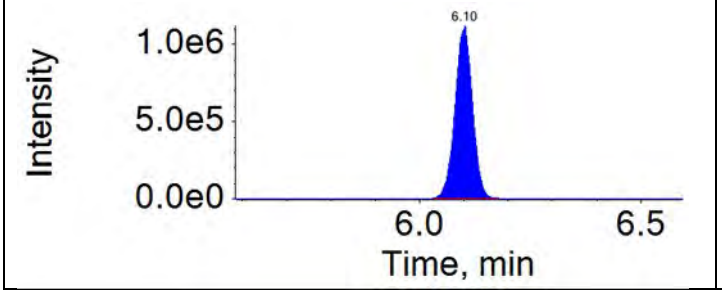


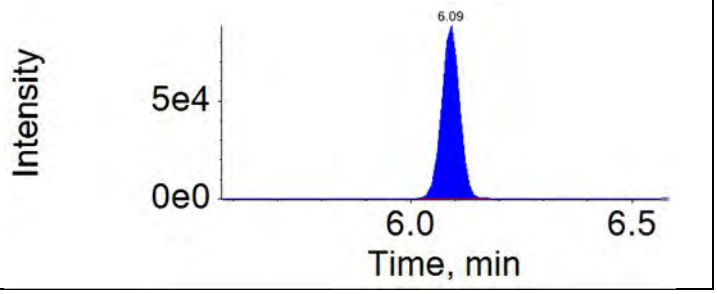
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



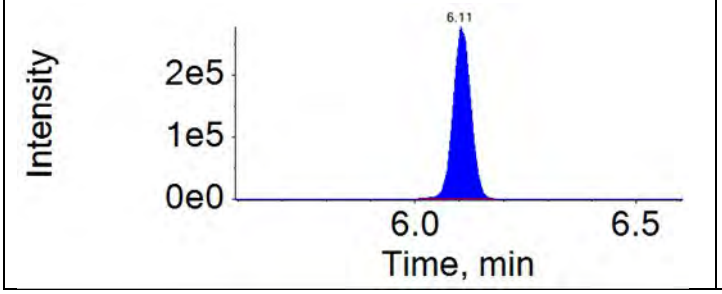


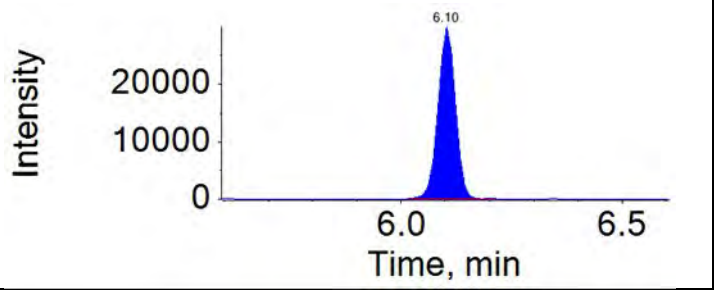
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

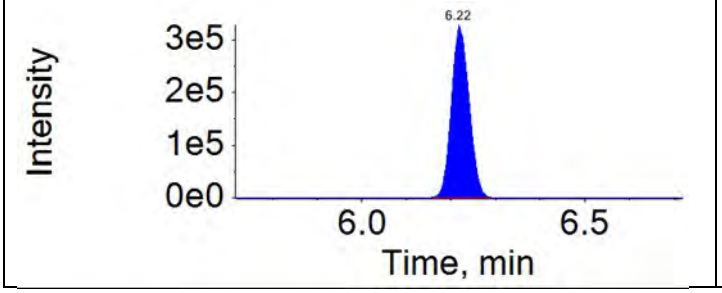
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

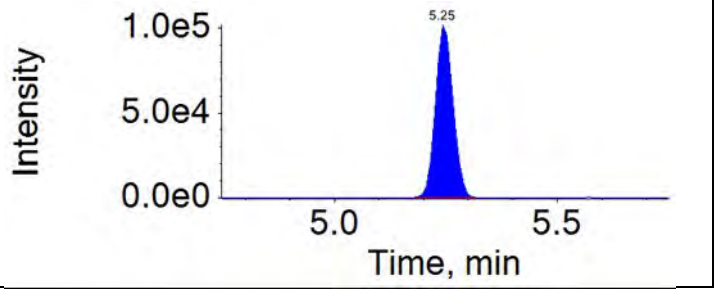
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



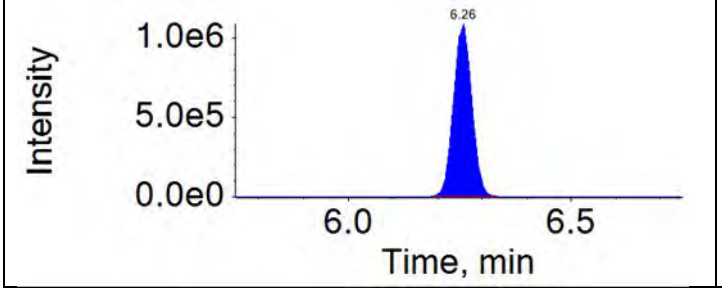


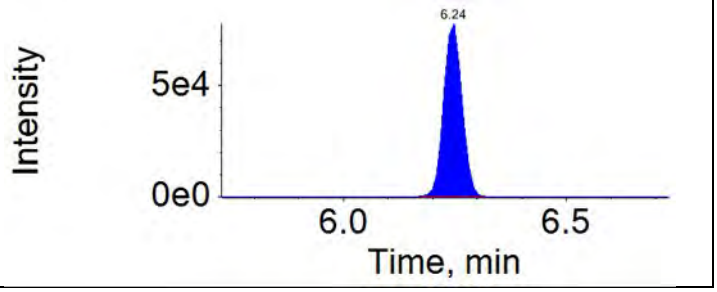
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



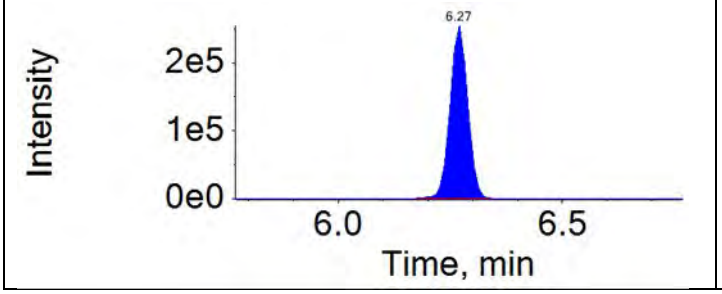


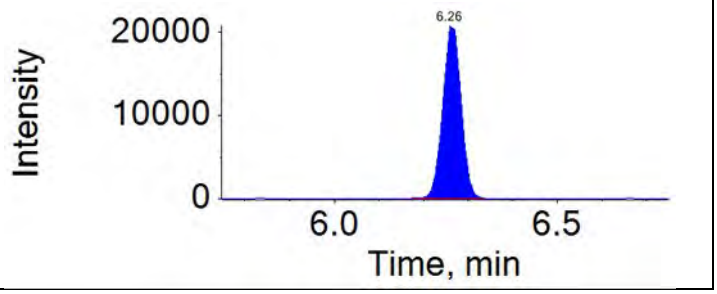
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



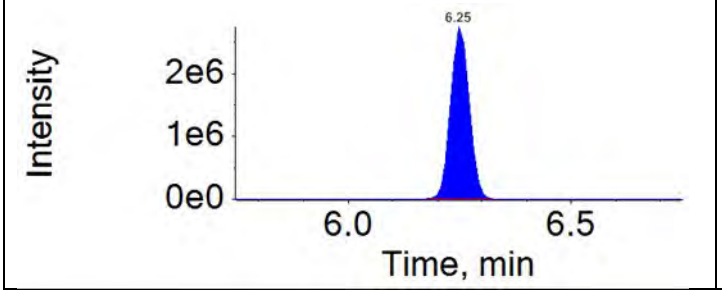


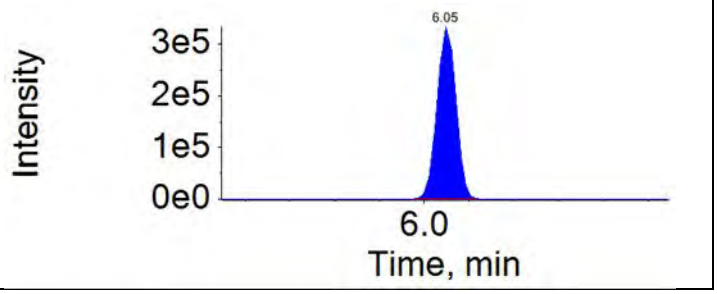
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

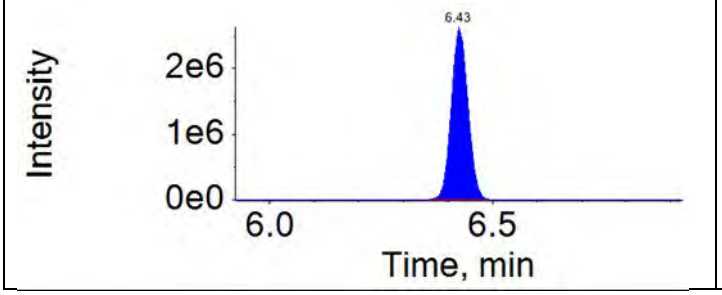
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

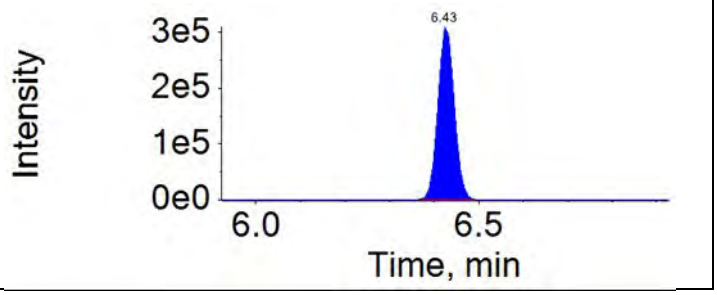
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



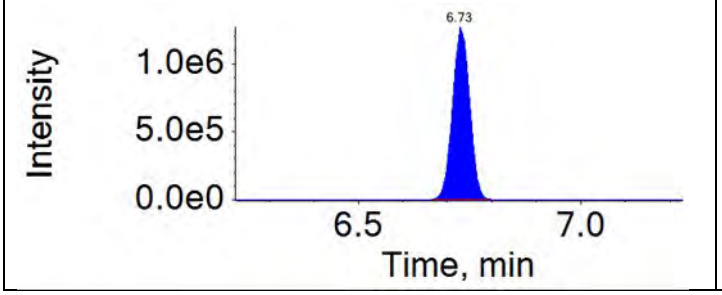


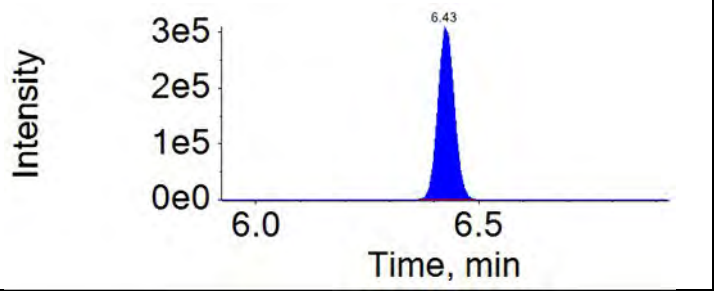
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



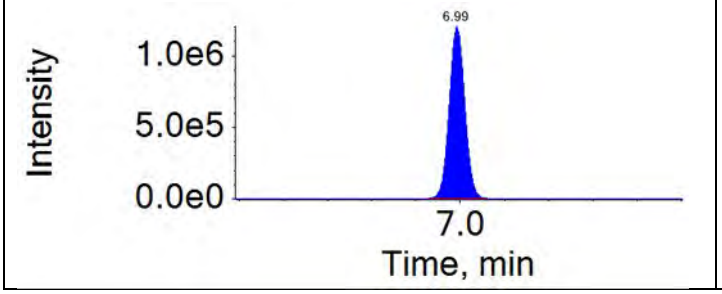


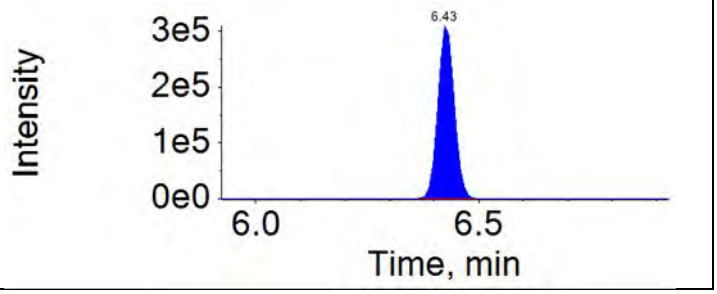
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

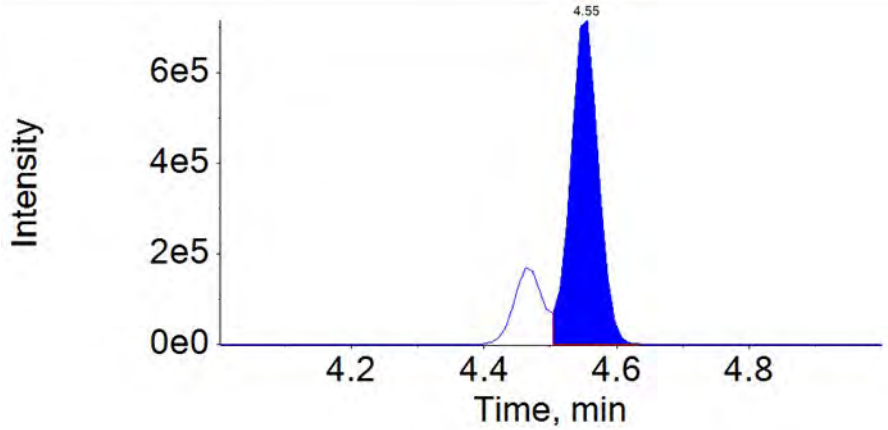


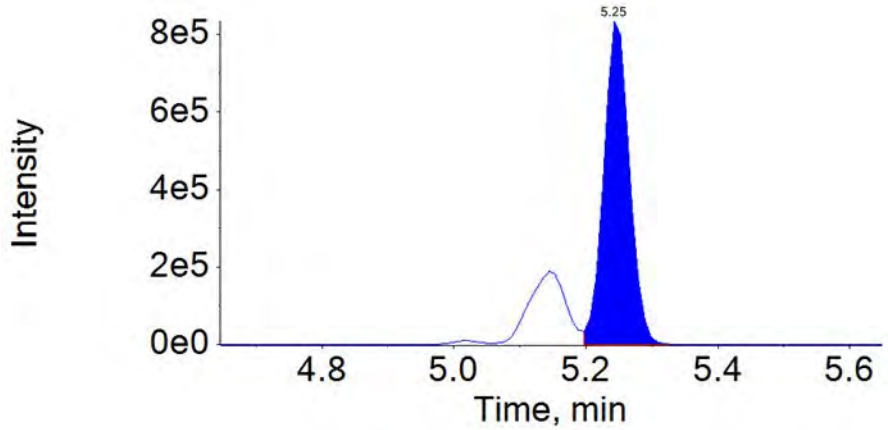


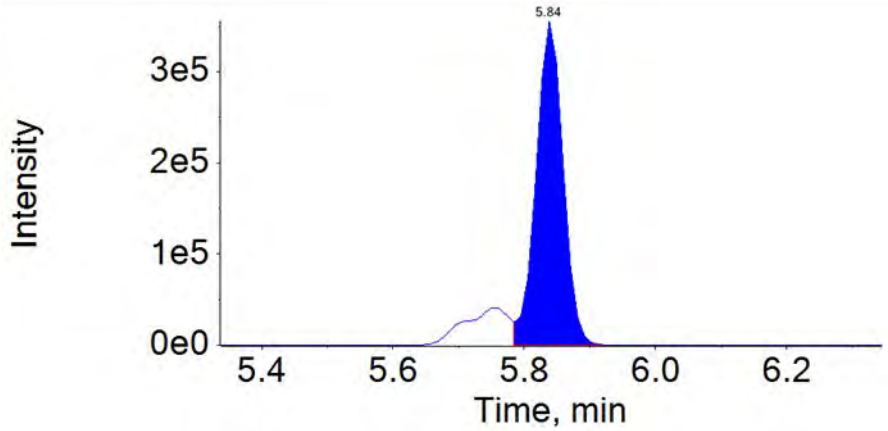
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS **RT (min.):** 4.55 **Peak Area:** 2110073.26 **Mass Range:** 399.0 / 80.0 **File Name:** 18NOV28DCAL-11.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

Component Name: PFOS **RT (min.):** 5.25 **Peak Area:** 2264157.02 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV28DCAL-11.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

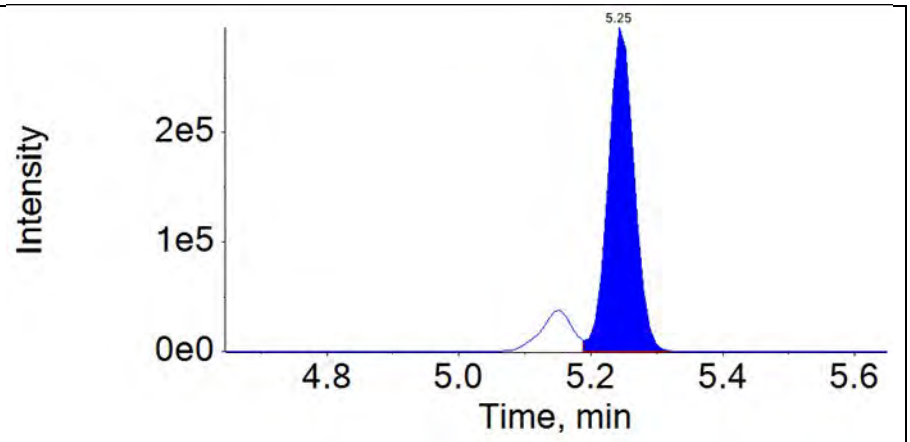
Component Name: NEtFOSAA **RT (min.):** 5.84 **Peak Area:** 1021470.64 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV28DCAL-11.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

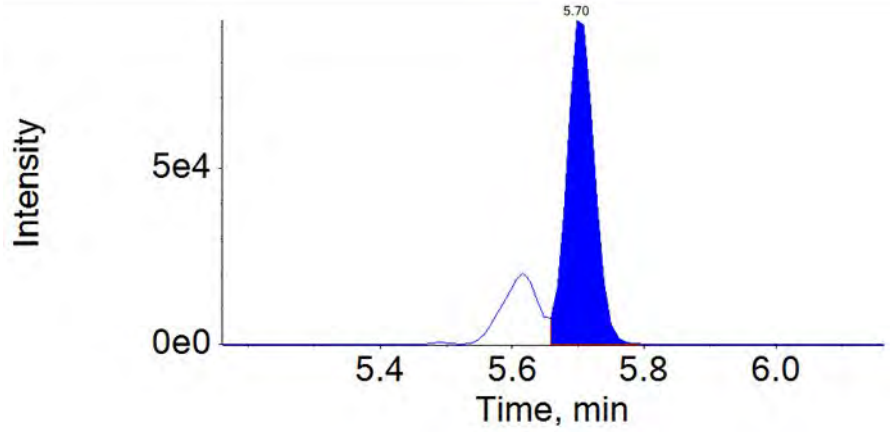
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
810528.26
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



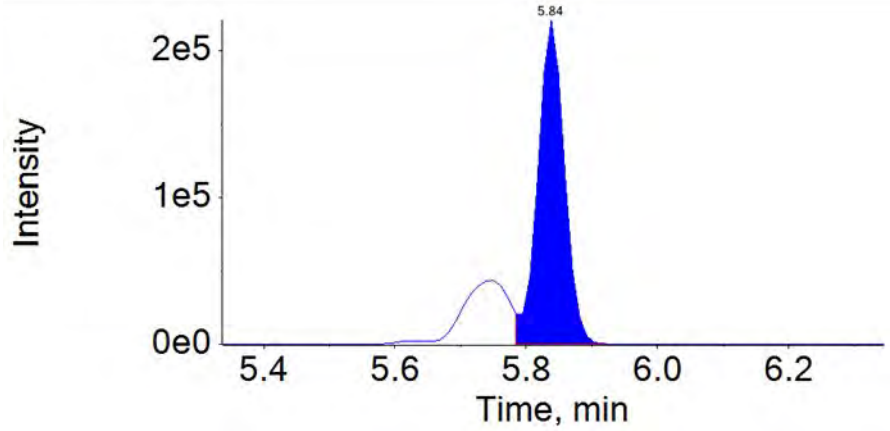
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
267798.15
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
625806.77
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-11.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Ion Ratio Report

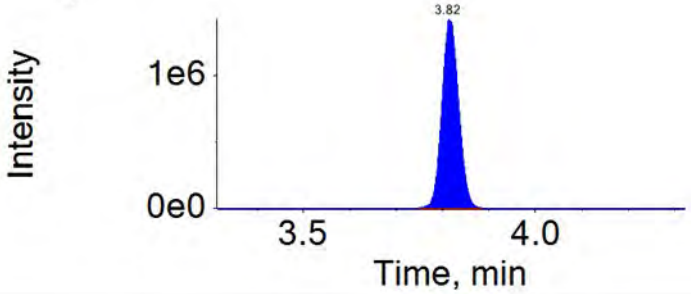
Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-11.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	3600470.83	A	0.3655	0.3566			
PFBS_2	3.82	1.00	1284104.34	A	0.3655	0.3566	-2	50	
4:2-FTS	4.13	1.00	1148569.18	A	0.6383	0.6279			
4:2-FTS_2	4.13	1.00	721221.12	A	0.6383	0.6279	-2	50	
PFHxA	4.16	1.00	7468739.11	A	0.0103	0.0117			
PFHxA_2	4.16	1.00	87256.25	A	0.0103	0.0117	13	50	
PFPeS	4.18	1.10	1793808.03	A	0.4976	0.5229			
PFPeS_2	4.18	1.10	937895.85	A	0.4976	0.5229	5	50	
PFHpA	4.55	1.00	7873271.20	A	0.0557	0.0567			
PFHpA_2	4.55	1.00	446309.31	A	0.0557	0.0567	2	50	
PFHxS	4.55	1.00	2625950.90	M	0.3693	0.3570			
PFHxS_2	4.55	1.00	937577.08	A	0.3693	0.3570	-3	50	
6:2-FTS	4.90	1.00	859948.62	A	0.6625	0.6492			
6:2-FTS_2	4.90	1.00	558302.88	A	0.6625	0.6492	-2	50	
PFHpS	4.91	1.08	2686833.27	A	0.3915	0.4117			
PFHpS_2	4.91	1.08	1106038.20	A	0.3915	0.4117	5	50	
PFOA	4.92	1.00	8012665.34	A	0.0573	0.0550			
PFOA_2	4.92	1.00	440521.78	A	0.0573	0.0550	-4	50	
PFOS	5.25	1.00	3026664.45	M	0.2960	0.3091			
PFOS_2	5.25	1.00	935561.90	M	0.2960	0.3091	4	50	
PFNA	5.26	1.00	7843086.90	A	0.0201	0.0194			
PFNA_2	5.26	1.00	152065.57	A	0.0201	0.0194	-3	50	
PFNS	5.54	1.06	2116661.52	A	0.4794	0.4605			
PFNS_2	5.54	1.06	974696.88	A	0.4794	0.4605	-4	50	
PFDA	5.56	1.00	6551370.45	A	0.0075	0.0069			
PFDA_2	5.56	1.00	45516.35	A	0.0075	0.0069	-7	50	
8:2-FTS	5.57	1.00	938590.07	A	0.5380	0.5988			
8:2-FTS_2	5.57	1.00	561991.71	A	0.5380	0.5988	11	50	
NMeFOSAA	5.70	1.00	1292829.79	A	0.2305	0.2668			
NMeFOSAA_2	5.70	1.00	344955.19	M	0.2305	0.2668	16	50	
PFDS	5.80	1.10	1665920.17	A	0.5356	0.4889			
PFDS_2	5.80	1.10	814397.56	A	0.5356	0.4889	-9	50	
PFUnDA	5.82	1.00	6885622.64	A	0.0038	0.0040			
PFUnDA_2	5.82	1.00	27237.03	A	0.0038	0.0040	4	50	
NEtFOSAA	5.84	1.00	1214766.38	M	0.7356	0.6821			
NEtFOSAA_2	5.84	1.00	828574.74	M	0.7356	0.6821	-7	50	
PFDoDA	6.05	1.00	8865844.73	A	0.0130	0.0133			
PFDoDA_2	6.05	1.00	118287.14	A	0.0130	0.0133	2	50	
10:2-FTS	6.07	1.09	972346.85	A	0.6989	0.7475			
10:2-FTS_2	6.07	1.09	726827.33	A	0.6989	0.7475	7	50	
PFTrDA	6.25	1.03	7958673.38	A	0.0090	0.0094			
PFTrDA_2	6.25	1.03	74438.34	A	0.0090	0.0094	4	50	
PFTeDA	6.43	1.00	6793735.34	A	0.0056	0.0064			
PFTeDA_2	6.43	1.00	43469.69	A	0.0056	0.0064	14	50	
PFHxDA	6.73	1.05	3402004.45	A	0.0646	0.0655			
PFHxDA_2	6.73	1.05	222711.21	A	0.0646	0.0655	1	50	
PFODA	6.99	1.09	2942000.06	A	0.0264	0.0267			
PFODA_2	6.99	1.09	78596.75	A	0.0264	0.0267	1	50	

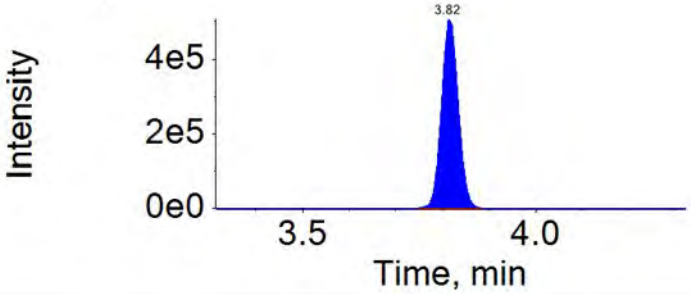
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

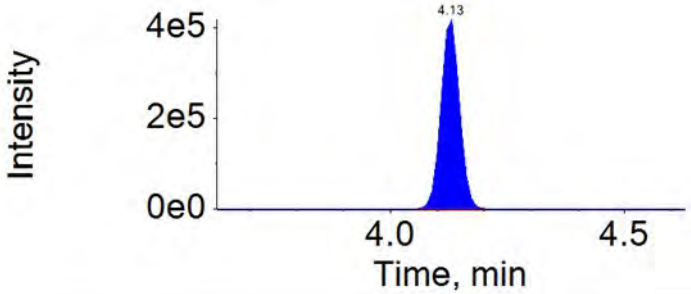
Component: PFBS
Primary Mass: 299.0 / 80.0



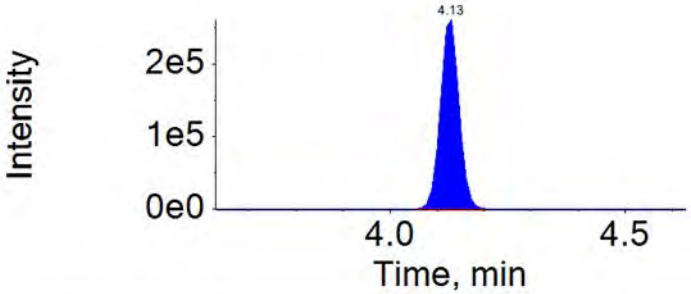
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



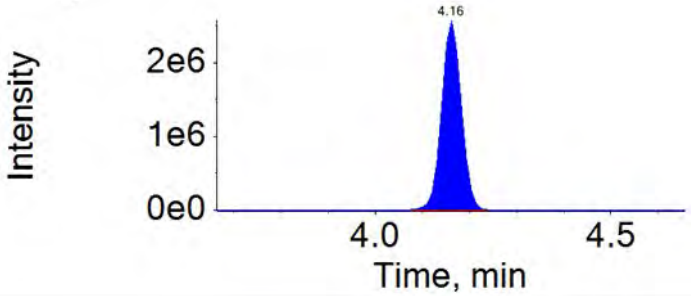
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



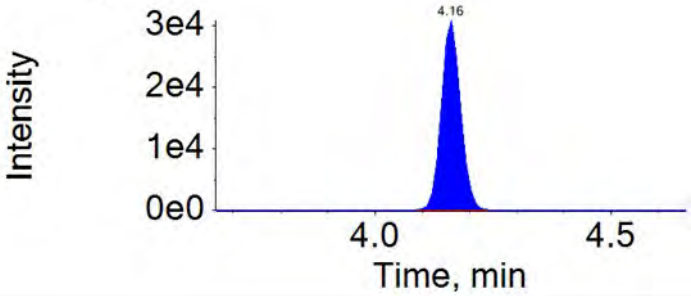
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



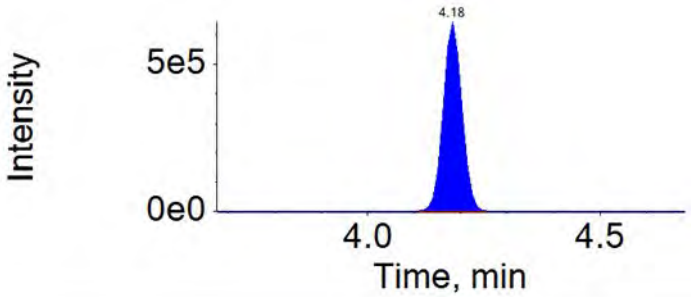
Component: PFHxA
Primary Mass: 313.0 / 269.0



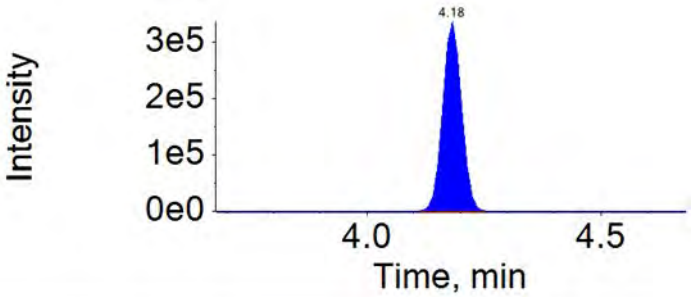
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MCD at 5:00 pm, 11/28/18

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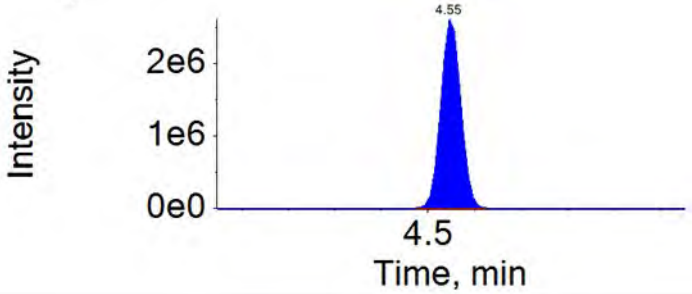
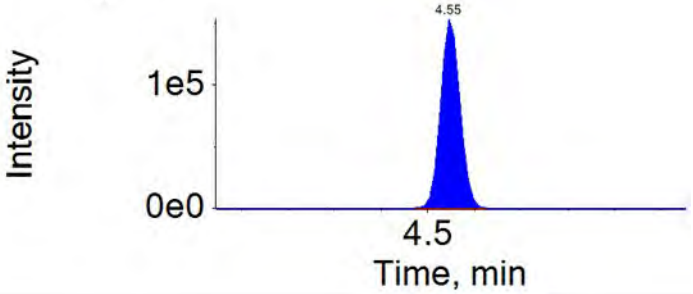
By HMK at 12:22 pm, 11/29/18

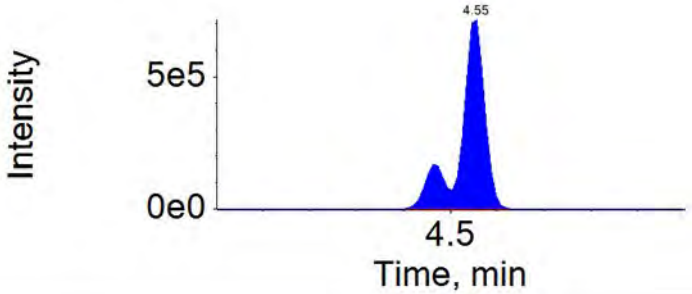
Component: PFHpA
Primary Mass: 363.0 / 319.0



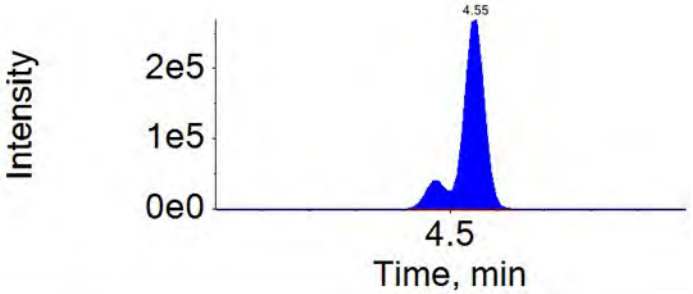
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



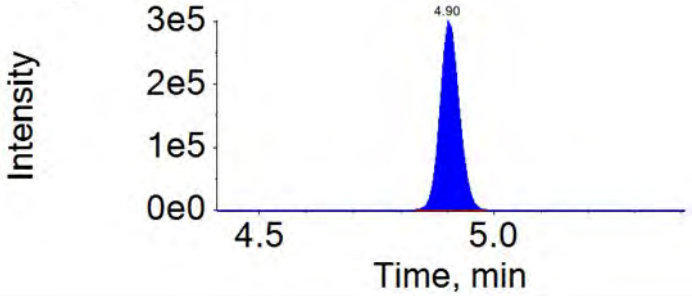
Component: PFHxS
Primary Mass: 399.0 / 80.0



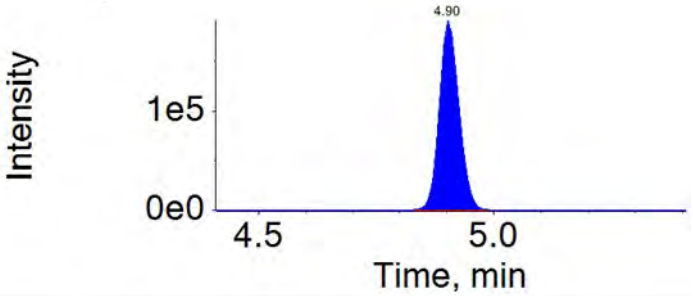
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



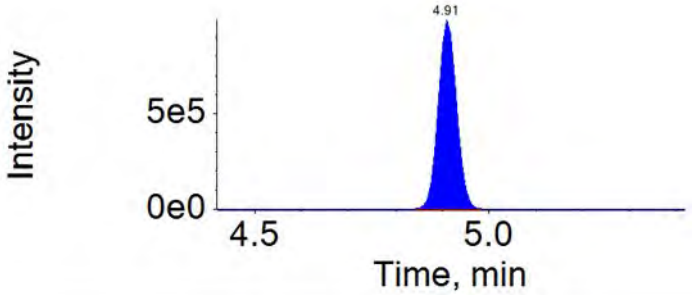
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



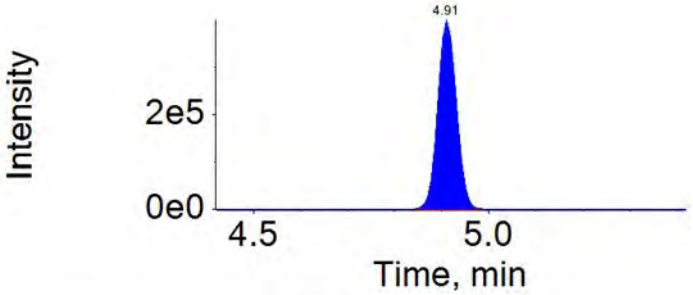
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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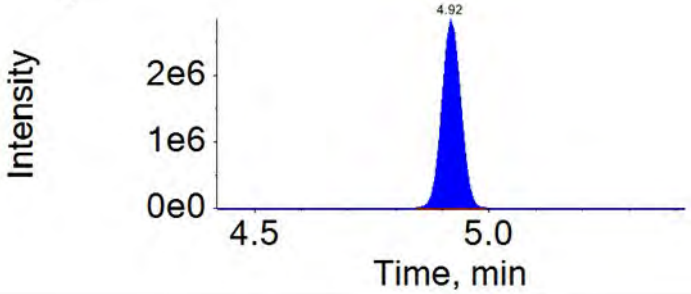
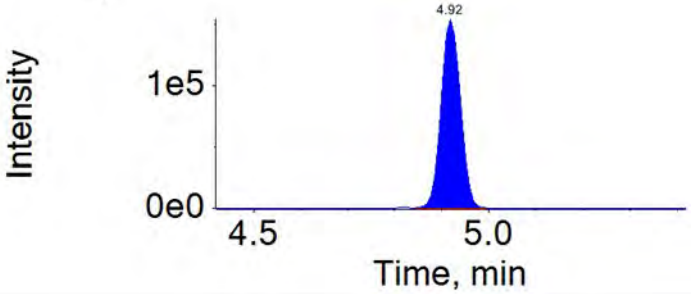
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

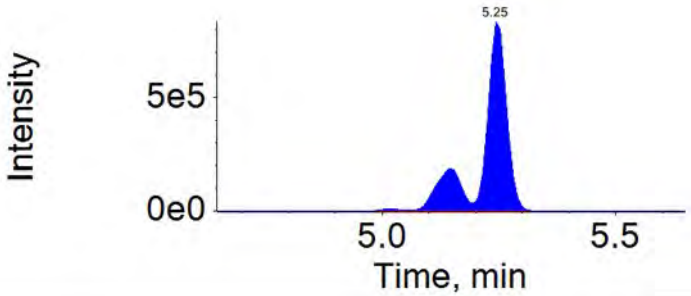
Component: PFOA
Primary Mass: 413.0 / 369.0



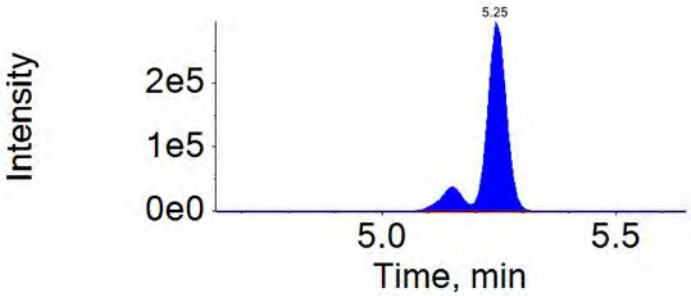
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



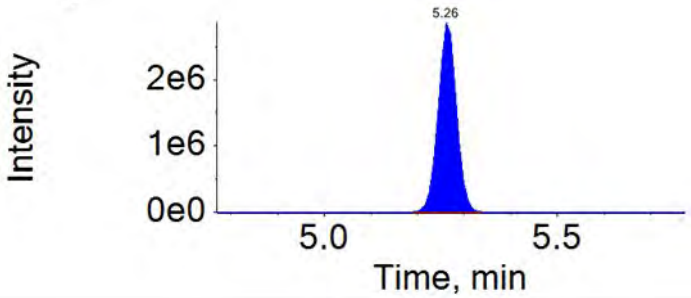
Component: PFOS
Primary Mass: 499.0 / 80.0



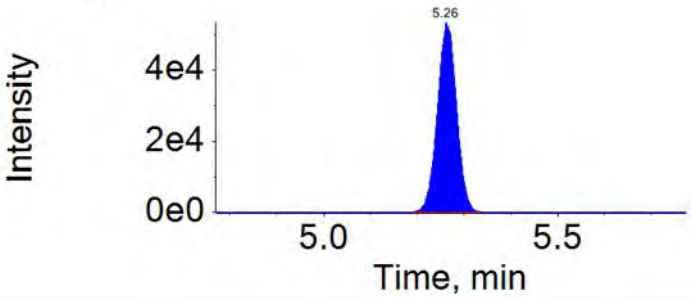
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



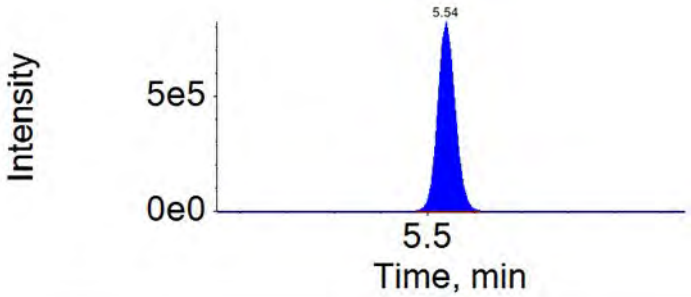
Component: PFNA
Primary Mass: 463.0 / 419.0



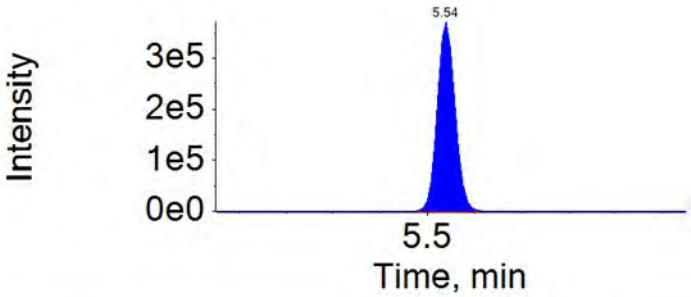
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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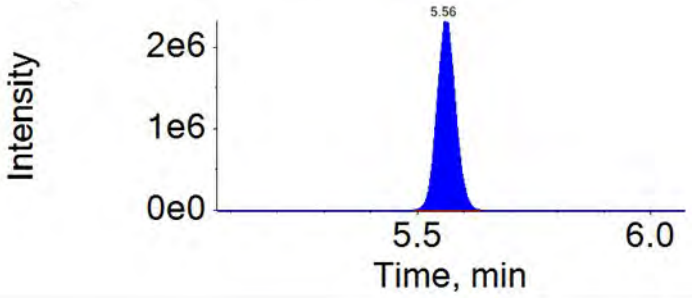
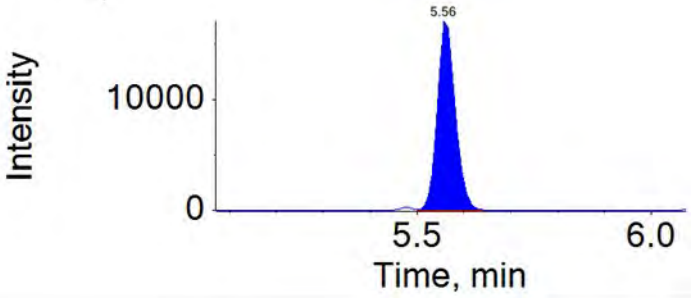
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

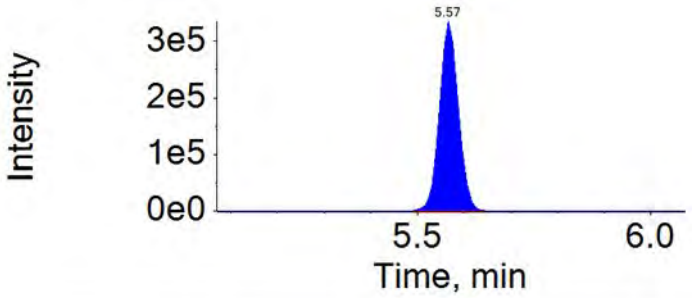
Component: PFDA
Primary Mass: 513.0 / 469.0



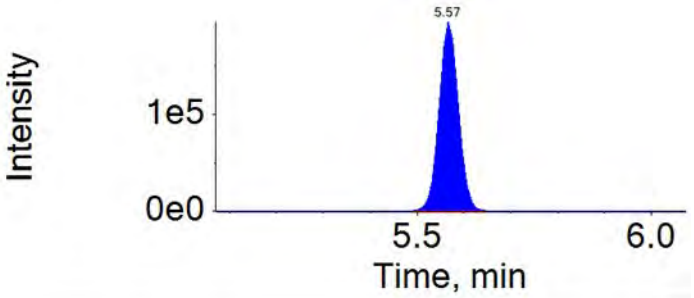
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



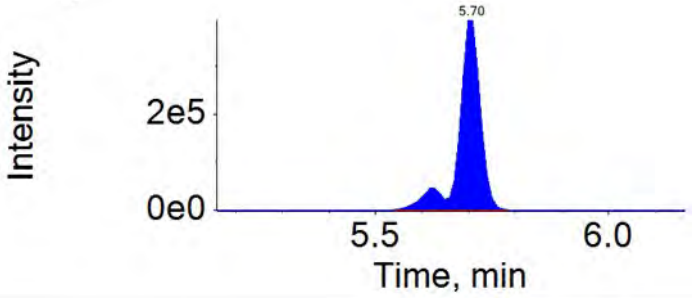
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



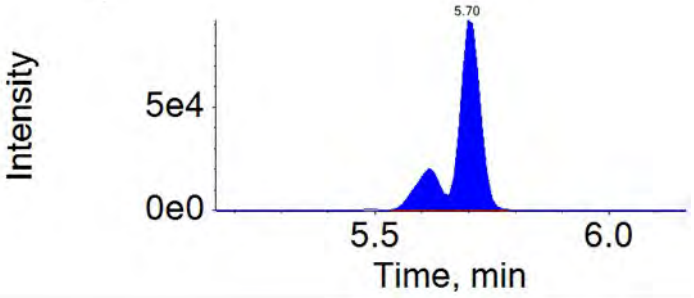
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



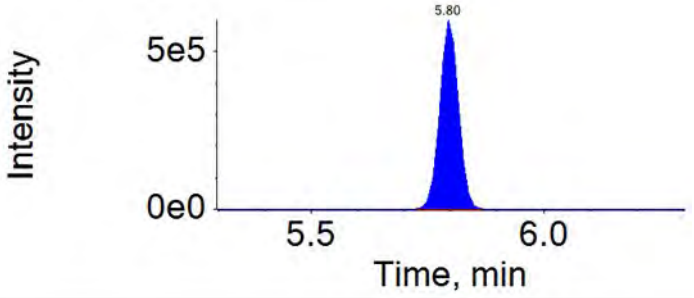
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



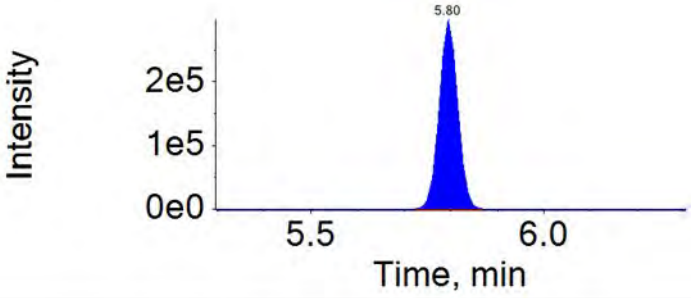
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



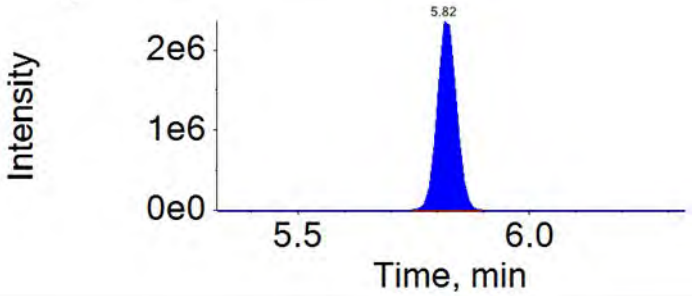
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



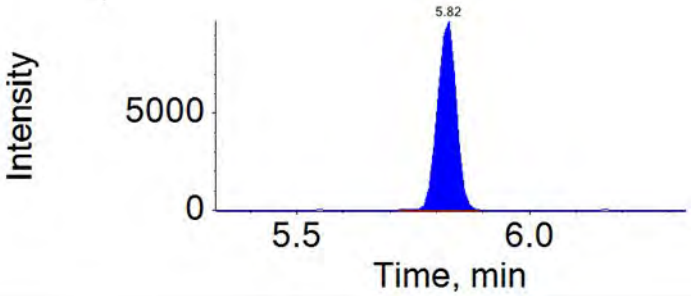
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

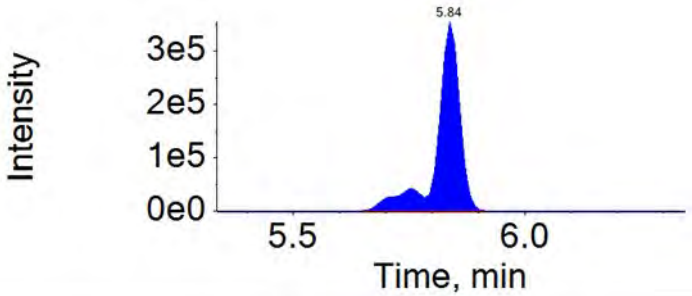
Component: PFUnDA
Primary Mass: 563.0 / 519.0



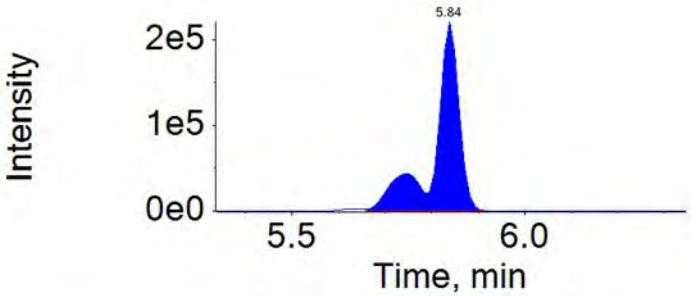
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



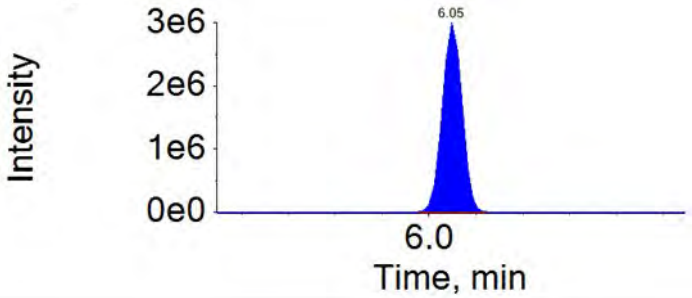
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



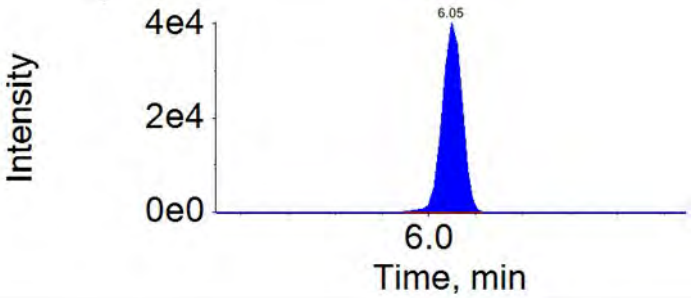
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



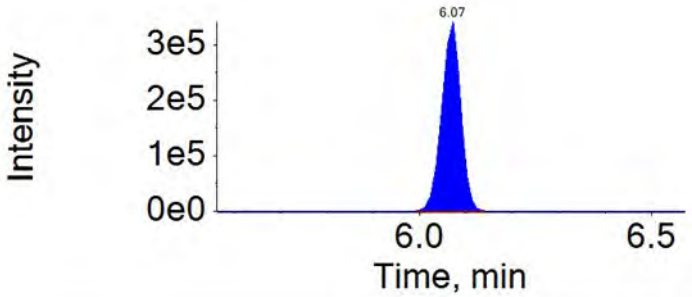
Component: PFDoDA
Primary Mass: 613.0 / 569.0



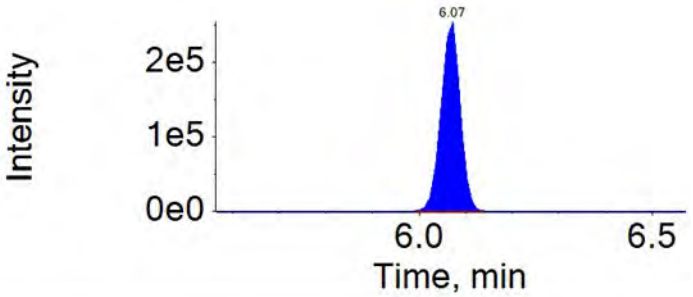
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



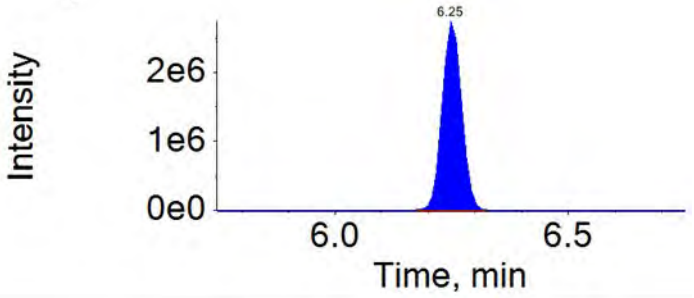
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



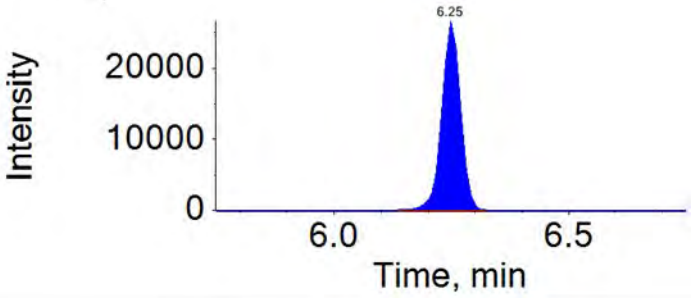
APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

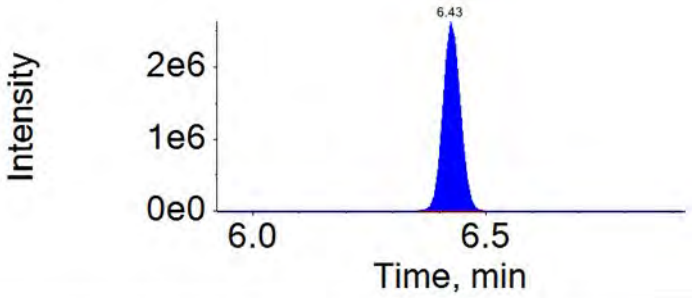
Component: PFTrDA
Primary Mass: 663.0 / 619.0



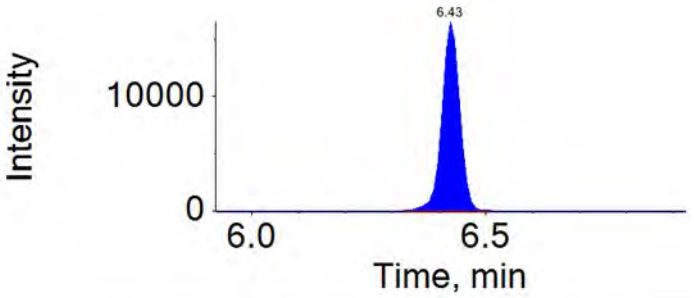
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



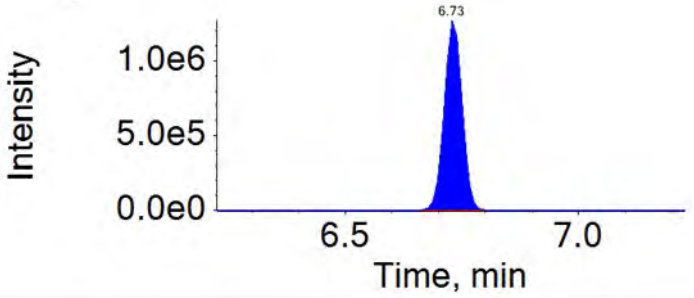
Component: PFTeDA
Primary Mass: 713.0 / 669.0



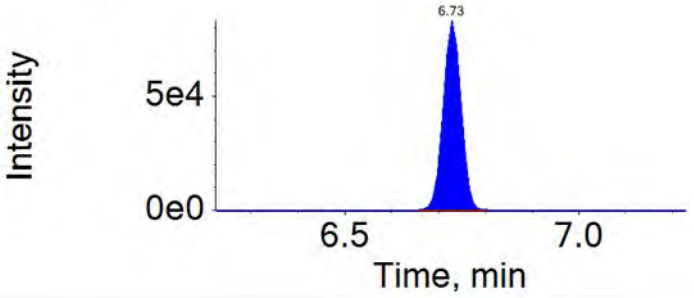
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



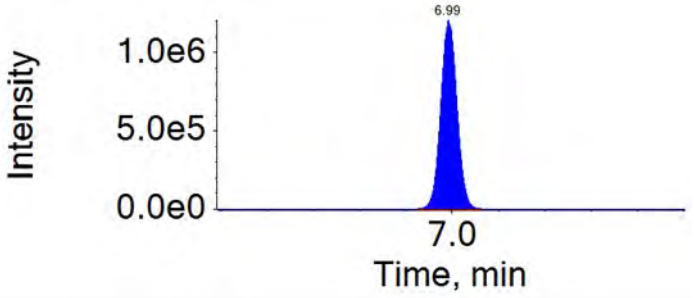
Component: PFHxDA
Primary Mass: 813.0 / 769.0



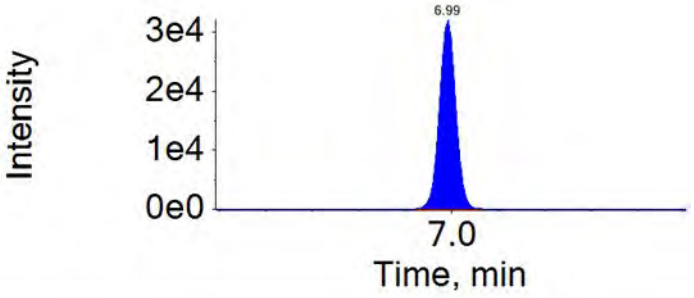
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL7			**Data File:**		18NOV28DCAL-12.wiff
Sample ID:	CALBRN71833B			**Acquis Date:**		2018-11-28T14:36:16
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	9			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	717475.7	887248.9	-19	50	
13C2-PFOA	5.0	482796.5	498501.6	-3	50	
13C4-PFOS	4.8	242045.2	283214.2	-15	50	
13C2-PFDA	5.0	405455.0	441790.6	-8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	803704.8	13C3-PFBA	717475.7	1.120	5.000	4.998	100	70-130	
E13C5-PFPeA	781113.8	13C3-PFBA	717475.7	1.089	5.000	5.084	102	70-130	
E13C3-PFBS	352994.8	13C3-PFBA	717475.7	0.492	4.650	4.694	101	70-130	
E13C2-4:2-FTS	62236.8	13C2-PFOA	482796.5	0.129	4.670	4.442	95	70-130	
E13C5-PFHxA	625449.8	13C2-PFOA	482796.5	1.295	5.000	4.758	95	70-130	
E13C3-PFHxS	239327.4	13C2-PFOA	482796.5	0.496	4.730	3.885	82	70-130	
E13C4-PFHpA	544866.9	13C2-PFOA	482796.5	1.129	5.000	5.186	104	70-130	
E13C2-6:2-FTS	43678.3	13C2-PFOA	482796.5	0.090	4.750	3.787	80	70-130	
E13C8-PFOA	745616.3	13C2-PFOA	482796.5	1.544	5.000	4.251	85	70-130	
E13C8-PFOS	250004.2	13C4-PFOS	242045.2	1.033	4.780	4.663	98	70-130	
E13C9-PFNA	562206.9	13C4-PFOS	242045.2	2.323	5.000	5.102	102	70-130	
E13C6-PFDA	645932.5	13C2-PFDA	405455.0	1.593	5.000	4.492	90	70-130	
E13C2-8:2-FTS	41093.1	13C2-PFDA	405455.0	0.101	4.790	4.356	91	70-130	
E13C8-PFOSA	555500.5	13C2-PFDA	405455.0	1.370	5.000	5.027	101	70-130	
Ed3-NMeFOSAA	156760.9	13C2-PFDA	405455.0	0.387	5.000	4.909	98	70-130	
E13C7-PFUnDA	416723.9	13C2-PFDA	405455.0	1.028	5.000	4.344	87	70-130	
Ed5-NEtFOSAA	102891.6	13C2-PFDA	405455.0	0.254	5.000	4.521	90	70-130	
E13C2-PFDoDA	852235.6	13C2-PFDA	405455.0	2.102	5.000	4.416	88	70-130	
Ed7-NMePFOSAE	250467.6	13C2-PFDA	405455.0	0.618	5.000	5.339	107	70-130	
Ed3-NMePFOSA	79780.2	13C2-PFDA	405455.0	0.197	5.000	5.325	107	70-130	
Ed9-NEtPFOSAE	216042.0	13C2-PFDA	405455.0	0.533	5.000	5.402	108	70-130	
Ed5-NEtPFOSA	59209.1	13C2-PFDA	405455.0	0.146	5.000	5.074	101	70-130	
E13C2-PFTeDA	717297.7	13C2-PFDA	405455.0	1.769	5.000	4.895	98	70-130	

APPROVED
By MCD at 5:00 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

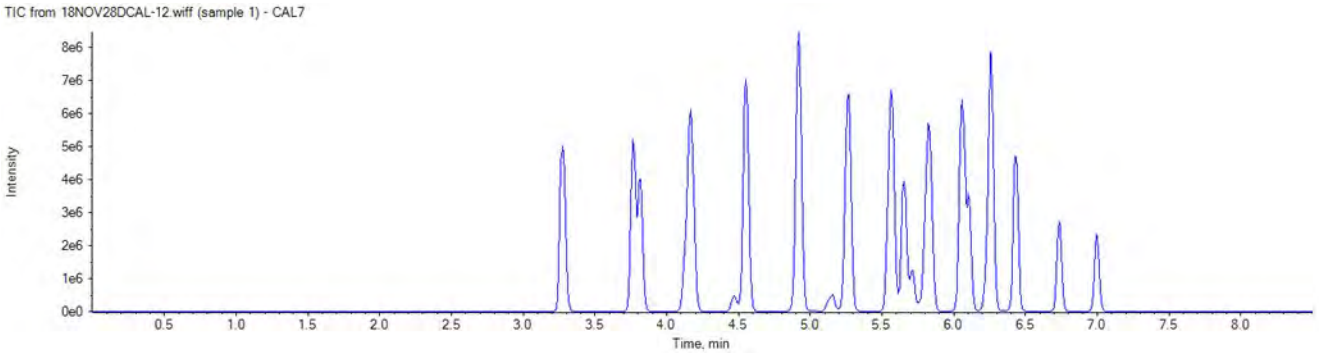
Analyte Quantitation Peak Table

Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-12.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	12734942.7		A	13C4-PFBA	3.27	803704.8	15.845	86.862
PFPeA	3.77	1.000	12611040.3		A	13C5-PFPeA	3.77	781113.8	16.145	79.219
PFBS	3.82	1.000	6468971.4		A	13C3-PFBS	3.82	352994.8	18.326	88.956
4:2-FTS	4.13	1.000	2126148.2		A	13C2-4:2-FTS	4.13	62236.8	34.162	91.451
PFHxA	4.16	1.000	12530843.0		A	13C5-PFHxA	4.16	625449.8	20.035	80.421
PFPeS	4.18	1.100	3295381.6		A	13C3-PFBS	3.82	352994.8	9.335	94.429
PFHpA	4.55	1.000	12619701.7		A	13C4-PFHpA	4.55	544866.9	23.161	71.480
PFHxS	4.55	1.000	4797026.8		M	13C3-PFHxS	4.56	239327.4	20.044	93.850
6:2-FTS	4.91	1.000	1464447.0		A	13C2-6:2-FTS	4.91	43678.3	33.528	87.481
PFHpS	4.91	1.080	4562639.6		A	13C3-PFHxS	4.56	239327.4	19.064	95.147
PFOA	4.92	1.000	12900182.7		A	13C8-PFOA	4.92	745616.3	17.301	89.401
PFOS	5.25	1.000	5620329.0		M	13C8-PFOS	5.25	250004.2	22.481	94.301
PFNA	5.27	1.000	12939629.1		A	13C9-PFNA	5.27	562206.9	23.016	88.201
PFNS	5.54	1.060	3804945.2		A	13C8-PFOS	5.25	250004.2	15.220	96.096
PFDA	5.57	1.000	11371047.0		A	13C6-PFDA	5.57	645932.5	17.604	99.643
8:2-FTS	5.57	1.000	1620286.0		A	13C2-8:2-FTS	5.57	41093.1	39.430	74.355
PFOSA	5.65	1.000	9792009.5		A	13C8-PFOSA	5.65	555500.5	17.627	89.294
NMeFOSAA	5.71	1.000	2414874.8		M	d3-NMeFOSAA	5.71	156760.9	15.405	98.267
PFDS	5.80	1.110	3061543.5		A	13C8-PFOS	5.25	250004.2	12.246	97.096
PFUnDA	5.83	1.000	11254483.8		A	13C7-PFUnDA	5.83	416723.9	27.007	96.536
NEtFOSAA	5.85	1.000	2127663.4		A	d5-NEtFOSAA	5.84	102891.6	20.679	100.712
PFDoDA	6.06	1.000	14195839.1		A	13C2-PFDoDA	6.06	852235.6	16.657	91.243
10:2-FTS	6.08	1.090	1718827.3		A	13C2-8:2-FTS	5.57	41093.1	41.828	92.235
NMePFOSAE	6.11	1.000	5772837.2		A	d7-NMePFOSAE	6.10	250467.6	23.048	96.993
NMePFOSA	6.11	1.000	1500056.3		A	d3-NMePFOSA	6.11	79780.2	18.802	99.677
PFDoS	6.22	1.190	1735049.5		A	13C8-PFOS	5.25	250004.2	6.940	99.670
NEtPFOSAE	6.26	1.000	5826370.7		A	d9-NEtPFOSAE	6.25	216042.0	26.969	97.008
NEtPFOSA	6.27	1.000	1290814.8		A	d5-NEtPFOSA	6.27	59209.1	21.801	97.709
PFTrDA	6.26	1.030	12329126.1		A	13C2-PFDoDA	6.06	852235.6	14.467	87.197
PFTeDA	6.43	1.000	11258874.1		A	13C2-PFTeDA	6.43	717297.7	15.696	88.936
PFHxDA	6.73	1.050	6113985.2		A	13C2-PFTeDA	6.43	717297.7	8.524	97.440
PFODA	7.00	1.090	5309889.9		A	13C2-PFTeDA	6.43	717297.7	7.403	98.616

Total Ion Chromatogram

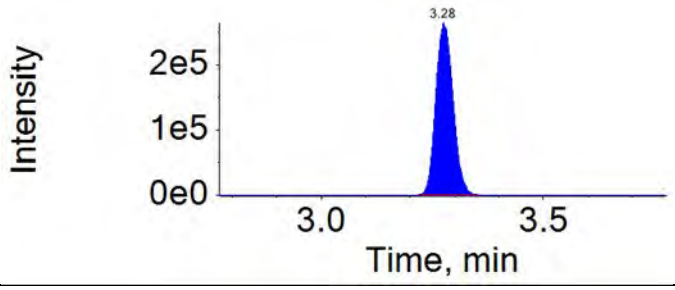


APPROVED
By MCD at 5:00 pm, 11/28/18

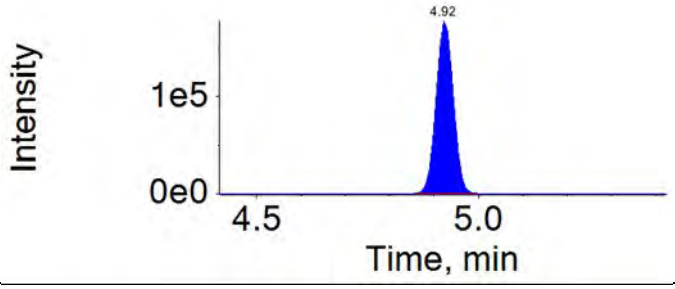
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

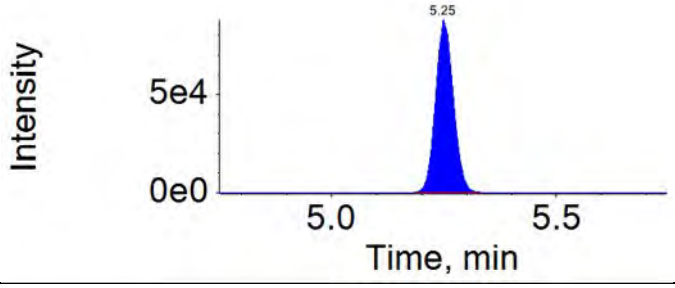
Injection Standard: 13C3-PFBA
216.0 / 172.0



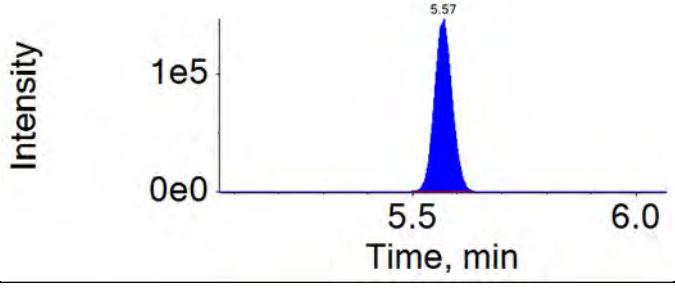
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

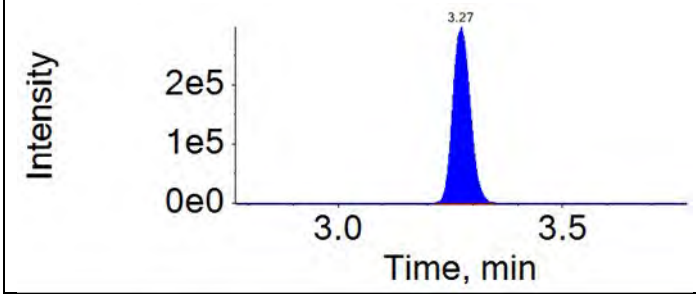


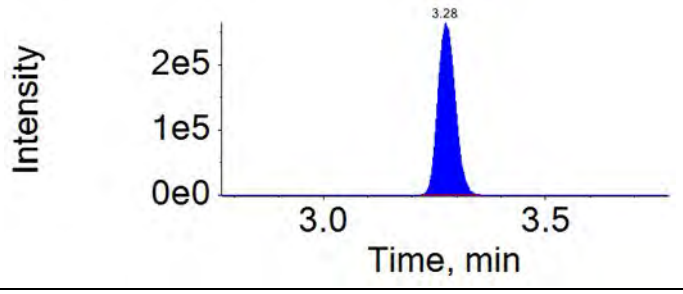
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

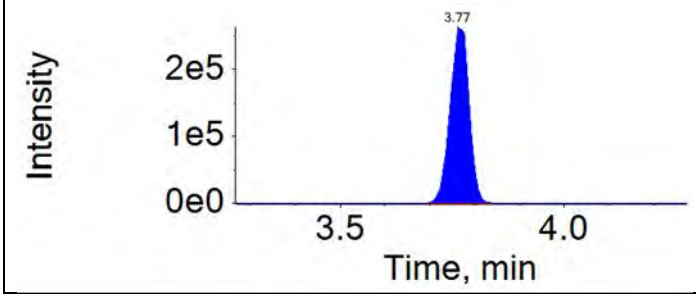
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

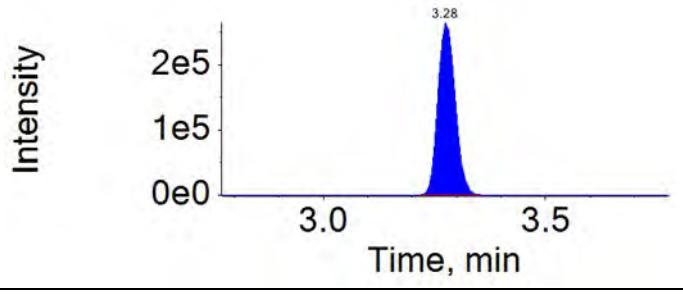
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



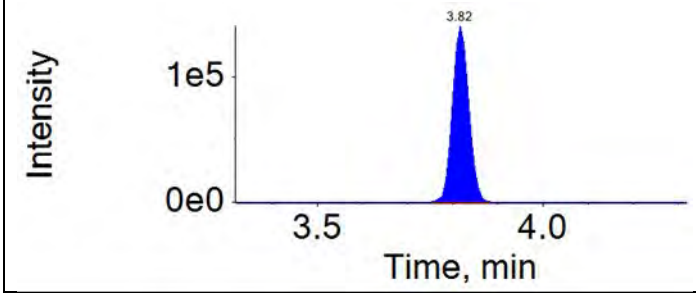


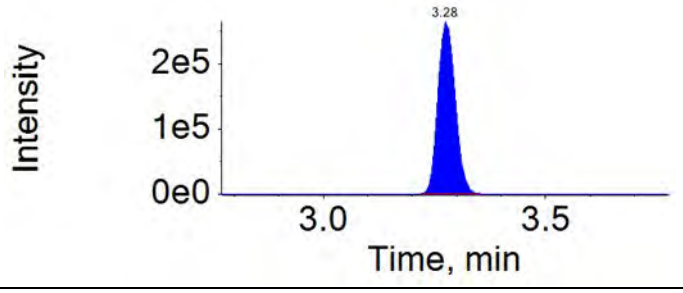
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



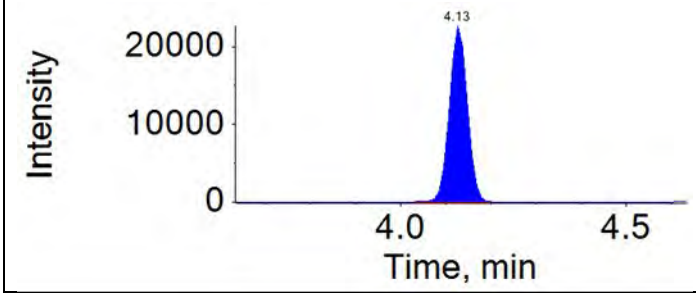


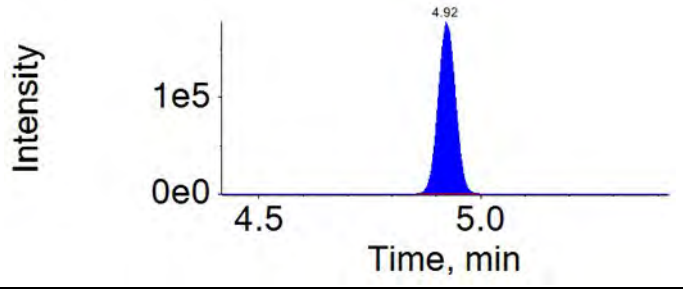
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





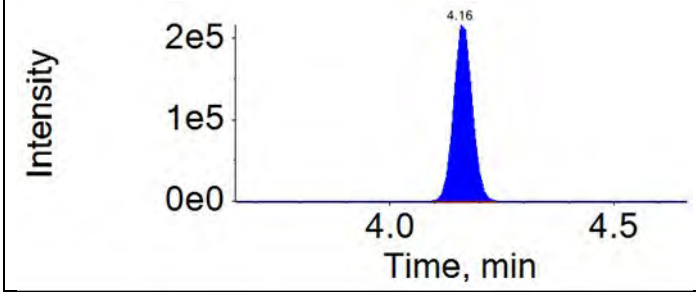
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

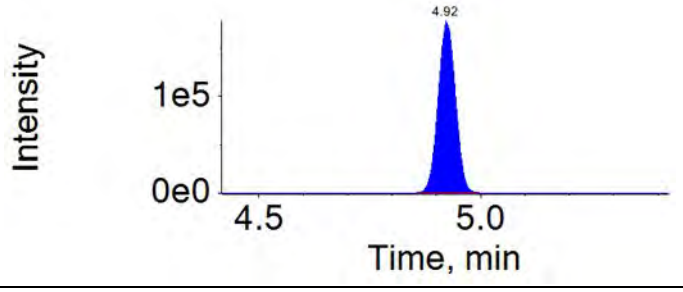




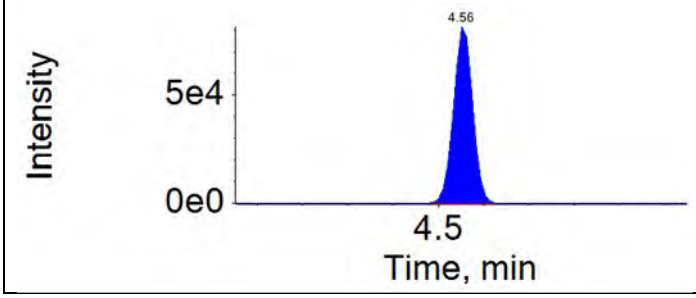
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

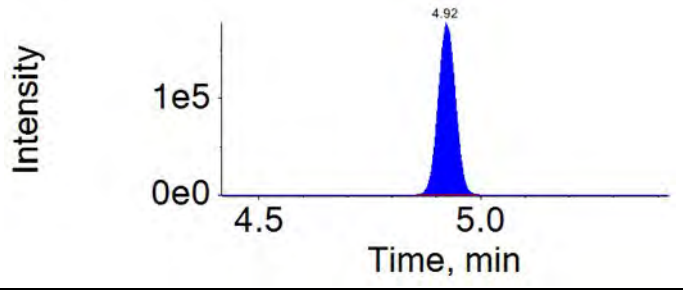
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



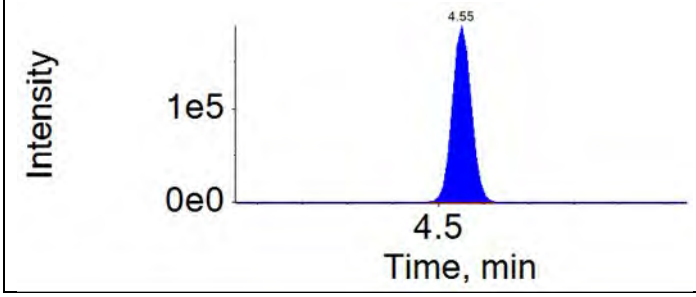


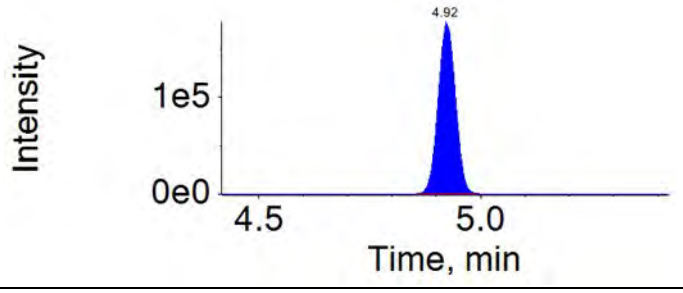
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



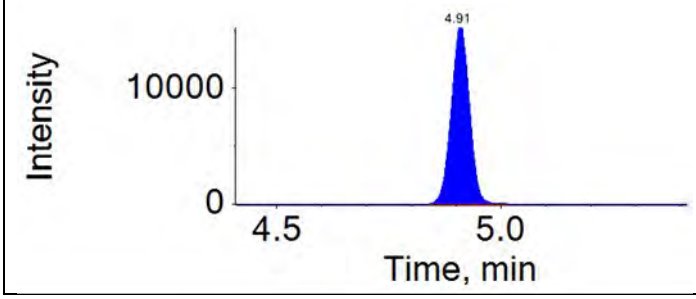


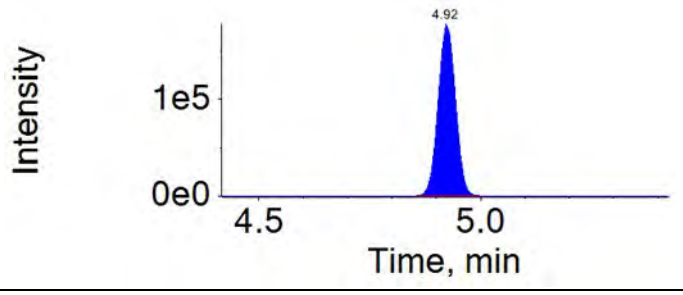
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



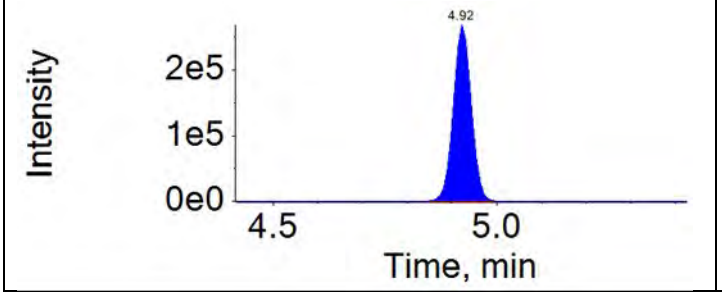


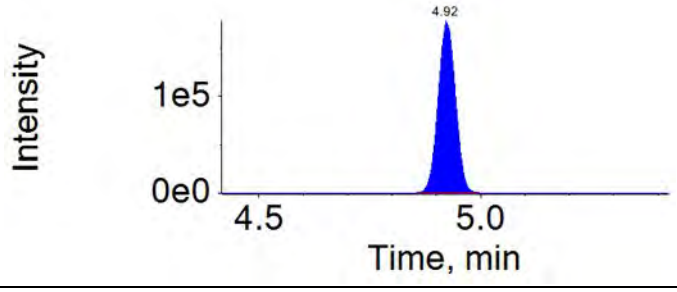
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

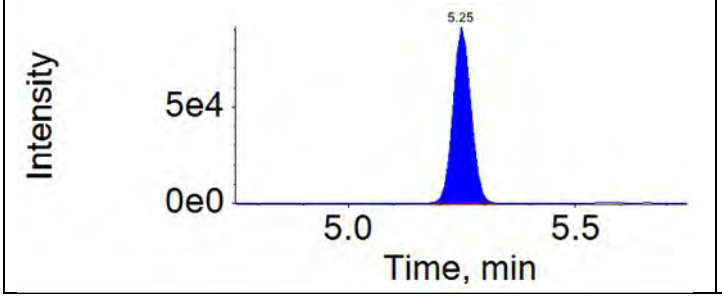
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

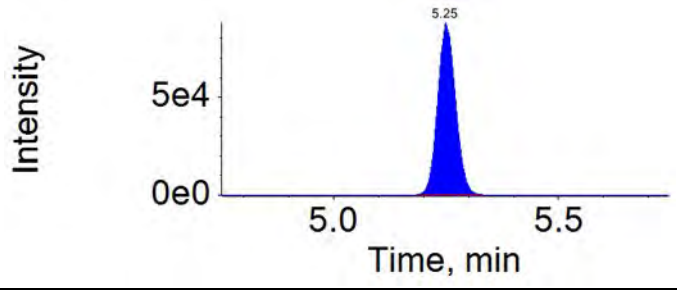
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



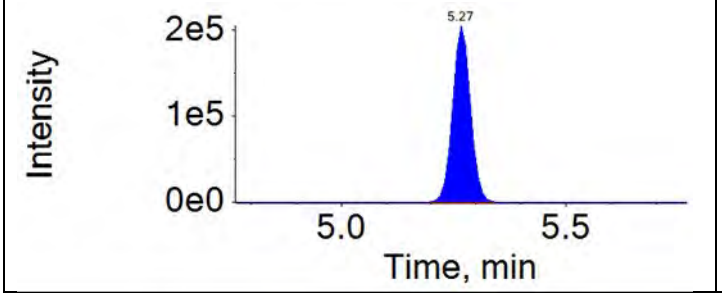


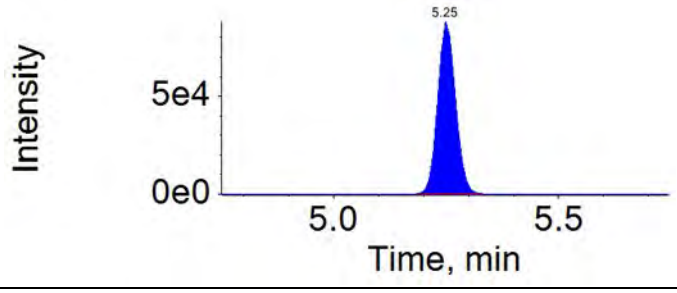
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



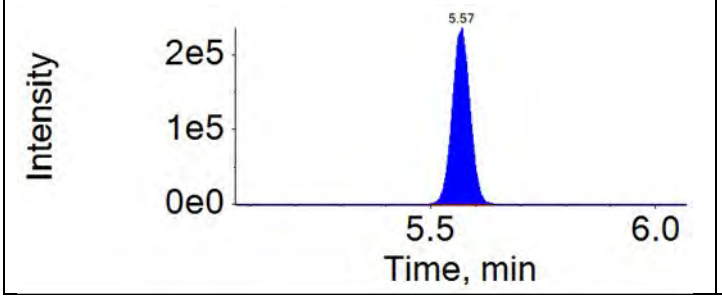


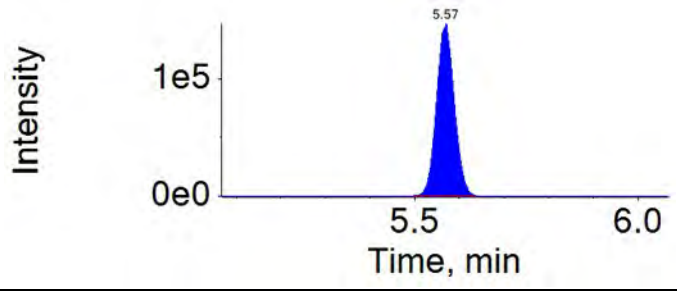
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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



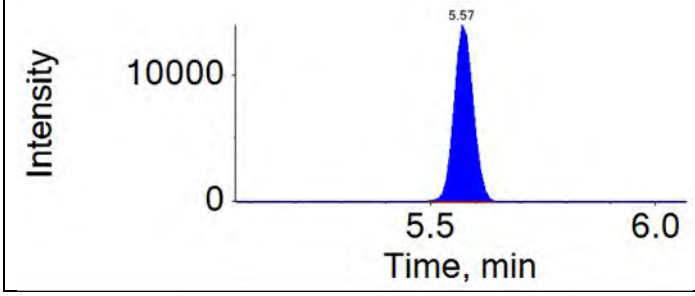


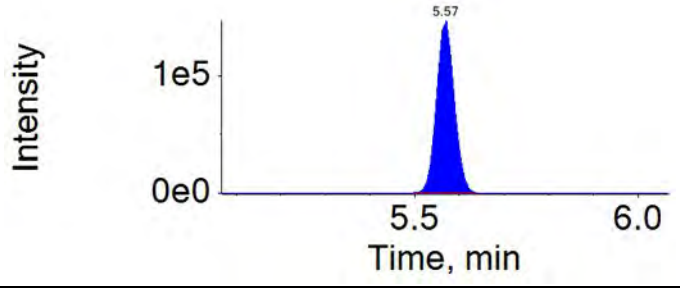
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

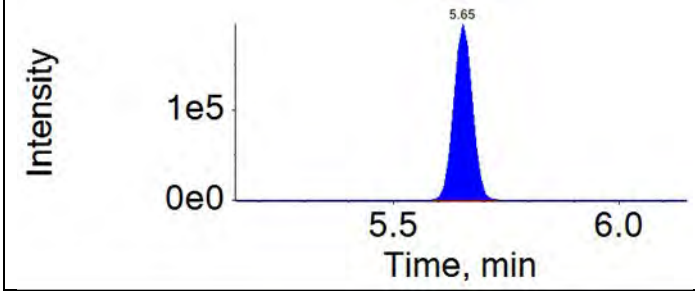
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

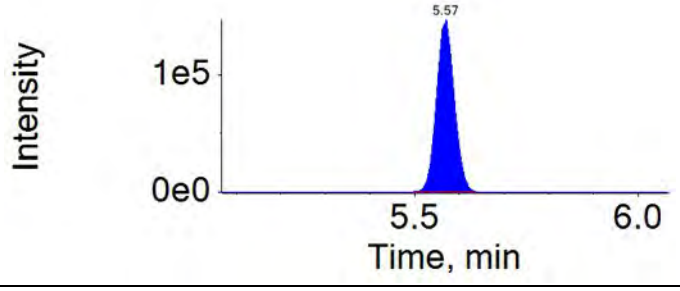
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



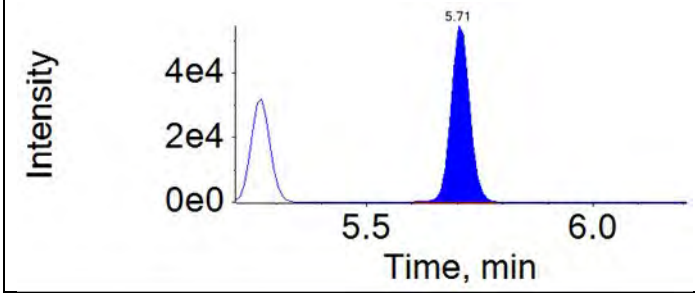


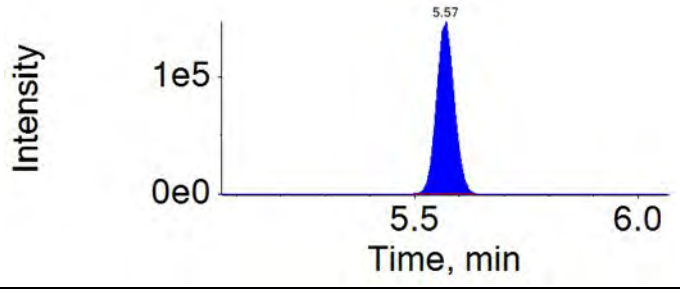
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



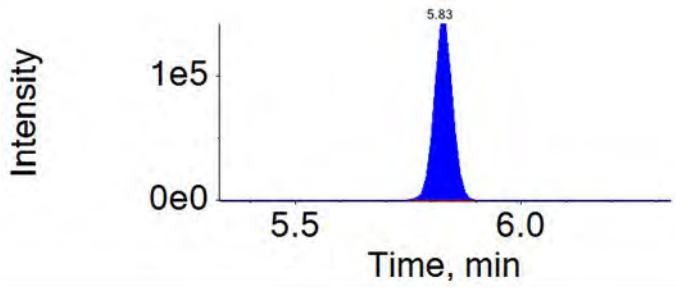


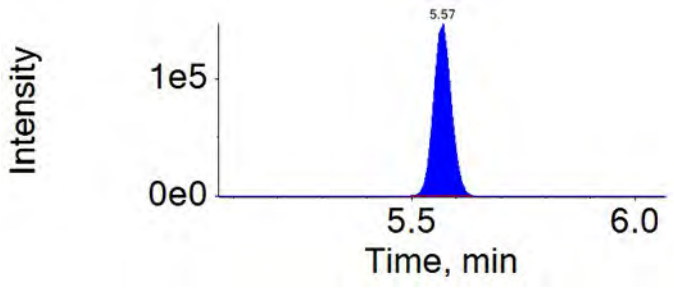
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





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



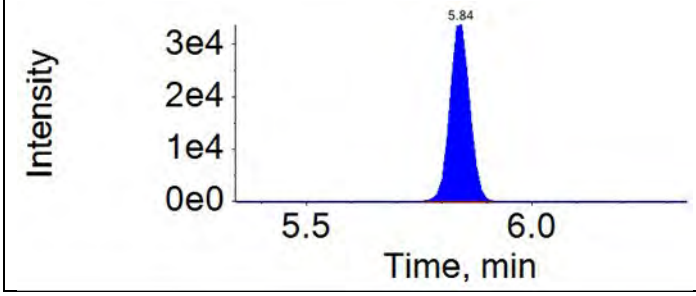


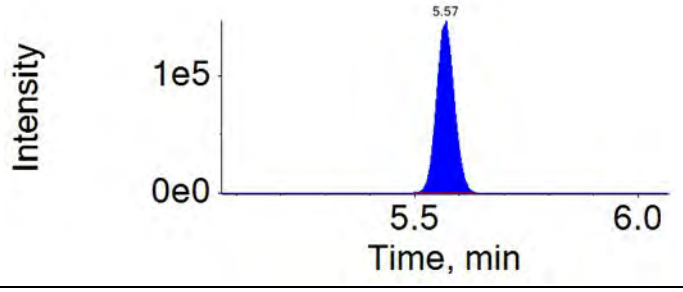
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

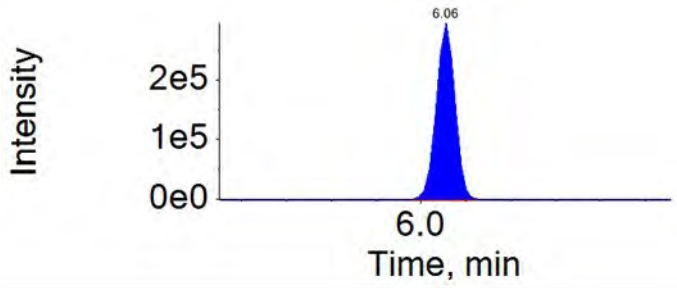
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

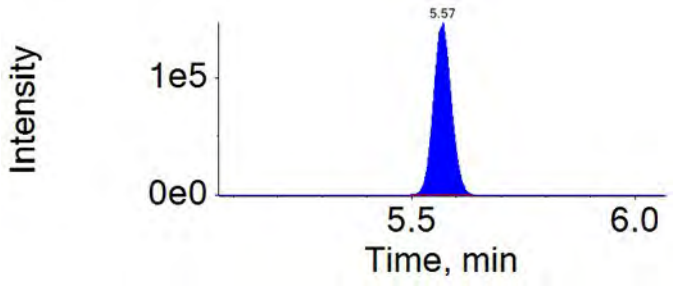
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



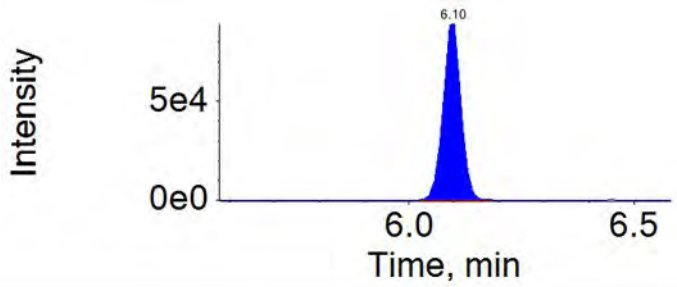


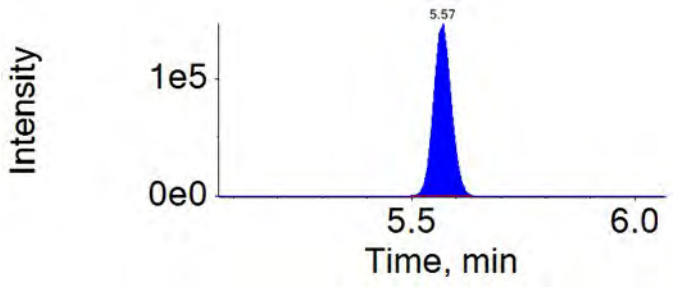
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



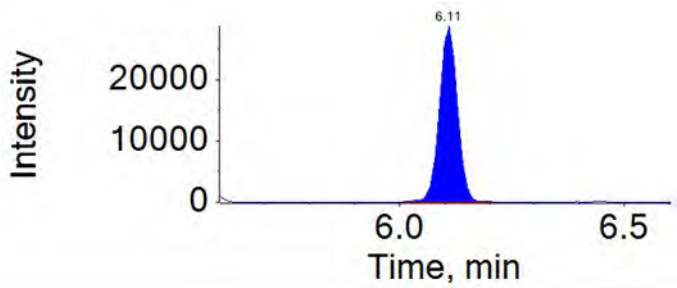


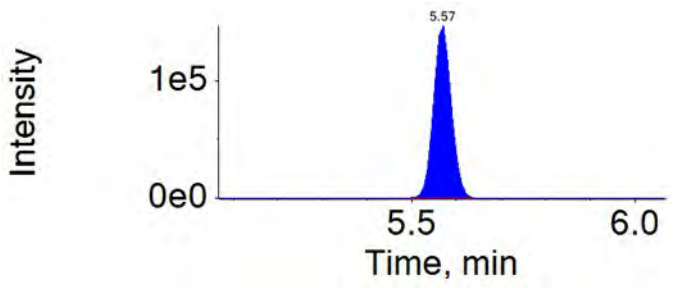
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



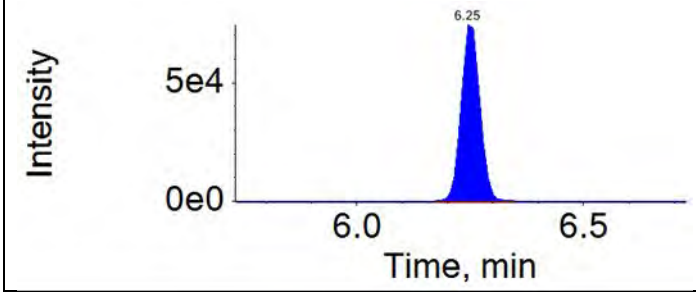


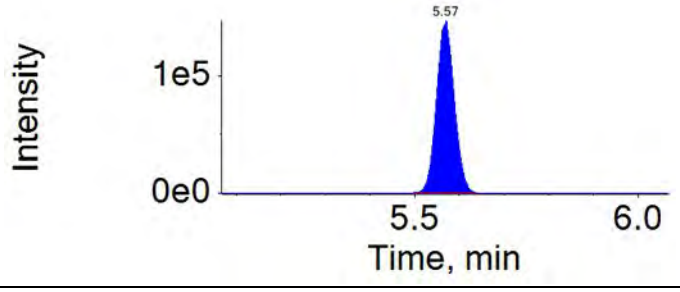
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

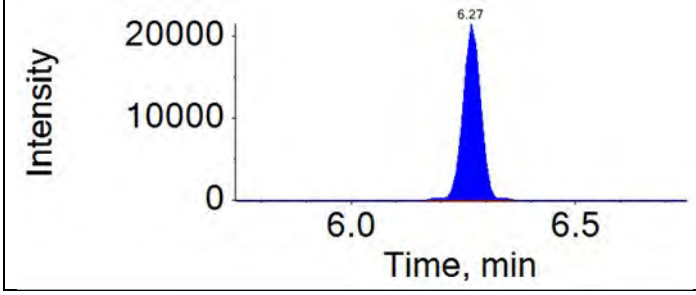
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

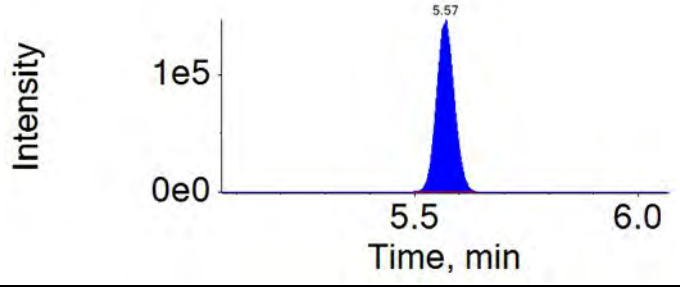
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



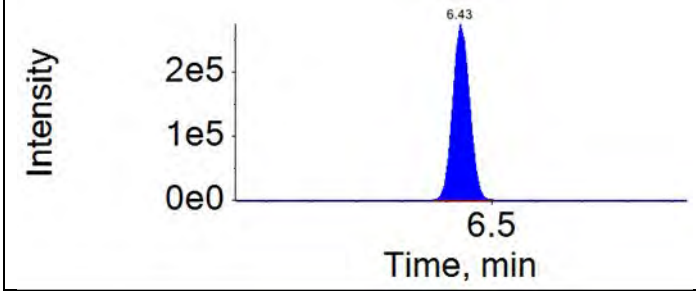


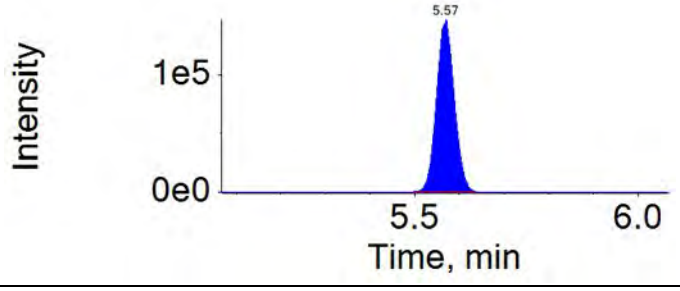
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



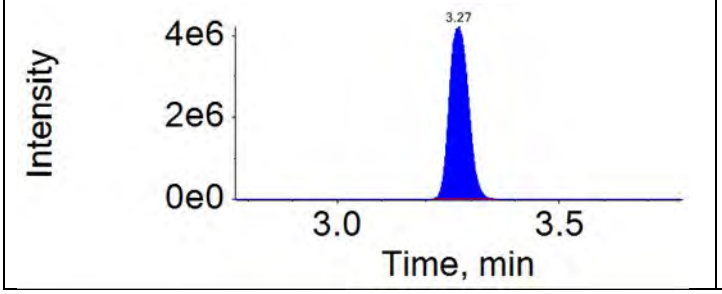


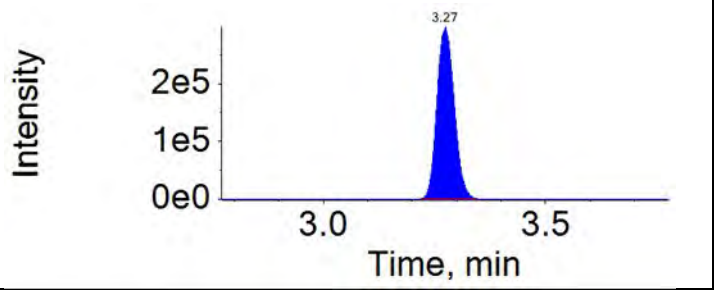
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

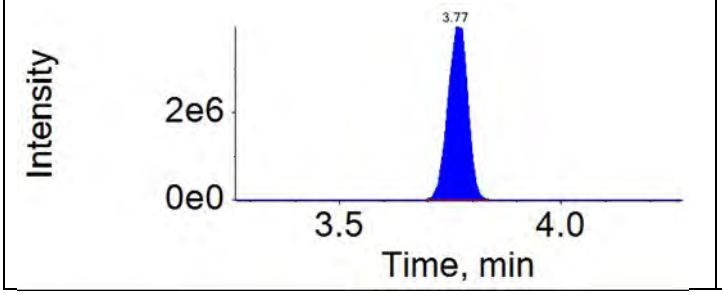
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

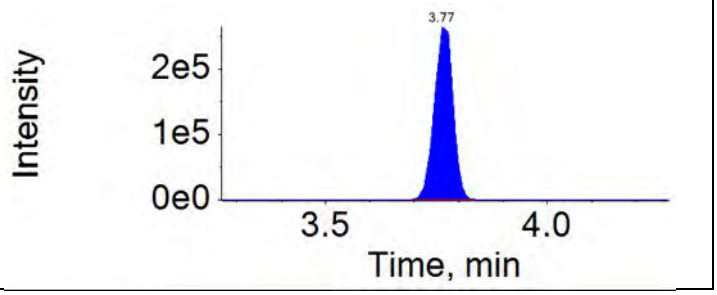
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



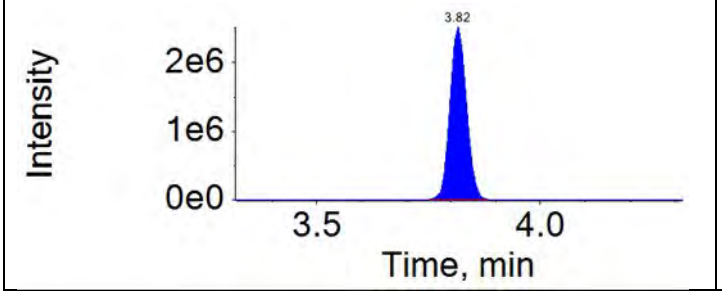


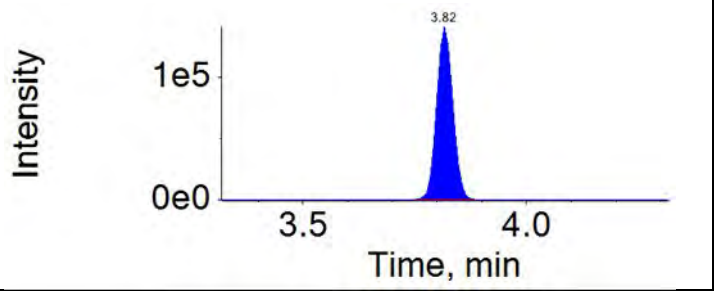
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



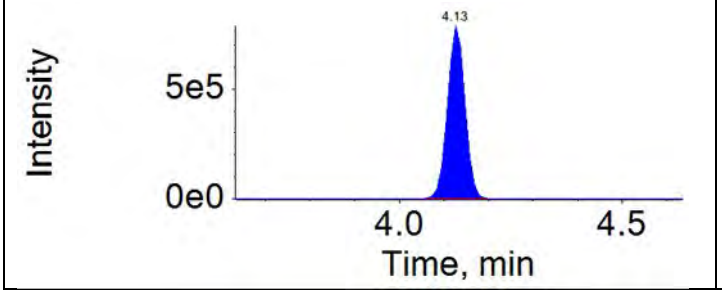


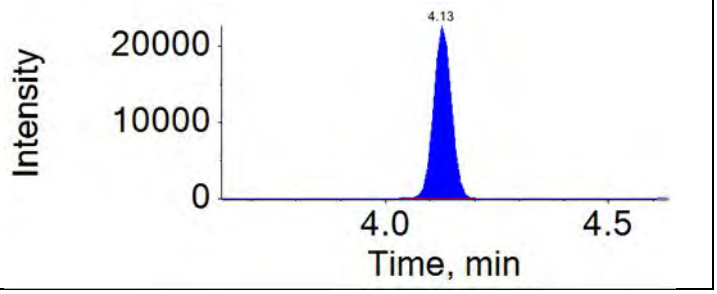
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



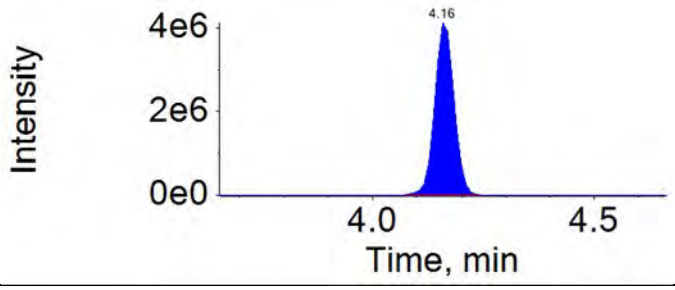


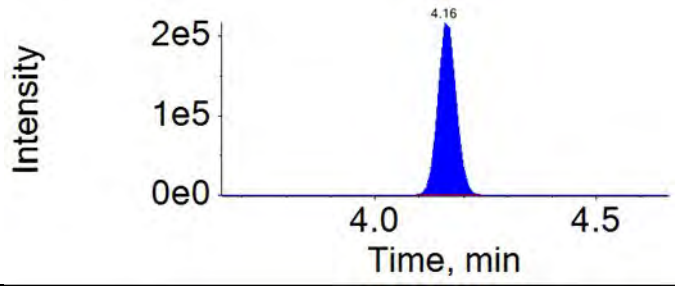
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

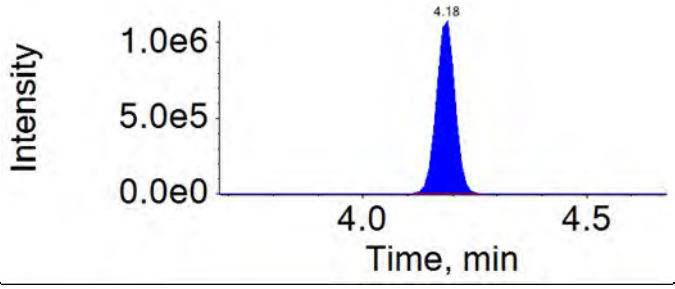
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

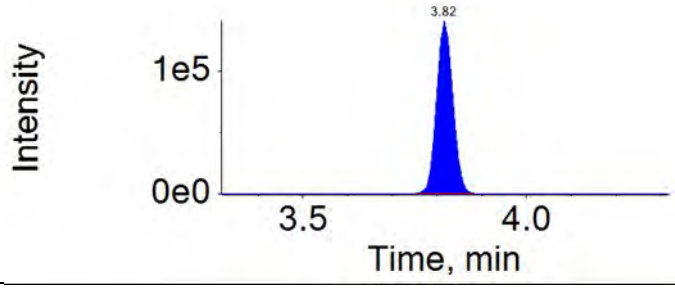
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



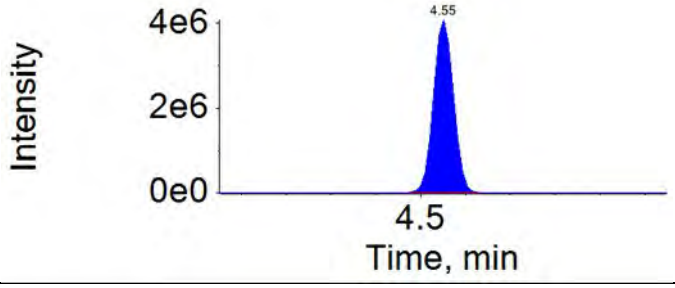


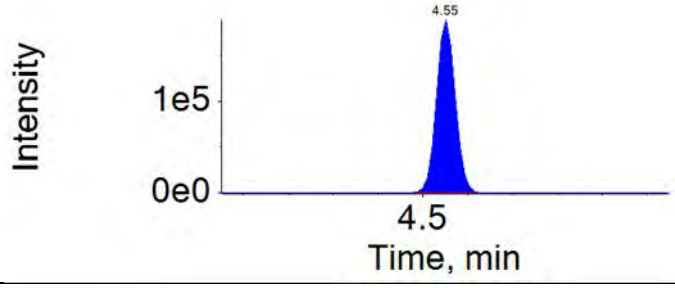
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



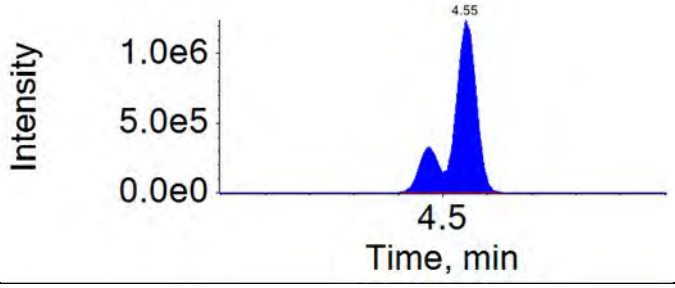


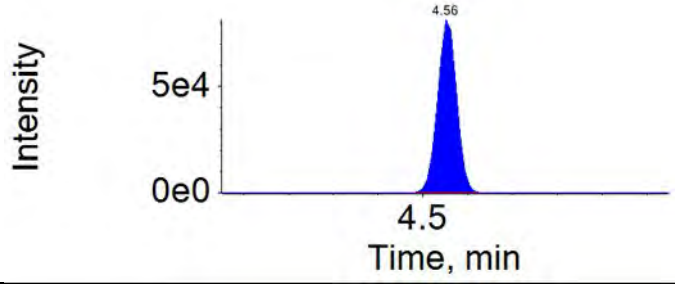
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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

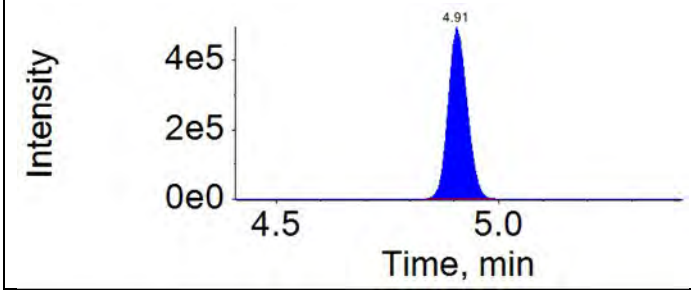
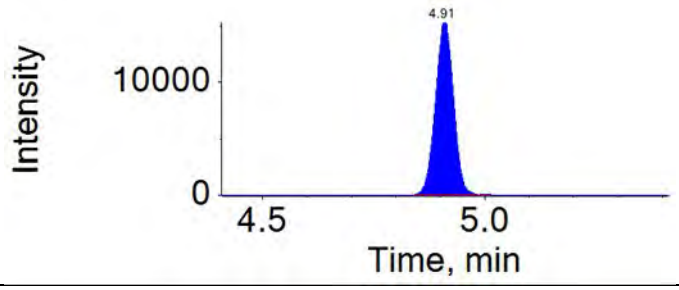


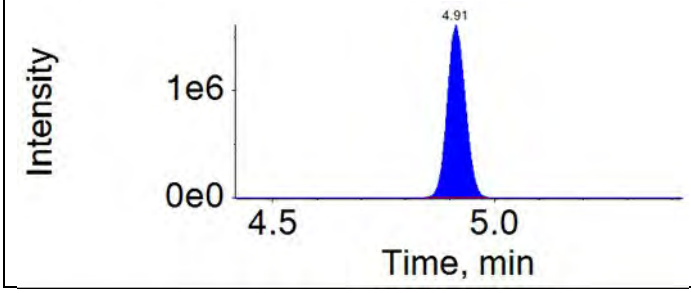
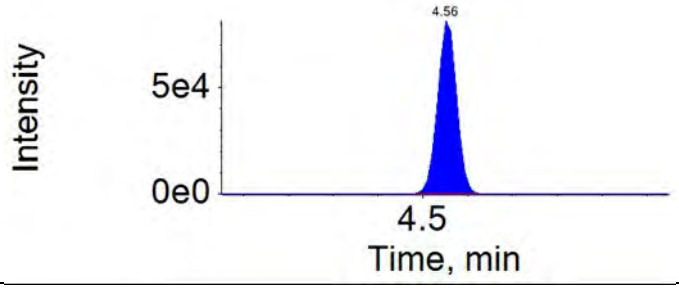


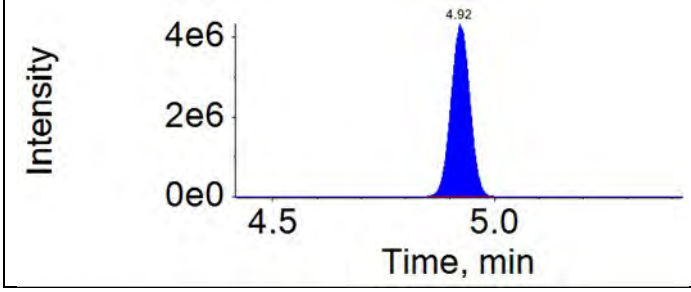
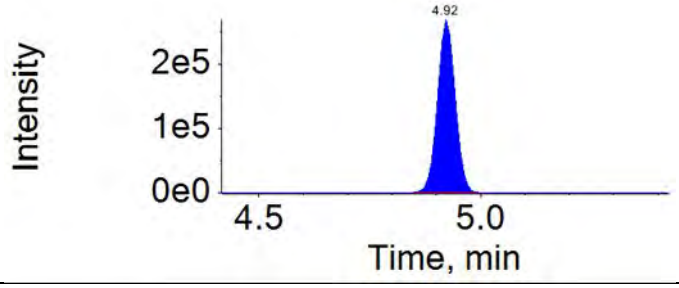
APPROVED
By MCD at 5:01 pm, 11/28/18

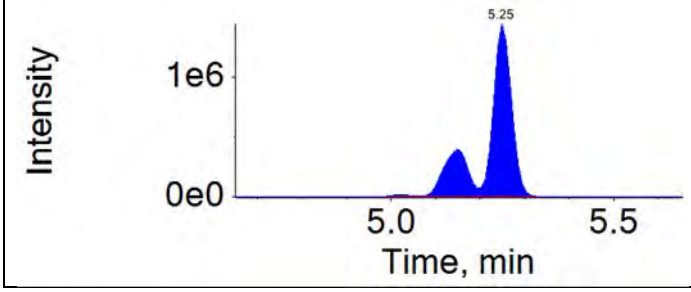
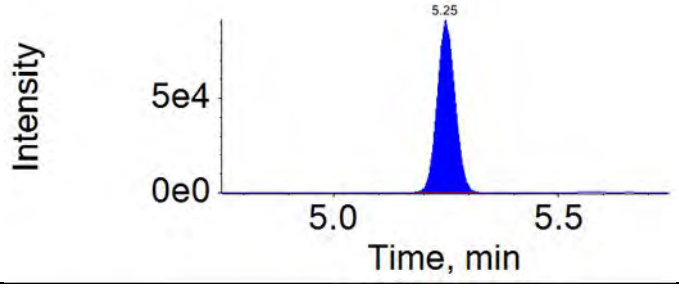
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

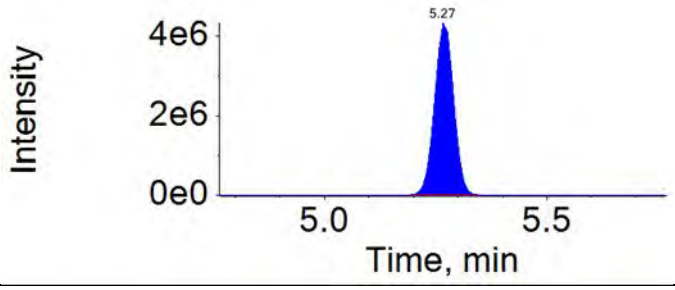
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

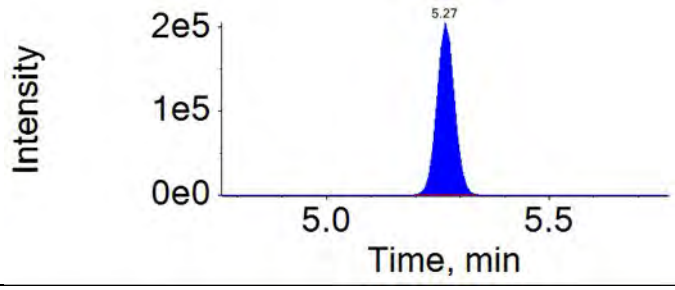
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

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

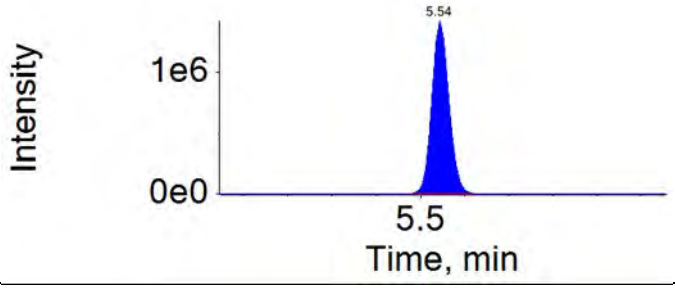
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

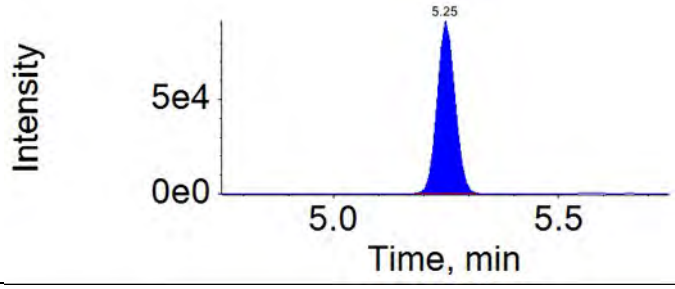
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



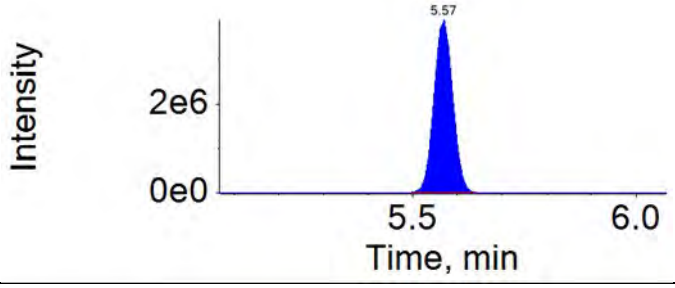


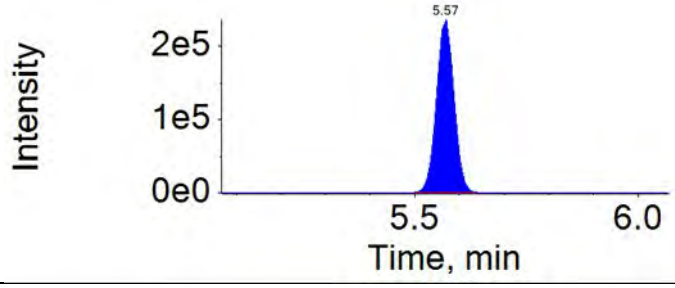
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



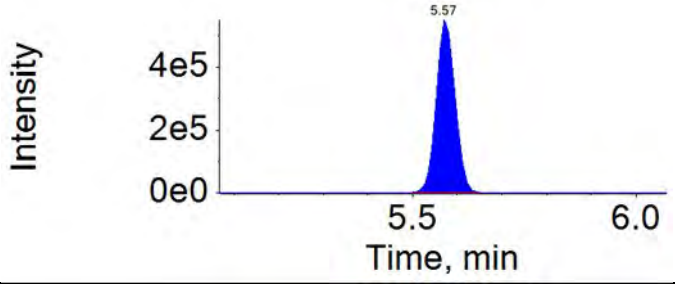


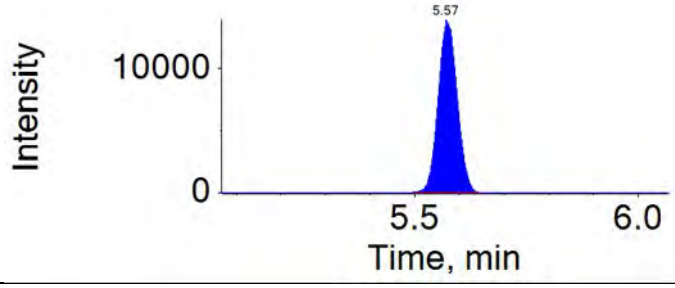
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



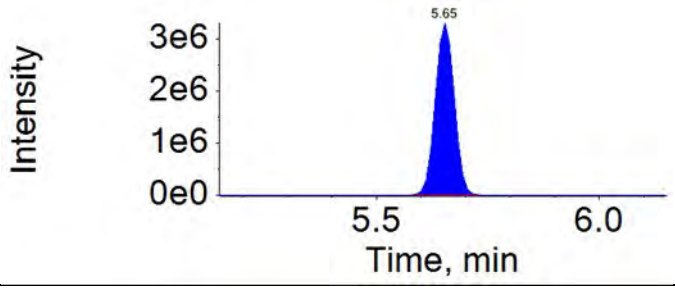


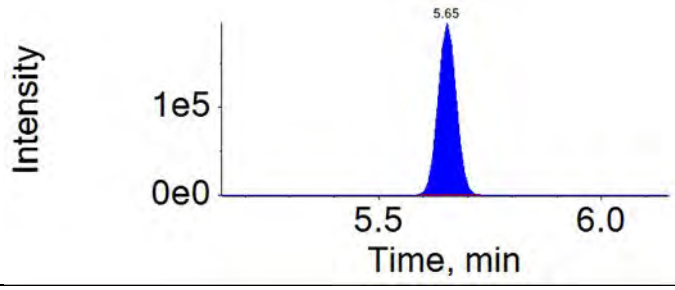
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

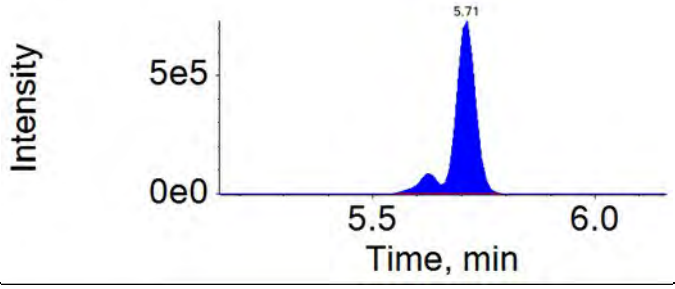
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

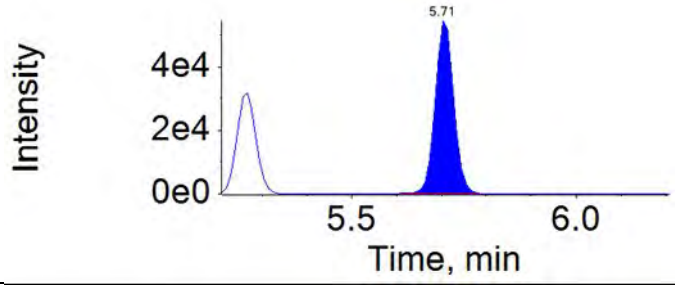
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



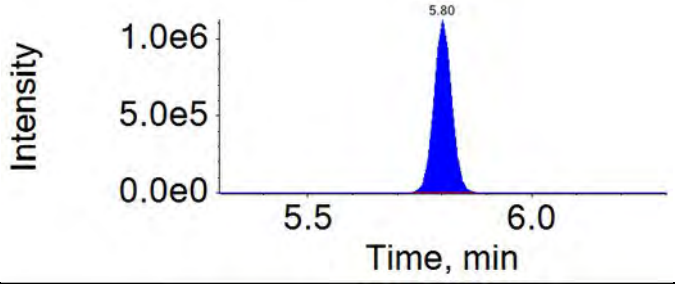


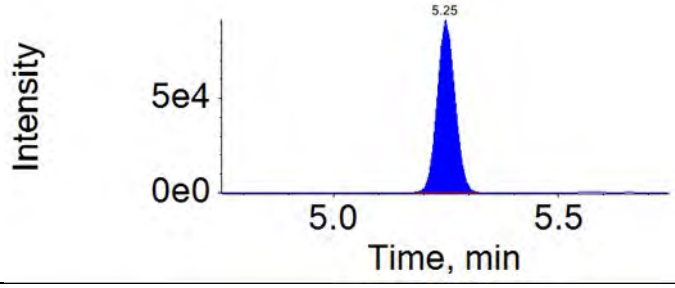
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



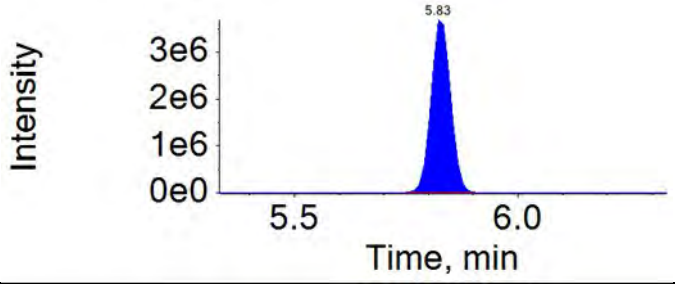


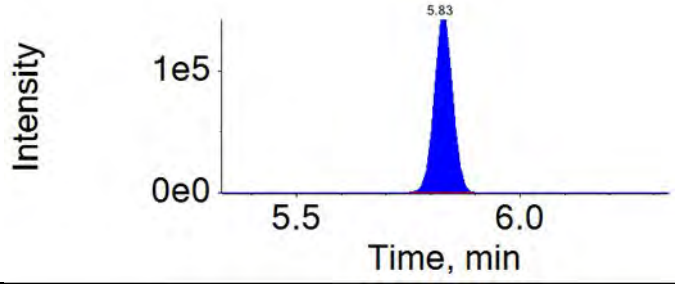
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



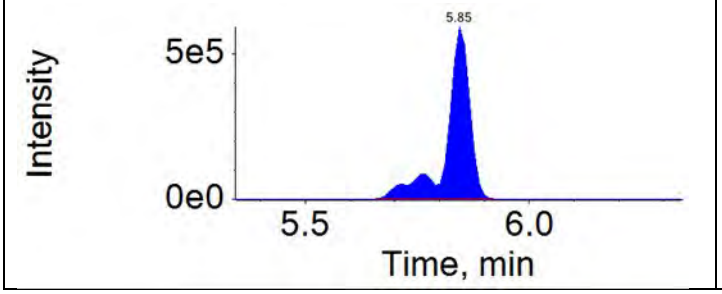


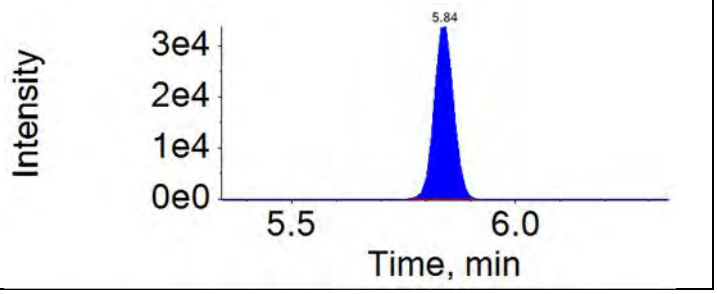
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

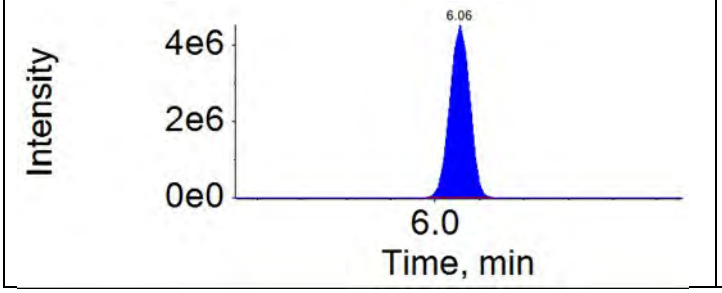
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

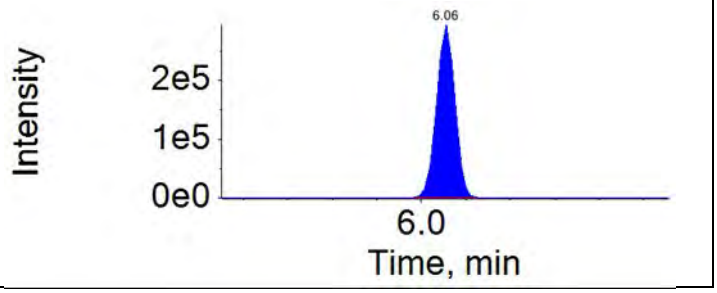
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



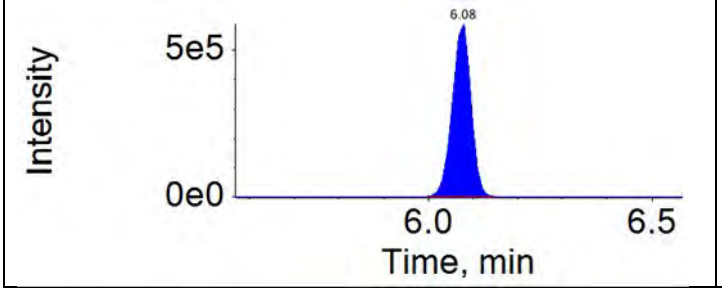


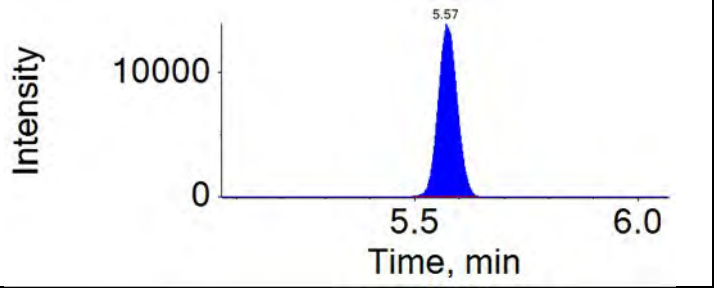
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



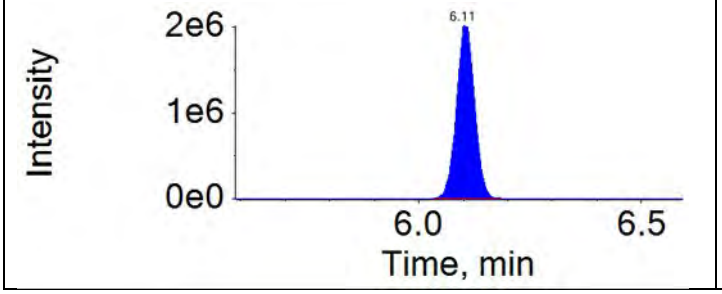


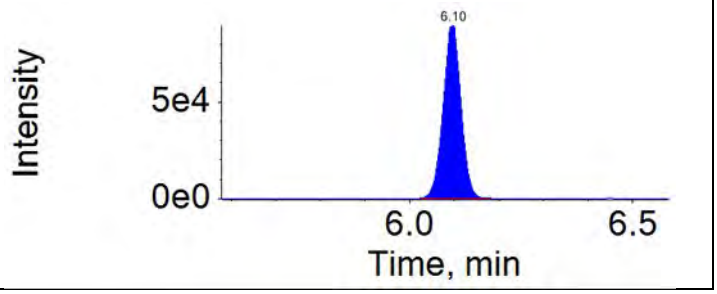
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



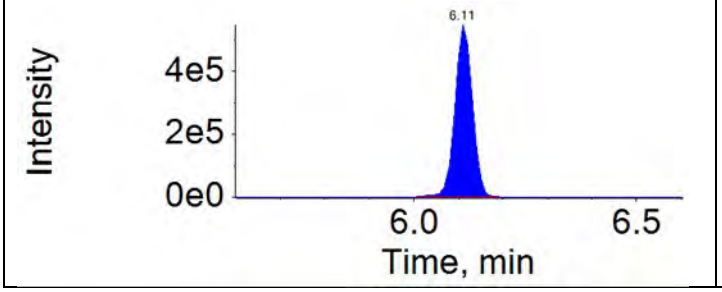


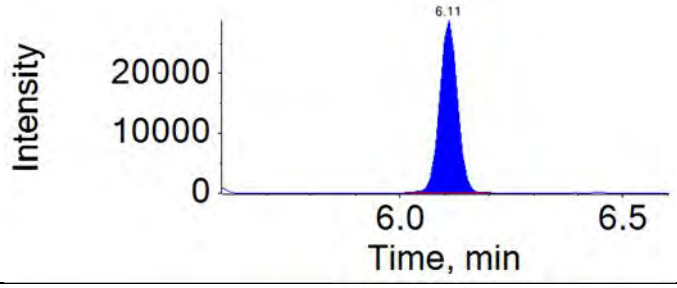
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

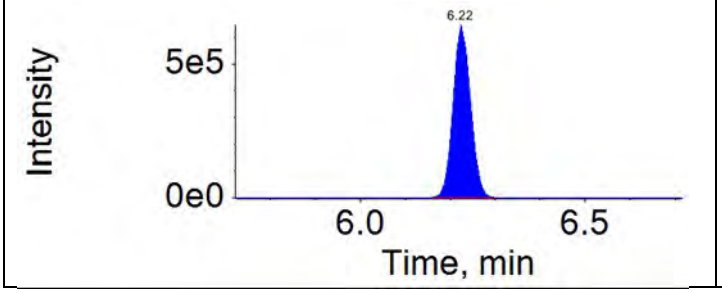
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

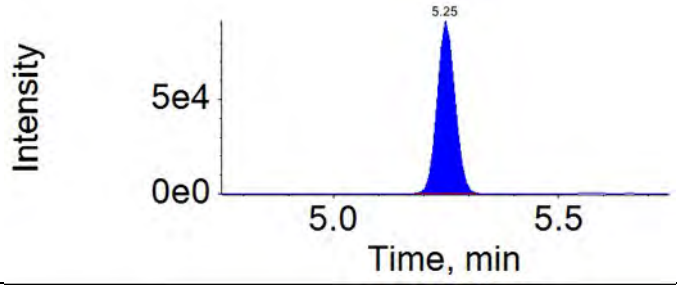
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



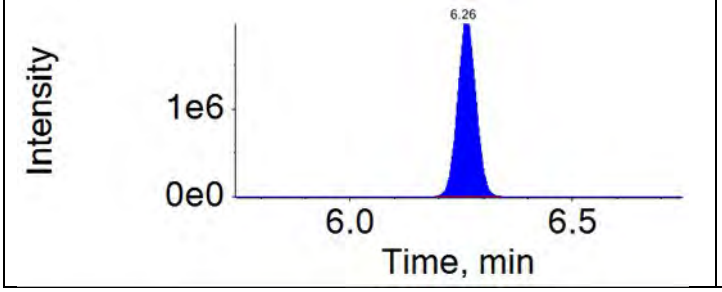


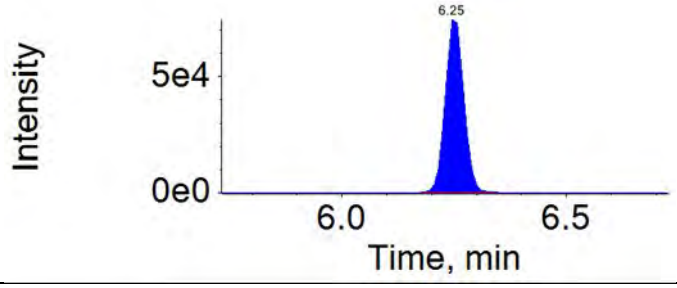
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



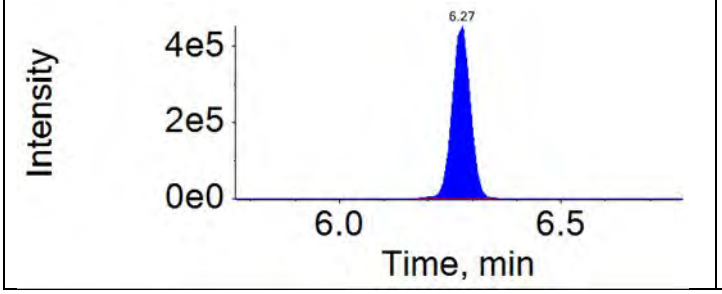


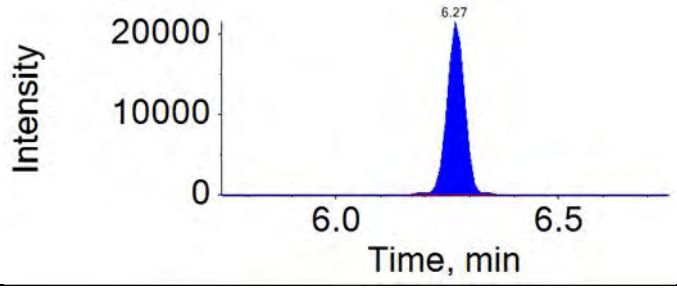
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





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



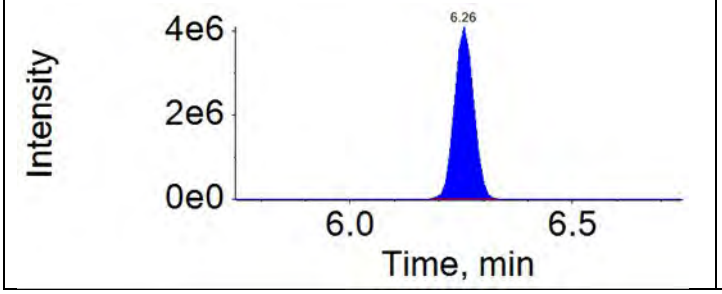


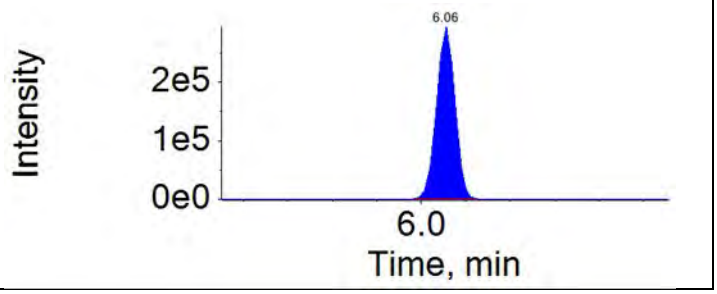
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

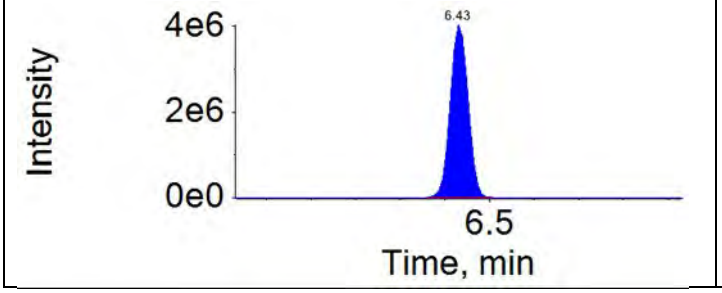
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

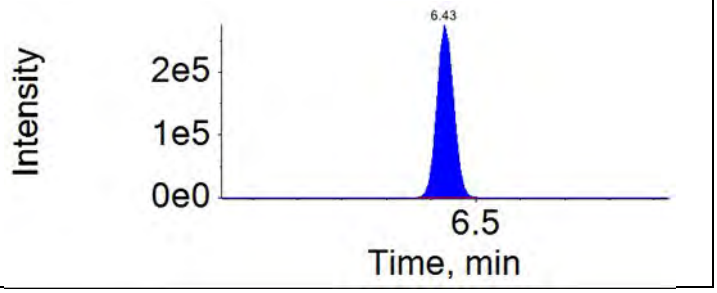
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



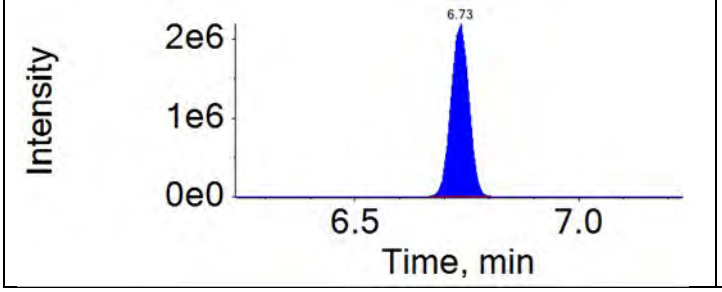


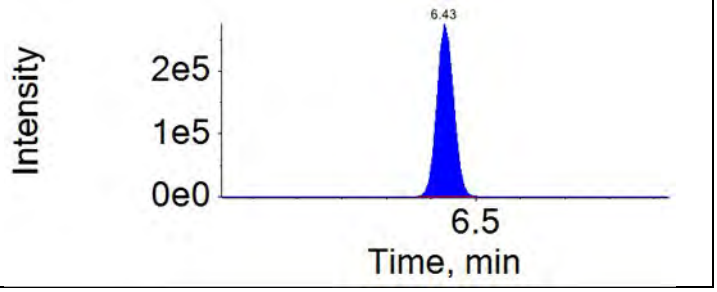
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



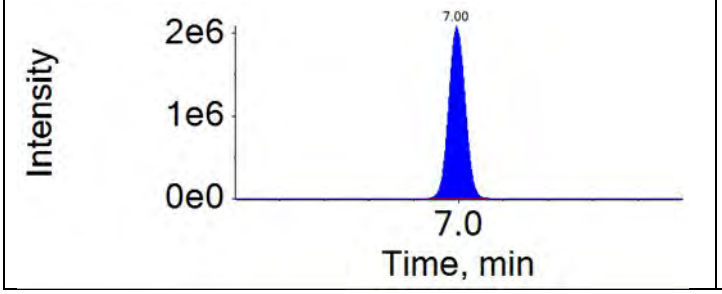


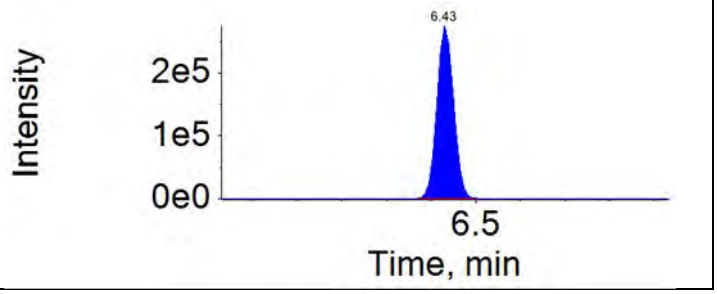
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

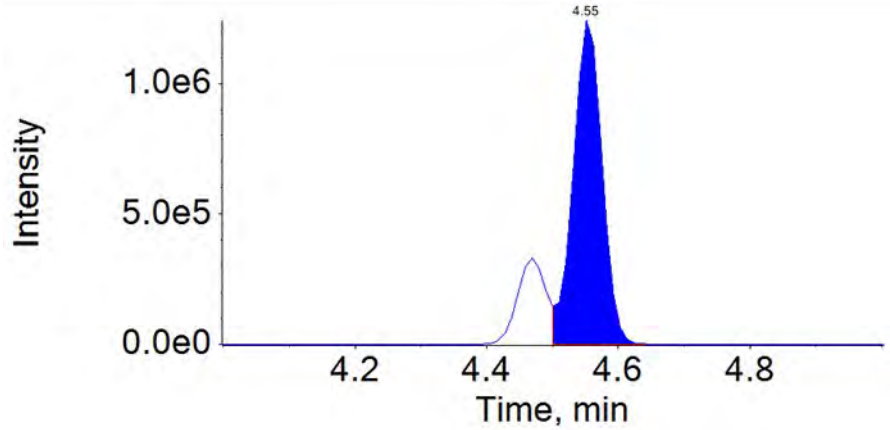


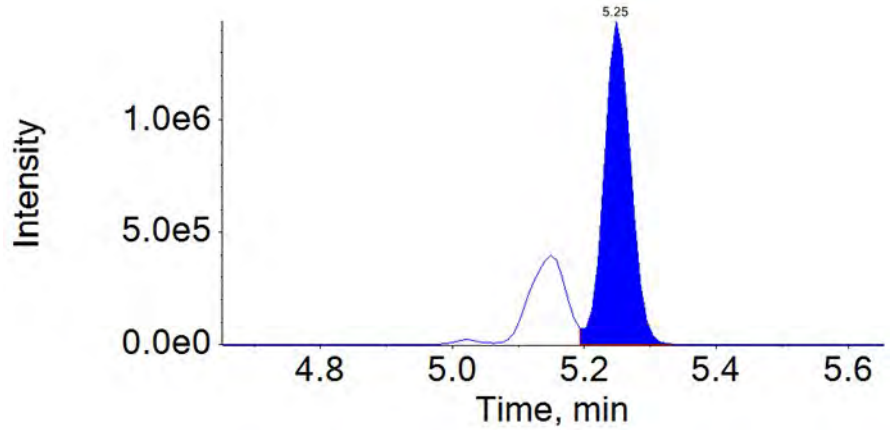


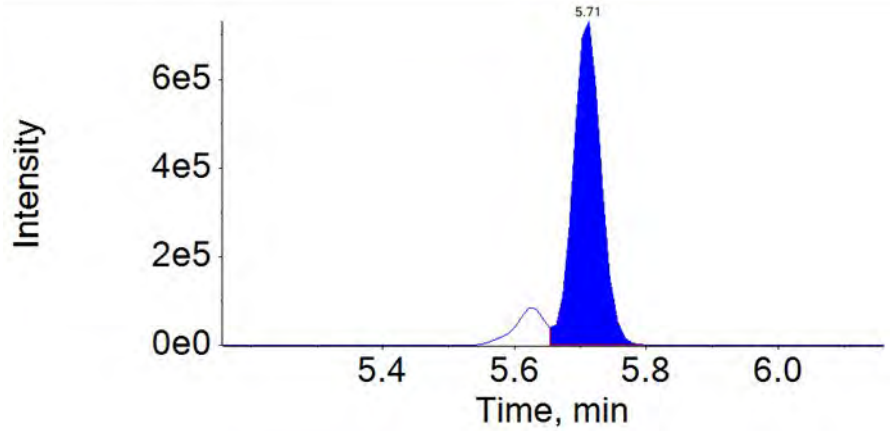
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS **RT (min.):** 4.55 **Peak Area:** 3819927.07 **Mass Range:** 399.0 / 80.0 **File Name:** 18NOV28DCAL-12.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

Component Name: PFOS **RT (min.):** 5.25 **Peak Area:** 4044104.57 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV28DCAL-12.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

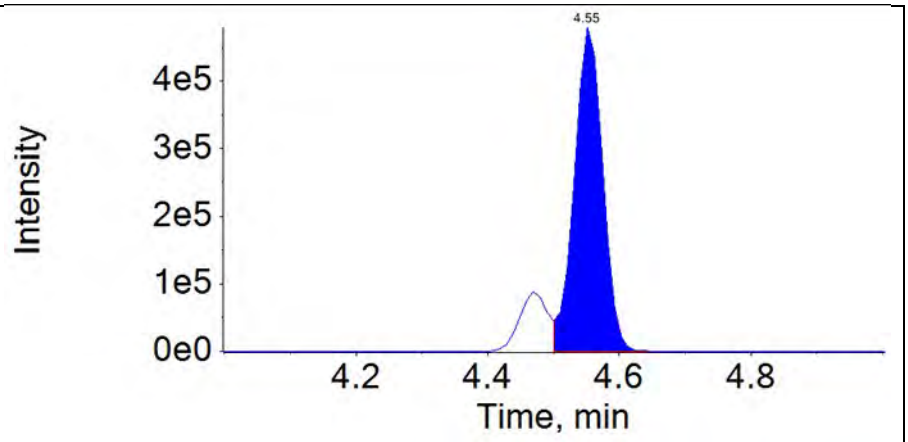
Component Name: NMeFOSAA **RT (min.):** 5.71 **Peak Area:** 2148433.90 **Mass Range:** 570.0 / 419.0 **File Name:** 18NOV28DCAL-12.wiff **Sample Name:** CAL7	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

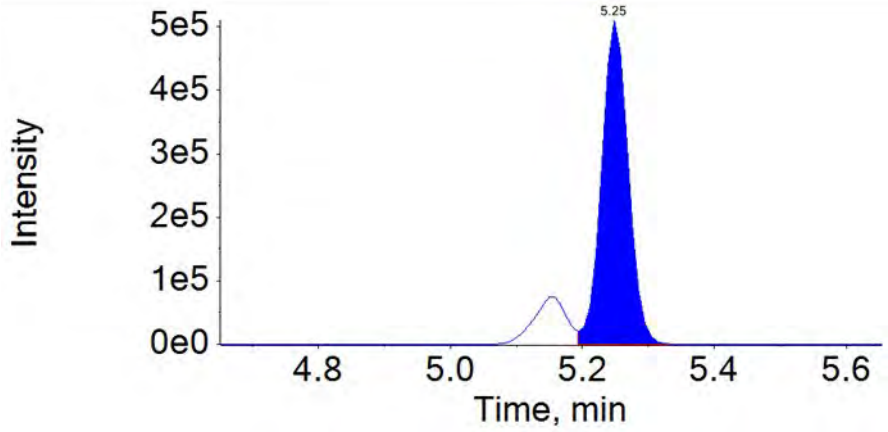
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
1444685.25
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



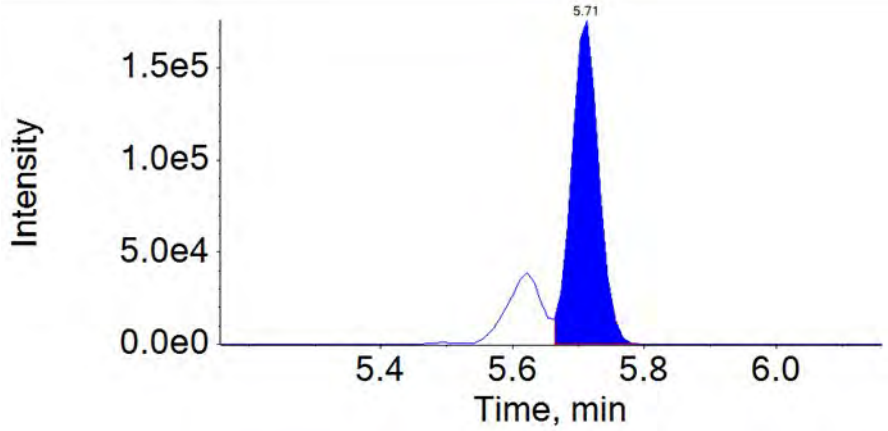
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
1428771.10
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
503982.25
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

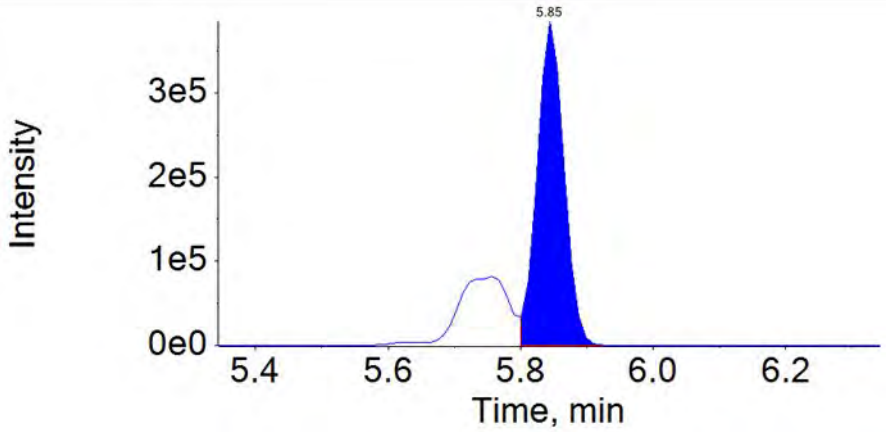
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
1078966.66
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

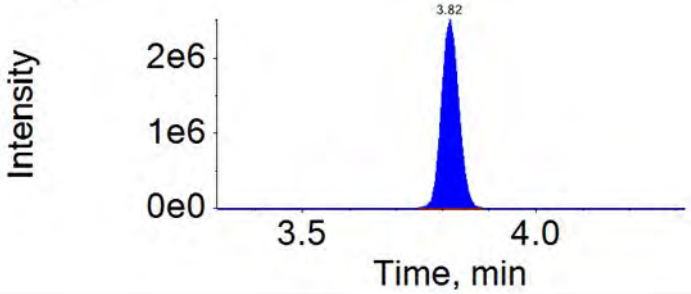
Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-12.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	6468971.36	A	0.3655	0.3712			
PFBS_2	3.82	1.00	2401069.30	A	0.3655	0.3712	2	50	
4:2-FTS	4.13	1.00	2126148.19	A	0.6383	0.6227			
4:2-FTS_2	4.13	1.00	1323869.93	A	0.6383	0.6227	-2	50	
PFHxA	4.16	1.00	12530842.98	A	0.0103	0.0129			
PFHxA_2	4.16	1.00	161470.85	A	0.0103	0.0129	25	50	
PFPeS	4.18	1.10	3295381.64	A	0.4976	0.5155			
PFPeS_2	4.18	1.10	1698903.95	A	0.4976	0.5155	4	50	
PFHpA	4.55	1.00	12619701.65	A	0.0557	0.0605			
PFHpA_2	4.55	1.00	763765.05	A	0.0557	0.0605	9	50	
PFHxS	4.55	1.00	4797026.75	M	0.3693	0.3544			
PFHxS_2	4.55	1.00	1700170.72	M	0.3693	0.3544	-4	50	
6:2-FTS	4.91	1.00	1464447.02	A	0.6625	0.6198			
6:2-FTS_2	4.91	1.00	907687.80	A	0.6625	0.6198	-6	50	
PFHpS	4.91	1.08	4562639.61	A	0.3915	0.4054			
PFHpS_2	4.91	1.08	1849493.91	A	0.3915	0.4054	4	50	
PFOA	4.92	1.00	12900182.71	A	0.0573	0.0647			
PFOA_2	4.92	1.00	835020.05	A	0.0573	0.0647	13	50	
PFOS	5.25	1.00	5620328.96	M	0.2960	0.3007			
PFOS_2	5.25	1.00	1690188.73	M	0.2960	0.3007	2	50	
PFNA	5.27	1.00	12939629.11	A	0.0201	0.0225			
PFNA_2	5.27	1.00	291130.29	A	0.0201	0.0225	12	50	
PFNS	5.54	1.06	3804945.18	A	0.4794	0.4635			
PFNS_2	5.54	1.06	1763659.34	A	0.4794	0.4635	-3	50	
PFDA	5.57	1.00	11371046.97	A	0.0075	0.0075			
PFDA_2	5.57	1.00	85605.85	A	0.0075	0.0075	1	50	
8:2-FTS	5.57	1.00	1620286.00	A	0.5380	0.5778			
8:2-FTS_2	5.57	1.00	936181.88	A	0.5380	0.5778	7	50	
NMeFOSAA	5.71	1.00	2414874.82	M	0.2305	0.2675			
NMeFOSAA_2	5.71	1.00	645922.89	M	0.2305	0.2675	16	50	
PFDS	5.80	1.11	3061543.49	A	0.5356	0.4828			
PFDS_2	5.80	1.11	1477981.79	A	0.5356	0.4828	-10	50	
PFUnDA	5.83	1.00	11254483.78	A	0.0038	0.0041			
PFUnDA_2	5.83	1.00	46090.29	A	0.0038	0.0041	8	50	
NEtFOSAA	5.85	1.00	2127663.38	A	0.7356	0.7070			
NEtFOSAA_2	5.85	1.00	1504160.93	M	0.7356	0.7070	-4	50	
PFDoDA	6.06	1.00	14195839.12	A	0.0130	0.0161			
PFDoDA_2	6.05	1.00	228700.97	A	0.0130	0.0161	24	50	
10:2-FTS	6.08	1.09	1718827.31	A	0.6989	0.7147			
10:2-FTS_2	6.08	1.09	1228426.74	A	0.6989	0.7147	2	50	
PFTrDA	6.26	1.03	12329126.07	A	0.0090	0.0102			
PFTrDA_2	6.26	1.03	125163.76	A	0.0090	0.0102	13	50	
PFTeDA	6.43	1.00	11258874.06	A	0.0056	0.0072			
PFTeDA_2	6.43	1.00	81360.66	A	0.0056	0.0072	29	50	
PFHxDA	6.73	1.05	6113985.15	A	0.0646	0.0666			
PFHxDA_2	6.73	1.05	406918.04	A	0.0646	0.0666	3	50	
PFODA	7.00	1.09	5309889.90	A	0.0264	0.0282			
PFODA_2	6.99	1.09	149760.81	A	0.0264	0.0282	7	50	

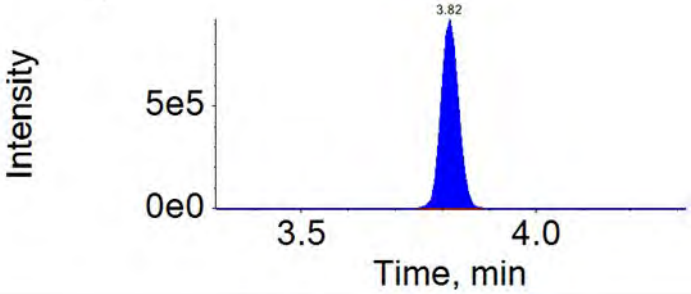
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

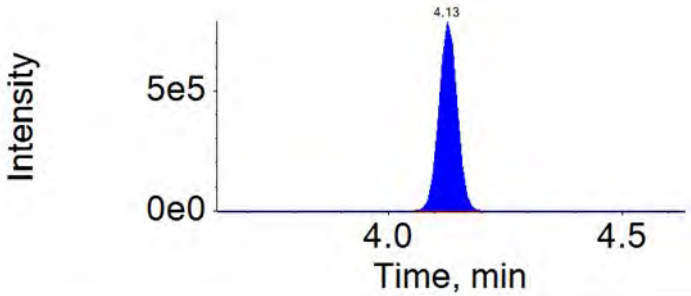
Component: PFBS
Primary Mass: 299.0 / 80.0



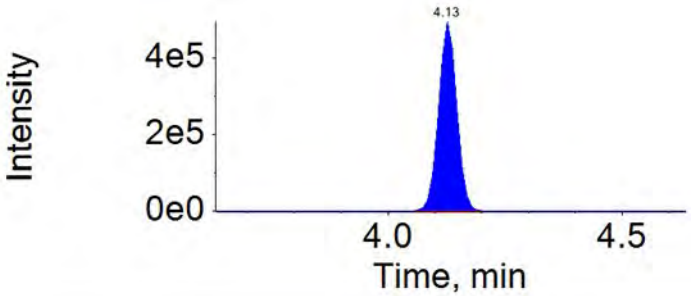
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



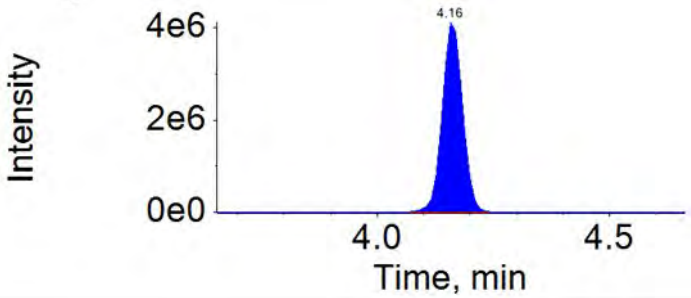
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



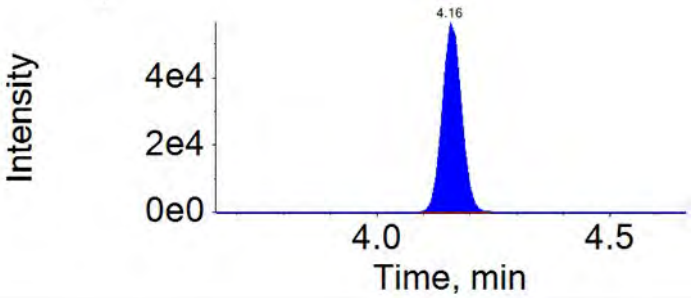
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



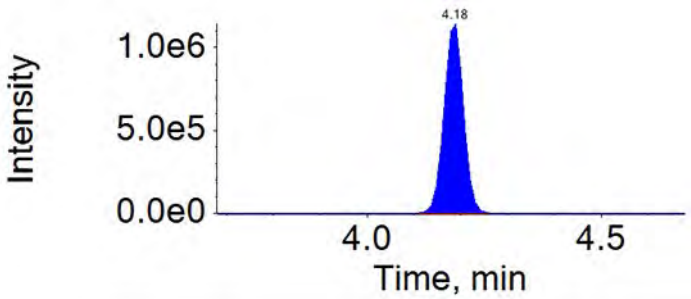
Component: PFHxA
Primary Mass: 313.0 / 269.0



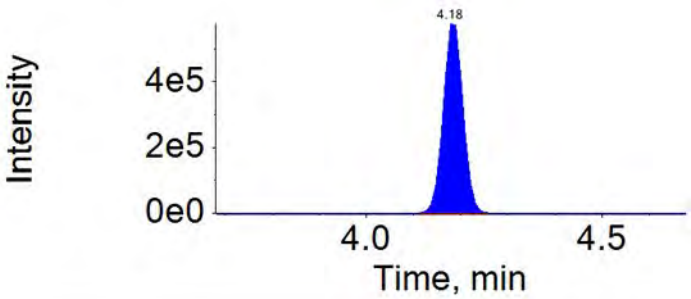
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



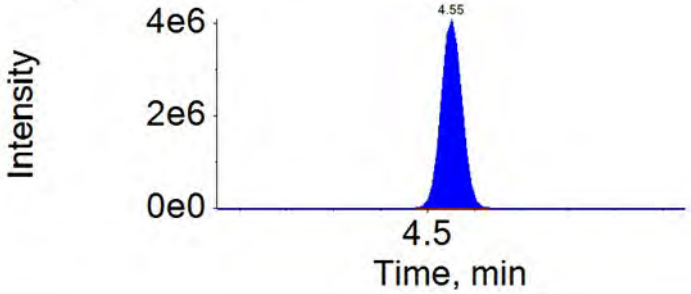
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



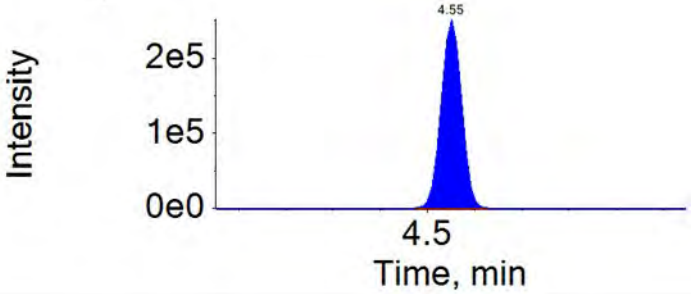
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

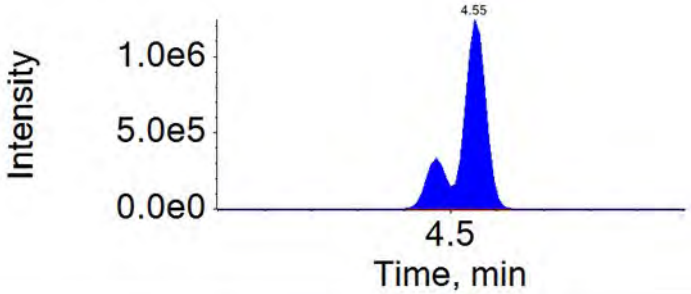
Component: PFHpA
Primary Mass: 363.0 / 319.0



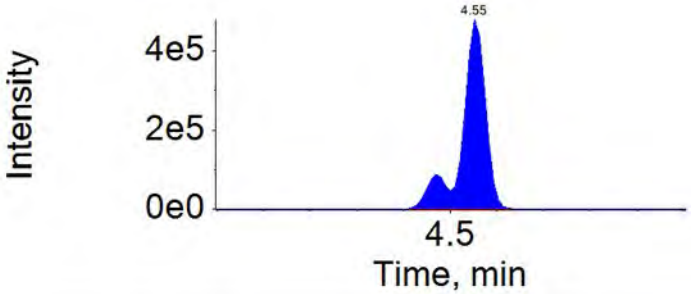
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



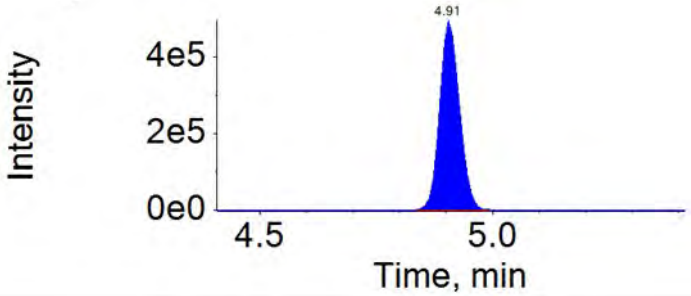
Component: PFHxS
Primary Mass: 399.0 / 80.0



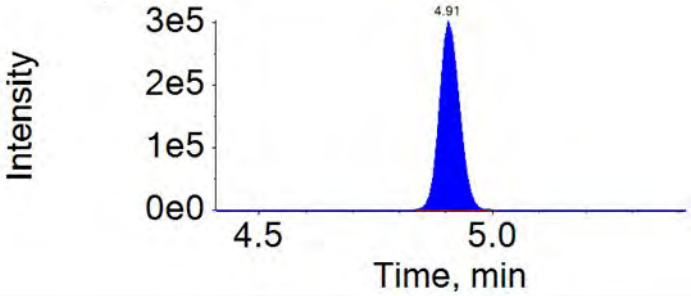
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



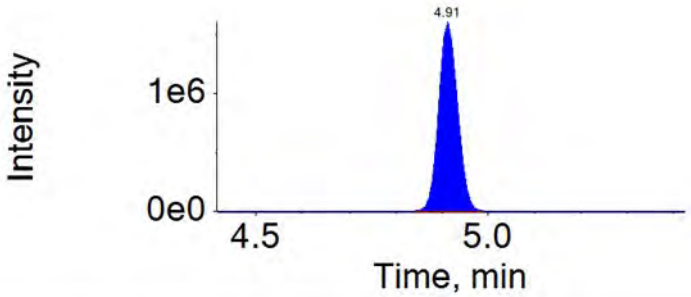
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



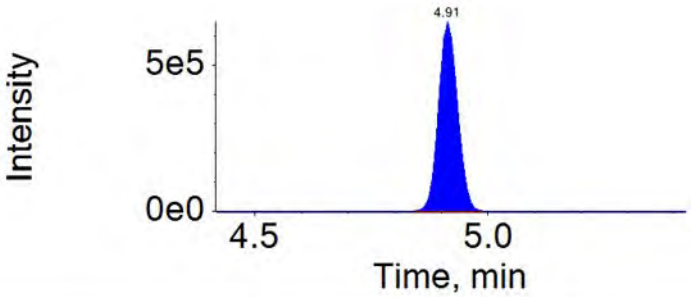
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



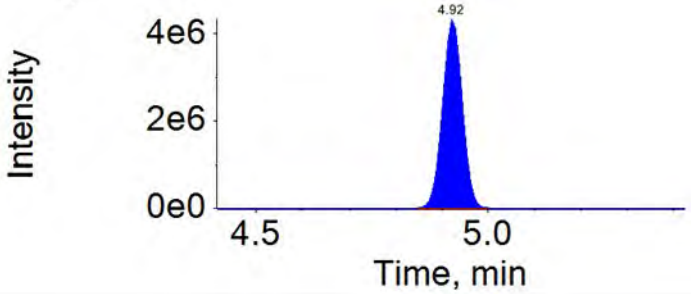
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



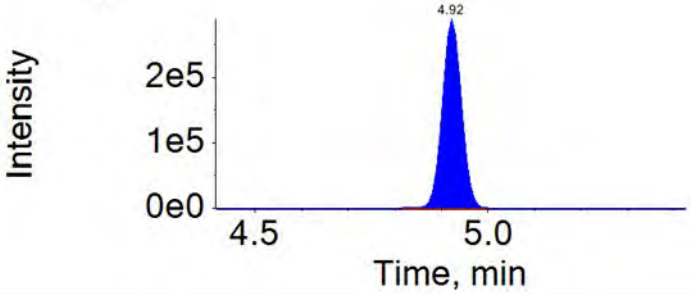
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

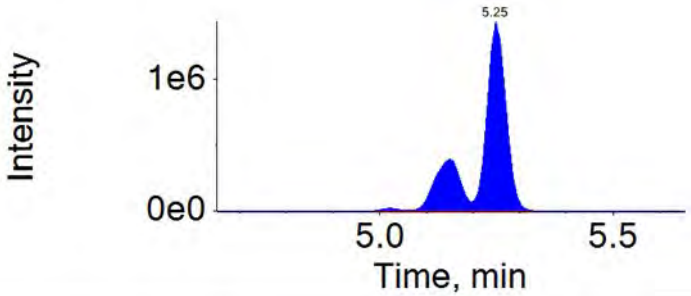
Component: PFOA
Primary Mass: 413.0 / 369.0



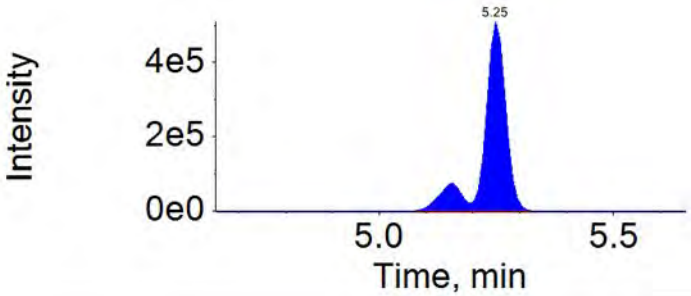
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



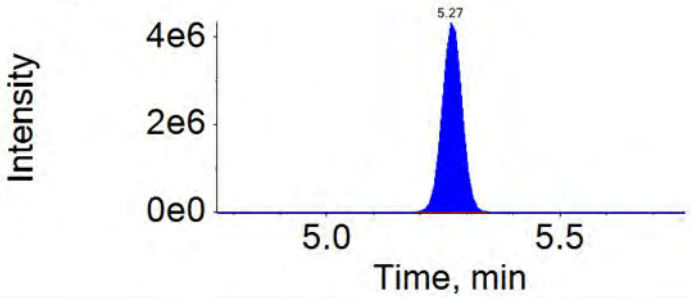
Component: PFOS
Primary Mass: 499.0 / 80.0



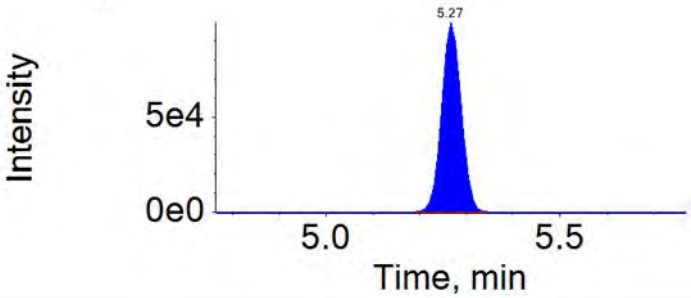
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



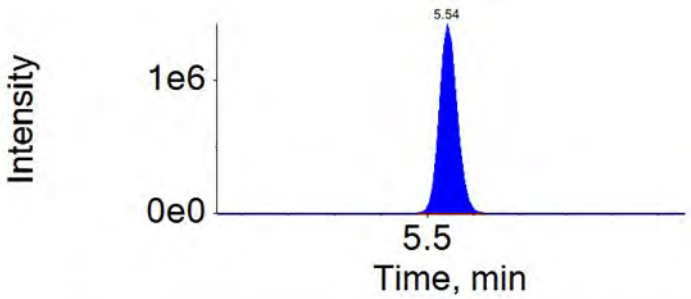
Component: PFNA
Primary Mass: 463.0 / 419.0



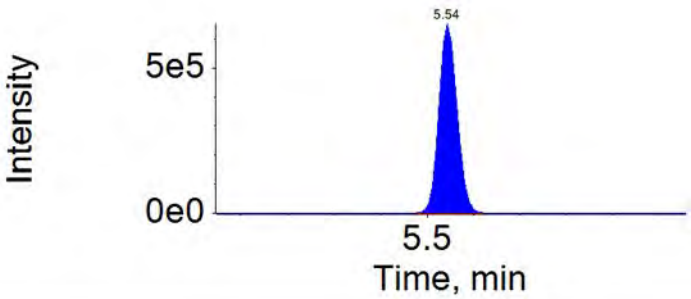
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



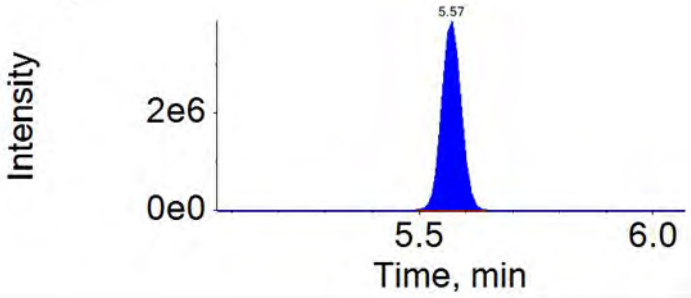
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



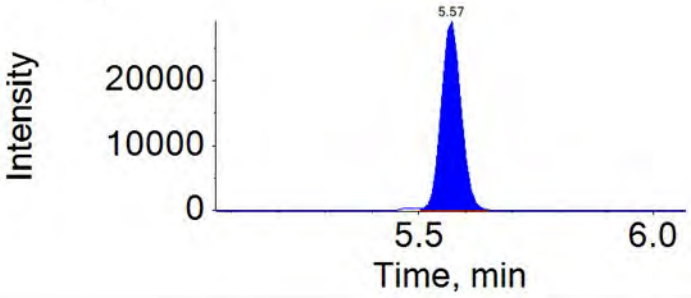
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

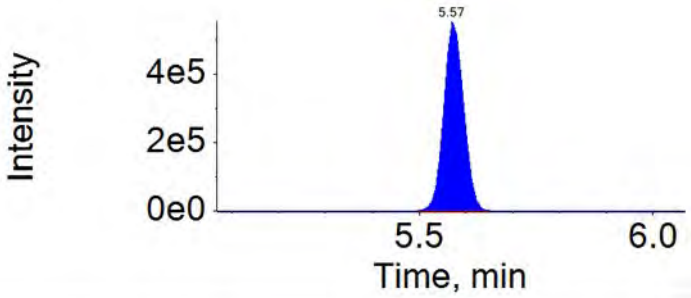
Component: PFDA
Primary Mass: 513.0 / 469.0



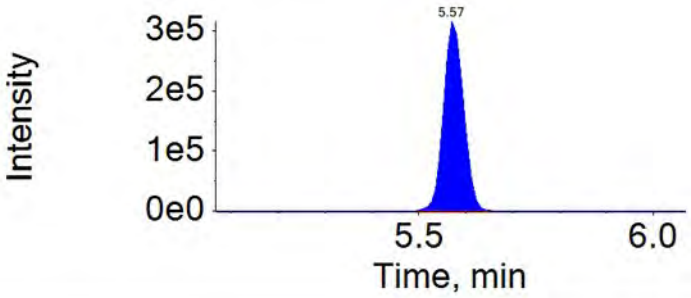
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



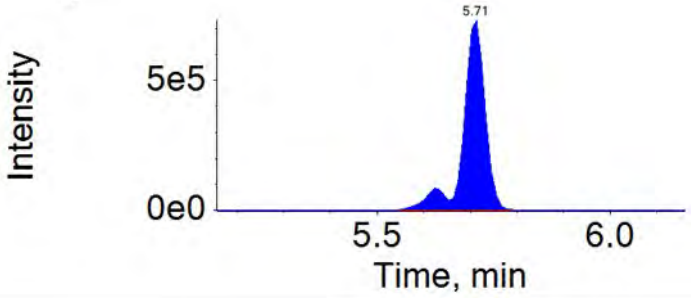
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



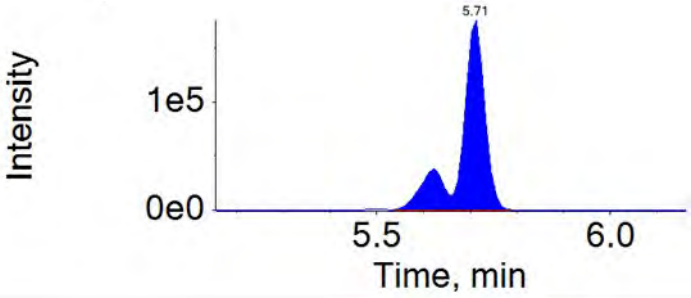
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



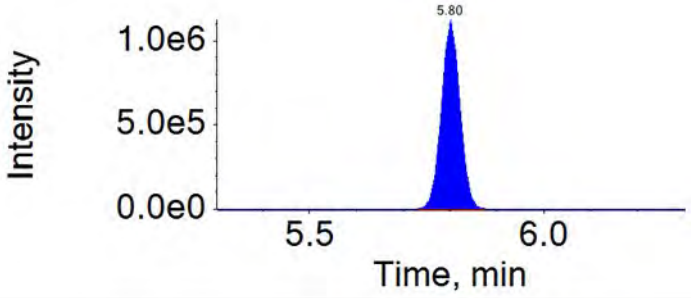
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



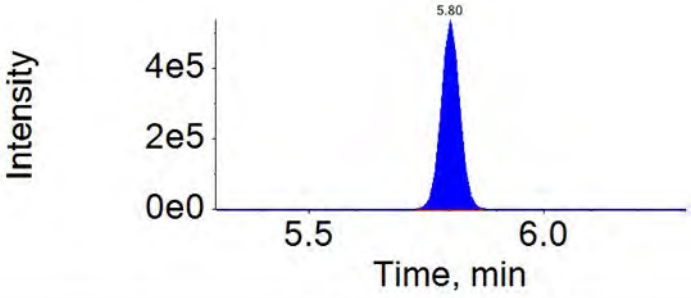
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



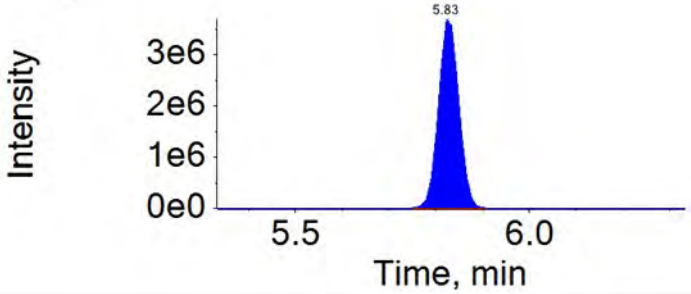
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



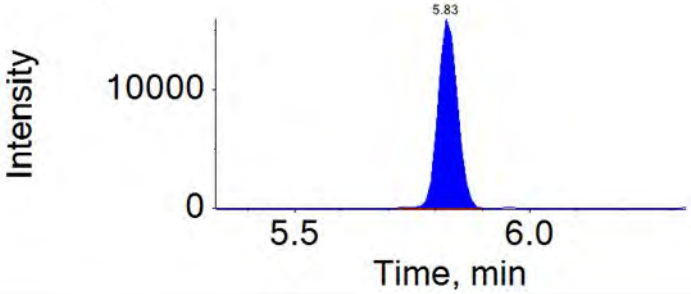
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

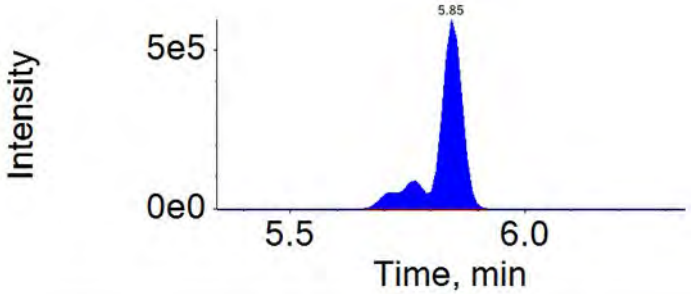
Component: PFUnDA
Primary Mass: 563.0 / 519.0



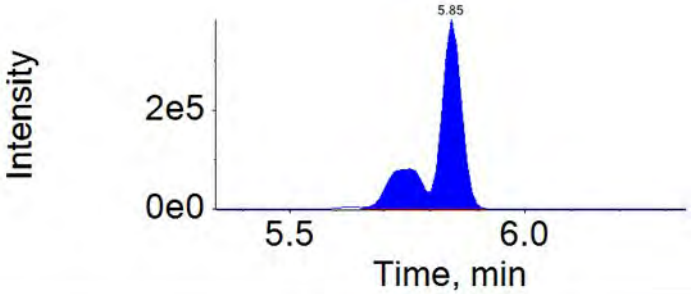
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



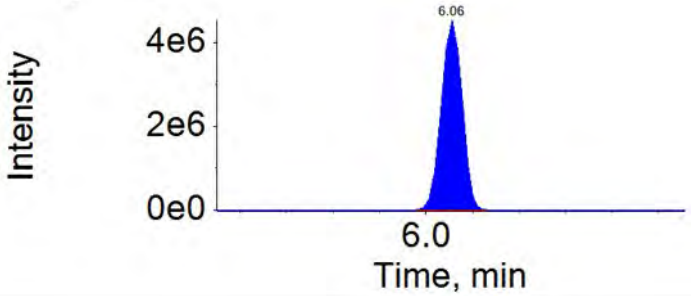
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



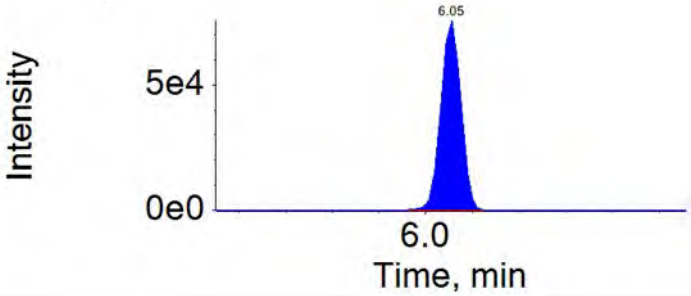
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



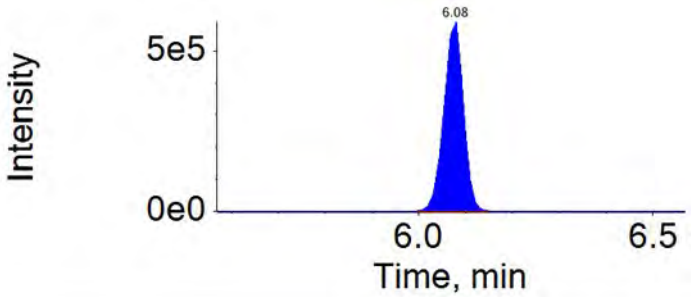
Component: PFDoDA
Primary Mass: 613.0 / 569.0



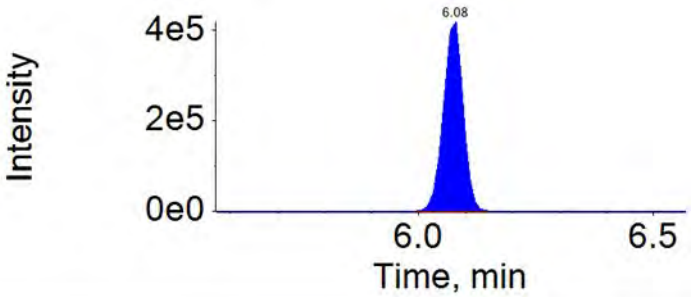
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



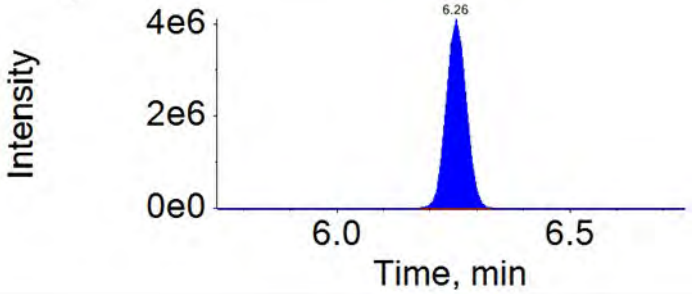
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



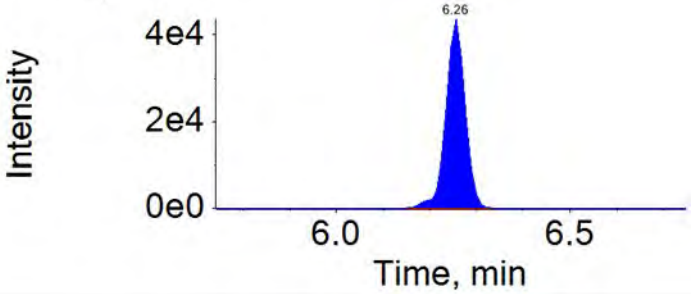
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

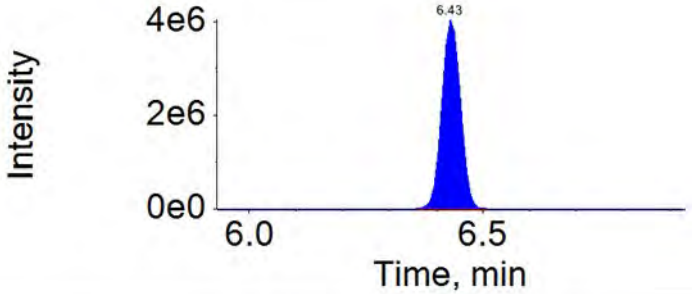
Component: PFTrDA
Primary Mass: 663.0 / 619.0



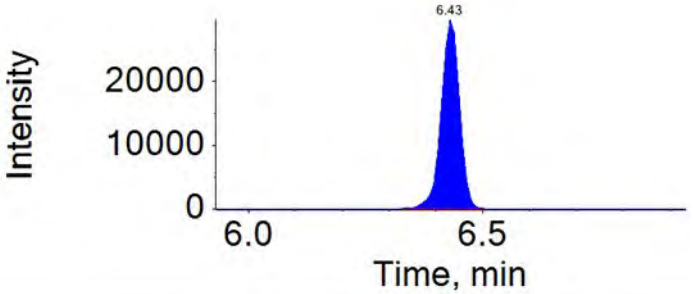
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



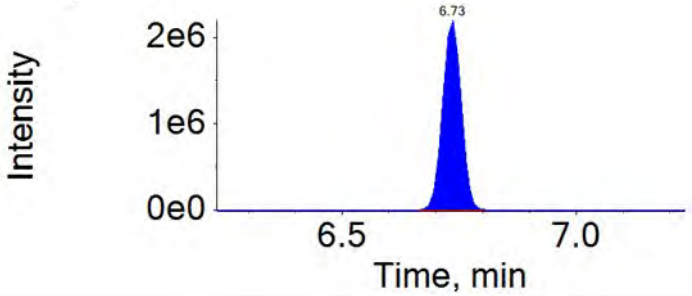
Component: PFTeDA
Primary Mass: 713.0 / 669.0



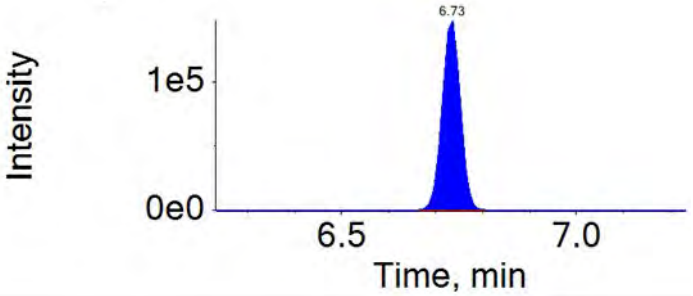
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



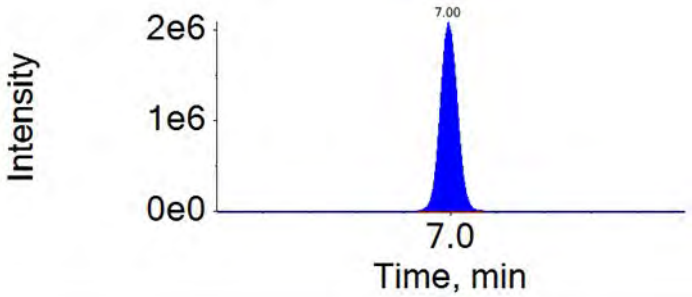
Component: PFHxDA
Primary Mass: 813.0 / 769.0



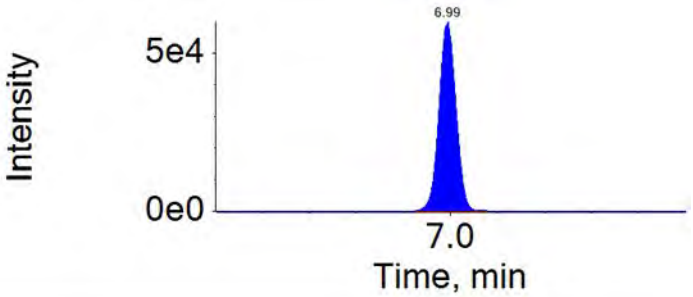
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV28DCAL-13.wiff
Sample ID:	methanol			**Acquis Date:**		11/28/2018 2:45:19 PM
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1143174.3	887248.9	29	50	
13C2-PFOA	5.0	661239.2	498501.6	33	50	
13C4-PFOS	4.8	389955.6	283214.2	38	50	
13C2-PFDA	5.0	588197.1	441790.6	33	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1266298.2	13C3-PFBA	1143174.3	1.108	5.000	4.942	99	70-130	
E13C5-PFPeA	1221656.2	13C3-PFBA	1143174.3	1.069	5.000	4.990	100	70-130	
E13C3-PFBS	546183.1	13C3-PFBA	1143174.3	0.478	4.650	4.558	98	70-130	
E13C2-4:2-FTS	92907.1	13C2-PFOA	661239.2	0.141	4.670	4.842	104	70-130	
E13C5-PFHxA	881698.8	13C2-PFOA	661239.2	1.333	5.000	4.898	98	70-130	
E13C3-PFHxS	397088.3	13C2-PFOA	661239.2	0.601	4.730	4.707	100	70-130	
E13C4-PFHpA	684654.8	13C2-PFOA	661239.2	1.035	5.000	4.758	95	70-130	
E13C2-6:2-FTS	90195.6	13C2-PFOA	661239.2	0.136	4.750	5.710	120	70-130	
E13C8-PFOA	1243060.3	13C2-PFOA	661239.2	1.880	5.000	5.174	103	70-130	
E13C8-PFOS	389085.3	13C4-PFOS	389955.6	0.998	4.780	4.504	94	70-130	
E13C9-PFNA	823058.9	13C4-PFOS	389955.6	2.111	5.000	4.636	93	70-130	
E13C6-PFDA	1069720.1	13C2-PFDA	588197.1	1.819	5.000	5.128	103	70-130	
E13C2-8:2-FTS	97960.5	13C2-PFDA	588197.1	0.167	4.790	7.158	149	70-130	OOS
E13C8-PFOSA	873157.2	13C2-PFDA	588197.1	1.484	5.000	5.447	109	70-130	
Ed3-NMeFOSAA	242996.3	13C2-PFDA	588197.1	0.413	5.000	5.245	105	70-130	
E13C7-PFUnDA	700966.1	13C2-PFDA	588197.1	1.192	5.000	5.037	101	70-130	
Ed5-NEtFOSAA	159876.3	13C2-PFDA	588197.1	0.272	5.000	4.842	97	70-130	
E13C2-PFDoDA	1371772.4	13C2-PFDA	588197.1	2.332	5.000	4.900	98	70-130	
Ed7-NMePFOSAE	354362.2	13C2-PFDA	588197.1	0.602	5.000	5.207	104	70-130	
Ed3-NMePFOSA	104834.4	13C2-PFDA	588197.1	0.178	5.000	4.824	96	70-130	
Ed9-NEtPFOSAE	319017.0	13C2-PFDA	588197.1	0.542	5.000	5.499	110	70-130	
Ed5-NEtPFOSA	85061.1	13C2-PFDA	588197.1	0.145	5.000	5.025	100	70-130	
E13C2-PFTeDA	1062806.7	13C2-PFDA	588197.1	1.807	5.000	5.000	100	70-130	

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

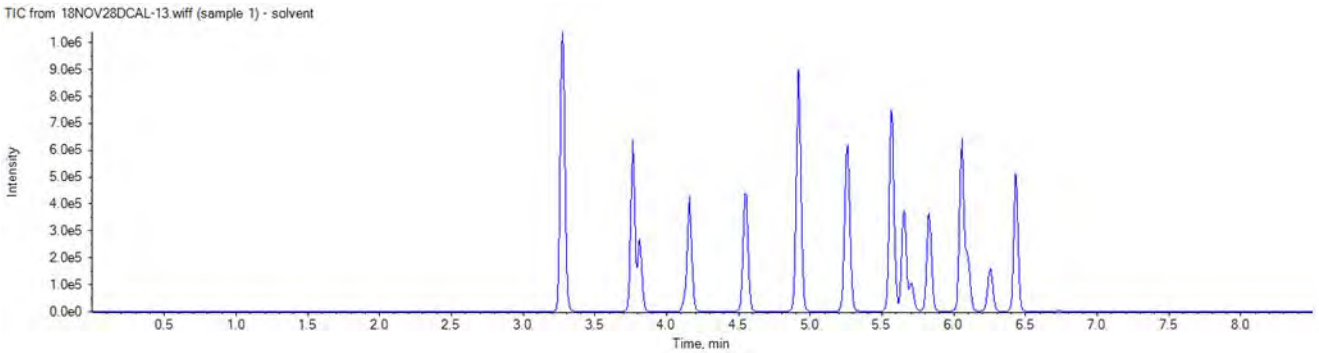
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-13.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1266298.2	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1221656.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	546183.1	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	92907.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	881698.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	546183.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	684654.8	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	397088.3	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	90195.6	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	397088.3	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	1243060.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	823058.9	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	1069720.1	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	97960.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	873157.2	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	242996.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	700966.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	159876.3	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	1371772.4	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	97960.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.10	354362.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.11	104834.4	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	319017.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.27	85061.1	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	1371772.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	1062806.7	N/A	
PFHxDA	6.74	1.050	6327.1		A	13C2-PFTeDA	6.43	1062806.7	0.006	0.068
PFODA	7.00	1.090	3886.6		A	13C2-PFTeDA	6.43	1062806.7	0.004	0.049

Total Ion Chromatogram

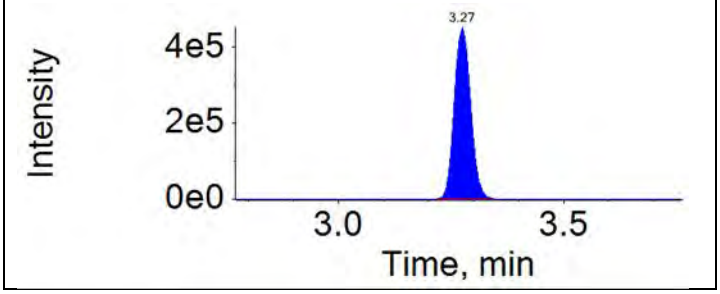


APPROVED
By JPT at 1:11 pm, 11/29/18

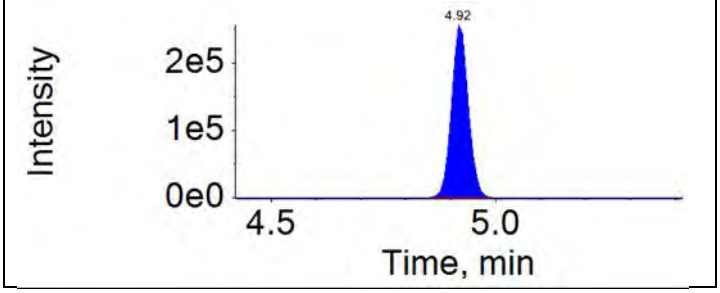
REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

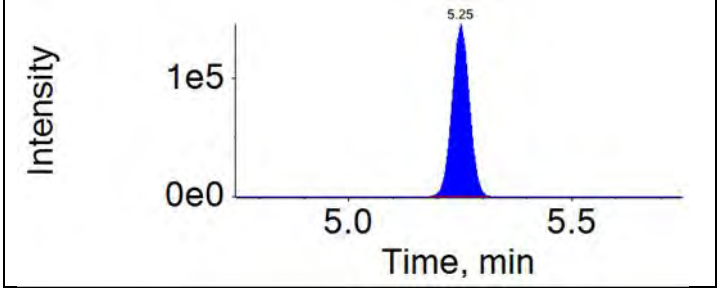
Injection Standard: 13C3-PFBA
216.0 / 172.0



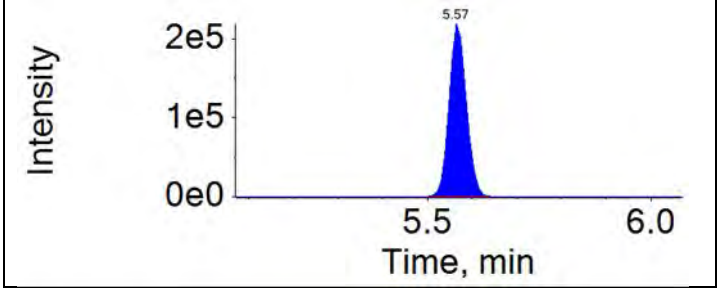
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

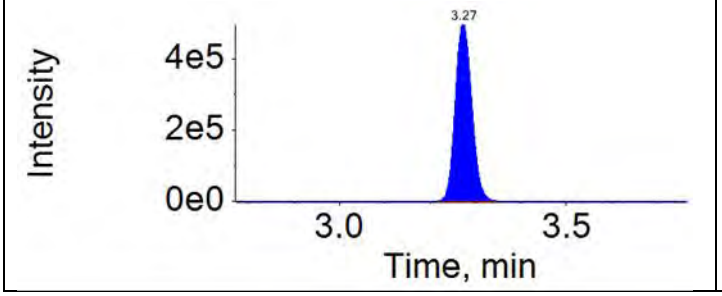


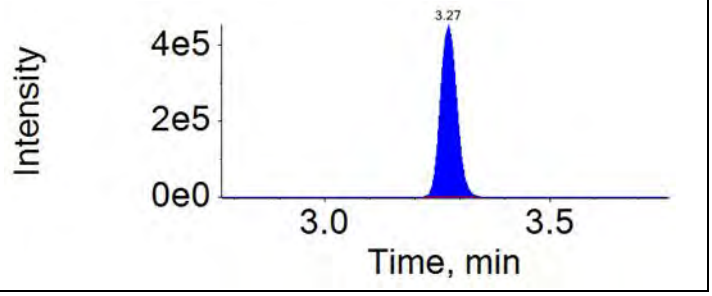
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

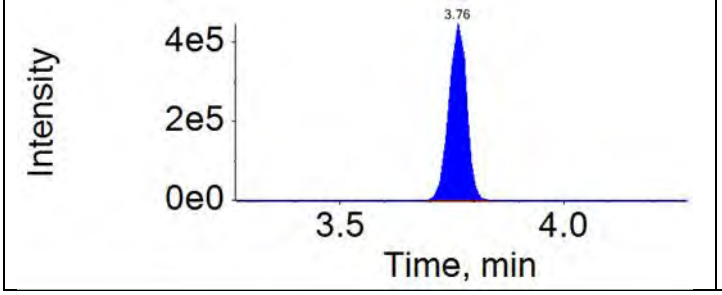
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

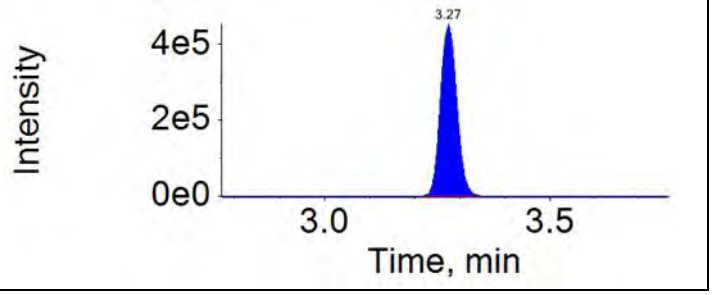
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



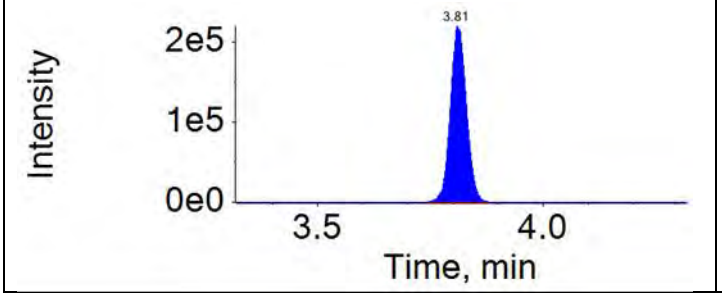


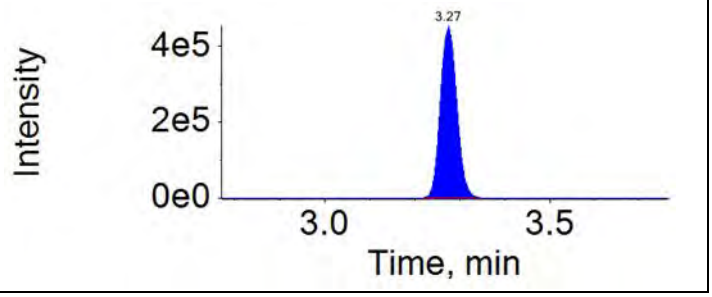
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



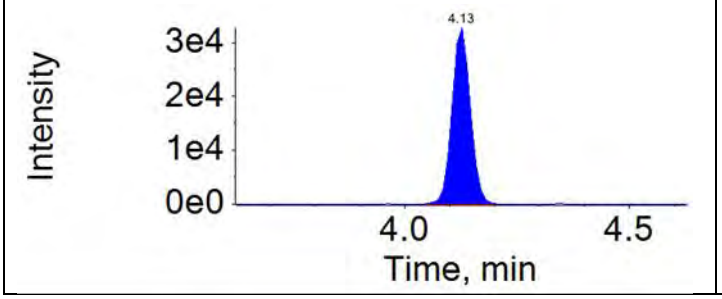


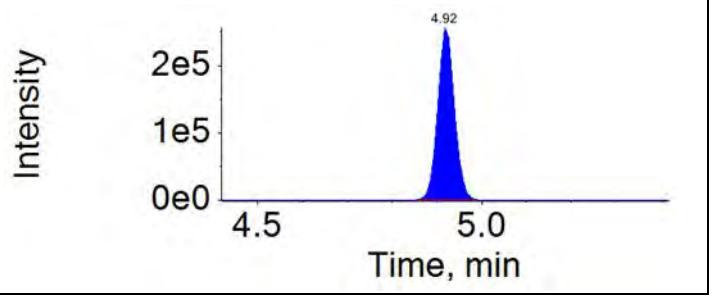
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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



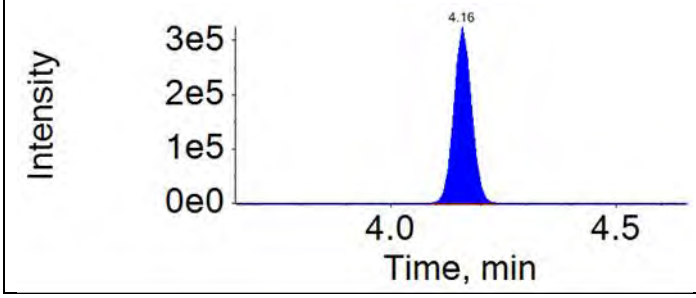


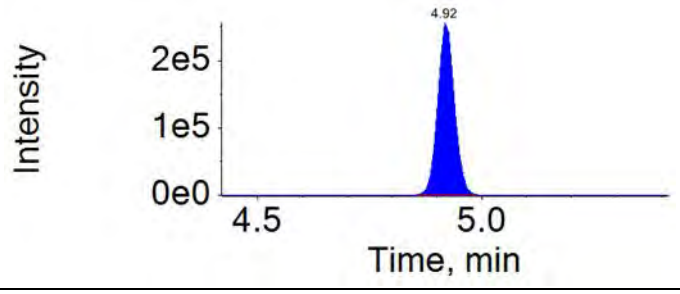
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

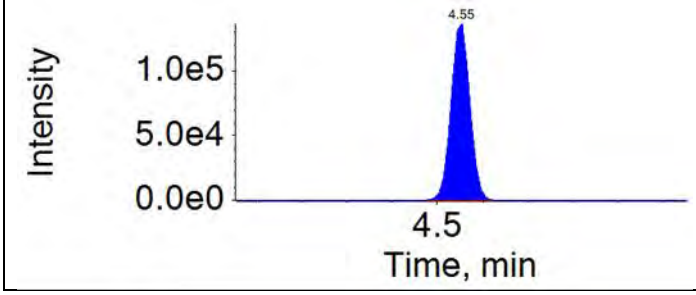
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

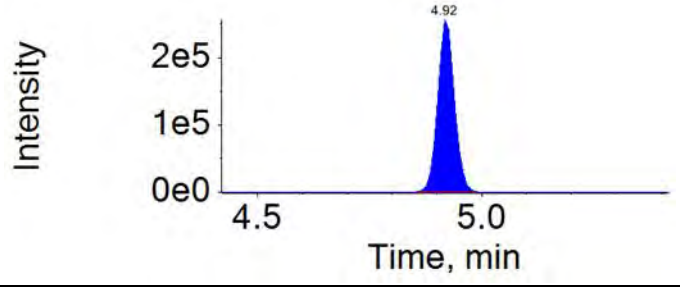
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



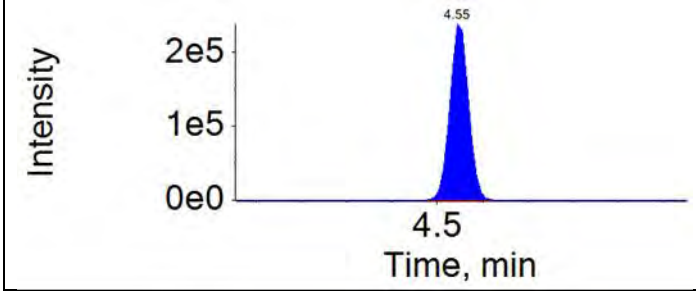


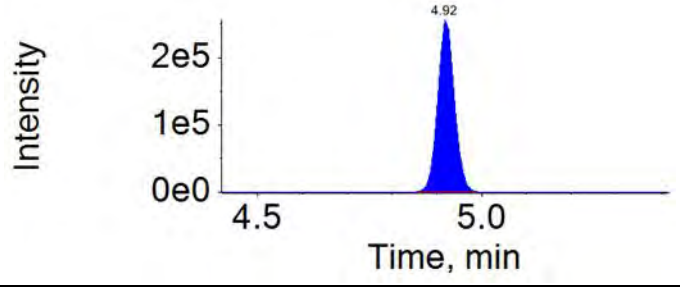
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



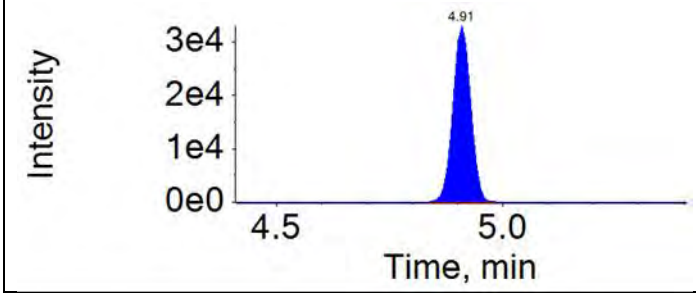


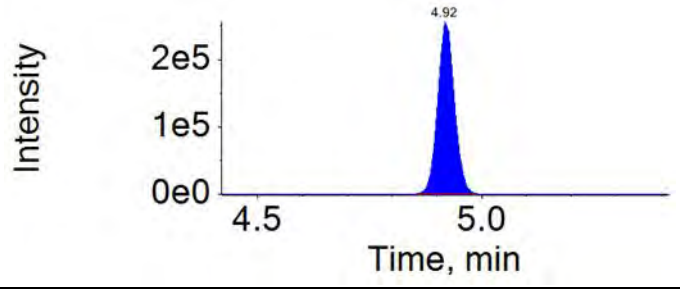
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



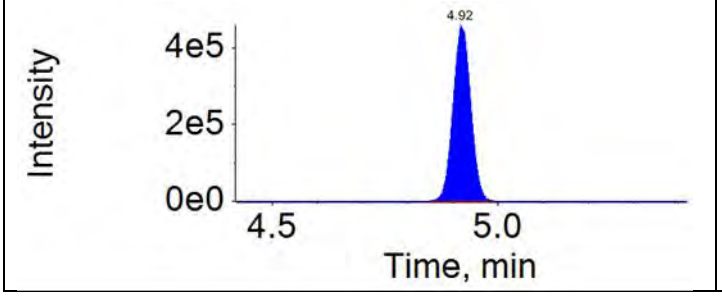


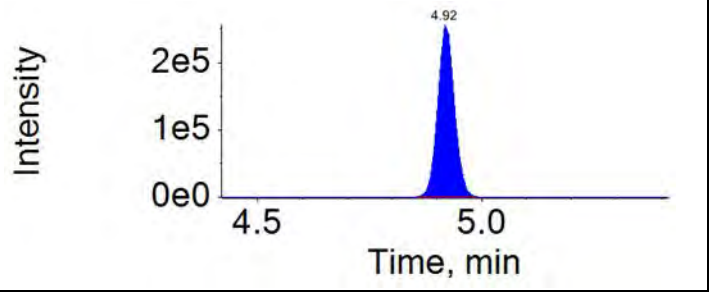
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

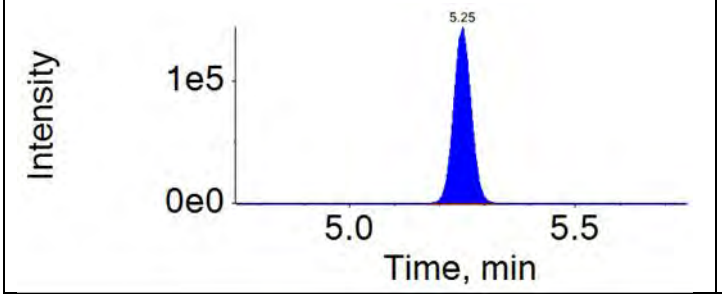
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

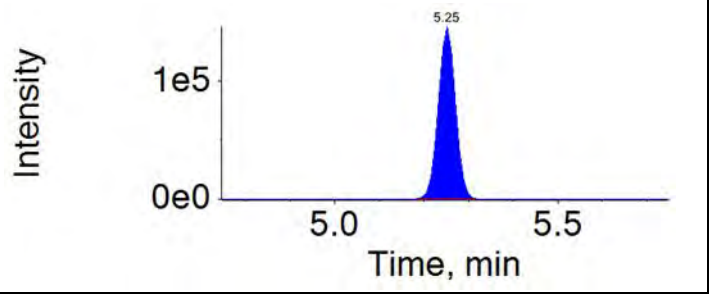
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



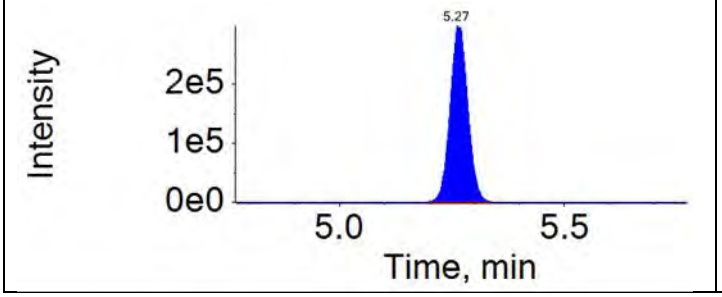


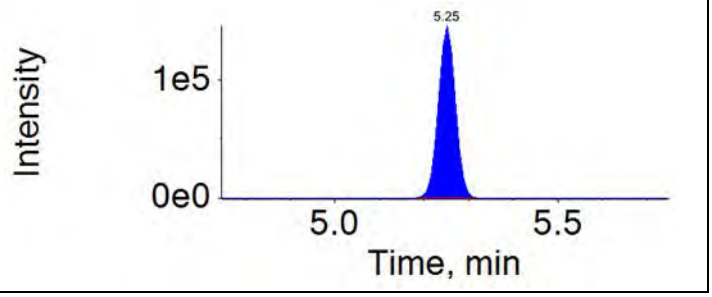
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



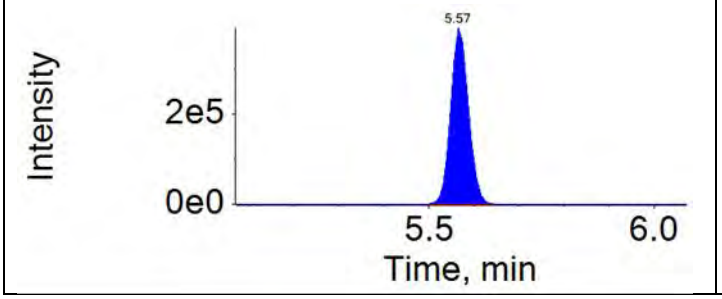


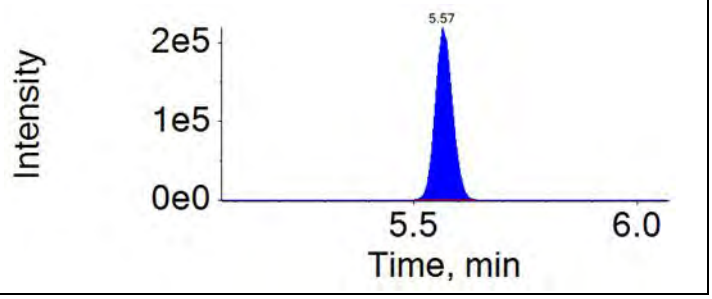
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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

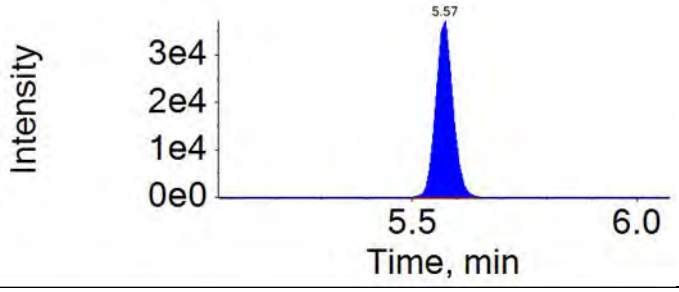
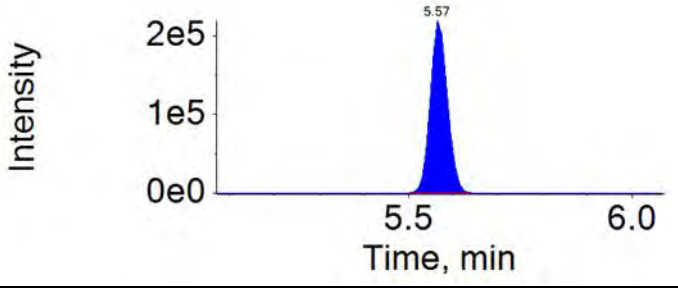


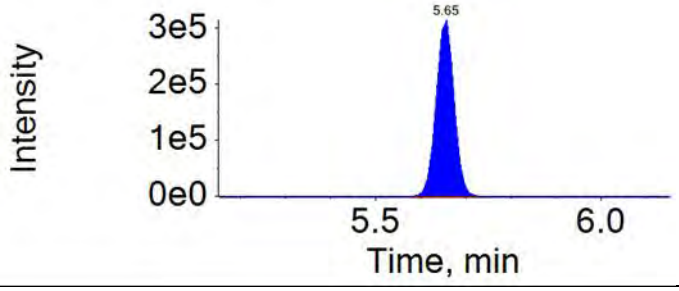
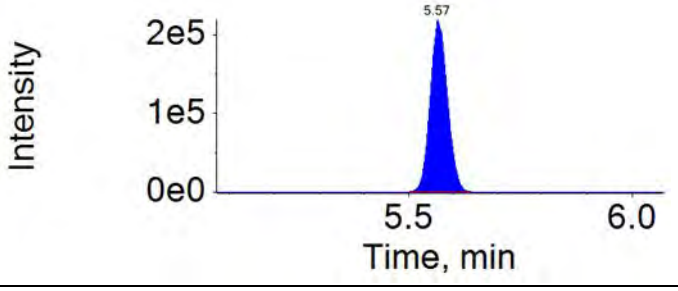


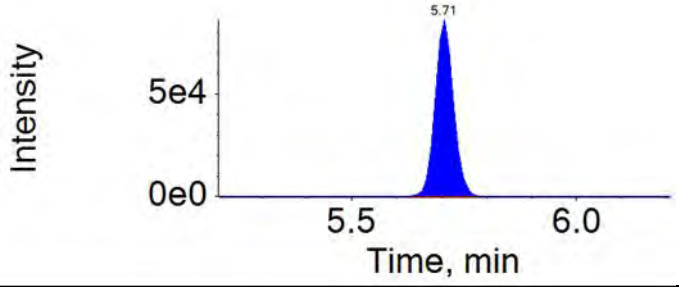
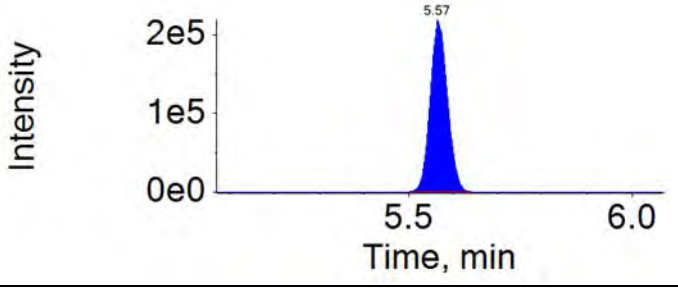
APPROVED
By JPT at 1:11 pm, 11/29/18

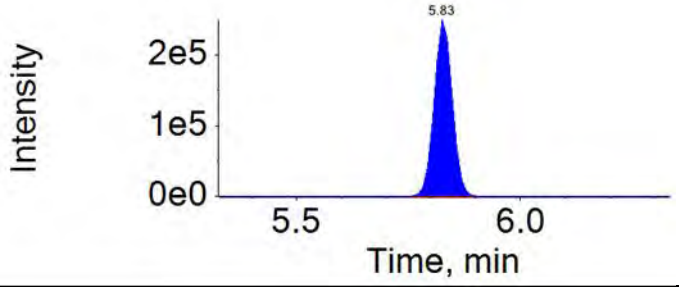
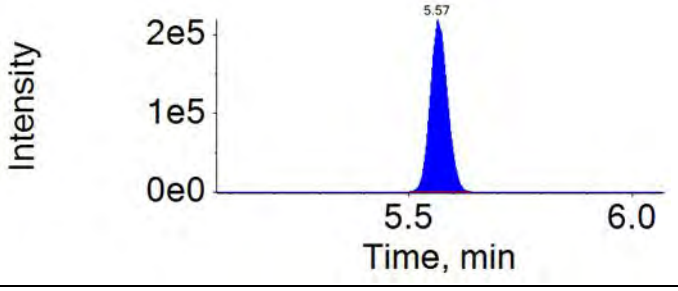
REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

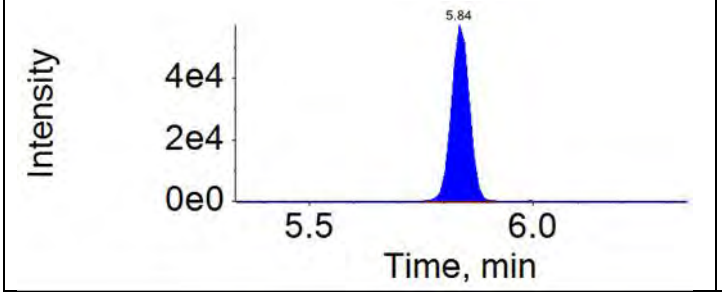
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

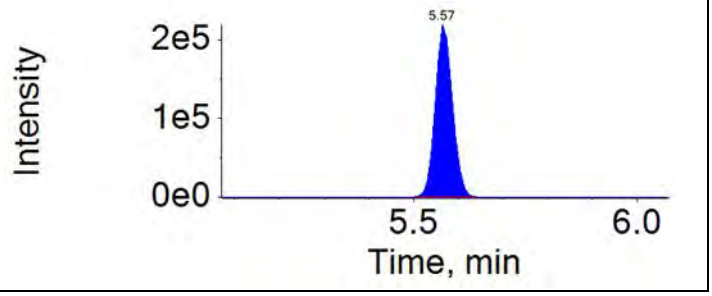
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

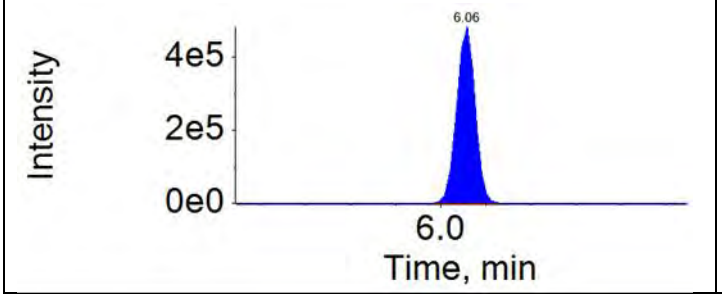
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

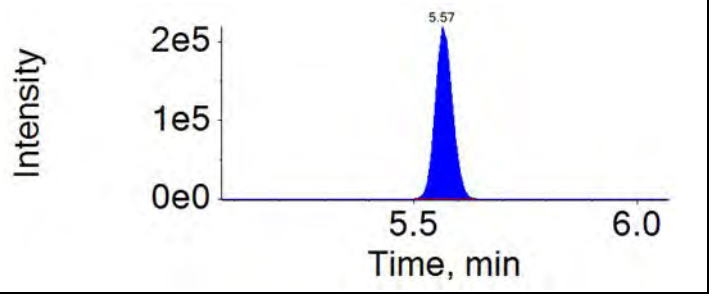
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



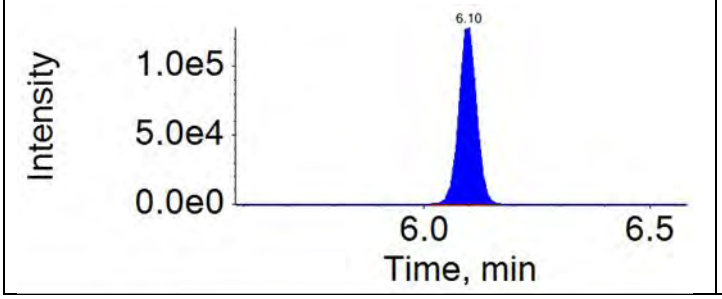


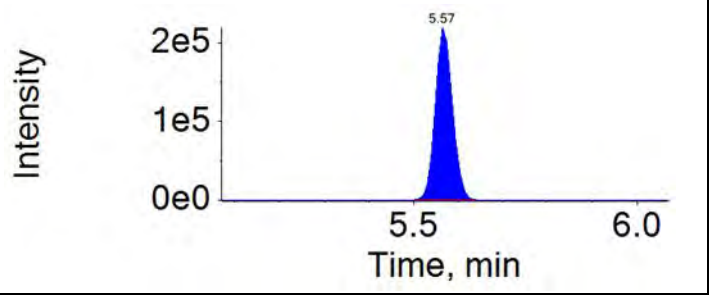
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



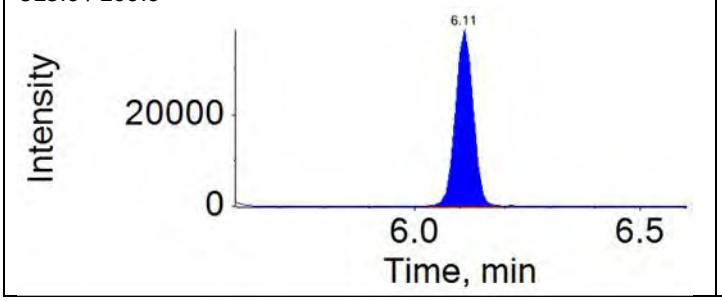


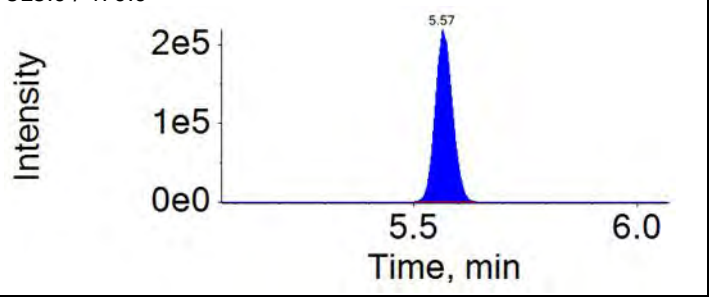
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





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



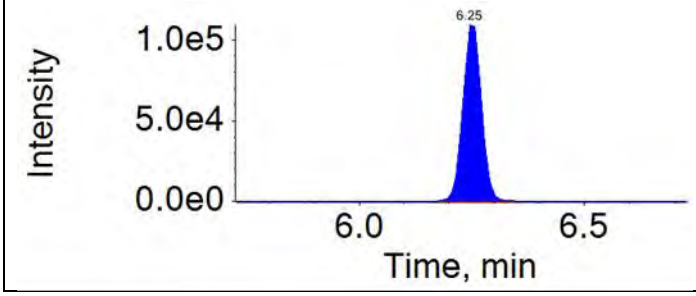


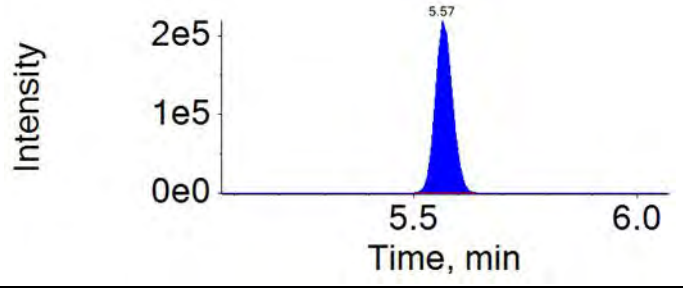
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

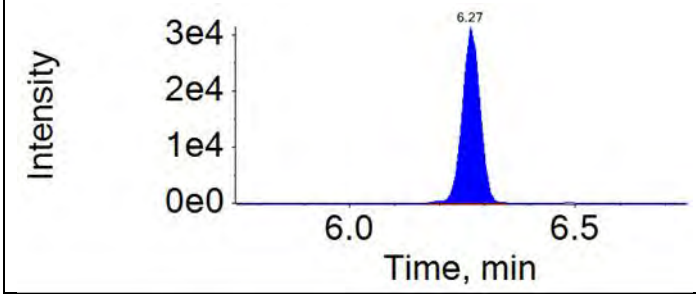
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

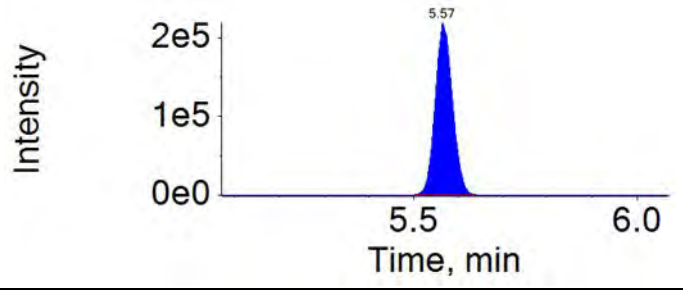
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



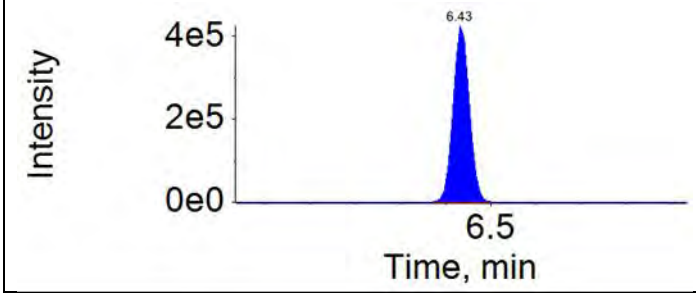


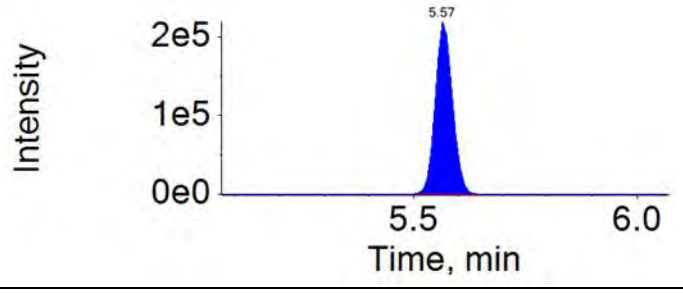
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



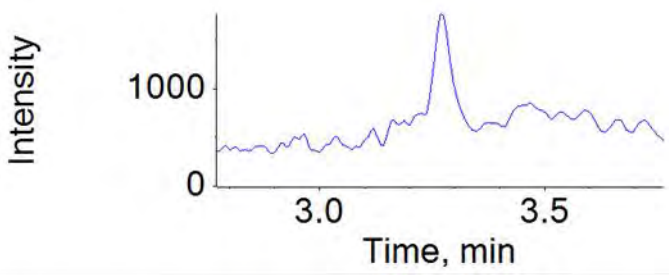


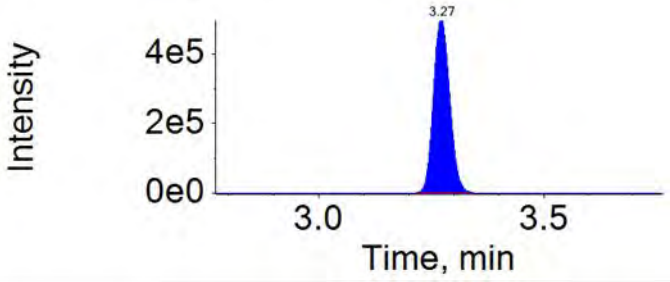
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

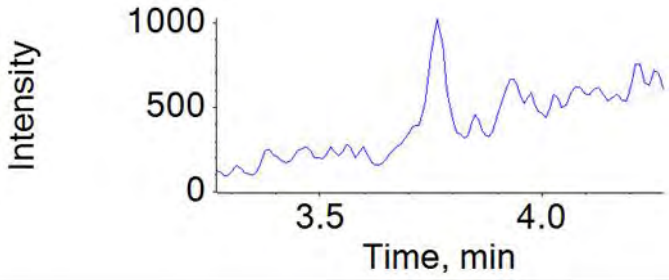
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

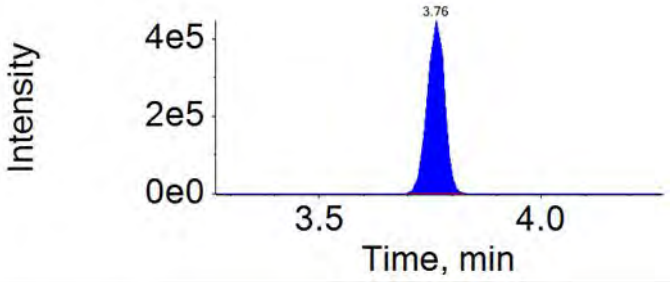
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



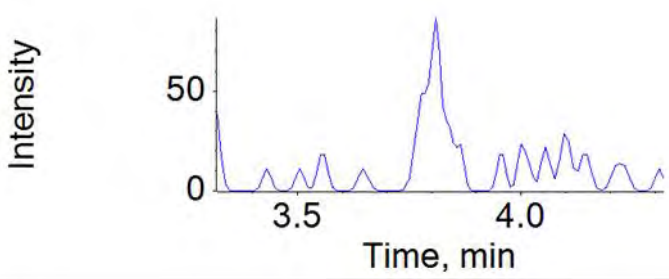


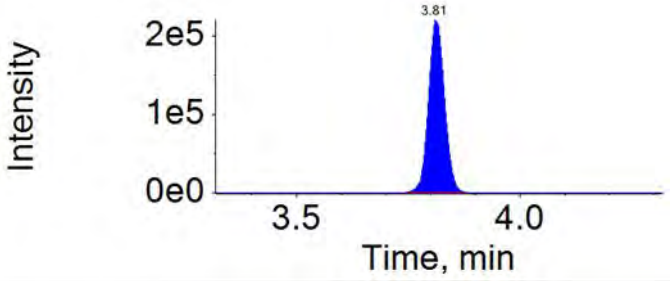
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



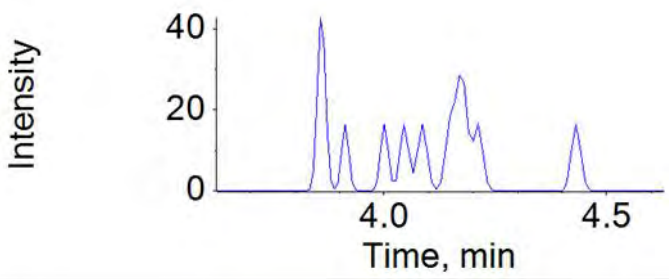


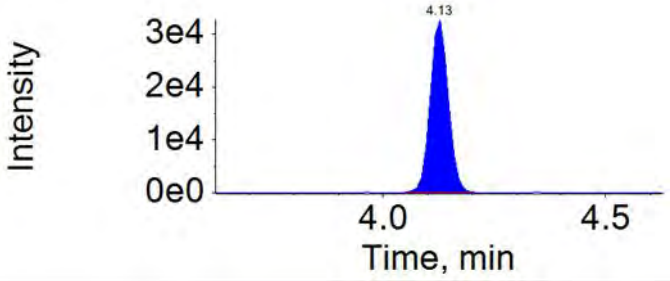
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



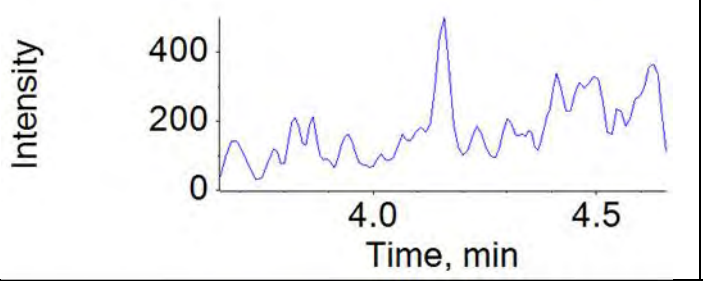


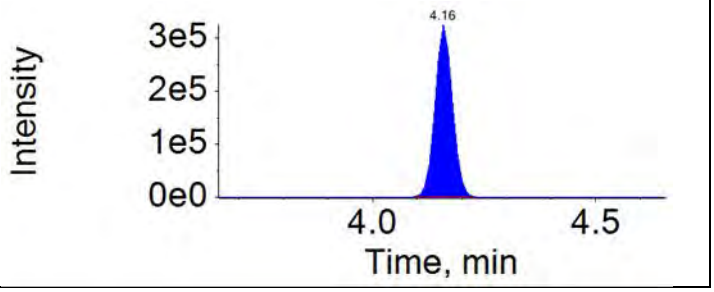
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

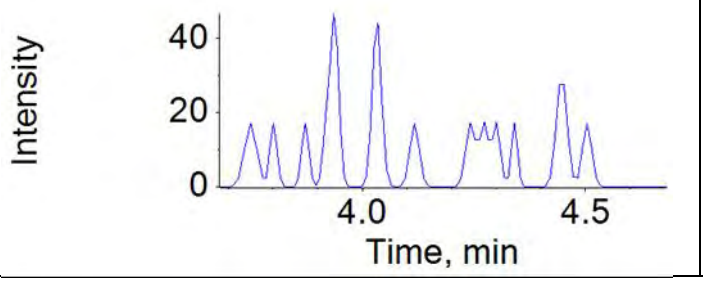
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

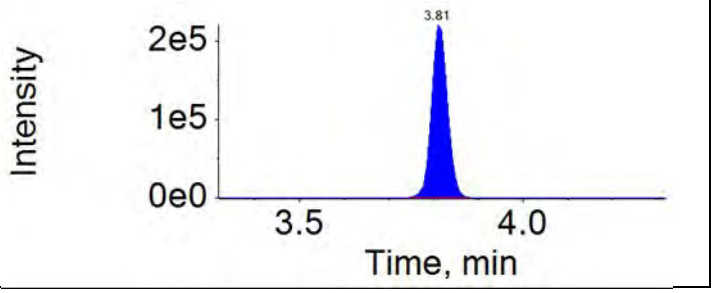
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



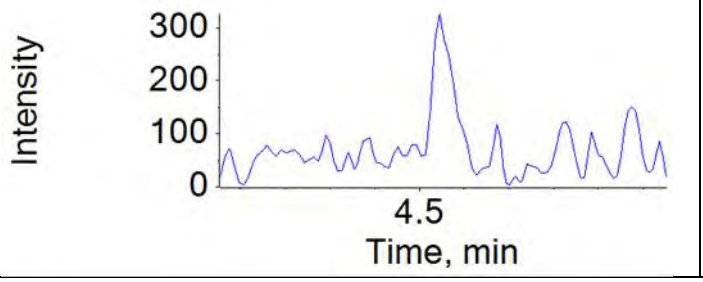


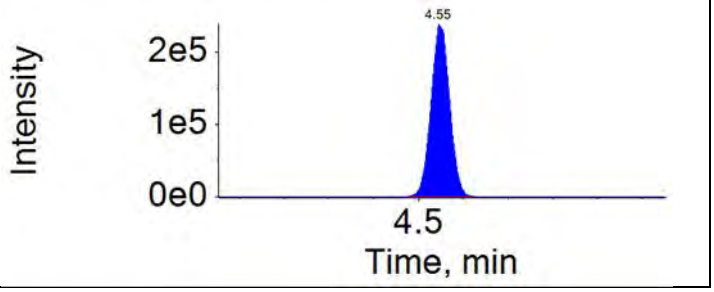
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



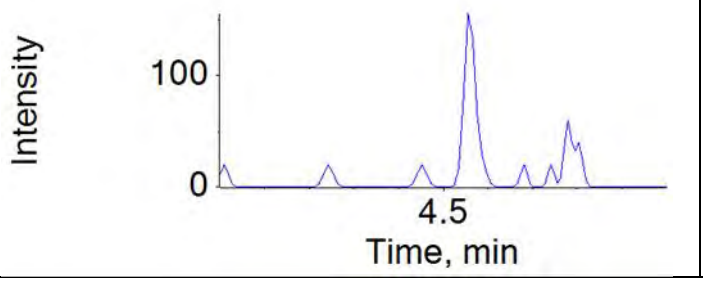


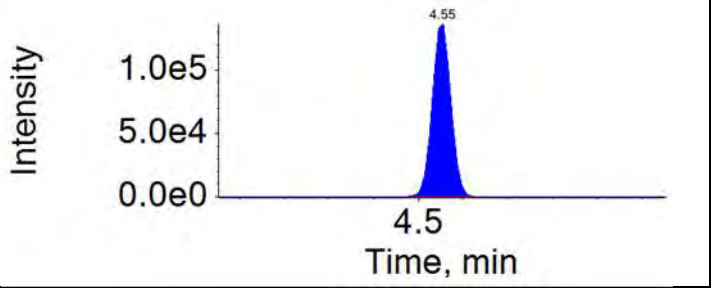
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





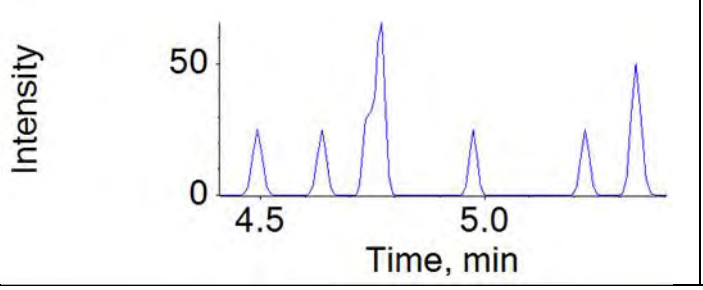
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

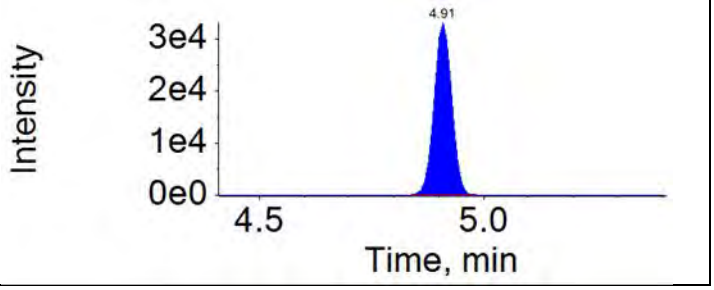




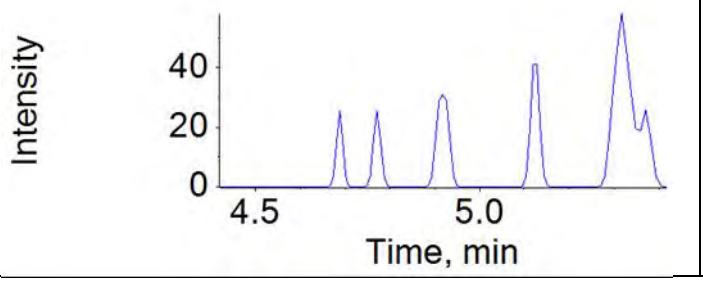
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

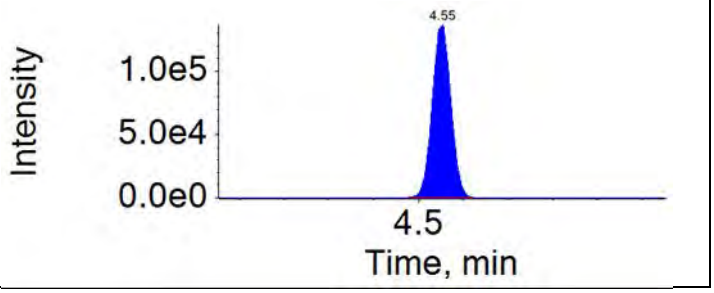
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



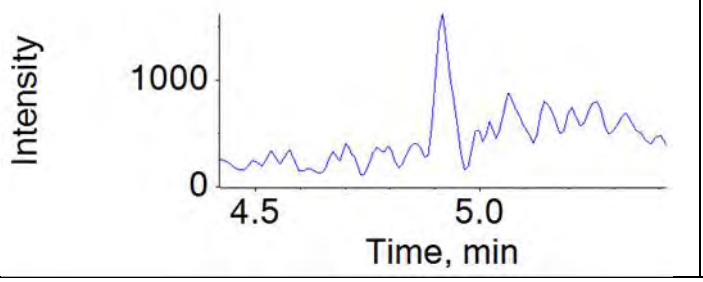


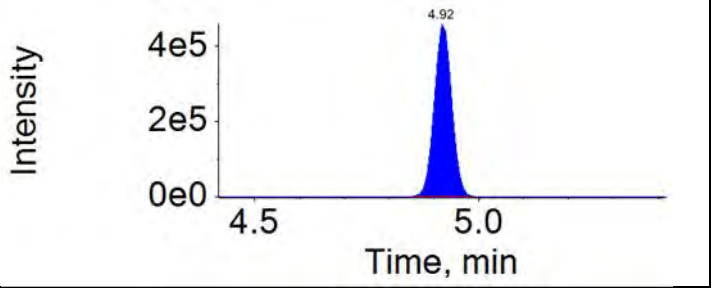
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



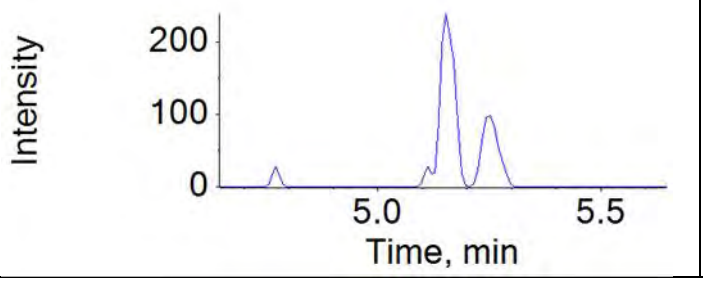


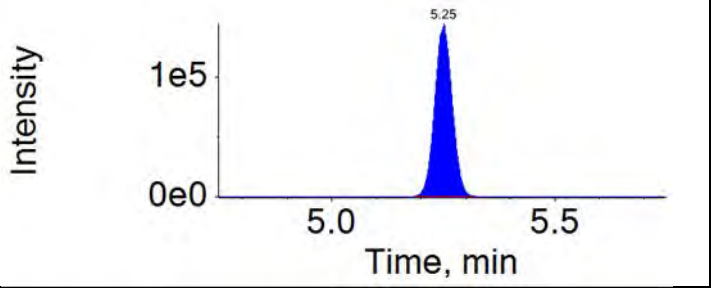
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



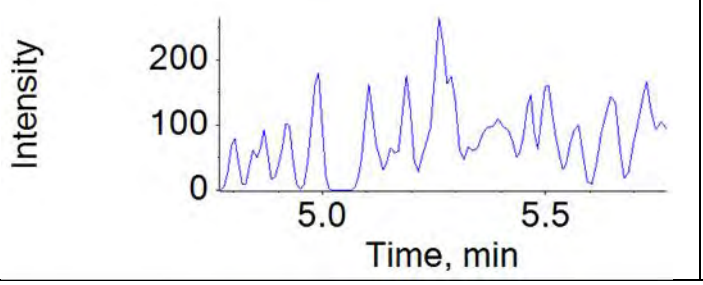


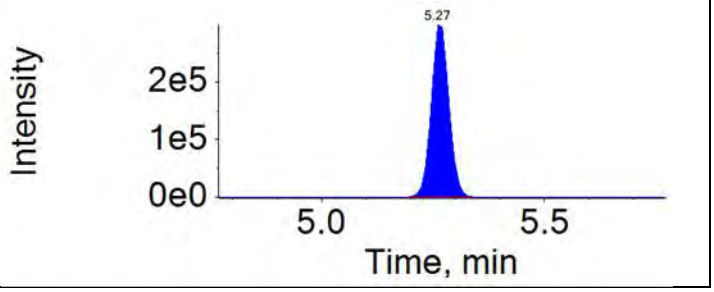
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

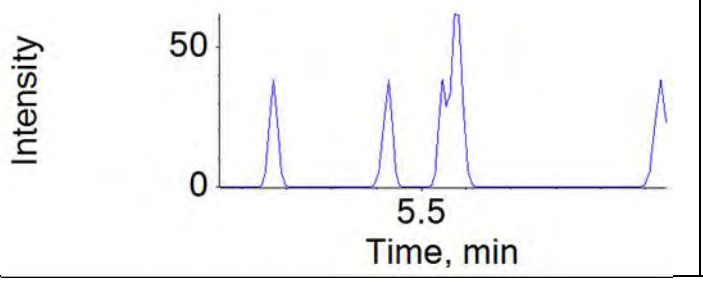
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

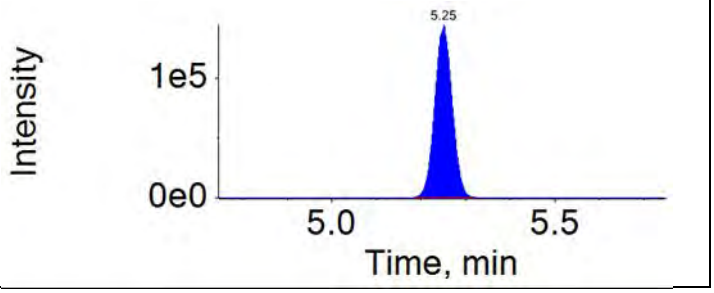
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



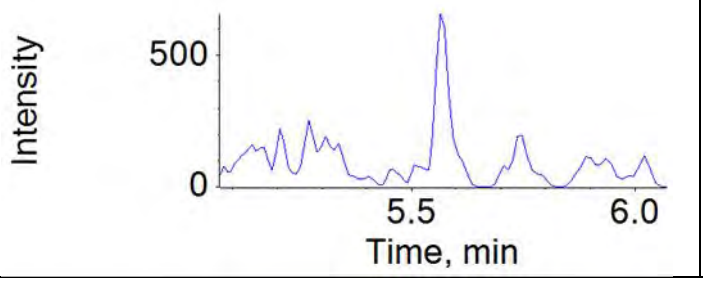


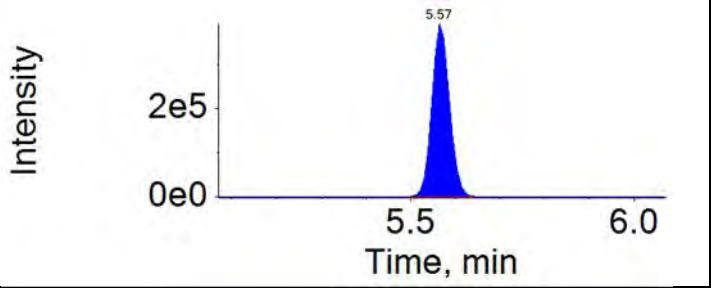
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



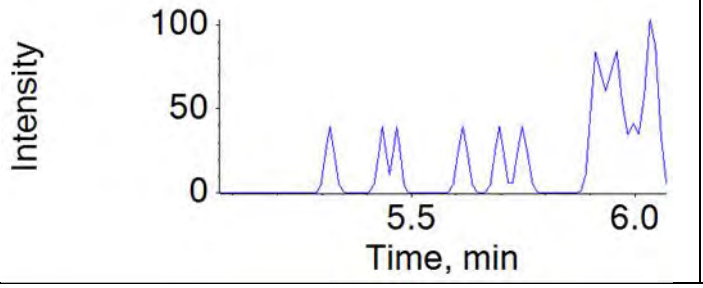


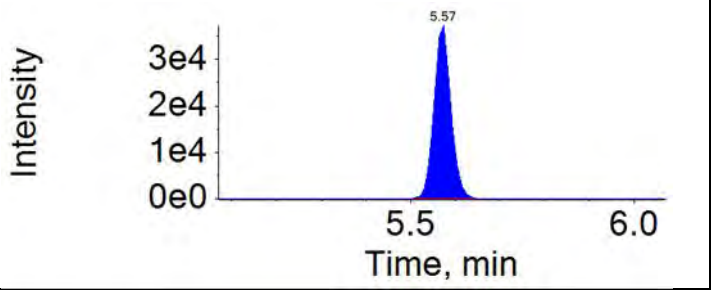
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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



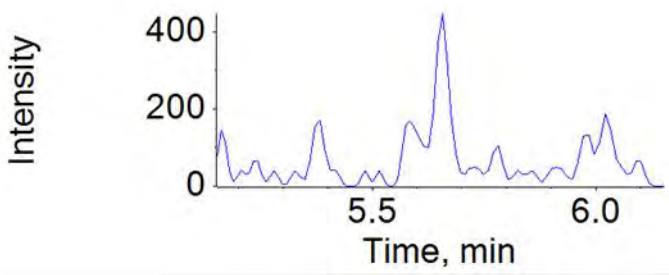


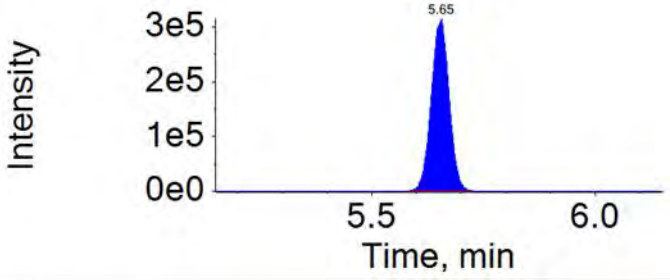
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

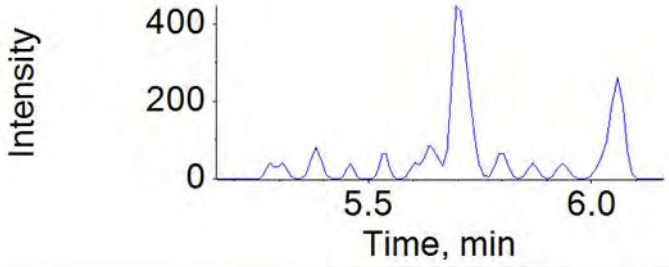
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

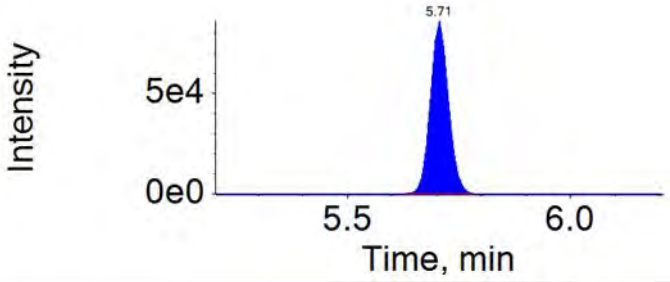
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



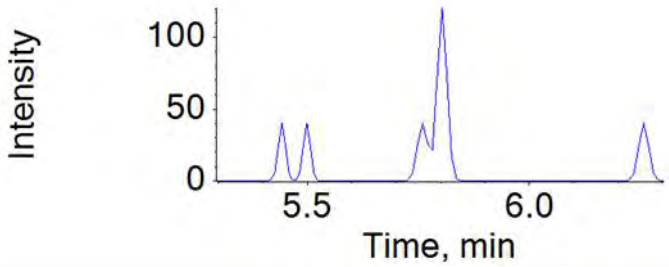


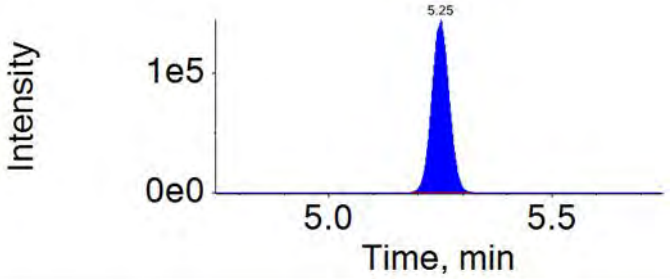
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



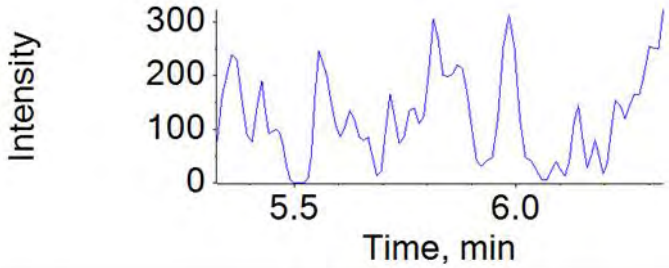


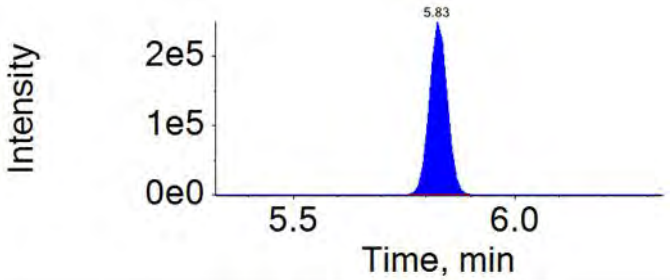
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





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



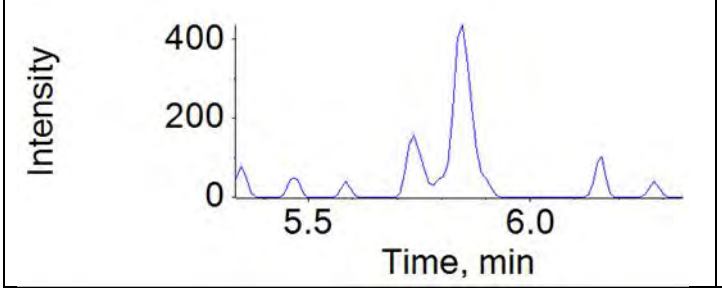


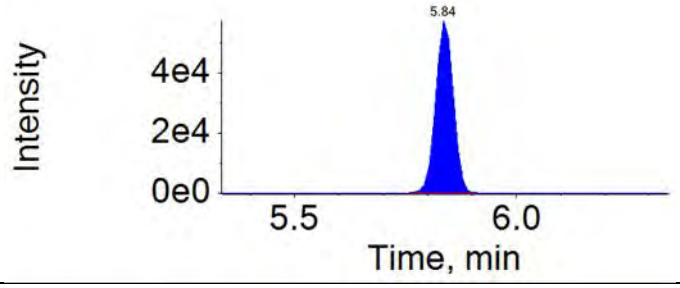
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

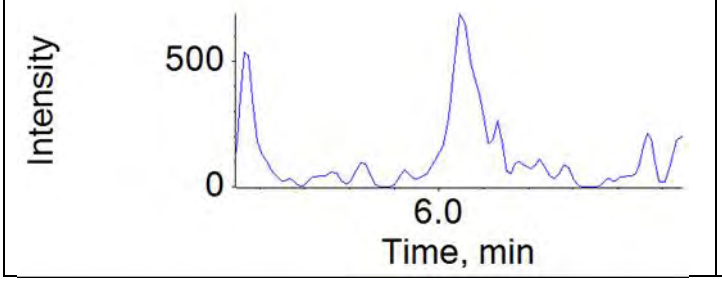
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

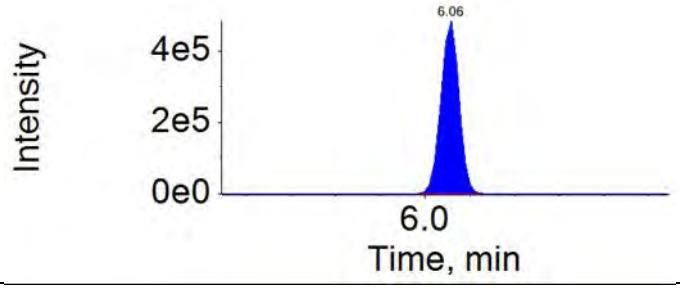
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



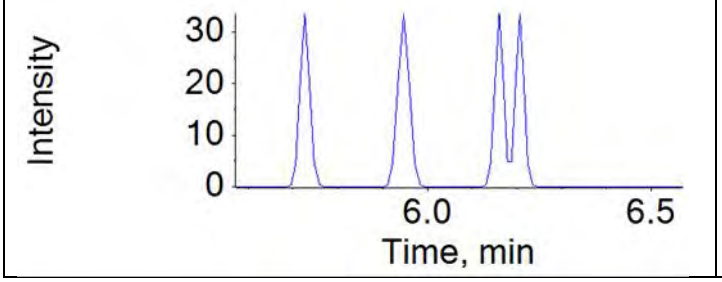


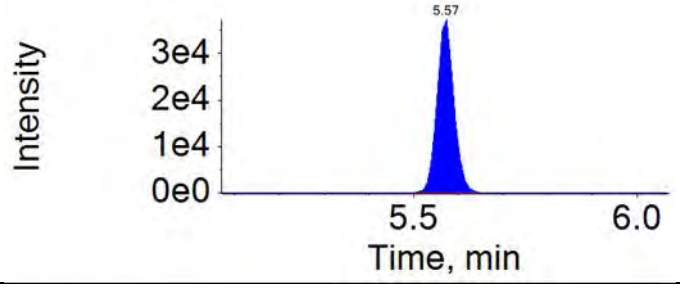
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



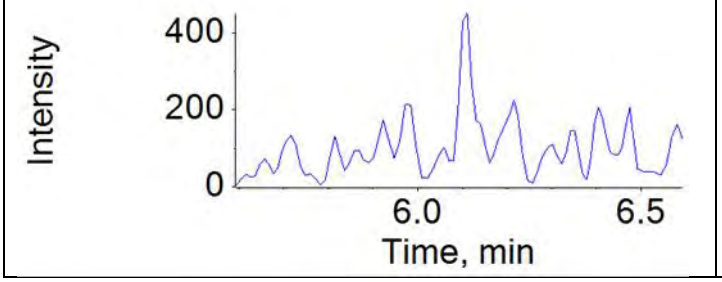


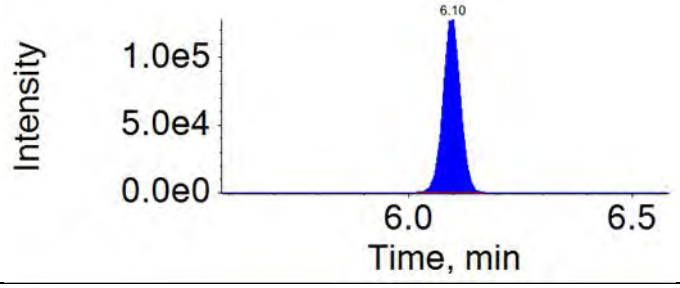
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



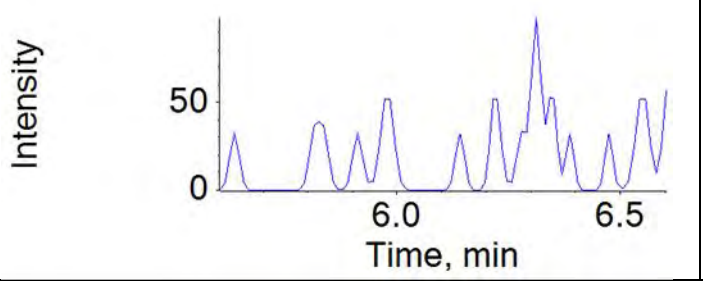


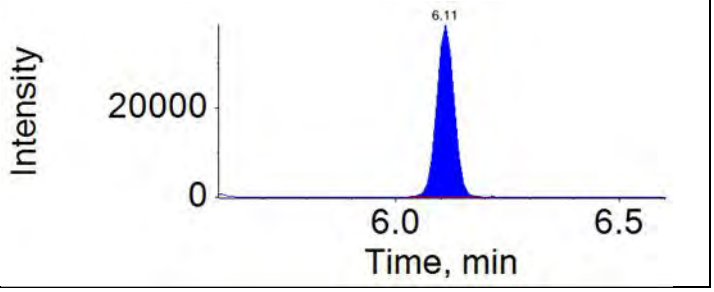
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

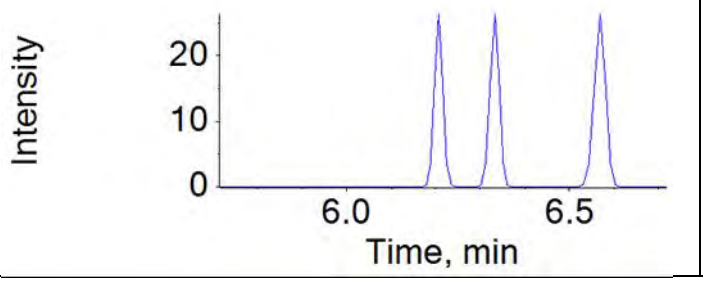
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

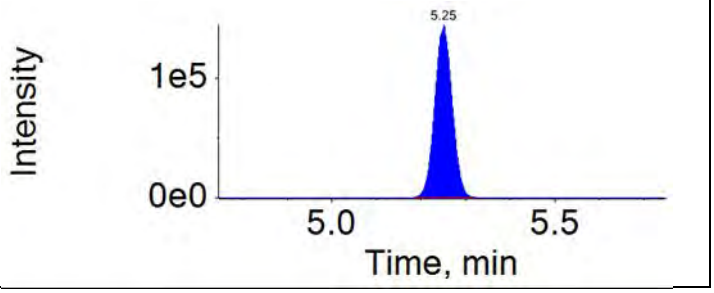
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



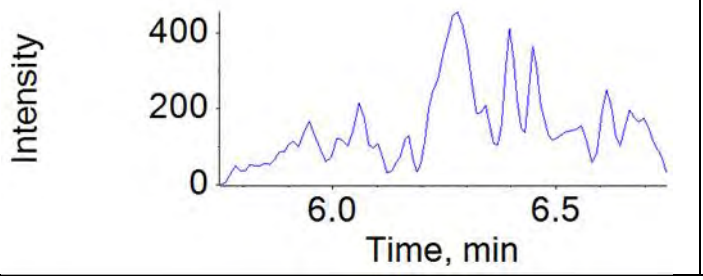


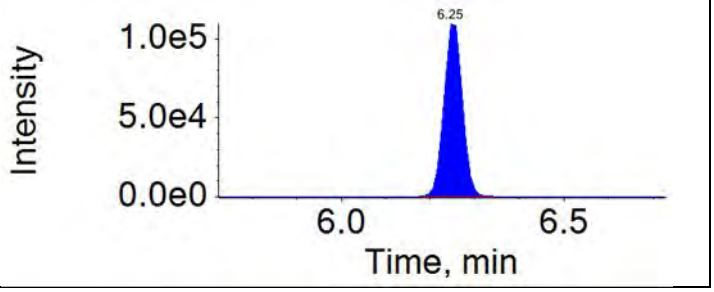
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



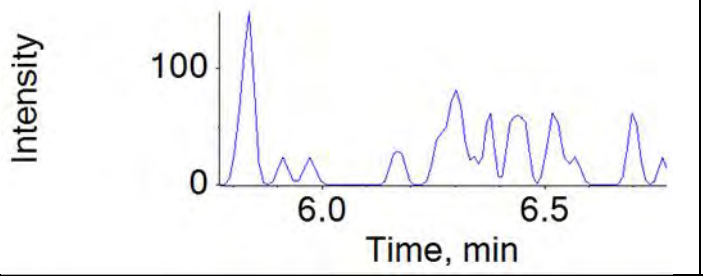


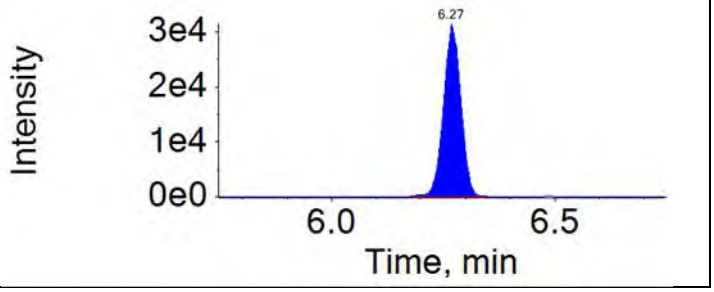
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





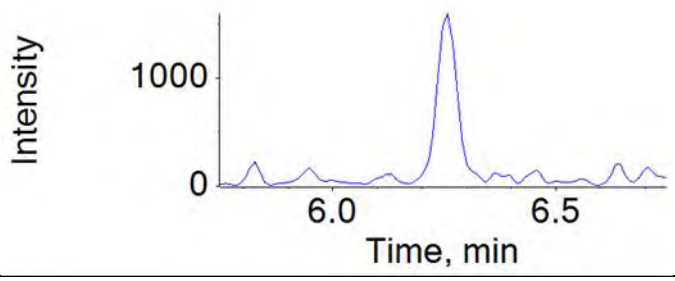
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

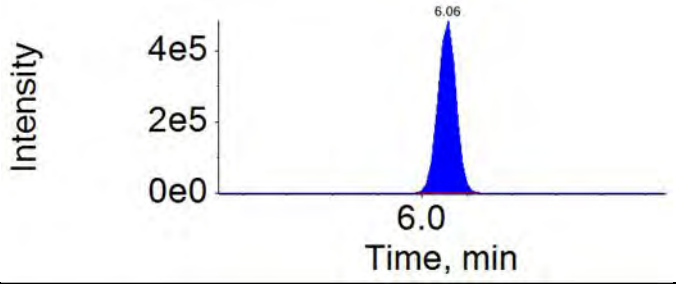




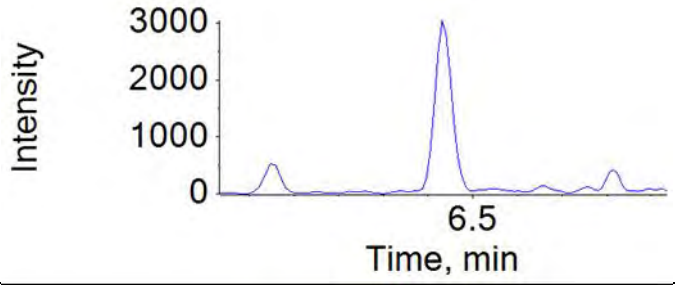
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/29/2018 1:05:58 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

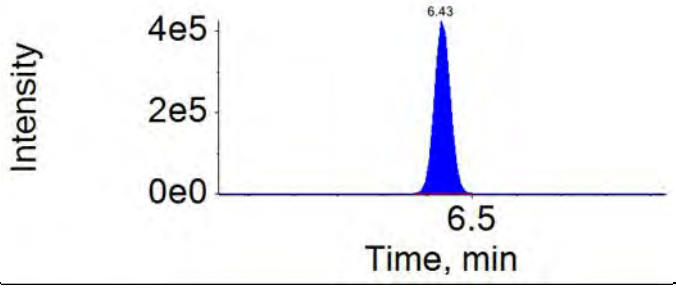
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



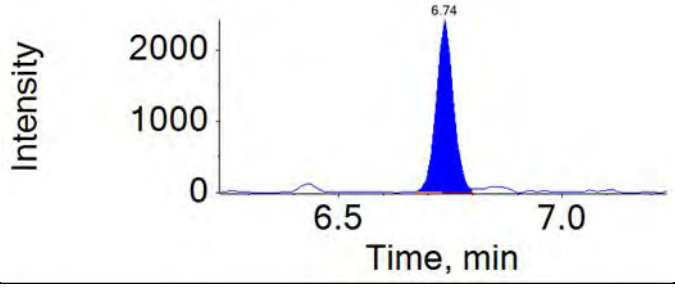


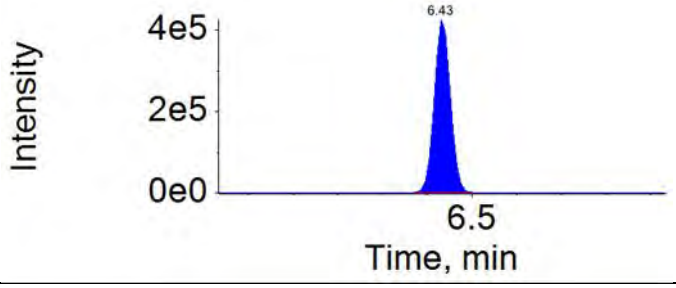
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



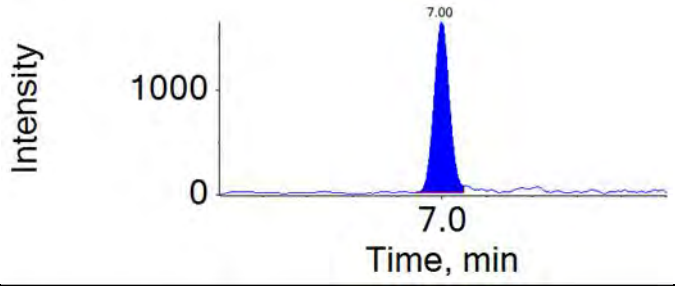


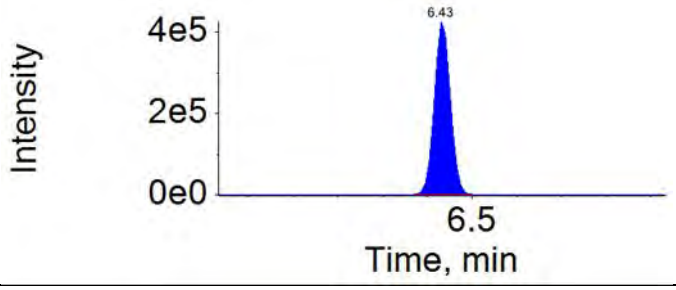
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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

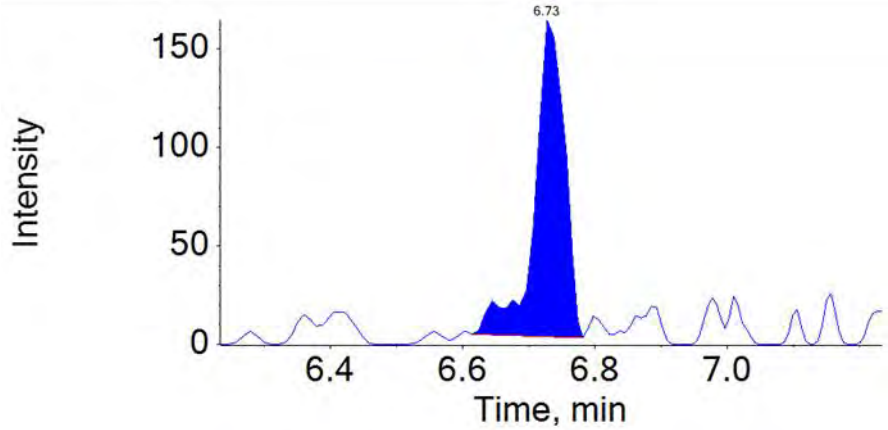


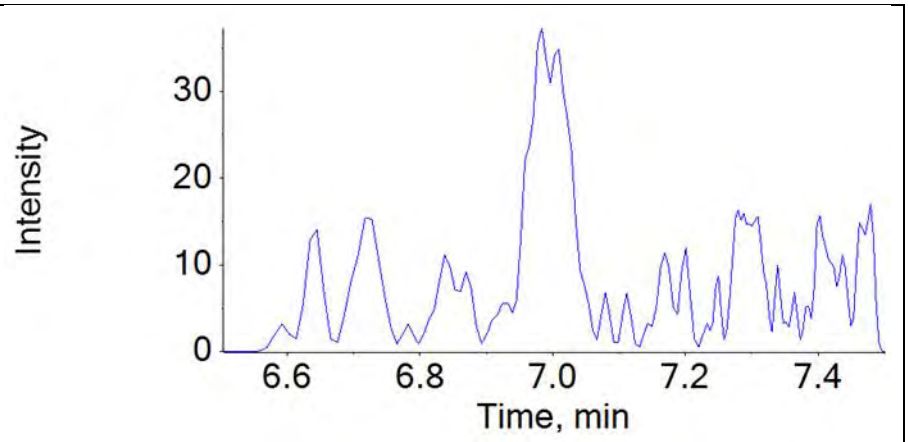


APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxDA_2 **RT (min.):** 6.73 **Peak Area:** 511.31 **Mass Range:** 813.0 / 169.0 **File Name:** 18NOV28DCAL-13.wiff **Sample Name:** Instrument Blank	 **Integration Comment:** incorrect integration

Component Name: PFODA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 913.0 / 169.0 **File Name:** 18NOV28DCAL-13.wiff **Sample Name:** Instrument Blank	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM

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

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Ion Ratio Report

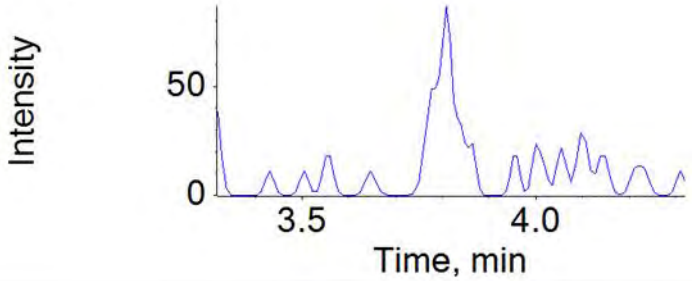
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-13.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	6.25	1.03	266.70	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	6.74	1.05	6327.14	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	465.21	M	N/A	0.0735	13	50	
PFODA	7.00	1.09	3886.61	A	N/A	1.0000			
PFODA_2	6.99	1.09	153.16	M	N/A	0.0394	47	50	

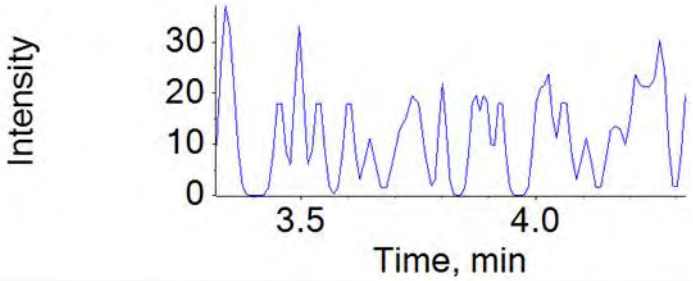
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

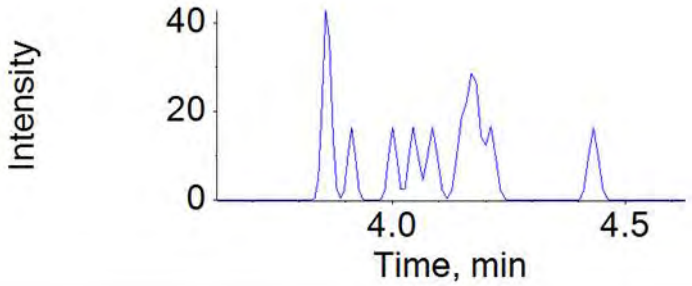
Component: PFBS
Primary Mass: 299.0 / 80.0



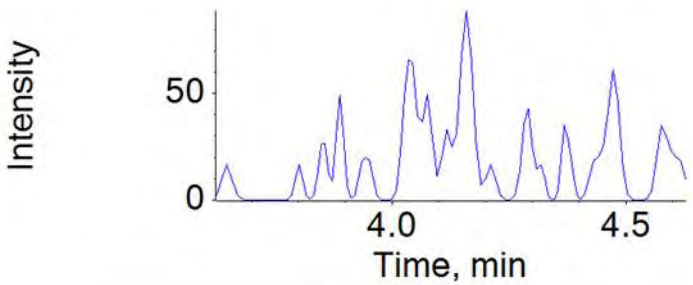
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



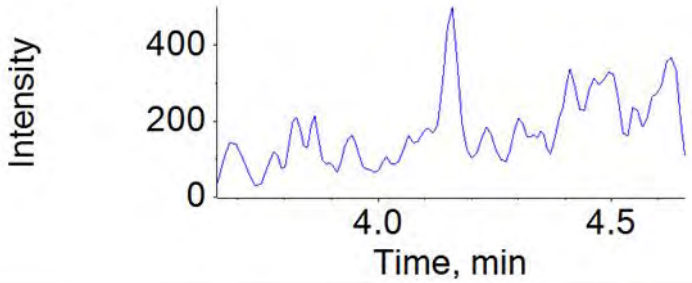
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



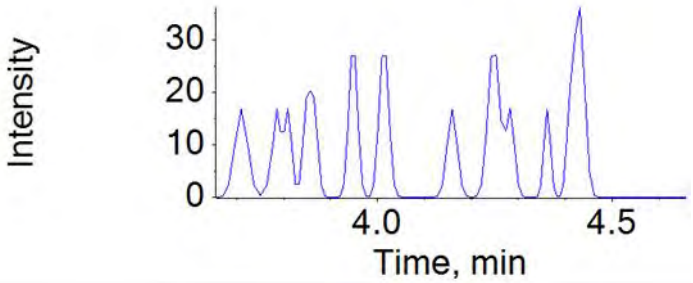
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



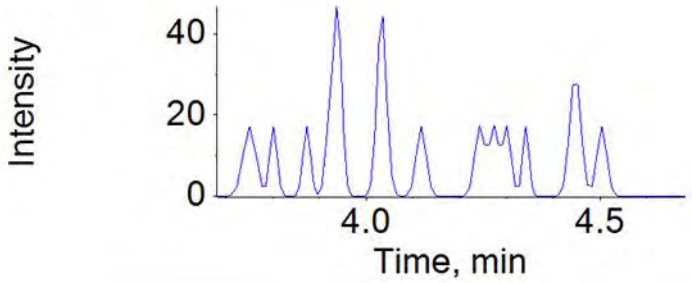
Component: PFHxA
Primary Mass: 313.0 / 269.0



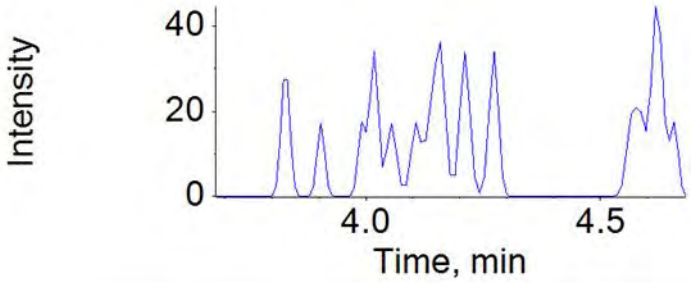
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



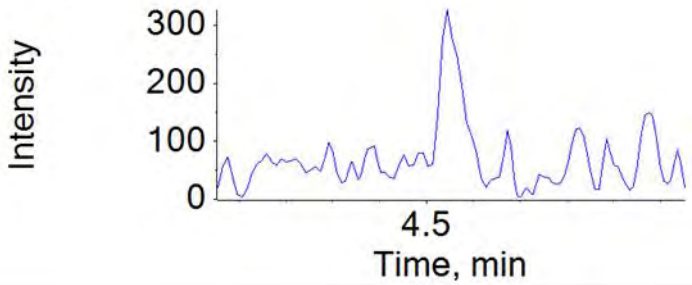
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



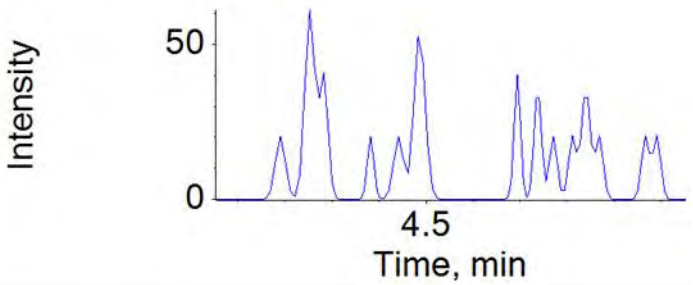
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

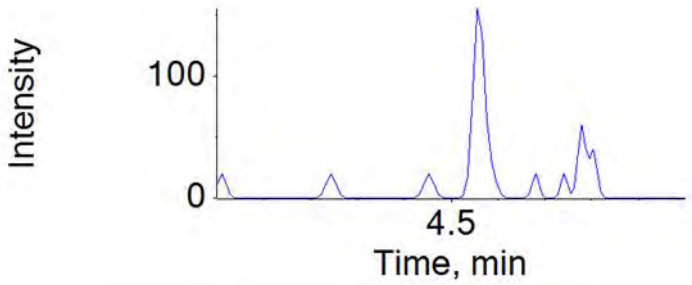
Component: PFHpA
Primary Mass: 363.0 / 319.0



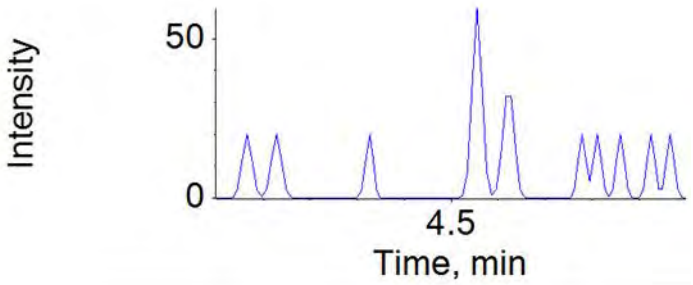
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



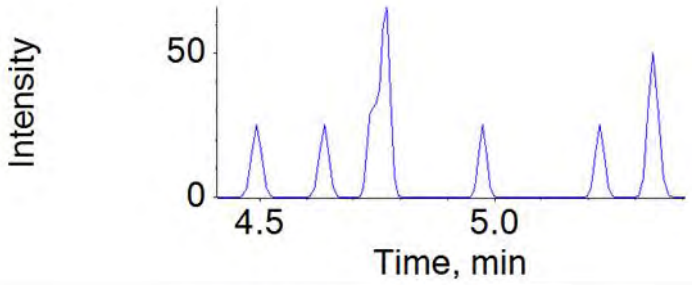
Component: PFHxS
Primary Mass: 399.0 / 80.0



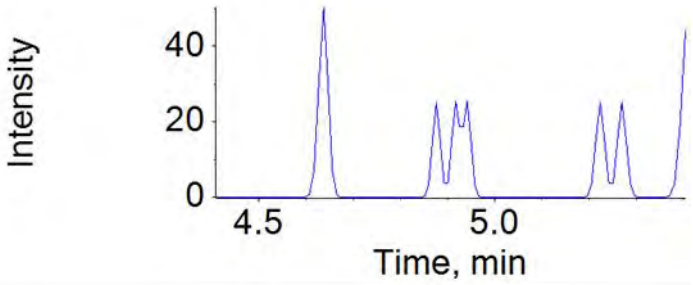
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



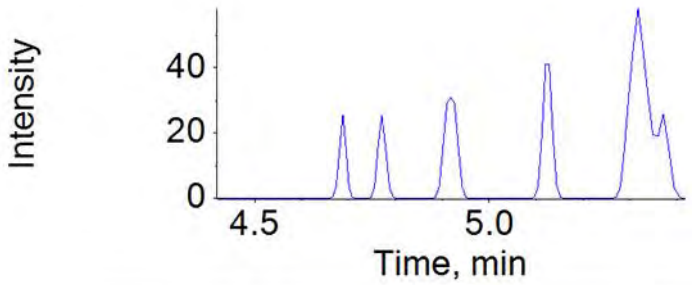
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



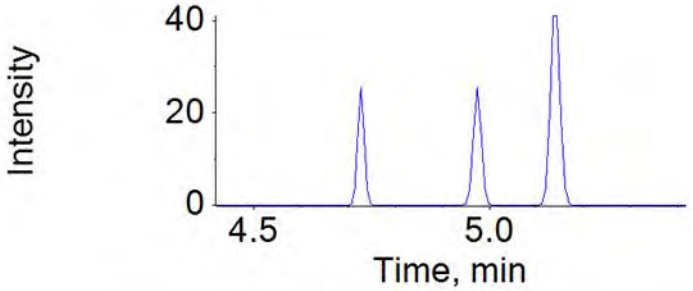
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



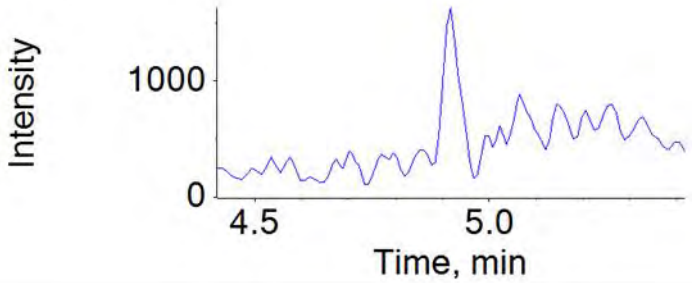
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



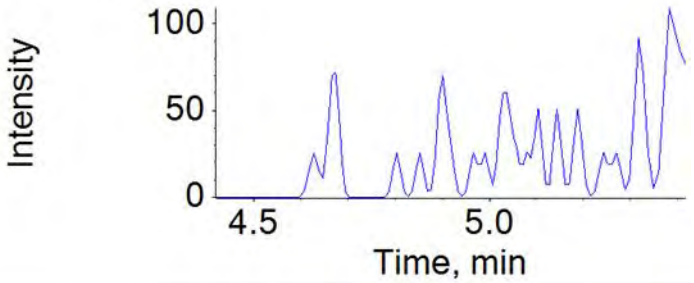
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

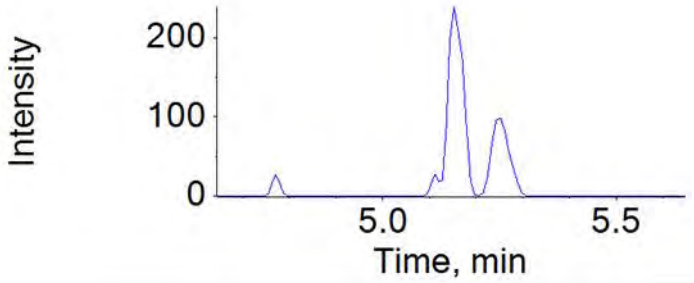
Component: PFOA
Primary Mass: 413.0 / 369.0



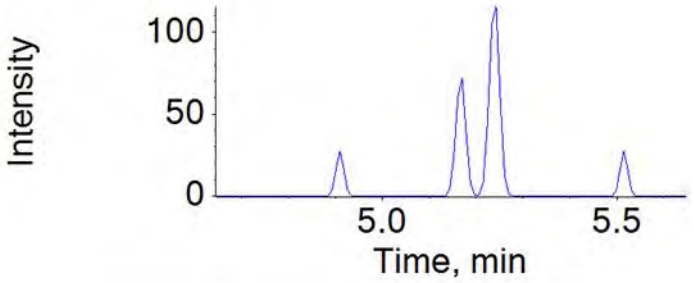
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



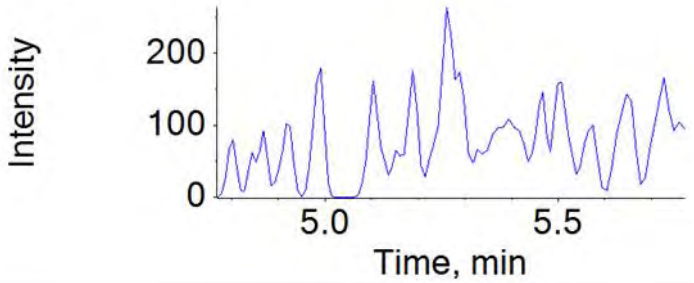
Component: PFOS
Primary Mass: 499.0 / 80.0



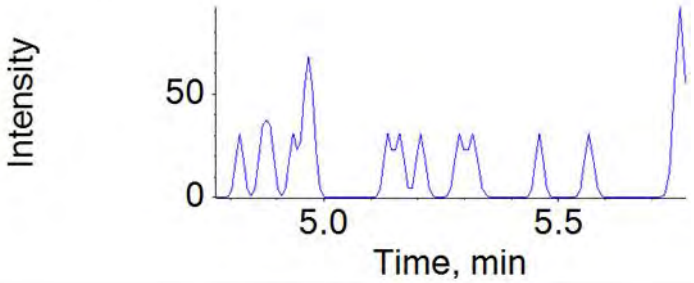
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



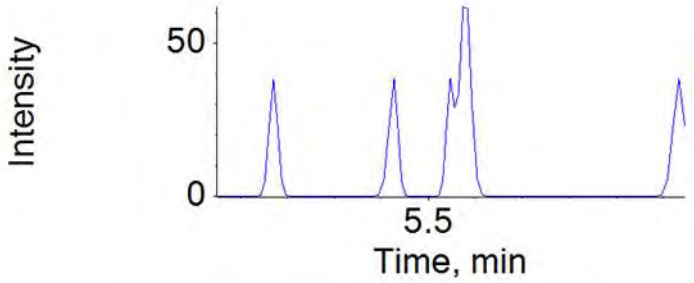
Component: PFNA
Primary Mass: 463.0 / 419.0



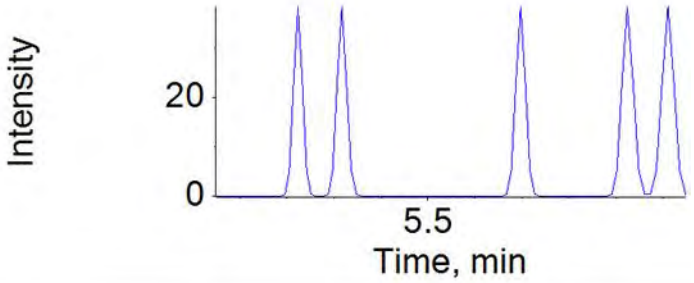
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



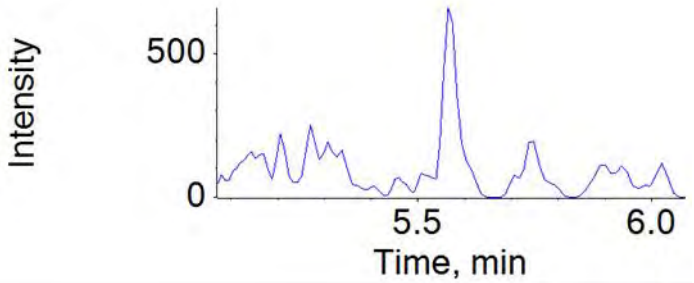
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



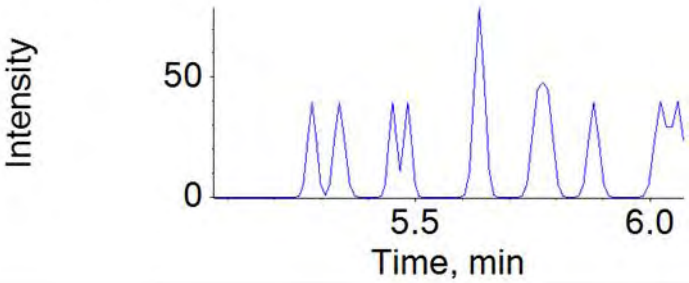
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

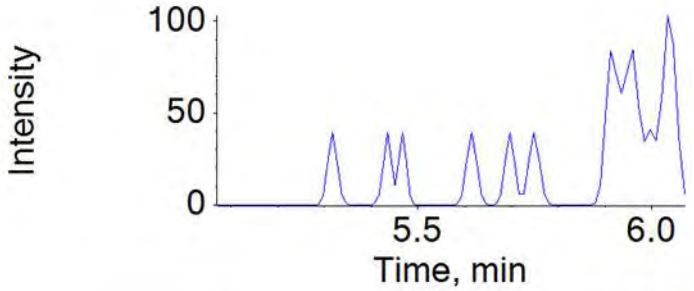
Component: PFDA
Primary Mass: 513.0 / 469.0



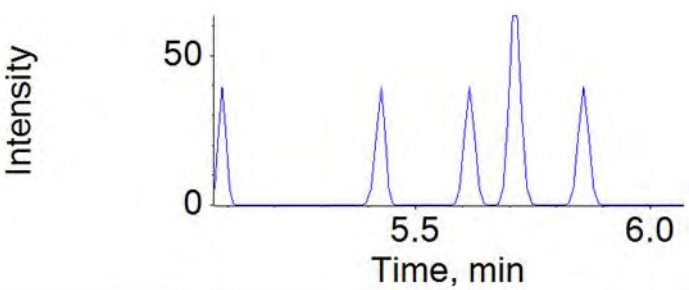
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



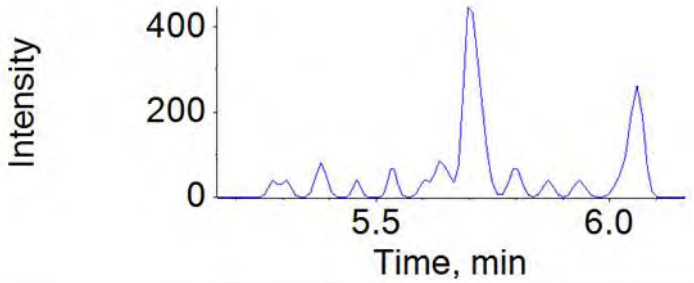
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



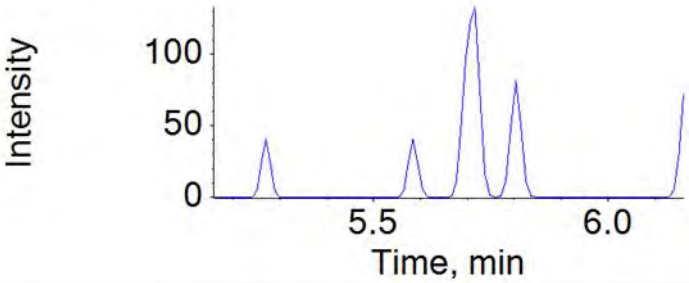
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



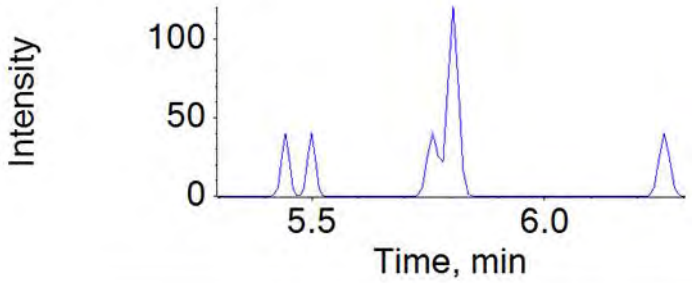
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



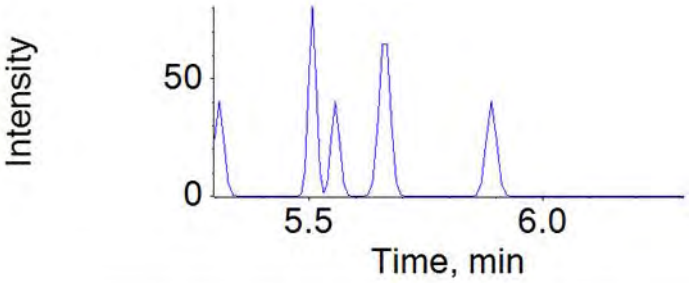
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



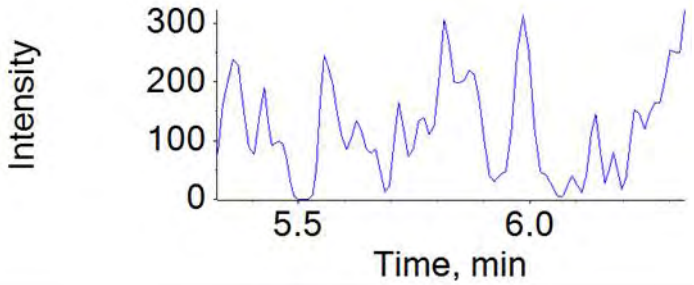
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



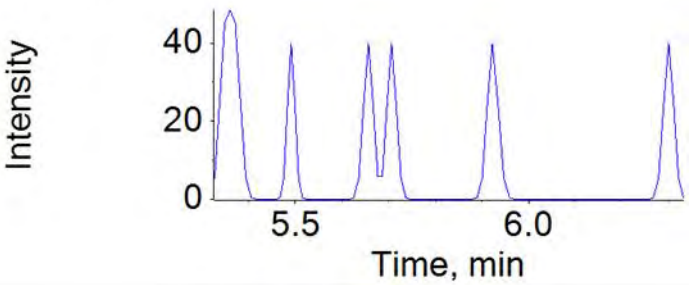
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

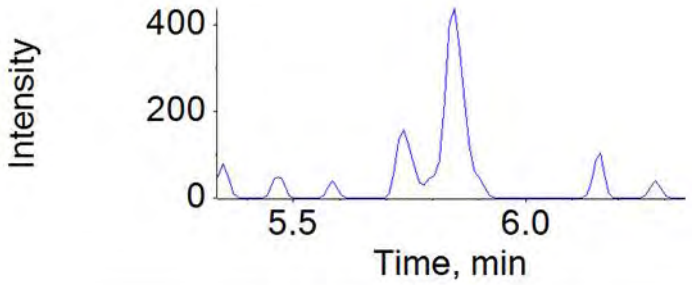
Component: PFUnDA
Primary Mass: 563.0 / 519.0



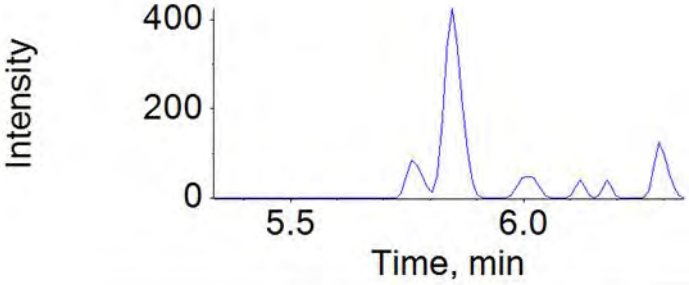
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



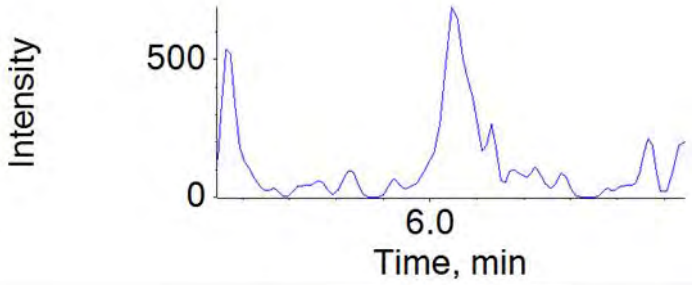
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



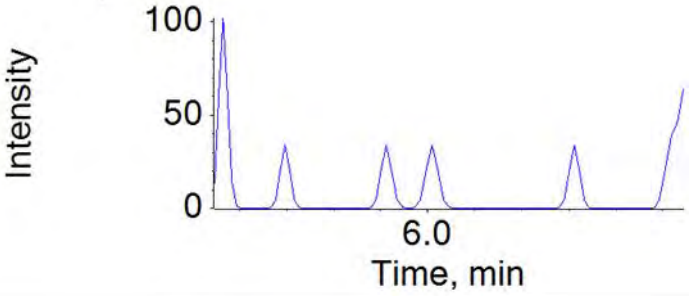
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



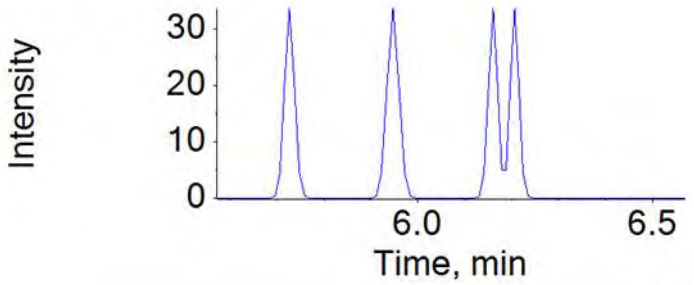
Component: PFDoDA
Primary Mass: 613.0 / 569.0



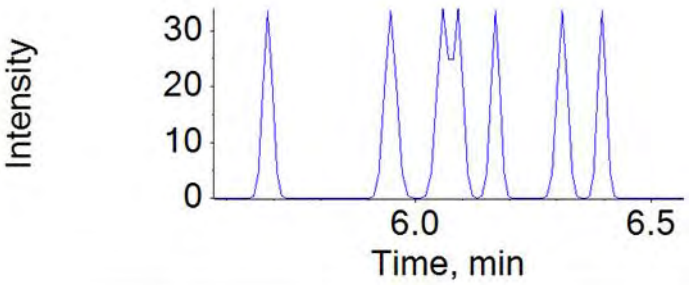
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



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



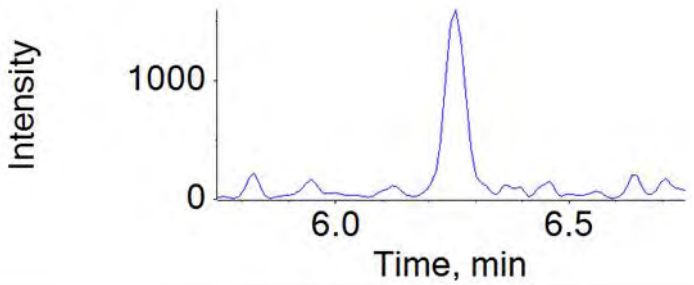
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



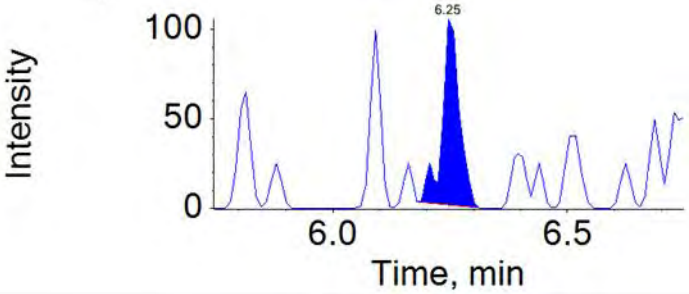
APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

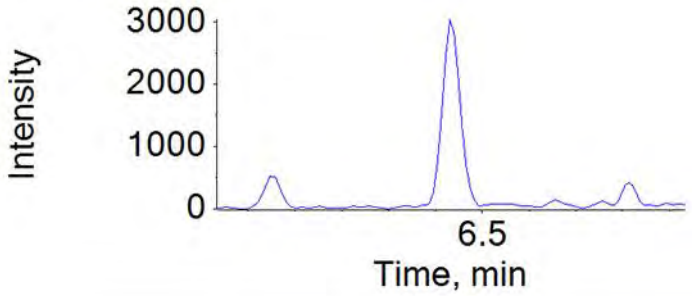
Component: PFTrDA
Primary Mass: 663.0 / 619.0



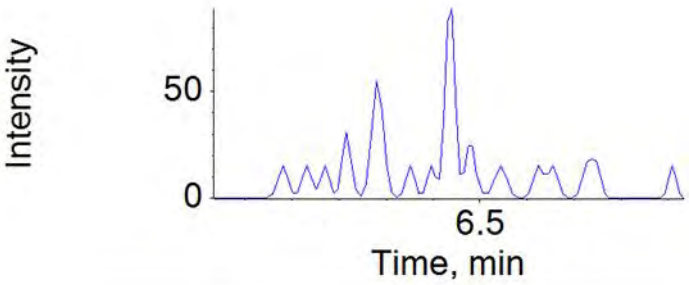
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



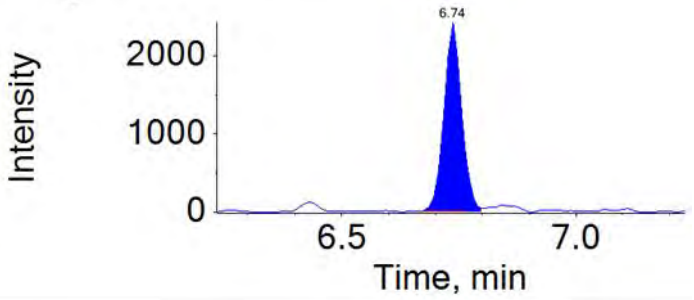
Component: PFTeDA
Primary Mass: 713.0 / 669.0



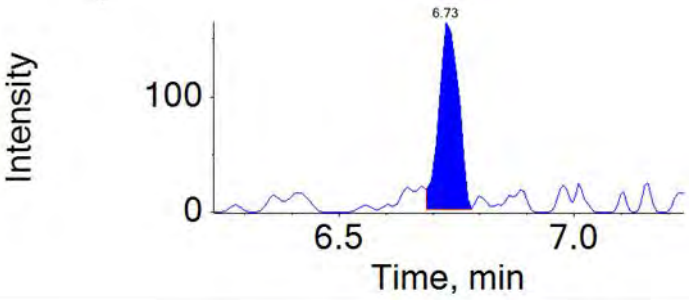
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



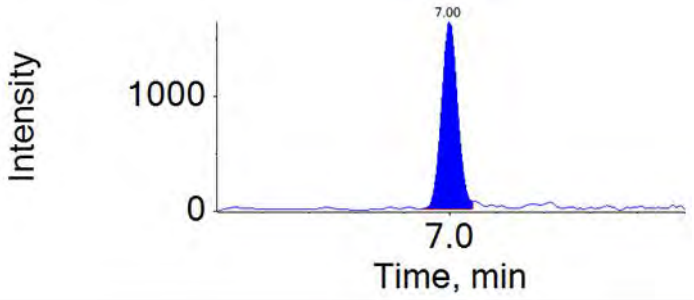
Component: PFHxDA
Primary Mass: 813.0 / 769.0



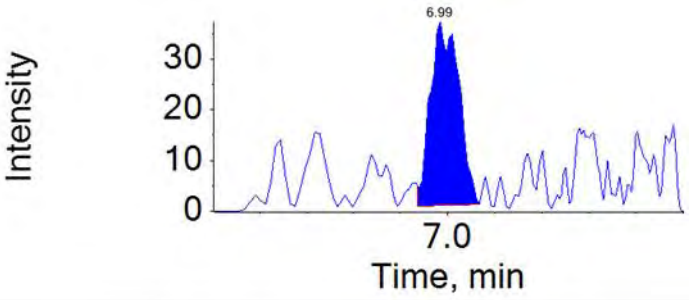
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	MDL			**Data File:**		18NOV28DCAL-05.wiff
Sample ID:	MDLMODX1833F			**Acquis Date:**		2018-11-28T13:33:07
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	2			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1202955.4	887248.9	36	50	
13C2-PFOA	5.0	664292.2	498501.6	33	50	
13C4-PFOS	4.8	375981.9	283214.2	33	50	
13C2-PFDA	5.0	580456.5	441790.6	31	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1367472.9	13C3-PFBA	1202955.4	1.137	5.000	5.072	101	70-130	
E13C5-PFPeA	1239583.2	13C3-PFBA	1202955.4	1.030	5.000	4.812	96	70-130	
E13C3-PFBS	565097.8	13C3-PFBA	1202955.4	0.470	4.650	4.482	96	70-130	
E13C2-4:2-FTS	91419.7	13C2-PFOA	664292.2	0.138	4.670	4.743	102	70-130	
E13C5-PFHxA	909464.7	13C2-PFOA	664292.2	1.369	5.000	5.029	101	70-130	
E13C3-PFHxS	412697.5	13C2-PFOA	664292.2	0.621	4.730	4.869	103	70-130	
E13C4-PFHpA	736898.5	13C2-PFOA	664292.2	1.109	5.000	5.097	102	70-130	
E13C2-6:2-FTS	78325.6	13C2-PFOA	664292.2	0.118	4.750	4.936	104	70-130	
E13C8-PFOA	1322963.7	13C2-PFOA	664292.2	1.992	5.000	5.482	110	70-130	
E13C8-PFOS	393817.9	13C4-PFOS	375981.9	1.047	4.780	4.728	99	70-130	
E13C9-PFNA	850571.5	13C4-PFOS	375981.9	2.262	5.000	4.969	99	70-130	
E13C6-PFDA	1044197.2	13C2-PFDA	580456.5	1.799	5.000	5.072	101	70-130	
E13C2-8:2-FTS	65872.4	13C2-PFDA	580456.5	0.113	4.790	4.877	102	70-130	
E13C8-PFOSA	757176.1	13C2-PFDA	580456.5	1.304	5.000	4.786	96	70-130	
Ed3-NMeFOSAA	233869.6	13C2-PFDA	580456.5	0.403	5.000	5.116	102	70-130	
E13C7-PFUnDA	717824.6	13C2-PFDA	580456.5	1.237	5.000	5.227	105	70-130	
Ed5-NEtFOSAA	174037.9	13C2-PFDA	580456.5	0.300	5.000	5.342	107	70-130	
E13C2-PFDoDA	1443367.4	13C2-PFDA	580456.5	2.487	5.000	5.225	104	70-130	
Ed7-NMePFOSAE	318648.0	13C2-PFDA	580456.5	0.549	5.000	4.744	95	70-130	
Ed3-NMePFOSA	103103.2	13C2-PFDA	580456.5	0.178	5.000	4.807	96	70-130	
Ed9-NEtPFOSAE	276598.5	13C2-PFDA	580456.5	0.477	5.000	4.831	97	70-130	
Ed5-NEtPFOSA	84232.4	13C2-PFDA	580456.5	0.145	5.000	5.042	101	70-130	
E13C2-PFTeDA	1044681.2	13C2-PFDA	580456.5	1.800	5.000	4.980	100	70-130	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

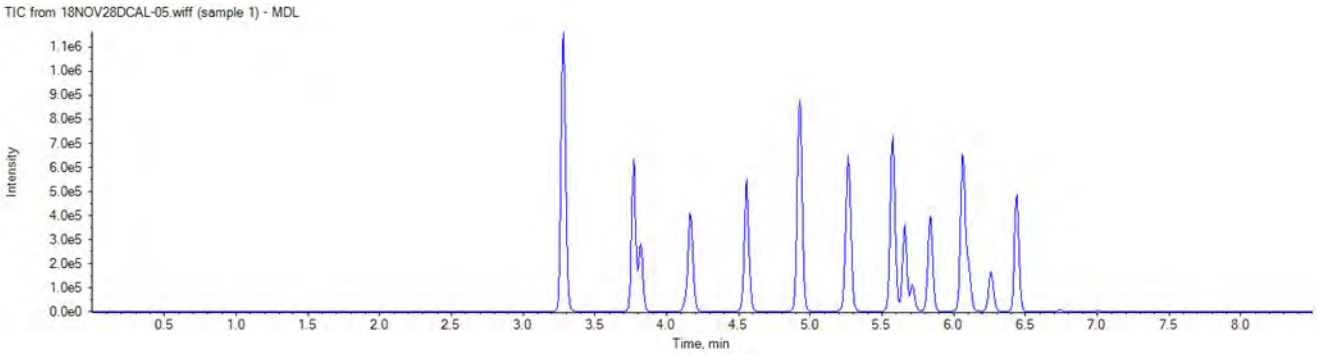
Analyte Quantitation Peak Table

Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-05.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	44840.3		A	13C4-PFBA	3.28	1367472.9	0.033	0.180
PFPeA	3.77	1.000	35372.3		A	13C5-PFPeA	3.77	1239583.2	0.029	0.140
PFBS	3.82	1.000	12605.1		A	13C3-PFBS	3.82	565097.8	0.022	0.108
4:2-FTS	4.13	1.000	2928.7		A	13C2-4:2-FTS	4.13	91419.7	0.032	0.086
PFHxA	4.17	1.000	32436.1		A	13C5-PFHxA	4.17	909464.7	0.036	0.143
PFPeS	4.19	1.100	5200.8		A	13C3-PFBS	3.82	565097.8	0.009	0.093
PFHpA	4.56	1.000	34134.5		A	13C4-PFHpA	4.56	736898.5	0.046	0.143
PFHxS	4.56	1.000	11072.6		A	13C3-PFHxS	4.56	412697.5	0.027	0.126
6:2-FTS	4.91	1.000	4195.7		A	13C2-6:2-FTS	4.91	78325.6	0.054	0.140
PFHpS	4.92	1.080	10674.9		A	13C3-PFHxS	4.56	412697.5	0.026	0.129
PFOA	4.93	1.000	35831.5		A	13C8-PFOA	4.93	1322963.7	0.027	0.140
PFOS	5.25	1.000	10490.3		A	13C8-PFOS	5.26	393817.9	0.027	0.112
PFNA	5.27	1.000	29535.3		A	13C9-PFNA	5.27	850571.5	0.035	0.133
PFNS	5.55	1.060	5896.9		A	13C8-PFOS	5.26	393817.9	0.015	0.095
PFDA	5.58	1.000	28044.3		A	13C6-PFDA	5.57	1044197.2	0.027	0.152
8:2-FTS	5.58	1.000	3464.6		A	13C2-8:2-FTS	5.58	65872.4	0.053	0.099
PFOSA	5.66	1.000	18214.8		A	13C8-PFOSA	5.66	757176.1	0.024	0.122
NMeFOSAA	5.71	1.000	6753.7		A	d3-NMeFOSAA	5.71	233869.6	0.029	0.184
PFDS	5.81	1.100	7418.0		A	13C8-PFOS	5.26	393817.9	0.019	0.149
PFUnDA	5.83	1.000	27644.3		A	13C7-PFUnDA	5.83	717824.6	0.039	0.138
NEtFOSAA	5.85	1.000	5734.3		M	d5-NEtFOSAA	5.84	174037.9	0.033	0.160
PFDoDA	6.06	1.000	38884.2		A	13C2-PFDoDA	6.06	1443367.4	0.027	0.148
10:2-FTS	6.08	1.090	3761.8		A	13C2-8:2-FTS	5.58	65872.4	0.057	0.126
NMePFOSAE	6.11	1.000	9196.7		A	d7-NMePFOSAE	6.10	318648.0	0.029	0.121
NMePFOSA	6.11	1.000	2590.4		A	d3-NMePFOSA	6.11	103103.2	0.025	0.133
PFDoS	6.24	1.190	2522.1		A	13C8-PFOS	5.26	393817.9	0.006	0.092
NEtPFOSAE	6.27	1.000	9043.7		A	d9-NEtPFOSAE	6.26	276598.5	0.033	0.118
NEtPFOSA	6.29	1.000	1641.5		A	d5-NEtPFOSA	6.27	84232.4	0.019	0.087
PFTrDA	6.26	1.030	35013.3		A	13C2-PFDoDA	6.06	1443367.4	0.024	0.146
PFTeDA	6.44	1.000	27817.6		A	13C2-PFTeDA	6.44	1044681.2	0.027	0.151
PFHxDA	6.74	1.050	13033.4		A	13C2-PFTeDA	6.44	1044681.2	0.012	0.143
PFODA	7.00	1.090	8671.1		A	13C2-PFTeDA	6.44	1044681.2	0.008	0.111

Total Ion Chromatogram

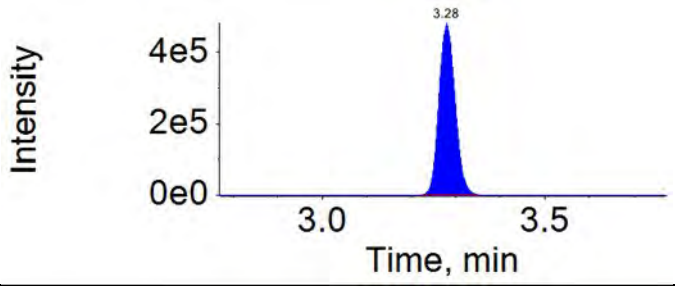


APPROVED
By MCD at 5:01 pm, 11/28/18

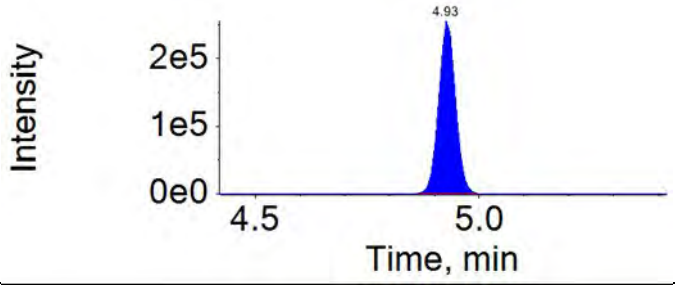
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

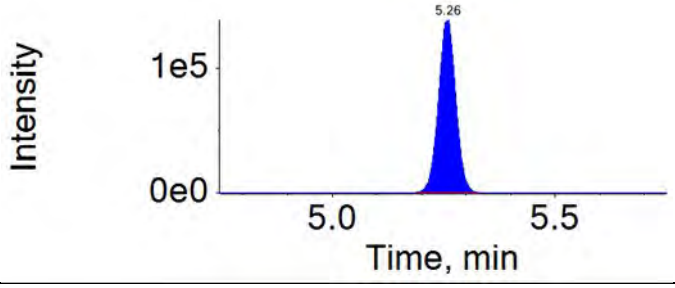
Injection Standard: 13C3-PFBA
216.0 / 172.0



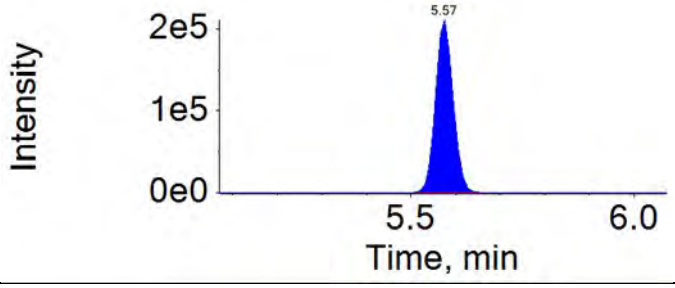
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

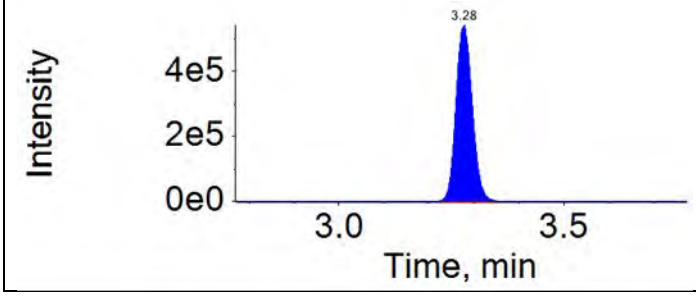


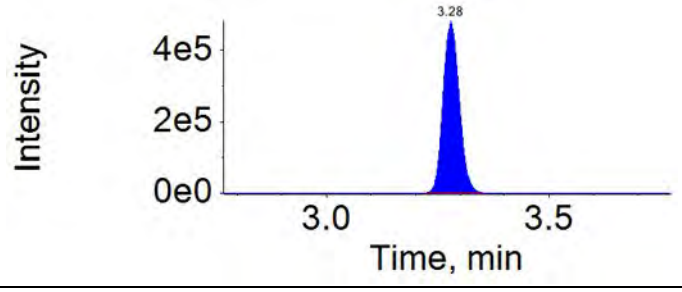
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

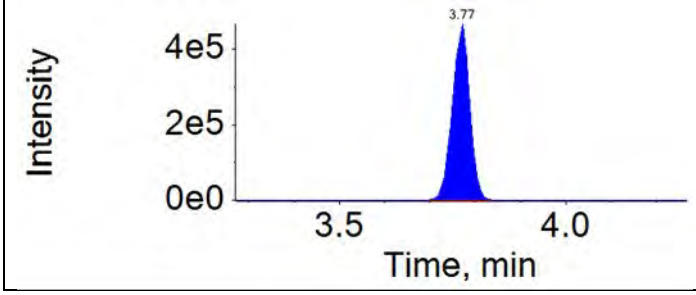
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

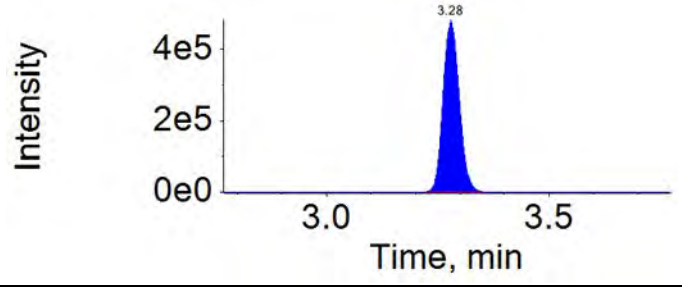
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



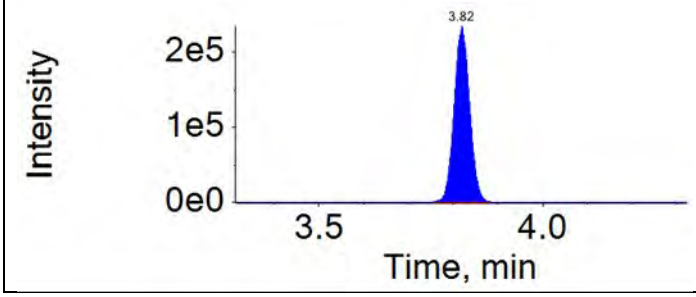


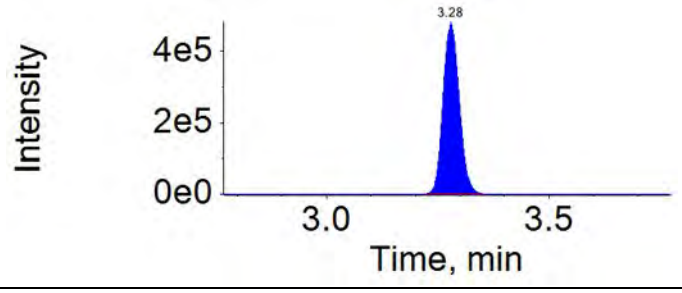
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



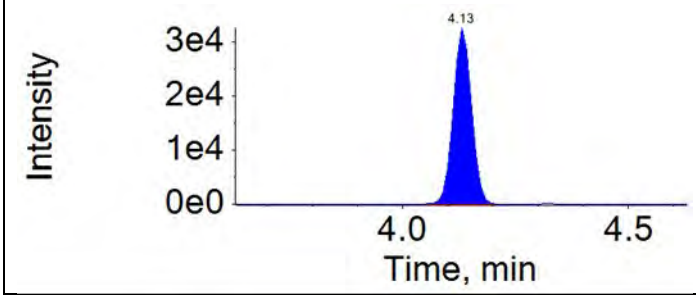


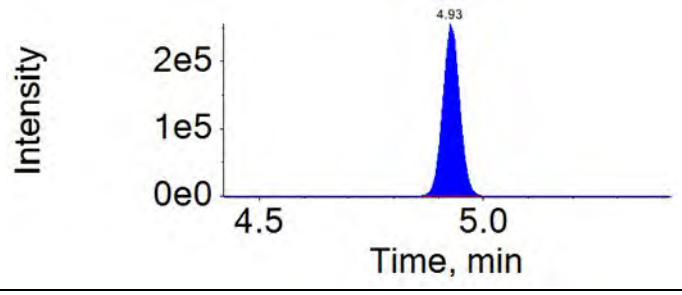
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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

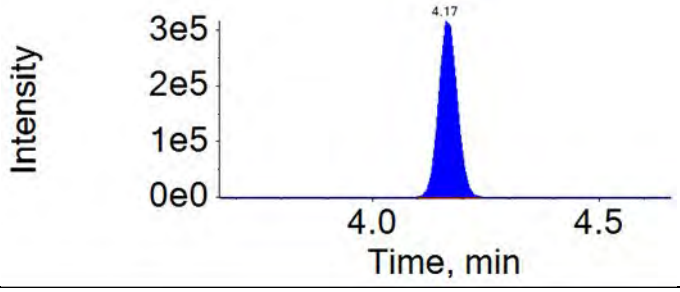
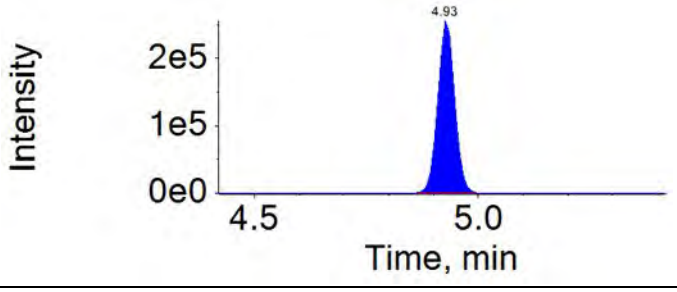


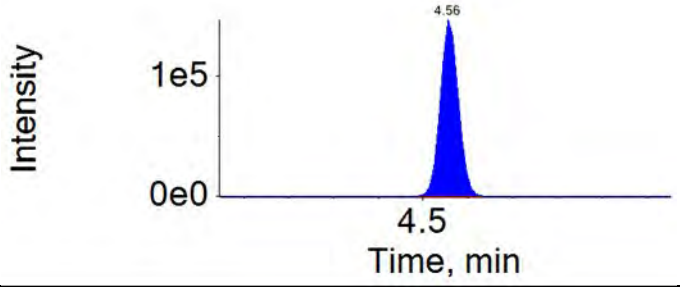
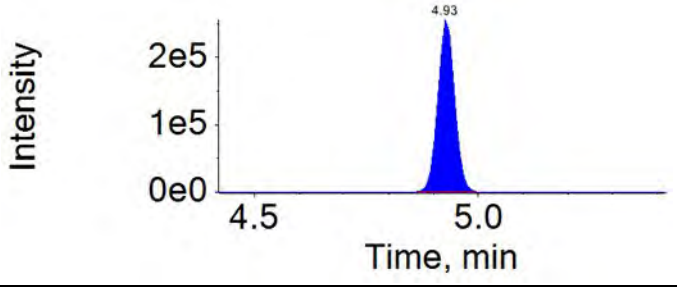


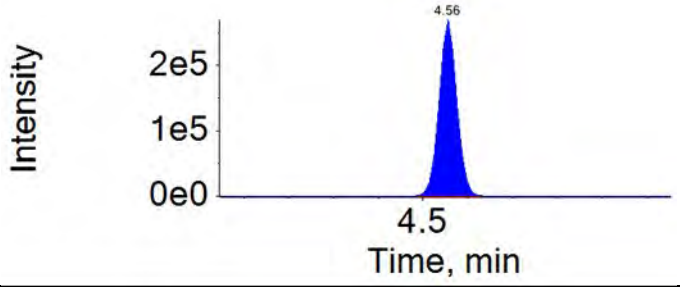
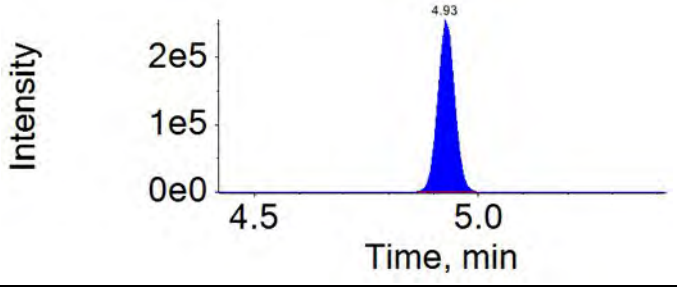
APPROVED
By MCD at 5:01 pm, 11/28/18

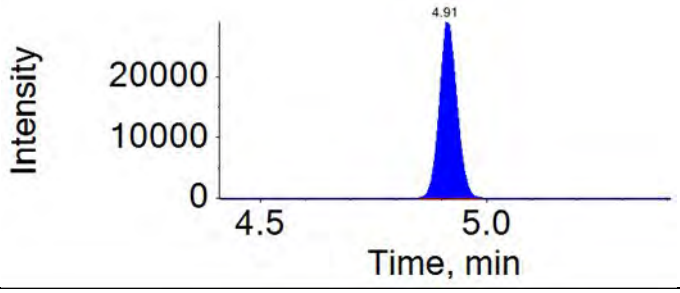
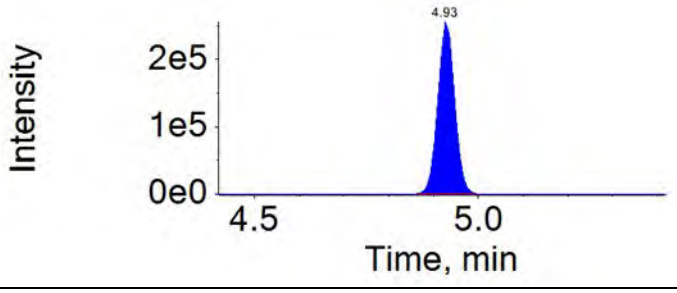
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

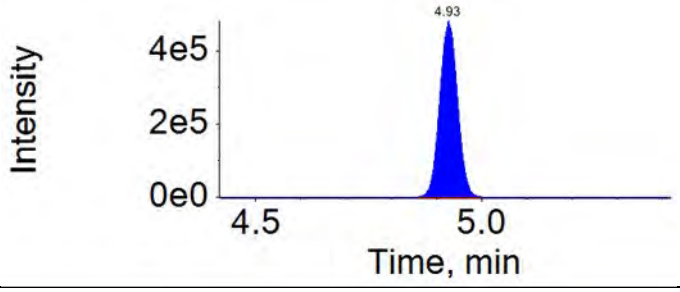
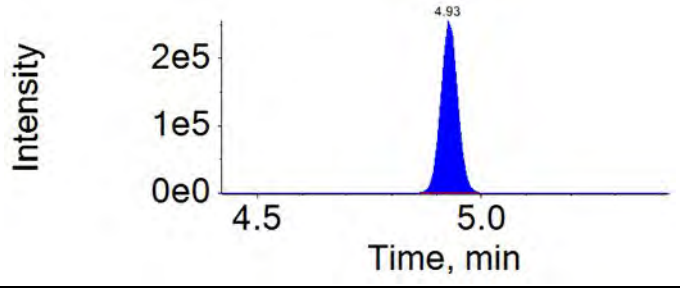
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

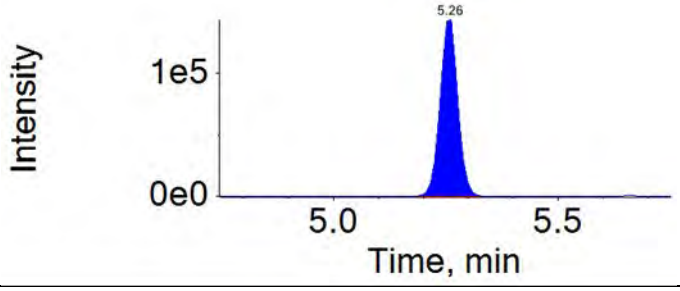
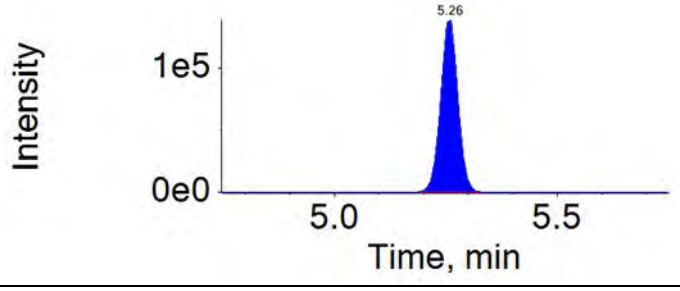
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

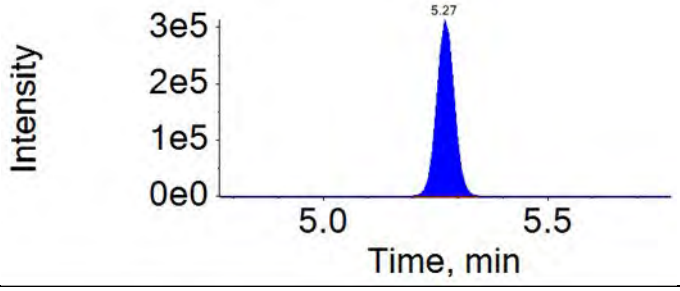
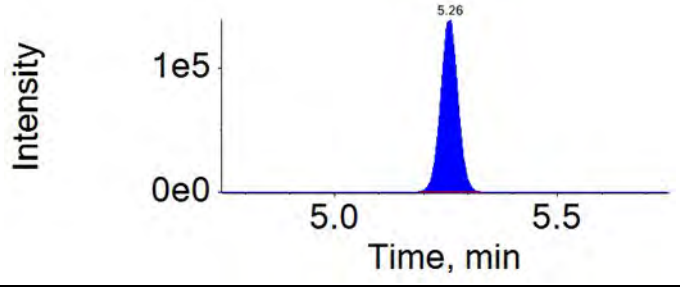
APPROVED
By MCD at 5:01 pm, 11/28/18

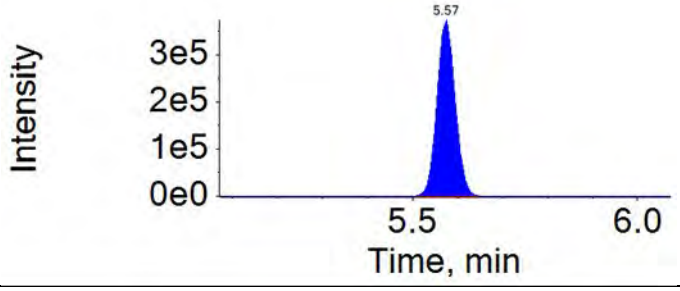
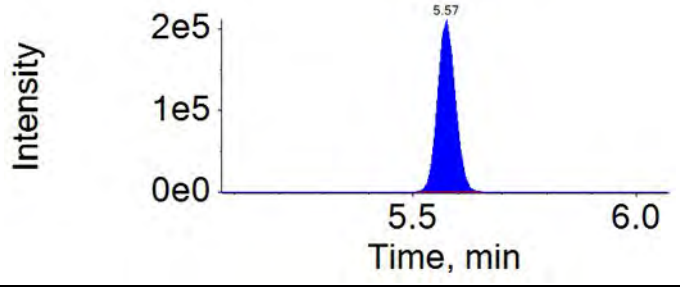
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

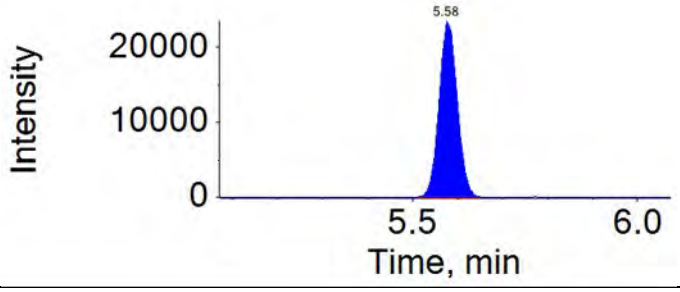
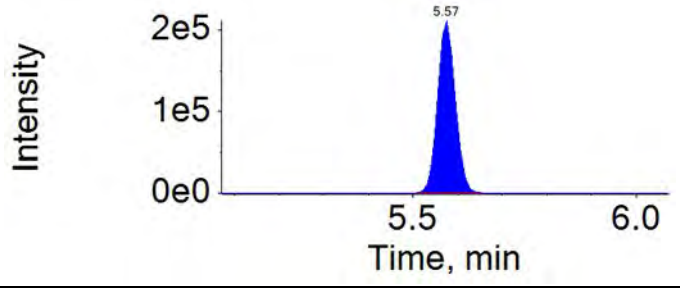
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

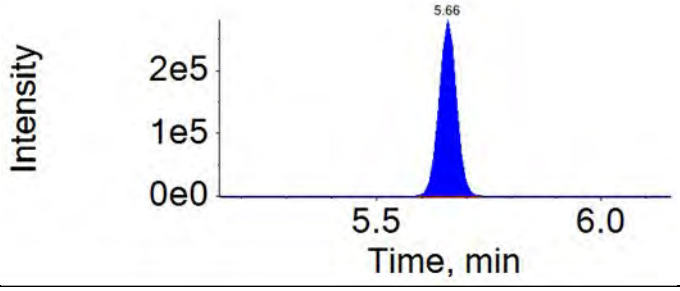
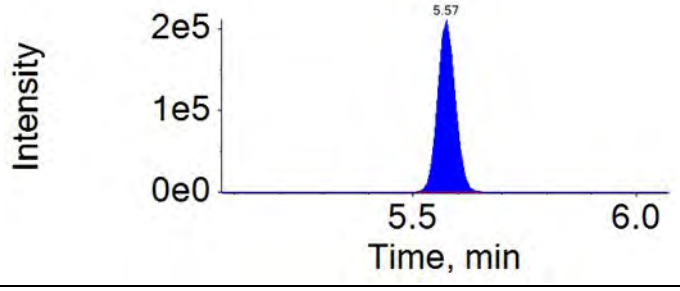
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

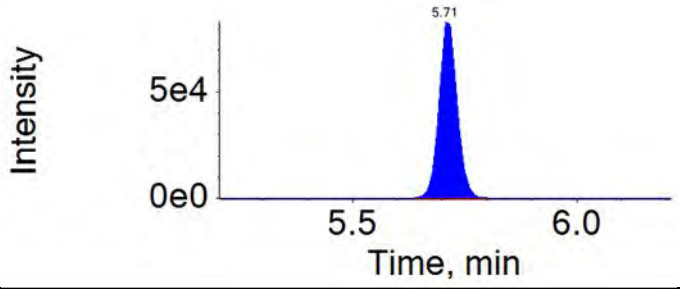
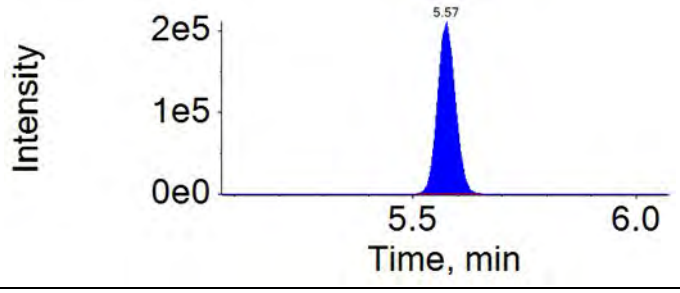
APPROVED
By MCD at 5:01 pm, 11/28/18

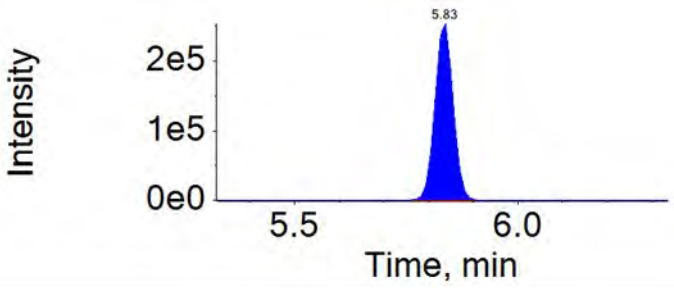
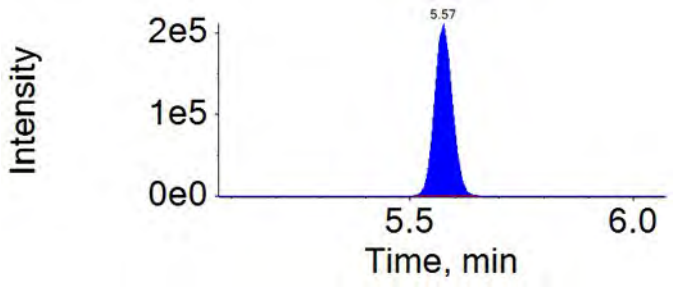
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

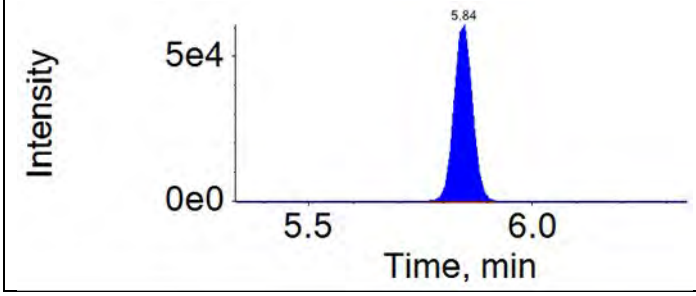
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

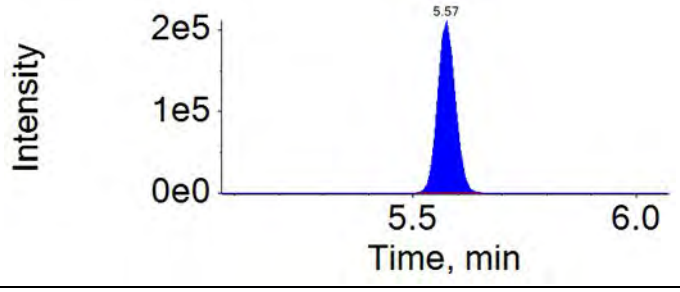
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

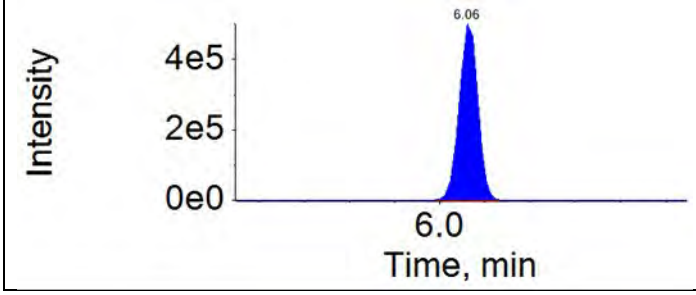
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

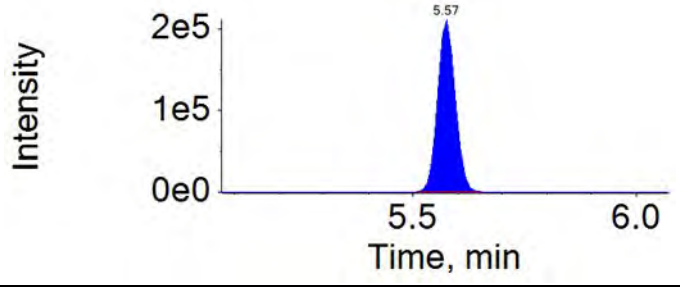
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



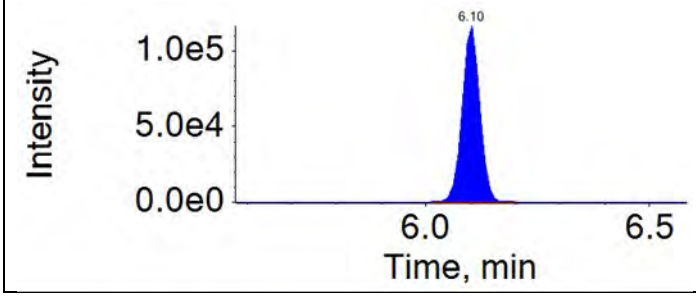


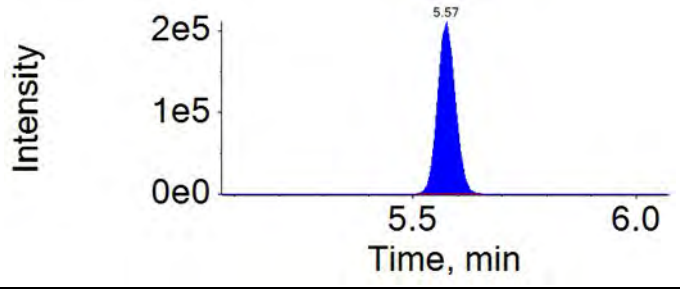
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



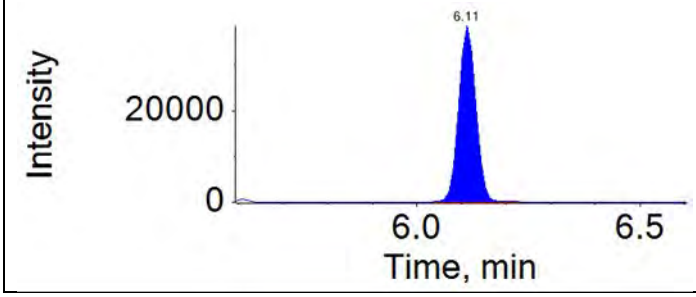


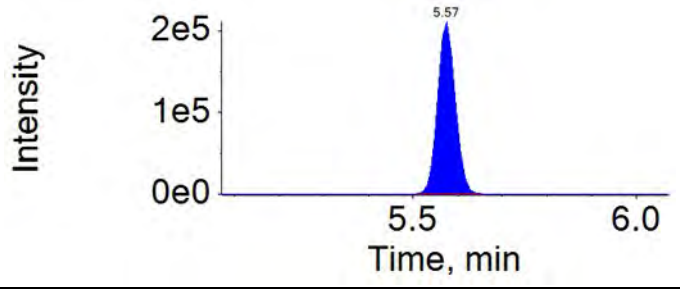
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





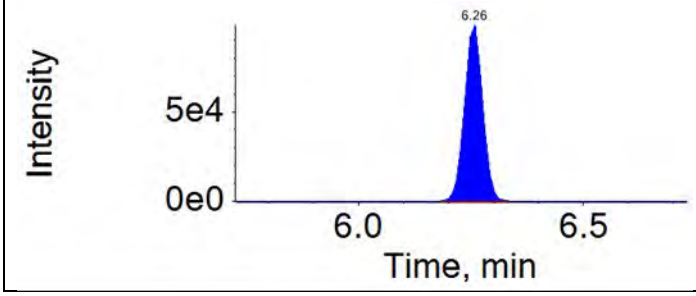
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

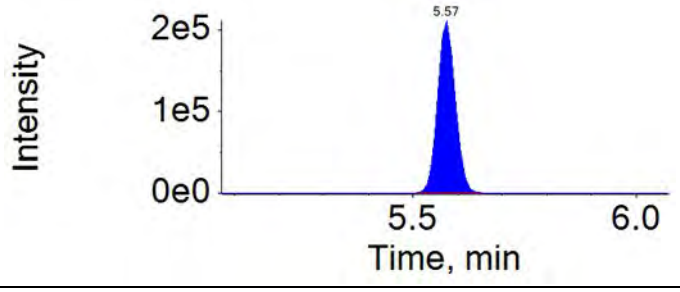




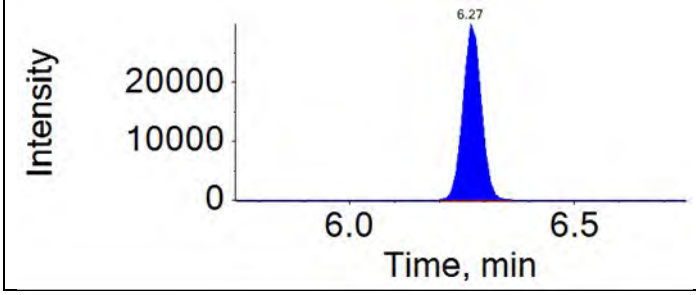
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

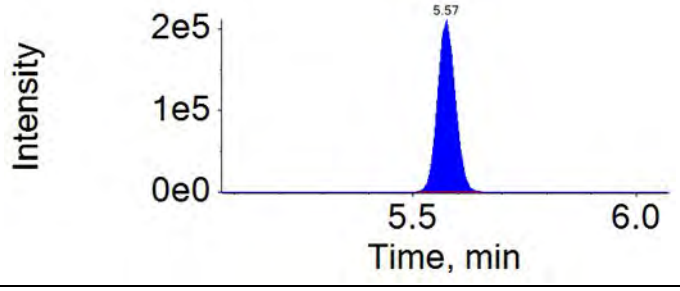
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



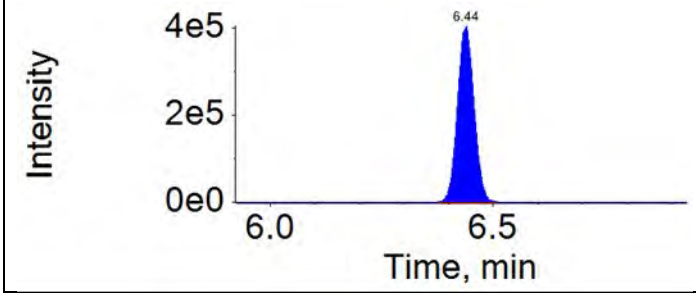


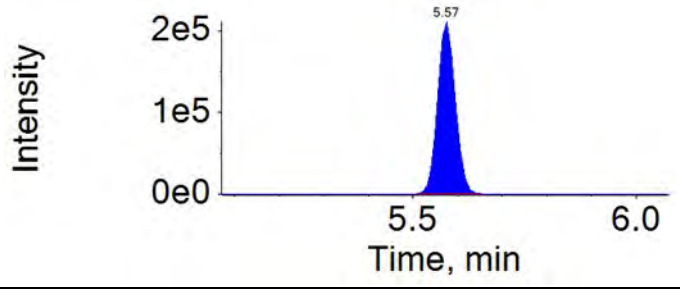
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





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



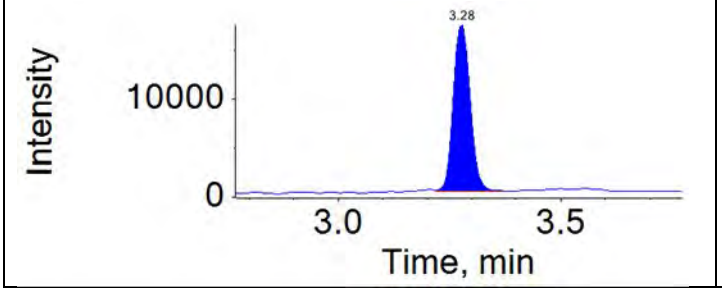


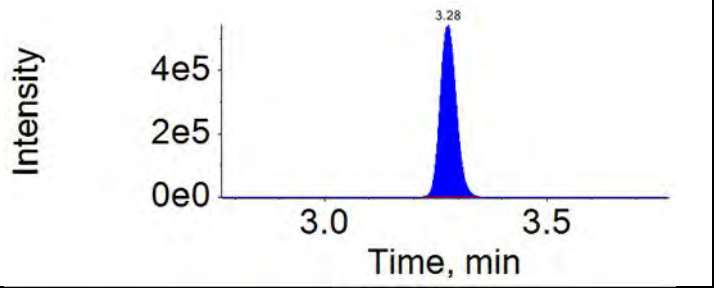
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

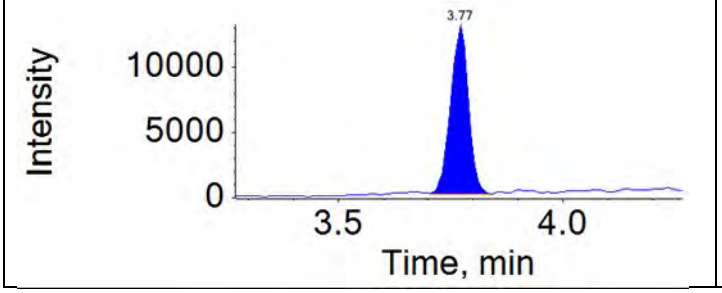
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

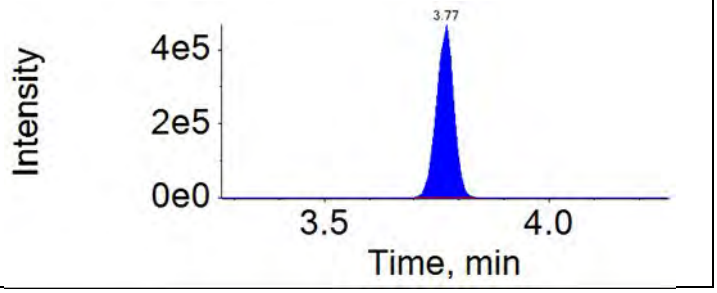
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



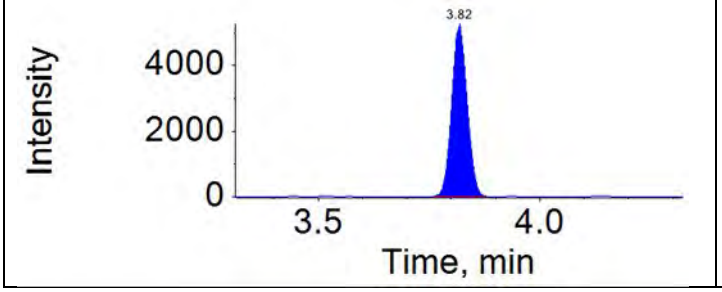


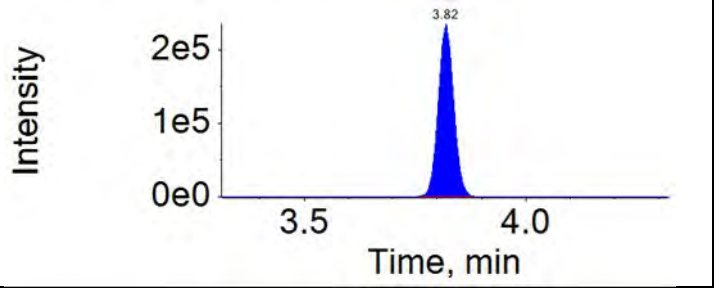
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



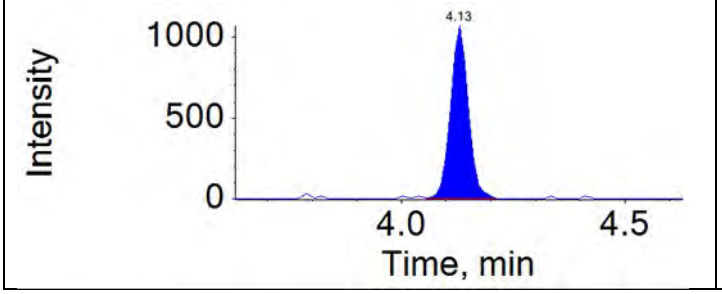


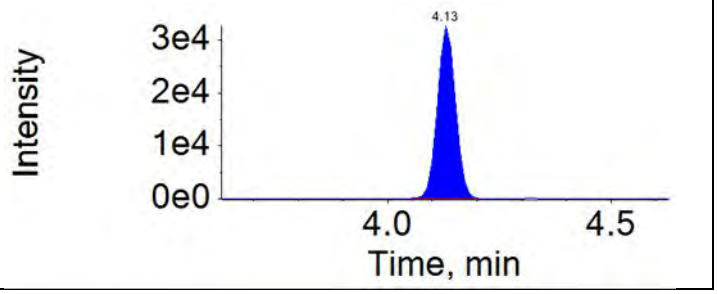
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





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



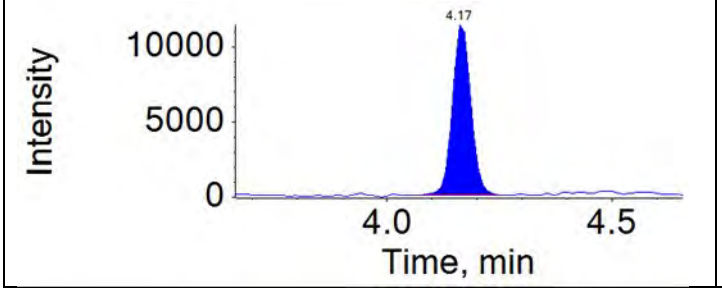


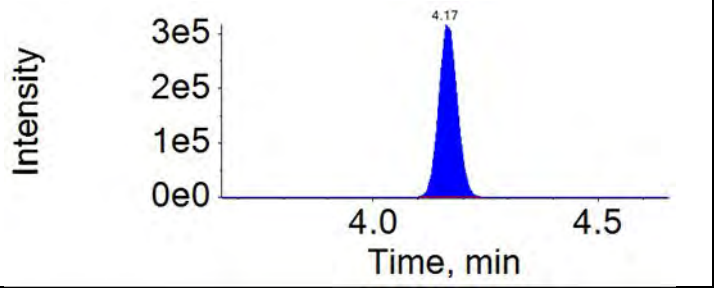
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

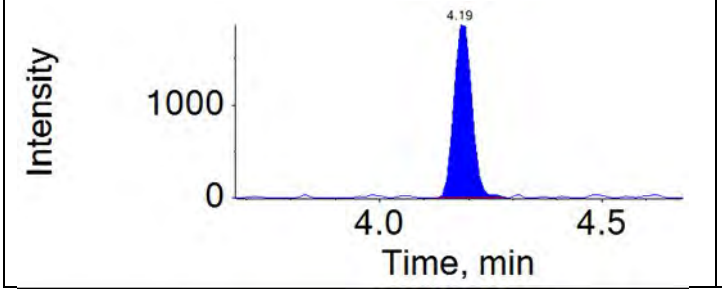
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

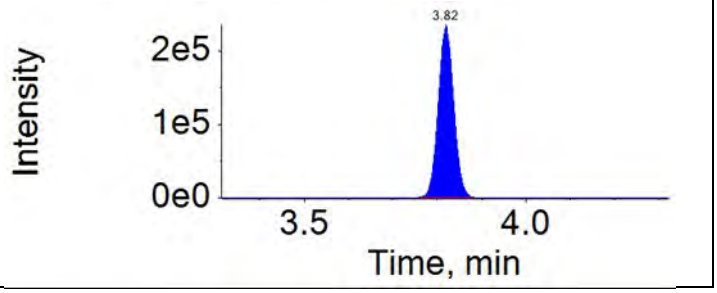
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



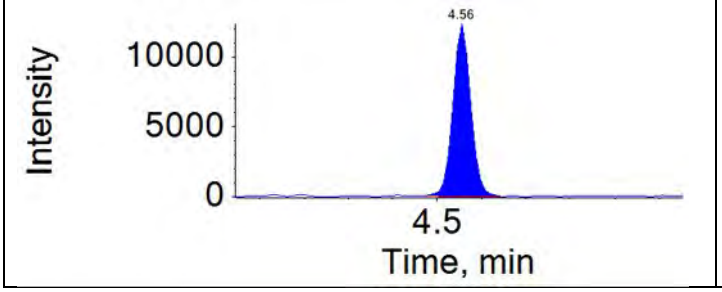


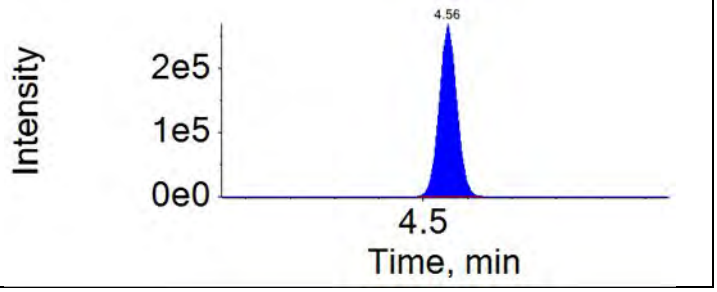
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



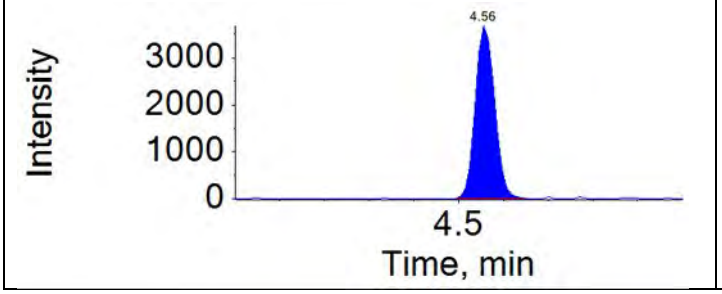


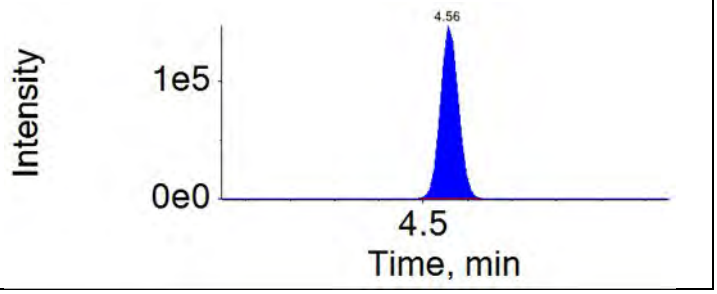
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





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



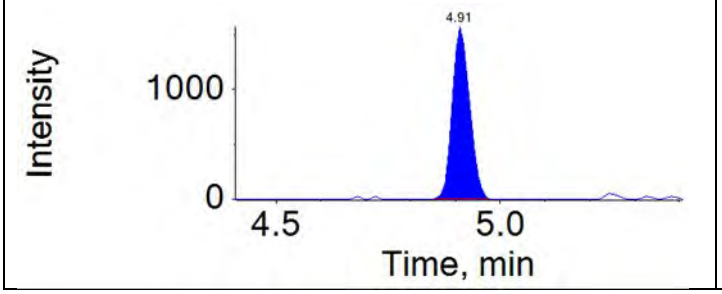


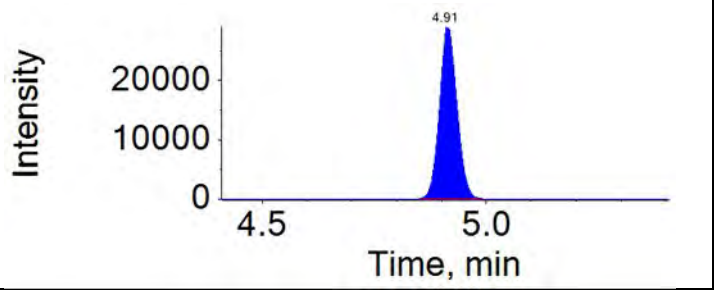
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

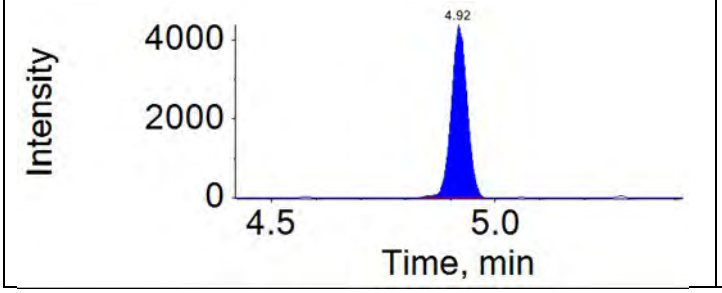
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

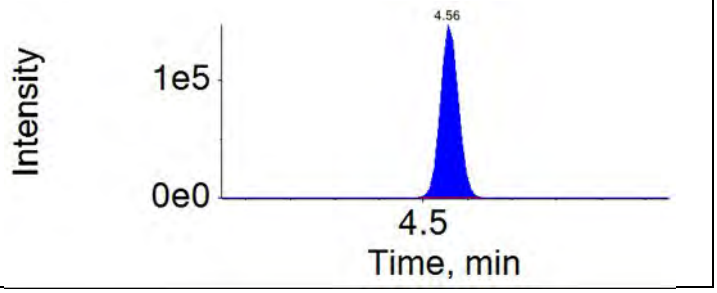
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



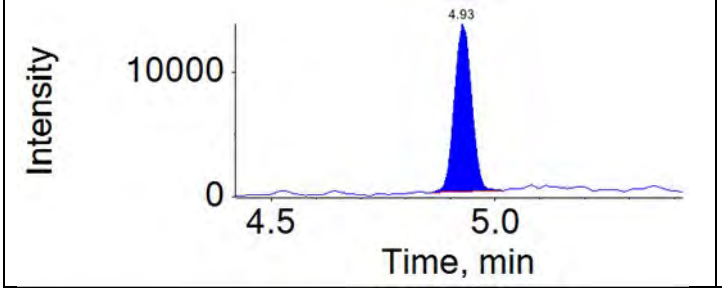


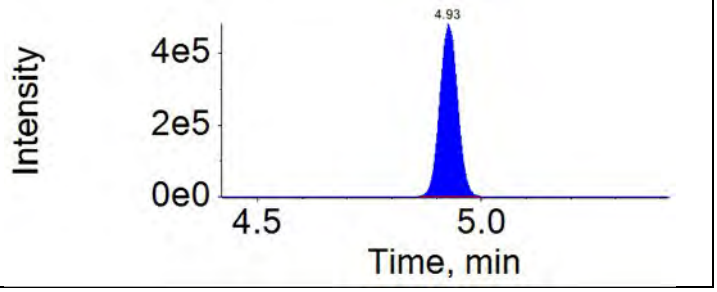
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



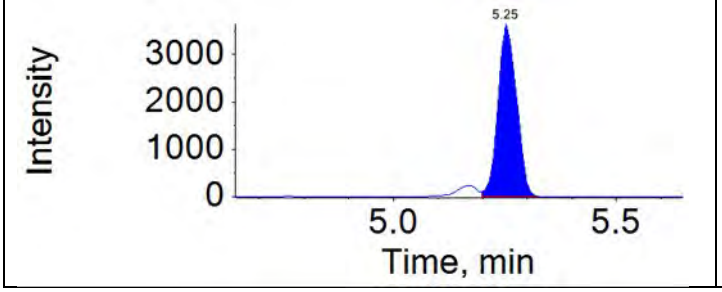


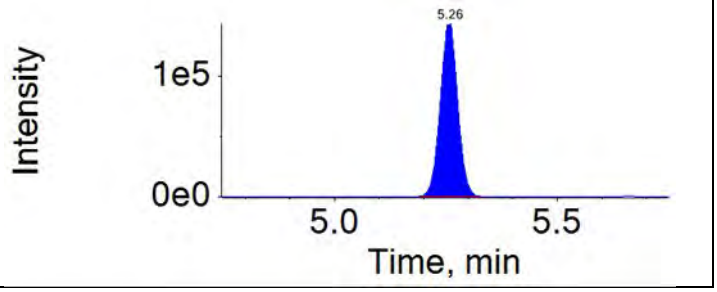
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





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



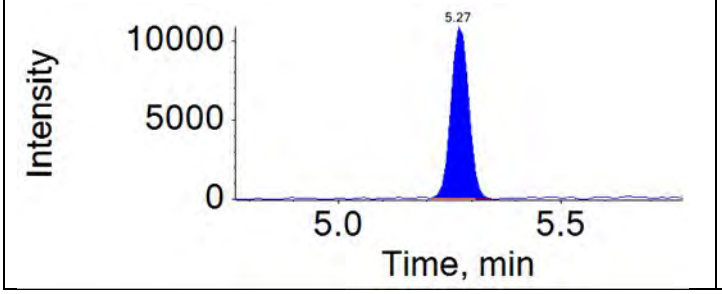


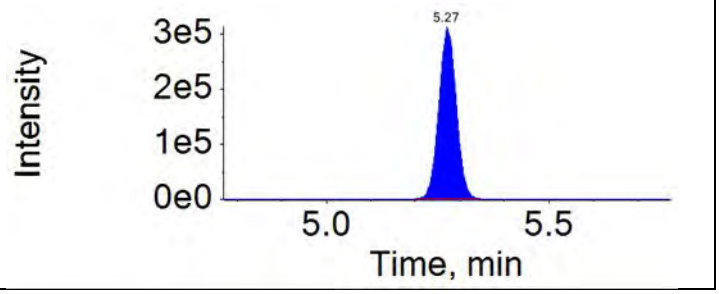
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

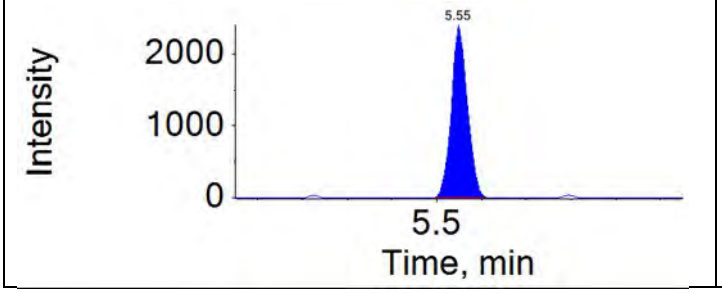
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

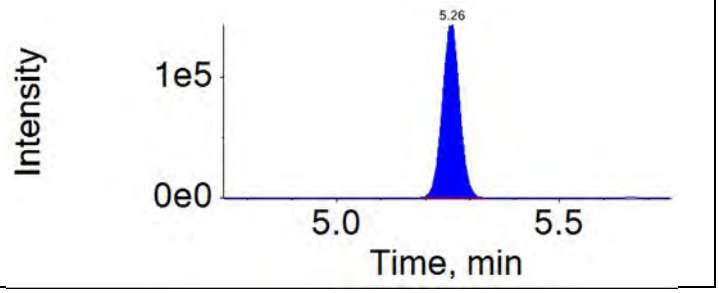
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



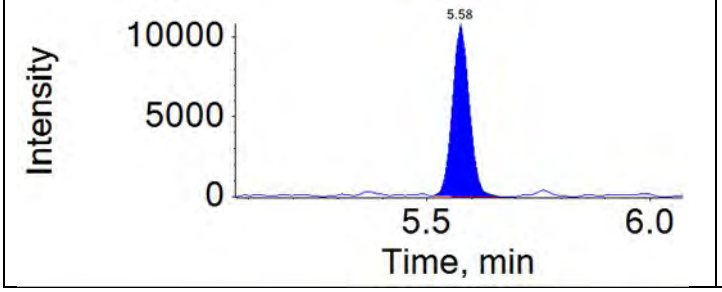


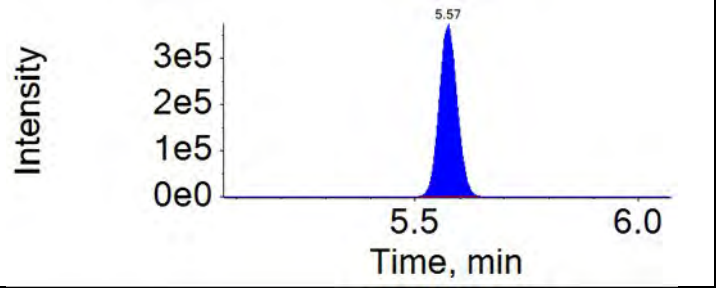
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



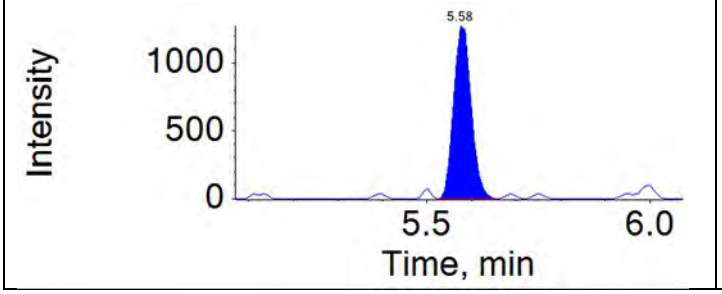


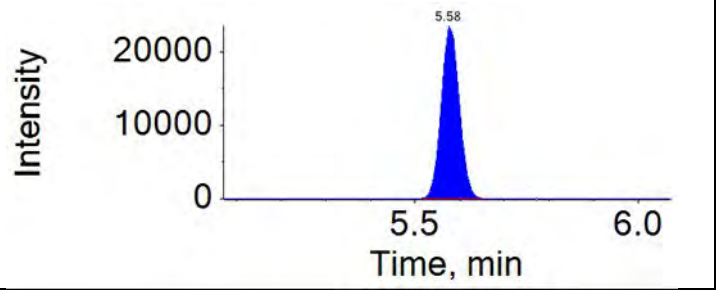
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





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

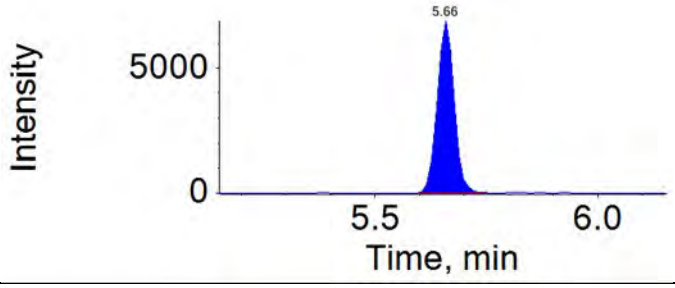
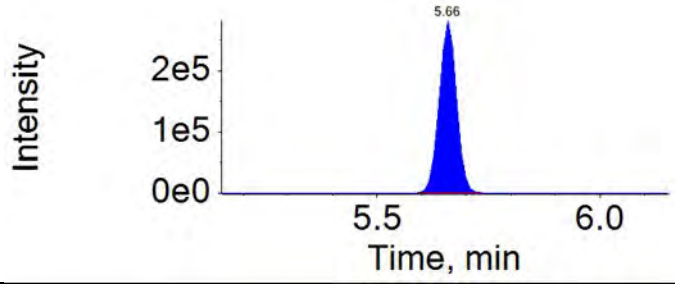


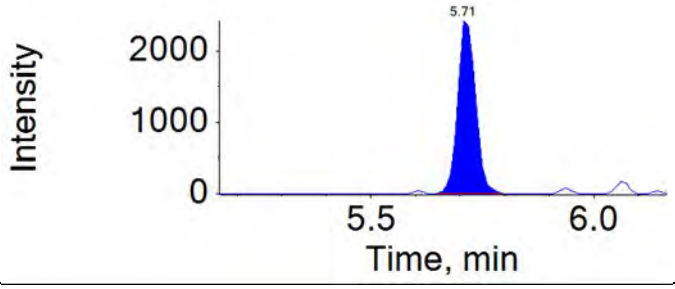
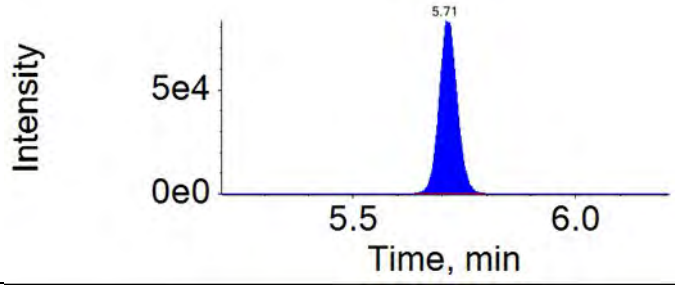


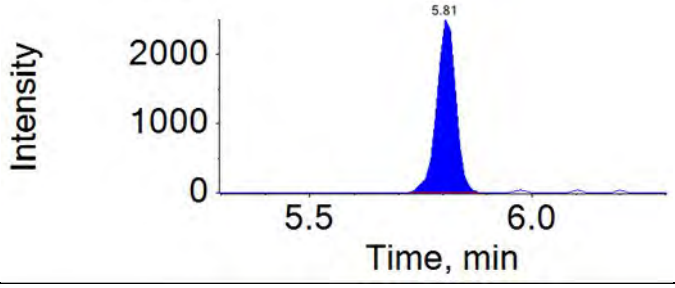
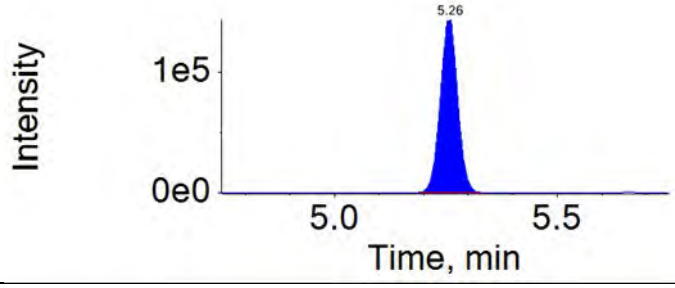
APPROVED
By MCD at 5:01 pm, 11/28/18

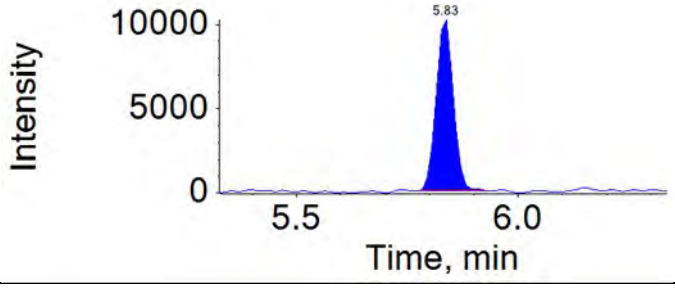
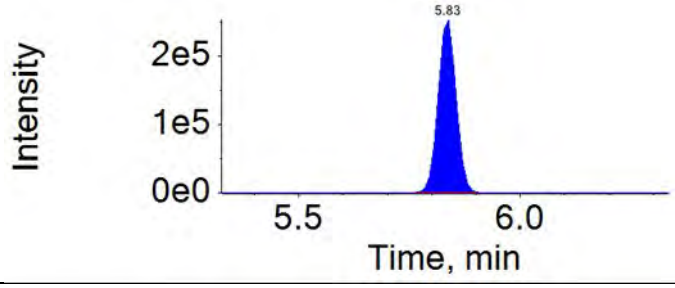
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

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

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

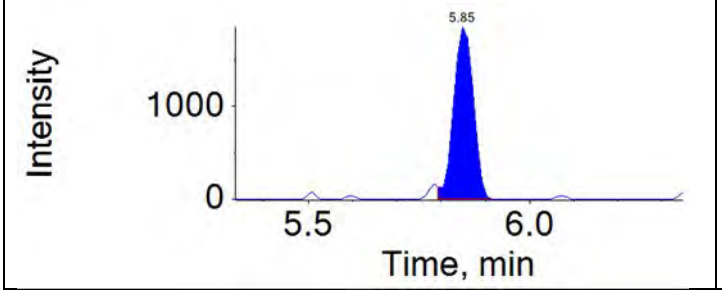
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

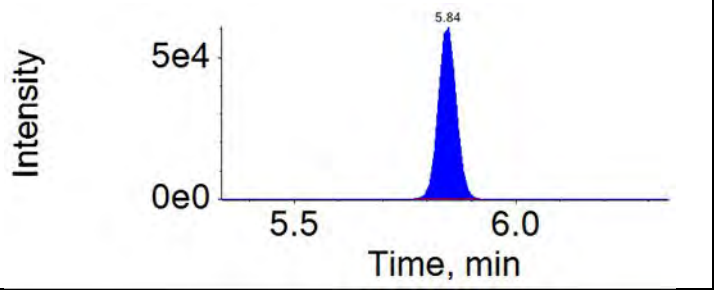
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

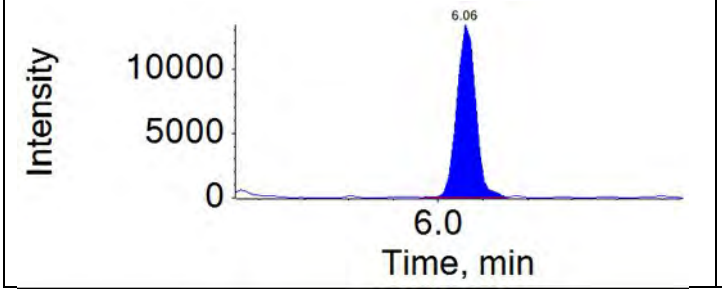
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

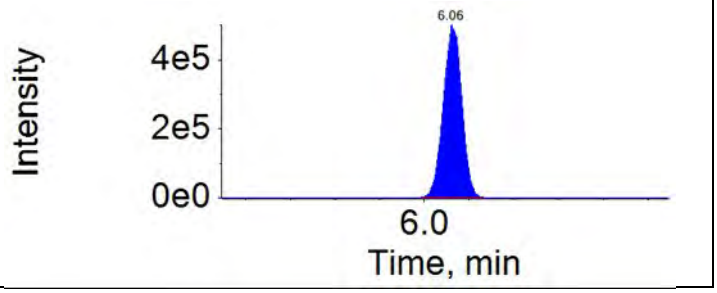
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



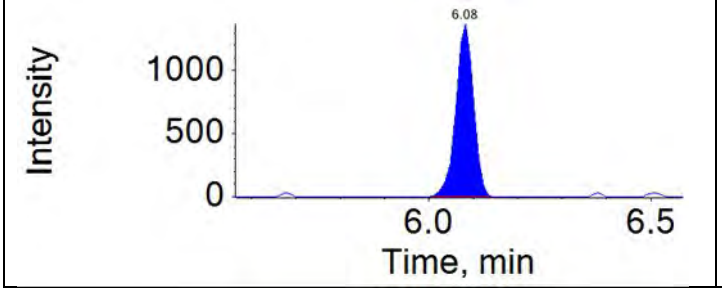


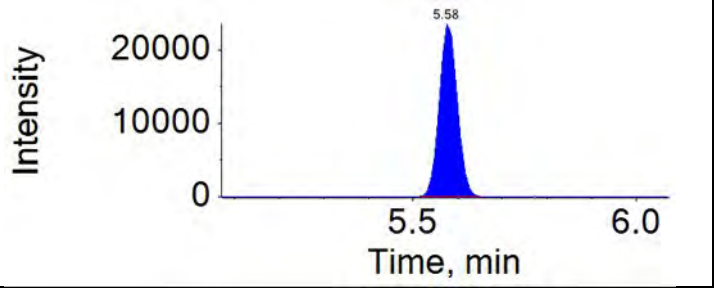
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



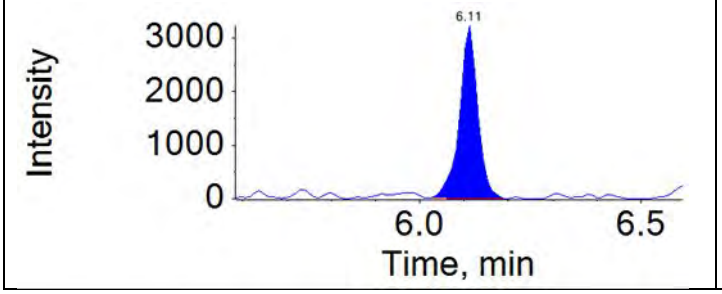


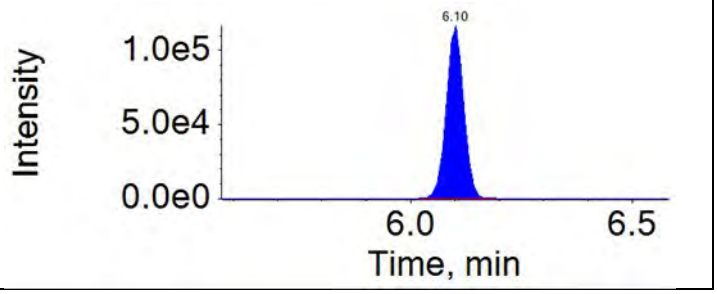
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





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



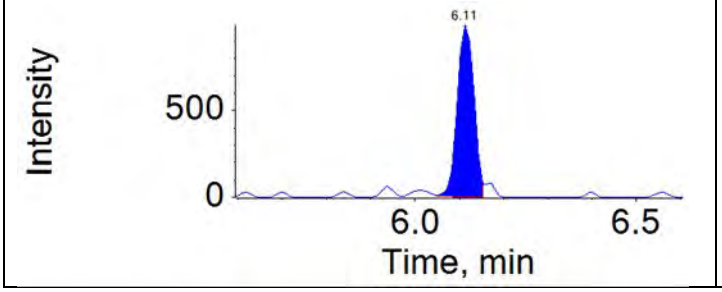


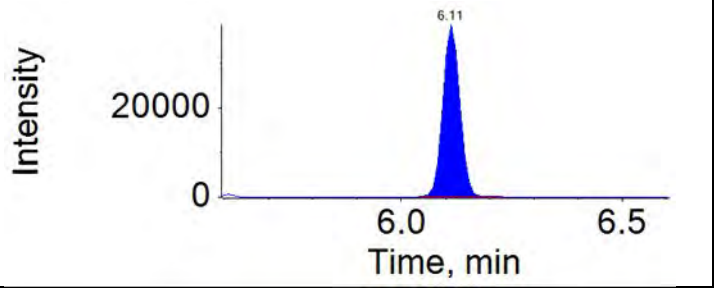
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

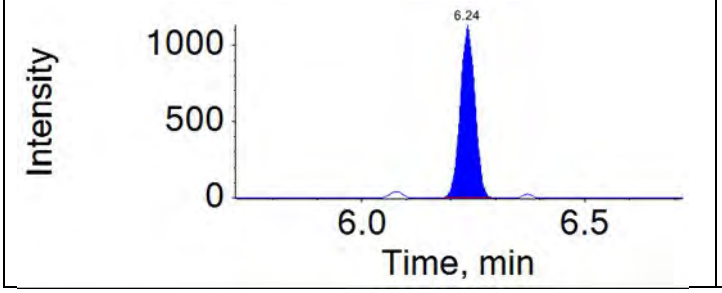
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

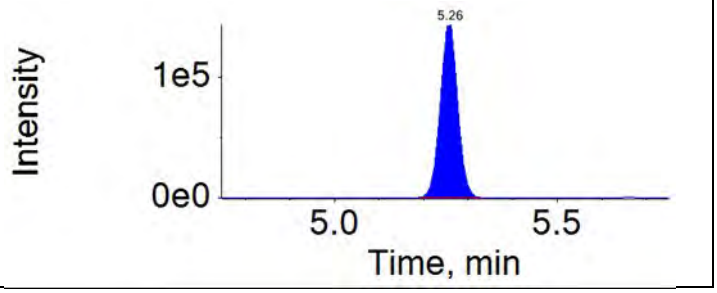
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



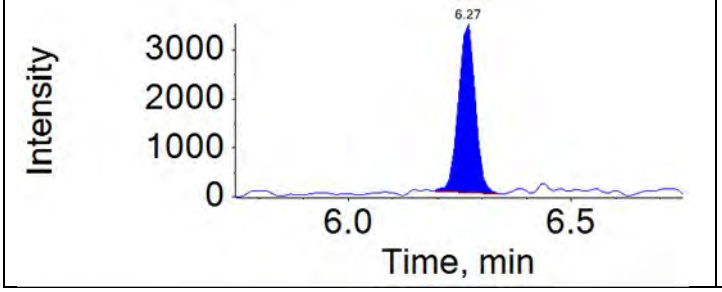


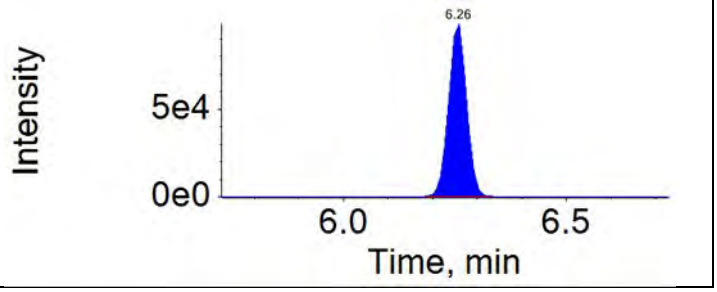
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



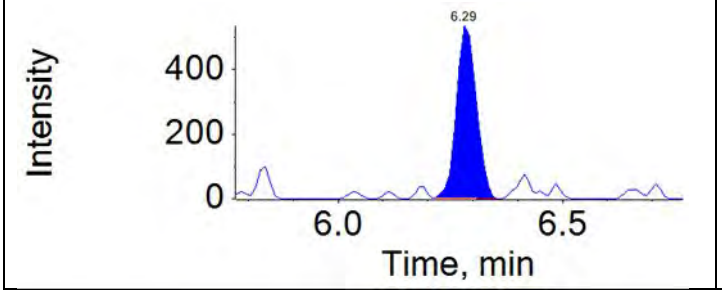


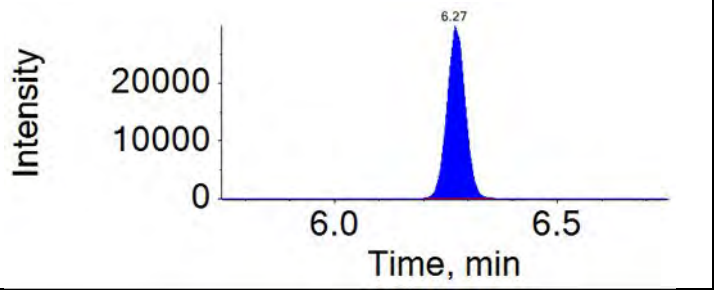
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





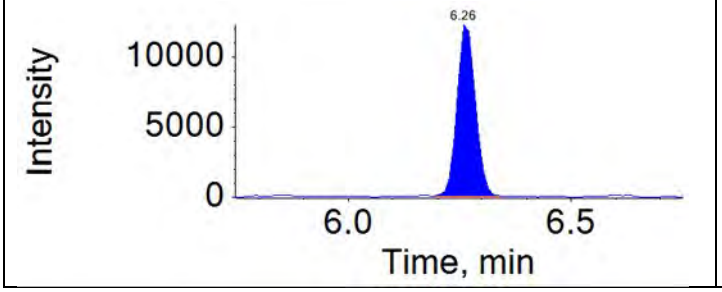
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

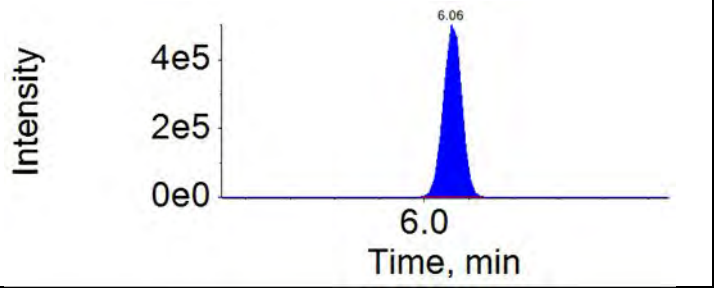




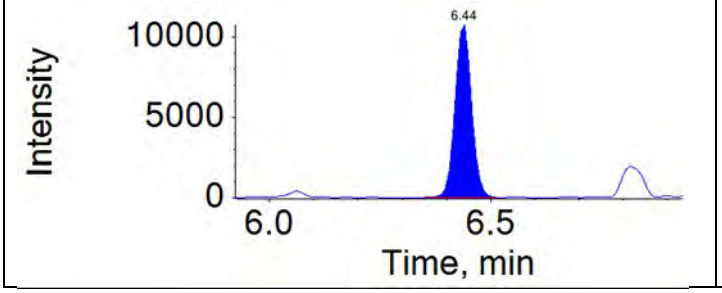
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

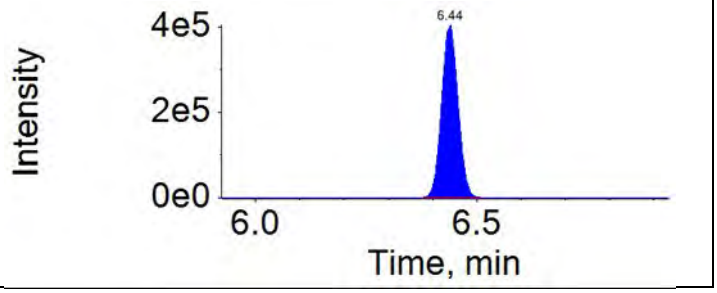
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



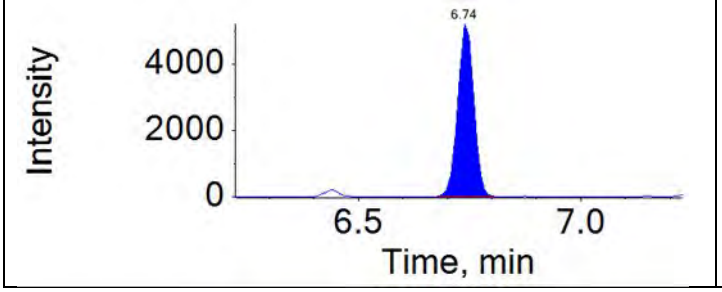


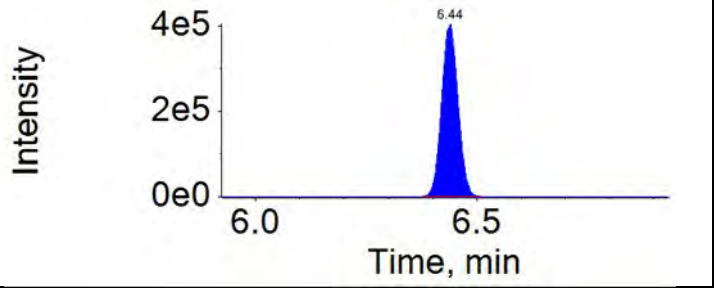
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



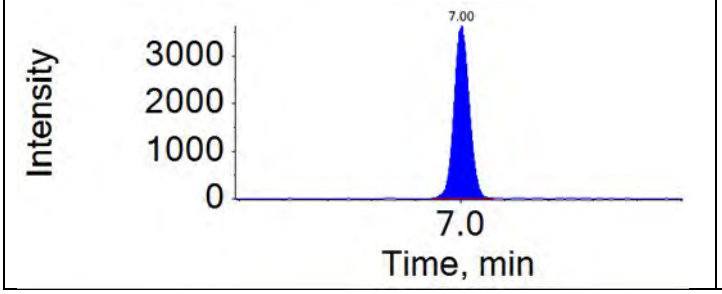


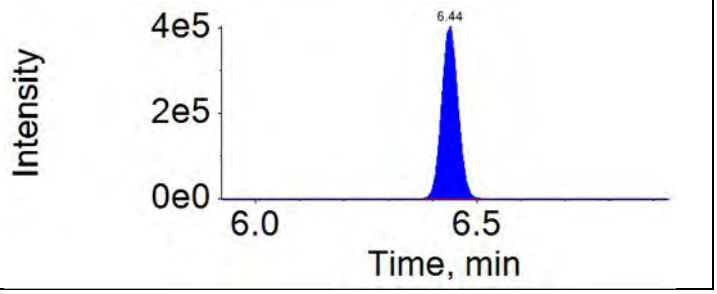
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





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



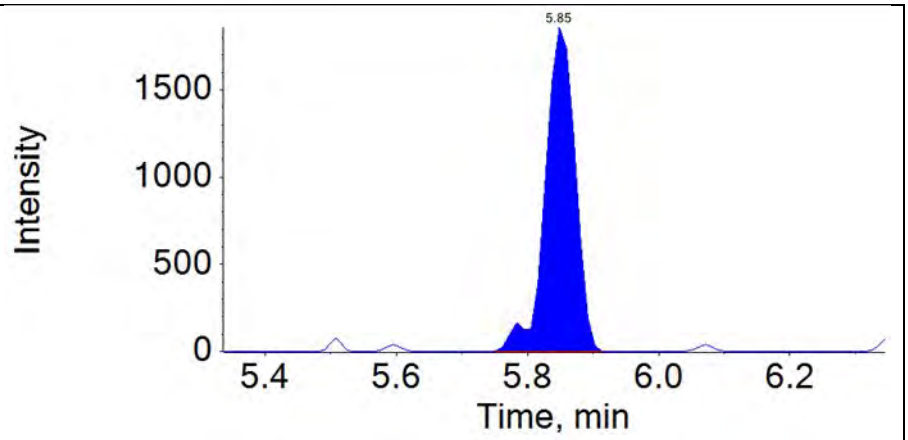


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

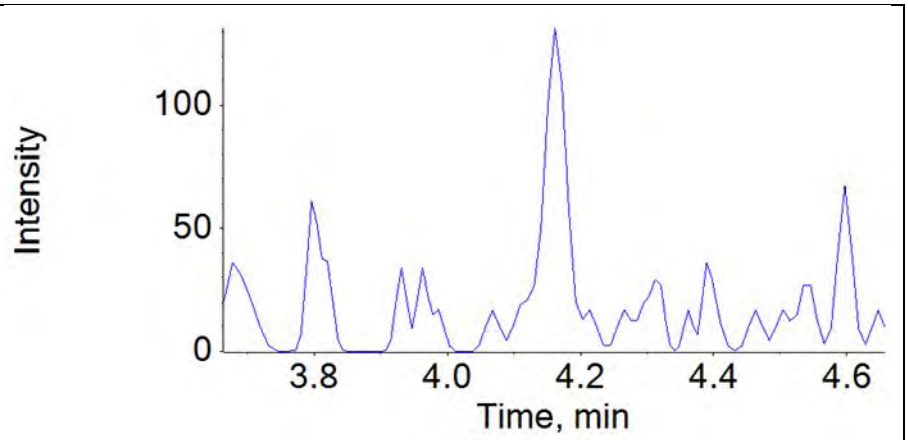
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
5953.37
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



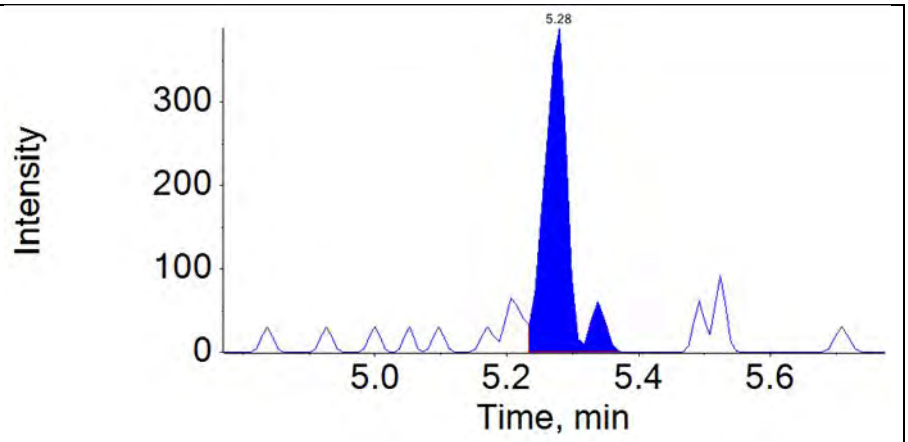
Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
313.0 / 119.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFNA_2
RT (min.):
5.28
Peak Area:
991.88
Mass Range:
463.0 / 169.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL

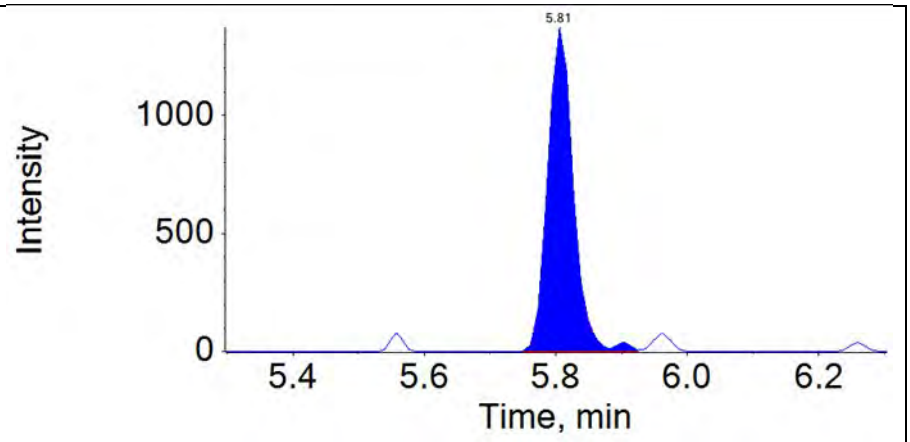


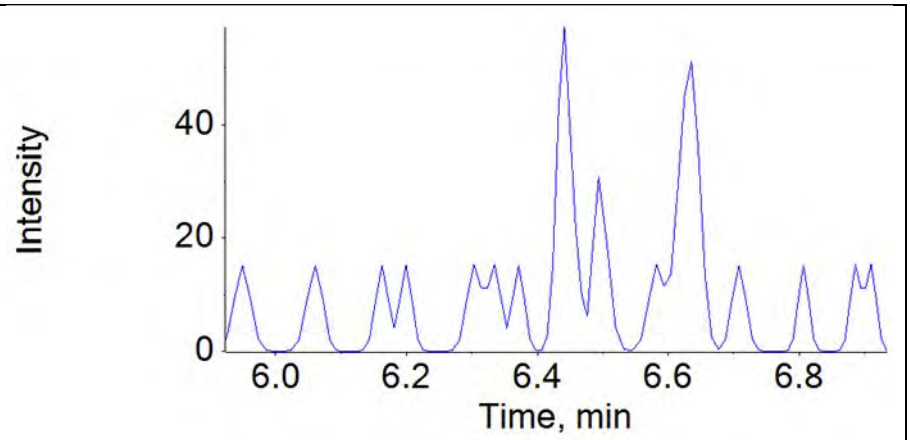
Integration Comment: incorrect integration

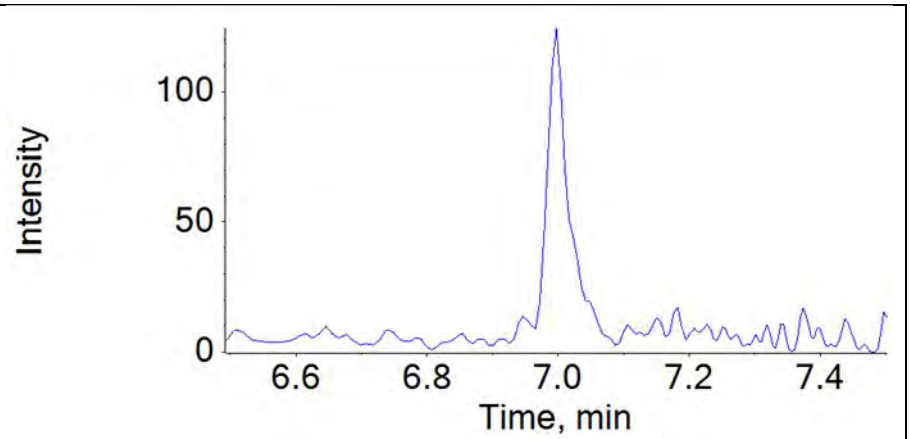
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFDS_2 **RT (min.):** 5.81 **Peak Area:** 3733.02 **Mass Range:** 599.0 / 99.0 **File Name:** 18NOV28DCAL-05.wiff **Sample Name:** MDL	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV28DCAL-05.wiff **Sample Name:** MDL	 **Integration Comment:** incorrect integration

Component Name: PFODA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 913.0 / 169.0 **File Name:** 18NOV28DCAL-05.wiff **Sample Name:** MDL	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

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

Ion Ratio Report

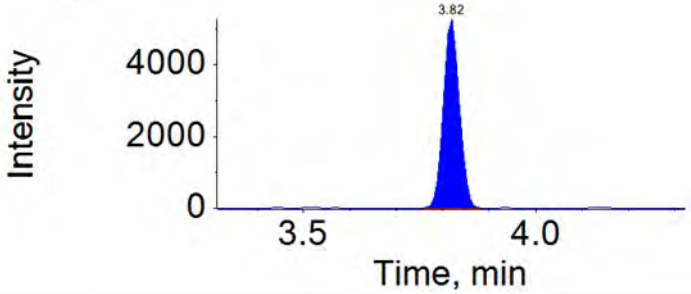
Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-05.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	12605.11	A	0.3655	0.3999			
PFBS_2	3.82	1.00	5040.50	A	0.3655	0.3999	9	50	
4:2-FTS	4.13	1.00	2928.74	A	0.6383	0.8346			
4:2-FTS_2	4.14	1.00	2444.20	A	0.6383	0.8346	31	50	
PFHxA	4.17	1.00	32436.10	A	0.0103	0.0108			
PFHxA_2	4.16	1.00	351.77	M	0.0103	0.0108	5	50	
PFPeS	4.19	1.10	5200.81	A	0.4976	0.5489			
PFPeS_2	4.18	1.10	2854.76	A	0.4976	0.5489	10	50	
PFHpA	4.56	1.00	34134.49	A	0.0557	0.0423			
PFHpA_2	4.56	1.00	1443.47	A	0.0557	0.0423	-24	50	
PFHxS	4.56	1.00	11072.62	A	0.3693	0.3363			
PFHxS_2	4.56	1.00	3723.62	A	0.3693	0.3363	-9	50	
6:2-FTS	4.91	1.00	4195.71	A	0.6625	0.7204			
6:2-FTS_2	4.92	1.00	3022.50	A	0.6625	0.7204	9	50	
PFHpS	4.92	1.08	10674.87	A	0.3915	0.3919			
PFHpS_2	4.92	1.08	4183.13	A	0.3915	0.3919	0	50	
PFOA	4.93	1.00	35831.52	A	0.0573	0.0601			
PFOA_2	4.93	1.00	2154.33	A	0.0573	0.0601	5	50	
PFOS	5.25	1.00	10490.26	A	0.2960	0.3261			
PFOS_2	5.26	1.00	3420.70	A	0.2960	0.3261	10	50	
PFNA	5.27	1.00	29535.31	A	0.0201	0.0303			
PFNA_2	5.28	1.00	895.63	M	0.0201	0.0303	51	50	OOS
PFNS	5.55	1.06	5896.87	A	0.4794	0.3569			
PFNS_2	5.55	1.06	2104.41	A	0.4794	0.3569	-26	50	
PFDA	5.58	1.00	28044.30	A	0.0075	0.0083			
PFDA_2	5.59	1.00	233.51	A	0.0075	0.0083	11	50	
8:2-FTS	5.58	1.00	3464.55	A	0.5380	0.6552			
8:2-FTS_2	5.58	1.00	2270.14	A	0.5380	0.6552	22	50	
NMeFOSAA	5.71	1.00	6753.67	A	0.2305	0.2846			
NMeFOSAA_2	5.71	1.00	1921.86	A	0.2305	0.2846	23	50	
PFDS	5.81	1.10	7418.03	A	0.5356	0.4947			
PFDS_2	5.81	1.10	3669.44	M	0.5356	0.4947	-8	50	
PFUnDA	5.83	1.00	27644.34	A	0.0038	0.0094			
PFUnDA_2	5.84	1.00	259.49	A	0.0038	0.0094	147	50	OOS
NEtFOSAA	5.85	1.00	5734.33	M	0.7356	0.4625			
NEtFOSAA_2	5.85	1.00	2652.07	A	0.7356	0.4625	-37	50	
PFDoDA	6.06	1.00	38884.24	A	0.0130	0.0152			
PFDoDA_2	6.06	1.00	589.76	A	0.0130	0.0152	16	50	
10:2-FTS	6.08	1.09	3761.82	A	0.6989	0.6514			
10:2-FTS_2	6.08	1.09	2450.53	A	0.6989	0.6514	-7	50	
PFTrDA	6.26	1.03	35013.33	A	0.0090	0.0082			
PFTrDA_2	6.26	1.03	286.20	A	0.0090	0.0082	-9	50	
PFTeDA	6.44	1.00	27817.63	A	0.0056	0.0036			
PFTeDA_2	6.44	1.00	100.27	M	0.0056	0.0036	-36	50	
PFHxDA	6.74	1.05	13033.35	A	0.0646	0.0669			
PFHxDA_2	6.74	1.05	872.25	A	0.0646	0.0669	4	50	
PFODA	7.00	1.09	8671.11	A	0.0264	0.0329			
PFODA_2	7.00	1.09	285.12	M	0.0264	0.0329	24	50	

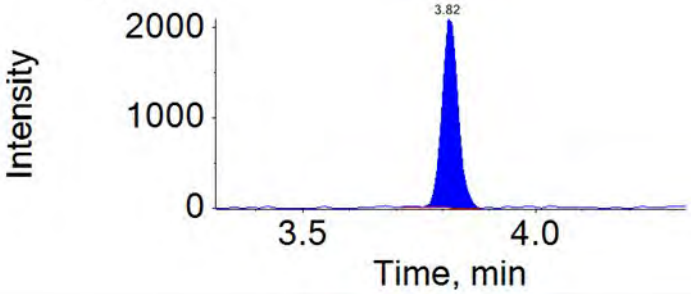
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

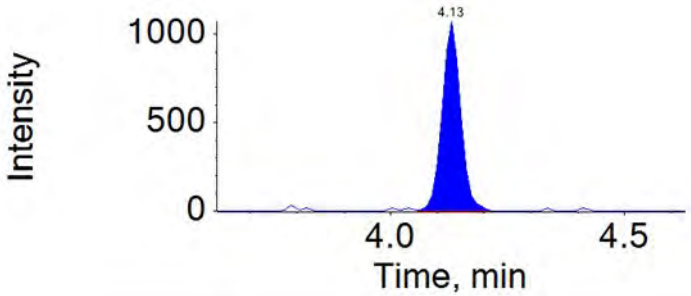
Component: PFBS
Primary Mass: 299.0 / 80.0



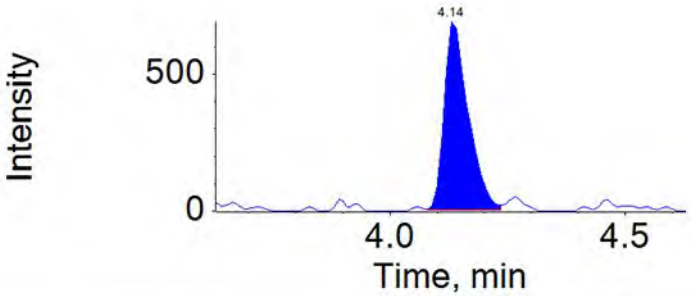
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



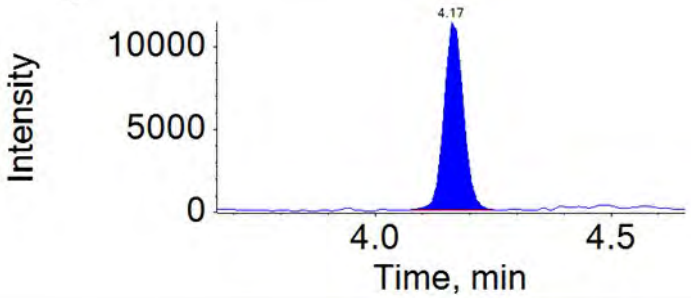
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



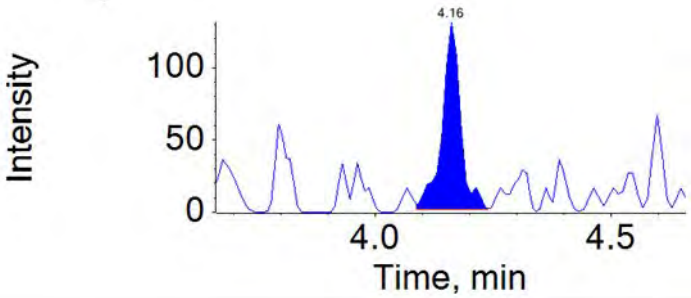
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



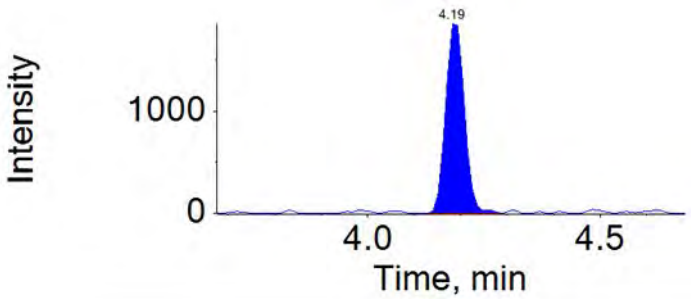
Component: PFHxA
Primary Mass: 313.0 / 269.0



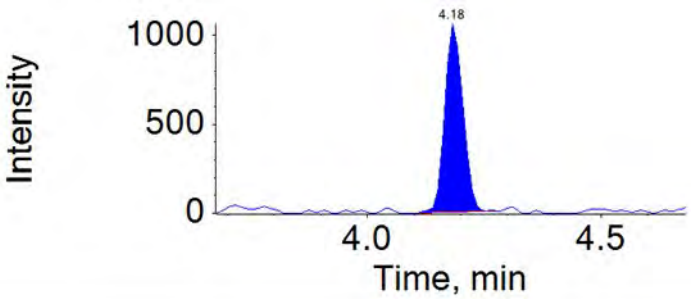
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



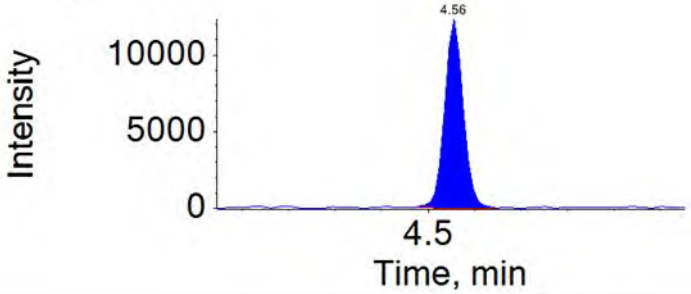
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



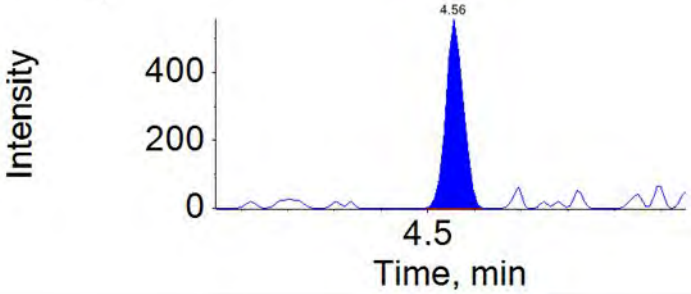
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

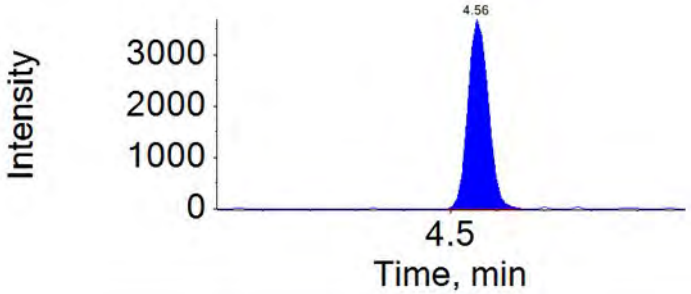
Component: PFHpA
Primary Mass: 363.0 / 319.0



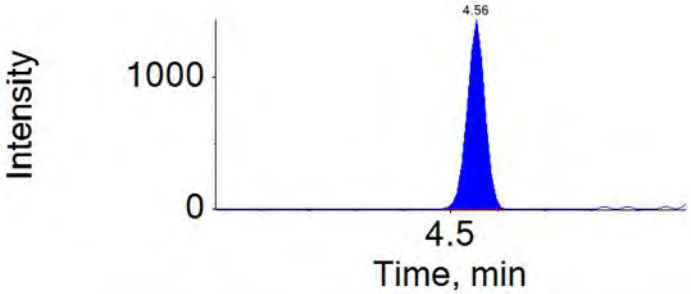
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



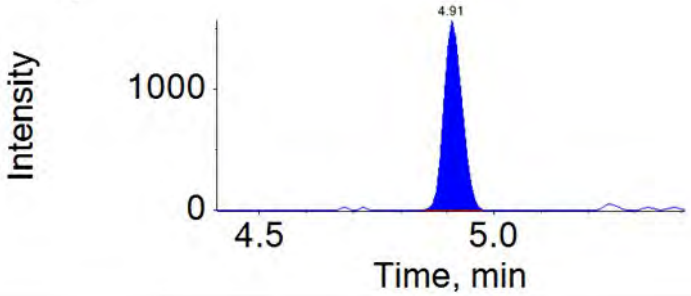
Component: PFHxS
Primary Mass: 399.0 / 80.0



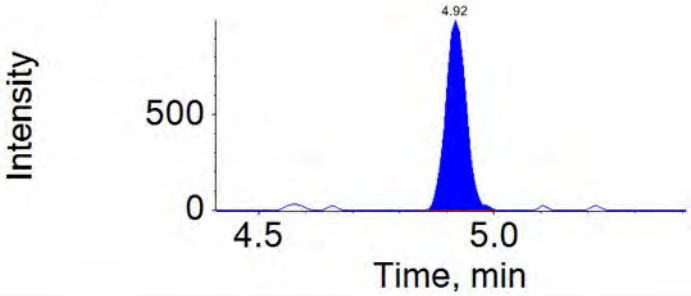
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



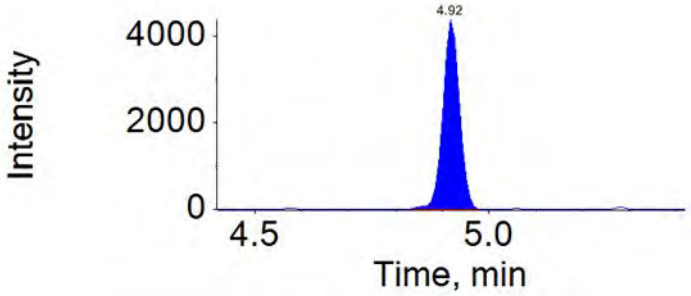
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



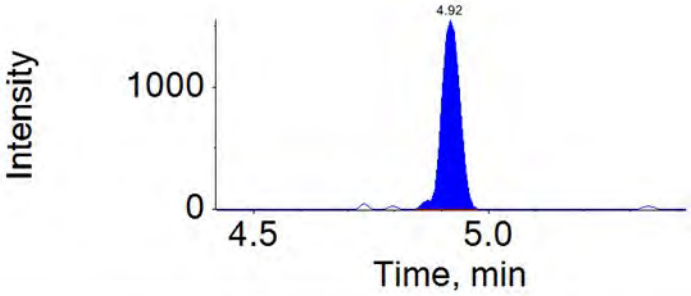
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



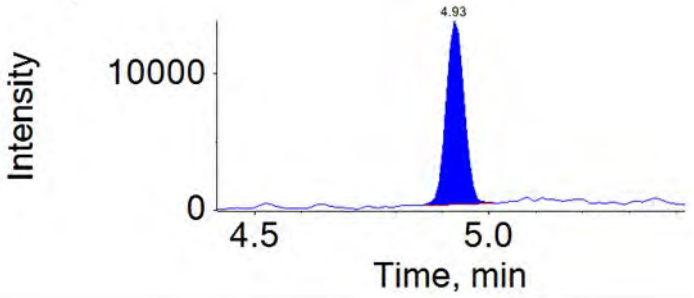
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



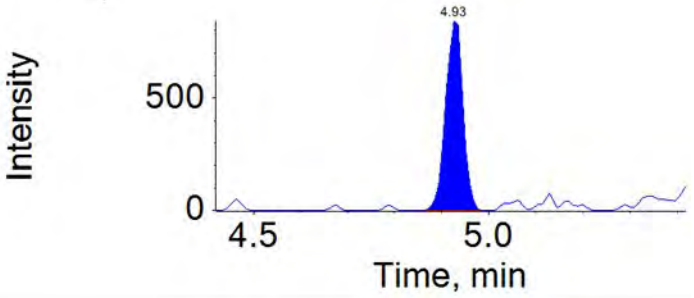
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

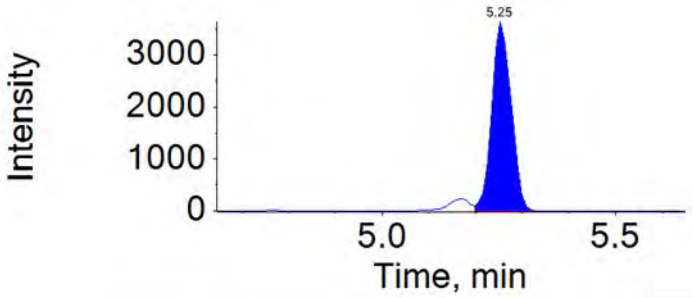
Component: PFOA
Primary Mass: 413.0 / 369.0



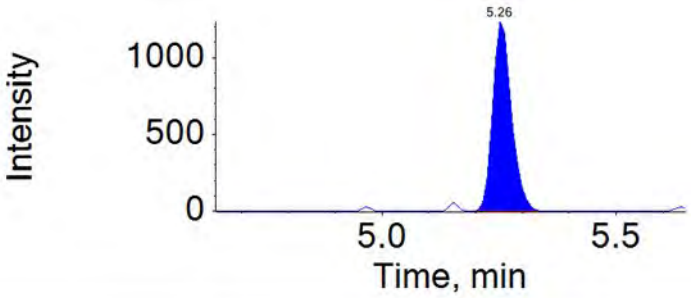
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



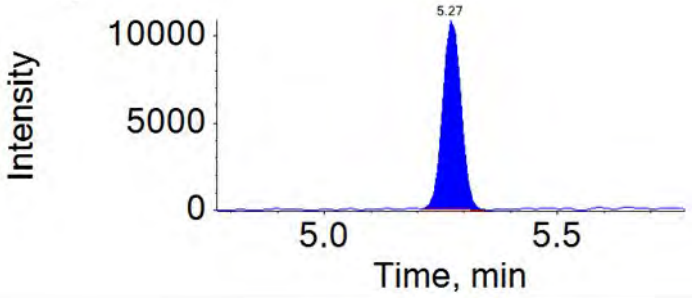
Component: PFOS
Primary Mass: 499.0 / 80.0



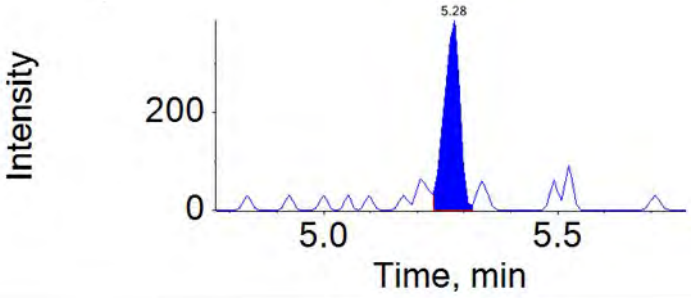
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



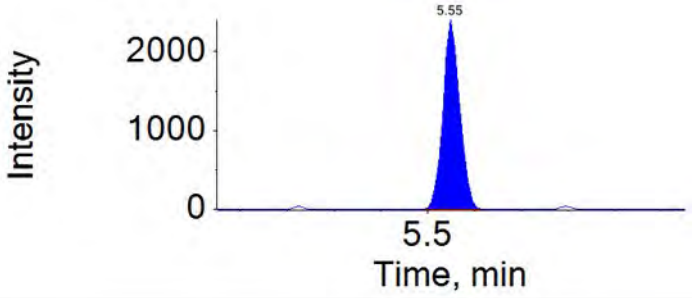
Component: PFNA
Primary Mass: 463.0 / 419.0



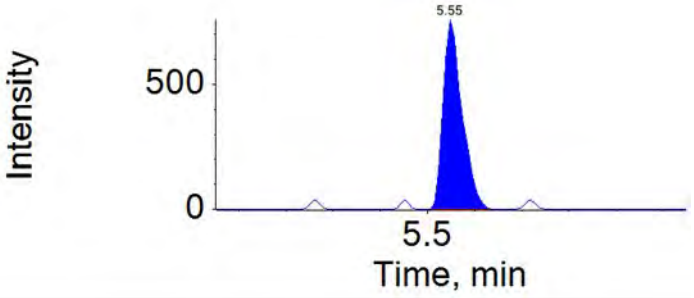
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



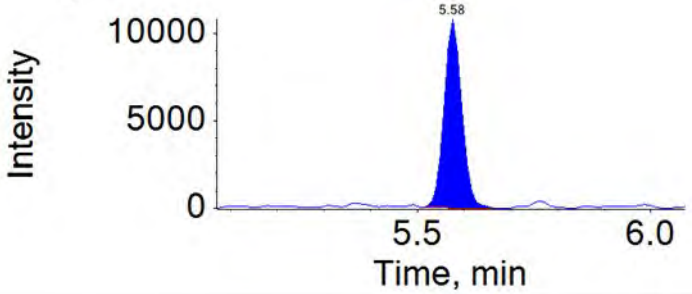
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



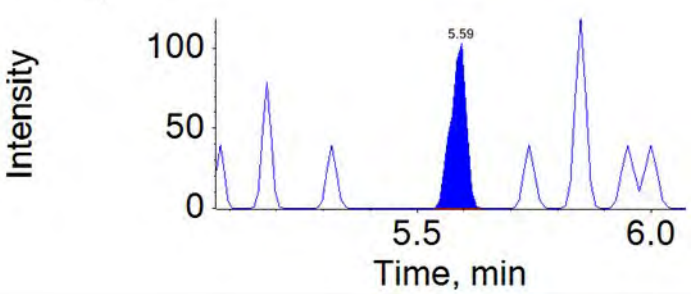
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

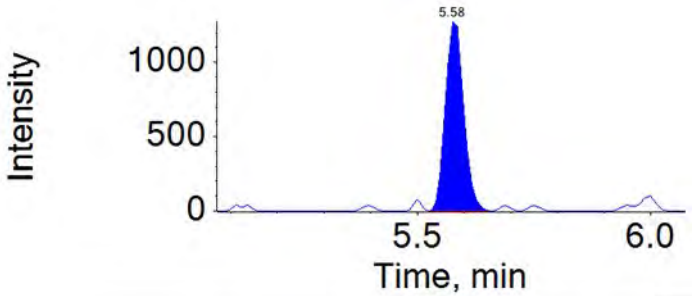
Component: PFDA
Primary Mass: 513.0 / 469.0



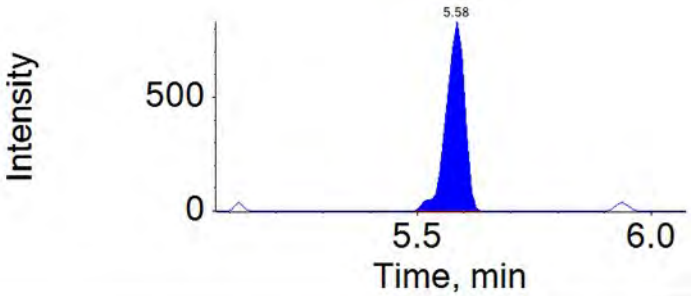
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



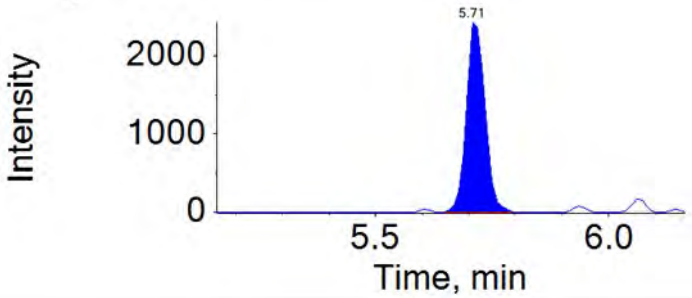
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



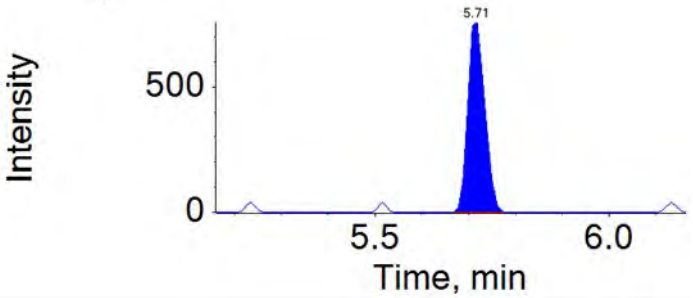
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



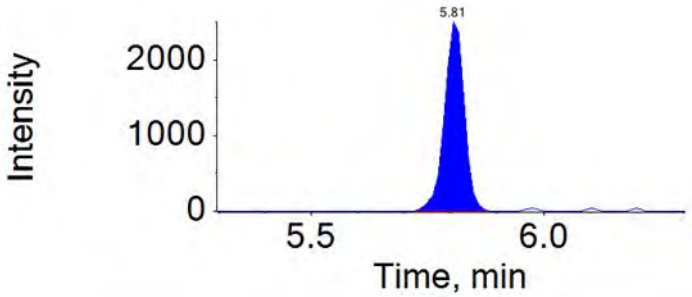
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



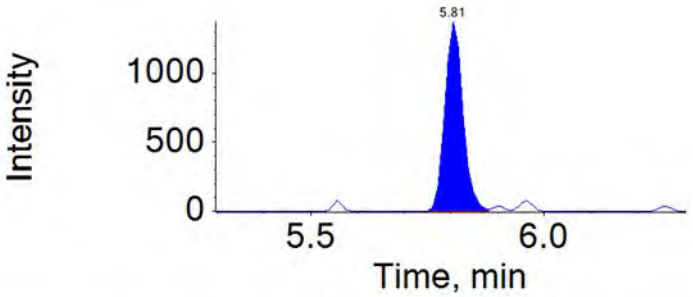
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



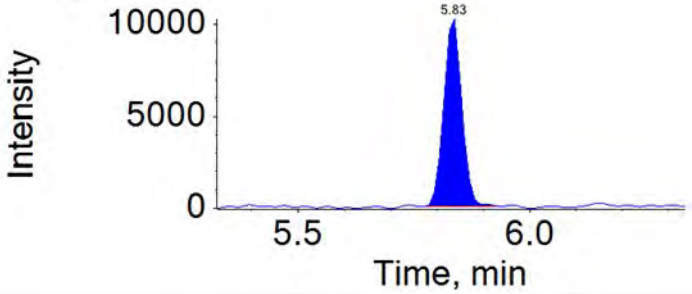
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



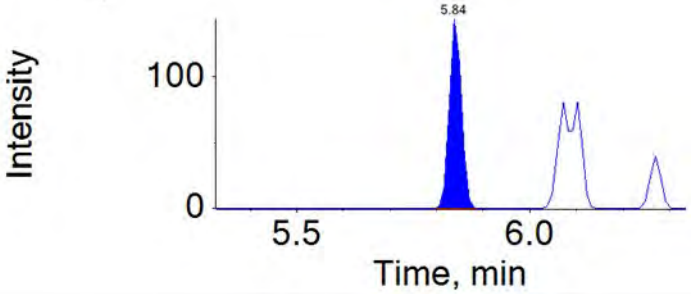
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

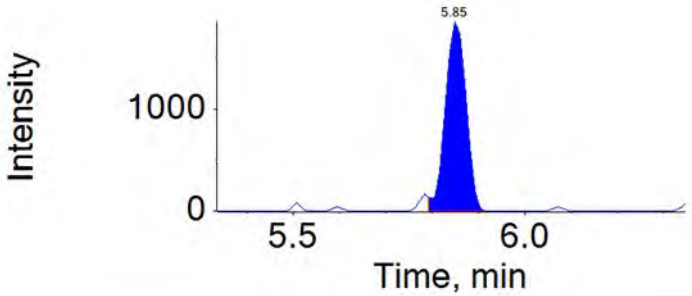
Component: PFUnDA
Primary Mass: 563.0 / 519.0



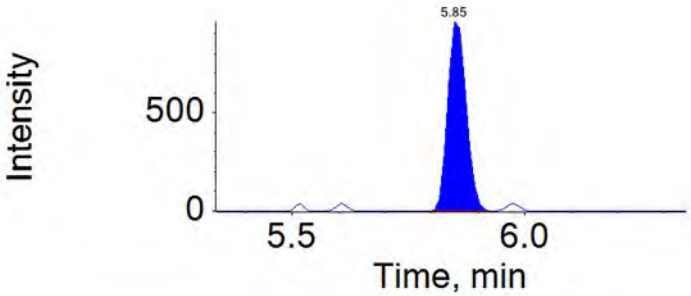
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



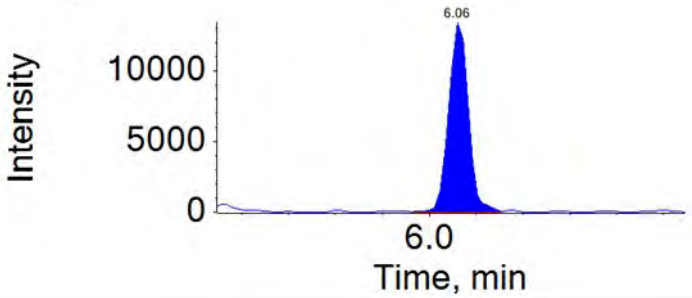
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



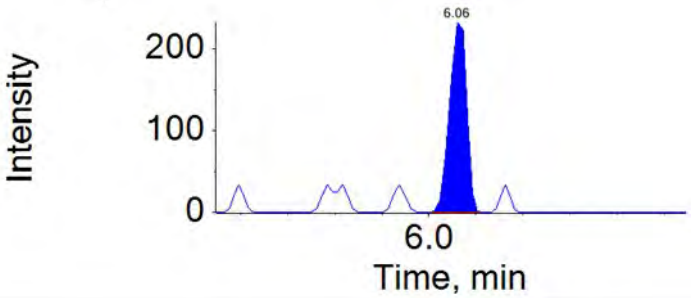
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



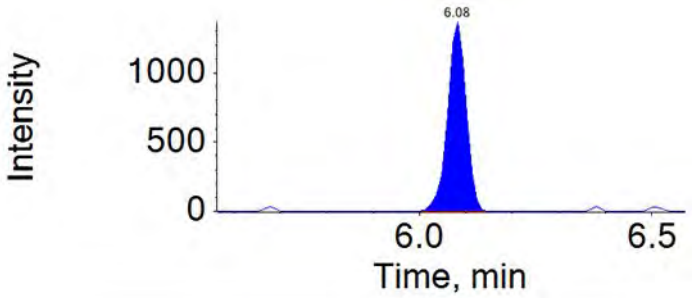
Component: PFDoDA
Primary Mass: 613.0 / 569.0



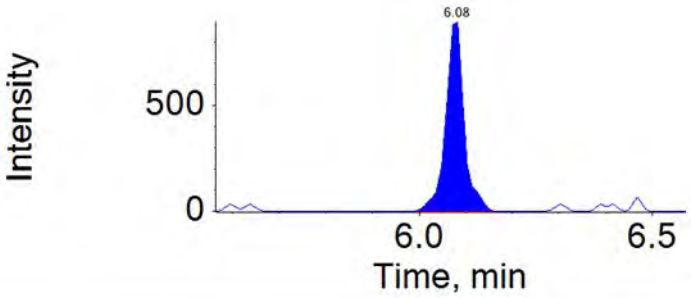
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



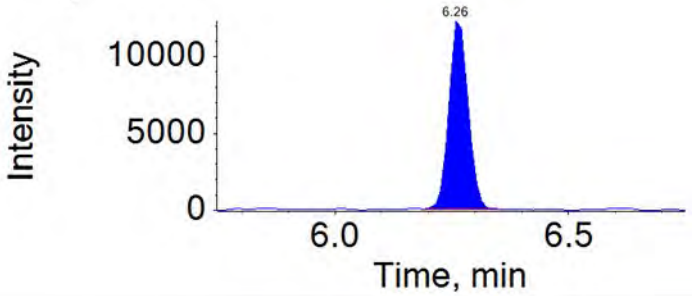
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



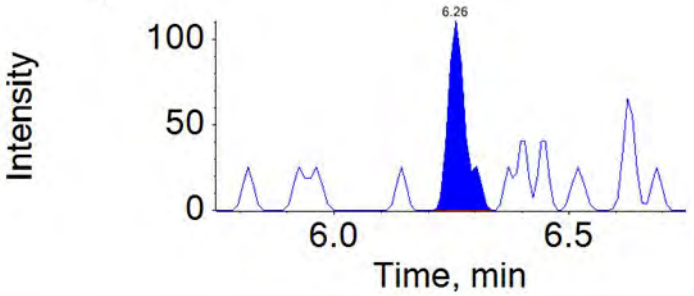
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



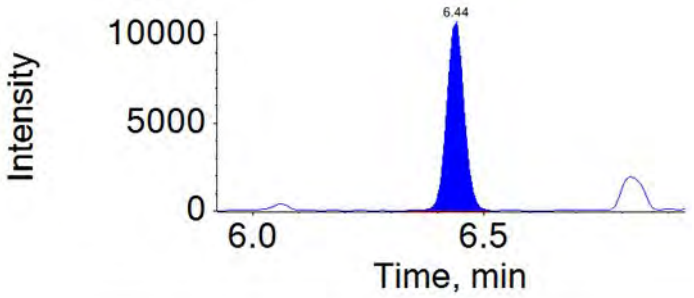
Component: PFTrDA
Primary Mass: 663.0 / 619.0



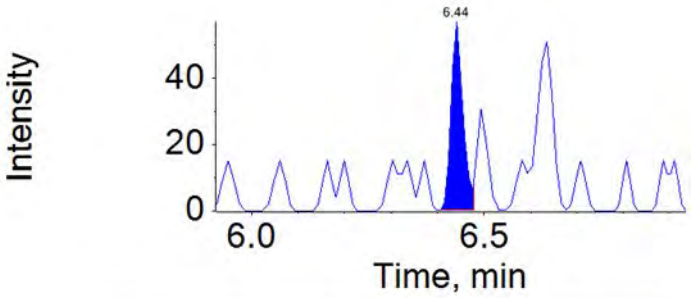
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



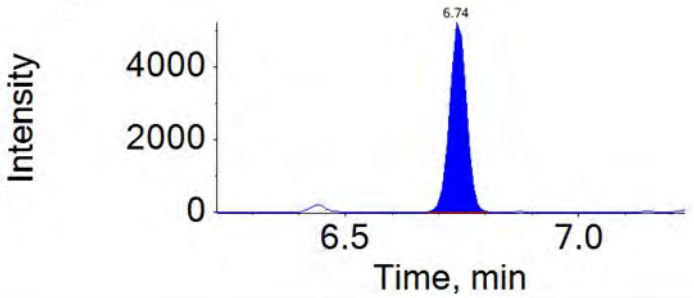
Component: PFTeDA
Primary Mass: 713.0 / 669.0



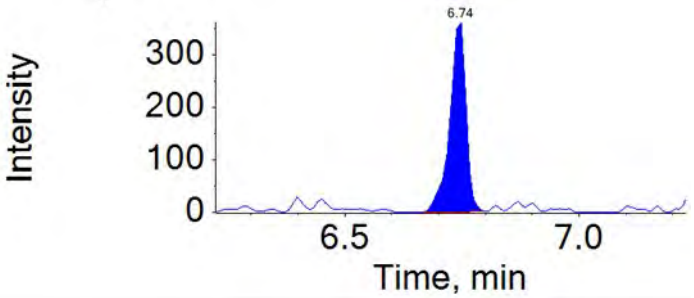
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



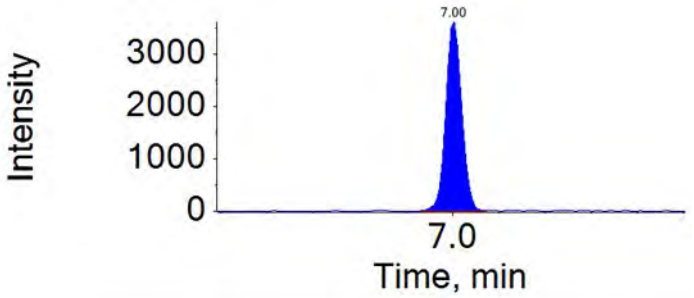
Component: PFHxDA
Primary Mass: 813.0 / 769.0



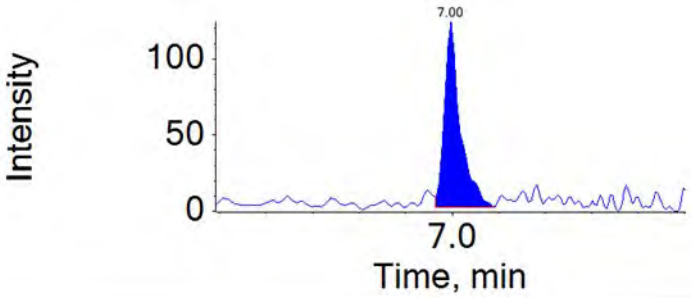
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	ICV			**Data File:**		18NOV28DCAL-14.wiff
Sample ID:	ICVMODX1833G			**Acquis Date:**		2018-11-28T14:54:22
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	10			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	909586.4	887248.9	3	50	
13C2-PFOA	5.0	531347.1	498501.6	7	50	
13C4-PFOS	4.8	296756.3	283214.2	5	50	
13C2-PFDA	5.0	468972.3	441790.6	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	992615.8	13C3-PFBA	909586.4	1.091	5.000	4.869	97	70-130	
E13C5-PFPeA	975580.9	13C3-PFBA	909586.4	1.073	5.000	5.008	100	70-130	
E13C3-PFBS	446011.0	13C3-PFBA	909586.4	0.490	4.650	4.678	101	70-130	
E13C2-4:2-FTS	68184.3	13C2-PFOA	531347.1	0.128	4.670	4.422	95	70-130	
E13C5-PFHxA	699371.3	13C2-PFOA	531347.1	1.316	5.000	4.834	97	70-130	
E13C3-PFHxS	317109.0	13C2-PFOA	531347.1	0.597	4.730	4.678	99	70-130	
E13C4-PFHpA	556403.1	13C2-PFOA	531347.1	1.047	5.000	4.812	96	70-130	
E13C2-6:2-FTS	63350.5	13C2-PFOA	531347.1	0.119	4.750	4.991	105	70-130	
E13C8-PFOA	1001731.4	13C2-PFOA	531347.1	1.885	5.000	5.189	104	70-130	
E13C8-PFOS	316117.1	13C4-PFOS	296756.3	1.065	4.780	4.809	101	70-130	
E13C9-PFNA	647064.1	13C4-PFOS	296756.3	2.180	5.000	4.789	96	70-130	
E13C6-PFDA	857032.9	13C2-PFDA	468972.3	1.827	5.000	5.153	103	70-130	
E13C2-8:2-FTS	51912.9	13C2-PFDA	468972.3	0.111	4.790	4.758	99	70-130	
E13C8-PFOSA	637370.7	13C2-PFDA	468972.3	1.359	5.000	4.987	100	70-130	
Ed3-NMeFOSAA	183040.0	13C2-PFDA	468972.3	0.390	5.000	4.956	99	70-130	
E13C7-PFUnDA	559327.4	13C2-PFDA	468972.3	1.193	5.000	5.041	101	70-130	
Ed5-NEtFOSAA	140840.0	13C2-PFDA	468972.3	0.300	5.000	5.350	107	70-130	
E13C2-PFDoDA	1134142.1	13C2-PFDA	468972.3	2.418	5.000	5.081	102	70-130	
Ed7-NMePFOSAE	262732.2	13C2-PFDA	468972.3	0.560	5.000	4.842	97	70-130	
Ed3-NMePFOSA	81059.5	13C2-PFDA	468972.3	0.173	5.000	4.678	94	70-130	
Ed9-NEtPFOSAE	227167.7	13C2-PFDA	468972.3	0.484	5.000	4.911	98	70-130	
Ed5-NEtPFOSA	67297.9	13C2-PFDA	468972.3	0.144	5.000	4.986	100	70-130	
E13C2-PFTeDA	820071.7	13C2-PFDA	468972.3	1.749	5.000	4.839	97	70-130	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

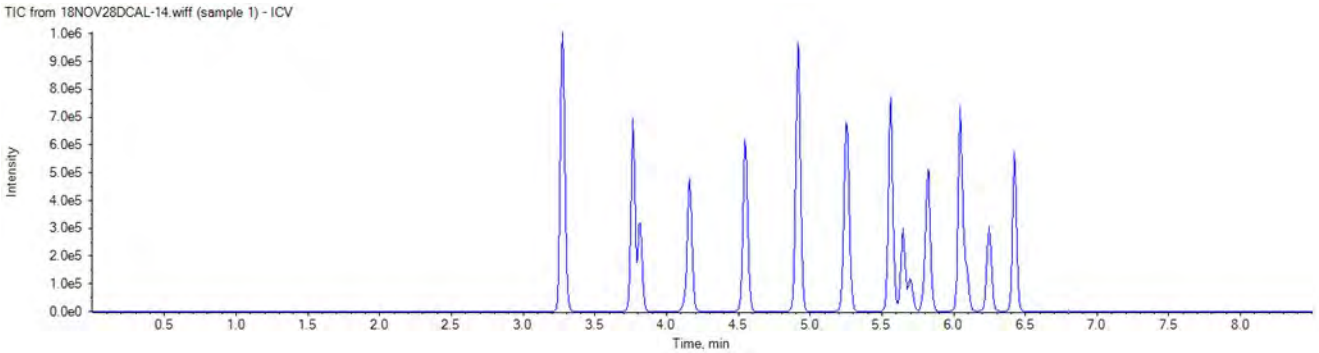
Analyte Quantitation Peak Table

Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-14.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	387187.0		A	13C4-PFBA	3.27	992615.8	0.390	2.138
PFPeA	3.77	1.000	377961.6		A	13C5-PFPeA	3.77	975580.9	0.387	1.901
PFBS	3.81	1.000	159425.0		A	13C3-PFBS	3.82	446011.0	0.357	1.735
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	68184.3	N/A	
PFHxA	4.16	1.000	369137.1		A	13C5-PFHxA	4.16	699371.3	0.528	2.119
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.82	446011.0	N/A	
PFHpA	4.55	1.000	373590.8		A	13C4-PFHpA	4.55	556403.1	0.671	2.072
PFHxS	4.55	1.000	125085.3		A	13C3-PFHxS	4.55	317109.0	0.394	1.847
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	63350.5	N/A	
PFHpS	4.91	1.080	131043.1		A	13C3-PFHxS	4.55	317109.0	0.413	2.062
PFOA	4.92	1.000	404358.9		A	13C8-PFOA	4.92	1001731.4	0.404	2.086
PFOS	5.25	1.000	122334.6		A	13C8-PFOS	5.25	316117.1	0.387	1.623
PFNA	5.26	1.000	351872.0		A	13C9-PFNA	5.26	647064.1	0.544	2.084
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	316117.1	N/A	
PFDA	5.56	1.000	325191.9		A	13C6-PFDA	5.56	857032.9	0.379	2.148
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	51912.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	637370.7	N/A	
NMeFOSAA	5.70	1.000	74168.8		A	d3-NMeFOSAA	5.70	183040.0	0.405	2.585
PFDS	5.79	1.100	72374.3		A	13C8-PFOS	5.25	316117.1	0.229	1.815
PFUnDA	5.82	1.000	354099.8		A	13C7-PFUnDA	5.82	559327.4	0.633	2.263
NEtFOSAA	5.83	1.000	57368.0		A	d5-NEtFOSAA	5.83	140840.0	0.407	1.984
PFDoDA	6.05	1.000	427818.9		A	13C2-PFDoDA	6.05	1134142.1	0.377	2.066
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	51912.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	262732.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	81059.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	316117.1	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	227167.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	67297.9	N/A	
PFTrDA	6.25	1.030	416758.4		A	13C2-PFDoDA	6.05	1134142.1	0.367	2.215
PFTeDA	6.42	1.000	312632.1		A	13C2-PFTeDA	6.42	820071.7	0.381	2.160
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	820071.7	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	820071.7	N/A	

Total Ion Chromatogram

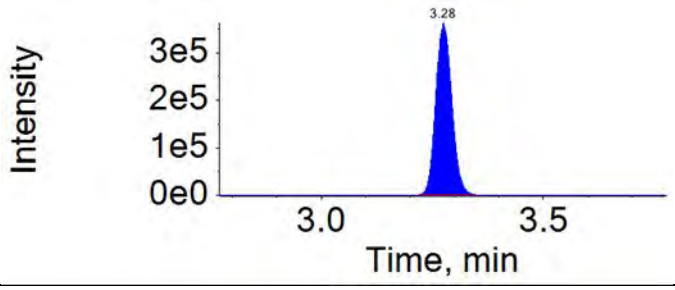


APPROVED
By MCD at 5:01 pm, 11/28/18

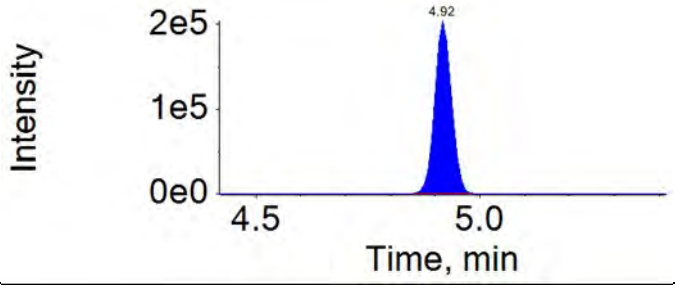
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

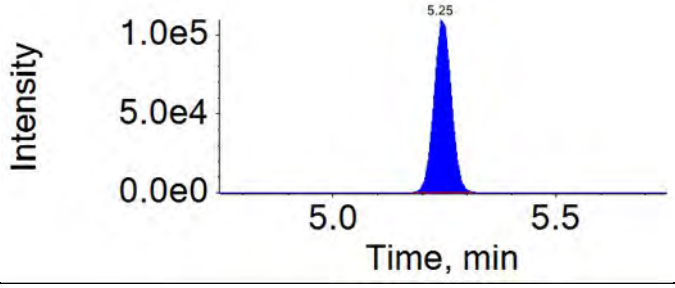
Injection Standard: 13C3-PFBA
216.0 / 172.0



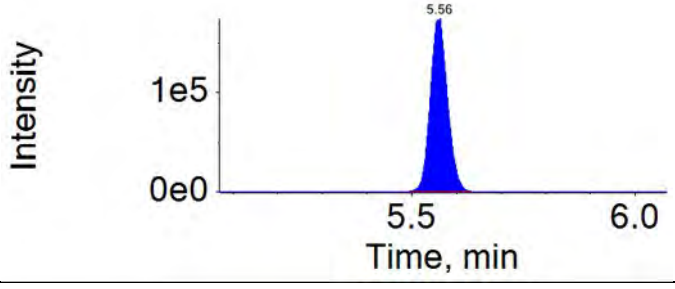
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

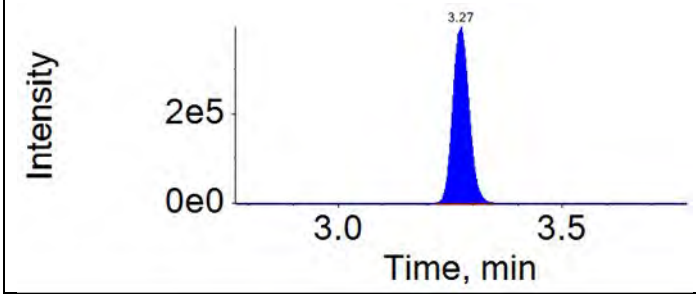


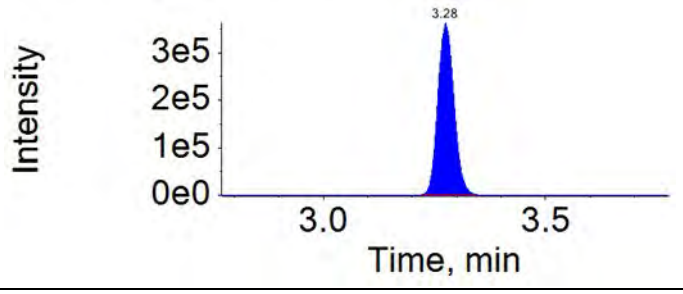
Injection Standard: 13C2-PFDA
515.0 / 470.0



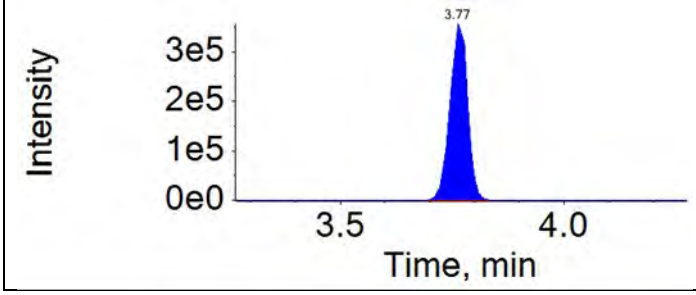
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

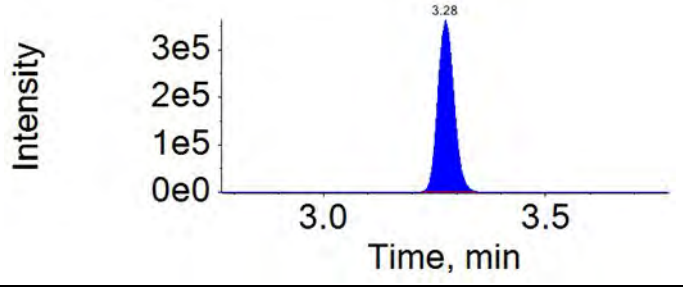
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



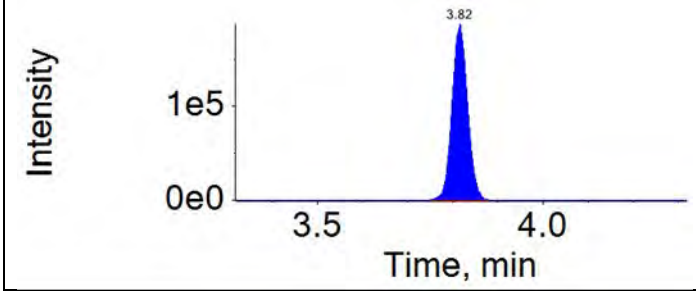


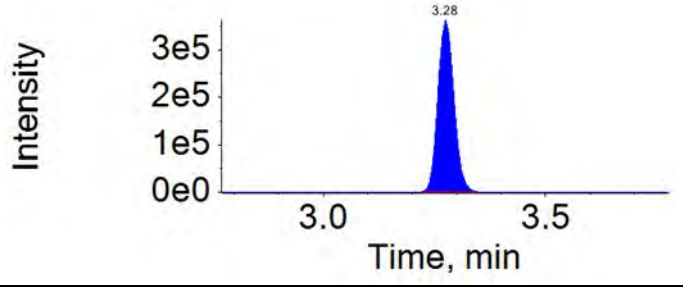
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



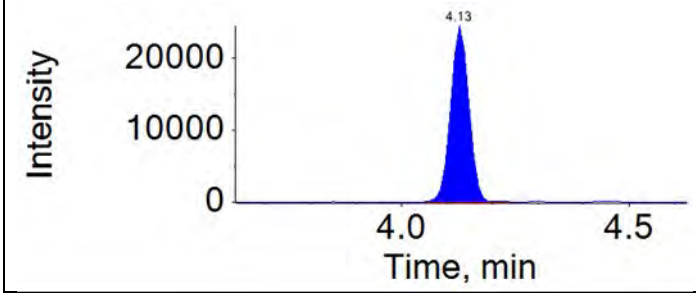


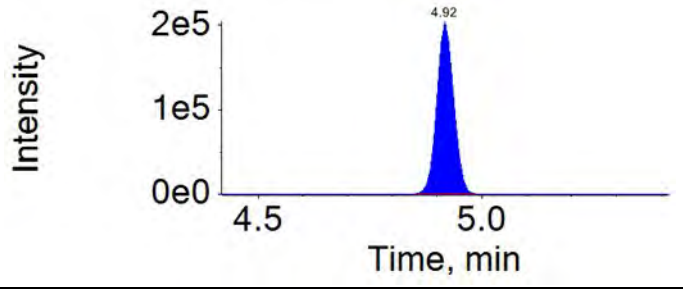
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





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



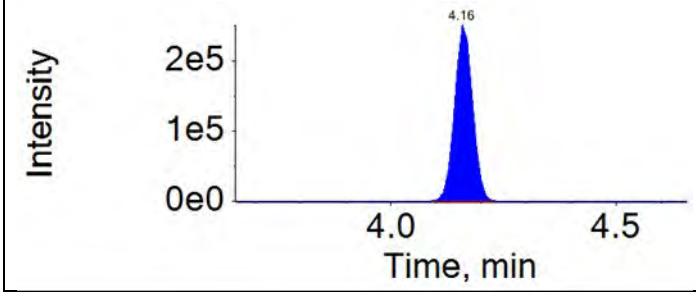


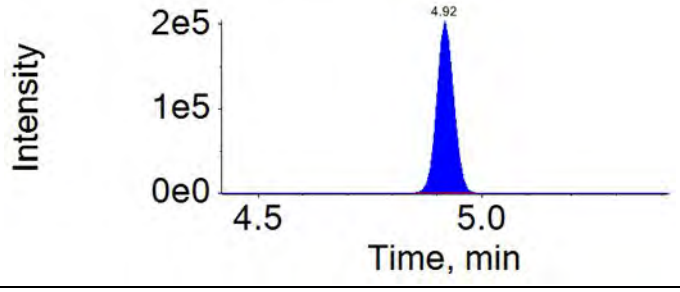
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

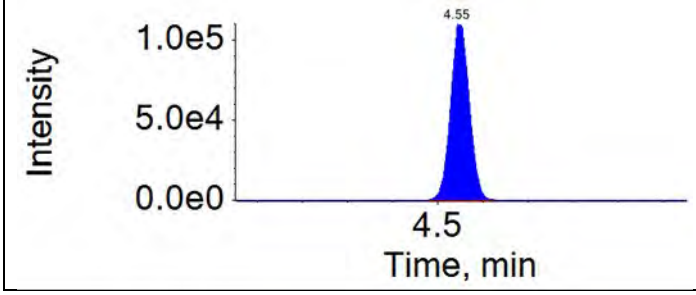
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

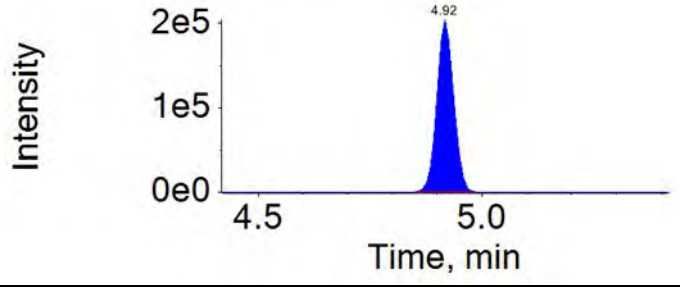
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



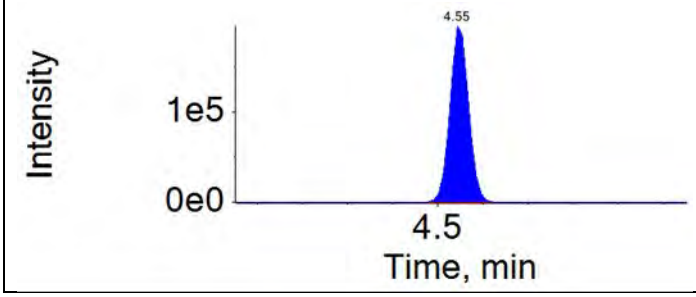


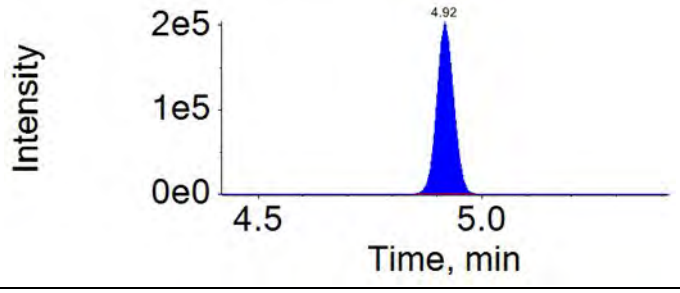
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



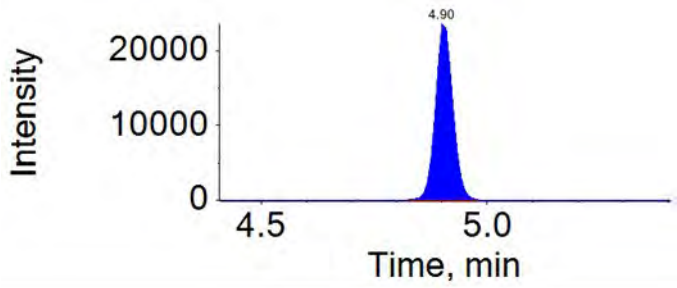


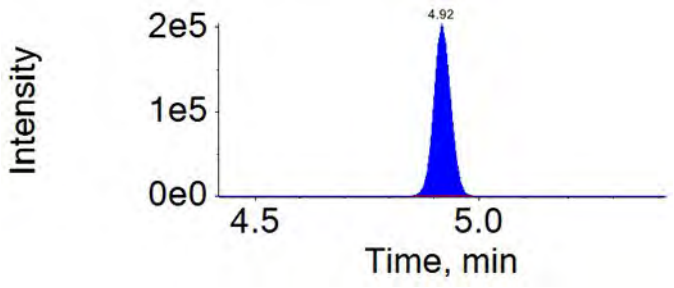
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





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



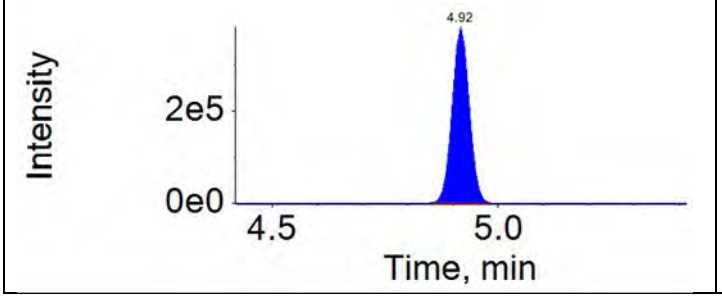


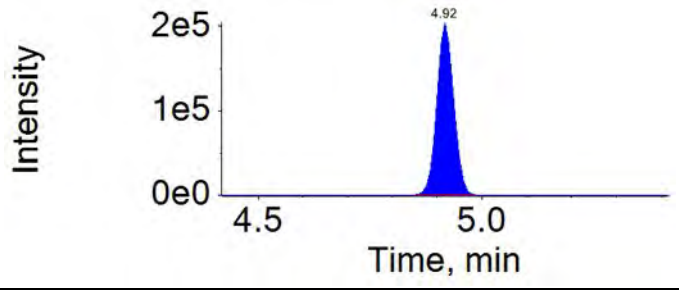
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

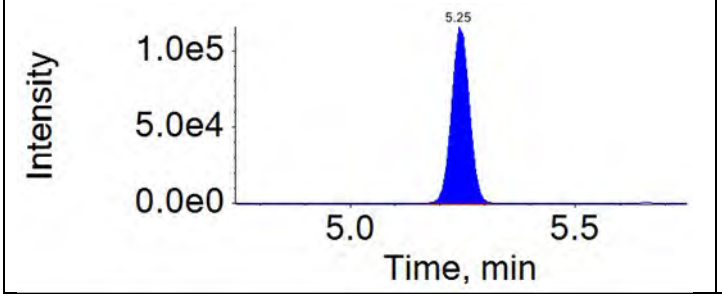
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

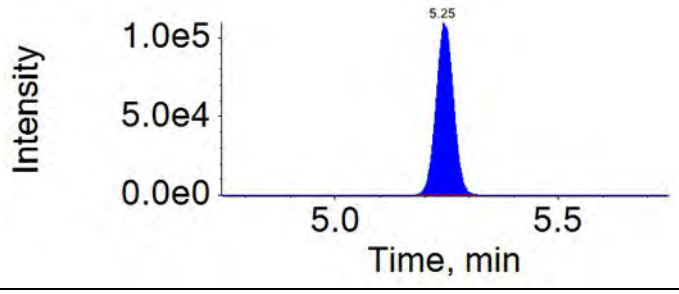
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



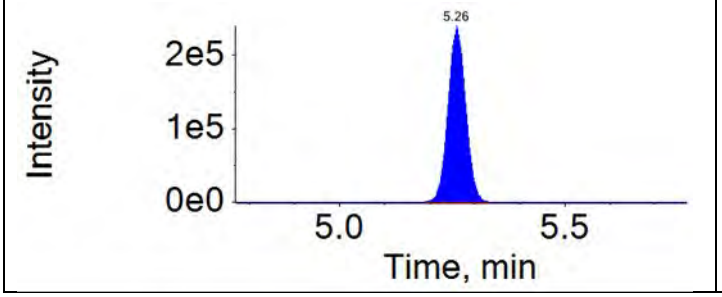


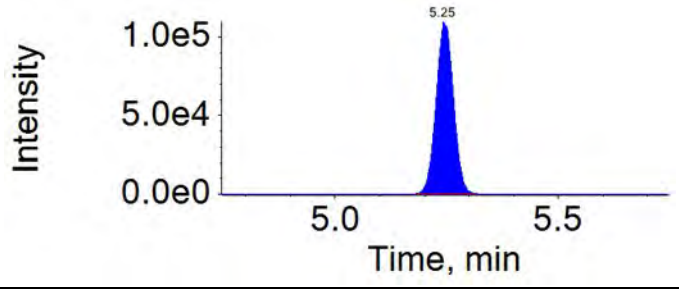
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



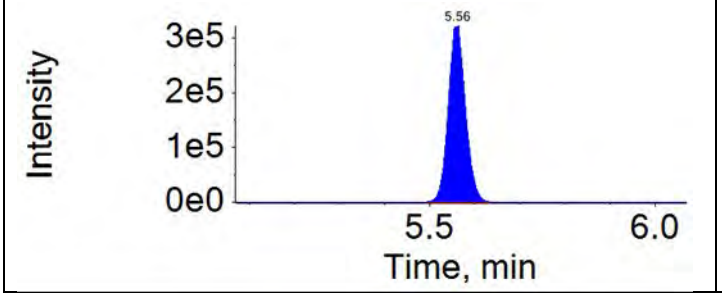


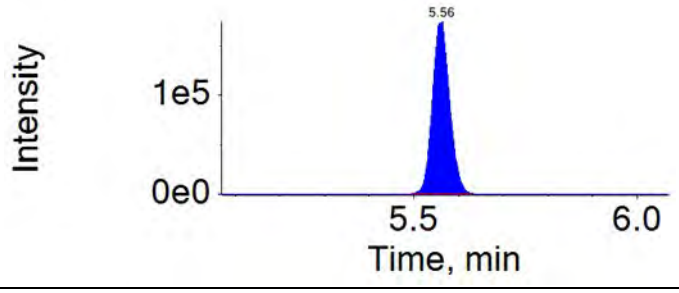
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





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

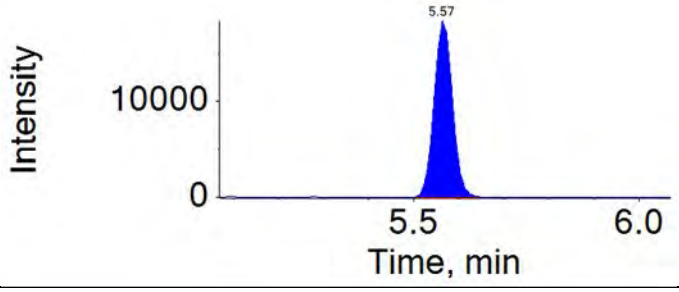
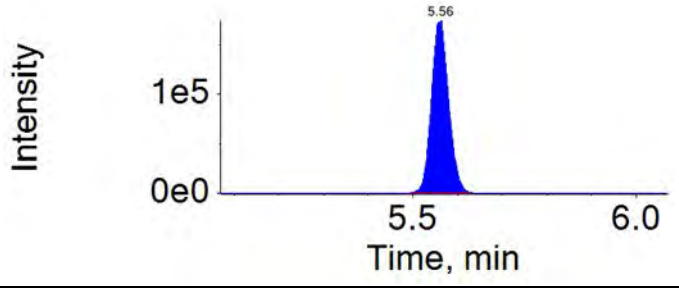


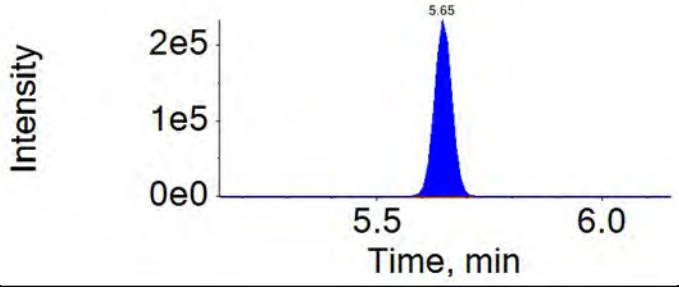
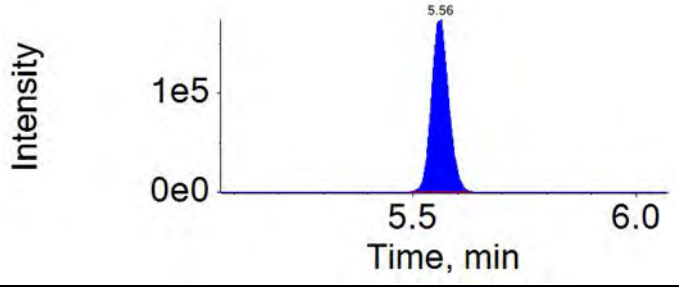


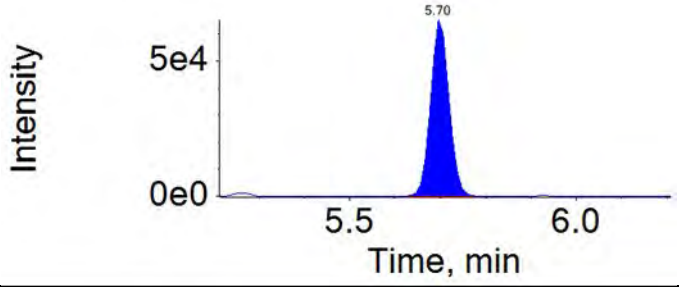
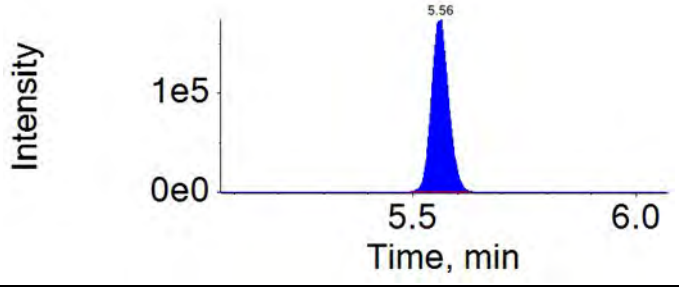
APPROVED
By MCD at 5:01 pm, 11/28/18

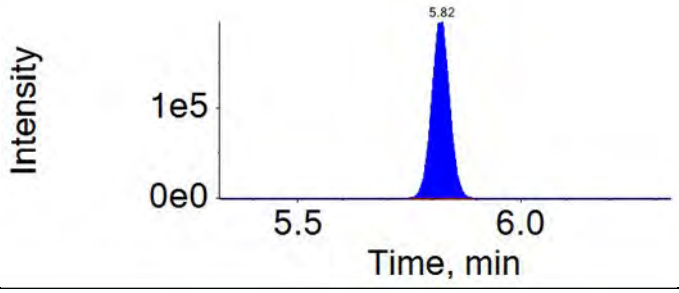
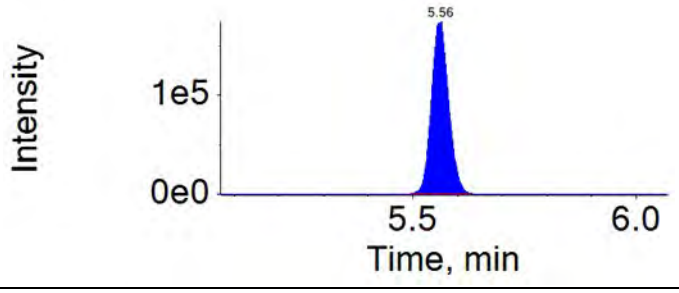
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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

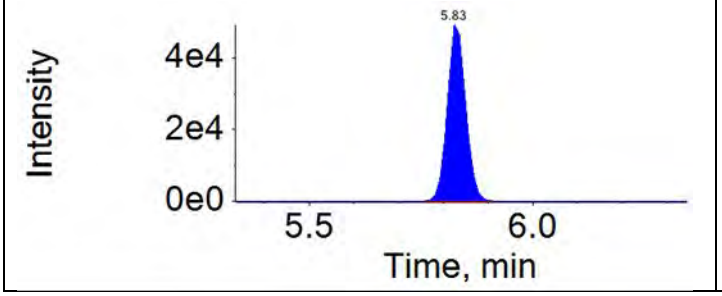
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

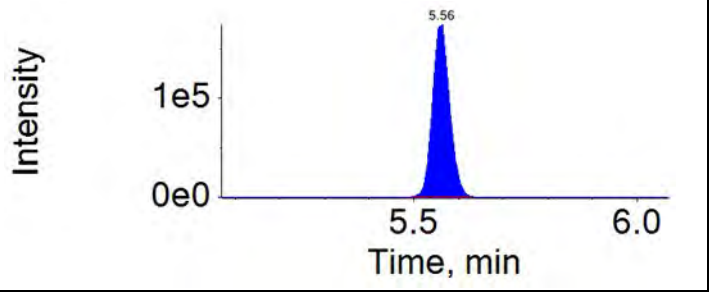
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

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

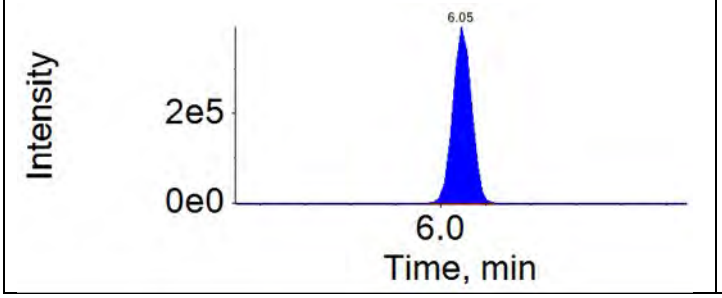
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

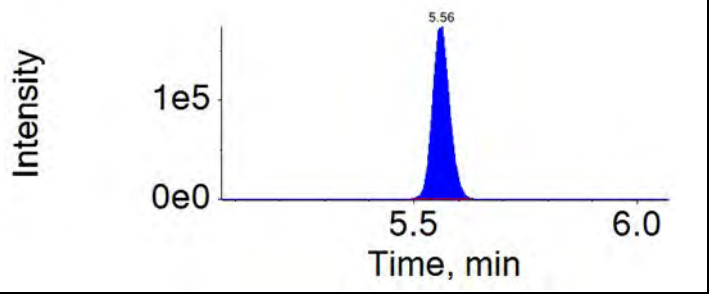
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



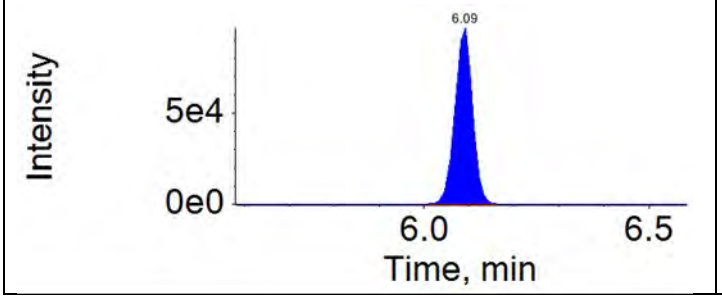


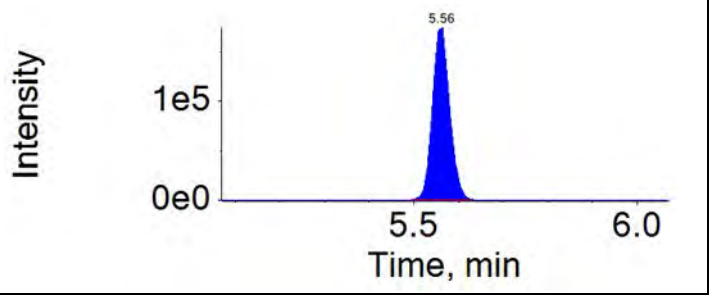
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



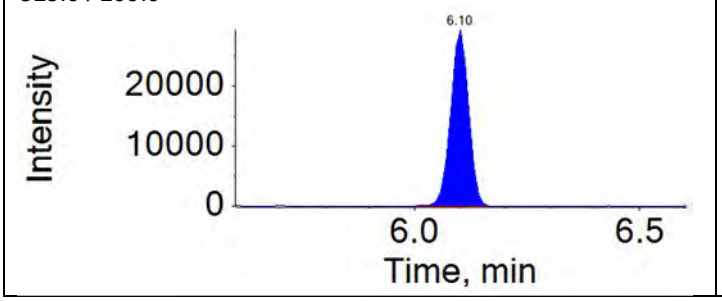


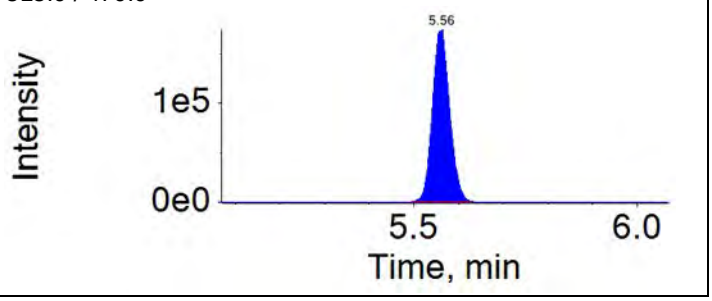
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





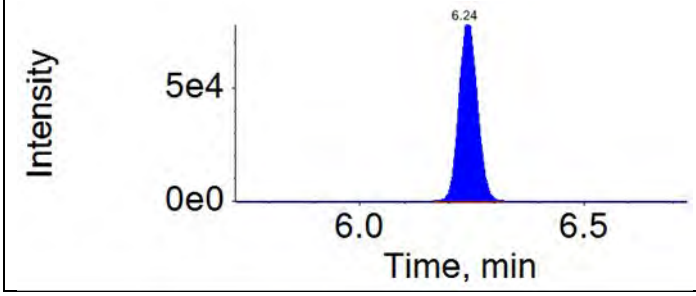
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

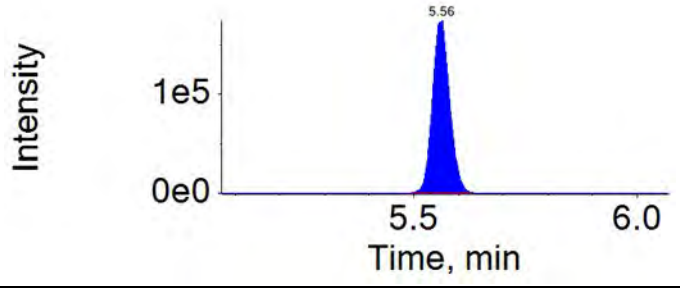




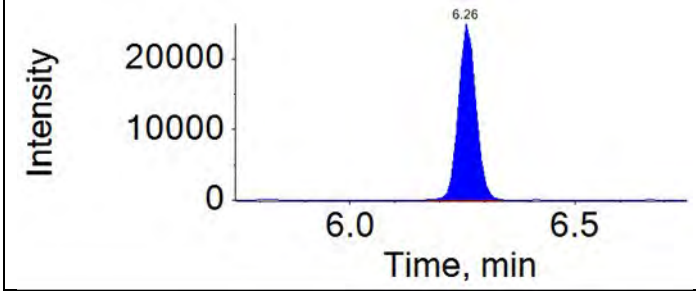
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

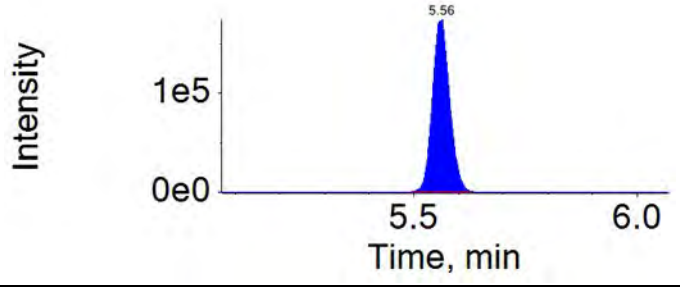
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



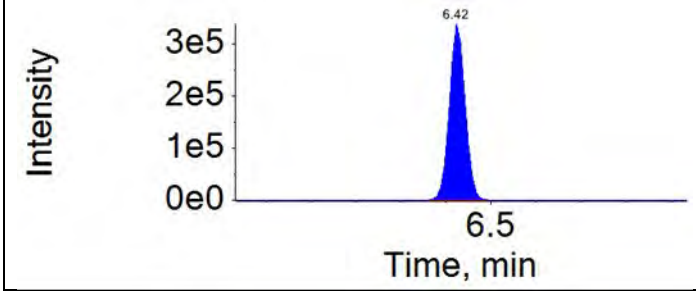


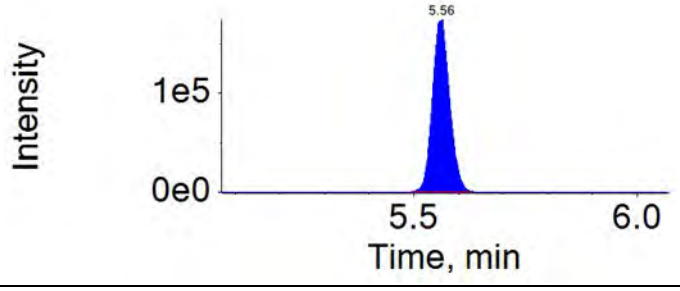
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



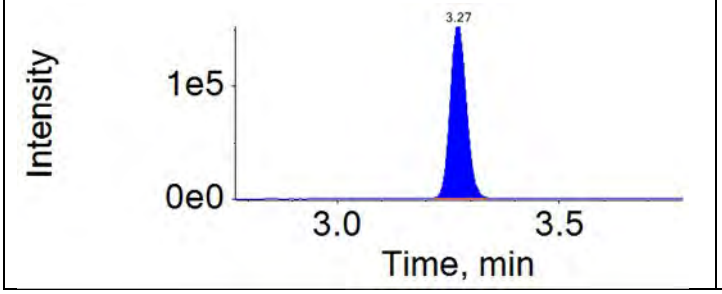


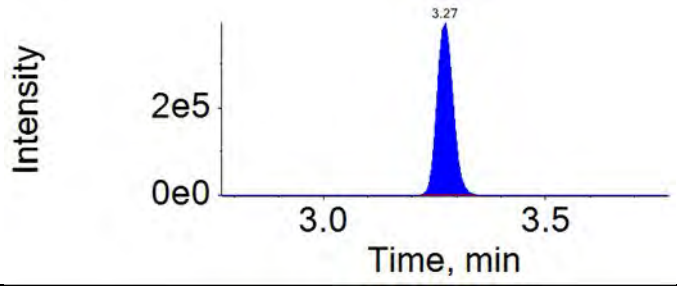
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

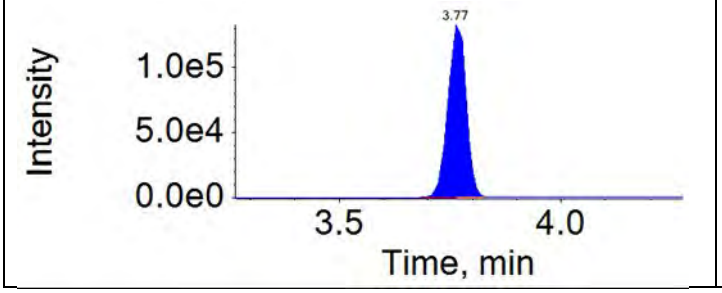
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

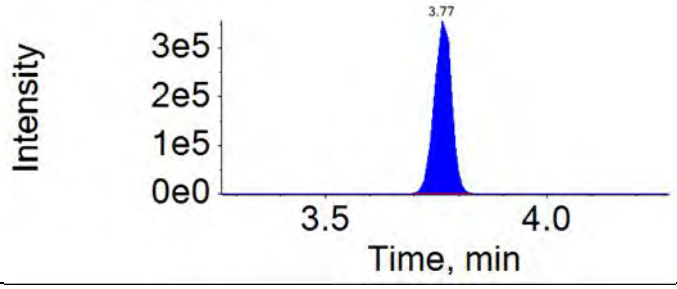
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



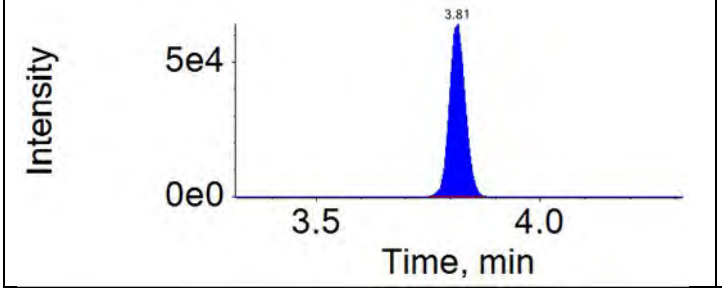


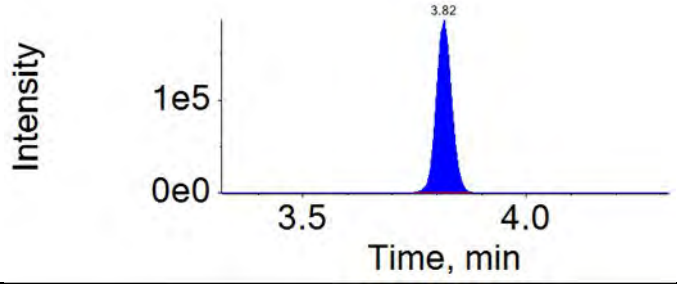
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



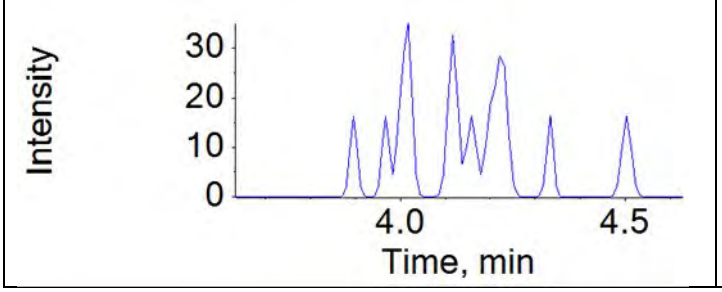


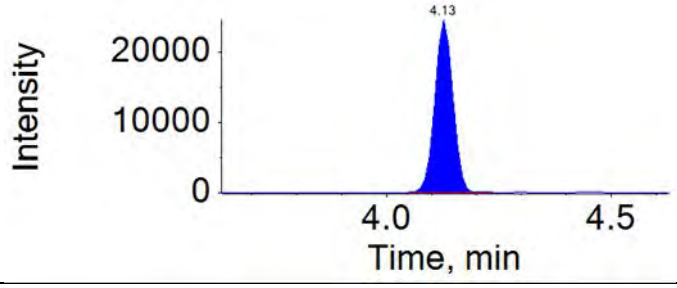
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



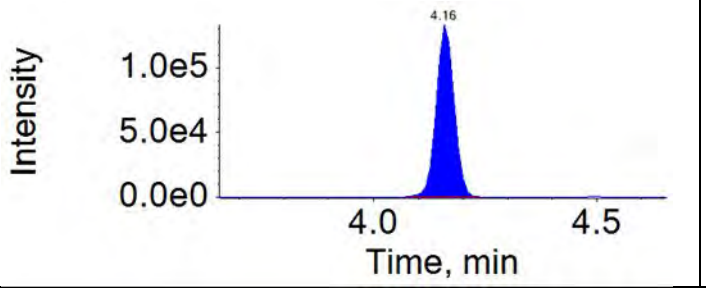


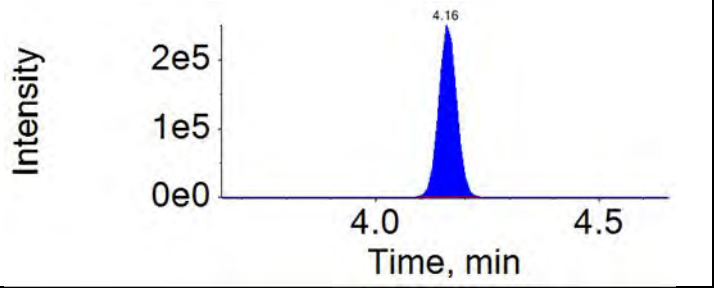
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

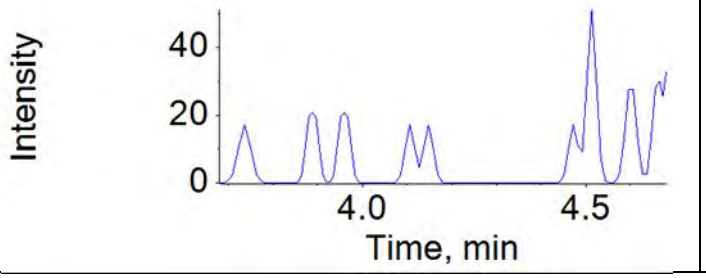
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

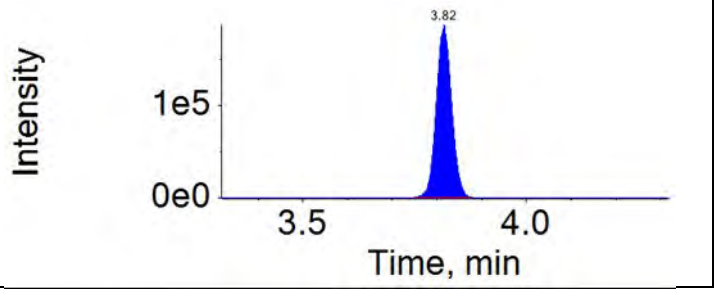
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



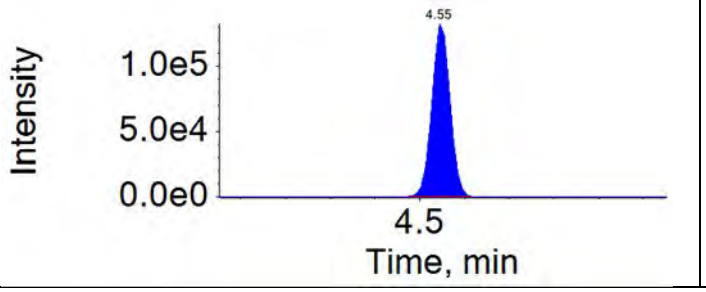


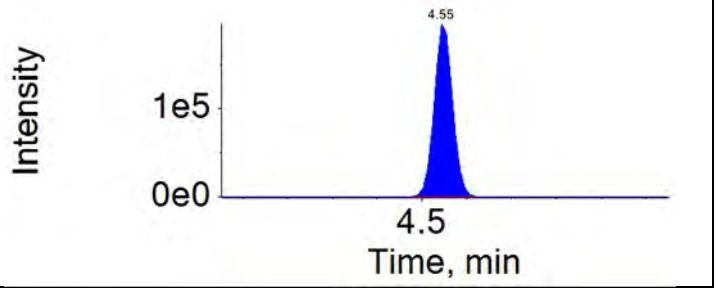
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



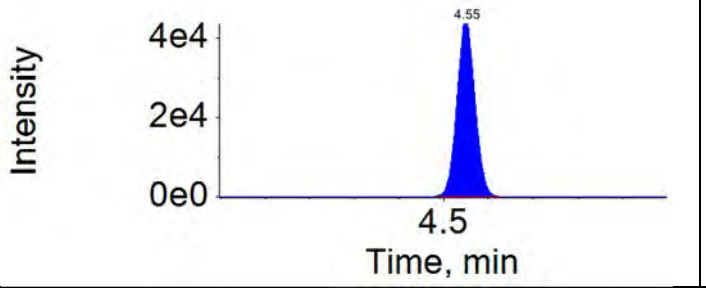


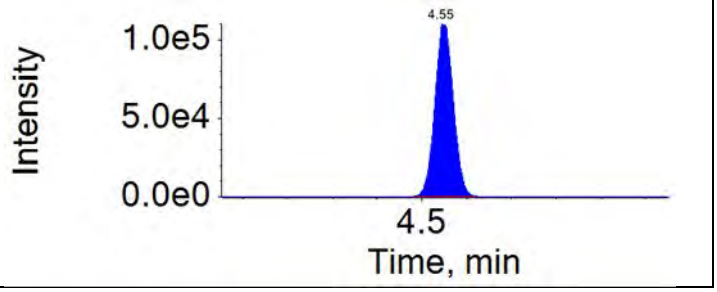
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

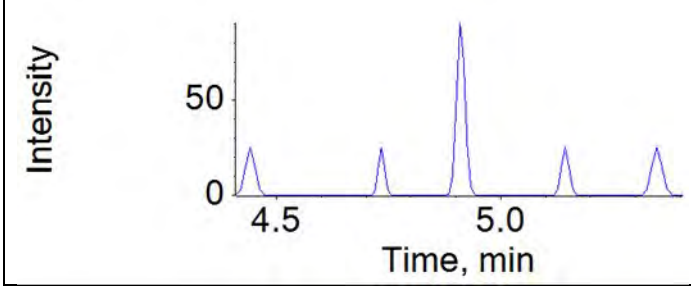
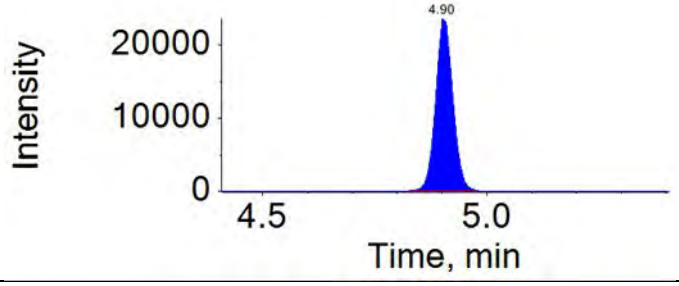


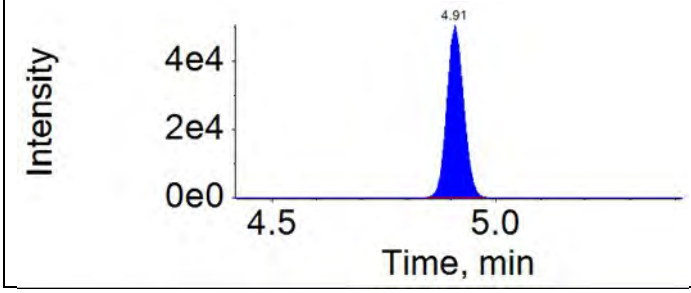
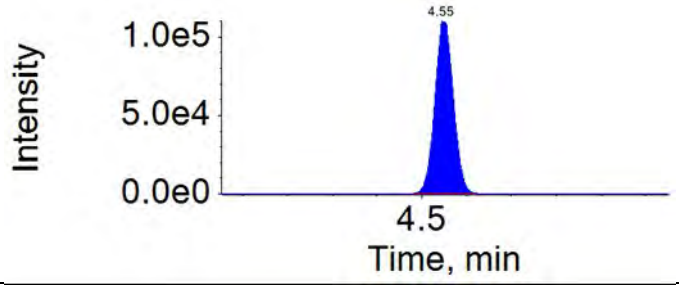


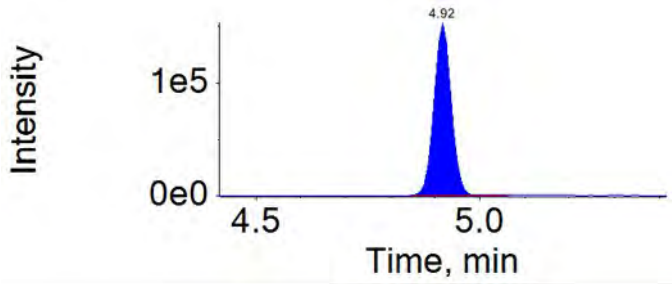
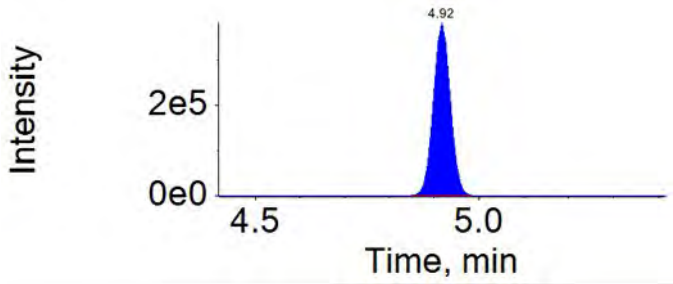
APPROVED
By MCD at 5:01 pm, 11/28/18

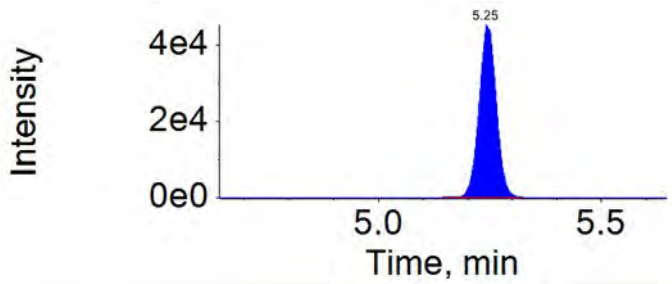
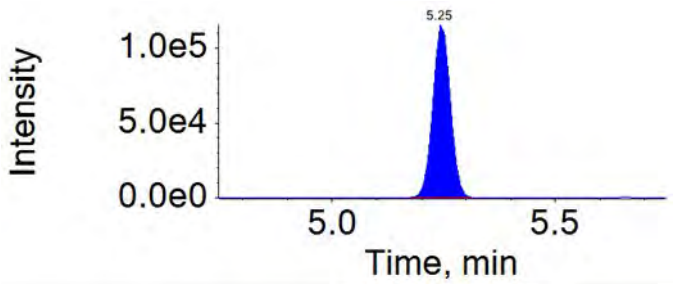
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

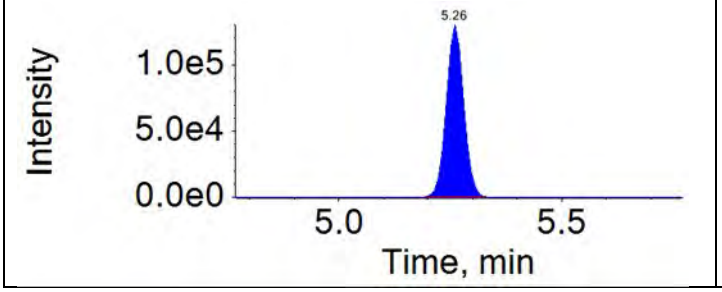
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

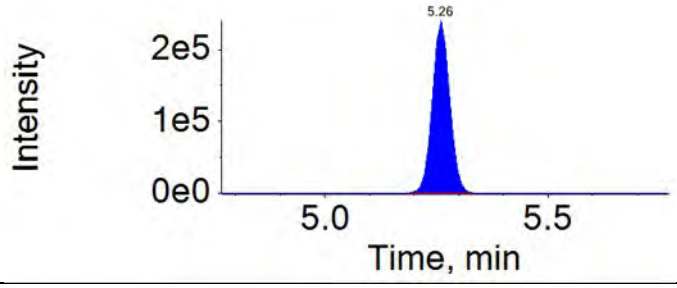
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

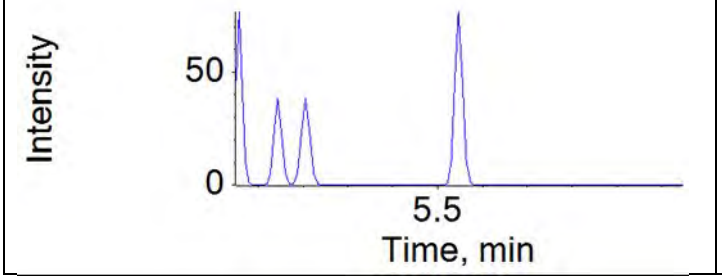
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

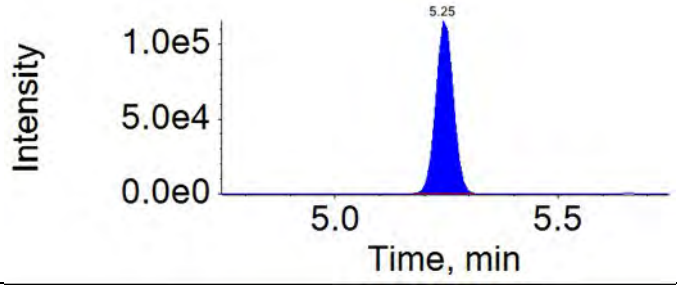
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



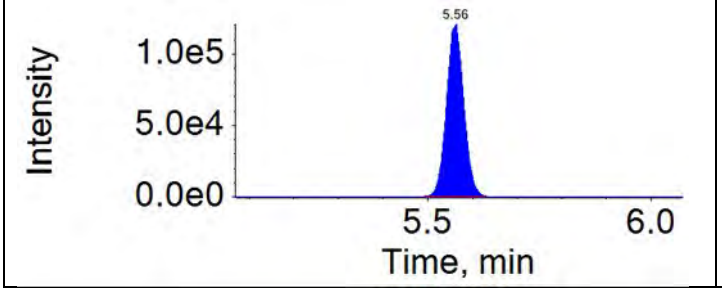


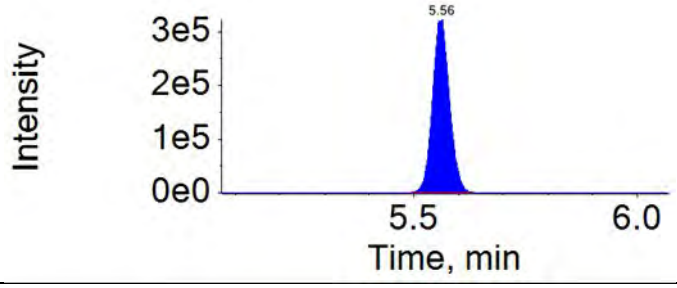
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



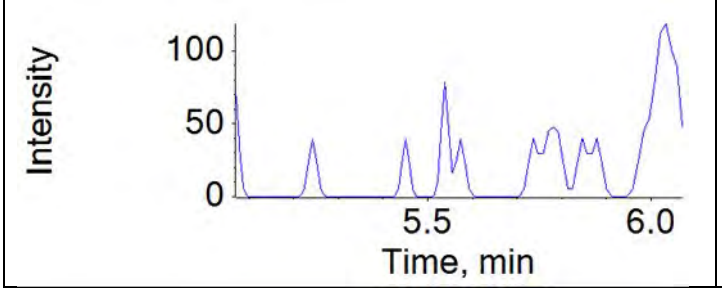


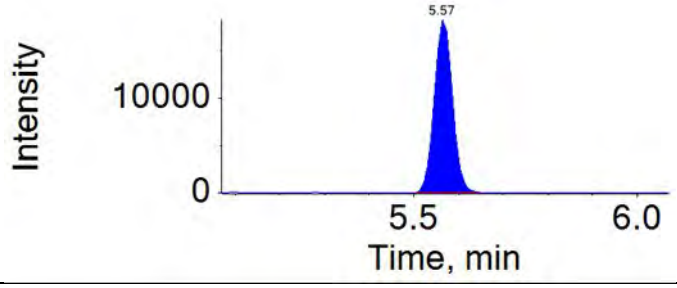
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



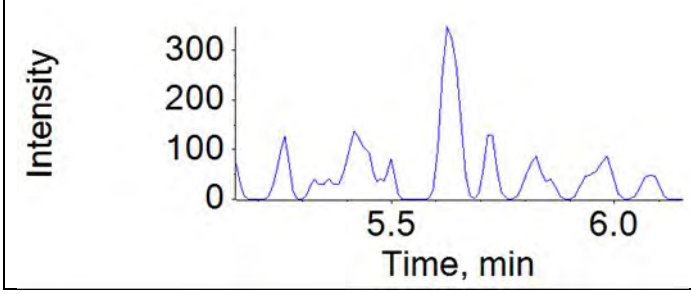


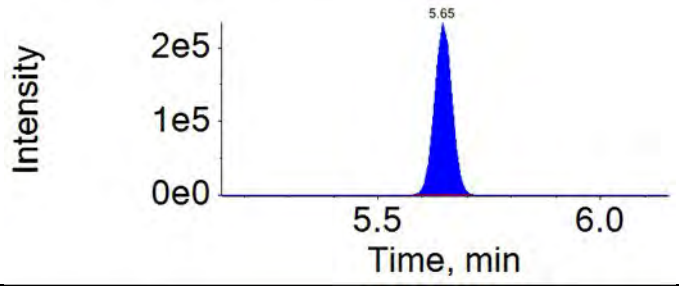
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

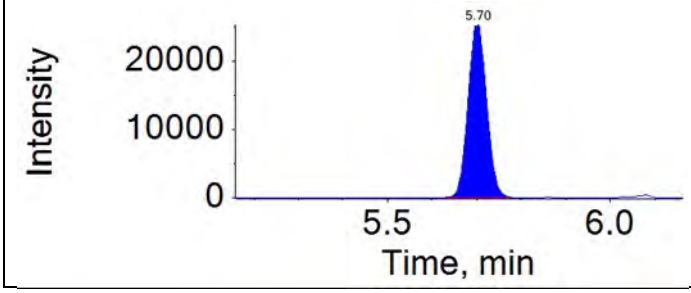
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

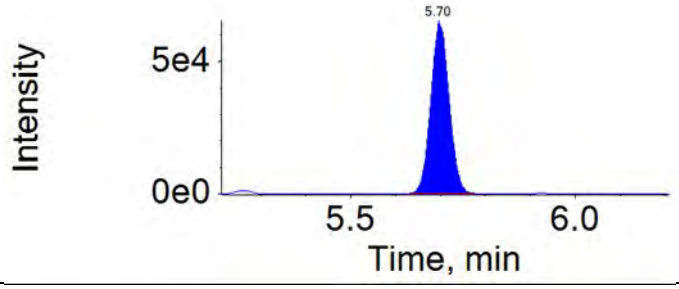
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



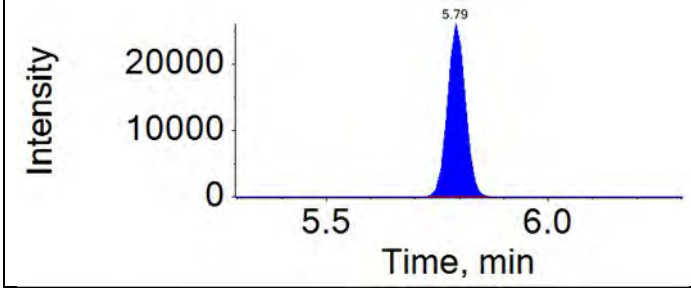


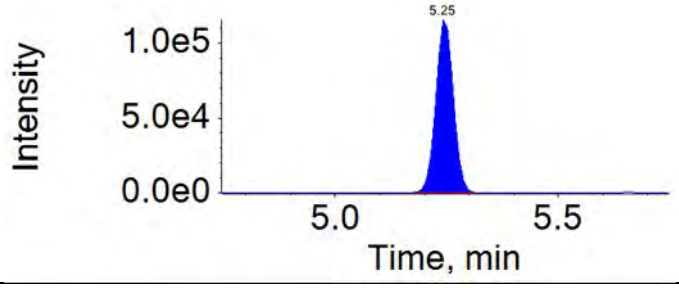
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



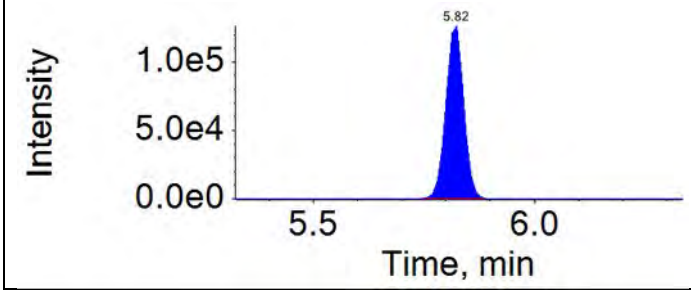


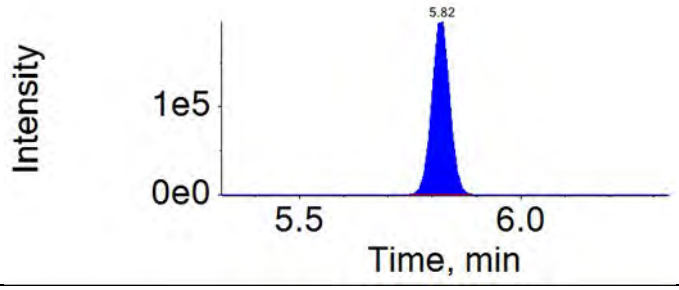
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



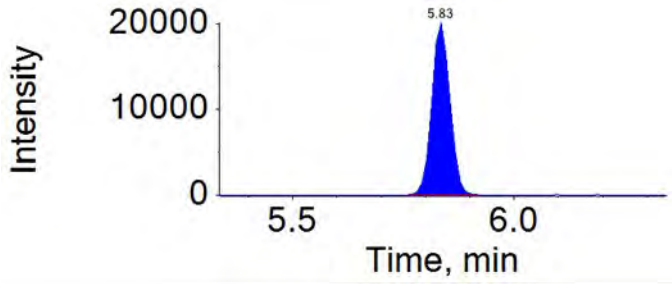


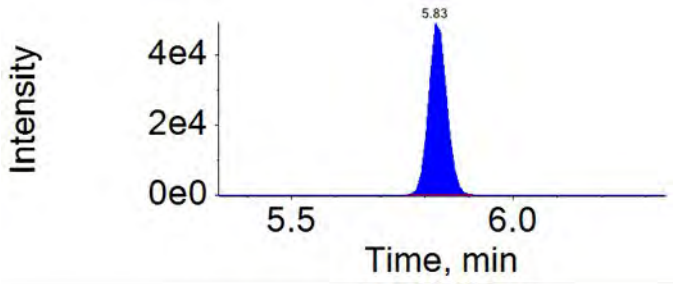
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

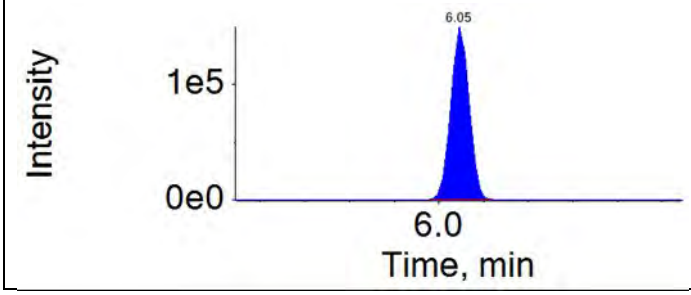
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

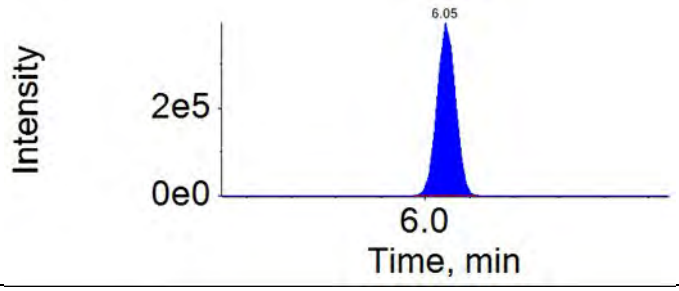
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



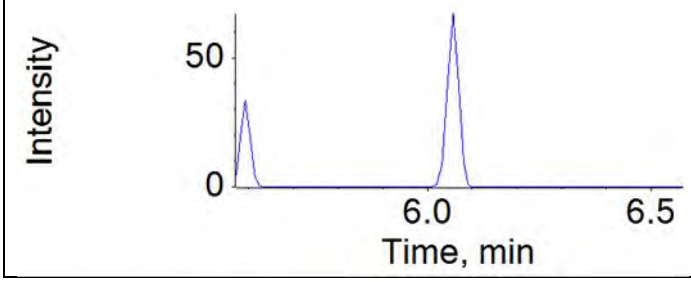


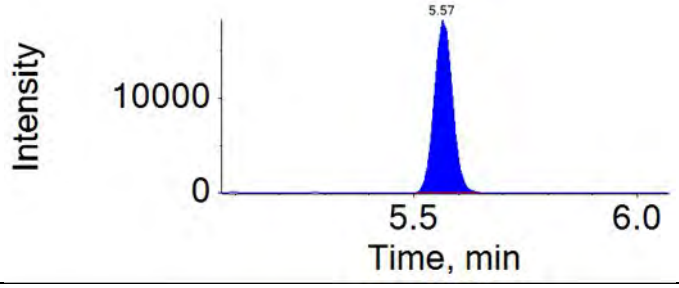
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



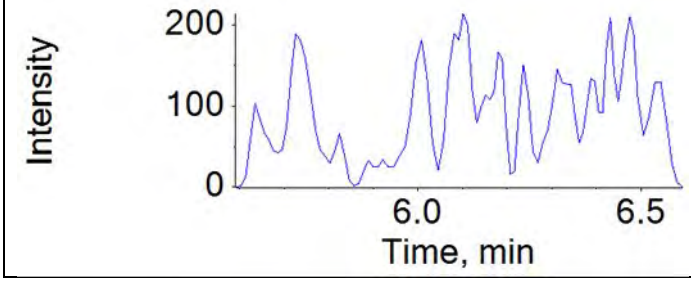


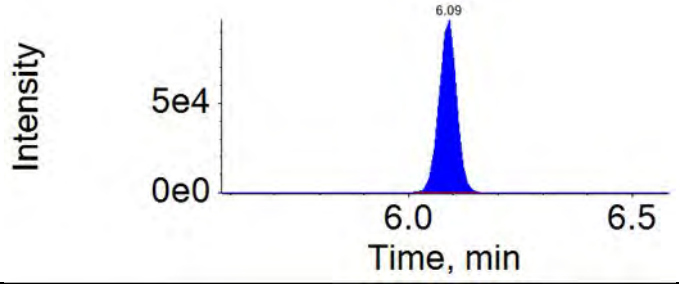
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



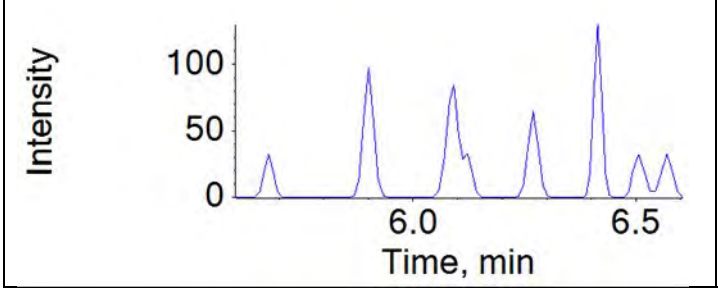


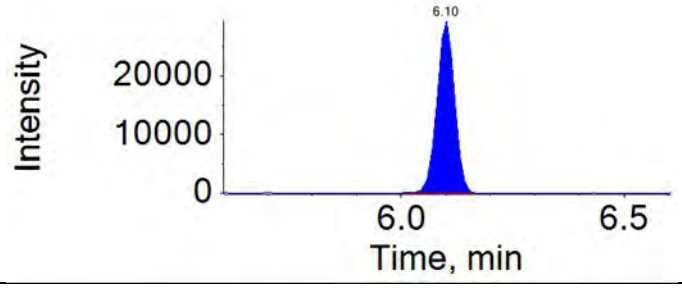
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

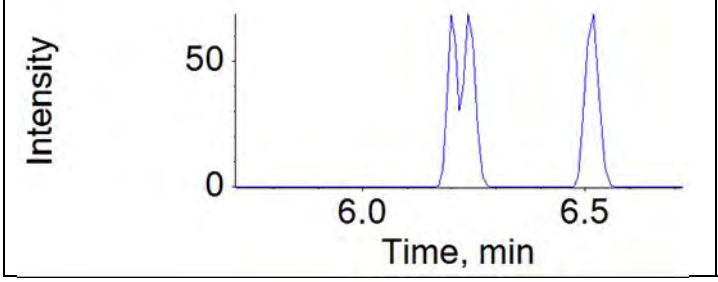
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

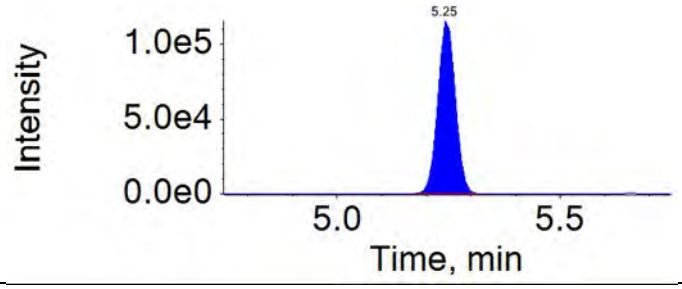
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



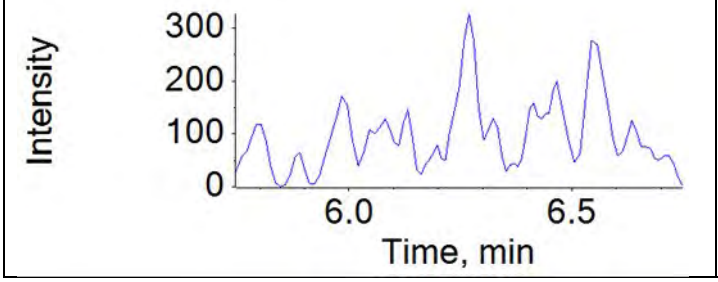


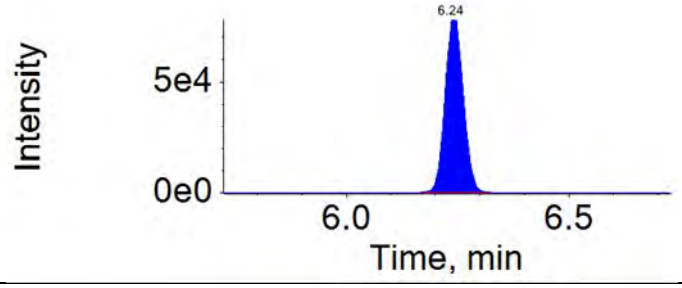
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



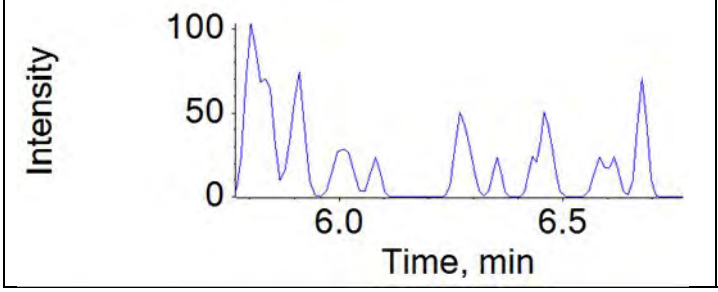


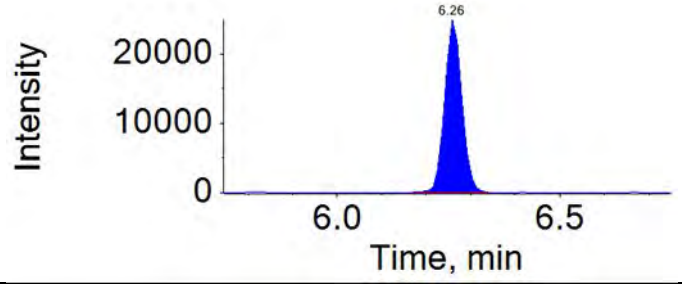
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



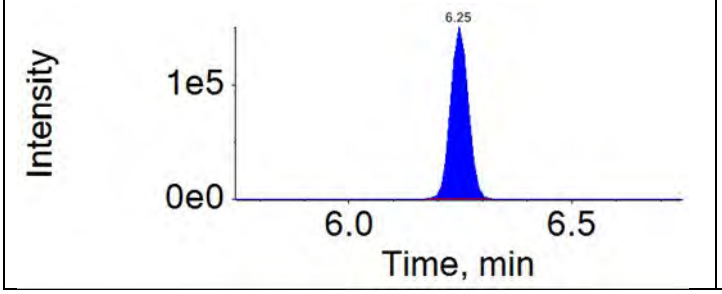


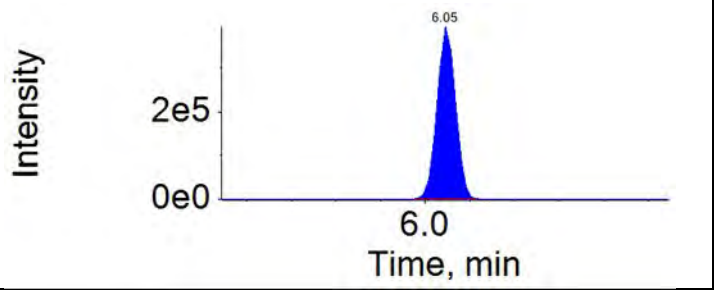
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

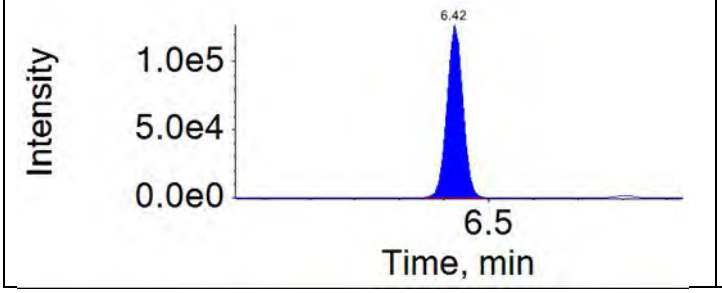
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

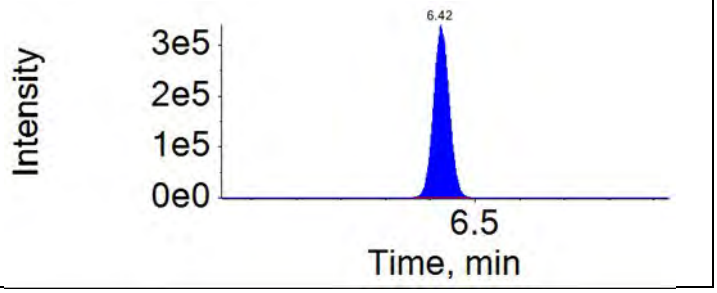
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



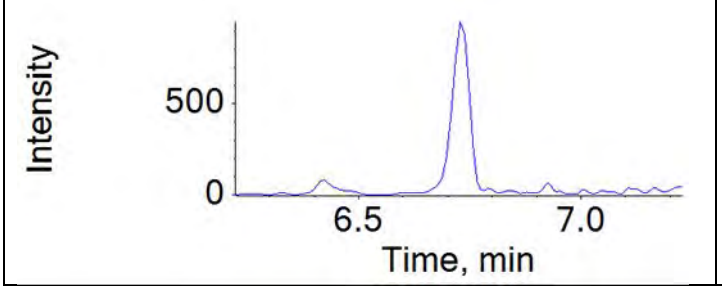


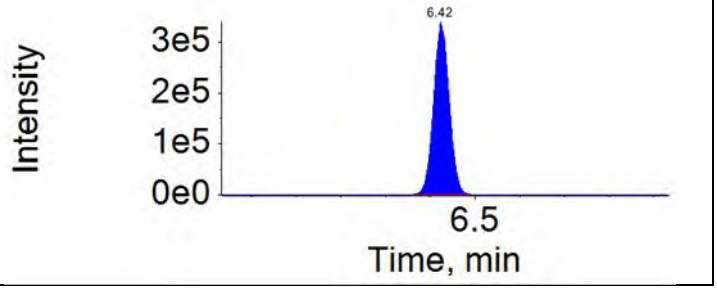
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



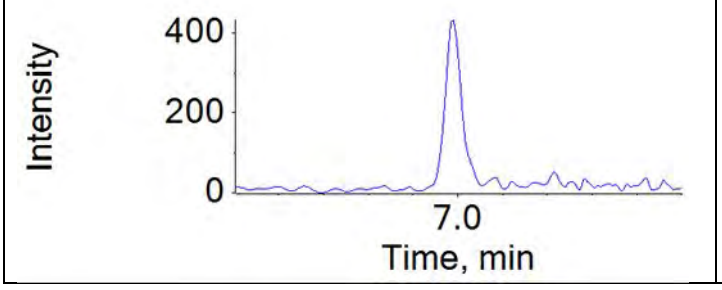


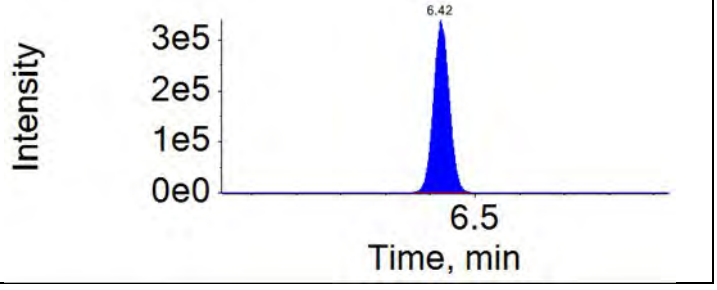
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



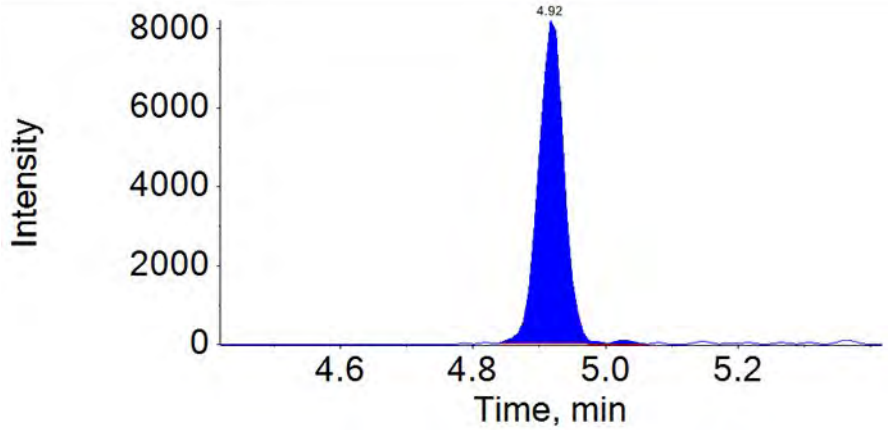


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

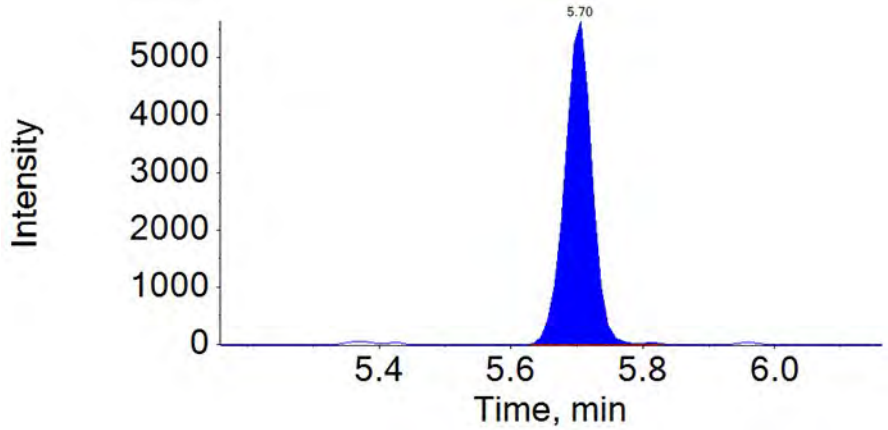
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
22382.92
Mass Range:
413.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



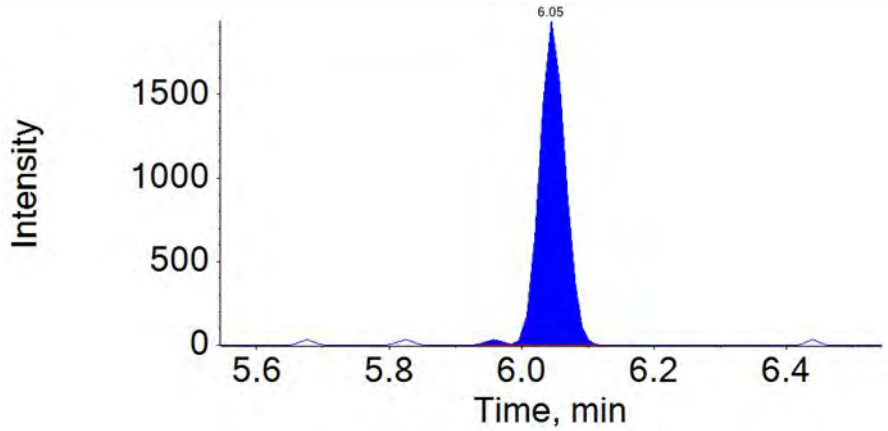
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
16150.62
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
5326.50
Mass Range:
613.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

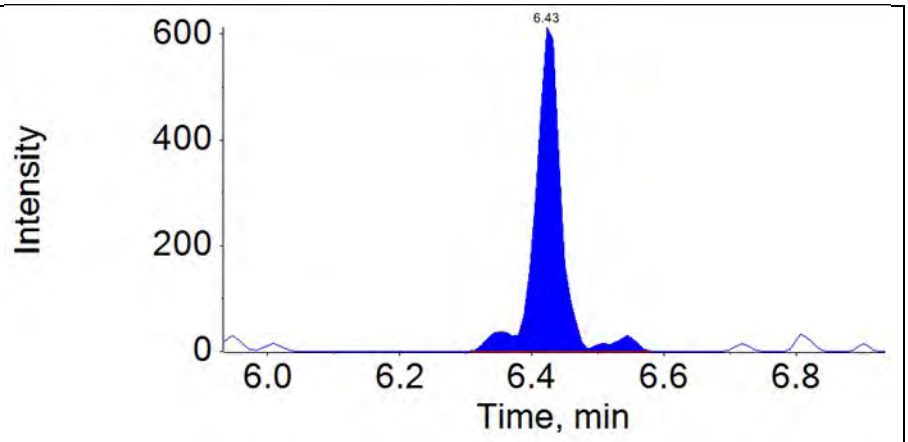
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTeDA_2
RT (min.):
6.43
Peak Area:
1717.33
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

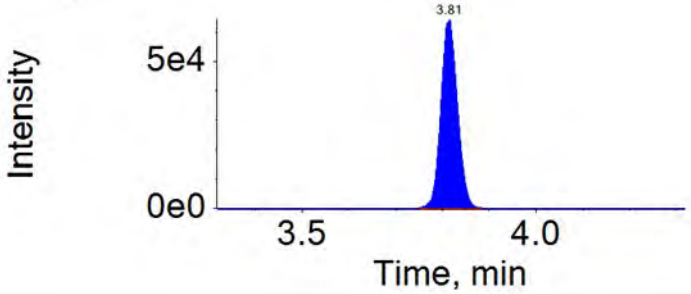
Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-14.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	159425.00	A	0.3655	0.3680			
PFBS_2	3.81	1.00	58661.72	A	0.3655	0.3680	1	50	
4:2-FTS	N/A	N/A	N/A	A	0.6383	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6383	N/A		50	
PFHxA	4.16	1.00	369137.13	A	0.0103	0.0099			
PFHxA_2	4.16	1.00	3663.34	A	0.0103	0.0099	-4	50	
PFPeS	N/A	N/A	N/A	A	0.4976	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.4976	N/A		50	
PFHpA	4.55	1.00	373590.76	A	0.0557	0.0494			
PFHpA_2	4.55	1.00	18441.26	A	0.0557	0.0494	-11	50	
PFHxS	4.55	1.00	125085.30	A	0.3693	0.3301			
PFHxS_2	4.55	1.00	41284.52	A	0.3693	0.3301	-11	50	
6:2-FTS	N/A	N/A	N/A	A	0.6625	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6625	N/A		50	
PFHpS	4.91	1.08	131043.06	A	0.3915	0.4021			
PFHpS_2	4.91	1.08	52690.55	A	0.3915	0.4021	3	50	
PFOA	4.92	1.00	404358.94	A	0.0573	0.0549			
PFOA_2	4.92	1.00	22197.92	M	0.0573	0.0549	-4	50	
PFOS	5.25	1.00	122334.56	A	0.2960	0.3345			
PFOS_2	5.24	1.00	40919.91	A	0.2960	0.3345	13	50	
PFNA	5.26	1.00	351872.00	A	0.0201	0.0188			
PFNA_2	5.26	1.00	6604.00	A	0.0201	0.0188	-7	50	
PFNS	N/A	N/A	N/A	A	0.4794	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4794	N/A		50	
PFDA	5.56	1.00	325191.94	A	0.0075	0.0060			
PFDA_2	5.56	1.00	1956.43	A	0.0075	0.0060	-20	50	
8:2-FTS	N/A	N/A	N/A	A	0.5380	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.5380	N/A		50	
NMeFOSAA	5.70	1.00	74168.76	A	0.2305	0.2169			
NMeFOSAA_2	5.70	1.00	16085.31	M	0.2305	0.2169	-6	50	
PFDS	5.79	1.10	72374.27	A	0.5356	0.5380			
PFDS_2	5.79	1.10	38937.76	A	0.5356	0.5380	0	50	
PFUnDA	5.82	1.00	354099.76	A	0.0038	0.0057			
PFUnDA_2	5.82	1.00	2015.46	A	0.0038	0.0057	50	50	
NEtFOSAA	5.83	1.00	57367.95	A	0.7356	0.5930			
NEtFOSAA_2	5.83	1.00	34017.14	A	0.7356	0.5930	-19	50	
PFDoDA	6.05	1.00	427818.87	A	0.0130	0.0123			
PFDoDA_2	6.05	1.00	5265.10	M	0.0130	0.0123	-6	50	
10:2-FTS	N/A	N/A	N/A	A	0.6989	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.6989	N/A		50	
PFTrDA	6.25	1.03	416758.36	A	0.0090	0.0086			
PFTrDA_2	6.25	1.03	3581.21	A	0.0090	0.0086	-5	50	
PFTeDA	6.42	1.00	312632.12	A	0.0056	0.0049			
PFTeDA_2	6.43	1.00	1543.65	M	0.0056	0.0049	-12	50	
PFHxDA	N/A	N/A	N/A	A	0.0646	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0646	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0264	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0264	N/A		50	

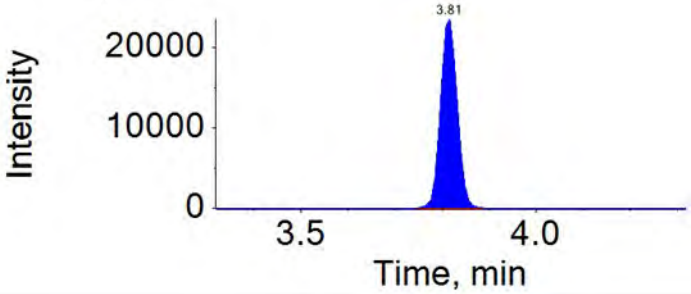
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

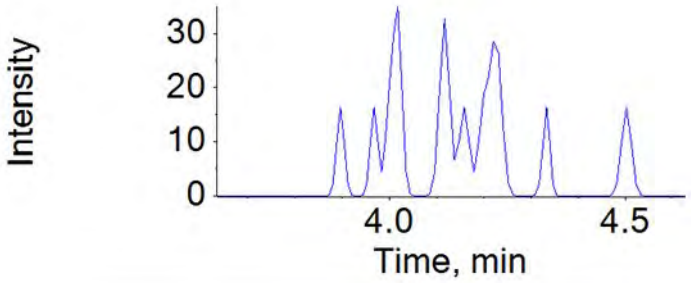
Component: PFBS
Primary Mass: 299.0 / 80.0



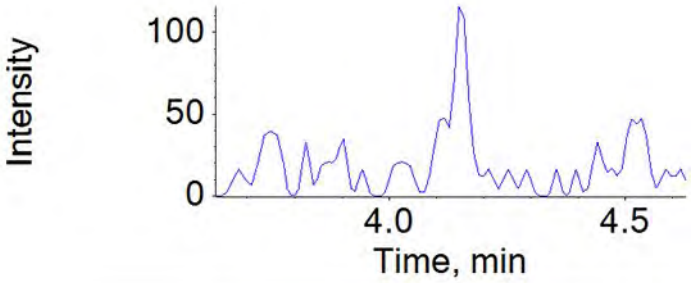
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



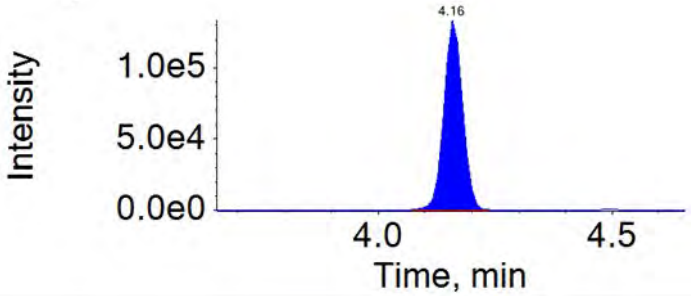
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



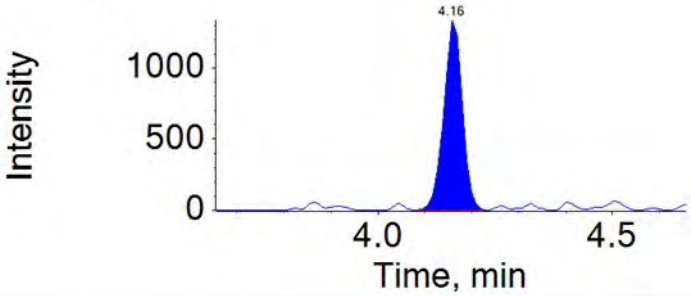
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



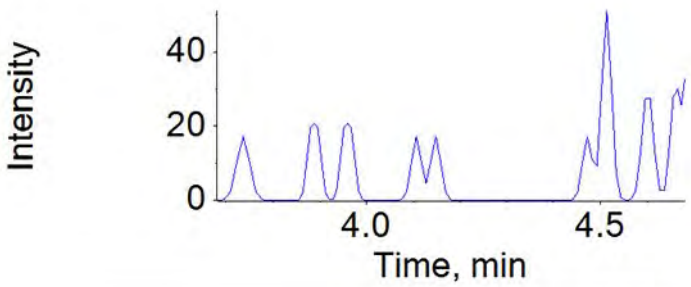
Component: PFHxA
Primary Mass: 313.0 / 269.0



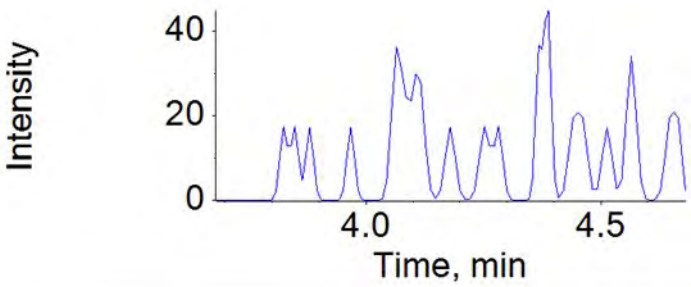
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



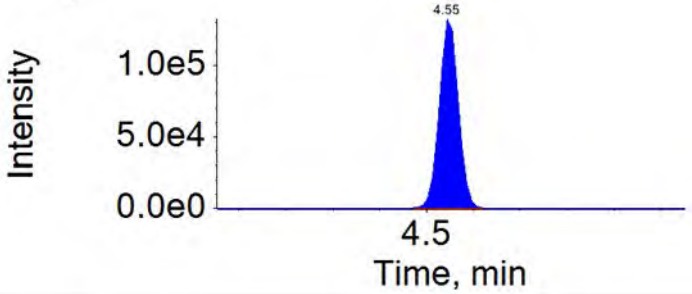
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



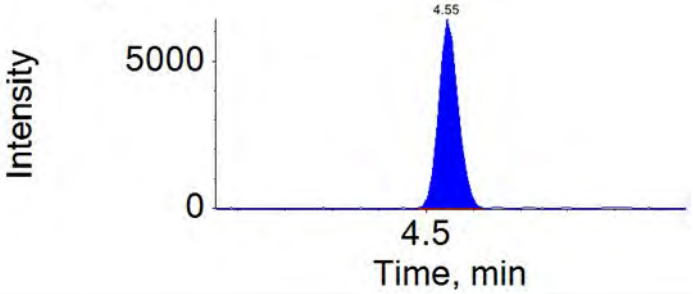
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

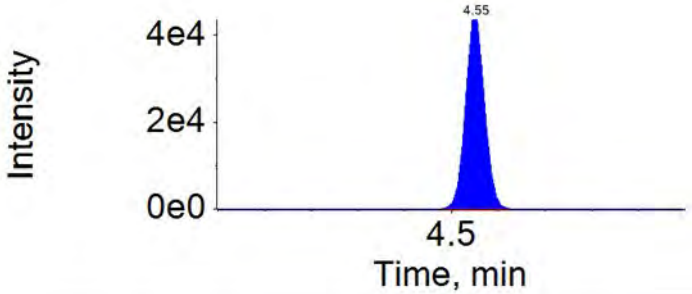
Component: PFHpA
Primary Mass: 363.0 / 319.0



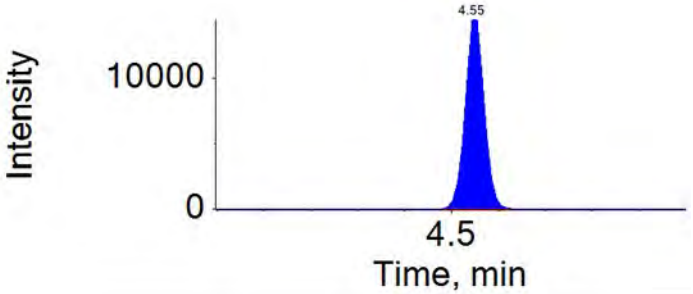
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



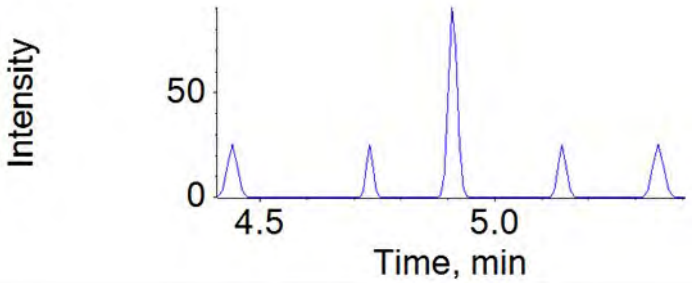
Component: PFHxS
Primary Mass: 399.0 / 80.0



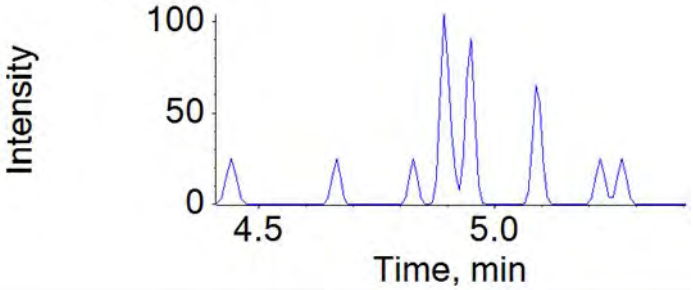
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



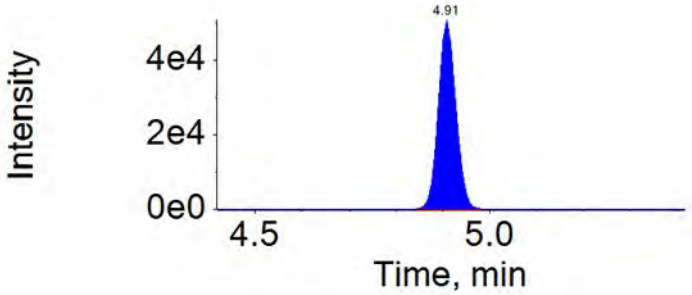
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



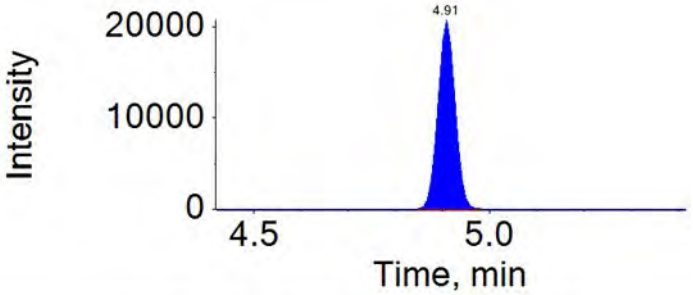
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



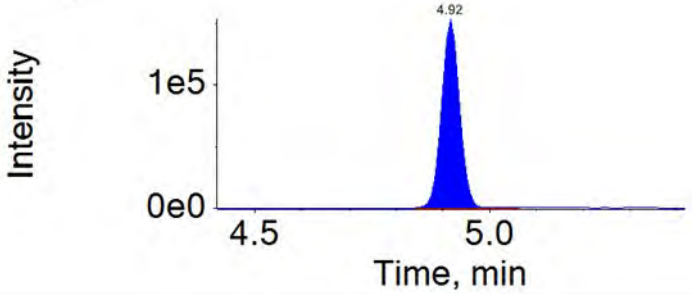
Component: PFHpS
Primary Mass: 449.0 / 80.0



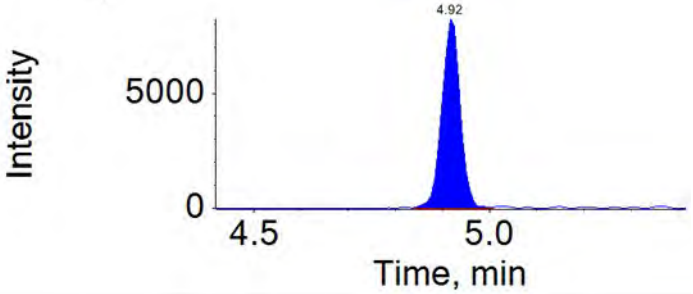
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



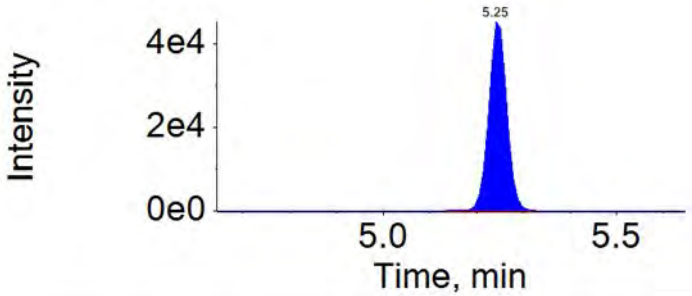
Component: PFOA
Primary Mass: 413.0 / 369.0



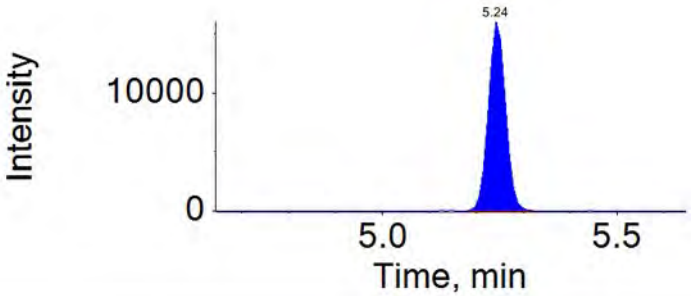
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



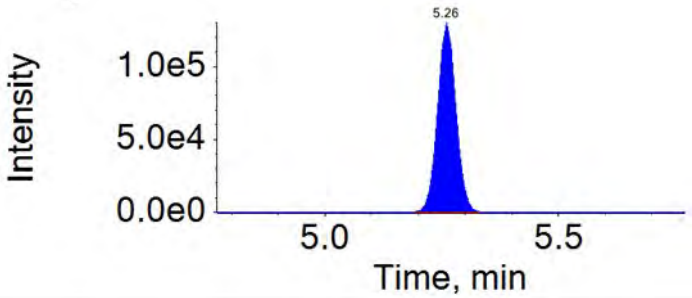
Component: PFOS
Primary Mass: 499.0 / 80.0



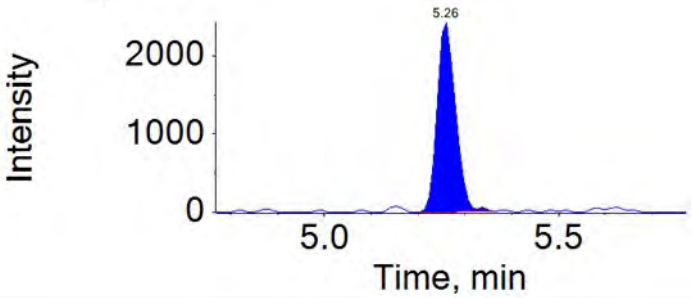
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



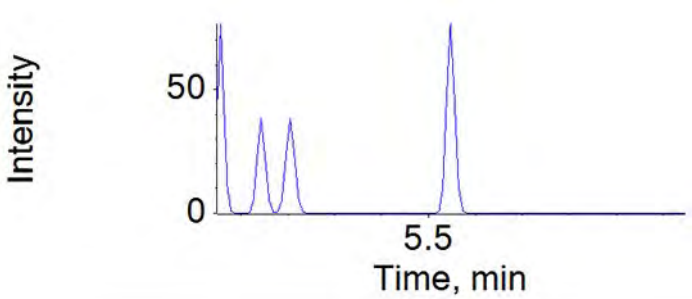
Component: PFNA
Primary Mass: 463.0 / 419.0



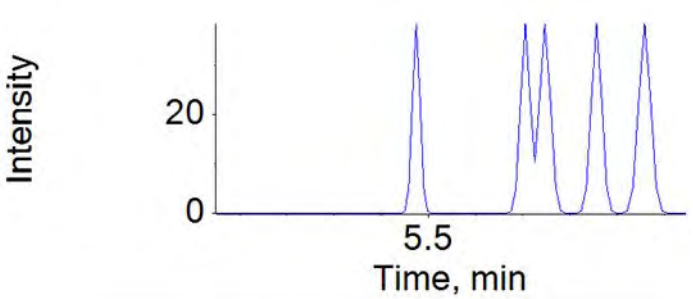
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



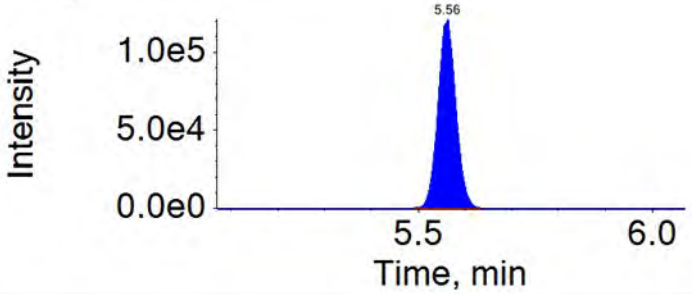
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



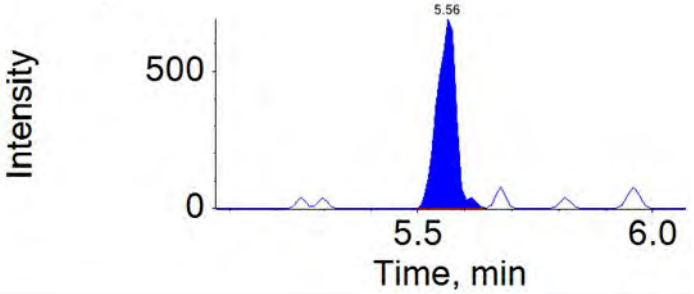
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

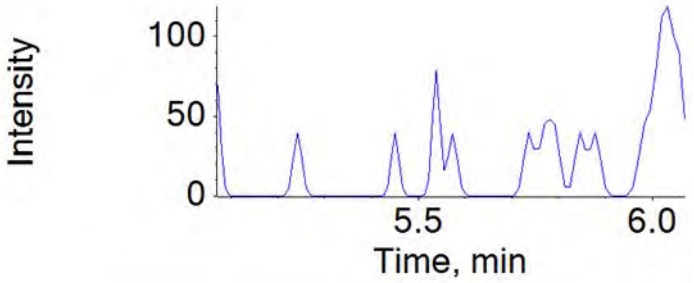
Component: PFDA
Primary Mass: 513.0 / 469.0



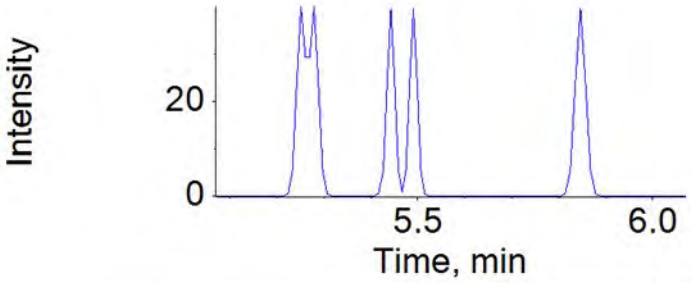
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



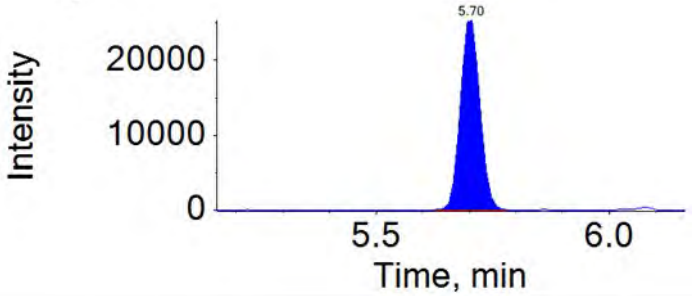
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



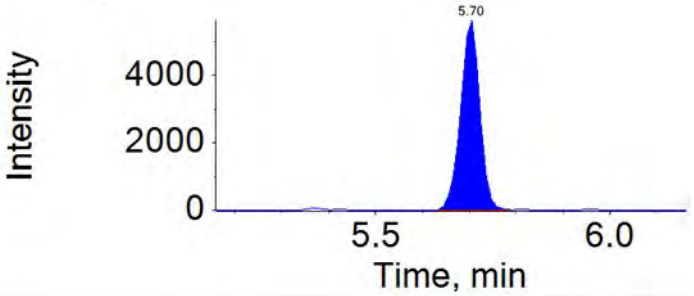
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



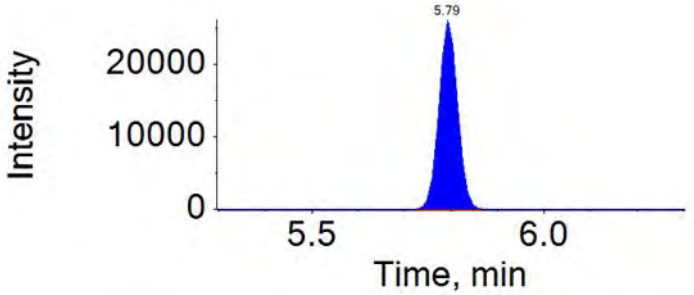
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



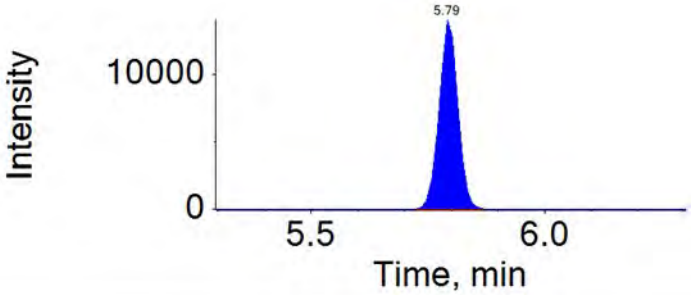
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



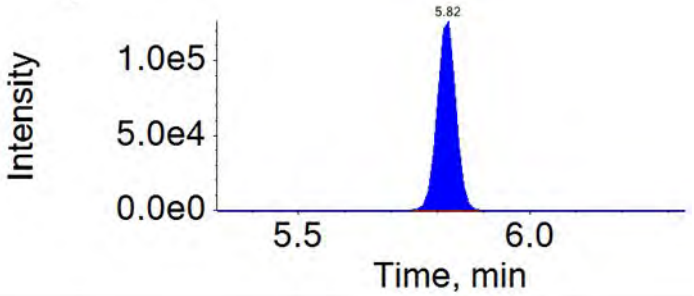
Component: PFDS
Primary Mass: 599.0 / 80.0



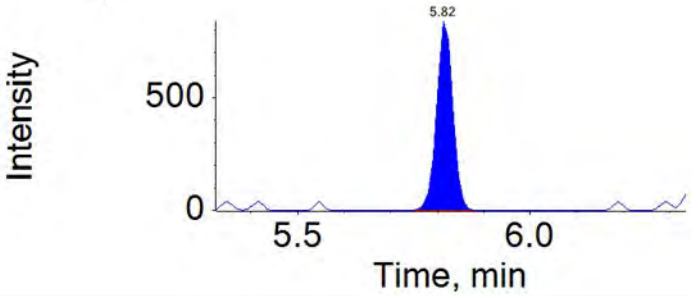
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



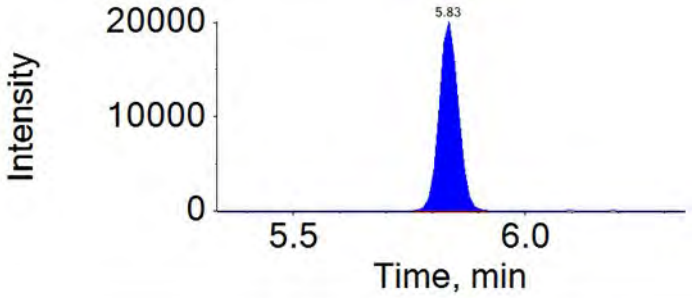
Component: PFUnDA
Primary Mass: 563.0 / 519.0



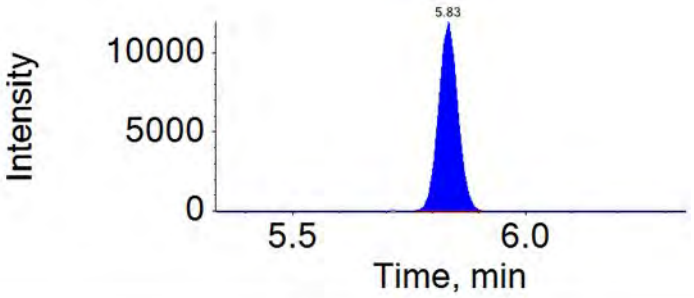
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



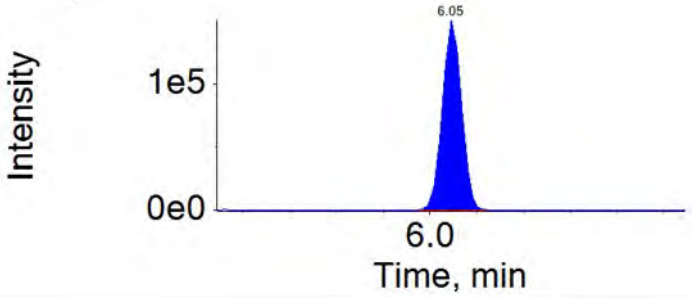
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



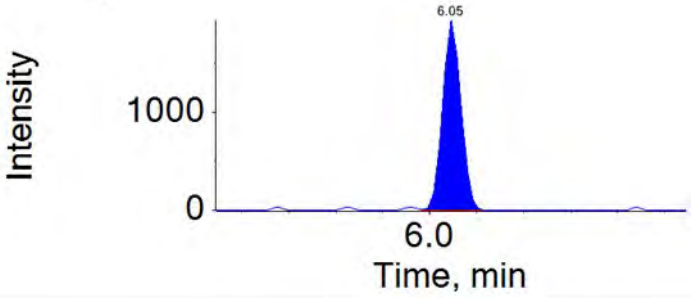
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



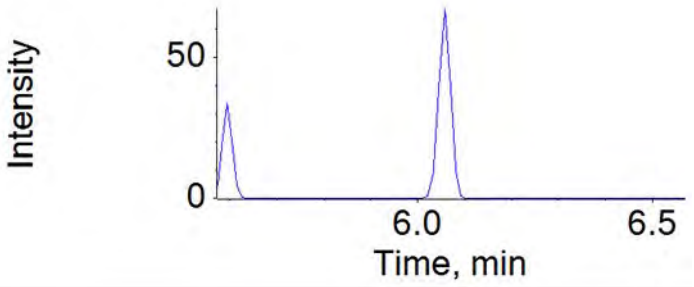
Component: PFDoDA
Primary Mass: 613.0 / 569.0



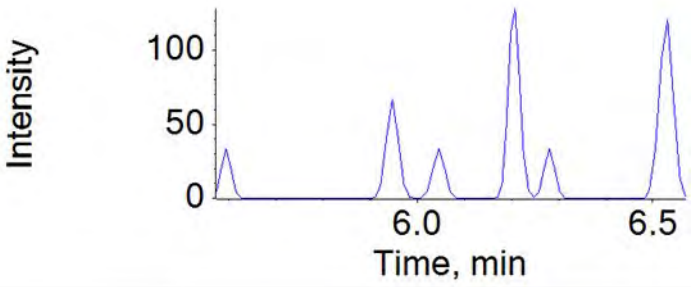
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



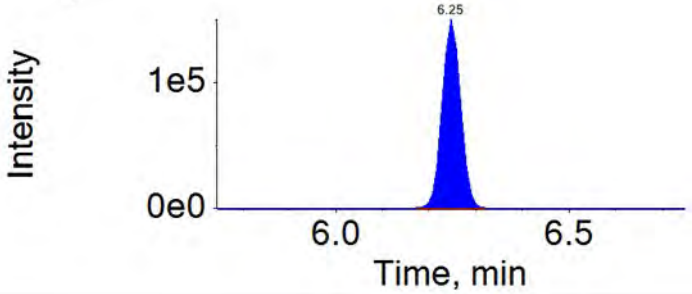
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



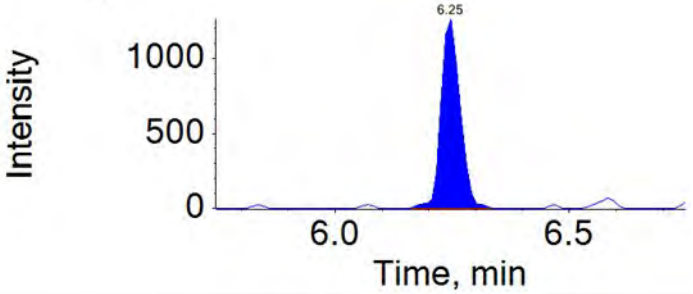
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



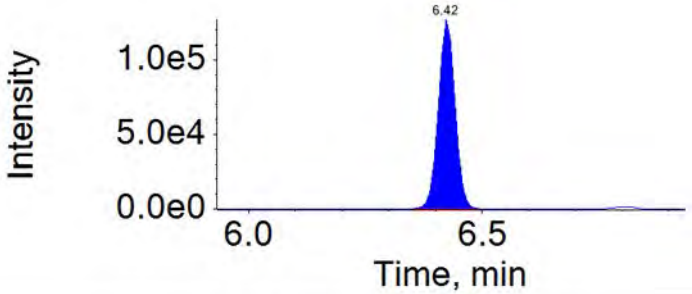
Component: PFTrDA
Primary Mass: 663.0 / 619.0



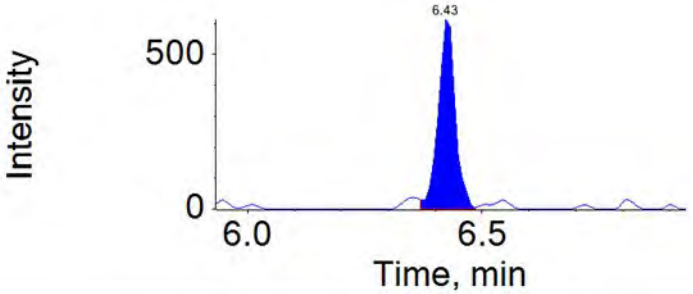
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



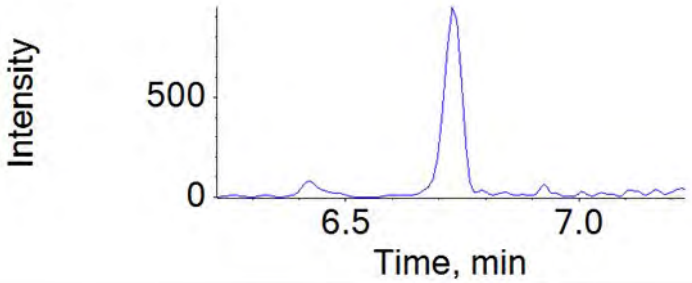
Component: PFTeDA
Primary Mass: 713.0 / 669.0



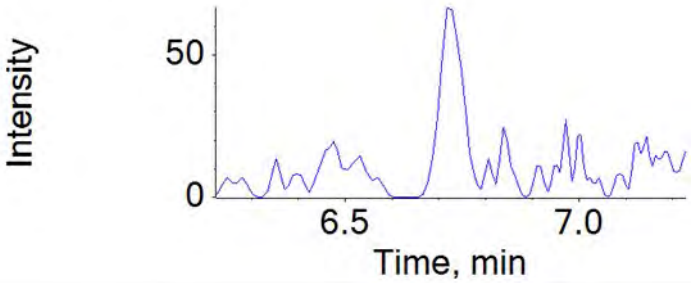
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



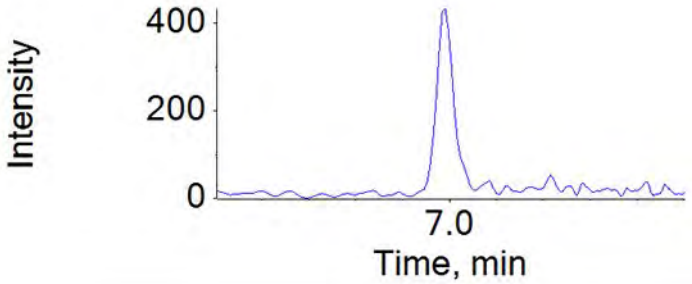
Component: PFHxDA
Primary Mass: 813.0 / 769.0



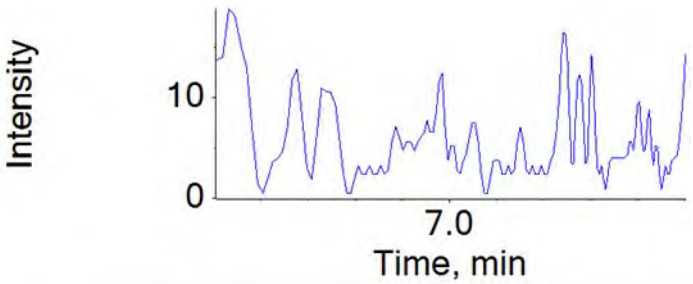
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	L+B CAL3			**Data File:**		18NOV28DCAL-15.wiff
Sample ID:	LBMODX1833D			**Acquis Date:**		2018-11-28T15:03:22
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	11			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	930482.9	887248.9	5	50	
13C2-PFOA	5.0	516348.2	498501.6	4	50	
13C4-PFOS	4.8	310677.0	283214.2	10	50	
13C2-PFDA	5.0	460288.7	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	996867.5	13C3-PFBA	930482.9	1.071	5.000	4.780	96	70-130	
E13C5-PFPeA	927870.7	13C3-PFBA	930482.9	0.997	5.000	4.656	93	70-130	
E13C3-PFBS	427409.8	13C3-PFBA	930482.9	0.459	4.650	4.382	94	70-130	
E13C2-4:2-FTS	73743.1	13C2-PFOA	516348.2	0.143	4.670	4.922	105	70-130	
E13C5-PFHxA	699105.0	13C2-PFOA	516348.2	1.354	5.000	4.973	99	70-130	
E13C3-PFHxS	324075.2	13C2-PFOA	516348.2	0.628	4.730	4.919	104	70-130	
E13C4-PFHpA	547668.0	13C2-PFOA	516348.2	1.061	5.000	4.874	97	70-130	
E13C2-6:2-FTS	63429.0	13C2-PFOA	516348.2	0.123	4.750	5.142	108	70-130	
E13C8-PFOA	997292.2	13C2-PFOA	516348.2	1.931	5.000	5.316	106	70-130	
E13C8-PFOS	308064.9	13C4-PFOS	310677.0	0.992	4.780	4.476	94	70-130	
E13C9-PFNA	770381.1	13C4-PFOS	310677.0	2.480	5.000	5.446	109	70-130	
E13C6-PFDA	853597.3	13C2-PFDA	460288.7	1.854	5.000	5.229	105	70-130	
E13C2-8:2-FTS	52606.6	13C2-PFDA	460288.7	0.114	4.790	4.912	103	70-130	
E13C8-PFOSA	636488.8	13C2-PFDA	460288.7	1.383	5.000	5.074	101	70-130	
Ed3-NMeFOSAA	186039.9	13C2-PFDA	460288.7	0.404	5.000	5.132	103	70-130	
E13C7-PFUnDA	573935.8	13C2-PFDA	460288.7	1.247	5.000	5.270	105	70-130	
Ed5-NEtFOSAA	145277.9	13C2-PFDA	460288.7	0.316	5.000	5.623	112	70-130	
E13C2-PFDoDA	1114419.1	13C2-PFDA	460288.7	2.421	5.000	5.087	102	70-130	
Ed7-NMePFOSAE	278546.0	13C2-PFDA	460288.7	0.605	5.000	5.230	105	70-130	
Ed3-NMePFOSA	90664.8	13C2-PFDA	460288.7	0.197	5.000	5.331	107	70-130	
Ed9-NEtPFOSAE	233109.2	13C2-PFDA	460288.7	0.506	5.000	5.134	103	70-130	
Ed5-NEtPFOSA	69689.3	13C2-PFDA	460288.7	0.151	5.000	5.261	105	70-130	
E13C2-PFTeDA	859635.9	13C2-PFDA	460288.7	1.868	5.000	5.168	103	70-130	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

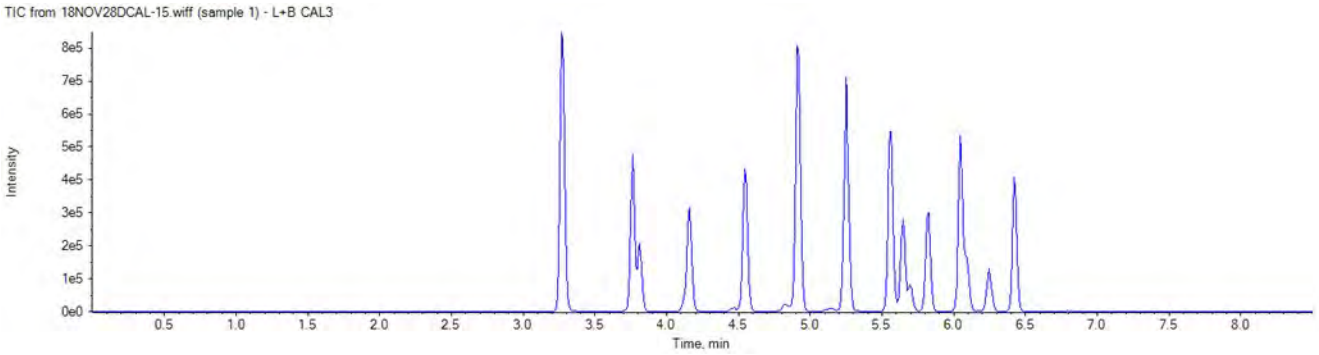
Analyte Quantitation Peak Table

Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-15.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	996867.5	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	927870.7	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	427409.8	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	73743.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	699105.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	427409.8	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	547668.0	N/A	
PFHxS	4.55	1.000	130205.7		M	13C3-PFHxS	4.55	324075.2	0.402	1.881
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	63429.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	324075.2	N/A	
PFOA	4.92	1.000	363985.2		M	13C8-PFOA	4.91	997292.2	0.365	1.886
PFOS	5.25	1.000	124397.3		M	13C8-PFOS	5.24	308064.9	0.404	1.694
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	770381.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	853597.3	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	52606.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	636488.8	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	186039.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	573935.8	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	145277.9	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	1114419.1	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	52606.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	278546.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	90664.8	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	233109.2	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	69689.3	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	1114419.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	

Total Ion Chromatogram

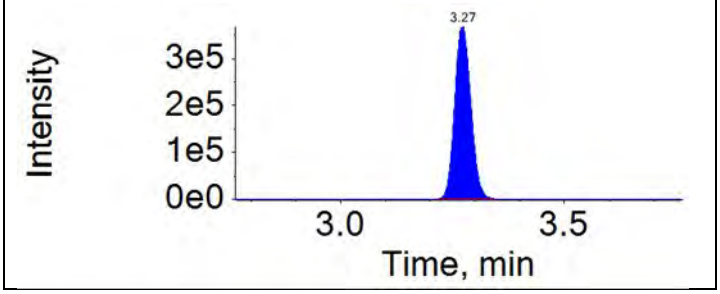


APPROVED
By MCD at 5:01 pm, 11/28/18

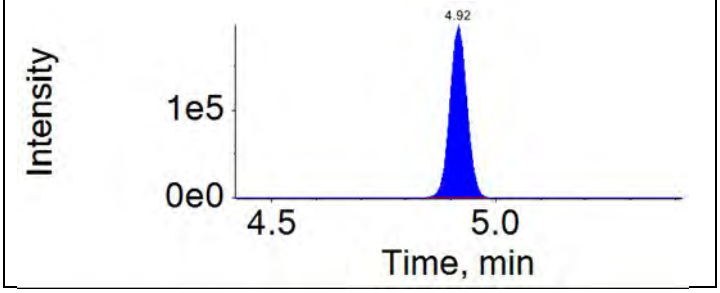
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

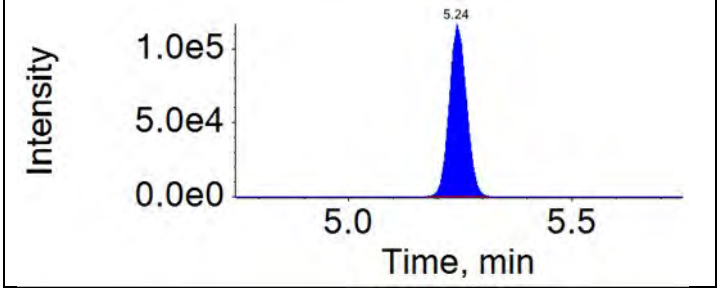
Injection Standard: 13C3-PFBA
216.0 / 172.0



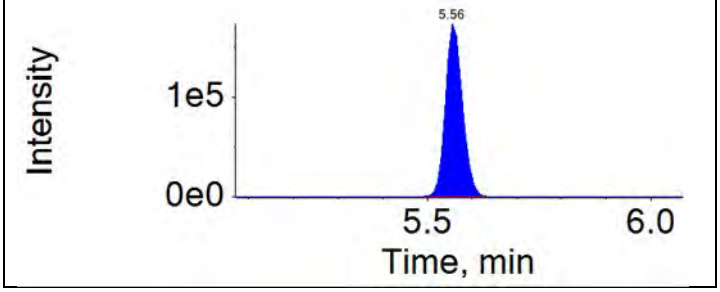
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



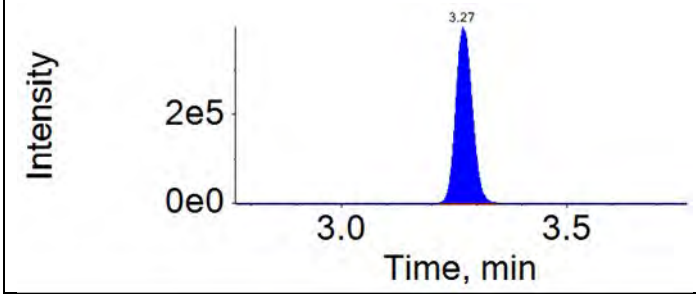
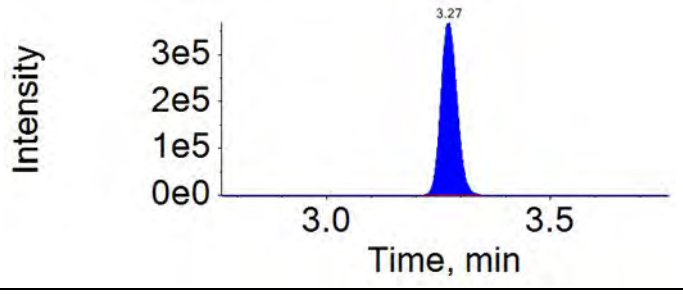
Injection Standard: 13C2-PFDA
515.0 / 470.0

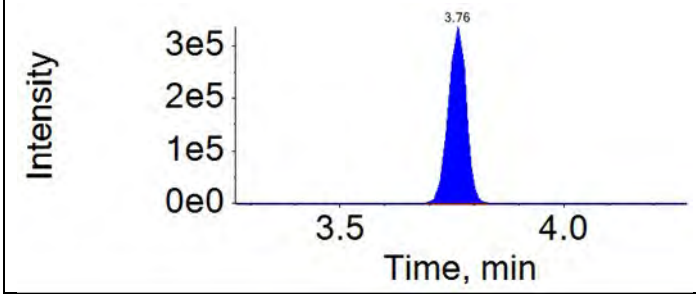
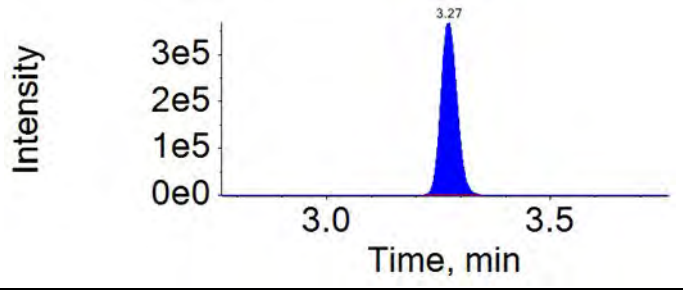


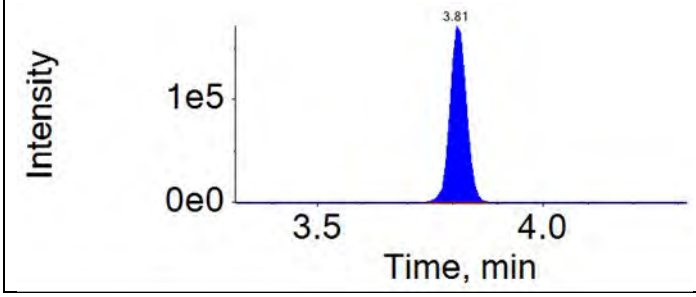
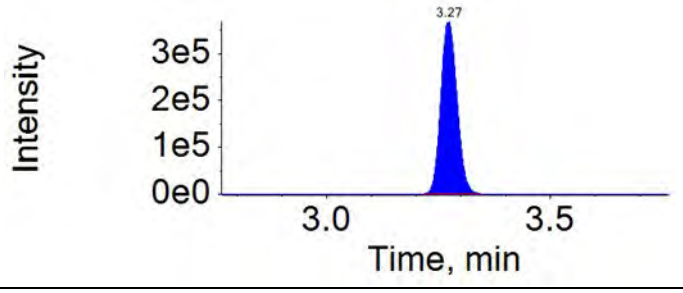
APPROVED
By MCD at 5:01 pm, 11/28/18

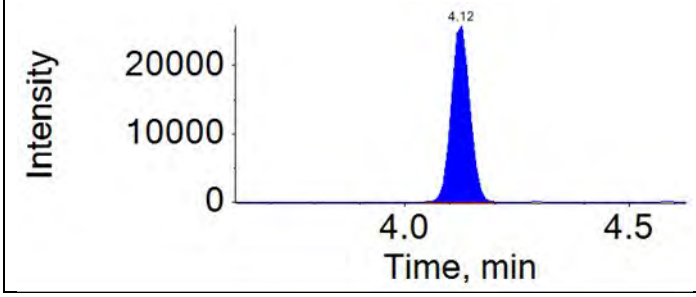
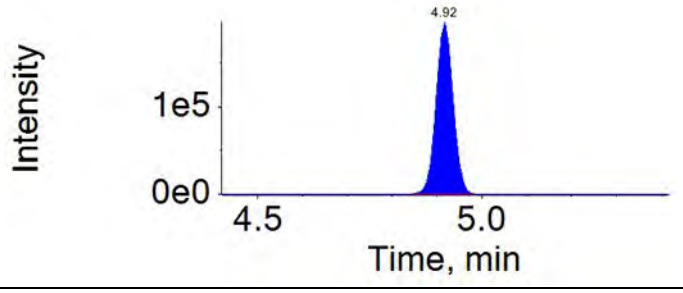
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

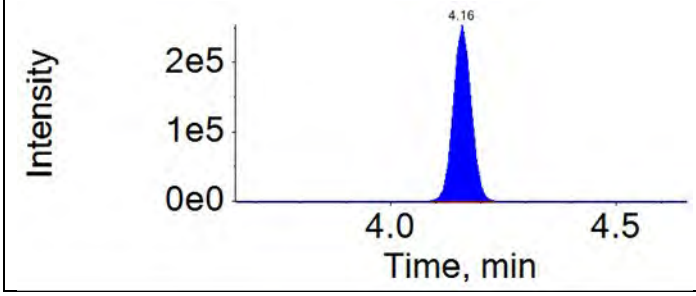
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

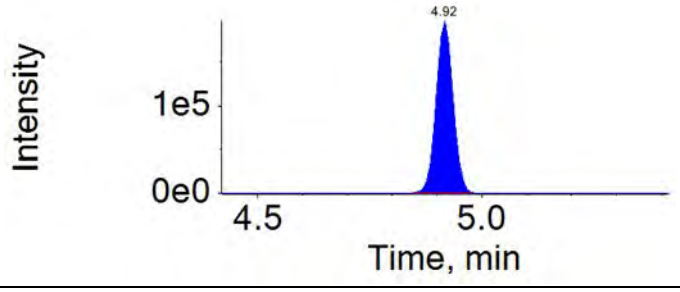
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

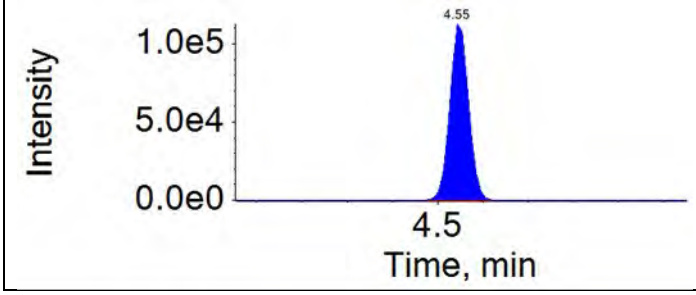
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

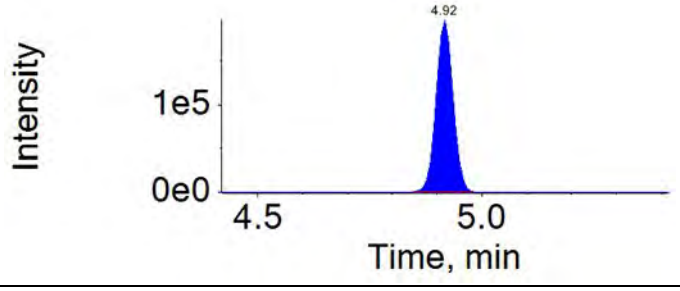
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



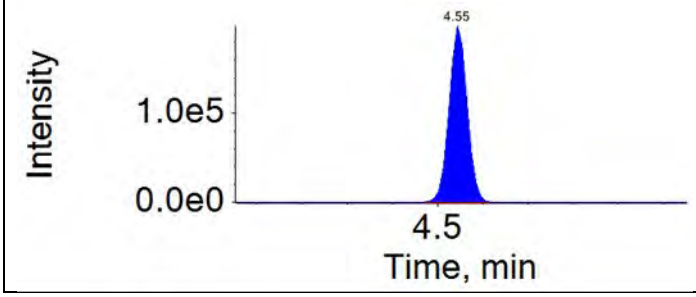


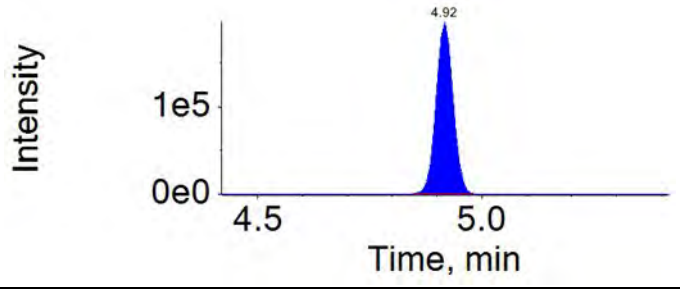
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



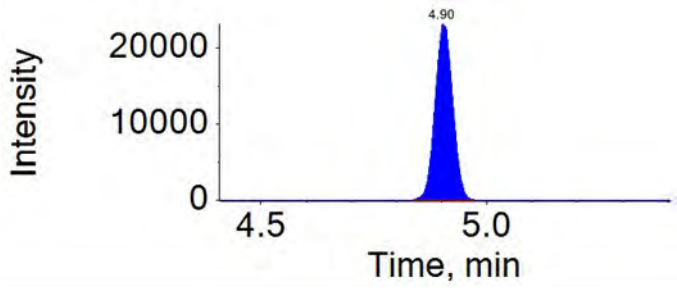


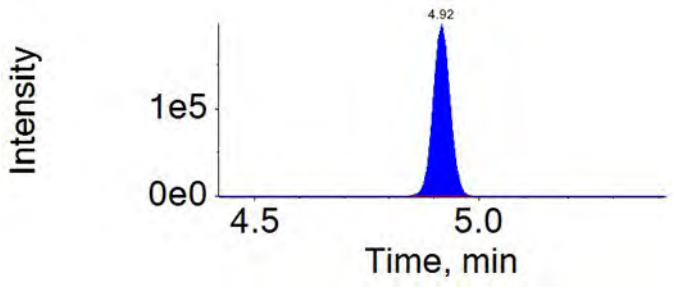
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

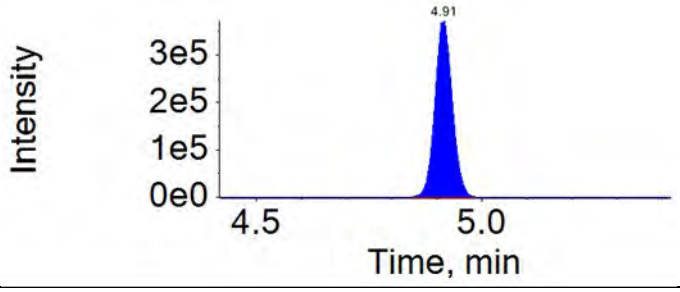
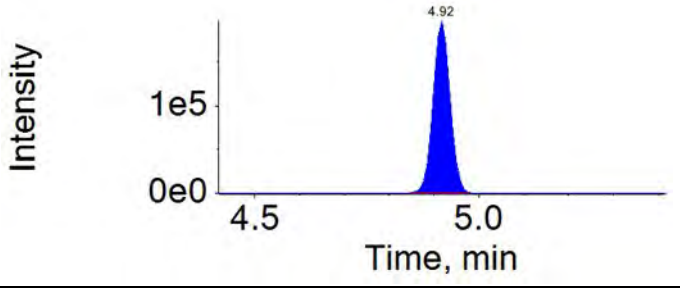


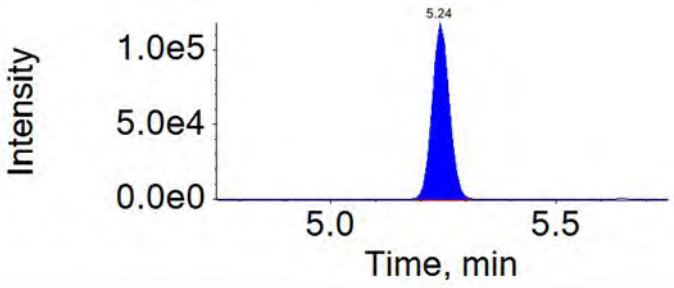
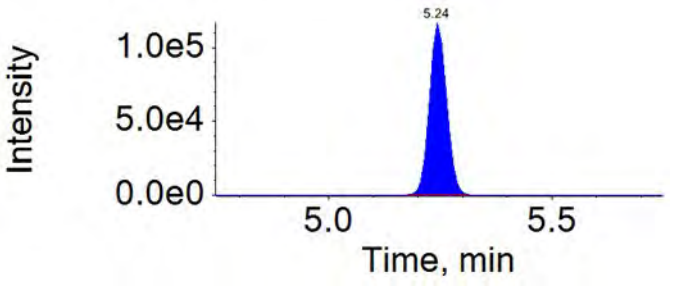


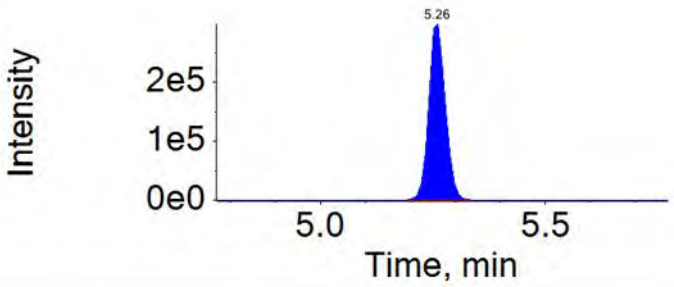
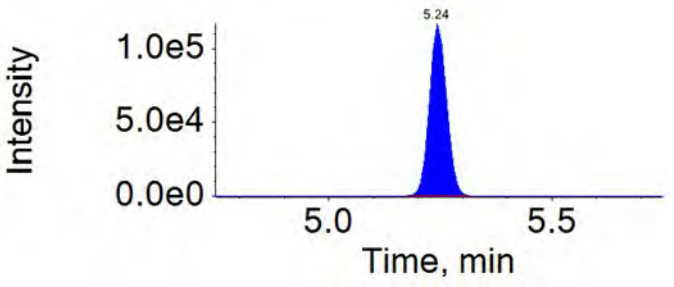
APPROVED
By MCD at 5:01 pm, 11/28/18

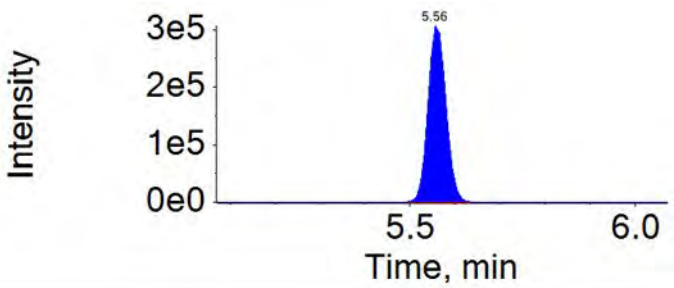
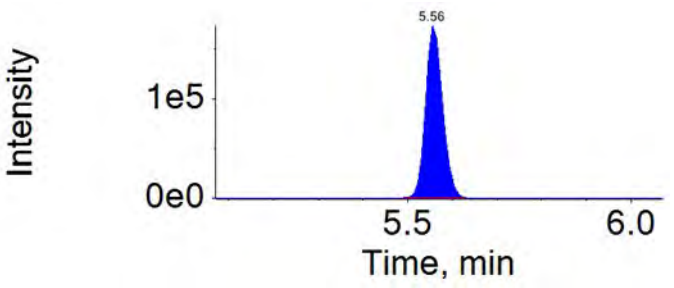
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

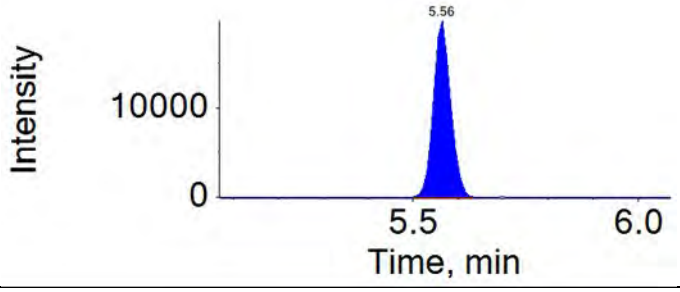
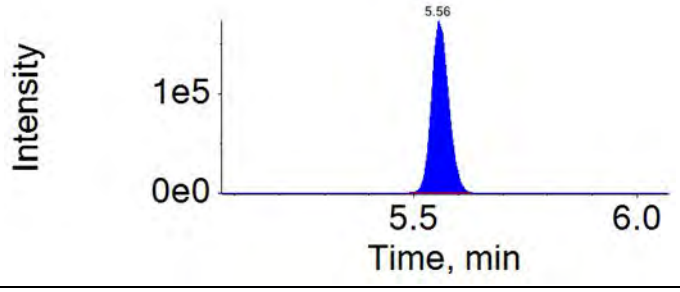
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

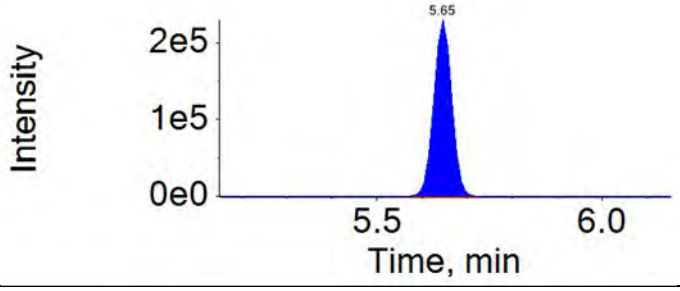
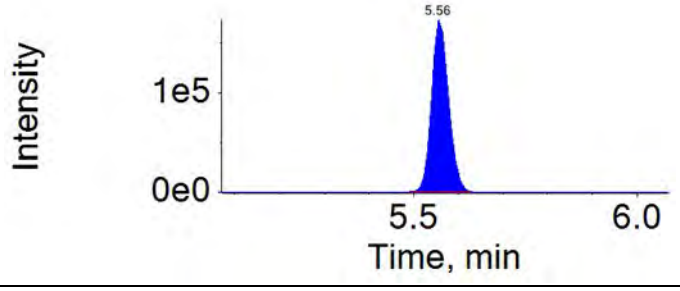
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

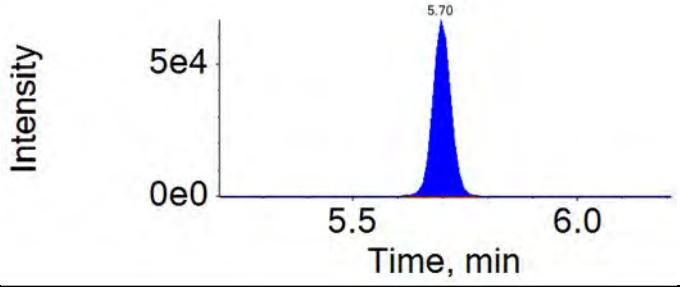
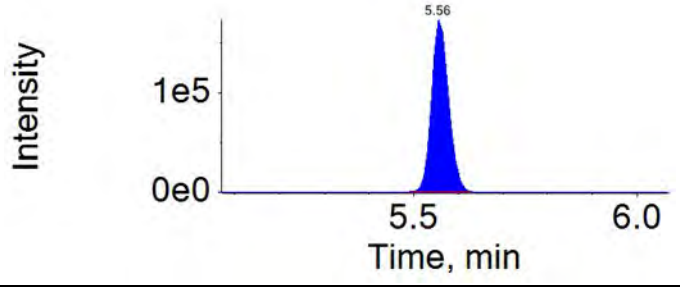
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

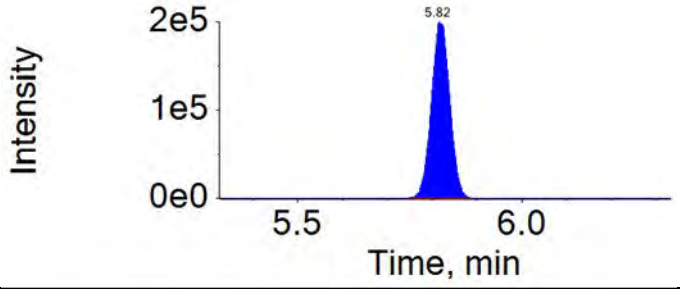
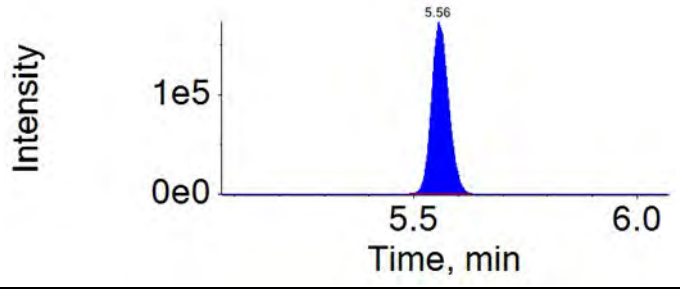
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

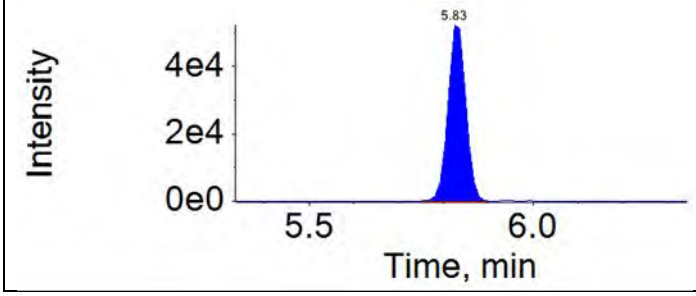
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

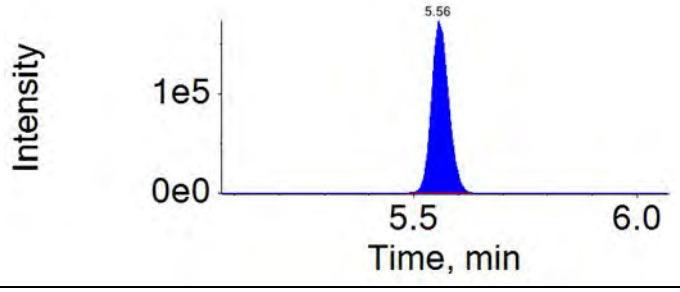
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

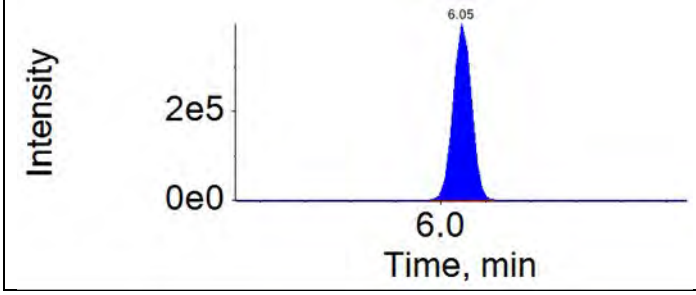
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

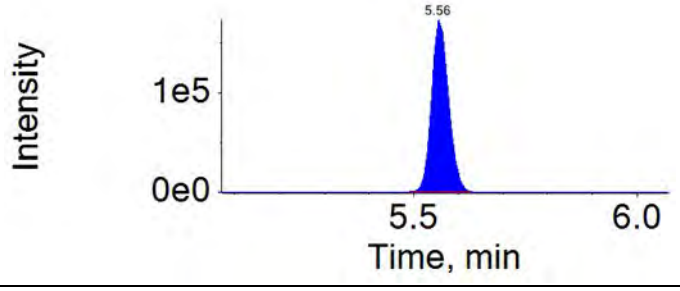
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



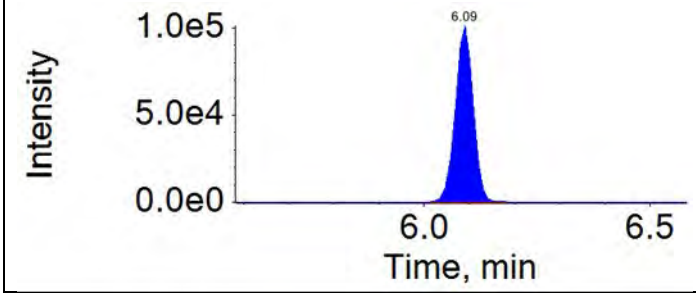


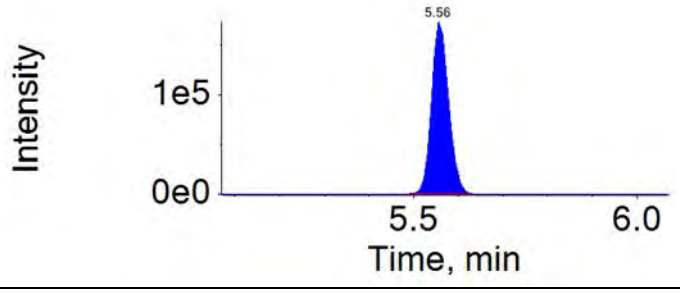
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



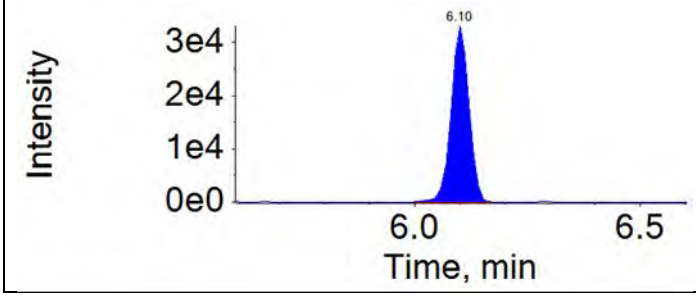


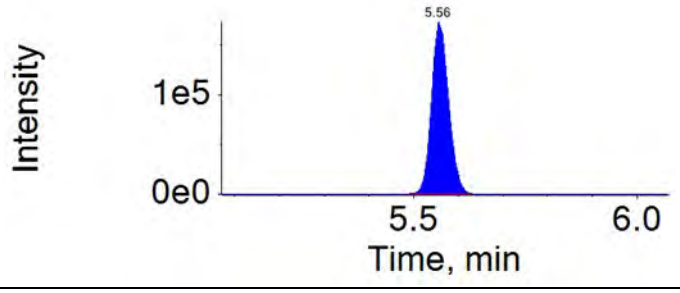
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



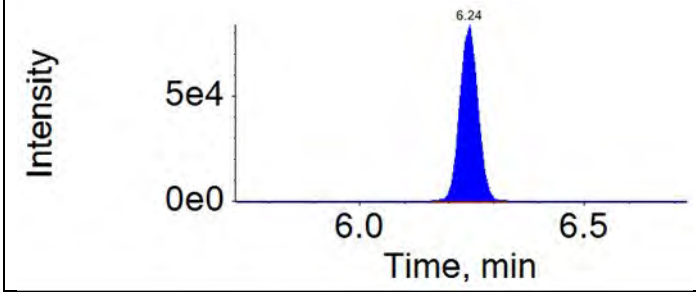


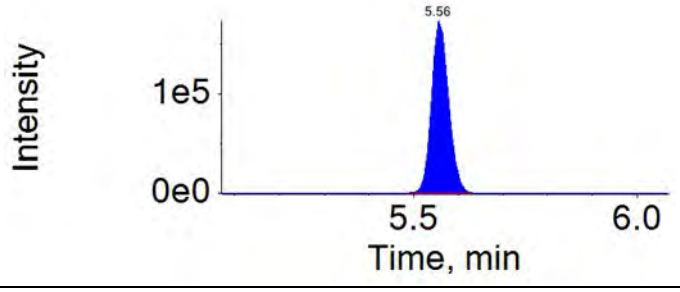
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

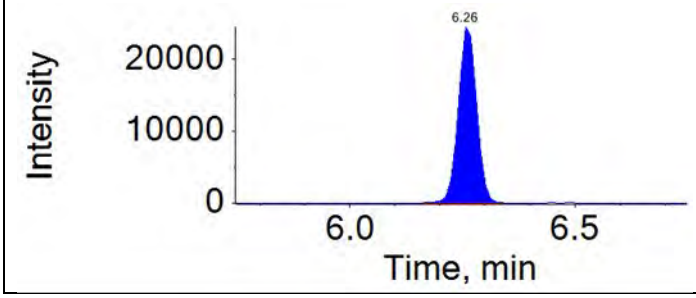
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

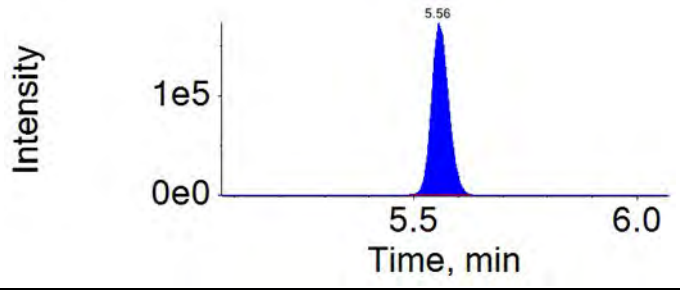
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



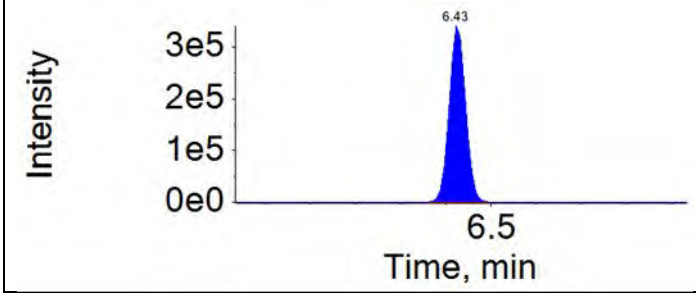


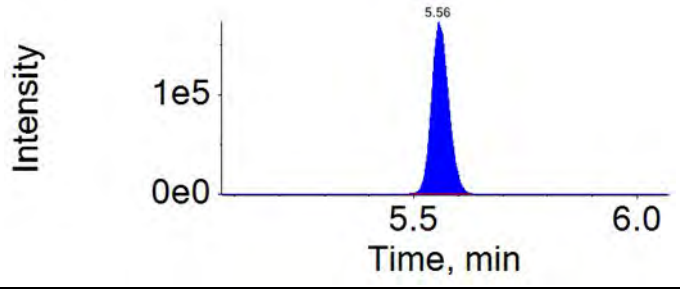
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



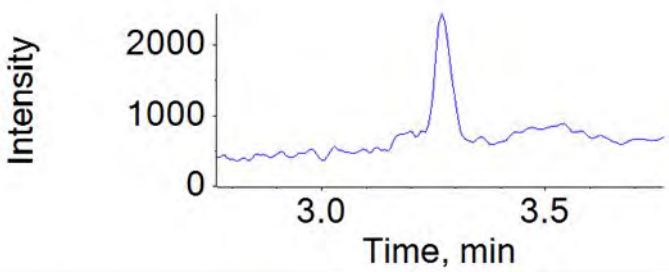


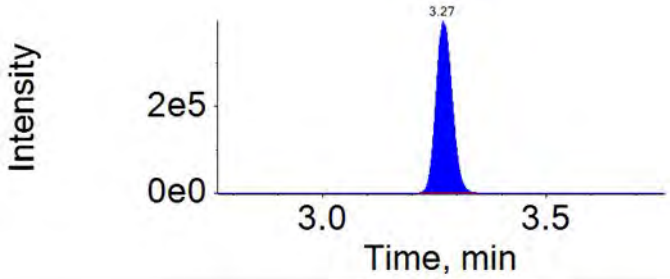
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

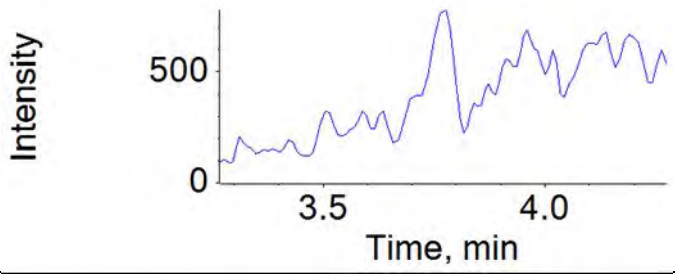
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

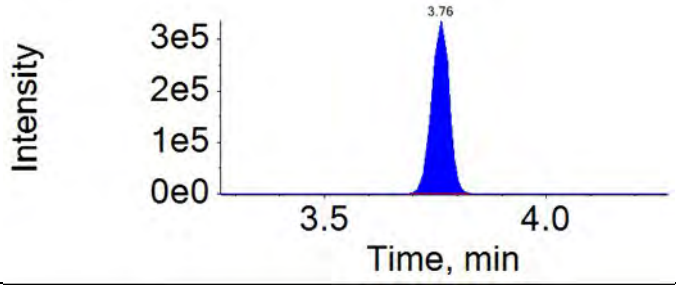
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



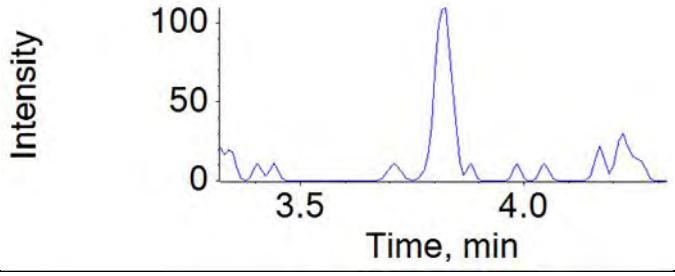


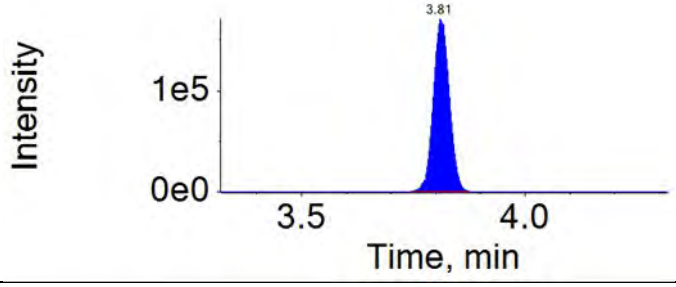
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



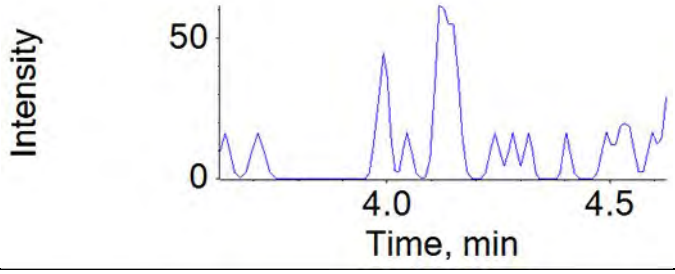


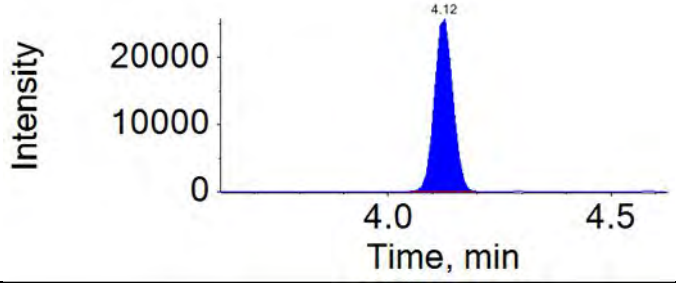
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



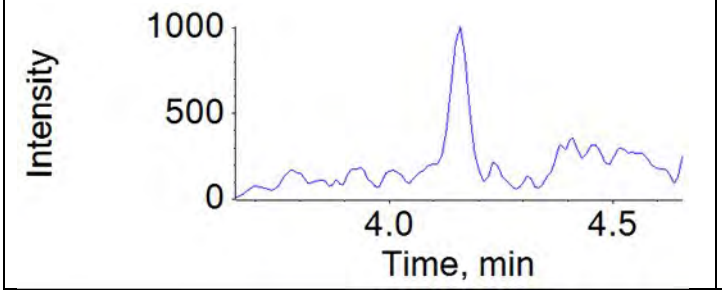


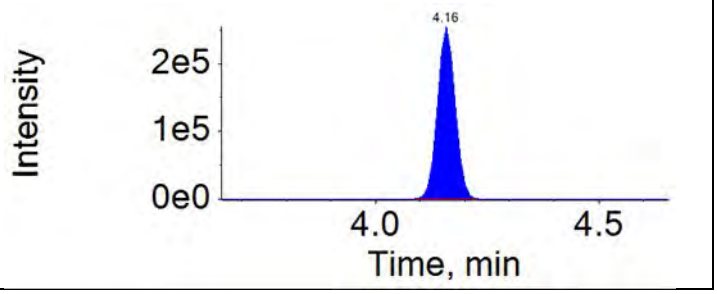
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

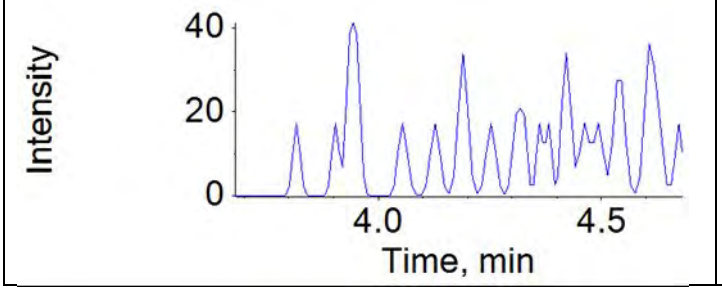
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

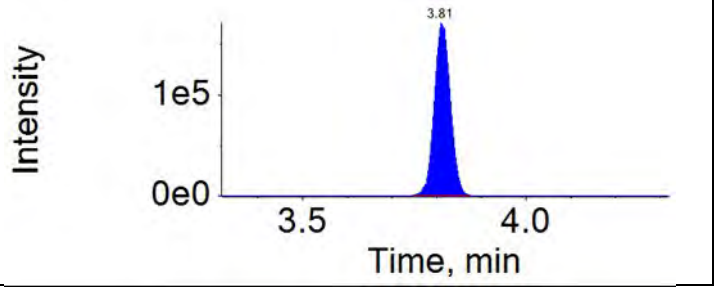
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



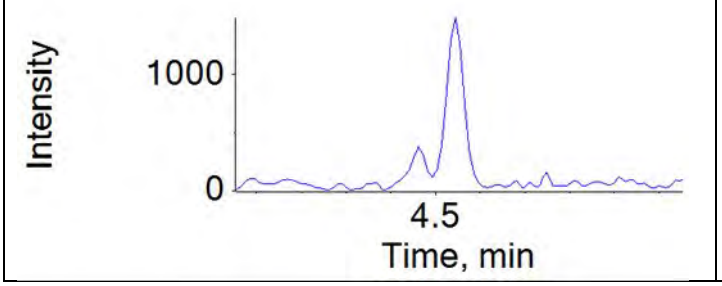


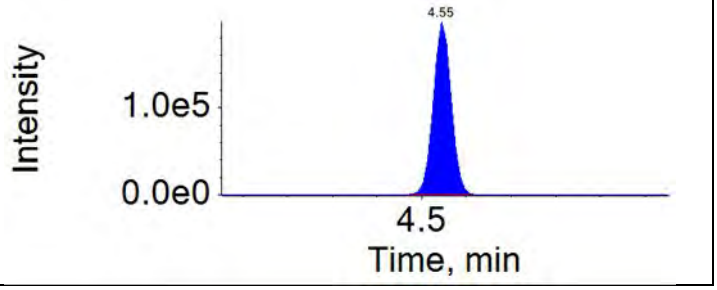
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



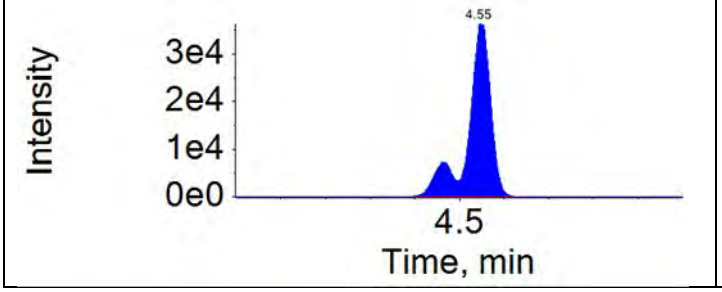


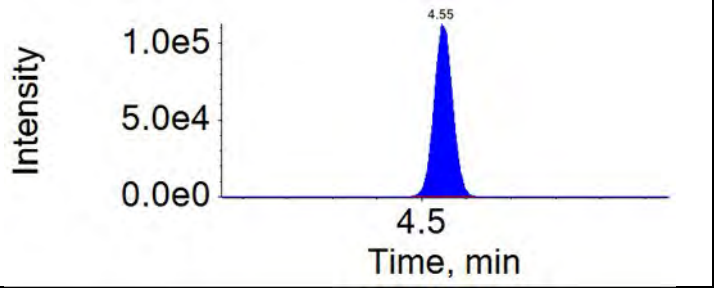
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



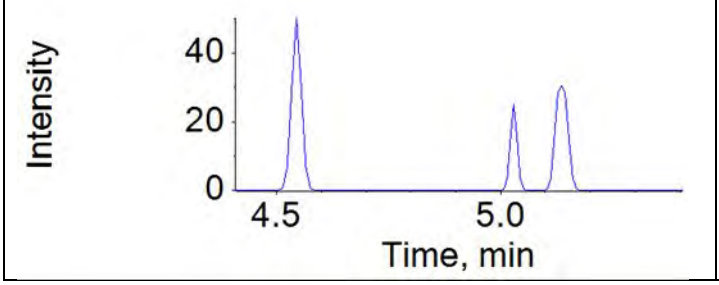


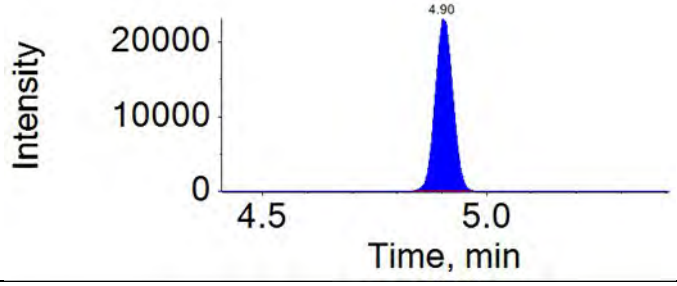
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

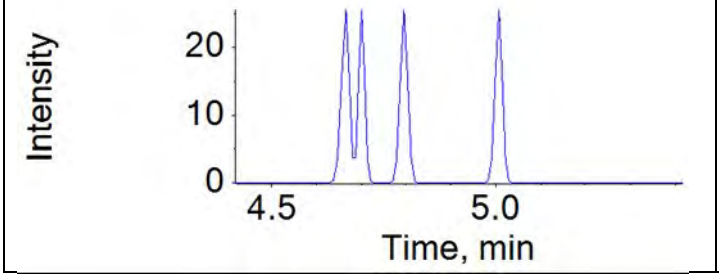
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

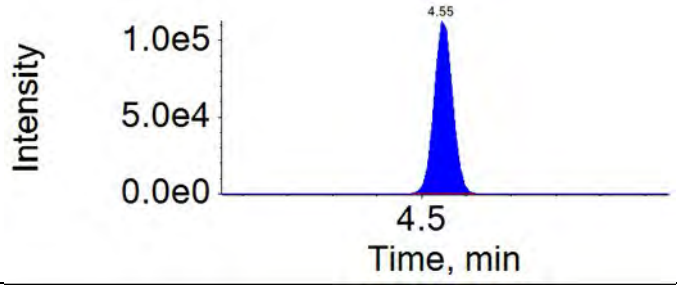
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



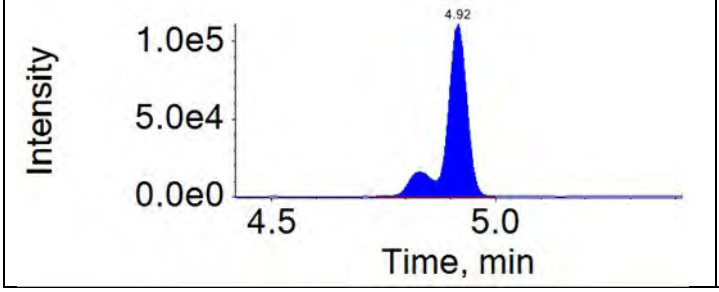


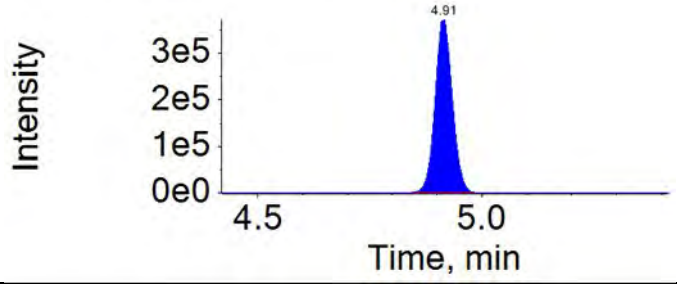
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



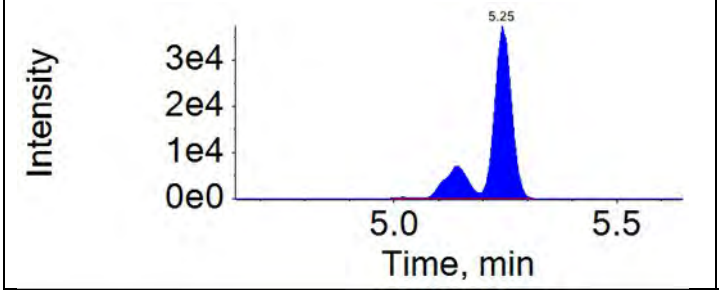


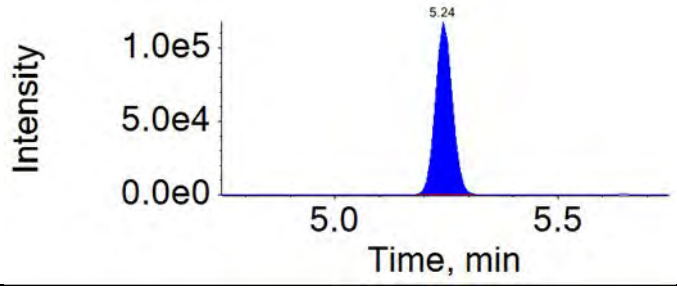
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



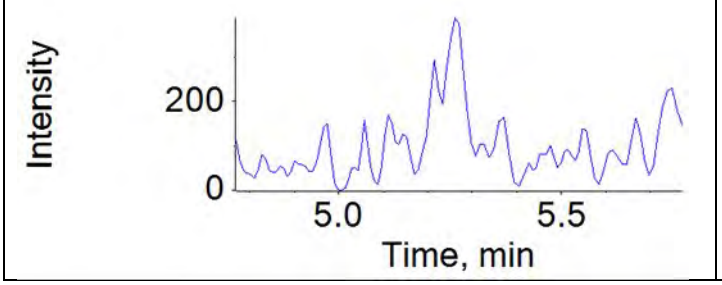


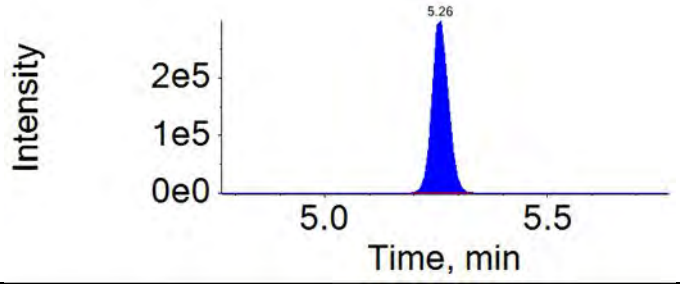
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

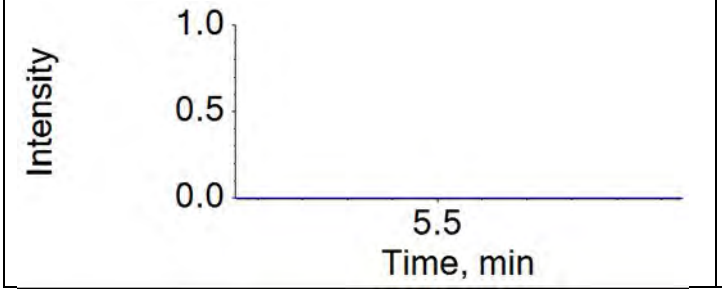
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

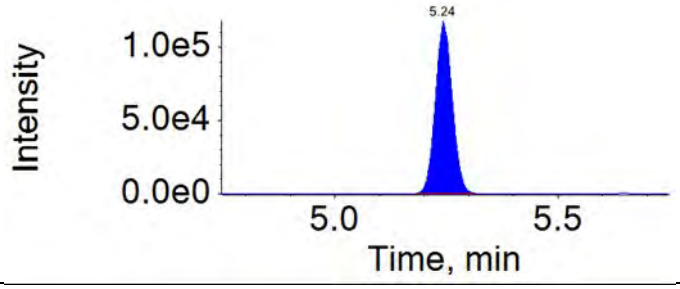
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



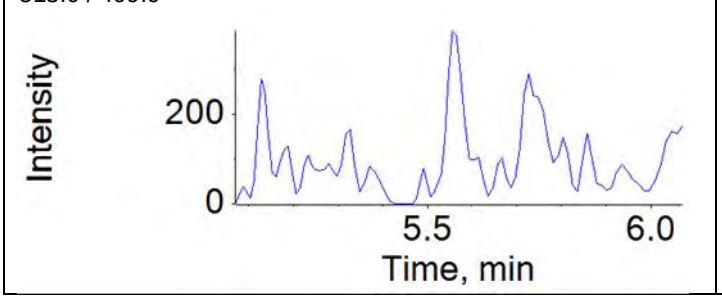


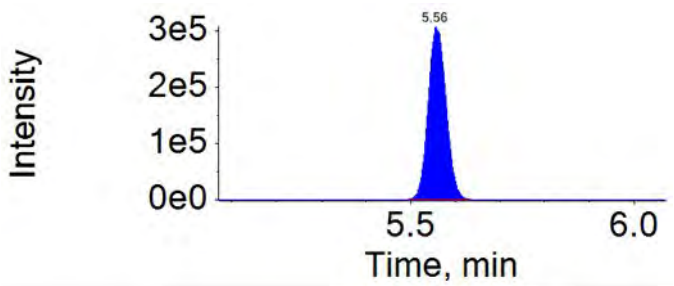
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



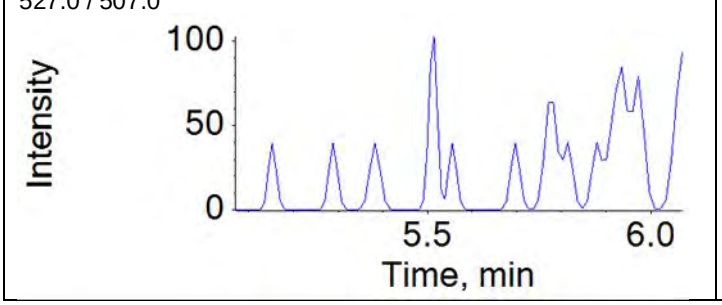


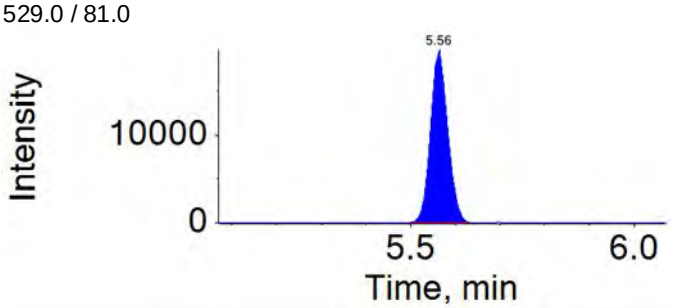
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



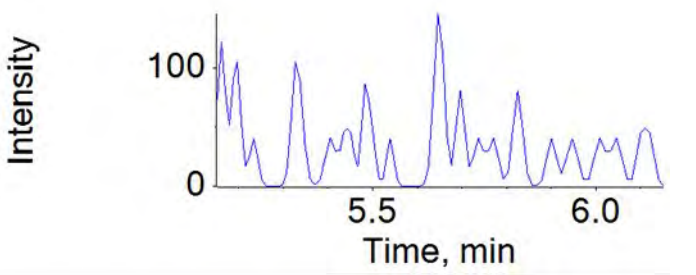


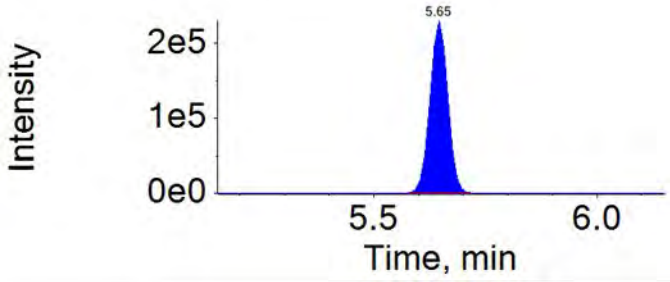
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

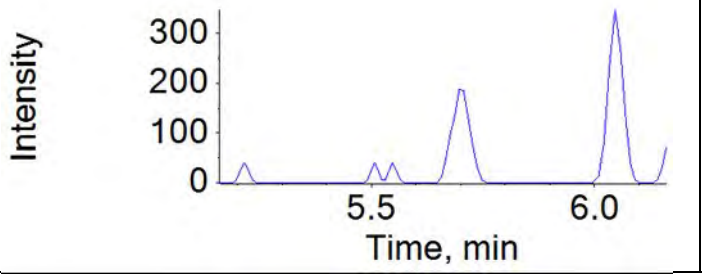
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

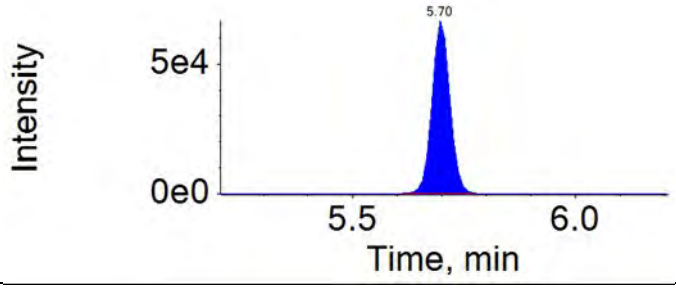
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



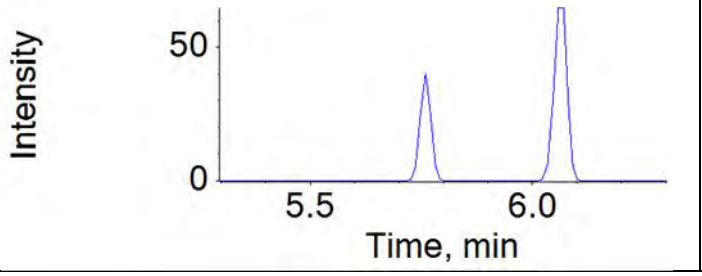


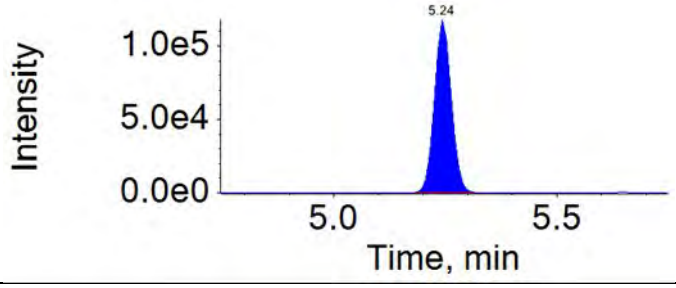
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



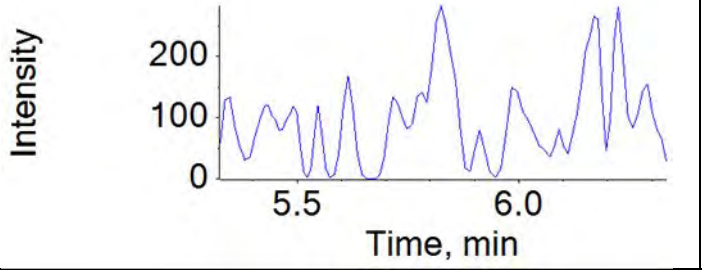


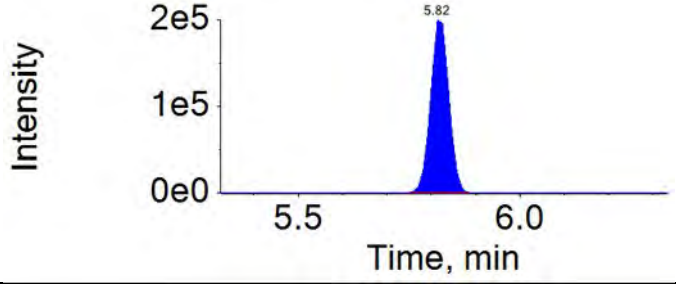
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



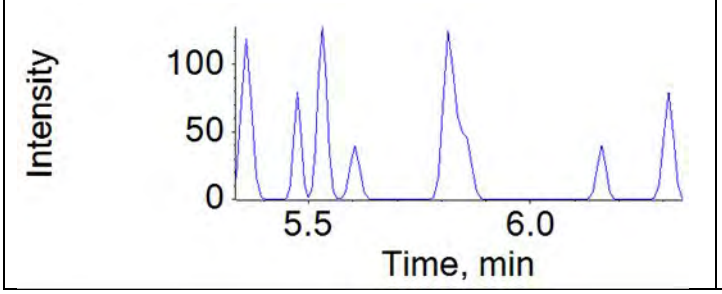


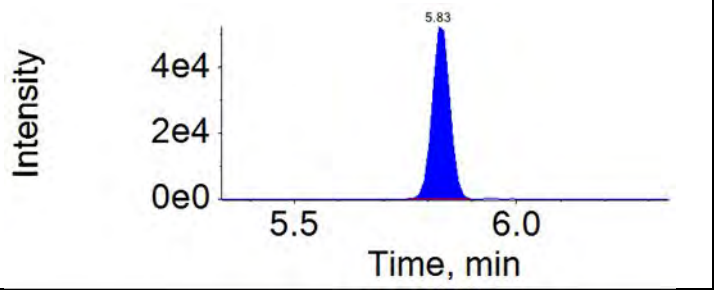
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

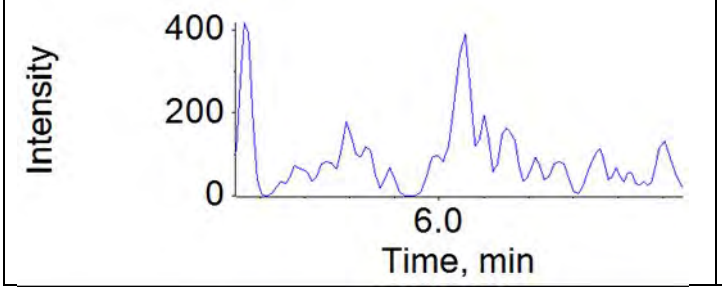
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

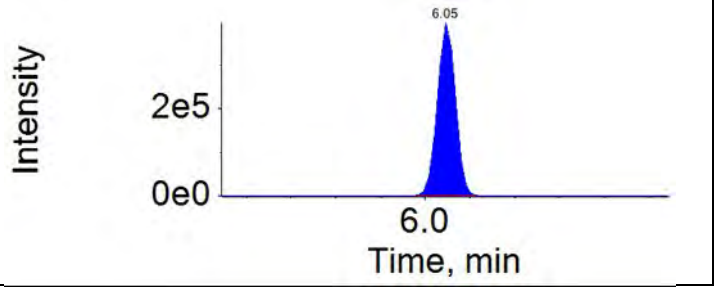
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



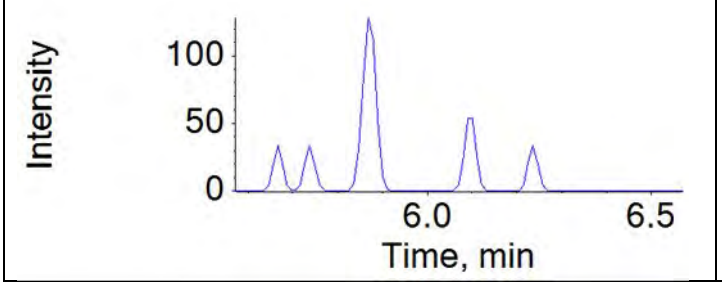


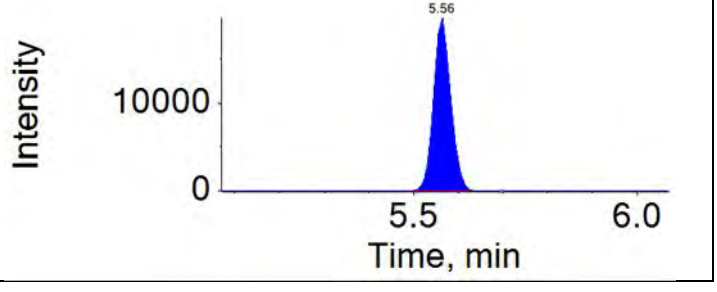
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



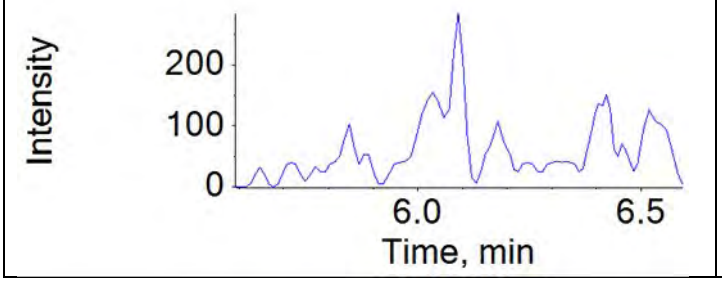


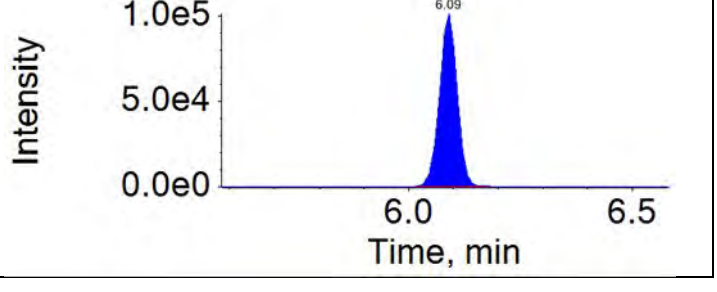
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



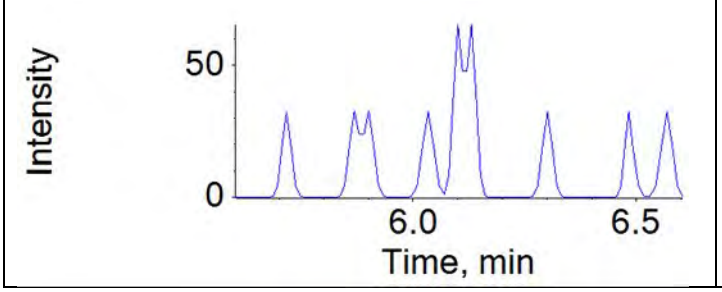


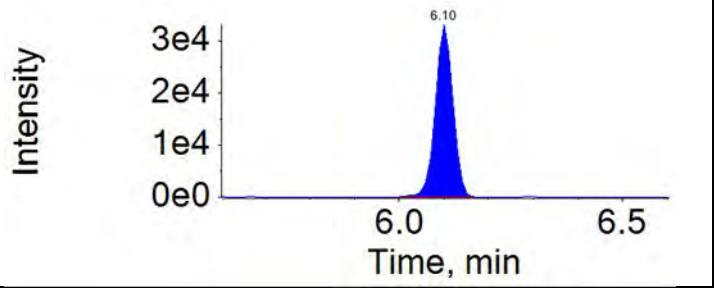
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

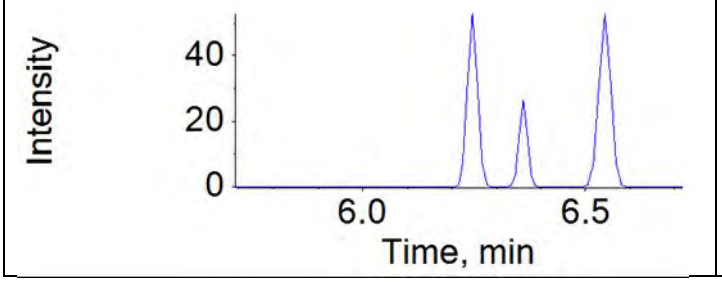
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

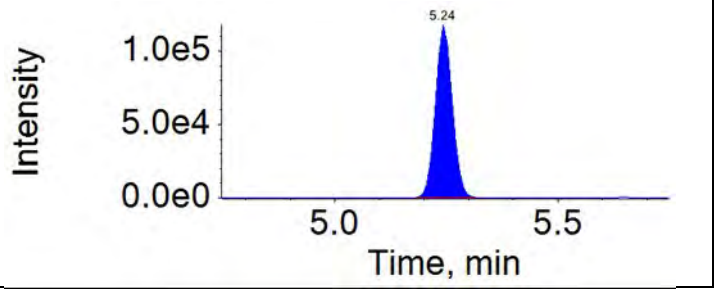
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



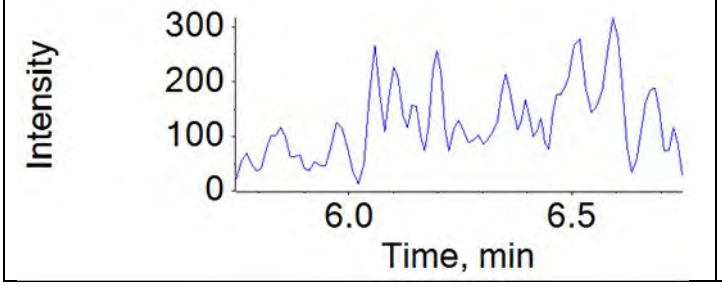


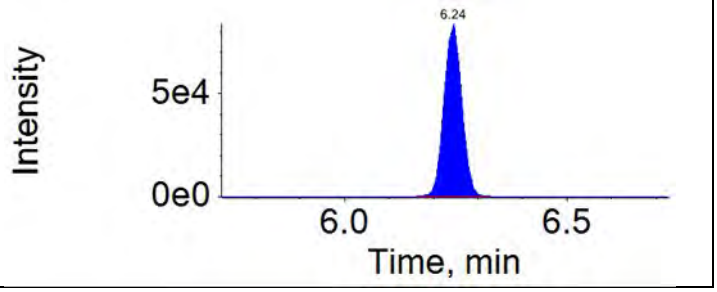
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



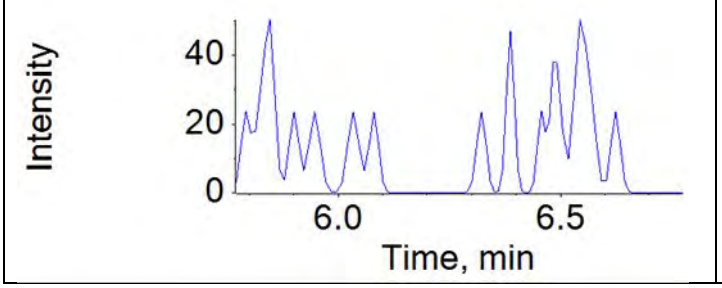


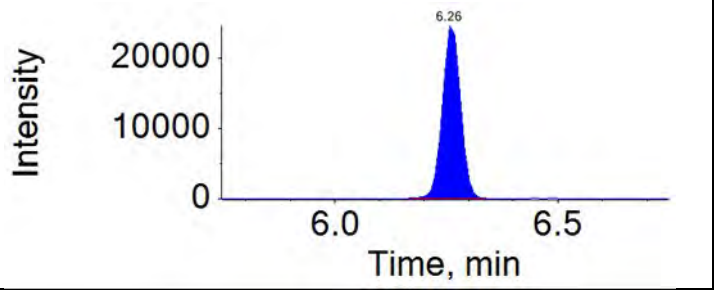
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



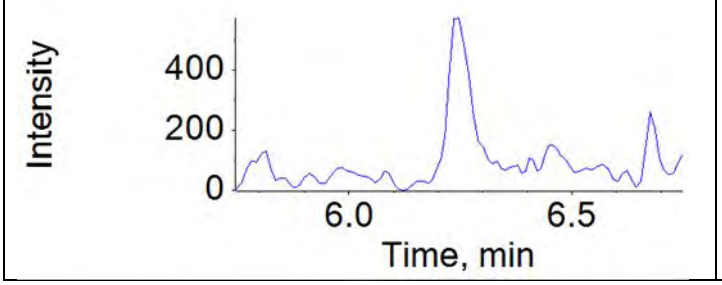


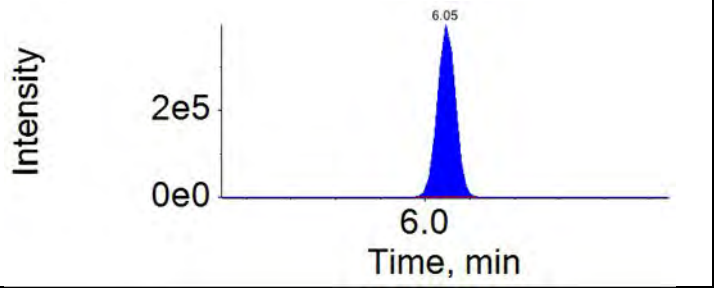
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

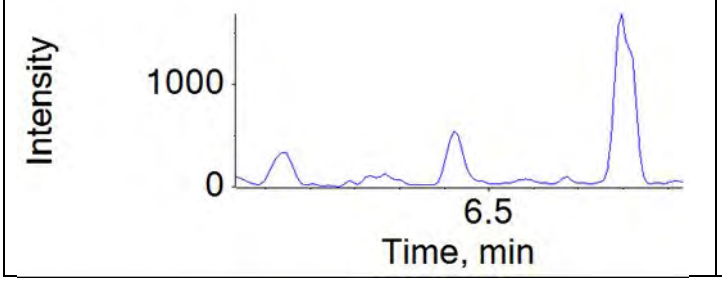
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

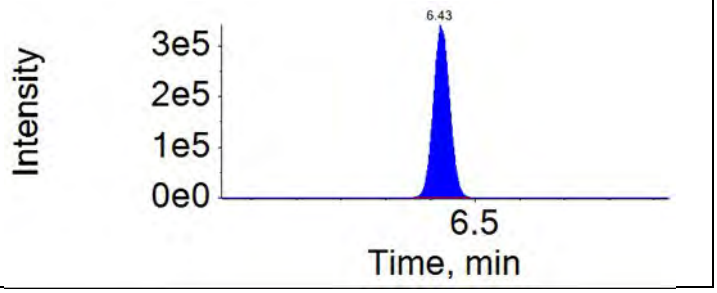
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



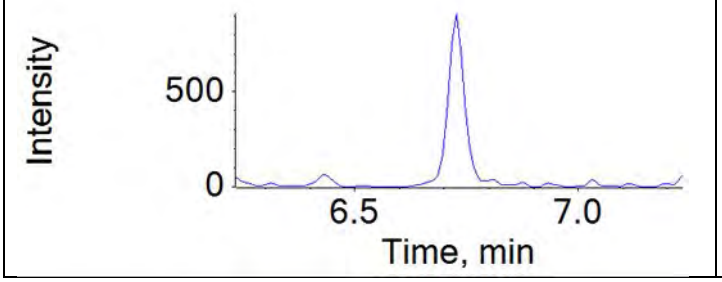


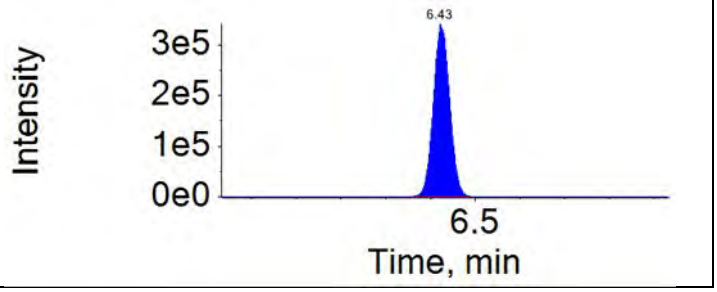
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



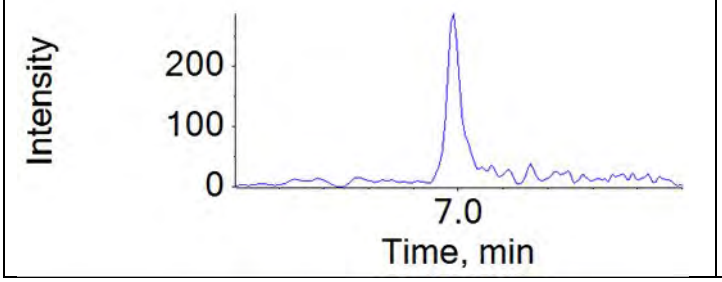


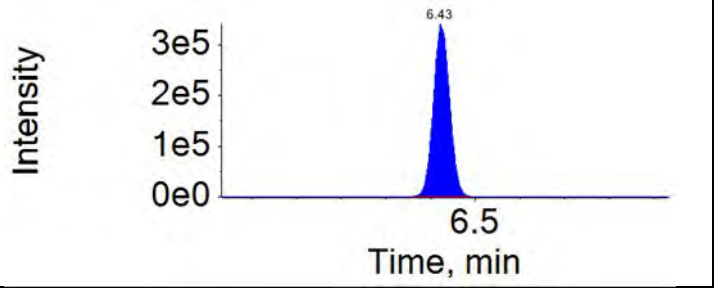
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



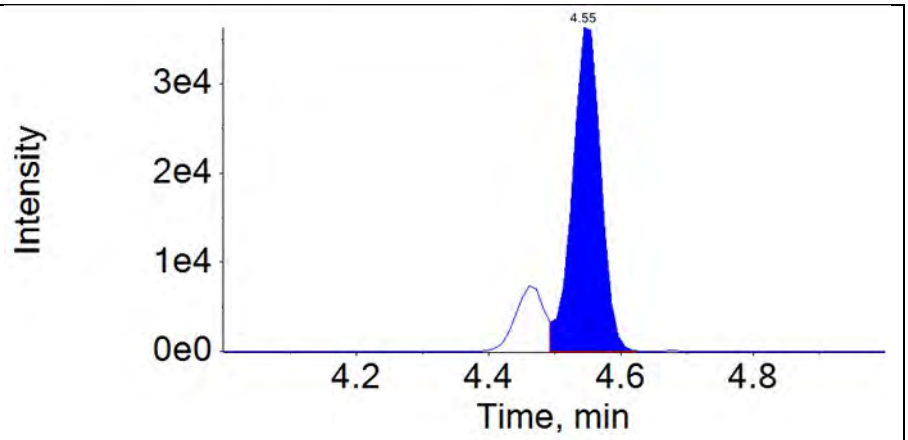


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

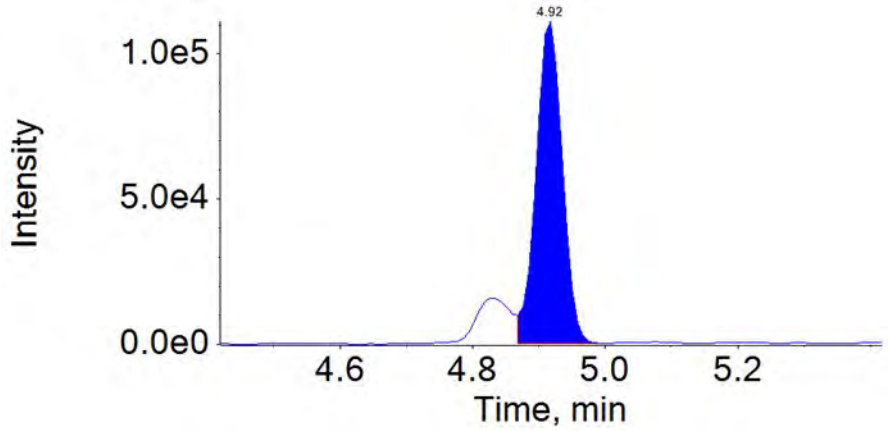
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
108728.54
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



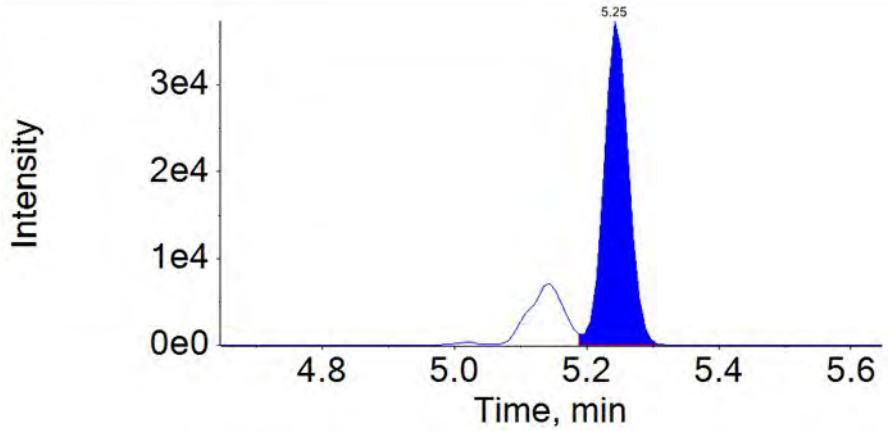
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.92
Peak Area:
305201.60
Mass Range:
413.0 / 369.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
97091.30
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



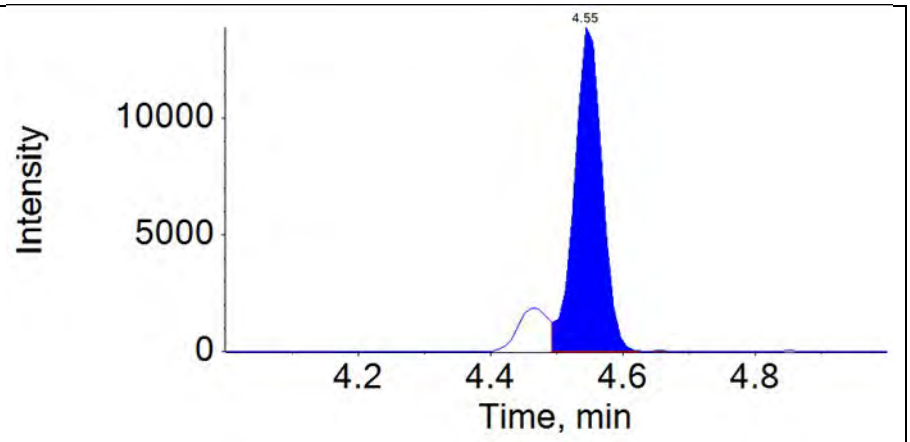
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

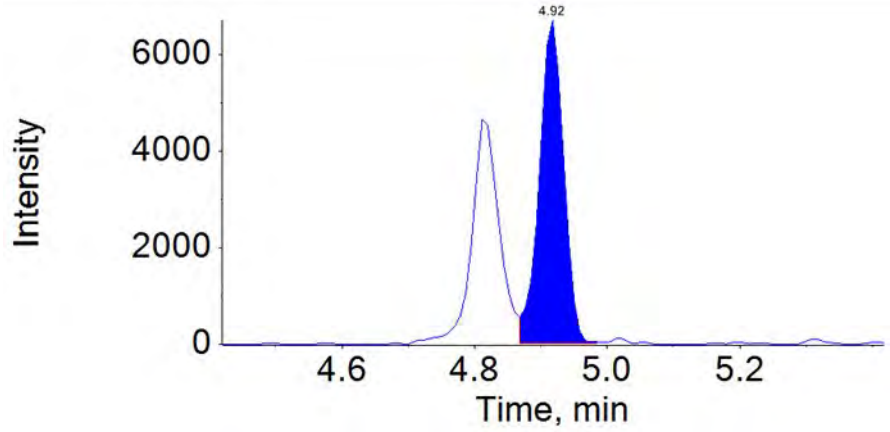
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
40449.59
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



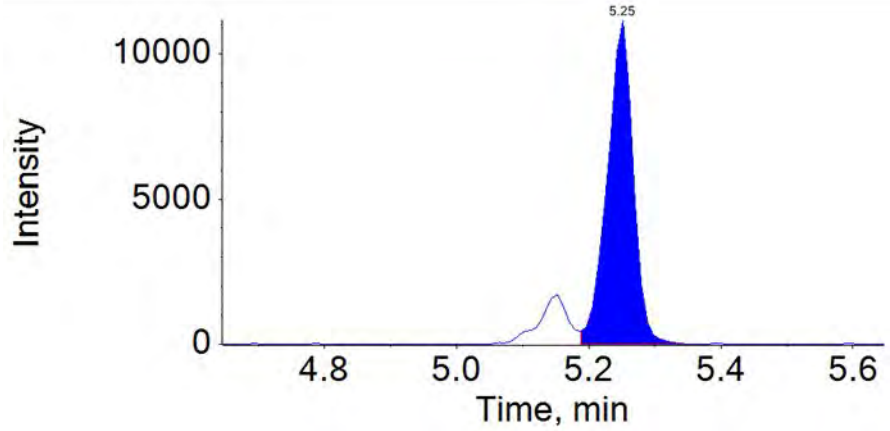
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
17021.00
Mass Range:
413.0 / 169.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
30448.32
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

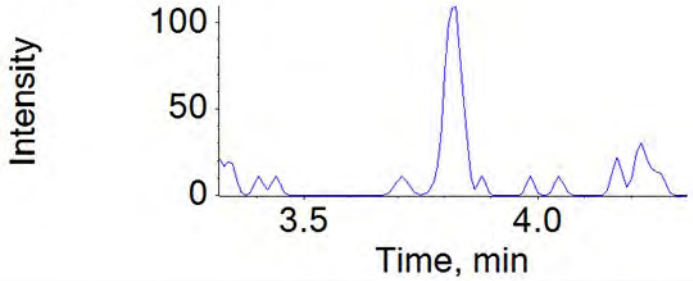
Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-15.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	0.3655	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3655	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	0.6383	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6383	N/A		50	
PFHxA	N/A	N/A	N/A	A	0.0103	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0103	N/A		50	
PFPeS	N/A	N/A	N/A	A	0.4976	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.4976	N/A		50	
PFHpA	N/A	N/A	N/A	A	0.0557	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0557	N/A		50	
PFHxS	4.55	1.00	130205.74	M	0.3693	0.3547			
PFHxS_2	4.55	1.00	46180.22	M	0.3693	0.3547	-4	50	
6:2-FTS	N/A	N/A	N/A	A	0.6625	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6625	N/A		50	
PFHpS	N/A	N/A	N/A	A	0.3915	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3915	N/A		50	
PFOA	4.92	1.00	363985.16	M	0.0573	0.0845			
PFOA_2	4.89	1.00	30759.31	M	0.0573	0.0845	48	50	
PFOS	5.25	1.00	124397.26	M	0.2960	0.2871			
PFOS_2	5.25	1.00	35708.41	M	0.2960	0.2871	-3	50	
PFNA	N/A	N/A	N/A	A	0.0201	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0201	N/A		50	
PFNS	N/A	N/A	N/A	A	0.4794	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4794	N/A		50	
PFDA	N/A	N/A	N/A	A	0.0075	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0075	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	0.5380	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.5380	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	0.2305	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2305	N/A		50	
PFDS	N/A	N/A	N/A	A	0.5356	N/A			
PFDS_2	N/A	N/A	N/A	A	0.5356	N/A		50	
PFUnDA	N/A	N/A	N/A	A	0.0038	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0038	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	0.7356	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.7356	N/A		50	
PFDoDA	N/A	N/A	N/A	A	0.0130	N/A			
PFDoDA_2	N/A	N/A	N/A	A	0.0130	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	0.6989	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.6989	N/A		50	
PFTrDA	N/A	N/A	N/A	A	0.0090	N/A			
PFTrDA_2	N/A	N/A	N/A	A	0.0090	N/A		50	
PFTeDA	N/A	N/A	N/A	A	0.0056	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0056	N/A		50	
PFHxDA	N/A	N/A	N/A	A	0.0646	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0646	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0264	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0264	N/A		50	

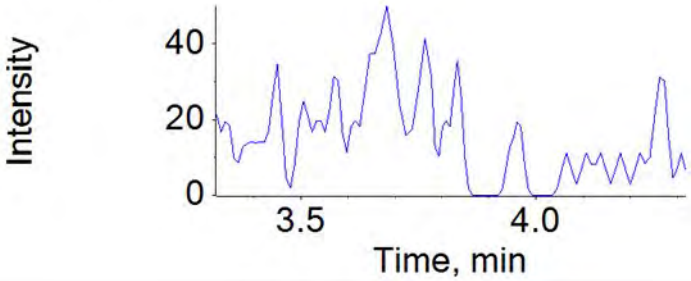
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

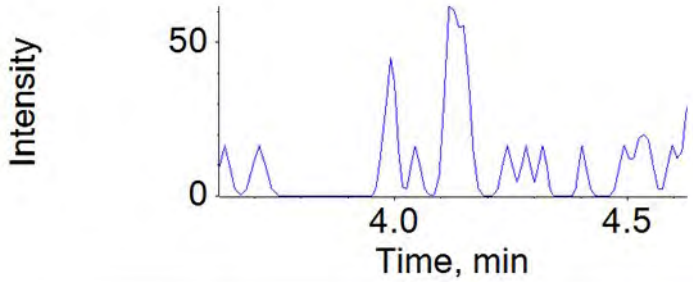
Component: PFBS
Primary Mass: 299.0 / 80.0



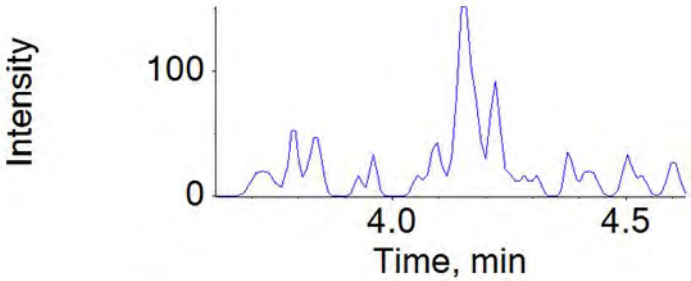
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



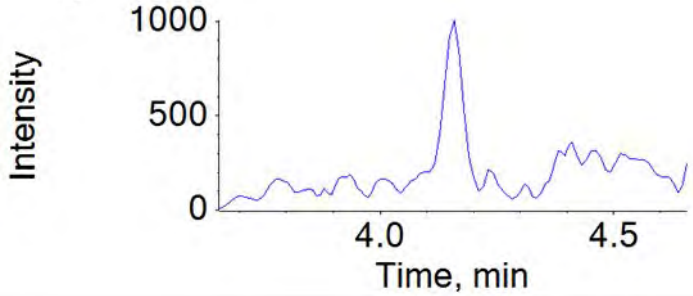
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



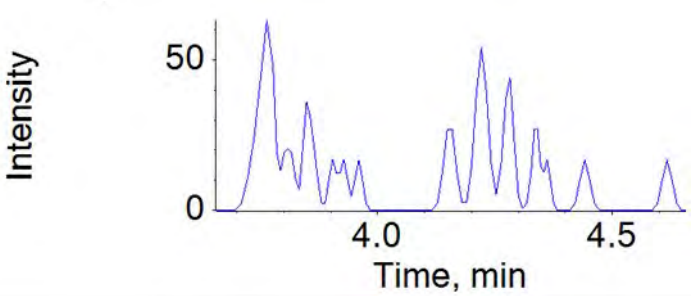
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



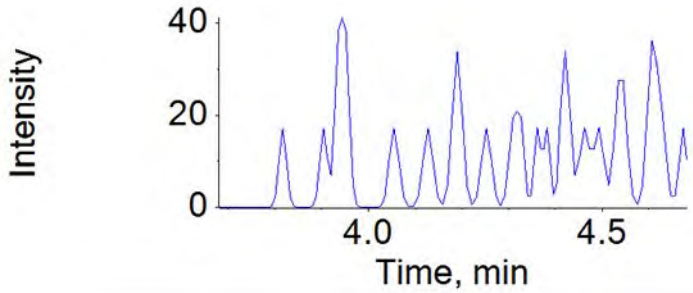
Component: PFHxA
Primary Mass: 313.0 / 269.0



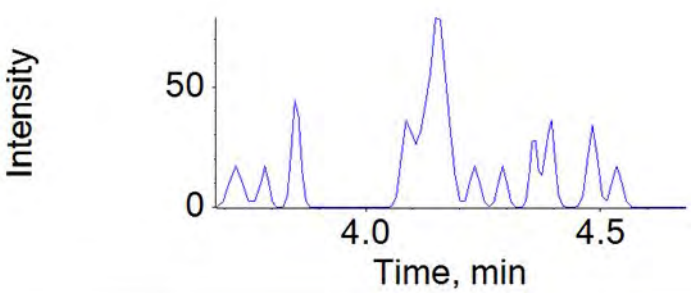
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



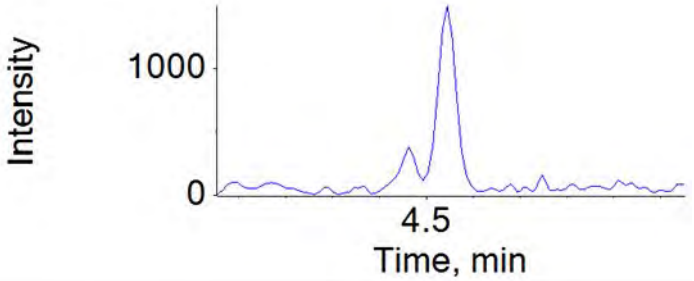
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



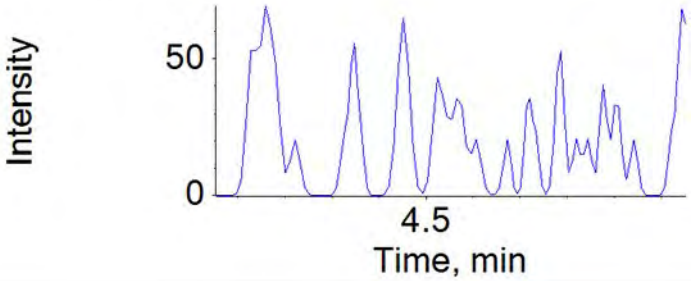
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

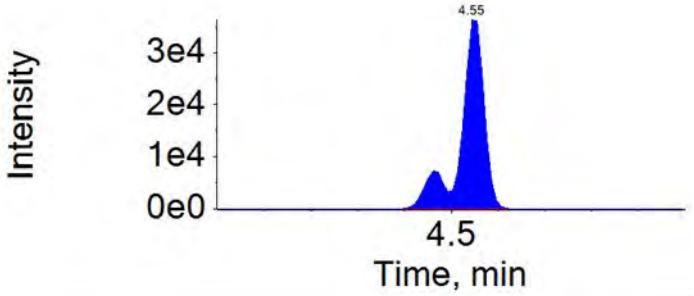
Component: PFHpA
Primary Mass: 363.0 / 319.0



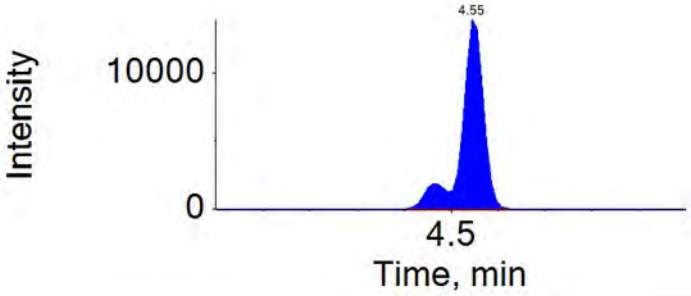
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



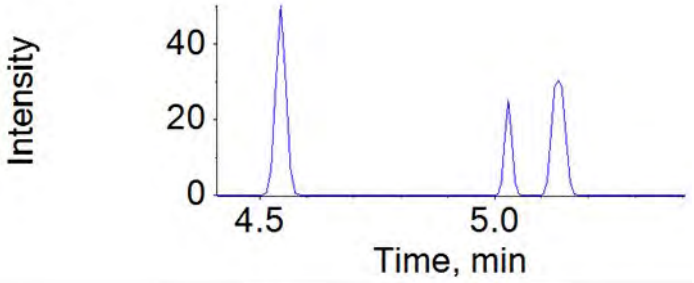
Component: PFHxS
Primary Mass: 399.0 / 80.0



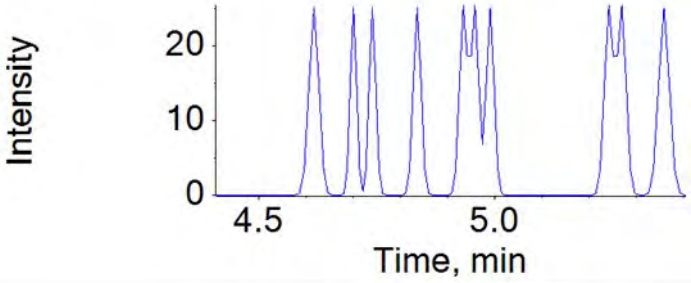
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



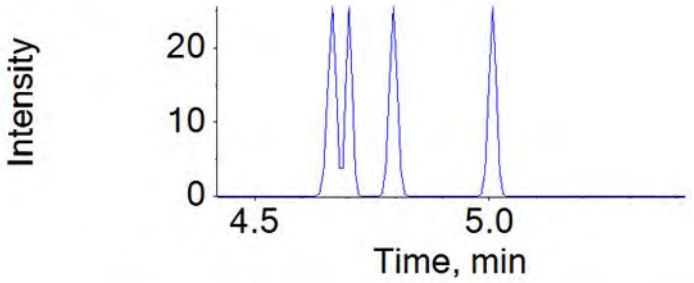
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



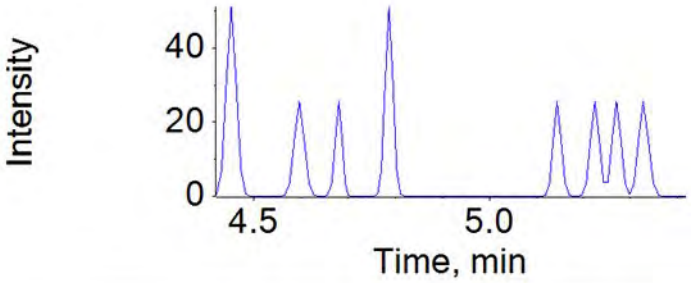
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



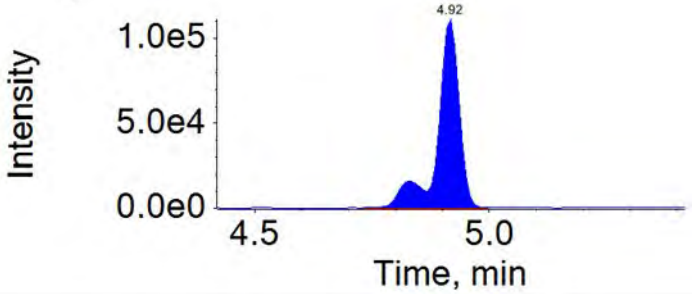
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



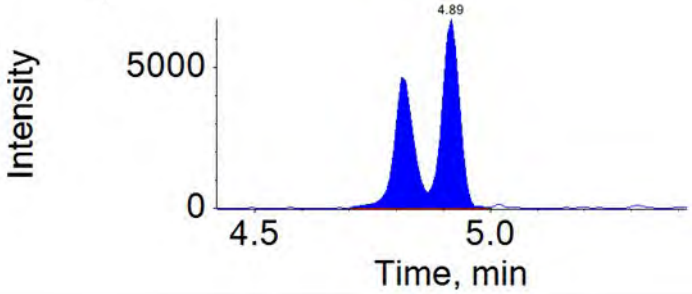
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

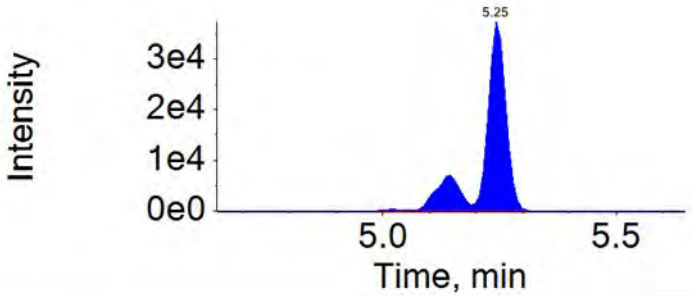
Component: PFOA
Primary Mass: 413.0 / 369.0



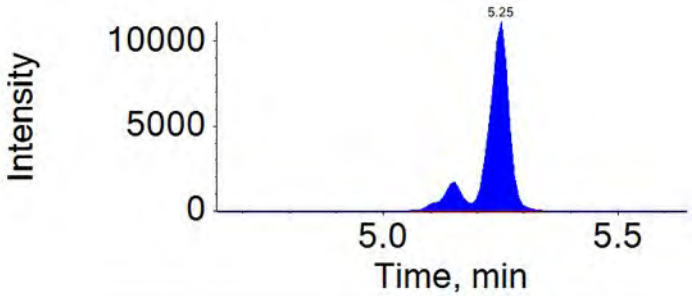
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



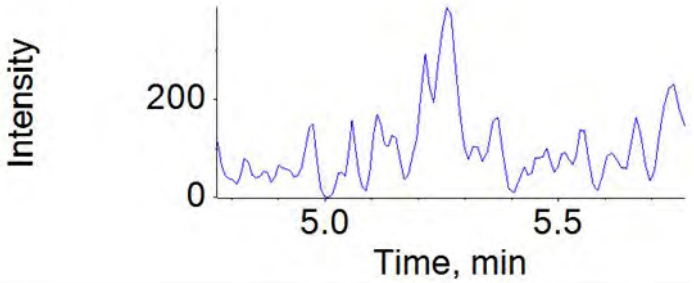
Component: PFOS
Primary Mass: 499.0 / 80.0



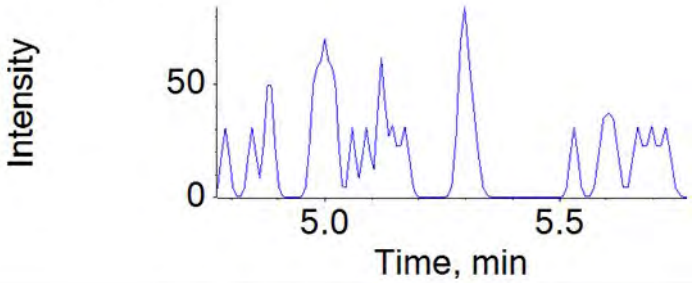
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



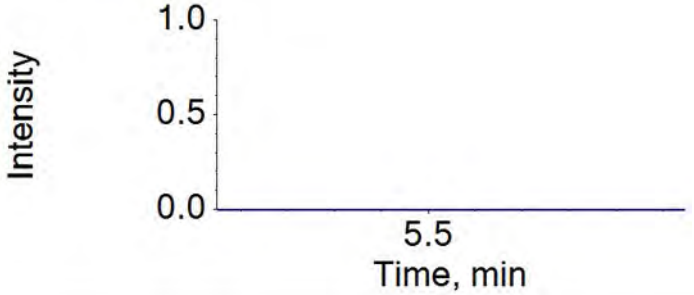
Component: PFNA
Primary Mass: 463.0 / 419.0



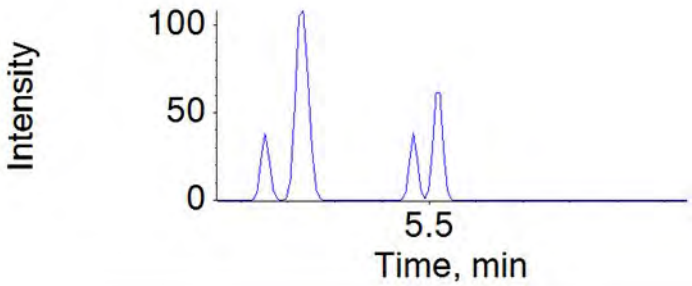
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



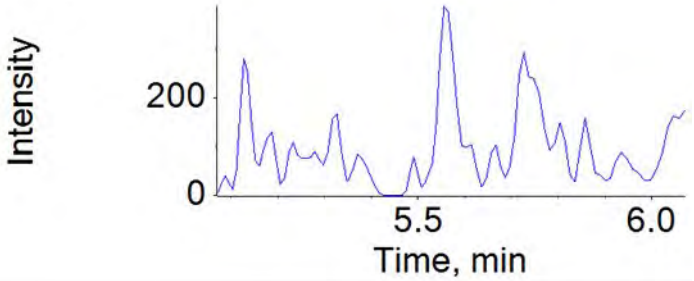
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



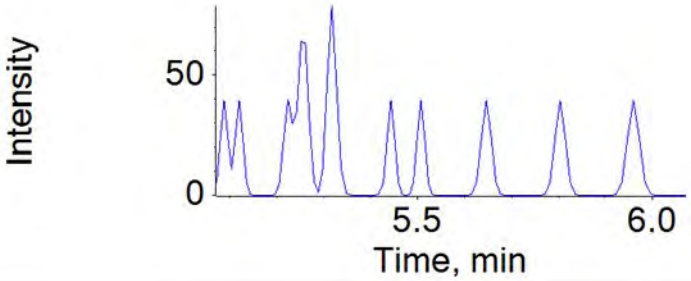
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

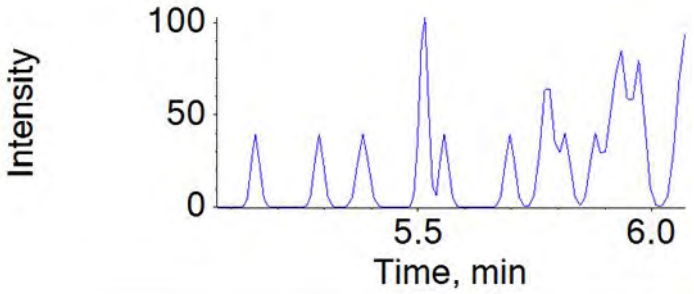
Component: PFDA
Primary Mass: 513.0 / 469.0



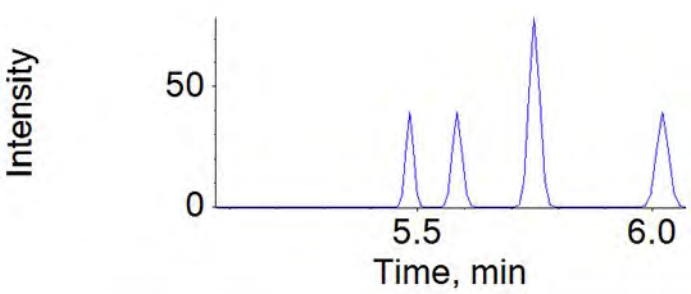
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



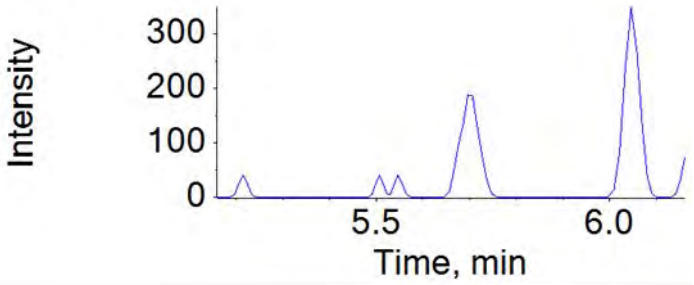
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



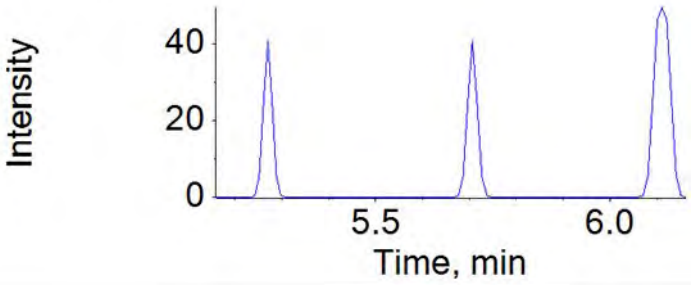
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



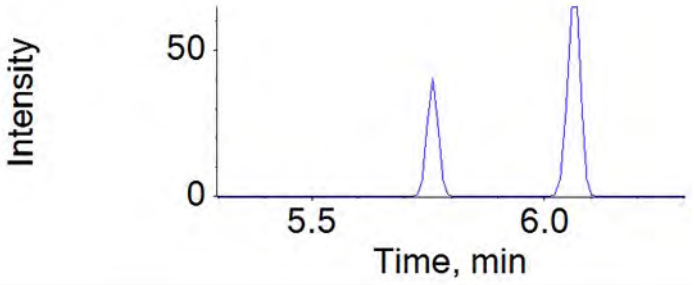
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



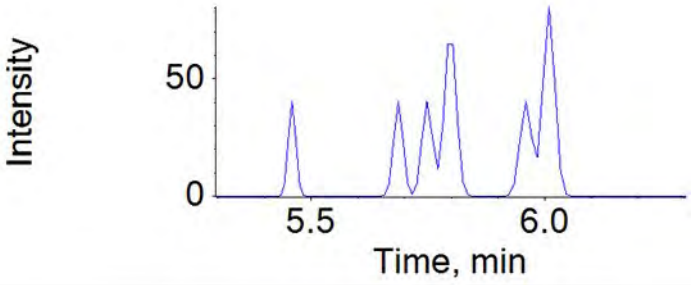
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



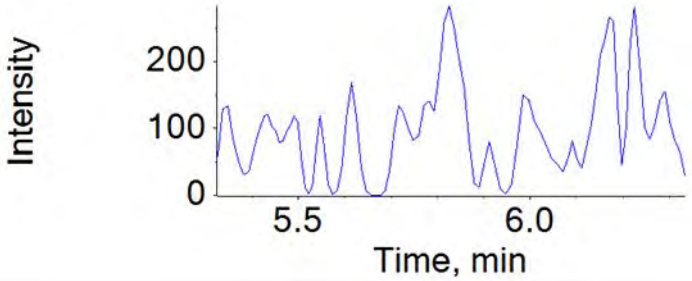
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



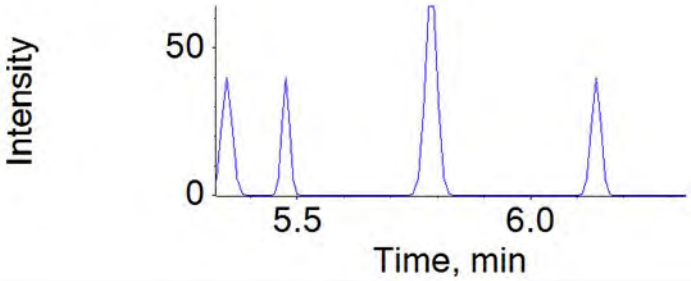
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

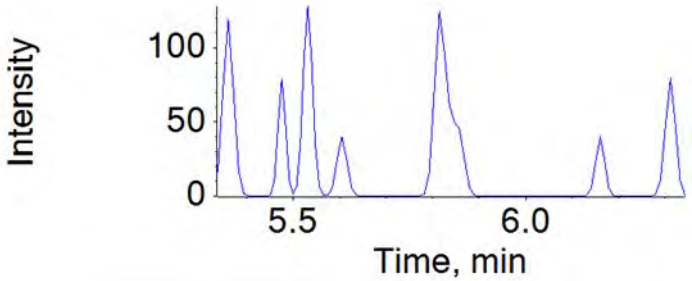
Component: PFUnDA
Primary Mass: 563.0 / 519.0



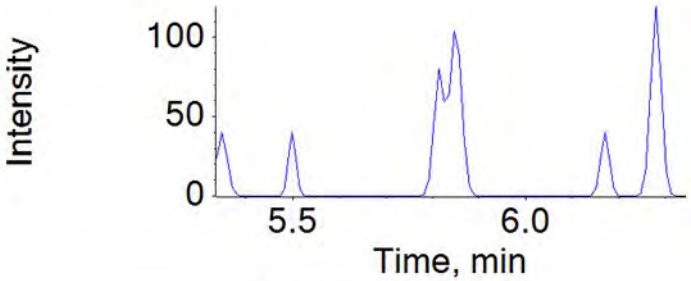
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



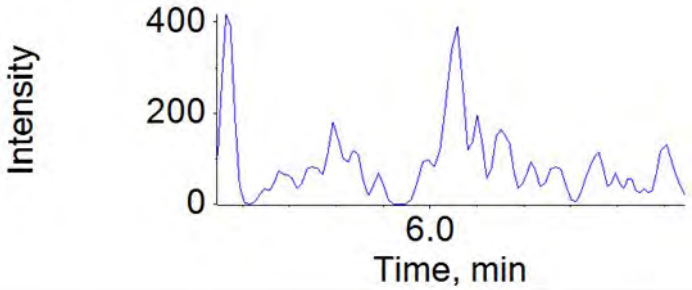
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



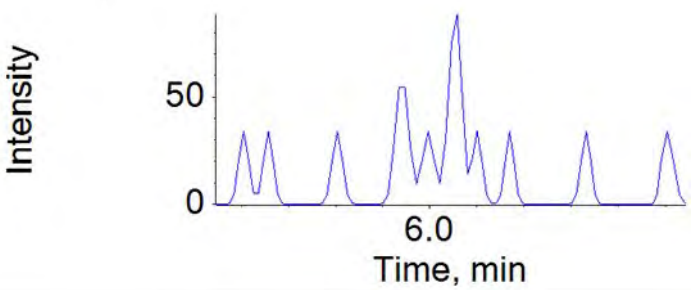
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



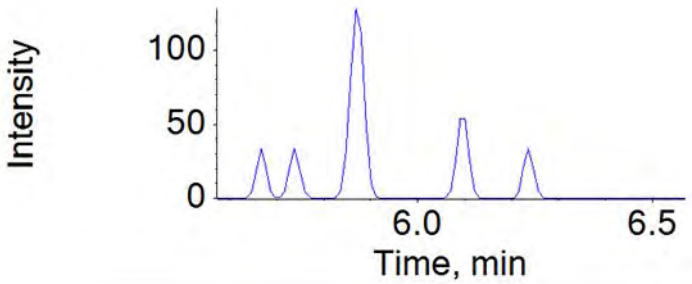
Component: PFDoDA
Primary Mass: 613.0 / 569.0



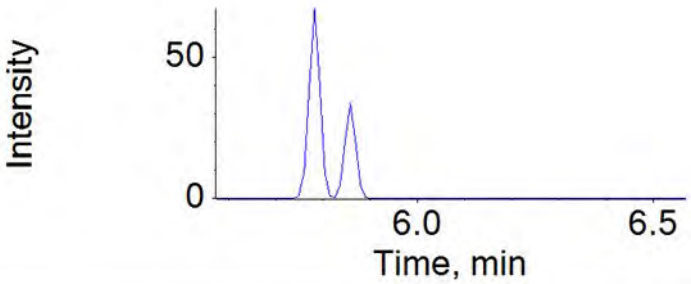
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



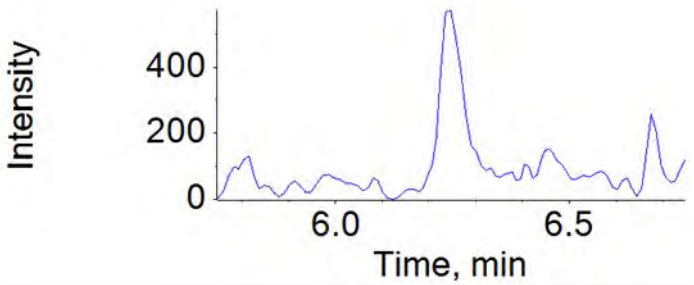
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



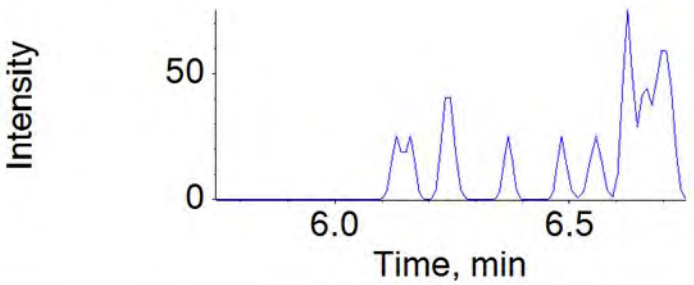
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

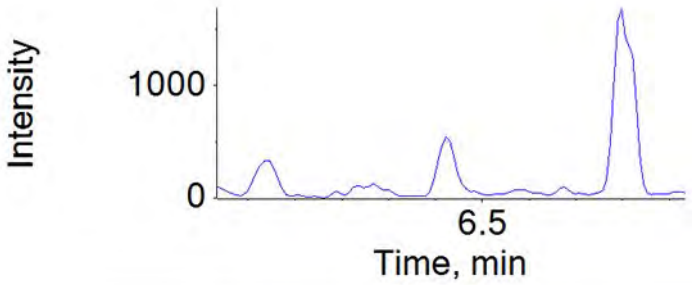
Component: PFTrDA
Primary Mass: 663.0 / 619.0



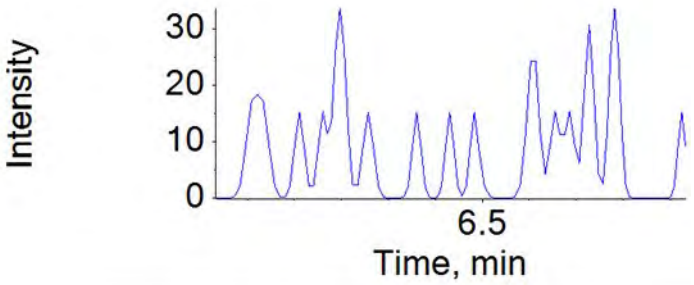
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



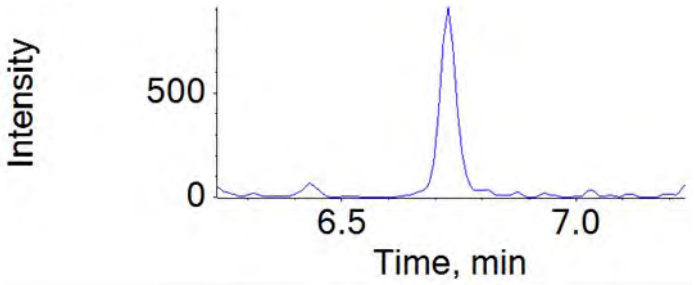
Component: PFTeDA
Primary Mass: 713.0 / 669.0



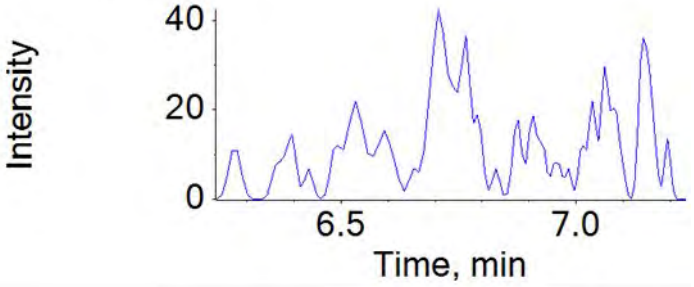
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



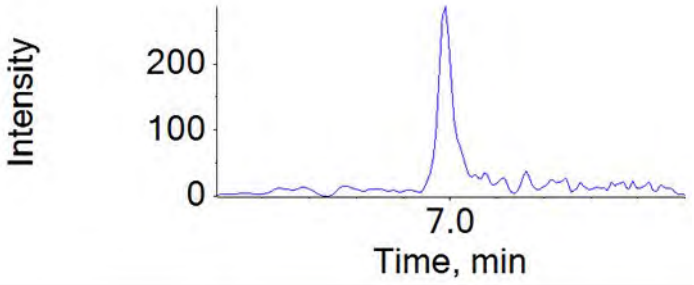
Component: PFHxDA
Primary Mass: 813.0 / 769.0



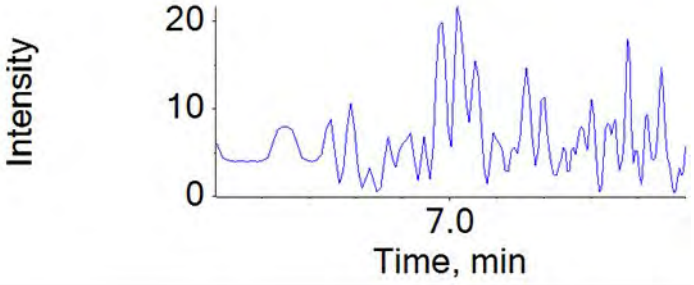
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



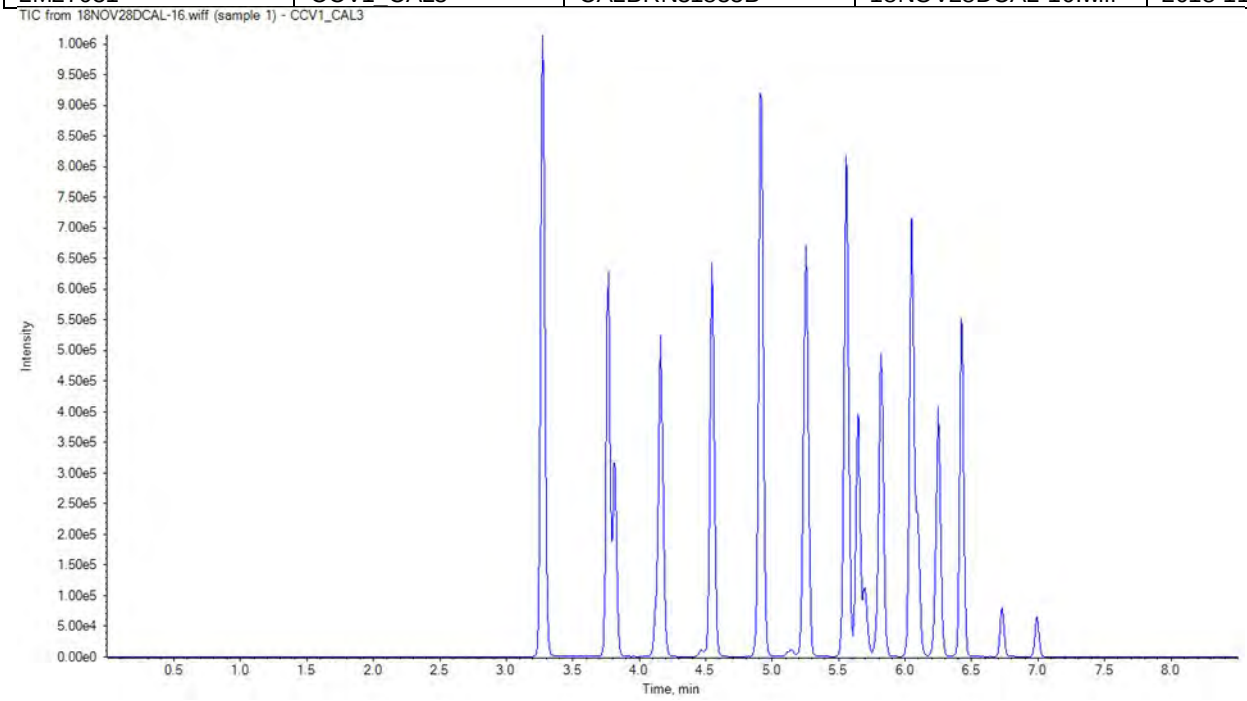
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV28DCAL-16.wiff	2018-11-28T15:12:25



Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892121.8	887248.9	1	50	
13C2-PFOA	5.0	497344.6	498501.6	0	50	
13C4-PFOS	4.8	284800.9	283214.2	1	50	
13C2-PFDA	5.0	454750.4	441790.6	3	50	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV28DCAL-16.wiff	2018-11-28T15:12:25

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	414227.9	10	13C4-PFBA	991560.8	5.0	0.418	3.27	1.000	2.000	2.290	15	30	
PFPeA	406639.4	11	13C5-PFPeA	929799.0	5.0	0.437	3.77	1.000	2.000	2.146	7	30	
PFBS	166250.1	10	13C3-PFBS	423837.8	4.7	0.392	3.82	1.000	1.770	1.904	8	30	
4:2-FTS	56074.3	12	13C2-4:2-FTS	71502.2	4.7	0.784	4.13	1.000	1.870	2.099	12	30	
PFHxA	390006.3	12	13C5-PFHxA	673646.8	5.0	0.579	4.16	1.000	2.000	2.324	16	30	
PFPeS	88012.7	11	13C3-PFBS	423837.8	4.7	0.208	4.18	1.100	1.880	2.100	12	30	
PFHpA	393155.9	12	13C4-PFHpA	569502.8	5.0	0.690	4.55	1.000	2.000	2.131	7	30	
PFHxS	124485.3	18	13C3-PFHxS	316482.8	4.7	0.393	4.55	1.000	1.820	1.842	1	30	
6:2-FTS	55151.1	11	13C2-6:2-FTS	61242.4	4.8	0.901	4.90	1.000	1.900	2.350	24	30	
PFHpS	131029.4	11	13C3-PFHxS	316482.8	4.7	0.414	4.91	1.080	1.900	2.066	9	30	
PFOA	408992.7	11	13C8-PFOA	983417.9	5.0	0.416	4.92	1.000	2.000	2.149	7	30	
PFOS	137181.4	22	13C8-PFOS	303782.8	4.8	0.452	5.24	1.000	1.850	1.894	2	30	
PFNA	376585.8	11	13C9-PFNA	609889.2	5.0	0.617	5.26	1.000	2.000	2.366	18	30	
PFNS	94448.6	11	13C8-PFOS	303782.8	4.8	0.311	5.54	1.060	1.920	1.963	2	30	
PFDA	356261.0	11	13C6-PFDA	847665.4	5.0	0.420	5.56	1.000	2.000	2.379	19	30	
8:2-FTS	52676.1	12	13C2-8:2-FTS	53005.7	4.8	0.994	5.56	1.000	1.920	1.874	-2	30	
PFOSA	260574.1	12	13C8-PFOSA	629466.4	5.0	0.414	5.65	1.000	2.000	2.097	5	30	
NMeFOSAA	60912.6	18	d3-NMeFOSAA	187136.0	5.0	0.325	5.70	1.000	2.000	2.076	4	30	
PFDS	79486.5	12	13C8-PFOS	303782.8	4.8	0.262	5.79	1.100	1.930	2.075	7	30	
PFUnDA	368116.8	11	13C7-PFUnDA	549493.3	5.0	0.670	5.82	1.000	2.000	2.395	20	30	
NEtFOSAA	56175.4	22	d5-NEtFOSAA	144117.8	5.0	0.390	5.83	1.000	2.000	1.898	-5	30	
PFDoDA	480438.7	11	13C2-PFDoDA	1057435.2	5.0	0.454	6.05	1.000	2.000	2.489	24	30	
10:2-FTS	53244.1	12	13C2-8:2-FTS	53005.7	4.8	1.004	6.06	1.090	1.930	2.215	15	30	
NMePFOSAE	131874.4	12	d7-NMePFOSAE	263888.3	5.0	0.500	6.10	1.000	2.000	2.103	5	30	
NMePFOSA	35042.2	11	d3-NMePFOSA	87880.7	5.0	0.399	6.11	1.000	2.000	2.114	6	30	
PFDoS	41532.8	11	13C8-PFOS	303782.8	4.8	0.137	6.22	1.190	1.940	1.963	1	30	
NEtPFOSAE	145278.6	11	d9-NEtPFOSAE	227340.4	5.0	0.639	6.26	1.000	2.000	2.299	15	30	
NEtPFOSA	31416.5	11	d5-NEtPFOSA	63430.0	5.0	0.495	6.27	1.000	2.000	2.220	11	30	
PFTrDA	453601.4	11	13C2-PFDoDA	1057435.2	5.0	0.429	6.25	1.030	2.000	2.586	29	30	
PFTeDA	333159.1	11	13C2-PFTeDA	823659.2	5.0	0.404	6.43	1.000	2.000	2.292	15	30	
PFHxDA	160272.7	11	13C2-PFTeDA	823659.2	5.0	0.195	6.73	1.050	2.000	2.224	11	30	
PFODA	137372.8	10	13C2-PFTeDA	823659.2	5.0	0.167	6.99	1.090	2.000	2.222	11	30	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3			**Data File:**		18NOV28DCAL-16.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-28T15:12:25
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV28DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892121.8	887248.9	1	50	
13C2-PFOA	5.0	497344.6	498501.6	0	50	
13C4-PFOS	4.8	284800.9	283214.2	1	50	
13C2-PFDA	5.0	454750.4	441790.6	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	991560.8	13C3-PFBA	892121.8	1.111	5.000	4.959	99	70-130	
E13C5-PFPeA	929799.0	13C3-PFBA	892121.8	1.042	5.000	4.867	97	70-130	
E13C3-PFBS	423837.8	13C3-PFBA	892121.8	0.475	4.650	4.533	97	70-130	
E13C2-4:2-FTS	71502.2	13C2-PFOA	497344.6	0.144	4.670	4.955	106	70-130	
E13C5-PFHxA	673646.8	13C2-PFOA	497344.6	1.354	5.000	4.975	100	70-130	
E13C3-PFHxS	316482.8	13C2-PFOA	497344.6	0.636	4.730	4.988	105	70-130	
E13C4-PFHpA	569502.8	13C2-PFOA	497344.6	1.145	5.000	5.262	105	70-130	
E13C2-6:2-FTS	61242.4	13C2-PFOA	497344.6	0.123	4.750	5.155	109	70-130	
E13C8-PFOA	983417.9	13C2-PFOA	497344.6	1.977	5.000	5.443	109	70-130	
E13C8-PFOS	303782.8	13C4-PFOS	284800.9	1.067	4.780	4.815	101	70-130	
E13C9-PFNA	609889.2	13C4-PFOS	284800.9	2.141	5.000	4.703	94	70-130	
E13C6-PFDA	847665.4	13C2-PFDA	454750.4	1.864	5.000	5.256	105	70-130	
E13C2-8:2-FTS	53005.7	13C2-PFDA	454750.4	0.117	4.790	5.010	105	70-130	
E13C8-PFOSA	629466.4	13C2-PFDA	454750.4	1.384	5.000	5.079	102	70-130	
Ed3-NMeFOSAA	187136.0	13C2-PFDA	454750.4	0.412	5.000	5.225	104	70-130	
E13C7-PFUnDA	549493.3	13C2-PFDA	454750.4	1.208	5.000	5.107	102	70-130	
Ed5-NEtFOSAA	144117.8	13C2-PFDA	454750.4	0.317	5.000	5.646	113	70-130	
E13C2-PFDoDA	1057435.2	13C2-PFDA	454750.4	2.325	5.000	4.886	98	70-130	
Ed7-NMePFOSAE	263888.3	13C2-PFDA	454750.4	0.580	5.000	5.015	100	70-130	
Ed3-NMePFOSA	87880.7	13C2-PFDA	454750.4	0.193	5.000	5.230	105	70-130	
Ed9-NEtPFOSAE	227340.4	13C2-PFDA	454750.4	0.500	5.000	5.068	101	70-130	
Ed5-NEtPFOSA	63430.0	13C2-PFDA	454750.4	0.139	5.000	4.847	97	70-130	
E13C2-PFTeDA	823659.2	13C2-PFDA	454750.4	1.811	5.000	5.012	100	70-130	

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

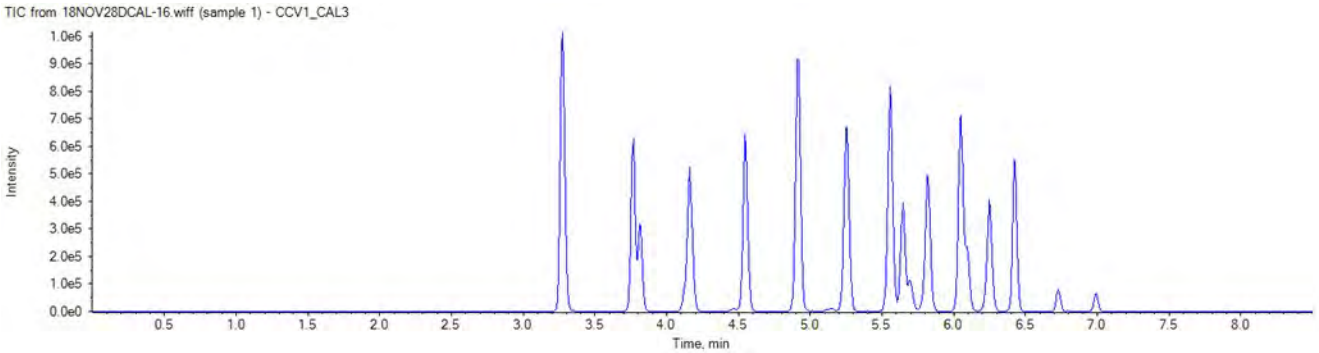
Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-16.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	414227.9		A	13C4-PFBA	3.27	991560.8	0.418	2.290
PFPeA	3.77	1.000	406639.4		A	13C5-PFPeA	3.77	929799.0	0.437	2.146
PFBS	3.82	1.000	166250.1		A	13C3-PFBS	3.82	423837.8	0.392	1.904
4:2-FTS	4.13	1.000	56074.3		A	13C2-4:2-FTS	4.13	71502.2	0.784	2.099
PFHxA	4.16	1.000	390006.3		A	13C5-PFHxA	4.16	673646.8	0.579	2.324
PFPeS	4.18	1.100	88012.7		A	13C3-PFBS	3.82	423837.8	0.208	2.100
PFHpA	4.55	1.000	393155.9		A	13C4-PFHpA	4.55	569502.8	0.690	2.131
PFHxS	4.55	1.000	124485.3		M	13C3-PFHxS	4.55	316482.8	0.393	1.842
6:2-FTS	4.90	1.000	55151.1		A	13C2-6:2-FTS	4.91	61242.4	0.901	2.350
PFHpS	4.91	1.080	131029.4		A	13C3-PFHxS	4.55	316482.8	0.414	2.066
PFOA	4.92	1.000	408992.7		A	13C8-PFOA	4.92	983417.9	0.416	2.149
PFOS	5.24	1.000	137181.4		M	13C8-PFOS	5.24	303782.8	0.452	1.894
PFNA	5.26	1.000	376585.8		A	13C9-PFNA	5.26	609889.2	0.617	2.366
PFNS	5.54	1.060	94448.6		A	13C8-PFOS	5.24	303782.8	0.311	1.963
PFDA	5.56	1.000	356261.0		A	13C6-PFDA	5.56	847665.4	0.420	2.379
8:2-FTS	5.56	1.000	52676.1		A	13C2-8:2-FTS	5.56	53005.7	0.994	1.874
PFOSA	5.65	1.000	260574.1		A	13C8-PFOSA	5.65	629466.4	0.414	2.097
NMeFOSAA	5.70	1.000	60912.6		M	d3-NMeFOSAA	5.70	187136.0	0.325	2.076
PFDS	5.79	1.100	79486.5		A	13C8-PFOS	5.24	303782.8	0.262	2.075
PFUnDA	5.82	1.000	368116.8		A	13C7-PFUnDA	5.82	549493.3	0.670	2.395
NEtFOSAA	5.83	1.000	56175.4		M	d5-NEtFOSAA	5.83	144117.8	0.390	1.898
PFDoDA	6.05	1.000	480438.7		A	13C2-PFDoDA	6.05	1057435.2	0.454	2.489
10:2-FTS	6.06	1.090	53244.1		A	13C2-8:2-FTS	5.56	53005.7	1.004	2.215
NMePFOSAE	6.10	1.000	131874.4		A	d7-NMePFOSAE	6.09	263888.3	0.500	2.103
NMePFOSA	6.11	1.000	35042.2		A	d3-NMePFOSA	6.10	87880.7	0.399	2.114
PFDoS	6.22	1.190	41532.8		A	13C8-PFOS	5.24	303782.8	0.137	1.963
NEtPFOSAE	6.26	1.000	145278.6		A	d9-NEtPFOSAE	6.24	227340.4	0.639	2.299
NEtPFOSA	6.27	1.000	31416.5		A	d5-NEtPFOSA	6.26	63430.0	0.495	2.220
PFTrDA	6.25	1.030	453601.4		A	13C2-PFDoDA	6.05	1057435.2	0.429	2.586
PFTeDA	6.43	1.000	333159.1		A	13C2-PFTeDA	6.43	823659.2	0.404	2.292
PFHxDA	6.73	1.050	160272.7		A	13C2-PFTeDA	6.43	823659.2	0.195	2.224
PFODA	6.99	1.090	137372.8		A	13C2-PFTeDA	6.43	823659.2	0.167	2.222

Total Ion Chromatogram

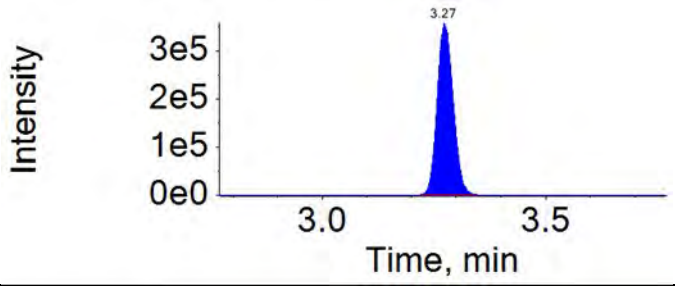


APPROVED
By MCD at 5:01 pm, 11/28/18

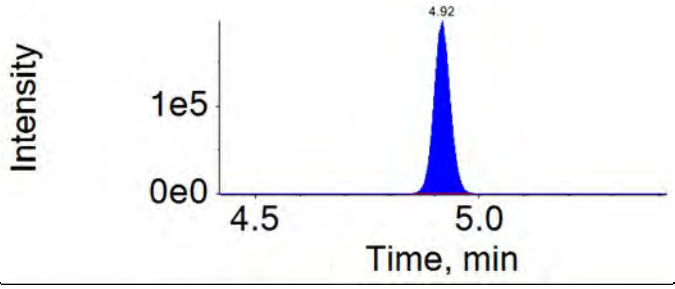
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

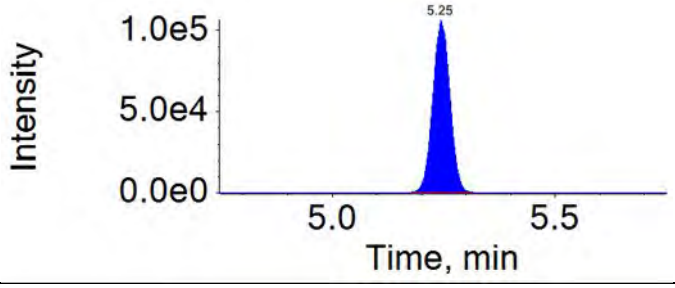
Injection Standard: 13C3-PFBA
216.0 / 172.0



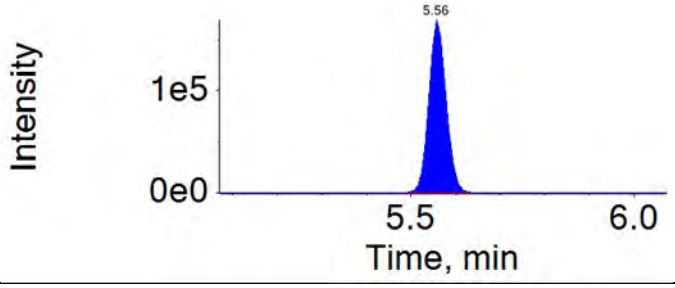
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

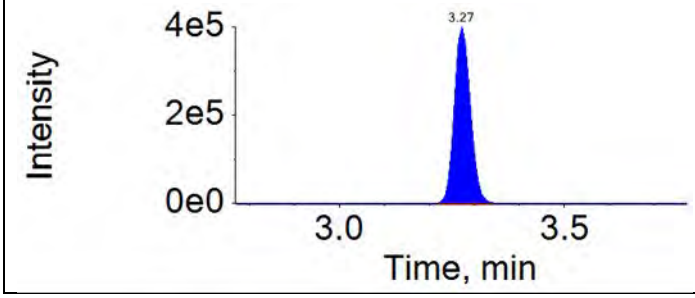


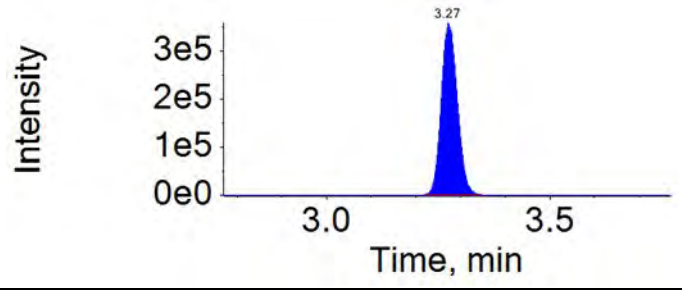
Injection Standard: 13C2-PFDA
515.0 / 470.0



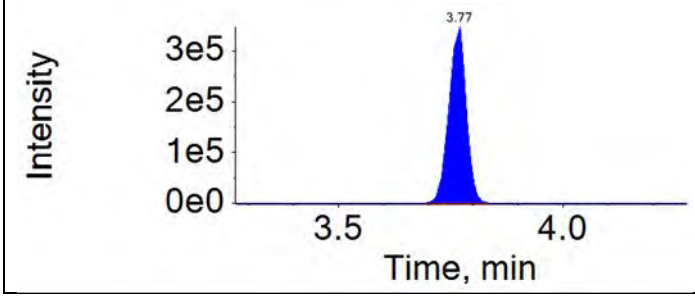
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

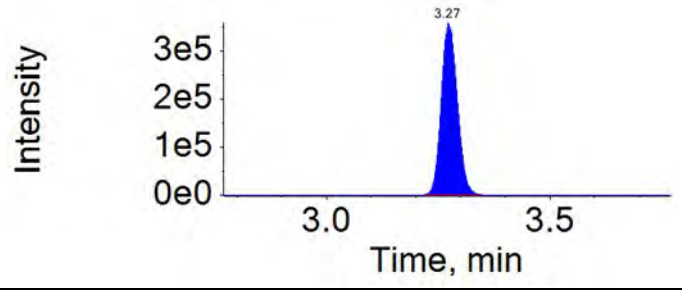
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



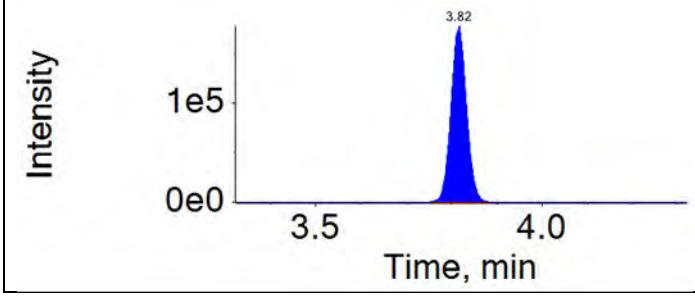


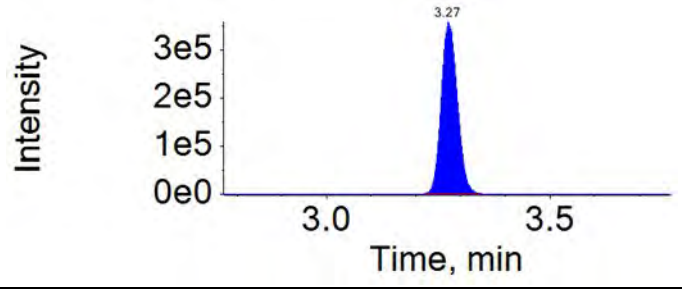
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



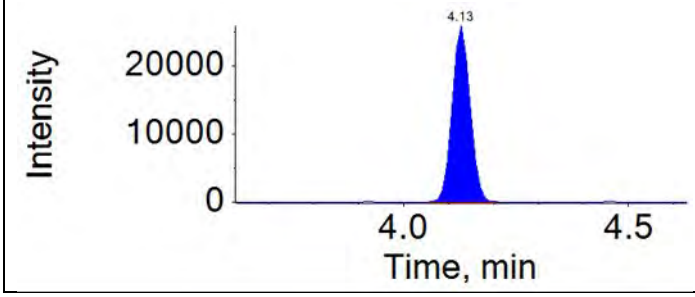


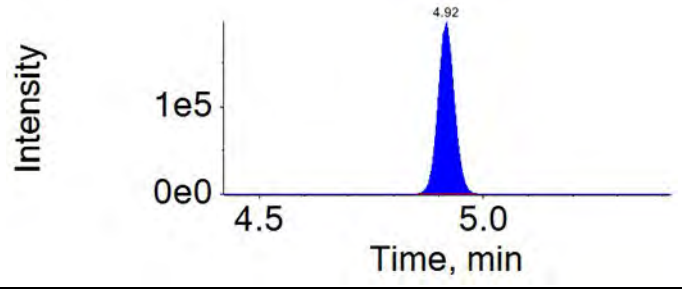
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



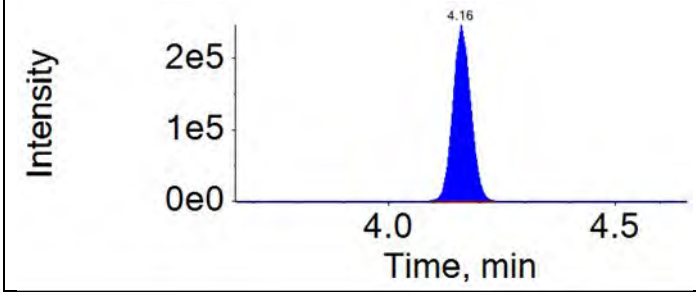


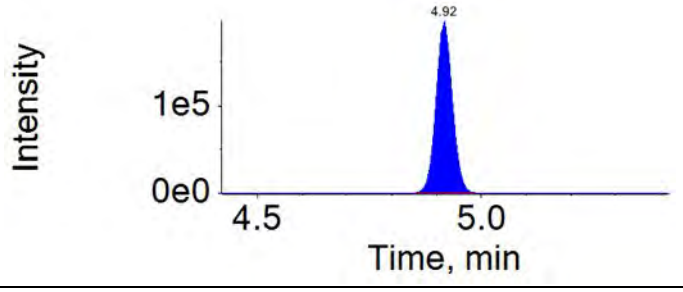
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

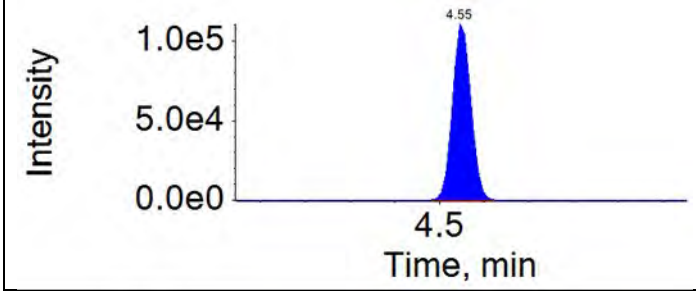
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

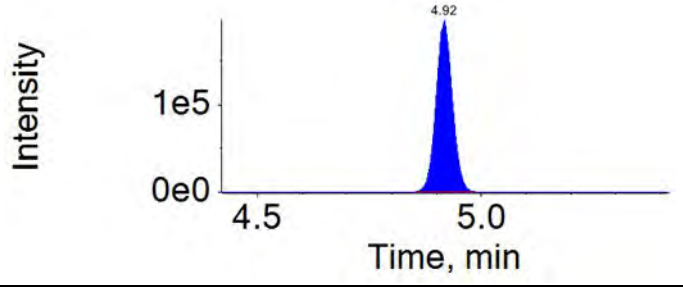
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



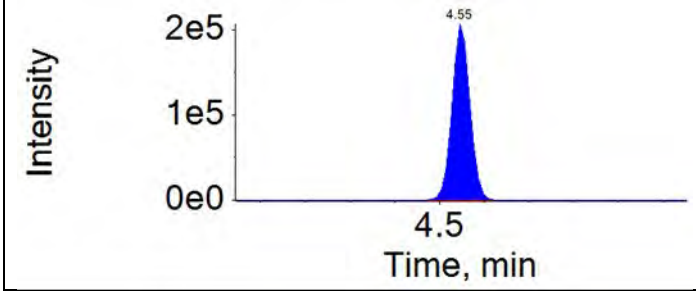


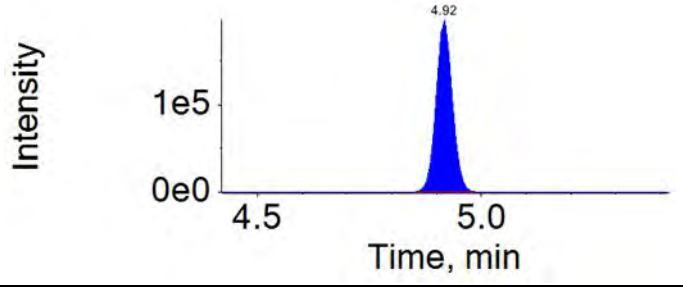
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



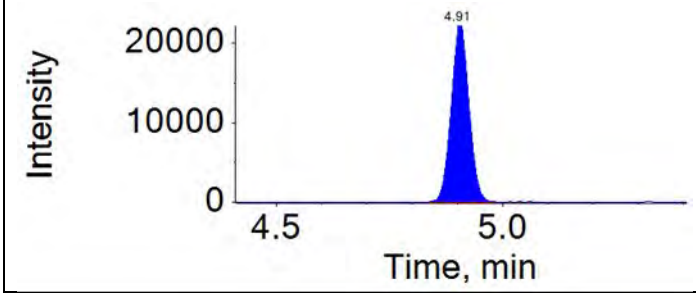


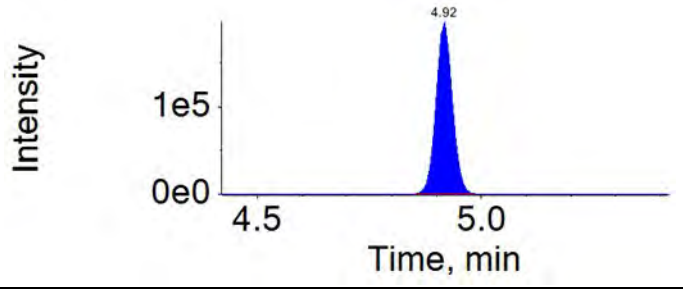
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

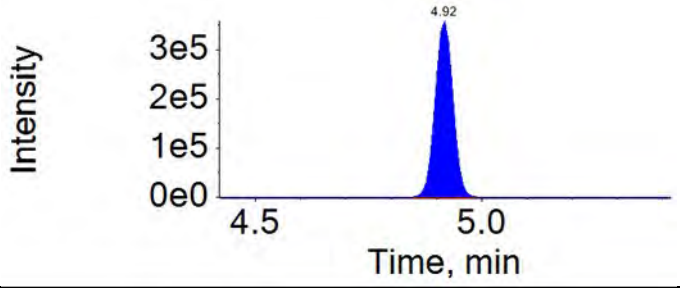
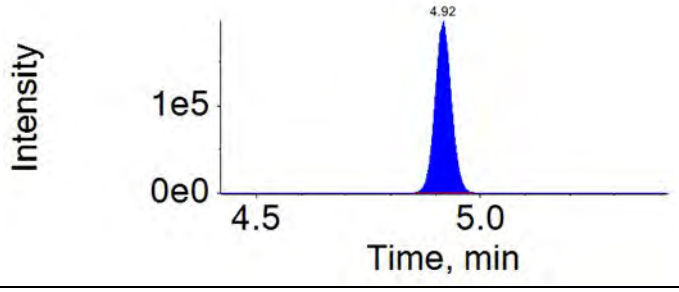


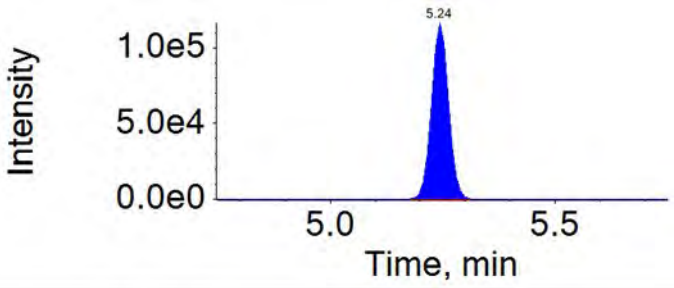
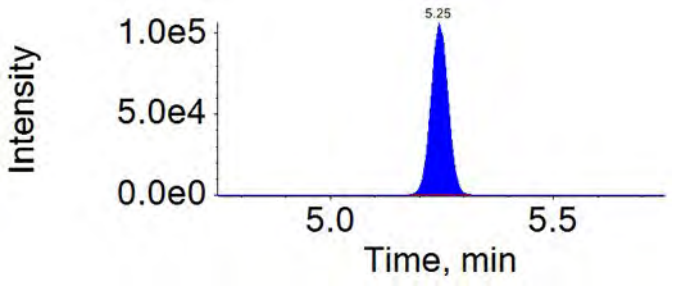


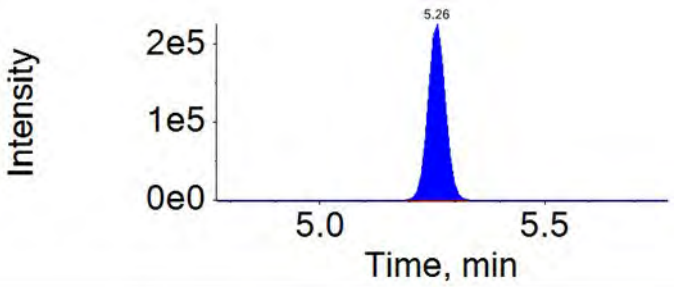
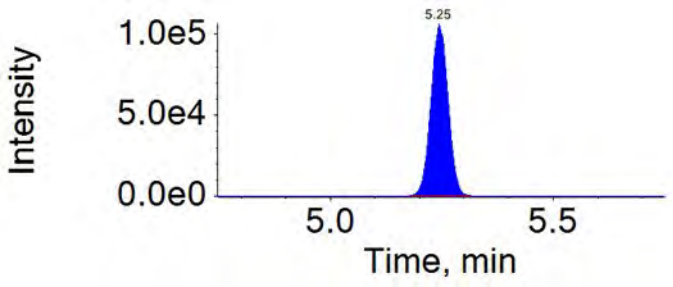
APPROVED
By MCD at 5:01 pm, 11/28/18

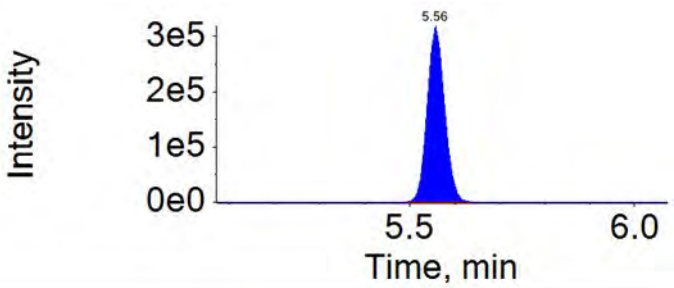
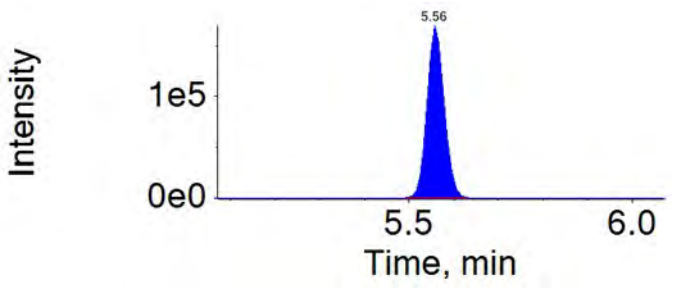
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

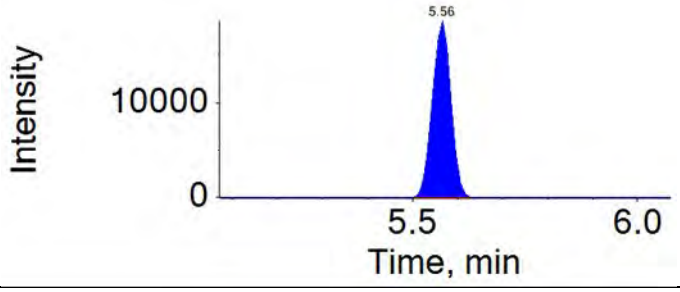
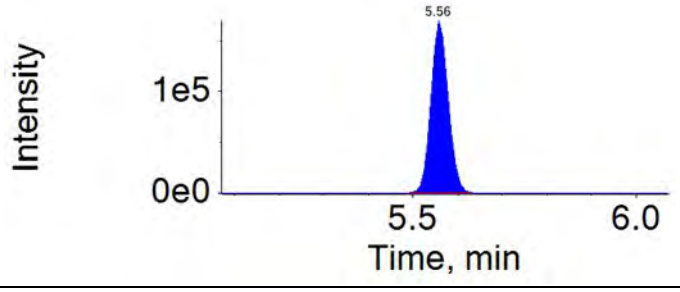
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

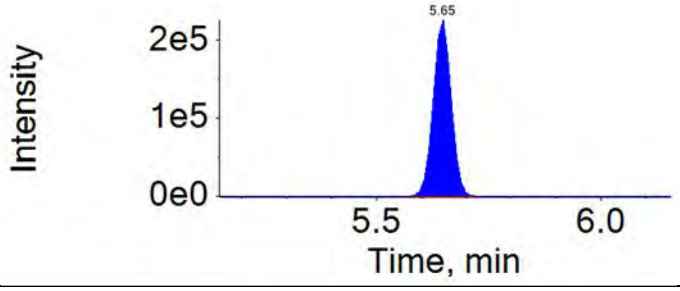
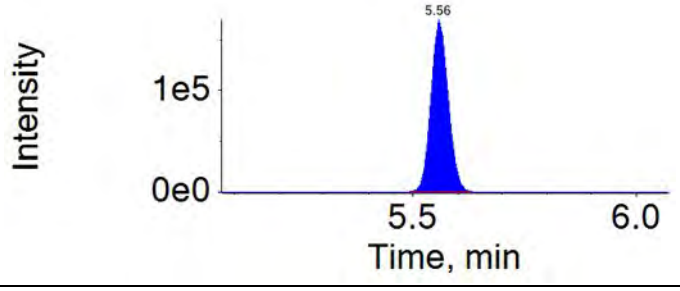
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

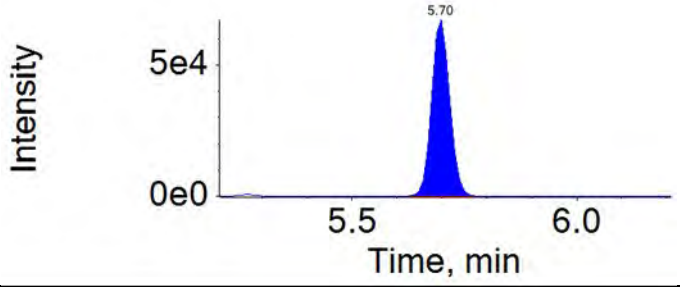
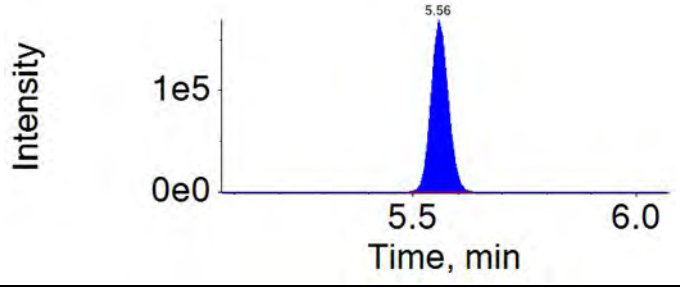
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

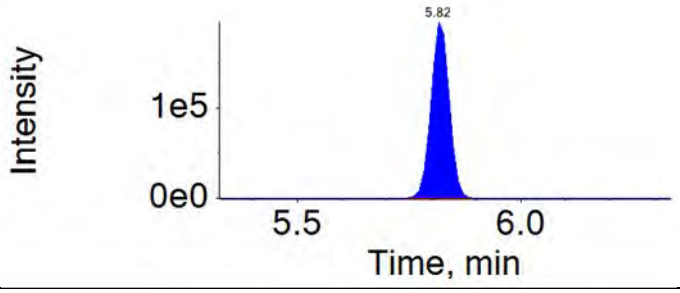
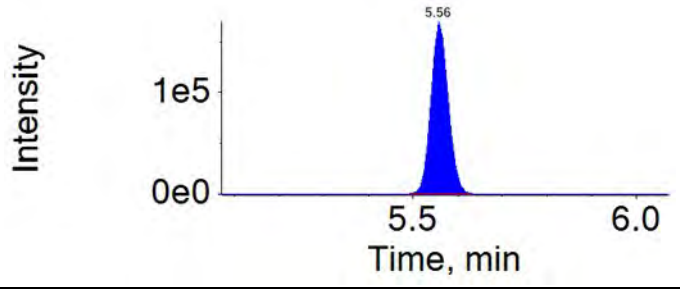
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

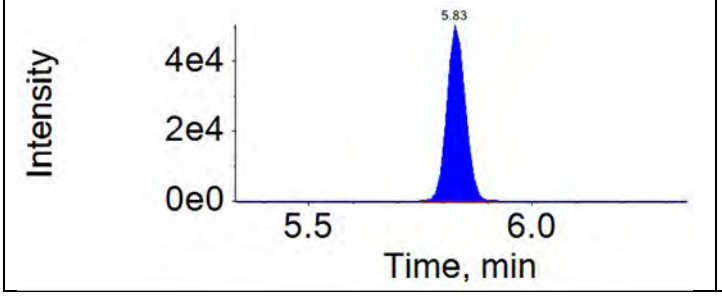
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

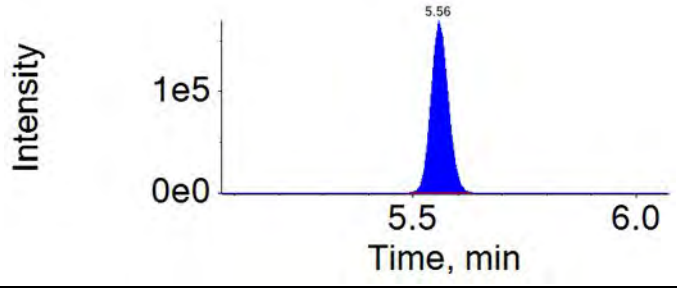
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

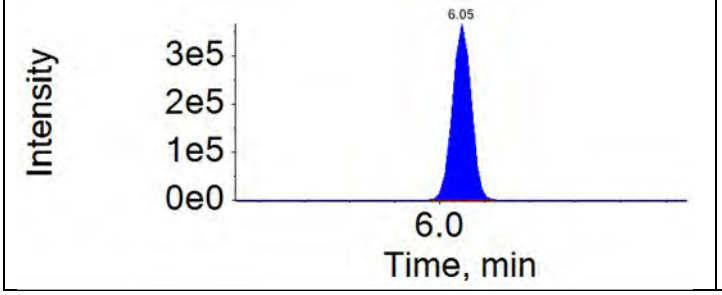
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

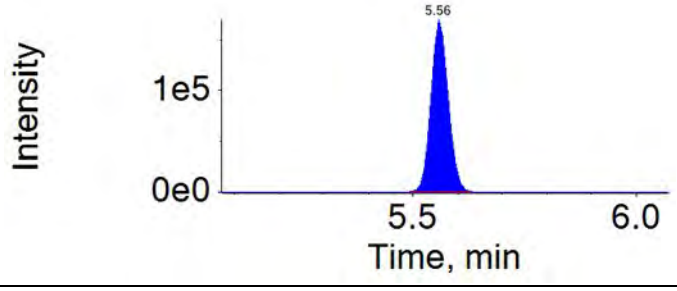
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



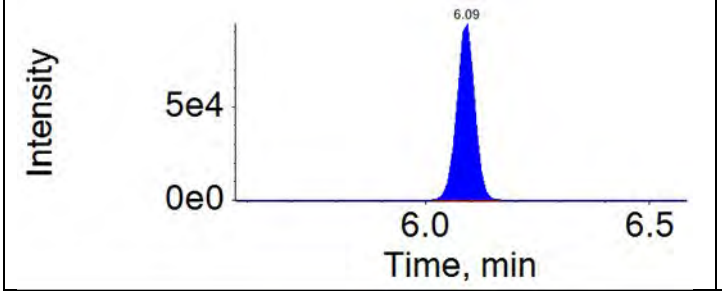


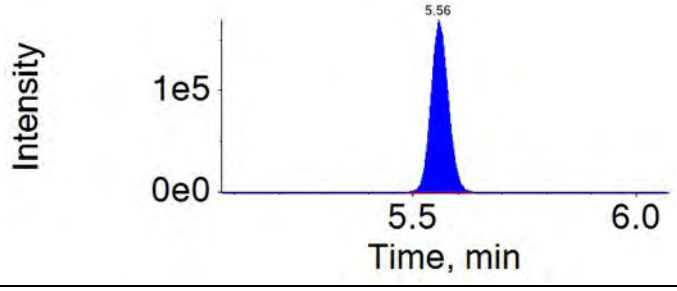
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



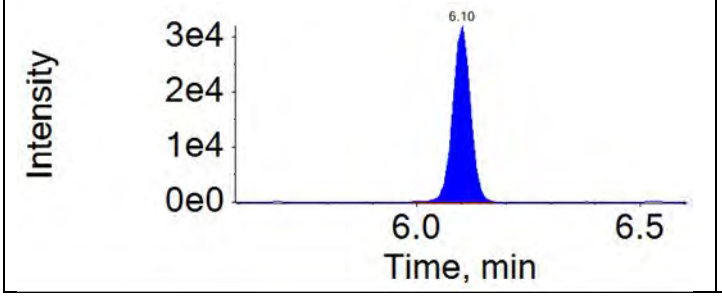


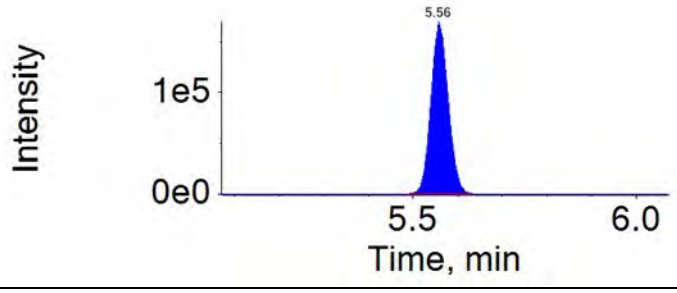
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



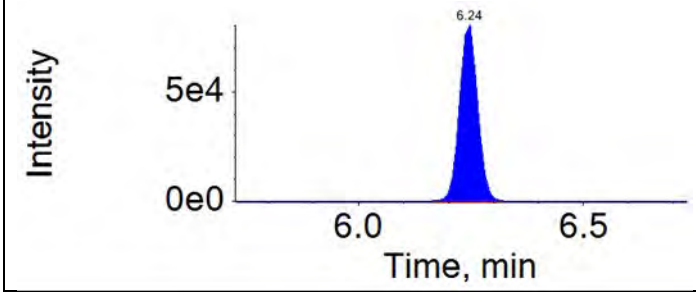


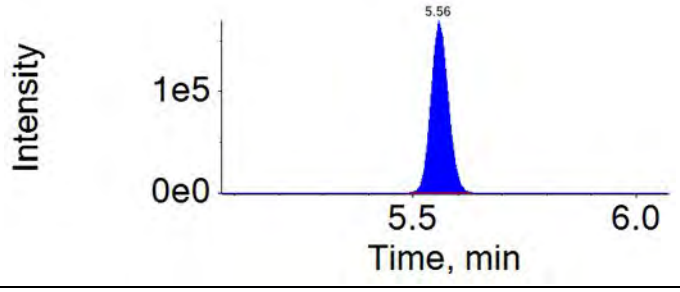
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

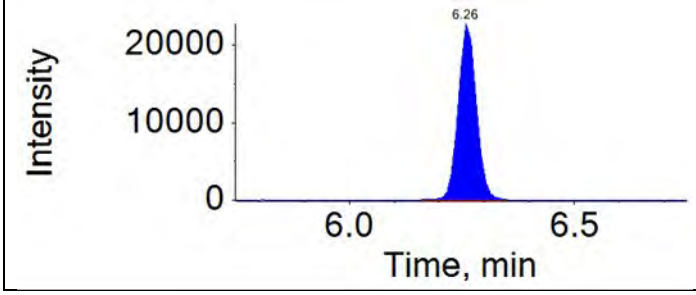
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

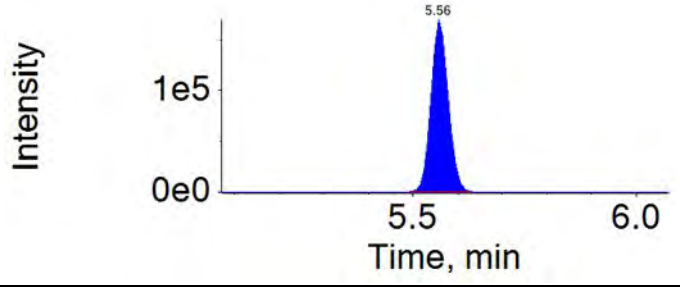
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



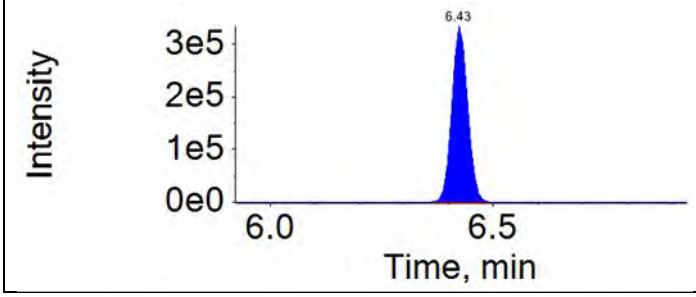


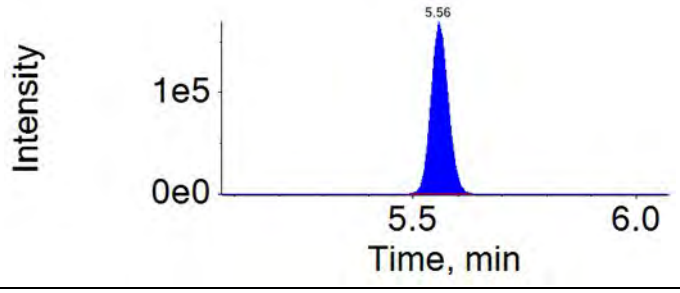
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



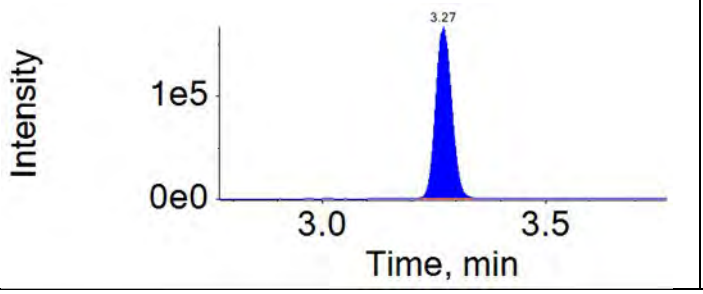


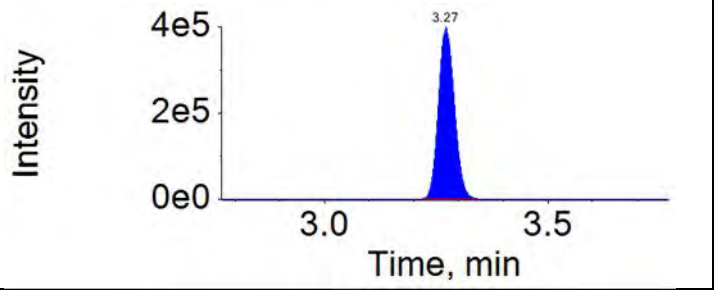
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

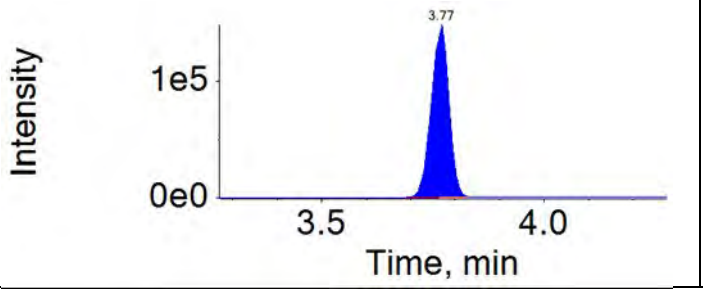
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

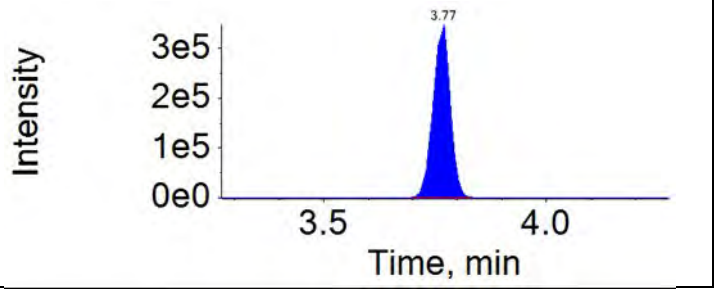
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



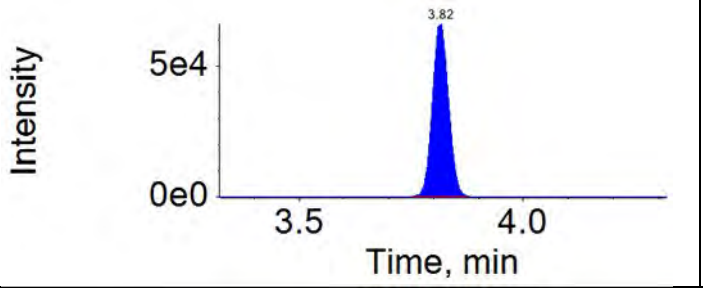


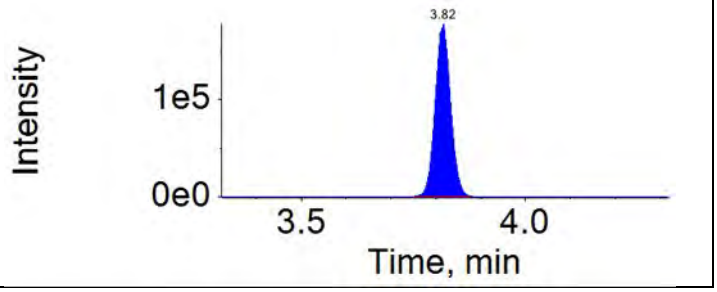
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



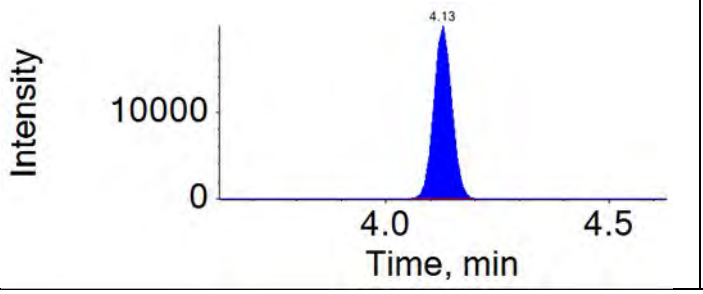


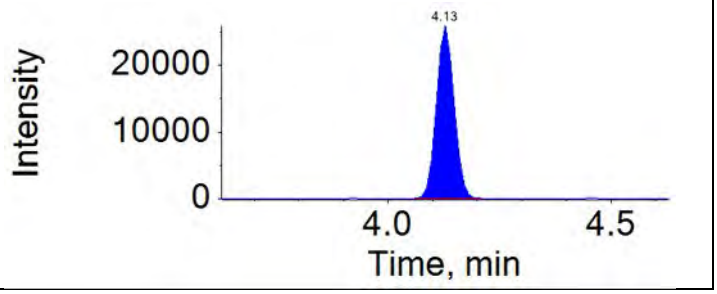
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



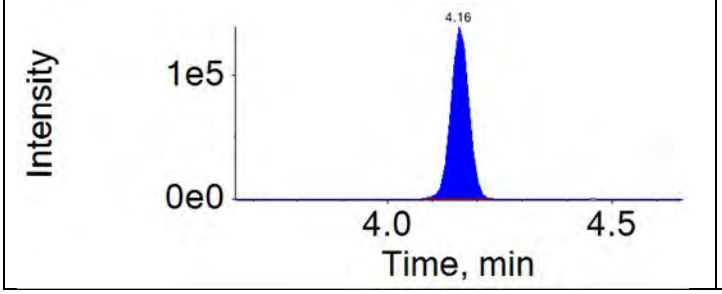


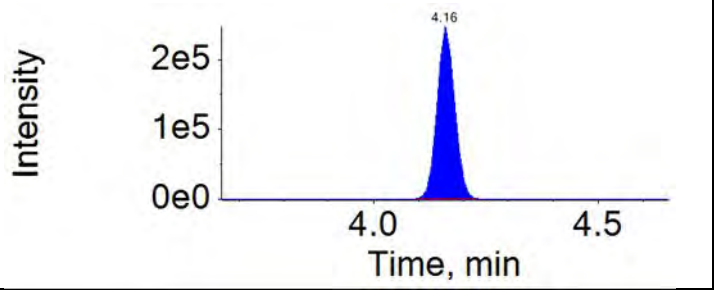
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

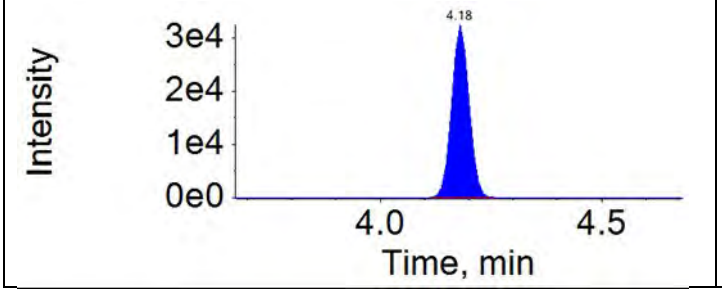
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

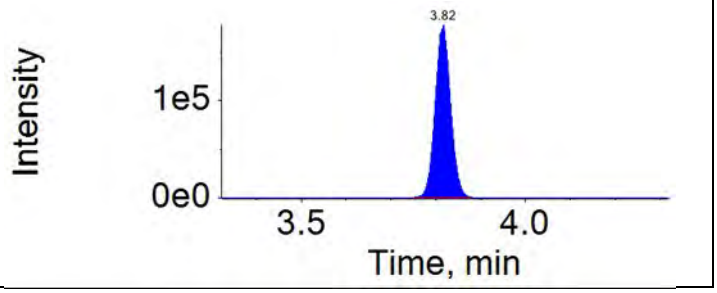
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



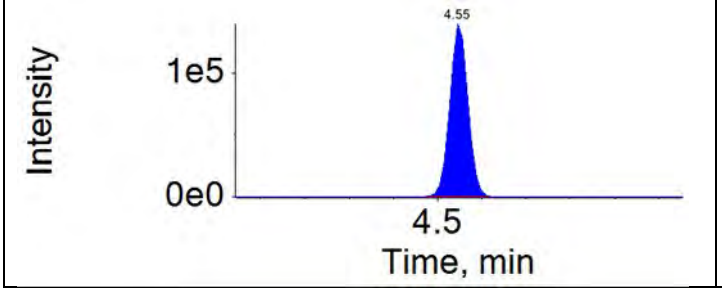


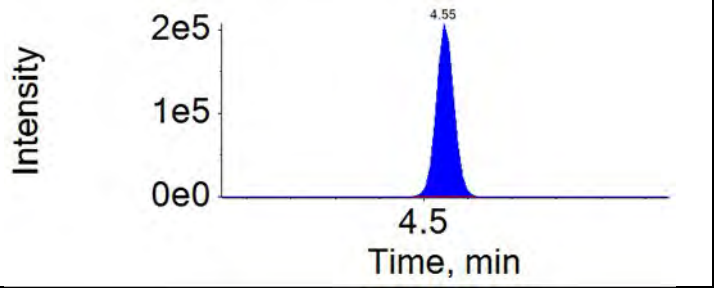
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



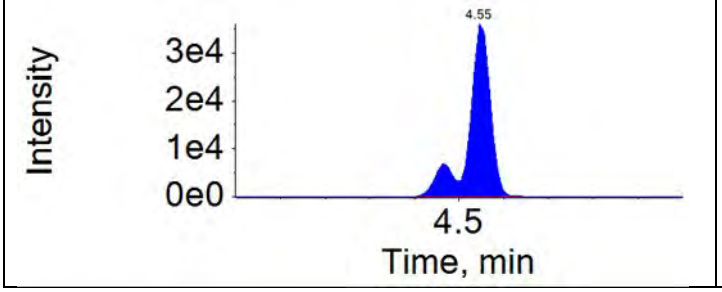


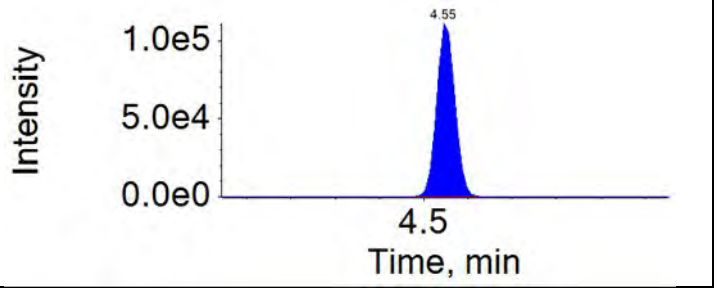
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

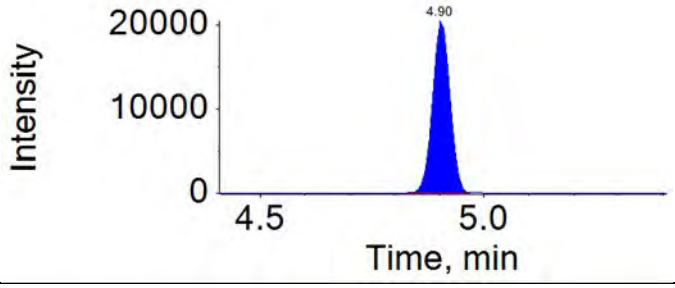
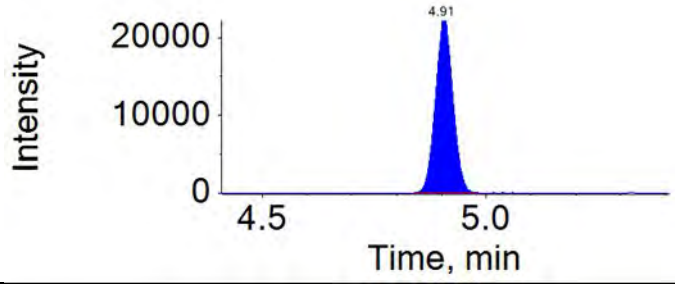


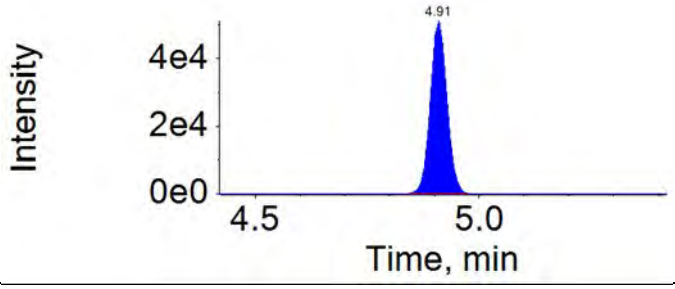
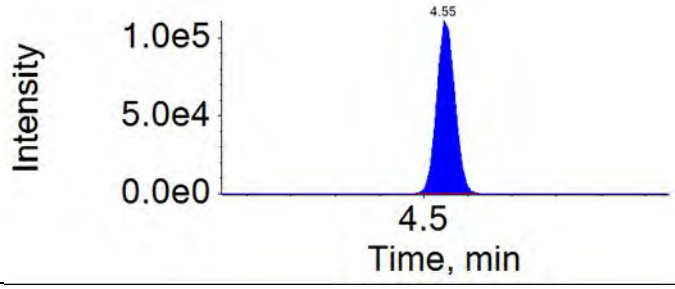


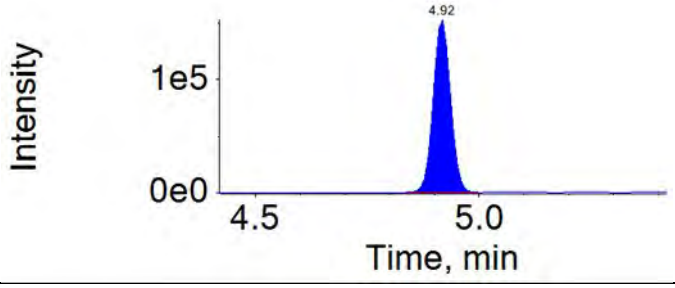
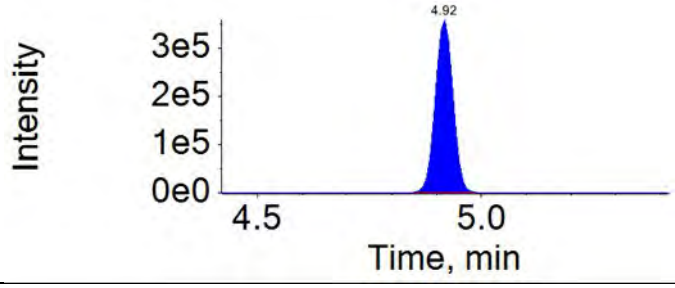
APPROVED
By MCD at 5:01 pm, 11/28/18

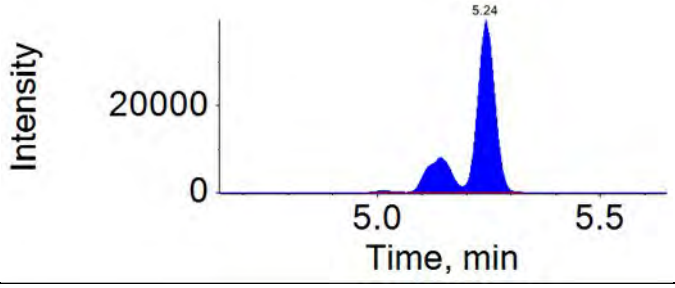
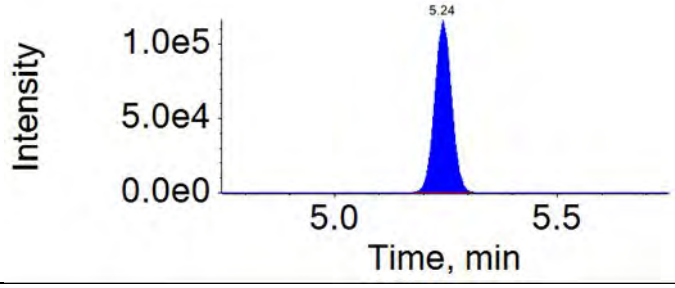
REVIEWED
By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

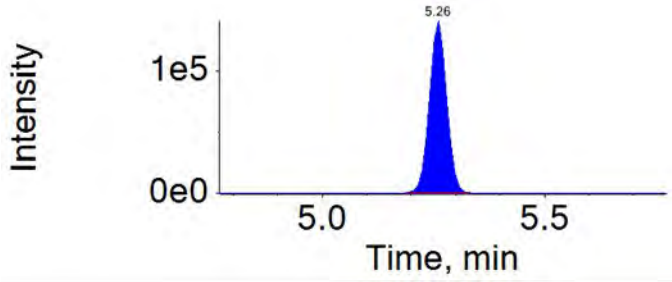
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

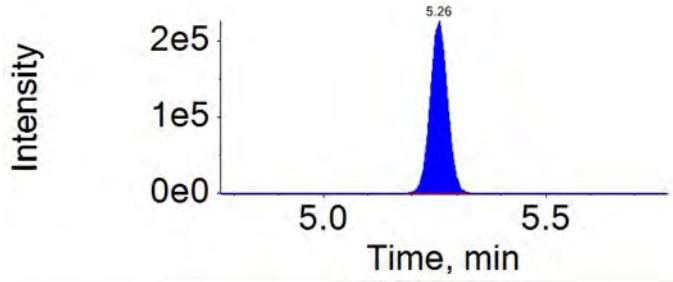
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

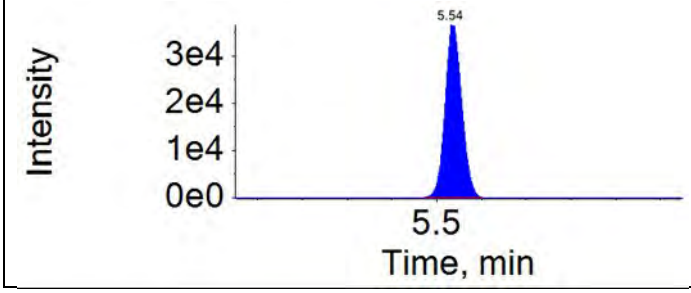
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

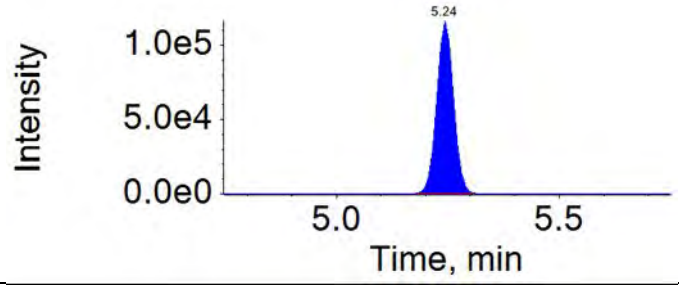
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



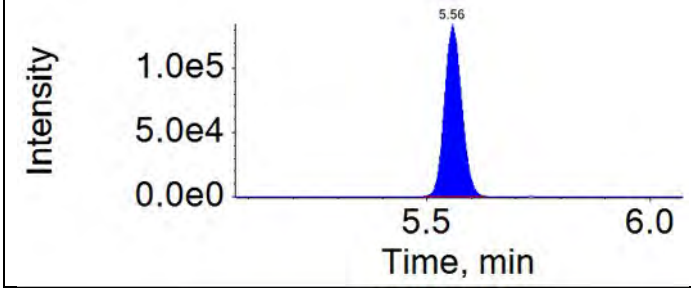


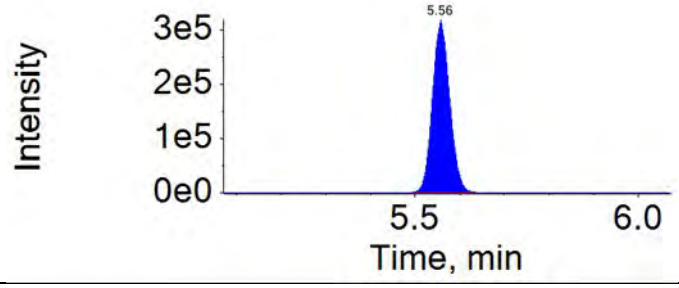
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



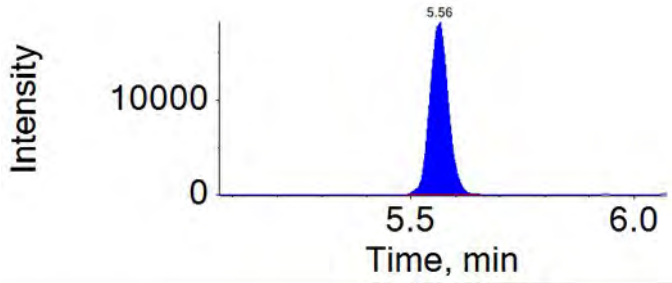


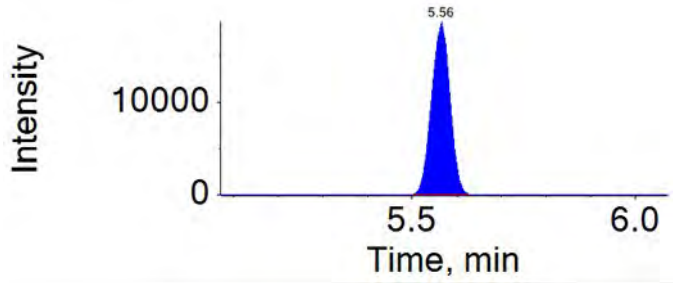
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



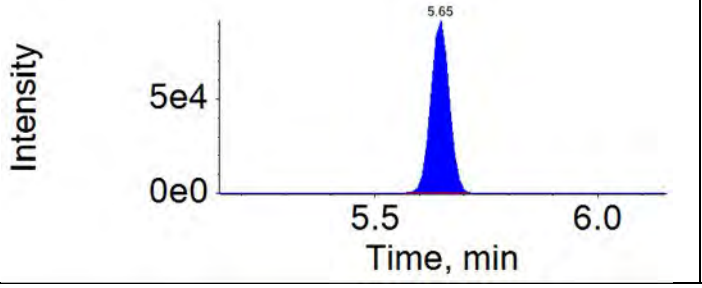


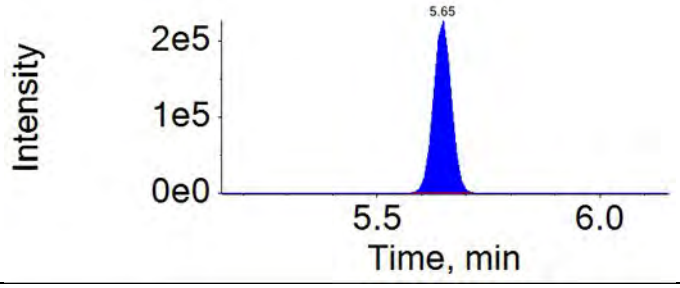
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

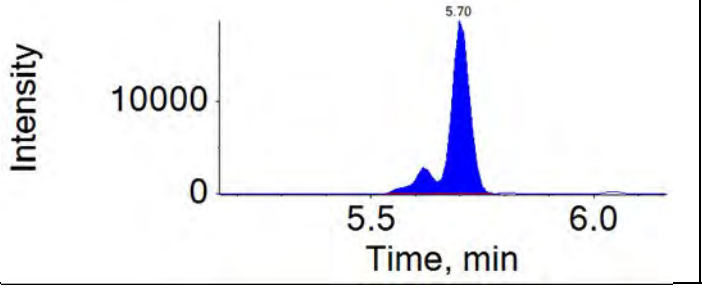
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

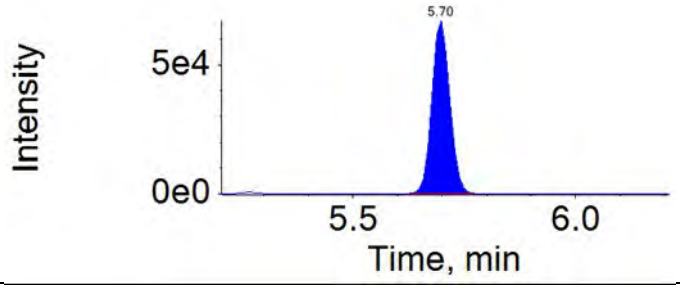
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



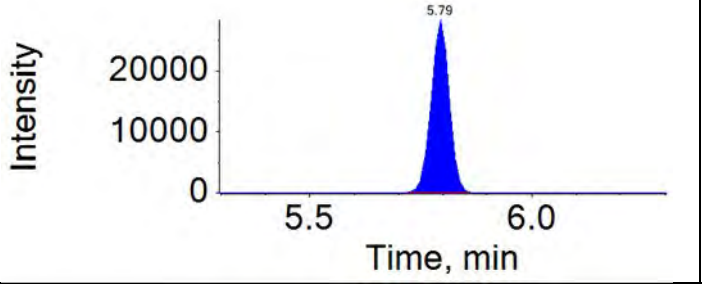


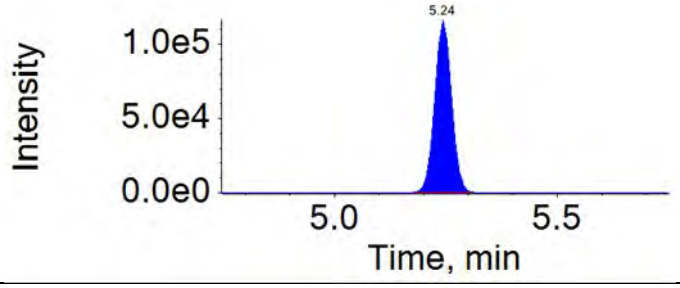
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



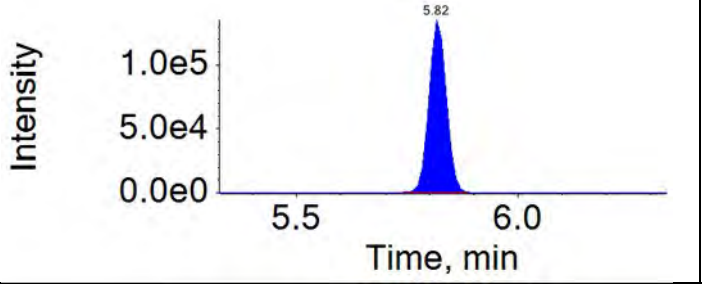


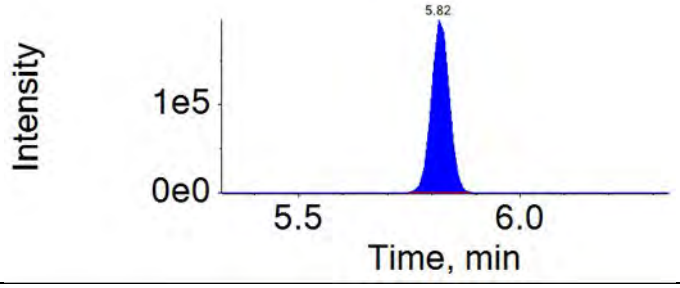
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



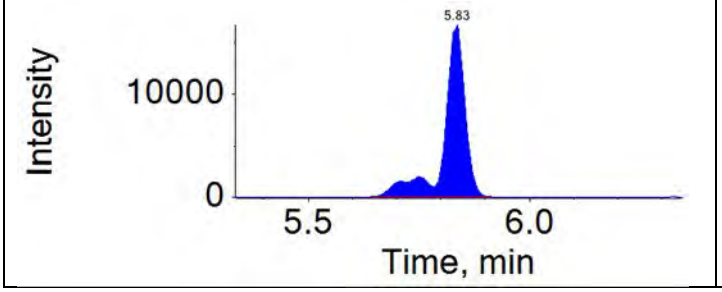


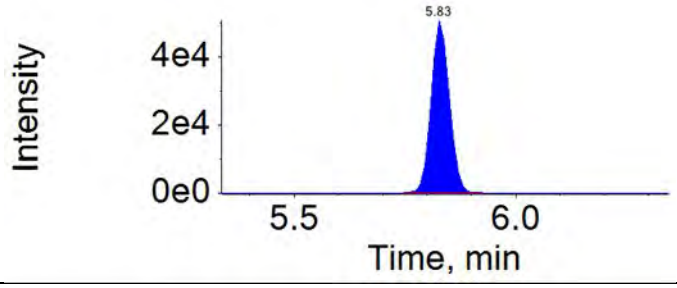
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

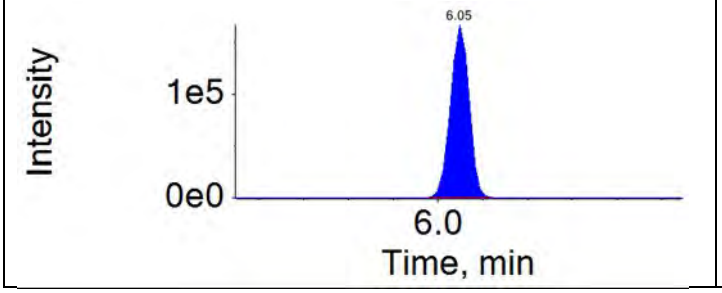
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

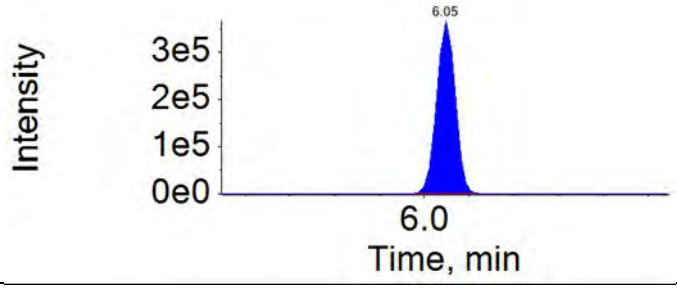
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



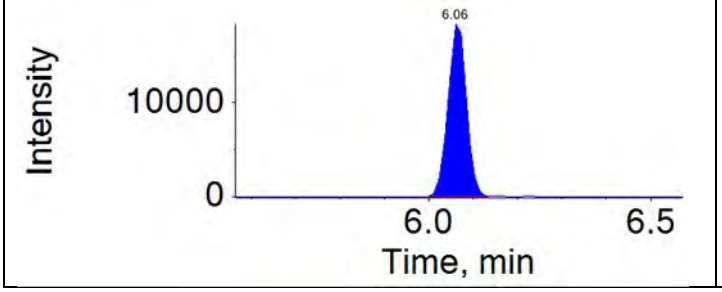


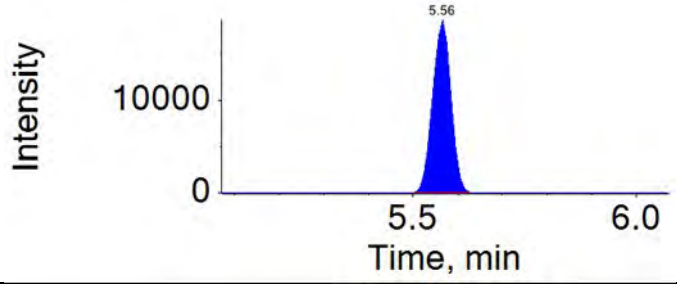
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



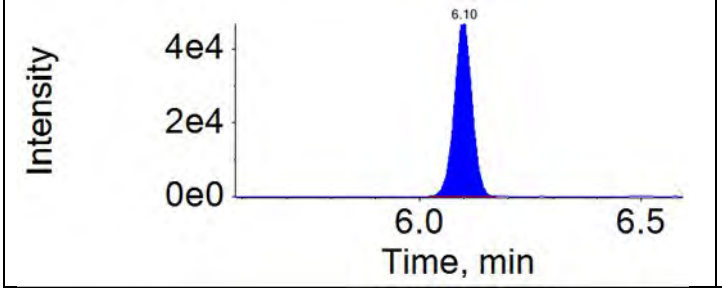


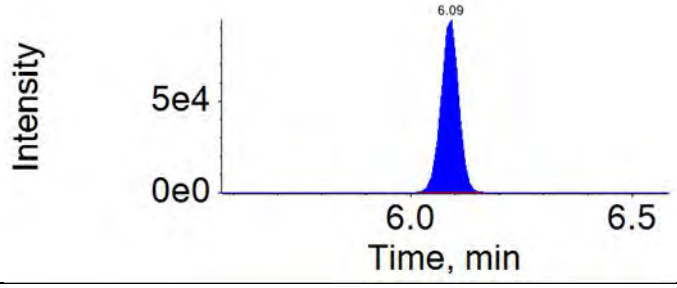
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



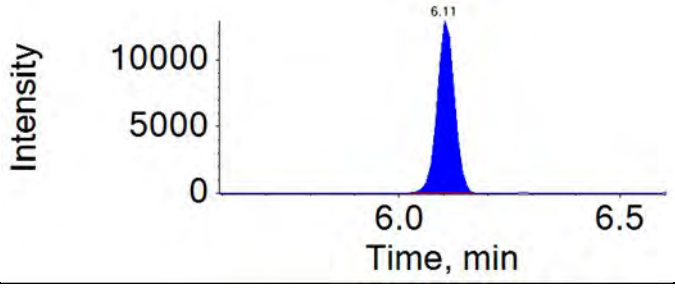


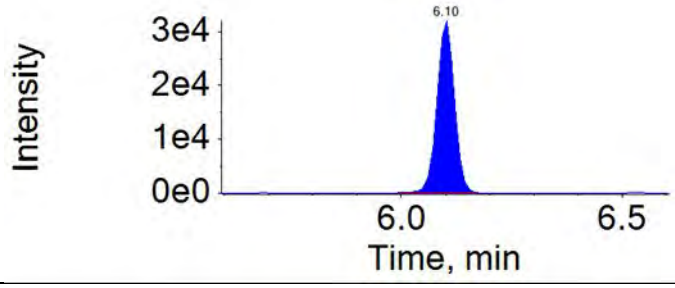
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

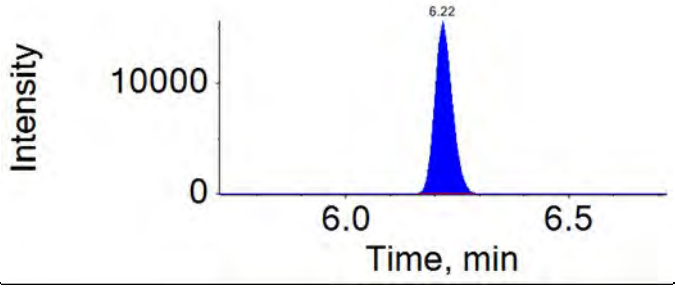
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

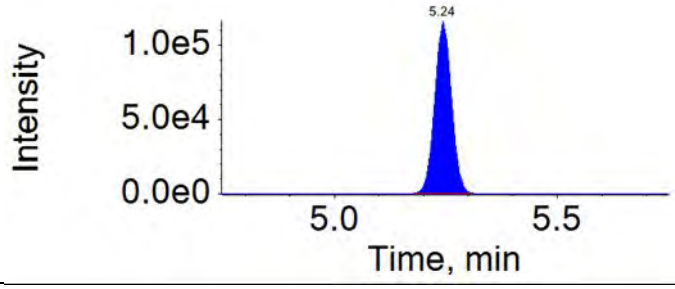
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



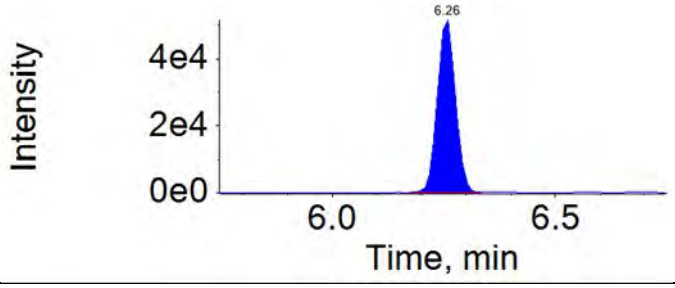


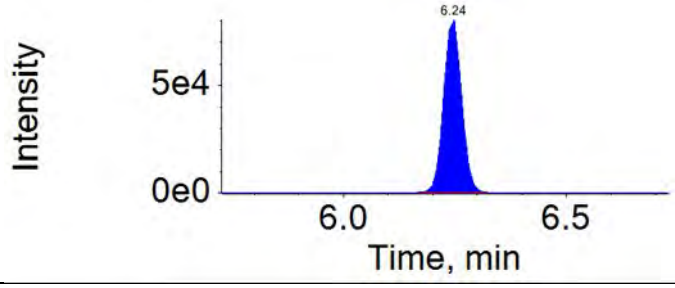
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



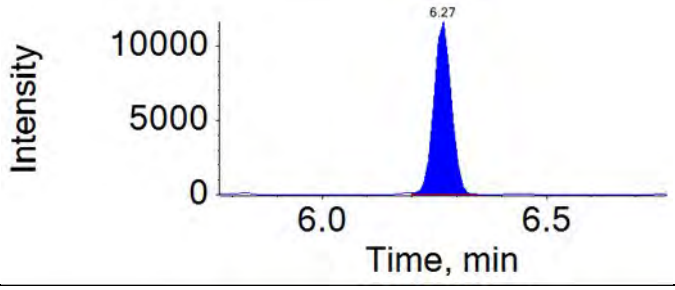


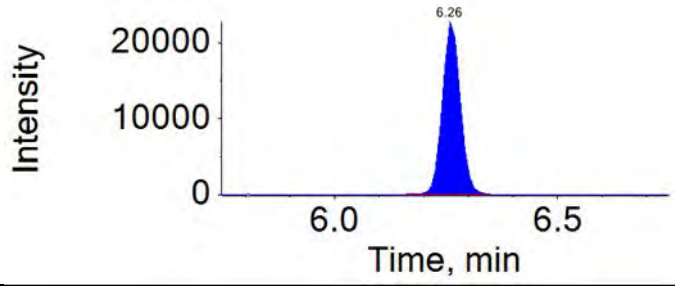
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



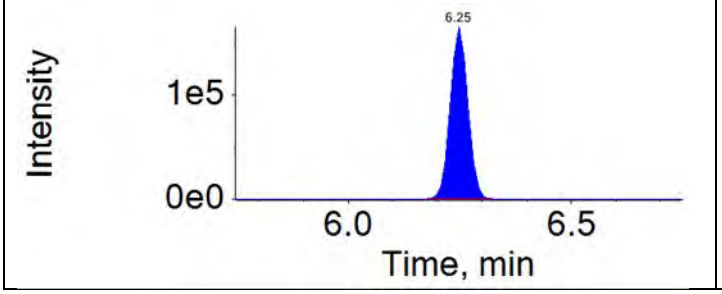


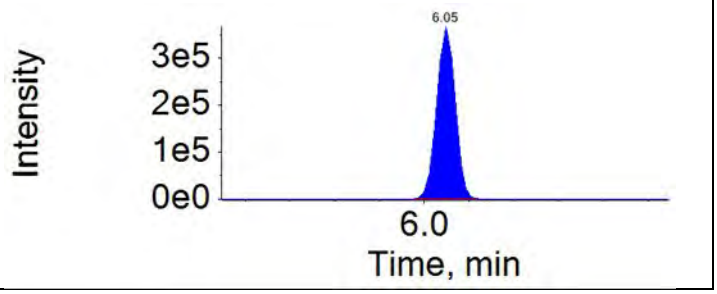
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

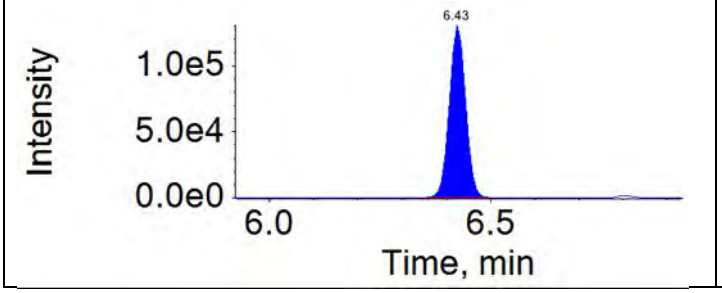
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

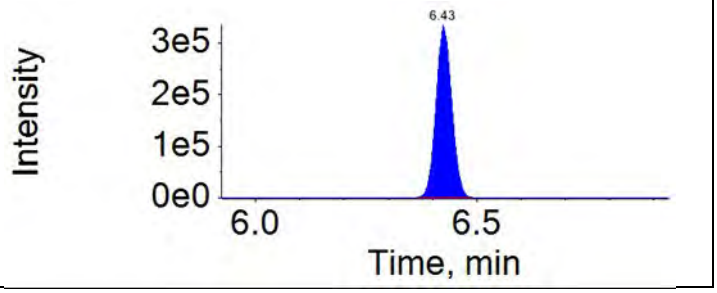
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



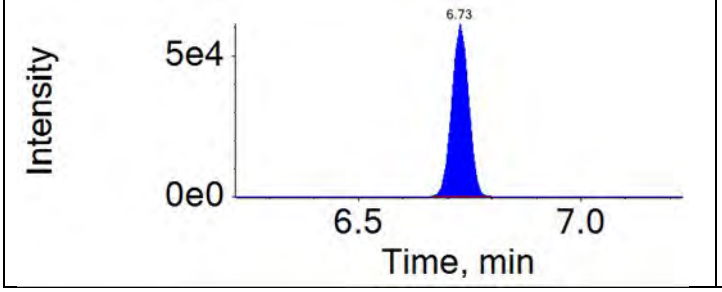


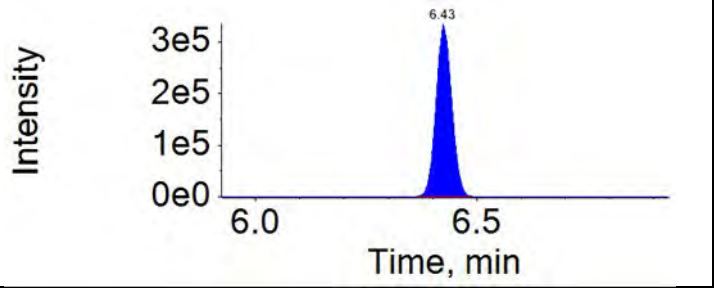
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



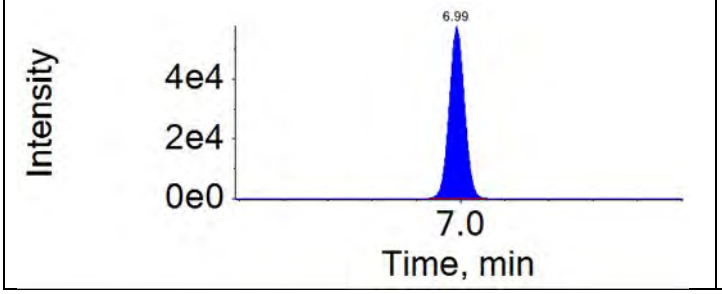


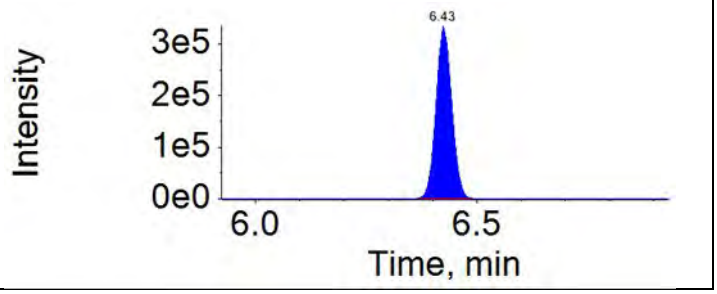
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



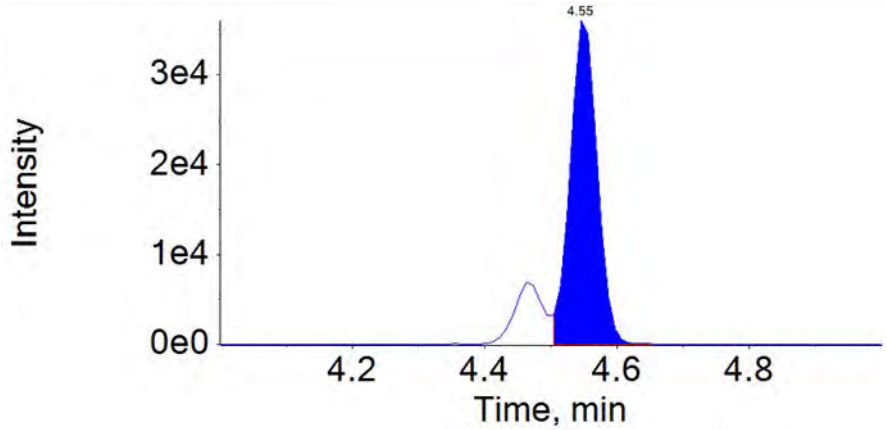


APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

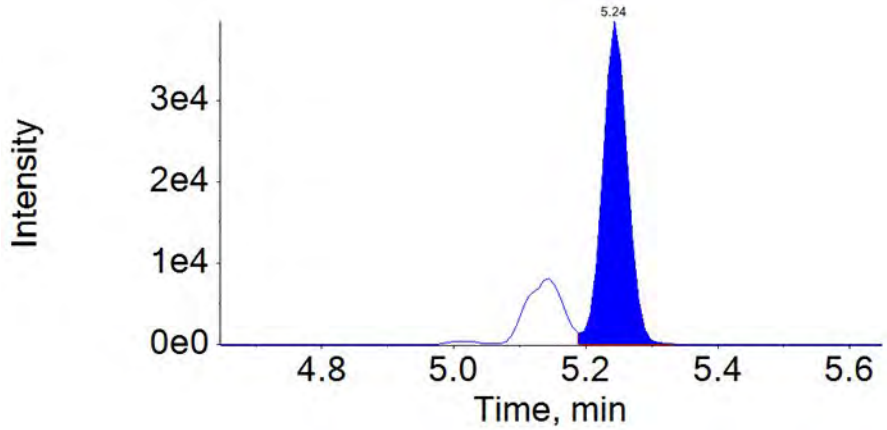
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
103015.29
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



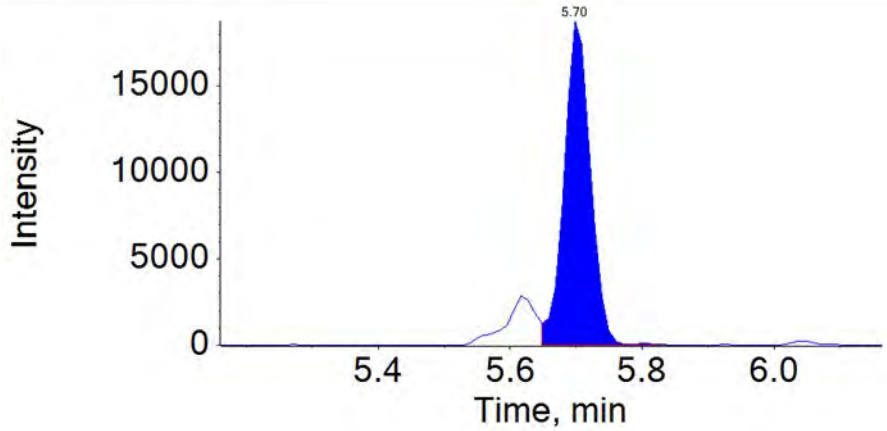
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
103980.06
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
52224.93
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



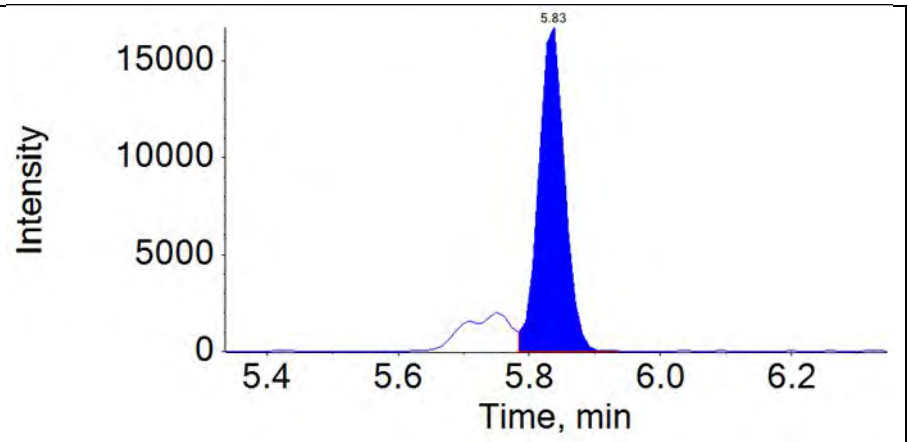
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

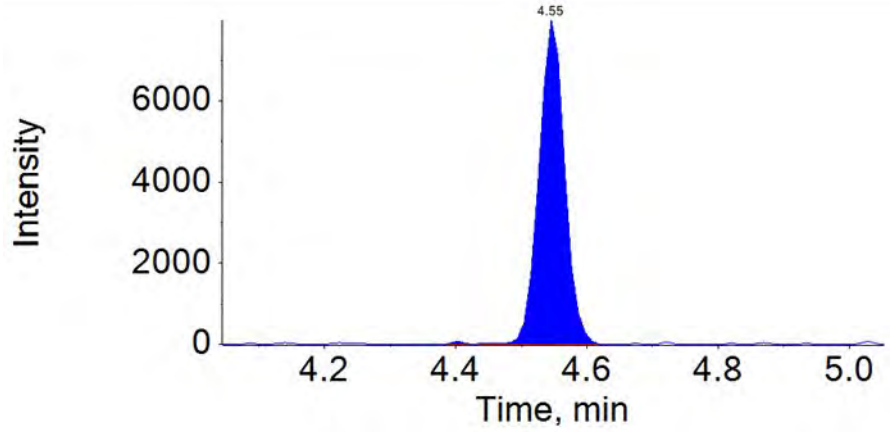
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.83
Peak Area:
46203.64
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



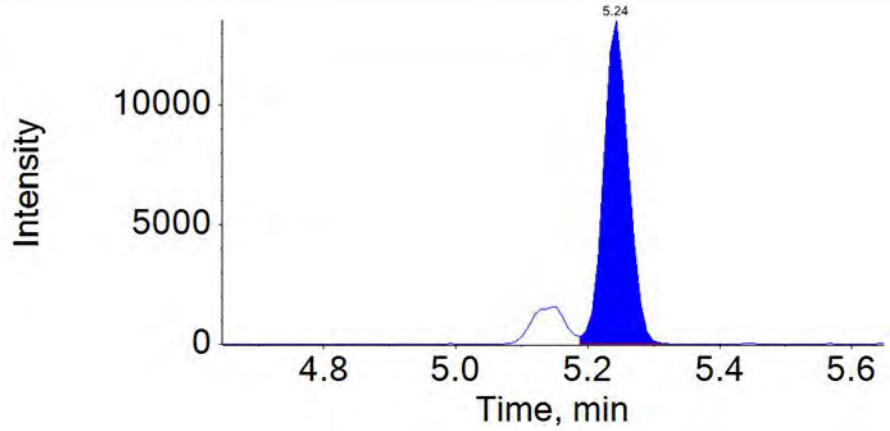
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
21948.97
Mass Range:
363.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
35538.74
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



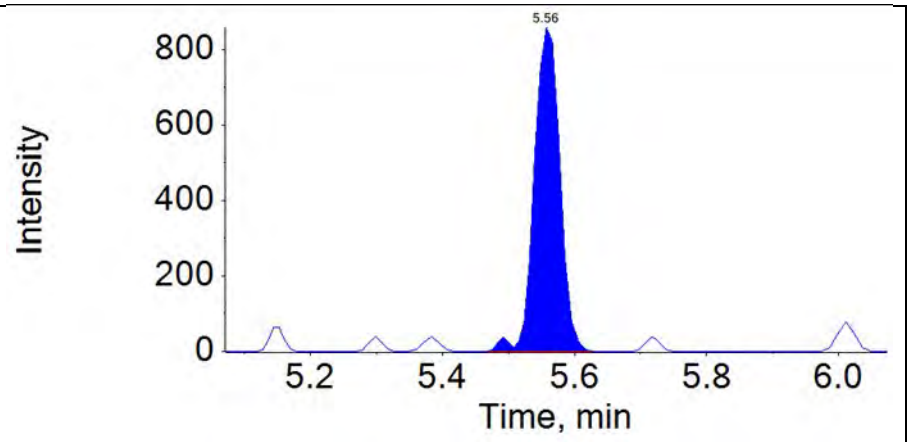
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

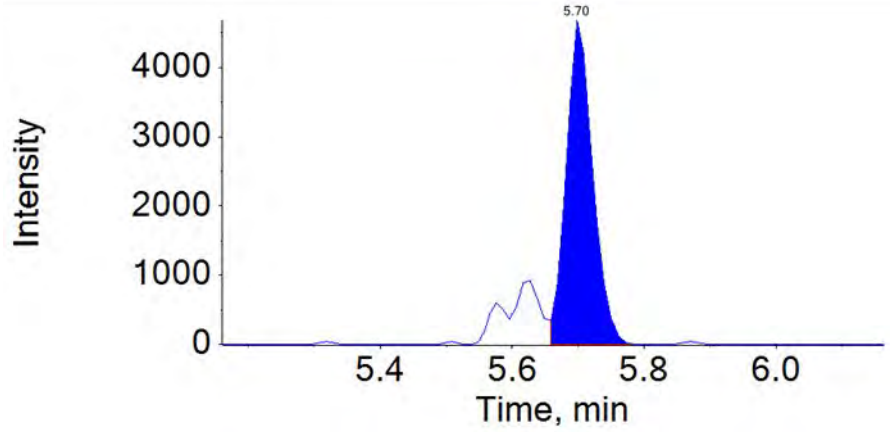
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.56
Peak Area:
2325.21
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



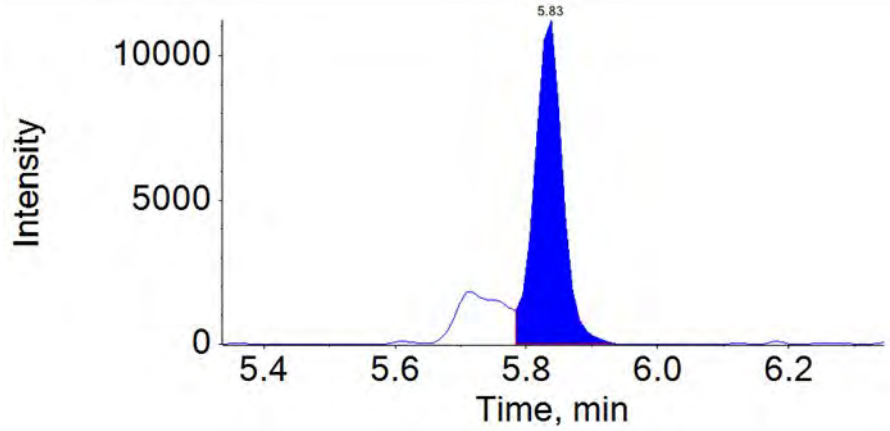
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
13049.28
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
33290.95
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



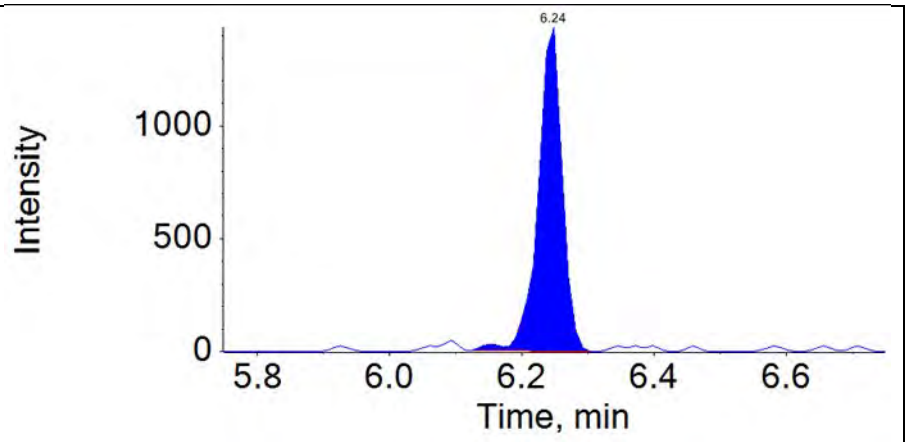
Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

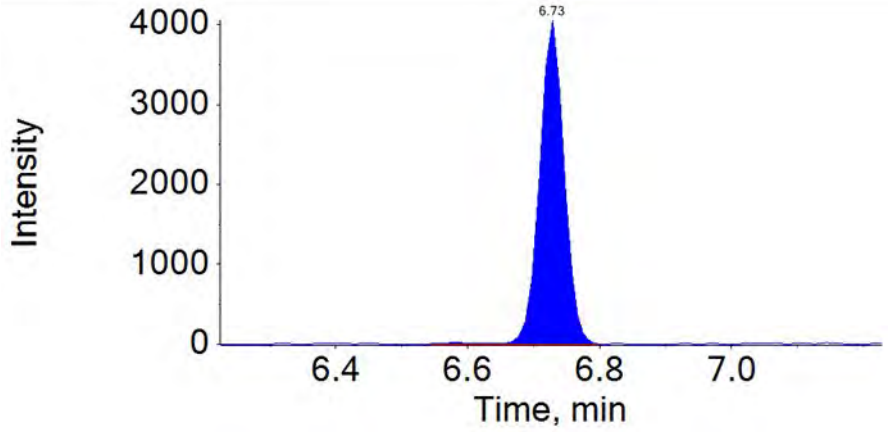
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.24
Peak Area:
3652.89
Mass Range:
663.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxDA_2
RT (min.):
6.73
Peak Area:
10506.81
Mass Range:
813.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

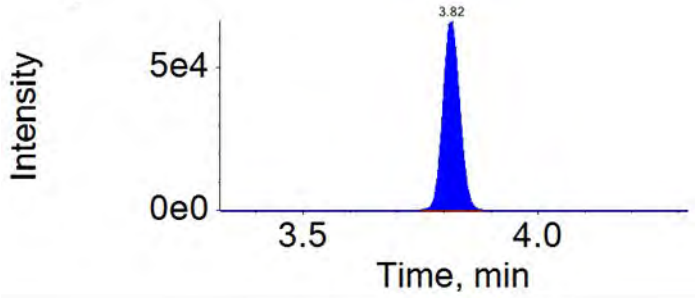
Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV28DCAL-16.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	166250.13	A	0.3655	0.3695			
PFBS_2	3.81	1.00	61434.35	A	0.3655	0.3695	1	50	
4:2-FTS	4.13	1.00	56074.30	A	0.6383	0.6136			
4:2-FTS_2	4.13	1.00	34408.16	A	0.6383	0.6136	-4	50	
PFHxA	4.16	1.00	390006.26	A	0.0103	0.0099			
PFHxA_2	4.16	1.00	3854.81	A	0.0103	0.0099	-4	50	
PFPeS	4.18	1.10	88012.70	A	0.4976	0.4974			
PFPeS_2	4.18	1.10	43775.32	A	0.4976	0.4974	0	50	
PFHpA	4.55	1.00	393155.85	A	0.0557	0.0555			
PFHpA_2	4.55	1.00	21824.16	M	0.0557	0.0555	0	50	
PFHxS	4.55	1.00	124485.31	M	0.3693	0.3510			
PFHxS_2	4.55	1.00	43693.97	A	0.3693	0.3510	-5	50	
6:2-FTS	4.90	1.00	55151.09	A	0.6625	0.6544			
6:2-FTS_2	4.91	1.00	36092.41	A	0.6625	0.6544	-1	50	
PFHpS	4.91	1.08	131029.41	A	0.3915	0.4044			
PFHpS_2	4.91	1.08	52990.65	A	0.3915	0.4044	3	50	
PFOA	4.92	1.00	408992.65	A	0.0573	0.0570			
PFOA_2	4.92	1.00	23307.23	A	0.0573	0.0570	-1	50	
PFOS	5.24	1.00	137181.43	M	0.2960	0.3006			
PFOS_2	5.24	1.00	41235.40	M	0.2960	0.3006	2	50	
PFNA	5.26	1.00	376585.83	A	0.0201	0.0177			
PFNA_2	5.26	1.00	6676.44	A	0.0201	0.0177	-12	50	
PFNS	5.54	1.06	94448.57	A	0.4794	0.4627			
PFNS_2	5.54	1.06	43699.58	A	0.4794	0.4627	-3	50	
PFDA	5.56	1.00	356261.03	A	0.0075	0.0064			
PFDA_2	5.56	1.00	2278.50	M	0.0075	0.0064	-15	50	
8:2-FTS	5.56	1.00	52676.08	A	0.5380	0.6399			
8:2-FTS_2	5.56	1.00	33705.68	A	0.5380	0.6399	19	50	
NMeFOSAA	5.70	1.00	60912.55	M	0.2305	0.2716			
NMeFOSAA_2	5.70	1.00	16546.59	M	0.2305	0.2716	18	50	
PFDS	5.79	1.10	79486.48	A	0.5356	0.5145			
PFDS_2	5.79	1.10	40894.63	A	0.5356	0.5145	-4	50	
PFUnDA	5.82	1.00	368116.78	A	0.0038	0.0042			
PFUnDA_2	5.81	1.00	1560.66	A	0.0038	0.0042	11	50	
NEtFOSAA	5.83	1.00	56175.38	M	0.7356	0.7568			
NEtFOSAA_2	5.83	1.00	42516.13	M	0.7356	0.7568	3	50	
PFDoDA	6.05	1.00	480438.66	A	0.0130	0.0114			
PFDoDA_2	6.05	1.00	5496.89	A	0.0130	0.0114	-12	50	
10:2-FTS	6.06	1.09	53244.09	A	0.6989	0.8103			
10:2-FTS_2	6.06	1.09	43141.45	A	0.6989	0.8103	16	50	
PFTrDA	6.25	1.03	453601.44	A	0.0090	0.0080			
PFTrDA_2	6.24	1.03	3606.85	M	0.0090	0.0080	-12	50	
PFTeDA	6.43	1.00	333159.05	A	0.0056	0.0056			
PFTeDA_2	6.43	1.00	1878.34	A	0.0056	0.0056	1	50	
PFHxDA	6.73	1.05	160272.72	A	0.0646	0.0649			
PFHxDA_2	6.73	1.05	10399.04	M	0.0646	0.0649	0	50	
PFODA	6.99	1.09	137372.78	A	0.0264	0.0264			
PFODA_2	6.99	1.09	3621.96	A	0.0264	0.0264	0	50	

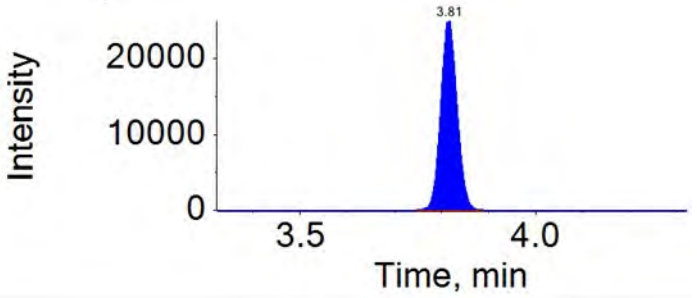
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

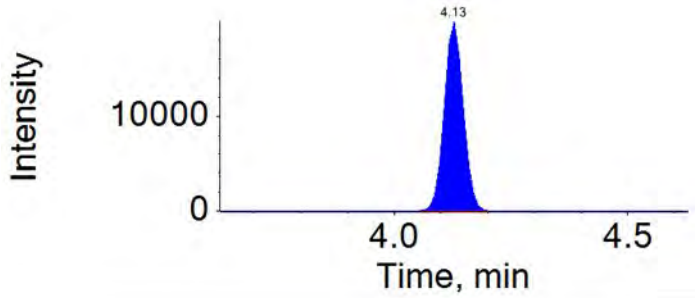
Component: PFBS
Primary Mass: 299.0 / 80.0



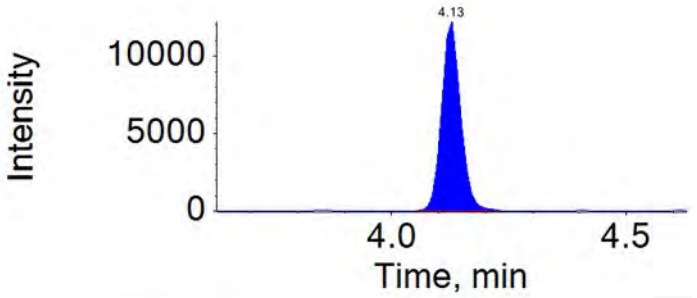
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



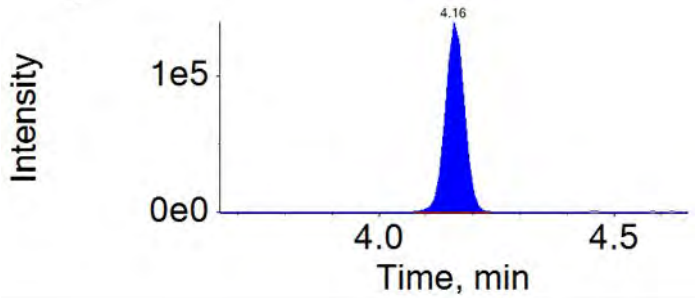
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



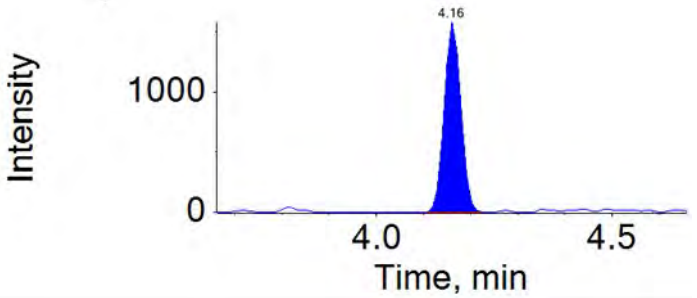
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



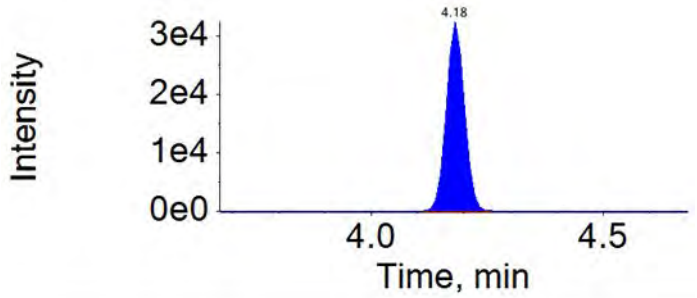
Component: PFHxA
Primary Mass: 313.0 / 269.0



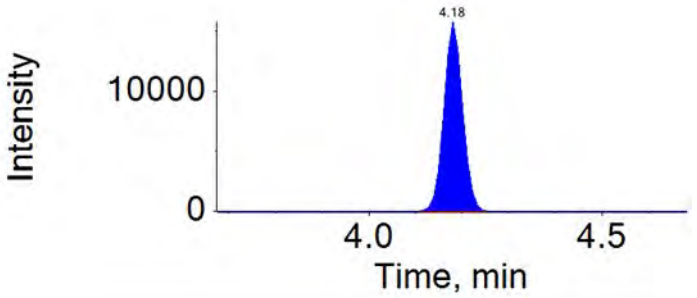
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



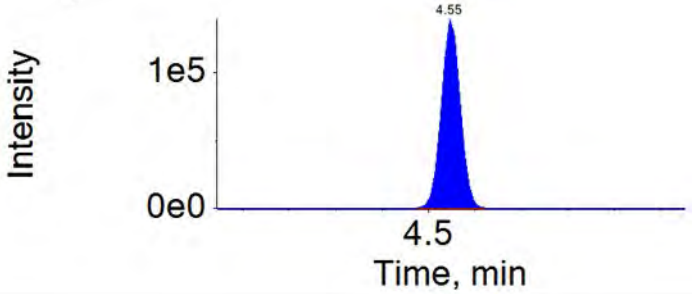
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



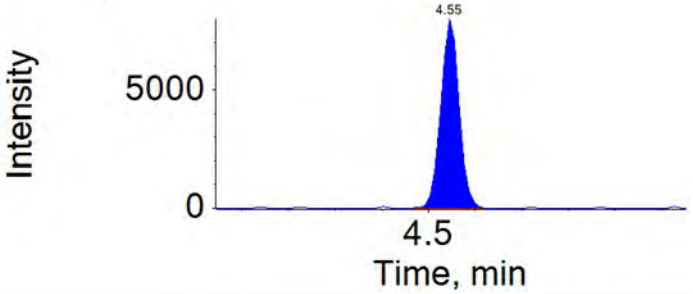
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

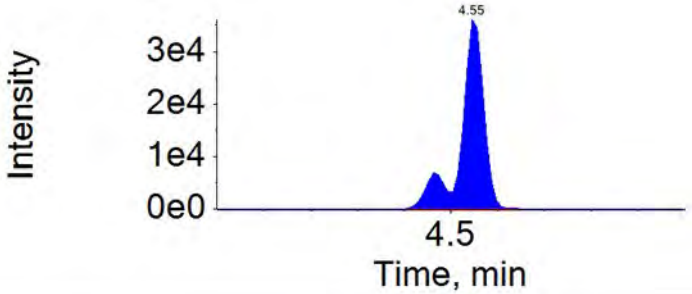
Component: PFHpA
Primary Mass: 363.0 / 319.0



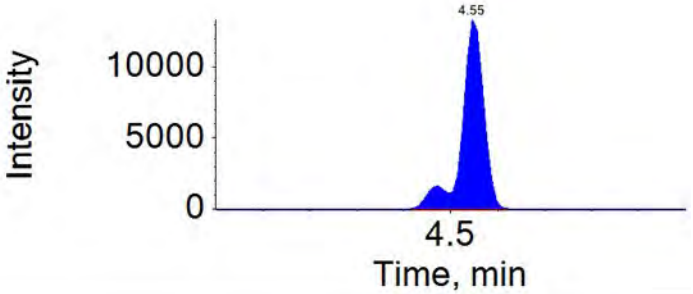
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



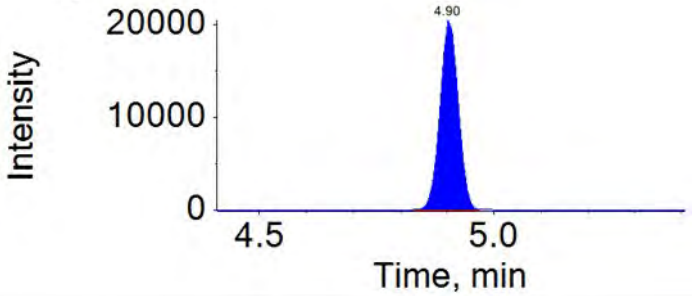
Component: PFHxS
Primary Mass: 399.0 / 80.0



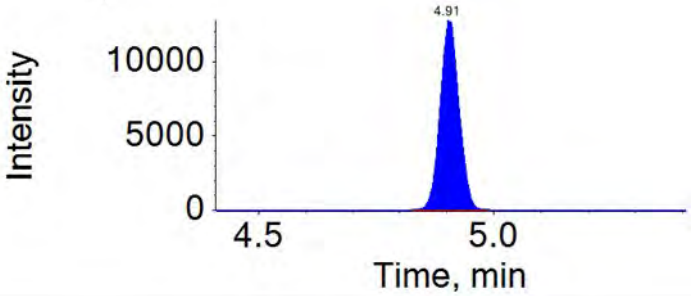
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



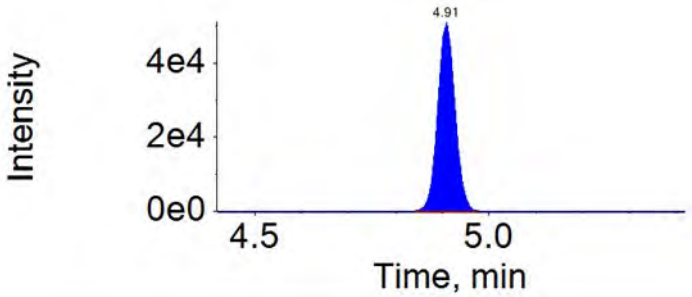
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



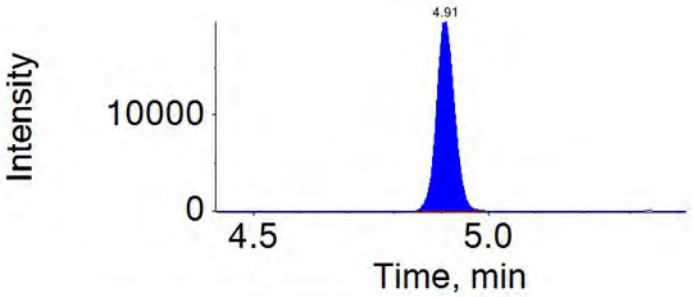
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



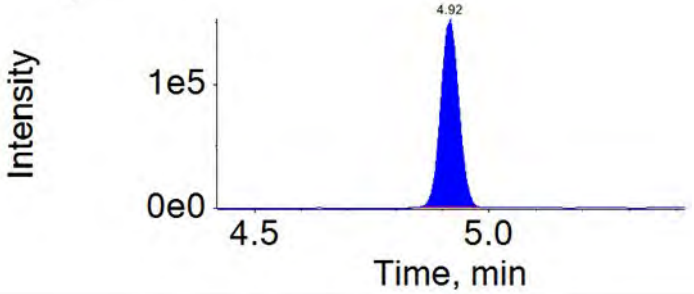
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



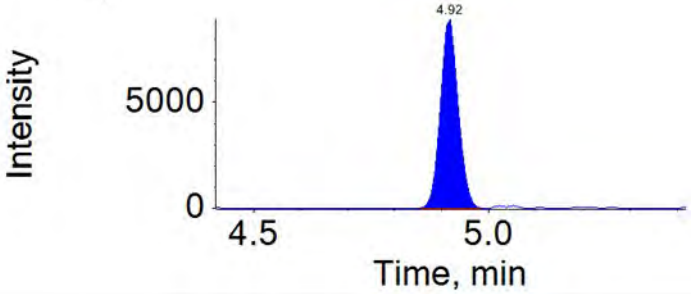
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

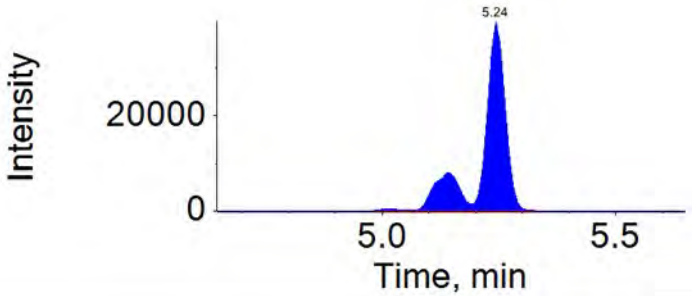
Component: PFOA
Primary Mass: 413.0 / 369.0



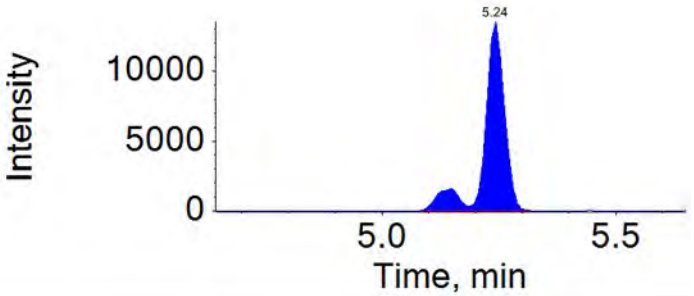
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



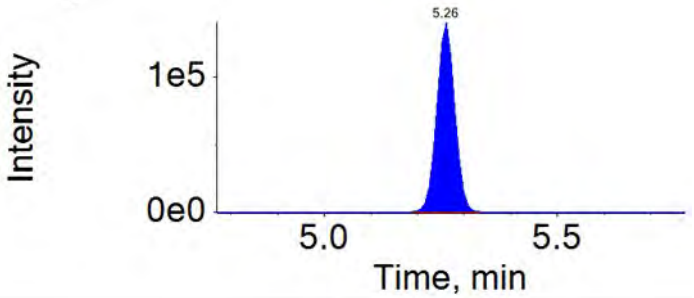
Component: PFOS
Primary Mass: 499.0 / 80.0



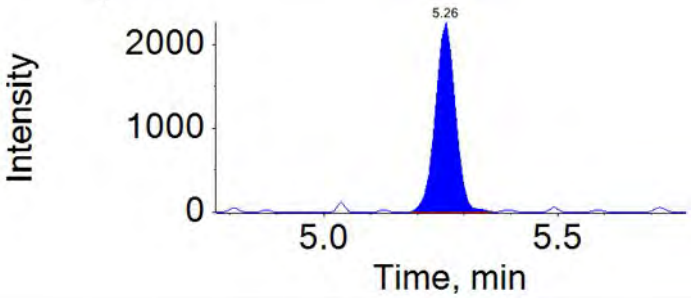
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



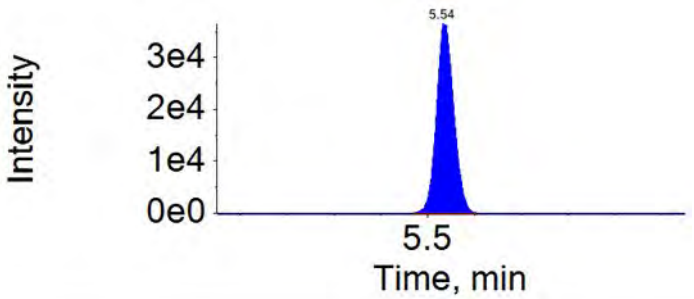
Component: PFNA
Primary Mass: 463.0 / 419.0



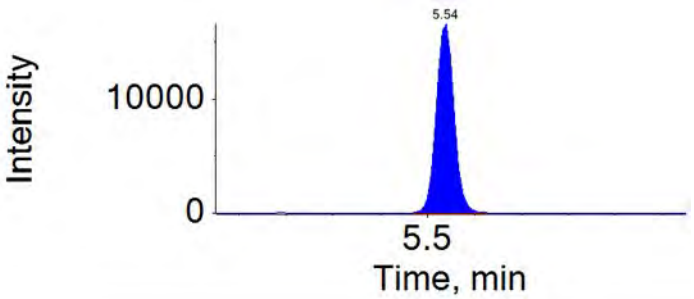
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



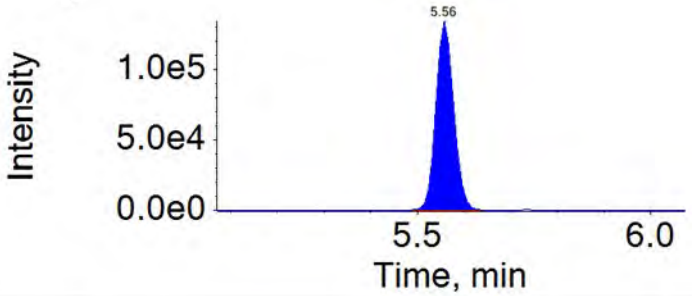
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



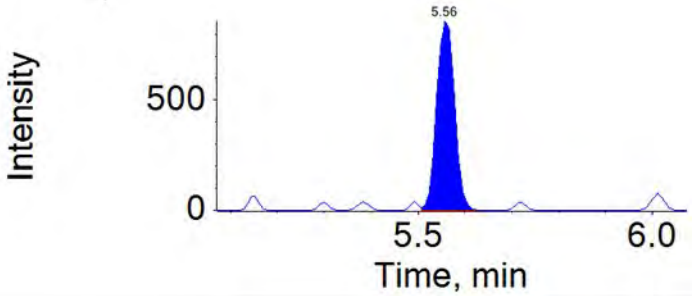
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

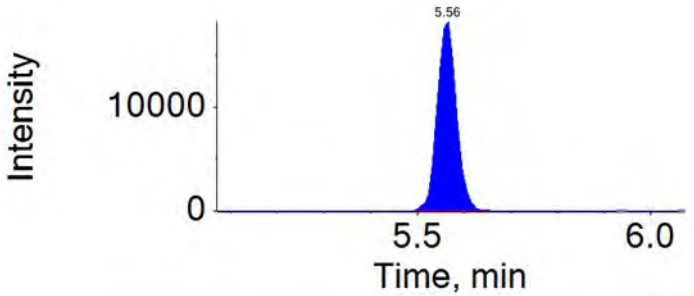
Component: PFDA
Primary Mass: 513.0 / 469.0



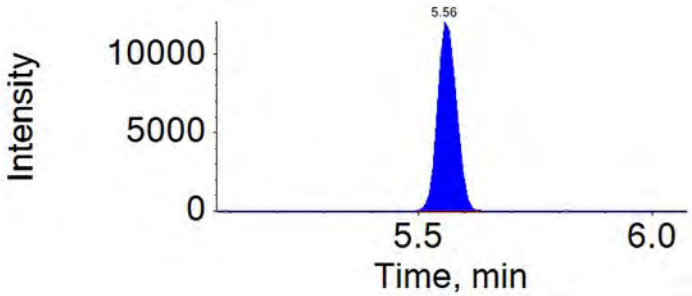
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



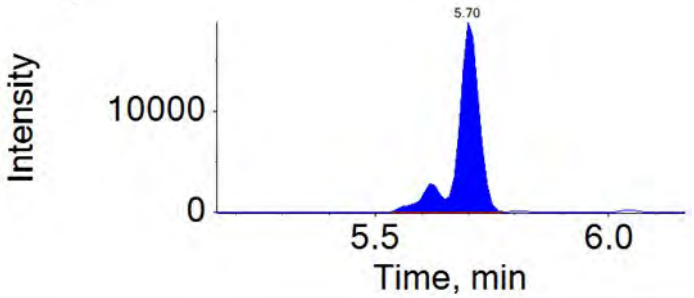
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



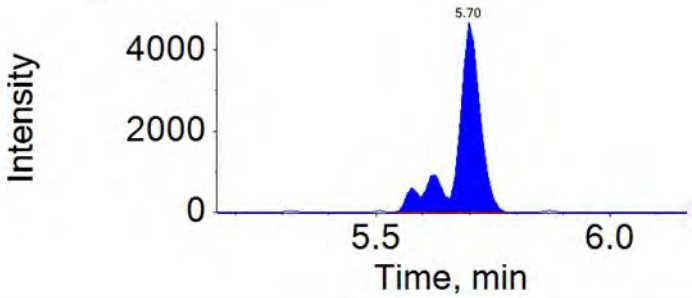
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



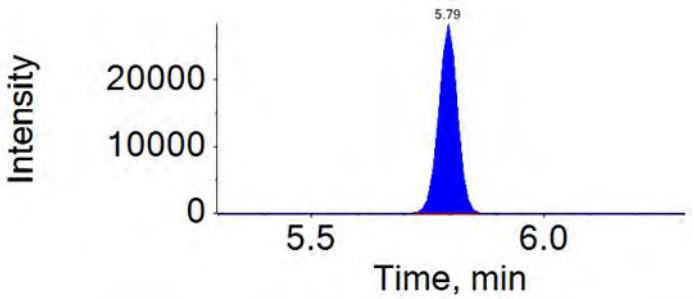
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



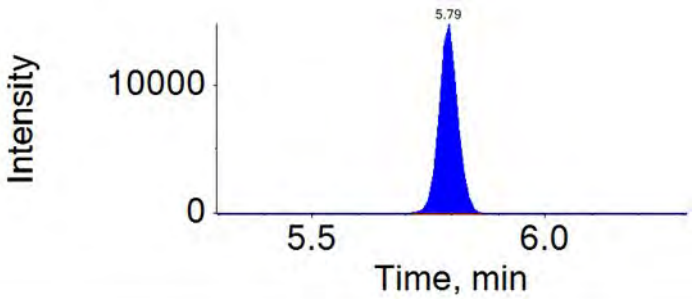
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



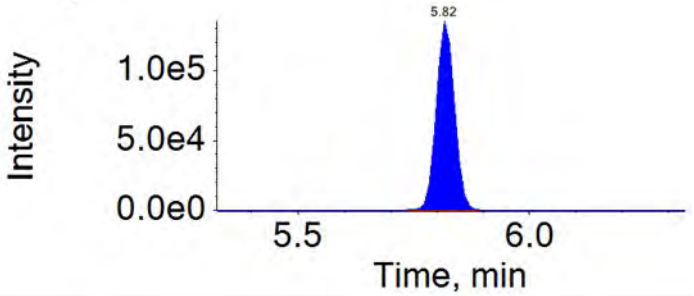
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



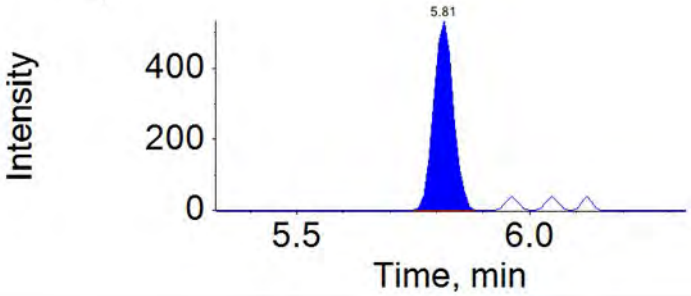
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

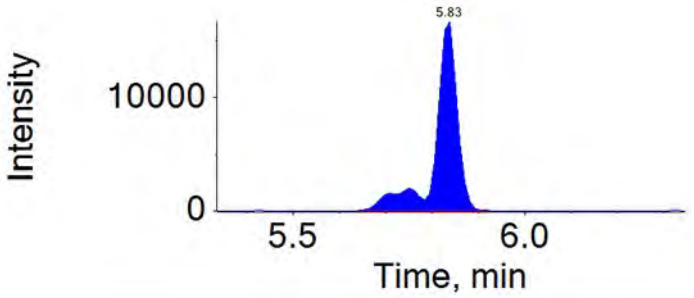
Component: PFUnDA
Primary Mass: 563.0 / 519.0



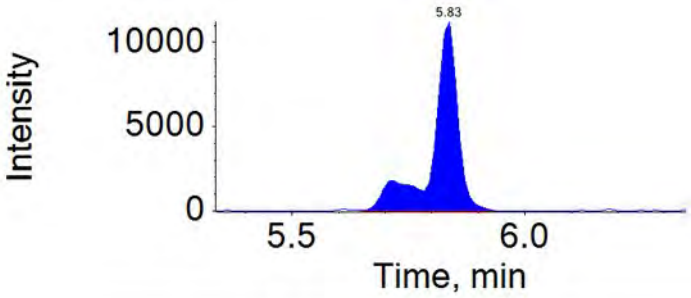
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



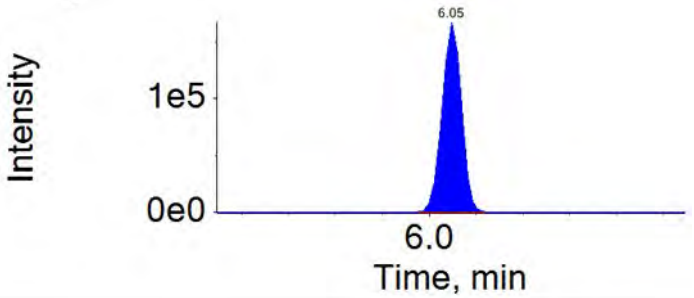
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



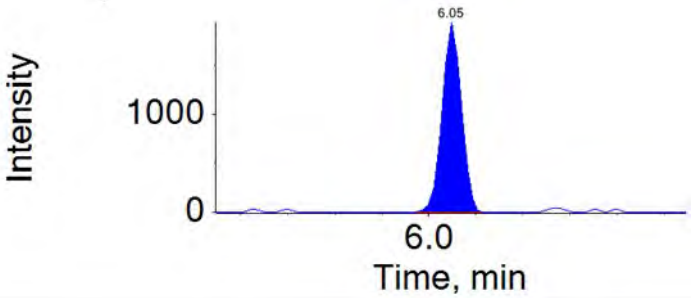
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



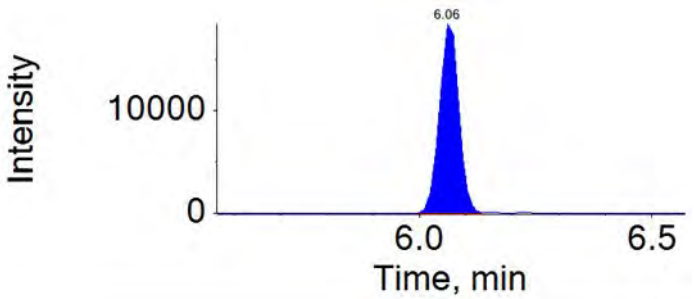
Component: PFDoDA
Primary Mass: 613.0 / 569.0



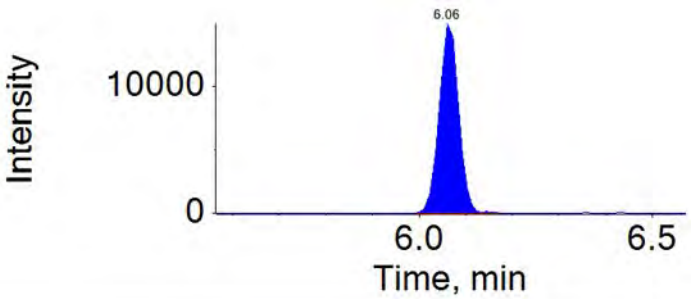
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



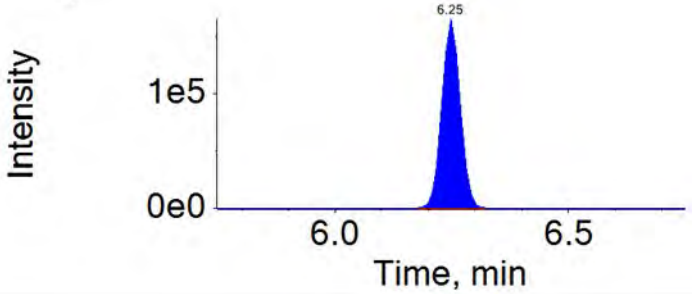
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



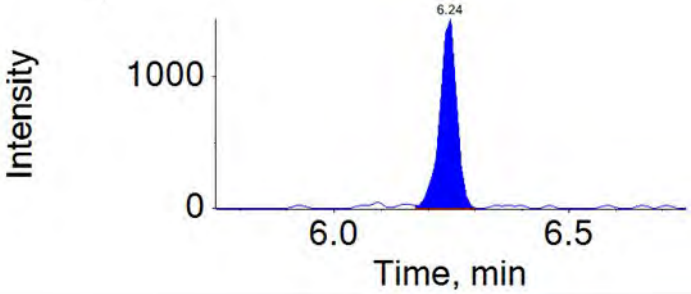
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

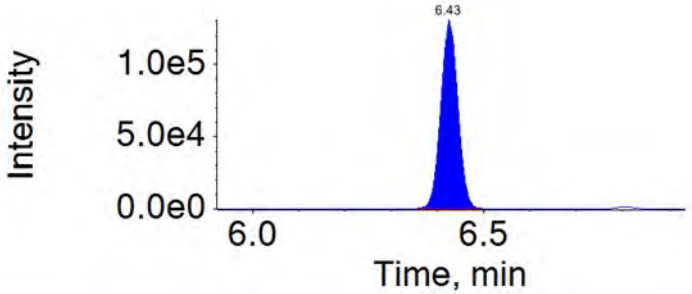
Component: PFTrDA
Primary Mass: 663.0 / 619.0



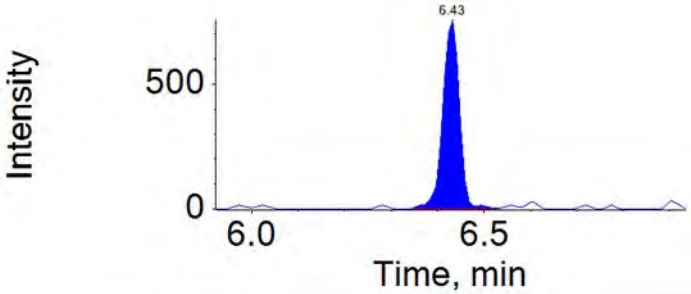
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



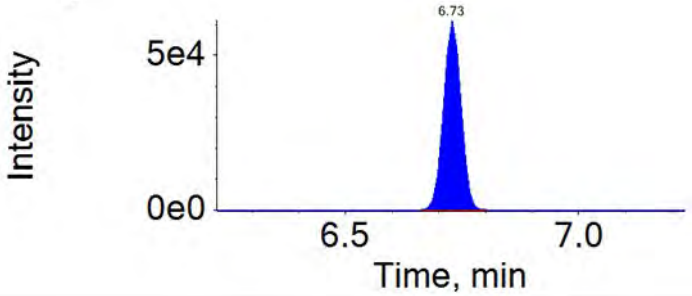
Component: PFTeDA
Primary Mass: 713.0 / 669.0



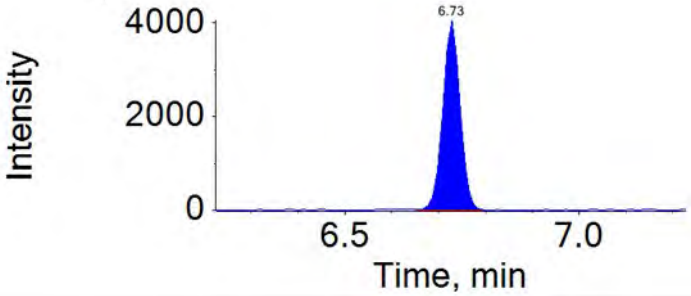
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



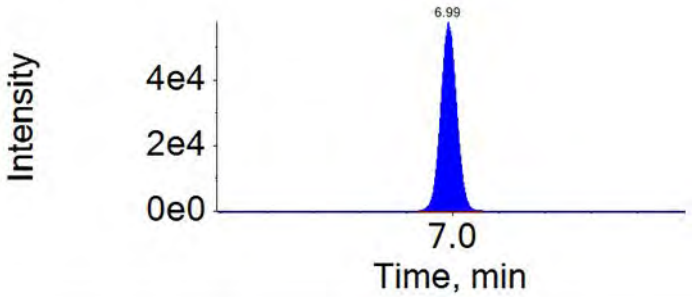
Component: PFHxDA
Primary Mass: 813.0 / 769.0



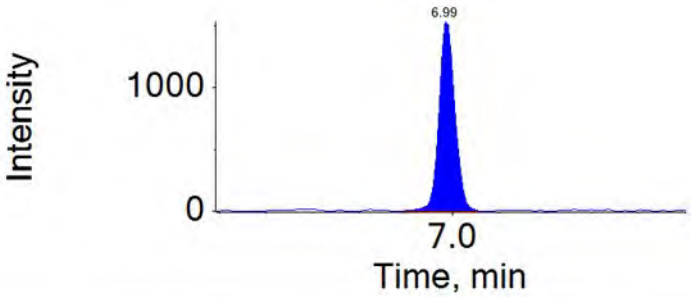
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



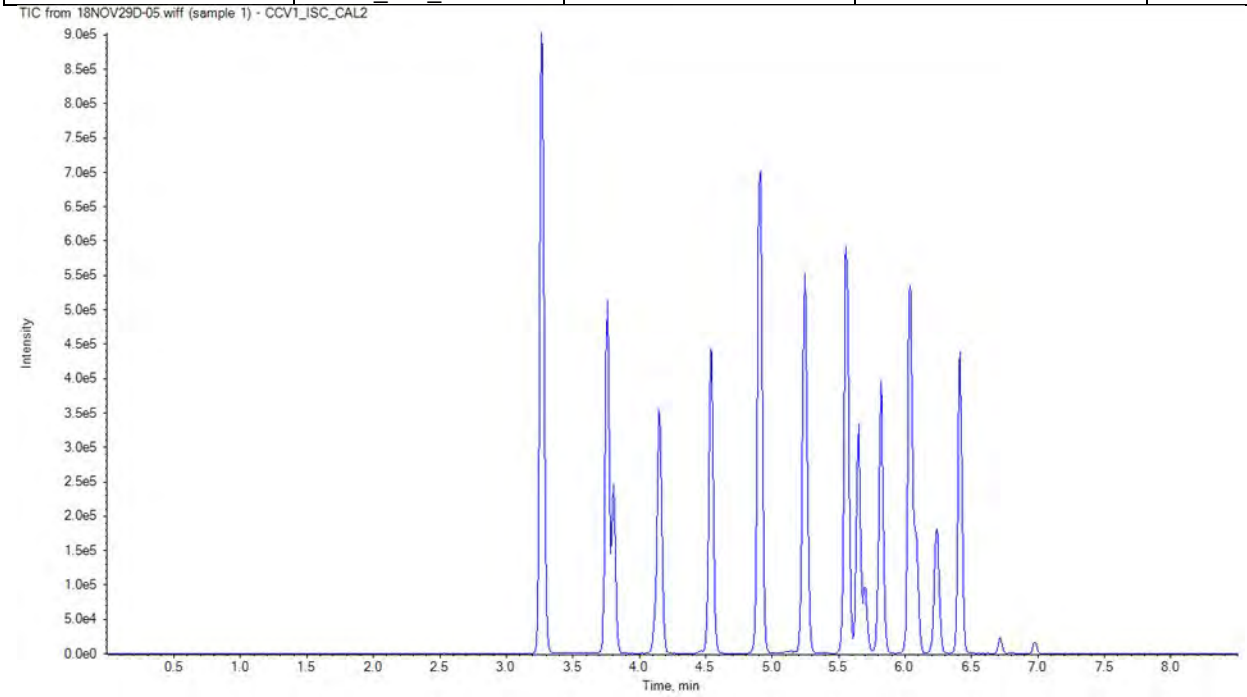
APPROVED
By MCD at 5:01 pm, 11/28/18

REVIEWED
By HMK at 12:22 pm, 11/29/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV29D-05.wiff	2018-11-29T10:33:38



Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	906425.4	887248.9	2	50	
13C2-PFOA	5.0	495984.0	498501.6	-1	50	
13C4-PFOS	4.8	296261.8	283214.2	5	50	
13C2-PFDA	5.0	451203.0	441790.6	2	50	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV29D-05.wiff	2018-11-29T10:33:38

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	110816.1	10	13C4-PFBA	1032944.8	5.0	0.107	3.26	1.000	0.600	0.588	-2	30	
PFPeA	102438.9	11	13C5-PFPeA	975653.2	5.0	0.105	3.76	1.000	0.600	0.515	-14	30	
PFBS	43167.2	11	13C3-PFBS	442664.0	4.7	0.098	3.81	1.000	0.531	0.473	-11	30	
4:2-FTS	12514.2	11	13C2-4:2-FTS	69056.9	4.7	0.181	4.12	1.000	0.560	0.485	-13	30	
PFHxA	100978.6	11	13C5-PFHxA	694772.3	5.0	0.145	4.15	1.000	0.600	0.583	-3	30	
PFPeS	24883.7	11	13C3-PFBS	442664.0	4.7	0.056	4.17	1.100	0.563	0.569	1	30	
PFHpA	99917.2	12	13C4-PFHpA	548364.3	5.0	0.182	4.54	1.000	0.600	0.562	-6	30	
PFHxS	34610.4	18	13C3-PFHxS	337158.7	4.7	0.103	4.54	1.000	0.547	0.481	-12	30	
6:2-FTS	14994.7	10	13C2-6:2-FTS	61226.3	4.8	0.245	4.90	1.000	0.569	0.639	12	30	
PFHpS	32932.0	11	13C3-PFHxS	337158.7	4.7	0.098	4.90	1.080	0.571	0.487	-15	30	
PFOA	107677.1	11	13C8-PFOA	1050891.3	5.0	0.102	4.91	1.000	0.600	0.529	-12	30	
PFOS	39254.5	21	13C8-PFOS	325457.1	4.8	0.121	5.24	1.000	0.555	0.506	-9	30	
PFNA	93355.4	12	13C9-PFNA	645112.4	5.0	0.145	5.25	1.000	0.600	0.555	-8	30	
PFNS	23416.1	11	13C8-PFOS	325457.1	4.8	0.072	5.54	1.060	0.576	0.454	-21	30	
PFDA	83849.1	11	13C6-PFDA	824275.9	5.0	0.102	5.56	1.000	0.600	0.576	-4	30	
8:2-FTS	15129.8	10	13C2-8:2-FTS	56119.6	4.8	0.270	5.56	1.000	0.575	0.508	-12	30	
PFOSA	69416.0	11	13C8-PFOSA	658157.0	5.0	0.105	5.65	1.000	0.600	0.534	-11	30	
NMeFOSAA	16285.3	17	d3-NMeFOSAA	192349.4	5.0	0.085	5.70	1.000	0.600	0.540	-10	30	
PFDS	22930.4	11	13C8-PFOS	325457.1	4.8	0.070	5.79	1.110	0.578	0.559	-3	30	
PFUnDA	94649.2	11	13C7-PFUnDA	586091.6	5.0	0.161	5.82	1.000	0.600	0.577	-4	30	
NEtFOSAA	15976.2	22	d5-NEtFOSAA	148667.1	5.0	0.107	5.83	1.000	0.600	0.523	-13	30	
PFDoDA	124243.3	12	13C2-PFDoDA	1129756.8	5.0	0.110	6.04	1.000	0.600	0.602	0	30	
10:2-FTS	14919.7	12	13C2-8:2-FTS	56119.6	4.8	0.266	6.05	1.090	0.578	0.586	1	30	
NMePFOSAE	36174.1	11	d7-NMePFOSAE	257961.3	5.0	0.140	6.09	1.000	0.600	0.590	-2	30	
NMePFOSA	8301.9	12	d3-NMePFOSA	85320.8	5.0	0.097	6.10	1.000	0.600	0.516	-14	30	
PFDoS	11172.3	11	13C8-PFOS	325457.1	4.8	0.034	6.20	1.180	0.581	0.493	-15	30	
NEtPFOSAE	36969.5	11	d9-NEtPFOSAE	229198.1	5.0	0.161	6.25	1.000	0.600	0.580	-3	30	
NEtPFOSA	7677.3	12	d5-NEtPFOSA	69372.1	5.0	0.111	6.26	1.000	0.600	0.496	-17	30	
PFTrDA	122778.8	11	13C2-PFDoDA	1129756.8	5.0	0.109	6.23	1.030	0.600	0.655	9	30	
PFTeDA	89123.1	10	13C2-PFTeDA	840112.8	5.0	0.106	6.41	1.000	0.600	0.601	0	30	
PFHxDA	45160.5	11	13C2-PFTeDA	840112.8	5.0	0.054	6.71	1.050	0.600	0.615	2	30	
PFODA	35571.7	10	13C2-PFTeDA	840112.8	5.0	0.042	6.98	1.090	0.600	0.564	-6	30	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV1_ISC_CAL2			**Data File:**		18NOV29D-05.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-29T10:33:38
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV1-5
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	906425.4	887248.9	2	50	
13C2-PFOA	5.0	495984.0	498501.6	-1	50	
13C4-PFOS	4.8	296261.8	283214.2	5	50	
13C2-PFDA	5.0	451203.0	441790.6	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1032944.8	13C3-PFBA	906425.4	1.140	5.000	5.084	102	70-130	
E13C5-PFPeA	975653.2	13C3-PFBA	906425.4	1.076	5.000	5.026	101	70-130	
E13C3-PFBS	442664.0	13C3-PFBA	906425.4	0.488	4.650	4.659	100	70-130	
E13C2-4:2-FTS	69056.9	13C2-PFOA	495984.0	0.139	4.670	4.798	103	70-130	
E13C5-PFHxA	694772.3	13C2-PFOA	495984.0	1.401	5.000	5.145	103	70-130	
E13C3-PFHxS	337158.7	13C2-PFOA	495984.0	0.680	4.730	5.328	113	70-130	
E13C4-PFHpA	548364.3	13C2-PFOA	495984.0	1.106	5.000	5.080	102	70-130	
E13C2-6:2-FTS	61226.3	13C2-PFOA	495984.0	0.123	4.750	5.167	109	70-130	
E13C8-PFOA	1050891.3	13C2-PFOA	495984.0	2.119	5.000	5.832	117	70-130	
E13C8-PFOS	325457.1	13C4-PFOS	296261.8	1.099	4.780	4.959	104	70-130	
E13C9-PFNA	645112.4	13C4-PFOS	296261.8	2.178	5.000	4.783	96	70-130	
E13C6-PFDA	824275.9	13C2-PFDA	451203.0	1.827	5.000	5.151	103	70-130	
E13C2-8:2-FTS	56119.6	13C2-PFDA	451203.0	0.124	4.790	5.346	112	70-130	
E13C8-PFOSA	658157.0	13C2-PFDA	451203.0	1.459	5.000	5.352	107	70-130	
Ed3-NMeFOSAA	192349.4	13C2-PFDA	451203.0	0.426	5.000	5.413	108	70-130	
E13C7-PFUnDA	586091.6	13C2-PFDA	451203.0	1.299	5.000	5.490	110	70-130	
Ed5-NEtFOSAA	148667.1	13C2-PFDA	451203.0	0.329	5.000	5.870	117	70-130	
E13C2-PFDoDA	1129756.8	13C2-PFDA	451203.0	2.504	5.000	5.261	105	70-130	
Ed7-NMePFOSAE	257961.3	13C2-PFDA	451203.0	0.572	5.000	4.941	99	70-130	
Ed3-NMePFOSA	85320.8	13C2-PFDA	451203.0	0.189	5.000	5.118	102	70-130	
Ed9-NEtPFOSAE	229198.1	13C2-PFDA	451203.0	0.508	5.000	5.150	103	70-130	
Ed5-NEtPFOSA	69372.1	13C2-PFDA	451203.0	0.154	5.000	5.342	107	70-130	
E13C2-PFTeDA	840112.8	13C2-PFDA	451203.0	1.862	5.000	5.152	103	70-130	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

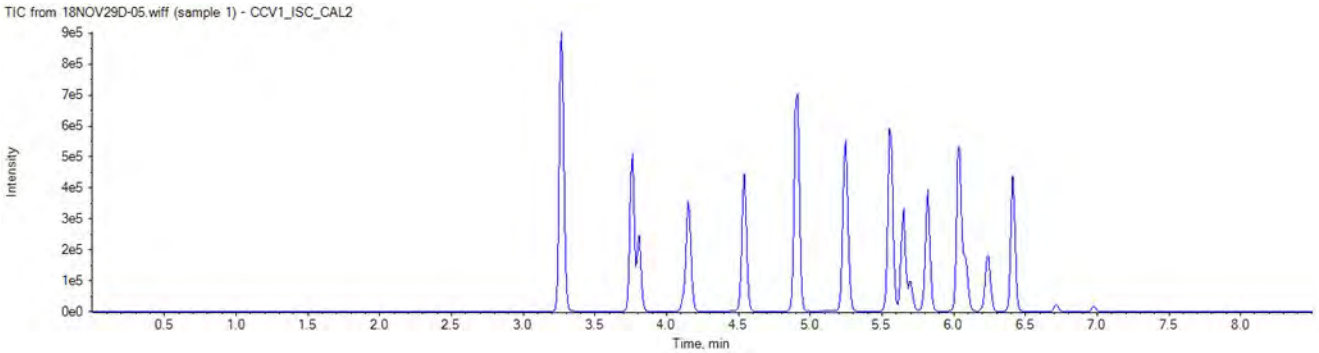
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-05.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	110816.1		A	13C4-PFBA	3.27	1032944.8	0.107	0.588
PFPeA	3.76	1.000	102438.9		A	13C5-PFPeA	3.76	975653.2	0.105	0.515
PFBS	3.81	1.000	43167.2		A	13C3-PFBS	3.81	442664.0	0.098	0.473
4:2-FTS	4.12	1.000	12514.2		A	13C2-4:2-FTS	4.12	69056.9	0.181	0.485
PFHxA	4.15	1.000	100978.6		A	13C5-PFHxA	4.15	694772.3	0.145	0.583
PFPeS	4.17	1.100	24883.7		A	13C3-PFBS	3.81	442664.0	0.056	0.569
PFHpA	4.54	1.000	99917.2		A	13C4-PFHpA	4.54	548364.3	0.182	0.562
PFHxS	4.54	1.000	34610.4		M	13C3-PFHxS	4.54	337158.7	0.103	0.481
6:2-FTS	4.90	1.000	14994.7		A	13C2-6:2-FTS	4.90	61226.3	0.245	0.639
PFHpS	4.90	1.080	32932.0		A	13C3-PFHxS	4.54	337158.7	0.098	0.487
PFOA	4.91	1.000	107677.1		A	13C8-PFOA	4.91	1050891.3	0.102	0.529
PFOS	5.24	1.000	39254.5		M	13C8-PFOS	5.24	325457.1	0.121	0.506
PFNA	5.25	1.000	93355.4		A	13C9-PFNA	5.25	645112.4	0.145	0.555
PFNS	5.54	1.060	23416.1		A	13C8-PFOS	5.24	325457.1	0.072	0.454
PFDA	5.56	1.000	83849.1		A	13C6-PFDA	5.56	824275.9	0.102	0.576
8:2-FTS	5.56	1.000	15129.8		A	13C2-8:2-FTS	5.56	56119.6	0.270	0.508
PFOSA	5.65	1.000	69416.0		A	13C8-PFOSA	5.65	658157.0	0.105	0.534
NMeFOSAA	5.70	1.000	16285.3		M	d3-NMeFOSAA	5.70	192349.4	0.085	0.540
PFDS	5.79	1.110	22930.4		A	13C8-PFOS	5.24	325457.1	0.070	0.559
PFUnDA	5.82	1.000	94649.2		A	13C7-PFUnDA	5.82	586091.6	0.161	0.577
NEtFOSAA	5.83	1.000	15976.2		M	d5-NEtFOSAA	5.83	148667.1	0.107	0.523
PFDoDA	6.04	1.000	124243.3		A	13C2-PFDoDA	6.04	1129756.8	0.110	0.602
10:2-FTS	6.05	1.090	14919.7		A	13C2-8:2-FTS	5.56	56119.6	0.266	0.586
NMePFOSAE	6.09	1.000	36174.1		A	d7-NMePFOSAE	6.08	257961.3	0.140	0.590
NMePFOSA	6.10	1.000	8301.9		A	d3-NMePFOSA	6.09	85320.8	0.097	0.516
PFDoS	6.20	1.180	11172.3		A	13C8-PFOS	5.24	325457.1	0.034	0.493
NEtPFOSAE	6.25	1.000	36969.5		A	d9-NEtPFOSAE	6.23	229198.1	0.161	0.580
NEtPFOSA	6.26	1.000	7677.3		A	d5-NEtPFOSA	6.25	69372.1	0.111	0.496
PFTrDA	6.23	1.030	122778.8		A	13C2-PFDoDA	6.04	1129756.8	0.109	0.655
PFTeDA	6.41	1.000	89123.1		A	13C2-PFTeDA	6.41	840112.8	0.106	0.601
PFHxDA	6.71	1.050	45160.5		A	13C2-PFTeDA	6.41	840112.8	0.054	0.615
PFODA	6.98	1.090	35571.7		A	13C2-PFTeDA	6.41	840112.8	0.042	0.564

Total Ion Chromatogram

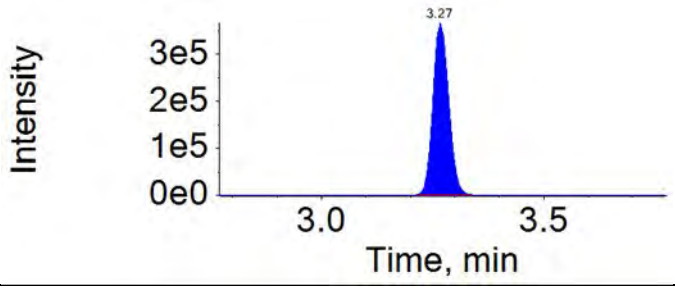


APPROVED
By MCD at 8:06 pm, 11/29/18

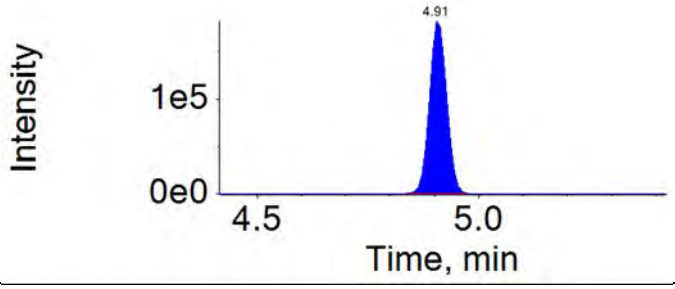
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

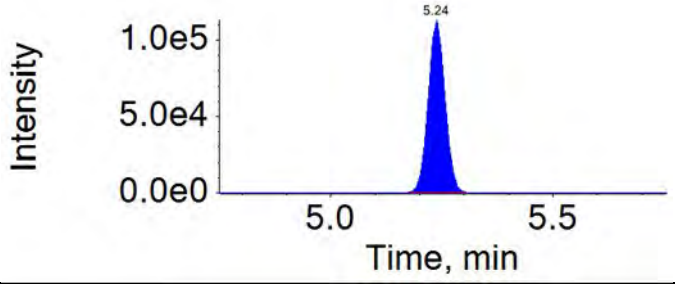
Injection Standard: 13C3-PFBA
216.0 / 172.0



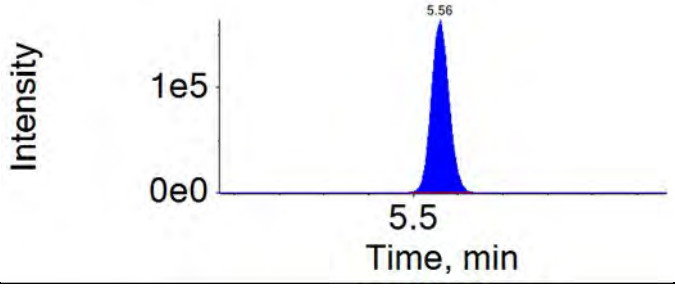
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



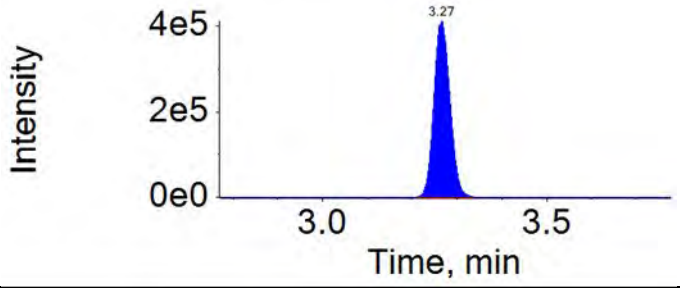
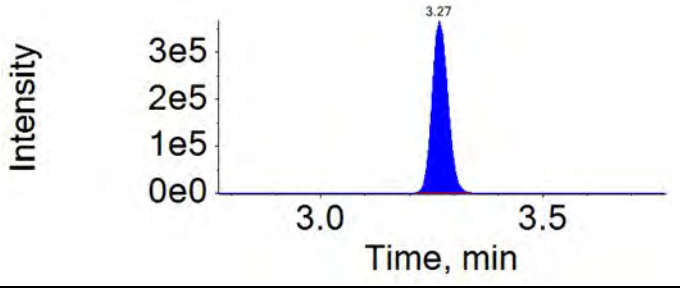
Injection Standard: 13C2-PFDA
515.0 / 470.0

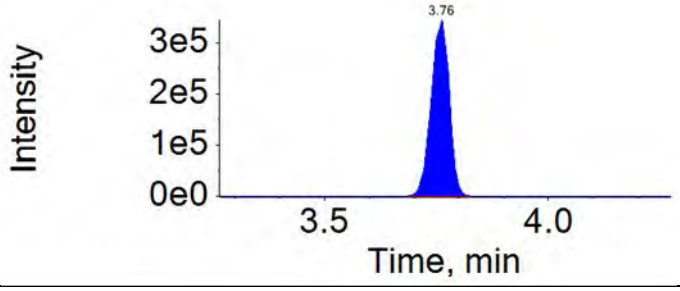
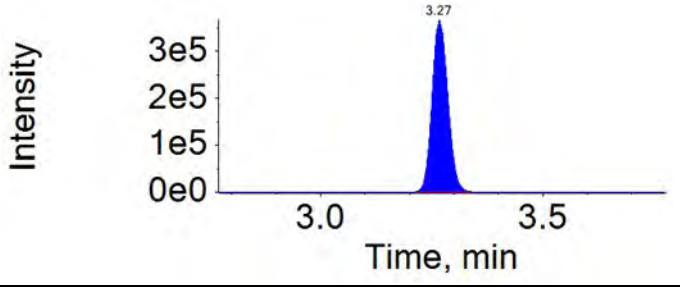


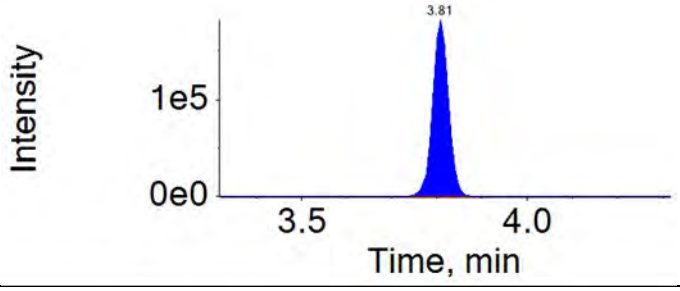
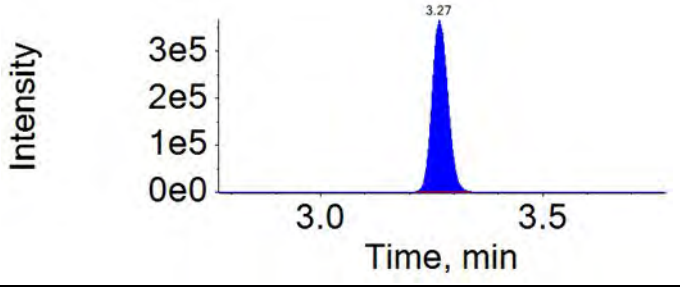
APPROVED
By MCD at 8:06 pm, 11/29/18

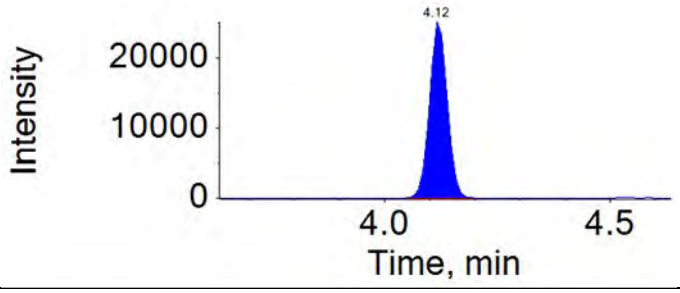
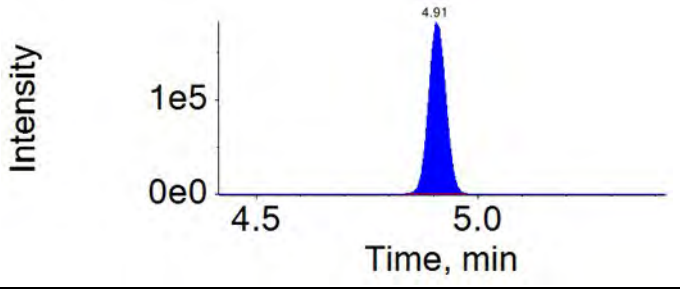
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

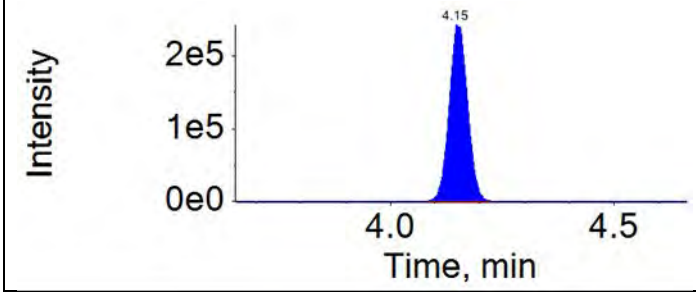
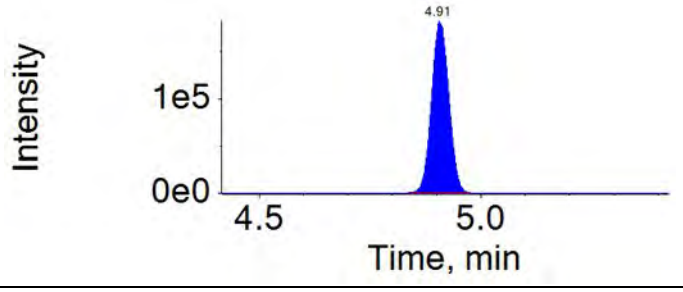
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

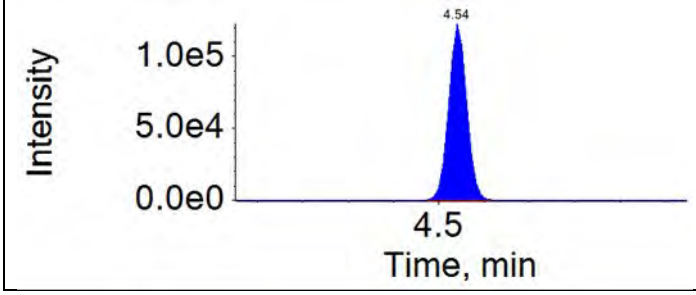
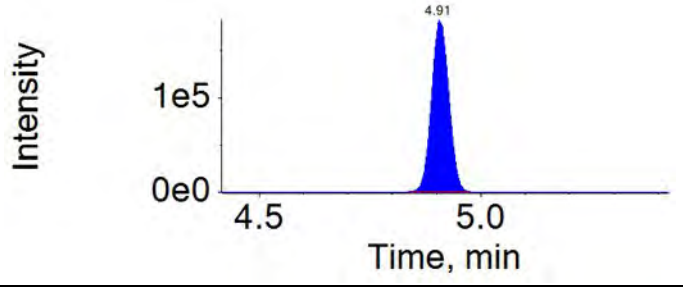
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

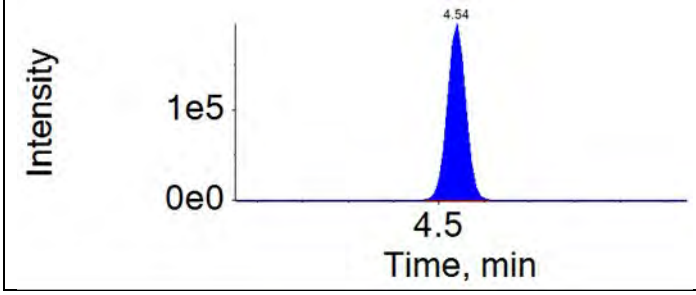
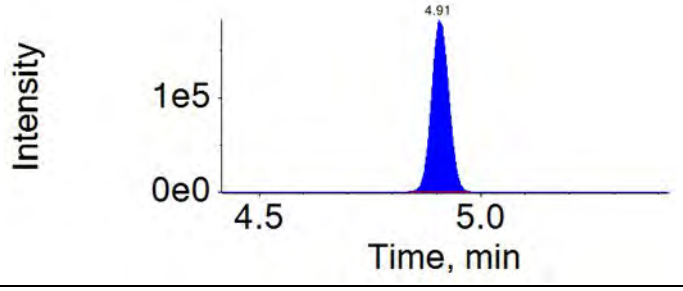
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

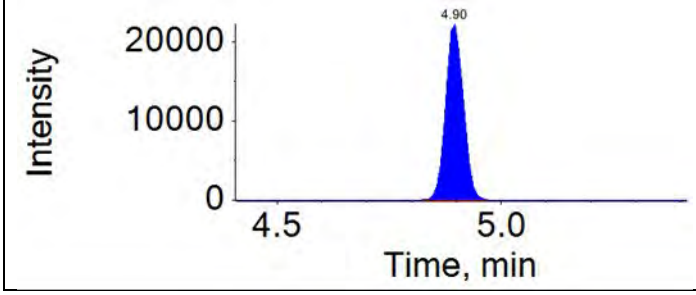
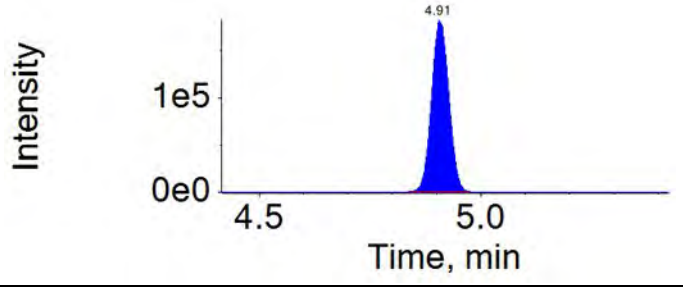
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

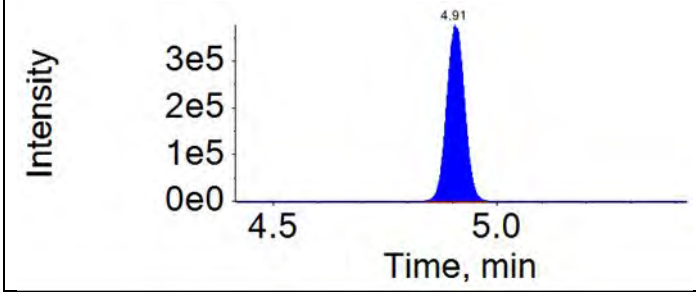
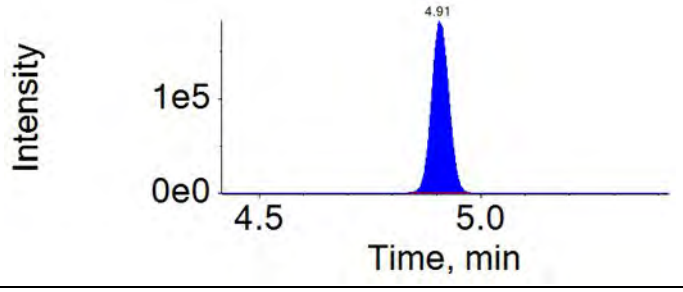
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

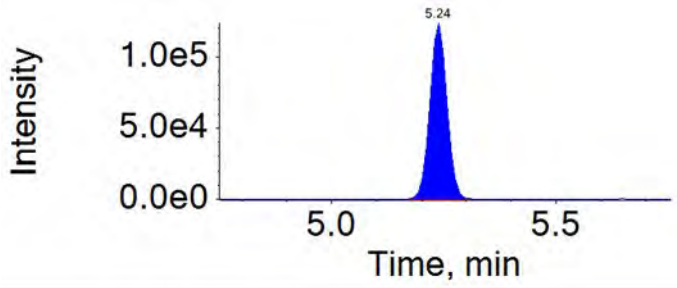
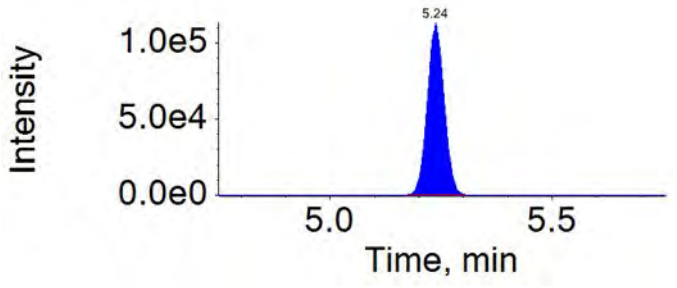
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

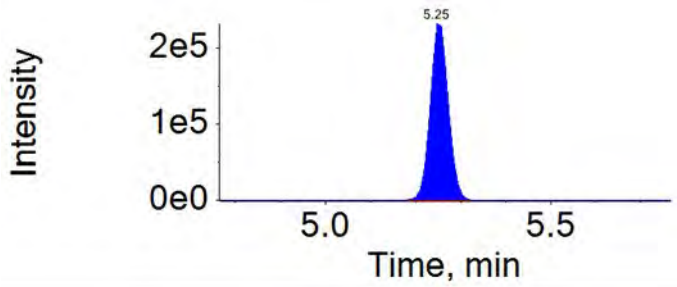
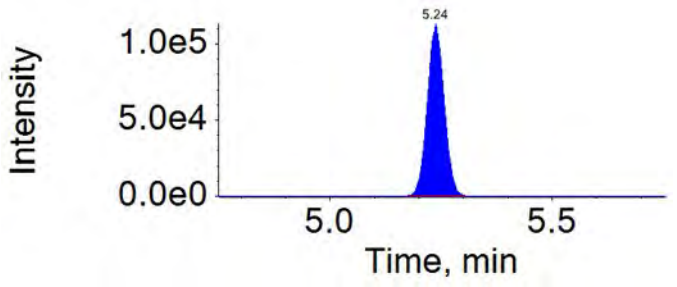
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

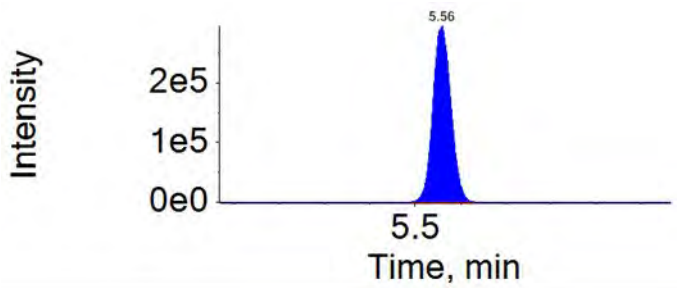
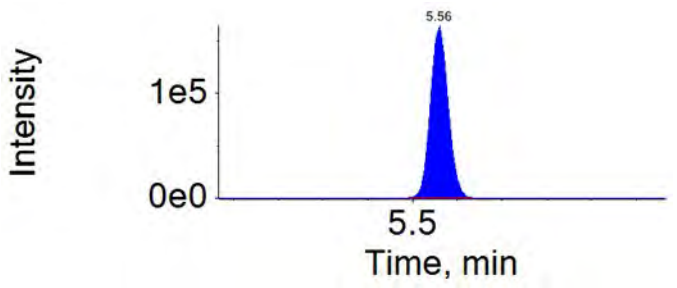
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

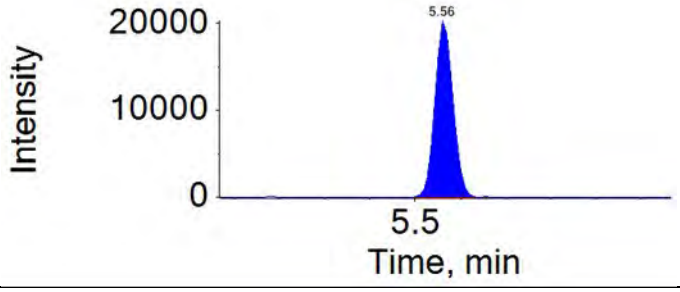
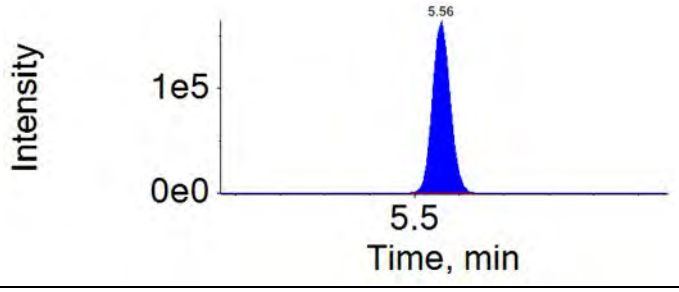
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

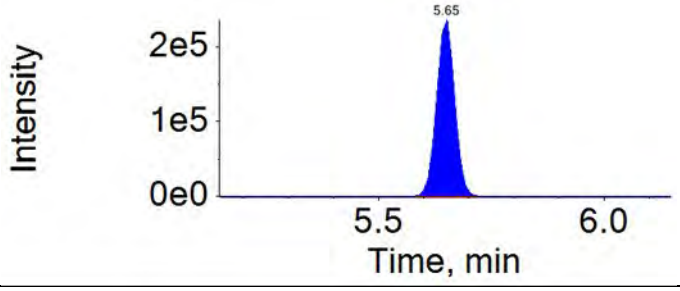
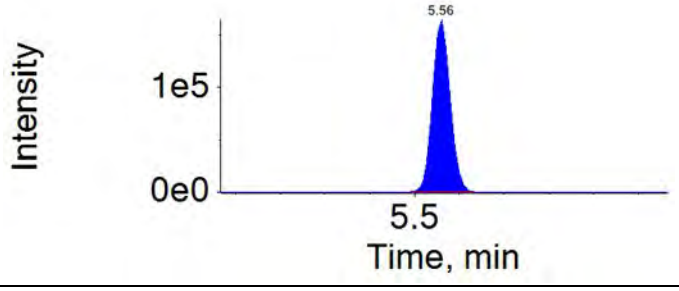
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

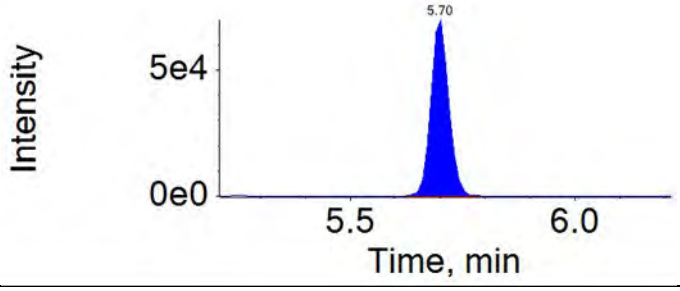
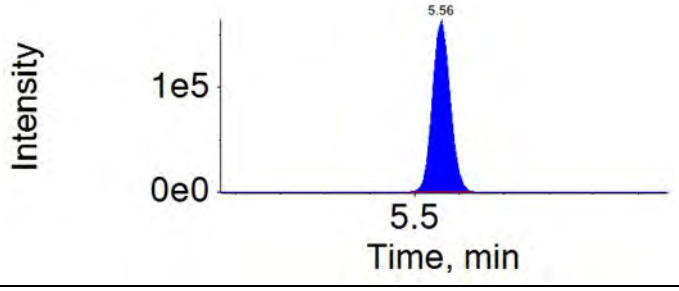
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

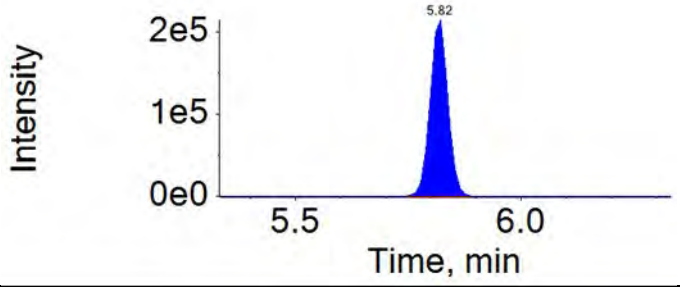
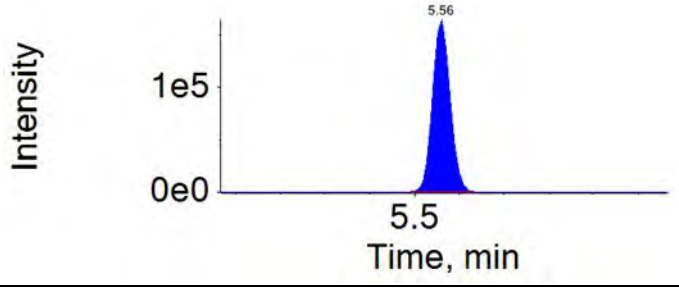
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

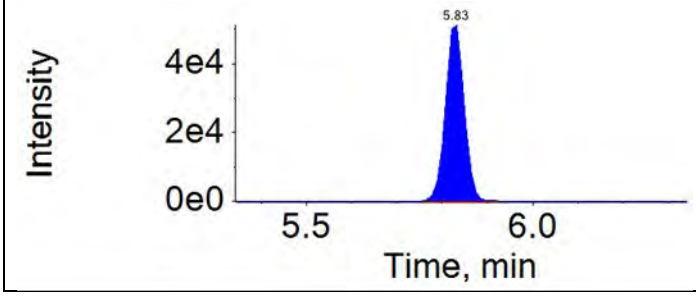
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

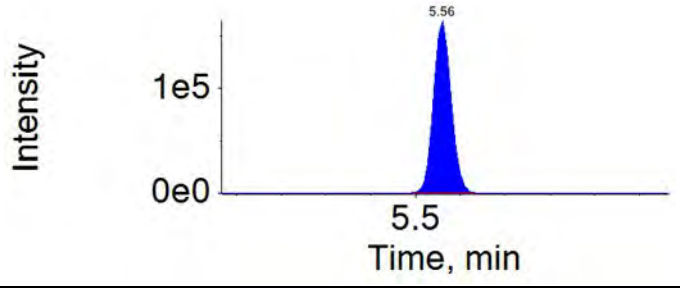
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

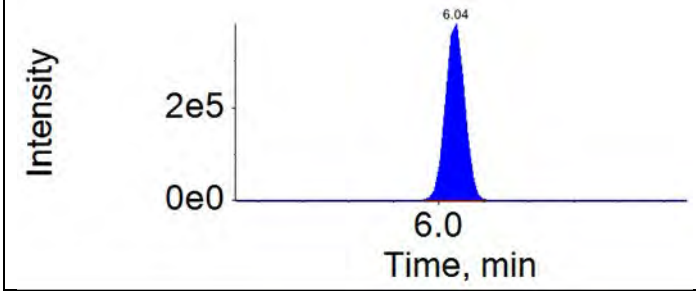
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

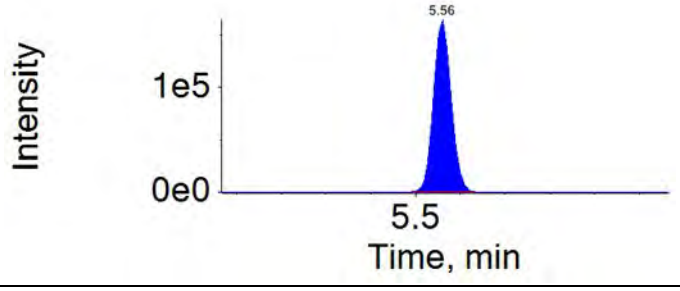
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



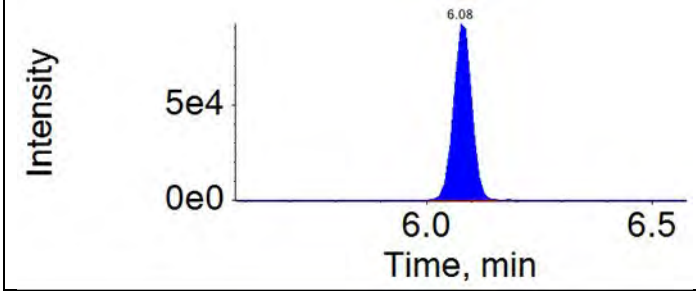


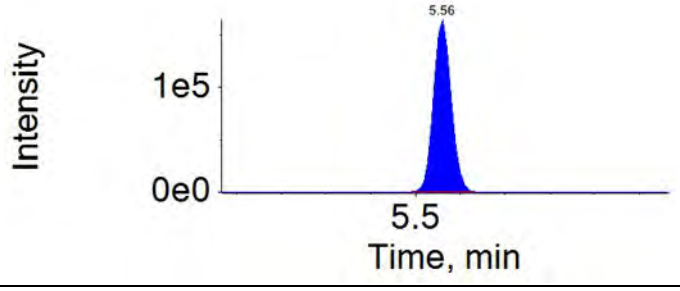
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



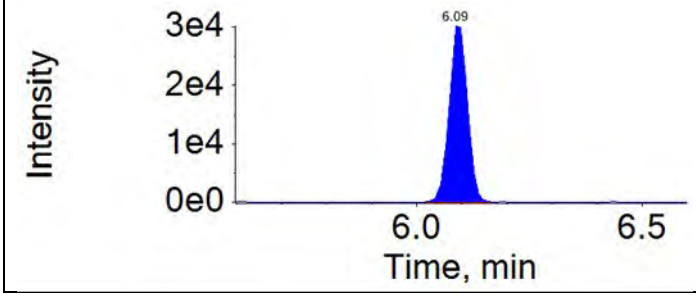


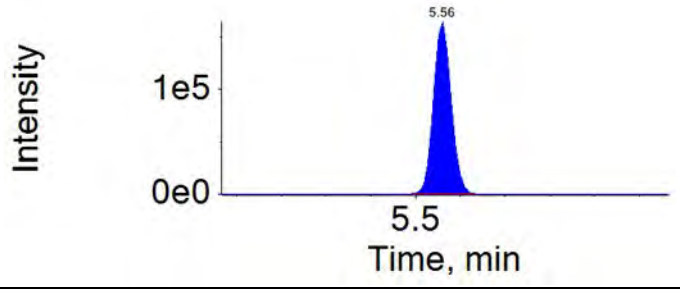
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



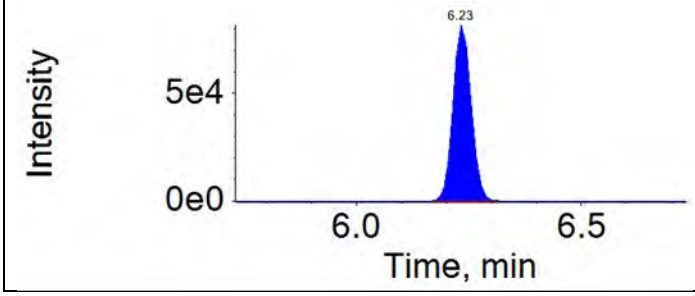


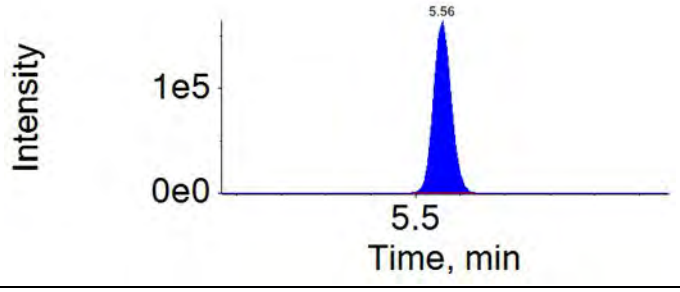
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

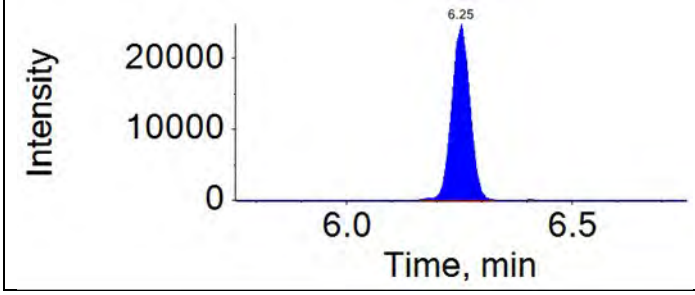
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

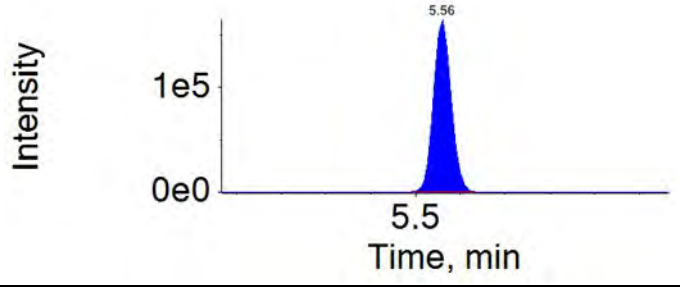
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



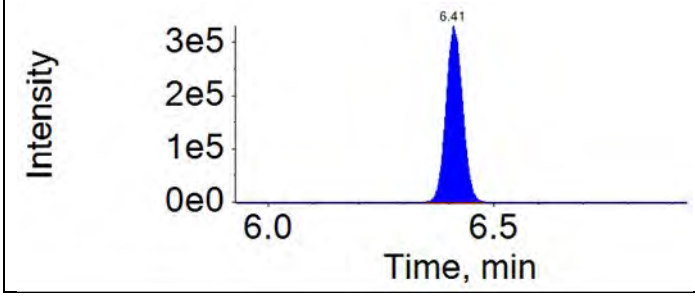


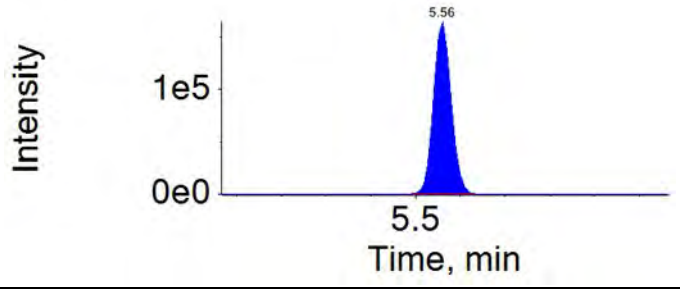
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



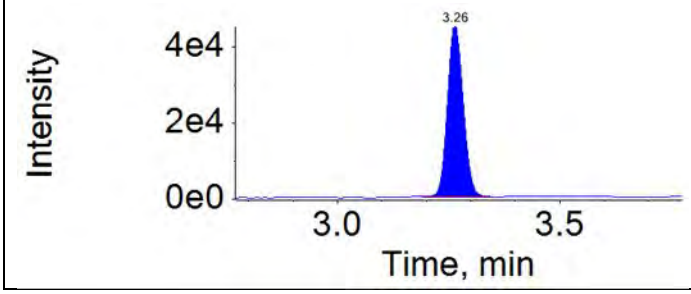


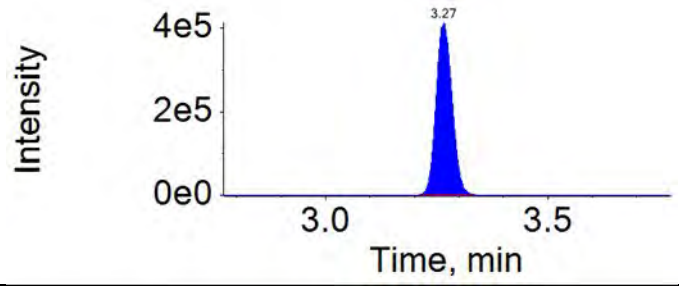
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

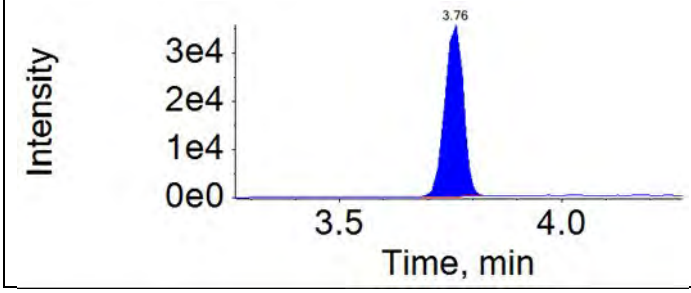
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

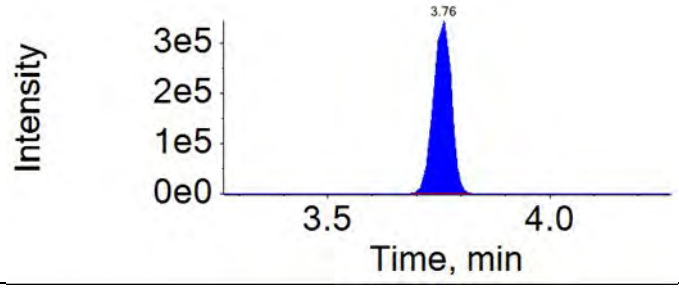
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



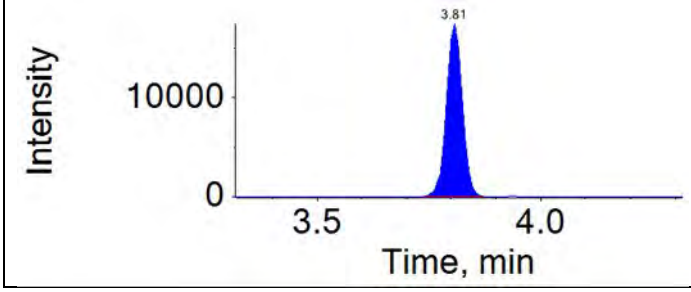


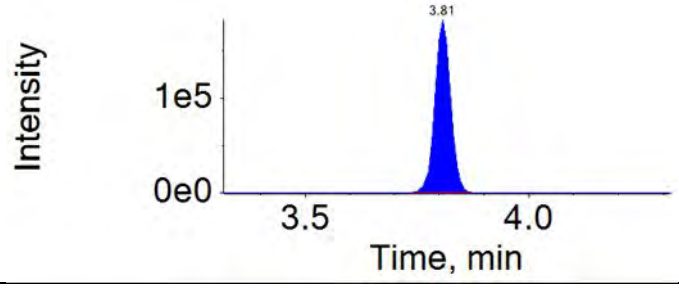
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



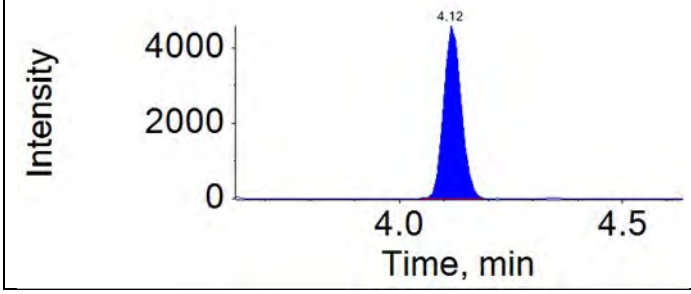


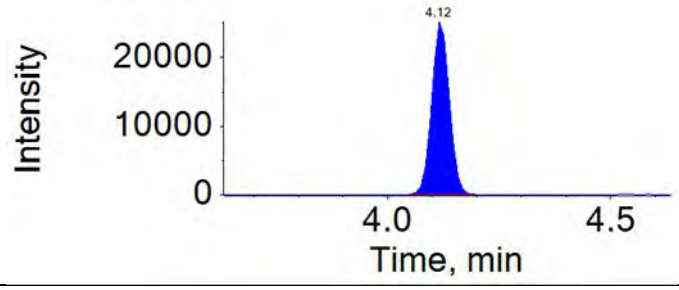
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

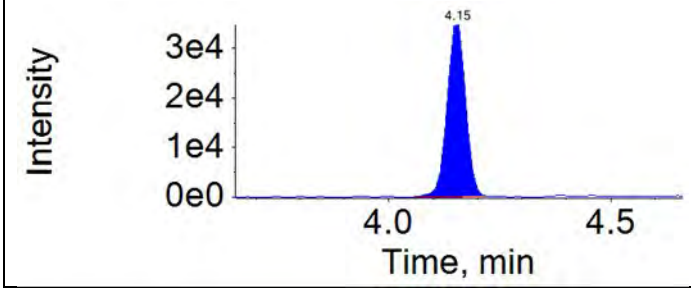
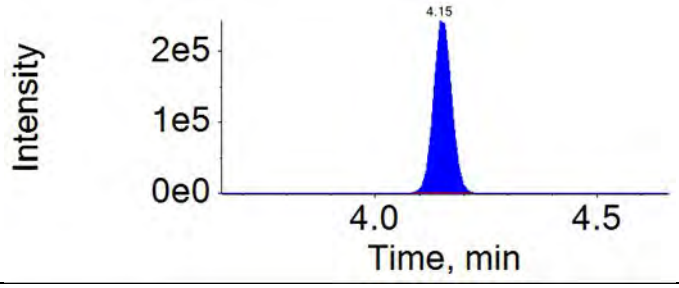


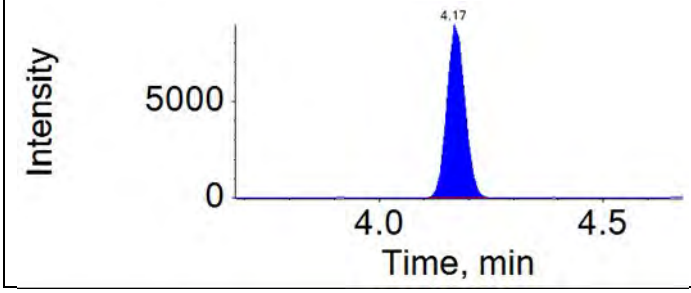
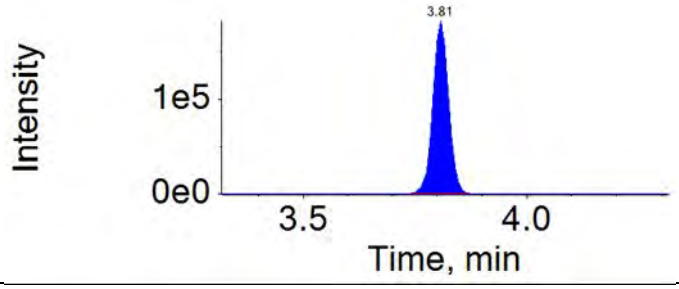


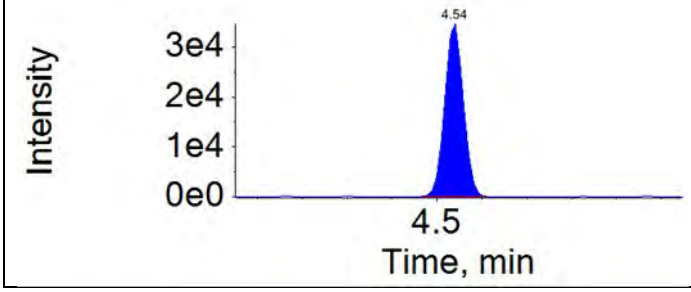
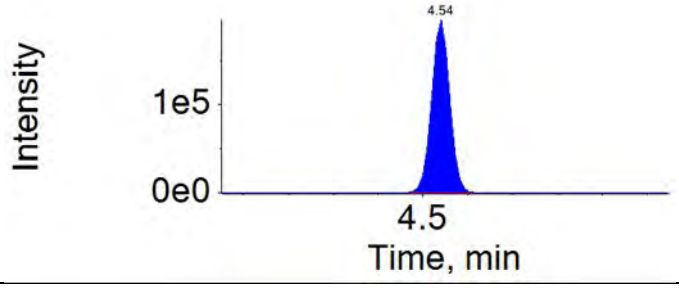
APPROVED
By MCD at 8:06 pm, 11/29/18

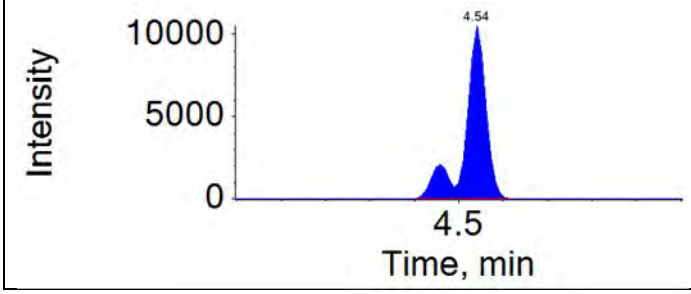
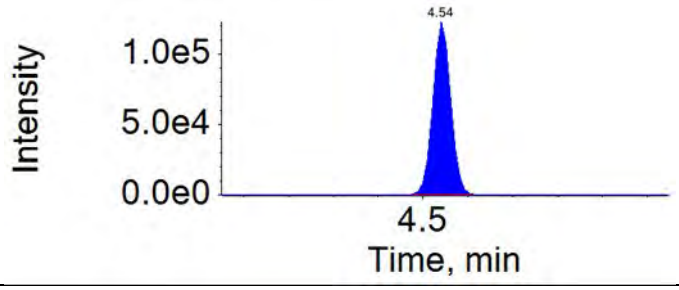
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

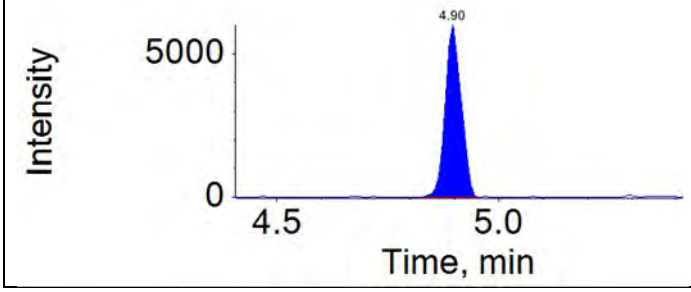
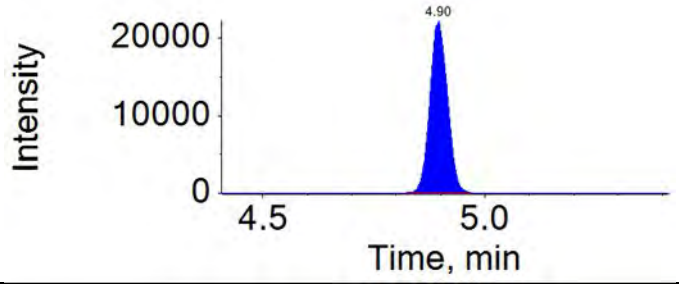
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

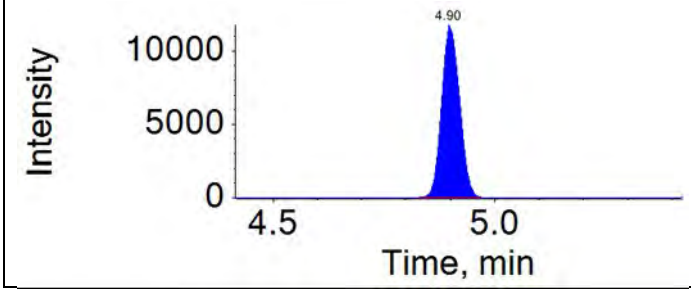
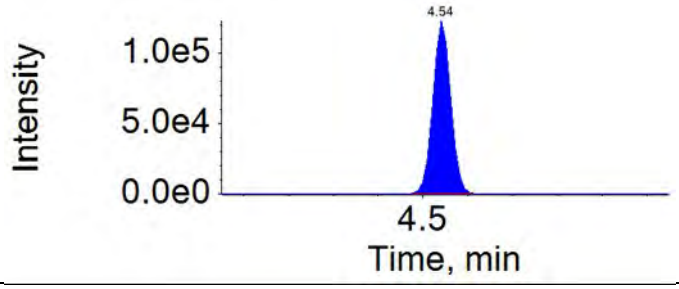
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

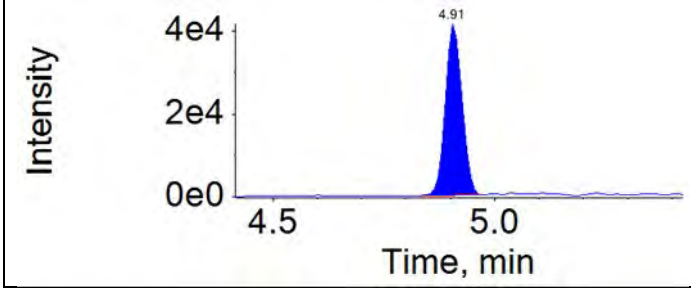
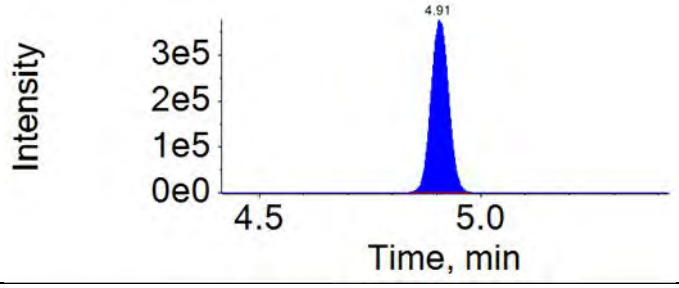
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

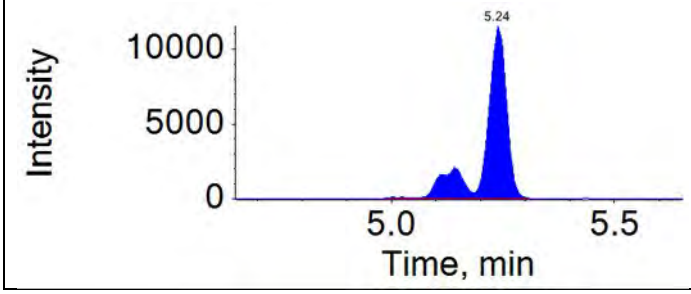
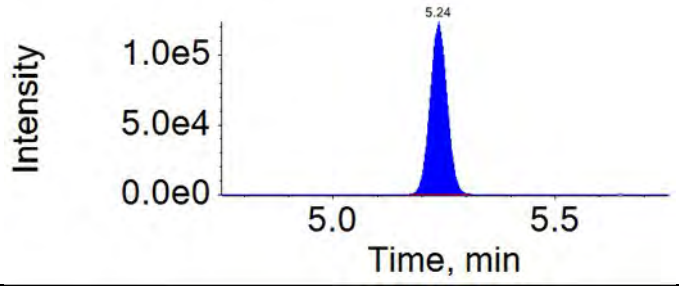
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

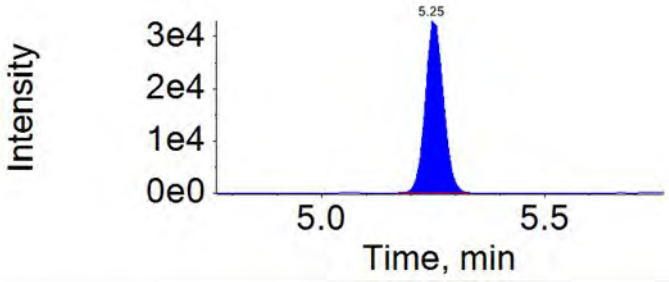
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

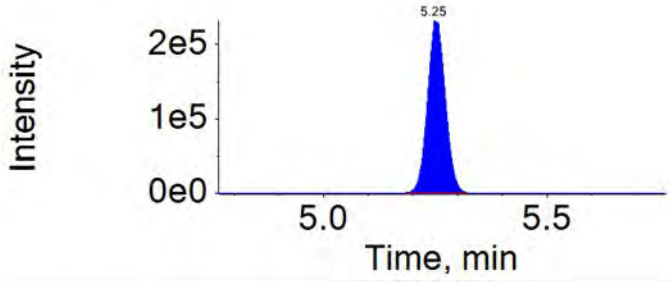
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

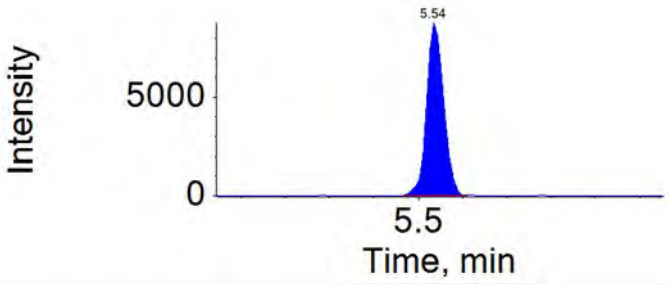
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

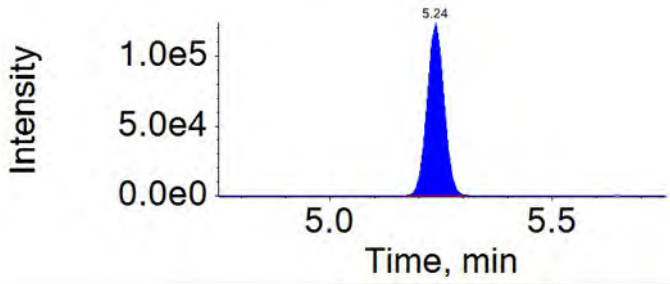
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



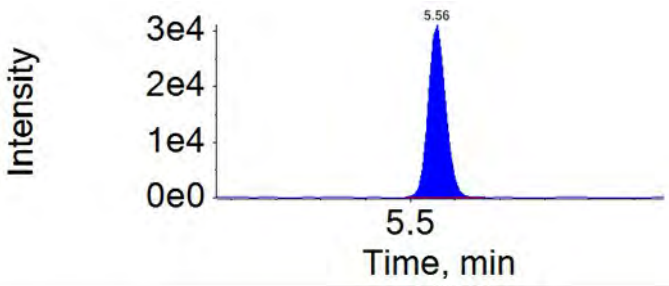


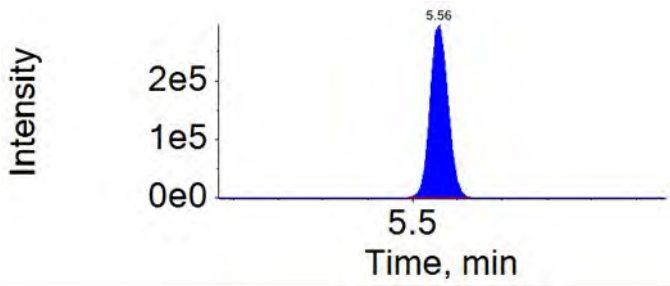
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



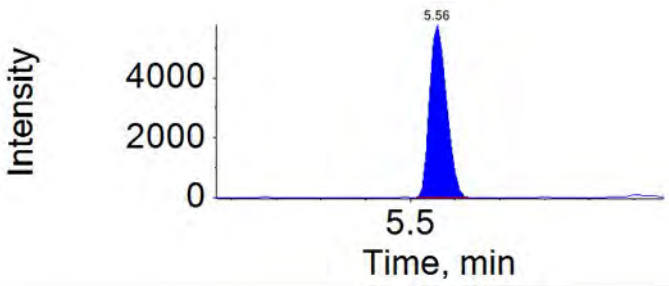


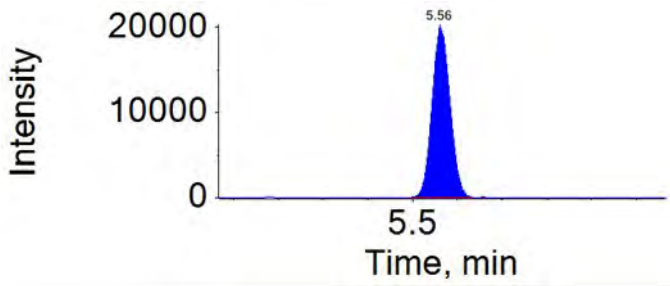
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

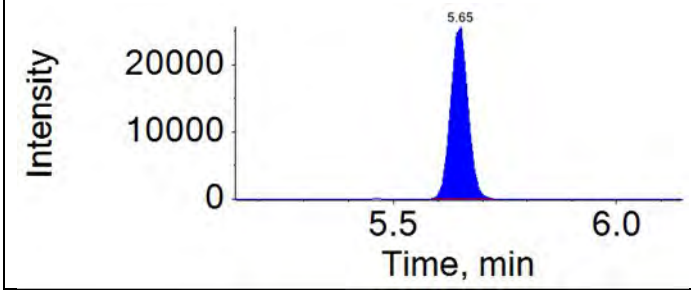
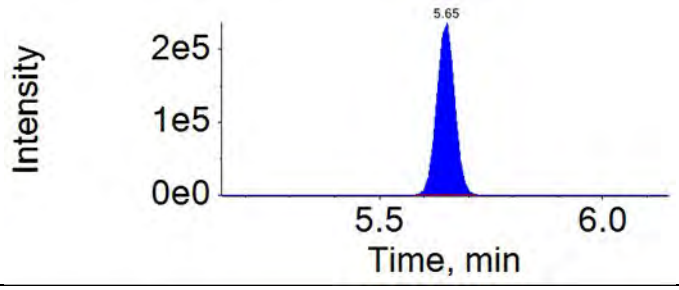


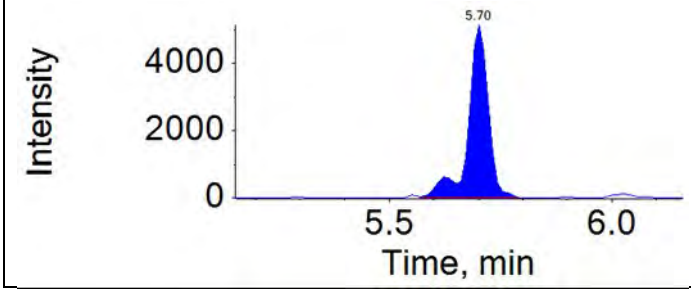
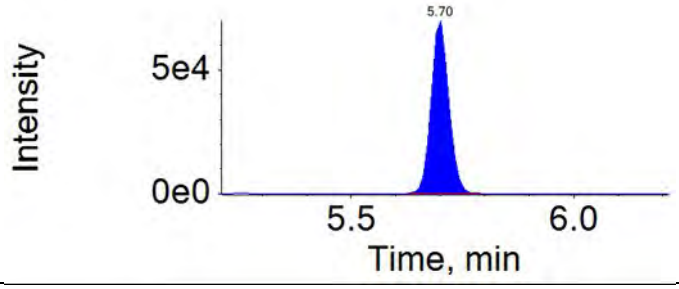


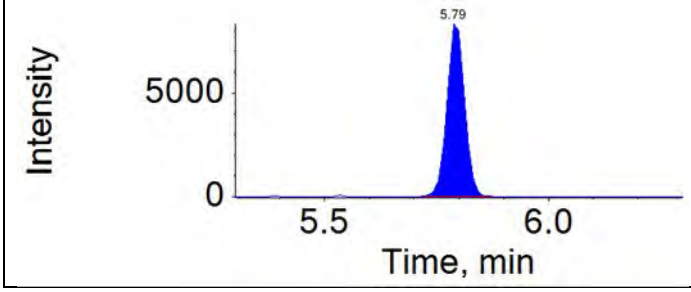
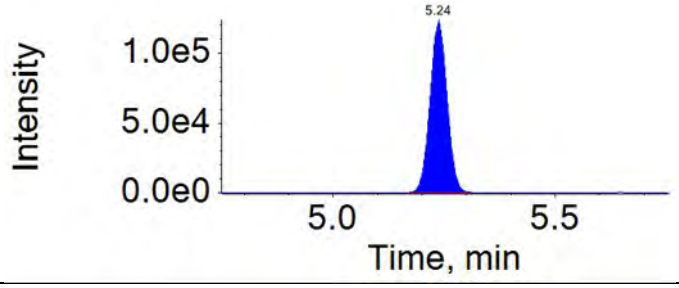
APPROVED
By MCD at 8:06 pm, 11/29/18

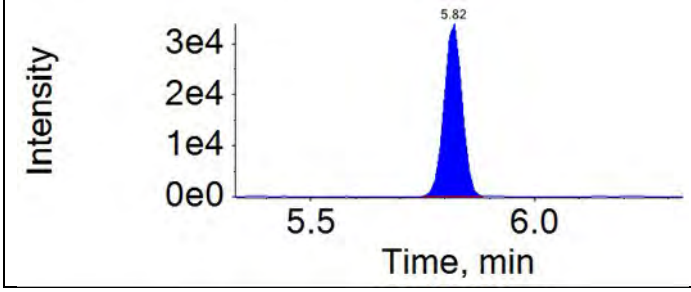
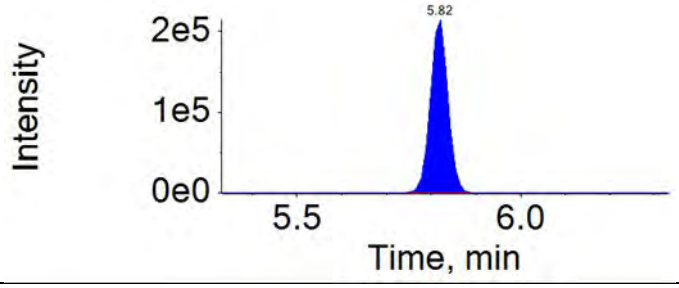
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

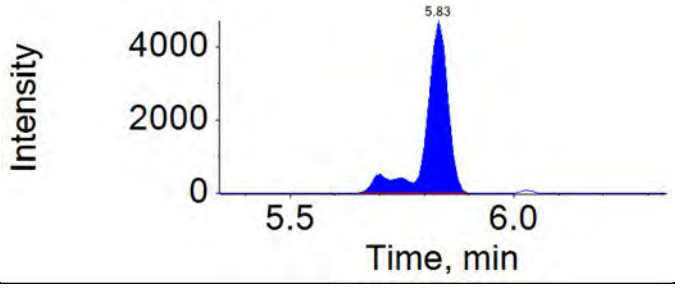
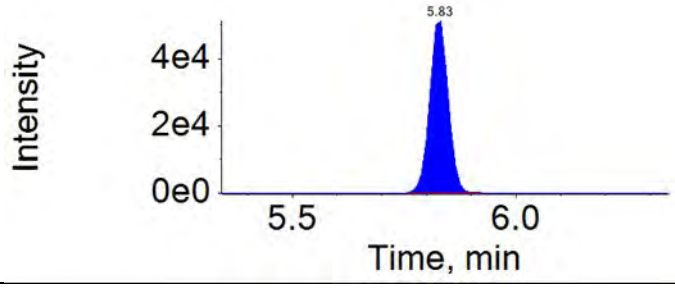
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

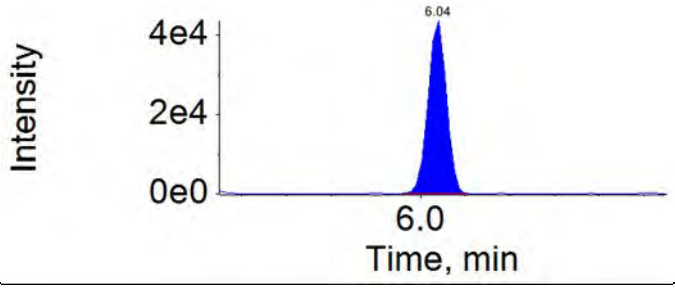
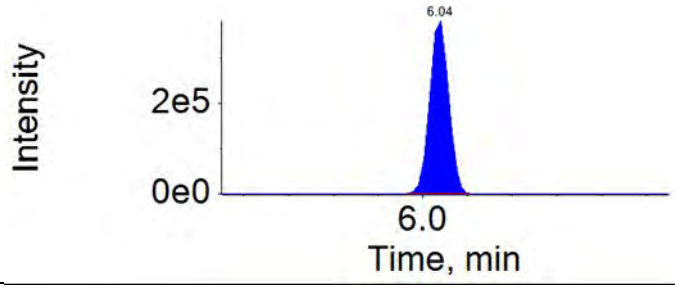
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

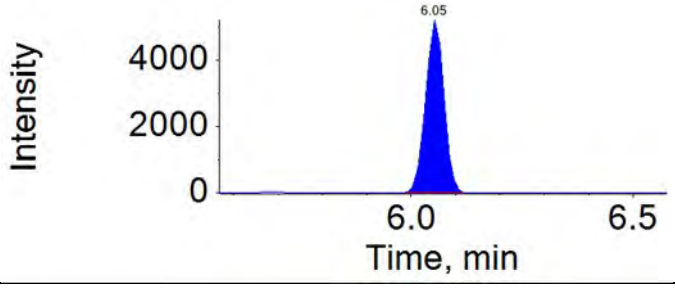
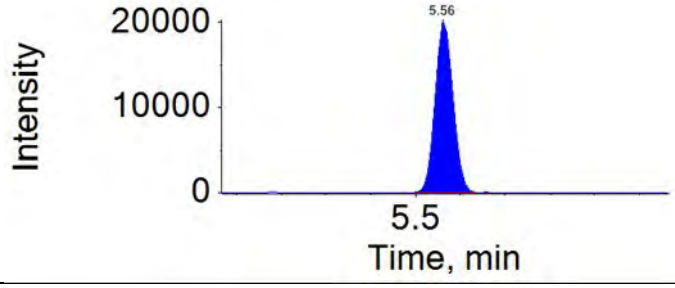
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

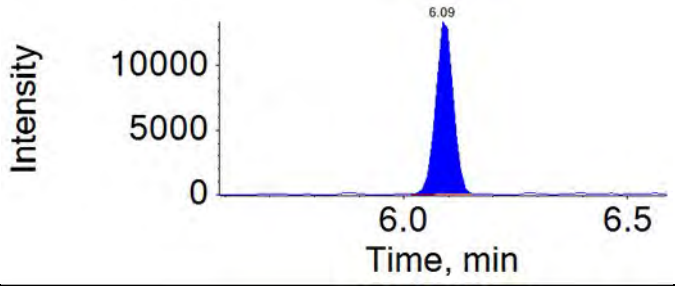
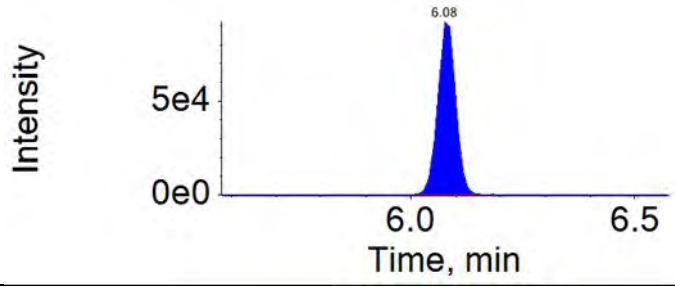
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

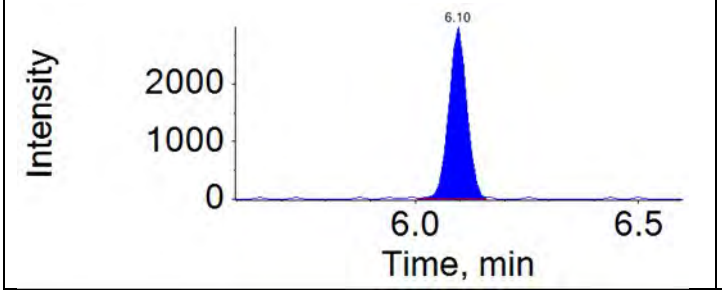
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

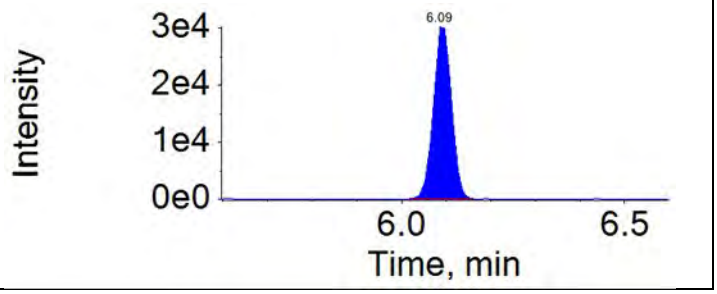
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

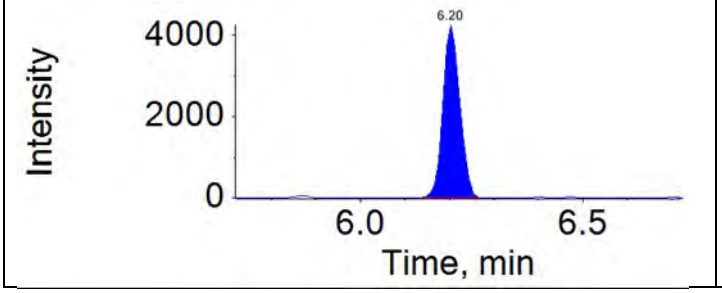
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

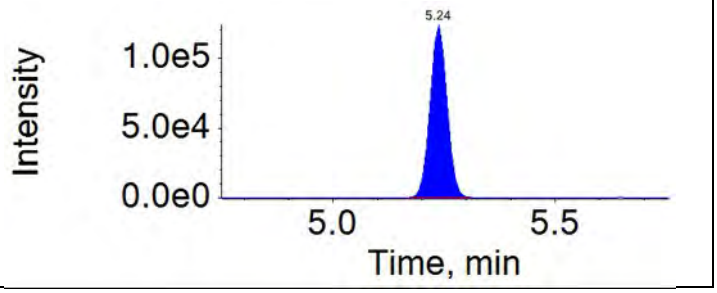
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



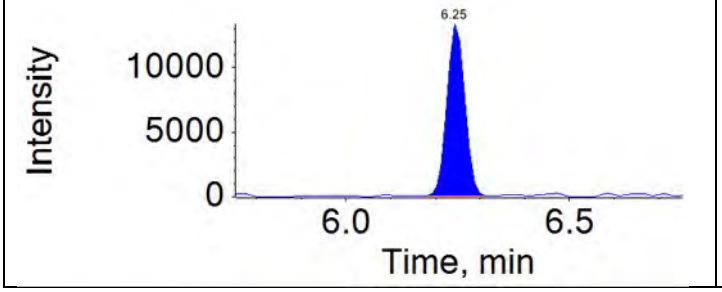


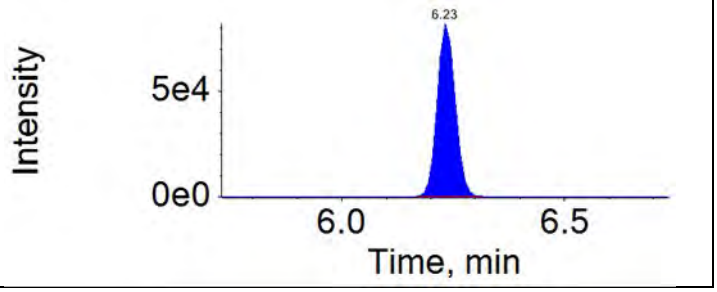
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



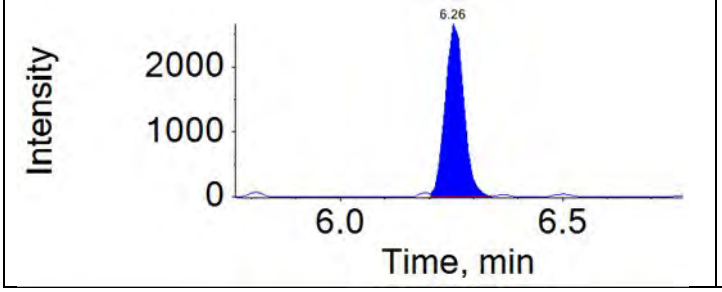


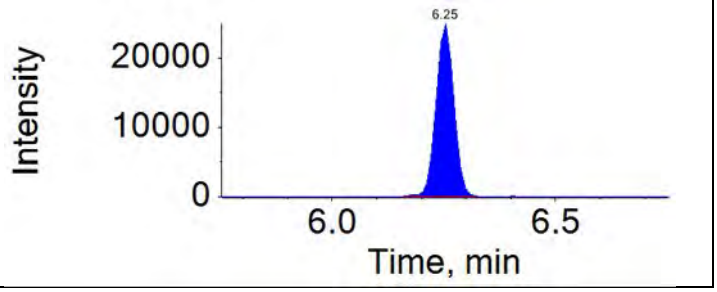
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

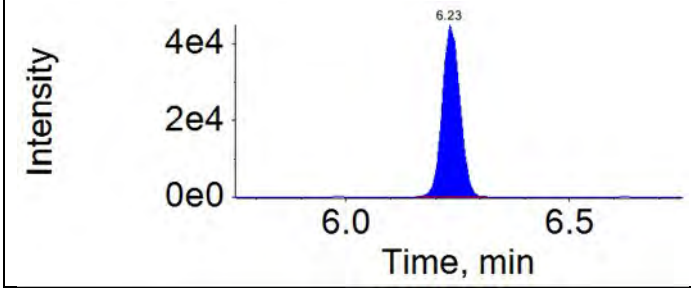
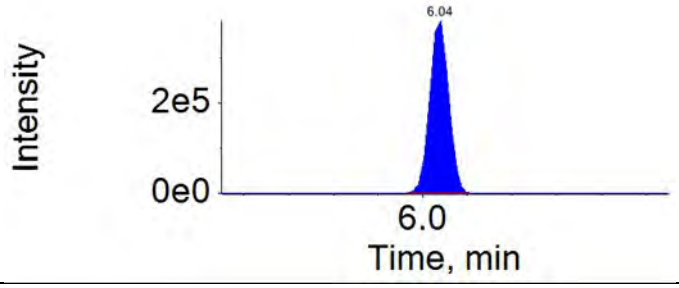


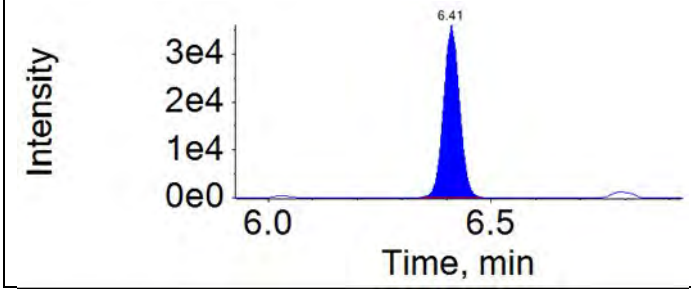
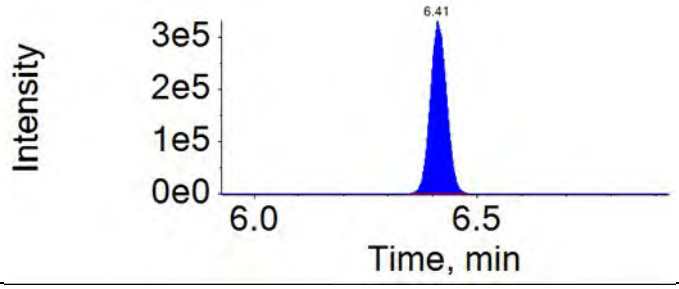


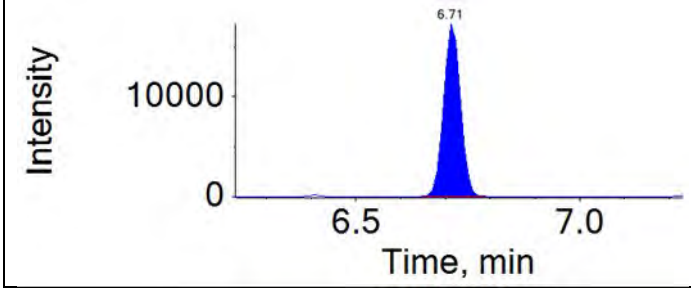
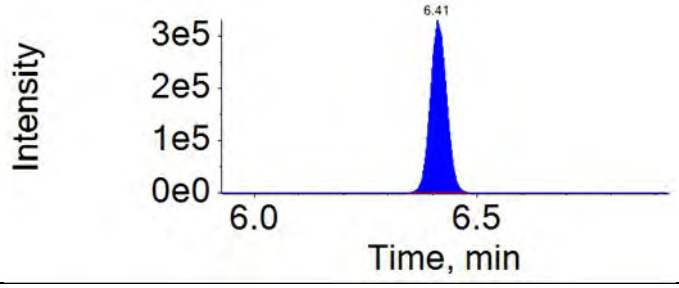
APPROVED
By MCD at 8:06 pm, 11/29/18

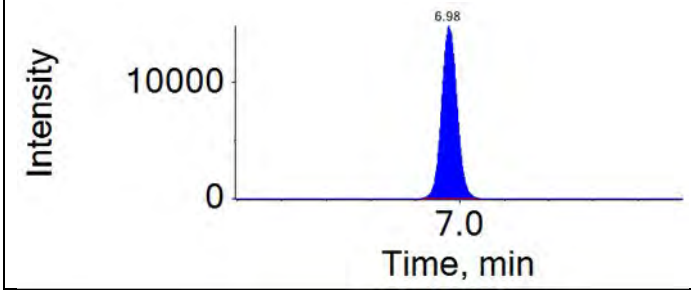
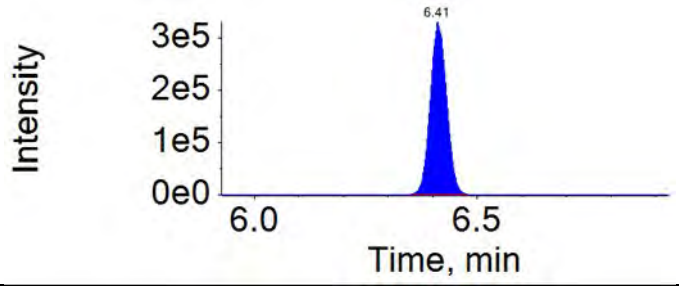
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

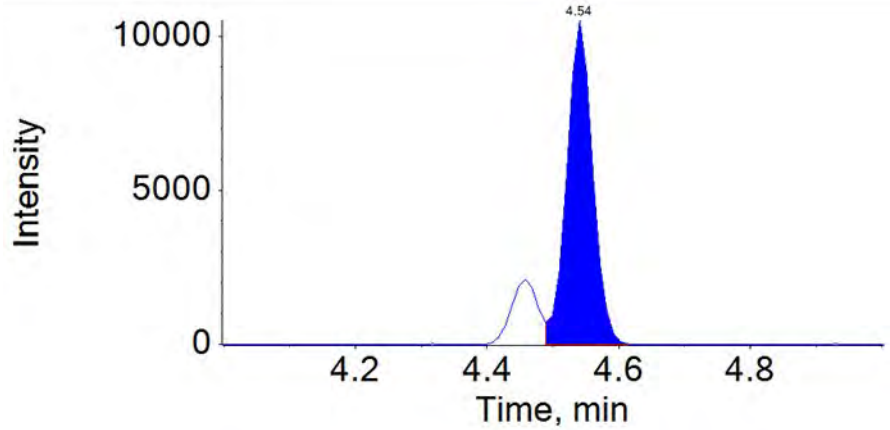
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

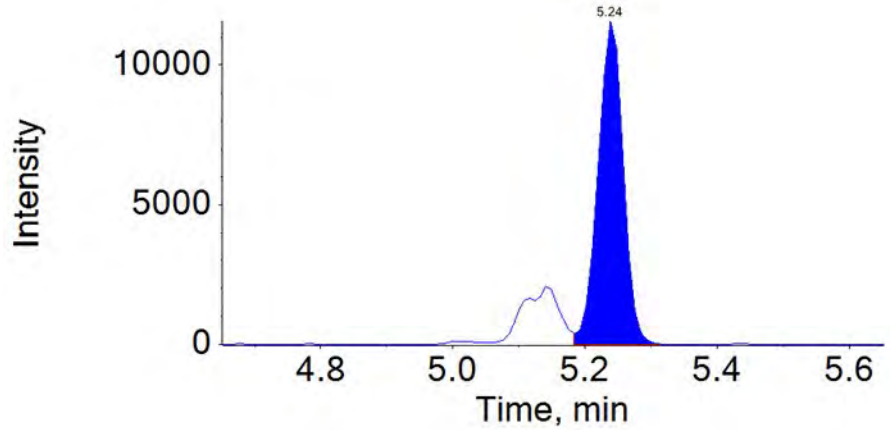
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
28783.5
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



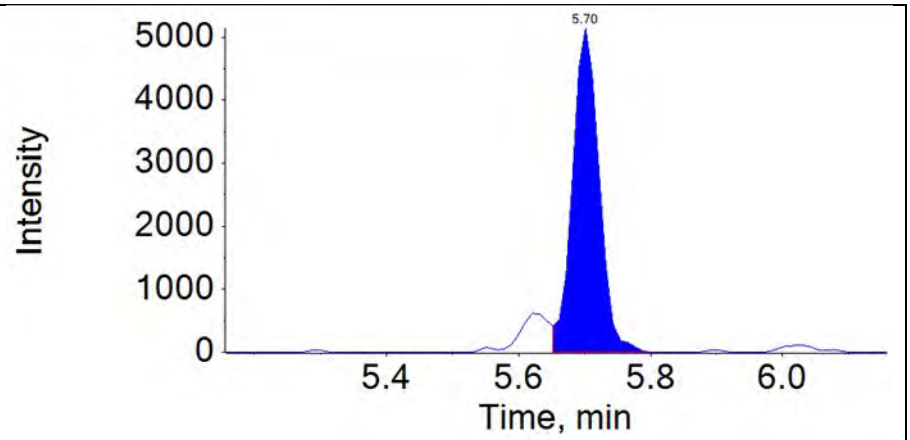
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
30774.9
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
14468.0
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2

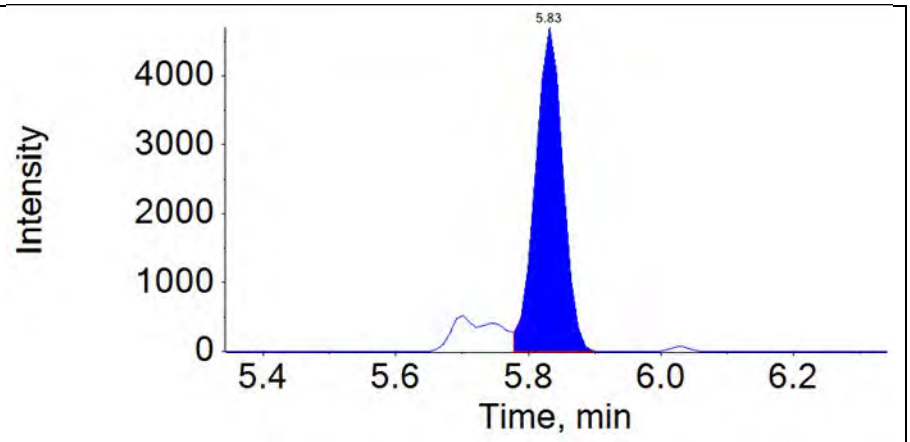


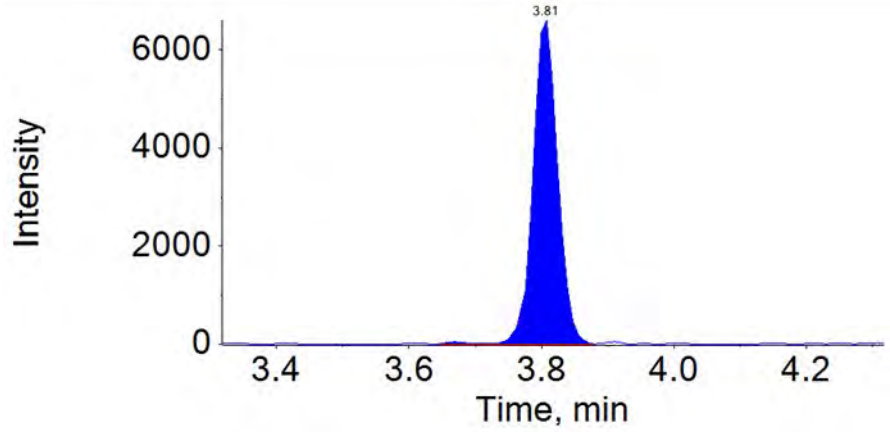
Integration Comment: incorrect integration

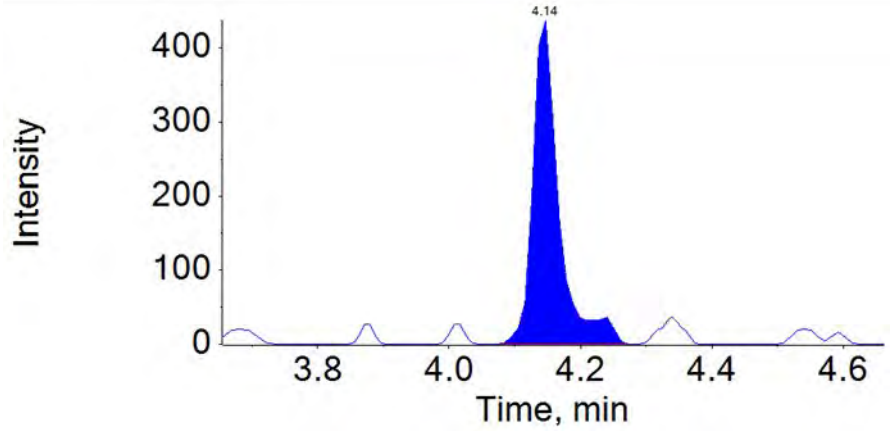
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 13564.4 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

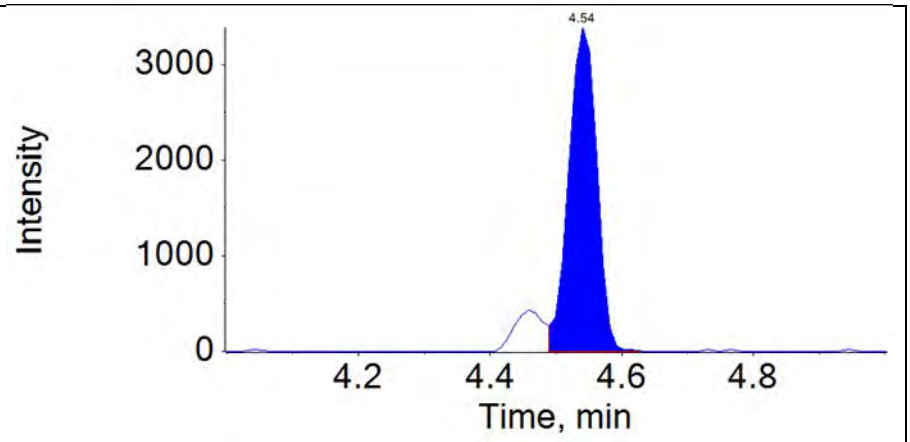
Component Name: PFBS_2 **RT (min.):** 3.81 **Peak Area:** 17159.7 **Mass Range:** 299.0 / 99.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

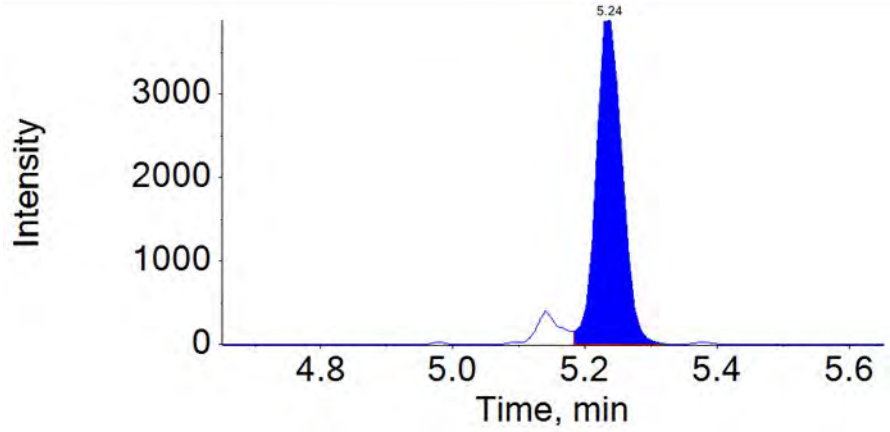
Component Name: PFHxA_2 **RT (min.):** 4.14 **Peak Area:** 1214.8 **Mass Range:** 313.0 / 119.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

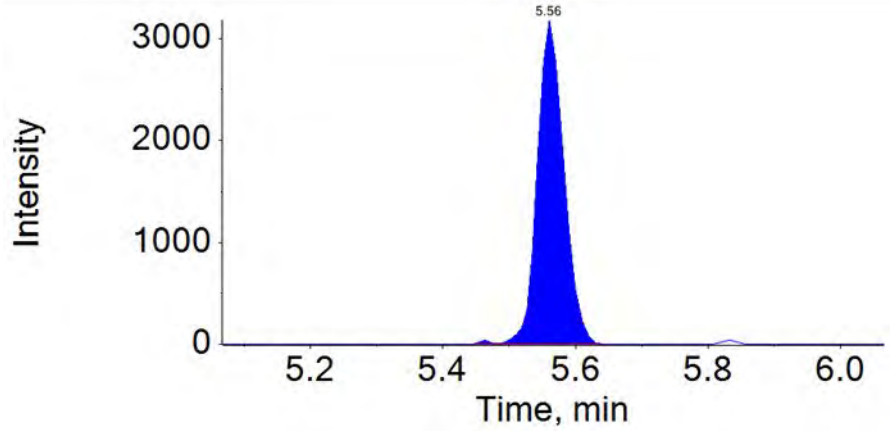
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 10090.1 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

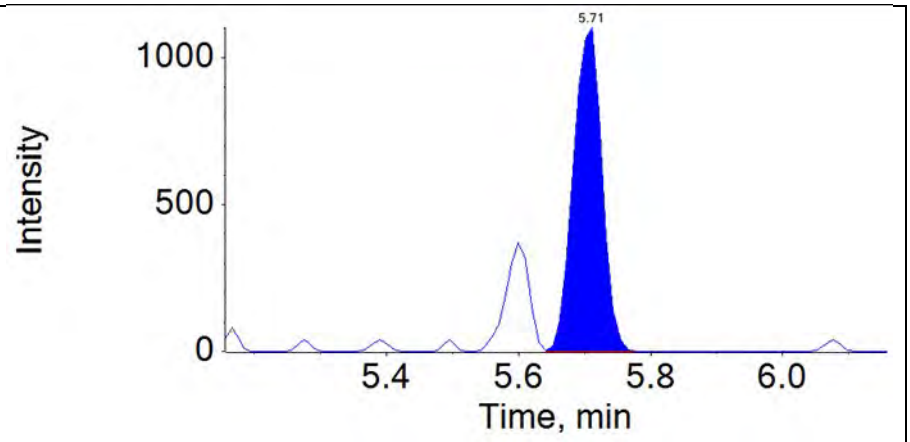
Component Name: PFOS_2 **RT (min.):** 5.24 **Peak Area:** 10719.2 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

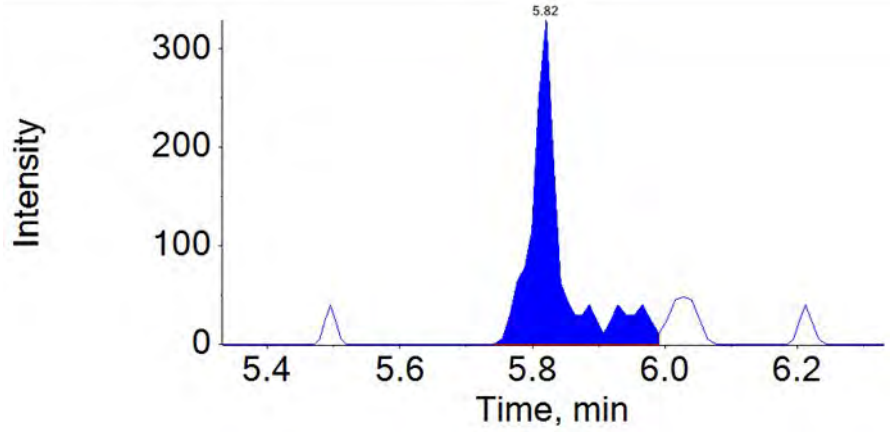
Component Name: 8:2-FTS_2 **RT (min.):** 5.56 **Peak Area:** 8908.1 **Mass Range:** 527.0 / 81.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

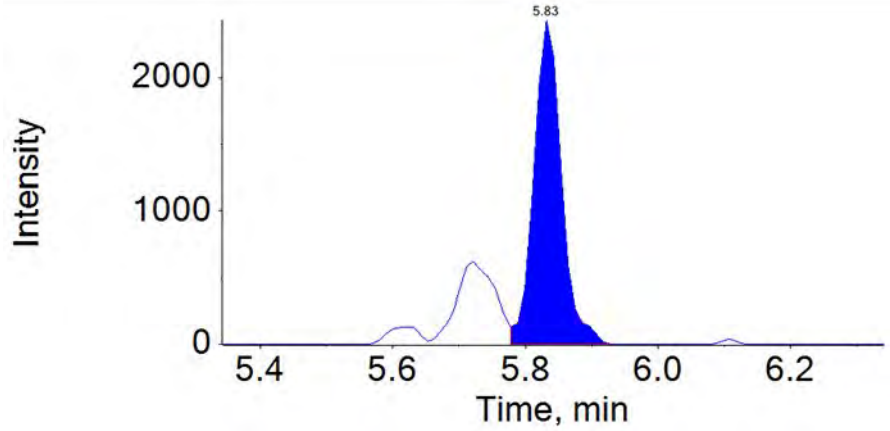
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2 **RT (min.):** 5.71 **Peak Area:** 3325.7 **Mass Range:** 570.0 / 483.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: PFUnDA_2 **RT (min.):** 5.82 **Peak Area:** 991.3 **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.83 **Peak Area:** 7057.3 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV29D-05.wiff **Sample Name:** CCV1_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

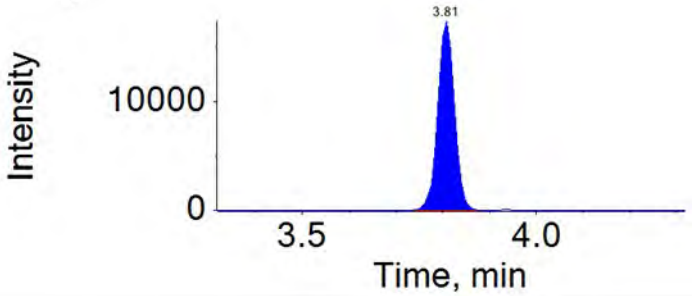
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-05.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43167.2	A	N/A	0.3951			
PFBS_2	3.81	1.00	17055.1	M	N/A	0.3951	8	50	
4:2-FTS	4.12	1.00	12514.2	A	N/A	0.6079			
4:2-FTS_2	4.12	1.00	7607.9	A	N/A	0.6079	-5	50	
PFHxA	4.15	1.00	100978.6	A	N/A	0.0112			
PFHxA_2	4.14	1.00	1134.2	M	N/A	0.0112	9	50	
PFPeS	4.17	1.10	24883.7	A	N/A	0.4838			
PFPeS_2	4.17	1.10	12039.0	A	N/A	0.4838	-3	50	
PFHpA	4.54	1.00	99917.2	A	N/A	0.0612			
PFHpA_2	4.54	1.00	6111.0	A	N/A	0.0612	10	50	
PFHxS	4.54	1.00	34610.4	M	N/A	0.3297			
PFHxS_2	4.54	1.00	11410.8	M	N/A	0.3297	-11	50	
6:2-FTS	4.90	1.00	14994.7	A	N/A	0.5391			
6:2-FTS_2	4.89	1.00	8084.1	A	N/A	0.5391	-19	50	
PFHpS	4.90	1.08	32932.0	A	N/A	0.4237			
PFHpS_2	4.90	1.08	13952.3	A	N/A	0.4237	8	50	
PFOA	4.91	1.00	107677.1	A	N/A	0.0617			
PFOA_2	4.91	1.00	6647.5	A	N/A	0.0617	8	50	
PFOS	5.24	1.00	39254.5	M	N/A	0.2989			
PFOS_2	5.24	1.00	11733.5	M	N/A	0.2989	1	50	
PFNA	5.25	1.00	93355.4	A	N/A	0.0139			
PFNA_2	5.25	1.00	1298.8	A	N/A	0.0139	-31	50	
PFNS	5.54	1.06	23416.1	A	N/A	0.5500			
PFNS_2	5.54	1.06	12879.8	A	N/A	0.5500	15	50	
PFDA	5.56	1.00	83849.1	A	N/A	0.0057			
PFDA_2	5.57	1.00	480.8	A	N/A	0.0057	-23	50	
8:2-FTS	5.56	1.00	15129.8	A	N/A	0.5856			
8:2-FTS_2	5.56	1.00	8859.9	M	N/A	0.5856	9	50	
NMeFOSAA	5.70	1.00	16285.3	M	N/A	0.2608			
NMeFOSAA_2	5.71	1.00	4247.6	M	N/A	0.2608	13	50	
PFDS	5.79	1.11	22930.4	A	N/A	0.3845			
PFDS_2	5.79	1.11	8816.6	A	N/A	0.3845	-28	50	
PFUnDA	5.82	1.00	94649.2	A	N/A	0.0084			
PFUnDA_2	5.82	1.00	791.7	M	N/A	0.0084	120	50	OOS
NEtFOSAA	5.83	1.00	15976.2	M	N/A	0.6268			
NEtFOSAA_2	5.83	1.00	10013.4	M	N/A	0.6268	-15	50	
PFDoDA	6.04	1.00	124243.3	A	N/A	0.0095			
PFDoDA_2	6.04	1.00	1178.3	A	N/A	0.0095	-27	50	
10:2-FTS	6.05	1.09	14919.7	A	N/A	0.6728			
10:2-FTS_2	6.05	1.09	10038.3	A	N/A	0.6728	-4	50	
PFTrDA	6.23	1.03	122778.8	A	N/A	0.0057			
PFTrDA_2	6.24	1.03	698.1	A	N/A	0.0057	-37	50	
PFTeDA	6.41	1.00	89123.1	A	N/A	0.0041			
PFTeDA_2	6.42	1.00	367.7	A	N/A	0.0041	-26	50	
PFHxDA	6.71	1.05	45160.5	A	N/A	0.0596			
PFHxDA_2	6.71	1.05	2692.3	A	N/A	0.0596	-8	50	
PFODA	6.98	1.09	35571.7	A	N/A	0.0222			
PFODA_2	6.97	1.09	790.0	A	N/A	0.0222	-16	50	

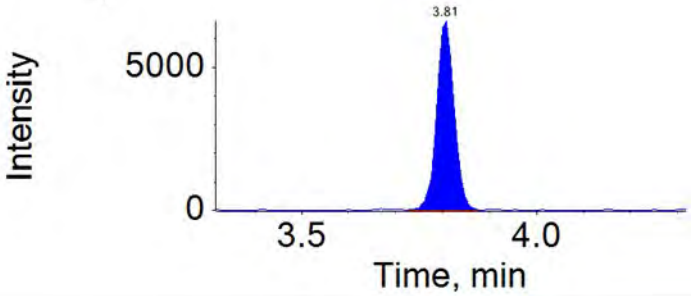
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

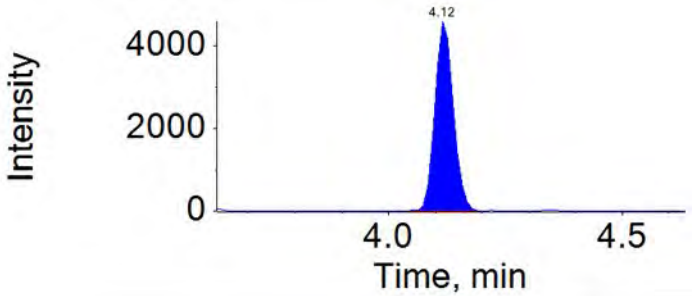
Component: PFBS
Primary Mass: 299.0 / 80.0



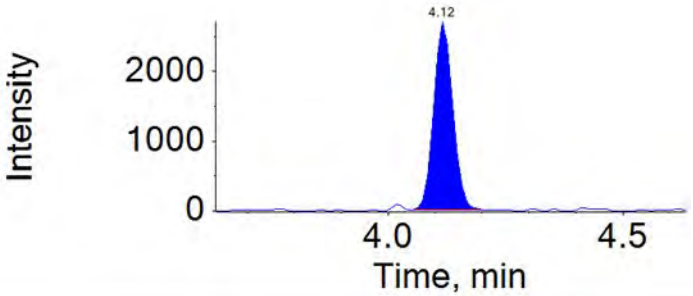
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



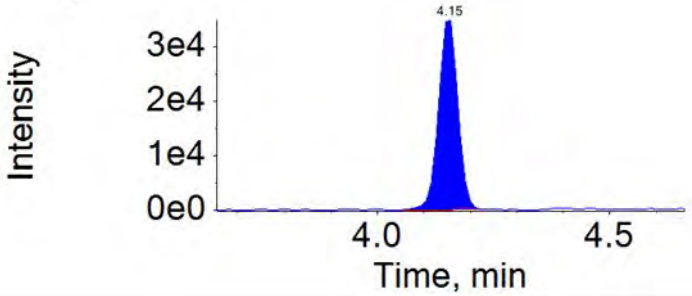
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



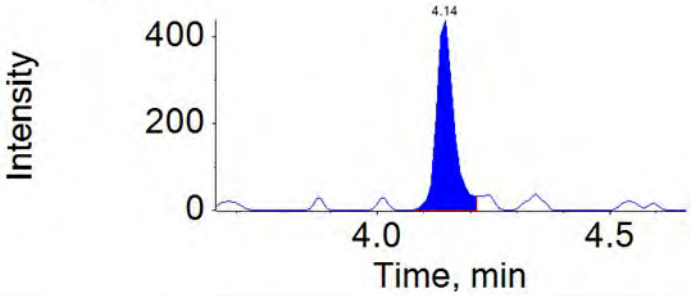
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



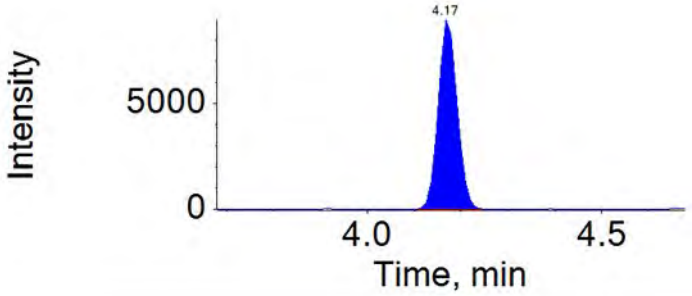
Component: PFHxA
Primary Mass: 313.0 / 269.0



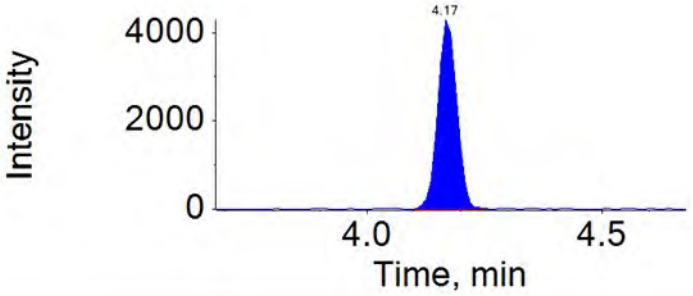
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



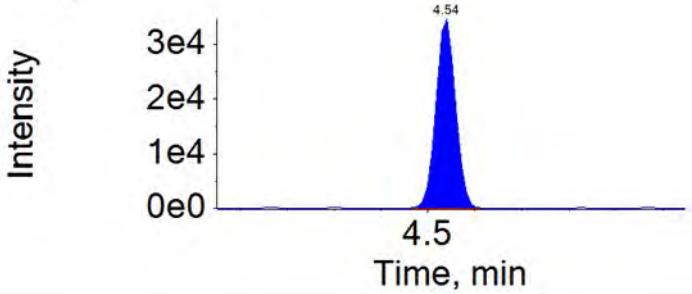
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



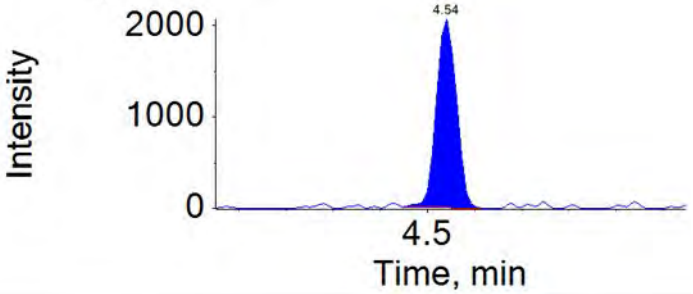
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

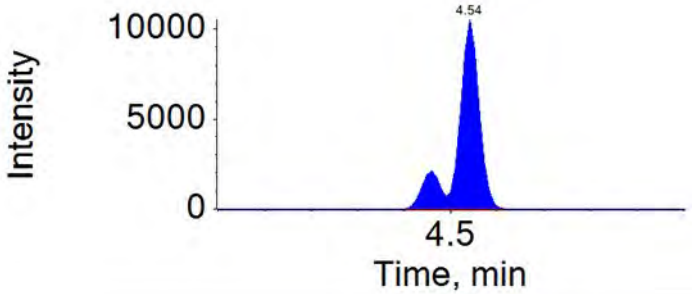
Component: PFHpA
Primary Mass: 363.0 / 319.0



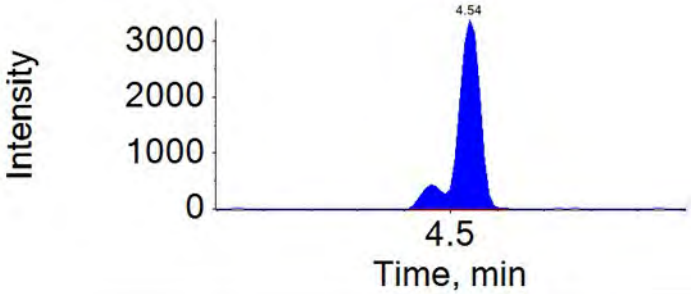
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



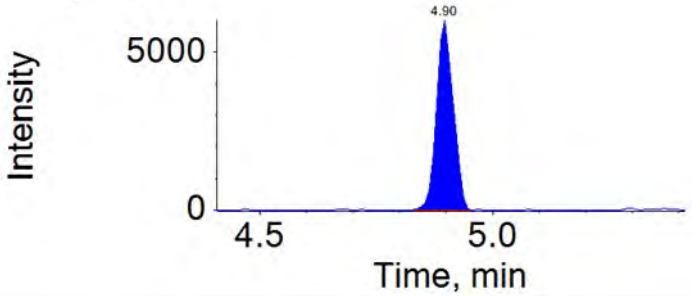
Component: PFHxS
Primary Mass: 399.0 / 80.0



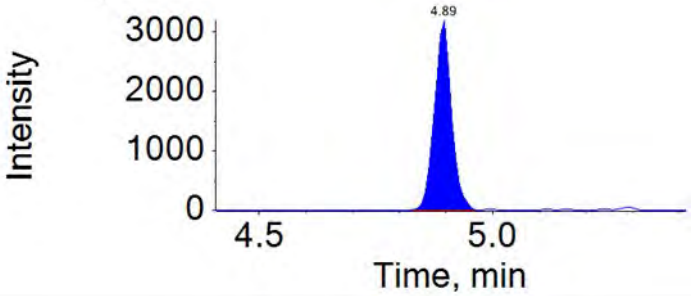
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



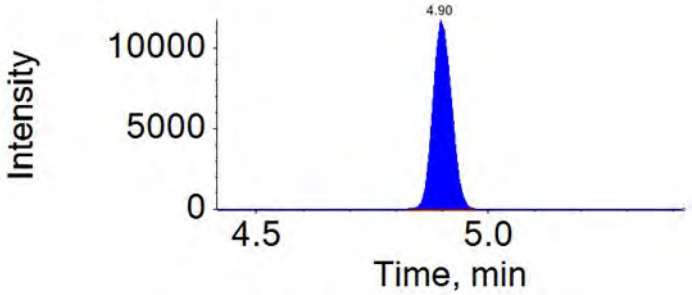
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



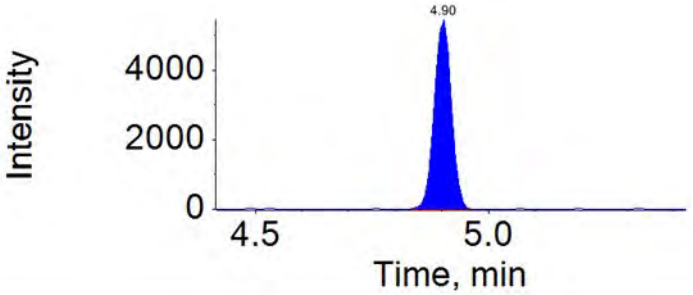
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



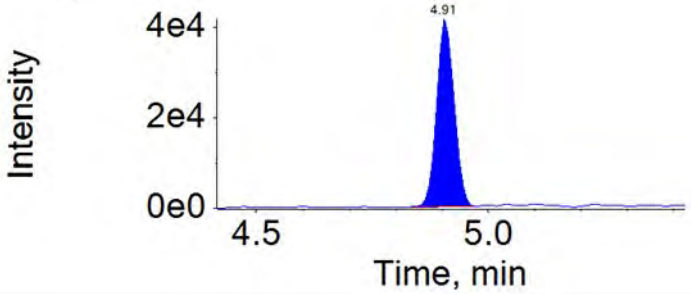
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



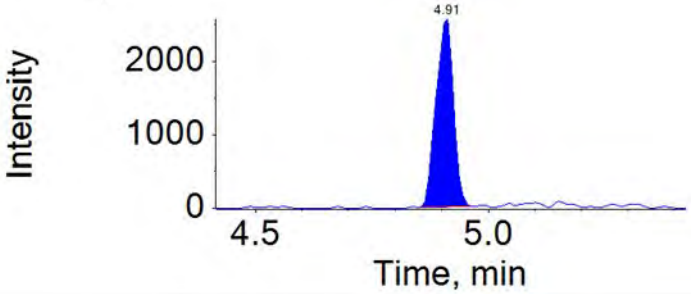
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

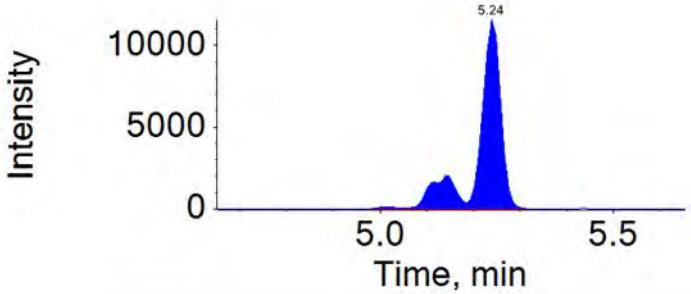
Component: PFOA
Primary Mass: 413.0 / 369.0



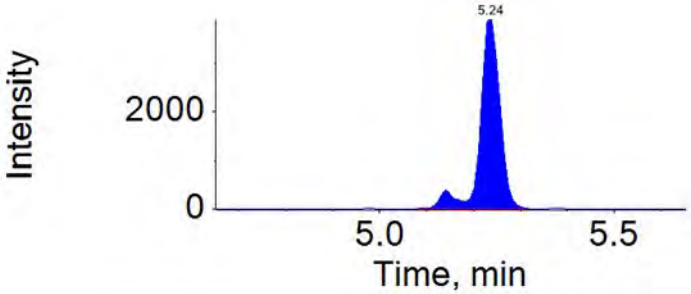
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



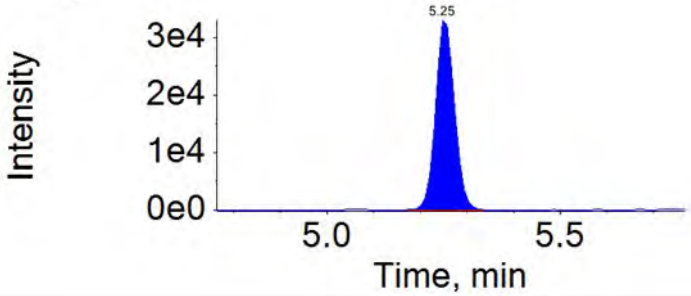
Component: PFOS
Primary Mass: 499.0 / 80.0



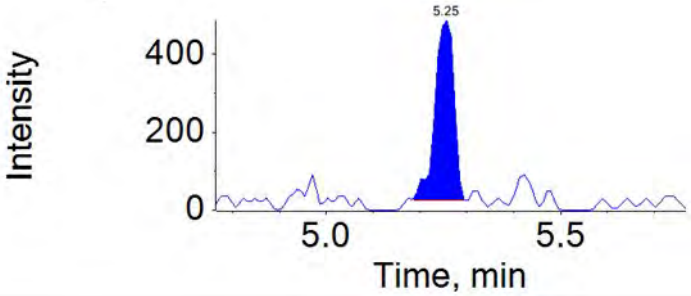
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



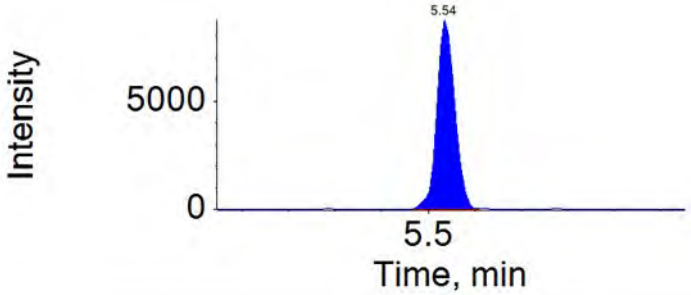
Component: PFNA
Primary Mass: 463.0 / 419.0



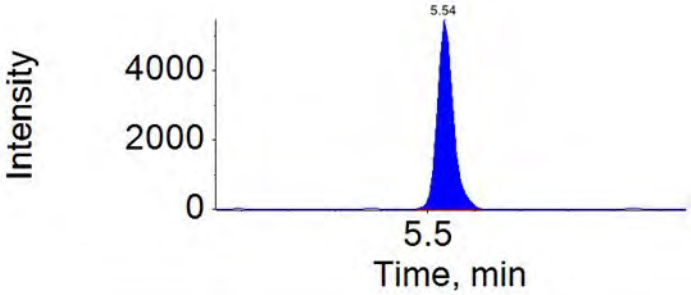
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



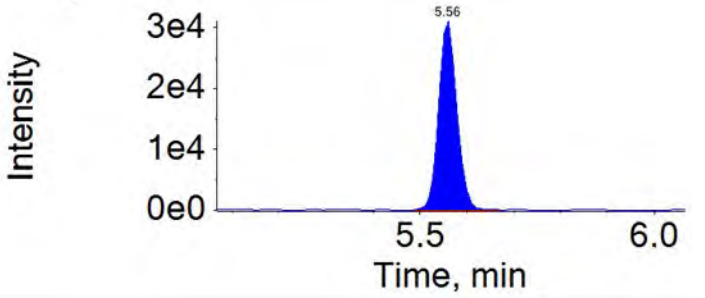
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



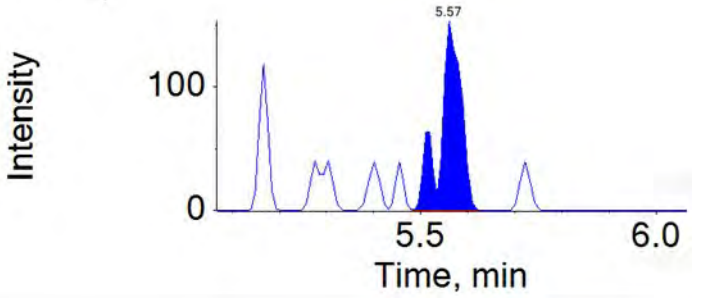
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

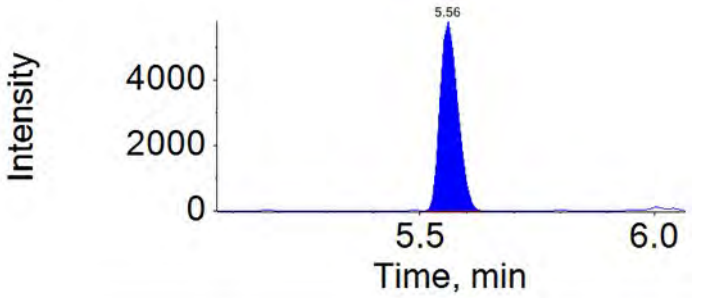
Component: PFDA
Primary Mass: 513.0 / 469.0



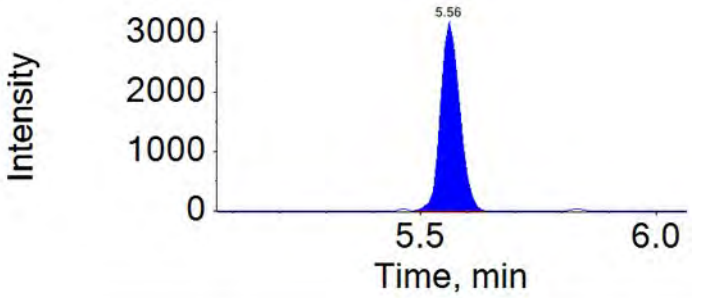
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



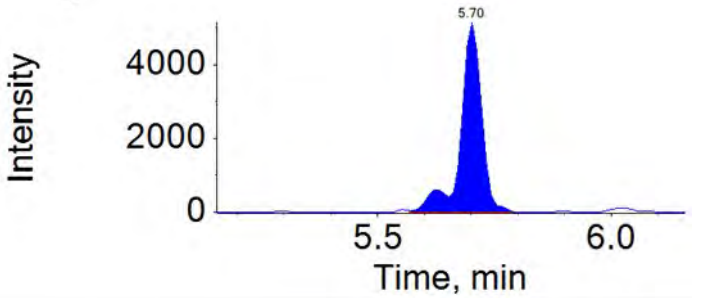
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



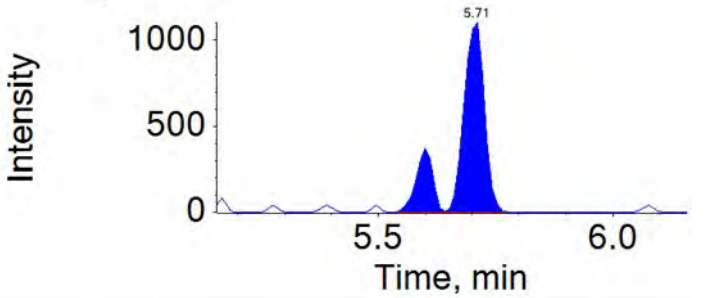
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



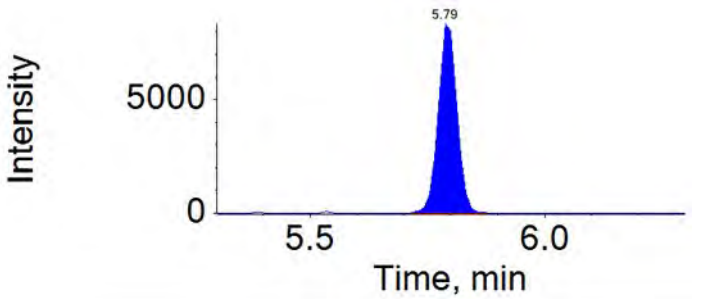
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



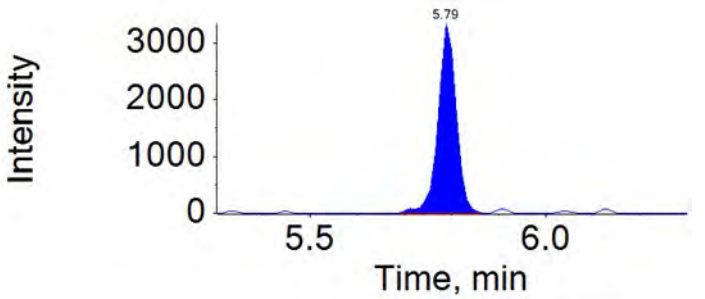
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



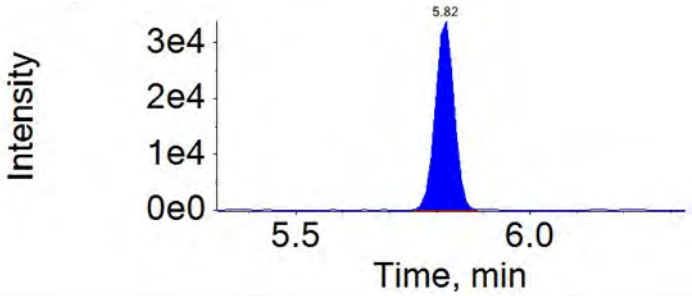
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



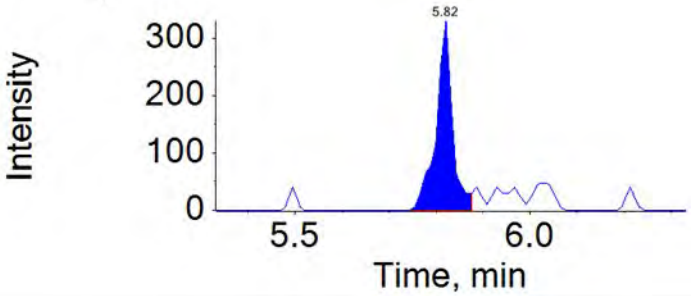
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

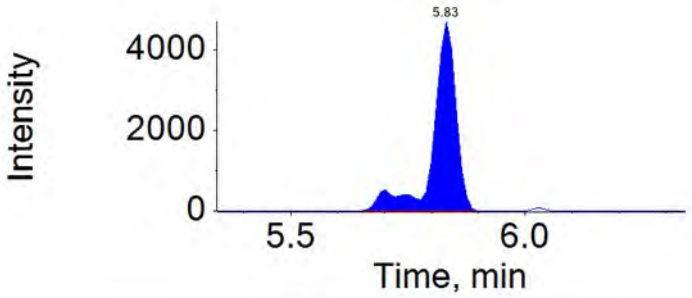
Component: PFUnDA
Primary Mass: 563.0 / 519.0



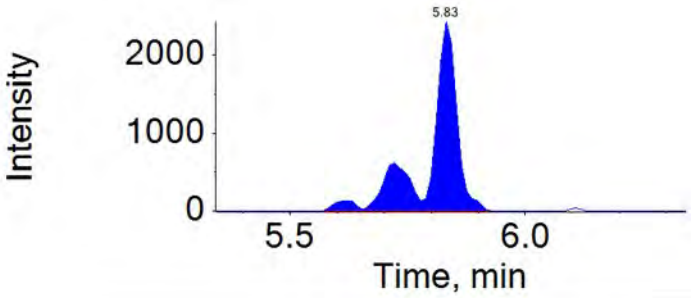
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



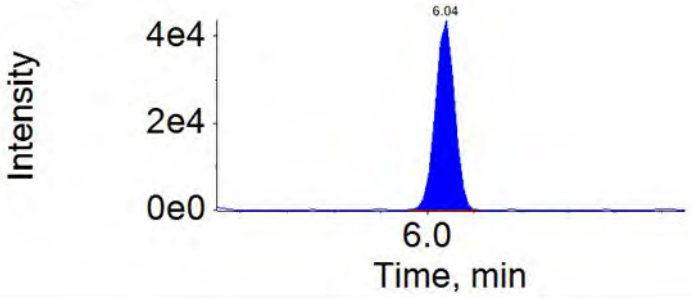
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



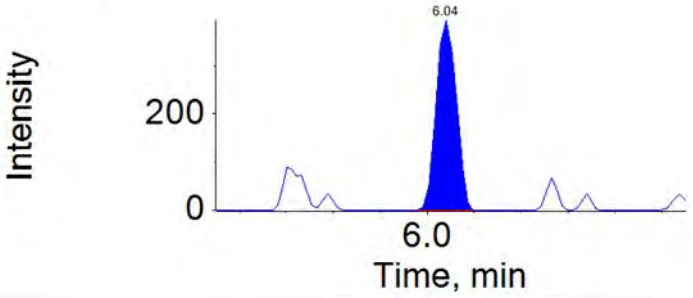
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



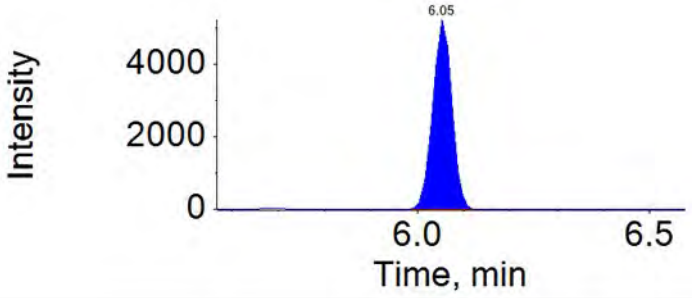
Component: PFDoDA
Primary Mass: 613.0 / 569.0



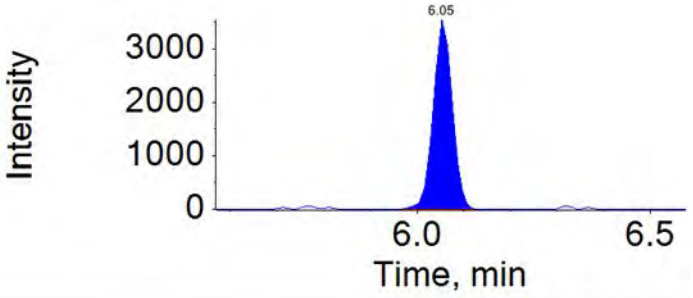
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



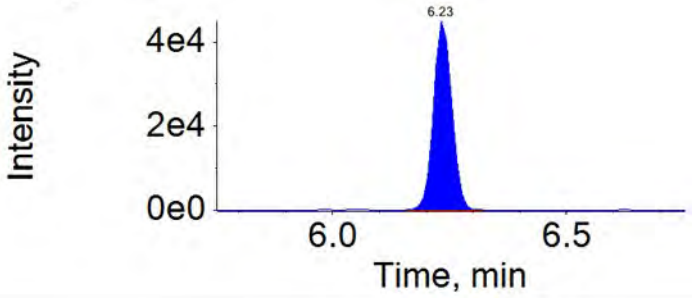
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



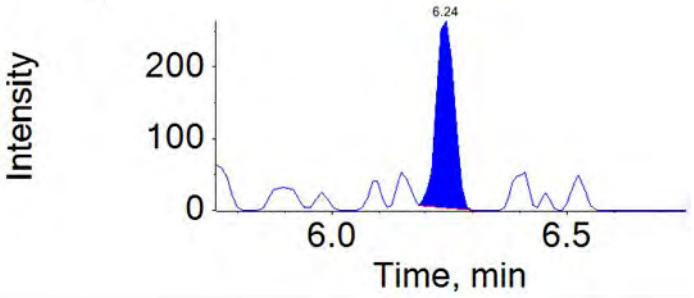
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

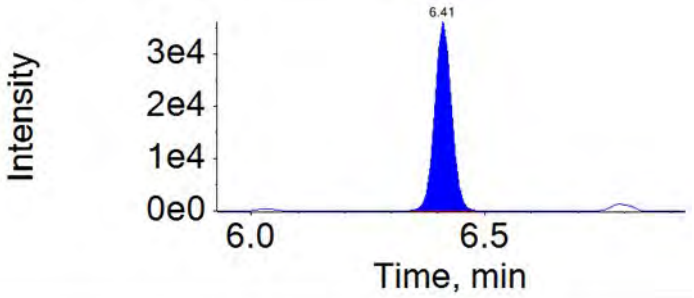
Component: PFTrDA
Primary Mass: 663.0 / 619.0



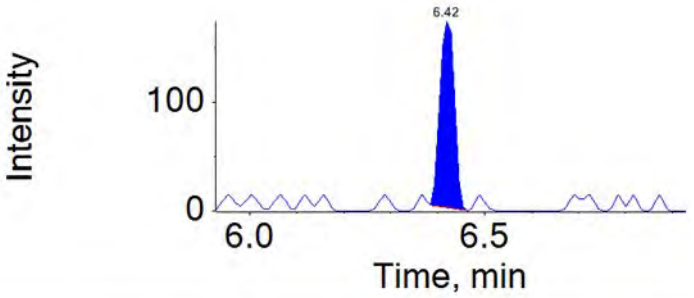
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



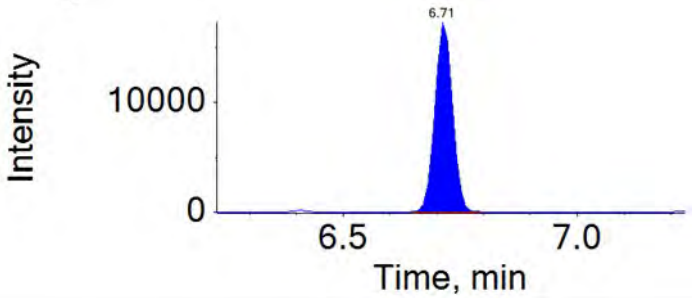
Component: PFTeDA
Primary Mass: 713.0 / 669.0



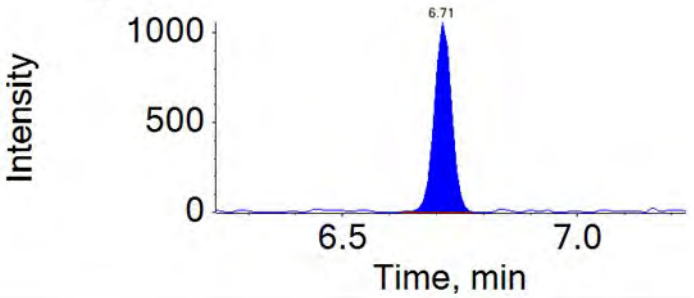
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



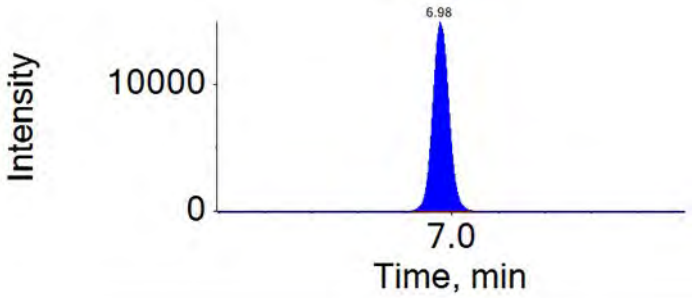
Component: PFHxDA
Primary Mass: 813.0 / 769.0



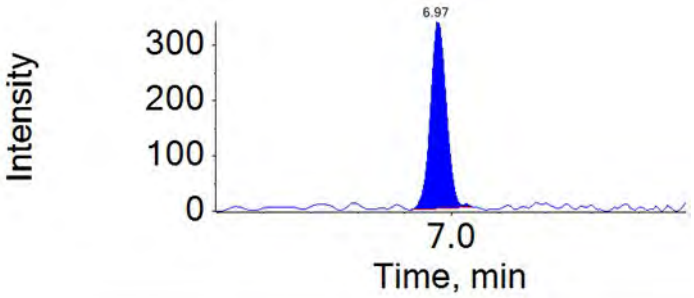
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV29D-06.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-29T10:42:38
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV1-5
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1062005.8	906425.4	17	50	
13C2-PFOA	5.0	590090.2	495984.0	19	50	
13C4-PFOS	4.8	349343.8	296261.8	18	50	
13C2-PFDA	5.0	572455.9	451203.0	27	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1132653.7	13C3-PFBA	1062005.8	1.067	5.000	4.758	95	70-130	
E13C5-PFPeA	1128083.1	13C3-PFBA	1062005.8	1.062	5.000	4.960	99	70-130	
E13C3-PFBS	476370.7	13C3-PFBA	1062005.8	0.449	4.650	4.279	92	70-130	
E13C2-4:2-FTS	78954.9	13C2-PFOA	590090.2	0.134	4.670	4.611	99	70-130	
E13C5-PFHxA	755459.8	13C2-PFOA	590090.2	1.280	5.000	4.702	94	70-130	
E13C3-PFHxS	367272.1	13C2-PFOA	590090.2	0.622	4.730	4.878	103	70-130	
E13C4-PFHpA	595459.5	13C2-PFOA	590090.2	1.009	5.000	4.637	93	70-130	
E13C2-6:2-FTS	74720.2	13C2-PFOA	590090.2	0.127	4.750	5.301	112	70-130	
E13C8-PFOA	1117311.6	13C2-PFOA	590090.2	1.893	5.000	5.212	104	70-130	
E13C8-PFOS	362141.8	13C4-PFOS	349343.8	1.037	4.780	4.680	98	70-130	
E13C9-PFNA	736579.7	13C4-PFOS	349343.8	2.108	5.000	4.631	93	70-130	
E13C6-PFDA	971727.0	13C2-PFDA	572455.9	1.697	5.000	4.786	96	70-130	
E13C2-8:2-FTS	64213.8	13C2-PFDA	572455.9	0.112	4.790	4.821	101	70-130	
E13C8-PFOSA	703815.0	13C2-PFDA	572455.9	1.229	5.000	4.511	90	70-130	
Ed3-NMeFOSAA	270439.1	13C2-PFDA	572455.9	0.472	5.000	5.998	120	70-130	
E13C7-PFUnDA	658462.5	13C2-PFDA	572455.9	1.150	5.000	4.861	97	70-130	
Ed5-NEtFOSAA	166412.1	13C2-PFDA	572455.9	0.291	5.000	5.179	104	70-130	
E13C2-PFDoDA	1273913.7	13C2-PFDA	572455.9	2.225	5.000	4.676	94	70-130	
Ed7-NMePFOSAE	305138.6	13C2-PFDA	572455.9	0.533	5.000	4.607	92	70-130	
Ed3-NMePFOSA	98756.0	13C2-PFDA	572455.9	0.173	5.000	4.669	93	70-130	
Ed9-NEtPFOSAE	275015.1	13C2-PFDA	572455.9	0.480	5.000	4.871	97	70-130	
Ed5-NEtPFOSA	83472.3	13C2-PFDA	572455.9	0.146	5.000	5.067	101	70-130	
E13C2-PFTeDA	926470.4	13C2-PFDA	572455.9	1.618	5.000	4.478	90	70-130	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

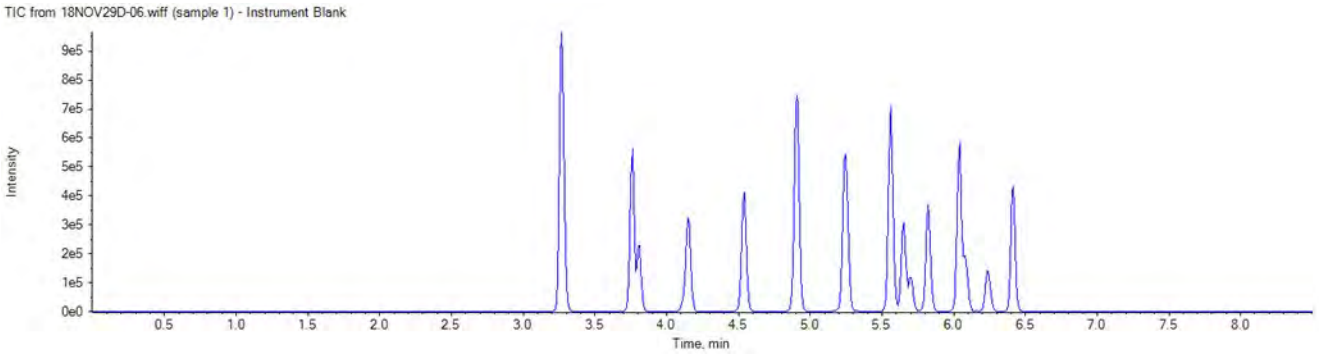
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1132653.7	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1128083.1	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	476370.7	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	78954.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	755459.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	476370.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	595459.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	367272.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	74720.2	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	367272.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	1117311.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	736579.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	971727.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	64213.8	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	703815.0	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	270439.1	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	658462.5	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	166412.1	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1273913.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	64213.8	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	305138.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.09	98756.0	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.23	275015.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.25	83472.3	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1273913.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	

Total Ion Chromatogram

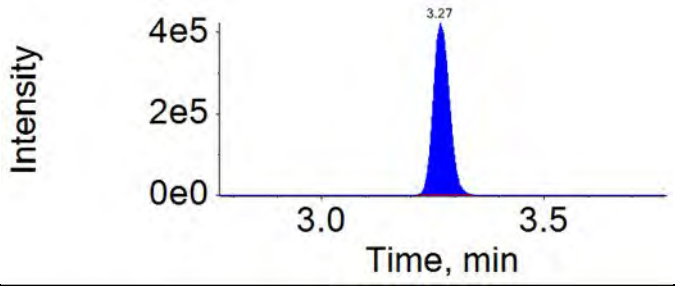


APPROVED
By MCD at 8:06 pm, 11/29/18

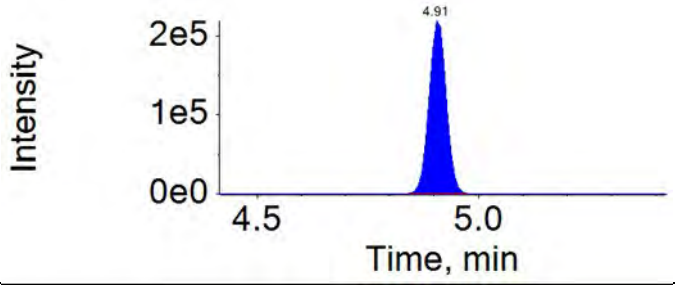
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

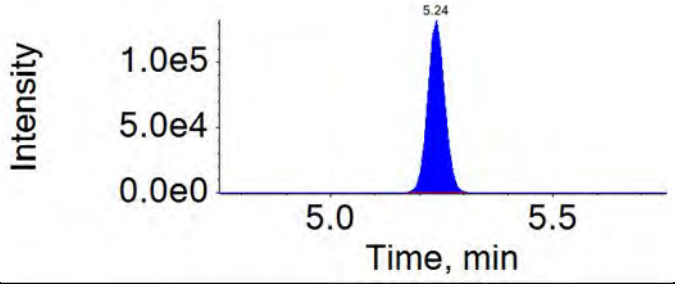
Injection Standard: 13C3-PFBA
216.0 / 172.0



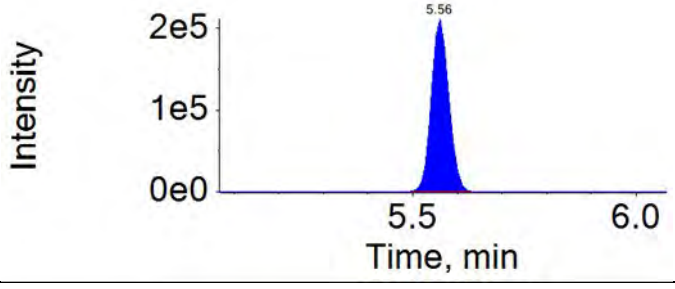
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

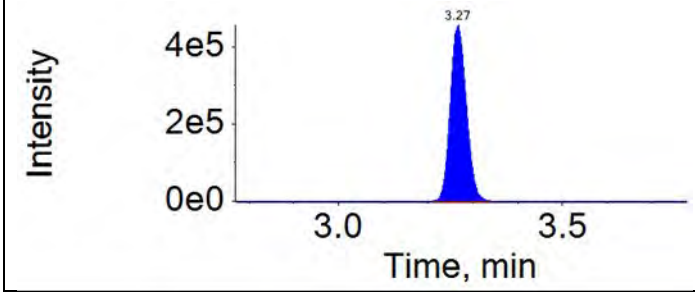


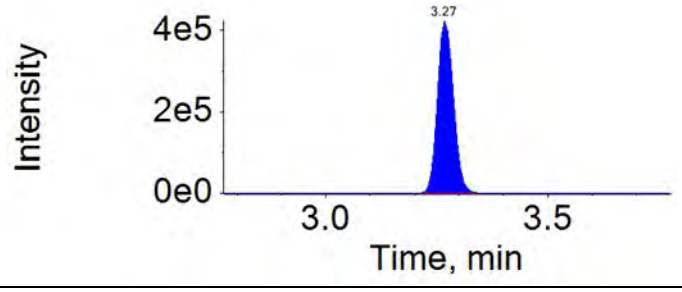
Injection Standard: 13C2-PFDA
515.0 / 470.0



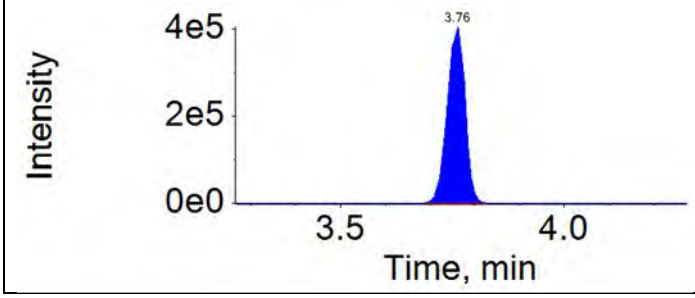
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

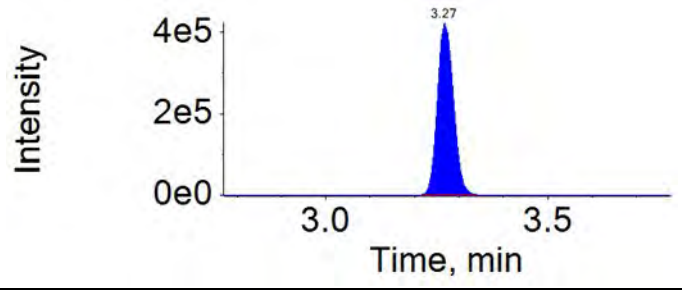
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



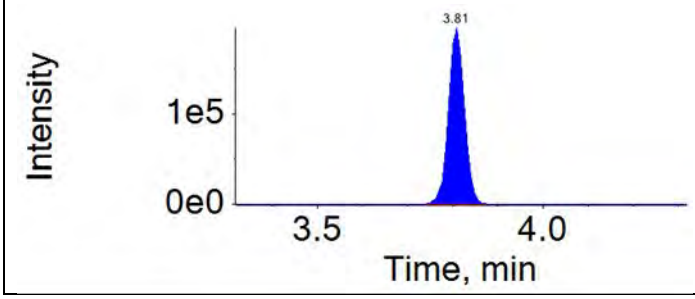


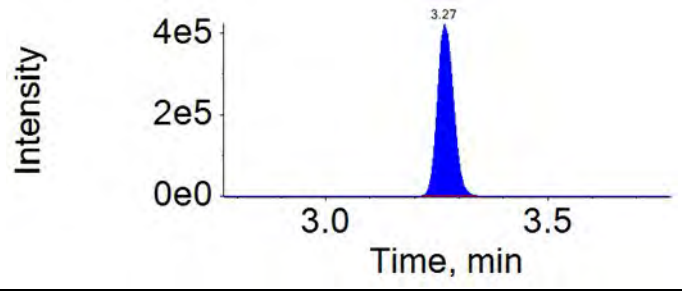
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



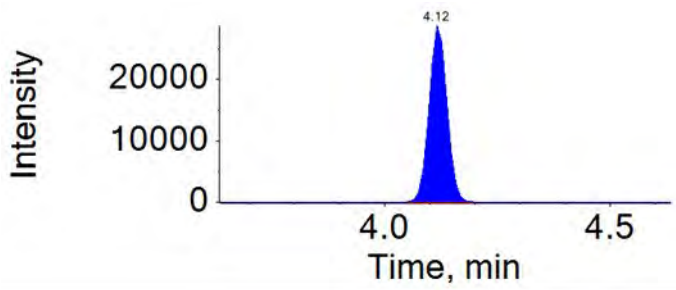


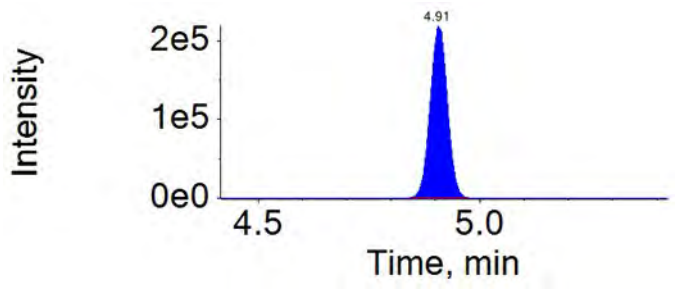
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

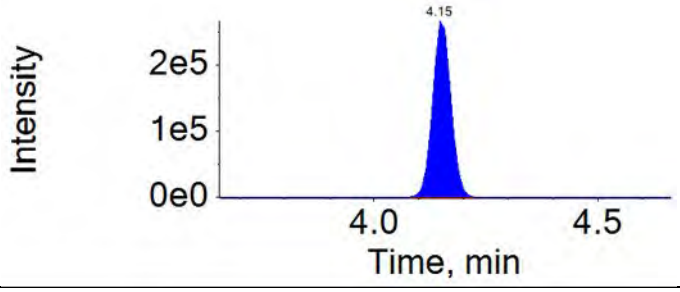
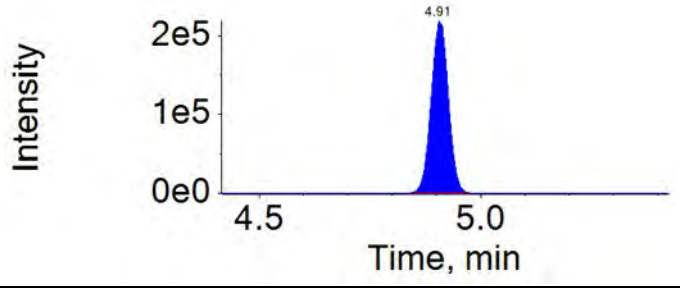


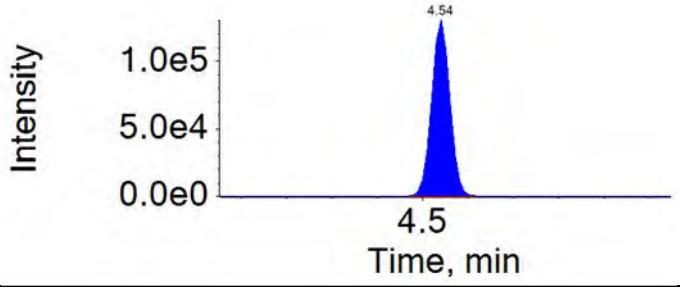
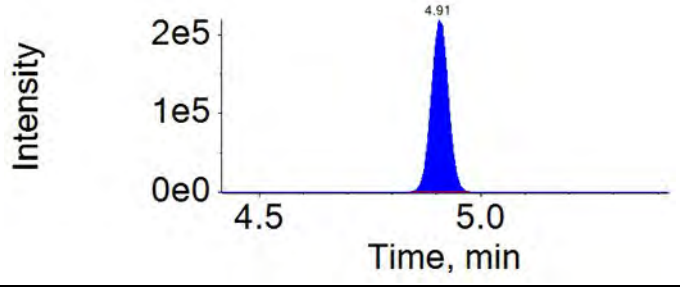


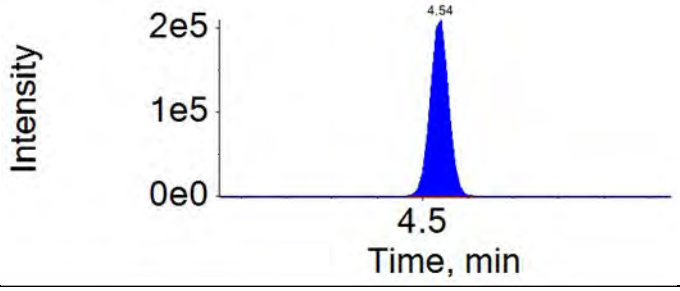
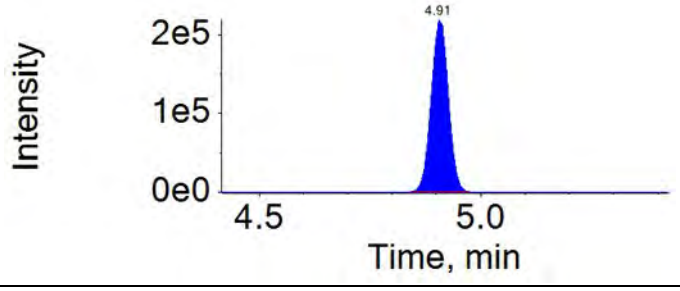
APPROVED
By MCD at 8:06 pm, 11/29/18

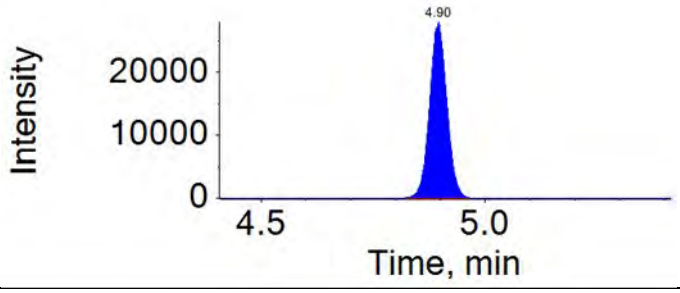
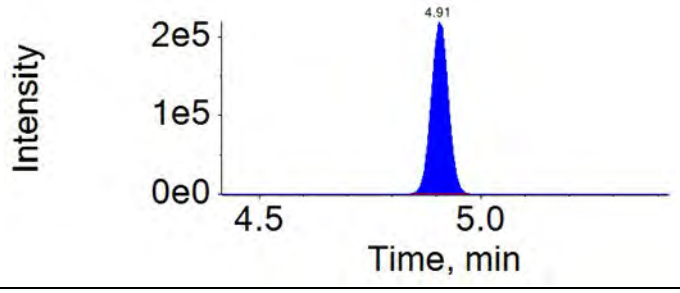
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

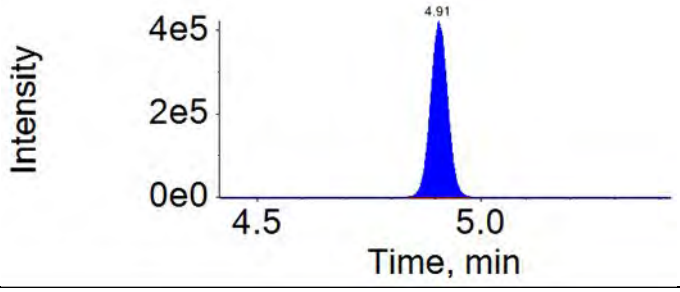
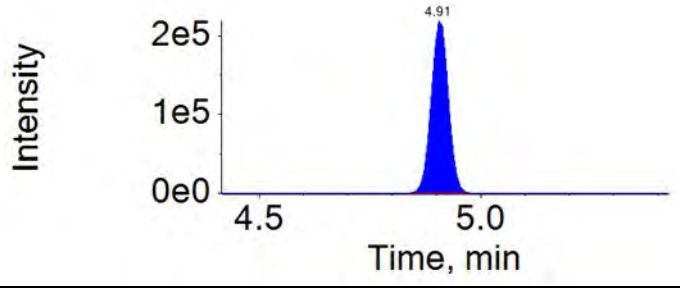
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

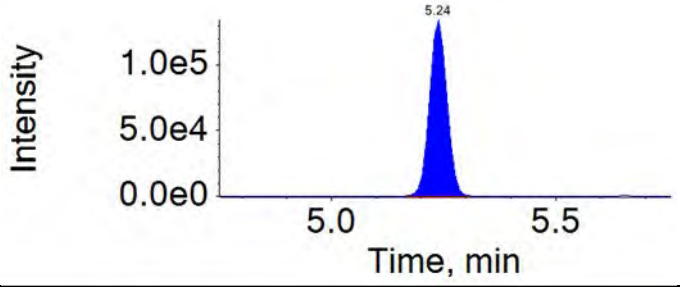
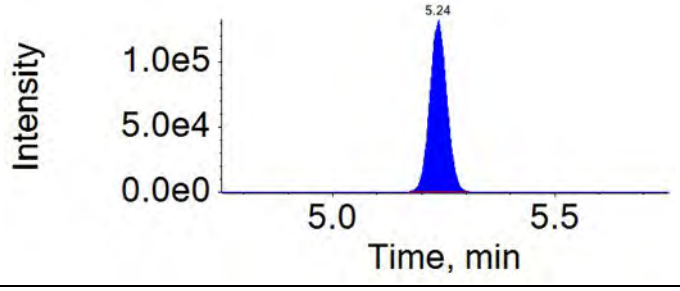
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

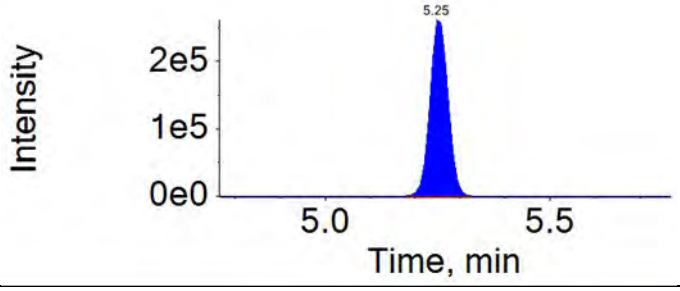
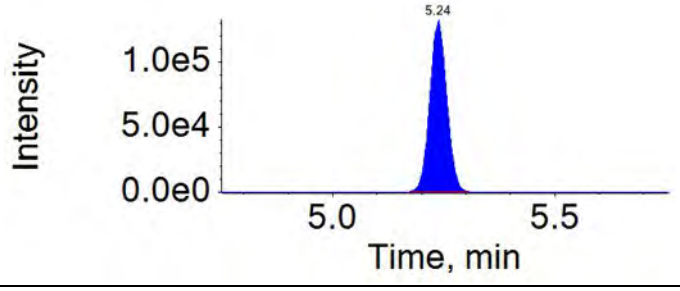
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

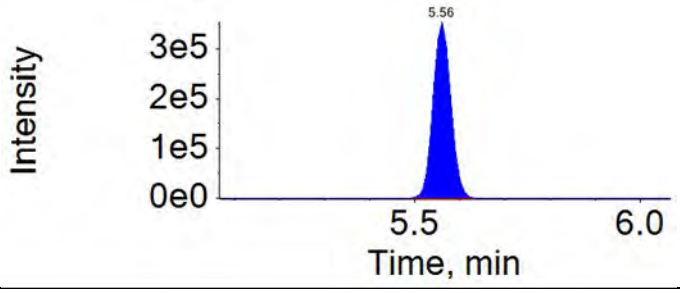
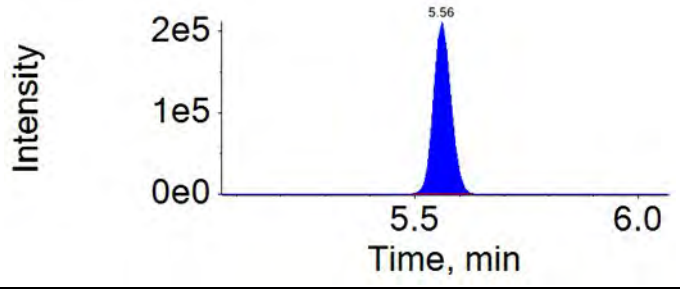
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

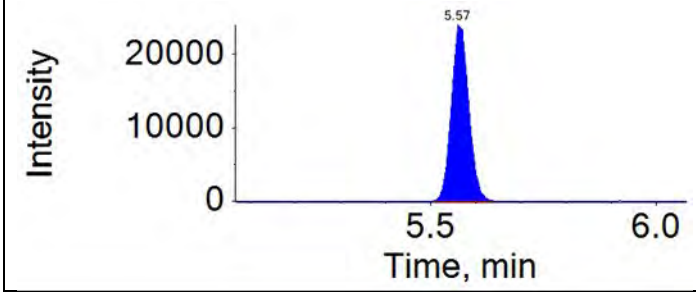
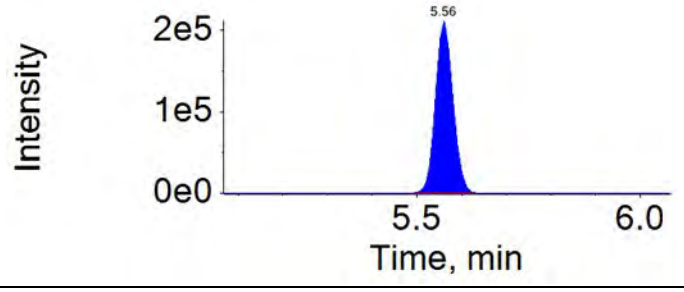
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

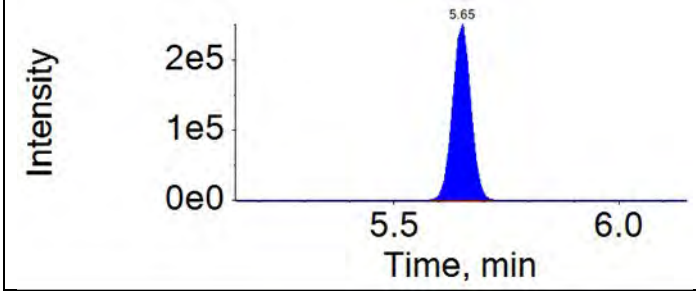
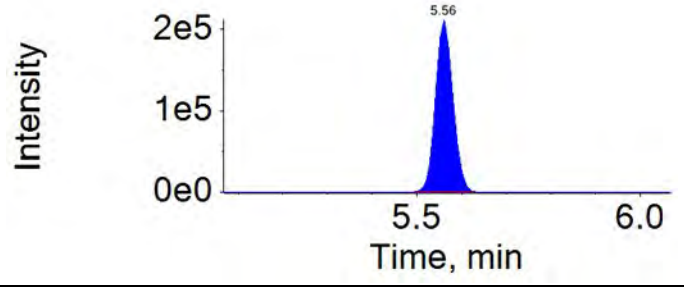
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

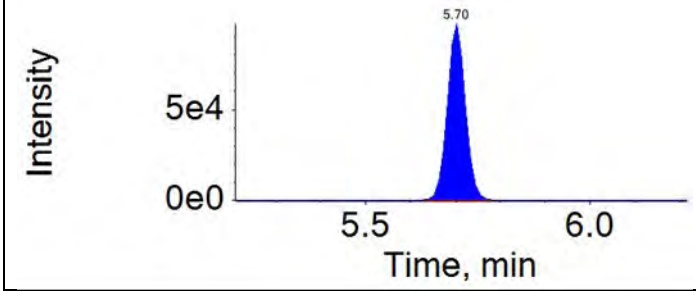
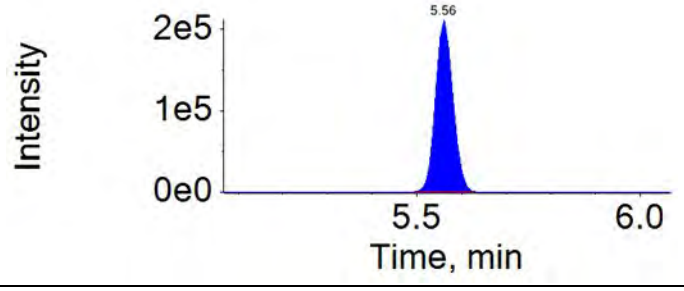
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

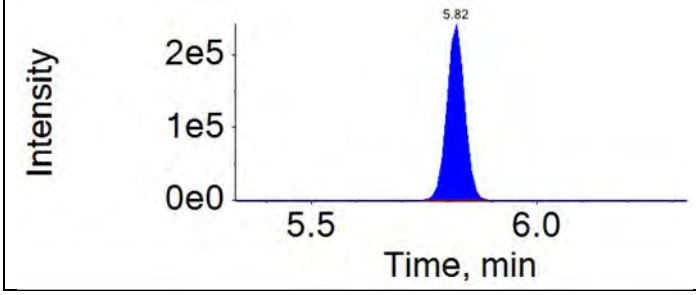
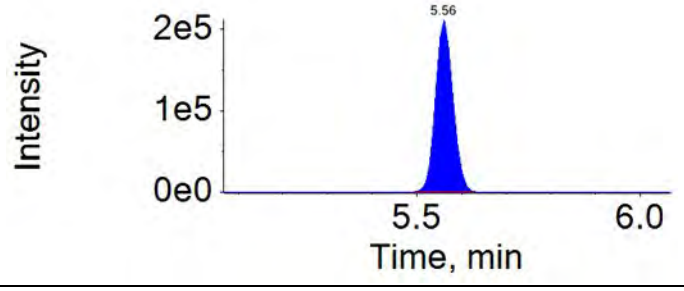
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

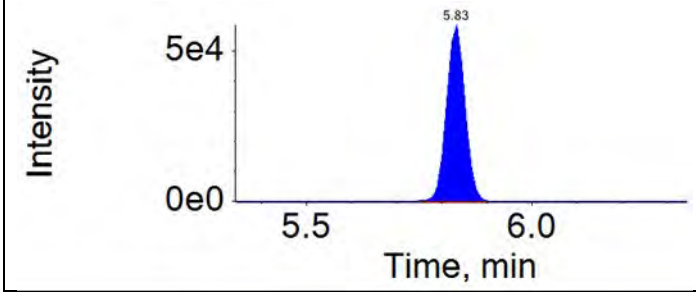
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

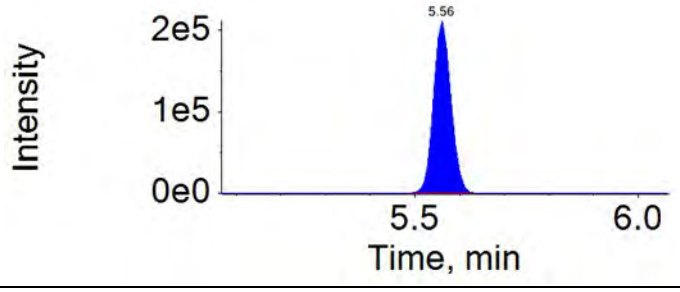
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

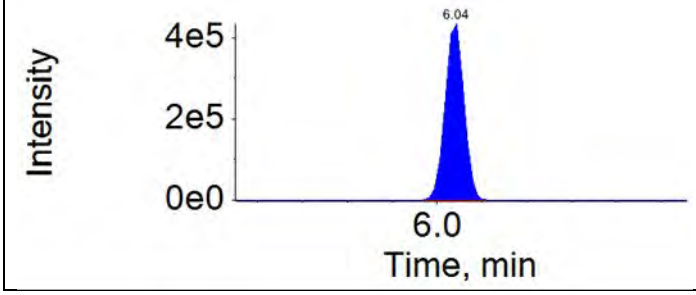
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

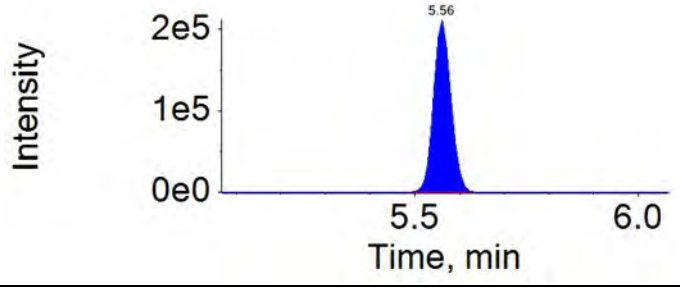
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



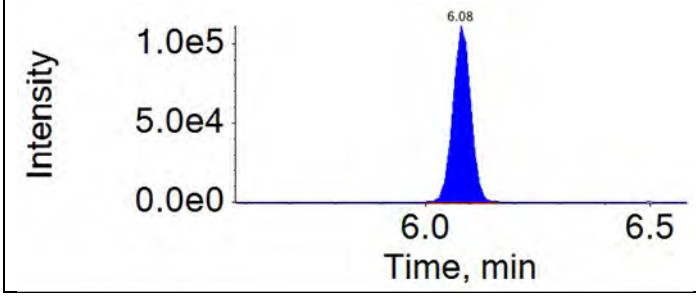


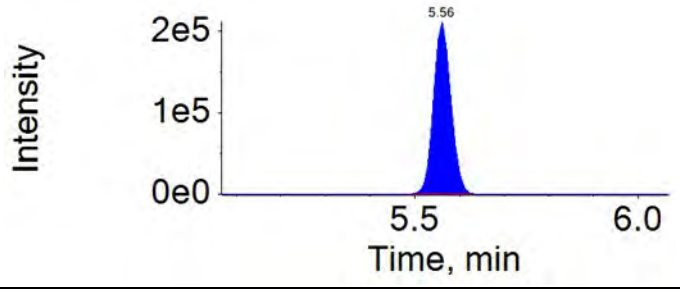
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



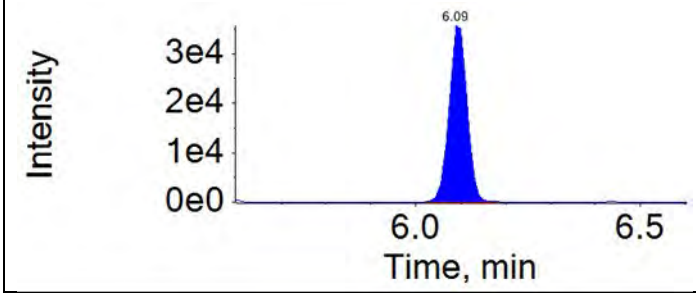


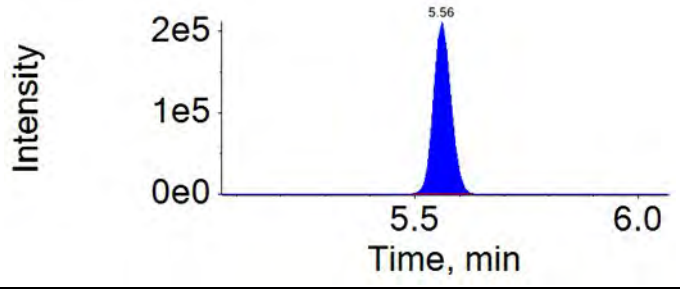
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





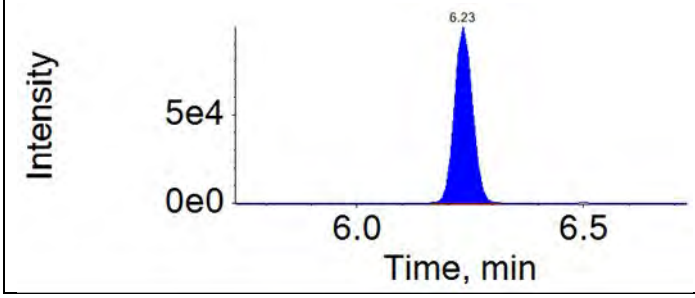
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

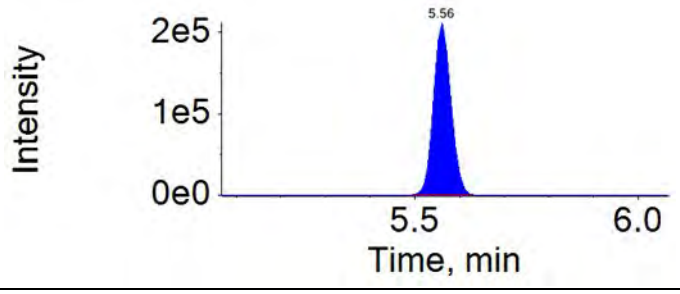




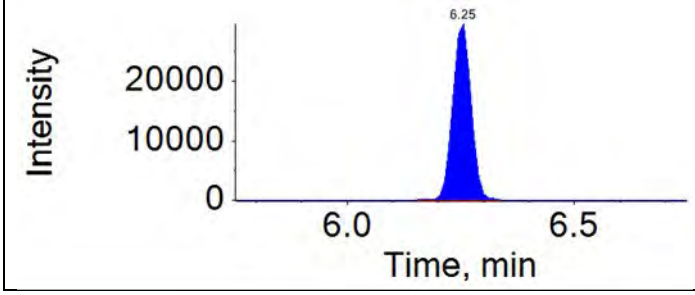
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

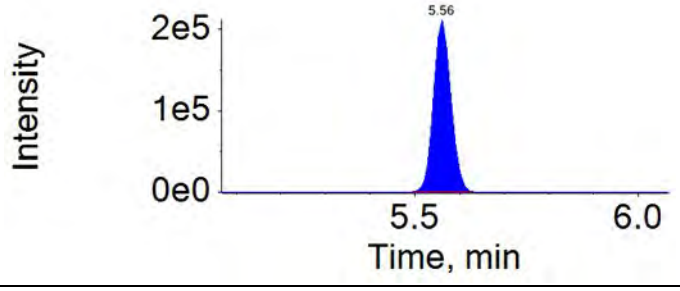
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



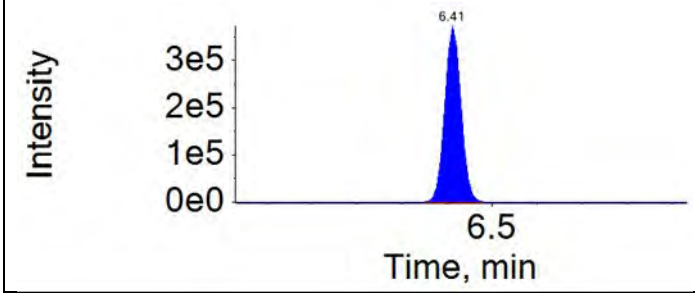


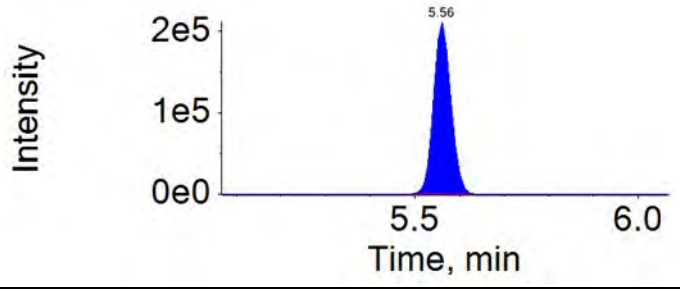
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



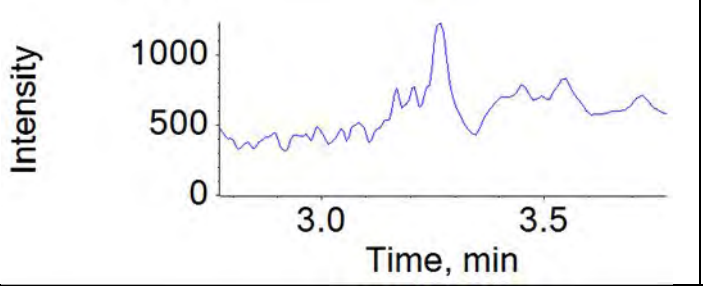


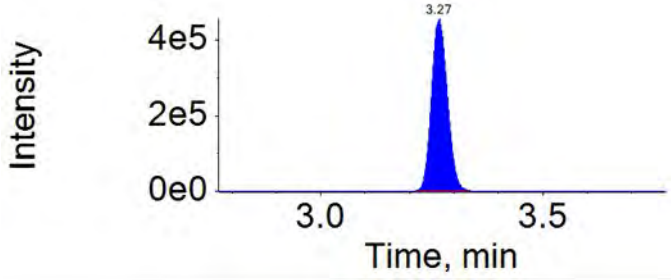
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

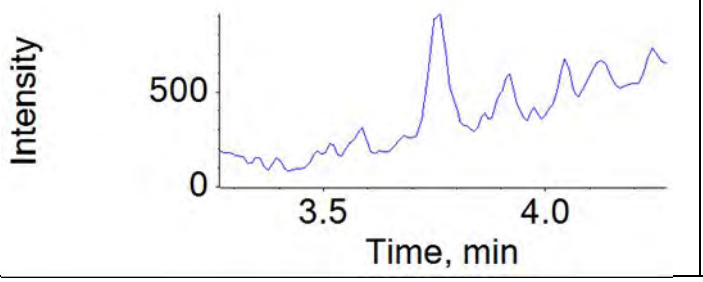
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

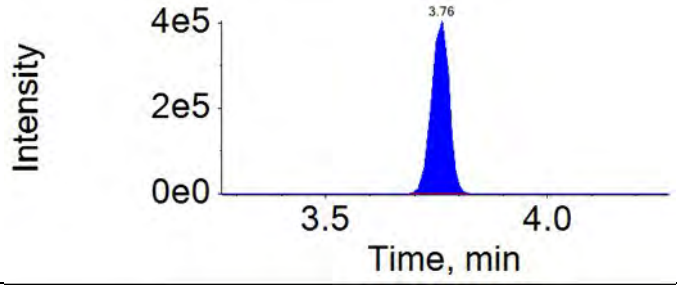
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



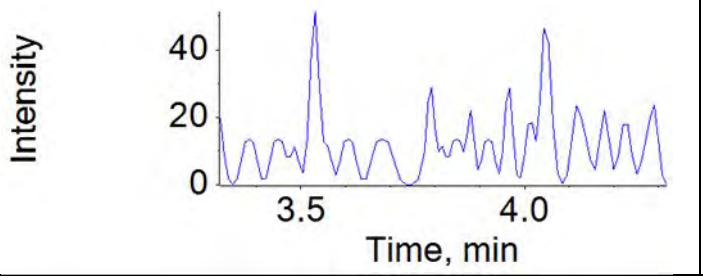


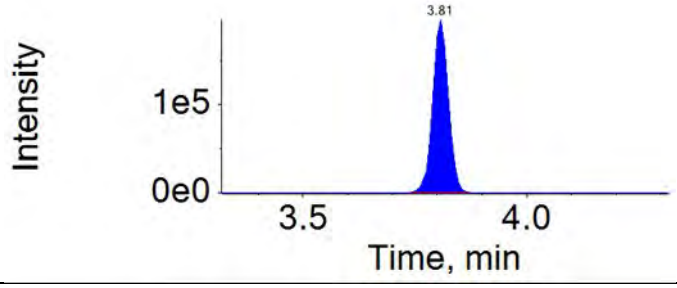
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



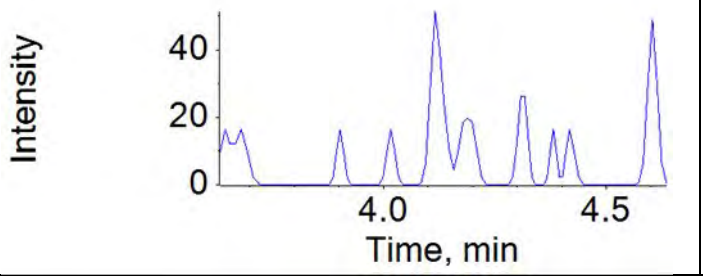


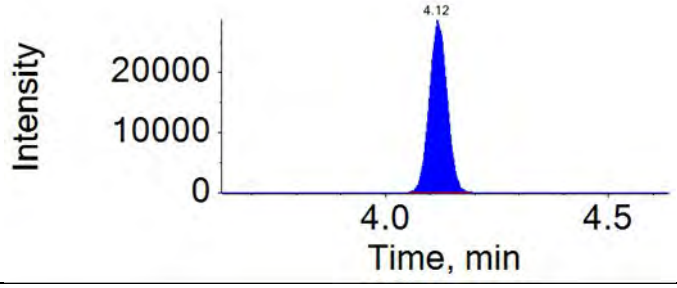
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



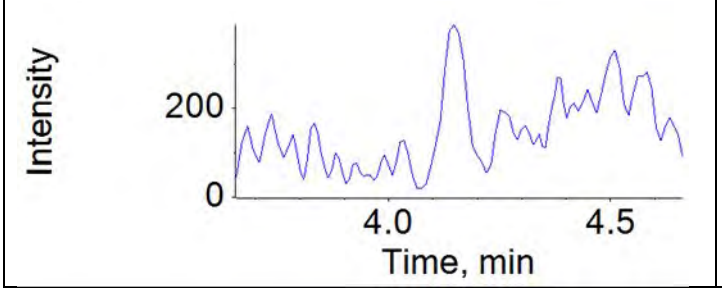


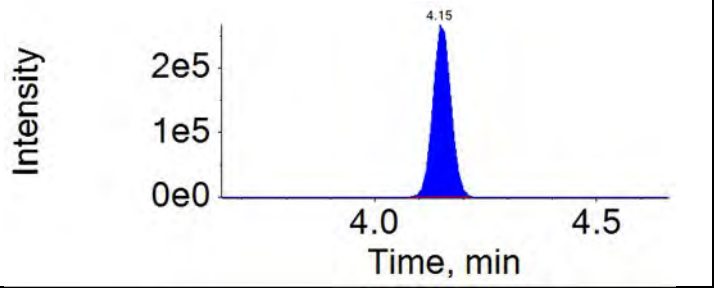
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

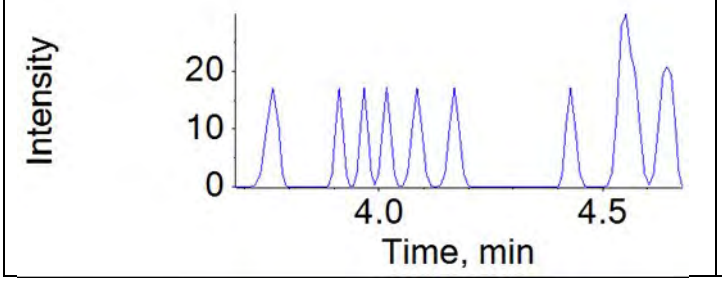
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

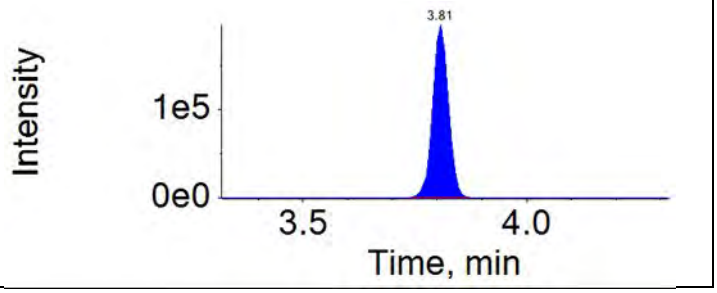
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



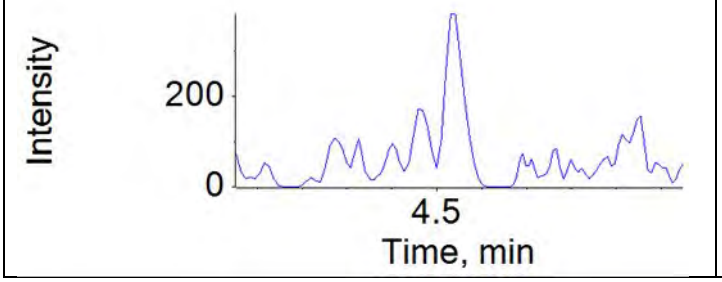


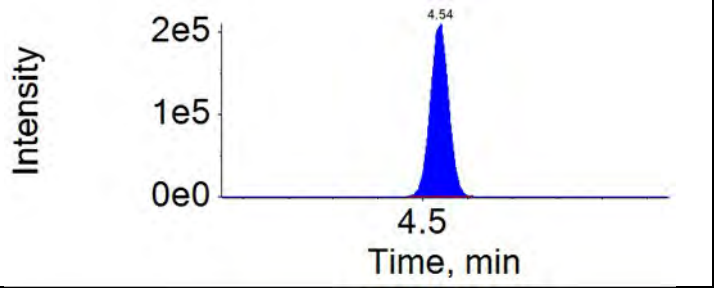
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



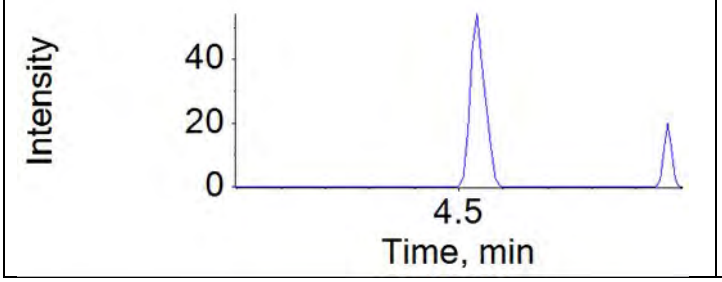


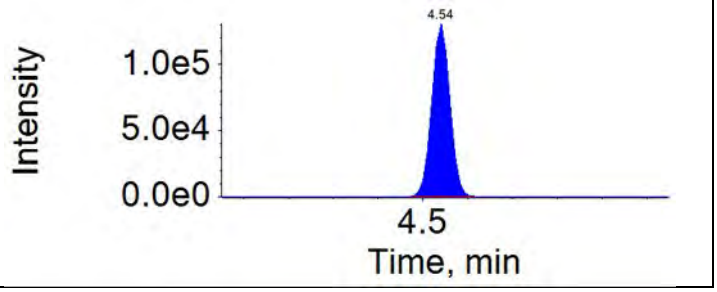
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



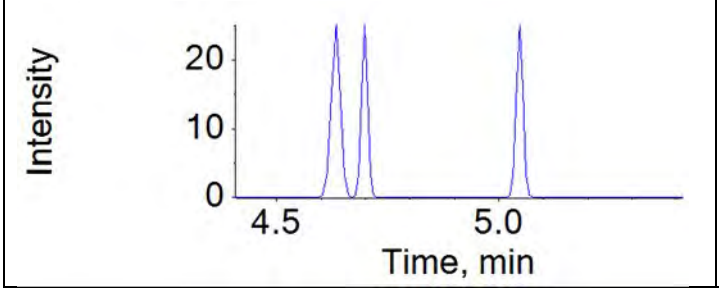


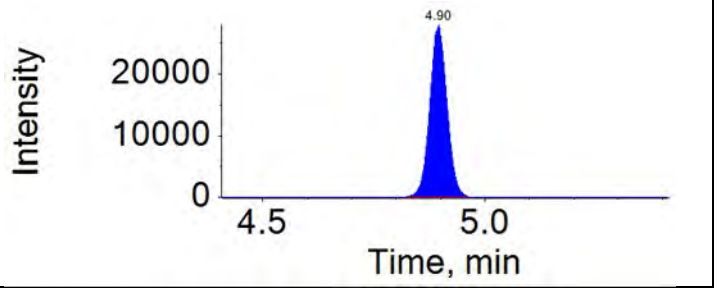
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

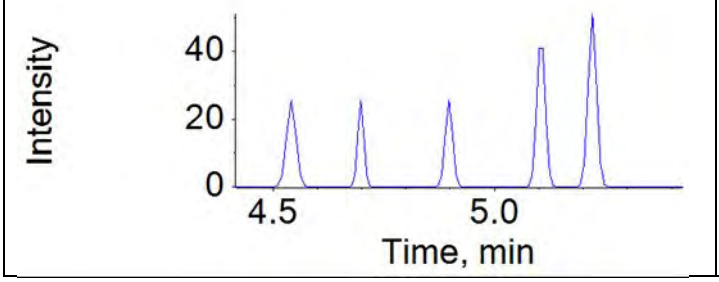
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

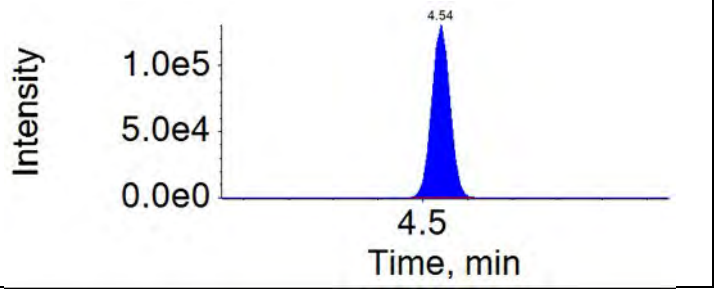
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



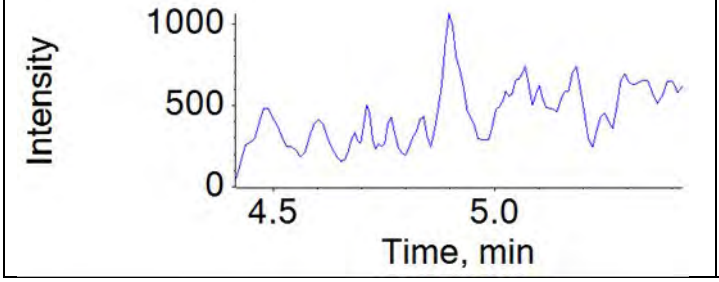


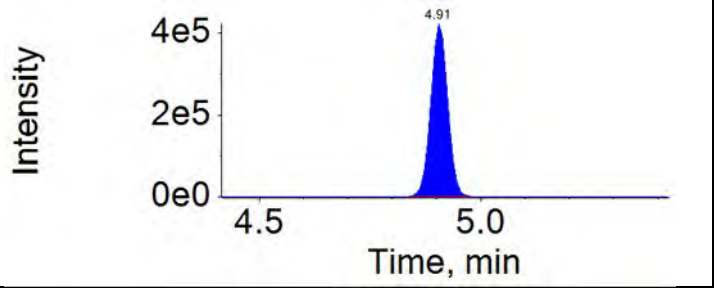
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



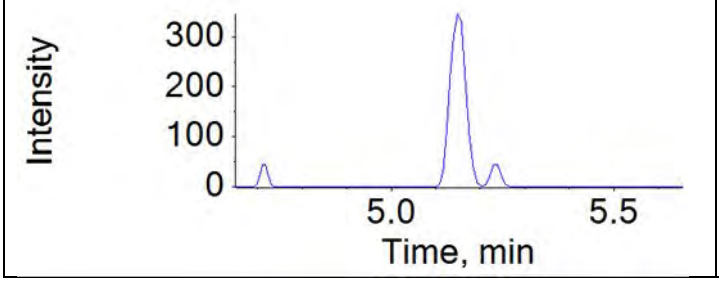


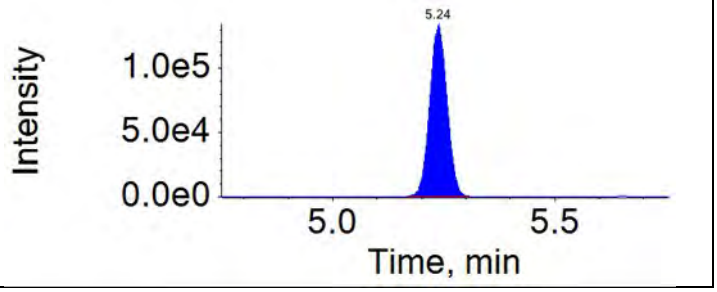
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



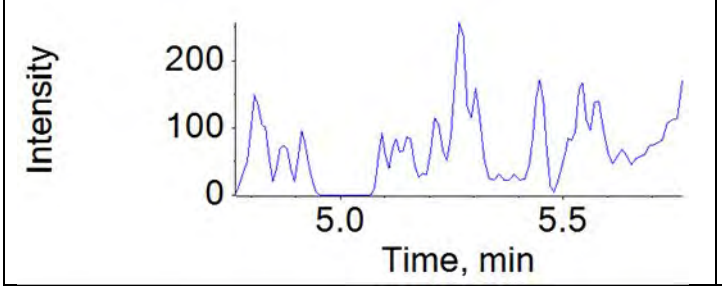


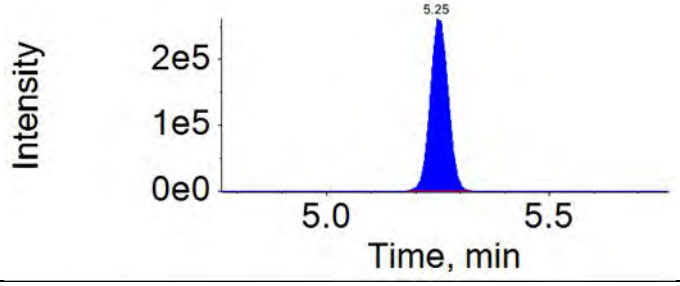
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

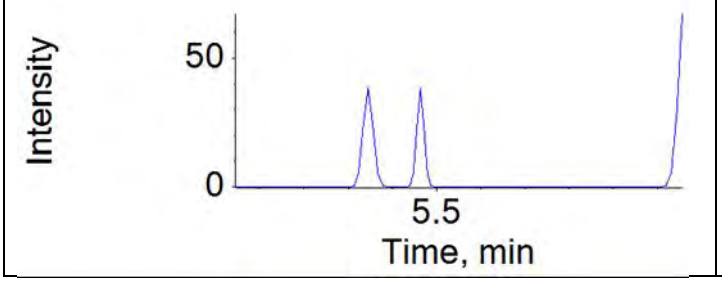
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

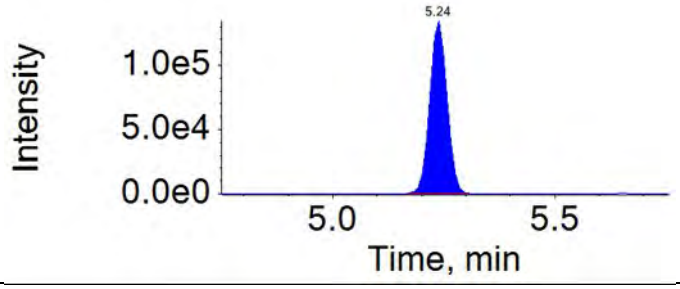
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



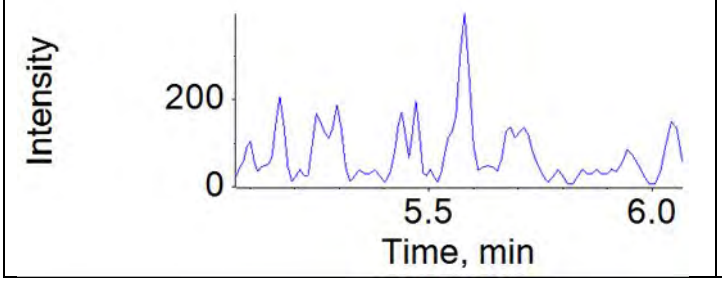


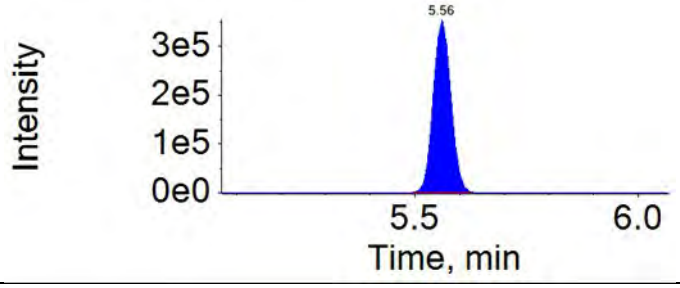
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



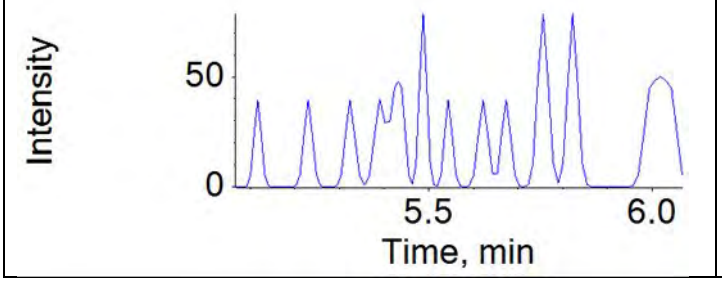


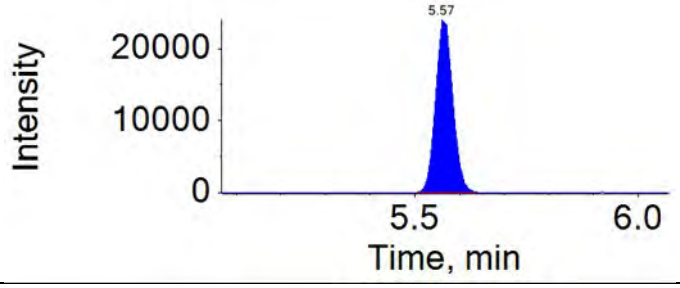
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





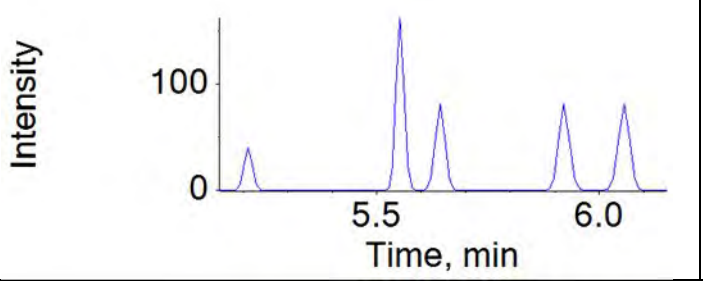
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

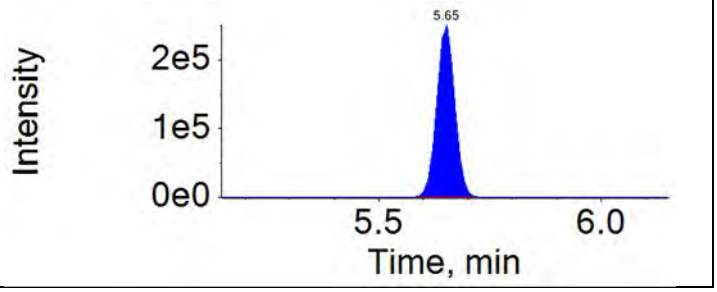




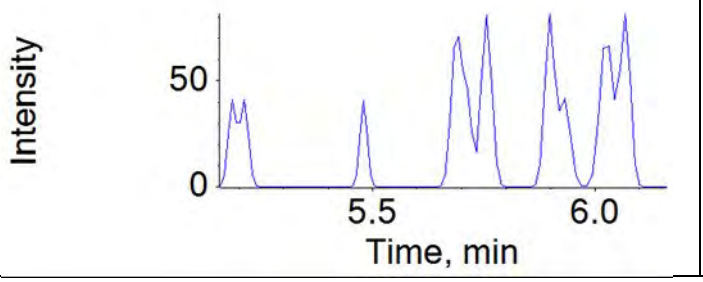
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

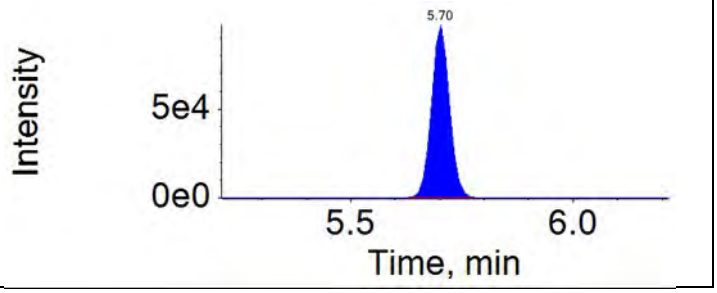
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



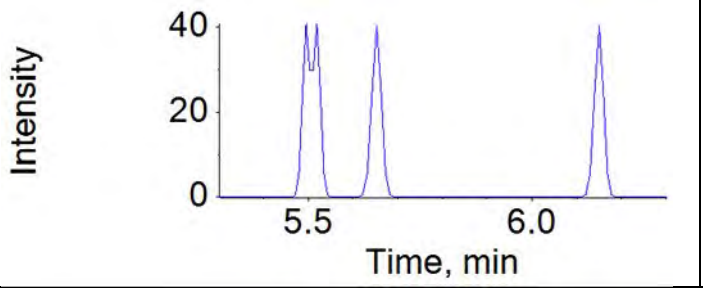


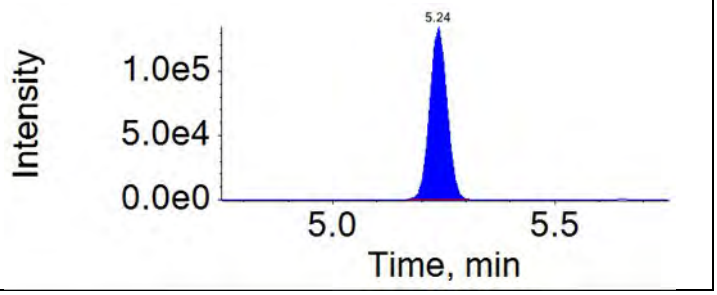
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



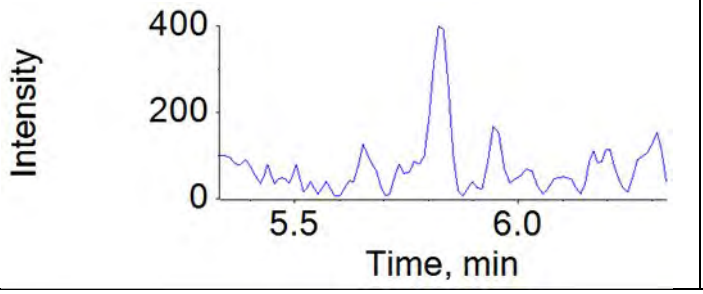


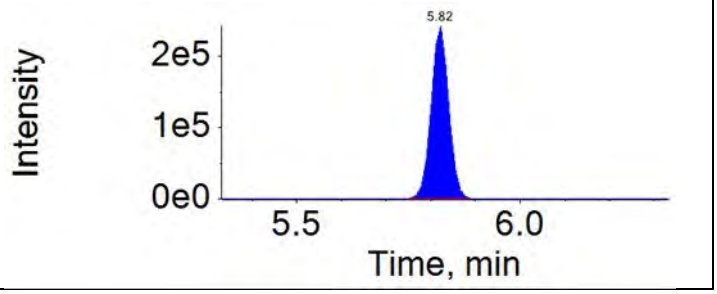
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



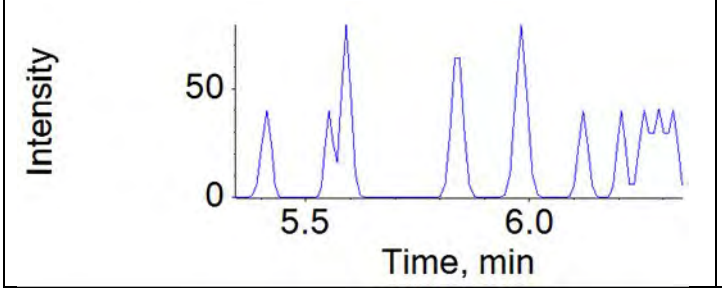


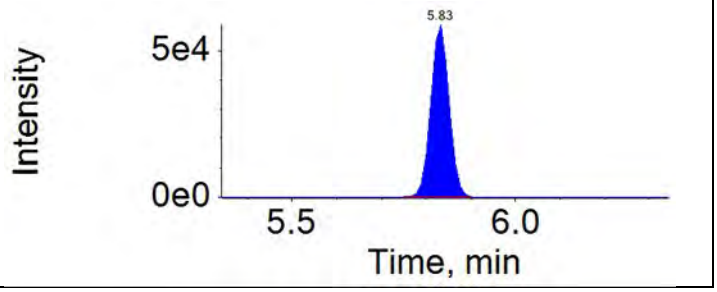
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

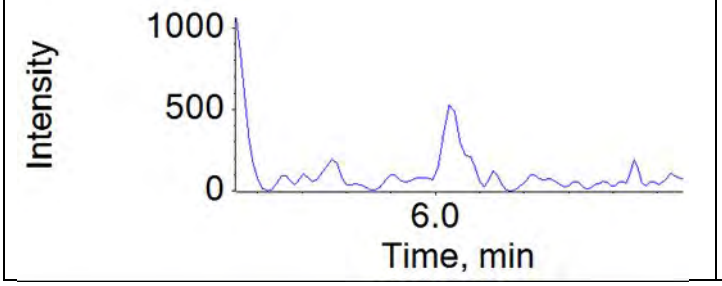
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

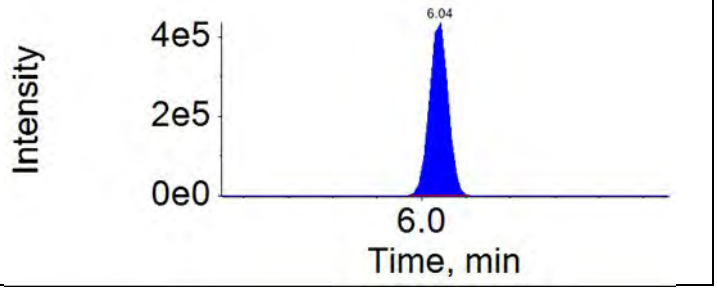
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



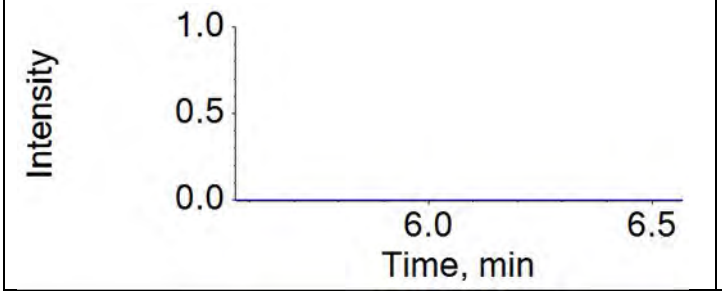


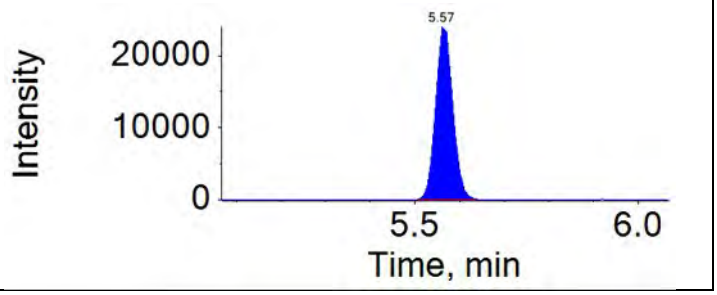
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



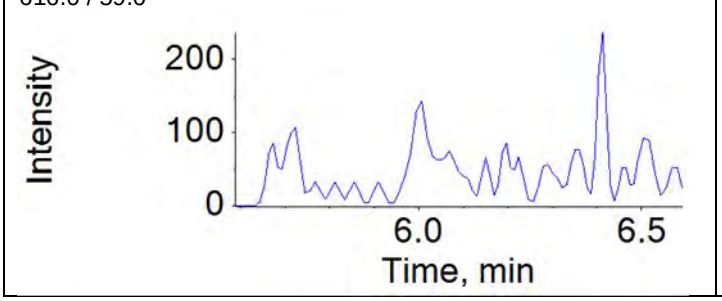


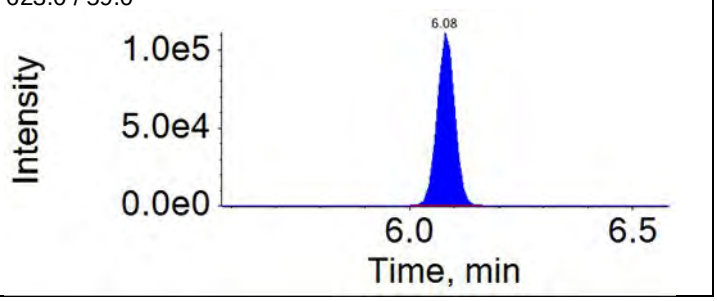
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



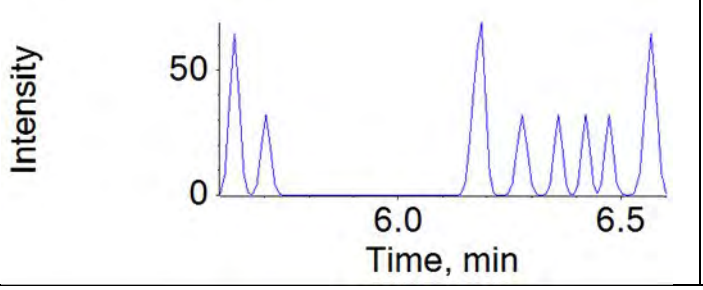


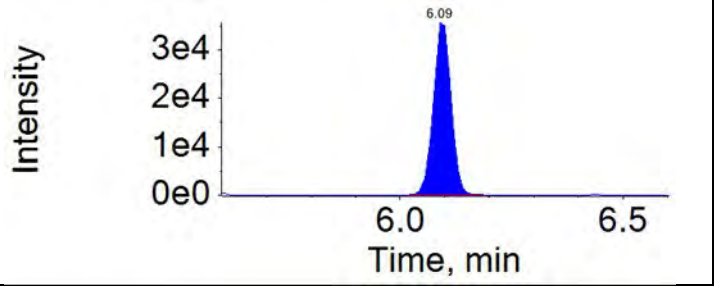
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

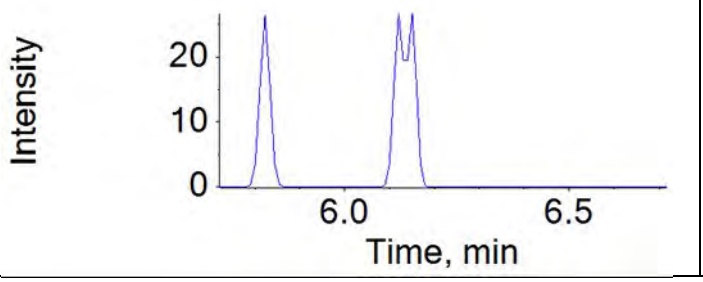
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

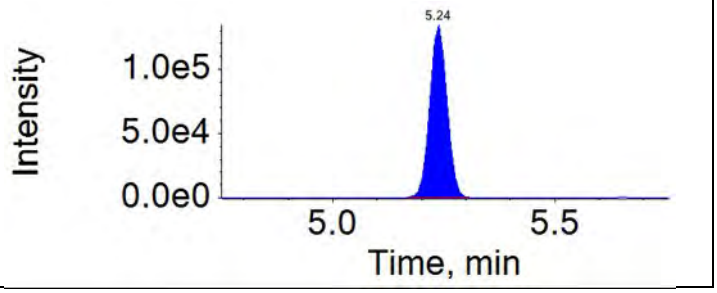
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



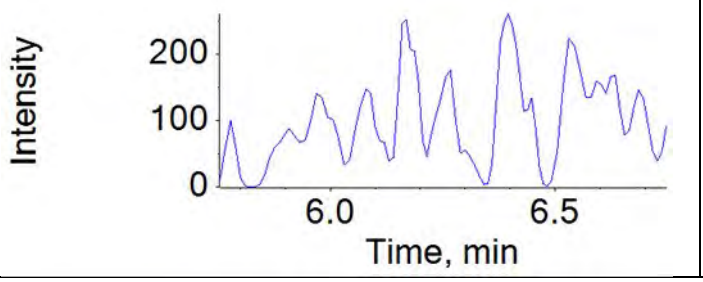


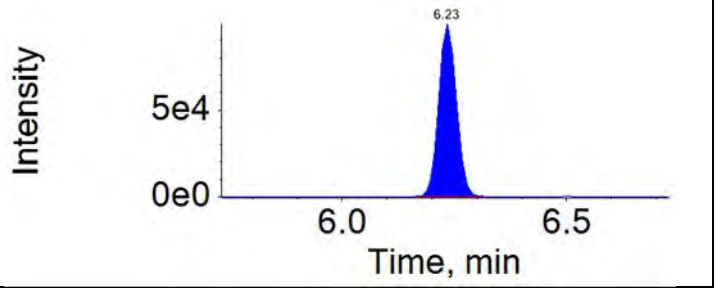
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



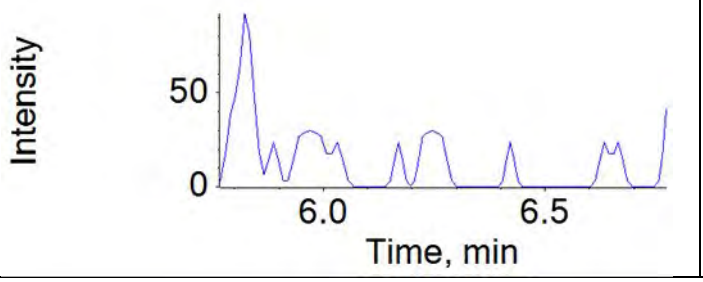


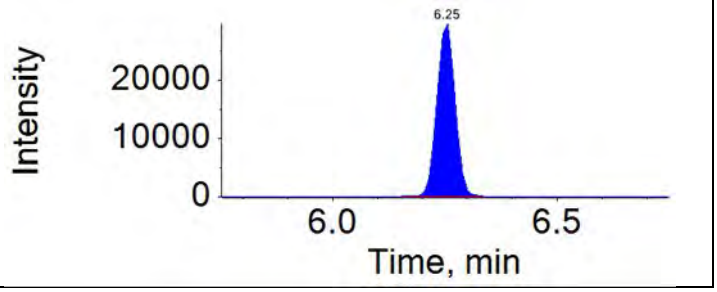
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



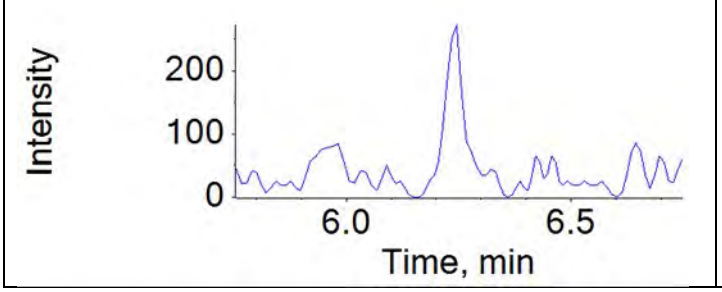


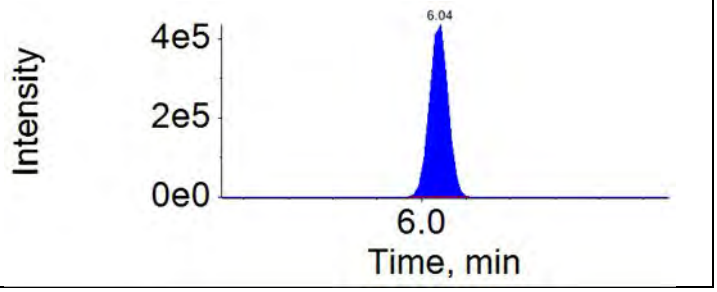
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

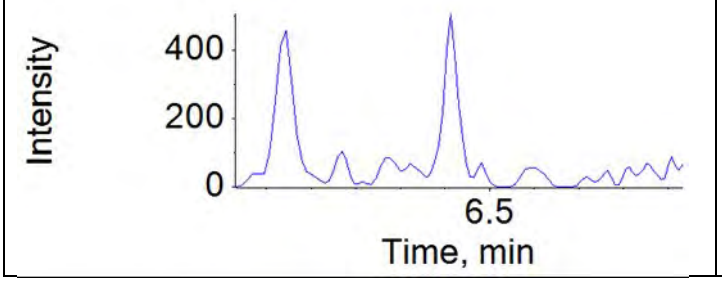
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

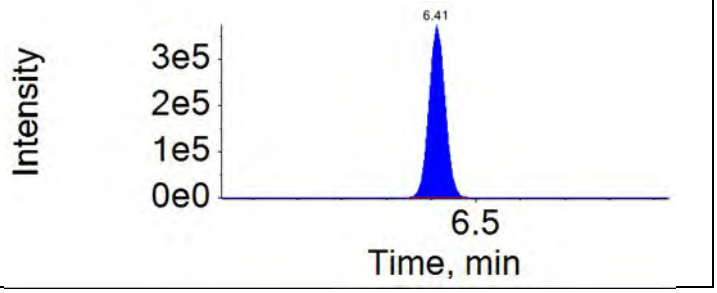
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



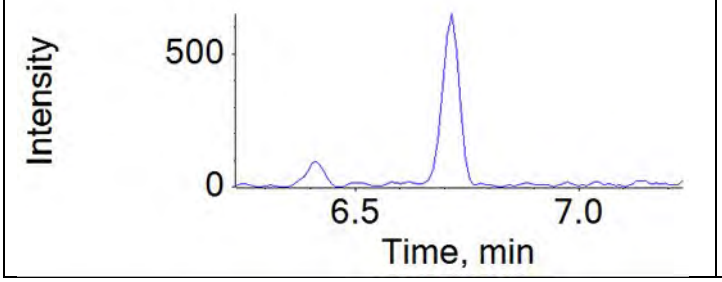


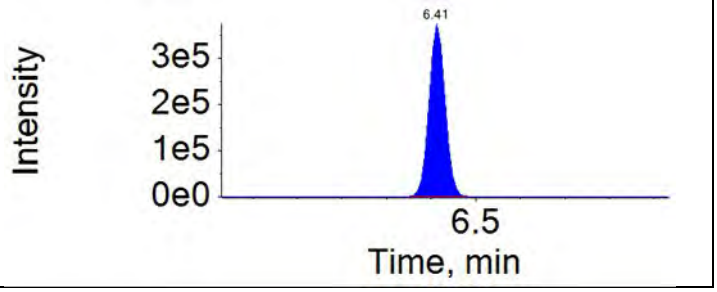
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



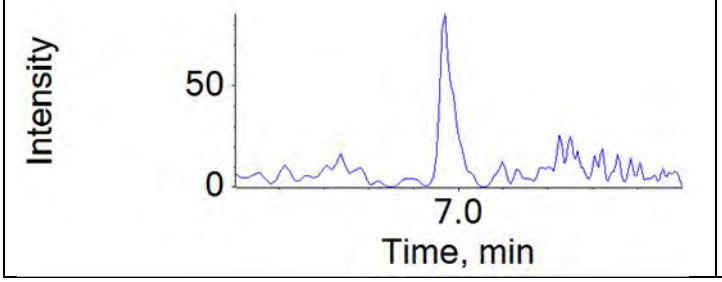


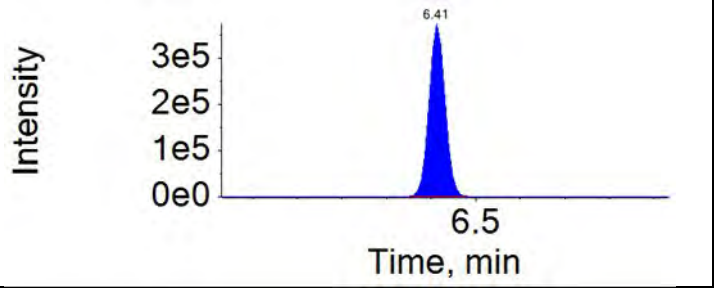
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Ion Ratio Report

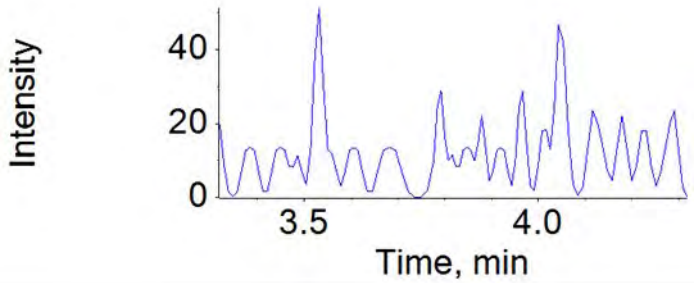
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

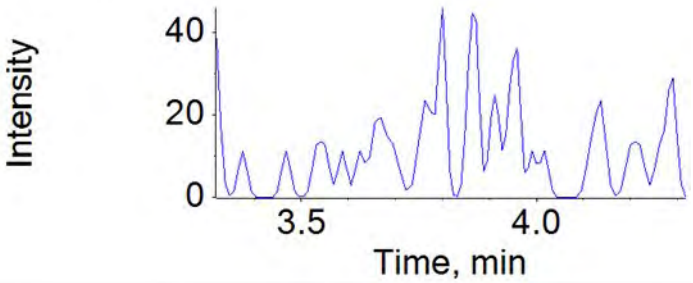
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

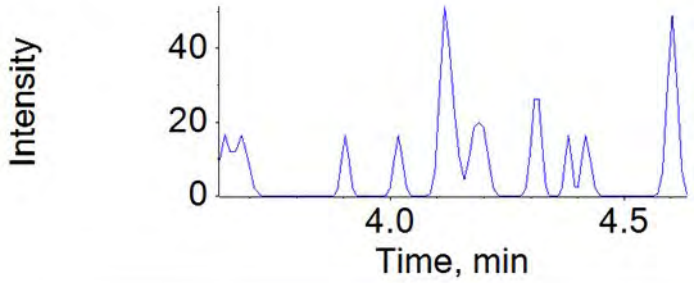
Component: PFBS
Primary Mass: 299.0 / 80.0



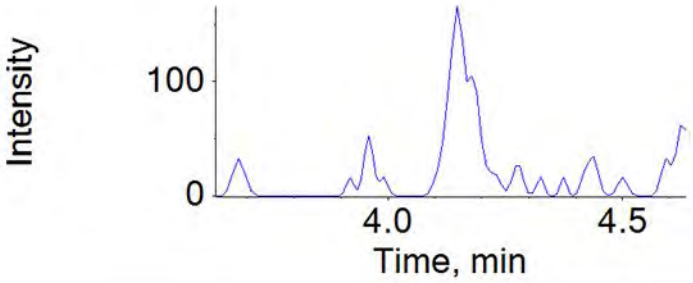
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



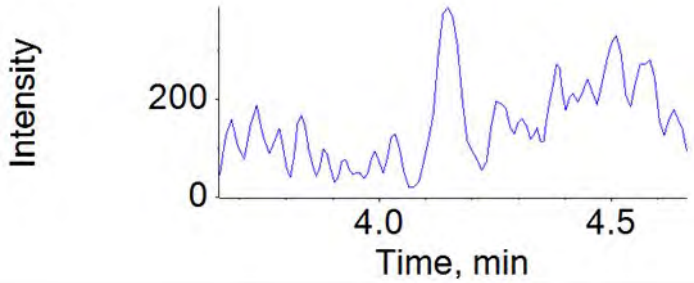
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



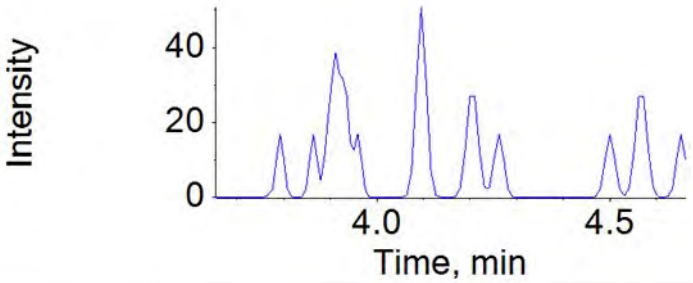
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



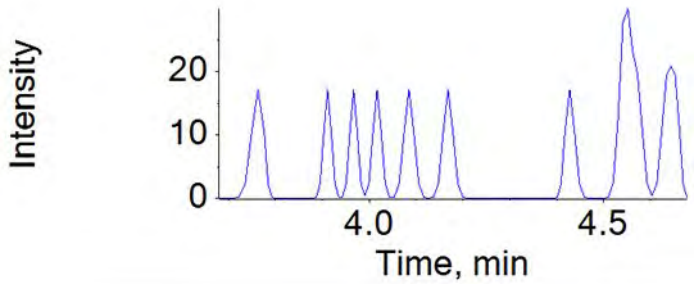
Component: PFHxA
Primary Mass: 313.0 / 269.0



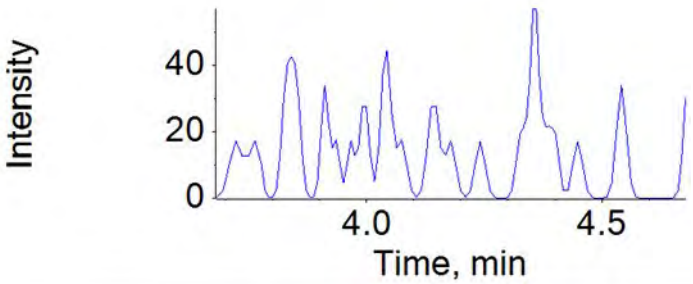
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



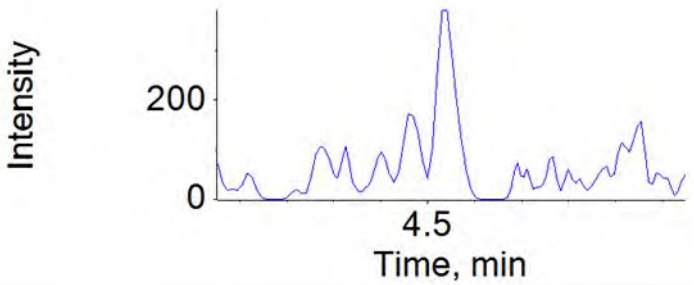
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



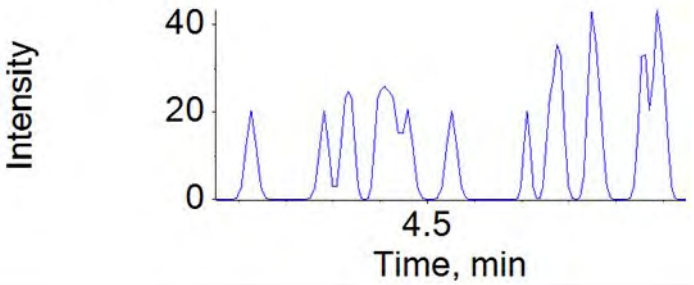
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

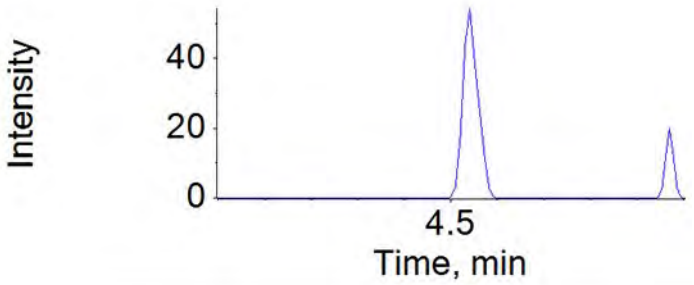
Component: PFHpA
Primary Mass: 363.0 / 319.0



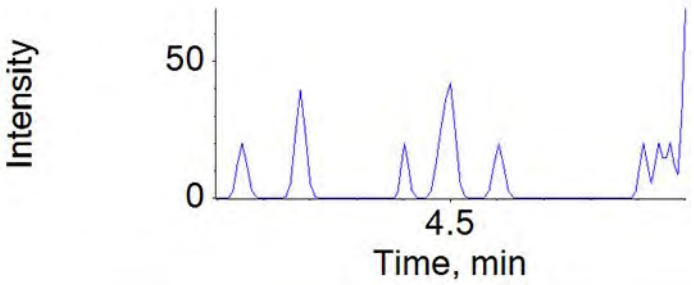
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



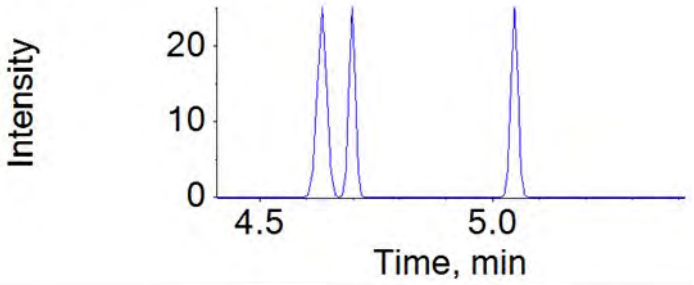
Component: PFHxS
Primary Mass: 399.0 / 80.0



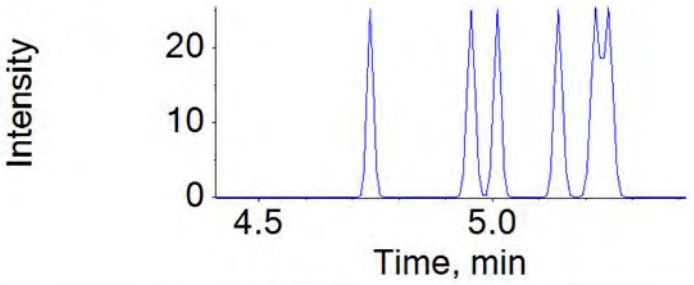
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



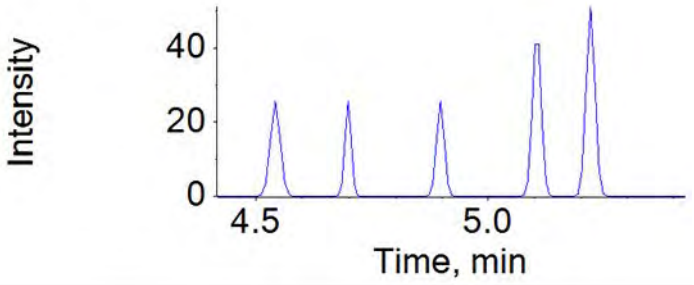
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



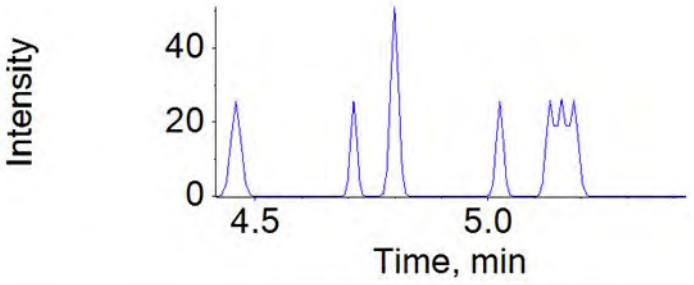
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



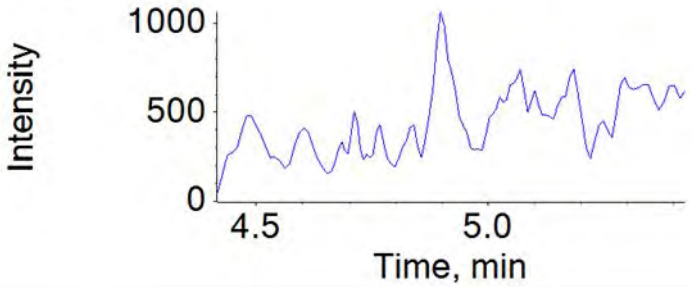
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



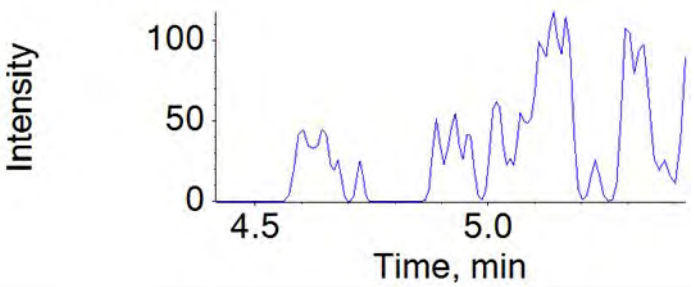
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

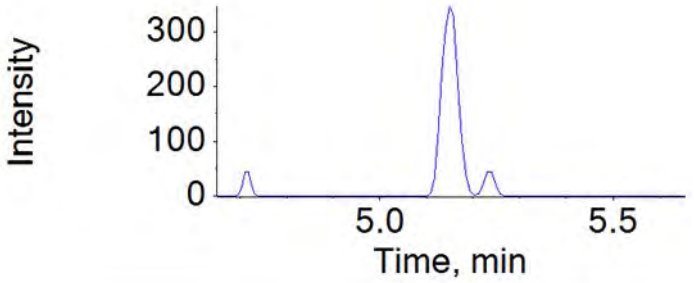
Component: PFOA
Primary Mass: 413.0 / 369.0



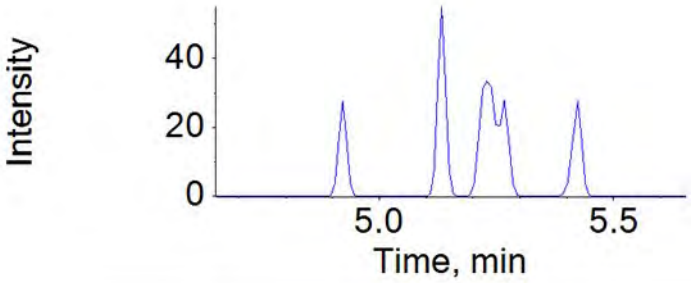
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



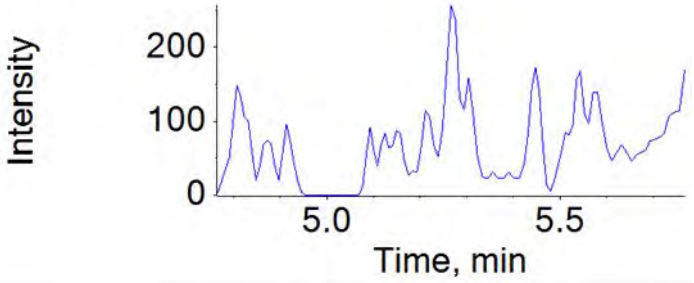
Component: PFOS
Primary Mass: 499.0 / 80.0



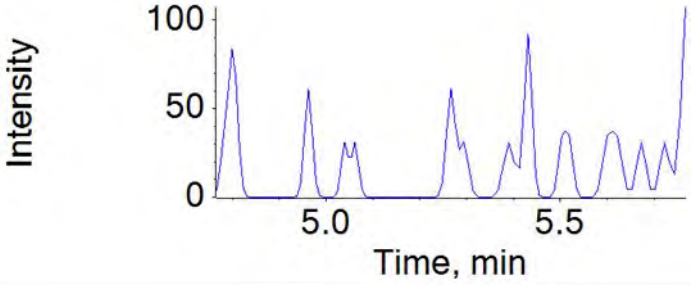
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



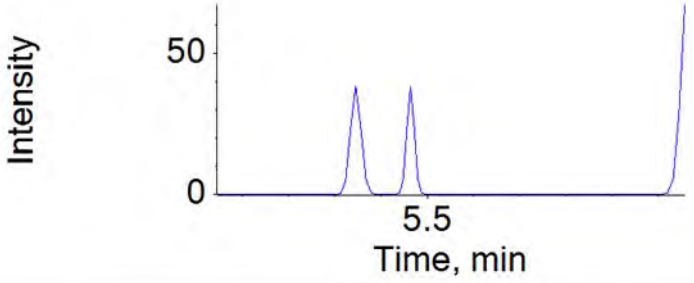
Component: PFNA
Primary Mass: 463.0 / 419.0



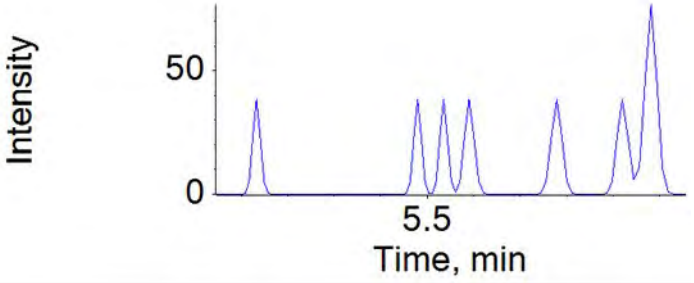
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



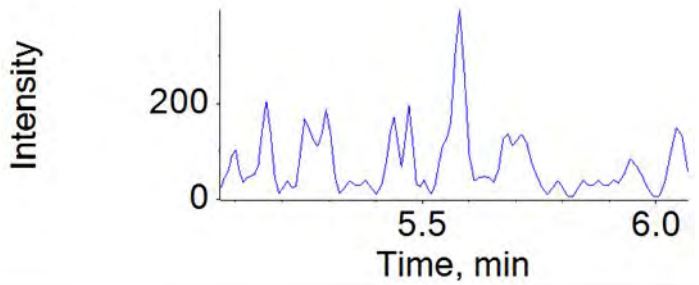
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



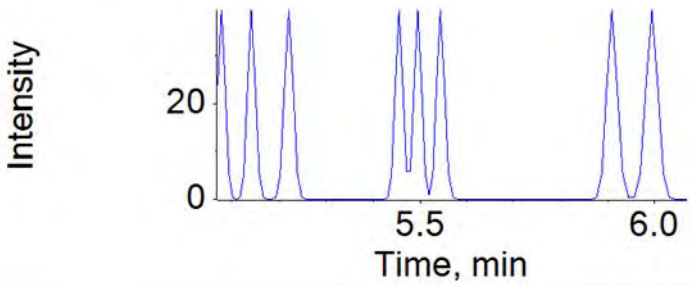
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

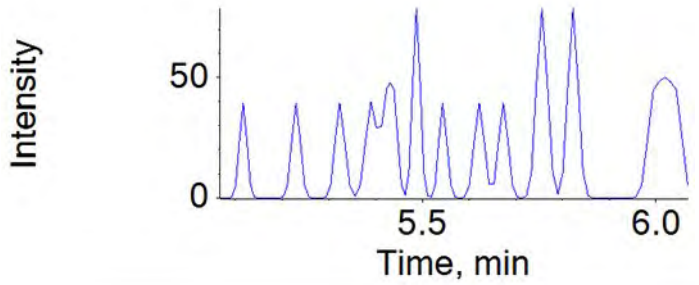
Component: PFDA
Primary Mass: 513.0 / 469.0



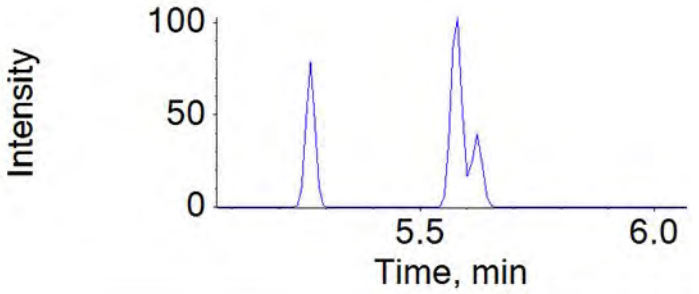
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



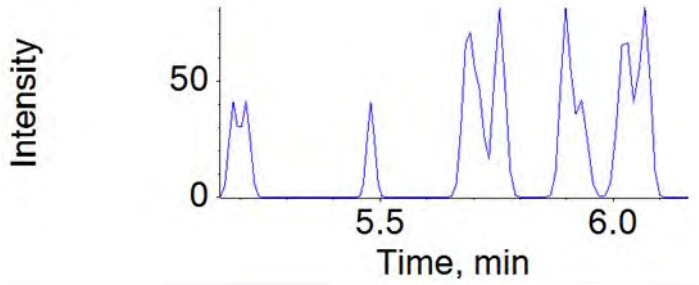
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



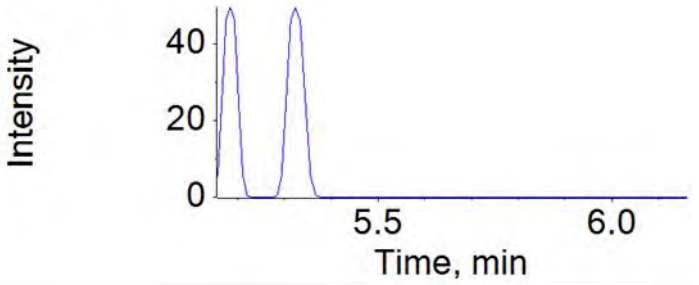
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



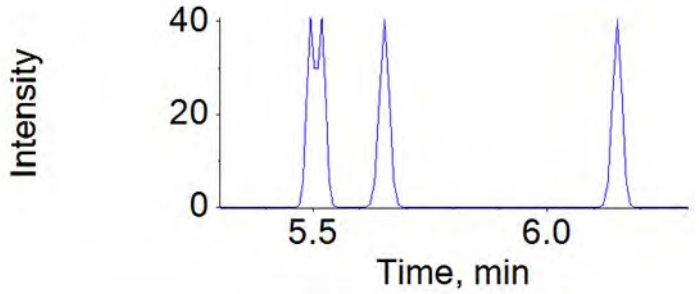
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



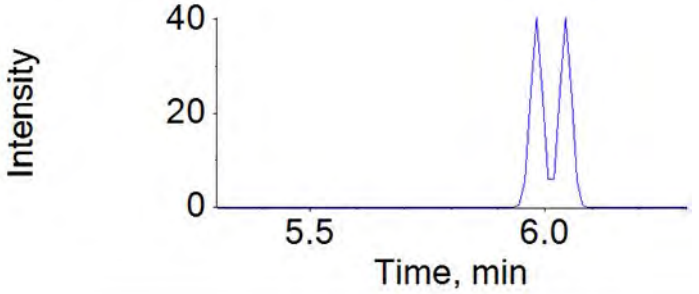
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



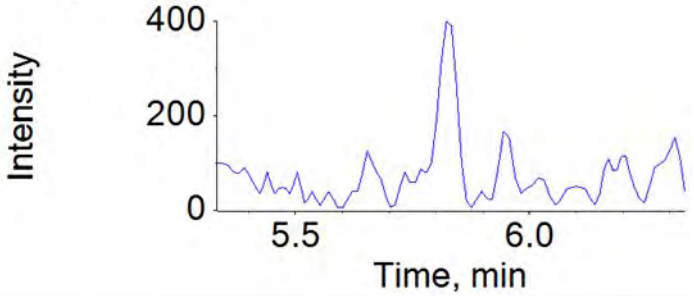
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



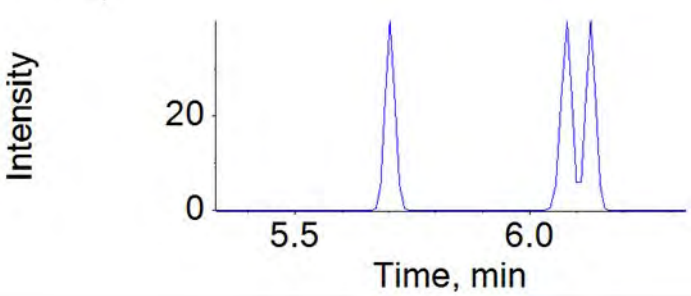
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

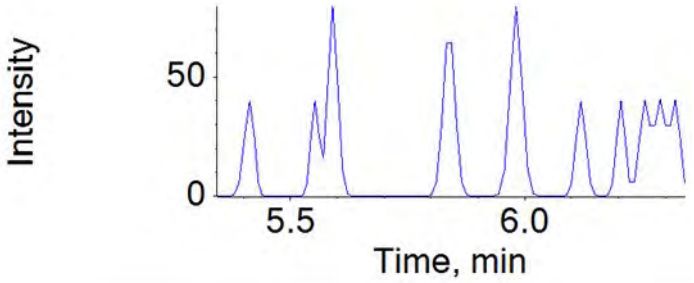
Component: PFUnDA
Primary Mass: 563.0 / 519.0



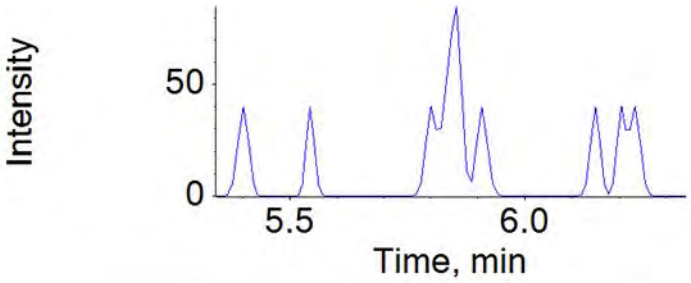
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



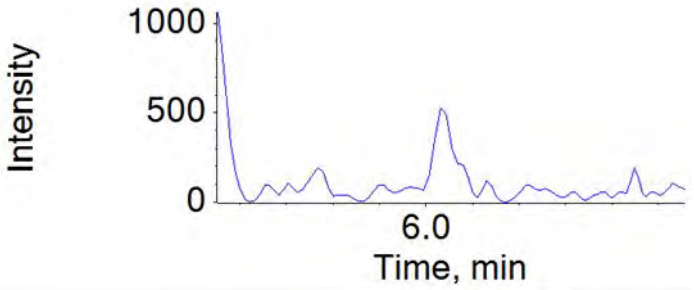
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



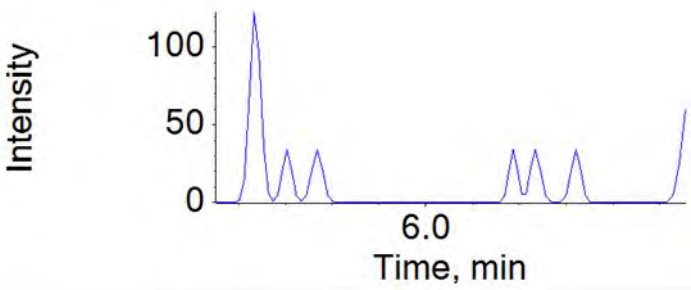
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



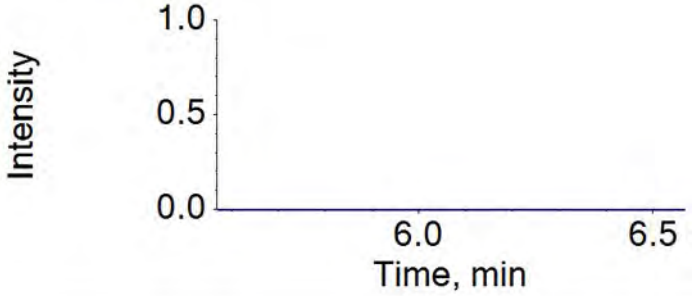
Component: PFDoDA
Primary Mass: 613.0 / 569.0



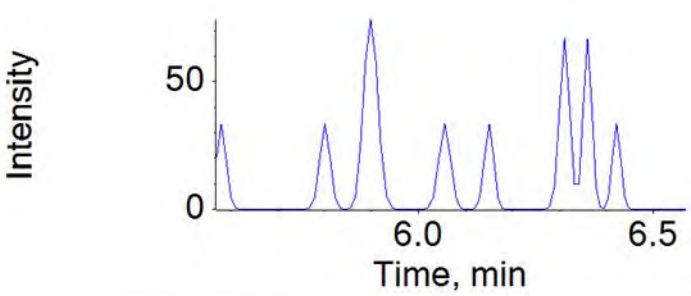
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



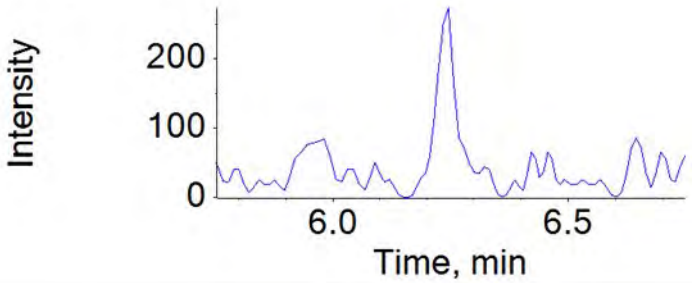
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



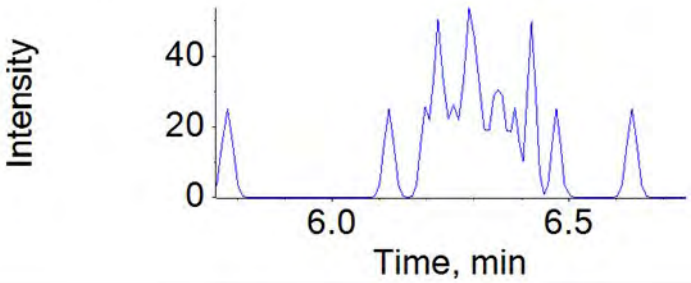
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

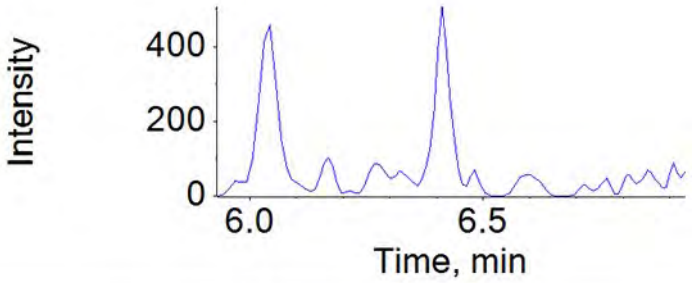
Component: PFTrDA
Primary Mass: 663.0 / 619.0



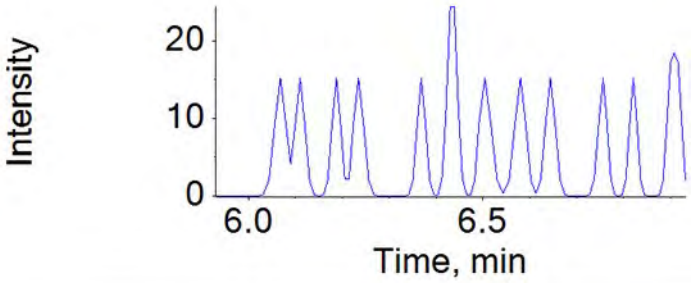
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



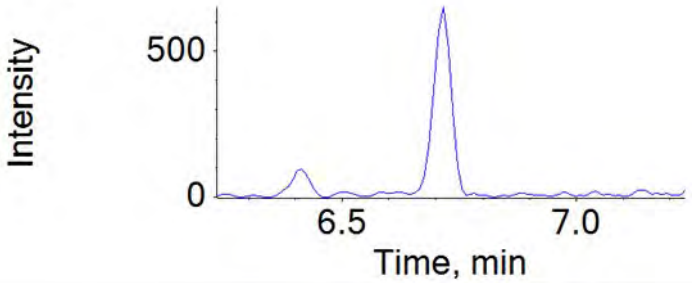
Component: PFTeDA
Primary Mass: 713.0 / 669.0



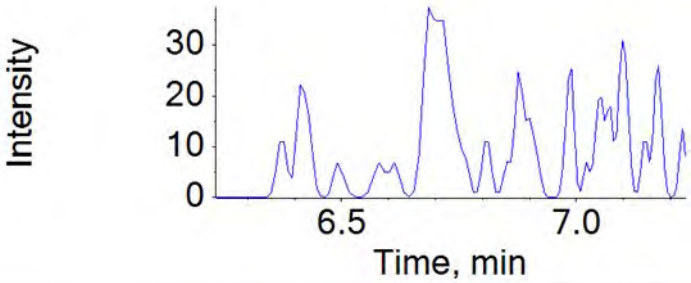
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



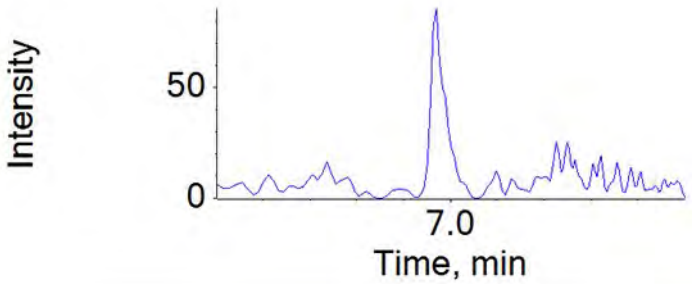
Component: PFHxDA
Primary Mass: 813.0 / 769.0



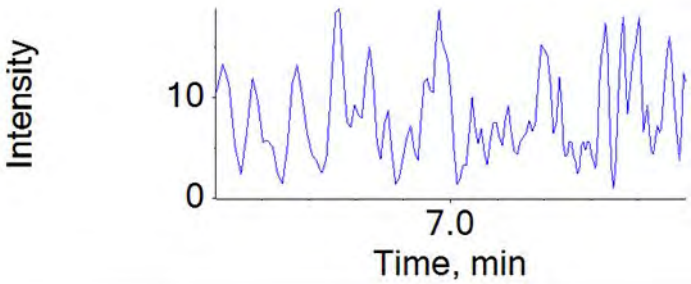
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



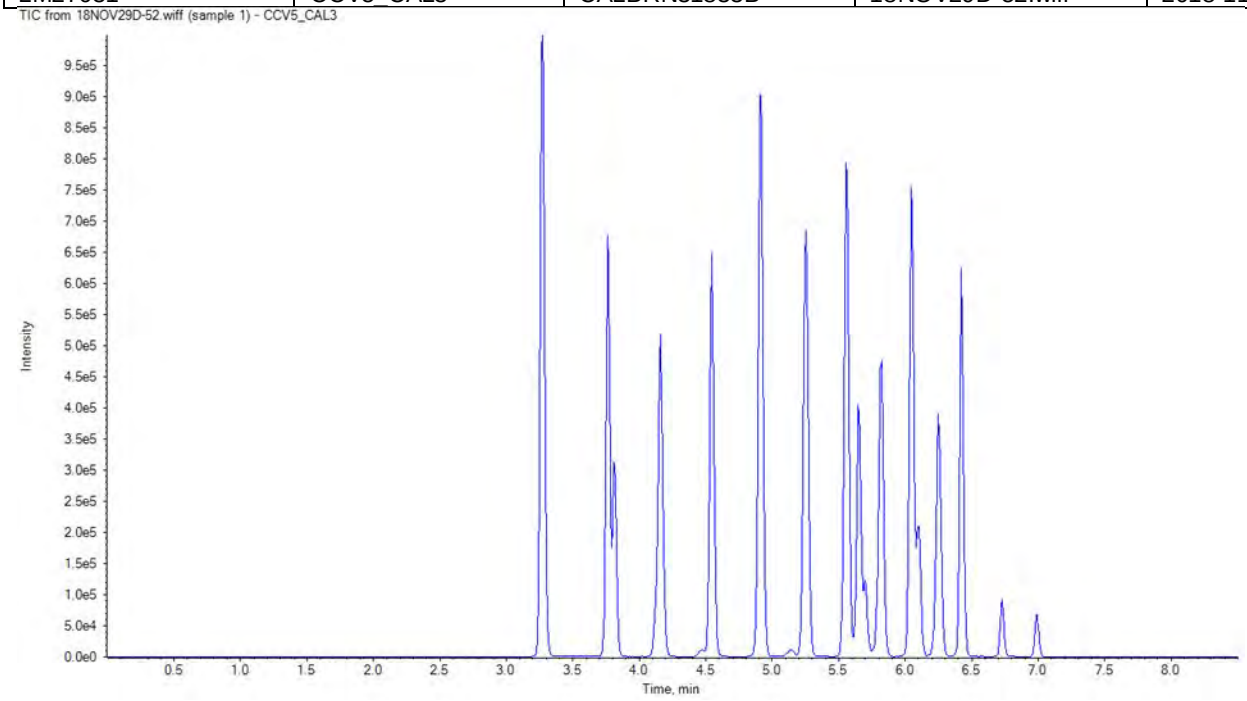
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV29D-52.wiff	2018-11-29T17:37:36



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	888103.1	906425.4	-2	50	
13C2-PFOA	5.0	482099.7	495984.0	-3	50	
13C4-PFOS	4.8	299552.8	296261.8	1	50	
13C2-PFDA	5.0	454503.3	451203.0	1	50	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV29D-52.wiff	2018-11-29T17:37:36

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	410376.9	10	13C4-PFBA	1003538.1	5.0	0.409	3.27	1.000	2.000	2.242	12	30	
PFPeA	400188.5	11	13C5-PFPeA	935080.6	5.0	0.428	3.77	1.000	2.000	2.100	5	30	
PFBS	172355.2	10	13C3-PFBS	424594.0	4.7	0.406	3.81	1.000	1.770	1.970	11	30	
4:2-FTS	52632.4	12	13C2-4:2-FTS	66022.9	4.7	0.797	4.12	1.000	1.870	2.134	14	30	
PFHxA	392712.5	11	13C5-PFHxA	665817.1	5.0	0.590	4.16	1.000	2.000	2.368	18	30	
PFPeS	89389.0	11	13C3-PFBS	424594.0	4.7	0.211	4.18	1.100	1.880	2.129	13	30	
PFHpA	396806.2	11	13C4-PFHpA	547436.1	5.0	0.725	4.54	1.000	2.000	2.237	12	30	
PFHxS	127006.9	19	13C3-PFHxS	327068.8	4.7	0.388	4.55	1.000	1.820	1.818	0	30	
6:2-FTS	51799.6	11	13C2-6:2-FTS	58432.7	4.8	0.886	4.90	1.000	1.900	2.313	22	30	
PFHpS	129025.9	11	13C3-PFHxS	327068.8	4.7	0.394	4.91	1.080	1.900	1.969	4	30	
PFOA	407078.9	11	13C8-PFOA	958420.1	5.0	0.425	4.91	1.000	2.000	2.195	10	30	
PFOS	138995.5	21	13C8-PFOS	336404.9	4.8	0.413	5.24	1.000	1.850	1.733	-6	30	
PFNA	382168.0	11	13C9-PFNA	639090.1	5.0	0.598	5.26	1.000	2.000	2.292	15	30	
PFNS	98297.2	11	13C8-PFOS	336404.9	4.8	0.292	5.54	1.060	1.920	1.845	-4	30	
PFDA	343068.9	11	13C6-PFDA	857518.7	5.0	0.400	5.56	1.000	2.000	2.265	13	30	
8:2-FTS	54309.5	11	13C2-8:2-FTS	55836.5	4.8	0.973	5.56	1.000	1.920	1.834	-4	30	
PFOSA	268924.0	12	13C8-PFOSA	644731.6	5.0	0.417	5.65	1.000	2.000	2.113	6	30	
NMeFOSAA	64182.7	18	d3-NMeFOSAA	182307.0	5.0	0.352	5.70	1.000	2.000	2.246	12	30	
PFDS	79891.7	12	13C8-PFOS	336404.9	4.8	0.237	5.79	1.100	1.930	1.883	-2	30	
PFUnDA	355883.8	11	13C7-PFUnDA	567707.2	5.0	0.627	5.82	1.000	2.000	2.241	12	30	
NEtFOSAA	64211.1	22	d5-NEtFOSAA	138062.3	5.0	0.465	5.83	1.000	2.000	2.265	13	30	
PFDoDA	467324.6	12	13C2-PFDoDA	1144067.1	5.0	0.408	6.05	1.000	2.000	2.238	12	30	
10:2-FTS	54230.7	12	13C2-8:2-FTS	55836.5	4.8	0.971	6.07	1.090	1.930	2.142	11	30	
NMePFOSAE	136711.2	11	d7-NMePFOSAE	257051.1	5.0	0.532	6.10	1.000	2.000	2.238	12	30	
NMePFOSA	35299.2	11	d3-NMePFOSA	82258.4	5.0	0.429	6.11	1.000	2.000	2.275	14	30	
PFDoS	43145.4	11	13C8-PFOS	336404.9	4.8	0.128	6.22	1.190	1.940	1.842	-5	30	
NEtPFOSAE	152658.0	11	d9-NEtPFOSAE	225911.1	5.0	0.676	6.26	1.000	2.000	2.431	22	30	
NEtPFOSA	32593.5	11	d5-NEtPFOSA	68497.7	5.0	0.476	6.27	1.000	2.000	2.133	7	30	
PFTrDA	477187.4	11	13C2-PFDoDA	1144067.1	5.0	0.417	6.25	1.030	2.000	2.514	26	30	
PFTeDA	345082.9	10	13C2-PFTeDA	853856.6	5.0	0.404	6.42	1.000	2.000	2.290	14	30	
PFHxDA	172538.3	11	13C2-PFTeDA	853856.6	5.0	0.202	6.73	1.050	2.000	2.310	16	30	
PFODA	141132.9	10	13C2-PFTeDA	853856.6	5.0	0.165	6.99	1.090	2.000	2.202	10	30	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV5_CAL3			**Data File:**		18NOV29D-52.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-11-29T17:37:36
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV1-5
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	888103.1	906425.4	-2	50	
13C2-PFOA	5.0	482099.7	495984.0	-3	50	
13C4-PFOS	4.8	299552.8	296261.8	1	50	
13C2-PFDA	5.0	454503.3	451203.0	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1003538.1	13C3-PFBA	888103.1	1.130	5.000	5.041	101	70-130	
E13C5-PFPeA	935080.6	13C3-PFBA	888103.1	1.053	5.000	4.917	98	70-130	
E13C3-PFBS	424594.0	13C3-PFBA	888103.1	0.478	4.650	4.561	98	70-130	
E13C2-4:2-FTS	66022.9	13C2-PFOA	482099.7	0.137	4.670	4.720	101	70-130	
E13C5-PFHxA	665817.1	13C2-PFOA	482099.7	1.381	5.000	5.073	101	70-130	
E13C3-PFHxS	327068.8	13C2-PFOA	482099.7	0.678	4.730	5.317	112	70-130	
E13C4-PFHpA	547436.1	13C2-PFOA	482099.7	1.136	5.000	5.218	104	70-130	
E13C2-6:2-FTS	58432.7	13C2-PFOA	482099.7	0.121	4.750	5.074	107	70-130	
E13C8-PFOA	958420.1	13C2-PFOA	482099.7	1.988	5.000	5.472	109	70-130	
E13C8-PFOS	336404.9	13C4-PFOS	299552.8	1.123	4.780	5.070	106	70-130	
E13C9-PFNA	639090.1	13C4-PFOS	299552.8	2.133	5.000	4.686	94	70-130	
E13C6-PFDA	857518.7	13C2-PFDA	454503.3	1.887	5.000	5.320	106	70-130	
E13C2-8:2-FTS	55836.5	13C2-PFDA	454503.3	0.123	4.790	5.280	110	70-130	
E13C8-PFOSA	644731.6	13C2-PFDA	454503.3	1.419	5.000	5.205	104	70-130	
Ed3-NMeFOSAA	182307.0	13C2-PFDA	454503.3	0.401	5.000	5.093	102	70-130	
E13C7-PFUnDA	567707.2	13C2-PFDA	454503.3	1.249	5.000	5.279	106	70-130	
Ed5-NEtFOSAA	138062.3	13C2-PFDA	454503.3	0.304	5.000	5.412	108	70-130	
E13C2-PFDoDA	1144067.1	13C2-PFDA	454503.3	2.517	5.000	5.289	106	70-130	
Ed7-NMePFOSAE	257051.1	13C2-PFDA	454503.3	0.566	5.000	4.888	98	70-130	
Ed3-NMePFOSA	82258.4	13C2-PFDA	454503.3	0.181	5.000	4.898	98	70-130	
Ed9-NEtPFOSAE	225911.1	13C2-PFDA	454503.3	0.497	5.000	5.039	101	70-130	
Ed5-NEtPFOSA	68497.7	13C2-PFDA	454503.3	0.151	5.000	5.237	105	70-130	
E13C2-PFTeDA	853856.6	13C2-PFDA	454503.3	1.879	5.000	5.198	104	70-130	

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

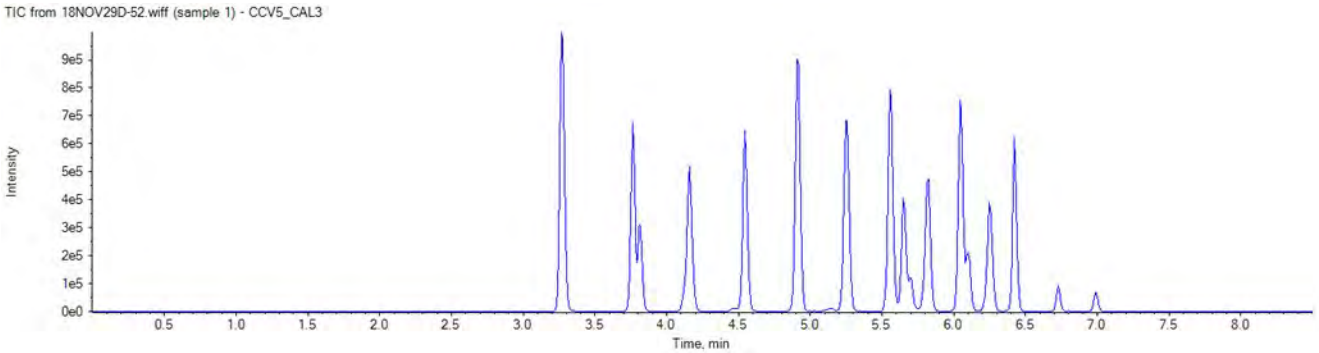
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV29D-52.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	410376.9		A	13C4-PFBA	3.27	1003538.1	0.409	2.242
PFPeA	3.77	1.000	400188.5		A	13C5-PFPeA	3.76	935080.6	0.428	2.100
PFBS	3.81	1.000	172355.2		A	13C3-PFBS	3.81	424594.0	0.406	1.970
4:2-FTS	4.12	1.000	52632.4		A	13C2-4:2-FTS	4.13	66022.9	0.797	2.134
PFHxA	4.16	1.000	392712.5		A	13C5-PFHxA	4.16	665817.1	0.590	2.368
PFPeS	4.18	1.100	89389.0		A	13C3-PFBS	3.81	424594.0	0.211	2.129
PFHpA	4.54	1.000	396806.2		A	13C4-PFHpA	4.54	547436.1	0.725	2.237
PFHxS	4.55	1.000	127006.9		M	13C3-PFHxS	4.55	327068.8	0.388	1.818
6:2-FTS	4.90	1.000	51799.6		A	13C2-6:2-FTS	4.90	58432.7	0.886	2.313
PFHpS	4.91	1.080	129025.9		A	13C3-PFHxS	4.55	327068.8	0.394	1.969
PFOA	4.91	1.000	407078.9		A	13C8-PFOA	4.91	958420.1	0.425	2.195
PFOS	5.24	1.000	138995.5		M	13C8-PFOS	5.24	336404.9	0.413	1.733
PFNA	5.26	1.000	382168.0		A	13C9-PFNA	5.26	639090.1	0.598	2.292
PFNS	5.54	1.060	98297.2		A	13C8-PFOS	5.24	336404.9	0.292	1.845
PFDA	5.56	1.000	343068.9		A	13C6-PFDA	5.56	857518.7	0.400	2.265
8:2-FTS	5.56	1.000	54309.5		A	13C2-8:2-FTS	5.56	55836.5	0.973	1.834
PFOSA	5.65	1.000	268924.0		A	13C8-PFOSA	5.65	644731.6	0.417	2.113
NMeFOSAA	5.70	1.000	64182.7		A	d3-NMeFOSAA	5.70	182307.0	0.352	2.246
PFDS	5.79	1.100	79891.7		A	13C8-PFOS	5.24	336404.9	0.237	1.883
PFUnDA	5.82	1.000	355883.8		A	13C7-PFUnDA	5.82	567707.2	0.627	2.241
NEtFOSAA	5.83	1.000	64211.1		M	d5-NEtFOSAA	5.83	138062.3	0.465	2.265
PFDoDA	6.05	1.000	467324.6		A	13C2-PFDoDA	6.05	1144067.1	0.408	2.238
10:2-FTS	6.07	1.090	54230.7		A	13C2-8:2-FTS	5.56	55836.5	0.971	2.142
NMePFOSAE	6.10	1.000	136711.2		A	d7-NMePFOSAE	6.10	257051.1	0.532	2.238
NMePFOSA	6.11	1.000	35299.2		A	d3-NMePFOSA	6.11	82258.4	0.429	2.275
PFDoS	6.22	1.190	43145.4		A	13C8-PFOS	5.24	336404.9	0.128	1.842
NEtPFOSAE	6.26	1.000	152658.0		A	d9-NEtPFOSAE	6.25	225911.1	0.676	2.431
NEtPFOSA	6.27	1.000	32593.5		A	d5-NEtPFOSA	6.27	68497.7	0.476	2.133
PFTrDA	6.25	1.030	477187.4		A	13C2-PFDoDA	6.05	1144067.1	0.417	2.514
PFTeDA	6.42	1.000	345082.9		A	13C2-PFTeDA	6.42	853856.6	0.404	2.290
PFHxDA	6.73	1.050	172538.3		A	13C2-PFTeDA	6.42	853856.6	0.202	2.310
PFODA	6.99	1.090	141132.9		A	13C2-PFTeDA	6.42	853856.6	0.165	2.202

Total Ion Chromatogram

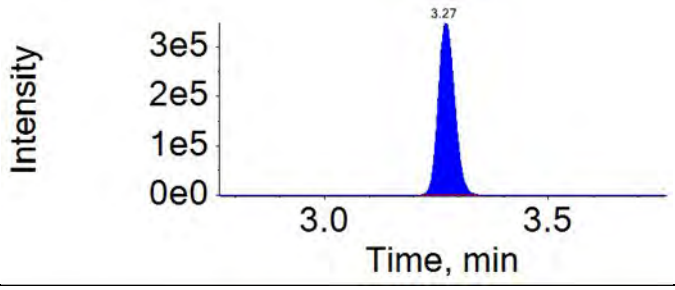


APPROVED
By MCD at 8:06 pm, 11/29/18

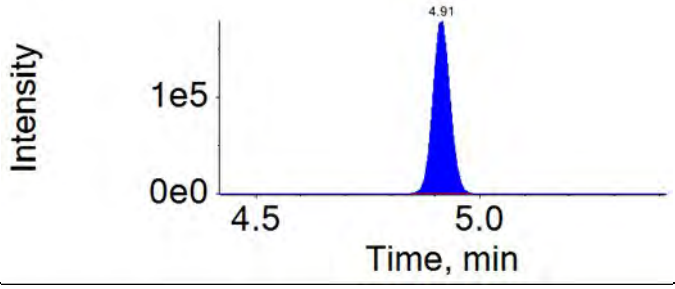
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

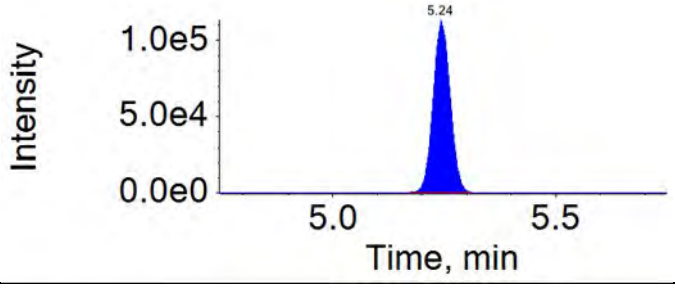
Injection Standard: 13C3-PFBA
216.0 / 172.0



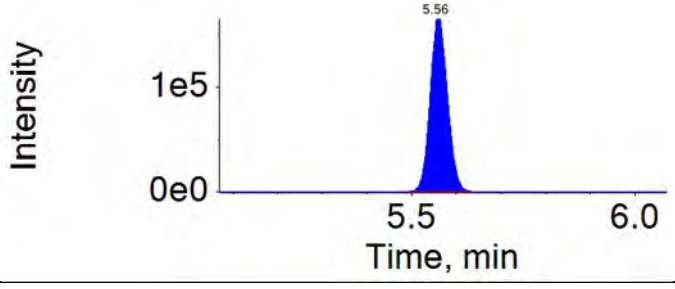
Injection Standard: 13C2-PFOA
415.0 / 370.0



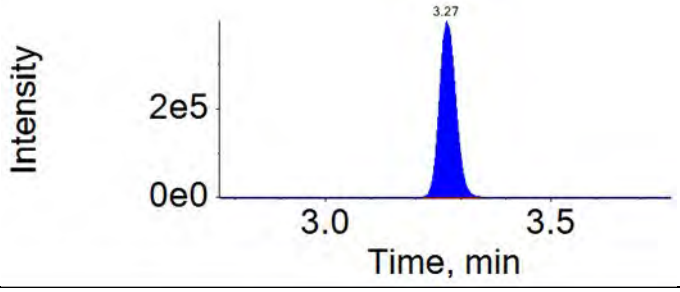
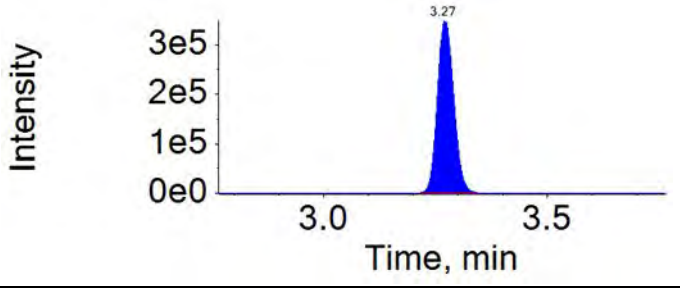
Injection Standard: 13C4-PFOS
503.0 / 80.0

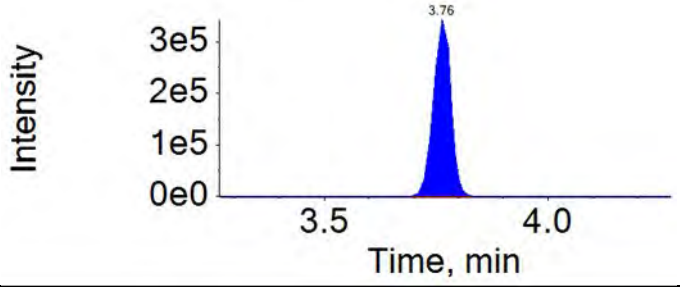
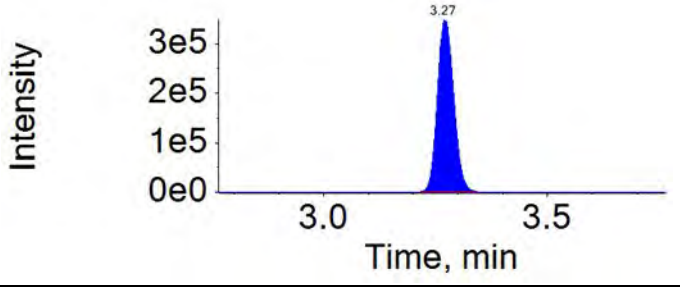


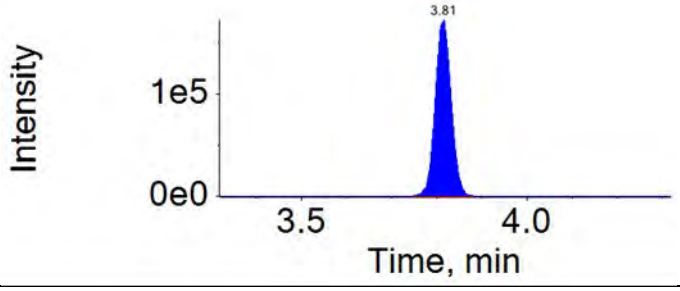
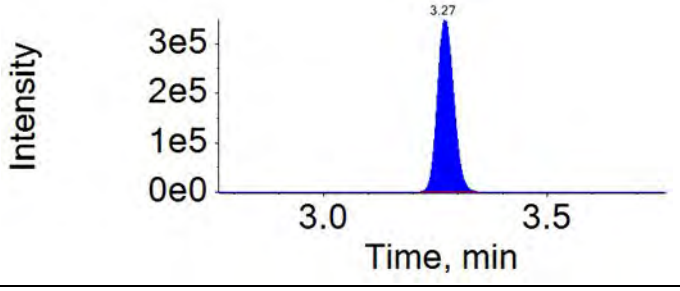
Injection Standard: 13C2-PFDA
515.0 / 470.0

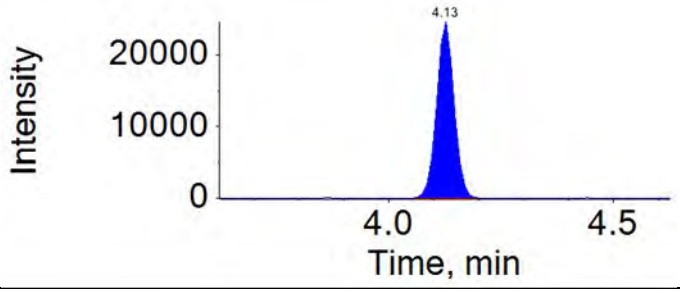
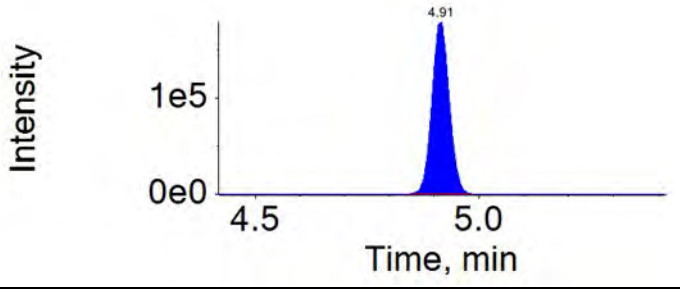


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

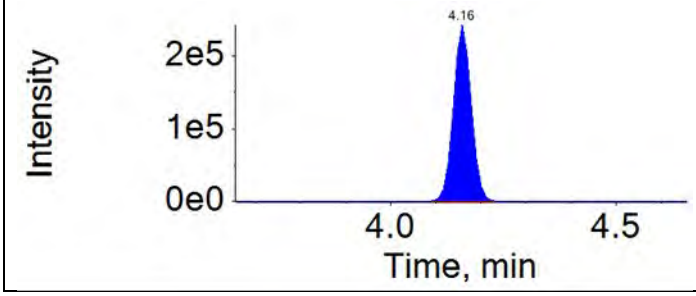
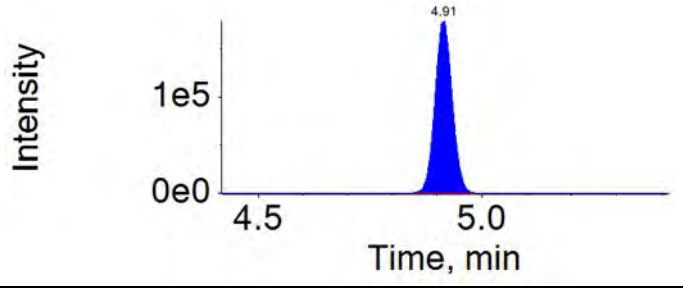
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

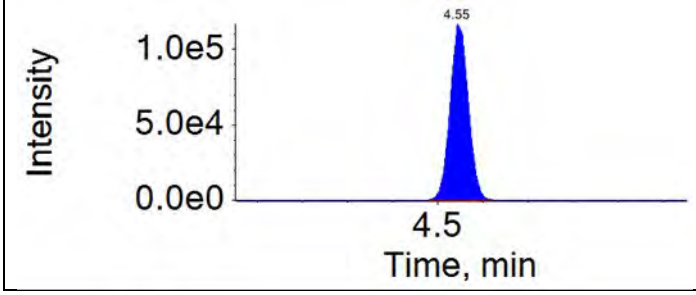
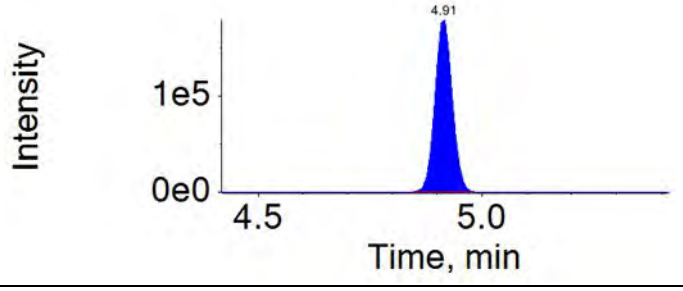
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

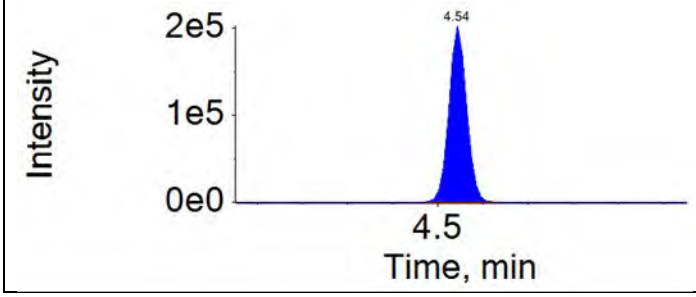
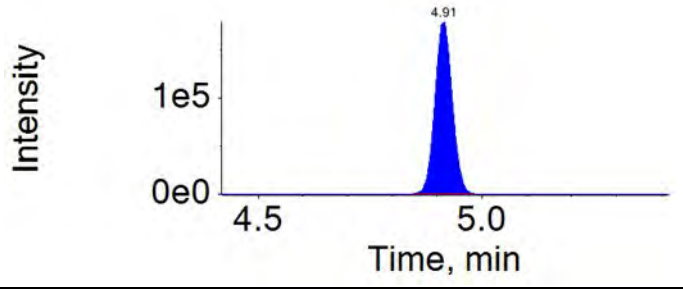
APPROVED
By MCD at 8:06 pm, 11/29/18

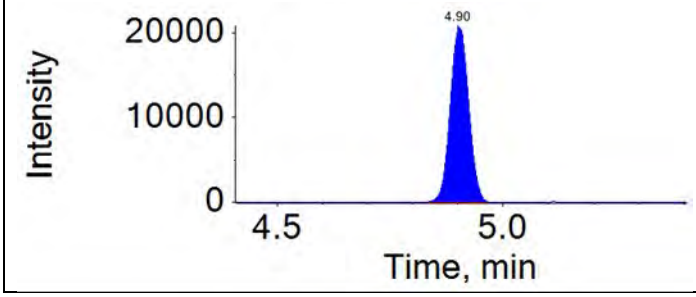
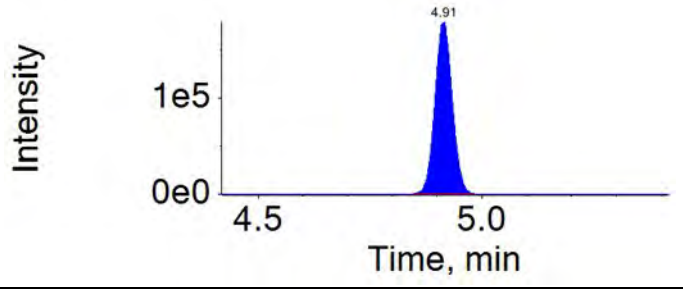
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

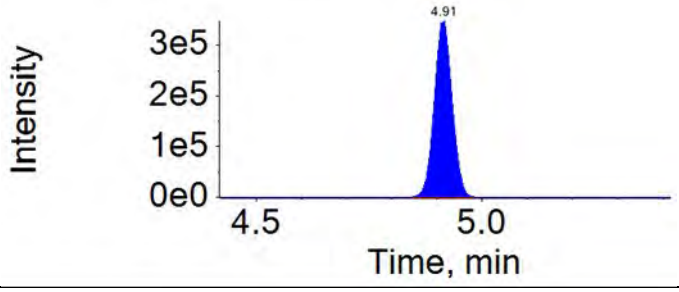
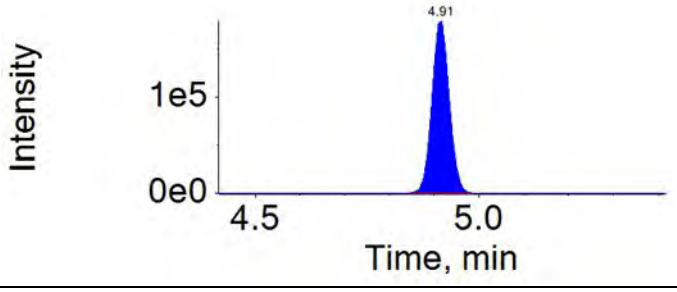
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

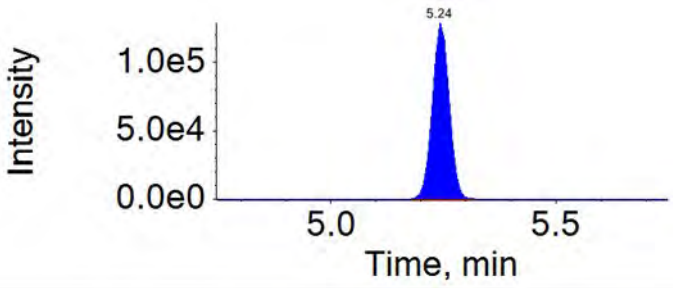
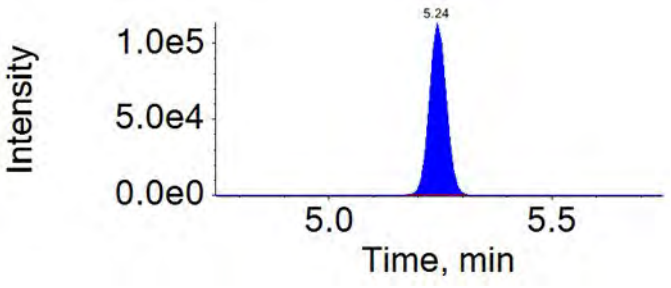
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

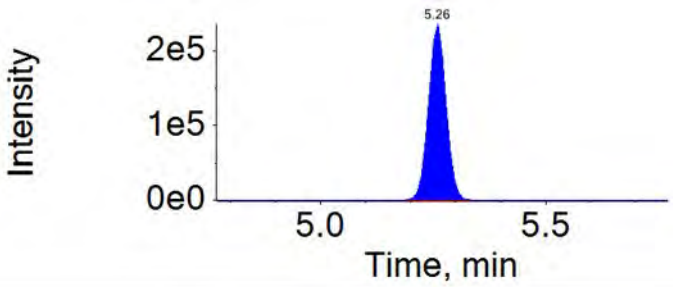
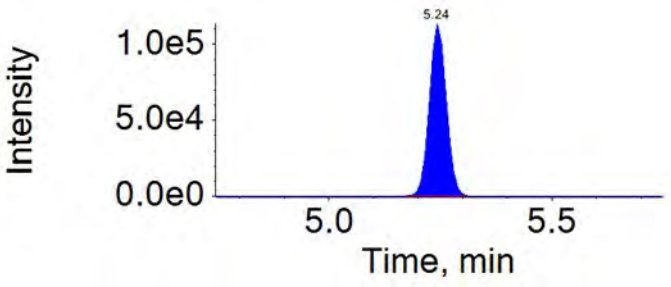
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

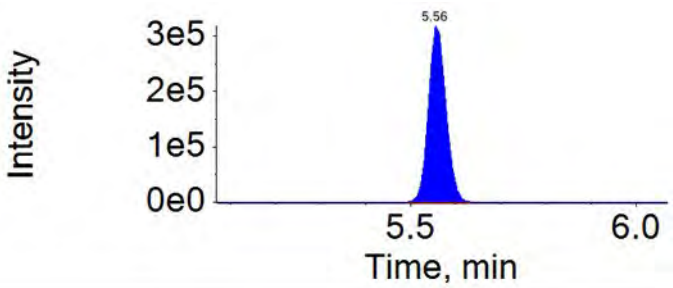
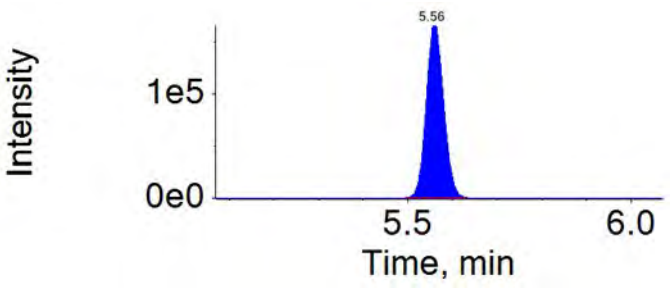
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

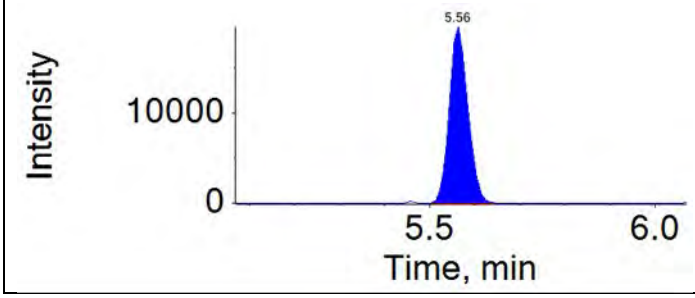
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

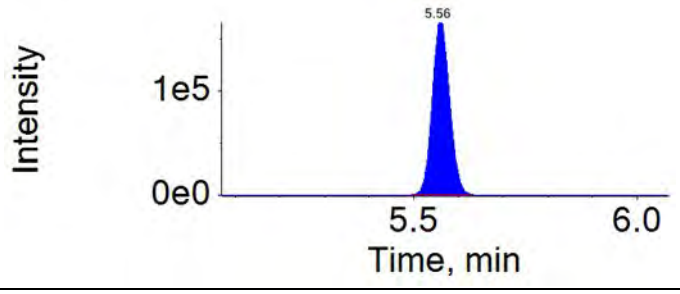
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

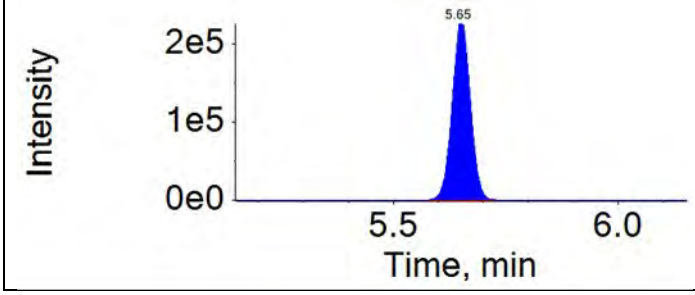
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

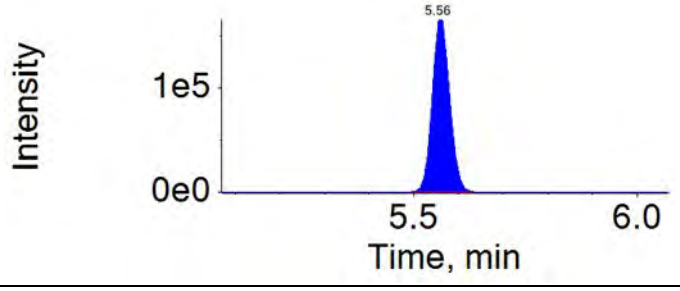
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



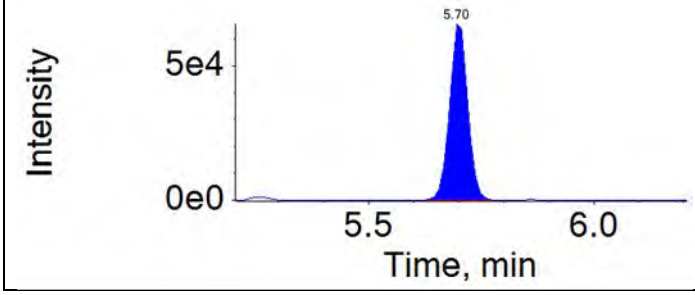


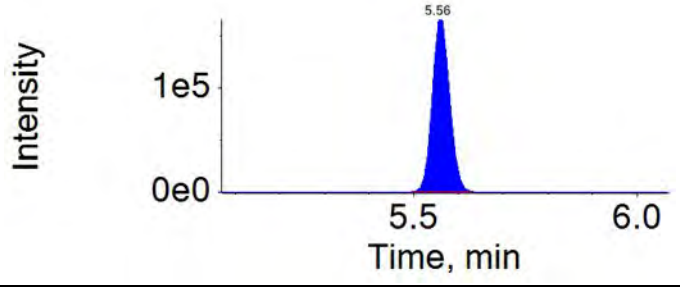
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



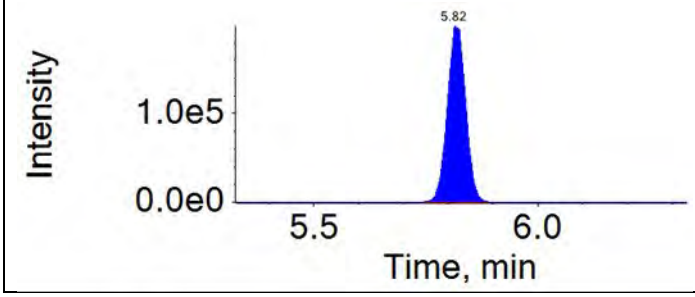


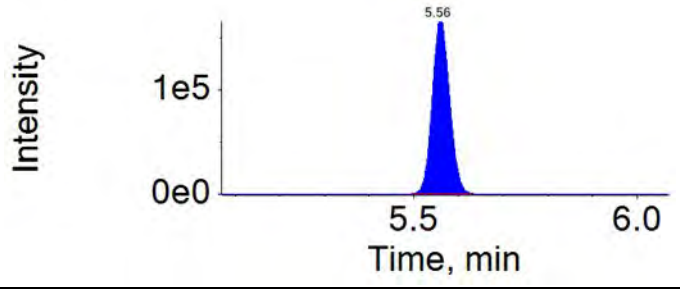
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



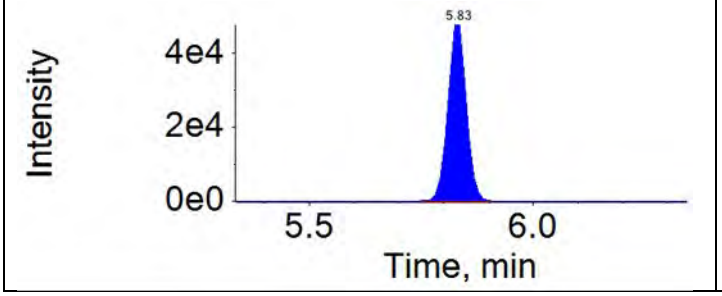


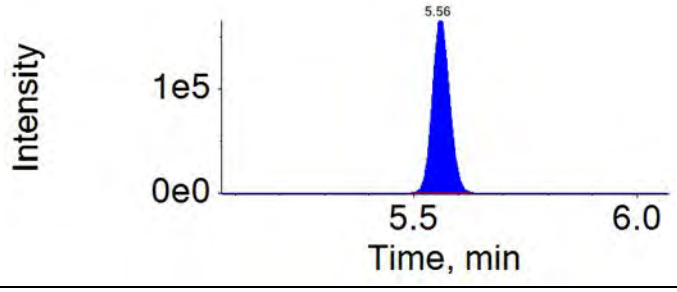
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

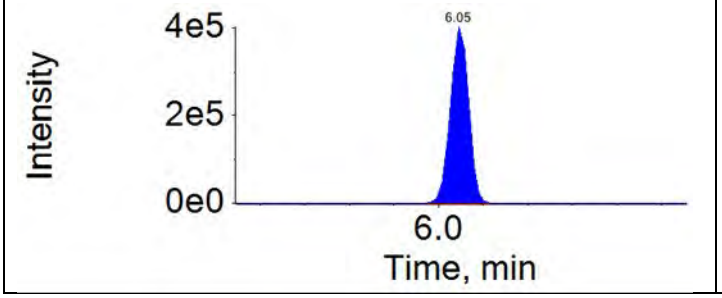
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

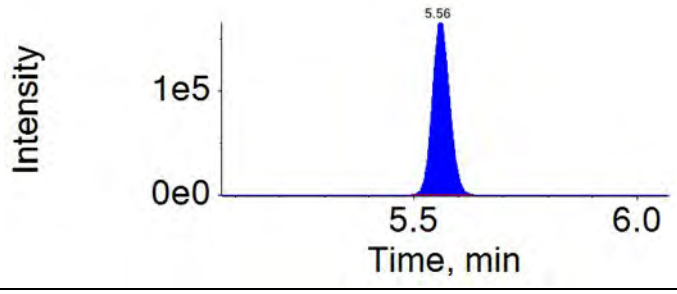
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



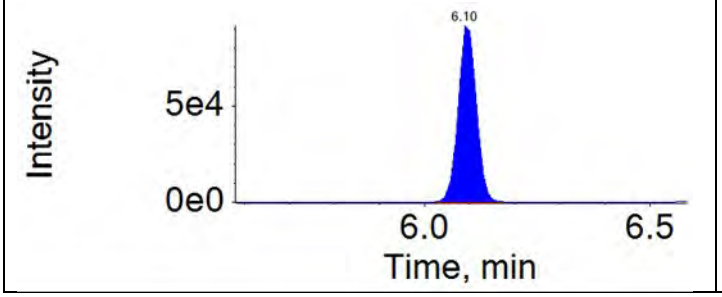


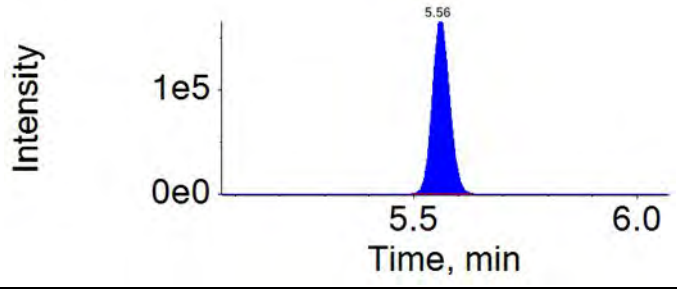
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



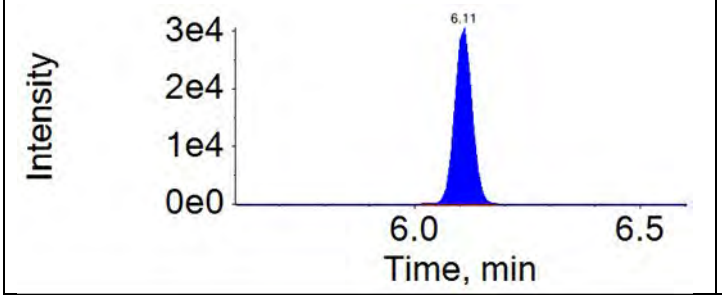


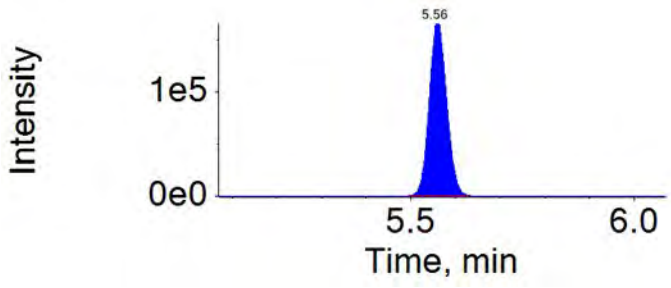
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





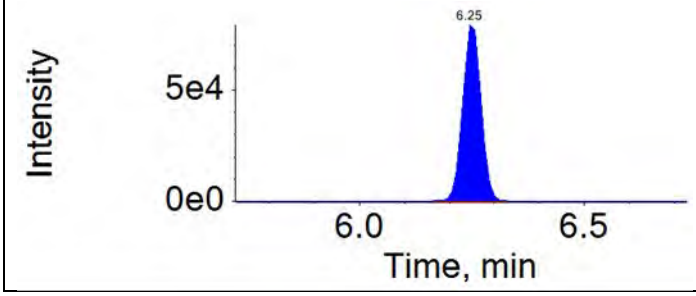
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

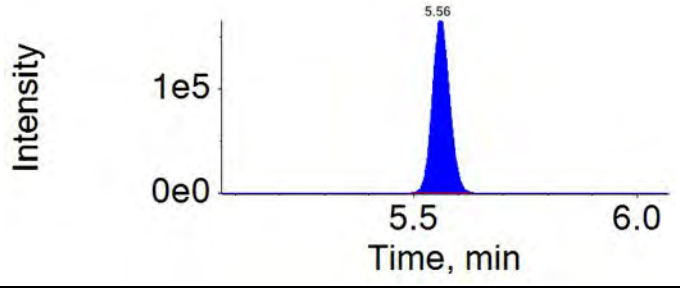




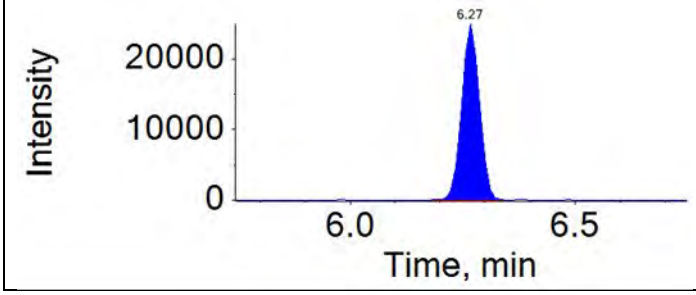
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

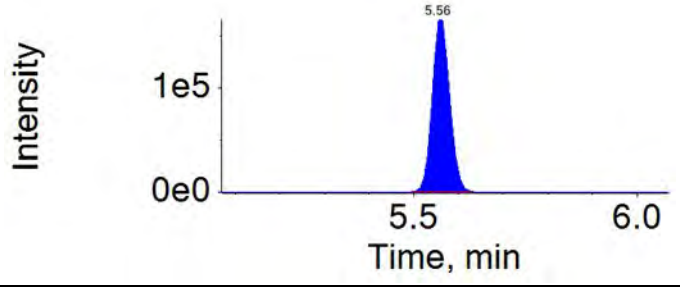
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



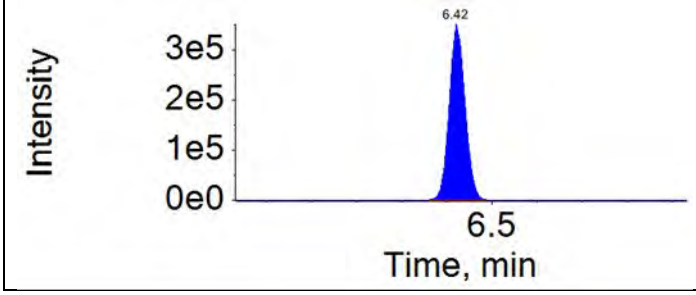


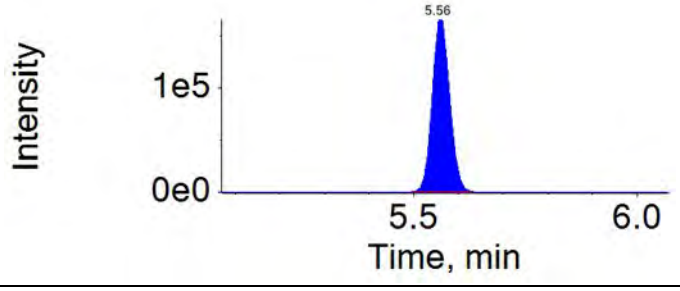
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



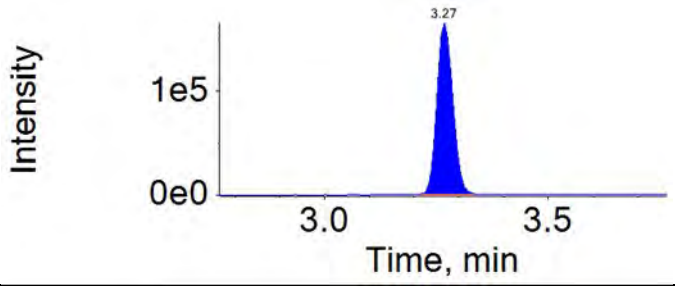


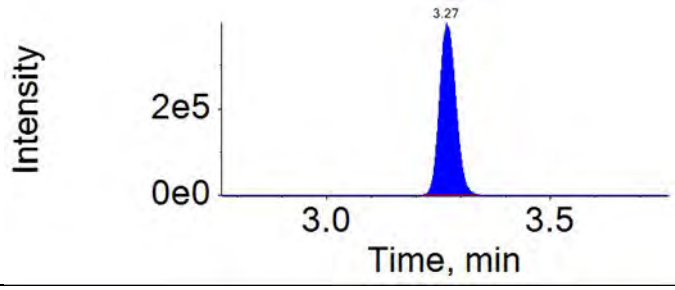
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

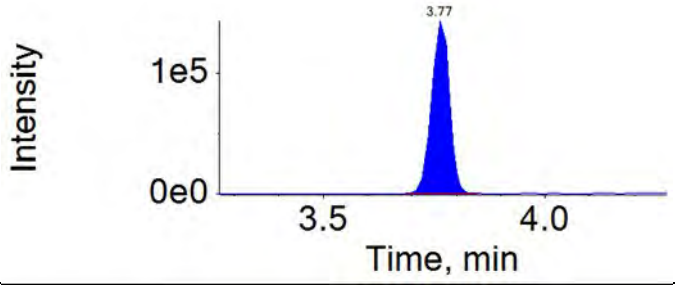
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

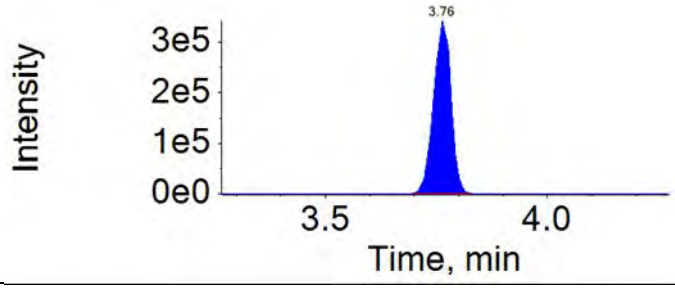
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



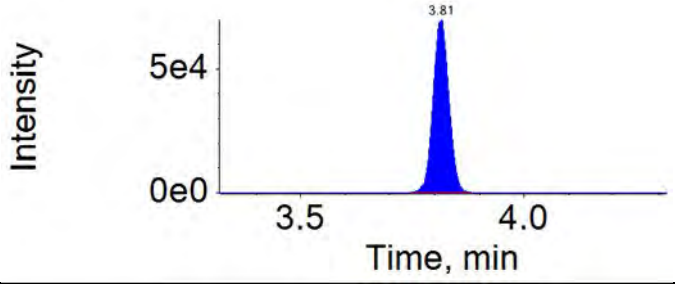


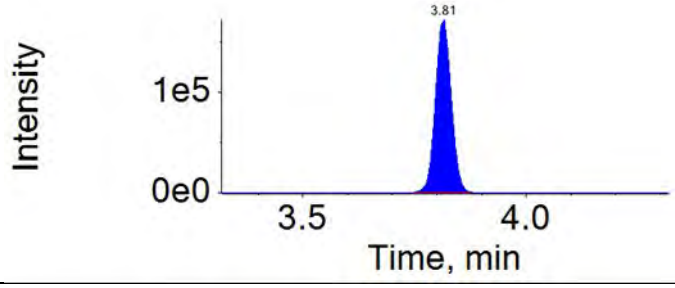
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



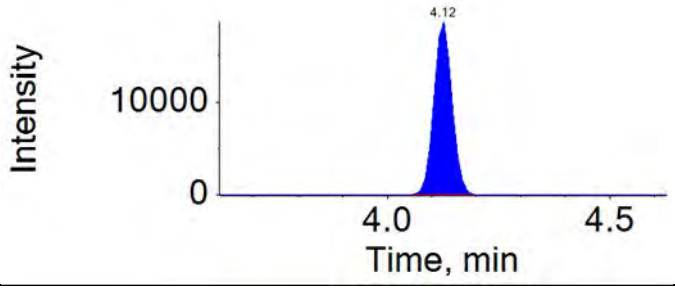


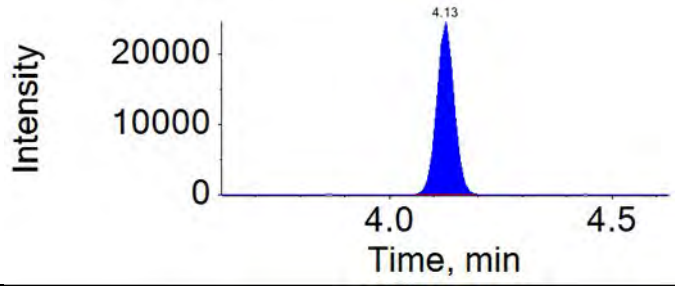
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



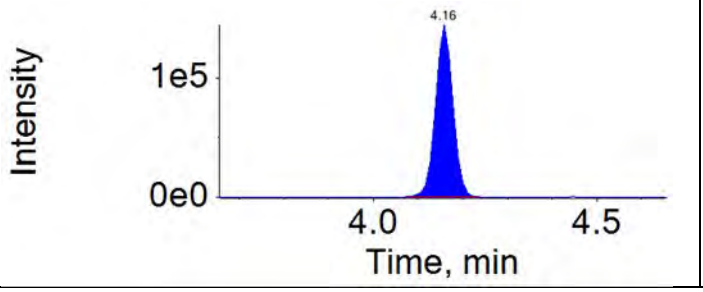


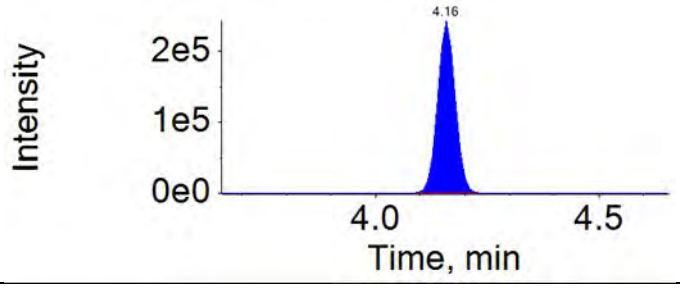
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

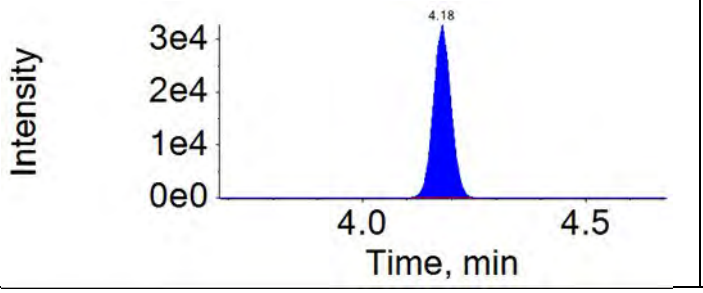
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

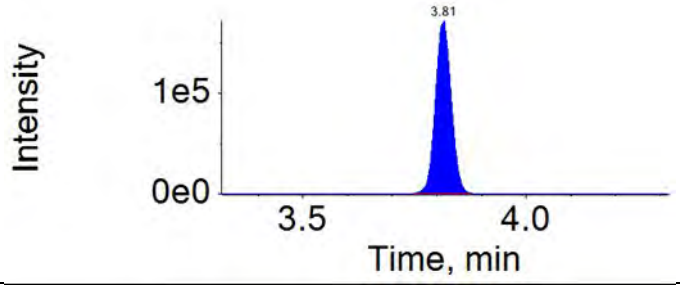
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



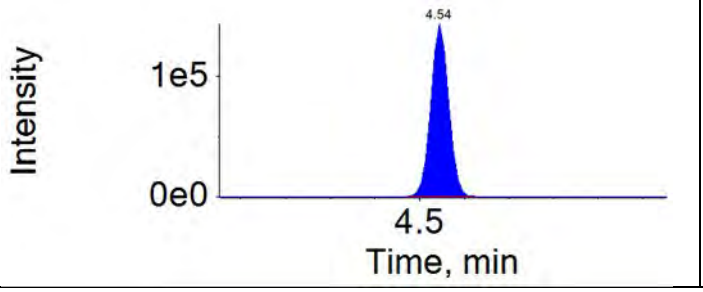


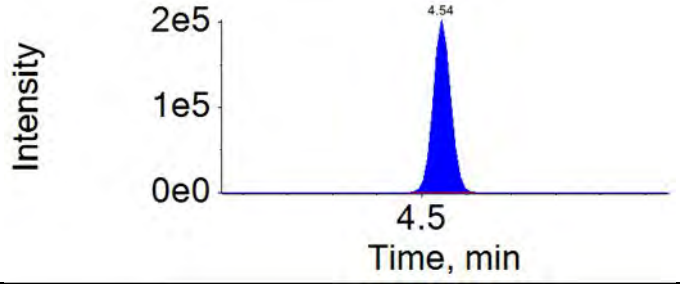
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



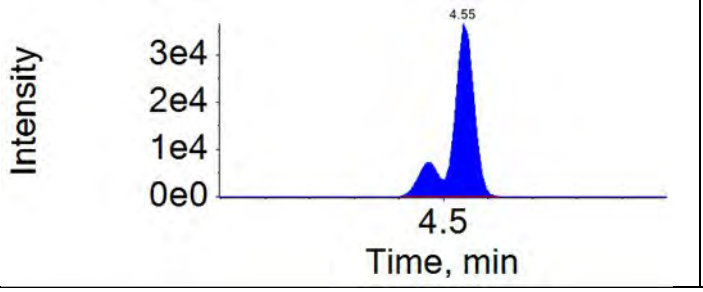


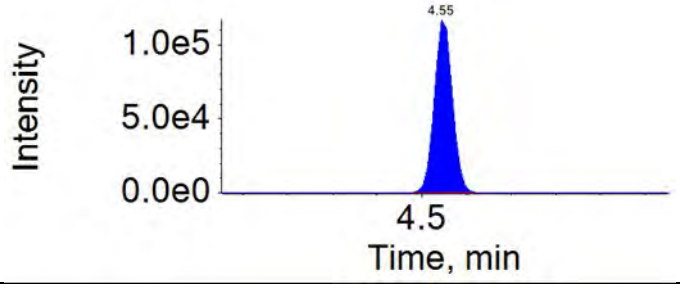
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



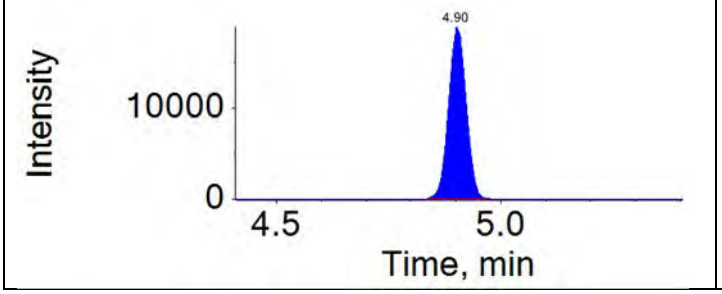


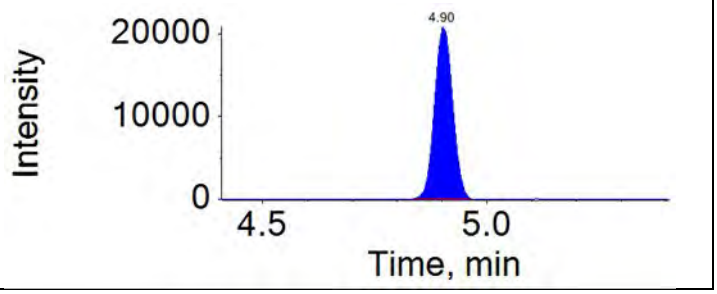
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

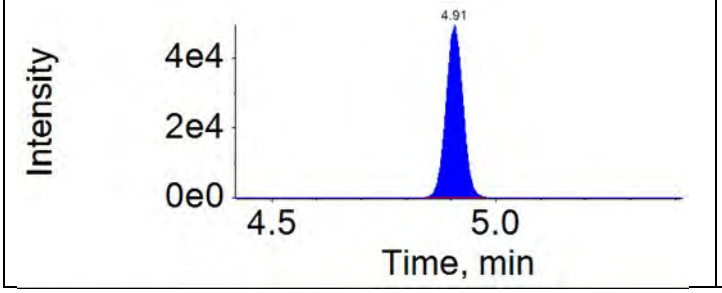
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

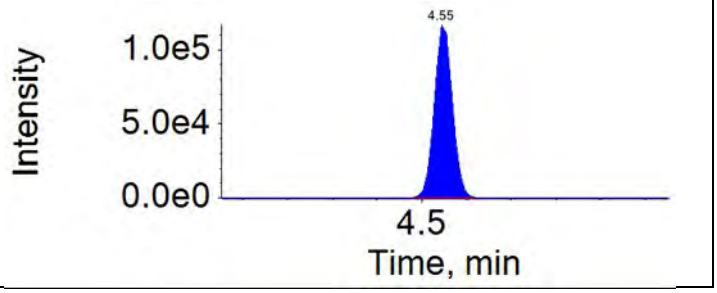
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



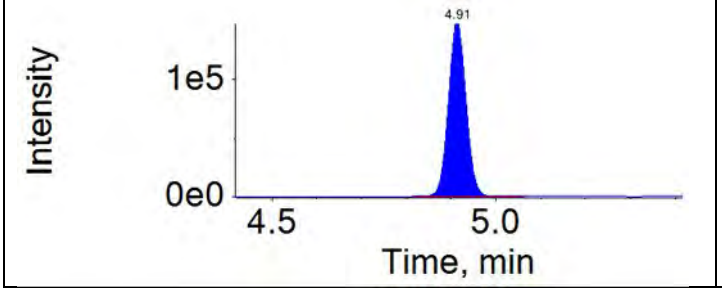


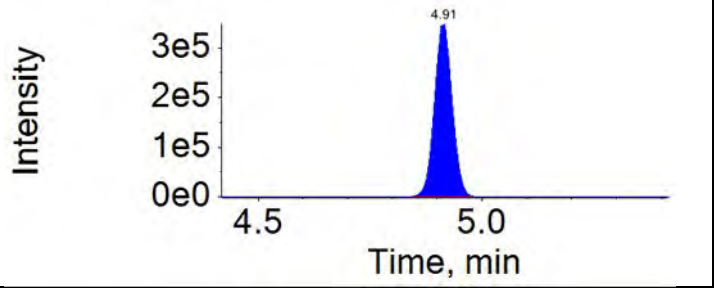
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



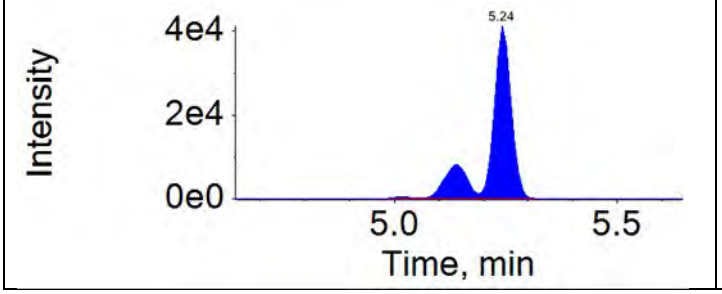


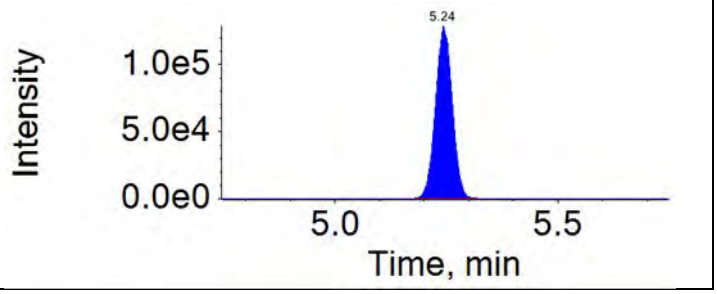
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



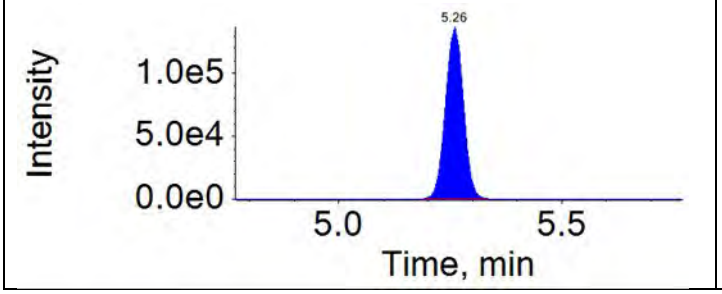


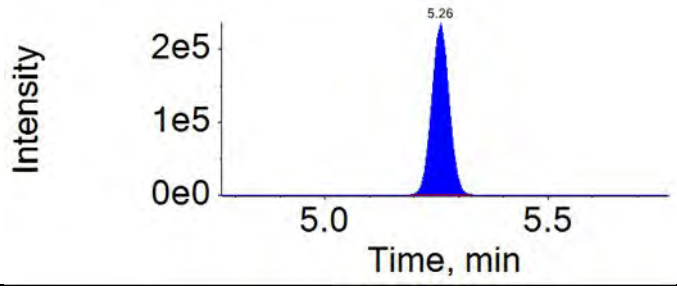
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

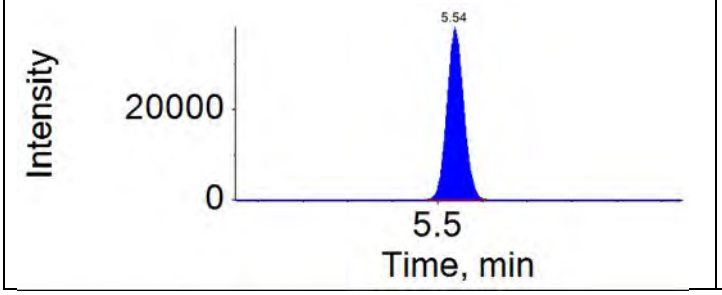
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

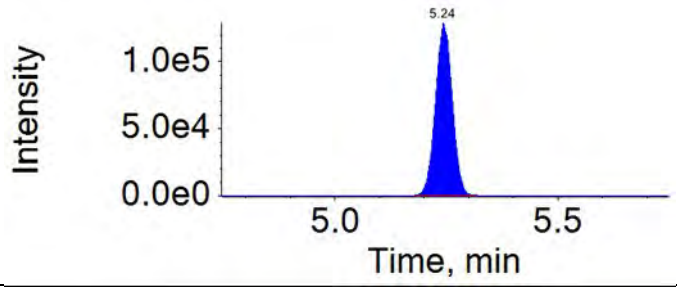
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



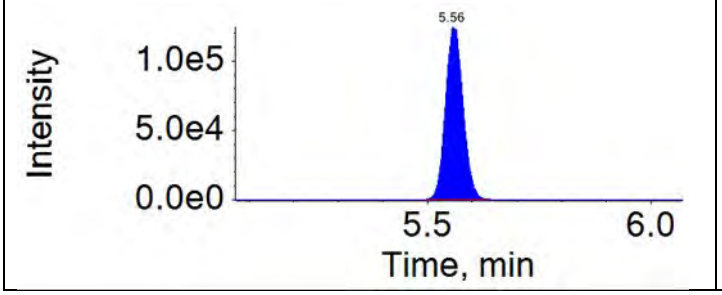


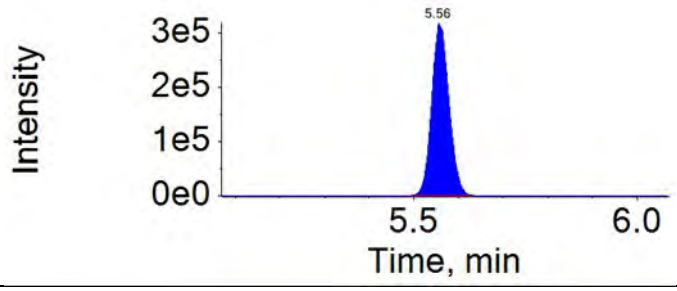
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



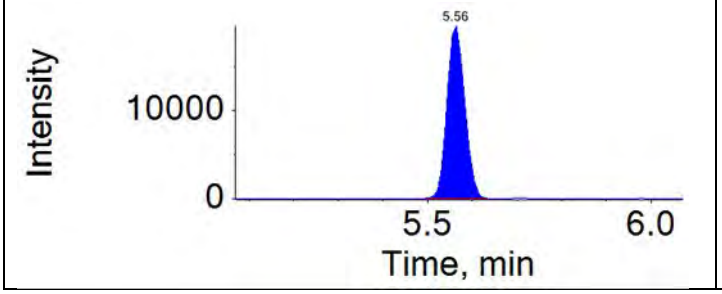


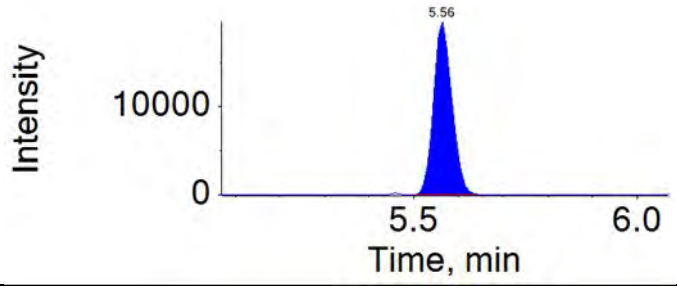
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

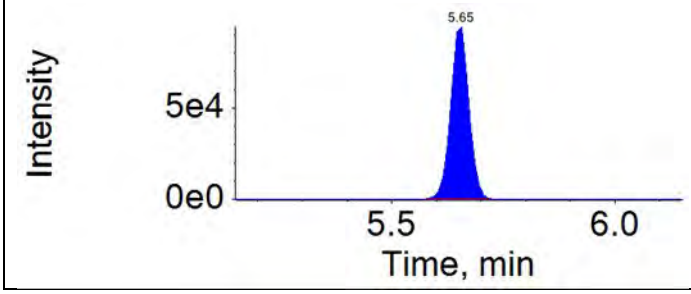
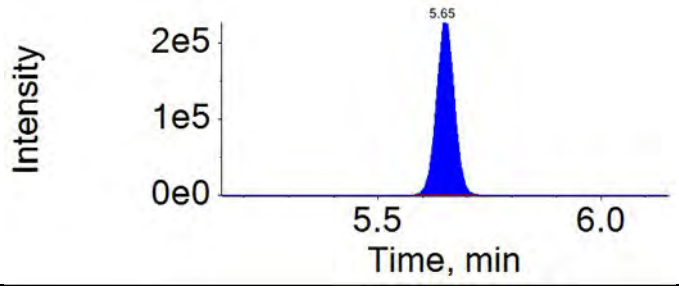


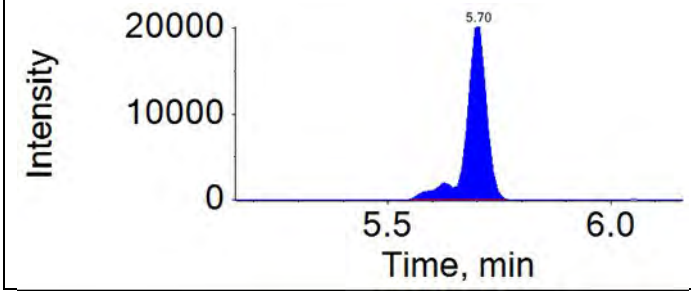
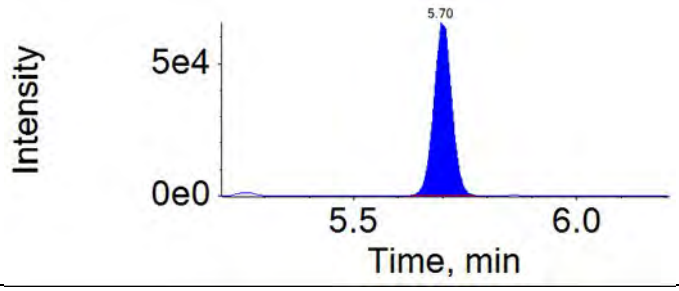


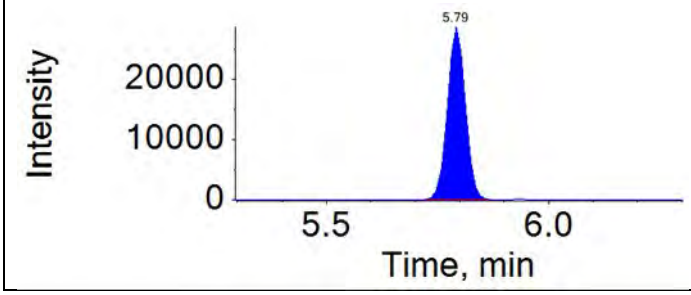
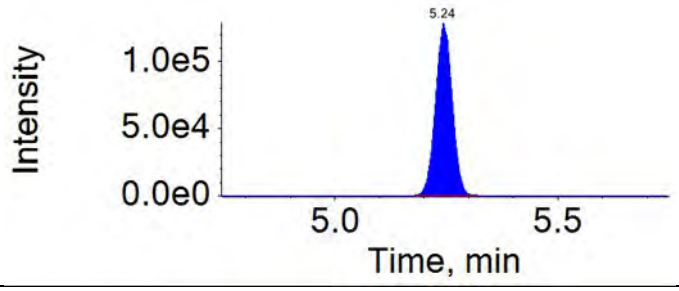
APPROVED
By MCD at 8:06 pm, 11/29/18

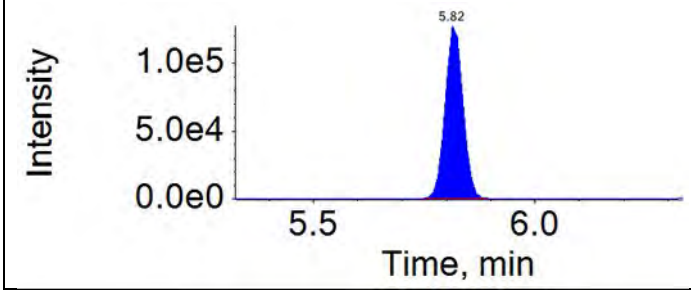
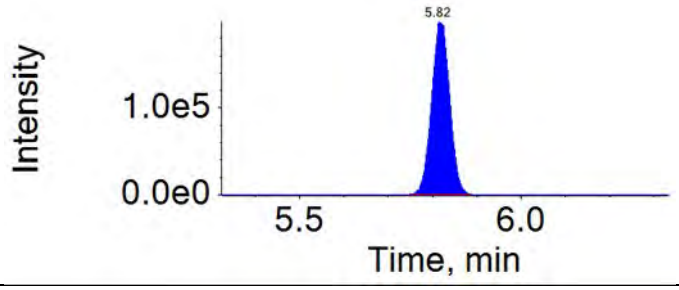
REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

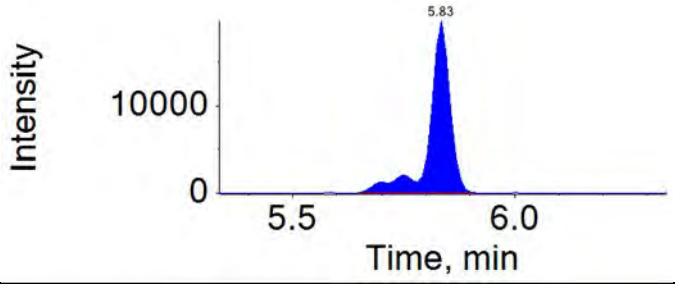
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

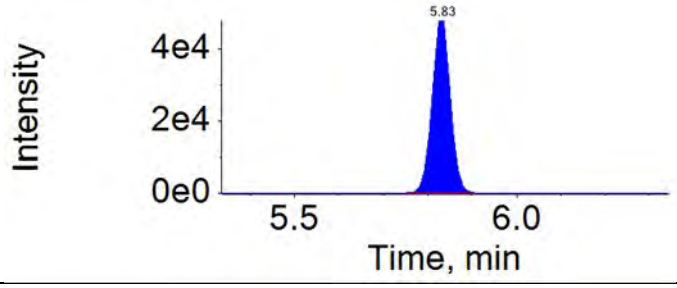
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

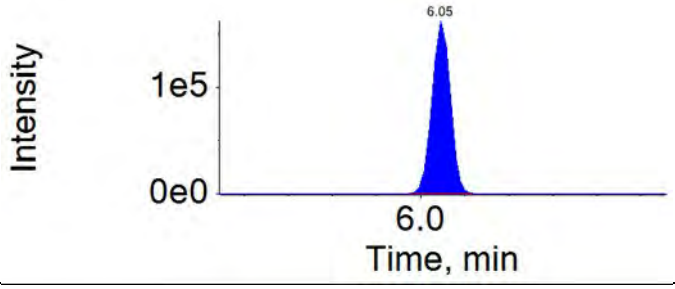
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

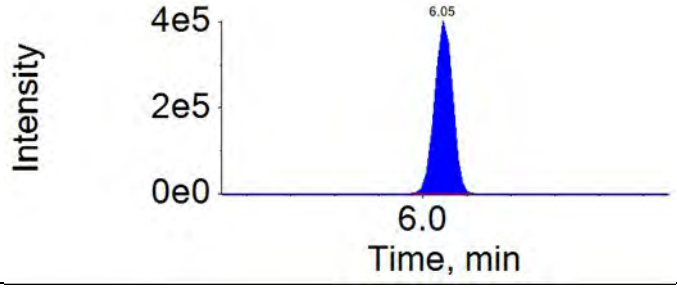
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



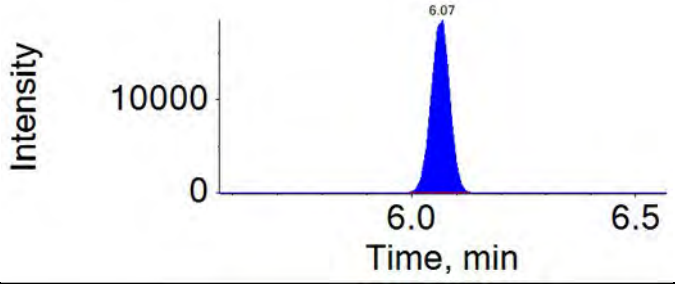


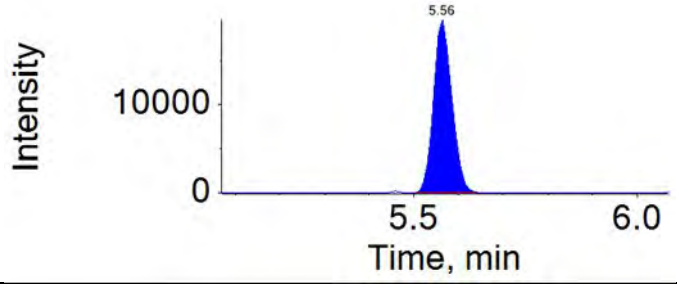
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



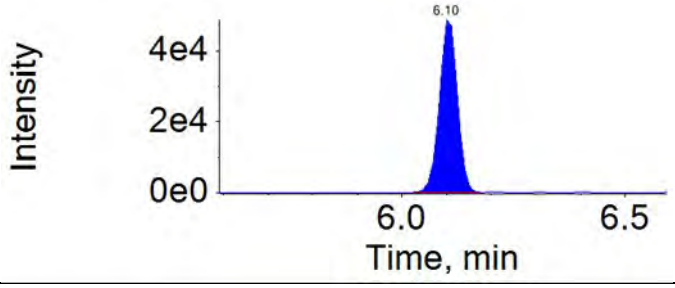


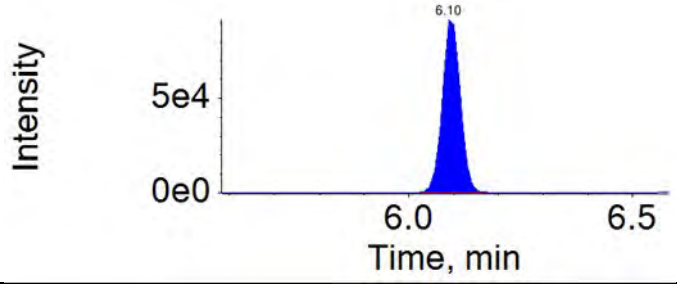
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



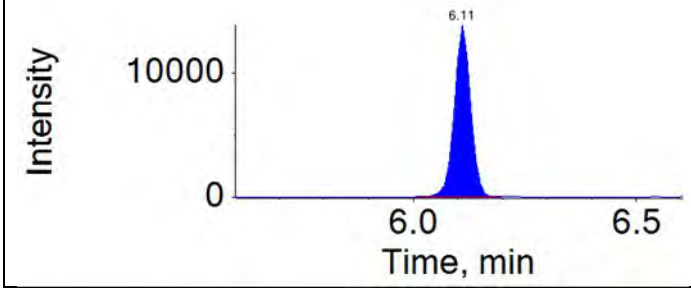


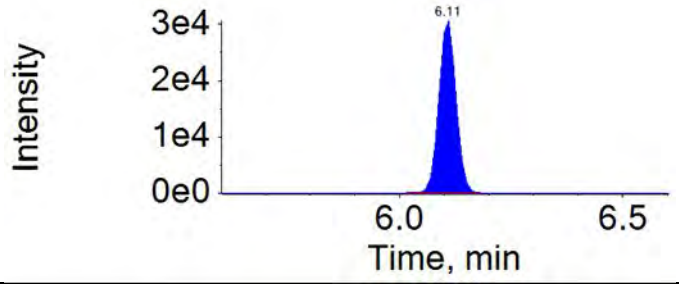
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

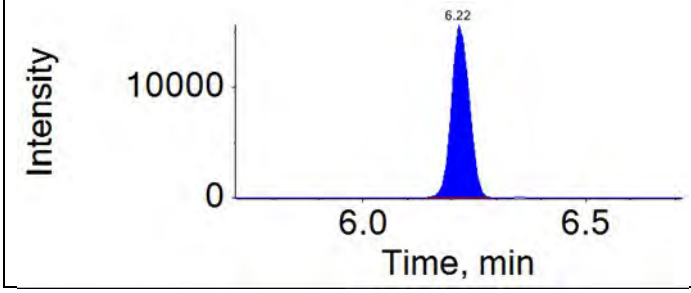
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

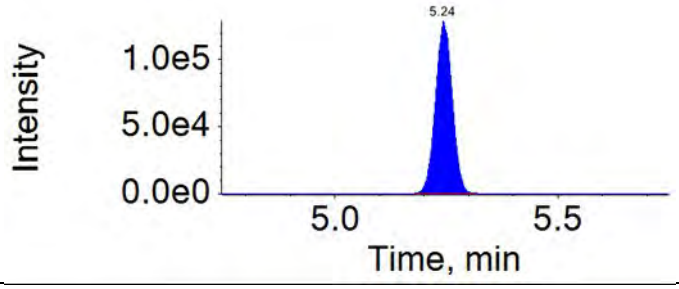
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



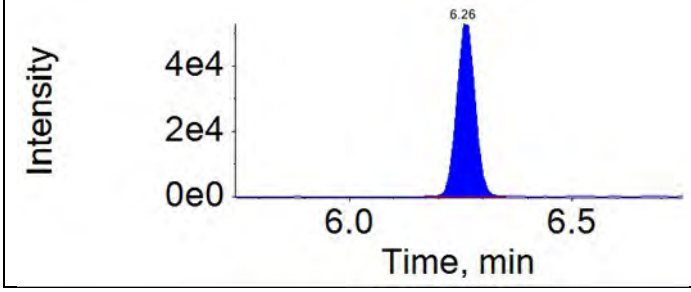


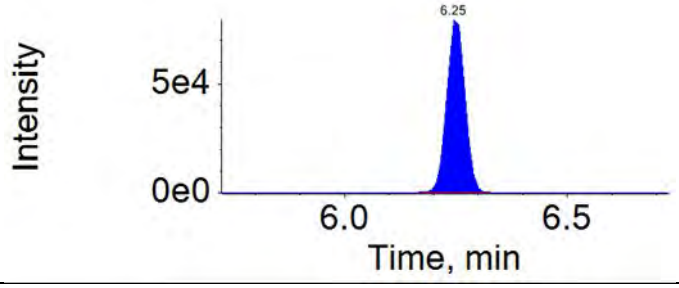
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



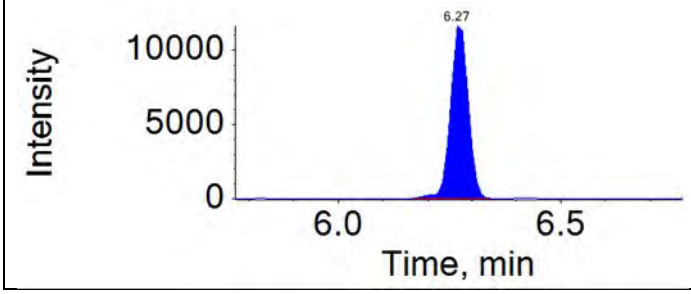


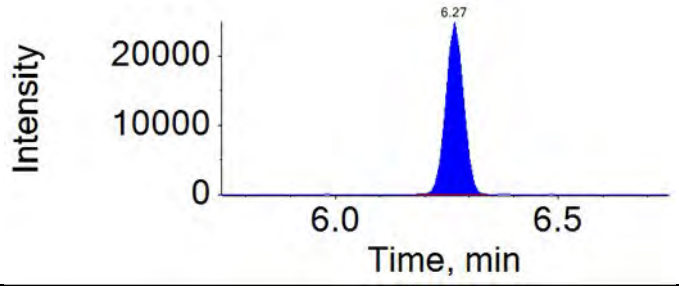
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



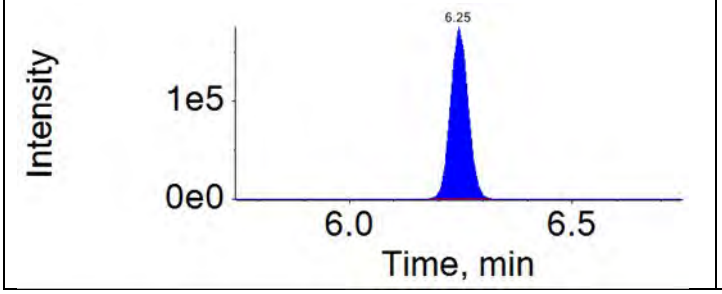


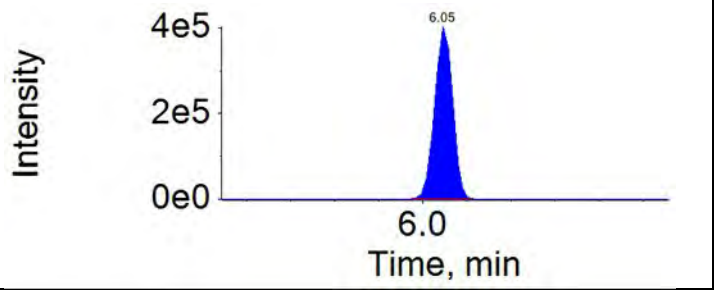
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

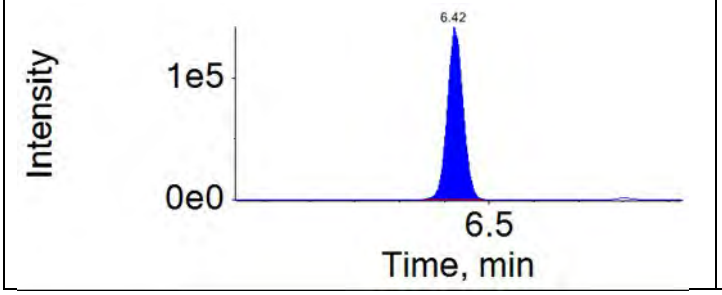
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

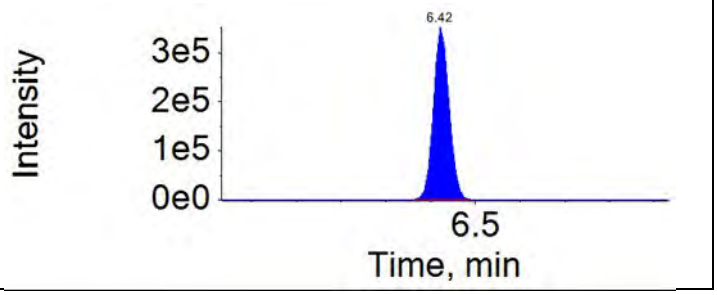
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



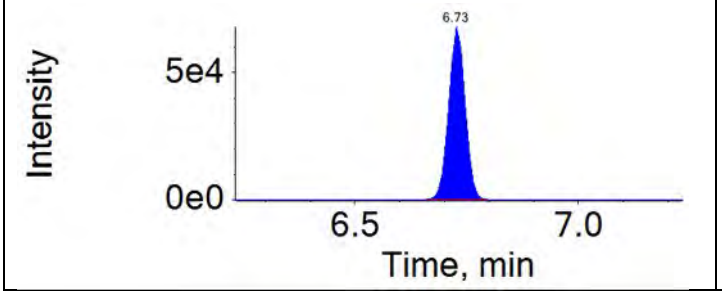


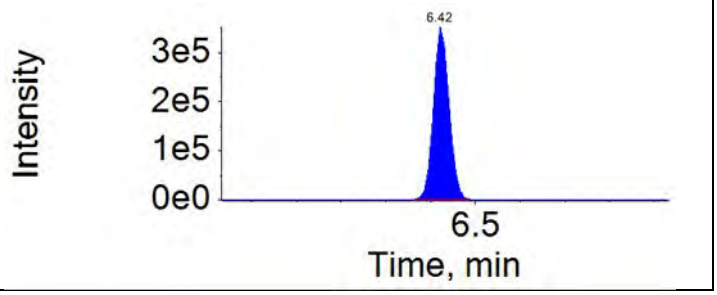
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



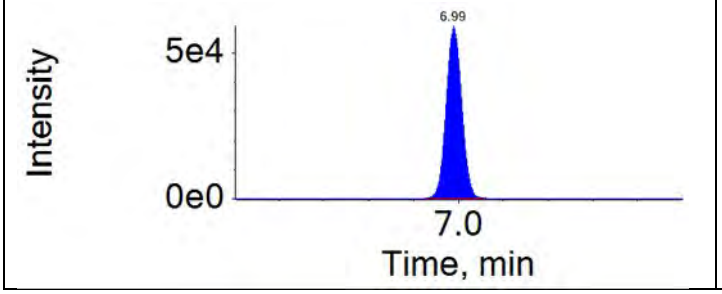


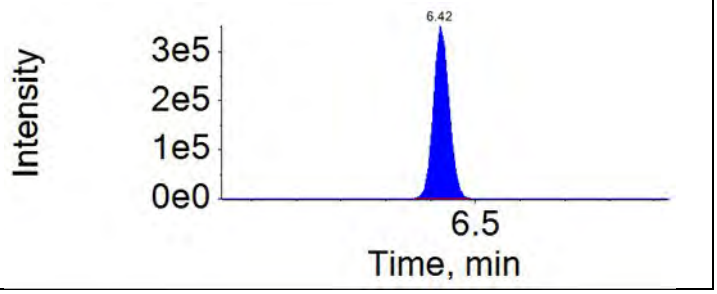
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0

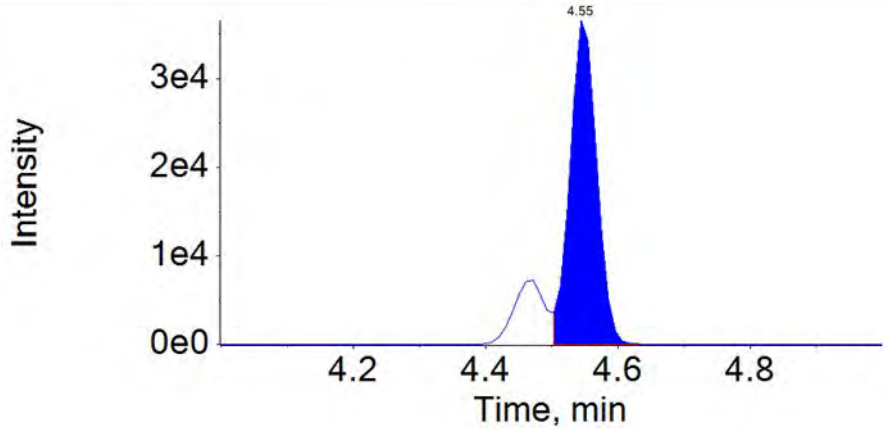


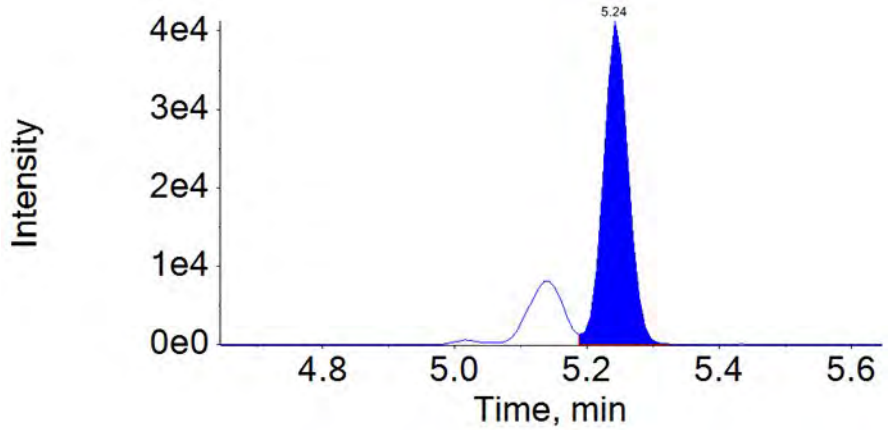


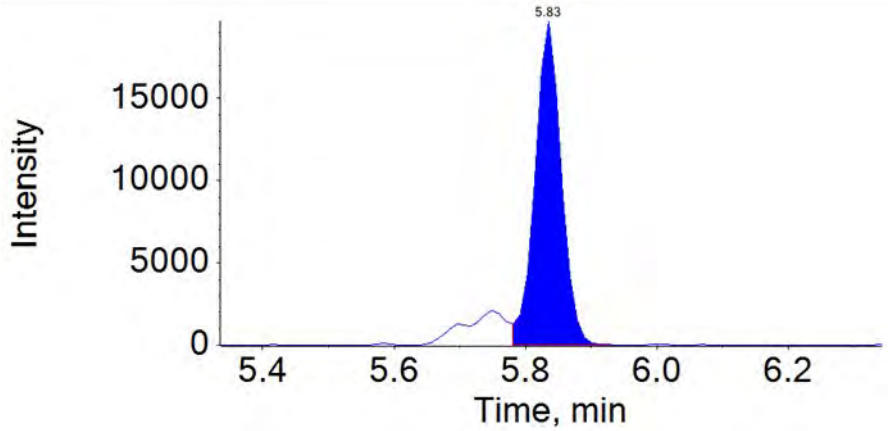
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxS **RT (min.):** 4.55 **Peak Area:** 103048.0 **Mass Range:** 399.0 / 80.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 107440.5 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

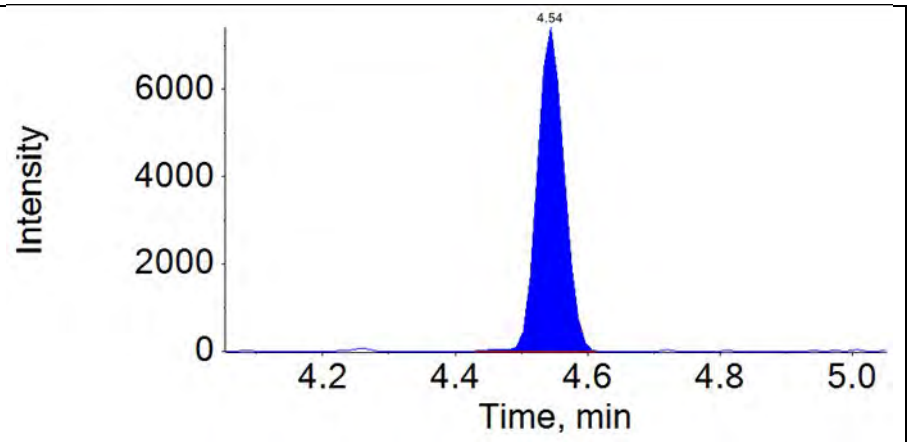
Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 54491.9 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

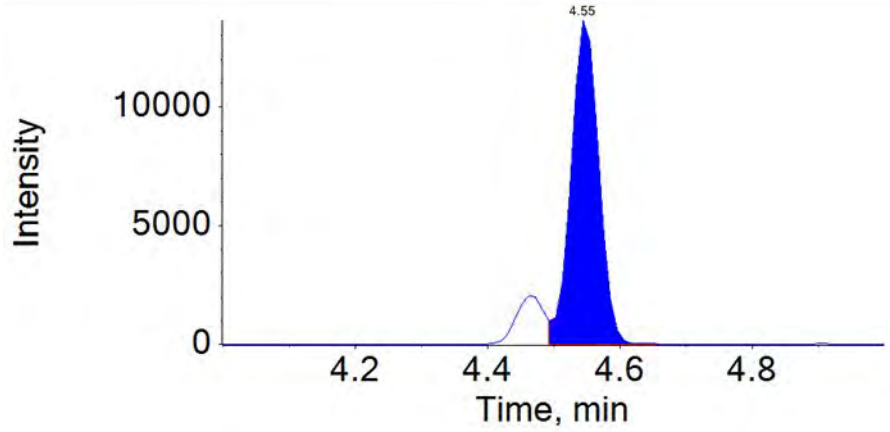
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA_2
RT (min.):
4.54
Peak Area:
20844.3
Mass Range:
363.0 / 169.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



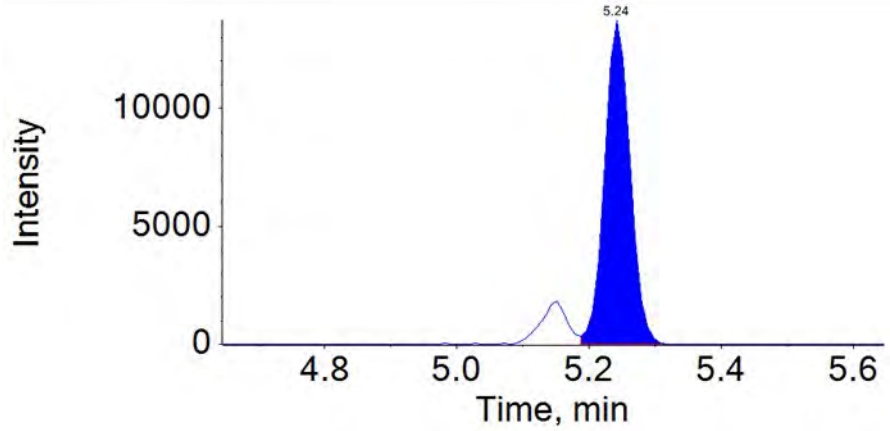
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
39908.0
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
36914.5
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



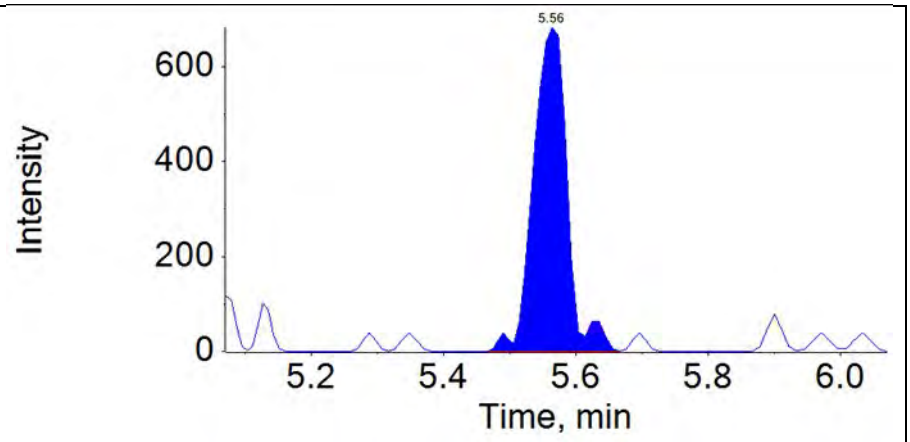
Integration Comment: incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

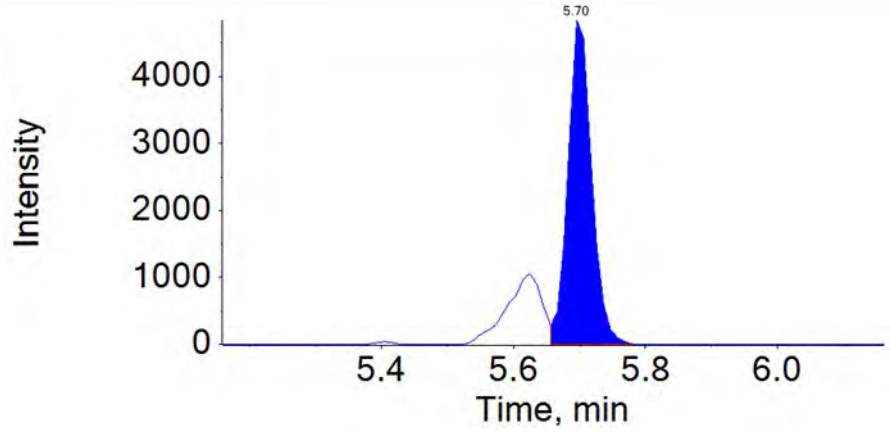
Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.56
Peak Area:
2438.8
Mass Range:
513.0 / 169.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



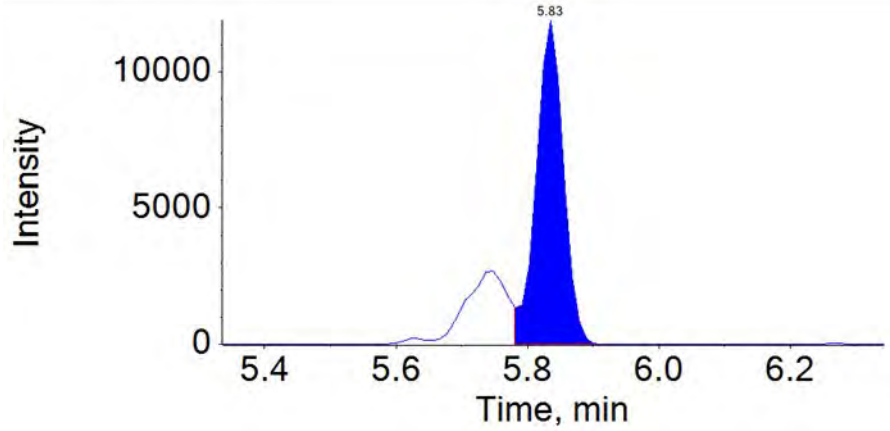
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
12072.2
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
34118.1
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-52.wiff
Sample Name:
CCV5_CAL3

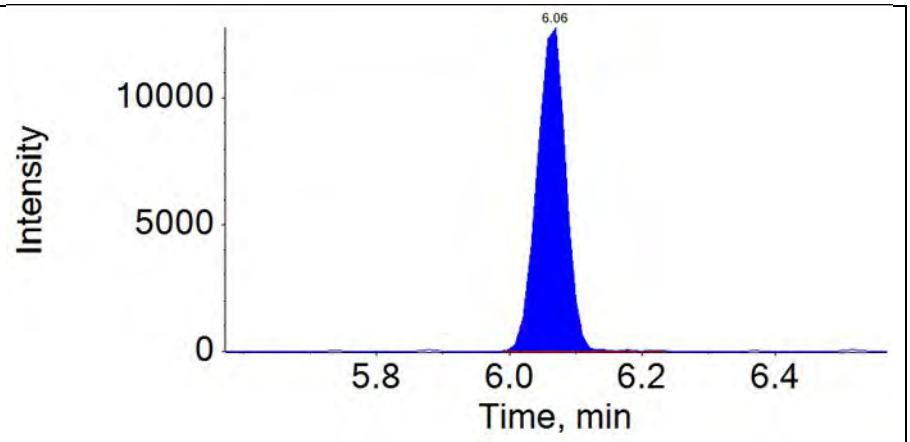


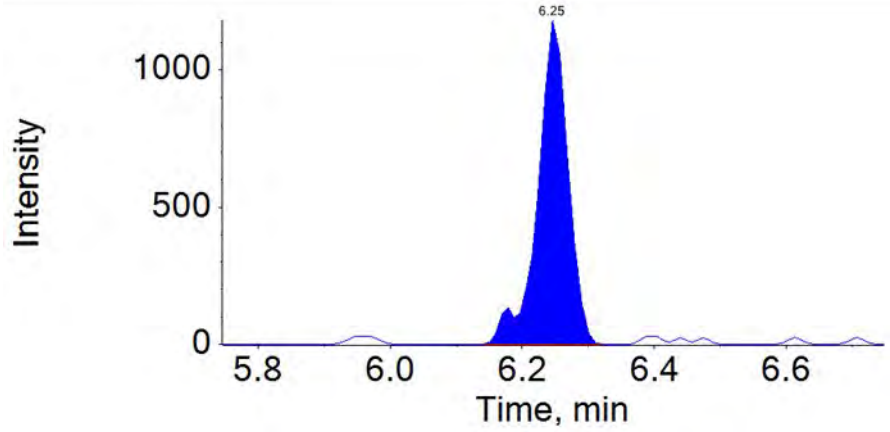
Integration Comment: incorrect integration

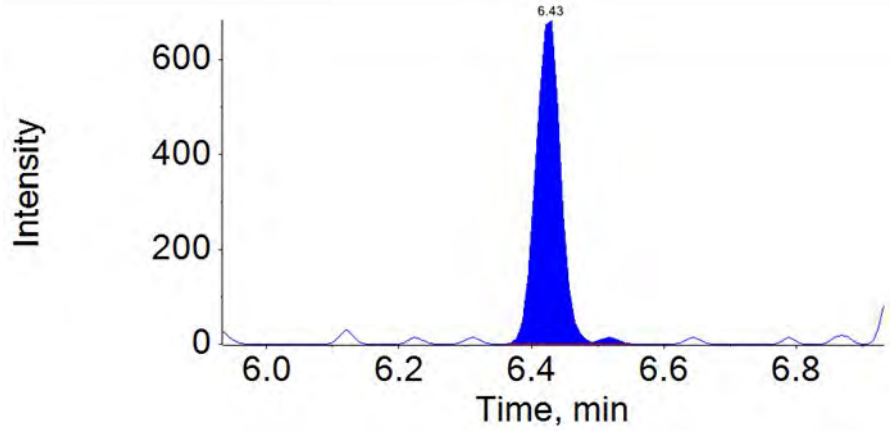
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: 10:2-FTS_2 **RT (min.):** 6.06 **Peak Area:** 38871.1 **Mass Range:** 627.0 / 81.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTrDA_2 **RT (min.):** 6.25 **Peak Area:** 3806.2 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** 6.43 **Peak Area:** 1816.4 **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV29D-52.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

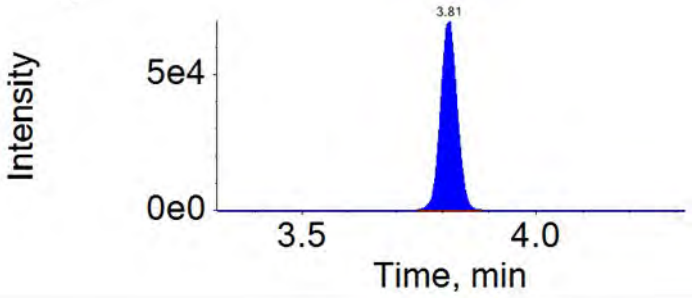
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18NOV29D-52.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	172355.2	A	N/A	0.3496			
PFBS_2	3.81	1.00	60254.5	A	N/A	0.3496	-4	50	
4:2-FTS	4.12	1.00	52632.4	A	N/A	0.6128			
4:2-FTS_2	4.12	1.00	32253.6	A	N/A	0.6128	-4	50	
PFHxA	4.16	1.00	392712.5	A	N/A	0.0095			
PFHxA_2	4.16	1.00	3748.1	A	N/A	0.0095	-8	50	
PFPeS	4.18	1.10	89389.0	A	N/A	0.5510			
PFPeS_2	4.18	1.10	49253.8	A	N/A	0.5510	11	50	
PFHpA	4.54	1.00	396806.2	A	N/A	0.0523			
PFHpA_2	4.54	1.00	20756.9	M	N/A	0.0523	-6	50	
PFHxS	4.55	1.00	127006.9	M	N/A	0.3604			
PFHxS_2	4.55	1.00	45767.4	M	N/A	0.3604	-2	50	
6:2-FTS	4.90	1.00	51799.6	A	N/A	0.5825			
6:2-FTS_2	4.90	1.00	30171.4	A	N/A	0.5825	-12	50	
PFHpS	4.91	1.08	129025.9	A	N/A	0.3916			
PFHpS_2	4.91	1.08	50522.7	A	N/A	0.3916	0	50	
PFOA	4.91	1.00	407078.9	A	N/A	0.0597			
PFOA_2	4.92	1.00	24289.8	A	N/A	0.0597	4	50	
PFOS	5.24	1.00	138995.5	M	N/A	0.3024			
PFOS_2	5.24	1.00	42028.6	M	N/A	0.3024	2	50	
PFNA	5.26	1.00	382168.0	A	N/A	0.0151			
PFNA_2	5.26	1.00	5752.1	A	N/A	0.0151	-25	50	
PFNS	5.54	1.06	98297.2	A	N/A	0.4813			
PFNS_2	5.54	1.06	47307.0	A	N/A	0.4813	0	50	
PFDA	5.56	1.00	343068.9	A	N/A	0.0067			
PFDA_2	5.56	1.00	2285.7	M	N/A	0.0067	-11	50	
8:2-FTS	5.56	1.00	54309.5	A	N/A	0.6811			
8:2-FTS_2	5.56	1.00	36991.3	A	N/A	0.6811	27	50	
NMeFOSAA	5.70	1.00	64182.7	A	N/A	0.2484			
NMeFOSAA_2	5.70	1.00	15945.6	M	N/A	0.2484	8	50	
PFDS	5.79	1.10	79891.7	A	N/A	0.4226			
PFDS_2	5.79	1.10	33761.0	A	N/A	0.4226	-21	50	
PFUnDA	5.82	1.00	355883.8	A	N/A	0.0042			
PFUnDA_2	5.82	1.00	1497.1	A	N/A	0.0042	11	50	
NEtFOSAA	5.83	1.00	64211.1	M	N/A	0.7219			
NEtFOSAA_2	5.83	1.00	46352.7	M	N/A	0.7219	-2	50	
PFDoDA	6.05	1.00	467324.6	A	N/A	0.0131			
PFDoDA_2	6.05	1.00	6130.3	A	N/A	0.0131	1	50	
10:2-FTS	6.07	1.09	54230.7	A	N/A	0.7133			
10:2-FTS_2	6.06	1.09	38681.2	M	N/A	0.7133	2	50	
PFTrDA	6.25	1.03	477187.4	A	N/A	0.0076			
PFTrDA_2	6.25	1.03	3624.2	M	N/A	0.0076	-16	50	
PFTeDA	6.42	1.00	345082.9	A	N/A	0.0052			
PFTeDA_2	6.43	1.00	1787.5	M	N/A	0.0052	-8	50	
PFHxDA	6.73	1.05	172538.3	A	N/A	0.0603			
PFHxDA_2	6.73	1.05	10401.9	A	N/A	0.0603	-7	50	
PFODA	6.99	1.09	141132.9	A	N/A	0.0256			
PFODA_2	6.99	1.09	3617.6	A	N/A	0.0256	-3	50	

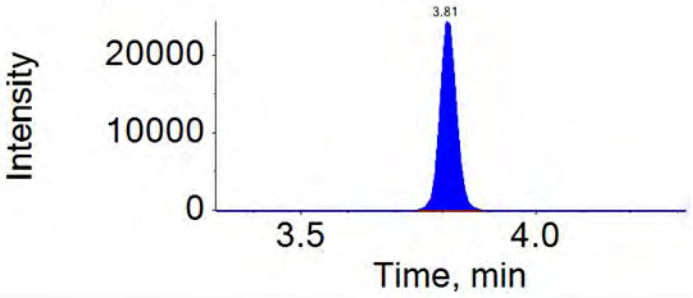
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

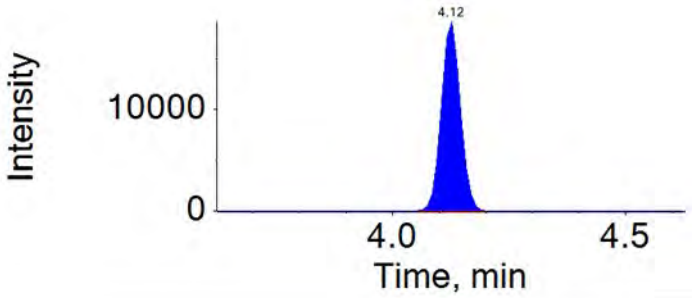
Component: PFBS
Primary Mass: 299.0 / 80.0



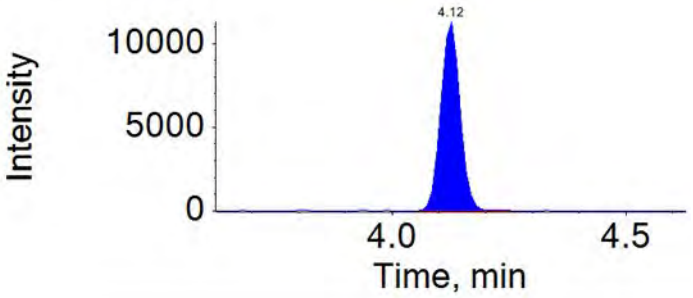
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



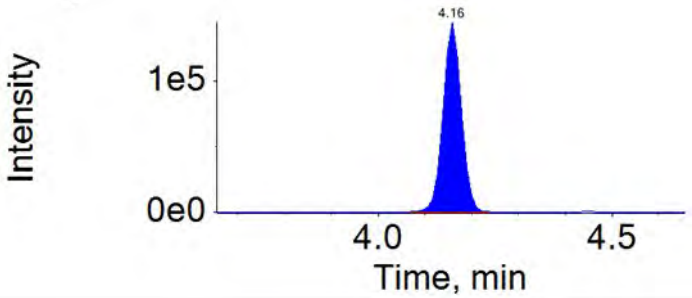
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



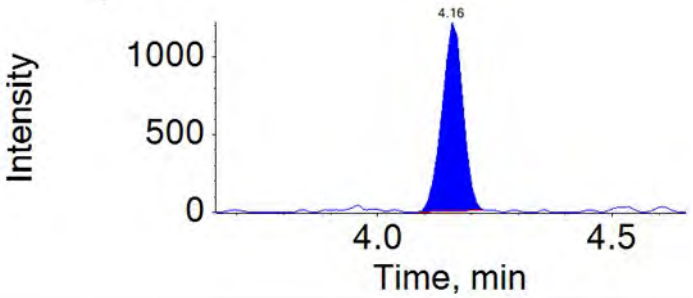
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



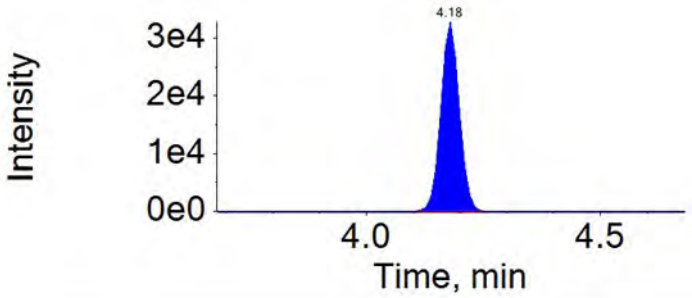
Component: PFHxA
Primary Mass: 313.0 / 269.0



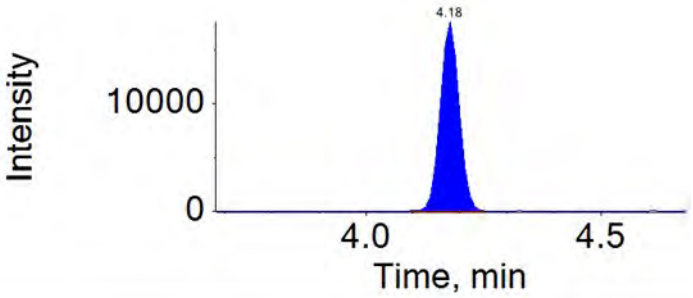
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



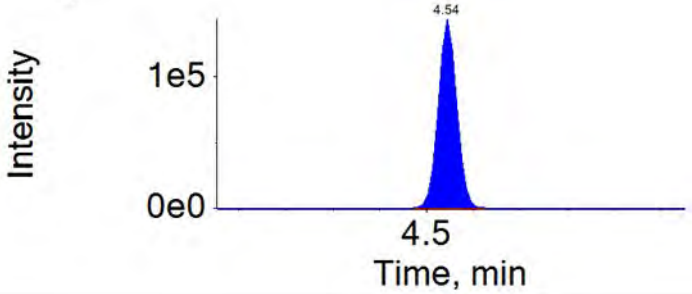
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



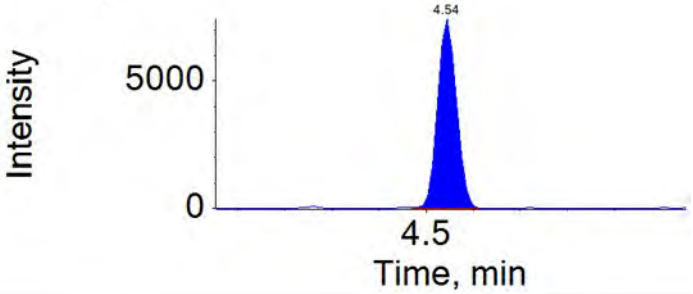
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

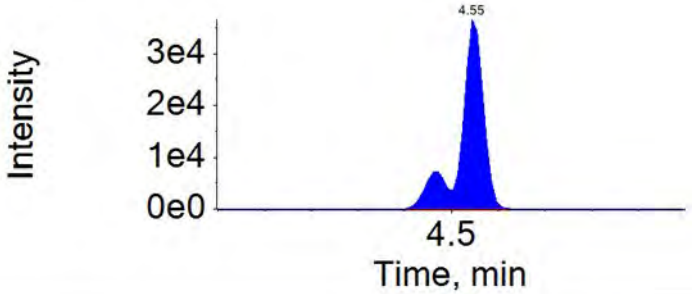
Component: PFHpA
Primary Mass: 363.0 / 319.0



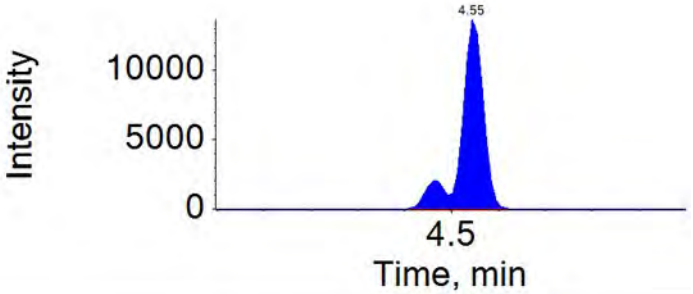
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



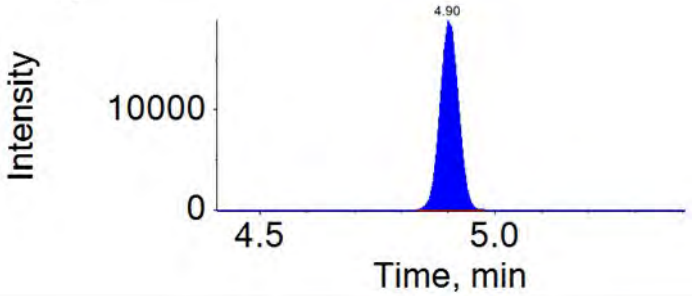
Component: PFHxS
Primary Mass: 399.0 / 80.0



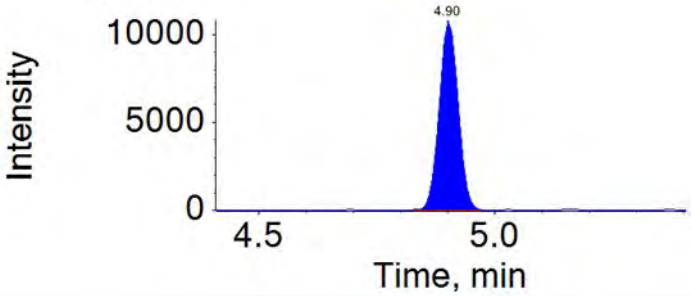
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



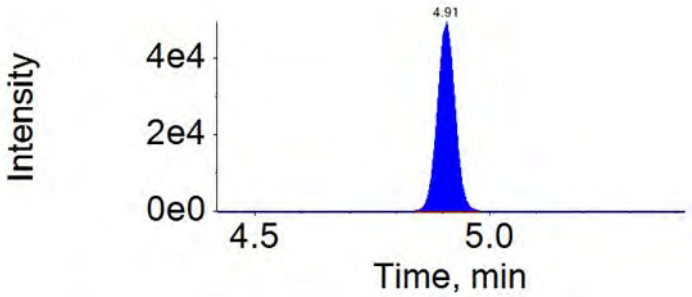
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



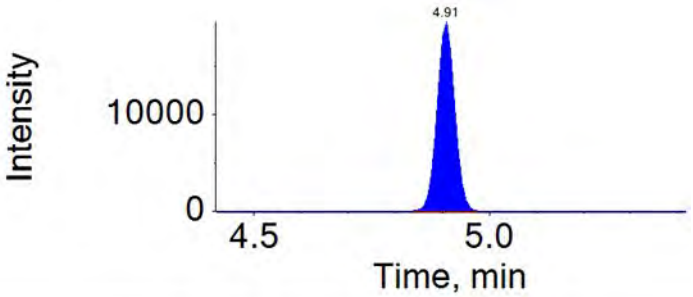
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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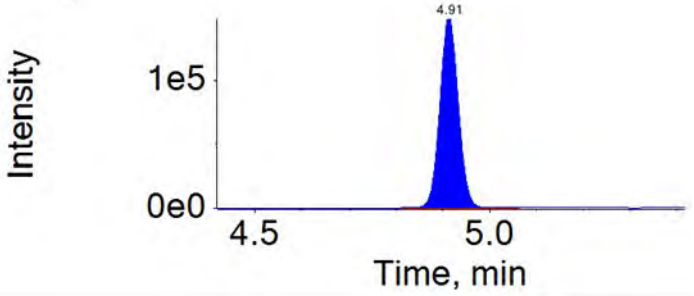
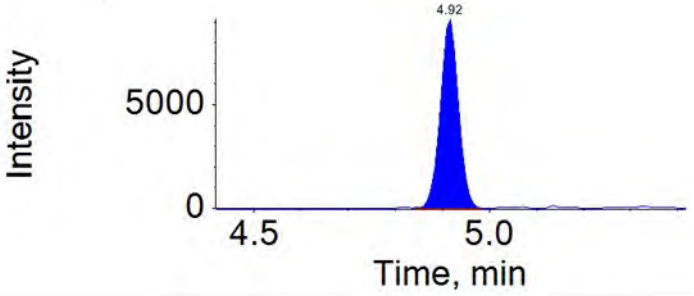
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

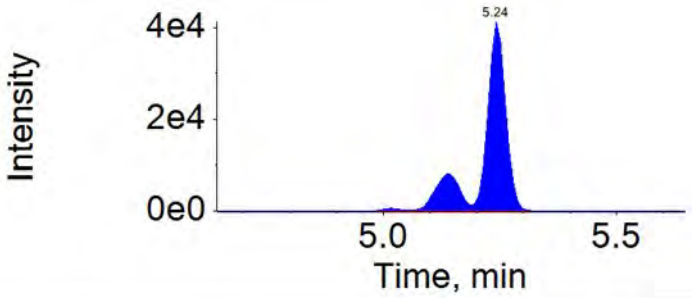
Component: PFOA
Primary Mass: 413.0 / 369.0



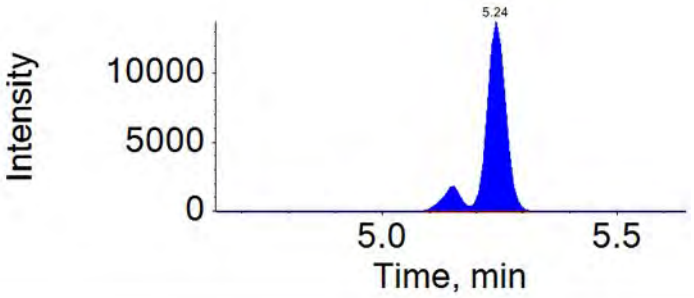
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



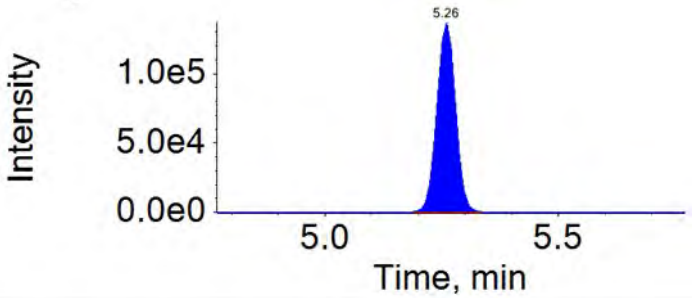
Component: PFOS
Primary Mass: 499.0 / 80.0



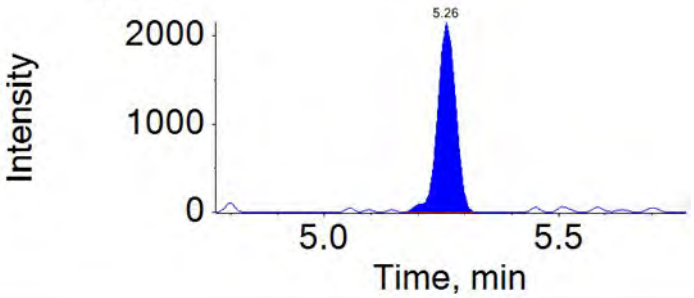
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



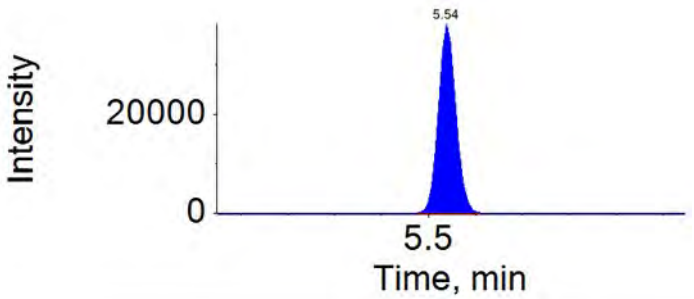
Component: PFNA
Primary Mass: 463.0 / 419.0



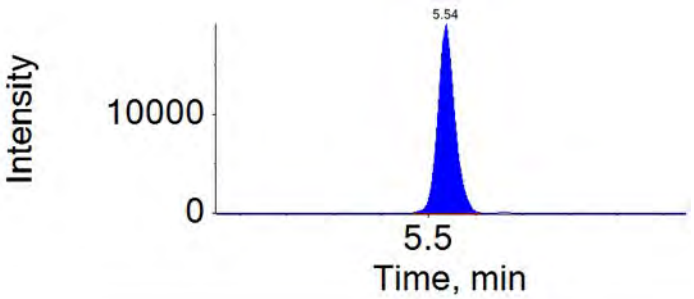
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



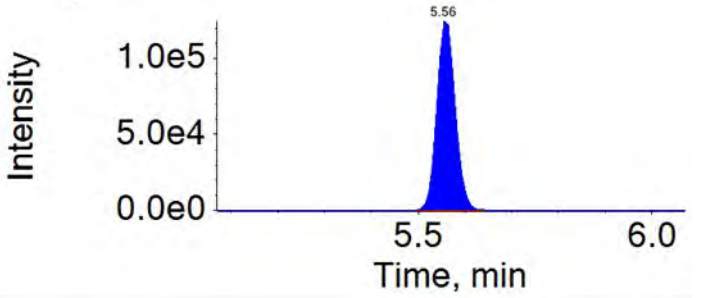
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



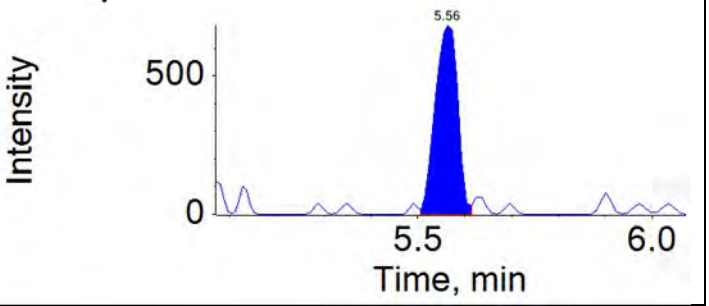
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

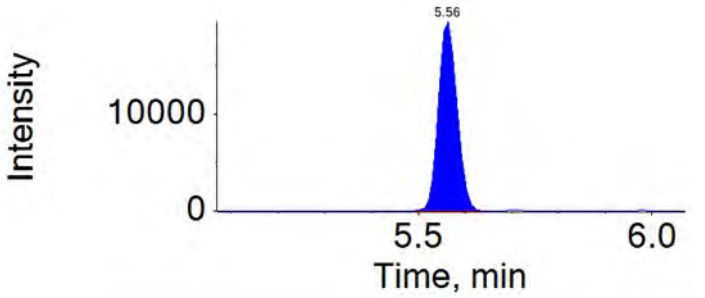
Component: PFDA
Primary Mass: 513.0 / 469.0



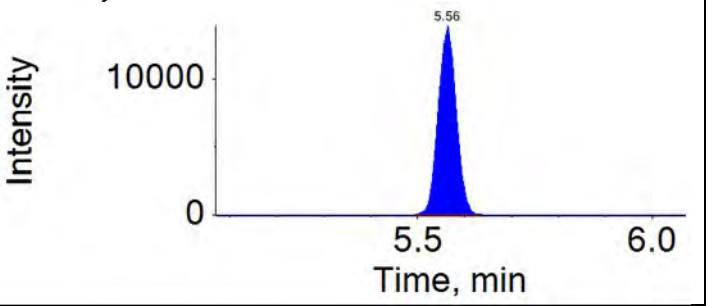
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



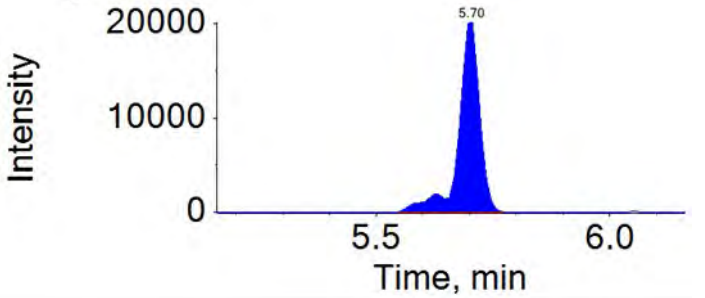
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



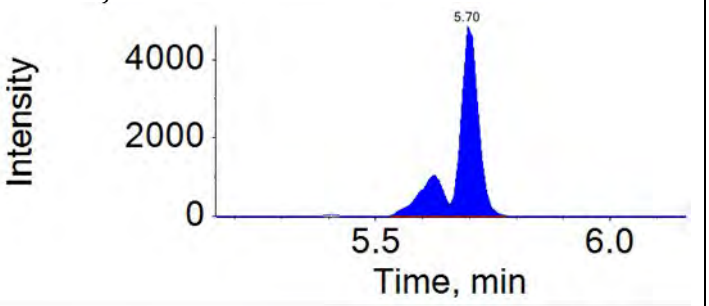
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



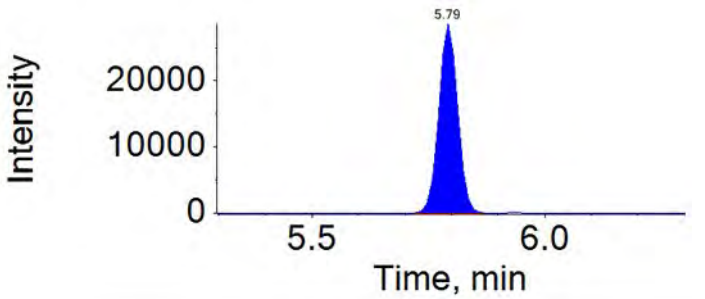
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



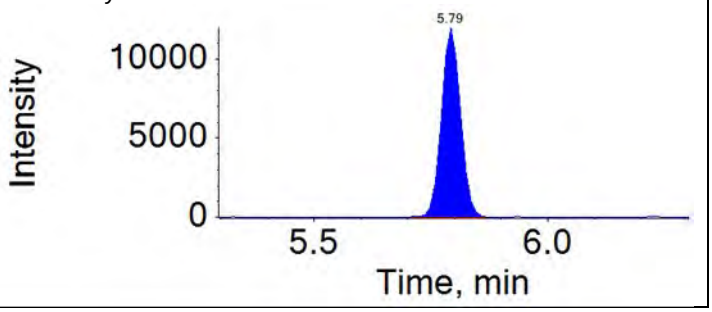
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



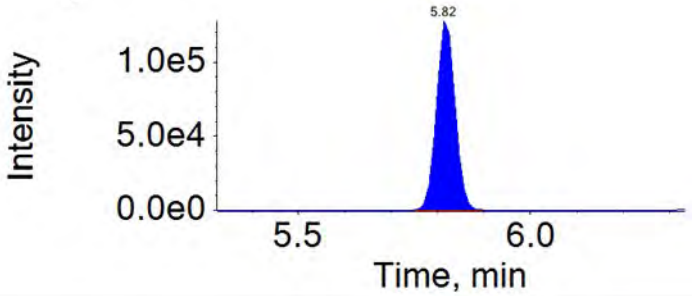
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



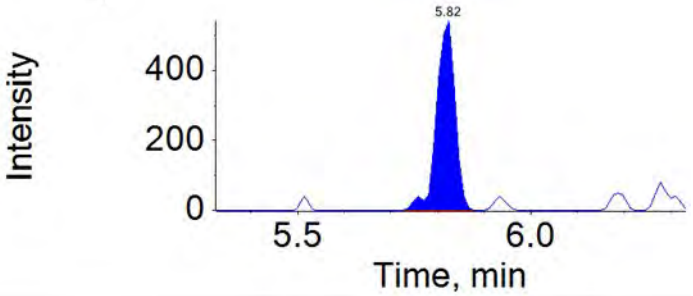
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

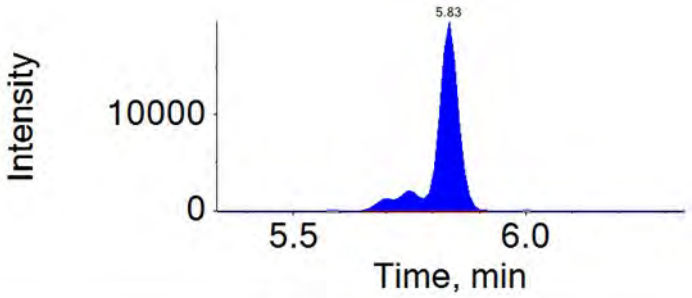
Component: PFUnDA
Primary Mass: 563.0 / 519.0



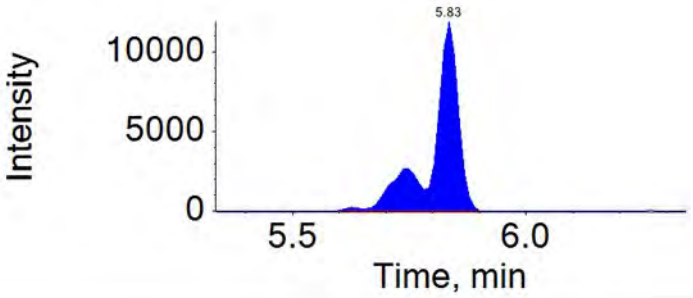
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



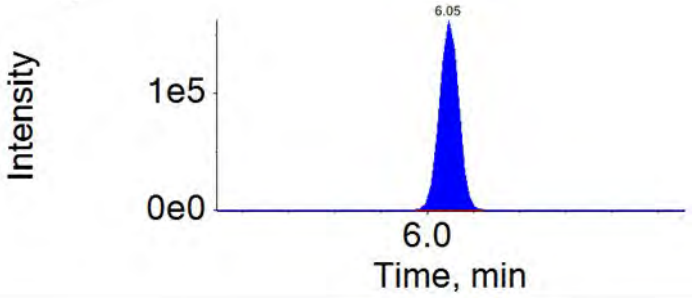
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



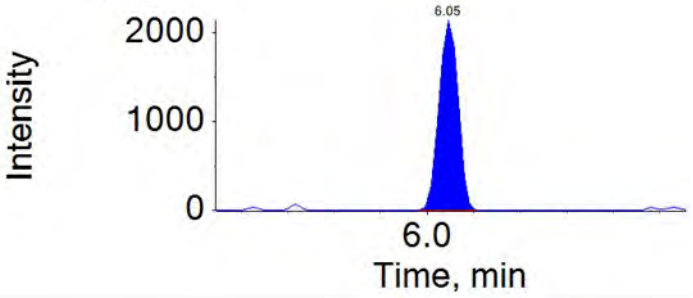
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



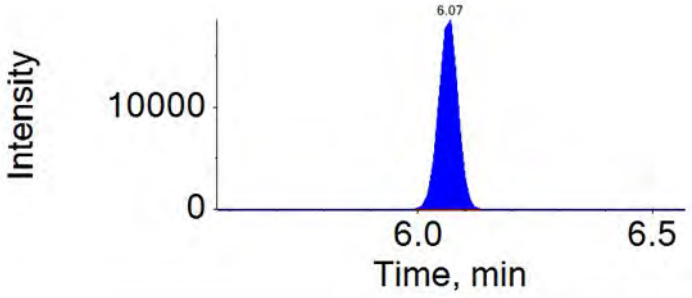
Component: PFDoDA
Primary Mass: 613.0 / 569.0



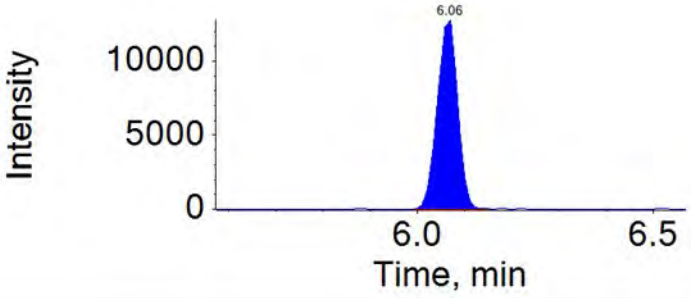
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



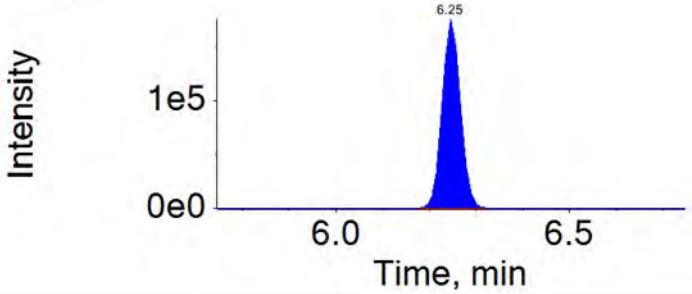
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



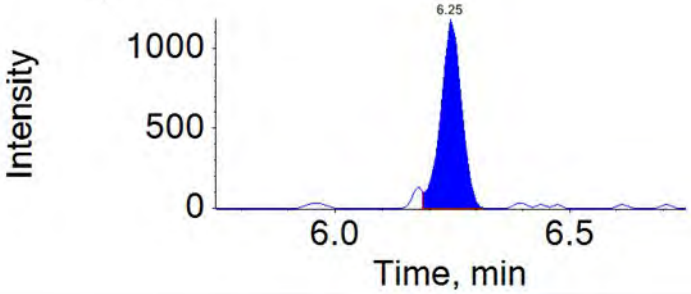
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



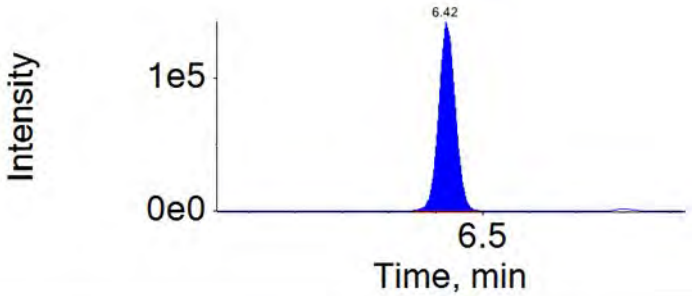
Component: PFTrDA
Primary Mass: 663.0 / 619.0



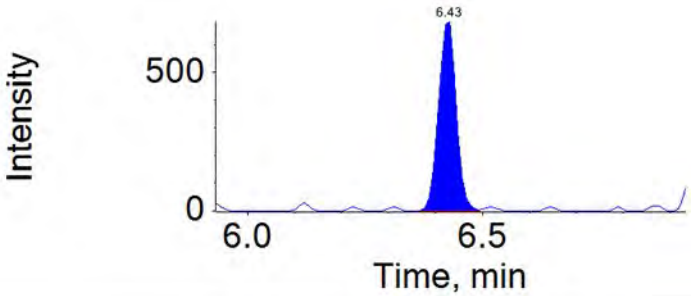
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



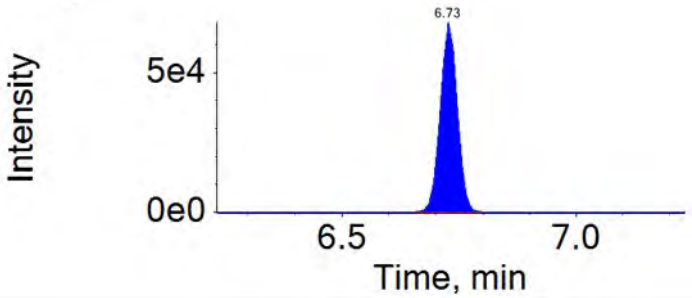
Component: PFTeDA
Primary Mass: 713.0 / 669.0



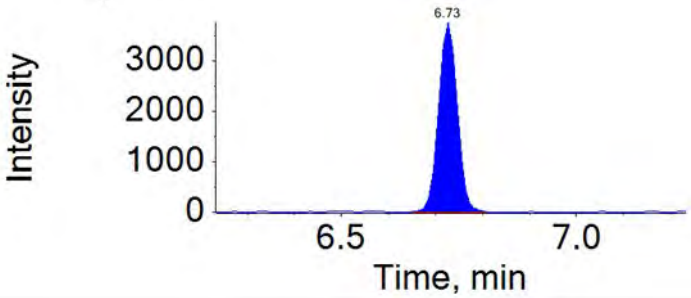
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



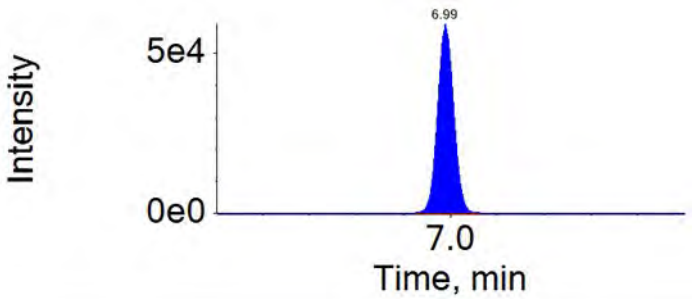
Component: PFHxDA
Primary Mass: 813.0 / 769.0



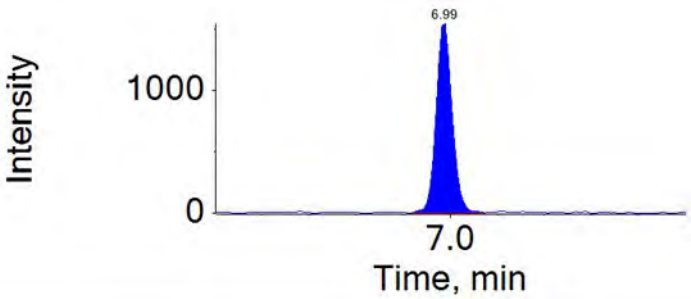
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



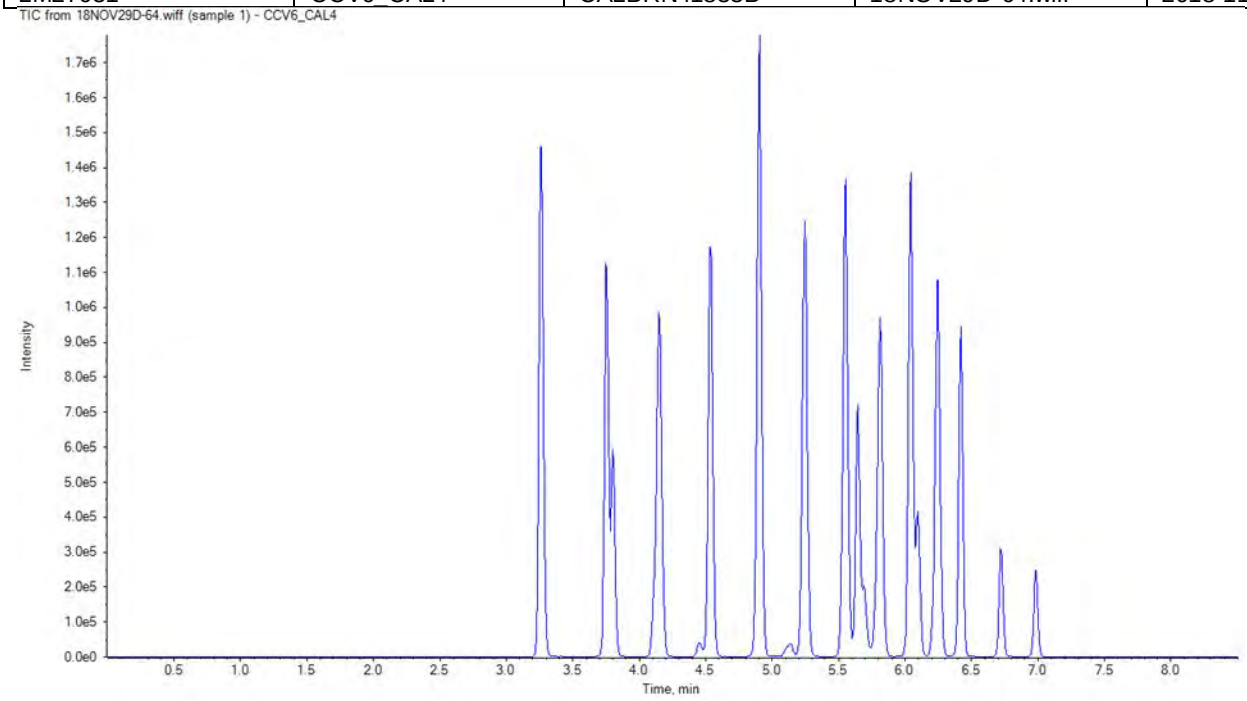
APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV29D-64.wiff	2018-11-29T19:25:48



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	913849.2	906425.4	1	50	
13C2-PFOA	5.0	518876.3	495984.0	5	50	
13C4-PFOS	4.8	303797.0	296261.8	3	50	
13C2-PFDA	5.0	442721.5	451203.0	-2	50	

APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV29D-64.wiff	2018-11-29T19:25:48

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1469628.0	10	13C4-PFBA	986963.3	5.0	1.489	3.26	1.000	8.000	8.163	2	30	
PFPeA	1427748.0	11	13C5-PFPeA	984821.1	5.0	1.450	3.75	1.000	8.000	7.114	-11	30	
PFBS	609993.7	11	13C3-PFBS	418734.6	4.7	1.457	3.80	1.000	7.080	7.071	0	30	
4:2-FTS	184688.7	11	13C2-4:2-FTS	67546.9	4.7	2.734	4.11	1.000	7.470	7.319	-2	30	
PFHxA	1387308.0	12	13C5-PFHxA	682741.9	5.0	2.032	4.15	1.000	8.000	8.156	2	30	
PFPeS	321453.2	11	13C3-PFBS	418734.6	4.7	0.768	4.17	1.100	7.500	7.765	4	30	
PFHpA	1397029.6	11	13C4-PFHpA	552888.5	5.0	2.527	4.54	1.000	8.000	7.798	-3	30	
PFHxS	466399.5	19	13C3-PFHxS	322045.5	4.7	1.448	4.54	1.000	7.300	6.781	-7	30	
6:2-FTS	179952.5	11	13C2-6:2-FTS	58279.4	4.8	3.088	4.89	1.000	7.580	8.057	6	30	
PFHpS	482601.2	11	13C3-PFHxS	322045.5	4.7	1.499	4.90	1.080	7.610	7.479	-2	30	
PFOA	1506521.1	11	13C8-PFOA	956359.3	5.0	1.575	4.90	1.000	8.000	8.140	2	30	
PFOS	507772.2	22	13C8-PFOS	318797.0	4.8	1.593	5.23	1.000	7.400	6.681	-10	30	
PFNA	1378868.3	11	13C9-PFNA	666957.5	5.0	2.067	5.25	1.000	8.000	7.923	-1	30	
PFNS	359004.1	11	13C8-PFOS	318797.0	4.8	1.126	5.53	1.060	7.680	7.110	-7	30	
PFDA	1238904.3	11	13C6-PFDA	789100.3	5.0	1.570	5.55	1.000	8.000	8.887	11	30	
8:2-FTS	195089.6	12	13C2-8:2-FTS	49965.8	4.8	3.904	5.56	1.000	7.660	7.363	-4	30	
PFOSA	965121.8	11	13C8-PFOSA	616213.8	5.0	1.566	5.64	1.000	8.000	7.934	-1	30	
NMeFOSAA	222950.9	18	d3-NMeFOSAA	183128.3	5.0	1.217	5.70	1.000	8.000	7.766	-3	30	
PFDS	286894.2	11	13C8-PFOS	318797.0	4.8	0.900	5.79	1.110	7.700	7.135	-7	30	
PFUnDA	1252226.8	12	13C7-PFUnDA	556651.0	5.0	2.250	5.81	1.000	8.000	8.041	1	30	
NEtFOSAA	239375.0	21	d5-NEtFOSAA	151553.0	5.0	1.579	5.83	1.000	8.000	7.693	-4	30	
PFDoDA	1726918.5	11	13C2-PFDoDA	1111170.4	5.0	1.554	6.04	1.000	8.000	8.513	6	30	
10:2-FTS	185245.7	12	13C2-8:2-FTS	49965.8	4.8	3.707	6.06	1.090	7.710	8.175	6	30	
NMePFOSAE	489183.9	11	d7-NMePFOSAE	257155.9	5.0	1.902	6.10	1.000	8.000	8.005	0	30	
NMePFOSA	128158.0	11	d3-NMePFOSA	84180.7	5.0	1.522	6.10	1.000	8.000	8.071	1	30	
PFDoS	162130.7	11	13C8-PFOS	318797.0	4.8	0.509	6.21	1.190	7.740	7.304	-6	30	
NEtPFOSAE	532496.8	11	d9-NEtPFOSAE	224480.4	5.0	2.372	6.26	1.000	8.000	8.533	7	30	
NEtPFOSA	113302.3	11	d5-NEtPFOSA	67601.1	5.0	1.676	6.27	1.000	8.000	7.512	-6	30	
PFTrDA	1695782.7	11	13C2-PFDoDA	1111170.4	5.0	1.526	6.24	1.030	8.000	9.199	15	30	
PFTeDA	1214917.2	10	13C2-PFTeDA	822251.9	5.0	1.478	6.42	1.000	8.000	8.372	5	30	
PFHxDA	634623.0	11	13C2-PFTeDA	822251.9	5.0	0.772	6.72	1.050	8.000	8.823	10	30	
PFODA	509959.1	10	13C2-PFTeDA	822251.9	5.0	0.620	6.98	1.090	8.000	8.262	3	30	

APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV6_CAL4			**Data File:**		18NOV29D-64.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-11-29T19:25:48
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV6-9
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	913849.2	906425.4	1	50	
13C2-PFOA	5.0	518876.3	495984.0	5	50	
13C4-PFOS	4.8	303797.0	296261.8	3	50	
13C2-PFDA	5.0	442721.5	451203.0	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	986963.3	13C3-PFBA	913849.2	1.080	5.000	4.819	96	70-130	
E13C5-PFPeA	984821.1	13C3-PFBA	913849.2	1.078	5.000	5.032	101	70-130	
E13C3-PFBS	418734.6	13C3-PFBA	913849.2	0.458	4.650	4.371	94	70-130	
E13C2-4:2-FTS	67546.9	13C2-PFOA	518876.3	0.130	4.670	4.486	96	70-130	
E13C5-PFHxA	682741.9	13C2-PFOA	518876.3	1.316	5.000	4.833	97	70-130	
E13C3-PFHxS	322045.5	13C2-PFOA	518876.3	0.621	4.730	4.865	103	70-130	
E13C4-PFHpA	552888.5	13C2-PFOA	518876.3	1.066	5.000	4.896	98	70-130	
E13C2-6:2-FTS	58279.4	13C2-PFOA	518876.3	0.112	4.750	4.702	99	70-130	
E13C8-PFOA	956359.3	13C2-PFOA	518876.3	1.843	5.000	5.073	101	70-130	
E13C8-PFOS	318797.0	13C4-PFOS	303797.0	1.049	4.780	4.737	99	70-130	
E13C9-PFNA	666957.5	13C4-PFOS	303797.0	2.195	5.000	4.822	96	70-130	
E13C6-PFDA	789100.3	13C2-PFDA	442721.5	1.782	5.000	5.025	101	70-130	
E13C2-8:2-FTS	49965.8	13C2-PFDA	442721.5	0.113	4.790	4.851	101	70-130	
E13C8-PFOSA	616213.8	13C2-PFDA	442721.5	1.392	5.000	5.107	102	70-130	
Ed3-NMeFOSAA	183128.3	13C2-PFDA	442721.5	0.414	5.000	5.252	105	70-130	
E13C7-PFUnDA	556651.0	13C2-PFDA	442721.5	1.257	5.000	5.314	106	70-130	
Ed5-NEtFOSAA	151553.0	13C2-PFDA	442721.5	0.342	5.000	6.099	122	70-130	
E13C2-PFDoDA	1111170.4	13C2-PFDA	442721.5	2.510	5.000	5.273	105	70-130	
Ed7-NMePFOSAE	257155.9	13C2-PFDA	442721.5	0.581	5.000	5.020	100	70-130	
Ed3-NMePFOSA	84180.7	13C2-PFDA	442721.5	0.190	5.000	5.146	103	70-130	
Ed9-NEtPFOSAE	224480.4	13C2-PFDA	442721.5	0.507	5.000	5.141	103	70-130	
Ed5-NEtPFOSA	67601.1	13C2-PFDA	442721.5	0.153	5.000	5.306	106	70-130	
E13C2-PFTeDA	822251.9	13C2-PFDA	442721.5	1.857	5.000	5.139	103	70-130	

APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

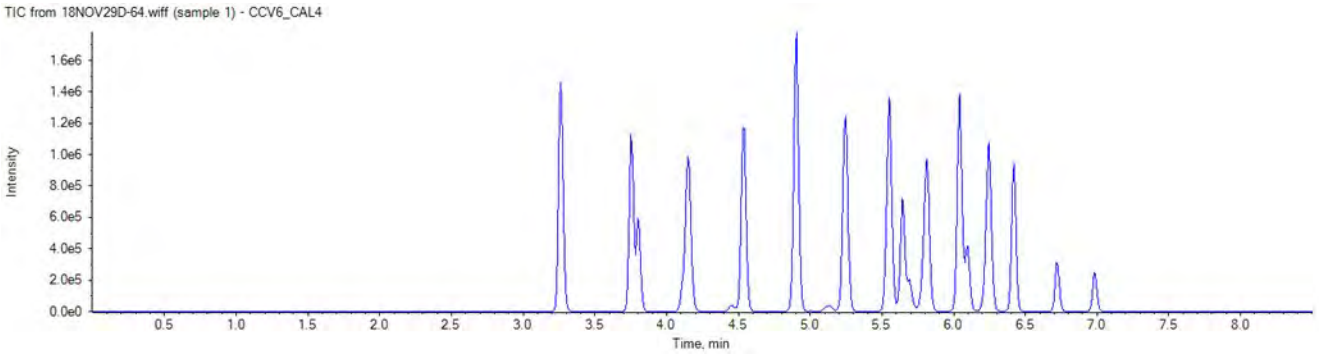
Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV29D-64.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1469628.0		A	13C4-PFBA	3.26	986963.3	1.489	8.163
PFPeA	3.75	1.000	1427748.0		A	13C5-PFPeA	3.76	984821.1	1.450	7.114
PFBS	3.80	1.000	609993.7		A	13C3-PFBS	3.80	418734.6	1.457	7.071
4:2-FTS	4.11	1.000	184688.7		A	13C2-4:2-FTS	4.11	67546.9	2.734	7.319
PFHxA	4.15	1.000	1387308.0		A	13C5-PFHxA	4.15	682741.9	2.032	8.156
PFPeS	4.17	1.100	321453.2		A	13C3-PFBS	3.80	418734.6	0.768	7.765
PFHpA	4.54	1.000	1397029.6		A	13C4-PFHpA	4.54	552888.5	2.527	7.798
PFHxS	4.54	1.000	466399.5		M	13C3-PFHxS	4.54	322045.5	1.448	6.781
6:2-FTS	4.89	1.000	179952.5		A	13C2-6:2-FTS	4.89	58279.4	3.088	8.057
PFHpS	4.90	1.080	482601.2		A	13C3-PFHxS	4.54	322045.5	1.499	7.479
PFOA	4.90	1.000	1506521.1		A	13C8-PFOA	4.91	956359.3	1.575	8.140
PFOS	5.23	1.000	507772.2		M	13C8-PFOS	5.24	318797.0	1.593	6.681
PFNA	5.25	1.000	1378868.3		A	13C9-PFNA	5.25	666957.5	2.067	7.923
PFNS	5.53	1.060	359004.1		A	13C8-PFOS	5.24	318797.0	1.126	7.110
PFDA	5.55	1.000	1238904.3		A	13C6-PFDA	5.55	789100.3	1.570	8.887
8:2-FTS	5.56	1.000	195089.6		A	13C2-8:2-FTS	5.56	49965.8	3.904	7.363
PFOSA	5.64	1.000	965121.8		A	13C8-PFOSA	5.65	616213.8	1.566	7.934
NMeFOSAA	5.70	1.000	222950.9		M	d3-NMeFOSAA	5.69	183128.3	1.217	7.766
PFDS	5.79	1.110	286894.2		A	13C8-PFOS	5.24	318797.0	0.900	7.135
PFUnDA	5.81	1.000	1252226.8		A	13C7-PFUnDA	5.81	556651.0	2.250	8.041
NEtFOSAA	5.83	1.000	239375.0		M	d5-NEtFOSAA	5.82	151553.0	1.579	7.693
PFDoDA	6.04	1.000	1726918.5		A	13C2-PFDoDA	6.04	1111170.4	1.554	8.513
10:2-FTS	6.06	1.090	185245.7		A	13C2-8:2-FTS	5.56	49965.8	3.707	8.175
NMePFOSAE	6.10	1.000	489183.9		A	d7-NMePFOSAE	6.09	257155.9	1.902	8.005
NMePFOSA	6.10	1.000	128158.0		A	d3-NMePFOSA	6.10	84180.7	1.522	8.071
PFDoS	6.21	1.190	162130.7		A	13C8-PFOS	5.24	318797.0	0.509	7.304
NEtPFOSAE	6.26	1.000	532496.8		A	d9-NEtPFOSAE	6.24	224480.4	2.372	8.533
NEtPFOSA	6.27	1.000	113302.3		A	d5-NEtPFOSA	6.26	67601.1	1.676	7.512
PFTrDA	6.24	1.030	1695782.7		A	13C2-PFDoDA	6.04	1111170.4	1.526	9.199
PFTeDA	6.42	1.000	1214917.2		A	13C2-PFTeDA	6.42	822251.9	1.478	8.372
PFHxDA	6.72	1.050	634623.0		A	13C2-PFTeDA	6.42	822251.9	0.772	8.823
PFODA	6.98	1.090	509959.1		A	13C2-PFTeDA	6.42	822251.9	0.620	8.262

Total Ion Chromatogram

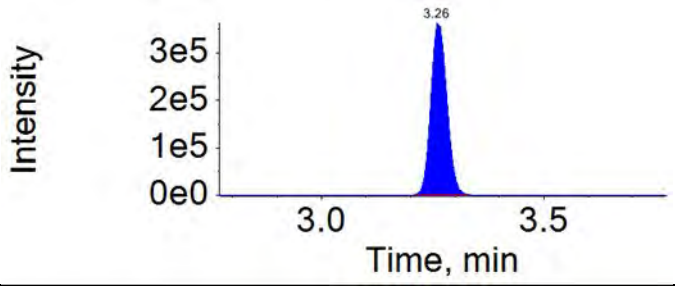


APPROVED
By MCD at 3:26 pm, 11/30/18

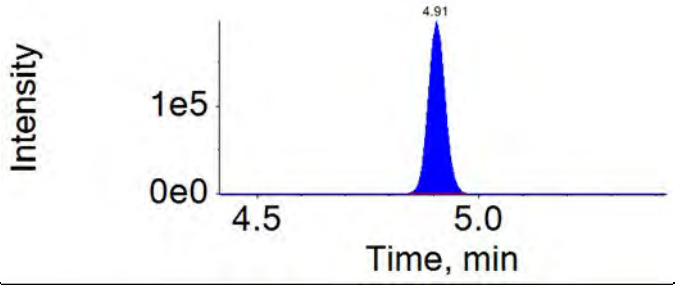
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

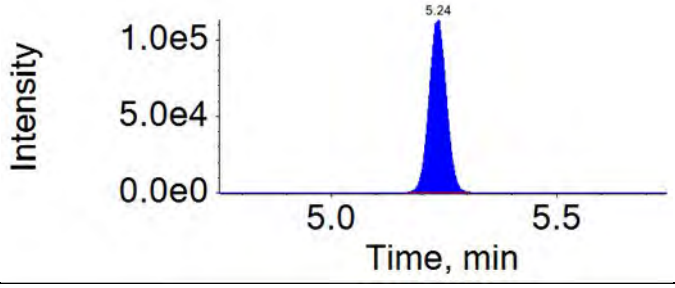
Injection Standard: 13C3-PFBA
216.0 / 172.0



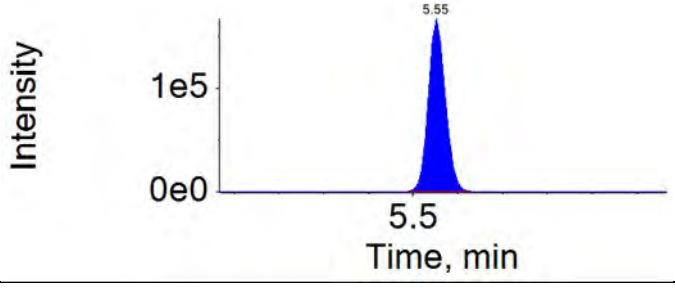
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



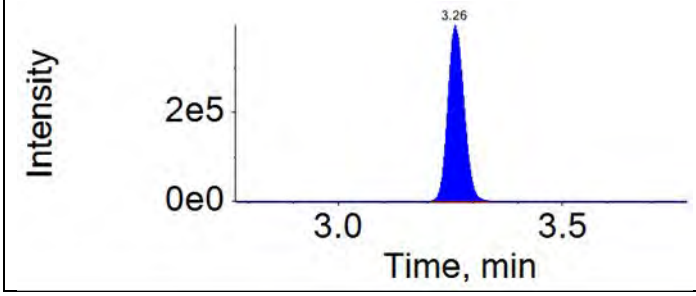
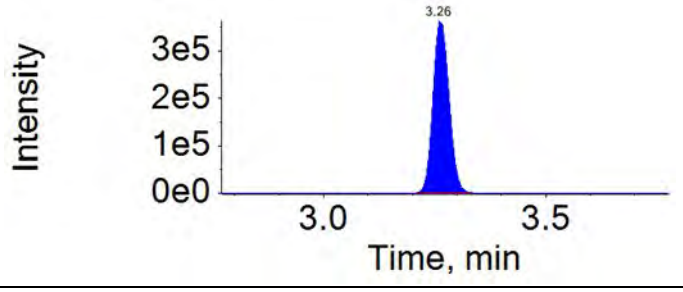
Injection Standard: 13C2-PFDA
515.0 / 470.0

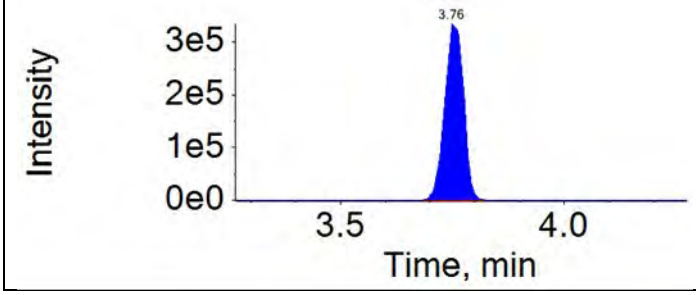
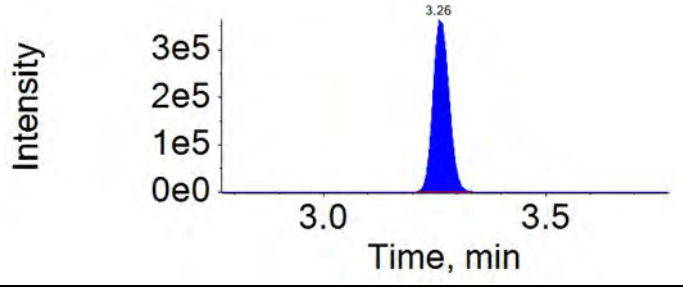


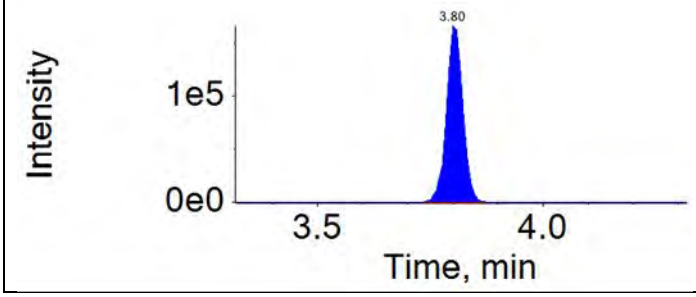
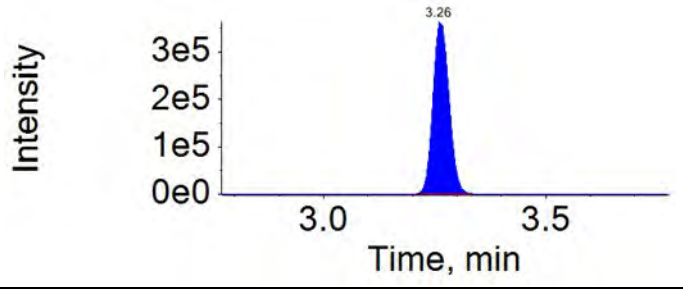
APPROVED
By MCD at 3:26 pm, 11/30/18

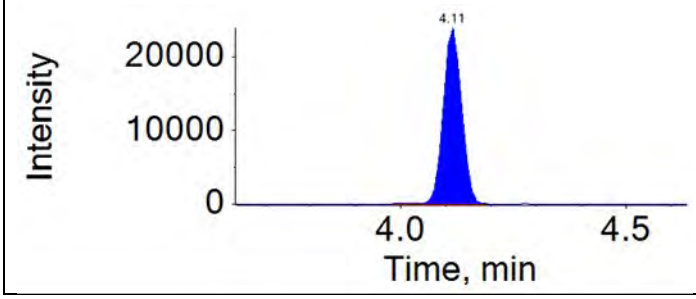
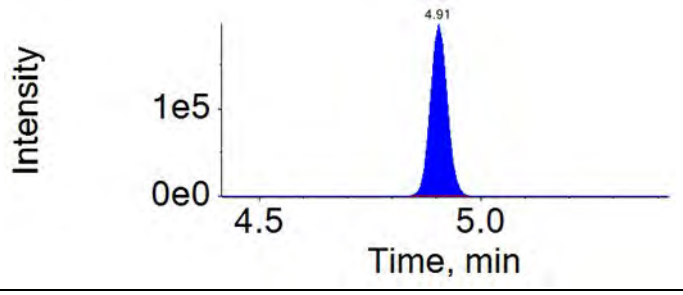
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

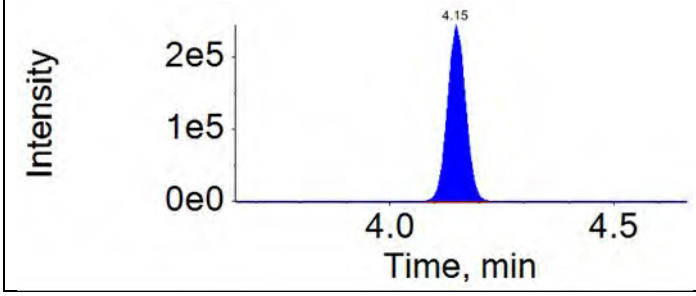
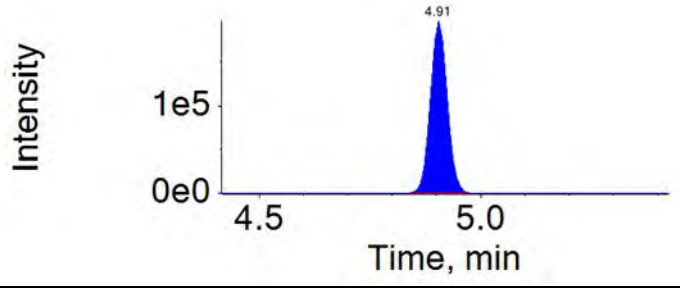
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

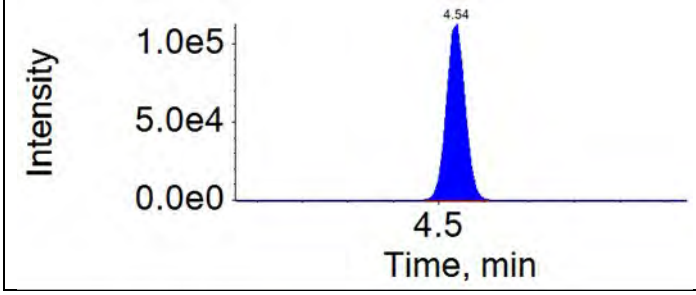
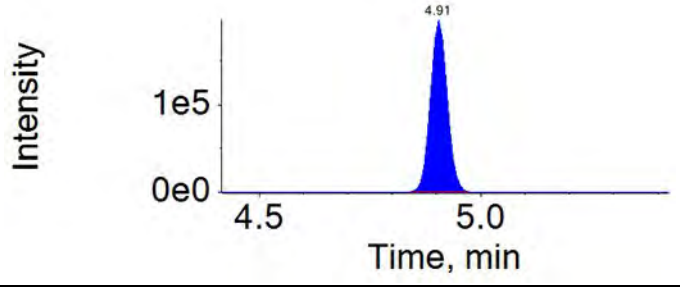
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

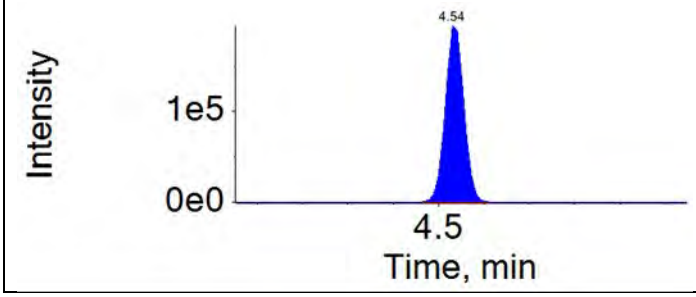
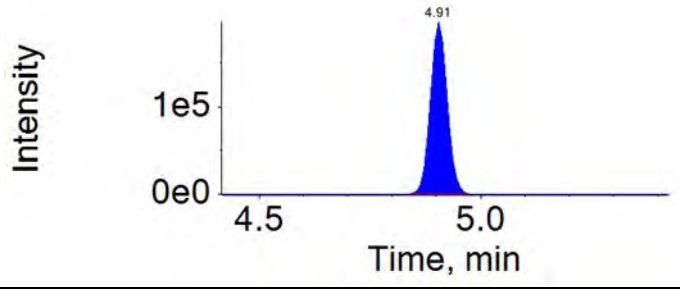
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

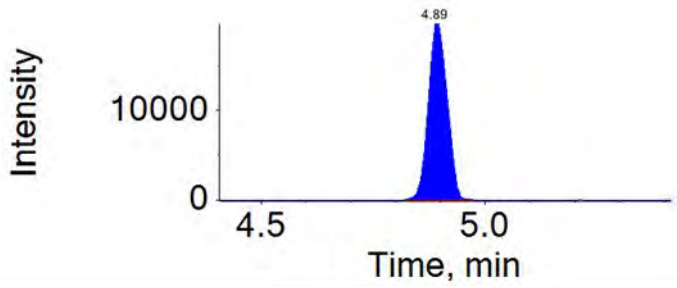
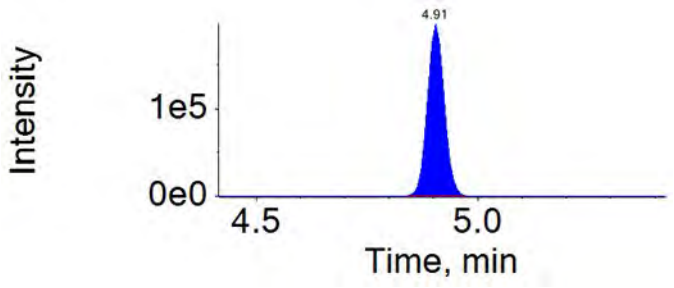
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

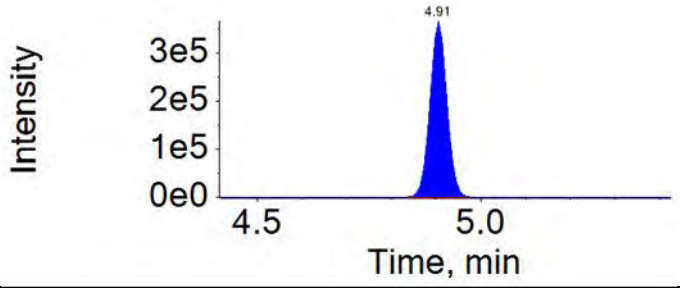
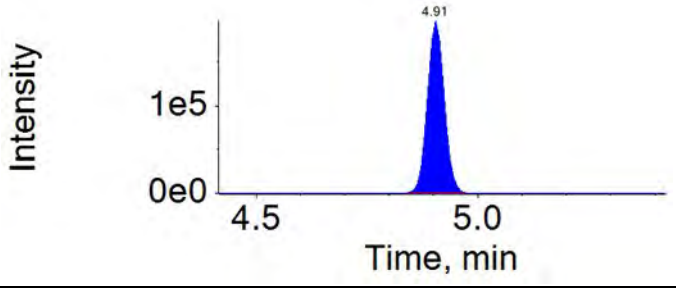
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

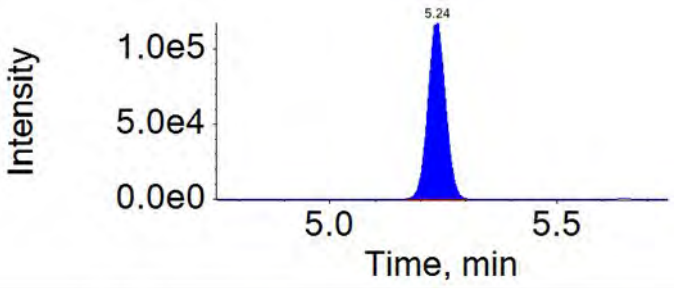
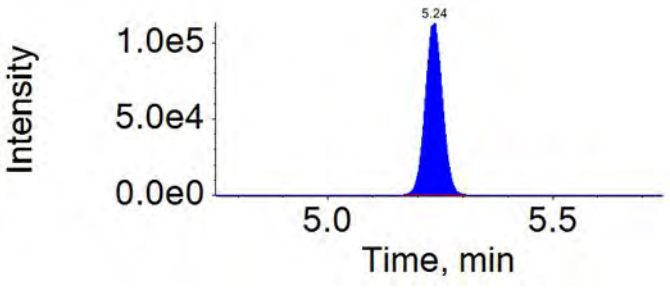
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

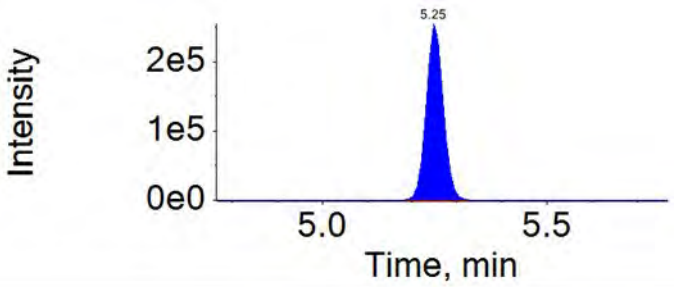
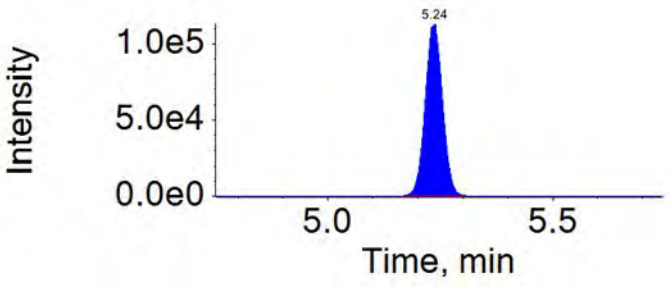
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

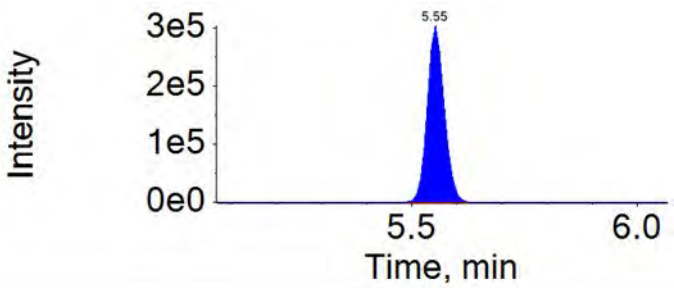
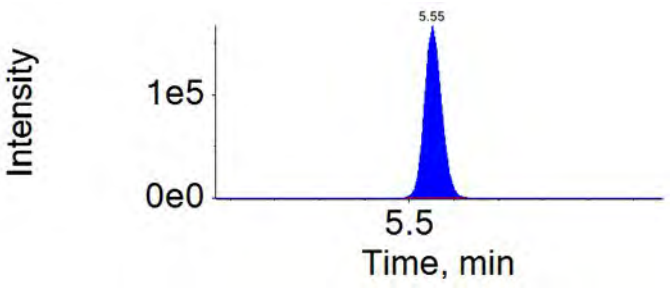
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

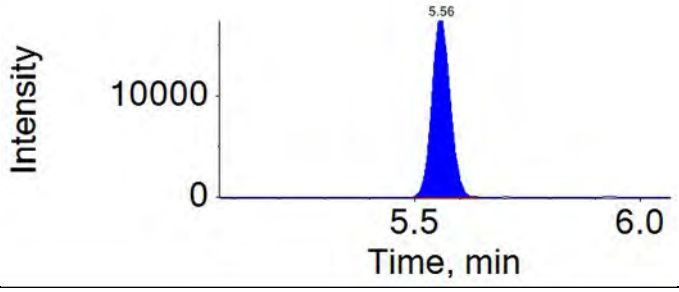
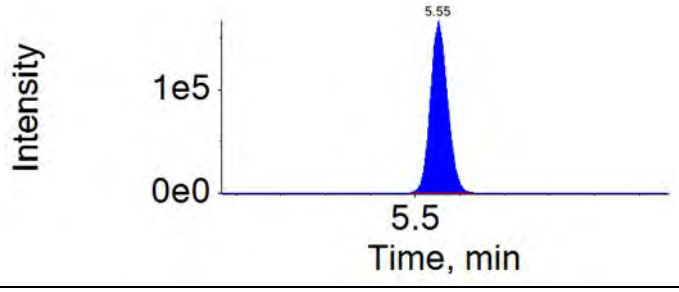
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

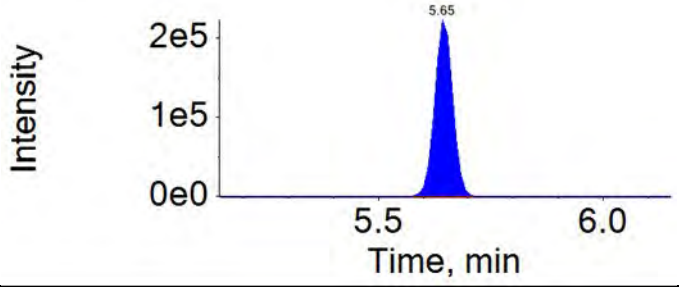
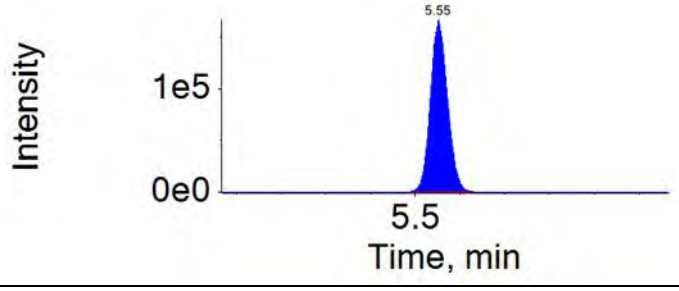
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

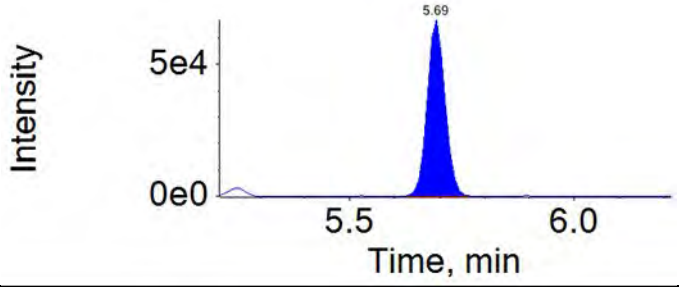
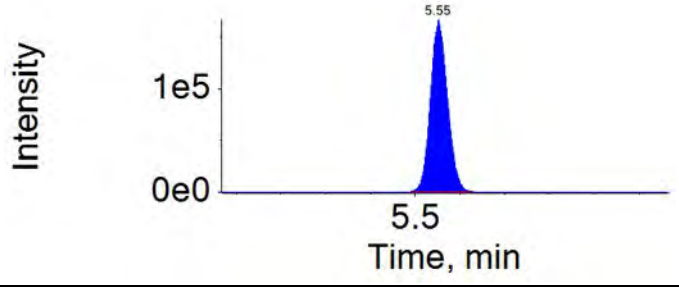
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

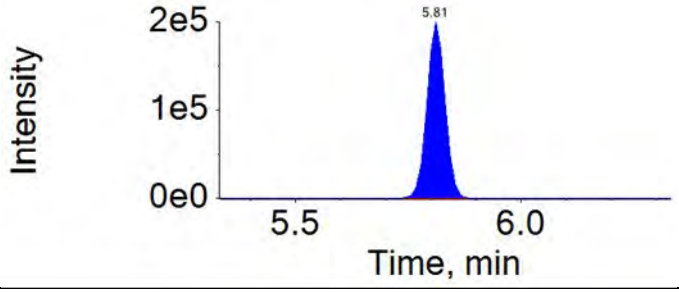
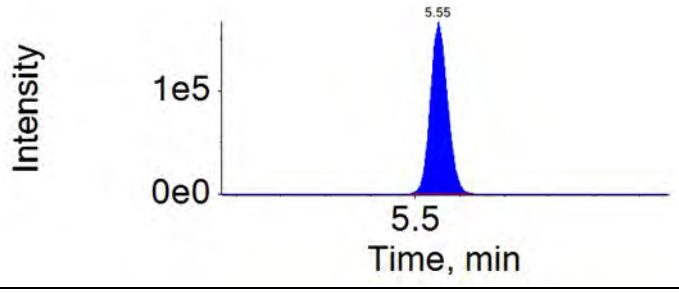
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

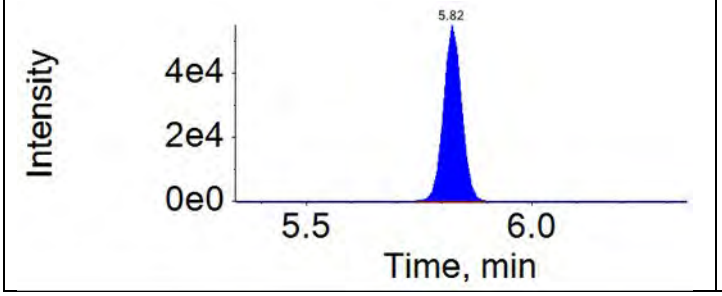
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

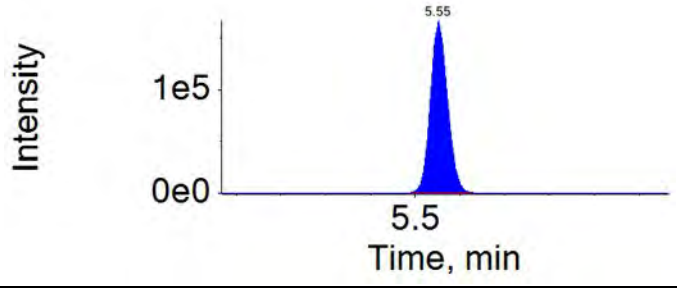
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

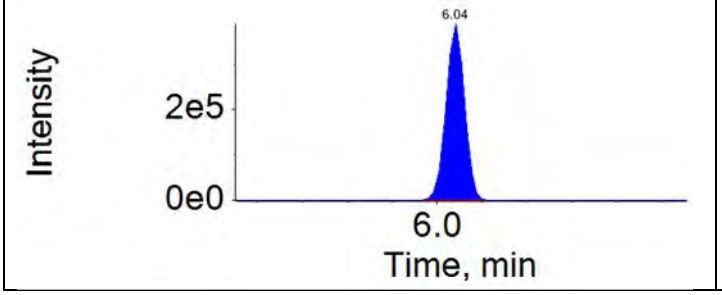
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

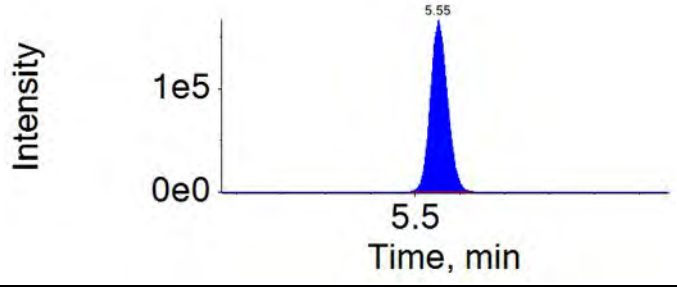
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



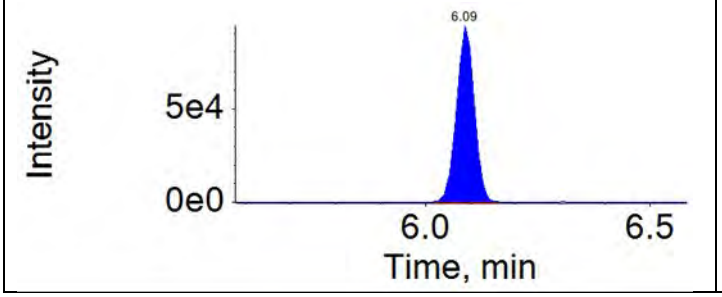


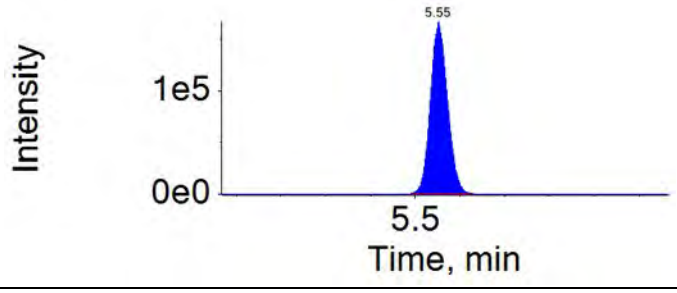
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



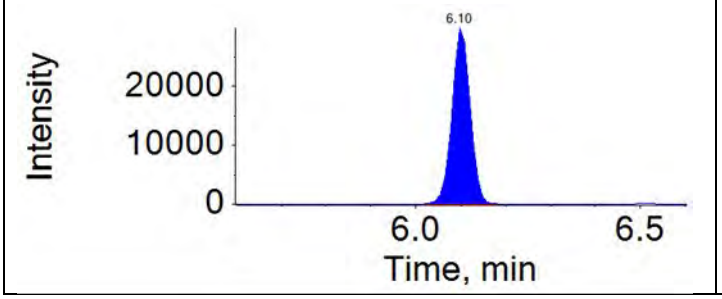


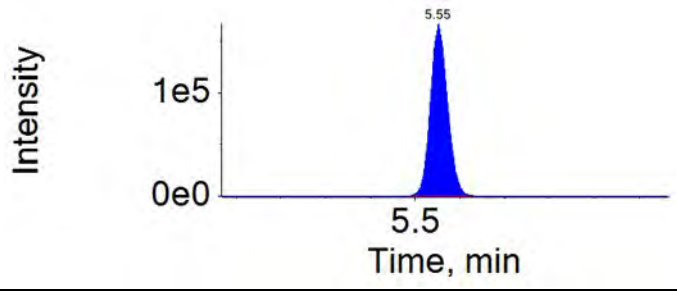
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



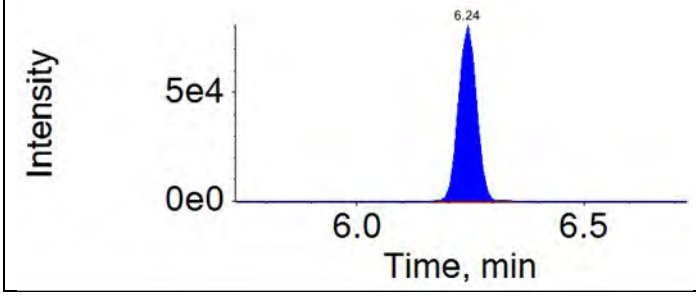


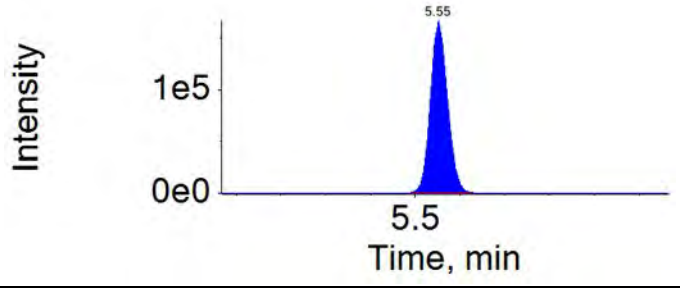
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

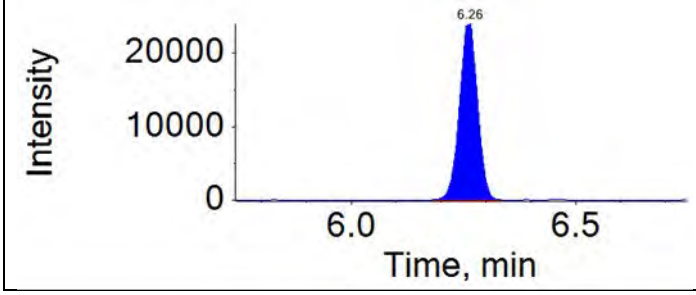
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

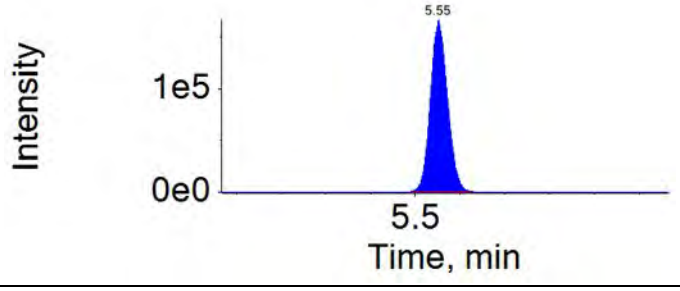
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



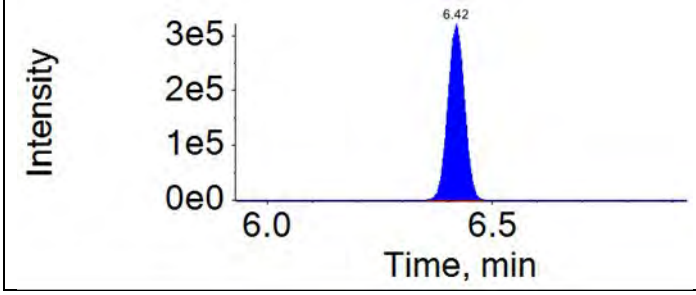


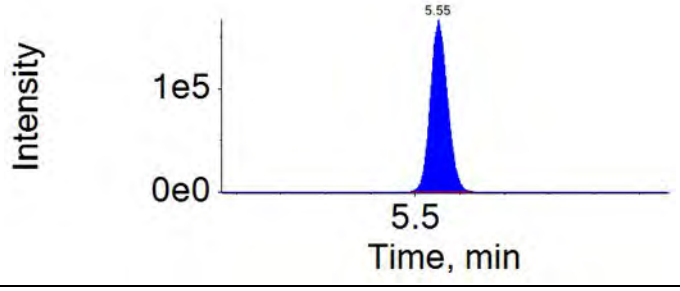
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



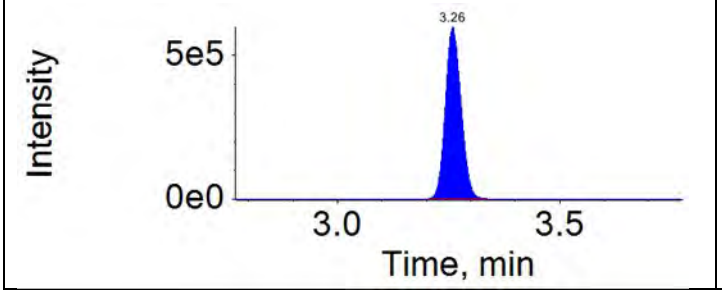


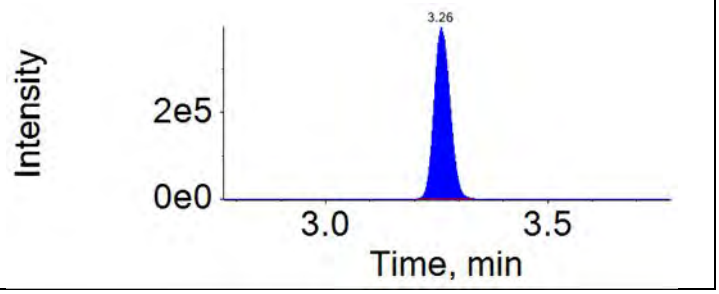
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

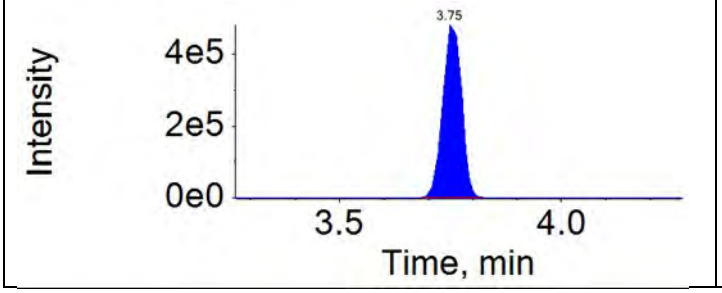
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

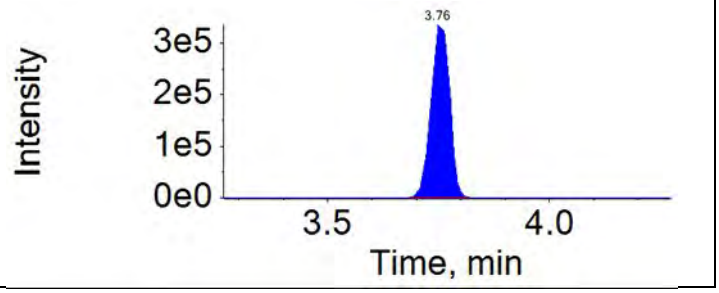
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



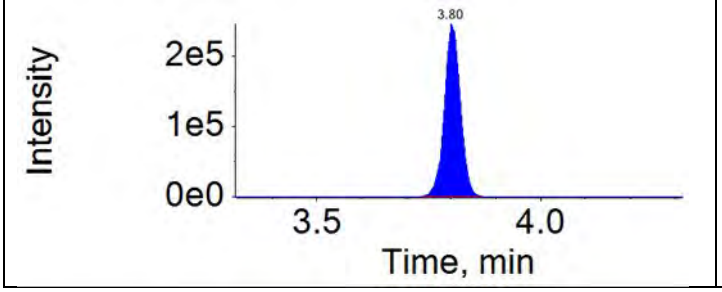


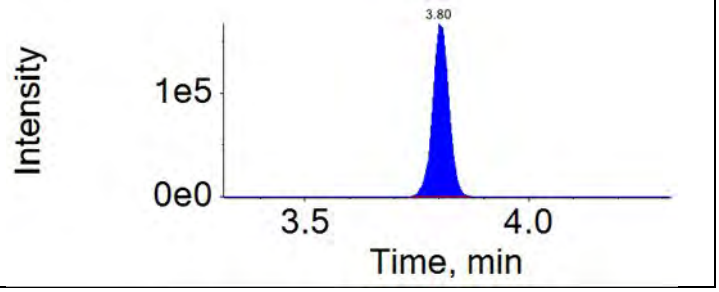
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



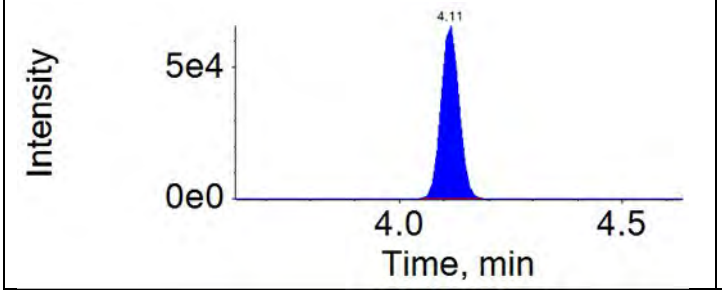


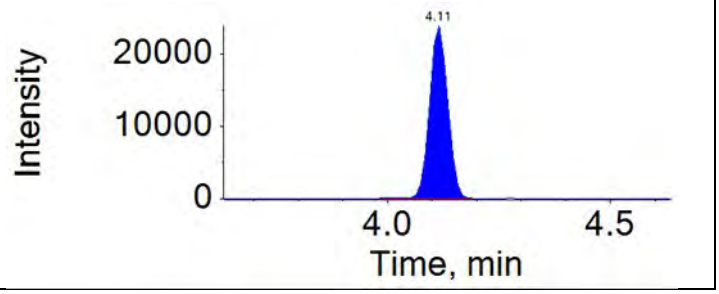
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



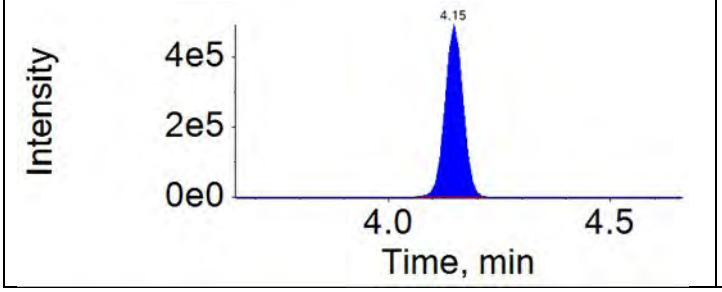


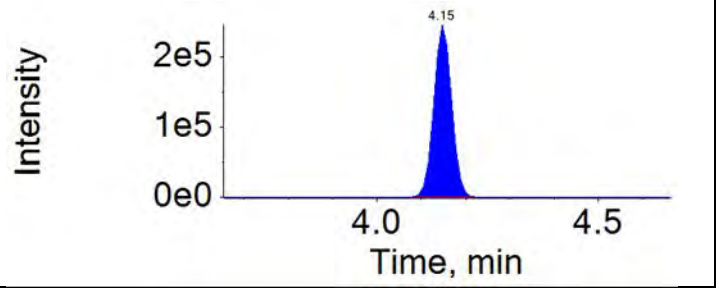
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

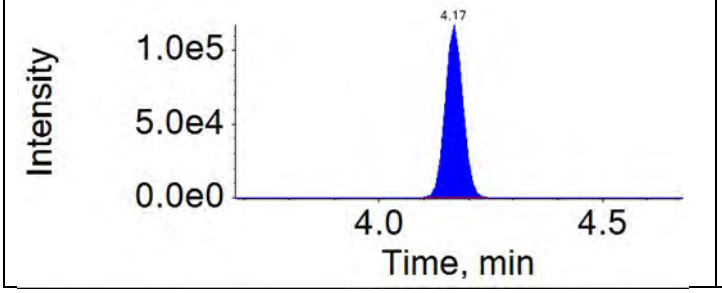
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

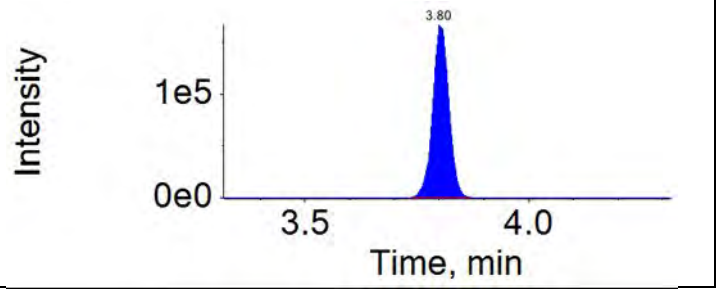
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



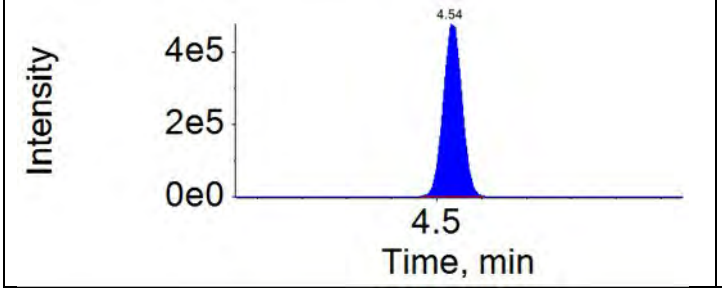


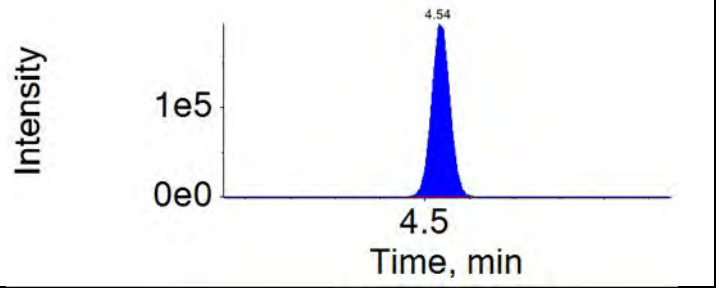
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



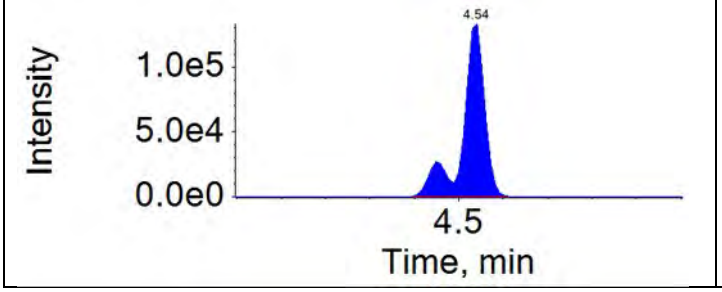


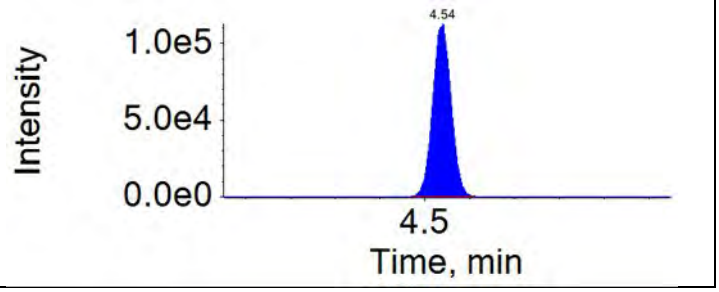
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

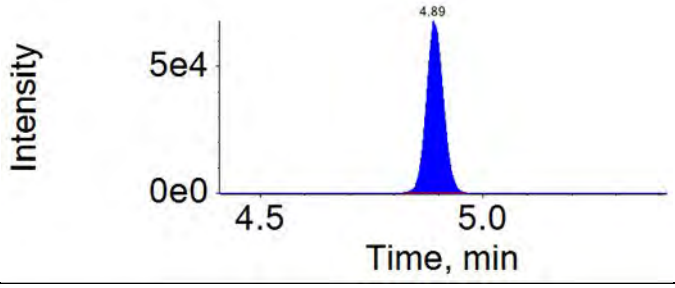
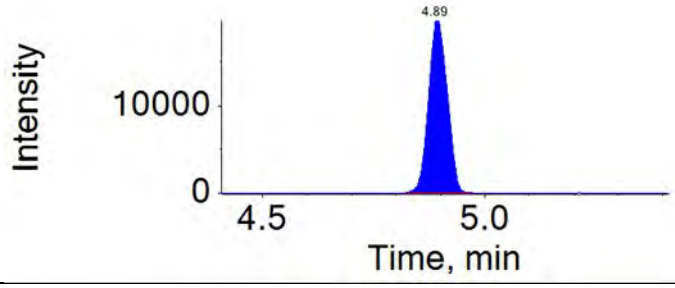


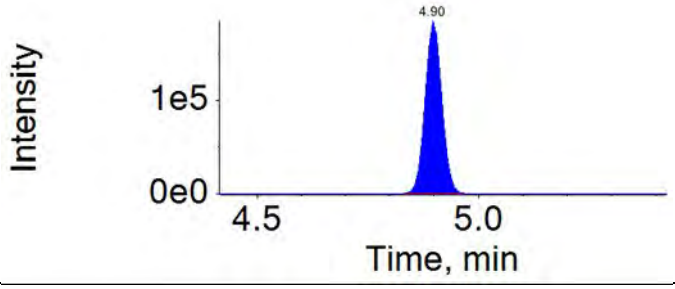
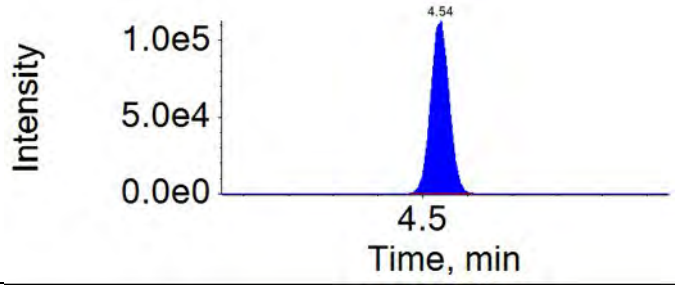


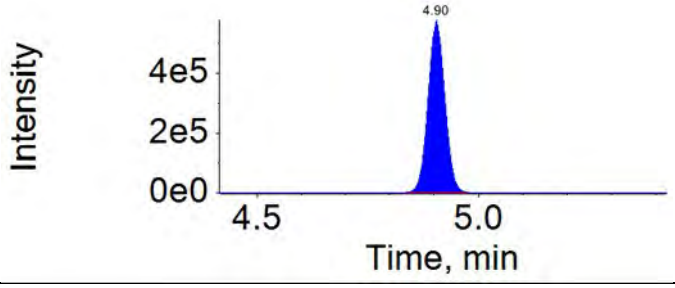
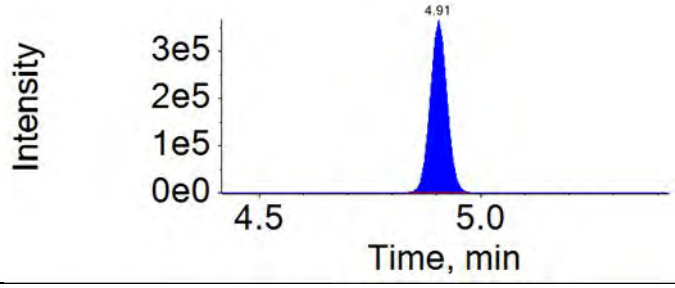
APPROVED
By MCD at 3:26 pm, 11/30/18

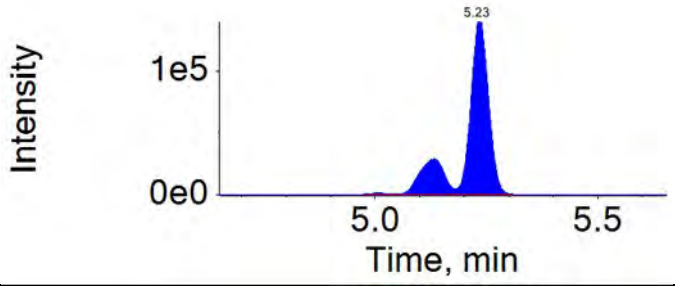
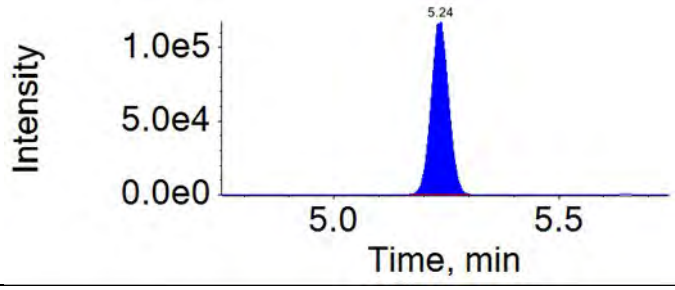
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

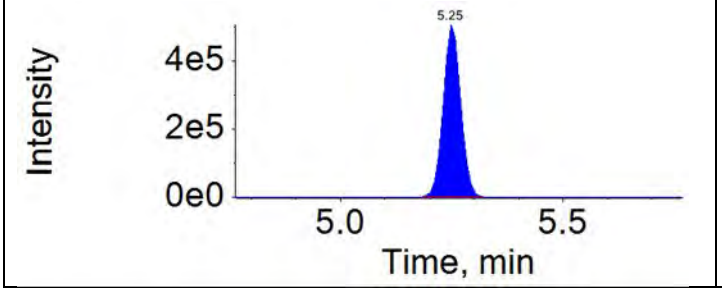
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

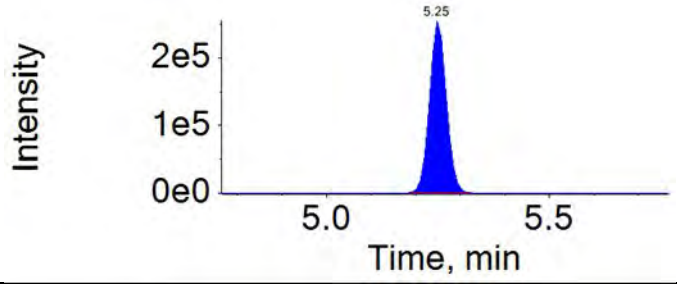
APPROVED
By MCD at 3:26 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

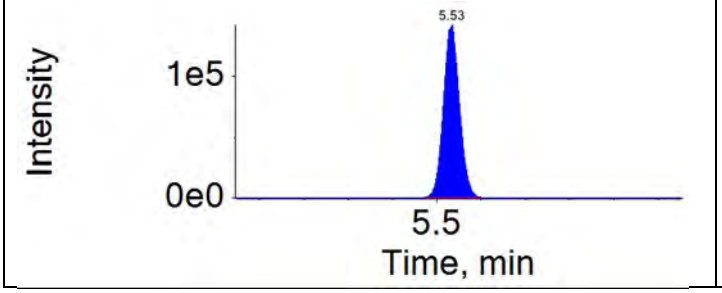
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

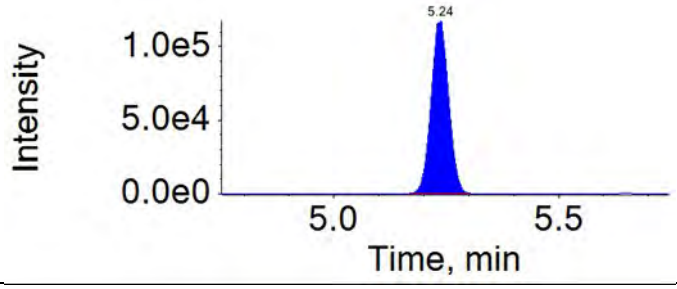
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



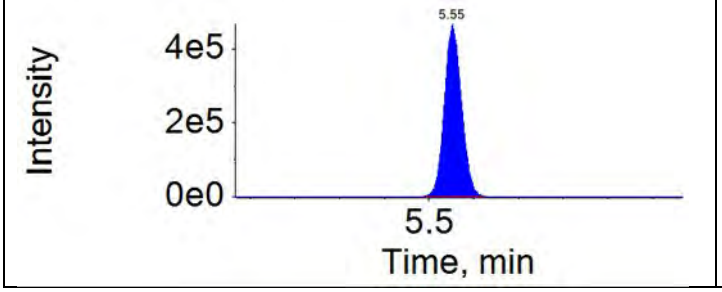


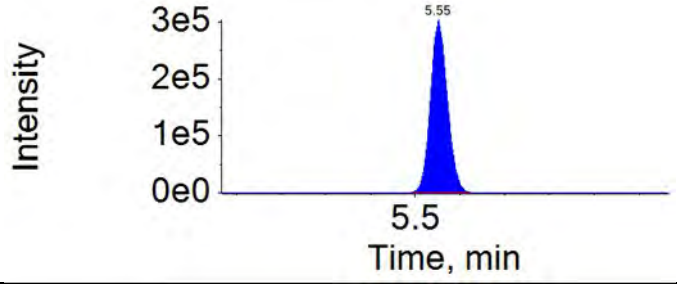
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



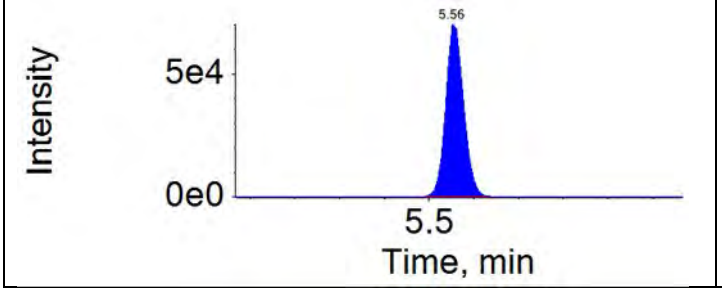


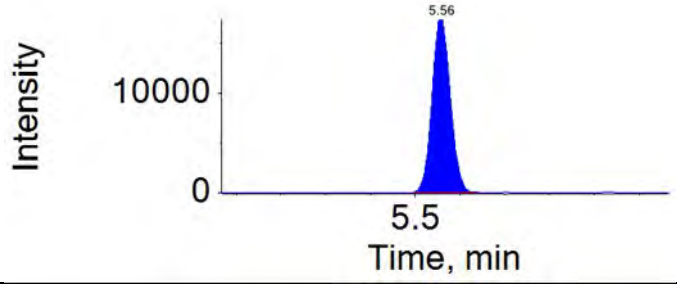
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

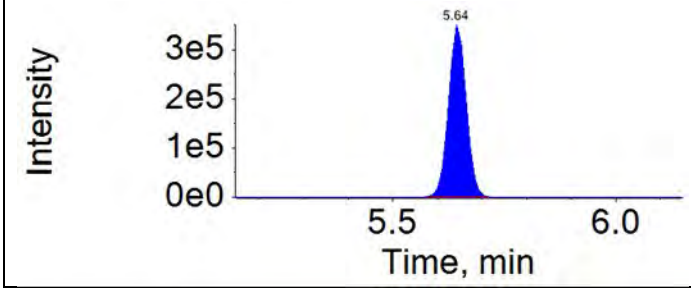
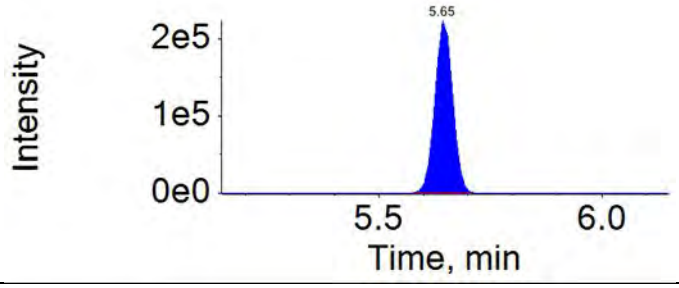


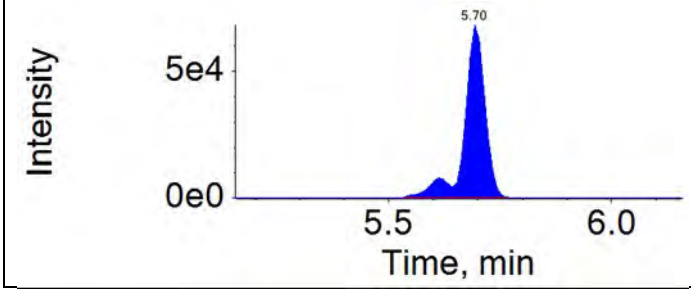
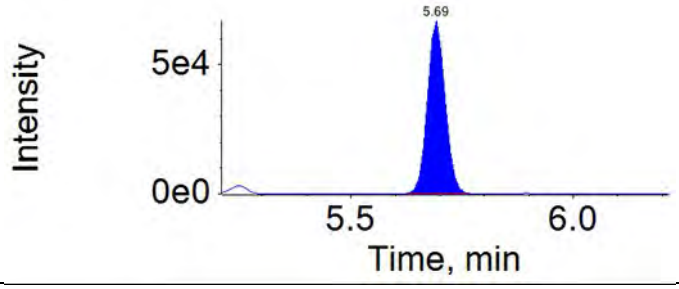


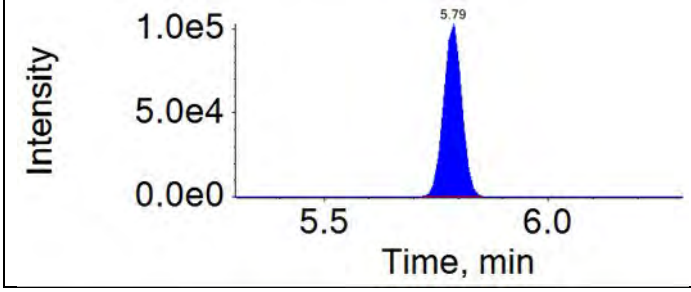
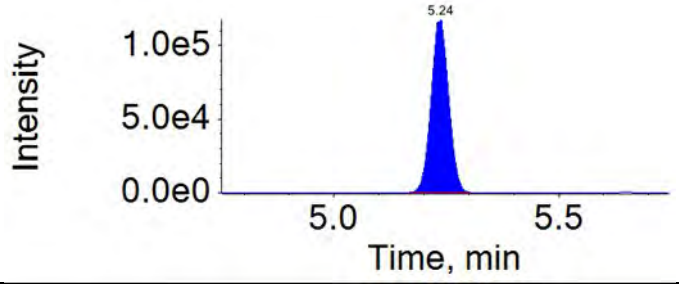
APPROVED
By MCD at 3:26 pm, 11/30/18

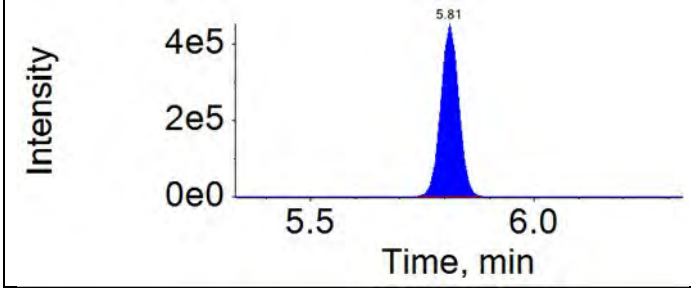
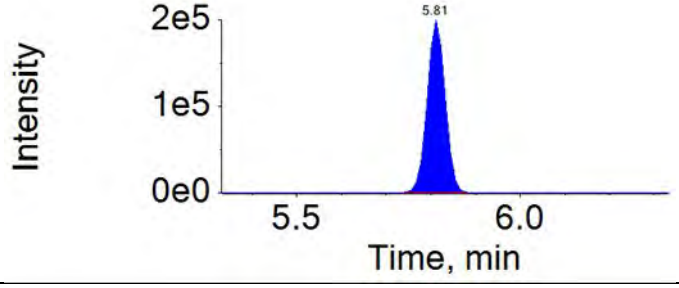
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

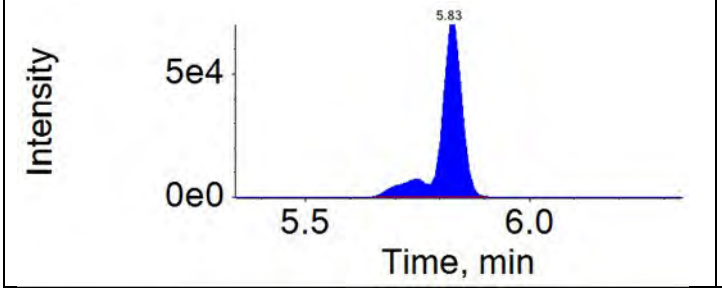
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

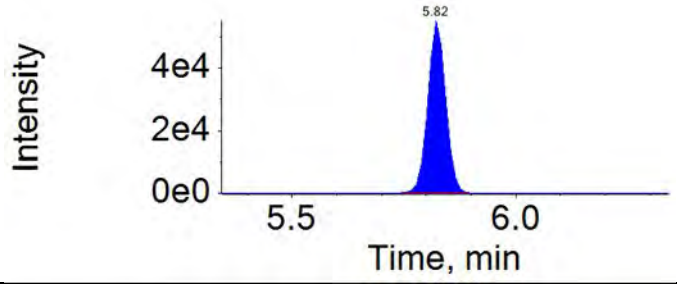
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

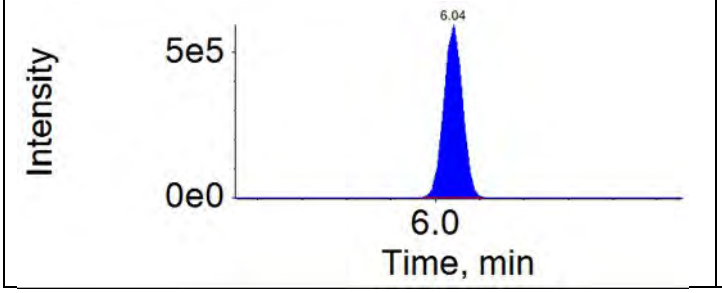
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

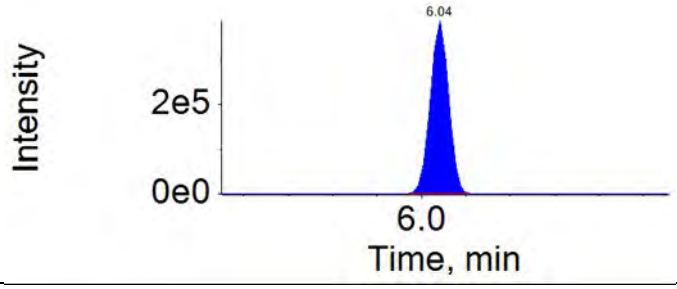
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



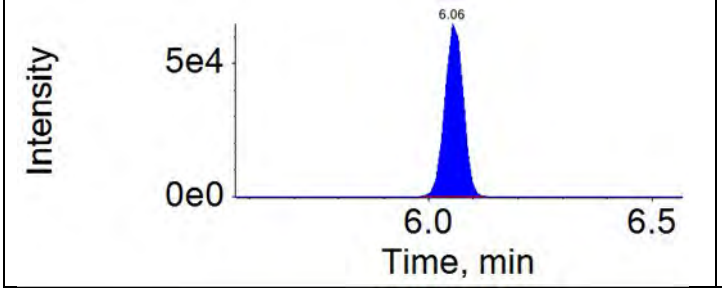


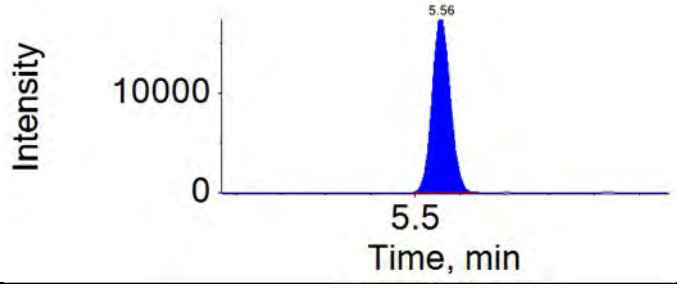
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



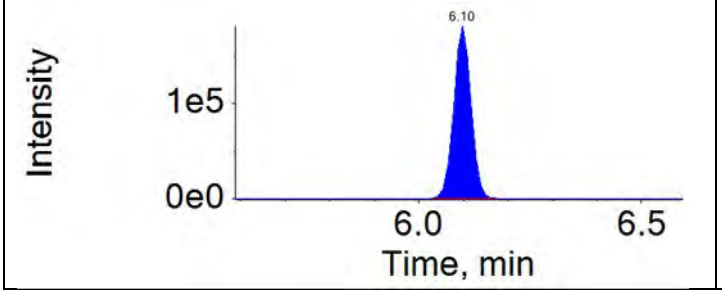


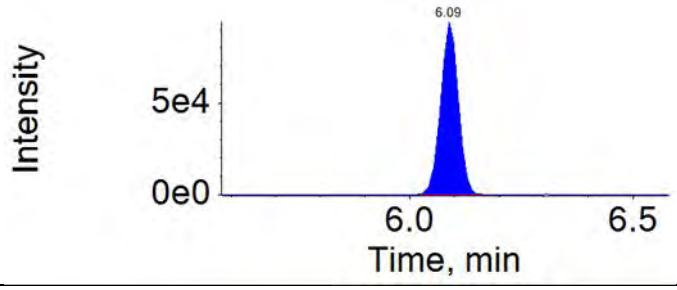
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



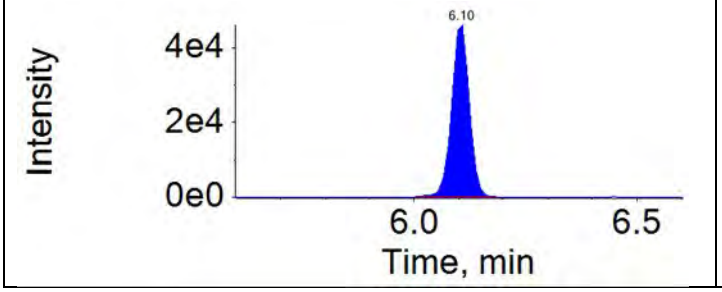


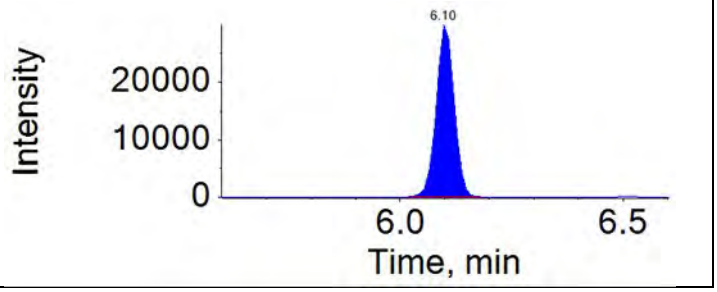
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

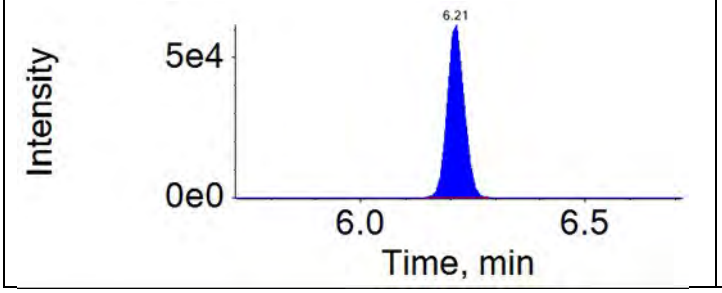
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

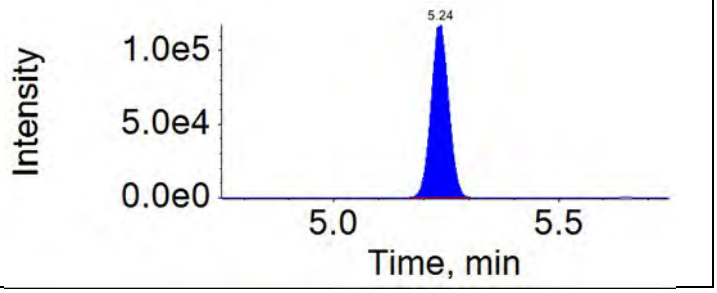
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



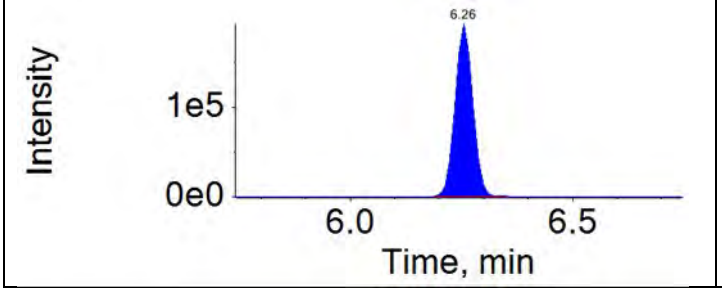


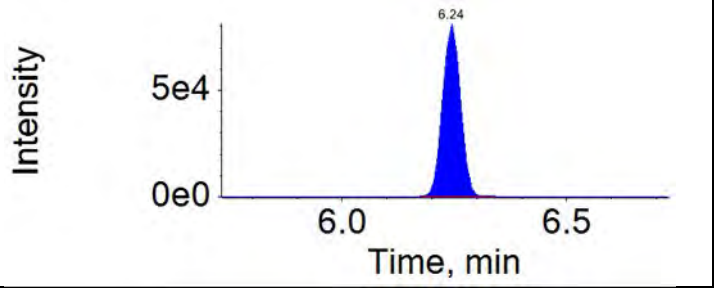
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



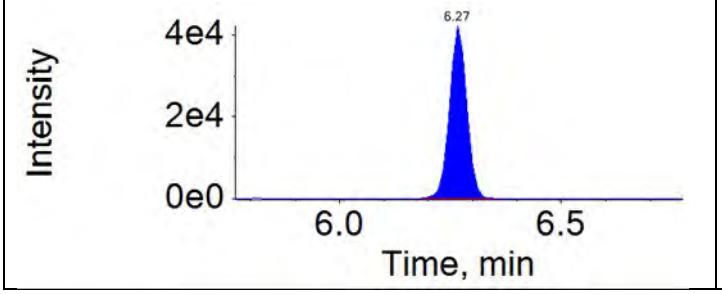


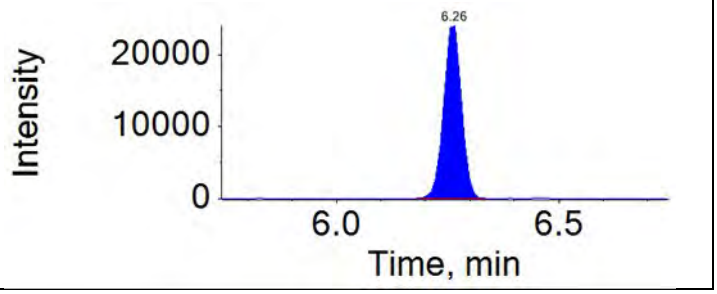
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

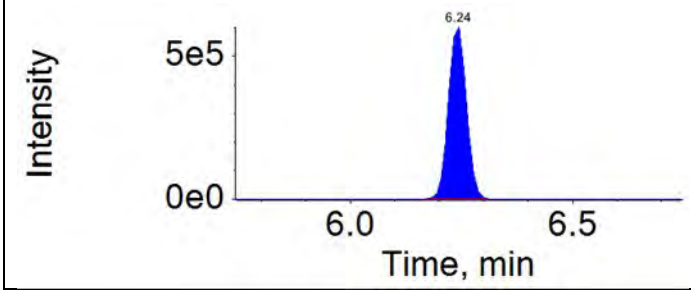
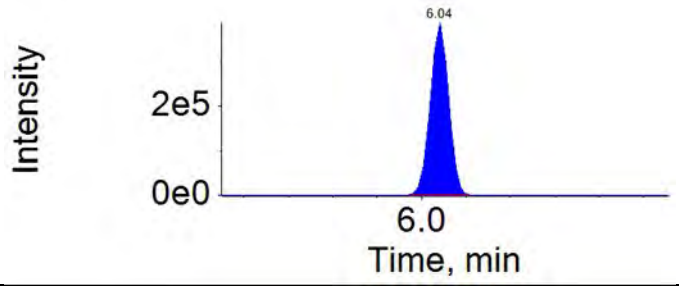


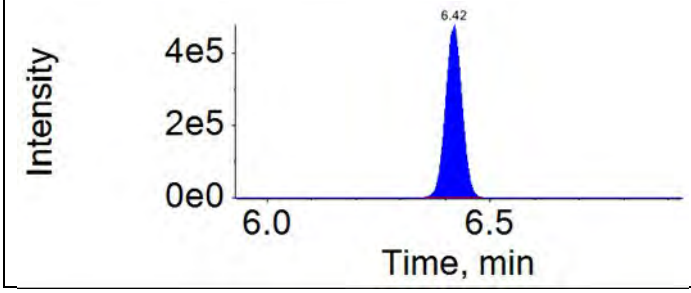
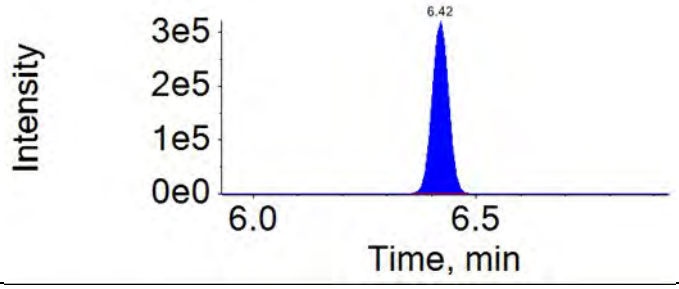


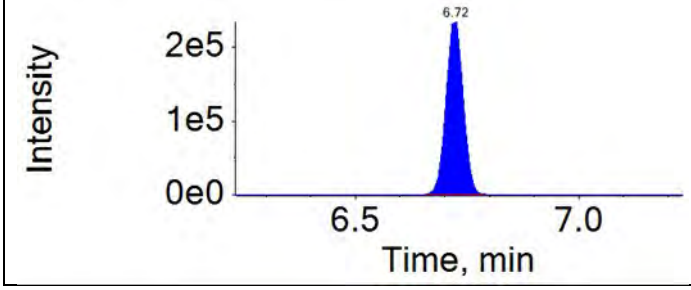
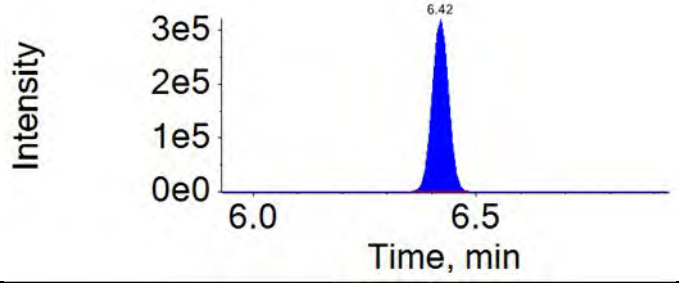
APPROVED
By MCD at 3:27 pm, 11/30/18

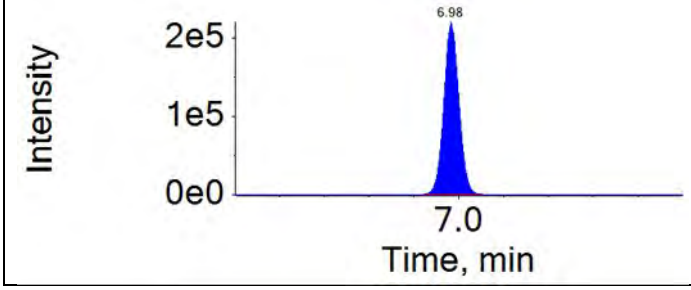
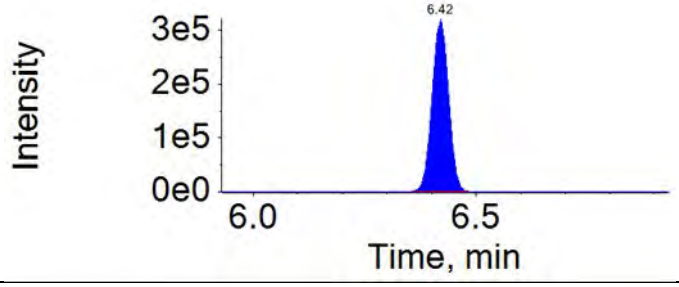
REVIEWED
By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

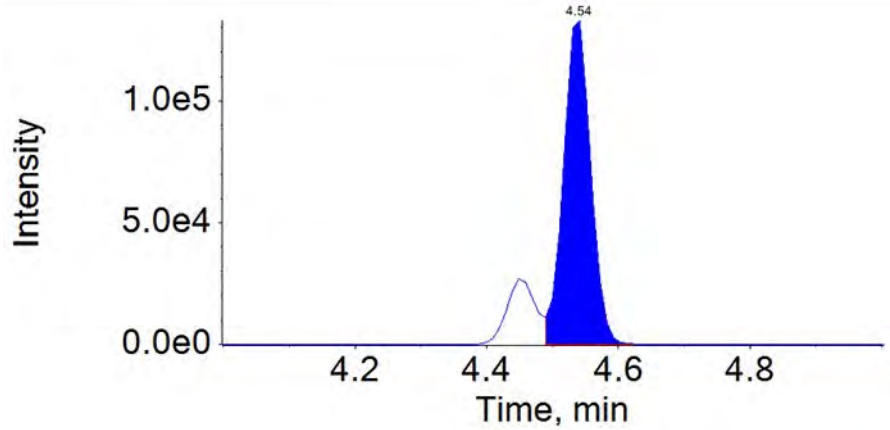
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

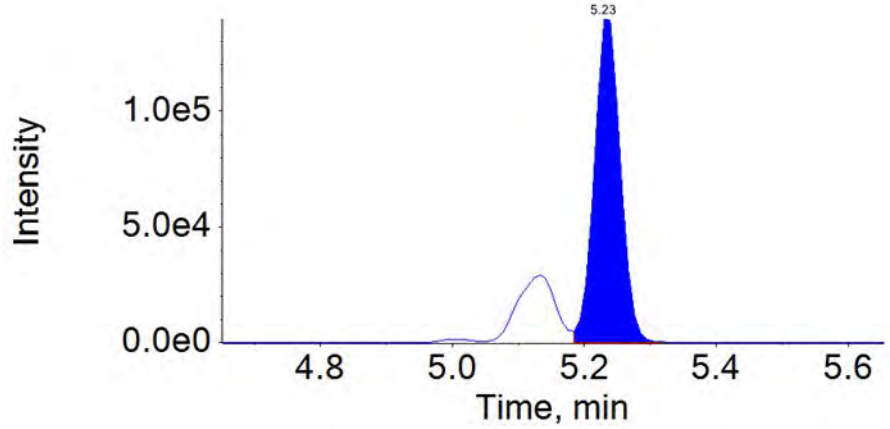
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
384345.6
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



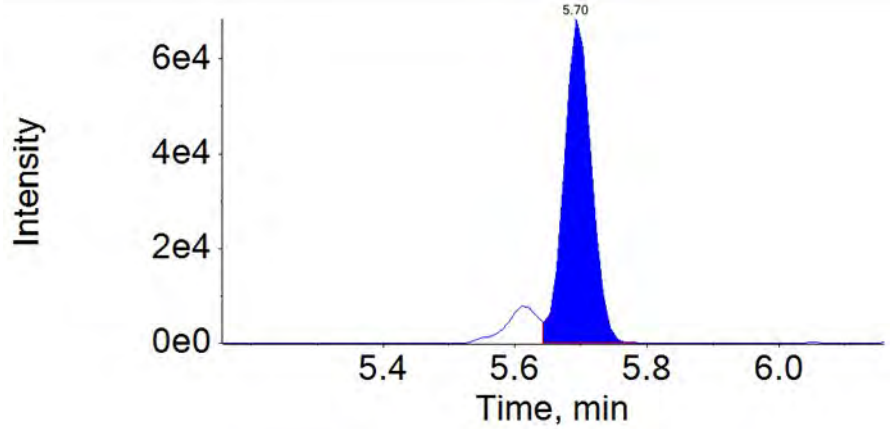
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.23
Peak Area:
386727.1
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
196666.7
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4

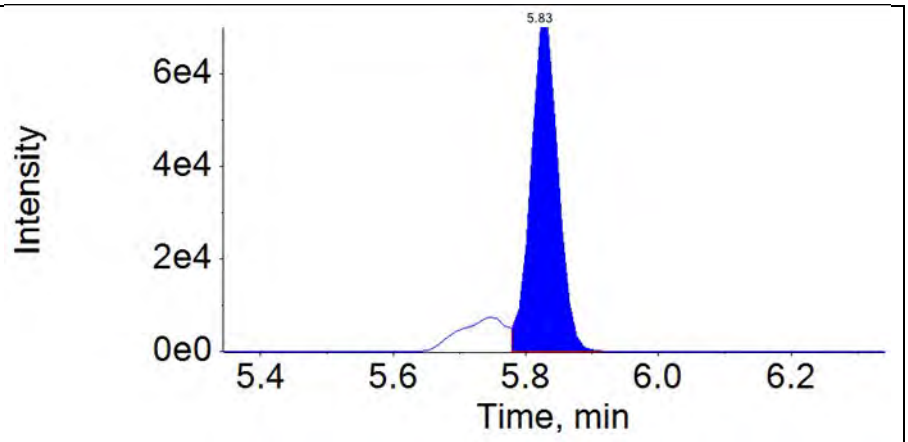


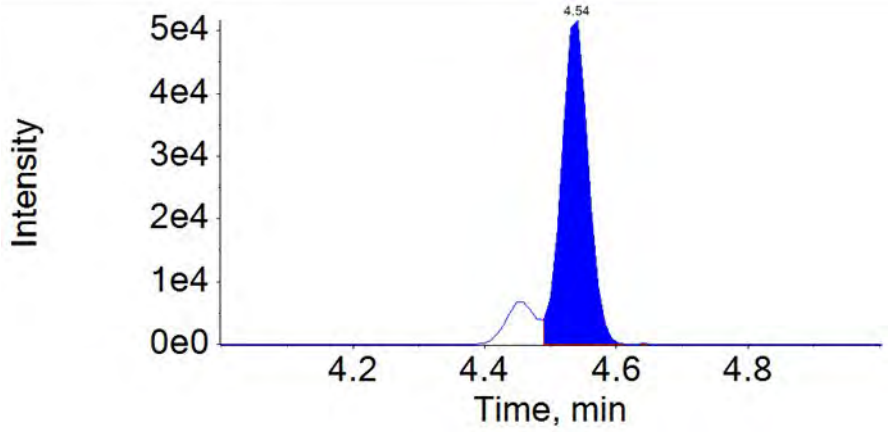
Integration Comment: incorrect integration

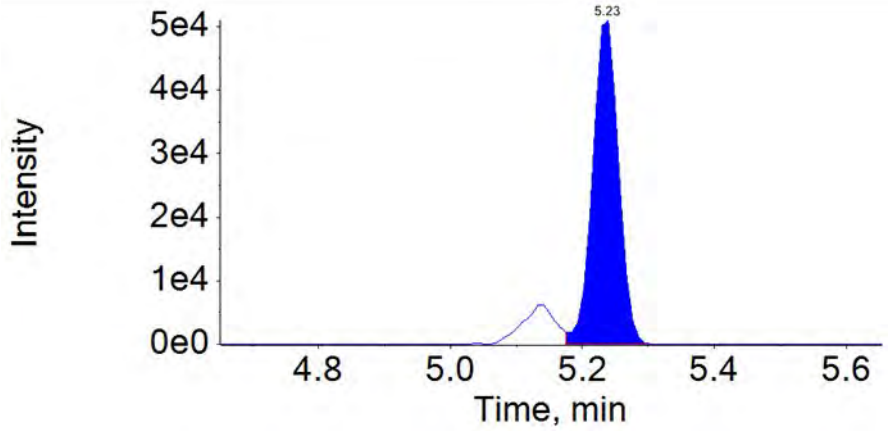
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NEtFOSAA **RT (min.):** 5.83 **Peak Area:** 203534.1 **Mass Range:** 584.0 / 419.0 **File Name:** 18NOV29D-64.wiff **Sample Name:** CCV6_CAL4	 **Integration Comment:** incorrect integration

Component Name: PFHxS_2 **RT (min.):** 4.54 **Peak Area:** 147603.4 **Mass Range:** 399.0 / 99.0 **File Name:** 18NOV29D-64.wiff **Sample Name:** CCV6_CAL4	 **Integration Comment:** incorrect integration

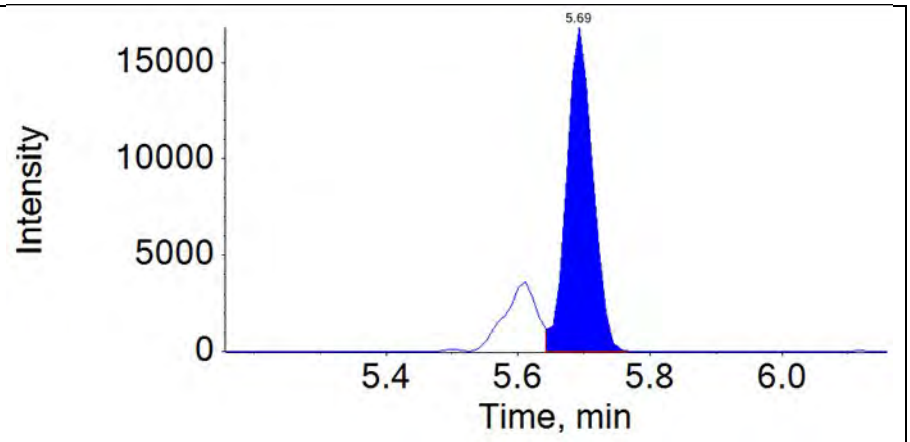
Component Name: PFOS_2 **RT (min.):** 5.23 **Peak Area:** 139568.4 **Mass Range:** 499.0 / 99.0 **File Name:** 18NOV29D-64.wiff **Sample Name:** CCV6_CAL4	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

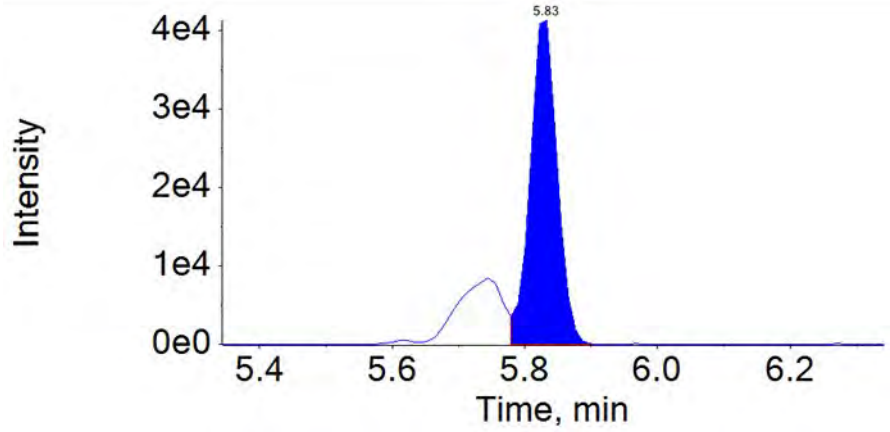
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.69
Peak Area:
46000.9
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



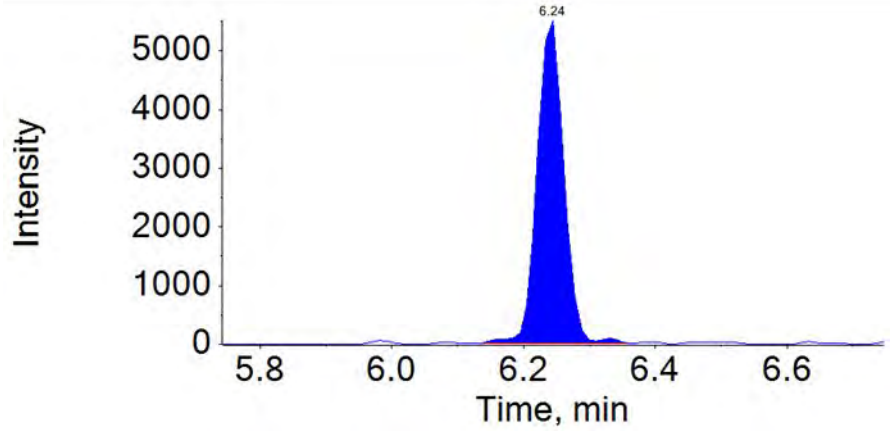
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
117480.7
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.24
Peak Area:
15556.4
Mass Range:
663.0 / 169.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Ion Ratio Report

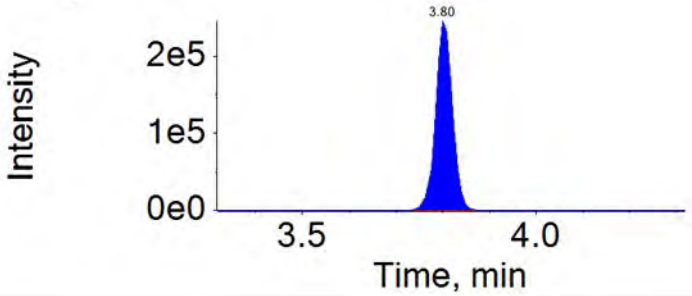
Sample Name: CCV6_CAL4 **Instrument Name:** LM27631 **File Name:** 18NOV29D-64.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	609993.7	A	N/A	0.3626			
PFBS_2	3.80	1.00	221209.7	A	N/A	0.3626	-1	50	
4:2-FTS	4.11	1.00	184688.7	A	N/A	0.6561			
4:2-FTS_2	4.11	1.00	121173.6	A	N/A	0.6561	3	50	
PFHxA	4.15	1.00	1387308.0	A	N/A	0.0113			
PFHxA_2	4.15	1.00	15638.7	A	N/A	0.0113	9	50	
PFPeS	4.17	1.10	321453.2	A	N/A	0.5199			
PFPeS_2	4.17	1.10	167128.9	A	N/A	0.5199	4	50	
PFHpA	4.54	1.00	1397029.6	A	N/A	0.0526			
PFHpA_2	4.53	1.00	73436.8	A	N/A	0.0526	-6	50	
PFHxS	4.54	1.00	466399.5	M	N/A	0.3627			
PFHxS_2	4.54	1.00	169164.2	M	N/A	0.3627	-2	50	
6:2-FTS	4.89	1.00	179952.5	A	N/A	0.6838			
6:2-FTS_2	4.89	1.00	123058.7	A	N/A	0.6838	3	50	
PFHpS	4.90	1.08	482601.2	A	N/A	0.4096			
PFHpS_2	4.90	1.08	197662.9	A	N/A	0.4096	5	50	
PFOA	4.90	1.00	1506521.1	A	N/A	0.0575			
PFOA_2	4.90	1.00	86578.8	A	N/A	0.0575	0	50	
PFOS	5.23	1.00	507772.2	M	N/A	0.3179			
PFOS_2	5.23	1.00	161429.0	M	N/A	0.3179	7	50	
PFNA	5.25	1.00	1378868.3	A	N/A	0.0223			
PFNA_2	5.25	1.00	30701.9	A	N/A	0.0223	11	50	
PFNS	5.53	1.06	359004.1	A	N/A	0.4601			
PFNS_2	5.53	1.06	165180.5	A	N/A	0.4601	-4	50	
PFDA	5.55	1.00	1238904.3	A	N/A	0.0070			
PFDA_2	5.55	1.00	8647.5	A	N/A	0.0070	-7	50	
8:2-FTS	5.56	1.00	195089.6	A	N/A	0.6131			
8:2-FTS_2	5.56	1.00	119606.5	A	N/A	0.6131	14	50	
NMeFOSAA	5.70	1.00	222950.9	M	N/A	0.2609			
NMeFOSAA_2	5.69	1.00	58156.9	M	N/A	0.2609	13	50	
PFDS	5.79	1.11	286894.2	A	N/A	0.5379			
PFDS_2	5.79	1.11	154307.8	A	N/A	0.5379	0	50	
PFUnDA	5.81	1.00	1252226.8	A	N/A	0.0046			
PFUnDA_2	5.82	1.00	5734.5	A	N/A	0.0046	20	50	
NEtFOSAA	5.83	1.00	239375.0	M	N/A	0.6558			
NEtFOSAA_2	5.83	1.00	156975.3	M	N/A	0.6558	-11	50	
PFDoDA	6.04	1.00	1726918.5	A	N/A	0.0120			
PFDoDA_2	6.04	1.00	20744.6	A	N/A	0.0120	-8	50	
10:2-FTS	6.06	1.09	185245.7	A	N/A	0.7610			
10:2-FTS_2	6.06	1.09	140966.2	A	N/A	0.7610	9	50	
PFTrDA	6.24	1.03	1695782.7	A	N/A	0.0091			
PFTrDA_2	6.24	1.03	15412.4	M	N/A	0.0091	1	50	
PFTeDA	6.42	1.00	1214917.2	A	N/A	0.0059			
PFTeDA_2	6.42	1.00	7159.2	A	N/A	0.0059	5	50	
PFHxDA	6.72	1.05	634623.0	A	N/A	0.0599			
PFHxDA_2	6.72	1.05	38033.4	A	N/A	0.0599	-7	50	
PFODA	6.98	1.09	509959.1	A	N/A	0.0255			
PFODA_2	6.98	1.09	12993.9	A	N/A	0.0255	-4	50	

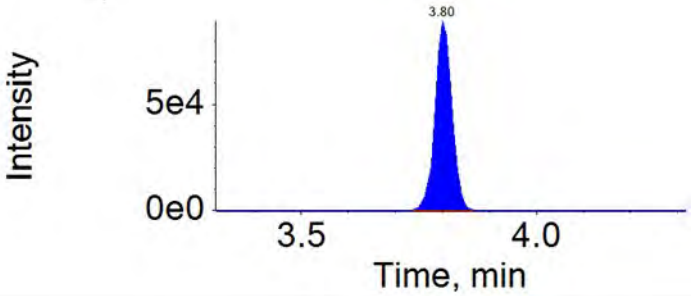
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

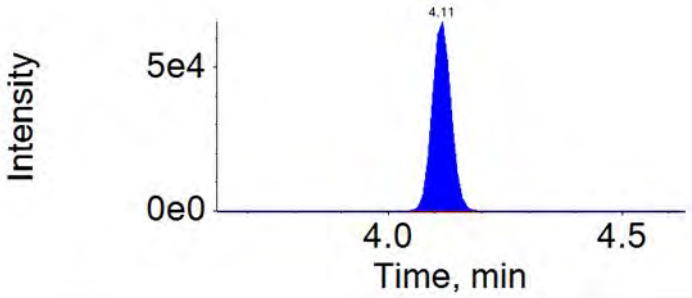
Component: PFBS
Primary Mass: 299.0 / 80.0



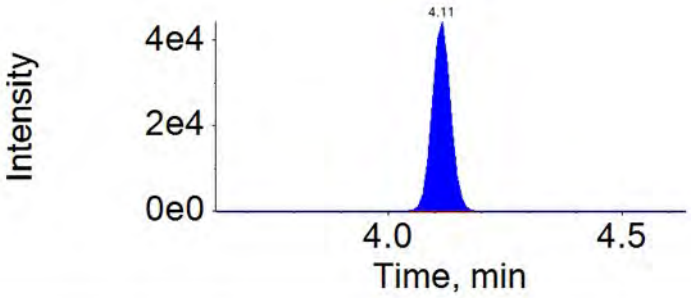
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



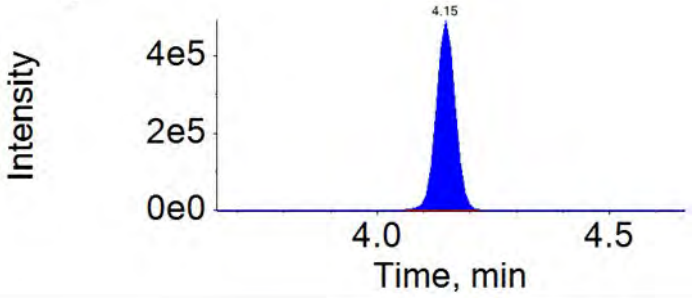
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



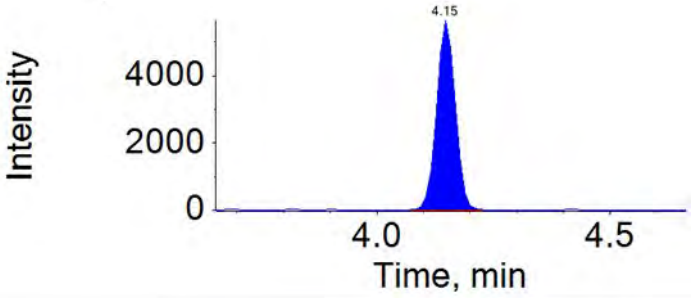
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



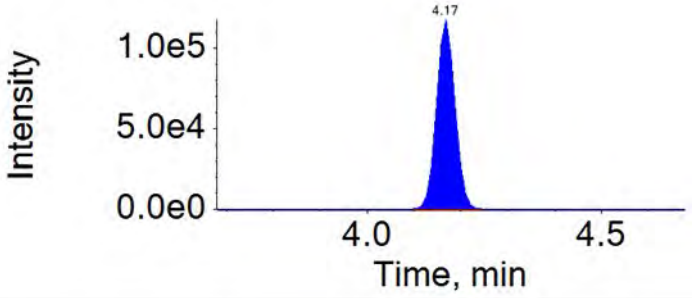
Component: PFHxA
Primary Mass: 313.0 / 269.0



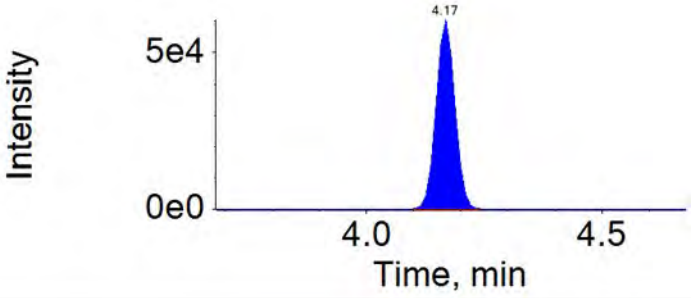
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



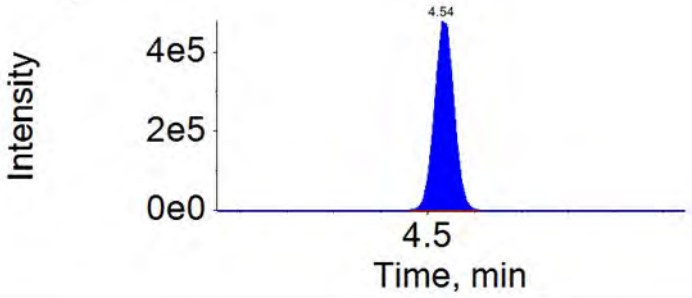
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



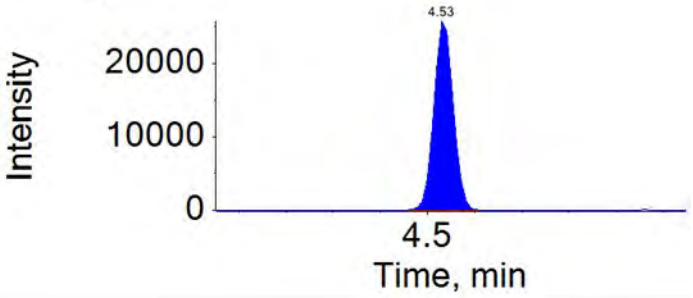
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

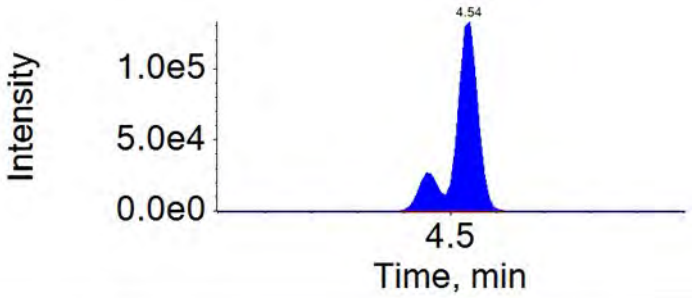
Component: PFHpA
Primary Mass: 363.0 / 319.0



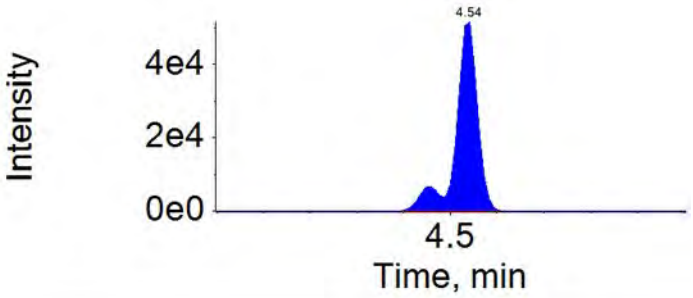
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



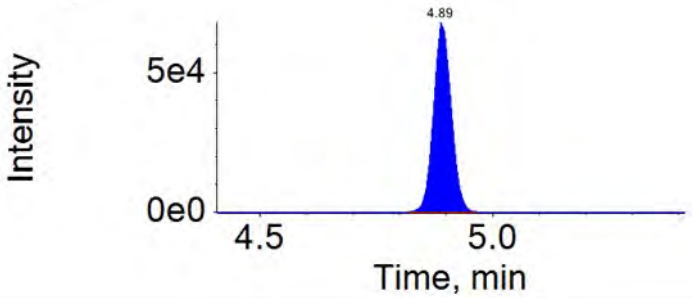
Component: PFHxS
Primary Mass: 399.0 / 80.0



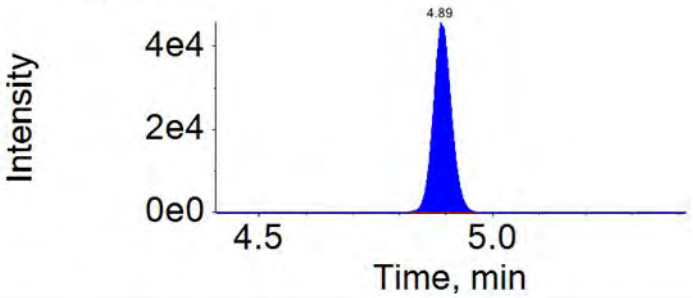
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



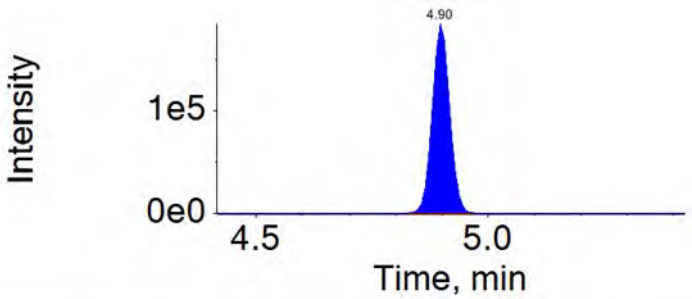
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



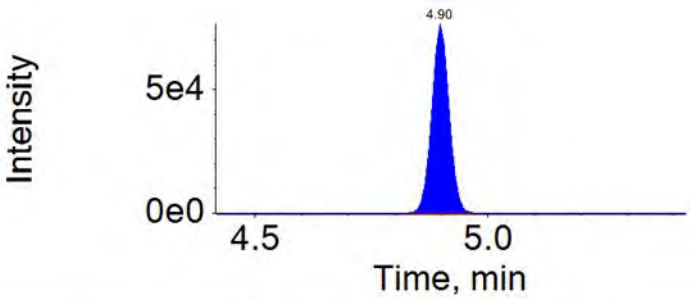
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



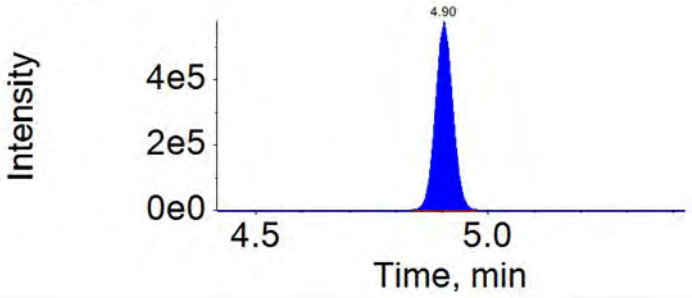
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



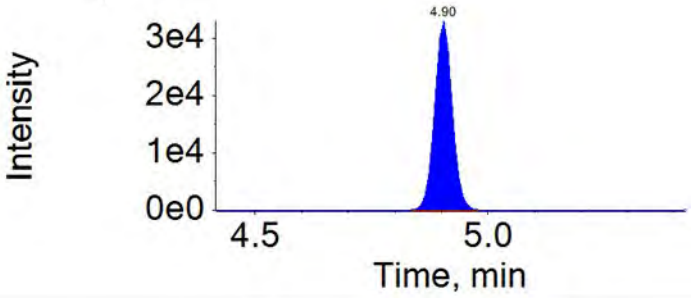
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

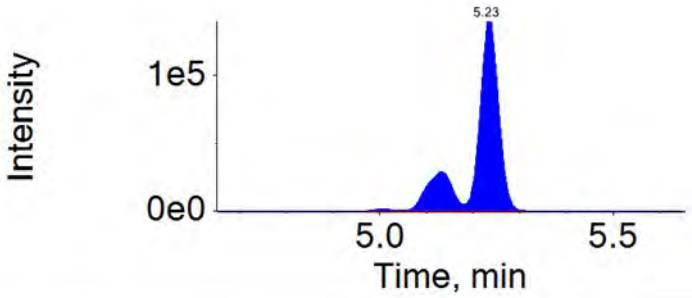
Component: PFOA
Primary Mass: 413.0 / 369.0



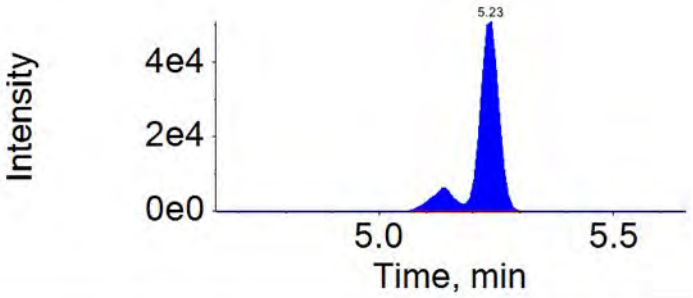
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



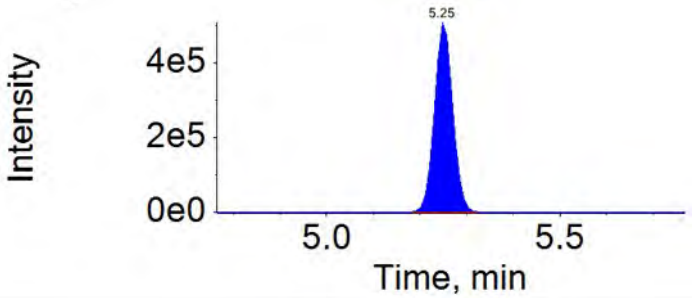
Component: PFOS
Primary Mass: 499.0 / 80.0



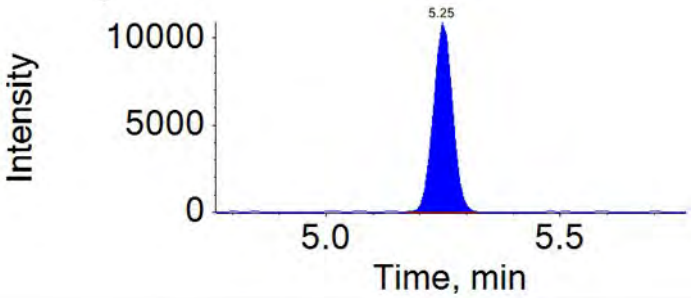
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



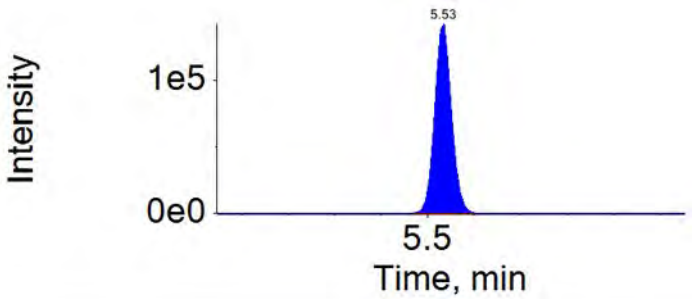
Component: PFNA
Primary Mass: 463.0 / 419.0



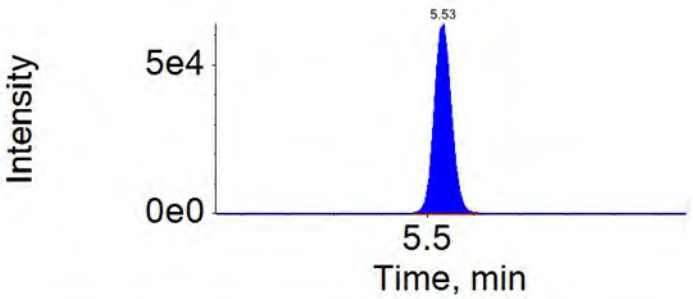
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



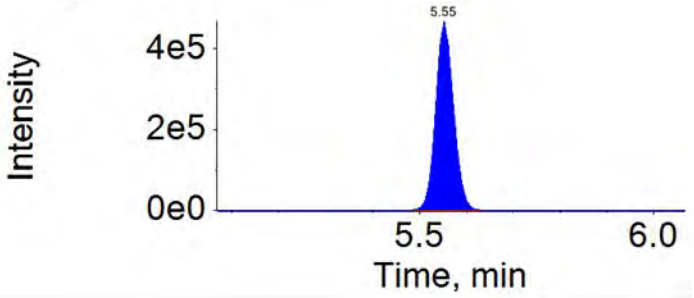
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



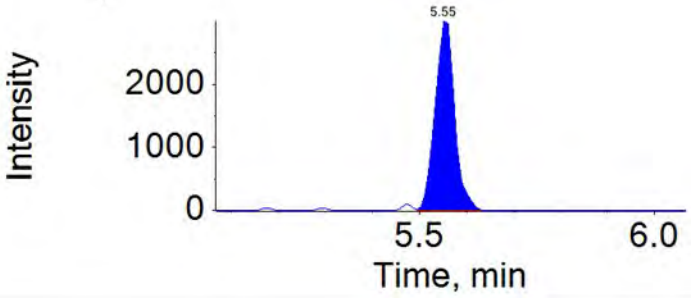
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

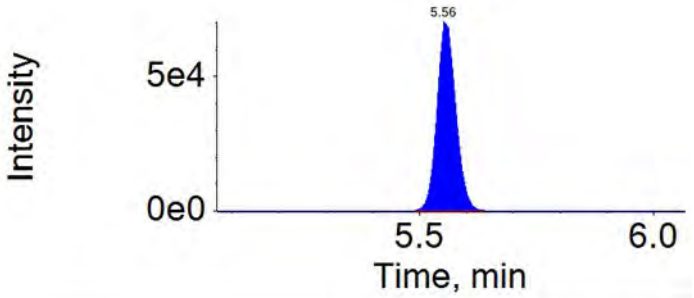
Component: PFDA
Primary Mass: 513.0 / 469.0



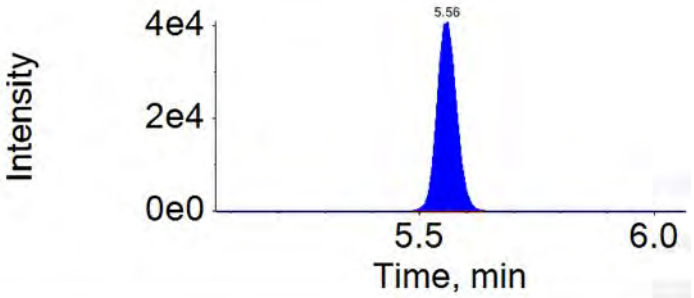
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



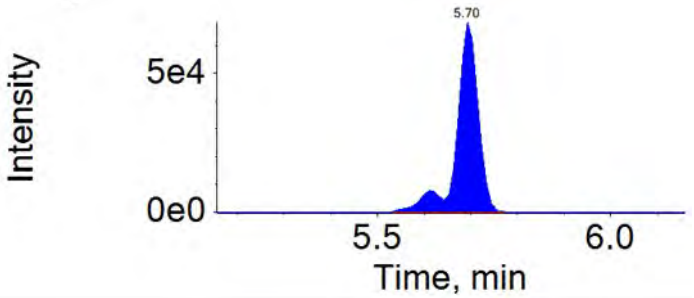
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



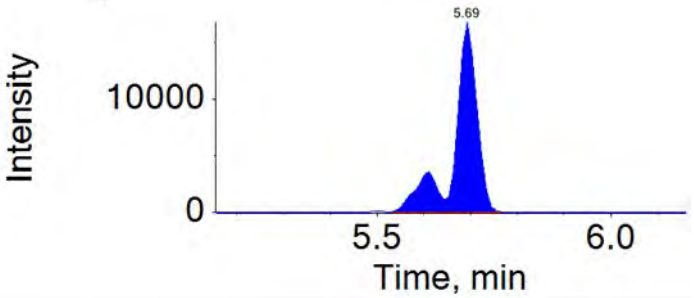
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



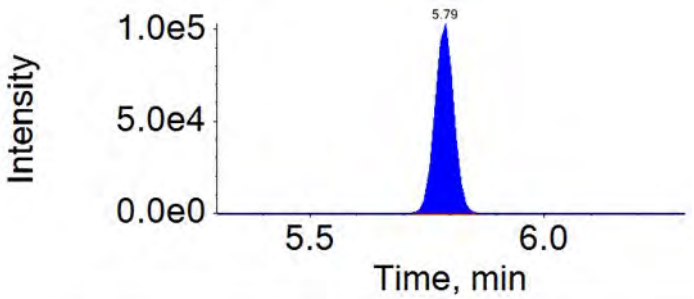
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



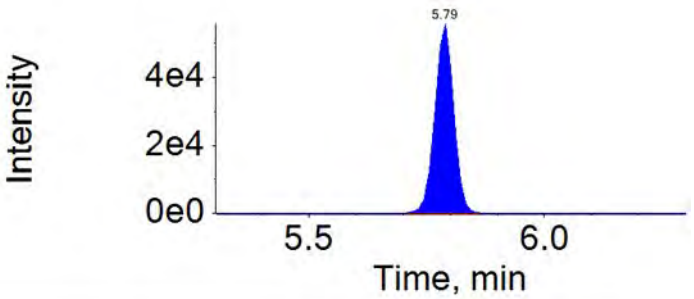
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



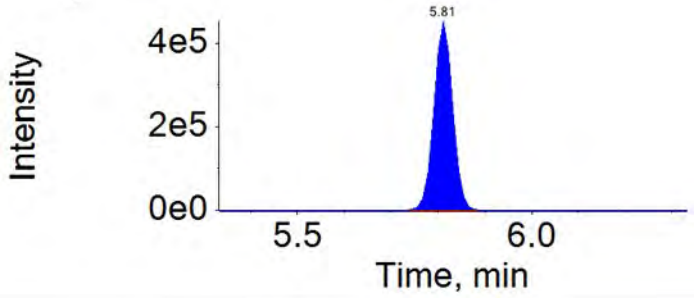
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



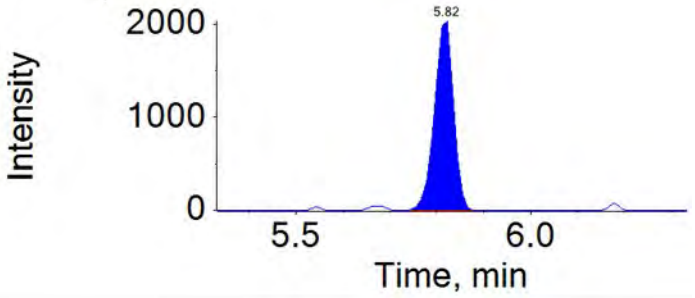
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

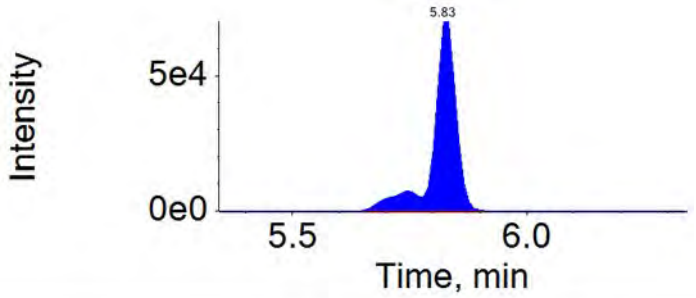
Component: PFUnDA
Primary Mass: 563.0 / 519.0



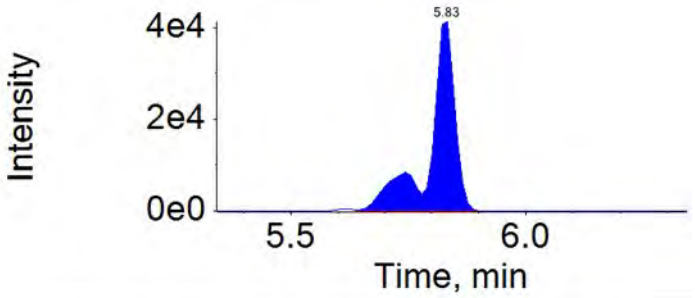
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



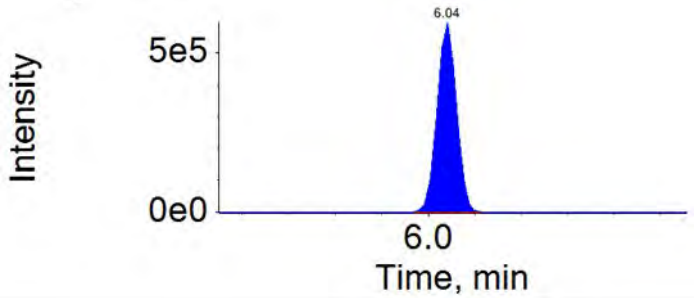
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



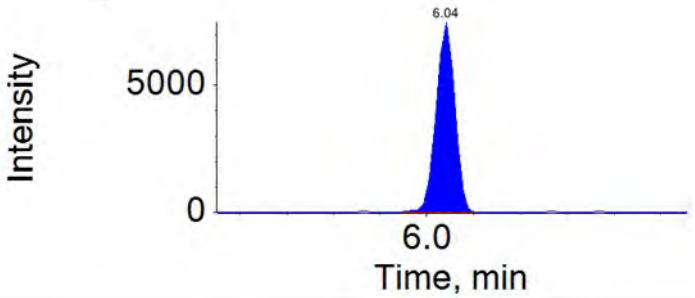
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



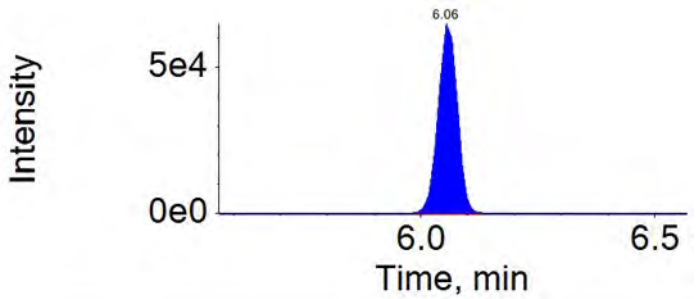
Component: PFDoDA
Primary Mass: 613.0 / 569.0



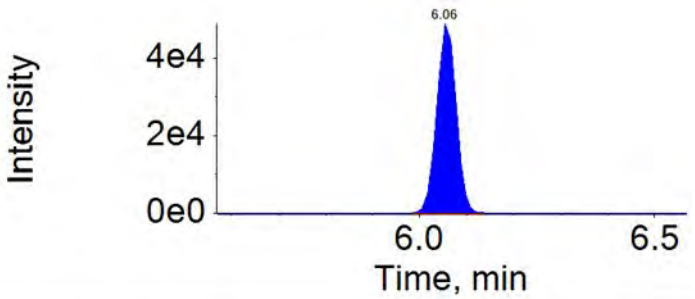
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



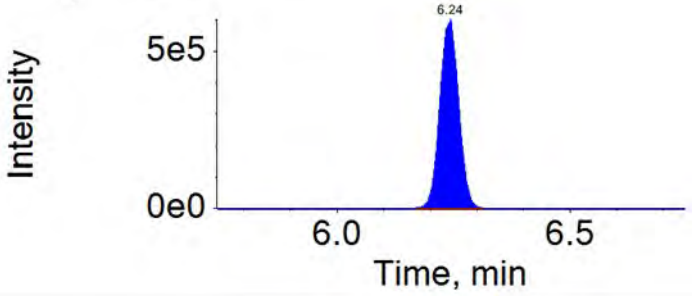
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



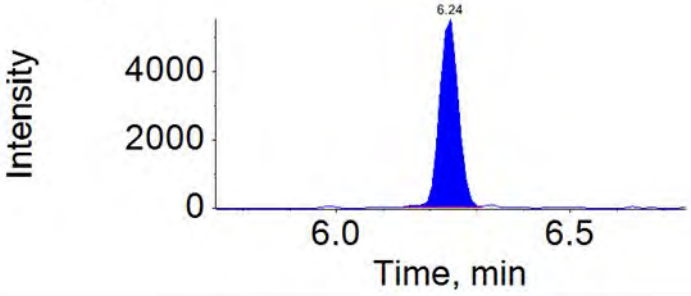
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



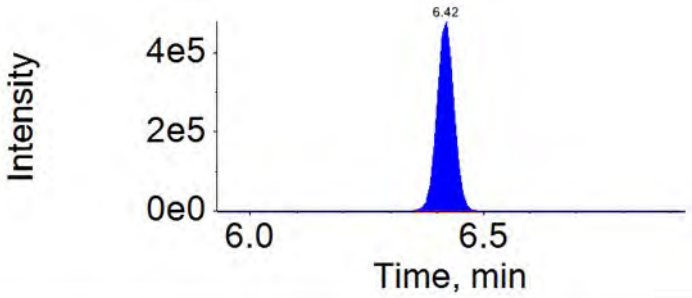
Component: PFTrDA
Primary Mass: 663.0 / 619.0



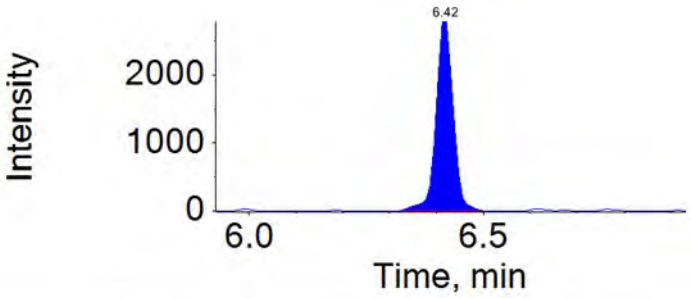
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



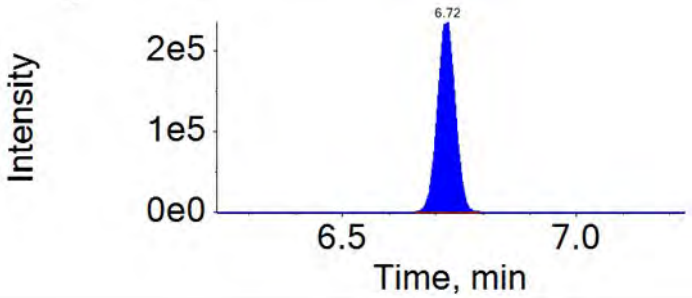
Component: PFTeDA
Primary Mass: 713.0 / 669.0



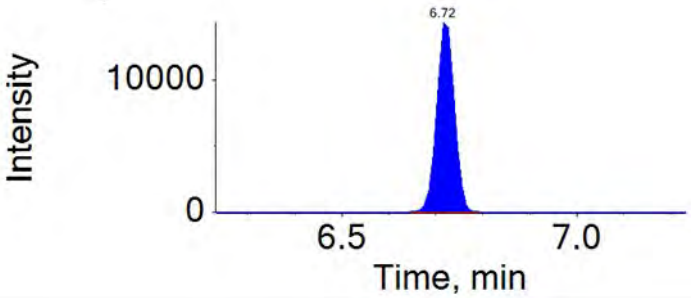
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



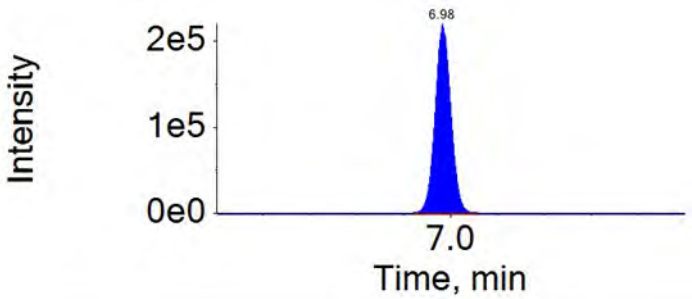
Component: PFHxDA
Primary Mass: 813.0 / 769.0



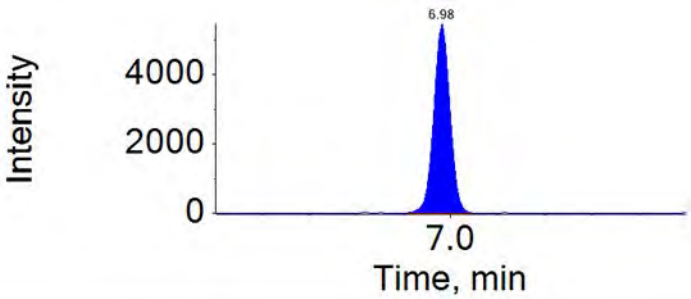
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



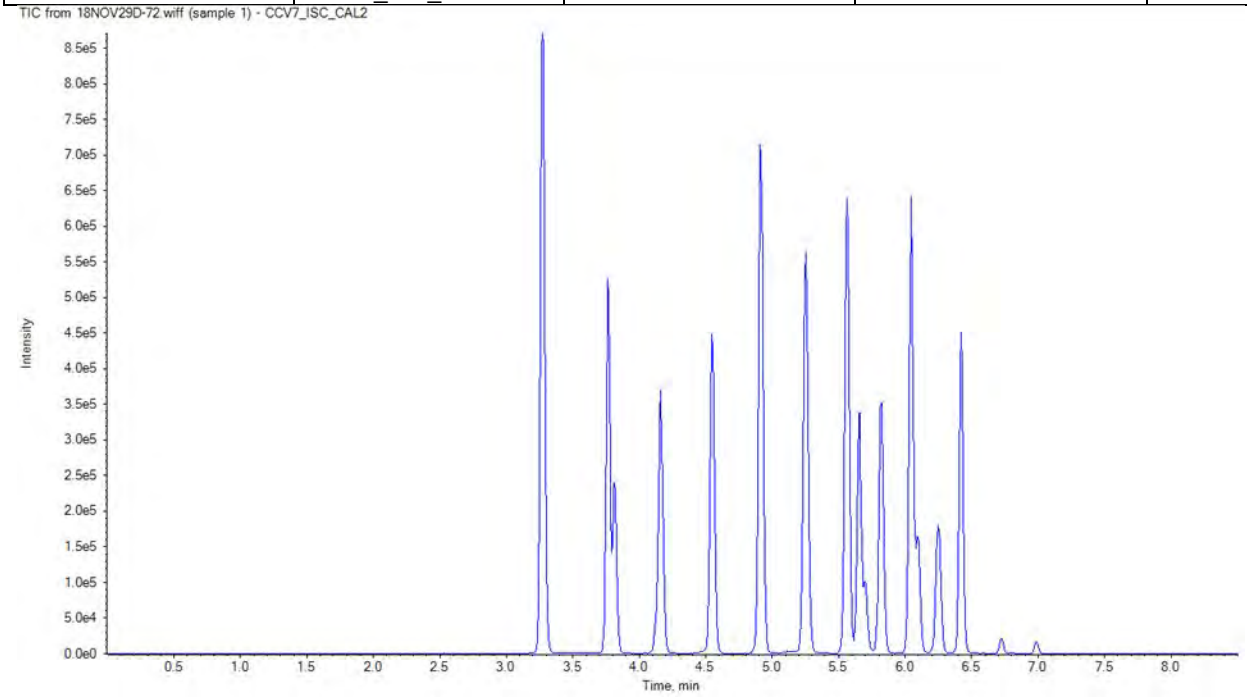
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By HMK at 1:40 pm, 12/6/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV29D-72.wiff	2018-11-29T20:38:03



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898536.5	906425.4	-1	50	
13C2-PFOA	5.0	471690.2	495984.0	-5	50	
13C4-PFOS	4.8	309413.3	296261.8	4	50	
13C2-PFDA	5.0	465698.3	451203.0	3	50	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV29D-72.wiff	2018-11-29T20:38:03

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	107474.9	10	13C4-PFBA	1020064.9	5.0	0.105	3.27	1.000	0.600	0.578	-4	30	
PFPeA	102994.2	12	13C5-PFPeA	959635.9	5.0	0.107	3.77	1.000	0.600	0.527	-12	30	
PFBS	43546.1	10	13C3-PFBS	447017.8	4.7	0.097	3.82	1.000	0.531	0.473	-11	30	
4:2-FTS	13618.8	11	13C2-4:2-FTS	67161.7	4.7	0.203	4.13	1.000	0.560	0.543	-3	30	
PFHxA	98812.0	11	13C5-PFHxA	684377.8	5.0	0.144	4.16	1.000	0.600	0.580	-3	30	
PFPeS	22438.2	11	13C3-PFBS	447017.8	4.7	0.050	4.18	1.100	0.563	0.508	-10	30	
PFHpA	108630.6	11	13C4-PFHpA	570216.2	5.0	0.191	4.55	1.000	0.600	0.588	-2	30	
PFHxS	31005.8	19	13C3-PFHxS	336153.1	4.7	0.092	4.55	1.000	0.547	0.432	-21	30	
6:2-FTS	14871.4	11	13C2-6:2-FTS	58955.2	4.8	0.252	4.90	1.000	0.569	0.658	16	30	
PFHpS	34425.5	11	13C3-PFHxS	336153.1	4.7	0.102	4.91	1.080	0.571	0.511	-10	30	
PFOA	108379.5	11	13C8-PFOA	1000465.3	5.0	0.108	4.92	1.000	0.600	0.560	-7	30	
PFOS	36641.4	21	13C8-PFOS	327075.2	4.8	0.112	5.25	1.000	0.555	0.470	-15	30	
PFNA	105821.4	11	13C9-PFNA	663622.3	5.0	0.159	5.26	1.000	0.600	0.611	2	30	
PFNS	26569.2	11	13C8-PFOS	327075.2	4.8	0.081	5.54	1.060	0.576	0.513	-11	30	
PFDA	91975.5	11	13C6-PFDA	883928.1	5.0	0.104	5.56	1.000	0.600	0.589	-2	30	
8:2-FTS	13276.2	12	13C2-8:2-FTS	57238.1	4.8	0.232	5.56	1.000	0.575	0.437	-24	30	
PFOSA	68087.5	12	13C8-PFOSA	661254.4	5.0	0.103	5.65	1.000	0.600	0.522	-13	30	
NMeFOSAA	18118.1	17	d3-NMeFOSAA	191150.0	5.0	0.095	5.70	1.000	0.600	0.605	1	30	
PFDS	21049.9	12	13C8-PFOS	327075.2	4.8	0.064	5.79	1.100	0.578	0.510	-12	30	
PFUnDA	94365.1	11	13C7-PFUnDA	590137.5	5.0	0.160	5.82	1.000	0.600	0.572	-5	30	
NEtFOSAA	16845.3	22	d5-NEtFOSAA	154469.4	5.0	0.109	5.84	1.000	0.600	0.531	-11	30	
PFDoDA	120450.1	11	13C2-PFDoDA	1195589.2	5.0	0.101	6.04	1.000	0.600	0.552	-8	30	
10:2-FTS	13124.4	12	13C2-8:2-FTS	57238.1	4.8	0.229	6.06	1.090	0.578	0.506	-13	30	
NMePFOSAE	34280.1	11	d7-NMePFOSAE	270731.7	5.0	0.127	6.10	1.000	0.600	0.533	-11	30	
NMePFOSA	8960.3	12	d3-NMePFOSA	86905.7	5.0	0.103	6.11	1.000	0.600	0.547	-9	30	
PFDoS	11540.5	11	13C8-PFOS	327075.2	4.8	0.035	6.21	1.180	0.581	0.507	-13	30	
NEtPFOSAE	40355.4	11	d9-NEtPFOSAE	229696.2	5.0	0.176	6.26	1.000	0.600	0.632	5	30	
NEtPFOSA	8304.0	12	d5-NEtPFOSA	73267.1	5.0	0.113	6.27	1.000	0.600	0.508	-15	30	
PFTrDA	124162.6	11	13C2-PFDoDA	1195589.2	5.0	0.104	6.24	1.030	0.600	0.626	4	30	
PFTeDA	88469.7	10	13C2-PFTeDA	847108.8	5.0	0.104	6.42	1.000	0.600	0.592	-1	30	
PFHxDA	44728.9	11	13C2-PFTeDA	847108.8	5.0	0.053	6.72	1.050	0.600	0.604	1	30	
PFODA	35501.9	10	13C2-PFTeDA	847108.8	5.0	0.042	6.99	1.090	0.600	0.558	-7	30	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CCV7_ISC_CAL2			**Data File:**		18NOV29D-72.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-11-29T20:38:03
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV6-9
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898536.5	906425.4	-1	50	
13C2-PFOA	5.0	471690.2	495984.0	-5	50	
13C4-PFOS	4.8	309413.3	296261.8	4	50	
13C2-PFDA	5.0	465698.3	451203.0	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1020064.9	13C3-PFBA	898536.5	1.135	5.000	5.065	101	70-130	
E13C5-PFPeA	959635.9	13C3-PFBA	898536.5	1.068	5.000	4.987	100	70-130	
E13C3-PFBS	447017.8	13C3-PFBA	898536.5	0.497	4.650	4.746	102	70-130	
E13C2-4:2-FTS	67161.7	13C2-PFOA	471690.2	0.142	4.670	4.907	105	70-130	
E13C5-PFHxA	684377.8	13C2-PFOA	471690.2	1.451	5.000	5.329	107	70-130	
E13C3-PFHxS	336153.1	13C2-PFOA	471690.2	0.713	4.730	5.586	118	70-130	
E13C4-PFHpA	570216.2	13C2-PFOA	471690.2	1.209	5.000	5.555	111	70-130	
E13C2-6:2-FTS	58955.2	13C2-PFOA	471690.2	0.125	4.750	5.232	110	70-130	
E13C8-PFOA	1000465.2	13C2-PFOA	471690.2	2.121	5.000	5.838	117	70-130	
E13C8-PFOS	327075.2	13C4-PFOS	309413.3	1.057	4.780	4.772	100	70-130	
E13C9-PFNA	663622.3	13C4-PFOS	309413.3	2.145	5.000	4.711	94	70-130	
E13C6-PFDA	883928.1	13C2-PFDA	465698.3	1.898	5.000	5.352	107	70-130	
E13C2-8:2-FTS	57238.1	13C2-PFDA	465698.3	0.123	4.790	5.283	110	70-130	
E13C8-PFOSA	661254.4	13C2-PFDA	465698.3	1.420	5.000	5.210	104	70-130	
Ed3-NMeFOSAA	191150.0	13C2-PFDA	465698.3	0.410	5.000	5.211	104	70-130	
E13C7-PFUnDA	590137.5	13C2-PFDA	465698.3	1.267	5.000	5.356	107	70-130	
Ed5-NEtFOSAA	154469.4	13C2-PFDA	465698.3	0.332	5.000	5.909	118	70-130	
E13C2-PFDoDA	1195589.2	13C2-PFDA	465698.3	2.567	5.000	5.394	108	70-130	
Ed7-NMePFOSAE	270731.7	13C2-PFDA	465698.3	0.581	5.000	5.024	100	70-130	
Ed3-NMePFOSA	86905.7	13C2-PFDA	465698.3	0.187	5.000	5.051	101	70-130	
Ed9-NEtPFOSAE	229696.2	13C2-PFDA	465698.3	0.493	5.000	5.000	100	70-130	
Ed5-NEtPFOSA	73267.1	13C2-PFDA	465698.3	0.157	5.000	5.467	109	70-130	
E13C2-PFTeDA	847108.8	13C2-PFDA	465698.3	1.819	5.000	5.033	101	70-130	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

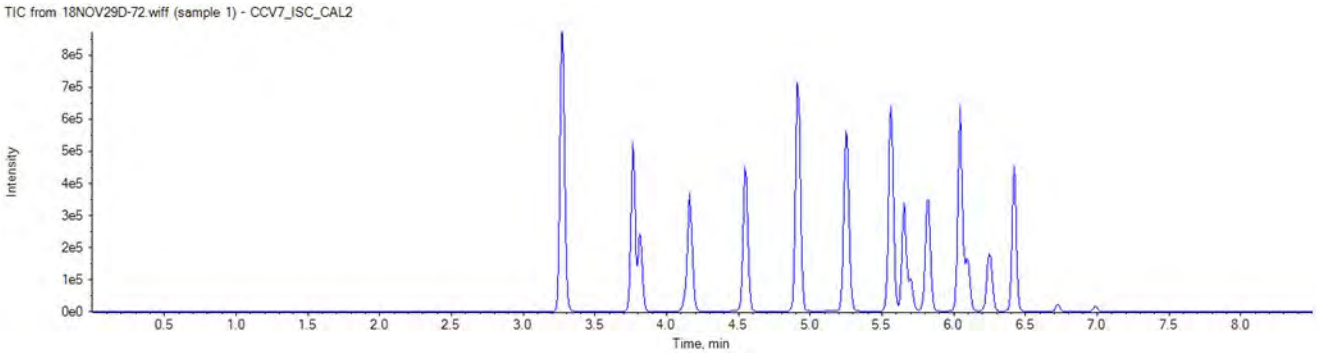
Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-72.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	107474.9		A	13C4-PFBA	3.27	1020064.9	0.105	0.578
PFPeA	3.77	1.000	102994.2		A	13C5-PFPeA	3.77	959635.9	0.107	0.527
PFBS	3.82	1.000	43546.1		A	13C3-PFBS	3.82	447017.8	0.097	0.473
4:2-FTS	4.13	1.000	13618.8		A	13C2-4:2-FTS	4.13	67161.7	0.203	0.543
PFHxA	4.16	1.000	98812.0		A	13C5-PFHxA	4.16	684377.8	0.144	0.580
PFPeS	4.18	1.100	22438.2		A	13C3-PFBS	3.82	447017.8	0.050	0.508
PFHpA	4.55	1.000	108630.6		A	13C4-PFHpA	4.55	570216.2	0.191	0.588
PFHxS	4.55	1.000	31005.8		M	13C3-PFHxS	4.55	336153.1	0.092	0.432
6:2-FTS	4.90	1.000	14871.4		A	13C2-6:2-FTS	4.91	58955.2	0.252	0.658
PFHpS	4.91	1.080	34425.5		A	13C3-PFHxS	4.55	336153.1	0.102	0.511
PFOA	4.92	1.000	108379.5		A	13C8-PFOA	4.91	1000465.3	0.108	0.560
PFOS	5.25	1.000	36641.4		M	13C8-PFOS	5.24	327075.2	0.112	0.470
PFNA	5.26	1.000	105821.4		A	13C9-PFNA	5.26	663622.3	0.159	0.611
PFNS	5.54	1.060	26569.2		A	13C8-PFOS	5.24	327075.2	0.081	0.513
PFDA	5.56	1.000	91975.5		A	13C6-PFDA	5.56	883928.1	0.104	0.589
8:2-FTS	5.56	1.000	13276.2		A	13C2-8:2-FTS	5.57	57238.1	0.232	0.437
PFOSA	5.65	1.000	68087.5		A	13C8-PFOSA	5.65	661254.4	0.103	0.522
NMeFOSAA	5.70	1.000	18118.1		A	d3-NMeFOSAA	5.70	191150.0	0.095	0.605
PFDS	5.79	1.100	21049.9		A	13C8-PFOS	5.24	327075.2	0.064	0.510
PFUnDA	5.82	1.000	94365.1		A	13C7-PFUnDA	5.82	590137.5	0.160	0.572
NEtFOSAA	5.84	1.000	16845.3		M	d5-NEtFOSAA	5.83	154469.4	0.109	0.531
PFDoDA	6.04	1.000	120450.1		A	13C2-PFDoDA	6.04	1195589.2	0.101	0.552
10:2-FTS	6.06	1.090	13124.4		A	13C2-8:2-FTS	5.57	57238.1	0.229	0.506
NMePFOSAE	6.10	1.000	34280.1		A	d7-NMePFOSAE	6.09	270731.7	0.127	0.533
NMePFOSA	6.11	1.000	8960.3		A	d3-NMePFOSA	6.11	86905.7	0.103	0.547
PFDoS	6.21	1.180	11540.5		A	13C8-PFOS	5.24	327075.2	0.035	0.507
NEtPFOSAE	6.26	1.000	40355.4		A	d9-NEtPFOSAE	6.25	229696.2	0.176	0.632
NEtPFOSA	6.27	1.000	8304.0		A	d5-NEtPFOSA	6.27	73267.1	0.113	0.508
PFTrDA	6.24	1.030	124162.6		A	13C2-PFDoDA	6.04	1195589.2	0.104	0.626
PFTeDA	6.42	1.000	88469.7		A	13C2-PFTeDA	6.42	847108.8	0.104	0.592
PFHxDA	6.72	1.050	44728.9		A	13C2-PFTeDA	6.42	847108.8	0.053	0.604
PFODA	6.99	1.090	35501.9		A	13C2-PFTeDA	6.42	847108.8	0.042	0.558

Total Ion Chromatogram

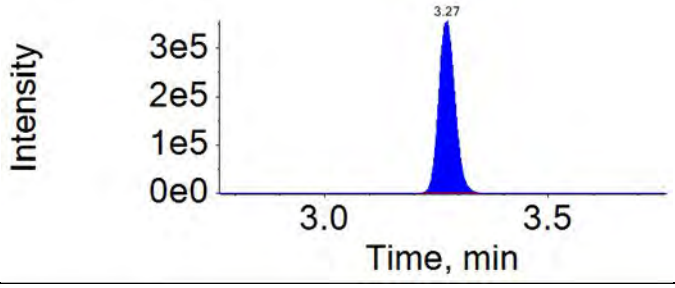


APPROVED
By MCD at 3:27 pm, 11/30/18

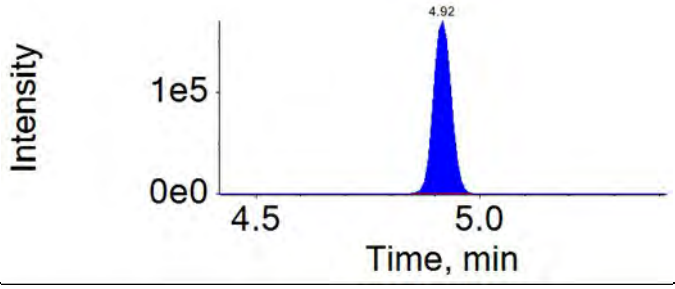
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

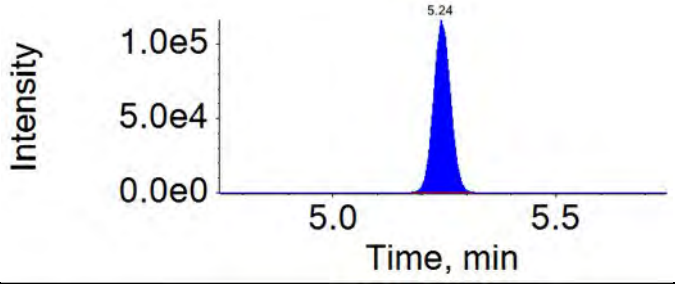
Injection Standard: 13C3-PFBA
216.0 / 172.0



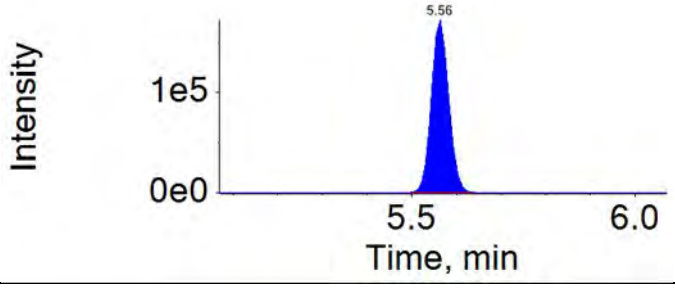
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

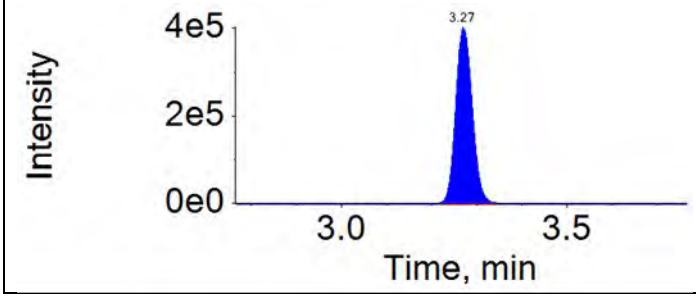


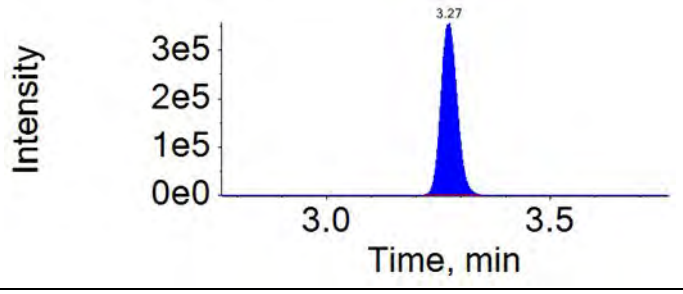
Injection Standard: 13C2-PFDA
515.0 / 470.0



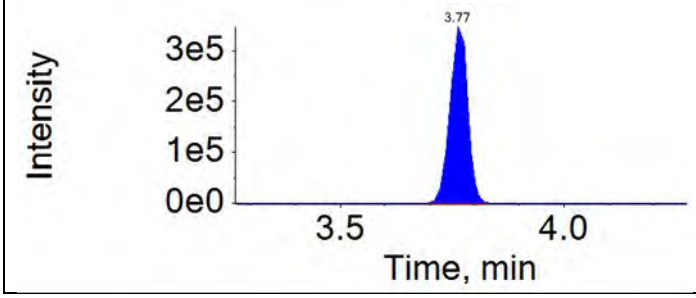
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

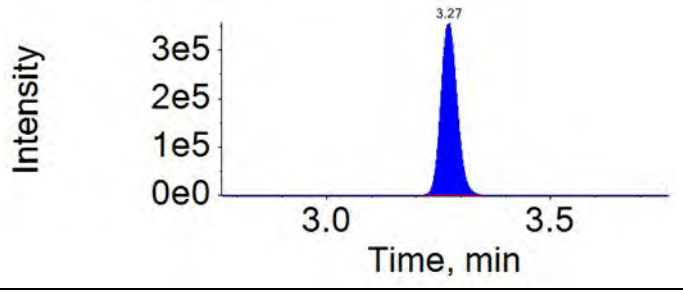
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



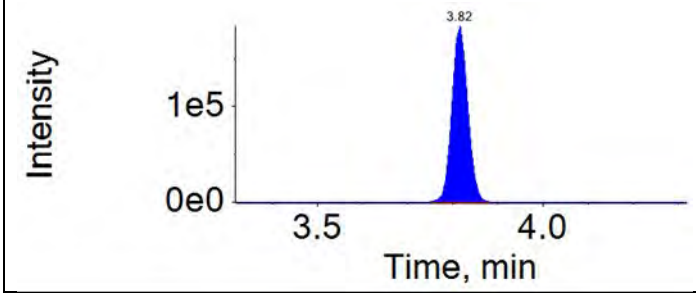


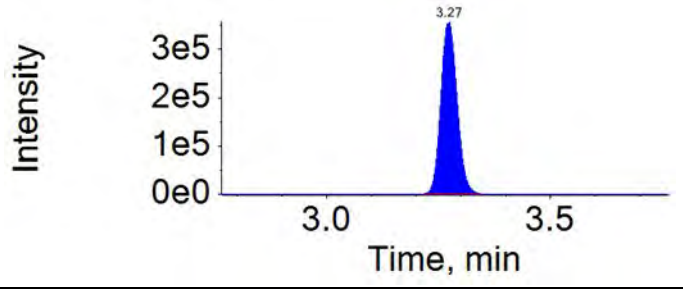
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



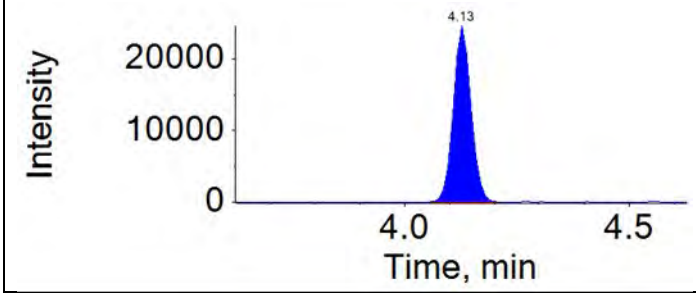


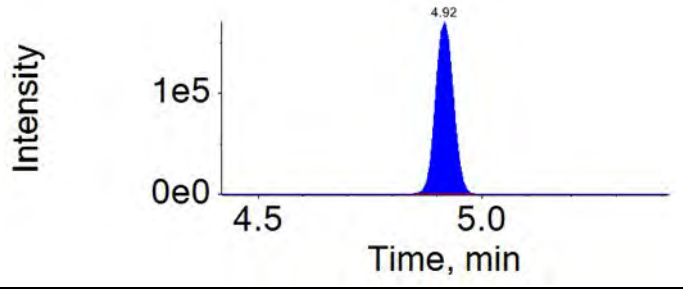
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





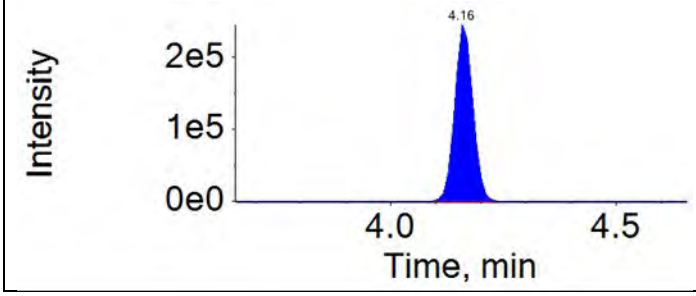
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

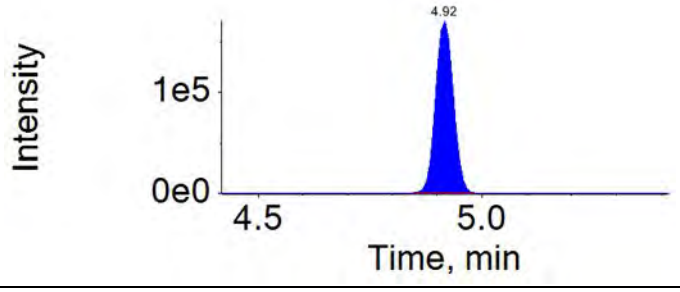




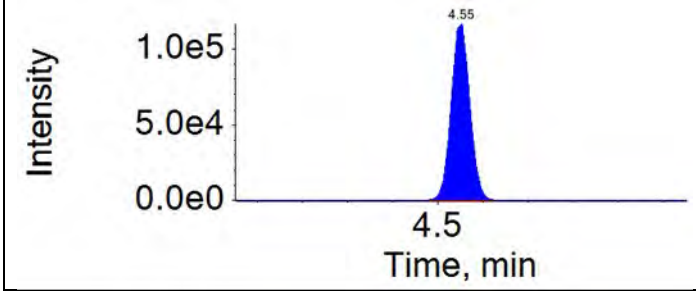
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

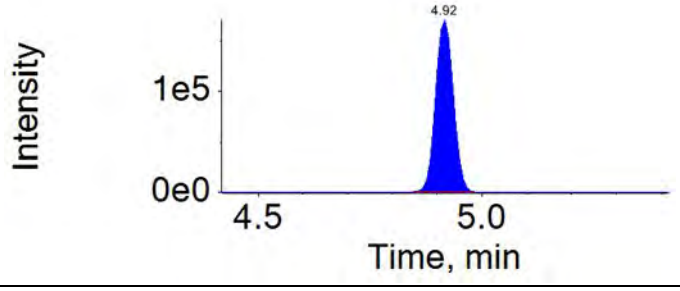
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



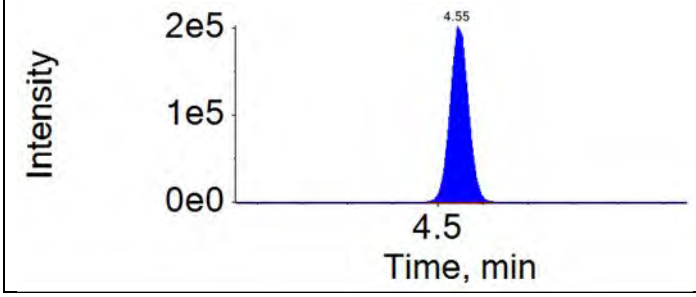


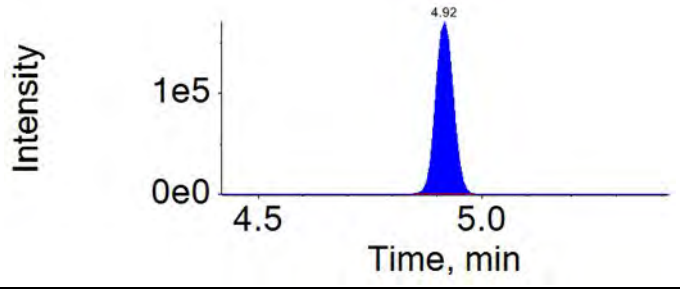
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



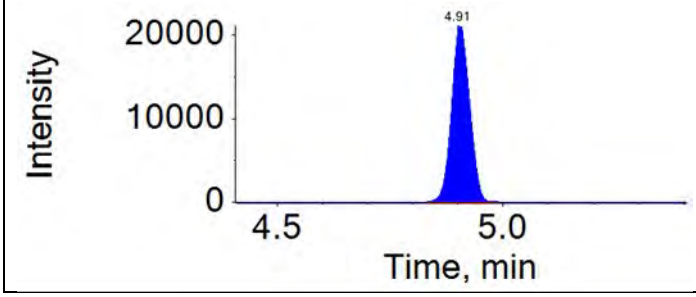


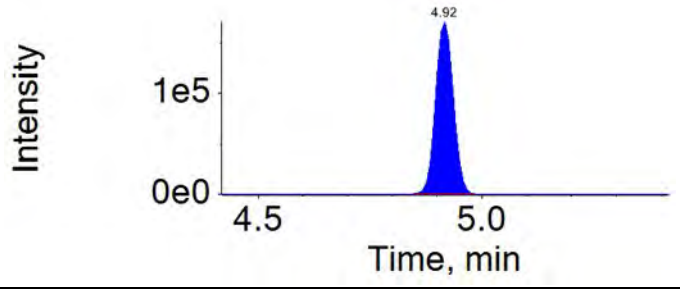
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

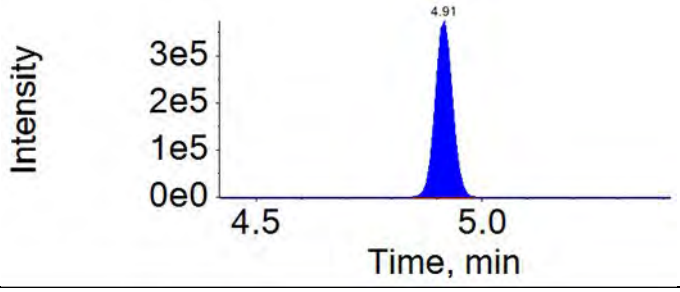
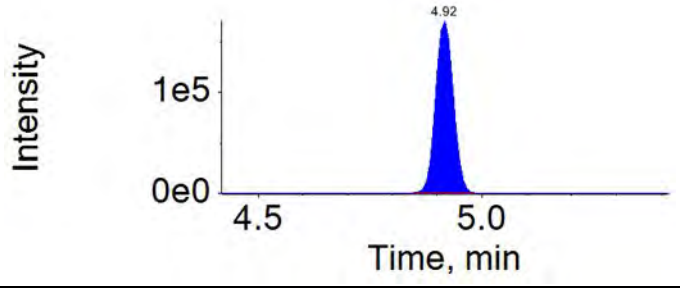


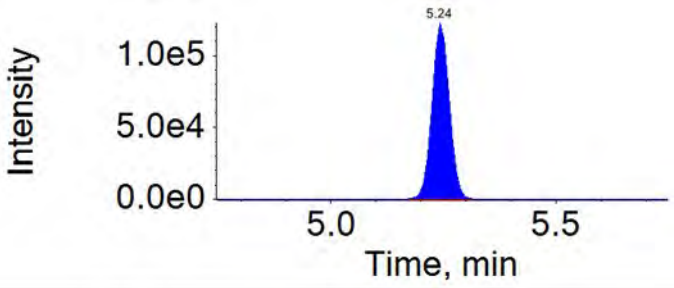
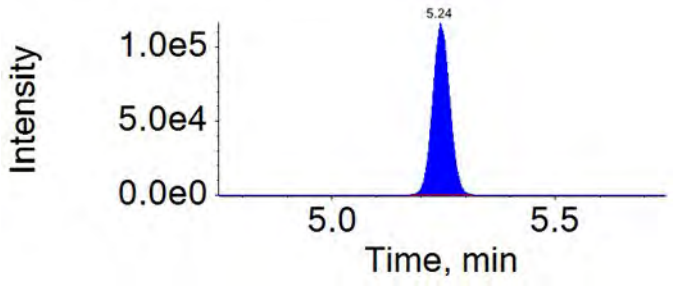


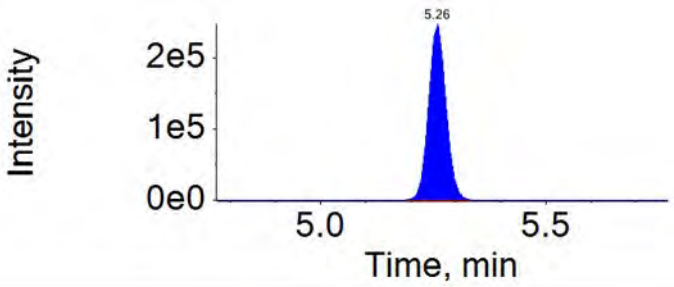
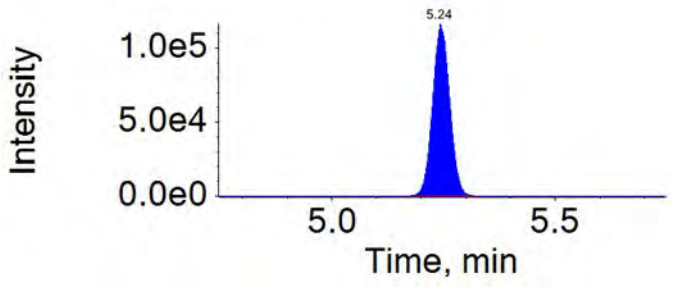
APPROVED
By MCD at 3:27 pm, 11/30/18

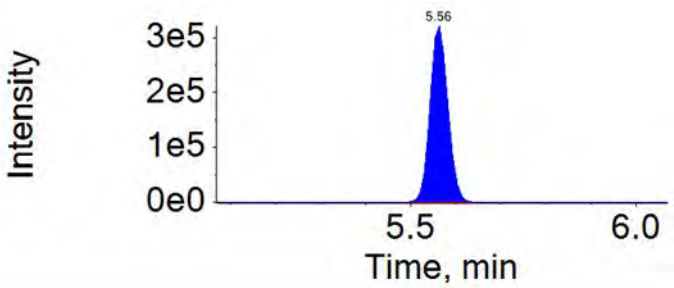
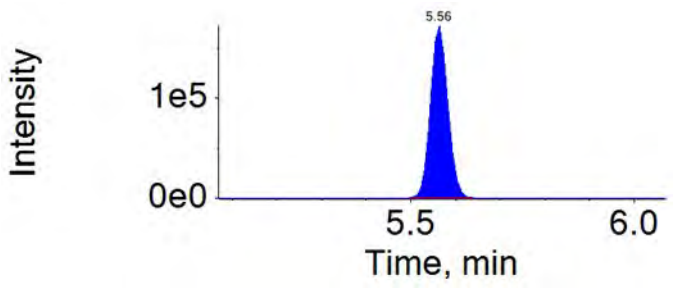
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

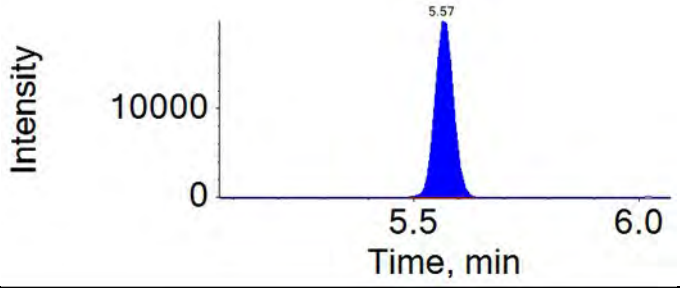
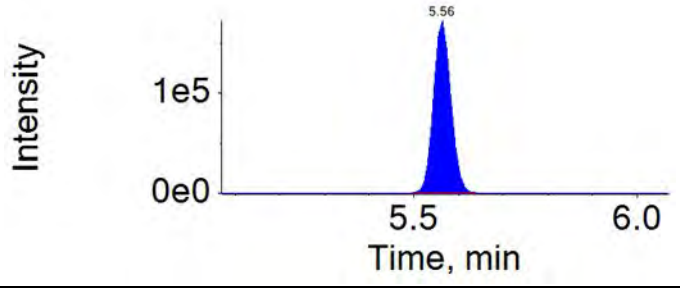
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

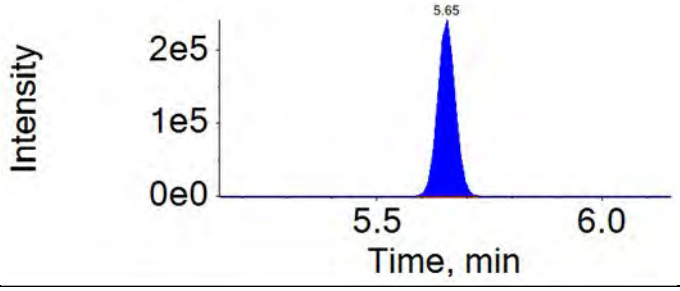
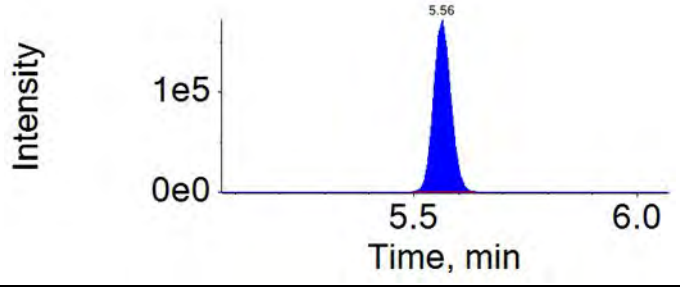
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

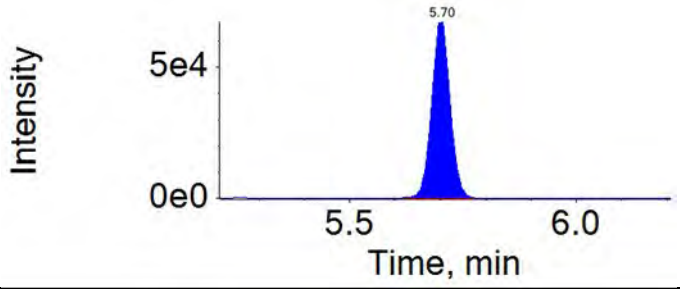
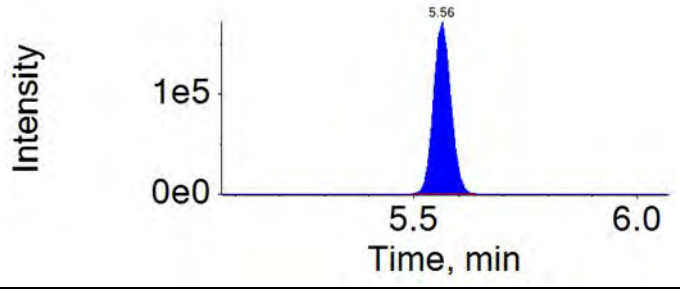
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

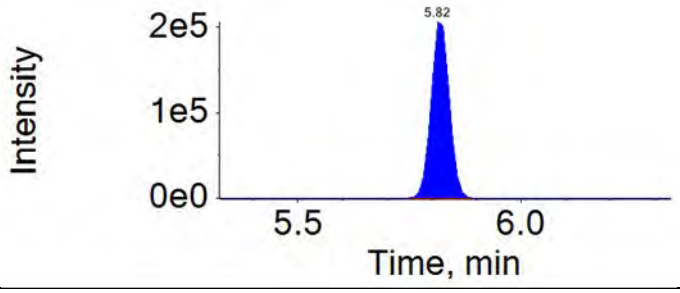
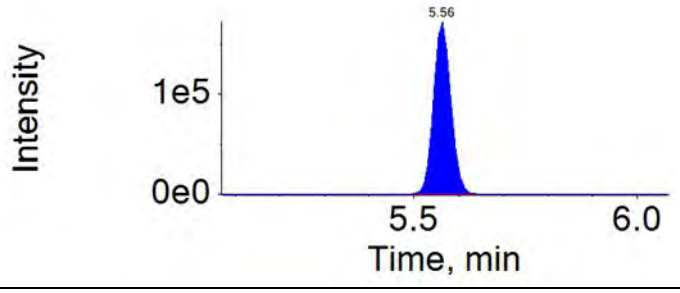
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

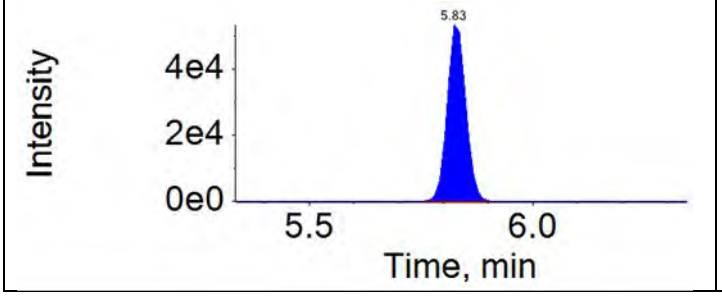
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

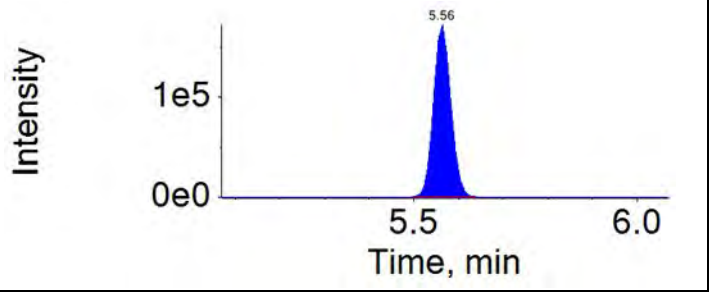
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

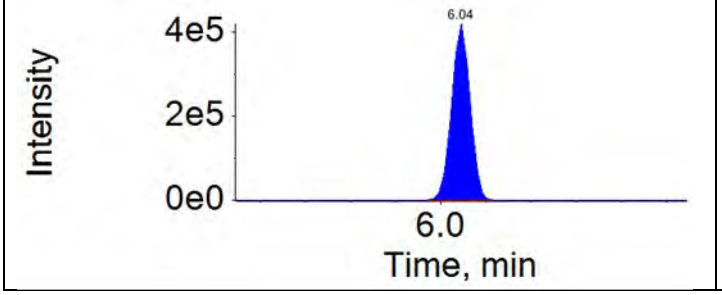
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

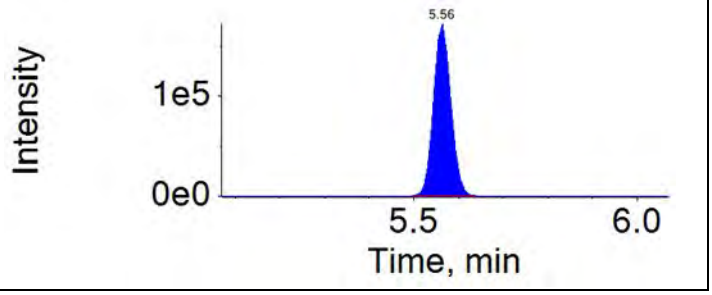
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



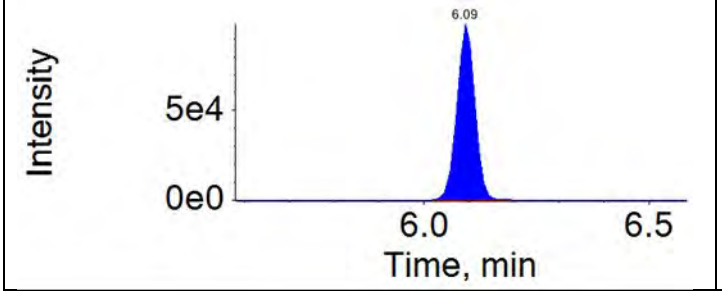


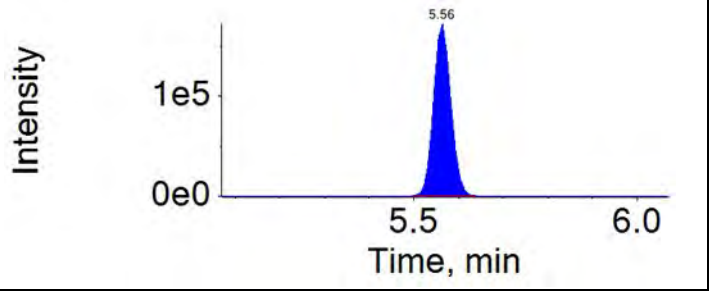
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



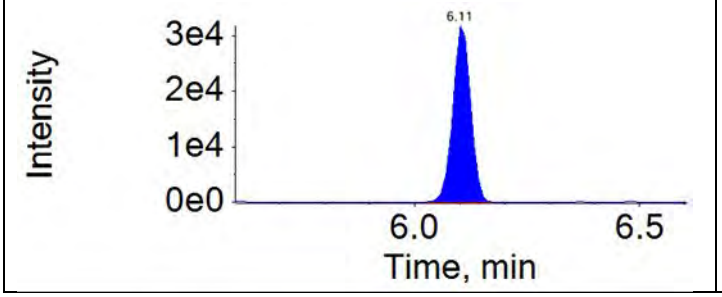


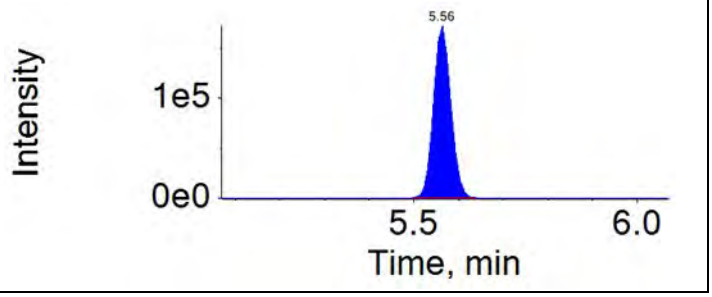
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





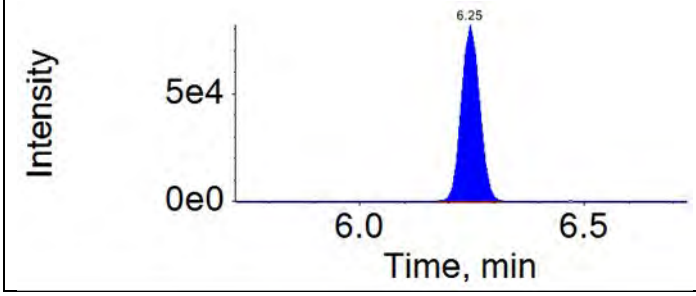
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

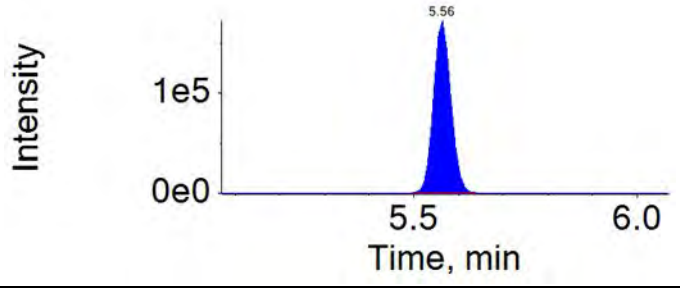




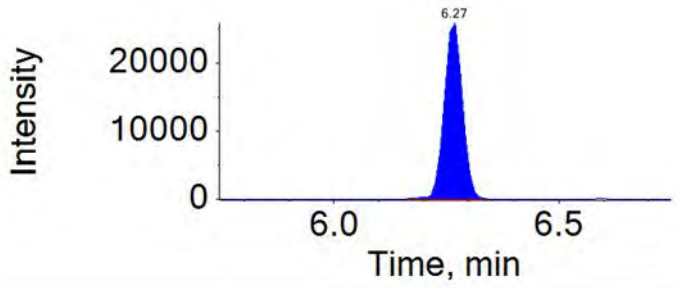
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

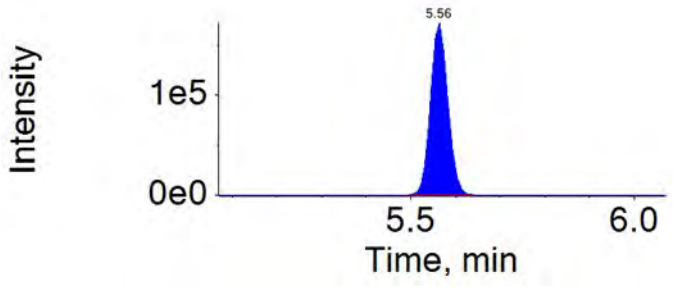
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



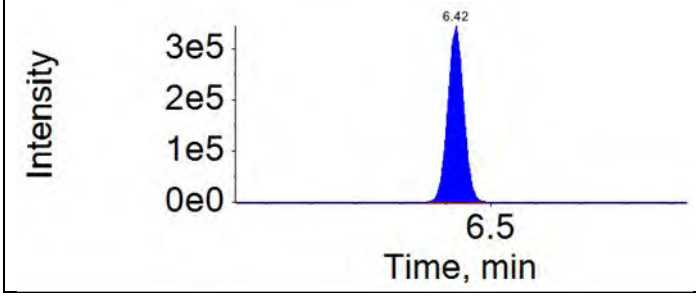


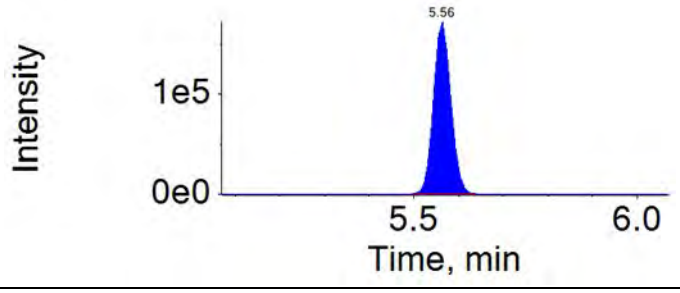
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



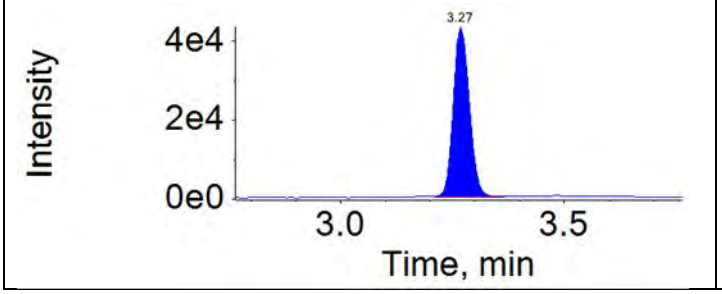


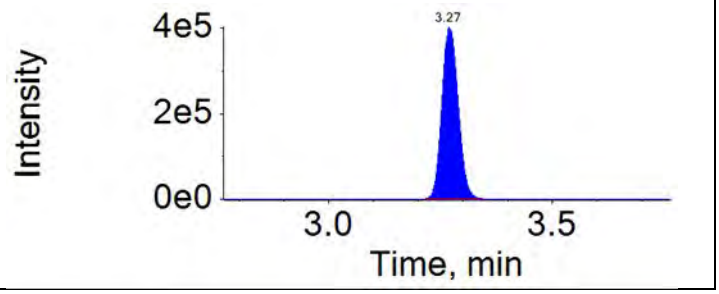
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

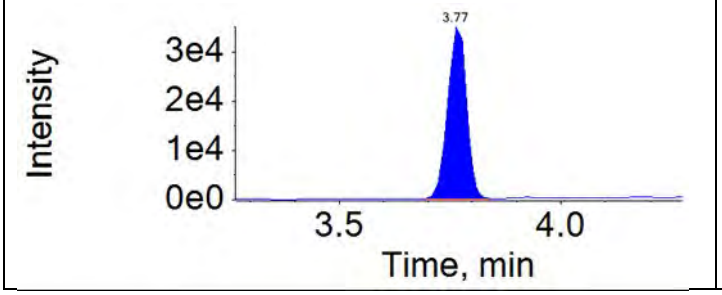
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

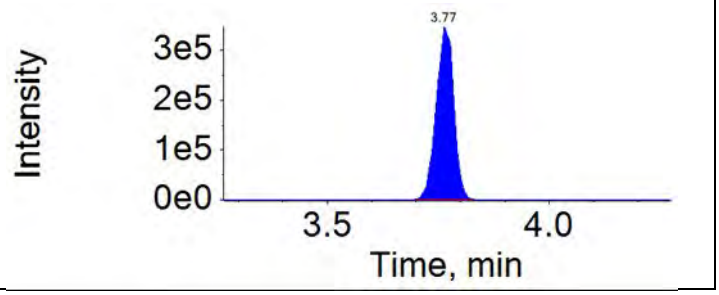
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



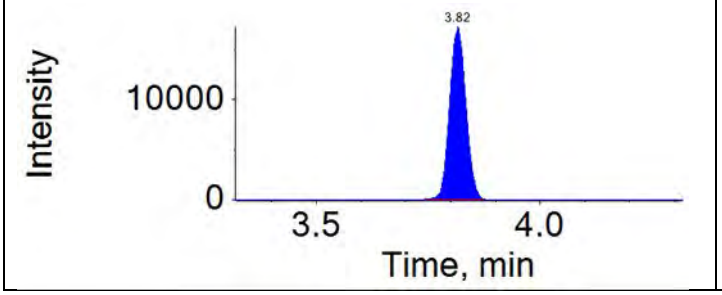


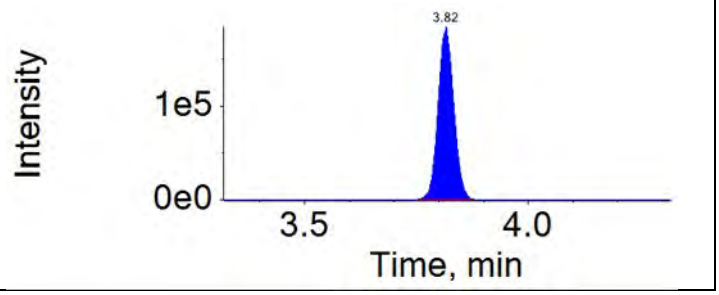
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



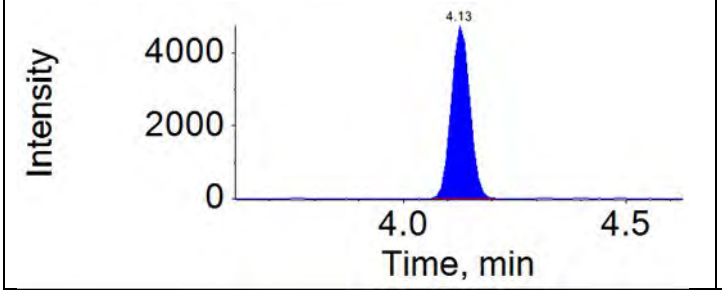


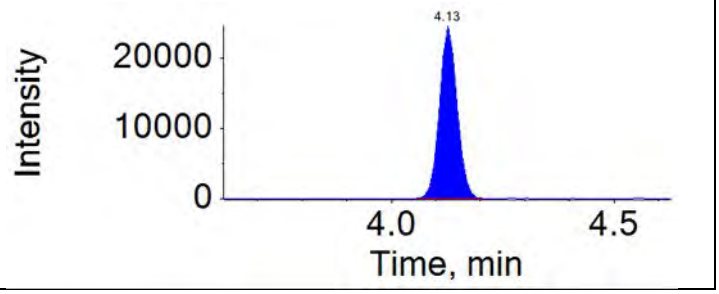
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



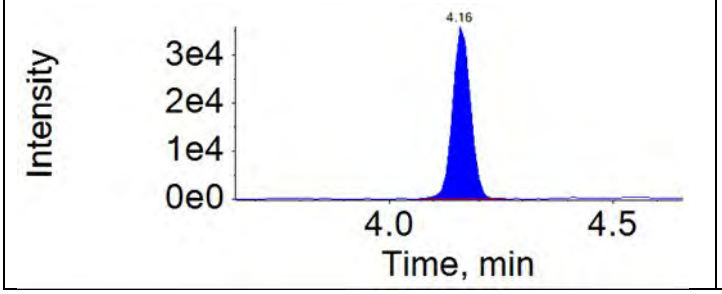


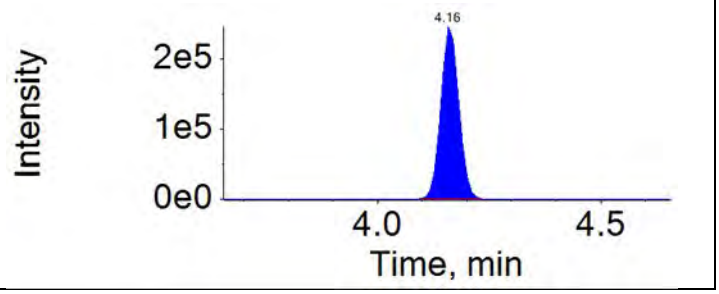
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

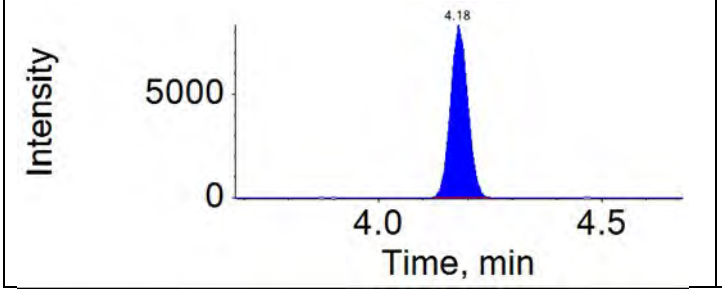
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

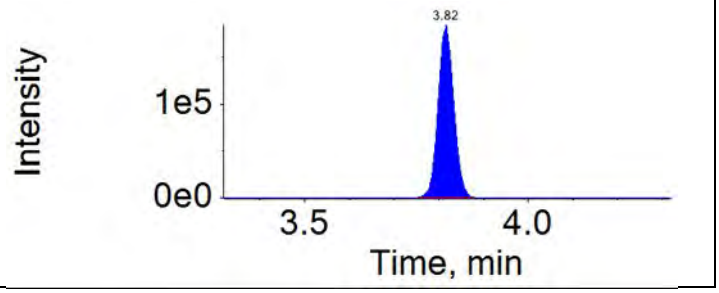
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



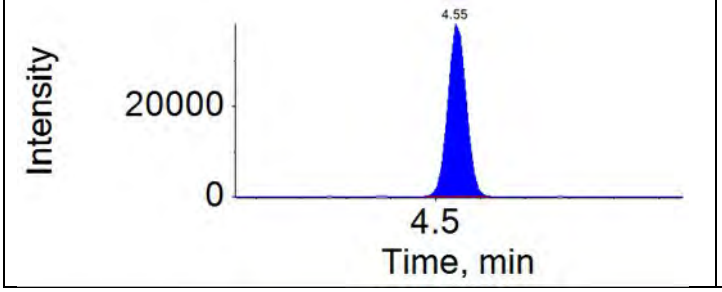


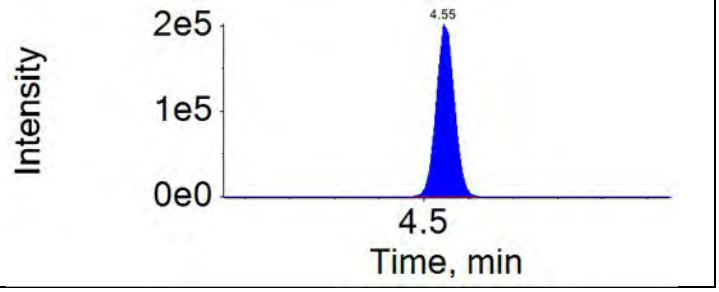
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



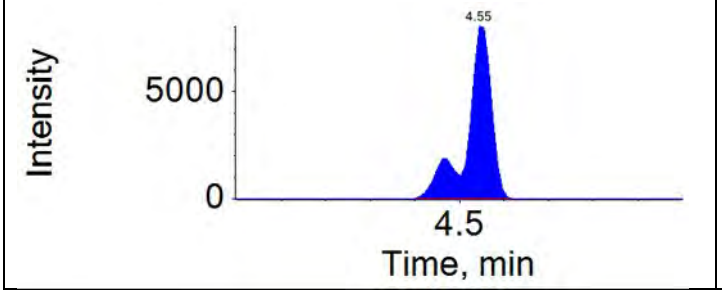


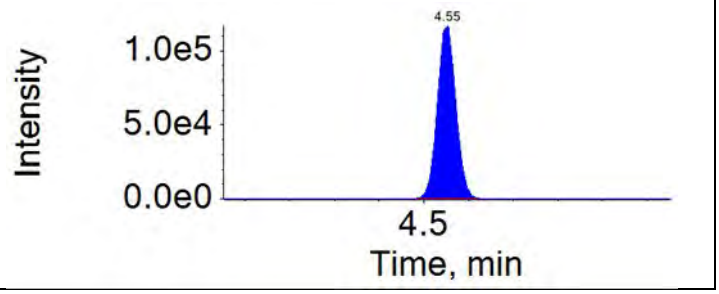
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

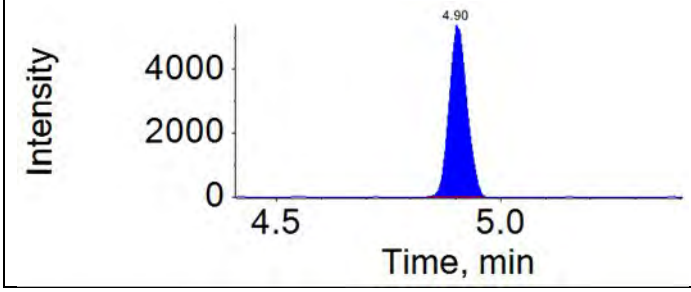
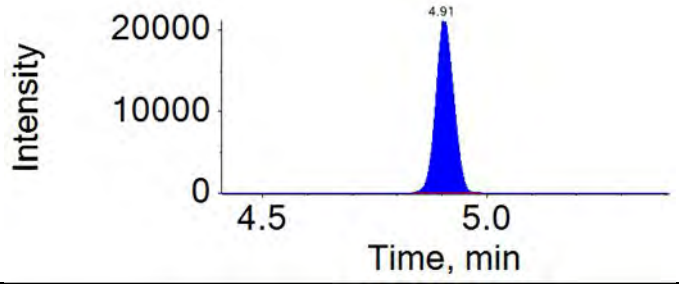


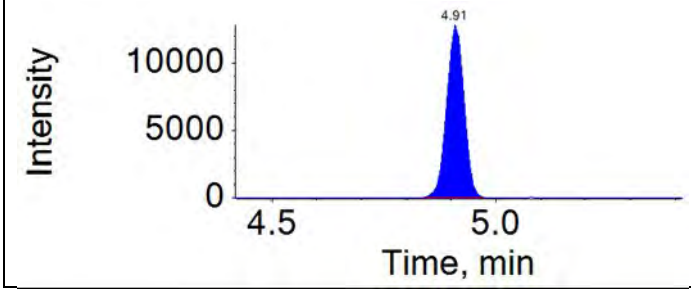
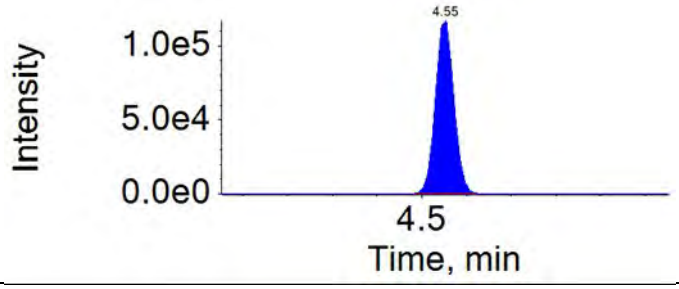


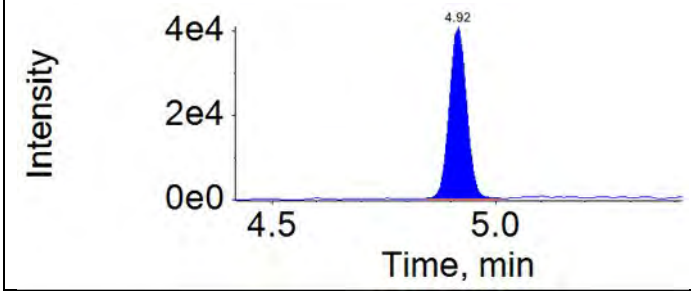
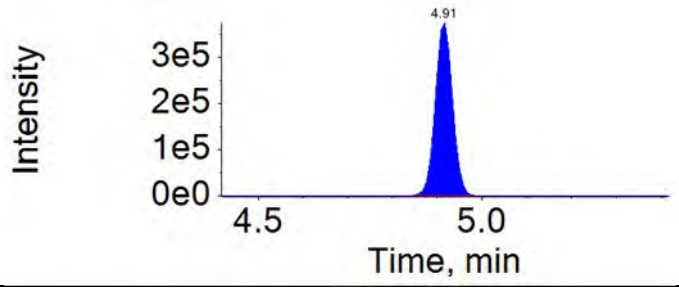
APPROVED
By MCD at 3:27 pm, 11/30/18

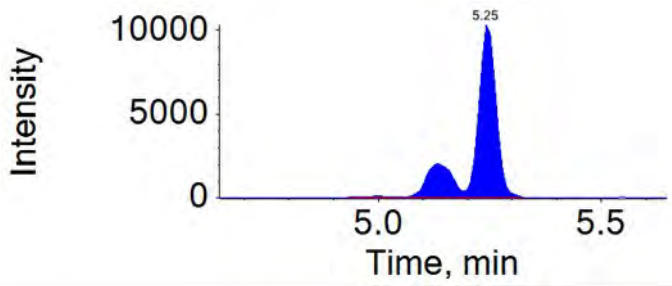
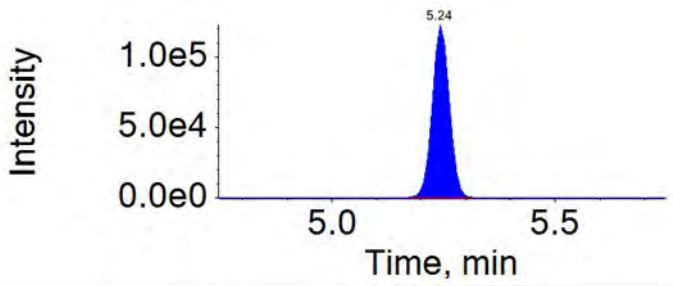
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

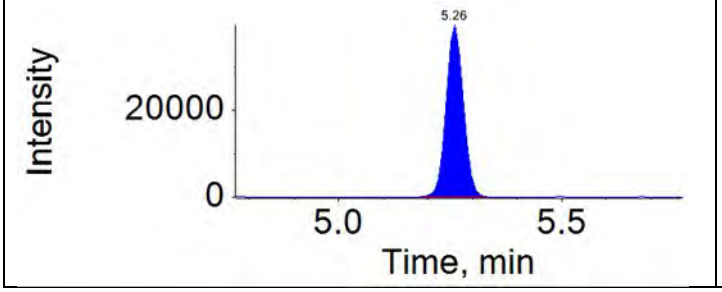
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

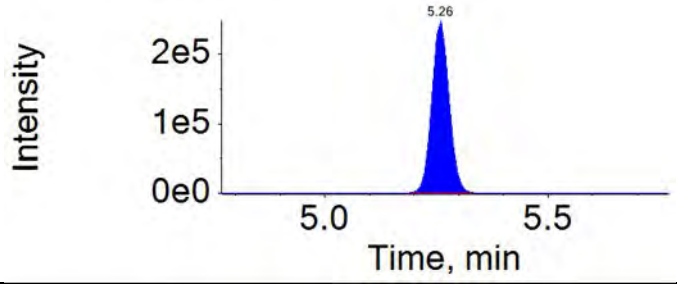
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

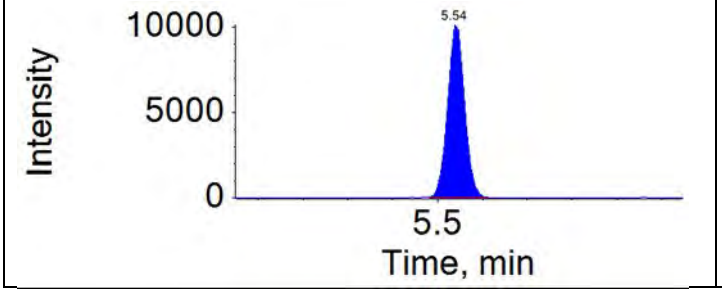
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

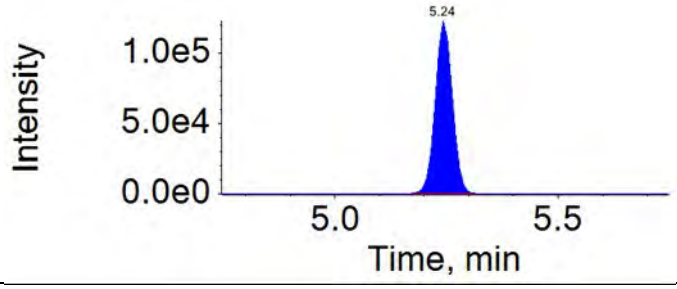
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



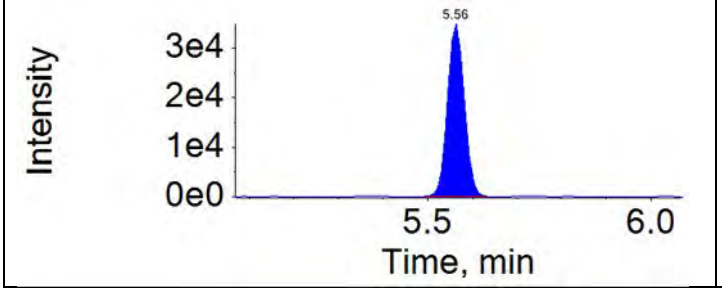


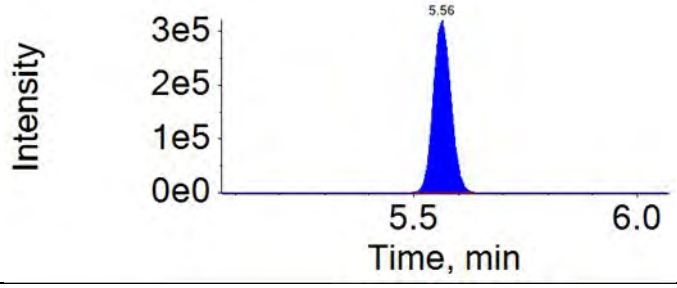
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



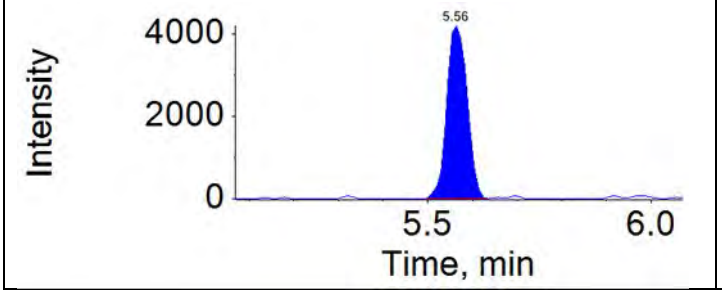


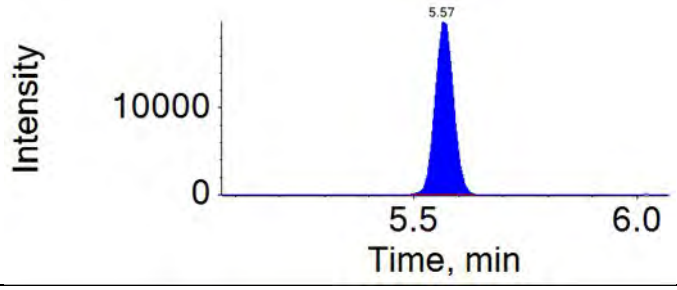
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

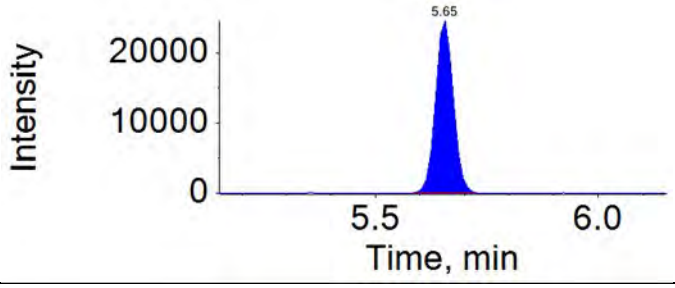
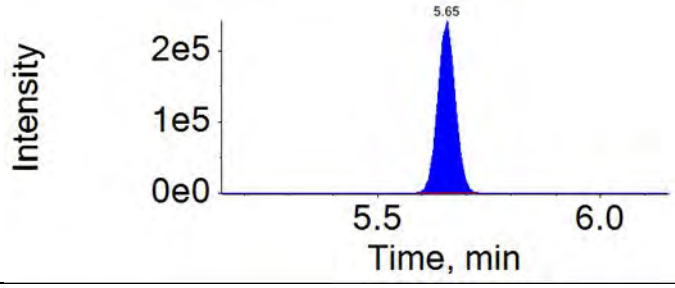


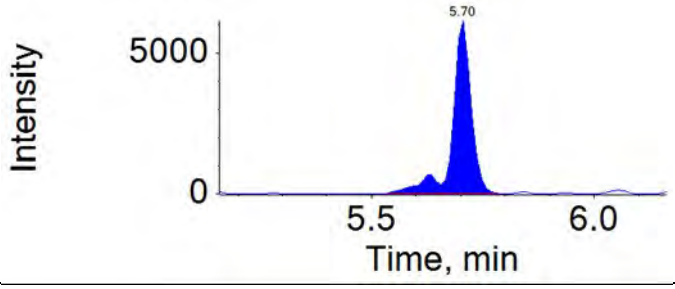
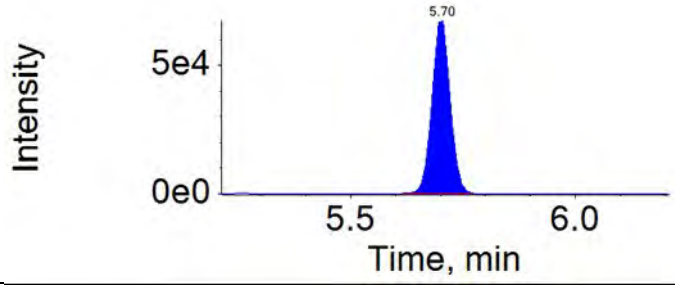


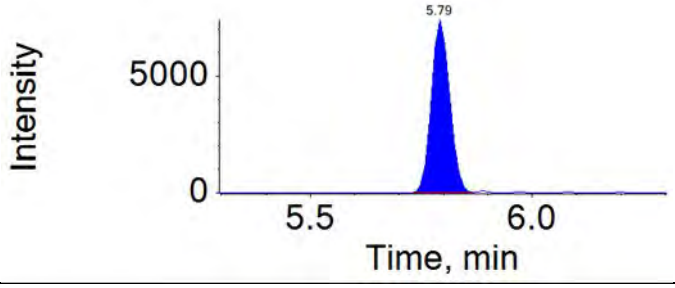
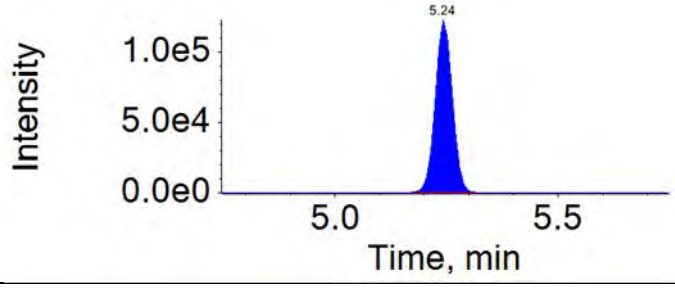
APPROVED
By MCD at 3:27 pm, 11/30/18

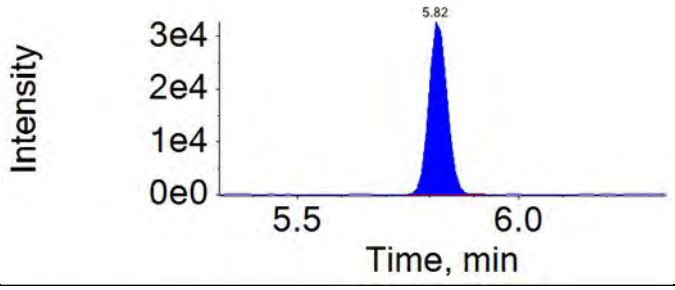
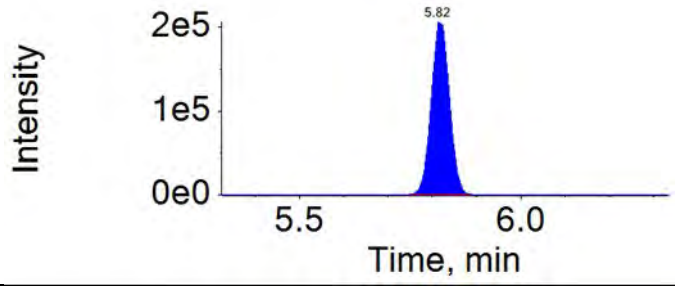
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

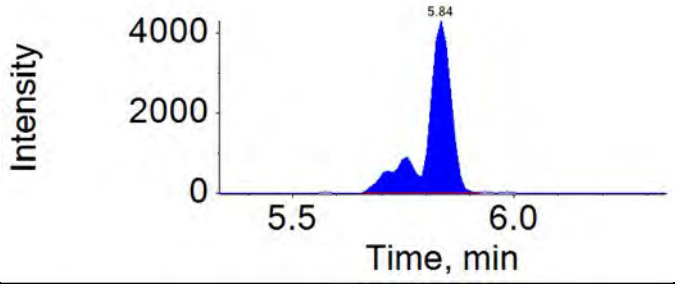
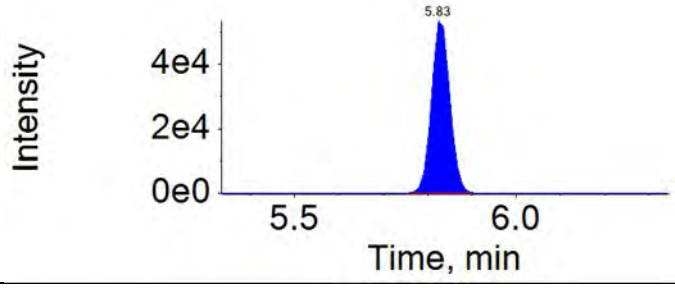
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

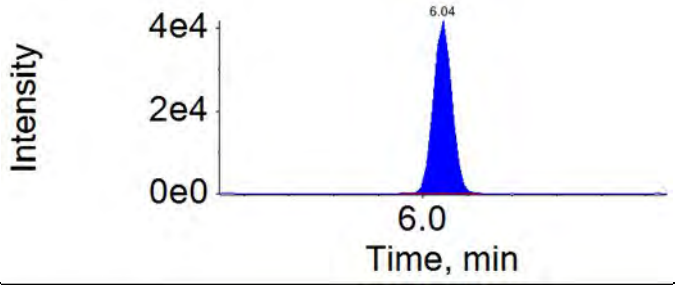
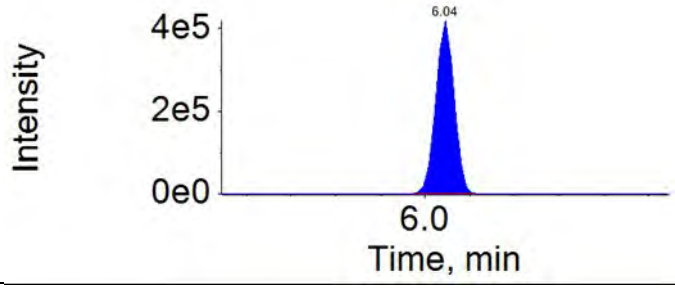
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

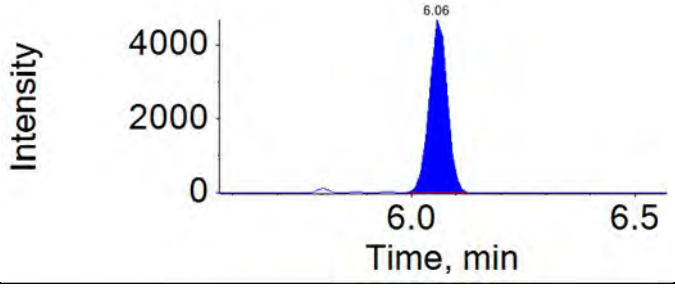
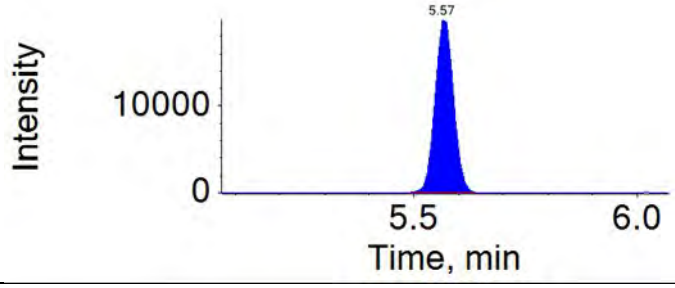
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

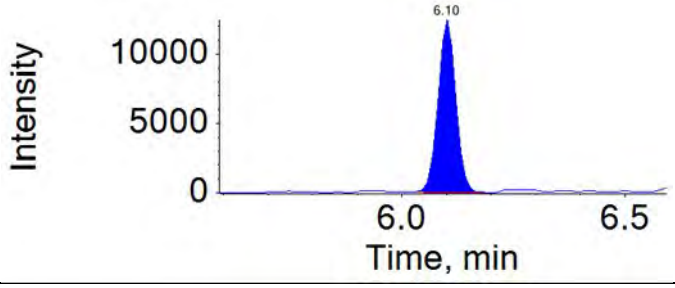
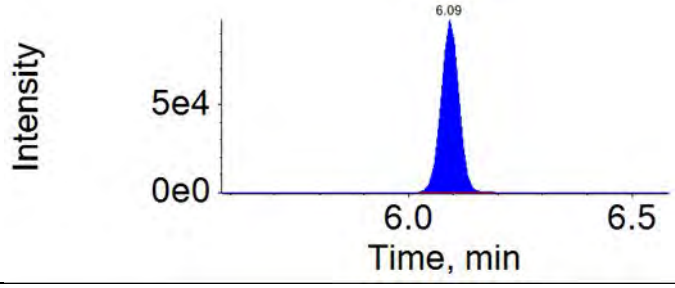
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

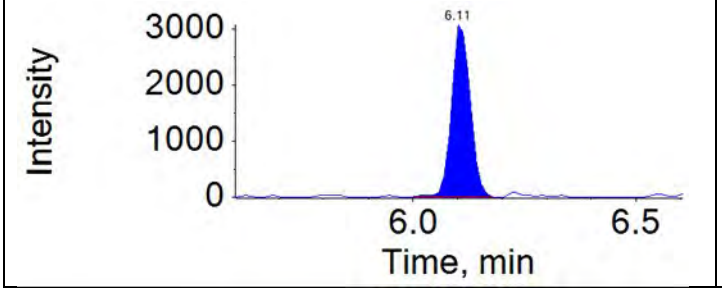
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

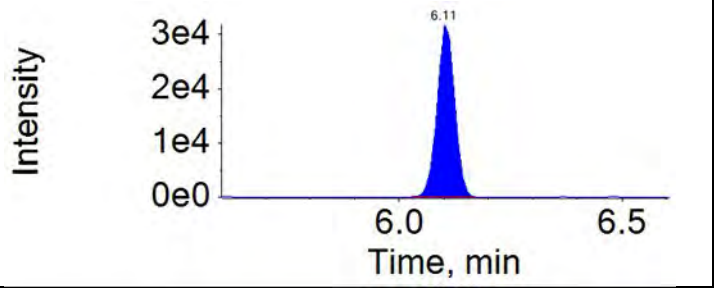
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

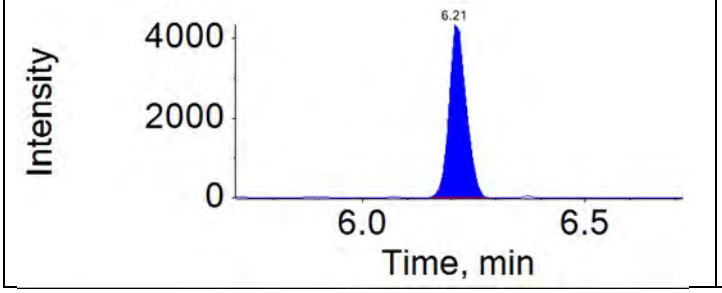
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

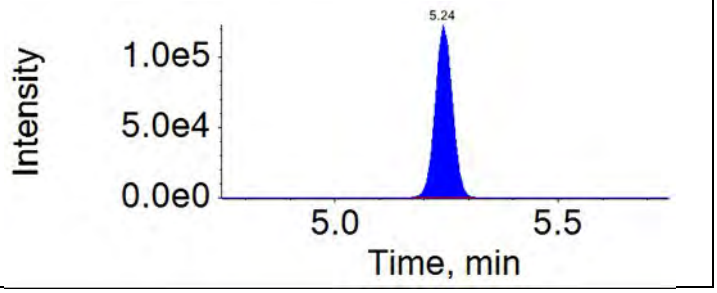
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



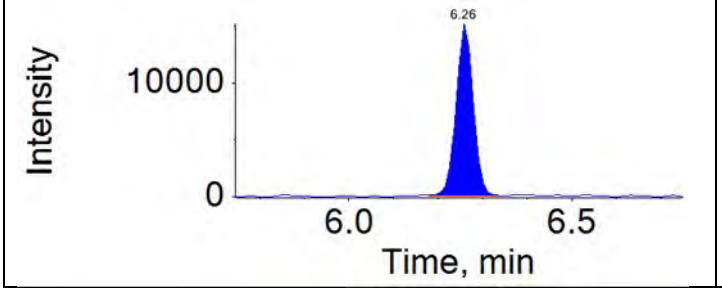


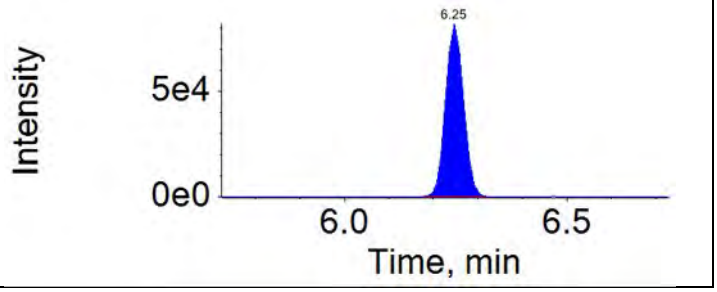
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



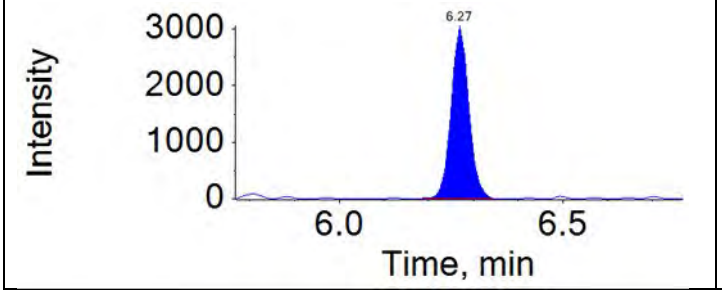


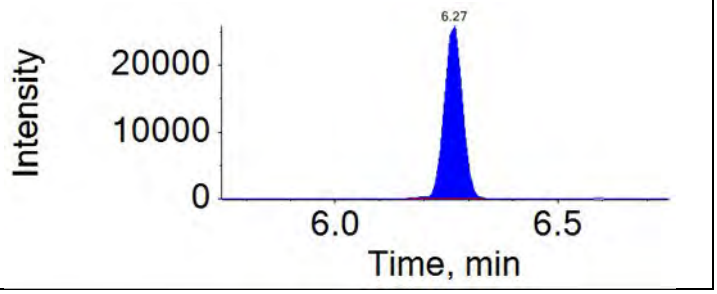
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

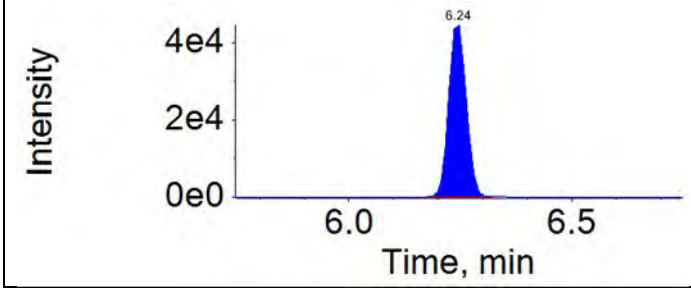
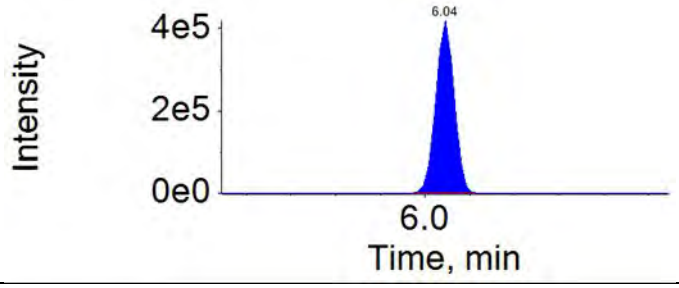


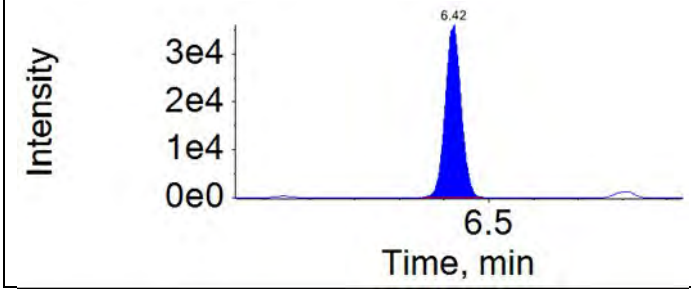
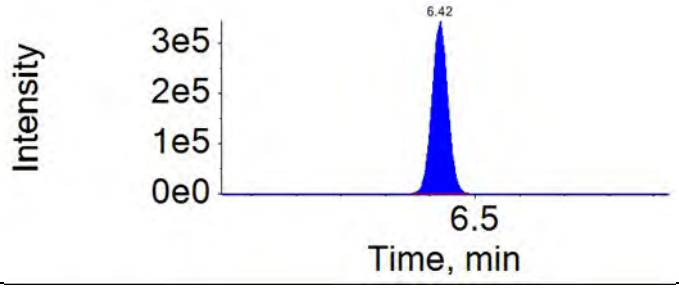


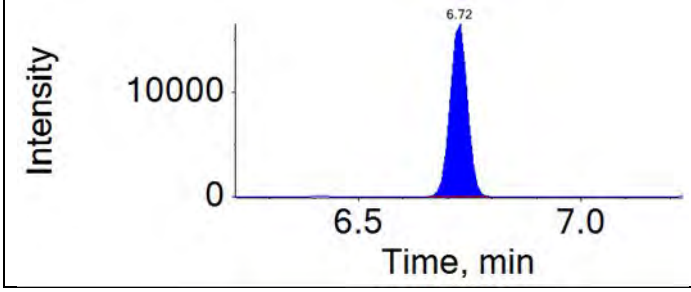
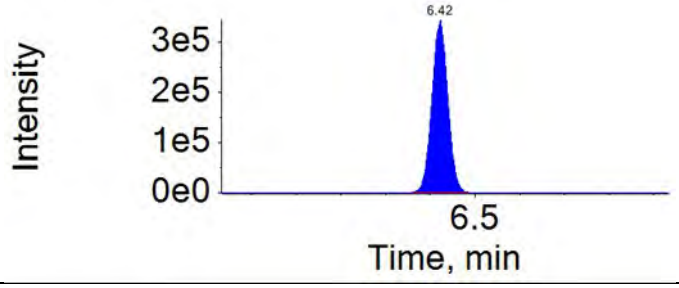
APPROVED
By MCD at 3:27 pm, 11/30/18

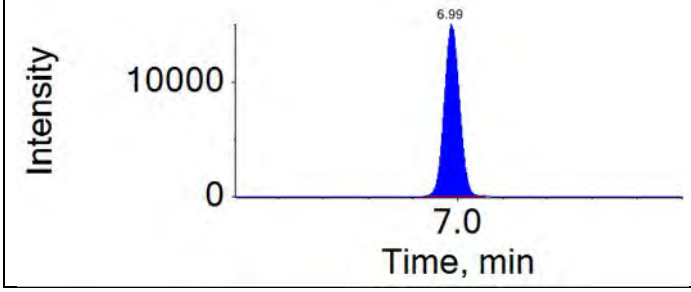
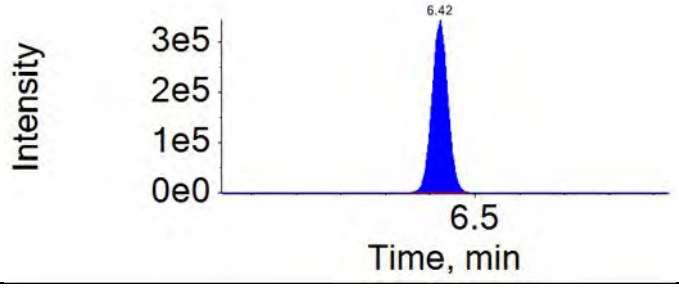
REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

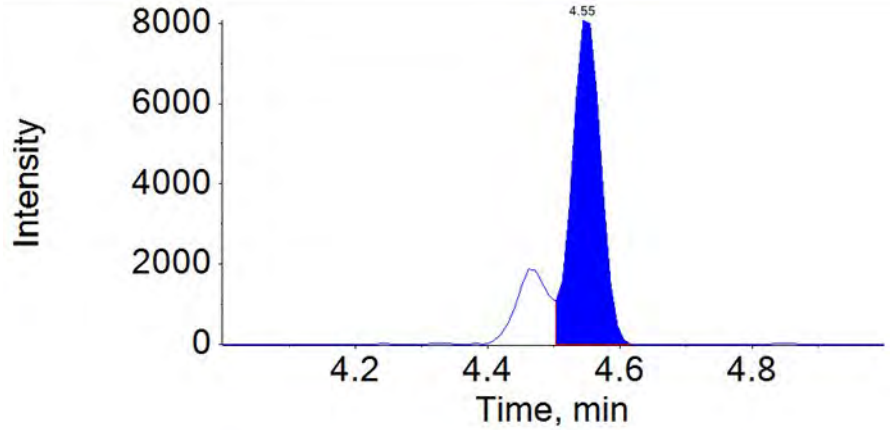
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

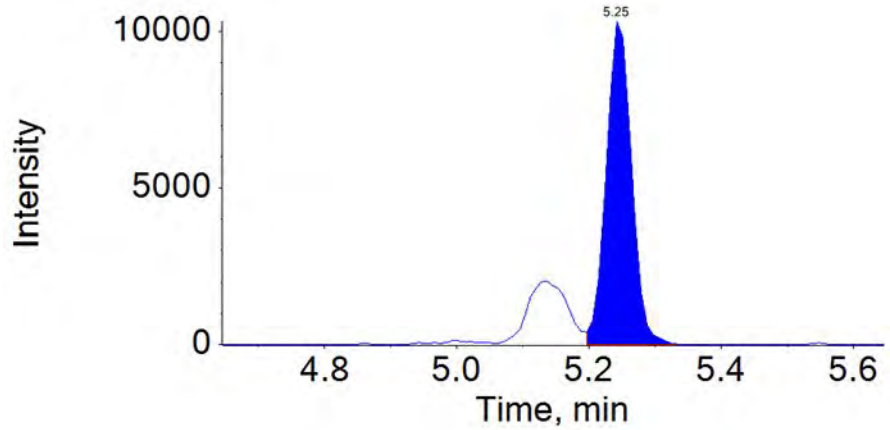
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
24612.5
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



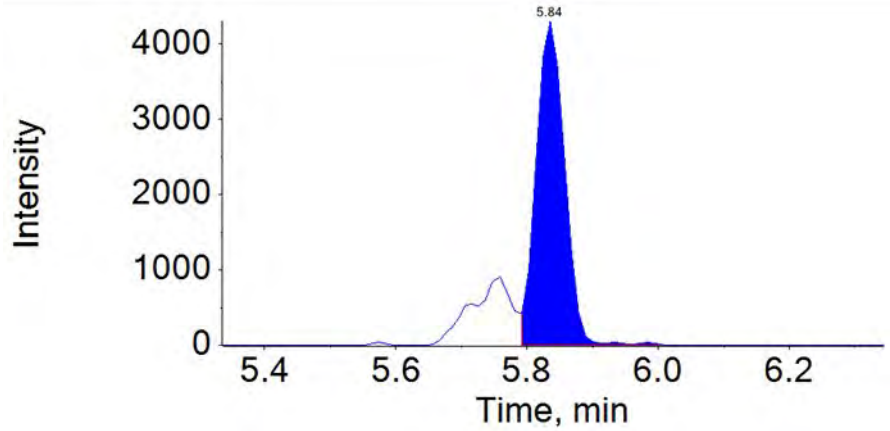
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
27561.1
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
13046.5
Mass Range:
584.0 / 419.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



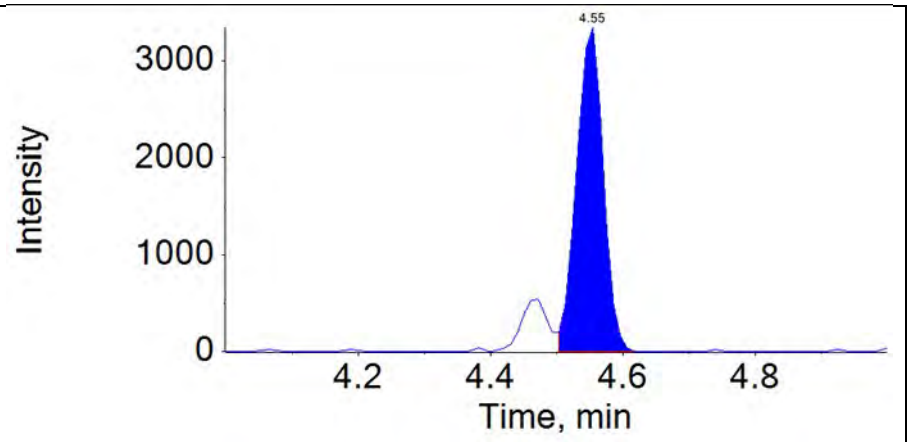
Integration Comment: incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

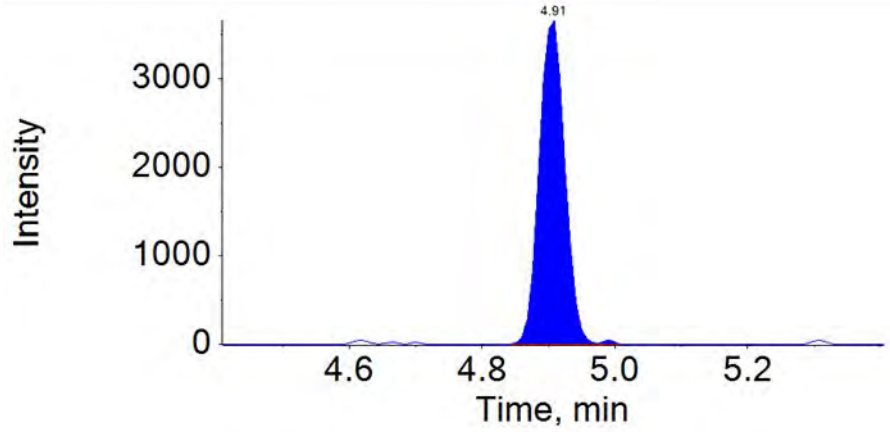
Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
9386.3
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



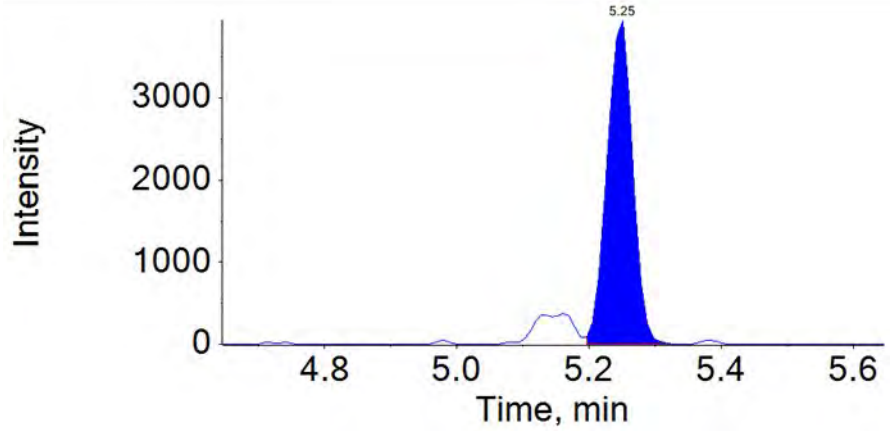
Integration Comment: incorrect integration

Component Name:
6:2-FTS_2
RT (min.):
4.91
Peak Area:
9903.4
Mass Range:
427.0 / 81.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
10671.6
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-72.wiff
Sample Name:
CCV7_ISC_CAL2

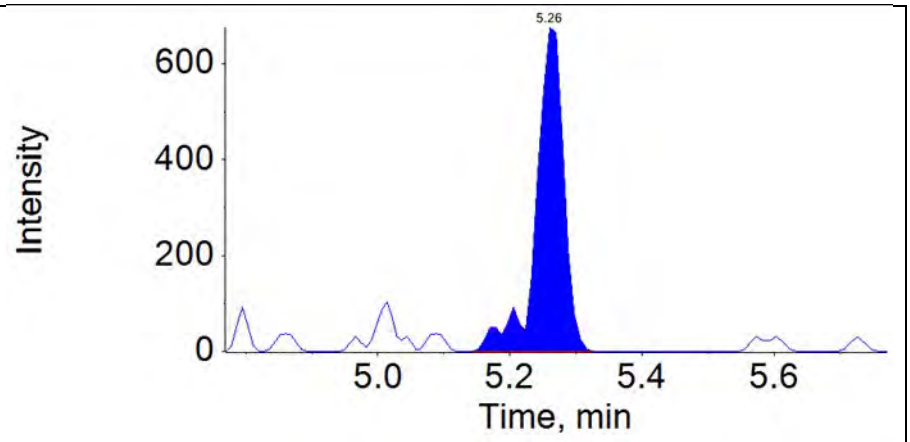


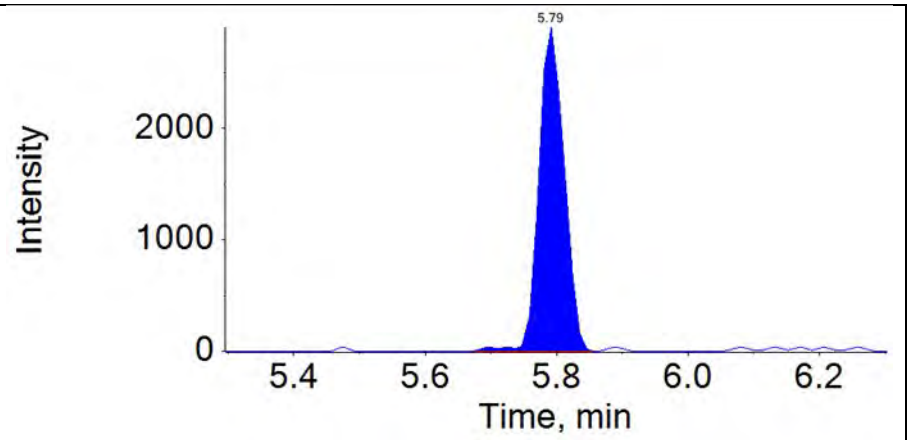
Integration Comment: incorrect integration

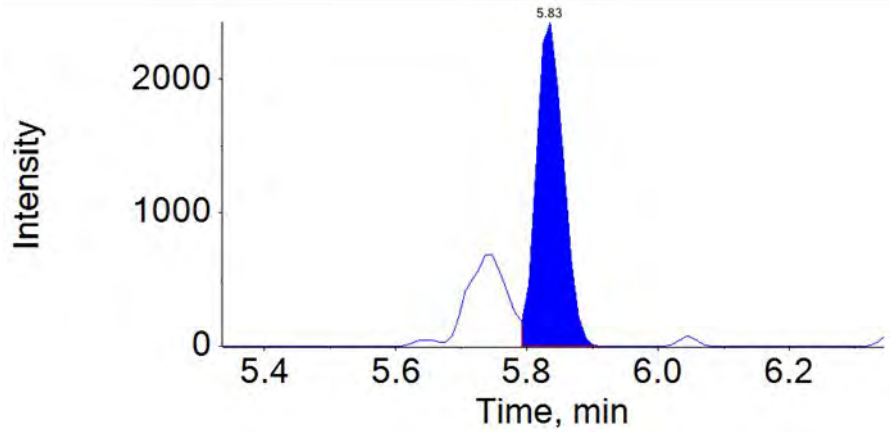
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFNA_2 **RT (min.):** 5.26 **Peak Area:** 1986.5 **Mass Range:** 463.0 / 169.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

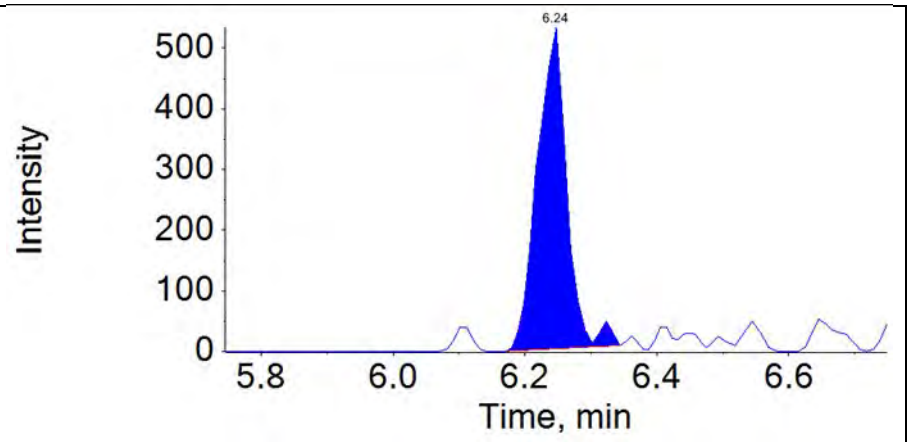
Component Name: PFDS_2 **RT (min.):** 5.79 **Peak Area:** 7803.0 **Mass Range:** 599.0 / 99.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

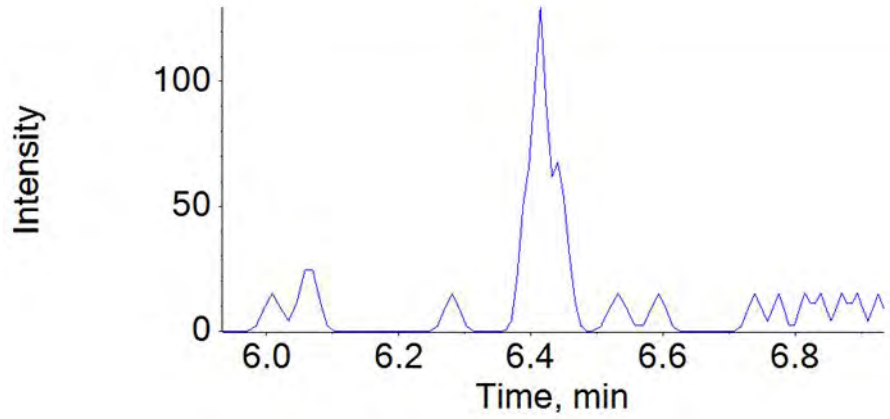
Component Name: NEtFOSAA_2 **RT (min.):** 5.83 **Peak Area:** 6992.8 **Mass Range:** 584.0 / 526.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFTrDA_2 **RT (min.):** 6.24 **Peak Area:** 1661.7 **Mass Range:** 663.0 / 169.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV29D-72.wiff **Sample Name:** CCV7_ISC_CAL2	 **Integration Comment:** incorrect integration

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

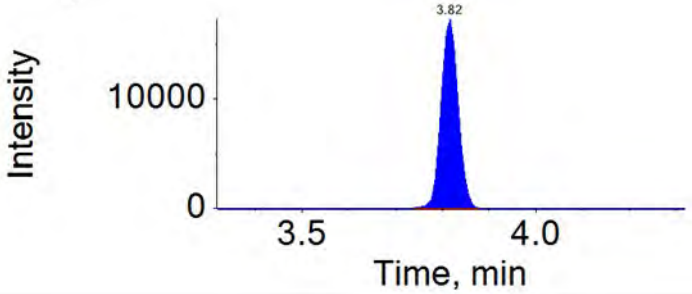
Sample Name: CCV7_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18NOV29D-72.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	43546.1	A	N/A	0.3531			
PFBS_2	3.81	1.00	15374.0	A	N/A	0.3531	-3	50	
4:2-FTS	4.13	1.00	13618.8	A	N/A	0.5741			
4:2-FTS_2	4.13	1.00	7819.0	A	N/A	0.5741	-10	50	
PFHxA	4.16	1.00	98812.0	A	N/A	0.0083			
PFHxA_2	4.16	1.00	819.4	A	N/A	0.0083	-20	50	
PFPeS	4.18	1.10	22438.2	A	N/A	0.4999			
PFPeS_2	4.18	1.10	11216.6	A	N/A	0.4999	0	50	
PFHpA	4.55	1.00	108630.6	A	N/A	0.0517			
PFHpA_2	4.55	1.00	5616.4	A	N/A	0.0517	-7	50	
PFHxS	4.55	1.00	31005.8	M	N/A	0.3523			
PFHxS_2	4.55	1.00	10923.7	M	N/A	0.3523	-5	50	
6:2-FTS	4.90	1.00	14871.4	A	N/A	0.6620			
6:2-FTS_2	4.91	1.00	9844.3	M	N/A	0.6620	0	50	
PFHpS	4.91	1.08	34425.5	A	N/A	0.3726			
PFHpS_2	4.91	1.08	12825.2	A	N/A	0.3726	-5	50	
PFOA	4.92	1.00	108379.5	A	N/A	0.0499			
PFOA_2	4.91	1.00	5409.2	A	N/A	0.0499	-13	50	
PFOS	5.25	1.00	36641.4	M	N/A	0.3335			
PFOS_2	5.25	1.00	12218.3	M	N/A	0.3335	13	50	
PFNA	5.26	1.00	105821.4	A	N/A	0.0168			
PFNA_2	5.26	1.00	1772.5	M	N/A	0.0168	-17	50	
PFNS	5.54	1.06	26569.2	A	N/A	0.5079			
PFNS_2	5.54	1.06	13495.5	A	N/A	0.5079	6	50	
PFDA	5.56	1.00	91975.5	A	N/A	0.0047			
PFDA_2	5.56	1.00	428.3	A	N/A	0.0047	-38	50	
8:2-FTS	5.56	1.00	13276.2	A	N/A	0.7117			
8:2-FTS_2	5.57	1.00	9448.0	A	N/A	0.7117	32	50	
NMeFOSAA	5.70	1.00	18118.1	A	N/A	0.2752			
NMeFOSAA_2	5.70	1.00	4986.6	A	N/A	0.2752	19	50	
PFDS	5.79	1.10	21049.9	A	N/A	0.3654			
PFDS_2	5.79	1.10	7692.6	M	N/A	0.3654	-32	50	
PFUnDA	5.82	1.00	94365.1	A	N/A	0.0028			
PFUnDA_2	5.80	1.00	259.7	A	N/A	0.0028	-28	50	
NEtFOSAA	5.84	1.00	16845.3	M	N/A	0.5862			
NEtFOSAA_2	5.83	1.00	9875.0	M	N/A	0.5862	-20	50	
PFDoDA	6.04	1.00	120450.1	A	N/A	0.0159			
PFDoDA_2	6.05	1.00	1919.7	A	N/A	0.0159	22	50	
10:2-FTS	6.06	1.09	13124.4	A	N/A	0.8343			
10:2-FTS_2	6.06	1.09	10949.2	A	N/A	0.8343	19	50	
PFTrDA	6.24	1.03	124162.6	A	N/A	0.0132			
PFTrDA_2	6.24	1.03	1641.9	M	N/A	0.0132	47	50	
PFTeDA	6.42	1.00	88469.7	A	N/A	0.0041			
PFTeDA_2	6.41	1.00	361.6	M	N/A	0.0041	-27	50	
PFHxDA	6.72	1.05	44728.9	A	N/A	0.0648			
PFHxDA_2	6.73	1.05	2897.0	A	N/A	0.0648	0	50	
PFODA	6.99	1.09	35501.9	A	N/A	0.0275			
PFODA_2	6.98	1.09	977.9	A	N/A	0.0275	4	50	

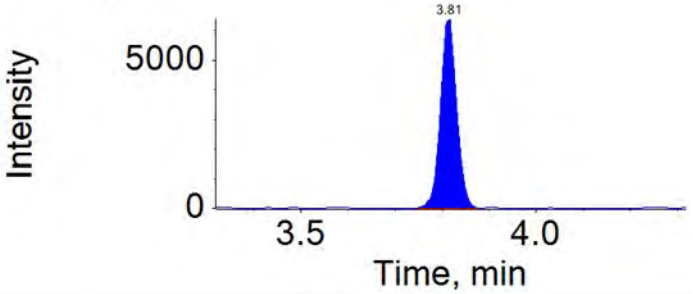
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

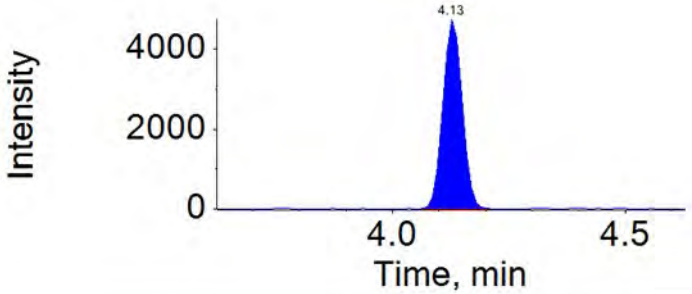
Component: PFBS
Primary Mass: 299.0 / 80.0



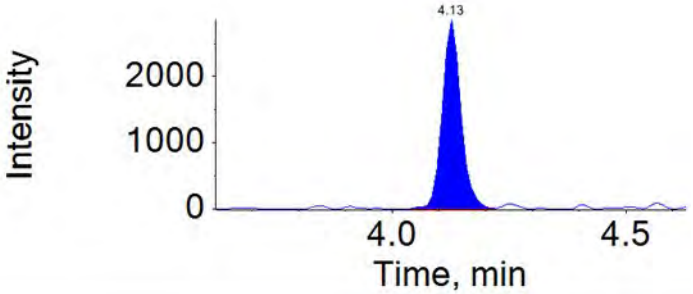
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



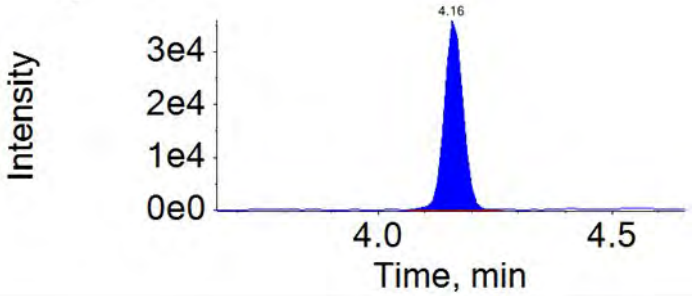
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



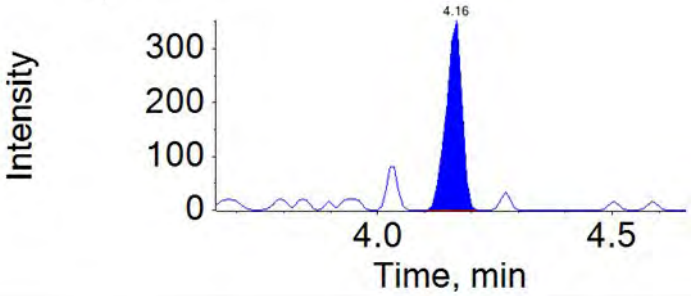
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



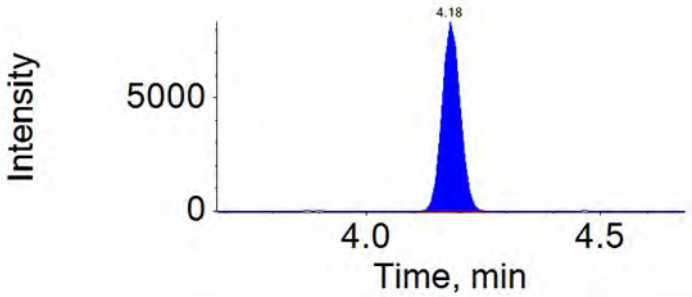
Component: PFHxA
Primary Mass: 313.0 / 269.0



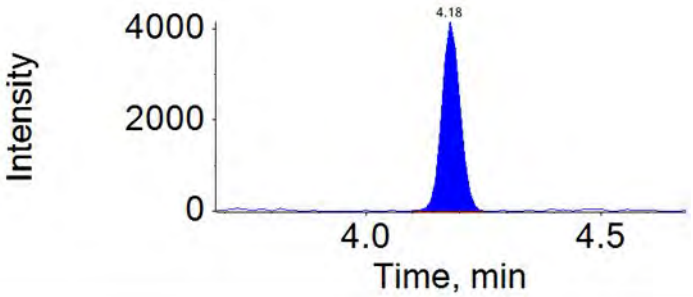
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



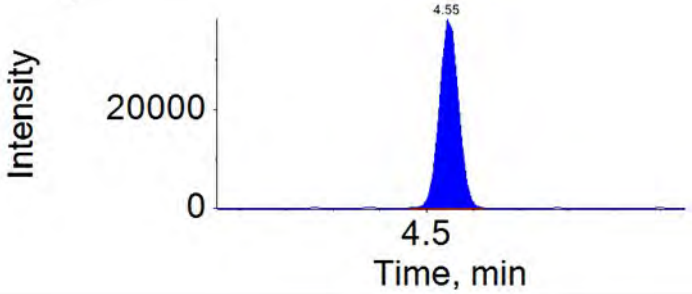
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



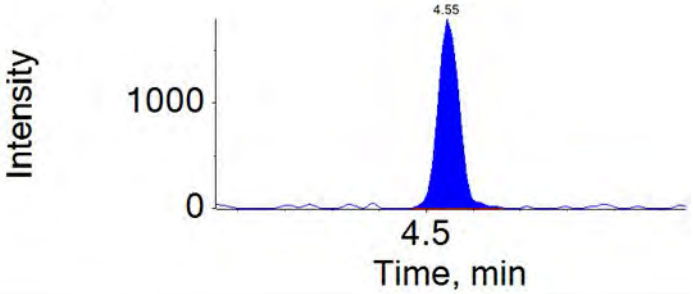
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

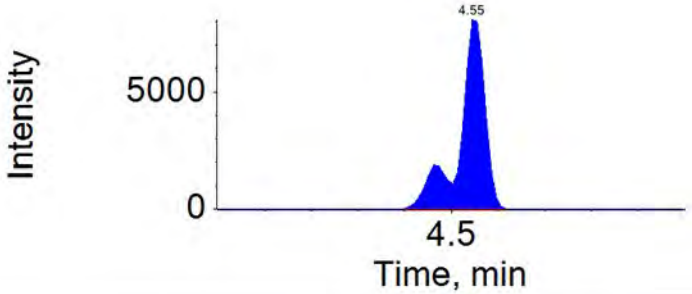
Component: PFHpA
Primary Mass: 363.0 / 319.0



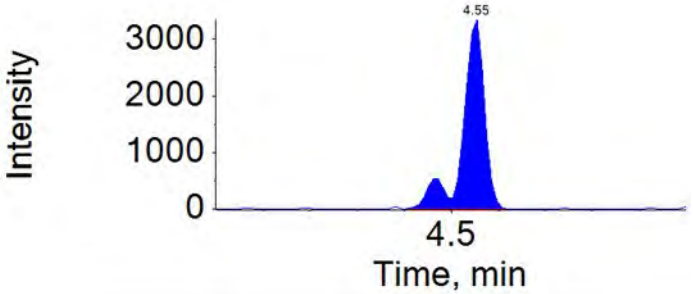
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



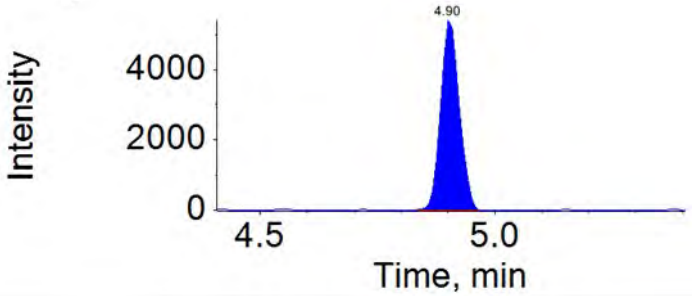
Component: PFHxS
Primary Mass: 399.0 / 80.0



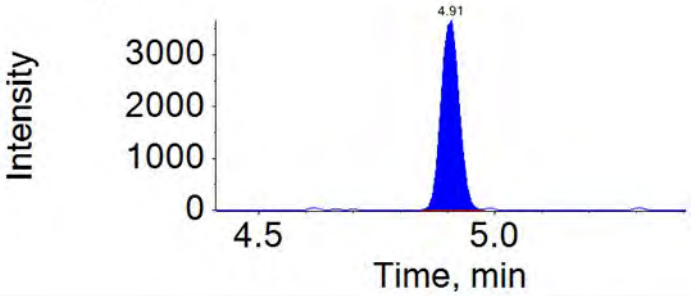
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



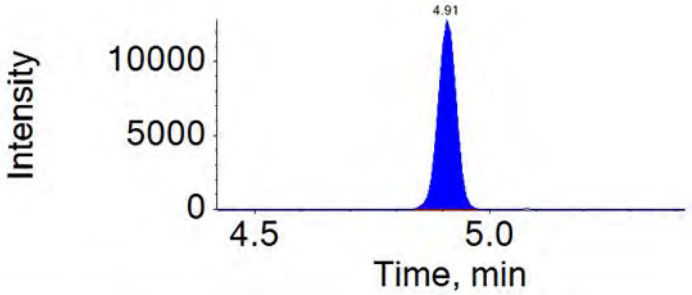
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



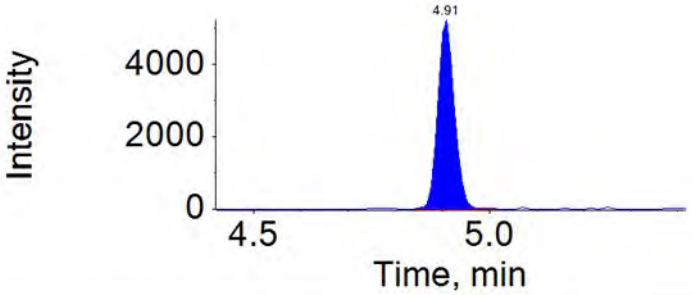
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



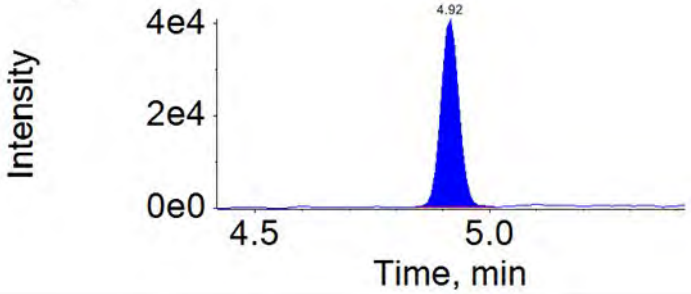
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



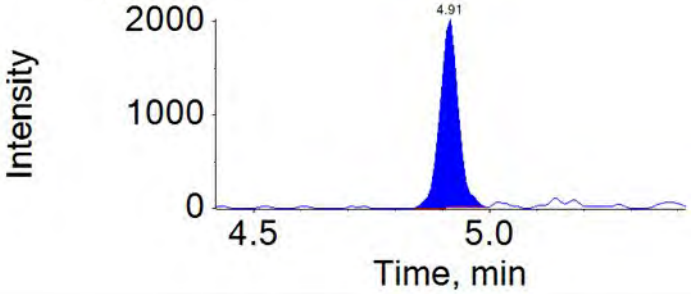
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

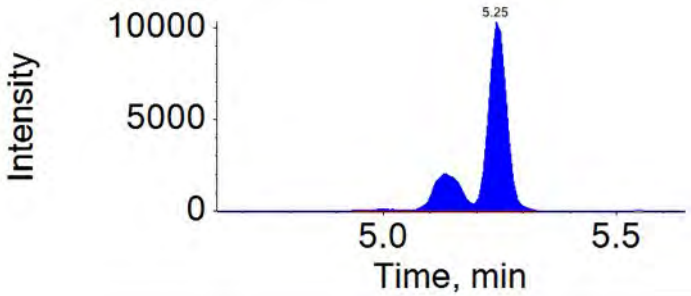
Component: PFOA
Primary Mass: 413.0 / 369.0



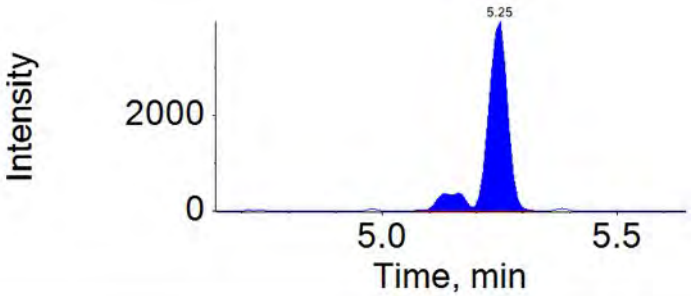
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



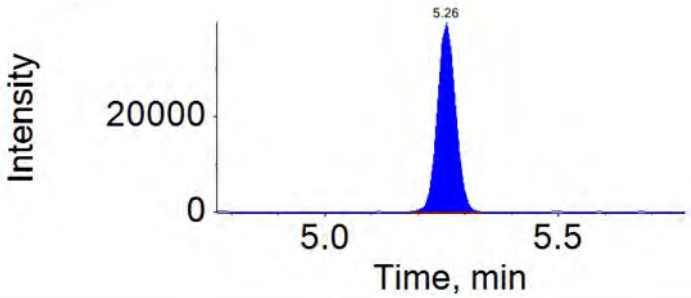
Component: PFOS
Primary Mass: 499.0 / 80.0



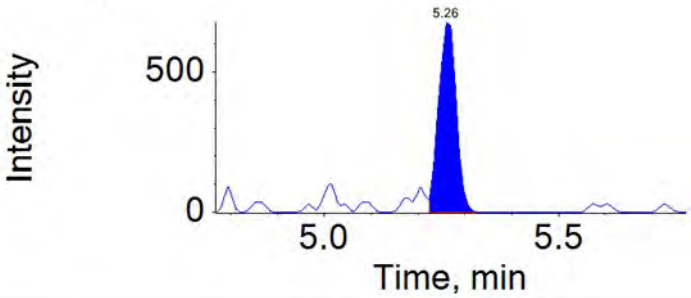
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



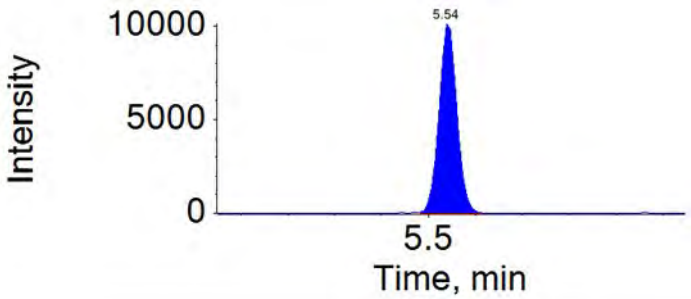
Component: PFNA
Primary Mass: 463.0 / 419.0



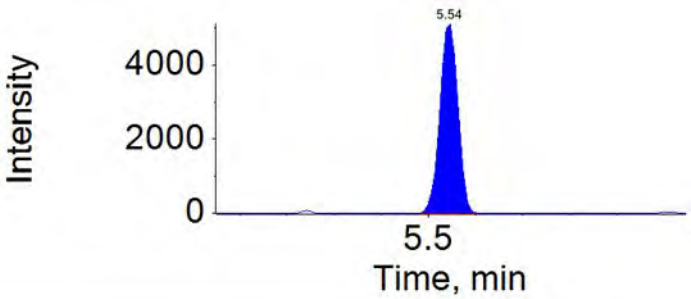
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



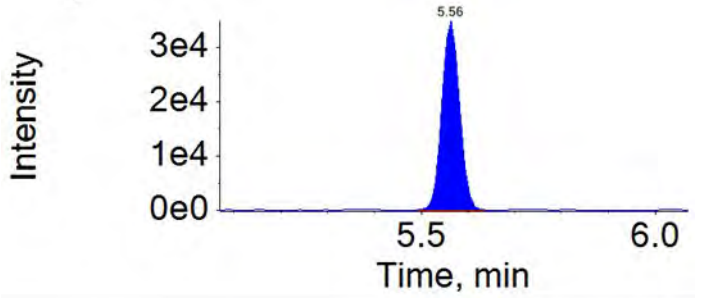
Component: PFNS
Primary Mass: 549.0 / 80.0



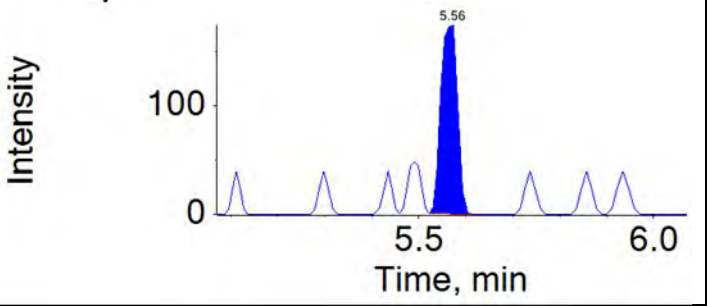
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



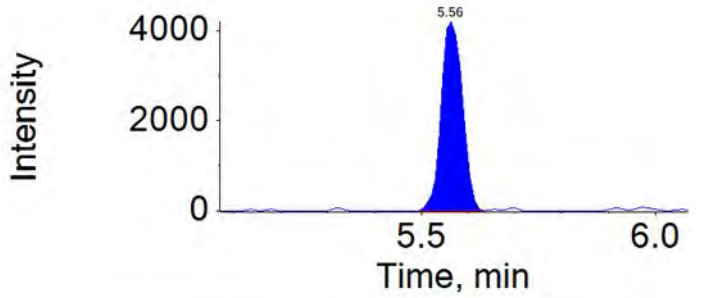
Component: PFDA
Primary Mass: 513.0 / 469.0



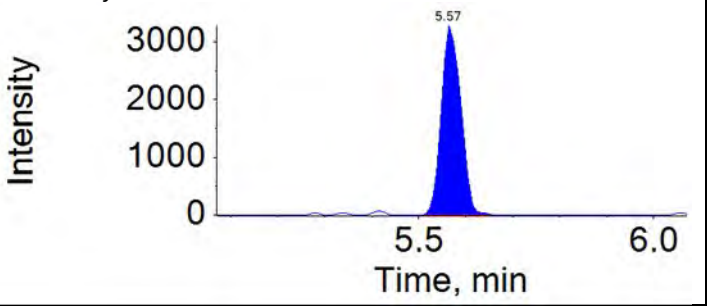
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



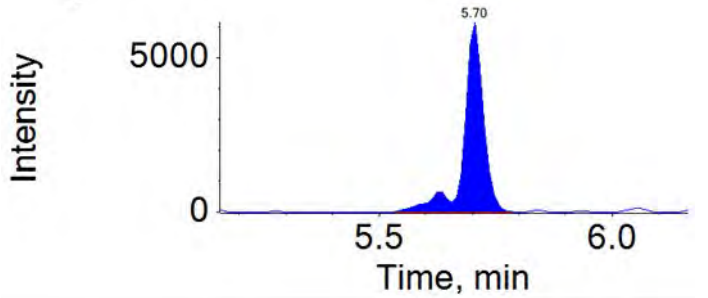
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



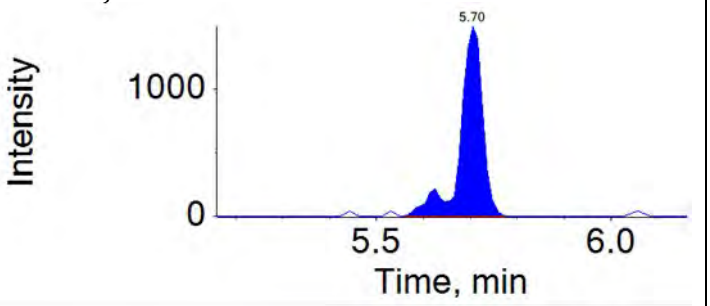
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



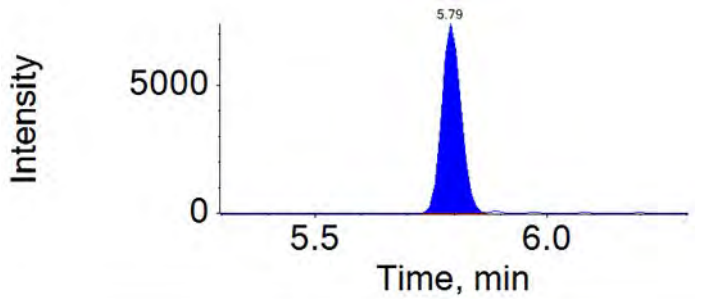
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



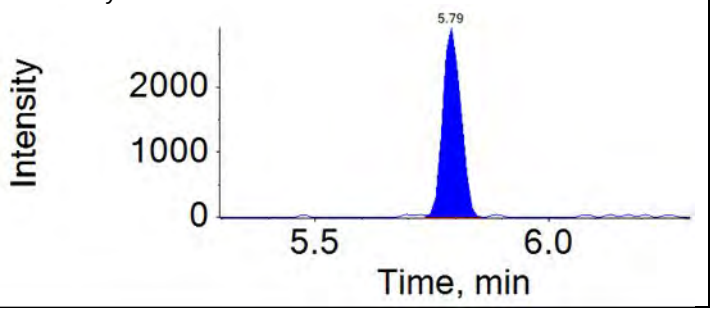
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



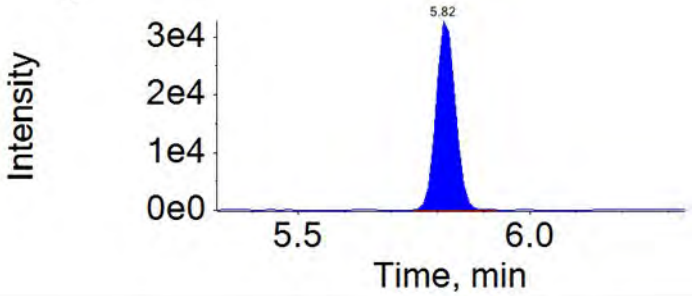
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



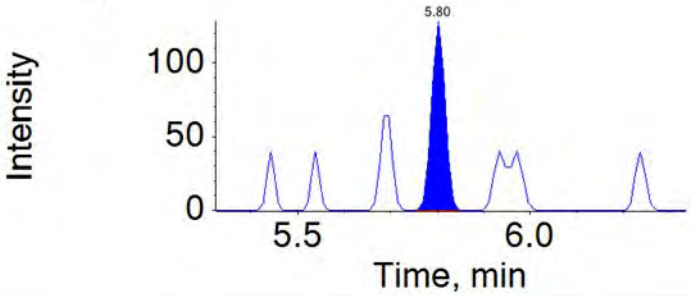
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

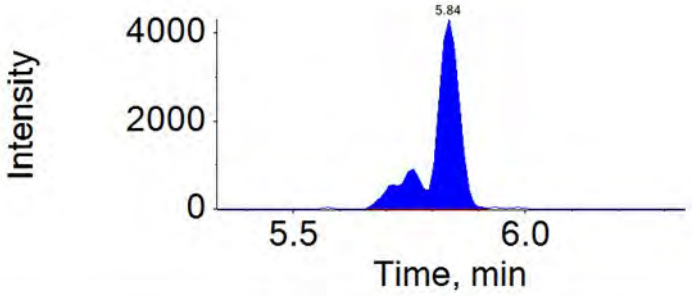
Component: PFUnDA
Primary Mass: 563.0 / 519.0



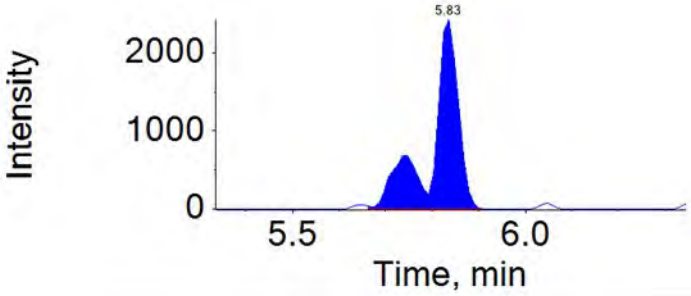
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



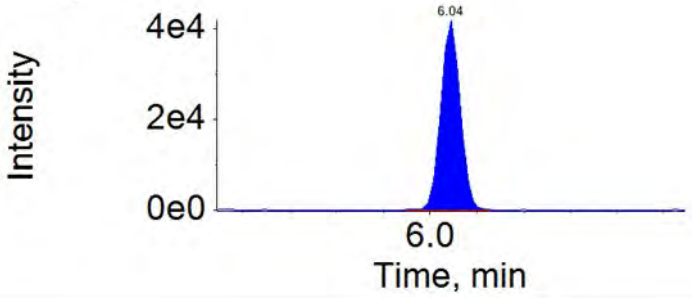
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



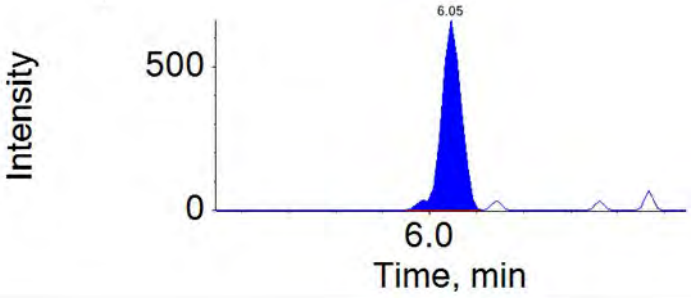
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



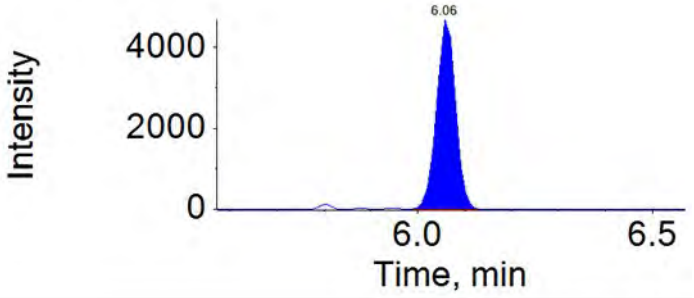
Component: PFDoDA
Primary Mass: 613.0 / 569.0



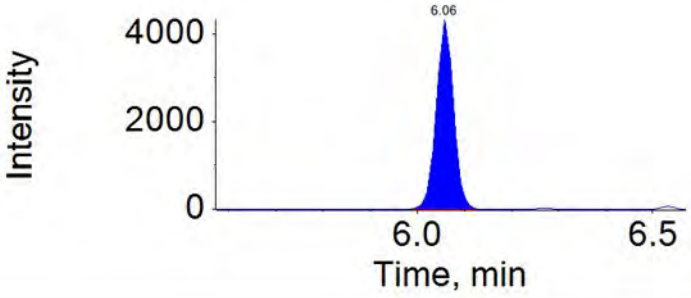
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



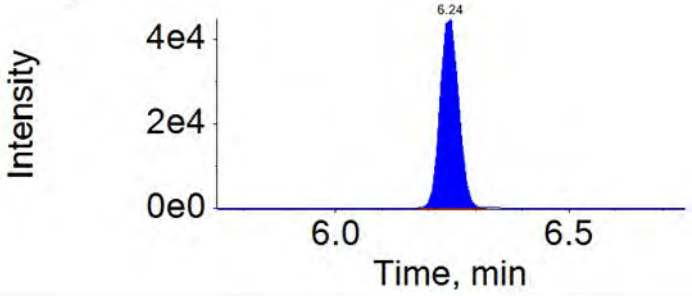
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



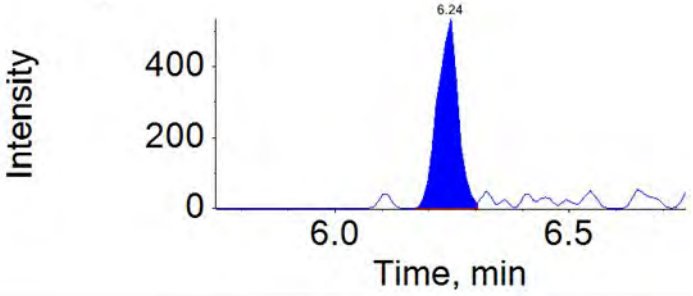
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

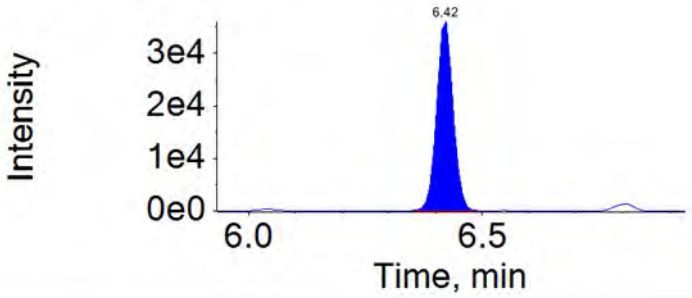
Component: PFTrDA
Primary Mass: 663.0 / 619.0



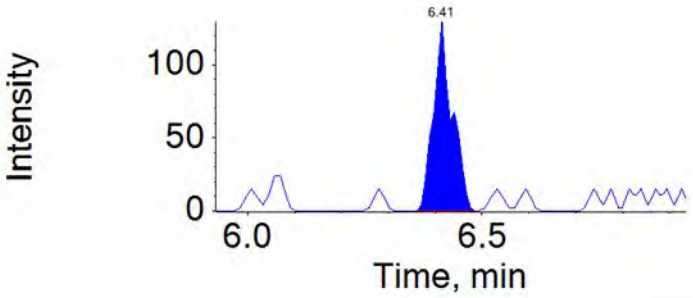
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



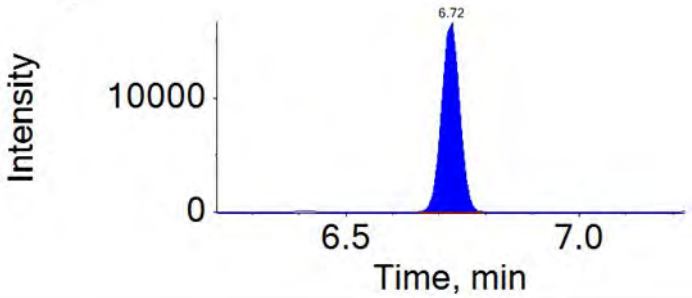
Component: PFTeDA
Primary Mass: 713.0 / 669.0



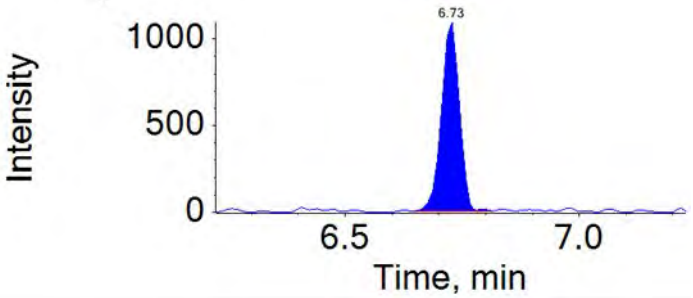
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



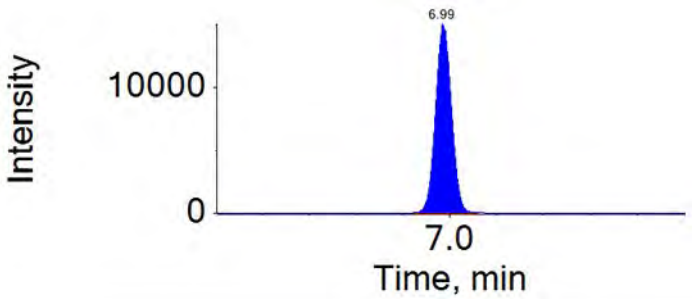
Component: PFHxDA
Primary Mass: 813.0 / 769.0



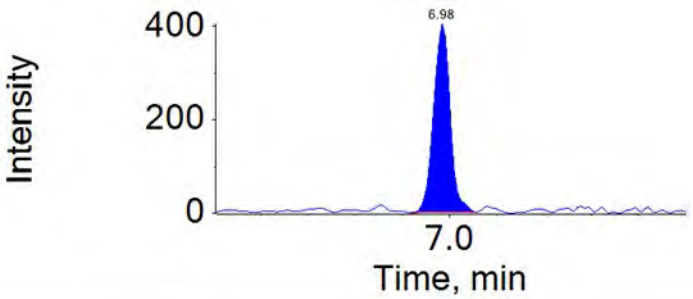
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18NOV29D-73.wiff
Sample ID:	methanol+labels			**Acquis Date:**		2018-11-29T20:47:06
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18NOV29DCCV6-9
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	N/A			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1072007.1	906425.4	18	50	
13C2-PFOA	5.0	580377.1	495984.0	17	50	
13C4-PFOS	4.8	356069.8	296261.8	20	50	
13C2-PFDA	5.0	542154.6	451203.0	20	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1146787.6	13C3-PFBA	1072007.1	1.070	5.000	4.773	95	70-130	
E13C5-PFPeA	1080213.5	13C3-PFBA	1072007.1	1.008	5.000	4.705	94	70-130	
E13C3-PFBS	467354.0	13C3-PFBA	1072007.1	0.436	4.650	4.159	89	70-130	
E13C2-4:2-FTS	83228.5	13C2-PFOA	580377.1	0.143	4.670	4.942	106	70-130	
E13C5-PFHxA	761353.7	13C2-PFOA	580377.1	1.312	5.000	4.818	96	70-130	
E13C3-PFHxS	380641.1	13C2-PFOA	580377.1	0.656	4.730	5.140	109	70-130	
E13C4-PFHpA	608352.9	13C2-PFOA	580377.1	1.048	5.000	4.816	96	70-130	
E13C2-6:2-FTS	76246.9	13C2-PFOA	580377.1	0.131	4.750	5.499	116	70-130	
E13C8-PFOA	1060868.3	13C2-PFOA	580377.1	1.828	5.000	5.031	101	70-130	
E13C8-PFOS	358159.4	13C4-PFOS	356069.8	1.006	4.780	4.541	95	70-130	
E13C9-PFNA	747835.1	13C4-PFOS	356069.8	2.100	5.000	4.613	92	70-130	
E13C6-PFDA	951251.3	13C2-PFDA	542154.6	1.755	5.000	4.947	99	70-130	
E13C2-8:2-FTS	62758.6	13C2-PFDA	542154.6	0.116	4.790	4.975	104	70-130	
E13C8-PFOSA	726331.4	13C2-PFDA	542154.6	1.340	5.000	4.916	98	70-130	
Ed3-NMeFOSAA	279222.6	13C2-PFDA	542154.6	0.515	5.000	6.539	131	70-130	OOS
E13C7-PFUnDA	639126.9	13C2-PFDA	542154.6	1.179	5.000	4.982	100	70-130	
Ed5-NEtFOSAA	158699.3	13C2-PFDA	542154.6	0.293	5.000	5.215	104	70-130	
E13C2-PFDoDA	1215903.7	13C2-PFDA	542154.6	2.243	5.000	4.712	94	70-130	
Ed7-NMePFOSAE	302120.4	13C2-PFDA	542154.6	0.557	5.000	4.816	96	70-130	
Ed3-NMePFOSA	101225.5	13C2-PFDA	542154.6	0.187	5.000	5.053	101	70-130	
Ed9-NEtPFOSAE	250994.9	13C2-PFDA	542154.6	0.463	5.000	4.694	94	70-130	
Ed5-NEtPFOSA	78115.7	13C2-PFDA	542154.6	0.144	5.000	5.007	100	70-130	
E13C2-PFTeDA	927532.4	13C2-PFDA	542154.6	1.711	5.000	4.734	95	70-130	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

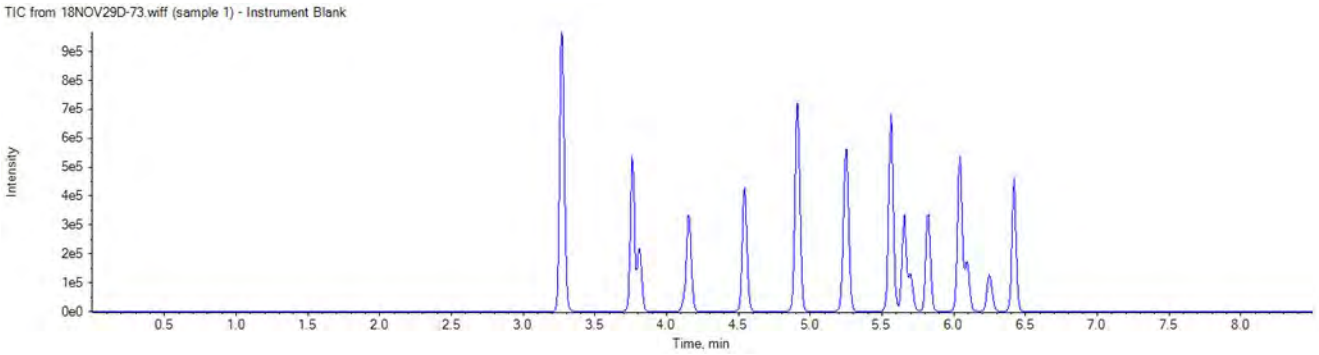
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-73.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1146787.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1080213.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	467354.0	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	83228.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	761353.7	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	467354.0	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	608352.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	380641.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	76246.9	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	380641.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	1060868.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	747835.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	951251.3	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	62758.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	726331.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	279222.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	639126.9	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	158699.3	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1215903.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	62758.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	302120.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	101225.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	250994.9	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	78115.7	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1215903.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	

Total Ion Chromatogram

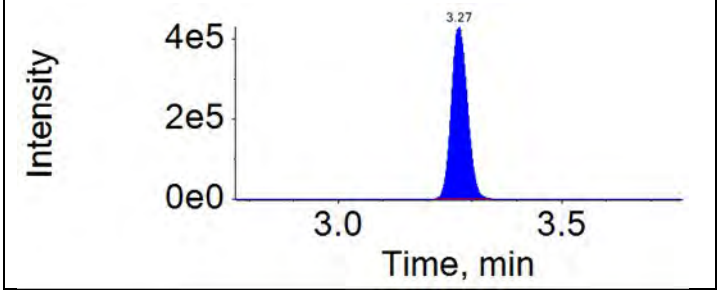


APPROVED
By MCD at 3:27 pm, 11/30/18

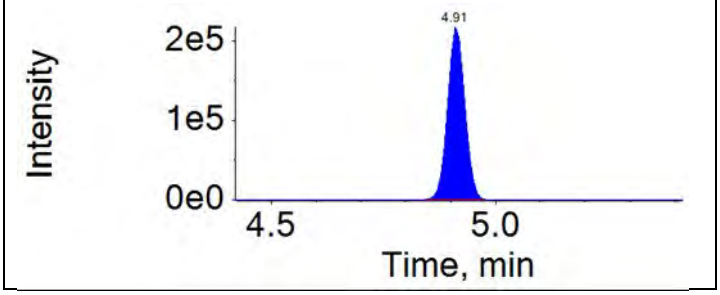
REVIEWED
By UMJS at 3:33 pm, 12/11/18

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

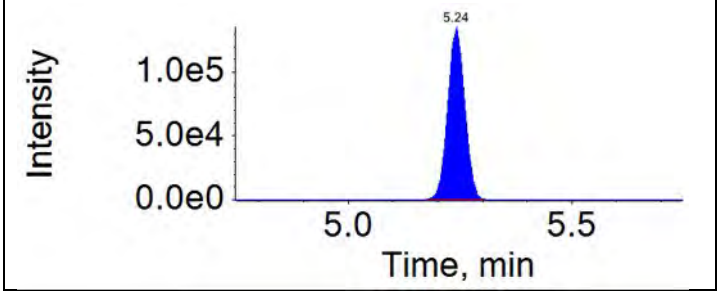
Injection Standard: 13C3-PFBA
216.0 / 172.0



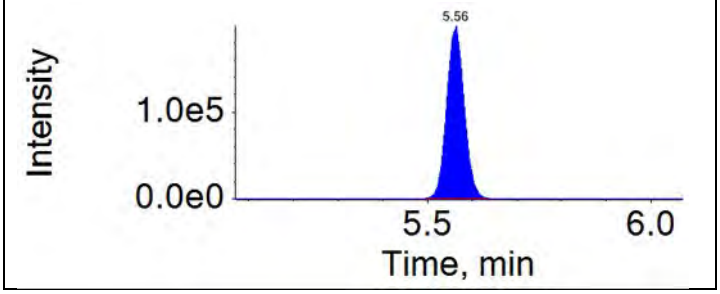
Injection Standard: 13C2-PFOA
415.0 / 370.0



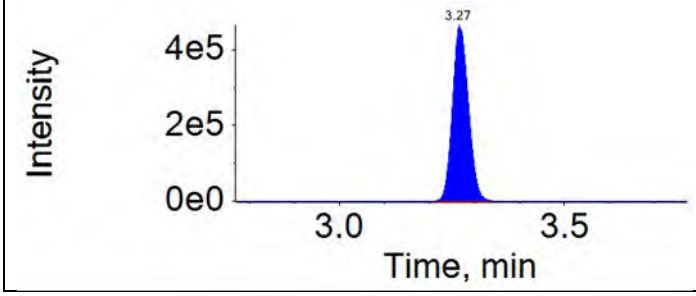
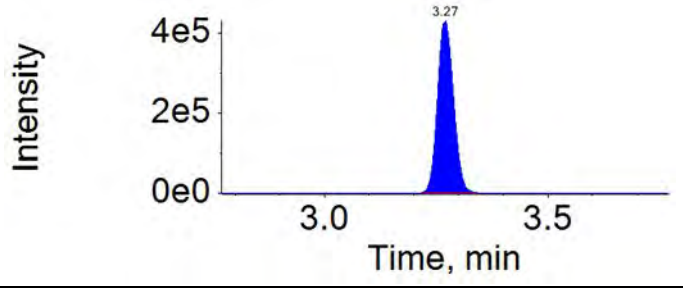
Injection Standard: 13C4-PFOS
503.0 / 80.0

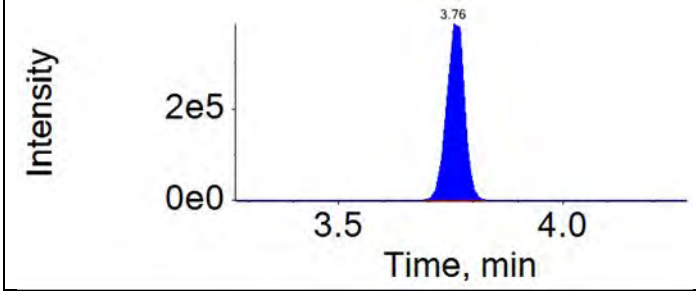
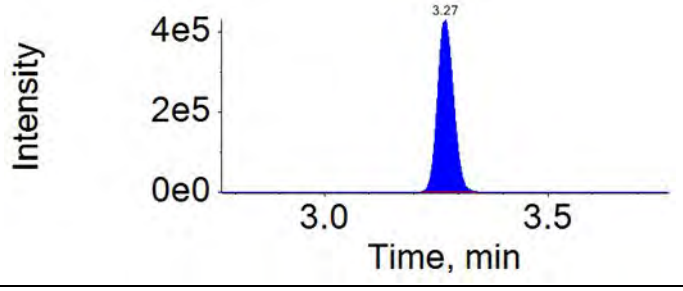


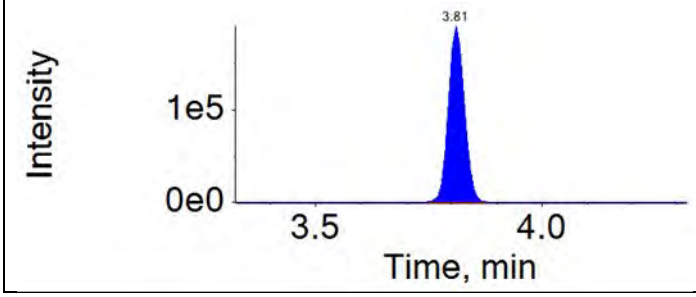
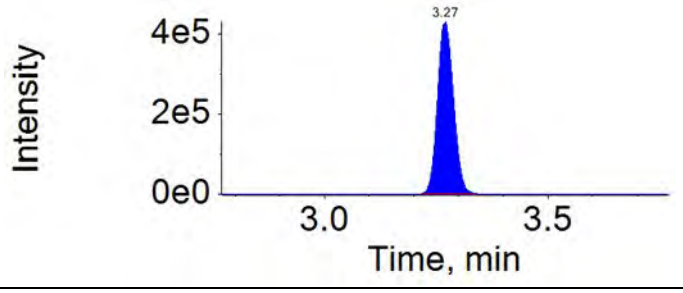
Injection Standard: 13C2-PFDA
515.0 / 470.0

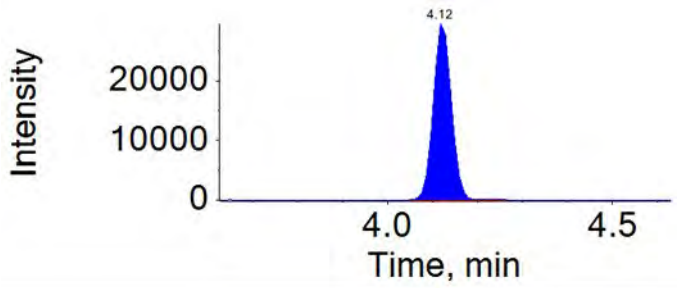
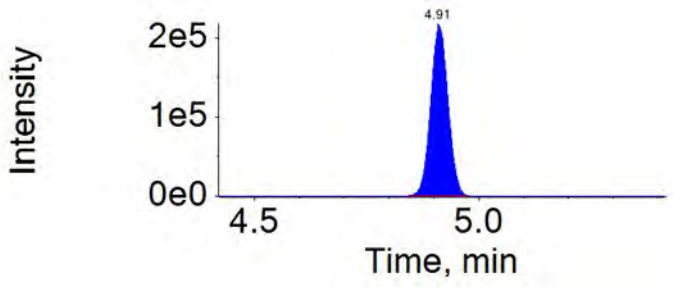


ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

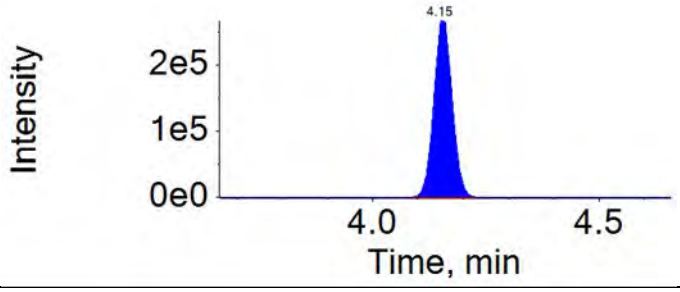
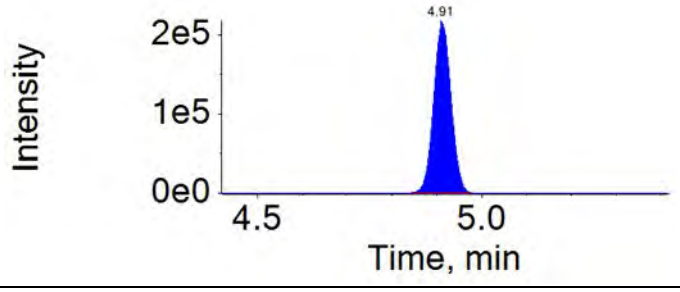
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

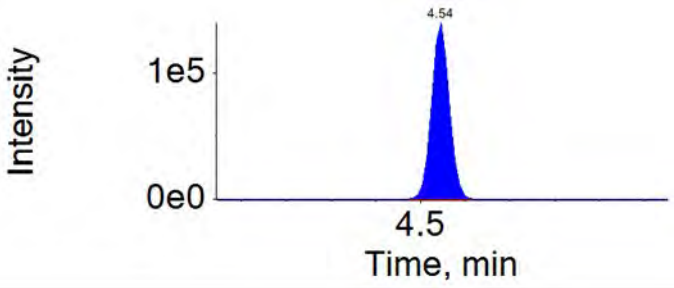
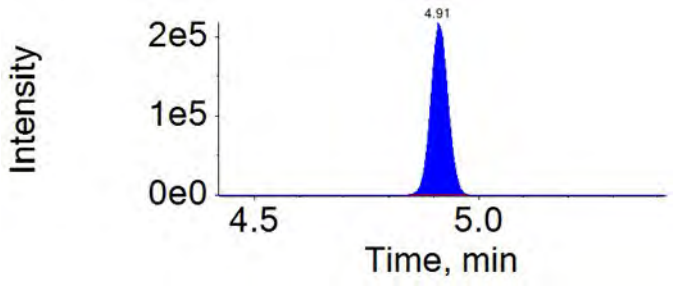
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

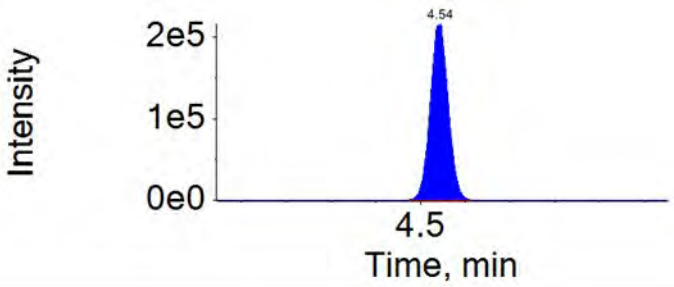
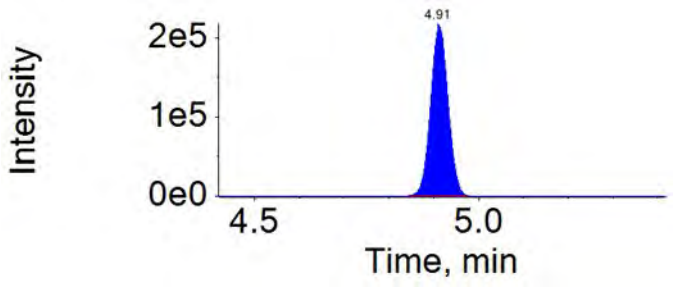
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

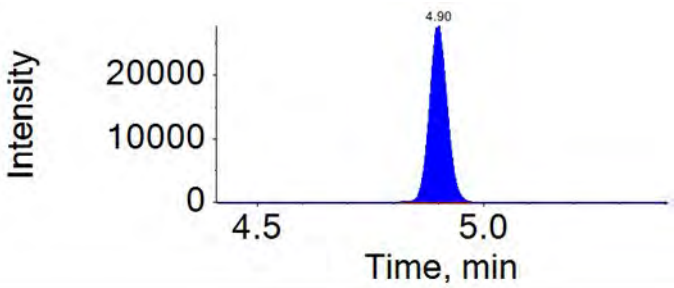
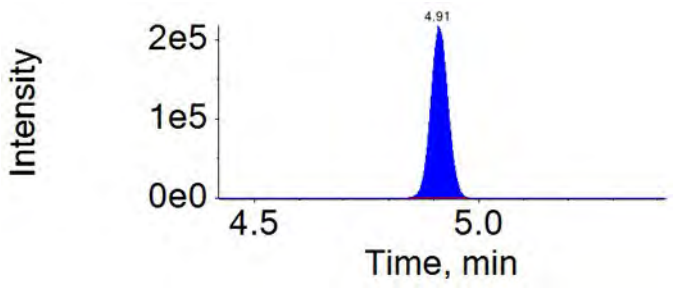
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

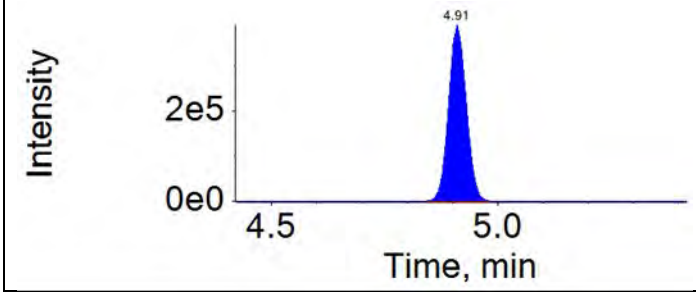
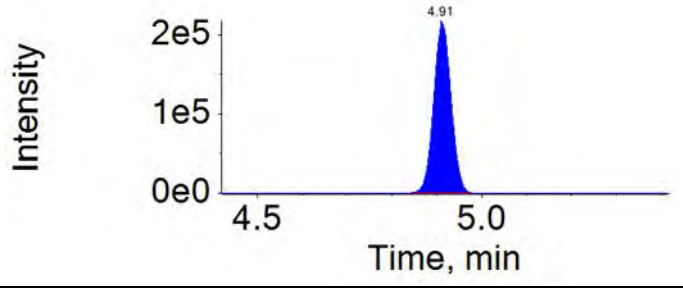
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

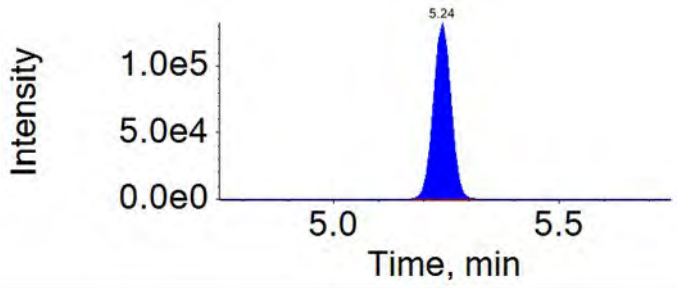
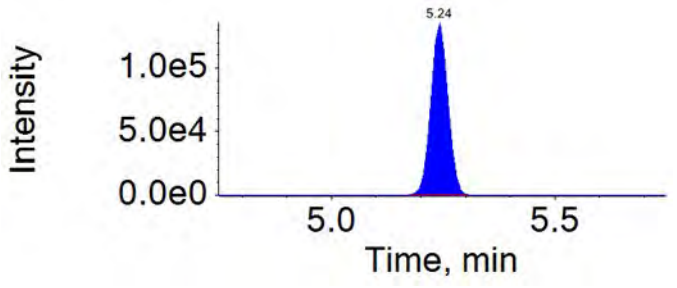
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

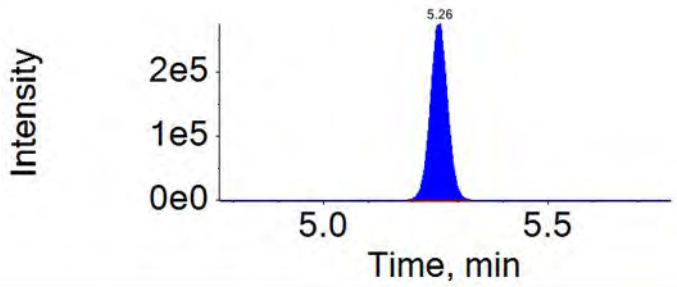
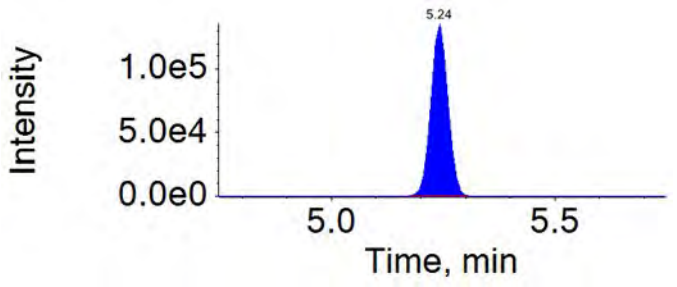
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

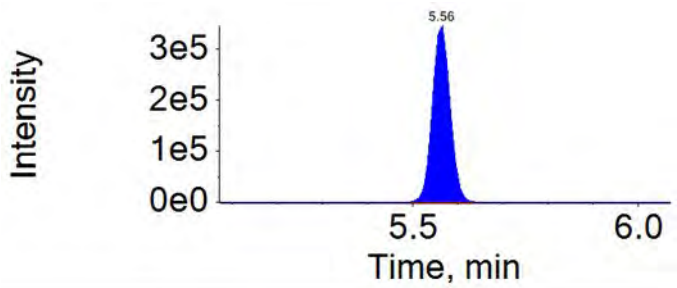
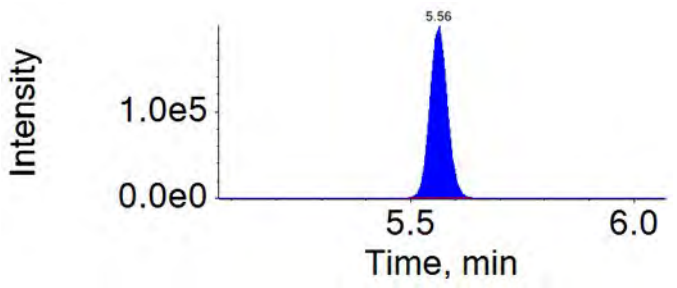
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

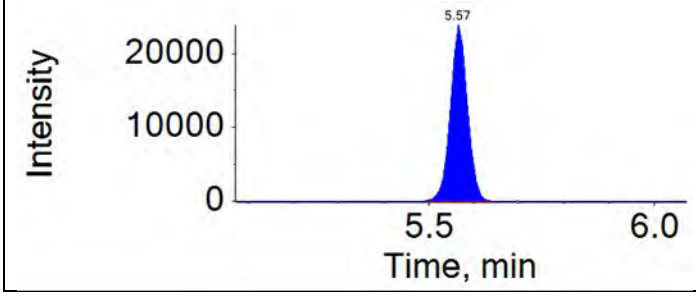
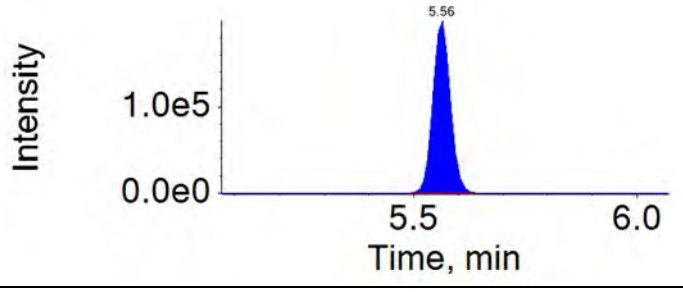
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

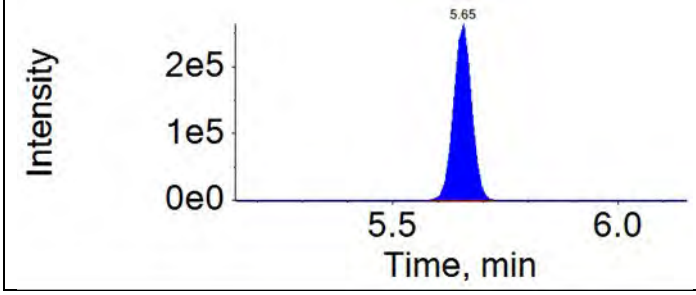
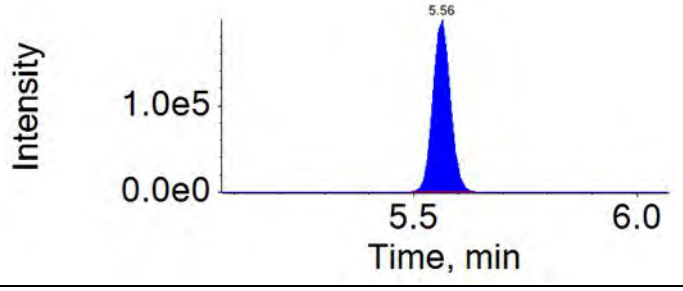
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

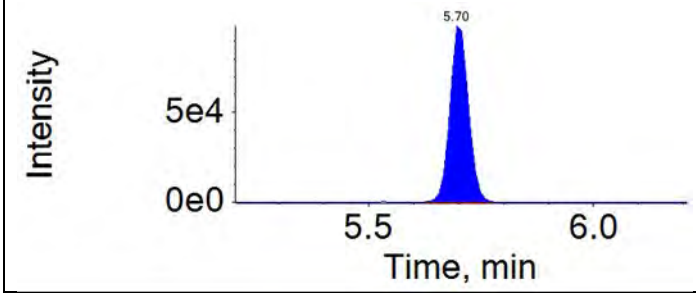
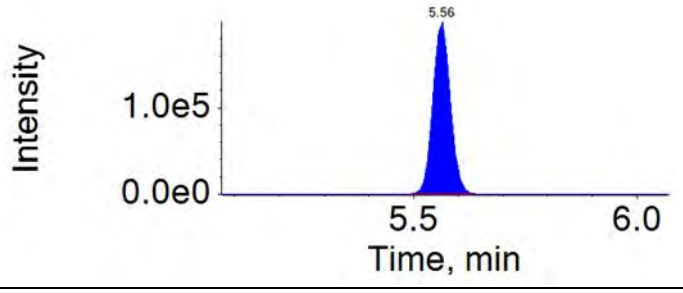
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

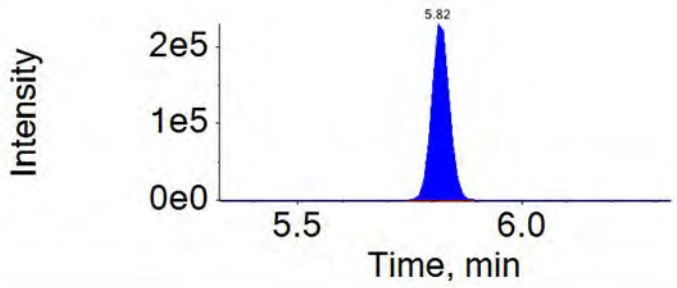
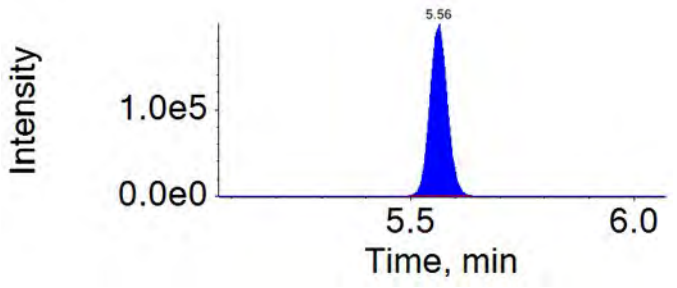
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

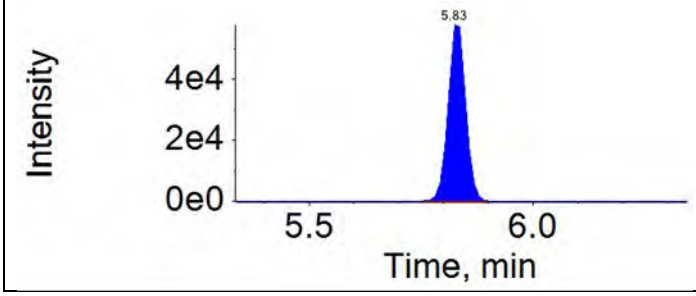
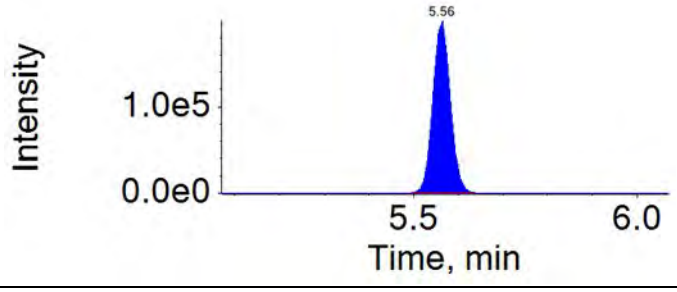
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

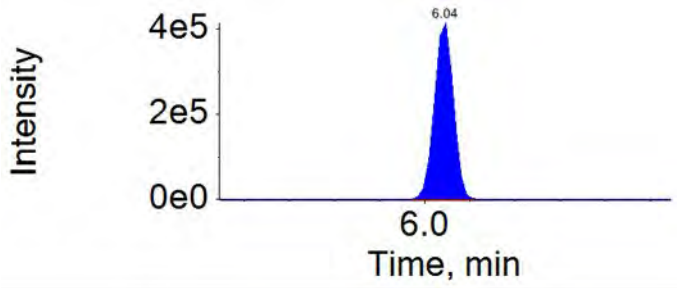
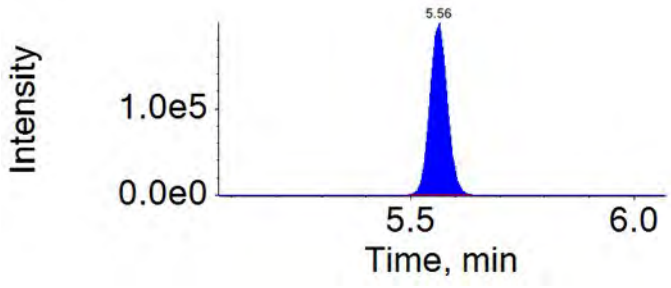
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

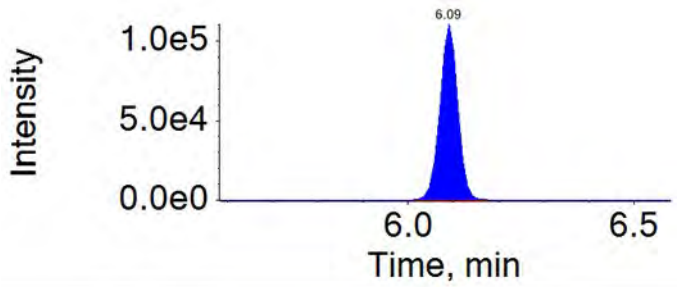
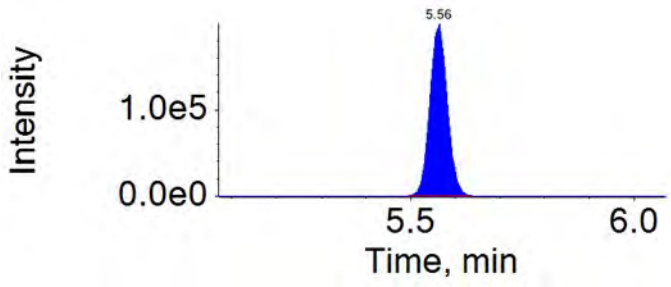
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

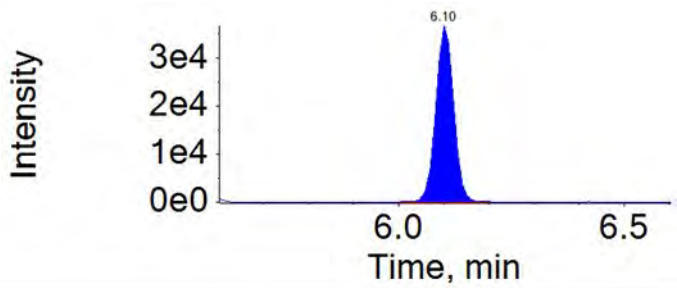
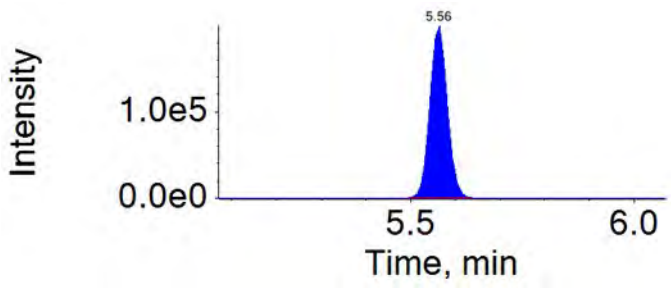
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

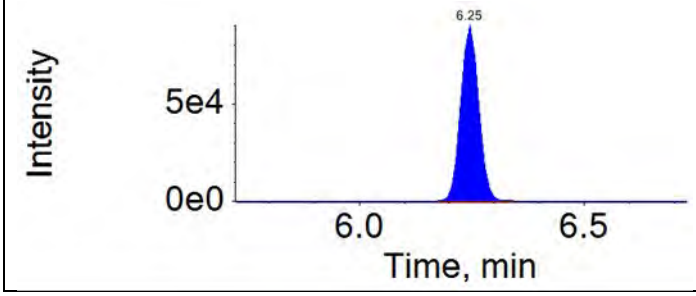
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

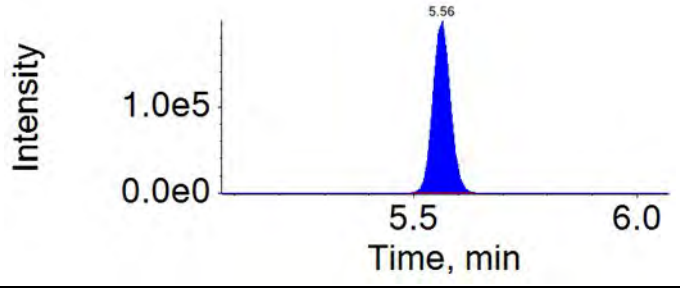
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

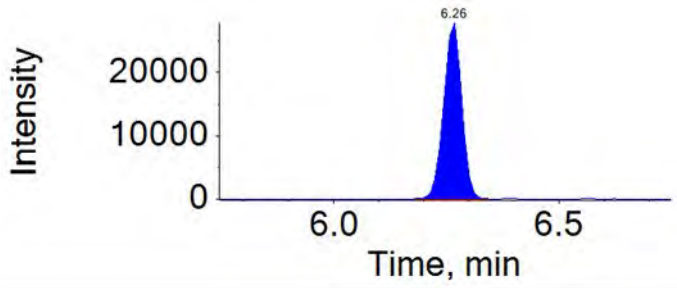
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

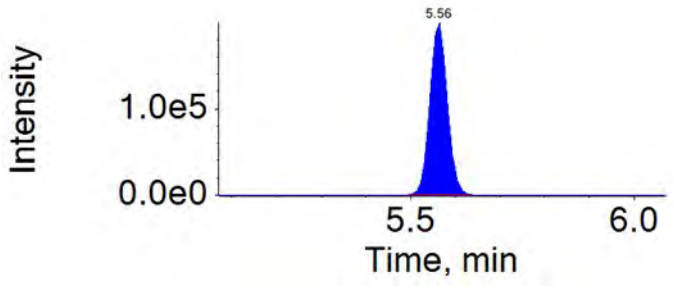
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



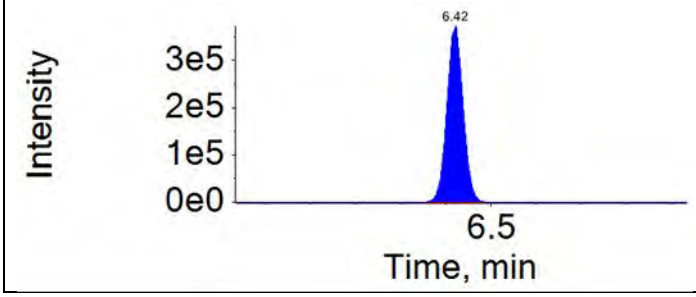


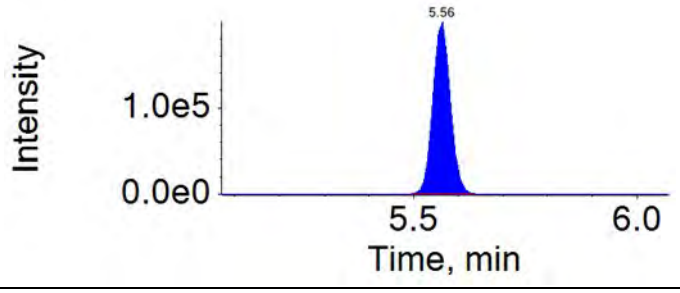
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





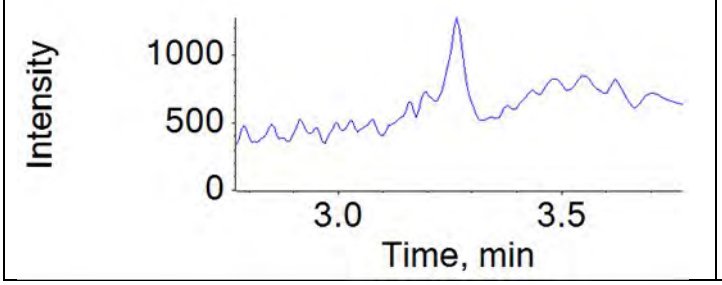
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

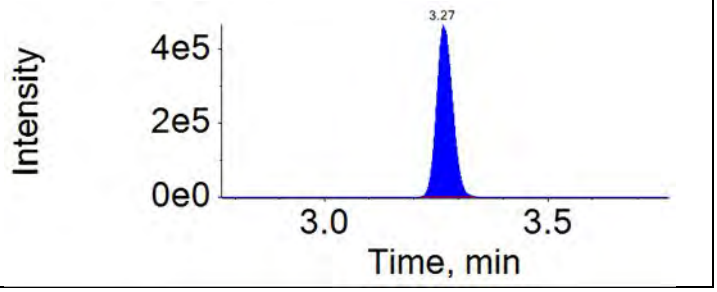




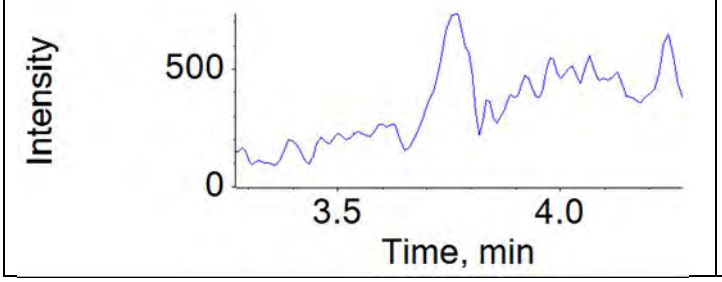
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

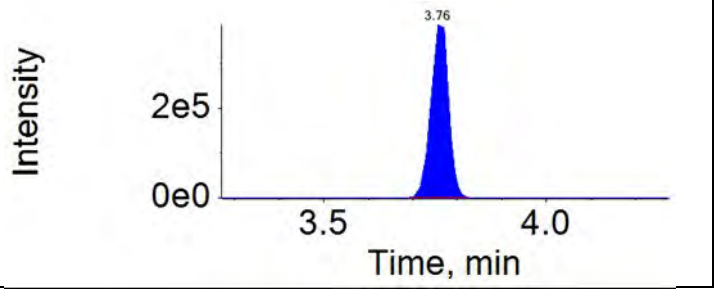
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



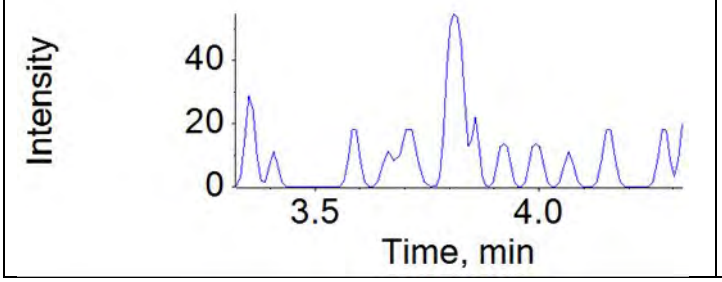


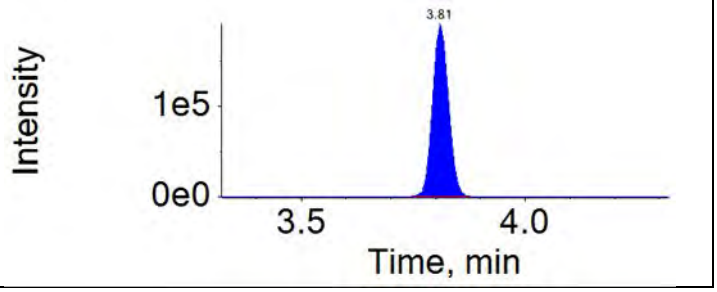
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



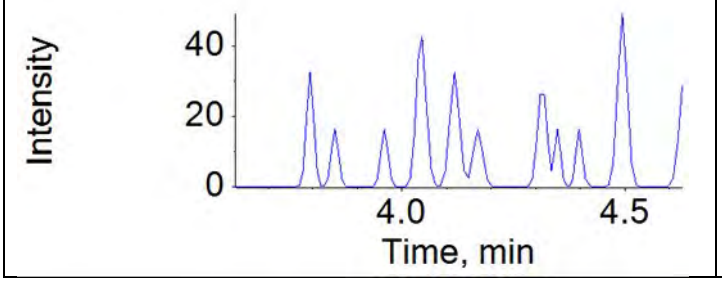


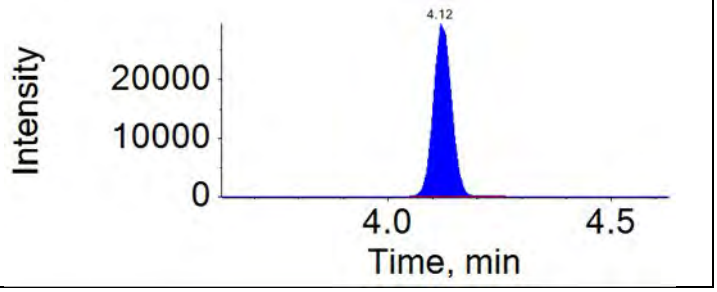
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





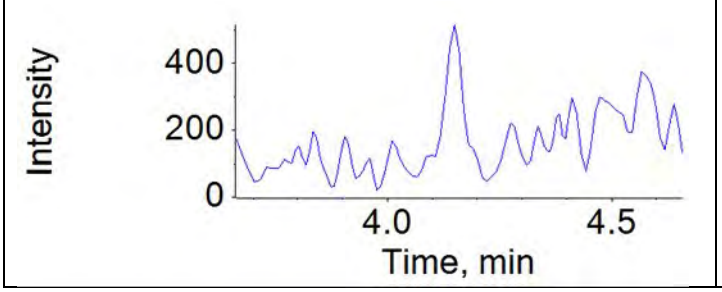
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

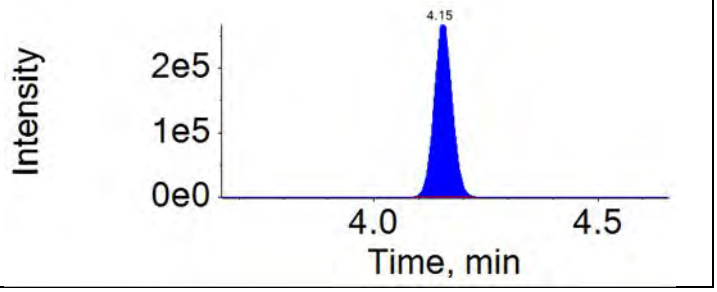




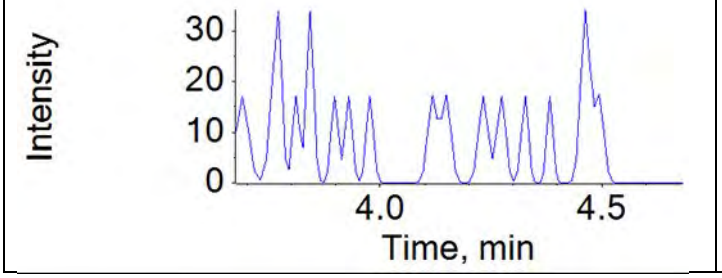
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

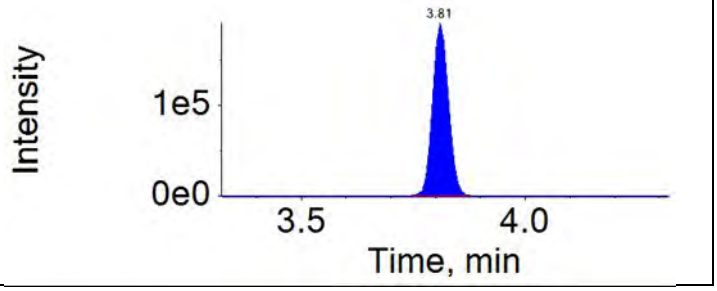
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



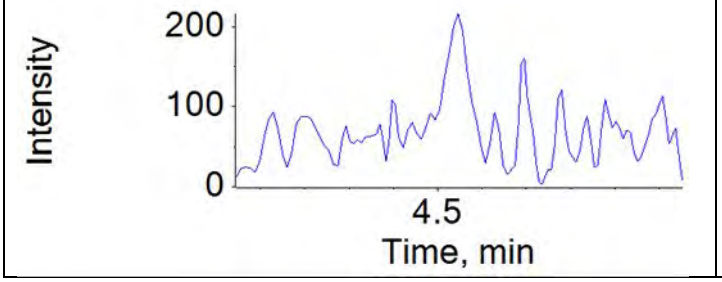


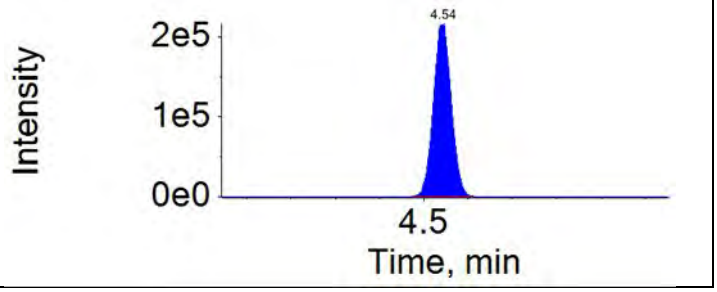
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



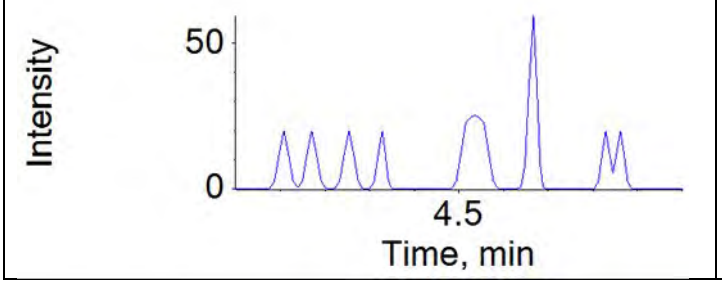


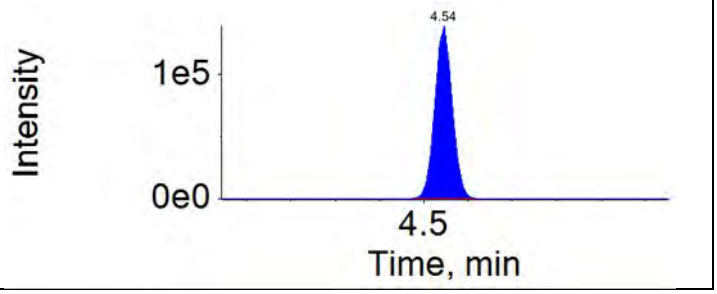
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





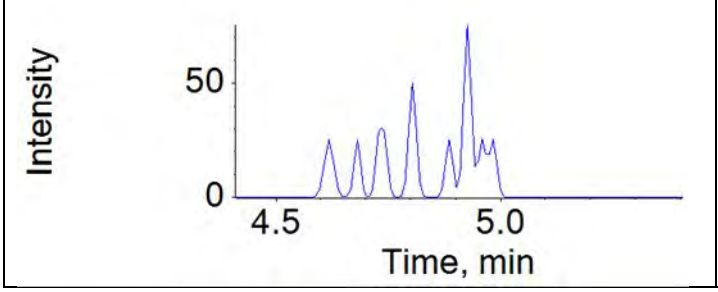
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

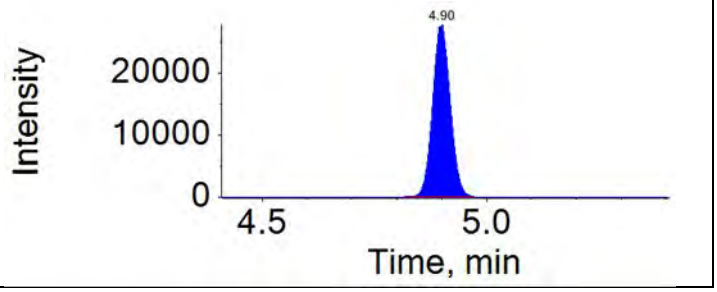




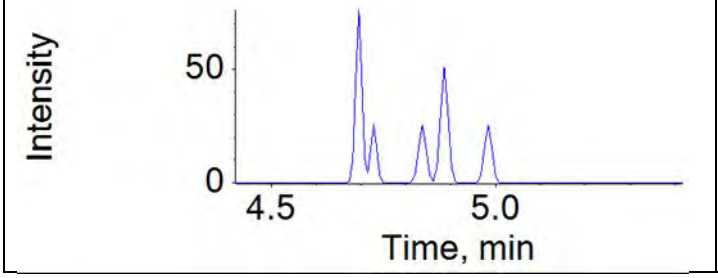
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

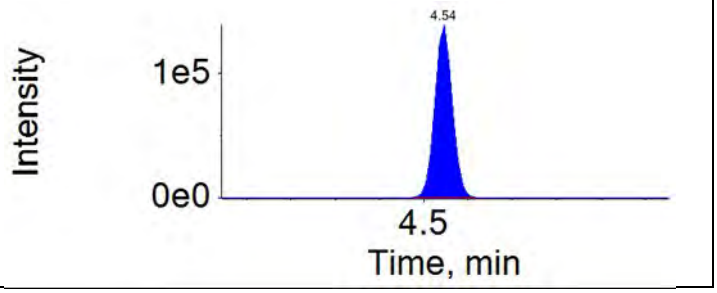
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



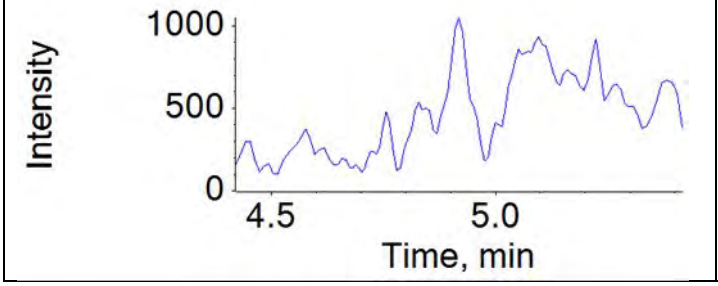


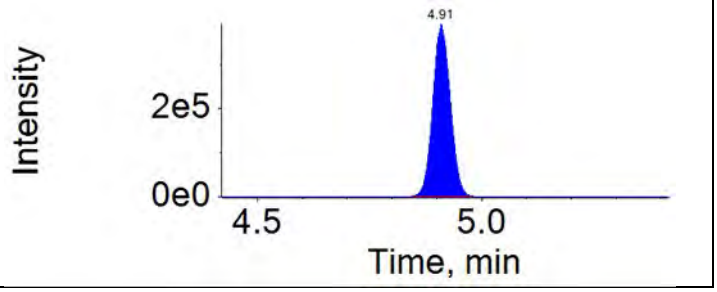
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



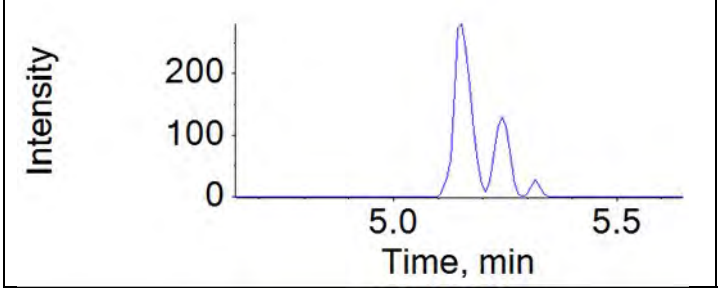


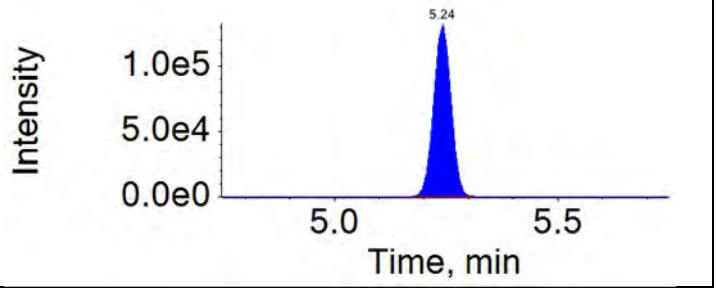
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





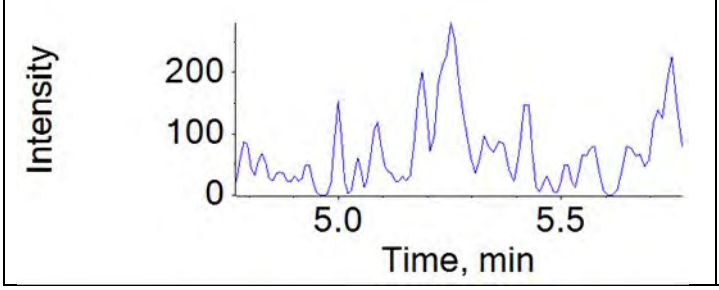
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

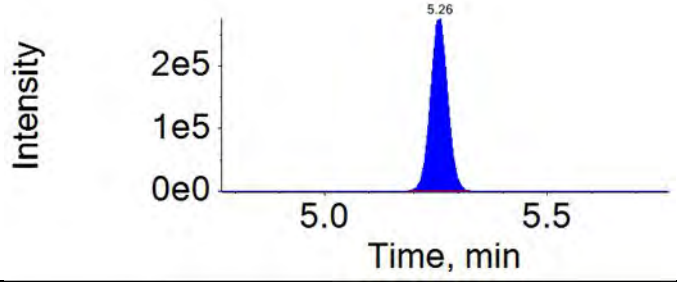




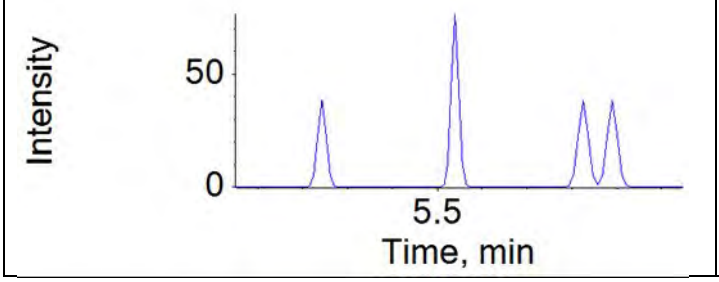
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

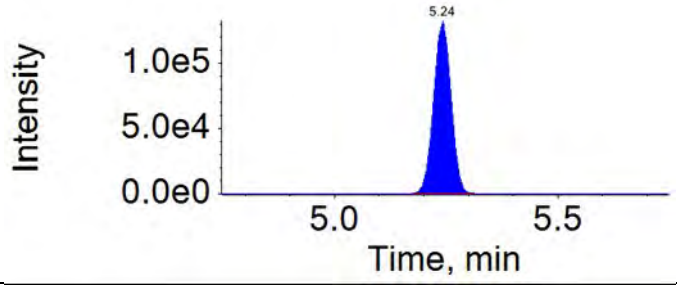
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



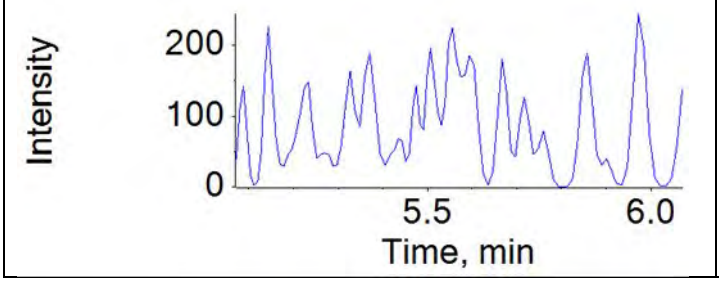


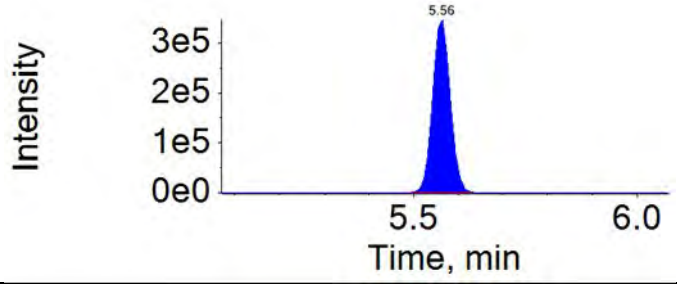
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



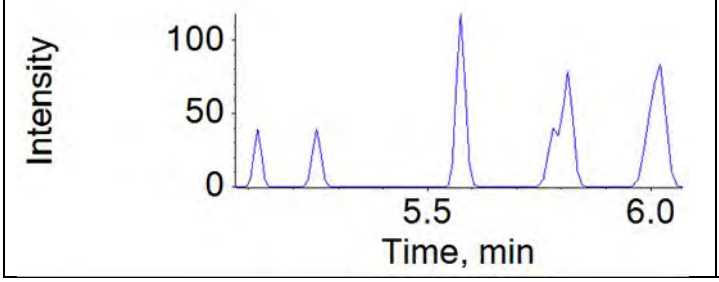


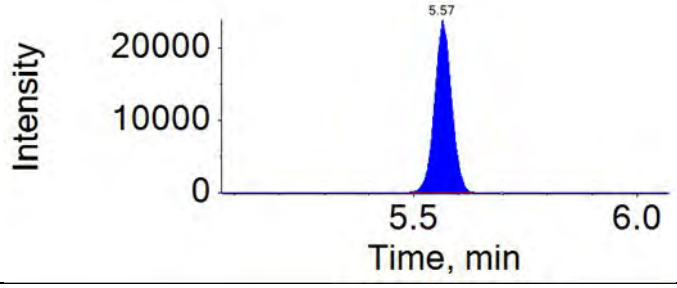
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





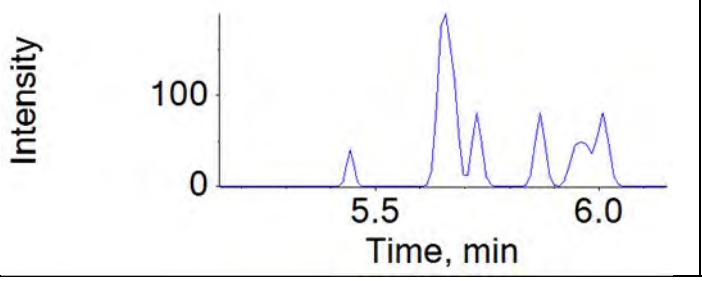
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

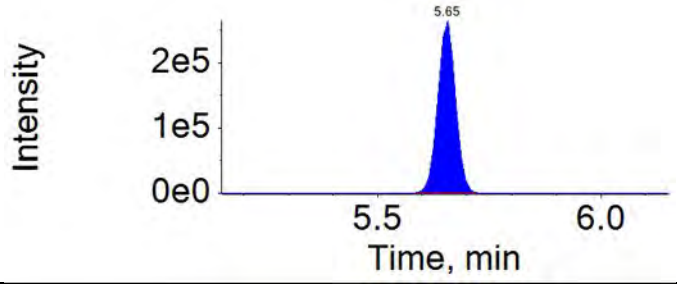




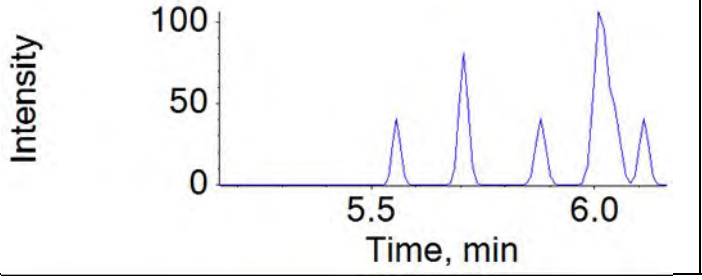
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

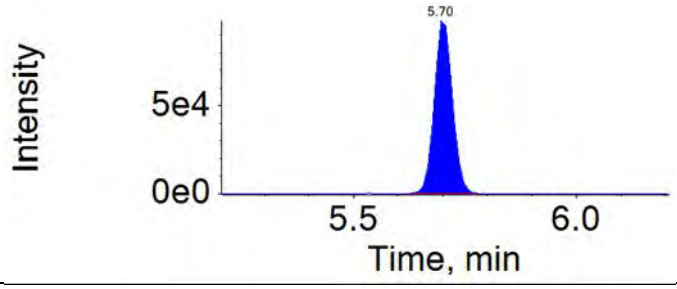
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



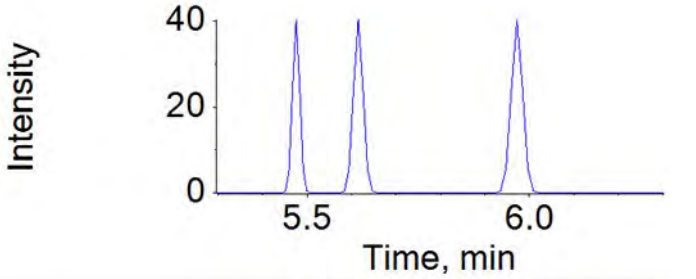


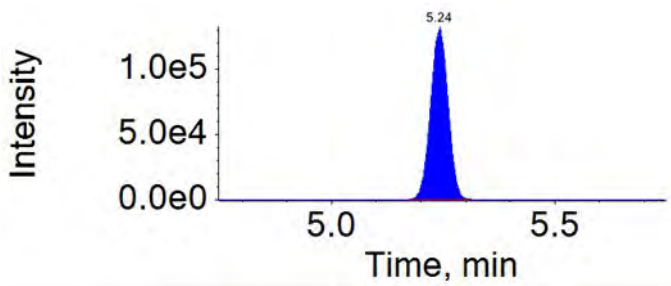
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



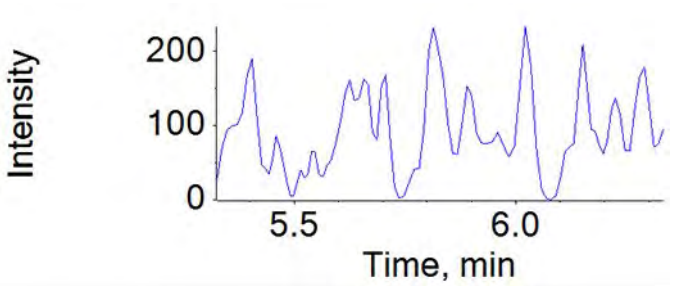


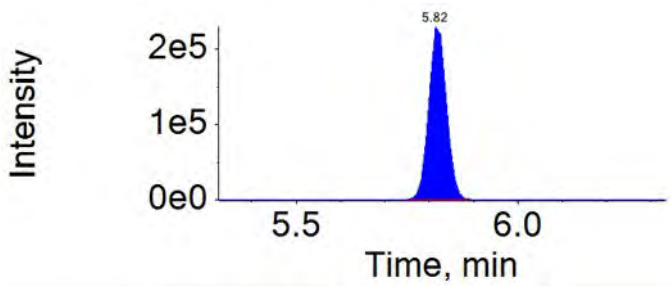
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



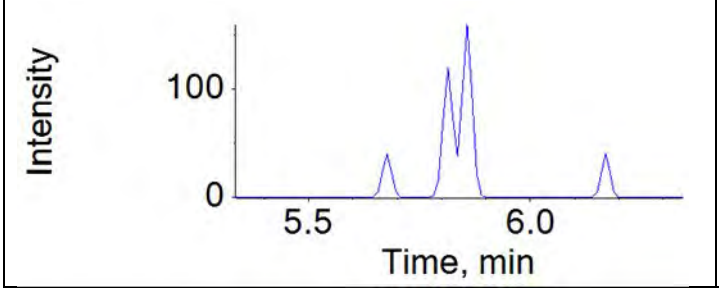


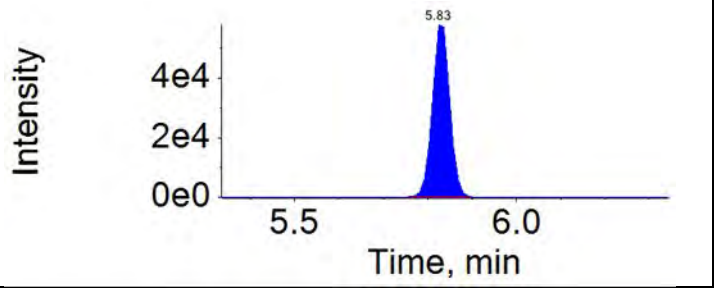
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

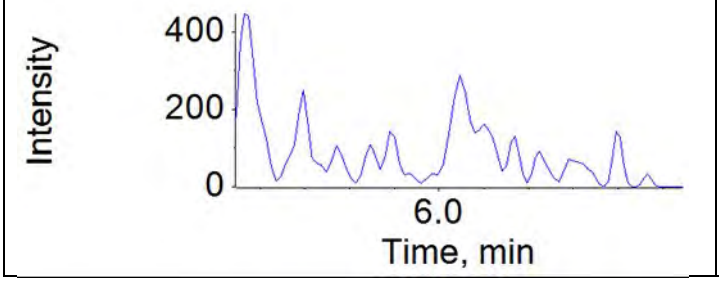
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

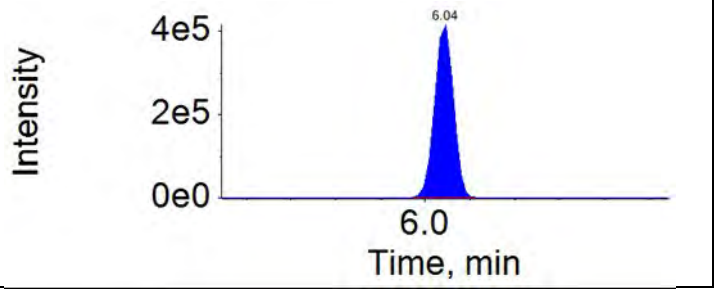
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



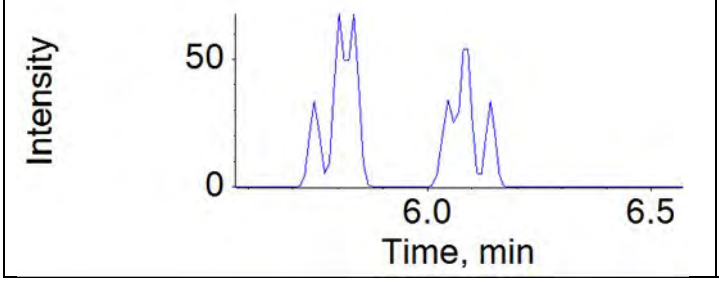


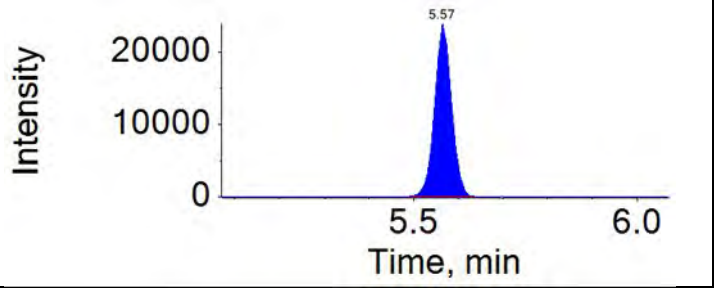
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



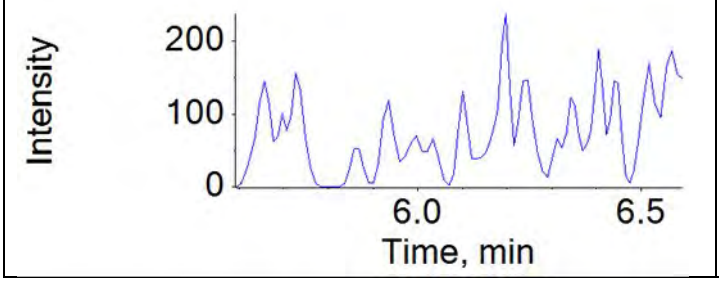


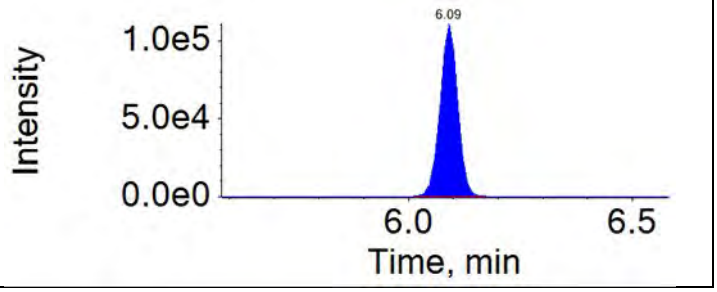
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





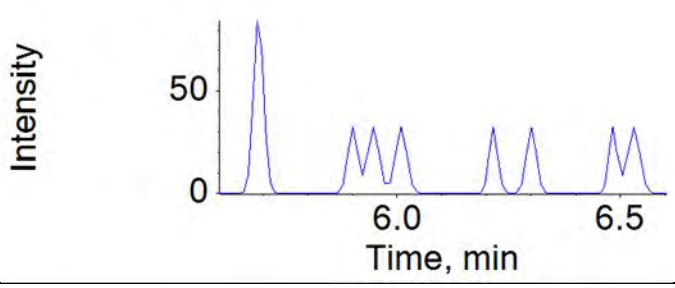
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

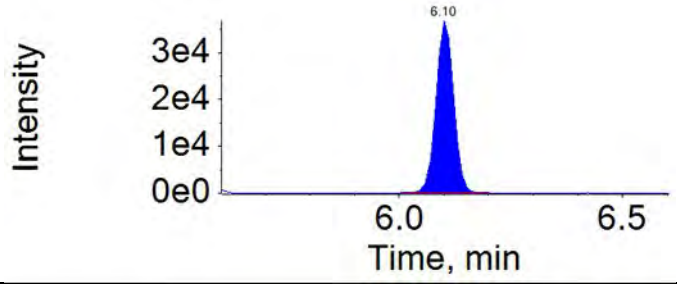




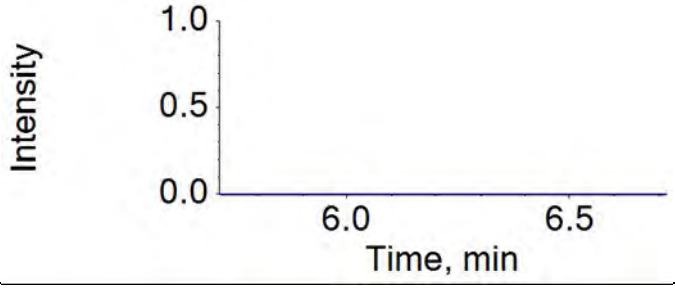
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

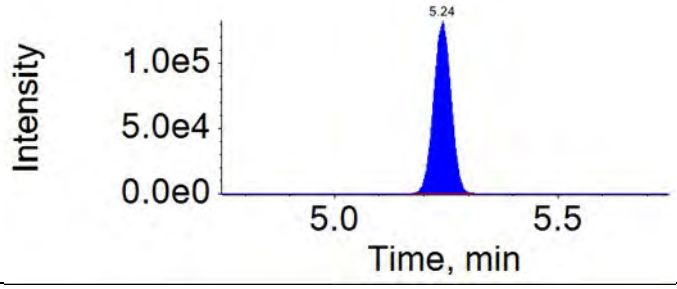
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



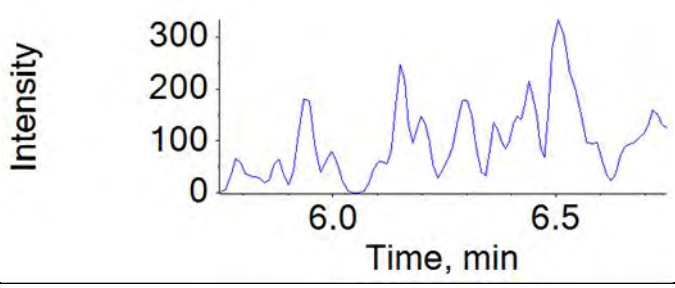


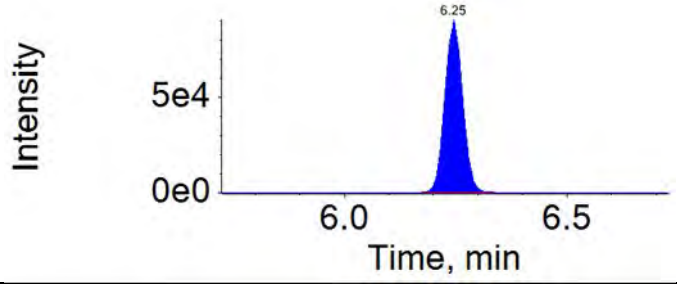
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



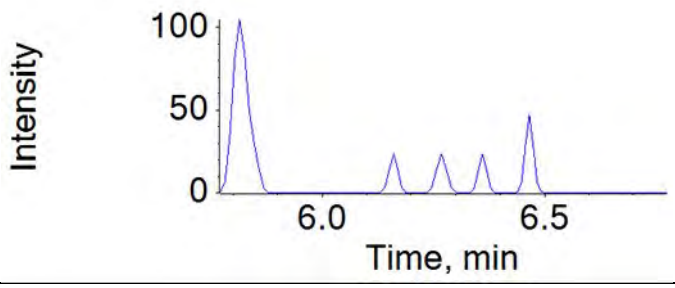


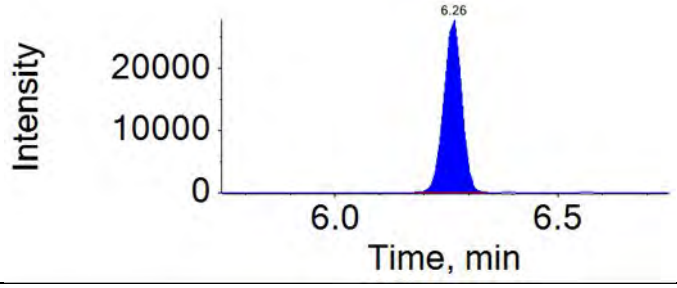
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





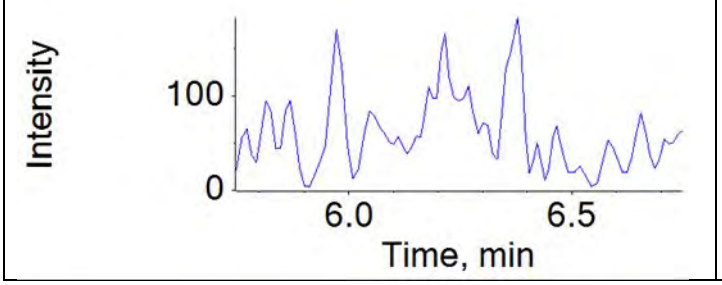
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

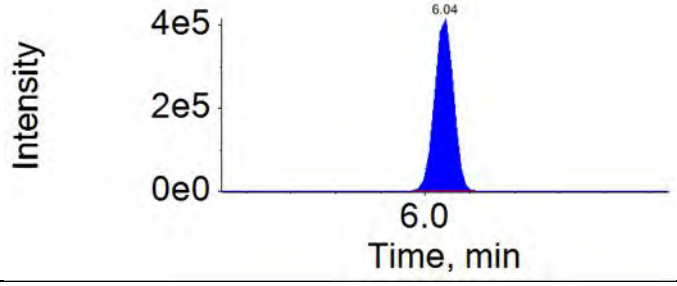




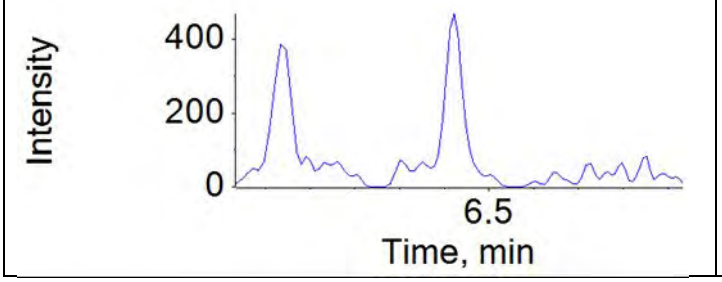
ICAL Name: 18NOV28DCAL **Result Table:** 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

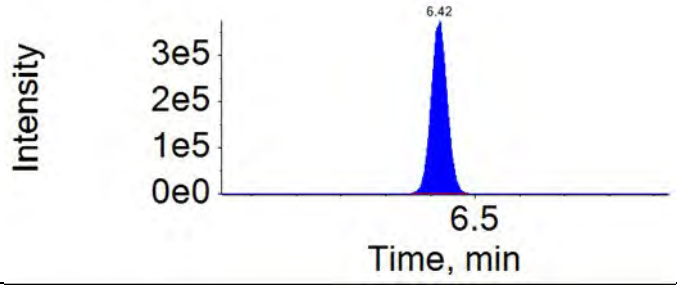
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



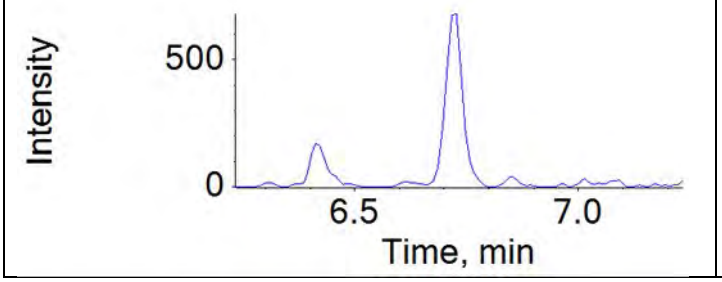


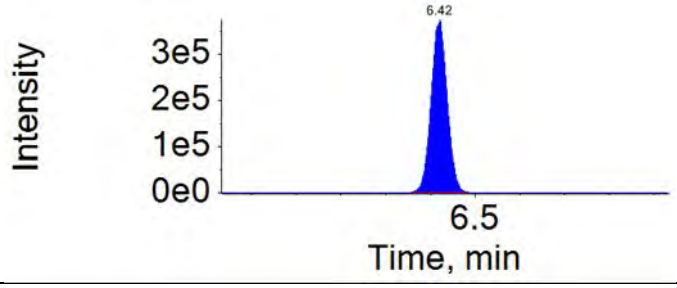
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



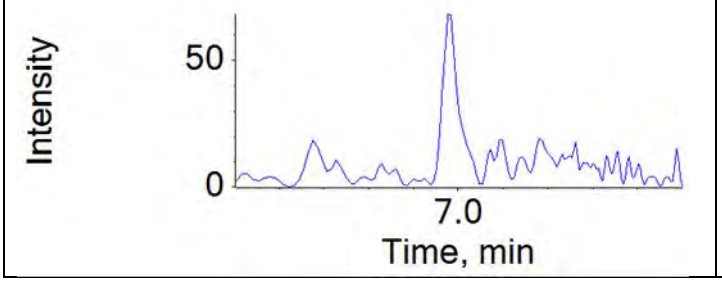


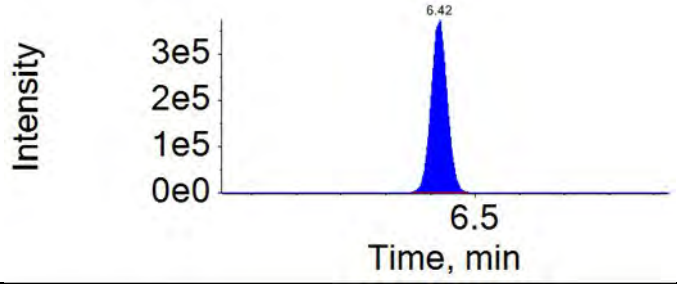
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





Ion Ratio Report

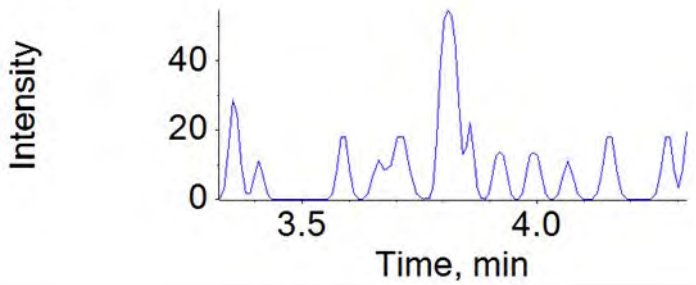
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18NOV29D-73.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

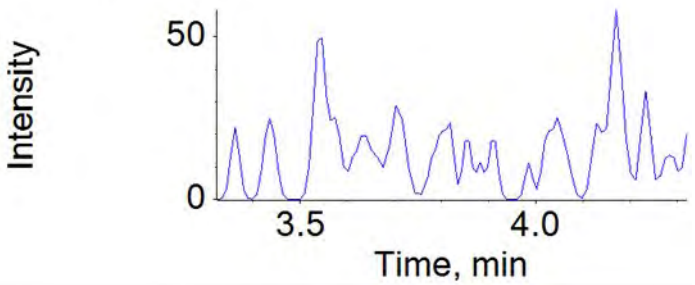
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

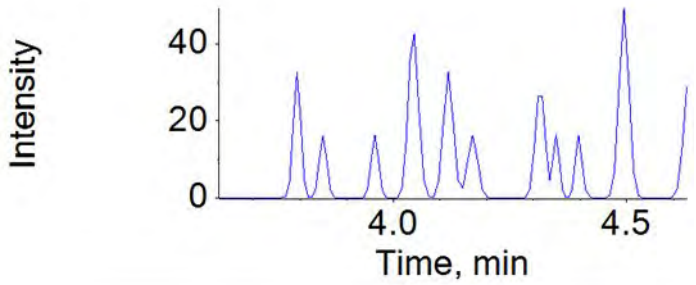
Component: PFBS
Primary Mass: 299.0 / 80.0



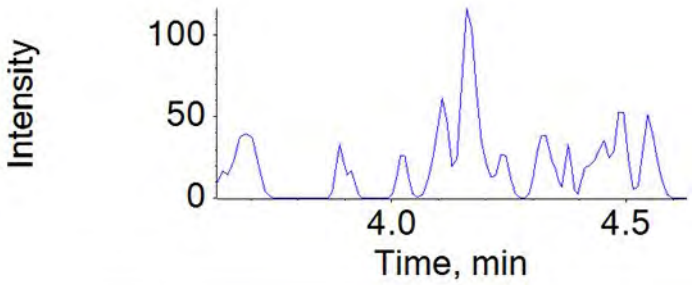
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



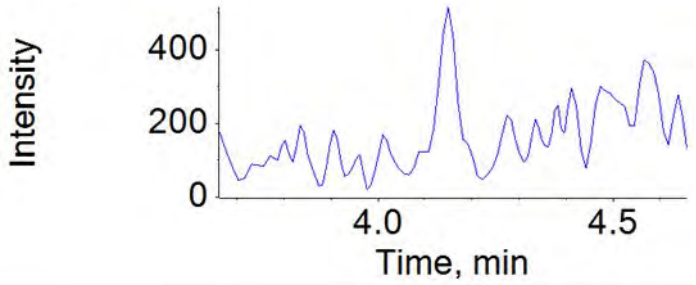
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



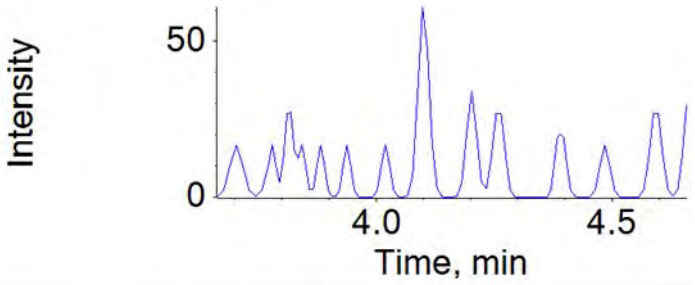
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



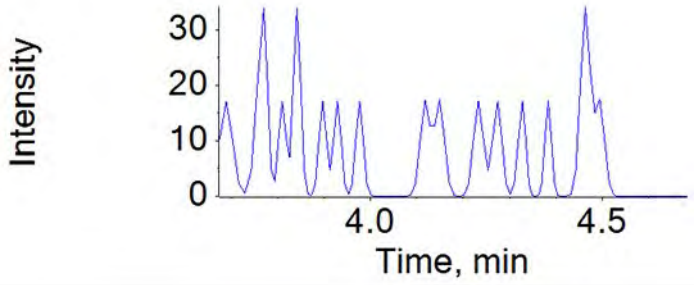
Component: PFHxA
Primary Mass: 313.0 / 269.0



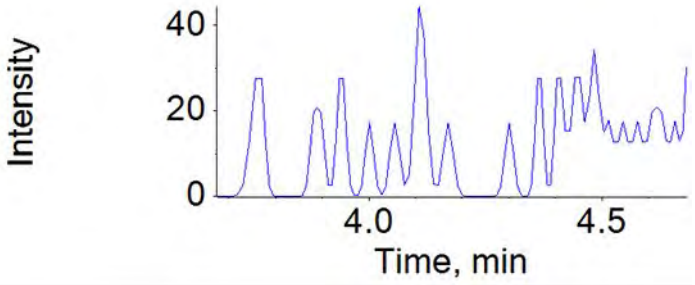
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



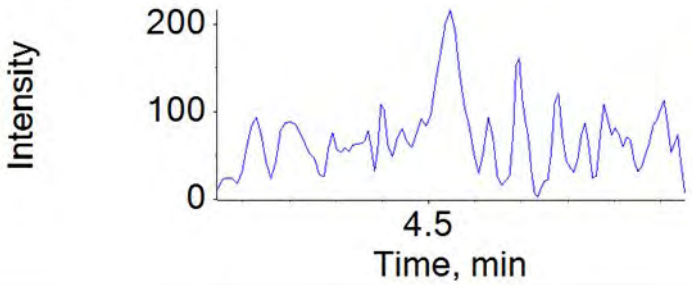
Component: PFPeS
Primary Mass: 349.0 / 80.0



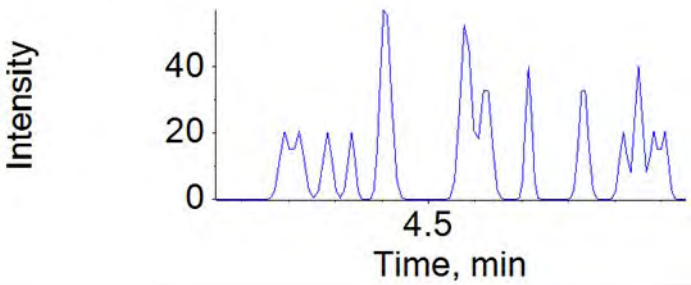
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



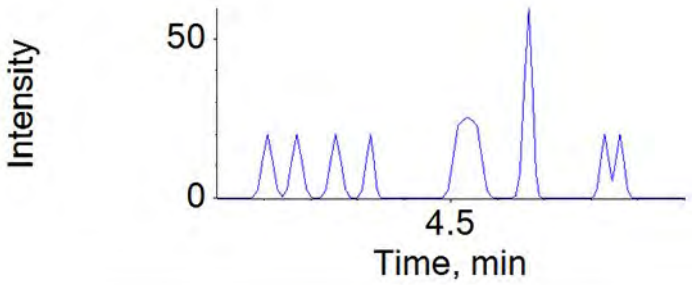
Component: PFHpA
Primary Mass: 363.0 / 319.0



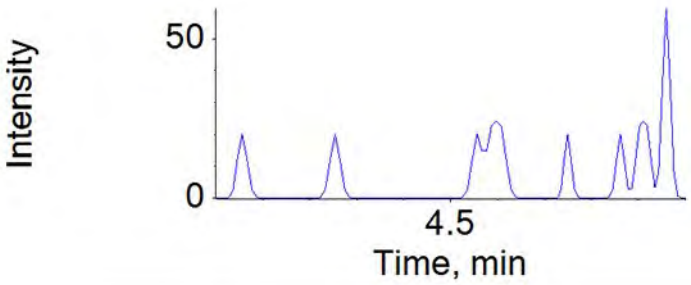
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



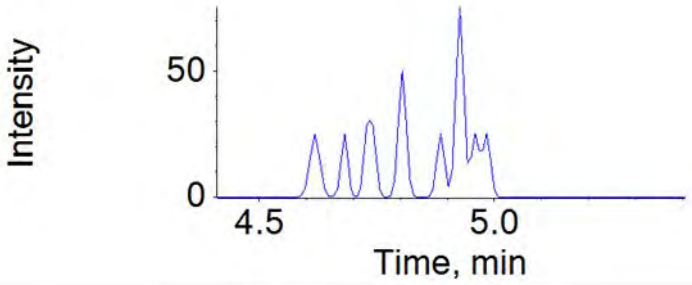
Component: PFHxS
Primary Mass: 399.0 / 80.0



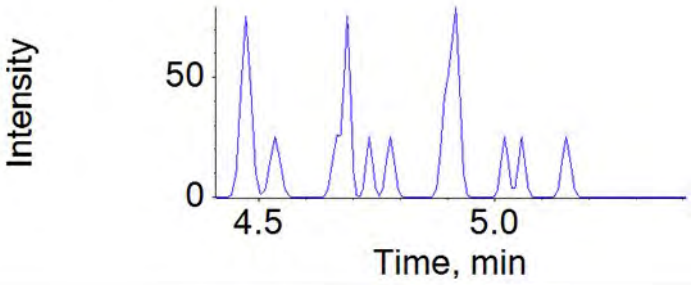
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



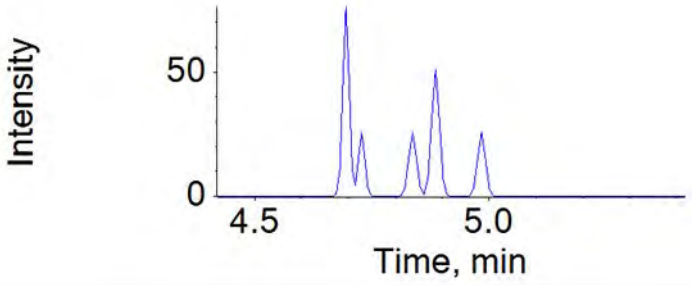
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



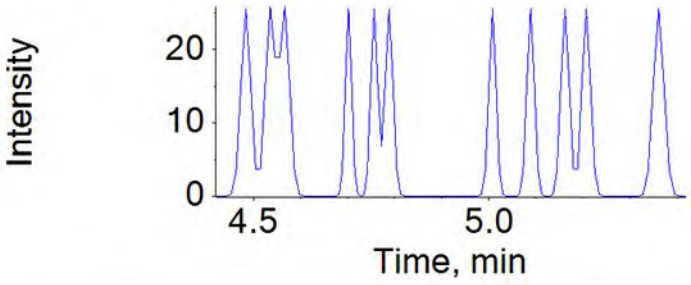
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



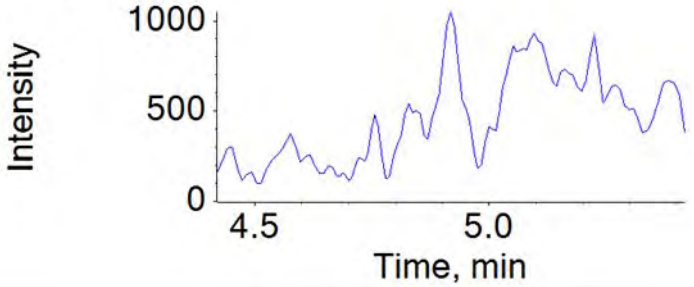
Component: PFHpS
Primary Mass: 449.0 / 80.0



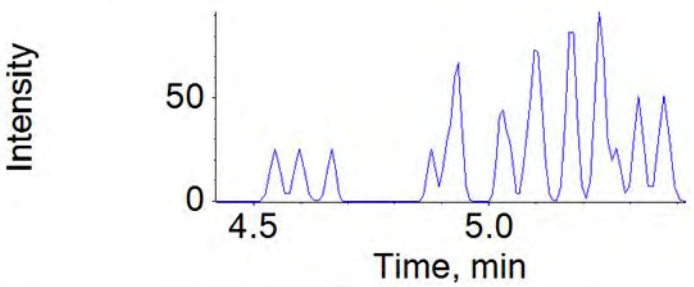
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



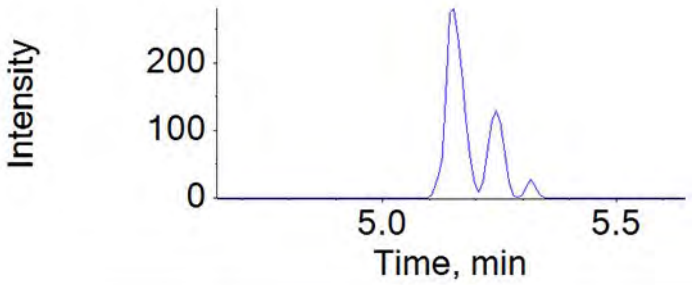
Component: PFOA
Primary Mass: 413.0 / 369.0



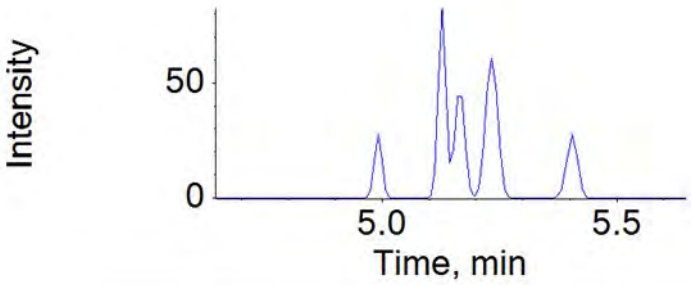
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



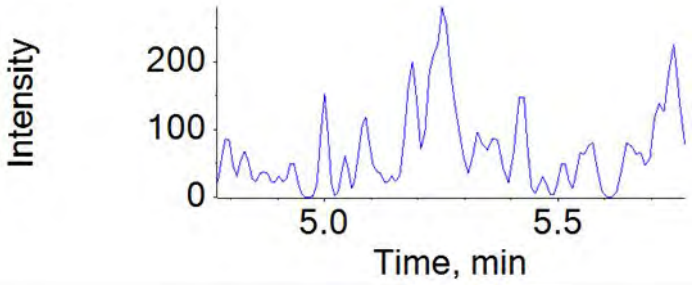
Component: PFOS
Primary Mass: 499.0 / 80.0



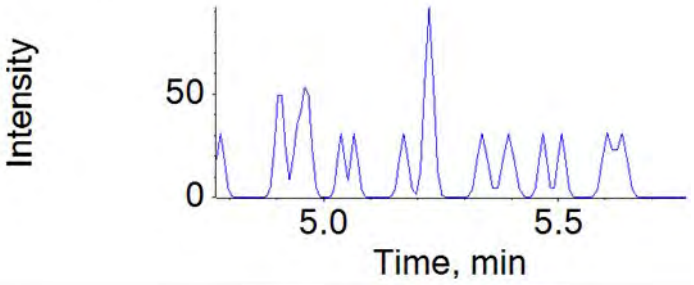
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



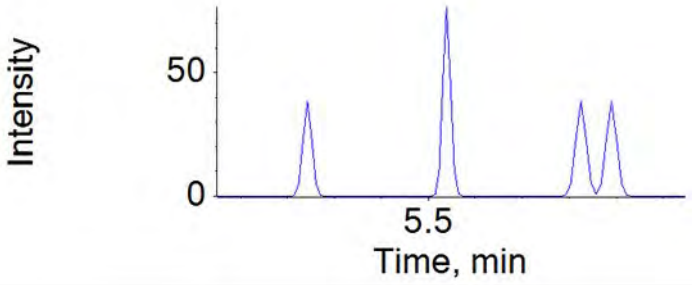
Component: PFNA
Primary Mass: 463.0 / 419.0



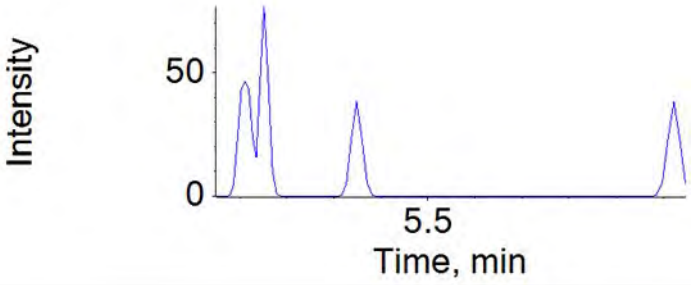
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



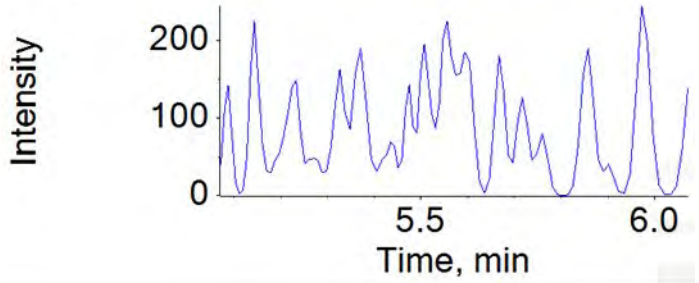
Component: PFNS
Primary Mass: 549.0 / 80.0



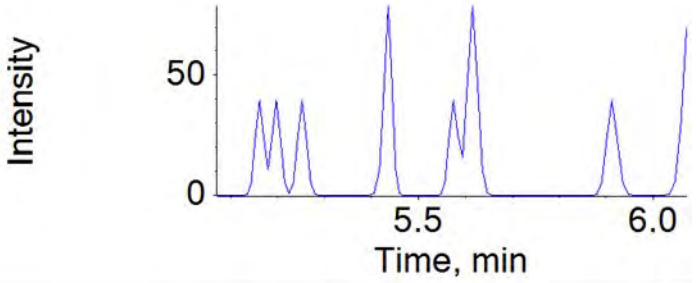
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



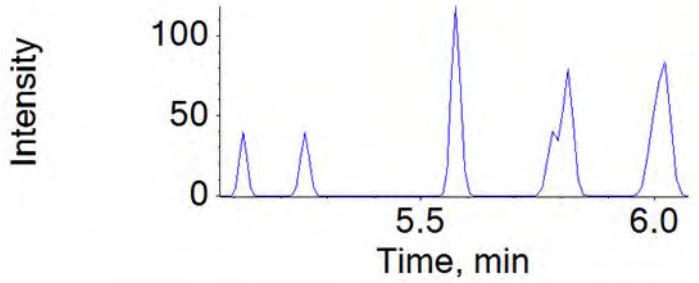
Component: PFDA
Primary Mass: 513.0 / 469.0



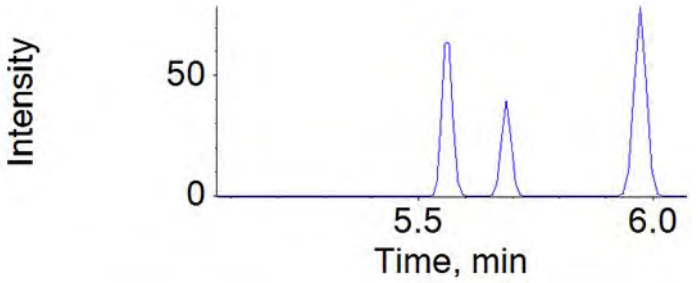
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



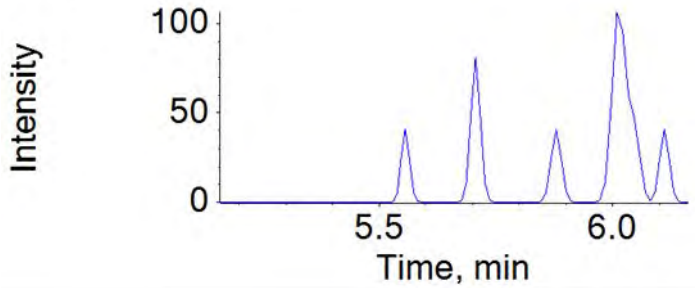
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



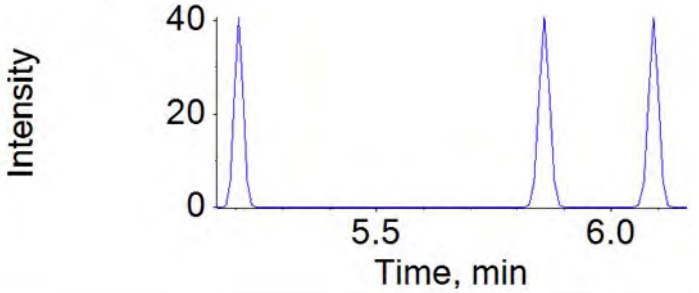
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



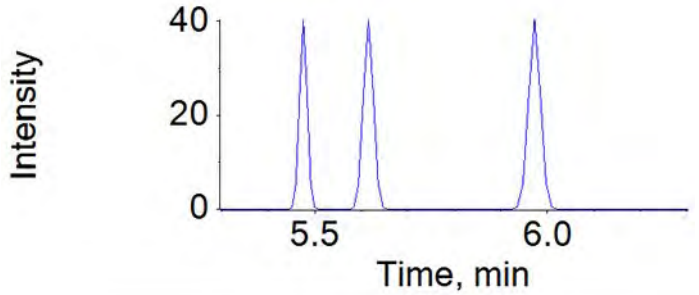
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



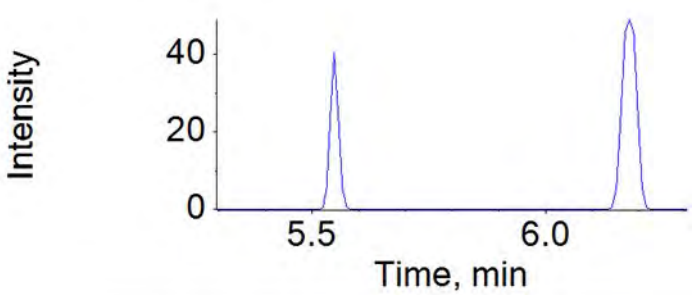
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



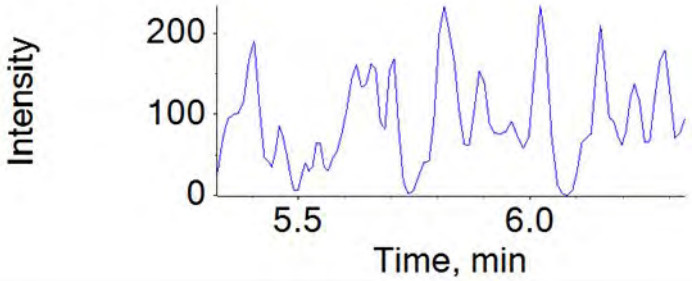
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



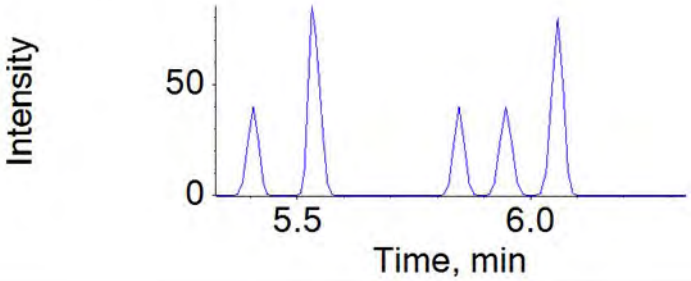
APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

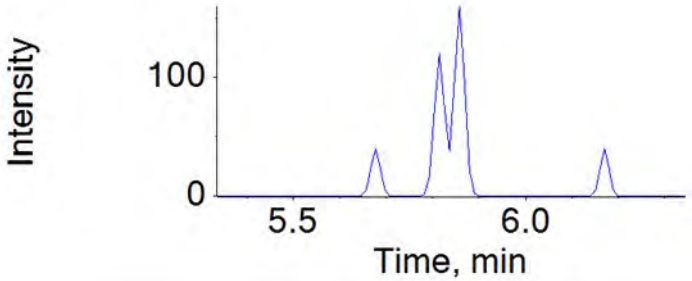
Component: PFUnDA
Primary Mass: 563.0 / 519.0



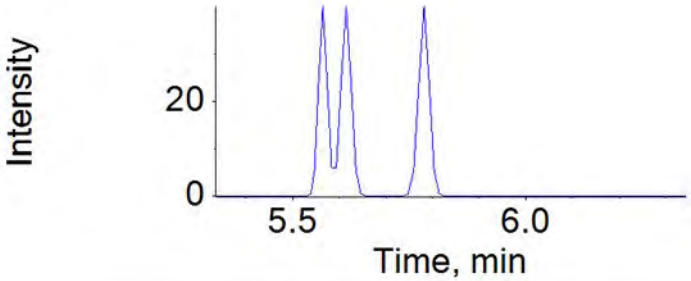
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



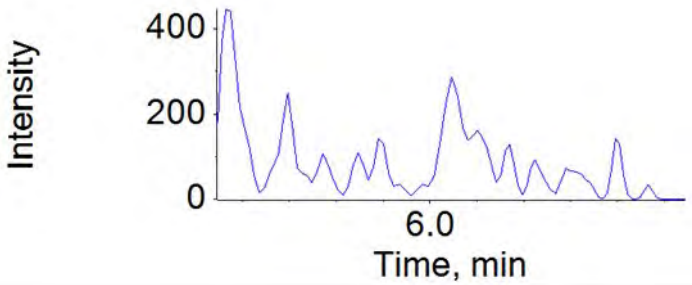
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



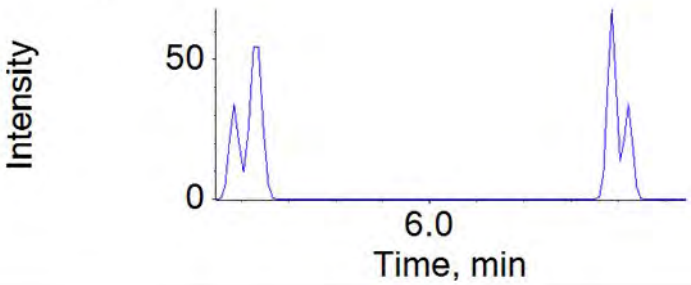
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



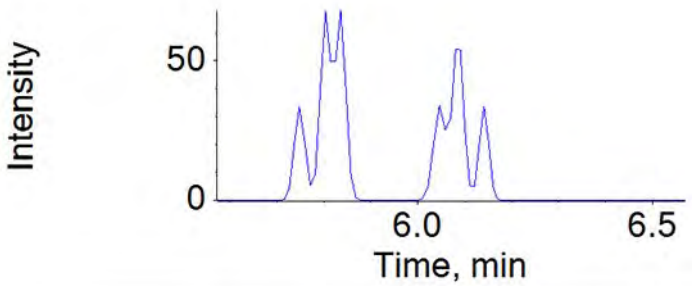
Component: PFDoDA
Primary Mass: 613.0 / 569.0



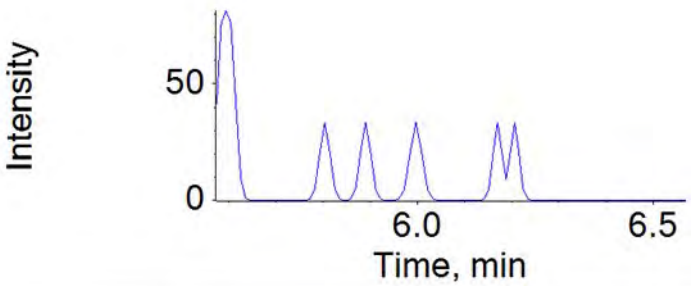
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



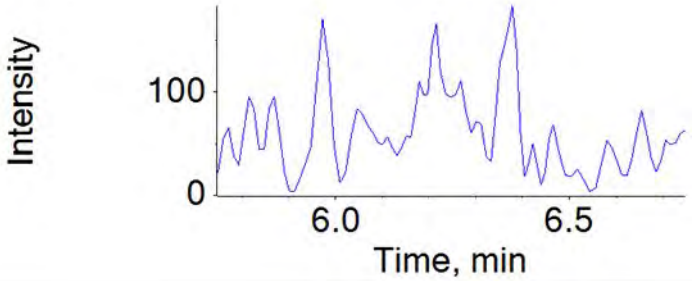
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



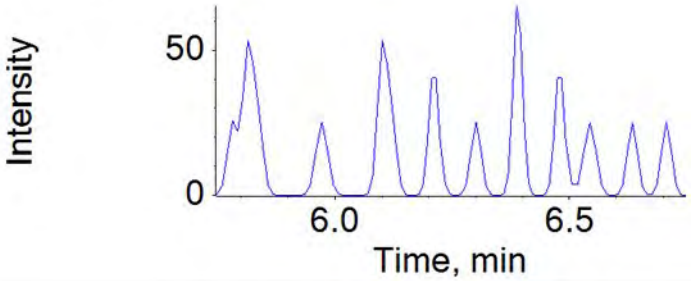
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



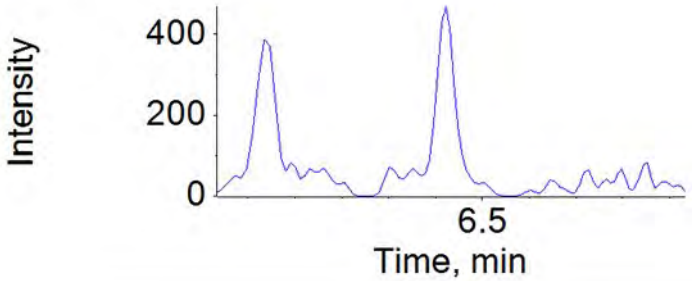
Component: PFTrDA
Primary Mass: 663.0 / 619.0



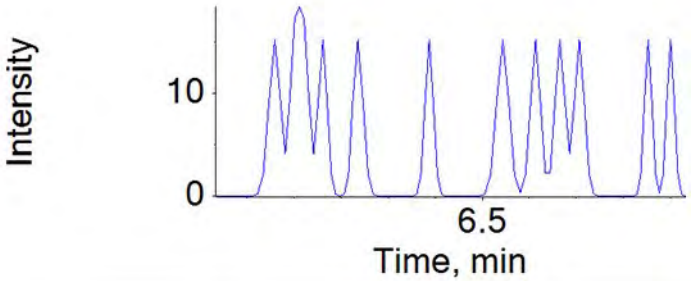
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



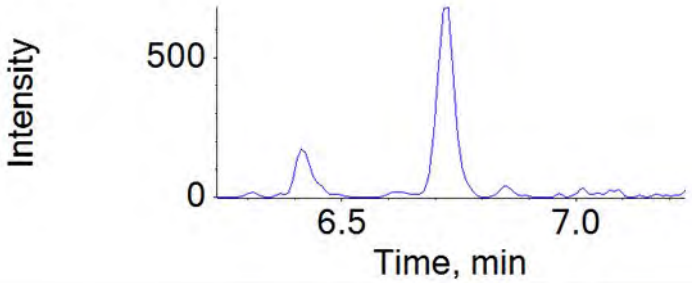
Component: PFTeDA
Primary Mass: 713.0 / 669.0



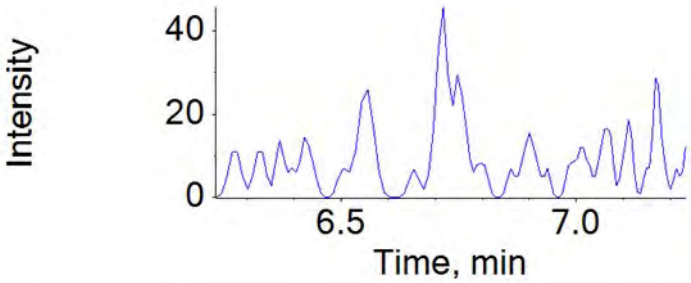
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



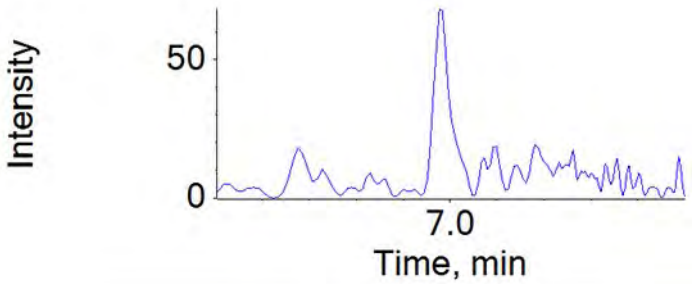
Component: PFHxDA
Primary Mass: 813.0 / 769.0



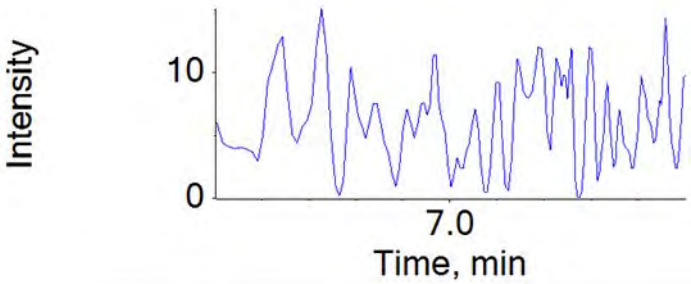
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By UMJS at 3:33 pm, 12/11/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18DEC03DCAL-10.wiff	12/3/2018 5:34:59 PM	CALBRN11833C	CAL1
18DEC03DCAL-11.wiff	12/3/2018 5:44:08 PM	CALBRN21833C	CAL2
18DEC03DCAL-12.wiff	12/3/2018 5:53:11 PM	CALBRN31833B	CAL3
18DEC03DCAL-13.wiff	12/3/2018 6:02:14 PM	CALBRN41833B	CAL4
18DEC03DCAL-14.wiff	12/3/2018 6:11:14 PM	CALBRN51833B	CAL5
18DEC03DCAL-15.wiff	12/3/2018 6:20:14 PM	CALBRN61833B	CAL6
18DEC03DCAL-16.wiff	12/3/2018 6:29:14 PM	CALBRN71833B	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	749775.9
CAL3	13C2-PFOA	434072.7
CAL3	13C4-PFOS	261136.3
CAL3	13C2-PFDA	305281.8

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Response Factor Table

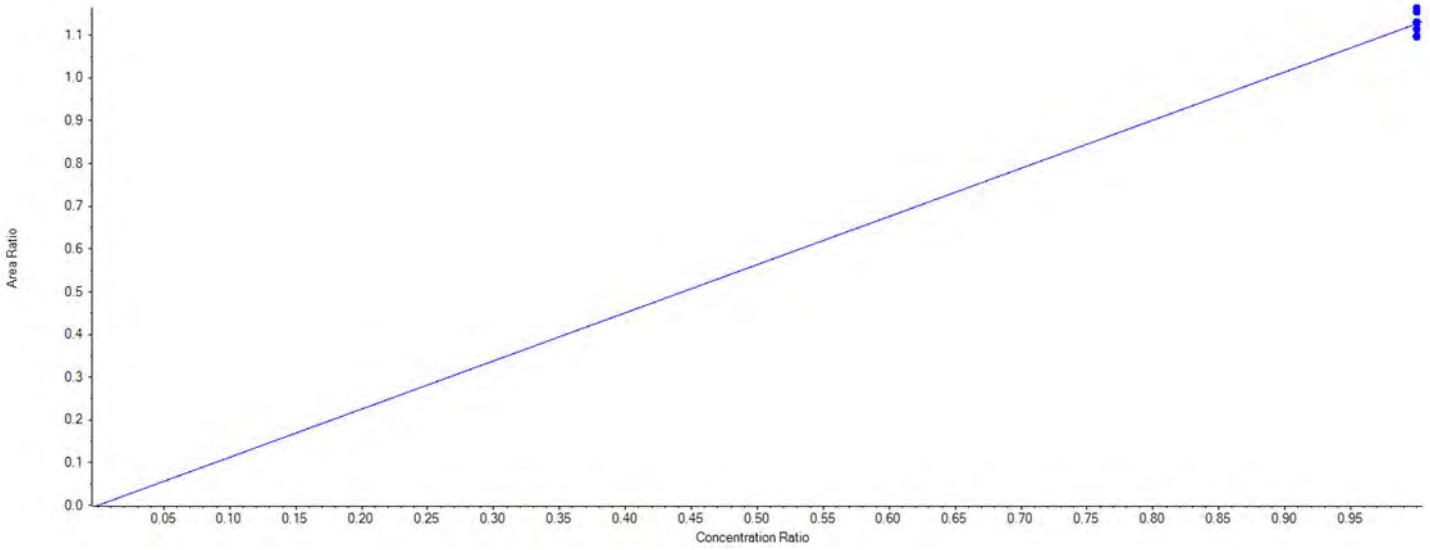
Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r^2	OOS
PFBA	1.034	0.869	1.029	0.917	0.956	0.893	0.857	7	20		0.998	
PFPeA	1.180	0.926	1.106	0.968	1.008	0.995	N/A	8	20		1.000	
PFBS	1.094	0.909	1.047	0.946	0.986	0.954	0.946	6	20		1.000	
4:2-FTS	1.709	1.678	1.996	1.888	1.884	1.725	1.899	6	20		0.998	
PFHxA	1.401	1.111	1.356	1.235	1.270	1.117	N/A	9	20		0.996	
PFPeS	0.560	0.422	0.518	0.461	0.486	0.483	0.487	8	20		1.000	
PFHpA	1.817	1.473	1.764	1.578	1.516	N/A	N/A	8	20		0.998	
PFHxS	1.080	0.854	1.005	0.902	0.965	0.988	1.029	7	20		0.999	
6:2-FTS	1.983	2.041	2.358	2.057	2.066	1.883	N/A	7	20		0.997	
PFHpS	1.151	0.796	0.970	0.880	0.911	0.878	0.925	11	20		0.999	
PFOA	1.026	0.899	1.067	0.951	1.022	0.953	0.922	6	20		0.999	
PFOS	1.216	0.972	1.107	1.054	1.107	1.088	1.159	6	20		0.999	
PFNA	1.583	1.385	1.612	1.341	1.431	1.306	1.322	8	20		0.999	
PFNS	0.889	0.609	0.725	0.706	0.728	0.663	0.728	11	20		0.998	
PFDA	0.992	0.929	1.041	0.946	0.943	0.929	0.891	5	20		0.999	
8:2-FTS	2.277	2.070	2.164	2.339	2.334	2.176	N/A	4	20		0.999	
PFOSA	0.945	0.844	1.099	0.963	1.022	0.993	0.919	8	20		0.998	
NMeFOSAA	0.701	0.689	0.964	0.794	0.829	0.698	0.763	12	20		0.996	
PFDS	0.559	0.450	0.570	0.542	0.583	0.555	0.556	7	20		1.000	
PFUnDA	1.663	1.530	1.723	1.677	1.692	1.722	1.589	4	20		0.999	
NEtFOSAA	1.007	0.923	0.879	0.921	0.970	1.006	0.992	5	20		1.000	
PFDoDA	1.112	0.853	1.080	0.919	0.980	0.874	0.850	11	20		0.997	
10:2-FTS	2.768	1.355	1.695	1.734	2.029	N/A	N/A	25	20	OOS	0.991	
NMePFOSAE	1.492	1.010	1.346	1.221	1.191	1.167	1.179	11	20		1.000	
NMePFOSA	1.131	0.824	0.914	0.928	1.030	0.952	0.932	9	20		0.999	
PFDoS	0.300	0.256	0.300	0.275	0.307	0.287	0.317	7	20		0.998	
NEtPFOSAE	1.784	1.404	1.717	1.544	1.575	1.557	1.361	9	20		0.995	
NEtPFOSA	1.332	0.928	1.221	1.042	1.122	1.076	1.064	11	20		0.999	
PFTrDA	0.917	0.819	0.973	0.847	0.838	N/A	N/A	7	20		0.998	
PFTeDA	0.961	0.809	1.047	0.876	0.867	0.873	0.820	9	20		0.998	
PFHxDA	0.467	0.389	0.431	0.389	0.376	0.398	0.387	7	20		1.000	
PFODA	0.380	0.287	0.340	0.302	0.304	0.320	0.315	9	20		1.000	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFBA

y = 1.12668 x (std. dev. = 0.02611) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	863125.65	764314.17	True	5.00	1.129	3.28	1.000	5.000	5.012	0	30	
CAL2	896237.43	776549.45	True	5.00	1.154	3.28	1.000	5.000	5.122	2	30	
CAL3	848301.98	749775.88	True	5.00	1.131	3.28	1.000	5.000	5.021	0	30	
CAL4	842291.35	766407.30	True	5.00	1.099	3.28	1.000	5.000	4.877	-2	30	
CAL5	800253.34	730839.11	True	5.00	1.095	3.28	1.000	5.000	4.859	-3	30	
CAL6	748197.56	642867.94	True	5.00	1.164	3.28	1.000	5.000	5.165	3	30	
CAL7	638530.75	573114.61	True	5.00	1.114	3.27	1.000	5.000	4.944	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

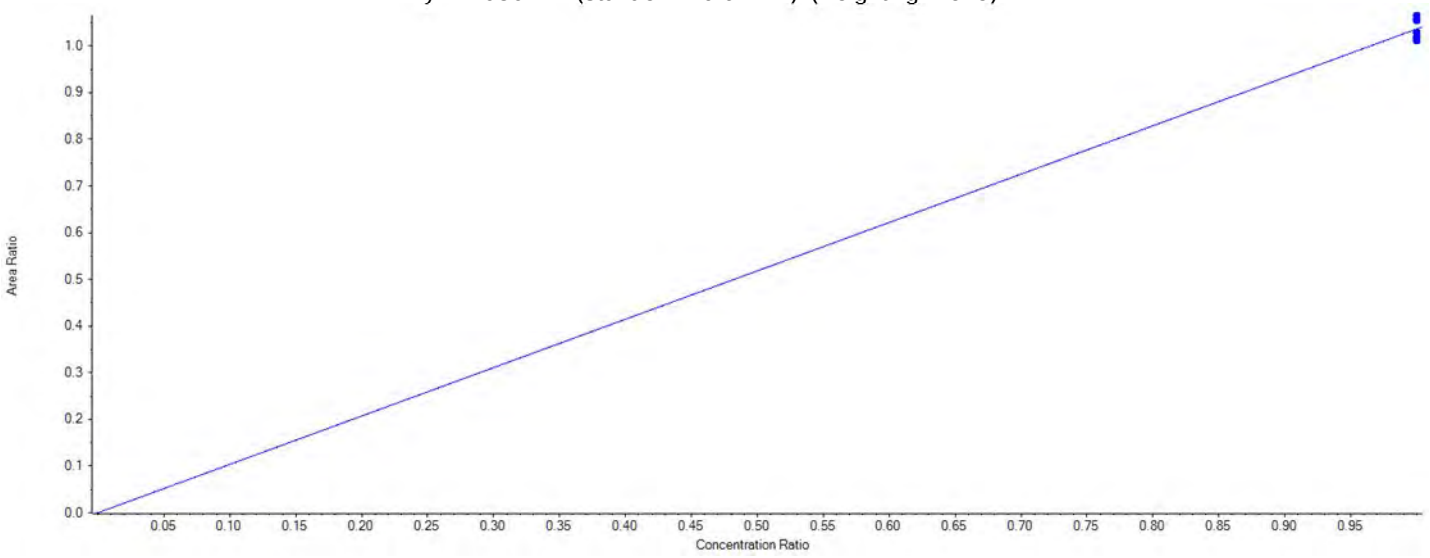
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFPeA

y = 1.03624 x (std. dev. = 0.02224) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	775849.77	764314.17	True	5.00	1.015	3.78	1.150	5.000	4.898	-2	30	
CAL2	818486.28	776549.45	True	5.00	1.054	3.78	1.150	5.000	5.086	2	30	
CAL3	758729.48	749775.88	True	5.00	1.012	3.78	1.150	5.000	4.883	-2	30	
CAL4	782233.00	766407.30	True	5.00	1.021	3.78	1.150	5.000	4.925	-2	30	
CAL5	751767.46	730839.11	True	5.00	1.029	3.78	1.150	5.000	4.963	-1	30	
CAL6	680433.81	642867.94	True	5.00	1.058	3.78	1.150	5.000	5.107	2	30	
CAL7	610319.31	573114.61	True	5.00	1.065	3.78	1.150	5.000	5.138	3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

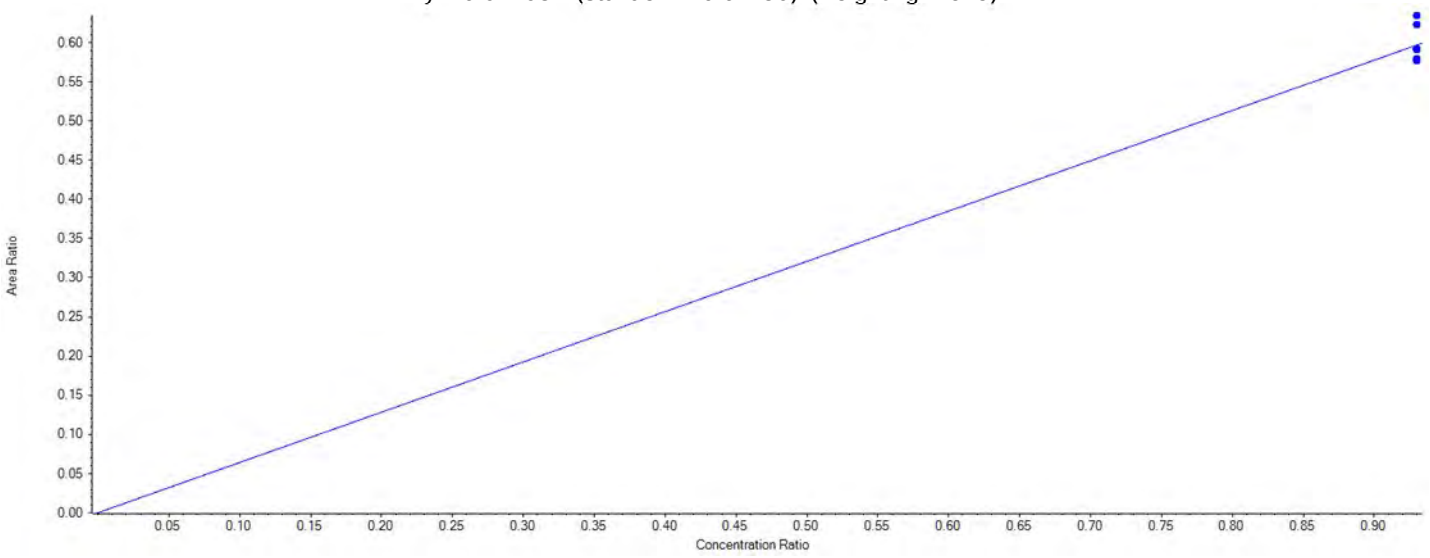
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFBS

y = 0.64163 x (std. dev. = 0.02456) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	451635.90	764314.17	True	5.00	0.591	3.83	1.170	4.650	4.605	-1	30	
CAL2	449557.17	776549.45	True	5.00	0.579	3.83	1.170	4.650	4.511	-3	30	
CAL3	432876.68	749775.88	True	5.00	0.577	3.83	1.170	4.650	4.499	-3	30	
CAL4	444396.29	766407.30	True	5.00	0.580	3.83	1.170	4.650	4.519	-3	30	
CAL5	433200.59	730839.11	True	5.00	0.593	3.83	1.170	4.650	4.619	-1	30	
CAL6	407845.80	642867.94	True	5.00	0.634	3.83	1.170	4.650	4.944	6	30	
CAL7	356951.03	573114.61	True	5.00	0.623	3.82	1.170	4.650	4.853	4	30	

APPROVED
By MSM at 10:22 am, 12/4/18

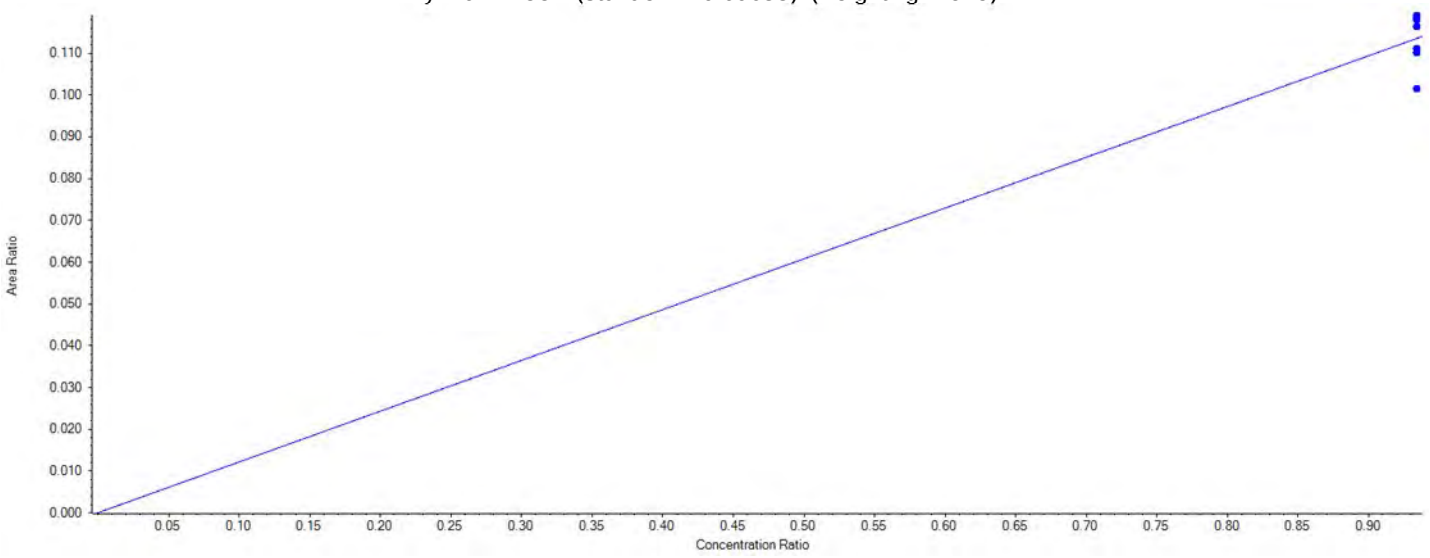
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-4:2-FTS

y = 0.12155 x (std. dev. = 0.00683) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	54096.76	454591.83	True	5.00	0.119	4.15	0.840	4.670	4.895	5	30	
CAL2	49932.04	428992.99	True	5.00	0.116	4.15	0.840	4.670	4.788	3	30	
CAL3	48170.47	434072.69	True	5.00	0.111	4.14	0.840	4.670	4.565	-2	30	
CAL4	46852.45	461194.07	True	5.00	0.102	4.14	0.840	4.670	4.179	-11	30	
CAL5	49645.83	420898.27	True	5.00	0.118	4.14	0.840	4.670	4.852	4	30	
CAL6	46834.27	394838.40	True	5.00	0.119	4.15	0.840	4.670	4.879	4	30	
CAL7	40521.32	367834.99	True	5.00	0.110	4.14	0.840	4.670	4.532	-3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

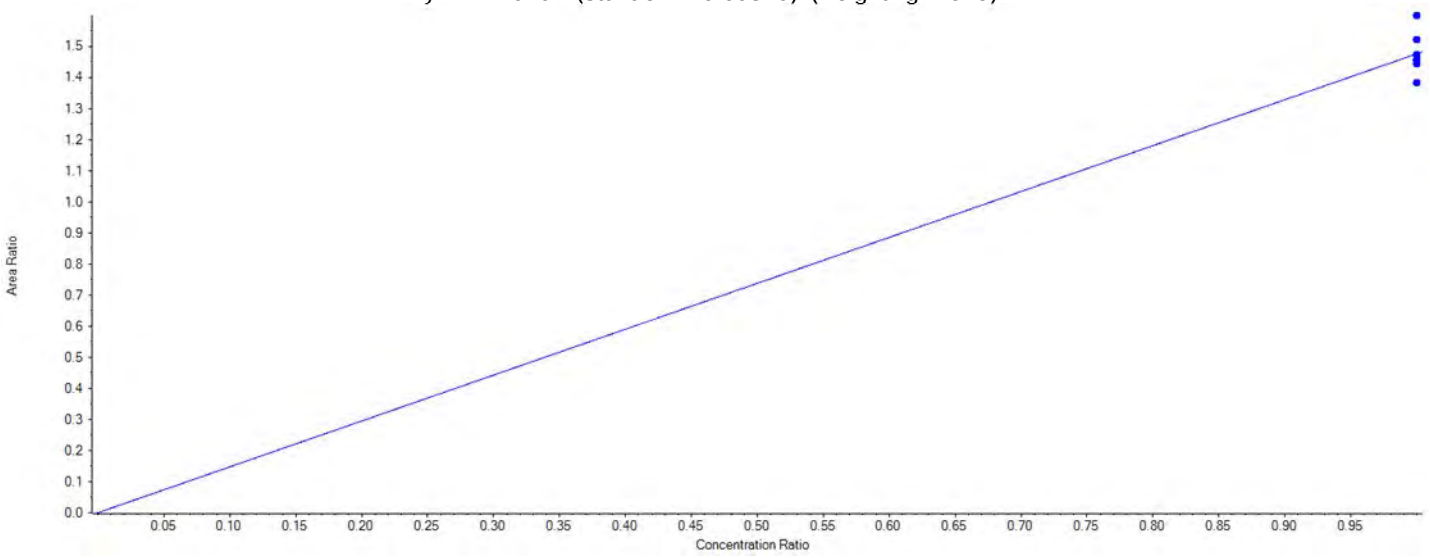
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C5-PFHxA

y = 1.47646 x (std. dev. = 0.06816) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	661308.45	454591.83	True	5.00	1.455	4.18	0.850	5.000	4.926	-1	30	
CAL2	686196.46	428992.99	True	5.00	1.600	4.18	0.850	5.000	5.417	8	30	
CAL3	640176.89	434072.69	True	5.00	1.475	4.18	0.850	5.000	4.994	0	30	
CAL4	638151.00	461194.07	True	5.00	1.384	4.18	0.840	5.000	4.686	-6	30	
CAL5	612989.70	420898.27	True	5.00	1.456	4.17	0.840	5.000	4.932	-1	30	
CAL6	601226.32	394838.40	True	5.00	1.523	4.18	0.840	5.000	5.157	3	30	
CAL7	530901.63	367834.99	True	5.00	1.443	4.17	0.840	5.000	4.888	-2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

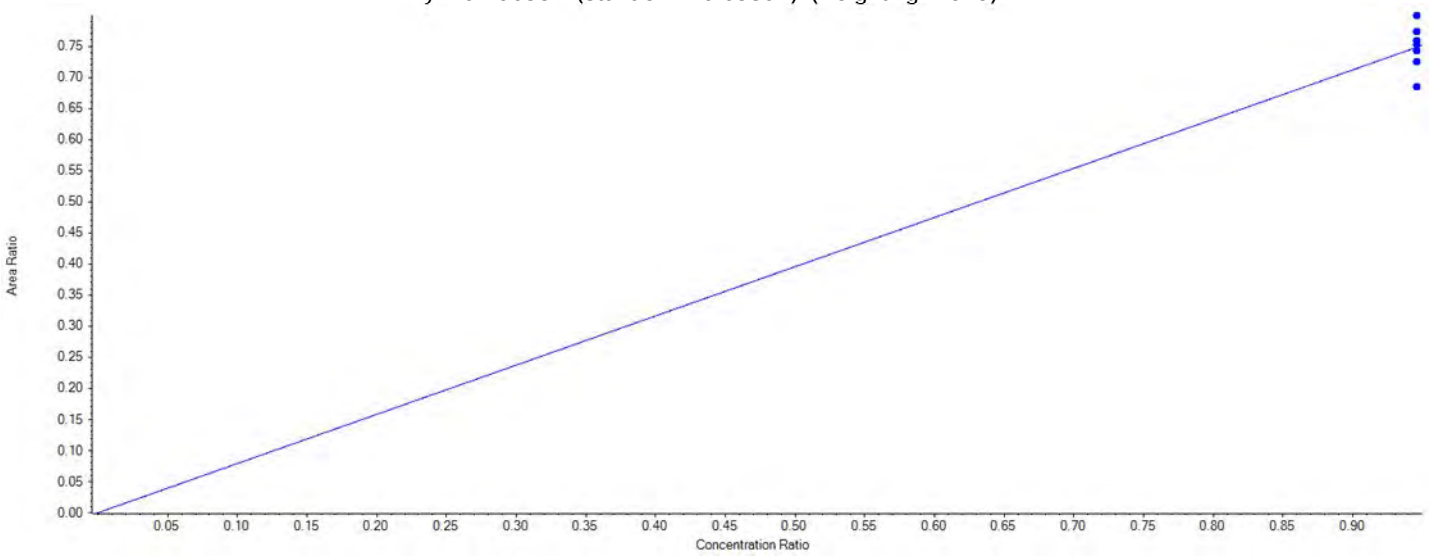
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C3-PFHxS

y = 0.79085 x (std. dev. = 0.03864) (weighting: None)



Extraction Standard Calibration Verification

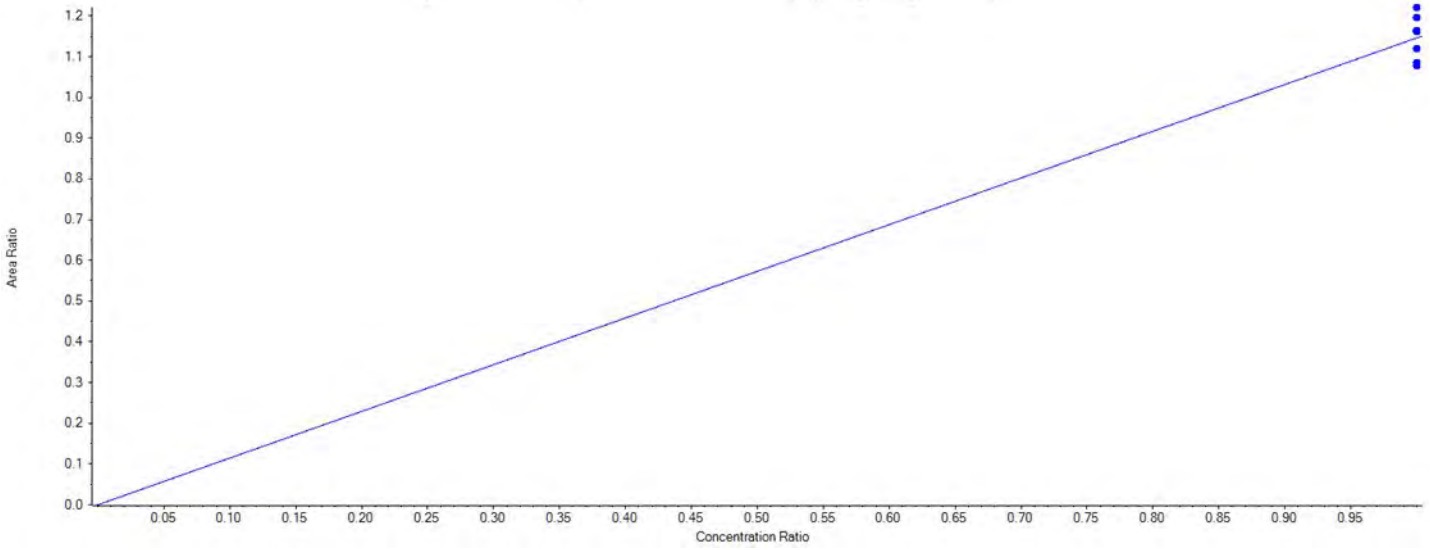
Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	337685.04	454591.83	True	5.00	0.743	4.58	0.930	4.730	4.696	-1	30	
CAL2	342827.45	428992.99	True	5.00	0.799	4.57	0.920	4.730	5.052	7	30	
CAL3	326644.74	434072.69	True	5.00	0.753	4.57	0.920	4.730	4.758	1	30	
CAL4	334721.55	461194.07	True	5.00	0.726	4.57	0.920	4.730	4.589	-3	30	
CAL5	325751.31	420898.27	True	5.00	0.774	4.57	0.920	4.730	4.893	3	30	
CAL6	299542.60	394838.40	True	5.00	0.759	4.58	0.920	4.730	4.796	1	30	
CAL7	251658.95	367834.99	True	5.00	0.684	4.57	0.920	4.730	4.325	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C4-PFHpA

y = 1.14598 x (std. dev. = 0.05384) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	490131.64	454591.83	True	5.00	1.078	4.58	0.920	5.000	4.704	-6	30	
CAL2	498839.83	428992.99	True	5.00	1.163	4.57	0.920	5.000	5.073	1	30	
CAL3	485887.26	434072.69	True	5.00	1.119	4.57	0.920	5.000	4.884	-2	30	
CAL4	500590.00	461194.07	True	5.00	1.085	4.57	0.920	5.000	4.736	-5	30	
CAL5	502842.83	420898.27	True	5.00	1.195	4.57	0.920	5.000	5.213	4	30	
CAL6	481867.37	394838.40	True	5.00	1.220	4.58	0.920	5.000	5.325	6	30	
CAL7	427034.81	367834.99	True	5.00	1.161	4.57	0.920	5.000	5.065	1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

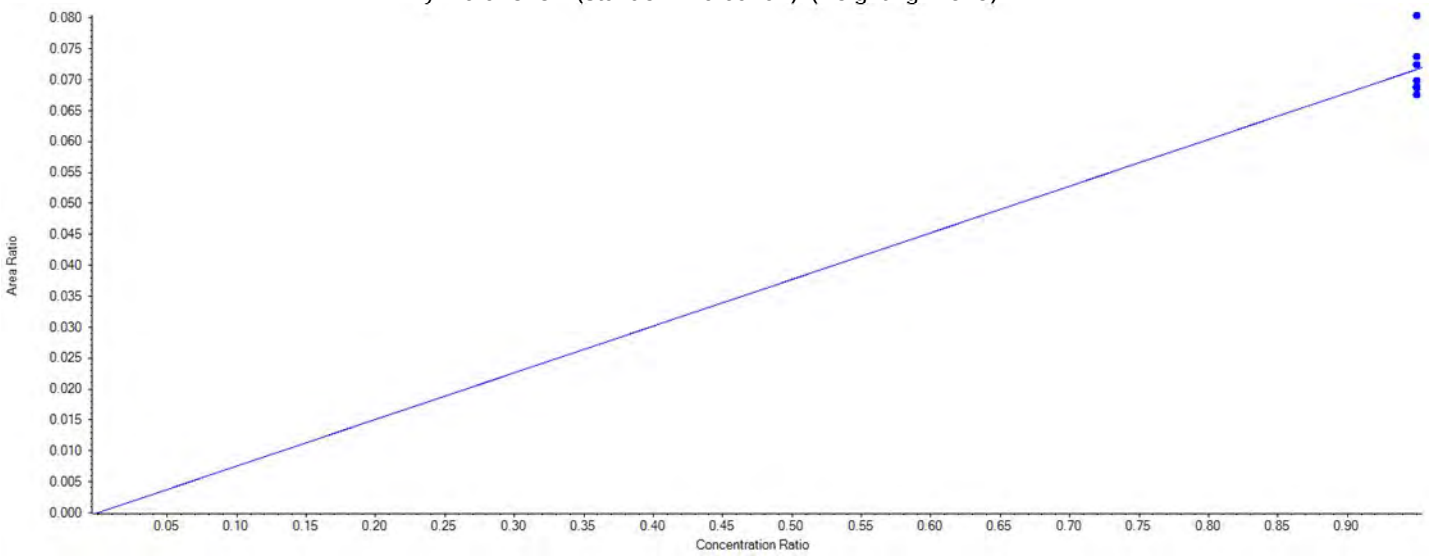
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-6:2-FTS

y = 0.07545 x (std. dev. = 0.00464) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	36544.35	454591.83	True	5.00	0.080	4.93	1.000	4.750	5.328	12	30	
CAL2	31094.94	428992.99	True	5.00	0.072	4.93	1.000	4.750	4.804	1	30	
CAL3	29856.28	434072.69	True	5.00	0.069	4.93	1.000	4.750	4.558	-4	30	
CAL4	31169.62	461194.07	True	5.00	0.068	4.93	1.000	4.750	4.479	-6	30	
CAL5	29389.33	420898.27	True	5.00	0.070	4.93	1.000	4.750	4.627	-3	30	
CAL6	27227.07	394838.40	True	5.00	0.069	4.93	1.000	4.750	4.570	-4	30	
CAL7	27109.32	367834.99	True	5.00	0.074	4.93	1.000	4.750	4.884	3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

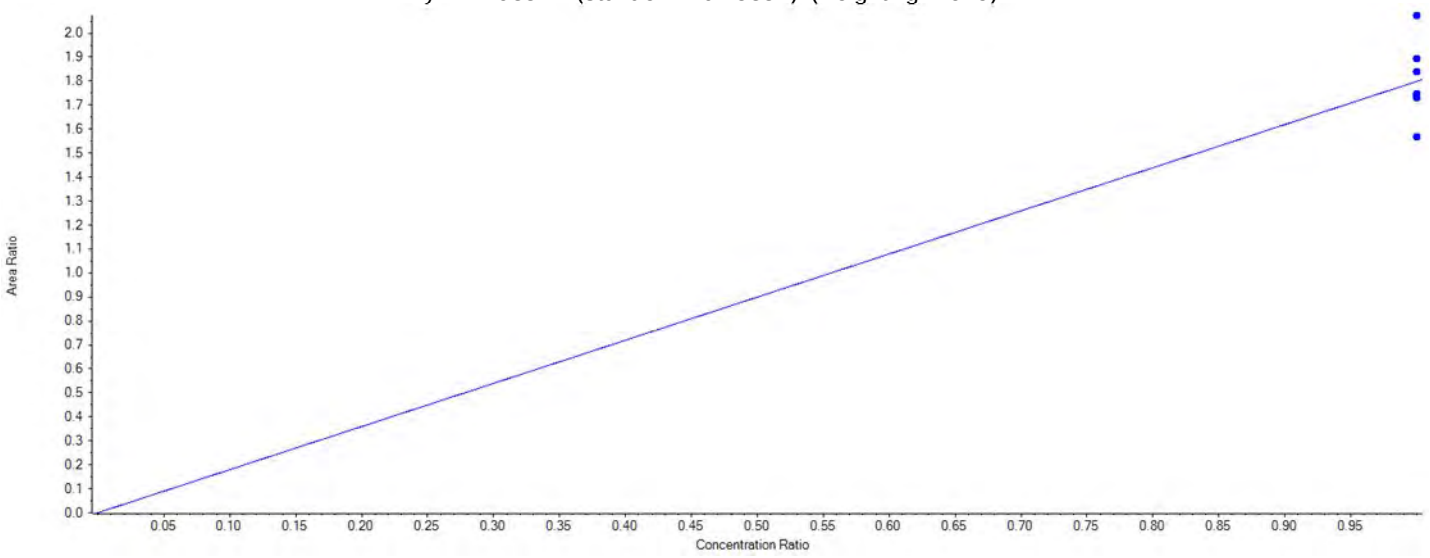
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOA

y = 1.79882 x (std. dev. = 0.15831) (weighting: None)



Extraction Standard Calibration Verification

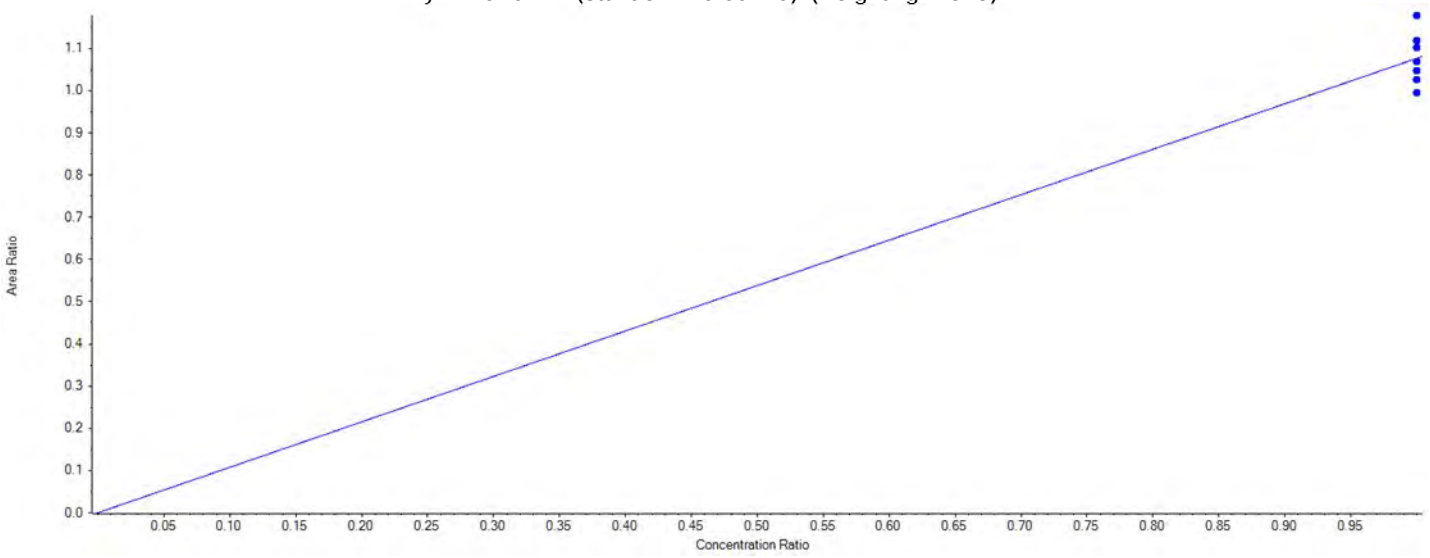
Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	861739.36	454591.83	True	5.00	1.896	4.95	1.000	5.000	5.269	5	30	
CAL2	889501.67	428992.99	True	5.00	2.073	4.94	1.000	5.000	5.763	15	30	
CAL3	797704.13	434072.69	True	5.00	1.838	4.94	1.000	5.000	5.108	2	30	
CAL4	802574.62	461194.07	True	5.00	1.740	4.94	1.000	5.000	4.837	-3	30	
CAL5	735533.22	420898.27	True	5.00	1.748	4.94	1.000	5.000	4.857	-3	30	
CAL6	682579.02	394838.40	True	5.00	1.729	4.95	1.000	5.000	4.805	-4	30	
CAL7	576918.85	367834.99	True	5.00	1.568	4.94	1.000	5.000	4.360	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOS

y = 1.07622 x (std. dev. = 0.06126) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	295968.68	277165.63	True	4.78	1.068	5.27	1.000	4.780	4.743	-1	30	
CAL2	304154.46	272214.40	True	4.78	1.117	5.27	1.000	4.780	4.963	4	30	
CAL3	307501.27	261136.32	True	4.78	1.178	5.27	1.000	4.780	5.230	9	30	
CAL4	303740.07	289855.49	True	4.78	1.048	5.27	1.000	4.780	4.654	-3	30	
CAL5	290967.83	283690.17	True	4.78	1.026	5.27	1.000	4.780	4.555	-5	30	
CAL6	284411.86	258181.55	True	4.78	1.102	5.28	1.000	4.780	4.893	2	30	
CAL7	239305.64	240347.33	True	4.78	0.996	5.26	1.000	4.780	4.422	-7	30	

APPROVED
By MSM at 10:22 am, 12/4/18

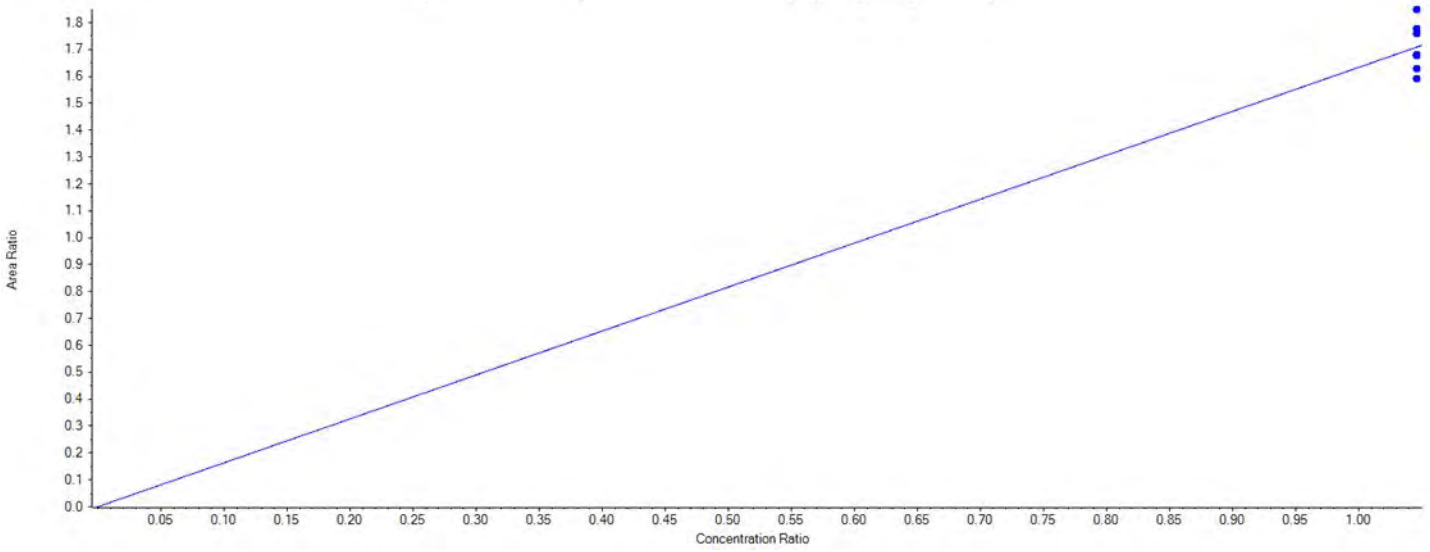
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C9-PFNA

y = 1.63314 x (std. dev. = 0.08658) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	492951.92	277165.63	True	4.78	1.779	5.29	1.000	5.000	5.206	4	30	
CAL2	503052.29	272214.40	True	4.78	1.848	5.29	1.000	5.000	5.409	8	30	
CAL3	459020.86	261136.32	True	4.78	1.758	5.29	1.000	5.000	5.145	3	30	
CAL4	487200.80	289855.49	True	4.78	1.681	5.29	1.000	5.000	4.920	-2	30	
CAL5	461598.48	283690.17	True	4.78	1.627	5.28	1.000	5.000	4.762	-5	30	
CAL6	432552.91	258181.55	True	4.78	1.675	5.29	1.000	5.000	4.904	-2	30	
CAL7	382259.74	240347.33	True	4.78	1.590	5.28	1.000	5.000	4.655	-7	30	

APPROVED
By MSM at 10:22 am, 12/4/18

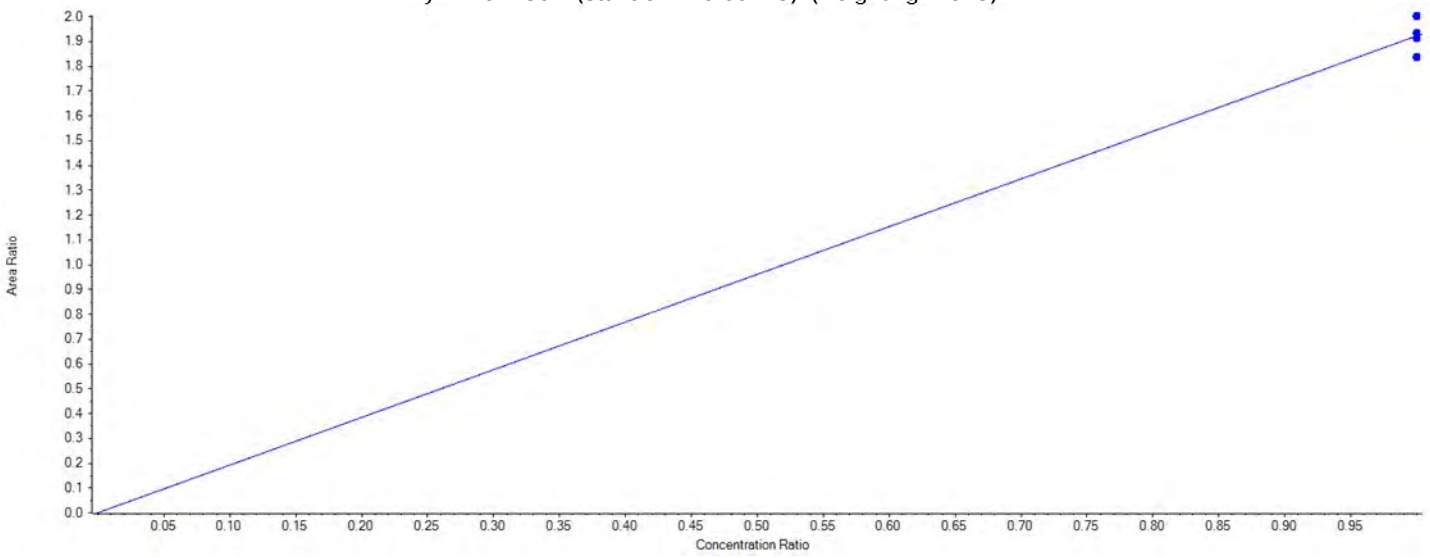
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C6-PFDA

y = 1.92239 x (std. dev. = 0.06778) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	598898.31	325592.31	True	5.00	1.839	5.59	1.000	5.000	4.784	-4	30	
CAL2	633130.77	315883.61	True	5.00	2.004	5.59	1.000	5.000	5.213	4	30	
CAL3	590445.29	305281.77	True	5.00	1.934	5.59	1.000	5.000	5.030	1	30	
CAL4	596917.17	312249.71	True	5.00	1.912	5.59	1.000	5.000	4.972	-1	30	
CAL5	588632.76	294188.32	True	5.00	2.001	5.58	1.000	5.000	5.204	4	30	
CAL6	504181.45	261161.40	True	5.00	1.931	5.60	1.000	5.000	5.021	0	30	
CAL7	459880.08	250503.12	True	5.00	1.836	5.58	1.000	5.000	4.775	-5	30	

APPROVED
By MSM at 10:22 am, 12/4/18

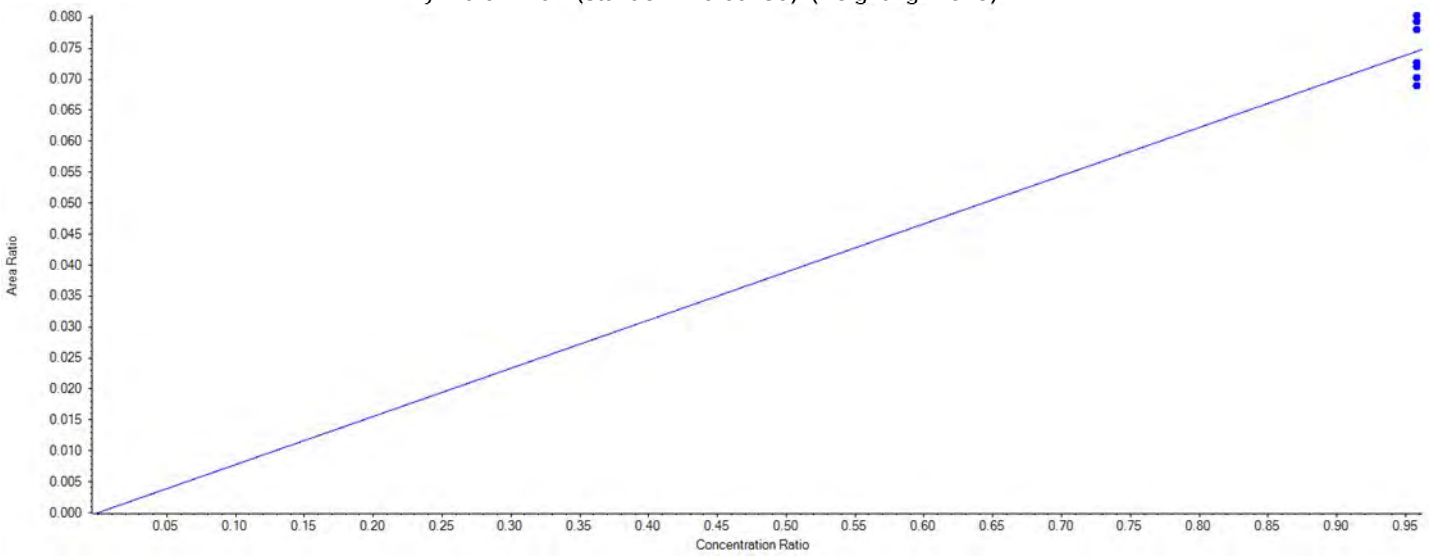
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-8:2-FTS

y = 0.07776 x (std. dev. = 0.00480) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23650.83	325592.31	True	5.00	0.073	5.59	1.000	4.790	4.670	-2	30	
CAL2	24625.62	315883.61	True	5.00	0.078	5.59	1.000	4.790	5.012	5	30	
CAL3	24215.35	305281.77	True	5.00	0.079	5.59	1.000	4.790	5.100	6	30	
CAL4	21920.40	312249.71	True	5.00	0.070	5.59	1.000	4.790	4.514	-6	30	
CAL5	21205.31	294188.32	True	5.00	0.072	5.59	1.000	4.790	4.635	-3	30	
CAL6	18019.31	261161.40	True	5.00	0.069	5.60	1.000	4.790	4.436	-7	30	
CAL7	20112.43	250503.12	True	5.00	0.080	5.59	1.000	4.790	5.162	8	30	

APPROVED
By MSM at 10:22 am, 12/4/18

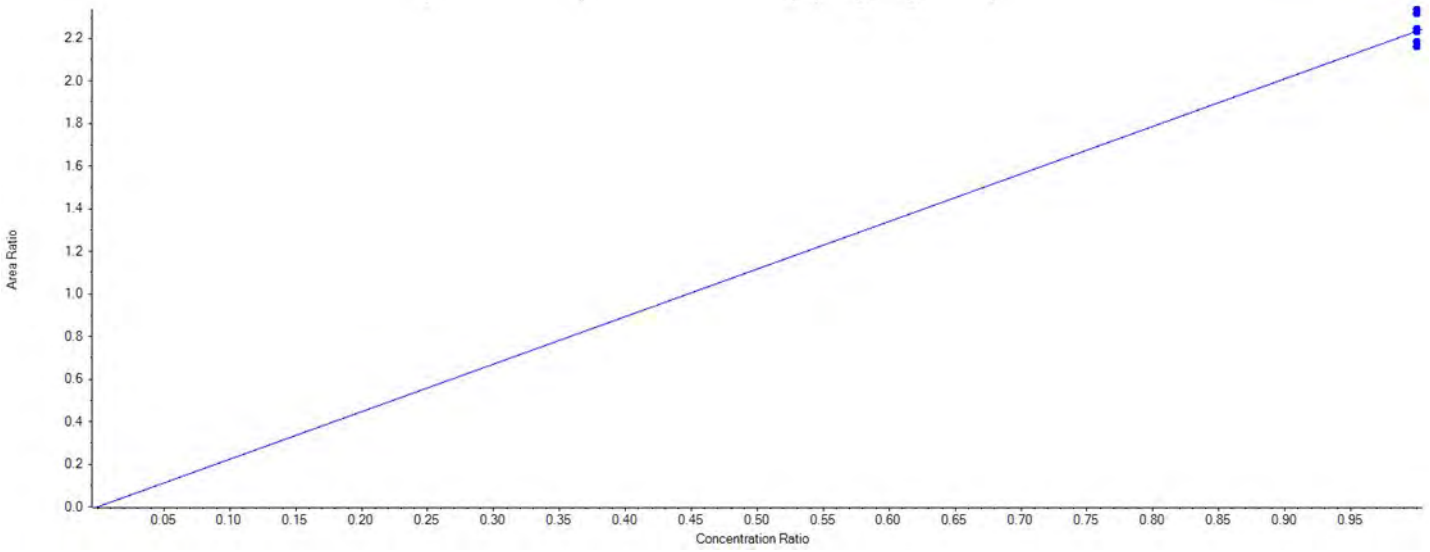
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C8-PFOSA

y = 2.23365 x (std. dev. = 0.07071) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	731117.75	325592.31	True	5.00	2.246	5.66	1.010	5.000	5.027	1	30	
CAL2	682781.72	315883.61	True	5.00	2.161	5.67	1.010	5.000	4.838	-3	30	
CAL3	680864.75	305281.77	True	5.00	2.230	5.66	1.010	5.000	4.992	0	30	
CAL4	675000.22	312249.71	True	5.00	2.162	5.66	1.010	5.000	4.839	-3	30	
CAL5	642876.32	294188.32	True	5.00	2.185	5.66	1.010	5.000	4.892	-2	30	
CAL6	609939.67	261161.40	True	5.00	2.335	5.67	1.010	5.000	5.228	5	30	
CAL7	580120.13	250503.12	True	5.00	2.316	5.66	1.010	5.000	5.184	4	30	

APPROVED
By MSM at 10:22 am, 12/4/18

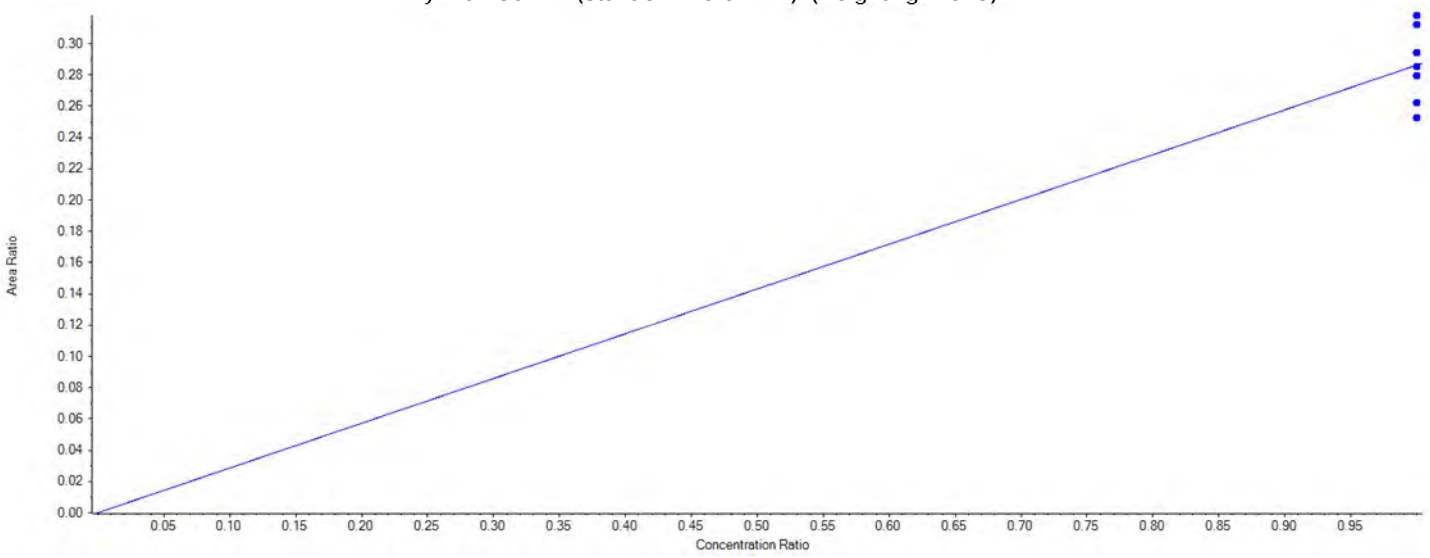
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMeFOSAA

y = 0.28622 x (std. dev. = 0.02422) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	95752.53	325592.31	True	5.00	0.294	5.73	1.030	5.000	5.137	3	30	
CAL2	88184.11	315883.61	True	5.00	0.279	5.73	1.020	5.000	4.877	-2	30	
CAL3	80082.92	305281.77	True	5.00	0.262	5.72	1.020	5.000	4.583	-8	30	
CAL4	78775.39	312249.71	True	5.00	0.252	5.73	1.030	5.000	4.407	-12	30	
CAL5	83984.00	294188.32	True	5.00	0.285	5.73	1.030	5.000	4.987	0	30	
CAL6	83025.33	261161.40	True	5.00	0.318	5.73	1.020	5.000	5.554	11	30	
CAL7	78229.33	250503.12	True	5.00	0.312	5.72	1.020	5.000	5.455	9	30	

APPROVED
By MSM at 10:22 am, 12/4/18

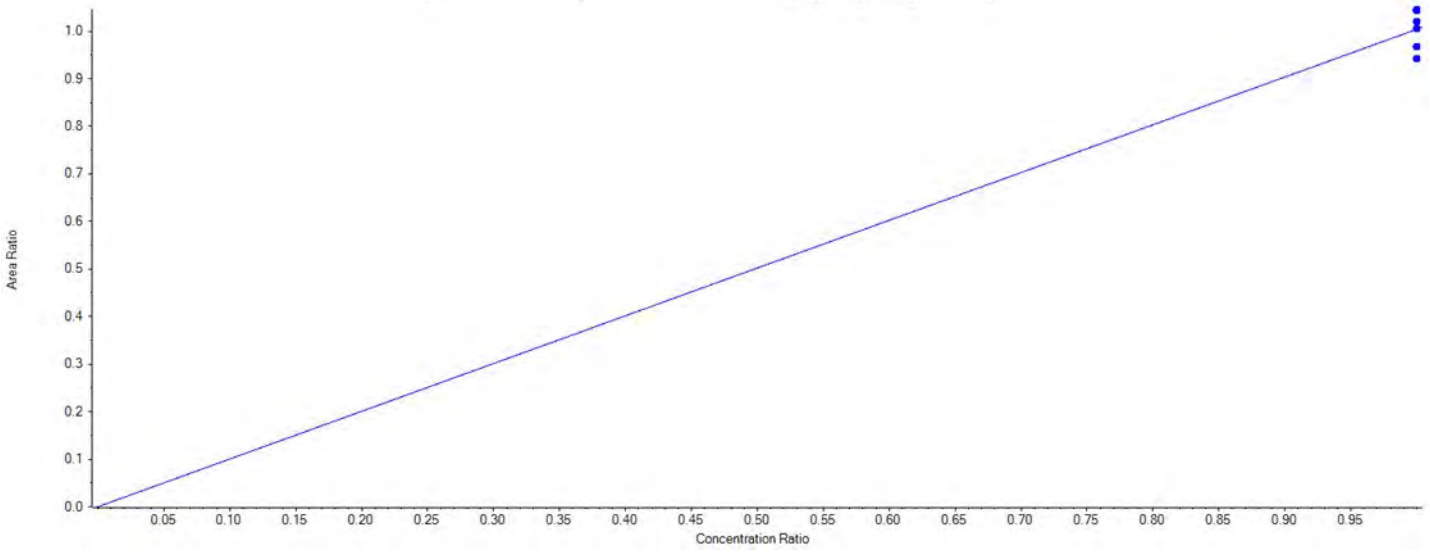
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C7-PFUnDA

y = 1.00393 x (std. dev. = 0.03801) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	327106.74	325592.31	True	5.00	1.005	5.85	1.050	5.000	5.004	0	30	
CAL2	330222.51	315883.61	True	5.00	1.045	5.85	1.050	5.000	5.207	4	30	
CAL3	318514.56	305281.77	True	5.00	1.043	5.85	1.050	5.000	5.196	4	30	
CAL4	301821.35	312249.71	True	5.00	0.967	5.85	1.050	5.000	4.814	-4	30	
CAL5	299903.60	294188.32	True	5.00	1.019	5.85	1.050	5.000	5.077	2	30	
CAL6	262585.24	261161.40	True	5.00	1.005	5.86	1.050	5.000	5.008	0	30	
CAL7	236129.49	250503.12	True	5.00	0.943	5.85	1.050	5.000	4.695	-6	30	

APPROVED
By MSM at 10:22 am, 12/4/18

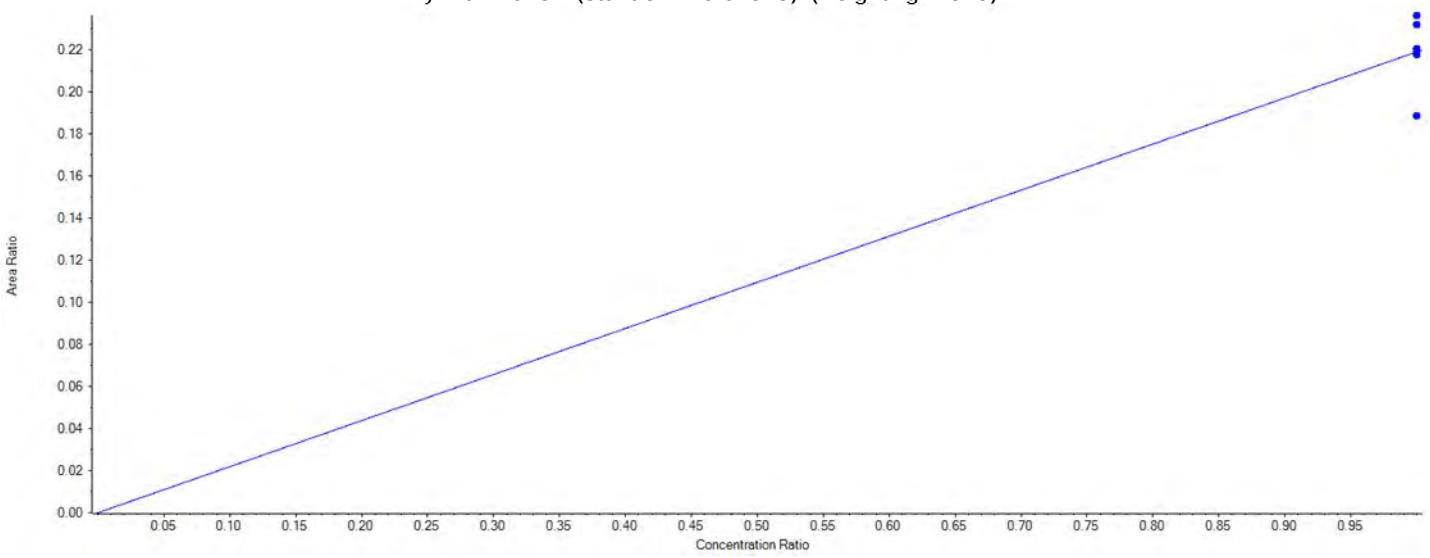
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtFOSAA

y = 0.21918 x (std. dev. = 0.01528) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	61453.83	325592.31	True	5.00	0.189	5.86	1.050	5.000	4.306	-14	30	
CAL2	69763.66	315883.61	True	5.00	0.221	5.86	1.050	5.000	5.038	1	30	
CAL3	66995.66	305281.77	True	5.00	0.219	5.86	1.050	5.000	5.006	0	30	
CAL4	68092.46	312249.71	True	5.00	0.218	5.86	1.050	5.000	4.975	-1	30	
CAL5	64247.42	294188.32	True	5.00	0.218	5.86	1.050	5.000	4.982	0	30	
CAL6	61747.77	261161.40	True	5.00	0.236	5.87	1.050	5.000	5.394	8	30	
CAL7	58190.51	250503.12	True	5.00	0.232	5.86	1.050	5.000	5.299	6	30	

APPROVED
By MSM at 10:22 am, 12/4/18

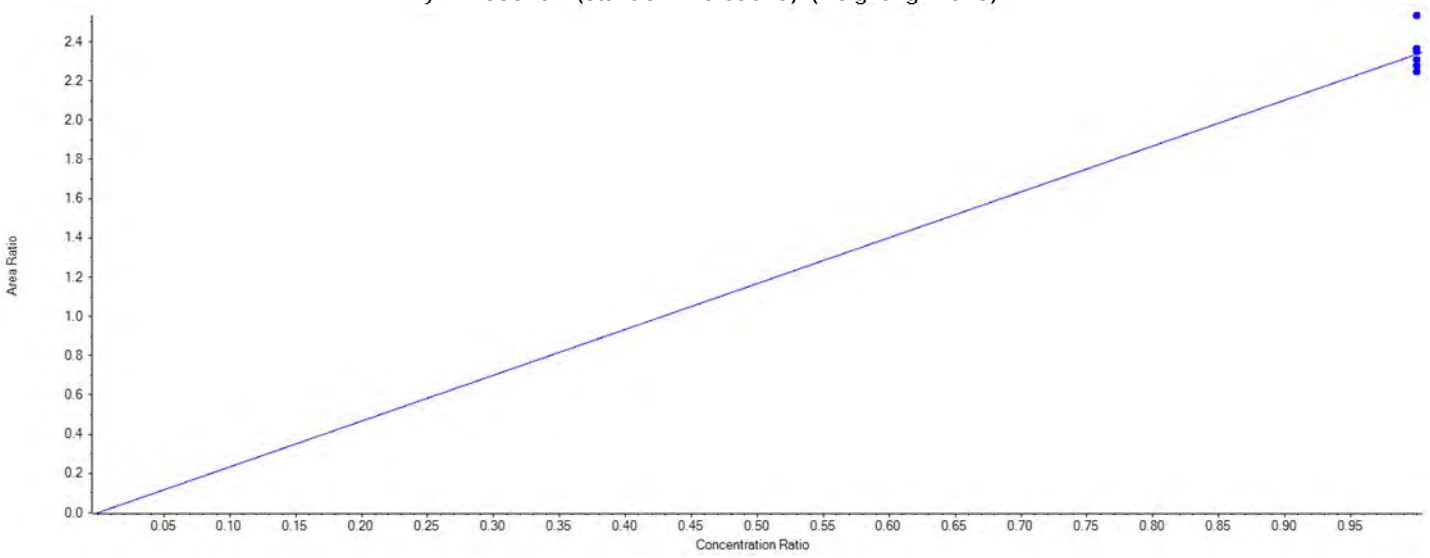
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFDoDA

y = 2.33510 x (std. dev. = 0.09645) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	730835.78	325592.31	True	5.00	2.245	6.08	1.090	5.000	4.806	-4	30	
CAL2	741533.31	315883.61	True	5.00	2.347	6.08	1.090	5.000	5.027	1	30	
CAL3	695119.48	305281.77	True	5.00	2.277	6.07	1.090	5.000	4.876	-2	30	
CAL4	710459.88	312249.71	True	5.00	2.275	6.08	1.090	5.000	4.872	-3	30	
CAL5	695109.66	294188.32	True	5.00	2.363	6.07	1.090	5.000	5.059	1	30	
CAL6	661359.45	261161.40	True	5.00	2.532	6.09	1.090	5.000	5.422	8	30	
CAL7	577689.85	250503.12	True	5.00	2.306	6.07	1.090	5.000	4.938	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

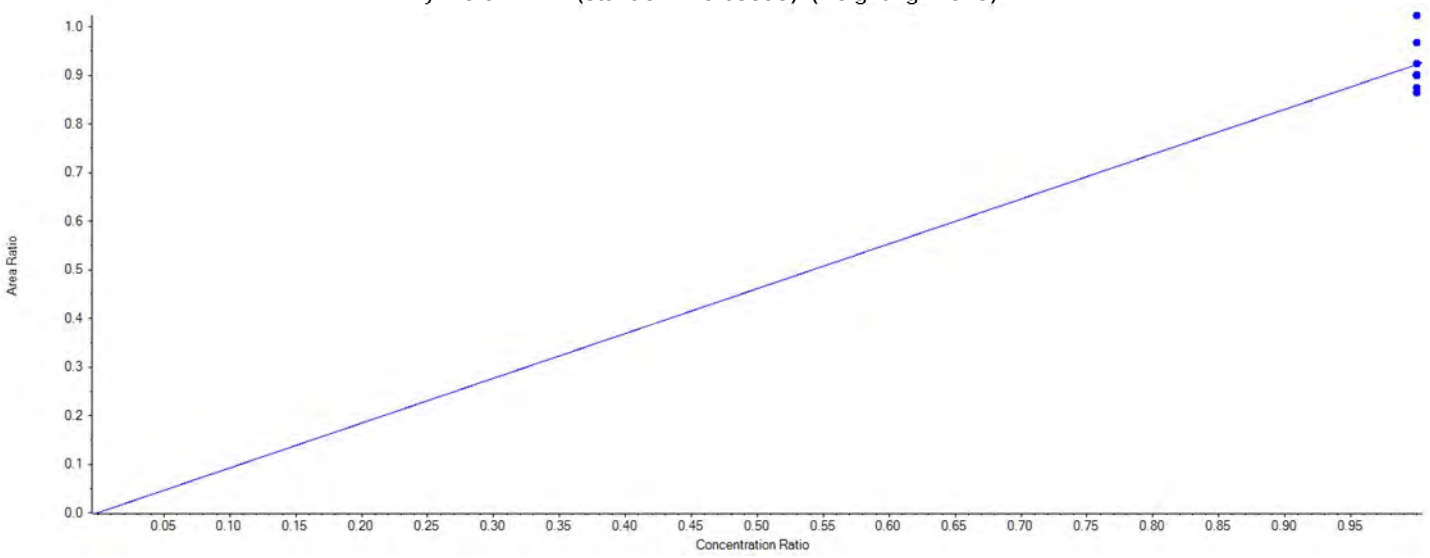
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed7-NMePFOSAE

y = 0.92217 x (std. dev. = 0.05595) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	281337.38	325592.31	True	5.00	0.864	6.11	1.090	5.000	4.685	-6	30	
CAL2	284329.07	315883.61	True	5.00	0.900	6.11	1.090	5.000	4.880	-2	30	
CAL3	275358.51	305281.77	True	5.00	0.902	6.11	1.090	5.000	4.891	-2	30	
CAL4	273044.25	312249.71	True	5.00	0.874	6.11	1.090	5.000	4.741	-5	30	
CAL5	271770.94	294188.32	True	5.00	0.924	6.10	1.090	5.000	5.009	0	30	
CAL6	267131.66	261161.40	True	5.00	1.023	6.12	1.090	5.000	5.546	11	30	
CAL7	242473.48	250503.12	True	5.00	0.968	6.10	1.090	5.000	5.248	5	30	

APPROVED
By MSM at 10:22 am, 12/4/18

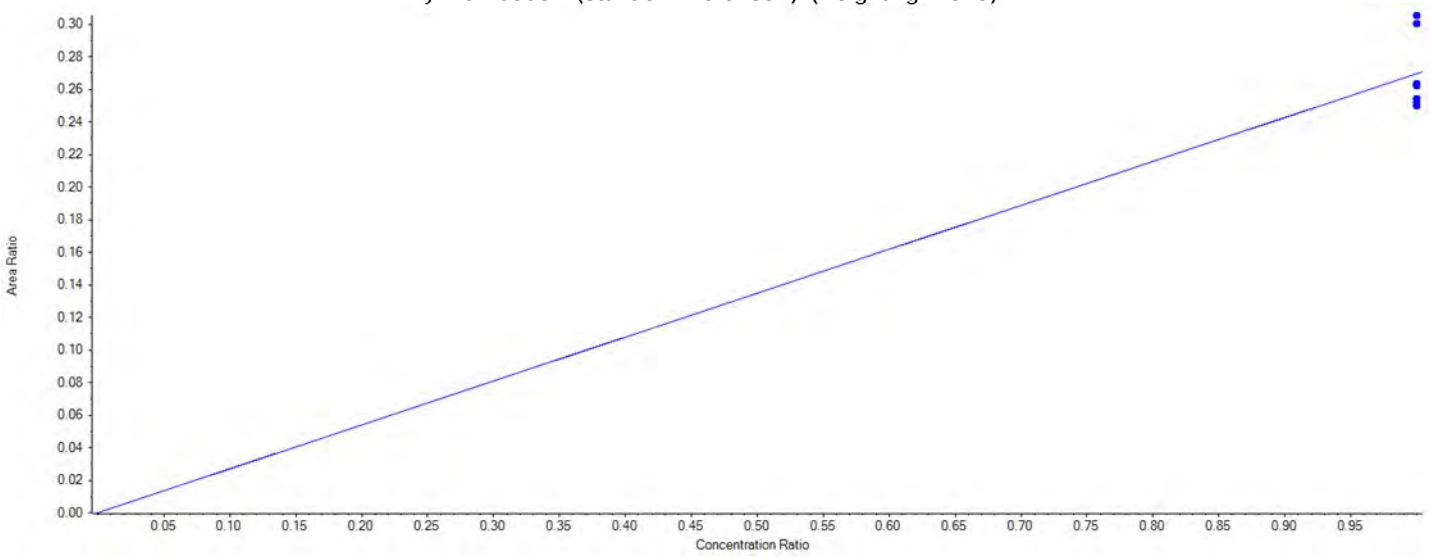
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed3-NMePFOSA

y = 0.26965 x (std. dev. = 0.02334) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	81310.43	325592.31	True	5.00	0.250	6.12	1.090	5.000	4.631	-7	30	
CAL2	82853.56	315883.61	True	5.00	0.262	6.12	1.100	5.000	4.864	-3	30	
CAL3	77701.46	305281.77	True	5.00	0.255	6.12	1.100	5.000	4.719	-6	30	
CAL4	82323.21	312249.71	True	5.00	0.264	6.12	1.100	5.000	4.889	-2	30	
CAL5	73999.73	294188.32	True	5.00	0.252	6.12	1.100	5.000	4.664	-7	30	
CAL6	78483.77	261161.40	True	5.00	0.301	6.13	1.100	5.000	5.572	11	30	
CAL7	76481.38	250503.12	True	5.00	0.305	6.12	1.100	5.000	5.661	13	30	

APPROVED
By MSM at 10:22 am, 12/4/18

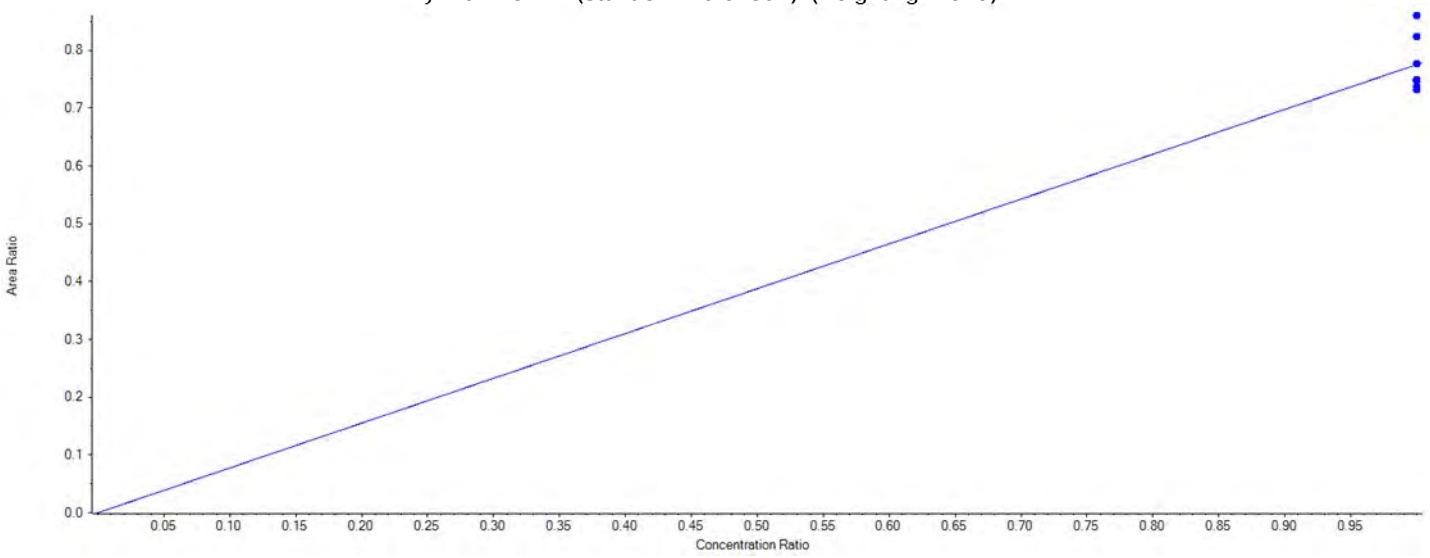
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed9-NEtPFOSAE

y = 0.77521 x (std. dev. = 0.04862) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	240014.71	325592.31	True	5.00	0.737	6.26	1.120	5.000	4.755	-5	30	
CAL2	236484.47	315883.61	True	5.00	0.749	6.27	1.120	5.000	4.829	-3	30	
CAL3	228345.61	305281.77	True	5.00	0.748	6.26	1.120	5.000	4.824	-4	30	
CAL4	228696.47	312249.71	True	5.00	0.732	6.27	1.120	5.000	4.724	-6	30	
CAL5	228722.26	294188.32	True	5.00	0.777	6.26	1.120	5.000	5.015	0	30	
CAL6	214891.10	261161.40	True	5.00	0.823	6.27	1.120	5.000	5.307	6	30	
CAL7	215425.57	250503.12	True	5.00	0.860	6.26	1.120	5.000	5.547	11	30	

APPROVED
By MSM at 10:22 am, 12/4/18

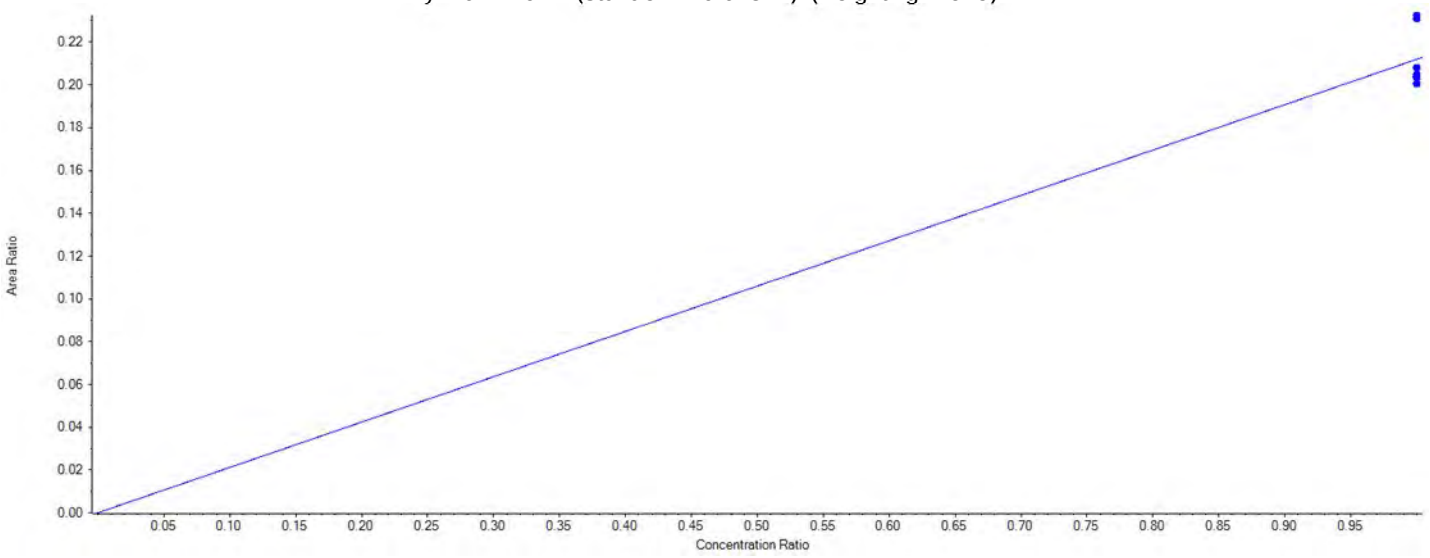
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Ed5-NEtPFOSA

y = 0.21194 x (std. dev. = 0.01372) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	Ed5-NEtPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	65230.49	325592.31	True	5.00	0.200	6.28	1.120	5.000	4.726	-5	30	
CAL2	65642.62	315883.61	True	5.00	0.208	6.28	1.120	5.000	4.902	-2	30	
CAL3	62180.68	305281.77	True	5.00	0.204	6.28	1.120	5.000	4.805	-4	30	
CAL4	63944.63	312249.71	True	5.00	0.205	6.28	1.120	5.000	4.831	-3	30	
CAL5	59855.44	294188.32	True	5.00	0.203	6.28	1.120	5.000	4.800	-4	30	
CAL6	60692.87	261161.40	True	5.00	0.232	6.29	1.120	5.000	5.483	10	30	
CAL7	57895.31	250503.12	True	5.00	0.231	6.28	1.120	5.000	5.452	9	30	

APPROVED
By MSM at 10:22 am, 12/4/18

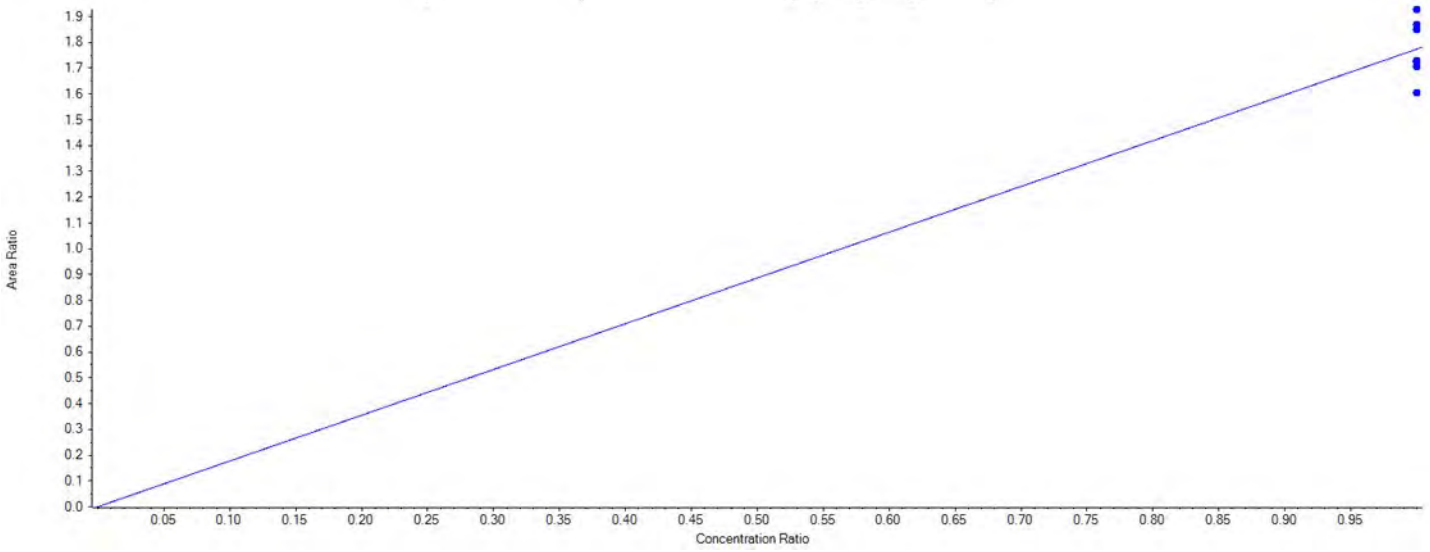
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

E13C2-PFTeDA

y = 1.77380 x (std. dev. = 0.11225) (weighting: None)



Extraction Standard Calibration Verification

Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	522985.31	325592.31	True	5.00	1.606	6.45	1.150	5.000	4.528	-9	30	
CAL2	545906.73	315883.61	True	5.00	1.728	6.46	1.150	5.000	4.871	-3	30	
CAL3	521214.85	305281.77	True	5.00	1.707	6.45	1.150	5.000	4.813	-4	30	
CAL4	539074.73	312249.71	True	5.00	1.726	6.45	1.150	5.000	4.866	-3	30	
CAL5	550261.00	294188.32	True	5.00	1.870	6.45	1.150	5.000	5.272	5	30	
CAL6	503296.75	261161.40	True	5.00	1.927	6.46	1.150	5.000	5.432	9	30	
CAL7	463642.00	250503.12	True	5.00	1.851	6.45	1.150	5.000	5.217	4	30	

APPROVED
By MSM at 10:22 am, 12/4/18

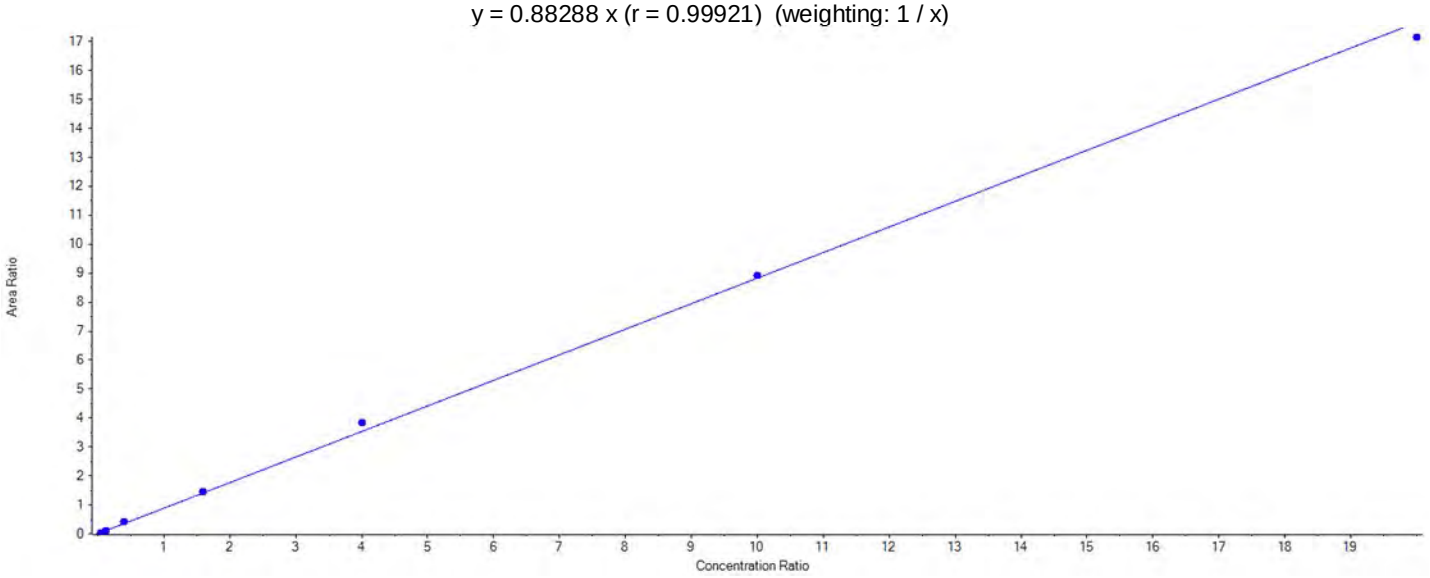
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFBA

y = 0.88288 x (r = 0.99921) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	35686.75	198.8	863125.65	True	5.00	0.041	3.28	1.000	0.200	0.234	17	30	
CAL2	93414.89	302.0	896237.43	True	5.00	0.104	3.28	1.000	0.600	0.590	-2	30	
CAL3	349312.63	613.4	848301.98	True	5.00	0.412	3.28	1.000	2.000	2.332	17	30	
CAL4	1236008.64	1362.2	842291.35	True	5.00	1.467	3.28	1.000	8.000	8.311	4	30	
CAL5	3060761.44	1777.0	800253.34	True	5.00	3.825	3.27	1.000	20.000	21.661	8	30	
CAL6	6680573.21	2076.0	748197.56	True	5.00	8.929	3.28	1.000	50.000	50.567	1	30	
CAL7	10948585.55	2782.9	638530.75	True	5.00	17.147	3.27	1.000	100.000	97.106	-3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

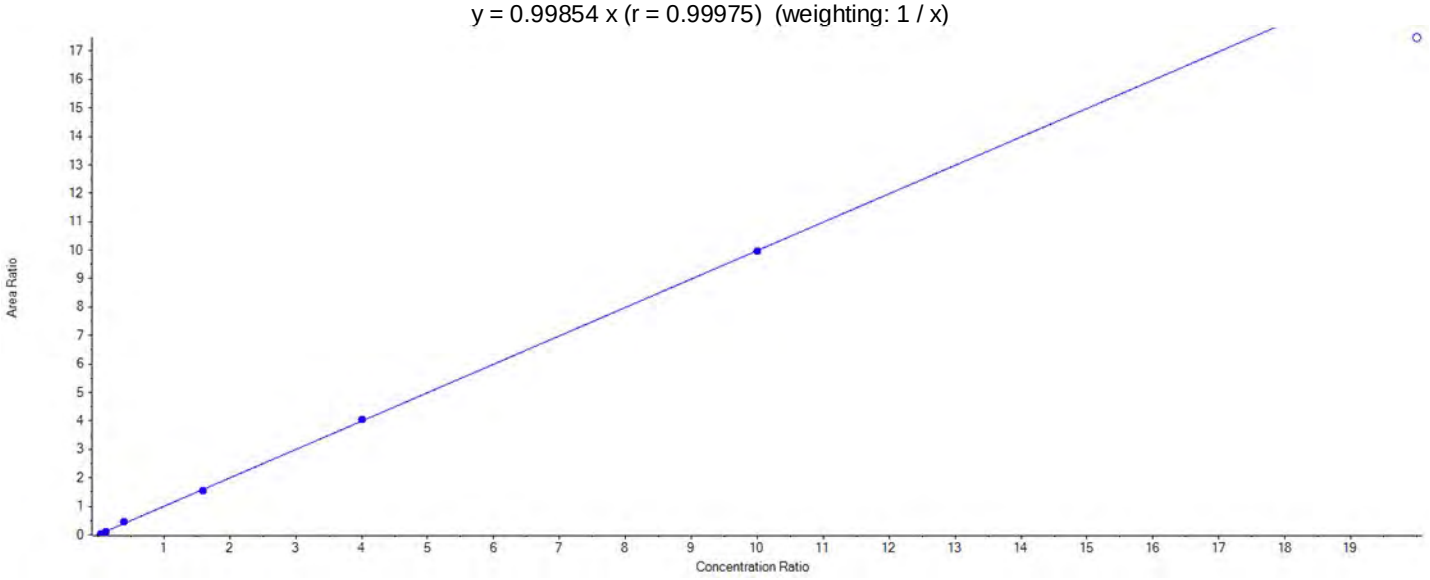
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFPeA

y = 0.99854 x (r = 0.99975) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeA Area	S/N	13C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	36618.00	117.0	775849.77	True	5.00	0.047	3.79	1.000	0.200	0.236	18	30	
CAL2	90936.59	154.6	818486.28	True	5.00	0.111	3.78	1.000	0.600	0.556	-7	30	
CAL3	335553.78	331.6	758729.48	True	5.00	0.442	3.78	1.000	2.000	2.215	11	30	
CAL4	1211477.52	586.0	782233.00	True	5.00	1.549	3.78	1.000	8.000	7.755	-3	30	
CAL5	3032409.84	916.5	751767.46	True	5.00	4.034	3.78	1.000	20.000	20.198	1	30	
CAL6	6772626.06	1376.0	680433.81	True	5.00	9.953	3.78	1.000	50.000	49.840	0	30	
CAL7	10661972.57	1513.0	610319.31	False	5.00	17.469	3.78	1.000	100.000	87.475	-13	30	

APPROVED
By MSM at 10:22 am, 12/4/18

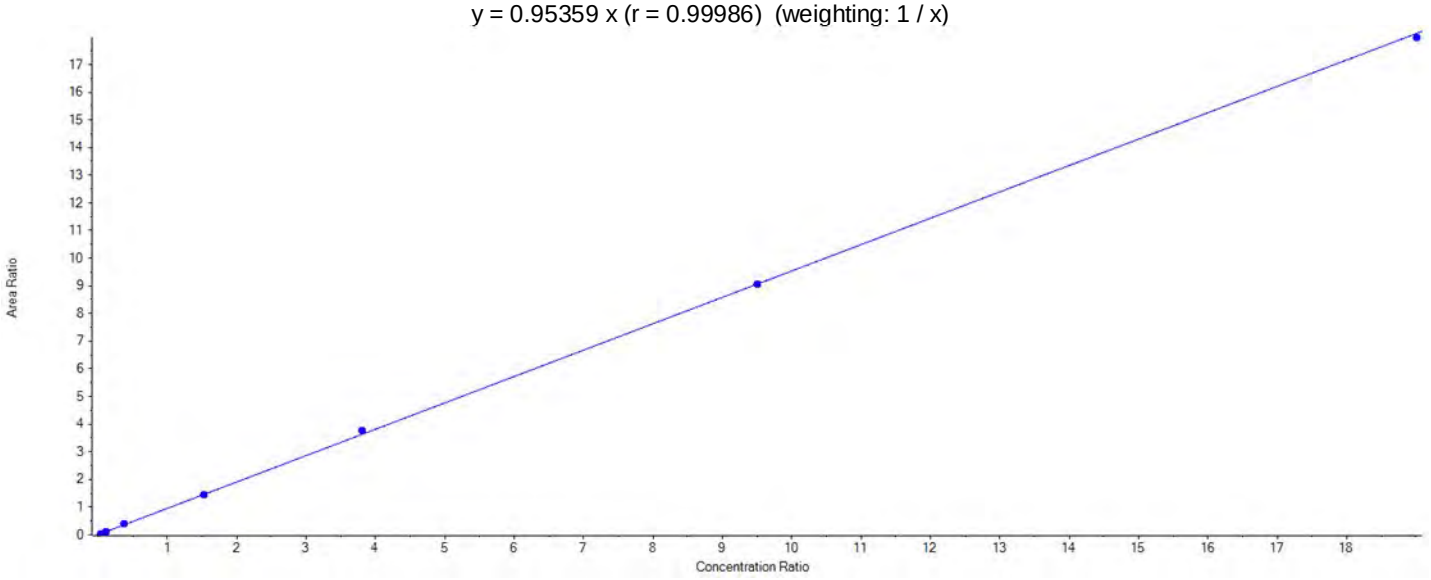
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFBS

y = 0.95359 x (r = 0.99986) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFBS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	18805.51	641.8	451635.90	True	4.65	0.042	3.83	1.000	0.177	0.203	15	30	
CAL2	46674.89	1103.2	449557.17	True	4.65	0.104	3.83	1.000	0.531	0.506	-5	30	
CAL3	172526.71	2372.6	432876.68	True	4.65	0.399	3.83	1.000	1.770	1.944	10	30	
CAL4	640071.19	3838.0	444396.29	True	4.65	1.440	3.83	1.000	7.080	7.023	-1	30	
CAL5	1625611.27	3186.1	433200.59	True	4.65	3.753	3.82	1.000	17.700	18.299	3	30	
CAL6	3699145.04	4183.4	407845.80	True	4.65	9.070	3.83	1.000	44.200	44.228	0	30	
CAL7	6416410.11	5141.7	356951.03	True	4.65	17.976	3.82	1.000	88.400	87.655	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

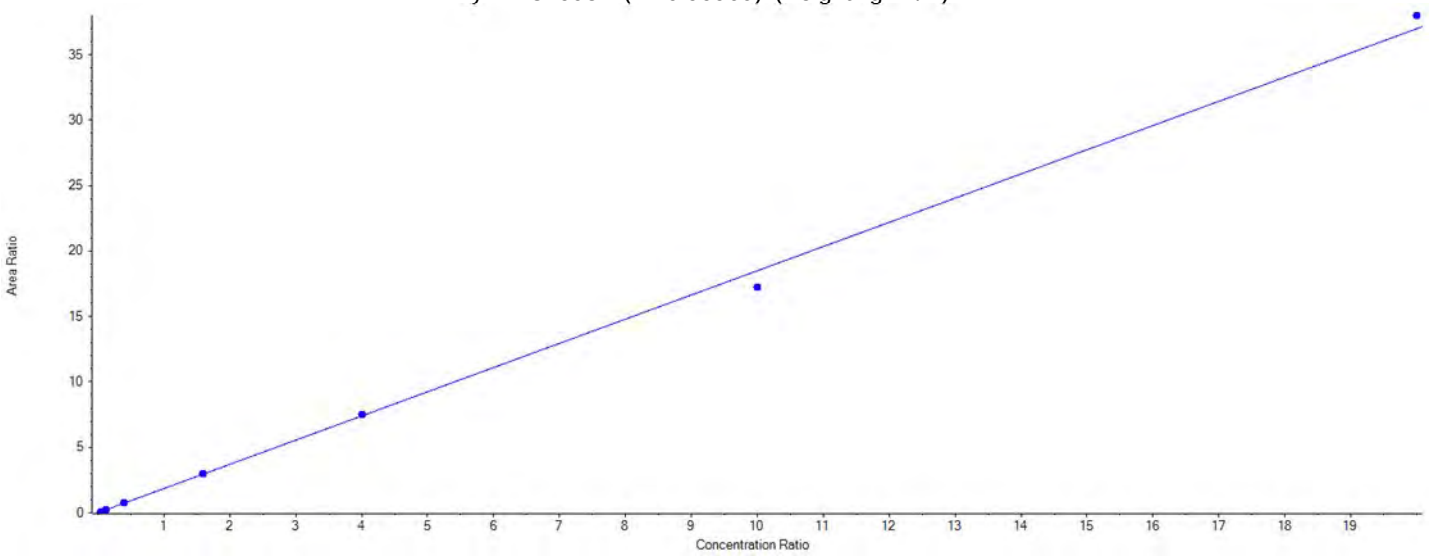
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

4:2-FTS

y = 1.84905 x (r = 0.99906) (weighting: 1 / x)



Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3701.66	198.5	54096.76	True	4.67	0.068	4.15	1.000	0.187	0.173	-8	30	
CAL2	10049.01	402.8	49932.04	True	4.67	0.201	4.14	1.000	0.560	0.508	-9	30	
CAL3	38505.14	1006.1	48170.47	True	4.67	0.799	4.14	1.000	1.870	2.019	8	30	
CAL4	141513.68	1541.8	46852.45	True	4.67	3.020	4.14	1.000	7.470	7.628	2	30	
CAL5	374490.91	2356.5	49645.83	True	4.67	7.543	4.14	1.000	18.700	19.051	2	30	
CAL6	807938.72	2951.4	46834.27	True	4.67	17.251	4.15	1.000	46.700	43.570	-7	30	
CAL7	1539232.35	3041.4	40521.32	True	4.67	37.986	4.14	1.000	93.400	95.938	3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

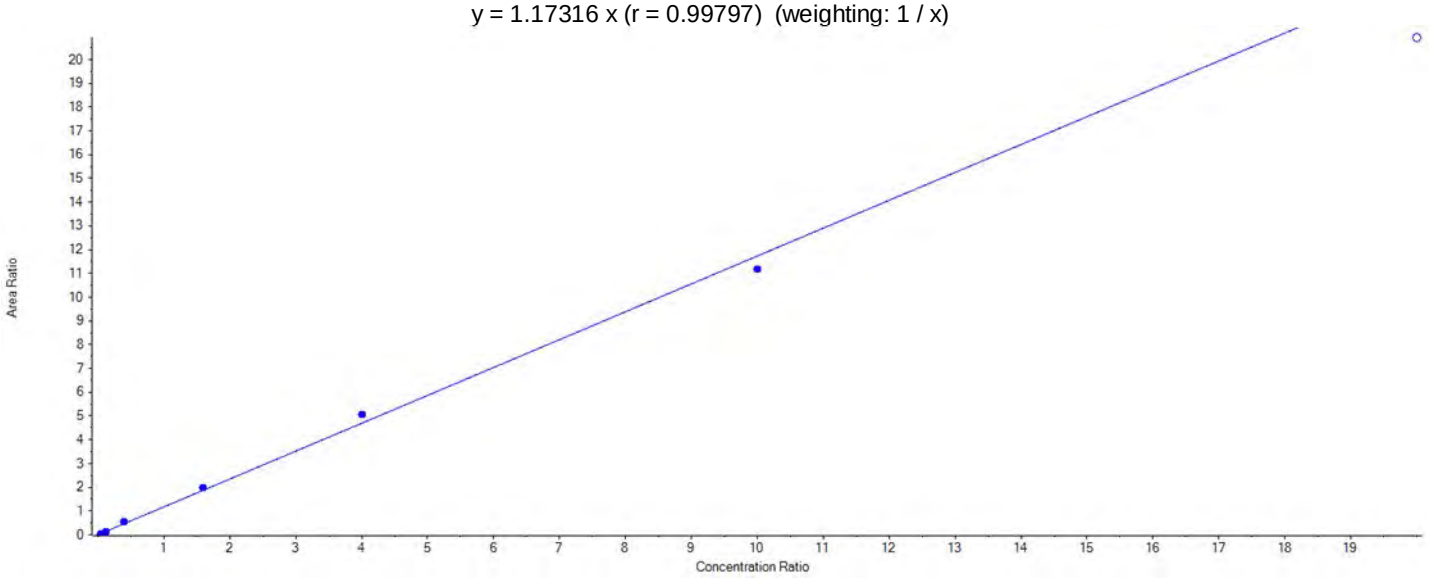
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFHxA

y = 1.17316 x (r = 0.99797) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	37049.78	246.9	661308.45	True	5.00	0.056	4.18	1.000	0.200	0.239	19	30	
CAL2	91444.98	461.1	686196.46	True	5.00	0.133	4.18	1.000	0.600	0.568	-5	30	
CAL3	347228.87	948.8	640176.89	True	5.00	0.542	4.18	1.000	2.000	2.312	16	30	
CAL4	1260832.01	1305.6	638151.00	True	5.00	1.976	4.18	1.000	8.000	8.421	5	30	
CAL5	3112980.90	1942.5	612989.70	True	5.00	5.078	4.18	1.000	20.000	21.644	8	30	
CAL6	6717198.73	2466.0	601226.32	True	5.00	11.172	4.18	1.000	50.000	47.617	-5	30	
CAL7	11109528.33	2371.2	530901.63	False	5.00	20.926	4.17	1.000	100.000	89.185	-11	30	

APPROVED
By MSM at 10:22 am, 12/4/18

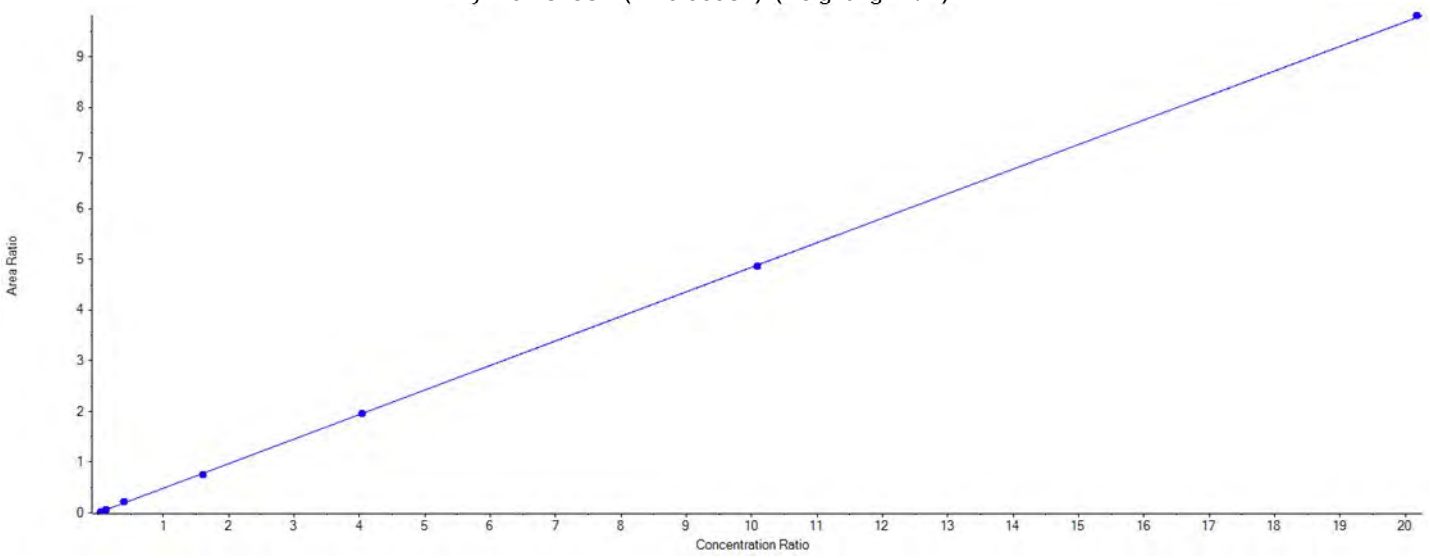
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFPeS

y = 0.48458 x (r = 0.99987) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFPeS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	10226.80	849.7	451635.90	True	4.65	0.023	4.20	1.100	0.188	0.217	16	30	
CAL2	22968.31	737.8	449557.17	True	4.65	0.051	4.20	1.100	0.563	0.490	-13	30	
CAL3	90668.02	1360.7	432876.68	True	4.65	0.209	4.20	1.100	1.880	2.010	7	30	
CAL4	330269.44	1783.7	444396.29	True	4.65	0.743	4.20	1.100	7.500	7.132	-5	30	
CAL5	851930.76	2465.7	433200.59	True	4.65	1.967	4.20	1.100	18.800	18.871	0	30	
CAL6	1986368.00	3576.0	407845.80	True	4.65	4.870	4.20	1.100	46.900	46.736	0	30	
CAL7	3503173.12	3369.6	356951.03	True	4.65	9.814	4.20	1.100	93.800	94.175	0	30	

APPROVED
By MSM at 10:22 am, 12/4/18

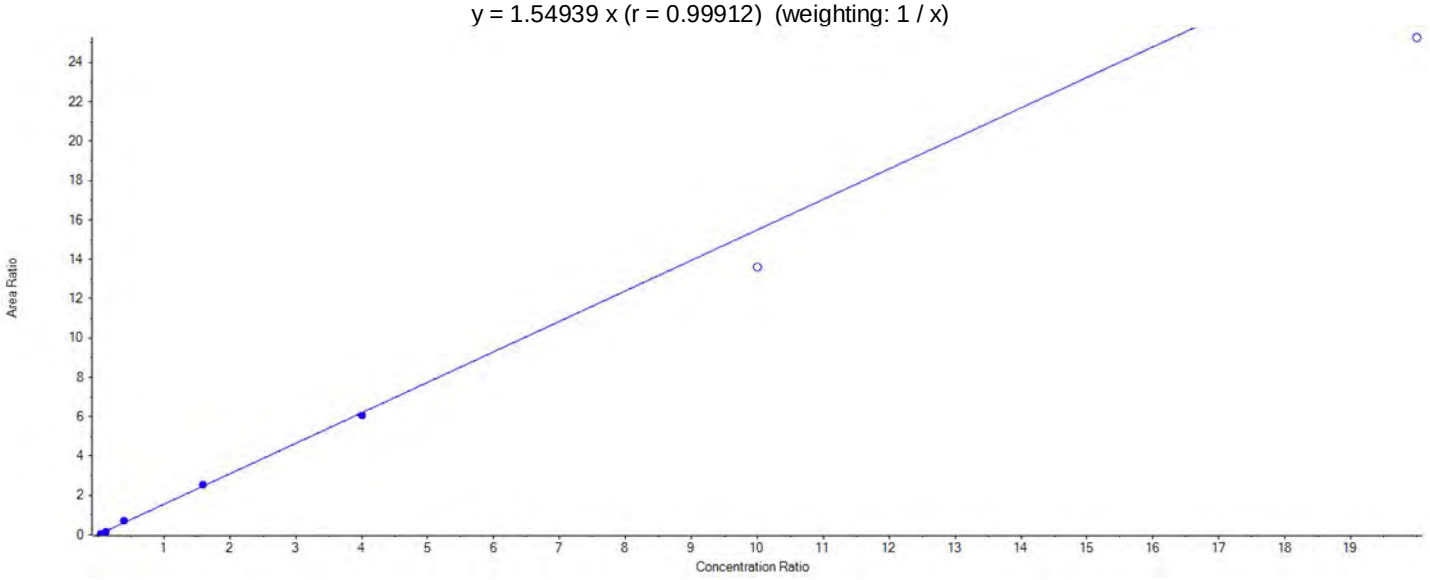
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFHpA

y = 1.54939 x (r = 0.99912) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpA Area	S/N	13C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	35613.87	216.2	490131.64	True	5.00	0.073	4.58	1.000	0.200	0.234	17	30	
CAL2	88145.91	463.1	498839.83	True	5.00	0.177	4.57	1.000	0.600	0.570	-5	30	
CAL3	342849.32	849.8	485887.26	True	5.00	0.706	4.57	1.000	2.000	2.277	14	30	
CAL4	1263860.32	1369.0	500590.00	True	5.00	2.525	4.57	1.000	8.000	8.148	2	30	
CAL5	3049516.02	2175.3	502842.83	True	5.00	6.065	4.57	1.000	20.000	19.571	-2	30	
CAL6	6561332.20	2187.8	481867.37	False	5.00	13.616	4.57	1.000	50.000	43.941	-12	30	
CAL7	10788918.08	2364.4	427034.81	False	5.00	25.265	4.57	1.000	100.000	81.531	-18	30	

APPROVED
By MSM at 10:22 am, 12/4/18

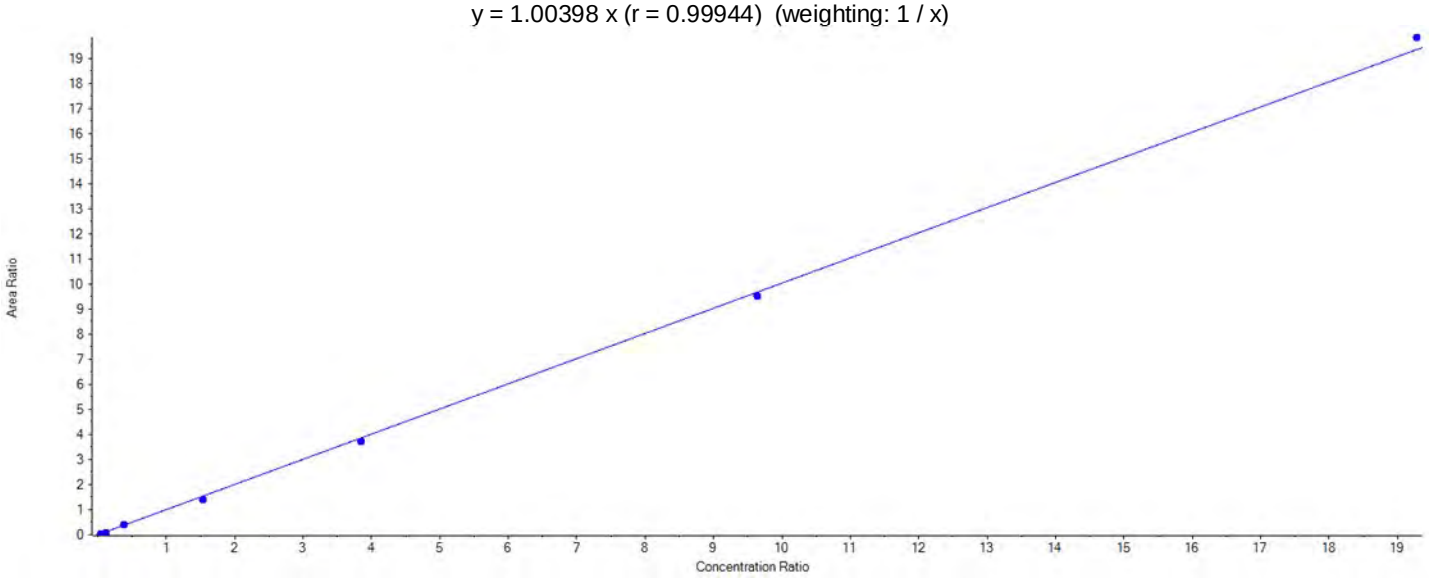
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFHxS

y = 1.00398 x (r = 0.99944) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	14033.16	723.6	337685.04	True	4.73	0.042	4.58	1.000	0.182	0.196	8	30	
CAL2	33871.09	4740.1	342827.45	True	4.73	0.099	4.58	1.000	0.547	0.465	-15	30	
CAL3	126301.69	1243.9	326644.74	True	4.73	0.387	4.57	1.000	1.820	1.822	0	30	
CAL4	465916.55	1446.6	334721.55	True	4.73	1.392	4.57	1.000	7.300	6.558	-10	30	
CAL5	1209151.89	1729.0	325751.31	True	4.73	3.712	4.57	1.000	18.200	17.488	-4	30	
CAL6	2852509.62	2354.0	299542.60	True	4.73	9.523	4.58	1.000	45.600	44.865	-2	30	
CAL7	4992056.32	1680.6	251658.95	True	4.73	19.837	4.57	1.000	91.200	93.456	2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

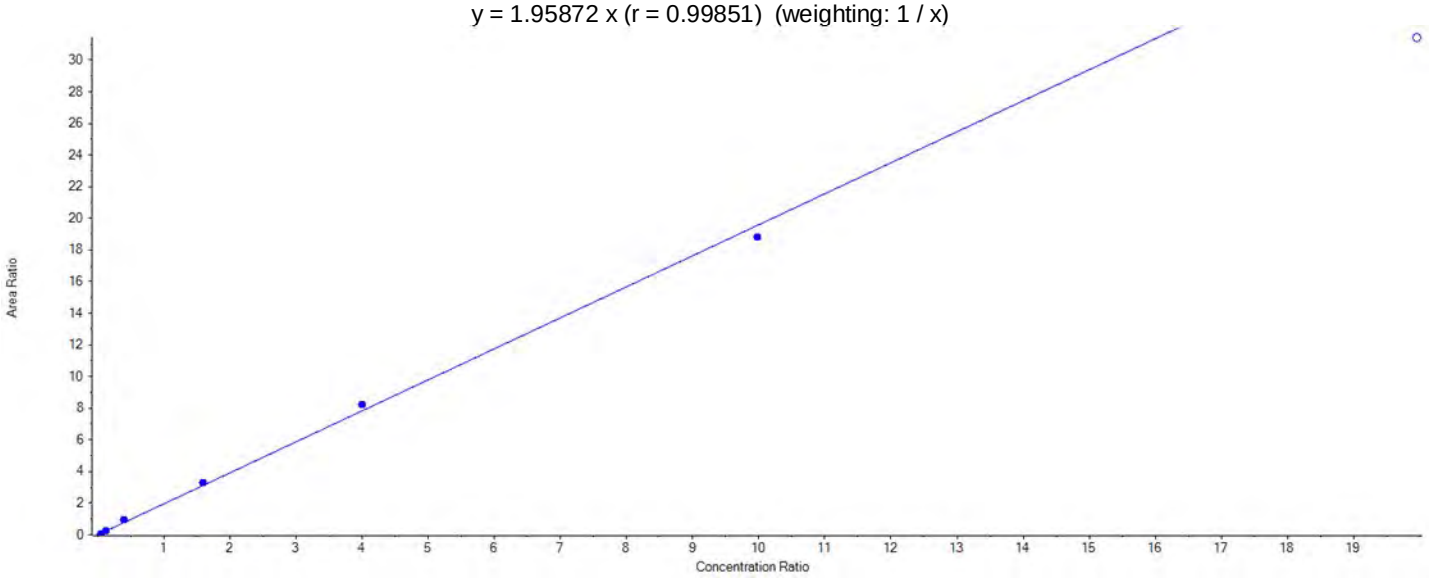
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

6:2-FTS

y = 1.95872 x (r = 0.99851) (weighting: 1 / x)



Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2898.99	281.7	36544.35	True	4.75	0.079	4.94	1.000	0.190	0.192	1	30	
CAL2	7601.89	238.1	31094.94	True	4.75	0.244	4.94	1.000	0.569	0.593	4	30	
CAL3	28159.04	782.0	29856.28	True	4.75	0.943	4.93	1.000	1.900	2.287	20	30	
CAL4	102306.20	1667.1	31169.62	True	4.75	3.282	4.93	1.000	7.580	7.960	5	30	
CAL5	242921.39	1880.1	29389.33	True	4.75	8.266	4.93	1.000	19.000	20.045	5	30	
CAL6	511547.75	2212.9	27227.07	True	4.75	18.788	4.94	1.000	47.400	45.562	-4	30	
CAL7	851663.31	3196.1	27109.32	False	4.75	31.416	4.92	1.000	94.800	76.185	-20	30	

APPROVED
By MSM at 10:22 am, 12/4/18

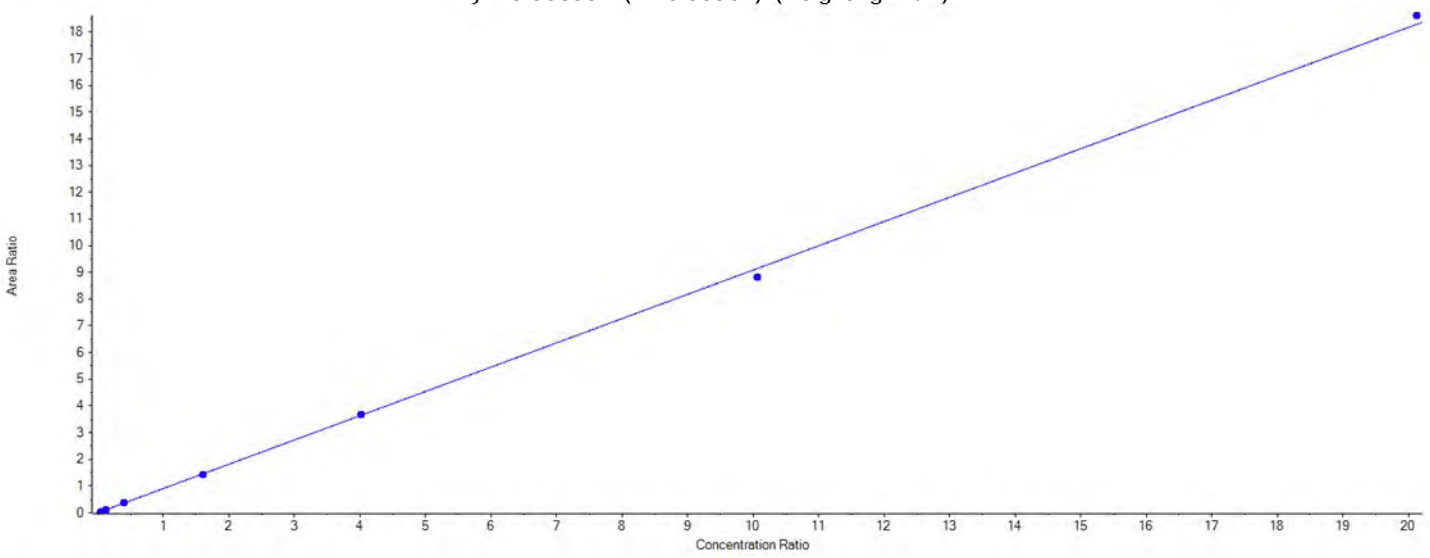
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFHpS

y = 0.90859 x (r = 0.99964) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHpS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	15607.37	850.7	337685.04	True	4.73	0.046	4.94	1.080	0.190	0.241	27	30	
CAL2	32927.20	1699.5	342827.45	True	4.73	0.096	4.94	1.080	0.571	0.500	-12	30	
CAL3	127250.44	2034.9	326644.74	True	4.73	0.390	4.93	1.080	1.900	2.028	7	30	
CAL4	473818.23	3151.1	334721.55	True	4.73	1.416	4.93	1.080	7.610	7.369	-3	30	
CAL5	1192377.17	3003.9	325751.31	True	4.73	3.660	4.93	1.080	19.000	19.056	0	30	
CAL6	2645872.60	4441.7	299542.60	True	4.73	8.833	4.94	1.080	47.600	45.984	-3	30	
CAL7	4683948.39	3576.9	251658.95	True	4.73	18.612	4.93	1.080	95.200	96.894	2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

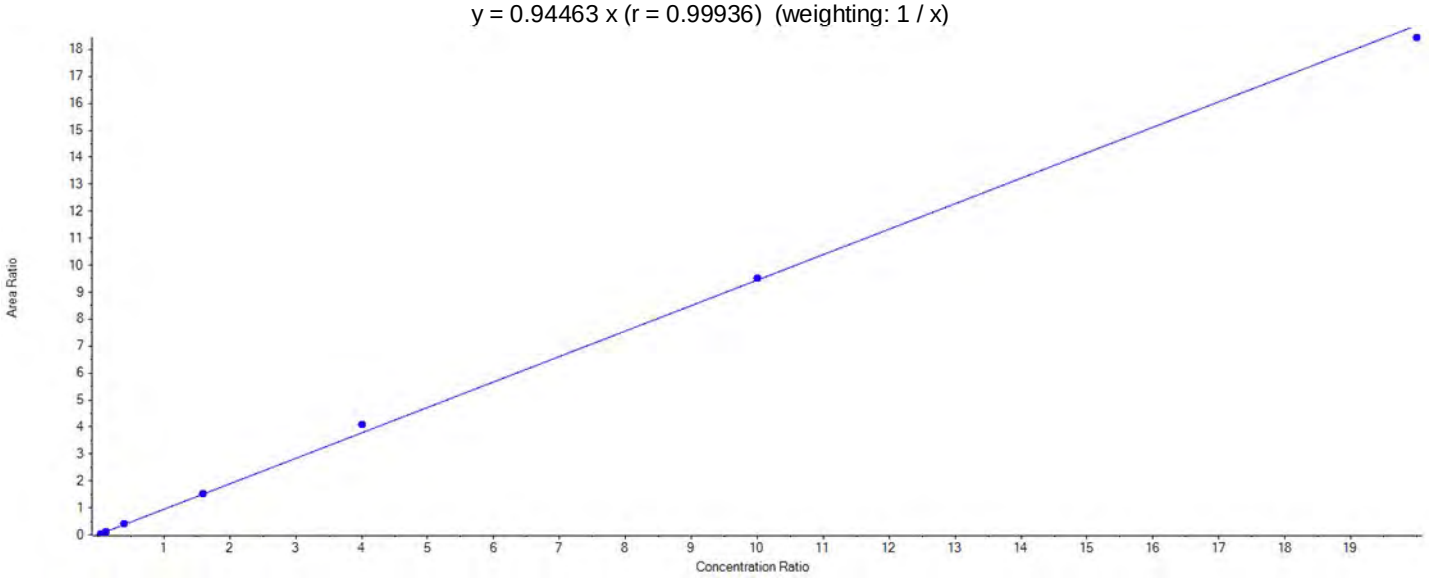
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFOA

y = 0.94463 x (r = 0.99936) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	35363.65	172.6	861739.36	True	5.00	0.041	4.95	1.000	0.200	0.217	9	30	
CAL2	95961.52	355.8	889501.67	True	5.00	0.108	4.95	1.000	0.600	0.571	-5	30	
CAL3	340312.14	576.7	797704.13	True	5.00	0.427	4.94	1.000	2.000	2.258	13	30	
CAL4	1221239.06	1007.7	802574.62	True	5.00	1.522	4.94	1.000	8.000	8.054	1	30	
CAL5	3005747.10	1832.4	735533.22	True	5.00	4.086	4.94	1.000	20.000	21.630	8	30	
CAL6	6506829.67	2131.8	682579.02	True	5.00	9.533	4.95	1.000	50.000	50.457	1	30	
CAL7	10639286.74	2192.2	576918.85	True	5.00	18.442	4.94	1.000	100.000	97.612	-2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

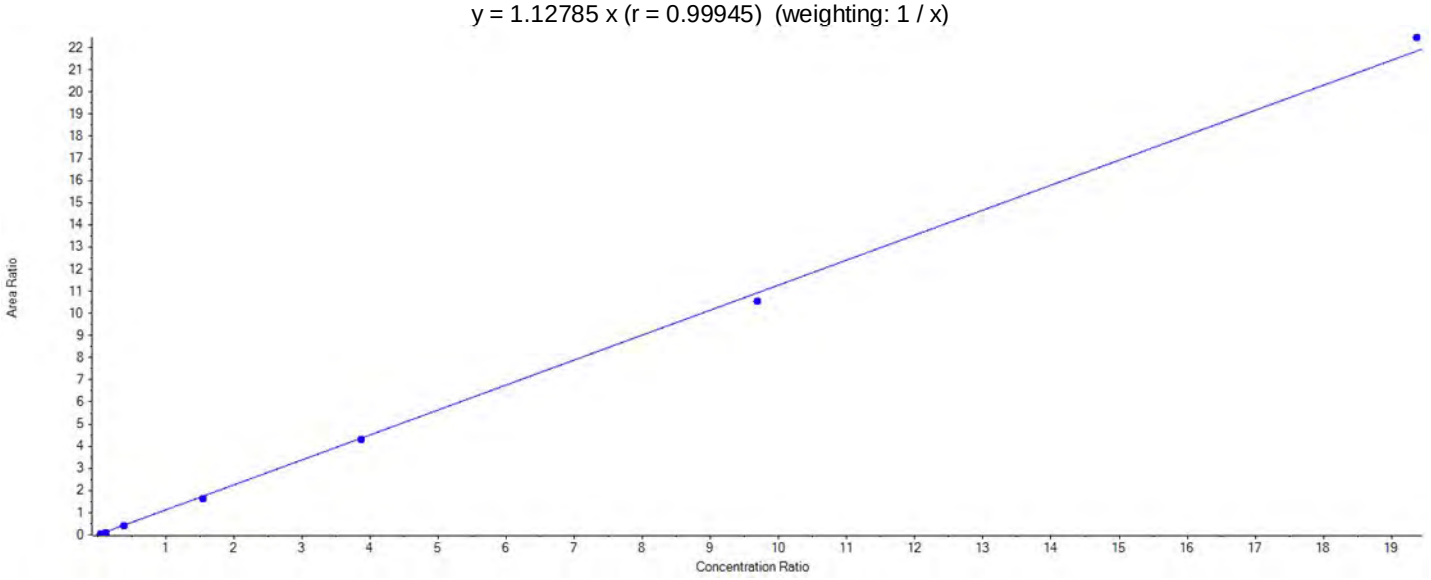
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFOS

y = 1.12785 x (r = 0.99945) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13932.49	284.2	295968.68	True	4.78	0.047	5.28	1.000	0.185	0.200	8	30	
CAL2	34329.42	497.1	304154.46	True	4.78	0.113	5.27	1.000	0.555	0.478	-14	30	
CAL3	131693.95	875.1	307501.27	True	4.78	0.428	5.27	1.000	1.850	1.815	-2	30	
CAL4	495600.37	1262.5	303740.07	True	4.78	1.632	5.27	1.000	7.400	6.915	-7	30	
CAL5	1246934.30	1438.4	290967.83	True	4.78	4.285	5.27	1.000	18.500	18.163	-2	30	
CAL6	2996122.02	1226.0	284411.86	True	4.78	10.534	5.28	1.000	46.300	44.647	-4	30	
CAL7	5373855.06	1244.4	239305.64	True	4.78	22.456	5.27	1.000	92.600	95.172	3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

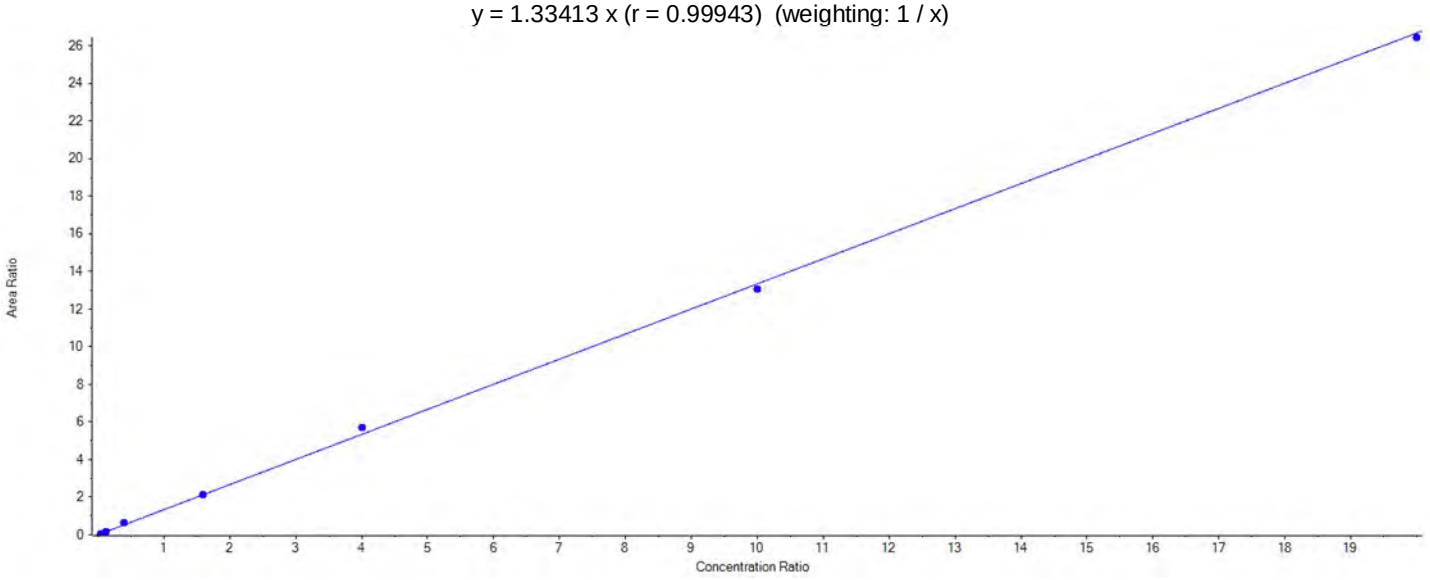
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFNA

y = 1.33413 x (r = 0.99943) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	31204.86	349.6	492951.92	True	5.00	0.063	5.29	1.000	0.200	0.237	19	30	
CAL2	83632.52	592.3	503052.29	True	5.00	0.166	5.29	1.000	0.600	0.623	4	30	
CAL3	295995.70	1150.6	459020.86	True	5.00	0.645	5.28	1.000	2.000	2.417	21	30	
CAL4	1045246.15	1917.3	487200.80	True	5.00	2.145	5.29	1.000	8.000	8.040	1	30	
CAL5	2641534.50	3970.8	461598.48	True	5.00	5.723	5.28	1.000	20.000	21.447	7	30	
CAL6	5648128.50	3506.9	432552.91	True	5.00	13.058	5.30	1.000	50.000	48.937	-2	30	
CAL7	10107793.50	4317.7	382259.74	True	5.00	26.442	5.28	1.000	100.000	99.099	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

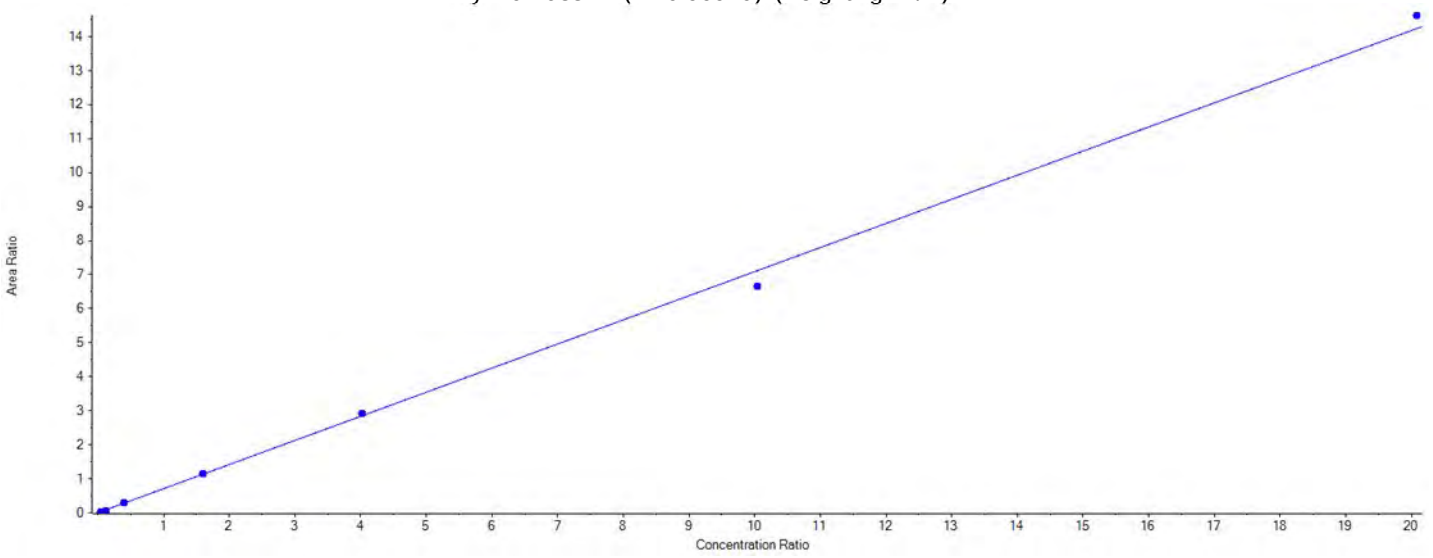
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFNS

y = 0.70881 x (r = 0.99910) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	10570.51	2248.4	295968.68	True	4.78	0.036	5.57	1.060	0.192	0.241	25	30	
CAL2	22324.68	412.0	304154.46	True	4.78	0.073	5.57	1.060	0.576	0.495	-14	30	
CAL3	89492.27	7421.5	307501.27	True	4.78	0.291	5.56	1.060	1.920	1.963	2	30	
CAL4	344749.07	35842.7	303740.07	True	4.78	1.135	5.57	1.060	7.680	7.654	0	30	
CAL5	850399.04	2314.0	290967.83	True	4.78	2.923	5.56	1.060	19.200	19.709	3	30	
CAL6	1894816.49	2420.1	284411.86	True	4.78	6.662	5.57	1.060	48.000	44.928	-6	30	
CAL7	3498137.72	3737.2	239305.64	True	4.78	14.618	5.56	1.060	96.000	98.578	3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

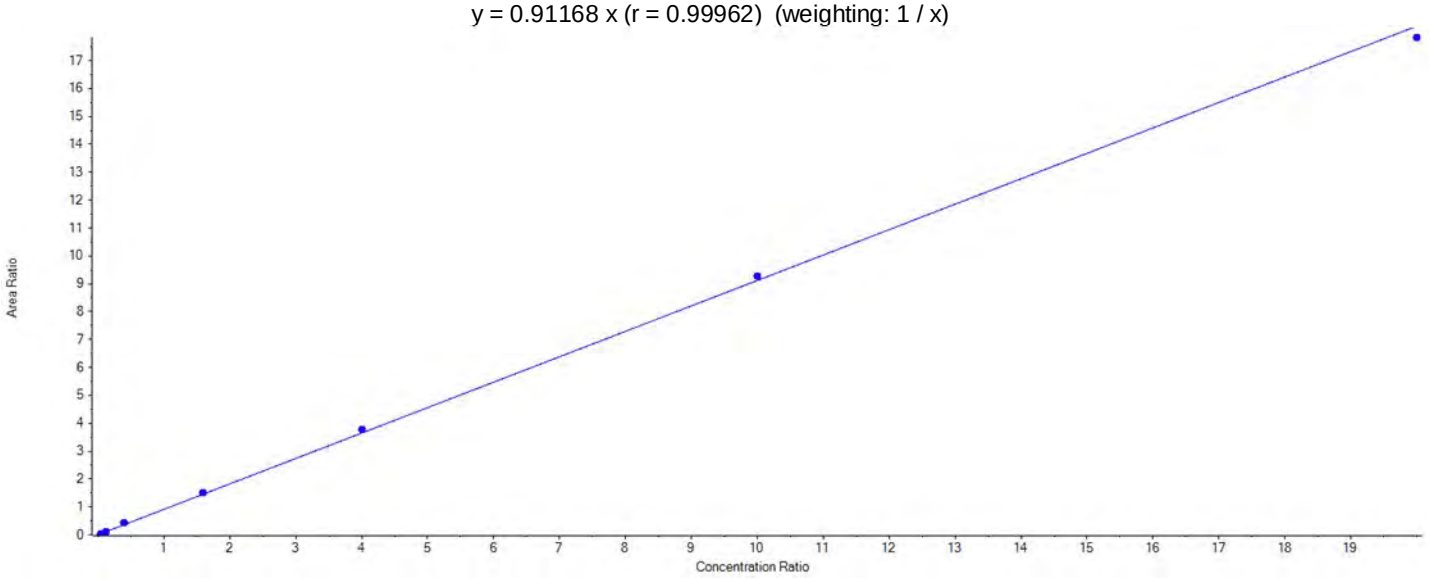
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFDA

y = 0.91168 x (r = 0.99962) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23772.00	137.7	598898.31	True	5.00	0.040	5.59	1.000	0.200	0.218	9	30	
CAL2	70550.62	234.6	633130.77	True	5.00	0.111	5.59	1.000	0.600	0.611	2	30	
CAL3	245962.71	406.2	590445.29	True	5.00	0.417	5.58	1.000	2.000	2.285	14	30	
CAL4	903571.04	928.5	596917.17	True	5.00	1.514	5.59	1.000	8.000	8.302	4	30	
CAL5	2219848.22	1345.7	588632.76	True	5.00	3.771	5.58	1.000	20.000	20.683	3	30	
CAL6	4683026.73	1666.5	504181.45	True	5.00	9.288	5.60	1.000	50.000	50.941	2	30	
CAL7	8197558.45	2057.1	459880.08	True	5.00	17.825	5.58	1.000	100.000	97.761	-2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

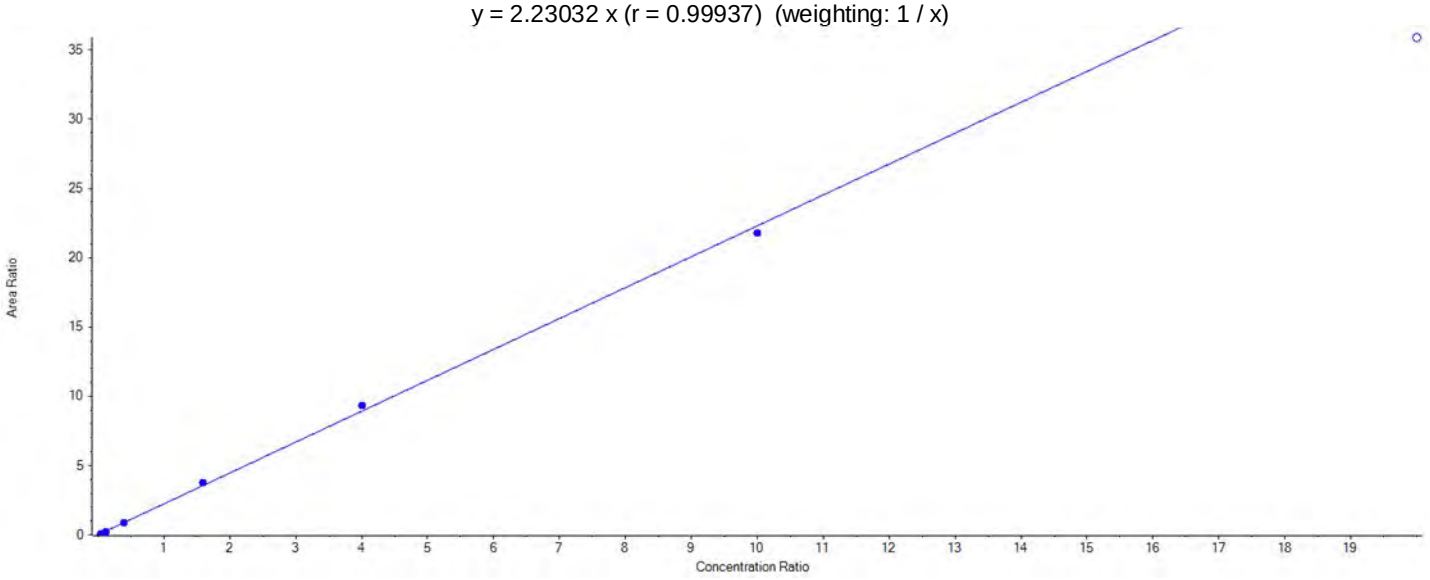
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

8:2-FTS

y = 2.23032 x (r = 0.99937) (weighting: 1 / x)



Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2158.57	150.3	23650.83	True	4.79	0.091	5.59	1.000	0.192	0.196	2	30	
CAL2	6117.93	232.1	24625.62	True	4.79	0.248	5.60	1.000	0.575	0.534	-7	30	
CAL3	21000.39	527.3	24215.35	True	4.79	0.867	5.59	1.000	1.920	1.863	-3	30	
CAL4	81985.82	775.6	21920.40	True	4.79	3.740	5.60	1.000	7.660	8.033	5	30	
CAL5	198352.77	1613.6	21205.31	True	4.79	9.354	5.59	1.000	19.200	20.089	5	30	
CAL6	392098.29	1534.5	18019.31	True	4.79	21.760	5.60	1.000	47.900	46.733	-2	30	
CAL7	721887.34	2073.5	20112.43	False	4.79	35.893	5.59	1.000	95.800	77.086	-20	30	

APPROVED
By MSM at 10:22 am, 12/4/18

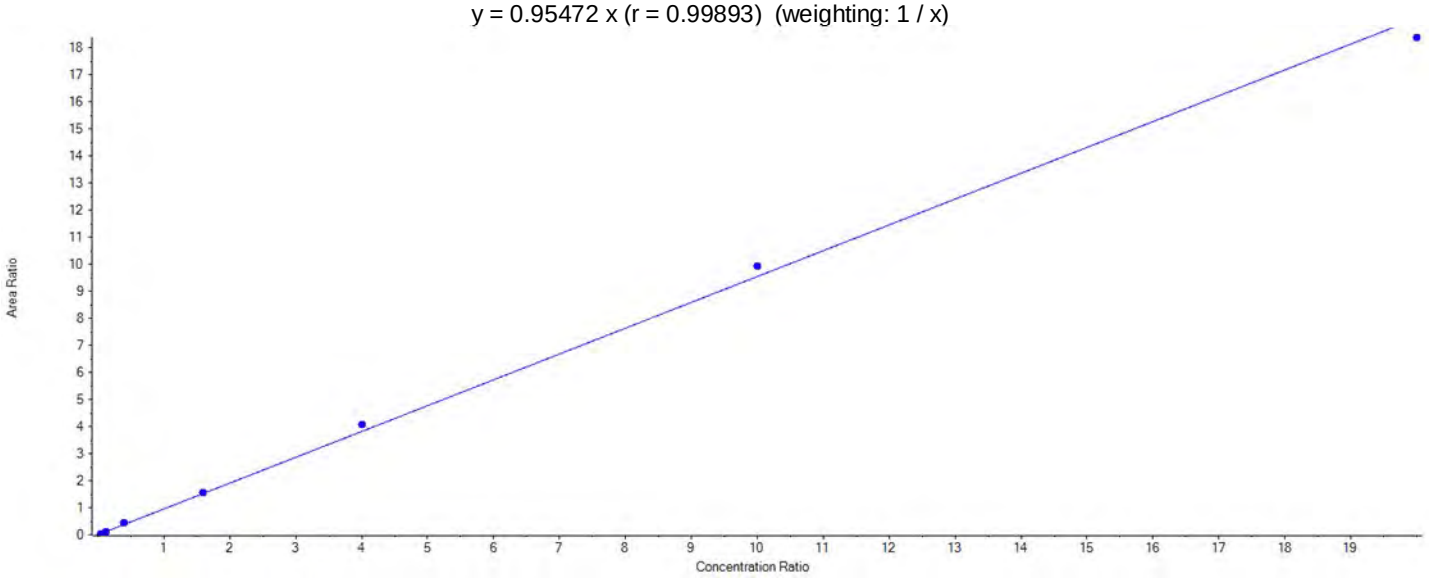
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFOSA

y = 0.95472 x (r = 0.99893) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFOSA Area	S/N	13C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27629.23	1200740.6	731117.75	True	5.00	0.038	5.67	1.000	0.200	0.198	-1	30	
CAL2	69184.74	998.2	682781.72	True	5.00	0.101	5.67	1.000	0.600	0.531	-12	30	
CAL3	299342.00	1250.5	680864.75	True	5.00	0.440	5.66	1.000	2.000	2.303	15	30	
CAL4	1040474.94	1820.2	675000.22	True	5.00	1.541	5.66	1.000	8.000	8.073	1	30	
CAL5	2628310.20	2076.8	642876.32	True	5.00	4.088	5.66	1.000	20.000	21.411	7	30	
CAL6	6058312.65	2408.3	609939.67	True	5.00	9.933	5.67	1.000	50.000	52.019	4	30	
CAL7	10663363.02	2217.5	580120.13	True	5.00	18.381	5.66	1.000	100.000	96.266	-4	30	

APPROVED
By MSM at 10:22 am, 12/4/18

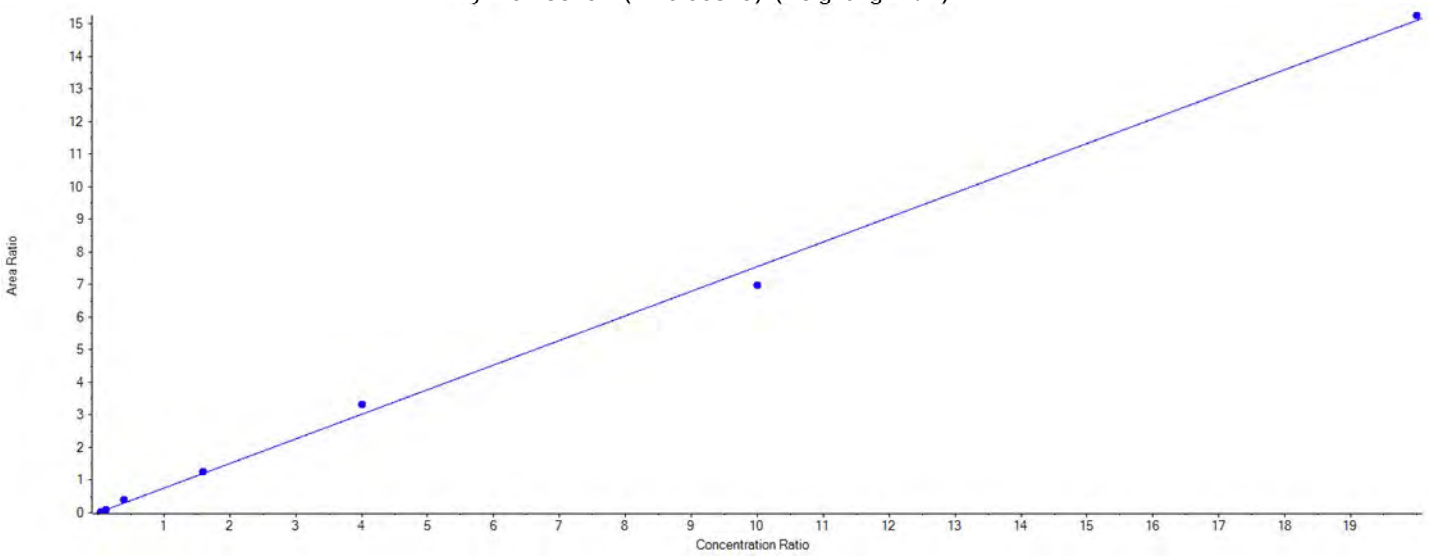
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NMeFOSAA

y = 0.75549 x (r = 0.99810) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2686.81	3845.4	95752.53	True	5.00	0.028	5.74	1.000	0.200	0.186	-7	30	
CAL2	7293.84	909.7	88184.11	True	5.00	0.083	5.73	1.000	0.600	0.547	-9	30	
CAL3	30889.99	453.2	80082.92	True	5.00	0.386	5.73	1.000	2.000	2.553	28	30	
CAL4	100079.31	786.6	78775.39	True	5.00	1.270	5.73	1.000	8.000	8.408	5	30	
CAL5	278357.68	1165.2	83984.00	True	5.00	3.314	5.73	1.000	20.000	21.935	10	30	
CAL6	579334.11	1324.4	83025.33	True	5.00	6.978	5.74	1.000	50.000	46.181	-8	30	
CAL7	1193734.46	1346.1	78229.33	True	5.00	15.259	5.73	1.000	100.000	100.990	1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

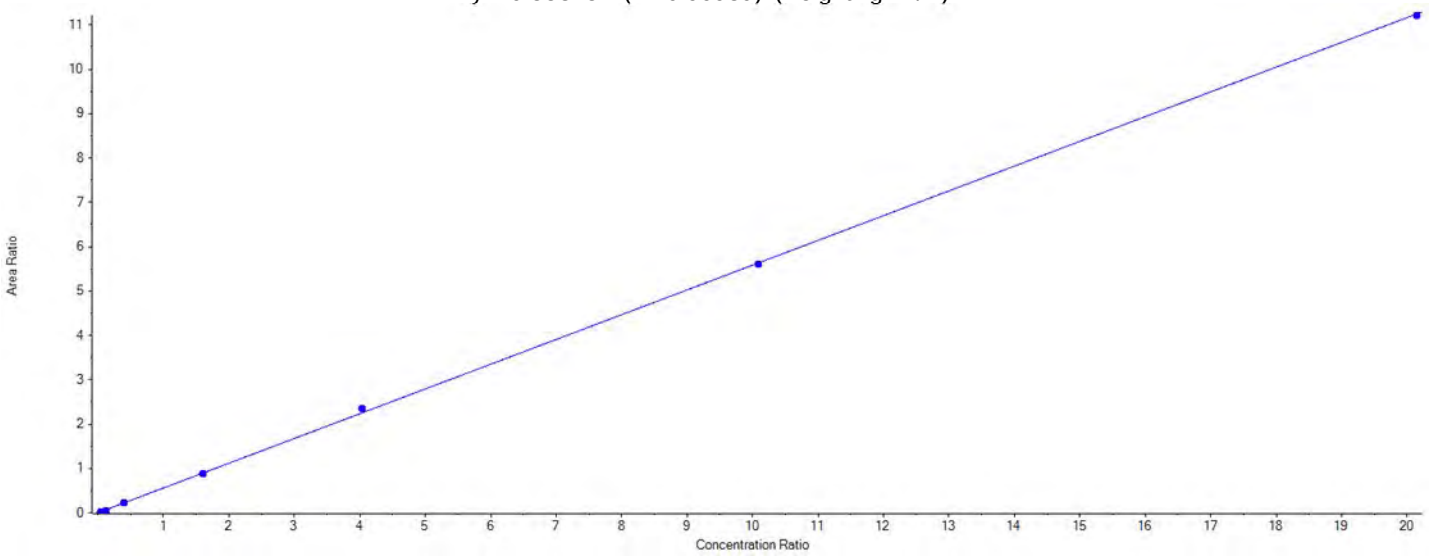
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFDS

y = 0.55825 x (r = 0.99980) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6674.87	344.7	295968.68	True	4.78	0.023	5.82	1.100	0.193	0.193	0	30	
CAL2	16541.60	114273.6	304154.46	True	4.78	0.054	5.83	1.100	0.578	0.466	-19	30	
CAL3	70717.12	31583.7	307501.27	True	4.78	0.230	5.82	1.100	1.930	1.969	2	30	
CAL4	265366.63	54495.6	303740.07	True	4.78	0.874	5.83	1.110	7.700	7.481	-3	30	
CAL5	685385.12	2921.4	290967.83	True	4.78	2.356	5.82	1.100	19.300	20.169	5	30	
CAL6	1592243.72	2004.4	284411.86	True	4.78	5.598	5.83	1.110	48.200	47.936	-1	30	
CAL7	2682689.60	3110.7	239305.64	True	4.78	11.210	5.82	1.110	96.300	95.988	0	30	

APPROVED
By MSM at 10:22 am, 12/4/18

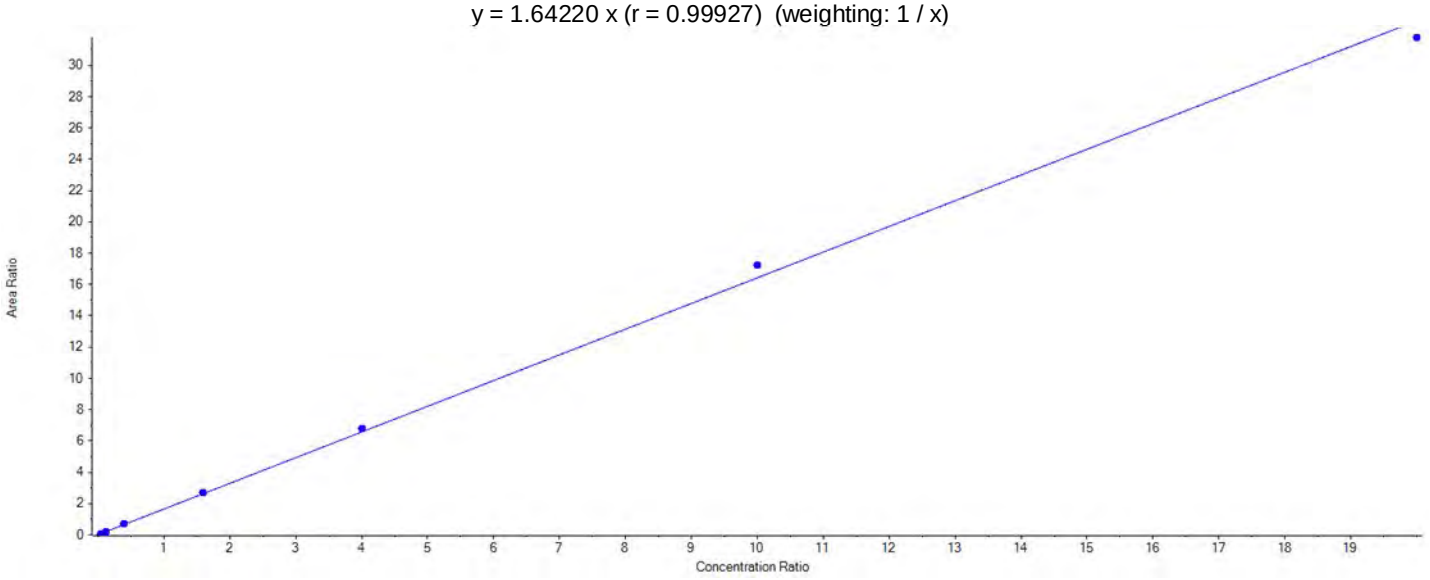
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFUnDA

y = 1.64220 x (r = 0.99927) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	21755.09	155.3	327106.74	True	5.00	0.067	5.85	1.000	0.200	0.202	1	30	
CAL2	60644.98	391.8	330222.51	True	5.00	0.184	5.85	1.000	0.600	0.559	-7	30	
CAL3	219558.82	830.9	318514.56	True	5.00	0.689	5.85	1.000	2.000	2.099	5	30	
CAL4	810079.27	1359.1	301821.35	True	5.00	2.684	5.85	1.000	8.000	8.172	2	30	
CAL5	2029729.92	2300.7	299903.60	True	5.00	6.768	5.85	1.000	20.000	20.606	3	30	
CAL6	4521319.56	2639.0	262585.24	True	5.00	17.218	5.86	1.000	50.000	52.425	5	30	
CAL7	7502298.21	2896.6	236129.49	True	5.00	31.772	5.84	1.000	100.000	96.736	-3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

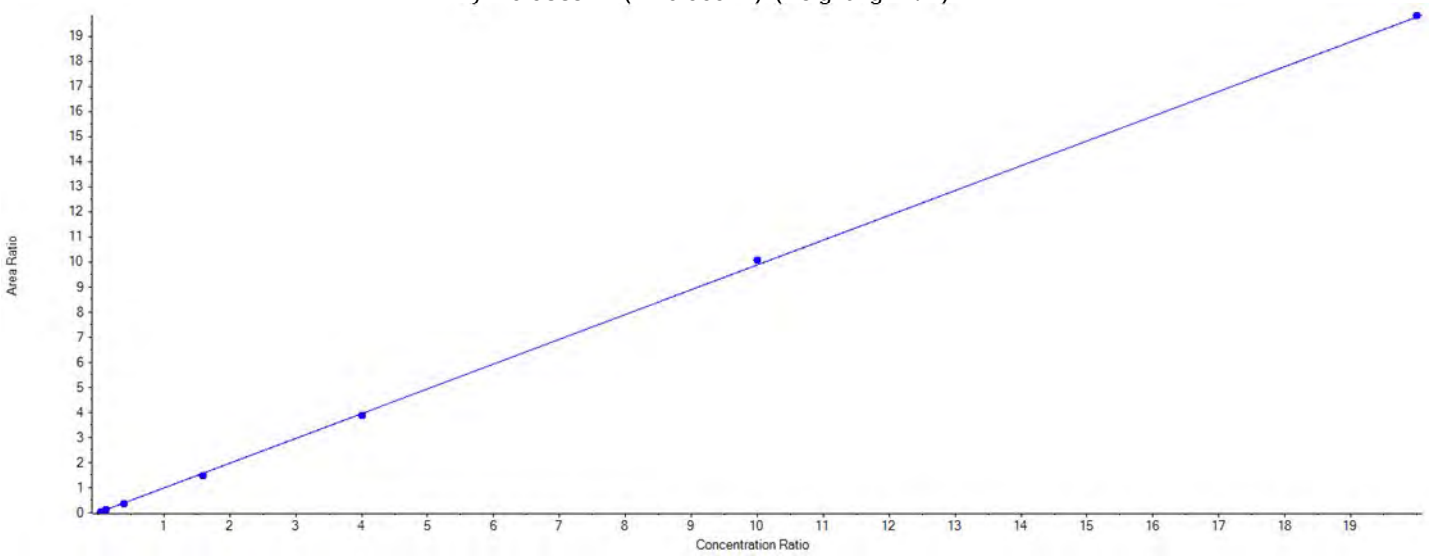
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NEtFOSAA

y = 0.98857 x (r = 0.99977) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2476.39	130.2	61453.83	True	5.00	0.040	5.87	1.000	0.200	0.204	2	30	
CAL2	7730.46	314.2	69763.66	True	5.00	0.111	5.87	1.000	0.600	0.560	-7	30	
CAL3	23550.83	128762.4	66995.66	True	5.00	0.352	5.86	1.000	2.000	1.778	-11	30	
CAL4	100326.76	4132.3	68092.46	True	5.00	1.473	5.87	1.000	8.000	7.452	-7	30	
CAL5	249317.69	962.8	64247.42	True	5.00	3.881	5.86	1.000	20.000	19.627	-2	30	
CAL6	621193.68	1291.2	61747.77	True	5.00	10.060	5.87	1.000	50.000	50.882	2	30	
CAL7	1153919.54	1394.1	58190.51	True	5.00	19.830	5.86	1.000	100.000	100.296	0	30	

APPROVED
By MSM at 10:22 am, 12/4/18

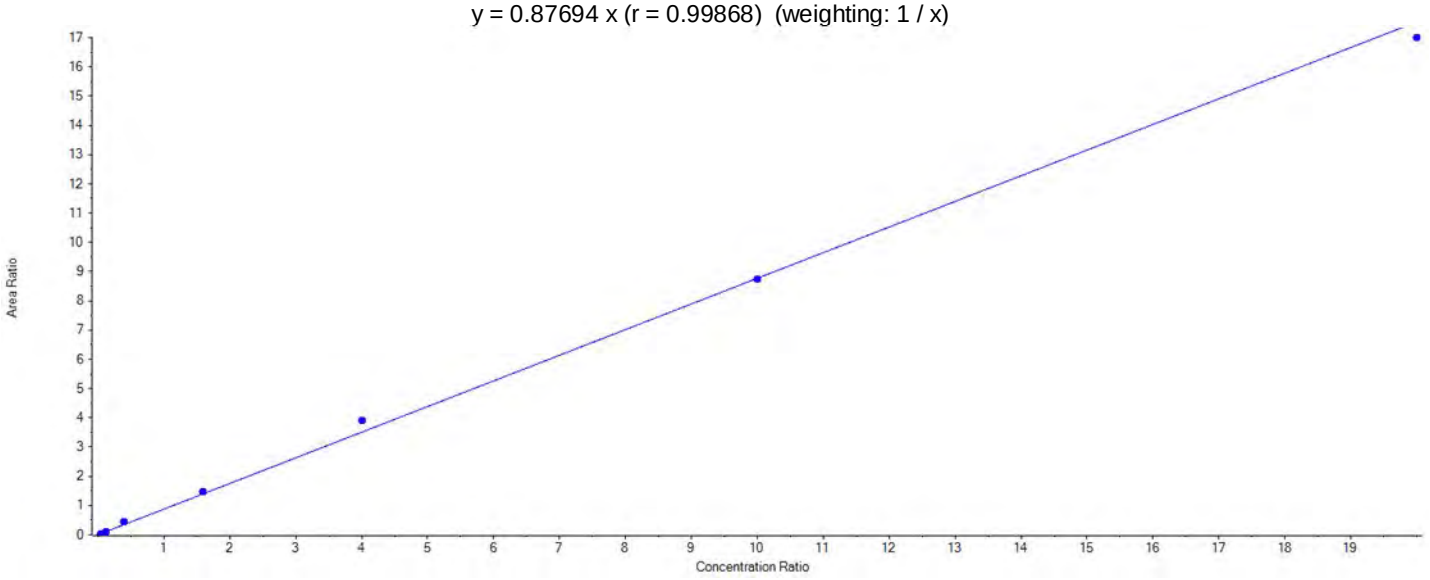
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFDoDA

y = 0.87694 x (r = 0.99868) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32513.60	381.6	730835.78	True	5.00	0.044	6.08	1.000	0.200	0.254	27	30	
CAL2	75945.97	721.7	741533.31	True	5.00	0.102	6.08	1.000	0.600	0.584	-3	30	
CAL3	300265.93	1684.4	695119.48	True	5.00	0.432	6.07	1.000	2.000	2.463	23	30	
CAL4	1044903.71	1804.1	710459.88	True	5.00	1.471	6.08	1.000	8.000	8.386	5	30	
CAL5	2724004.89	2361.1	695109.66	True	5.00	3.919	6.07	1.000	20.000	22.344	12	30	
CAL6	5780493.22	2621.7	661359.45	True	5.00	8.740	6.09	1.000	50.000	49.834	0	30	
CAL7	9821468.98	3275.4	577689.85	True	5.00	17.001	6.07	1.000	100.000	96.936	-3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

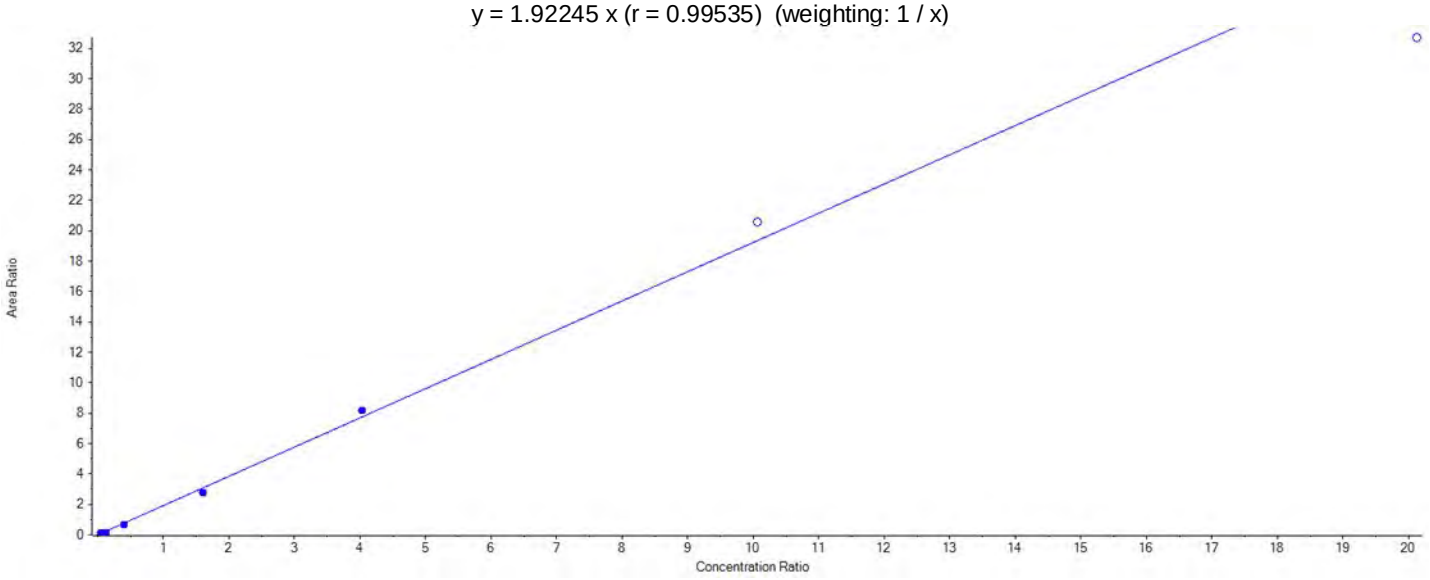
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

10:2-FTS

y = 1.92245 x (r = 0.99535) (weighting: 1 / x)



Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2637.50	598913.9	23650.83	True	4.79	0.112	6.09	1.090	0.193	0.278	44	30	OOS
CAL2	4025.58	64222.5	24625.62	True	4.79	0.163	6.10	1.090	0.578	0.407	-30	30	
CAL3	16541.83	2391.2	24215.35	True	4.79	0.683	6.09	1.090	1.930	1.702	-12	30	
CAL4	61188.64	32041.8	21920.40	True	4.79	2.791	6.10	1.090	7.710	6.955	-10	30	
CAL5	173351.60	3051.5	21205.31	True	4.79	8.175	6.09	1.090	19.300	20.369	6	30	
CAL6	370347.96	1896.9	18019.31	False	4.79	20.553	6.10	1.090	48.200	51.210	6	30	
CAL7	657657.32	2254.3	20112.43	False	4.79	32.699	6.09	1.090	96.400	81.473	-15	30	

APPROVED
By MSM at 10:22 am, 12/4/18

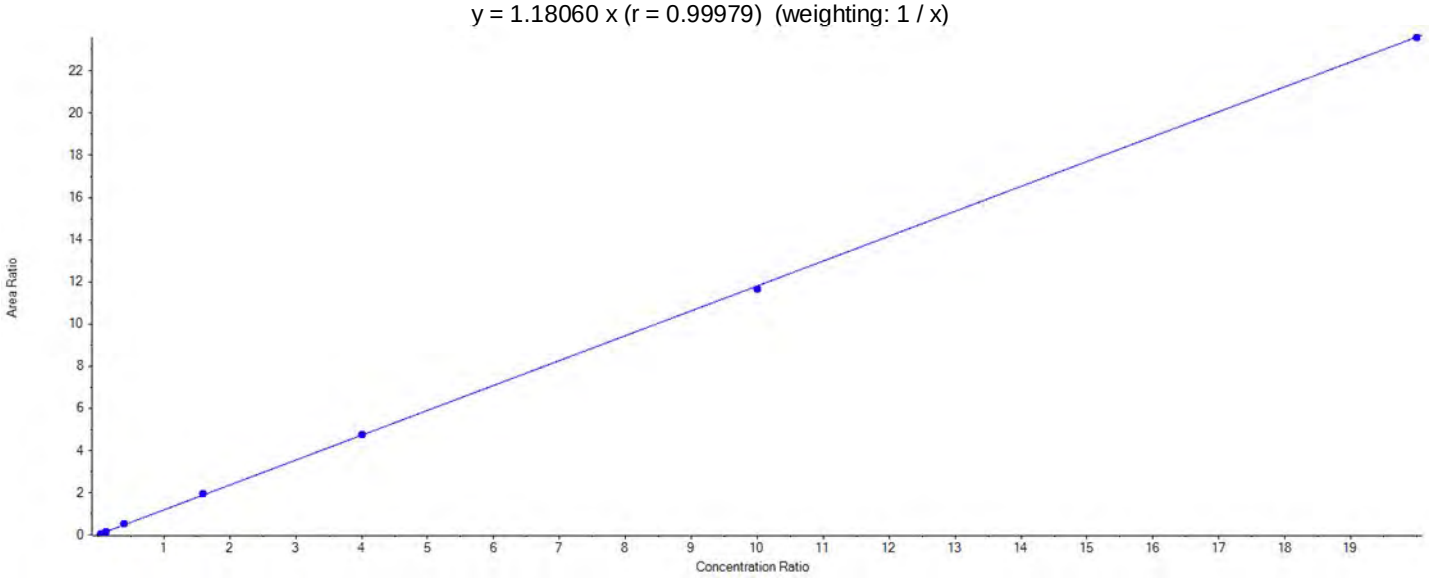
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSAE

y = 1.18060 x (r = 0.99979) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	16788.70	131.2	281337.38	True	5.00	0.060	6.12	1.000	0.200	0.253	26	30	
CAL2	34473.09	190.6	284329.07	True	5.00	0.121	6.12	1.000	0.600	0.513	-14	30	
CAL3	148262.94	389.9	275358.51	True	5.00	0.538	6.12	1.000	2.000	2.280	14	30	
CAL4	533585.56	750.5	273044.25	True	5.00	1.954	6.12	1.000	8.000	8.276	3	30	
CAL5	1294606.31	1013.0	271770.94	True	5.00	4.764	6.12	1.000	20.000	20.174	1	30	
CAL6	3116391.22	1229.3	267131.66	True	5.00	11.666	6.13	1.000	50.000	49.408	-1	30	
CAL7	5719283.93	1381.1	242473.48	True	5.00	23.587	6.11	1.000	100.000	99.895	0	30	

APPROVED
By MSM at 10:22 am, 12/4/18

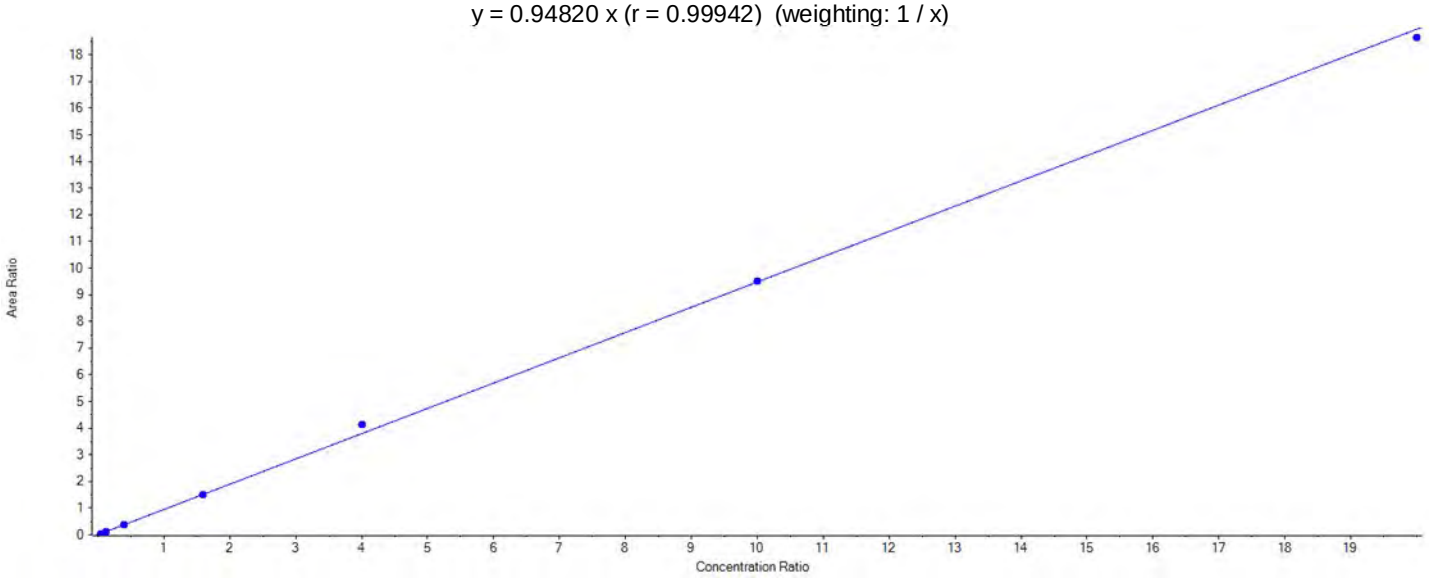
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NMePFOSA

y = 0.94820 x (r = 0.99942) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3677.74	143.4	81310.43	True	5.00	0.045	6.13	1.000	0.200	0.239	19	30	
CAL2	8193.39	449.1	82853.56	True	5.00	0.099	6.13	1.000	0.600	0.521	-13	30	
CAL3	28414.57	617.9	77701.46	True	5.00	0.366	6.12	1.000	2.000	1.928	-4	30	
CAL4	122283.19	765.0	82323.21	True	5.00	1.485	6.13	1.000	8.000	7.833	-2	30	
CAL5	304964.10	1100.0	73999.73	True	5.00	4.121	6.12	1.000	20.000	21.731	9	30	
CAL6	747280.72	1305.0	78483.77	True	5.00	9.521	6.13	1.000	50.000	50.208	0	30	
CAL7	1426312.47	1421.9	76481.38	True	5.00	18.649	6.12	1.000	100.000	98.340	-2	30	

APPROVED
By MSM at 10:22 am, 12/4/18

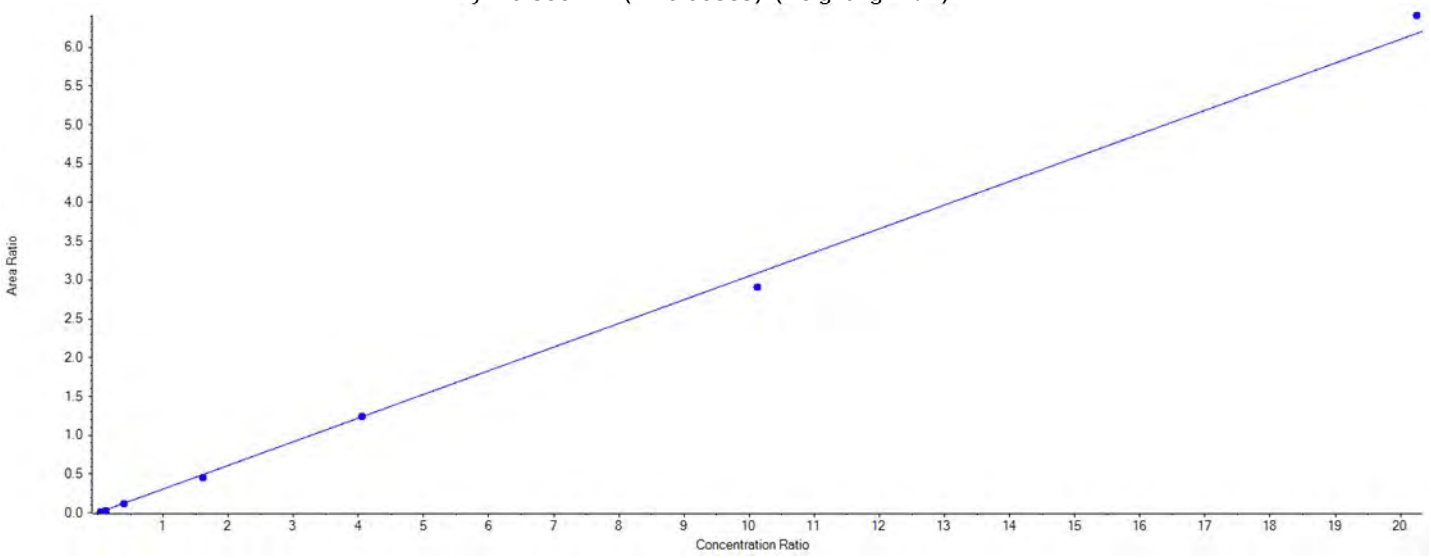
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFDoS

y = 0.30514 x (r = 0.99888) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3604.71	993.6	295968.68	True	4.78	0.012	6.25	1.190	0.194	0.191	-2	30	
CAL2	9479.50	109964.5	304154.46	True	4.78	0.031	6.25	1.190	0.581	0.488	-16	30	
CAL3	37462.24	4882.6	307501.27	True	4.78	0.122	6.24	1.190	1.940	1.908	-2	30	
CAL4	135487.66	9613.8	303740.07	True	4.78	0.446	6.25	1.190	7.740	6.988	-10	30	
CAL5	362591.62	2361.4	290967.83	True	4.78	1.246	6.24	1.190	19.400	19.521	1	30	
CAL6	827061.83	2346.9	284411.86	True	4.78	2.908	6.26	1.190	48.400	45.553	-6	30	
CAL7	1533843.19	2628.2	239305.64	True	4.78	6.410	6.24	1.190	96.800	100.406	4	30	

APPROVED
By MSM at 10:22 am, 12/4/18

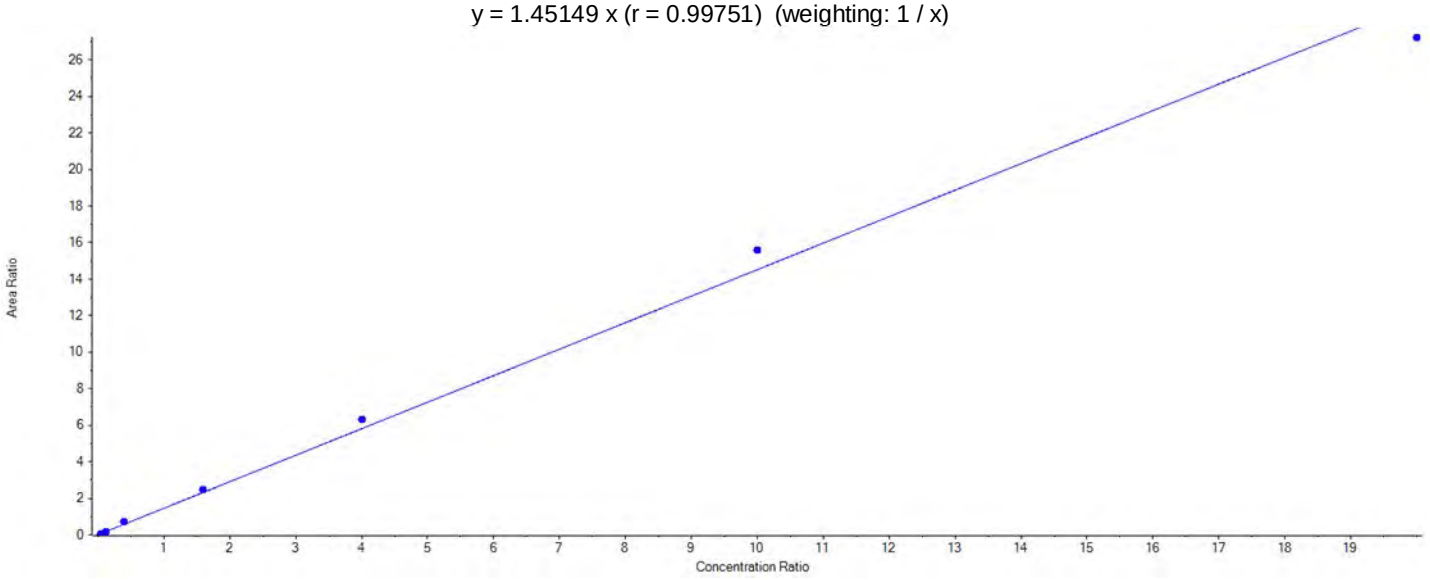
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSAE

y = 1.45149 x (r = 0.99751) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	17130.92	109.0	240014.71	True	5.00	0.071	6.27	1.000	0.200	0.246	23	30	
CAL2	39835.63	212.6	236484.47	True	5.00	0.168	6.28	1.000	0.600	0.580	-3	30	
CAL3	156853.96	351.3	228345.61	True	5.00	0.687	6.27	1.000	2.000	2.366	18	30	
CAL4	565107.51	696.1	228696.47	True	5.00	2.471	6.28	1.000	8.000	8.512	6	30	
CAL5	1440978.74	1089.2	228722.26	True	5.00	6.300	6.27	1.000	20.000	21.702	9	30	
CAL6	3345360.42	1228.3	214891.10	True	5.00	15.568	6.28	1.000	50.000	53.627	7	30	
CAL7	5863961.79	1202.6	215425.57	True	5.00	27.220	6.27	1.000	100.000	93.767	-6	30	

APPROVED
By MSM at 10:22 am, 12/4/18

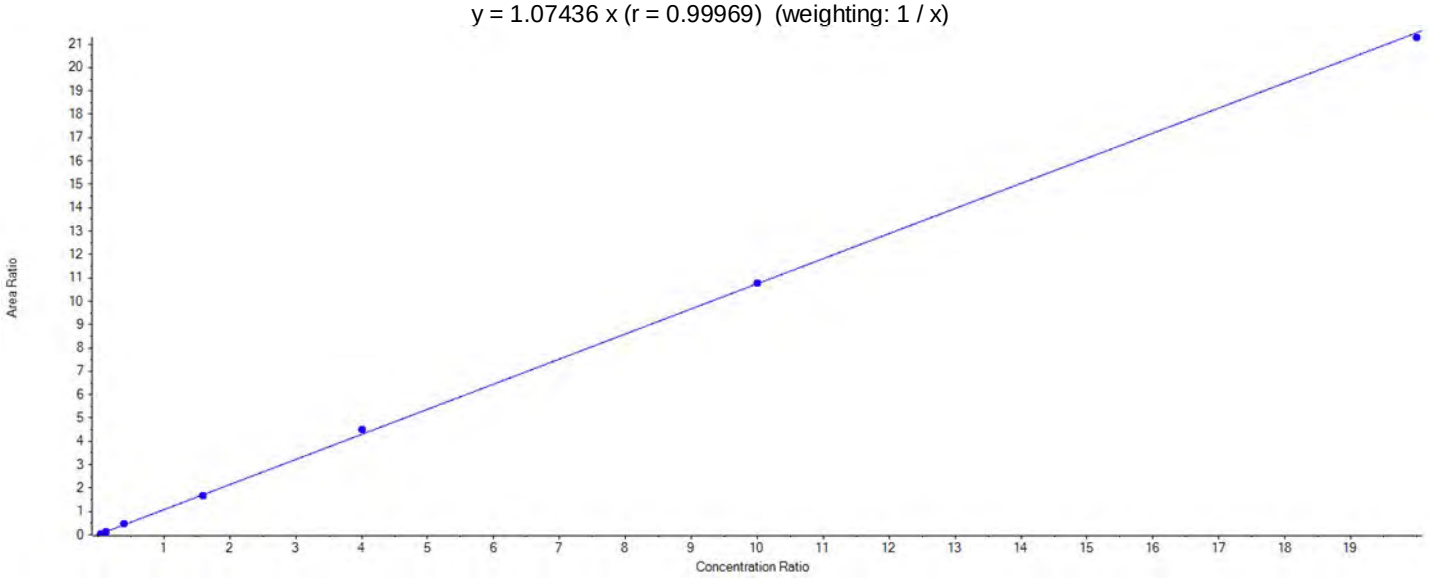
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

NEtPFOSA

y = 1.07436 x (r = 0.99969) (weighting: 1 / x)



Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3474.88	1098.4	65230.49	True	5.00	0.053	6.29	1.000	0.200	0.248	24	30	
CAL2	7312.37	228.4	65642.62	True	5.00	0.111	6.29	1.000	0.600	0.518	-14	30	
CAL3	30361.53	637.3	62180.68	True	5.00	0.488	6.28	1.000	2.000	2.272	14	30	
CAL4	106570.53	741.4	63944.63	True	5.00	1.667	6.29	1.000	8.000	7.756	-3	30	
CAL5	268612.27	1015.6	59855.44	True	5.00	4.488	6.28	1.000	20.000	20.885	4	30	
CAL6	653095.92	876.6	60692.87	True	5.00	10.761	6.30	1.000	50.000	50.079	0	30	
CAL7	1232075.49	1215.6	57895.31	True	5.00	21.281	6.28	1.000	100.000	99.040	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

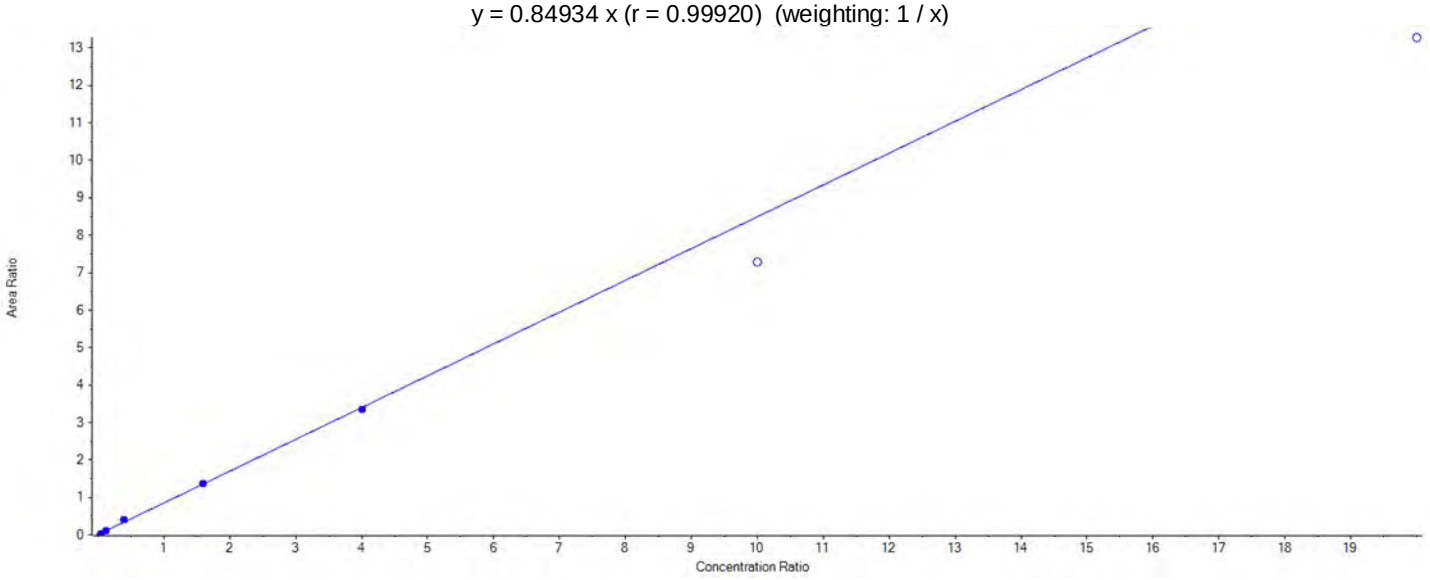
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFTrDA

y = 0.84934 x (r = 0.99920) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTrDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	26817.95	124.7	730835.78	True	5.00	0.037	6.28	1.030	0.200	0.216	8	30	
CAL2	72921.66	171.9	741533.31	True	5.00	0.098	6.28	1.030	0.600	0.579	-4	30	
CAL3	270650.56	371.5	695119.48	True	5.00	0.389	6.27	1.030	2.000	2.292	15	30	
CAL4	962956.56	699.1	710459.88	True	5.00	1.355	6.28	1.030	8.000	7.979	0	30	
CAL5	2330088.14	1000.5	695109.66	True	5.00	3.352	6.27	1.030	20.000	19.734	-1	30	
CAL6	4813570.38	1050.7	661359.45	False	5.00	7.278	6.29	1.030	50.000	42.847	-14	30	
CAL7	7671443.41	1664.2	577689.85	False	5.00	13.280	6.27	1.030	100.000	78.176	-22	30	

APPROVED
By MSM at 10:22 am, 12/4/18

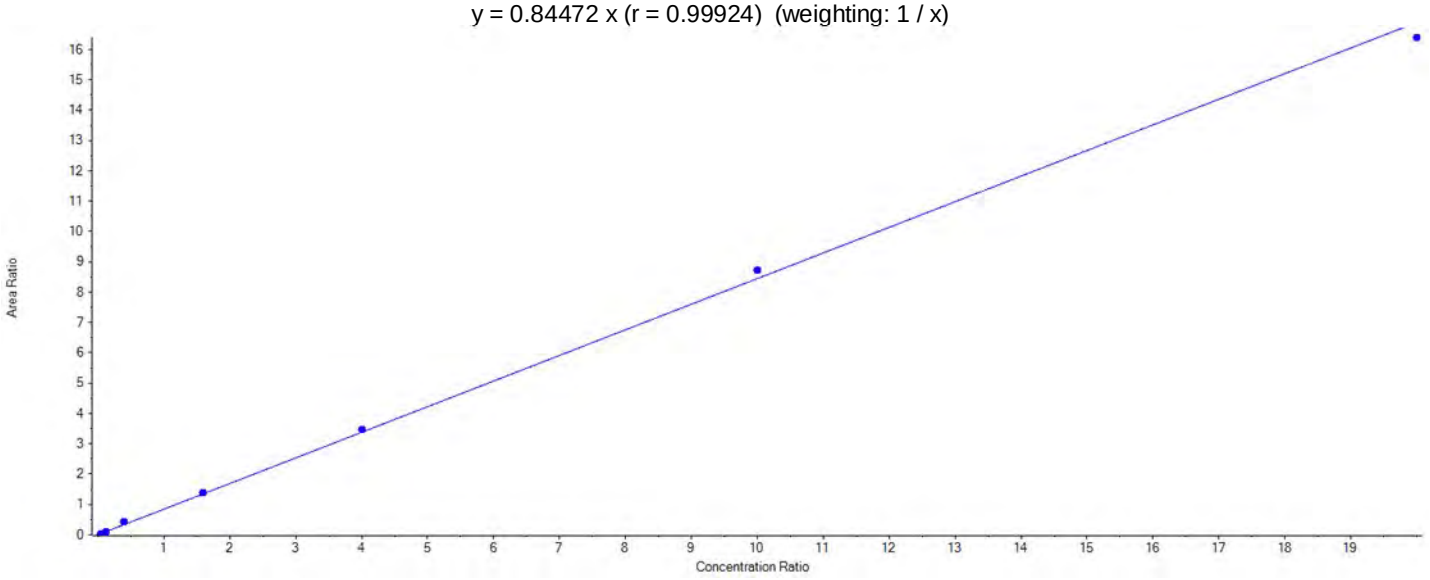
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFTeDA

y = 0.84472 x (r = 0.99924) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFTeDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	20095.45	173.5	522985.31	True	5.00	0.038	6.45	1.000	0.200	0.227	14	30	
CAL2	52987.59	273.4	545906.73	True	5.00	0.097	6.45	1.000	0.600	0.575	-4	30	
CAL3	218317.60	837.2	521214.85	True	5.00	0.419	6.45	1.000	2.000	2.479	24	30	
CAL4	755494.82	1404.7	539074.73	True	5.00	1.401	6.45	1.000	8.000	8.295	4	30	
CAL5	1907446.17	1608.6	550261.00	True	5.00	3.466	6.45	1.000	20.000	20.518	3	30	
CAL6	4393391.91	2315.1	503296.75	True	5.00	8.729	6.46	1.000	50.000	51.669	3	30	
CAL7	7600731.95	2174.5	463642.00	True	5.00	16.394	6.45	1.000	100.000	97.036	-3	30	

APPROVED
By MSM at 10:22 am, 12/4/18

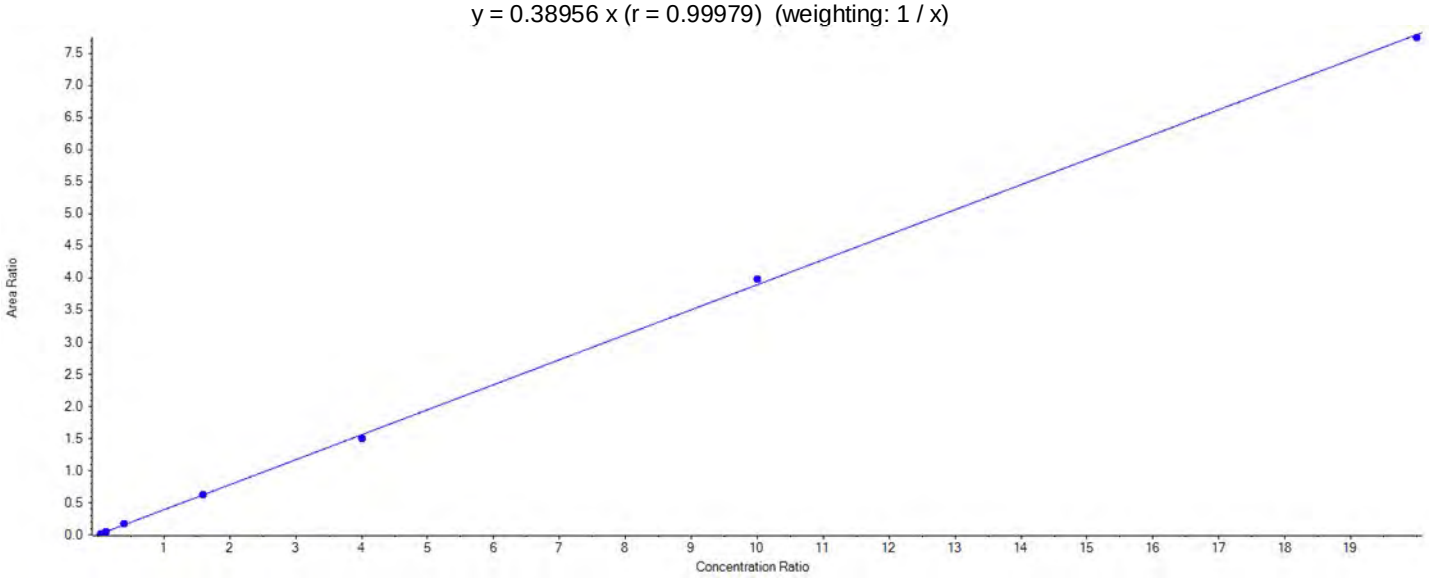
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFHxDA

y = 0.38956 x (r = 0.99979) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	9774.26	390.0	522985.31	True	5.00	0.019	6.75	1.050	0.200	0.240	20	30	
CAL2	25463.71	561.3	545906.73	True	5.00	0.047	6.76	1.050	0.600	0.599	0	30	
CAL3	89804.51	1066.3	521214.85	True	5.00	0.172	6.75	1.050	2.000	2.211	11	30	
CAL4	335150.91	2197.9	539074.73	True	5.00	0.622	6.76	1.050	8.000	7.980	0	30	
CAL5	826511.29	3590.9	550261.00	True	5.00	1.502	6.75	1.050	20.000	19.279	-4	30	
CAL6	2002794.41	2850.8	503296.75	True	5.00	3.979	6.76	1.050	50.000	51.075	2	30	
CAL7	3591194.76	3506.8	463642.00	True	5.00	7.746	6.75	1.050	100.000	99.416	-1	30	

APPROVED
By MSM at 10:22 am, 12/4/18

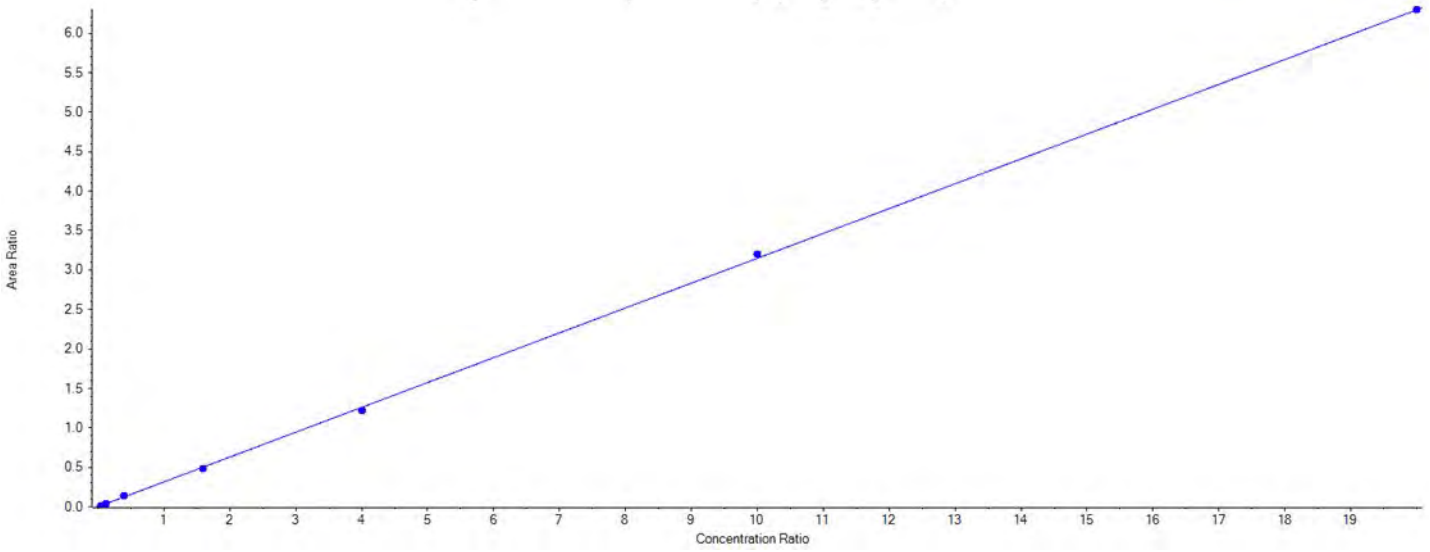
REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

PFODA

y = 0.31477 x (r = 0.99978) (weighting: 1 / x)



Component Calibration Verification

Sample Name	PFODA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	7948.43	611.4	522985.31	True	5.00	0.015	7.02	1.090	0.200	0.241	21	30	
CAL2	18773.02	858.1	545906.73	True	5.00	0.034	7.02	1.090	0.600	0.546	-9	30	
CAL3	70879.10	1946.9	521214.85	True	5.00	0.136	7.01	1.090	2.000	2.160	8	30	
CAL4	260679.20	2306.5	539074.73	True	5.00	0.484	7.02	1.090	8.000	7.681	-4	30	
CAL5	668169.17	3975.3	550261.00	True	5.00	1.214	7.02	1.090	20.000	19.289	-4	30	
CAL6	1610478.32	3054.1	503296.75	True	5.00	3.200	7.02	1.090	50.000	50.829	2	30	
CAL7	2920335.34	3708.2	463642.00	True	5.00	6.299	7.01	1.090	100.000	100.053	0	30	

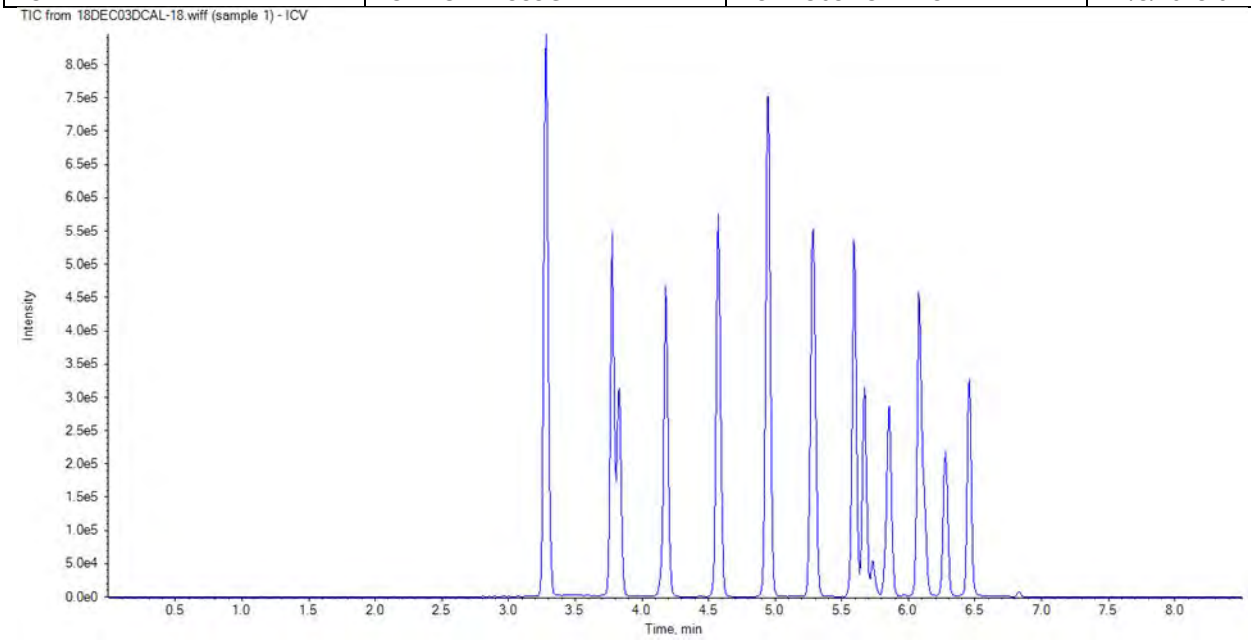
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18DEC03DCAL-18.wiff	12/3/2018 6:47:17 PM



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	766544.65	749775.9	2.2	50	
13C2-PFOA	5.000	438666.65	434072.7	1.1	50	
13C4-PFOS	4.780	288467.00	261136.3	10.5	50	
13C2-PFDA	5.000	312966.83	305281.8	2.5	50	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

DOD Initial Calibration Verification

Instrument ID: LM27631 **ICAL Name:** 18DEC03DCAL **QMethod Name:** 18AUG20QM
Result Table: 18DEC03DCAL12/4/2018 8:46:13 AM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18DEC03DCAL-18.wiff	12/3/2018 6:47:17 PM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	328983.96	13C4-PFBA	851701.42	5.00	0.386	3.28	1.00	2.000	2.188	9	30	
PFPeA	325855.33	13C5-PFPeA	784631.68	5.00	0.415	3.78	1.00	2.000	2.080	4	30	
PFBS	168179.19	13C3-PFBS	439783.99	4.65	0.382	3.83	1.00	1.769	1.865	5	30	
4:2-FTS	N/A	13C2-4:2-FTS	51163.16	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	344544.62	13C5-PFHxA	664359.70	5.00	0.519	4.18	1.00	2.000	2.210	11	30	
PFPeS	N/A	13C3-PFBS	439783.99	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHpA	312600.25	13C4-PFHpA	515794.27	5.00	0.606	4.57	1.00	2.000	1.956	-2	30	
PFHxS	126596.49	13C3-PFHxS	331085.02	4.73	0.382	4.58	1.00	1.890	1.801	-5	30	
6:2-FTS	N/A	13C2-6:2-FTS	33596.62	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	127076.86	13C3-PFHxS	331085.02	4.73	0.384	4.94	1.08	1.900	1.998	5	30	
PFOA	319817.15	13C8-PFOA	802400.25	5.00	0.399	4.95	1.00	2.000	2.110	5	30	
PFOS	117120.09	13C8-PFOS	303674.76	4.78	0.386	5.28	1.00	1.910	1.635	-14	30	
PFNA	275648.36	13C9-PFNA	460740.97	5.00	0.598	5.29	1.00	2.000	2.242	12	30	
PFNS	N/A	13C8-PFOS	303674.76	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	232252.86	13C6-PFDA	609137.69	5.00	0.381	5.59	1.00	2.000	2.091	5	30	
8:2-FTS	N/A	13C2-8:2-FTS	24545.29	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	698175.92	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	31155.63	d3-NMeFOSAA	81796.07	5.00	0.381	5.74	1.00	2.000	2.521	26	30	
PFDS	62114.71	13C8-PFOS	303674.76	4.78	0.205	5.83	1.10	1.930	1.751	-9	30	
PFUnDA	209547.87	13C7-PFUnDA	318775.00	5.00	0.657	5.85	1.00	2.000	2.001	0	30	
NEtFOSAA	27499.72	d5-NEtFOSAA	70729.35	5.00	0.389	5.87	1.00	2.000	1.966	-2	30	
PFDoDA	265022.46	13C2-PFDoDA	709053.12	5.00	0.374	6.08	1.00	2.000	2.131	7	30	
10:2-FTS	N/A	13C2-8:2-FTS	24545.29	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	253394.56	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	79798.08	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDoS	N/A	13C8-PFOS	303674.76	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	220531.08	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	65524.63	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFTrDA	245769.46	13C2-PFDoDA	709053.12	5.00	0.347	6.28	1.03	2.000	2.041	2	30	
PFTeDA	200275.85	13C2-PFTeDA	508933.21	5.00	0.394	6.46	1.00	2.000	2.329	16	30	
PFHxDA	N/A	13C2-PFTeDA	508933.21	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	508933.21	5.00	N/A	N/A	N/A	0.000	N/A		30	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL1			**Data File:**		18DEC03DCAL-10.wiff
Sample ID:	CALBRN11833C			**Acquis Date:**		2018-12-03T17:34:59
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	3			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	764314.2	749775.9	2	50	
13C2-PFOA	5.0	454591.8	434072.7	5	50	
13C4-PFOS	4.8	277165.6	261136.3	6	50	
13C2-PFDA	5.0	325592.3	305281.8	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	863125.7	13C3-PFBA	764314.2	1.129	5.000	5.012	100	70-130	
E13C5-PFPeA	775849.8	13C3-PFBA	764314.2	1.015	5.000	4.898	98	70-130	
E13C3-PFBS	451635.9	13C3-PFBA	764314.2	0.591	4.650	4.605	99	70-130	
E13C2-4:2-FTS	54096.8	13C2-PFOA	454591.8	0.119	4.670	4.895	105	70-130	
E13C5-PFHxA	661308.5	13C2-PFOA	454591.8	1.455	5.000	4.926	99	70-130	
E13C3-PFHxS	337685.0	13C2-PFOA	454591.8	0.743	4.730	4.696	99	70-130	
E13C4-PFHpA	490131.6	13C2-PFOA	454591.8	1.078	5.000	4.704	94	70-130	
E13C2-6:2-FTS	36544.4	13C2-PFOA	454591.8	0.080	4.750	5.328	112	70-130	
E13C8-PFOA	861739.4	13C2-PFOA	454591.8	1.896	5.000	5.269	105	70-130	
E13C8-PFOS	295968.7	13C4-PFOS	277165.6	1.068	4.780	4.743	99	70-130	
E13C9-PFNA	492951.9	13C4-PFOS	277165.6	1.779	5.000	5.206	104	70-130	
E13C6-PFDA	598898.3	13C2-PFDA	325592.3	1.839	5.000	4.784	96	70-130	
E13C2-8:2-FTS	23650.8	13C2-PFDA	325592.3	0.073	4.790	4.670	98	70-130	
E13C8-PFOSA	731117.8	13C2-PFDA	325592.3	2.246	5.000	5.027	101	70-130	
Ed3-NMeFOSAA	95752.5	13C2-PFDA	325592.3	0.294	5.000	5.137	103	70-130	
E13C7-PFUnDA	327106.7	13C2-PFDA	325592.3	1.005	5.000	5.004	100	70-130	
Ed5-NEtFOSAA	61453.8	13C2-PFDA	325592.3	0.189	5.000	4.306	86	70-130	
E13C2-PFDoDA	730835.8	13C2-PFDA	325592.3	2.245	5.000	4.806	96	70-130	
Ed7-NMePFOSAE	281337.4	13C2-PFDA	325592.3	0.864	5.000	4.685	94	70-130	
Ed3-NMePFOSA	81310.4	13C2-PFDA	325592.3	0.250	5.000	4.631	93	70-130	
Ed9-NEtPFOSAE	240014.7	13C2-PFDA	325592.3	0.737	5.000	4.755	95	70-130	
Ed5-NEtPFOSA	65230.5	13C2-PFDA	325592.3	0.200	5.000	4.726	95	70-130	
E13C2-PFTeDA	522985.3	13C2-PFDA	325592.3	1.606	5.000	4.528	91	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

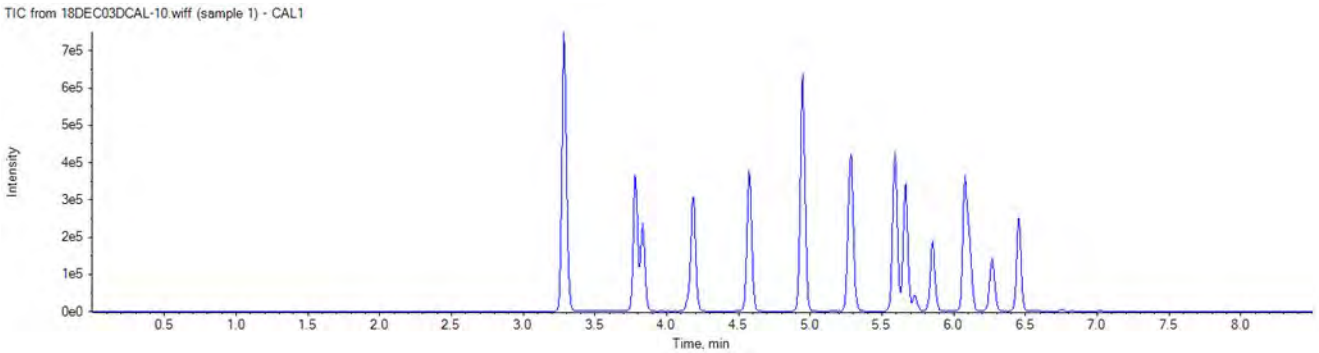
Analyte Quantitation Peak Table

Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-10.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	35686.8		A	13C4-PFBA	3.28	863125.7	0.041	0.234
PFPeA	3.79	1.000	36618.0		A	13C5-PFPeA	3.78	775849.8	0.047	0.236
PFBS	3.83	1.000	18805.5		A	13C3-PFBS	3.83	451635.9	0.042	0.203
4:2-FTS	4.15	1.000	3701.7		A	13C2-4:2-FTS	4.15	54096.8	0.068	0.173
PFHxA	4.18	1.000	37049.8		A	13C5-PFHxA	4.18	661308.5	0.056	0.239
PFPeS	4.20	1.100	10226.8		A	13C3-PFBS	3.83	451635.9	0.023	0.217
PFHpA	4.58	1.000	35613.9		A	13C4-PFHpA	4.58	490131.6	0.073	0.234
PFHxS	4.58	1.000	14033.2		M	13C3-PFHxS	4.58	337685.0	0.042	0.196
6:2-FTS	4.94	1.000	2899.0		A	13C2-6:2-FTS	4.93	36544.4	0.079	0.192
PFHpS	4.94	1.080	15607.4		A	13C3-PFHxS	4.58	337685.0	0.046	0.241
PFOA	4.95	1.000	35363.7		A	13C8-PFOA	4.95	861739.4	0.041	0.217
PFOS	5.28	1.000	13932.5		M	13C8-PFOS	5.27	295968.7	0.047	0.200
PFNA	5.29	1.000	31204.9		A	13C9-PFNA	5.29	492951.9	0.063	0.237
PFNS	5.57	1.060	10570.5		A	13C8-PFOS	5.27	295968.7	0.036	0.241
PFDA	5.59	1.000	23772.0		A	13C6-PFDA	5.59	598898.3	0.040	0.218
8:2-FTS	5.59	1.000	2158.6		A	13C2-8:2-FTS	5.59	23650.8	0.091	0.196
PFOSA	5.67	1.000	27629.2		A	13C8-PFOSA	5.66	731117.8	0.038	0.198
NMeFOSAA	5.74	1.000	2686.8		M	d3-NMeFOSAA	5.73	95752.5	0.028	0.186
PFDS	5.82	1.100	6674.9		A	13C8-PFOS	5.27	295968.7	0.023	0.193
PFUnDA	5.85	1.000	21755.1		A	13C7-PFUnDA	5.85	327106.7	0.067	0.202
NEtFOSAA	5.87	1.000	2476.4		M	d5-NEtFOSAA	5.86	61453.8	0.040	0.204
PFDoDA	6.08	1.000	32513.6		A	13C2-PFDoDA	6.08	730835.8	0.044	0.254
10:2-FTS	6.09	1.090	2637.5		A	13C2-8:2-FTS	5.59	23650.8	0.112	0.278
NMePFOSAE	6.12	1.000	16788.7		A	d7-NMePFOSAE	6.11	281337.4	0.060	0.253
NMePFOSA	6.13	1.000	3677.7		A	d3-NMePFOSA	6.12	81310.4	0.045	0.239
PFDoS	6.25	1.190	3604.7		A	13C8-PFOS	5.27	295968.7	0.012	0.191
NEtPFOSAE	6.27	1.000	17130.9		A	d9-NEtPFOSAE	6.26	240014.7	0.071	0.246
NEtPFOSA	6.29	1.000	3474.9		A	d5-NEtPFOSA	6.28	65230.5	0.053	0.248
PFTrDA	6.28	1.030	26818.0		A	13C2-PFDoDA	6.08	730835.8	0.037	0.216
PFTeDA	6.45	1.000	20095.5		A	13C2-PFTeDA	6.45	522985.3	0.038	0.227
PFHxDA	6.75	1.050	9774.3		A	13C2-PFTeDA	6.45	522985.3	0.019	0.240
PFODA	7.02	1.090	7948.4		A	13C2-PFTeDA	6.45	522985.3	0.015	0.241

Total Ion Chromatogram

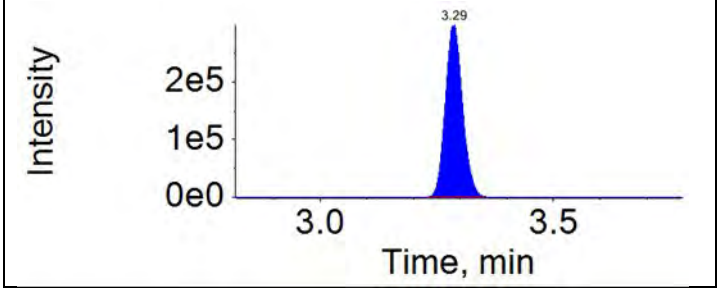


APPROVED
By MSM at 10:22 am, 12/4/18

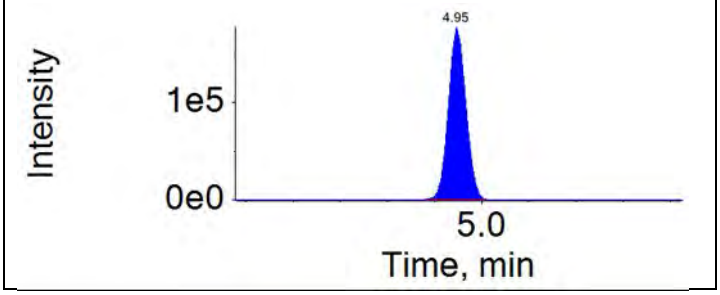
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

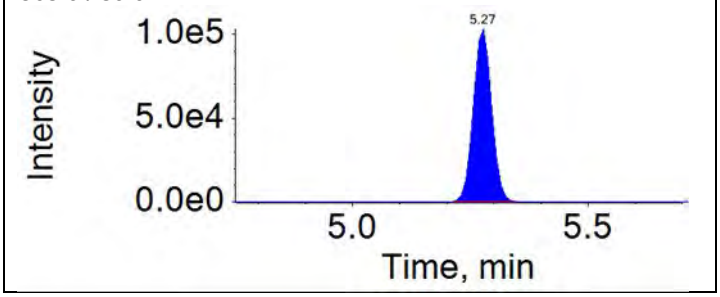
Injection Standard: 13C3-PFBA
216.0 / 172.0



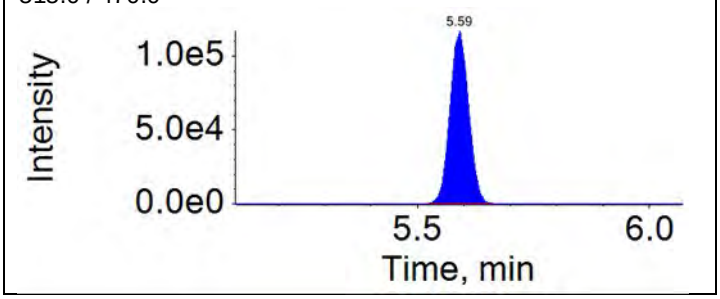
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

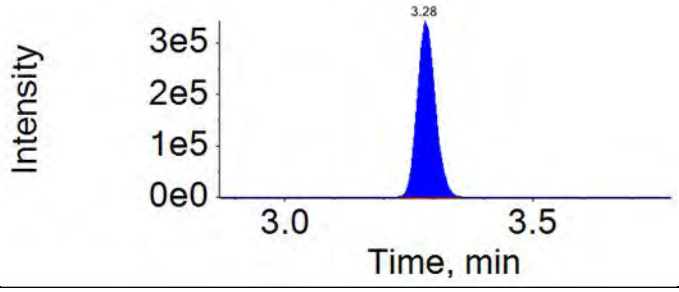


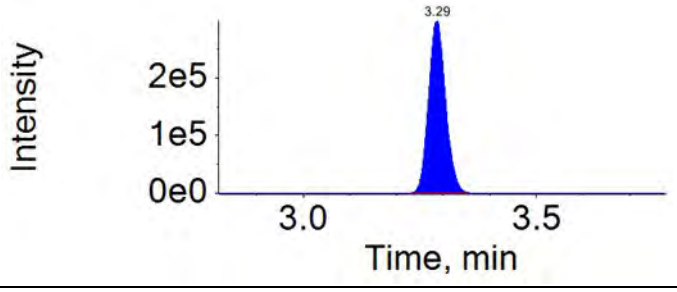
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

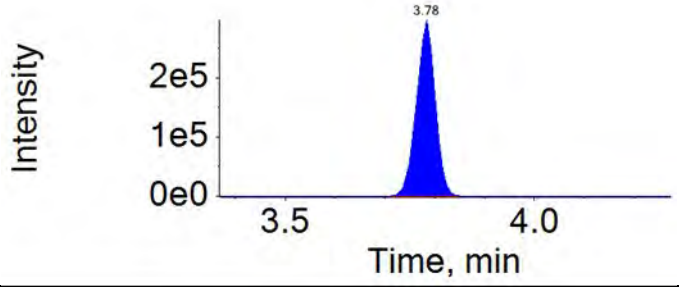
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

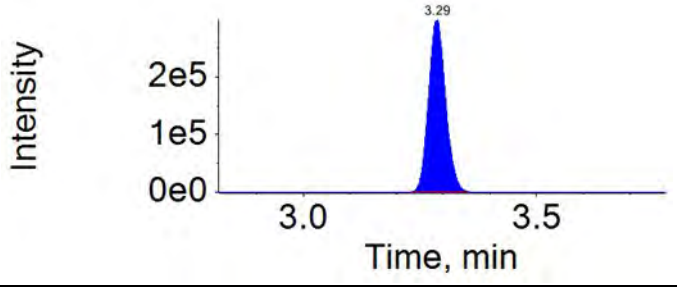
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



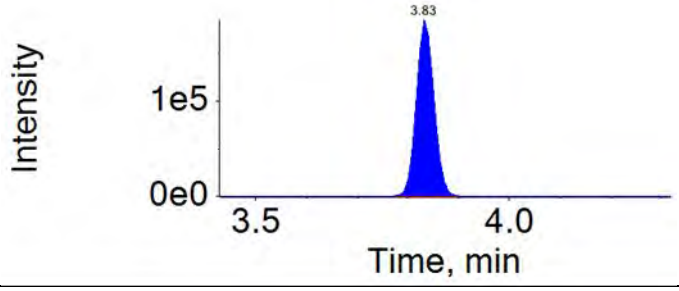


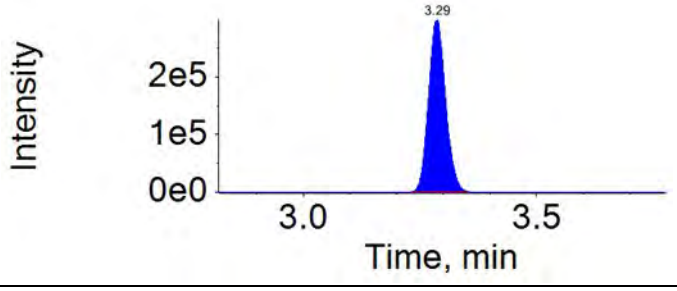
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



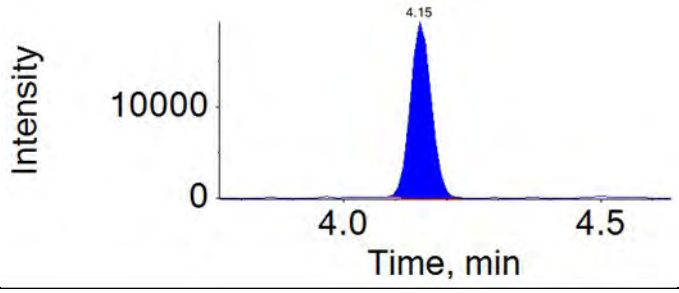


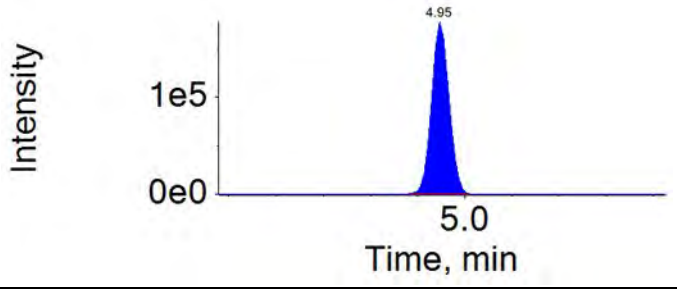
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





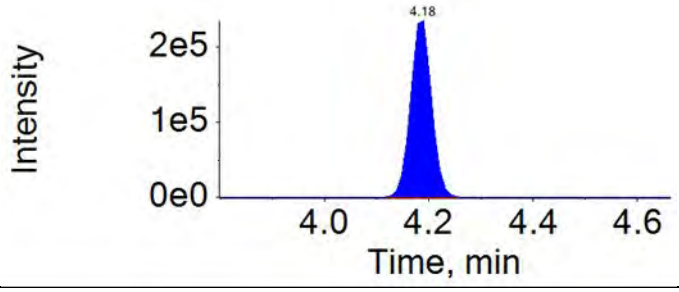
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

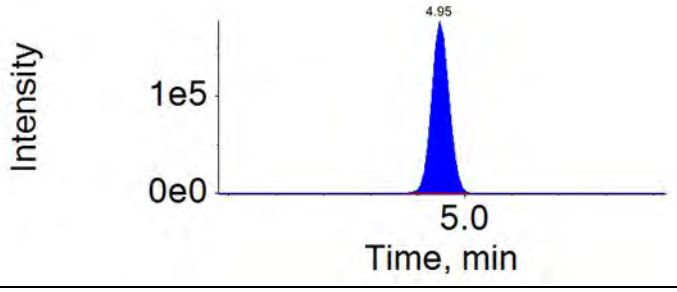




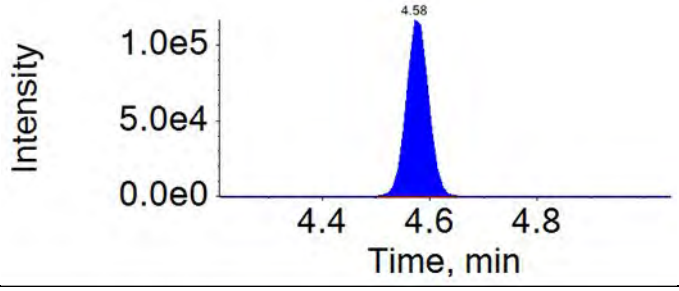
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

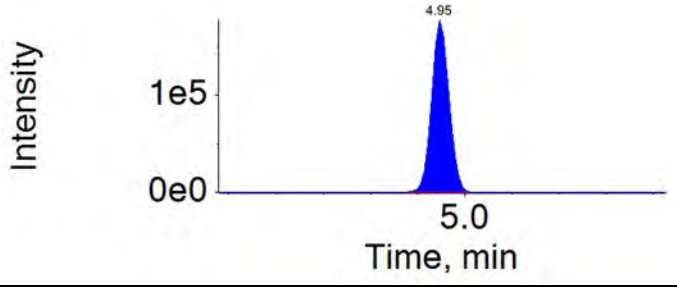
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



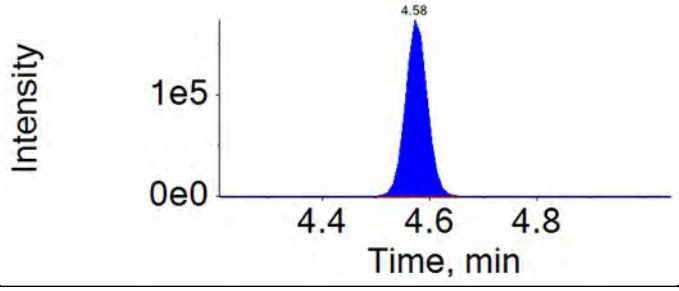


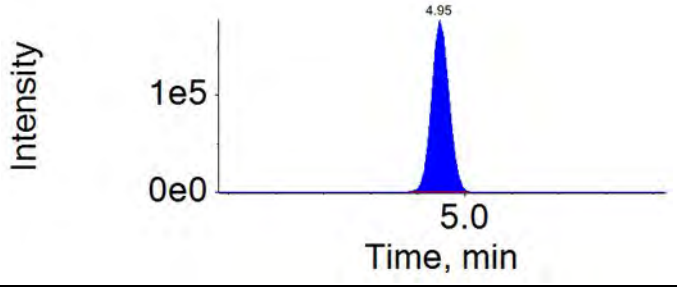
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



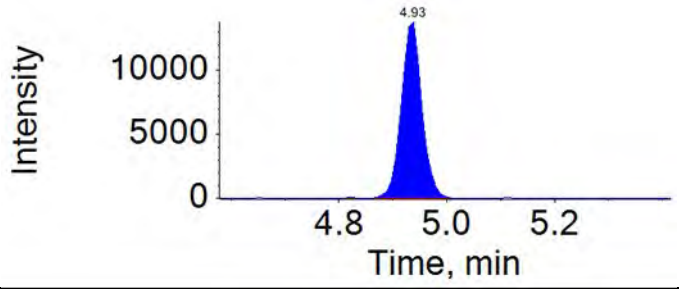


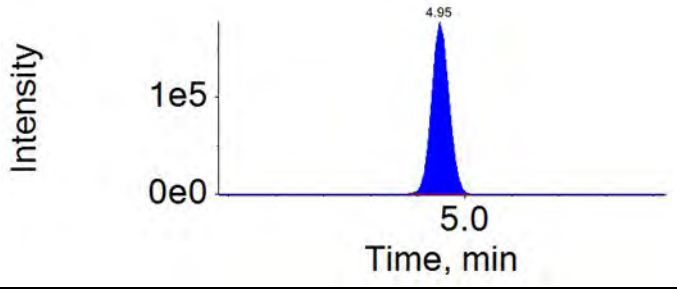
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



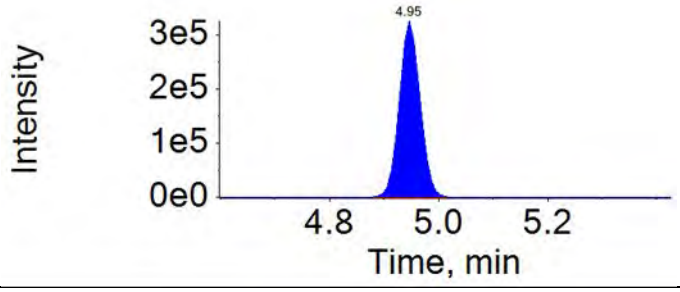


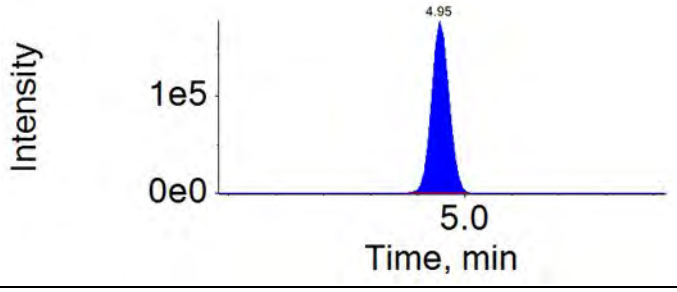
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

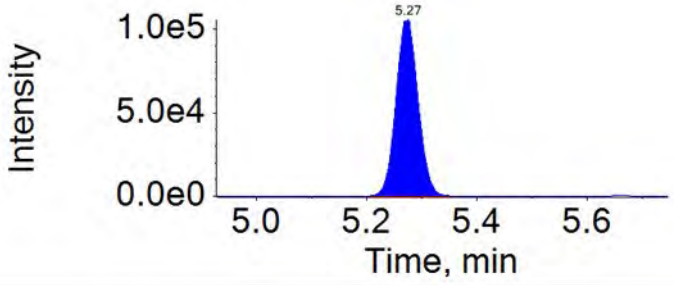
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

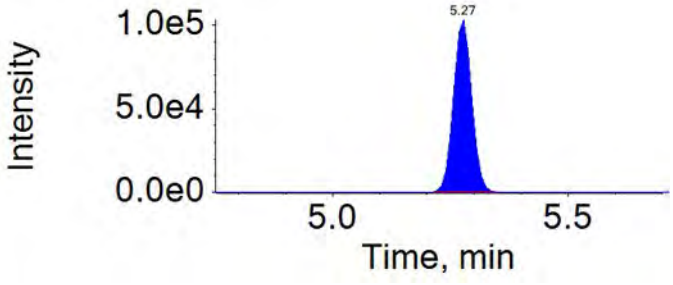
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



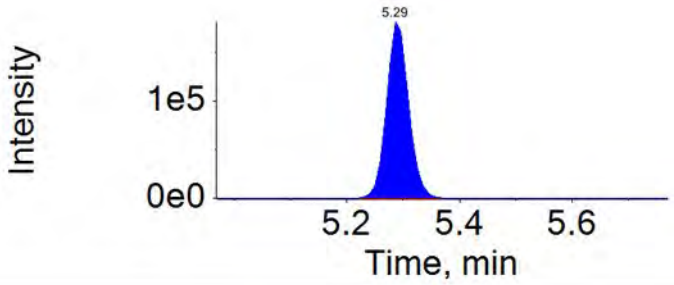


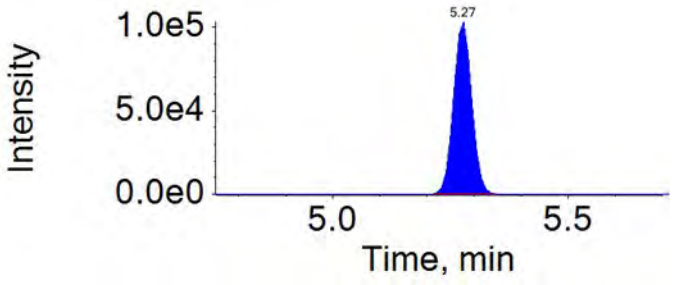
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



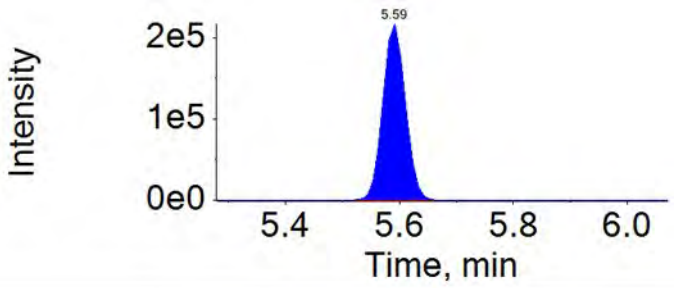


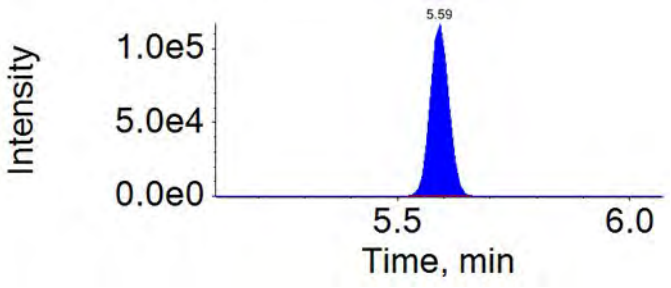
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





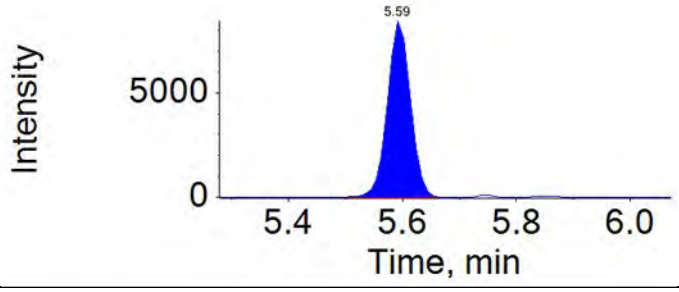
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

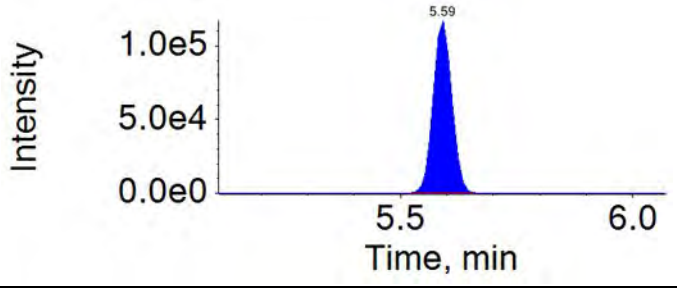




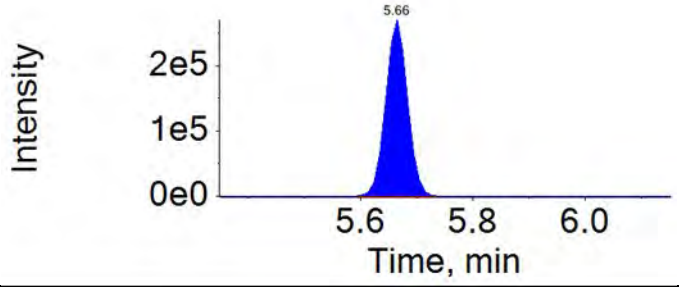
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

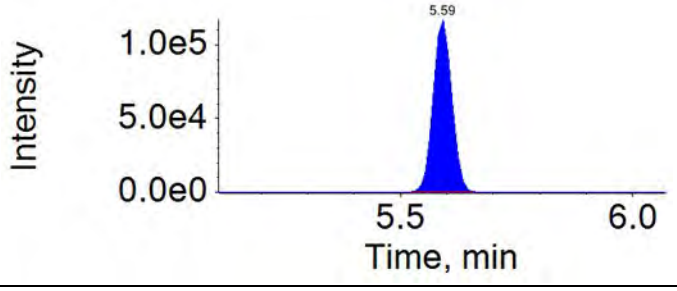
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



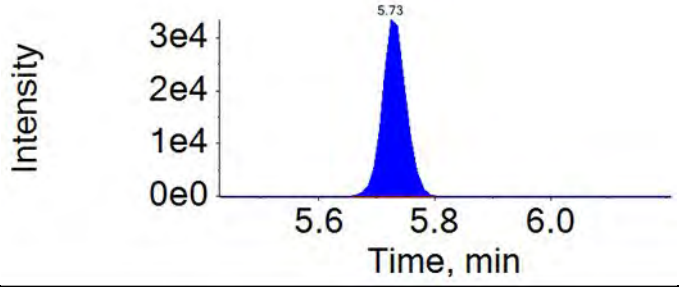


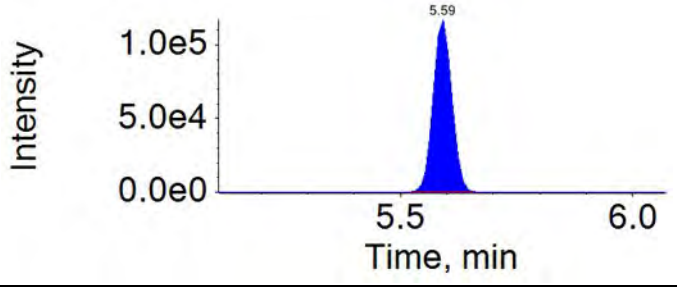
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



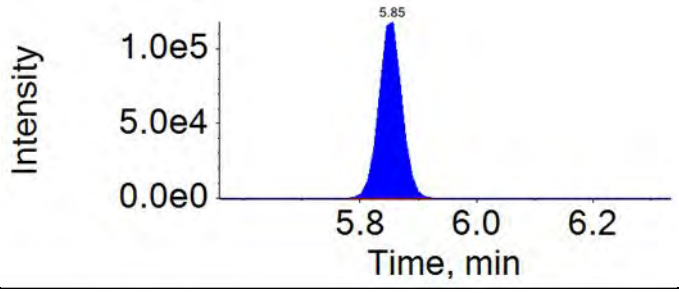


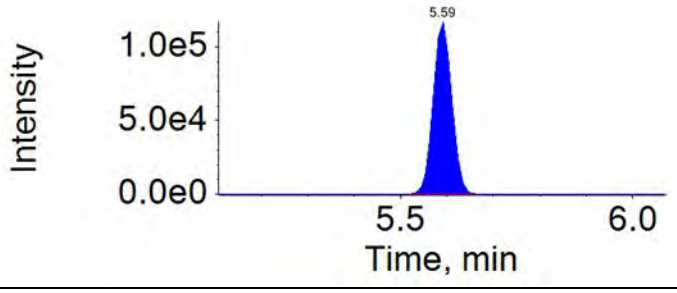
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





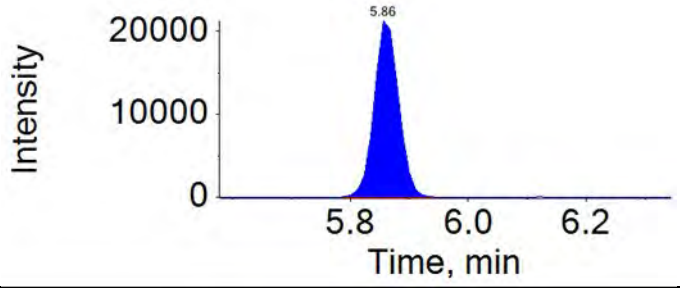
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

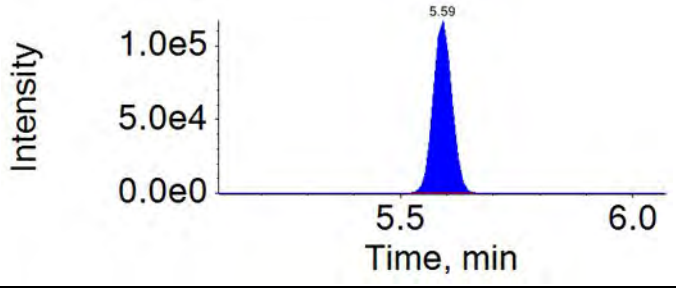




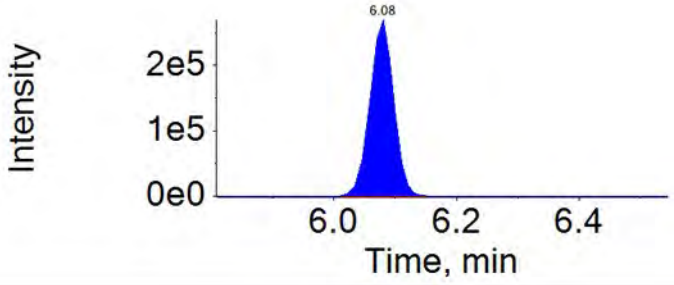
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

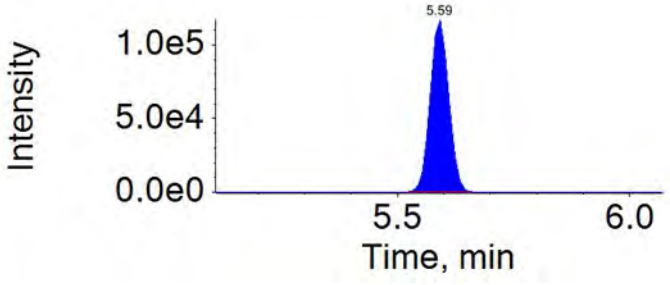
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



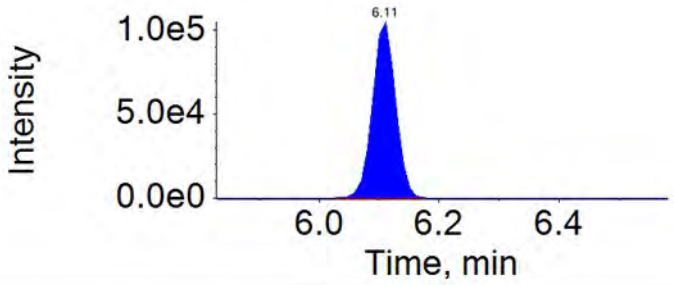


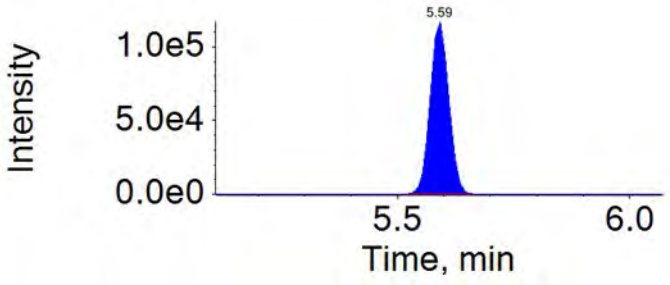
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



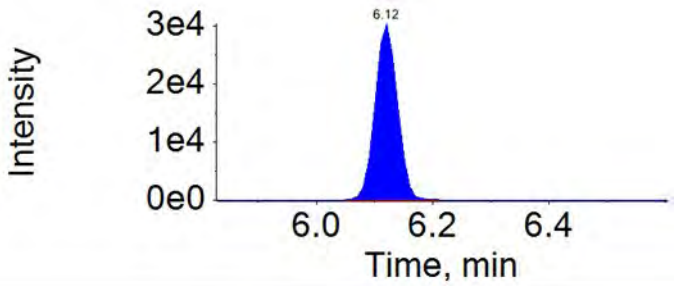


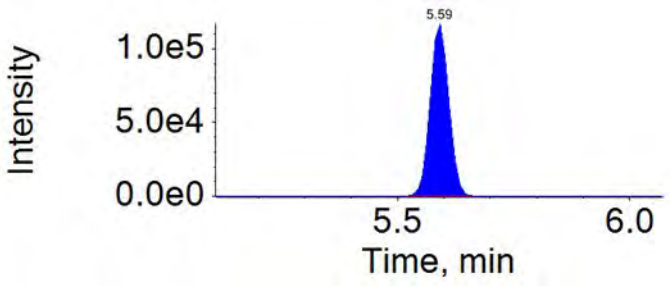
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





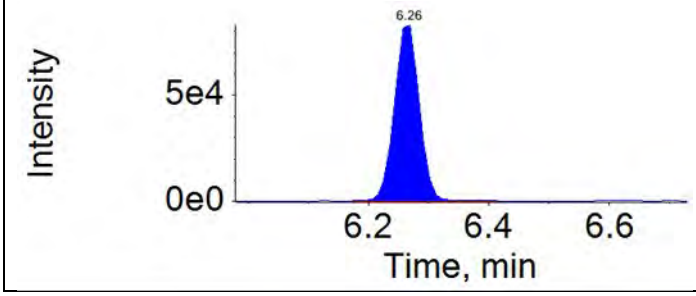
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

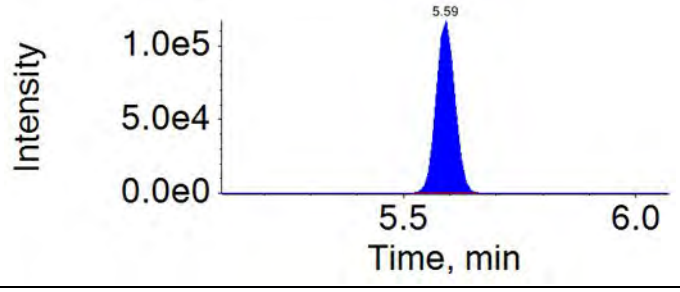




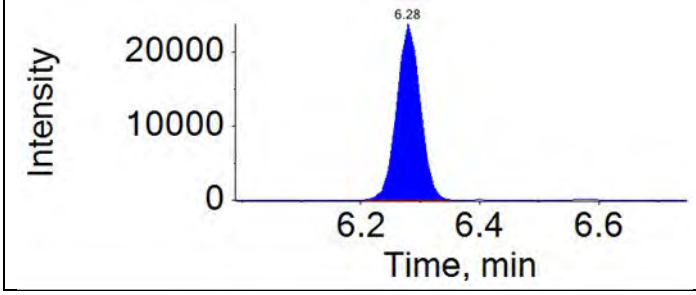
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

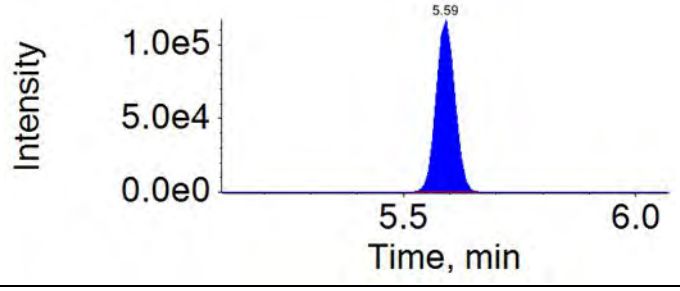
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



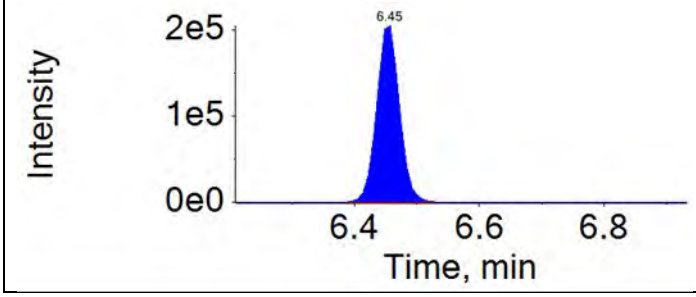


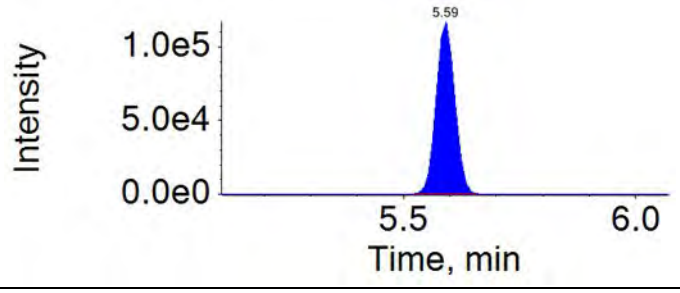
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



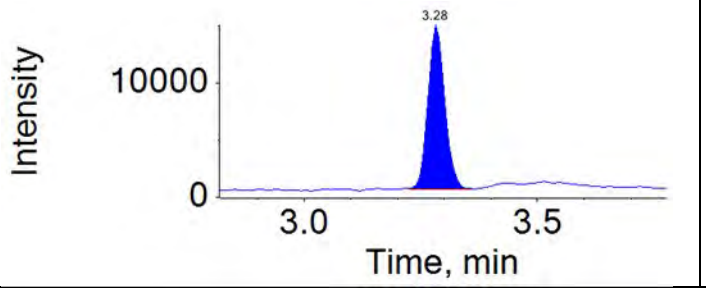


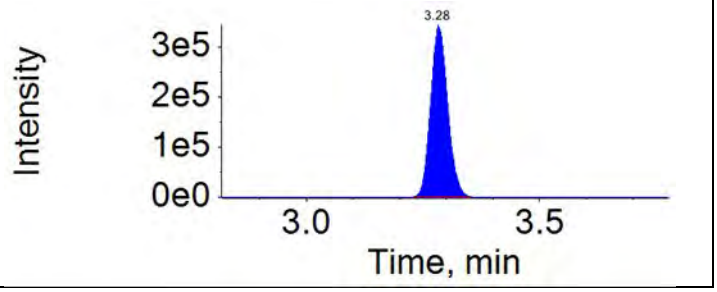
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

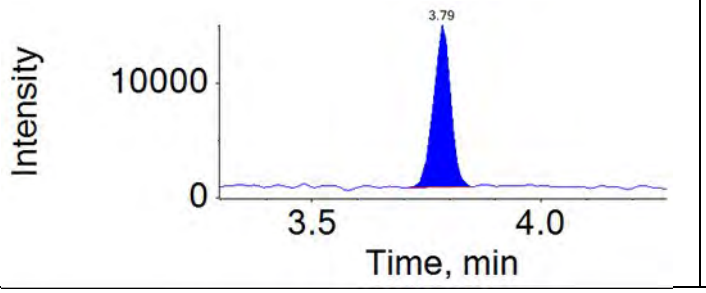
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

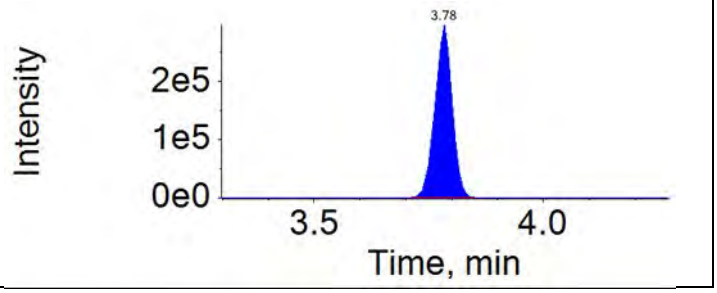
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



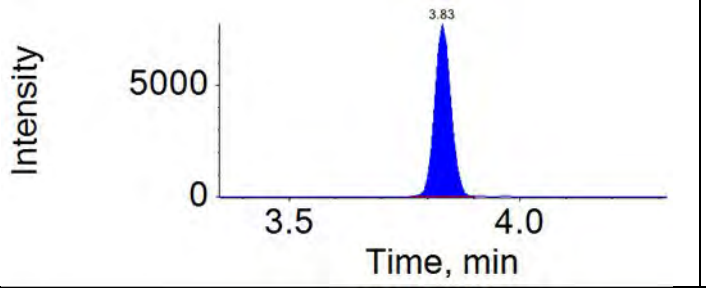


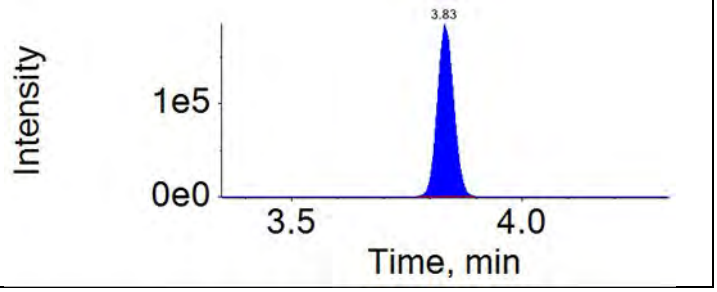
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



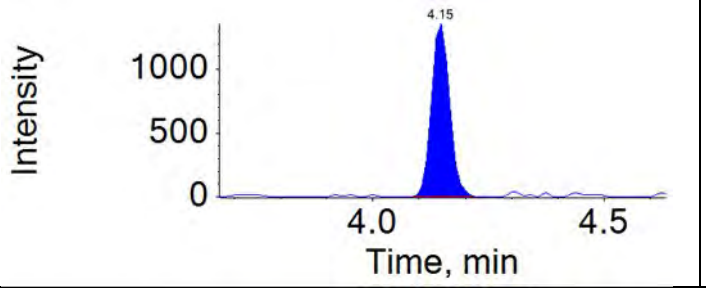


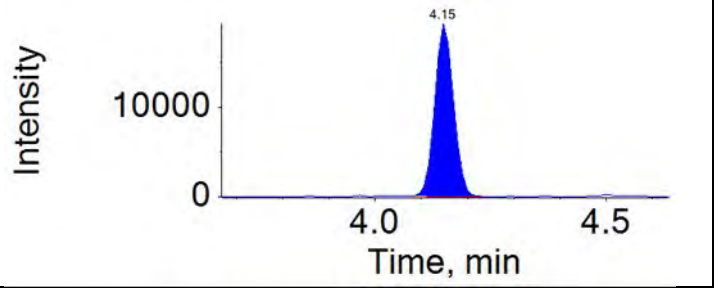
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

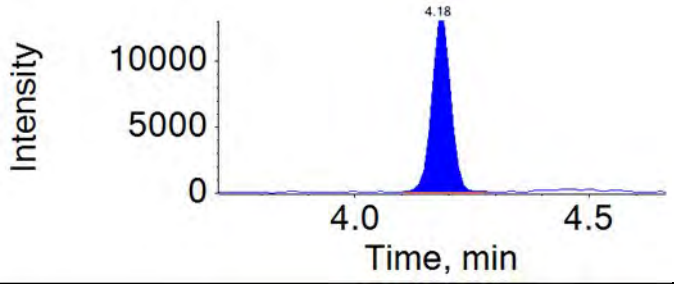
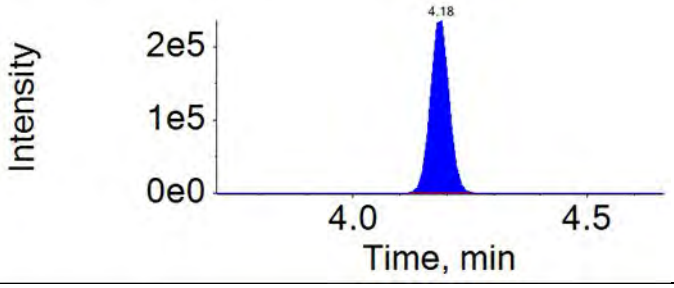


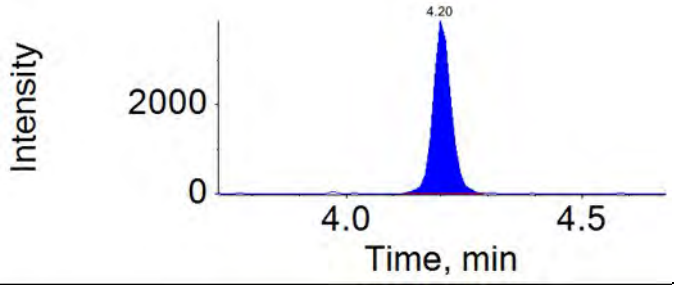
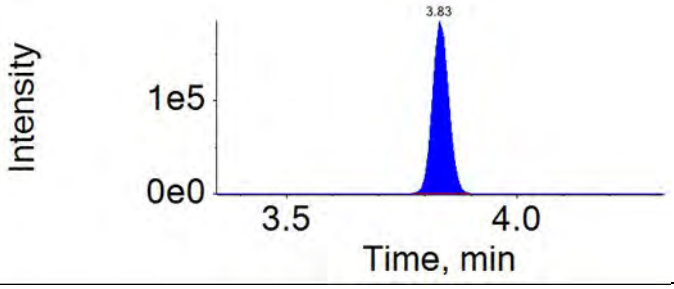


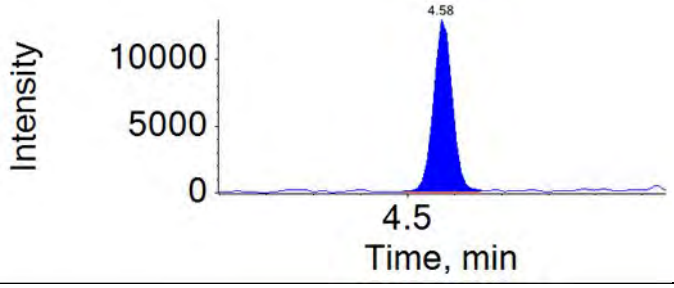
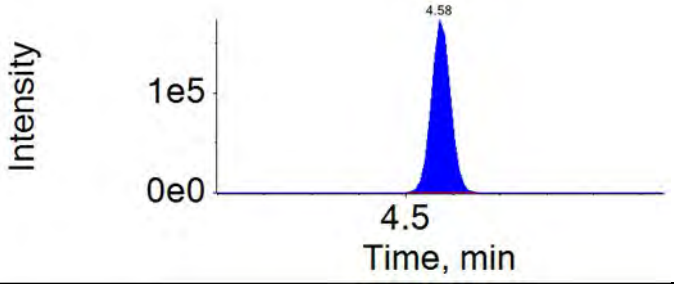
APPROVED
By MSM at 10:22 am, 12/4/18

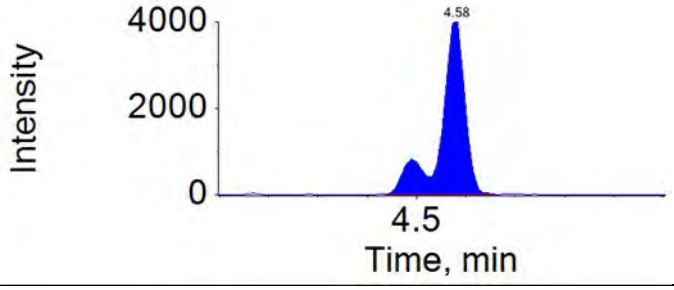
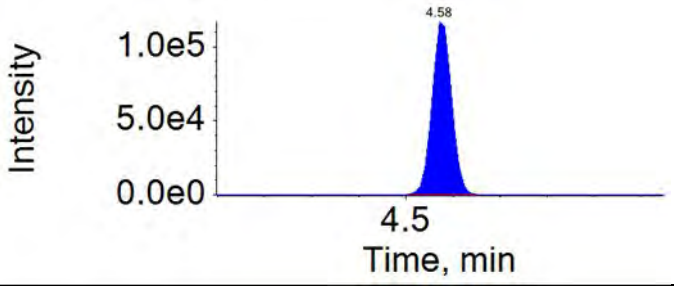
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

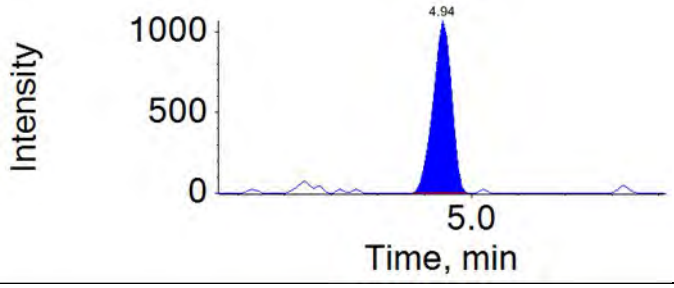
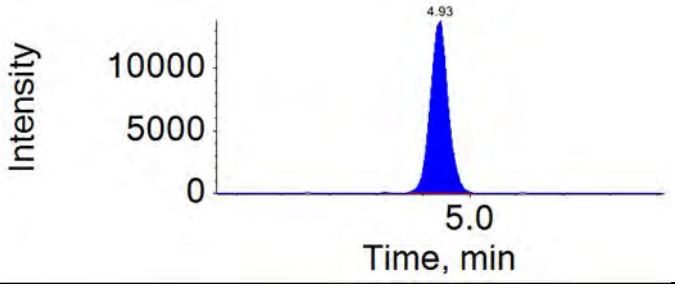
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

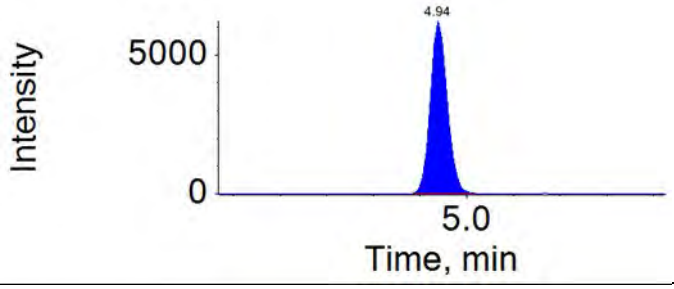
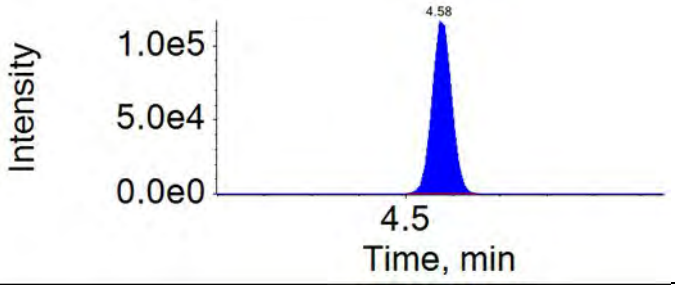
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

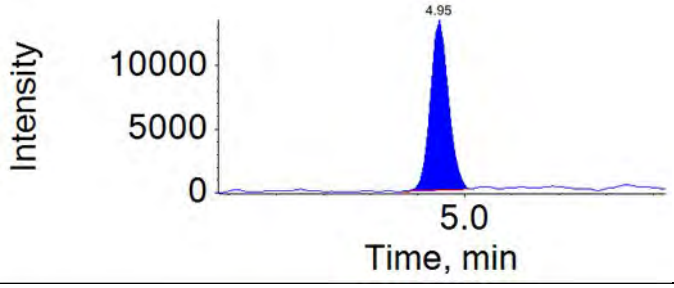
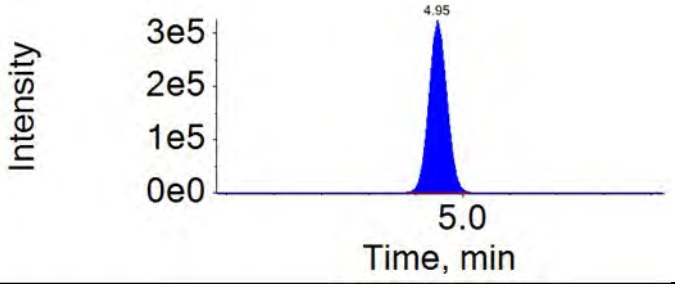
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

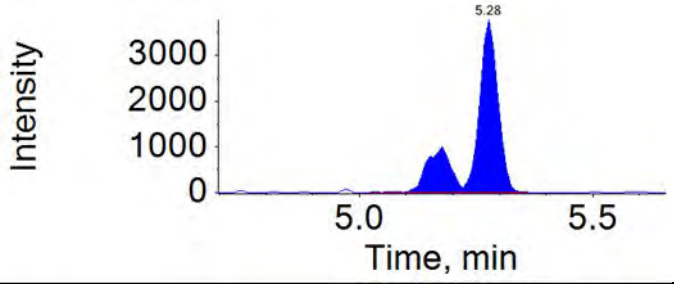
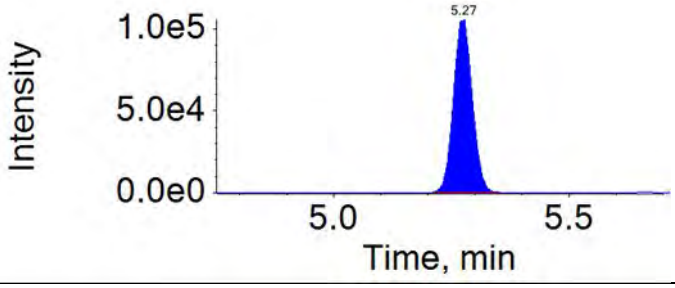
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

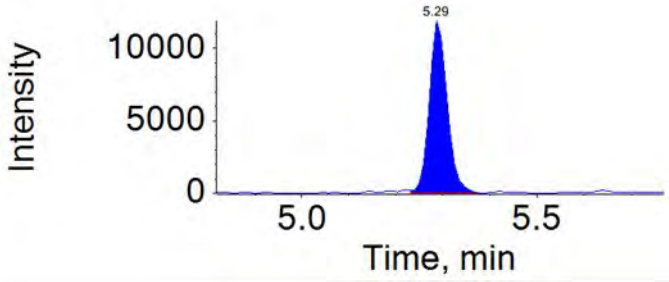
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

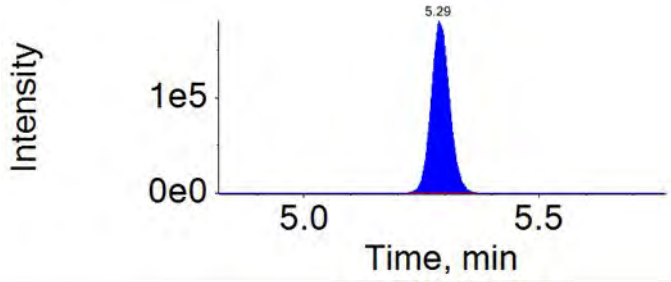
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

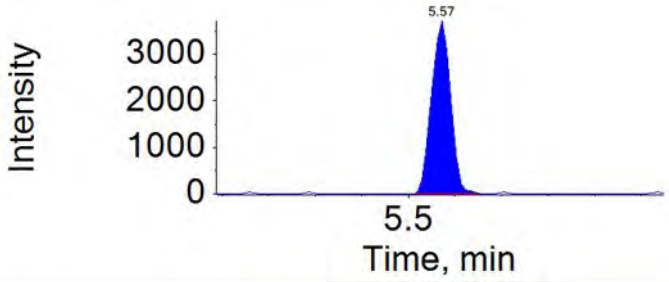
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

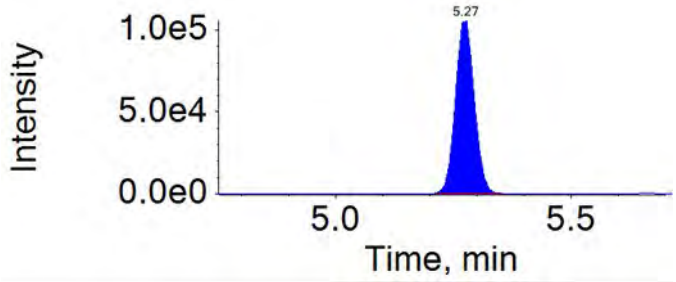
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



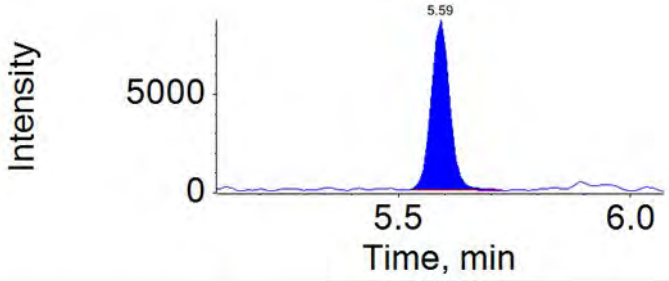


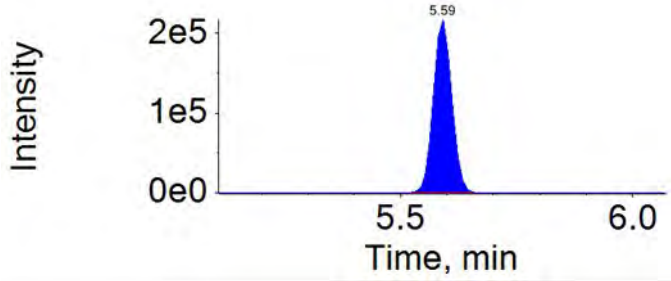
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



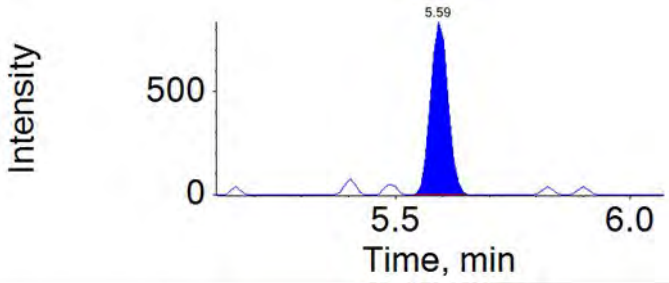


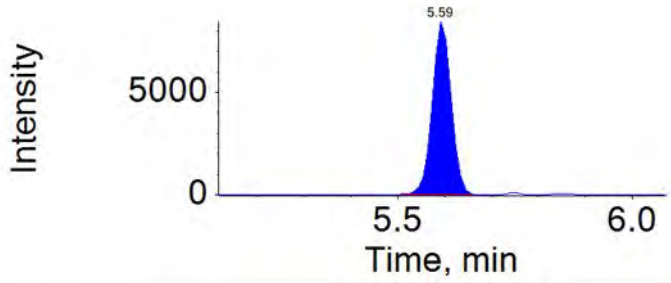
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



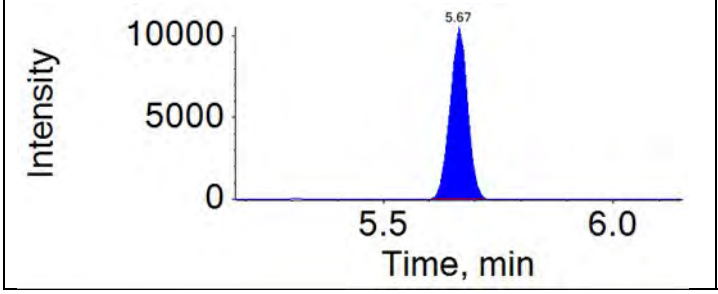


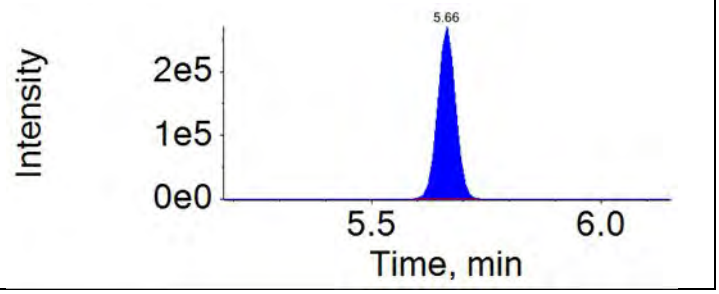
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

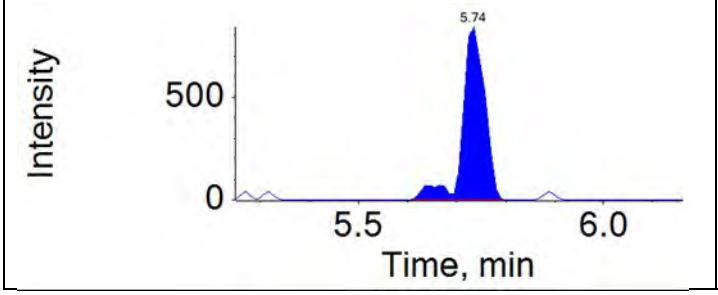
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

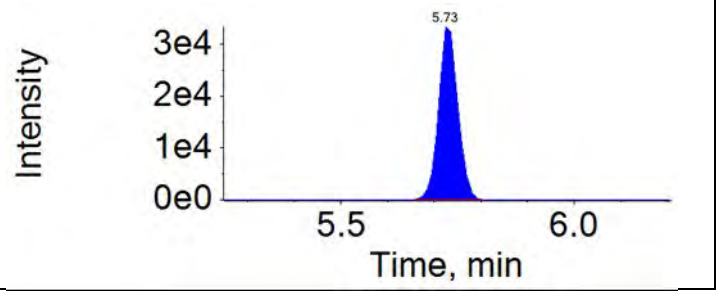
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



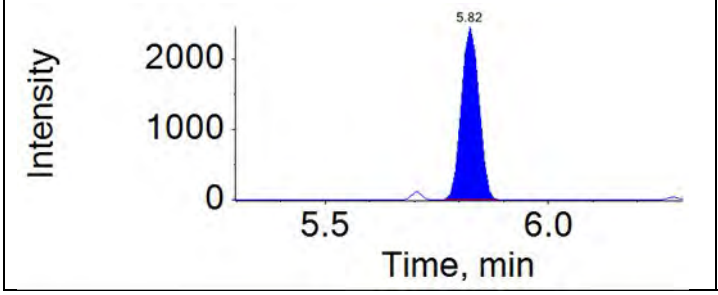


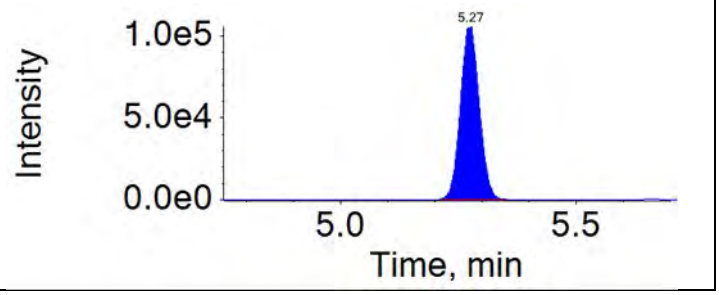
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



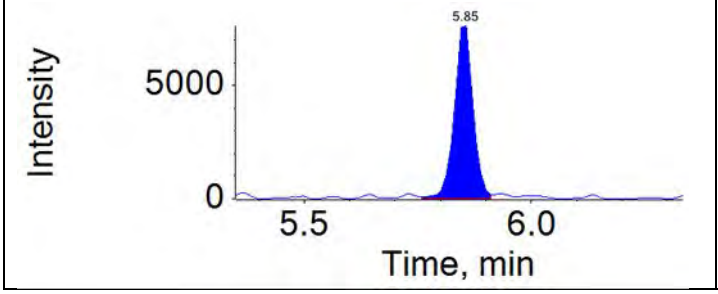


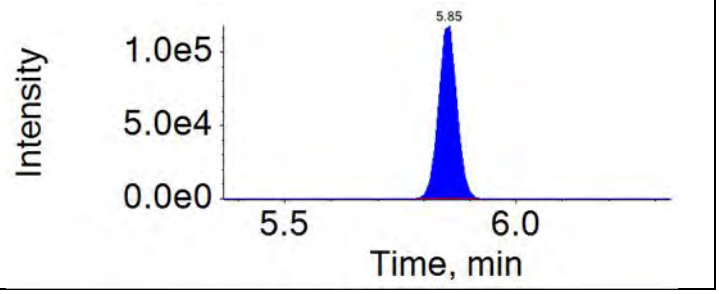
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



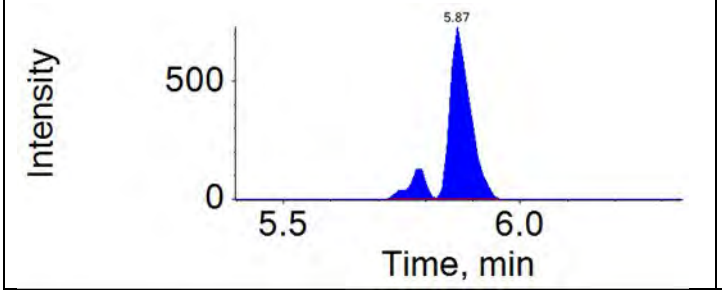


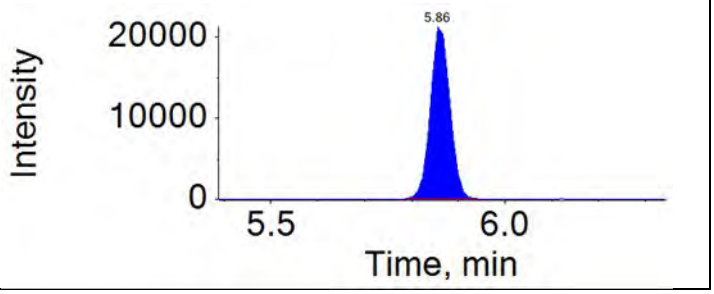
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

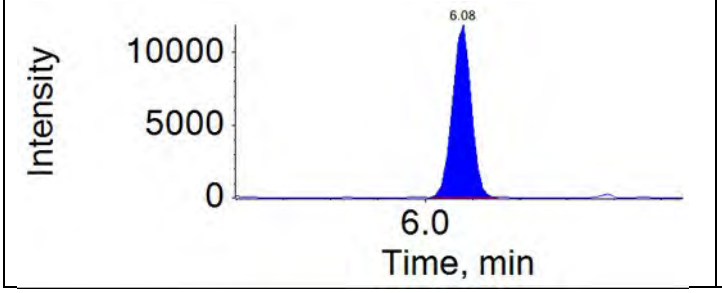
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

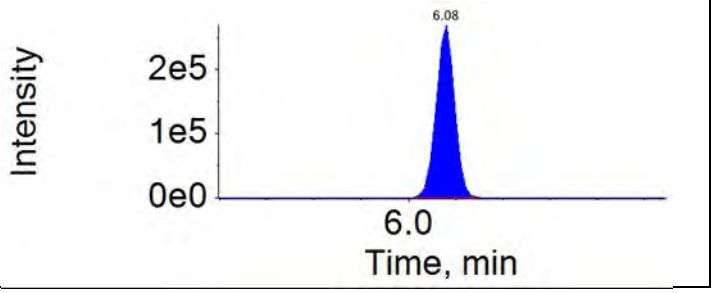
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



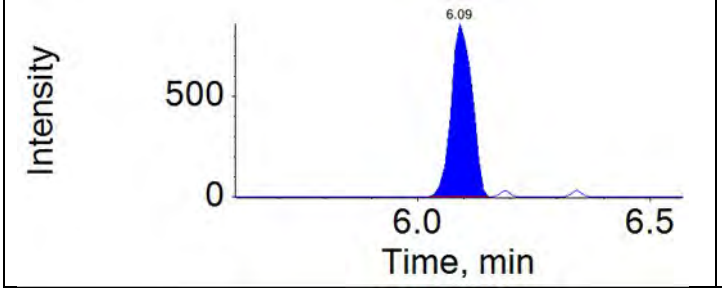


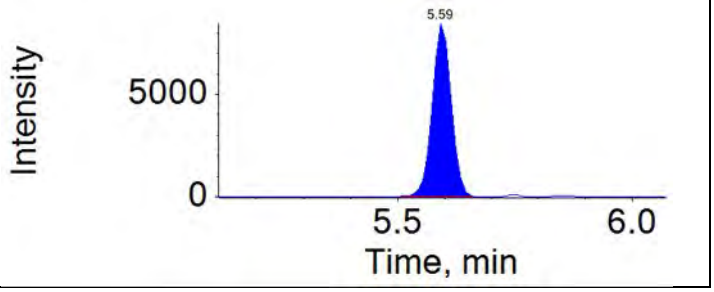
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



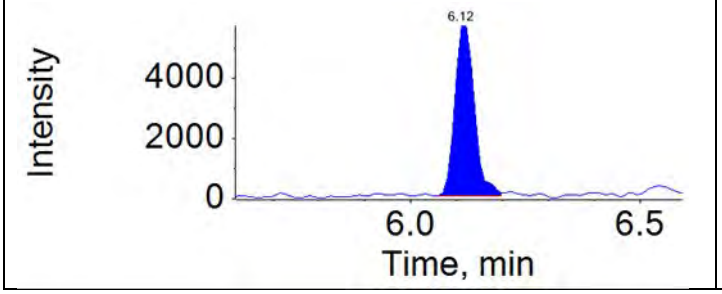


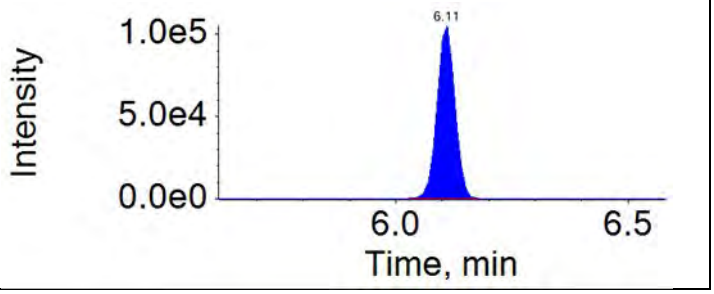
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



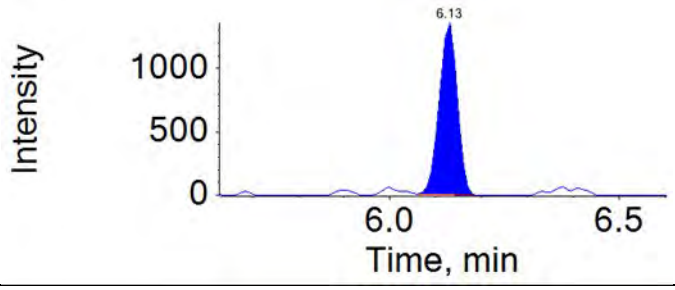


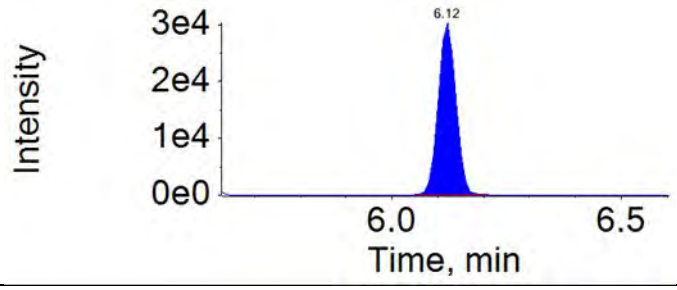
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

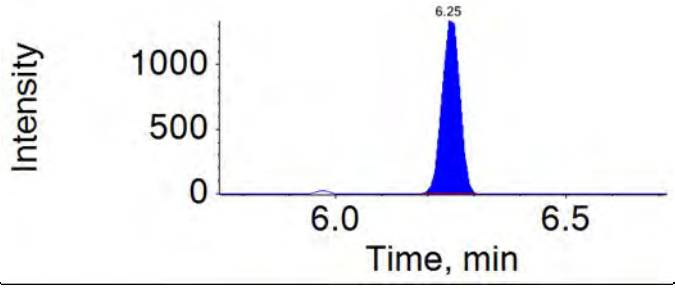
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

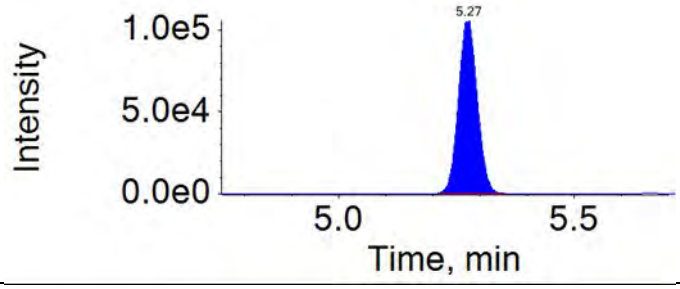
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



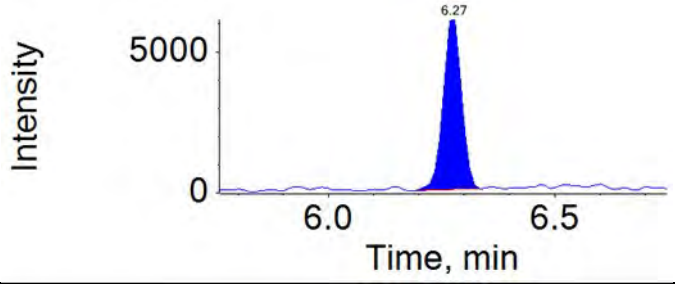


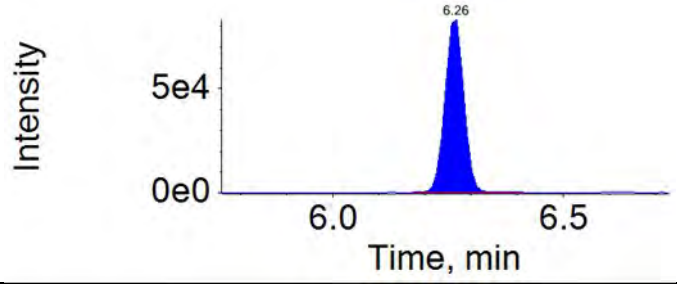
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



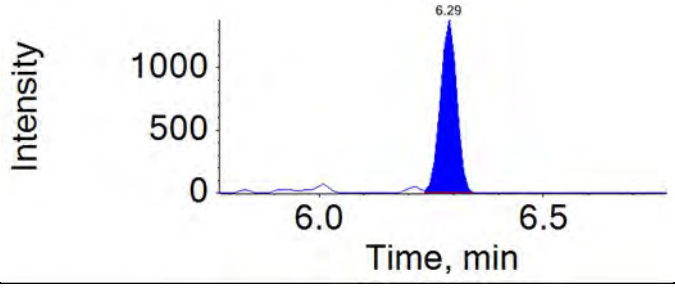


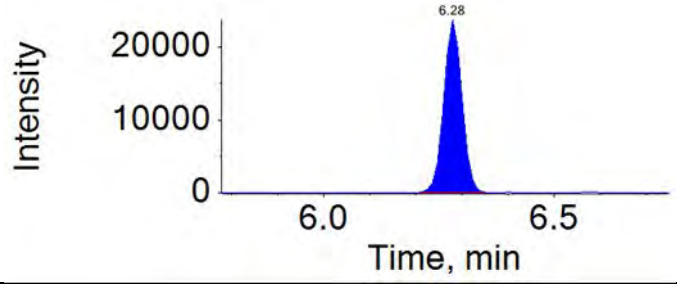
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

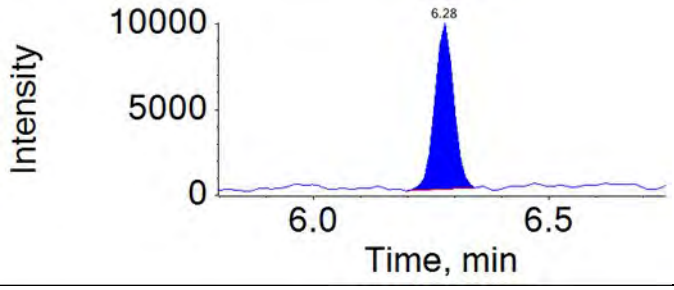
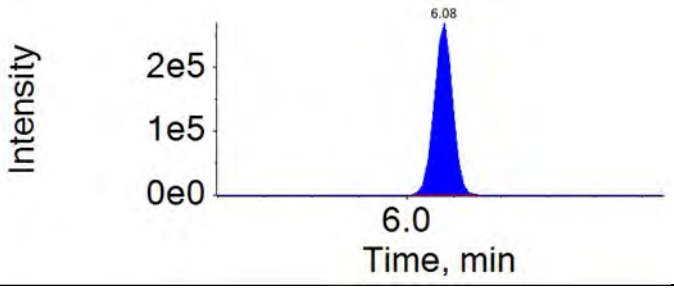


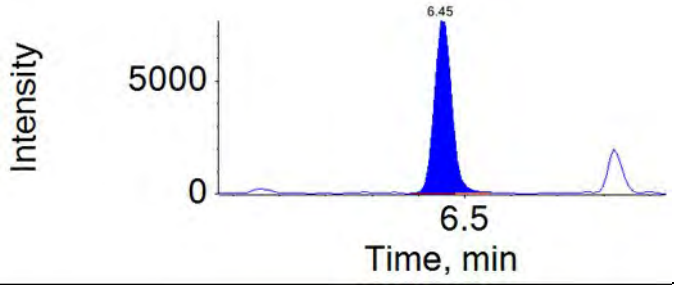
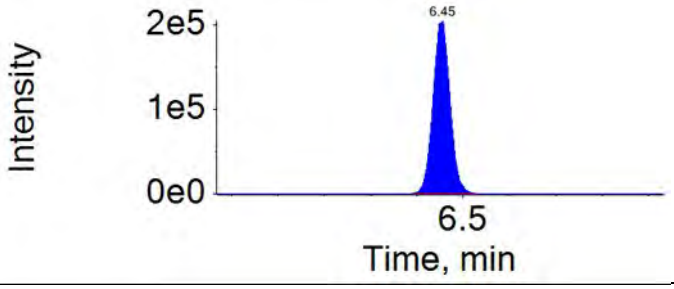


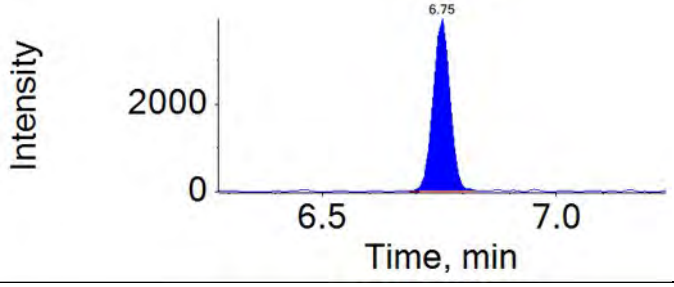
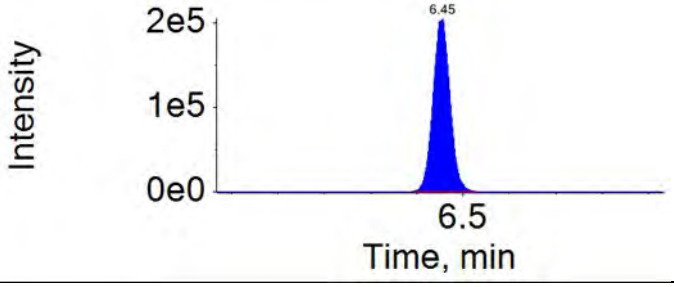
APPROVED
By MSM at 10:22 am, 12/4/18

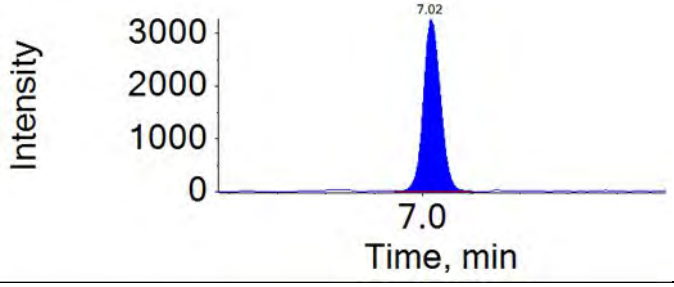
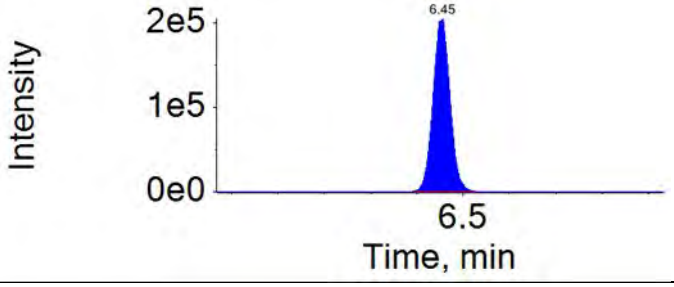
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

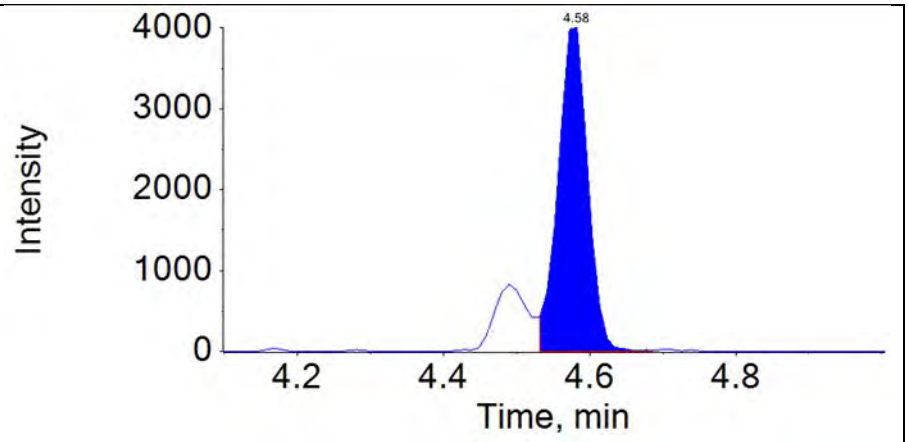
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

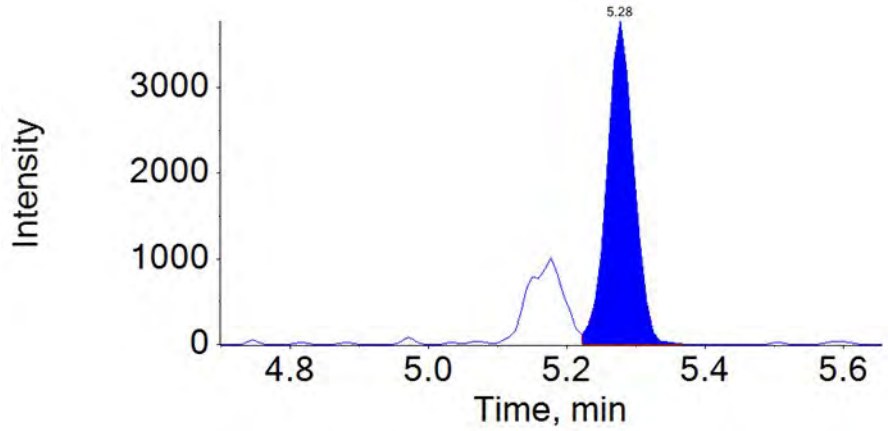
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.58
Peak Area:
11413.47
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



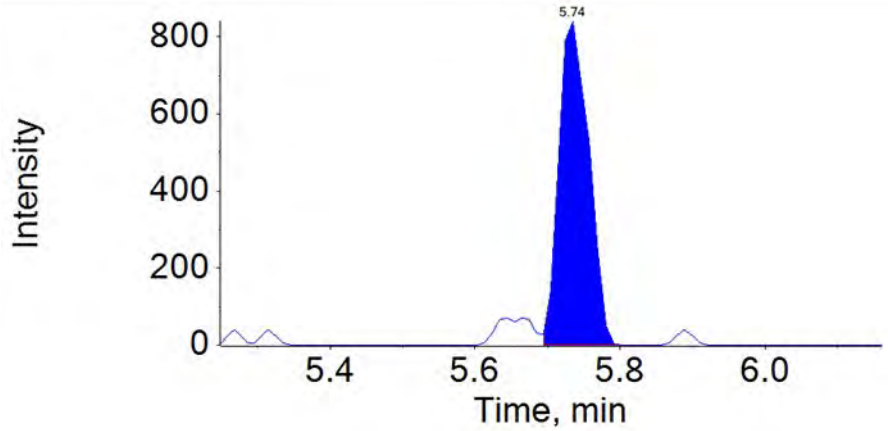
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.28
Peak Area:
10182.09
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.74
Peak Area:
2431.34
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



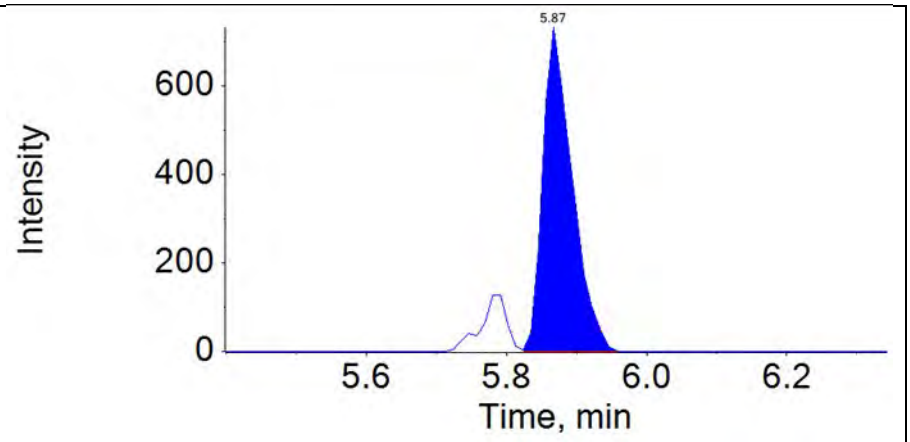
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

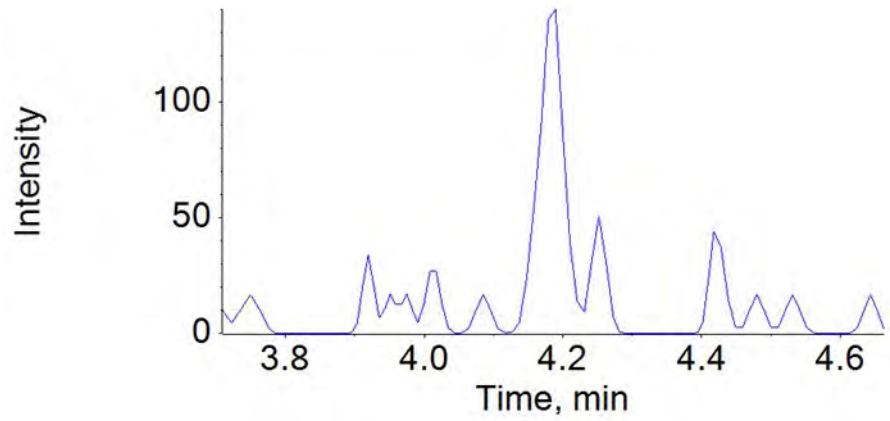
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.87
Peak Area:
2143.72
Mass Range:
584.0 / 419.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



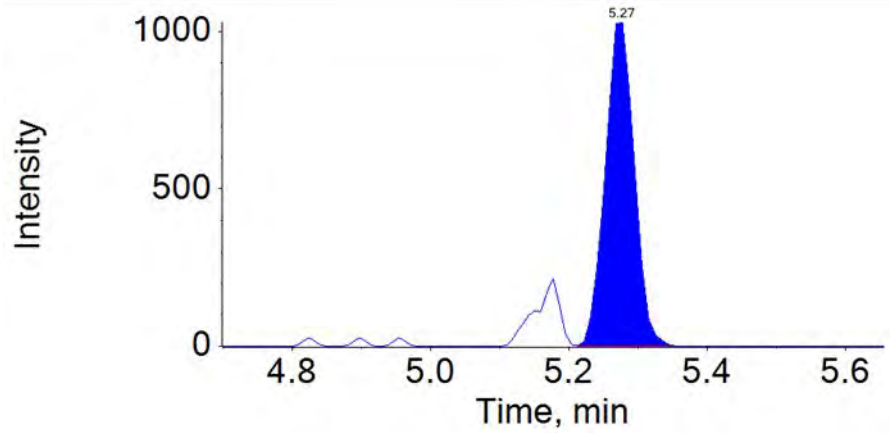
Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
313.0 / 119.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
3019.23
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



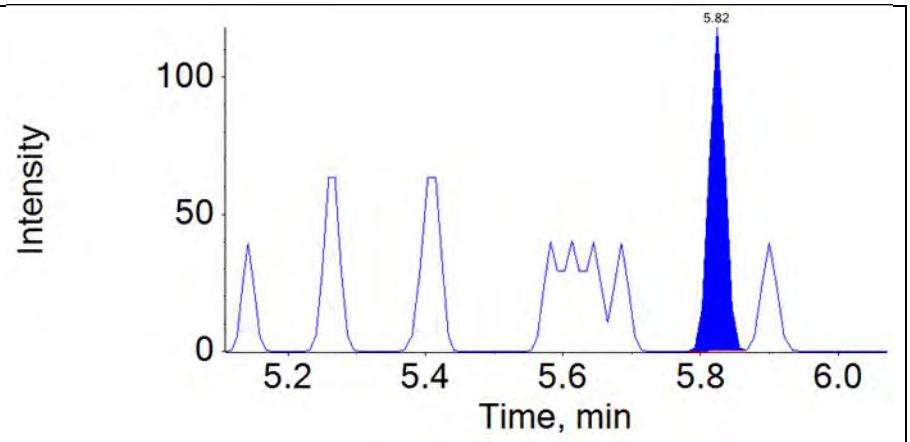
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

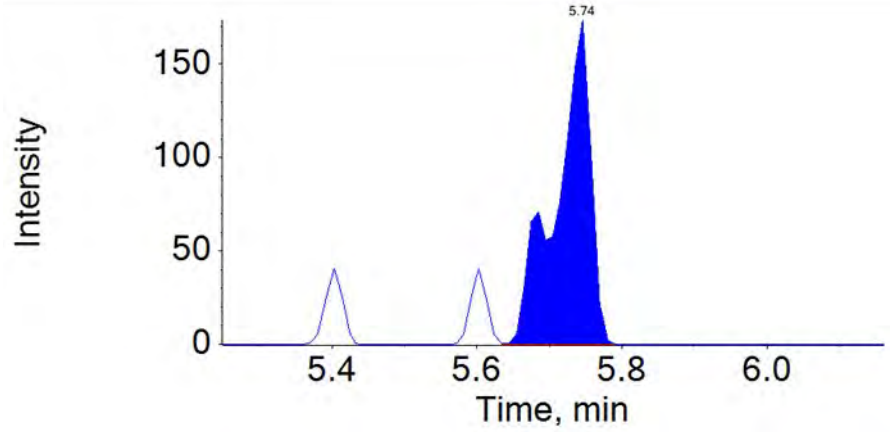
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.82
Peak Area:
190.98
Mass Range:
513.0 / 169.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



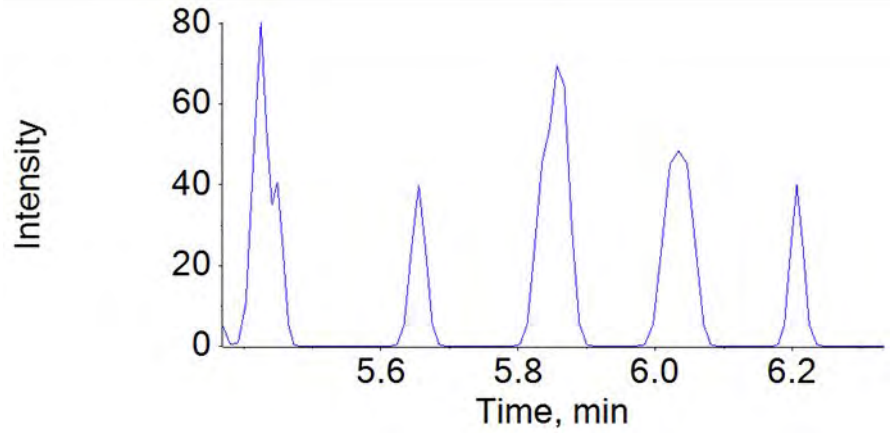
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.74
Peak Area:
581.22
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
563.0 / 169.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

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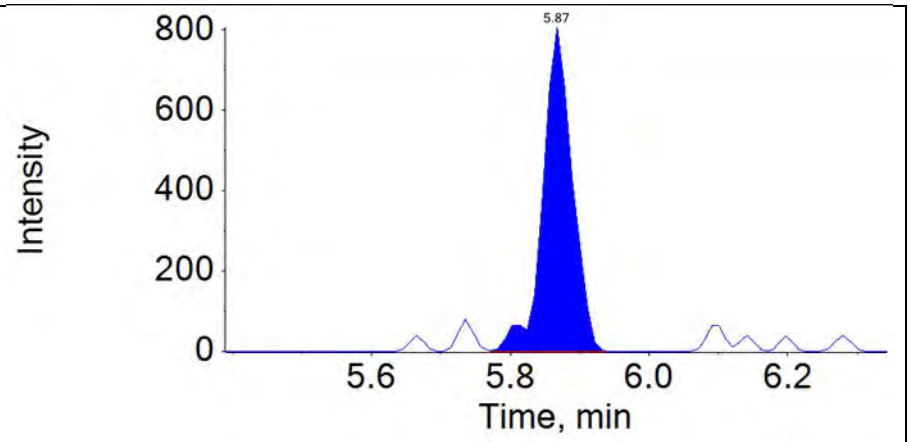
By umar at 4:02 pm, 12/4/18

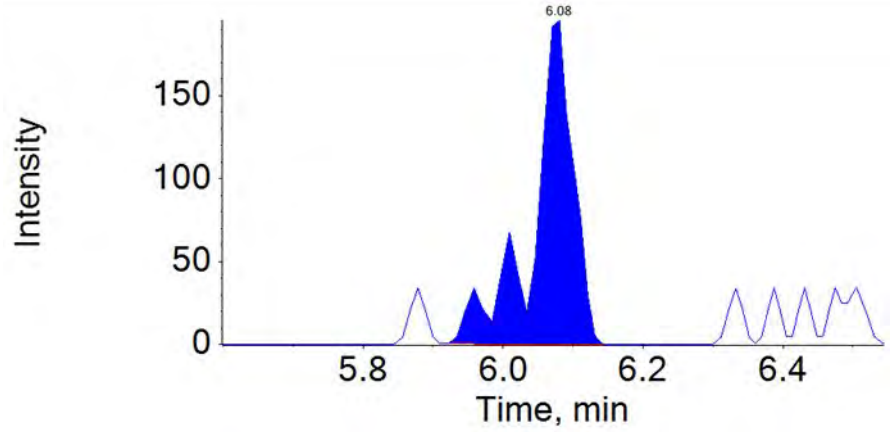
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.87
Peak Area:
2387.67
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



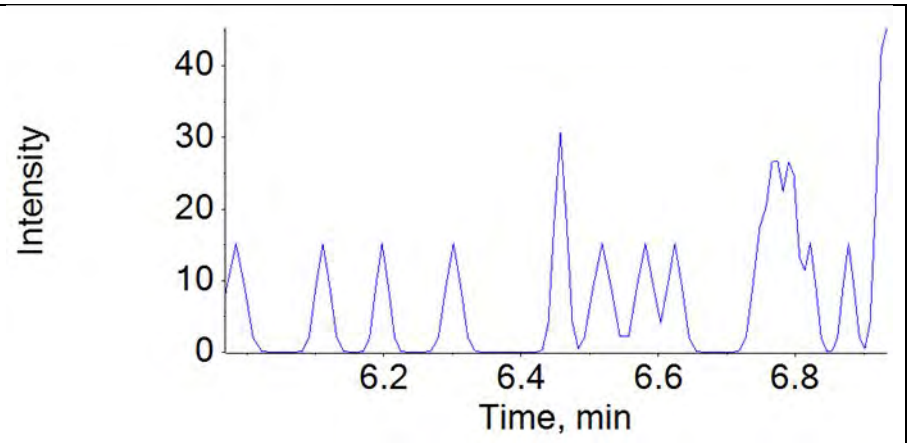
Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.08
Peak Area:
788.39
Mass Range:
613.0 / 169.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

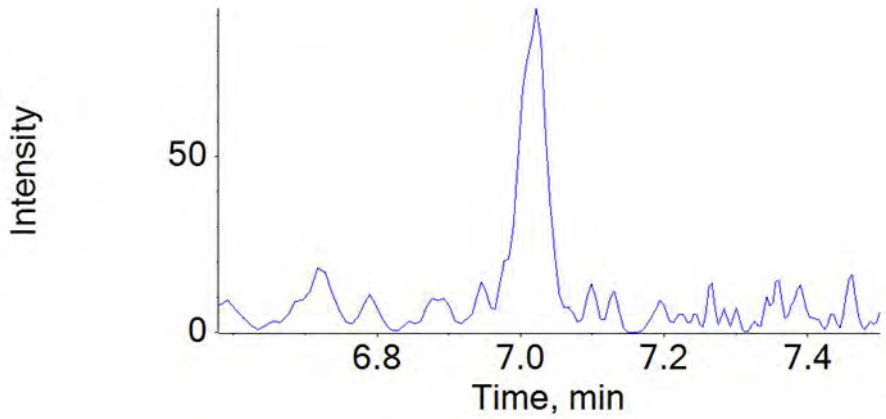
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFODA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
913.0 / 169.0
File Name:
18DEC03DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Ion Ratio Report

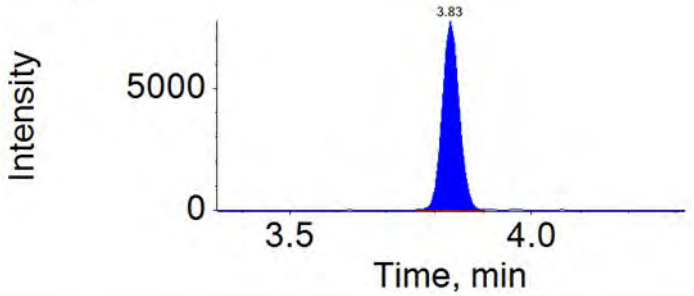
Sample Name: CAL1 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-10.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	18805.51	A	1.0000	1.0000			
PFBS_2	3.83	1.00	7054.45	A	0.3698	0.3751	1	50	
4:2-FTS	4.15	1.00	3701.66	A	1.0000	1.0000			
4:2-FTS_2	4.15	1.00	2989.29	A	0.6536	0.8076	24	50	
PFHxA	4.18	1.00	37049.78	A	1.0000	1.0000			
PFHxA_2	4.18	1.00	370.93	M	0.0116	0.0100	-14	50	
PFPeS	4.20	1.10	10226.80	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	4951.10	A	0.5000	0.4841	-3	50	
PFHpA	4.58	1.00	35613.87	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	1565.36	A	0.0526	0.0440	-16	50	
PFHxS	4.58	1.00	14033.16	M	1.0000	1.0000			
PFHxS_2	4.58	1.00	4173.43	A	0.3476	0.2974	-14	50	
6:2-FTS	4.94	1.00	2898.99	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	1971.26	A	0.6372	0.6800	7	50	
PFHpS	4.94	1.08	15607.37	A	1.0000	1.0000			
PFHpS_2	4.94	1.08	5058.50	A	0.3956	0.3241	-18	50	
PFOA	4.95	1.00	35363.65	A	1.0000	1.0000			
PFOA_2	4.94	1.00	2682.78	A	0.0618	0.0759	23	50	
PFOS	5.28	1.00	13932.49	M	1.0000	1.0000			
PFOS_2	5.27	1.00	3559.14	M	0.2940	0.2555	-13	50	
PFNA	5.29	1.00	31204.86	A	1.0000	1.0000			
PFNA_2	5.29	1.00	646.11	A	0.0196	0.0207	6	50	
PFNS	5.57	1.06	10570.51	A	1.0000	1.0000			
PFNS_2	5.57	1.06	5478.27	A	0.4676	0.5183	11	50	
PFDA	5.59	1.00	23772.00	A	1.0000	1.0000			
PFDA_2	5.61	1.00	182.88	M	0.0073	0.0077	6	50	
8:2-FTS	5.59	1.00	2158.57	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	1371.27	A	0.6049	0.6353	5	50	
NMeFOSAA	5.74	1.00	2686.81	M	1.0000	1.0000			
NMeFOSAA_2	5.74	1.00	644.87	M	0.2642	0.2400	-9	50	
PFDS	5.82	1.10	6674.87	A	1.0000	1.0000			
PFDS_2	5.83	1.10	3075.21	A	0.4948	0.4607	-7	50	
PFUnDA	5.85	1.00	21755.09	A	1.0000	1.0000			
PFUnDA_2	5.86	1.00	194.64	M	0.0046	0.0089	96	50	OOS
NEtFOSAA	5.87	1.00	2476.39	M	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	2522.73	M	0.7504	1.0187	36	50	
PFDoDA	6.08	1.00	32513.60	A	1.0000	1.0000			
PFDoDA_2	6.08	1.00	601.17	M	0.0143	0.0185	30	50	
10:2-FTS	6.09	1.09	2637.50	A	1.0000	1.0000			
10:2-FTS_2	6.10	1.09	1101.30	A	0.7003	0.4176	-40	50	
PFTrDA	6.28	1.03	26817.95	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	206.60	A	0.0099	0.0077	-22	50	
PFTeDA	6.45	1.00	20095.45	A	1.0000	1.0000			
PFTeDA_2	6.46	1.00	39.75	M	0.0057	0.0020	-65	50	OOS
PFHxDA	6.75	1.05	9774.26	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	562.51	A	0.0617	0.0576	-7	50	
PFODA	7.02	1.09	7948.43	A	1.0000	1.0000			
PFODA_2	7.02	1.09	256.31	M	0.0266	0.0322	21	50	

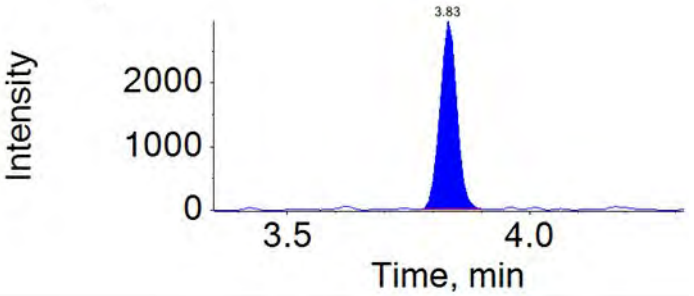
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

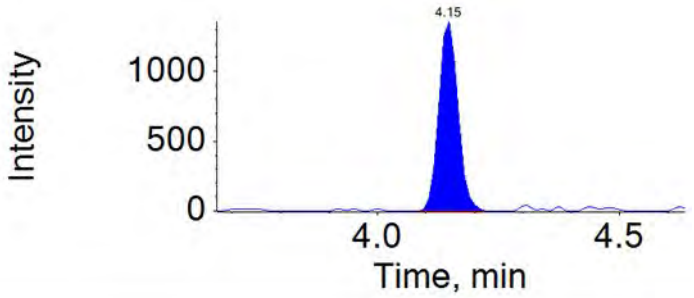
Component: PFBS
Primary Mass: 299.0 / 80.0



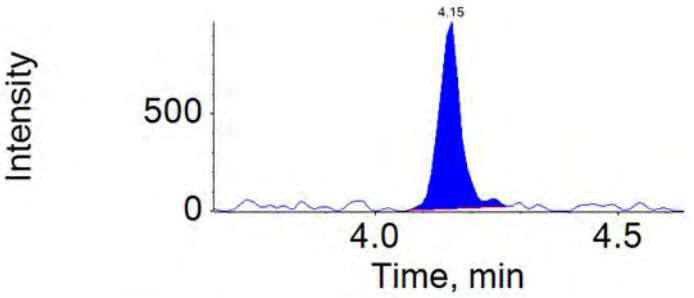
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



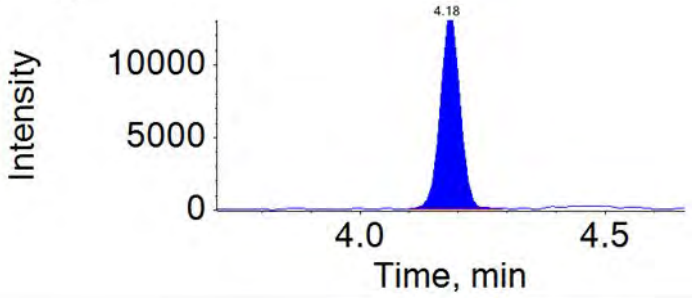
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



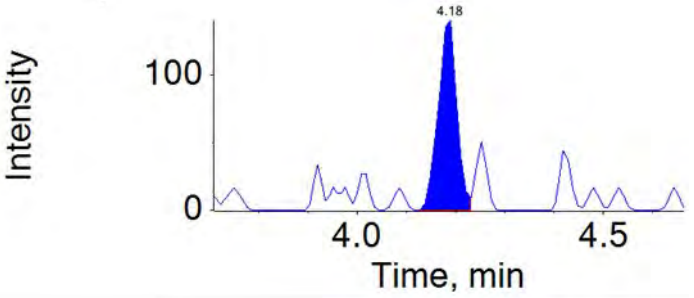
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



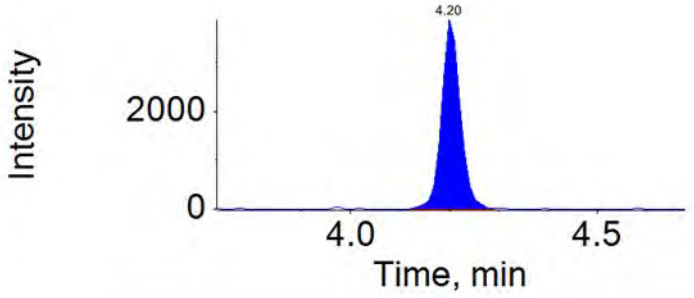
Component: PFHxA
Primary Mass: 313.0 / 269.0



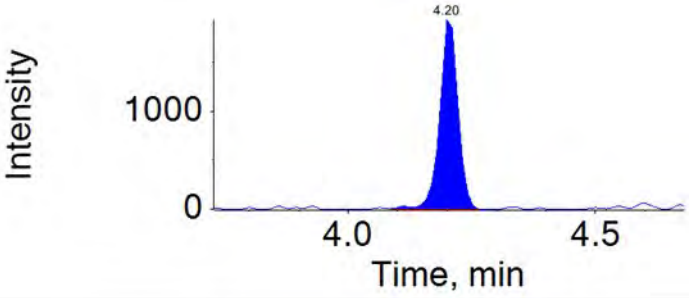
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MSM at 10:22 am, 12/4/18

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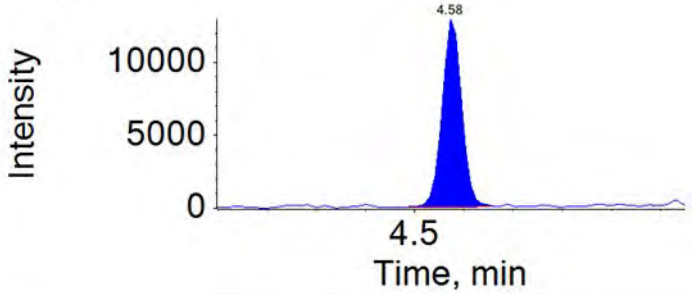
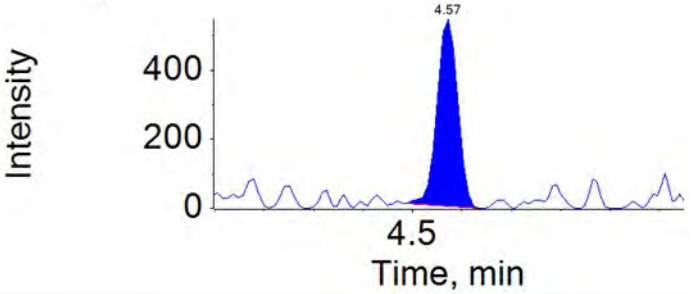
By umar at 4:02 pm, 12/4/18

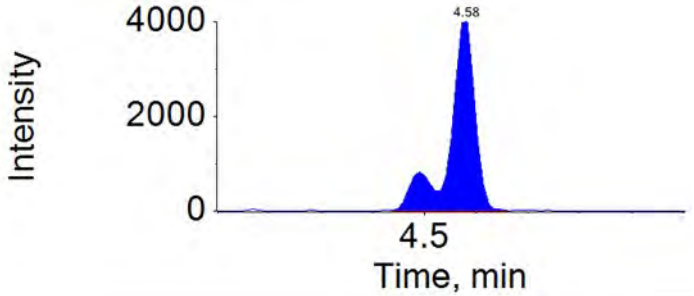
Component: PFHpA
Primary Mass: 363.0 / 319.0



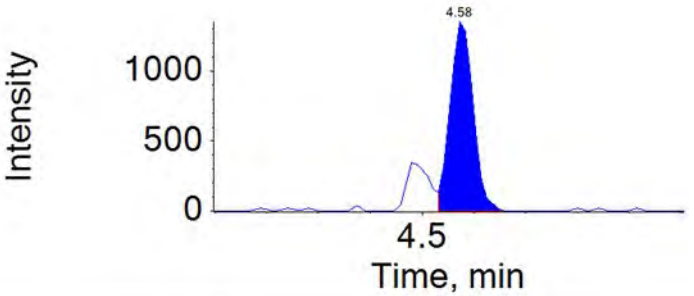
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



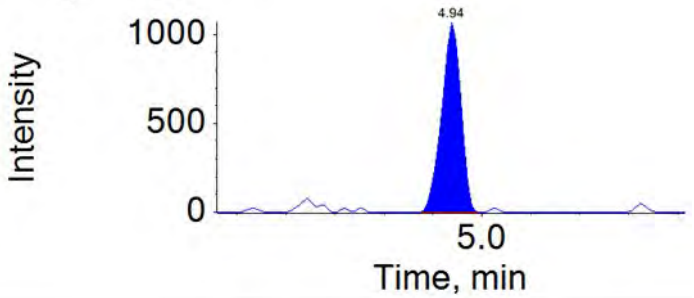
Component: PFHxS
Primary Mass: 399.0 / 80.0



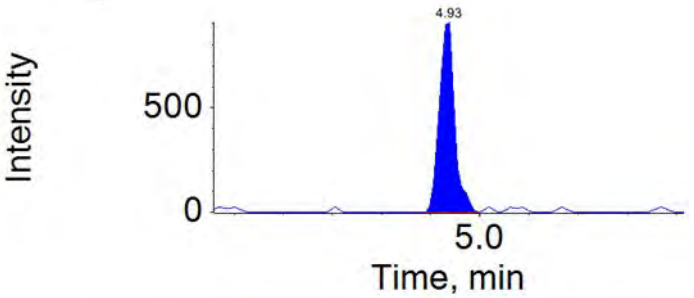
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



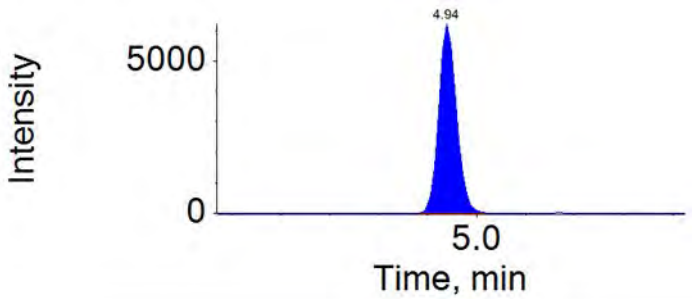
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



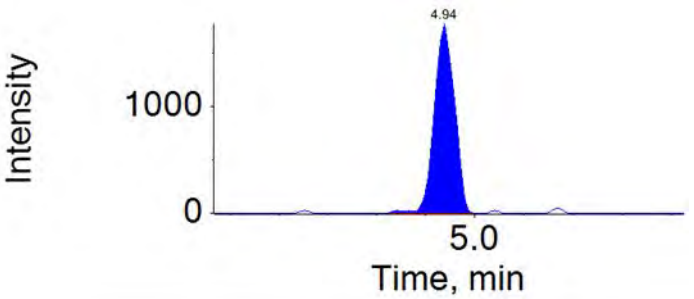
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



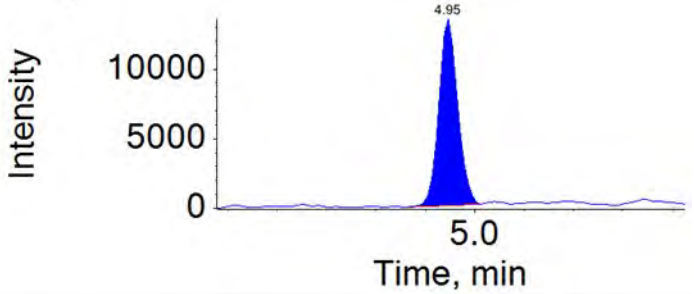
Component: PFHpS
Primary Mass: 449.0 / 80.0



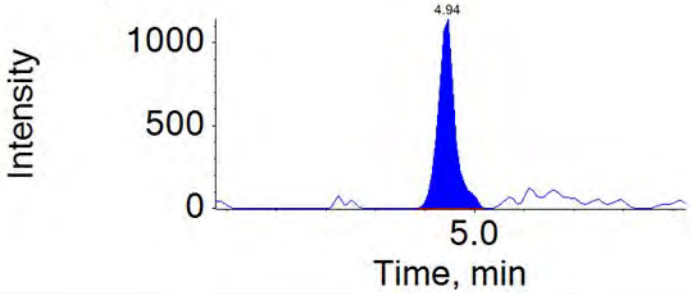
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



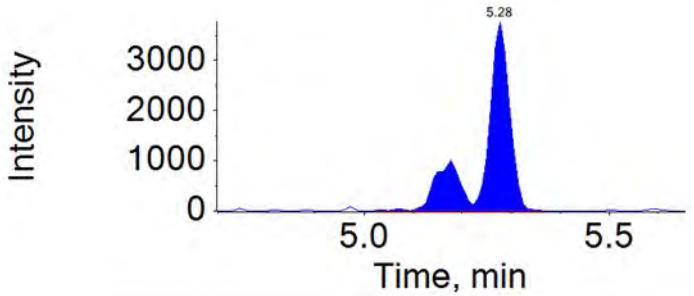
Component: PFOA
Primary Mass: 413.0 / 369.0



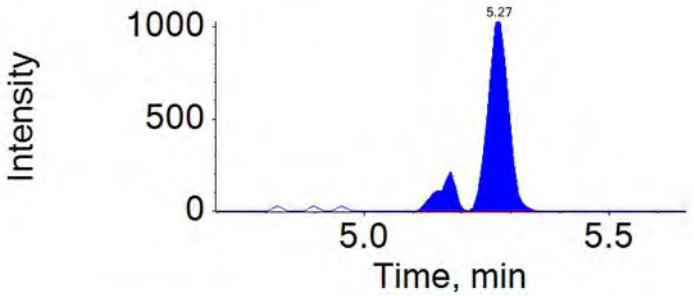
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



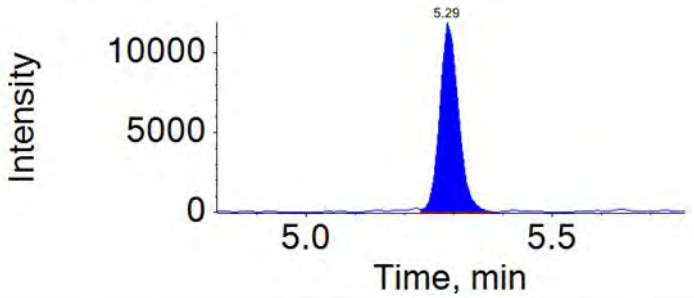
Component: PFOS
Primary Mass: 499.0 / 80.0



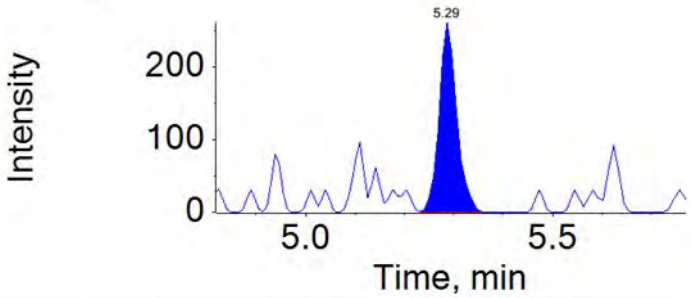
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



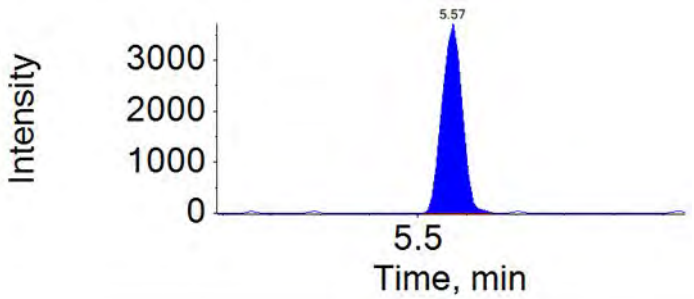
Component: PFNA
Primary Mass: 463.0 / 419.0



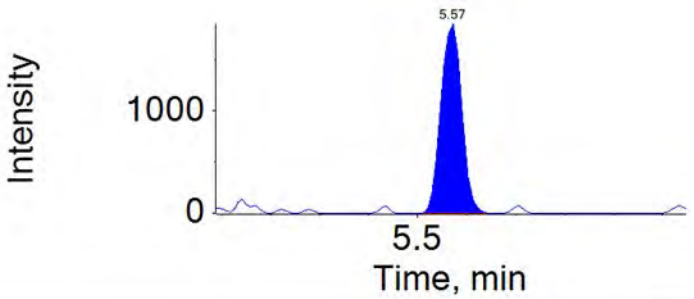
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



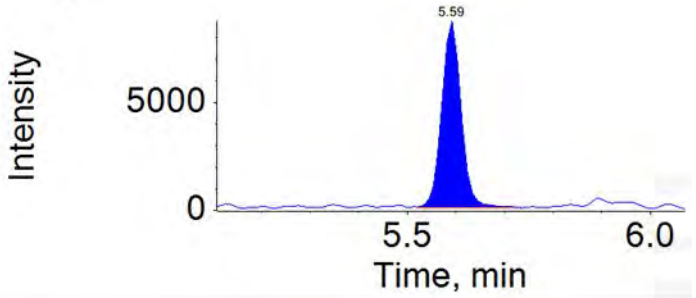
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



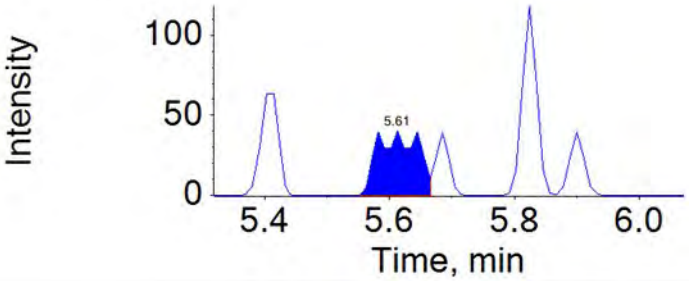
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

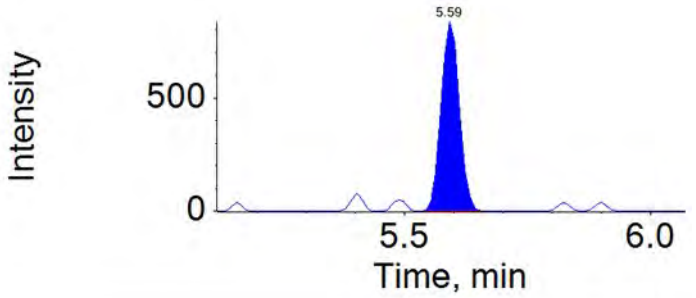
Component: PFDA
Primary Mass: 513.0 / 469.0



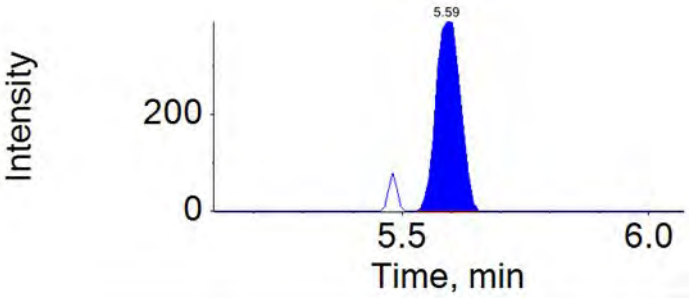
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



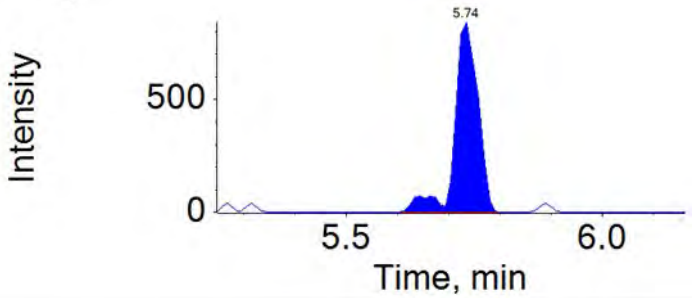
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



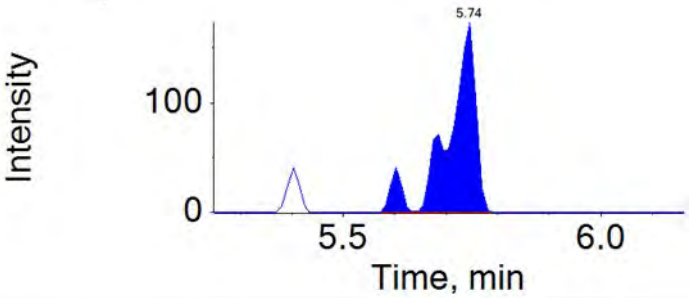
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



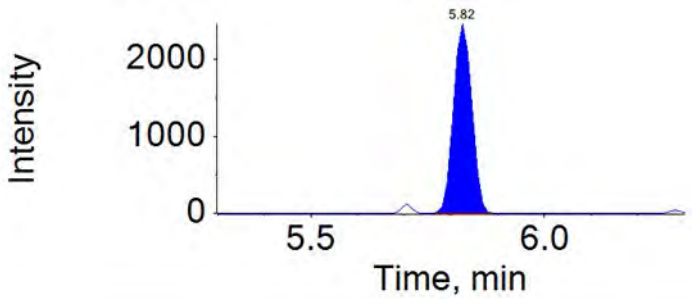
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



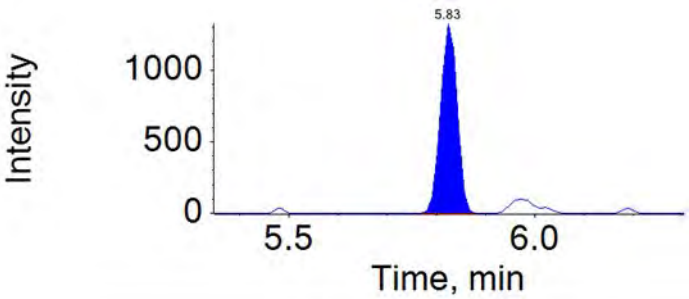
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



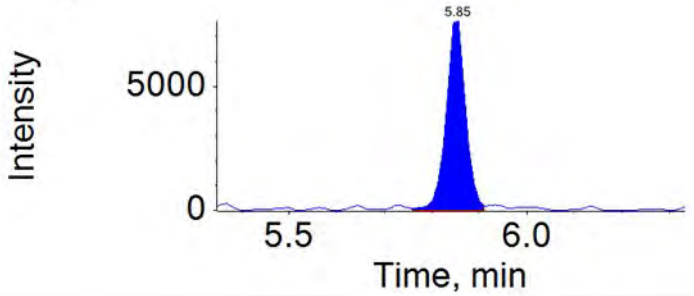
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



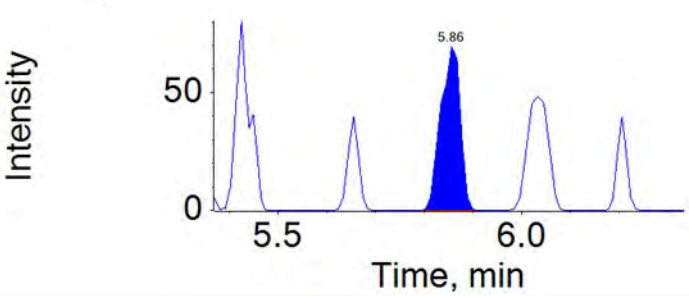
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

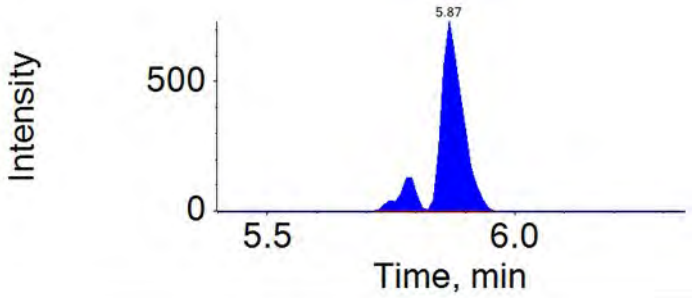
Component: PFUnDA
Primary Mass: 563.0 / 519.0



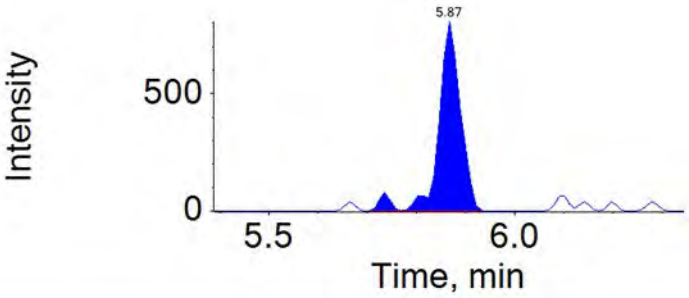
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



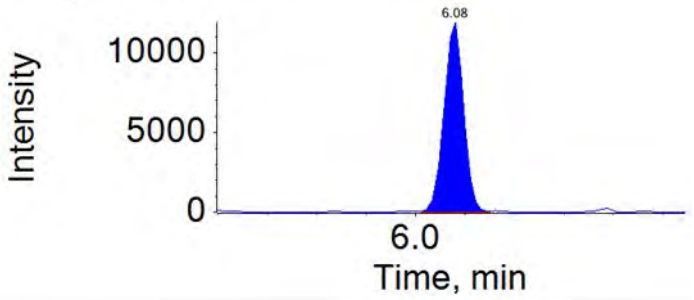
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



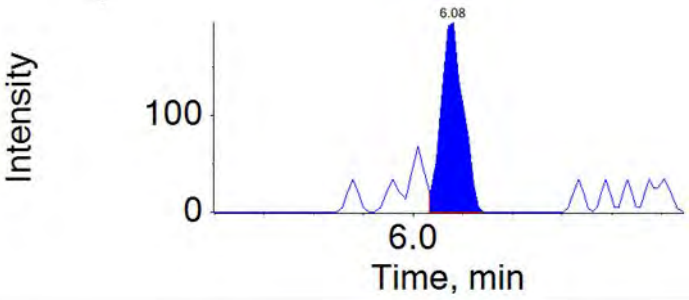
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



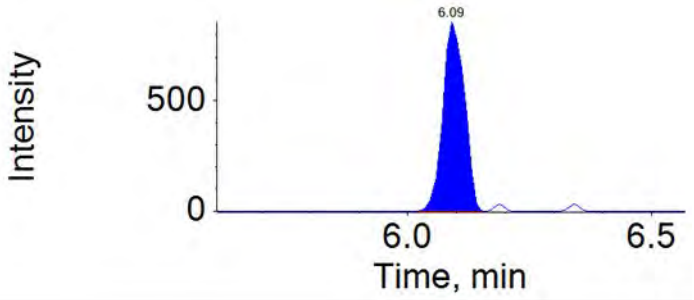
Component: PFDoDA
Primary Mass: 613.0 / 569.0



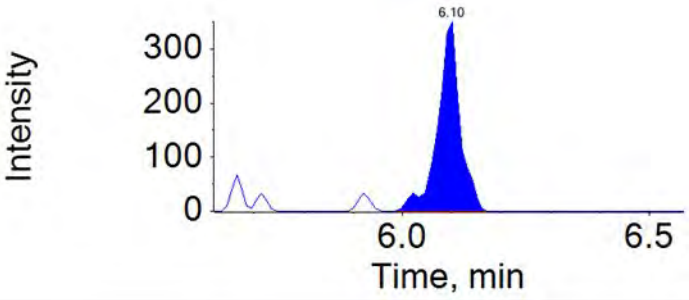
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



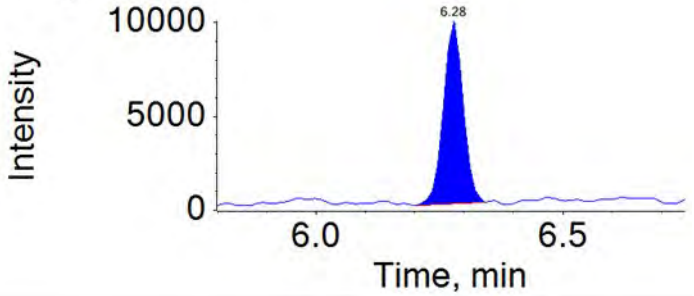
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



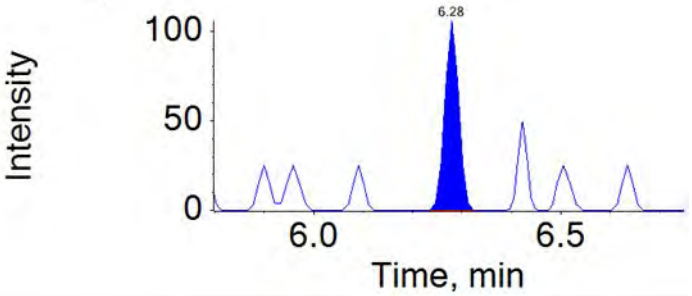
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



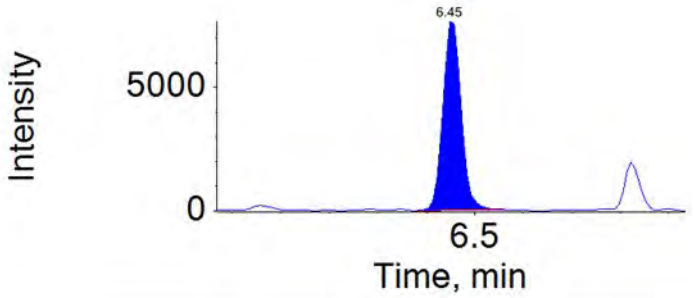
Component: PFTrDA
Primary Mass: 663.0 / 619.0



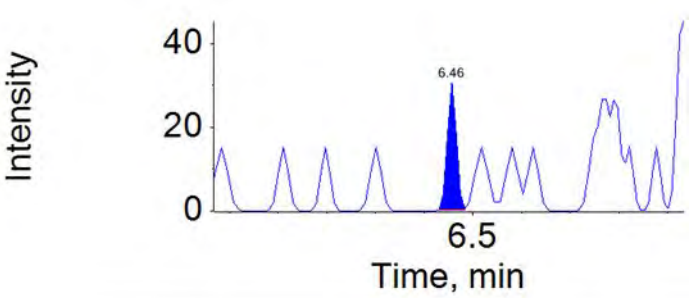
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



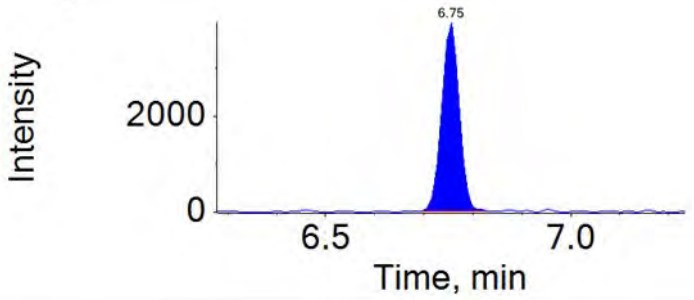
Component: PFTeDA
Primary Mass: 713.0 / 669.0



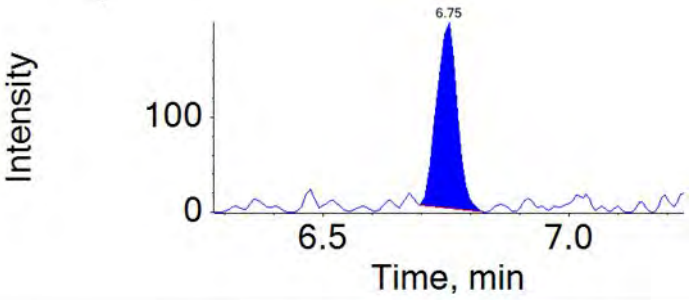
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



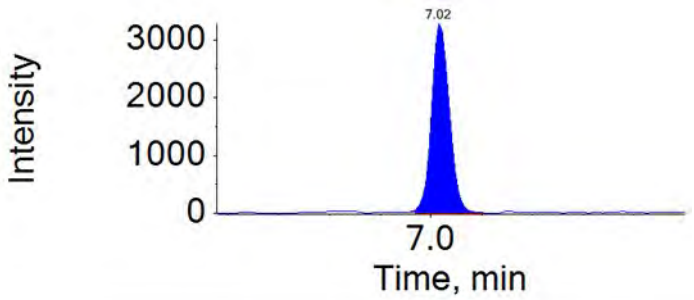
Component: PFHxDA
Primary Mass: 813.0 / 769.0



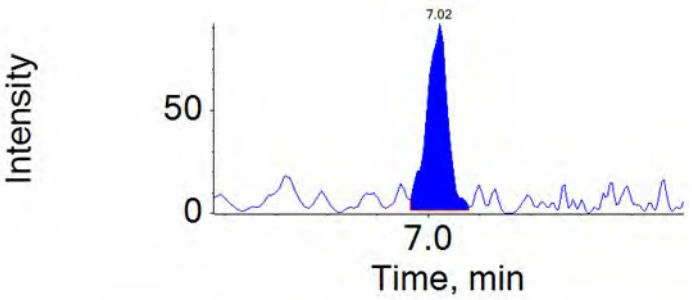
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL2			**Data File:**		18DEC03DCAL-11.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-12-03T17:44:08
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	776549.5	749775.9	4	50	
13C2-PFOA	5.0	428993.0	434072.7	-1	50	
13C4-PFOS	4.8	272214.4	261136.3	4	50	
13C2-PFDA	5.0	315883.6	305281.8	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	896237.4	13C3-PFBA	776549.5	1.154	5.000	5.122	102	70-130	
E13C5-PFPeA	818486.3	13C3-PFBA	776549.5	1.054	5.000	5.086	102	70-130	
E13C3-PFBS	449557.2	13C3-PFBA	776549.5	0.579	4.650	4.511	97	70-130	
E13C2-4:2-FTS	49932.0	13C2-PFOA	428993.0	0.116	4.670	4.788	103	70-130	
E13C5-PFHxA	686196.5	13C2-PFOA	428993.0	1.600	5.000	5.417	108	70-130	
E13C3-PFHxS	342827.5	13C2-PFOA	428993.0	0.799	4.730	5.052	107	70-130	
E13C4-PFHpA	498839.8	13C2-PFOA	428993.0	1.163	5.000	5.073	101	70-130	
E13C2-6:2-FTS	31094.9	13C2-PFOA	428993.0	0.072	4.750	4.804	101	70-130	
E13C8-PFOA	889501.7	13C2-PFOA	428993.0	2.073	5.000	5.763	115	70-130	
E13C8-PFOS	304154.5	13C4-PFOS	272214.4	1.117	4.780	4.963	104	70-130	
E13C9-PFNA	503052.3	13C4-PFOS	272214.4	1.848	5.000	5.409	108	70-130	
E13C6-PFDA	633130.8	13C2-PFDA	315883.6	2.004	5.000	5.213	104	70-130	
E13C2-8:2-FTS	24625.6	13C2-PFDA	315883.6	0.078	4.790	5.012	105	70-130	
E13C8-PFOSA	682781.7	13C2-PFDA	315883.6	2.161	5.000	4.838	97	70-130	
Ed3-NMeFOSAA	88184.1	13C2-PFDA	315883.6	0.279	5.000	4.877	98	70-130	
E13C7-PFUnDA	330222.5	13C2-PFDA	315883.6	1.045	5.000	5.207	104	70-130	
Ed5-NEtFOSAA	69763.7	13C2-PFDA	315883.6	0.221	5.000	5.038	101	70-130	
E13C2-PFDoDA	741533.3	13C2-PFDA	315883.6	2.347	5.000	5.027	101	70-130	
Ed7-NMePFOSAE	284329.1	13C2-PFDA	315883.6	0.900	5.000	4.880	98	70-130	
Ed3-NMePFOSA	82853.6	13C2-PFDA	315883.6	0.262	5.000	4.864	97	70-130	
Ed9-NEtPFOSAE	236484.5	13C2-PFDA	315883.6	0.749	5.000	4.829	97	70-130	
Ed5-NEtPFOSA	65642.6	13C2-PFDA	315883.6	0.208	5.000	4.902	98	70-130	
E13C2-PFTeDA	545906.7	13C2-PFDA	315883.6	1.728	5.000	4.871	97	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

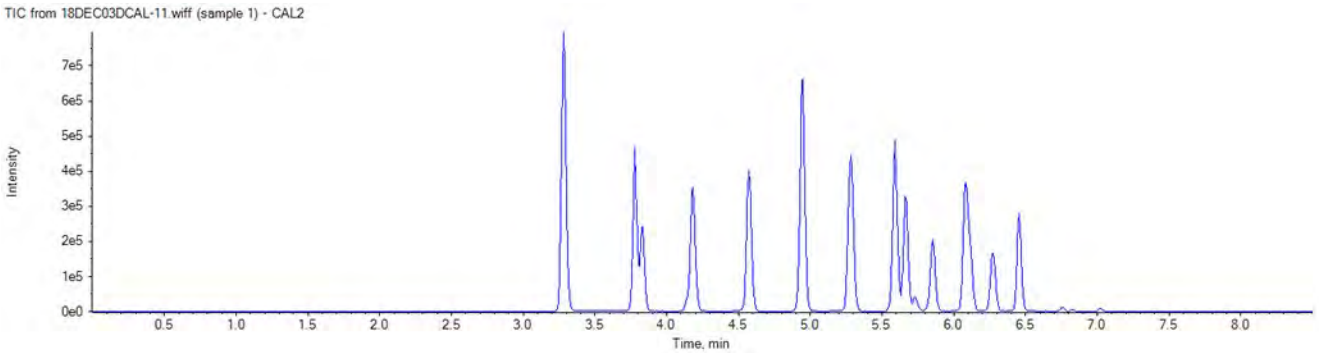
Analyte Quantitation Peak Table

Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-11.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	93414.9		A	13C4-PFBA	3.28	896237.4	0.104	0.590
PFPeA	3.78	1.000	90936.6		A	13C5-PFPeA	3.78	818486.3	0.111	0.556
PFBS	3.83	1.000	46674.9		A	13C3-PFBS	3.83	449557.2	0.104	0.506
4:2-FTS	4.14	1.000	10049.0		A	13C2-4:2-FTS	4.15	49932.0	0.201	0.508
PFHxA	4.18	1.000	91445.0		A	13C5-PFHxA	4.18	686196.5	0.133	0.568
PFPeS	4.20	1.100	22968.3		A	13C3-PFBS	3.83	449557.2	0.051	0.490
PFHpA	4.57	1.000	88145.9		A	13C4-PFHpA	4.57	498839.8	0.177	0.570
PFHxS	4.58	1.000	33871.1		M	13C3-PFHxS	4.57	342827.5	0.099	0.465
6:2-FTS	4.94	1.000	7601.9		A	13C2-6:2-FTS	4.93	31094.9	0.244	0.593
PFHpS	4.94	1.080	32927.2		A	13C3-PFHxS	4.57	342827.5	0.096	0.500
PFOA	4.95	1.000	95961.5		A	13C8-PFOA	4.94	889501.7	0.108	0.571
PFOS	5.27	1.000	34329.4		M	13C8-PFOS	5.27	304154.5	0.113	0.478
PFNA	5.29	1.000	83632.5		A	13C9-PFNA	5.29	503052.3	0.166	0.623
PFNS	5.57	1.060	22324.7		A	13C8-PFOS	5.27	304154.5	0.073	0.495
PFDA	5.59	1.000	70550.6		A	13C6-PFDA	5.59	633130.8	0.111	0.611
8:2-FTS	5.60	1.000	6117.9		A	13C2-8:2-FTS	5.59	24625.6	0.248	0.534
PFOSA	5.67	1.000	69184.7		A	13C8-PFOSA	5.67	682781.7	0.101	0.531
NMeFOSAA	5.73	1.000	7293.8		M	d3-NMeFOSAA	5.73	88184.1	0.083	0.547
PFDS	5.83	1.100	16541.6		A	13C8-PFOS	5.27	304154.5	0.054	0.466
PFUnDA	5.85	1.000	60645.0		A	13C7-PFUnDA	5.85	330222.5	0.184	0.559
NEtFOSAA	5.87	1.000	7730.5		M	d5-NEtFOSAA	5.86	69763.7	0.111	0.560
PFDoDA	6.08	1.000	75946.0		A	13C2-PFDoDA	6.08	741533.3	0.102	0.584
10:2-FTS	6.10	1.090	4025.6		A	13C2-8:2-FTS	5.59	24625.6	0.163	0.407
NMePFOSAE	6.12	1.000	34473.1		A	d7-NMePFOSAE	6.11	284329.1	0.121	0.513
NMePFOSA	6.13	1.000	8193.4		A	d3-NMePFOSA	6.12	82853.6	0.099	0.521
PFDoS	6.25	1.190	9479.5		A	13C8-PFOS	5.27	304154.5	0.031	0.488
NEtPFOSAE	6.28	1.000	39835.6		A	d9-NEtPFOSAE	6.27	236484.5	0.168	0.580
NEtPFOSA	6.29	1.000	7312.4		A	d5-NEtPFOSA	6.28	65642.6	0.111	0.518
PFTrDA	6.28	1.030	72921.7		A	13C2-PFDoDA	6.08	741533.3	0.098	0.579
PFTeDA	6.45	1.000	52987.6		A	13C2-PFTeDA	6.46	545906.7	0.097	0.575
PFHxDA	6.76	1.050	25463.7		A	13C2-PFTeDA	6.46	545906.7	0.047	0.599
PFODA	7.02	1.090	18773.0		A	13C2-PFTeDA	6.46	545906.7	0.034	0.546

Total Ion Chromatogram

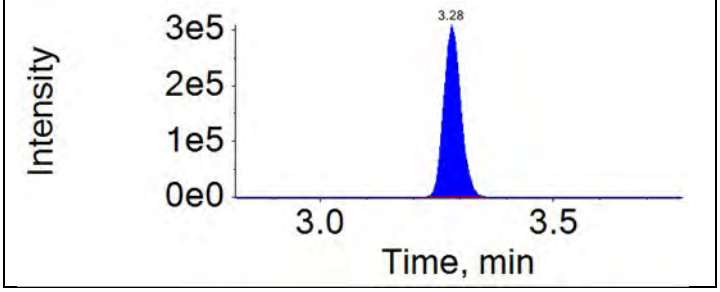


APPROVED
By MSM at 10:22 am, 12/4/18

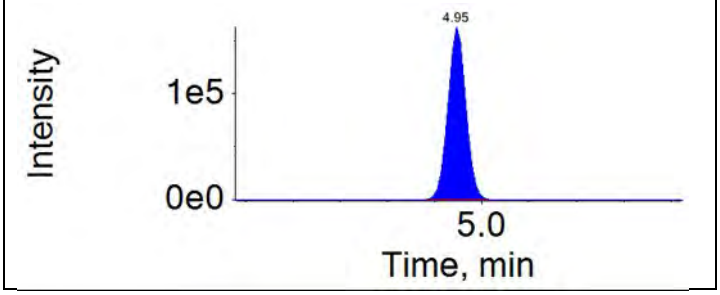
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

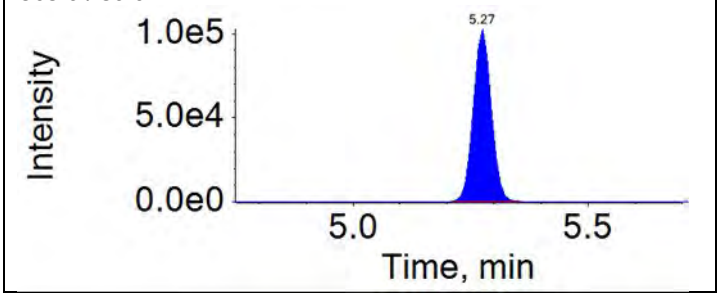
Injection Standard: 13C3-PFBA
216.0 / 172.0



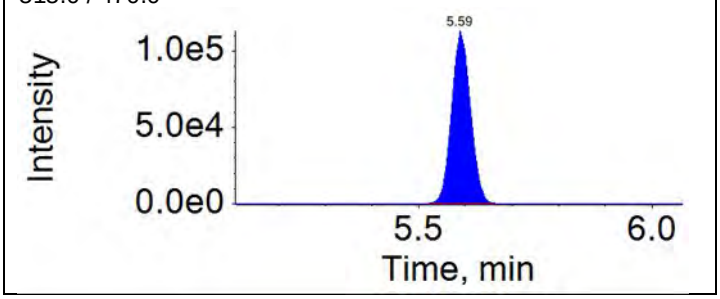
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

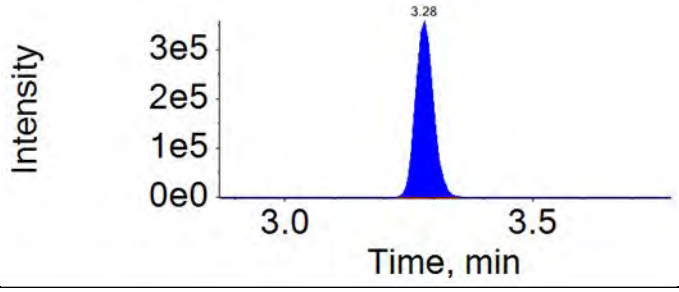


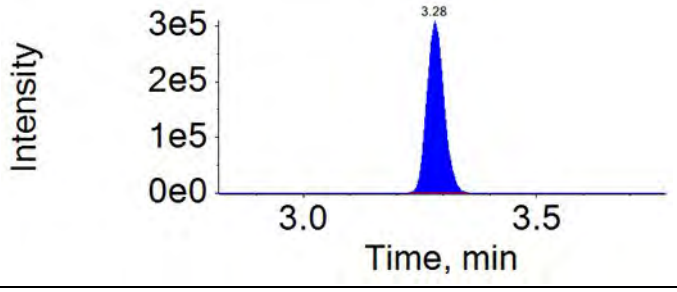
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

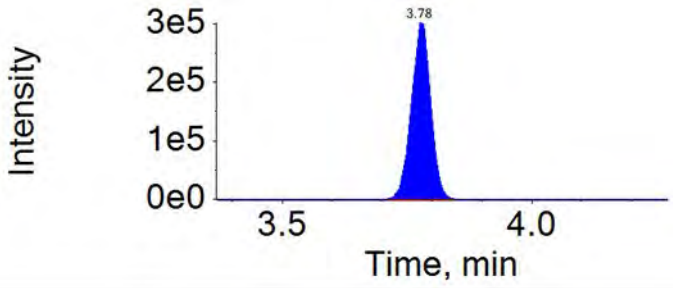
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

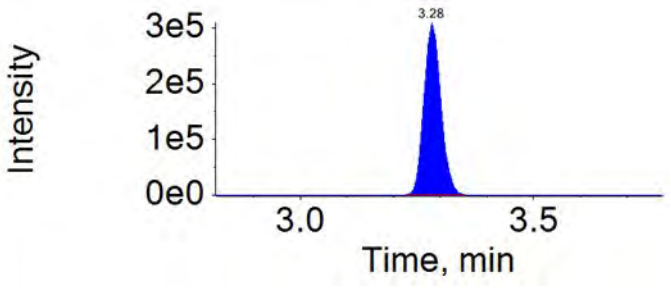
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



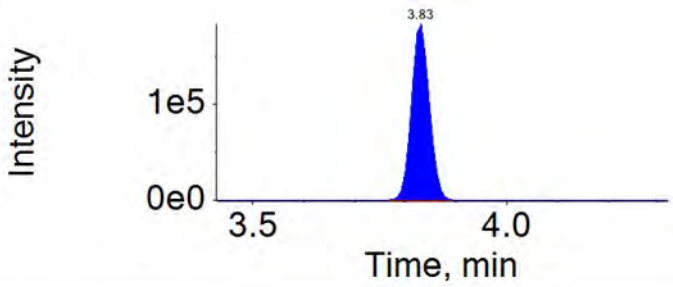


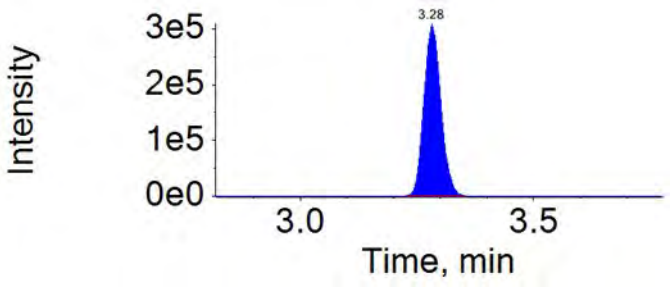
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



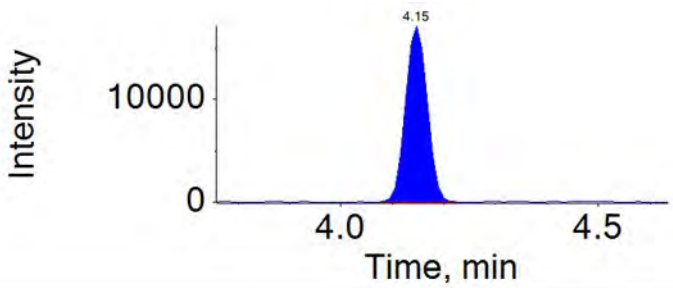


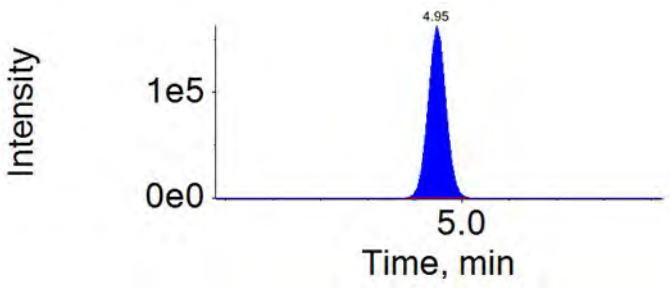
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



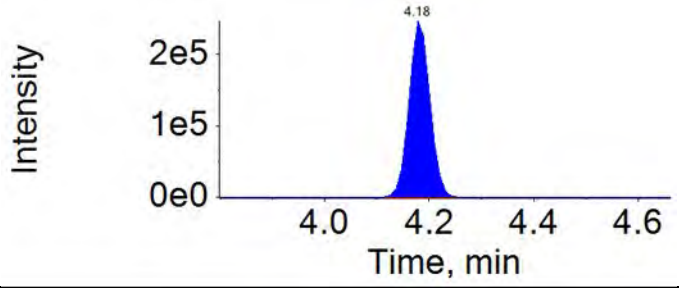


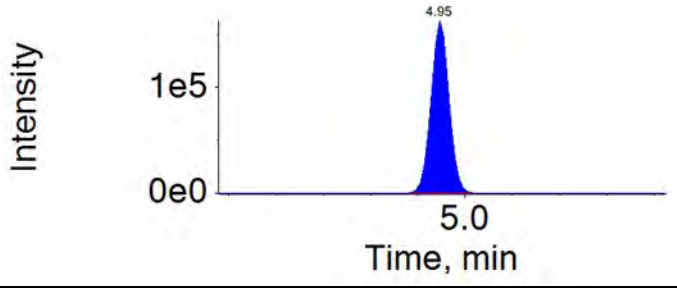
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

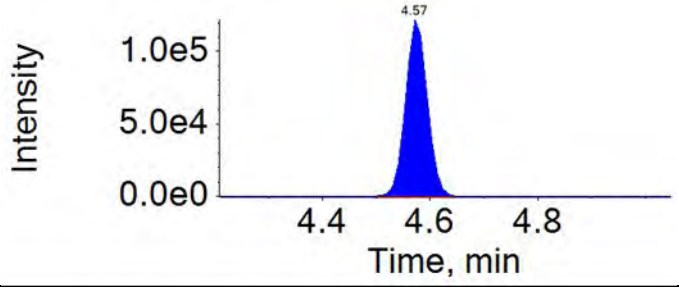
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

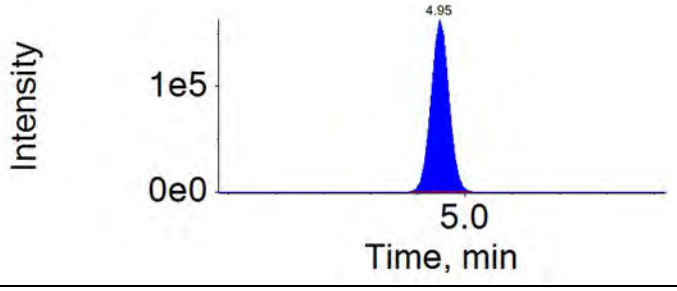
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



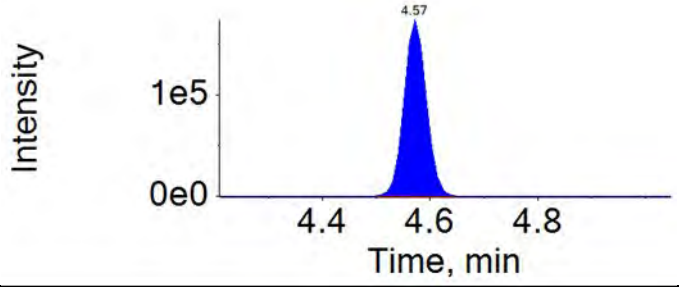


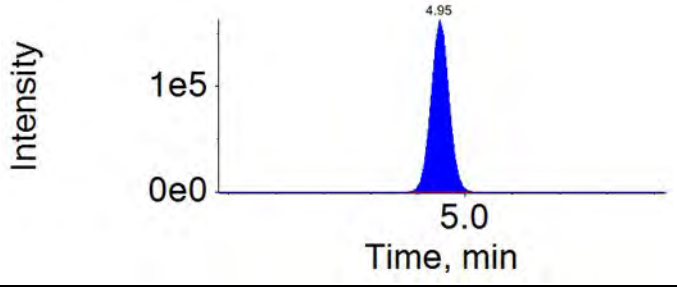
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



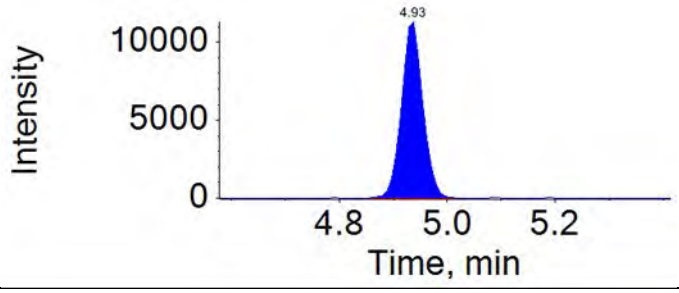


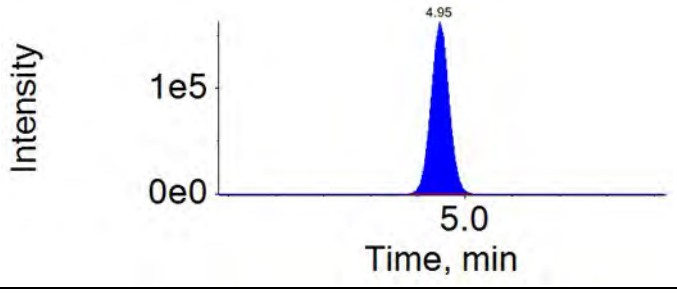
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



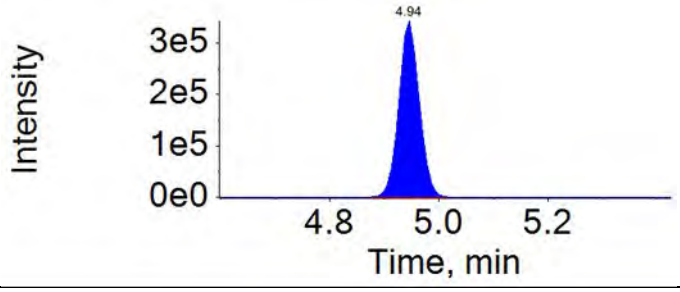


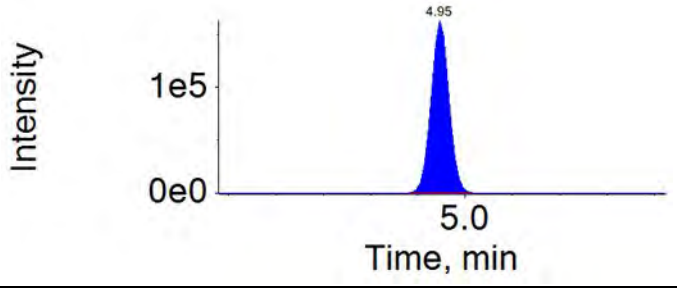
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

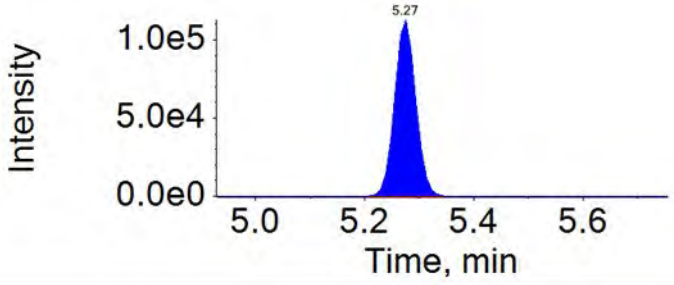
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

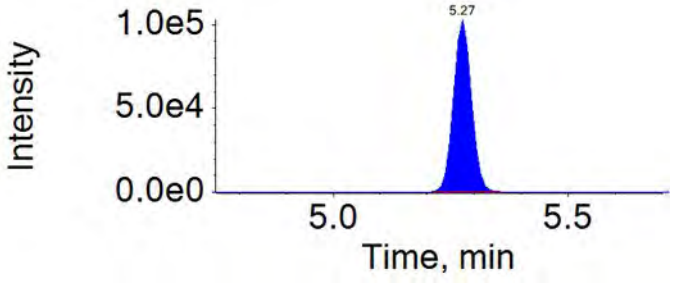
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



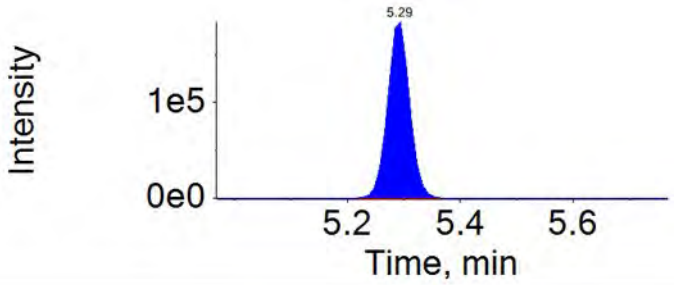


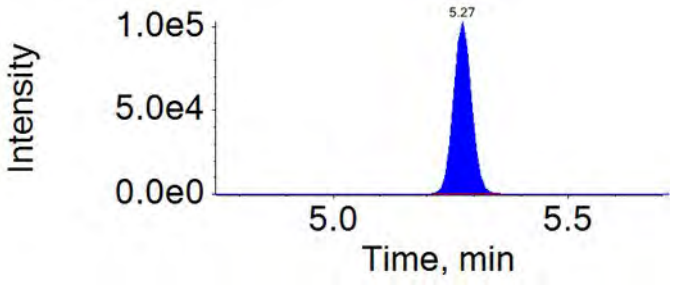
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



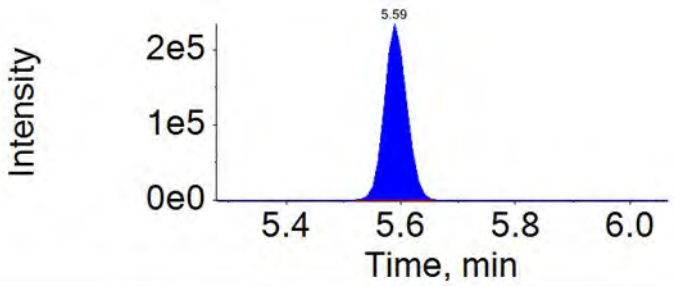


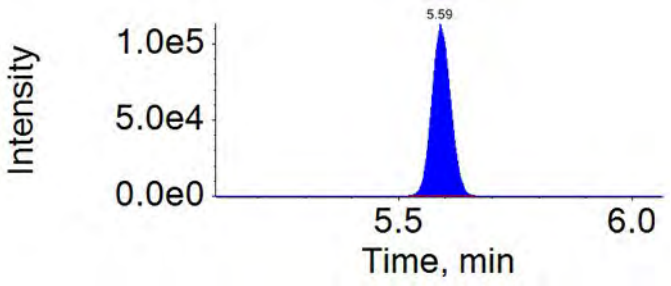
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





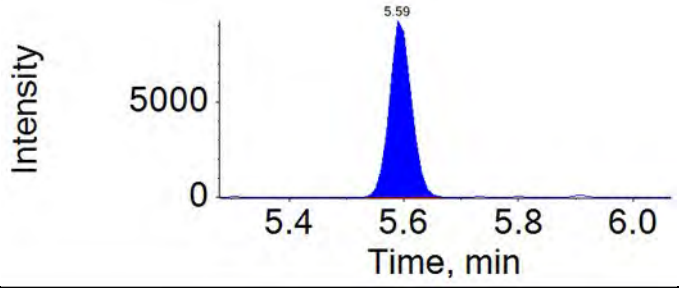
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

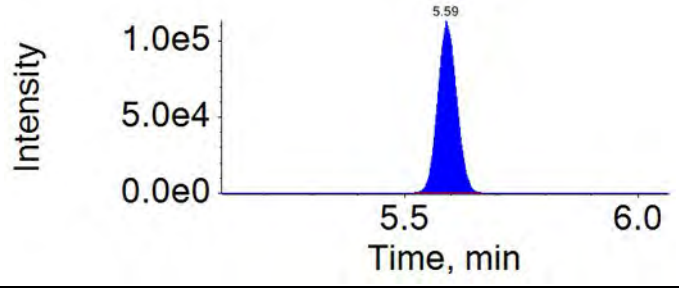




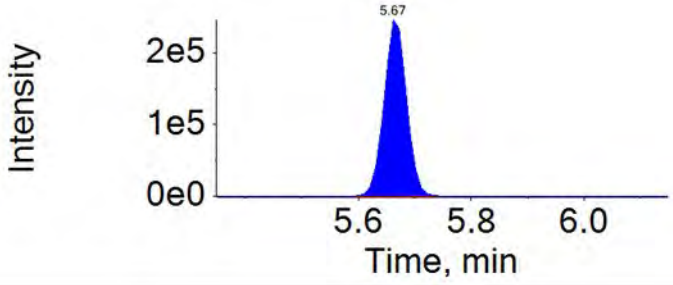
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

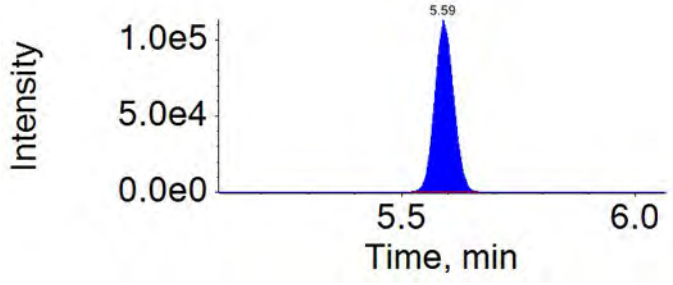
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



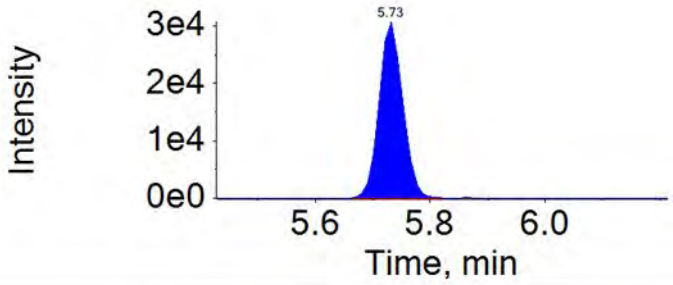


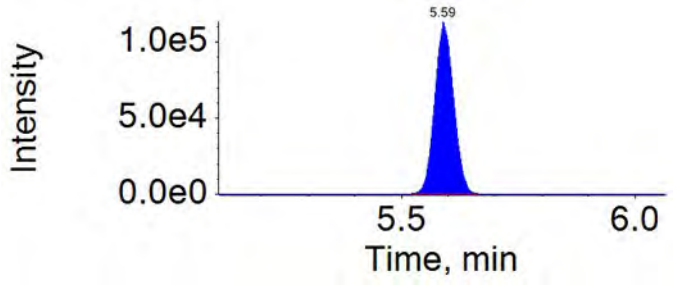
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



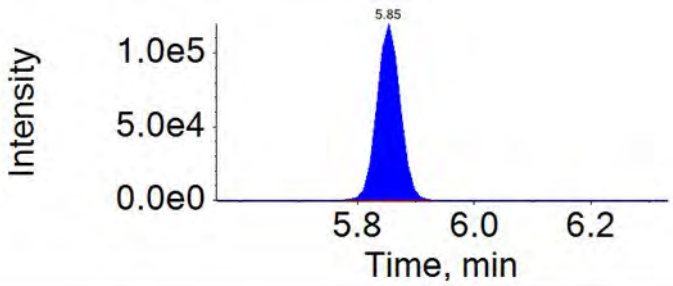


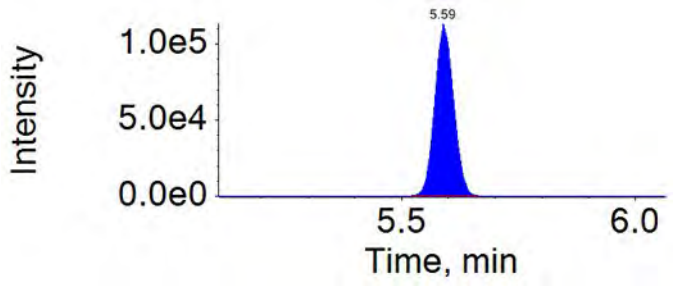
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



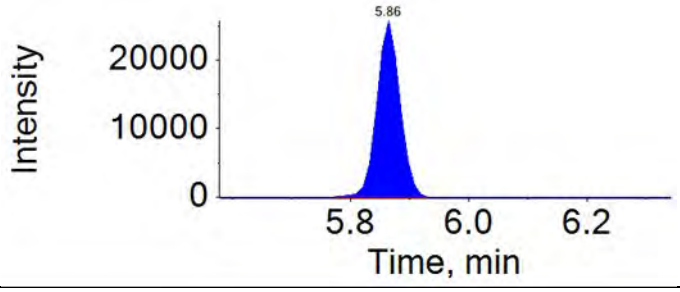
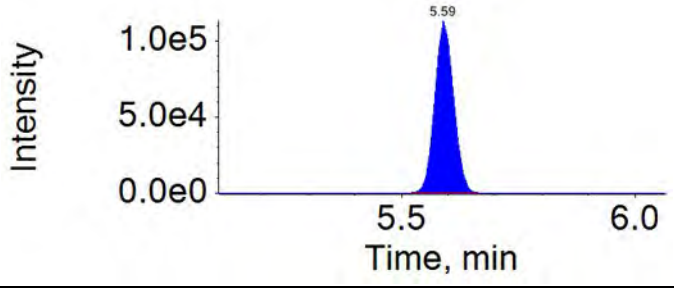


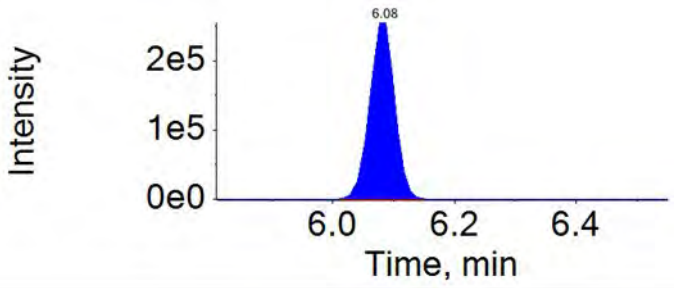
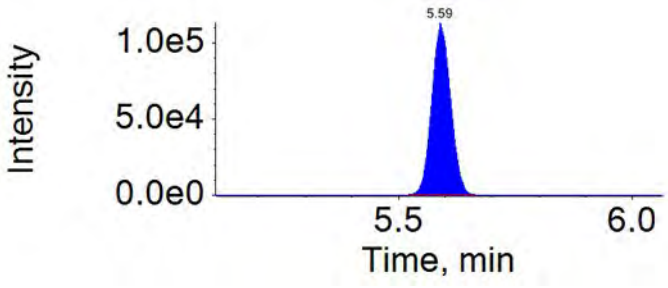
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

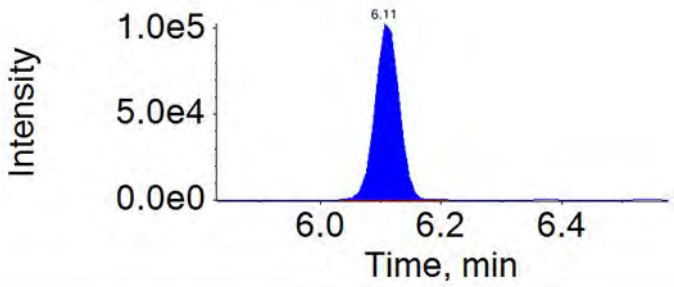
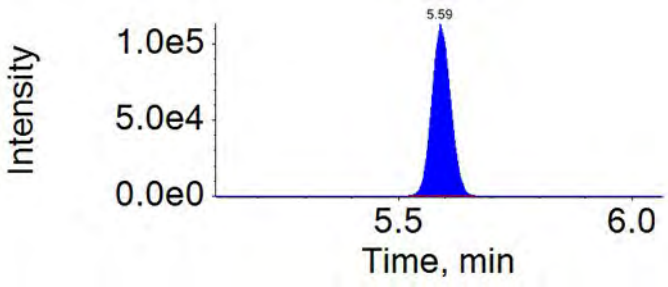


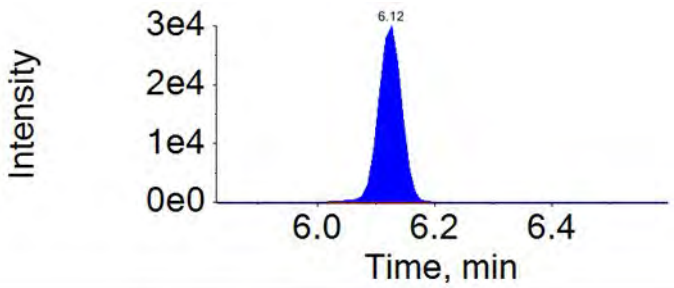
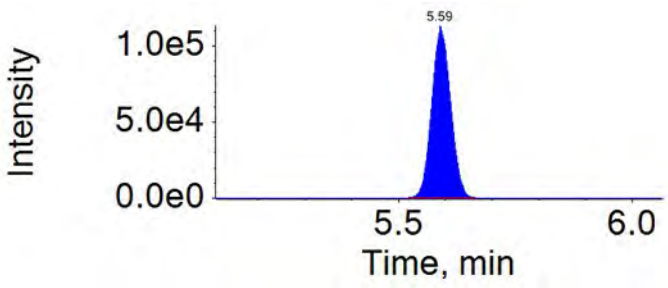


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

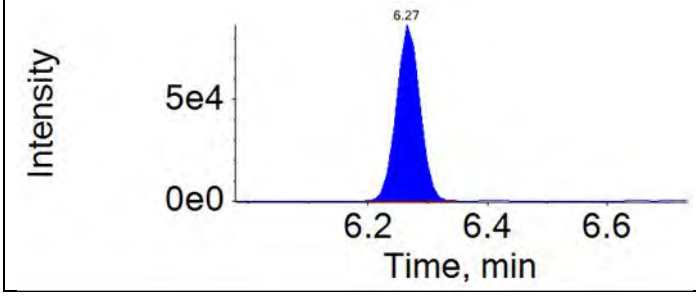
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

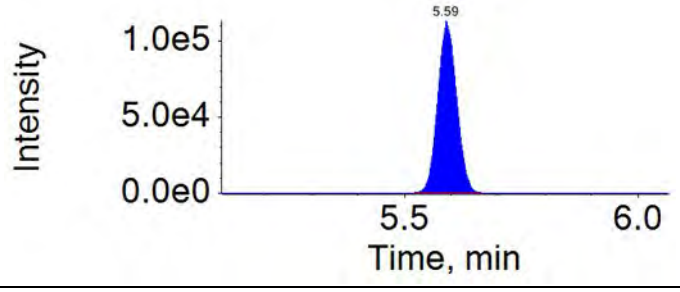
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

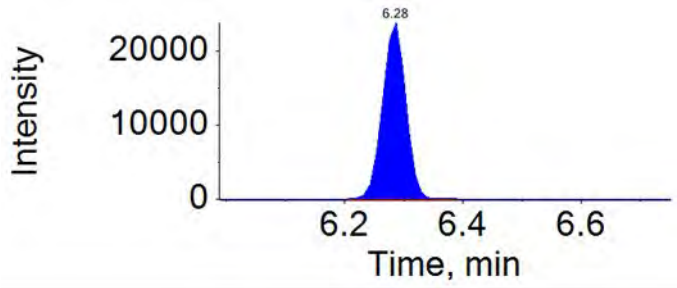
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

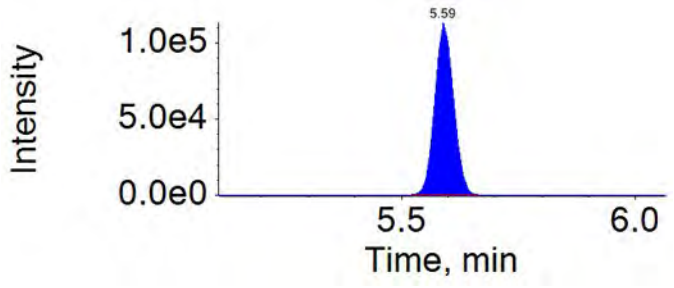
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



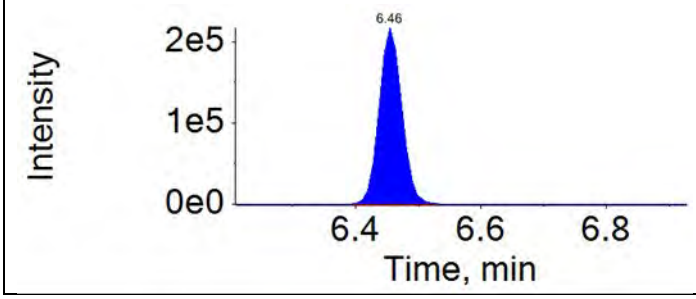


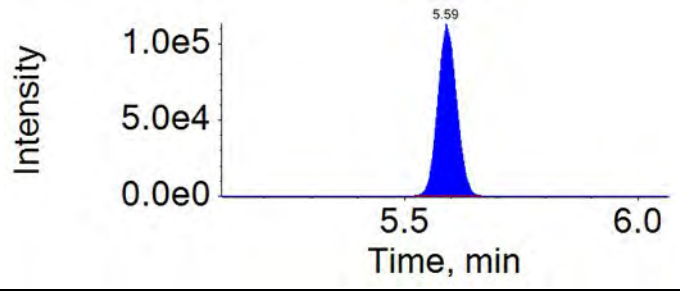
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



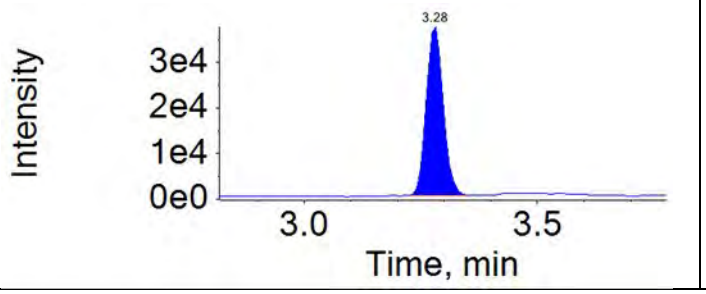


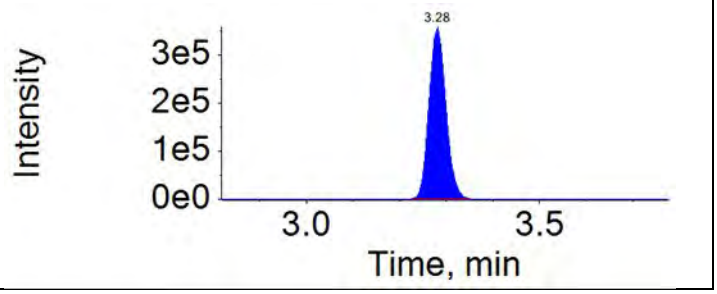
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

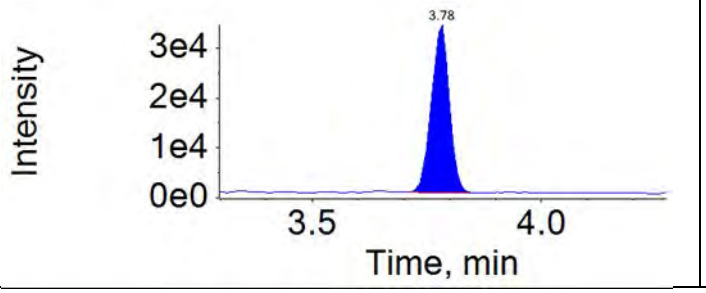
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

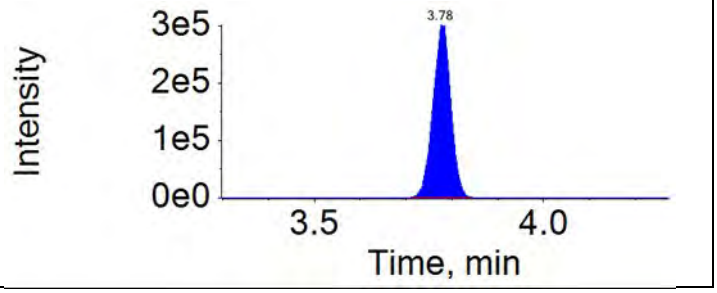
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



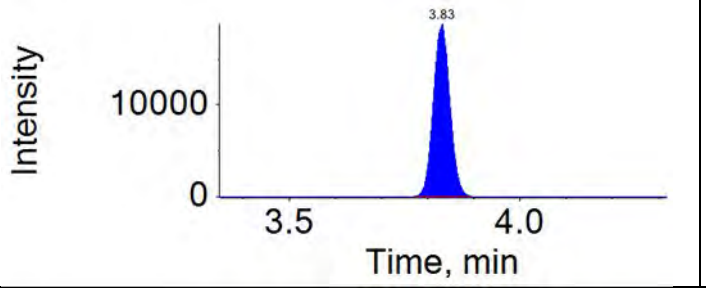


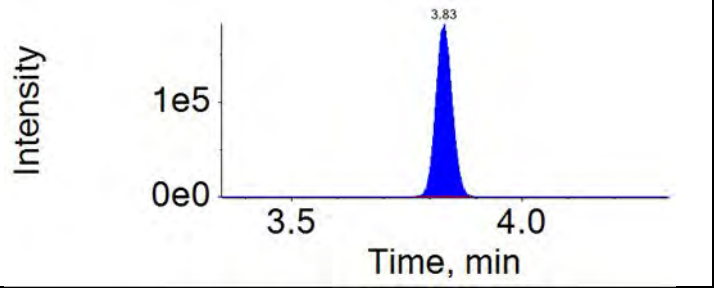
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



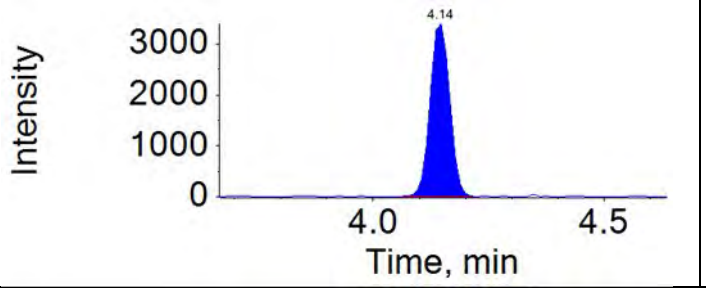


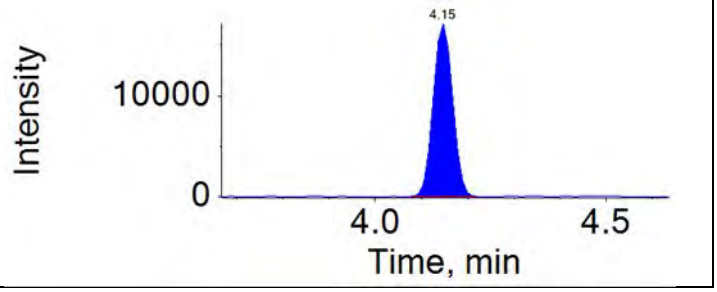
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



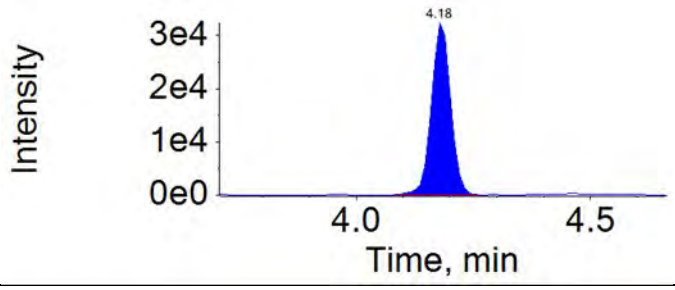


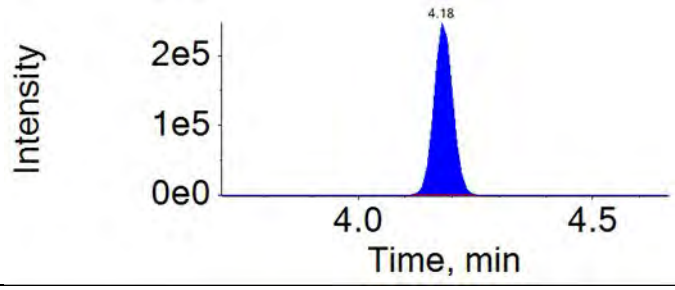
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

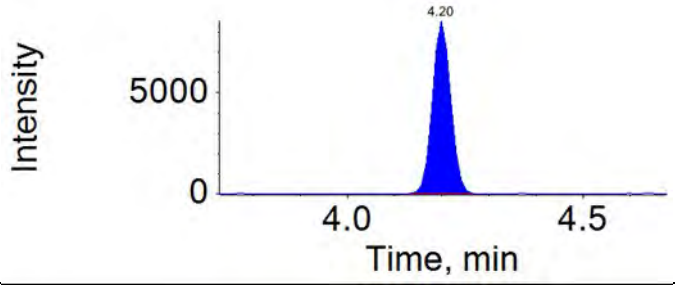
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

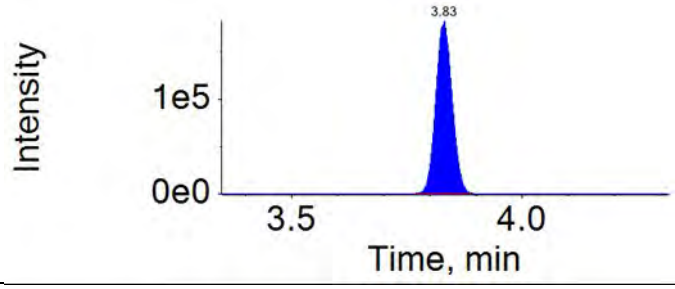
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



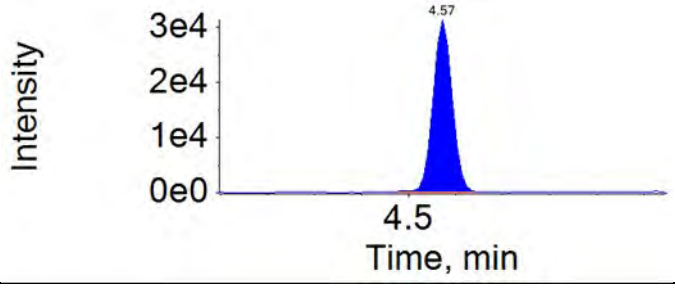


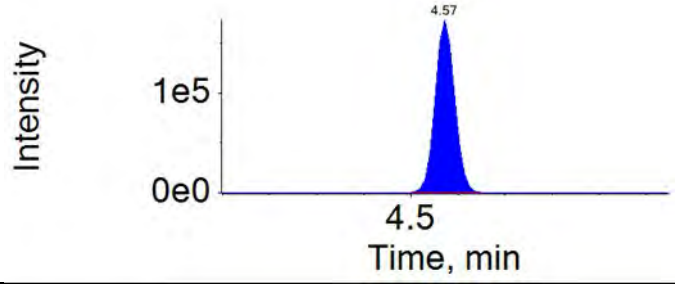
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



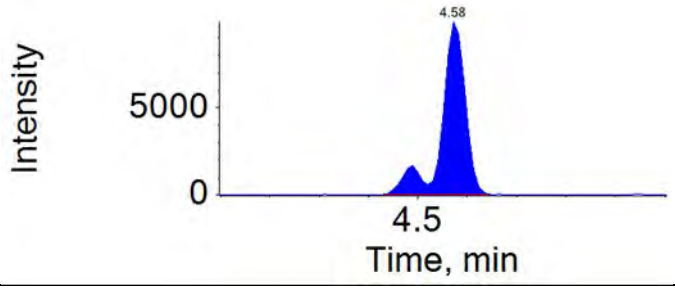


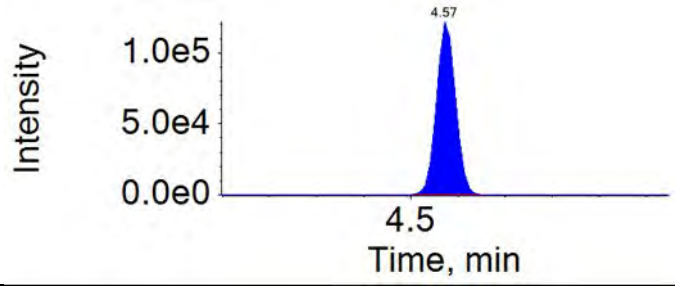
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



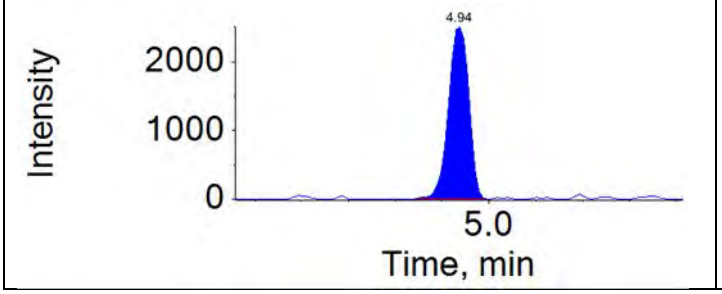


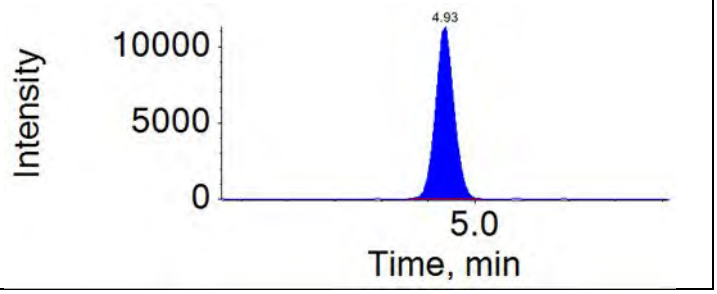
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

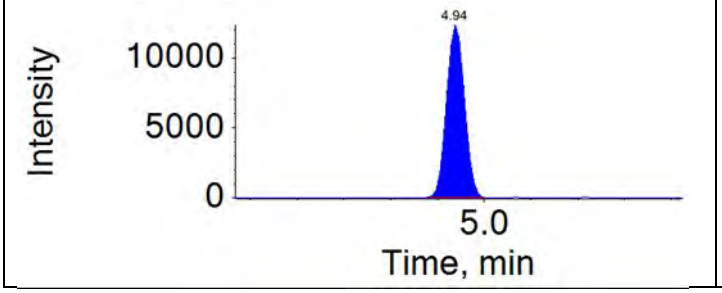
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

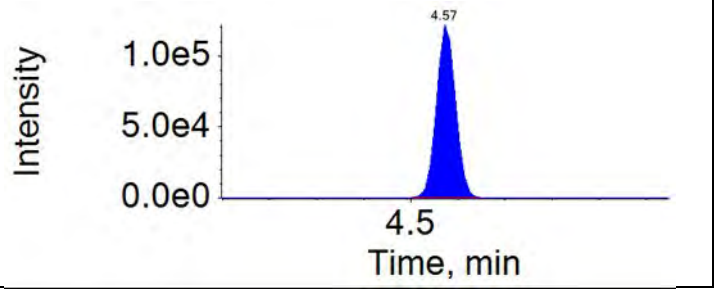
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



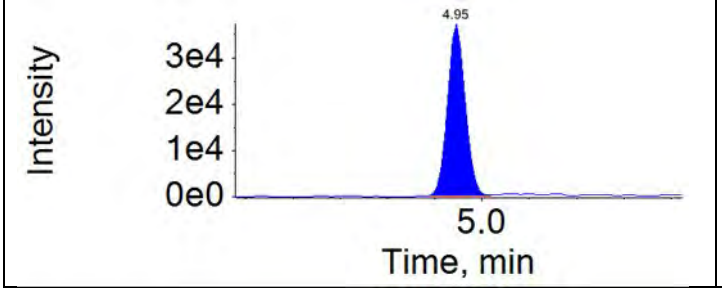


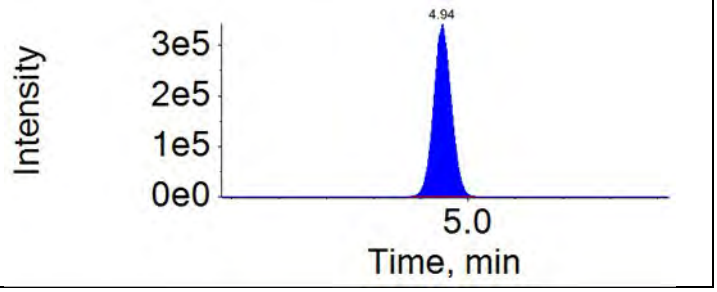
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



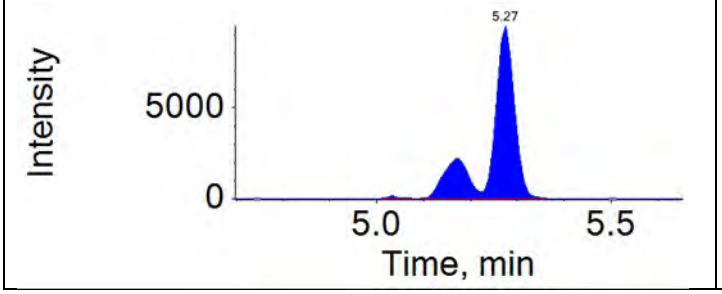


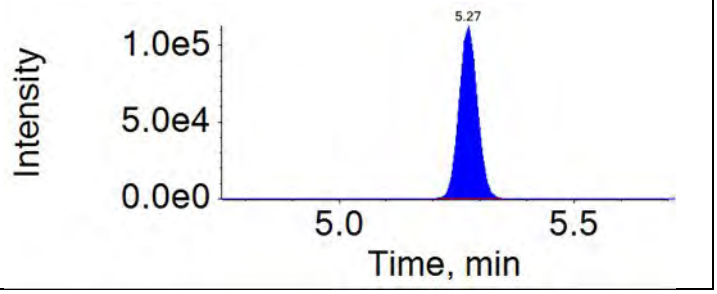
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





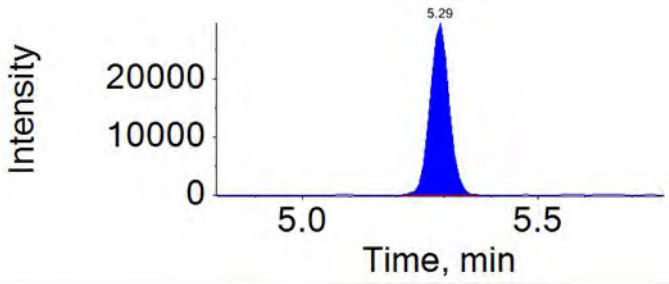
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

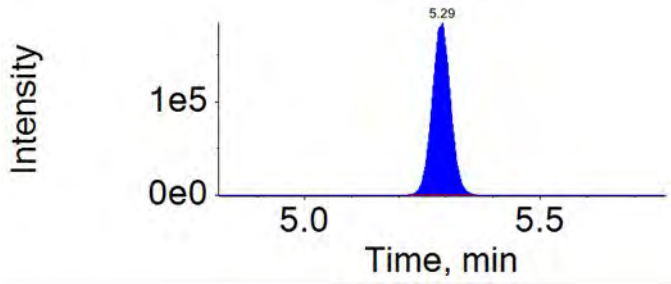




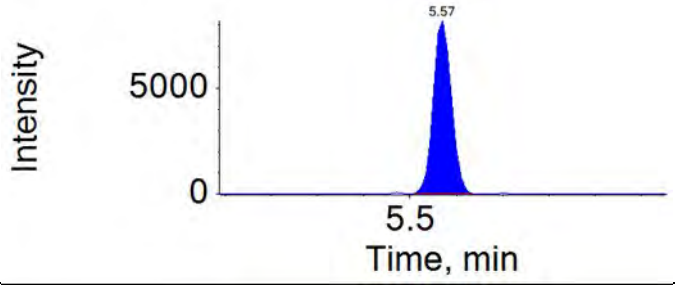
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

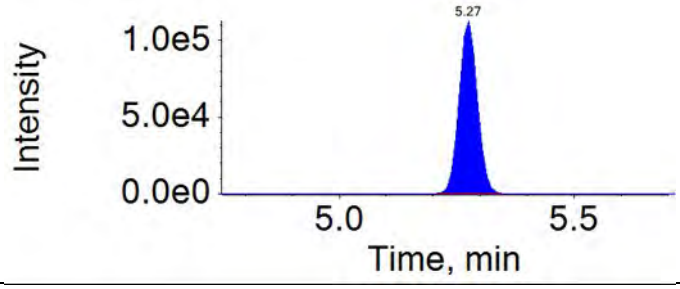
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



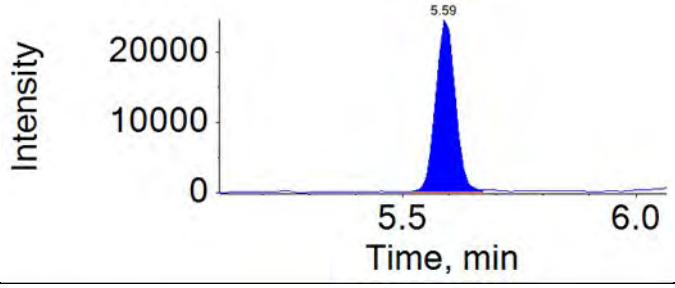


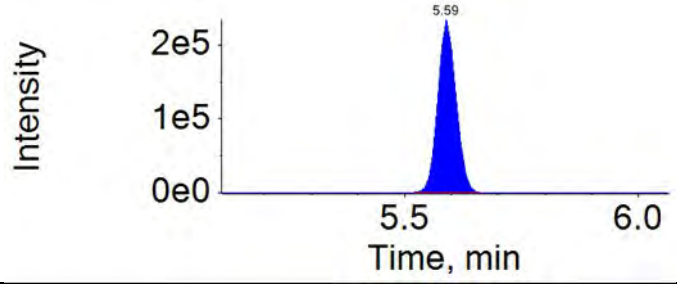
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



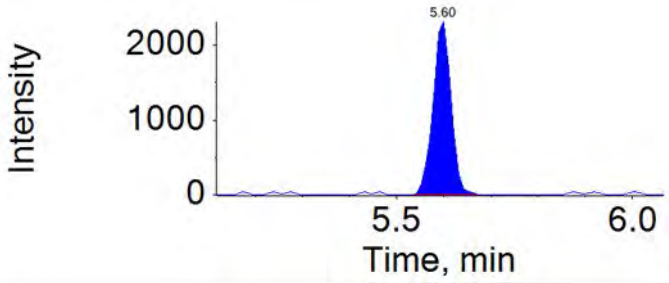


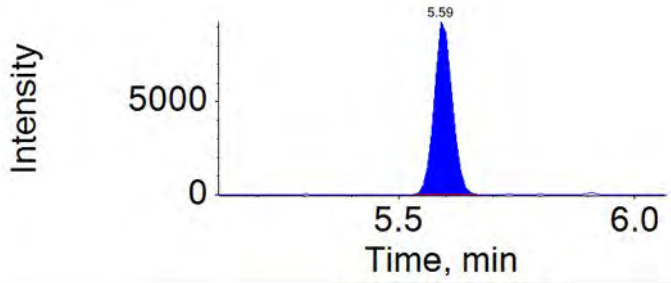
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



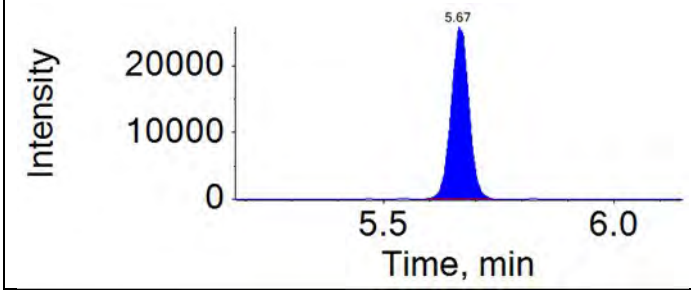


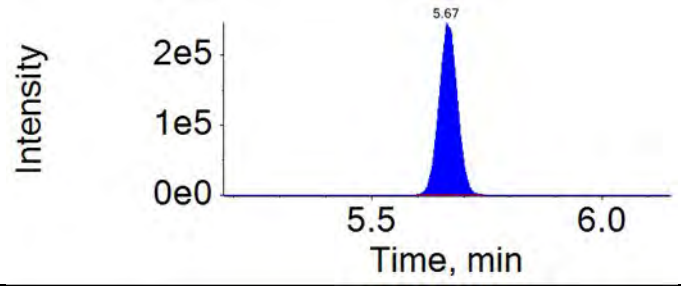
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

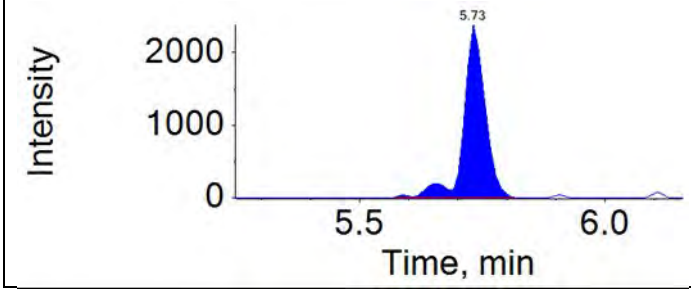
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

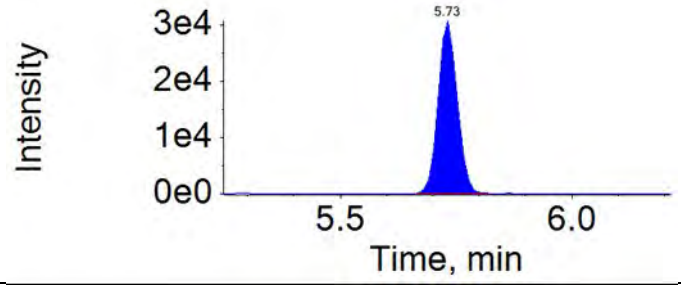
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



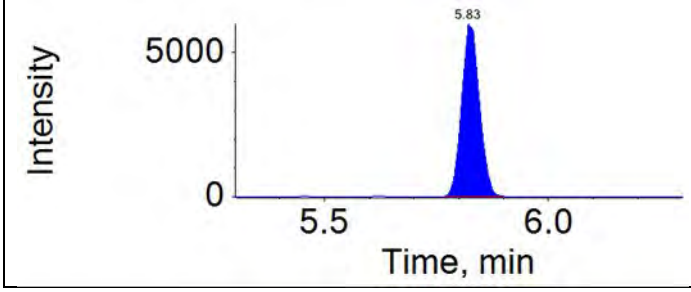


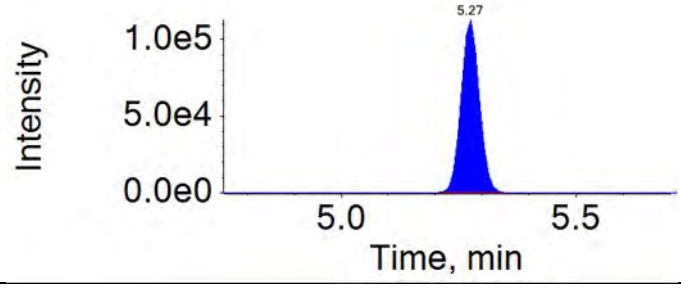
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



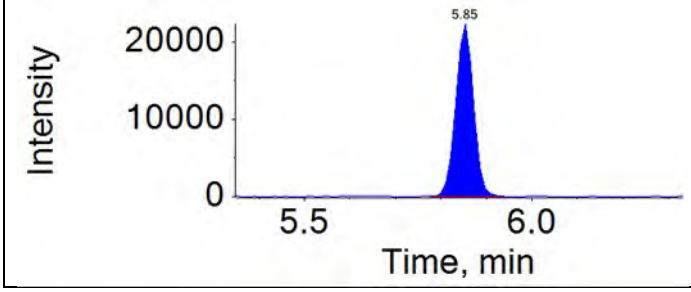


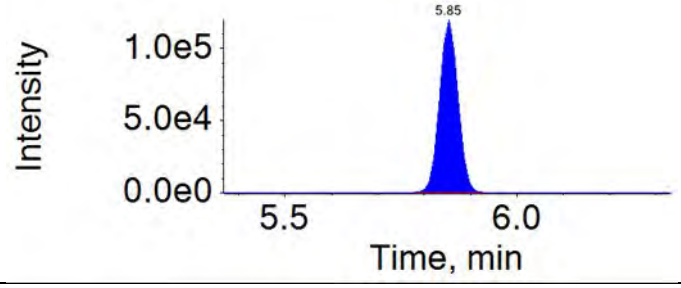
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



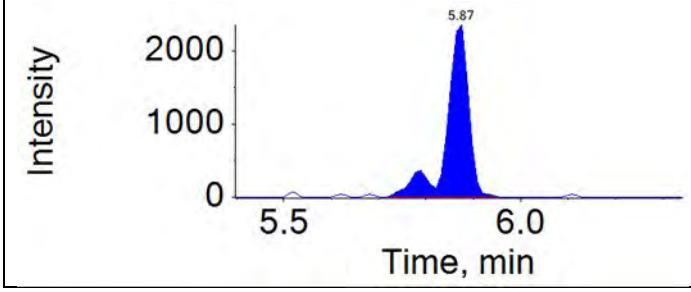


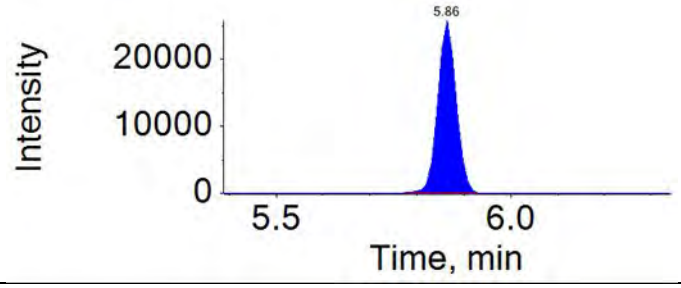
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

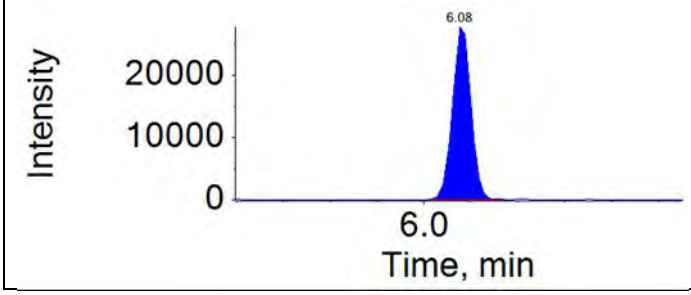
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

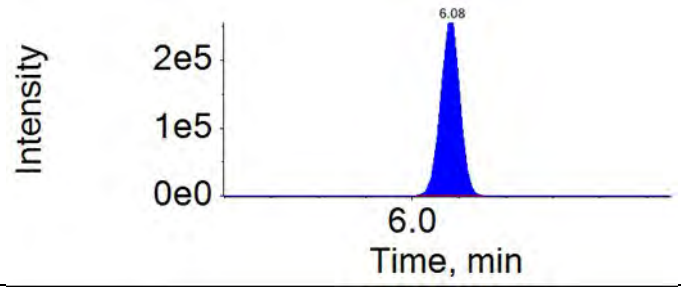
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



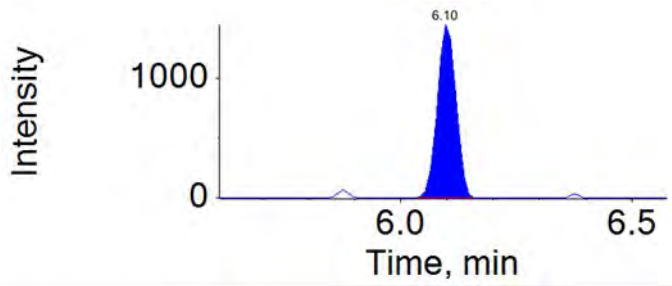


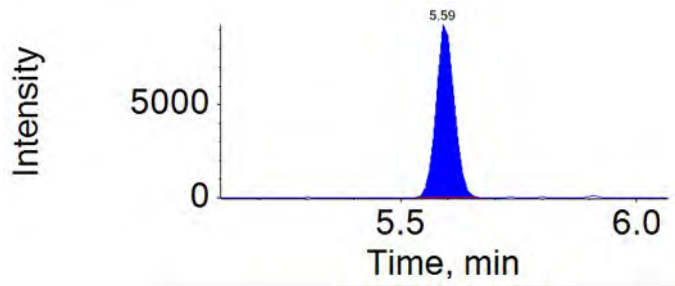
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



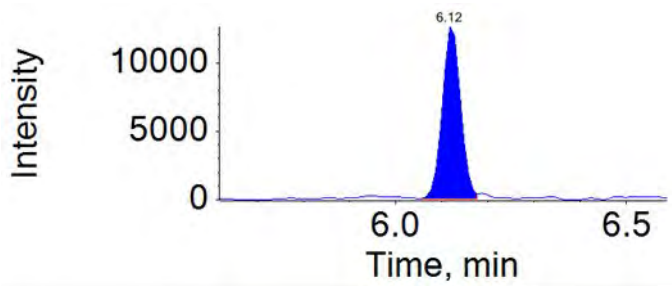


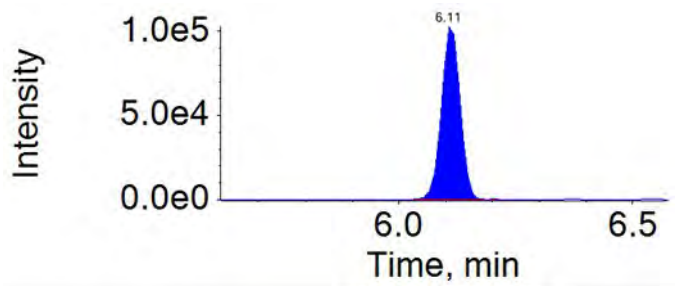
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



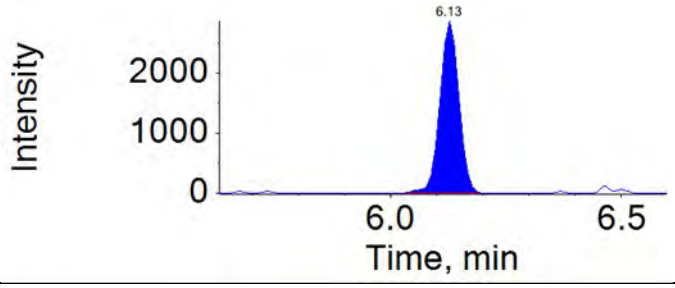


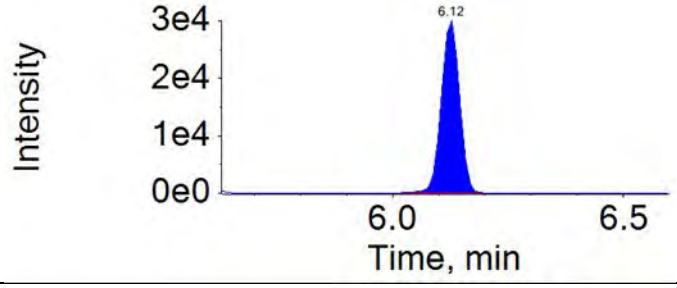
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

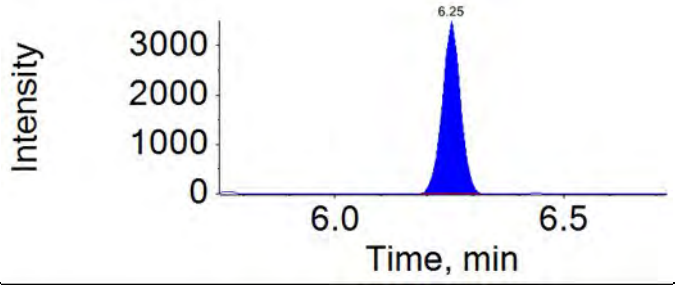
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

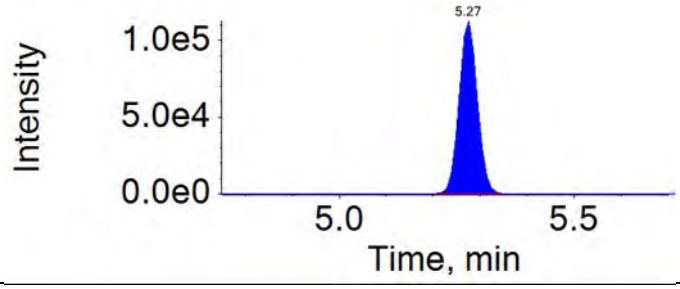
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



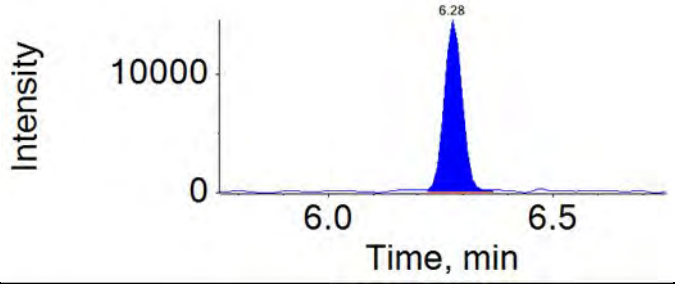


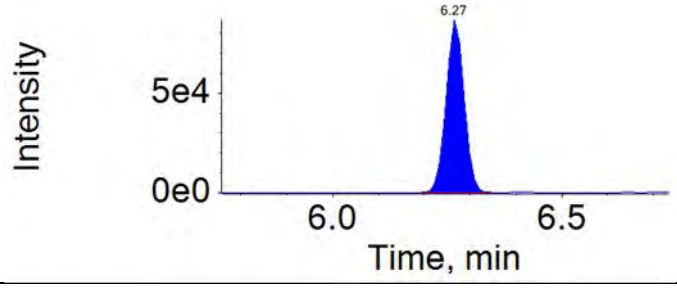
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



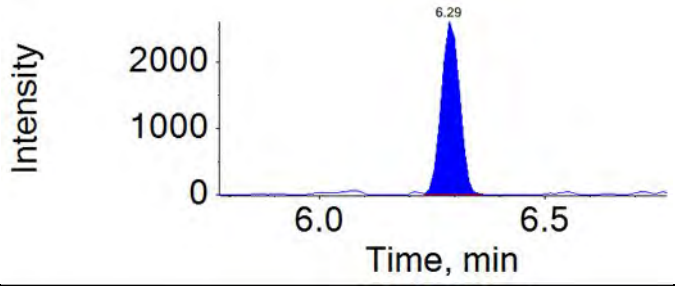


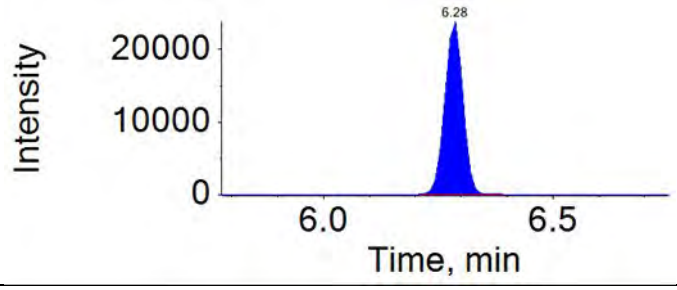
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

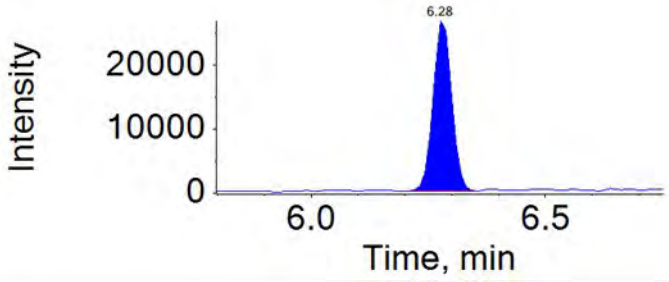
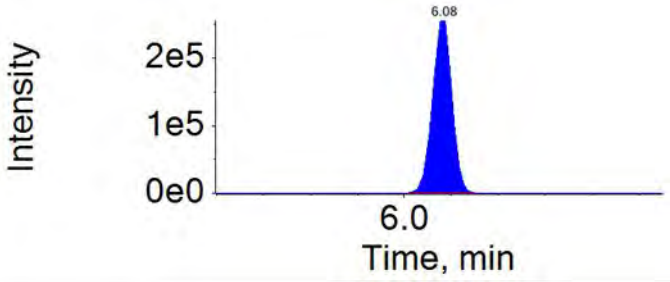


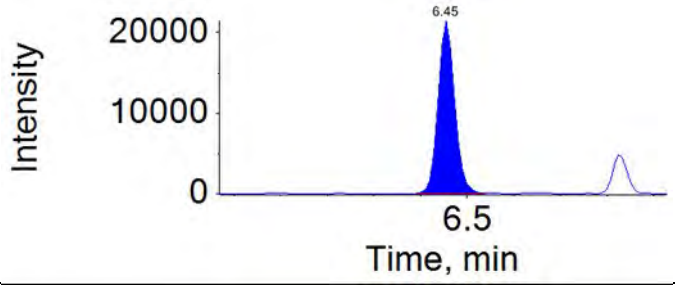
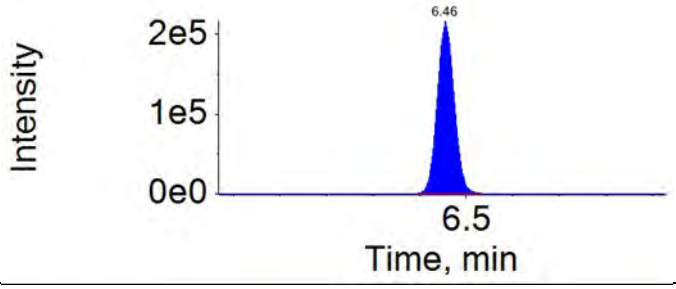


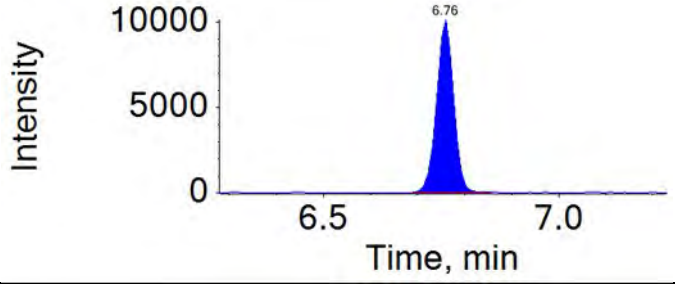
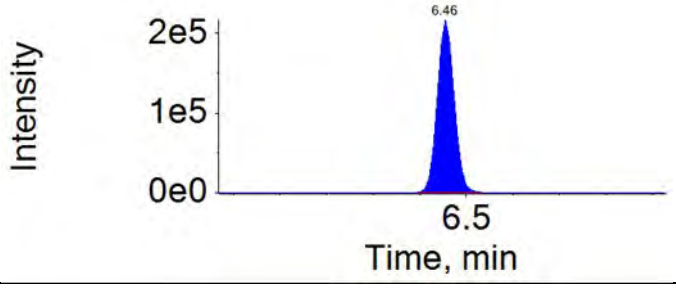
APPROVED
By MSM at 10:22 am, 12/4/18

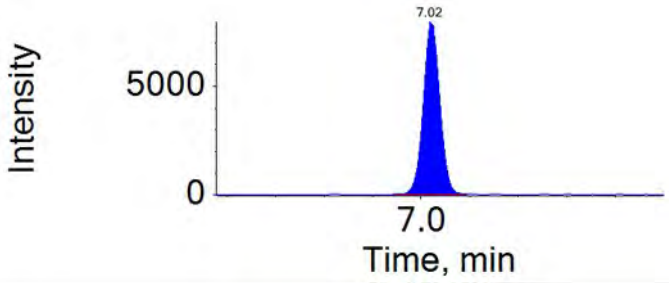
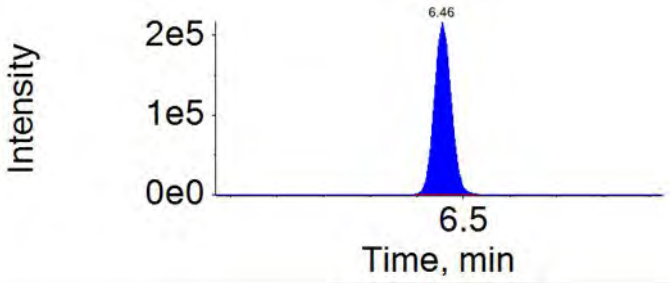
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

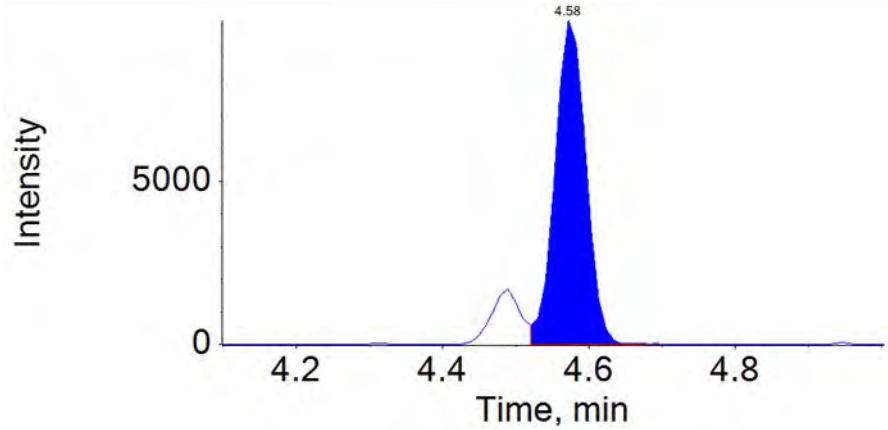
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

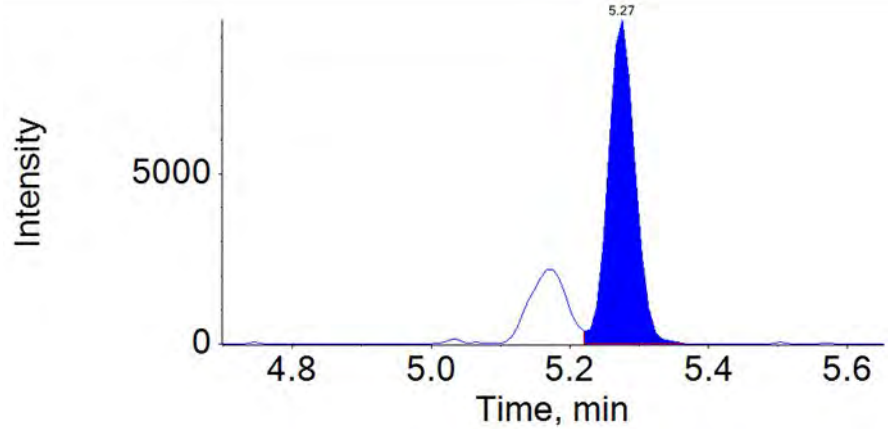
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.58
Peak Area:
29322.14
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



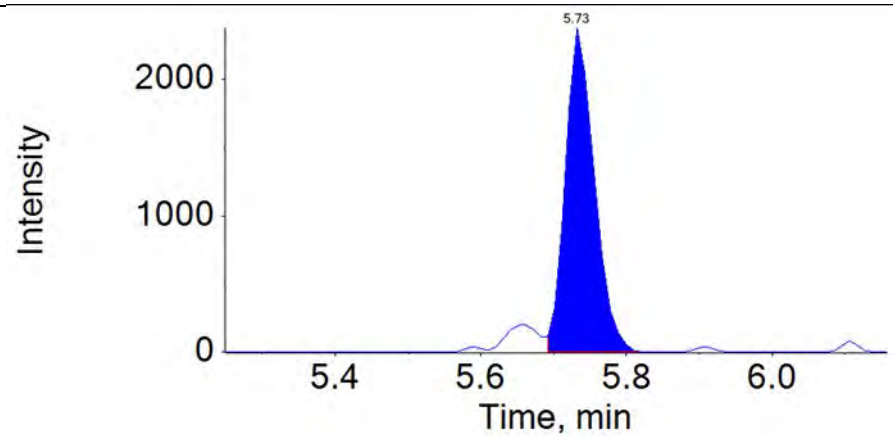
Integration Comment:

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
25631.82
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
6602.54
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



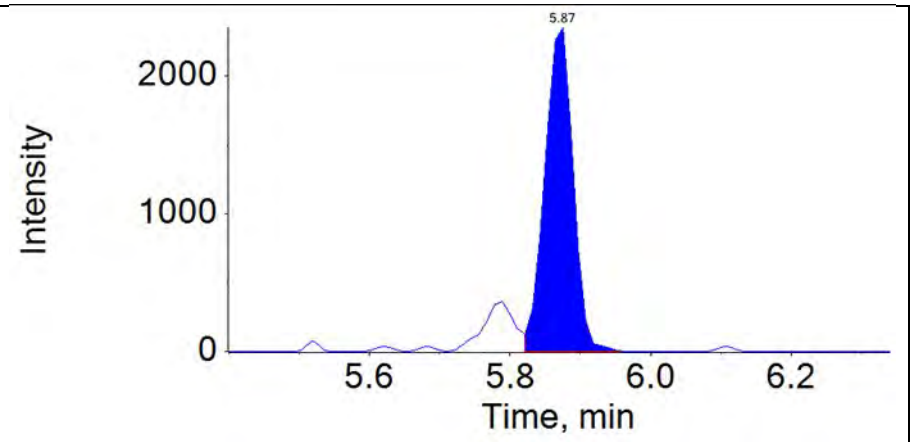
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

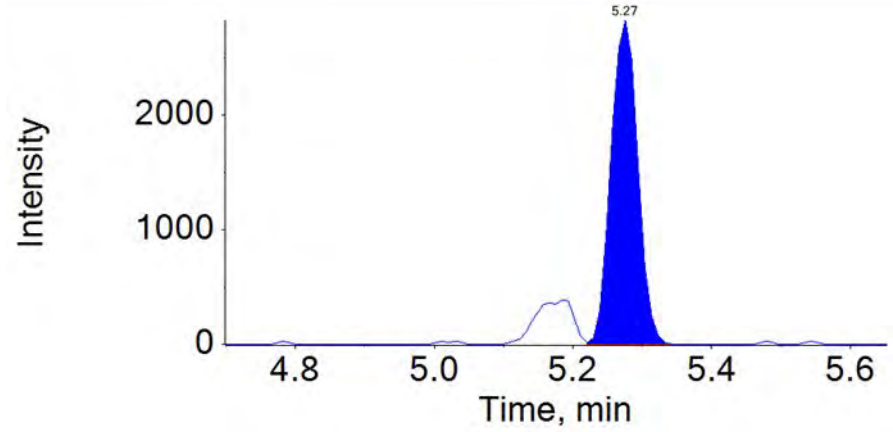
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.87
Peak Area:
6602.61
Mass Range:
584.0 / 419.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



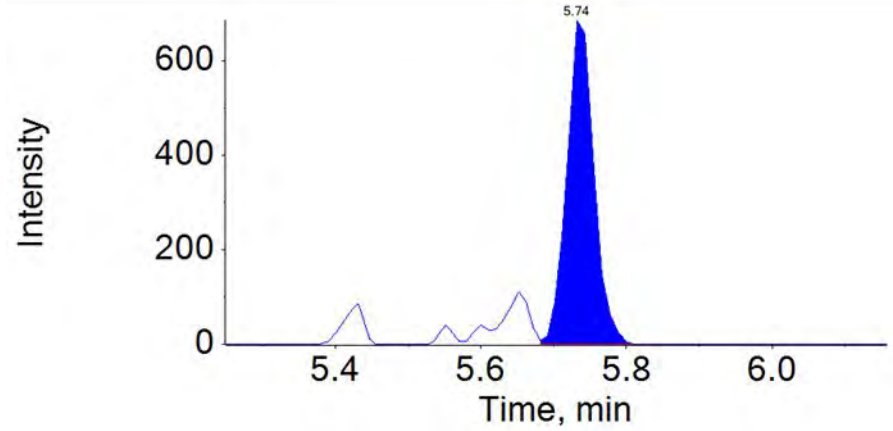
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
7604.25
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.74
Peak Area:
1789.97
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



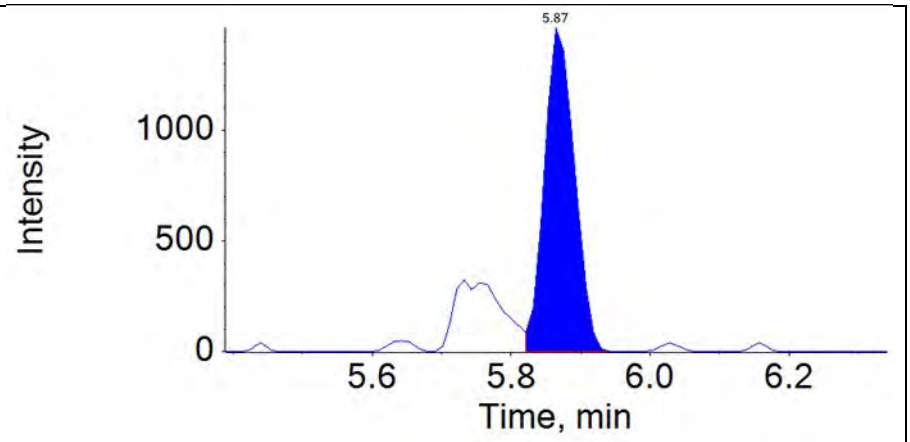
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

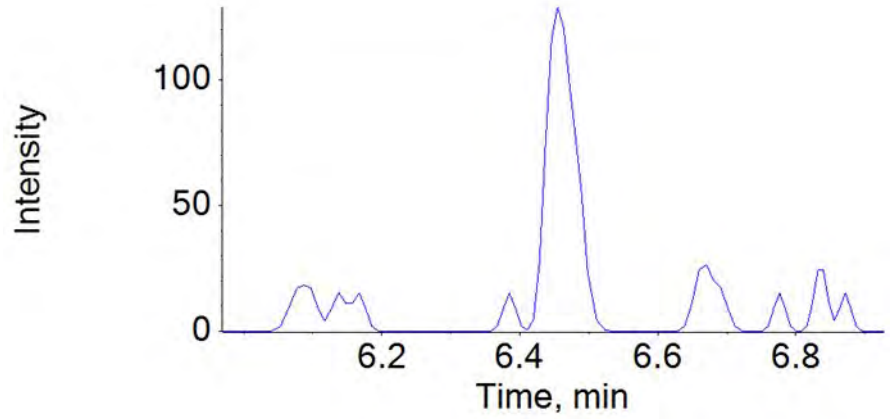
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.87
Peak Area:
4413.28
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18DEC03DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Ion Ratio Report

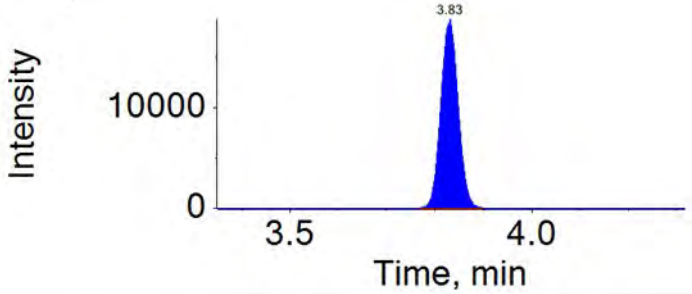
Sample Name: CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-11.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	46674.89	A	1.0000	1.0000			
PFBS_2	3.83	1.00	17512.37	A	0.3698	0.3752	1	50	
4:2-FTS	4.14	1.00	10049.01	A	1.0000	1.0000			
4:2-FTS_2	4.14	1.00	6301.05	A	0.6536	0.6270	-4	50	
PFHxA	4.18	1.00	91444.98	A	1.0000	1.0000			
PFHxA_2	4.19	1.00	975.03	A	0.0119	0.0107	-10	50	
PFPeS	4.20	1.10	22968.31	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	11095.66	A	0.5000	0.4831	-3	50	
PFHpA	4.57	1.00	88145.91	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	4299.04	A	0.0526	0.0488	-7	50	
PFHxS	4.58	1.00	33871.09	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	12792.78	A	0.3476	0.3777	9	50	
6:2-FTS	4.94	1.00	7601.89	A	1.0000	1.0000			
6:2-FTS_2	4.94	1.00	4874.41	A	0.6372	0.6412	1	50	
PFHpS	4.94	1.08	32927.20	A	1.0000	1.0000			
PFHpS_2	4.94	1.08	13328.16	A	0.3956	0.4048	2	50	
PFOA	4.95	1.00	95961.52	A	1.0000	1.0000			
PFOA_2	4.95	1.00	5805.62	A	0.0618	0.0605	-2	50	
PFOS	5.27	1.00	34329.42	M	1.0000	1.0000			
PFOS_2	5.27	1.00	9146.35	M	0.2940	0.2664	-9	50	
PFNA	5.29	1.00	83632.52	A	1.0000	1.0000			
PFNA_2	5.29	1.00	1707.39	A	0.0196	0.0204	4	50	
PFNS	5.57	1.06	22324.68	A	1.0000	1.0000			
PFNS_2	5.57	1.06	10413.79	A	0.4676	0.4665	0	50	
PFDA	5.59	1.00	70550.62	A	1.0000	1.0000			
PFDA_2	5.58	1.00	347.76	A	0.0073	0.0049	-32	50	
8:2-FTS	5.60	1.00	6117.93	A	1.0000	1.0000			
8:2-FTS_2	5.60	1.00	4548.54	A	0.6049	0.7435	23	50	
NMeFOSAA	5.73	1.00	7293.84	M	1.0000	1.0000			
NMeFOSAA_2	5.74	1.00	2097.92	M	0.2642	0.2876	9	50	
PFDS	5.83	1.10	16541.60	A	1.0000	1.0000			
PFDS_2	5.83	1.10	9938.41	A	0.4948	0.6008	21	50	
PFUnDA	5.85	1.00	60644.98	A	1.0000	1.0000			
PFUnDA_2	5.85	1.00	194.64	A	0.0046	0.0032	-30	50	
NEtFOSAA	5.87	1.00	7730.46	M	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	5970.57	M	0.7504	0.7723	3	50	
PFDoDA	6.08	1.00	75945.97	A	1.0000	1.0000			
PFDoDA_2	6.08	1.00	1269.16	A	0.0143	0.0167	17	50	
10:2-FTS	6.10	1.09	4025.58	A	1.0000	1.0000			
10:2-FTS_2	6.10	1.09	3606.97	A	0.7003	0.8960	28	50	
PFTrDA	6.28	1.03	72921.66	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	1018.33	A	0.0099	0.0140	41	50	
PFTeDA	6.45	1.00	52987.59	A	1.0000	1.0000			
PFTeDA_2	6.46	1.00	383.02	M	0.0057	0.0072	26	50	
PFHxDA	6.76	1.05	25463.71	A	1.0000	1.0000			
PFHxDA_2	6.76	1.05	1598.54	A	0.0617	0.0628	2	50	
PFODA	7.02	1.09	18773.02	A	1.0000	1.0000			
PFODA_2	7.02	1.09	497.80	A	0.0266	0.0265	0	50	

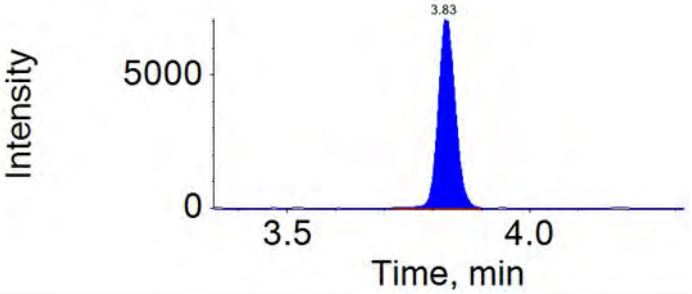
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

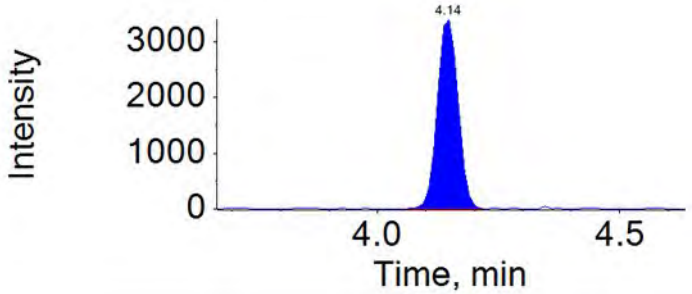
Component: PFBS
Primary Mass: 299.0 / 80.0



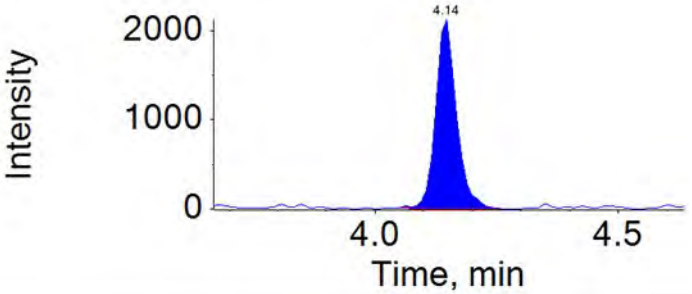
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



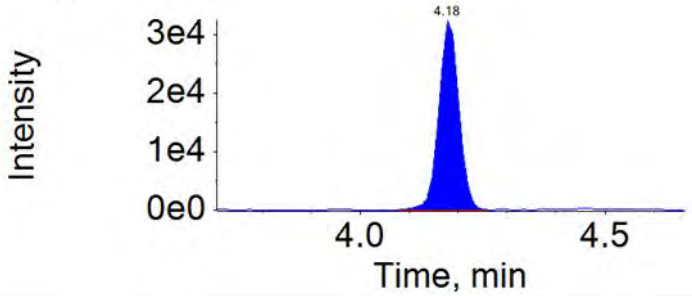
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



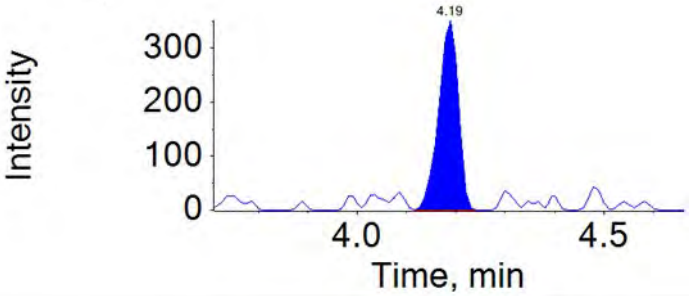
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



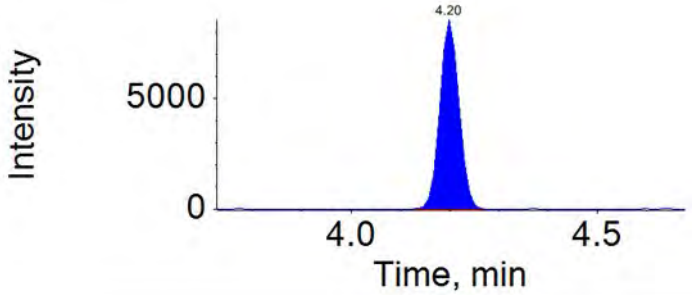
Component: PFHxA
Primary Mass: 313.0 / 269.0



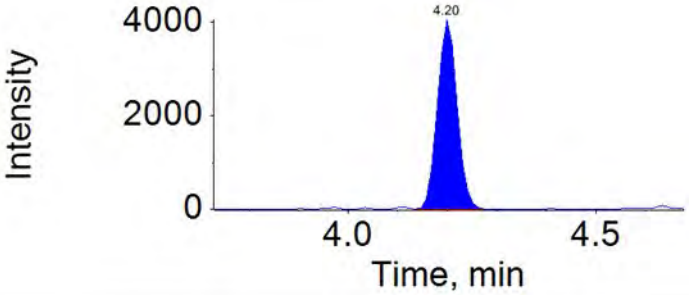
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



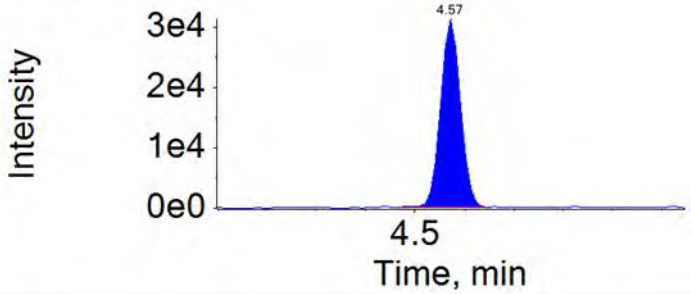
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



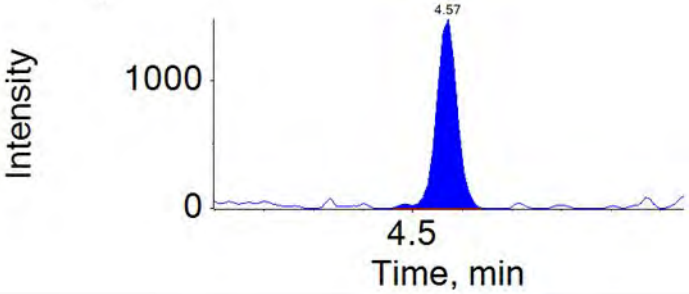
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

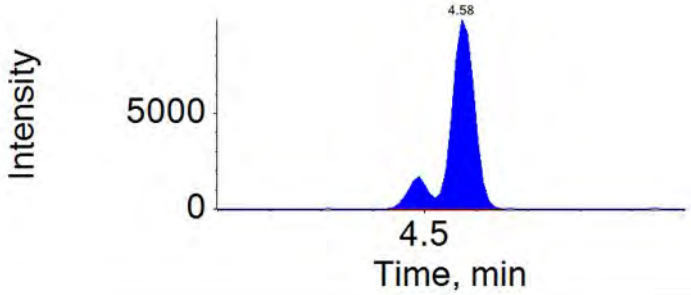
Component: PFHpA
Primary Mass: 363.0 / 319.0



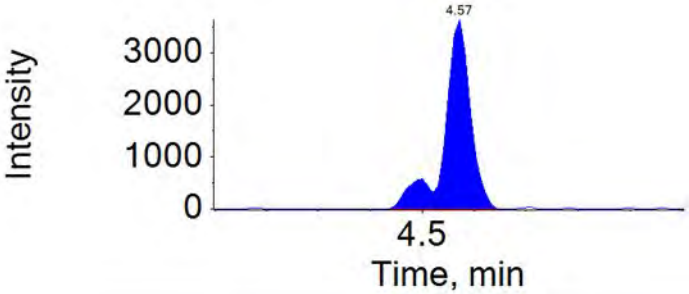
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



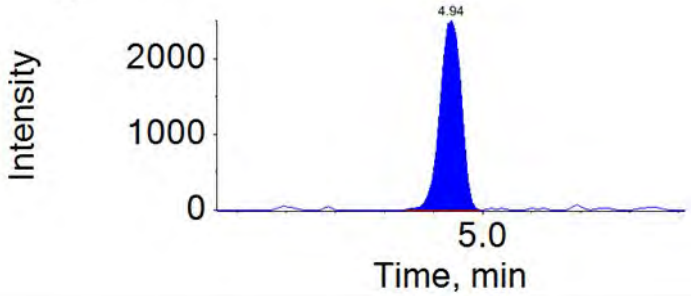
Component: PFHxS
Primary Mass: 399.0 / 80.0



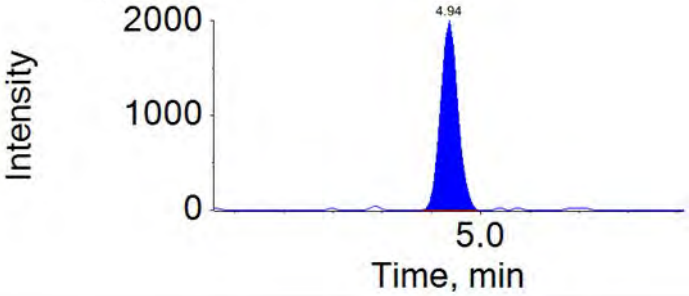
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



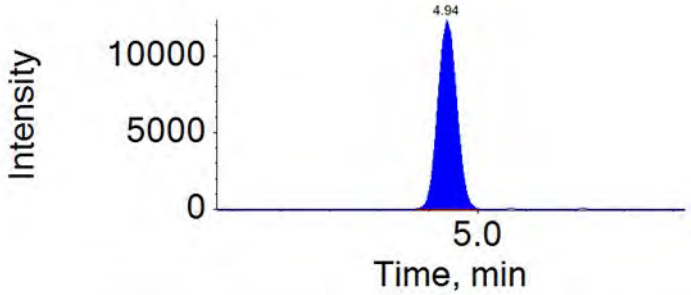
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



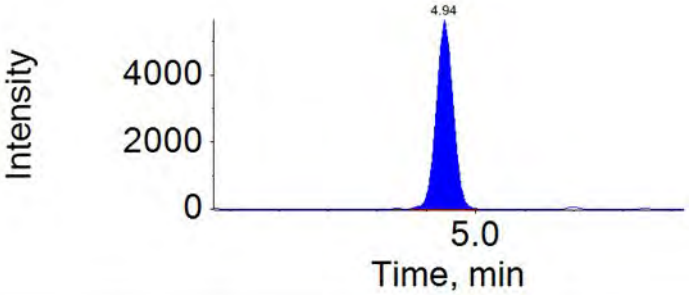
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



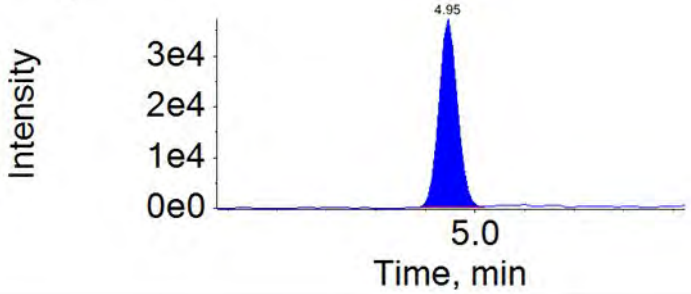
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



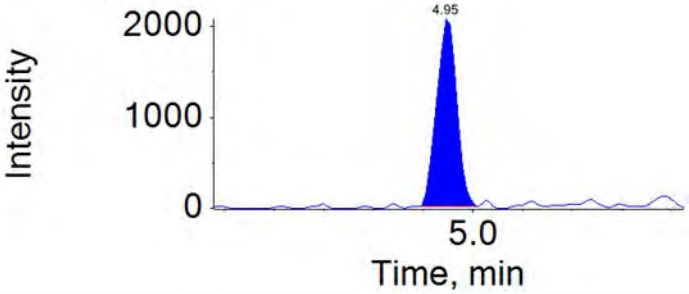
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

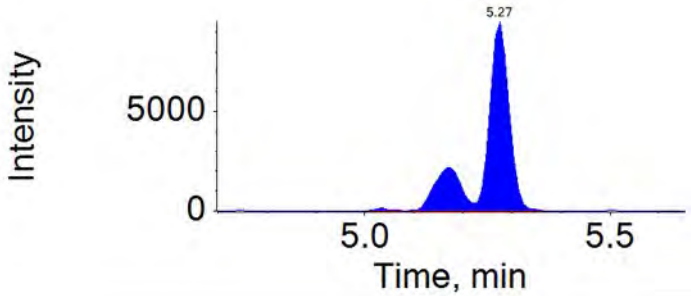
Component: PFOA
Primary Mass: 413.0 / 369.0



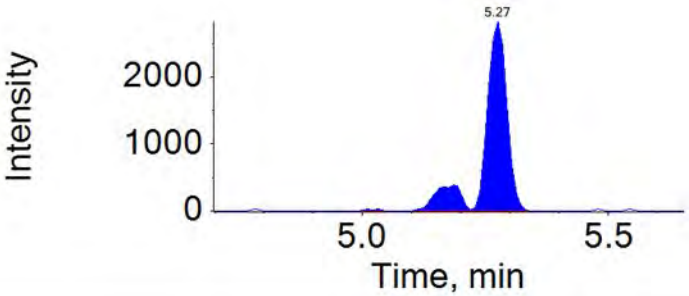
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



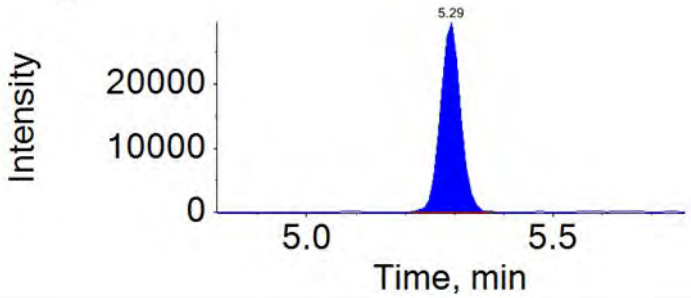
Component: PFOS
Primary Mass: 499.0 / 80.0



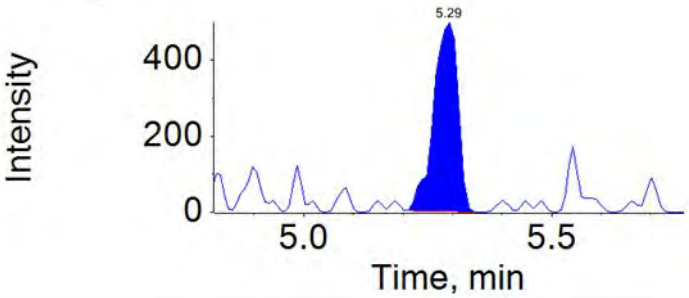
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



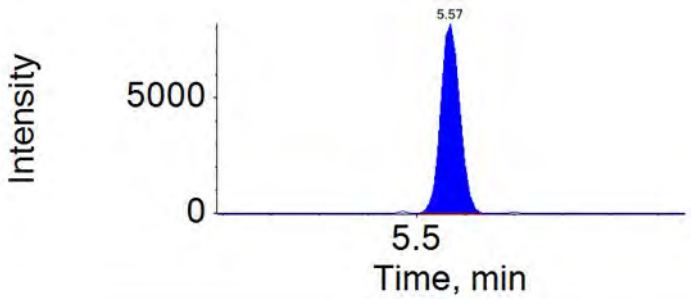
Component: PFNA
Primary Mass: 463.0 / 419.0



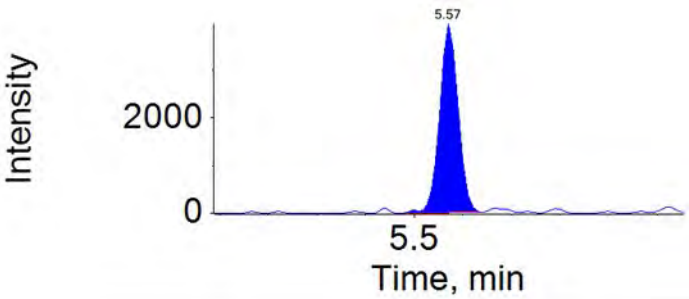
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



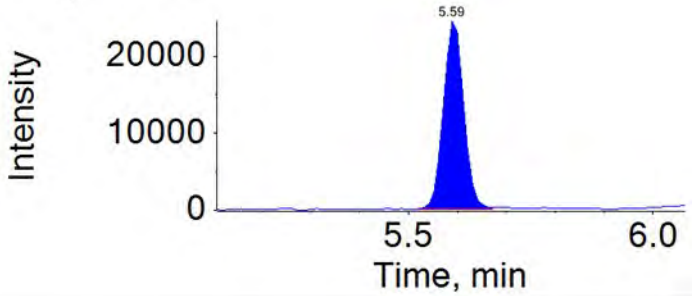
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



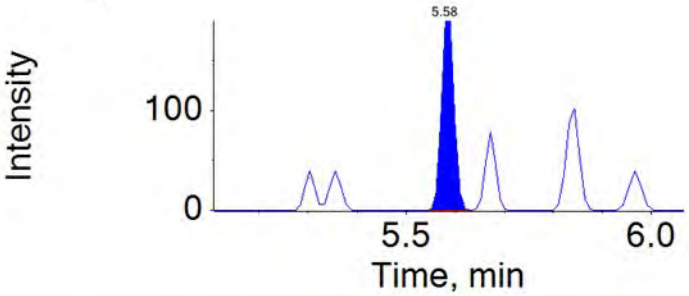
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

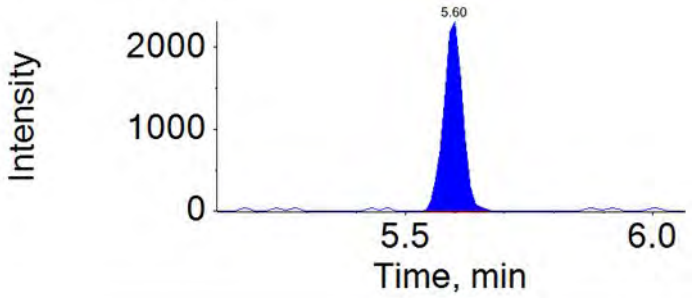
Component: PFDA
Primary Mass: 513.0 / 469.0



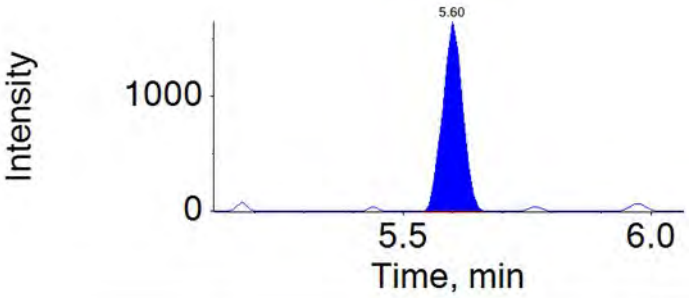
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



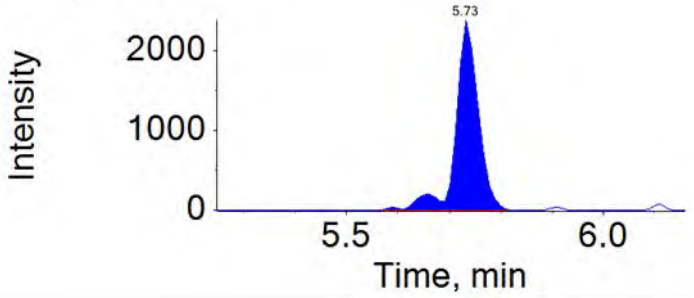
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



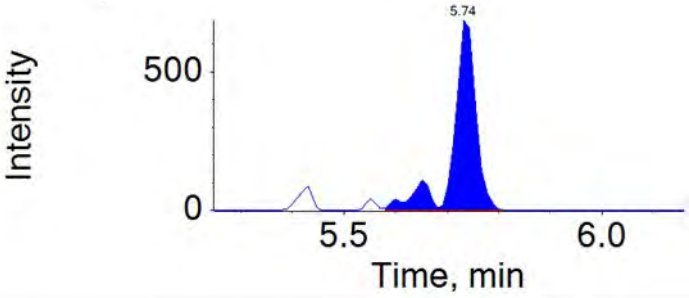
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



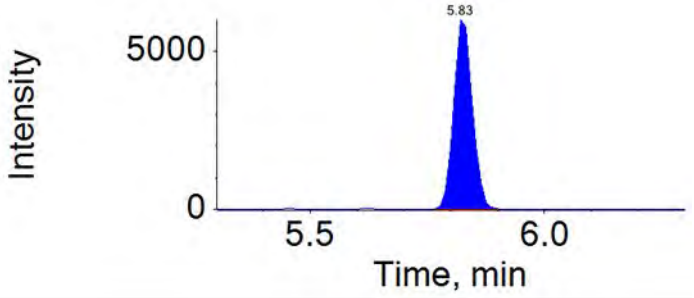
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



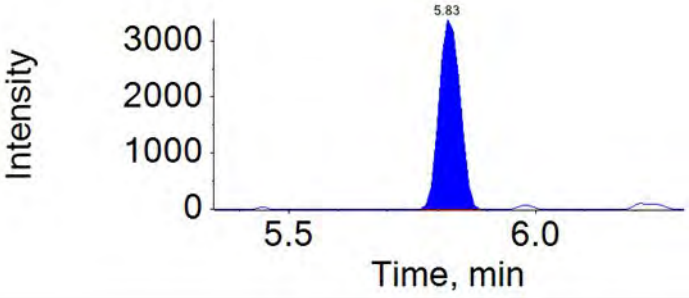
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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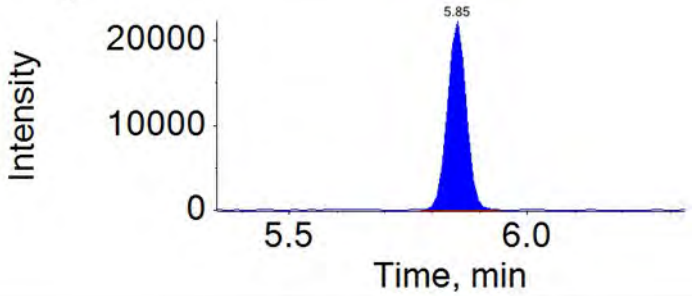
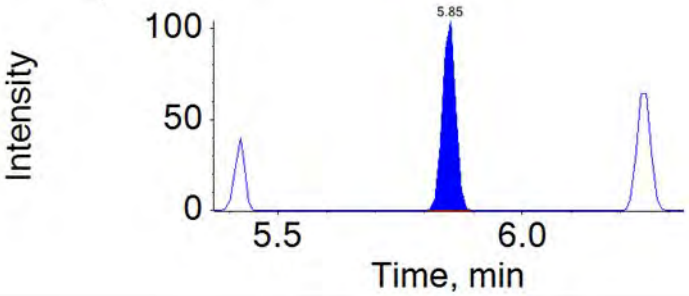
By umar at 4:02 pm, 12/4/18

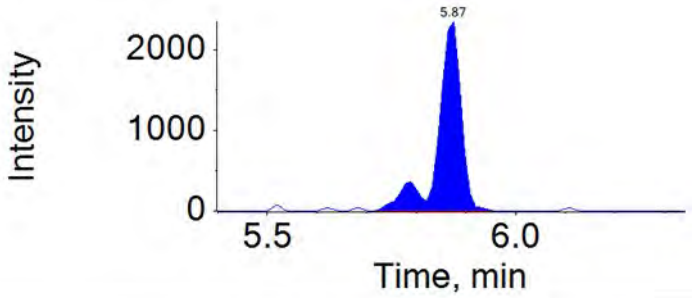
Component: PFUnDA
Primary Mass: 563.0 / 519.0



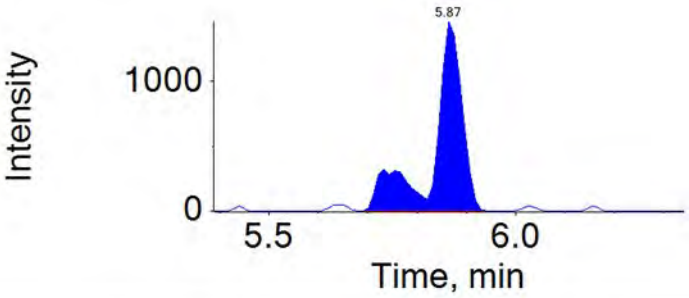
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



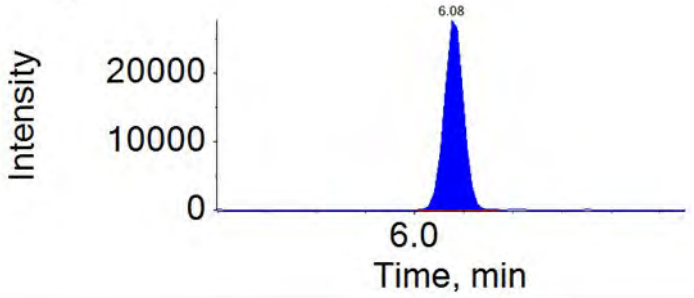
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



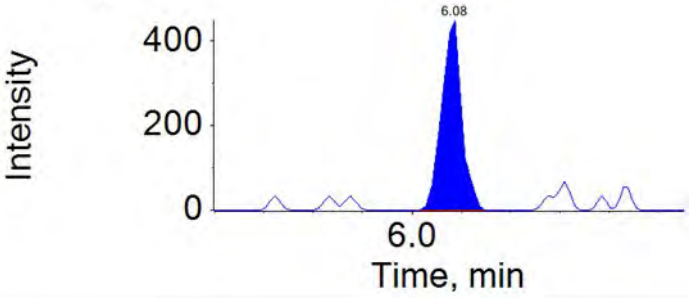
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



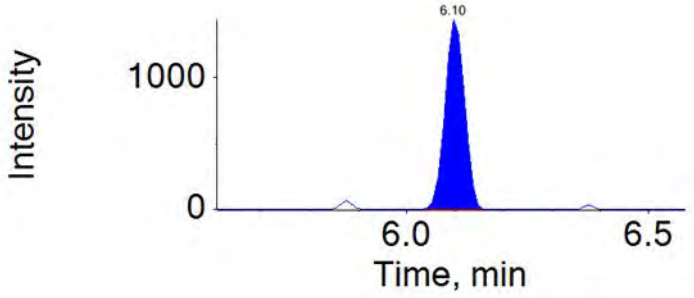
Component: PFDoDA
Primary Mass: 613.0 / 569.0



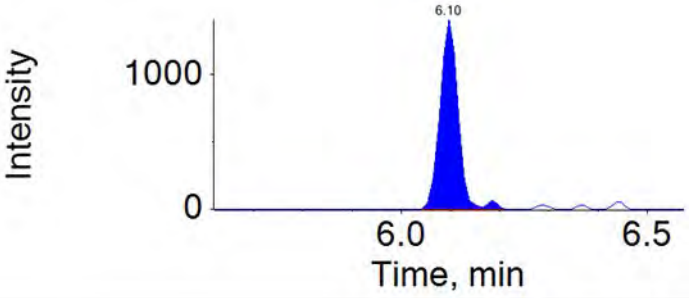
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



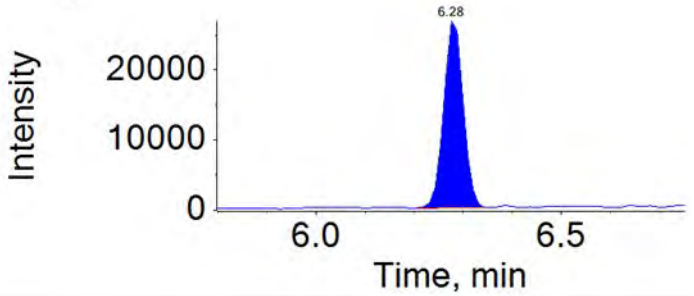
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



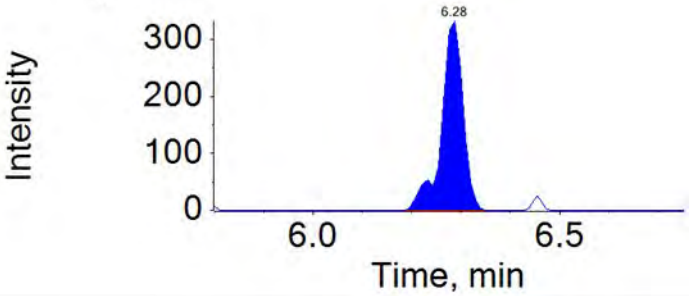
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

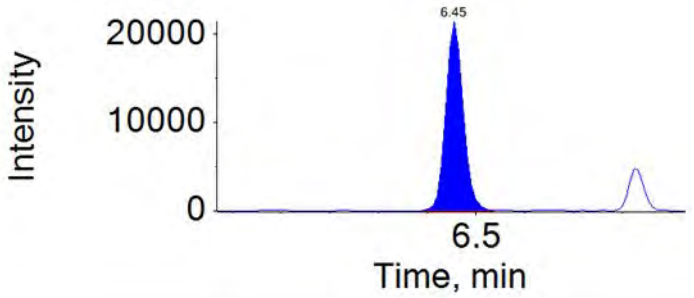
Component: PFTrDA
Primary Mass: 663.0 / 619.0



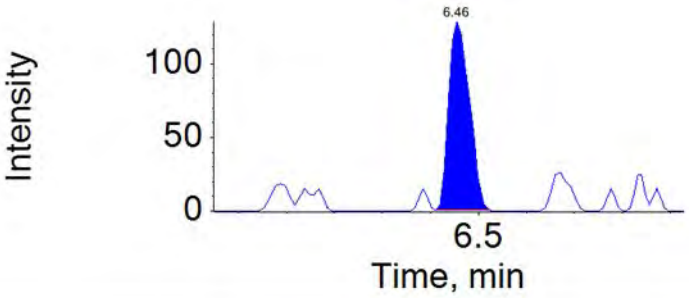
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



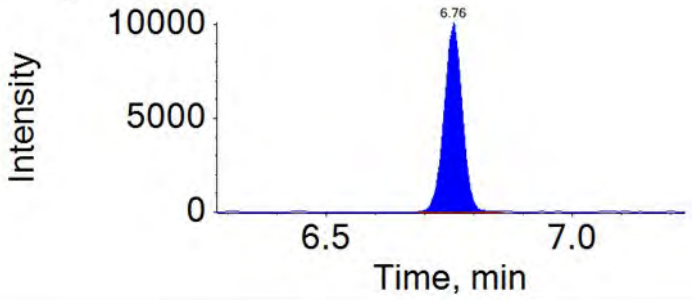
Component: PFTeDA
Primary Mass: 713.0 / 669.0



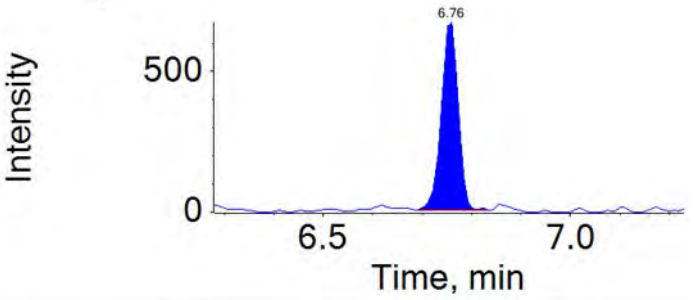
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



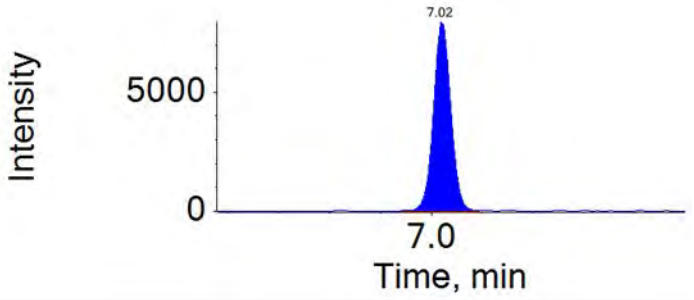
Component: PFHxDA
Primary Mass: 813.0 / 769.0



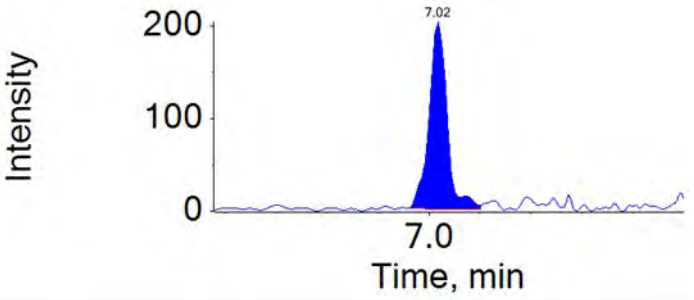
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL3			**Data File:**		18DEC03DCAL-12.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-12-03T17:53:11
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	749775.9	749775.9	0	50	
13C2-PFOA	5.0	434072.7	434072.7	0	50	
13C4-PFOS	4.8	261136.3	261136.3	0	50	
13C2-PFDA	5.0	305281.8	305281.8	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	848302.0	13C3-PFBA	749775.9	1.131	5.000	5.021	100	70-130	
E13C5-PFPeA	758729.5	13C3-PFBA	749775.9	1.012	5.000	4.883	98	70-130	
E13C3-PFBS	432876.7	13C3-PFBA	749775.9	0.577	4.650	4.499	97	70-130	
E13C2-4:2-FTS	48170.5	13C2-PFOA	434072.7	0.111	4.670	4.565	98	70-130	
E13C5-PFHxA	640176.9	13C2-PFOA	434072.7	1.475	5.000	4.994	100	70-130	
E13C3-PFHxS	326644.7	13C2-PFOA	434072.7	0.753	4.730	4.758	101	70-130	
E13C4-PFHpA	485887.3	13C2-PFOA	434072.7	1.119	5.000	4.884	98	70-130	
E13C2-6:2-FTS	29856.3	13C2-PFOA	434072.7	0.069	4.750	4.558	96	70-130	
E13C8-PFOA	797704.1	13C2-PFOA	434072.7	1.838	5.000	5.108	102	70-130	
E13C8-PFOS	307501.3	13C4-PFOS	261136.3	1.178	4.780	5.230	109	70-130	
E13C9-PFNA	459020.9	13C4-PFOS	261136.3	1.758	5.000	5.145	103	70-130	
E13C6-PFDA	590445.3	13C2-PFDA	305281.8	1.934	5.000	5.030	101	70-130	
E13C2-8:2-FTS	24215.4	13C2-PFDA	305281.8	0.079	4.790	5.100	106	70-130	
E13C8-PFOSA	680864.8	13C2-PFDA	305281.8	2.230	5.000	4.992	100	70-130	
Ed3-NMeFOSAA	80082.9	13C2-PFDA	305281.8	0.262	5.000	4.583	92	70-130	
E13C7-PFUnDA	318514.6	13C2-PFDA	305281.8	1.043	5.000	5.196	104	70-130	
Ed5-NEtFOSAA	66995.7	13C2-PFDA	305281.8	0.219	5.000	5.006	100	70-130	
E13C2-PFDoDA	695119.5	13C2-PFDA	305281.8	2.277	5.000	4.876	98	70-130	
Ed7-NMePFOSAE	275358.5	13C2-PFDA	305281.8	0.902	5.000	4.891	98	70-130	
Ed3-NMePFOSA	77701.5	13C2-PFDA	305281.8	0.255	5.000	4.719	94	70-130	
Ed9-NEtPFOSAE	228345.6	13C2-PFDA	305281.8	0.748	5.000	4.824	96	70-130	
Ed5-NEtPFOSA	62180.7	13C2-PFDA	305281.8	0.204	5.000	4.805	96	70-130	
E13C2-PFTeDA	521214.9	13C2-PFDA	305281.8	1.707	5.000	4.813	96	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

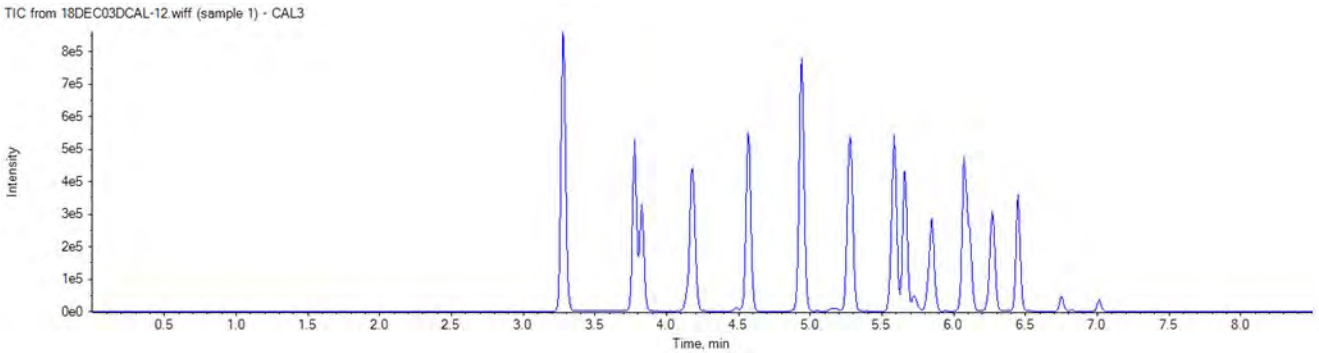
Analyte Quantitation Peak Table

Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-12.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	349312.6		A	13C4-PFBA	3.28	848302.0	0.412	2.332
PFPeA	3.78	1.000	335553.8		A	13C5-PFPeA	3.78	758729.5	0.442	2.215
PFBS	3.83	1.000	172526.7		A	13C3-PFBS	3.83	432876.7	0.399	1.944
4:2-FTS	4.14	1.000	38505.1		A	13C2-4:2-FTS	4.14	48170.5	0.799	2.019
PFHxA	4.18	1.000	347228.9		A	13C5-PFHxA	4.18	640176.9	0.542	2.312
PFPeS	4.20	1.100	90668.0		A	13C3-PFBS	3.83	432876.7	0.209	2.010
PFHpA	4.57	1.000	342849.3		A	13C4-PFHpA	4.57	485887.3	0.706	2.277
PFHxS	4.57	1.000	126301.7		M	13C3-PFHxS	4.57	326644.7	0.387	1.822
6:2-FTS	4.93	1.000	28159.0		A	13C2-6:2-FTS	4.93	29856.3	0.943	2.287
PFHpS	4.93	1.080	127250.4		A	13C3-PFHxS	4.57	326644.7	0.390	2.028
PFOA	4.94	1.000	340312.1		A	13C8-PFOA	4.94	797704.1	0.427	2.258
PFOS	5.27	1.000	131694.0		M	13C8-PFOS	5.27	307501.3	0.428	1.815
PFNA	5.28	1.000	295995.7		A	13C9-PFNA	5.29	459020.9	0.645	2.417
PFNS	5.56	1.060	89492.3		A	13C8-PFOS	5.27	307501.3	0.291	1.963
PFDA	5.58	1.000	245962.7		A	13C6-PFDA	5.59	590445.3	0.417	2.285
8:2-FTS	5.59	1.000	21000.4		A	13C2-8:2-FTS	5.59	24215.4	0.867	1.863
PFOSA	5.66	1.000	299342.0		A	13C8-PFOSA	5.66	680864.8	0.440	2.303
NMeFOSAA	5.73	1.000	30890.0		M	d3-NMeFOSAA	5.72	80082.9	0.386	2.553
PFDS	5.82	1.100	70717.1		A	13C8-PFOS	5.27	307501.3	0.230	1.969
PFUnDA	5.85	1.000	219558.8		A	13C7-PFUnDA	5.85	318514.6	0.689	2.099
NEtFOSAA	5.86	1.000	23550.8		M	d5-NEtFOSAA	5.86	66995.7	0.352	1.778
PFDoDA	6.07	1.000	300265.9		A	13C2-PFDoDA	6.07	695119.5	0.432	2.463
10:2-FTS	6.09	1.090	16541.8		A	13C2-8:2-FTS	5.59	24215.4	0.683	1.702
NMePFOSAE	6.12	1.000	148262.9		A	d7-NMePFOSAE	6.11	275358.5	0.538	2.280
NMePFOSA	6.12	1.000	28414.6		A	d3-NMePFOSA	6.12	77701.5	0.366	1.928
PFDoS	6.24	1.190	37462.2		A	13C8-PFOS	5.27	307501.3	0.122	1.908
NEtPFOSAE	6.27	1.000	156854.0		A	d9-NEtPFOSAE	6.26	228345.6	0.687	2.366
NEtPFOSA	6.28	1.000	30361.5		A	d5-NEtPFOSA	6.28	62180.7	0.488	2.272
PFTrDA	6.27	1.030	270650.6		A	13C2-PFDoDA	6.07	695119.5	0.389	2.292
PFTeDA	6.45	1.000	218317.6		A	13C2-PFTeDA	6.45	521214.9	0.419	2.479
PFHxDA	6.75	1.050	89804.5		A	13C2-PFTeDA	6.45	521214.9	0.172	2.211
PFODA	7.01	1.090	70879.1		A	13C2-PFTeDA	6.45	521214.9	0.136	2.160

Total Ion Chromatogram

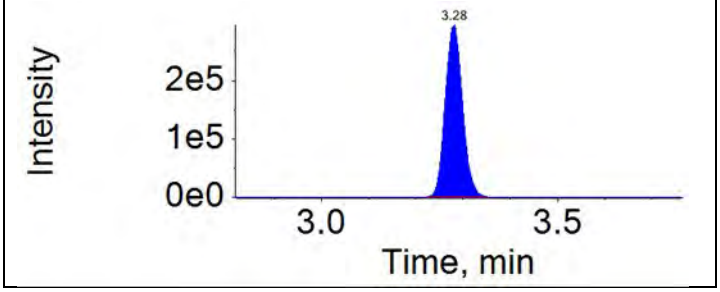


APPROVED
By MSM at 10:22 am, 12/4/18

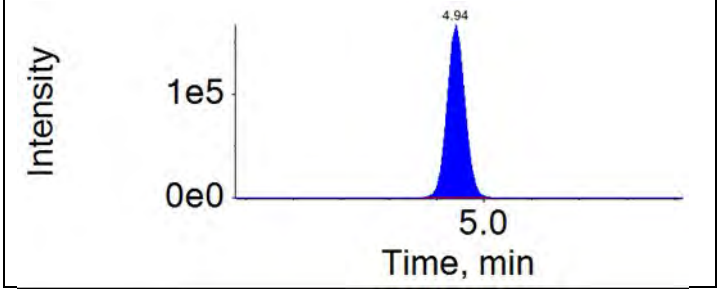
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

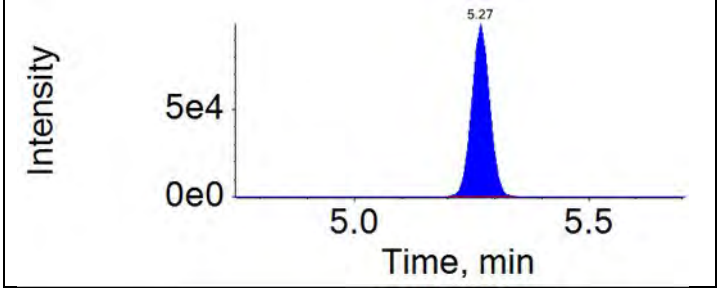
Injection Standard: 13C3-PFBA
216.0 / 172.0



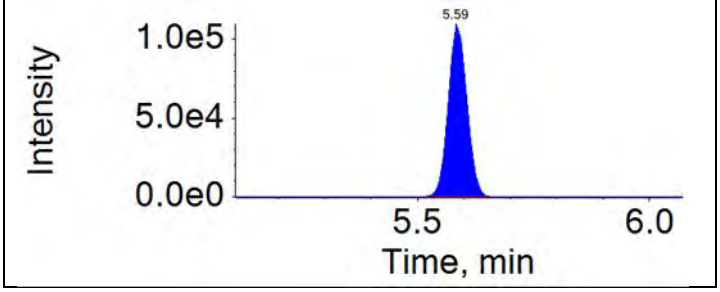
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

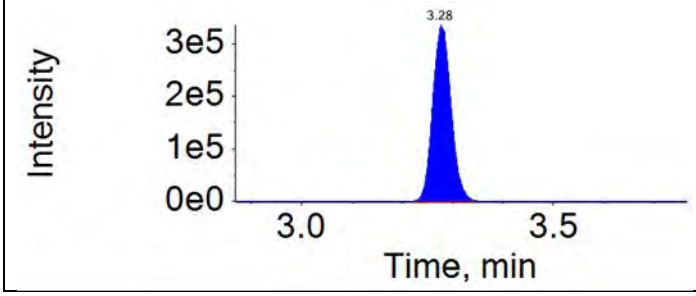


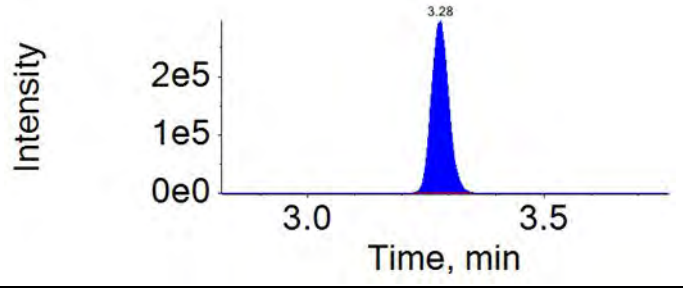
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

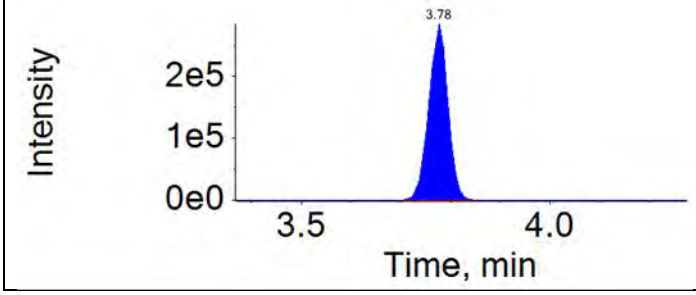
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

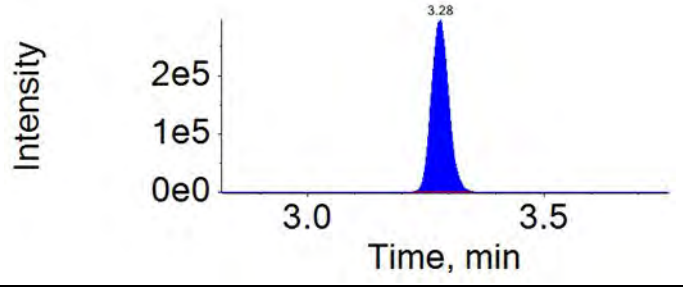
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



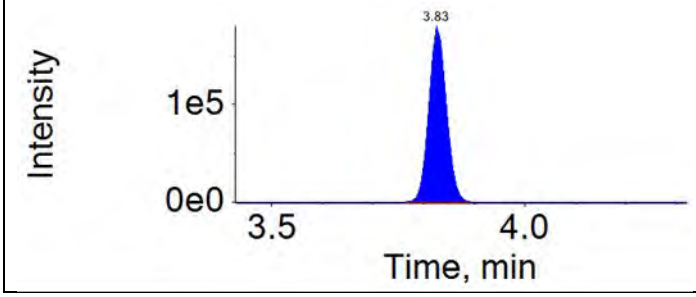


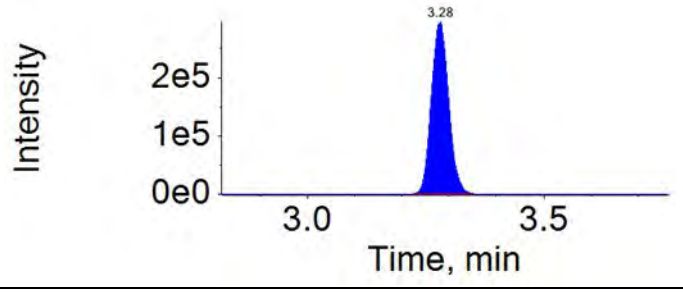
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



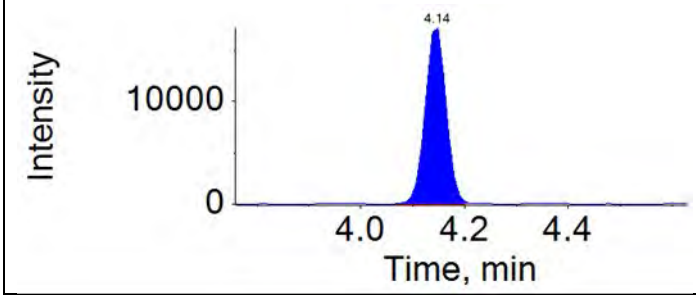


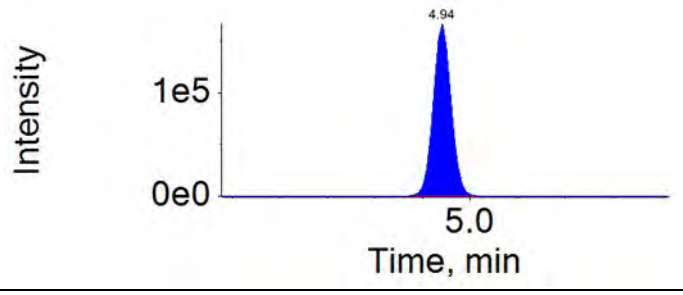
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



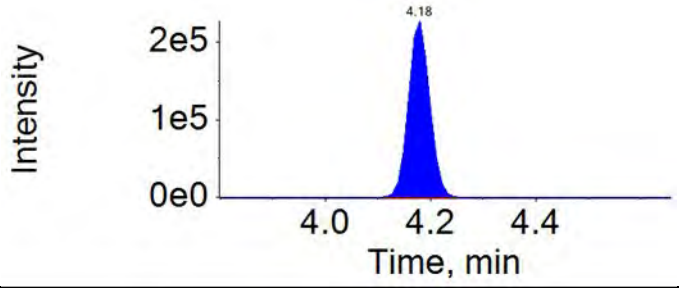


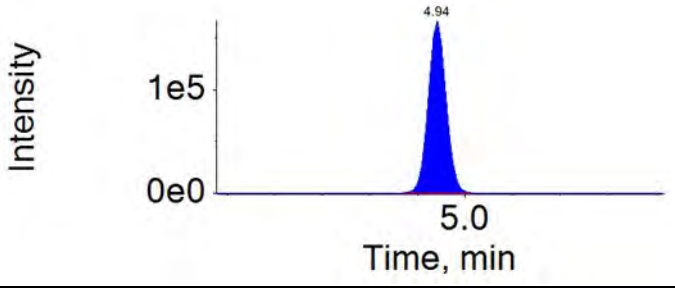
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

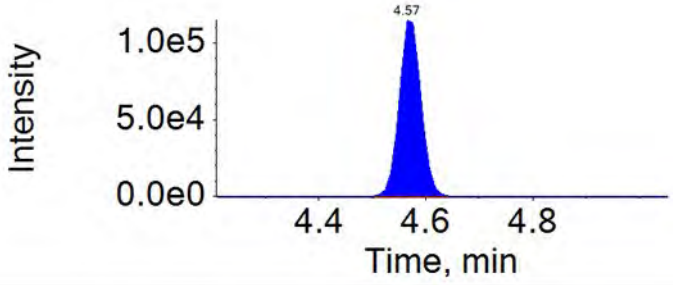
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

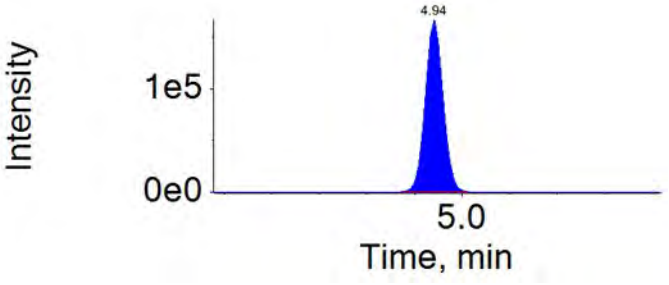
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



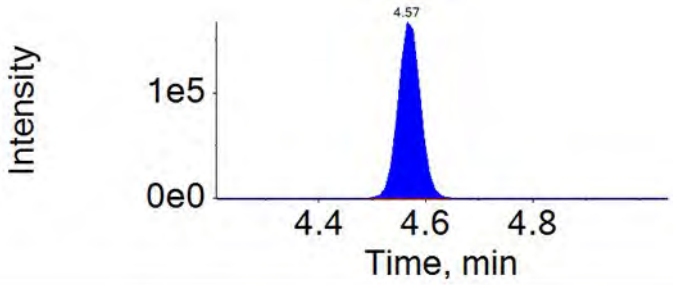


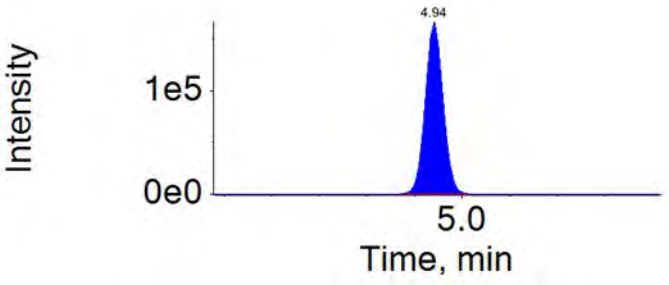
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



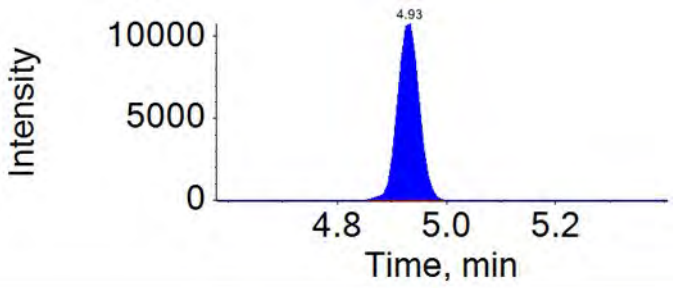


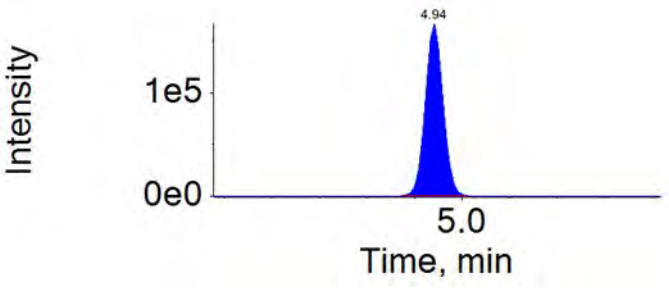
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



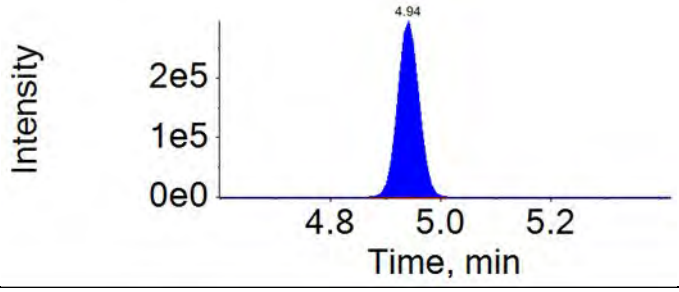


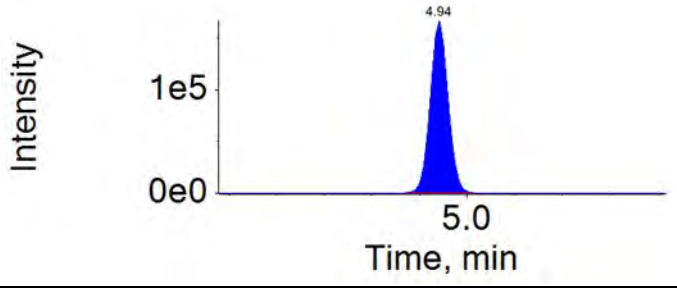
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

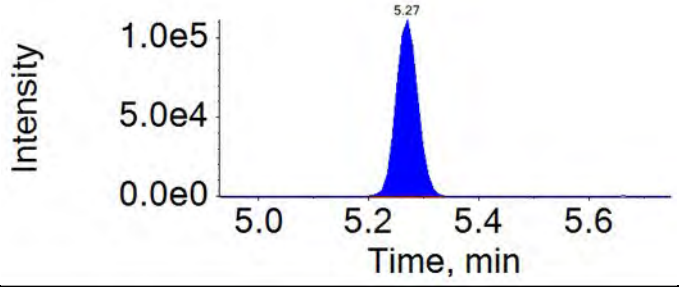
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

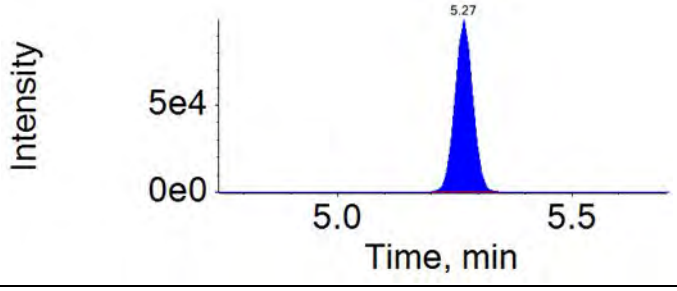
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



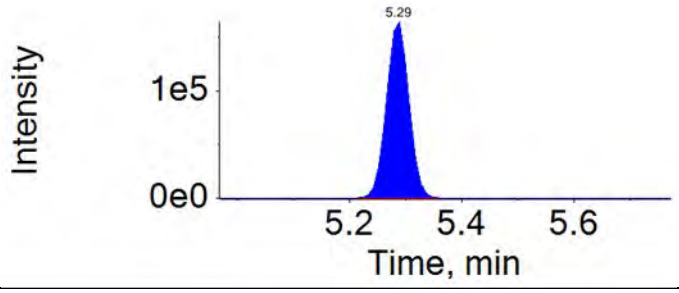


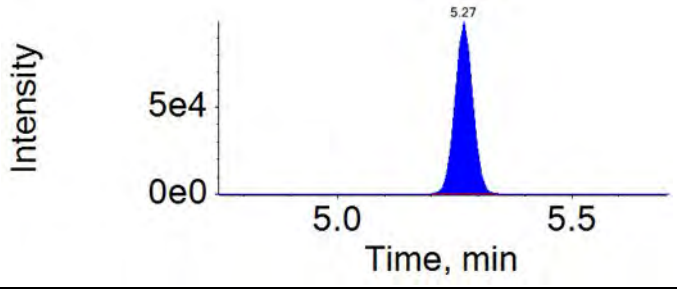
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



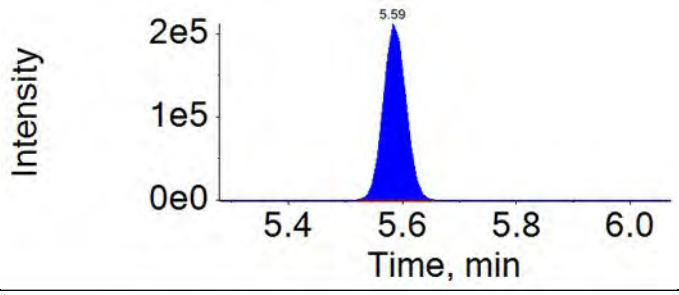


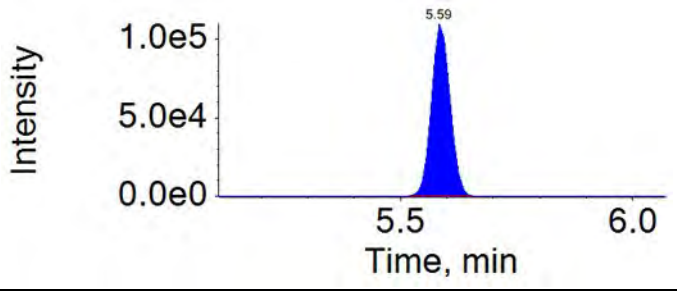
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





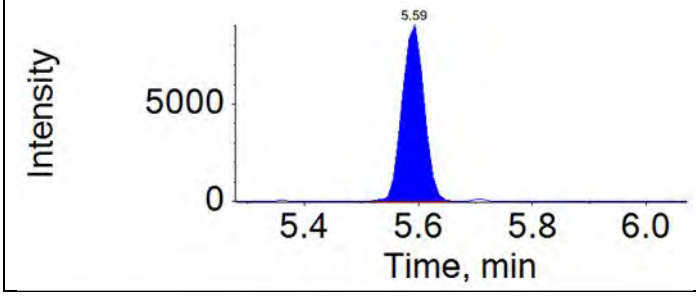
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

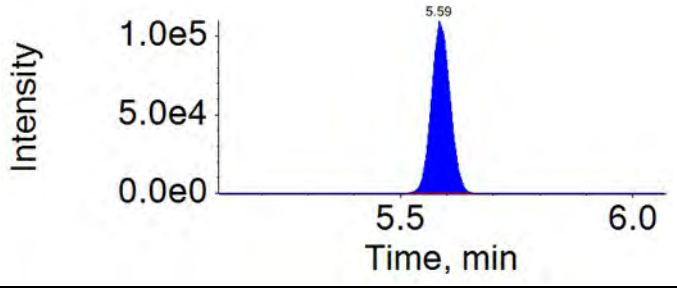




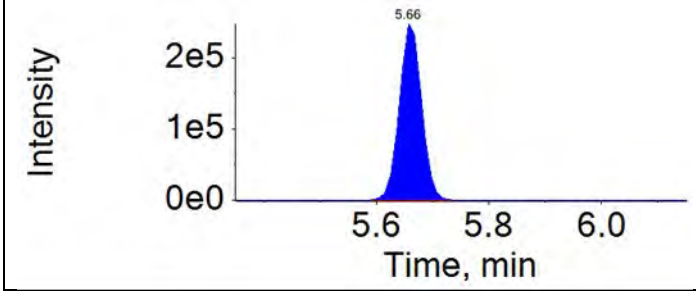
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

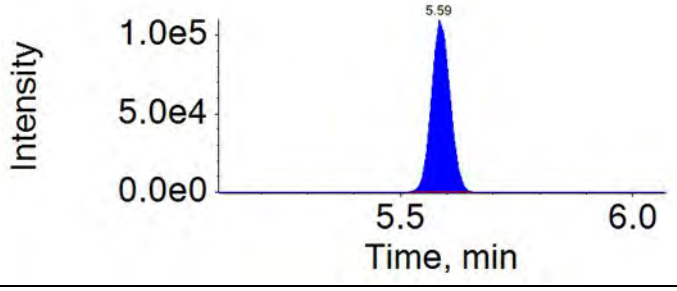
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



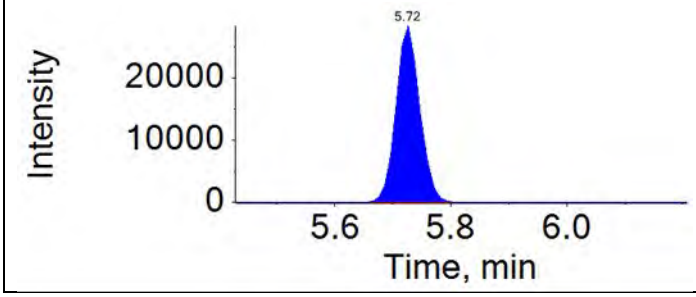


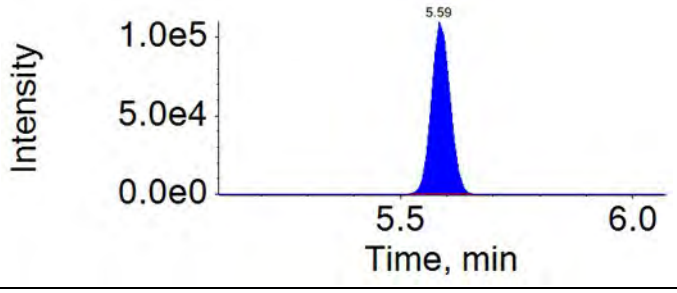
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



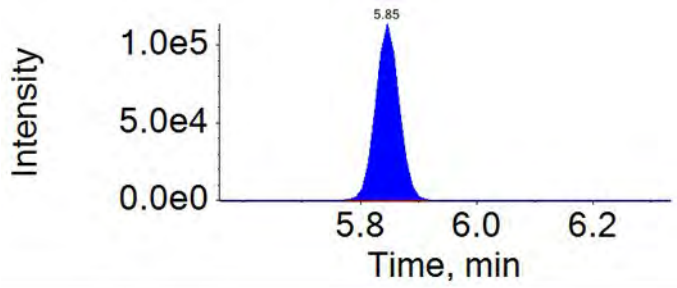


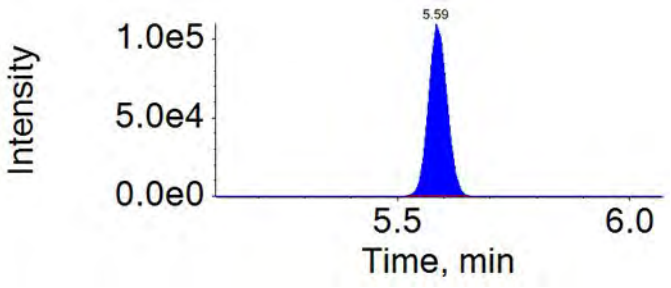
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





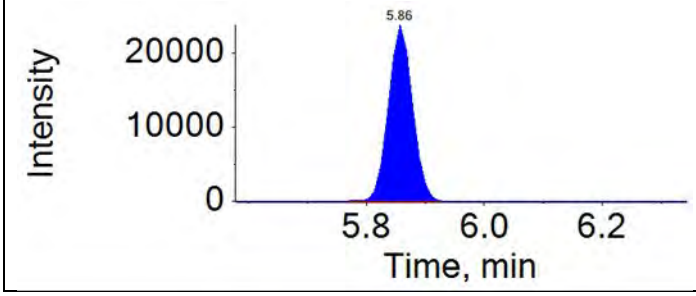
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

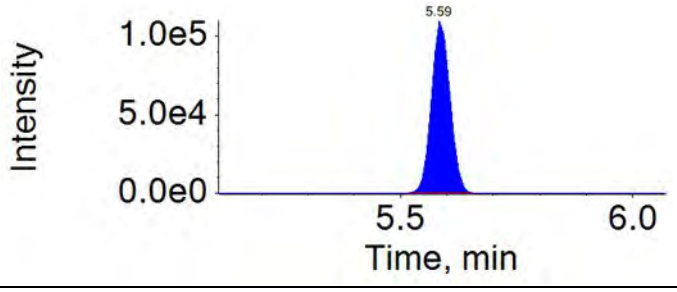




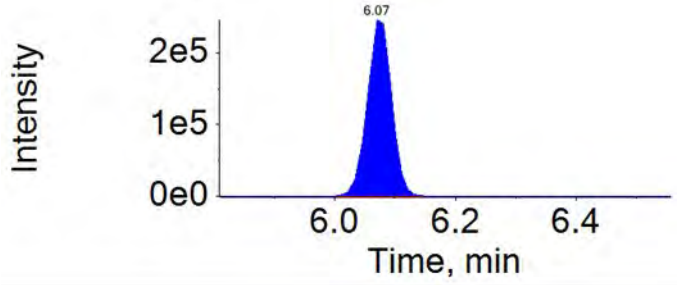
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

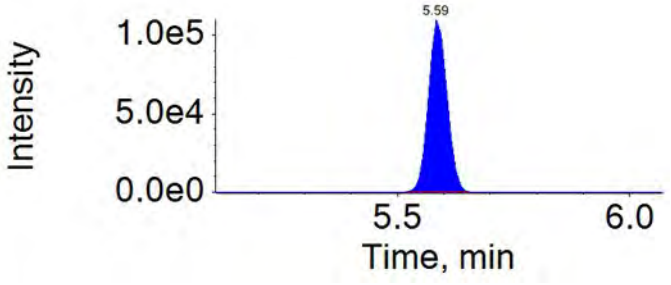
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



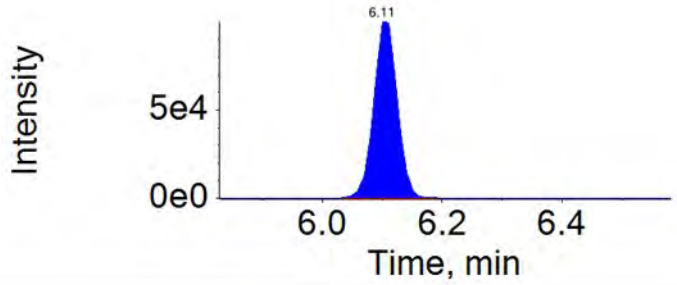


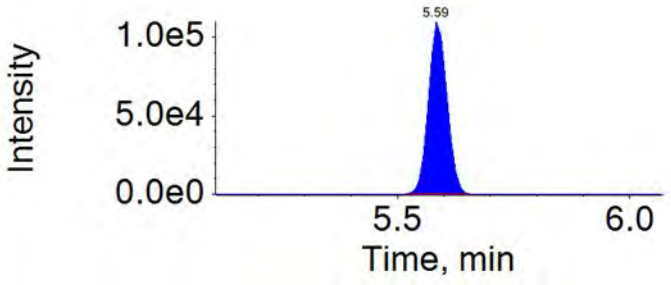
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



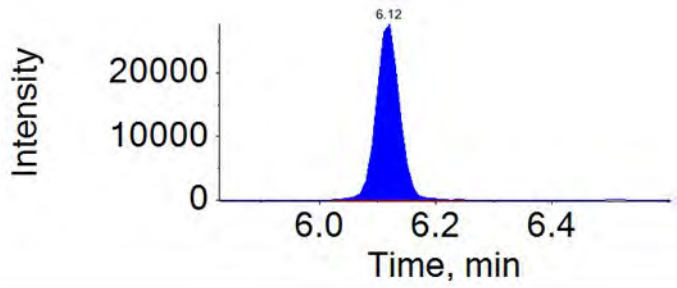


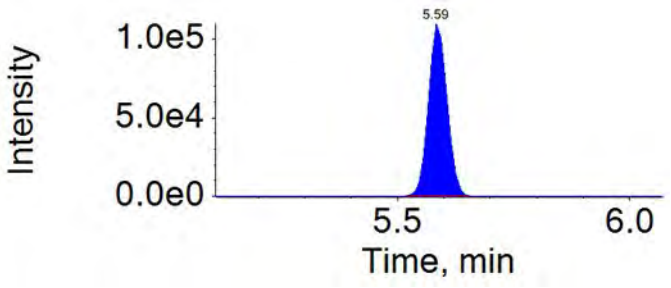
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





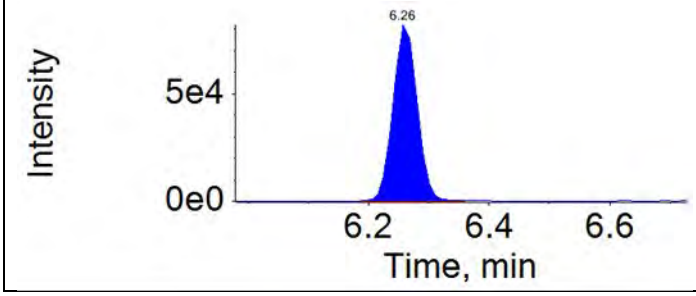
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

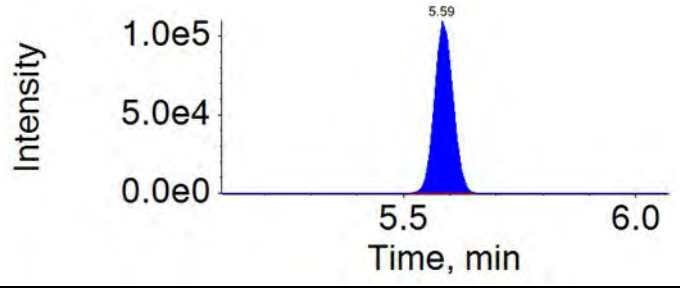




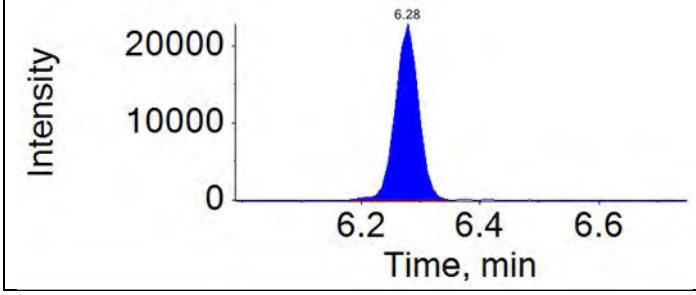
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

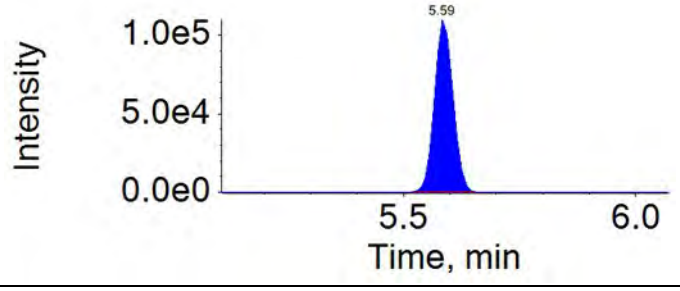
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



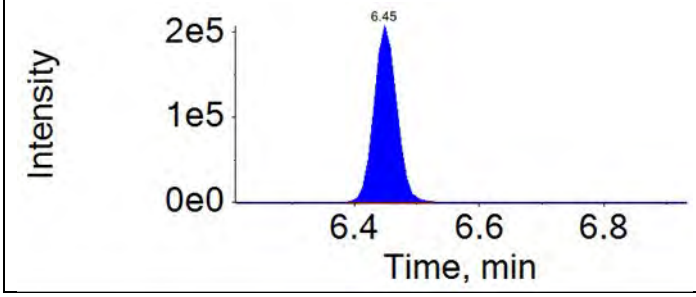


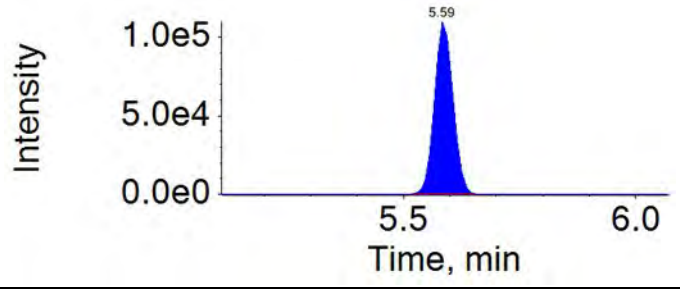
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



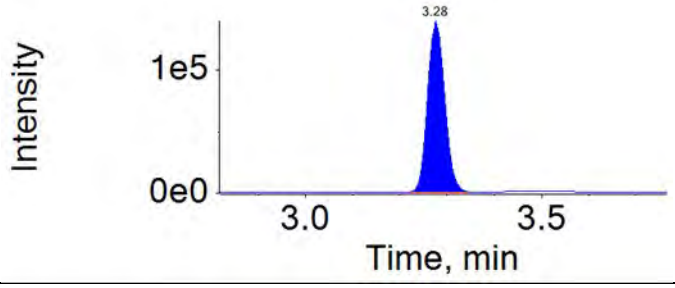


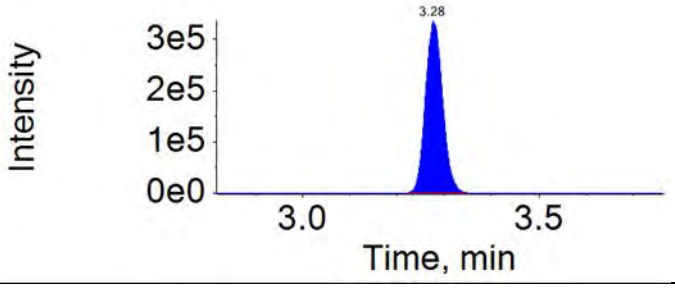
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

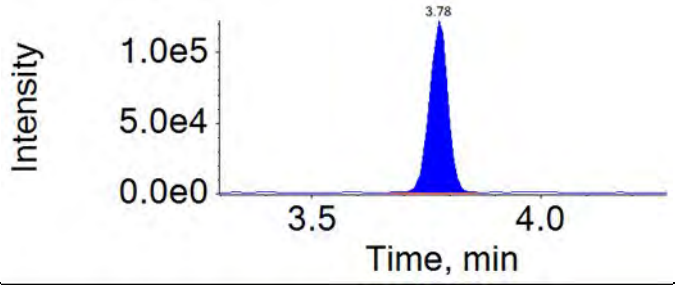
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

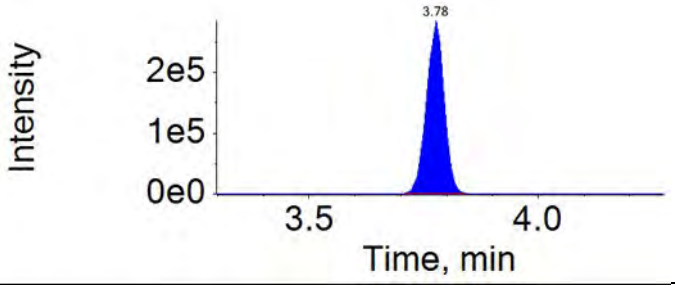
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



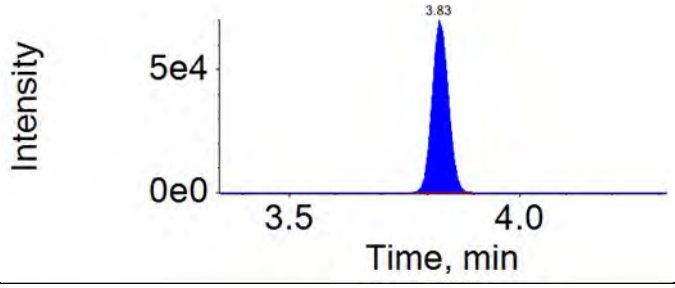


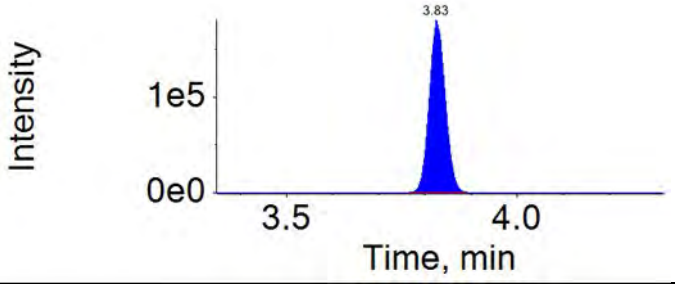
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



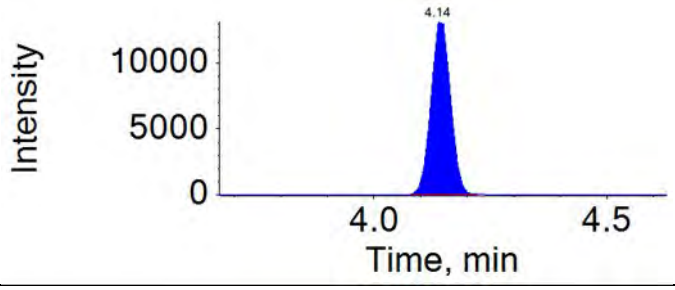


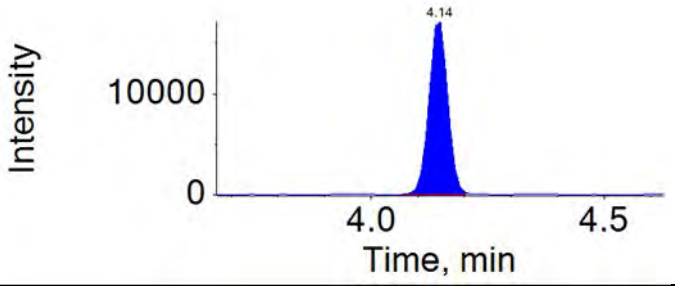
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



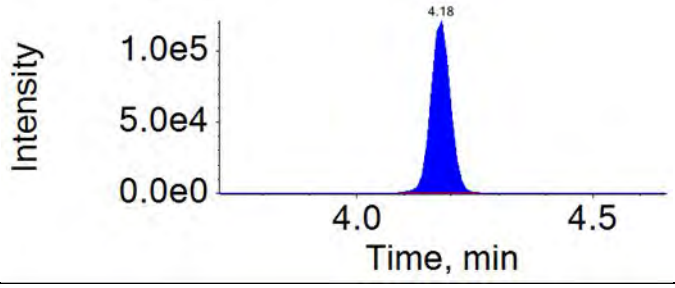


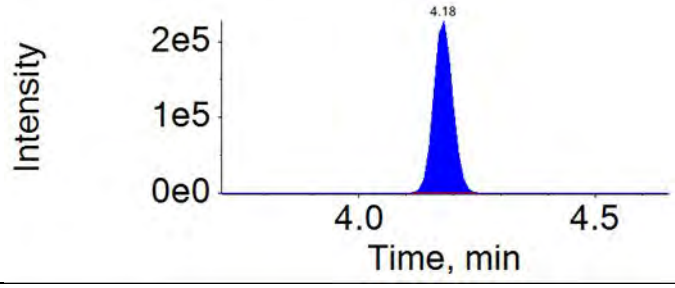
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

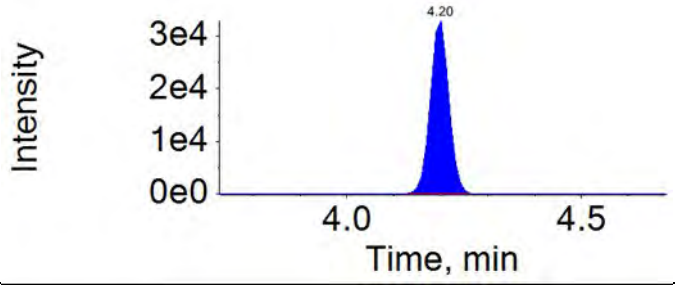
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

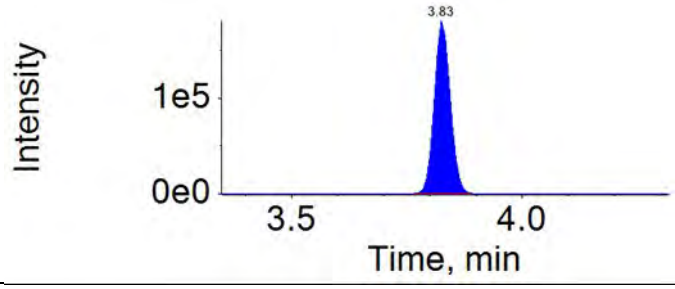
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



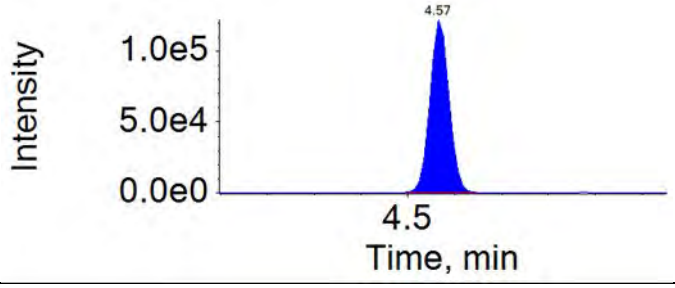


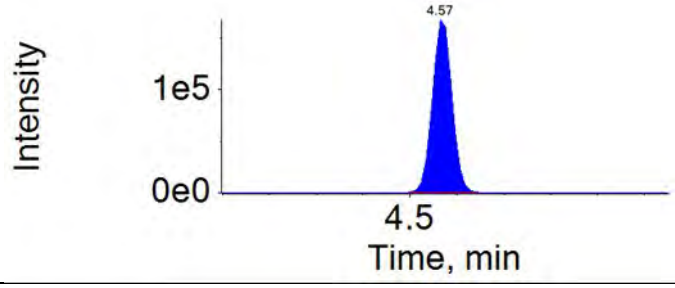
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



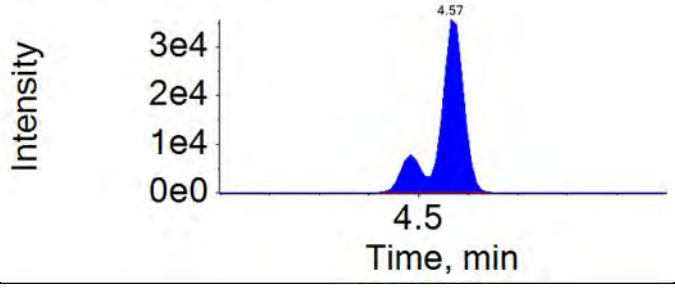


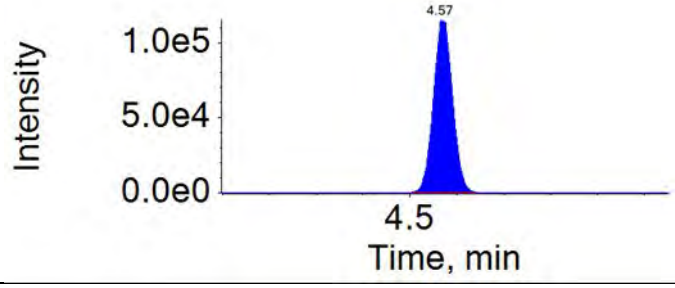
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



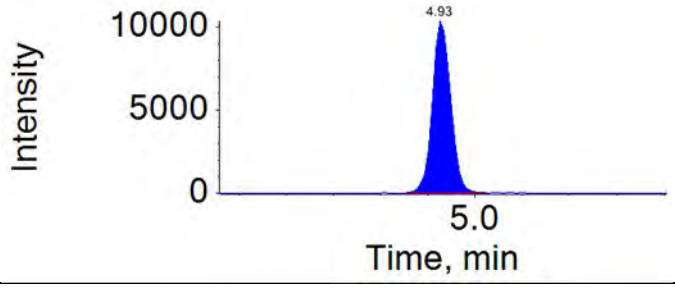
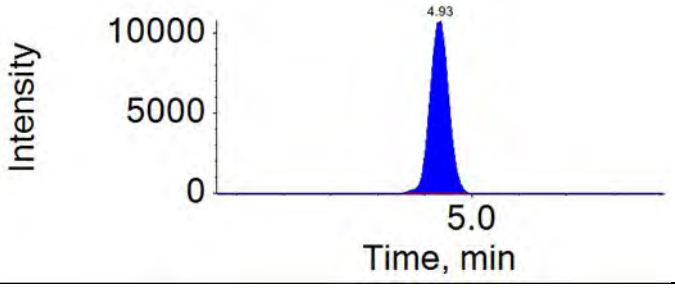


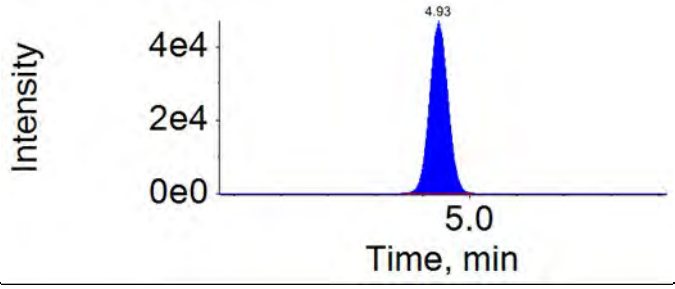
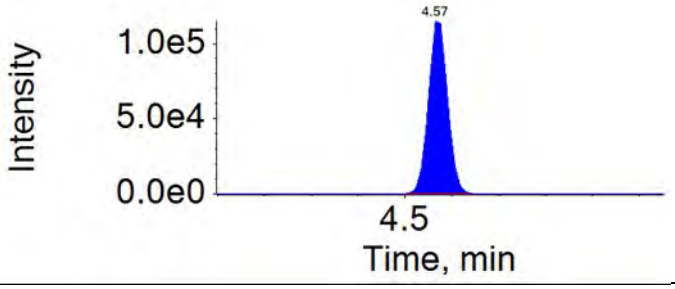
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

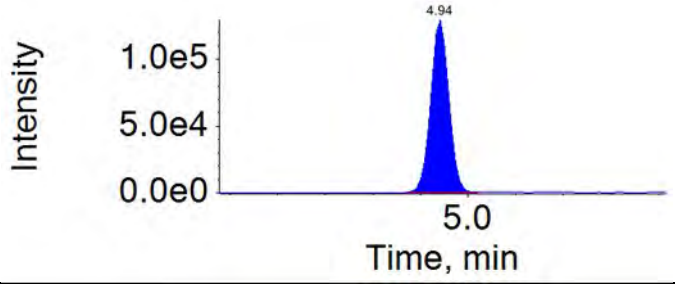
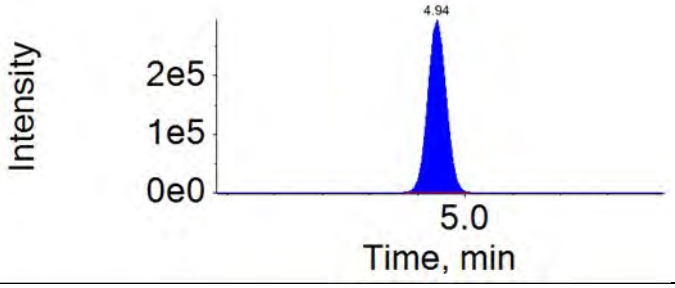


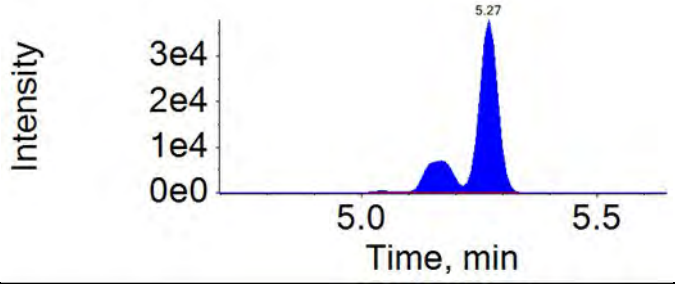
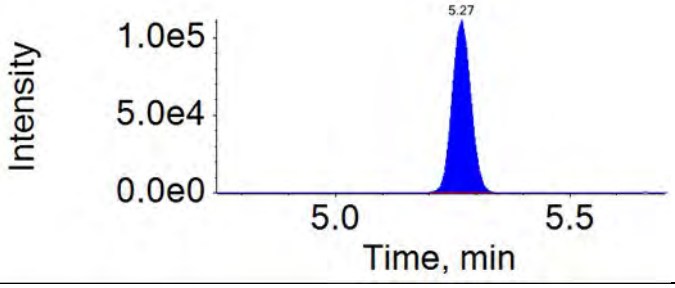


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

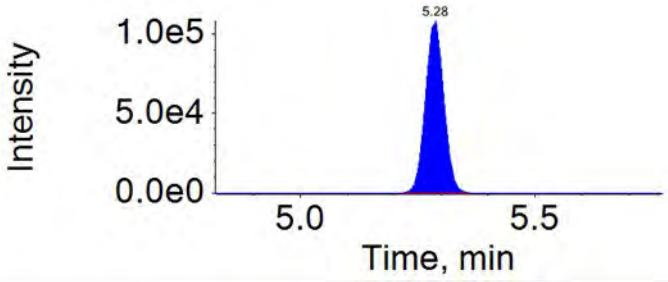
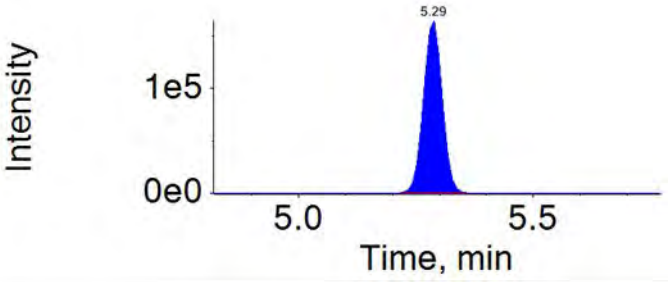
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

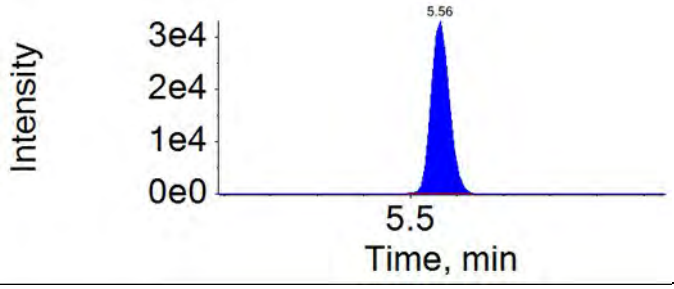
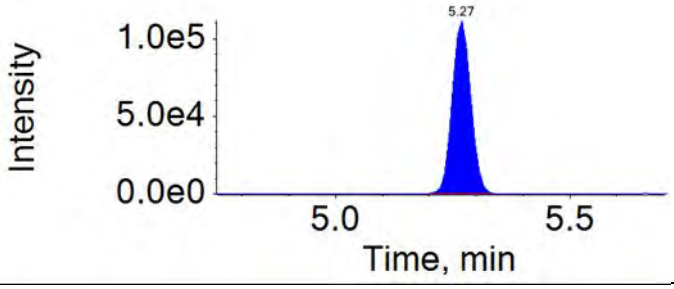
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

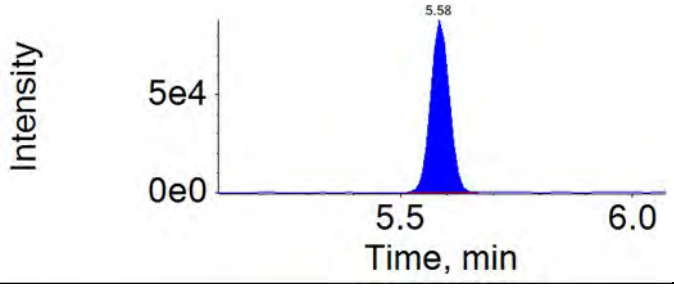
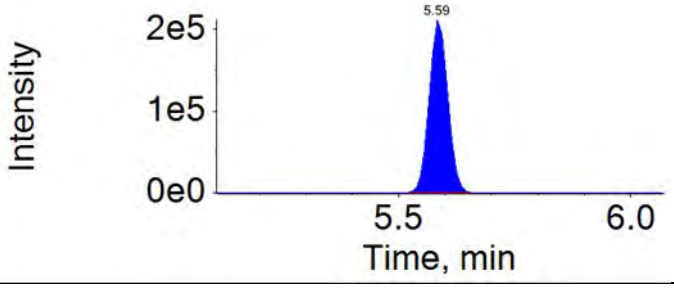
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

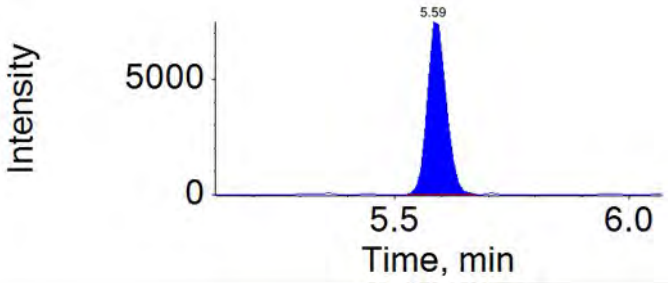
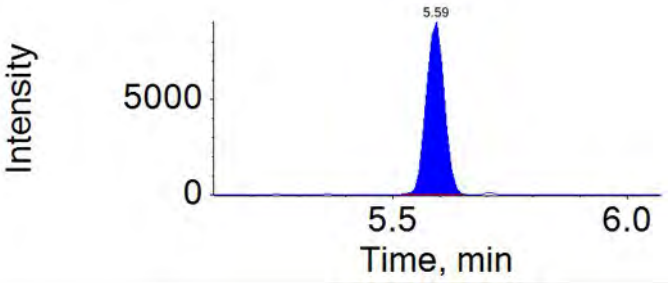
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

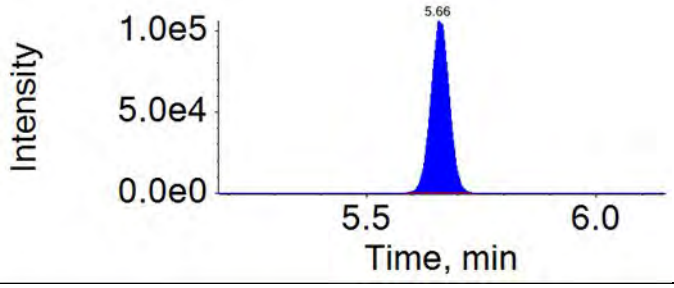
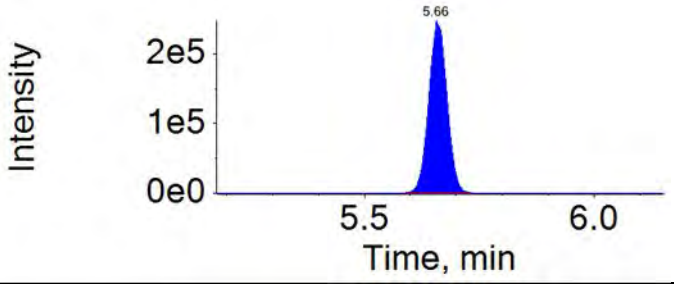
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0
	

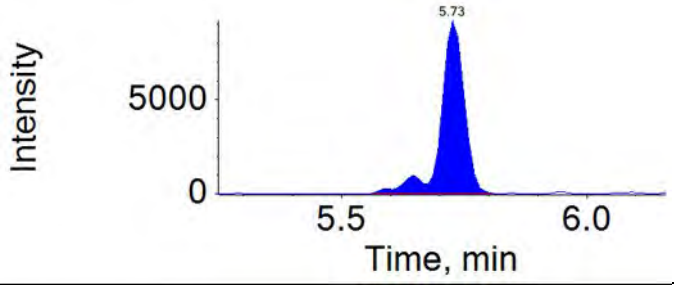
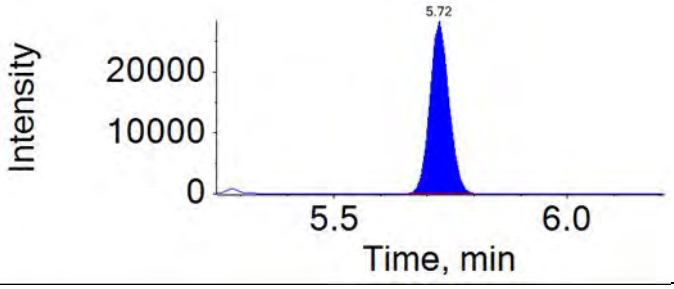
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0
	

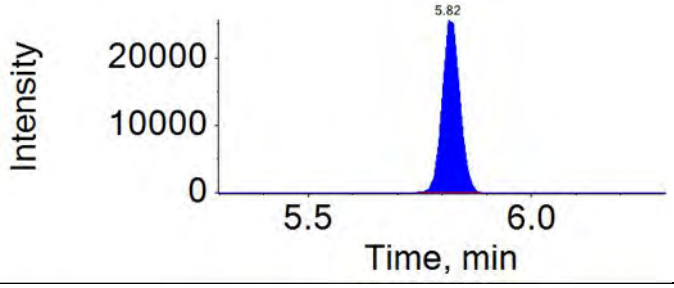
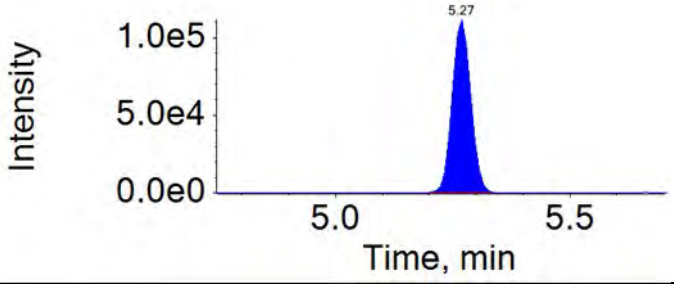
APPROVED
By MSM at 10:22 am, 12/4/18

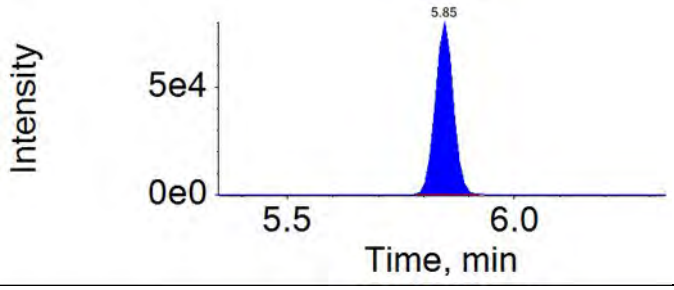
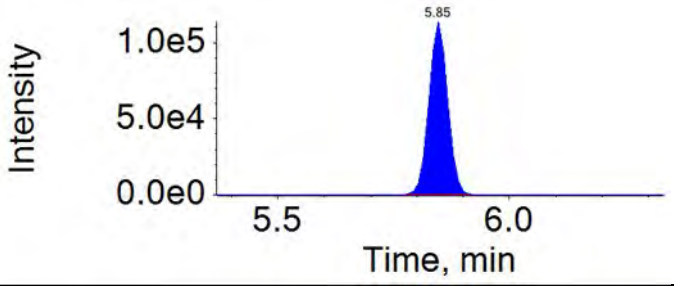
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

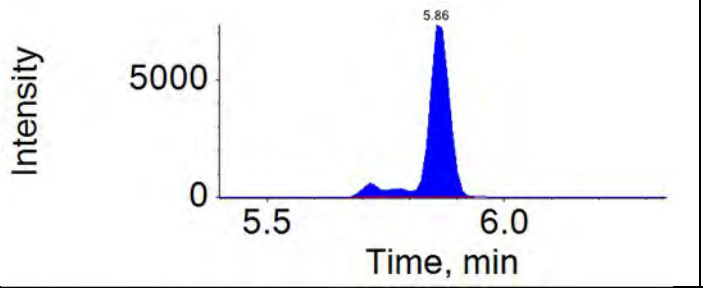
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

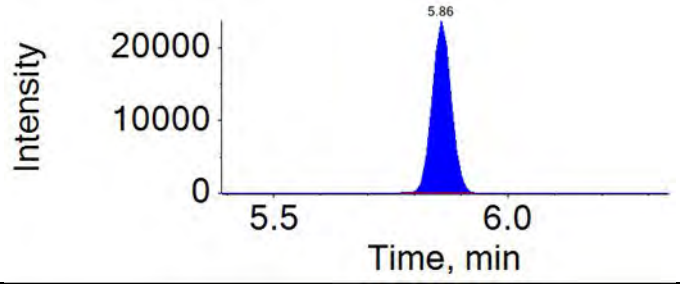
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

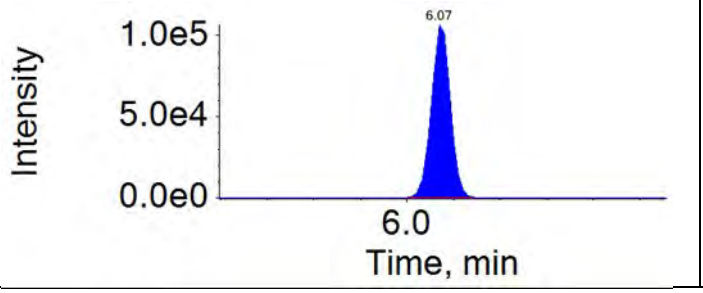
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

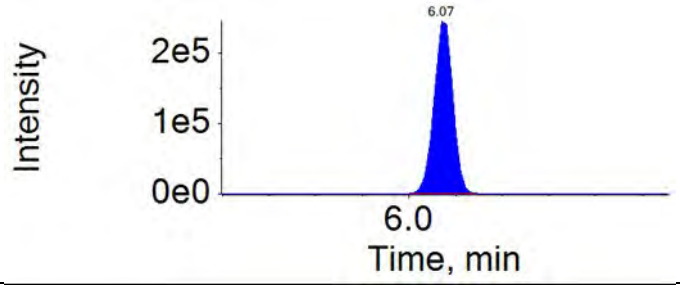
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



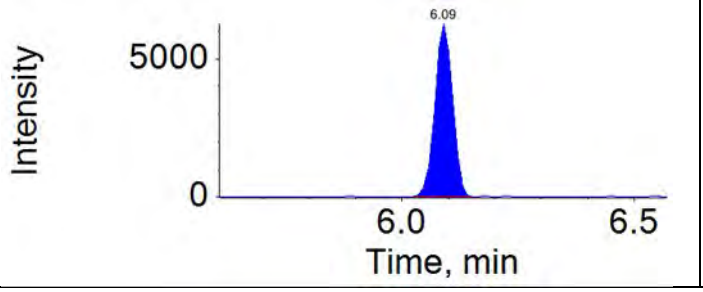


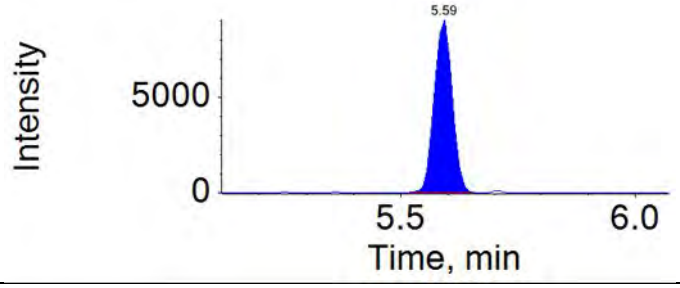
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



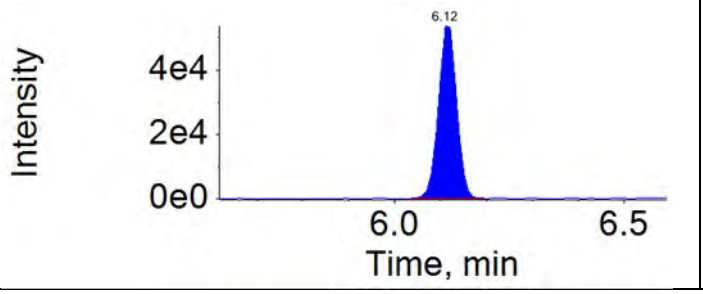


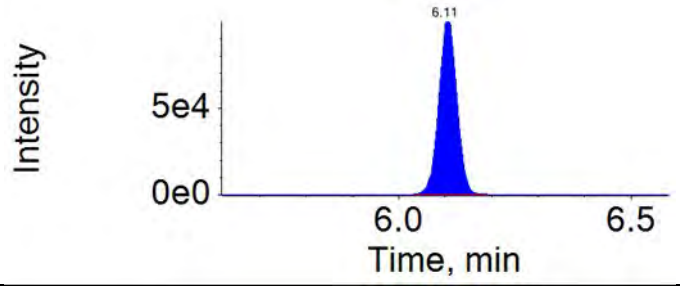
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



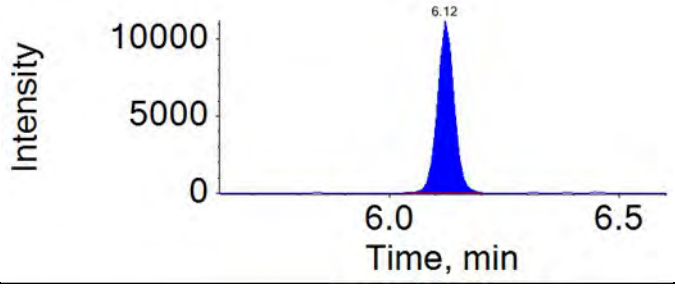


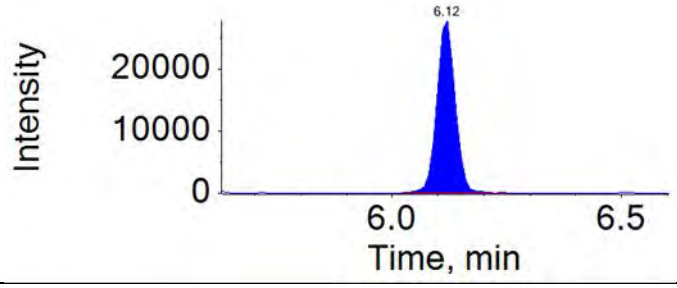
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

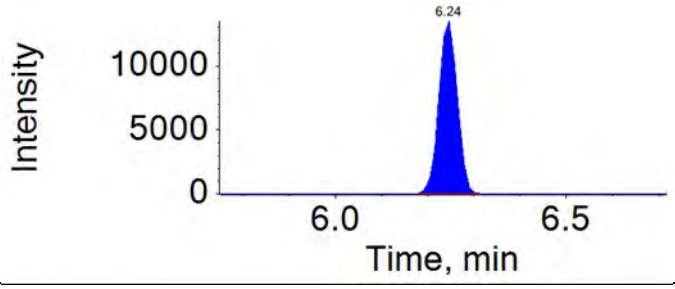
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

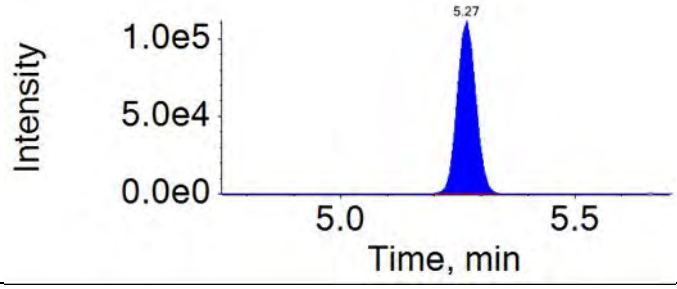
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



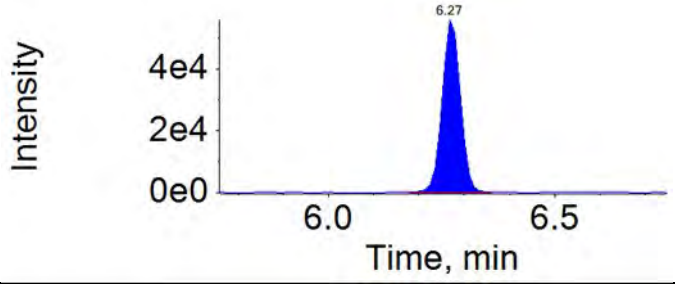


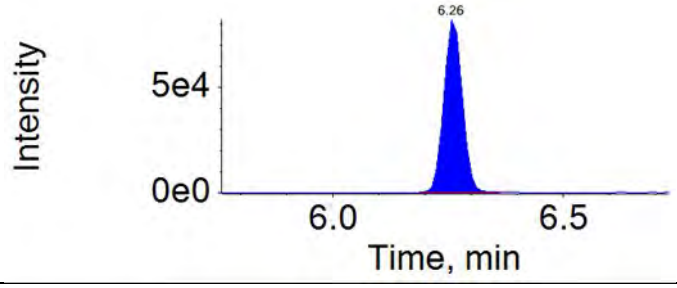
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



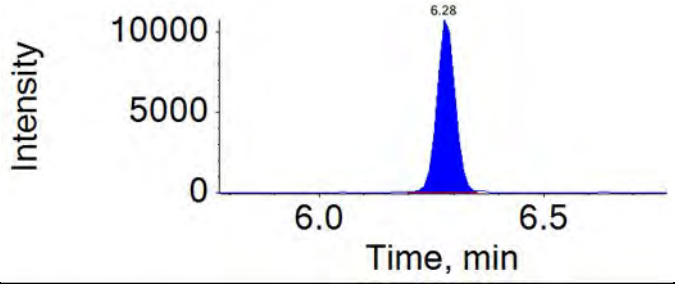


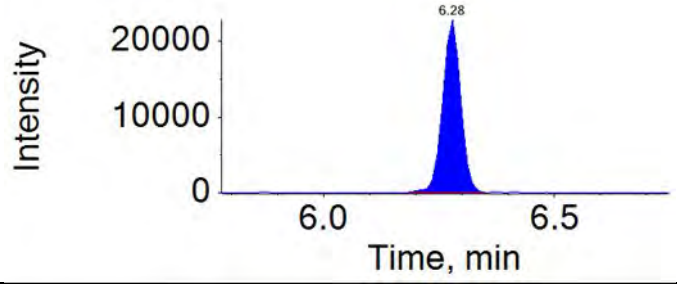
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

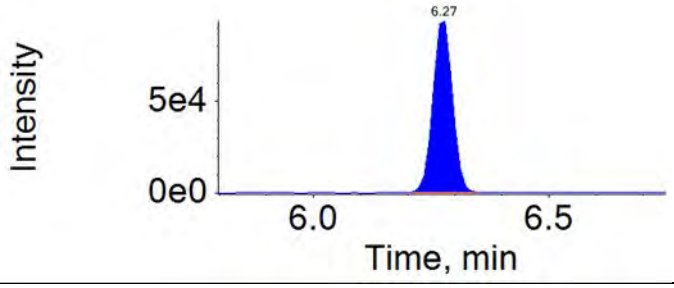
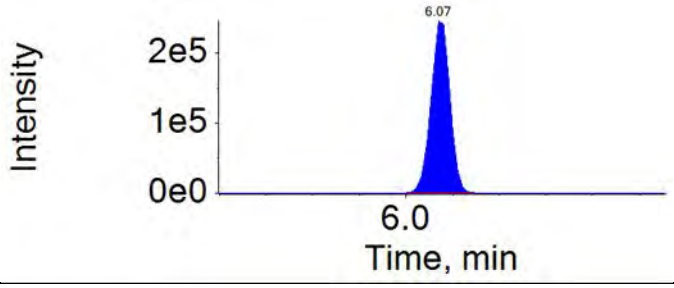


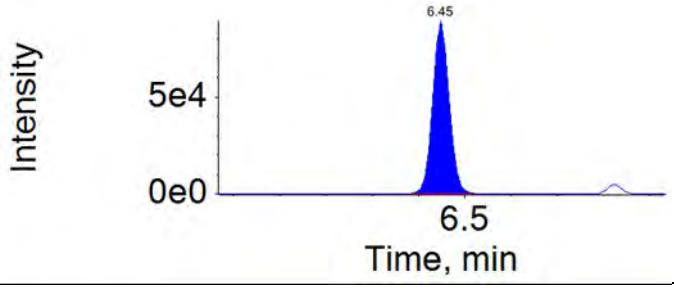
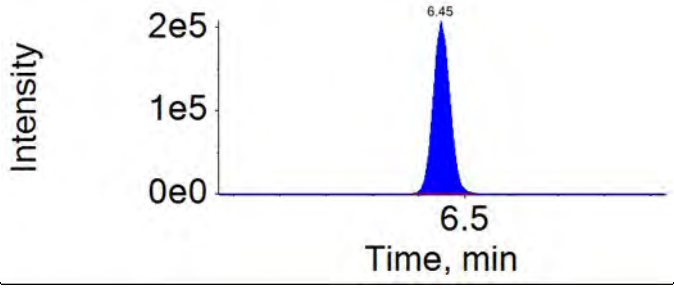


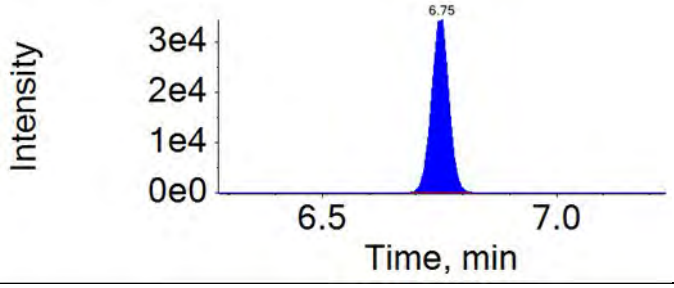
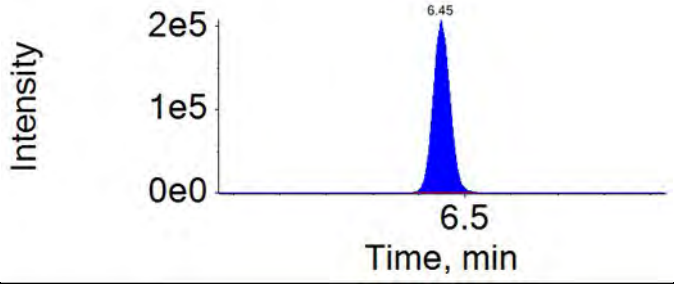
APPROVED
By MSM at 10:22 am, 12/4/18

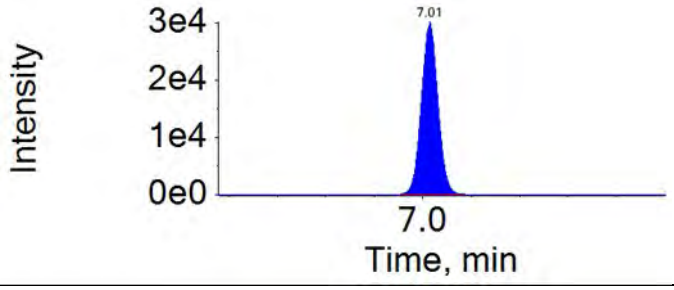
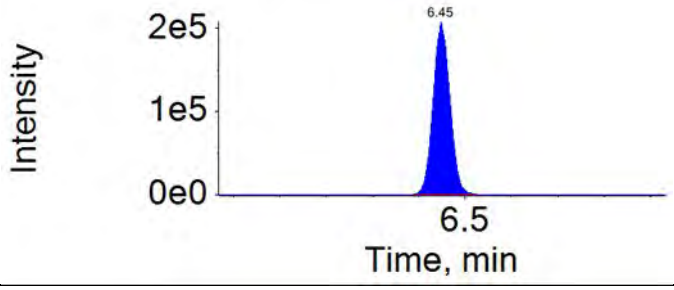
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

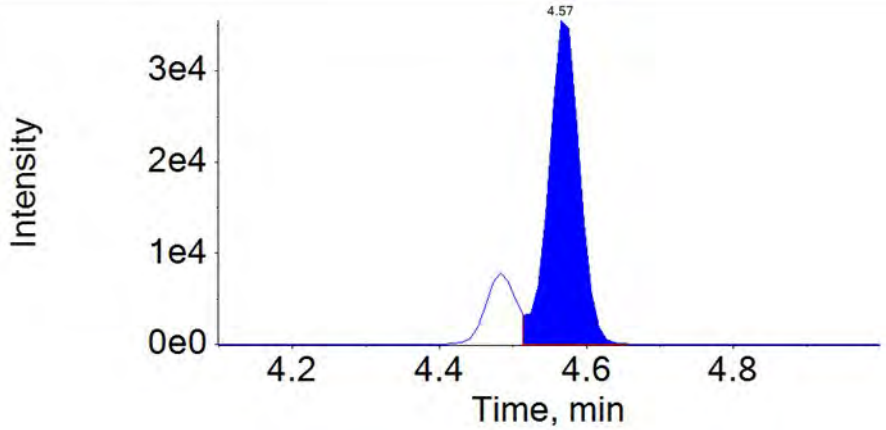
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

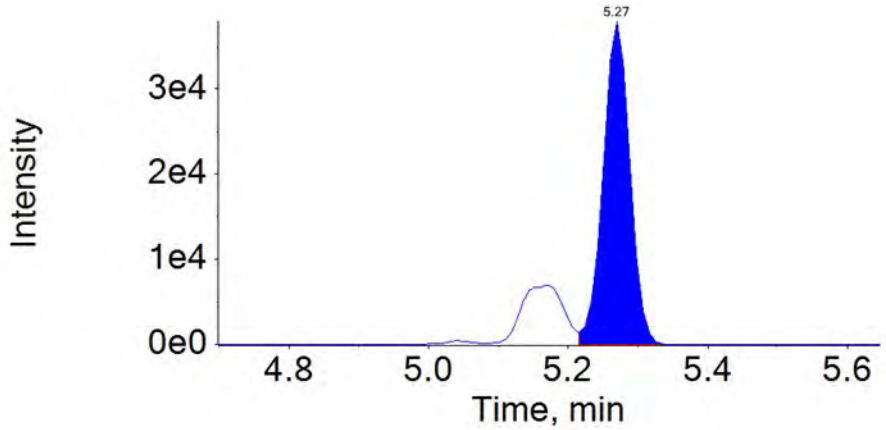
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:14:27 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.57
Peak Area:
104479.06
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3



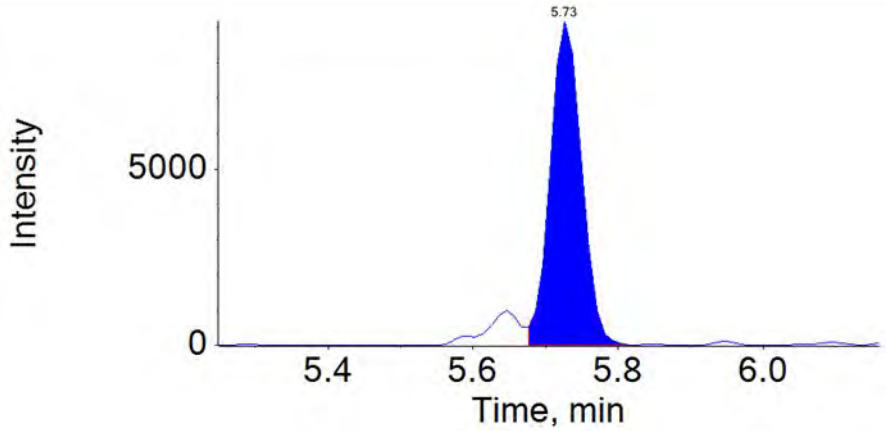
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
101139.44
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
27597.60
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3



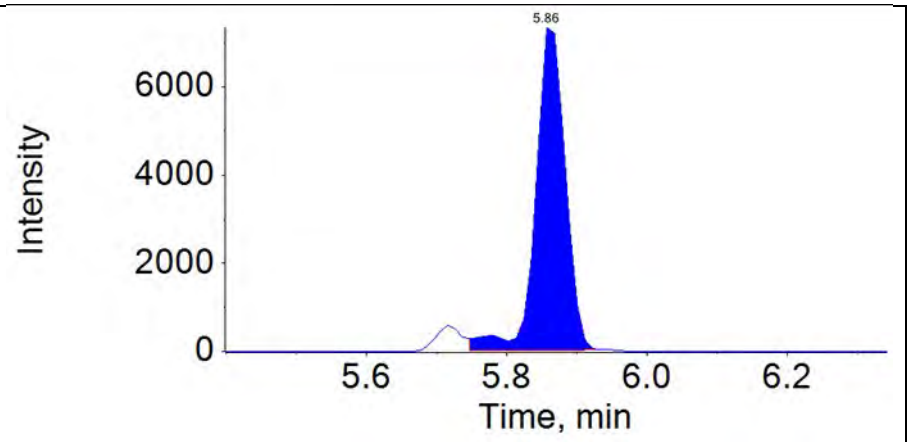
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

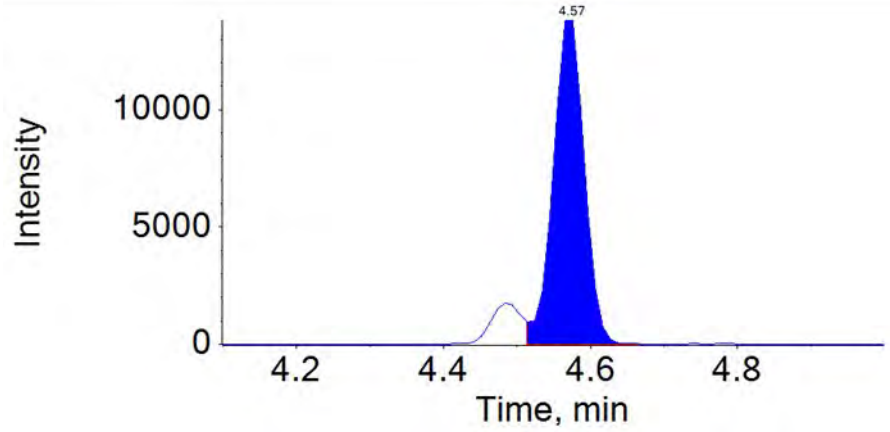
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:14:27 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.86
Peak Area:
21751.73
Mass Range:
584.0 / 419.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3



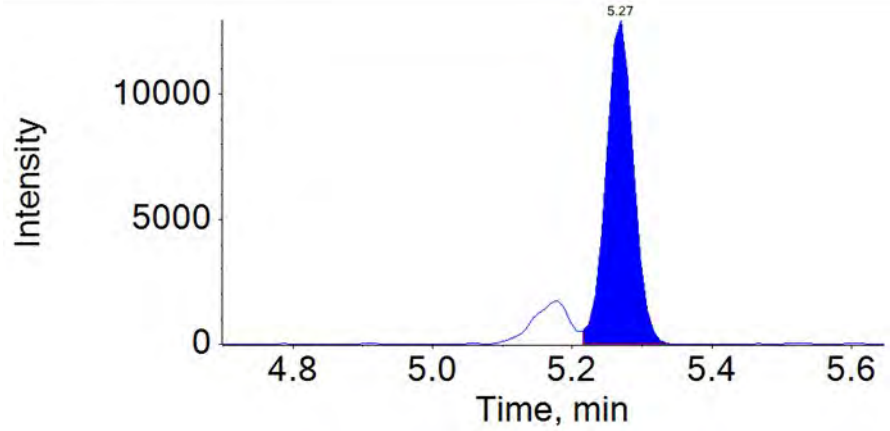
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.57
Peak Area:
41000.30
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
35497.66
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-12.wiff
Sample Name:
CAL3

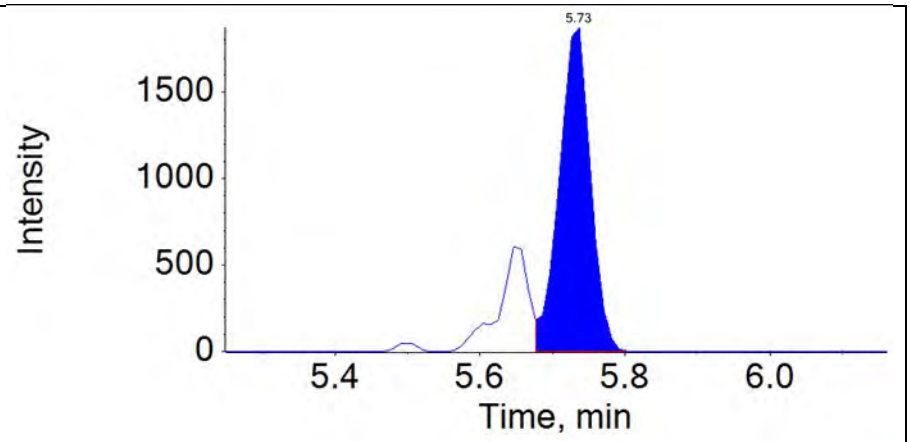


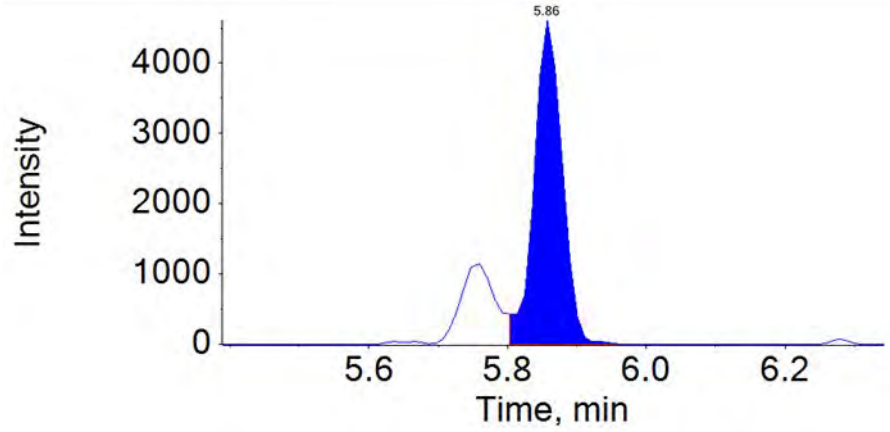
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:14:27 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2 **RT (min.):** 5.73 **Peak Area:** 5641.79 **Mass Range:** 570.0 / 483.0 **File Name:** 18DEC03DCAL-12.wiff **Sample Name:** CAL3	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.86 **Peak Area:** 13021.79 **Mass Range:** 584.0 / 526.0 **File Name:** 18DEC03DCAL-12.wiff **Sample Name:** CAL3	 **Integration Comment:** incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:14:27 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Ion Ratio Report

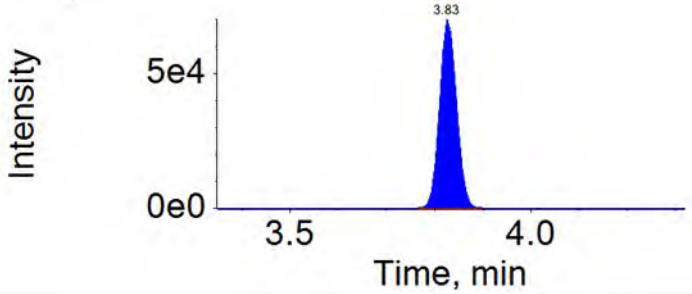
Sample Name: CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-12.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	172526.71	A	1.0000	1.0000			
PFBS_2	3.83	1.00	63035.86	A	0.3698	0.3654	-1	50	
4:2-FTS	4.14	1.00	38505.14	A	1.0000	1.0000			
4:2-FTS_2	4.14	1.00	23169.62	A	0.6536	0.6017	-8	50	
PFHxA	4.18	1.00	347228.87	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	4325.83	A	0.0116	0.0125	8	50	
PFPeS	4.20	1.10	90668.02	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	45260.24	A	0.5000	0.4992	0	50	
PFHpA	4.57	1.00	342849.32	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	18676.73	A	0.0526	0.0545	4	50	
PFHxS	4.57	1.00	126301.69	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	46000.20	M	0.3640	0.3642	0	50	
6:2-FTS	4.93	1.00	28159.04	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	17614.92	A	0.6372	0.6256	-2	50	
PFHpS	4.93	1.08	127250.44	A	1.0000	1.0000			
PFHpS_2	4.93	1.08	54608.89	A	0.3956	0.4291	8	50	
PFOA	4.94	1.00	340312.14	A	1.0000	1.0000			
PFOA_2	4.94	1.00	20954.49	A	0.0618	0.0616	0	50	
PFOS	5.27	1.00	131693.95	M	1.0000	1.0000			
PFOS_2	5.27	1.00	41962.97	M	0.2940	0.3186	8	50	
PFNA	5.28	1.00	295995.70	A	1.0000	1.0000			
PFNA_2	5.28	1.00	5061.64	A	0.0196	0.0171	-13	50	
PFNS	5.56	1.06	89492.27	A	1.0000	1.0000			
PFNS_2	5.56	1.06	42013.29	A	0.4676	0.4695	0	50	
PFDA	5.58	1.00	245962.71	A	1.0000	1.0000			
PFDA_2	5.58	1.00	2633.51	A	0.0073	0.0107	47	50	
8:2-FTS	5.59	1.00	21000.39	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	11854.77	A	0.6049	0.5645	-7	50	
NMeFOSAA	5.73	1.00	30889.99	M	1.0000	1.0000			
NMeFOSAA_2	5.73	1.00	7349.88	M	0.2642	0.2379	-10	50	
PFDS	5.82	1.10	70717.12	A	1.0000	1.0000			
PFDS_2	5.82	1.10	36911.85	A	0.4948	0.5220	5	50	
PFUnDA	5.85	1.00	219558.82	A	1.0000	1.0000			
PFUnDA_2	5.86	1.00	909.41	A	0.0046	0.0041	-9	50	
NEtFOSAA	5.86	1.00	23550.83	M	1.0000	1.0000			
NEtFOSAA_2	5.86	1.00	16997.29	M	0.7504	0.7217	-4	50	
PFDoDA	6.07	1.00	300265.93	A	1.0000	1.0000			
PFDoDA_2	6.07	1.00	3338.73	A	0.0143	0.0111	-22	50	
10:2-FTS	6.09	1.09	16541.83	A	1.0000	1.0000			
10:2-FTS_2	6.09	1.09	13529.33	A	0.7003	0.8179	17	50	
PFTrDA	6.27	1.03	270650.56	A	1.0000	1.0000			
PFTrDA_2	6.27	1.03	2856.93	A	0.0099	0.0106	6	50	
PFTeDA	6.45	1.00	218317.60	A	1.0000	1.0000			
PFTeDA_2	6.45	1.00	1271.20	A	0.0057	0.0058	2	50	
PFHxDA	6.75	1.05	89804.51	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	5588.57	A	0.0617	0.0622	1	50	
PFODA	7.01	1.09	70879.10	A	1.0000	1.0000			
PFODA_2	7.01	1.09	1801.87	A	0.0266	0.0254	-5	50	

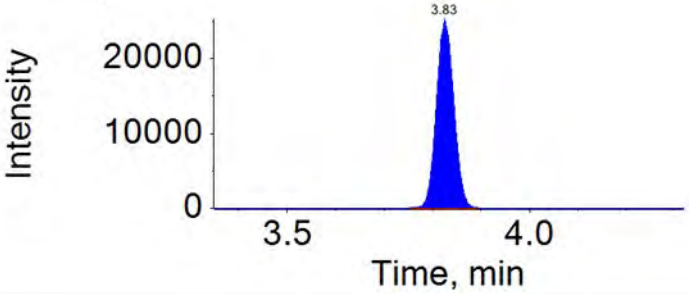
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

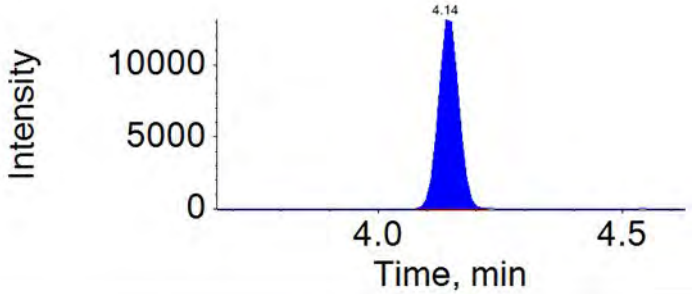
Component: PFBS
Primary Mass: 299.0 / 80.0



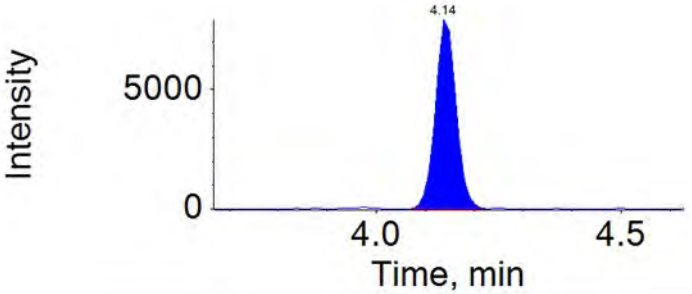
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



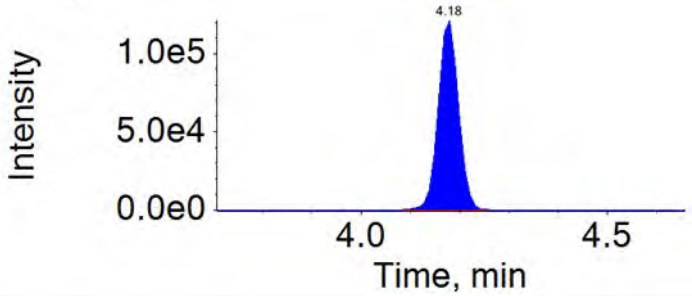
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



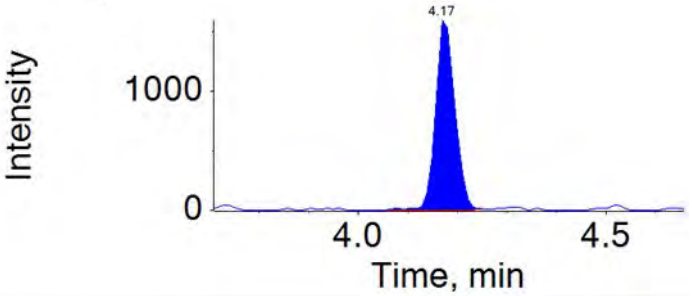
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



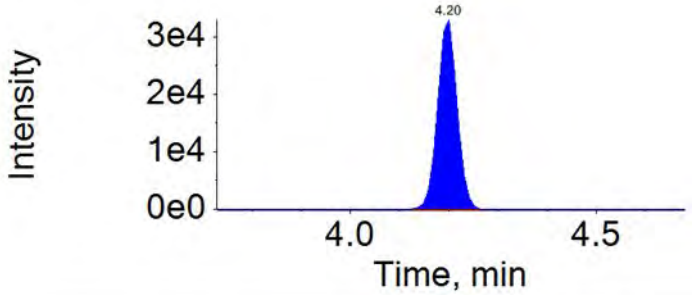
Component: PFHxA
Primary Mass: 313.0 / 269.0



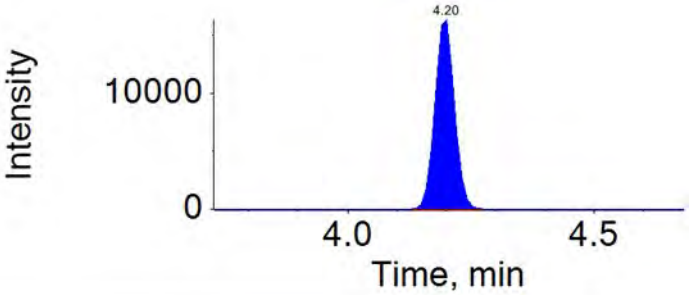
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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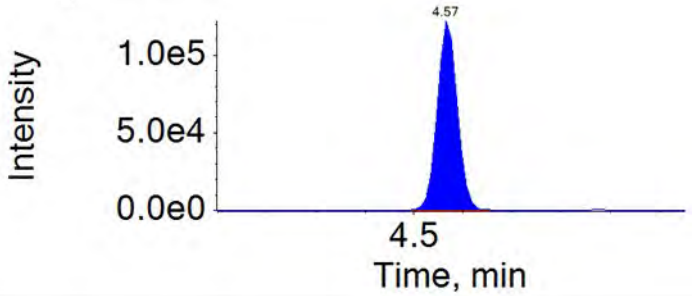
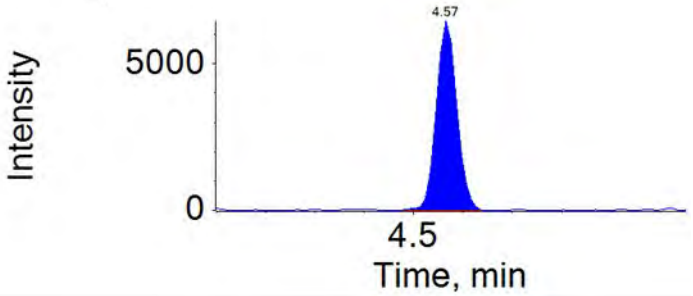
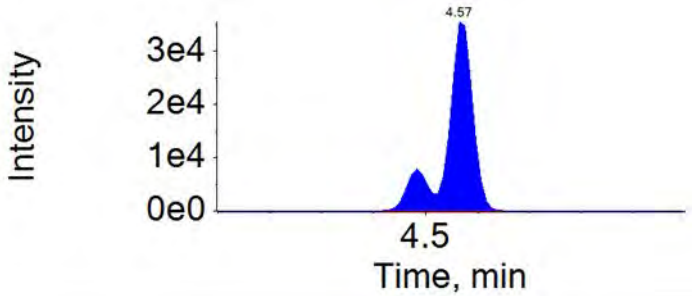
Component: PFHpA
Primary Mass: 363.0 / 319.0



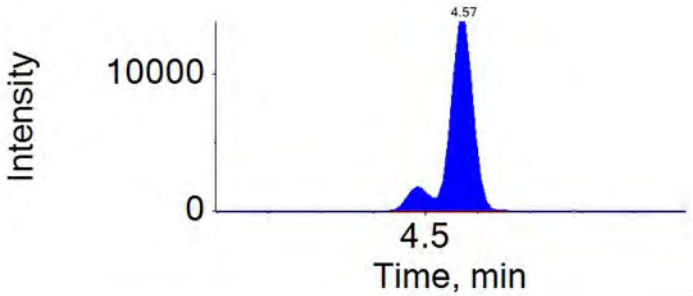
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



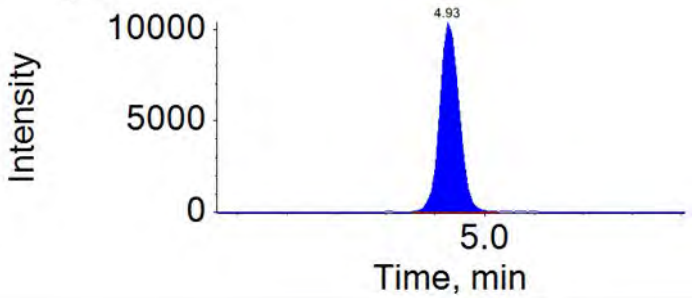
Component: PFHxS
Primary Mass: 399.0 / 80.0



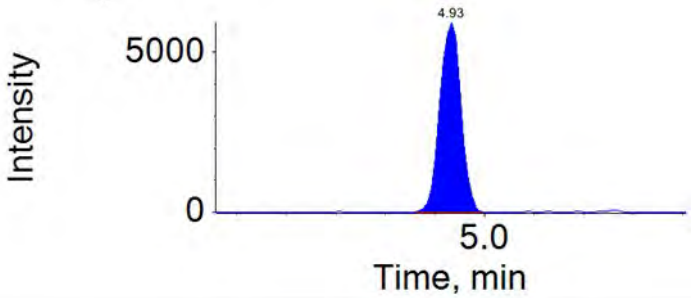
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



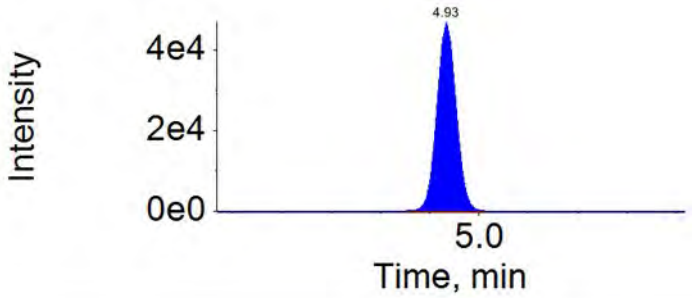
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



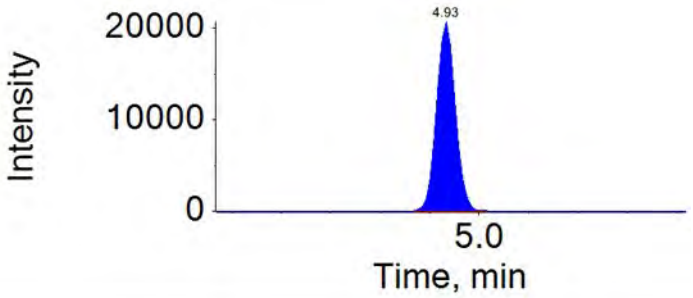
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



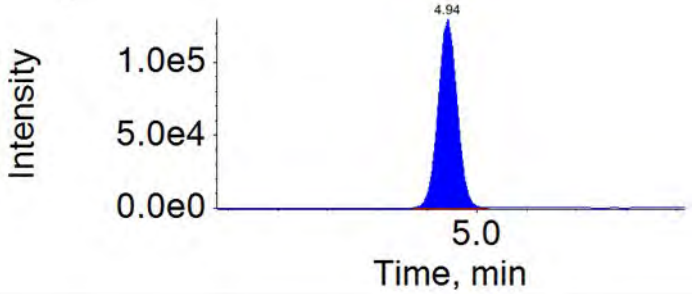
Component: PFHpS
Primary Mass: 449.0 / 80.0



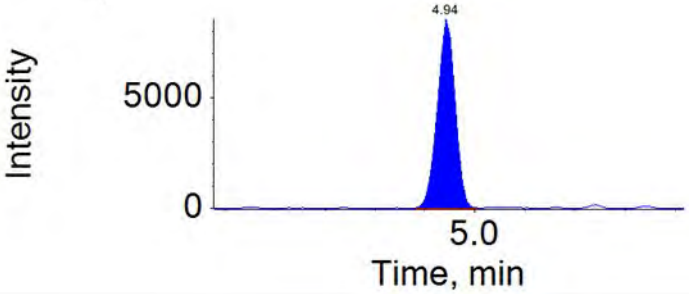
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



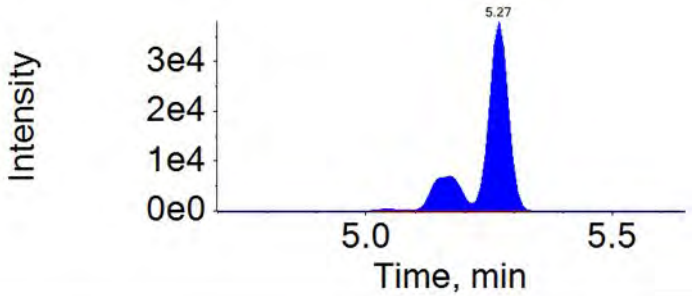
Component: PFOA
Primary Mass: 413.0 / 369.0



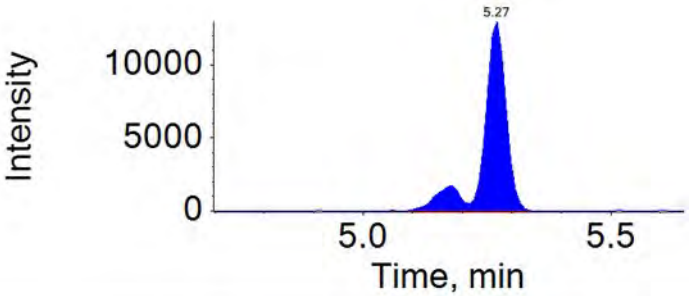
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



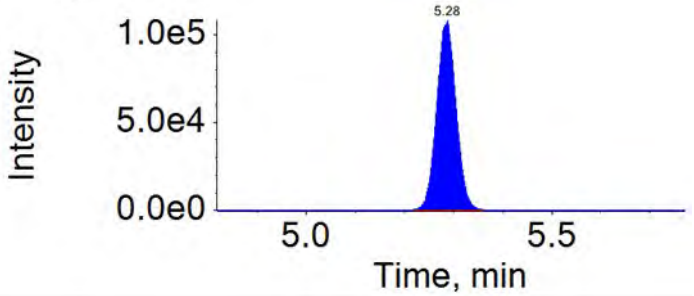
Component: PFOS
Primary Mass: 499.0 / 80.0



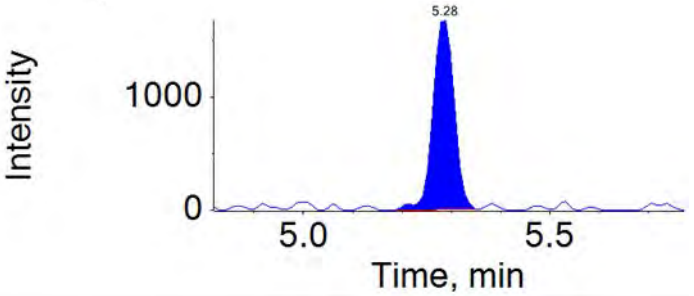
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



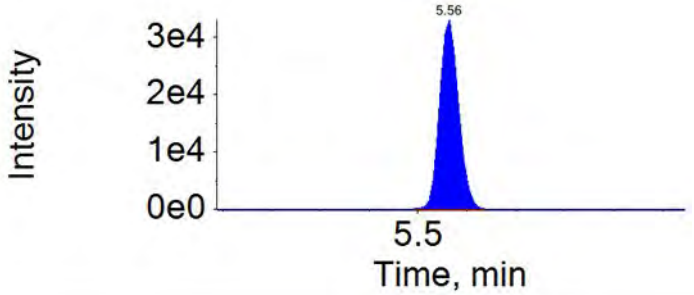
Component: PFNA
Primary Mass: 463.0 / 419.0



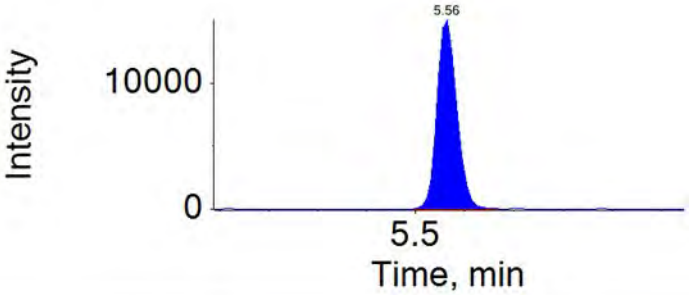
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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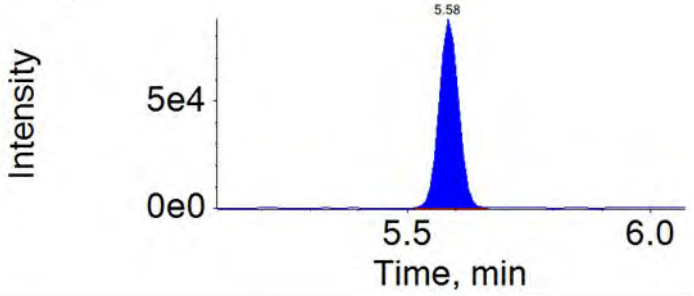
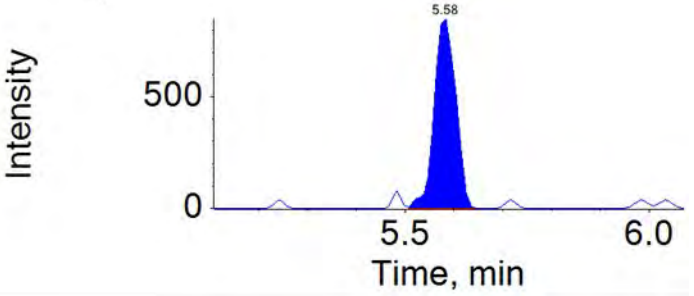
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

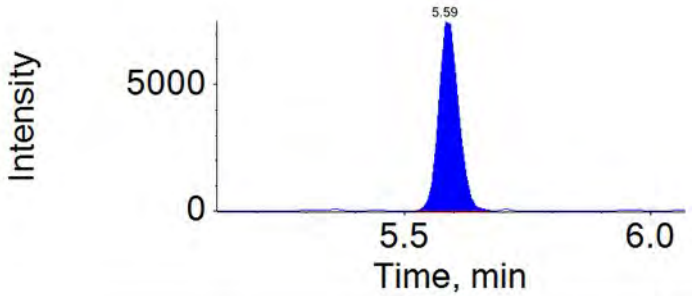
Component: PFDA
Primary Mass: 513.0 / 469.0



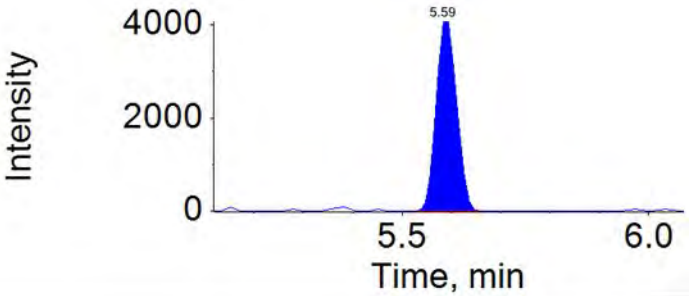
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



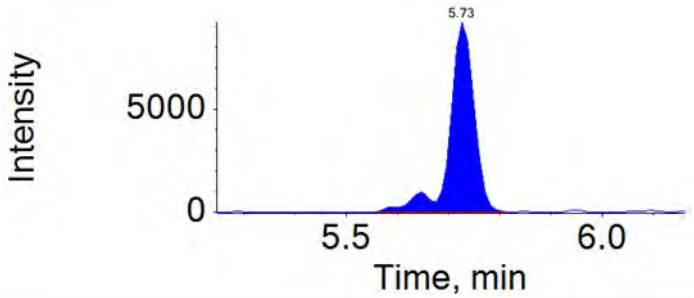
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



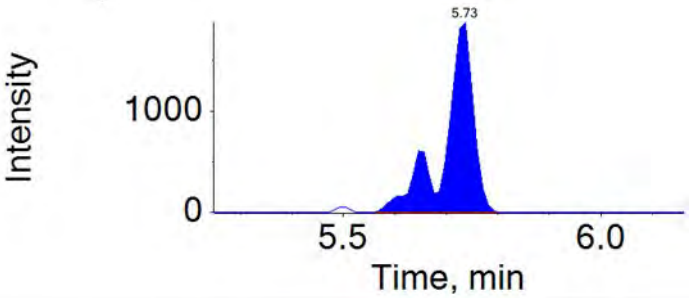
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



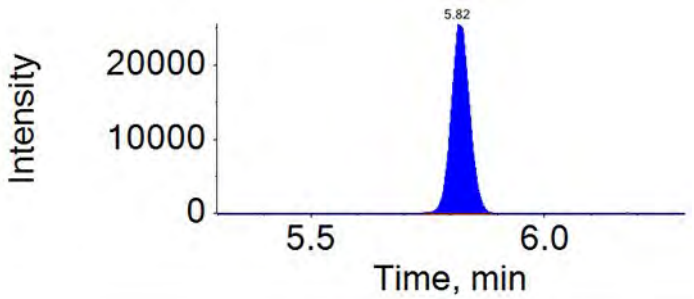
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



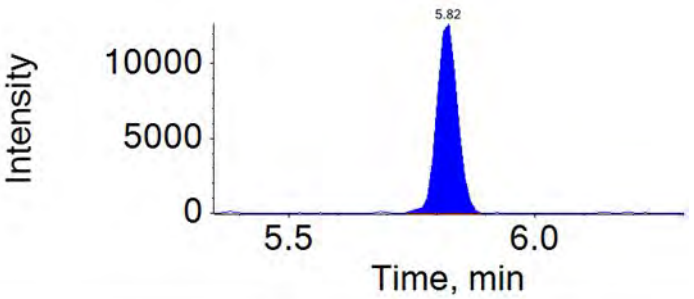
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



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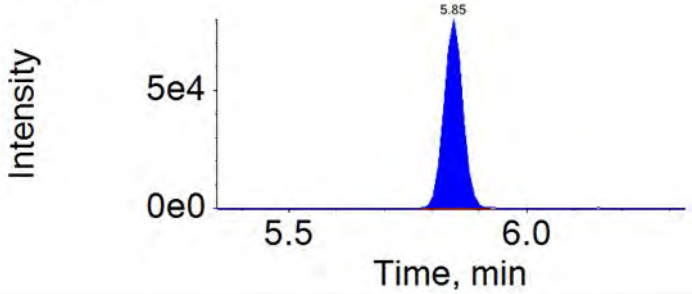
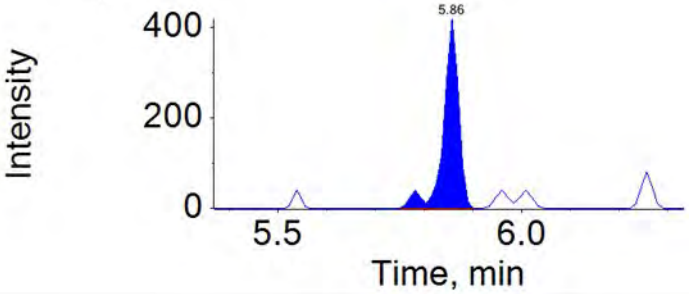
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

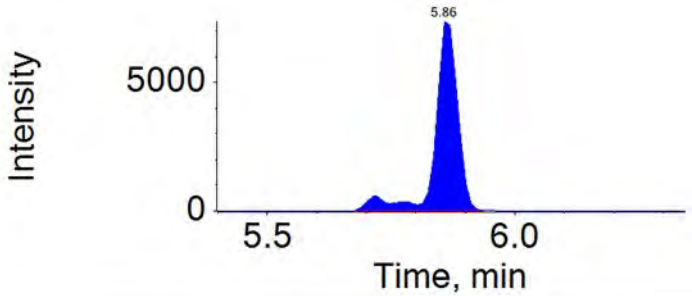
Component: PFUnDA
Primary Mass: 563.0 / 519.0



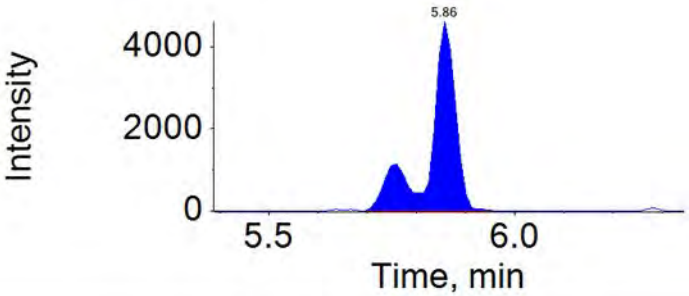
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



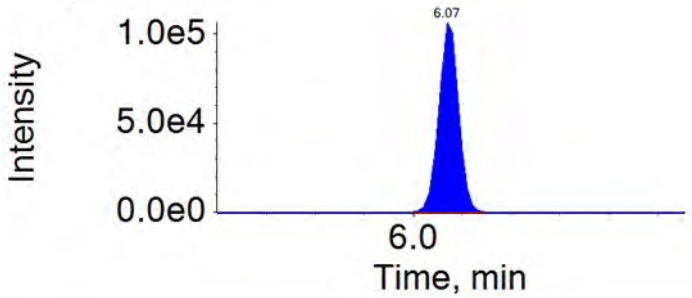
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



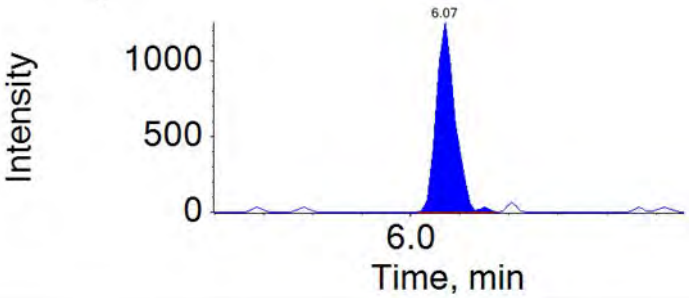
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



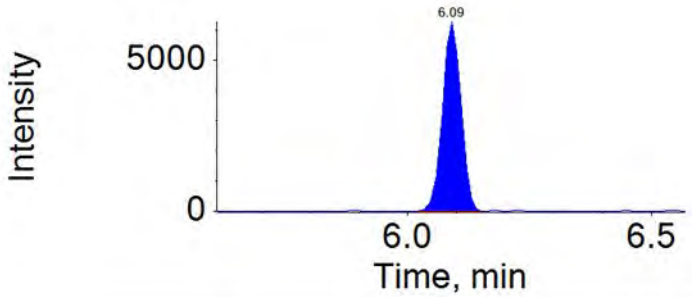
Component: PFDoDA
Primary Mass: 613.0 / 569.0



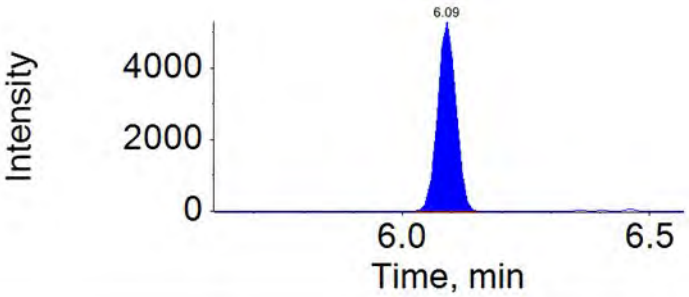
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



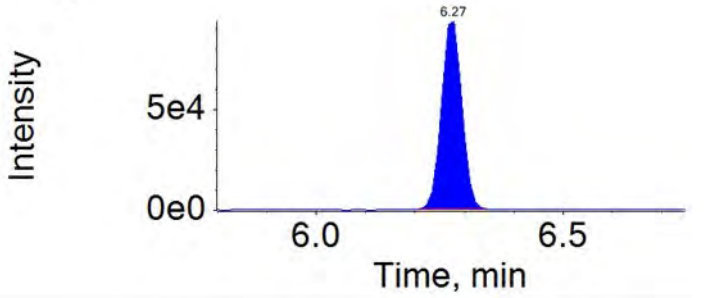
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



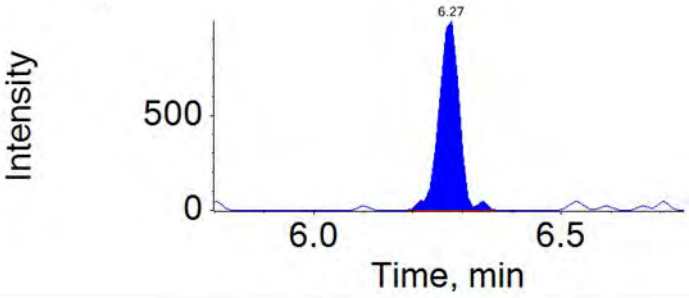
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



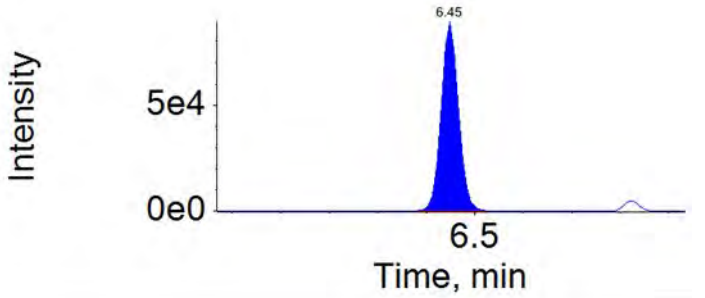
Component: PFTrDA
Primary Mass: 663.0 / 619.0



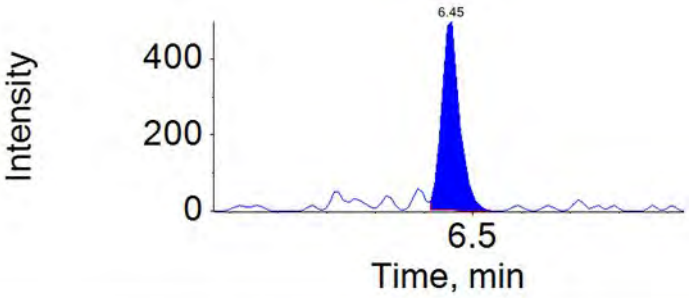
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



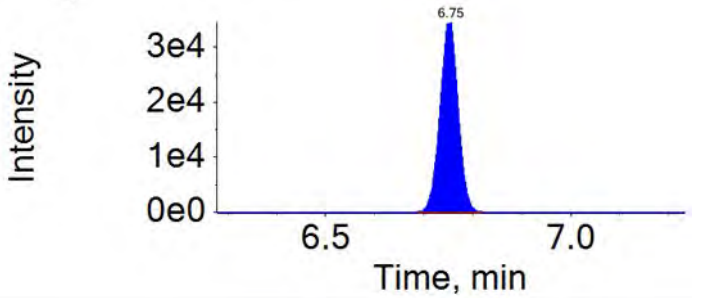
Component: PFTeDA
Primary Mass: 713.0 / 669.0



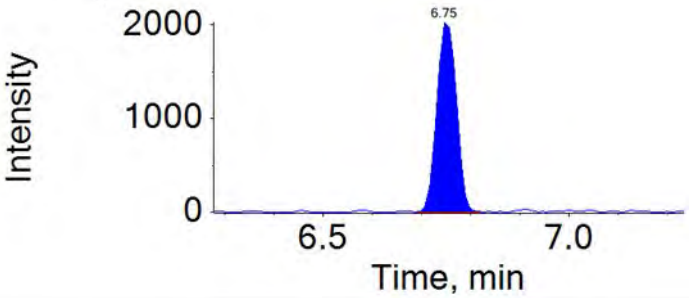
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



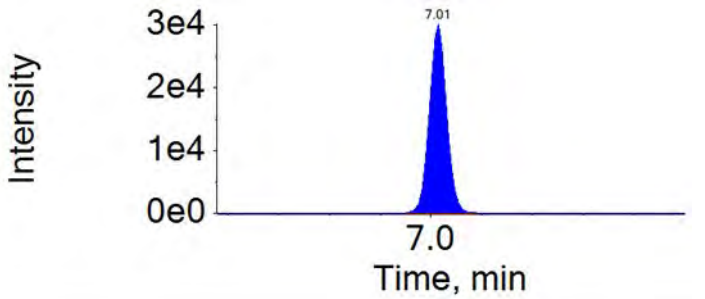
Component: PFHxDA
Primary Mass: 813.0 / 769.0



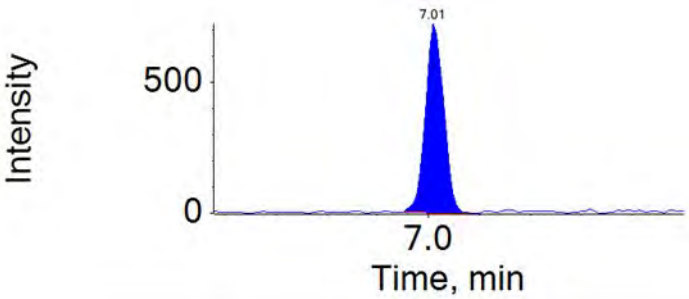
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL4			**Data File:**		18DEC03DCAL-13.wiff
Sample ID:	CALBRN41833B			**Acquis Date:**		2018-12-03T18:02:14
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	6			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	766407.3	749775.9	2	50	
13C2-PFOA	5.0	461194.1	434072.7	6	50	
13C4-PFOS	4.8	289855.5	261136.3	11	50	
13C2-PFDA	5.0	312249.7	305281.8	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	842291.4	13C3-PFBA	766407.3	1.099	5.000	4.877	98	70-130	
E13C5-PFPeA	782233.0	13C3-PFBA	766407.3	1.021	5.000	4.925	98	70-130	
E13C3-PFBS	444396.3	13C3-PFBA	766407.3	0.580	4.650	4.519	97	70-130	
E13C2-4:2-FTS	46852.5	13C2-PFOA	461194.1	0.102	4.670	4.179	89	70-130	
E13C5-PFHxA	638151.0	13C2-PFOA	461194.1	1.384	5.000	4.686	94	70-130	
E13C3-PFHxS	334721.6	13C2-PFOA	461194.1	0.726	4.730	4.589	97	70-130	
E13C4-PFHpA	500590.0	13C2-PFOA	461194.1	1.085	5.000	4.736	95	70-130	
E13C2-6:2-FTS	31169.6	13C2-PFOA	461194.1	0.068	4.750	4.479	94	70-130	
E13C8-PFOA	802574.6	13C2-PFOA	461194.1	1.740	5.000	4.837	97	70-130	
E13C8-PFOS	303740.1	13C4-PFOS	289855.5	1.048	4.780	4.654	97	70-130	
E13C9-PFNA	487200.8	13C4-PFOS	289855.5	1.681	5.000	4.920	98	70-130	
E13C6-PFDA	596917.2	13C2-PFDA	312249.7	1.912	5.000	4.972	99	70-130	
E13C2-8:2-FTS	21920.4	13C2-PFDA	312249.7	0.070	4.790	4.514	94	70-130	
E13C8-PFOSA	675000.2	13C2-PFDA	312249.7	2.162	5.000	4.839	97	70-130	
Ed3-NMeFOSAA	78775.4	13C2-PFDA	312249.7	0.252	5.000	4.407	88	70-130	
E13C7-PFUnDA	301821.4	13C2-PFDA	312249.7	0.967	5.000	4.814	96	70-130	
Ed5-NEtFOSAA	68092.5	13C2-PFDA	312249.7	0.218	5.000	4.975	99	70-130	
E13C2-PFDoDA	710459.9	13C2-PFDA	312249.7	2.275	5.000	4.872	97	70-130	
Ed7-NMePFOSAE	273044.3	13C2-PFDA	312249.7	0.874	5.000	4.741	95	70-130	
Ed3-NMePFOSA	82323.2	13C2-PFDA	312249.7	0.264	5.000	4.889	98	70-130	
Ed9-NEtPFOSAE	228696.5	13C2-PFDA	312249.7	0.732	5.000	4.724	94	70-130	
Ed5-NEtPFOSA	63944.6	13C2-PFDA	312249.7	0.205	5.000	4.831	97	70-130	
E13C2-PFTeDA	539074.7	13C2-PFDA	312249.7	1.726	5.000	4.866	97	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

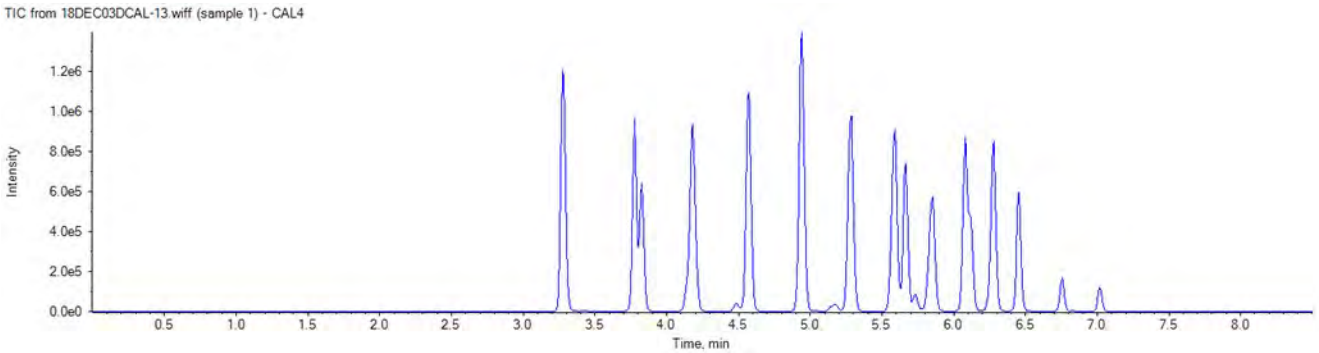
Analyte Quantitation Peak Table

Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-13.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	1236008.6		A	13C4-PFBA	3.28	842291.4	1.467	8.311
PFPeA	3.78	1.000	1211477.5		A	13C5-PFPeA	3.78	782233.0	1.549	7.755
PFBS	3.83	1.000	640071.2		A	13C3-PFBS	3.83	444396.3	1.440	7.023
4:2-FTS	4.14	1.000	141513.7		A	13C2-4:2-FTS	4.14	46852.5	3.020	7.628
PFHxA	4.18	1.000	1260832.0		A	13C5-PFHxA	4.18	638151.0	1.976	8.421
PFPeS	4.20	1.100	330269.4		A	13C3-PFBS	3.83	444396.3	0.743	7.132
PFHpA	4.57	1.000	1263860.3		A	13C4-PFHpA	4.57	500590.0	2.525	8.148
PFHxS	4.57	1.000	465916.6		M	13C3-PFHxS	4.57	334721.6	1.392	6.558
6:2-FTS	4.93	1.000	102306.2		A	13C2-6:2-FTS	4.93	31169.6	3.282	7.960
PFHpS	4.93	1.080	473818.2		A	13C3-PFHxS	4.57	334721.6	1.416	7.369
PFOA	4.94	1.000	1221239.1		A	13C8-PFOA	4.94	802574.6	1.522	8.054
PFOS	5.27	1.000	495600.4		M	13C8-PFOS	5.27	303740.1	1.632	6.915
PFNA	5.29	1.000	1045246.2		A	13C9-PFNA	5.29	487200.8	2.145	8.040
PFNS	5.57	1.060	344749.1		A	13C8-PFOS	5.27	303740.1	1.135	7.654
PFDA	5.59	1.000	903571.0		A	13C6-PFDA	5.59	596917.2	1.514	8.302
8:2-FTS	5.60	1.000	81985.8		A	13C2-8:2-FTS	5.59	21920.4	3.740	8.033
PFOSA	5.66	1.000	1040474.9		A	13C8-PFOSA	5.66	675000.2	1.541	8.073
NMeFOSAA	5.73	1.000	100079.3		M	d3-NMeFOSAA	5.73	78775.4	1.270	8.408
PFDS	5.83	1.110	265366.6		A	13C8-PFOS	5.27	303740.1	0.874	7.481
PFUnDA	5.85	1.000	810079.3		A	13C7-PFUnDA	5.85	301821.4	2.684	8.172
NEtFOSAA	5.87	1.000	100326.8		A	d5-NEtFOSAA	5.86	68092.5	1.473	7.452
PFDoDA	6.08	1.000	1044903.7		A	13C2-PFDoDA	6.08	710459.9	1.471	8.386
10:2-FTS	6.10	1.090	61188.6		A	13C2-8:2-FTS	5.59	21920.4	2.791	6.955
NMePFOSAE	6.12	1.000	533585.6		A	d7-NMePFOSAE	6.11	273044.3	1.954	8.276
NMePFOSA	6.13	1.000	122283.2		A	d3-NMePFOSA	6.12	82323.2	1.485	7.833
PFDoS	6.25	1.190	135487.7		A	13C8-PFOS	5.27	303740.1	0.446	6.988
NEtPFOSAE	6.28	1.000	565107.5		A	d9-NEtPFOSAE	6.27	228696.5	2.471	8.512
NEtPFOSA	6.29	1.000	106570.5		A	d5-NEtPFOSA	6.28	63944.6	1.667	7.756
PFTrDA	6.28	1.030	962956.6		A	13C2-PFDoDA	6.08	710459.9	1.355	7.979
PFTeDA	6.45	1.000	755494.8		A	13C2-PFTeDA	6.45	539074.7	1.401	8.295
PFHxDA	6.76	1.050	335150.9		A	13C2-PFTeDA	6.45	539074.7	0.622	7.980
PFODA	7.02	1.090	260679.2		A	13C2-PFTeDA	6.45	539074.7	0.484	7.681

Total Ion Chromatogram

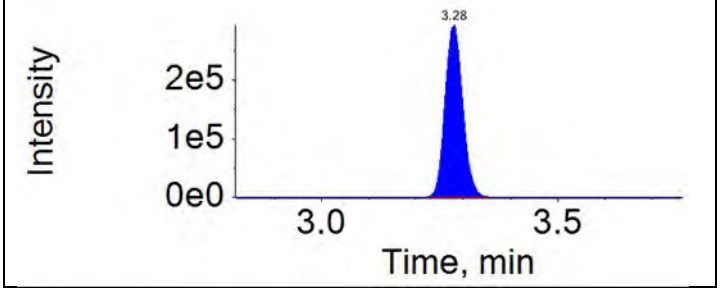


APPROVED
By MSM at 10:22 am, 12/4/18

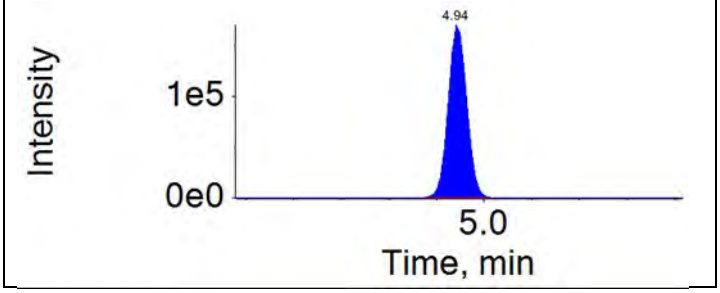
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

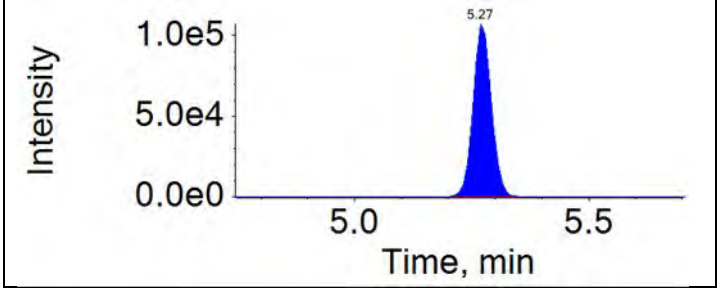
Injection Standard: 13C3-PFBA
216.0 / 172.0



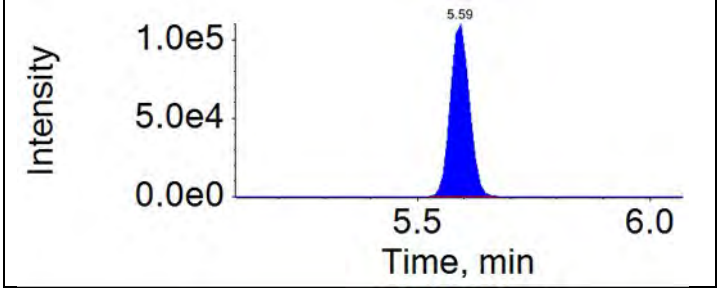
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

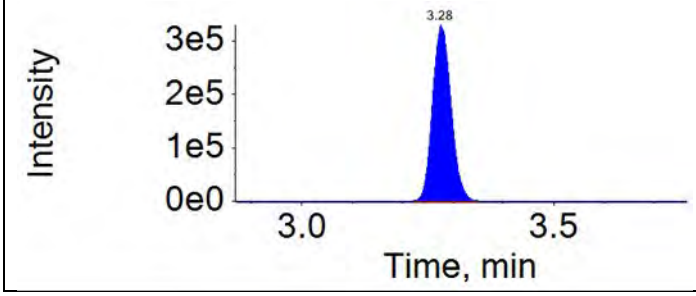


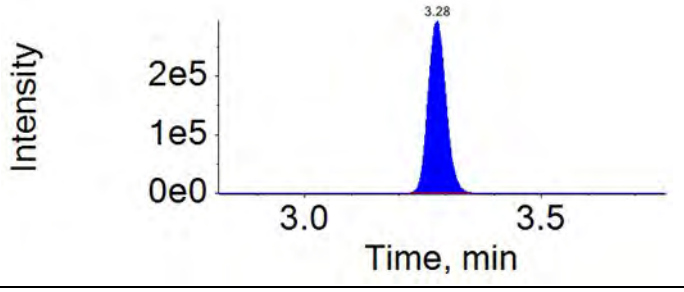
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

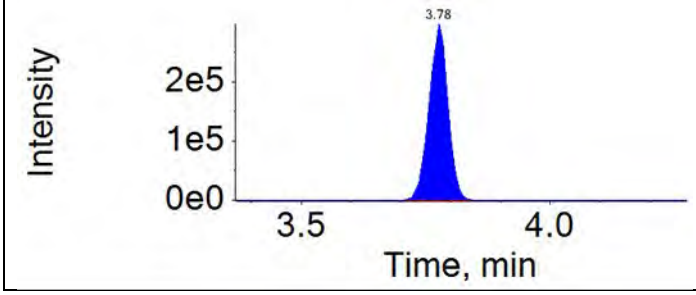
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

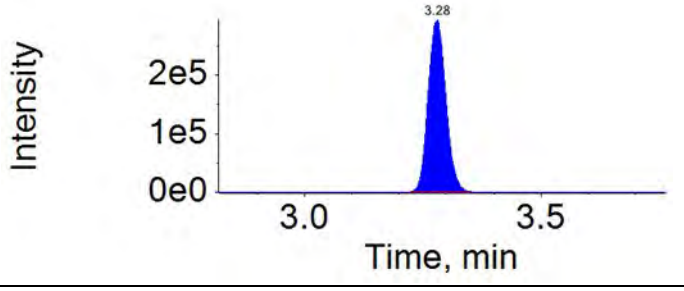
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



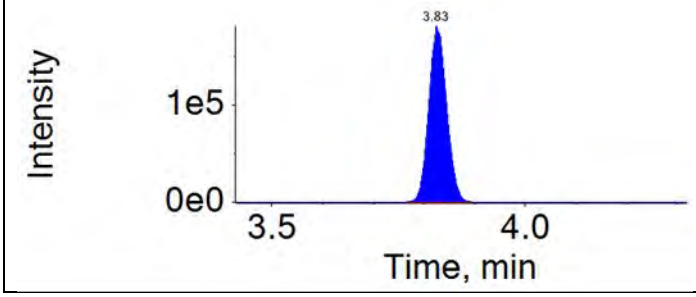


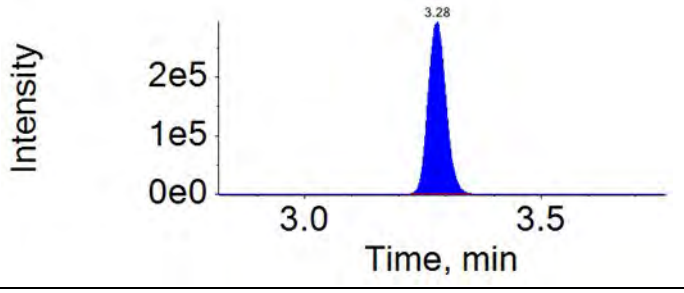
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



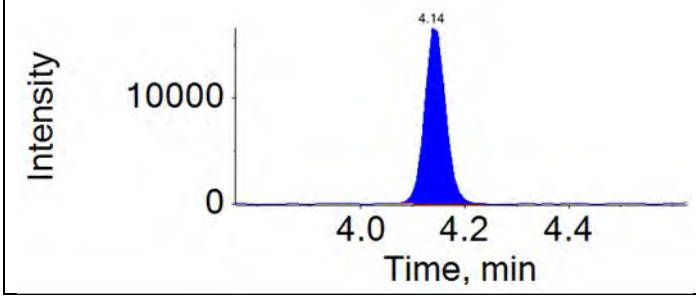


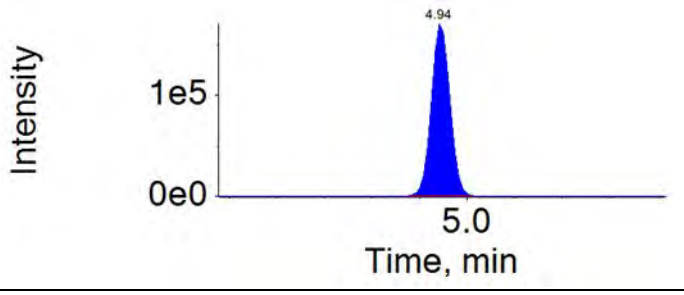
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



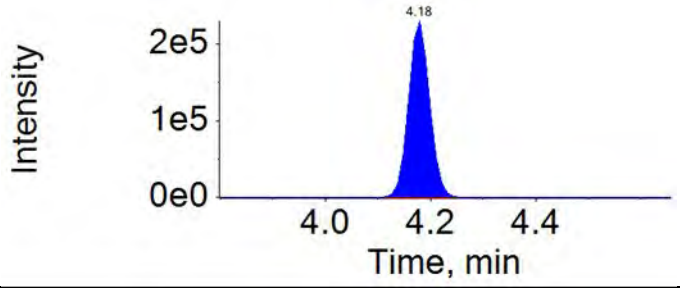


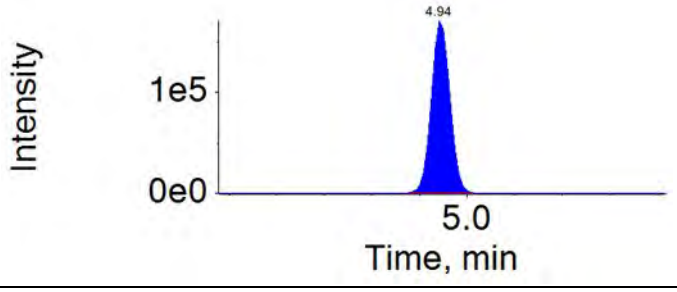
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

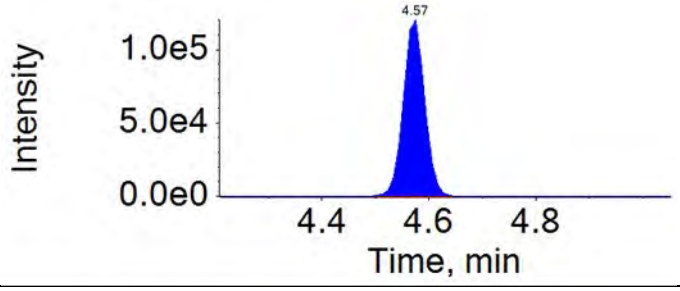
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

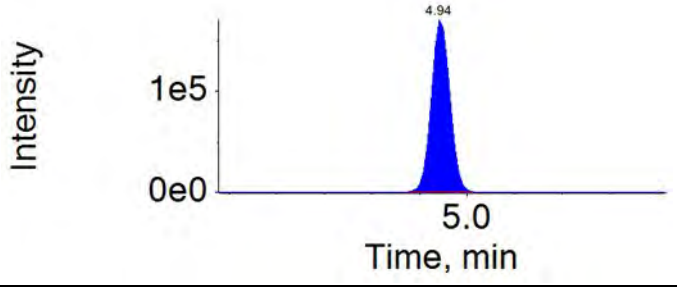
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



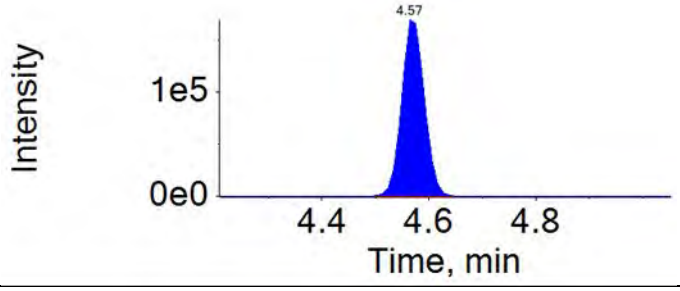


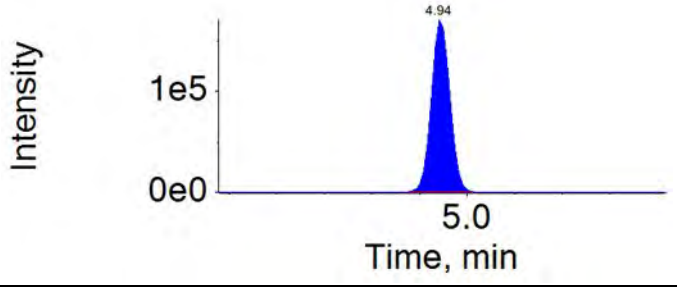
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



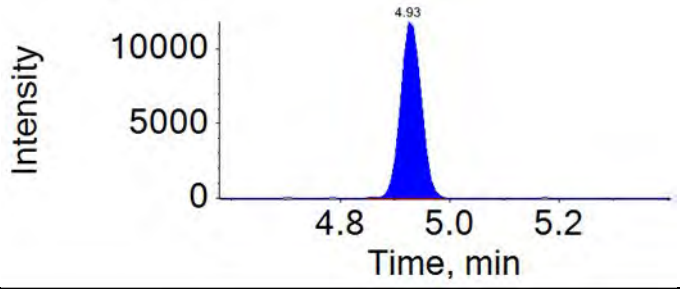


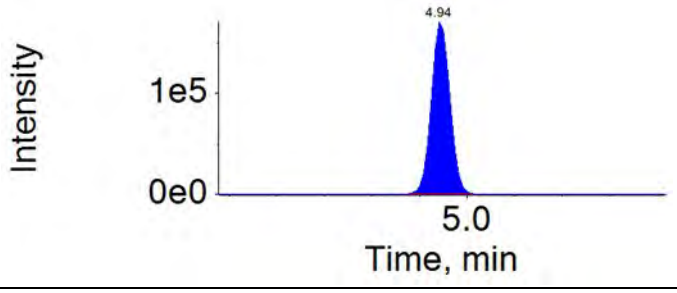
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



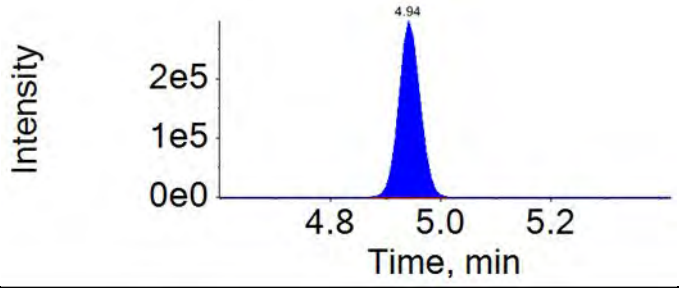


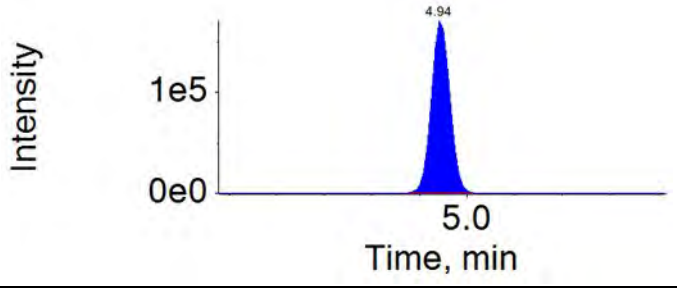
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

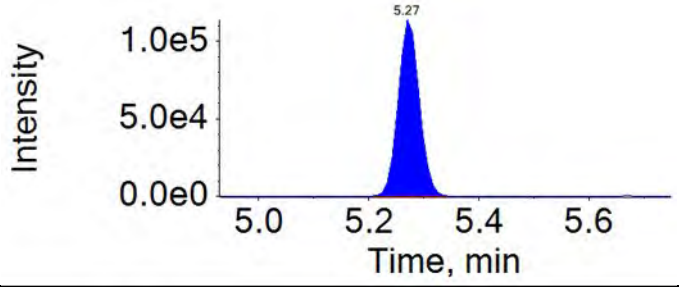
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

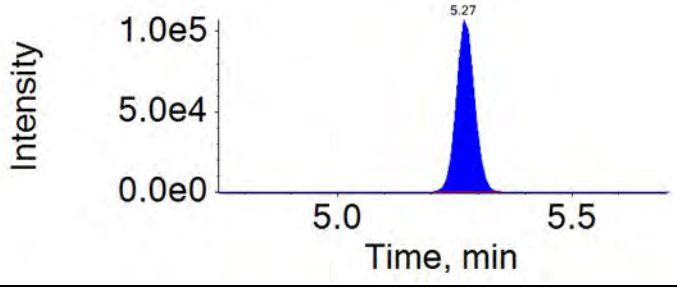
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



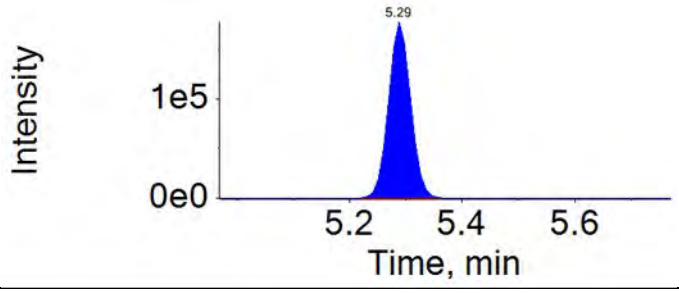


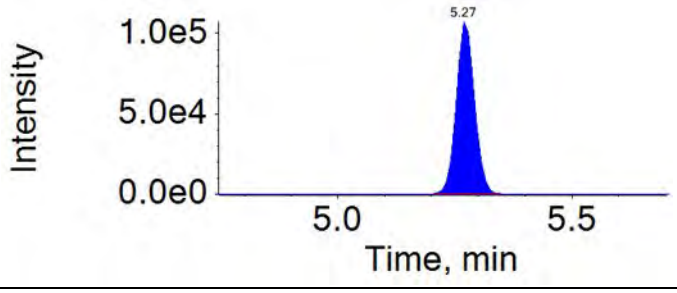
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



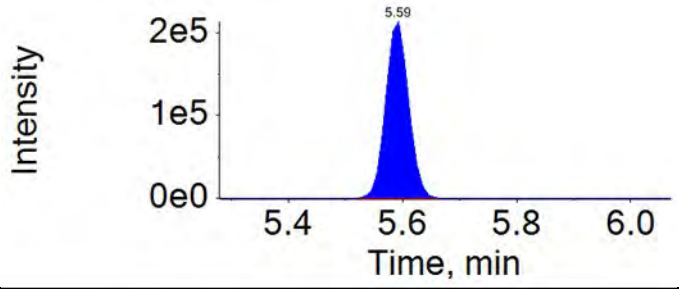


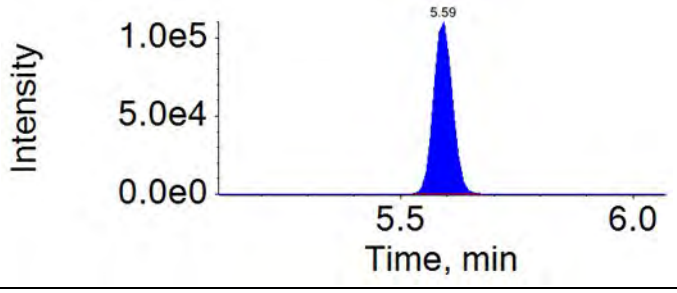
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

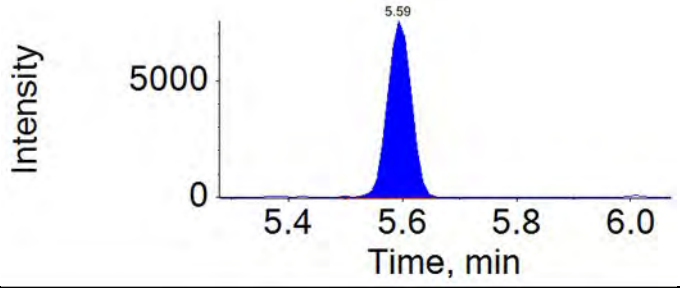
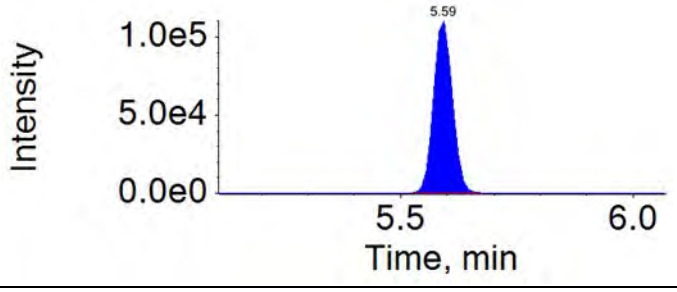


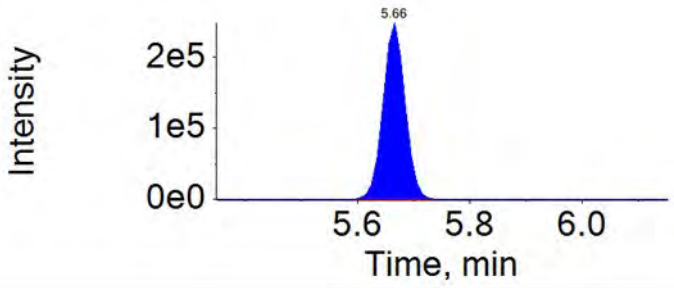
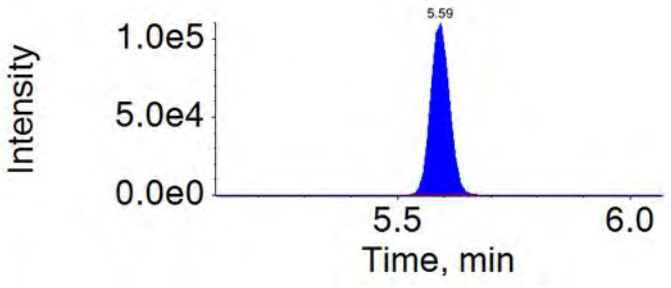


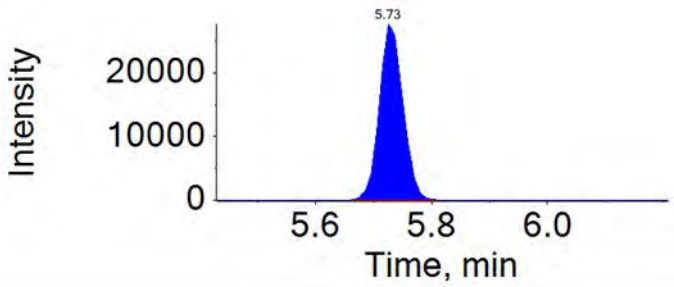
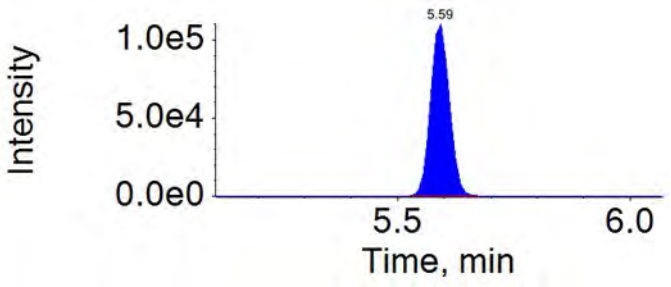
APPROVED
By MSM at 10:22 am, 12/4/18

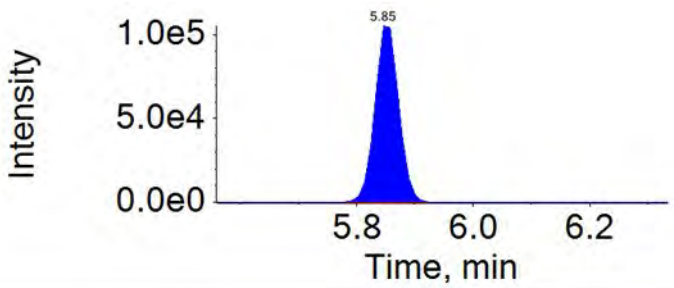
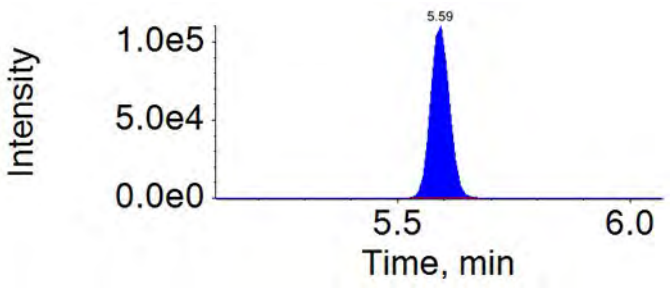
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

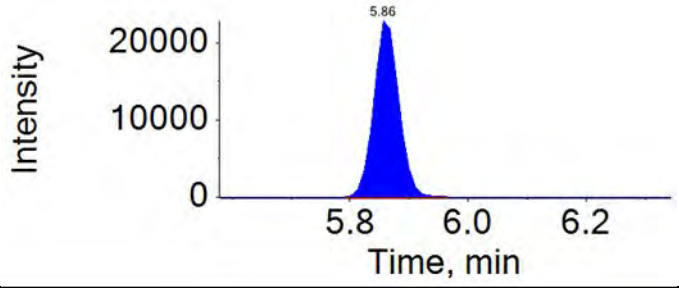
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

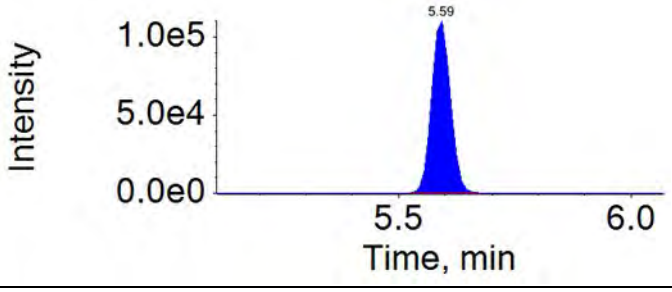
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

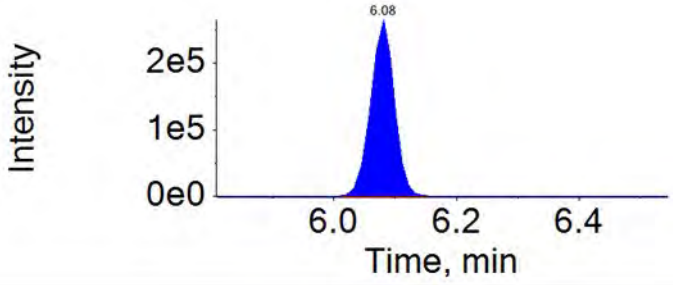
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

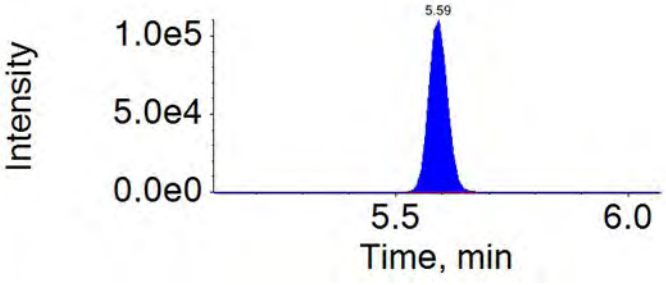
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



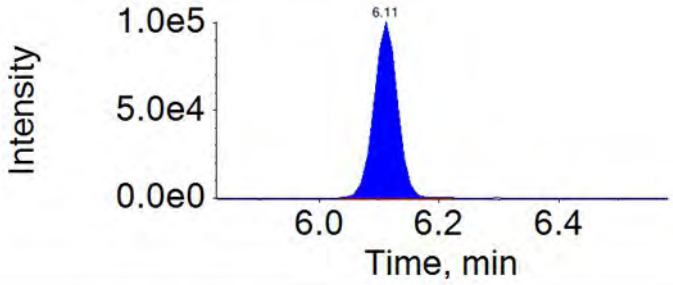


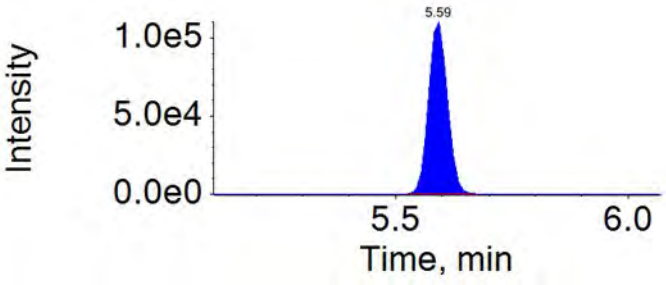
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



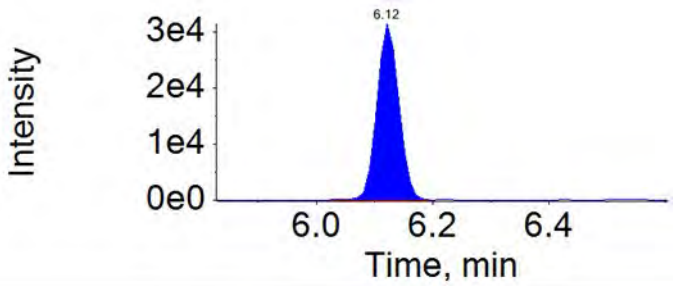


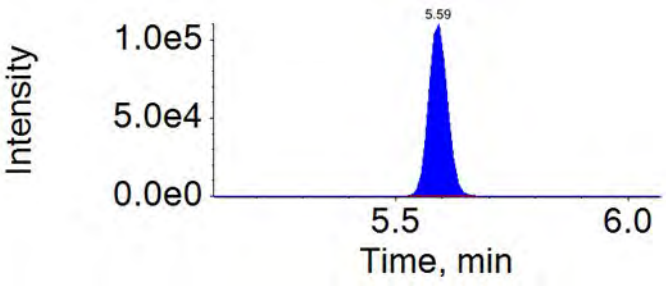
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





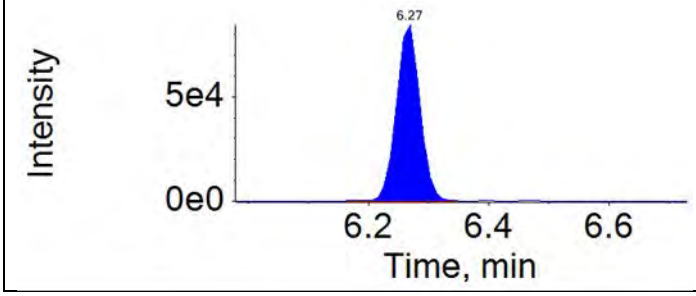
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

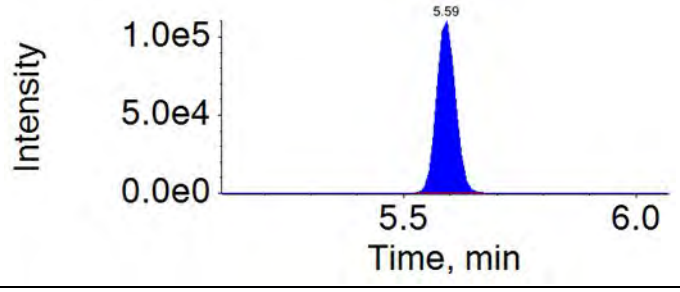




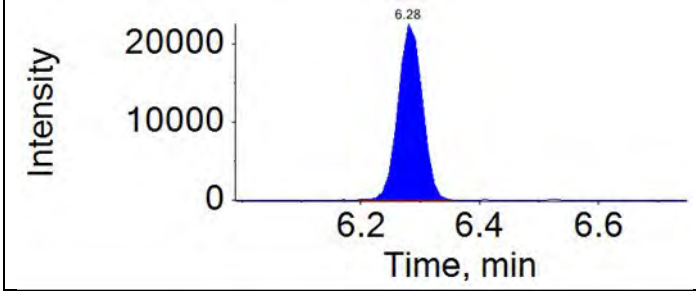
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

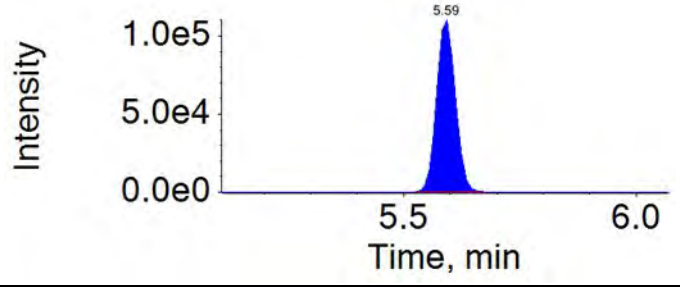
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



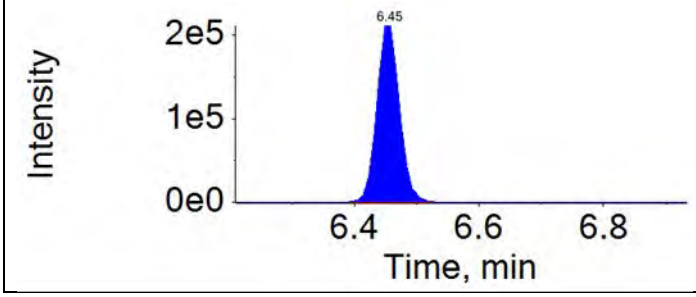


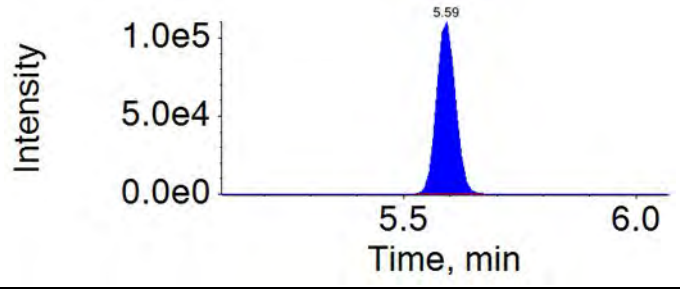
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



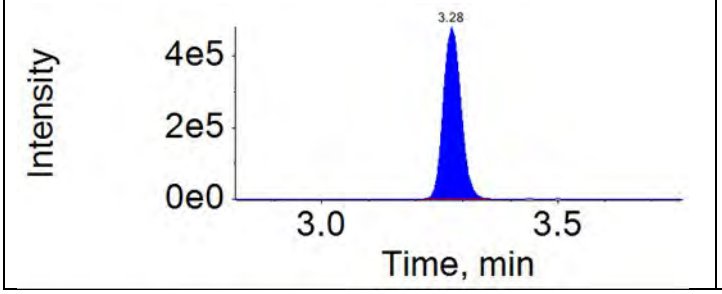


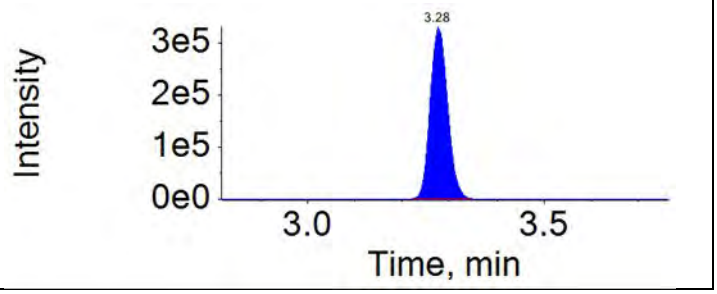
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

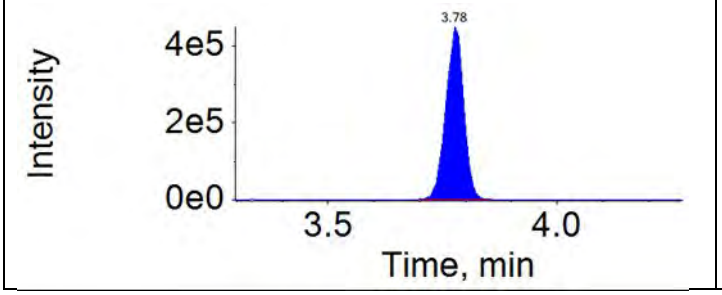
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

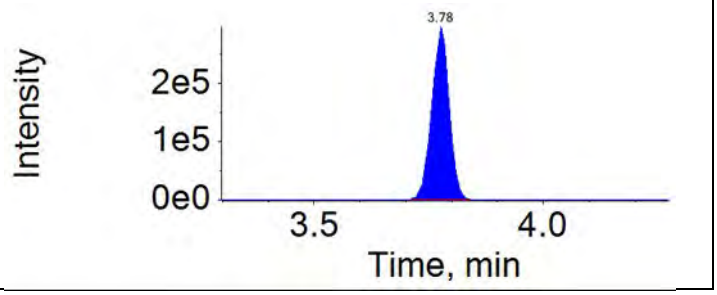
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



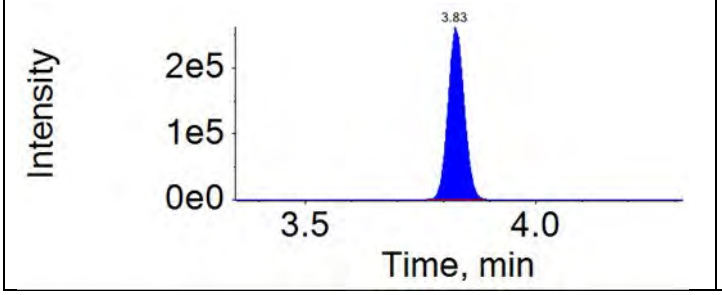


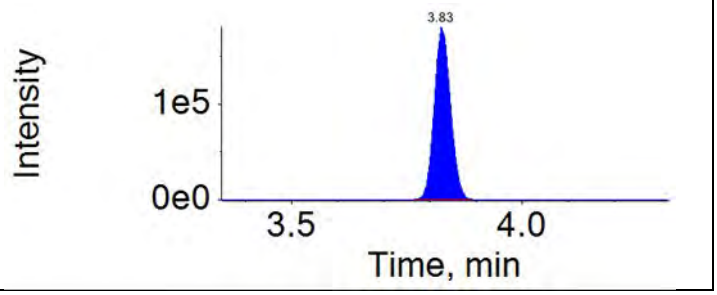
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



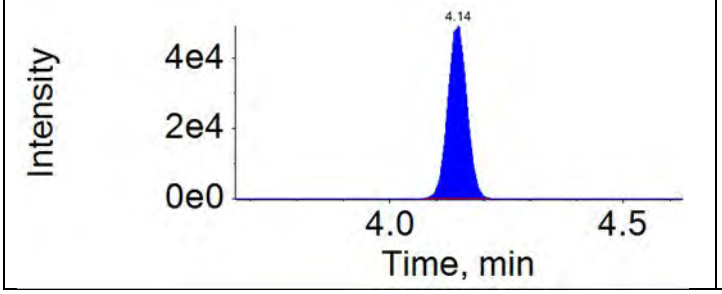


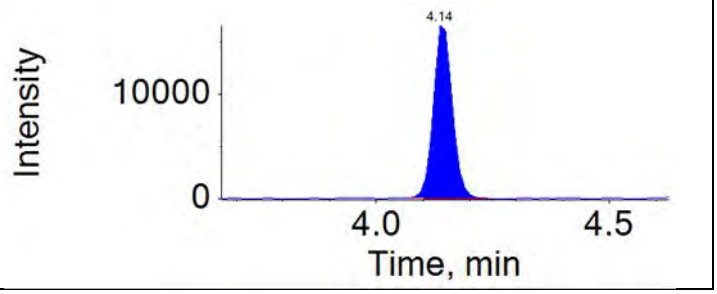
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



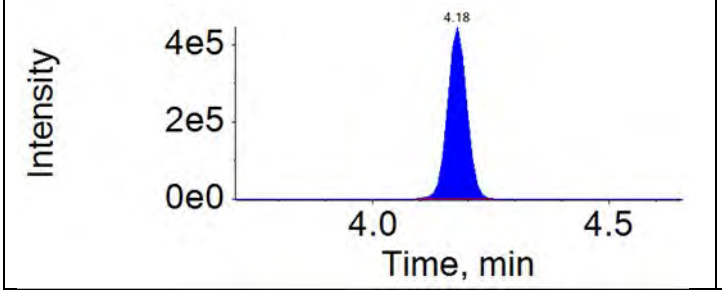


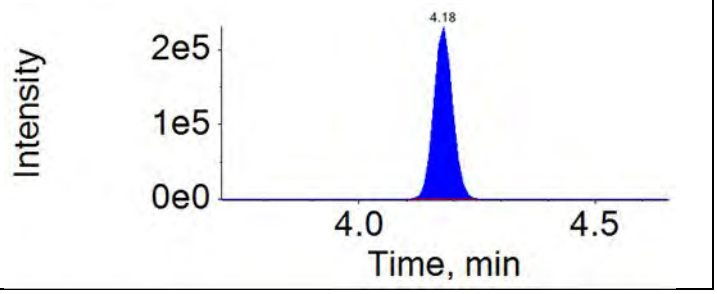
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

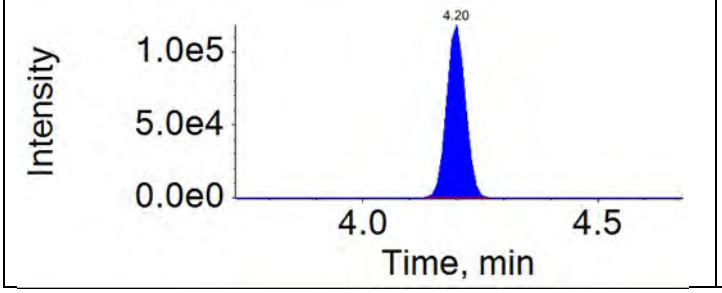
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

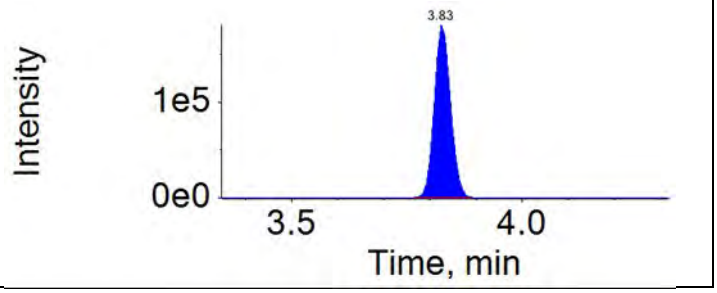
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



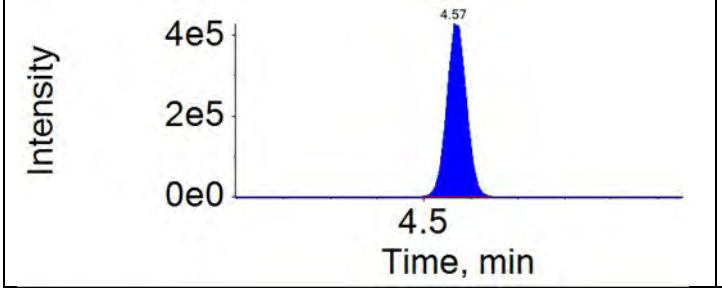


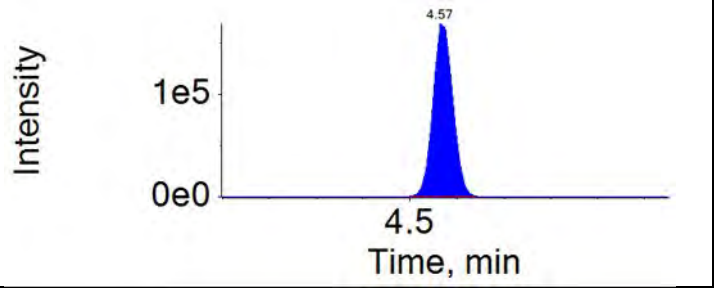
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



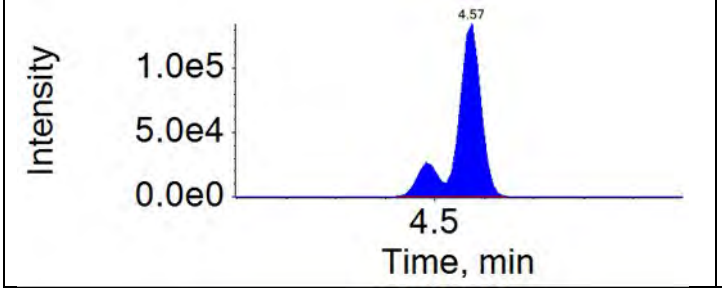


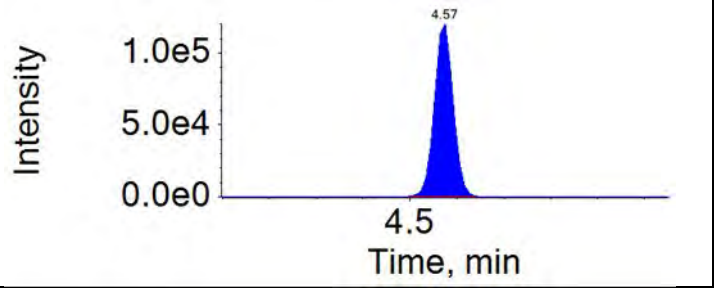
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



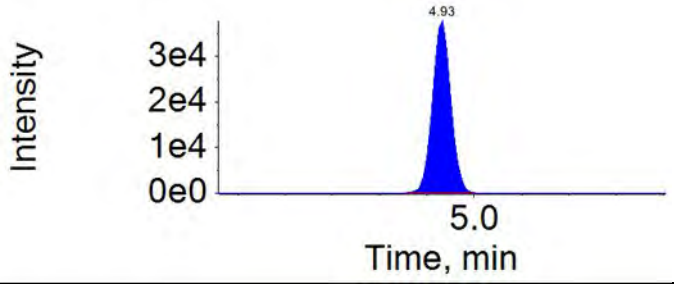
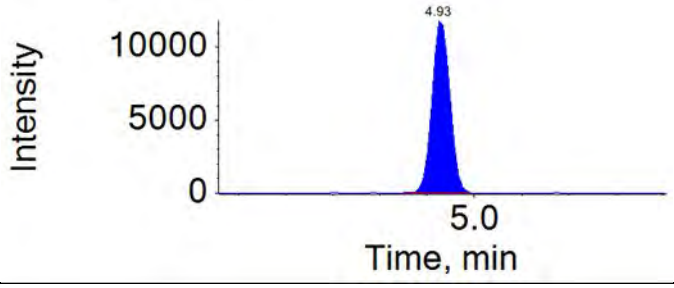


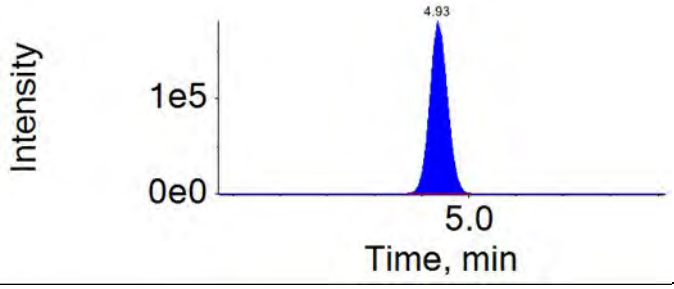
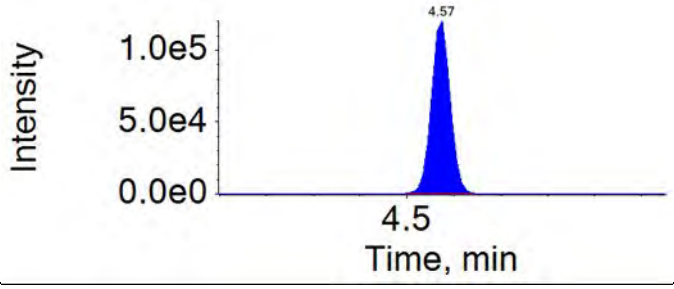
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

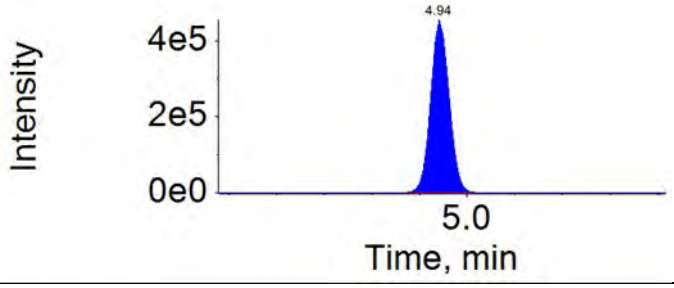
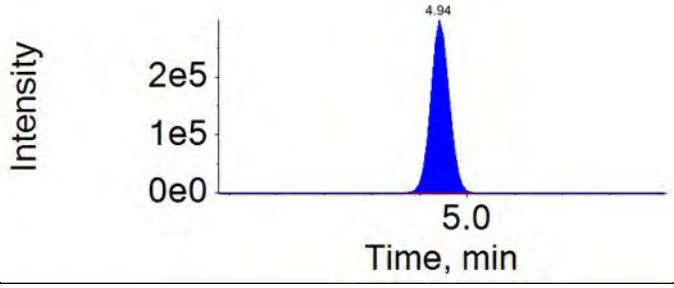


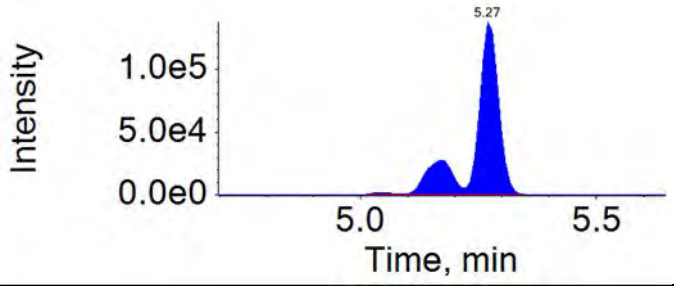
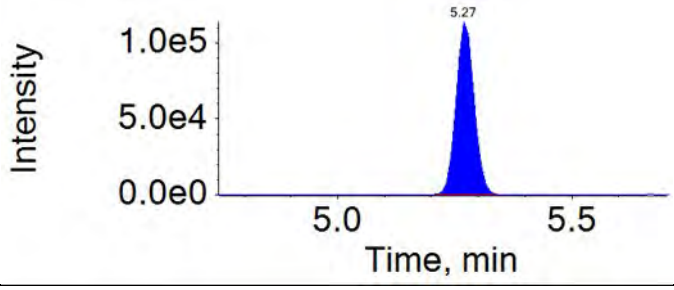


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

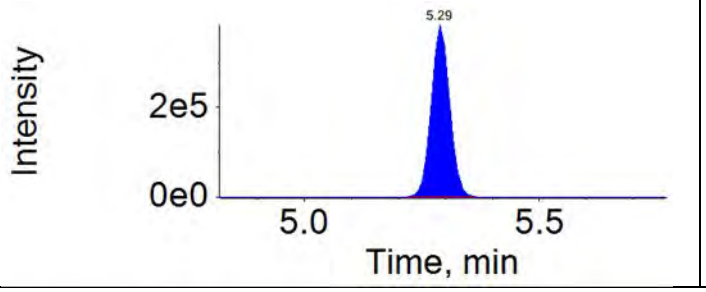
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

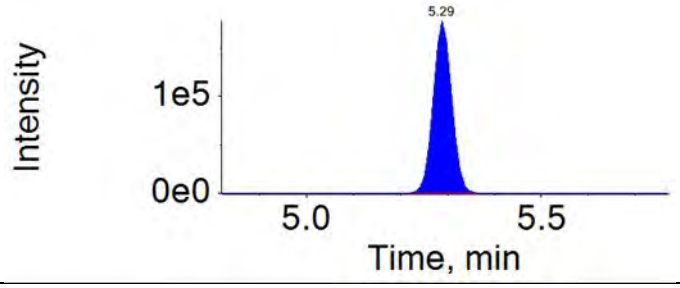
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

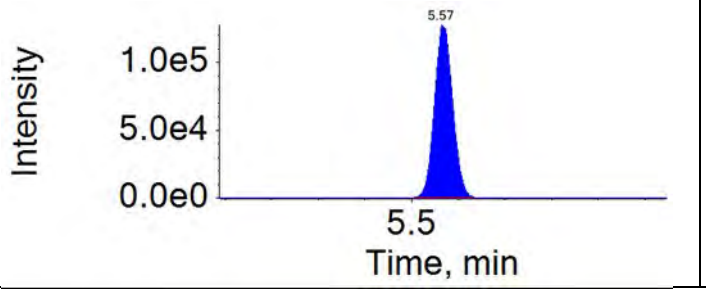
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

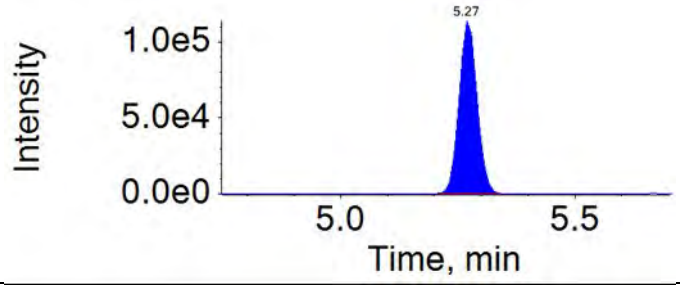
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



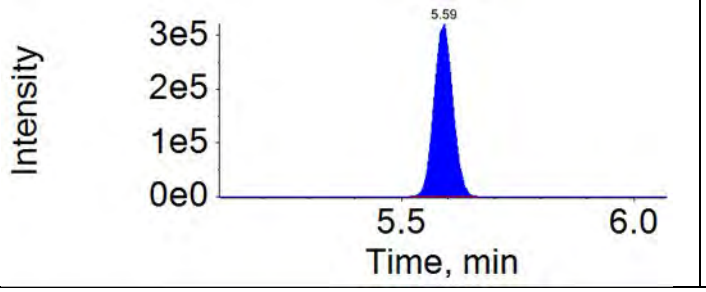


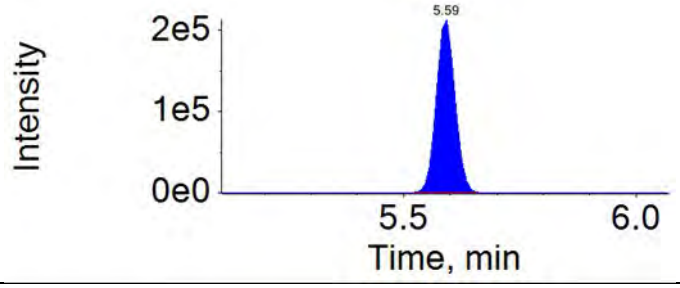
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



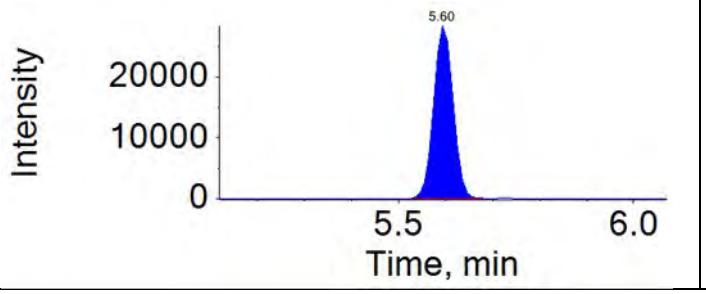


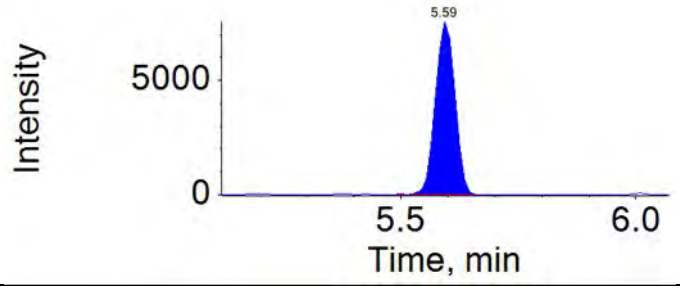
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

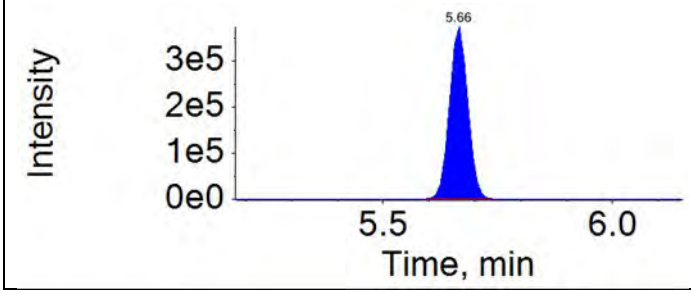
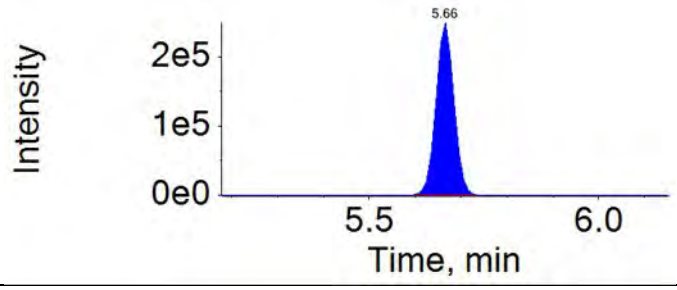


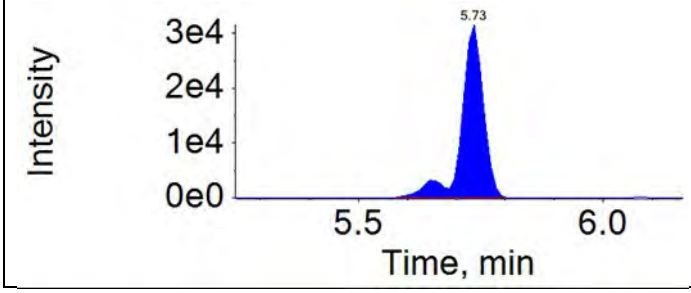
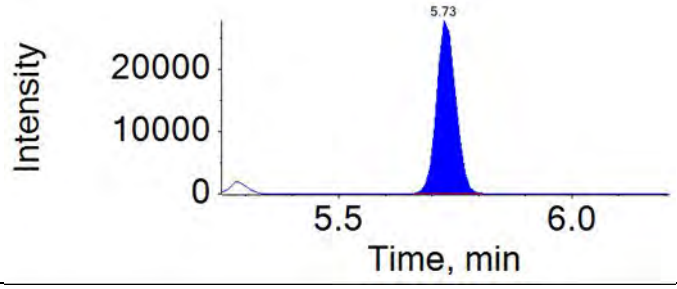


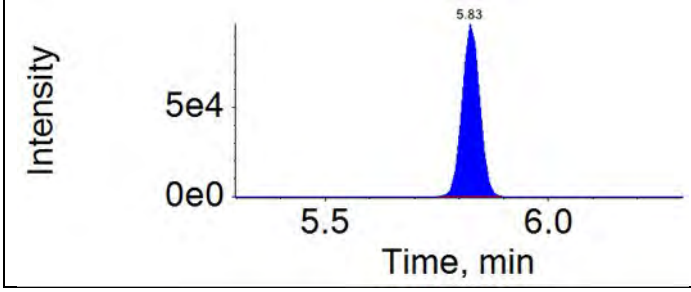
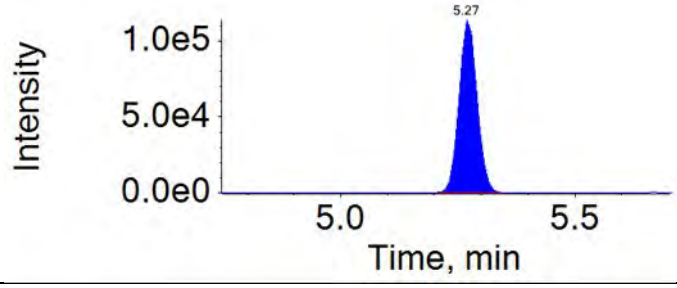
APPROVED
By MSM at 10:22 am, 12/4/18

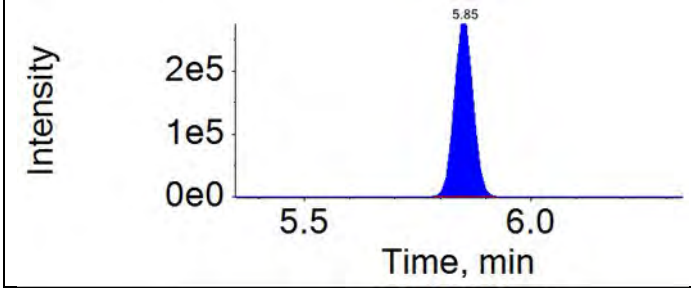
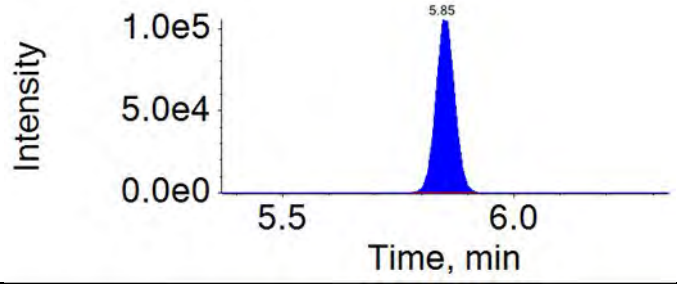
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

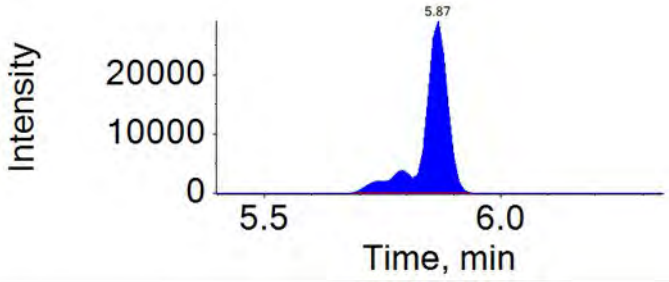
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

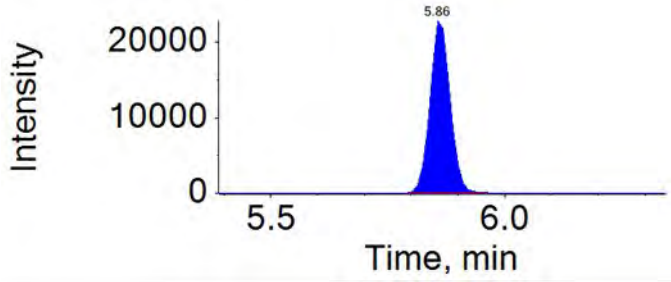
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

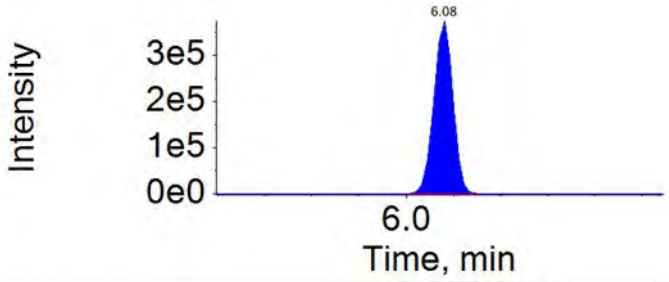
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

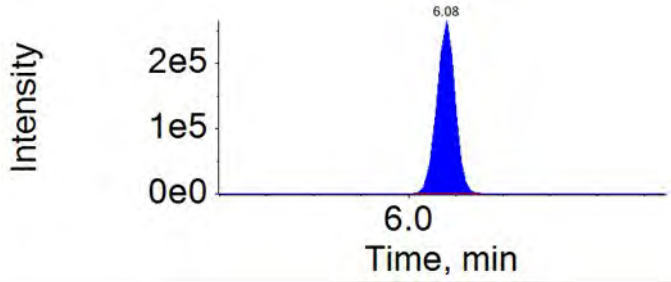
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



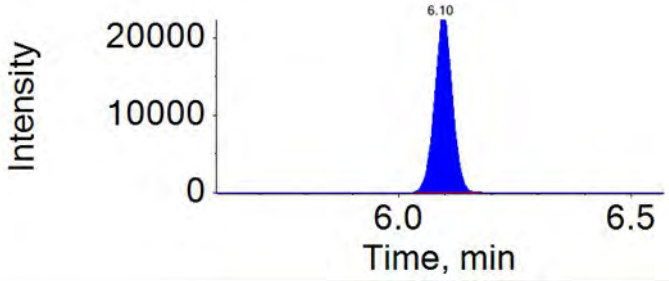


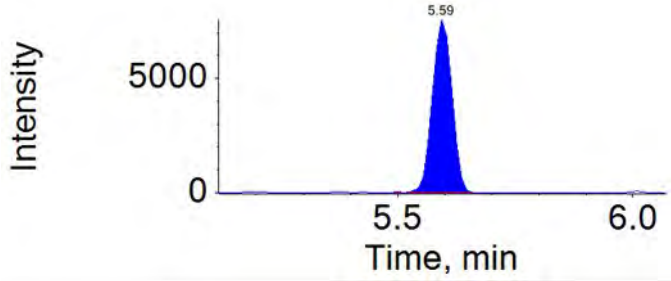
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



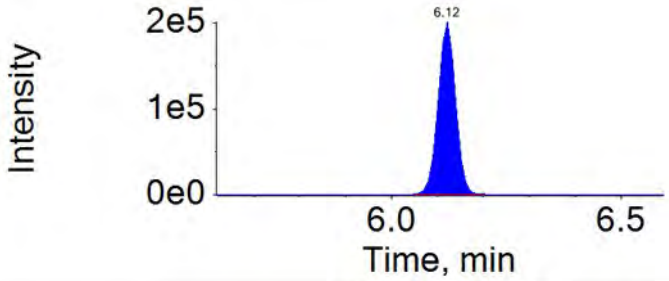


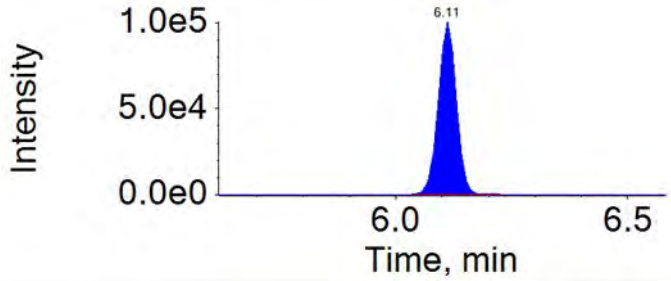
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



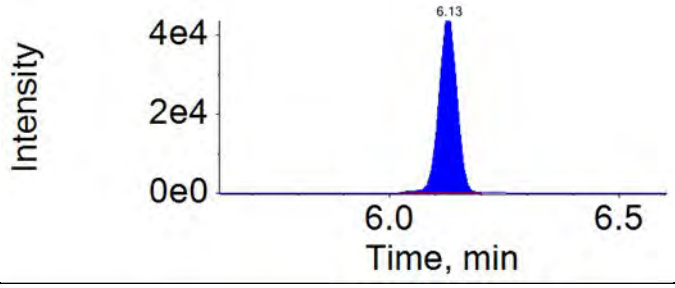


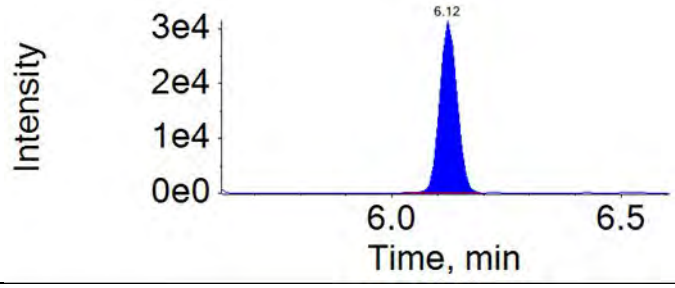
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

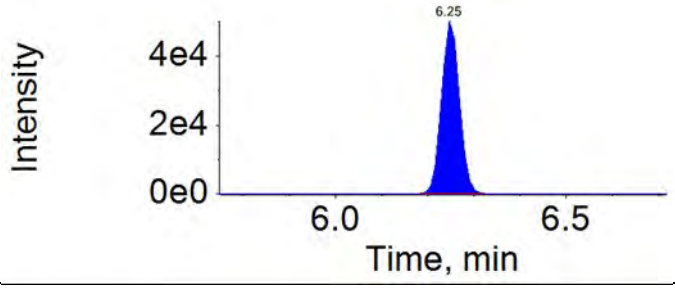
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

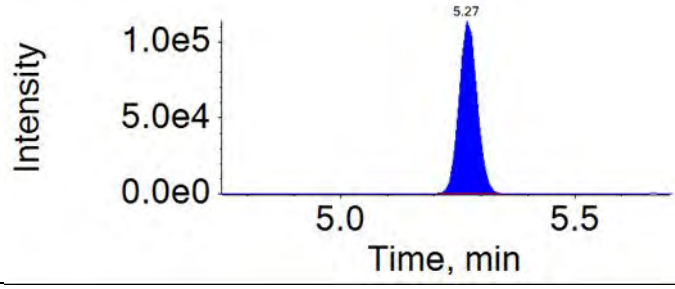
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



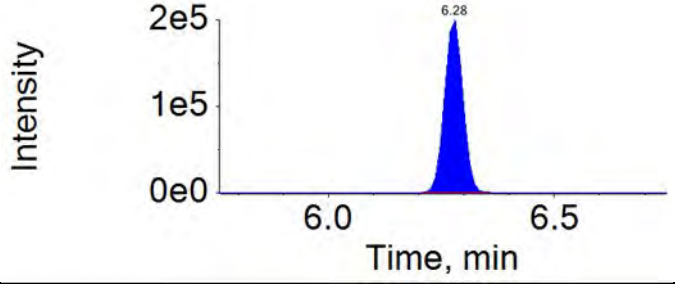


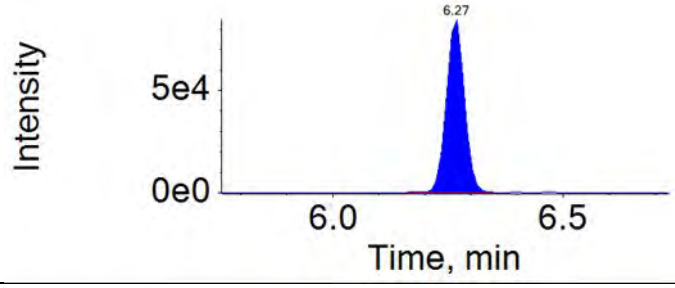
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



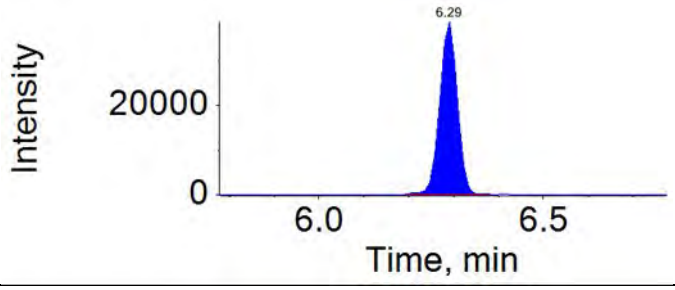


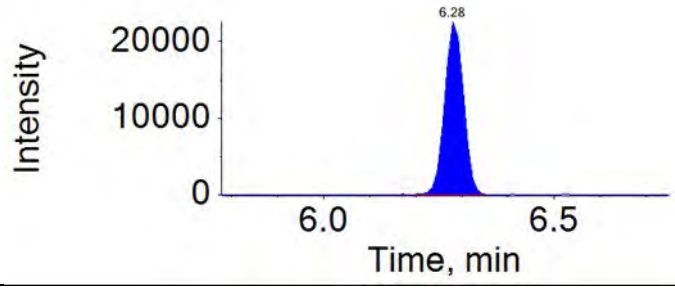
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

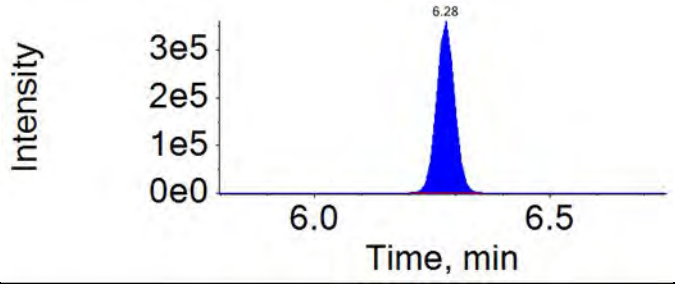
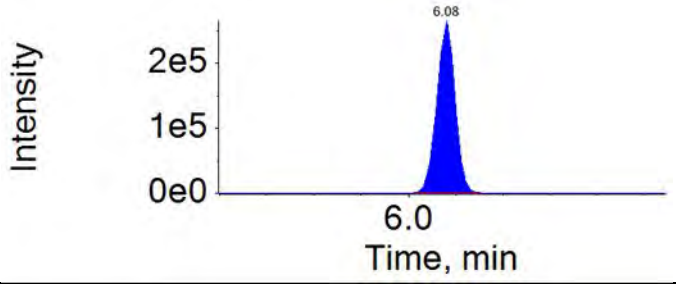


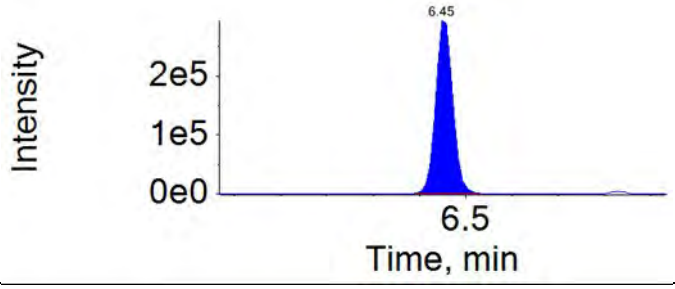
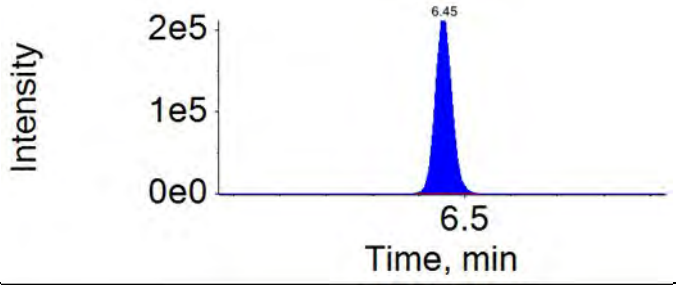


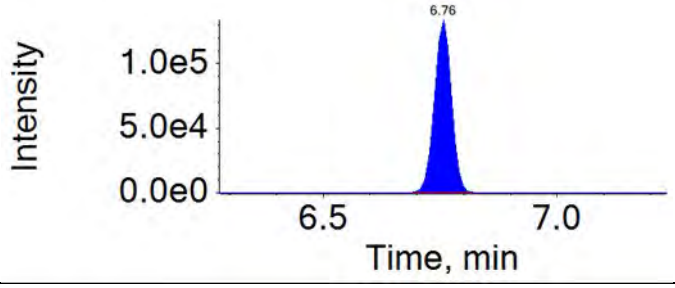
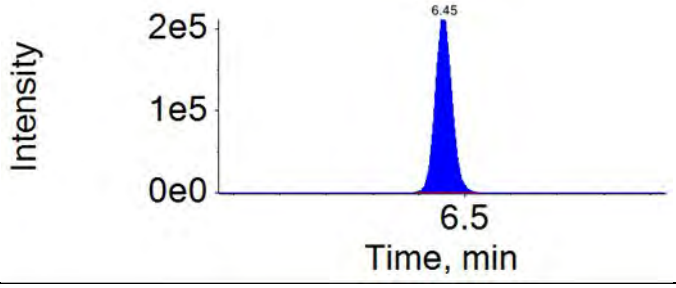
APPROVED
By MSM at 10:22 am, 12/4/18

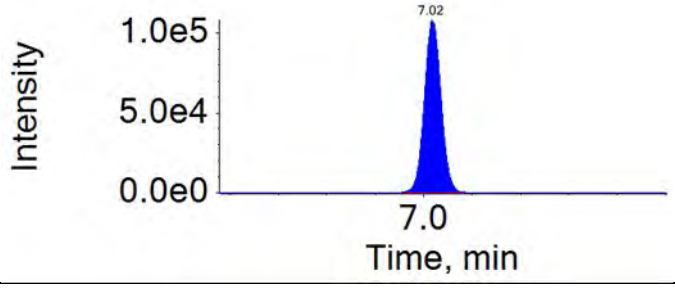
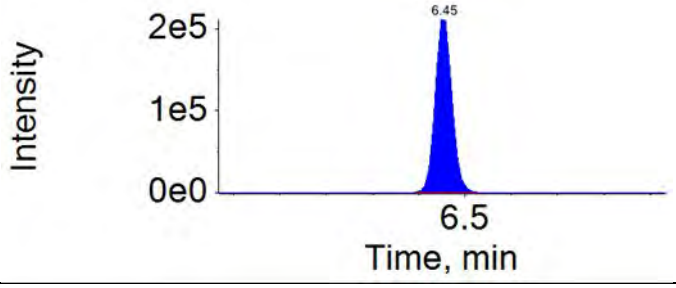
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

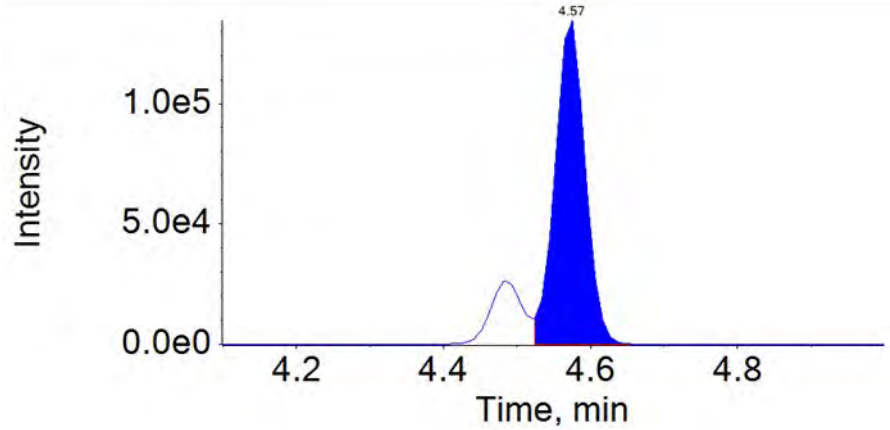
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

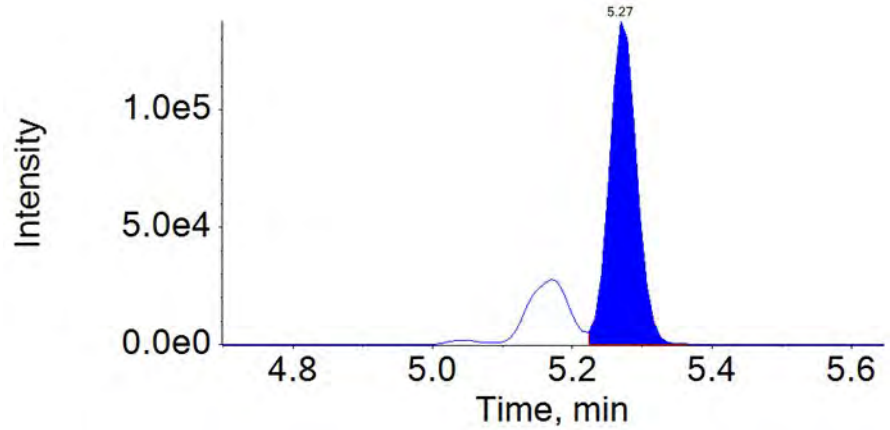
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.57
Peak Area:
384901.12
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



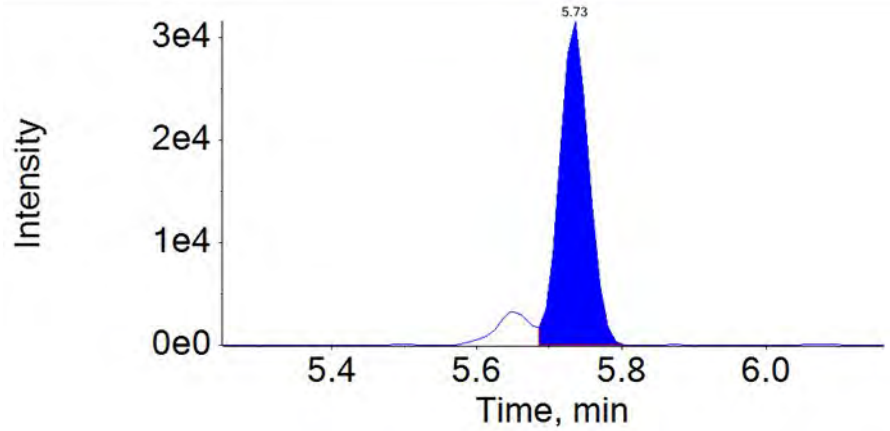
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
375487.46
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
88978.81
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



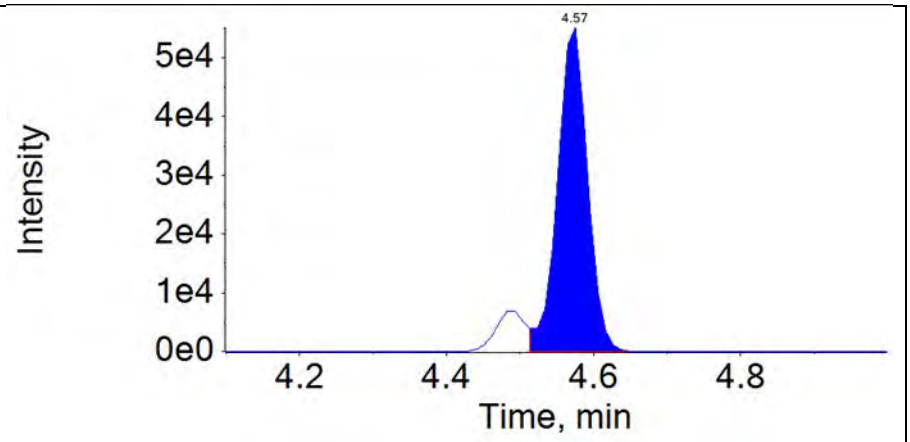
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

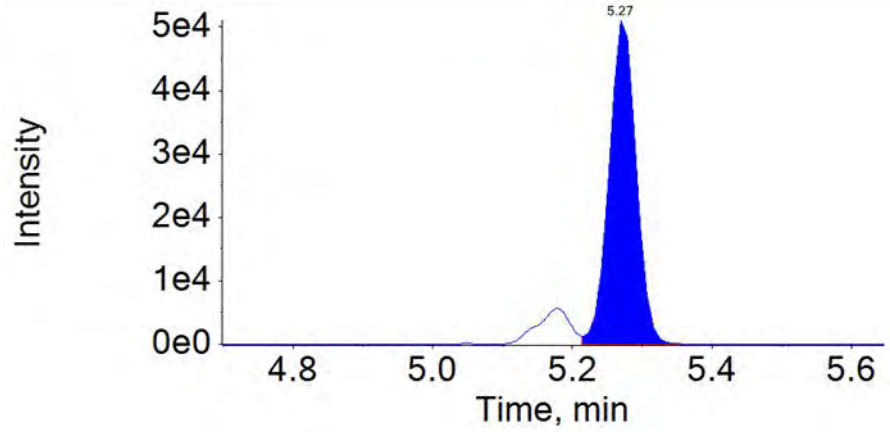
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.57
Peak Area:
156644.43
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



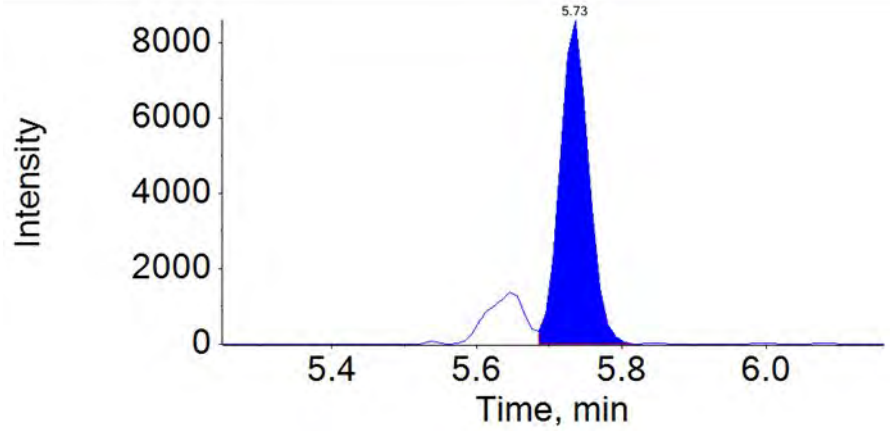
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
137746.66
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.73
Peak Area:
23685.47
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

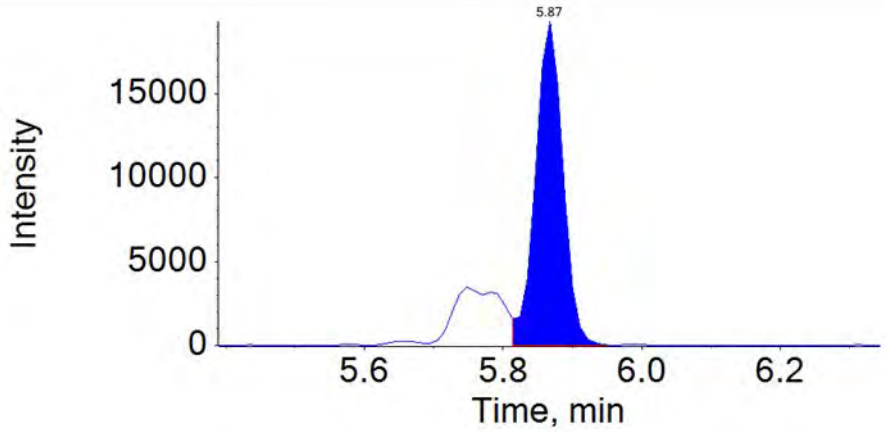
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.87
Peak Area:
53045.51
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-13.wiff
Sample Name:
CAL4



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Ion Ratio Report

Sample Name: CAL4 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-13.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	640071.19	A	1.0000	1.0000			
PFBS_2	3.83	1.00	241335.92	A	0.3698	0.3770	2	50	
4:2-FTS	4.14	1.00	141513.68	A	1.0000	1.0000			
4:2-FTS_2	4.14	1.00	88047.60	A	0.6536	0.6222	-5	50	
PFHxA	4.18	1.00	1260832.01	A	1.0000	1.0000			
PFHxA_2	4.18	1.00	17640.57	A	0.0119	0.0140	18	50	
PFPeS	4.20	1.10	330269.44	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	165769.35	A	0.5000	0.5019	0	50	
PFHpA	4.57	1.00	1263860.32	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	65766.74	A	0.0526	0.0520	-1	50	
PFHxS	4.57	1.00	465916.55	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	175083.94	M	0.3476	0.3758	8	50	
6:2-FTS	4.93	1.00	102306.20	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	63216.87	A	0.6372	0.6179	-3	50	
PFHpS	4.93	1.08	473818.23	A	1.0000	1.0000			
PFHpS_2	4.93	1.08	189425.50	A	0.3956	0.3998	1	50	
PFOA	4.94	1.00	1221239.06	A	1.0000	1.0000			
PFOA_2	4.94	1.00	67764.74	A	0.0618	0.0555	-10	50	
PFOS	5.27	1.00	495600.37	M	1.0000	1.0000			
PFOS_2	5.27	1.00	156526.34	M	0.2940	0.3158	7	50	
PFNA	5.29	1.00	1045246.15	A	1.0000	1.0000			
PFNA_2	5.29	1.00	18758.83	A	0.0196	0.0179	-8	50	
PFNS	5.57	1.06	344749.07	A	1.0000	1.0000			
PFNS_2	5.57	1.06	148531.66	A	0.4676	0.4308	-8	50	
PFDA	5.59	1.00	903571.04	A	1.0000	1.0000			
PFDA_2	5.58	1.00	5185.94	A	0.0073	0.0057	-21	50	
8:2-FTS	5.60	1.00	81985.82	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	44907.56	A	0.6049	0.5477	-9	50	
NMeFOSAA	5.73	1.00	100079.31	M	1.0000	1.0000			
NMeFOSAA_2	5.73	1.00	28788.32	M	0.2642	0.2877	9	50	
PFDS	5.83	1.11	265366.63	A	1.0000	1.0000			
PFDS_2	5.83	1.10	122750.37	A	0.4948	0.4626	-7	50	
PFUnDA	5.85	1.00	810079.27	A	1.0000	1.0000			
PFUnDA_2	5.86	1.00	3510.05	A	0.0046	0.0043	-5	50	
NEtFOSAA	5.87	1.00	100326.76	A	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	69826.93	M	0.7504	0.6960	-7	50	
PFDoDA	6.08	1.00	1044903.71	A	1.0000	1.0000			
PFDoDA_2	6.08	1.00	13681.15	A	0.0143	0.0131	-8	50	
10:2-FTS	6.10	1.09	61188.64	A	1.0000	1.0000			
10:2-FTS_2	6.10	1.09	47832.96	A	0.7003	0.7817	12	50	
PFTrDA	6.28	1.03	962956.56	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	8798.96	A	0.0099	0.0091	-8	50	
PFTeDA	6.45	1.00	755494.82	A	1.0000	1.0000			
PFTeDA_2	6.45	1.00	4129.27	A	0.0057	0.0055	-5	50	
PFHxDA	6.76	1.05	335150.91	A	1.0000	1.0000			
PFHxDA_2	6.76	1.05	21312.84	A	0.0617	0.0636	3	50	
PFODA	7.02	1.09	260679.20	A	1.0000	1.0000			
PFODA_2	7.02	1.09	6451.29	A	0.0266	0.0247	-7	50	

APPROVED
By MSM at 10:22 am, 12/4/18

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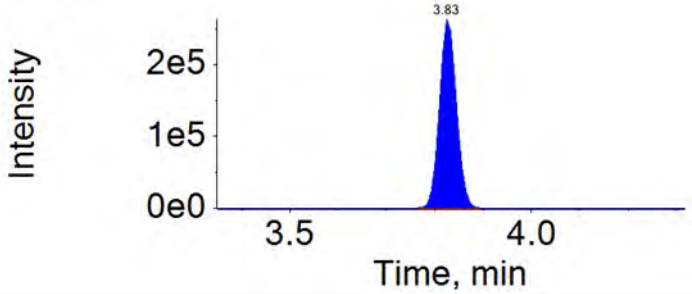
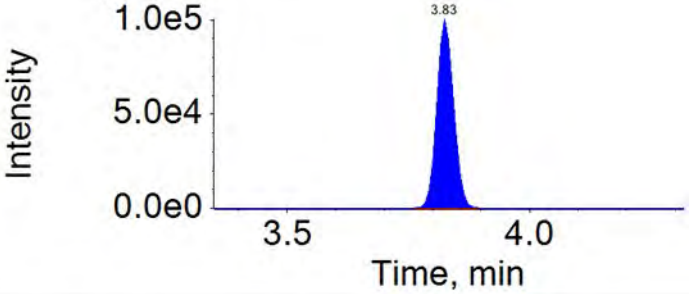
By umar at 4:02 pm, 12/4/18

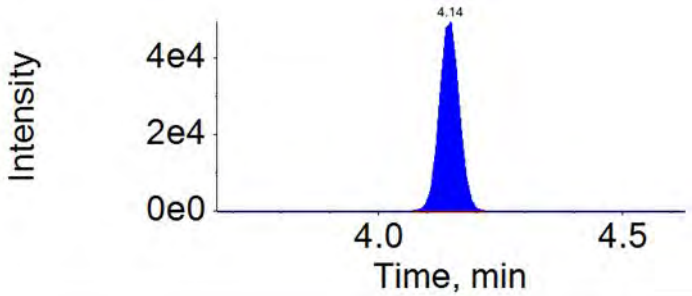
Component: PFBS
Primary Mass: 299.0 / 80.0



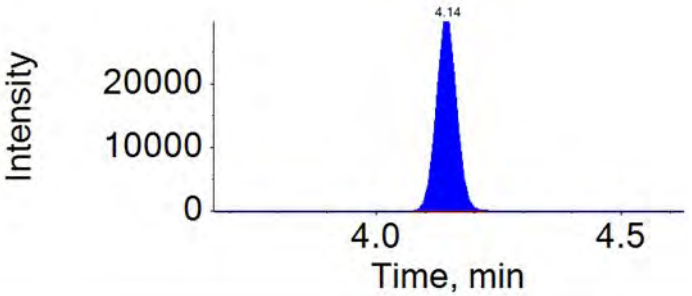
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



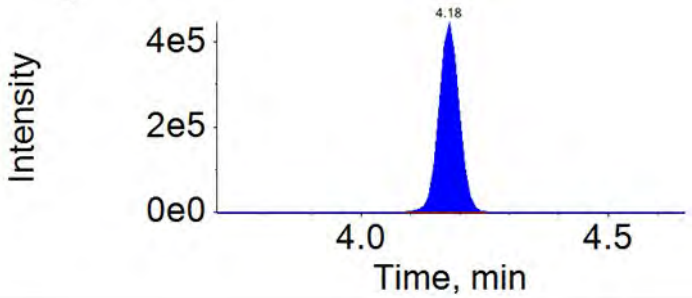
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



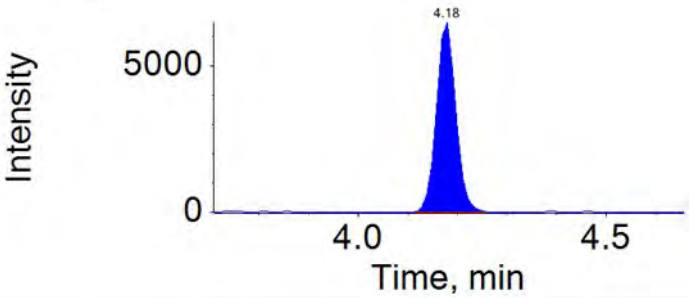
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



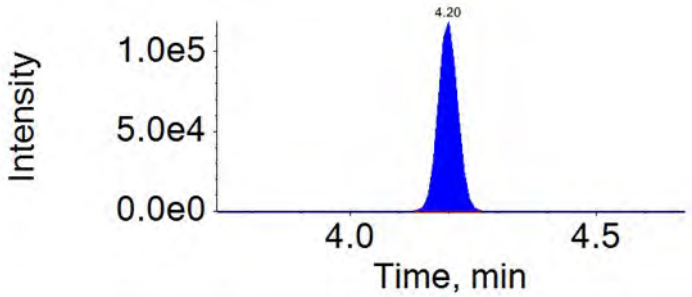
Component: PFHxA
Primary Mass: 313.0 / 269.0



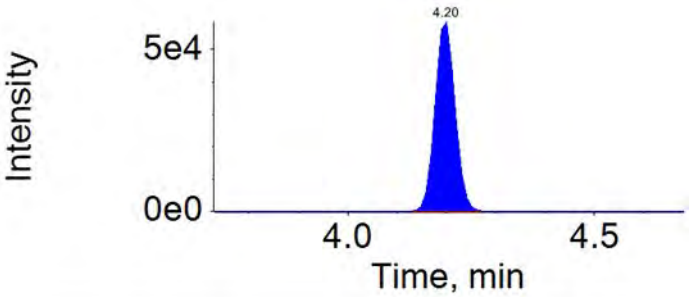
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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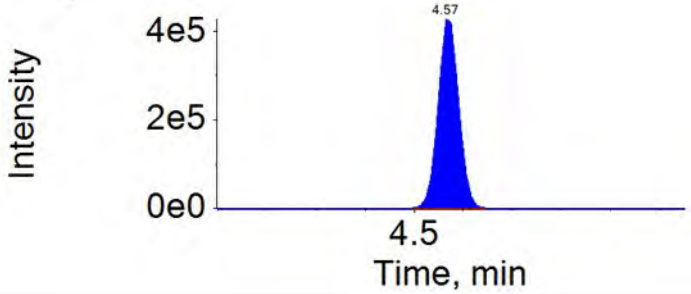
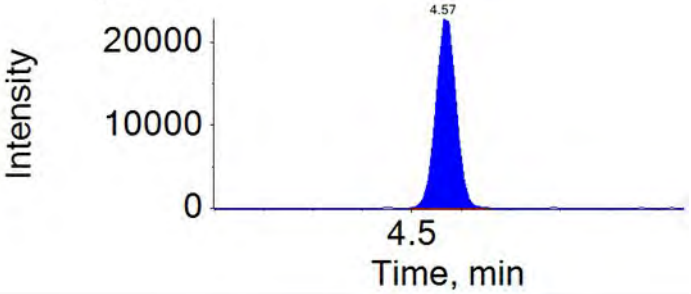
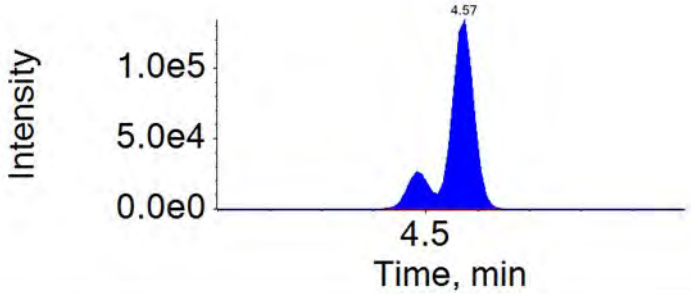
Component: PFHpA
Primary Mass: 363.0 / 319.0



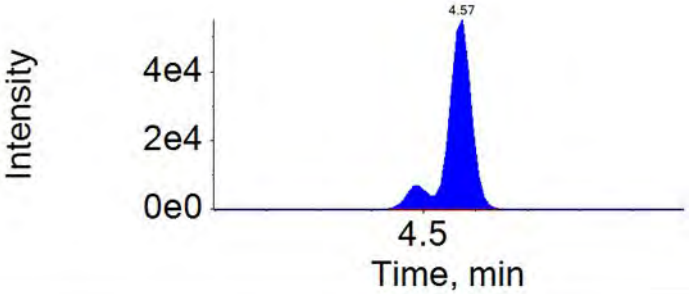
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



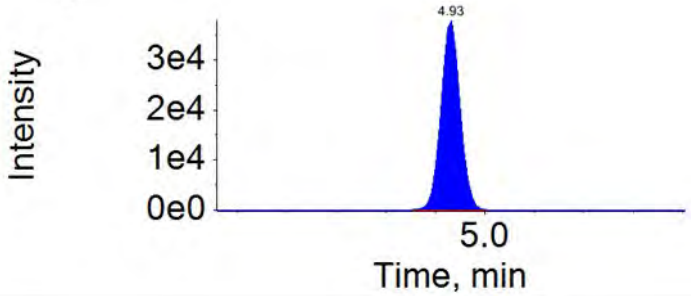
Component: PFHxS
Primary Mass: 399.0 / 80.0



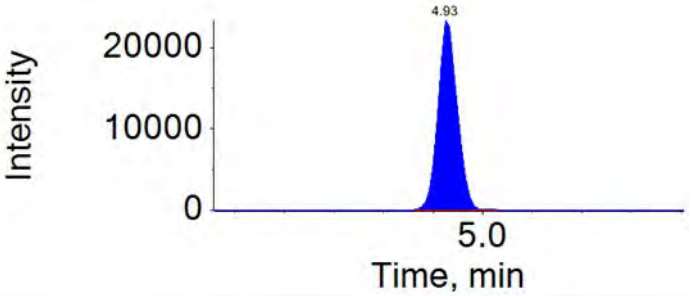
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



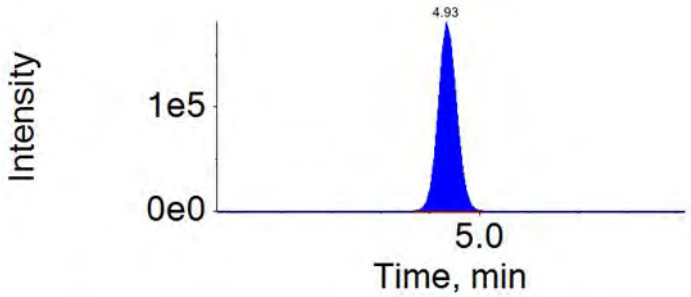
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



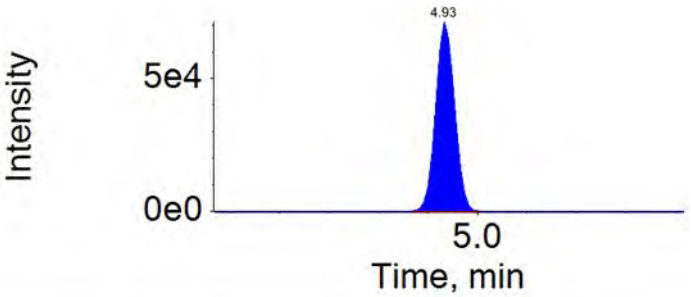
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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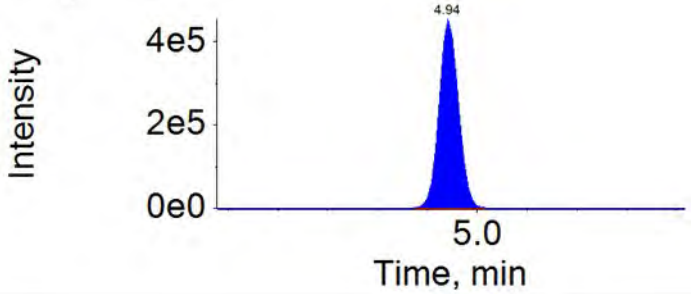
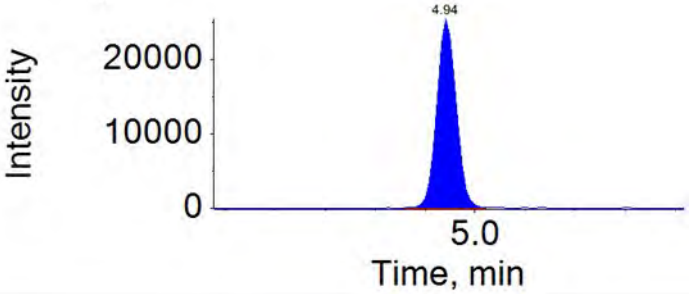
By umar at 4:02 pm, 12/4/18

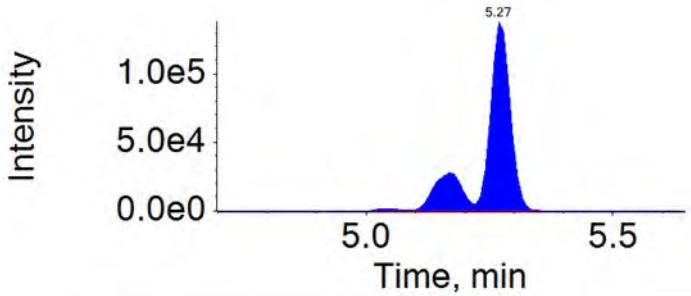
Component: PFOA
Primary Mass: 413.0 / 369.0



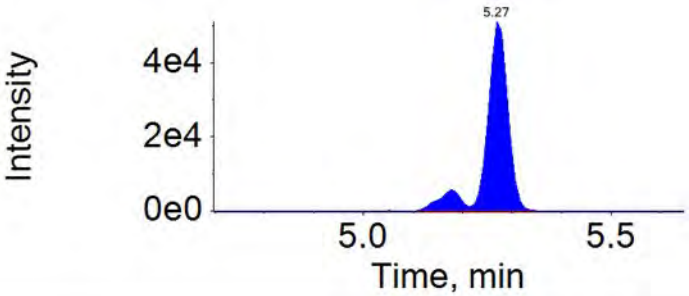
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



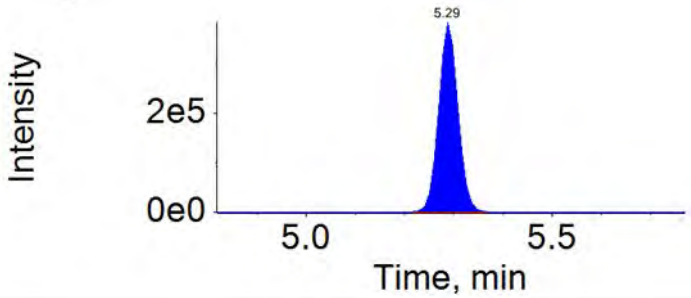
Component: PFOS
Primary Mass: 499.0 / 80.0



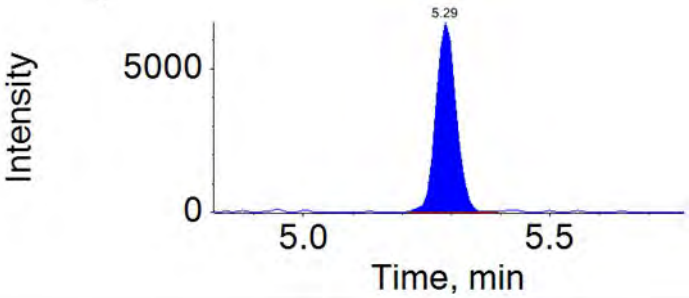
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



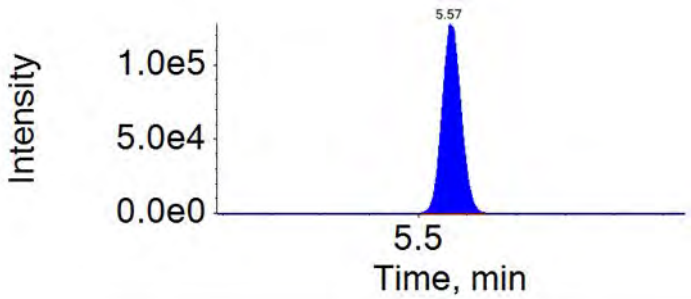
Component: PFNA
Primary Mass: 463.0 / 419.0



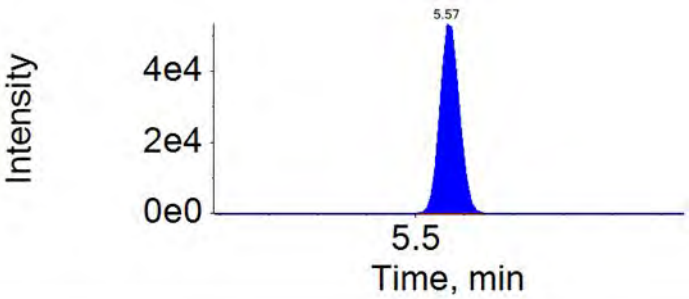
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



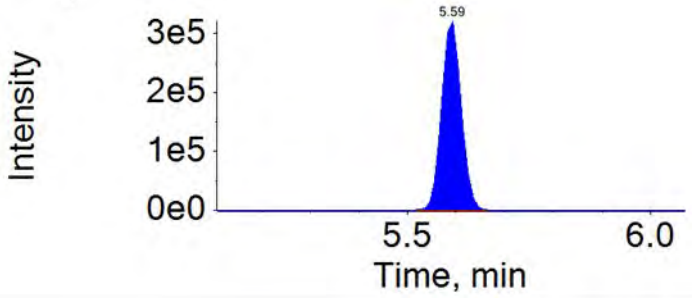
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



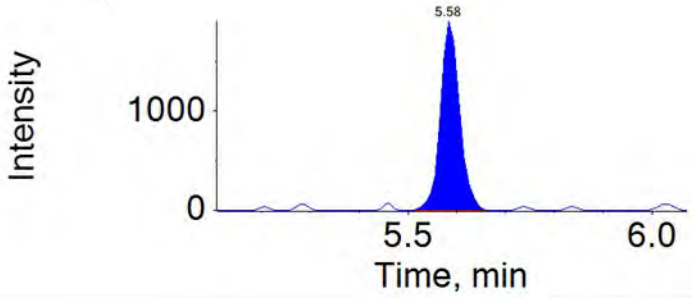
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

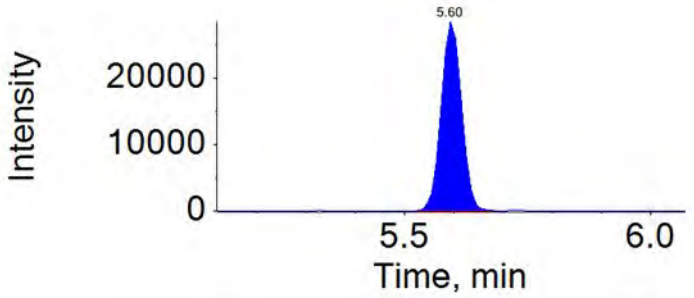
Component: PFDA
Primary Mass: 513.0 / 469.0



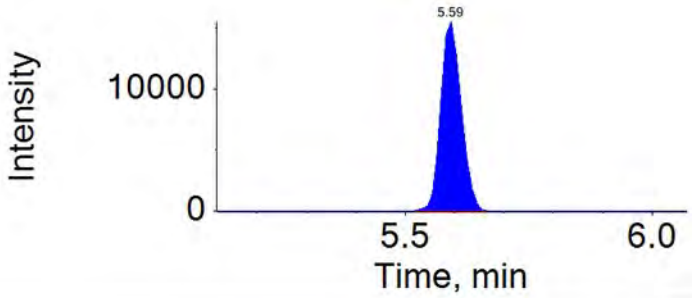
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



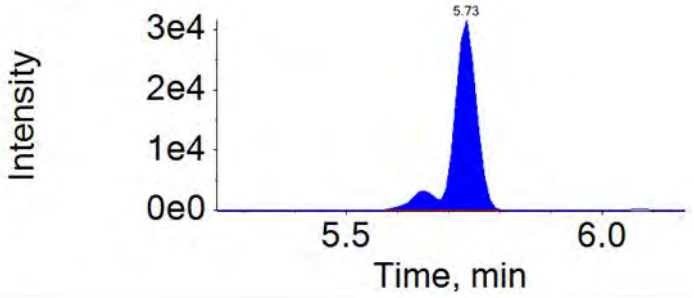
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



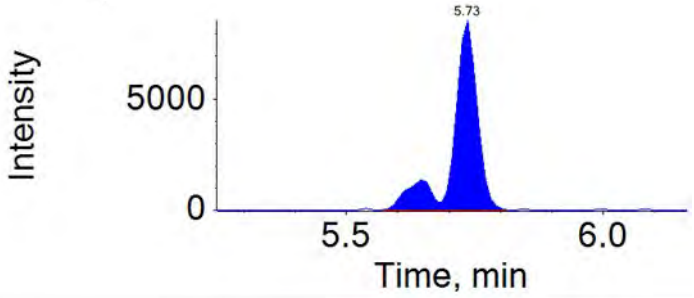
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



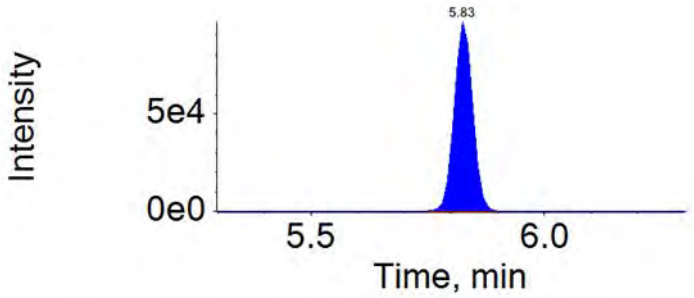
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



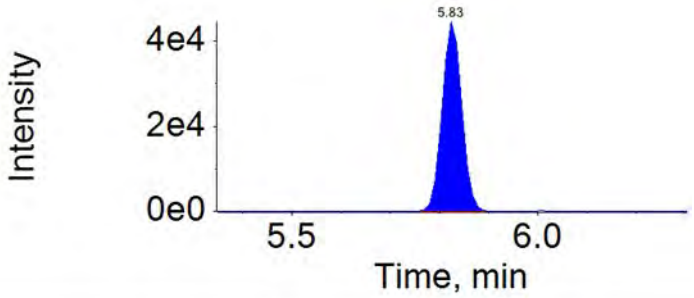
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



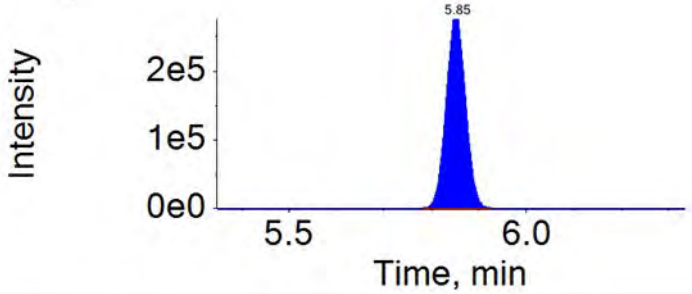
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



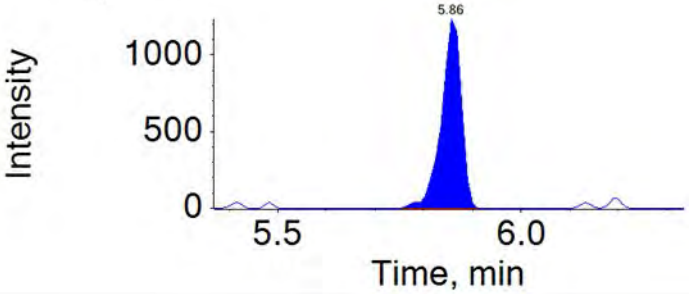
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

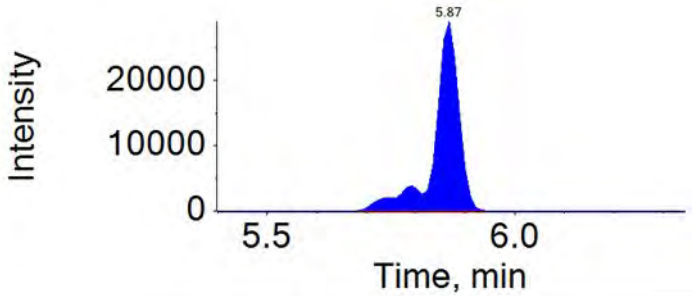
Component: PFUnDA
Primary Mass: 563.0 / 519.0



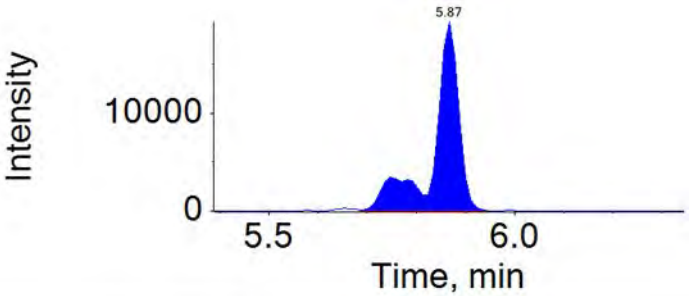
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



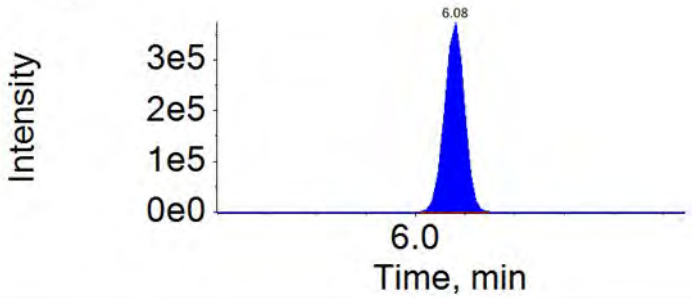
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



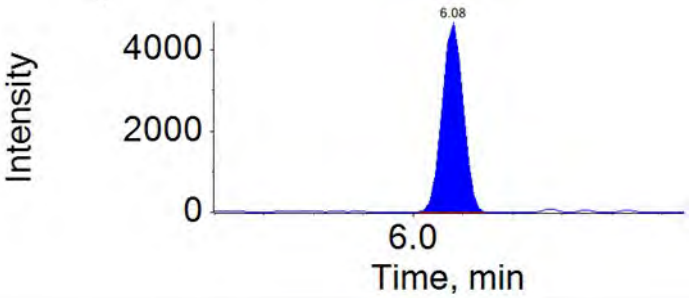
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



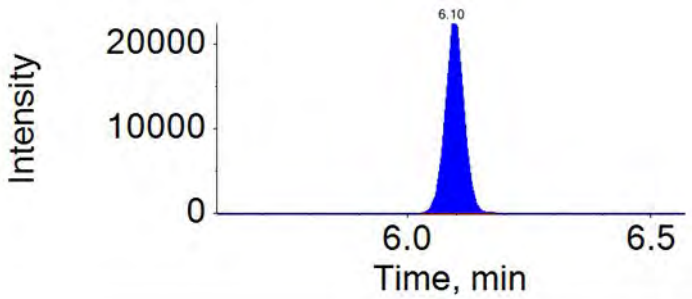
Component: PFDoDA
Primary Mass: 613.0 / 569.0



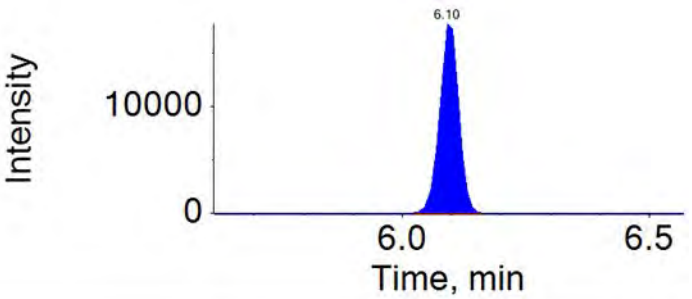
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



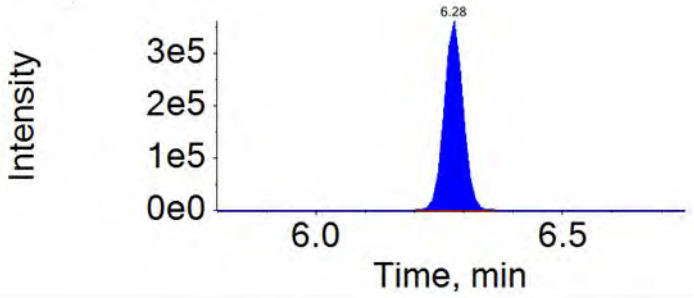
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



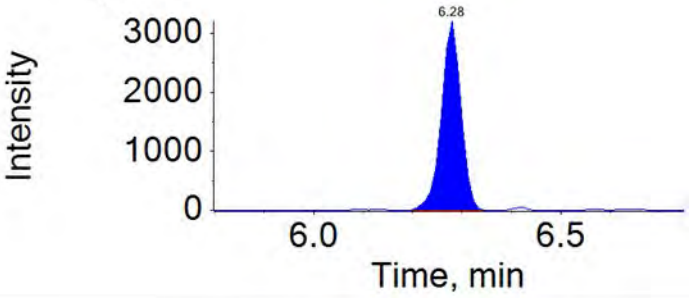
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



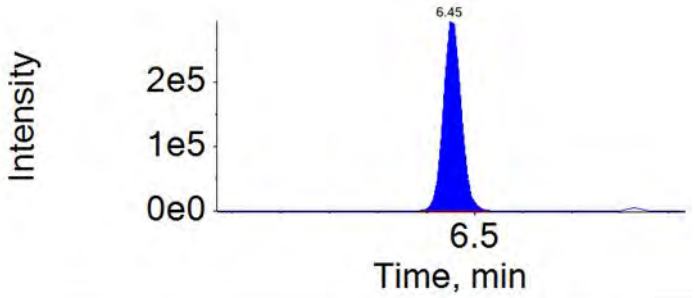
Component: PFTrDA
Primary Mass: 663.0 / 619.0



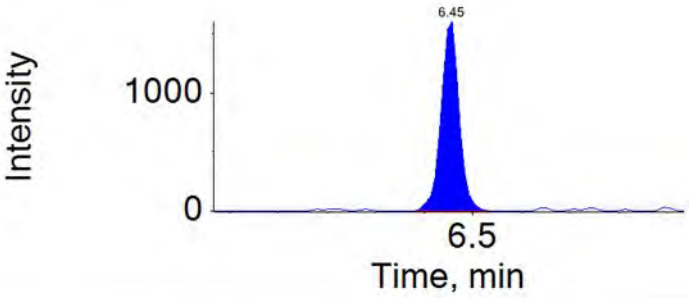
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



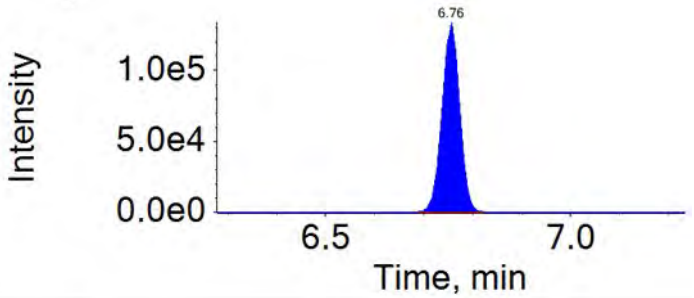
Component: PFTeDA
Primary Mass: 713.0 / 669.0



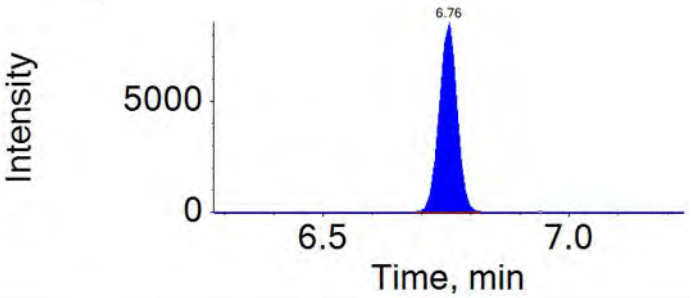
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



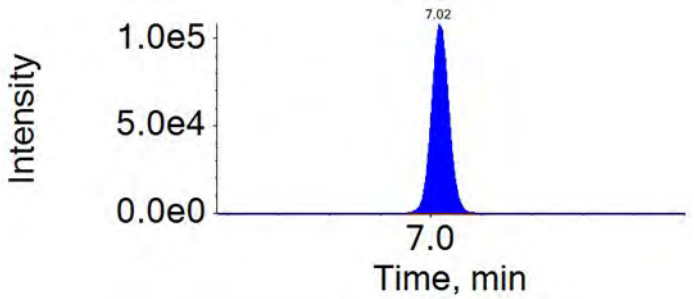
Component: PFHxDA
Primary Mass: 813.0 / 769.0



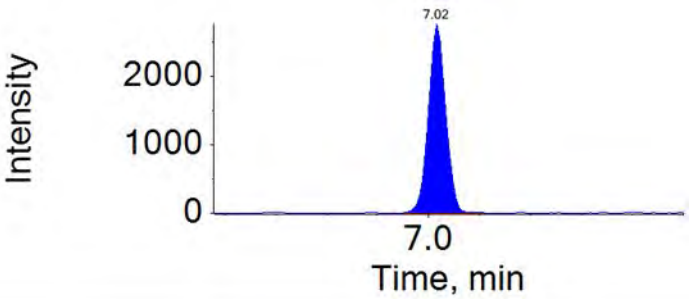
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL5			**Data File:**		18DEC03DCAL-14.wiff
Sample ID:	CALBRN51833B			**Acquis Date:**		2018-12-03T18:11:14
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	7			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	730839.1	749775.9	-3	50	
13C2-PFOA	5.0	420898.3	434072.7	-3	50	
13C4-PFOS	4.8	283690.2	261136.3	9	50	
13C2-PFDA	5.0	294188.3	305281.8	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	800253.3	13C3-PFBA	730839.1	1.095	5.000	4.859	97	70-130	
E13C5-PFPeA	751767.5	13C3-PFBA	730839.1	1.029	5.000	4.963	99	70-130	
E13C3-PFBS	433200.6	13C3-PFBA	730839.1	0.593	4.650	4.619	99	70-130	
E13C2-4:2-FTS	49645.8	13C2-PFOA	420898.3	0.118	4.670	4.852	104	70-130	
E13C5-PFHxA	612989.7	13C2-PFOA	420898.3	1.456	5.000	4.932	99	70-130	
E13C3-PFHxS	325751.3	13C2-PFOA	420898.3	0.774	4.730	4.893	103	70-130	
E13C4-PFHpA	502842.8	13C2-PFOA	420898.3	1.195	5.000	5.213	104	70-130	
E13C2-6:2-FTS	29389.3	13C2-PFOA	420898.3	0.070	4.750	4.627	97	70-130	
E13C8-PFOA	735533.2	13C2-PFOA	420898.3	1.748	5.000	4.857	97	70-130	
E13C8-PFOS	290967.8	13C4-PFOS	283690.2	1.026	4.780	4.555	95	70-130	
E13C9-PFNA	461598.5	13C4-PFOS	283690.2	1.627	5.000	4.762	95	70-130	
E13C6-PFDA	588632.8	13C2-PFDA	294188.3	2.001	5.000	5.204	104	70-130	
E13C2-8:2-FTS	21205.3	13C2-PFDA	294188.3	0.072	4.790	4.635	97	70-130	
E13C8-PFOSA	642876.3	13C2-PFDA	294188.3	2.185	5.000	4.892	98	70-130	
Ed3-NMeFOSAA	83984.0	13C2-PFDA	294188.3	0.285	5.000	4.987	100	70-130	
E13C7-PFUnDA	299903.6	13C2-PFDA	294188.3	1.019	5.000	5.077	102	70-130	
Ed5-NEtFOSAA	64247.4	13C2-PFDA	294188.3	0.218	5.000	4.982	100	70-130	
E13C2-PFDoDA	695109.7	13C2-PFDA	294188.3	2.363	5.000	5.059	101	70-130	
Ed7-NMePFOSAE	271770.9	13C2-PFDA	294188.3	0.924	5.000	5.009	100	70-130	
Ed3-NMePFOSA	73999.7	13C2-PFDA	294188.3	0.252	5.000	4.664	93	70-130	
Ed9-NEtPFOSAE	228722.3	13C2-PFDA	294188.3	0.777	5.000	5.015	100	70-130	
Ed5-NEtPFOSA	59855.4	13C2-PFDA	294188.3	0.203	5.000	4.800	96	70-130	
E13C2-PFTeDA	550261.0	13C2-PFDA	294188.3	1.870	5.000	5.272	105	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

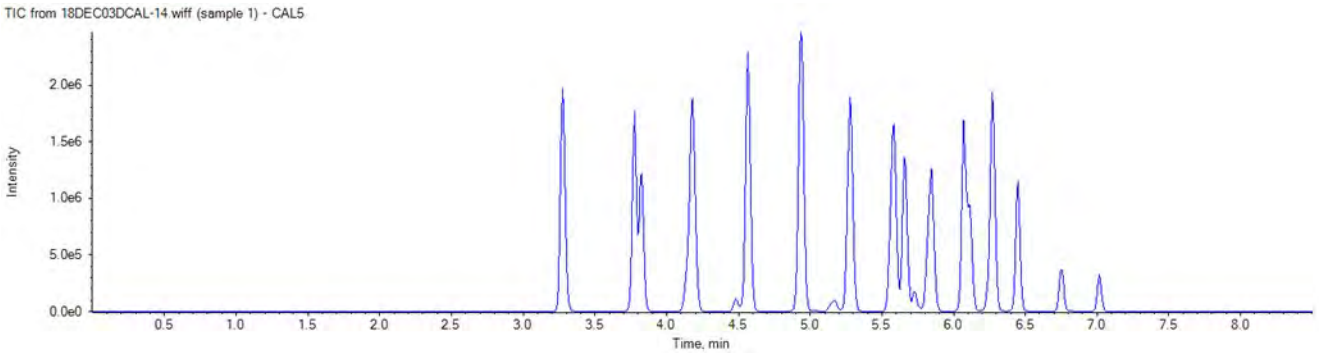
Analyte Quantitation Peak Table

Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-14.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	3060761.4		A	13C4-PFBA	3.28	800253.3	3.825	21.661
PFPeA	3.78	1.000	3032409.8		A	13C5-PFPeA	3.78	751767.5	4.034	20.198
PFBS	3.82	1.000	1625611.3		A	13C3-PFBS	3.83	433200.6	3.753	18.299
4:2-FTS	4.14	1.000	374490.9		A	13C2-4:2-FTS	4.14	49645.8	7.543	19.051
PFHxA	4.18	1.000	3112980.9		A	13C5-PFHxA	4.17	612989.7	5.078	21.644
PFPeS	4.20	1.100	851930.8		A	13C3-PFBS	3.83	433200.6	1.967	18.871
PFHpA	4.57	1.000	3049516.0		A	13C4-PFHpA	4.57	502842.8	6.065	19.571
PFHxS	4.57	1.000	1209151.9		M	13C3-PFHxS	4.57	325751.3	3.712	17.488
6:2-FTS	4.93	1.000	242921.4		A	13C2-6:2-FTS	4.93	29389.3	8.266	20.045
PFHpS	4.93	1.080	1192377.2		A	13C3-PFHxS	4.57	325751.3	3.660	19.056
PFOA	4.94	1.000	3005747.1		A	13C8-PFOA	4.94	735533.2	4.086	21.630
PFOS	5.27	1.000	1246934.3		M	13C8-PFOS	5.27	290967.8	4.285	18.163
PFNA	5.28	1.000	2641534.5		A	13C9-PFNA	5.28	461598.5	5.723	21.447
PFNS	5.56	1.060	850399.0		A	13C8-PFOS	5.27	290967.8	2.923	19.709
PFDA	5.58	1.000	2219848.2		A	13C6-PFDA	5.58	588632.8	3.771	20.683
8:2-FTS	5.59	1.000	198352.8		A	13C2-8:2-FTS	5.59	21205.3	9.354	20.089
PFOSA	5.66	1.000	2628310.2		A	13C8-PFOSA	5.66	642876.3	4.088	21.411
NMeFOSAA	5.73	1.000	278357.7		M	d3-NMeFOSAA	5.73	83984.0	3.314	21.935
PFDS	5.82	1.100	685385.1		A	13C8-PFOS	5.27	290967.8	2.356	20.169
PFUnDA	5.85	1.000	2029729.9		A	13C7-PFUnDA	5.85	299903.6	6.768	20.606
NEtFOSAA	5.86	1.000	249317.7		M	d5-NEtFOSAA	5.86	64247.4	3.881	19.627
PFDoDA	6.07	1.000	2724004.9		A	13C2-PFDoDA	6.07	695109.7	3.919	22.344
10:2-FTS	6.09	1.090	173351.6		A	13C2-8:2-FTS	5.59	21205.3	8.175	20.369
NMePFOSAE	6.12	1.000	1294606.3		A	d7-NMePFOSAE	6.10	271770.9	4.764	20.174
NMePFOSA	6.12	1.000	304964.1		A	d3-NMePFOSA	6.12	73999.7	4.121	21.731
PFDoS	6.24	1.190	362591.6		A	13C8-PFOS	5.27	290967.8	1.246	19.521
NEtPFOSAE	6.27	1.000	1440978.7		A	d9-NEtPFOSAE	6.26	228722.3	6.300	21.702
NEtPFOSA	6.28	1.000	268612.3		A	d5-NEtPFOSA	6.28	59855.4	4.488	20.885
PFTrDA	6.27	1.030	2330088.1		A	13C2-PFDoDA	6.07	695109.7	3.352	19.734
PFTeDA	6.45	1.000	1907446.2		A	13C2-PFTeDA	6.45	550261.0	3.466	20.518
PFHxDA	6.75	1.050	826511.3		A	13C2-PFTeDA	6.45	550261.0	1.502	19.279
PFODA	7.02	1.090	668169.2		A	13C2-PFTeDA	6.45	550261.0	1.214	19.289

Total Ion Chromatogram

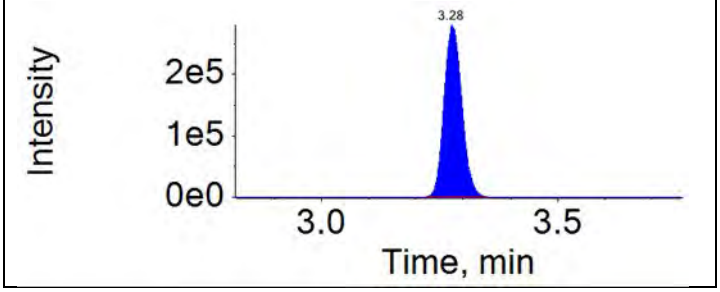


APPROVED
By MSM at 10:22 am, 12/4/18

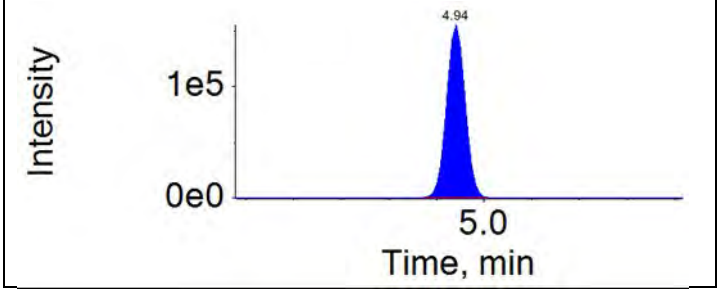
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

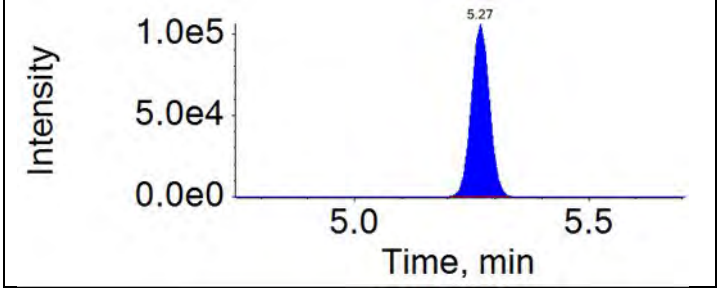
Injection Standard: 13C3-PFBA
216.0 / 172.0



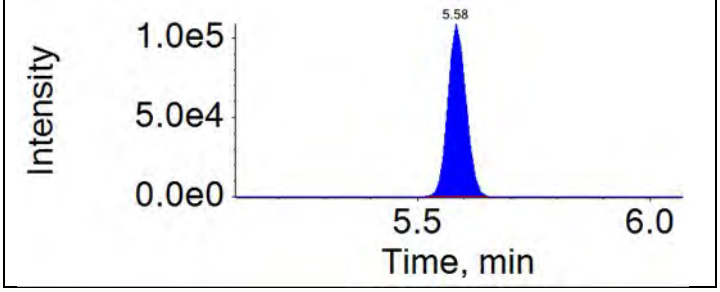
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

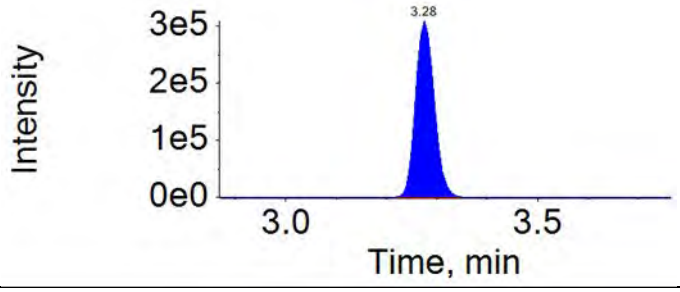


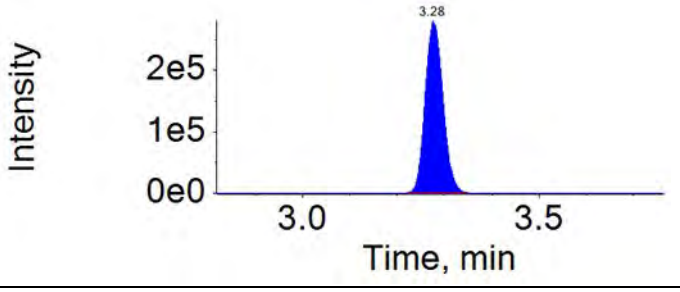
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

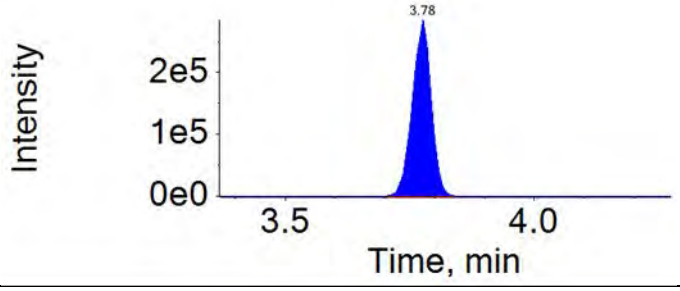
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

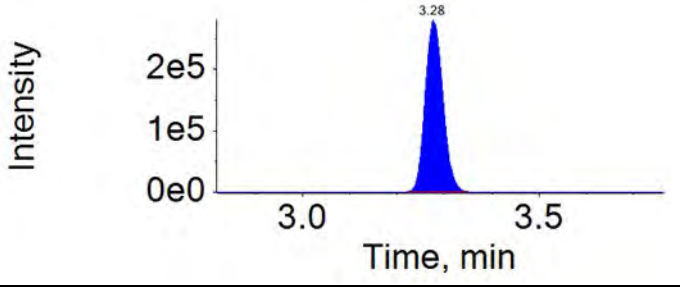
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



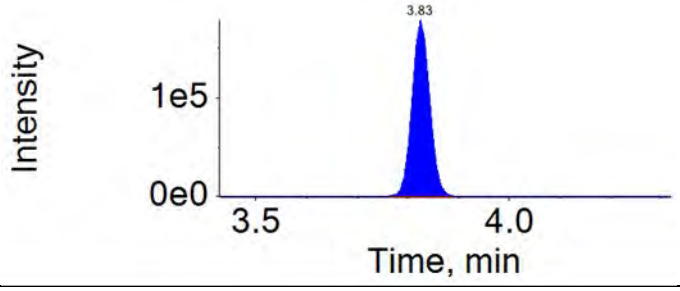


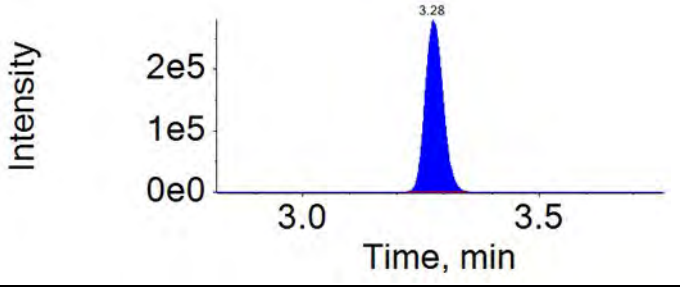
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



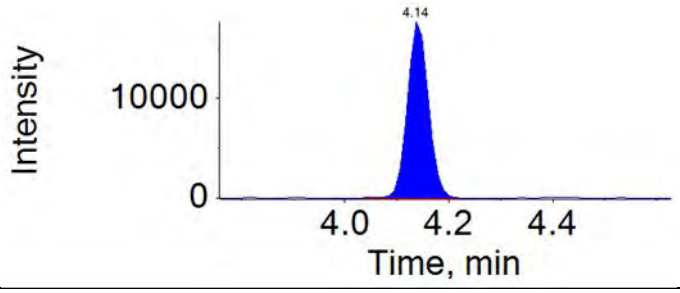


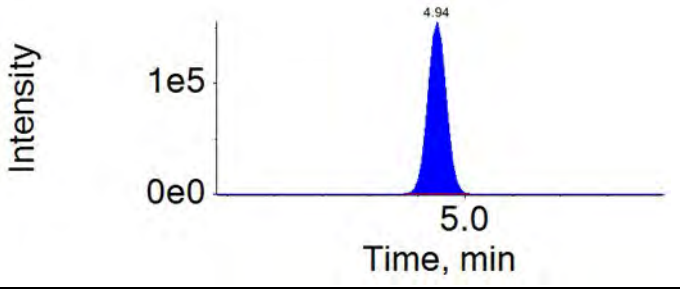
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



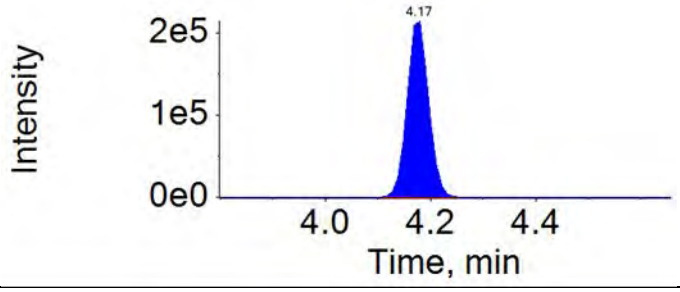


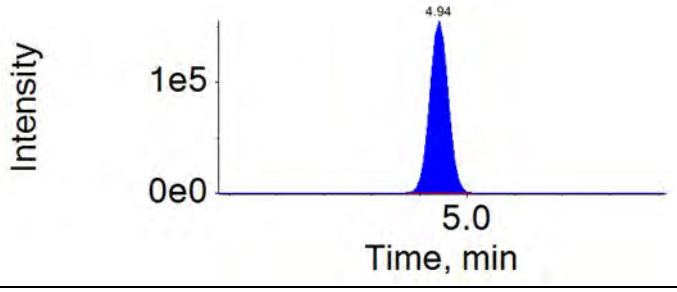
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

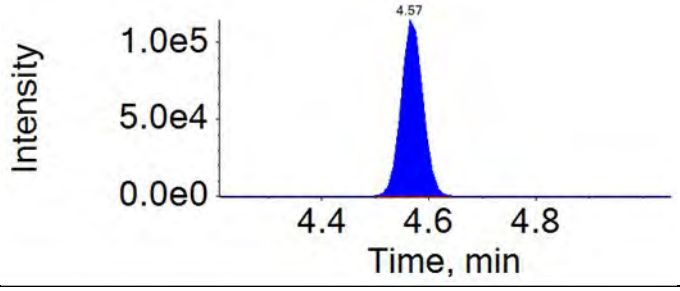
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

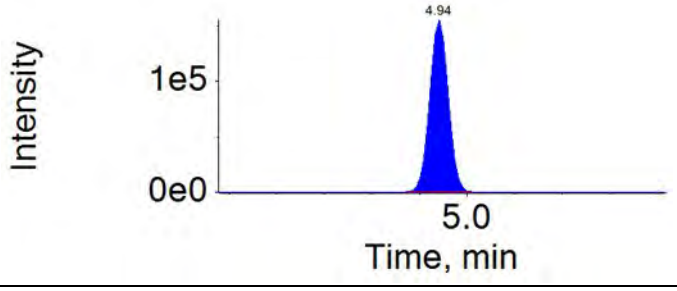
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



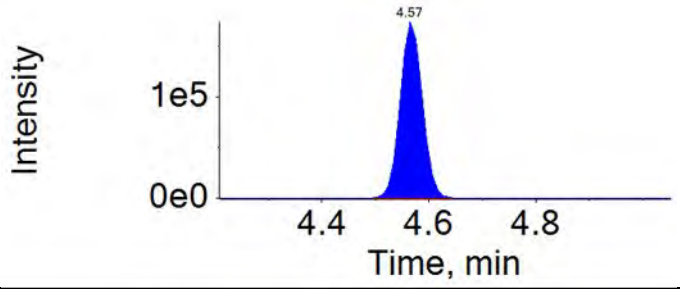


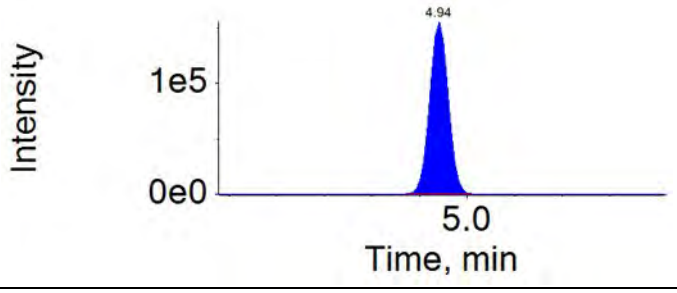
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



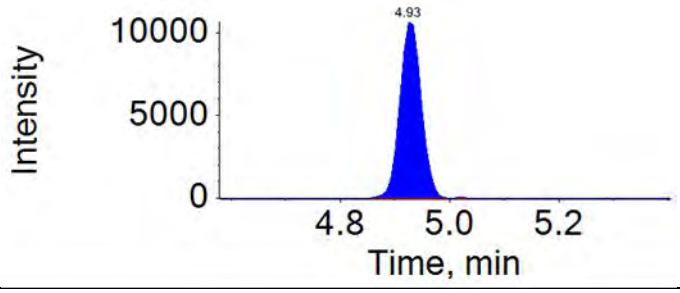


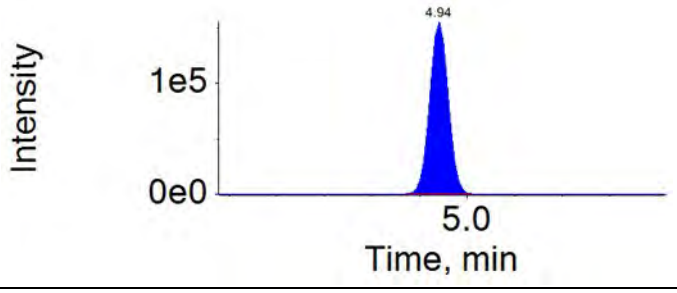
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



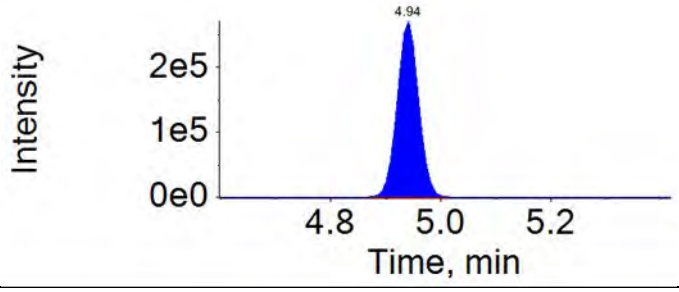


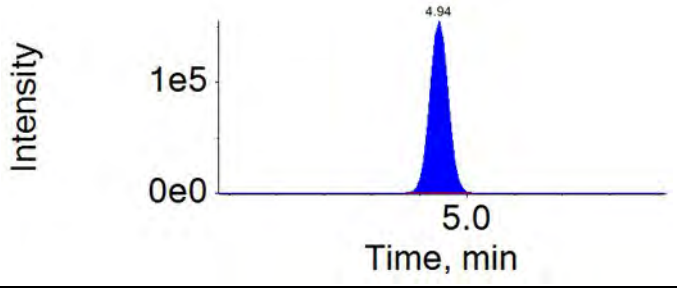
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

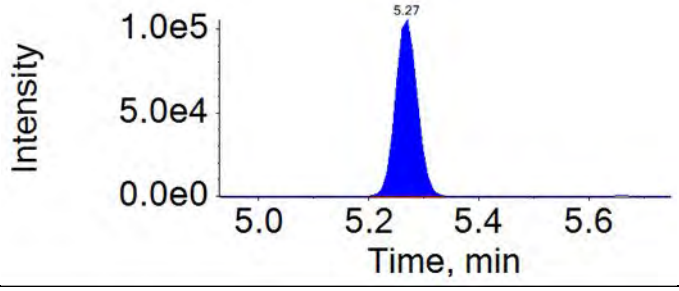
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

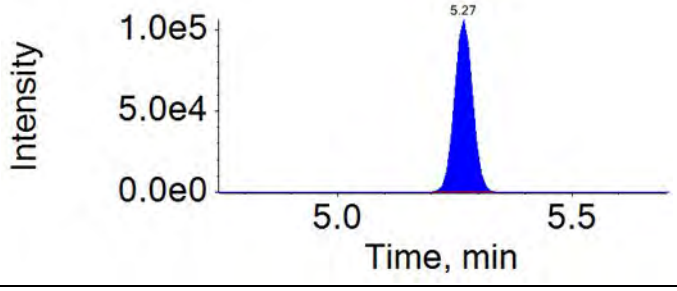
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



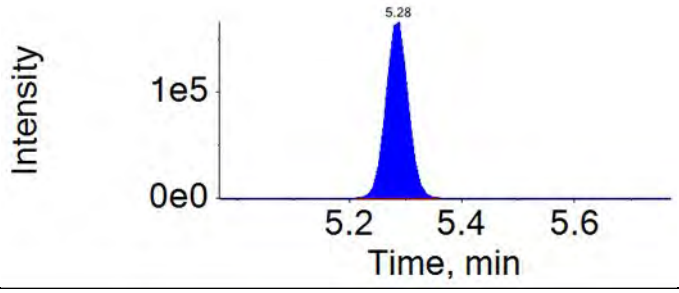


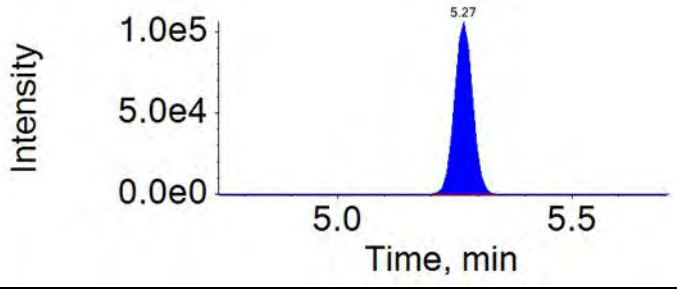
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



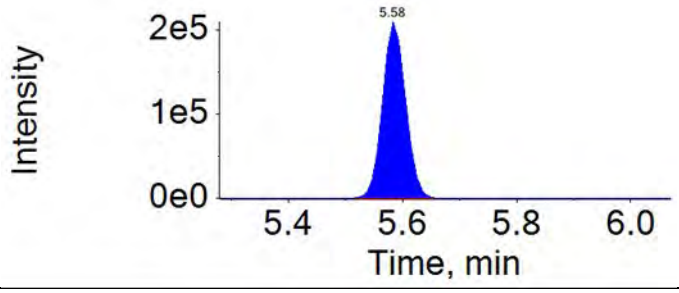


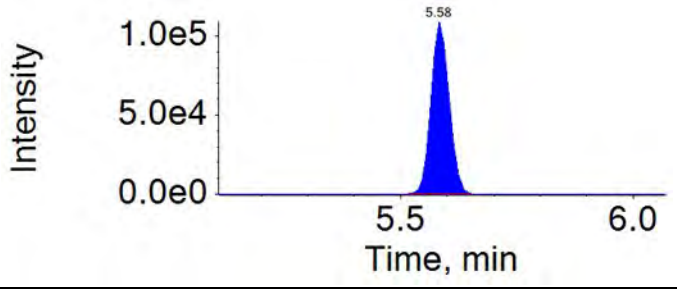
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





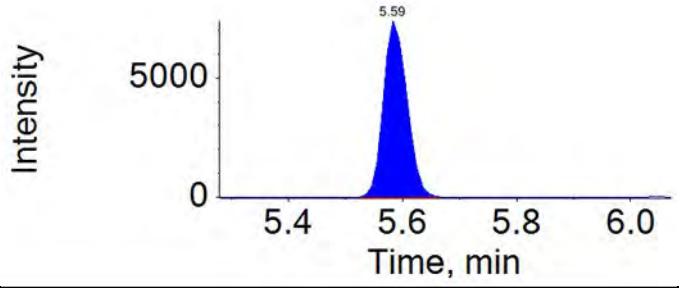
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

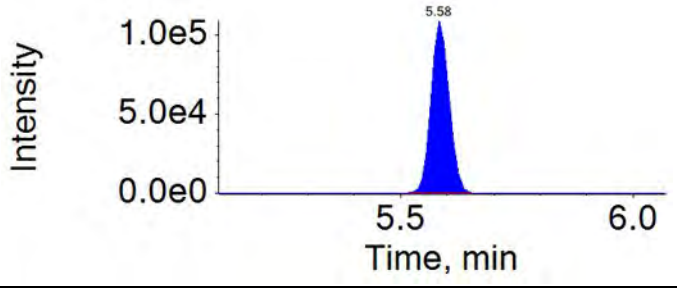




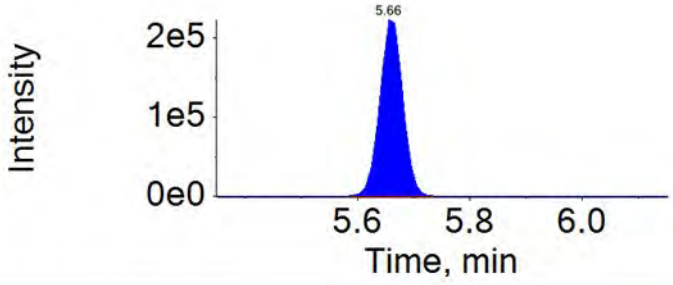
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

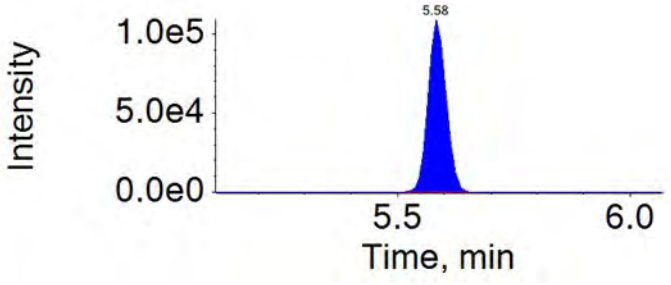
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



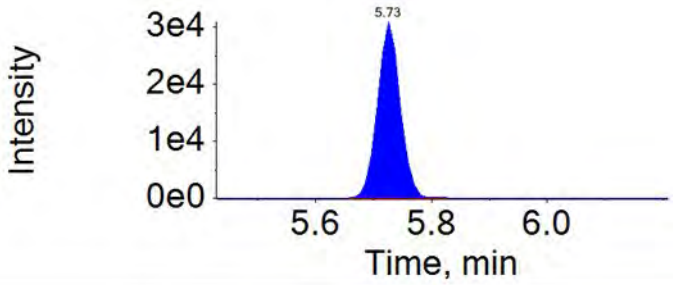


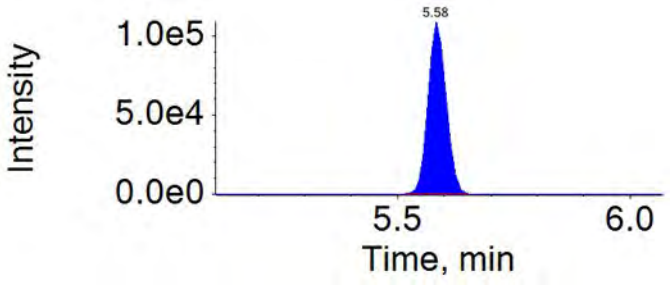
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



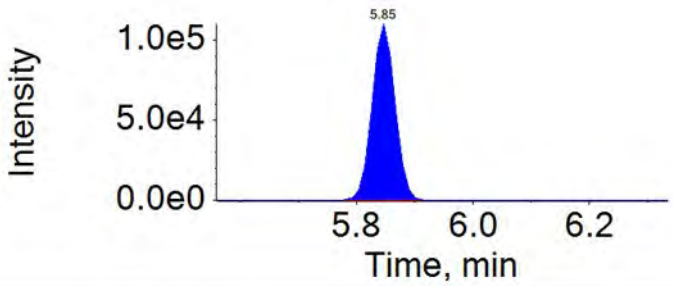


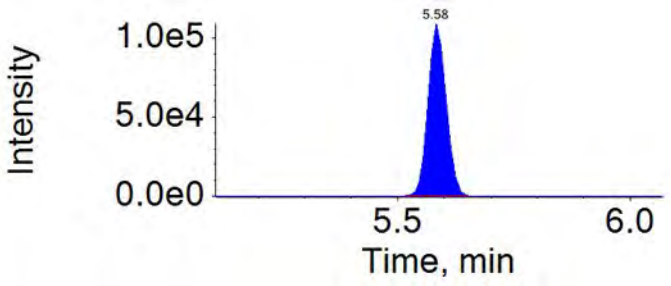
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



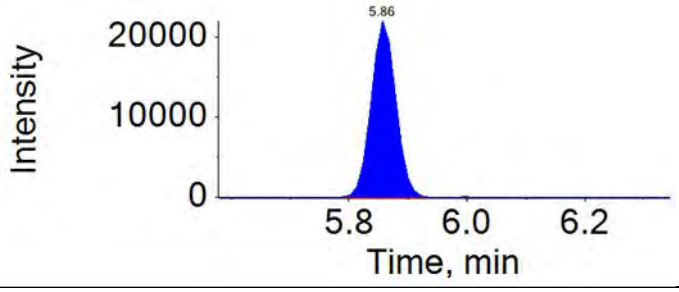
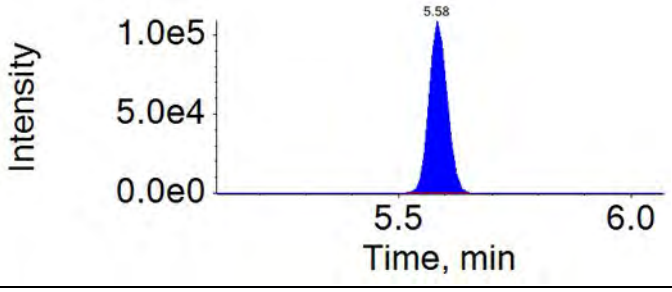


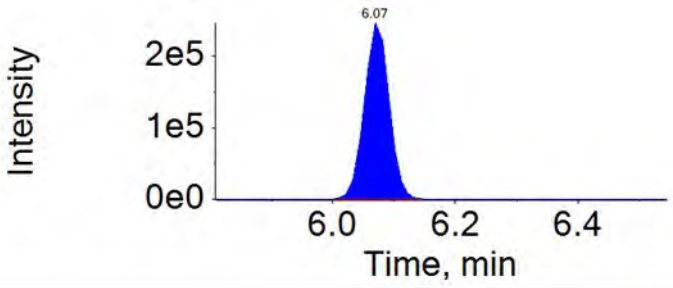
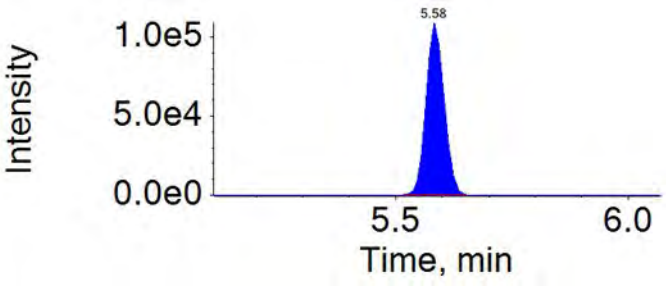
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

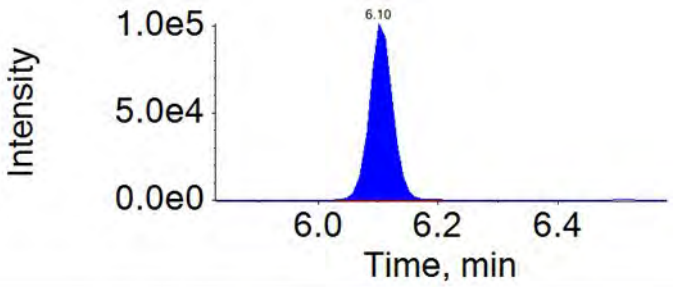
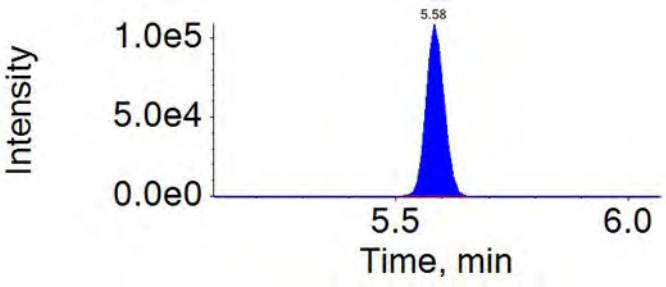


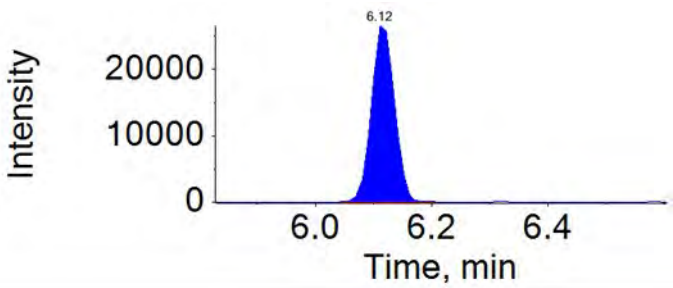
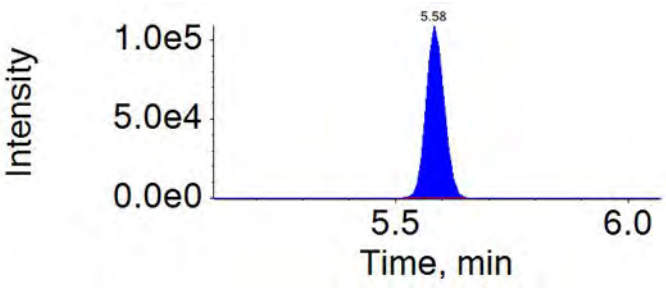


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

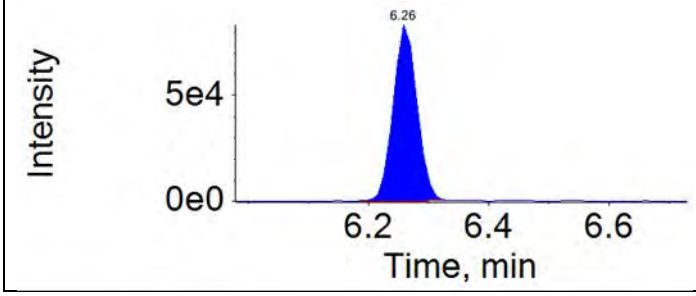
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

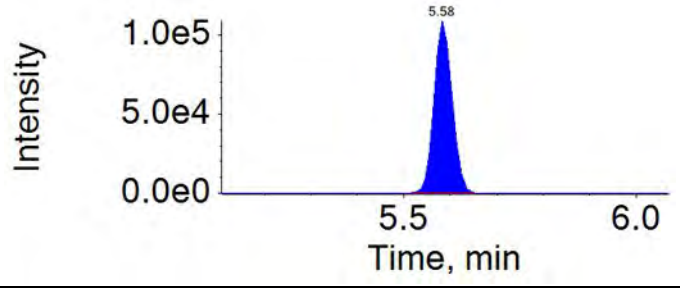
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

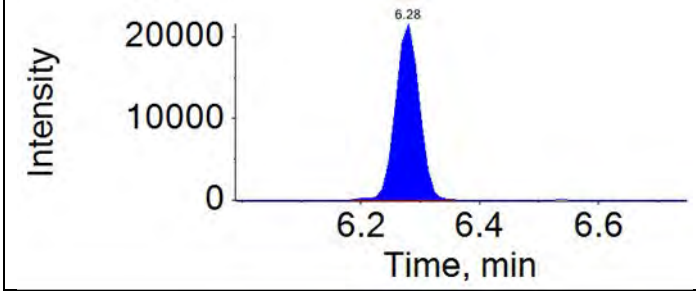
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

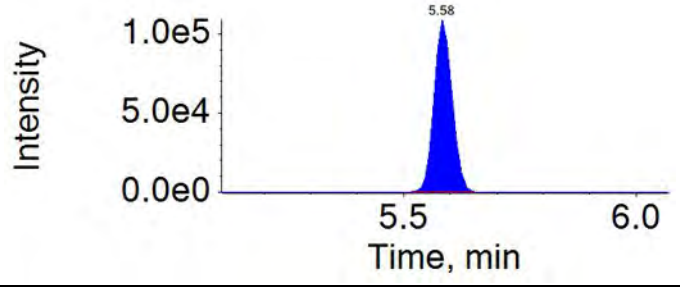
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



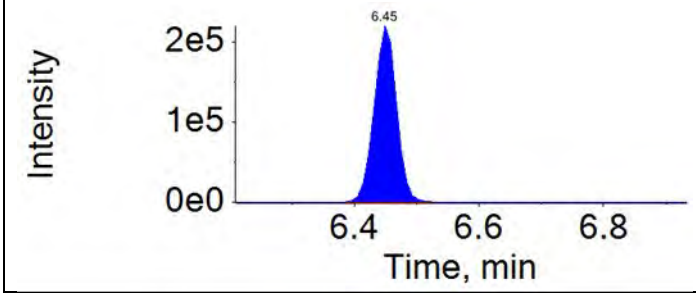


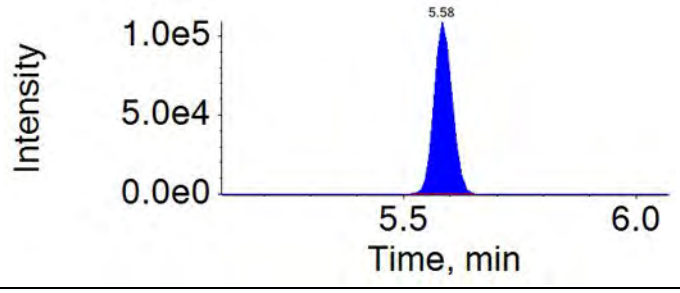
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



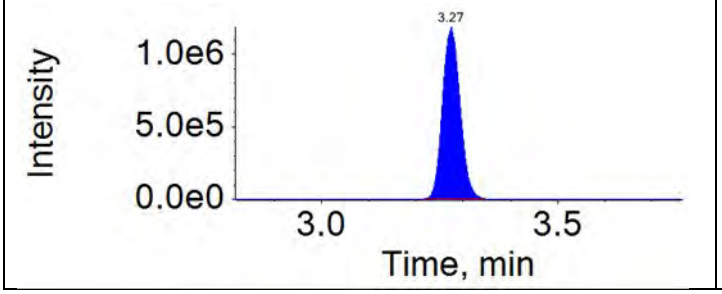


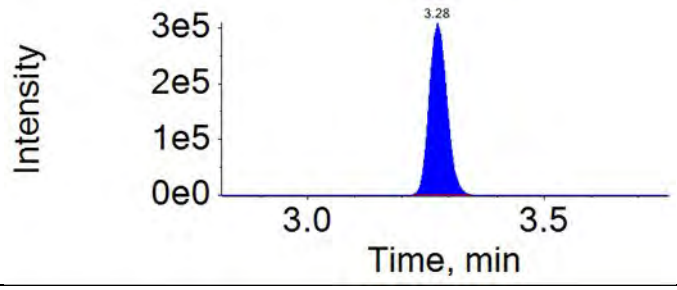
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

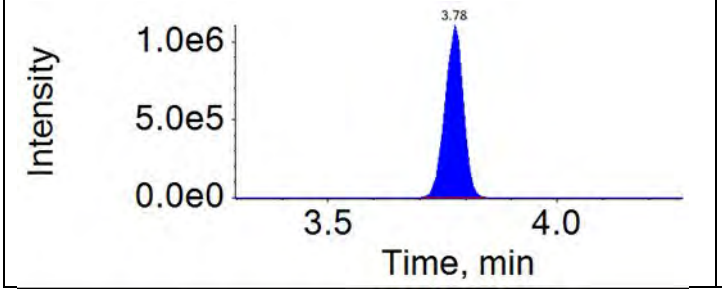
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

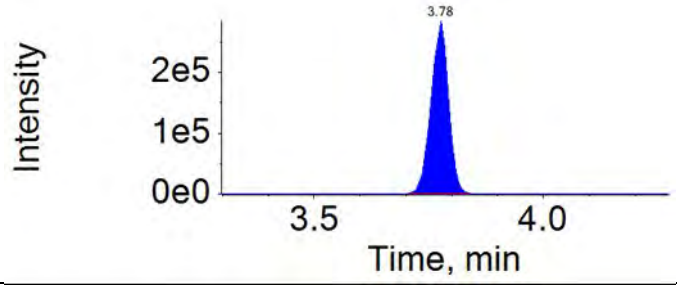
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



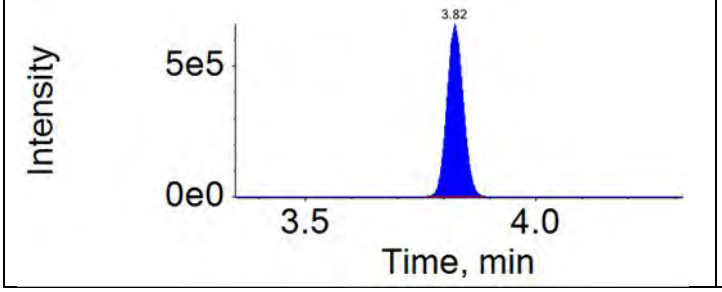


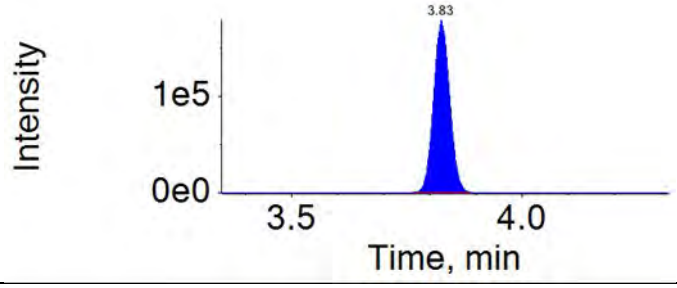
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



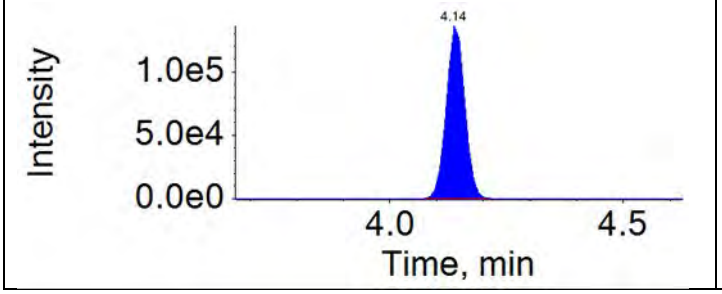


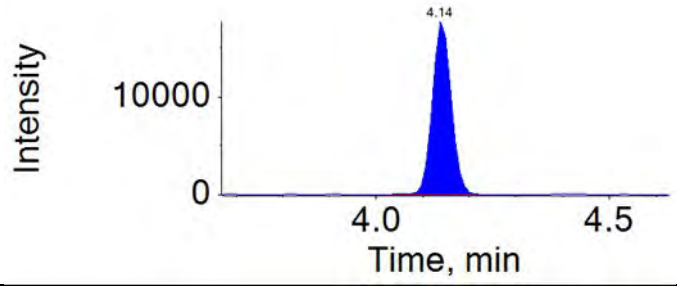
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



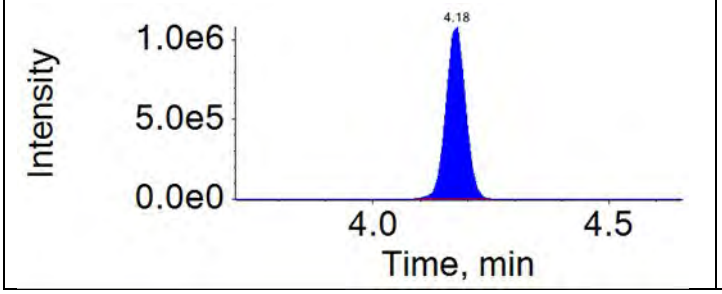


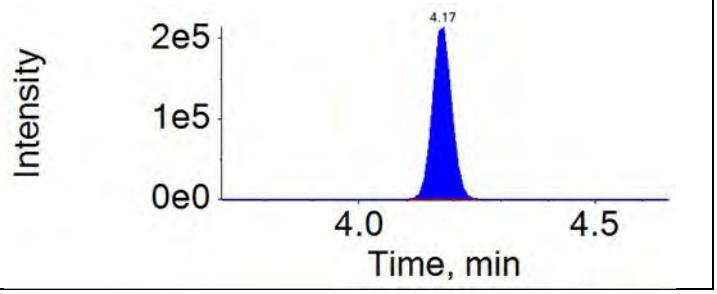
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

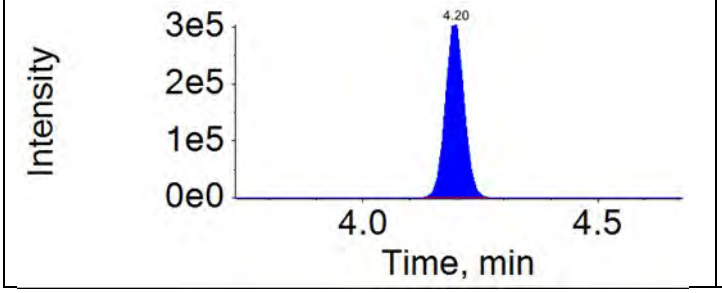
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

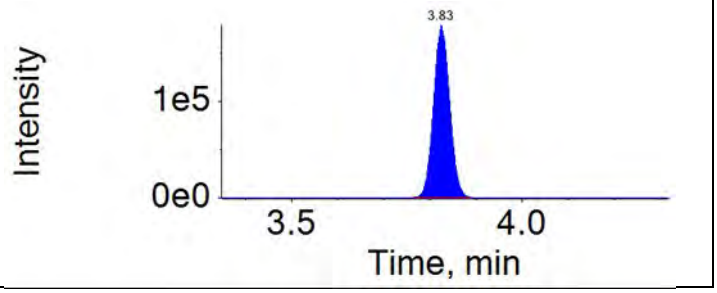
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



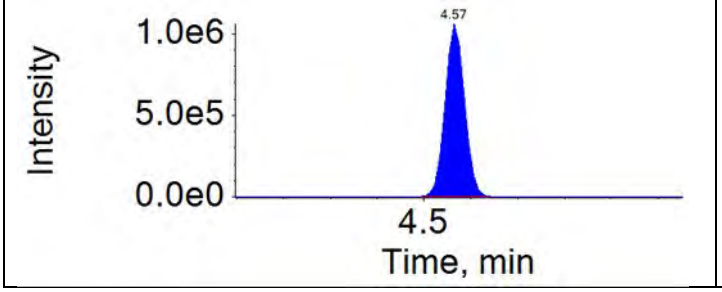


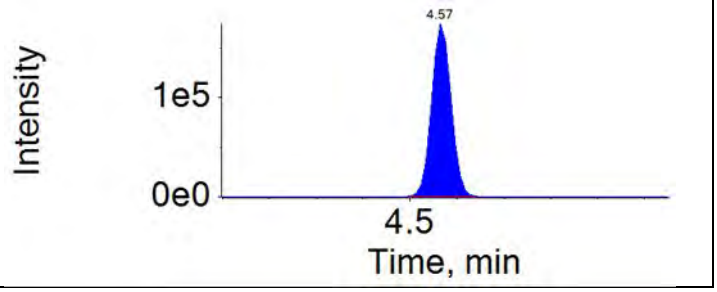
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



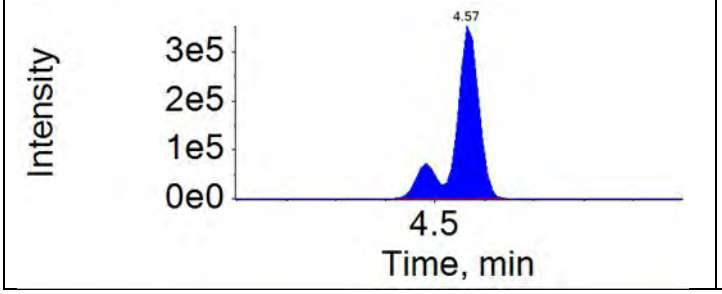


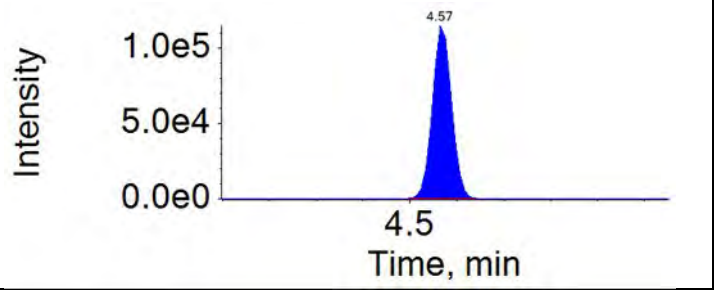
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



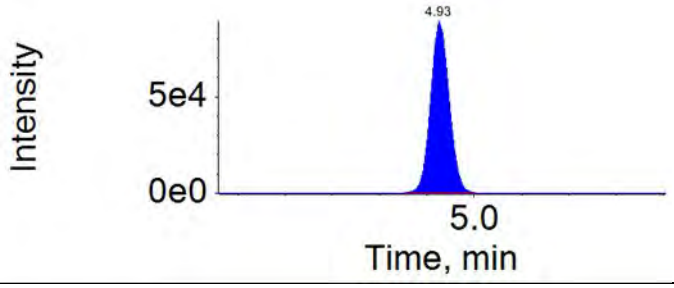
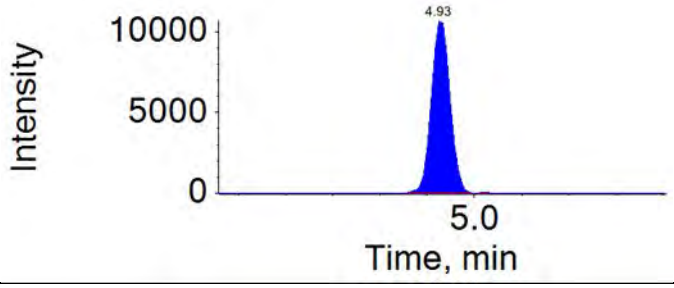


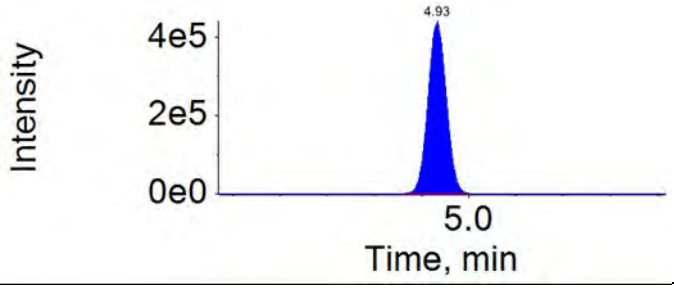
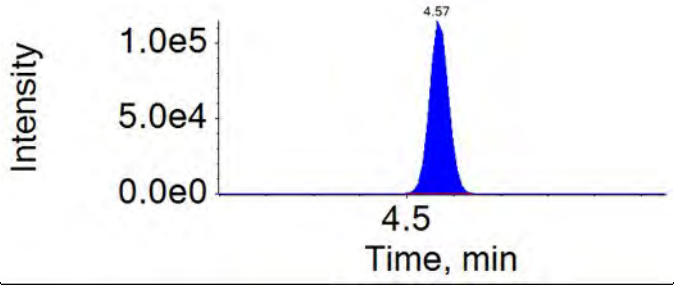
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

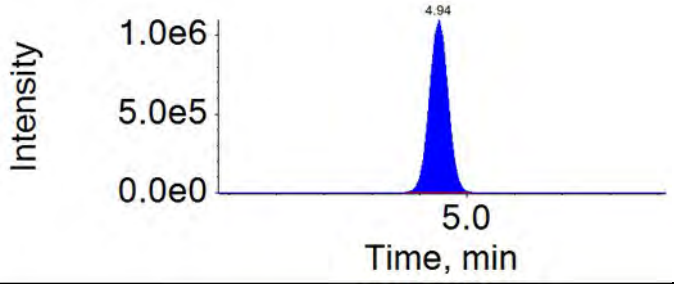
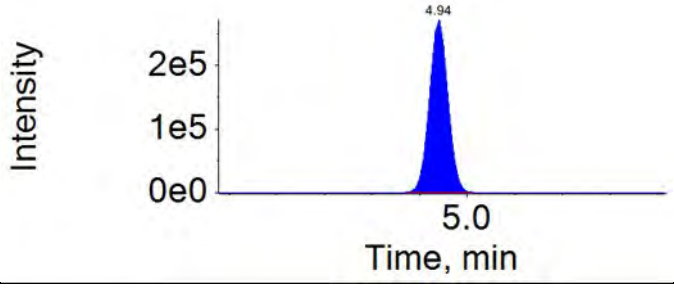


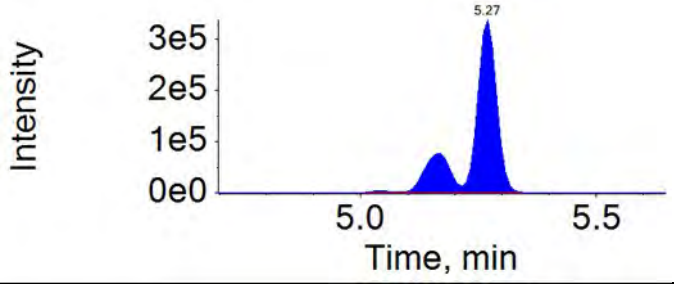
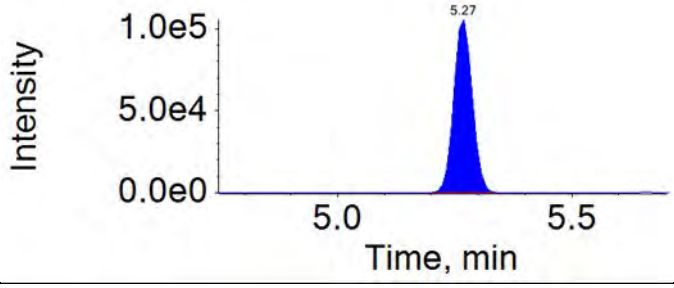


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

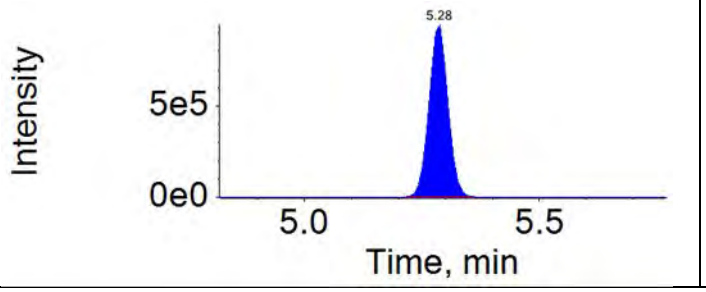
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

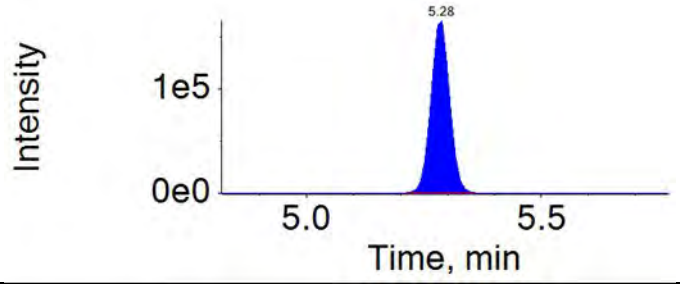
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

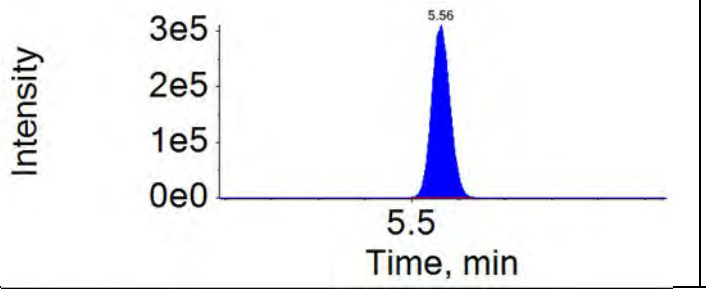
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

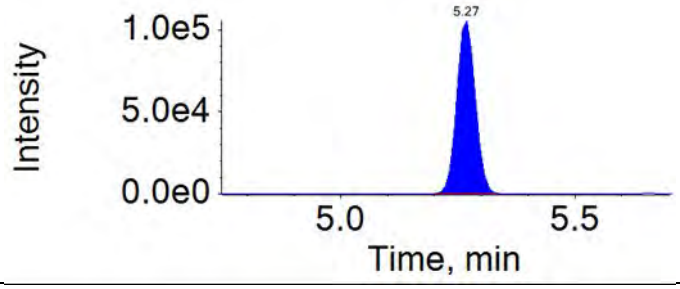
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



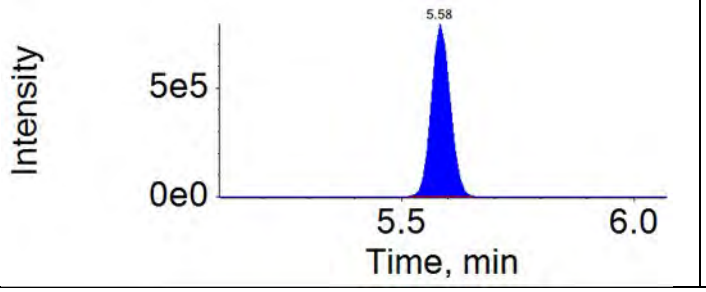


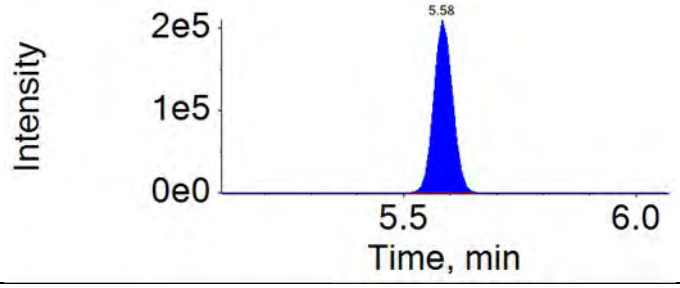
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



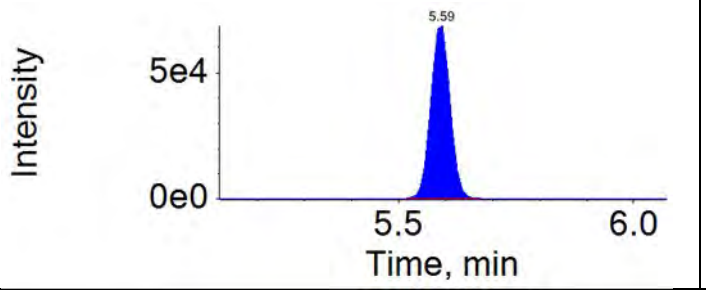


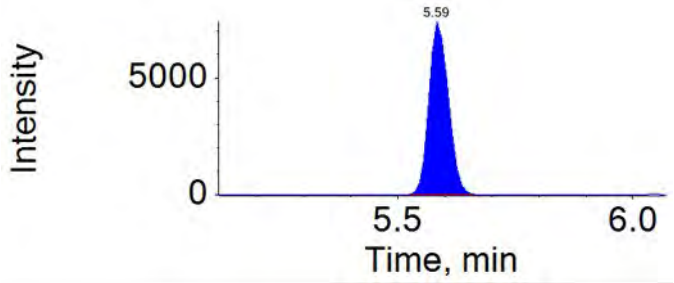
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

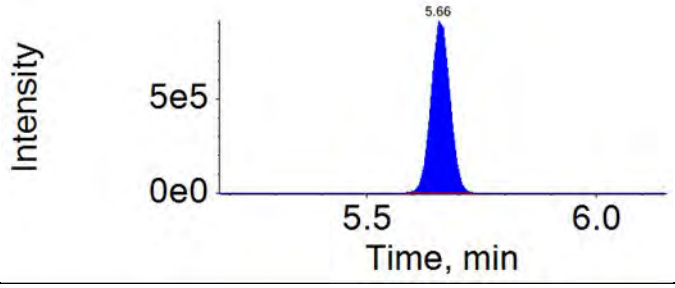
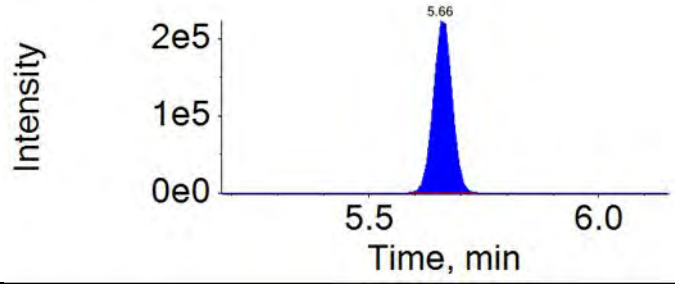


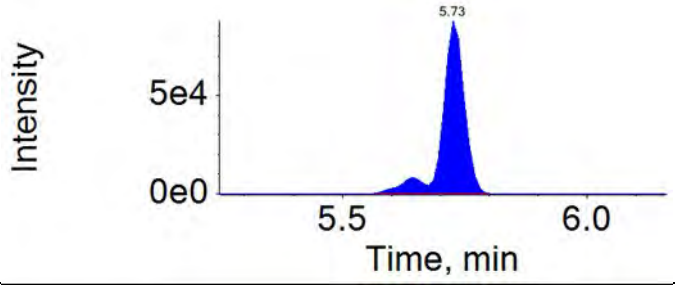
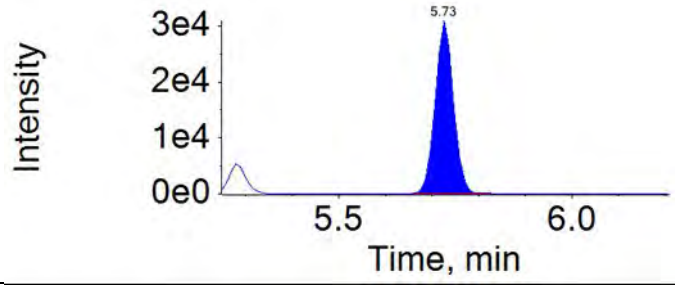


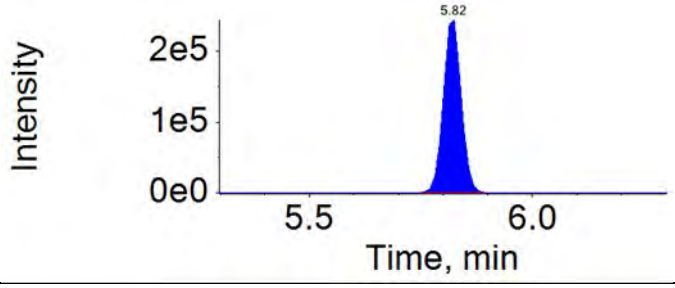
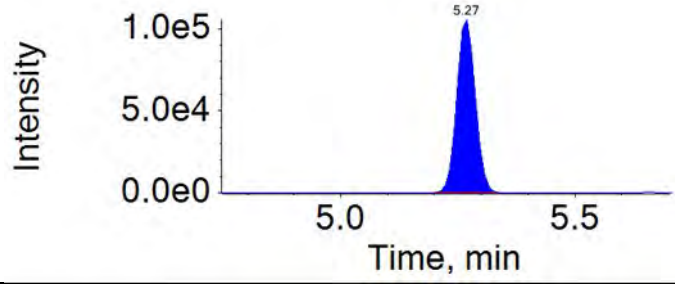
APPROVED
By MSM at 10:22 am, 12/4/18

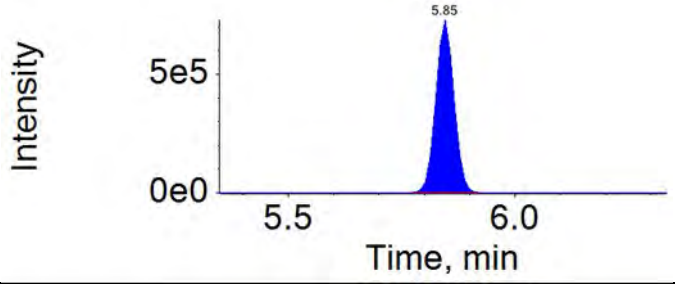
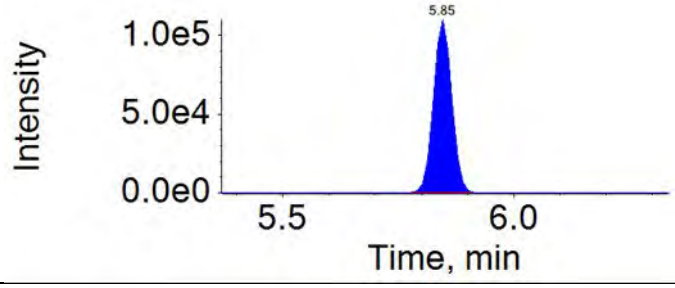
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

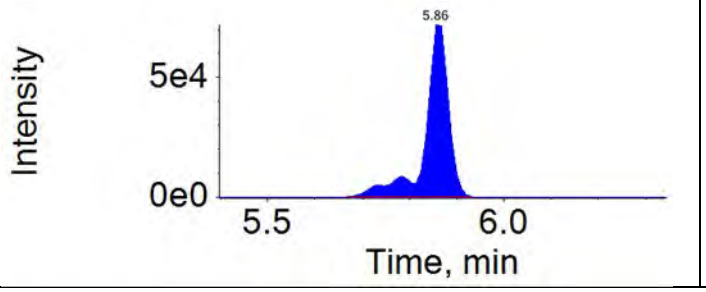
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

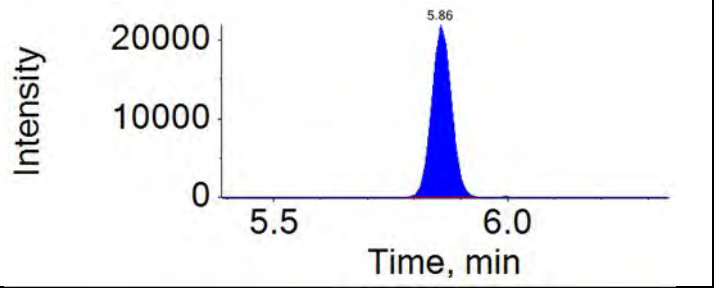
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

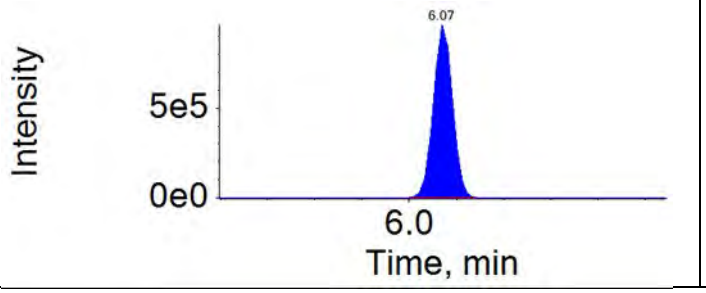
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

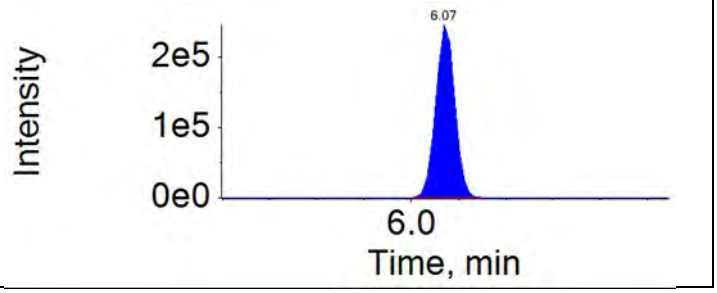
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



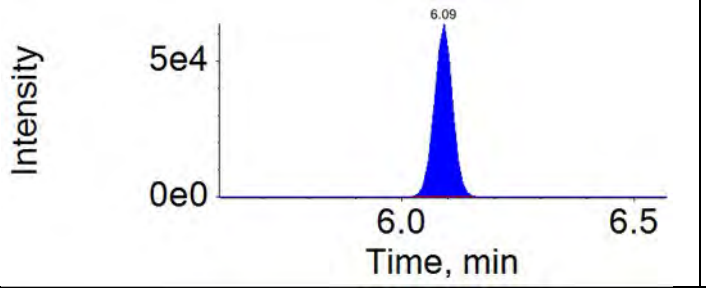


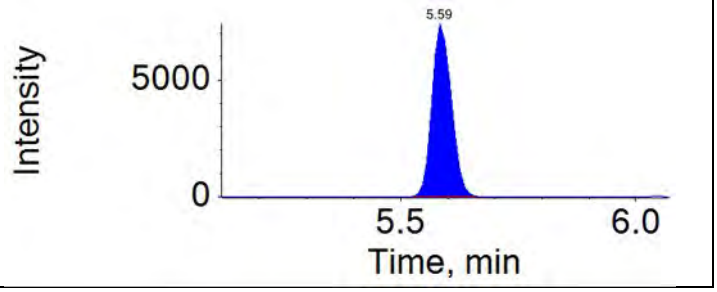
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



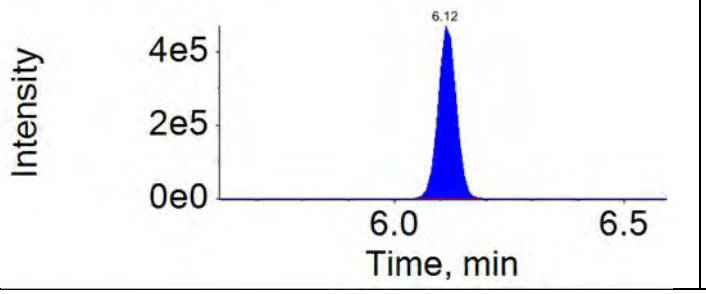


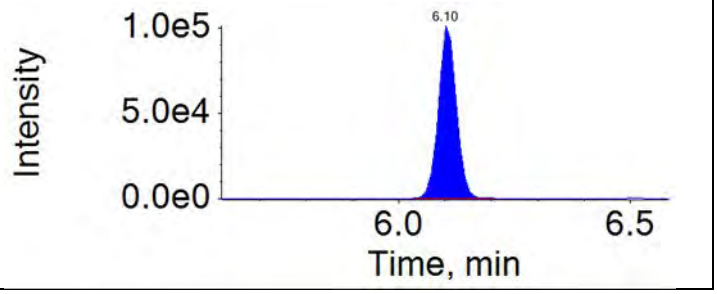
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



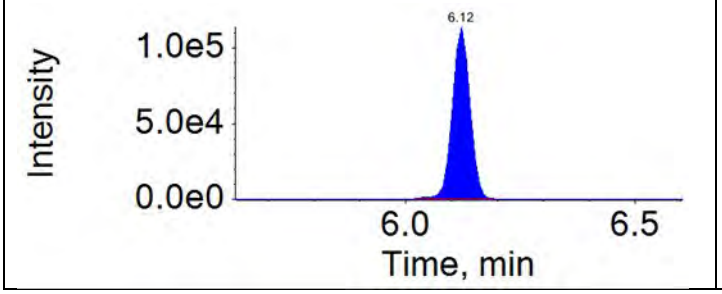


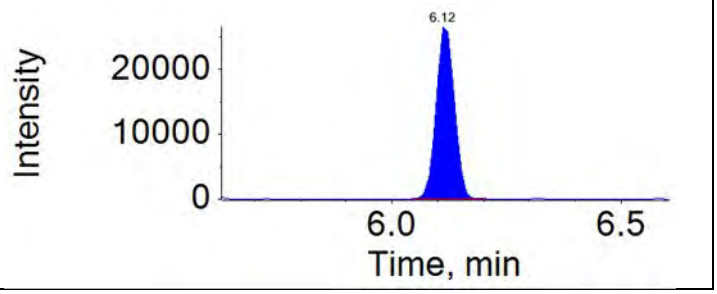
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

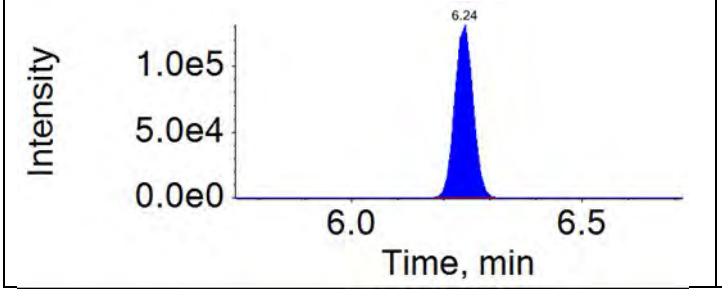
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

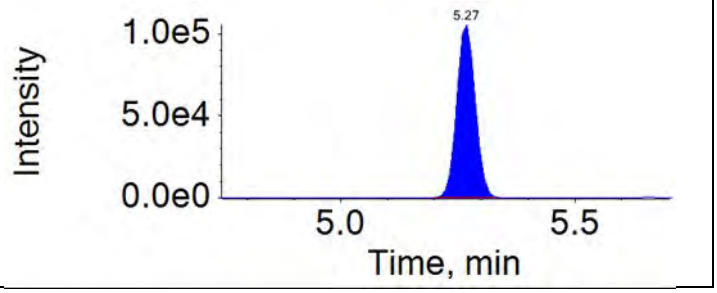
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



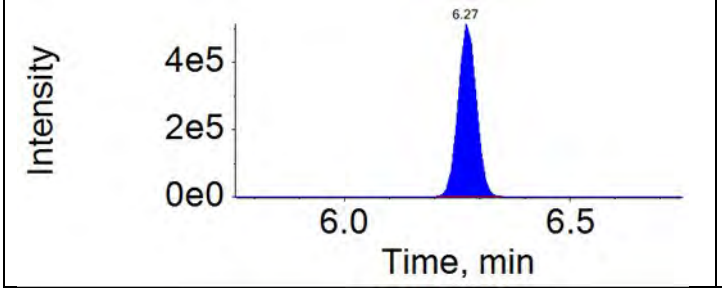


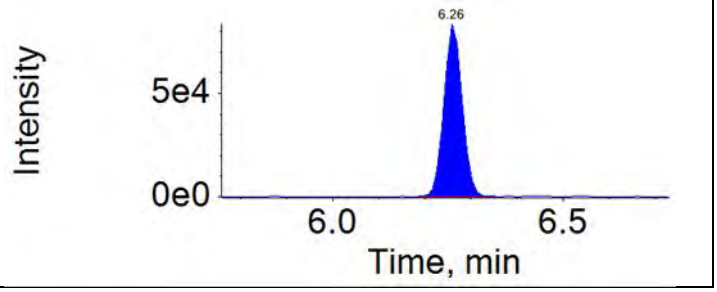
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



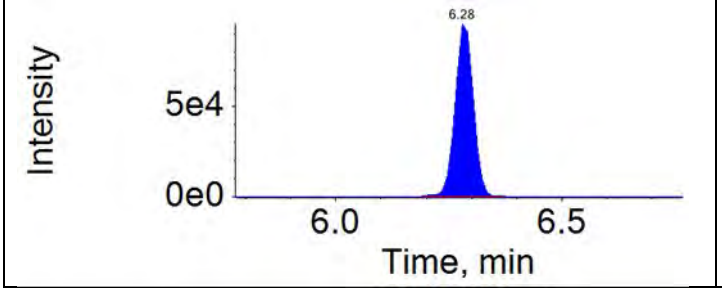


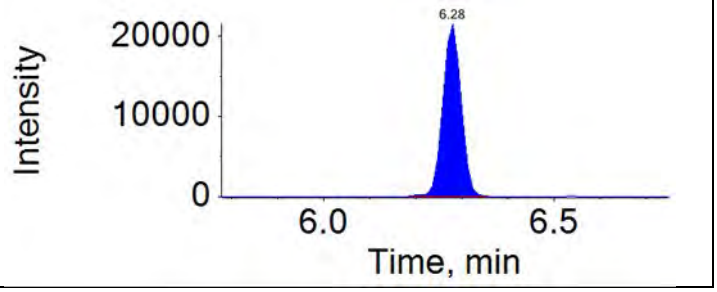
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



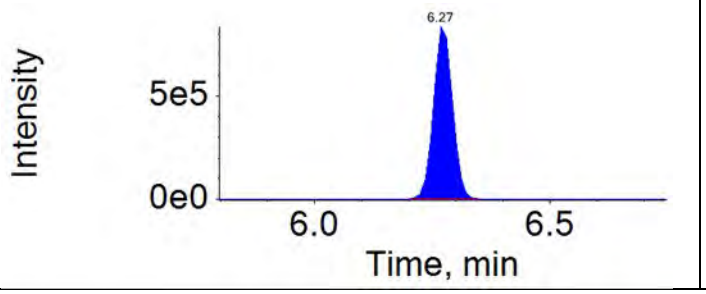


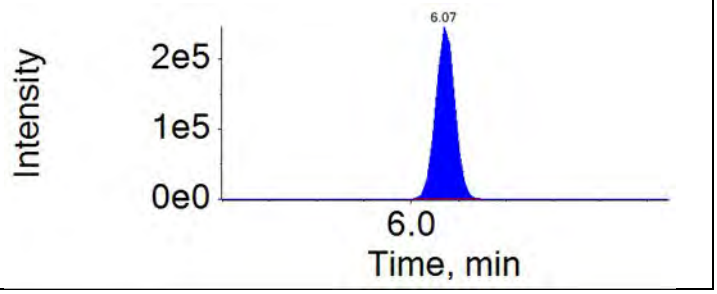
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

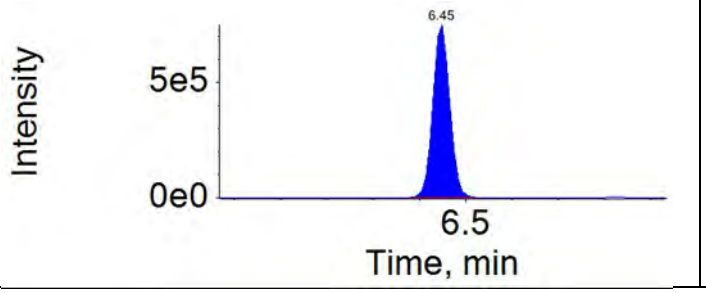
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

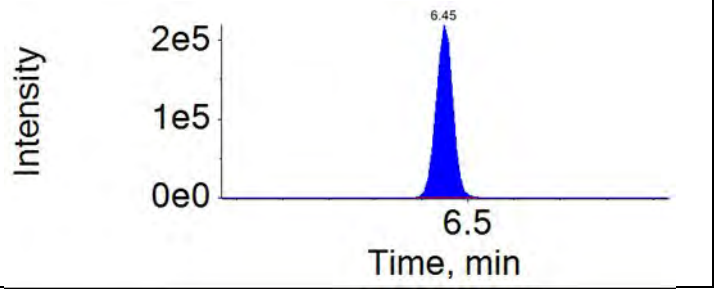
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



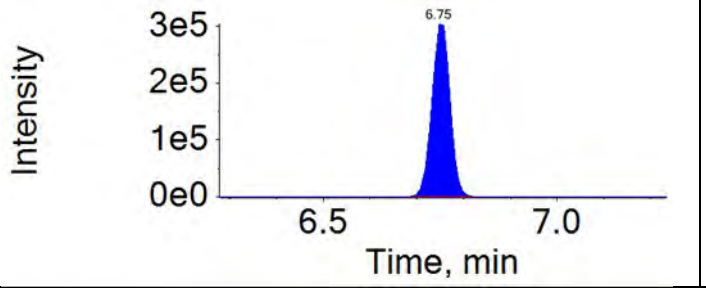


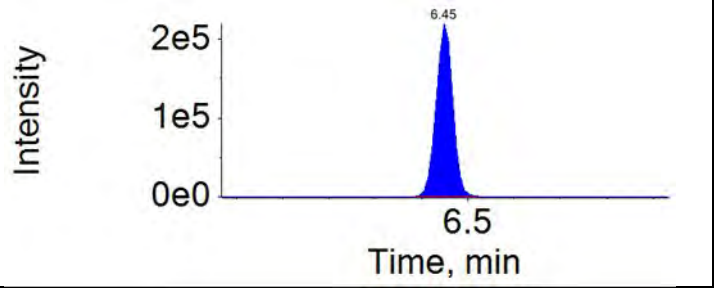
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



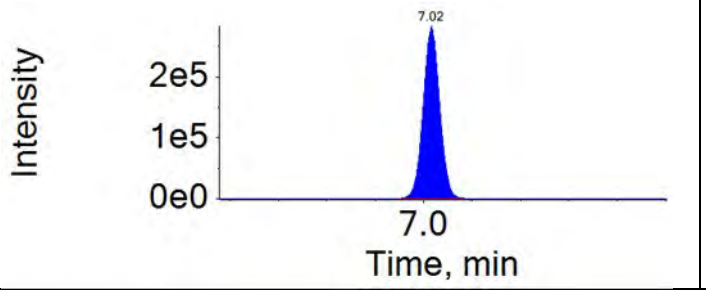


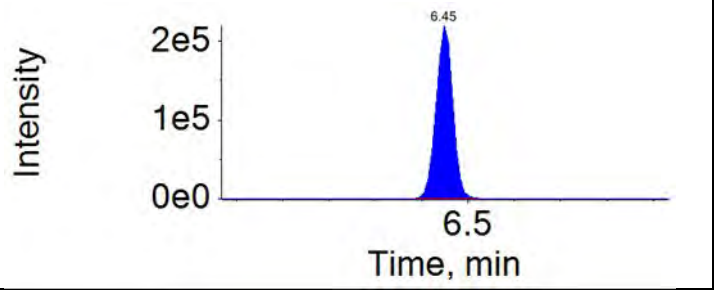
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



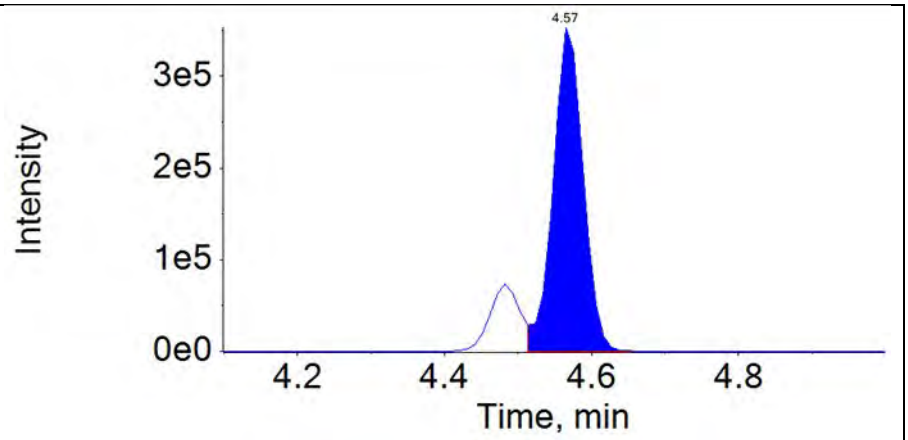


APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

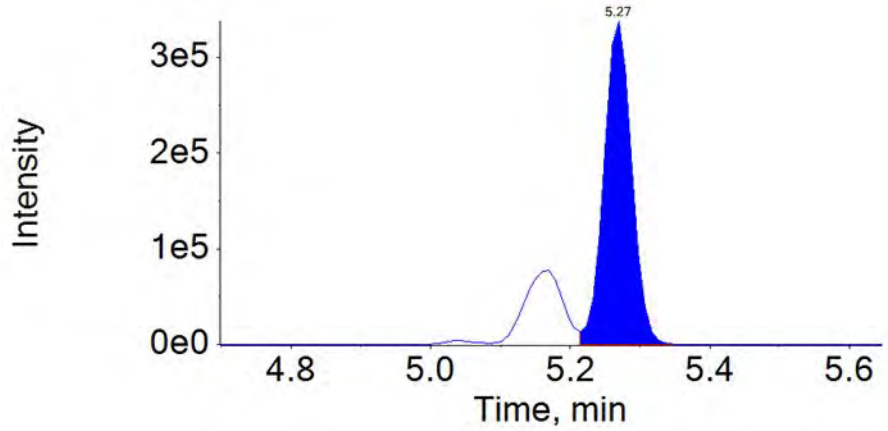
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.57
Peak Area:
1005545.07
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5



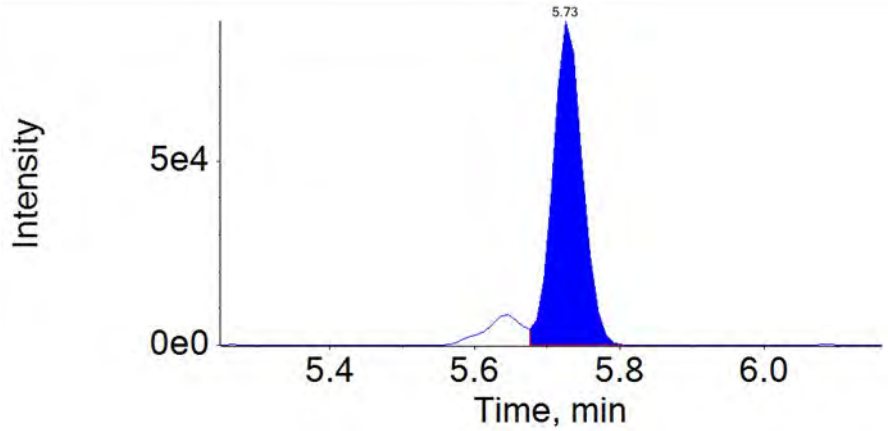
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
938149.94
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
248767.65
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5



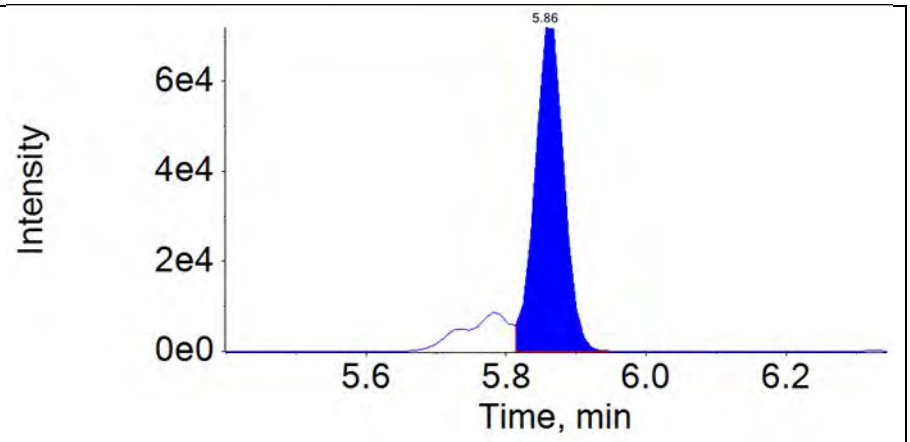
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

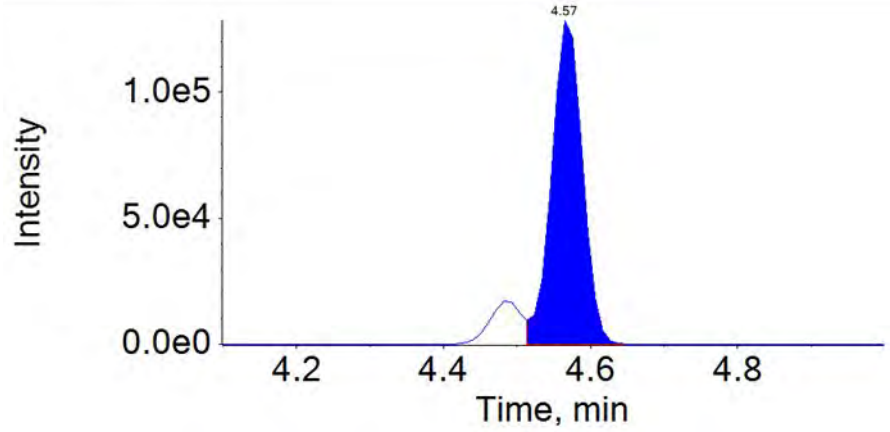
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.86
Peak Area:
209297.96
Mass Range:
584.0 / 419.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5



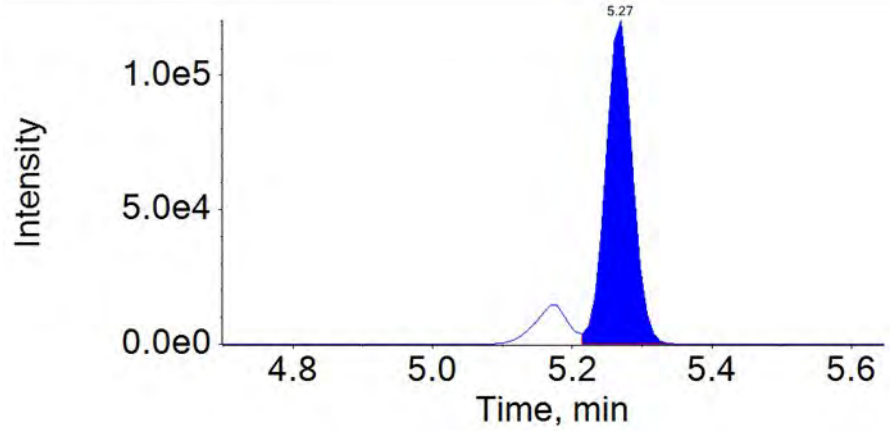
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.57
Peak Area:
377204.30
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
323427.32
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-14.wiff
Sample Name:
CAL5

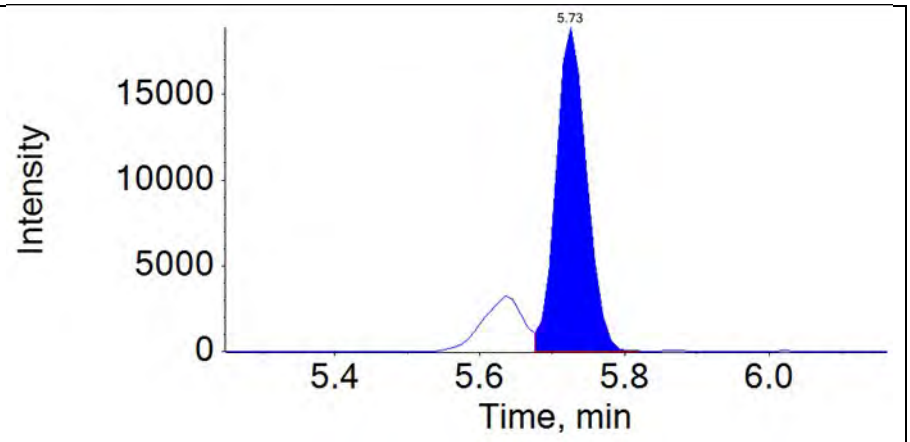


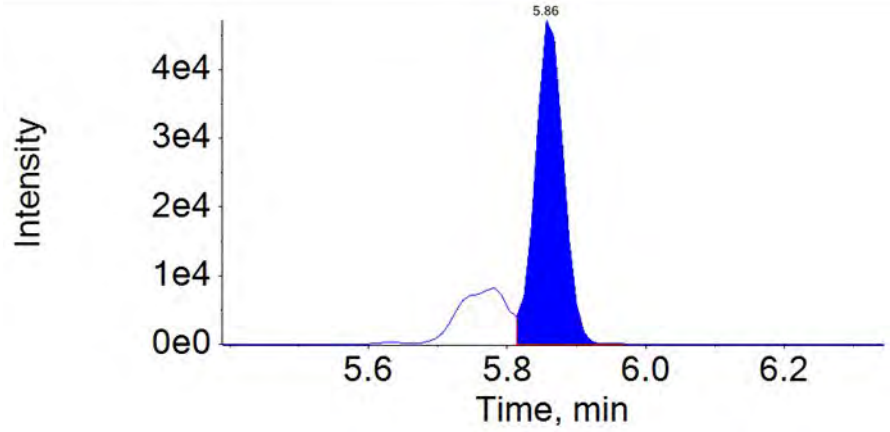
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2 **RT (min.):** 5.73 **Peak Area:** 55374.30 **Mass Range:** 570.0 / 483.0 **File Name:** 18DEC03DCAL-14.wiff **Sample Name:** CAL5	 **Integration Comment:** incorrect integration

Component Name: NEtFOSAA_2 **RT (min.):** 5.86 **Peak Area:** 134507.95 **Mass Range:** 584.0 / 526.0 **File Name:** 18DEC03DCAL-14.wiff **Sample Name:** CAL5	 **Integration Comment:** incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

Ion Ratio Report

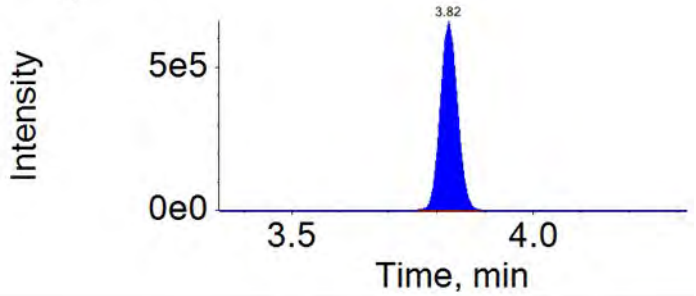
Sample Name: CAL5 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-14.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	1625611.27	A	1.0000	1.0000			
PFBS_2	3.82	1.00	574375.07	A	0.3698	0.3533	-4	50	
4:2-FTS	4.14	1.00	374490.91	A	1.0000	1.0000			
4:2-FTS_2	4.14	1.00	234312.02	A	0.6536	0.6257	-4	50	
PFHxA	4.18	1.00	3112980.90	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	32191.78	A	0.0119	0.0103	-13	50	
PFPeS	4.20	1.10	851930.76	A	1.0000	1.0000			
PFPeS_2	4.19	1.10	435377.84	A	0.5000	0.5110	2	50	
PFHpA	4.57	1.00	3049516.02	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	165235.78	A	0.0526	0.0542	3	50	
PFHxS	4.57	1.00	1209151.89	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	427838.70	M	0.3476	0.3538	2	50	
6:2-FTS	4.93	1.00	242921.39	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	150882.83	A	0.6372	0.6211	-3	50	
PFHpS	4.93	1.08	1192377.17	A	1.0000	1.0000			
PFHpS_2	4.93	1.08	477854.28	A	0.3956	0.4008	1	50	
PFOA	4.94	1.00	3005747.10	A	1.0000	1.0000			
PFOA_2	4.94	1.00	168262.87	A	0.0618	0.0560	-9	50	
PFOS	5.27	1.00	1246934.30	M	1.0000	1.0000			
PFOS_2	5.27	1.00	373700.33	M	0.2940	0.2997	2	50	
PFNA	5.28	1.00	2641534.50	A	1.0000	1.0000			
PFNA_2	5.28	1.00	52523.79	A	0.0196	0.0199	1	50	
PFNS	5.56	1.06	850399.04	A	1.0000	1.0000			
PFNS_2	5.56	1.06	400144.39	A	0.4676	0.4705	1	50	
PFDA	5.58	1.00	2219848.22	A	1.0000	1.0000			
PFDA_2	5.58	1.00	15874.22	A	0.0073	0.0072	-2	50	
8:2-FTS	5.59	1.00	198352.77	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	111013.22	A	0.6049	0.5597	-7	50	
NMeFOSAA	5.73	1.00	278357.68	M	1.0000	1.0000			
NMeFOSAA_2	5.73	1.00	67776.17	M	0.2642	0.2435	-8	50	
PFDS	5.82	1.10	685385.12	A	1.0000	1.0000			
PFDS_2	5.82	1.10	329495.55	A	0.4948	0.4807	-3	50	
PFUnDA	5.85	1.00	2029729.92	A	1.0000	1.0000			
PFUnDA_2	5.85	1.00	7151.83	A	0.0046	0.0035	-23	50	
NEtFOSAA	5.86	1.00	249317.69	M	1.0000	1.0000			
NEtFOSAA_2	5.86	1.00	174632.74	M	0.7504	0.7004	-7	50	
PFDoDA	6.07	1.00	2724004.89	A	1.0000	1.0000			
PFDoDA_2	6.07	1.00	35672.30	A	0.0143	0.0131	-8	50	
10:2-FTS	6.09	1.09	173351.60	A	1.0000	1.0000			
10:2-FTS_2	6.09	1.09	110138.76	A	0.7003	0.6353	-9	50	
PFTrDA	6.27	1.03	2330088.14	A	1.0000	1.0000			
PFTrDA_2	6.27	1.03	20457.81	A	0.0099	0.0088	-12	50	
PFTeDA	6.45	1.00	1907446.17	A	1.0000	1.0000			
PFTeDA_2	6.45	1.00	12576.47	A	0.0057	0.0066	15	50	
PFHxDA	6.75	1.05	826511.29	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	50598.43	A	0.0617	0.0612	-1	50	
PFODA	7.02	1.09	668169.17	A	1.0000	1.0000			
PFODA_2	7.01	1.09	17432.64	A	0.0266	0.0261	-2	50	

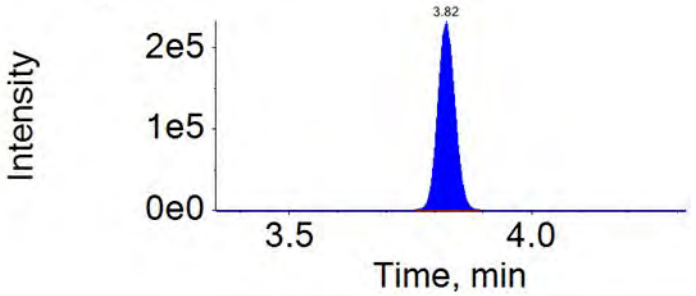
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

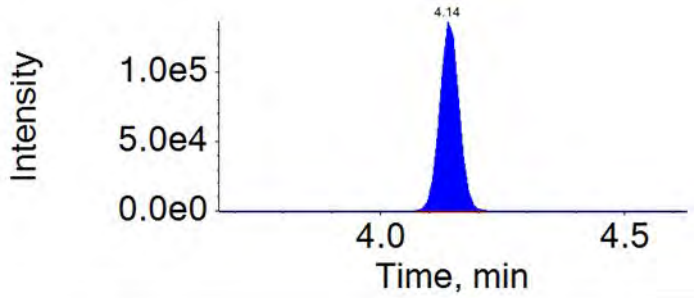
Component: PFBS
Primary Mass: 299.0 / 80.0



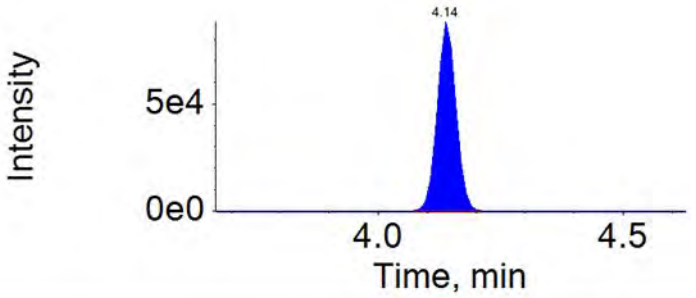
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



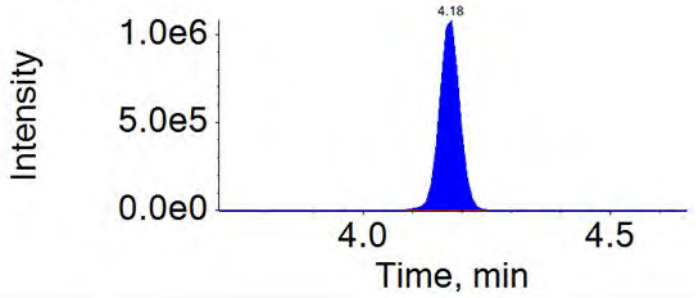
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



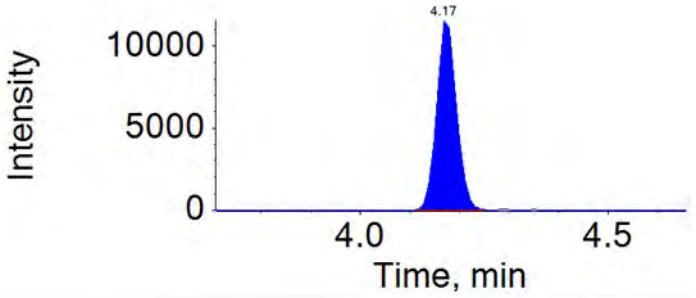
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



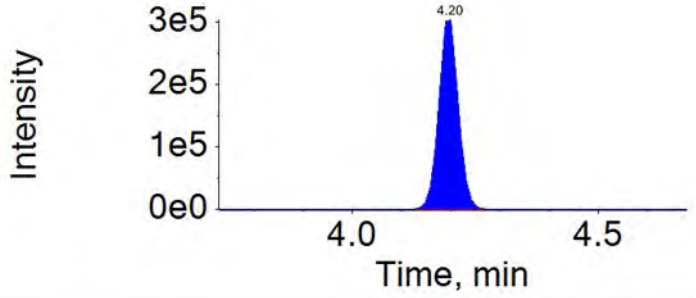
Component: PFHxA
Primary Mass: 313.0 / 269.0



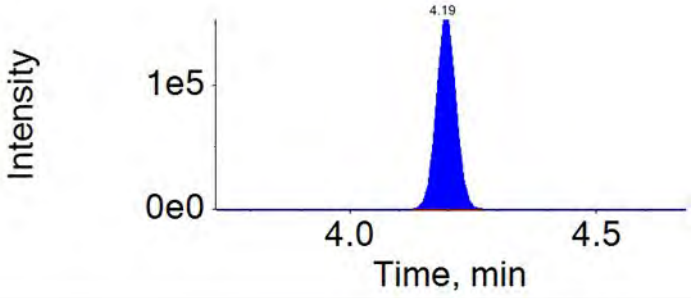
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



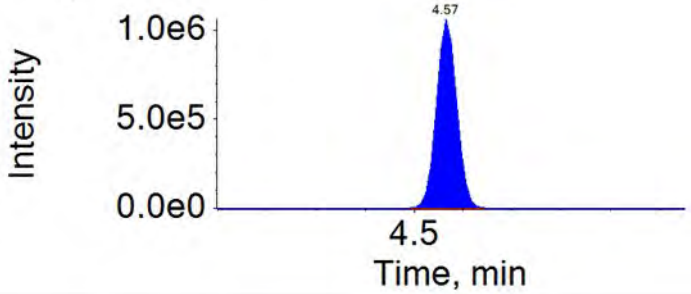
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



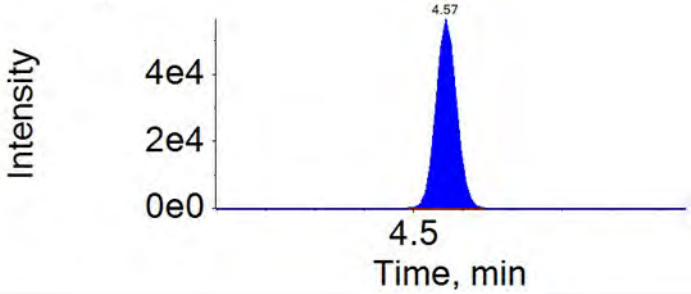
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

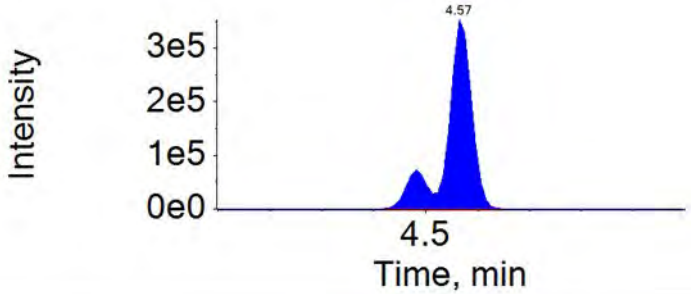
Component: PFHpA
Primary Mass: 363.0 / 319.0



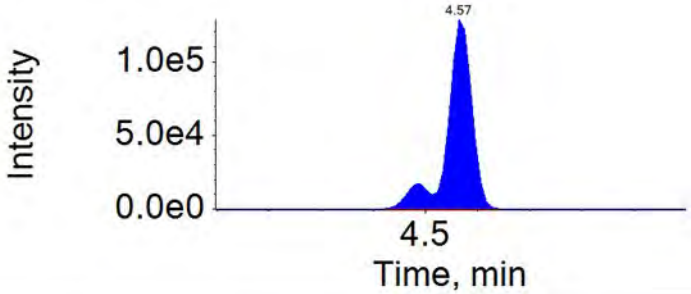
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



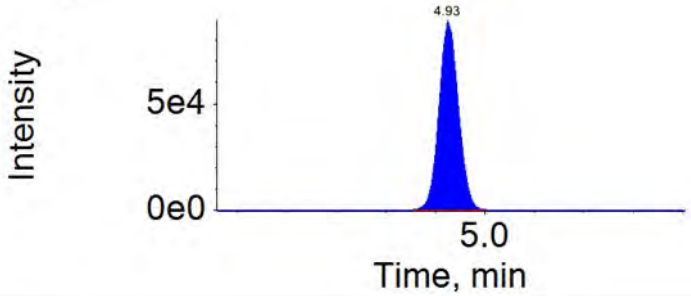
Component: PFHxS
Primary Mass: 399.0 / 80.0



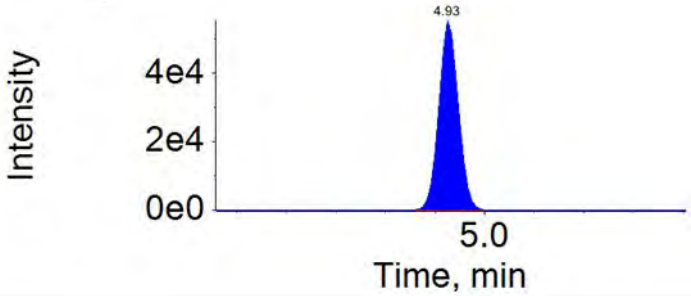
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



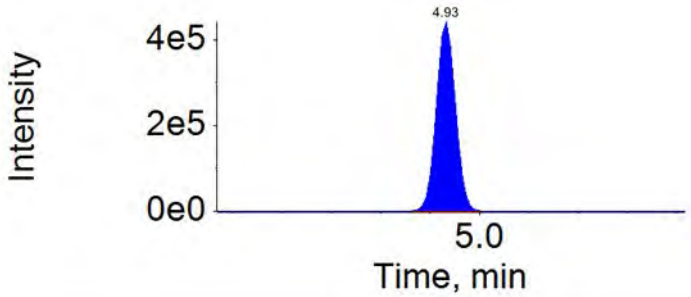
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



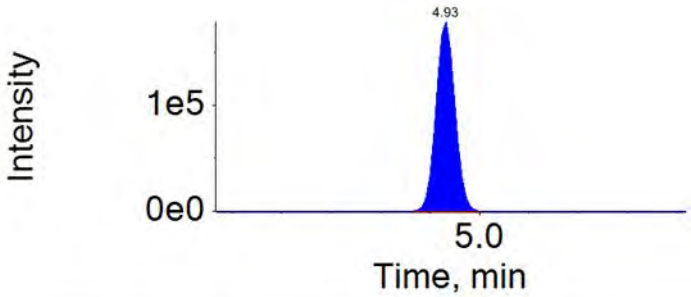
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



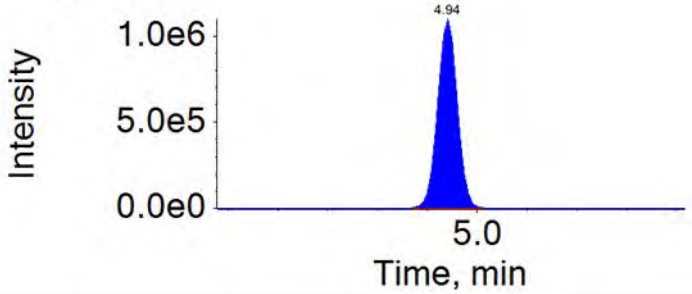
Component: PFHpS
Primary Mass: 449.0 / 80.0



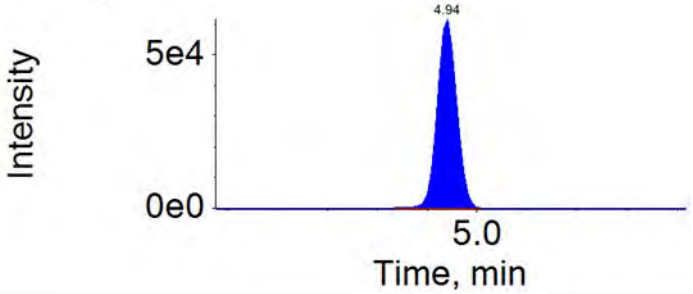
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



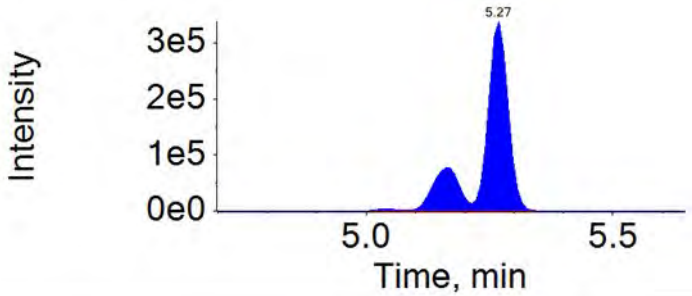
Component: PFOA
Primary Mass: 413.0 / 369.0



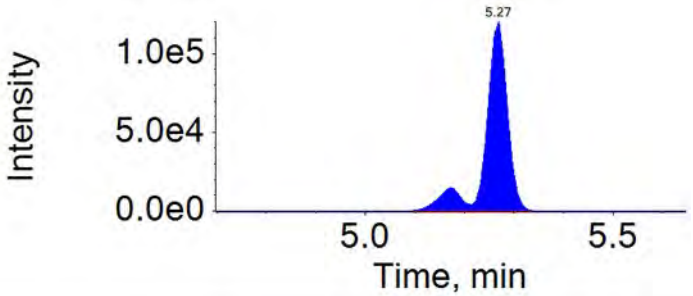
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



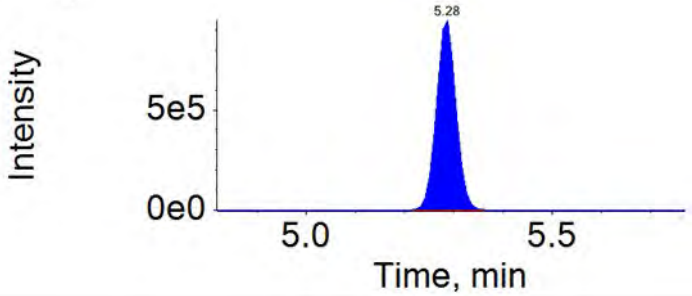
Component: PFOS
Primary Mass: 499.0 / 80.0



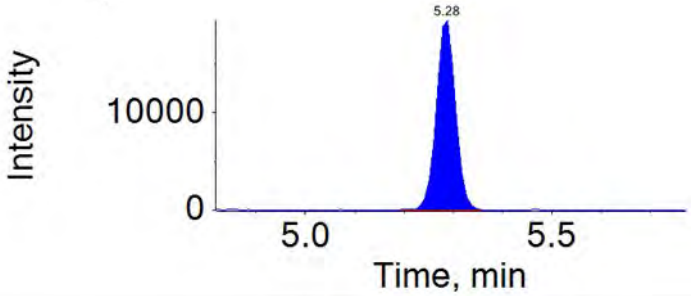
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



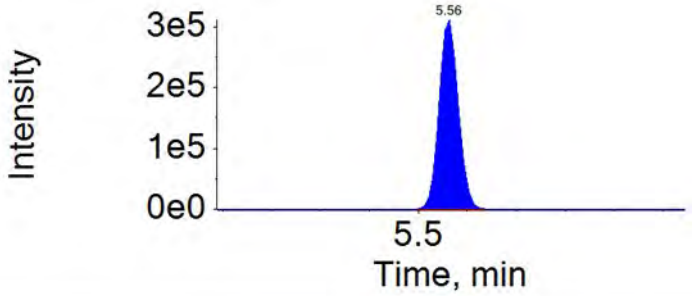
Component: PFNA
Primary Mass: 463.0 / 419.0



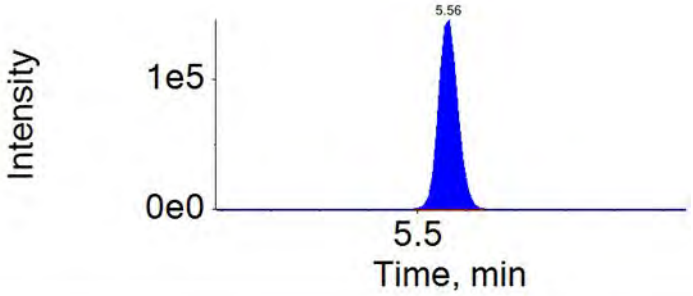
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



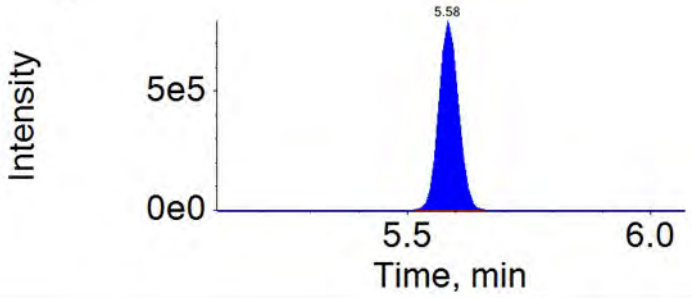
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



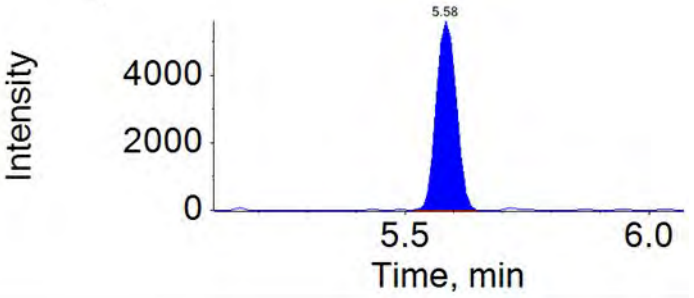
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

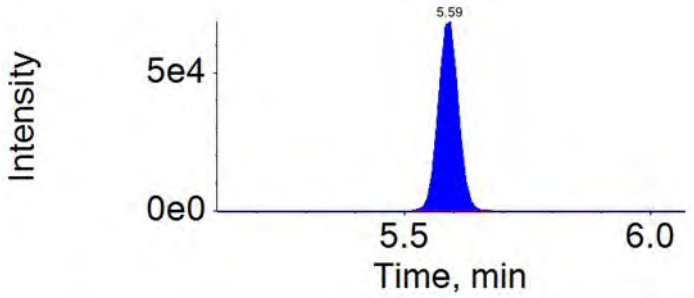
Component: PFDA
Primary Mass: 513.0 / 469.0



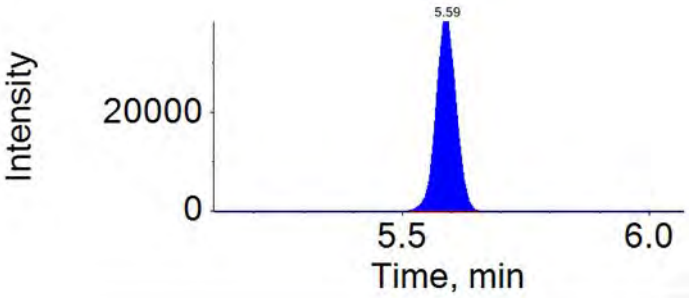
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



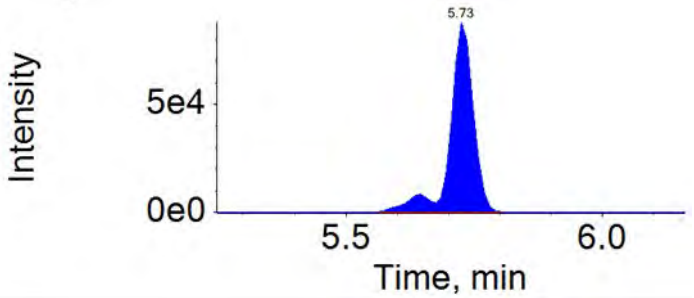
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



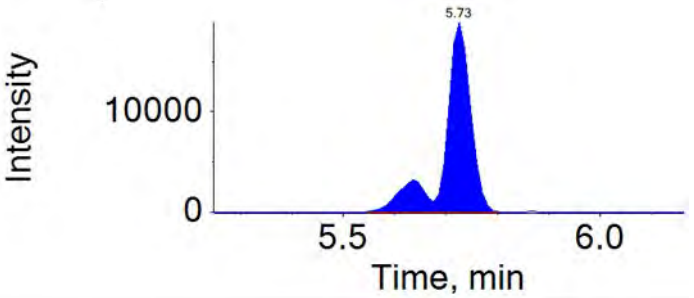
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



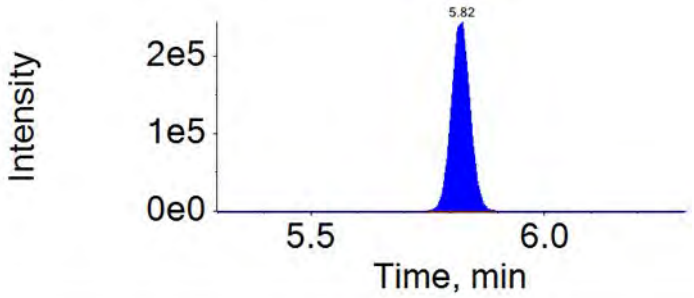
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



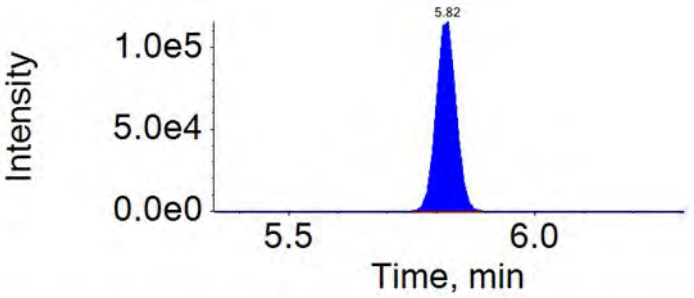
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



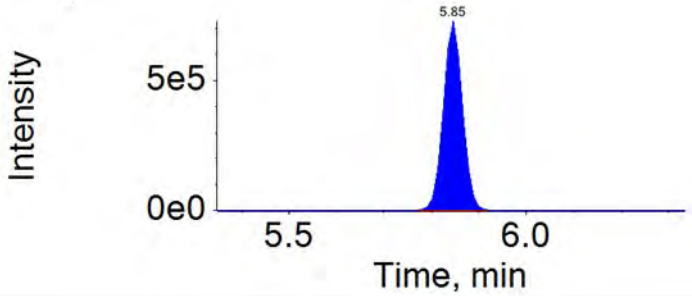
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



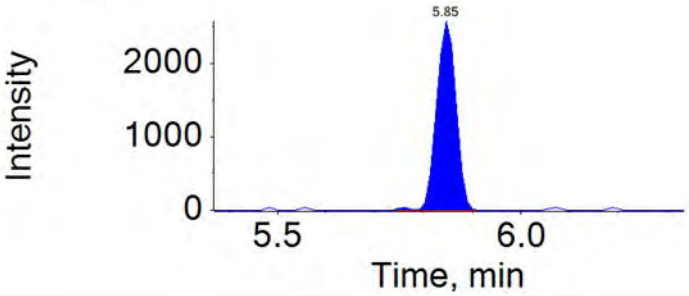
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

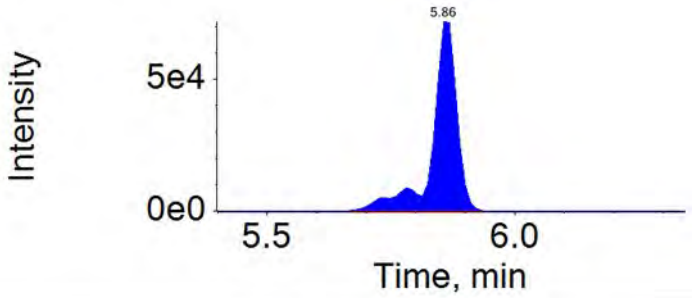
Component: PFUnDA
Primary Mass: 563.0 / 519.0



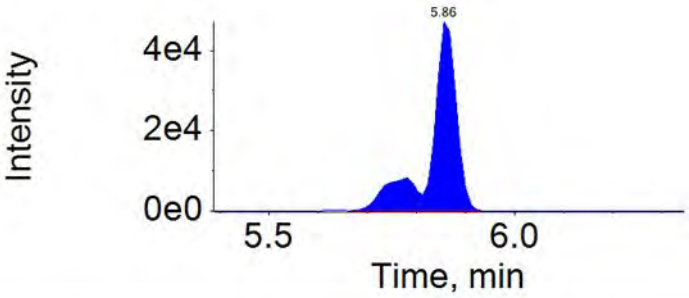
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



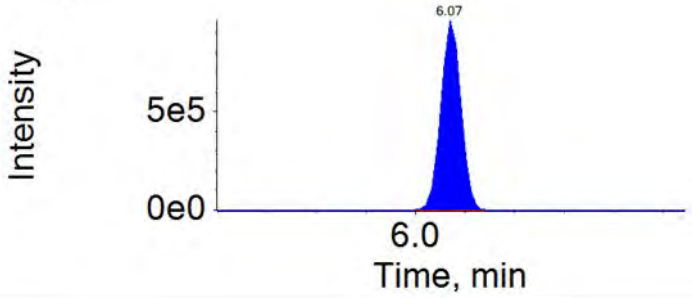
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



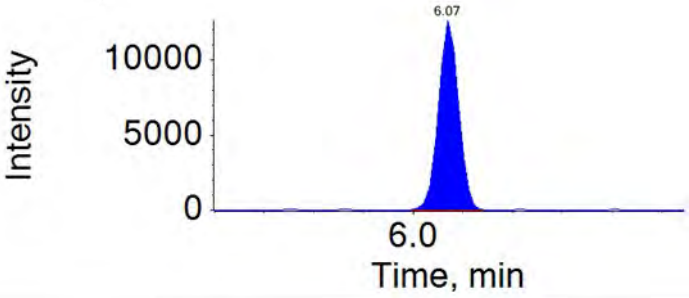
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



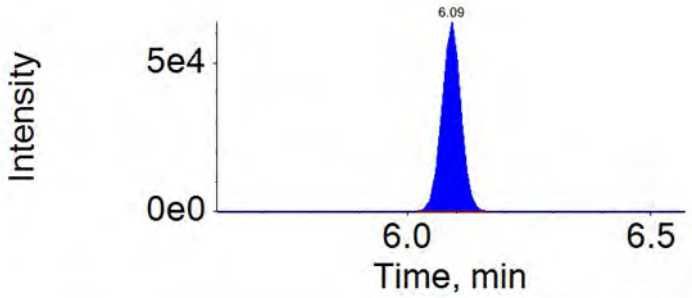
Component: PFDoDA
Primary Mass: 613.0 / 569.0



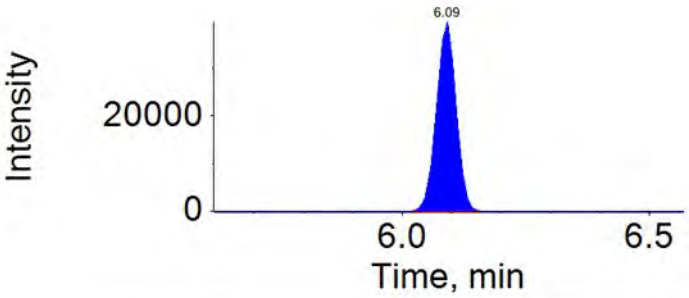
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



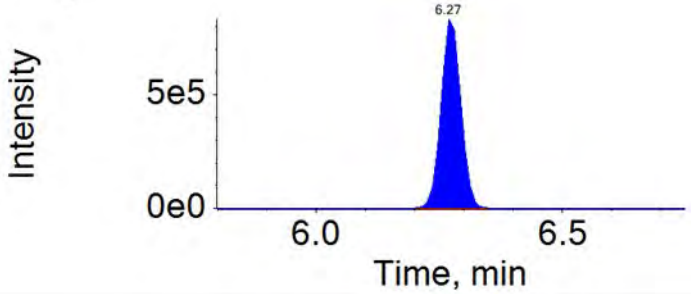
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



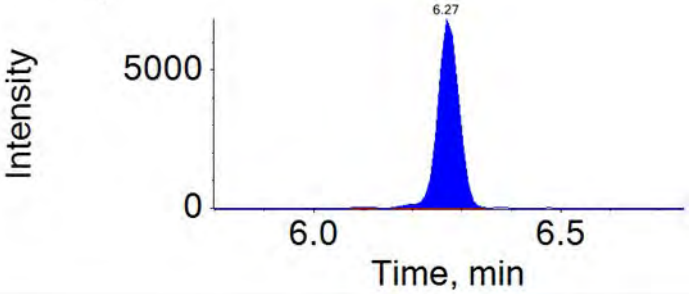
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



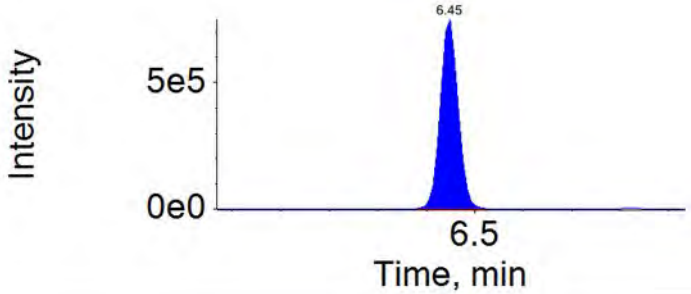
Component: PFTrDA
Primary Mass: 663.0 / 619.0



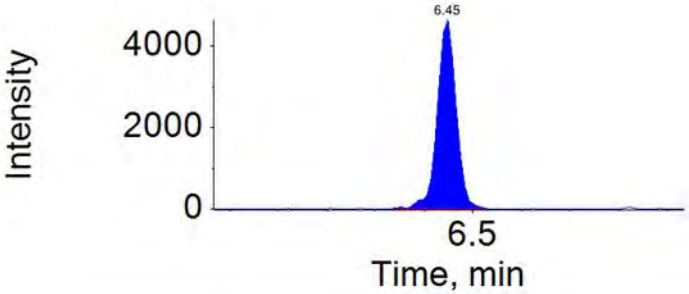
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



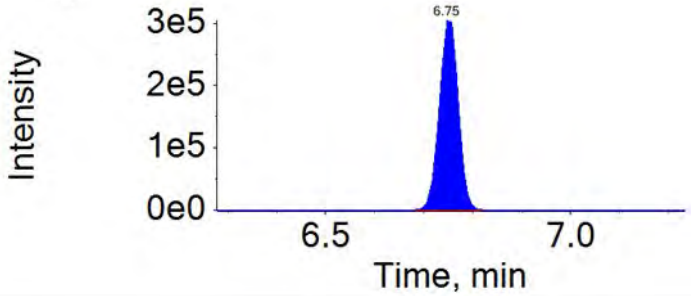
Component: PFTeDA
Primary Mass: 713.0 / 669.0



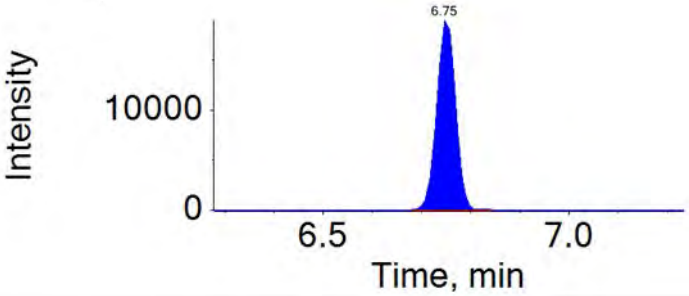
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



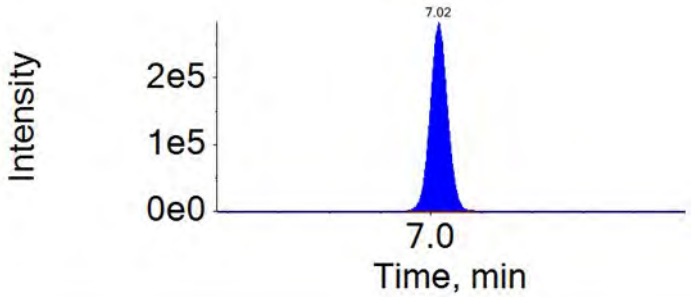
Component: PFHxDA
Primary Mass: 813.0 / 769.0



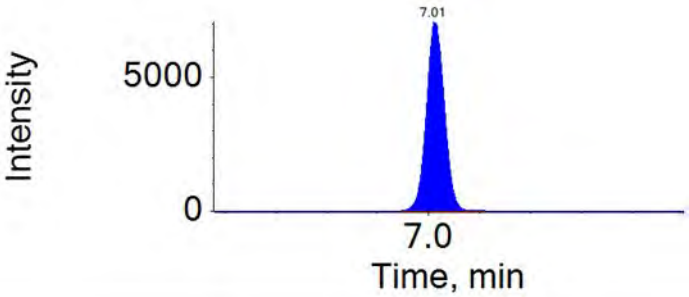
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL6			**Data File:**		18DEC03DCAL-15.wiff
Sample ID:	CALBRN61833B			**Acquis Date:**		2018-12-03T18:20:14
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	8			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	642867.9	749775.9	-14	50	
13C2-PFOA	5.0	394838.4	434072.7	-9	50	
13C4-PFOS	4.8	258181.6	261136.3	-1	50	
13C2-PFDA	5.0	261161.4	305281.8	-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	748197.6	13C3-PFBA	642867.9	1.164	5.000	5.165	103	70-130	
E13C5-PFPeA	680433.8	13C3-PFBA	642867.9	1.058	5.000	5.107	102	70-130	
E13C3-PFBS	407845.8	13C3-PFBA	642867.9	0.634	4.650	4.944	106	70-130	
E13C2-4:2-FTS	46834.3	13C2-PFOA	394838.4	0.119	4.670	4.879	104	70-130	
E13C5-PFHxA	601226.3	13C2-PFOA	394838.4	1.523	5.000	5.157	103	70-130	
E13C3-PFHxS	299542.6	13C2-PFOA	394838.4	0.759	4.730	4.796	101	70-130	
E13C4-PFHpA	481867.4	13C2-PFOA	394838.4	1.220	5.000	5.325	106	70-130	
E13C2-6:2-FTS	27227.1	13C2-PFOA	394838.4	0.069	4.750	4.570	96	70-130	
E13C8-PFOA	682579.0	13C2-PFOA	394838.4	1.729	5.000	4.805	96	70-130	
E13C8-PFOS	284411.9	13C4-PFOS	258181.6	1.102	4.780	4.893	102	70-130	
E13C9-PFNA	432552.9	13C4-PFOS	258181.6	1.675	5.000	4.904	98	70-130	
E13C6-PFDA	504181.5	13C2-PFDA	261161.4	1.931	5.000	5.021	100	70-130	
E13C2-8:2-FTS	18019.3	13C2-PFDA	261161.4	0.069	4.790	4.436	93	70-130	
E13C8-PFOSA	609939.7	13C2-PFDA	261161.4	2.335	5.000	5.228	105	70-130	
Ed3-NMeFOSAA	83025.3	13C2-PFDA	261161.4	0.318	5.000	5.554	111	70-130	
E13C7-PFUnDA	262585.2	13C2-PFDA	261161.4	1.005	5.000	5.008	100	70-130	
Ed5-NEtFOSAA	61747.8	13C2-PFDA	261161.4	0.236	5.000	5.394	108	70-130	
E13C2-PFDoDA	661359.5	13C2-PFDA	261161.4	2.532	5.000	5.422	108	70-130	
Ed7-NMePFOSAE	267131.7	13C2-PFDA	261161.4	1.023	5.000	5.546	111	70-130	
Ed3-NMePFOSA	78483.8	13C2-PFDA	261161.4	0.301	5.000	5.572	111	70-130	
Ed9-NEtPFOSAE	214891.1	13C2-PFDA	261161.4	0.823	5.000	5.307	106	70-130	
Ed5-NEtPFOSA	60692.9	13C2-PFDA	261161.4	0.232	5.000	5.483	110	70-130	
E13C2-PFTeDA	503296.8	13C2-PFDA	261161.4	1.927	5.000	5.432	109	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

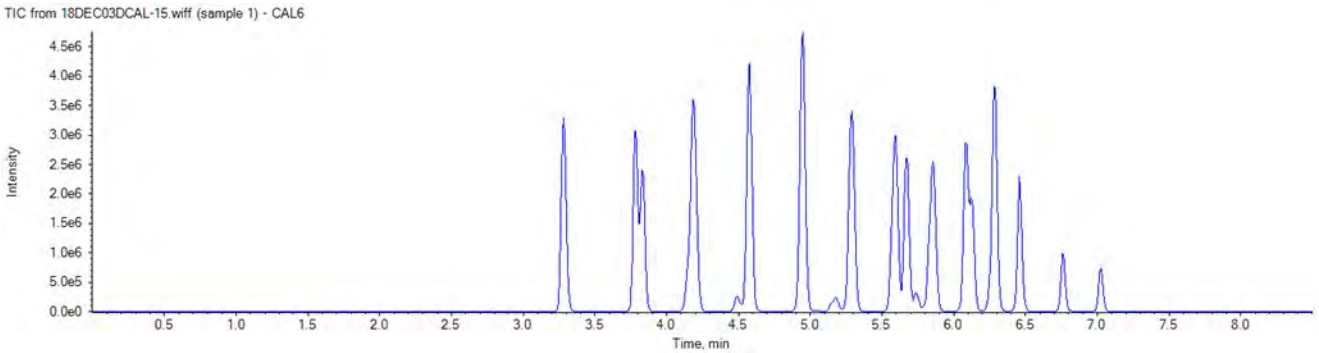
Analyte Quantitation Peak Table

Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-15.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	6680573.2		A	13C4-PFBA	3.28	748197.6	8.929	50.567
PFPeA	3.78	1.000	6772626.1		A	13C5-PFPeA	3.78	680433.8	9.953	49.840
PFBS	3.83	1.000	3699145.0		A	13C3-PFBS	3.83	407845.8	9.070	44.228
4:2-FTS	4.15	1.000	807938.7		A	13C2-4:2-FTS	4.15	46834.3	17.251	43.570
PFHxA	4.18	1.000	6717198.7		A	13C5-PFHxA	4.18	601226.3	11.172	47.617
PFPeS	4.20	1.100	1986368.0		A	13C3-PFBS	3.83	407845.8	4.870	46.736
PFHpA	4.57	1.000	6561332.2		A	13C4-PFHpA	4.58	481867.4	13.616	43.941
PFHxS	4.58	1.000	2852509.6		M	13C3-PFHxS	4.58	299542.6	9.523	44.865
6:2-FTS	4.94	1.000	511547.8		A	13C2-6:2-FTS	4.93	27227.1	18.788	45.562
PFHpS	4.94	1.080	2645872.6		A	13C3-PFHxS	4.58	299542.6	8.833	45.984
PFOA	4.95	1.000	6506829.7		A	13C8-PFOA	4.95	682579.0	9.533	50.457
PFOS	5.28	1.000	2996122.0		M	13C8-PFOS	5.28	284411.9	10.534	44.647
PFNA	5.30	1.000	5648128.5		A	13C9-PFNA	5.29	432552.9	13.058	48.937
PFNS	5.57	1.060	1894816.5		A	13C8-PFOS	5.28	284411.9	6.662	44.928
PFDA	5.60	1.000	4683026.7		A	13C6-PFDA	5.60	504181.5	9.288	50.941
8:2-FTS	5.60	1.000	392098.3		A	13C2-8:2-FTS	5.60	18019.3	21.760	46.733
PFOSA	5.67	1.000	6058312.7		A	13C8-PFOSA	5.67	609939.7	9.933	52.019
NMeFOSAA	5.74	1.000	579334.1		M	d3-NMeFOSAA	5.73	83025.3	6.978	46.181
PFDS	5.83	1.110	1592243.7		A	13C8-PFOS	5.28	284411.9	5.598	47.936
PFUnDA	5.86	1.000	4521319.6		A	13C7-PFUnDA	5.86	262585.2	17.218	52.425
NEtFOSAA	5.87	1.000	621193.7		M	d5-NEtFOSAA	5.87	61747.8	10.060	50.882
PFDoDA	6.09	1.000	5780493.2		A	13C2-PFDoDA	6.09	661359.5	8.740	49.834
10:2-FTS	6.10	1.090	370348.0		A	13C2-8:2-FTS	5.60	18019.3	20.553	51.210
NMePFOSAE	6.13	1.000	3116391.2		A	d7-NMePFOSAE	6.12	267131.7	11.666	49.408
NMePFOSA	6.13	1.000	747280.7		A	d3-NMePFOSA	6.13	78483.8	9.521	50.208
PFDoS	6.26	1.190	827061.8		A	13C8-PFOS	5.28	284411.9	2.908	45.553
NEtPFOSAE	6.28	1.000	3345360.4		A	d9-NEtPFOSAE	6.27	214891.1	15.568	53.627
NEtPFOSA	6.30	1.000	653095.9		A	d5-NEtPFOSA	6.29	60692.9	10.761	50.079
PFTrDA	6.29	1.030	4813570.4		A	13C2-PFDoDA	6.09	661359.5	7.278	42.847
PFTeDA	6.46	1.000	4393391.9		A	13C2-PFTeDA	6.46	503296.8	8.729	51.669
PFHxDA	6.76	1.050	2002794.4		A	13C2-PFTeDA	6.46	503296.8	3.979	51.075
PFODA	7.02	1.090	1610478.3		A	13C2-PFTeDA	6.46	503296.8	3.200	50.829

Total Ion Chromatogram

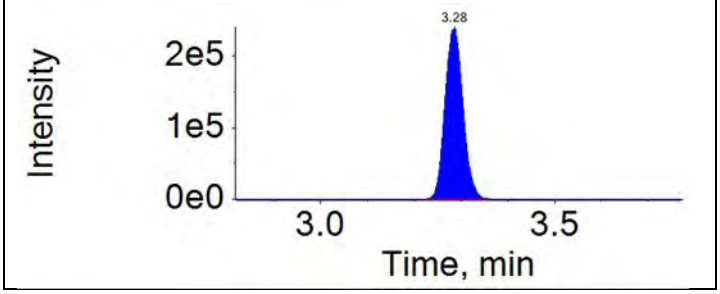


APPROVED
By MSM at 10:22 am, 12/4/18

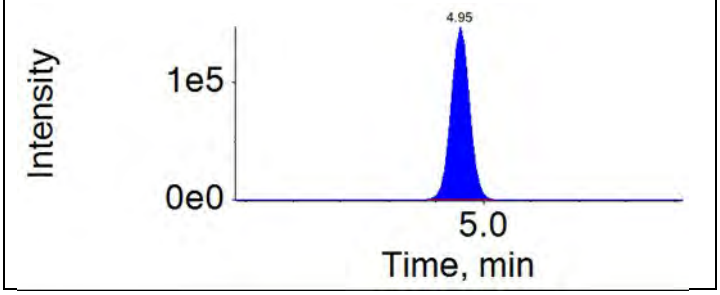
REVIEWED
By umar at 4:02 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

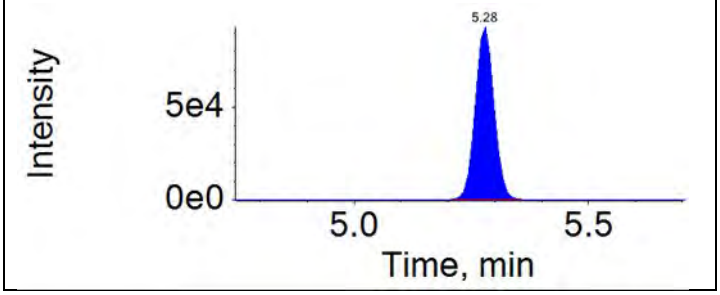
Injection Standard: 13C3-PFBA
216.0 / 172.0



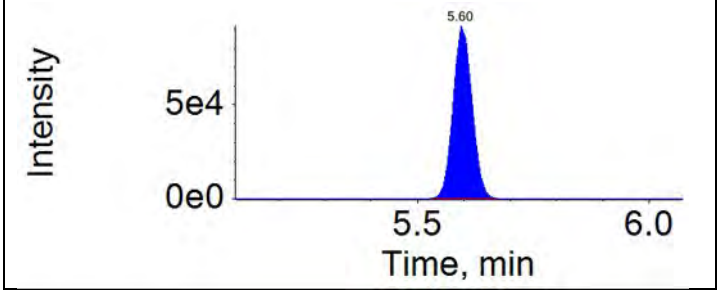
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

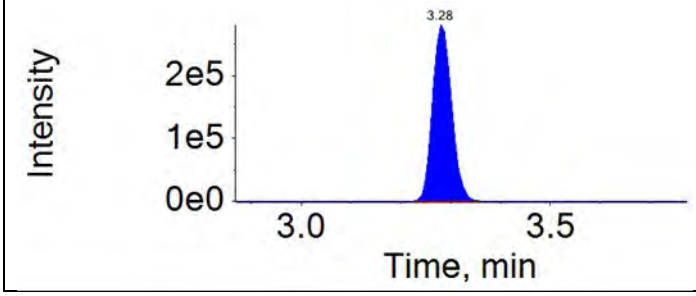


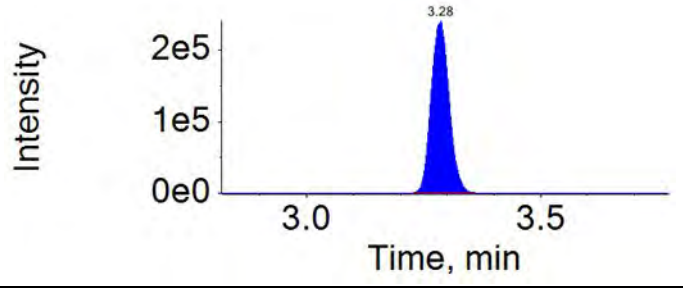
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

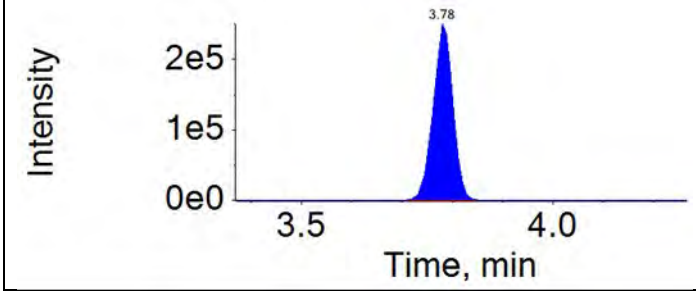
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

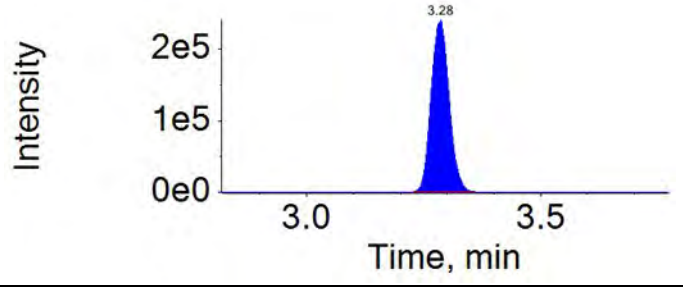
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



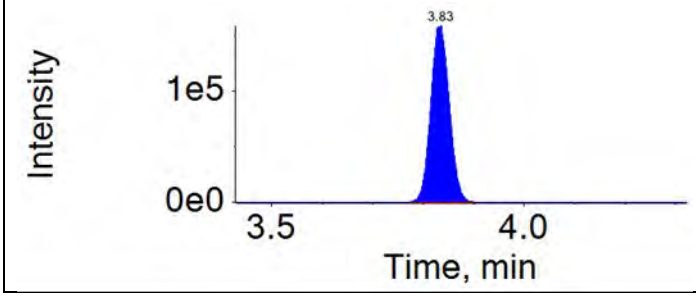


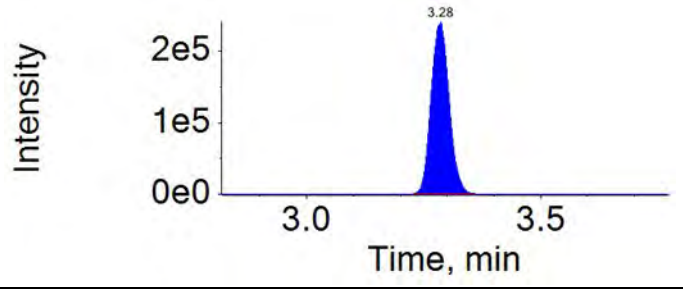
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



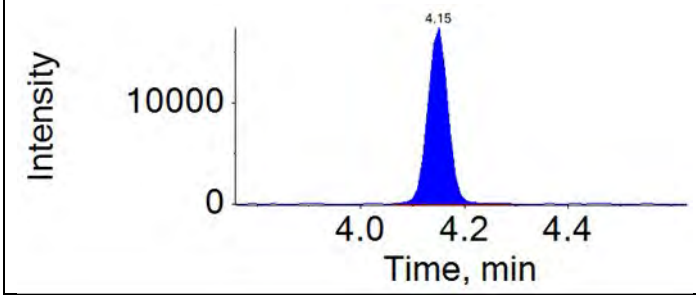


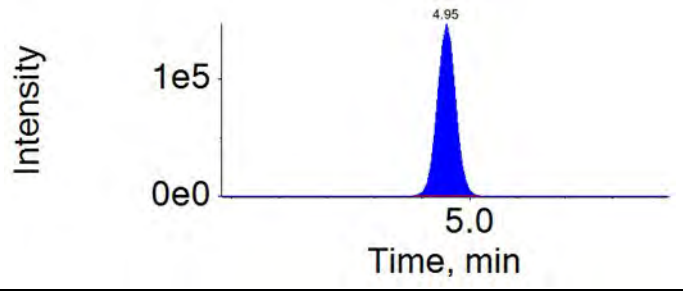
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



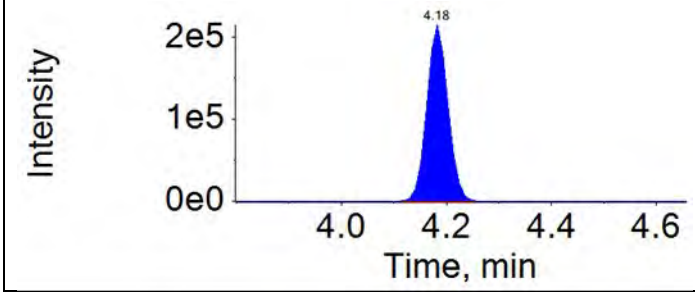


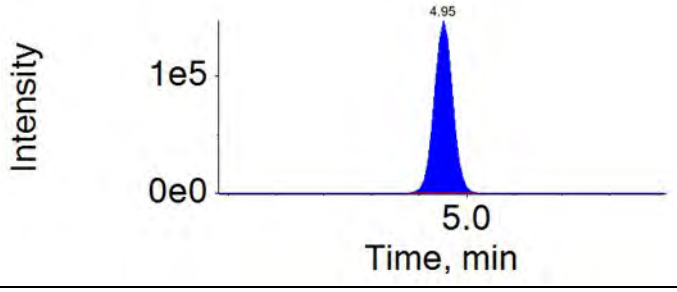
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

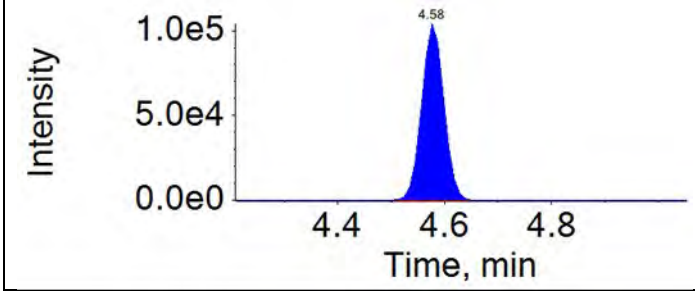
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

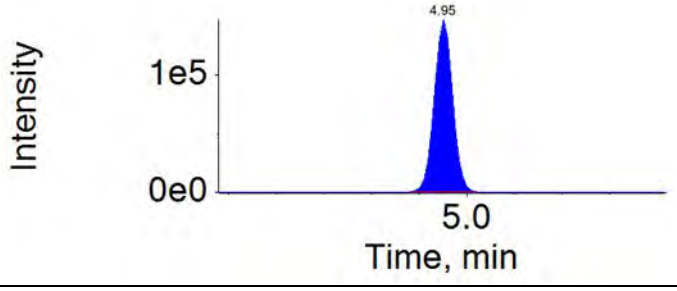
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



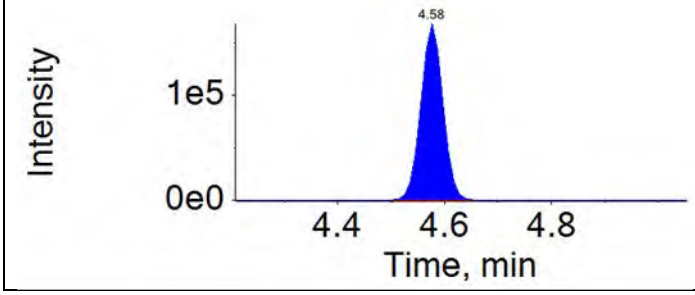


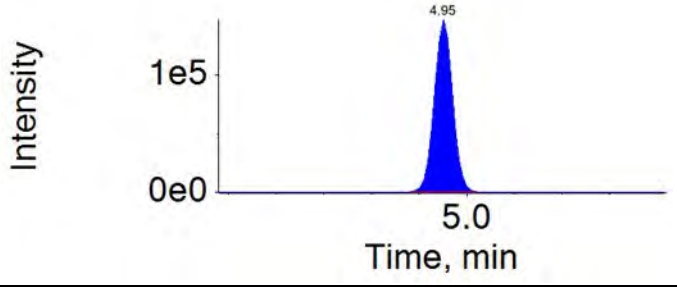
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



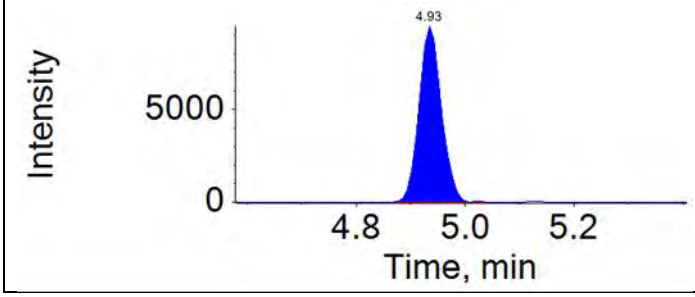


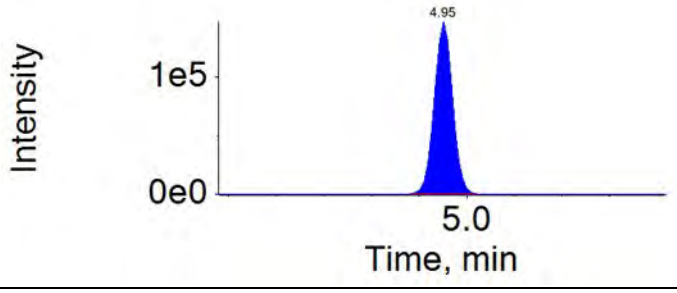
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



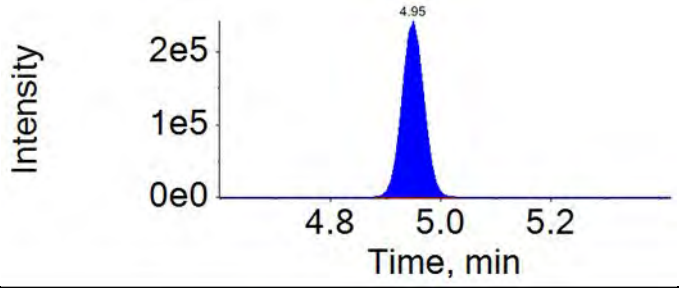


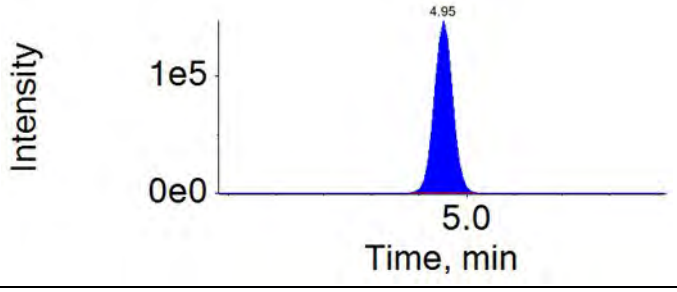
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:02 pm, 12/4/18

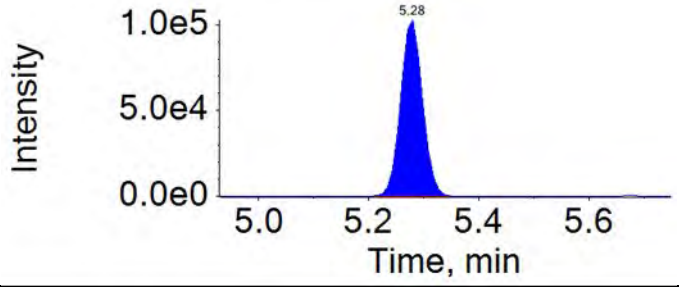
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

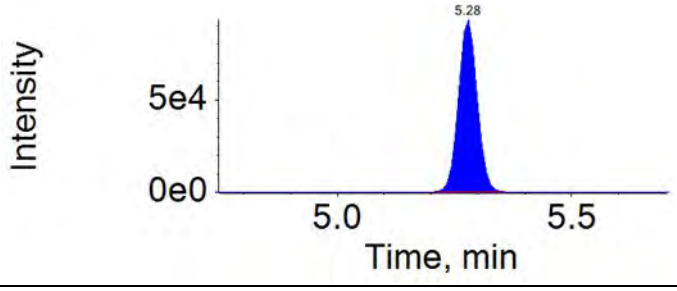
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



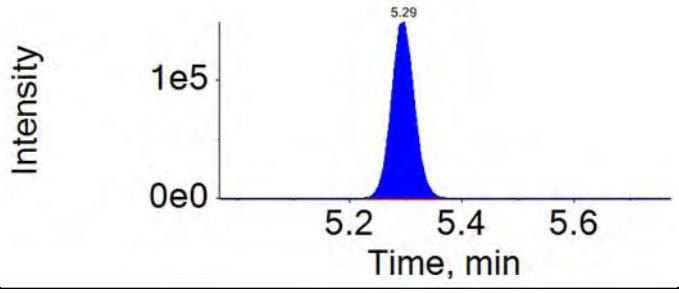


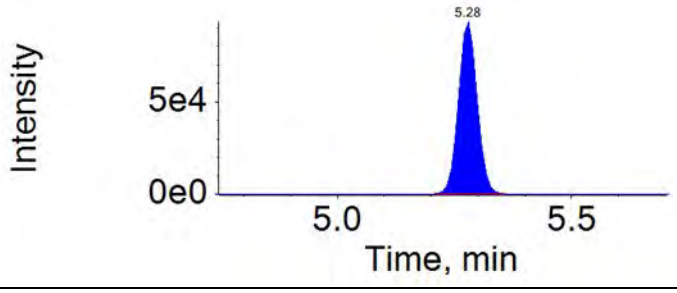
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



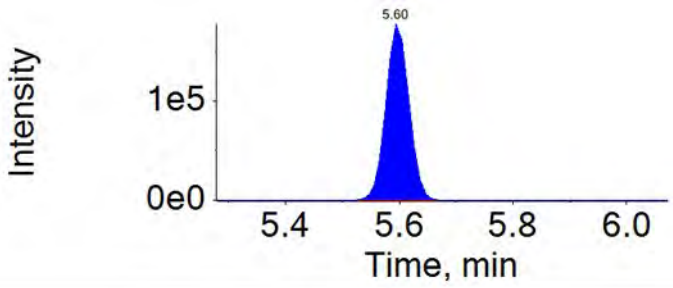


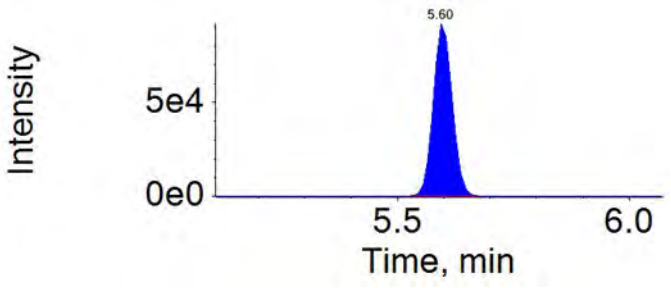
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

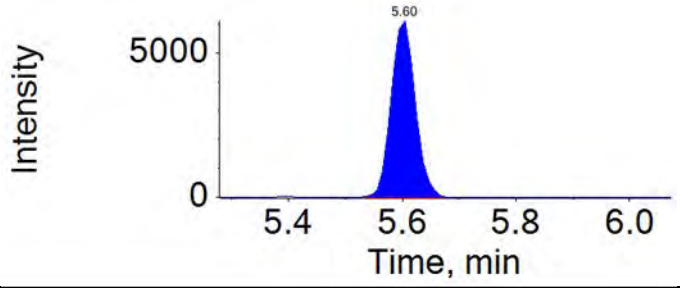
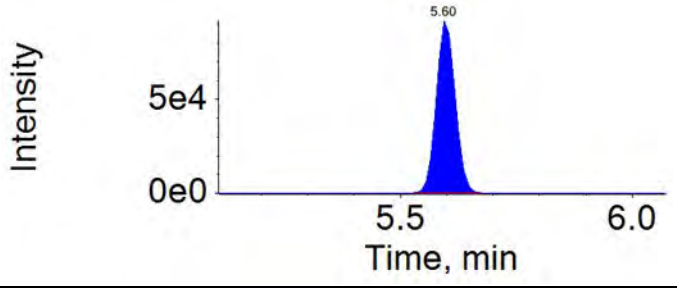


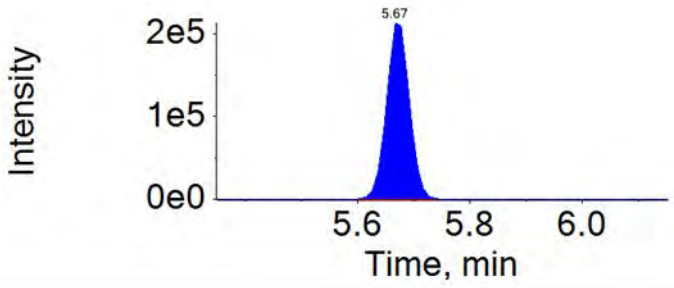
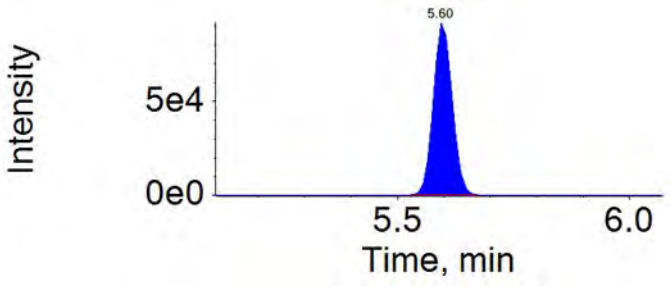


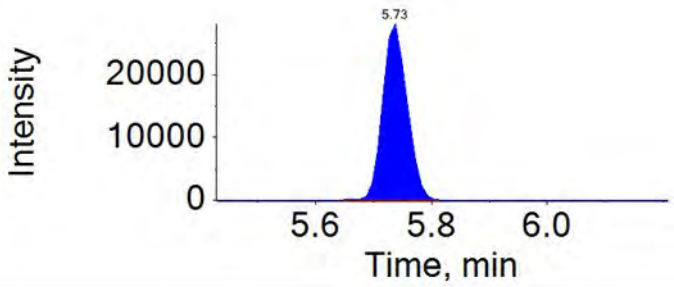
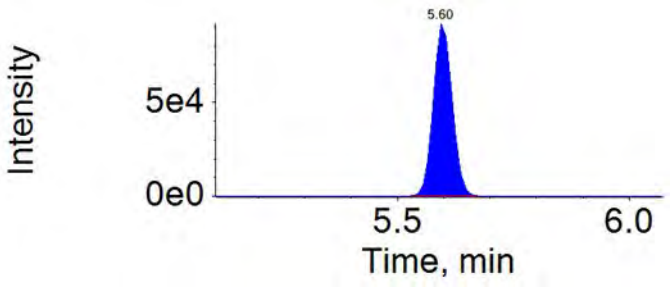
APPROVED
By MSM at 10:22 am, 12/4/18

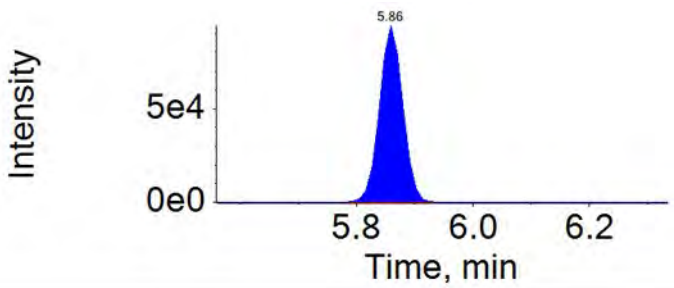
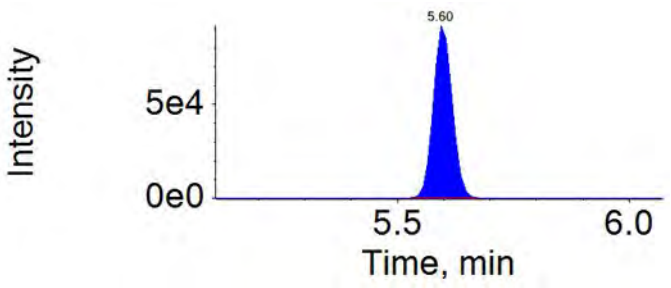
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

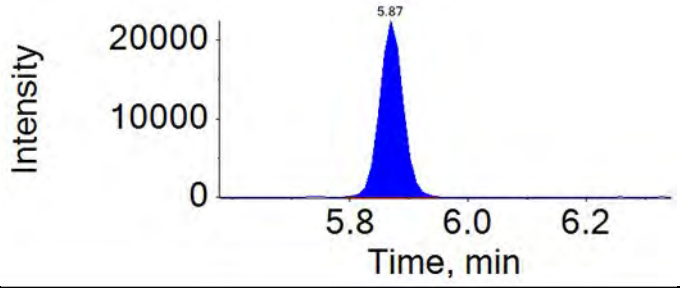
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

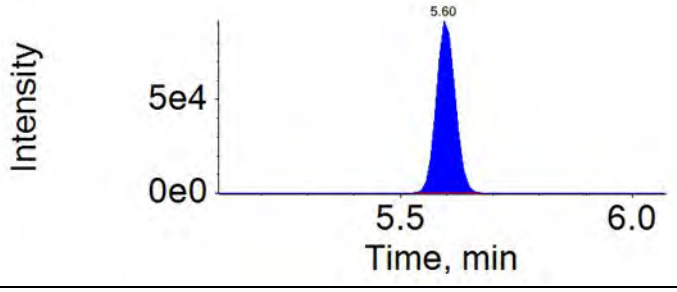
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

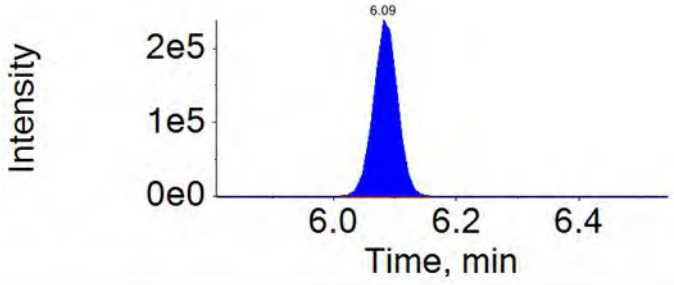
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

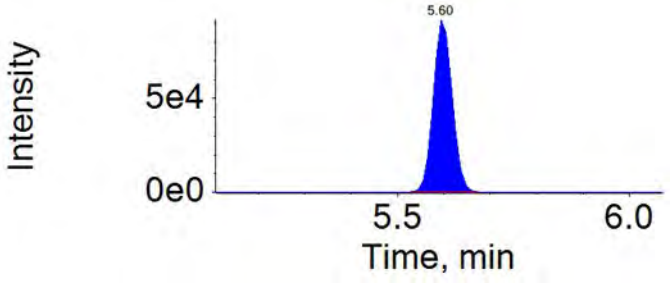
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



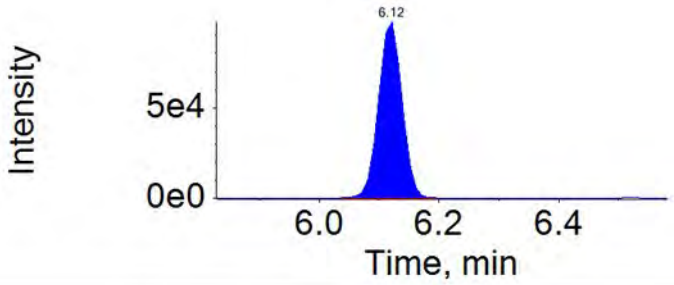


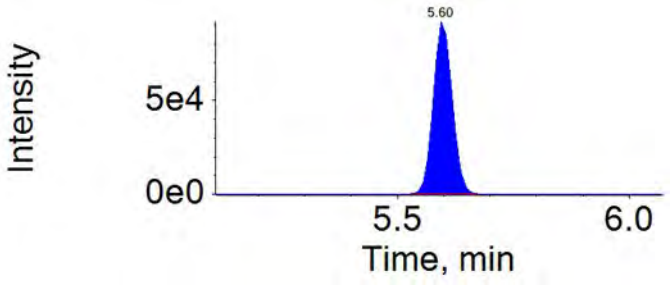
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



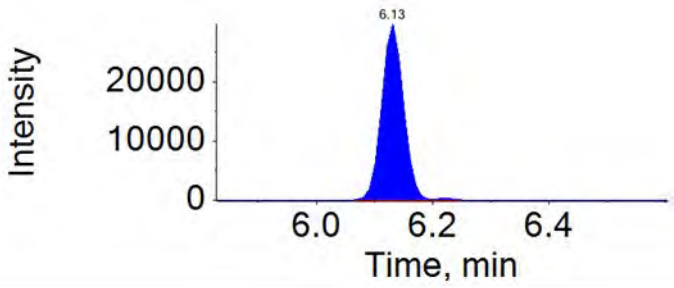


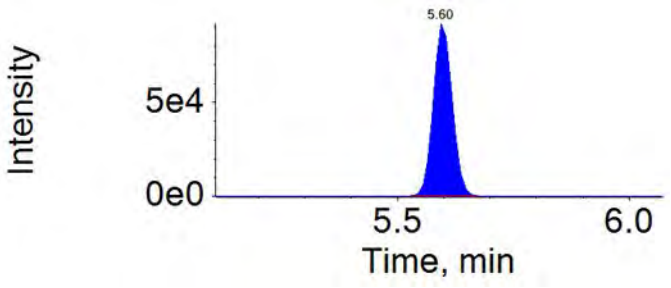
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



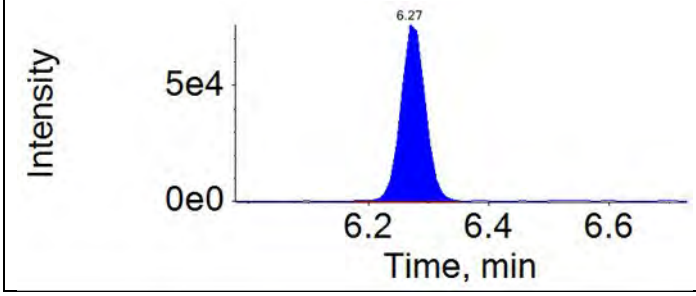


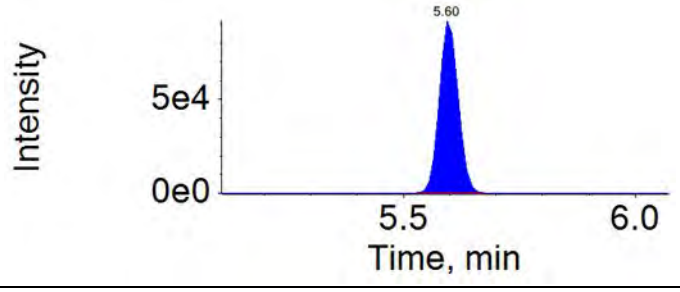
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

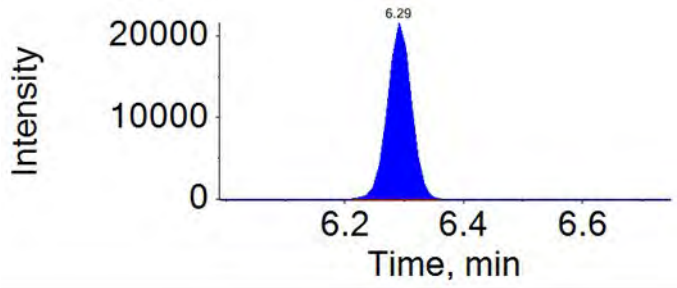
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

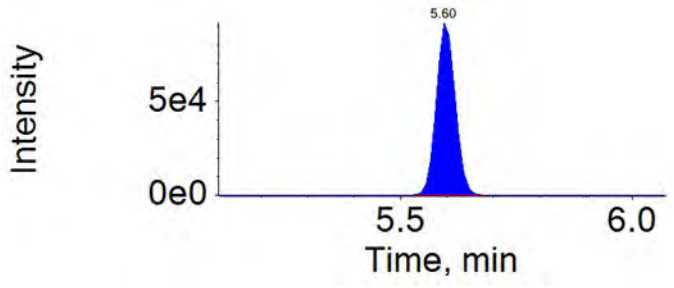
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



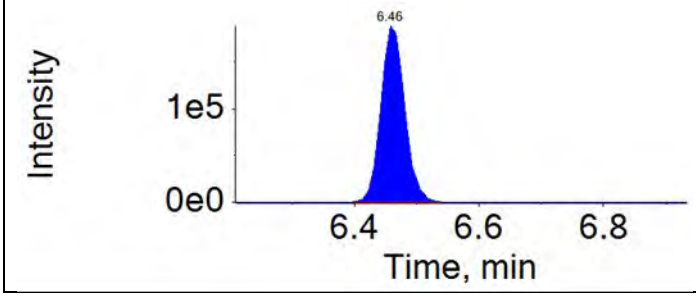


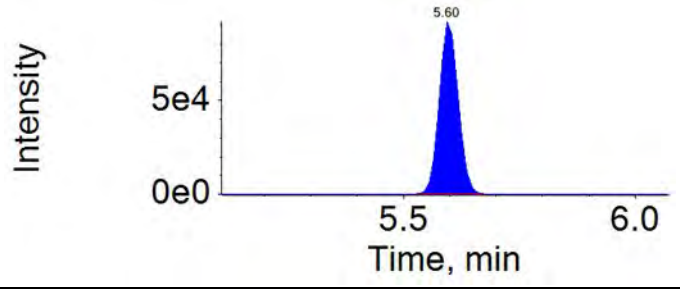
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



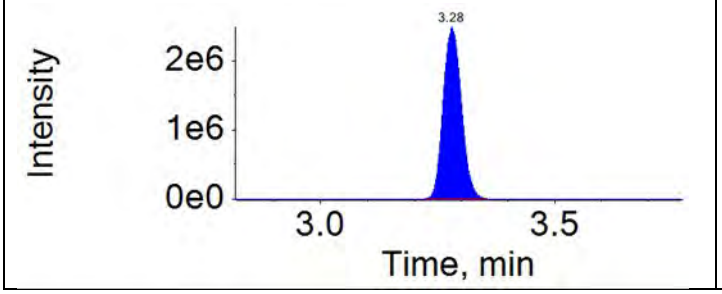


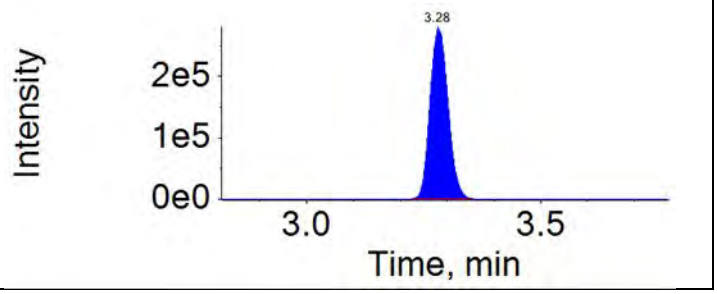
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

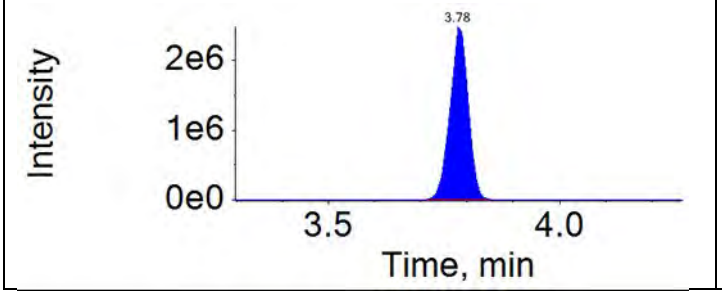
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

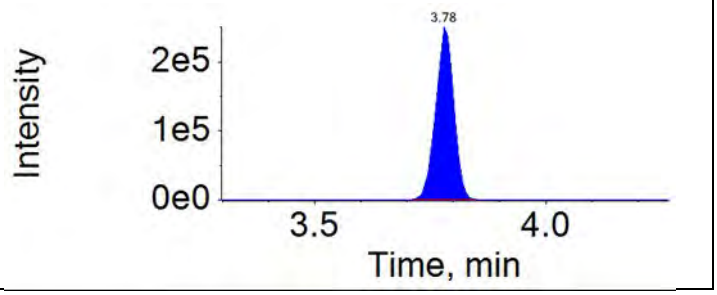
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



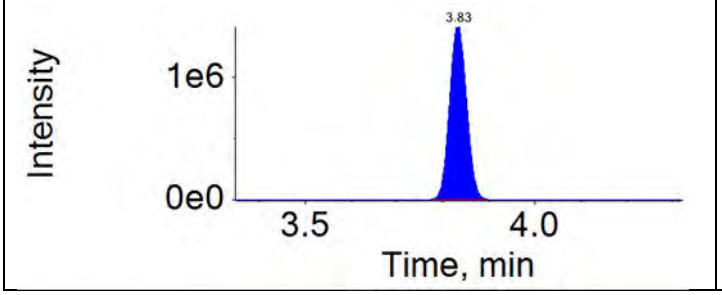


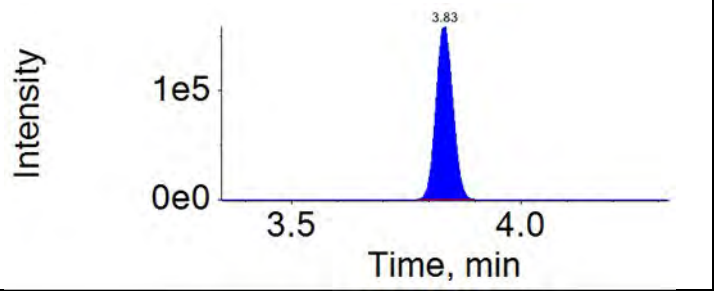
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



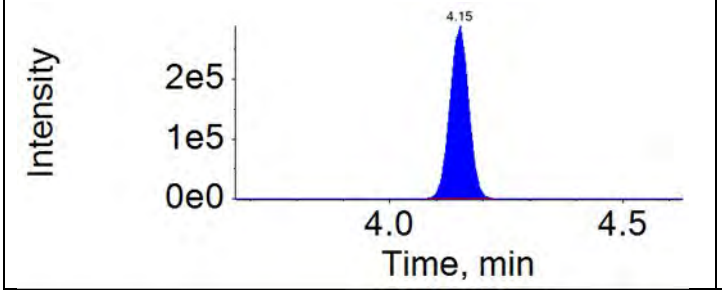


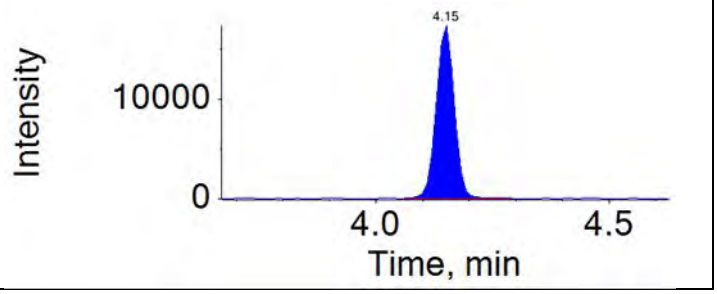
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



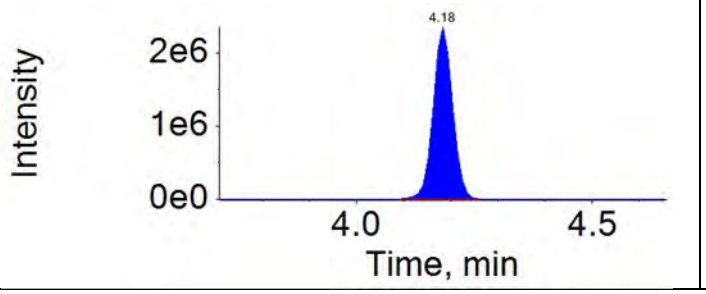


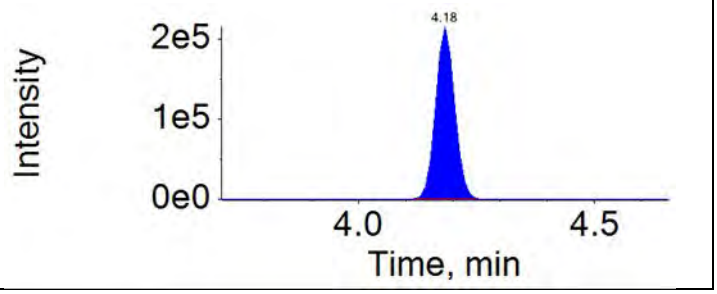
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

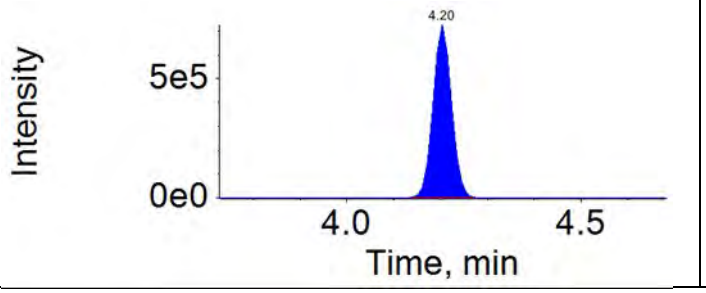
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

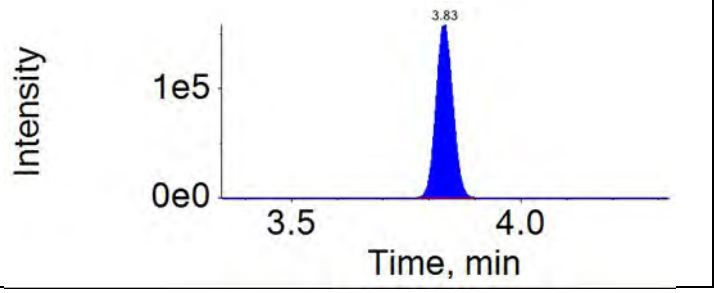
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



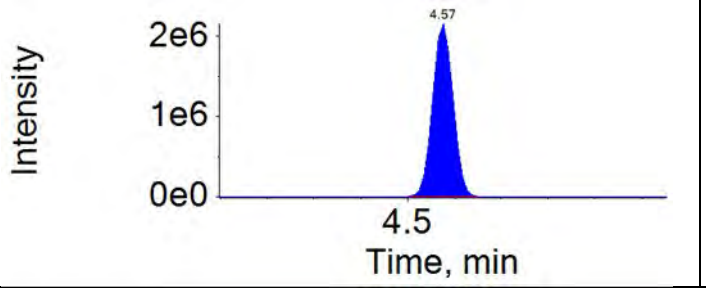


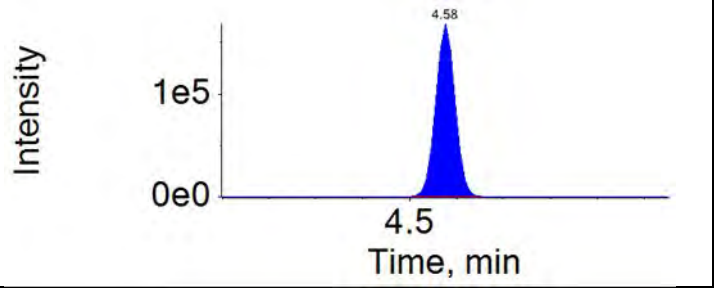
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



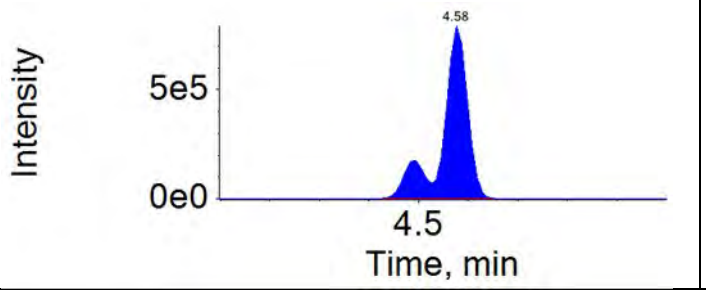


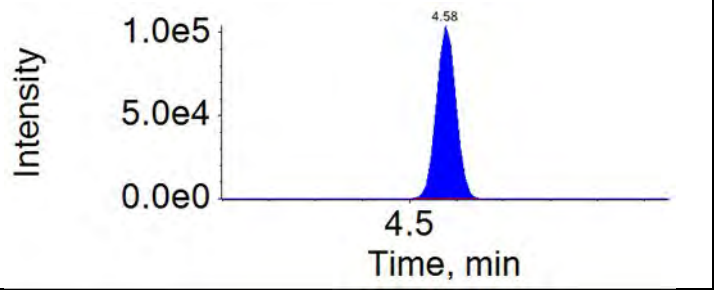
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



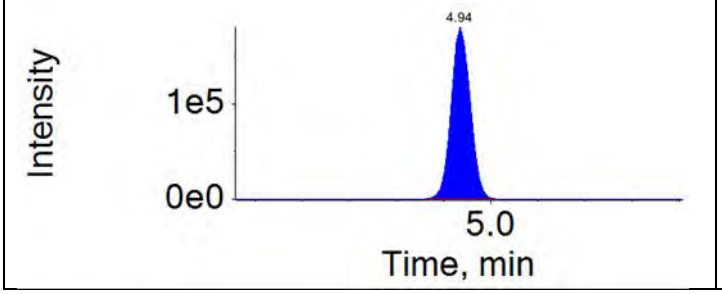


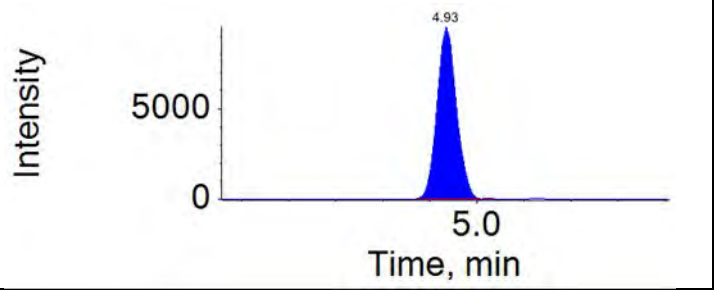
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

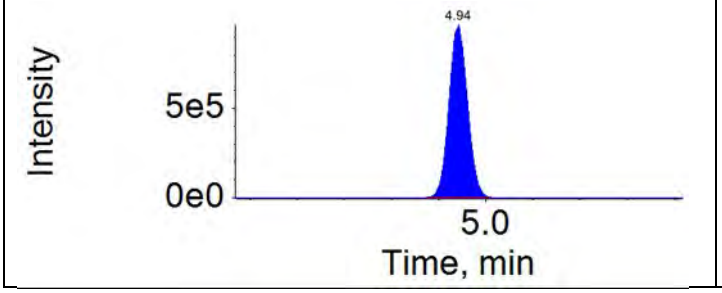
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

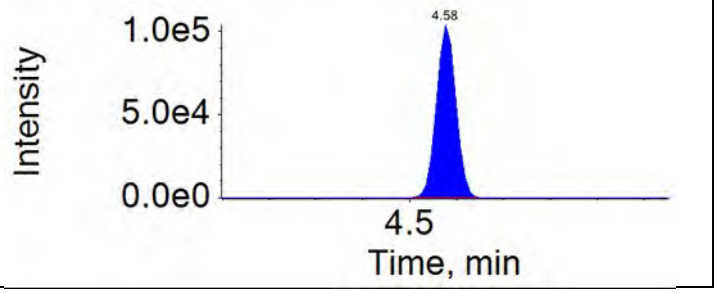
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



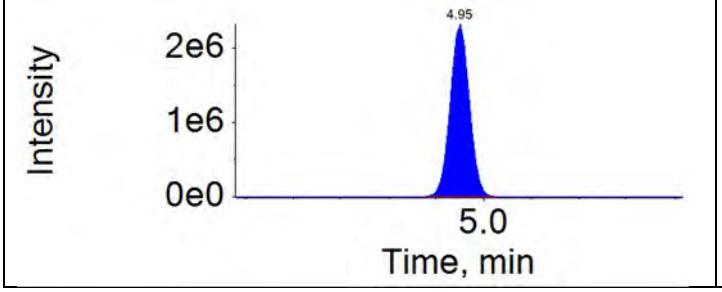


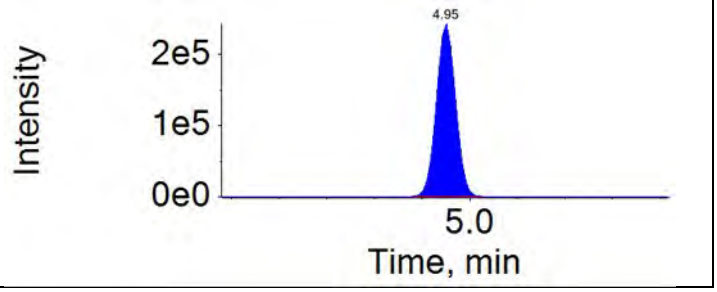
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



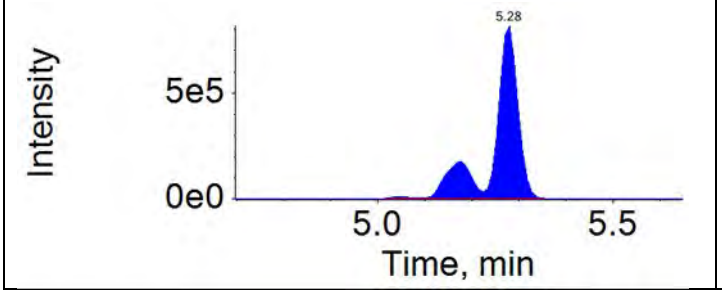


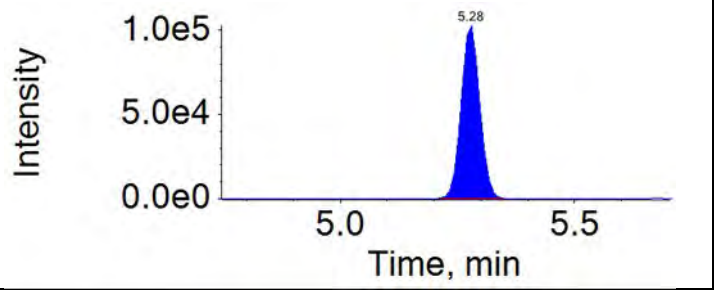
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



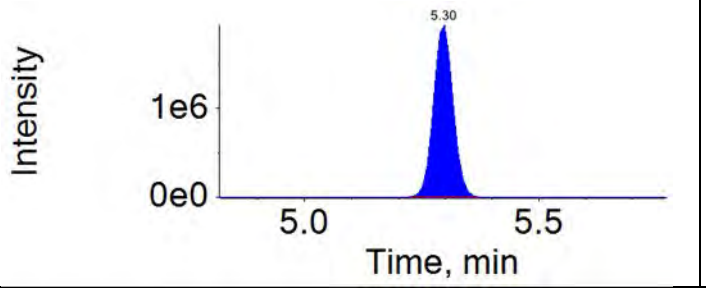


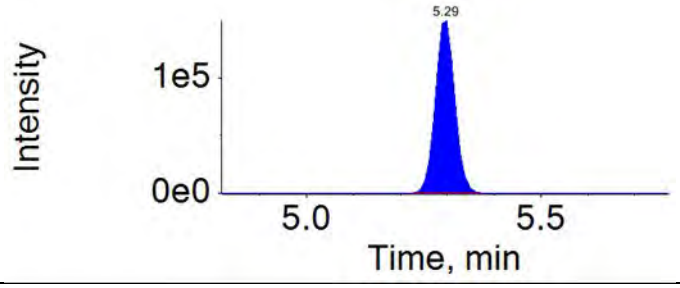
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

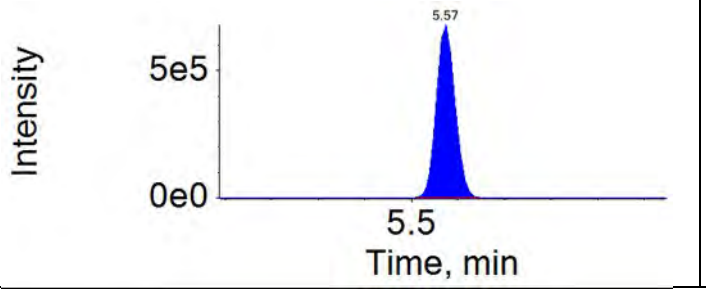
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

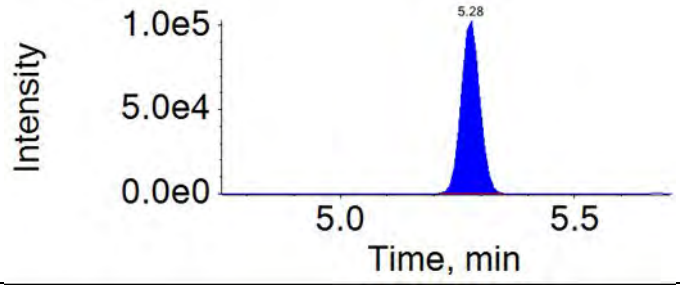
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



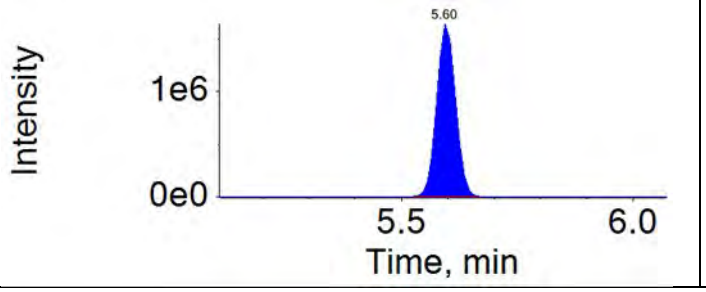


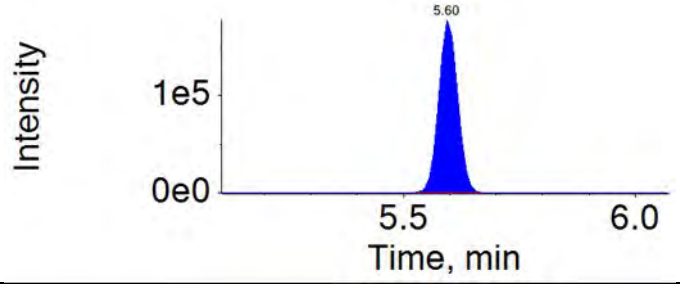
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



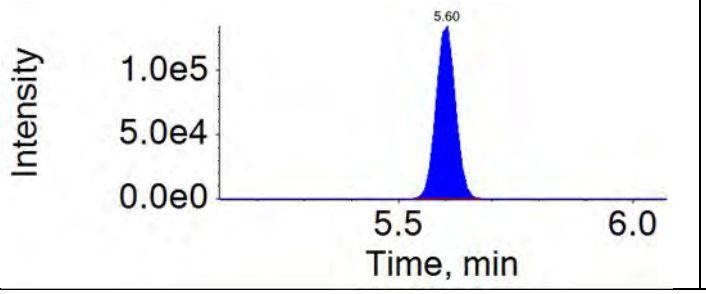


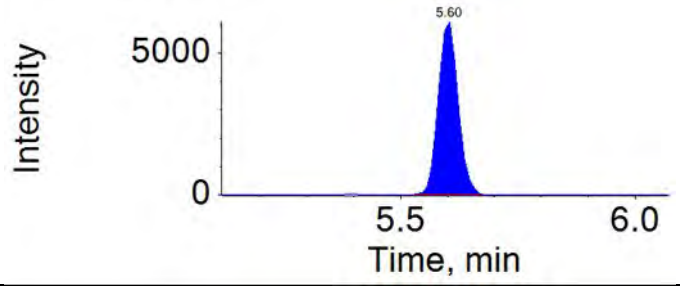
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



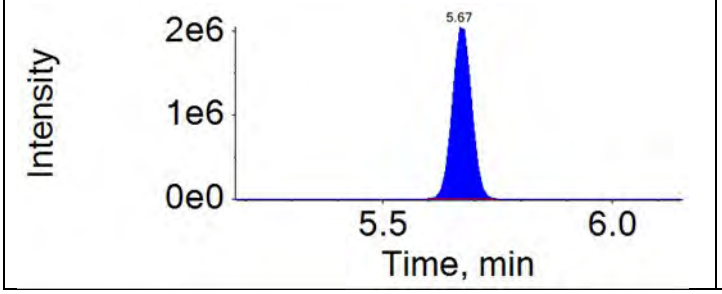


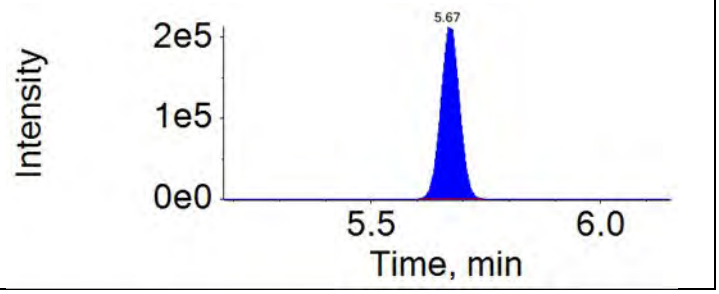
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

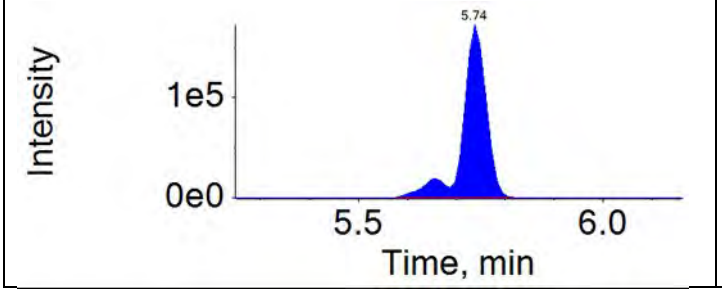
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

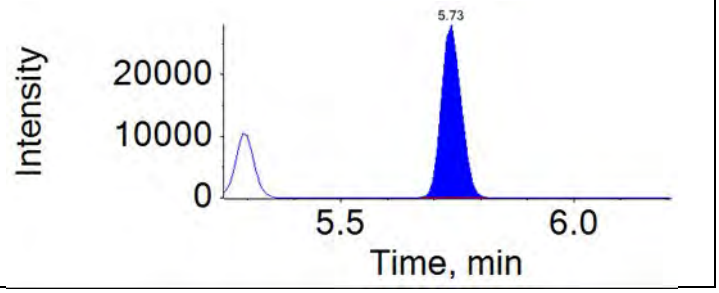
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



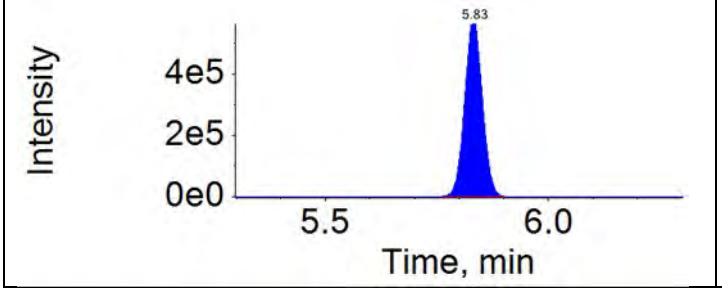


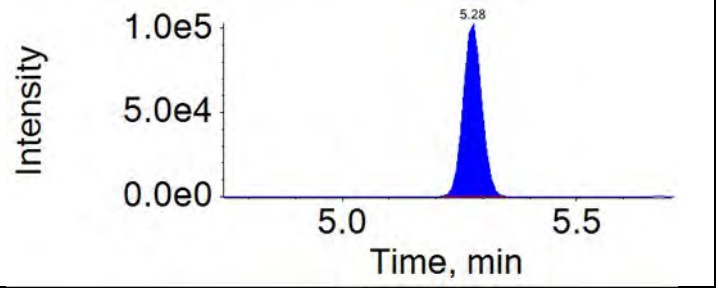
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



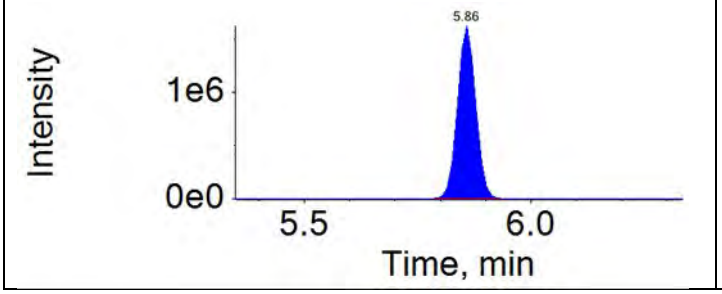


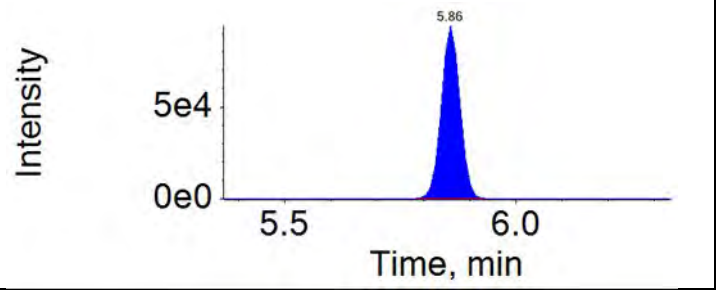
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



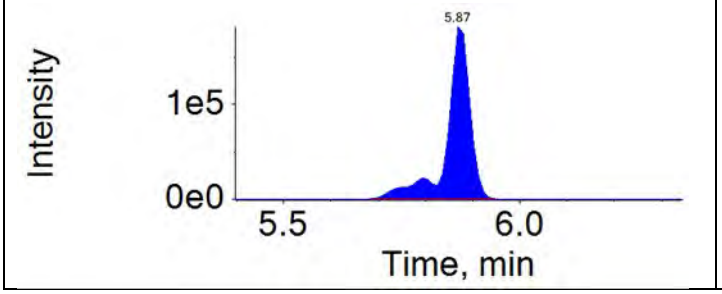


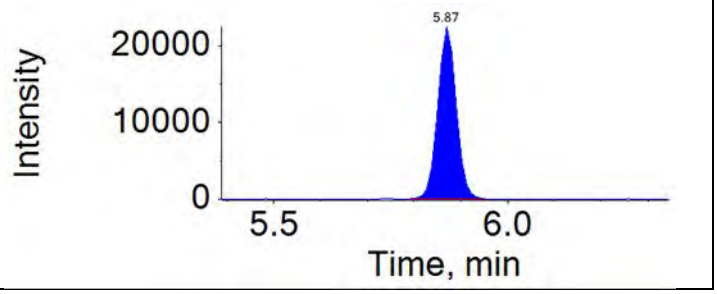
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

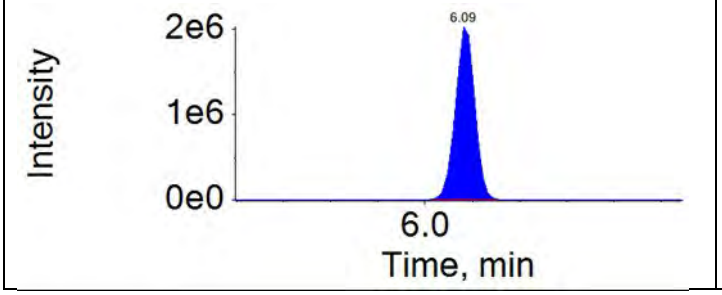
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

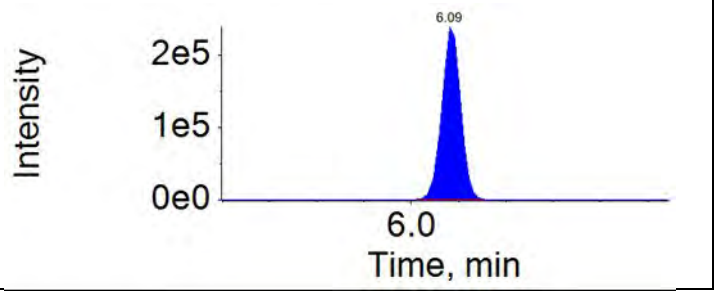
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



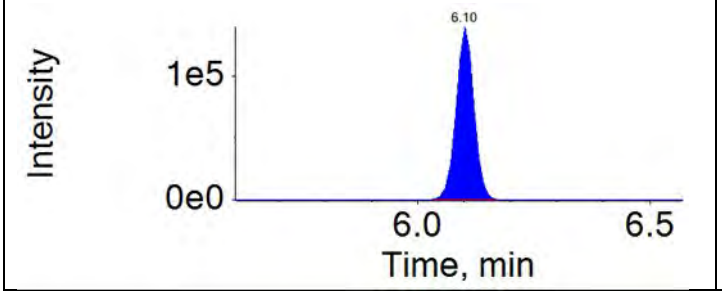


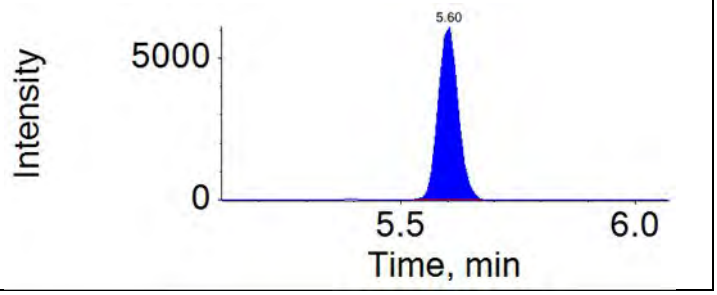
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



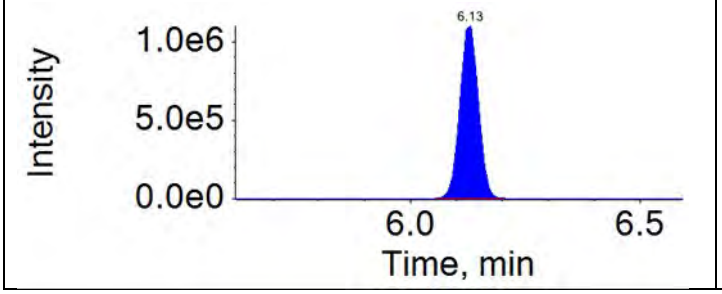


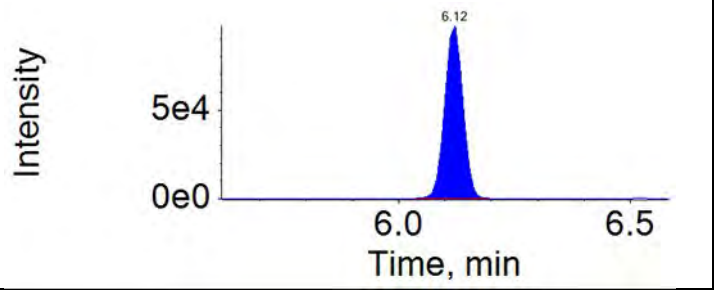
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



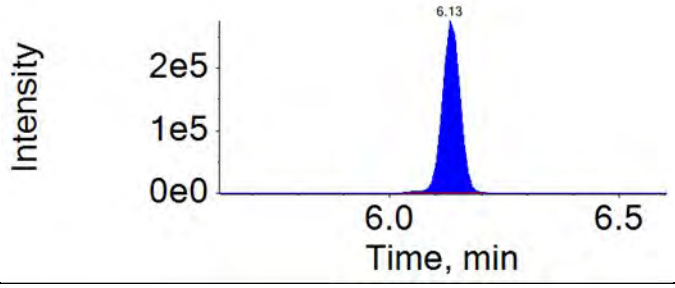


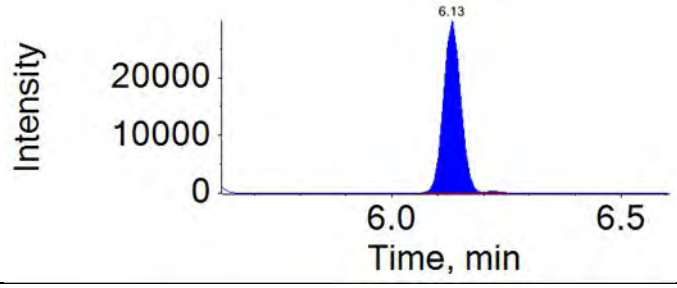
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

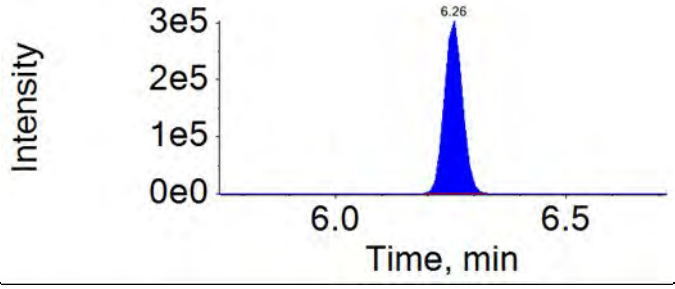
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

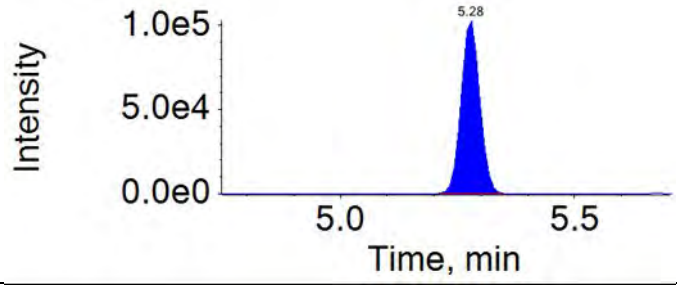
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



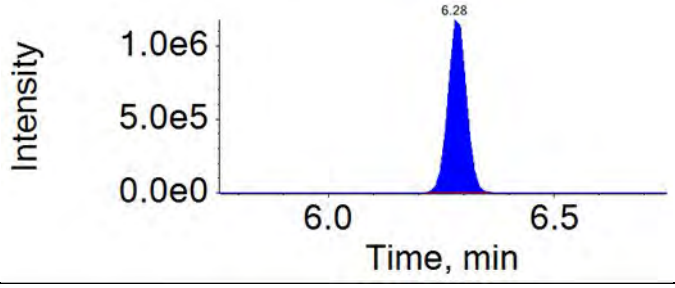


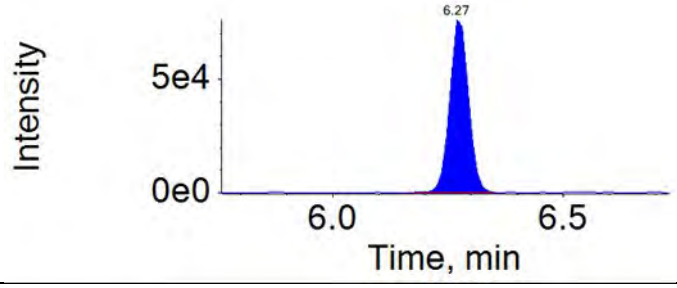
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



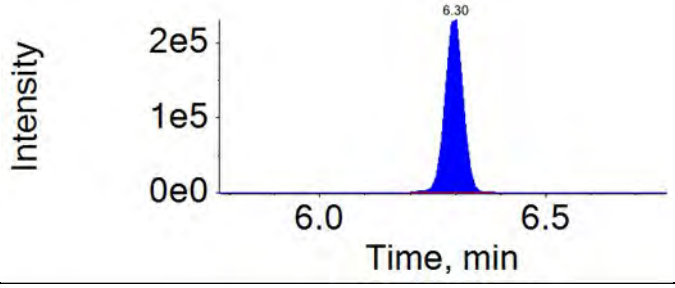


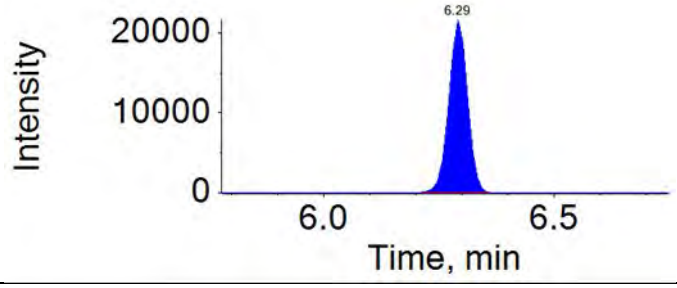
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

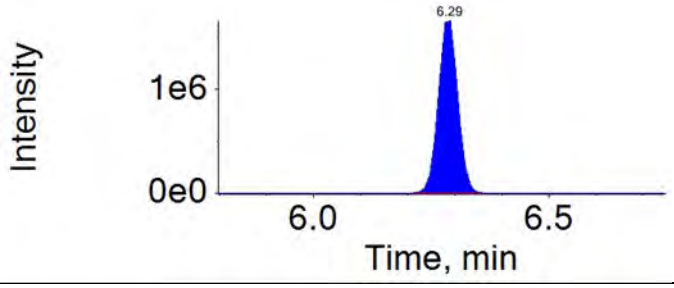
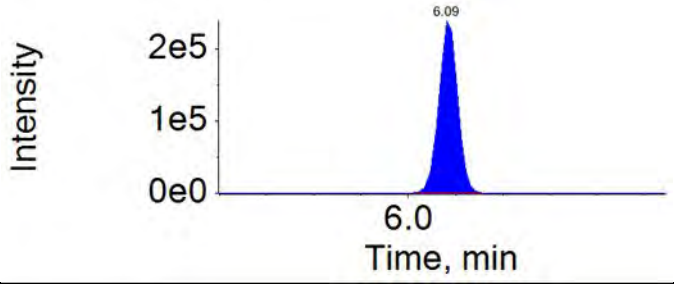


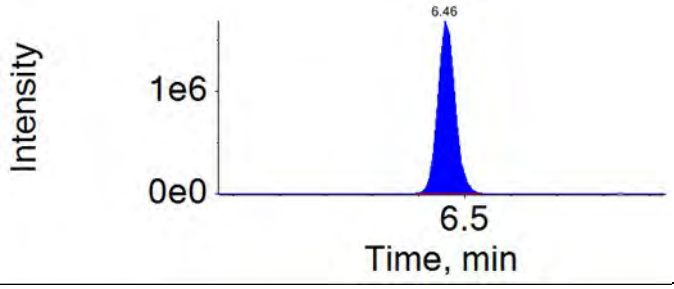
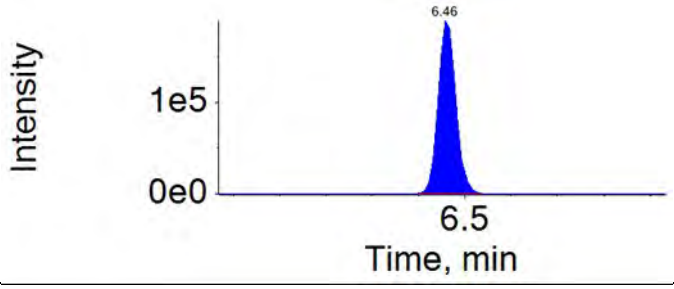


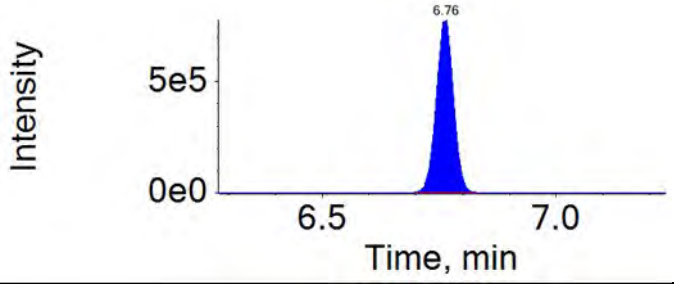
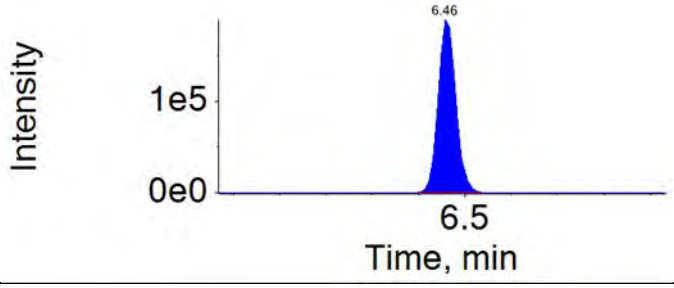
APPROVED
By MSM at 10:22 am, 12/4/18

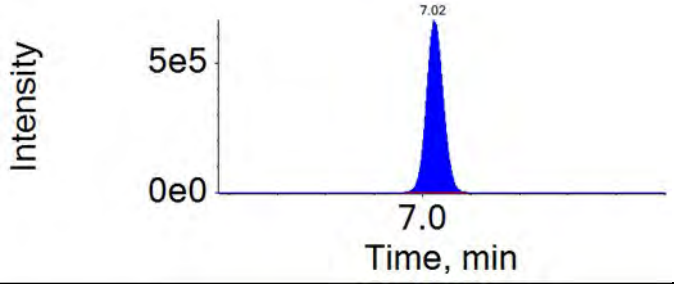
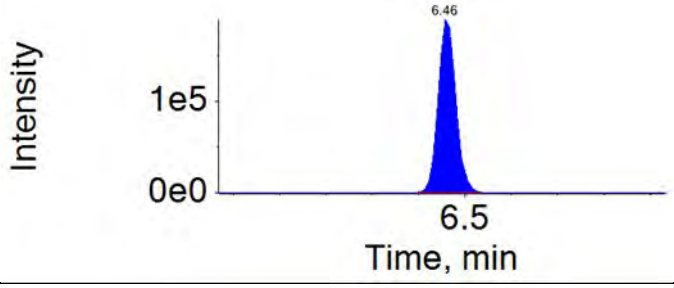
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

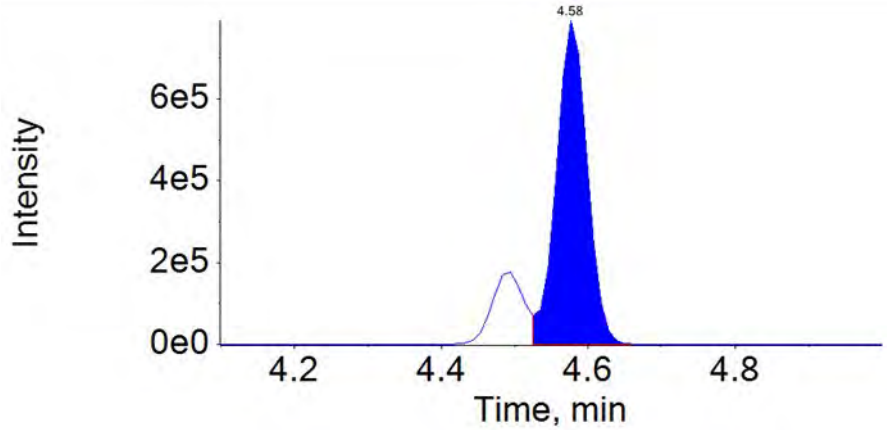
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

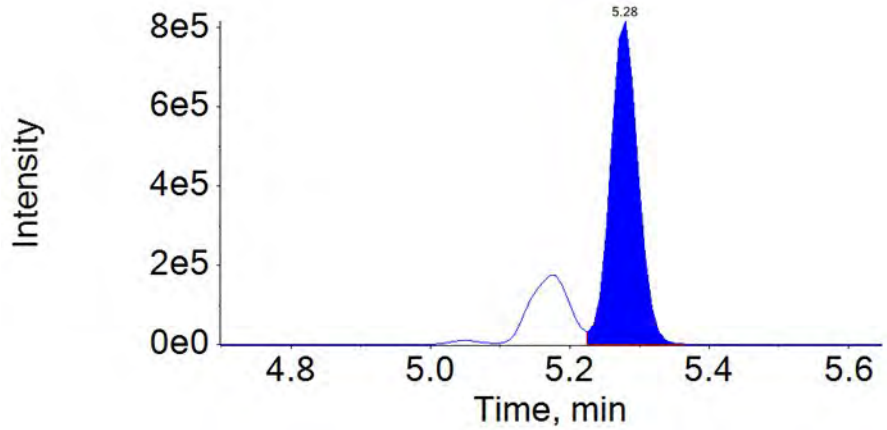
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.58
Peak Area:
2320703.99
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-15.wiff
Sample Name:
CAL6



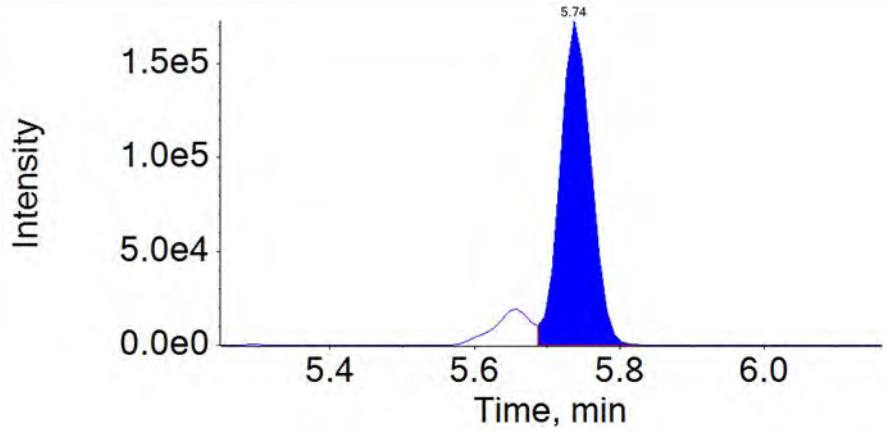
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.28
Peak Area:
2261650.87
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-15.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.74
Peak Area:
511052.64
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-15.wiff
Sample Name:
CAL6

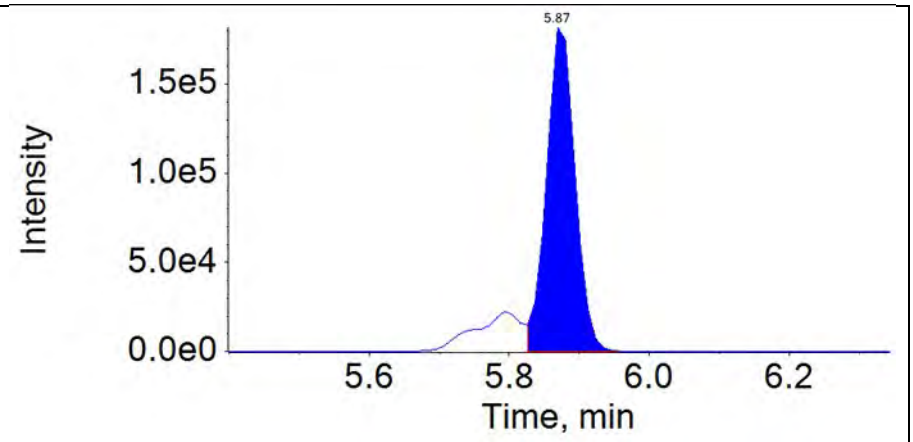
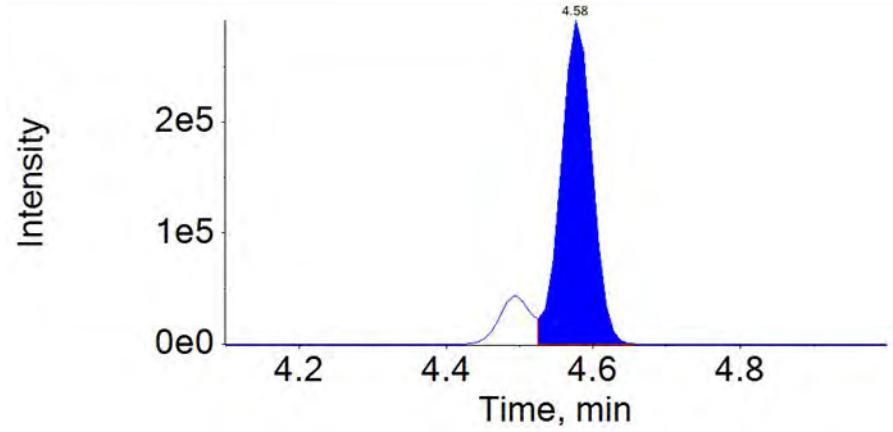
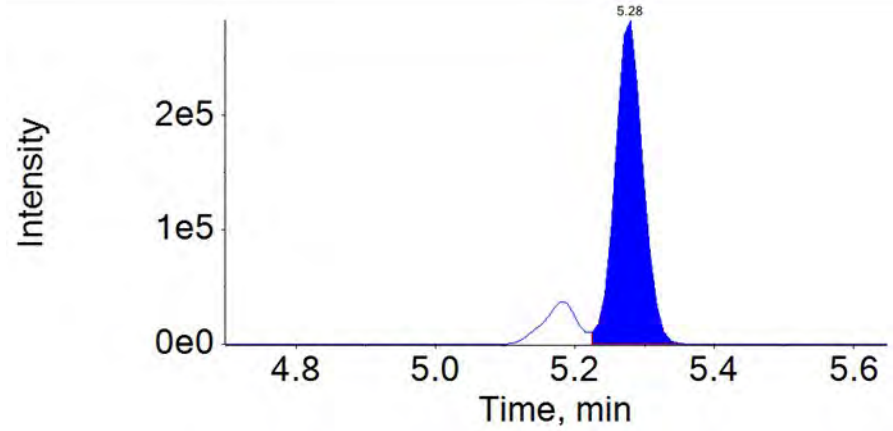


Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

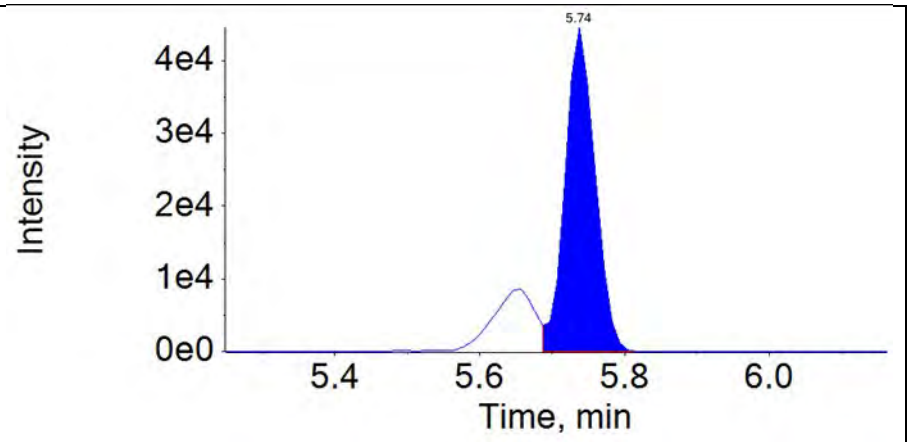
Component Name: NEtFOSAA **RT (min.):** 5.87 **Peak Area:** 517881.53 **Mass Range:** 584.0 / 419.0 **File Name:** 18DEC03DCAL-15.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration
Component Name: PFHxS_2 **RT (min.):** 4.58 **Peak Area:** 862511.34 **Mass Range:** 399.0 / 99.0 **File Name:** 18DEC03DCAL-15.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration
Component Name: PFOS_2 **RT (min.):** 5.28 **Peak Area:** 787519.05 **Mass Range:** 499.0 / 99.0 **File Name:** 18DEC03DCAL-15.wiff **Sample Name:** CAL6	 **Integration Comment:** incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

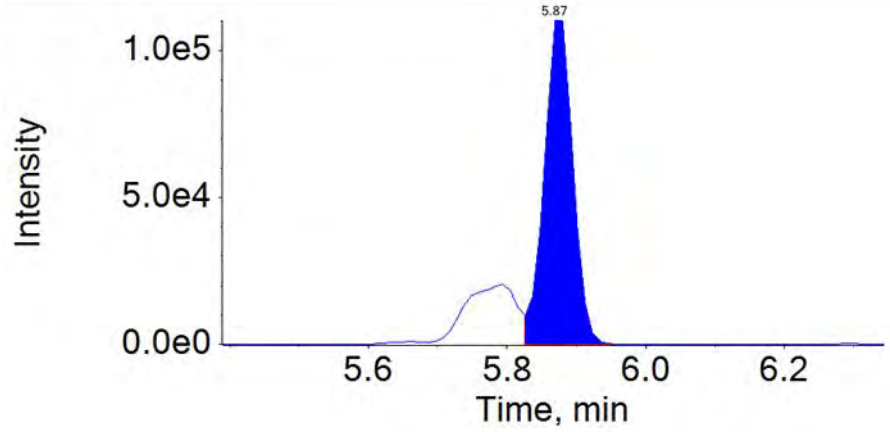
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.74
Peak Area:
127964.64
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-15.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.87
Peak Area:
320147.64
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-15.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

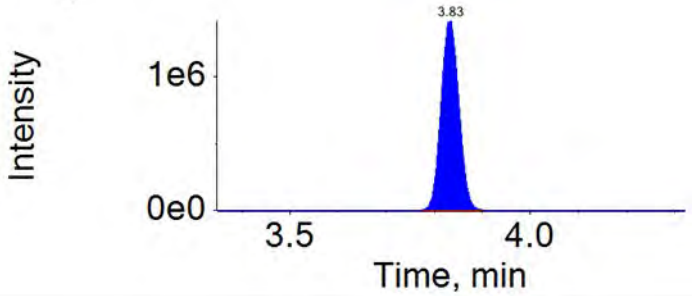
Sample Name: CAL6 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-15.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	3699145.04	A	1.0000	1.0000			
PFBS_2	3.83	1.00	1339275.80	A	0.3698	0.3621	-2	50	
4:2-FTS	4.15	1.00	807938.72	A	1.0000	1.0000			
4:2-FTS_2	4.15	1.00	538559.20	A	0.6536	0.6666	2	50	
PFHxA	4.18	1.00	6717198.73	A	1.0000	1.0000			
PFHxA_2	4.18	1.00	76042.20	A	0.0119	0.0113	-4	50	
PFPeS	4.20	1.10	1986368.00	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	992640.47	A	0.5000	0.4997	0	50	
PFHpA	4.57	1.00	6561332.20	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	361606.20	A	0.0526	0.0551	5	50	
PFHxS	4.58	1.00	2852509.62	M	1.0000	1.0000			
PFHxS_2	4.58	1.00	990465.06	M	0.3476	0.3472	0	50	
6:2-FTS	4.94	1.00	511547.75	A	1.0000	1.0000			
6:2-FTS_2	4.94	1.00	324366.55	A	0.6372	0.6341	0	50	
PFHpS	4.94	1.08	2645872.60	A	1.0000	1.0000			
PFHpS_2	4.94	1.08	1077065.63	A	0.3956	0.4071	3	50	
PFOA	4.95	1.00	6506829.67	A	1.0000	1.0000			
PFOA_2	4.95	1.00	393069.14	A	0.0618	0.0604	-2	50	
PFOS	5.28	1.00	2996122.02	M	1.0000	1.0000			
PFOS_2	5.28	1.00	915426.01	M	0.2940	0.3055	4	50	
PFNA	5.30	1.00	5648128.50	A	1.0000	1.0000			
PFNA_2	5.29	1.00	112002.48	A	0.0196	0.0198	1	50	
PFNS	5.57	1.06	1894816.49	A	1.0000	1.0000			
PFNS_2	5.57	1.06	875602.40	A	0.4676	0.4621	-1	50	
PFDA	5.60	1.00	4683026.73	A	1.0000	1.0000			
PFDA_2	5.59	1.00	34380.62	A	0.0073	0.0073	1	50	
8:2-FTS	5.60	1.00	392098.29	A	1.0000	1.0000			
8:2-FTS_2	5.60	1.00	238223.36	A	0.6049	0.6076	0	50	
NMeFOSAA	5.74	1.00	579334.11	M	1.0000	1.0000			
NMeFOSAA_2	5.74	1.00	161939.68	M	0.2642	0.2795	6	50	
PFDS	5.83	1.11	1592243.72	A	1.0000	1.0000			
PFDS_2	5.83	1.11	727343.89	A	0.4948	0.4568	-8	50	
PFUnDA	5.86	1.00	4521319.56	A	1.0000	1.0000			
PFUnDA_2	5.85	1.00	18853.02	A	0.0046	0.0042	-9	50	
NEtFOSAA	5.87	1.00	621193.68	M	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	423454.66	M	0.7504	0.6817	-9	50	
PFDoDA	6.09	1.00	5780493.22	A	1.0000	1.0000			
PFDoDA_2	6.09	1.00	76632.35	A	0.0143	0.0133	-7	50	
10:2-FTS	6.10	1.09	370347.96	A	1.0000	1.0000			
10:2-FTS_2	6.10	1.09	255123.19	A	0.7003	0.6889	-2	50	
PFTrDA	6.29	1.03	4813570.38	A	1.0000	1.0000			
PFTrDA_2	6.29	1.03	44425.83	A	0.0099	0.0092	-7	50	
PFTeDA	6.46	1.00	4393391.91	A	1.0000	1.0000			
PFTeDA_2	6.46	1.00	25926.62	A	0.0057	0.0059	3	50	
PFHxDA	6.76	1.05	2002794.41	A	1.0000	1.0000			
PFHxDA_2	6.76	1.05	125962.94	A	0.0617	0.0629	2	50	
PFODA	7.02	1.09	1610478.32	A	1.0000	1.0000			
PFODA_2	7.02	1.09	40643.80	A	0.0266	0.0252	-5	50	

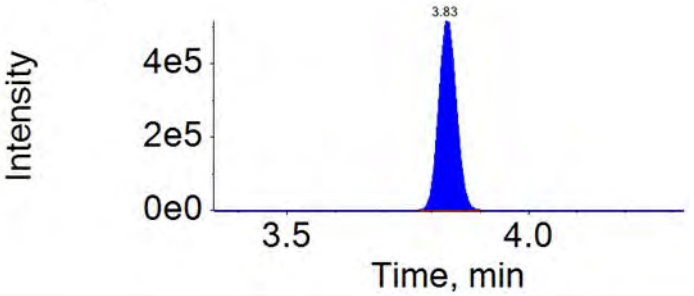
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

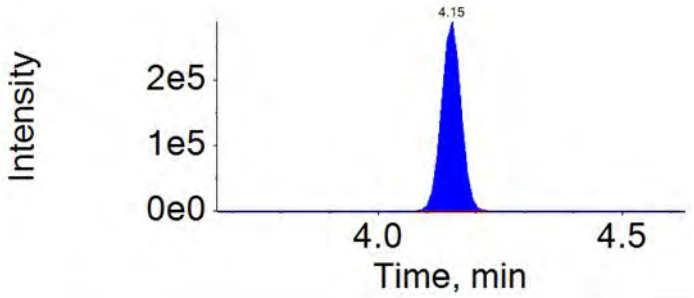
Component: PFBS
Primary Mass: 299.0 / 80.0



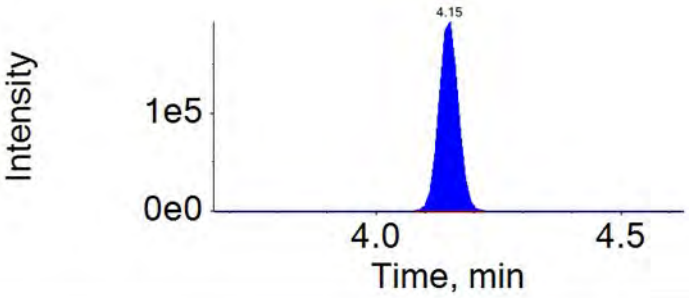
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



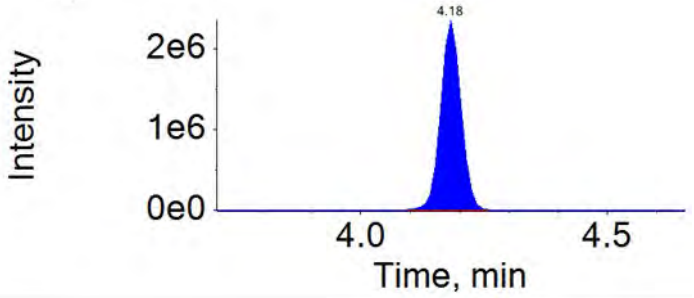
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



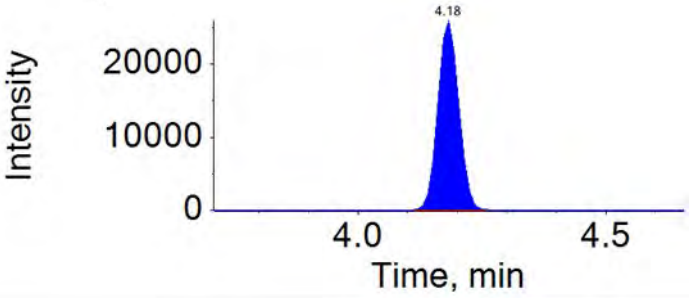
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



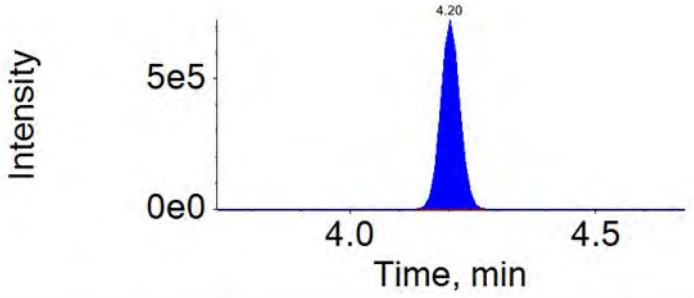
Component: PFHxA
Primary Mass: 313.0 / 269.0



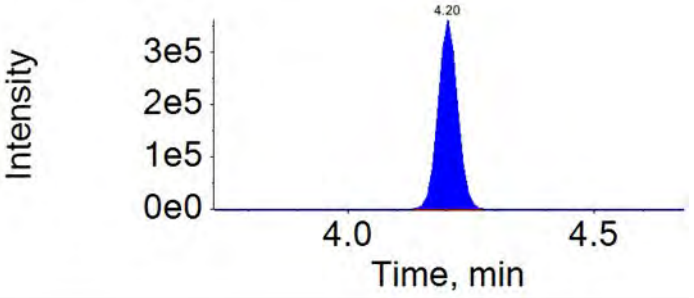
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



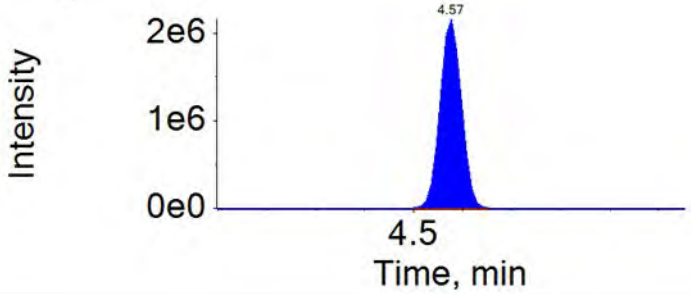
Component: PFPeS
Primary Mass: 349.0 / 80.0



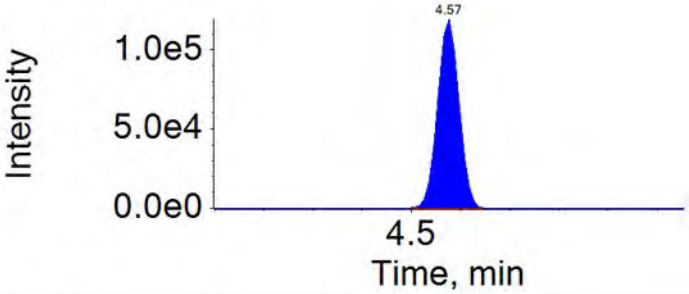
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



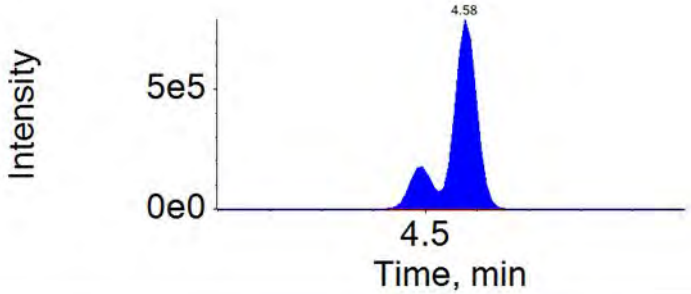
Component: PFHpA
Primary Mass: 363.0 / 319.0



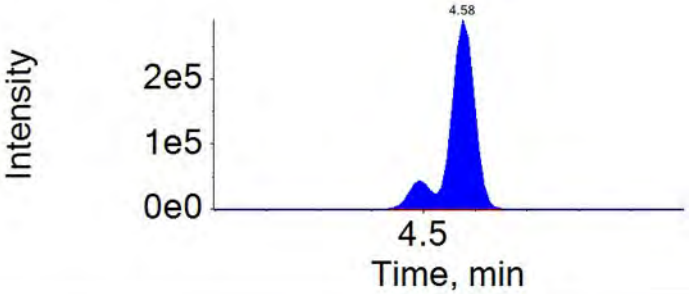
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



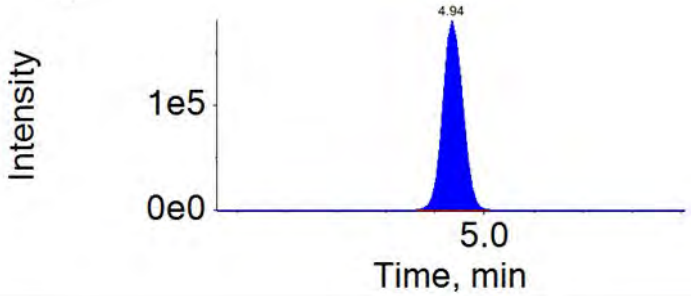
Component: PFHxS
Primary Mass: 399.0 / 80.0



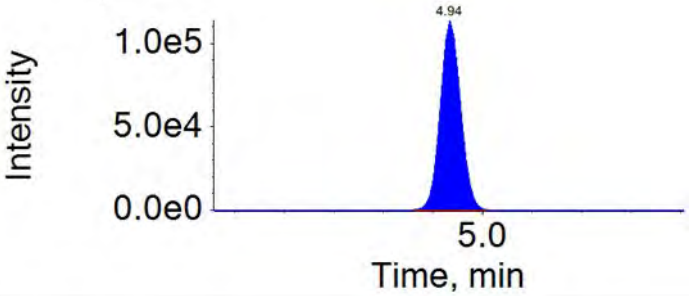
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



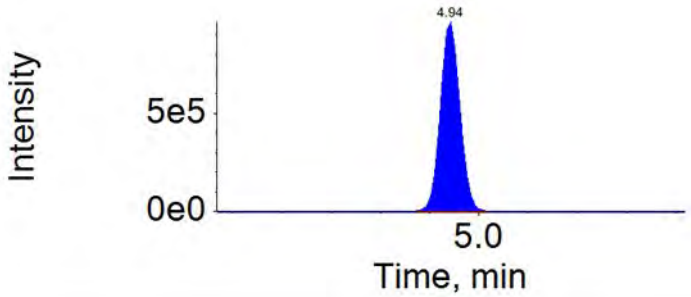
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



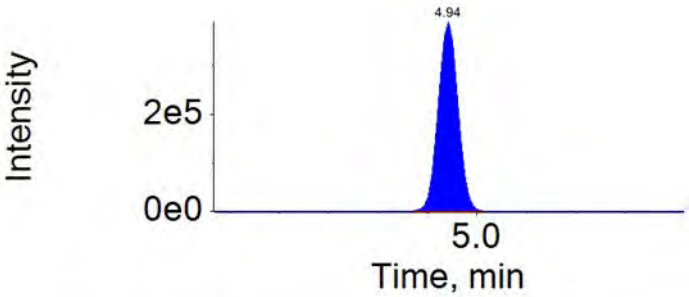
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



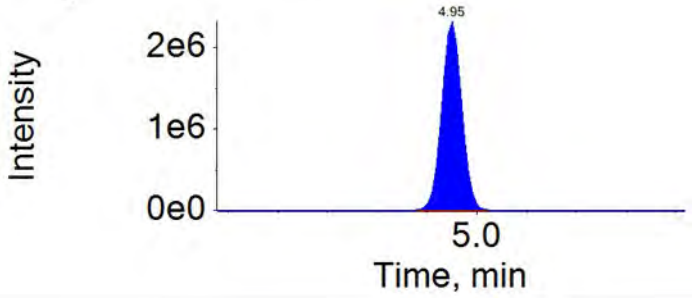
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



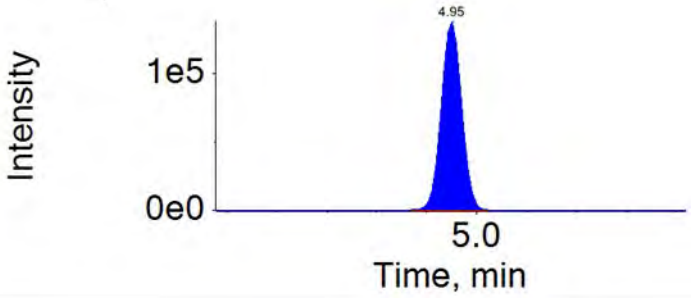
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

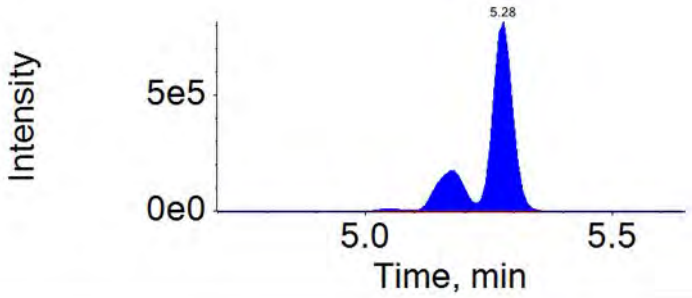
Component: PFOA
Primary Mass: 413.0 / 369.0



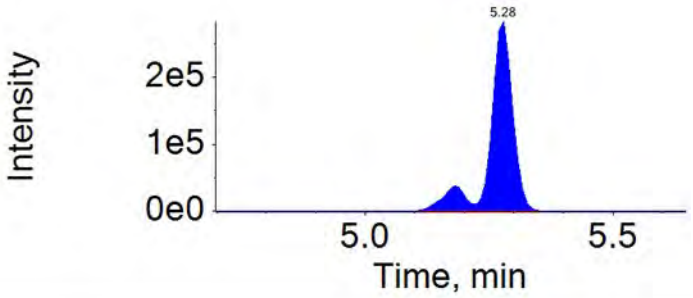
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



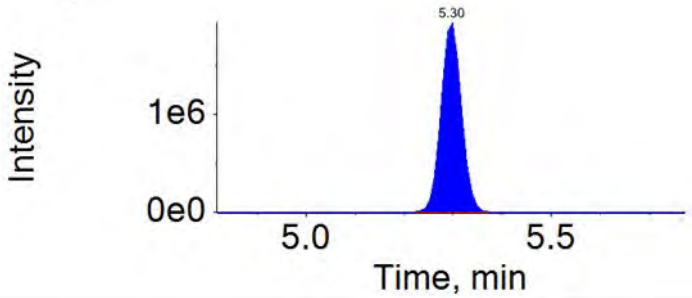
Component: PFOS
Primary Mass: 499.0 / 80.0



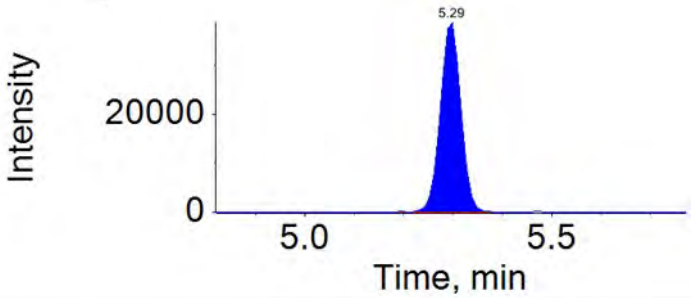
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



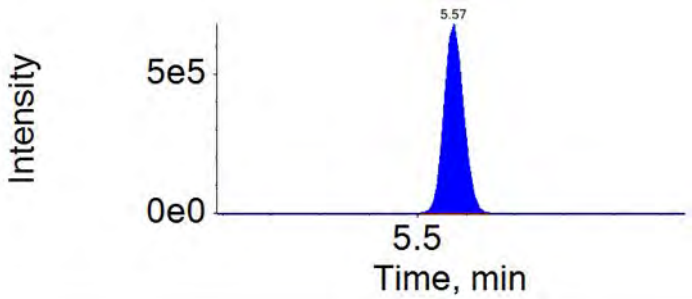
Component: PFNA
Primary Mass: 463.0 / 419.0



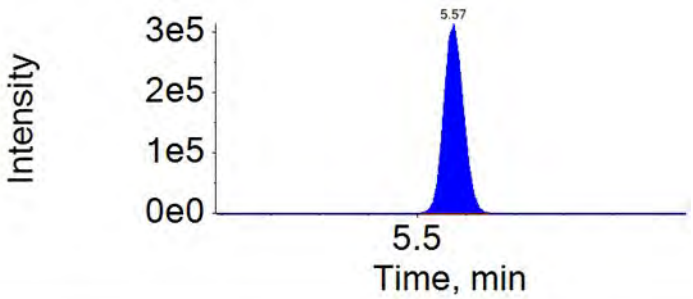
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



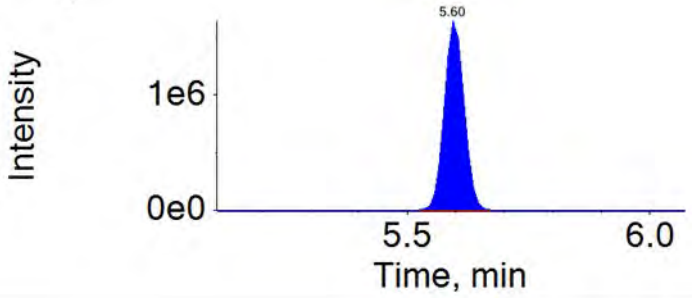
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



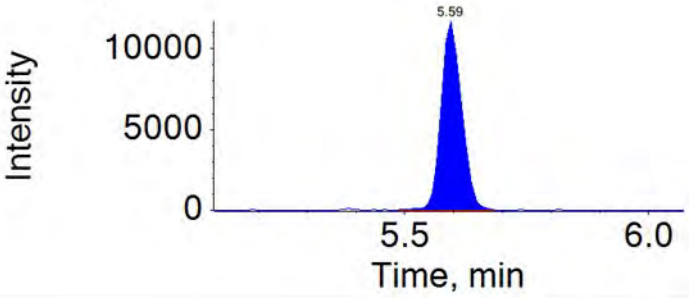
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

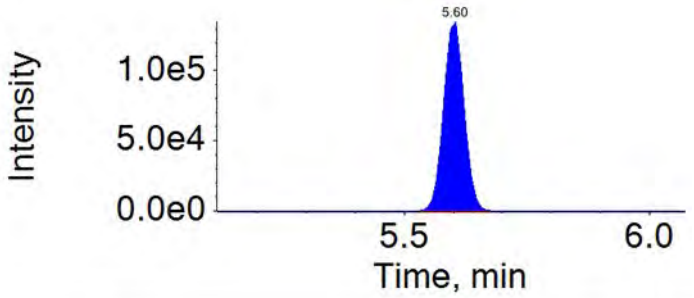
Component: PFDA
Primary Mass: 513.0 / 469.0



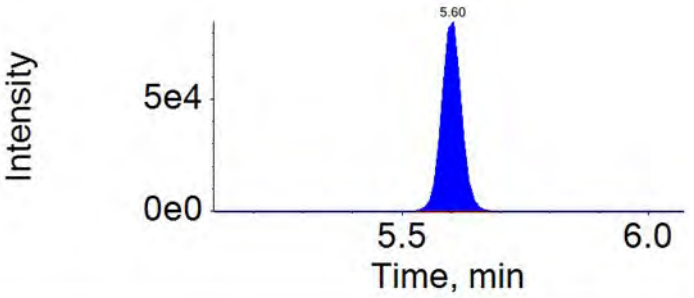
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



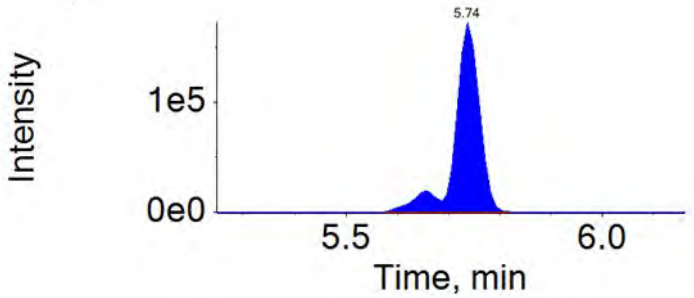
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



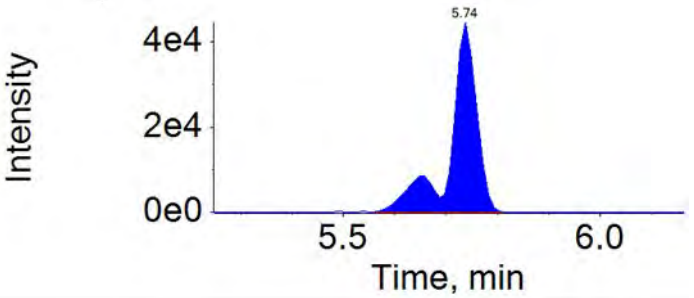
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



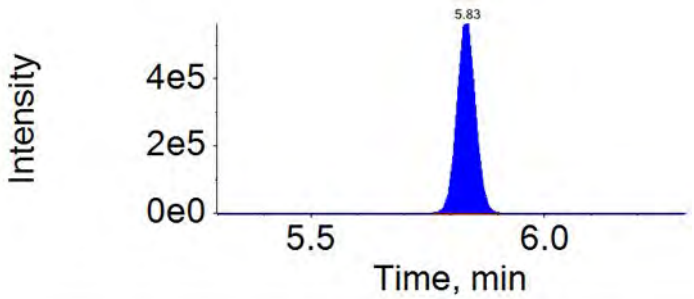
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



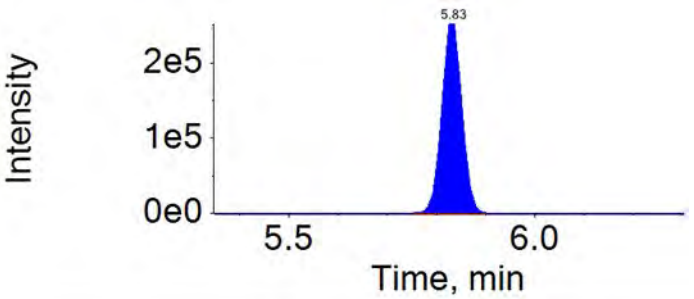
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



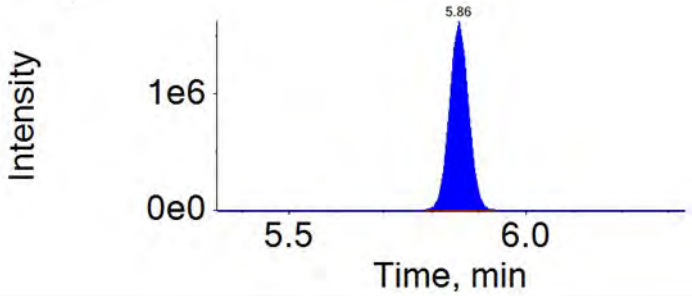
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



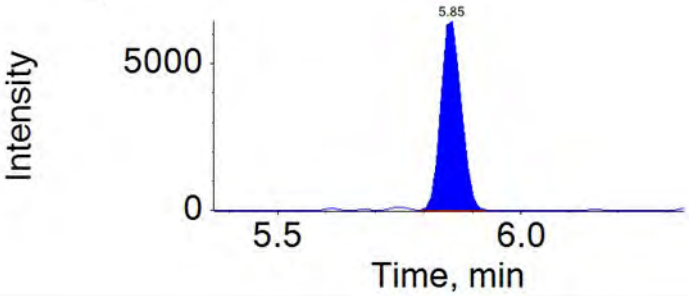
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

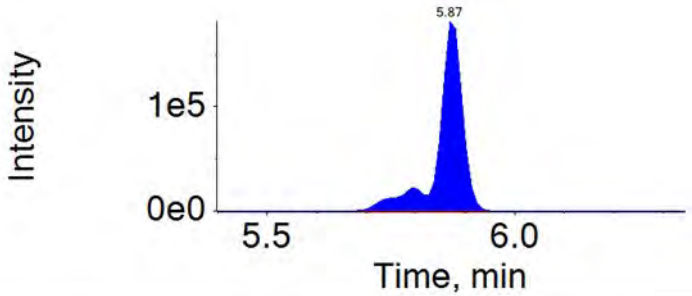
Component: PFUnDA
Primary Mass: 563.0 / 519.0



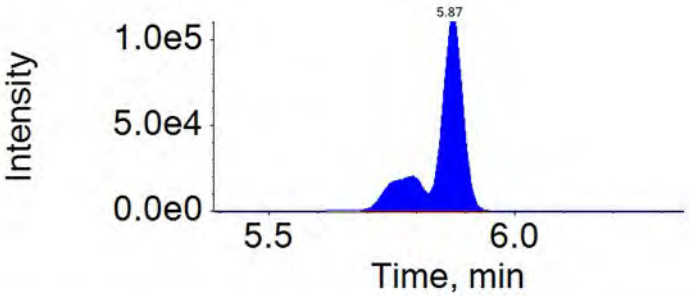
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



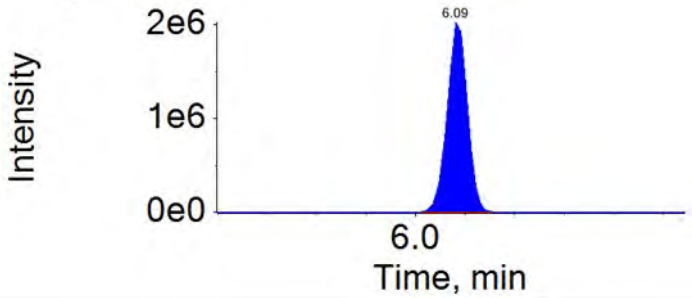
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



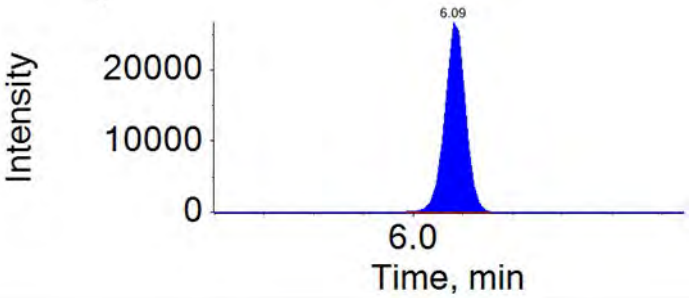
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



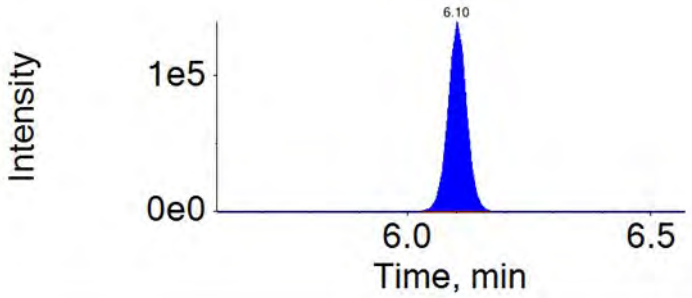
Component: PFDoDA
Primary Mass: 613.0 / 569.0



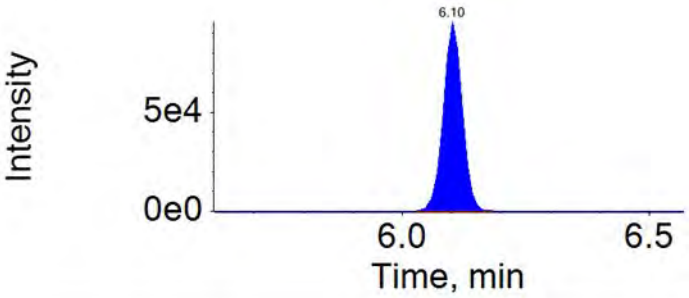
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



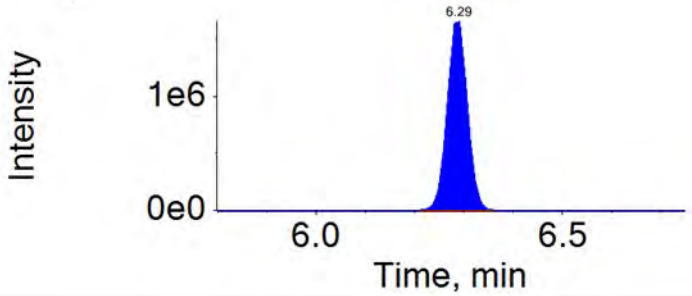
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



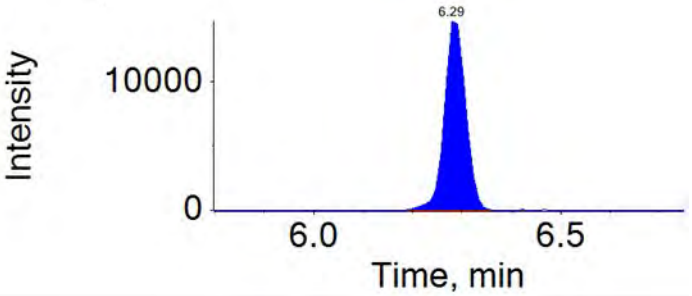
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



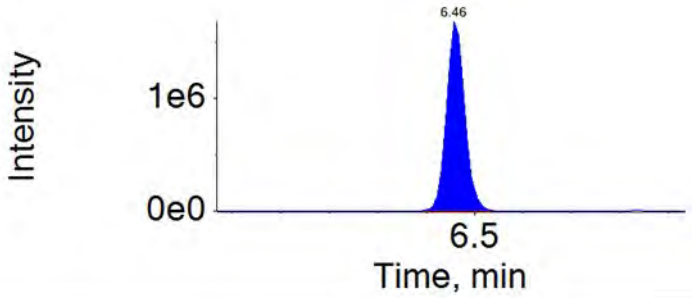
Component: PFTrDA
Primary Mass: 663.0 / 619.0



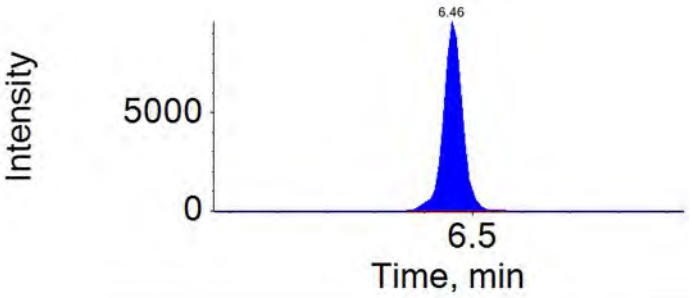
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



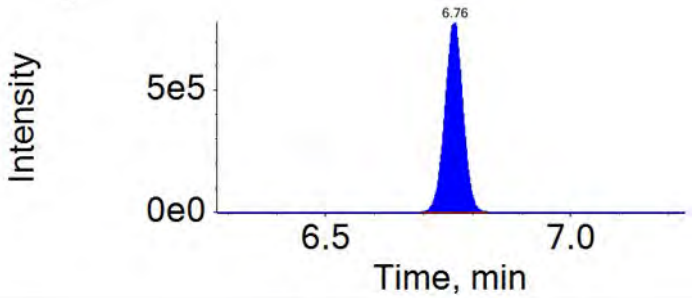
Component: PFTeDA
Primary Mass: 713.0 / 669.0



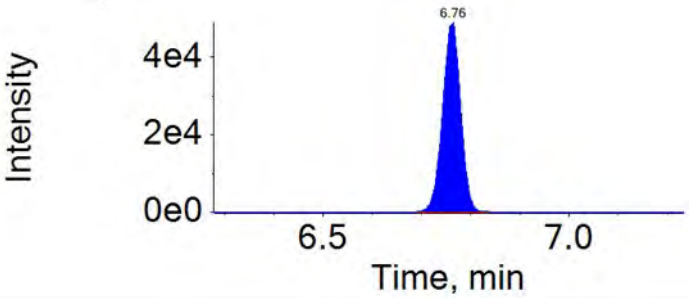
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



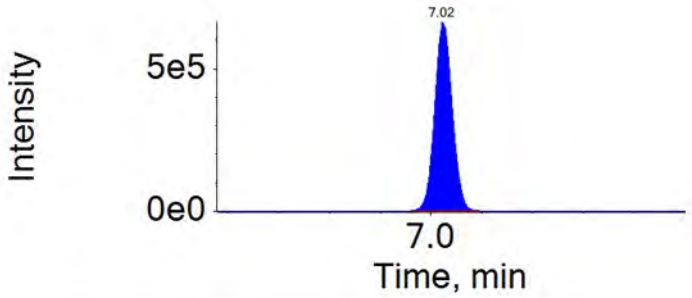
Component: PFHxDA
Primary Mass: 813.0 / 769.0



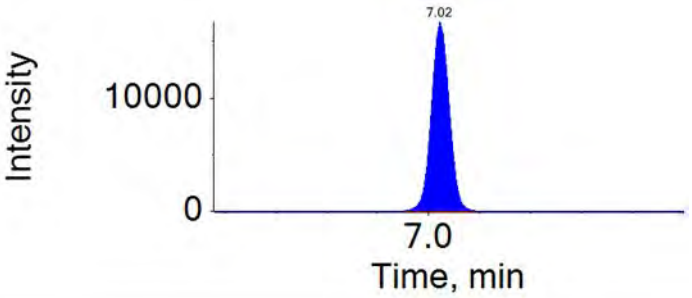
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	CAL7			**Data File:**		18DEC03DCAL-16.wiff
Sample ID:	CALBRN71833B			**Acquis Date:**		2018-12-03T18:29:14
Sample Type:	Standard			**Instrument:**		LM27631
Vial Position:	9			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	573114.6	749775.9	-24	50	
13C2-PFOA	5.0	367835.0	434072.7	-15	50	
13C4-PFOS	4.8	240347.3	261136.3	-8	50	
13C2-PFDA	5.0	250503.1	305281.8	-18	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	638530.8	13C3-PFBA	573114.6	1.114	5.000	4.944	99	70-130	
E13C5-PFPeA	610319.3	13C3-PFBA	573114.6	1.065	5.000	5.138	103	70-130	
E13C3-PFBS	356951.0	13C3-PFBA	573114.6	0.623	4.650	4.853	104	70-130	
E13C2-4:2-FTS	40521.3	13C2-PFOA	367835.0	0.110	4.670	4.532	97	70-130	
E13C5-PFHxA	530901.6	13C2-PFOA	367835.0	1.443	5.000	4.888	98	70-130	
E13C3-PFHxS	251659.0	13C2-PFOA	367835.0	0.684	4.730	4.325	91	70-130	
E13C4-PFHpA	427034.8	13C2-PFOA	367835.0	1.161	5.000	5.065	101	70-130	
E13C2-6:2-FTS	27109.3	13C2-PFOA	367835.0	0.074	4.750	4.884	103	70-130	
E13C8-PFOA	576918.9	13C2-PFOA	367835.0	1.568	5.000	4.360	87	70-130	
E13C8-PFOS	239305.6	13C4-PFOS	240347.3	0.996	4.780	4.422	93	70-130	
E13C9-PFNA	382259.7	13C4-PFOS	240347.3	1.590	5.000	4.655	93	70-130	
E13C6-PFDA	459880.1	13C2-PFDA	250503.1	1.836	5.000	4.775	95	70-130	
E13C2-8:2-FTS	20112.4	13C2-PFDA	250503.1	0.080	4.790	5.162	108	70-130	
E13C8-PFOSA	580120.1	13C2-PFDA	250503.1	2.316	5.000	5.184	104	70-130	
Ed3-NMeFOSAA	78229.3	13C2-PFDA	250503.1	0.312	5.000	5.455	109	70-130	
E13C7-PFUnDA	236129.5	13C2-PFDA	250503.1	0.943	5.000	4.695	94	70-130	
Ed5-NEtFOSAA	58190.5	13C2-PFDA	250503.1	0.232	5.000	5.299	106	70-130	
E13C2-PFDoDA	577689.9	13C2-PFDA	250503.1	2.306	5.000	4.938	99	70-130	
Ed7-NMePFOSAE	242473.5	13C2-PFDA	250503.1	0.968	5.000	5.248	105	70-130	
Ed3-NMePFOSA	76481.4	13C2-PFDA	250503.1	0.305	5.000	5.661	113	70-130	
Ed9-NEtPFOSAE	215425.6	13C2-PFDA	250503.1	0.860	5.000	5.547	111	70-130	
Ed5-NEtPFOSA	57895.3	13C2-PFDA	250503.1	0.231	5.000	5.452	109	70-130	
E13C2-PFTeDA	463642.0	13C2-PFDA	250503.1	1.851	5.000	5.217	104	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

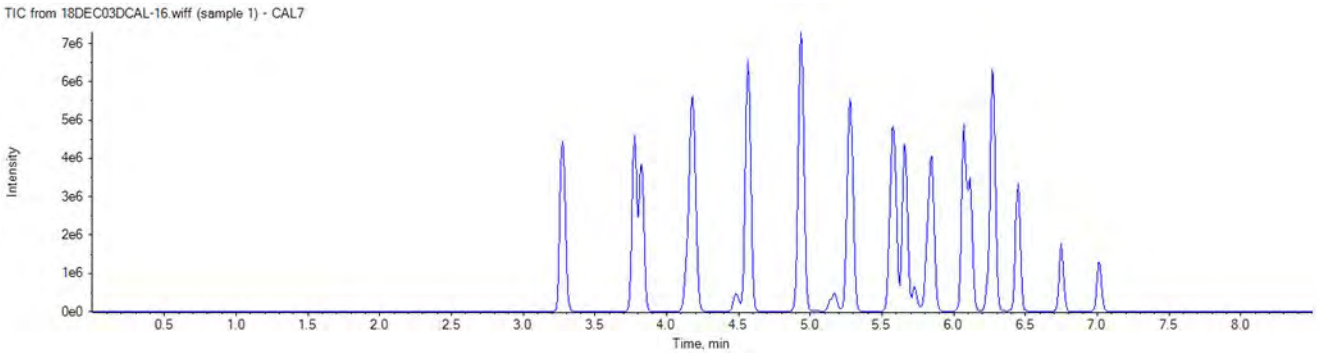
Analyte Quantitation Peak Table

Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-16.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	10948585.6		A	13C4-PFBA	3.27	638530.8	17.147	97.106
PFPeA	3.78	1.000	10661972.6		A	13C5-PFPeA	3.78	610319.3	17.469	87.475
PFBS	3.82	1.000	6416410.1		A	13C3-PFBS	3.82	356951.0	17.976	87.655
4:2-FTS	4.14	1.000	1539232.4		A	13C2-4:2-FTS	4.14	40521.3	37.986	95.938
PFHxA	4.17	1.000	11109528.3		A	13C5-PFHxA	4.17	530901.6	20.926	89.185
PFPeS	4.20	1.100	3503173.1		A	13C3-PFBS	3.82	356951.0	9.814	94.175
PFHpA	4.57	1.000	10788918.1		A	13C4-PFHpA	4.57	427034.8	25.265	81.531
PFHxS	4.57	1.000	4992056.3		M	13C3-PFHxS	4.57	251659.0	19.837	93.456
6:2-FTS	4.92	1.000	851663.3		A	13C2-6:2-FTS	4.93	27109.3	31.416	76.185
PFHpS	4.93	1.080	4683948.4		A	13C3-PFHxS	4.57	251659.0	18.612	96.894
PFOA	4.94	1.000	10639286.7		A	13C8-PFOA	4.94	576918.9	18.442	97.612
PFOS	5.27	1.000	5373855.1		M	13C8-PFOS	5.26	239305.6	22.456	95.172
PFNA	5.28	1.000	10107793.5		A	13C9-PFNA	5.28	382259.7	26.442	99.099
PFNS	5.56	1.060	3498137.7		A	13C8-PFOS	5.26	239305.6	14.618	98.578
PFDA	5.58	1.000	8197558.5		A	13C6-PFDA	5.58	459880.1	17.825	97.761
8:2-FTS	5.59	1.000	721887.3		A	13C2-8:2-FTS	5.59	20112.4	35.893	77.086
PFOSA	5.66	1.000	10663363.0		A	13C8-PFOSA	5.66	580120.1	18.381	96.266
NMeFOSAA	5.73	1.000	1193734.5		M	d3-NMeFOSAA	5.72	78229.3	15.259	100.990
PFDS	5.82	1.110	2682689.6		A	13C8-PFOS	5.26	239305.6	11.210	95.988
PFUnDA	5.84	1.000	7502298.2		A	13C7-PFUnDA	5.85	236129.5	31.772	96.736
NEtFOSAA	5.86	1.000	1153919.5		A	d5-NEtFOSAA	5.86	58190.5	19.830	100.296
PFDoDA	6.07	1.000	9821469.0		A	13C2-PFDoDA	6.07	577689.9	17.001	96.936
10:2-FTS	6.09	1.090	657657.3		A	13C2-8:2-FTS	5.59	20112.4	32.699	81.473
NMePFOSAE	6.11	1.000	5719283.9		A	d7-NMePFOSAE	6.10	242473.5	23.587	99.895
NMePFOSA	6.12	1.000	1426312.5		A	d3-NMePFOSA	6.12	76481.4	18.649	98.340
PFDoS	6.24	1.190	1533843.2		A	13C8-PFOS	5.26	239305.6	6.410	100.406
NEtPFOSAE	6.27	1.000	5863961.8		A	d9-NEtPFOSAE	6.26	215425.6	27.220	93.767
NEtPFOSA	6.28	1.000	1232075.5		A	d5-NEtPFOSA	6.28	57895.3	21.281	99.040
PFTrDA	6.27	1.030	7671443.4		A	13C2-PFDoDA	6.07	577689.9	13.280	78.176
PFTeDA	6.45	1.000	7600732.0		A	13C2-PFTeDA	6.45	463642.0	16.394	97.036
PFHxDA	6.75	1.050	3591194.8		A	13C2-PFTeDA	6.45	463642.0	7.746	99.416
PFODA	7.01	1.090	2920335.3		A	13C2-PFTeDA	6.45	463642.0	6.299	100.053

Total Ion Chromatogram

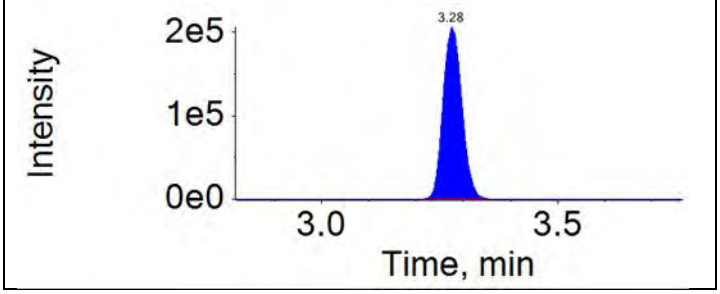


APPROVED
By MSM at 10:22 am, 12/4/18

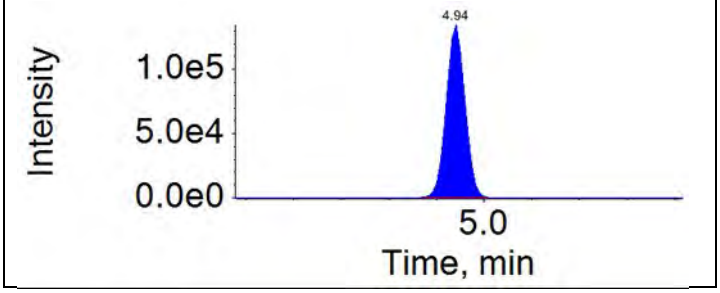
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

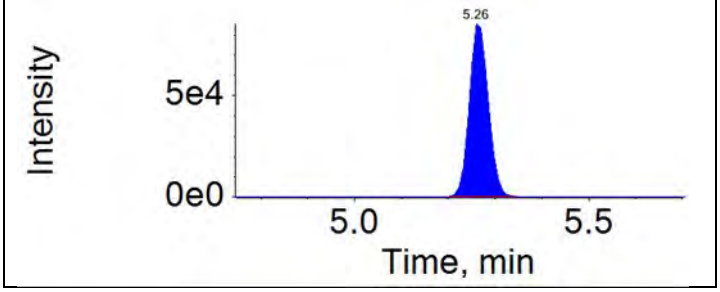
Injection Standard: 13C3-PFBA
216.0 / 172.0



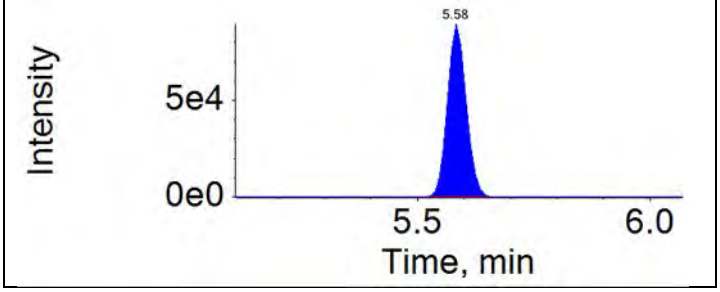
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

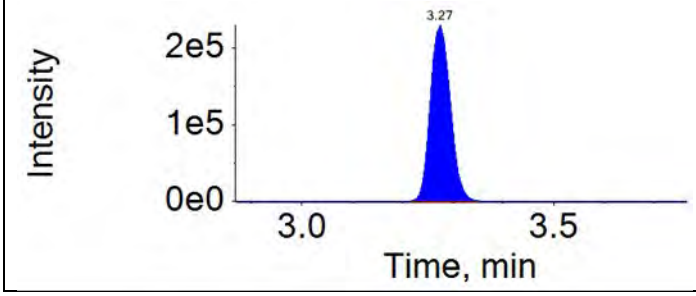


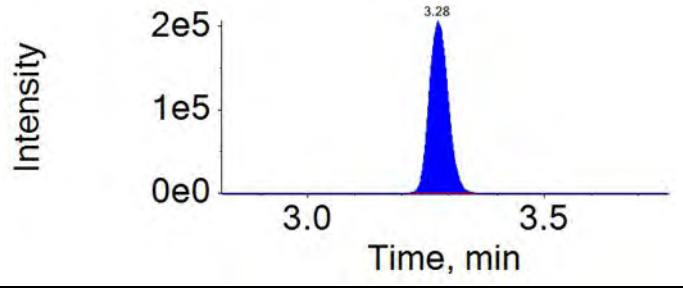
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

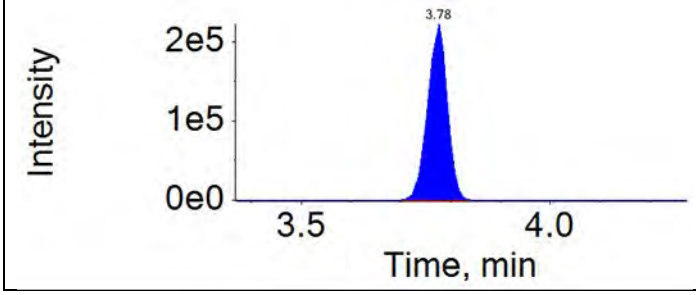
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

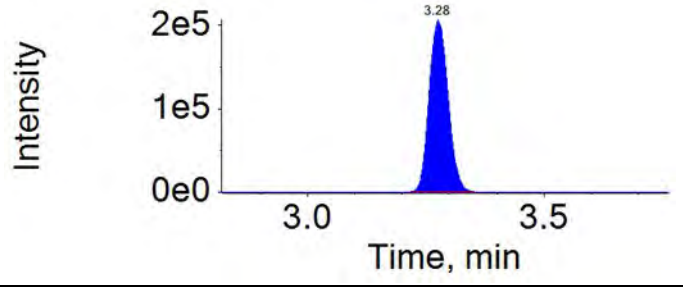
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



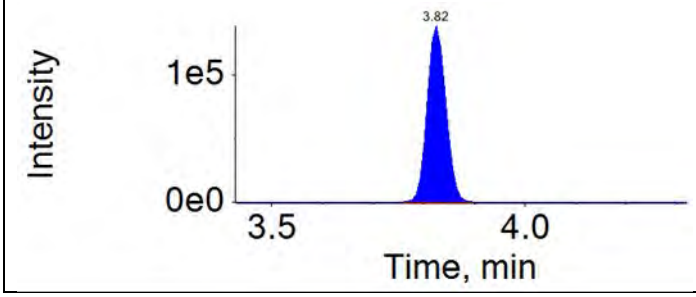


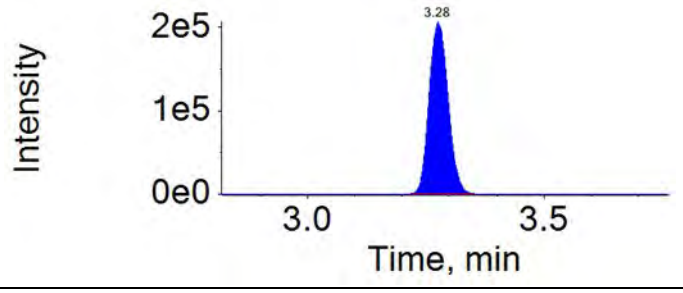
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



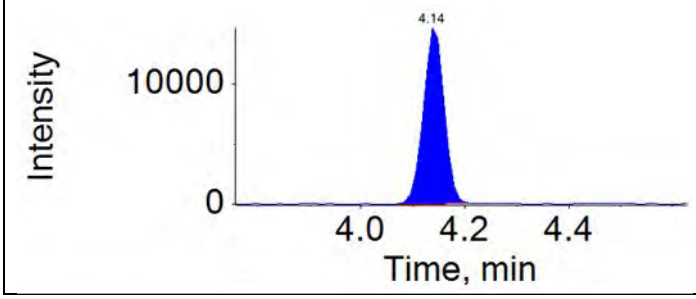


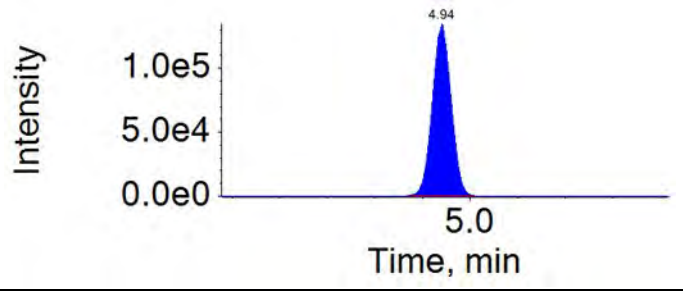
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



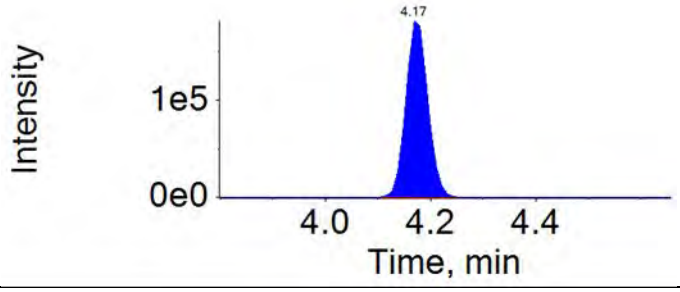


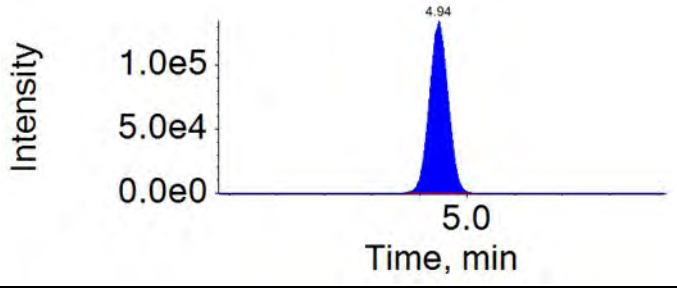
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

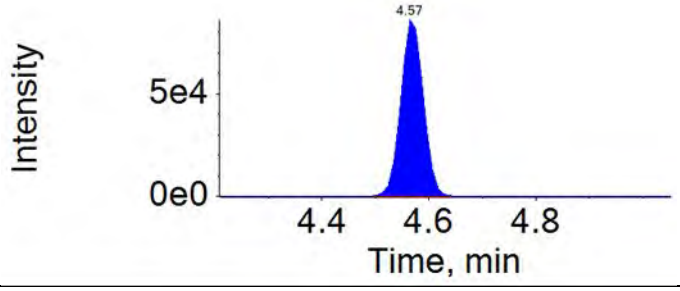
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

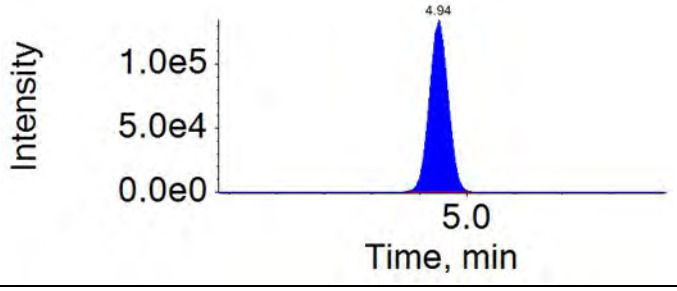
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



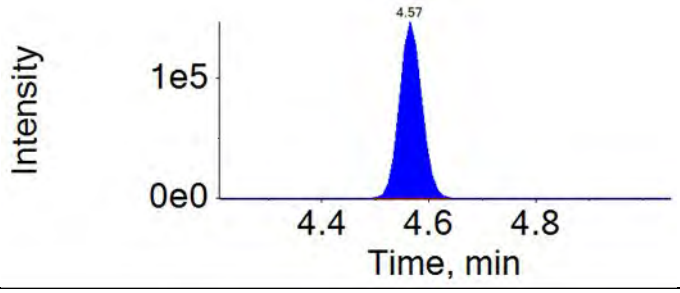


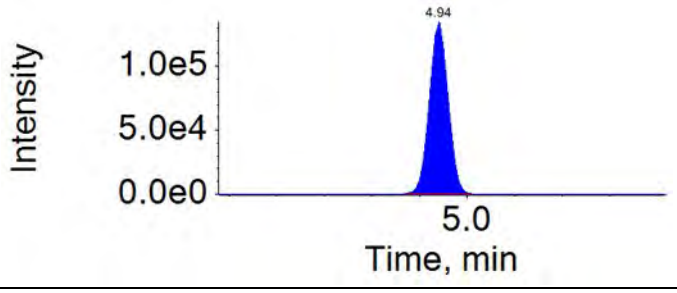
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



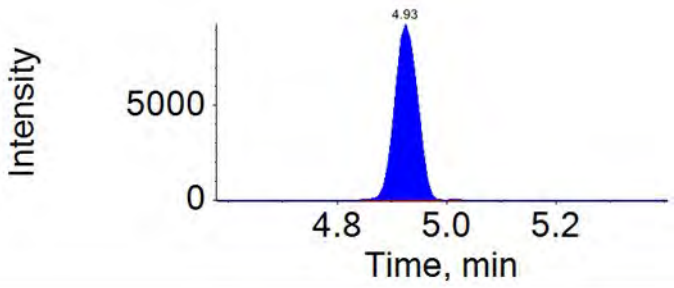


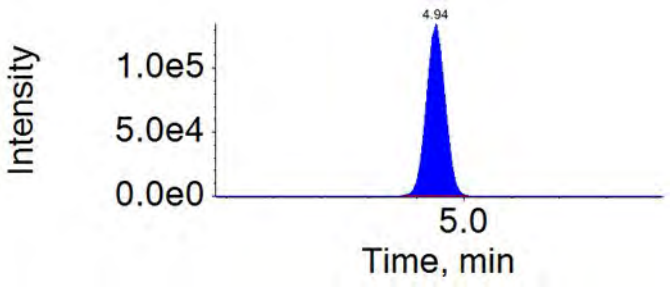
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



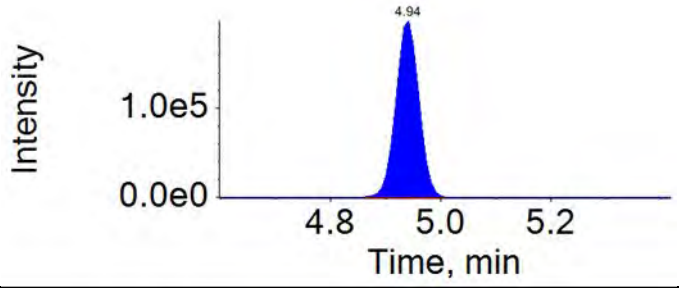


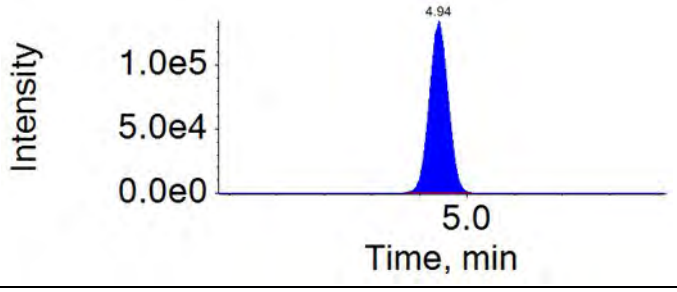
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

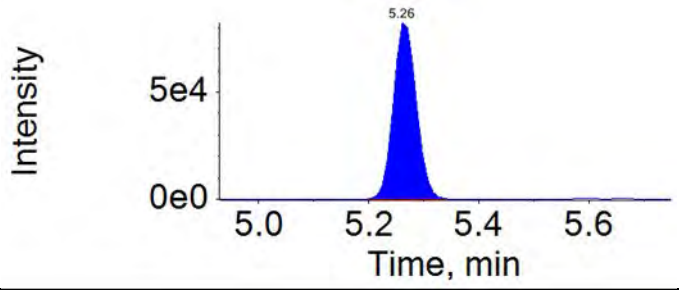
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

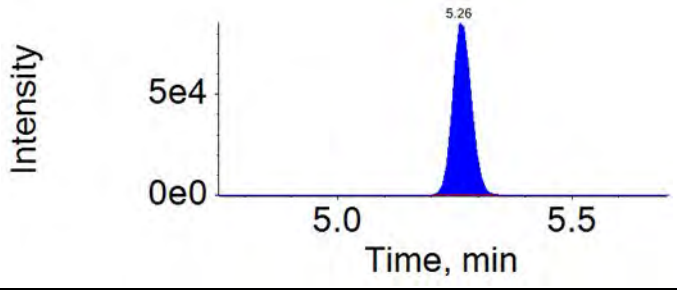
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



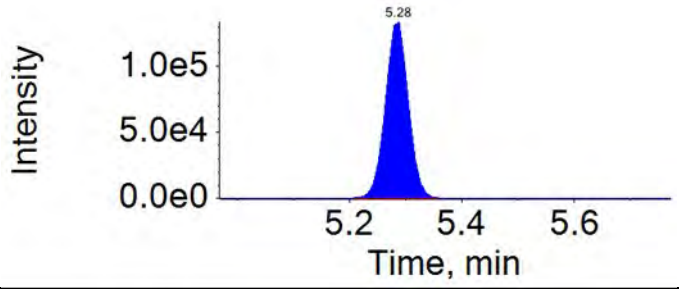


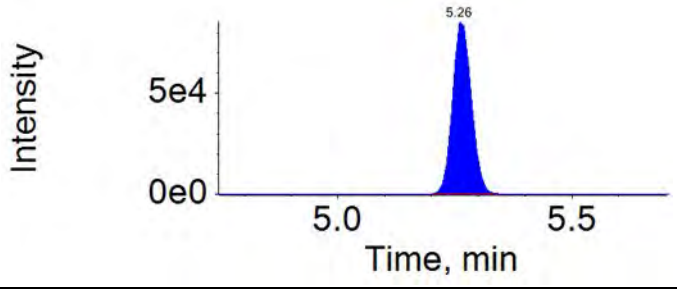
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



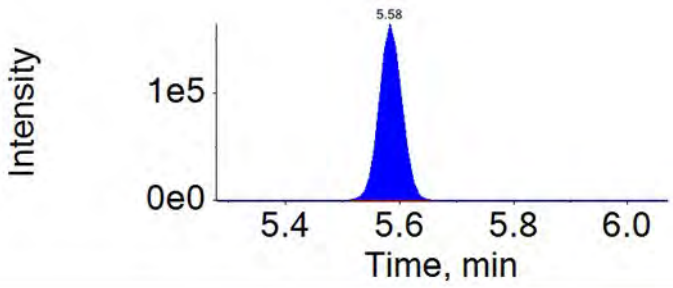


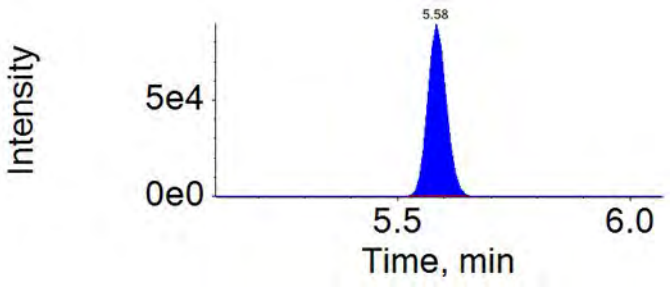
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



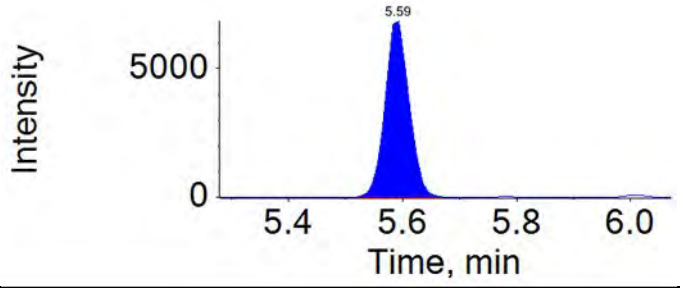


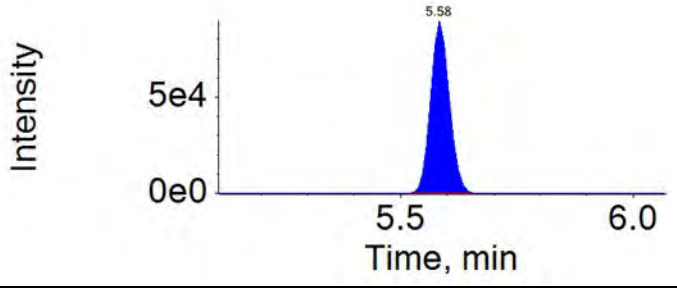
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

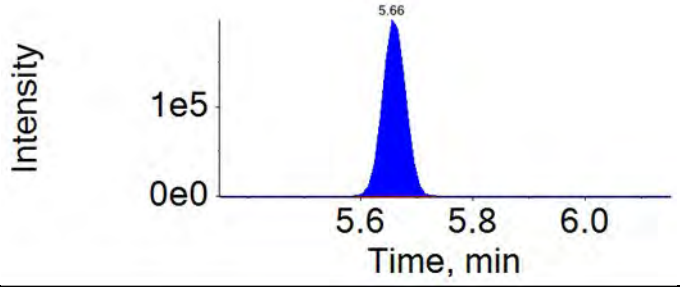
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

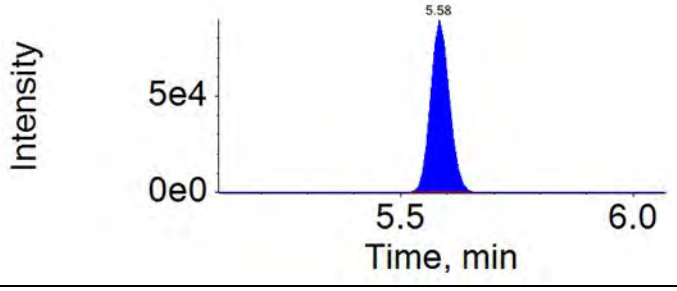
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



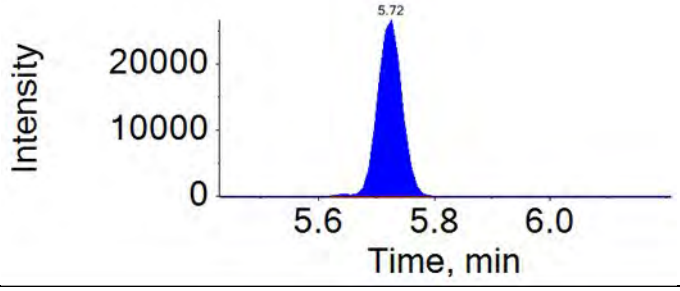


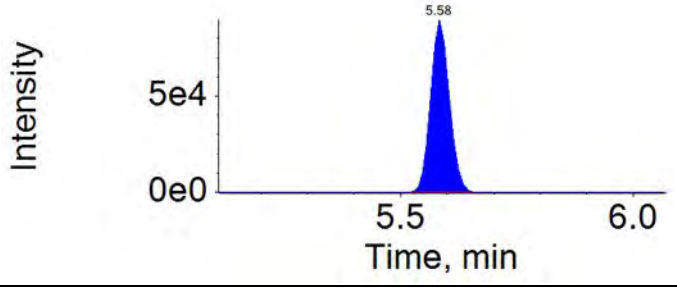
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



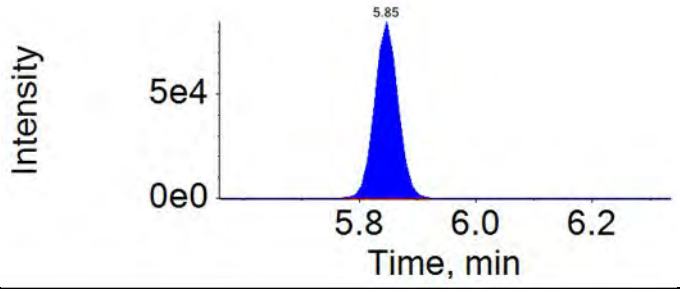


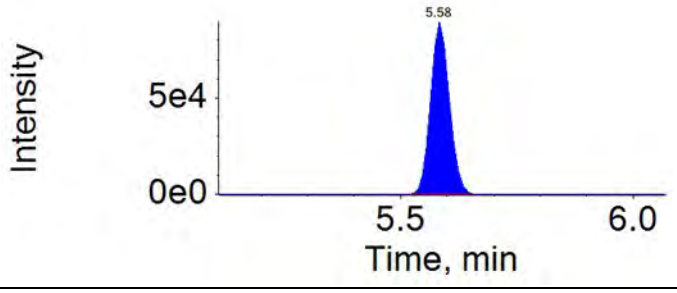
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



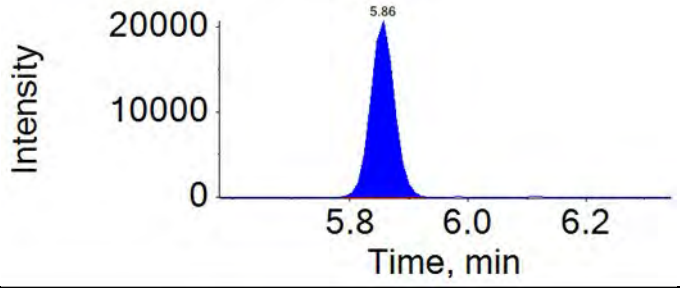


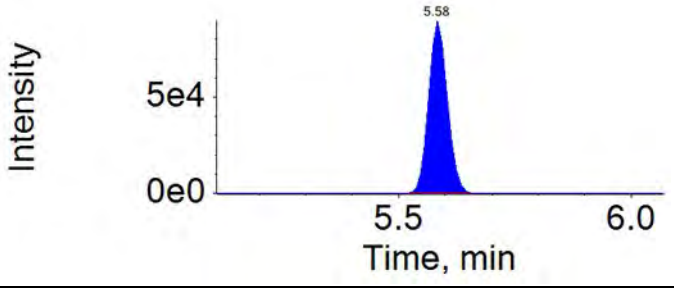
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

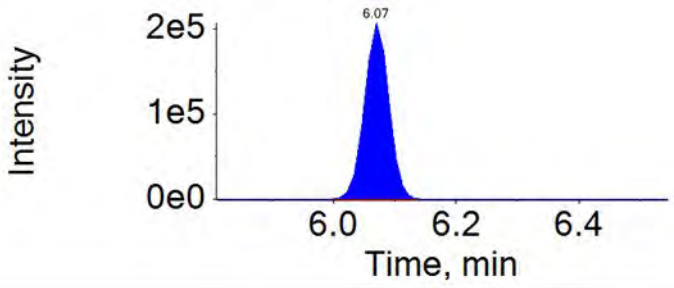
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

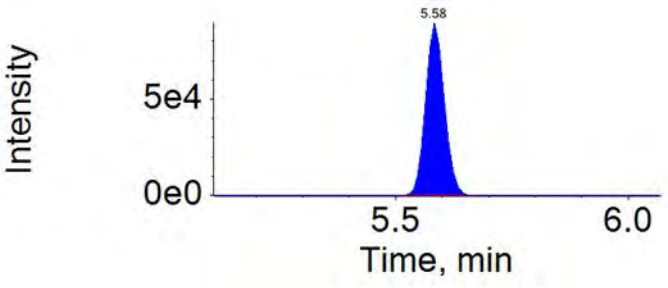
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



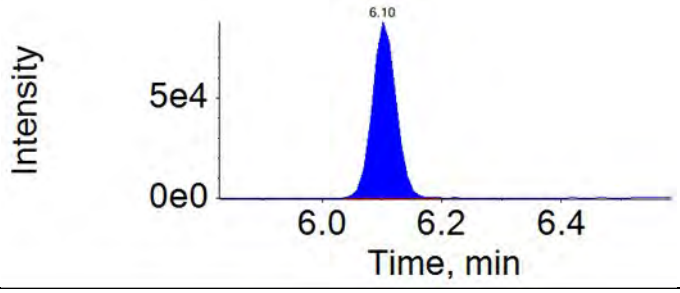


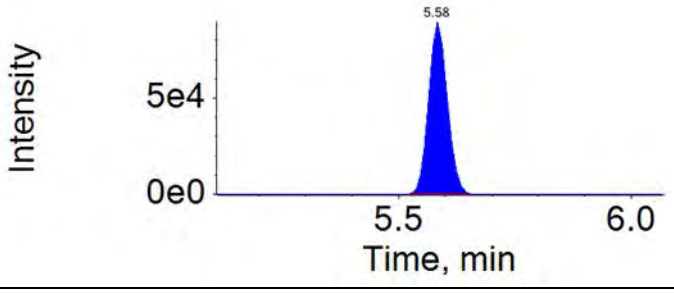
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



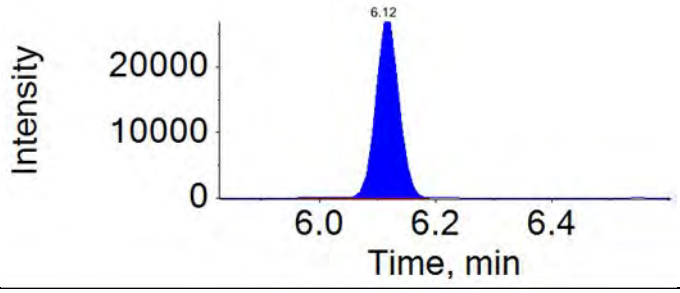


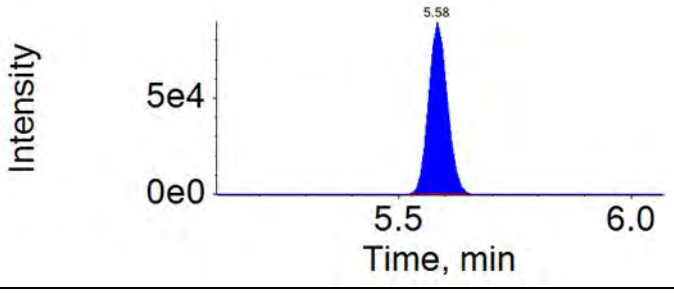
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



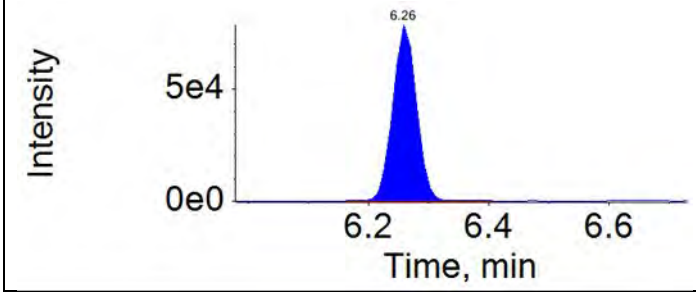


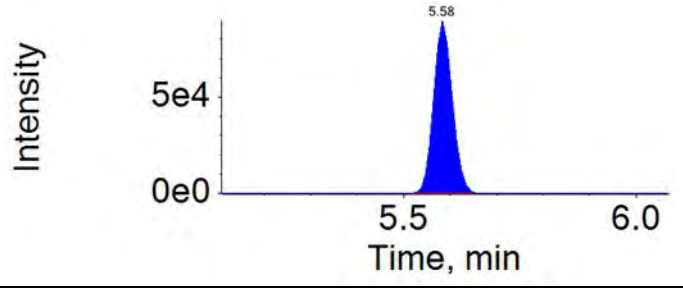
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

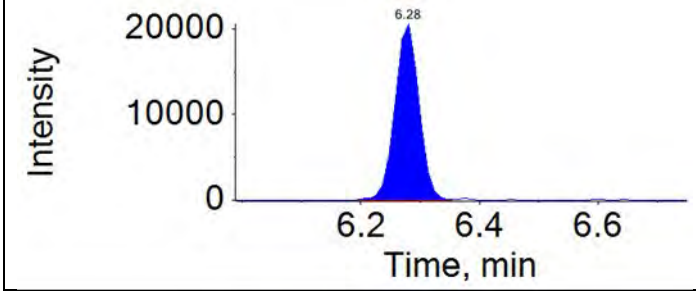
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

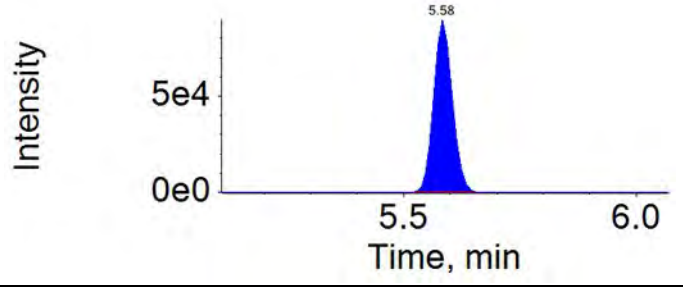
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



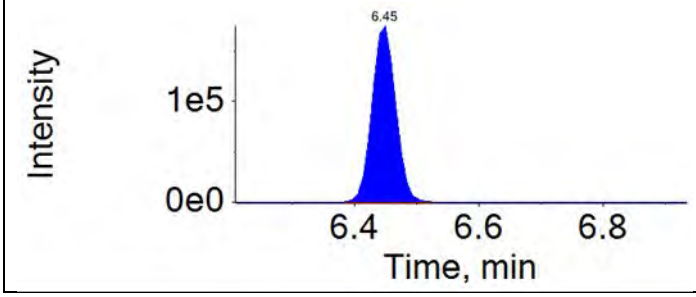


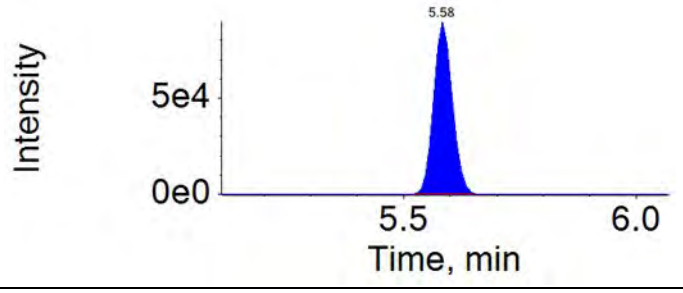
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



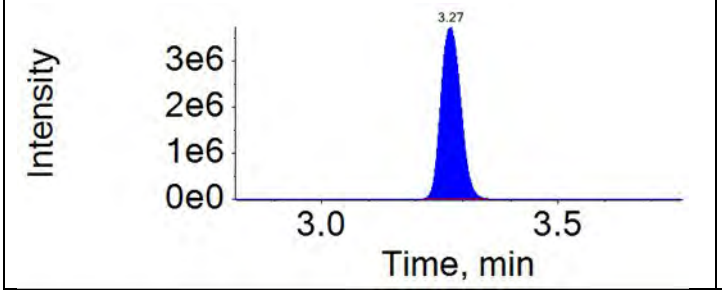


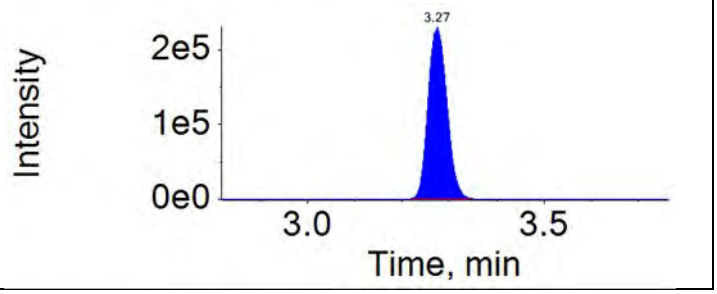
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

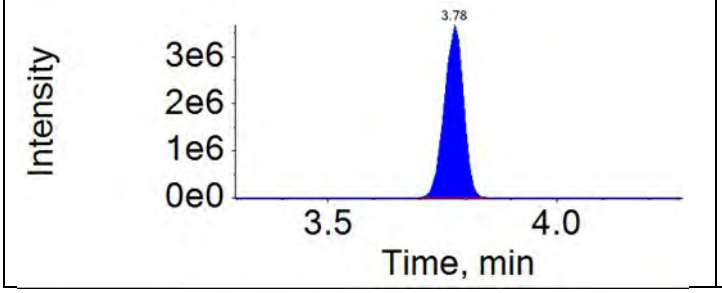
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

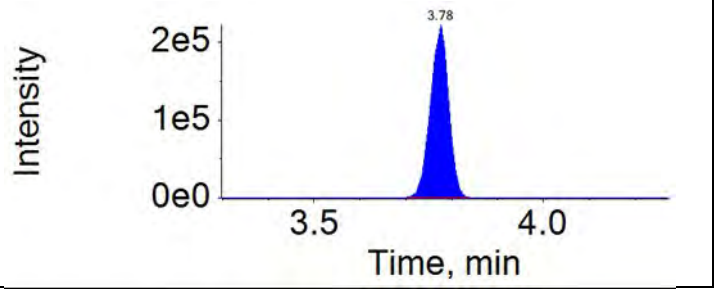
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



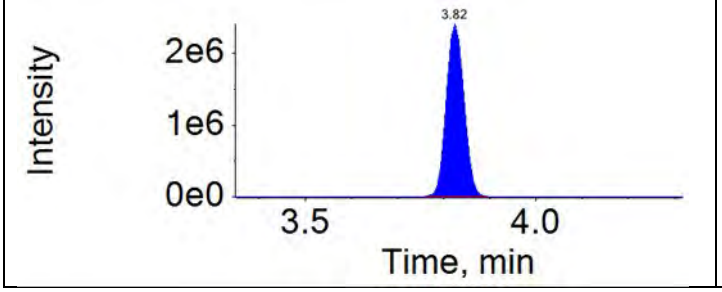


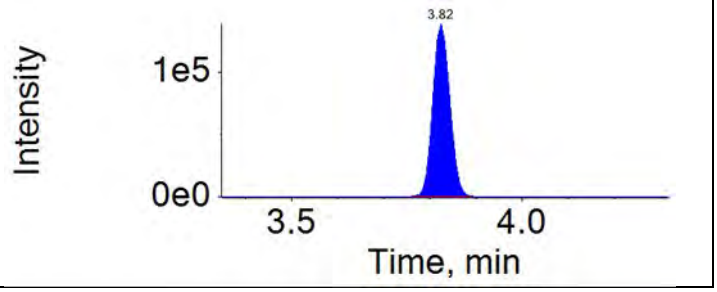
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



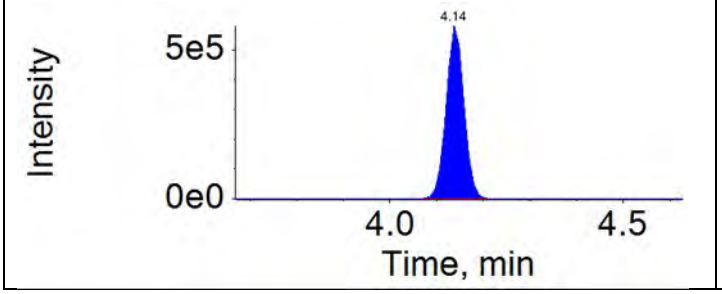


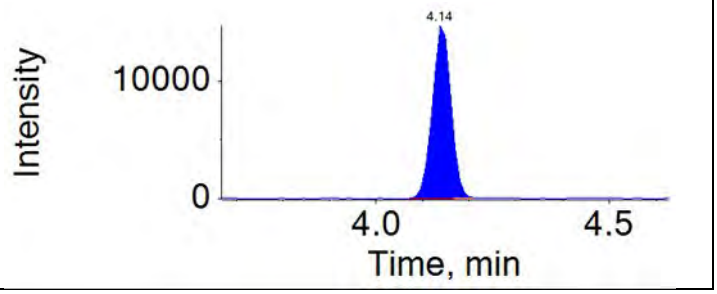
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

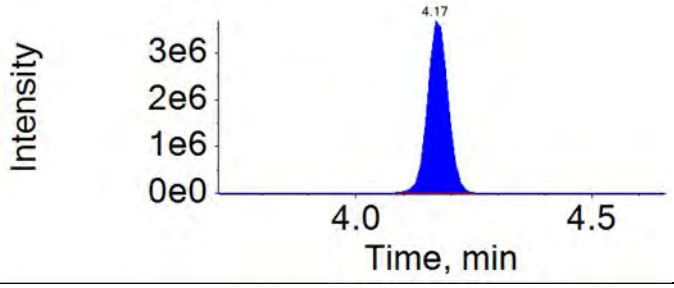
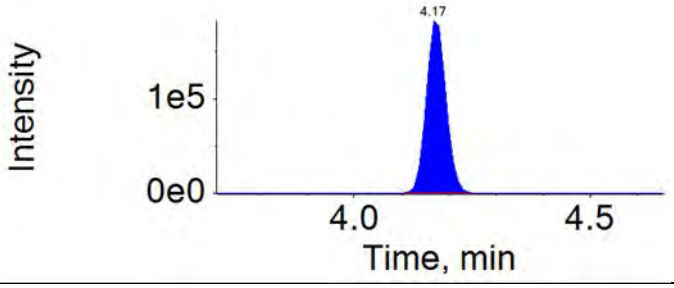


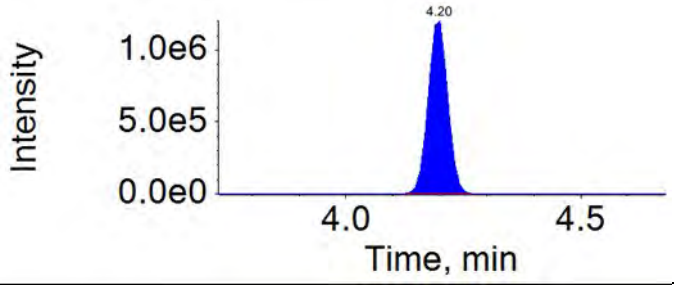
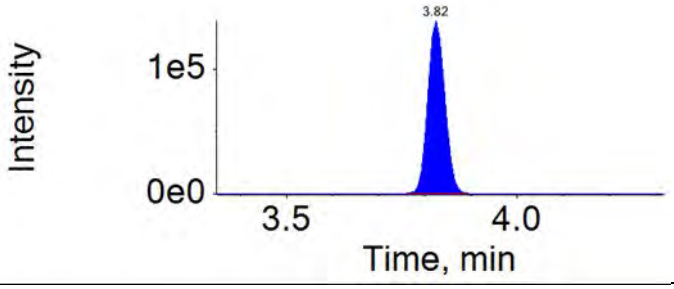


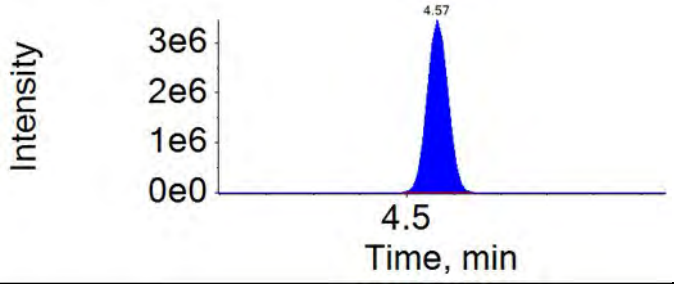
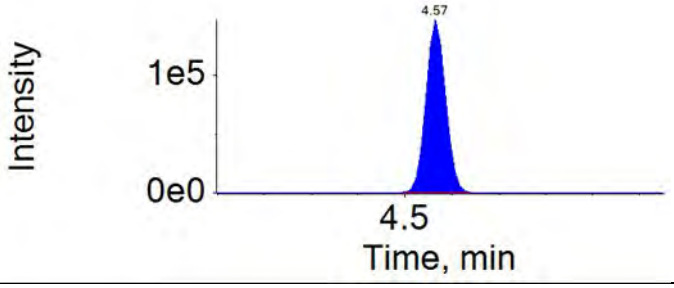
APPROVED
By MSM at 10:22 am, 12/4/18

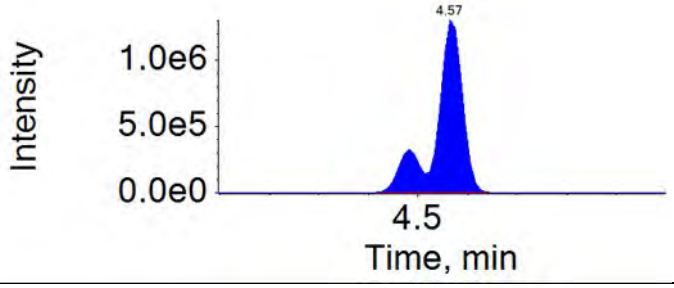
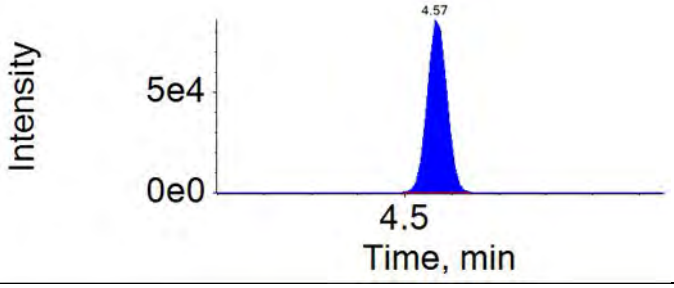
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

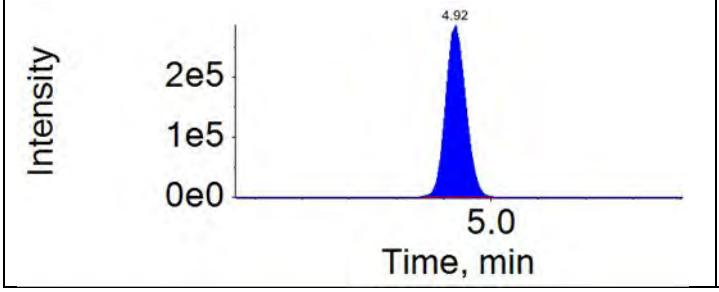
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0
	

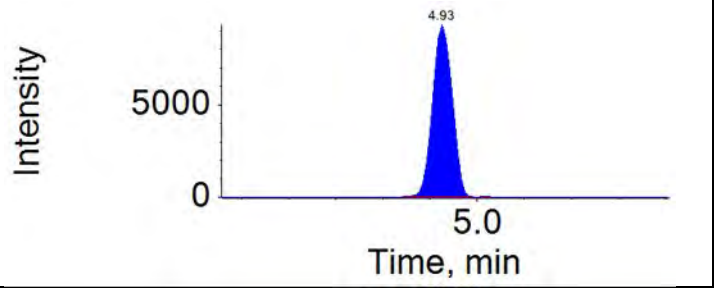
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

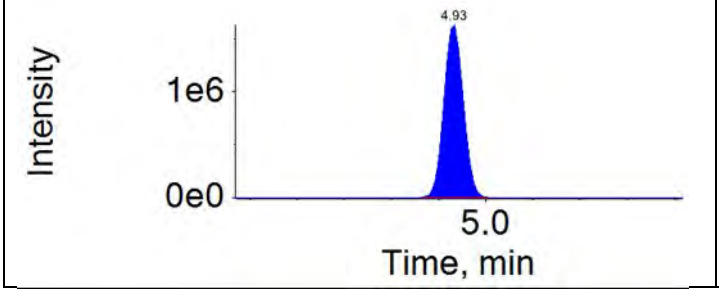
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

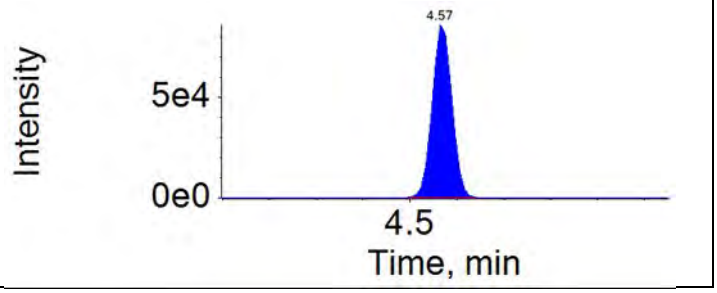
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



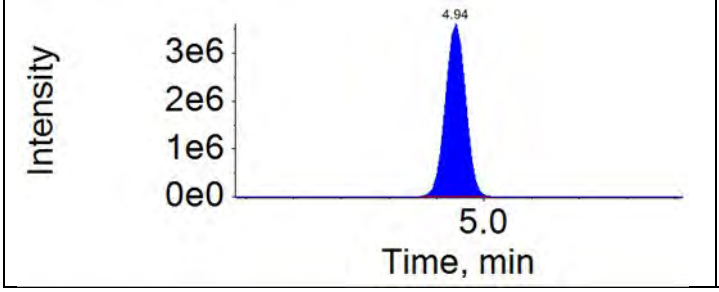


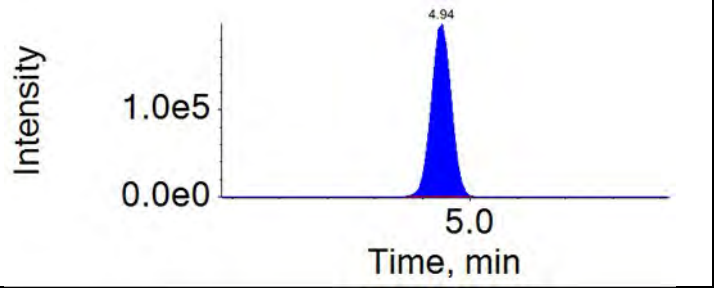
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



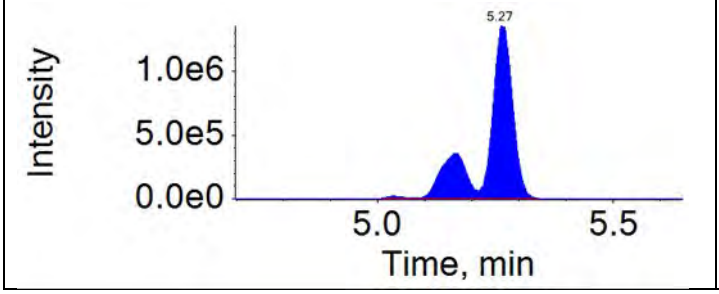


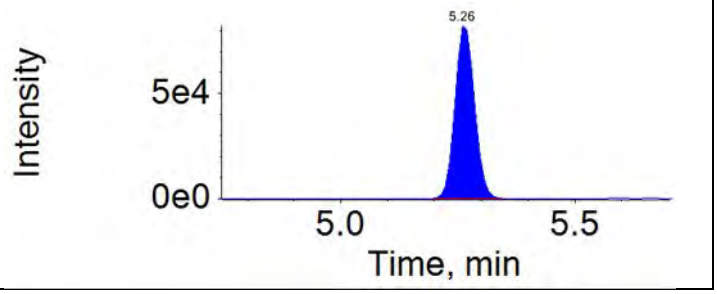
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



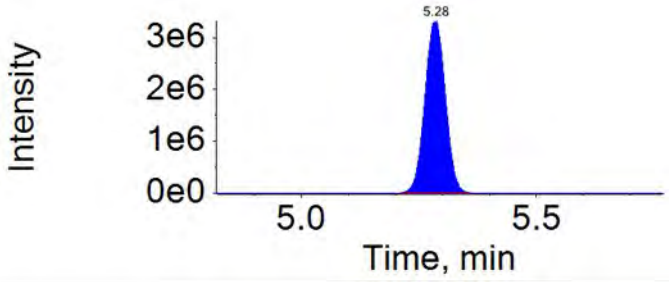


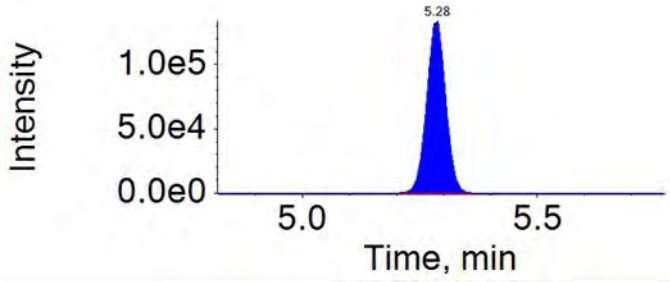
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

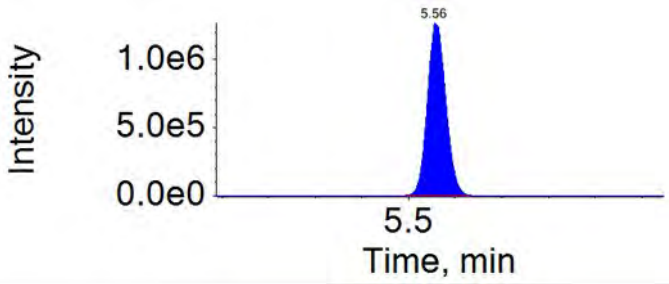
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

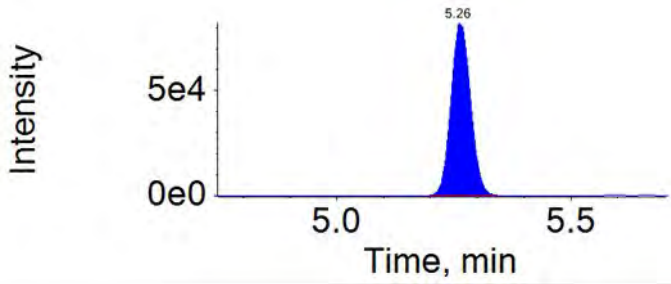
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



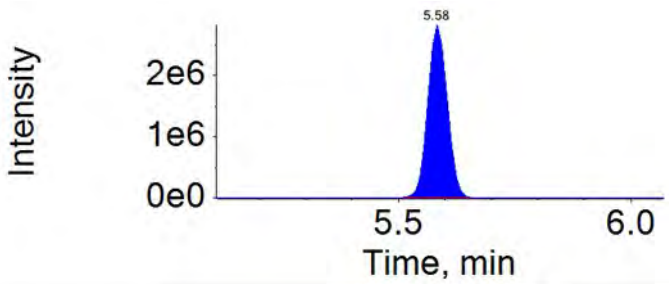


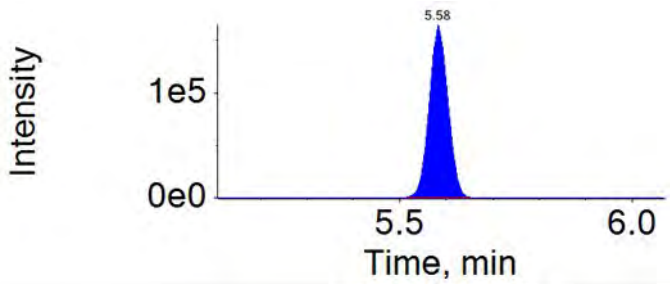
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



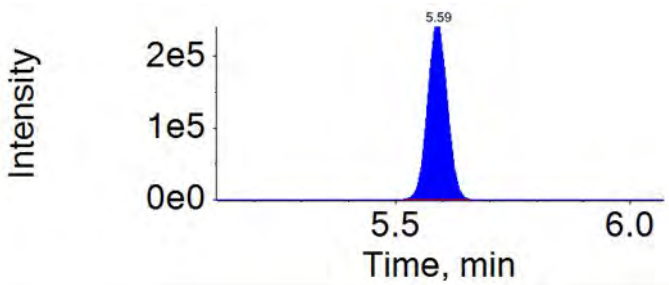


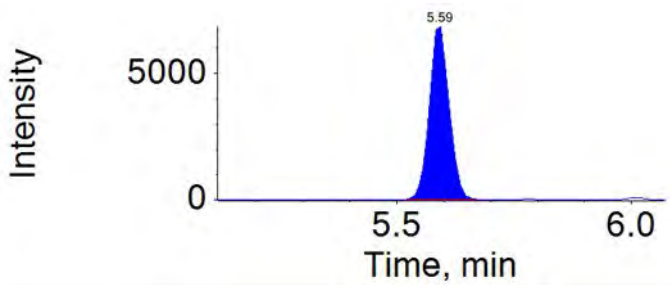
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



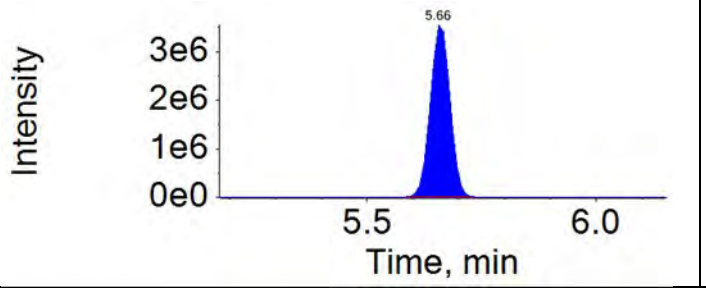


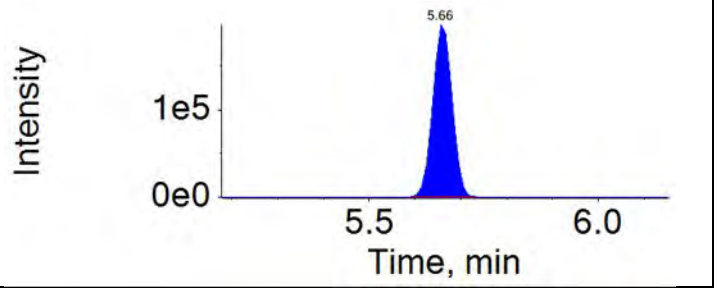
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

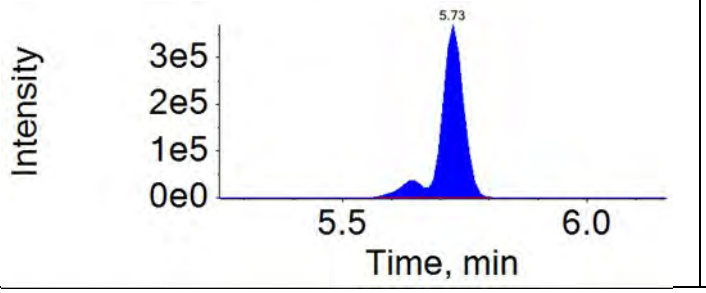
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

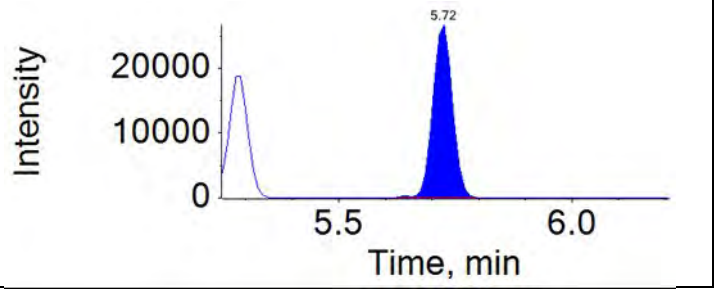
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



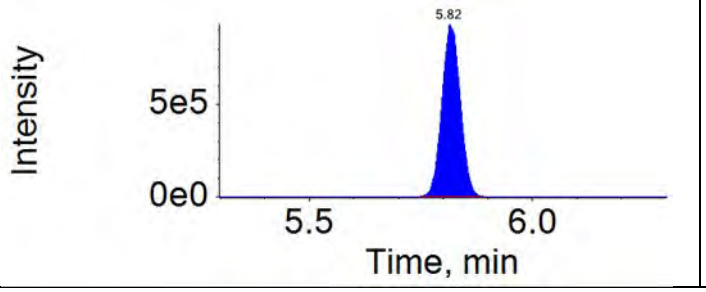


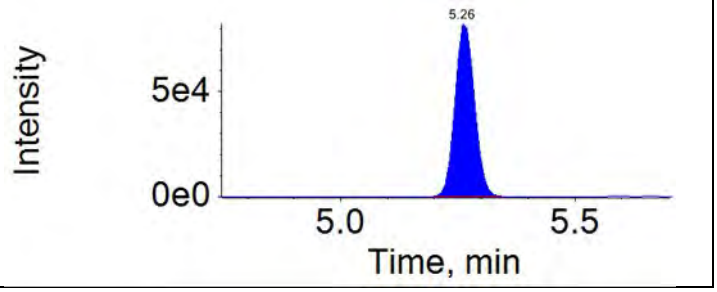
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



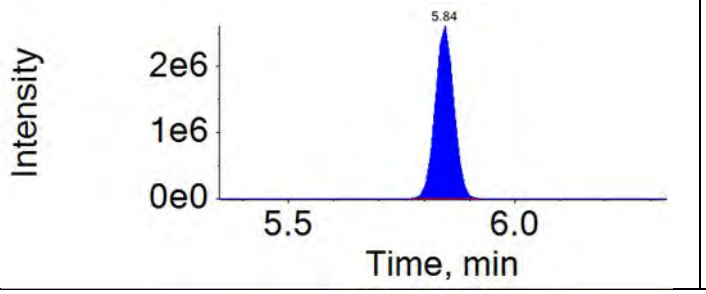


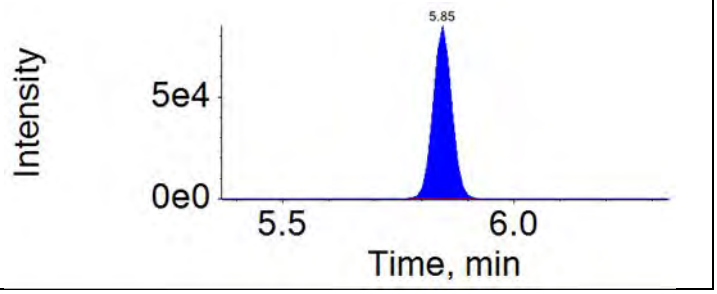
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



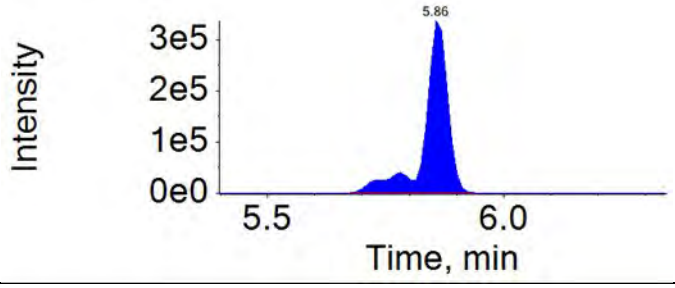


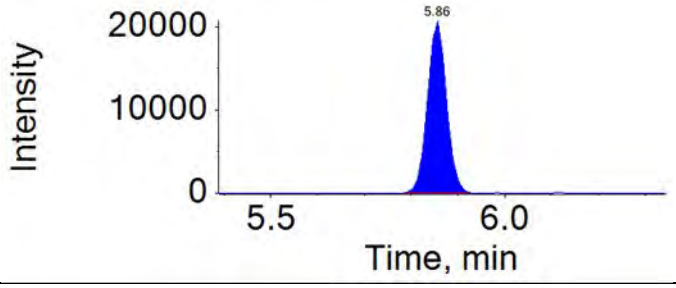
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

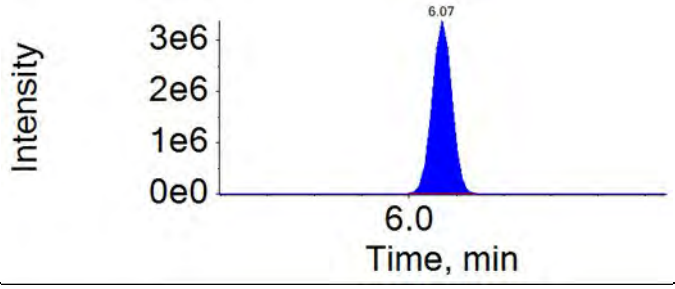
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

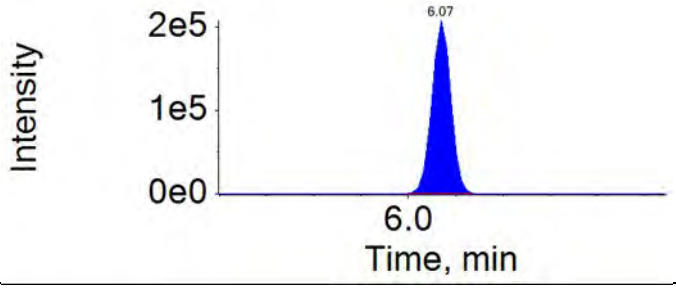
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



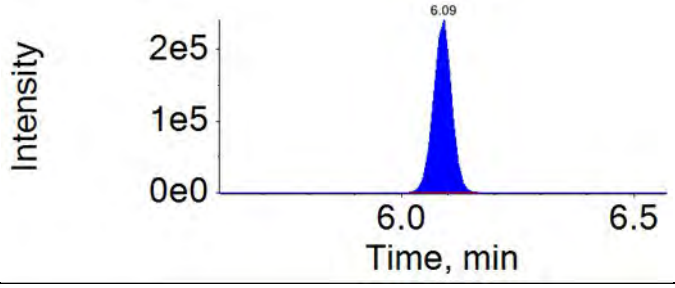


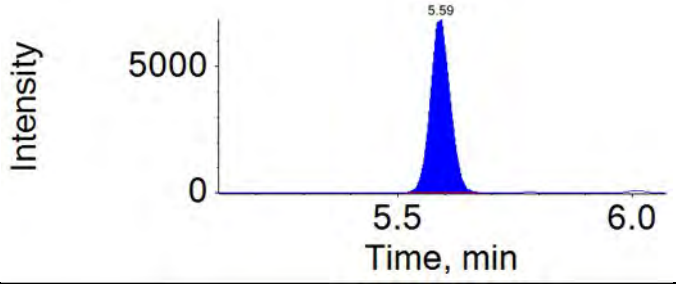
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



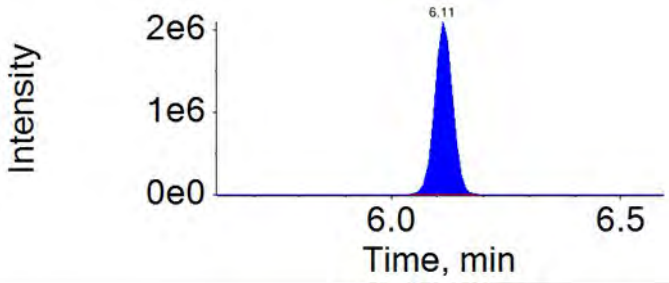


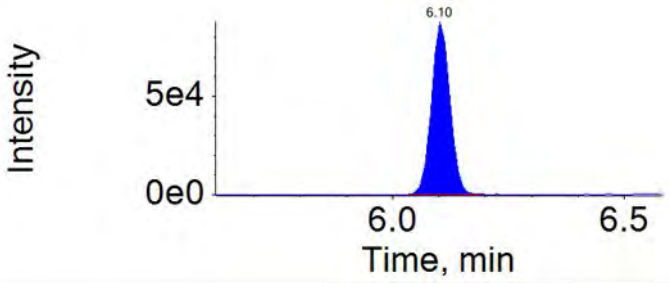
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



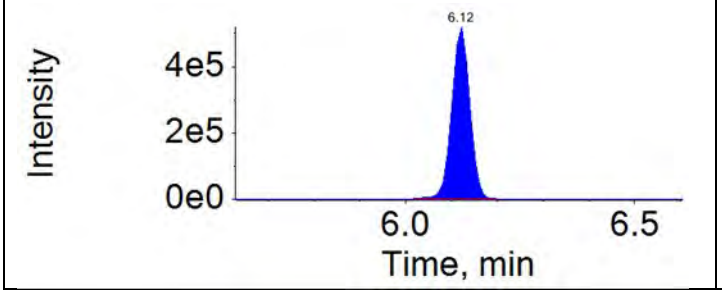


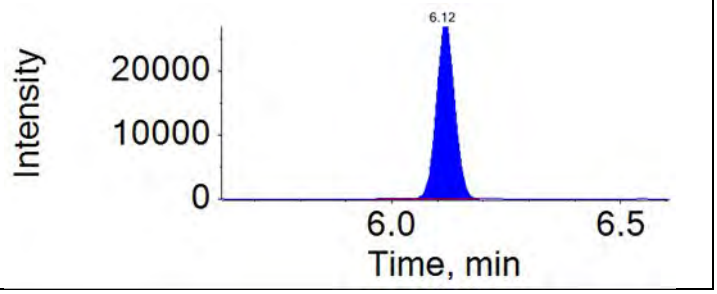
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

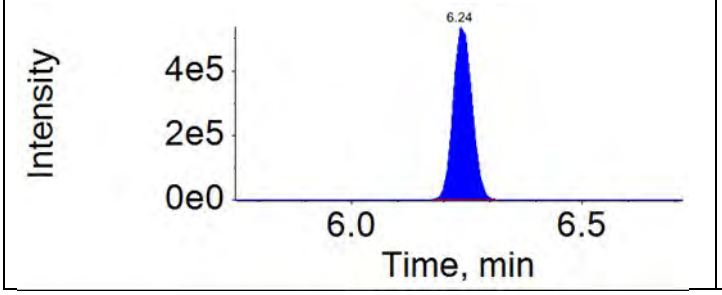
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

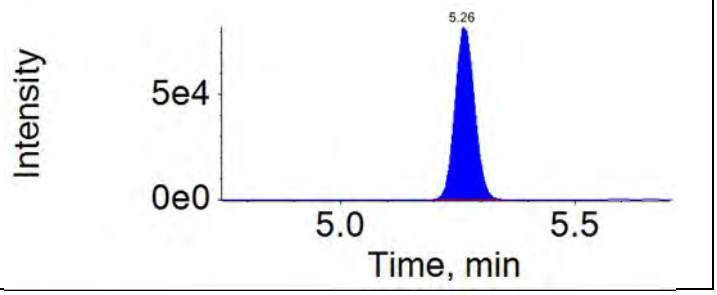
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



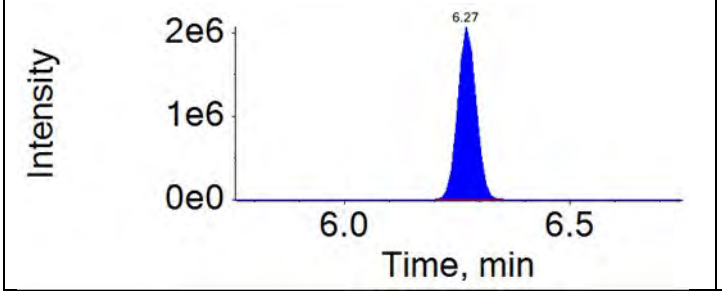


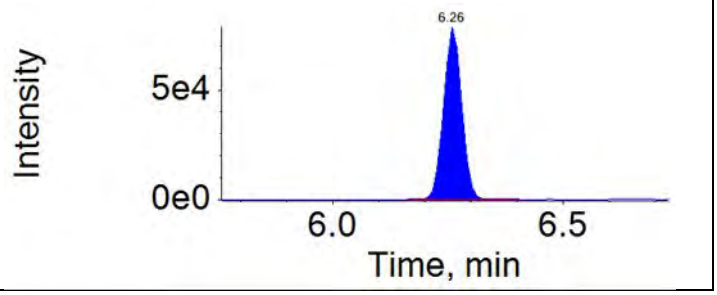
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



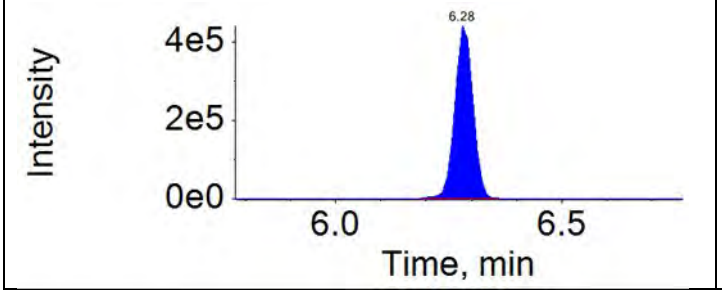


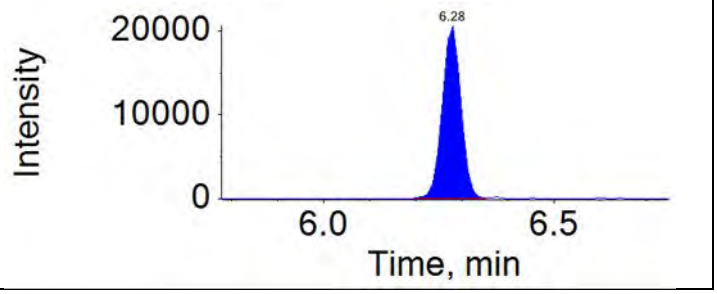
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0



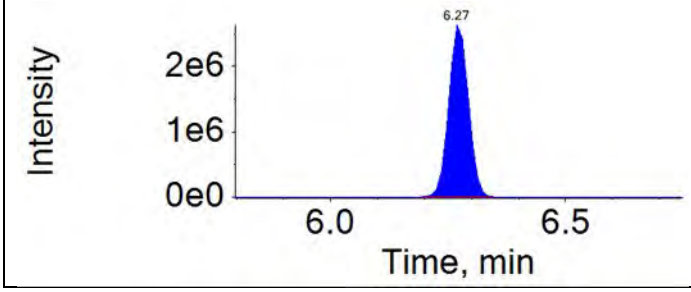
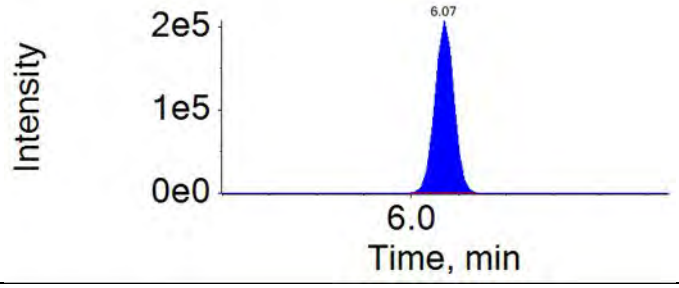


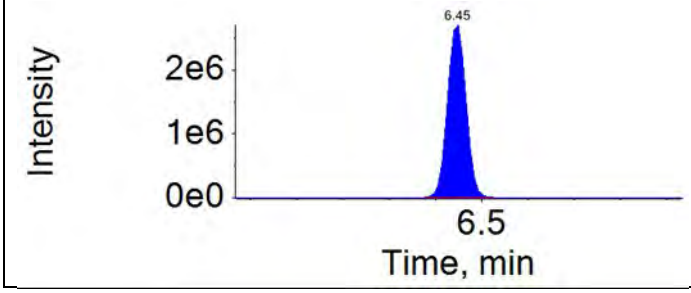
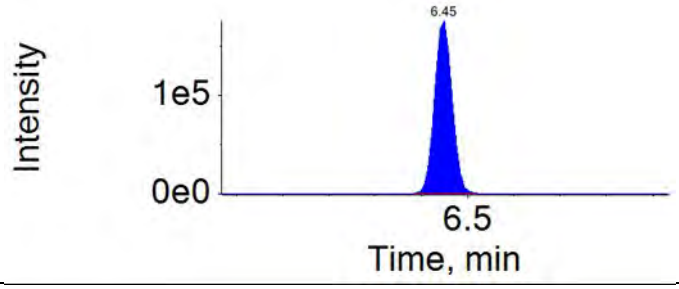
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

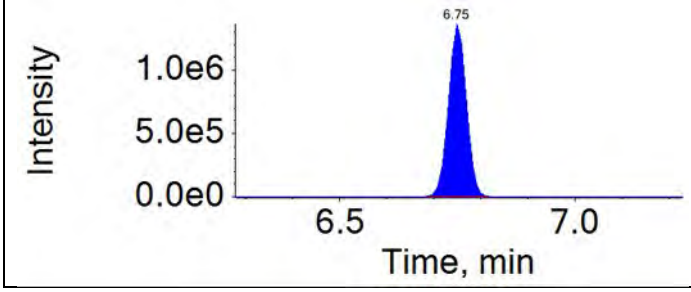
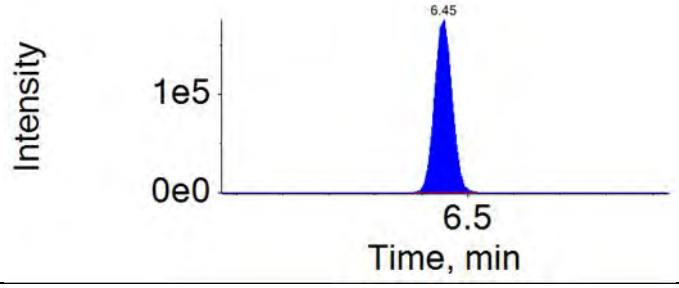


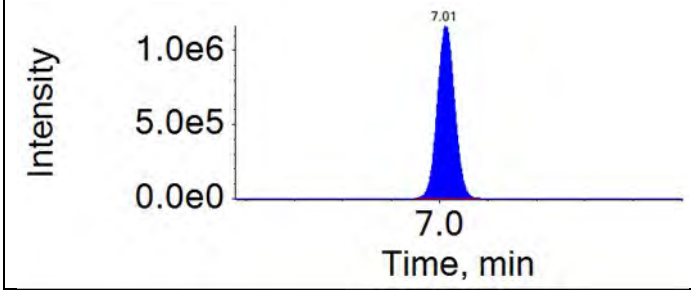
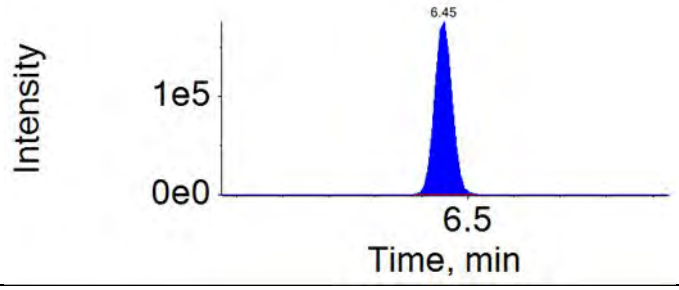


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

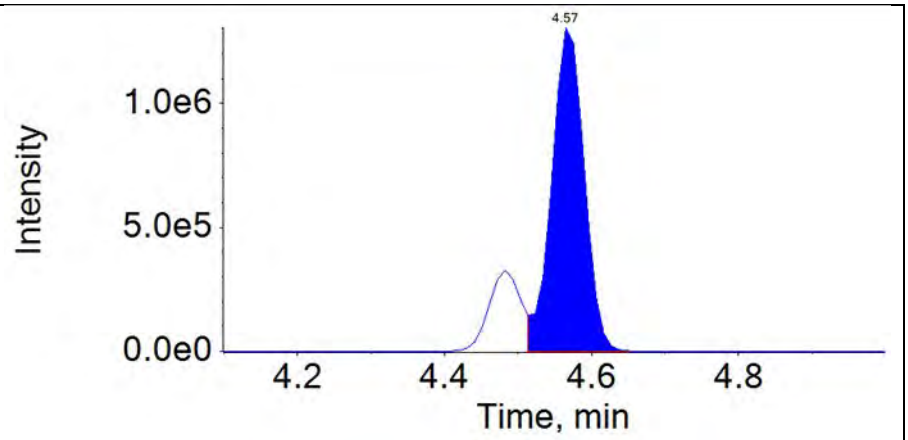
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

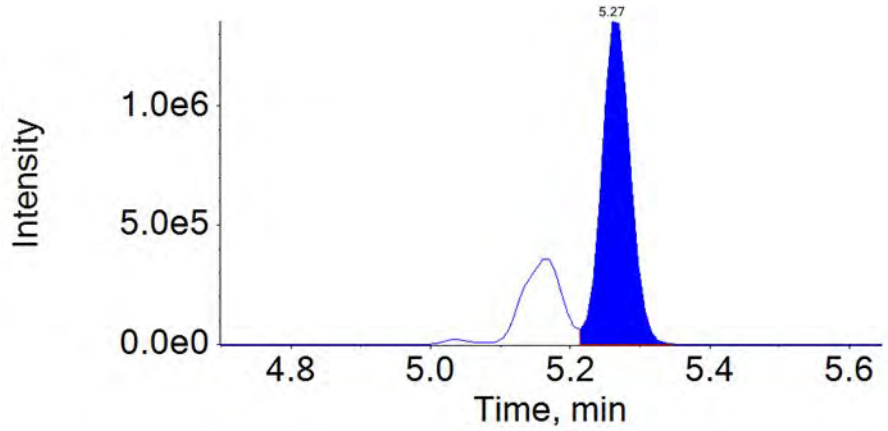
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.57
Peak Area:
4031051.04
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



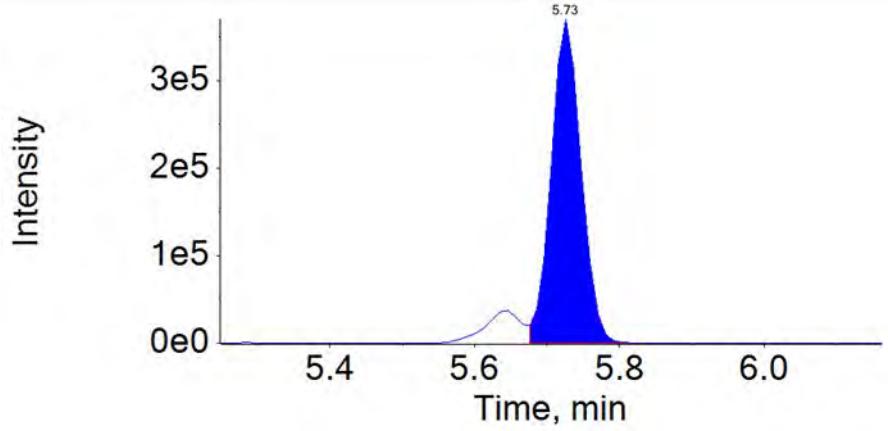
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
3902116.59
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
1060760.65
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



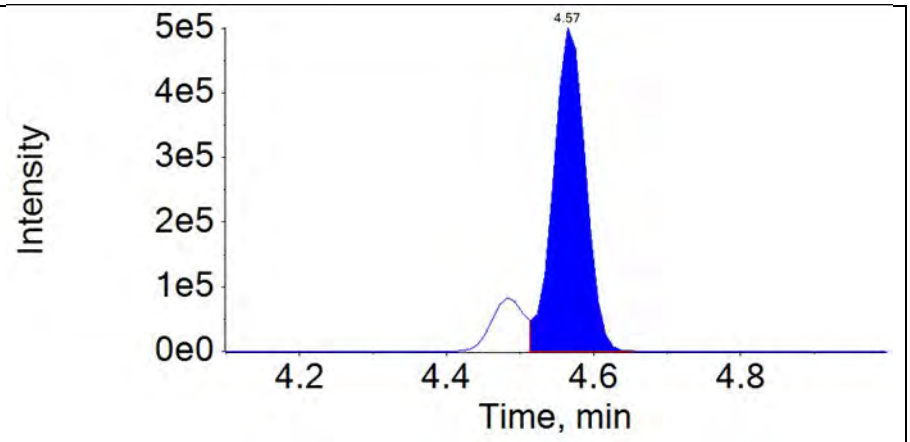
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

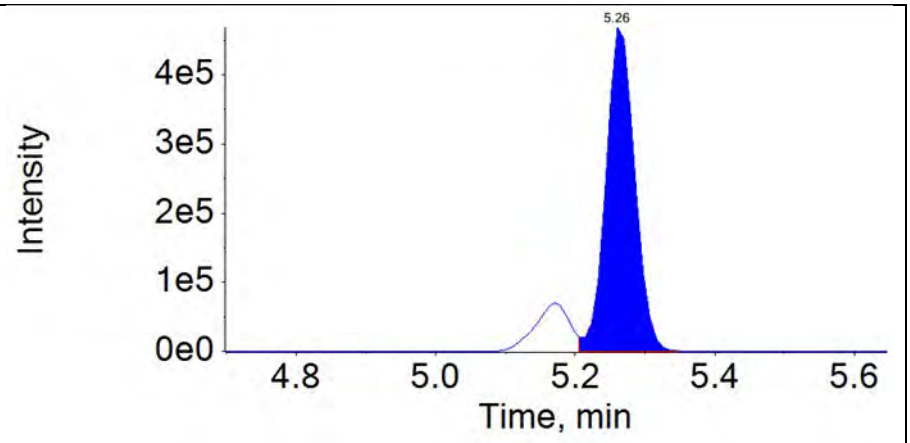
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.57
Peak Area:
1529590.52
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



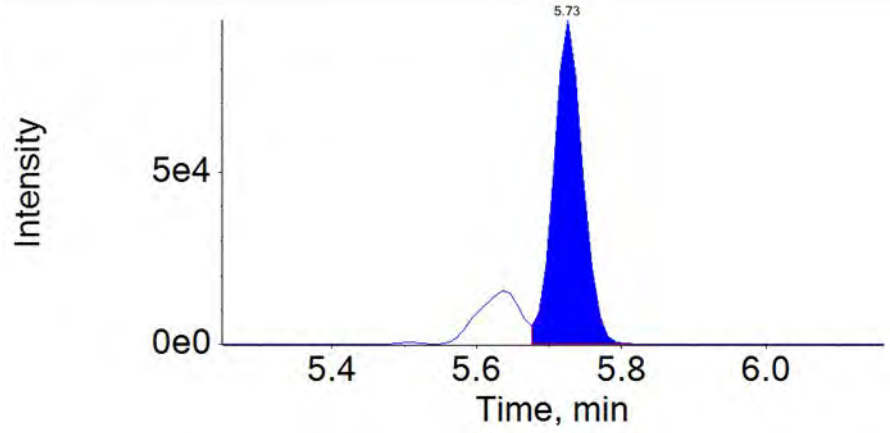
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
1355469.46
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.73
Peak Area:
262236.42
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



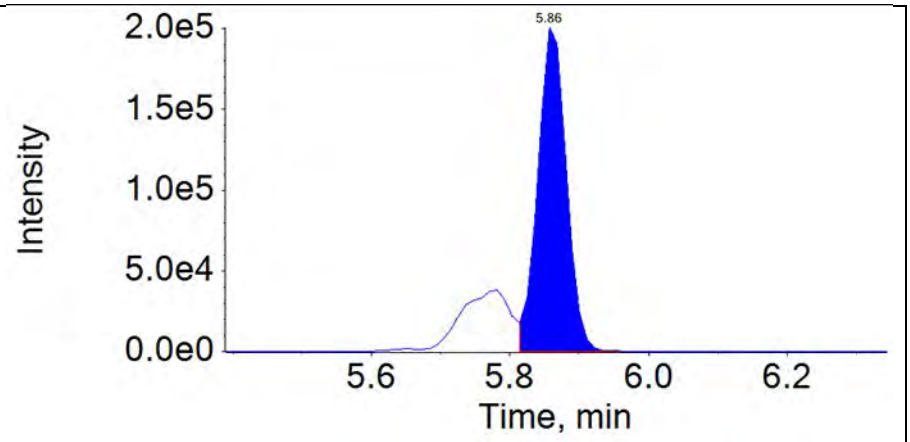
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.86
Peak Area:
577502.41
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-16.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

Sample Name: CAL7 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-16.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	6416410.11	A	1.0000	1.0000			
PFBS_2	3.82	1.00	2440873.15	A	0.3698	0.3804	3	50	
4:2-FTS	4.14	1.00	1539232.35	A	1.0000	1.0000			
4:2-FTS_2	4.14	1.00	960896.58	A	0.6536	0.6243	-4	50	
PFHxA	4.17	1.00	11109528.33	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	137030.75	A	0.0119	0.0123	4	50	
PFPeS	4.20	1.10	3503173.12	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	1824514.10	A	0.5000	0.5208	4	50	
PFHpA	4.57	1.00	10788918.08	A	1.0000	1.0000			
PFHpA_2	4.56	1.00	641266.90	A	0.0526	0.0594	13	50	
PFHxS	4.57	1.00	4992056.32	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	1779687.97	M	0.3476	0.3565	3	50	
6:2-FTS	4.92	1.00	851663.31	A	1.0000	1.0000			
6:2-FTS_2	4.92	1.00	545375.31	A	0.6372	0.6404	1	50	
PFHpS	4.93	1.08	4683948.39	A	1.0000	1.0000			
PFHpS_2	4.93	1.08	1889841.50	A	0.3956	0.4035	2	50	
PFOA	4.94	1.00	10639286.74	A	1.0000	1.0000			
PFOA_2	4.94	1.00	666833.54	A	0.0618	0.0627	1	50	
PFOS	5.27	1.00	5373855.06	M	1.0000	1.0000			
PFOS_2	5.26	1.00	1593586.65	M	0.2940	0.2965	1	50	
PFNA	5.28	1.00	10107793.50	A	1.0000	1.0000			
PFNA_2	5.28	1.00	215331.16	A	0.0196	0.0213	9	50	
PFNS	5.56	1.06	3498137.72	A	1.0000	1.0000			
PFNS_2	5.56	1.06	1592632.88	A	0.4676	0.4553	-3	50	
PFDA	5.58	1.00	8197558.45	A	1.0000	1.0000			
PFDA_2	5.58	1.00	60915.22	A	0.0073	0.0074	2	50	
8:2-FTS	5.59	1.00	721887.34	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	416106.80	A	0.6049	0.5764	-5	50	
NMeFOSAA	5.73	1.00	1193734.46	M	1.0000	1.0000			
NMeFOSAA_2	5.73	1.00	325761.45	M	0.2642	0.2729	3	50	
PFDS	5.82	1.11	2682689.60	A	1.0000	1.0000			
PFDS_2	5.82	1.11	1288226.10	A	0.4948	0.4802	-3	50	
PFUnDA	5.84	1.00	7502298.21	A	1.0000	1.0000			
PFUnDA_2	5.84	1.00	27304.87	A	0.0046	0.0036	-20	50	
NEtFOSAA	5.86	1.00	1153919.54	A	1.0000	1.0000			
NEtFOSAA_2	5.86	1.00	764013.69	M	0.7504	0.6621	-12	50	
PFDoDA	6.07	1.00	9821468.98	A	1.0000	1.0000			
PFDoDA_2	6.07	1.00	137880.87	A	0.0143	0.0140	-2	50	
10:2-FTS	6.09	1.09	657657.32	A	1.0000	1.0000			
10:2-FTS_2	6.09	1.09	437153.01	A	0.7003	0.6647	-5	50	
PFTrDA	6.27	1.03	7671443.41	A	1.0000	1.0000			
PFTrDA_2	6.27	1.03	77331.54	A	0.0099	0.0101	2	50	
PFTeDA	6.45	1.00	7600731.95	A	1.0000	1.0000			
PFTeDA_2	6.44	1.00	53795.62	A	0.0057	0.0071	24	50	
PFHxDA	6.75	1.05	3591194.76	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	221784.58	A	0.0617	0.0618	0	50	
PFODA	7.01	1.09	2920335.34	A	1.0000	1.0000			
PFODA_2	7.01	1.09	76716.46	A	0.0266	0.0263	-1	50	

APPROVED
By MSM at 10:22 am, 12/4/18

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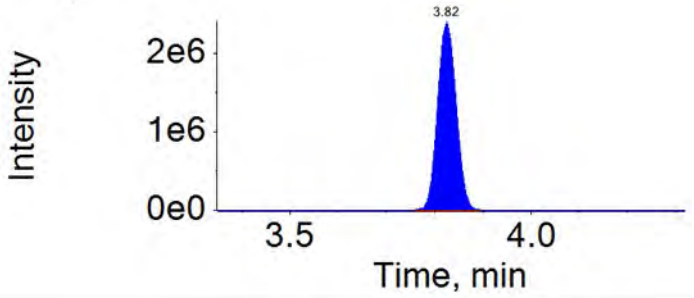
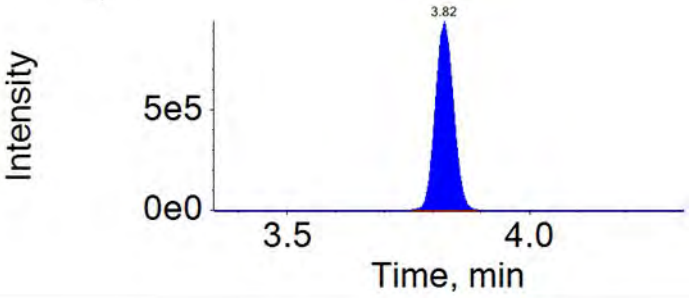
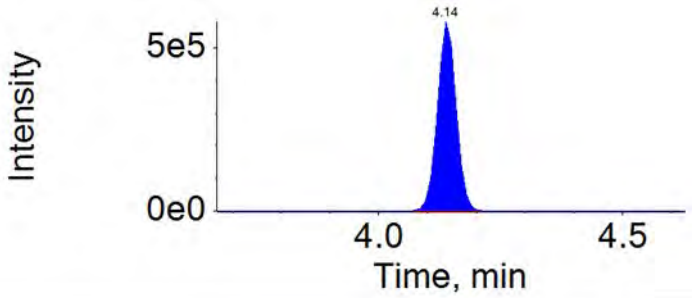
Component: PFBS
Primary Mass: 299.0 / 80.0



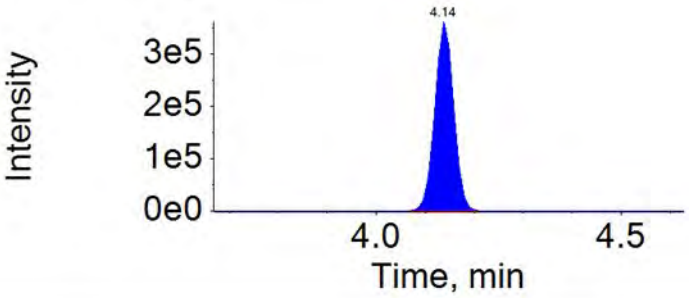
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



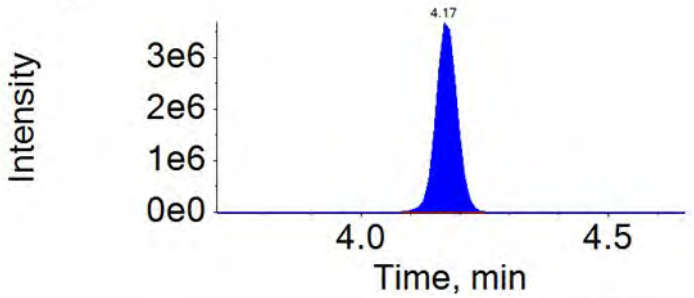
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



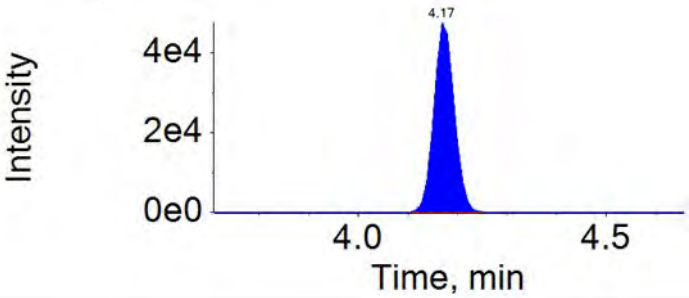
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



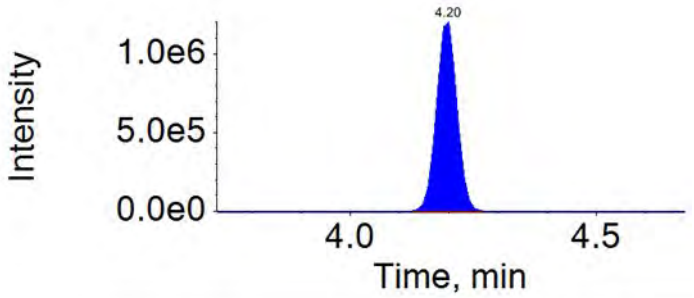
Component: PFHxA
Primary Mass: 313.0 / 269.0



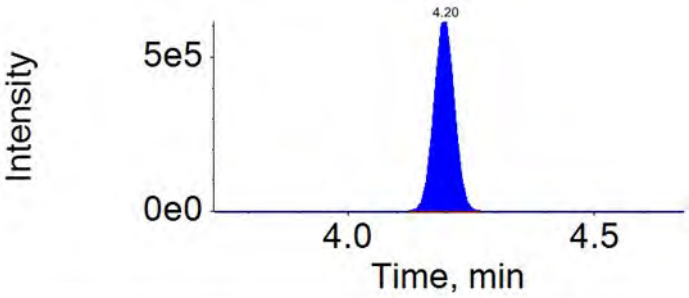
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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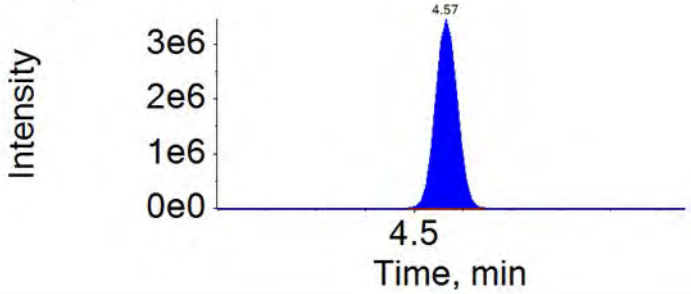
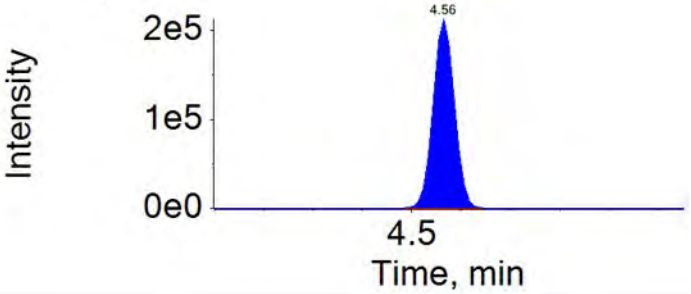
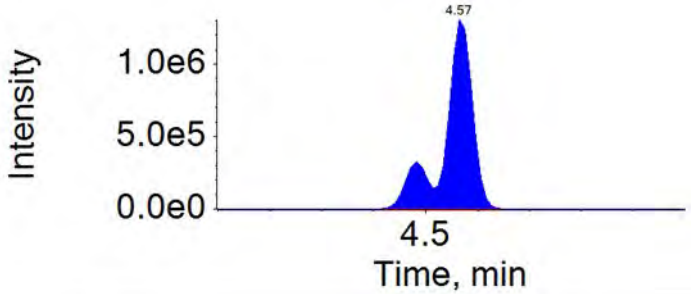
Component: PFHpA
Primary Mass: 363.0 / 319.0



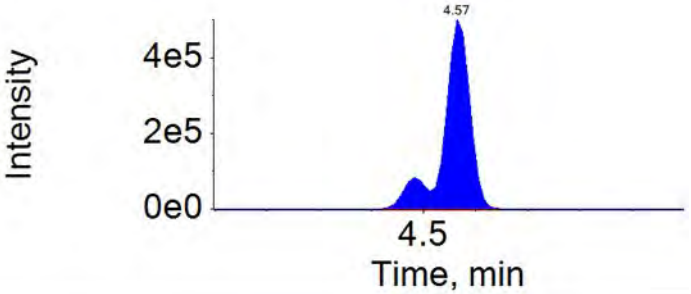
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



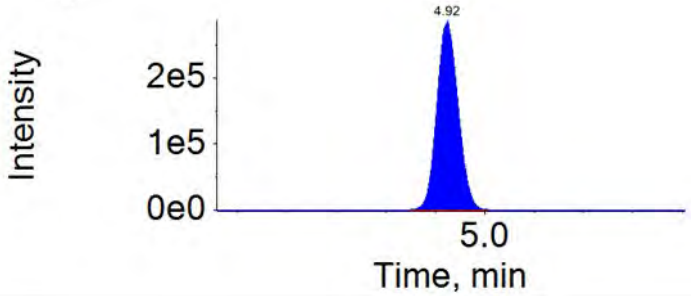
Component: PFHxS
Primary Mass: 399.0 / 80.0



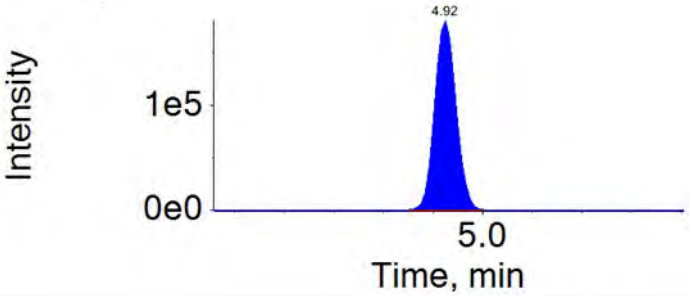
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



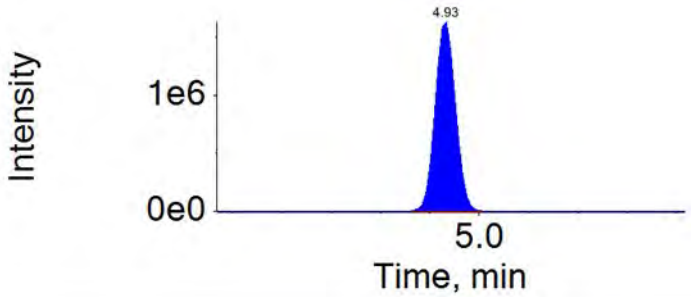
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



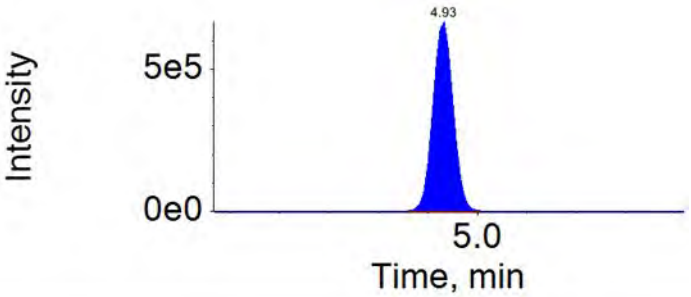
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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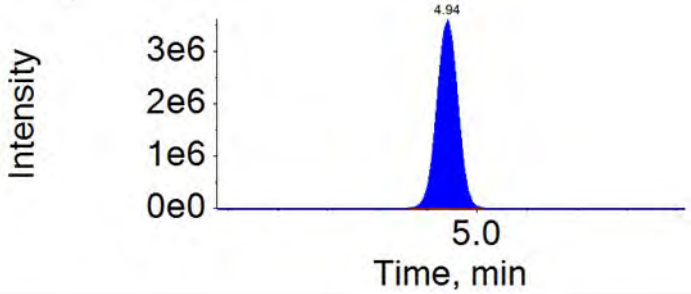
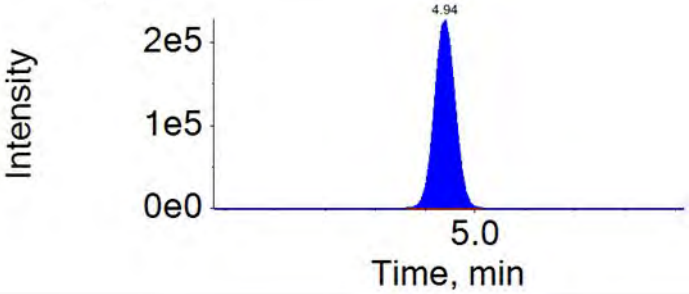
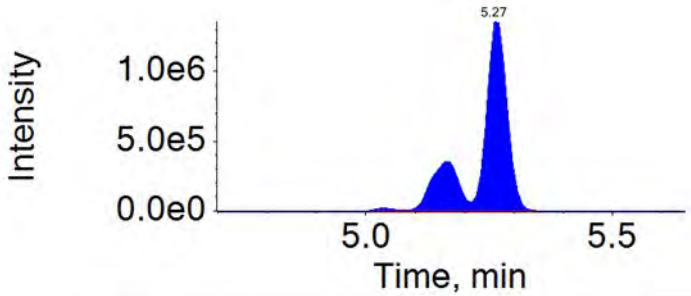
Component: PFOA
Primary Mass: 413.0 / 369.0



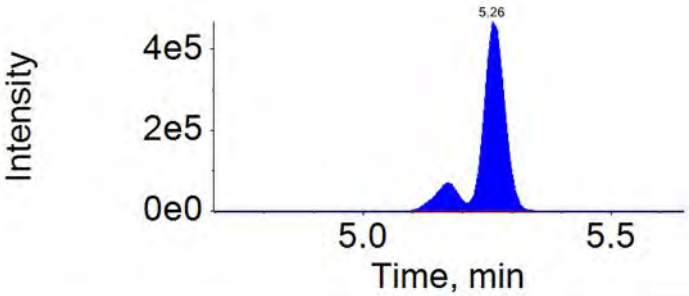
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



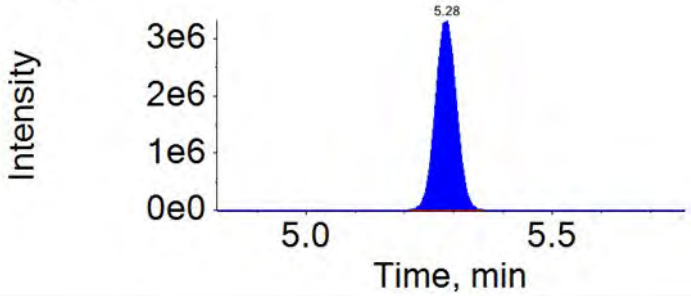
Component: PFOS
Primary Mass: 499.0 / 80.0



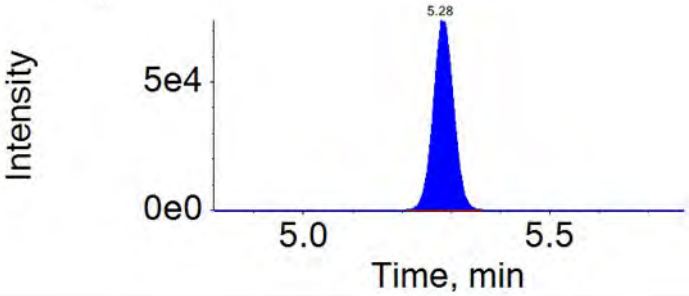
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



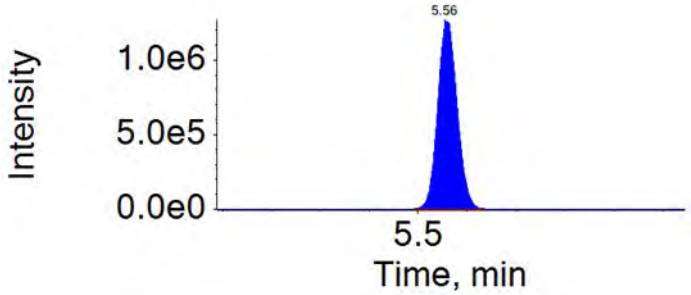
Component: PFNA
Primary Mass: 463.0 / 419.0



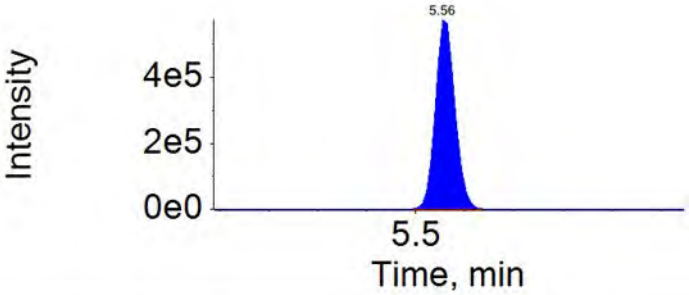
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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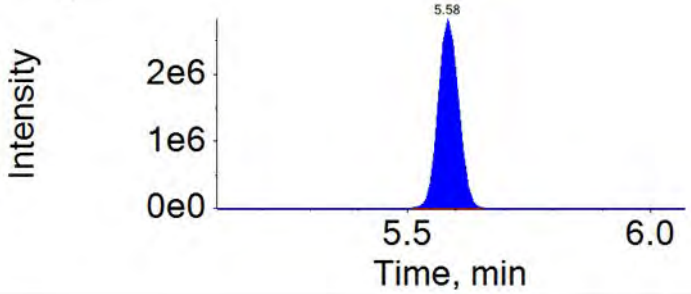
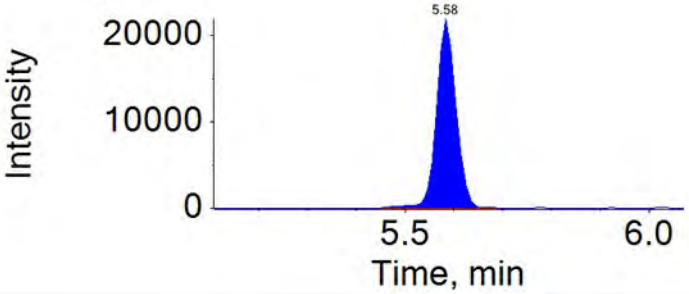
By umar at 4:03 pm, 12/4/18

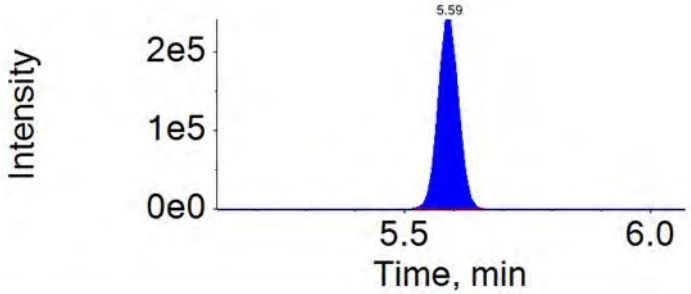
Component: PFDA
Primary Mass: 513.0 / 469.0



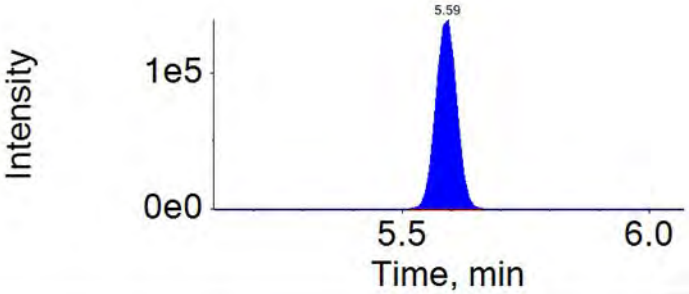
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



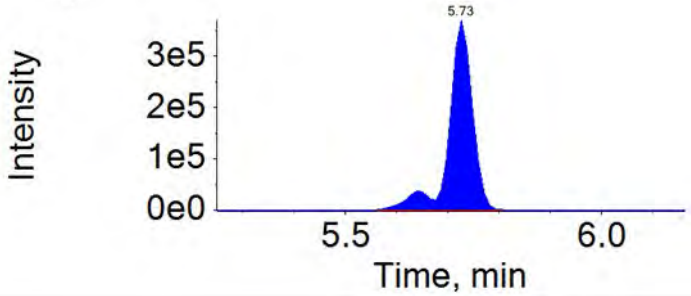
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



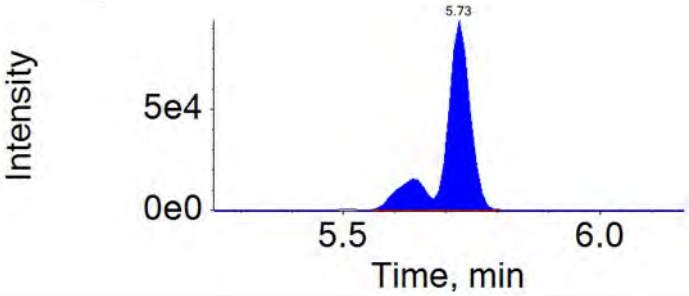
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



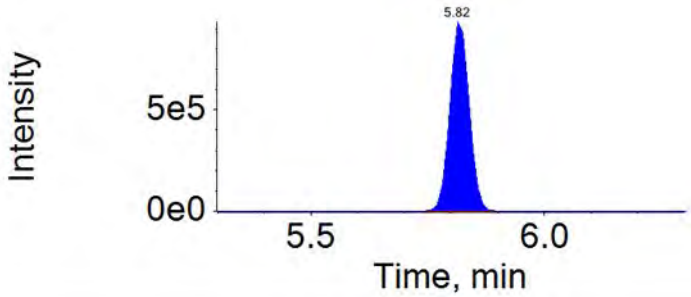
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



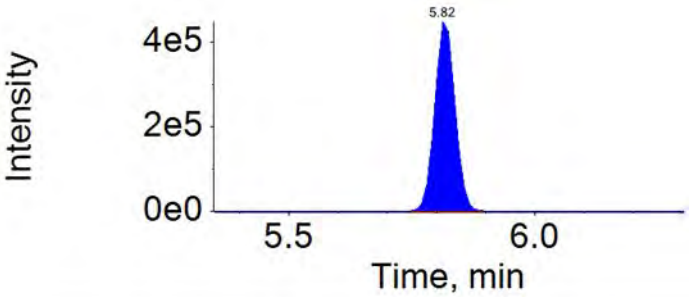
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



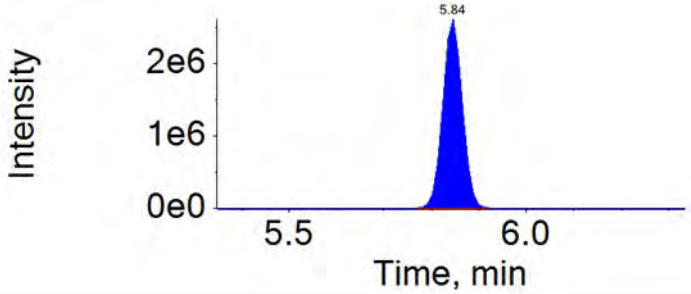
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



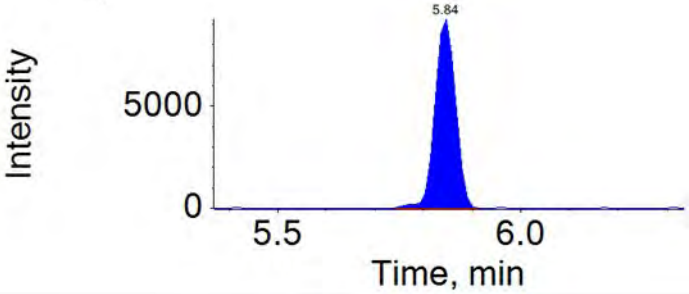
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

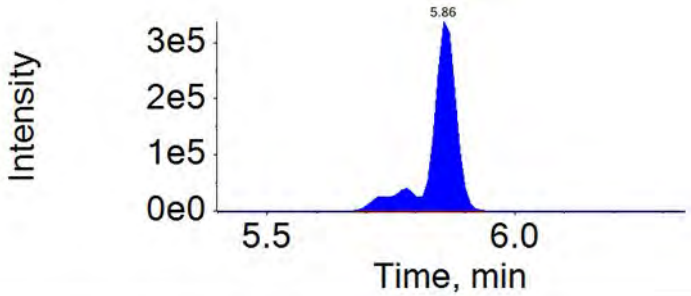
Component: PFUnDA
Primary Mass: 563.0 / 519.0



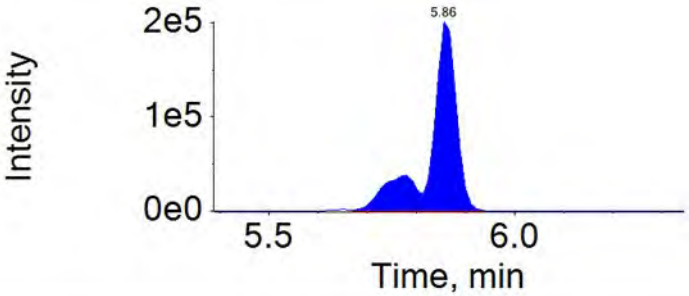
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



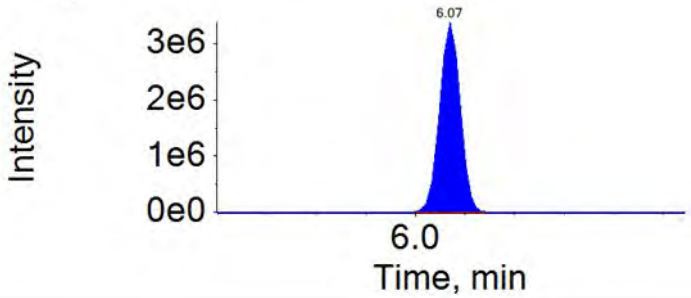
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



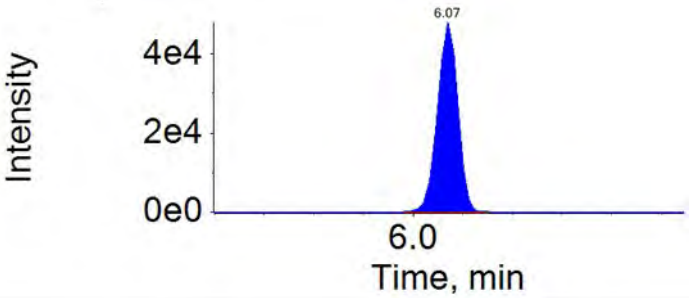
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



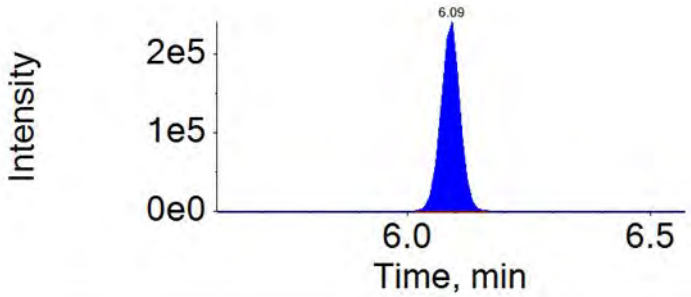
Component: PFDoDA
Primary Mass: 613.0 / 569.0



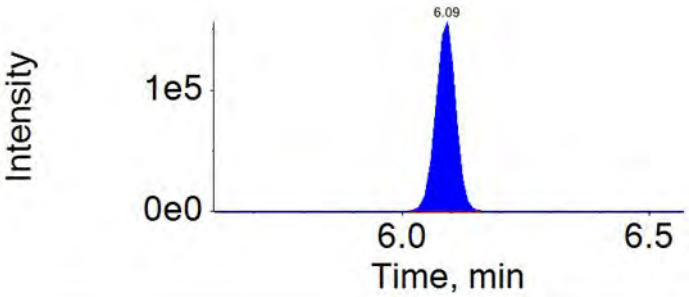
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



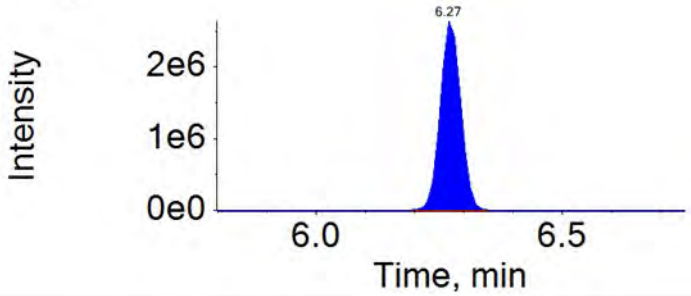
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



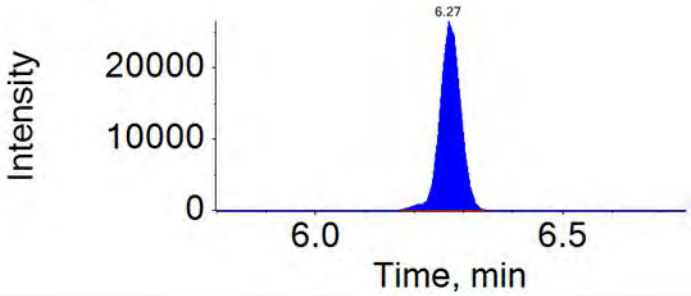
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

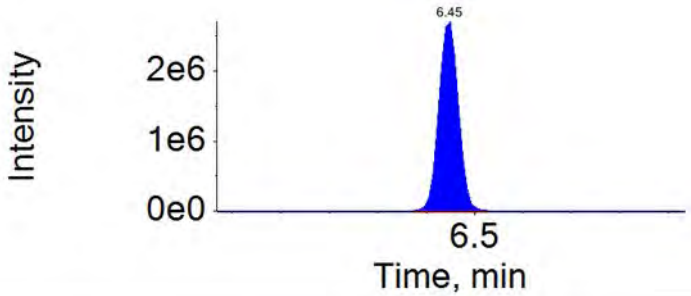
Component: PFTrDA
Primary Mass: 663.0 / 619.0



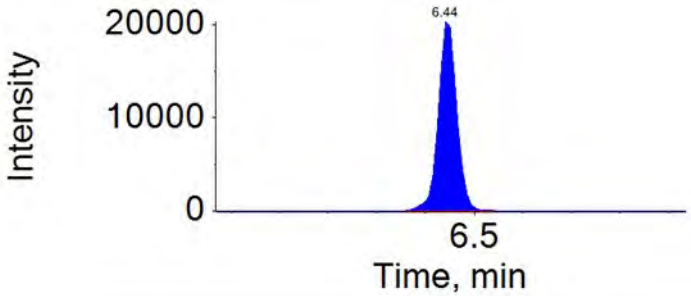
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



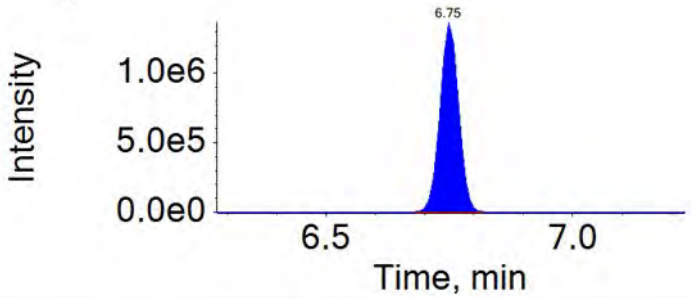
Component: PFTeDA
Primary Mass: 713.0 / 669.0



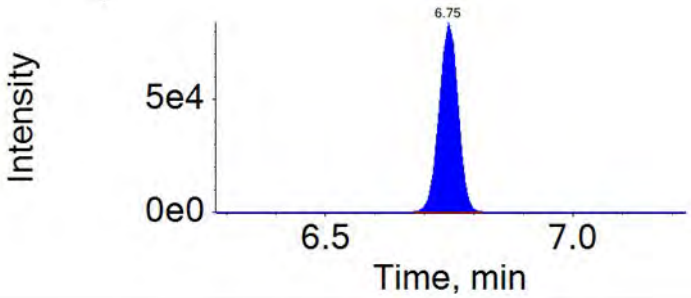
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



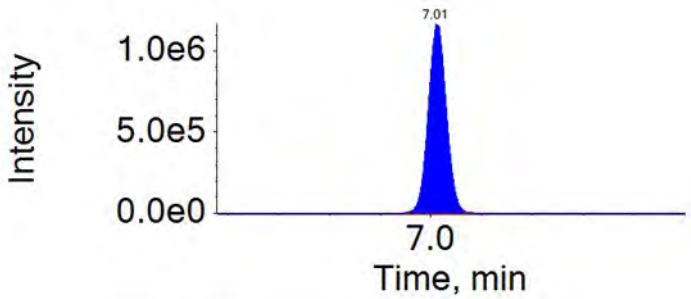
Component: PFHxDA
Primary Mass: 813.0 / 769.0



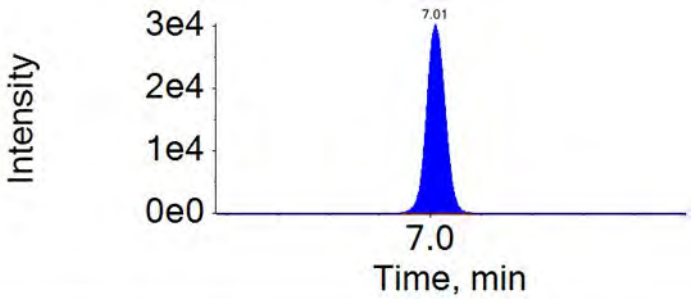
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18DEC03DCAL-17.wiff
Sample ID:	methanol + labels			**Acquis Date:**		2018-12-03T18:38:14
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	872493.3	749775.9	16	50	
13C2-PFOA	5.0	486473.8	434072.7	12	50	
13C4-PFOS	4.8	315945.4	261136.3	21	50	
13C2-PFDA	5.0	372746.3	305281.8	22	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	928672.2	13C3-PFBA	872493.3	1.064	5.000	4.724	94	70-130	
E13C5-PFPeA	833530.8	13C3-PFBA	872493.3	0.955	5.000	4.610	92	70-130	
E13C3-PFBS	456727.1	13C3-PFBA	872493.3	0.523	4.650	4.079	88	70-130	
E13C2-4:2-FTS	61552.7	13C2-PFOA	486473.8	0.127	4.670	5.205	111	70-130	
E13C5-PFHxA	688717.3	13C2-PFOA	486473.8	1.416	5.000	4.794	96	70-130	
E13C3-PFHxS	356426.7	13C2-PFOA	486473.8	0.733	4.730	4.632	98	70-130	
E13C4-PFHpA	514024.5	13C2-PFOA	486473.8	1.057	5.000	4.610	92	70-130	
E13C2-6:2-FTS	37596.7	13C2-PFOA	486473.8	0.077	4.750	5.122	108	70-130	
E13C8-PFOA	938923.8	13C2-PFOA	486473.8	1.930	5.000	5.365	107	70-130	
E13C8-PFOS	330158.2	13C4-PFOS	315945.4	1.045	4.780	4.641	97	70-130	
E13C9-PFNA	516558.3	13C4-PFOS	315945.4	1.635	5.000	4.785	96	70-130	
E13C6-PFDA	693936.7	13C2-PFDA	372746.3	1.862	5.000	4.842	97	70-130	
E13C2-8:2-FTS	26100.5	13C2-PFDA	372746.3	0.070	4.790	4.502	94	70-130	
E13C8-PFOSA	764319.3	13C2-PFDA	372746.3	2.051	5.000	4.590	92	70-130	
Ed3-NMeFOSAA	112238.9	13C2-PFDA	372746.3	0.301	5.000	5.260	105	70-130	
E13C7-PFUnDA	349718.0	13C2-PFDA	372746.3	0.938	5.000	4.673	93	70-130	
Ed5-NEtFOSAA	67919.5	13C2-PFDA	372746.3	0.182	5.000	4.157	83	70-130	
E13C2-PFDoDA	789451.4	13C2-PFDA	372746.3	2.118	5.000	4.535	91	70-130	
Ed7-NMePFOSAE	304108.5	13C2-PFDA	372746.3	0.816	5.000	4.424	88	70-130	
Ed3-NMePFOSA	91761.0	13C2-PFDA	372746.3	0.246	5.000	4.565	91	70-130	
Ed9-NEtPFOSAE	252301.5	13C2-PFDA	372746.3	0.677	5.000	4.366	87	70-130	
Ed5-NEtPFOSA	78153.4	13C2-PFDA	372746.3	0.210	5.000	4.946	99	70-130	
E13C2-PFTeDA	585721.5	13C2-PFDA	372746.3	1.571	5.000	4.429	89	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

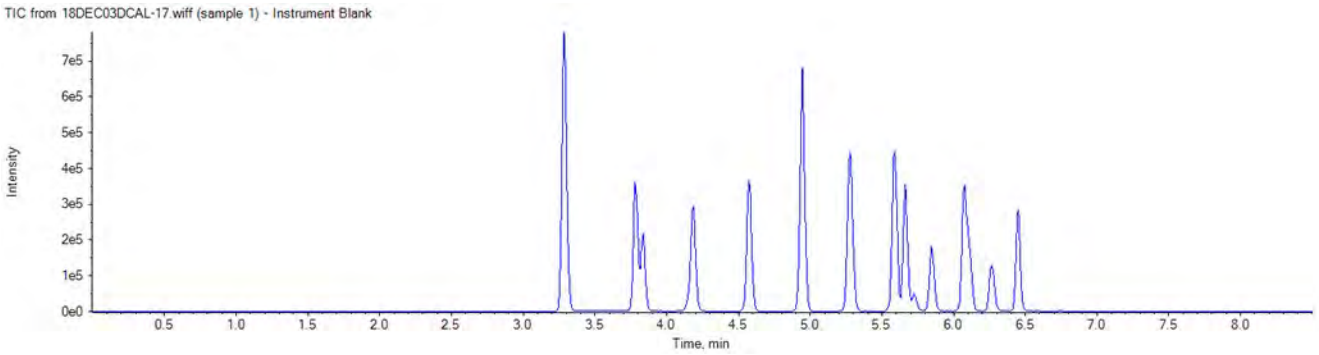
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-17.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.29	928672.2	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.79	833530.8	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.84	456727.1	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.15	61552.7	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.18	688717.3	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.84	456727.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.57	514024.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.58	356426.7	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.94	37596.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.58	356426.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.95	938923.8	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.27	330158.2	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.29	516558.3	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.27	330158.2	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.59	693936.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.59	26100.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.66	764319.3	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.73	112238.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.27	330158.2	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.85	349718.0	N/A	
NEtFOSAA	5.86	1.000	1425.4		M	d5-NEtFOSAA	5.86	67919.5	0.021	0.106
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.07	789451.4	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.59	26100.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.11	304108.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.12	91761.0	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.27	330158.2	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.26	252301.5	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.28	78153.4	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.07	789451.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.45	585721.5	N/A	
PFHxDA	6.75	1.050	3720.0		A	13C2-PFTeDA	6.45	585721.5	0.006	0.082
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.45	585721.5	N/A	

Total Ion Chromatogram

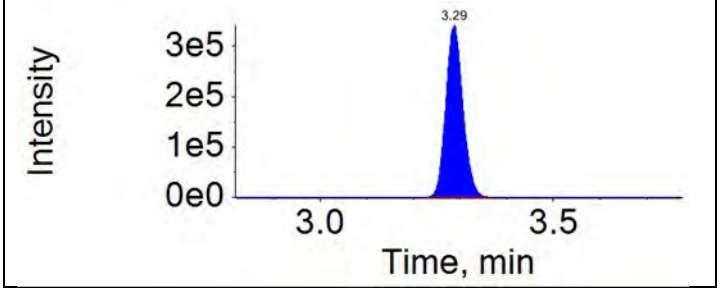


APPROVED
By MSM at 10:22 am, 12/4/18

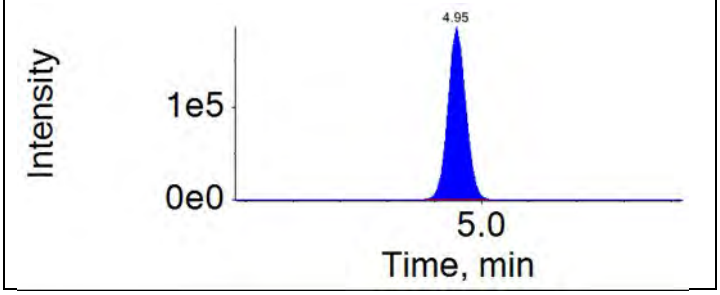
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

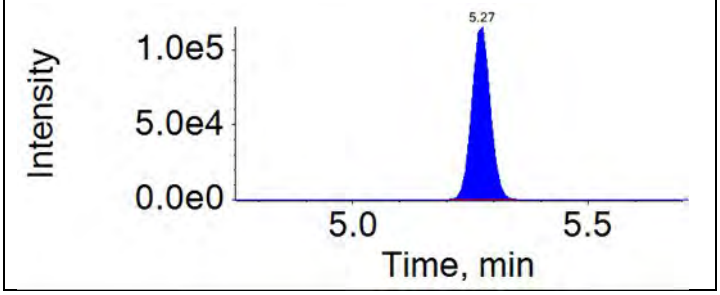
Injection Standard: 13C3-PFBA
216.0 / 172.0



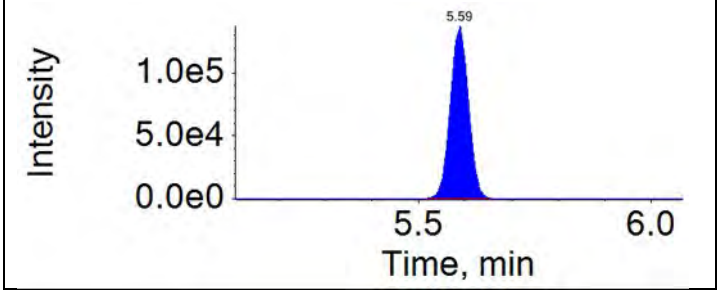
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

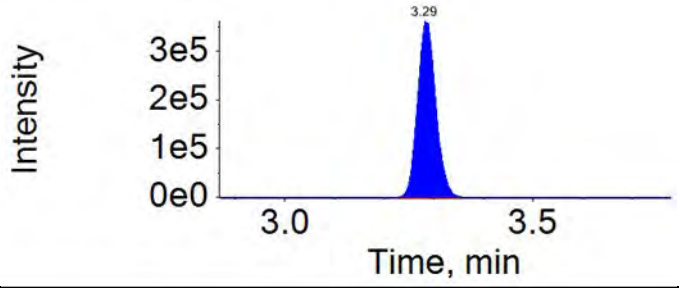


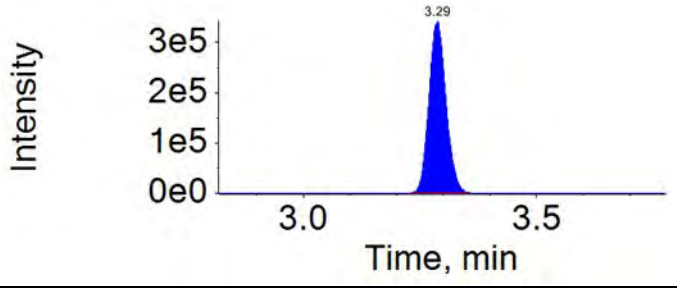
Injection Standard: 13C2-PFDA
515.0 / 470.0



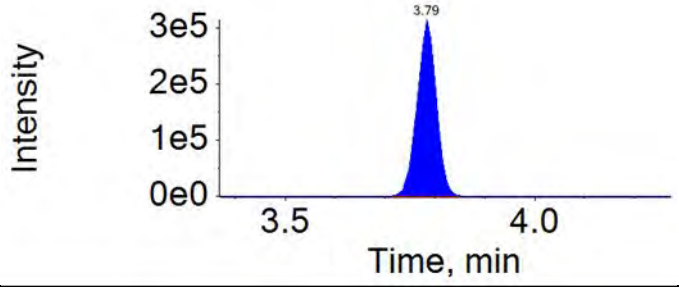
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

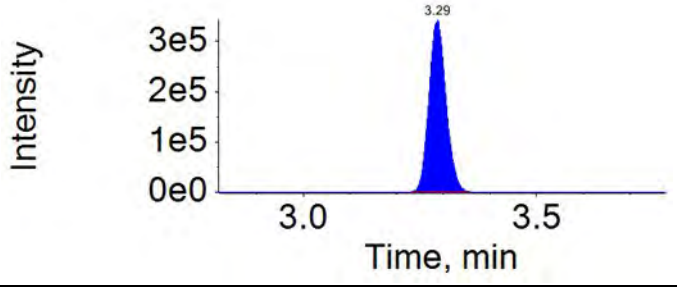
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



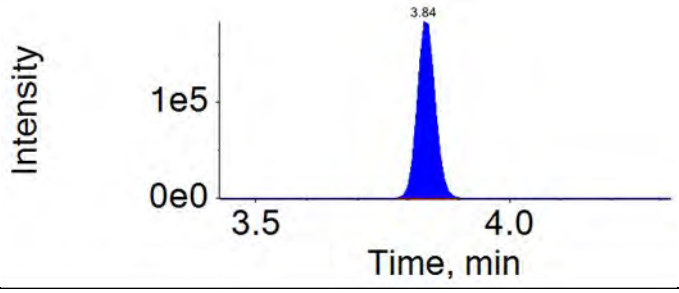


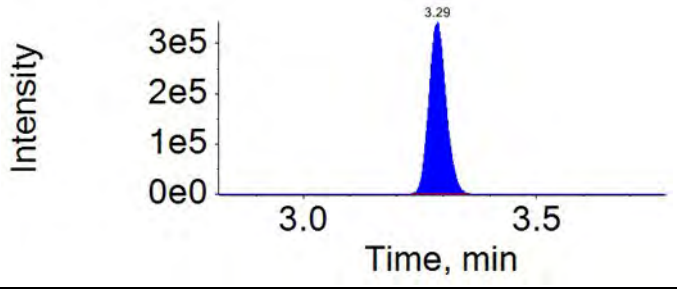
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



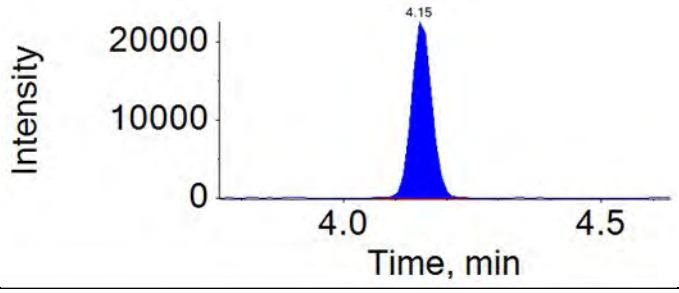


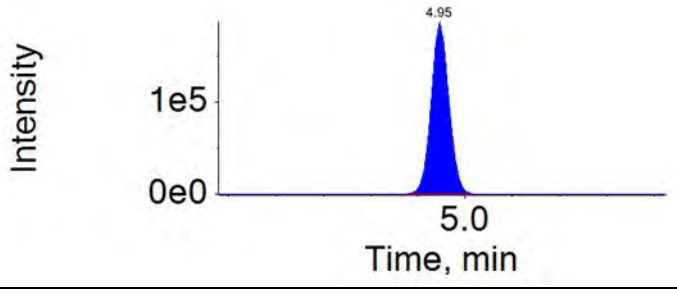
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



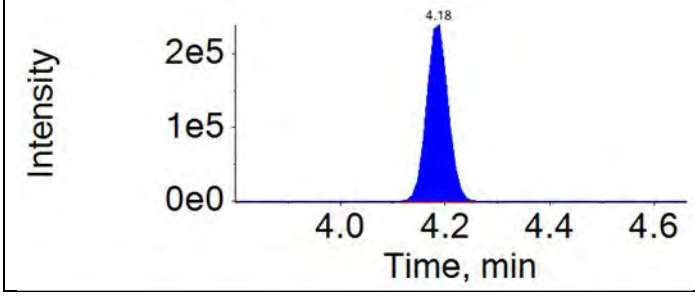


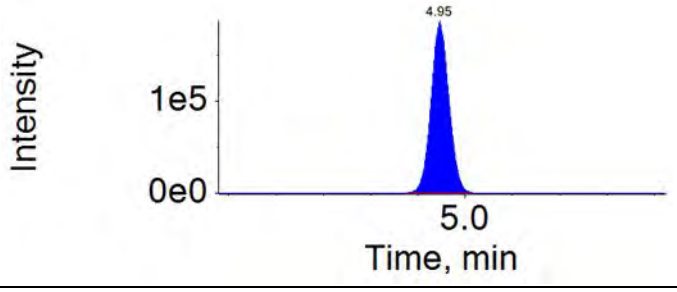
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

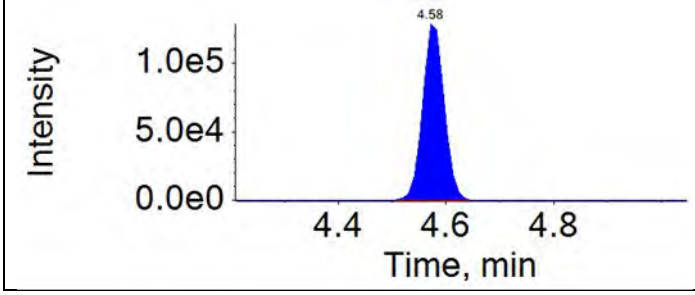
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

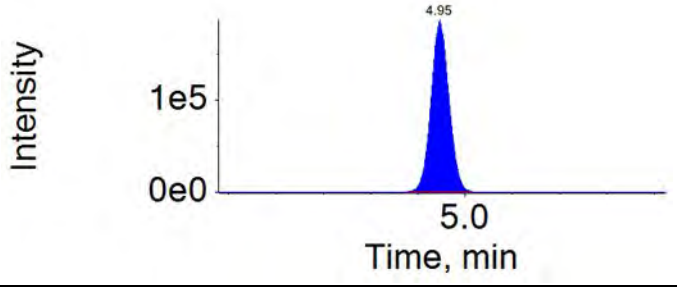
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



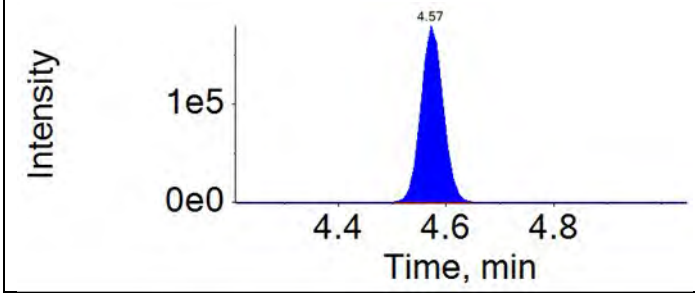


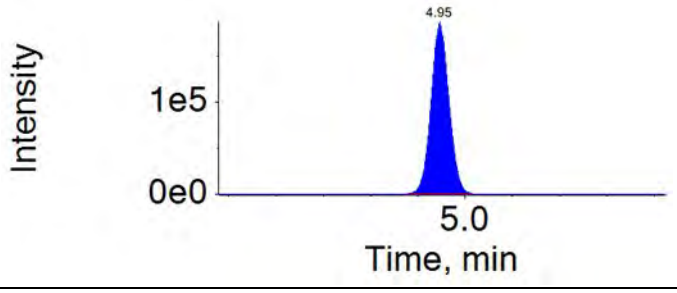
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



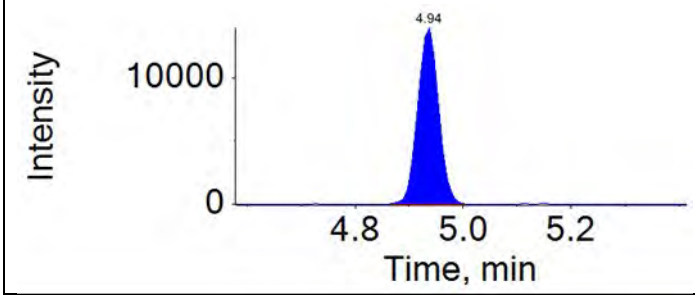


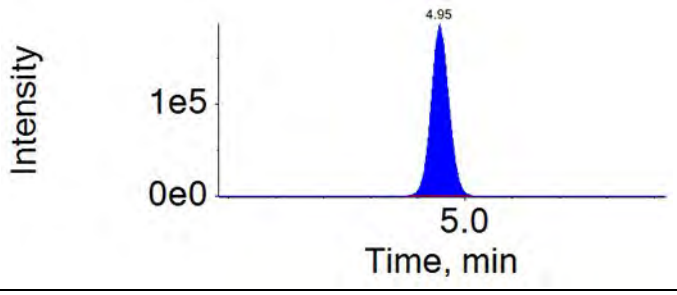
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

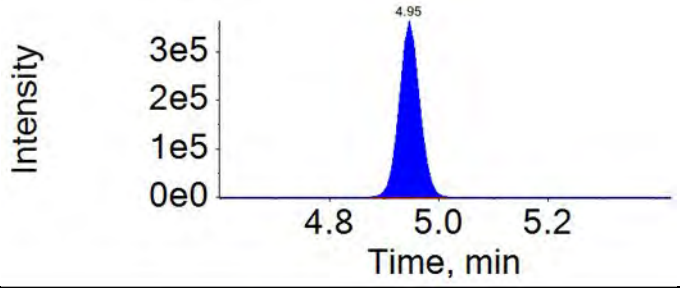
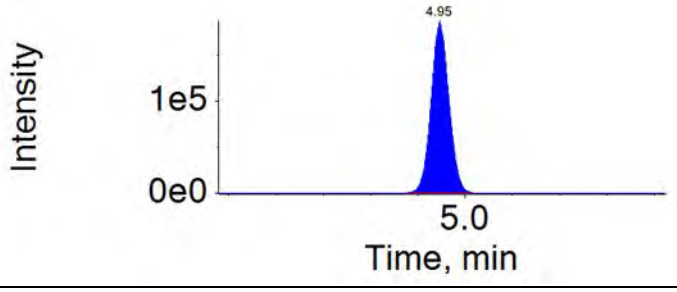


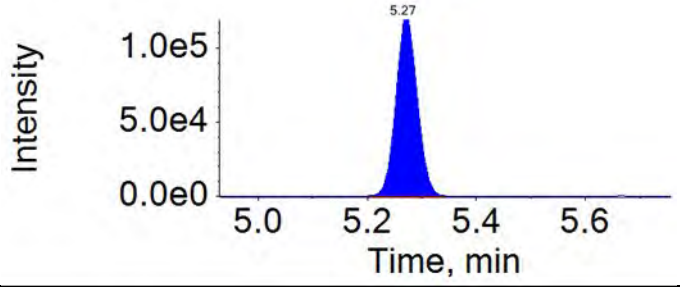
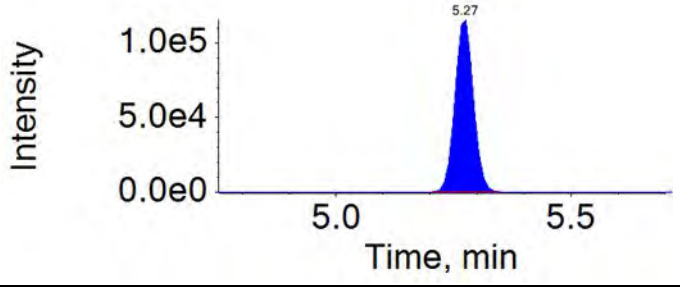


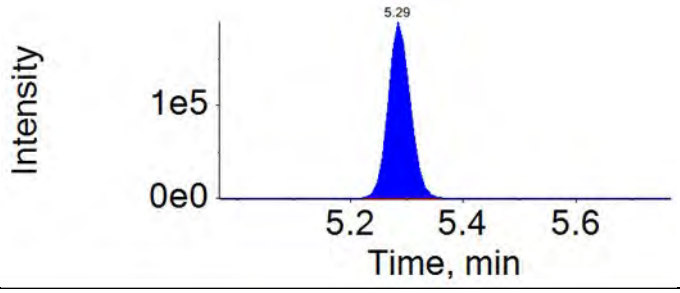
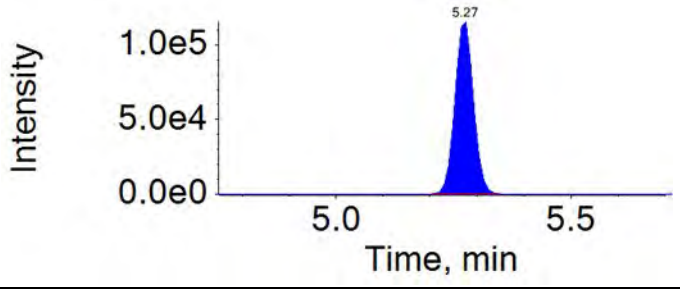
APPROVED
By MSM at 10:22 am, 12/4/18

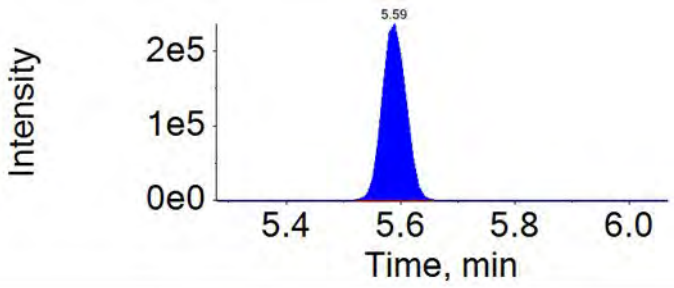
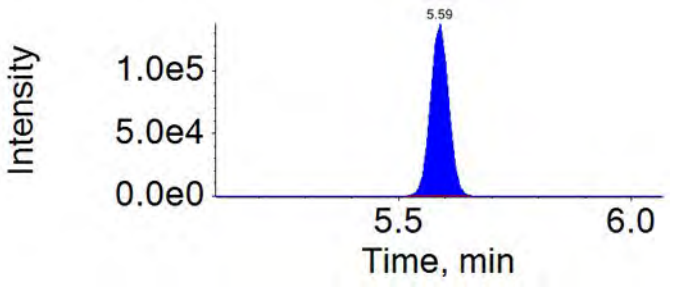
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

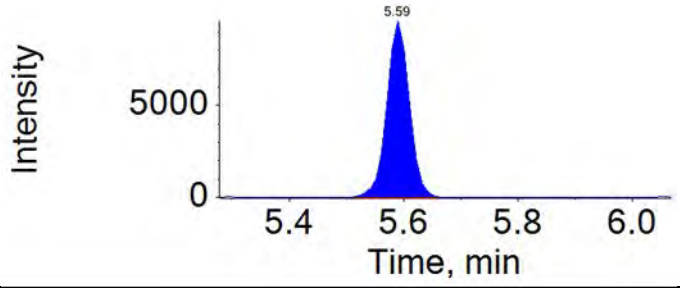
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

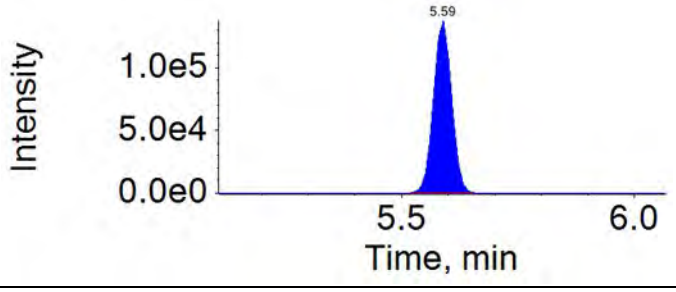
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

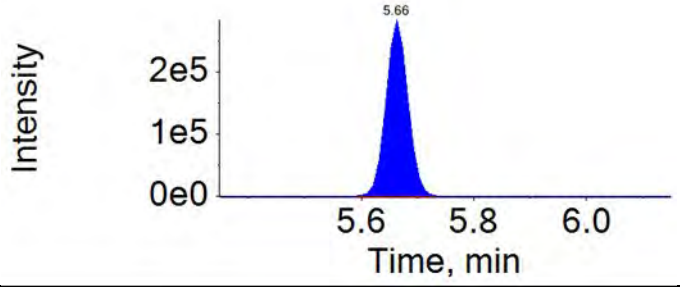
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

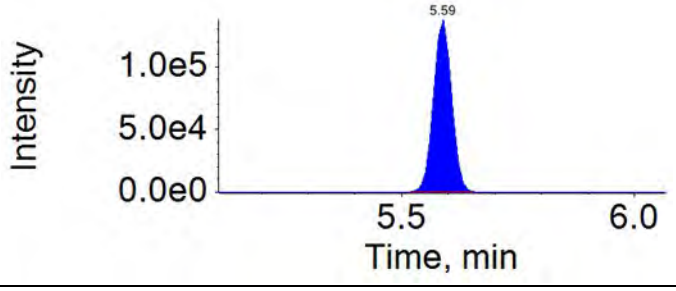
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



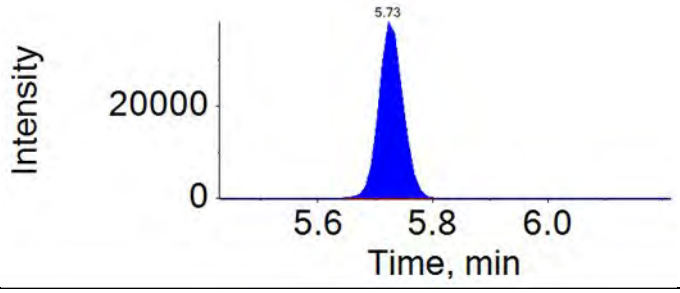


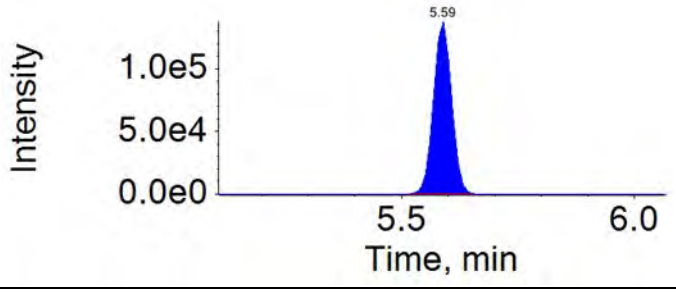
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



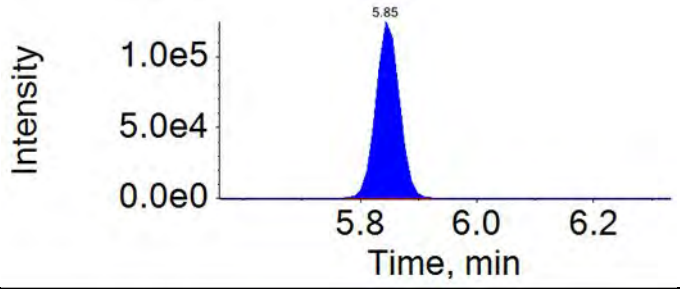


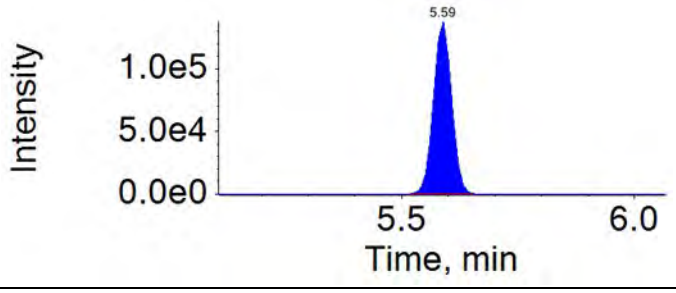
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



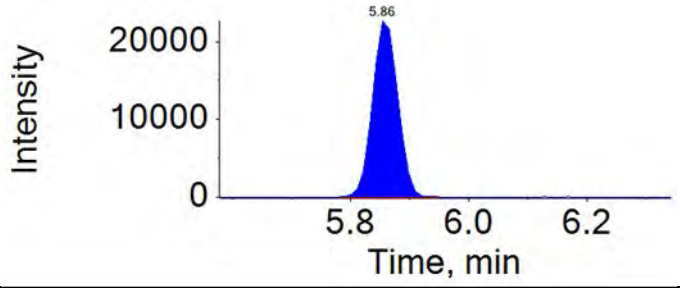


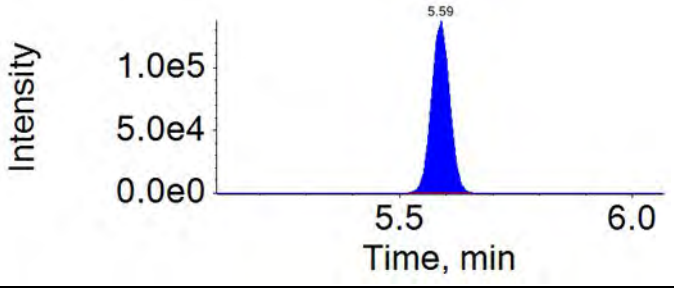
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

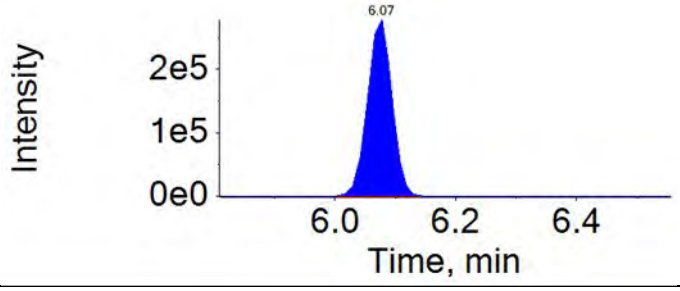
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

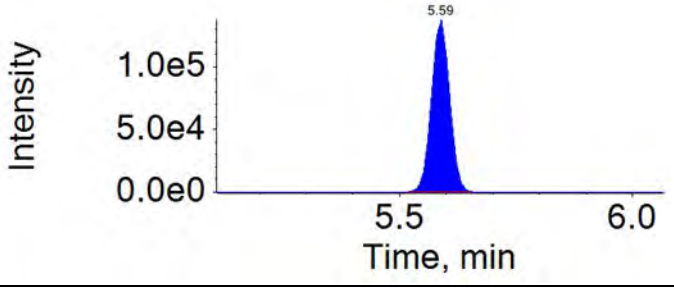
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



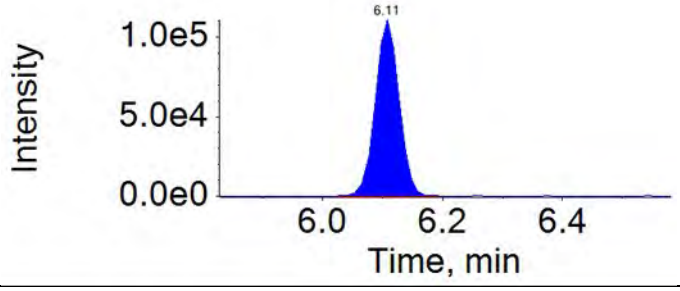


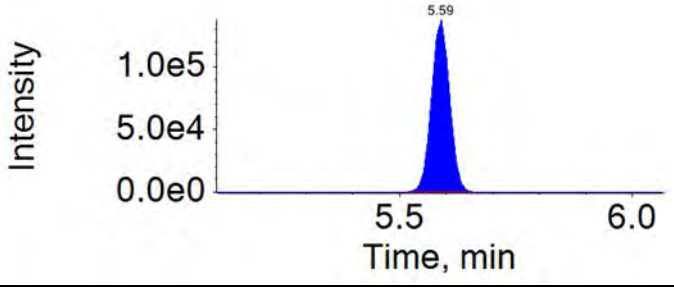
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



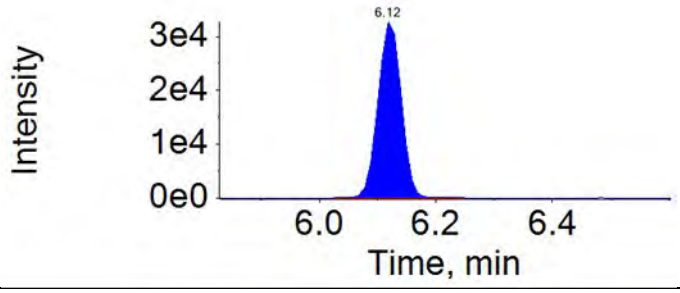


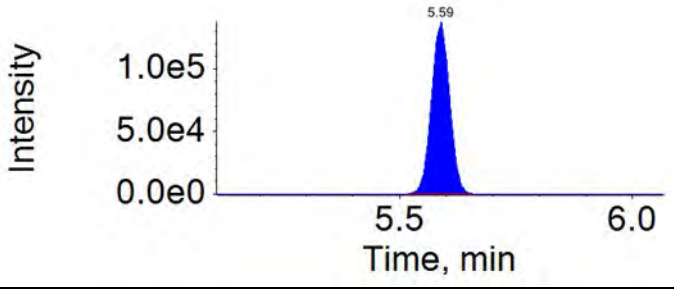
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





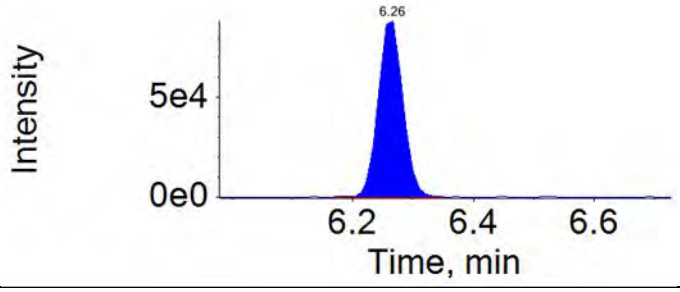
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

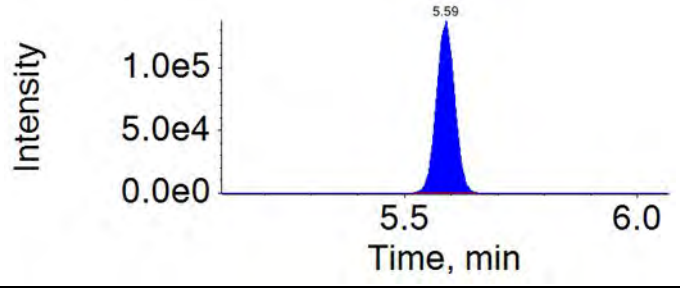




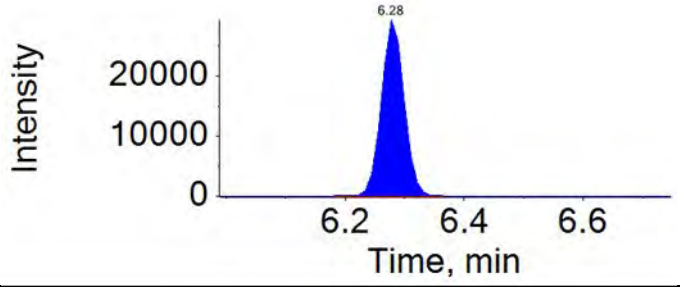
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

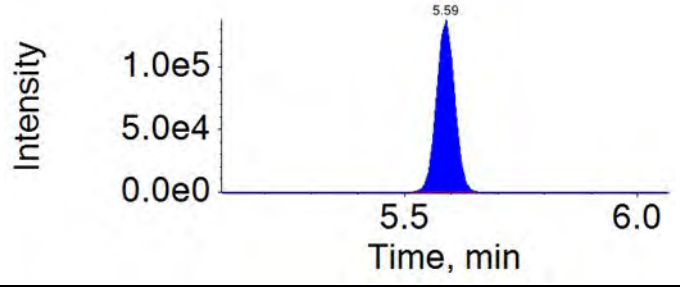
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



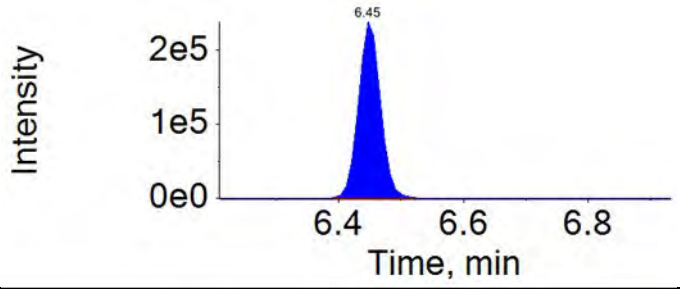


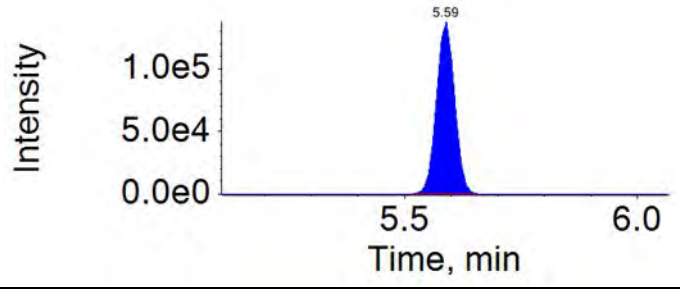
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



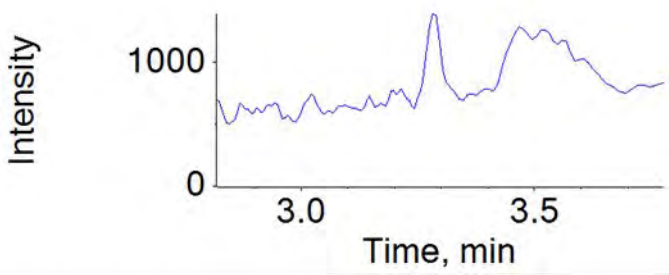


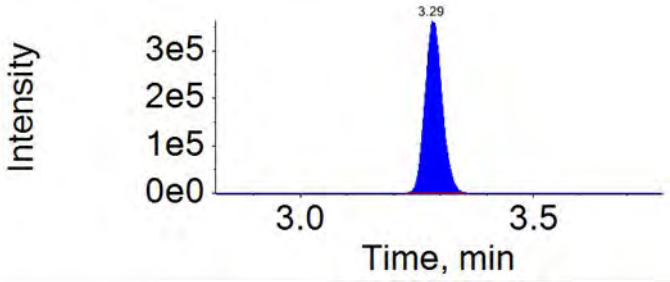
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

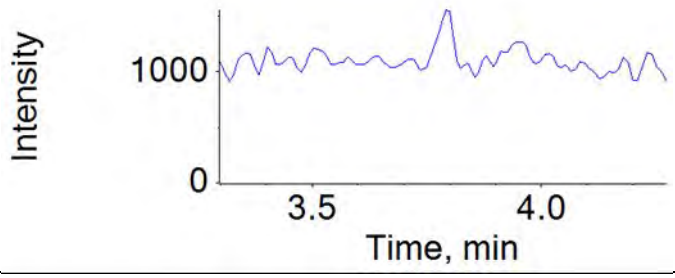
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

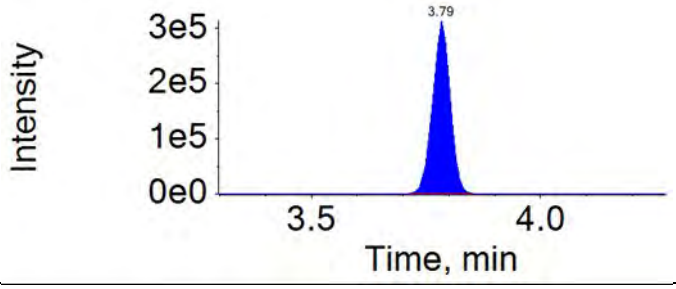
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



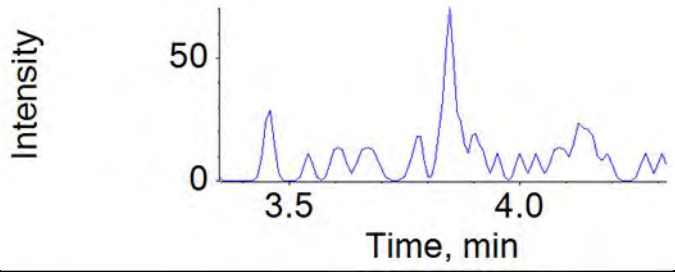


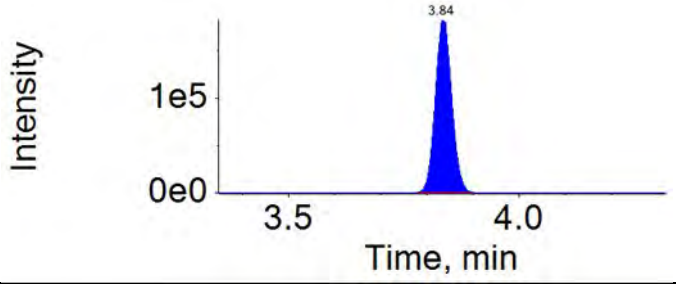
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



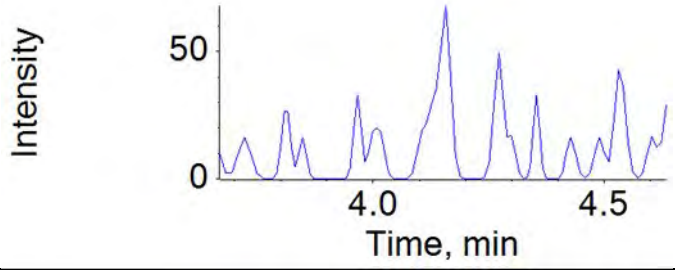


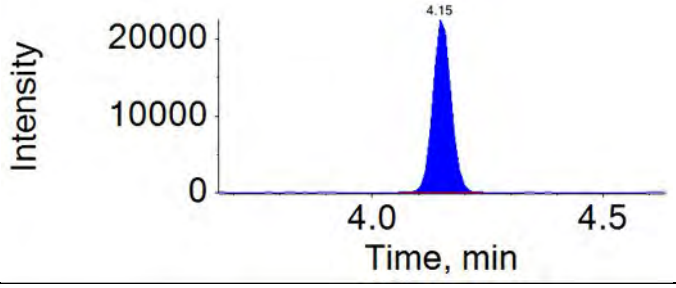
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



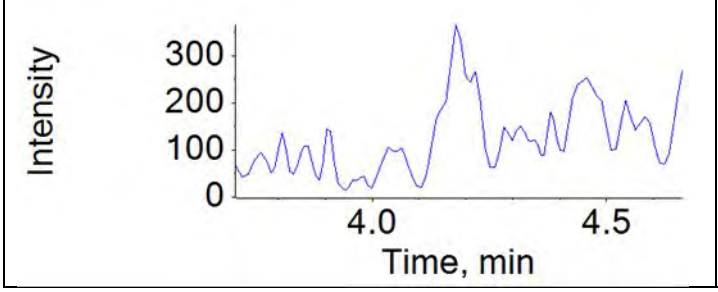


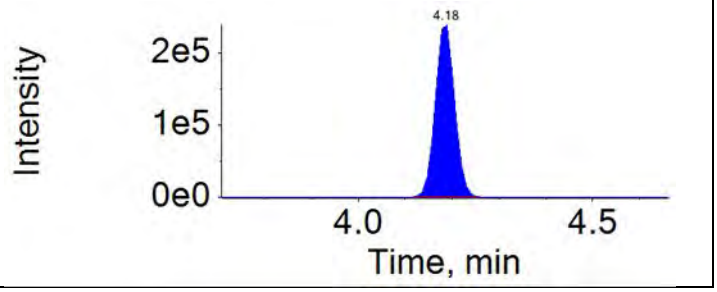
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

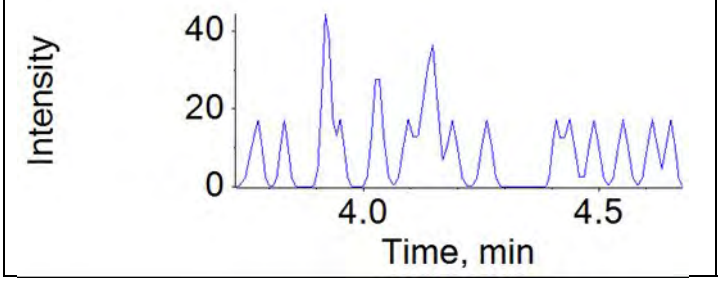
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

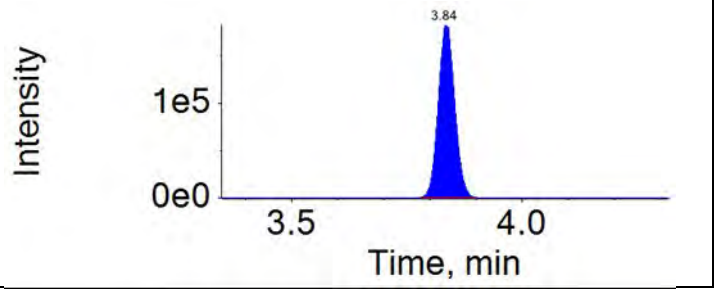
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



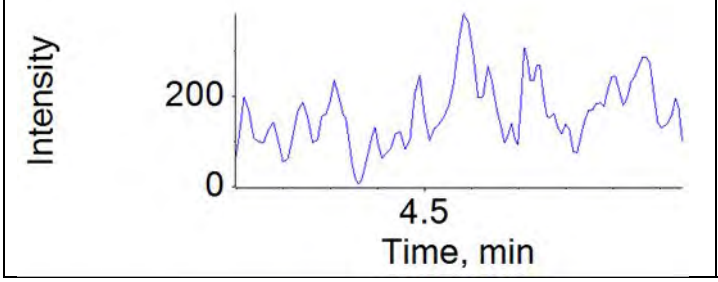


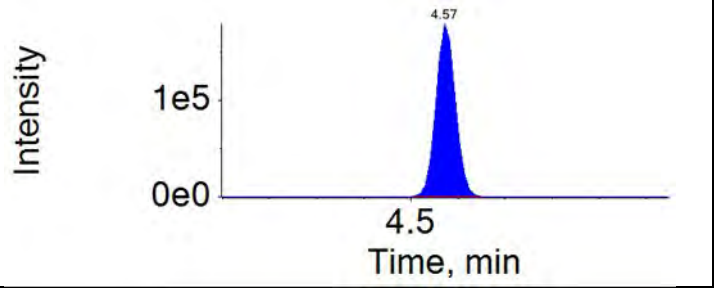
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



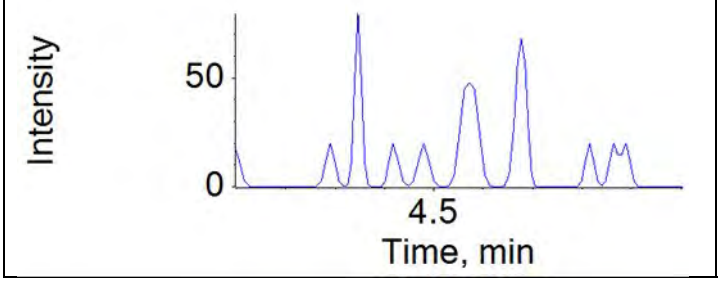


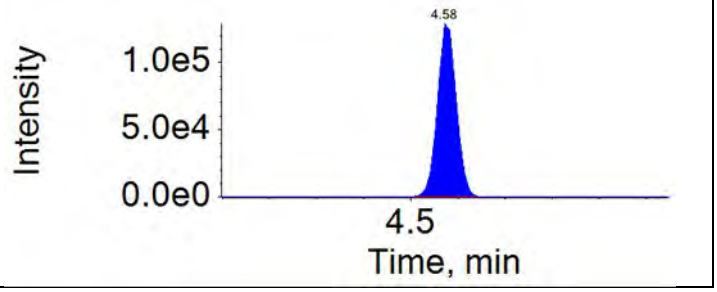
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



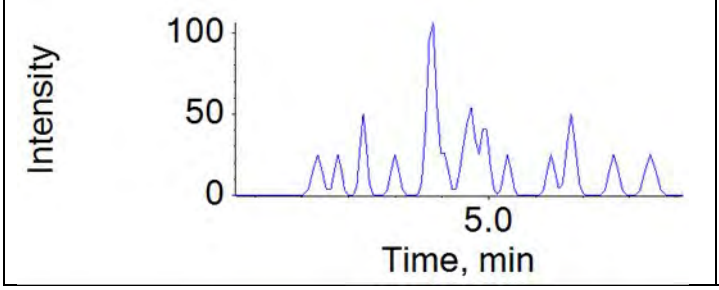


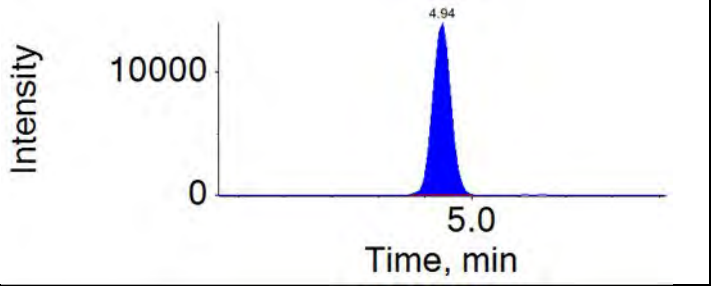
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

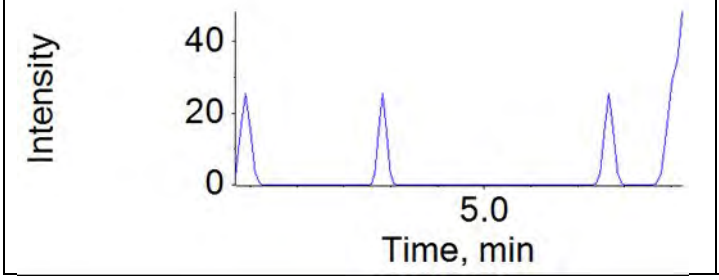
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

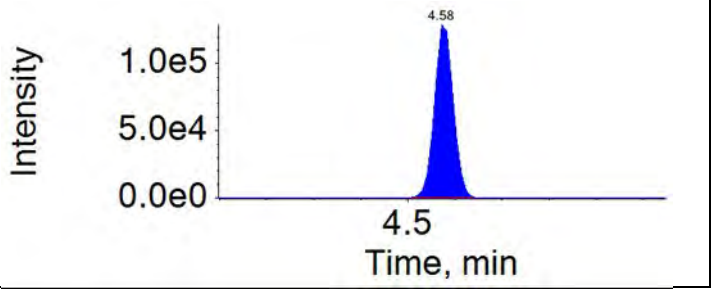
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



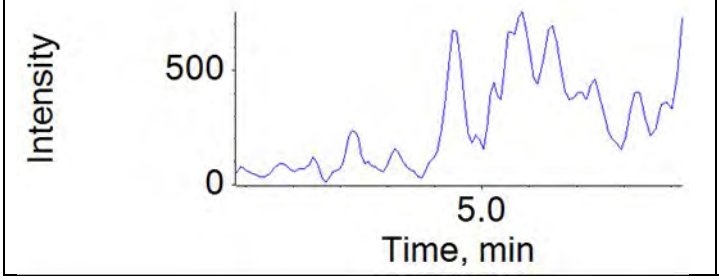


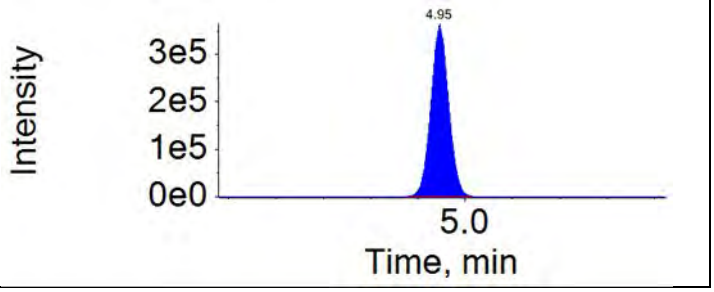
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



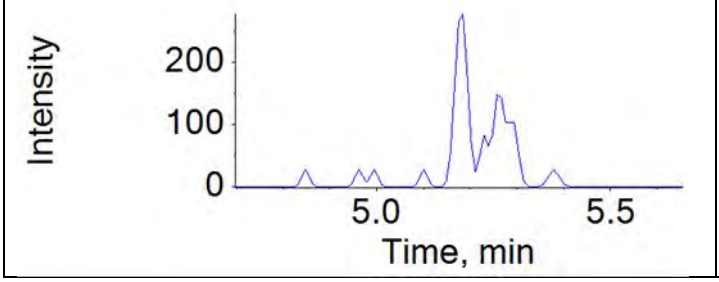


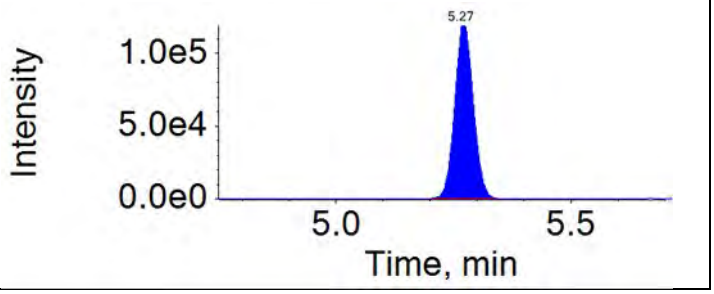
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





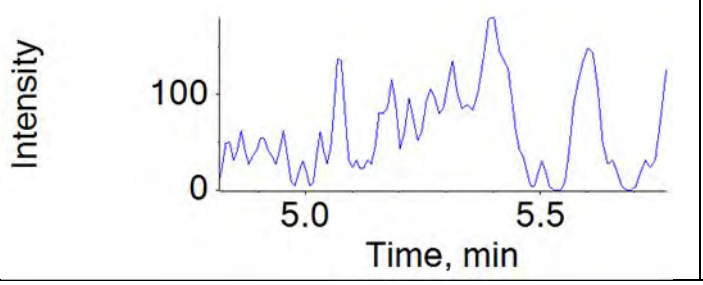
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

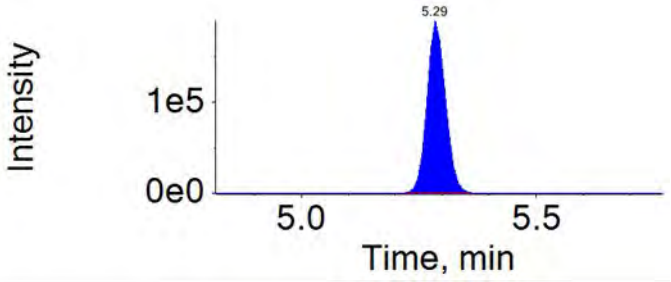




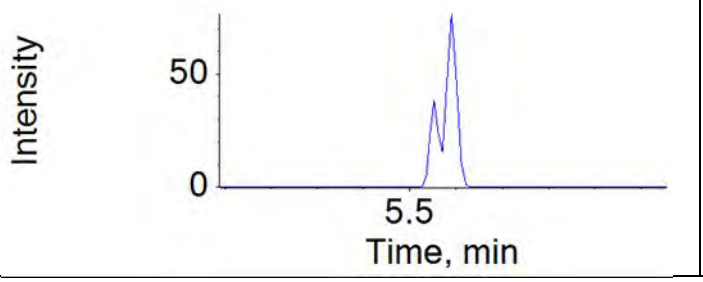
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

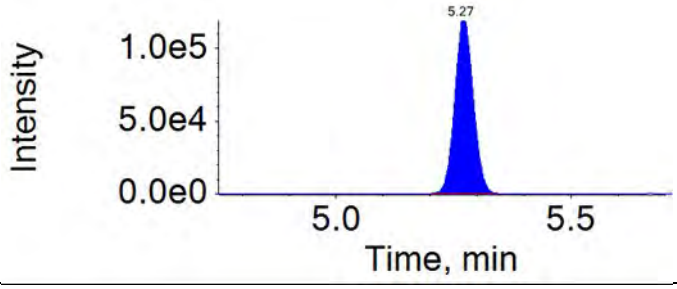
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



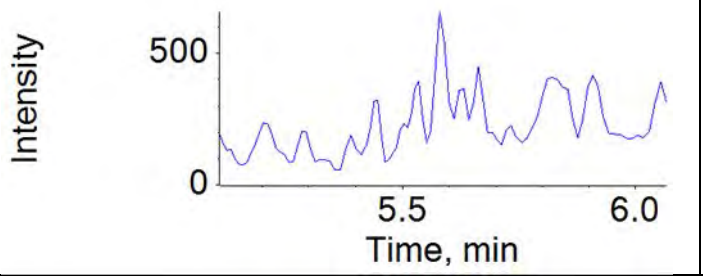


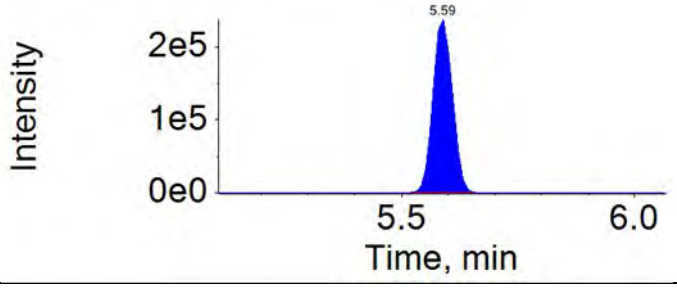
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



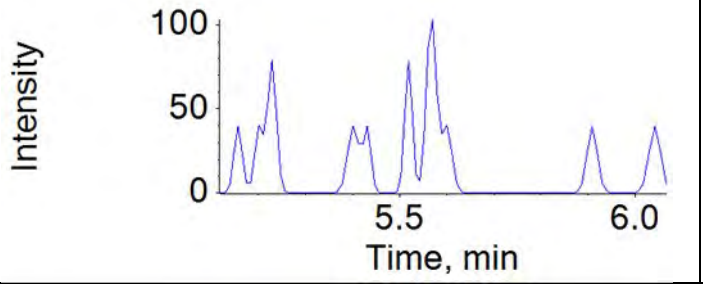


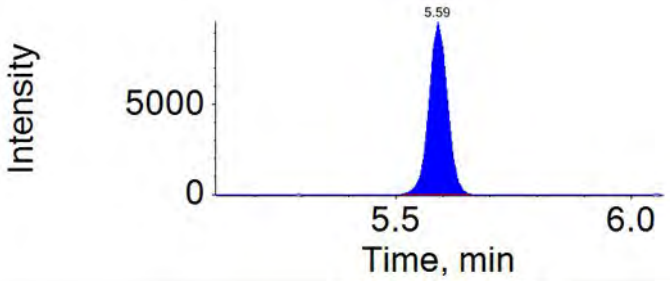
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



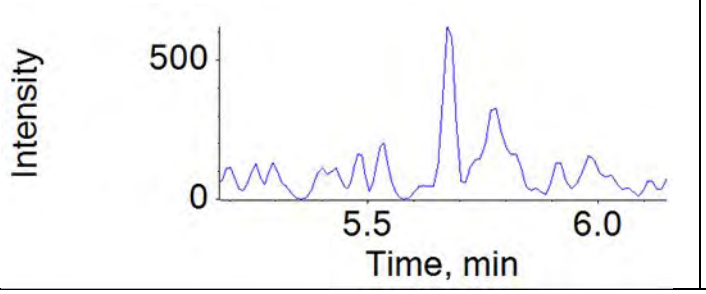


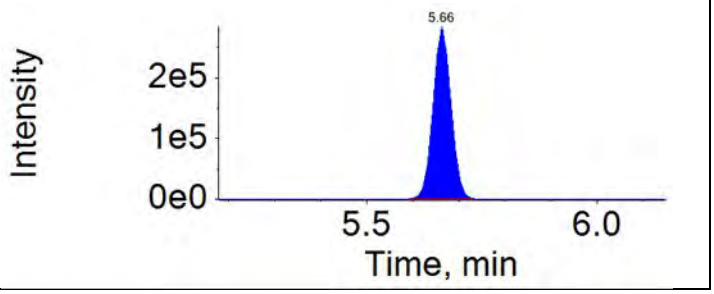
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

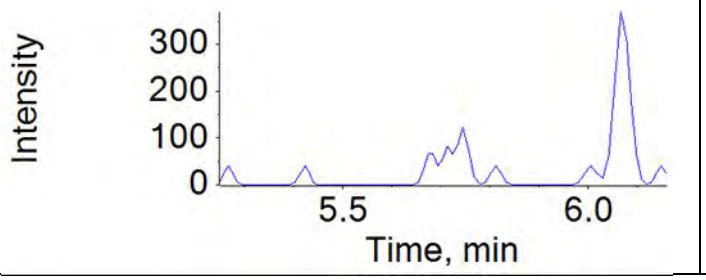
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

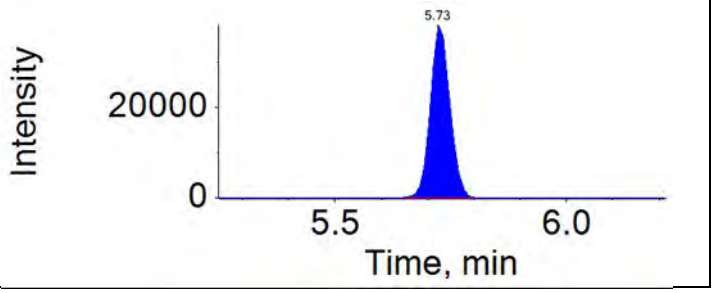
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



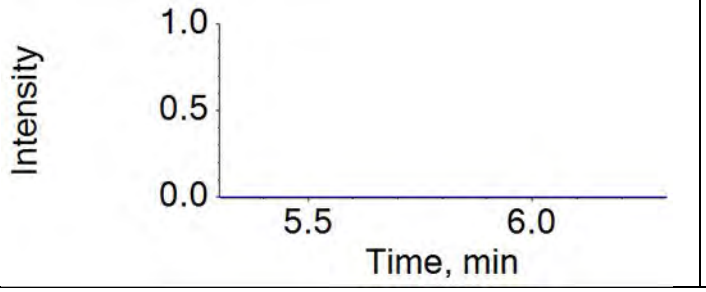


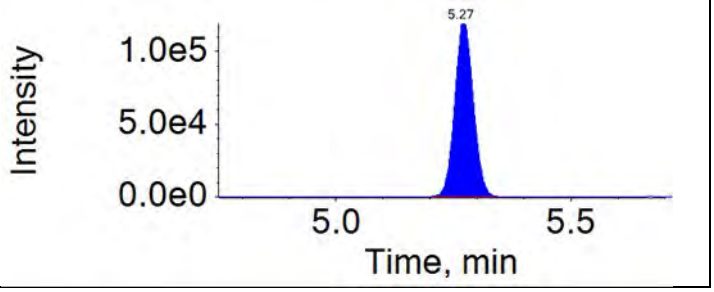
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



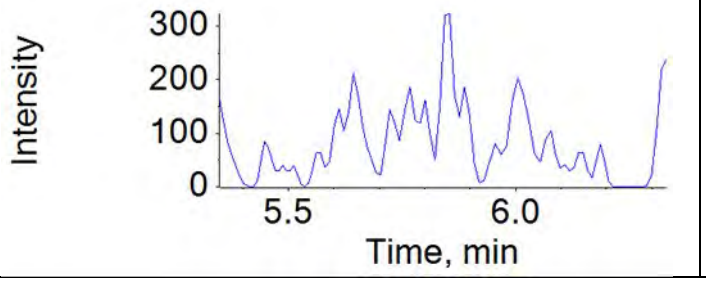


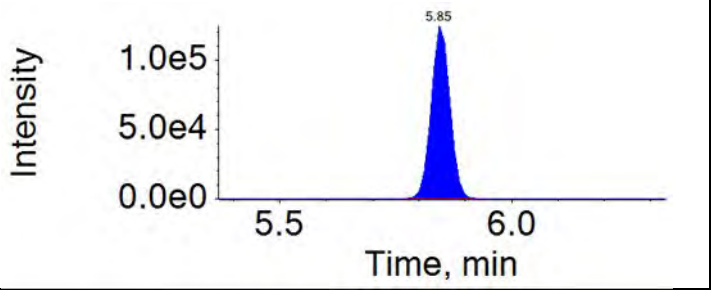
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





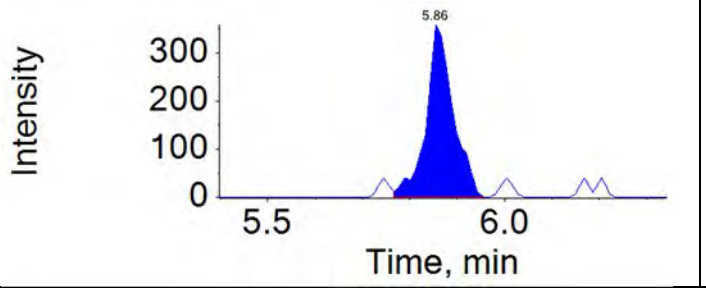
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

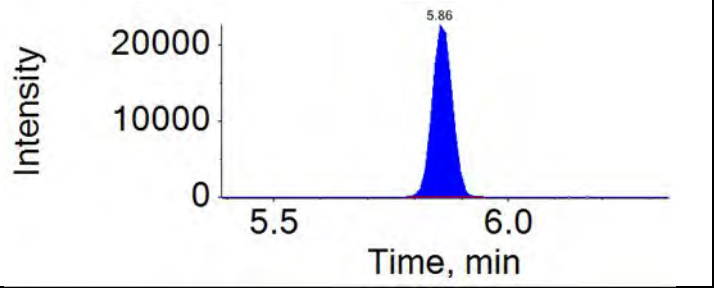




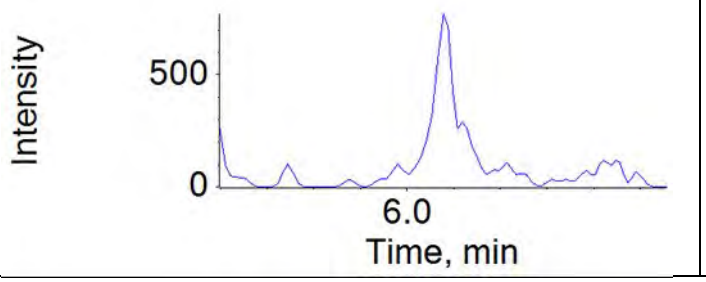
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

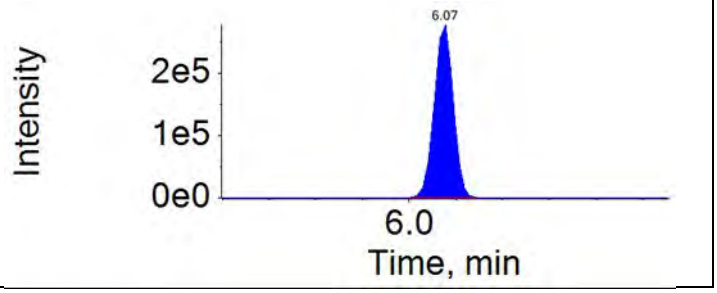
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



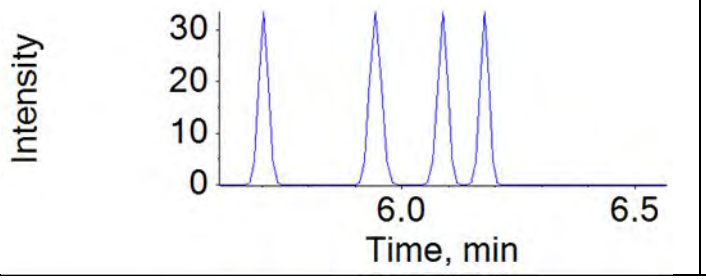


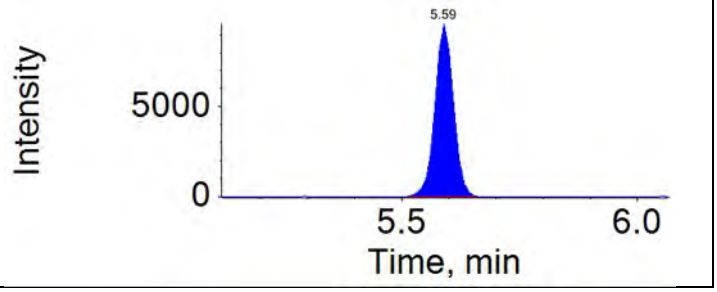
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



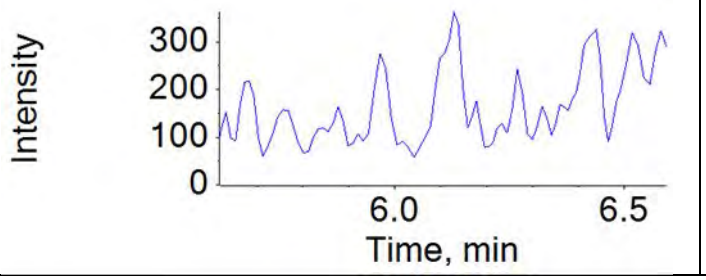


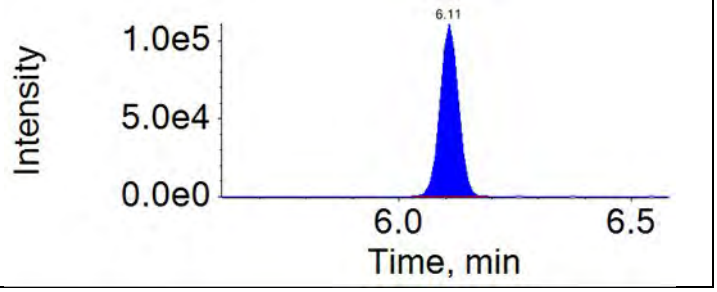
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



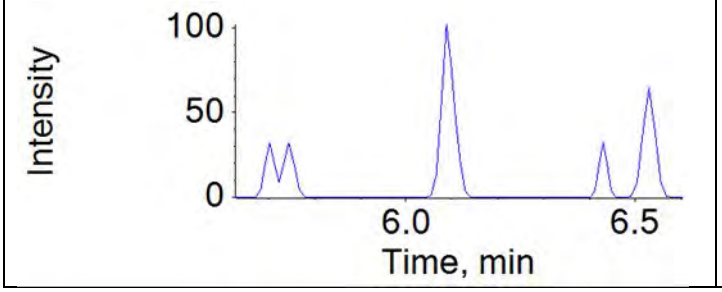


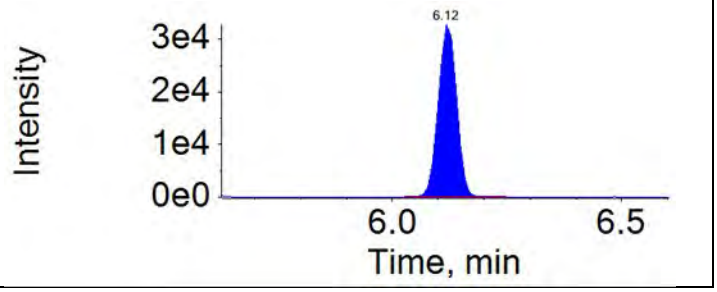
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

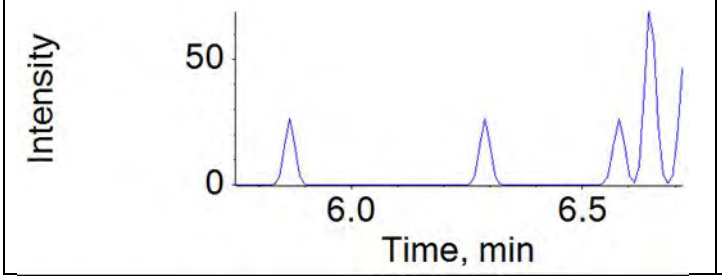
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

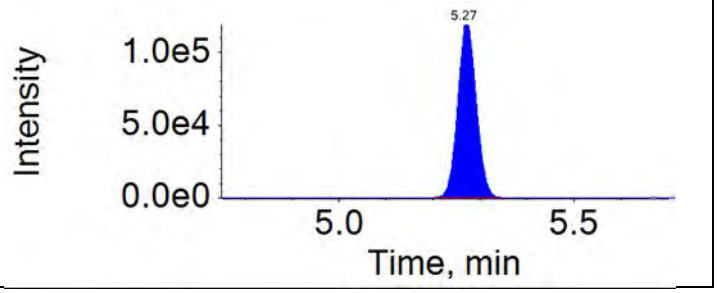
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



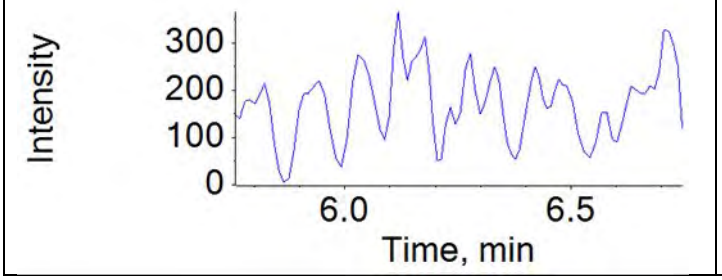


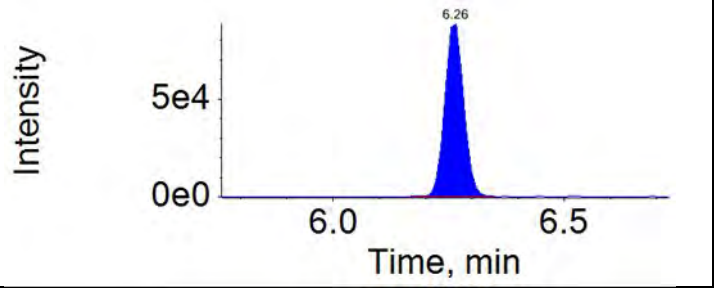
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



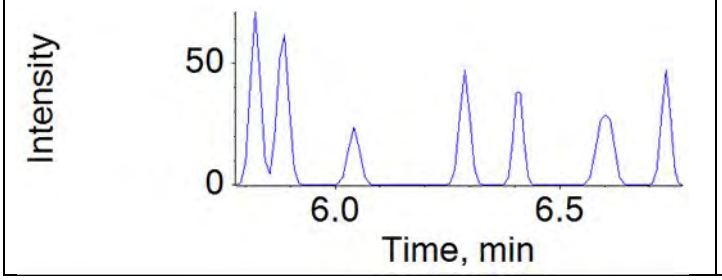


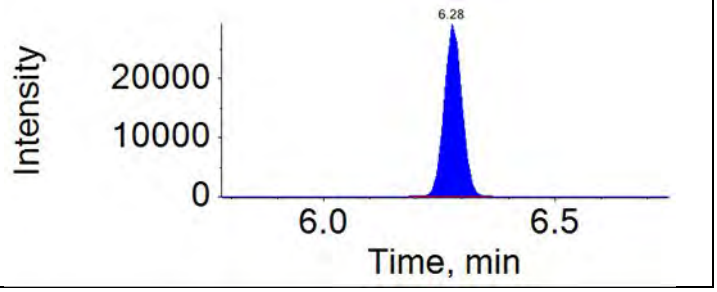
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



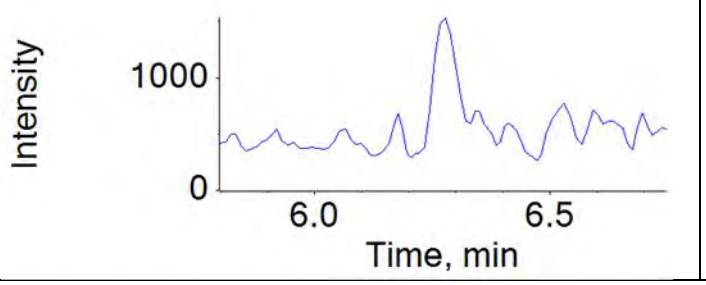


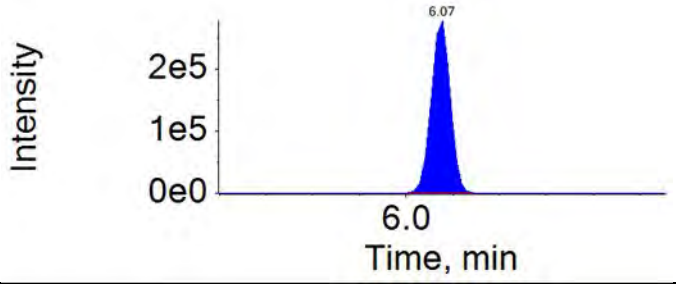
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

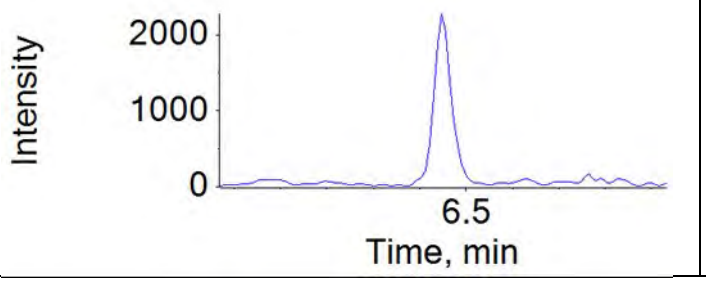
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

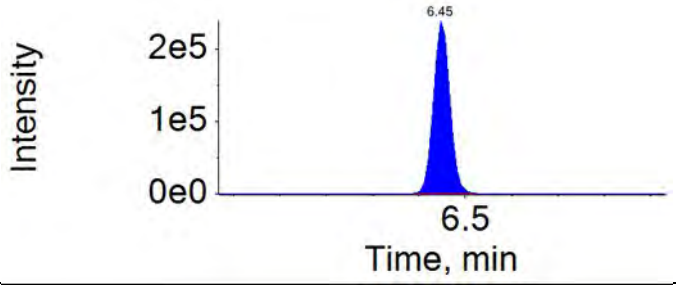
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



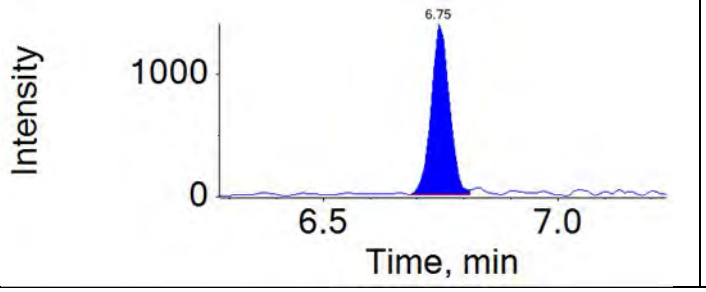


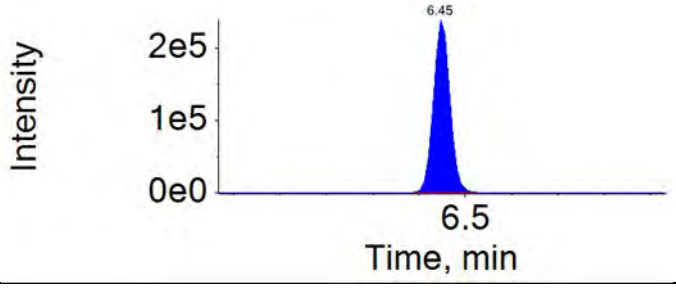
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



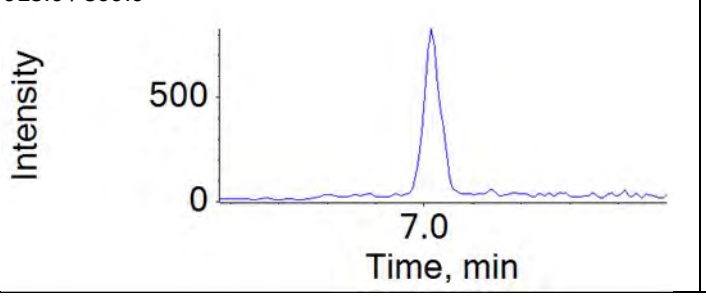


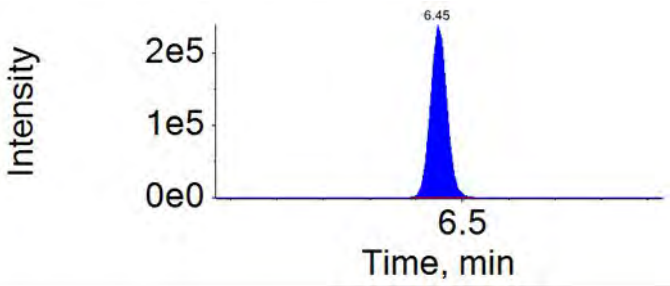
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



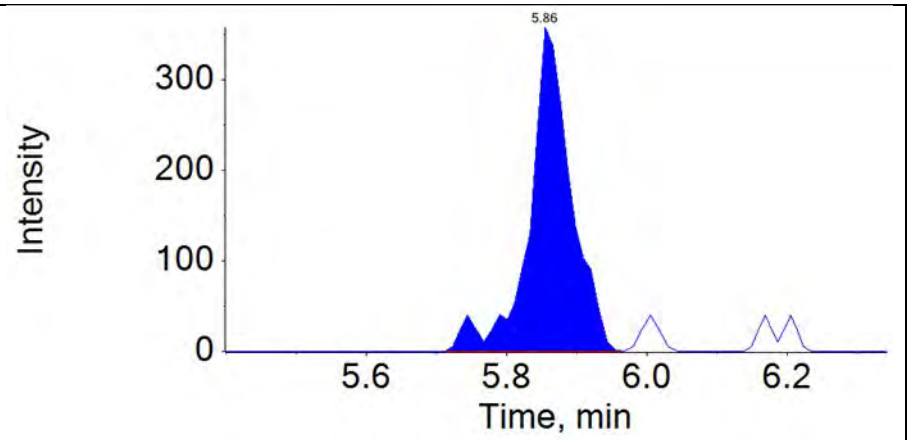


APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

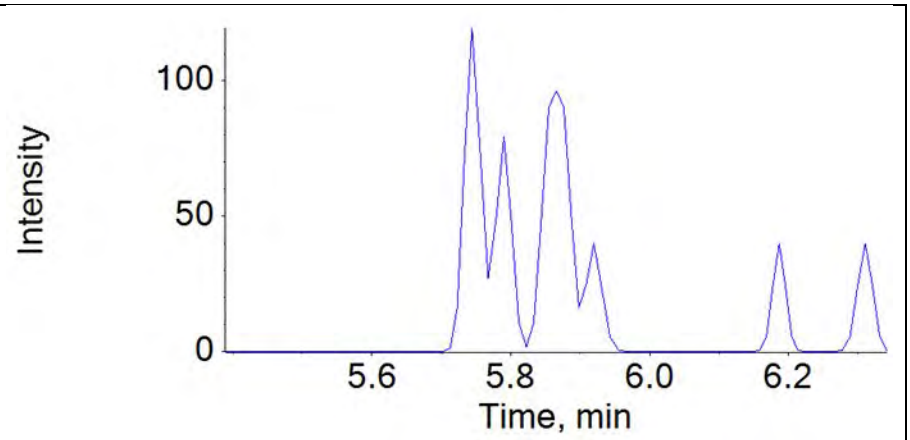
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.86
Peak Area:
1493.82
Mass Range:
584.0 / 419.0
File Name:
18DEC03DCAL-17.wiff
Sample Name:
Instrument Blank



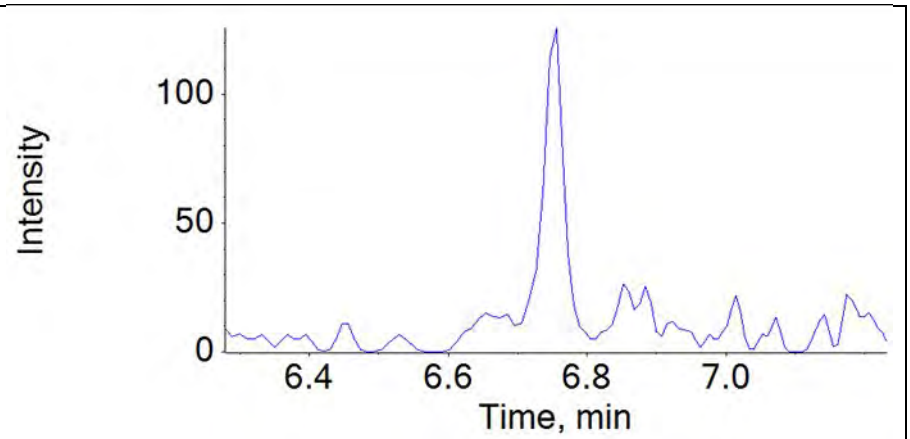
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-17.wiff
Sample Name:
Instrument Blank



Integration Comment:

Component Name:
PFHxDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
813.0 / 169.0
File Name:
18DEC03DCAL-17.wiff
Sample Name:
Instrument Blank



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

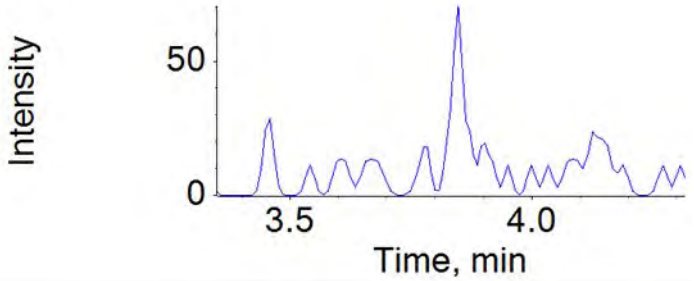
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-17.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	1.0000	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3698	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6536	N/A		50	
PFHxA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0119	N/A		50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5000	N/A		50	
PFHpA	N/A	N/A	N/A	A	1.0000	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0526	N/A		50	
PFHxS	N/A	N/A	N/A	A	1.0000	N/A			
PFHxS_2	N/A	N/A	N/A	A	0.3476	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6372	N/A		50	
PFHpS	N/A	N/A	N/A	A	1.0000	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3956	N/A		50	
PFOA	N/A	N/A	N/A	A	1.0000	N/A			
PFOA_2	N/A	N/A	N/A	A	0.0618	N/A		50	
PFOS	N/A	N/A	N/A	A	1.0000	N/A			
PFOS_2	N/A	N/A	N/A	A	0.2940	N/A		50	
PFNA	N/A	N/A	N/A	A	1.0000	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0196	N/A		50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4676	N/A		50	
PFDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0073	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6049	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2642	N/A		50	
PFDS	N/A	N/A	N/A	A	1.0000	N/A			
PFDS_2	N/A	N/A	N/A	A	0.4948	N/A		50	
PFUnDA	N/A	N/A	N/A	A	1.0000	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0046	N/A		50	
NEtFOSAA	5.86	1.00	1425.36	M	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	258.93	M	0.7504	0.1817	-76	50	OOS
PFDoDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDoDA_2	N/A	N/A	N/A	A	0.0143	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7003	N/A		50	
PFTrDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTrDA_2	N/A	N/A	N/A	A	0.0099	N/A		50	
PFTeDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0057	N/A		50	
PFHxDA	6.75	1.05	3720.01	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	285.44	M	0.0617	0.0767	24	50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0266	N/A		50	

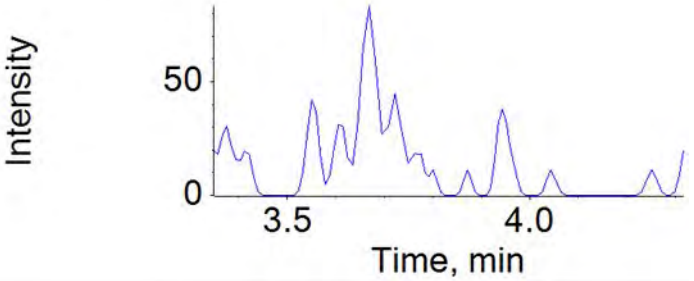
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

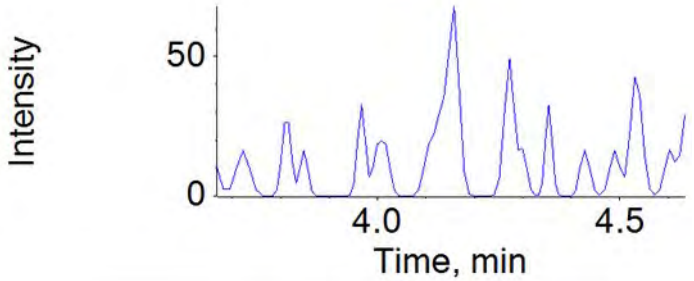
Component: PFBS
Primary Mass: 299.0 / 80.0



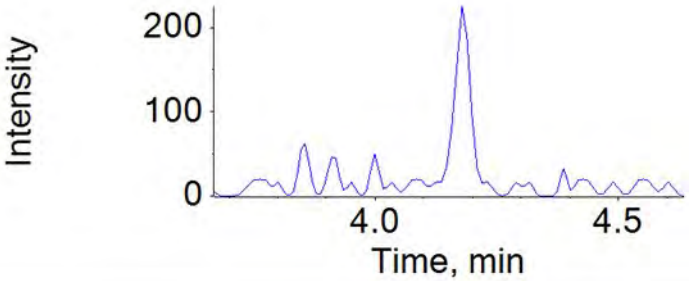
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



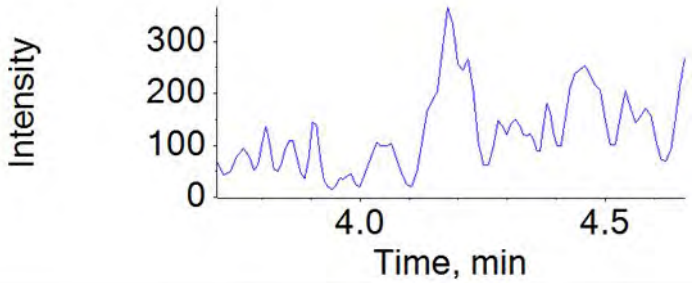
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



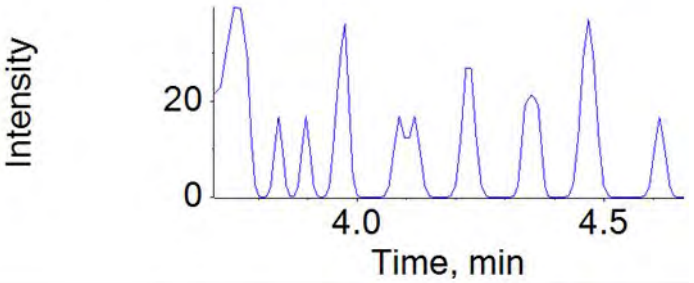
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



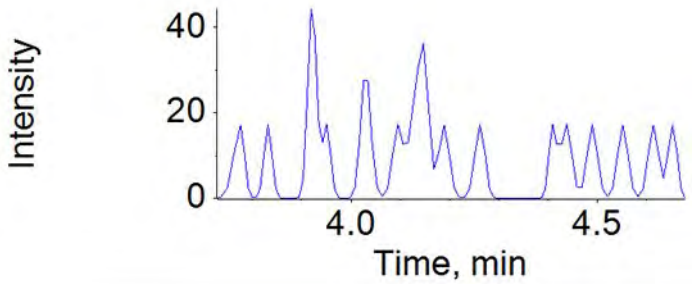
Component: PFHxA
Primary Mass: 313.0 / 269.0



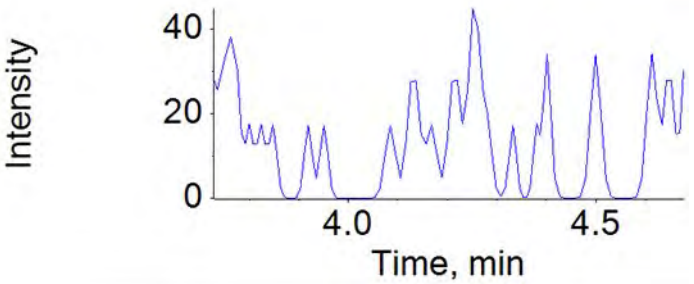
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



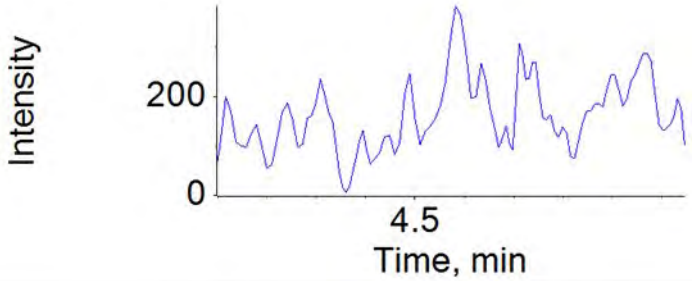
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



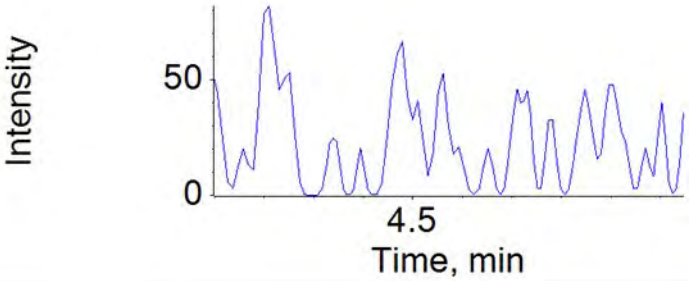
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

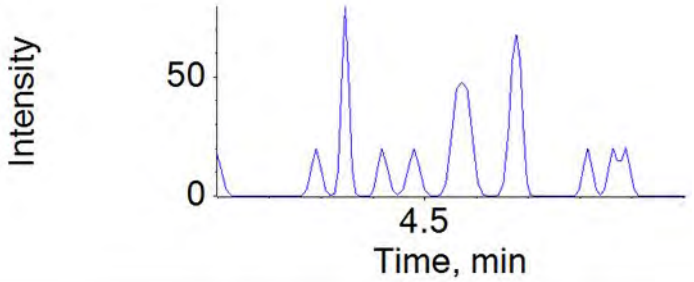
Component: PFHpA
Primary Mass: 363.0 / 319.0



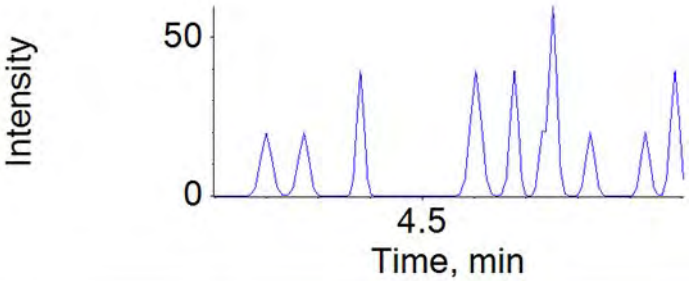
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



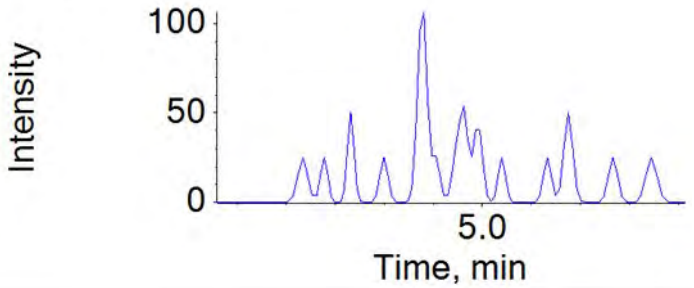
Component: PFHxS
Primary Mass: 399.0 / 80.0



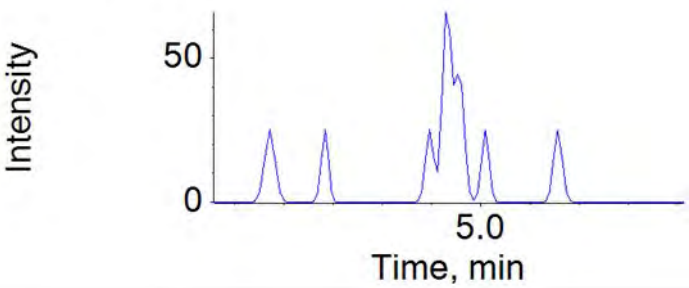
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



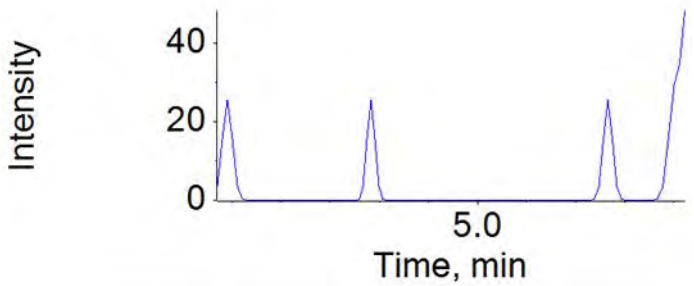
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



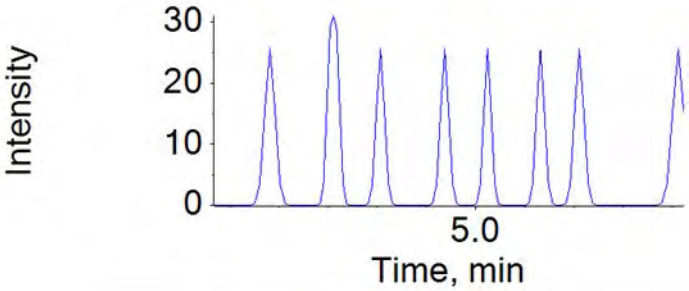
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



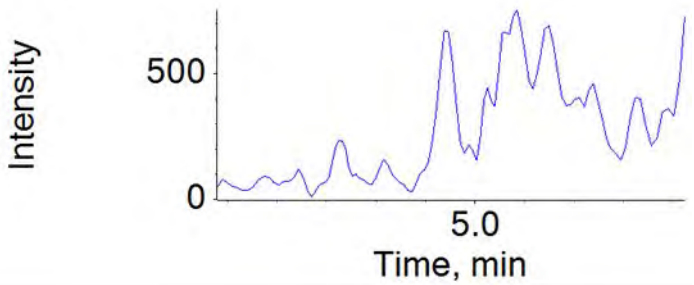
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



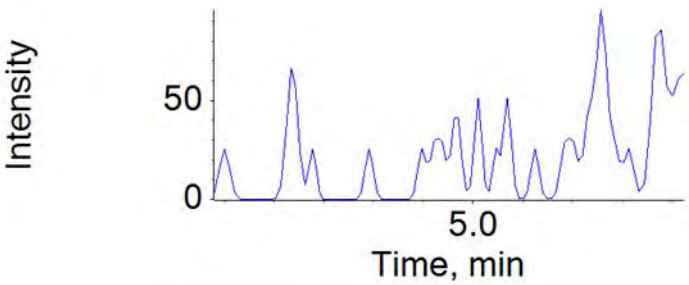
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

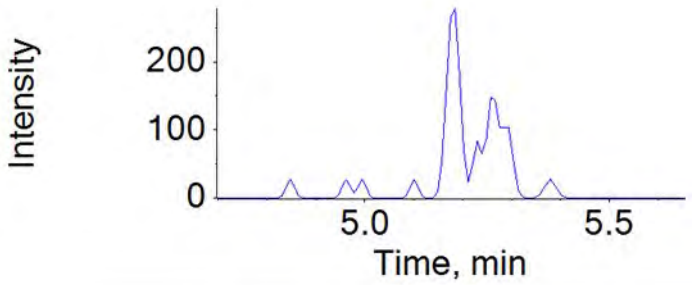
Component: PFOA
Primary Mass: 413.0 / 369.0



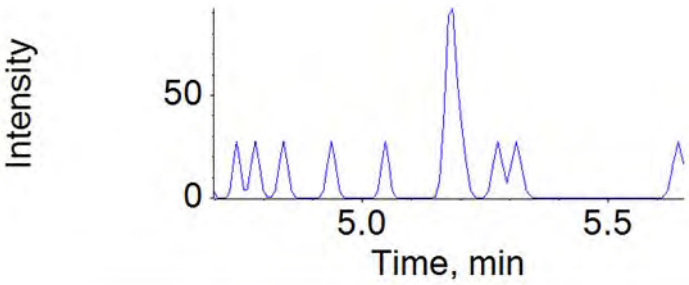
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



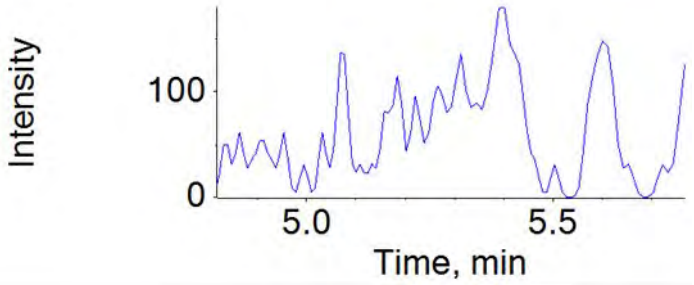
Component: PFOS
Primary Mass: 499.0 / 80.0



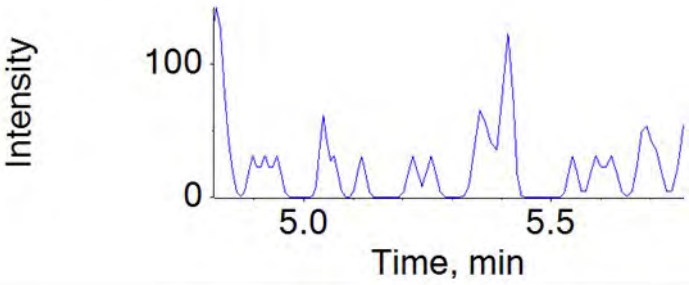
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



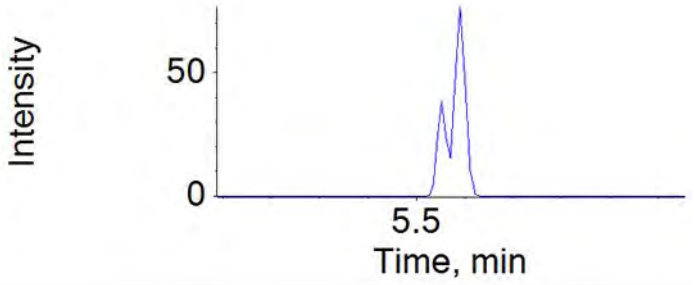
Component: PFNA
Primary Mass: 463.0 / 419.0



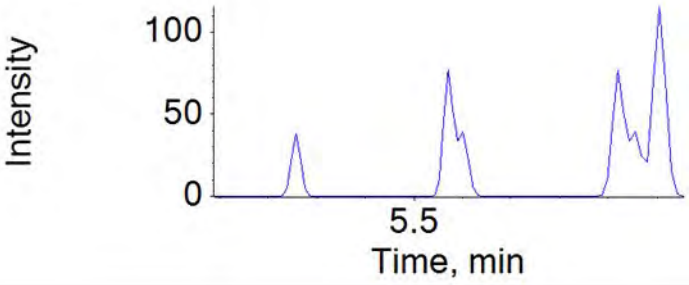
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



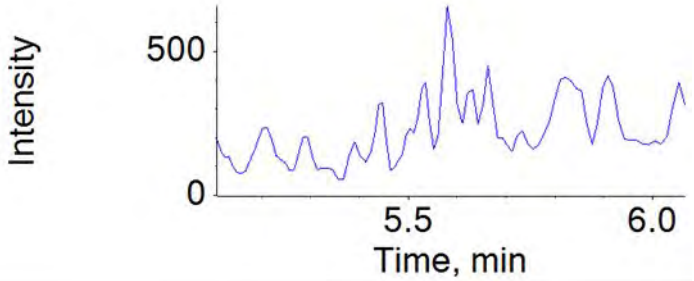
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



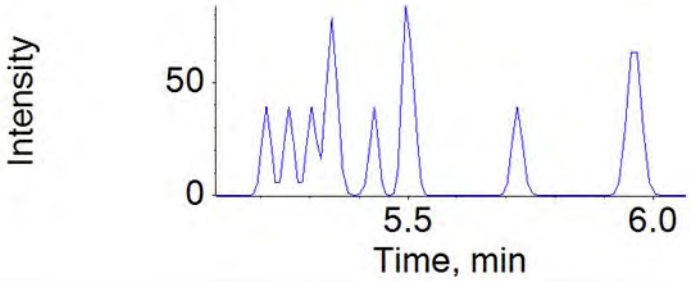
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

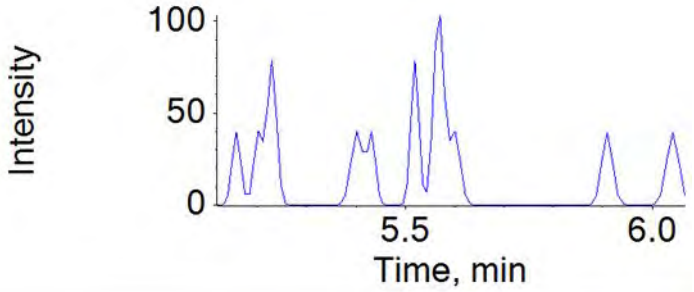
Component: PFDA
Primary Mass: 513.0 / 469.0



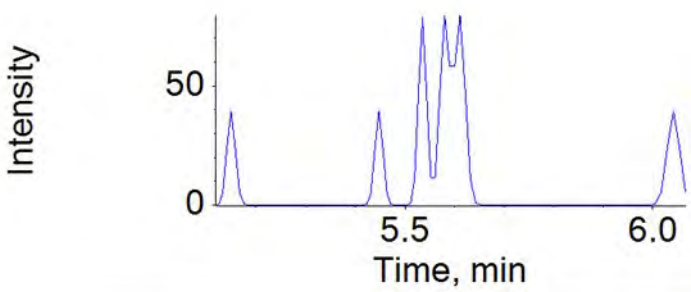
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



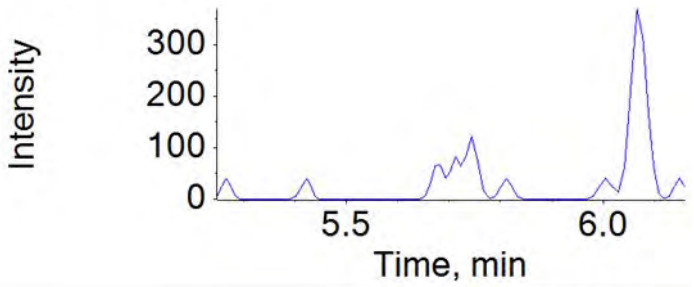
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



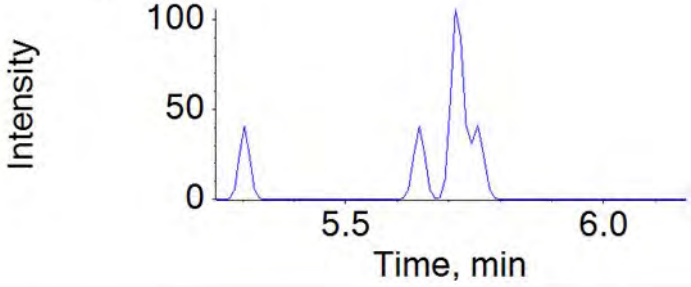
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



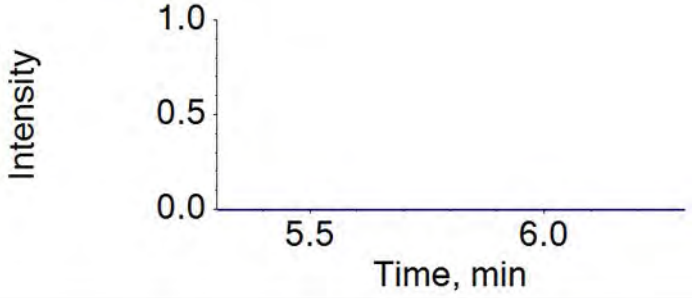
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



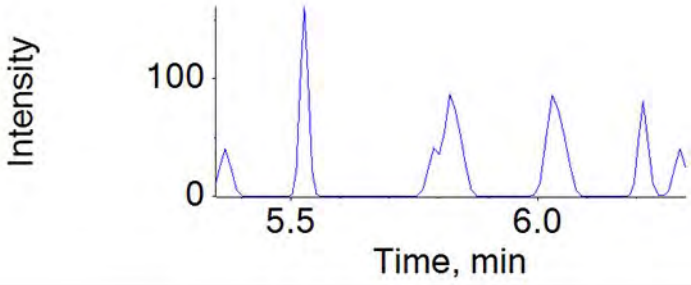
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



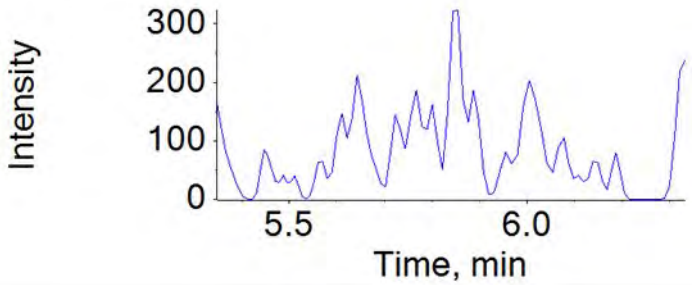
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



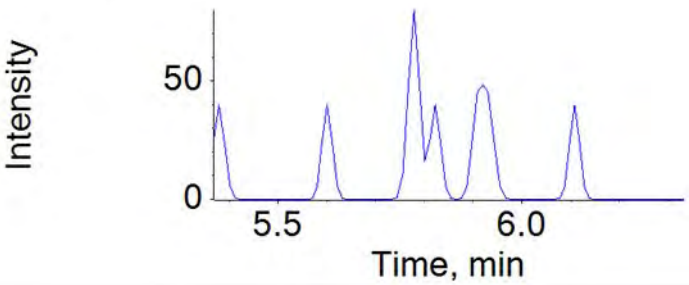
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

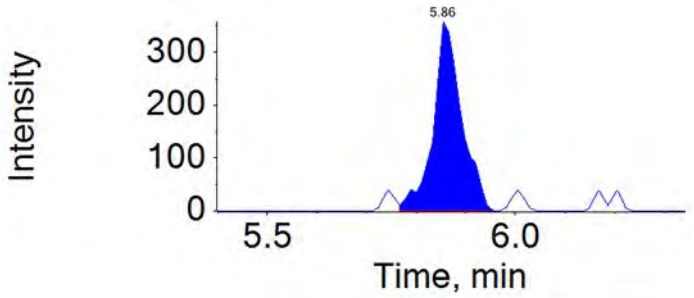
Component: PFUnDA
Primary Mass: 563.0 / 519.0



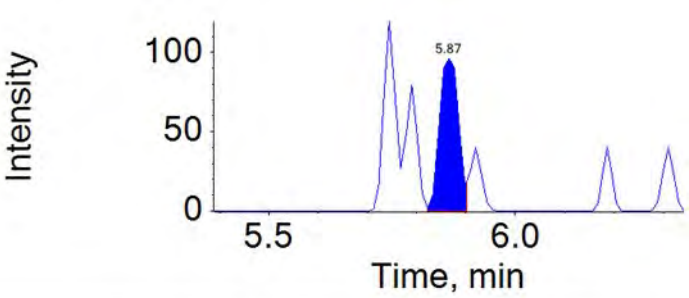
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



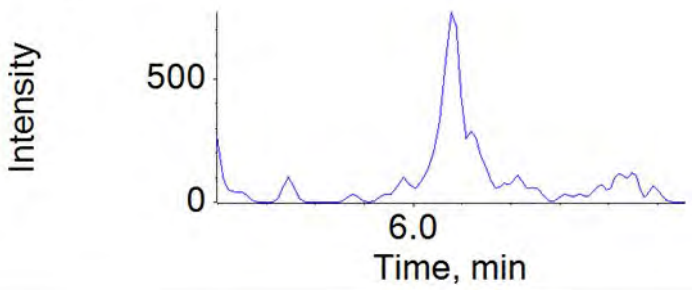
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



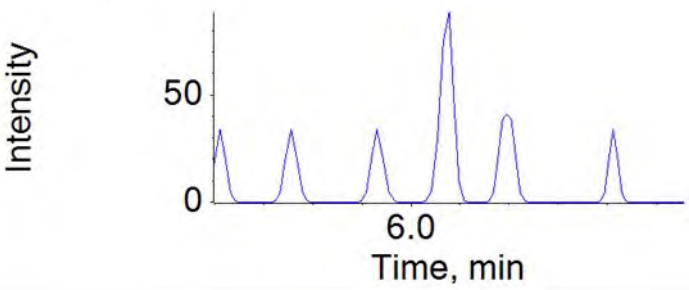
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



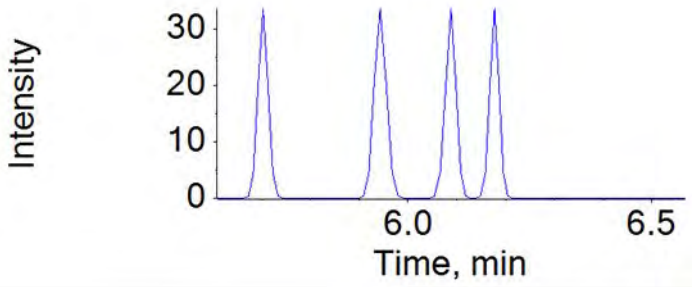
Component: PFDoDA
Primary Mass: 613.0 / 569.0



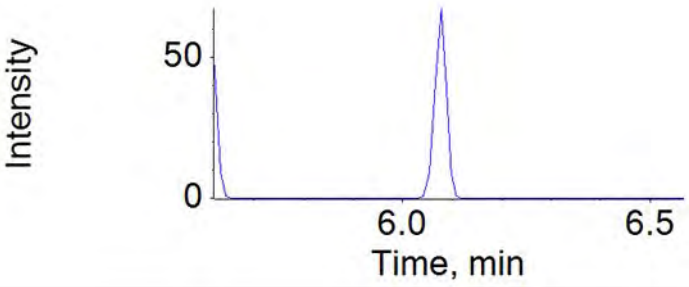
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



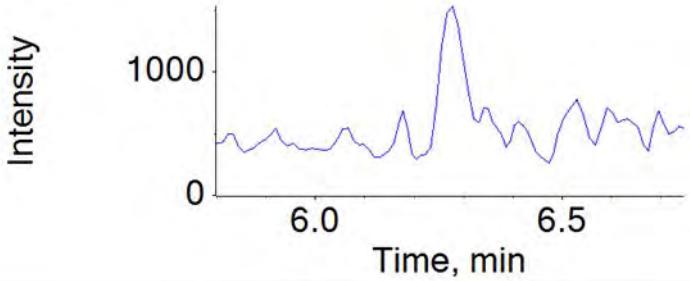
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



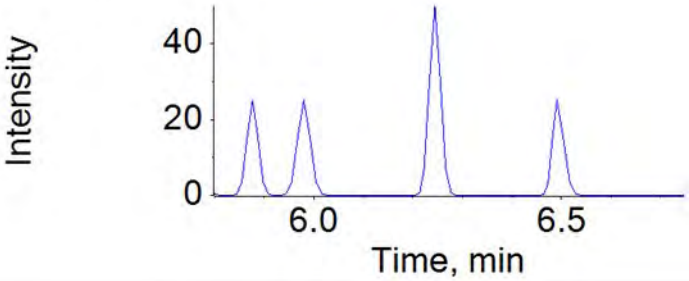
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

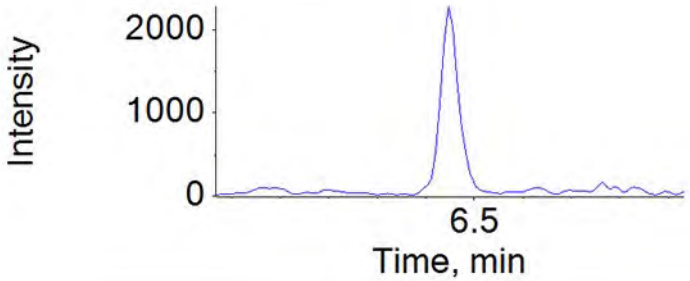
Component: PFTrDA
Primary Mass: 663.0 / 619.0



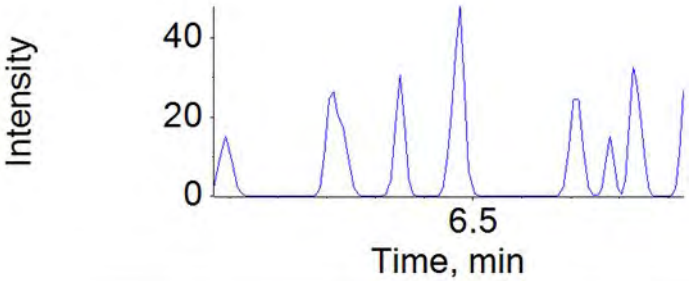
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



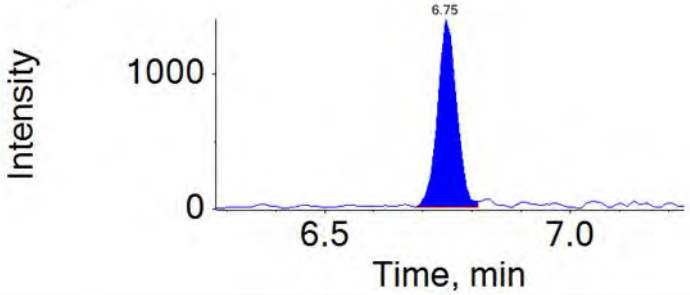
Component: PFTeDA
Primary Mass: 713.0 / 669.0



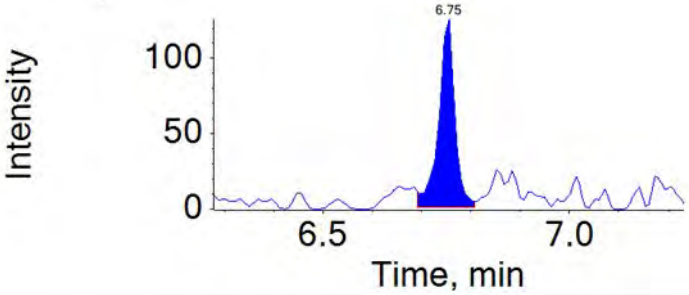
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



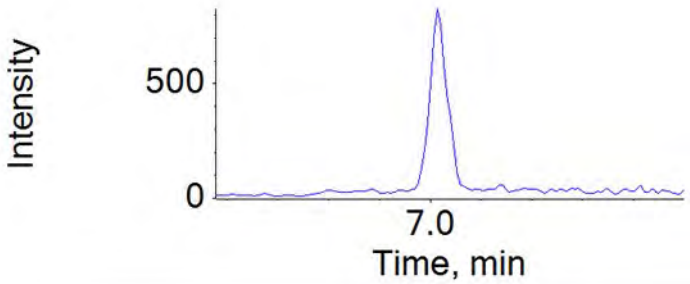
Component: PFHxDA
Primary Mass: 813.0 / 769.0



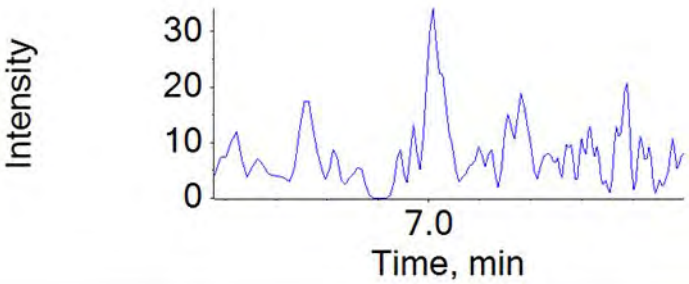
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC03DCAL 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	MDL			**Data File:**		18DEC03DCAL-09.wiff
Sample ID:	MDLMODX1833F			**Acquis Date:**		2018-12-03T17:25:59
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	2			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	755484.9	749775.9	1	50	
13C2-PFOA	5.0	400552.1	434072.7	-8	50	
13C4-PFOS	4.8	283692.3	261136.3	9	50	
13C2-PFDA	5.0	303684.6	305281.8	-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	844218.7	13C3-PFBA	755484.9	1.117	5.000	4.959	99	70-130	
E13C5-PFPeA	702747.6	13C3-PFBA	755484.9	0.930	5.000	4.488	90	70-130	
E13C3-PFBS	423408.3	13C3-PFBA	755484.9	0.560	4.650	4.367	94	70-130	
E13C2-4:2-FTS	44020.8	13C2-PFOA	400552.1	0.110	4.670	4.521	97	70-130	
E13C5-PFHxA	635423.9	13C2-PFOA	400552.1	1.586	5.000	5.372	107	70-130	
E13C3-PFHxS	340184.7	13C2-PFOA	400552.1	0.849	4.730	5.369	114	70-130	
E13C4-PFHpA	472942.7	13C2-PFOA	400552.1	1.181	5.000	5.152	103	70-130	
E13C2-6:2-FTS	32305.3	13C2-PFOA	400552.1	0.081	4.750	5.345	113	70-130	
E13C8-PFOA	811747.8	13C2-PFOA	400552.1	2.027	5.000	5.633	113	70-130	
E13C8-PFOS	304338.8	13C4-PFOS	283692.3	1.073	4.780	4.765	100	70-130	
E13C9-PFNA	504934.5	13C4-PFOS	283692.3	1.780	5.000	5.209	104	70-130	
E13C6-PFDA	587217.3	13C2-PFDA	303684.6	1.934	5.000	5.029	101	70-130	
E13C2-8:2-FTS	21464.7	13C2-PFDA	303684.6	0.071	4.790	4.545	95	70-130	
E13C8-PFOSA	626681.1	13C2-PFDA	303684.6	2.064	5.000	4.619	92	70-130	
Ed3-NMeFOSAA	74737.3	13C2-PFDA	303684.6	0.246	5.000	4.299	86	70-130	
E13C7-PFUnDA	329096.8	13C2-PFDA	303684.6	1.084	5.000	5.397	108	70-130	
Ed5-NEtFOSAA	65684.2	13C2-PFDA	303684.6	0.216	5.000	4.934	99	70-130	
E13C2-PFDoDA	690730.2	13C2-PFDA	303684.6	2.274	5.000	4.870	97	70-130	
Ed7-NMePFOSAE	269209.5	13C2-PFDA	303684.6	0.886	5.000	4.806	96	70-130	
Ed3-NMePFOSA	72538.0	13C2-PFDA	303684.6	0.239	5.000	4.429	89	70-130	
Ed9-NEtPFOSAE	214188.2	13C2-PFDA	303684.6	0.705	5.000	4.549	91	70-130	
Ed5-NEtPFOSA	58871.3	13C2-PFDA	303684.6	0.194	5.000	4.573	91	70-130	
E13C2-PFTeDA	524963.7	13C2-PFDA	303684.6	1.729	5.000	4.873	97	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

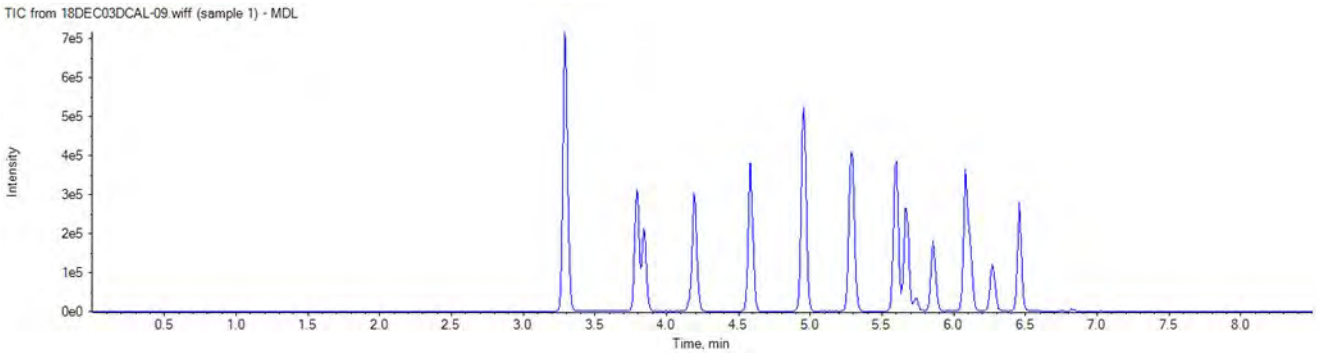
Analyte Quantitation Peak Table

Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-09.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.29	1.000	26906.2		A	13C4-PFBA	3.29	844218.7	0.032	0.180
PFPeA	3.79	1.000	22386.2		A	13C5-PFPeA	3.79	702747.6	0.032	0.160
PFBS	3.84	1.000	9331.0		A	13C3-PFBS	3.84	423408.3	0.022	0.107
4:2-FTS	4.16	1.000	1978.8		A	13C2-4:2-FTS	4.16	44020.8	0.045	0.114
PFHxA	4.19	1.000	23167.9		A	13C5-PFHxA	4.19	635423.9	0.036	0.155
PFPeS	4.21	1.100	4602.9		A	13C3-PFBS	3.84	423408.3	0.011	0.104
PFHpA	4.58	1.000	21005.1		A	13C4-PFHpA	4.58	472942.7	0.044	0.143
PFHxS	4.59	1.000	8861.6		M	13C3-PFHxS	4.59	340184.7	0.026	0.123
6:2-FTS	4.95	1.000	800.8		A	13C2-6:2-FTS	4.94	32305.3	0.025	0.060
PFHpS	4.95	1.080	7801.0		A	13C3-PFHxS	4.59	340184.7	0.023	0.119
PFOA	4.95	1.000	22636.5		A	13C8-PFOA	4.95	811747.8	0.028	0.148
PFOS	5.28	1.000	8029.6		A	13C8-PFOS	5.28	304338.8	0.026	0.112
PFNA	5.30	1.000	17448.1		A	13C9-PFNA	5.30	504934.5	0.035	0.130
PFNS	5.58	1.060	5125.3		A	13C8-PFOS	5.28	304338.8	0.017	0.114
PFDA	5.60	1.000	15657.6		A	13C6-PFDA	5.60	587217.3	0.027	0.146
8:2-FTS	5.60	1.000	1461.6		A	13C2-8:2-FTS	5.60	21464.7	0.068	0.146
PFOSA	5.67	1.000	15115.2		A	13C8-PFOSA	5.67	626681.1	0.024	0.126
NMeFOSAA	5.74	1.000	2388.0		A	d3-NMeFOSAA	5.74	74737.3	0.032	0.211
PFDS	5.83	1.100	4184.9		A	13C8-PFOS	5.28	304338.8	0.014	0.118
PFUnDA	5.86	1.000	13447.1		A	13C7-PFUnDA	5.86	329096.8	0.041	0.124
NEtFOSAA	5.87	1.000	1301.1		A	d5-NEtFOSAA	5.87	65684.2	0.020	0.100
PFDoDA	6.08	1.000	16955.7		A	13C2-PFDoDA	6.08	690730.2	0.025	0.140
10:2-FTS	6.09	1.090	632.6		A	13C2-8:2-FTS	5.60	21464.7	0.029	0.073
NMePFOSAE	6.12	1.000	7132.3		A	d7-NMePFOSAE	6.11	269209.5	0.026	0.112
NMePFOSA	6.13	1.000	1370.7		A	d3-NMePFOSA	6.13	72538.0	0.019	0.100
PFDoS	6.25	1.180	1029.3		A	13C8-PFOS	5.28	304338.8	0.003	0.053
NEtPFOSAE	6.28	1.000	8428.1		A	d9-NEtPFOSAE	6.27	214188.2	0.039	0.136
NEtPFOSA	6.29	1.000	1354.9		A	d5-NEtPFOSA	6.28	58871.3	0.023	0.107
PFTrDA	6.28	1.030	17429.1		A	13C2-PFDoDA	6.08	690730.2	0.025	0.149
PFTeDA	6.46	1.000	12930.1		A	13C2-PFTeDA	6.46	524963.7	0.025	0.146
PFHxDA	6.76	1.050	5431.8		A	13C2-PFTeDA	6.46	524963.7	0.010	0.133
PFODA	7.02	1.090	3451.2		A	13C2-PFTeDA	6.46	524963.7	0.007	0.104

Total Ion Chromatogram

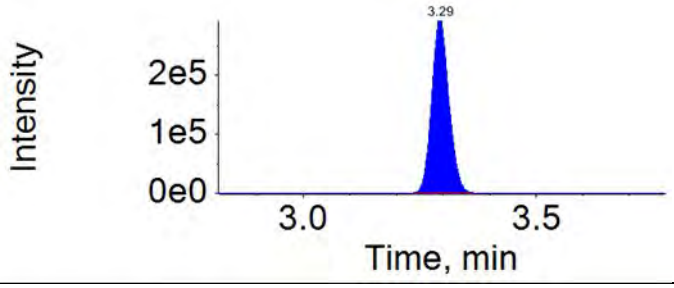


APPROVED
By MSM at 10:22 am, 12/4/18

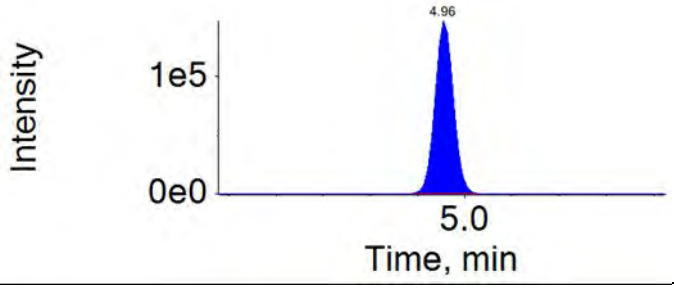
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

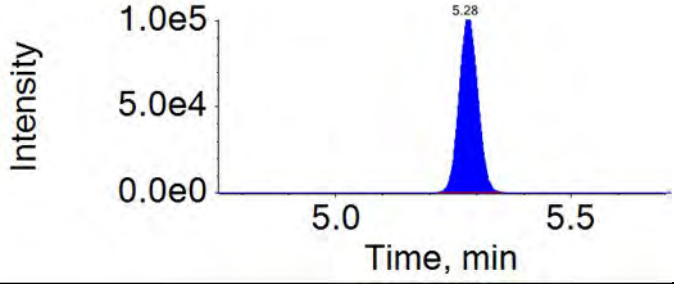
Injection Standard: 13C3-PFBA
216.0 / 172.0



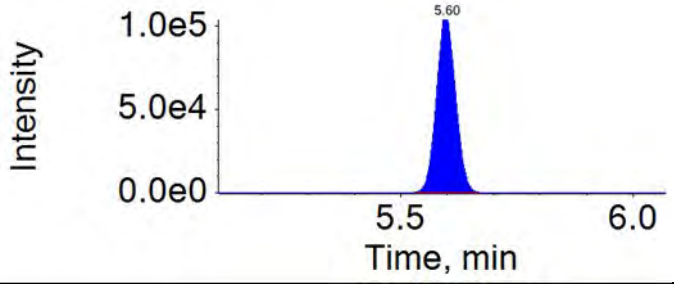
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

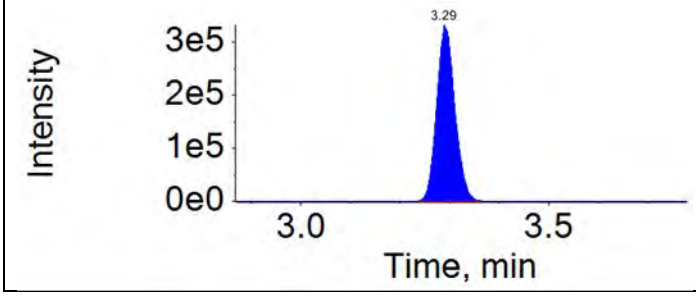


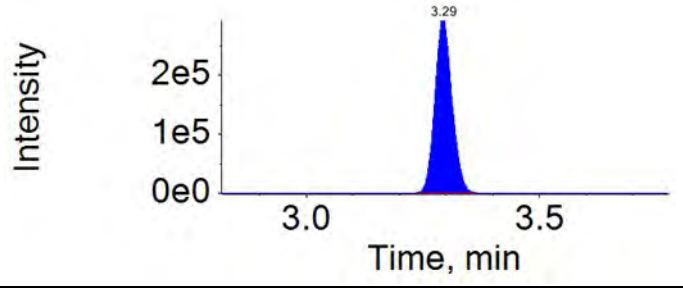
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

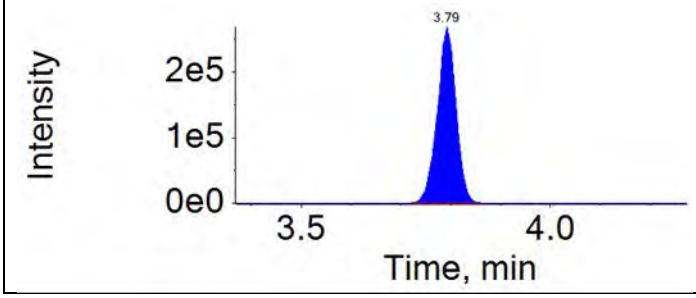
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

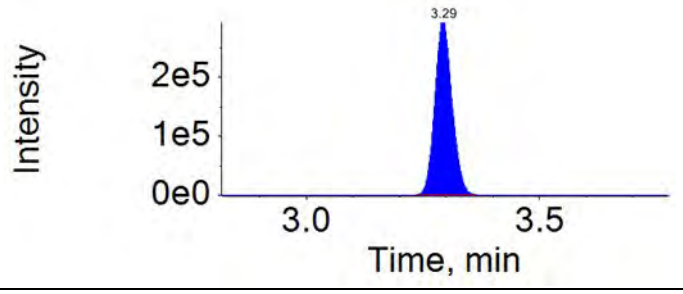
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



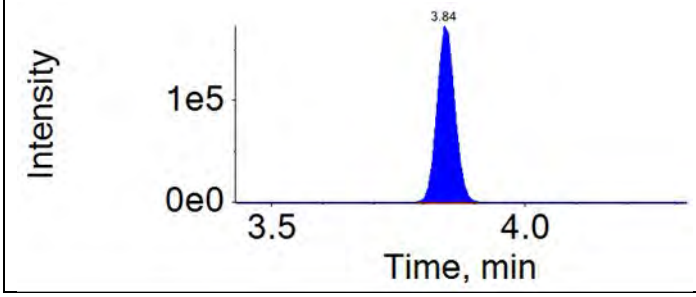


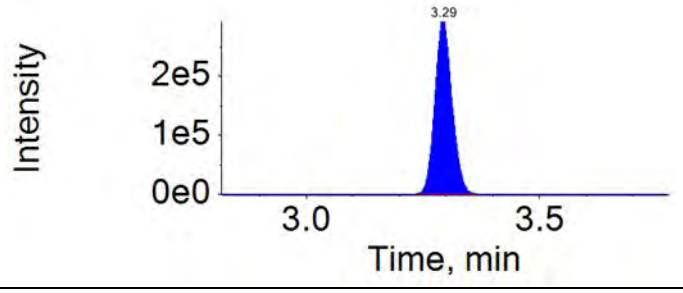
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



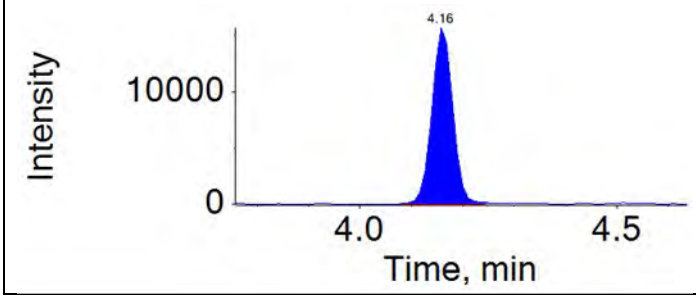


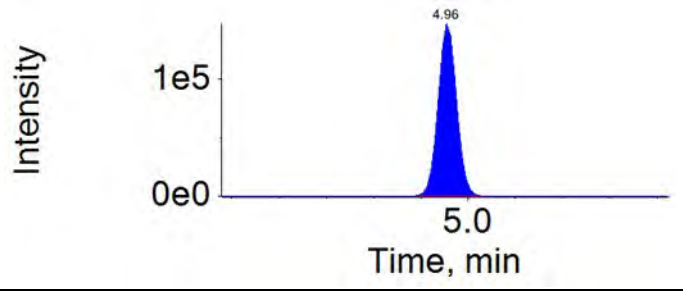
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





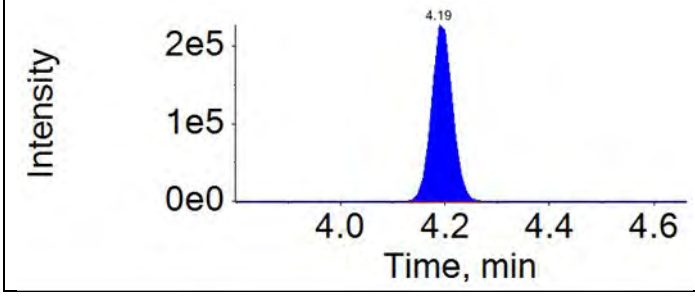
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

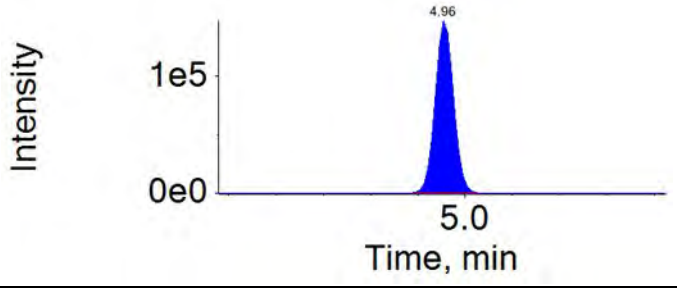




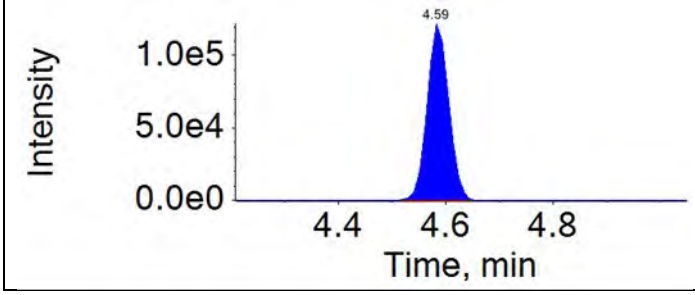
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

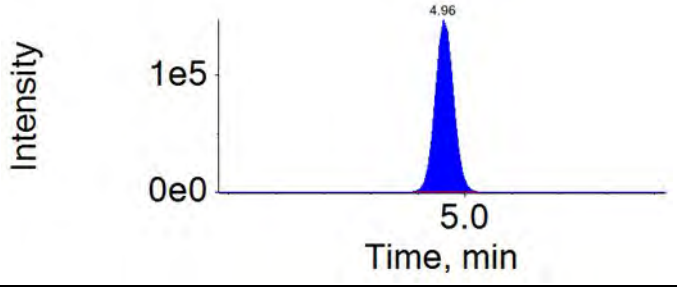
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



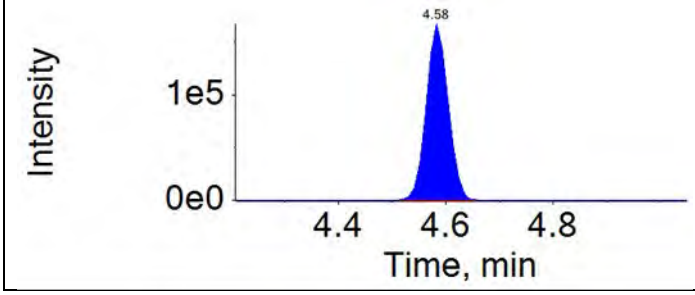


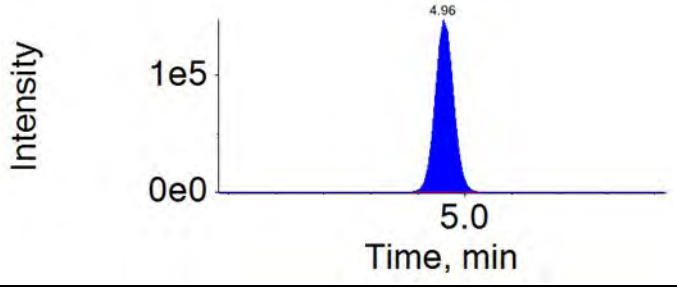
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



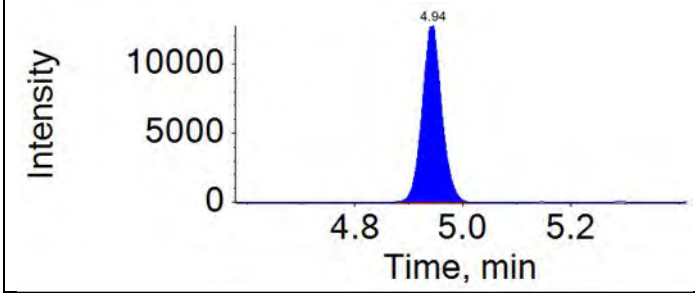


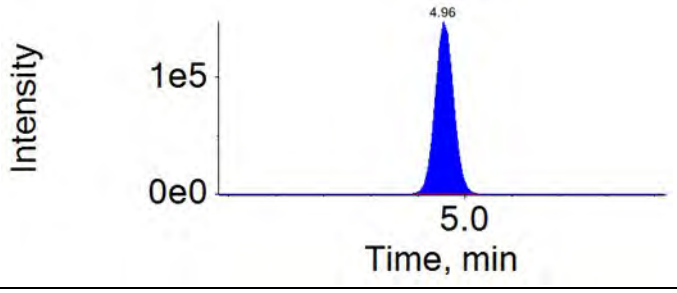
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



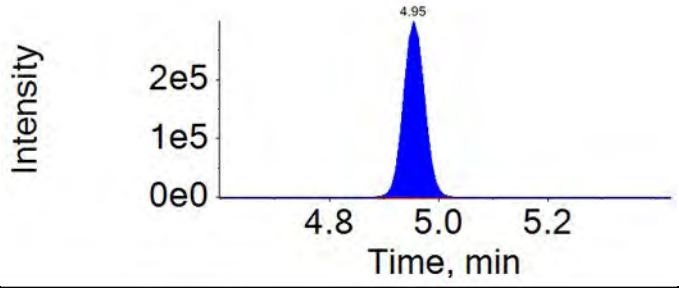


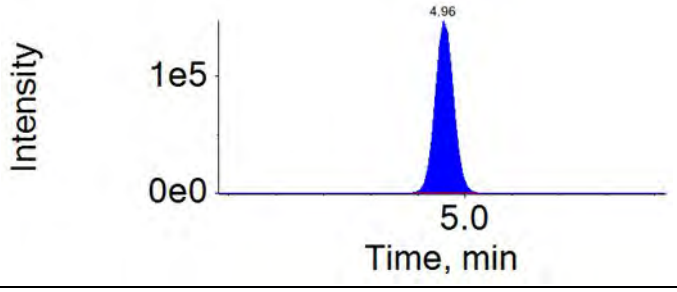
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

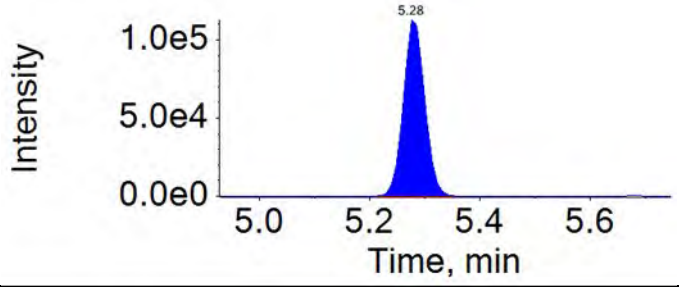
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

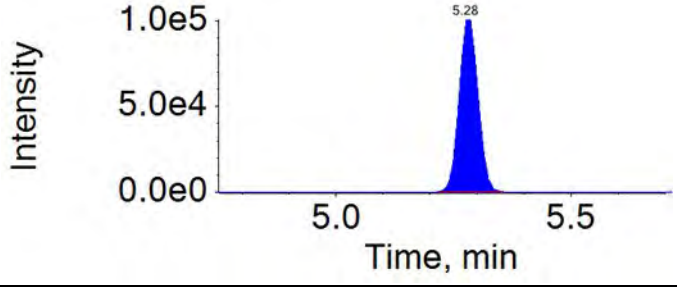
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



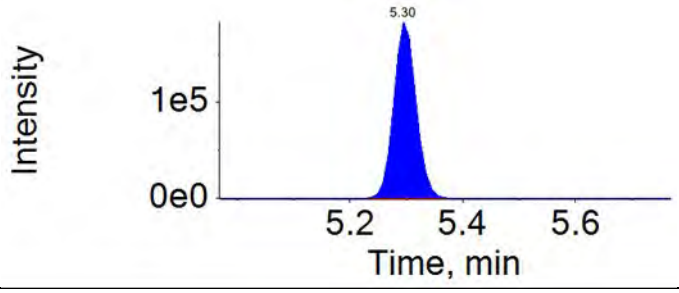


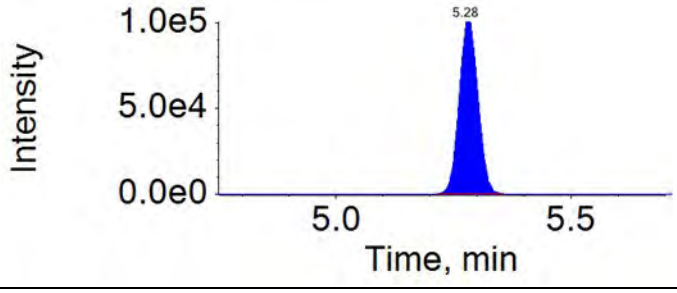
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



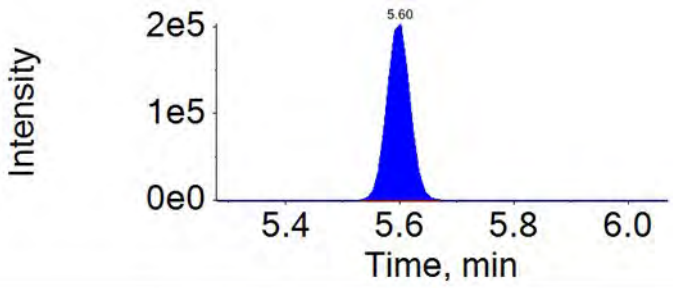


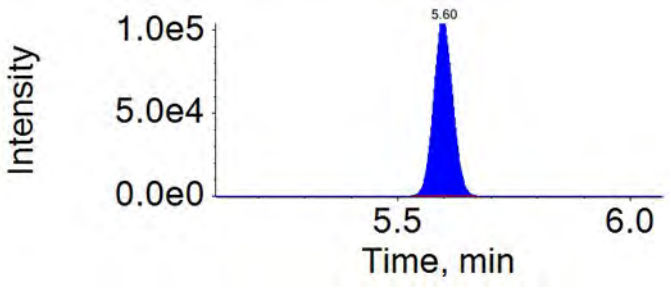
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0



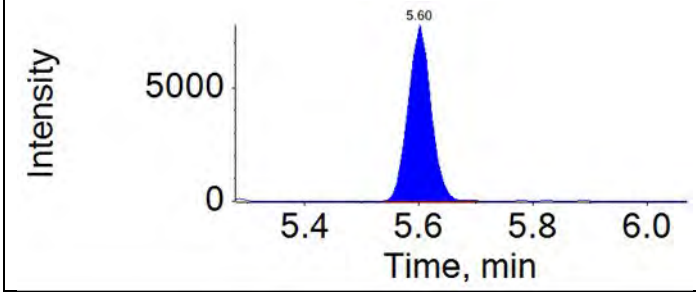


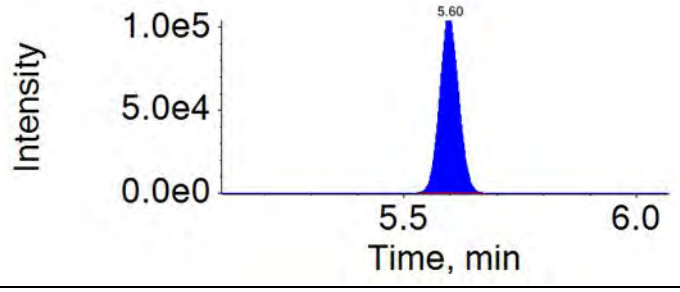
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

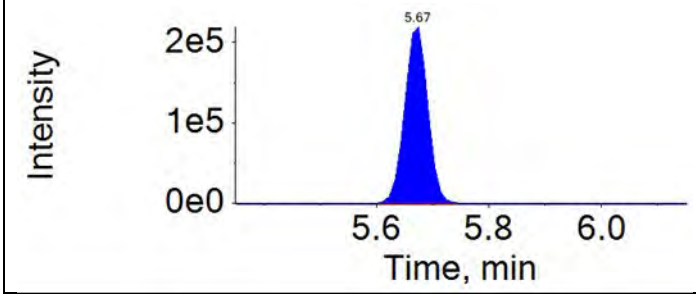
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

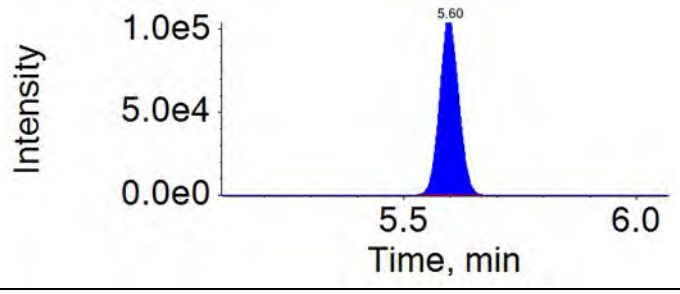
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



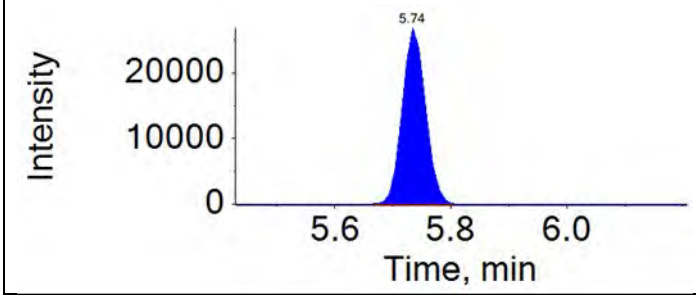


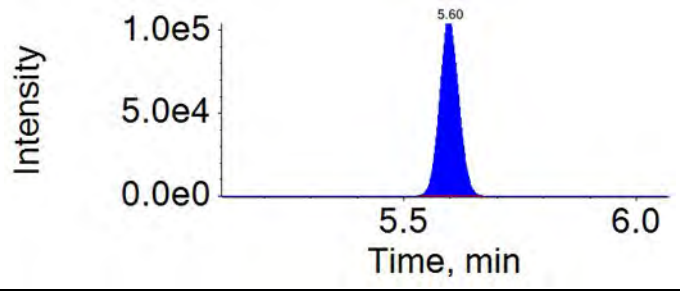
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



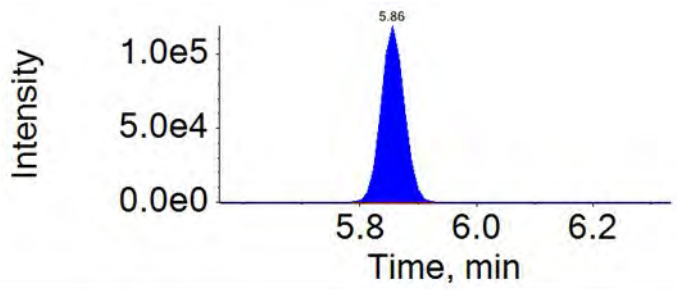


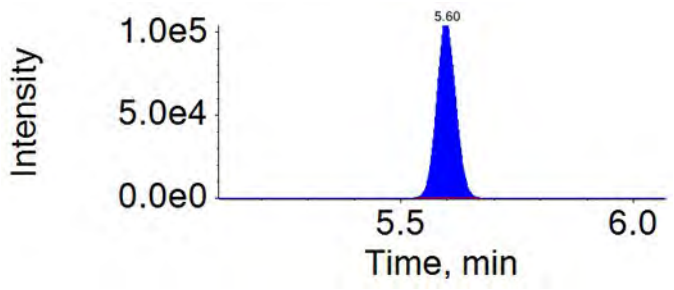
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0



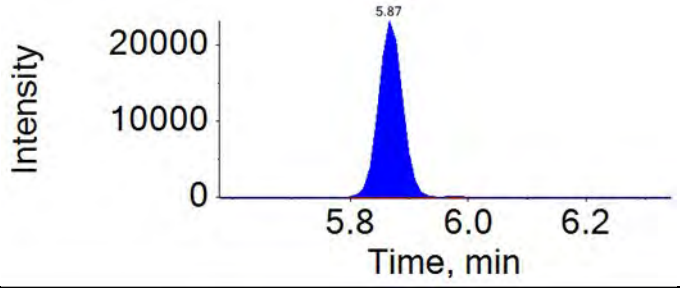
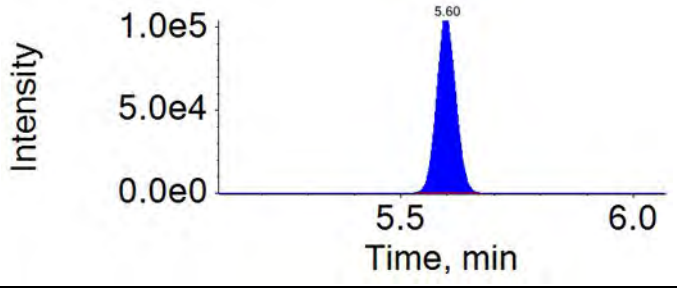


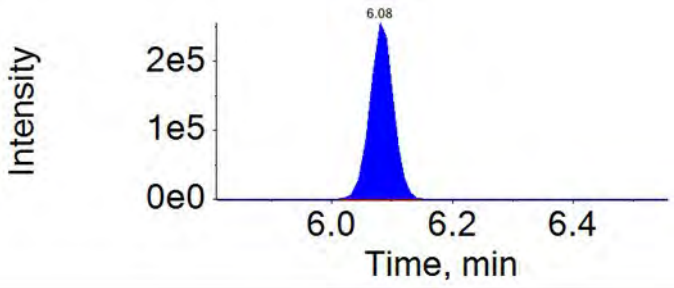
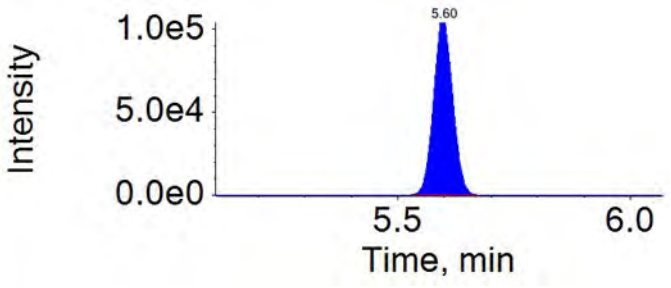
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

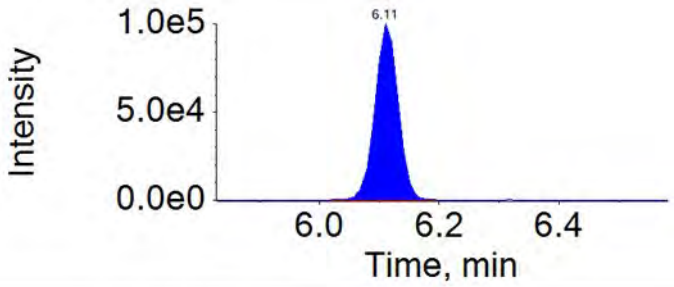
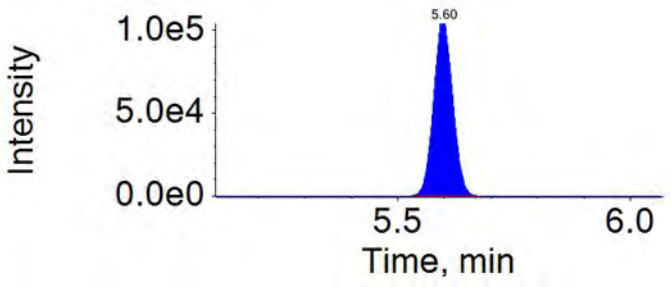


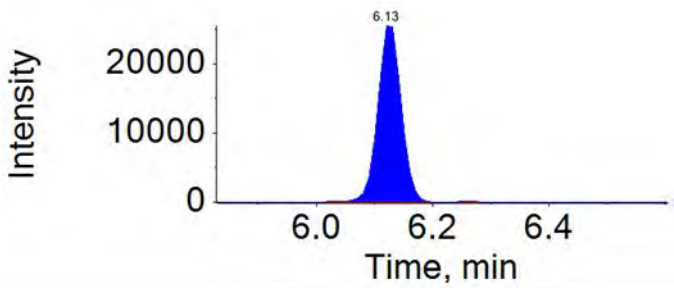
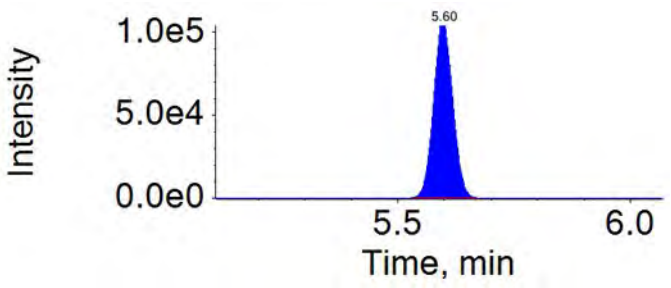


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

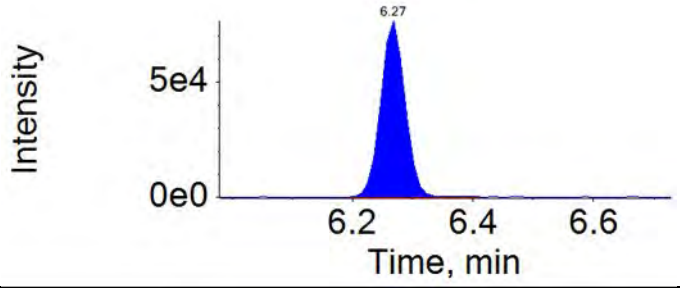
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

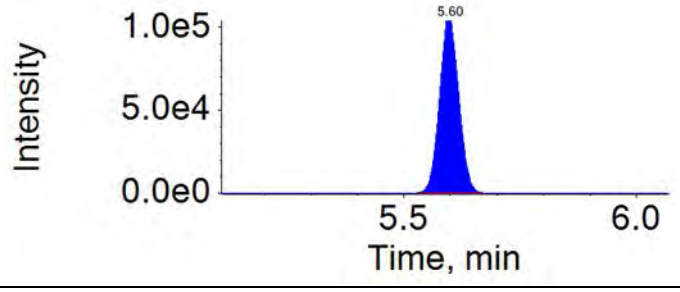
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

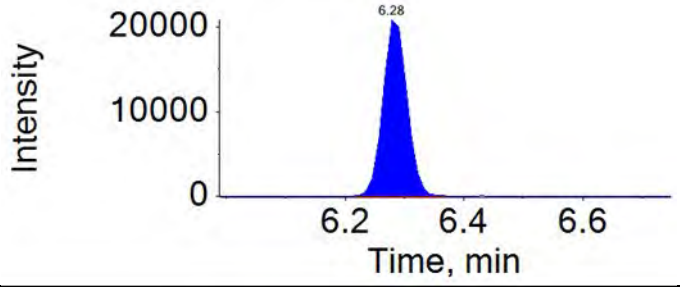
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

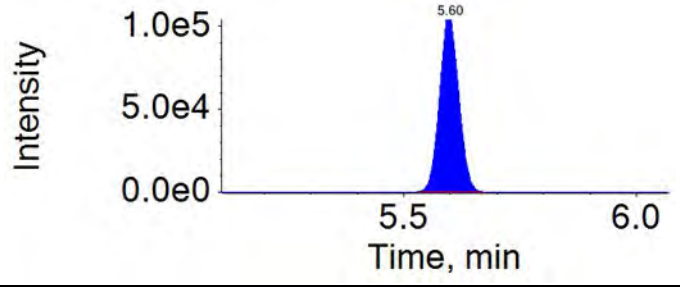
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



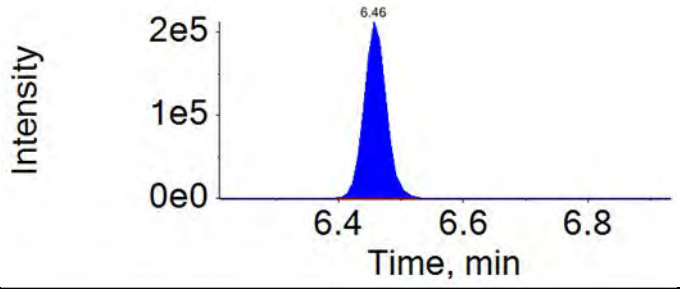


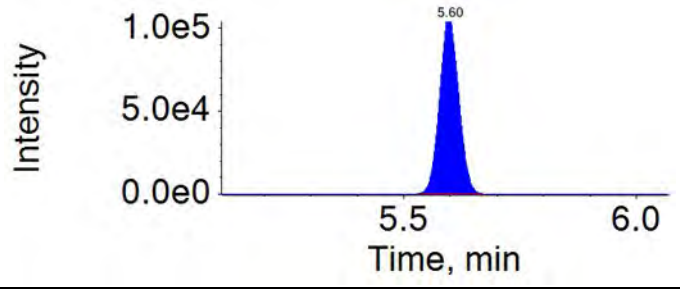
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



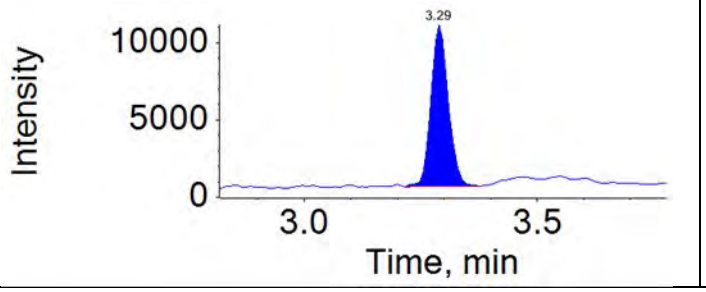


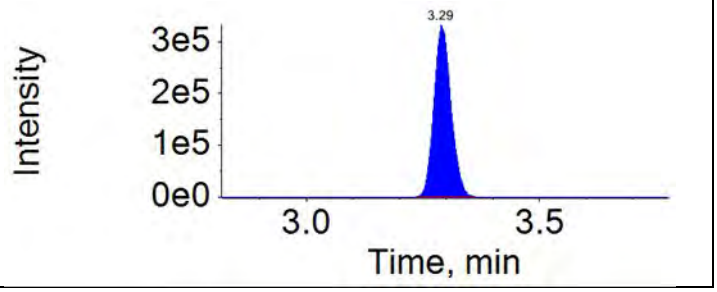
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

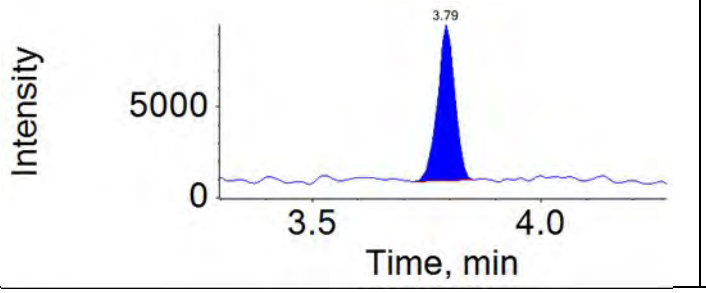
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

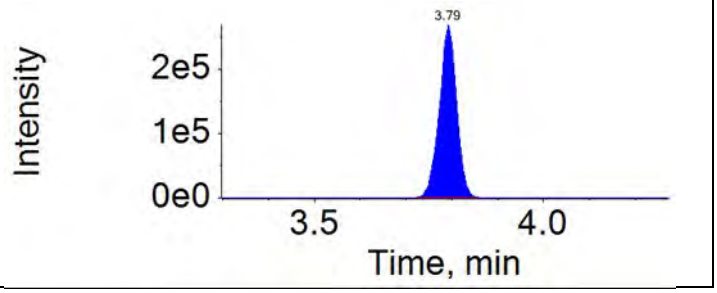
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



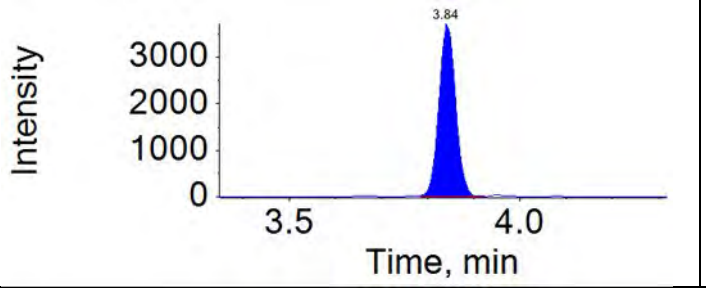


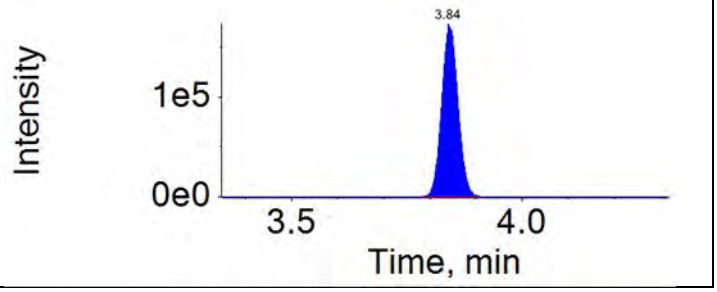
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



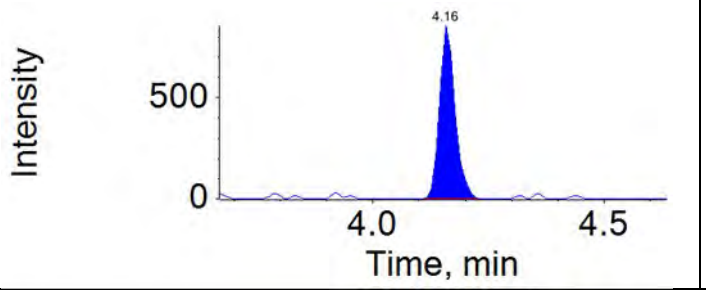


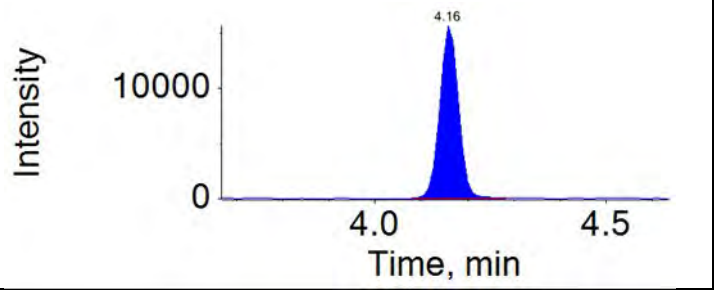
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



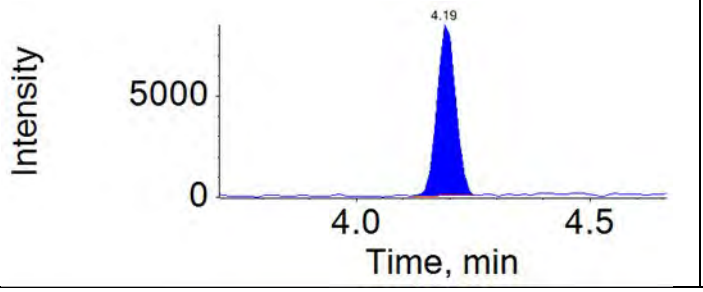


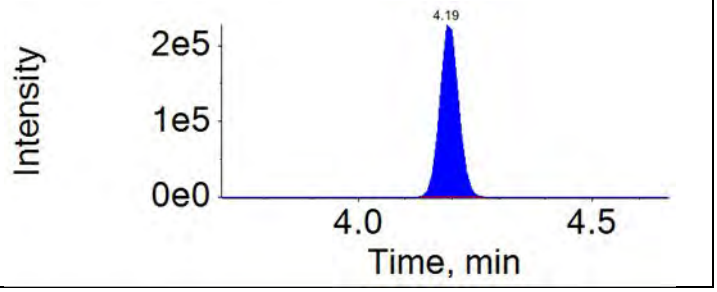
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

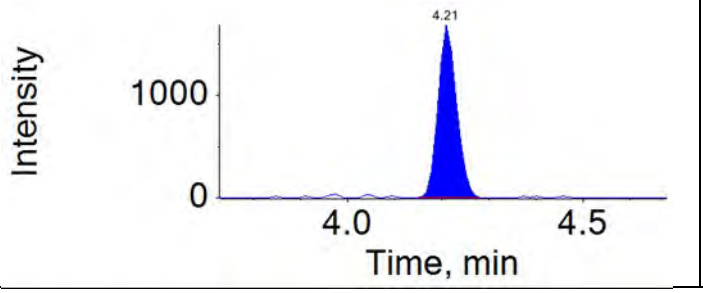
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

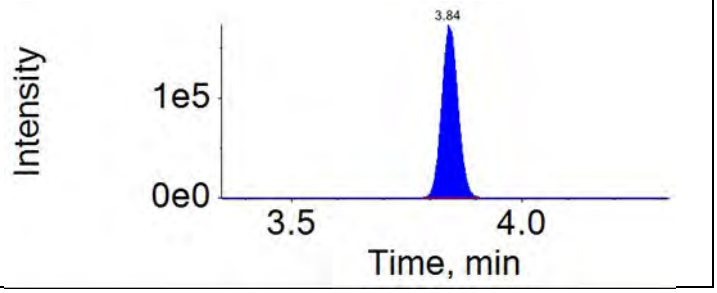
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



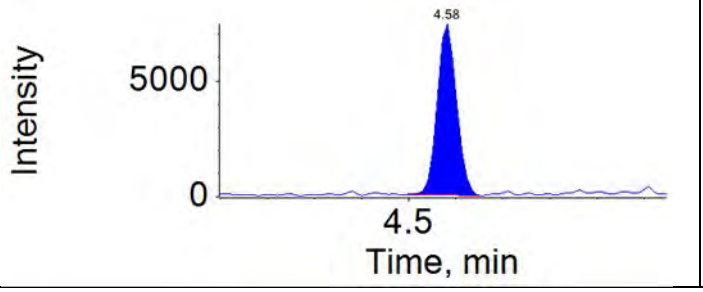


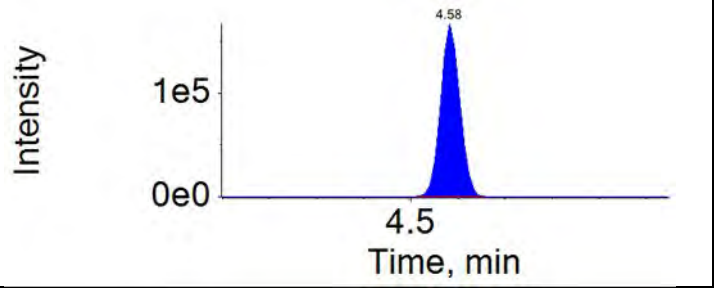
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



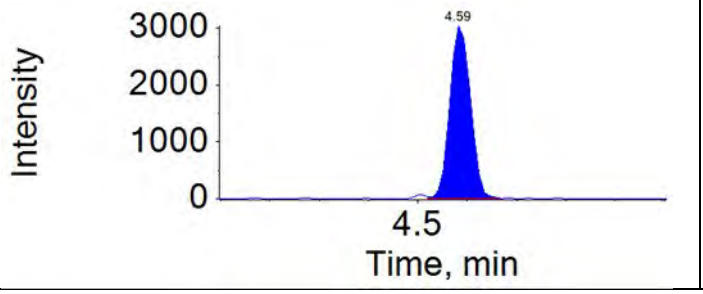


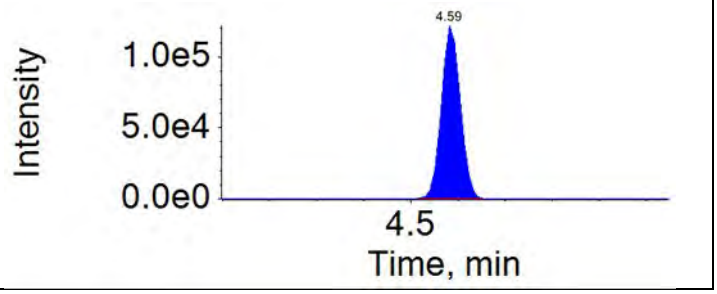
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

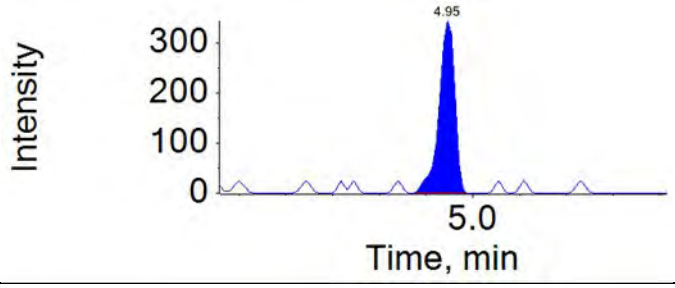
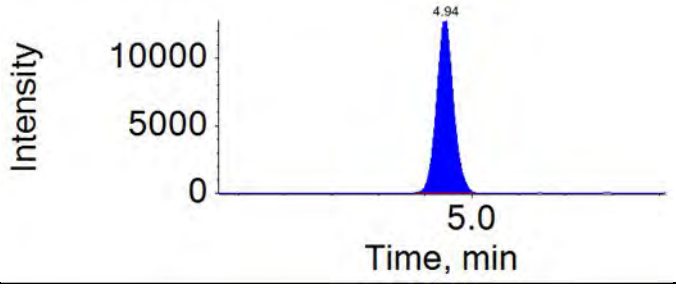


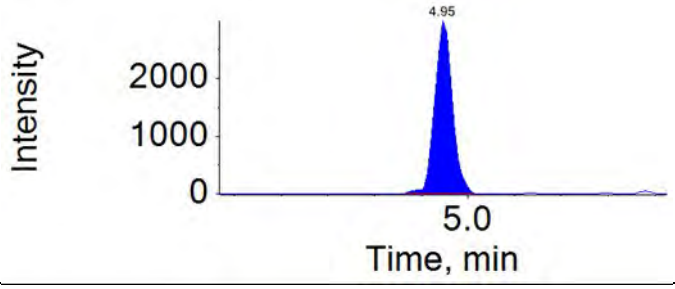
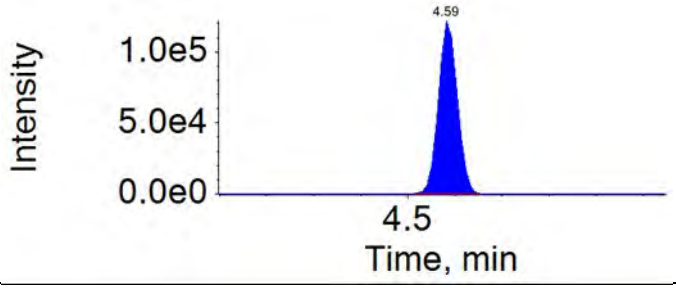


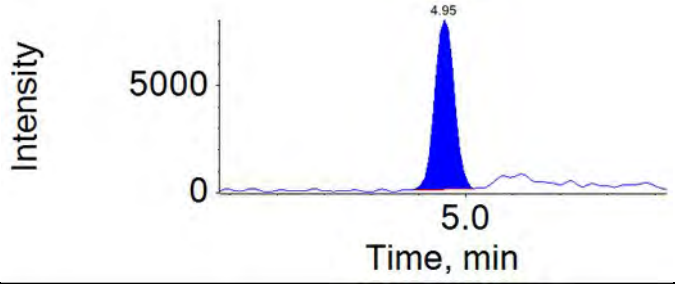
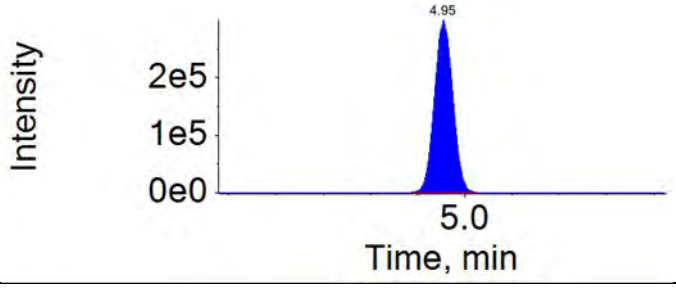
APPROVED
By MSM at 10:22 am, 12/4/18

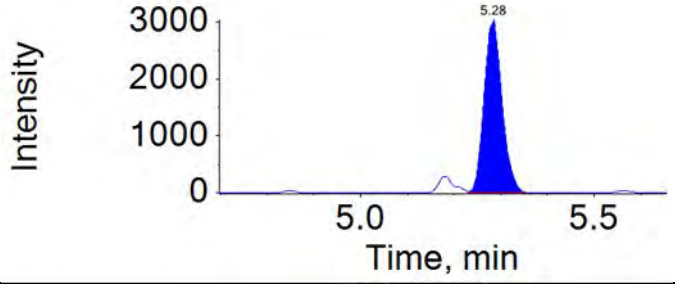
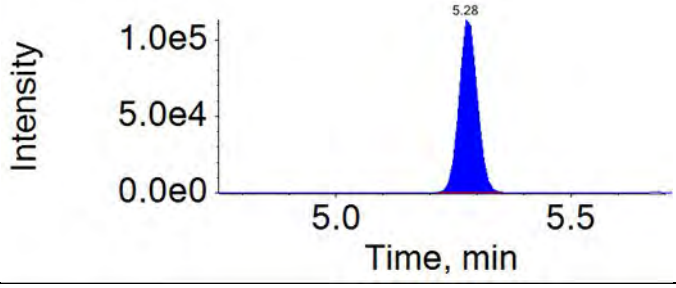
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

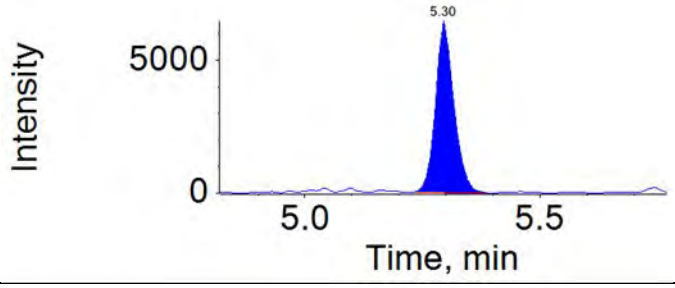
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

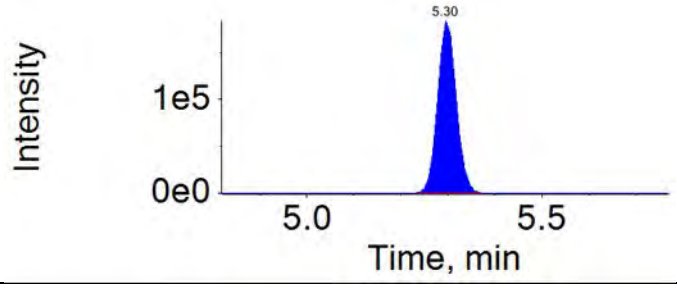
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

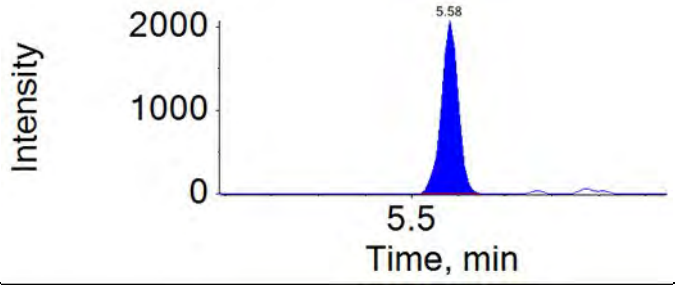
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

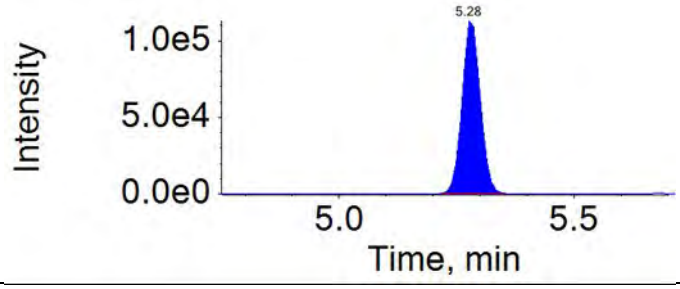
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



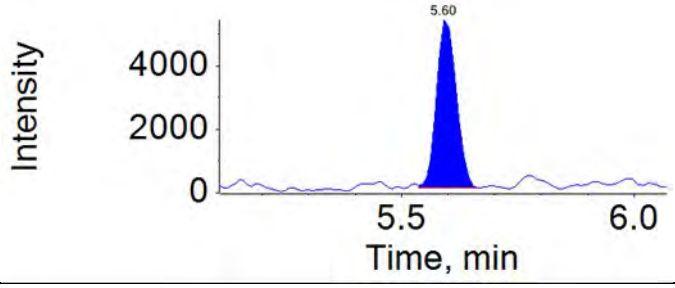


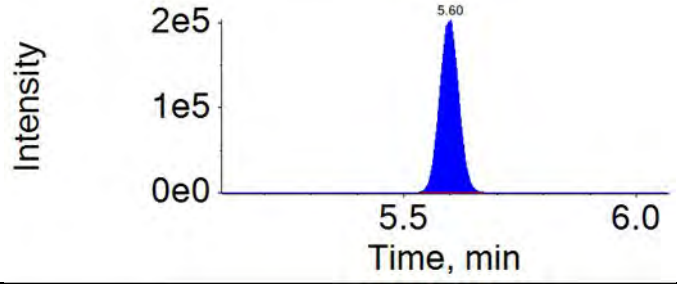
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



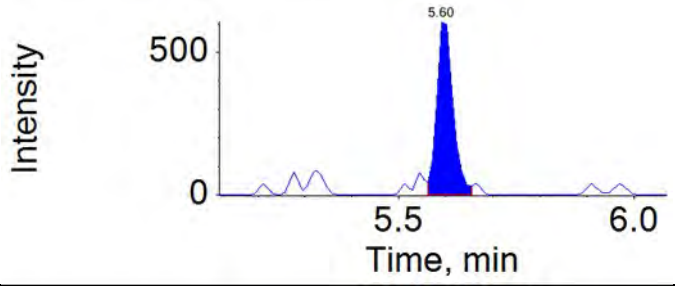


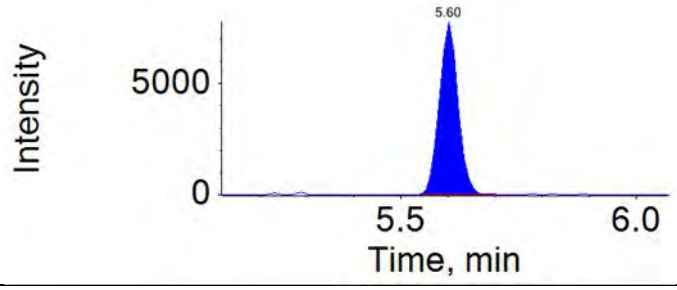
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

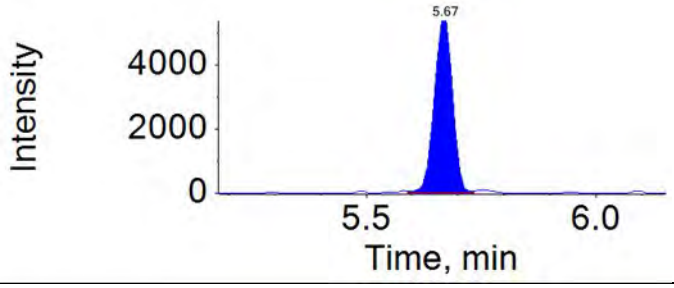
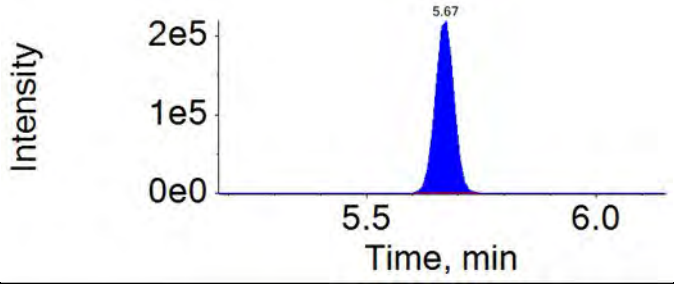


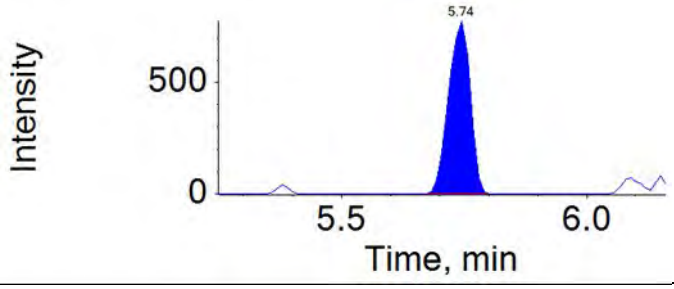
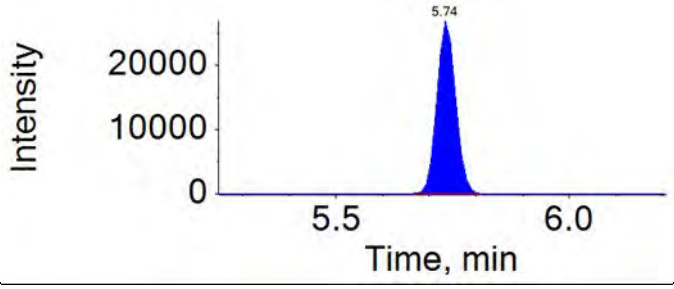


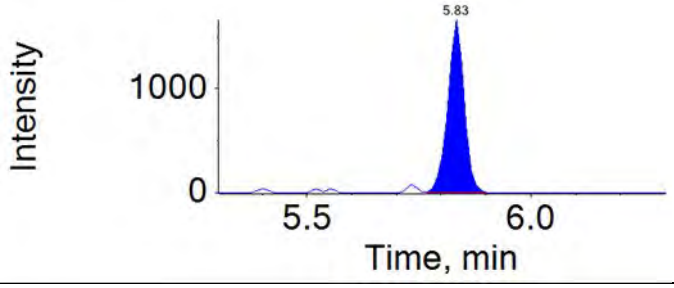
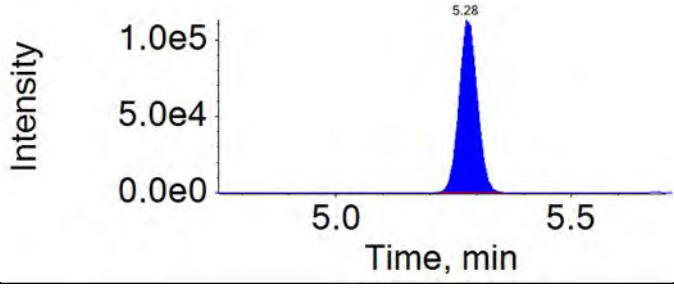
APPROVED
By MSM at 10:22 am, 12/4/18

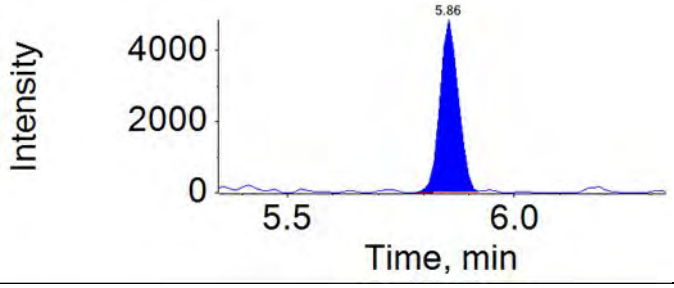
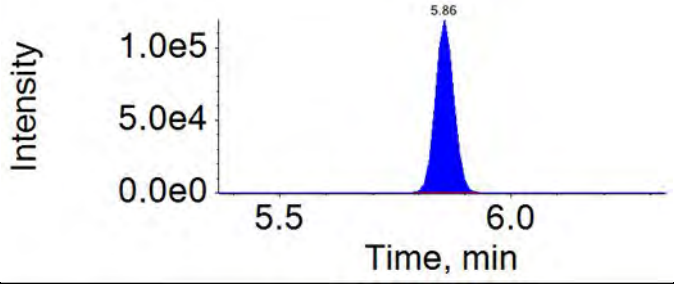
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

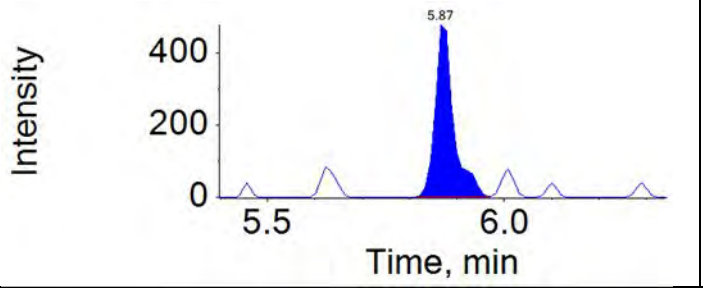
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

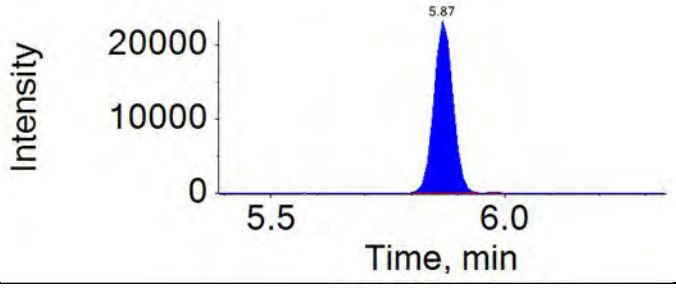
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

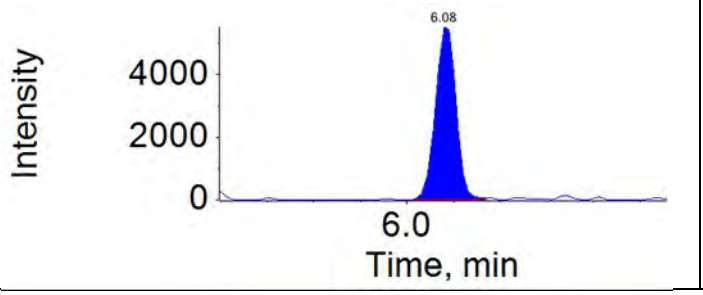
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

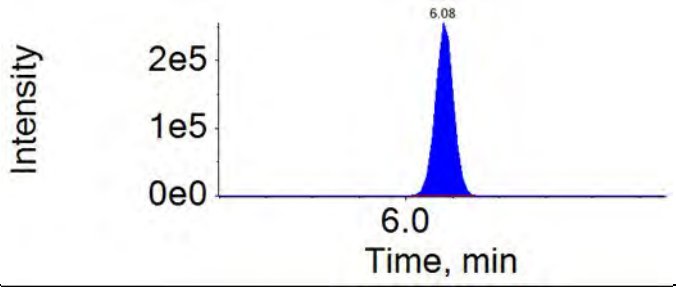
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



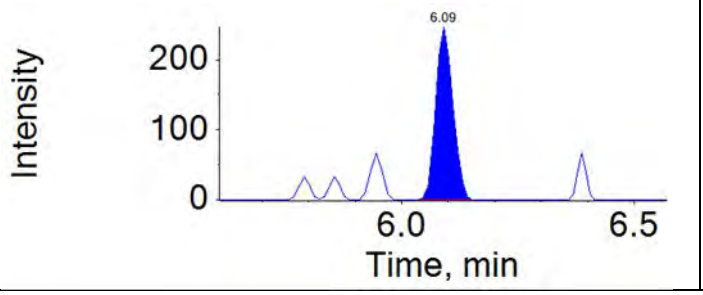


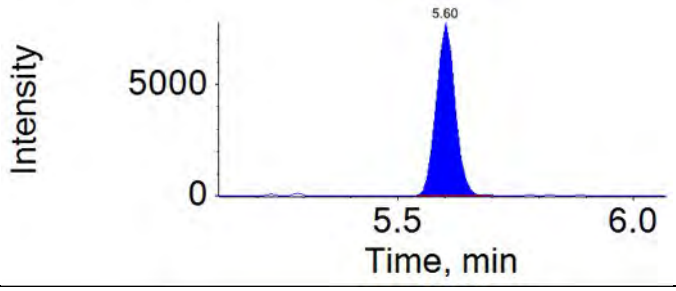
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



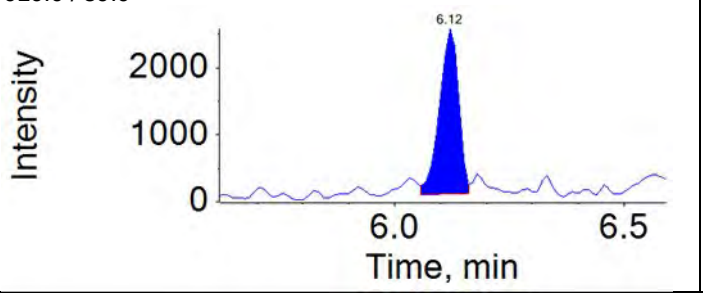


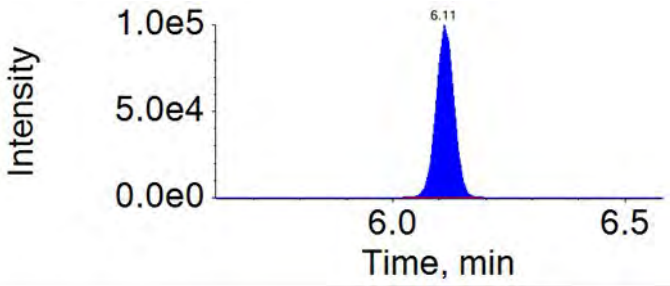
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



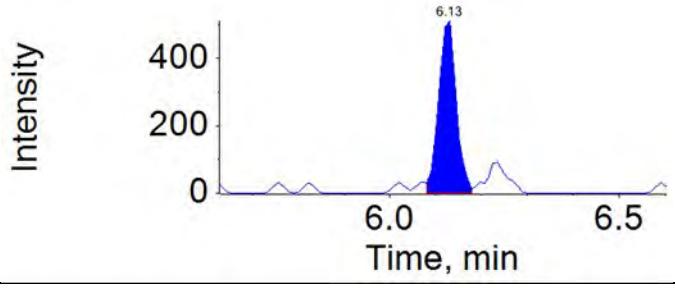


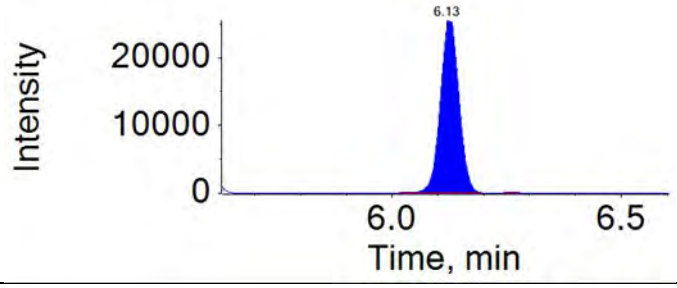
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

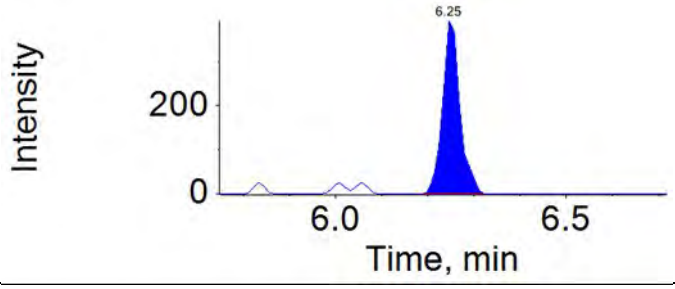
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

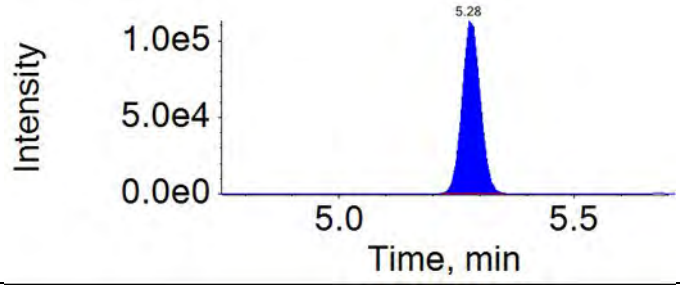
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



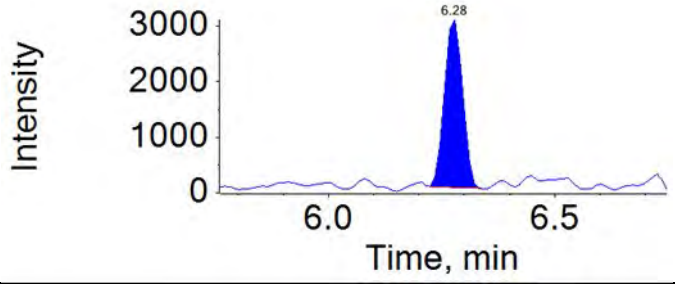


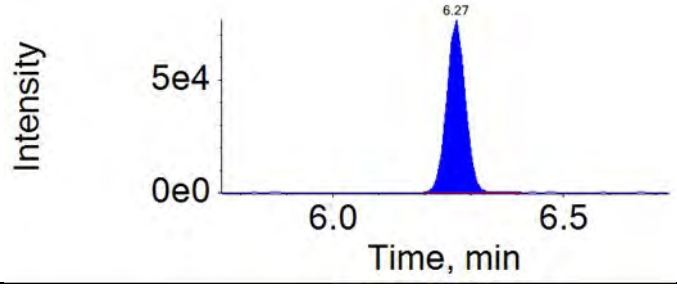
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



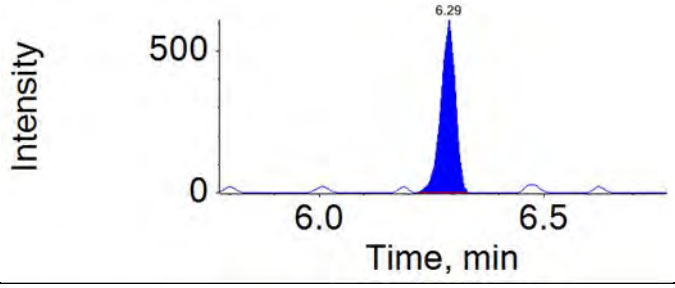


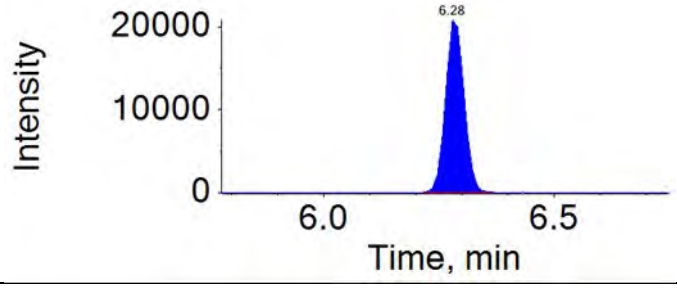
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

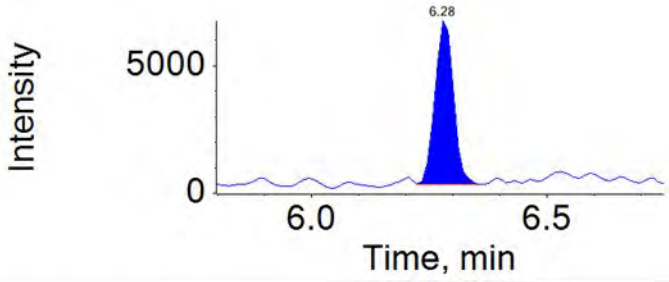
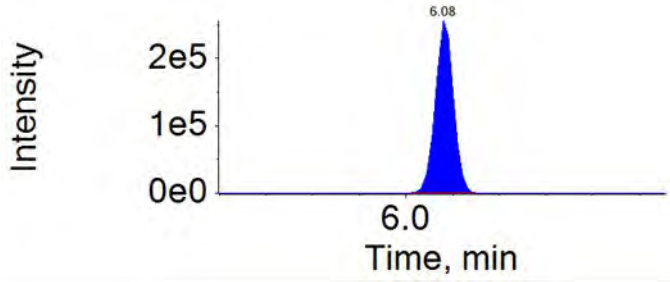


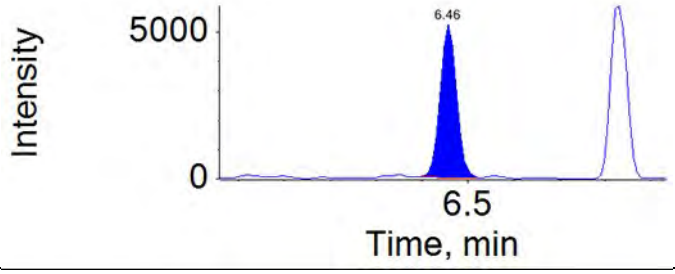
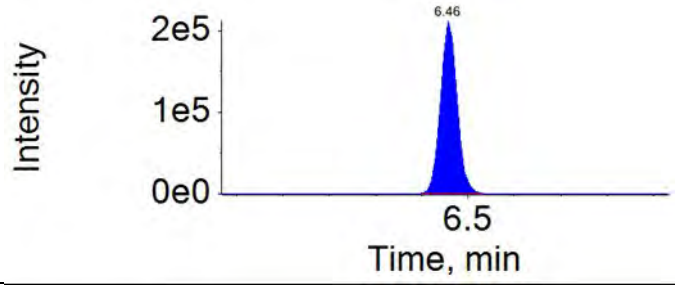


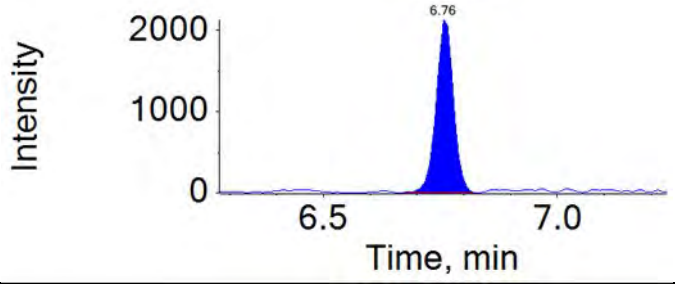
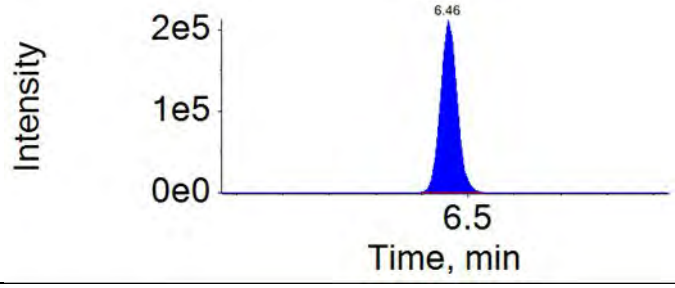
APPROVED
By MSM at 10:22 am, 12/4/18

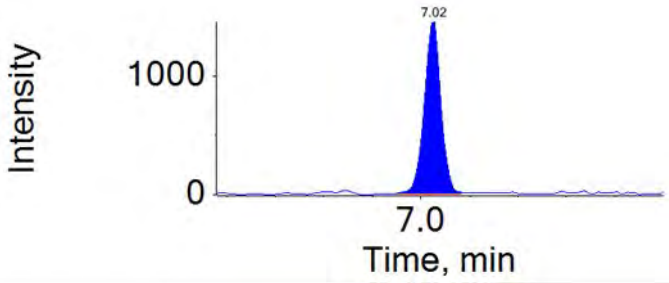
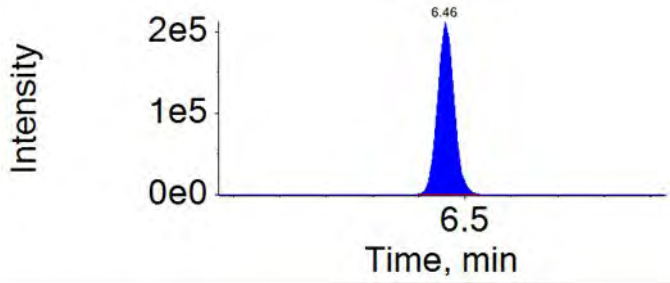
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

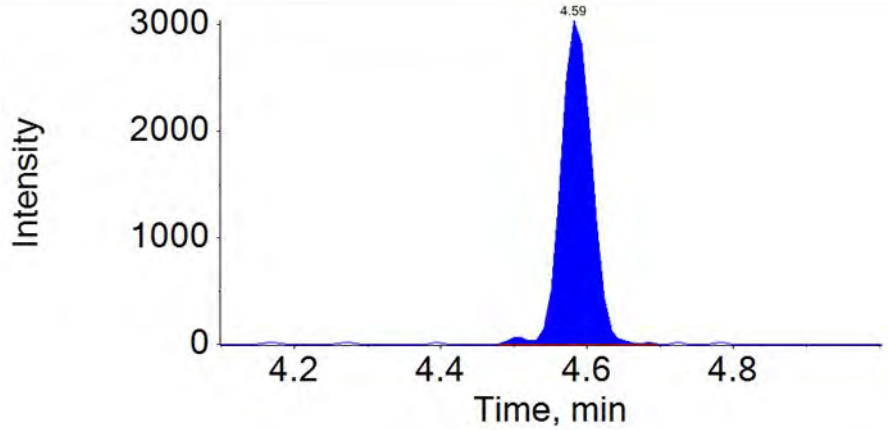
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

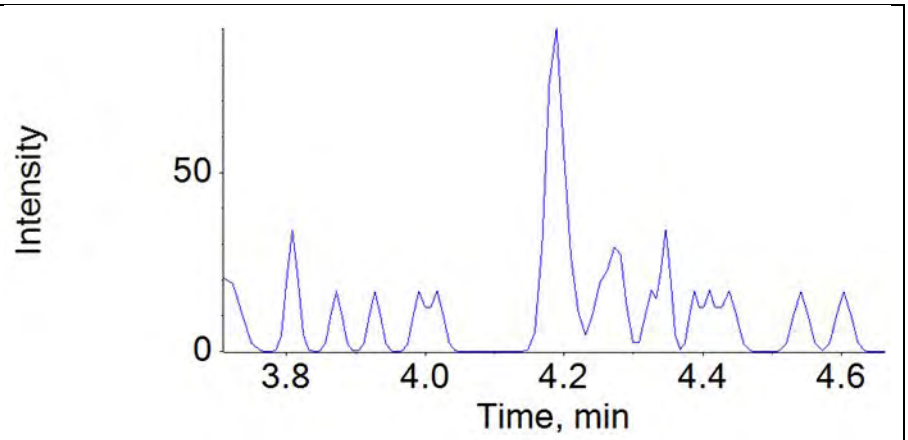
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.59
Peak Area:
8989.08
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL



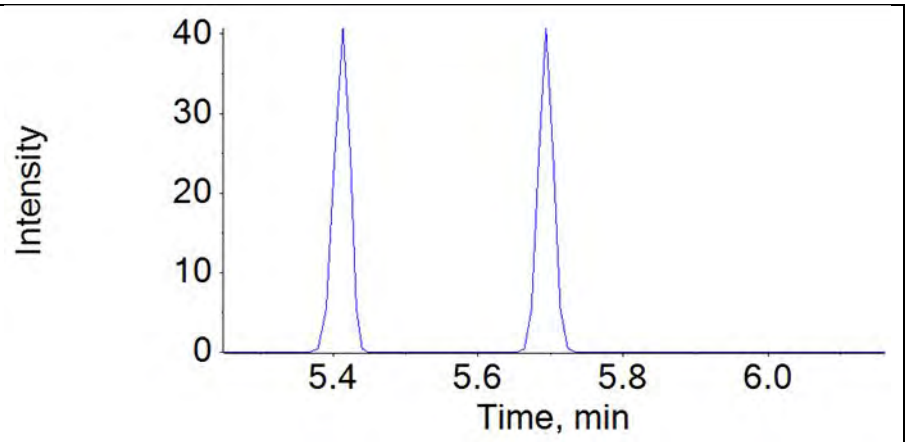
Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
313.0 / 119.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL



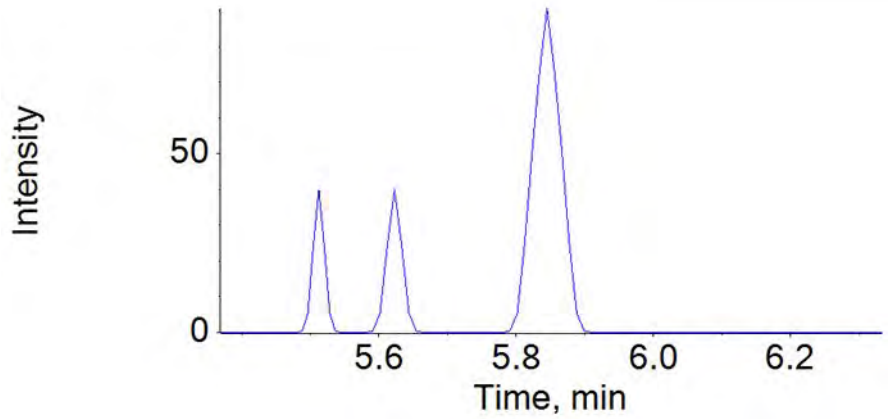
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

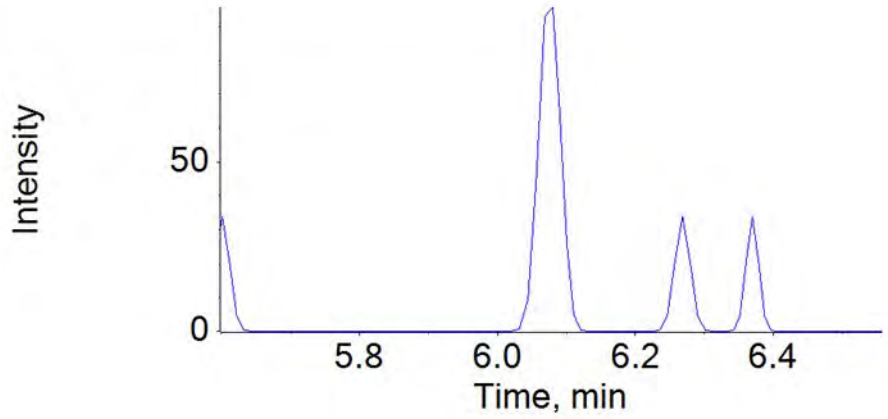
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFUnDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
563.0 / 169.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL



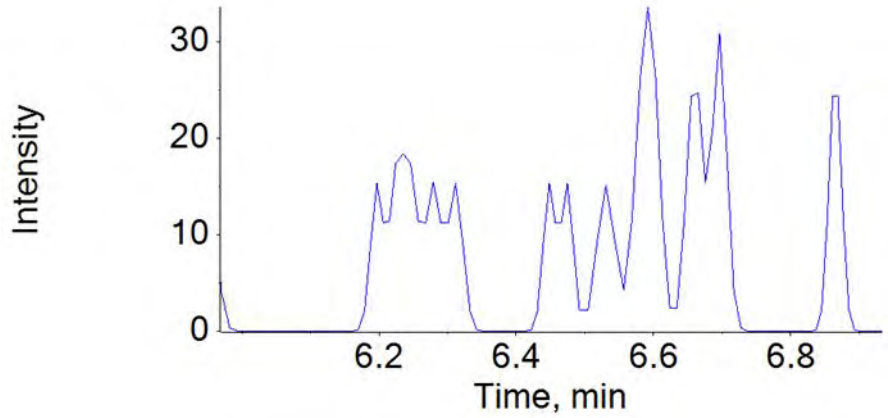
Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
613.0 / 169.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18DEC03DCAL-09.wiff
Sample Name:
MDL

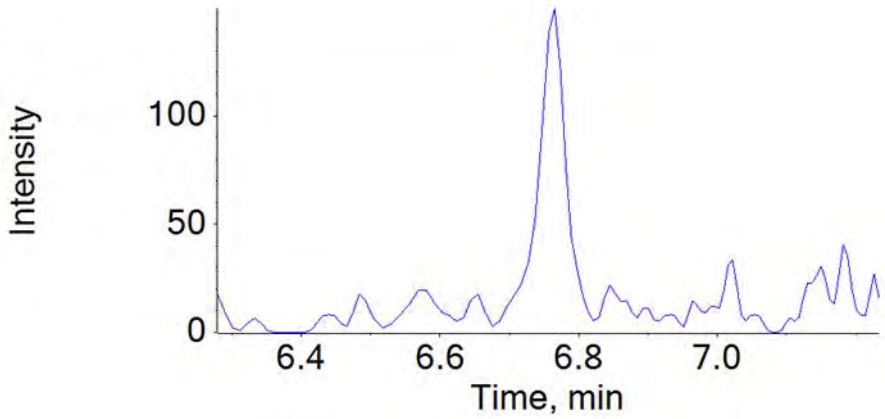


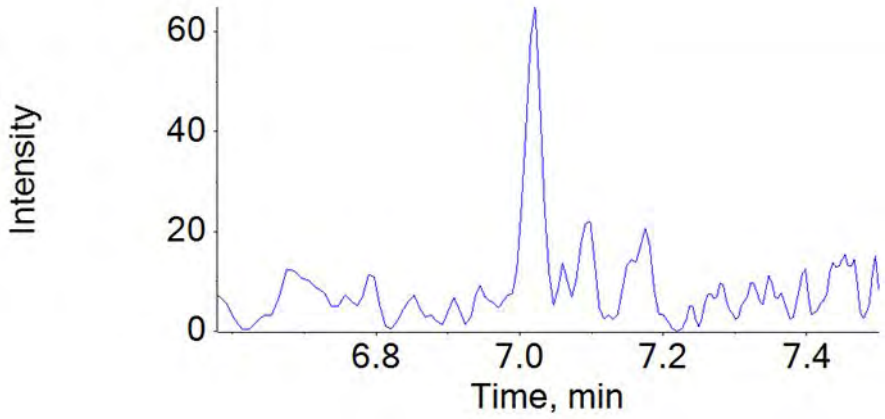
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHxDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 813.0 / 169.0 **File Name:** 18DEC03DCAL-09.wiff **Sample Name:** MDL	 **Integration Comment:** incorrect integration

Component Name: PFODA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 913.0 / 169.0 **File Name:** 18DEC03DCAL-09.wiff **Sample Name:** MDL	 **Integration Comment:** incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 10:03:31 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

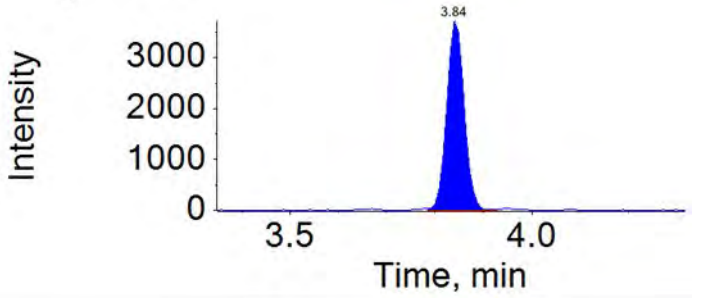
Sample Name: MDL **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-09.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.84	1.00	9330.96	A	1.0000	1.0000			
PFBS_2	3.84	1.00	3568.10	A	0.3698	0.3824	3	50	
4:2-FTS	4.16	1.00	1978.75	A	1.0000	1.0000			
4:2-FTS_2	4.16	1.00	1822.97	A	0.6536	0.9213	41	50	
PFHxA	4.19	1.00	23167.90	A	1.0000	1.0000			
PFHxA_2	4.19	1.00	184.03	M	0.0116	0.0079	-31	50	
PFPeS	4.21	1.10	4602.85	A	1.0000	1.0000			
PFPeS_2	4.22	1.10	2313.10	A	0.5000	0.5025	1	50	
PFHpA	4.58	1.00	21005.05	A	1.0000	1.0000			
PFHpA_2	4.58	1.00	1510.51	A	0.0526	0.0719	37	50	
PFHxS	4.59	1.00	8861.61	M	1.0000	1.0000			
PFHxS_2	4.58	1.00	2765.94	A	0.3476	0.3121	-10	50	
6:2-FTS	4.95	1.00	800.83	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	801.98	A	0.6372	1.0014	57	50	OOS
PFHpS	4.95	1.08	7801.01	A	1.0000	1.0000			
PFHpS_2	4.95	1.08	3028.90	A	0.3956	0.3883	-2	50	
PFOA	4.95	1.00	22636.45	A	1.0000	1.0000			
PFOA_2	4.96	1.00	1815.86	A	0.0618	0.0802	30	50	
PFOS	5.28	1.00	8029.62	A	1.0000	1.0000			
PFOS_2	5.28	1.00	2405.54	A	0.2940	0.2996	2	50	
PFNA	5.30	1.00	17448.09	A	1.0000	1.0000			
PFNA_2	5.29	1.00	632.33	A	0.0196	0.0362	85	50	OOS
PFNS	5.58	1.06	5125.25	A	1.0000	1.0000			
PFNS_2	5.58	1.06	1844.44	A	0.4676	0.3599	-23	50	
PFDA	5.60	1.00	15657.59	A	1.0000	1.0000			
PFDA_2	5.58	1.00	177.10	A	0.0073	0.0113	55	50	OOS
8:2-FTS	5.60	1.00	1461.55	A	1.0000	1.0000			
8:2-FTS_2	5.61	1.00	370.64	A	0.6049	0.2536	-58	50	OOS
NMeFOSAA	5.74	1.00	2388.00	A	1.0000	1.0000			
NMeFOSAA_2	5.69	0.99	60.23	M	0.2642	0.0252	-90	50	OOS
PFDS	5.83	1.10	4184.87	A	1.0000	1.0000			
PFDS_2	5.83	1.10	2558.89	A	0.4948	0.6115	24	50	
PFUnDA	5.86	1.00	13447.14	A	1.0000	1.0000			
PFUnDA_2	5.84	1.00	259.40	M	0.0046	0.0193	322	50	OOS
NEtFOSAA	5.87	1.00	1301.11	A	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	969.96	A	0.7504	0.7455	-1	50	
PFDoDA	6.08	1.00	16955.72	A	1.0000	1.0000			
PFDoDA_2	6.08	1.00	227.80	M	0.0143	0.0134	-6	50	
10:2-FTS	6.09	1.09	632.55	A	1.0000	1.0000			
10:2-FTS_2	6.10	1.09	668.46	A	0.7003	1.0568	51	50	OOS
PFTrDA	6.28	1.03	17429.08	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	363.95	A	0.0099	0.0209	110	50	OOS
PFTeDA	6.46	1.00	12930.09	A	1.0000	1.0000			
PFTeDA_2	6.46	1.00	40.70	M	0.0057	0.0031	-45	50	
PFHxDA	6.76	1.05	5431.84	A	1.0000	1.0000			
PFHxDA_2	6.76	1.05	419.95	M	0.0617	0.0773	25	50	
PFODA	7.02	1.09	3451.20	A	1.0000	1.0000			
PFODA_2	7.02	1.09	109.68	M	0.0266	0.0318	19	50	

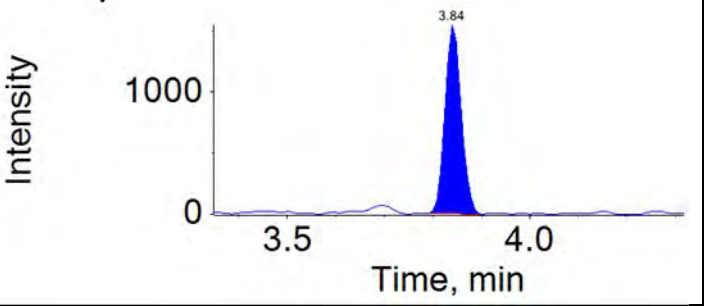
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

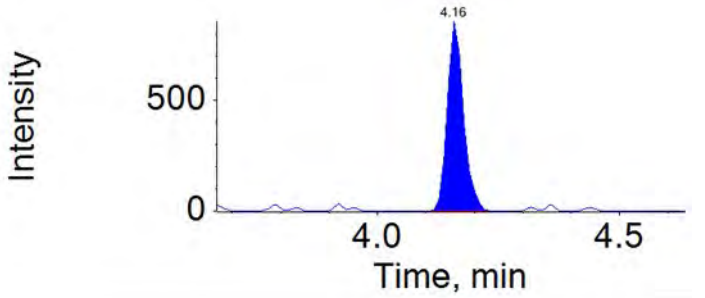
Component: PFBS
Primary Mass: 299.0 / 80.0



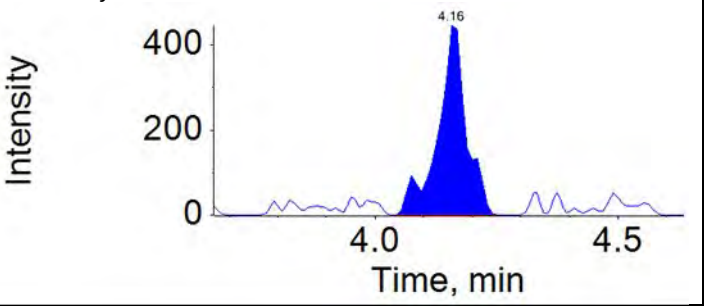
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



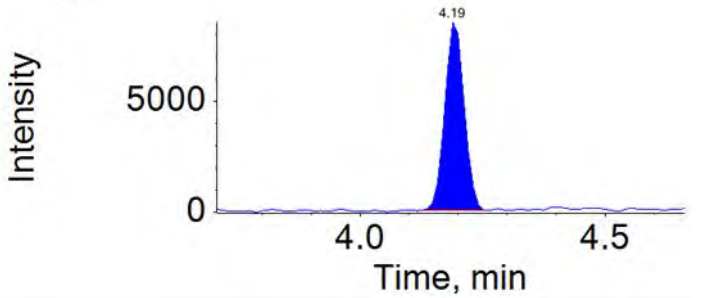
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



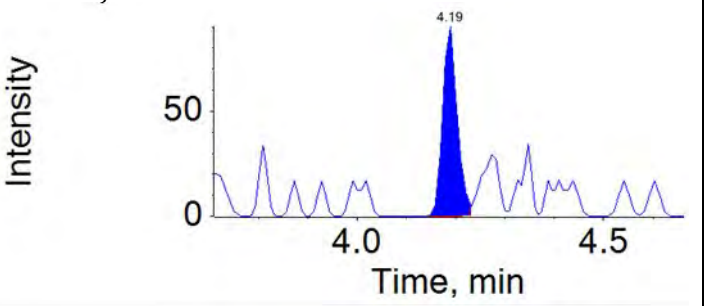
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



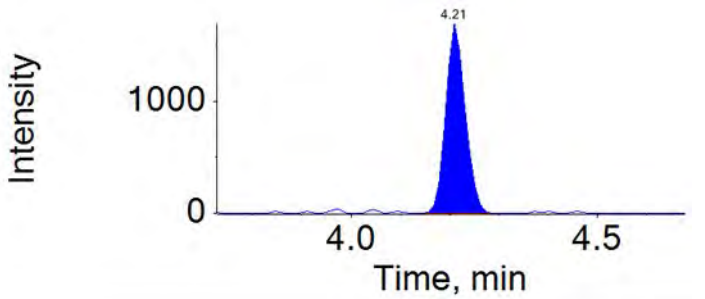
Component: PFHxA
Primary Mass: 313.0 / 269.0



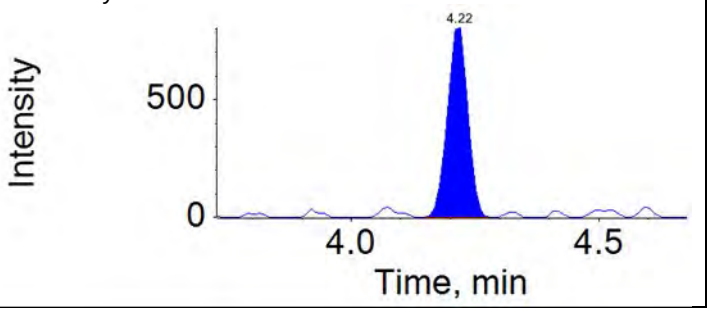
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



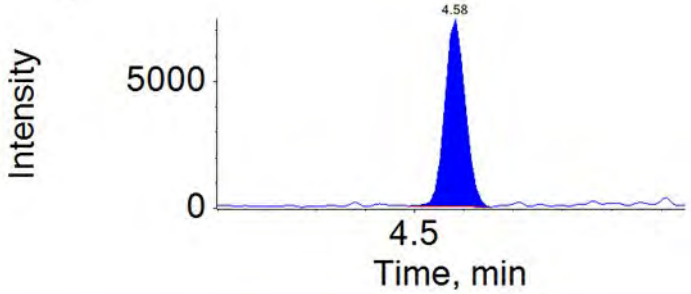
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



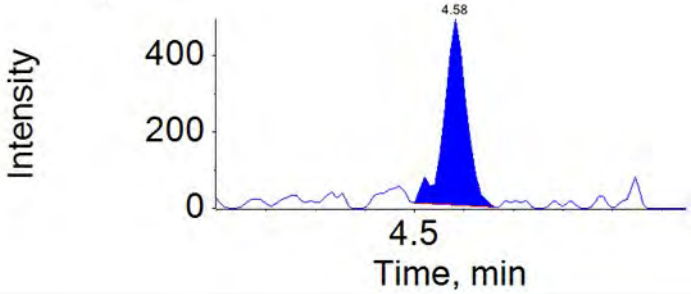
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

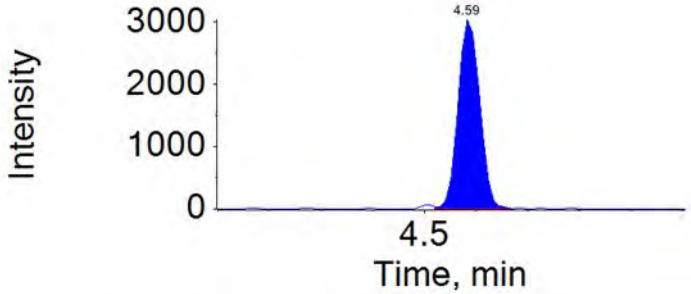
Component: PFHpA
Primary Mass: 363.0 / 319.0



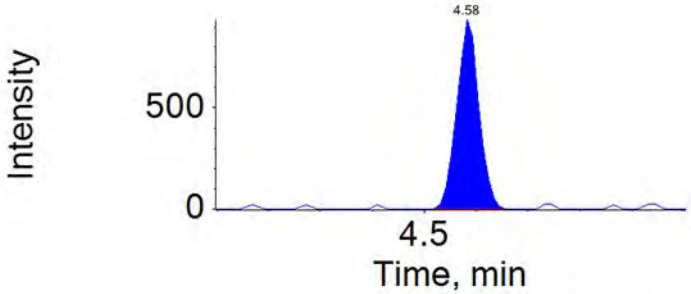
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



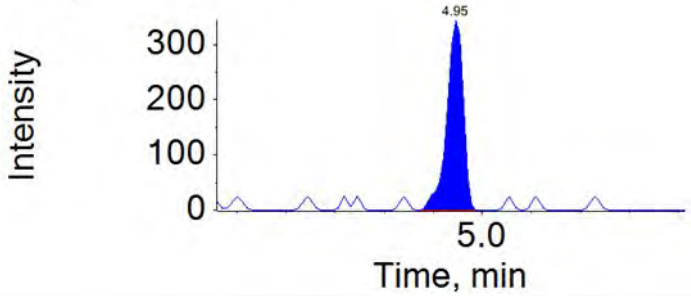
Component: PFHxS
Primary Mass: 399.0 / 80.0



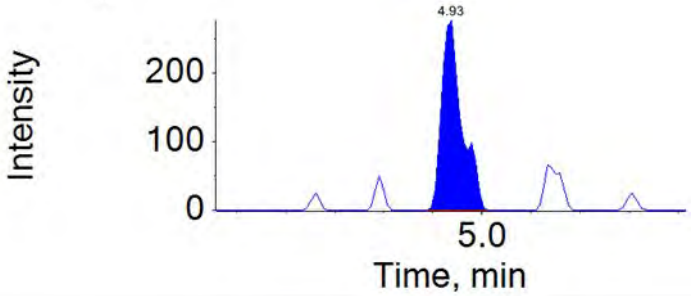
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



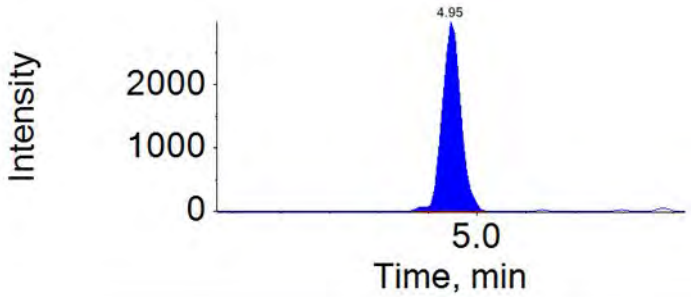
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



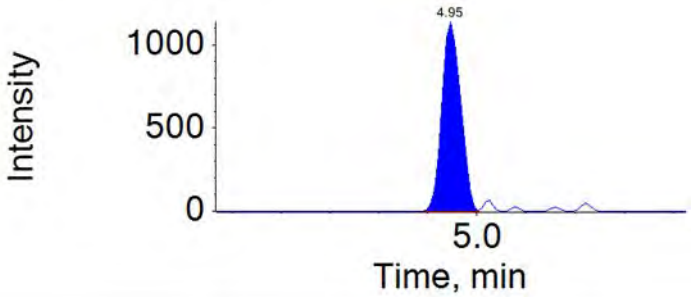
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



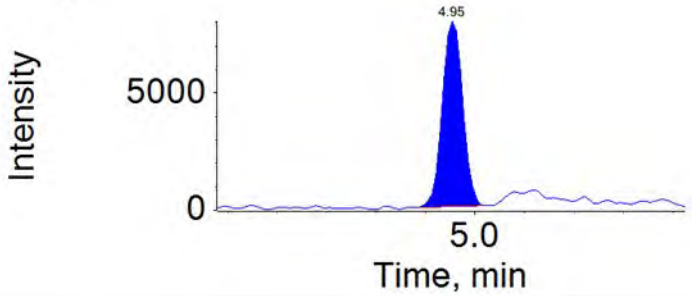
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



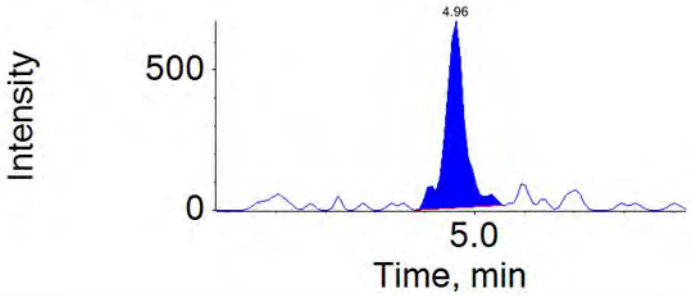
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

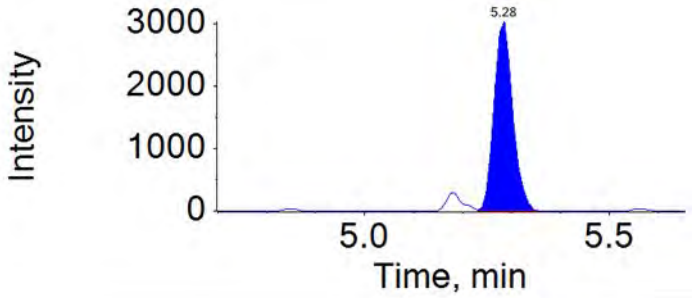
Component: PFOA
Primary Mass: 413.0 / 369.0



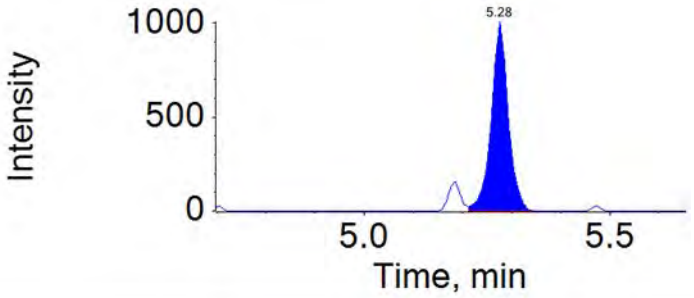
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



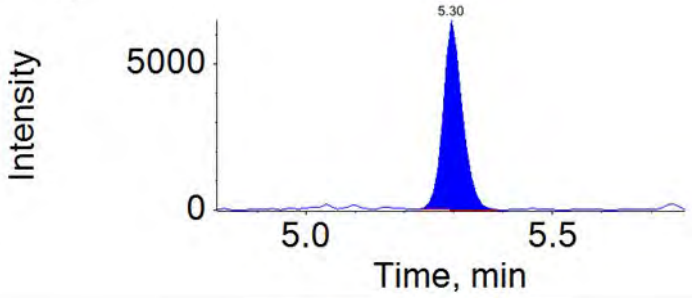
Component: PFOS
Primary Mass: 499.0 / 80.0



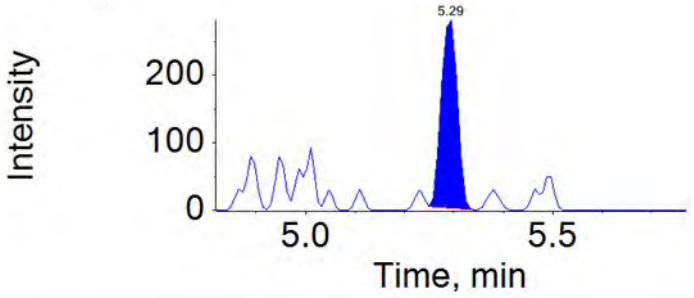
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



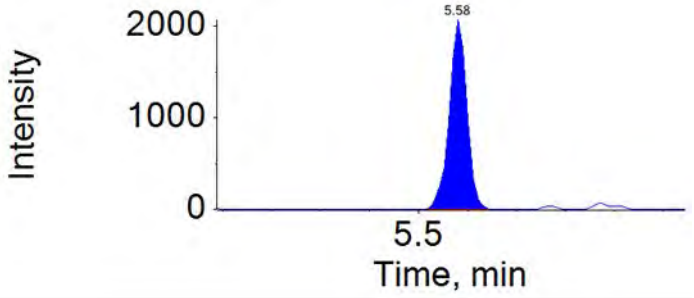
Component: PFNA
Primary Mass: 463.0 / 419.0



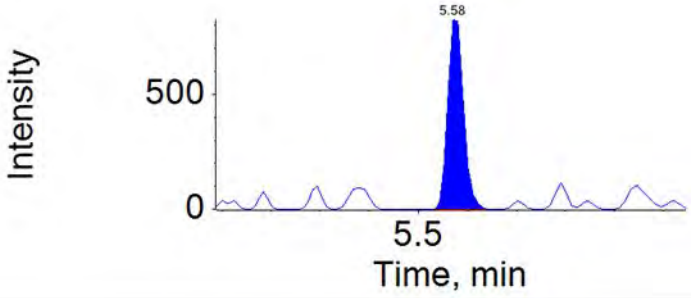
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



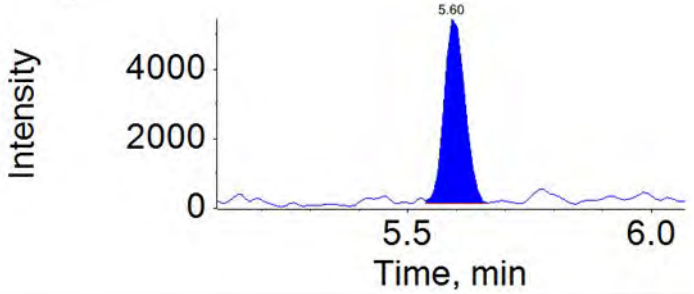
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



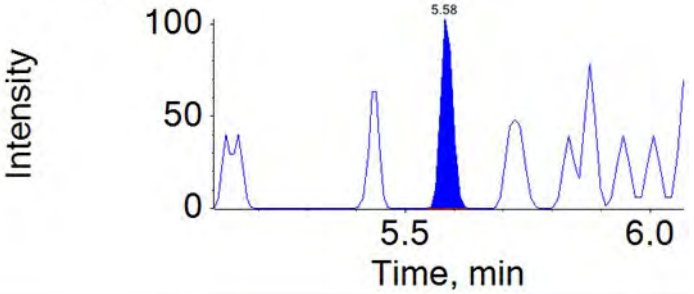
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

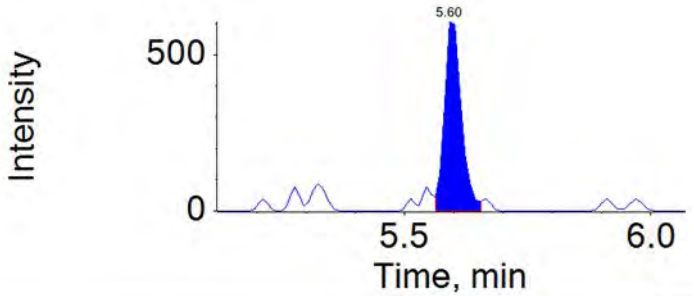
Component: PFDA
Primary Mass: 513.0 / 469.0



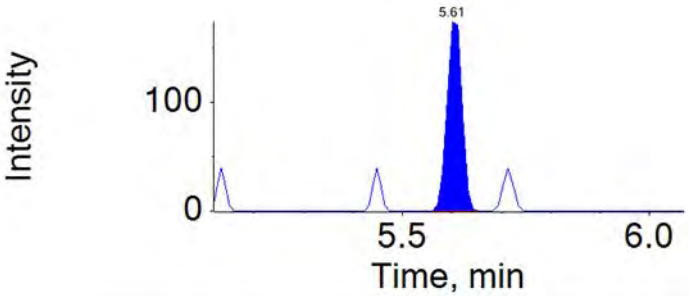
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



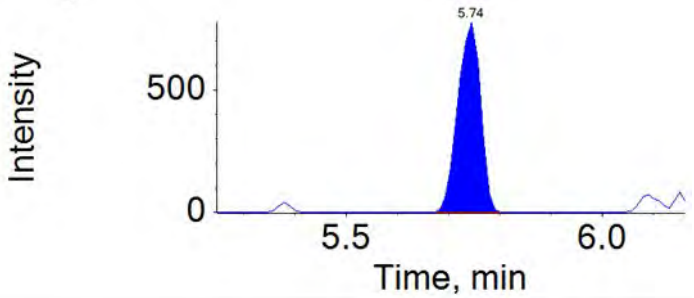
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



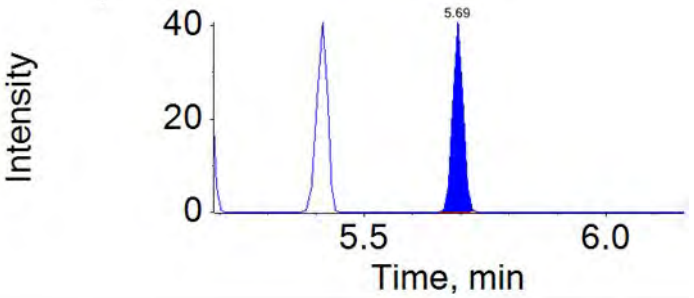
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



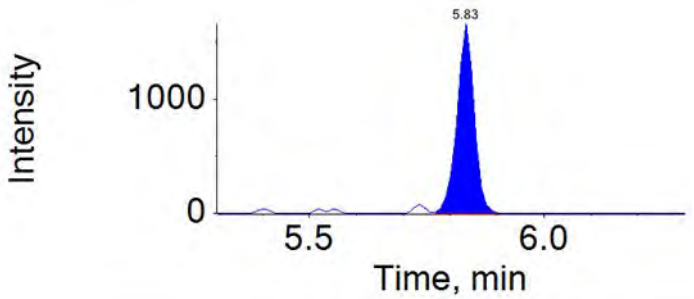
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



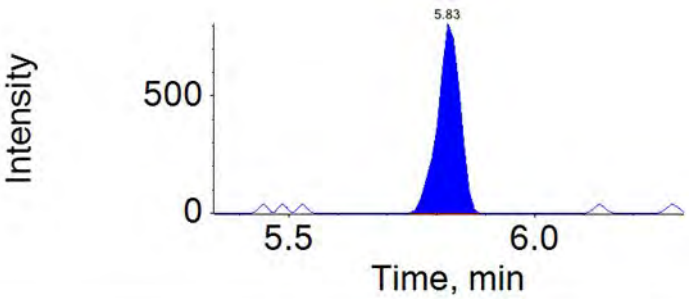
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



APPROVED
By MSM at 10:22 am, 12/4/18

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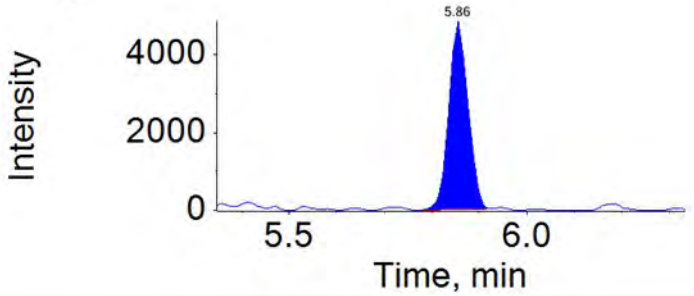
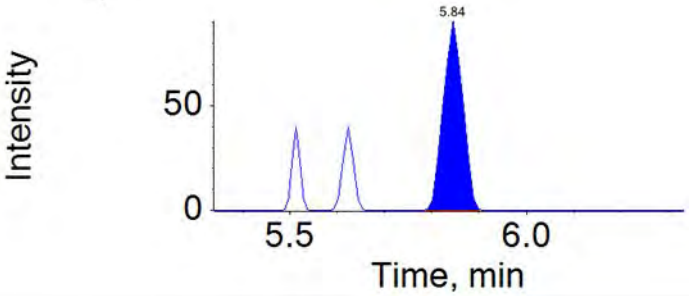
By umar at 4:03 pm, 12/4/18

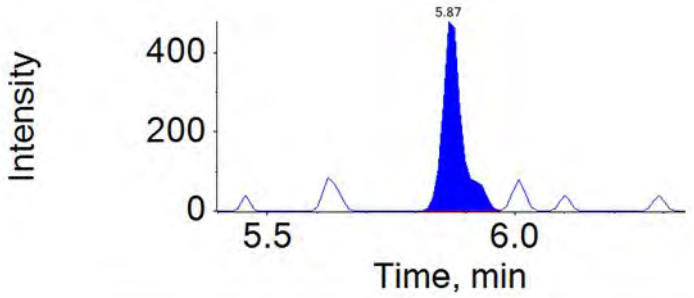
Component: PFUnDA
Primary Mass: 563.0 / 519.0



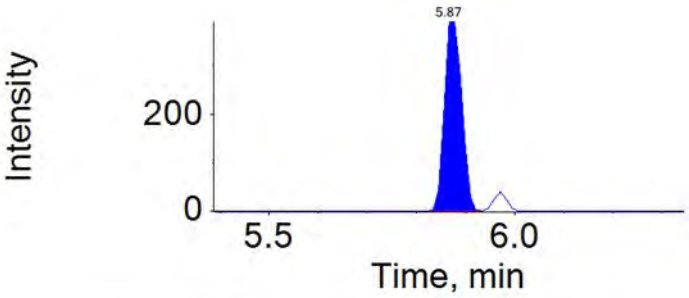
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



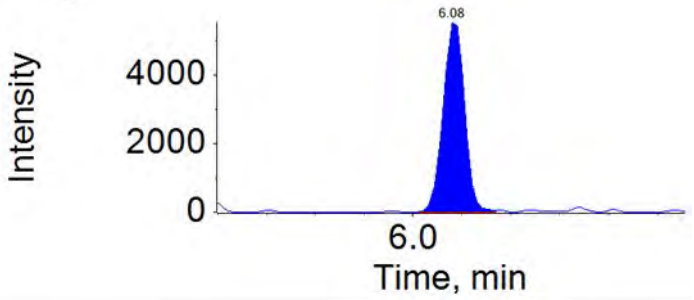
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



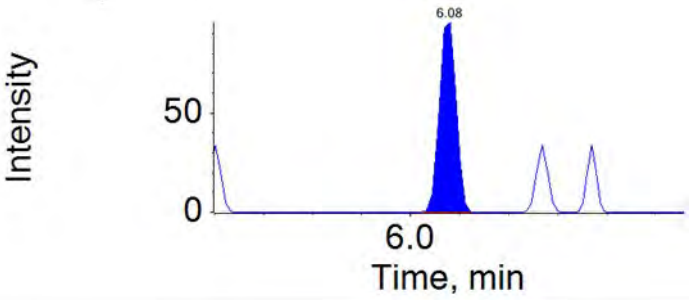
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



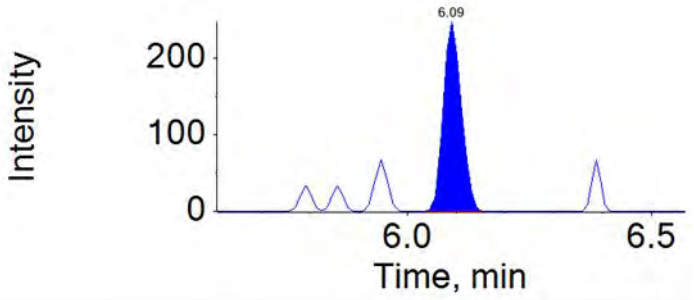
Component: PFDoDA
Primary Mass: 613.0 / 569.0



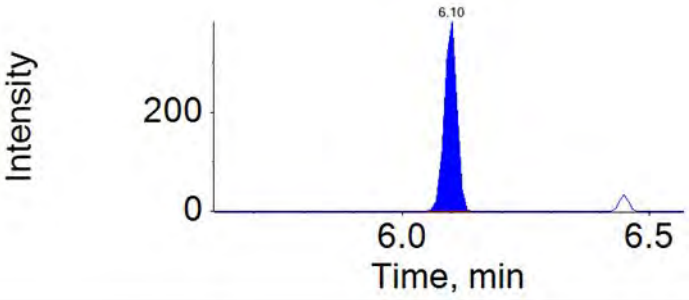
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



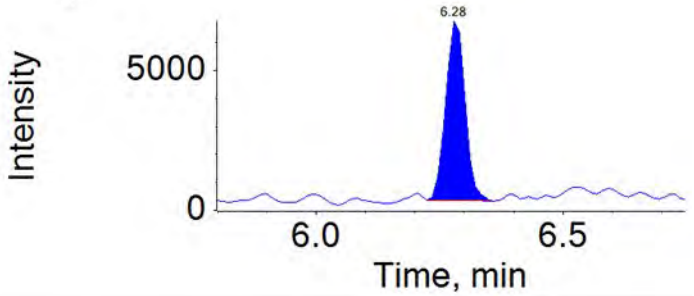
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



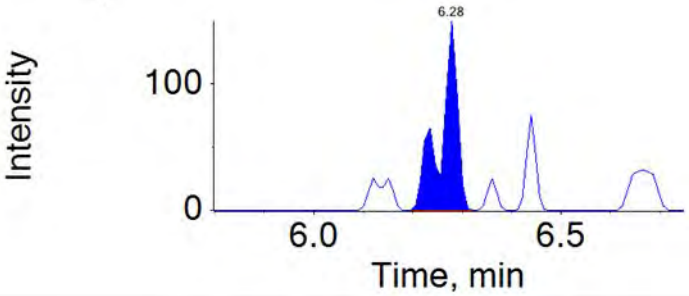
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

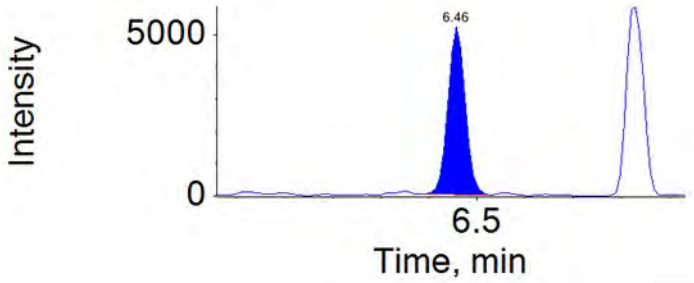
Component: PFTrDA
Primary Mass: 663.0 / 619.0



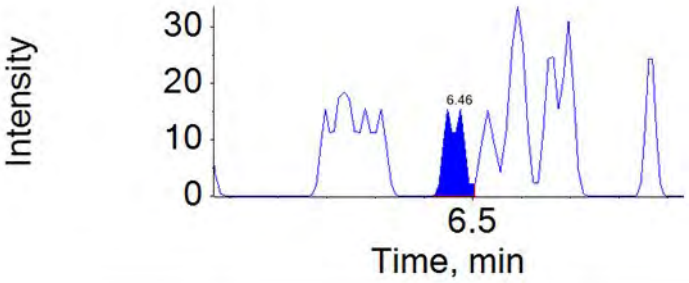
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



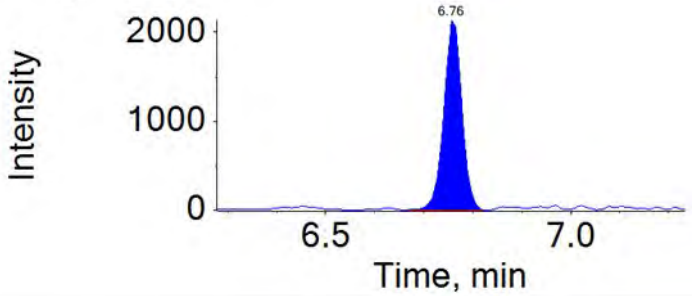
Component: PFTeDA
Primary Mass: 713.0 / 669.0



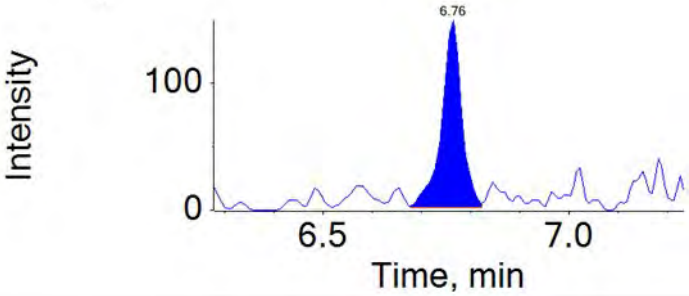
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



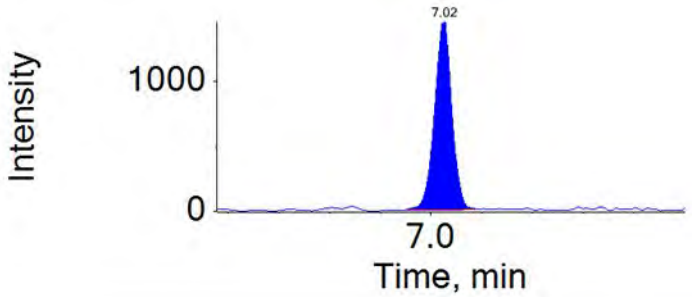
Component: PFHxDA
Primary Mass: 813.0 / 769.0



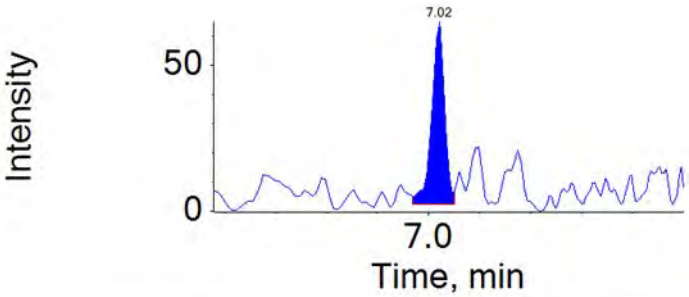
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	ICV			**Data File:**		18DEC03DCAL-18.wiff
Sample ID:	ICVMODX1833G			**Acquis Date:**		2018-12-03T18:47:17
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	10			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	766544.7	749775.9	2	50	
13C2-PFOA	5.0	438666.7	434072.7	1	50	
13C4-PFOS	4.8	288467.0	261136.3	10	50	
13C2-PFDA	5.0	312966.8	305281.8	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	851701.4	13C3-PFBA	766544.7	1.111	5.000	4.931	99	70-130	
E13C5-PFPeA	784631.7	13C3-PFBA	766544.7	1.024	5.000	4.939	99	70-130	
E13C3-PFBS	439784.0	13C3-PFBA	766544.7	0.574	4.650	4.471	96	70-130	
E13C2-4:2-FTS	51163.2	13C2-PFOA	438666.7	0.117	4.670	4.798	103	70-130	
E13C5-PFHxA	664359.7	13C2-PFOA	438666.7	1.514	5.000	5.129	103	70-130	
E13C3-PFHxS	331085.0	13C2-PFOA	438666.7	0.755	4.730	4.772	101	70-130	
E13C4-PFHpA	515794.3	13C2-PFOA	438666.7	1.176	5.000	5.130	103	70-130	
E13C2-6:2-FTS	33596.6	13C2-PFOA	438666.7	0.077	4.750	5.076	107	70-130	
E13C8-PFOA	802400.3	13C2-PFOA	438666.7	1.829	5.000	5.084	102	70-130	
E13C8-PFOS	303674.8	13C4-PFOS	288467.0	1.053	4.780	4.676	98	70-130	
E13C9-PFNA	460741.0	13C4-PFOS	288467.0	1.597	5.000	4.675	93	70-130	
E13C6-PFDA	609137.7	13C2-PFDA	312966.8	1.946	5.000	5.062	101	70-130	
E13C2-8:2-FTS	24545.3	13C2-PFDA	312966.8	0.078	4.790	5.043	105	70-130	
E13C8-PFOSA	698175.9	13C2-PFDA	312966.8	2.231	5.000	4.994	100	70-130	
Ed3-NMeFOSAA	81796.1	13C2-PFDA	312966.8	0.261	5.000	4.566	91	70-130	
E13C7-PFUnDA	318775.0	13C2-PFDA	312966.8	1.019	5.000	5.073	101	70-130	
Ed5-NEtFOSAA	70729.4	13C2-PFDA	312966.8	0.226	5.000	5.156	103	70-130	
E13C2-PFDoDA	709053.1	13C2-PFDA	312966.8	2.266	5.000	4.851	97	70-130	
Ed7-NMePFOSAE	253394.6	13C2-PFDA	312966.8	0.810	5.000	4.390	88	70-130	
Ed3-NMePFOSA	79798.1	13C2-PFDA	312966.8	0.255	5.000	4.728	95	70-130	
Ed9-NEtPFOSAE	220531.1	13C2-PFDA	312966.8	0.705	5.000	4.545	91	70-130	
Ed5-NEtPFOSA	65524.6	13C2-PFDA	312966.8	0.209	5.000	4.939	99	70-130	
E13C2-PFTeDA	508933.2	13C2-PFDA	312966.8	1.626	5.000	4.584	92	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

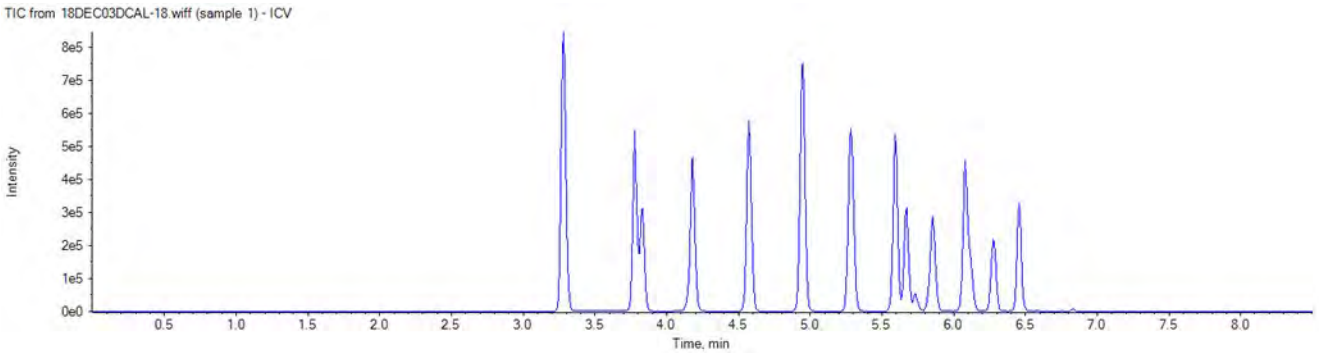
Analyte Quantitation Peak Table

Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-18.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	328984.0		A	13C4-PFBA	3.28	851701.4	0.386	2.188
PFPeA	3.78	1.000	325855.3		A	13C5-PFPeA	3.78	784631.7	0.415	2.080
PFBS	3.83	1.000	168179.2		A	13C3-PFBS	3.83	439784.0	0.382	1.865
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.15	51163.2	N/A	
PFHxA	4.18	1.000	344544.6		A	13C5-PFHxA	4.18	664359.7	0.519	2.210
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.83	439784.0	N/A	
PFHpA	4.57	1.000	312600.3		A	13C4-PFHpA	4.57	515794.3	0.606	1.956
PFHxS	4.58	1.000	126596.5		A	13C3-PFHxS	4.58	331085.0	0.382	1.801
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.94	33596.6	N/A	
PFHpS	4.94	1.080	127076.9		A	13C3-PFHxS	4.58	331085.0	0.384	1.998
PFOA	4.95	1.000	319817.2		A	13C8-PFOA	4.95	802400.3	0.399	2.110
PFOS	5.28	1.000	117120.1		A	13C8-PFOS	5.28	303674.8	0.386	1.635
PFNA	5.29	1.000	275648.4		A	13C9-PFNA	5.29	460741.0	0.598	2.242
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.28	303674.8	N/A	
PFDA	5.59	1.000	232252.9		A	13C6-PFDA	5.59	609137.7	0.381	2.091
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.60	24545.3	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.67	698175.9	N/A	
NMeFOSAA	5.74	1.000	31155.6		A	d3-NMeFOSAA	5.73	81796.1	0.381	2.521
PFDS	5.83	1.100	62114.7		A	13C8-PFOS	5.28	303674.8	0.205	1.751
PFUnDA	5.85	1.000	209547.9		A	13C7-PFUnDA	5.85	318775.0	0.657	2.001
NEtFOSAA	5.87	1.000	27499.7		A	d5-NEtFOSAA	5.86	70729.4	0.389	1.966
PFDoDA	6.08	1.000	265022.5		A	13C2-PFDoDA	6.08	709053.1	0.374	2.131
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.60	24545.3	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.11	253394.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.13	79798.1	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.28	303674.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.27	220531.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.29	65524.6	N/A	
PFTrDA	6.28	1.030	245769.5		A	13C2-PFDoDA	6.08	709053.1	0.347	2.041
PFTeDA	6.46	1.000	200275.9		A	13C2-PFTeDA	6.46	508933.2	0.394	2.329
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.46	508933.2	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.46	508933.2	N/A	

Total Ion Chromatogram

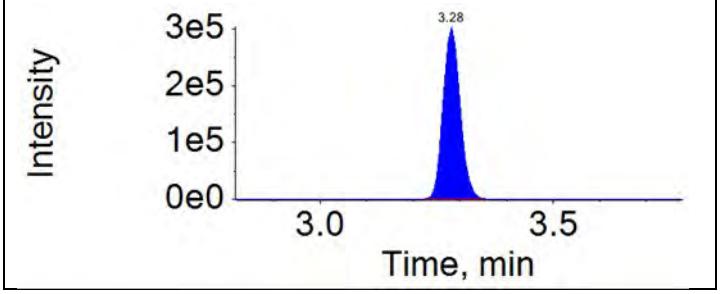


APPROVED
By MSM at 10:22 am, 12/4/18

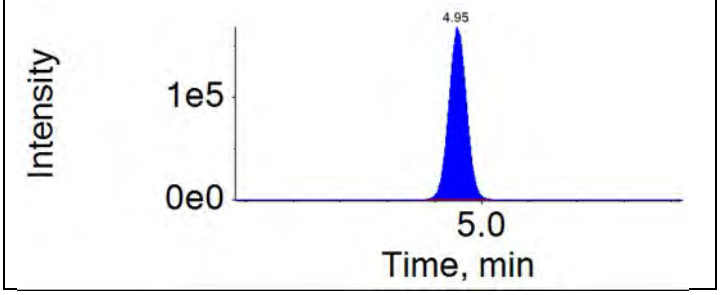
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

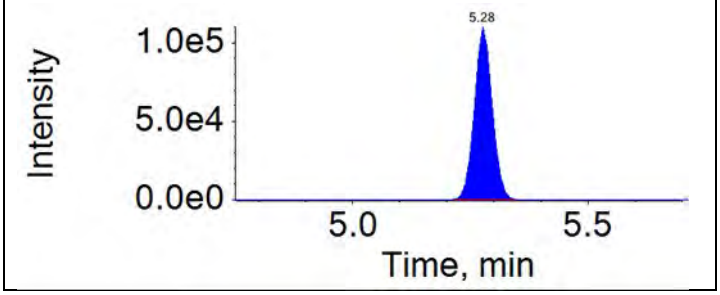
Injection Standard: 13C3-PFBA
216.0 / 172.0



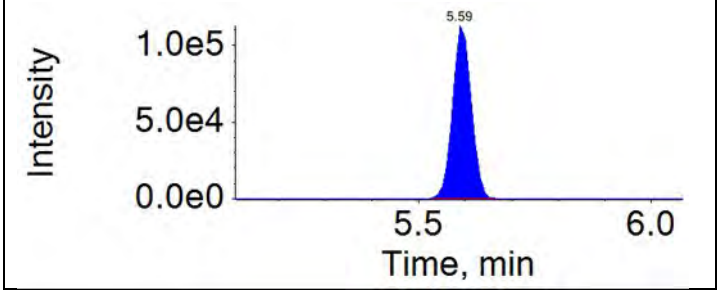
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

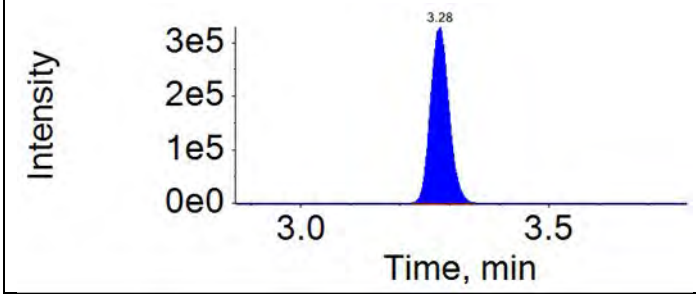


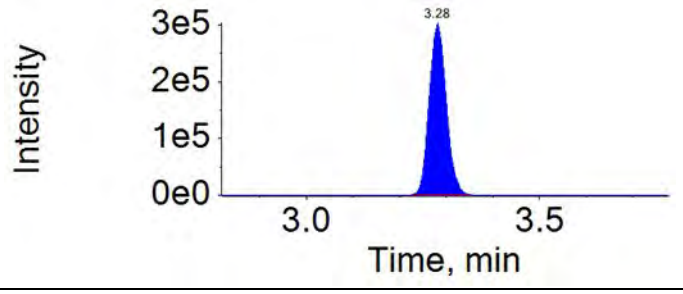
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

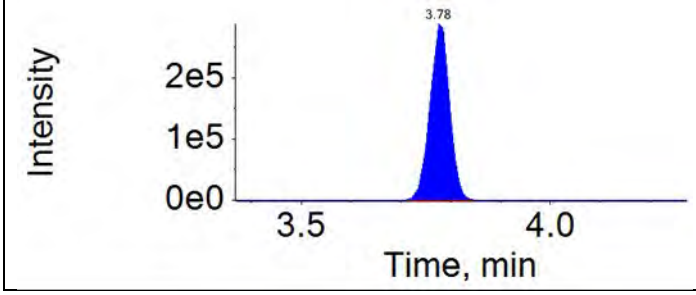
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

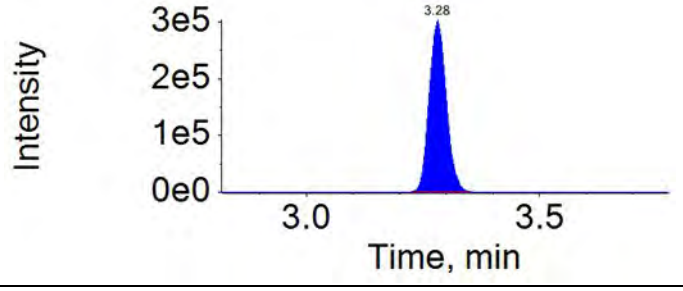
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



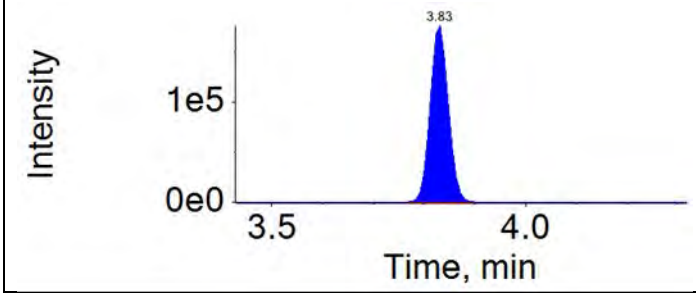


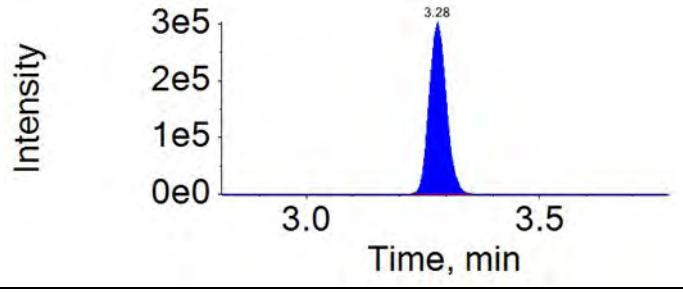
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



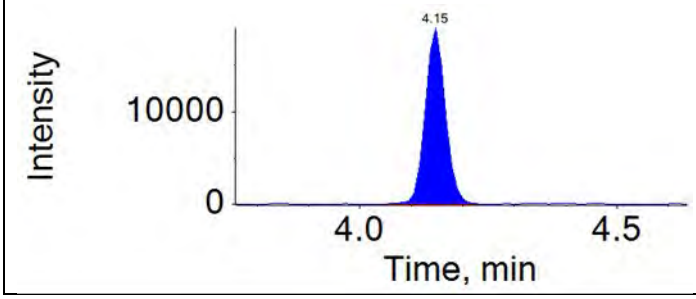


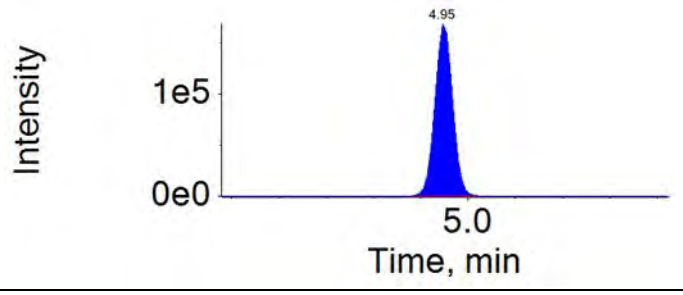
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





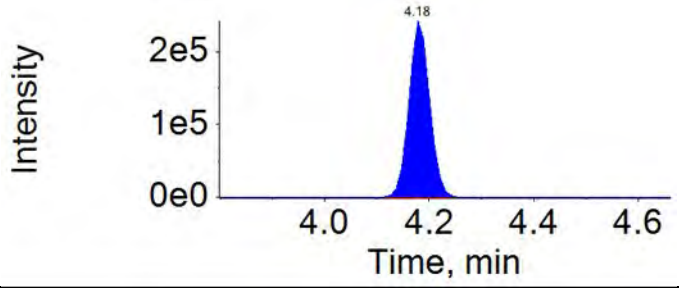
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

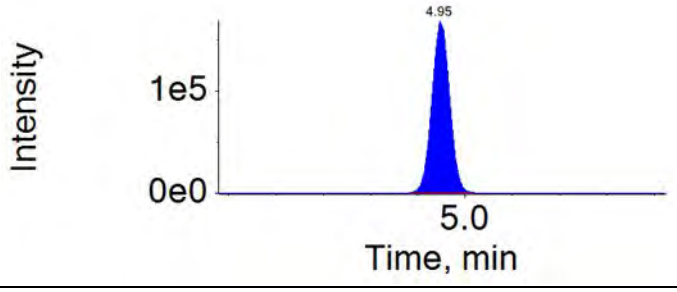




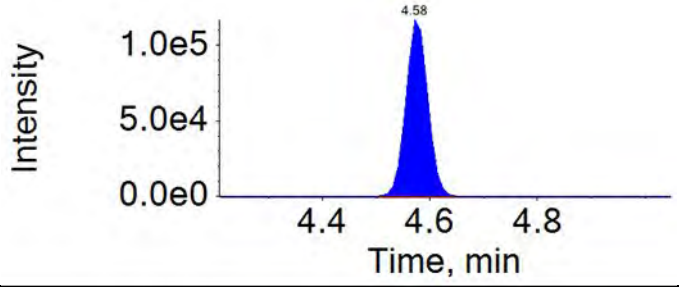
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

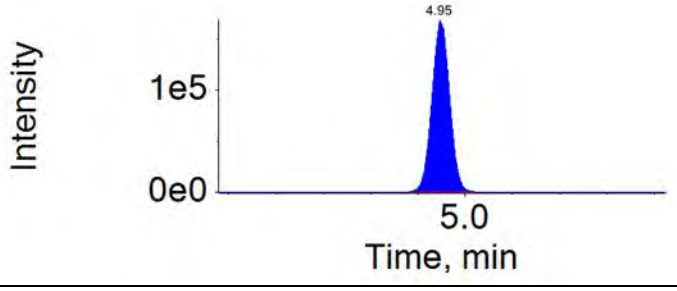
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



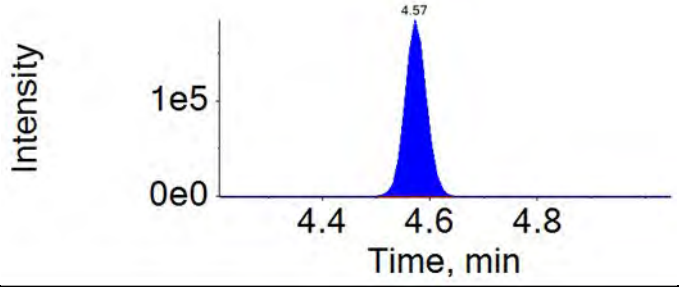


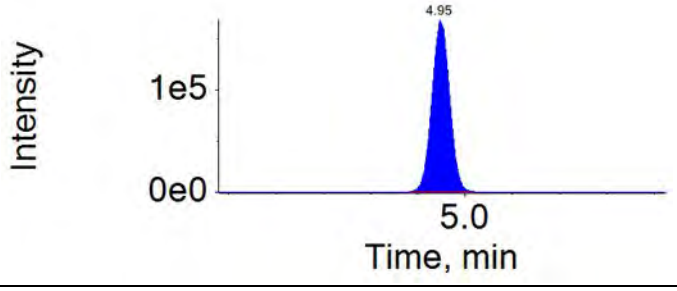
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



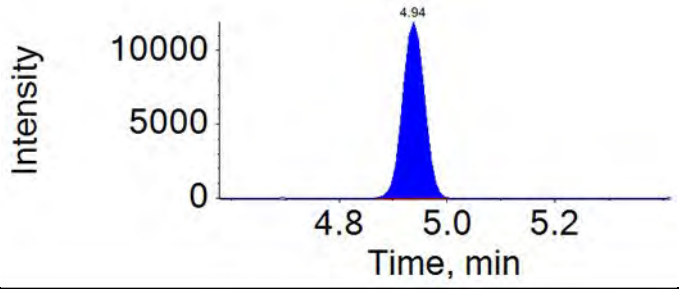


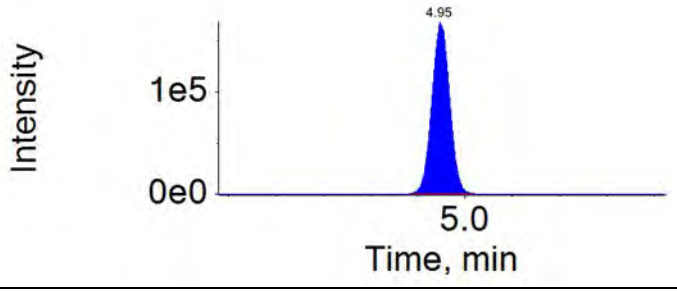
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



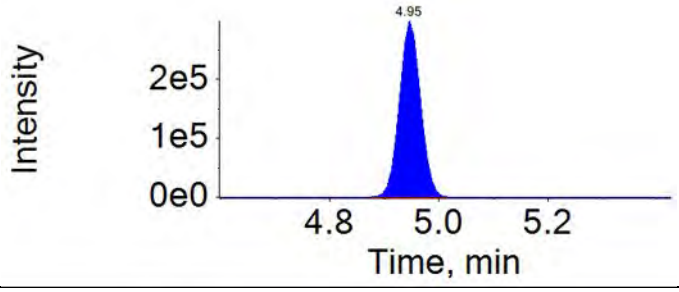


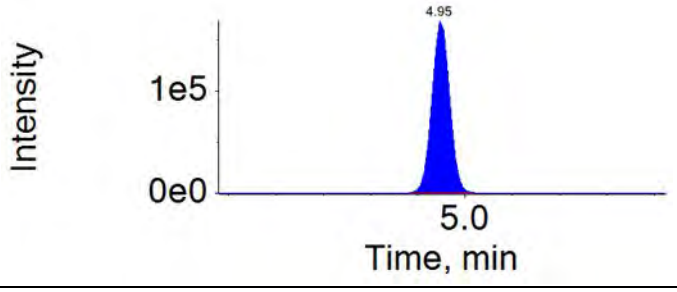
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

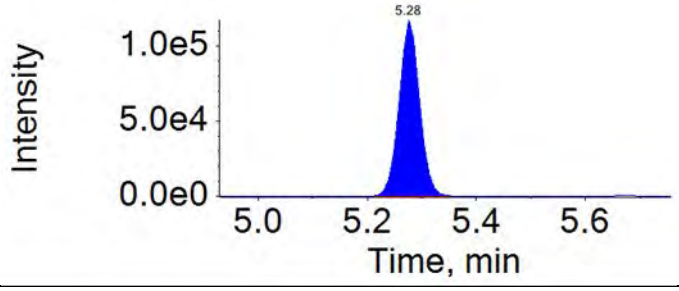
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

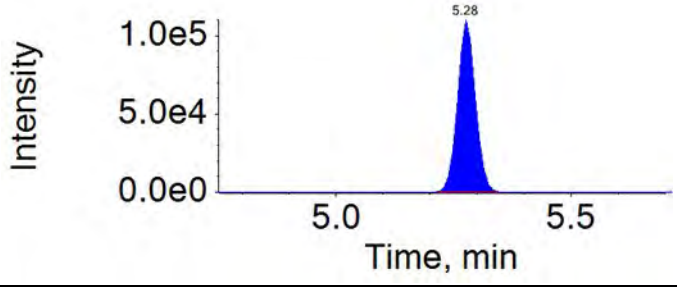
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



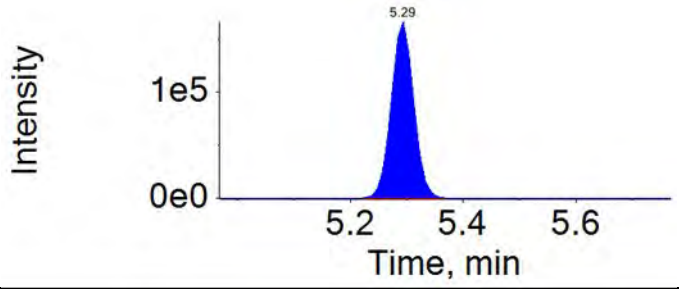


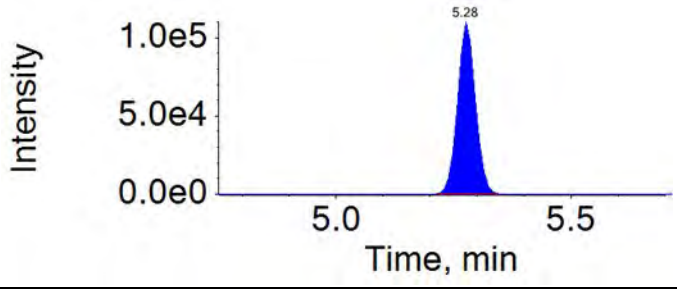
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



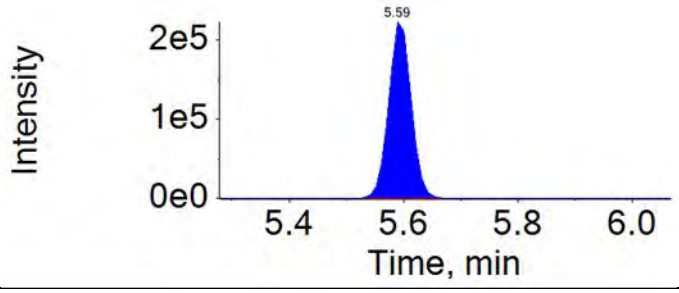


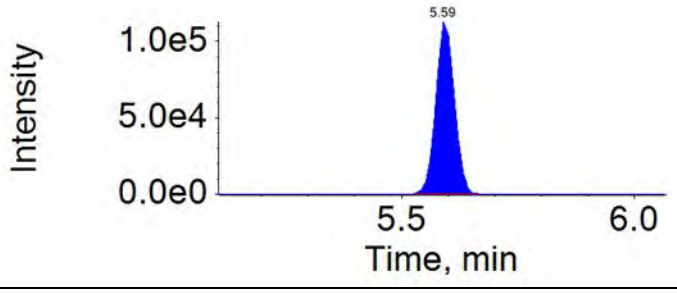
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





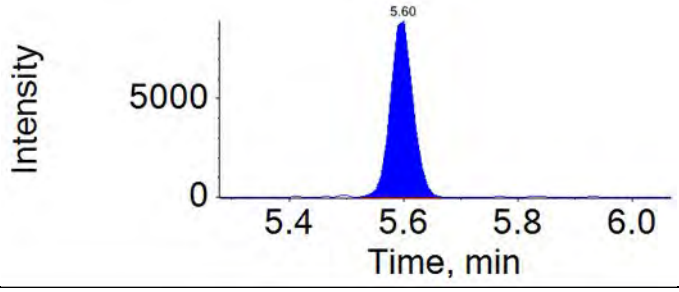
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

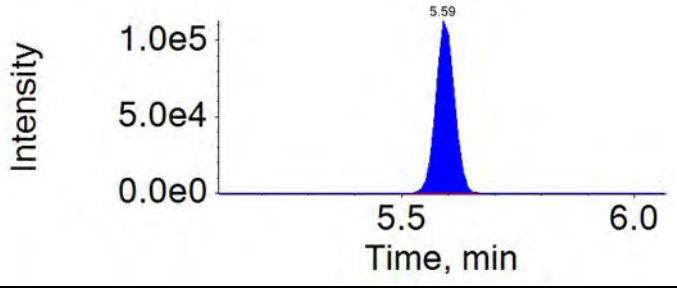




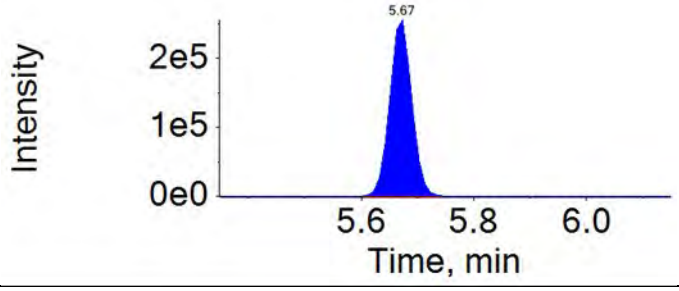
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

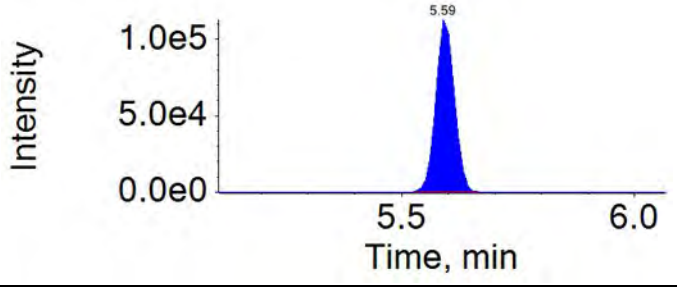
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



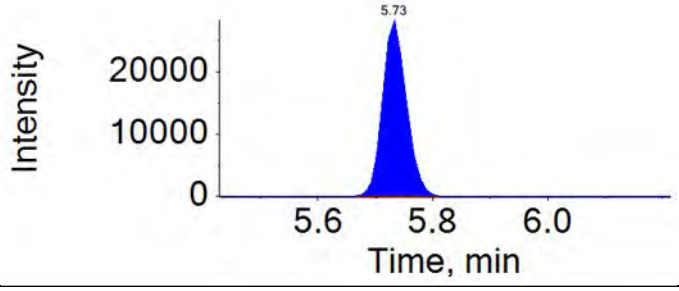


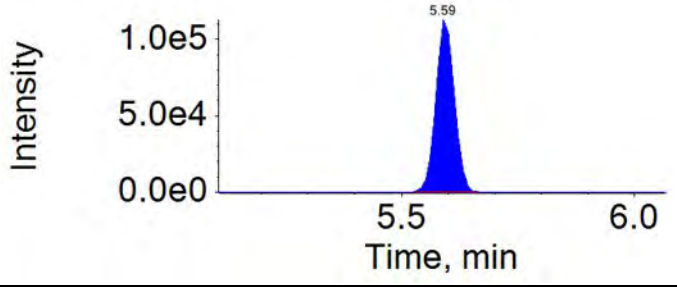
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



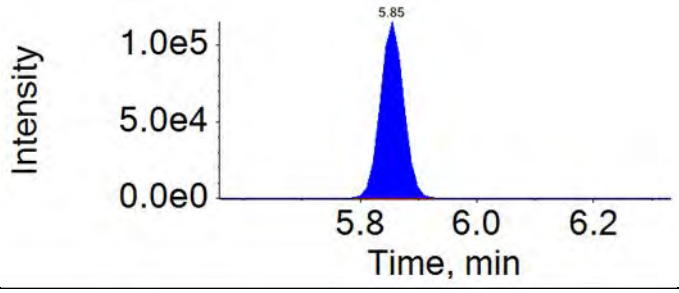


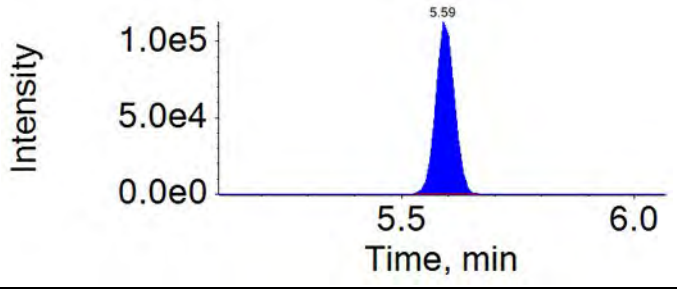
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



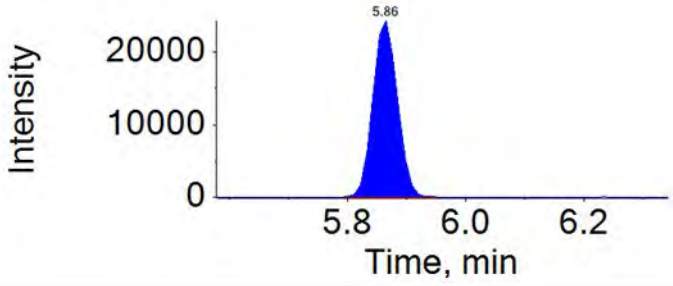


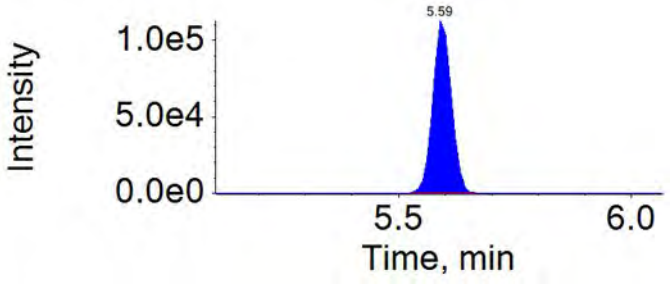
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

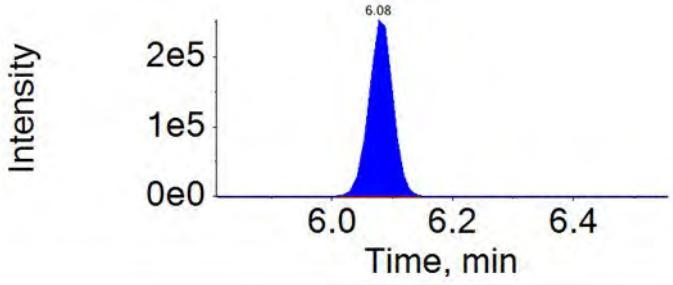
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

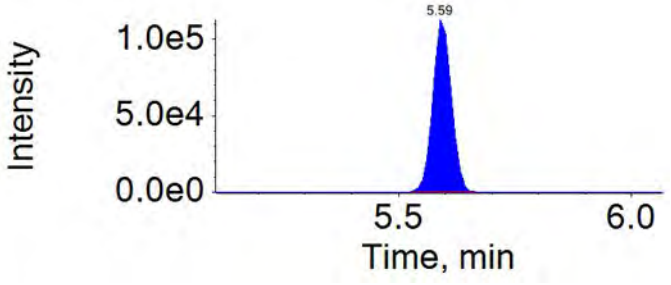
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



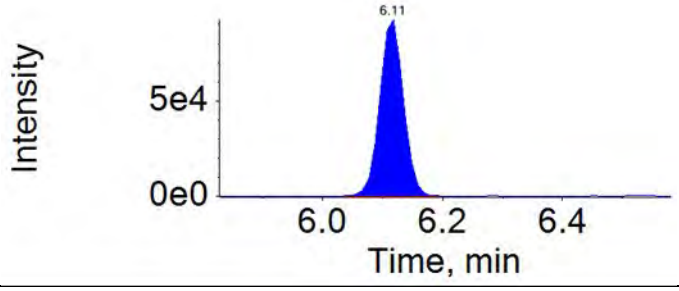


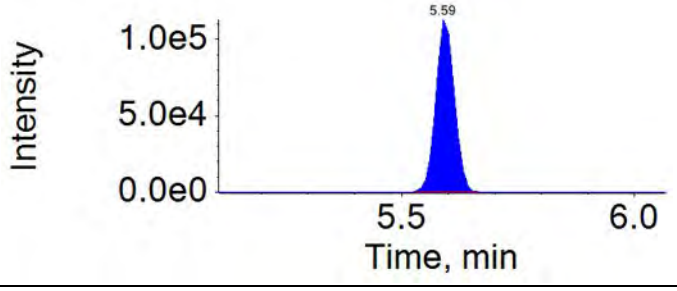
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



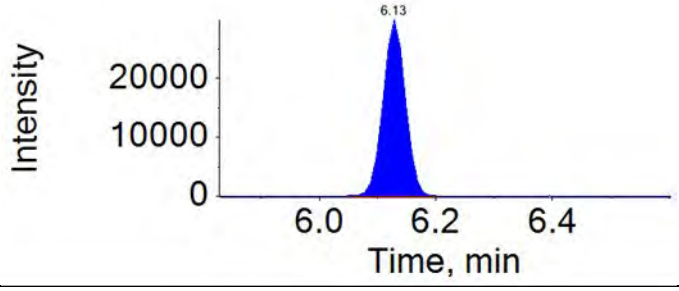


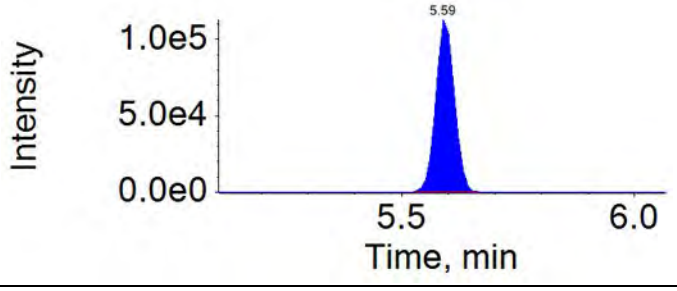
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





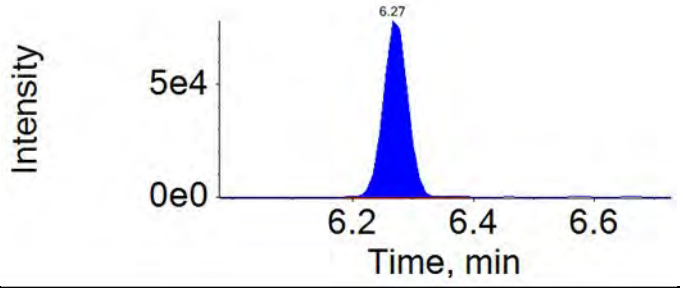
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

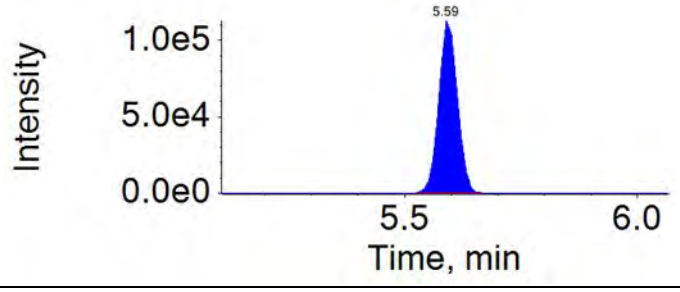




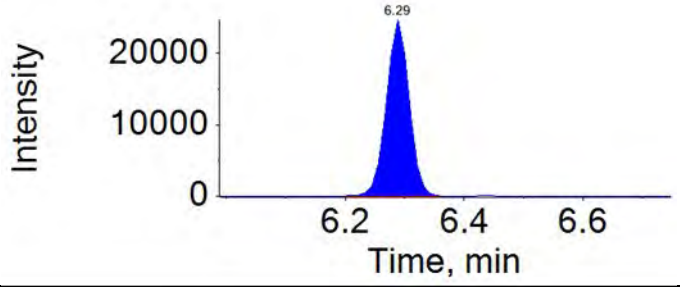
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

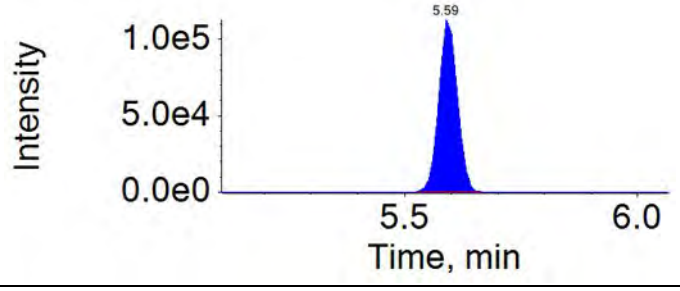
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



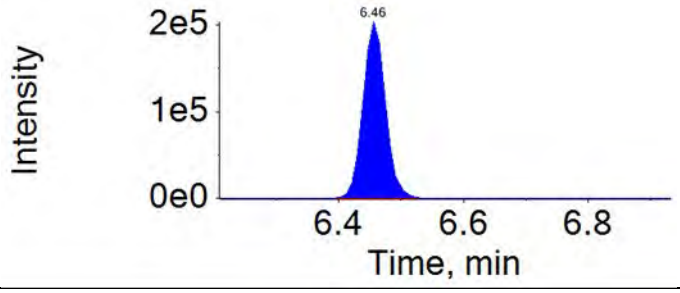


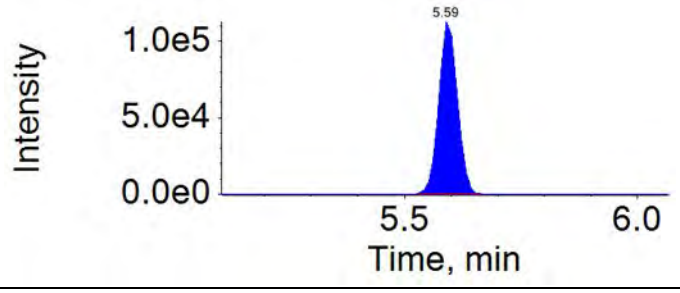
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



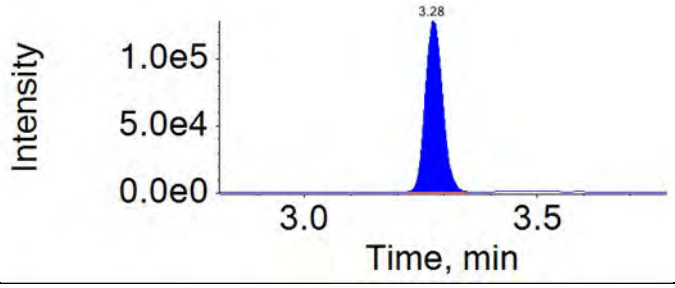


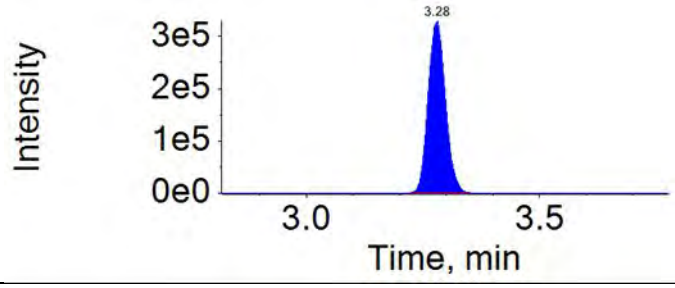
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

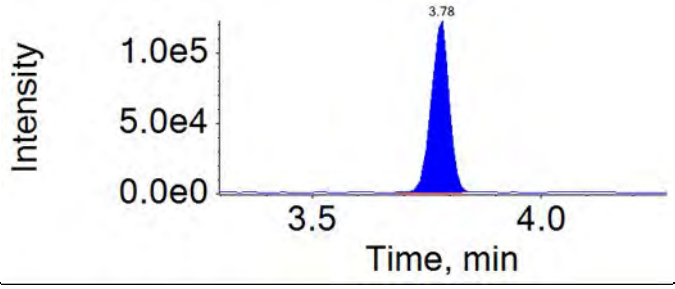
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

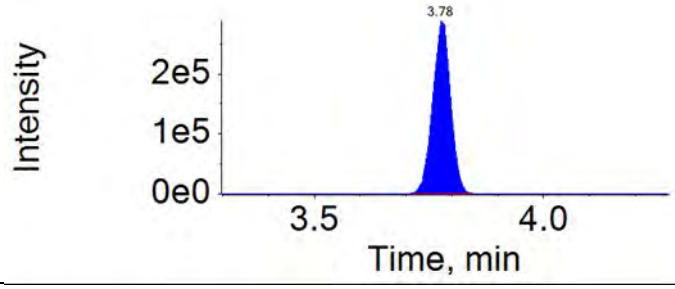
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



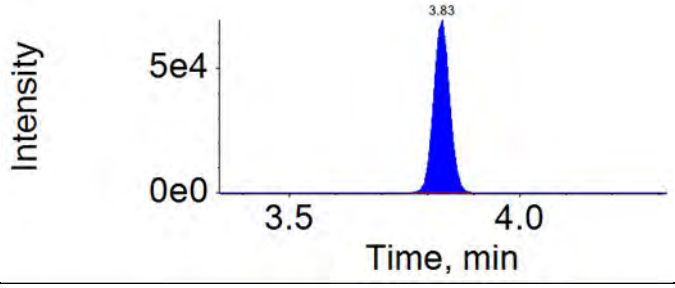


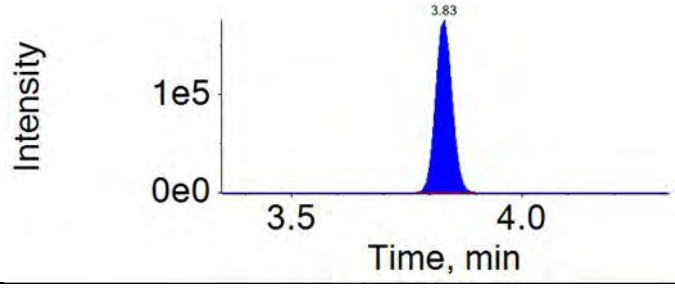
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



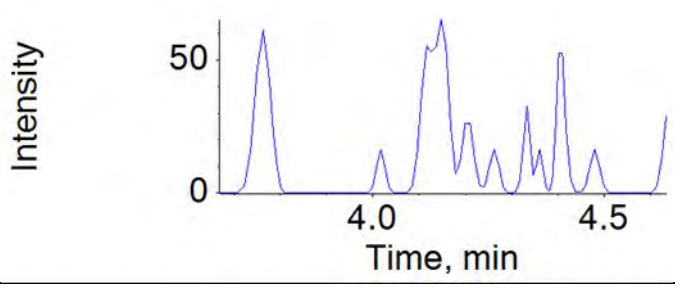


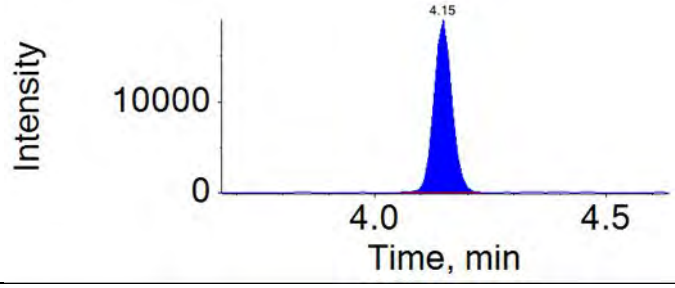
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



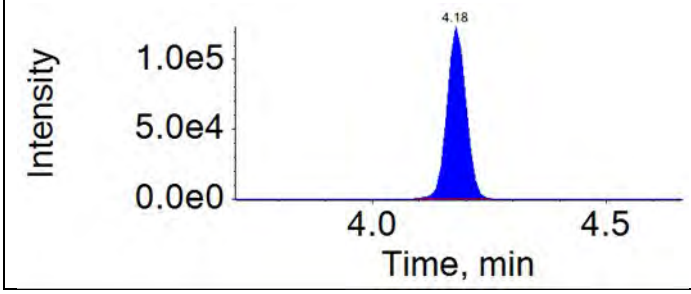


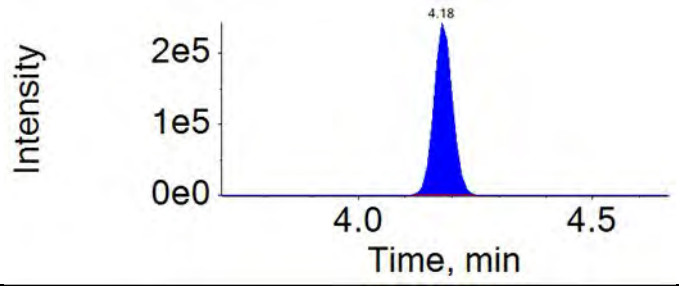
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

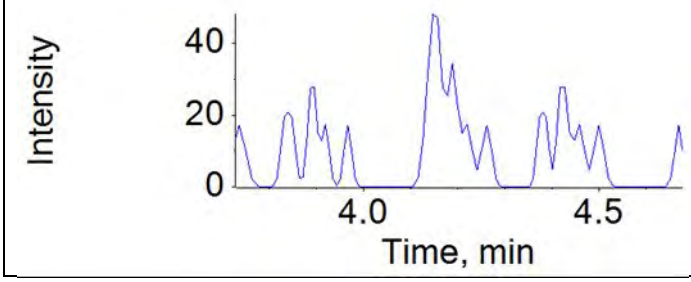
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

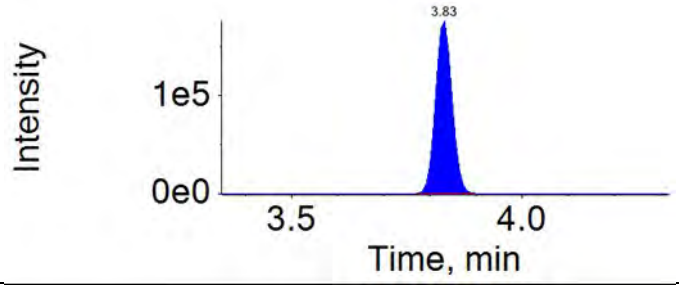
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



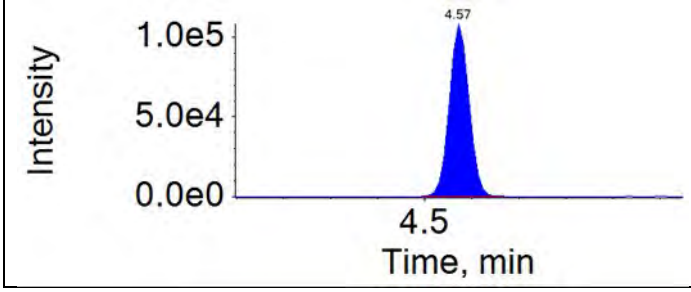


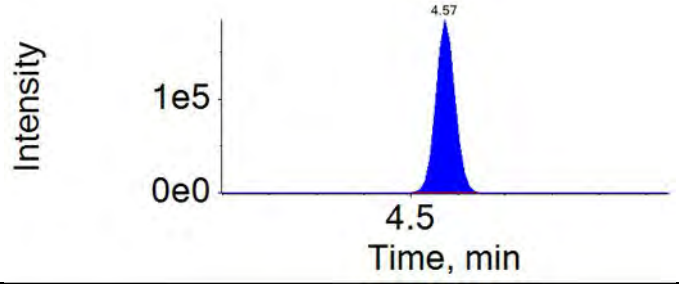
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



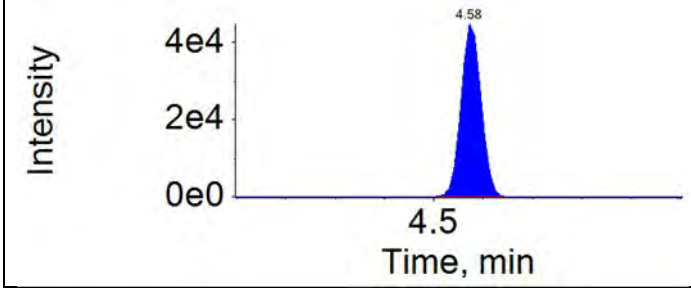


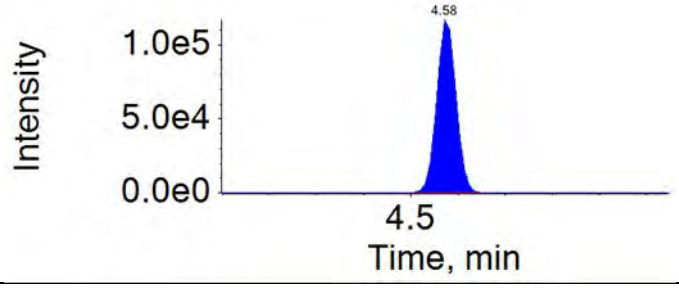
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



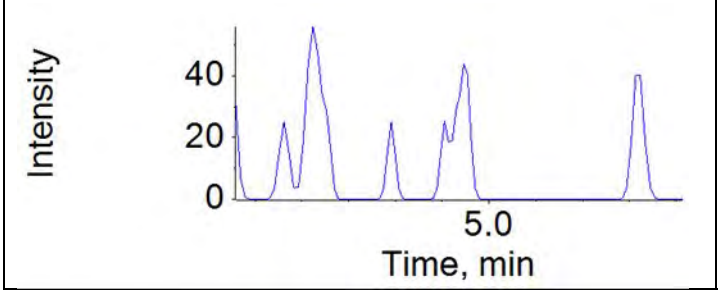


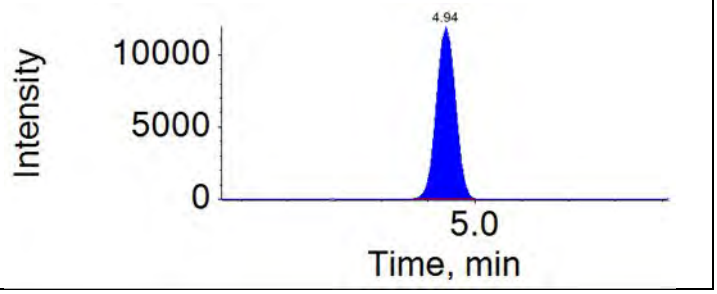
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

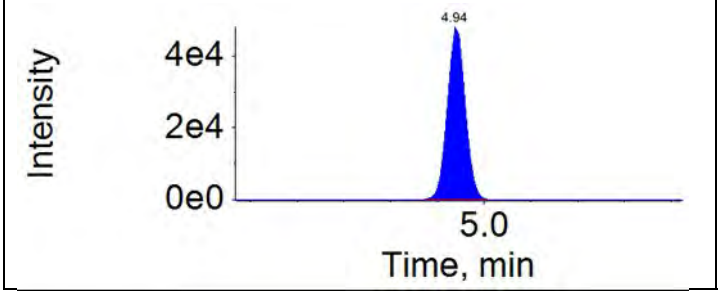
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

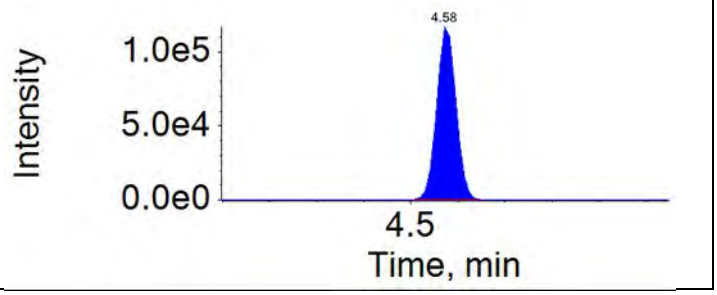
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



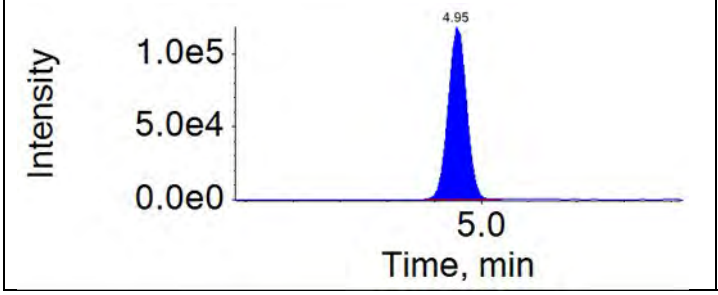


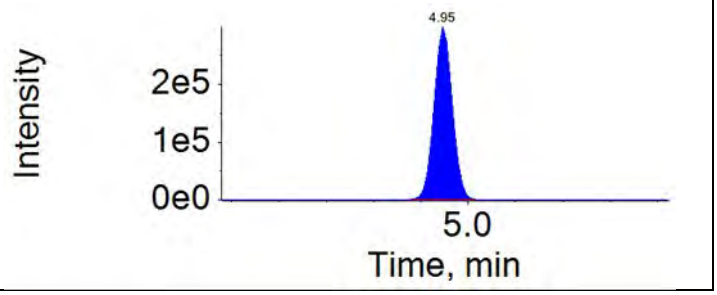
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



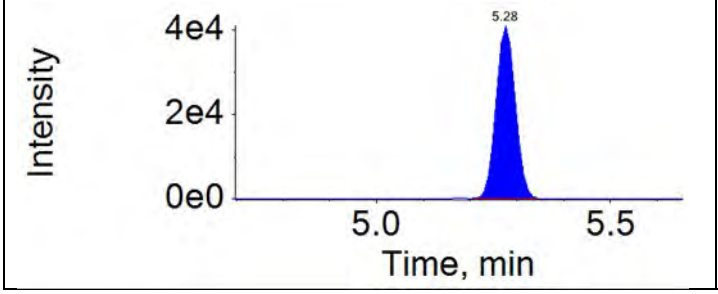


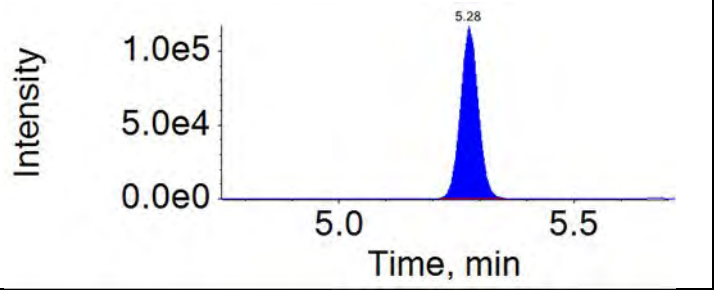
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



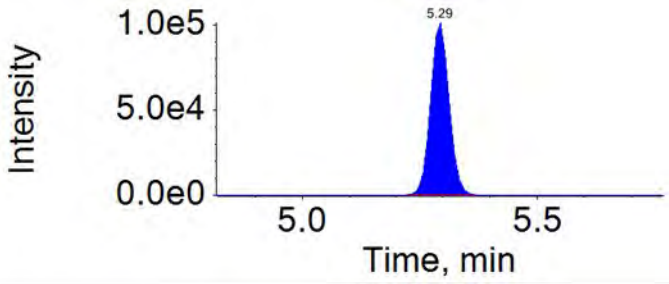


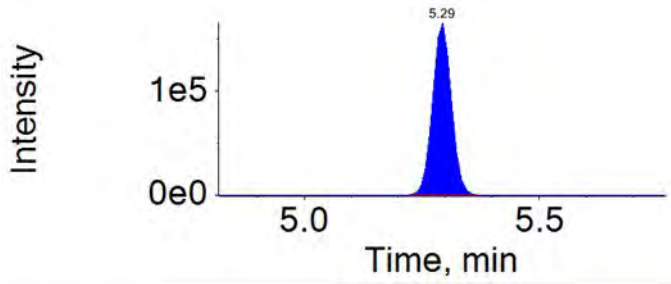
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

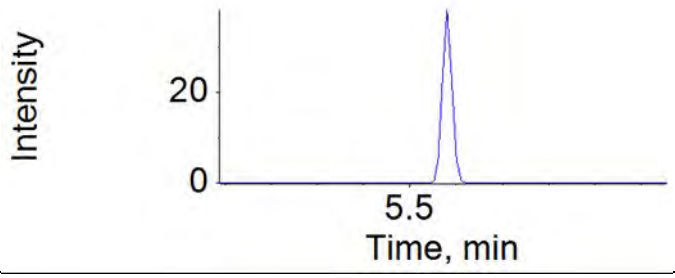
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

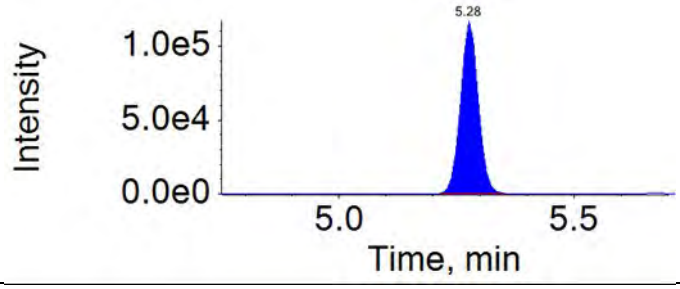
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



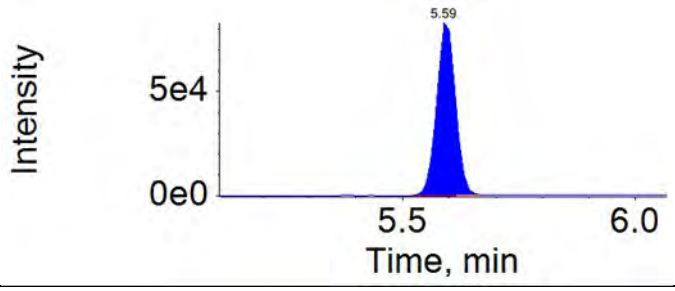


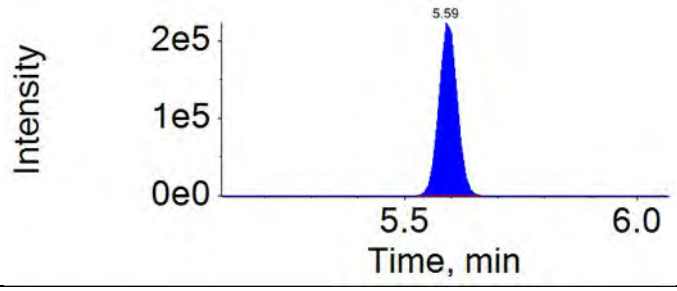
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



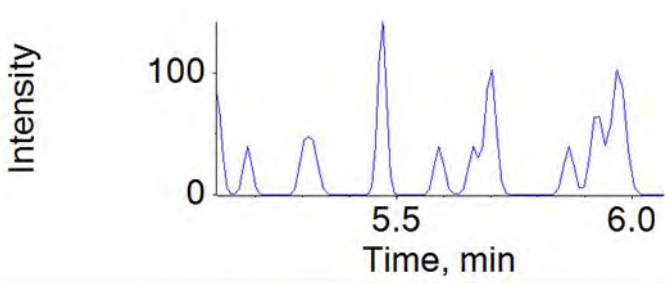


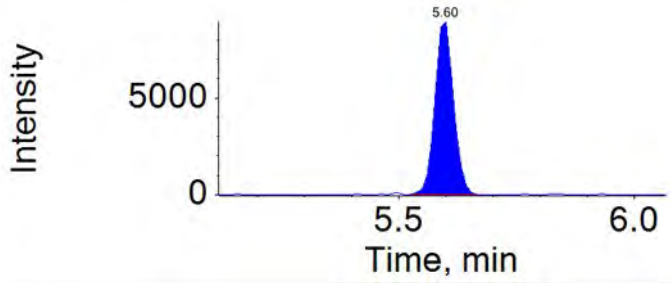
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



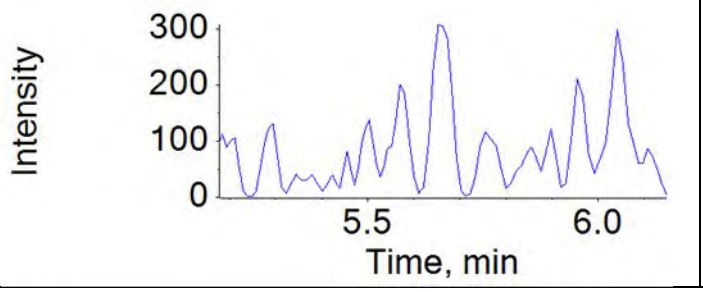


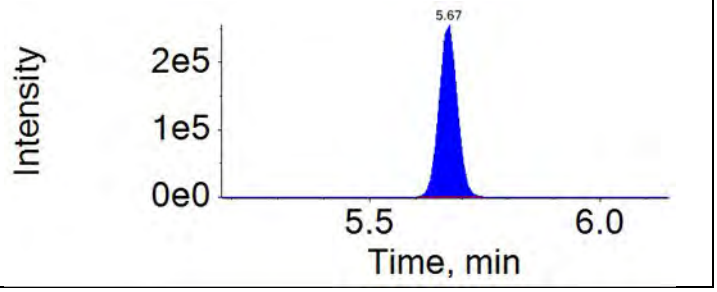
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

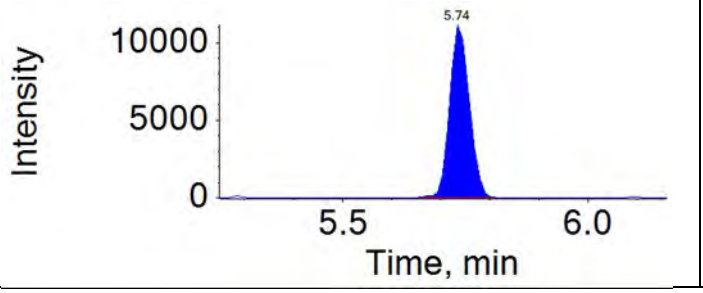
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

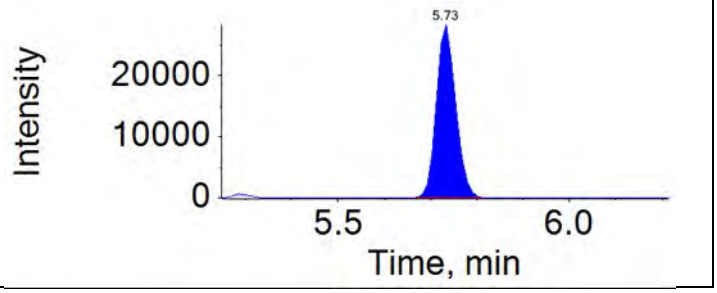
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



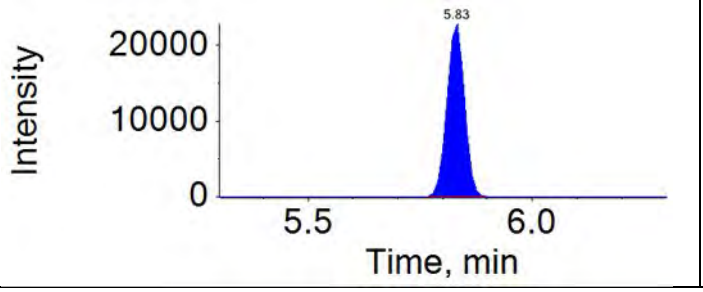


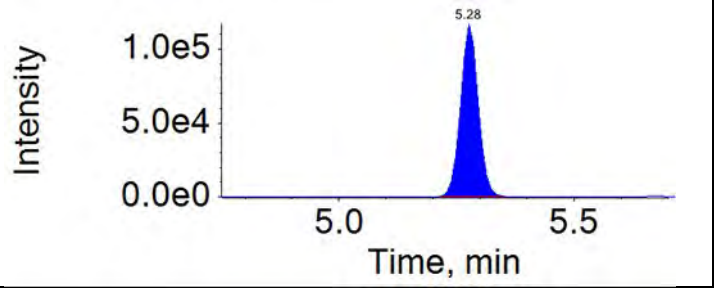
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



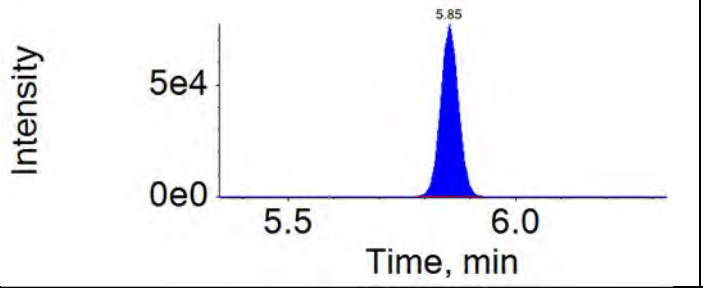


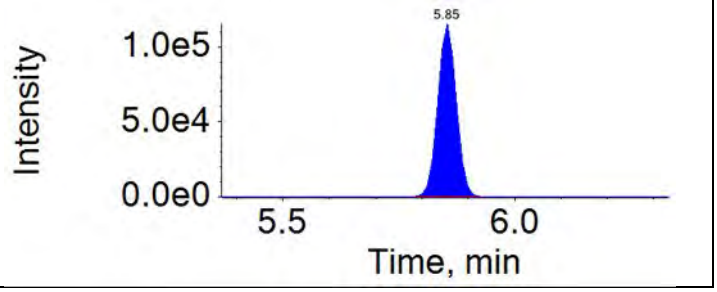
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



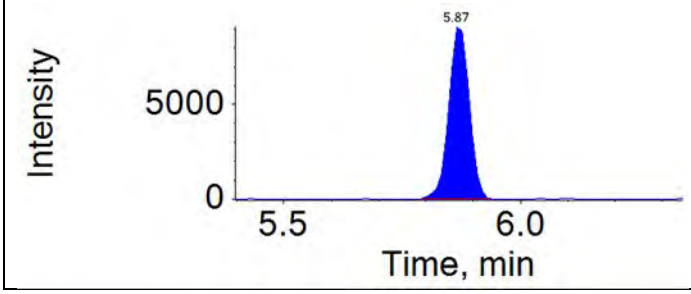


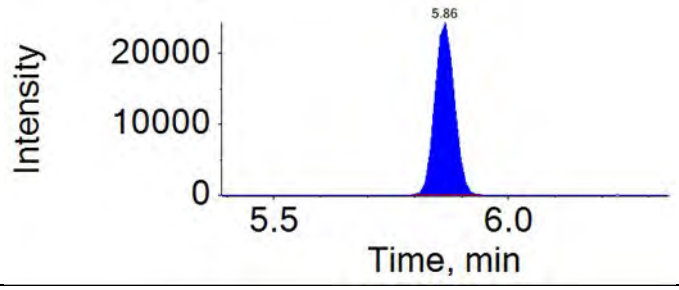
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

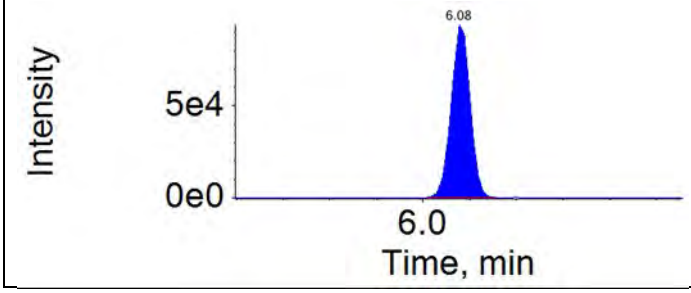
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

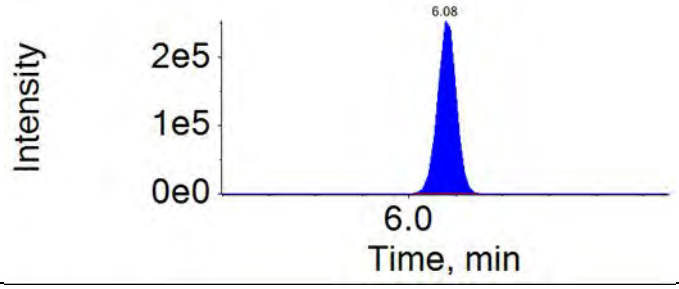
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



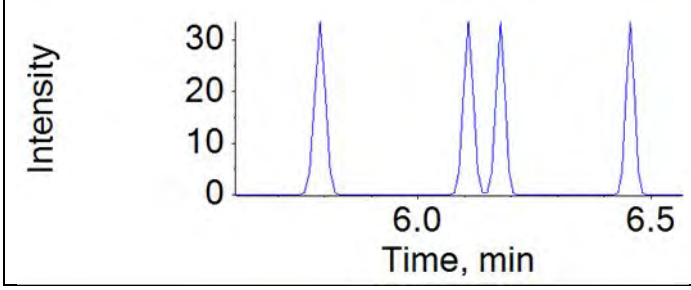


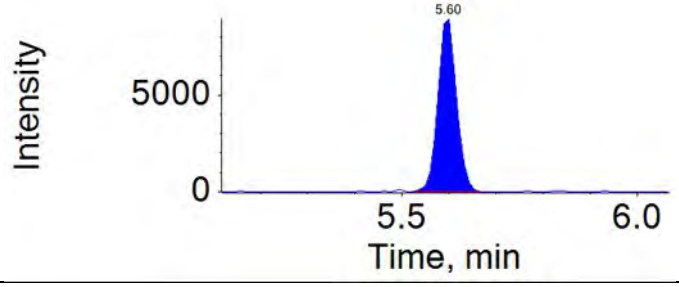
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



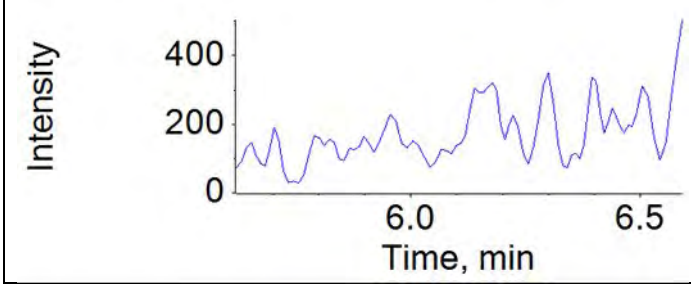


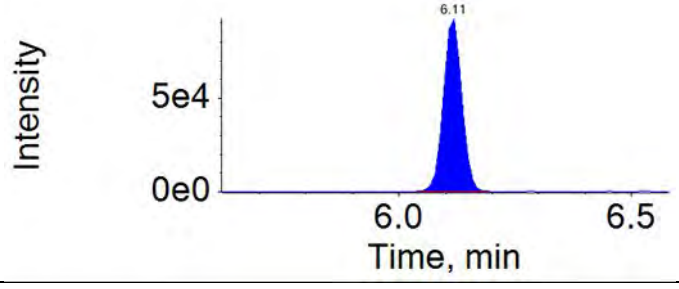
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





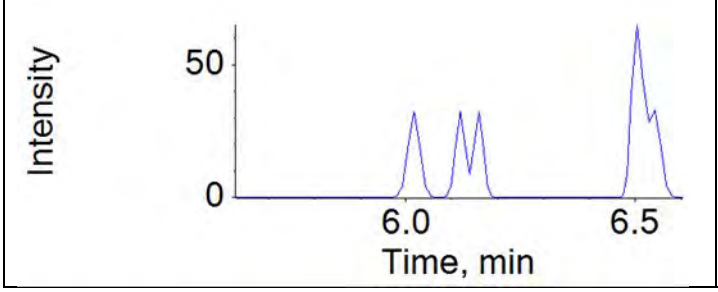
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

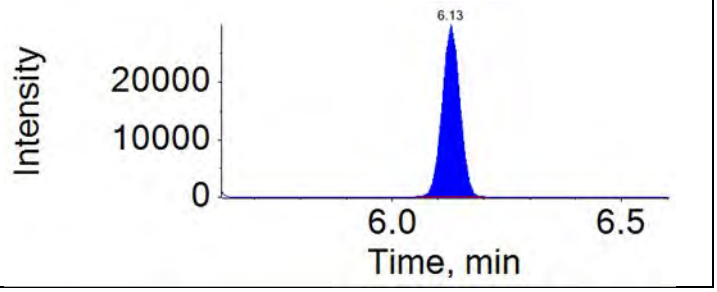




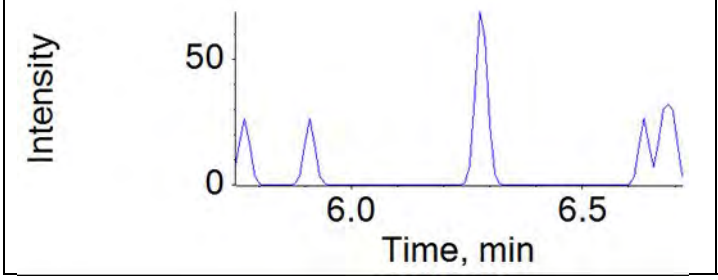
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

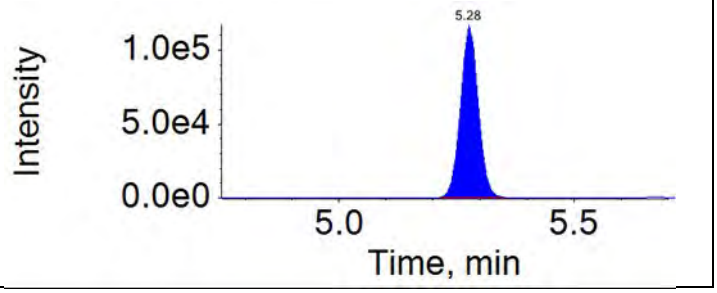
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



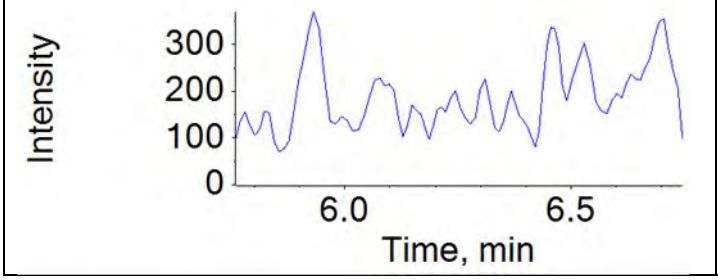


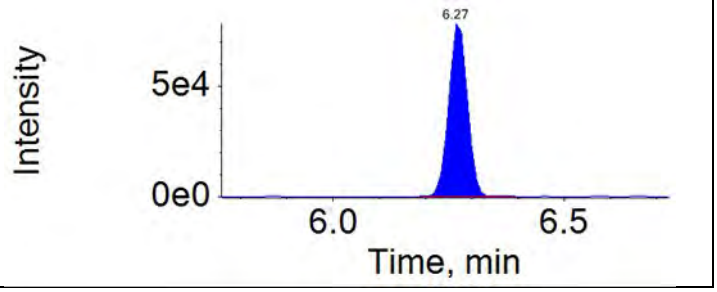
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



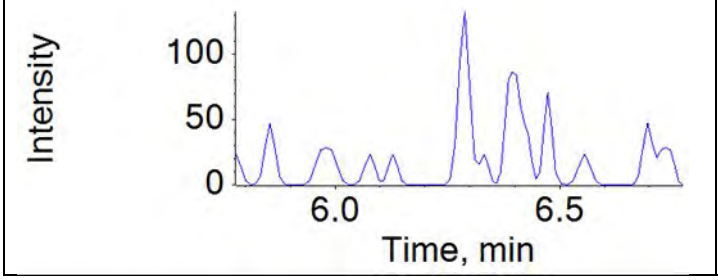


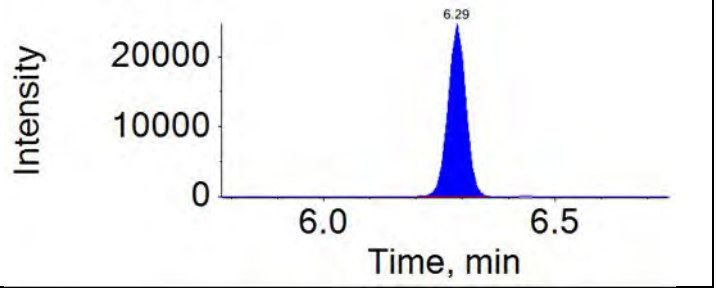
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

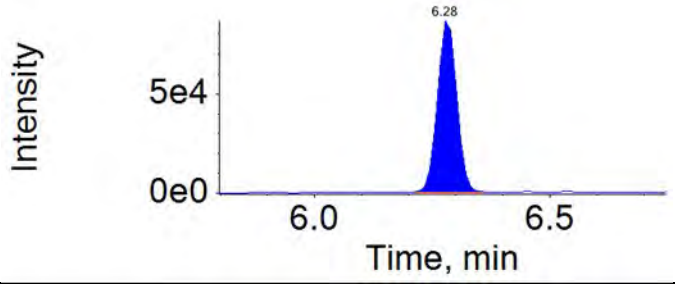
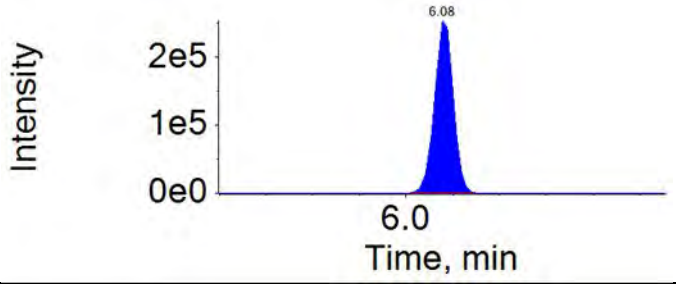


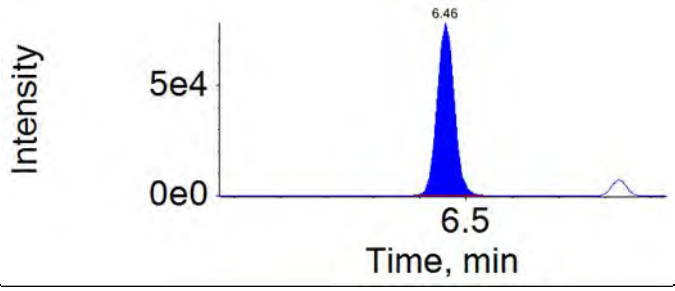
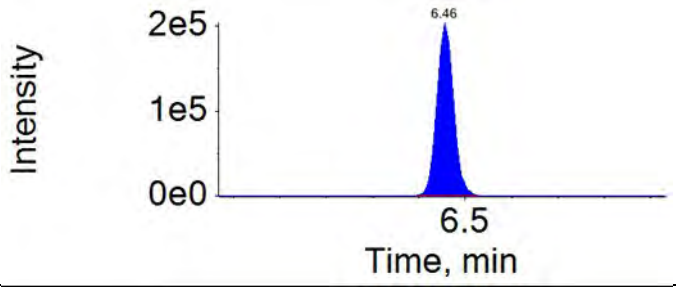


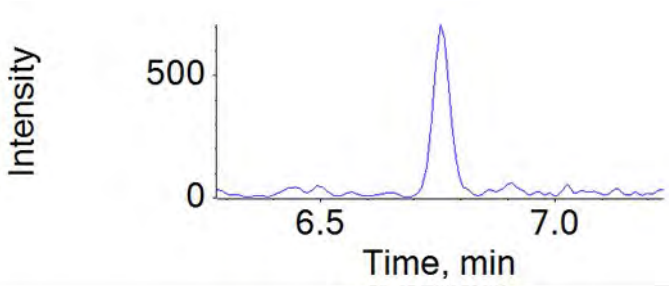
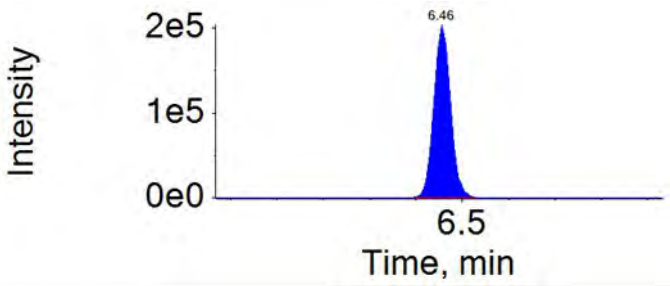
APPROVED
By MSM at 10:22 am, 12/4/18

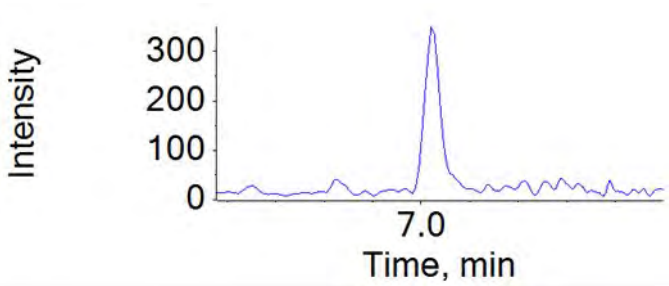
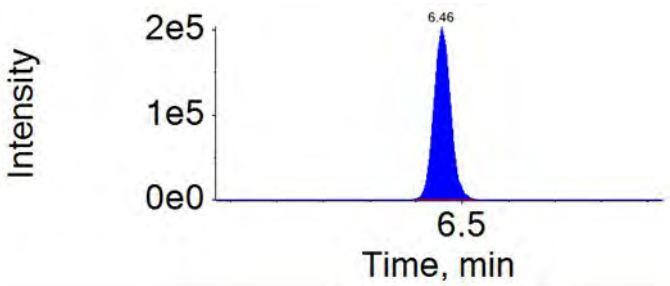
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

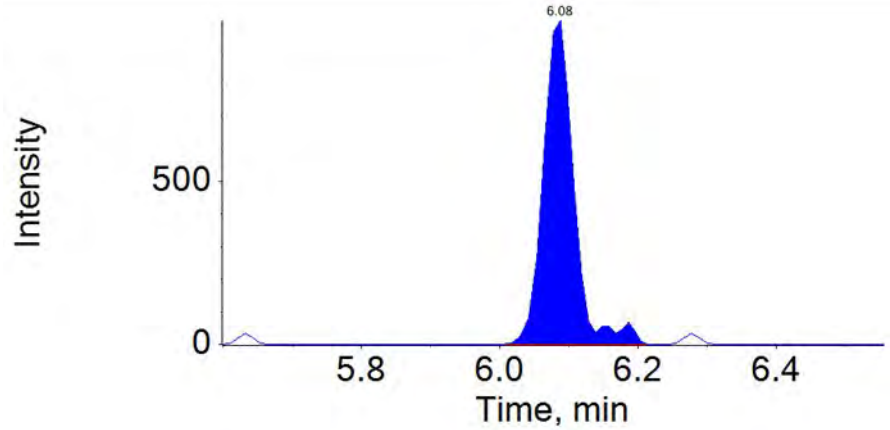
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

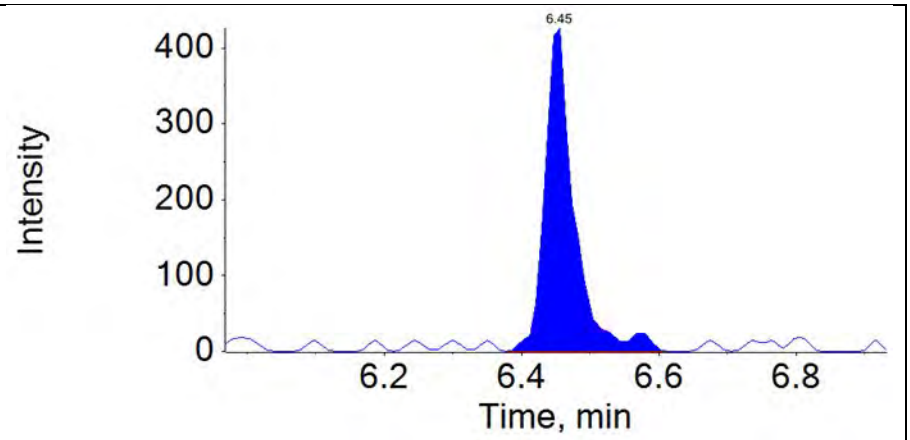
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFDoDA_2 **RT (min.):** 6.08 **Peak Area:** 3090.07 **Mass Range:** 613.0 / 169.0 **File Name:** 18DEC03DCAL-18.wiff **Sample Name:** ICV	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** 6.45 **Peak Area:** 1276.48 **Mass Range:** 713.0 / 169.0 **File Name:** 18DEC03DCAL-18.wiff **Sample Name:** ICV	 **Integration Comment:** incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

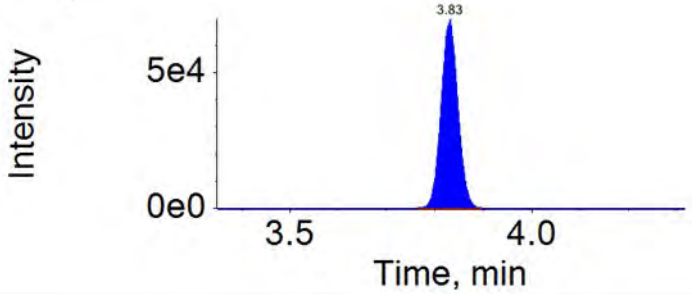
Sample Name: ICV **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-18.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.83	1.00	168179.19	A	1.0000	1.0000			
PFBS_2	3.83	1.00	60309.25	A	0.3698	0.3586	-3	50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6536	N/A		50	
PFHxA	4.18	1.00	344544.62	A	1.0000	1.0000			
PFHxA_2	4.18	1.00	3594.32	A	0.0119	0.0104	-12	50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5000	N/A		50	
PFHpA	4.57	1.00	312600.25	A	1.0000	1.0000			
PFHpA_2	4.58	1.00	17870.33	A	0.0526	0.0572	9	50	
PFHxS	4.58	1.00	126596.49	A	1.0000	1.0000			
PFHxS_2	4.58	1.00	42989.42	A	0.3476	0.3396	-2	50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6372	N/A		50	
PFHpS	4.94	1.08	127076.86	A	1.0000	1.0000			
PFHpS_2	4.94	1.08	51643.04	A	0.3956	0.4064	3	50	
PFOA	4.95	1.00	319817.15	A	1.0000	1.0000			
PFOA_2	4.95	1.00	19757.59	A	0.0618	0.0618	0	50	
PFOS	5.28	1.00	117120.09	A	1.0000	1.0000			
PFOS_2	5.28	1.00	38196.33	A	0.2940	0.3261	11	50	
PFNA	5.29	1.00	275648.36	A	1.0000	1.0000			
PFNA_2	5.30	1.00	6385.90	A	0.0196	0.0232	18	50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4676	N/A		50	
PFDA	5.59	1.00	232252.86	A	1.0000	1.0000			
PFDA_2	5.59	1.00	2420.16	A	0.0073	0.0104	43	50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6049	N/A		50	
NMeFOSAA	5.74	1.00	31155.63	A	1.0000	1.0000			
NMeFOSAA_2	5.74	1.00	7156.09	A	0.2642	0.2297	-13	50	
PFDS	5.83	1.10	62114.71	A	1.0000	1.0000			
PFDS_2	5.83	1.10	33548.66	A	0.4948	0.5401	9	50	
PFUnDA	5.85	1.00	209547.87	A	1.0000	1.0000			
PFUnDA_2	5.86	1.00	911.68	A	0.0046	0.0044	-5	50	
NEtFOSAA	5.87	1.00	27499.72	A	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	17800.87	A	0.7504	0.6473	-14	50	
PFDoDA	6.08	1.00	265022.46	A	1.0000	1.0000			
PFDoDA_2	6.08	1.00	2903.15	M	0.0143	0.0110	-23	50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7003	N/A		50	
PFTrDA	6.28	1.03	245769.46	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	3264.49	A	0.0099	0.0133	34	50	
PFTeDA	6.46	1.00	200275.85	A	1.0000	1.0000			
PFTeDA_2	6.45	1.00	1224.71	M	0.0057	0.0061	7	50	
PFHxDA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0617	N/A		50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0266	N/A		50	

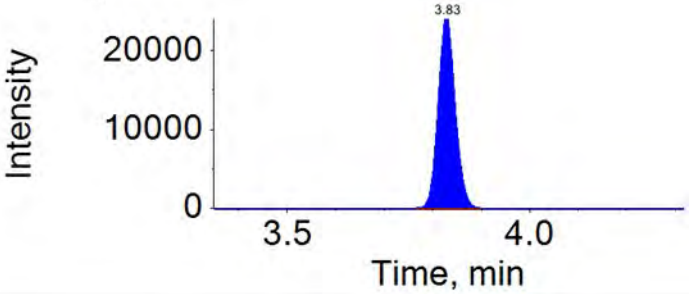
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

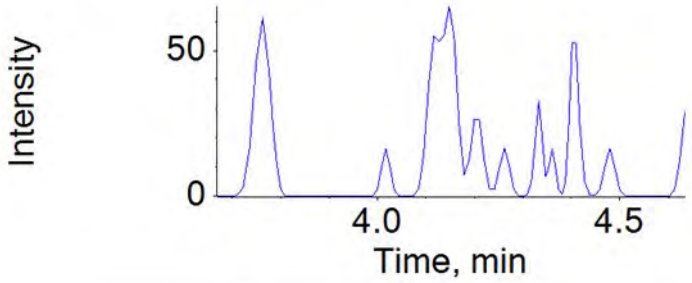
Component: PFBS
Primary Mass: 299.0 / 80.0



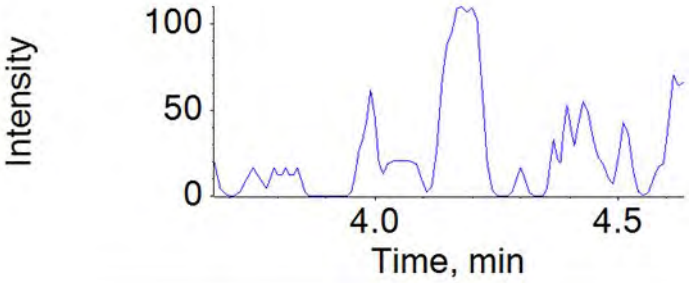
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



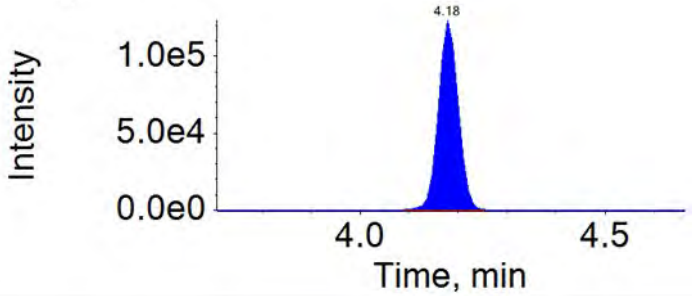
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



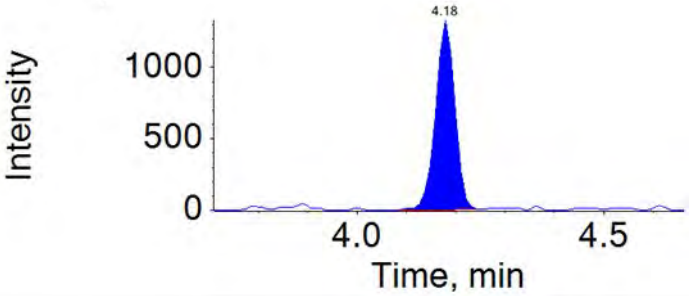
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



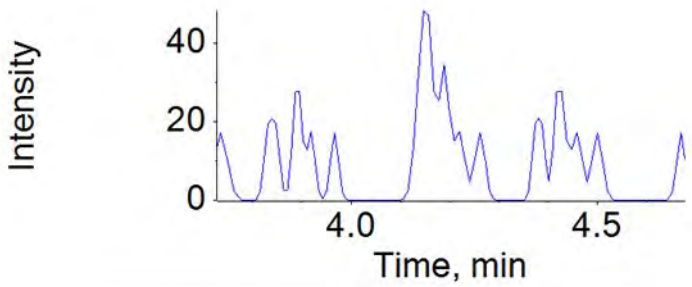
Component: PFHxA
Primary Mass: 313.0 / 269.0



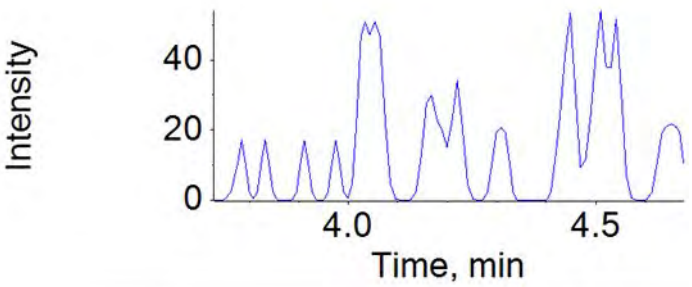
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



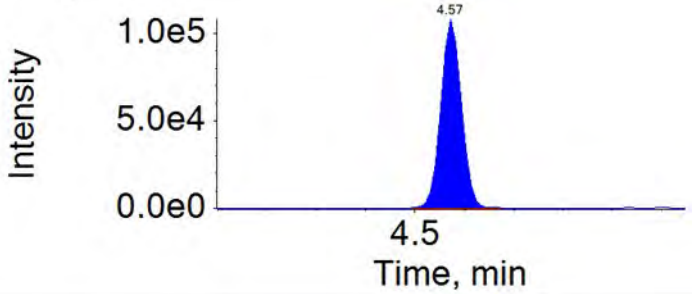
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



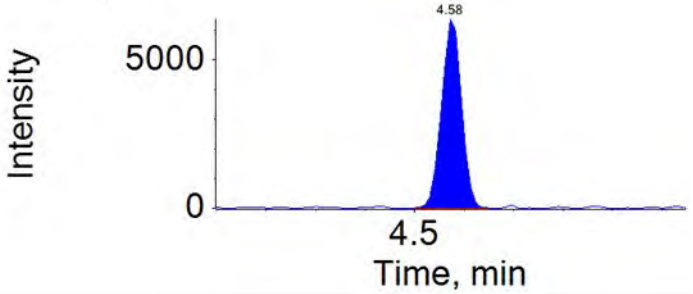
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

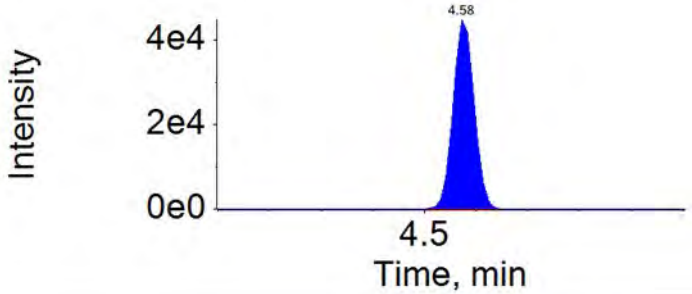
Component: PFHpA
Primary Mass: 363.0 / 319.0



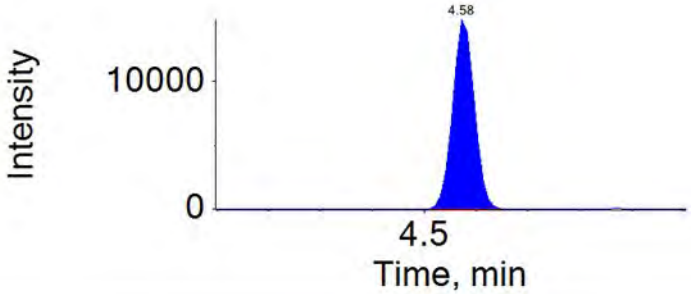
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



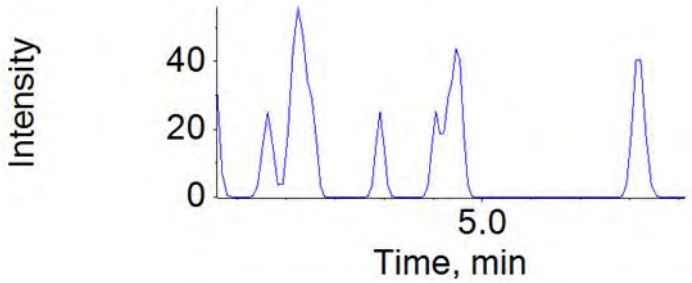
Component: PFHxS
Primary Mass: 399.0 / 80.0



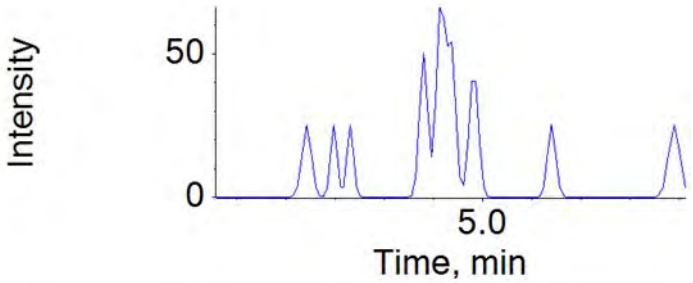
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



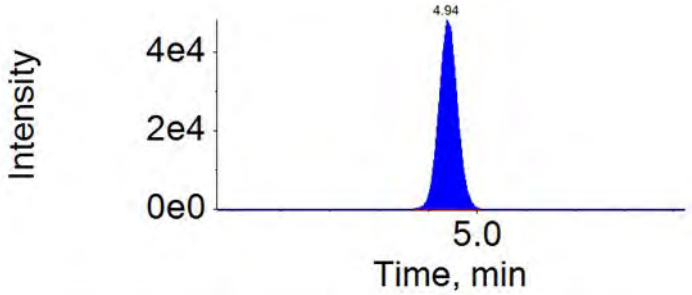
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



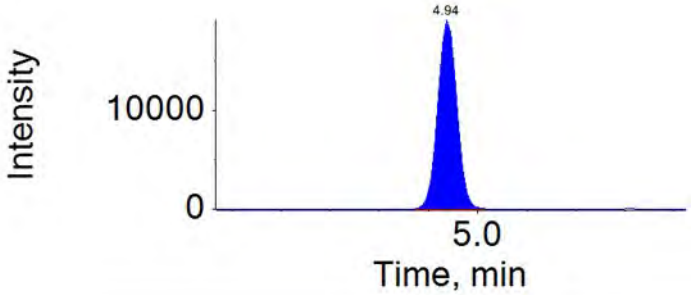
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



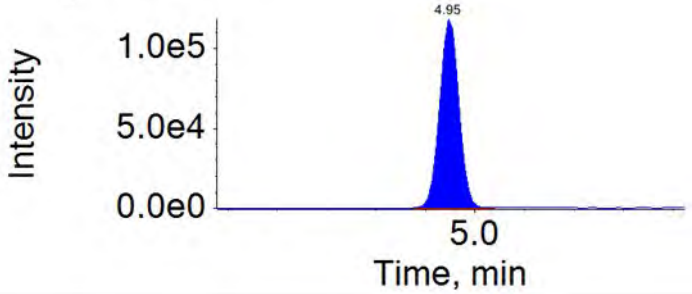
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



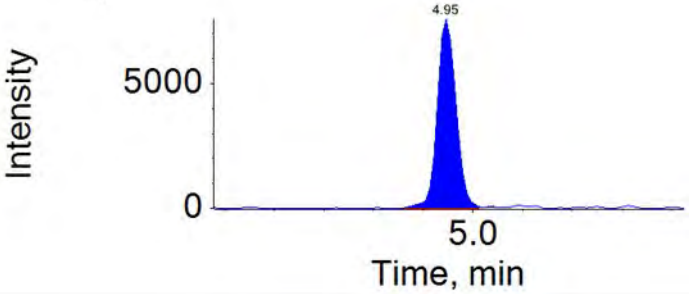
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

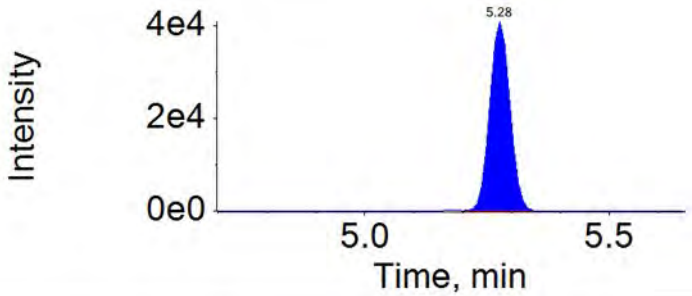
Component: PFOA
Primary Mass: 413.0 / 369.0



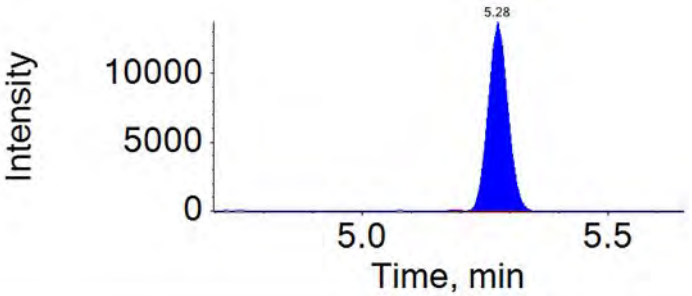
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



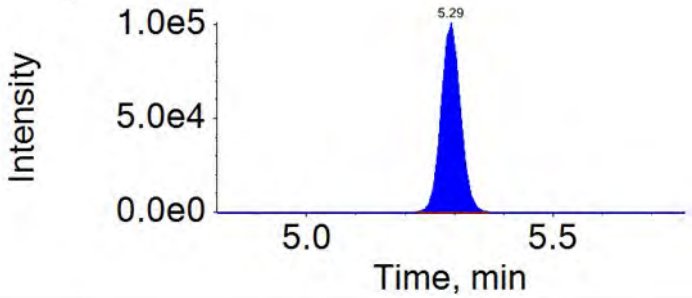
Component: PFOS
Primary Mass: 499.0 / 80.0



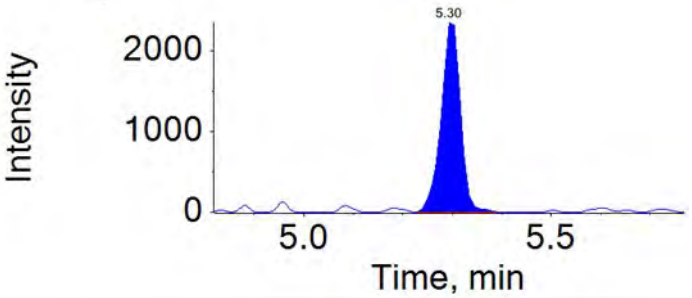
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



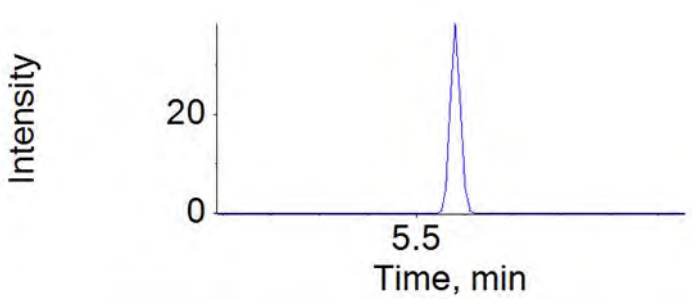
Component: PFNA
Primary Mass: 463.0 / 419.0



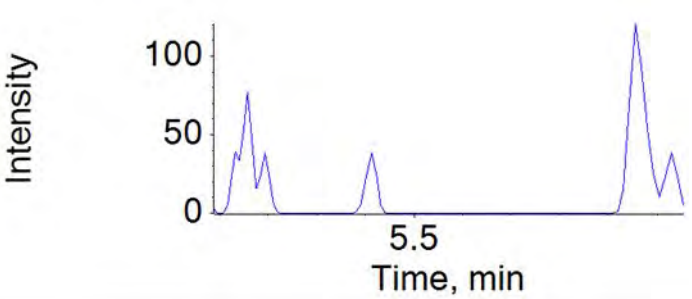
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



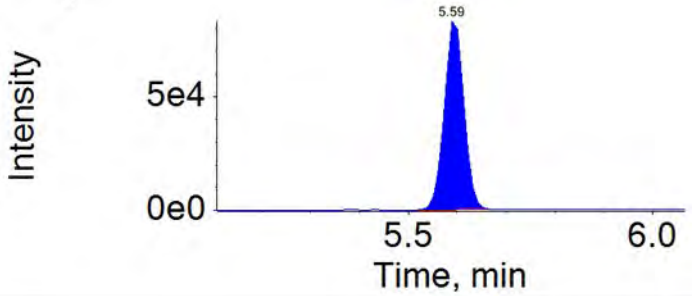
Component: PFNS
Primary Mass: 549.0 / 80.0



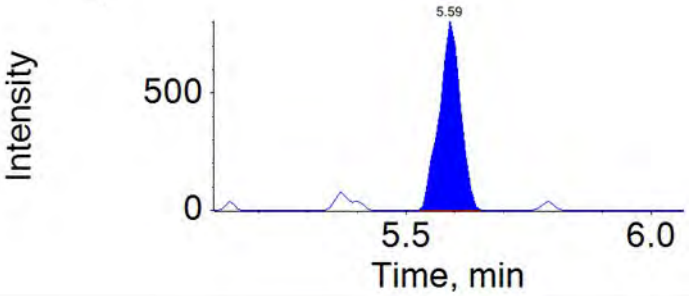
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



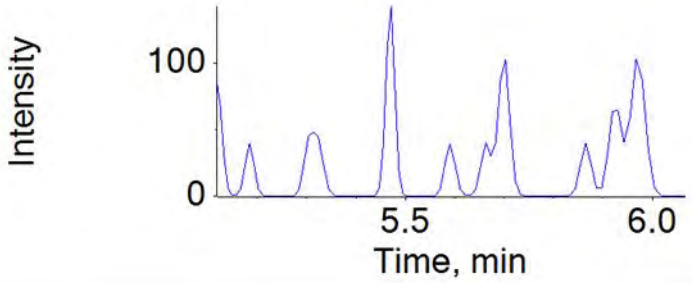
Component: PFDA
Primary Mass: 513.0 / 469.0



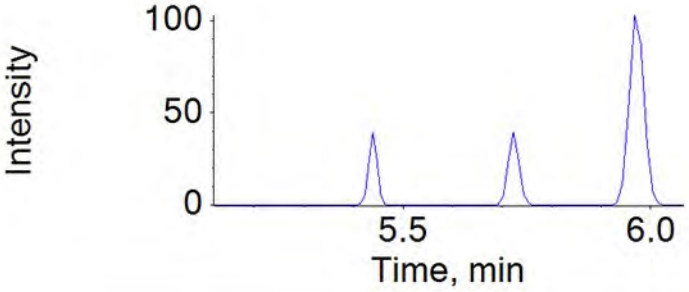
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



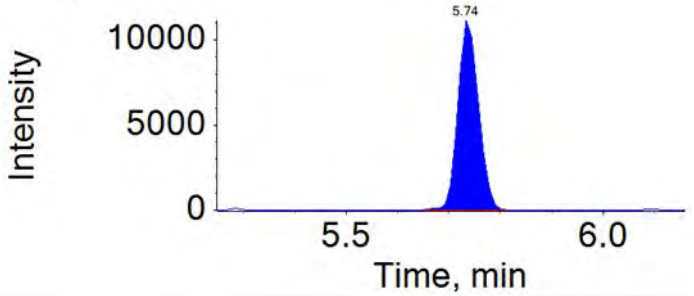
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



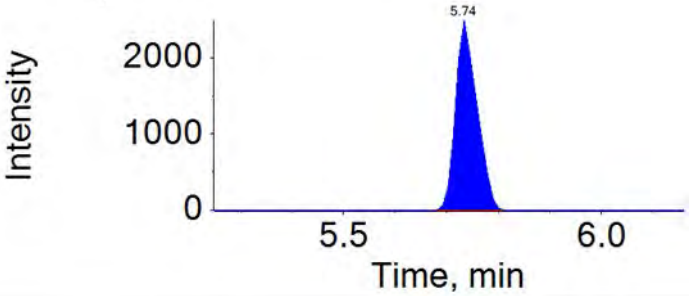
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



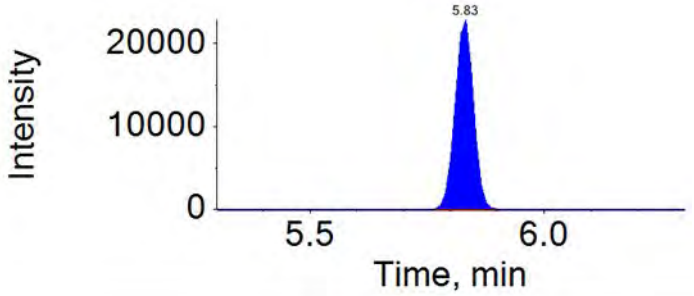
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



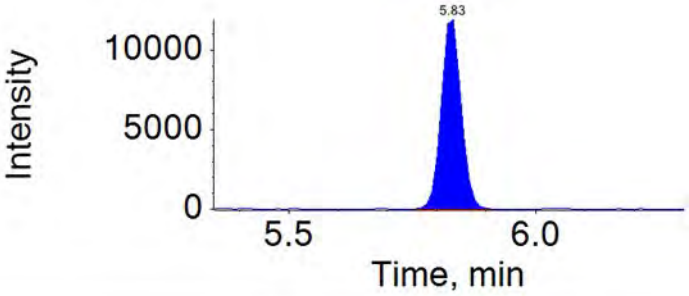
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



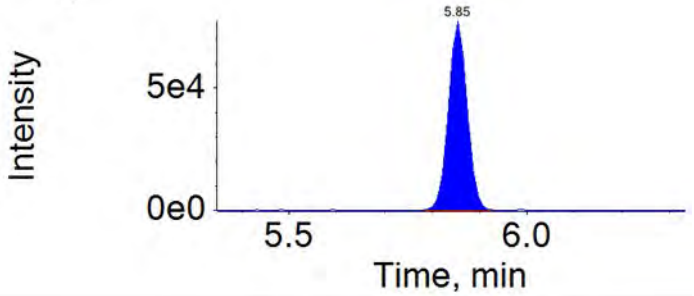
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



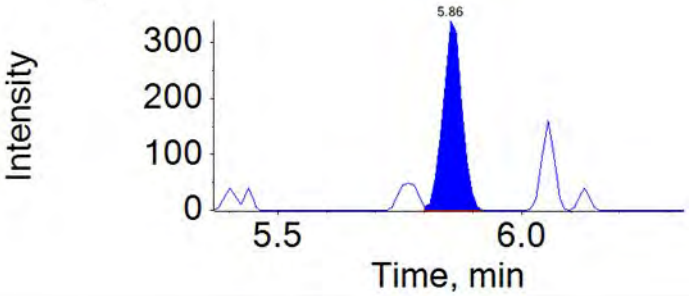
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

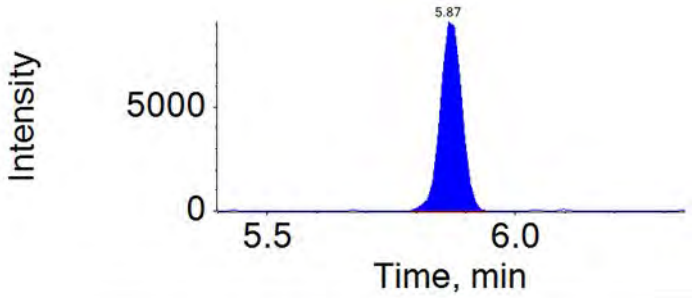
Component: PFUnDA
Primary Mass: 563.0 / 519.0



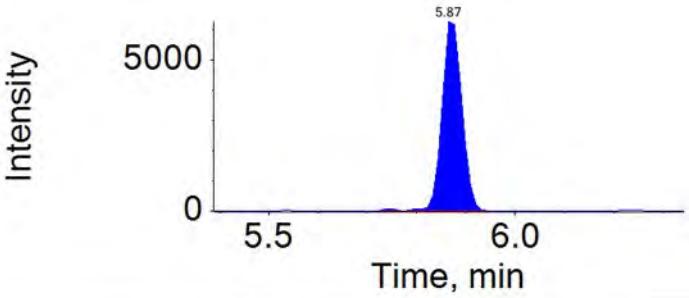
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



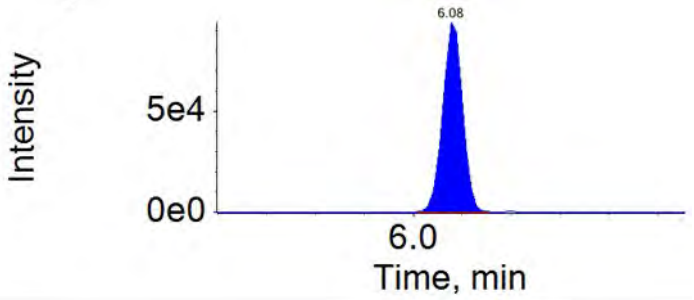
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



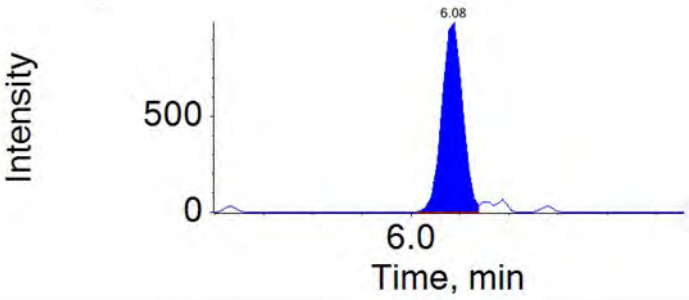
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



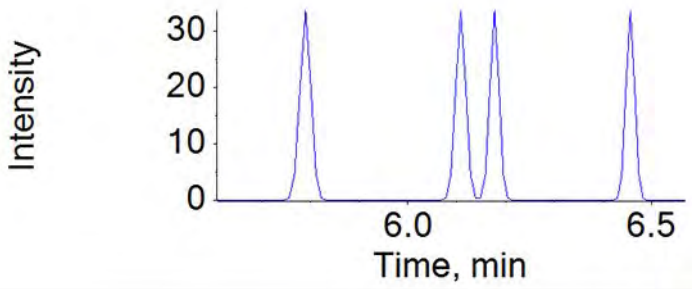
Component: PFDoDA
Primary Mass: 613.0 / 569.0



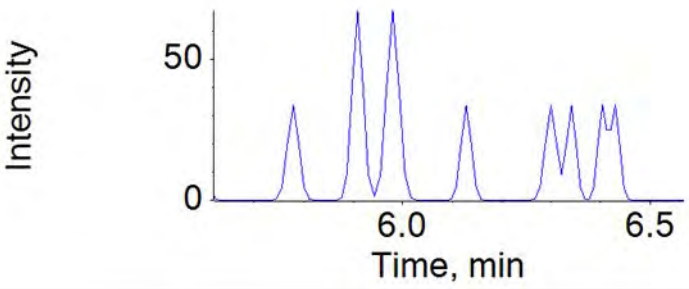
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



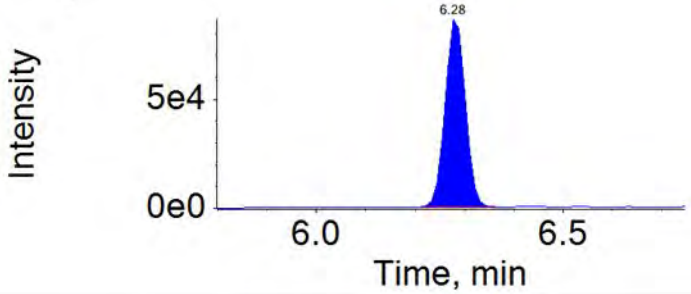
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



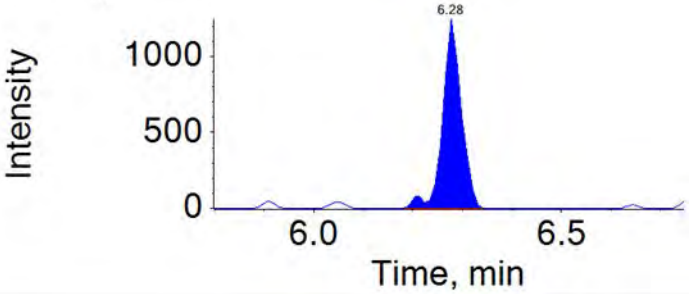
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



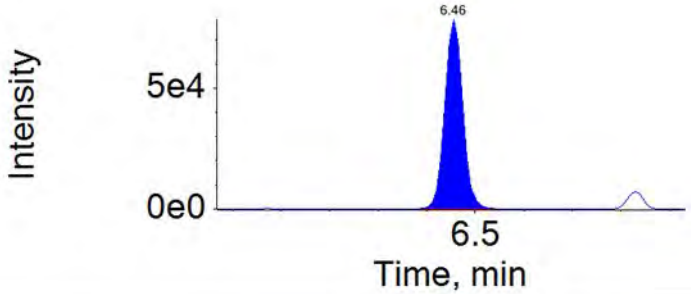
Component: PFTrDA
Primary Mass: 663.0 / 619.0



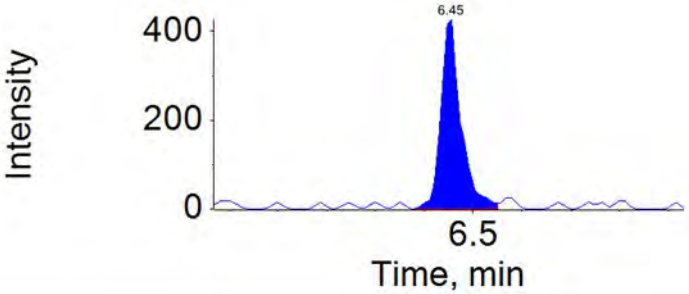
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



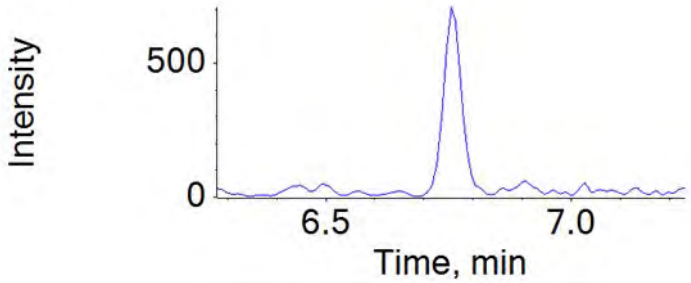
Component: PFTeDA
Primary Mass: 713.0 / 669.0



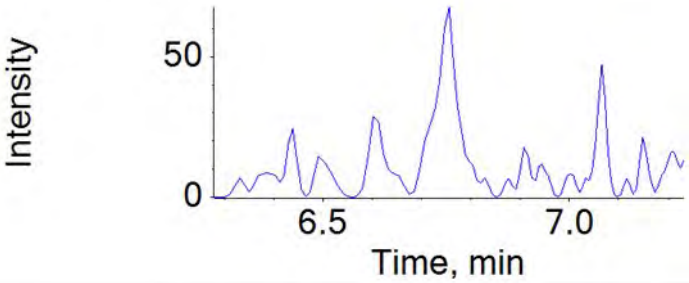
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



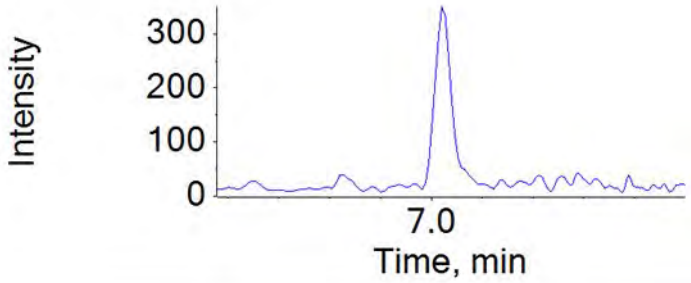
Component: PFHxDA
Primary Mass: 813.0 / 769.0



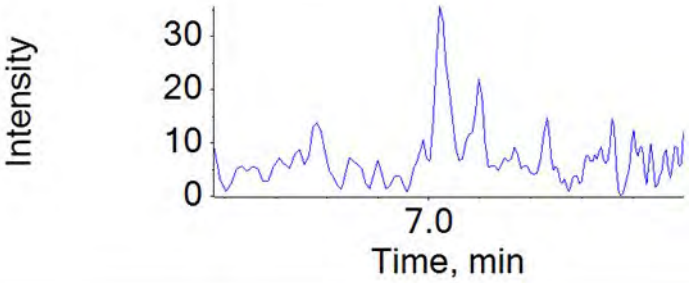
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	L+B CAL3			**Data File:**		18DEC03DCAL-19.wiff
Sample ID:	LBMODX1833D			**Acquis Date:**		2018-12-03T18:56:20
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	11			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	800106.5	749775.9	7	50	
13C2-PFOA	5.0	433989.3	434072.7	0	50	
13C4-PFOS	4.8	286023.8	261136.3	10	50	
13C2-PFDA	5.0	319665.3	305281.8	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	875395.6	13C3-PFBA	800106.5	1.094	5.000	4.855	97	70-130	
E13C5-PFPeA	787866.3	13C3-PFBA	800106.5	0.985	5.000	4.751	95	70-130	
E13C3-PFBS	438587.4	13C3-PFBA	800106.5	0.548	4.650	4.272	92	70-130	
E13C2-4:2-FTS	52274.5	13C2-PFOA	433989.3	0.120	4.670	4.955	106	70-130	
E13C5-PFHxA	628843.4	13C2-PFOA	433989.3	1.449	5.000	4.907	98	70-130	
E13C3-PFHxS	330767.2	13C2-PFOA	433989.3	0.762	4.730	4.819	102	70-130	
E13C4-PFHpA	498276.1	13C2-PFOA	433989.3	1.148	5.000	5.009	100	70-130	
E13C2-6:2-FTS	34596.5	13C2-PFOA	433989.3	0.080	4.750	5.283	111	70-130	
E13C8-PFOA	834456.9	13C2-PFOA	433989.3	1.923	5.000	5.345	107	70-130	
E13C8-PFOS	308697.5	13C4-PFOS	286023.8	1.079	4.780	4.794	100	70-130	
E13C9-PFNA	478334.4	13C4-PFOS	286023.8	1.672	5.000	4.895	98	70-130	
E13C6-PFDA	609809.7	13C2-PFDA	319665.3	1.908	5.000	4.962	99	70-130	
E13C2-8:2-FTS	22937.1	13C2-PFDA	319665.3	0.072	4.790	4.614	96	70-130	
E13C8-PFOSA	694781.4	13C2-PFDA	319665.3	2.173	5.000	4.865	97	70-130	
Ed3-NMeFOSAA	81004.5	13C2-PFDA	319665.3	0.253	5.000	4.427	89	70-130	
E13C7-PFUnDA	316338.1	13C2-PFDA	319665.3	0.990	5.000	4.929	99	70-130	
Ed5-NEtFOSAA	74917.5	13C2-PFDA	319665.3	0.234	5.000	5.346	107	70-130	
E13C2-PFDoDA	740399.4	13C2-PFDA	319665.3	2.316	5.000	4.959	99	70-130	
Ed7-NMePFOSAE	285861.3	13C2-PFDA	319665.3	0.894	5.000	4.849	97	70-130	
Ed3-NMePFOSA	84334.9	13C2-PFDA	319665.3	0.264	5.000	4.892	98	70-130	
Ed9-NEtPFOSAE	218070.7	13C2-PFDA	319665.3	0.682	5.000	4.400	88	70-130	
Ed5-NEtPFOSA	65329.0	13C2-PFDA	319665.3	0.204	5.000	4.821	96	70-130	
E13C2-PFTeDA	536393.8	13C2-PFDA	319665.3	1.678	5.000	4.730	95	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

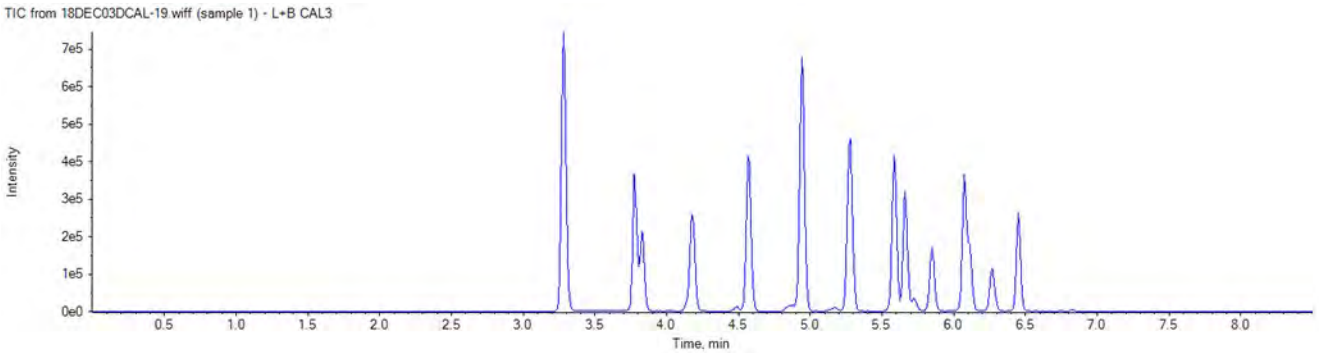
Analyte Quantitation Peak Table

Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-19.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.28	875395.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.78	787866.3	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.83	438587.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.15	52274.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.18	628843.4	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.83	438587.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.57	498276.1	N/A	
PFHxS	4.57	1.000	132252.3		M	13C3-PFHxS	4.57	330767.2	0.400	1.884
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.93	34596.5	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.57	330767.2	N/A	
PFOA	4.94	1.000	311161.4		M	13C8-PFOA	4.94	834456.9	0.373	1.974
PFOS	5.27	1.000	121818.1		M	13C8-PFOS	5.27	308697.5	0.395	1.672
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.29	478334.4	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.27	308697.5	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.59	609809.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.59	22937.1	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.66	694781.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.72	81004.5	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.27	308697.5	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.85	316338.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.86	74917.5	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.07	740399.4	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.59	22937.1	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.11	285861.3	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.12	84334.9	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.27	308697.5	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.26	218070.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.28	65329.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.07	740399.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.45	536393.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.45	536393.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.45	536393.8	N/A	

Total Ion Chromatogram

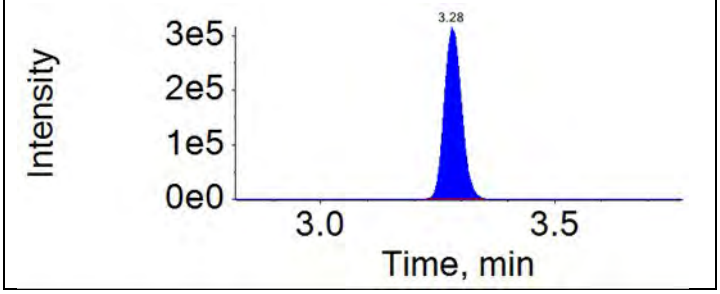


APPROVED
By MSM at 10:22 am, 12/4/18

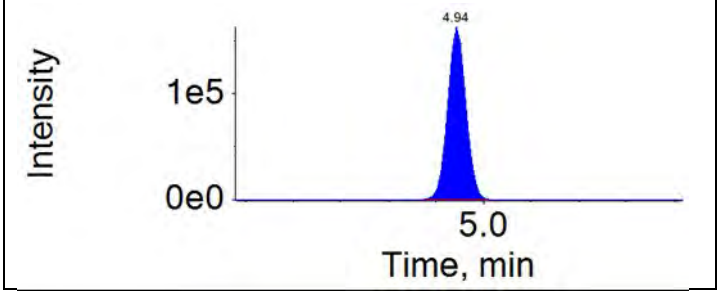
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

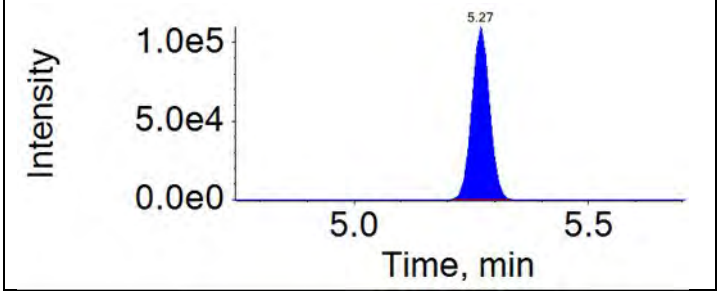
Injection Standard: 13C3-PFBA
216.0 / 172.0



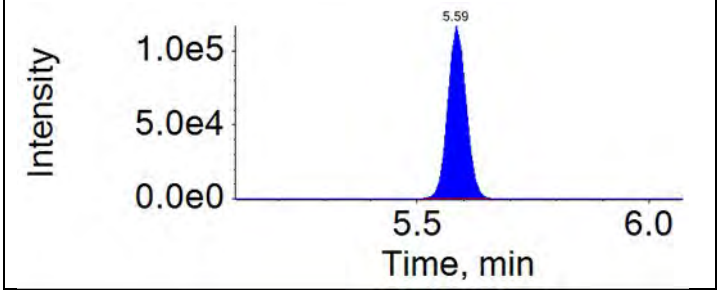
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

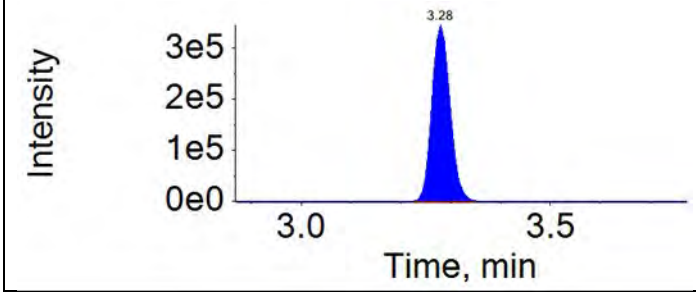


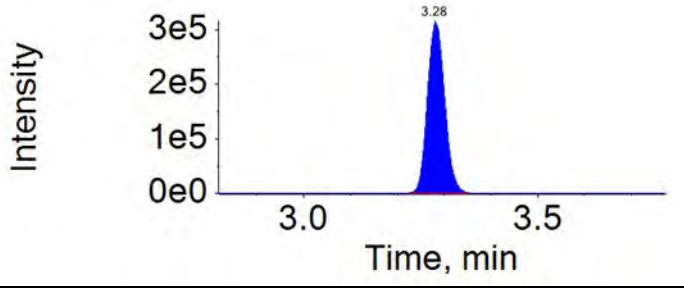
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

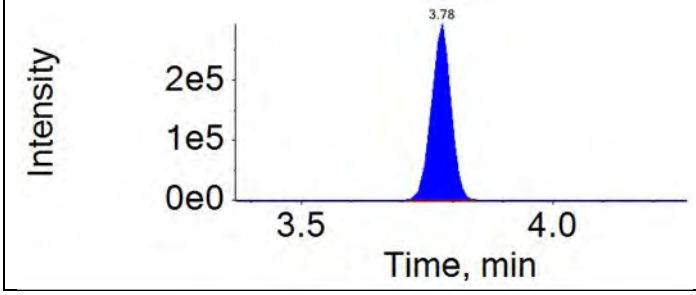
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

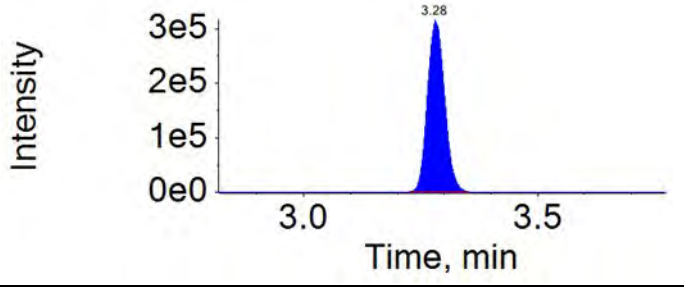
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



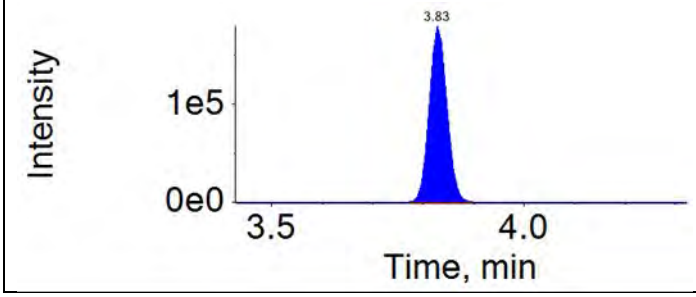


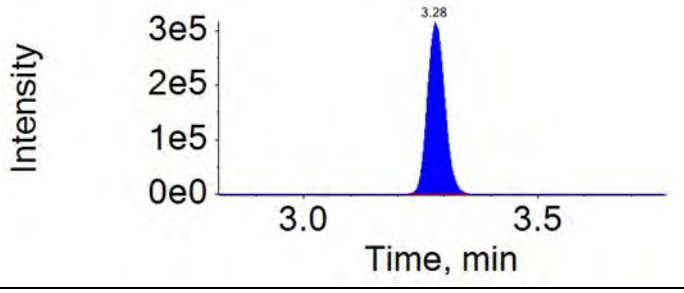
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



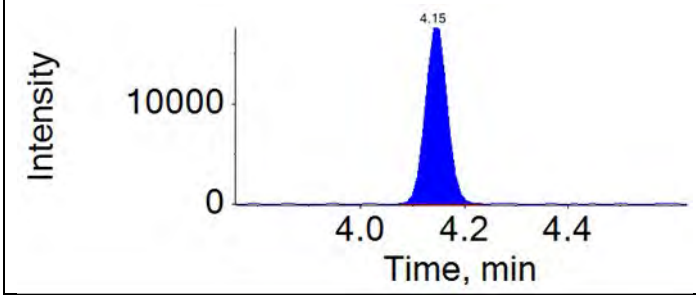


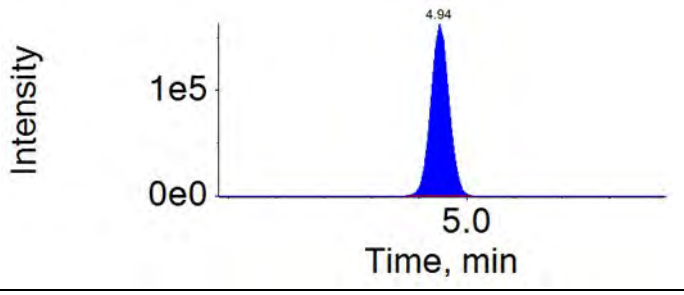
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



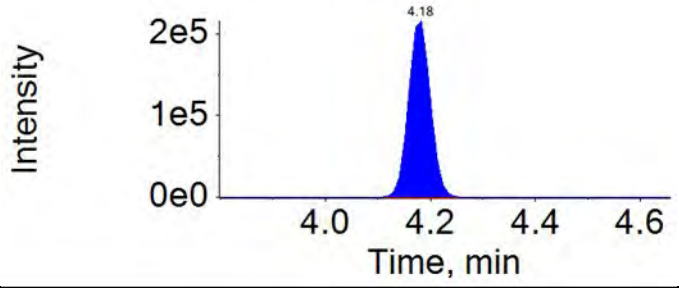


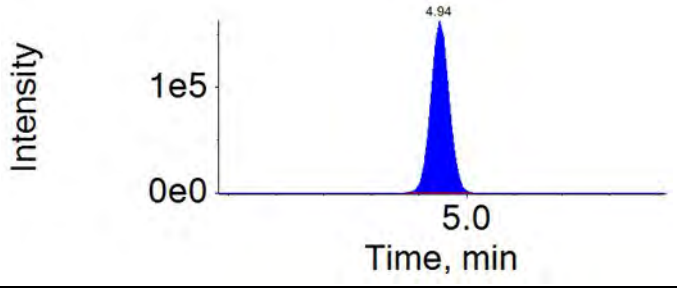
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

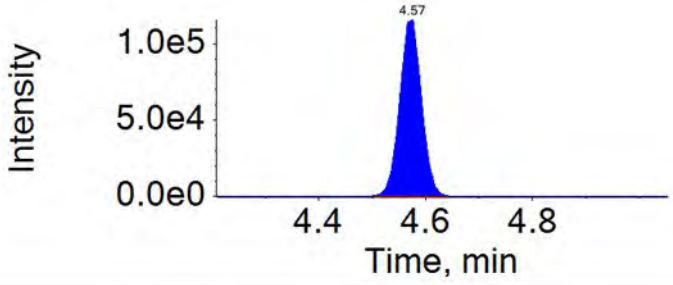
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

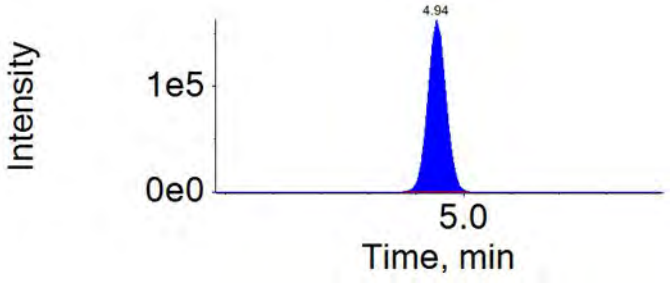
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



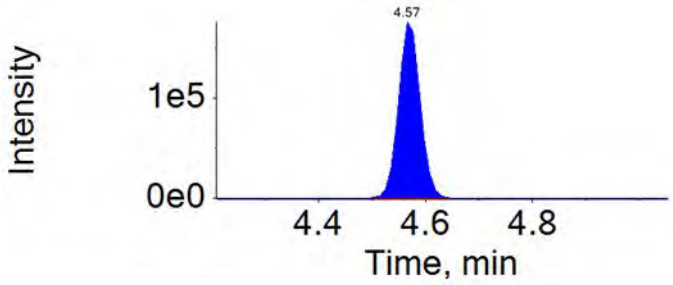


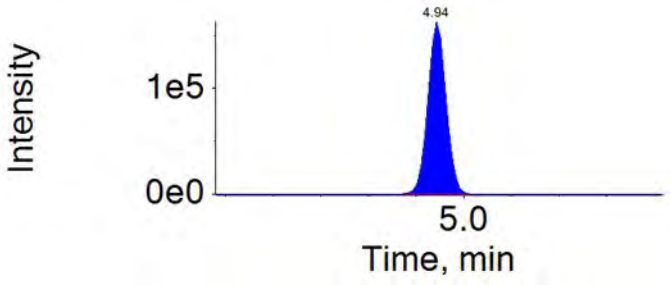
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



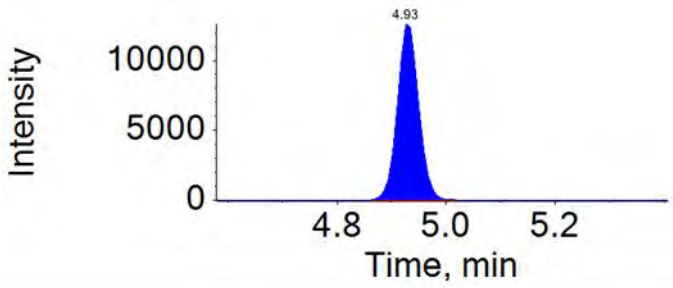


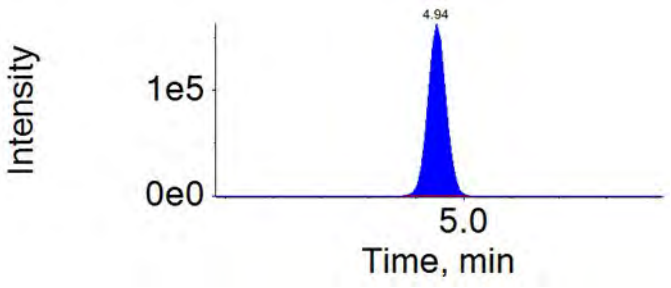
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



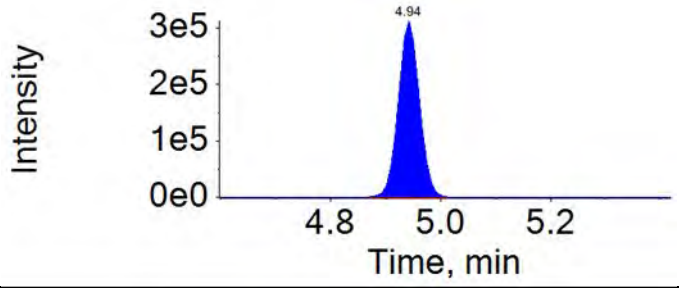


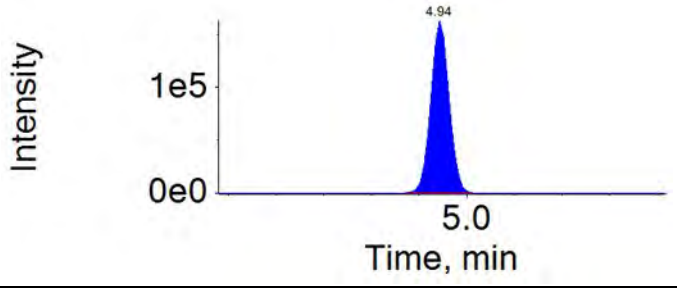
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

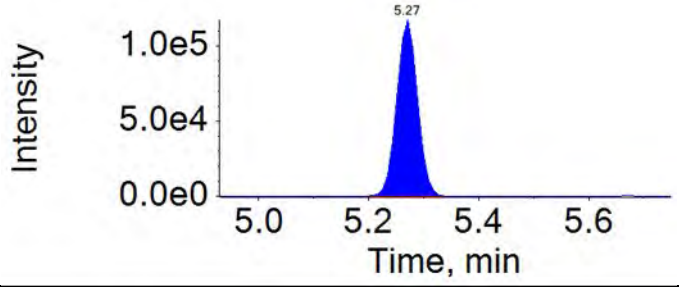
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

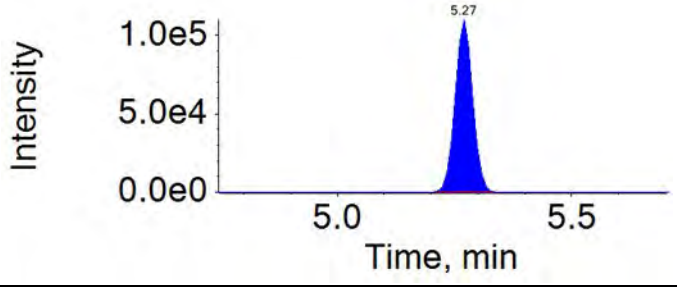
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



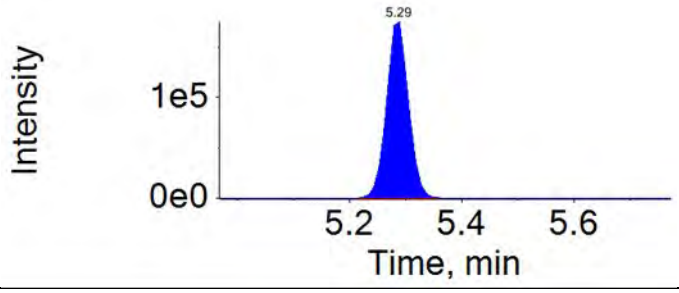


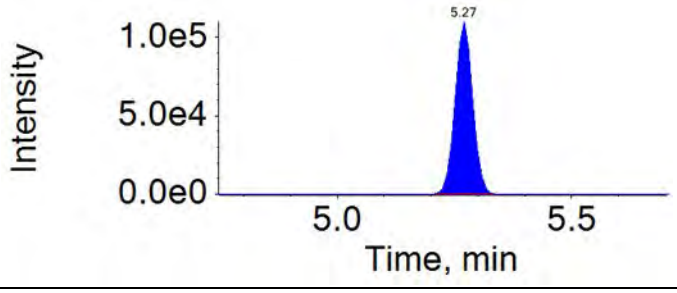
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



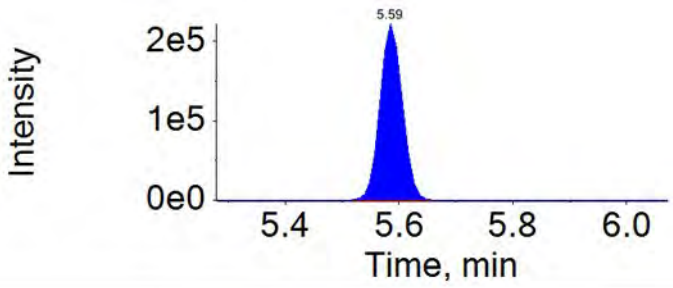


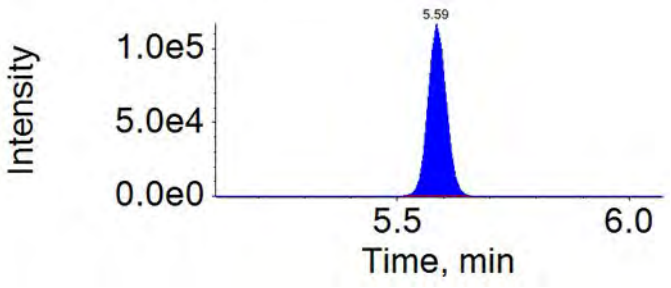
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





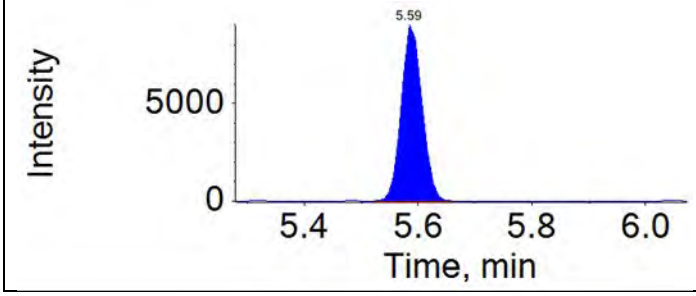
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

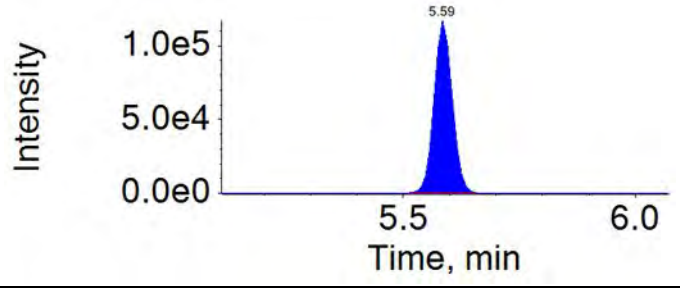




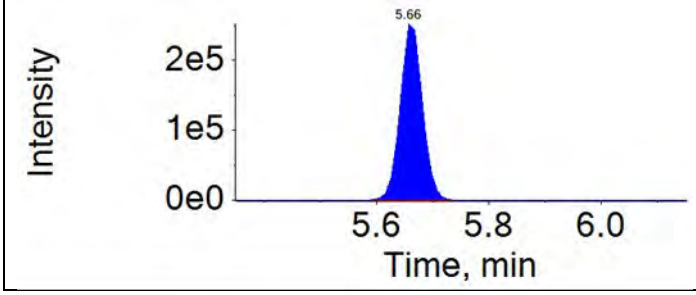
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

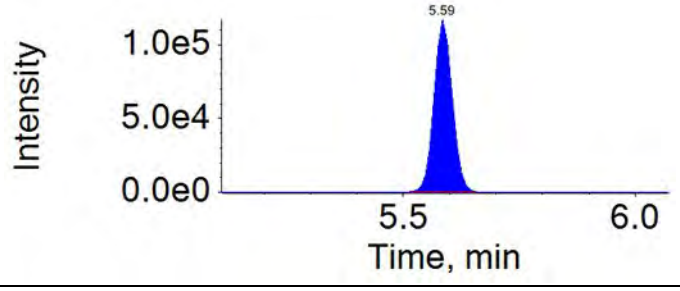
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



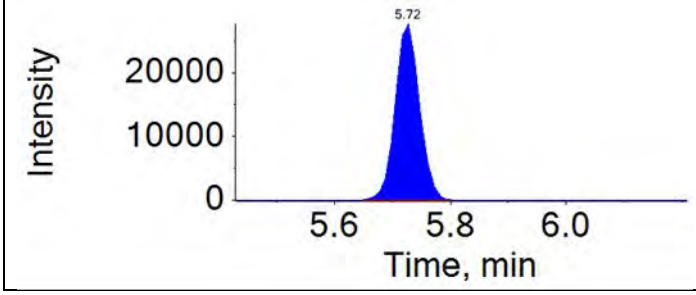


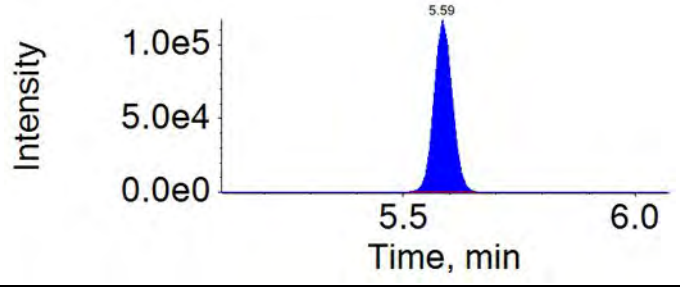
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



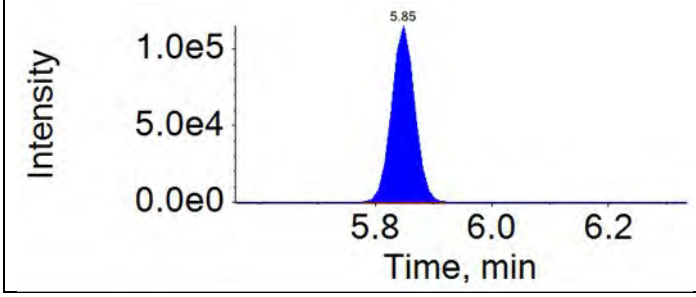


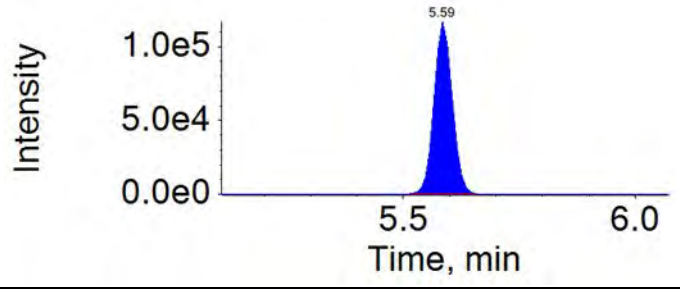
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



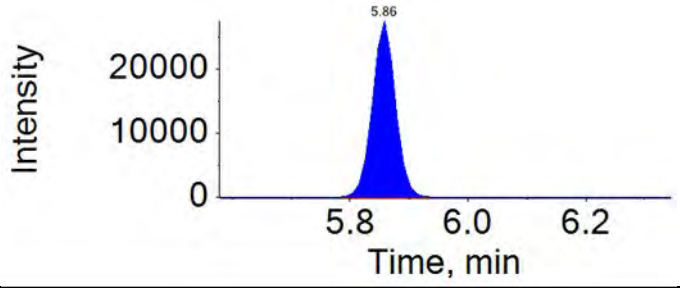


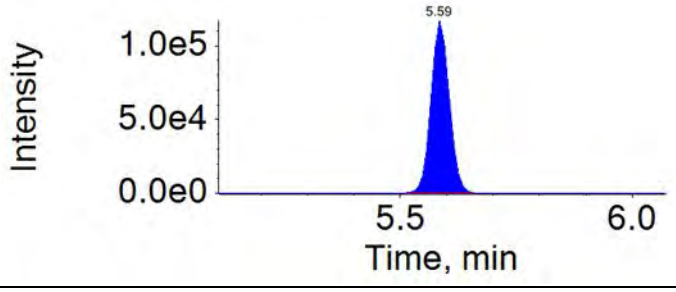
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

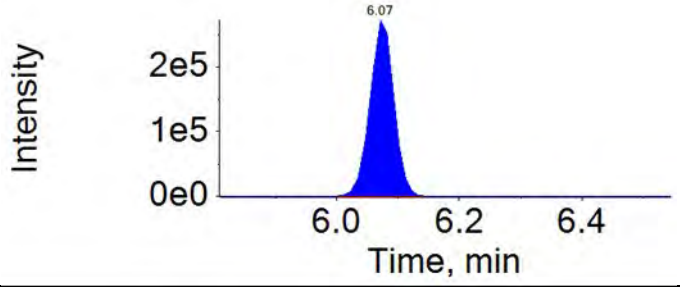
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

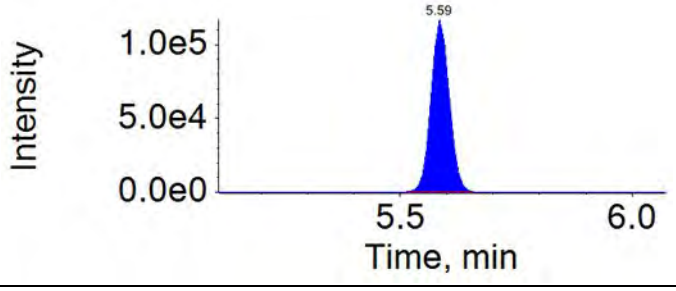
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



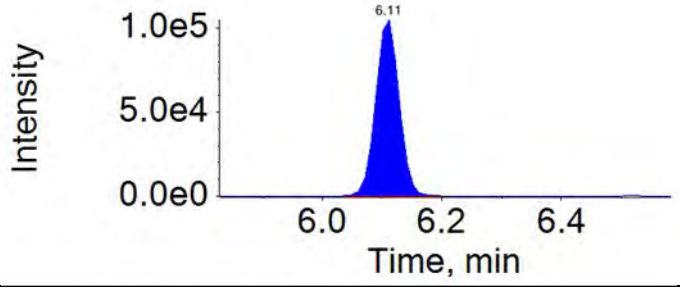


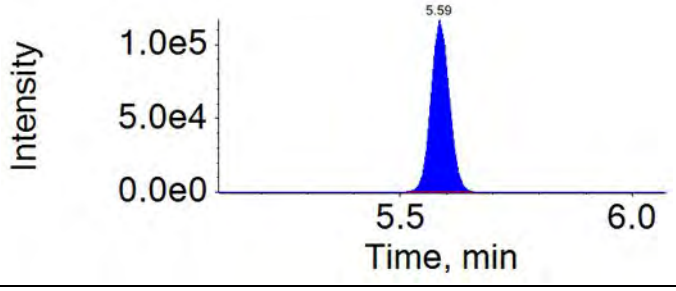
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



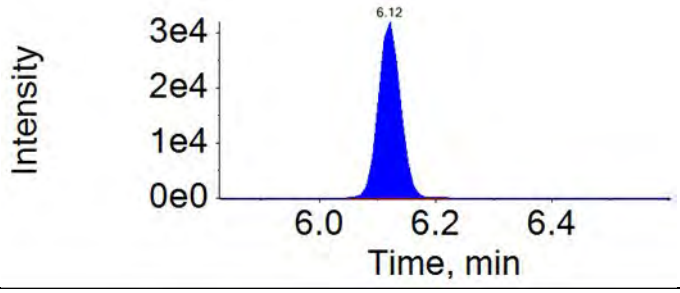


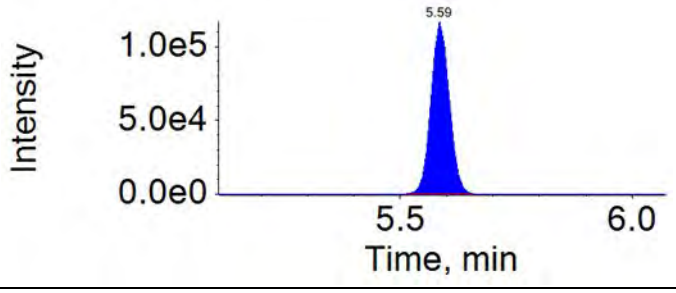
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



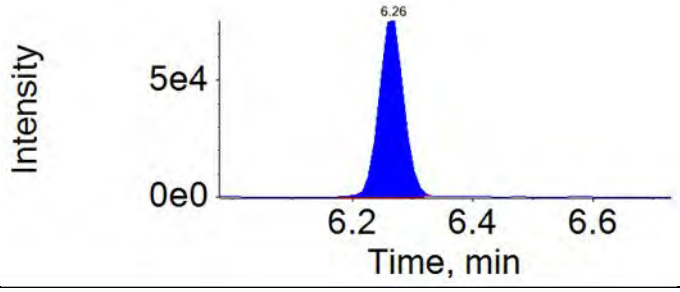


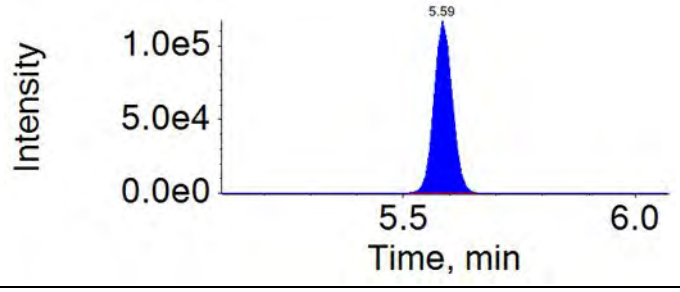
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

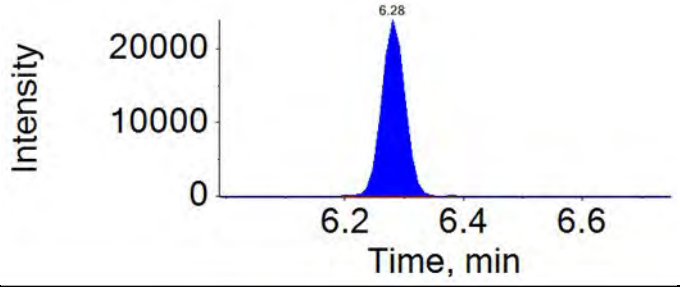
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

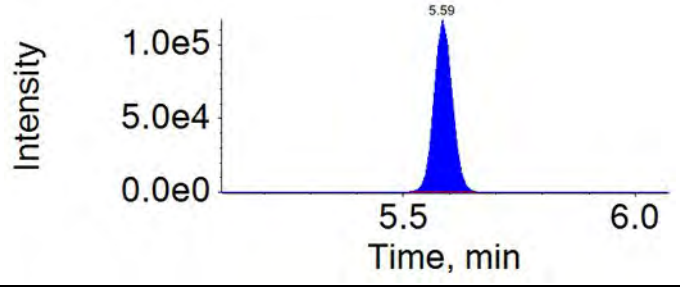
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



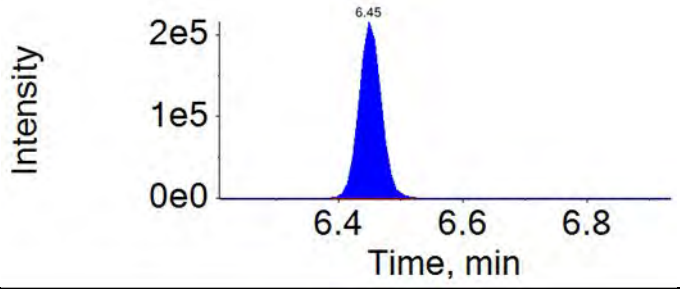


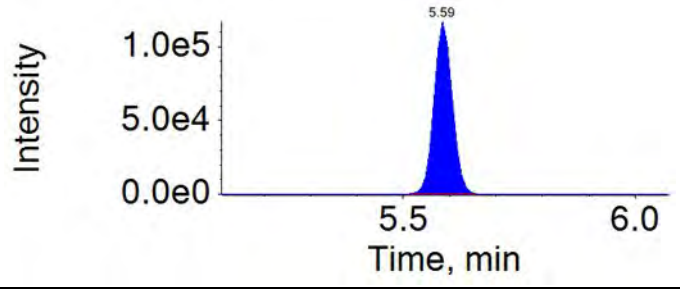
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



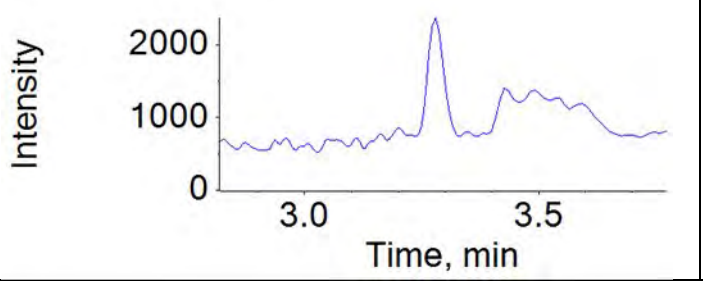


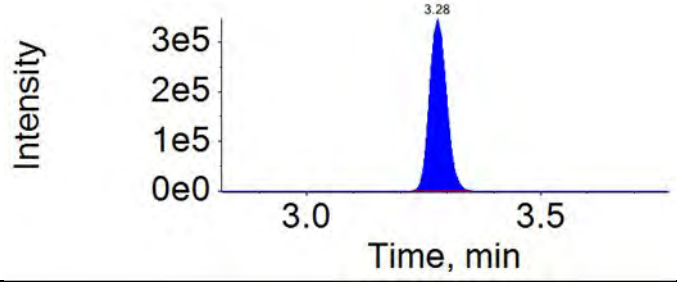
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

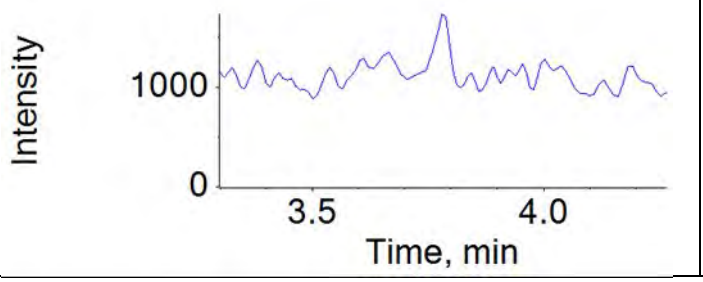
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

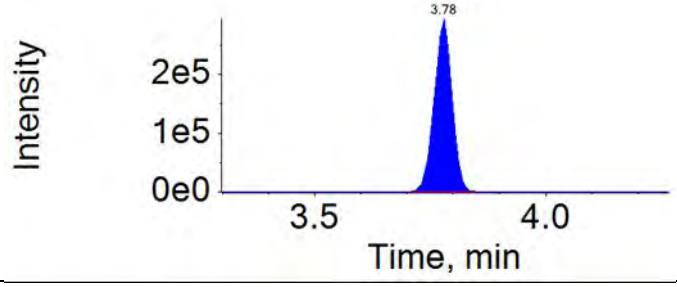
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



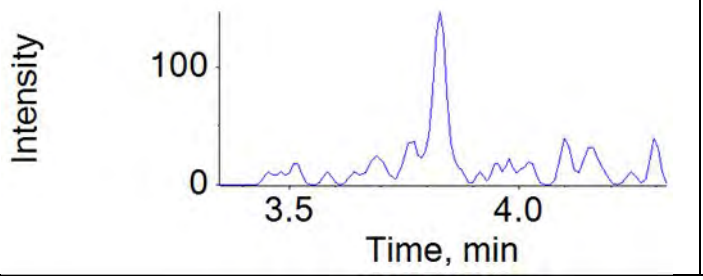


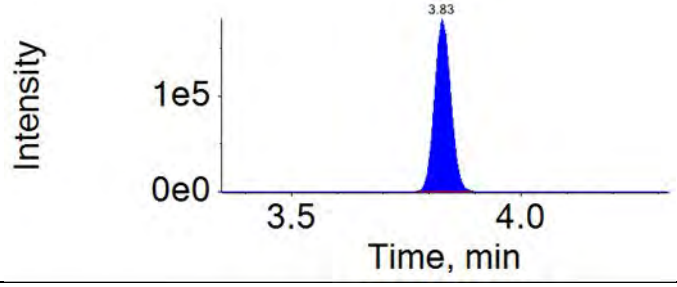
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



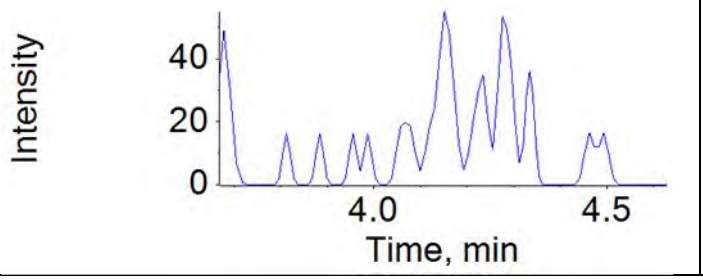


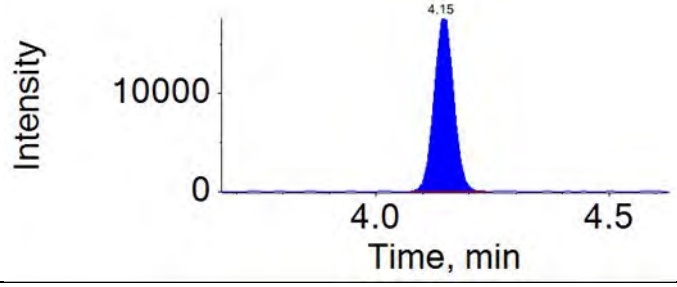
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



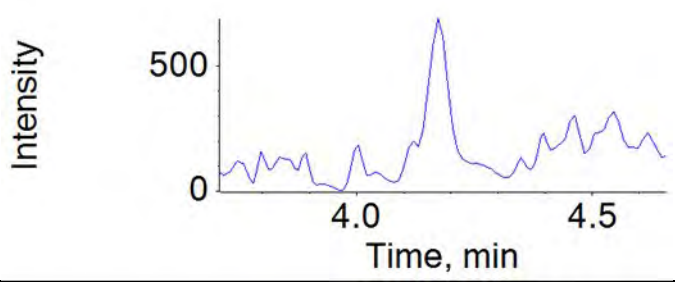


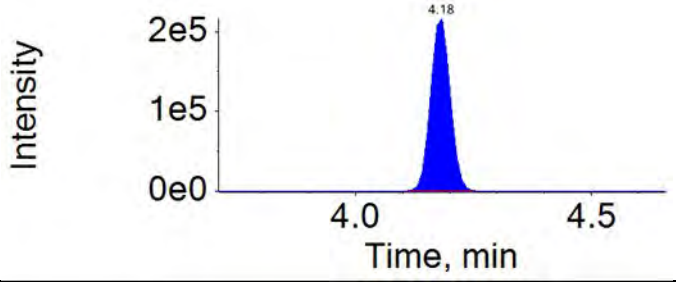
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

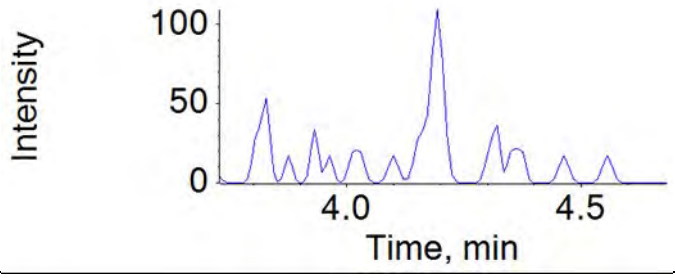
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

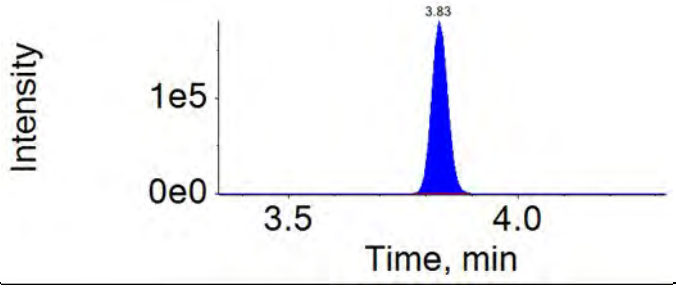
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



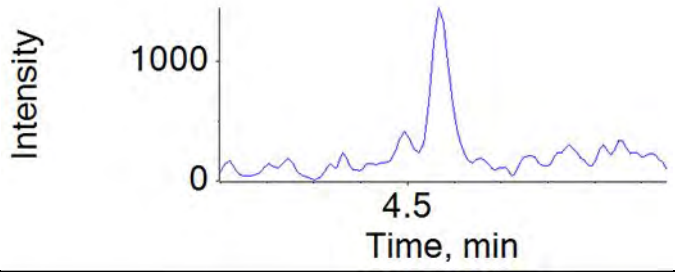


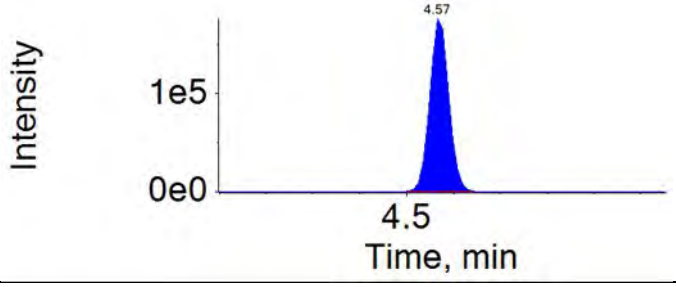
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



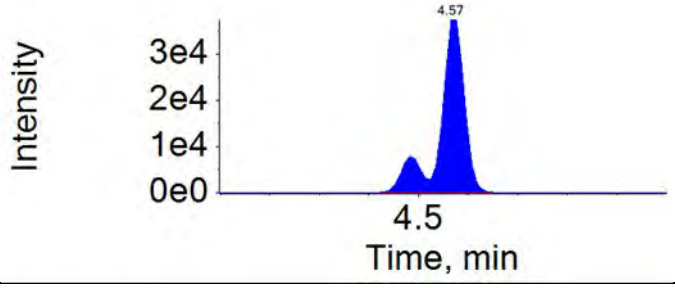


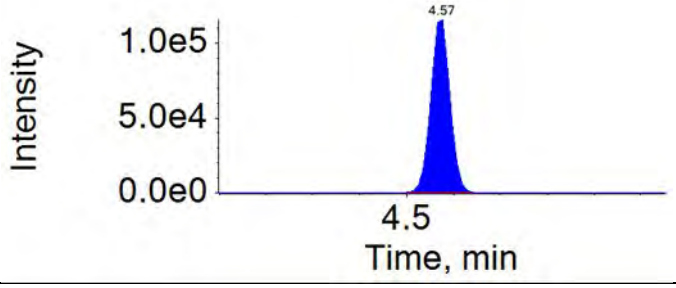
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





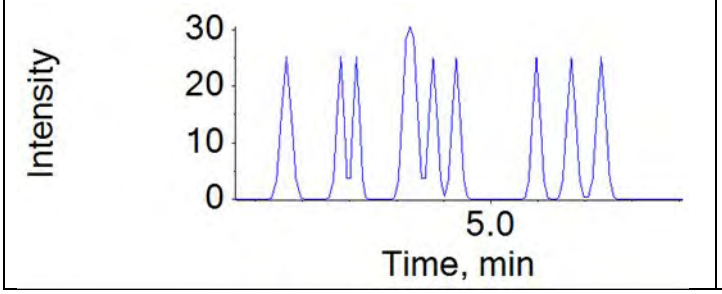
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

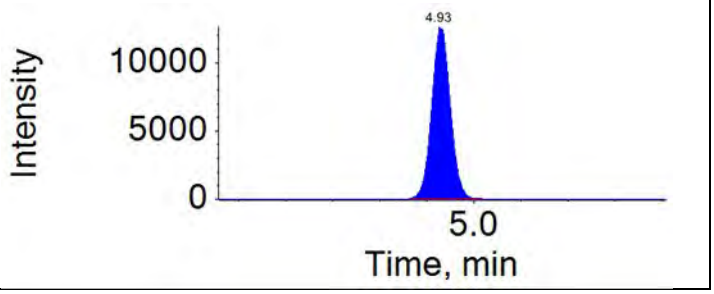




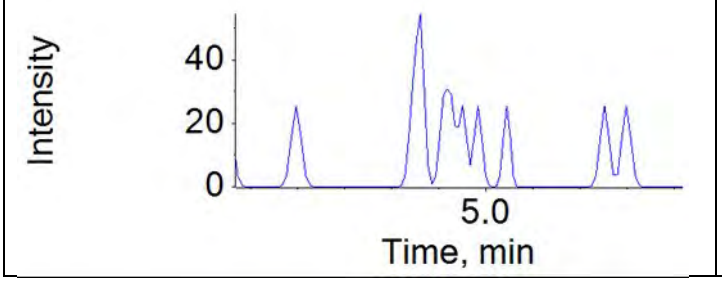
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

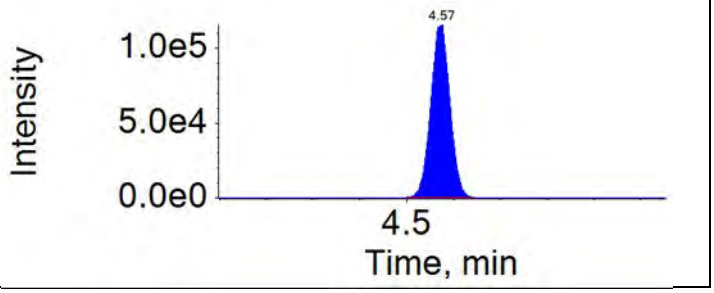
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



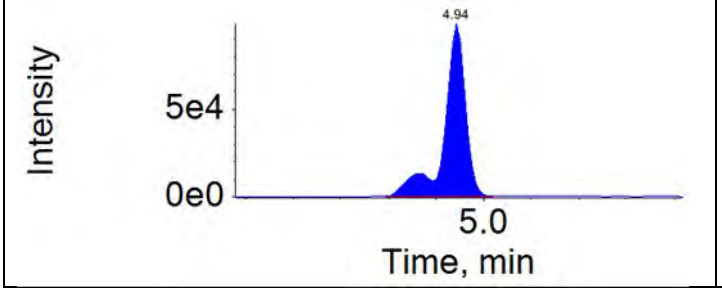


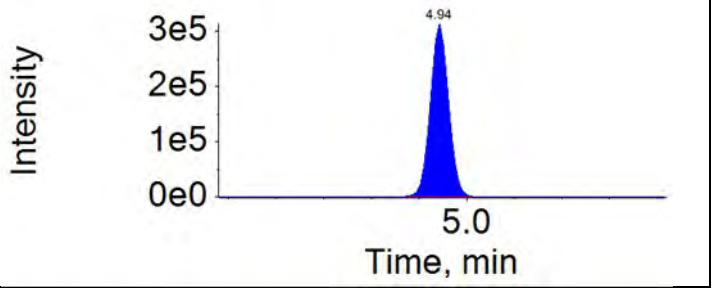
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



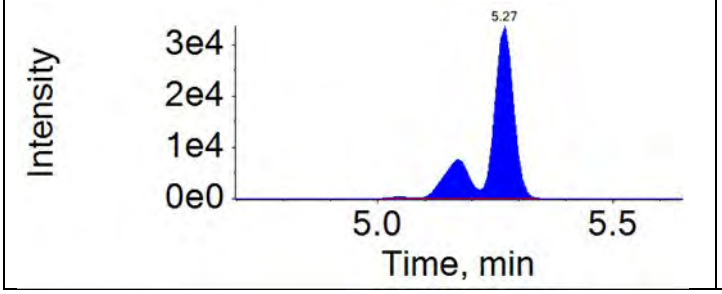


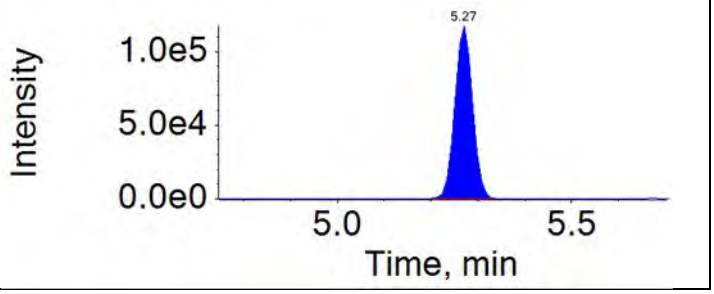
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



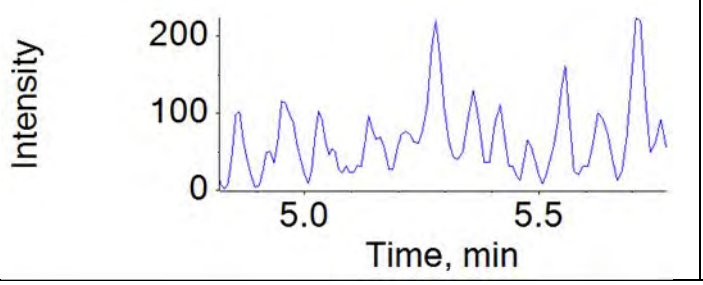


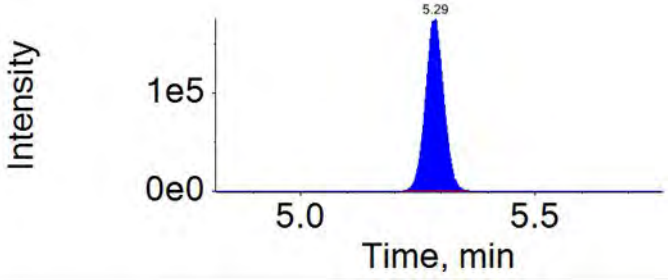
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

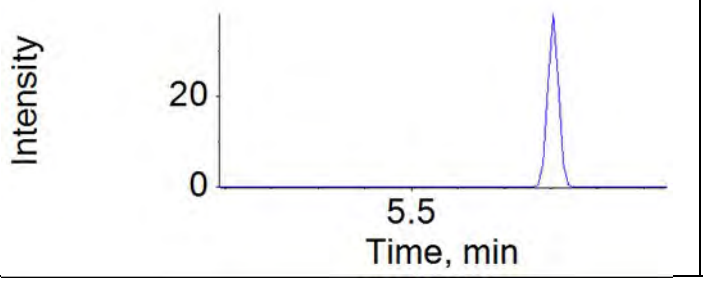
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

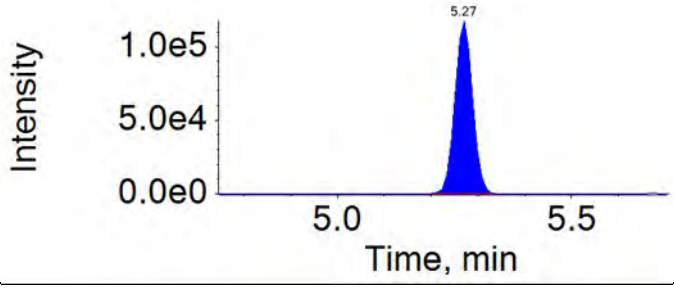
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



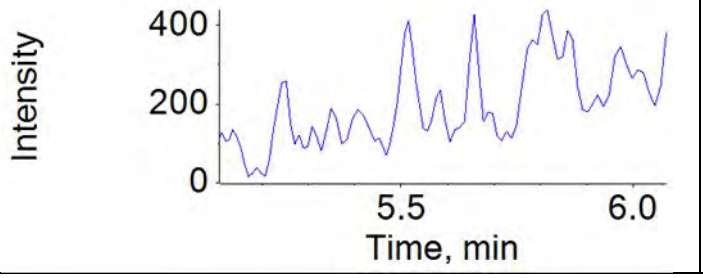


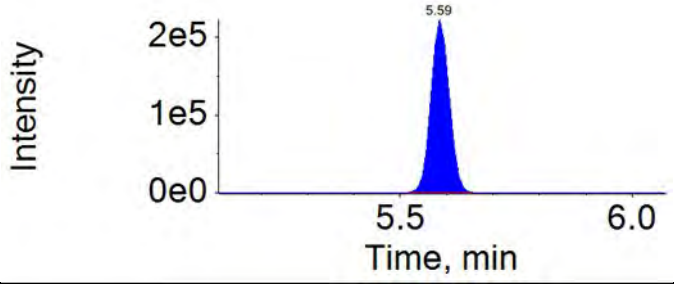
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



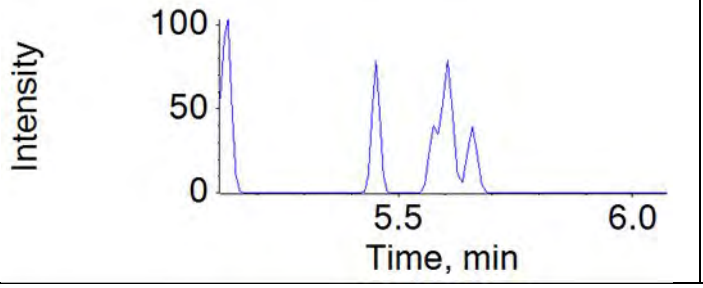


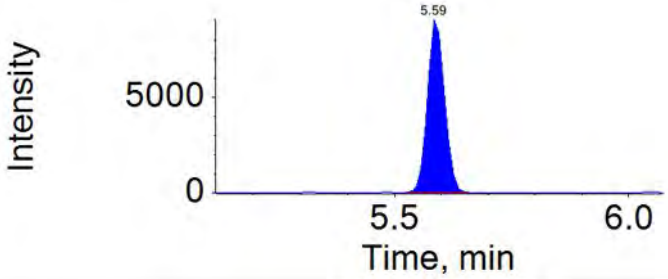
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



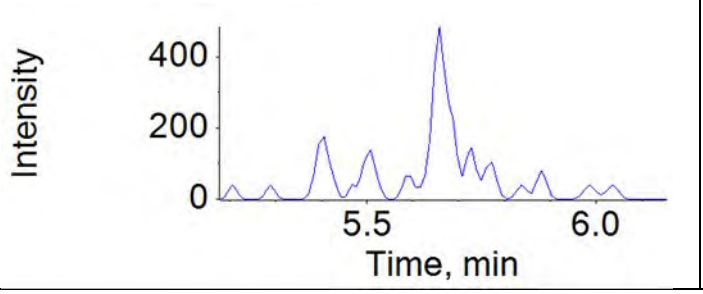


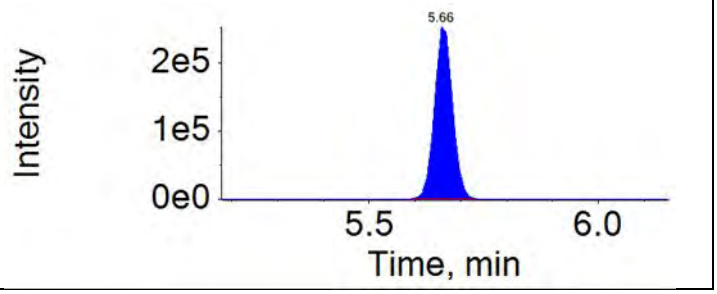
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

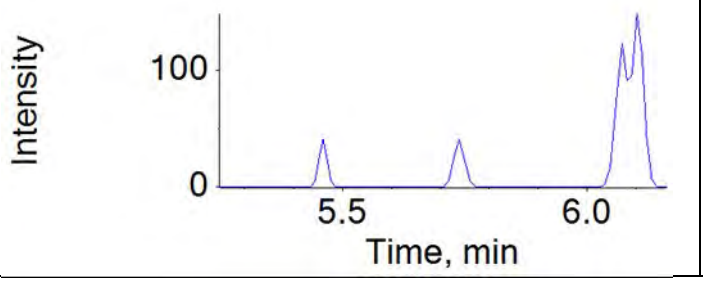
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

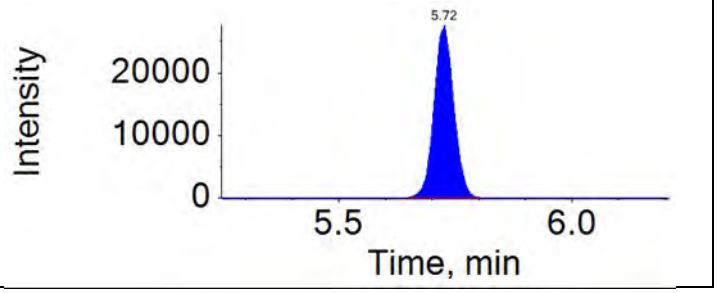
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



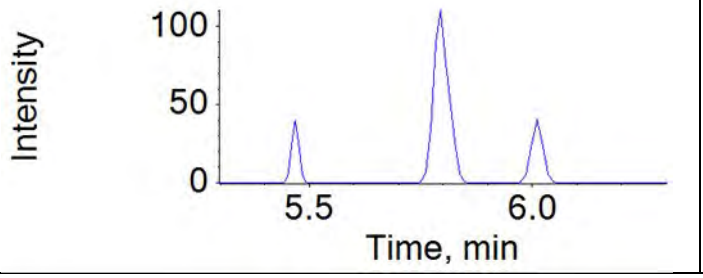


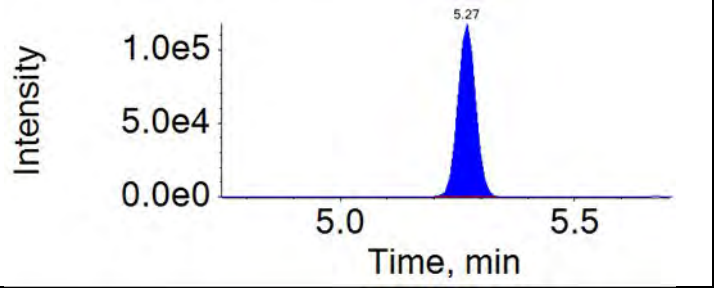
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



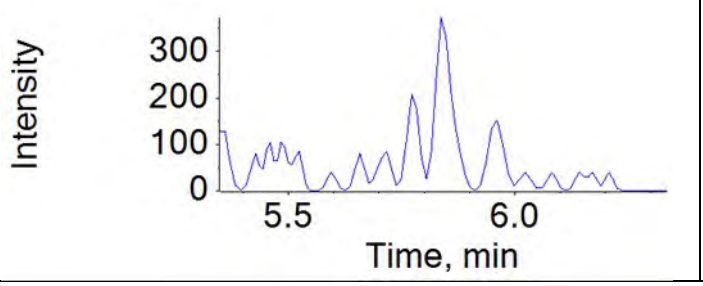


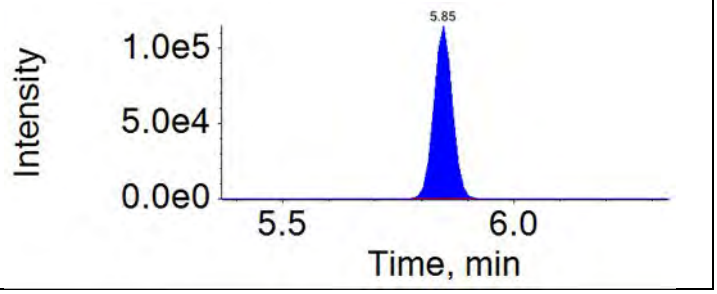
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



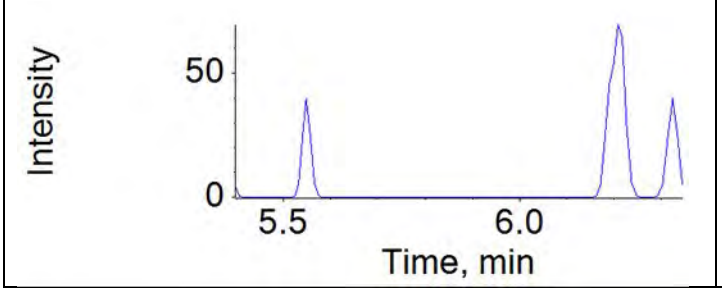


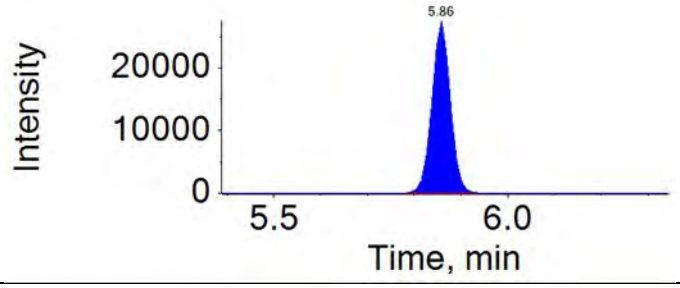
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

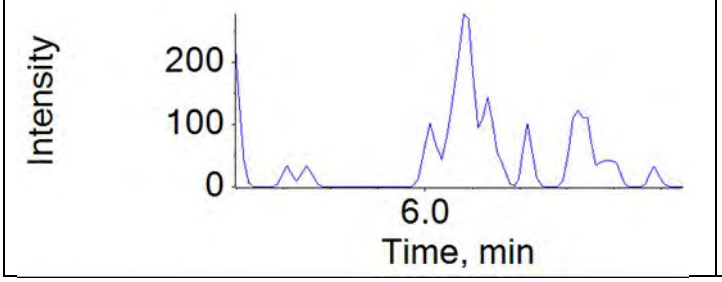
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

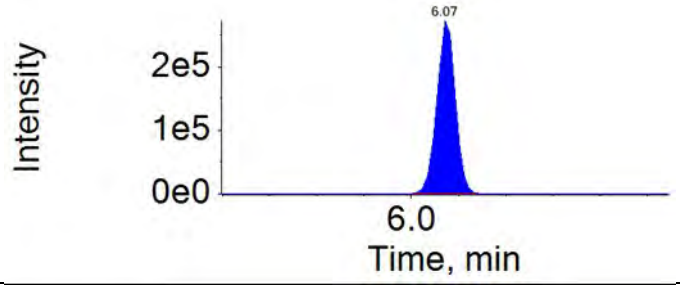
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



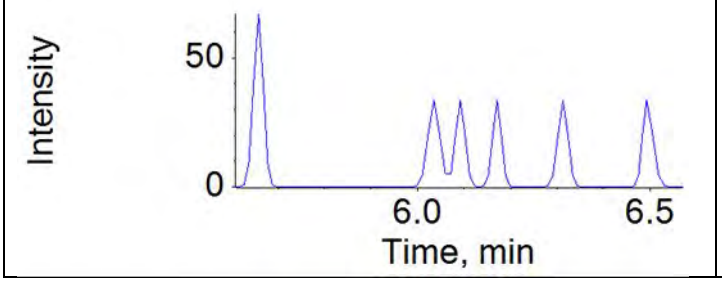


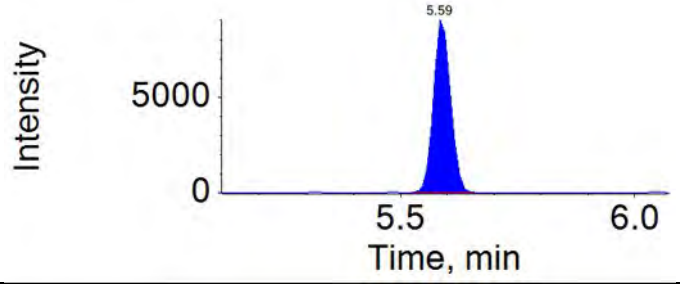
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



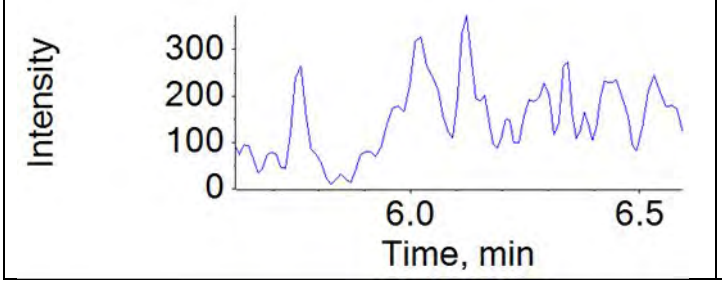


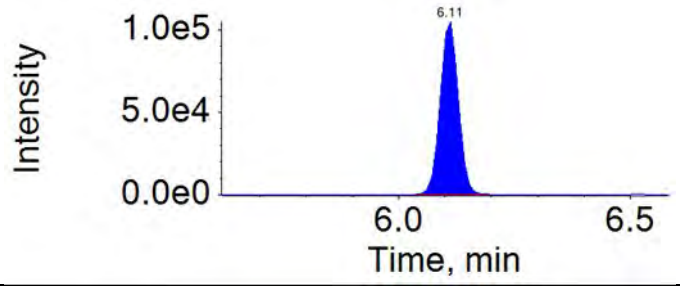
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



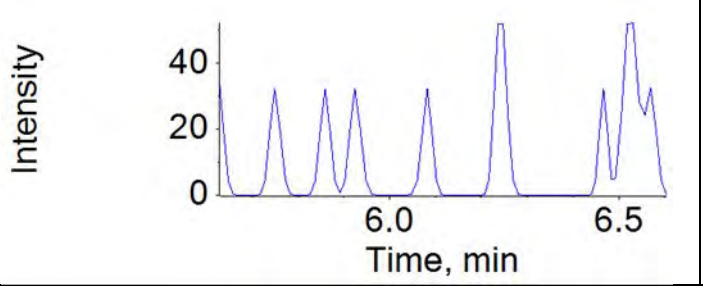


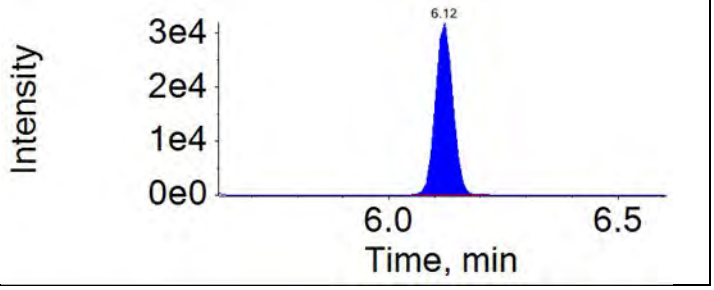
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

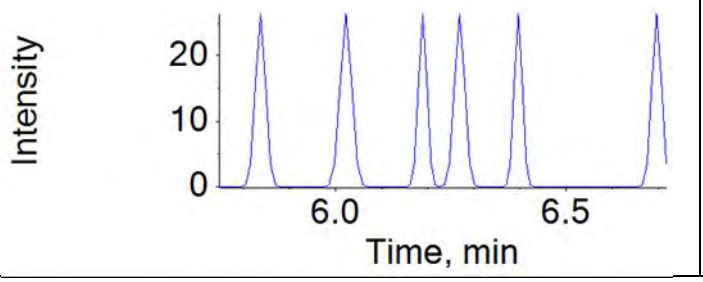
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

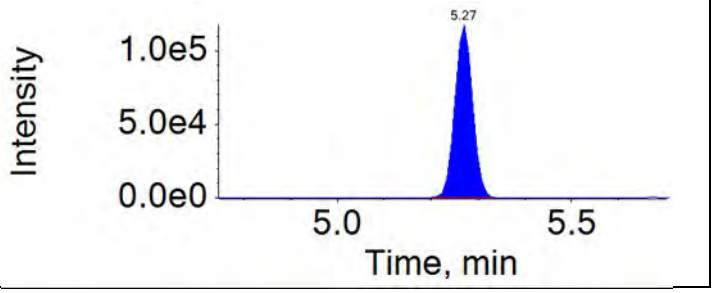
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



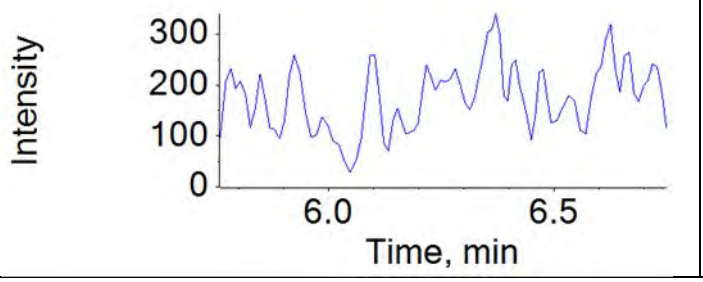


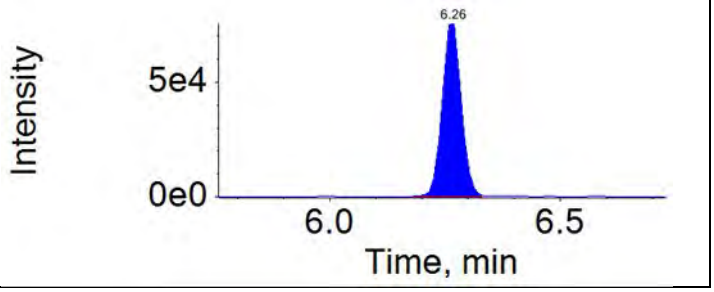
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



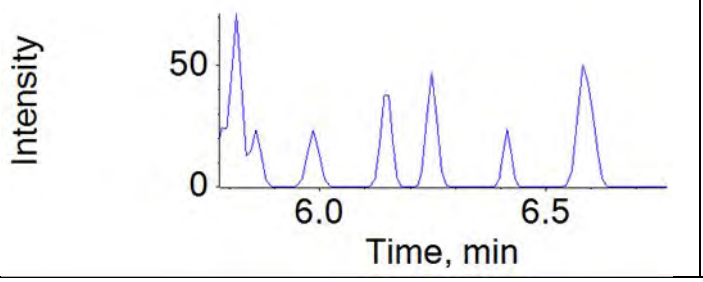


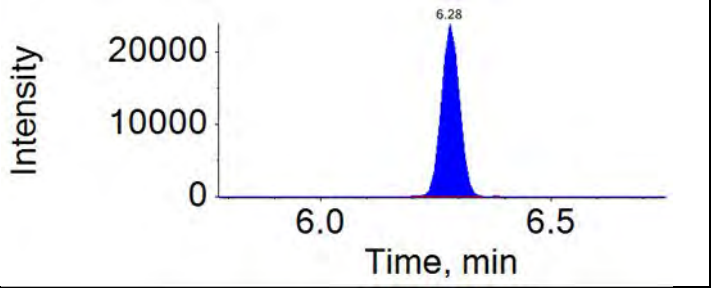
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



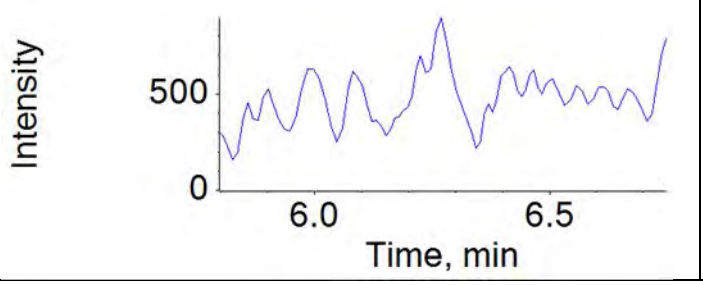


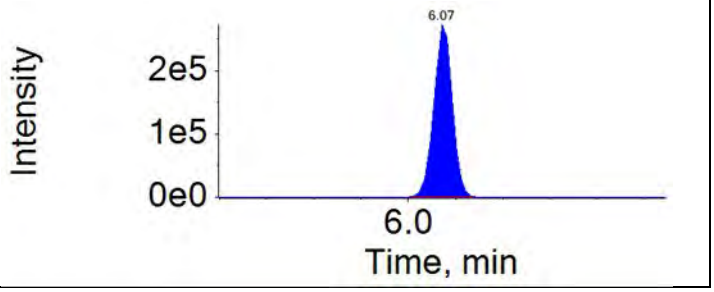
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

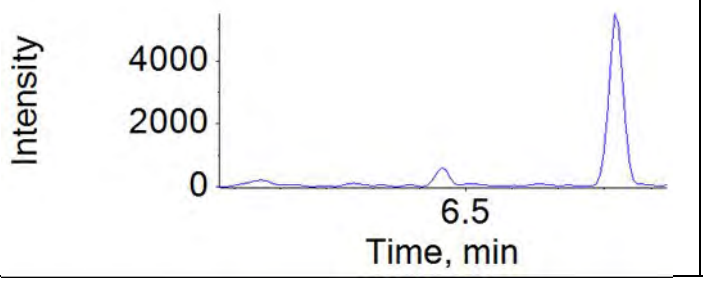
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

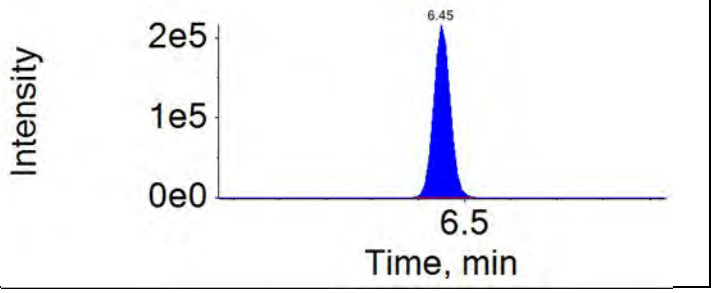
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



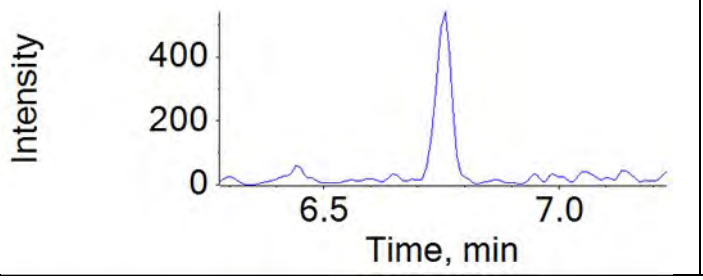


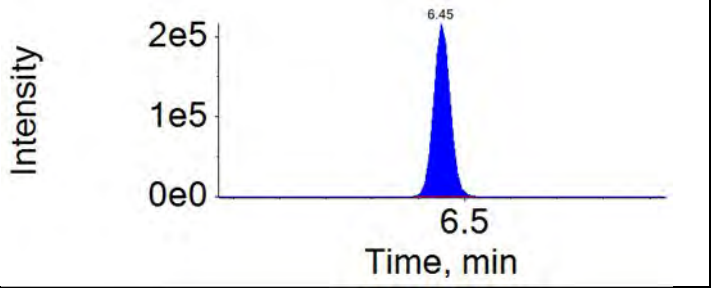
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



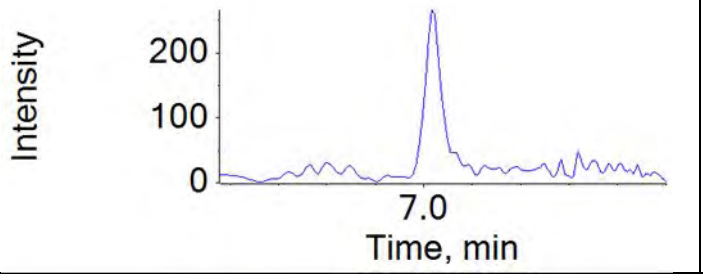


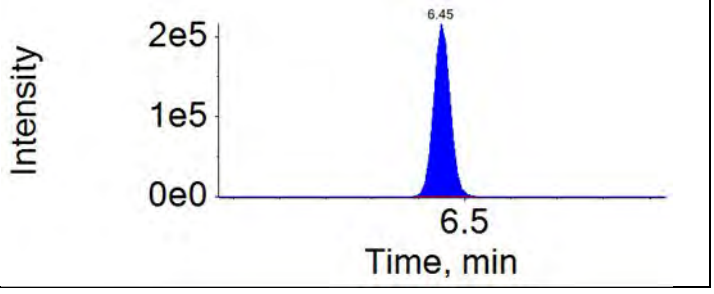
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



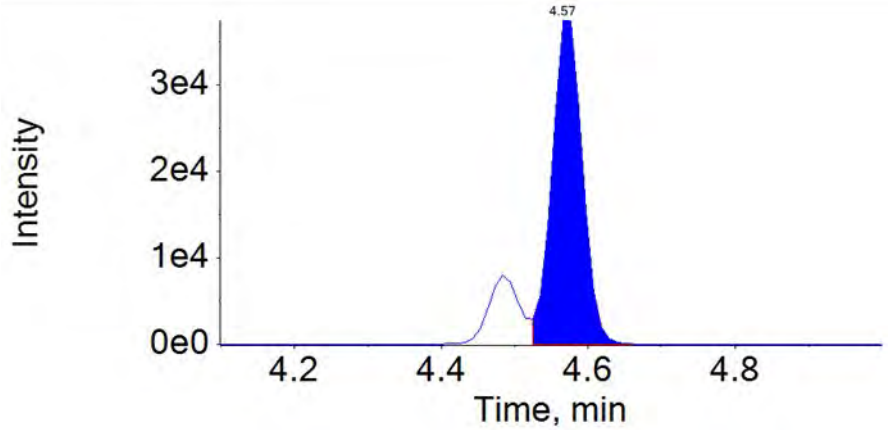


APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

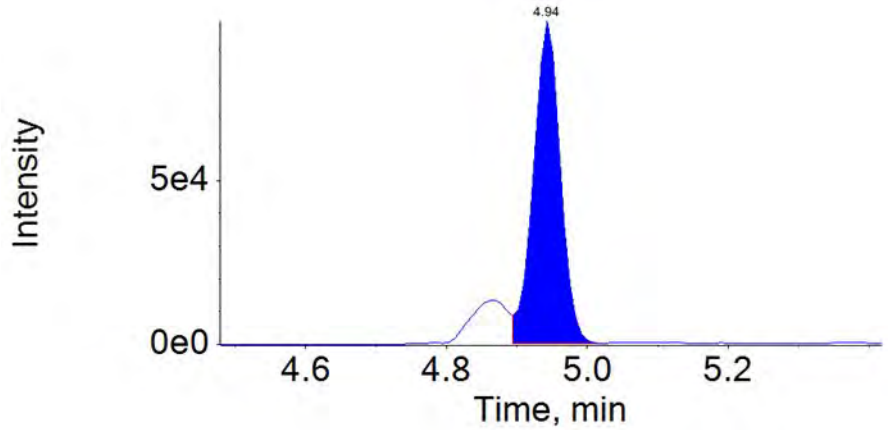
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.57
Peak Area:
108531.52
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



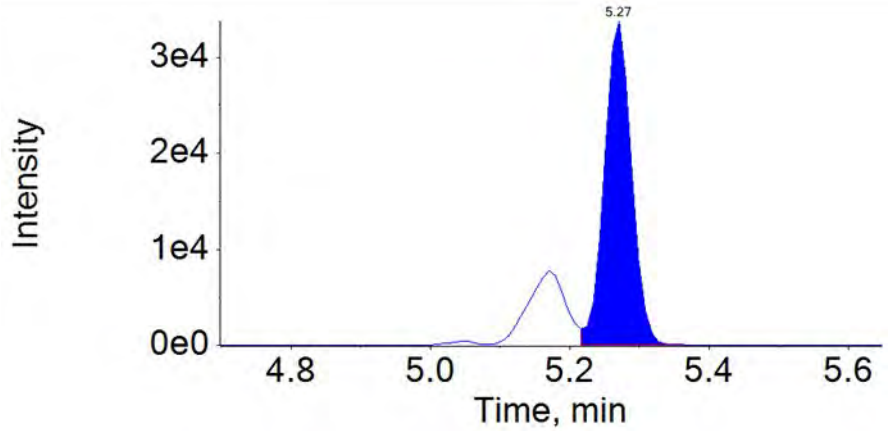
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.94
Peak Area:
260751.71
Mass Range:
413.0 / 369.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
91612.91
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



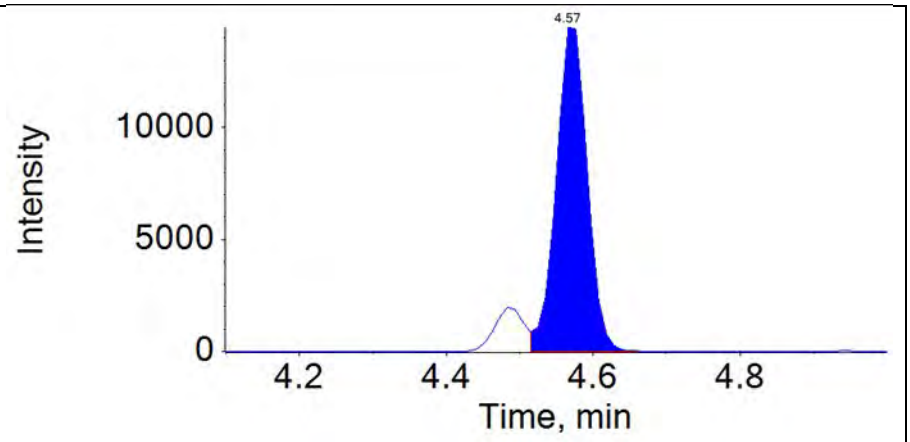
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

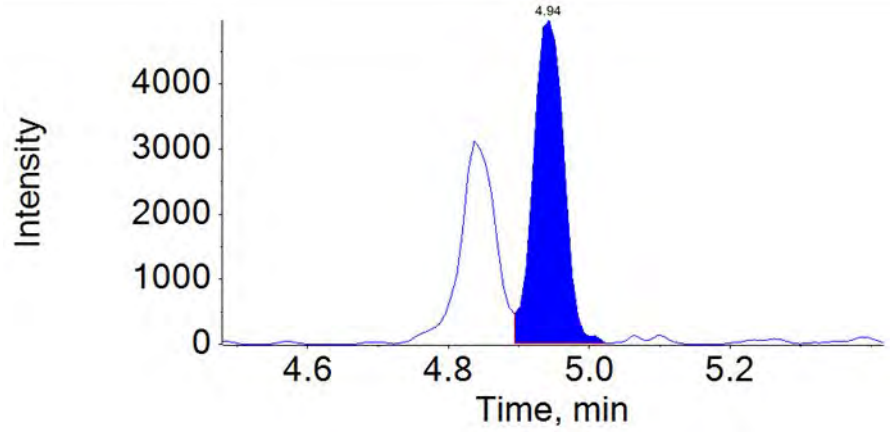
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.57
Peak Area:
42892.67
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



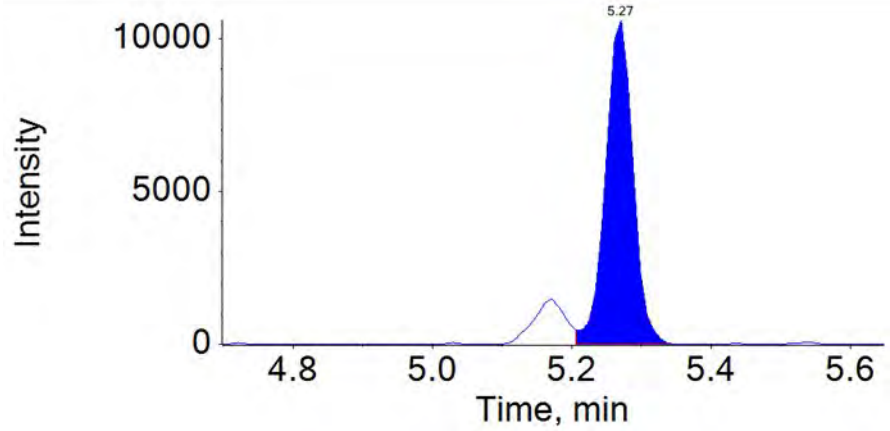
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.94
Peak Area:
14973.84
Mass Range:
413.0 / 169.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
29199.07
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-19.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

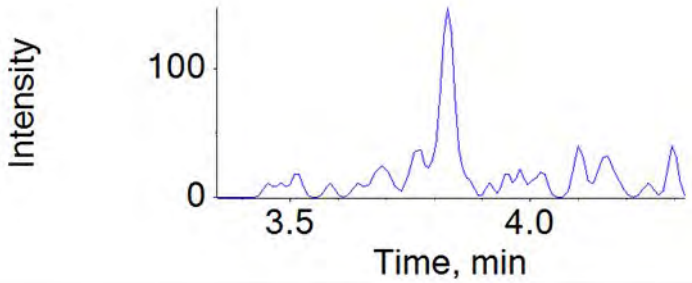
Sample Name: L+B CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-19.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	1.0000	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3698	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6536	N/A		50	
PFHxA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0119	N/A		50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5000	N/A		50	
PFHpA	N/A	N/A	N/A	A	1.0000	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0526	N/A		50	
PFHxS	4.57	1.00	132252.34	M	1.0000	1.0000			
PFHxS_2	4.57	1.00	48225.03	M	0.3476	0.3646	5	50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6372	N/A		50	
PFHpS	N/A	N/A	N/A	A	1.0000	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3956	N/A		50	
PFOA	4.94	1.00	311161.36	M	1.0000	1.0000			
PFOA_2	4.93	1.00	26072.89	M	0.0618	0.0838	36	50	
PFOS	5.27	1.00	121818.13	M	1.0000	1.0000			
PFOS_2	5.27	1.00	33948.86	M	0.2940	0.2787	-5	50	
PFNA	N/A	N/A	N/A	A	1.0000	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0196	N/A		50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4676	N/A		50	
PFDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0073	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6049	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2642	N/A		50	
PFDS	N/A	N/A	N/A	A	1.0000	N/A			
PFDS_2	N/A	N/A	N/A	A	0.4948	N/A		50	
PFUnDA	N/A	N/A	N/A	A	1.0000	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0046	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.7504	N/A		50	
PFDoDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDoDA_2	N/A	N/A	N/A	A	0.0143	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7003	N/A		50	
PFTrDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTrDA_2	N/A	N/A	N/A	A	0.0099	N/A		50	
PFTeDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0057	N/A		50	
PFHxDA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0617	N/A		50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0266	N/A		50	

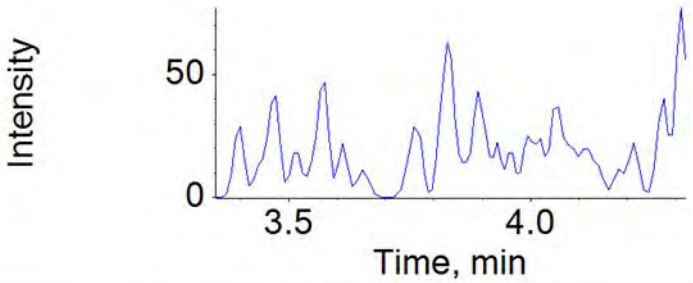
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

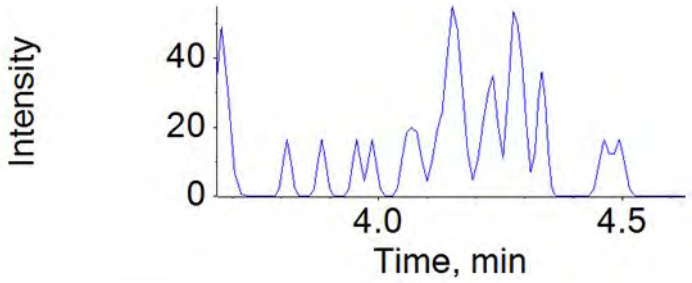
Component: PFBS
Primary Mass: 299.0 / 80.0



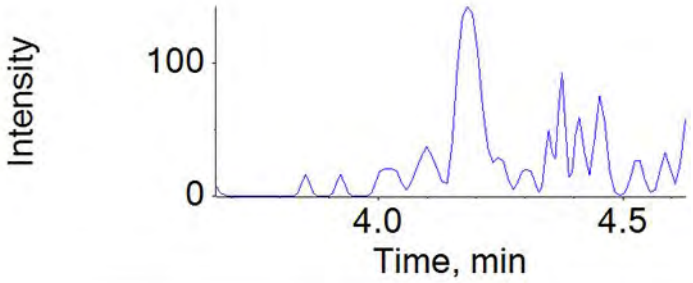
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



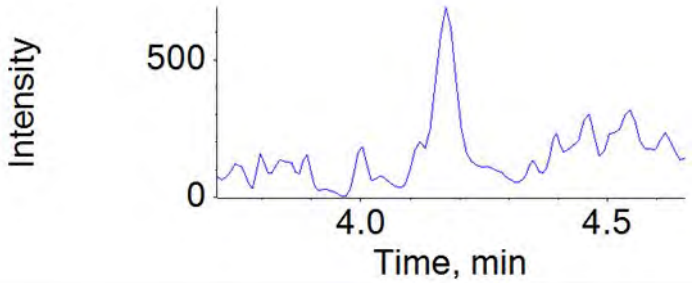
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



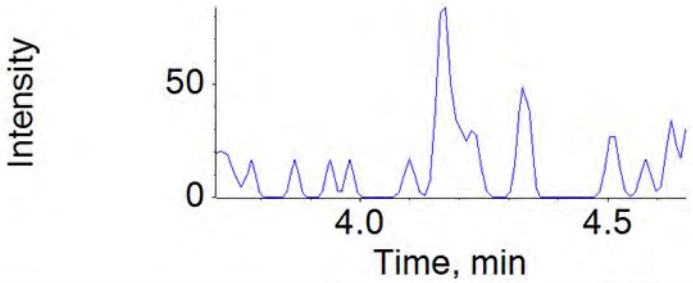
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



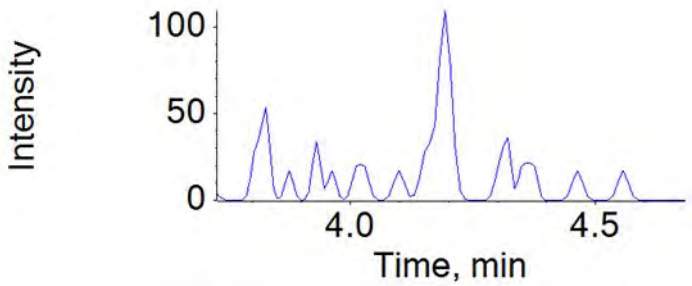
Component: PFHxA
Primary Mass: 313.0 / 269.0



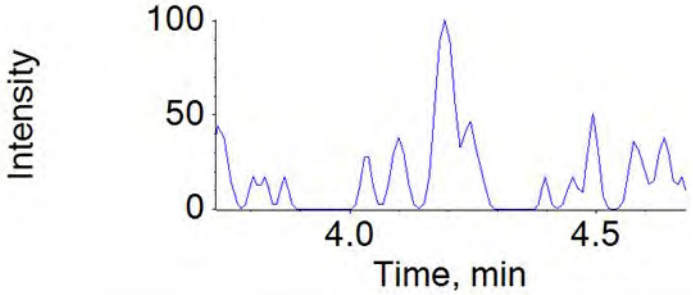
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



APPROVED
By MSM at 10:22 am, 12/4/18

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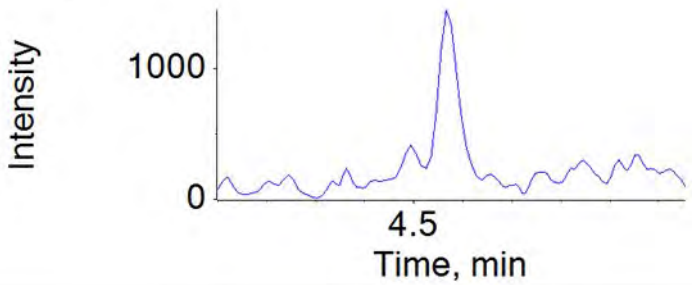
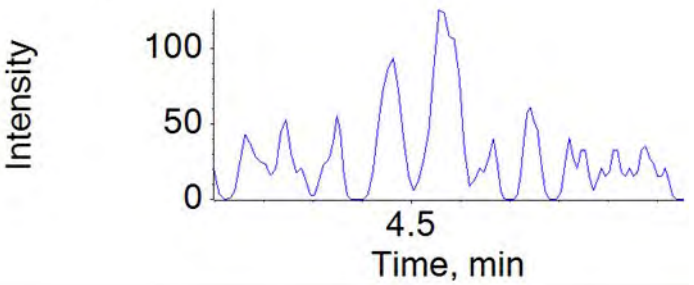
By umar at 4:03 pm, 12/4/18

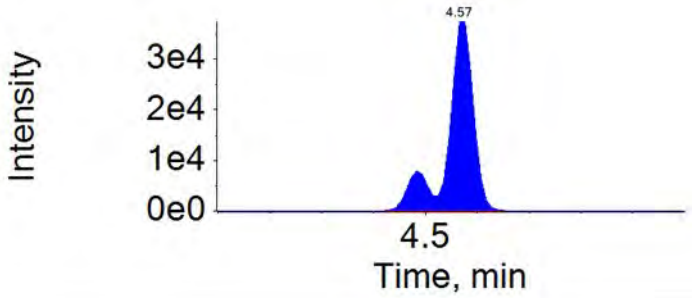
Component: PFHpA
Primary Mass: 363.0 / 319.0



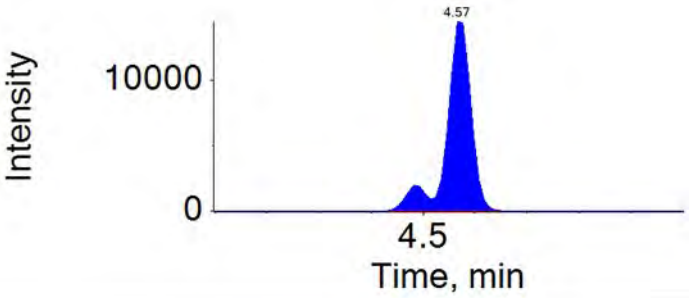
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



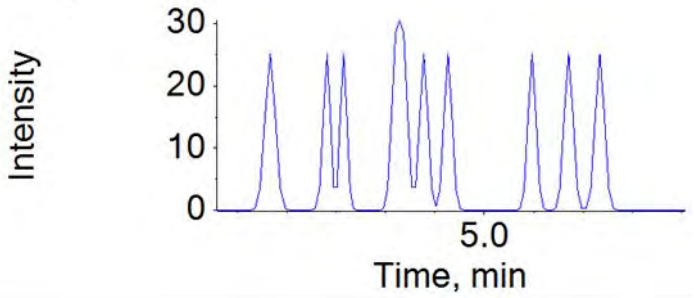
Component: PFHxS
Primary Mass: 399.0 / 80.0



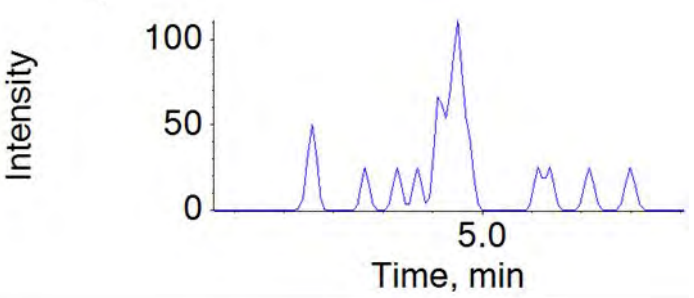
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



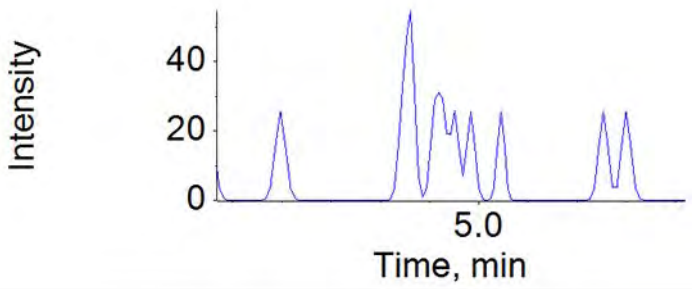
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



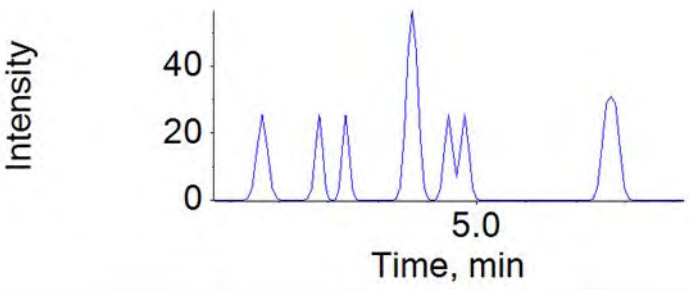
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



APPROVED
By MSM at 10:22 am, 12/4/18

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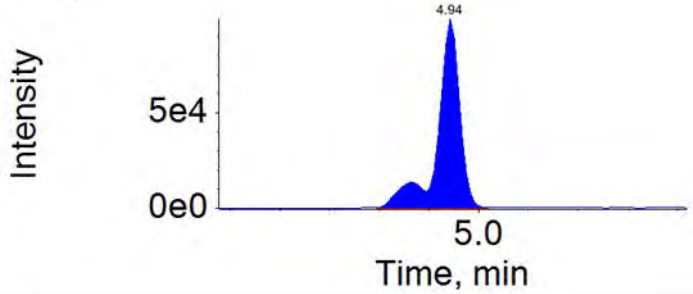
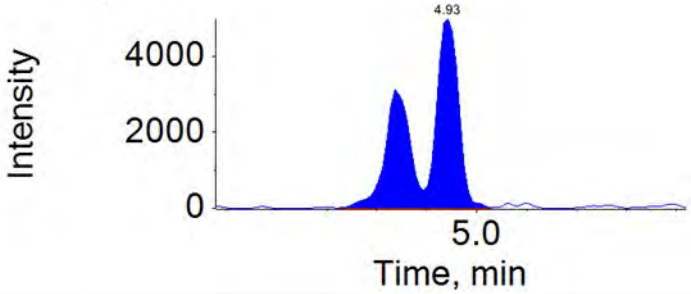
By umar at 4:03 pm, 12/4/18

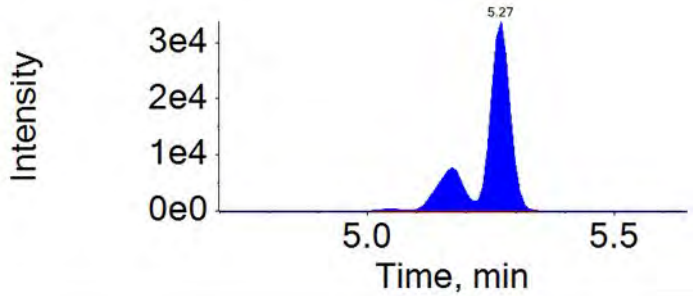
Component: PFOA
Primary Mass: 413.0 / 369.0



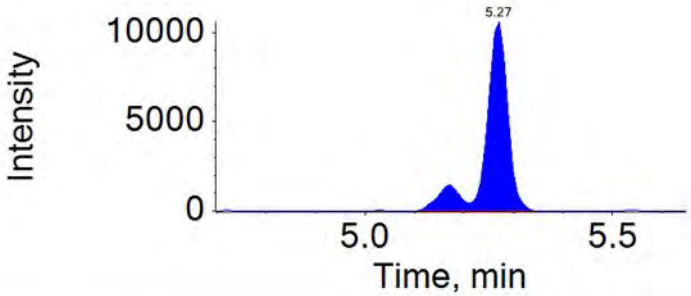
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



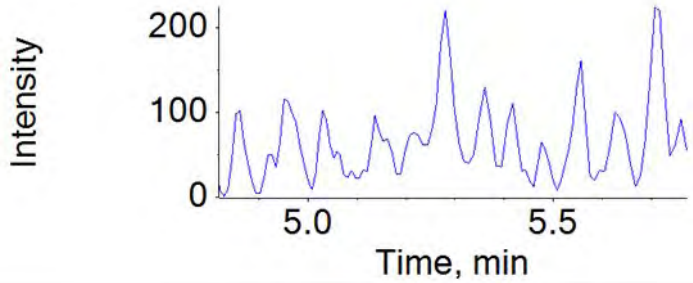
Component: PFOS
Primary Mass: 499.0 / 80.0



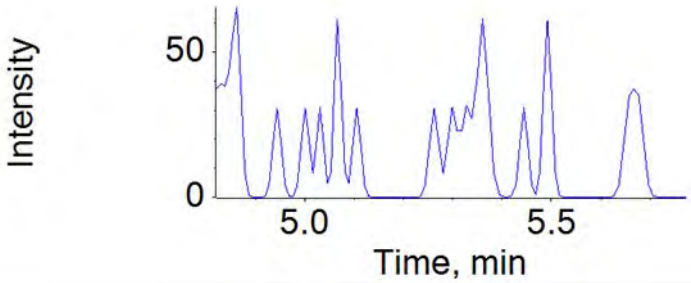
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



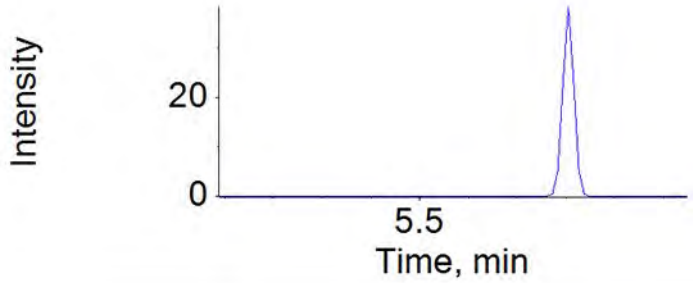
Component: PFNA
Primary Mass: 463.0 / 419.0



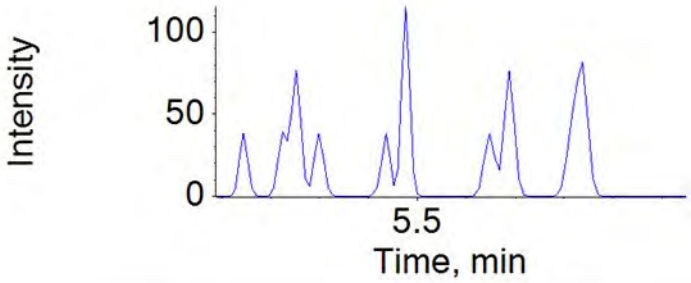
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



APPROVED
By MSM at 10:22 am, 12/4/18

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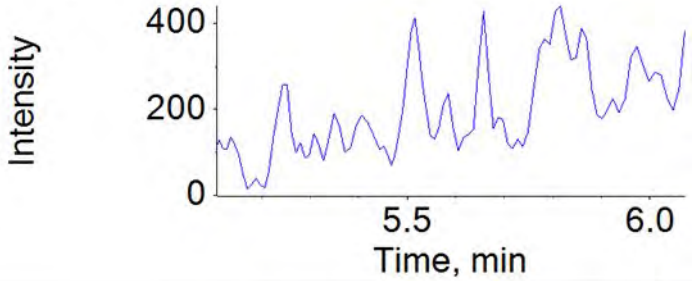
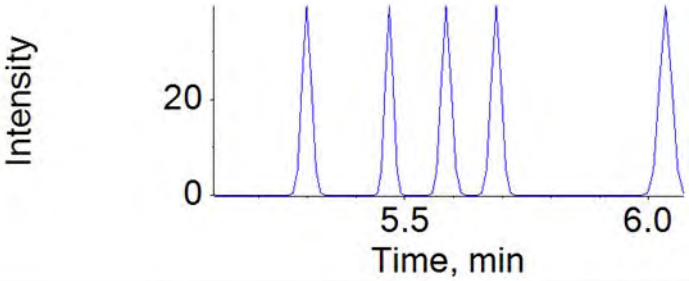
By umar at 4:03 pm, 12/4/18

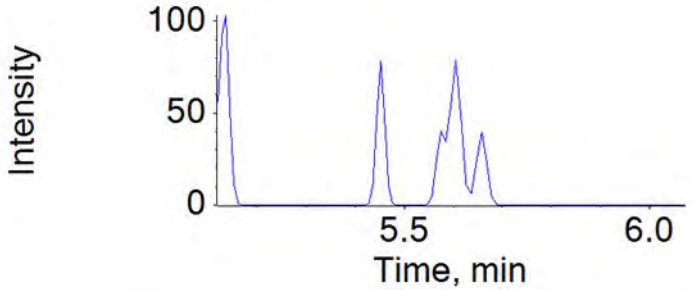
Component: PFDA
Primary Mass: 513.0 / 469.0



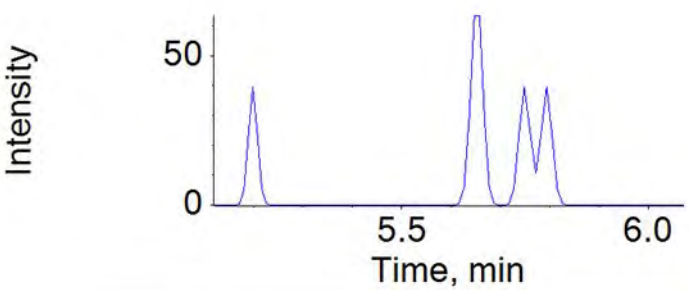
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



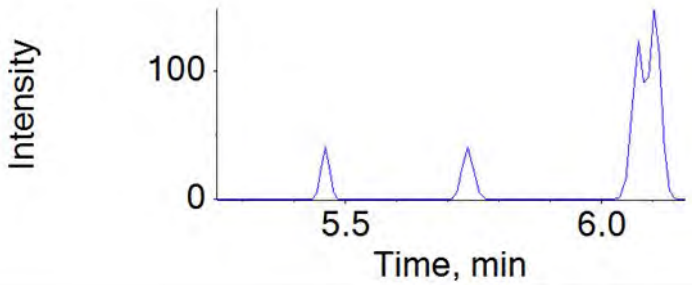
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



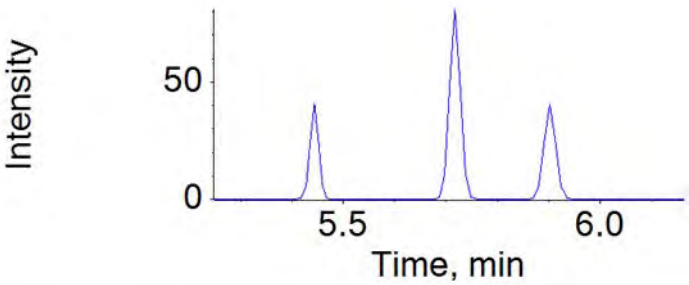
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



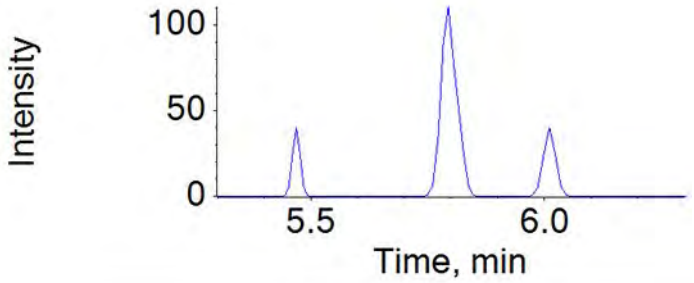
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



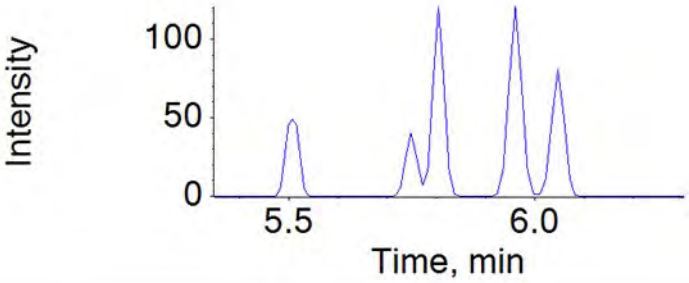
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



Component: PFDS_2
Secondary Mass: 599.0 / 99.0



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By MSM at 10:22 am, 12/4/18

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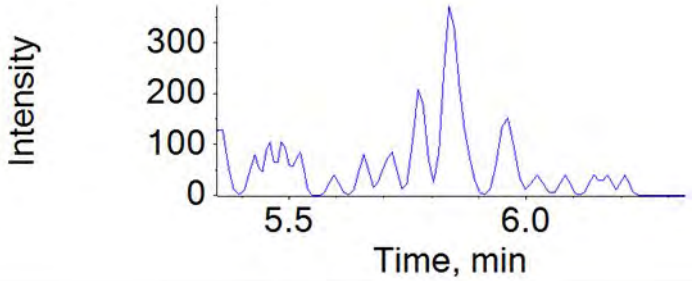
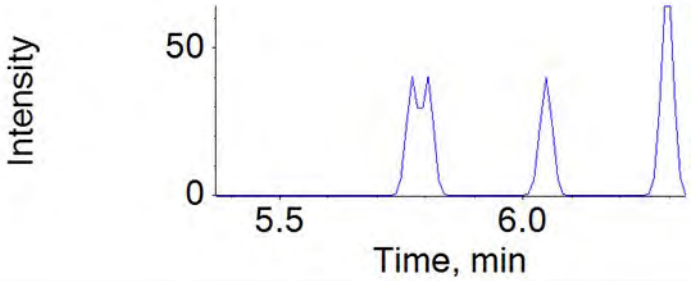
By umar at 4:03 pm, 12/4/18

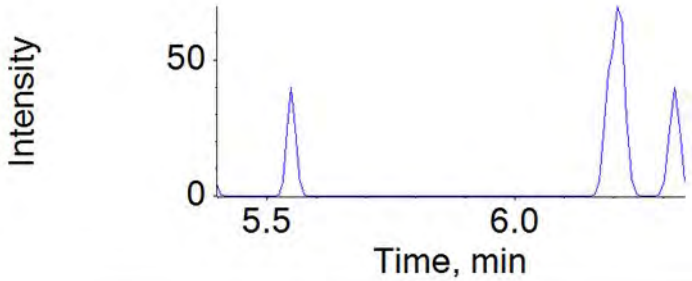
Component: PFUnDA
Primary Mass: 563.0 / 519.0



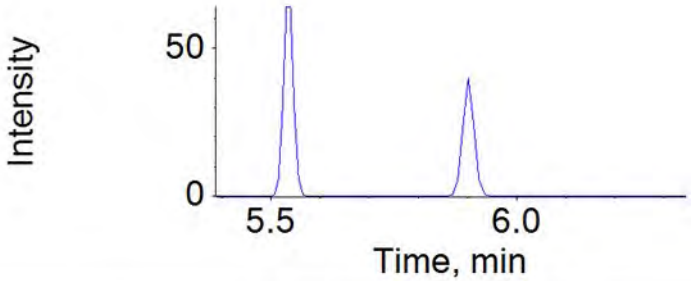
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



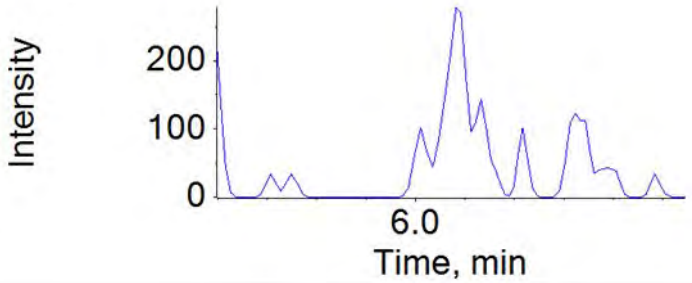
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



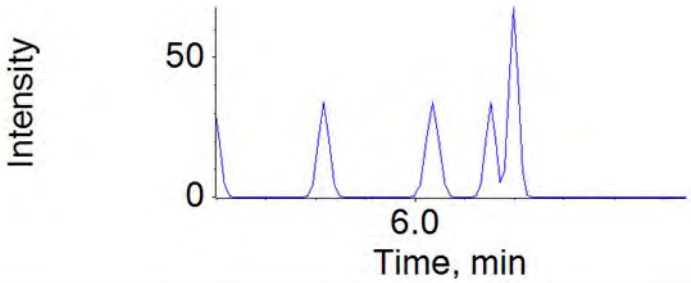
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



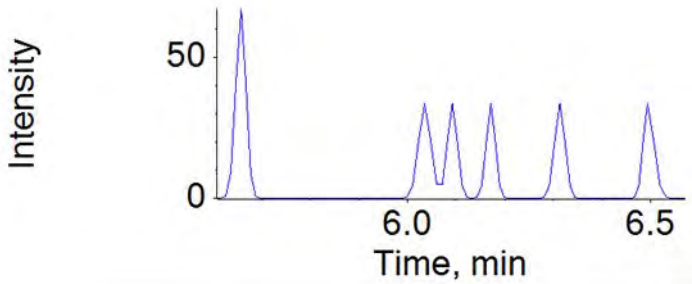
Component: PFDoDA
Primary Mass: 613.0 / 569.0



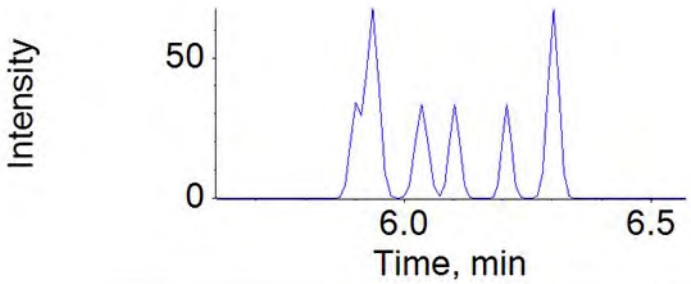
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



APPROVED
By MSM at 10:22 am, 12/4/18

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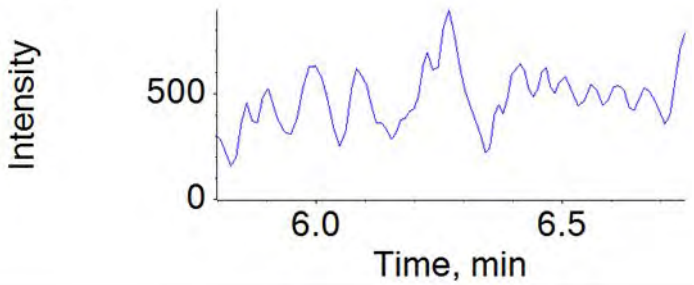
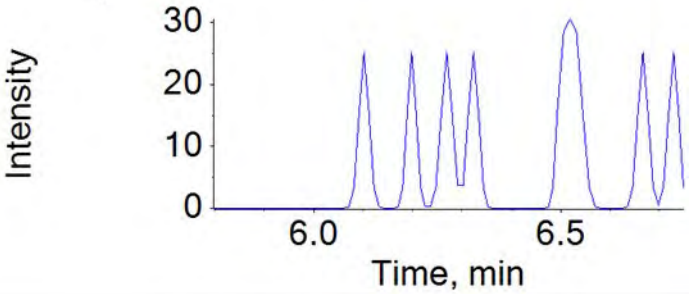
By umar at 4:03 pm, 12/4/18

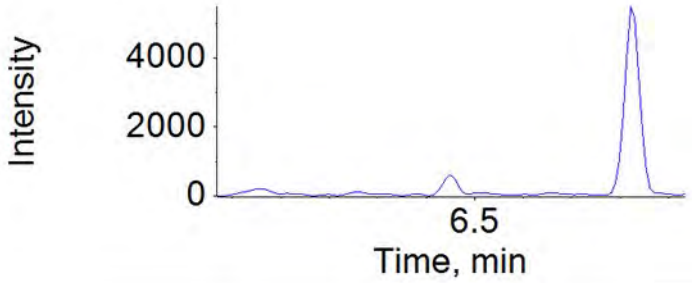
Component: PFTrDA
Primary Mass: 663.0 / 619.0



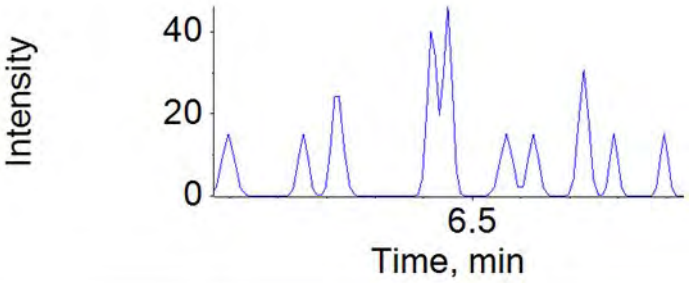
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



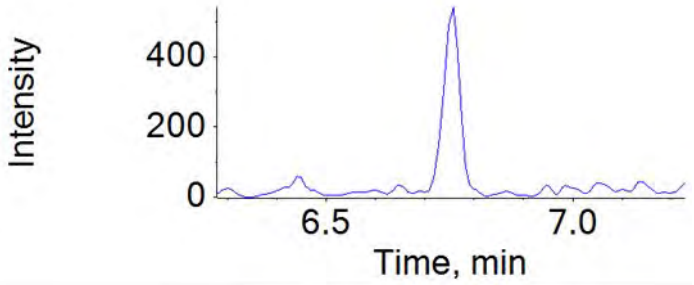
Component: PFTeDA
Primary Mass: 713.0 / 669.0



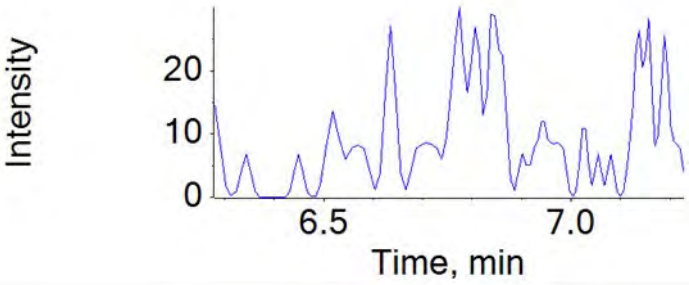
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



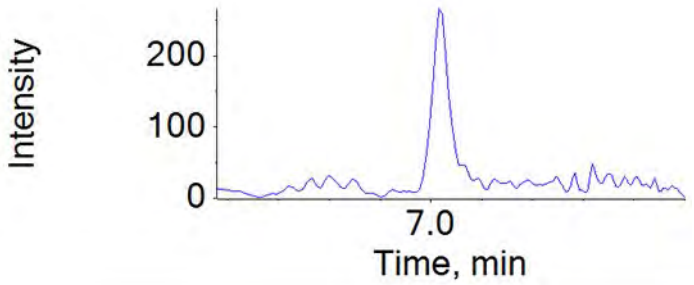
Component: PFHxDA
Primary Mass: 813.0 / 769.0



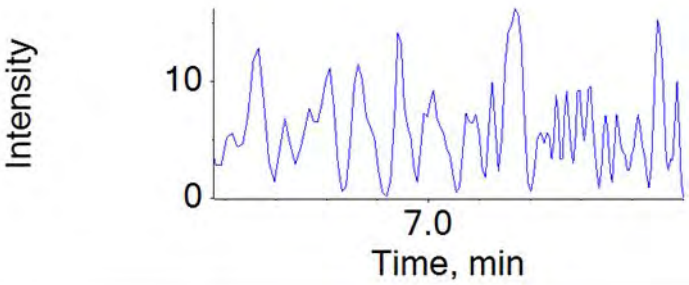
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



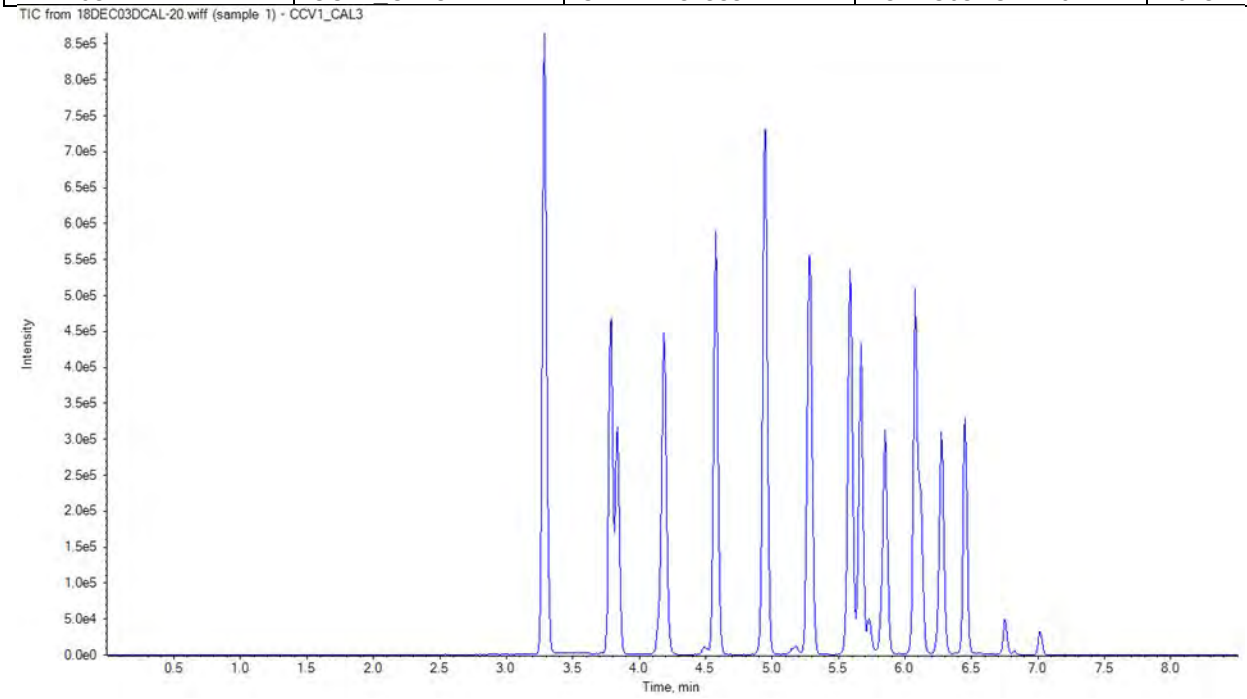
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18DEC03DCAL-20.wiff	2018-12-03T19:05:23



Injection Standard Area Reference File: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	743993.9	749775.9	-1	50	
13C2-PFOA	5.0	406420.0	434072.7	-6	50	
13C4-PFOS	4.8	262661.3	261136.3	1	50	
13C2-PFDA	5.0	302901.4	305281.8	-1	50	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18DEC03DCAL-20.wiff	2018-12-03T19:05:23

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	350088.5	10	13C4-PFBA	857467.9	5.0	0.408	3.28	1.000	2.000	2.312	16	30	
PFPeA	353797.7	11	13C5-PFPeA	725378.5	5.0	0.488	3.79	1.000	2.000	2.442	22	30	
PFBS	170408.3	10	13C3-PFBS	422400.2	4.7	0.403	3.84	1.000	1.770	1.967	11	30	
4:2-FTS	39022.7	11	13C2-4:2-FTS	47667.8	4.7	0.819	4.15	1.000	1.870	2.068	11	30	
PFHxA	340452.5	12	13C5-PFHxA	615993.0	5.0	0.553	4.19	1.000	2.000	2.356	18	30	
PFPeS	87052.9	11	13C3-PFBS	422400.2	4.7	0.206	4.20	1.100	1.880	1.978	5	30	
PFHpA	339968.5	12	13C4-PFHpA	511746.0	5.0	0.664	4.57	1.000	2.000	2.144	7	30	
PFHxS	124177.3	18	13C3-PFHxS	318072.4	4.7	0.390	4.58	1.000	1.820	1.839	1	30	
6:2-FTS	26627.2	11	13C2-6:2-FTS	31951.0	4.8	0.833	4.94	1.000	1.900	2.021	6	30	
PFHpS	125828.5	11	13C3-PFHxS	318072.4	4.7	0.396	4.94	1.080	1.900	2.059	8	30	
PFOA	332527.6	11	13C8-PFOA	795504.6	5.0	0.418	4.95	1.000	2.000	2.213	11	30	
PFOS	126376.3	22	13C8-PFOS	308535.8	4.8	0.410	5.27	1.000	1.850	1.736	-6	30	
PFNA	290023.4	11	13C9-PFNA	478390.6	5.0	0.606	5.29	1.000	2.000	2.272	14	30	
PFNS	89974.1	11	13C8-PFOS	308535.8	4.8	0.292	5.57	1.060	1.920	1.967	2	30	
PFDA	241299.8	11	13C6-PFDA	590117.6	5.0	0.409	5.59	1.000	2.000	2.243	12	30	
8:2-FTS	21641.7	11	13C2-8:2-FTS	22460.0	4.8	0.964	5.59	1.000	1.920	2.069	8	30	
PFOSA	287214.0	11	13C8-PFOSA	665305.7	5.0	0.432	5.67	1.000	2.000	2.261	13	30	
NMeFOSAA	29925.8	19	d3-NMeFOSAA	83596.8	5.0	0.358	5.73	1.000	2.000	2.369	18	30	
PFDS	75464.1	11	13C8-PFOS	308535.8	4.8	0.245	5.82	1.100	1.930	2.094	9	30	
PFUnDA	234305.7	11	13C7-PFUnDA	329593.7	5.0	0.711	5.85	1.000	2.000	2.164	8	30	
NEtFOSAA	26130.4	21	d5-NEtFOSAA	73088.7	5.0	0.358	5.87	1.000	2.000	1.808	-10	30	
PFDoDA	286165.1	11	13C2-PFDoDA	715241.0	5.0	0.400	6.08	1.000	2.000	2.281	14	30	
10:2-FTS	17542.3	12	13C2-8:2-FTS	22460.0	4.8	0.781	6.09	1.090	1.930	1.946	1	30	
NMePFOSAE	142199.3	11	d7-NMePFOSAE	253831.9	5.0	0.560	6.12	1.000	2.000	2.373	19	30	
NMePFOSA	32061.8	11	d3-NMePFOSA	79104.5	5.0	0.405	6.13	1.000	2.000	2.137	7	30	
PFDoS	38108.5	11	13C8-PFOS	308535.8	4.8	0.124	6.25	1.180	1.940	1.935	0	30	
NEtPFOSAE	147484.5	11	d9-NEtPFOSAE	218690.4	5.0	0.674	6.28	1.000	2.000	2.323	16	30	
NEtPFOSA	29122.3	11	d5-NEtPFOSA	61419.0	5.0	0.474	6.29	1.000	2.000	2.207	10	30	
PFTrDA	254098.3	11	13C2-PFDoDA	715241.0	5.0	0.355	6.28	1.030	2.000	2.091	5	30	
PFTeDA	202475.6	10	13C2-PFTeDA	511757.3	5.0	0.396	6.45	1.000	2.000	2.342	17	30	
PFHxDA	94090.2	11	13C2-PFTeDA	511757.3	5.0	0.184	6.75	1.050	2.000	2.360	18	30	
PFODA	70388.4	10	13C2-PFTeDA	511757.3	5.0	0.138	7.02	1.090	2.000	2.185	9	30	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC03DCAL 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC03DCAL 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3			**Data File:**		18DEC03DCAL-20.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-12-03T19:05:23
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC03DCAL
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	N/A			**Operator:**		MM26157
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: 18DEC03DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	743993.9	749775.9	-1	50	
13C2-PFOA	5.0	406420.0	434072.7	-6	50	
13C4-PFOS	4.8	262661.3	261136.3	1	50	
13C2-PFDA	5.0	302901.4	305281.8	-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	857467.9	13C3-PFBA	743993.9	1.153	5.000	5.115	102	70-130	
E13C5-PFPeA	725378.5	13C3-PFBA	743993.9	0.975	5.000	4.704	94	70-130	
E13C3-PFBS	422400.2	13C3-PFBA	743993.9	0.568	4.650	4.424	95	70-130	
E13C2-4:2-FTS	47667.8	13C2-PFOA	406420.0	0.117	4.670	4.825	103	70-130	
E13C5-PFHxA	615993.0	13C2-PFOA	406420.0	1.516	5.000	5.133	103	70-130	
E13C3-PFHxS	318072.4	13C2-PFOA	406420.0	0.783	4.730	4.948	105	70-130	
E13C4-PFHpA	511746.0	13C2-PFOA	406420.0	1.259	5.000	5.494	110	70-130	
E13C2-6:2-FTS	31951.0	13C2-PFOA	406420.0	0.079	4.750	5.210	110	70-130	
E13C8-PFOA	795504.6	13C2-PFOA	406420.0	1.957	5.000	5.441	109	70-130	
E13C8-PFOS	308535.8	13C4-PFOS	262661.3	1.175	4.780	5.217	109	70-130	
E13C9-PFNA	478390.6	13C4-PFOS	262661.3	1.821	5.000	5.331	107	70-130	
E13C6-PFDA	590117.6	13C2-PFDA	302901.4	1.948	5.000	5.067	101	70-130	
E13C2-8:2-FTS	22460.0	13C2-PFDA	302901.4	0.074	4.790	4.768	100	70-130	
E13C8-PFOSA	665305.7	13C2-PFDA	302901.4	2.196	5.000	4.917	98	70-130	
Ed3-NMeFOSAA	83596.8	13C2-PFDA	302901.4	0.276	5.000	4.821	96	70-130	
E13C7-PFUnDA	329593.7	13C2-PFDA	302901.4	1.088	5.000	5.419	108	70-130	
Ed5-NEtFOSAA	73088.7	13C2-PFDA	302901.4	0.241	5.000	5.505	110	70-130	
E13C2-PFDoDA	715241.0	13C2-PFDA	302901.4	2.361	5.000	5.056	101	70-130	
Ed7-NMePFOSAE	253831.9	13C2-PFDA	302901.4	0.838	5.000	4.544	91	70-130	
Ed3-NMePFOSA	79104.5	13C2-PFDA	302901.4	0.261	5.000	4.842	97	70-130	
Ed9-NEtPFOSAE	218690.4	13C2-PFDA	302901.4	0.722	5.000	4.657	93	70-130	
Ed5-NEtPFOSA	61419.0	13C2-PFDA	302901.4	0.203	5.000	4.784	96	70-130	
E13C2-PFTeDA	511757.3	13C2-PFDA	302901.4	1.690	5.000	4.762	95	70-130	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

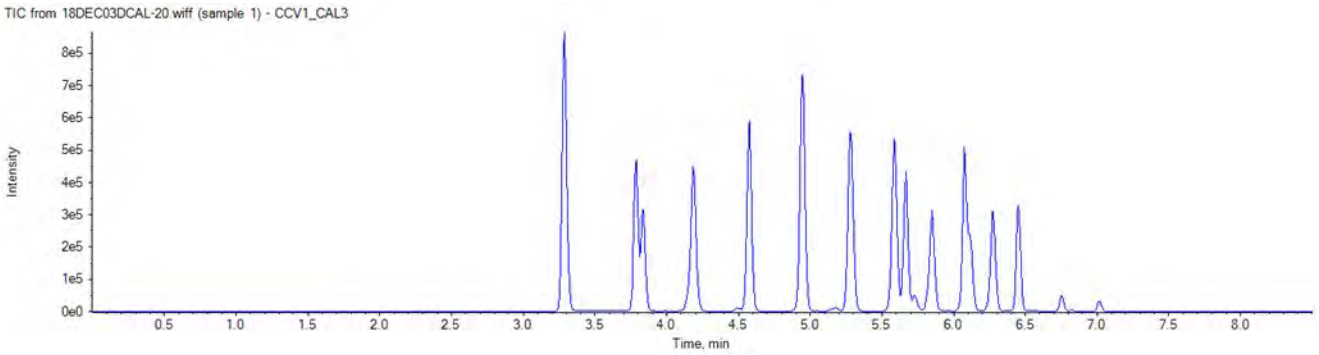
Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-20.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	350088.5		A	13C4-PFBA	3.29	857467.9	0.408	2.312
PFPeA	3.79	1.000	353797.7		A	13C5-PFPeA	3.79	725378.5	0.488	2.442
PFBS	3.84	1.000	170408.3		A	13C3-PFBS	3.84	422400.2	0.403	1.967
4:2-FTS	4.15	1.000	39022.7		A	13C2-4:2-FTS	4.15	47667.8	0.819	2.068
PFHxA	4.19	1.000	340452.5		A	13C5-PFHxA	4.19	615993.0	0.553	2.356
PFPeS	4.20	1.100	87052.9		A	13C3-PFBS	3.84	422400.2	0.206	1.978
PFHpA	4.57	1.000	339968.5		A	13C4-PFHpA	4.58	511746.0	0.664	2.144
PFHxS	4.58	1.000	124177.3		M	13C3-PFHxS	4.58	318072.4	0.390	1.839
6:2-FTS	4.94	1.000	26627.2		A	13C2-6:2-FTS	4.93	31951.0	0.833	2.021
PFHpS	4.94	1.080	125828.5		A	13C3-PFHxS	4.58	318072.4	0.396	2.059
PFOA	4.95	1.000	332527.6		A	13C8-PFOA	4.95	795504.6	0.418	2.213
PFOS	5.27	1.000	126376.3		M	13C8-PFOS	5.27	308535.8	0.410	1.736
PFNA	5.29	1.000	290023.4		A	13C9-PFNA	5.29	478390.6	0.606	2.272
PFNS	5.57	1.060	89974.1		A	13C8-PFOS	5.27	308535.8	0.292	1.967
PFDA	5.59	1.000	241299.8		A	13C6-PFDA	5.59	590117.6	0.409	2.243
8:2-FTS	5.59	1.000	21641.7		A	13C2-8:2-FTS	5.59	22460.0	0.964	2.069
PFOSA	5.67	1.000	287214.0		A	13C8-PFOSA	5.67	665305.7	0.432	2.261
NMeFOSAA	5.73	1.000	29925.8		M	d3-NMeFOSAA	5.73	83596.8	0.358	2.369
PFDS	5.82	1.100	75464.1		A	13C8-PFOS	5.27	308535.8	0.245	2.094
PFUnDA	5.85	1.000	234305.7		A	13C7-PFUnDA	5.85	329593.7	0.711	2.164
NEtFOSAA	5.87	1.000	26130.4		A	d5-NEtFOSAA	5.86	73088.7	0.358	1.808
PFDoDA	6.08	1.000	286165.1		A	13C2-PFDoDA	6.08	715241.0	0.400	2.281
10:2-FTS	6.09	1.090	17542.3		A	13C2-8:2-FTS	5.59	22460.0	0.781	1.946
NMePFOSAE	6.12	1.000	142199.3		A	d7-NMePFOSAE	6.11	253831.9	0.560	2.373
NMePFOSA	6.13	1.000	32061.8		A	d3-NMePFOSA	6.12	79104.5	0.405	2.137
PFDoS	6.25	1.180	38108.5		A	13C8-PFOS	5.27	308535.8	0.124	1.935
NEtPFOSAE	6.28	1.000	147484.5		A	d9-NEtPFOSAE	6.27	218690.4	0.674	2.323
NEtPFOSA	6.29	1.000	29122.3		A	d5-NEtPFOSA	6.28	61419.0	0.474	2.207
PFTrDA	6.28	1.030	254098.3		A	13C2-PFDoDA	6.08	715241.0	0.355	2.091
PFTeDA	6.45	1.000	202475.6		A	13C2-PFTeDA	6.45	511757.3	0.396	2.342
PFHxDA	6.75	1.050	94090.2		A	13C2-PFTeDA	6.45	511757.3	0.184	2.360
PFODA	7.02	1.090	70388.4		A	13C2-PFTeDA	6.45	511757.3	0.138	2.185

Total Ion Chromatogram

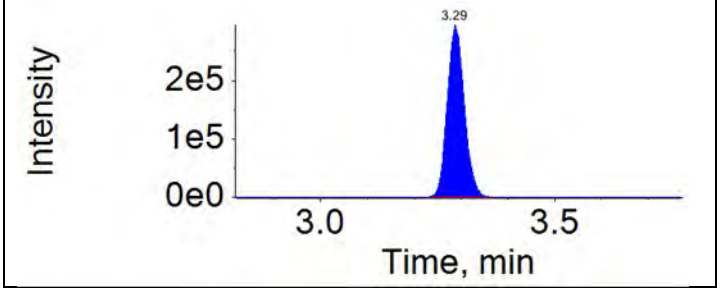


APPROVED
By MSM at 10:22 am, 12/4/18

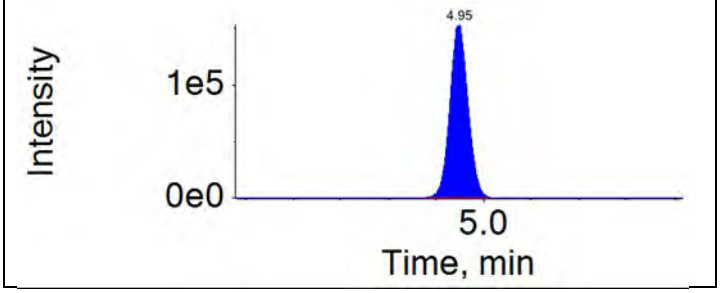
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

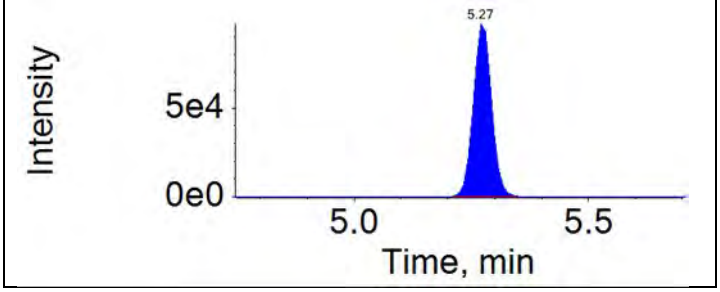
Injection Standard: 13C3-PFBA
216.0 / 172.0



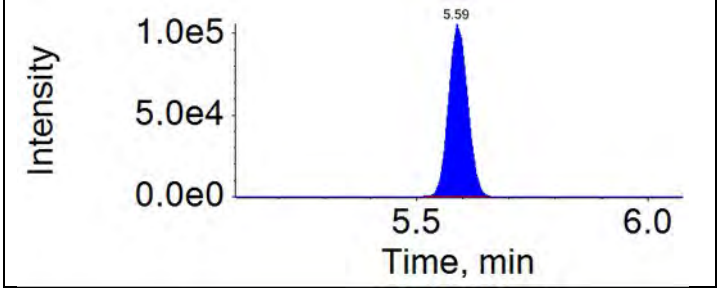
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

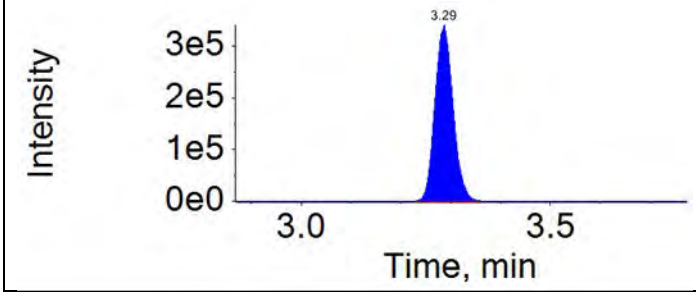


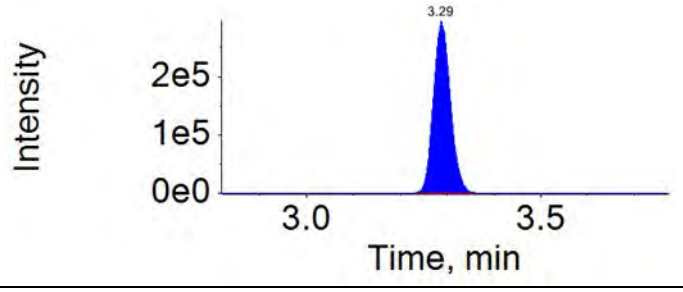
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

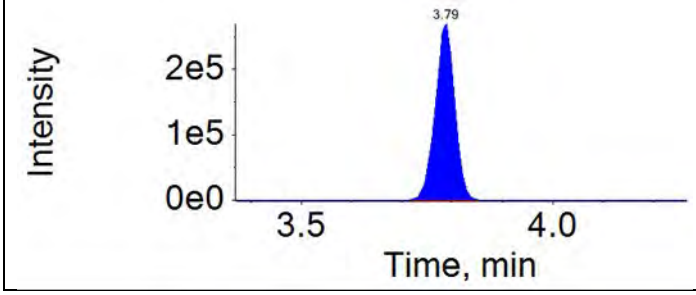
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

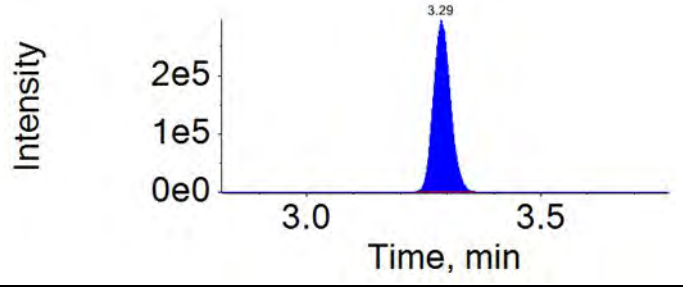
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



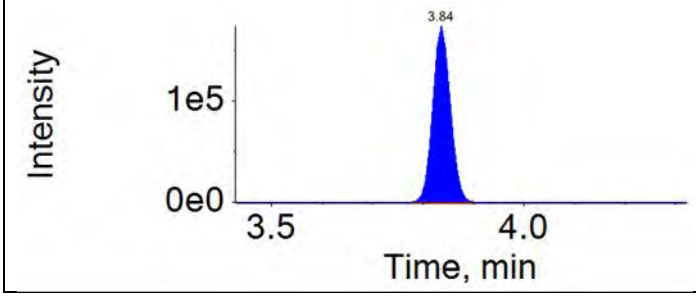


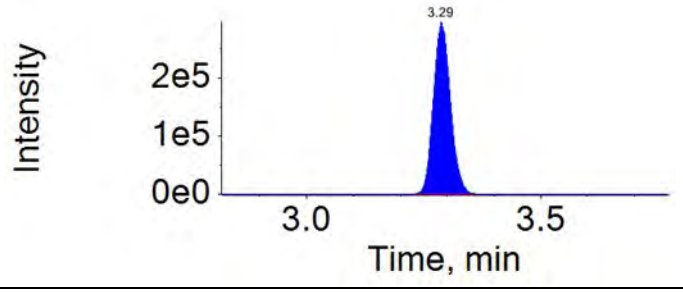
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



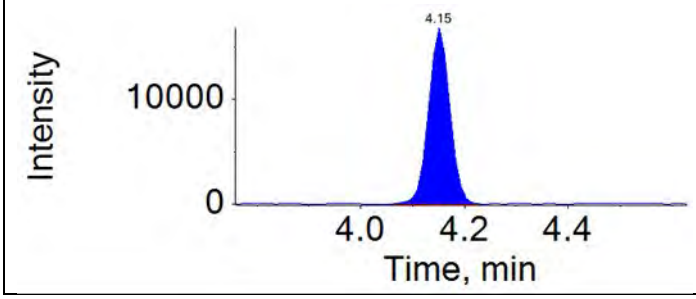


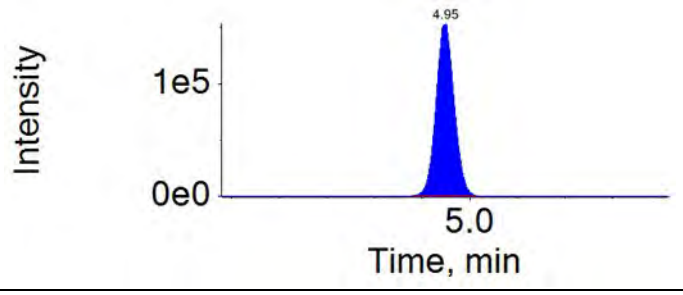
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



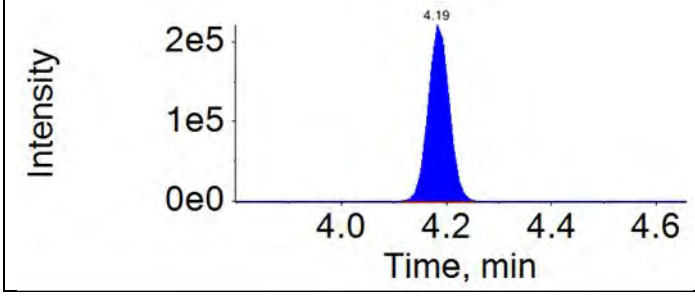


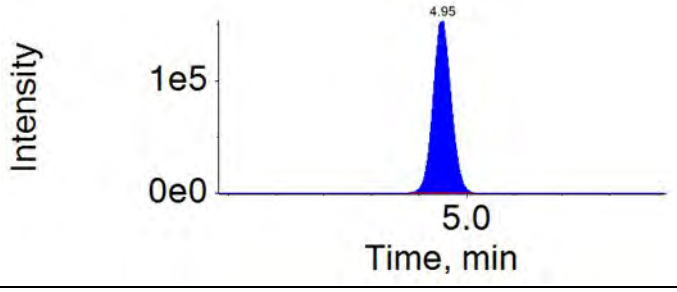
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

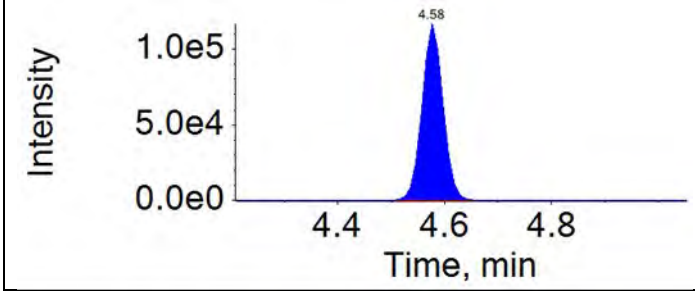
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

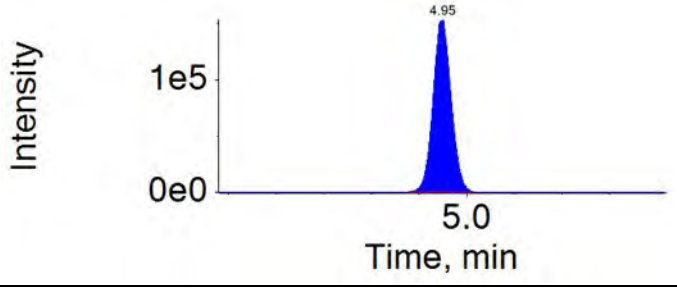
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



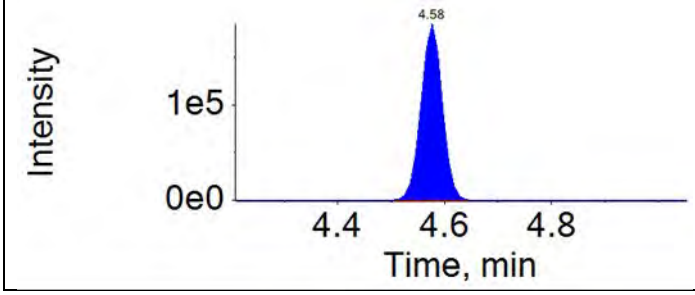


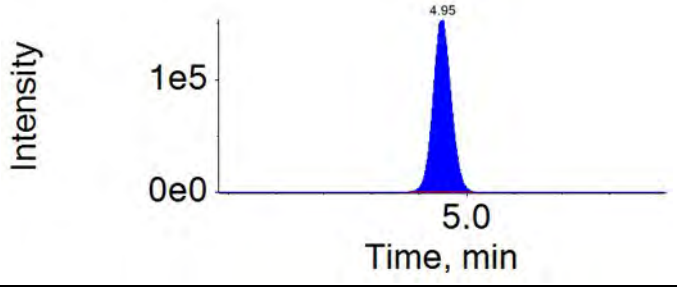
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



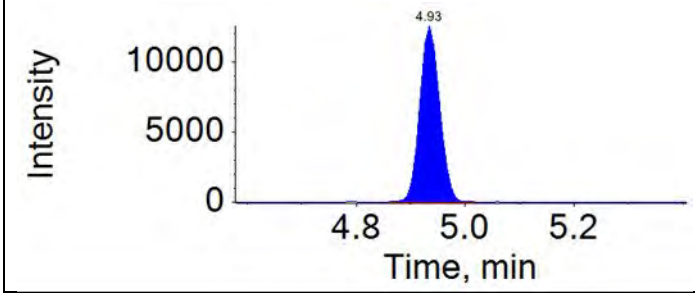


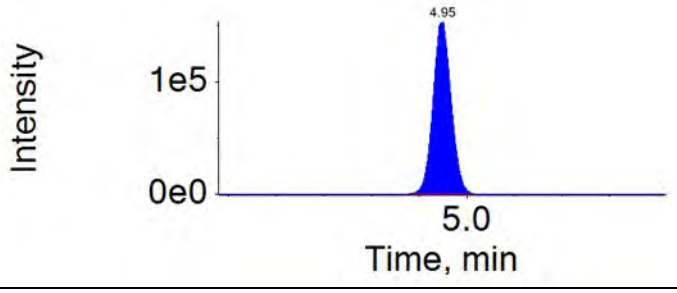
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0



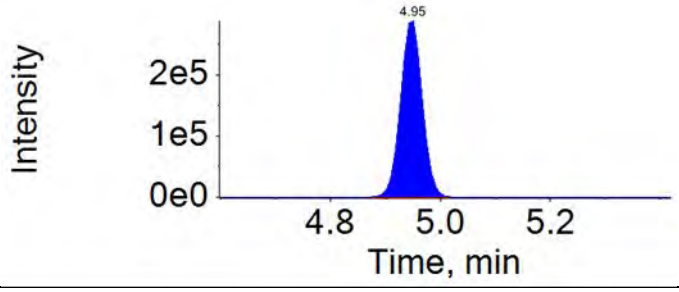


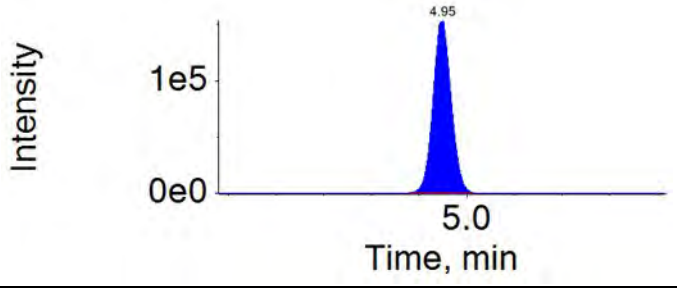
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

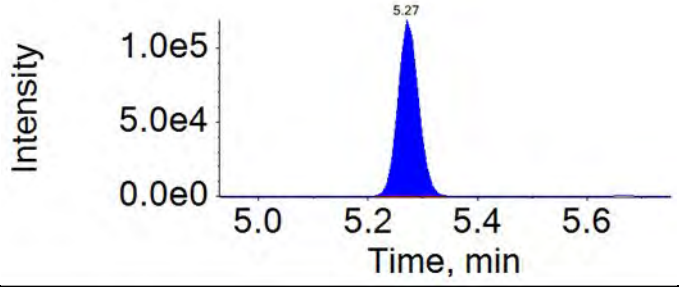
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

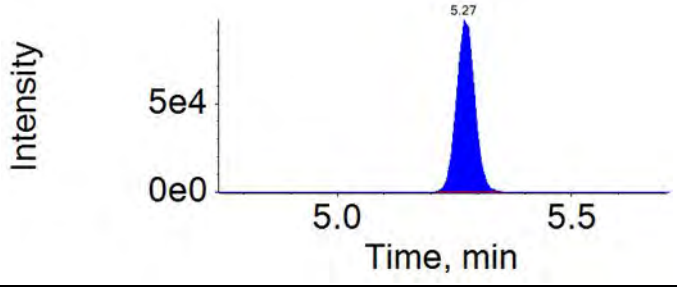
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0



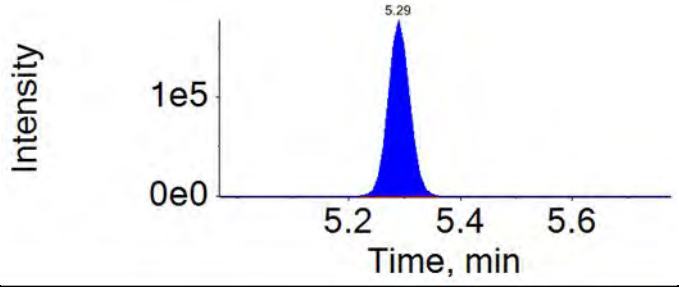


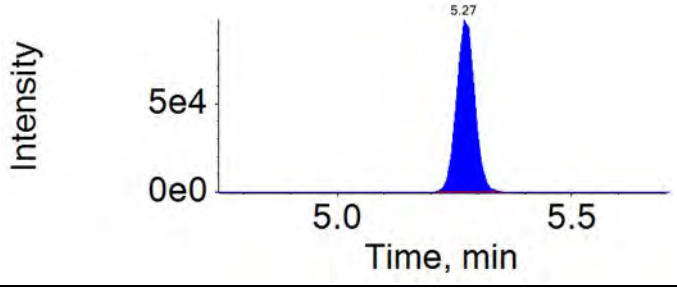
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0



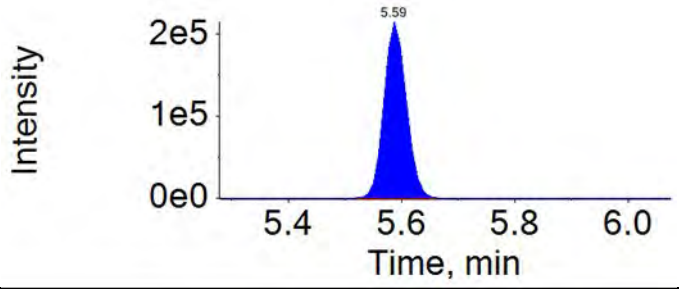


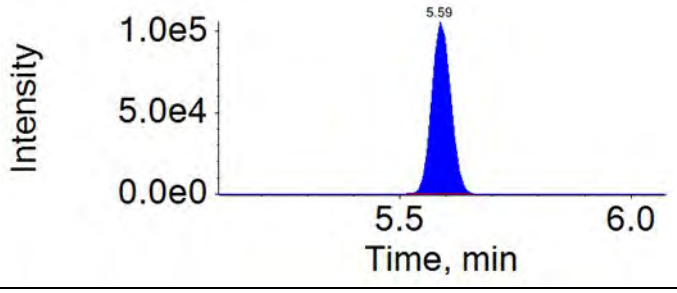
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0





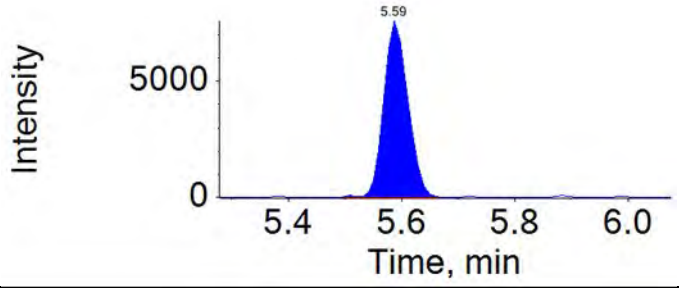
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0

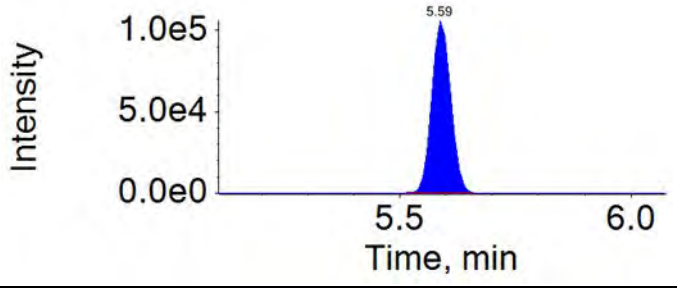




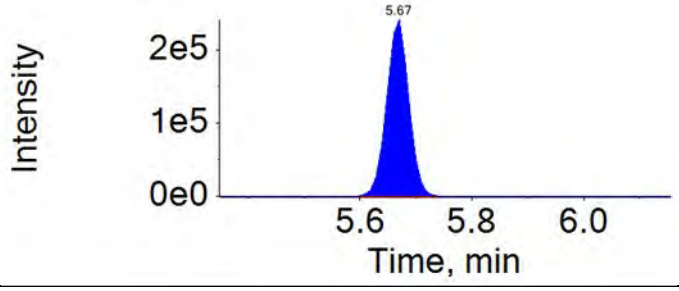
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

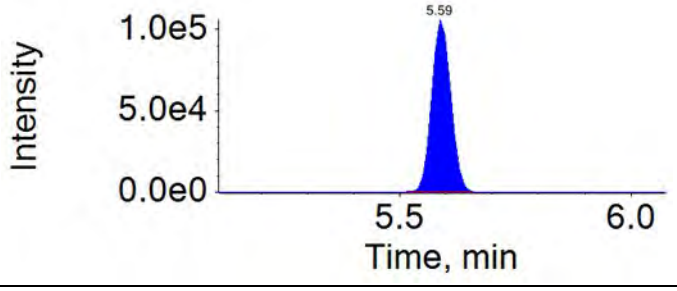
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



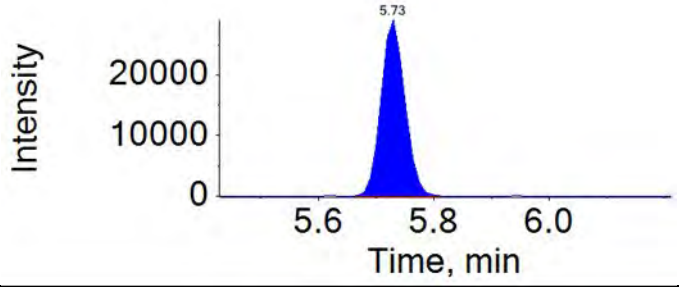


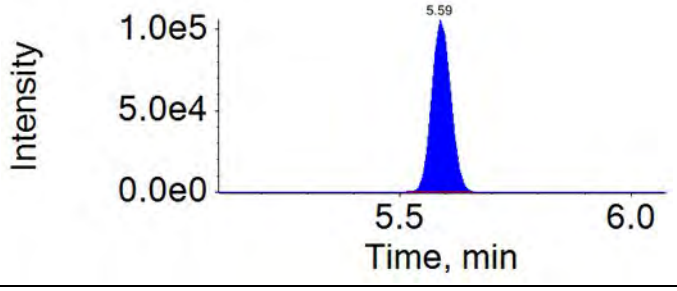
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



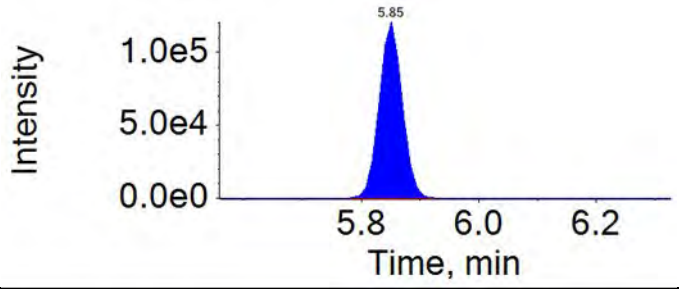


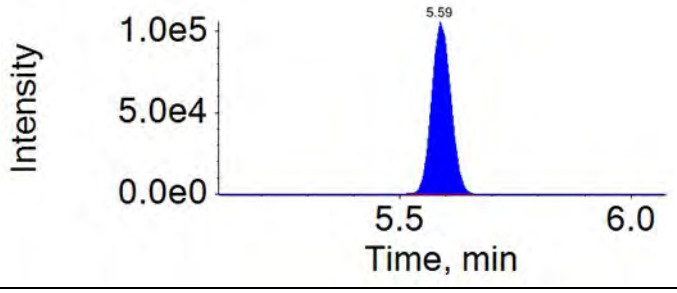
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





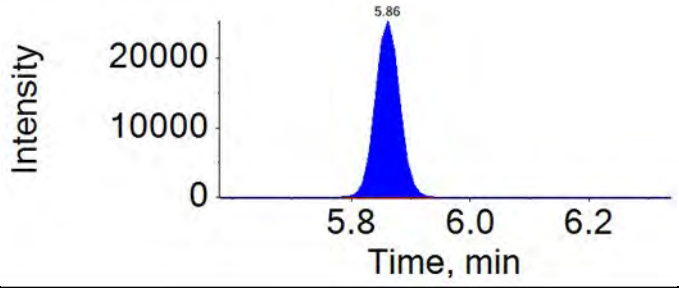
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

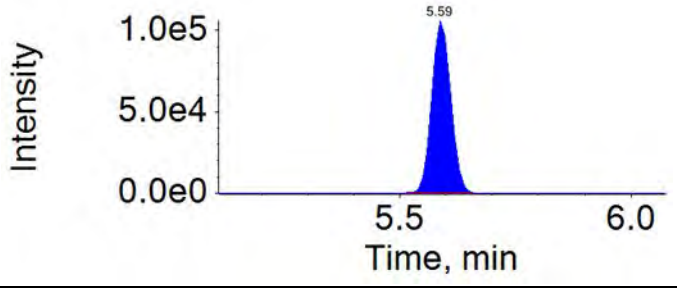




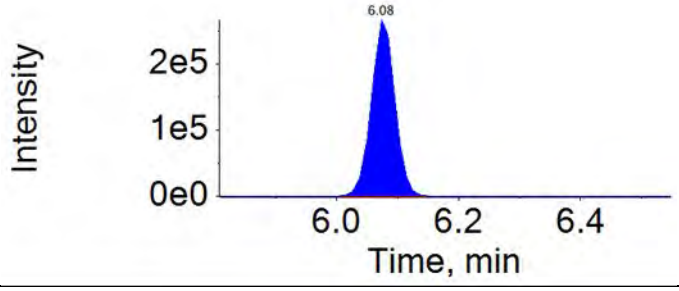
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

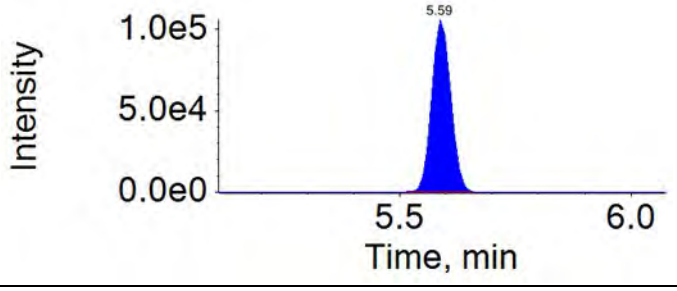
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



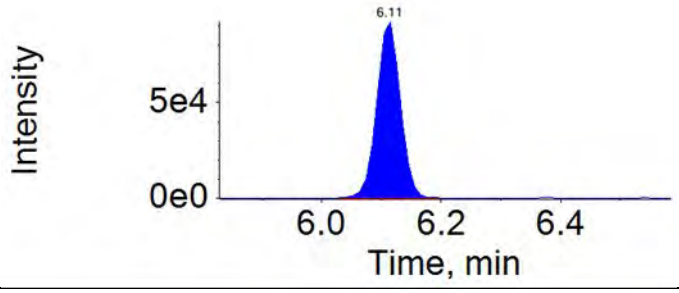


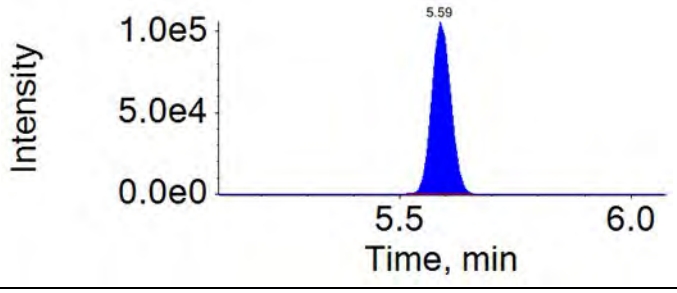
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



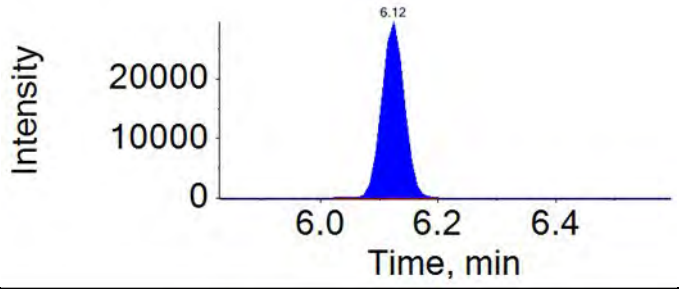


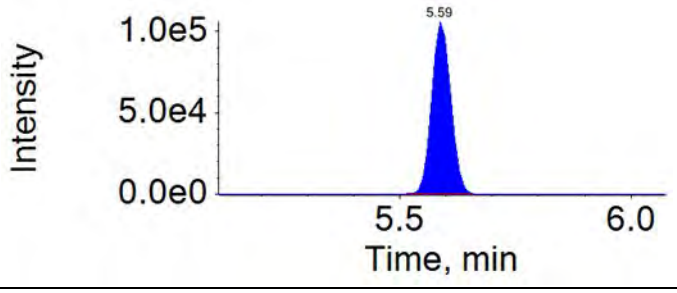
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



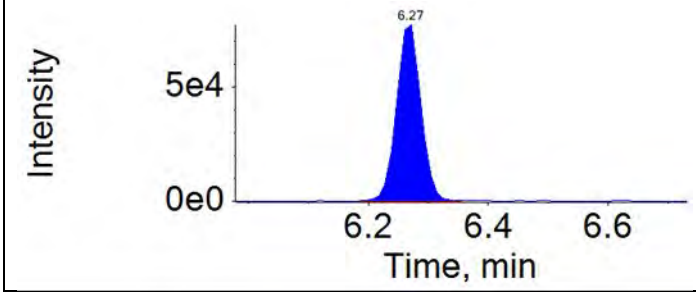


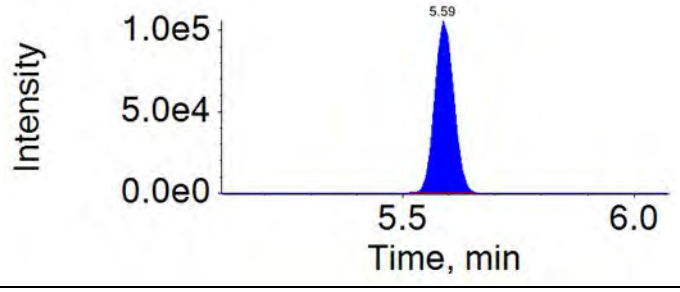
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

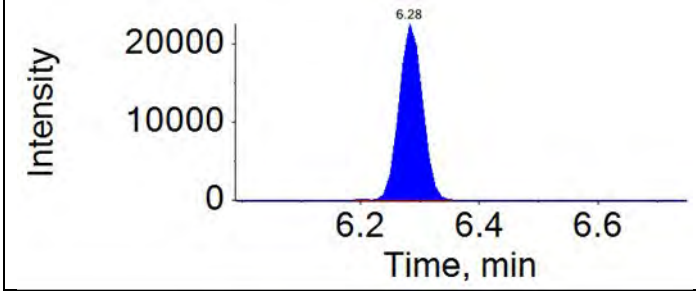
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

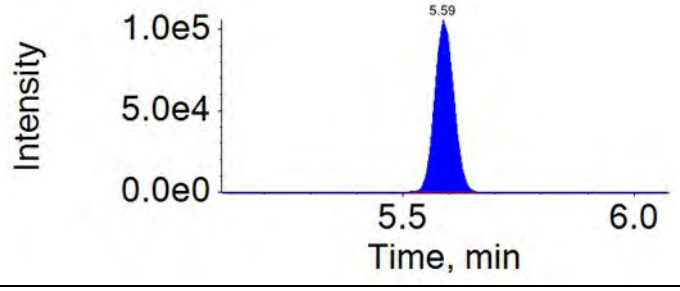
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



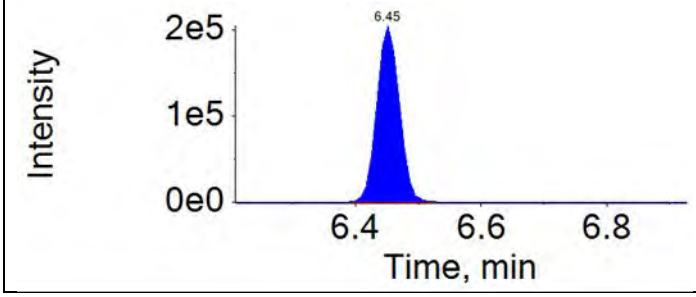


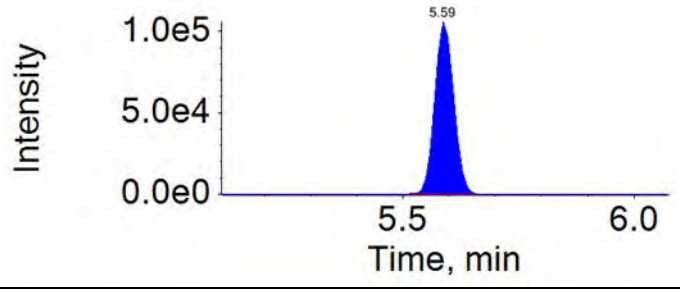
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



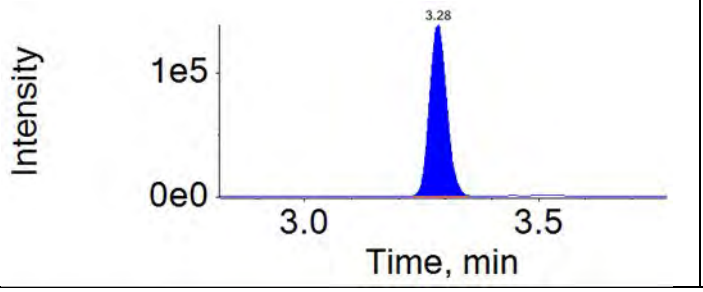


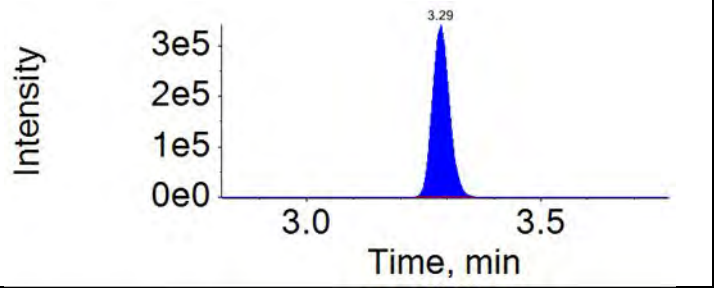
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

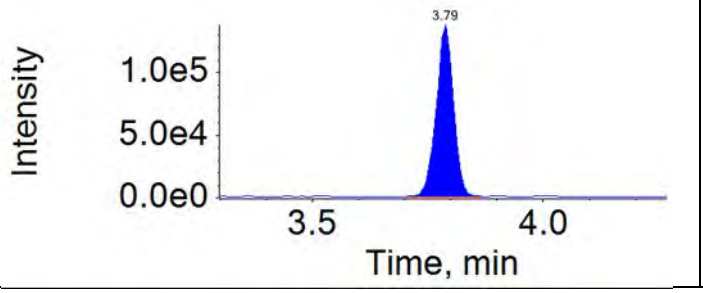
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

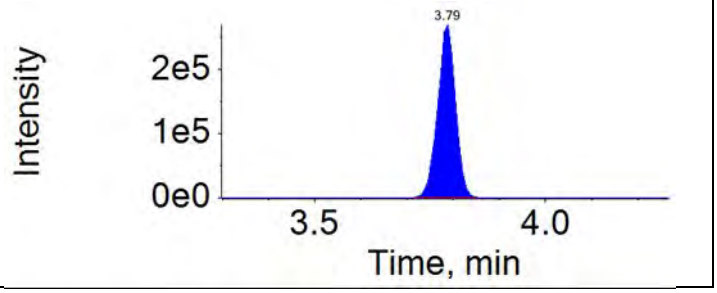
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



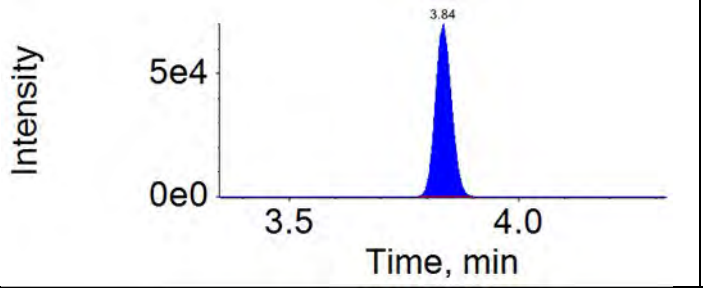


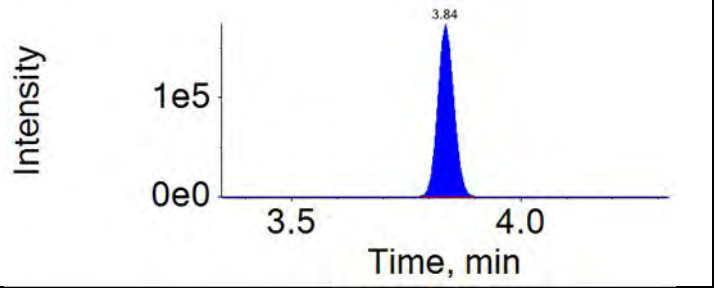
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



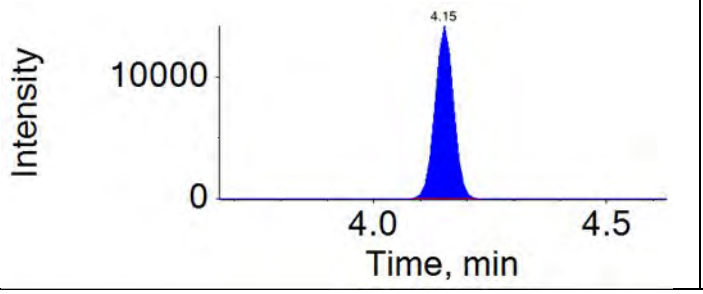


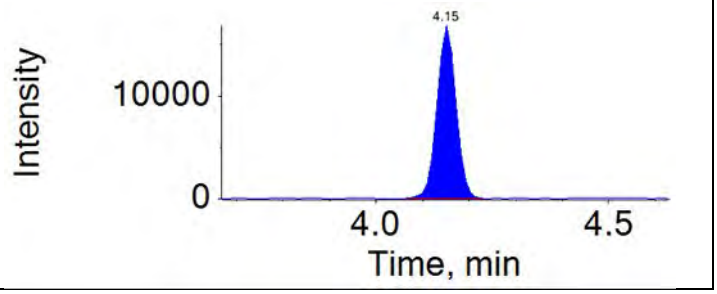
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



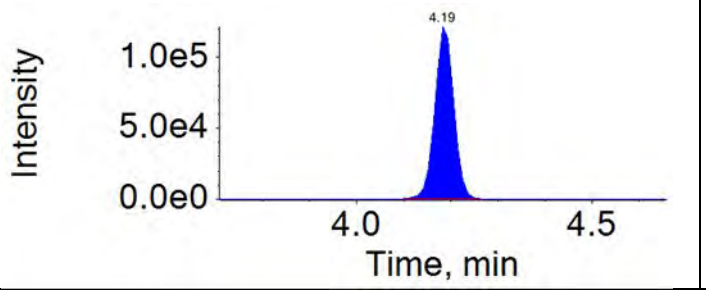


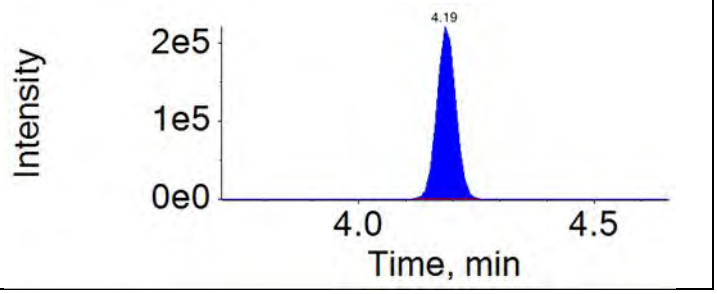
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

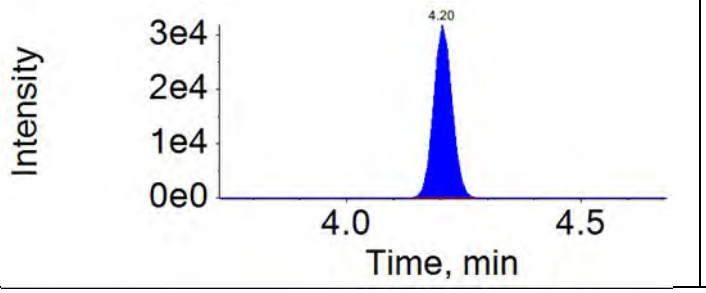
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

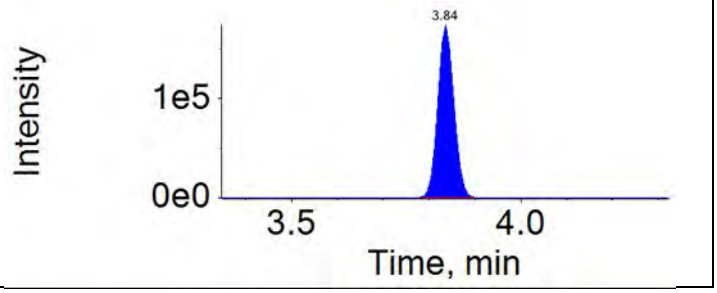
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



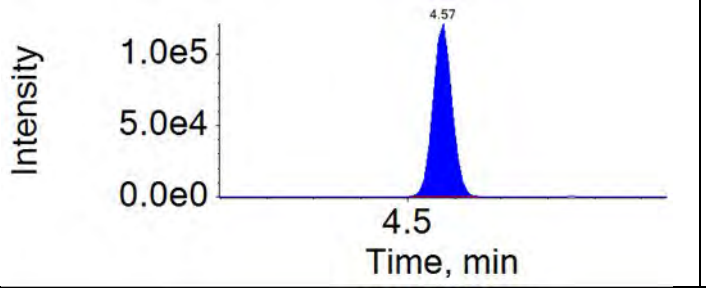


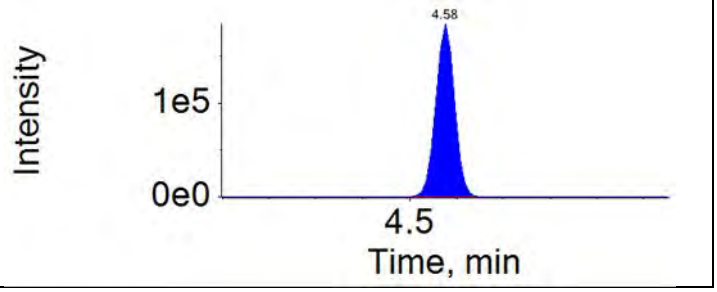
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



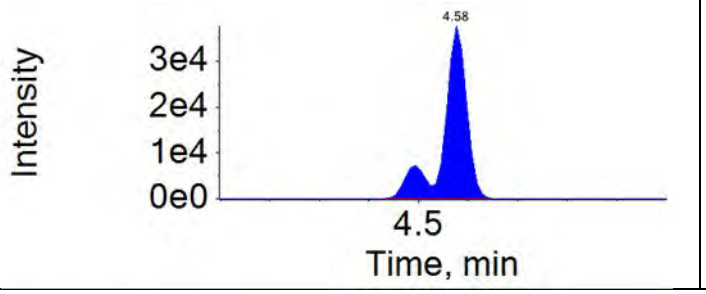


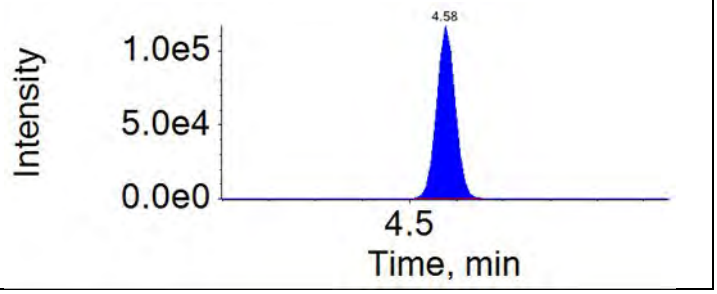
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





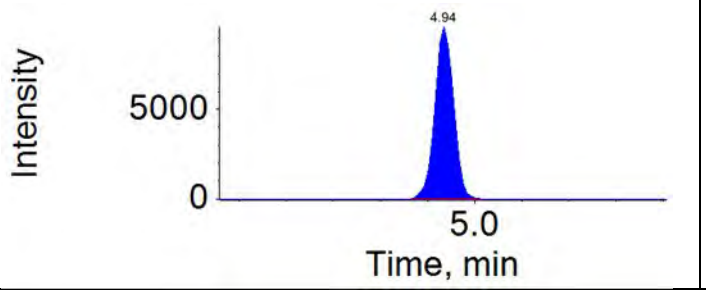
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

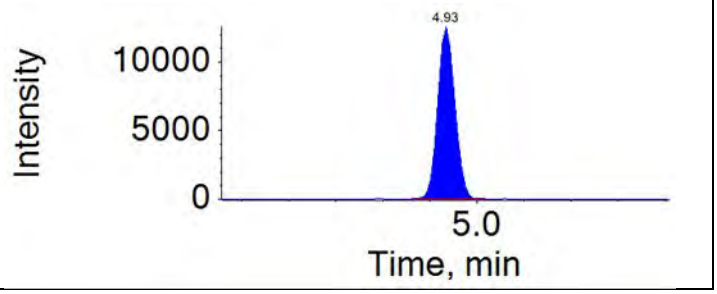




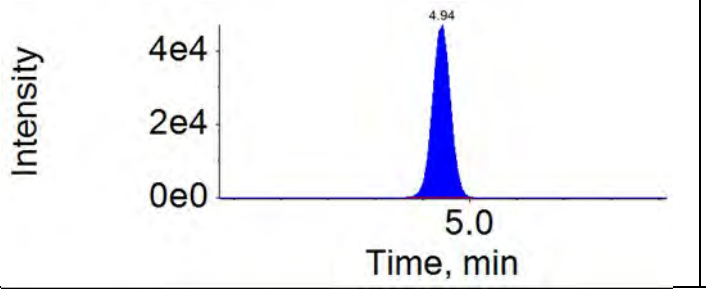
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

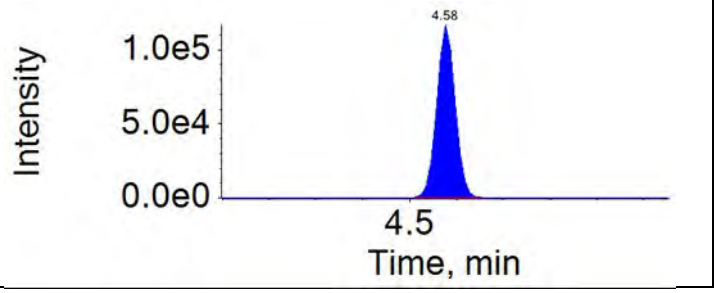
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



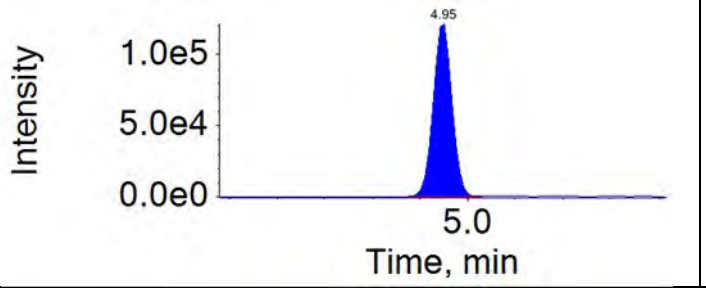


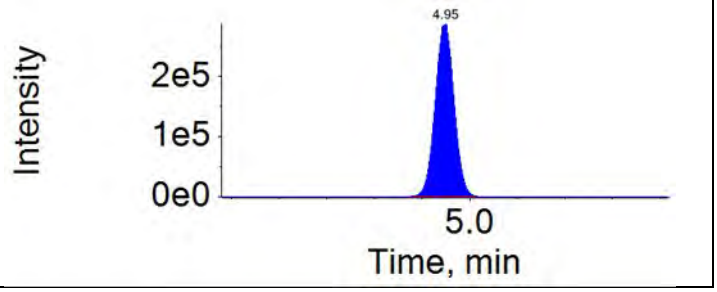
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



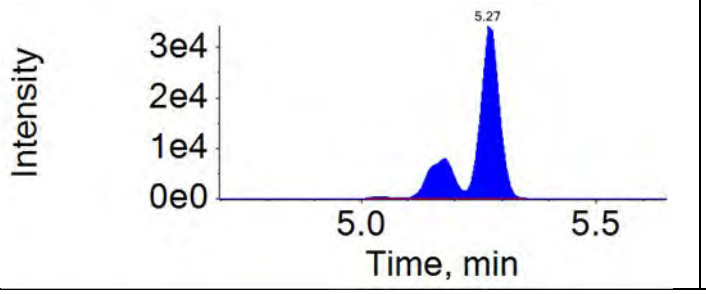


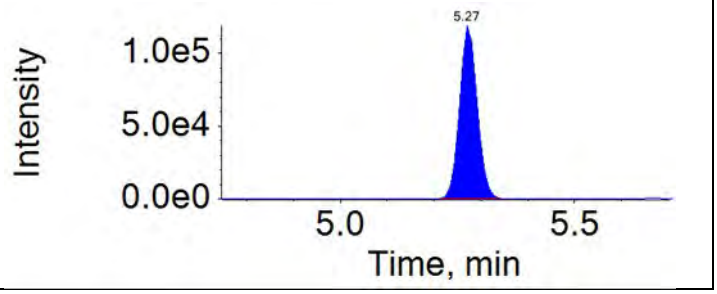
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



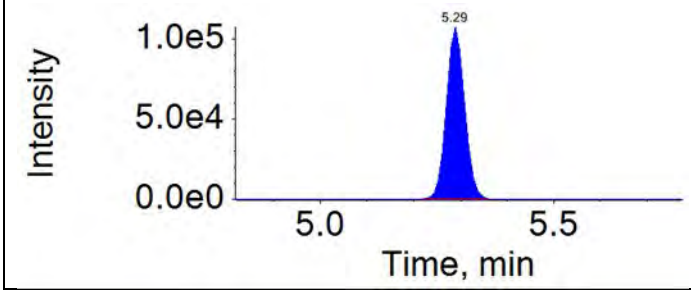


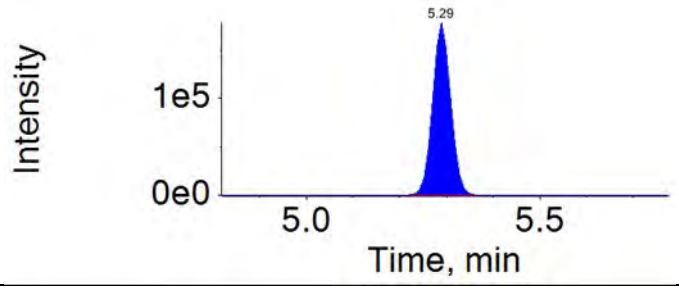
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

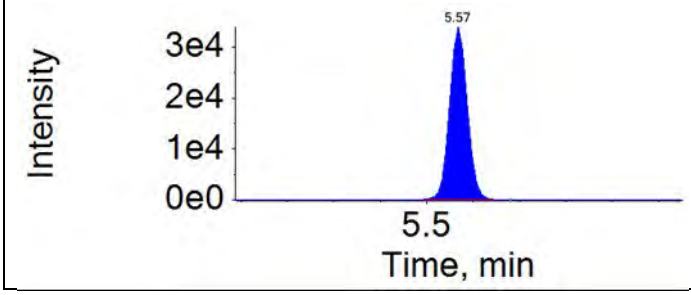
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

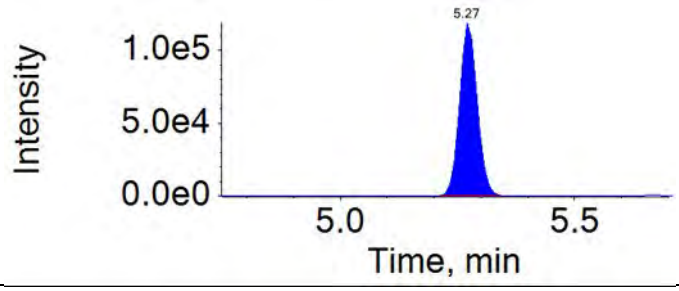
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



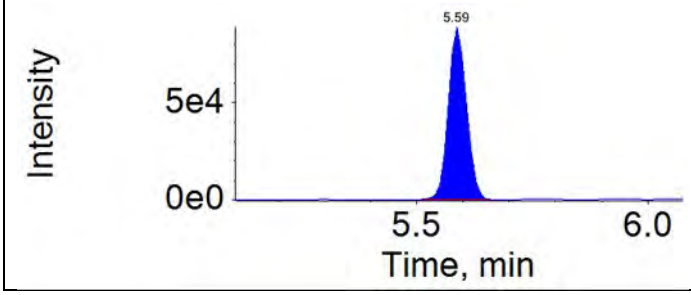


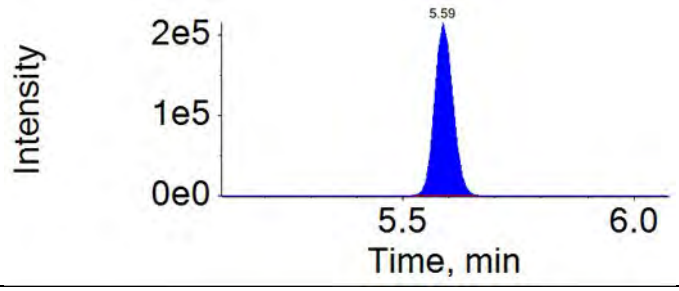
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



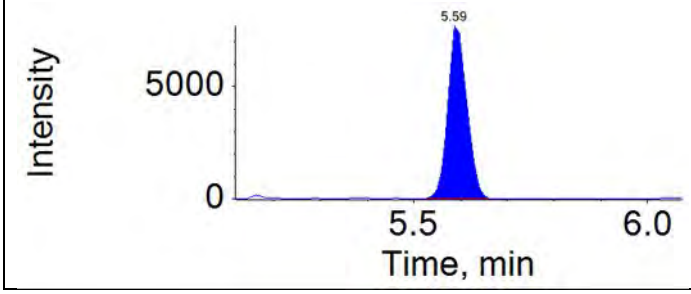


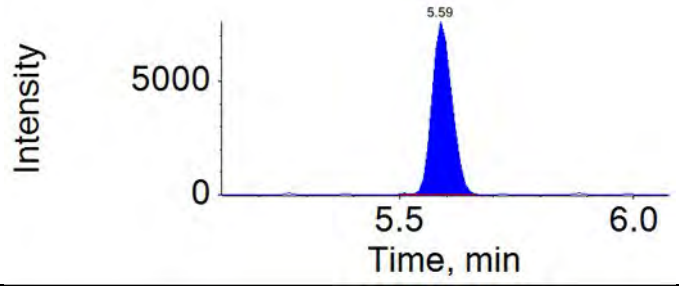
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

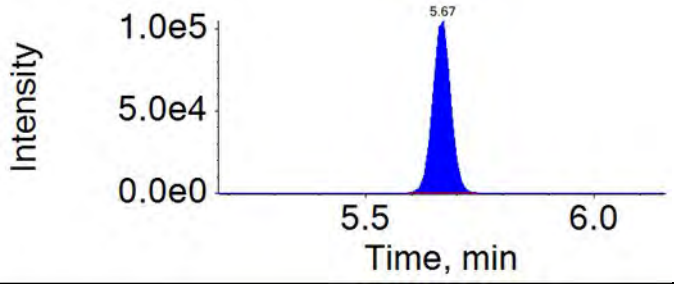
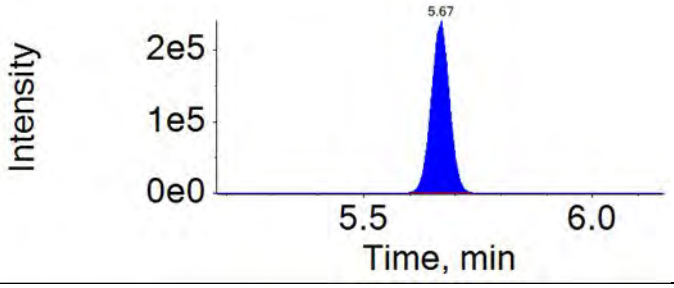


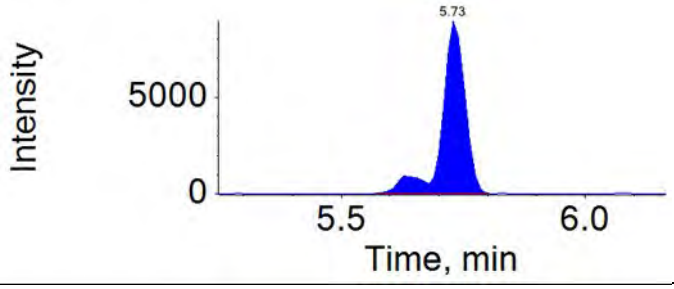
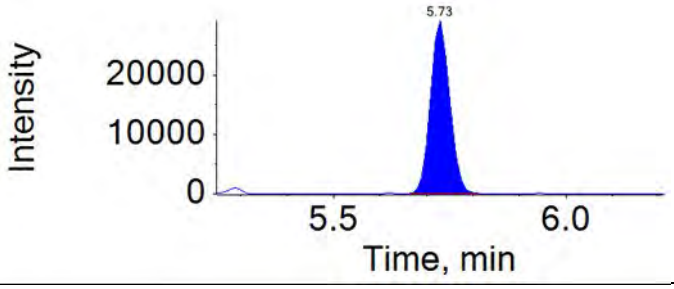


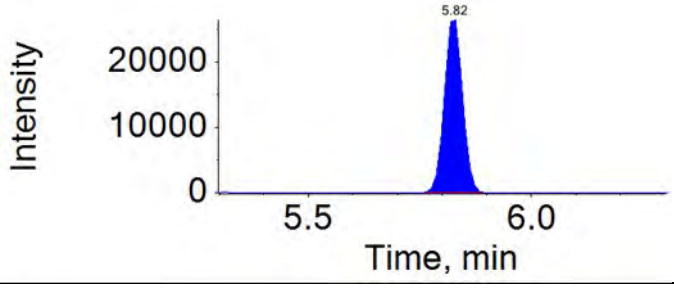
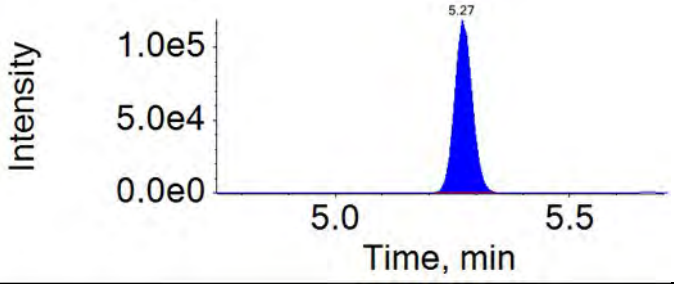
APPROVED
By MSM at 10:22 am, 12/4/18

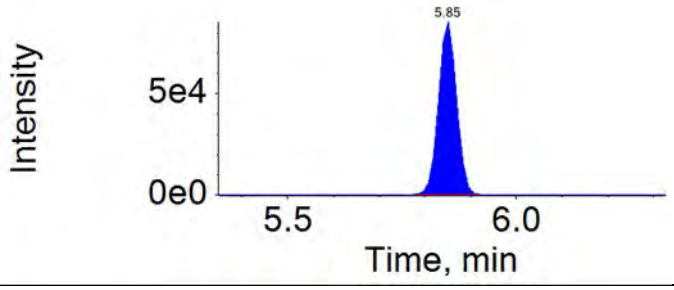
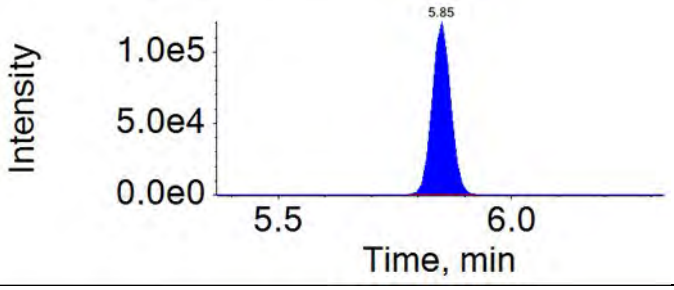
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

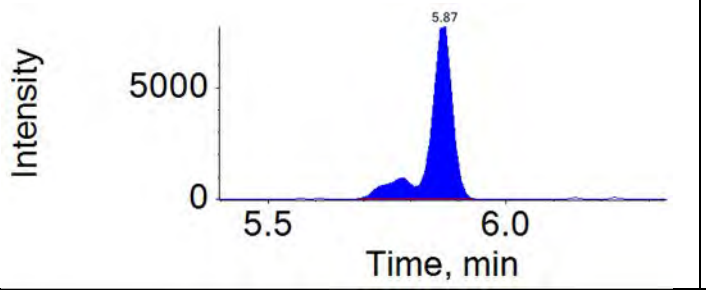
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

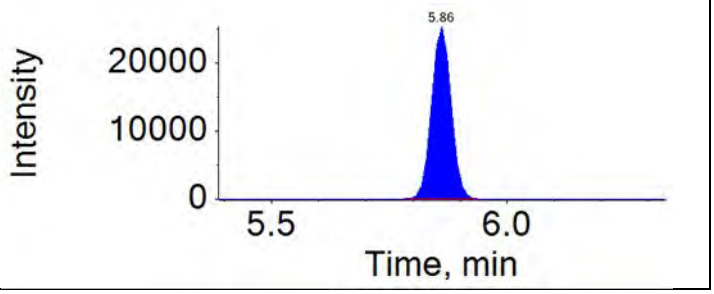
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

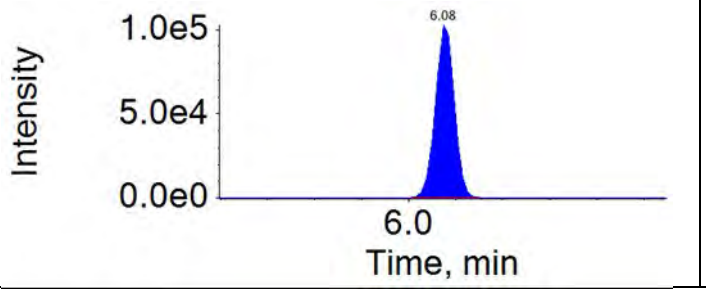
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

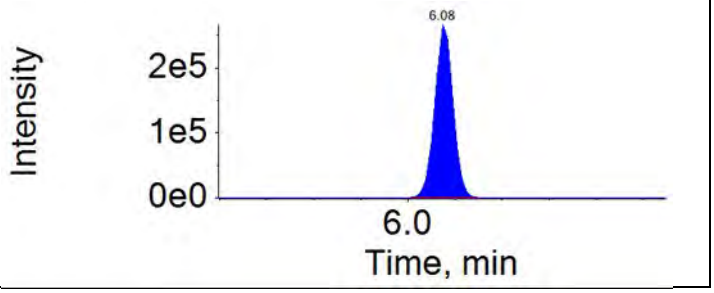
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



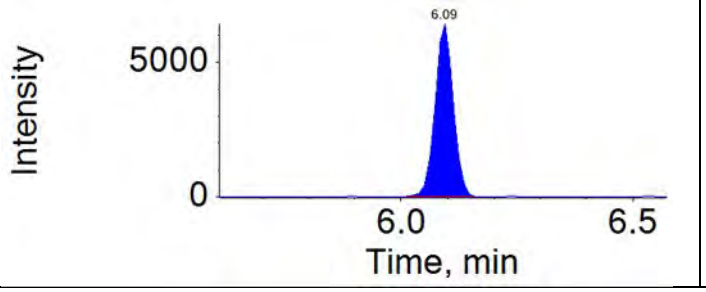


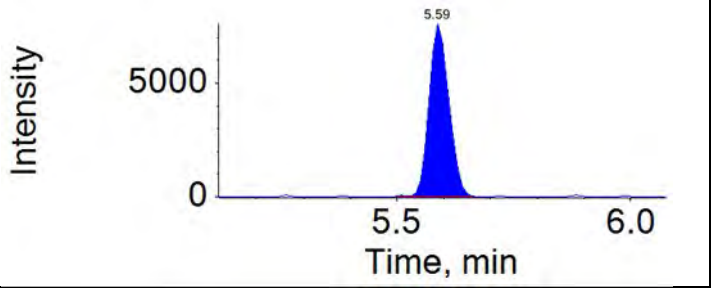
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



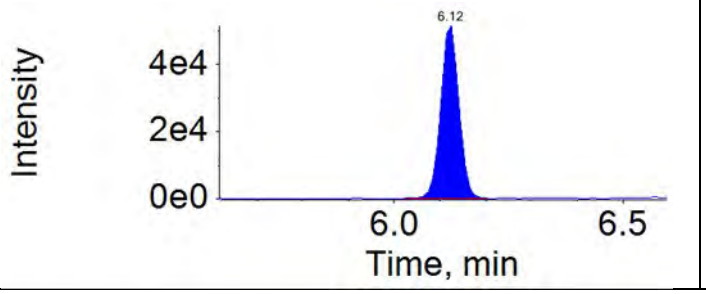


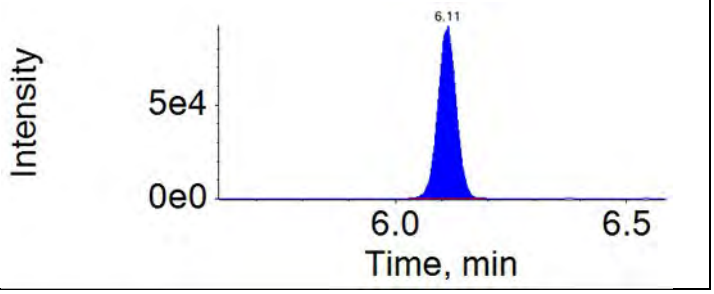
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



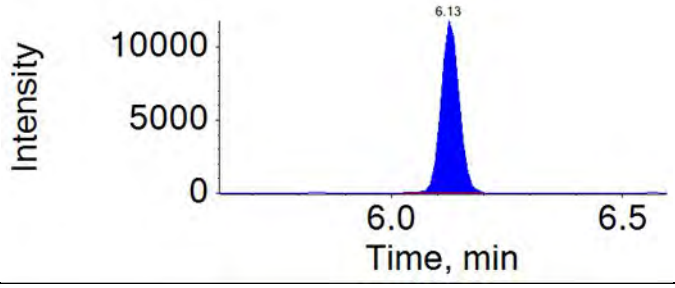


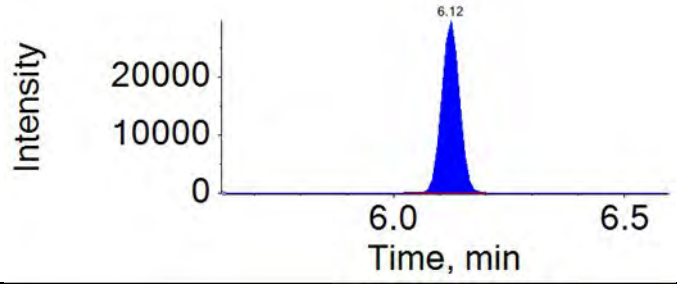
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

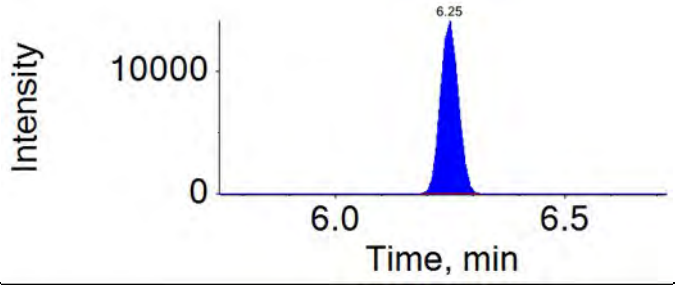
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

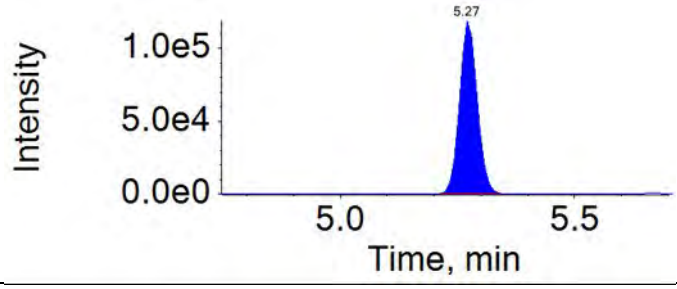
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



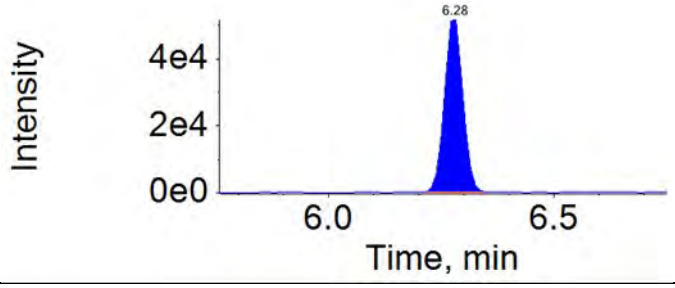


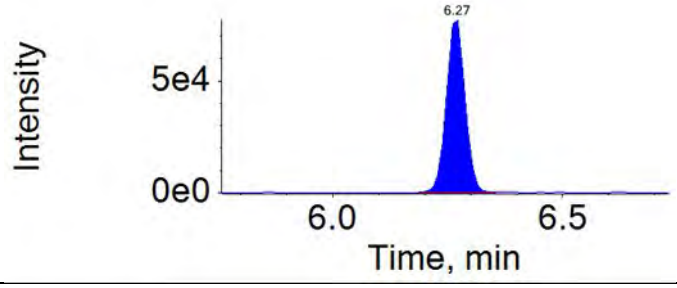
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



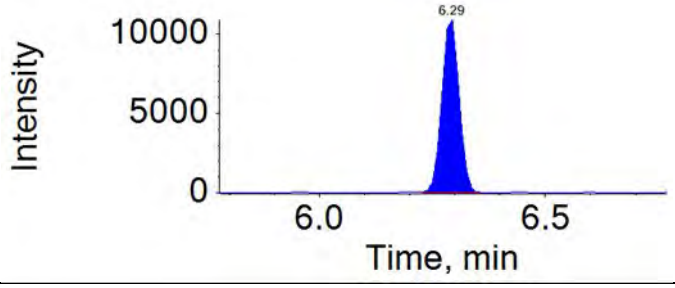


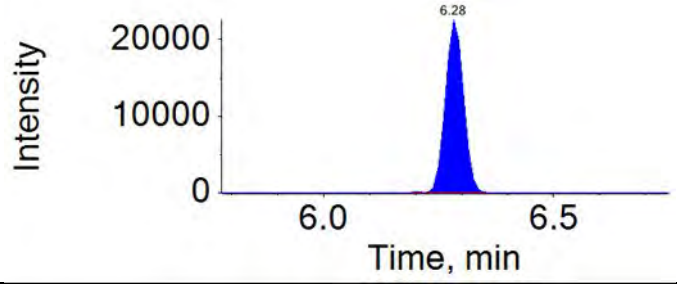
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

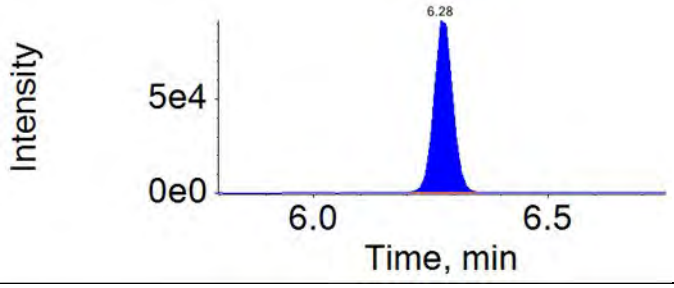
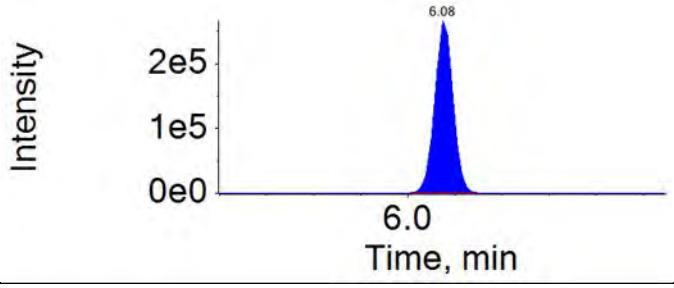


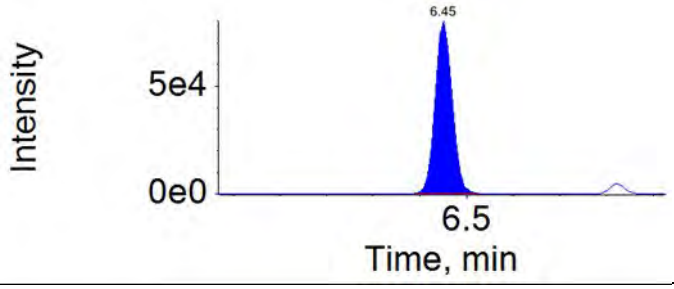
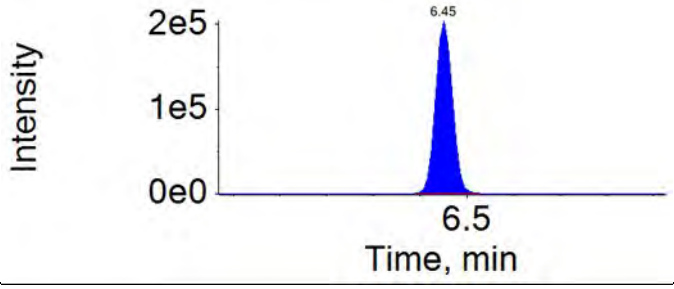


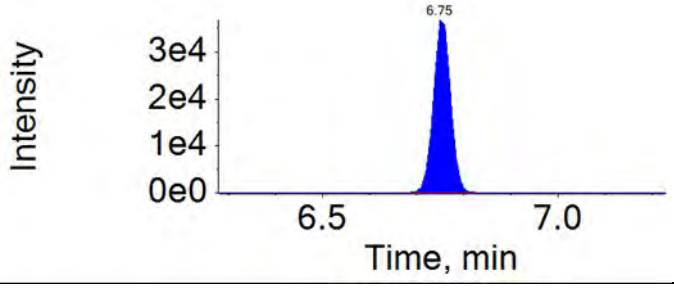
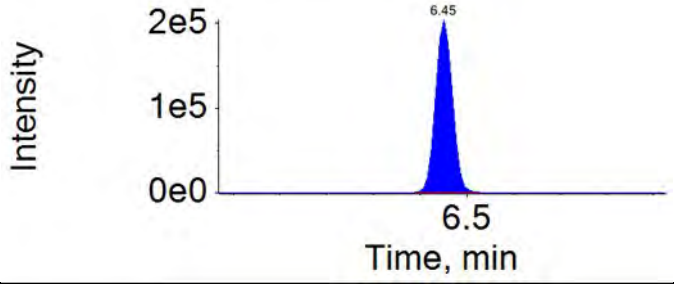
APPROVED
By MSM at 10:22 am, 12/4/18

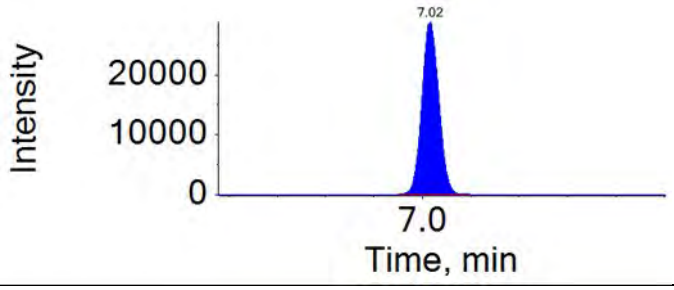
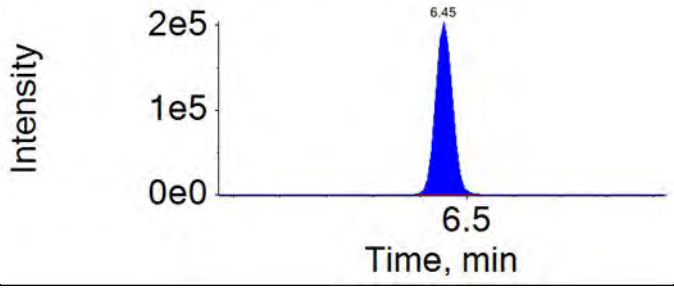
REVIEWED
By umar at 4:03 pm, 12/4/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC03DCAL 12/4/2018 8:46:13 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
	

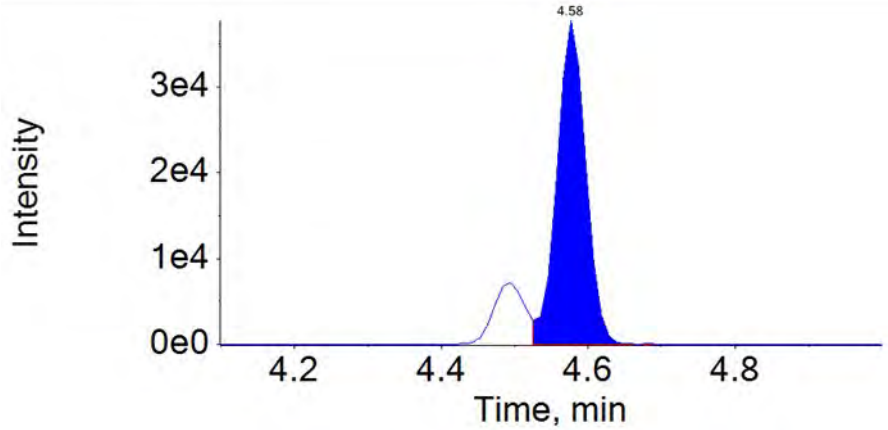
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

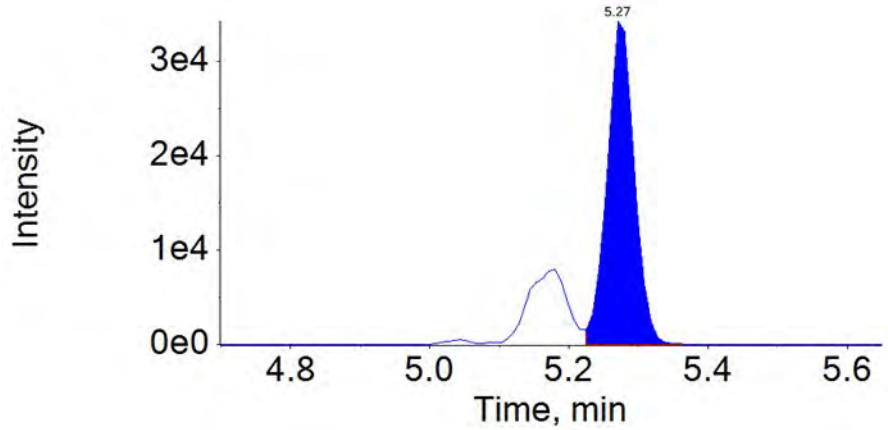
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.58
Peak Area:
103231.37
Mass Range:
399.0 / 80.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



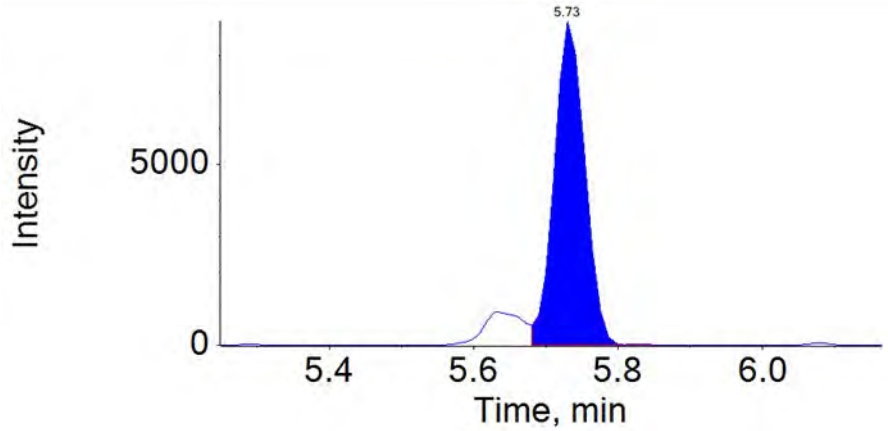
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.27
Peak Area:
93412.82
Mass Range:
499.0 / 80.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
26470.79
Mass Range:
570.0 / 419.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



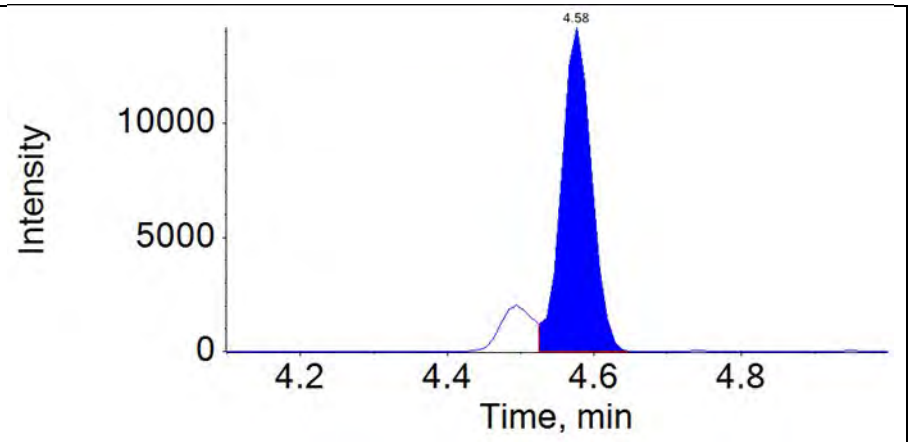
Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

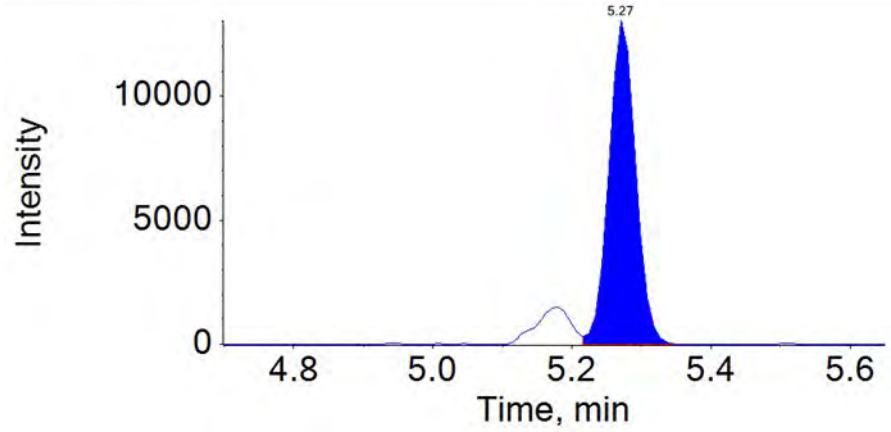
Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.58
Peak Area:
40198.64
Mass Range:
399.0 / 99.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



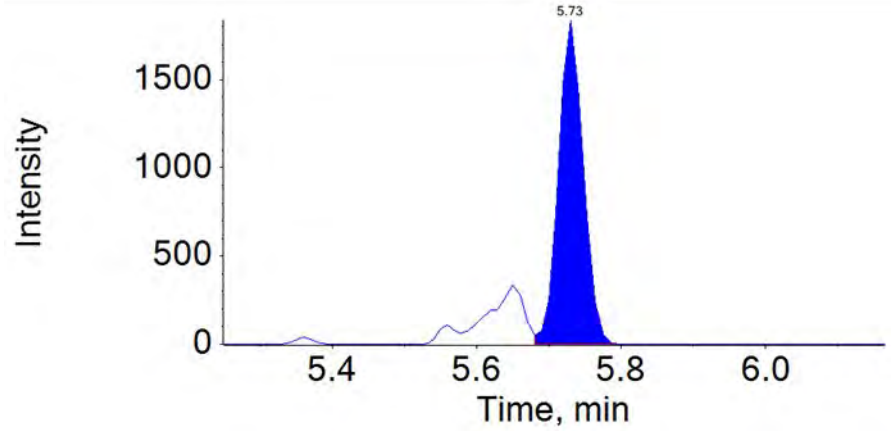
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.27
Peak Area:
34902.34
Mass Range:
499.0 / 99.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.73
Peak Area:
4394.46
Mass Range:
570.0 / 483.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

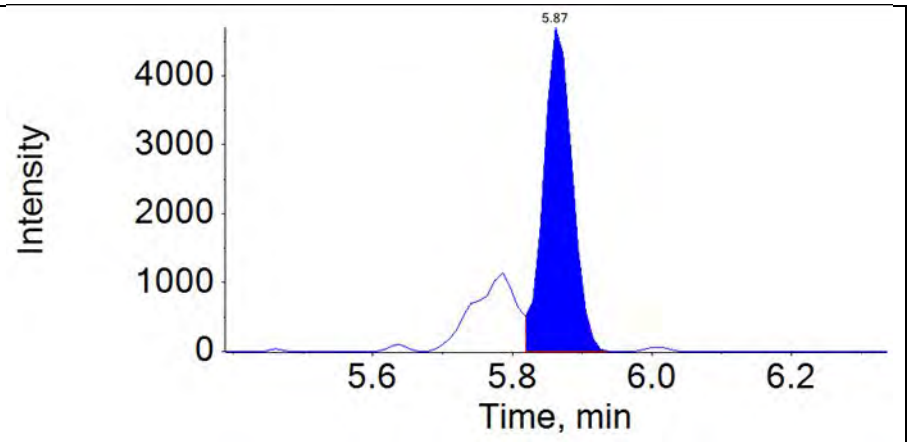
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.87
Peak Area:
13371.74
Mass Range:
584.0 / 526.0
File Name:
18DEC03DCAL-20.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Results Table Name: 18DEC03DCAL
Results Table Date: 12/4/2018 8:46:13 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Ion Ratio Report

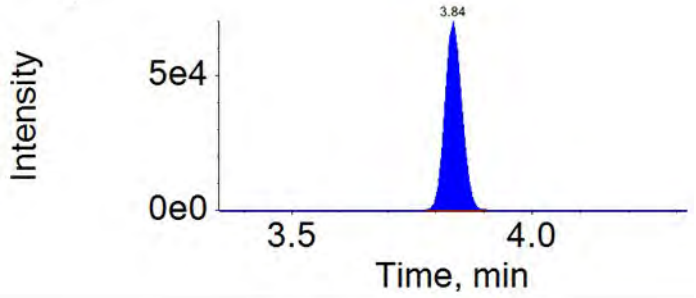
Sample Name: CCV1_CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC03DCAL-20.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.84	1.00	170408.29	A	1.0000	1.0000			
PFBS_2	3.83	1.00	65739.52	A	0.3698	0.3858	4	50	
4:2-FTS	4.15	1.00	39022.69	A	1.0000	1.0000			
4:2-FTS_2	4.15	1.00	24583.61	A	0.6536	0.6300	-4	50	
PFHxA	4.19	1.00	340452.47	A	1.0000	1.0000			
PFHxA_2	4.18	1.00	4695.72	A	0.0119	0.0138	16	50	
PFPeS	4.20	1.10	87052.94	A	1.0000	1.0000			
PFPeS_2	4.20	1.10	46978.11	A	0.5000	0.5396	8	50	
PFHpA	4.57	1.00	339968.50	A	1.0000	1.0000			
PFHpA_2	4.57	1.00	17792.25	A	0.0526	0.0523	0	50	
PFHxS	4.58	1.00	124177.33	M	1.0000	1.0000			
PFHxS_2	4.58	1.00	46272.28	M	0.3476	0.3726	7	50	
6:2-FTS	4.94	1.00	26627.17	A	1.0000	1.0000			
6:2-FTS_2	4.93	1.00	16361.52	A	0.6372	0.6145	-4	50	
PFHpS	4.94	1.08	125828.48	A	1.0000	1.0000			
PFHpS_2	4.94	1.08	51241.10	A	0.3956	0.4072	3	50	
PFOA	4.95	1.00	332527.63	A	1.0000	1.0000			
PFOA_2	4.95	1.00	19421.18	A	0.0618	0.0584	-5	50	
PFOS	5.27	1.00	126376.34	M	1.0000	1.0000			
PFOS_2	5.27	1.00	40167.34	M	0.2940	0.3178	8	50	
PFNA	5.29	1.00	290023.40	A	1.0000	1.0000			
PFNA_2	5.29	1.00	5335.06	A	0.0196	0.0184	-6	50	
PFNS	5.57	1.06	89974.13	A	1.0000	1.0000			
PFNS_2	5.57	1.06	45329.00	A	0.4676	0.5038	8	50	
PFDA	5.59	1.00	241299.77	A	1.0000	1.0000			
PFDA_2	5.59	1.00	1382.24	A	0.0073	0.0057	-21	50	
8:2-FTS	5.59	1.00	21641.73	A	1.0000	1.0000			
8:2-FTS_2	5.59	1.00	13560.48	A	0.6049	0.6266	4	50	
NMeFOSAA	5.73	1.00	29925.76	M	1.0000	1.0000			
NMeFOSAA_2	5.73	1.00	5502.35	M	0.2642	0.1839	-30	50	
PFDS	5.82	1.10	75464.11	A	1.0000	1.0000			
PFDS_2	5.82	1.10	35122.95	A	0.4948	0.4654	-6	50	
PFUnDA	5.85	1.00	234305.74	A	1.0000	1.0000			
PFUnDA_2	5.85	1.00	1039.98	A	0.0046	0.0044	-3	50	
NEtFOSAA	5.87	1.00	26130.40	A	1.0000	1.0000			
NEtFOSAA_2	5.87	1.00	18247.85	M	0.7504	0.6983	-7	50	
PFDoDA	6.08	1.00	286165.10	A	1.0000	1.0000			
PFDoDA_2	6.07	1.00	3299.33	A	0.0143	0.0115	-19	50	
10:2-FTS	6.09	1.09	17542.29	A	1.0000	1.0000			
10:2-FTS_2	6.09	1.09	14314.21	A	0.7003	0.8160	17	50	
PFTrDA	6.28	1.03	254098.33	A	1.0000	1.0000			
PFTrDA_2	6.28	1.03	2417.72	A	0.0099	0.0095	-4	50	
PFTeDA	6.45	1.00	202475.55	A	1.0000	1.0000			
PFTeDA_2	6.45	1.00	996.77	A	0.0057	0.0049	-14	50	
PFHxDA	6.75	1.05	94090.15	A	1.0000	1.0000			
PFHxDA_2	6.75	1.05	5617.77	A	0.0617	0.0597	-3	50	
PFODA	7.02	1.09	70388.41	A	1.0000	1.0000			
PFODA_2	7.01	1.09	1995.03	A	0.0266	0.0283	6	50	

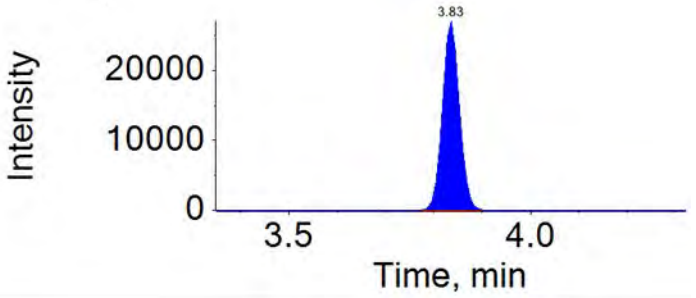
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

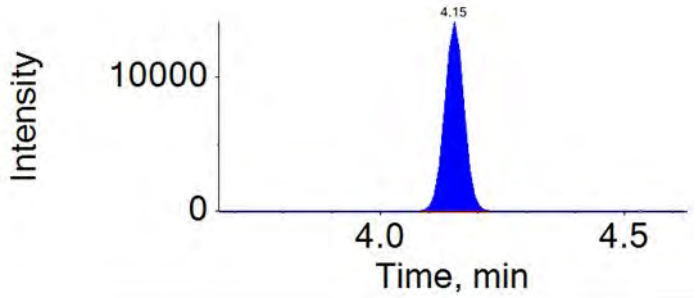
Component: PFBS
Primary Mass: 299.0 / 80.0



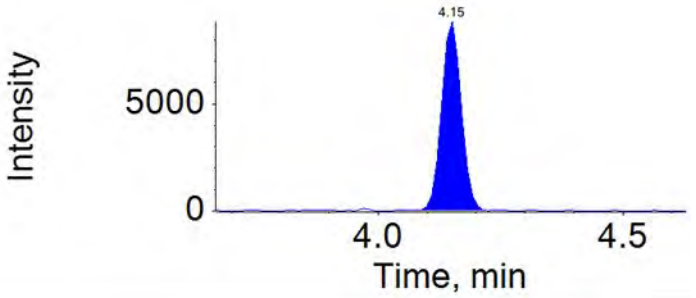
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



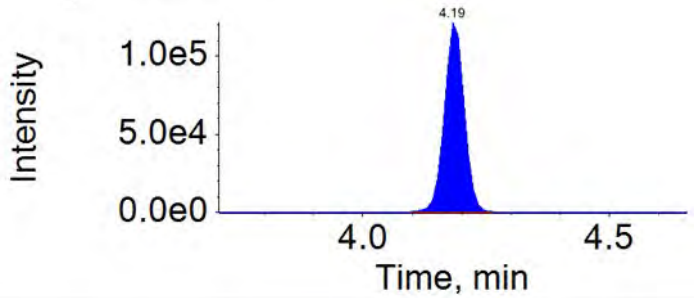
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



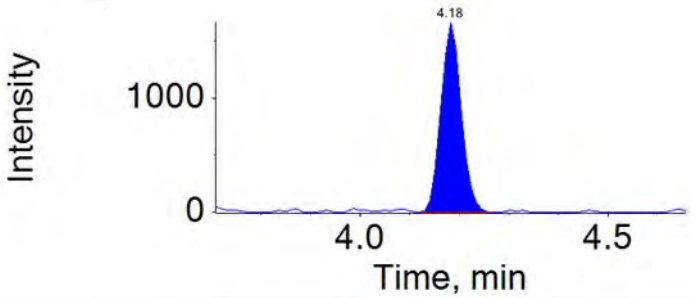
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



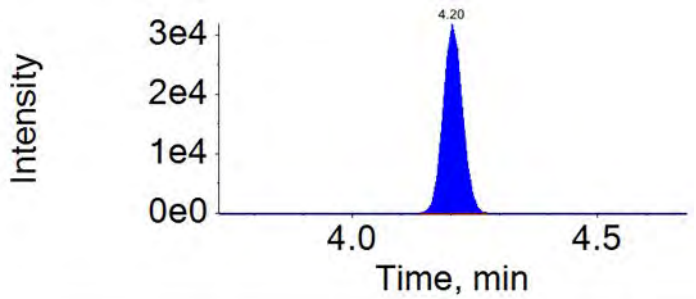
Component: PFHxA
Primary Mass: 313.0 / 269.0



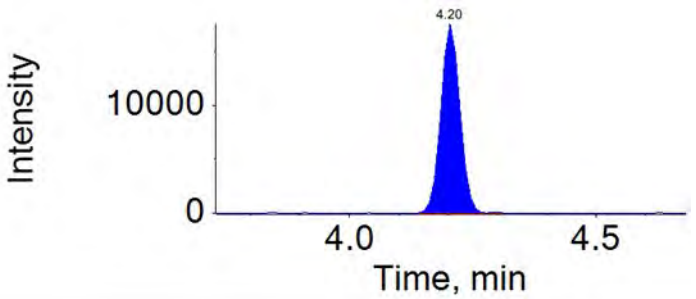
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



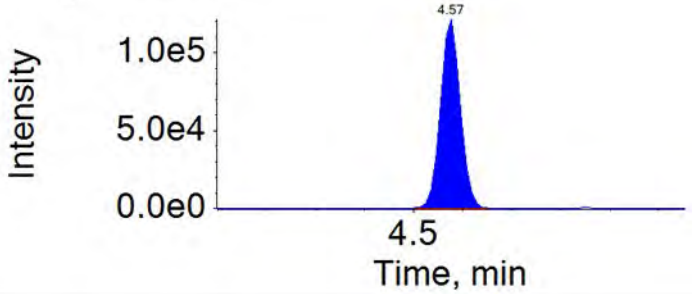
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



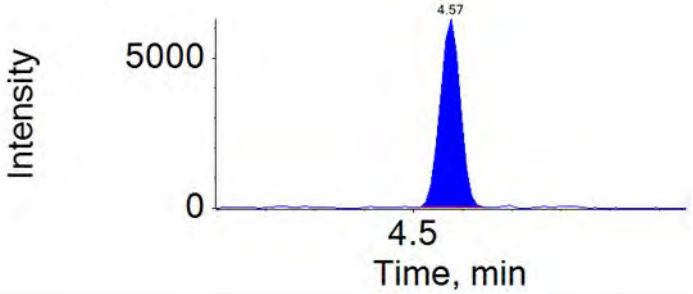
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

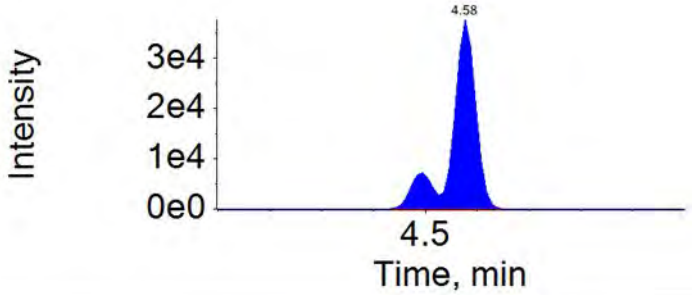
Component: PFHpA
Primary Mass: 363.0 / 319.0



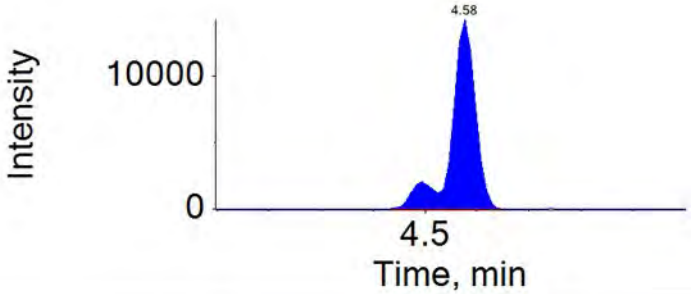
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



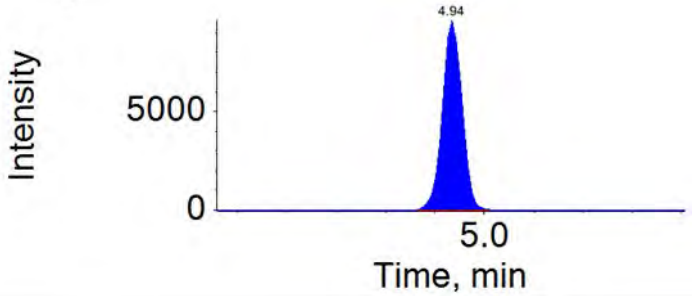
Component: PFHxS
Primary Mass: 399.0 / 80.0



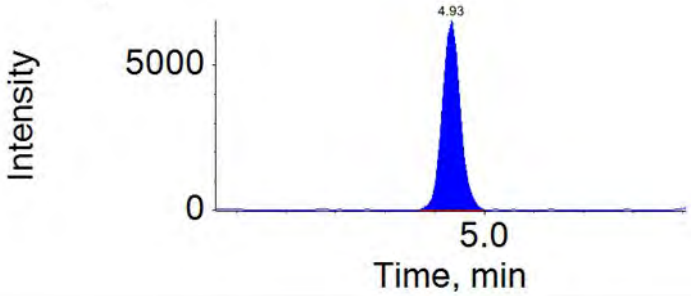
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



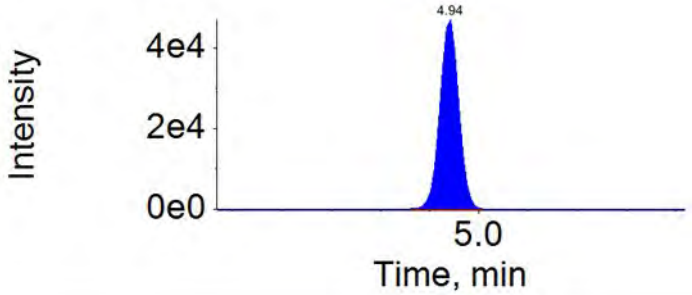
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



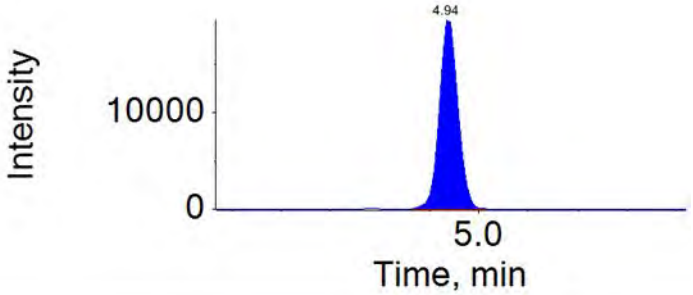
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



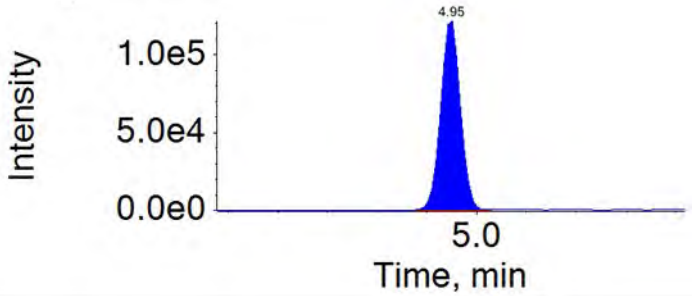
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



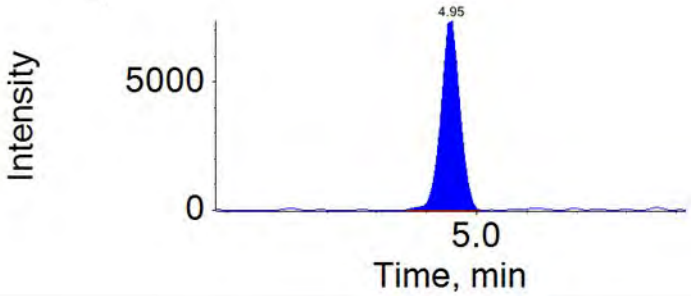
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

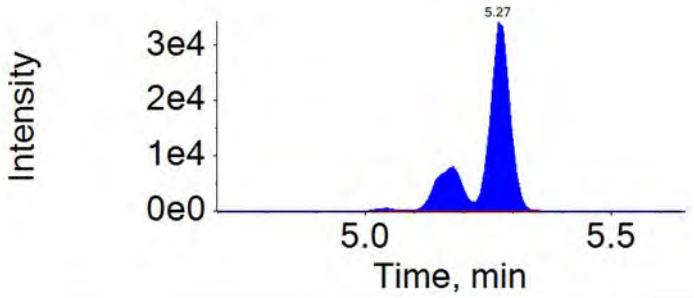
Component: PFOA
Primary Mass: 413.0 / 369.0



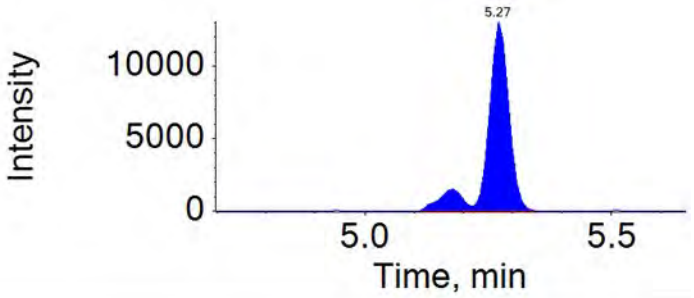
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



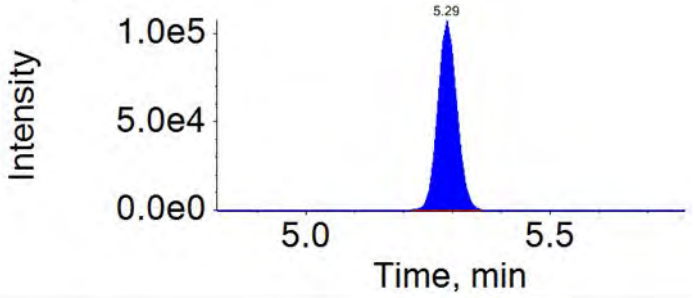
Component: PFOS
Primary Mass: 499.0 / 80.0



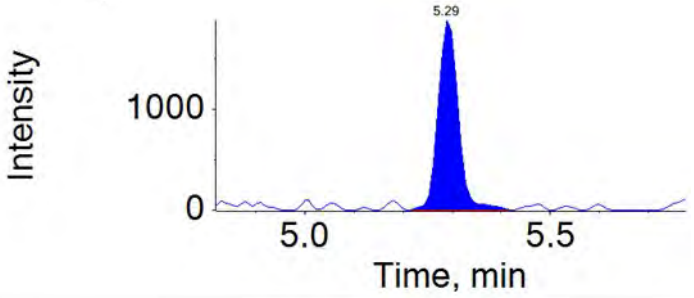
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



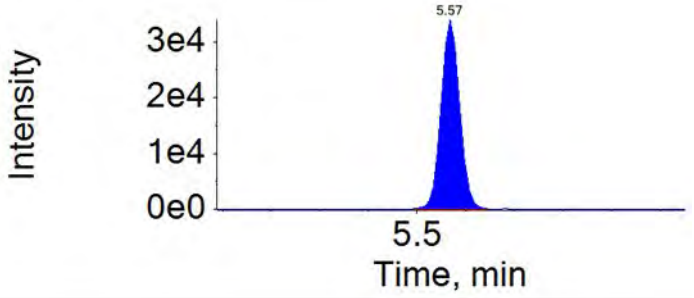
Component: PFNA
Primary Mass: 463.0 / 419.0



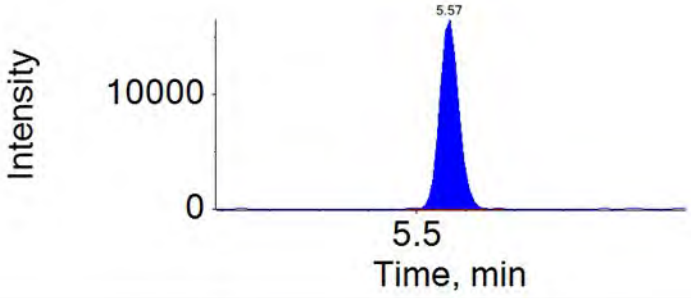
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



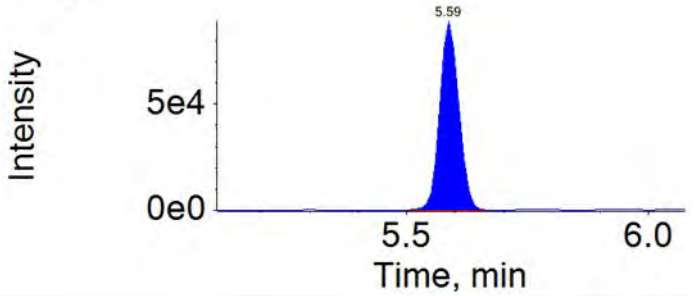
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



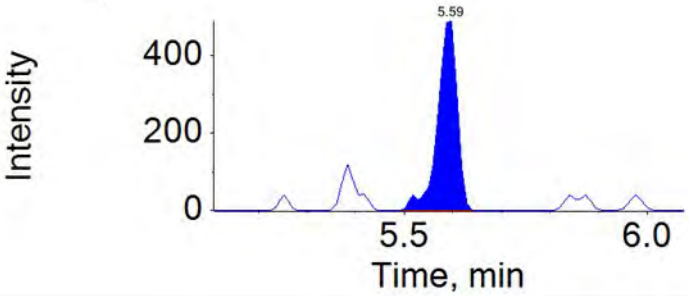
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

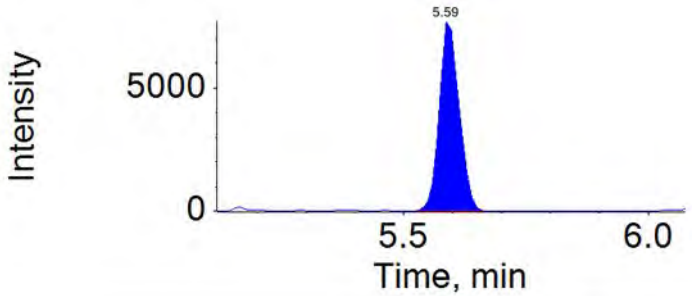
Component: PFDA
Primary Mass: 513.0 / 469.0



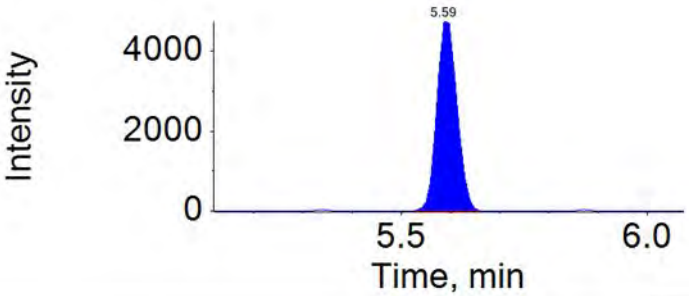
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



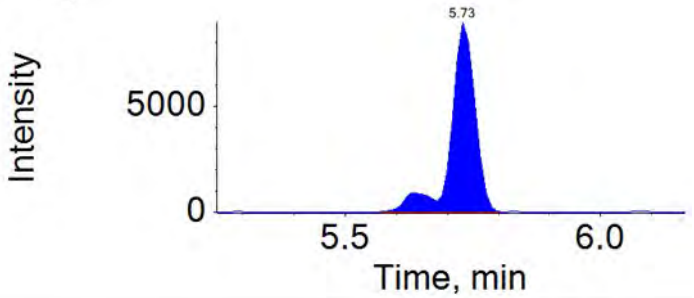
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



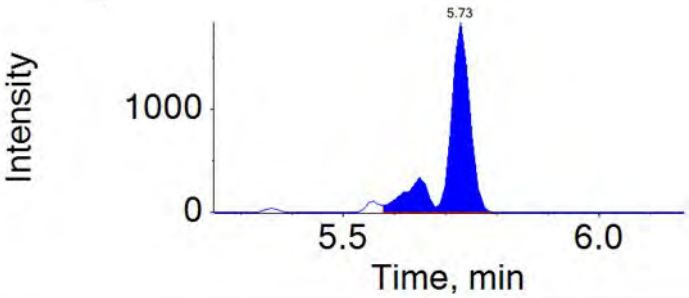
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



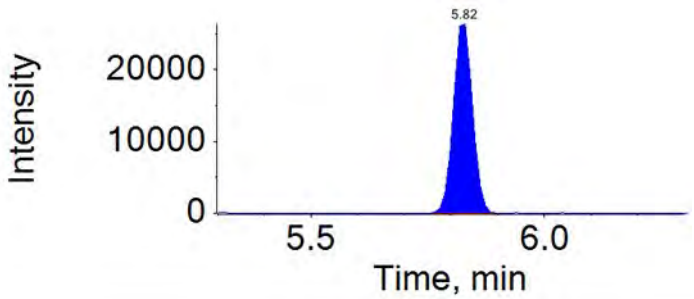
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



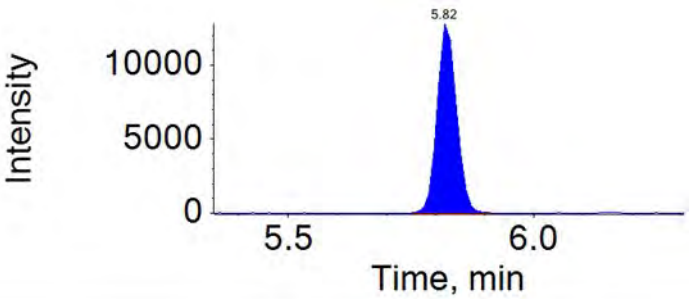
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



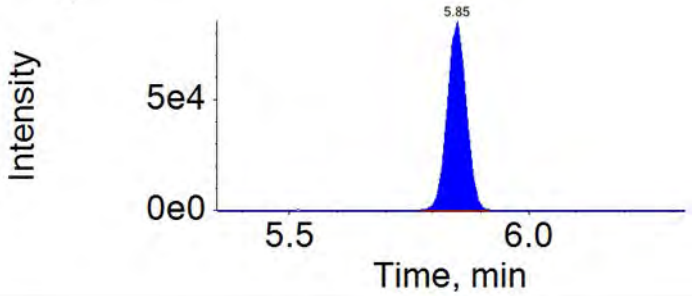
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



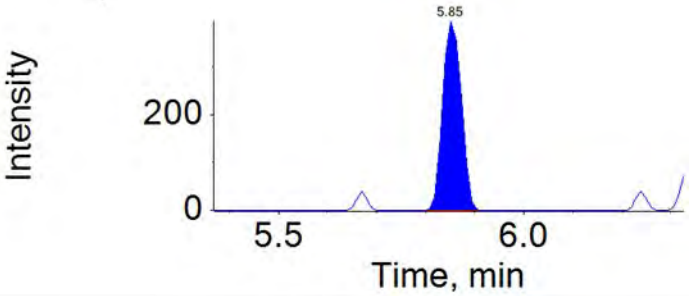
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

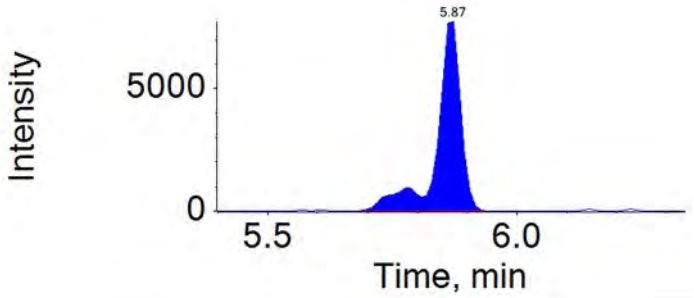
Component: PFUnDA
Primary Mass: 563.0 / 519.0



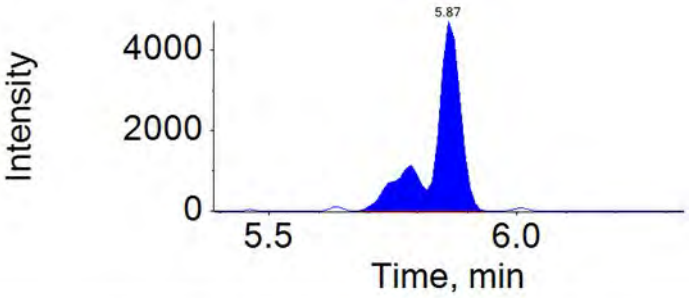
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



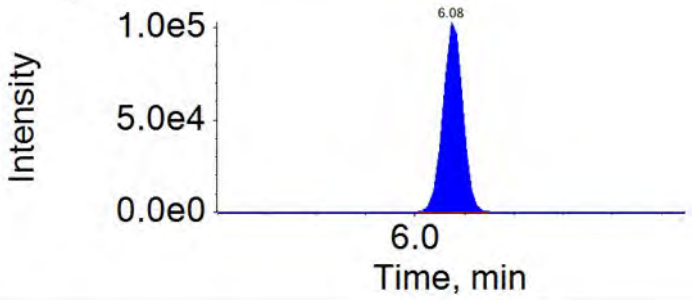
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



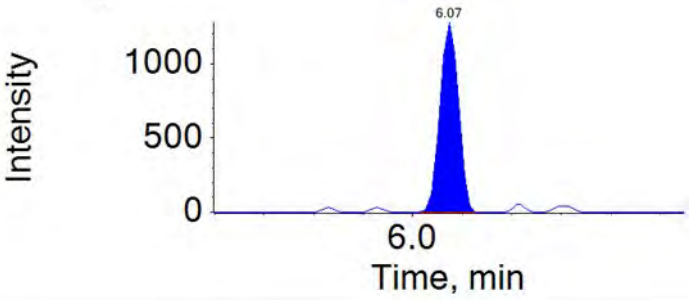
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



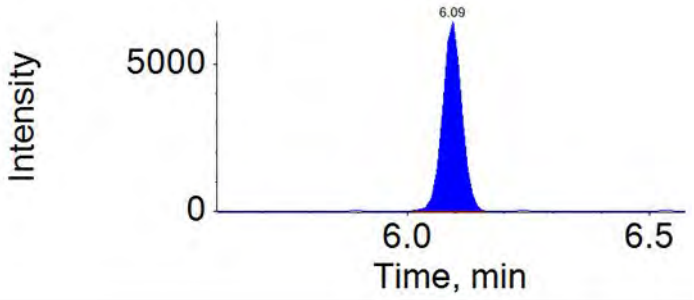
Component: PFDoDA
Primary Mass: 613.0 / 569.0



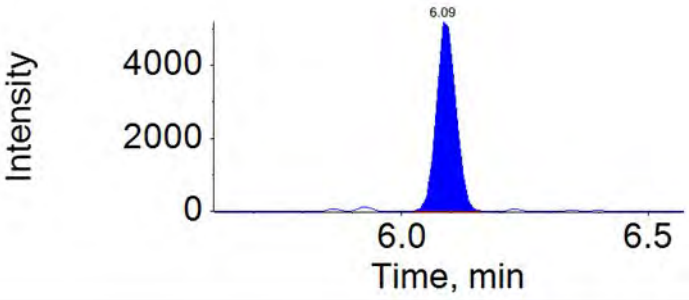
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



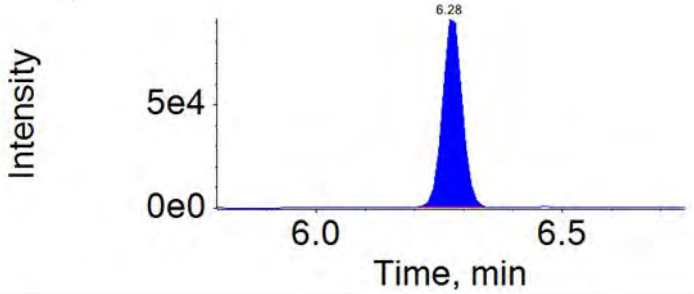
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



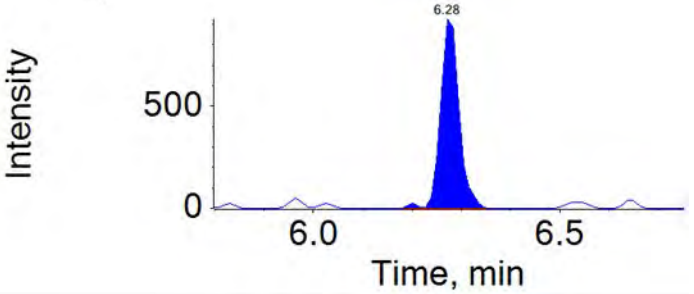
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



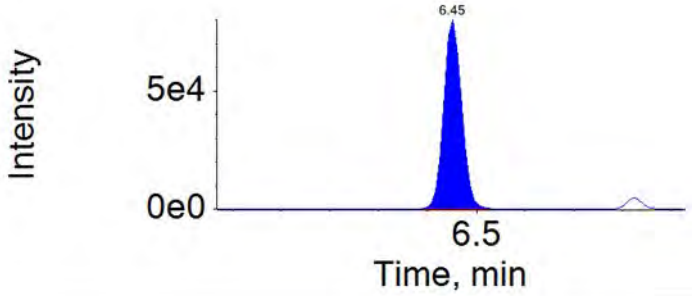
Component: PFTrDA
Primary Mass: 663.0 / 619.0



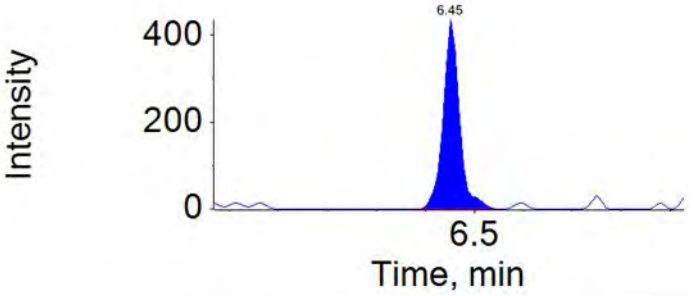
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



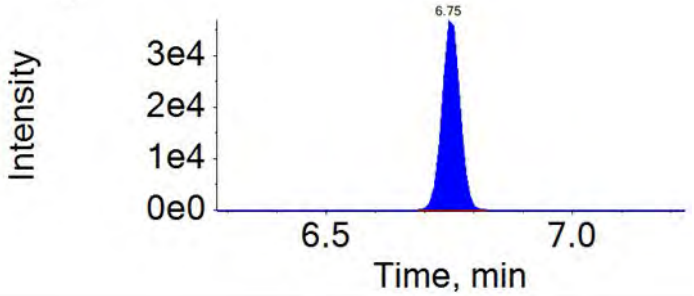
Component: PFTeDA
Primary Mass: 713.0 / 669.0



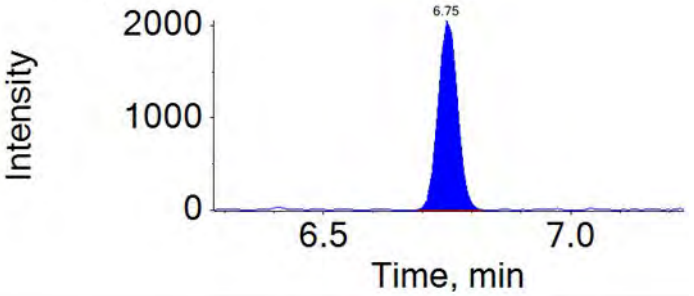
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



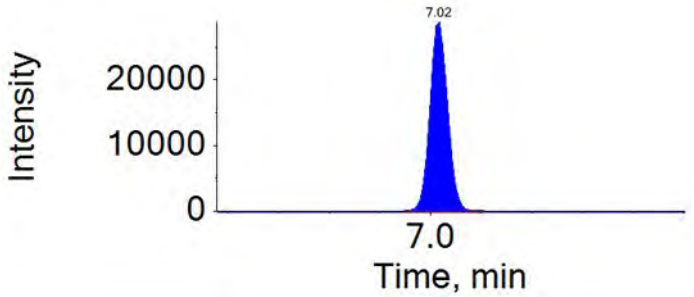
Component: PFHxDA
Primary Mass: 813.0 / 769.0



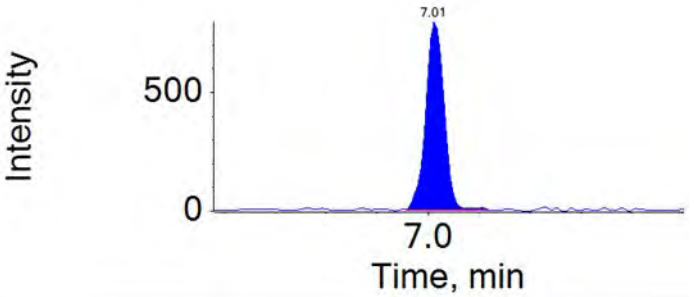
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



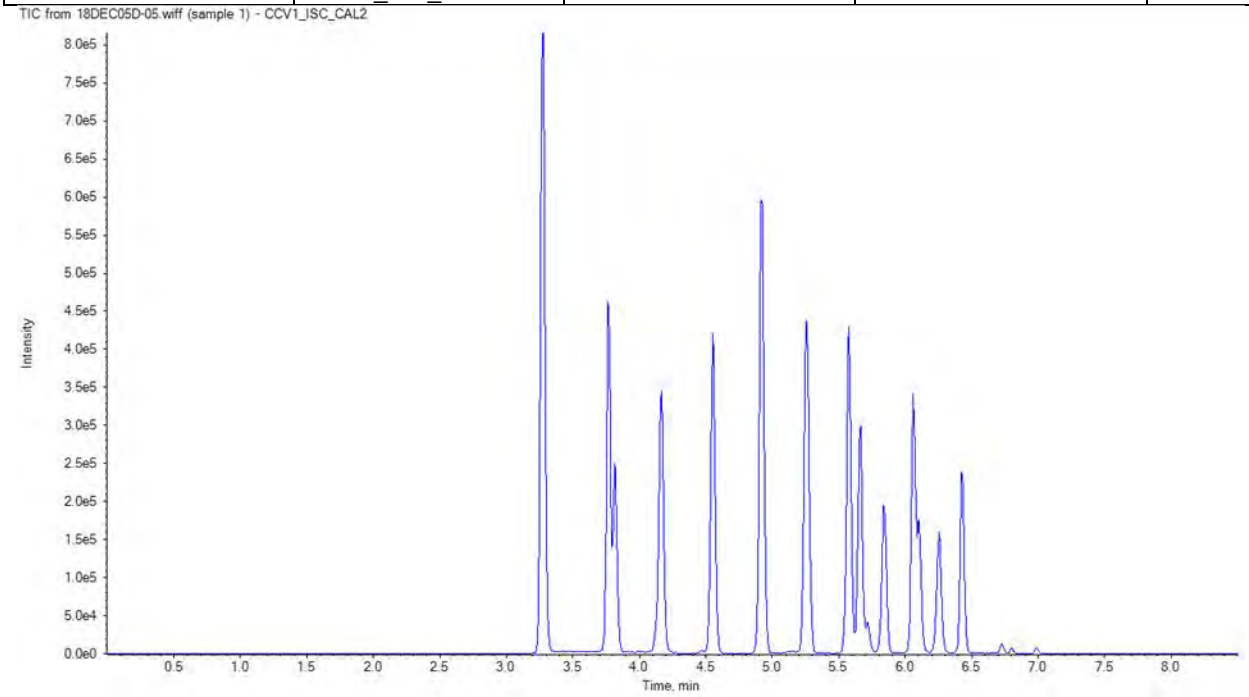
APPROVED
By MSM at 10:22 am, 12/4/18

REVIEWED
By umar at 4:03 pm, 12/4/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18DEC05D-05.wiff	2018-12-05T12:08:23



Injection Standard Area Reference File: 18DEC04D-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	850136.0	823022.8	3	50	
13C2-PFOA	5.0	429843.2	406424.4	6	50	
13C4-PFOS	4.8	272032.6	269624.0	1	50	
13C2-PFDA	5.0	291183.9	295143.4	-1	50	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18DEC05D-05.wiff	2018-12-05T12:08:23

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	102973.3	10	13C4-PFBA	952452.0	5.0	0.108	3.27	1.000	0.600	0.612	2	30	
PFPeA	91631.4	11	13C5-PFPeA	856668.4	5.0	0.107	3.77	1.000	0.600	0.536	-11	30	
PFBS	42800.0	10	13C3-PFBS	429255.1	4.7	0.100	3.82	1.000	0.531	0.486	-8	30	
4:2-FTS	9636.7	11	13C2-4:2-FTS	53339.9	4.7	0.181	4.13	1.000	0.560	0.456	-19	30	
PFHxA	92044.7	11	13C5-PFHxA	678520.0	5.0	0.136	4.16	1.000	0.600	0.578	-4	30	
PFPeS	24110.8	11	13C3-PFBS	429255.1	4.7	0.056	4.19	1.100	0.563	0.539	-4	30	
PFHpA	86926.2	12	13C4-PFHpA	486641.4	5.0	0.179	4.55	1.000	0.600	0.576	-4	30	
PFHxS	32049.8	19	13C3-PFHxS	339759.1	4.7	0.094	4.55	1.000	0.547	0.444	-19	30	
6:2-FTS	8388.2	12	13C2-6:2-FTS	35819.4	4.8	0.234	4.91	1.000	0.569	0.568	0	30	
PFHpS	32179.8	11	13C3-PFHxS	339759.1	4.7	0.095	4.91	1.080	0.571	0.493	-14	30	
PFOA	84046.2	11	13C8-PFOA	806618.1	5.0	0.104	4.92	1.000	0.600	0.552	-8	30	
PFOS	34390.3	22	13C8-PFOS	304813.1	4.8	0.113	5.25	1.000	0.555	0.478	-14	30	
PFNA	69404.2	11	13C9-PFNA	504220.6	5.0	0.138	5.27	1.000	0.600	0.516	-14	30	
PFNS	22724.1	11	13C8-PFOS	304813.1	4.8	0.075	5.55	1.060	0.576	0.503	-13	30	
PFDA	56209.8	11	13C6-PFDA	569010.7	5.0	0.099	5.58	1.000	0.600	0.542	-10	30	
8:2-FTS	5956.1	12	13C2-8:2-FTS	23102.7	4.8	0.258	5.58	1.000	0.575	0.554	-4	30	
PFOSA	67755.8	11	13C8-PFOSA	640247.0	5.0	0.106	5.66	1.000	0.600	0.554	-8	30	
NMeFOSAA	7839.3	16	d3-NMeFOSAA	78385.9	5.0	0.100	5.72	1.000	0.600	0.662	10	30	
PFDS	19096.3	11	13C8-PFOS	304813.1	4.8	0.063	5.81	1.110	0.578	0.536	-7	30	
PFUnDA	55187.0	11	13C7-PFUnDA	329906.0	5.0	0.167	5.84	1.000	0.600	0.509	-15	30	
NEtFOSAA	6664.1	20	d5-NEtFOSAA	59716.4	5.0	0.112	5.86	1.000	0.600	0.564	-6	30	
PFDoDA	72073.2	12	13C2-PFDoDA	660940.7	5.0	0.109	6.06	1.000	0.600	0.622	4	30	
10:2-FTS	4459.3	11	13C2-8:2-FTS	23102.7	4.8	0.193	6.08	1.090	0.578	0.481	-17	30	
NMePFOSAE	29872.5	11	d7-NMePFOSAE	244996.7	5.0	0.122	6.11	1.000	0.600	0.516	-14	30	
NMePFOSA	10467.5	11	d3-NMePFOSA	77041.8	5.0	0.136	6.12	1.000	0.600	0.716	19	30	
PFDoS	10578.0	11	13C8-PFOS	304813.1	4.8	0.035	6.22	1.190	0.581	0.544	-6	30	
NEtPFOSAE	34684.6	11	d9-NEtPFOSAE	207181.5	5.0	0.167	6.26	1.000	0.600	0.577	-4	30	
NEtPFOSA	6983.2	11	d5-NEtPFOSA	63609.9	5.0	0.110	6.27	1.000	0.600	0.511	-15	30	
PFTrDA	61984.2	11	13C2-PFDoDA	660940.7	5.0	0.094	6.25	1.030	0.600	0.552	-8	30	
PFTeDA	46972.8	10	13C2-PFTeDA	466971.6	5.0	0.101	6.43	1.000	0.600	0.595	-1	30	
PFHxDA	22495.4	11	13C2-PFTeDA	466971.6	5.0	0.048	6.73	1.050	0.600	0.618	3	30	
PFODA	16613.7	10	13C2-PFTeDA	466971.6	5.0	0.036	6.99	1.090	0.600	0.565	-6	30	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_ISC_CAL2			**Data File:**		18DEC05D-05.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-12-05T12:08:23
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC05DCCV1-8
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
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: 18DEC04D-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	850136.0	823022.8	3	50	
13C2-PFOA	5.0	429843.2	406424.4	6	50	
13C4-PFOS	4.8	272032.6	269624.0	1	50	
13C2-PFDA	5.0	291183.9	295143.4	-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	952452.0	13C3-PFBA	850136.0	1.120	5.000	4.972	99	70-130	
E13C5-PFPeA	856668.4	13C3-PFBA	850136.0	1.008	5.000	4.862	97	70-130	
E13C3-PFBS	429255.1	13C3-PFBA	850136.0	0.505	4.650	3.935	85	70-130	
E13C2-4:2-FTS	53339.9	13C2-PFOA	429843.2	0.124	4.670	5.105	109	70-130	
E13C5-PFHxA	678520.0	13C2-PFOA	429843.2	1.579	5.000	5.346	107	70-130	
E13C3-PFHxS	339759.1	13C2-PFOA	429843.2	0.790	4.730	4.997	106	70-130	
E13C4-PFHpA	486641.4	13C2-PFOA	429843.2	1.132	5.000	4.940	99	70-130	
E13C2-6:2-FTS	35819.4	13C2-PFOA	429843.2	0.083	4.750	5.523	116	70-130	
E13C8-PFOA	806618.1	13C2-PFOA	429843.2	1.877	5.000	5.216	104	70-130	
E13C8-PFOS	304813.1	13C4-PFOS	272032.6	1.121	4.780	4.977	104	70-130	
E13C9-PFNA	504220.6	13C4-PFOS	272032.6	1.854	5.000	5.425	109	70-130	
E13C6-PFDA	569010.7	13C2-PFDA	291183.9	1.954	5.000	5.083	102	70-130	
E13C2-8:2-FTS	23102.7	13C2-PFDA	291183.9	0.079	4.790	5.101	107	70-130	
E13C8-PFOSA	640247.0	13C2-PFDA	291183.9	2.199	5.000	4.922	98	70-130	
Ed3-NMeFOSAA	78385.9	13C2-PFDA	291183.9	0.269	5.000	4.703	94	70-130	
E13C7-PFUnDA	329906.0	13C2-PFDA	291183.9	1.133	5.000	5.643	113	70-130	
Ed5-NEtFOSAA	59716.4	13C2-PFDA	291183.9	0.205	5.000	4.678	94	70-130	
E13C2-PFDoDA	660940.7	13C2-PFDA	291183.9	2.270	5.000	4.860	97	70-130	
Ed7-NMePFOSAE	244996.7	13C2-PFDA	291183.9	0.841	5.000	4.562	91	70-130	
Ed3-NMePFOSA	77041.8	13C2-PFDA	291183.9	0.265	5.000	4.906	98	70-130	
Ed9-NEtPFOSAE	207181.5	13C2-PFDA	291183.9	0.712	5.000	4.589	92	70-130	
Ed5-NEtPFOSA	63609.9	13C2-PFDA	291183.9	0.218	5.000	5.154	103	70-130	
E13C2-PFTeDA	466971.6	13C2-PFDA	291183.9	1.604	5.000	4.521	90	70-130	

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ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

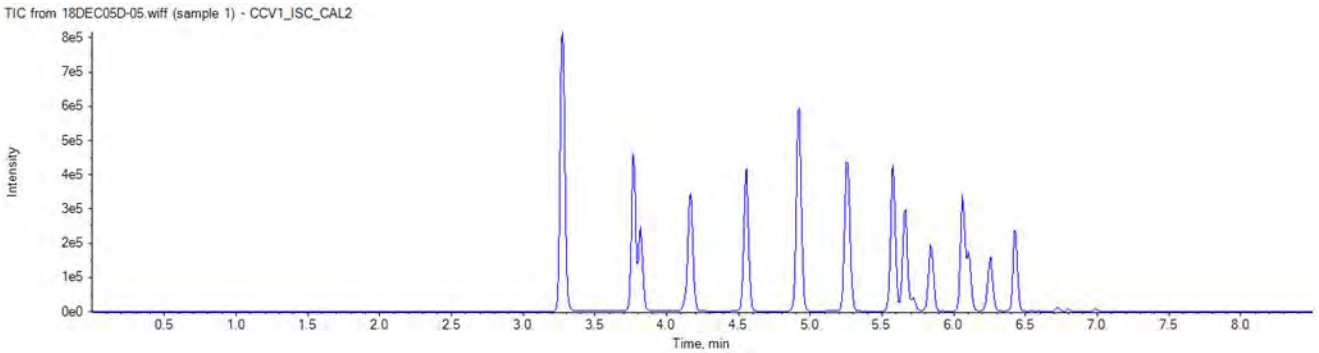
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC05D-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	3.27	1.000	102973.3		A	13C4-PFBA	3.27	952452.0	0.108	0.612
PFPeA	3.77	1.000	91631.4		A	13C5-PFPeA	3.77	856668.4	0.107	0.536
PFBS	3.82	1.000	42800.0		A	13C3-PFBS	3.82	429255.1	0.100	0.486
4:2-FTS	4.13	1.000	9636.7		A	13C2-4:2-FTS	4.13	53339.9	0.181	0.456
PFHxA	4.16	1.000	92044.7		A	13C5-PFHxA	4.16	678520.0	0.136	0.578
PFPeS	4.19	1.100	24110.8		A	13C3-PFBS	3.82	429255.1	0.056	0.539
PFHpA	4.55	1.000	86926.2		A	13C4-PFHpA	4.55	486641.4	0.179	0.576
PFHxS	4.55	1.000	32049.8		M	13C3-PFHxS	4.55	339759.1	0.094	0.444
6:2-FTS	4.91	1.000	8388.2		A	13C2-6:2-FTS	4.91	35819.4	0.234	0.568
PFHpS	4.91	1.080	32179.8		A	13C3-PFHxS	4.55	339759.1	0.095	0.493
PFOA	4.92	1.000	84046.2		A	13C8-PFOA	4.92	806618.1	0.104	0.552
PFOS	5.25	1.000	34390.3		M	13C8-PFOS	5.25	304813.1	0.113	0.478
PFNA	5.27	1.000	69404.2		A	13C9-PFNA	5.27	504220.6	0.138	0.516
PFNS	5.55	1.060	22724.1		A	13C8-PFOS	5.25	304813.1	0.075	0.503
PFDA	5.58	1.000	56209.8		A	13C6-PFDA	5.58	569010.7	0.099	0.542
8:2-FTS	5.58	1.000	5956.1		A	13C2-8:2-FTS	5.58	23102.7	0.258	0.554
PFOSA	5.66	1.000	67755.8		A	13C8-PFOSA	5.66	640247.0	0.106	0.554
NMeFOSAA	5.72	1.000	7839.3		M	d3-NMeFOSAA	5.72	78385.9	0.100	0.662
PFDS	5.81	1.110	19096.3		A	13C8-PFOS	5.25	304813.1	0.063	0.536
PFUnDA	5.84	1.000	55187.0		A	13C7-PFUnDA	5.84	329906.0	0.167	0.509
NEtFOSAA	5.86	1.000	6664.1		M	d5-NEtFOSAA	5.85	59716.4	0.112	0.564
PFDoDA	6.06	1.000	72073.2		A	13C2-PFDoDA	6.06	660940.7	0.109	0.622
10:2-FTS	6.08	1.090	4459.3		A	13C2-8:2-FTS	5.58	23102.7	0.193	0.481
NMePFOSAE	6.11	1.000	29872.5		A	d7-NMePFOSAE	6.10	244996.7	0.122	0.516
NMePFOSA	6.12	1.000	10467.5		A	d3-NMePFOSA	6.11	77041.8	0.136	0.716
PFDoS	6.22	1.190	10578.0		A	13C8-PFOS	5.25	304813.1	0.035	0.544
NEtPFOSAE	6.26	1.000	34684.6		A	d9-NEtPFOSAE	6.25	207181.5	0.167	0.577
NEtPFOSA	6.27	1.000	6983.2		A	d5-NEtPFOSA	6.27	63609.9	0.110	0.511
PFTrDA	6.25	1.030	61984.2		A	13C2-PFDoDA	6.06	660940.7	0.094	0.552
PFTeDA	6.43	1.000	46972.8		A	13C2-PFTeDA	6.43	466971.6	0.101	0.595
PFHxDA	6.73	1.050	22495.4		A	13C2-PFTeDA	6.43	466971.6	0.048	0.618
PFODA	6.99	1.090	16613.7		A	13C2-PFTeDA	6.43	466971.6	0.036	0.565

Total Ion Chromatogram

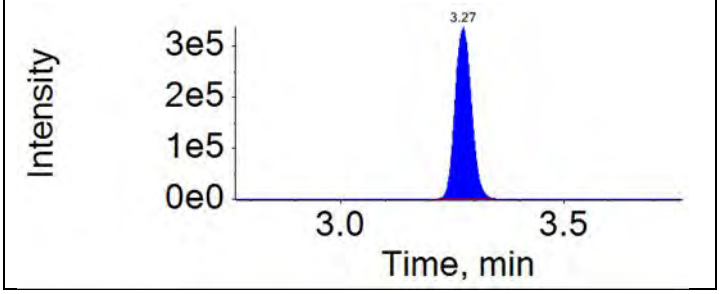


APPROVED
By JPT at 9:26 am, 12/10/18

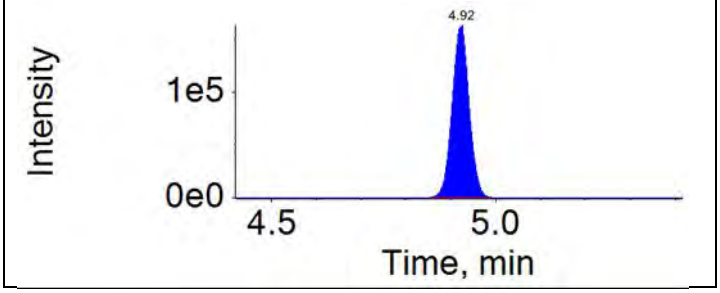
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

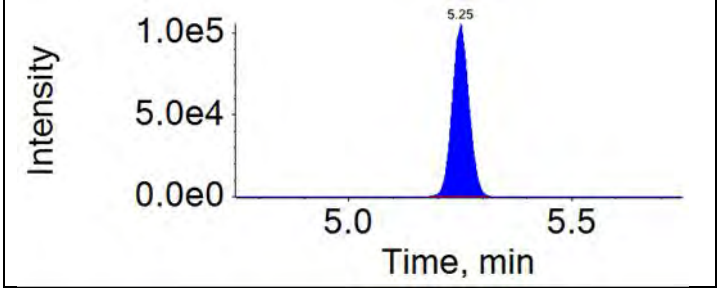
Injection Standard: 13C3-PFBA
216.0 / 172.0



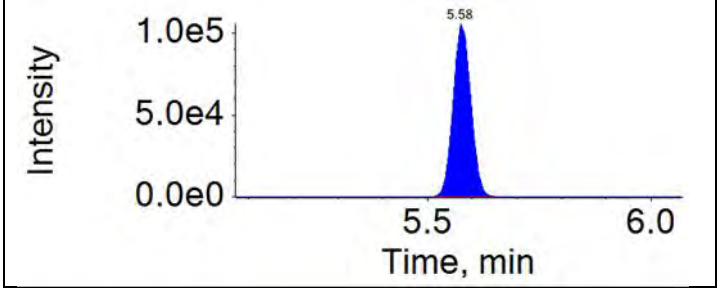
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0



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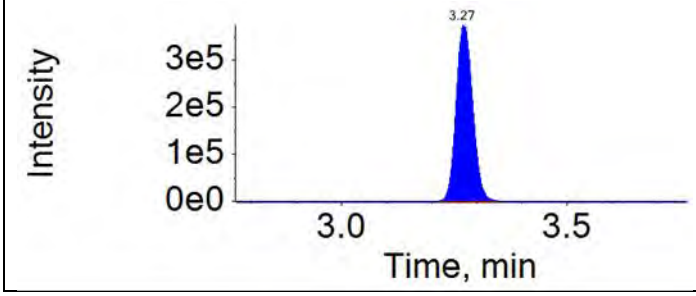
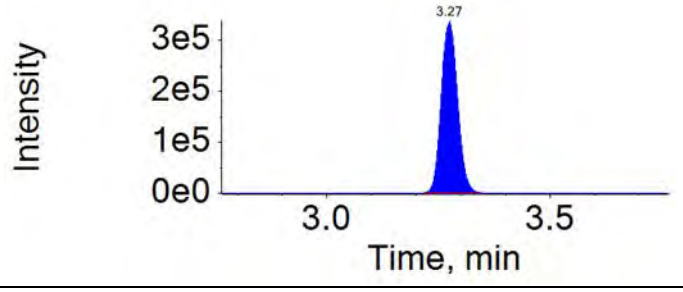
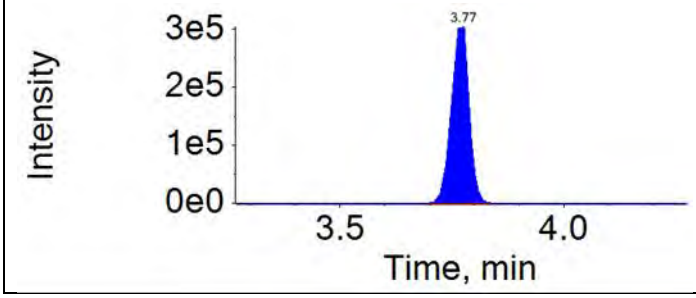
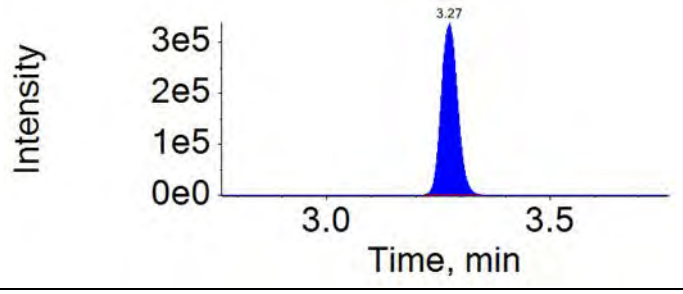
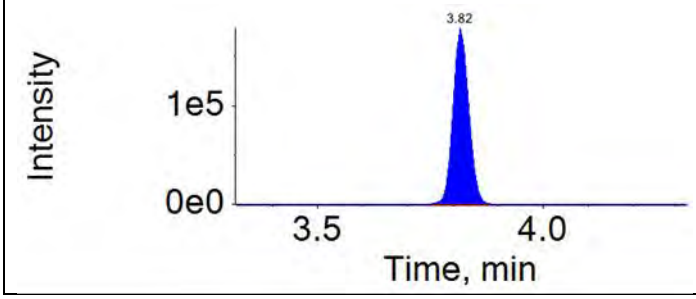
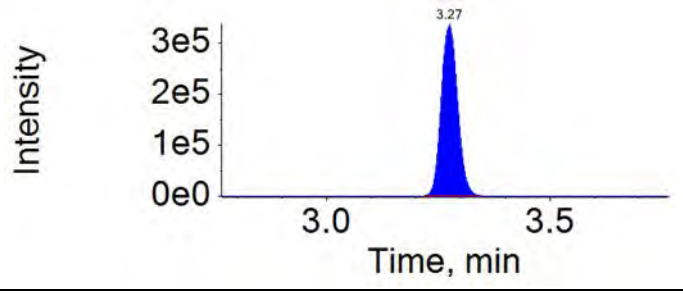
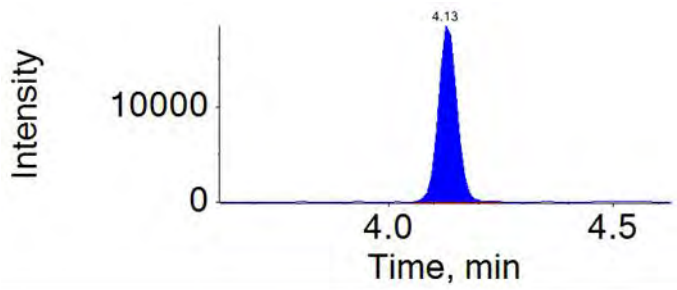
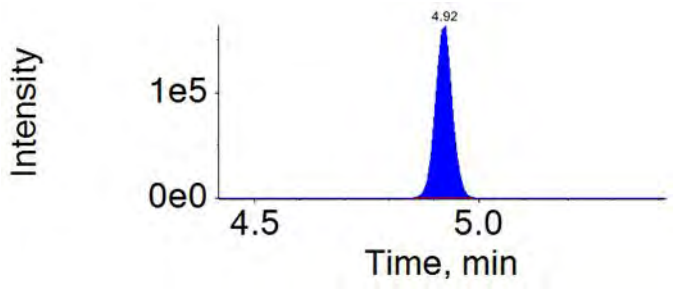
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

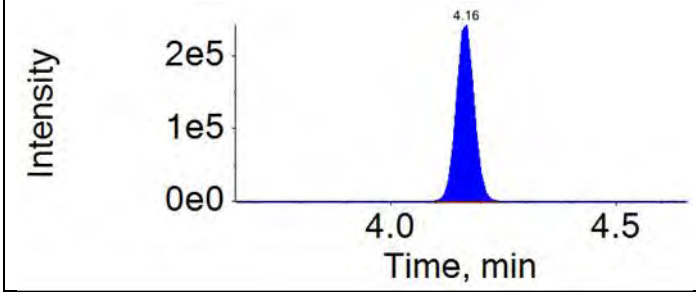
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

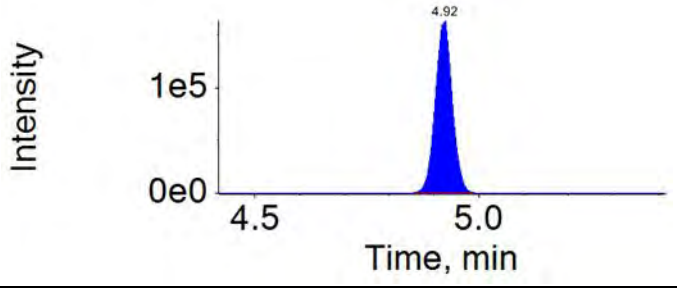
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

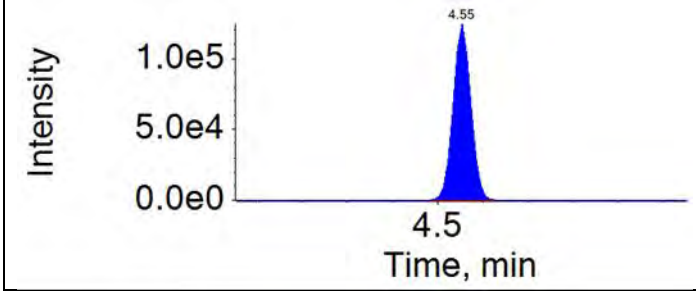
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

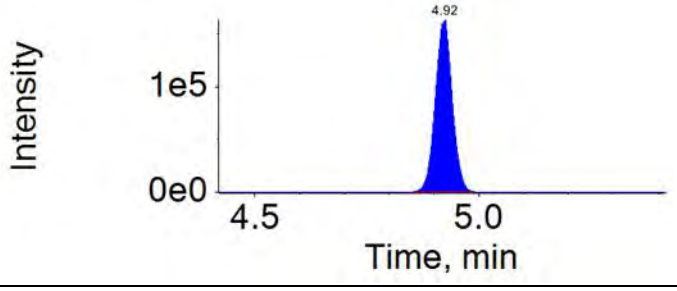
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



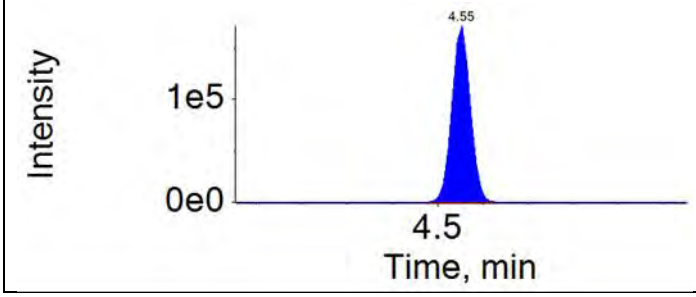


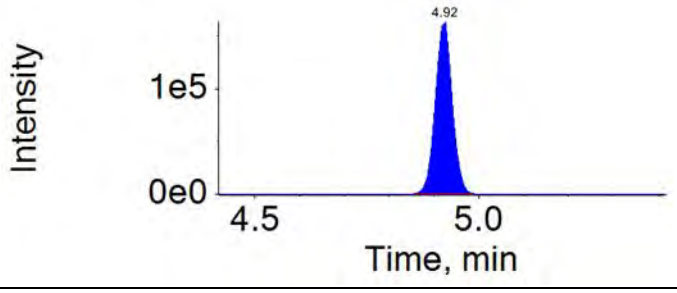
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



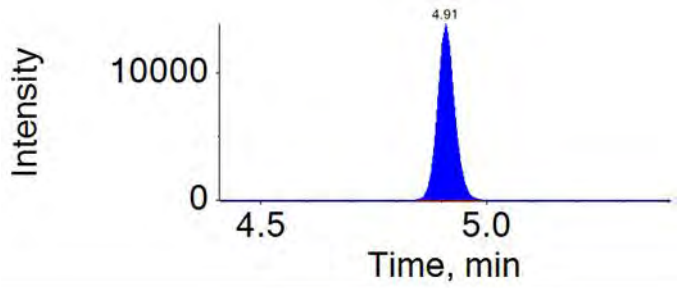


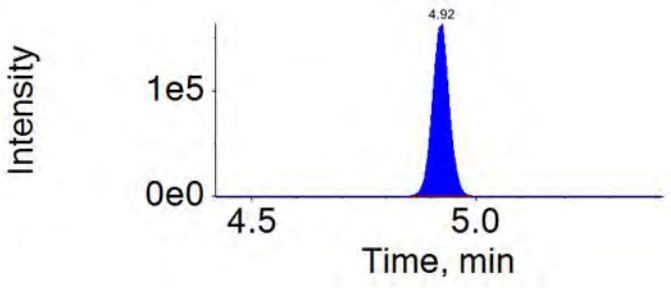
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0





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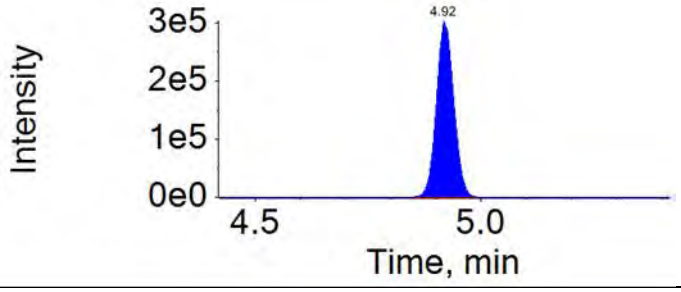
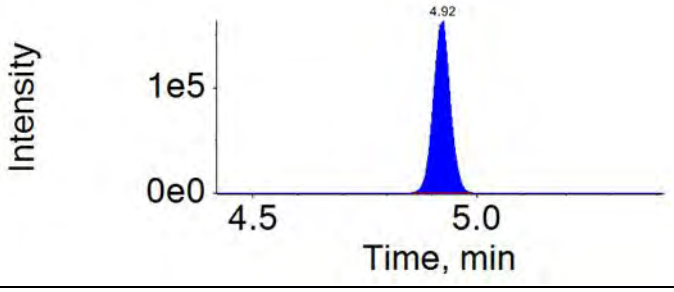
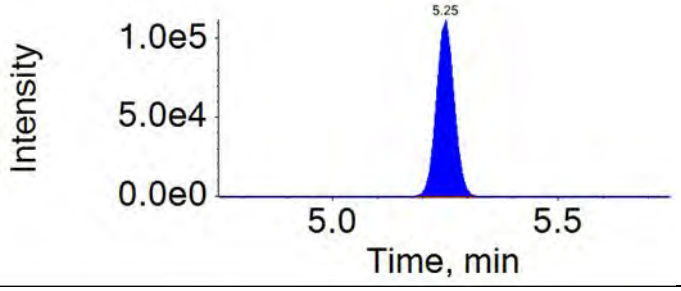
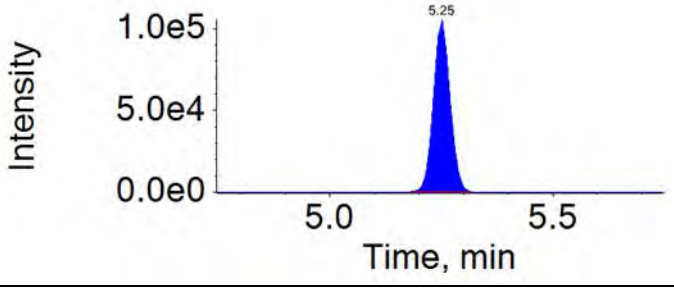
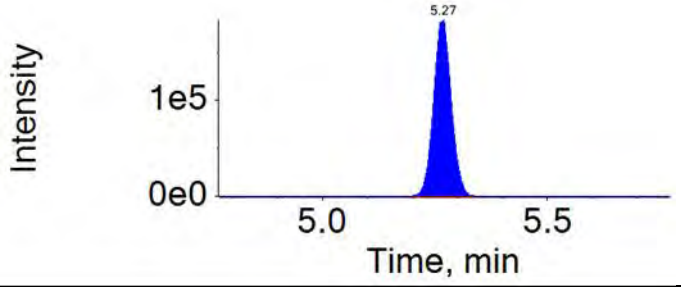
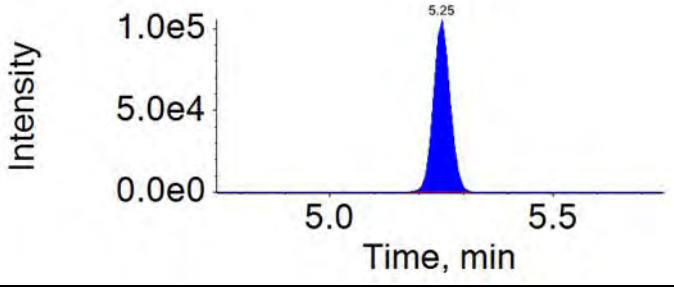
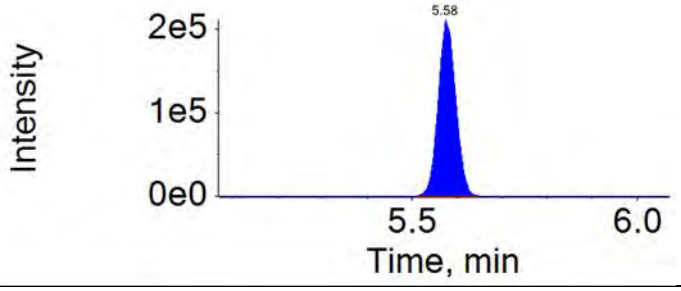
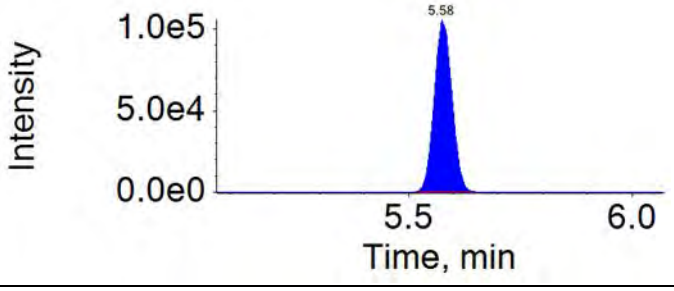
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

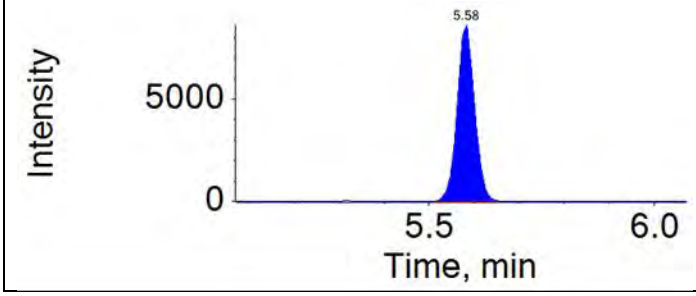
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

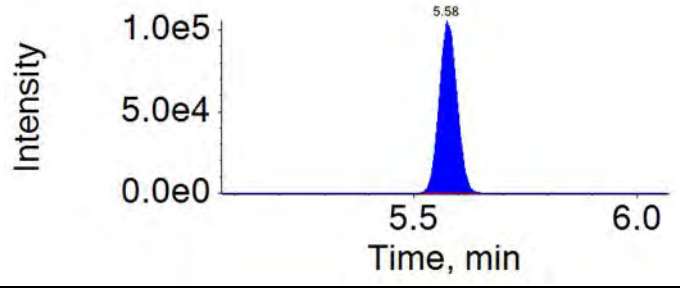
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

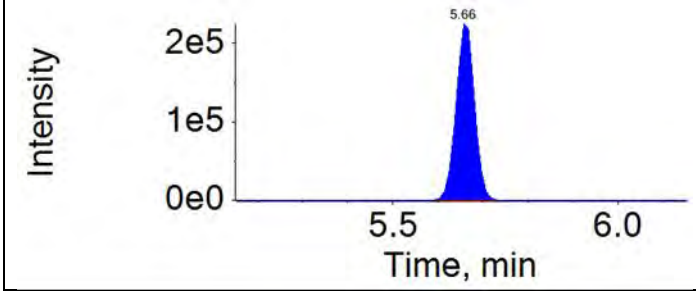
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

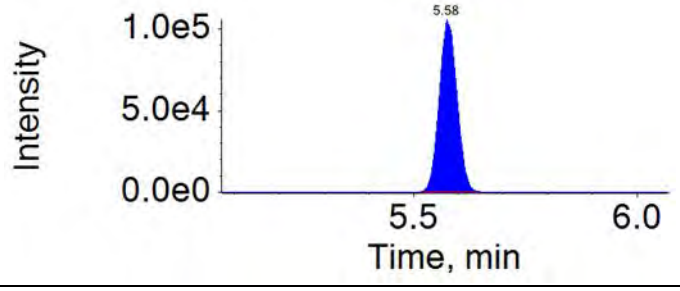
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



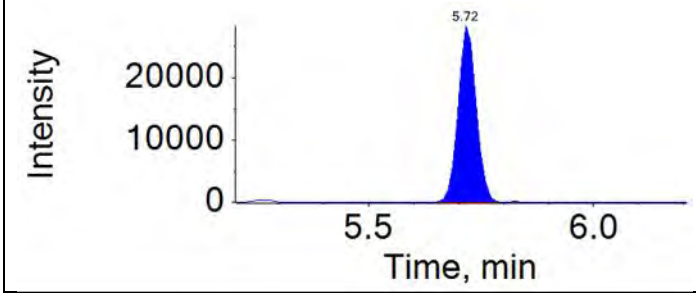


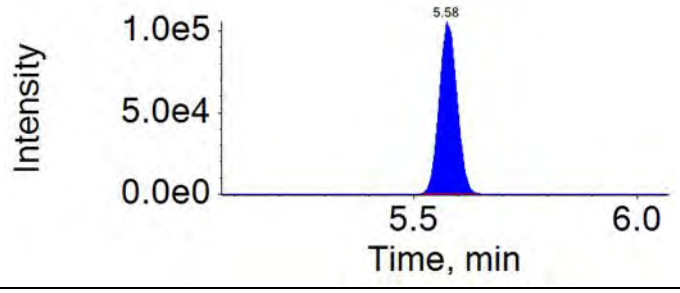
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



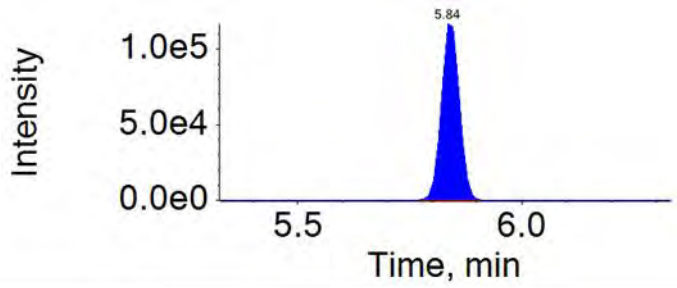


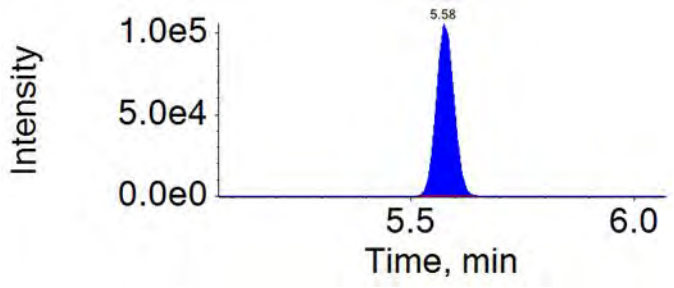
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



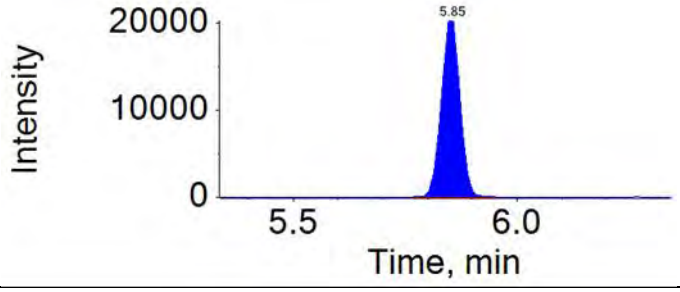


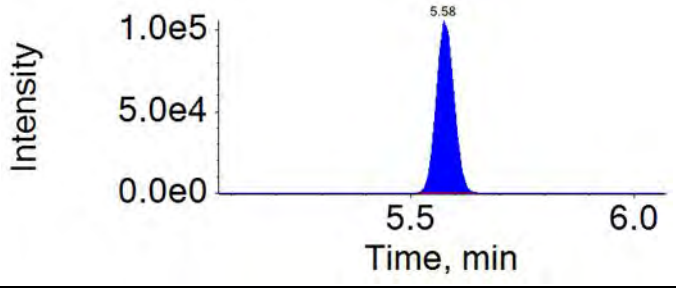
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

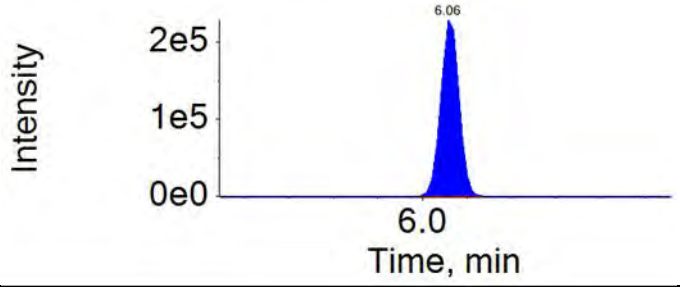
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

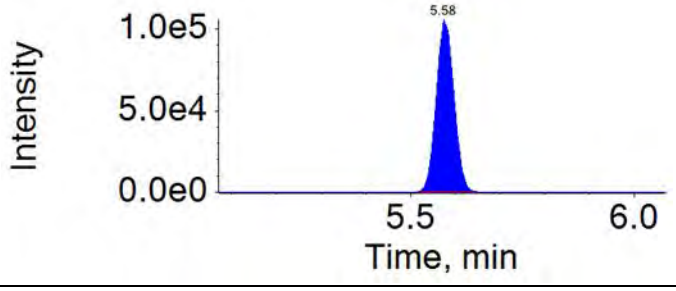
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



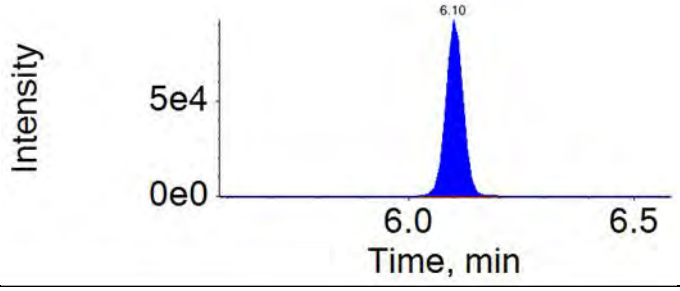


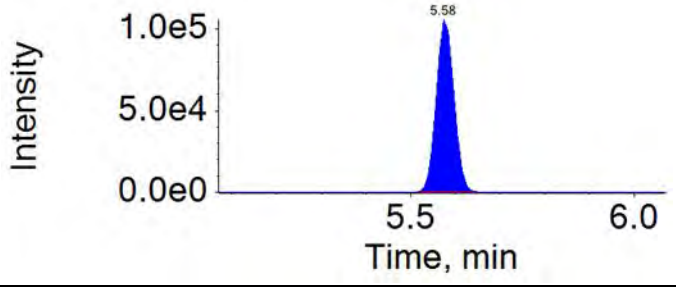
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



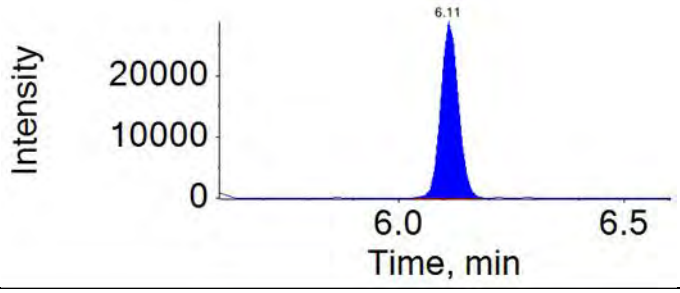


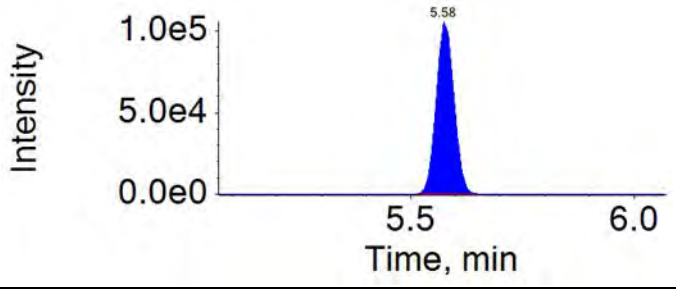
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



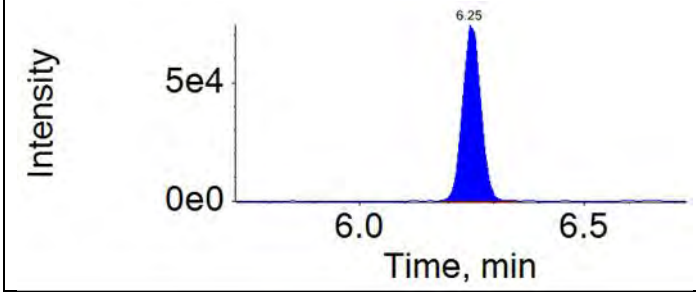


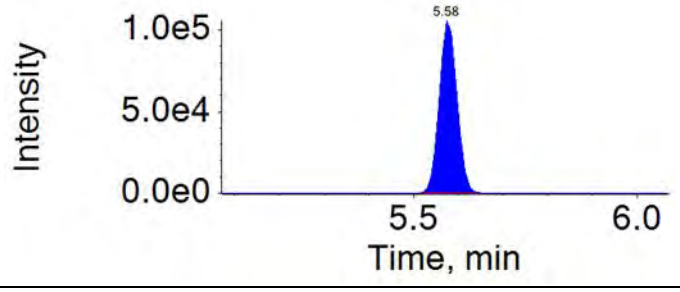
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

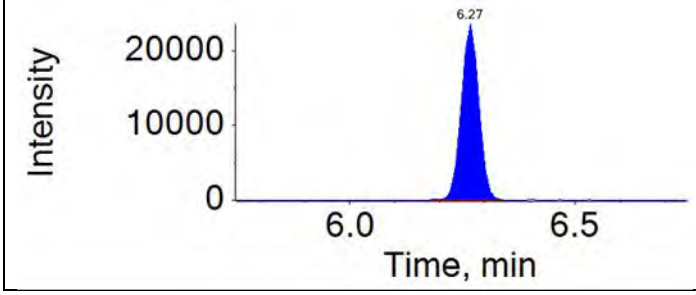
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

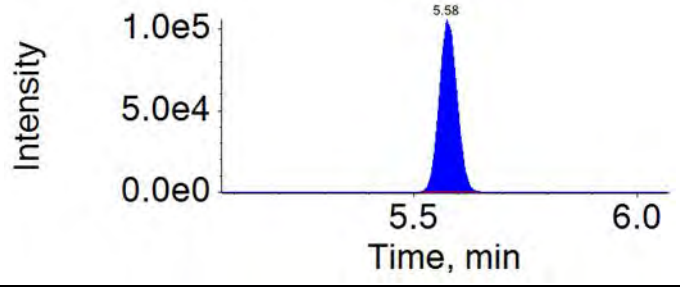
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



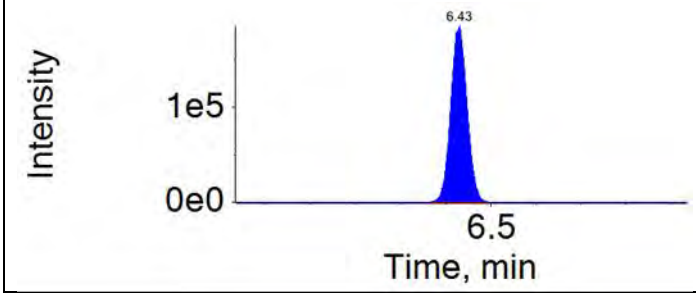


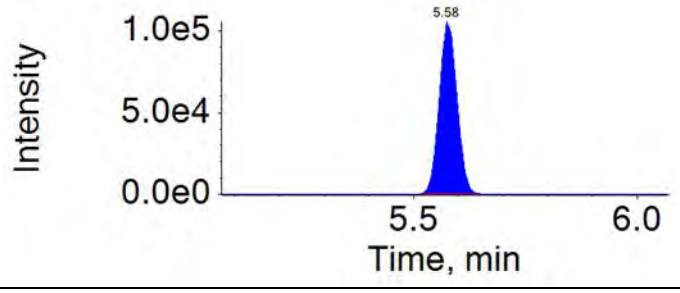
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

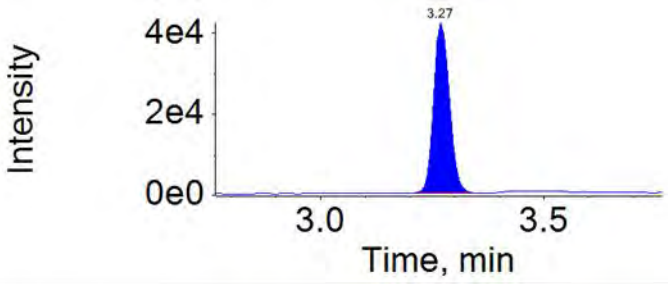
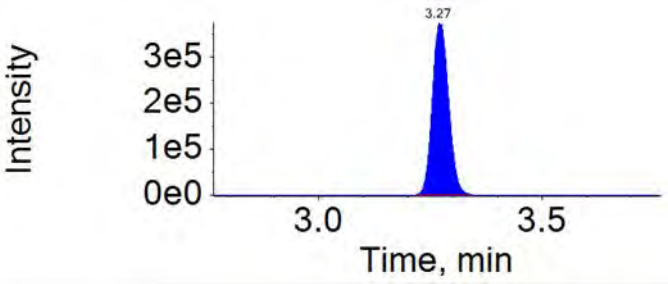


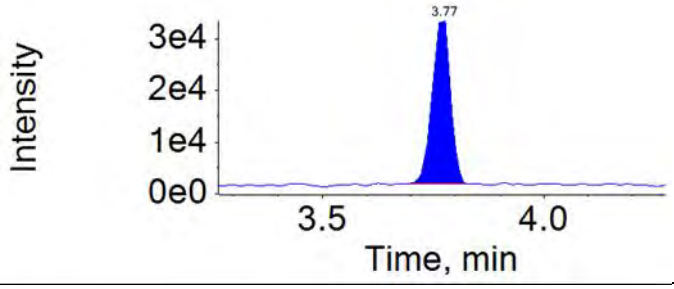
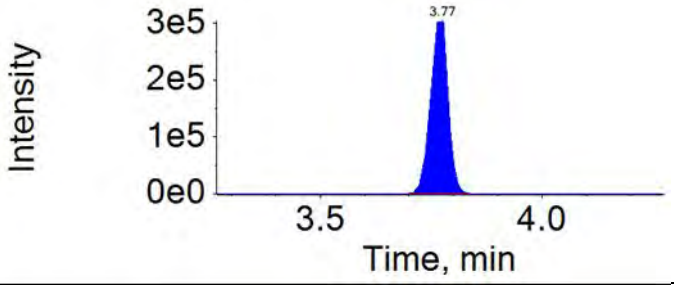


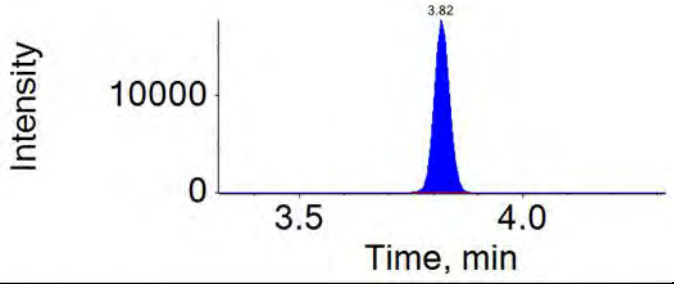
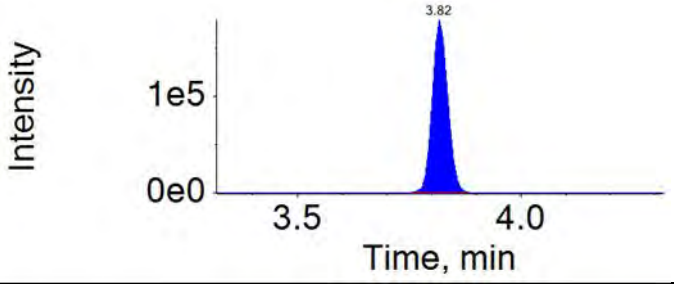
APPROVED
By JPT at 9:26 am, 12/10/18

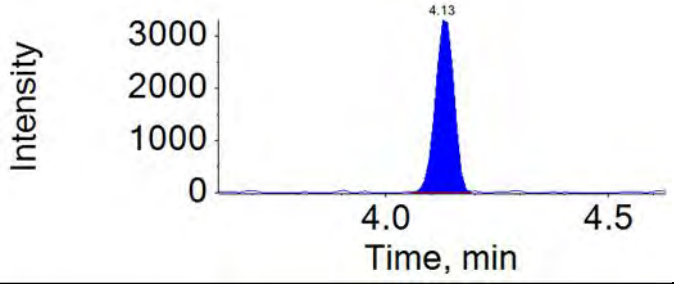
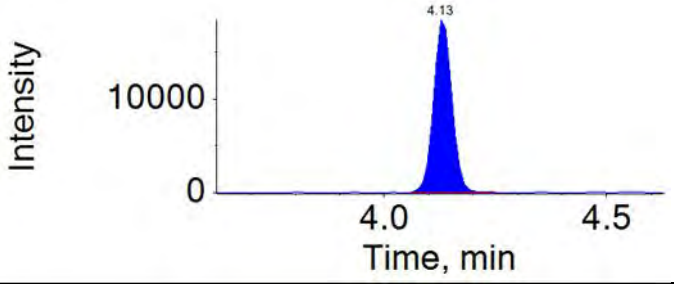
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

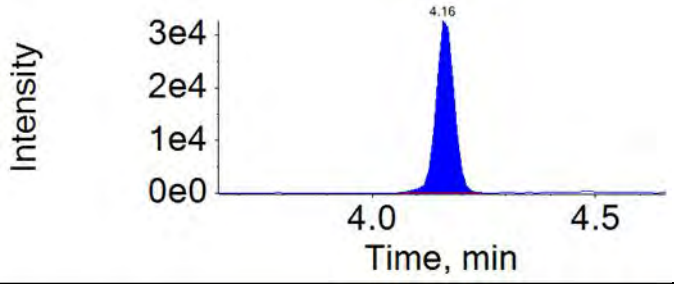
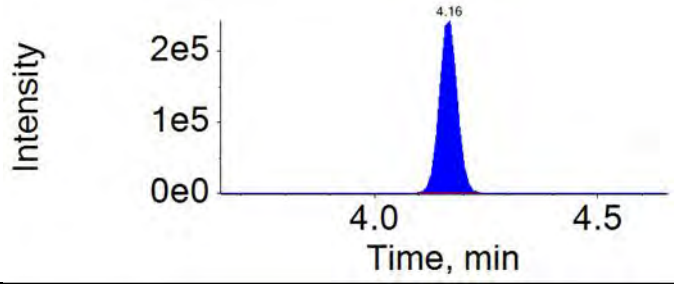
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

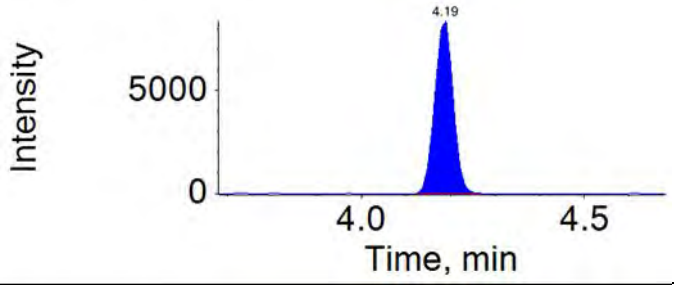
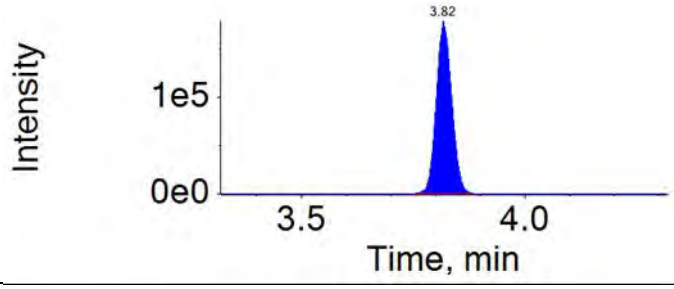
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

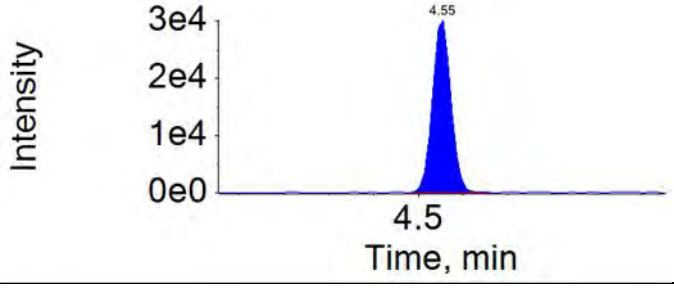
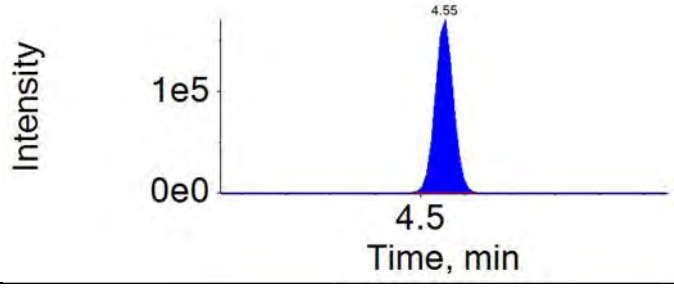
APPROVED
By JPT at 9:26 am, 12/10/18

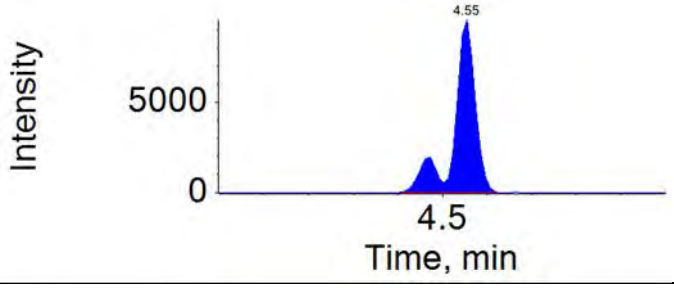
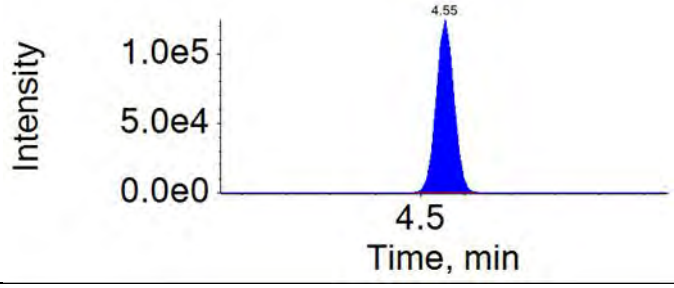
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

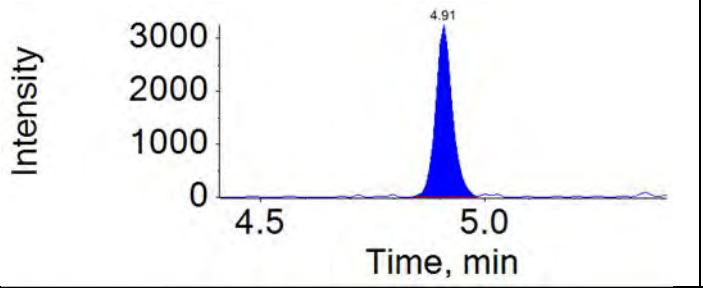
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

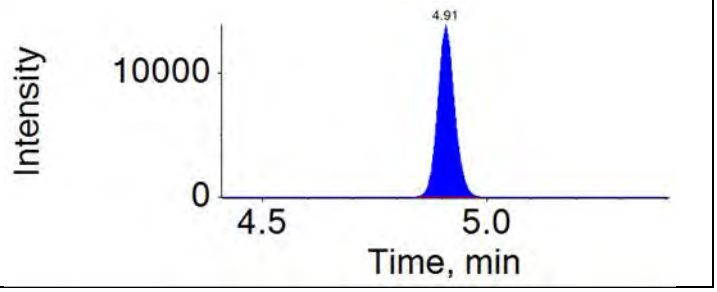
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

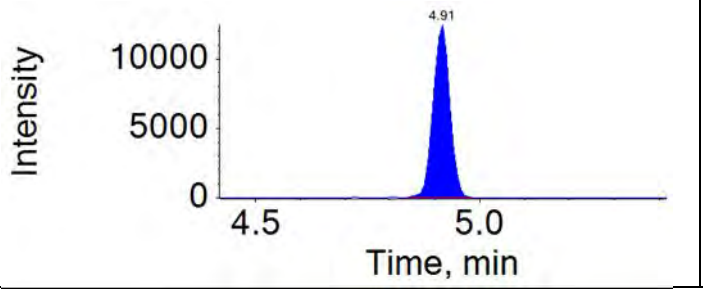
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

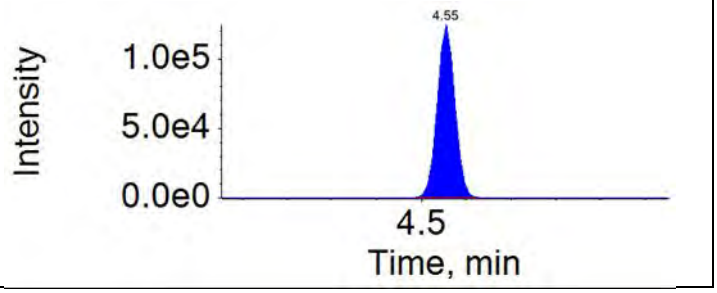
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



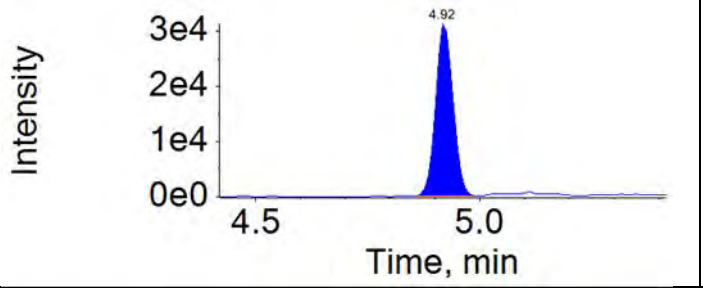


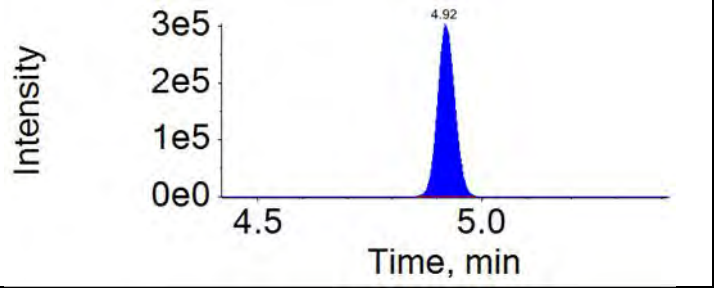
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



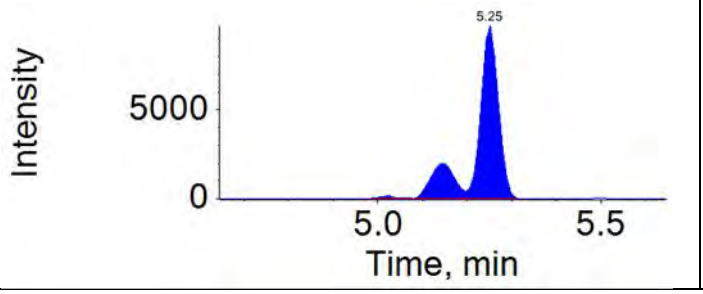


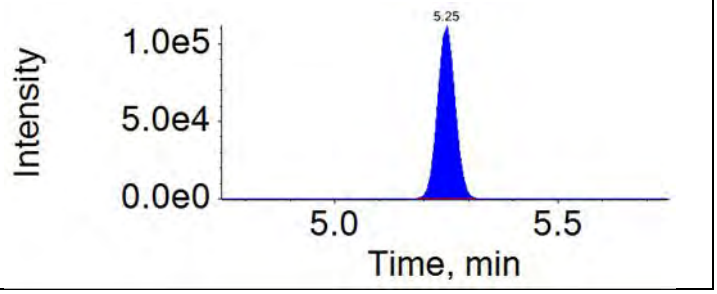
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



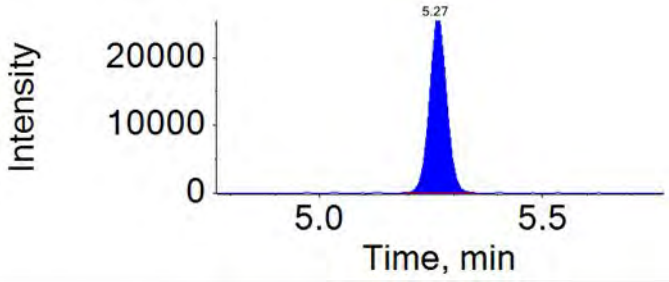


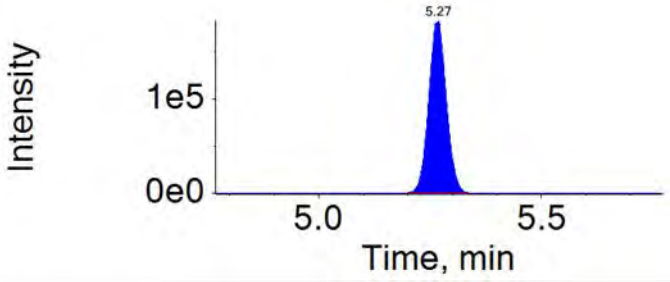
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

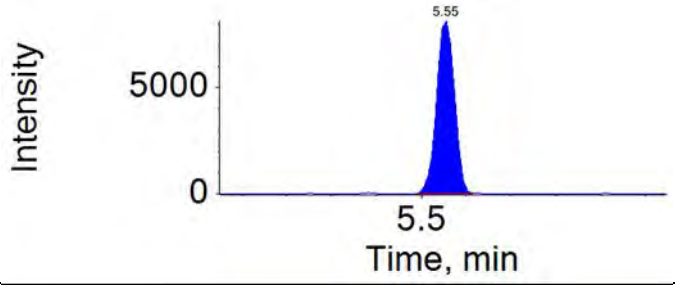
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

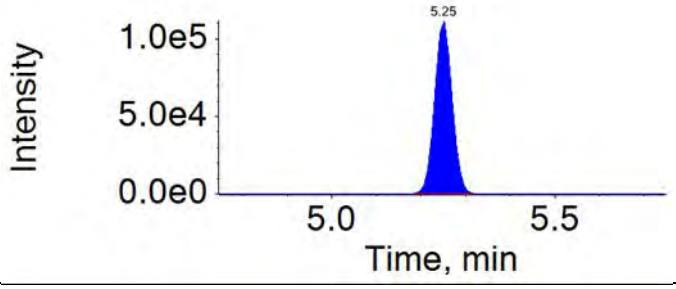
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



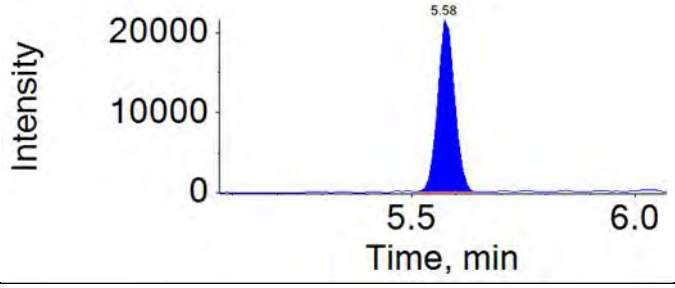


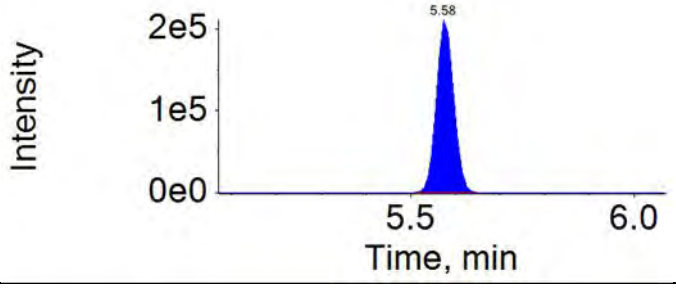
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



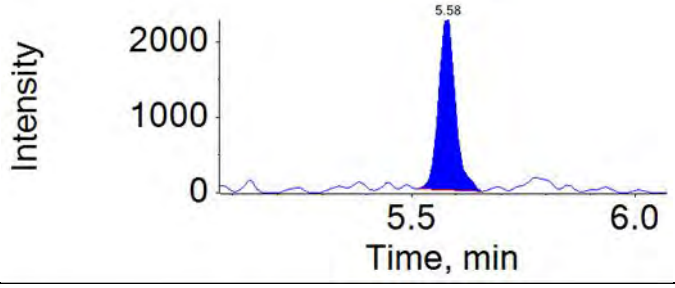


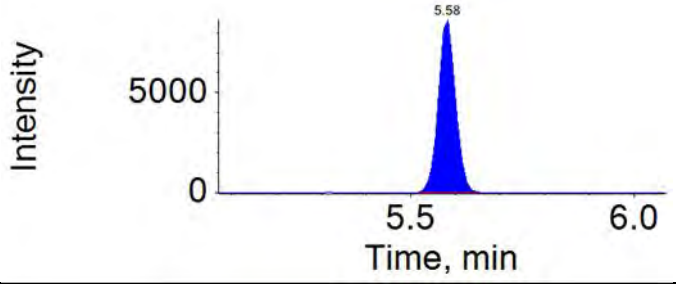
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

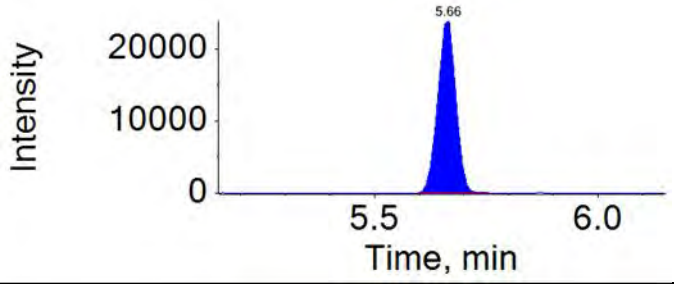
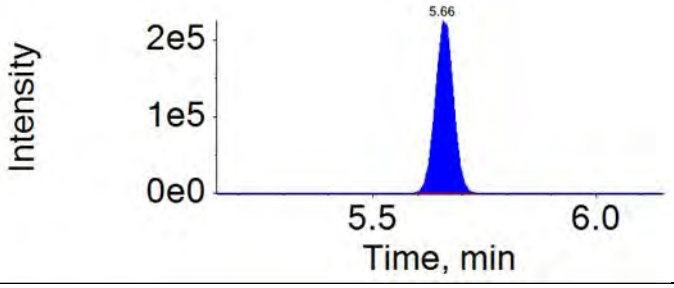


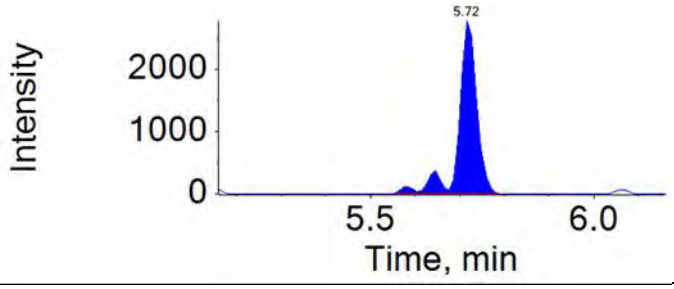
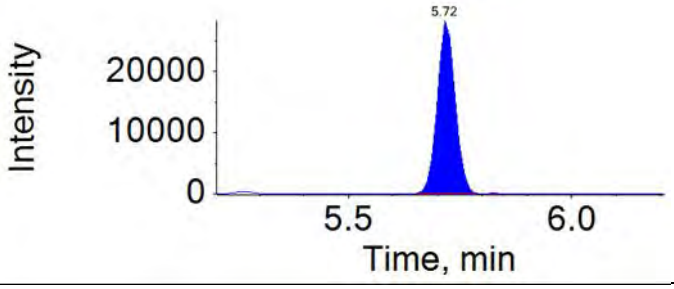


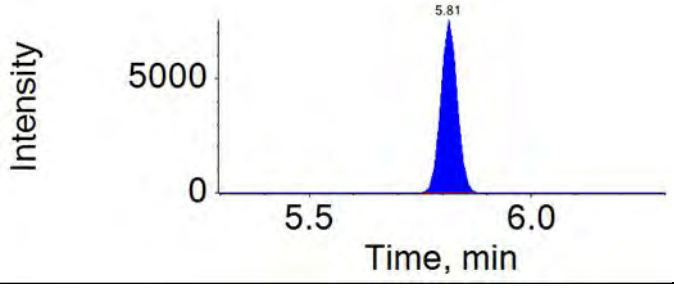
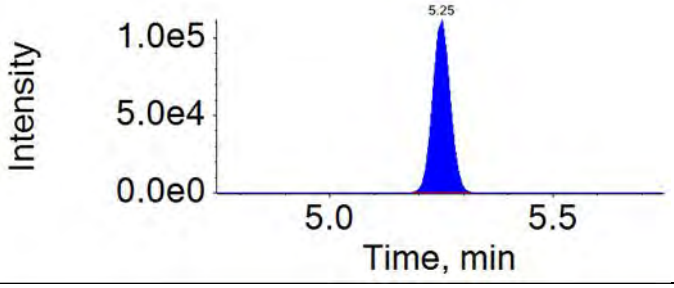
APPROVED
By JPT at 9:26 am, 12/10/18

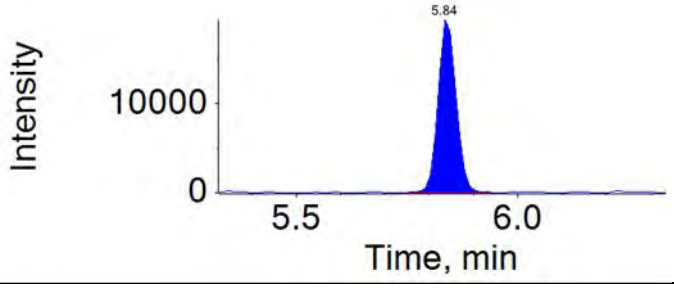
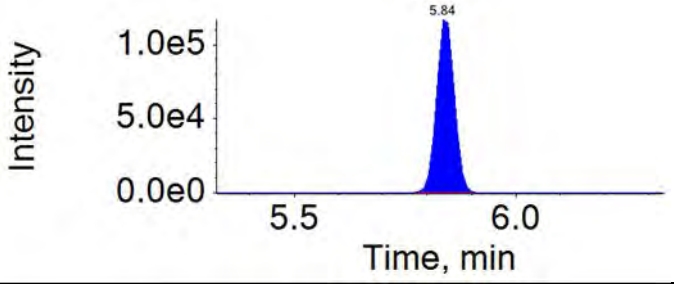
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

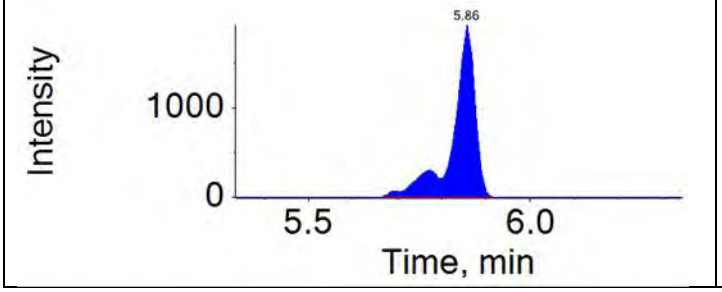
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

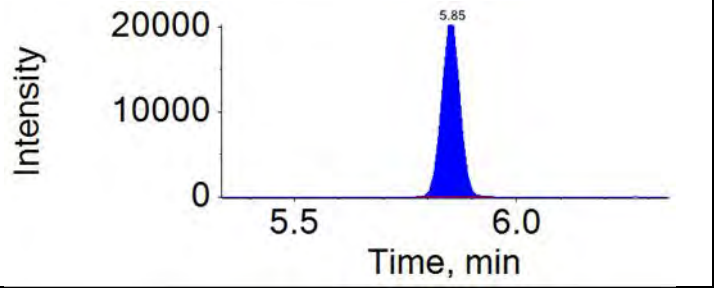
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

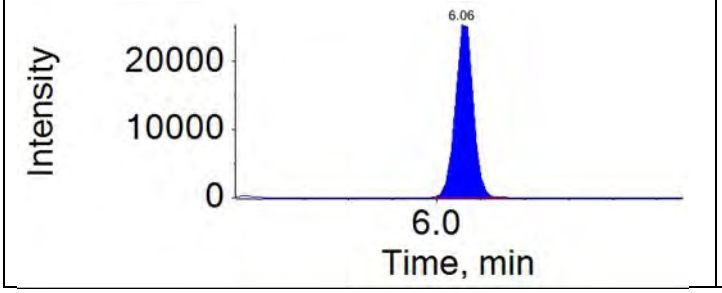
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

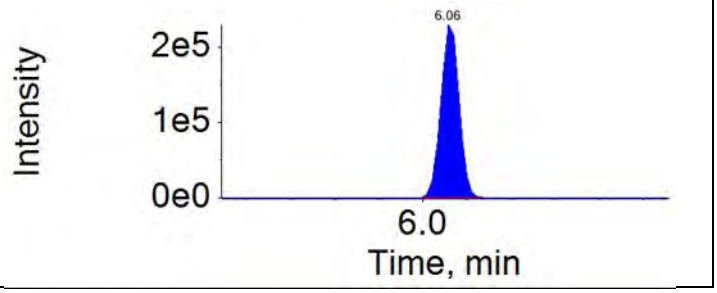
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



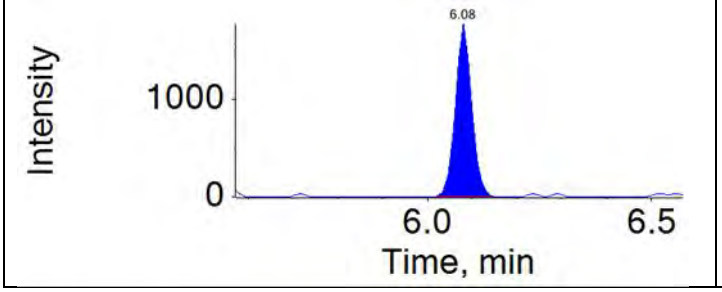


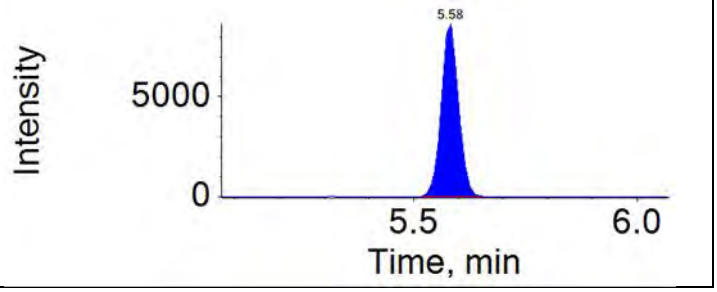
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



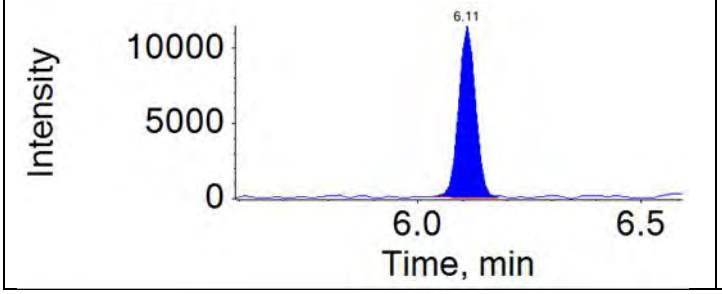


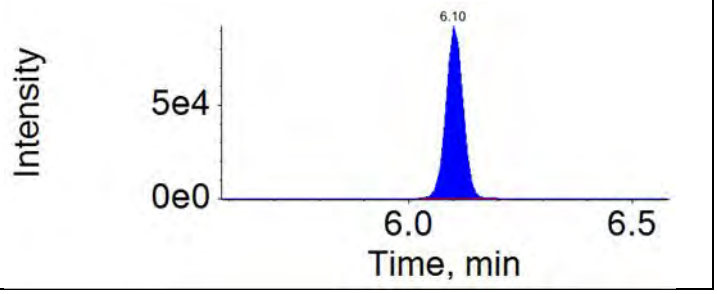
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



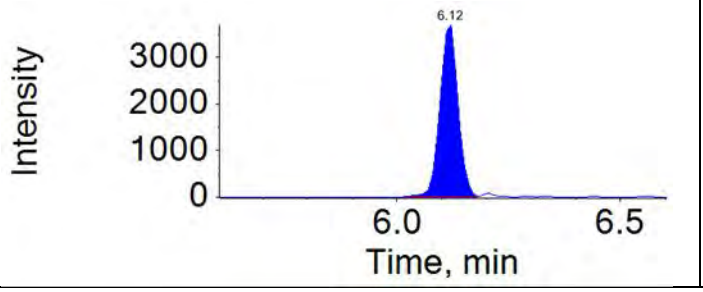


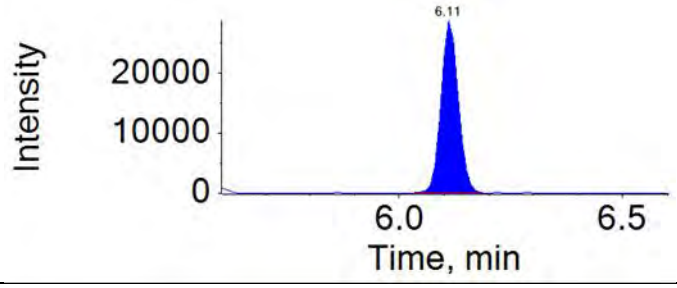
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

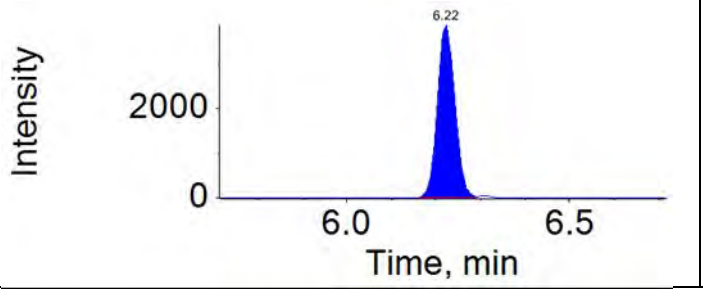
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

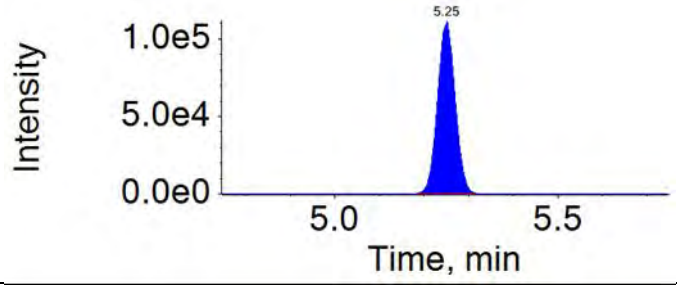
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



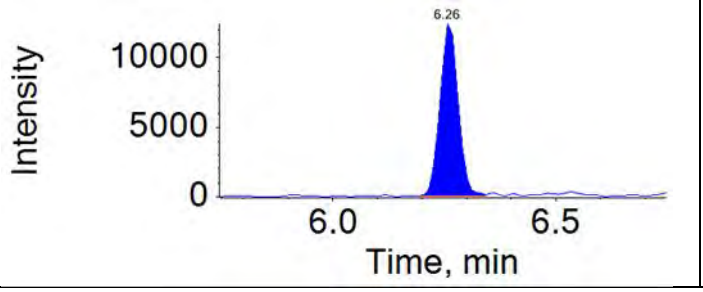


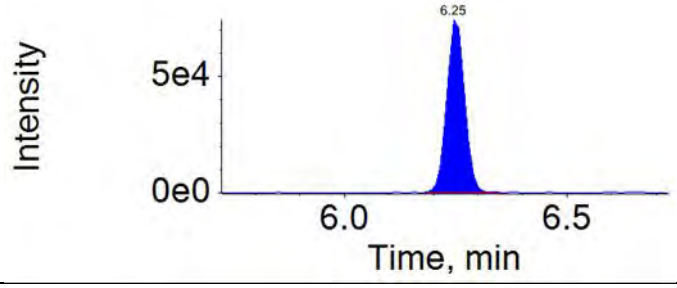
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



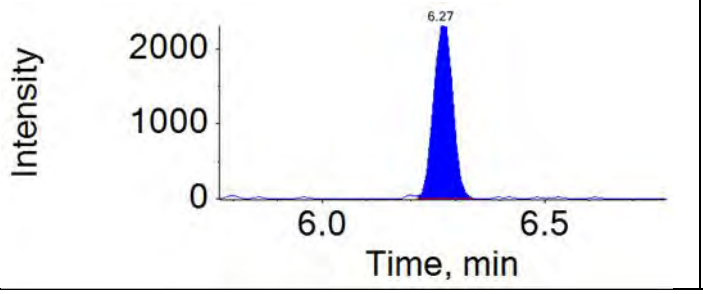


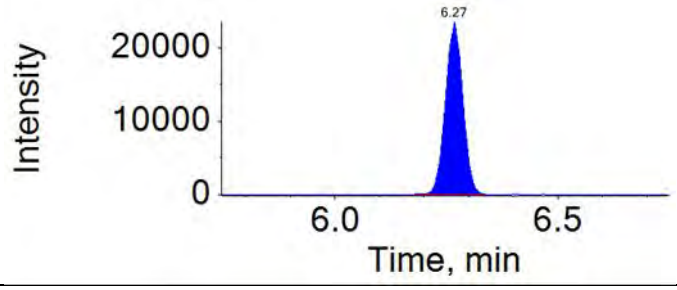
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

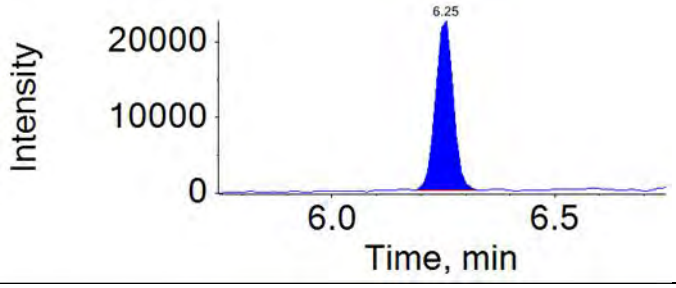
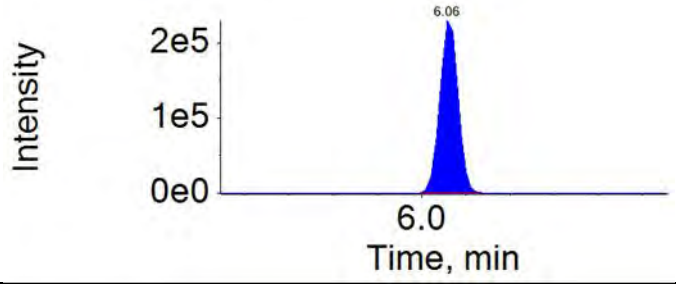


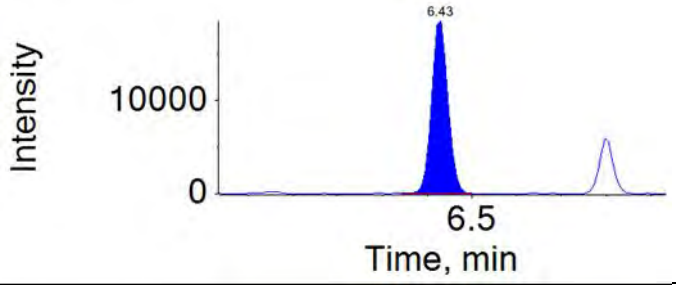
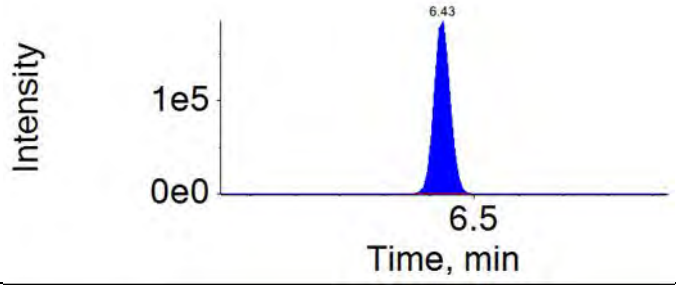


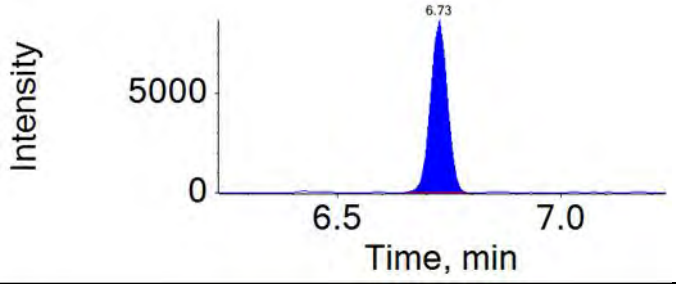
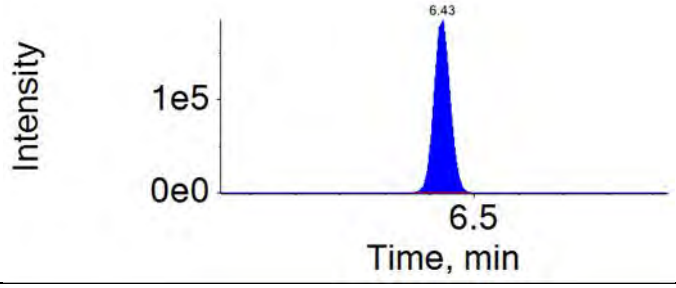
APPROVED
By JPT at 9:26 am, 12/10/18

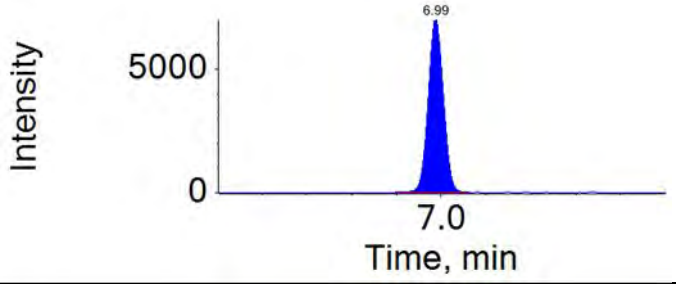
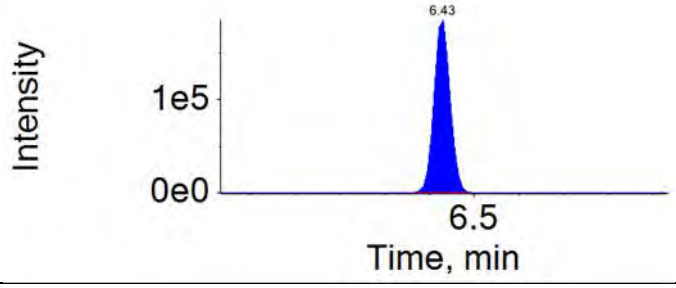
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

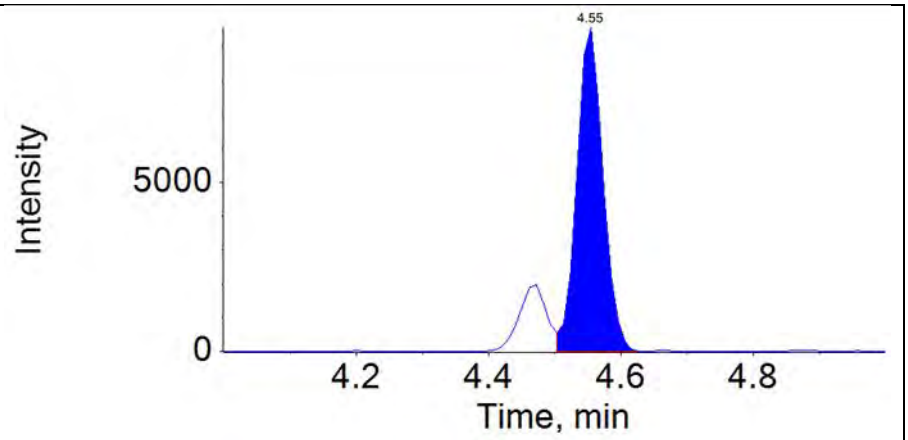
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

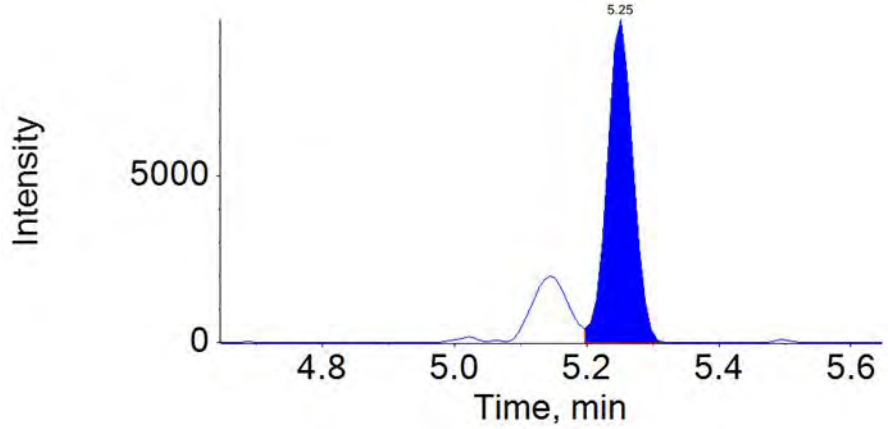
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
26356.4
Mass Range:
399.0 / 80.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



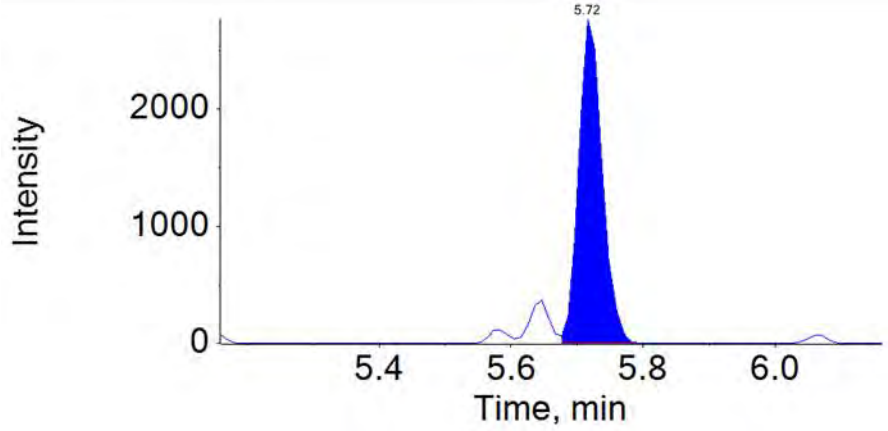
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
26340.5
Mass Range:
499.0 / 80.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.72
Peak Area:
6839.3
Mass Range:
570.0 / 419.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



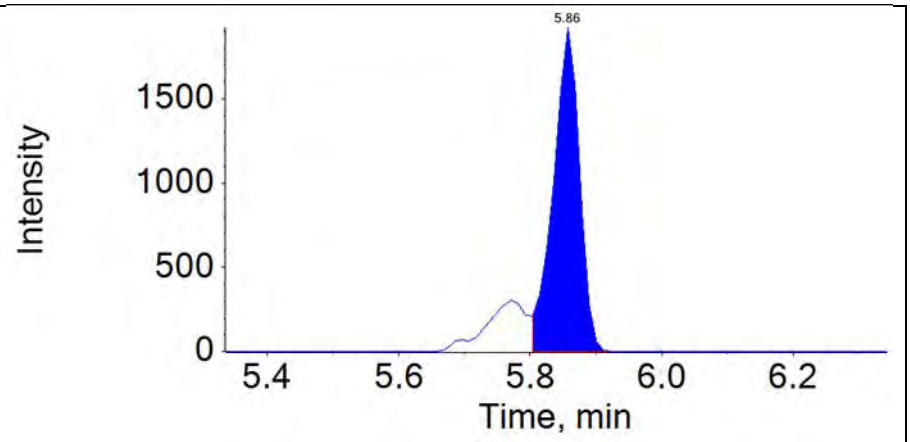
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

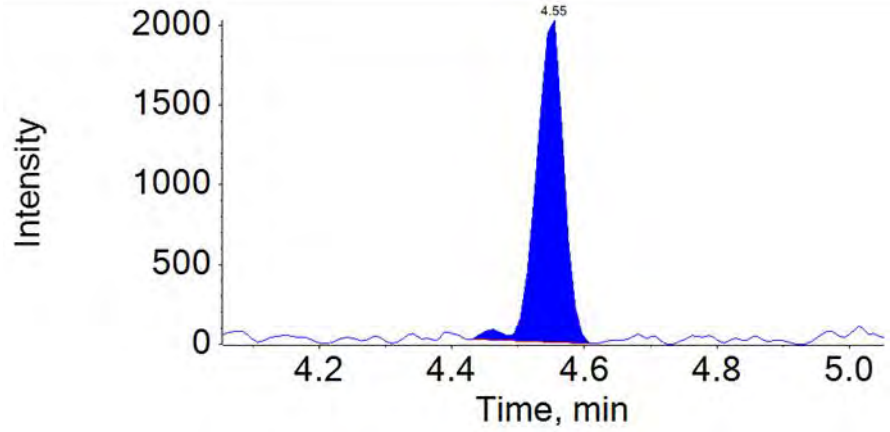
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.86
Peak Area:
5349.9
Mass Range:
584.0 / 419.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



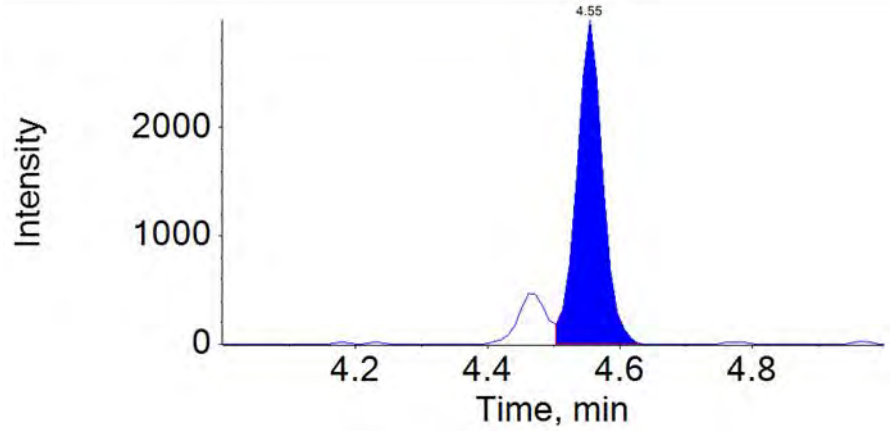
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
5853.9
Mass Range:
363.0 / 169.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
8152.9
Mass Range:
399.0 / 99.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



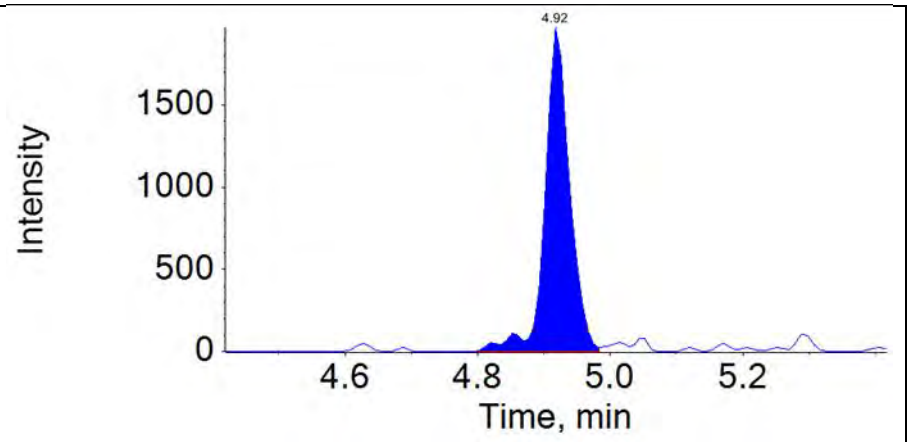
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

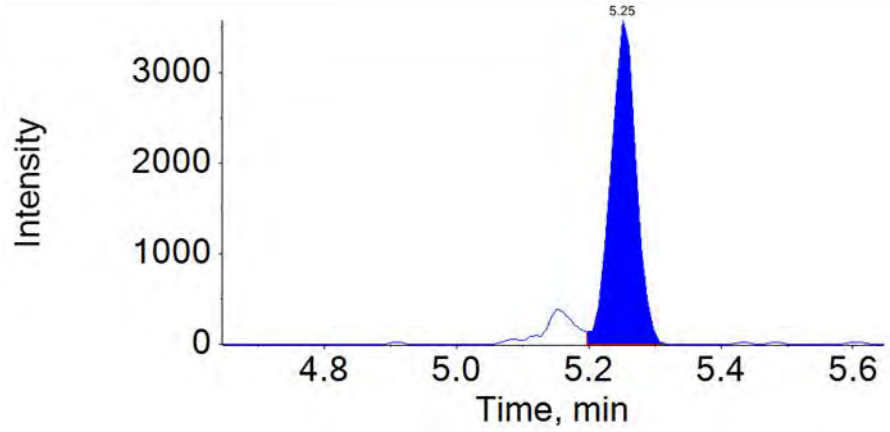
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
5123.7
Mass Range:
413.0 / 169.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



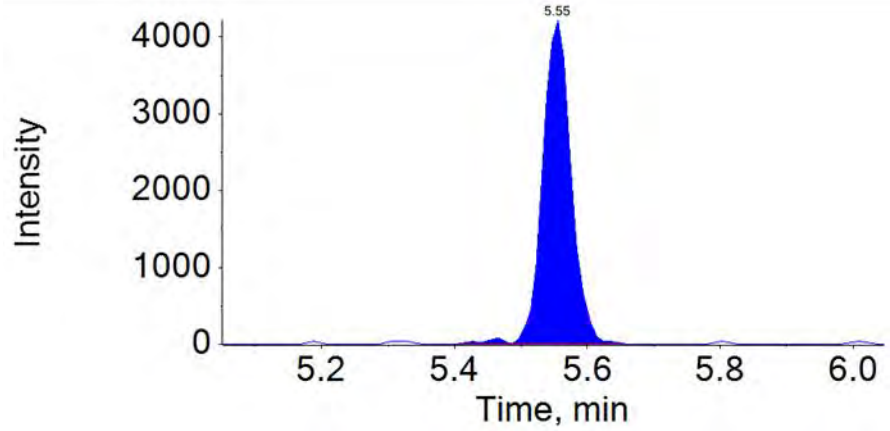
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
9476.4
Mass Range:
499.0 / 99.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFNS_2
RT (min.):
5.55
Peak Area:
12723.5
Mass Range:
549.0 / 99.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



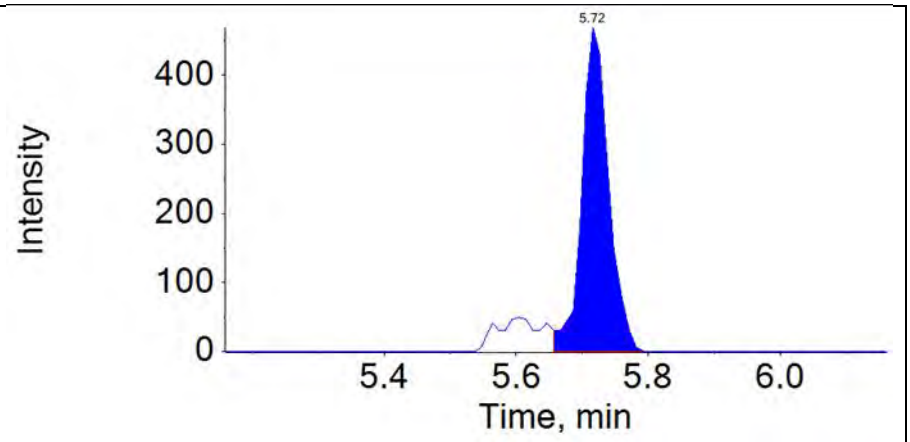
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

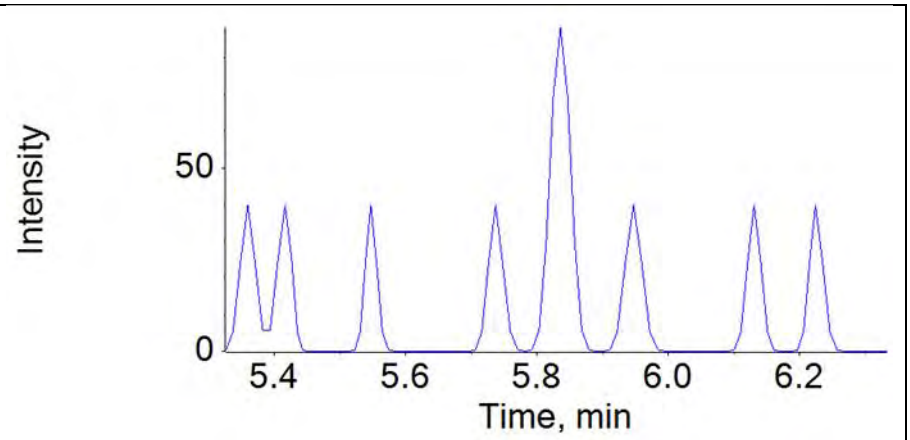
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.72
Peak Area:
1329.6
Mass Range:
570.0 / 483.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



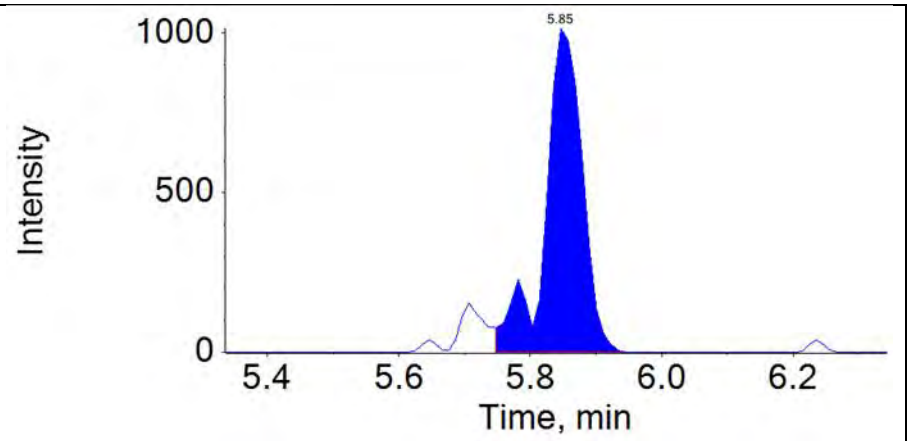
Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
563.0 / 169.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
4046.6
Mass Range:
584.0 / 526.0
File Name:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



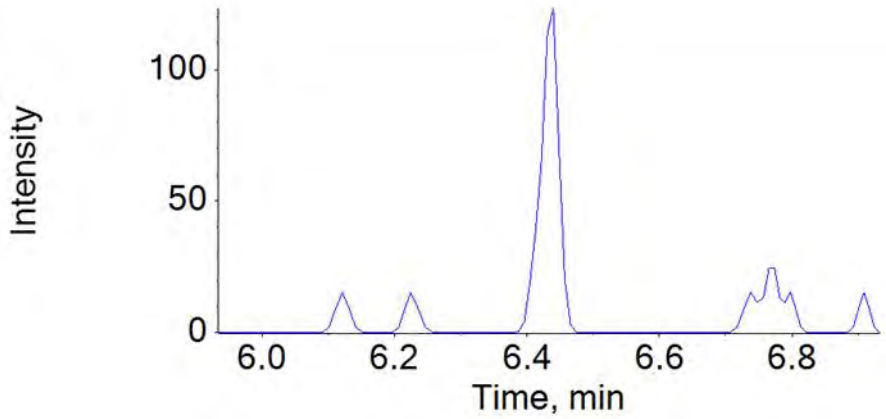
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
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:
18DEC05D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

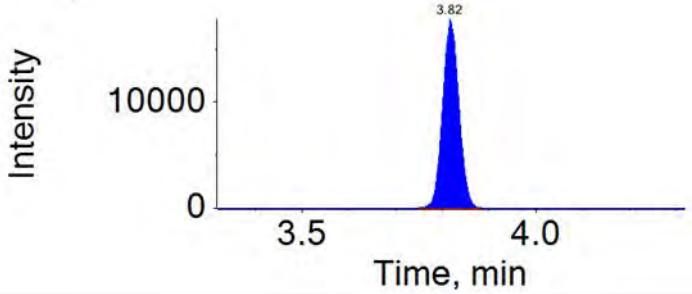
Sample Name: CCV1_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC05D-05.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	42800.0	A	N/A	1.0000			
PFBS_2	3.82	1.00	15432.9	A	N/A	0.3606	-2	50	
4:2-FTS	4.13	1.00	9636.7	A	N/A	1.0000			
4:2-FTS_2	4.13	1.00	6647.0	A	N/A	0.6898	6	50	
PFHxA	4.16	1.00	92044.7	A	N/A	1.0000			
PFHxA_2	4.16	1.00	1110.6	A	N/A	0.0121	4	50	
PFPeS	4.19	1.10	24110.8	A	N/A	1.0000			
PFPeS_2	4.18	1.10	11863.2	A	N/A	0.4920	-2	50	
PFHpA	4.55	1.00	86926.2	A	N/A	1.0000			
PFHpA_2	4.55	1.00	5774.1	M	N/A	0.0664	26	50	
PFHxS	4.55	1.00	32049.8	M	N/A	1.0000			
PFHxS_2	4.55	1.00	9562.6	M	N/A	0.2984	-18	50	
6:2-FTS	4.91	1.00	8388.2	A	N/A	1.0000			
6:2-FTS_2	4.91	1.00	5212.5	A	N/A	0.6214	-2	50	
PFHpS	4.91	1.08	32179.8	A	N/A	1.0000			
PFHpS_2	4.91	1.08	13607.7	A	N/A	0.4229	7	50	
PFOA	4.92	1.00	84046.2	A	N/A	1.0000			
PFOA_2	4.92	1.00	4876.8	M	N/A	0.0580	-6	50	
PFOS	5.25	1.00	34390.3	M	N/A	1.0000			
PFOS_2	5.25	1.00	10745.8	M	N/A	0.3125	6	50	
PFNA	5.27	1.00	69404.2	A	N/A	1.0000			
PFNA_2	5.27	1.00	1303.8	A	N/A	0.0188	-4	50	
PFNS	5.55	1.06	22724.1	A	N/A	1.0000			
PFNS_2	5.55	1.06	12526.9	M	N/A	0.5513	18	50	
PFDA	5.58	1.00	56209.8	A	N/A	1.0000			
PFDA_2	5.56	1.00	320.3	A	N/A	0.0057	-22	50	
8:2-FTS	5.58	1.00	5956.1	A	N/A	1.0000			
8:2-FTS_2	5.58	1.00	3015.0	A	N/A	0.5062	-16	50	
NMeFOSAA	5.72	1.00	7839.3	M	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	1567.1	M	N/A	0.1999	-24	50	
PFDS	5.81	1.11	19096.3	A	N/A	1.0000			
PFDS_2	5.82	1.11	8966.9	A	N/A	0.4696	-5	50	
PFUnDA	5.84	1.00	55187.0	A	N/A	1.0000			
PFUnDA_2	5.84	1.00	193.0	M	N/A	0.0035	-23	50	
NEtFOSAA	5.86	1.00	6664.1	M	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	4440.7	M	N/A	0.6664	-11	50	
PFDoDA	6.06	1.00	72073.2	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	770.2	A	N/A	0.0107	-25	50	
10:2-FTS	6.08	1.09	4459.3	A	N/A	1.0000			
10:2-FTS_2	6.08	1.09	4060.8	A	N/A	0.9106	30	50	
PFTrDA	6.25	1.03	61984.2	A	N/A	1.0000			
PFTrDA_2	6.26	1.03	412.1	A	N/A	0.0066	-33	50	
PFTeDA	6.43	1.00	46972.8	A	N/A	1.0000			
PFTeDA_2	6.44	1.00	239.0	M	N/A	0.0051	-11	50	
PFHxDA	6.73	1.05	22495.4	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1513.6	A	N/A	0.0673	9	50	
PFODA	6.99	1.09	16613.7	A	N/A	1.0000			
PFODA_2	6.98	1.09	461.6	A	N/A	0.0278	4	50	

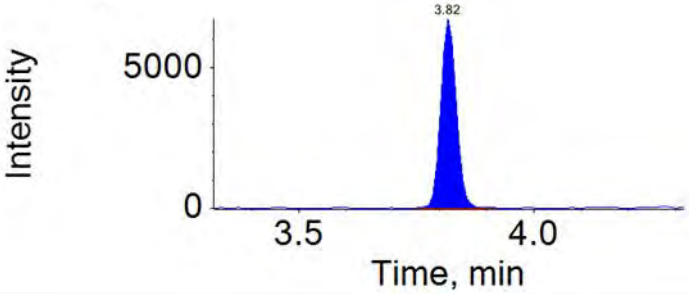
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

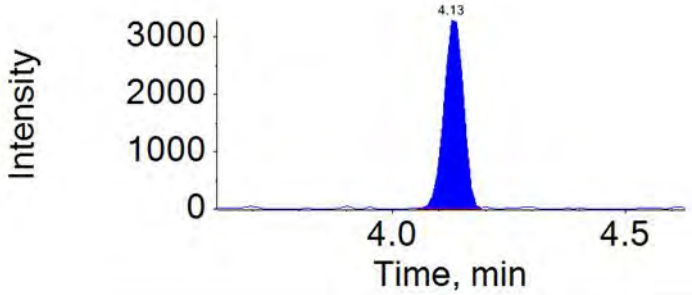
Component: PFBS
Primary Mass: 299.0 / 80.0



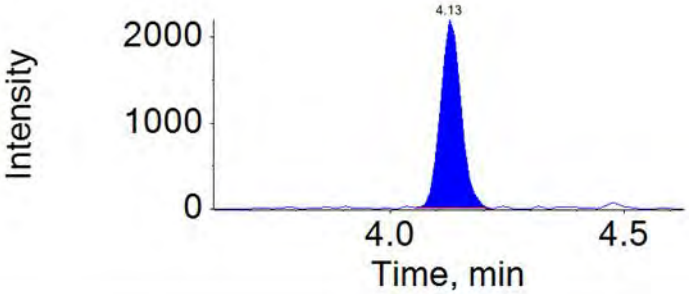
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



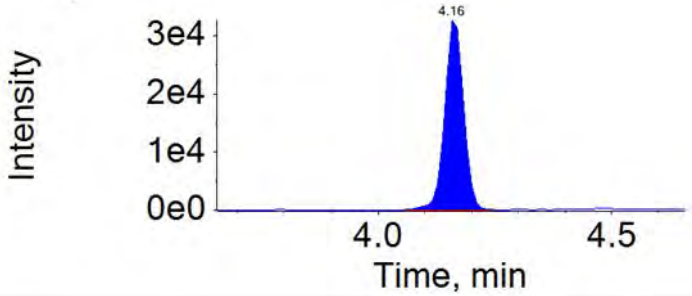
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



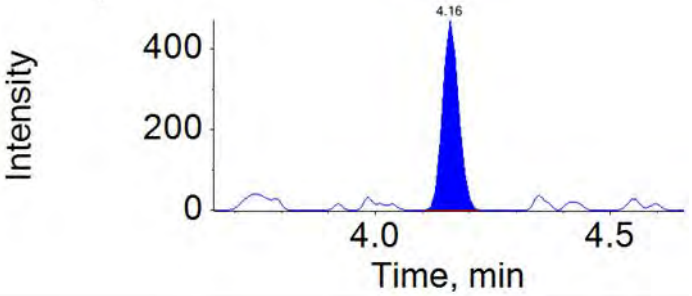
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



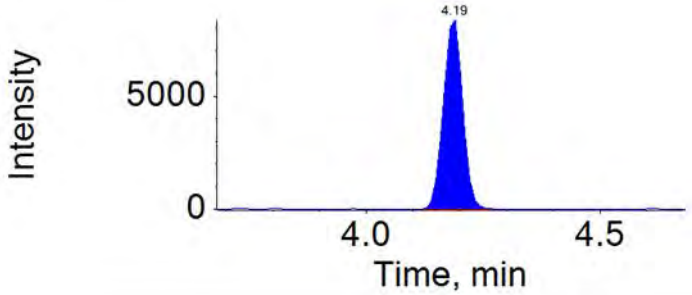
Component: PFHxA
Primary Mass: 313.0 / 269.0



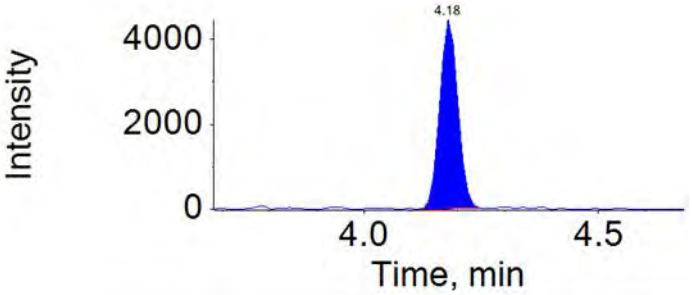
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



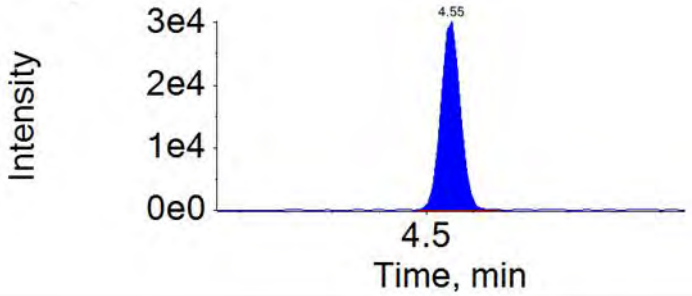
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



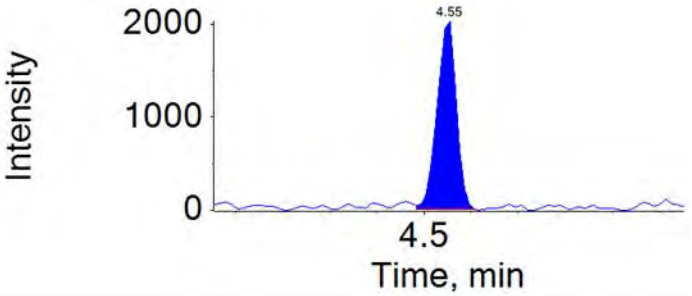
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

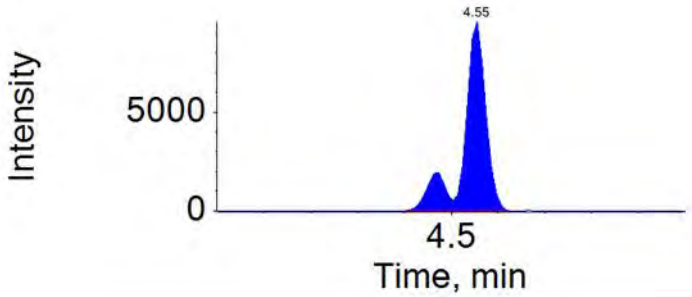
Component: PFHpA
Primary Mass: 363.0 / 319.0



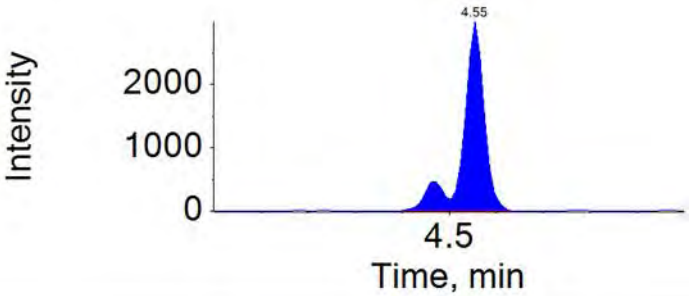
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



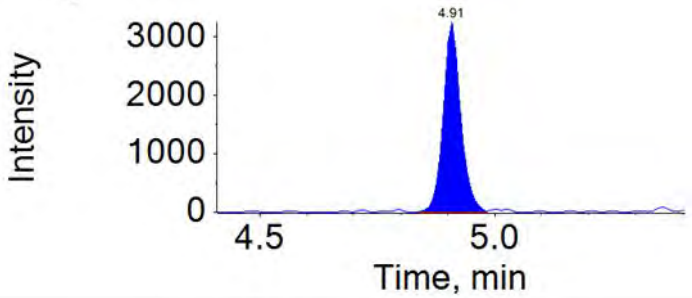
Component: PFHxS
Primary Mass: 399.0 / 80.0



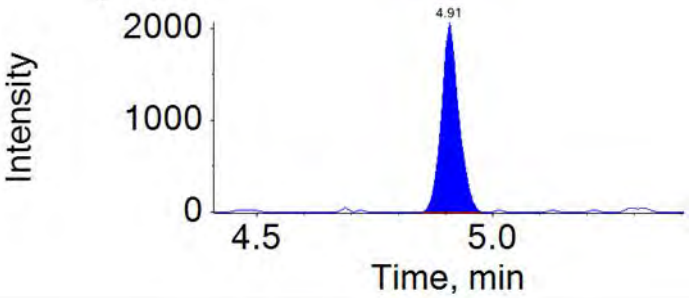
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



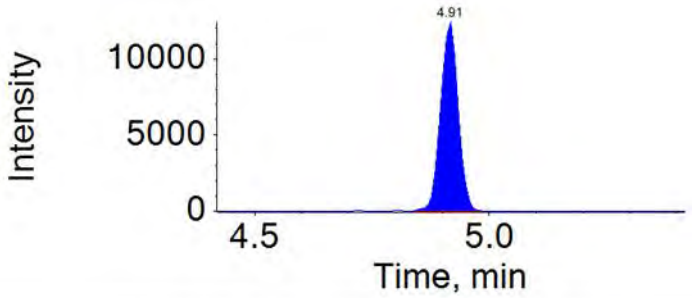
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



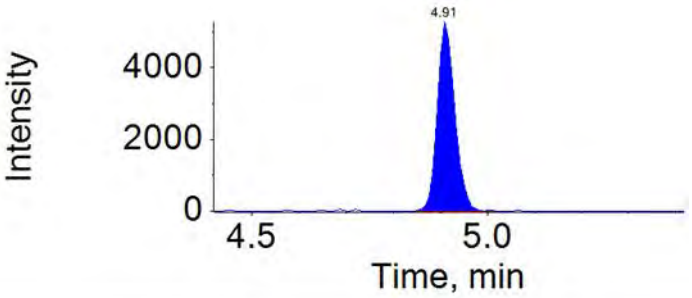
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



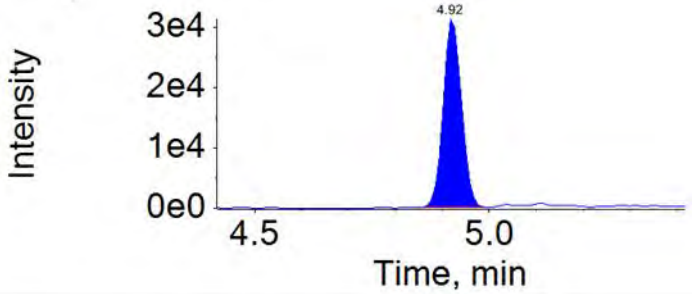
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



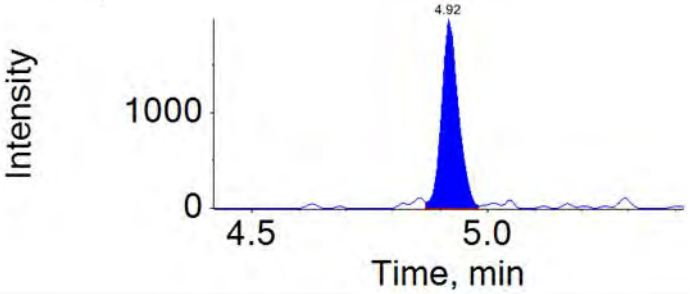
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

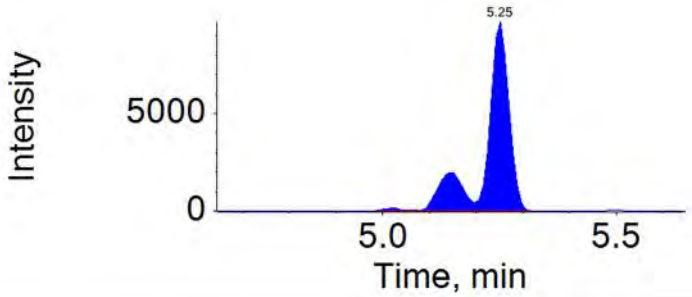
Component: PFOA
Primary Mass: 413.0 / 369.0



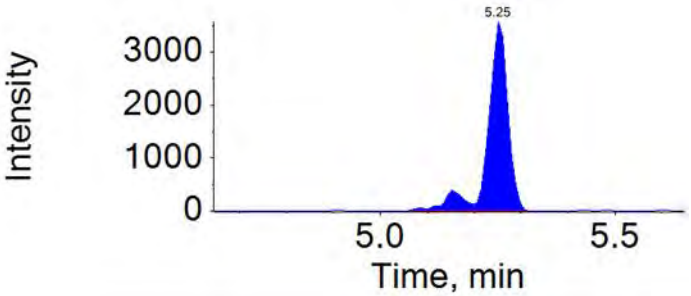
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



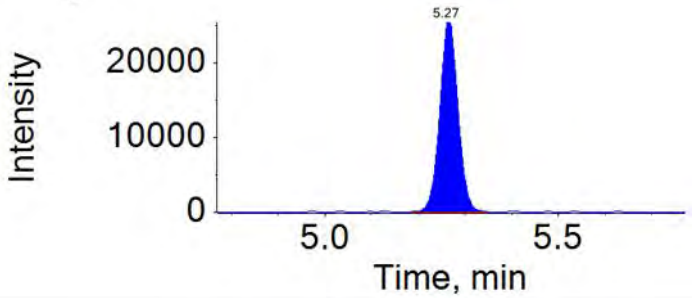
Component: PFOS
Primary Mass: 499.0 / 80.0



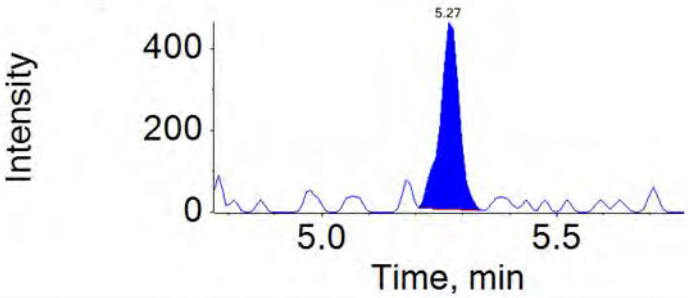
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



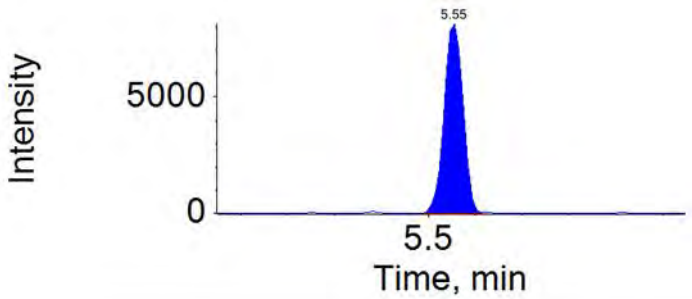
Component: PFNA
Primary Mass: 463.0 / 419.0



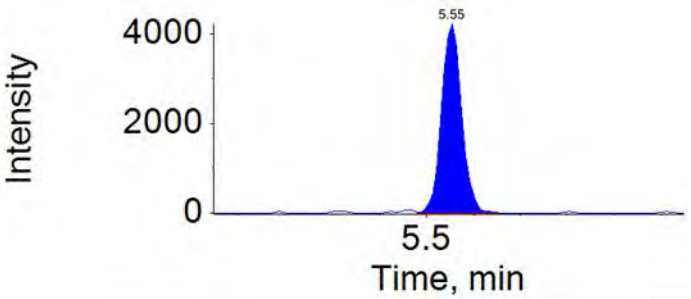
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



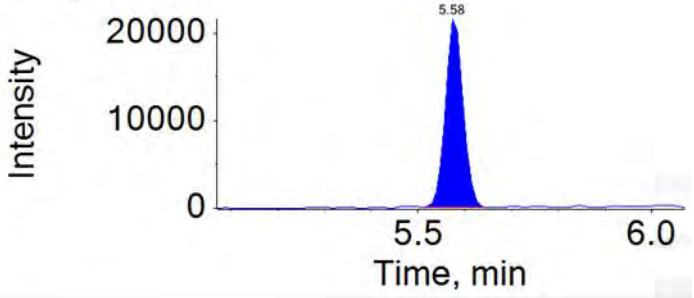
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



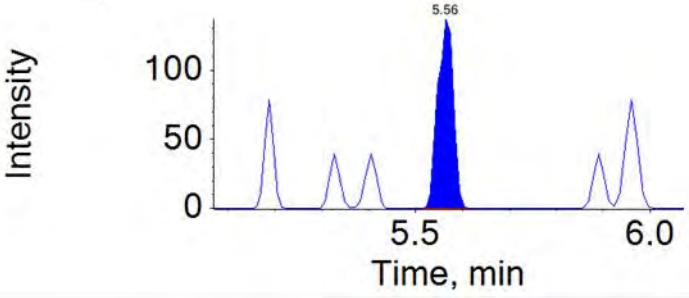
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

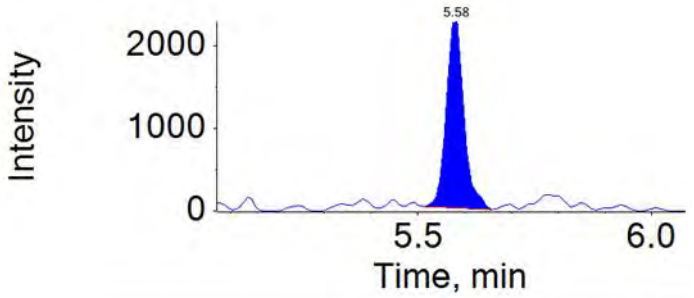
Component: PFDA
Primary Mass: 513.0 / 469.0



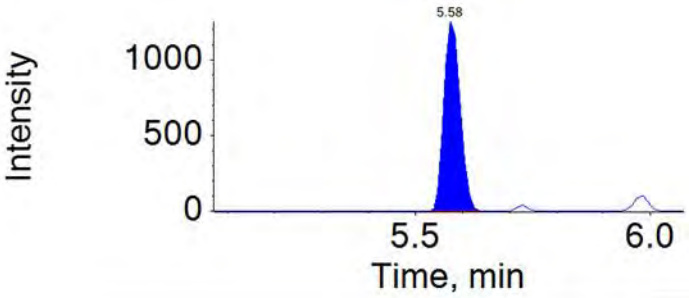
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



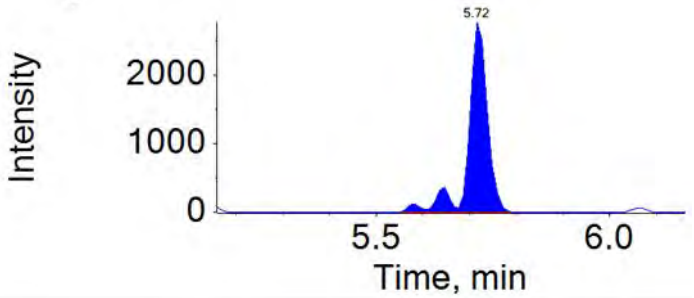
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



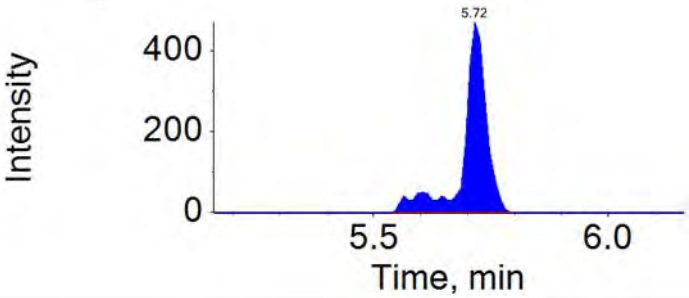
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



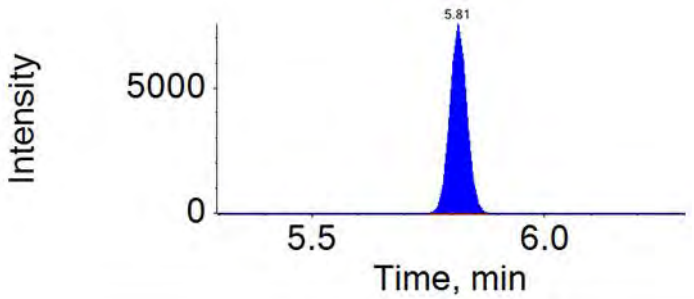
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



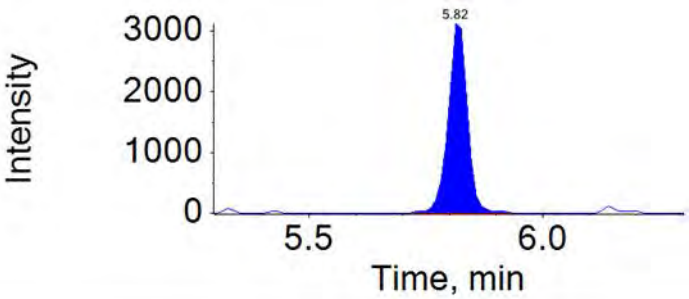
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



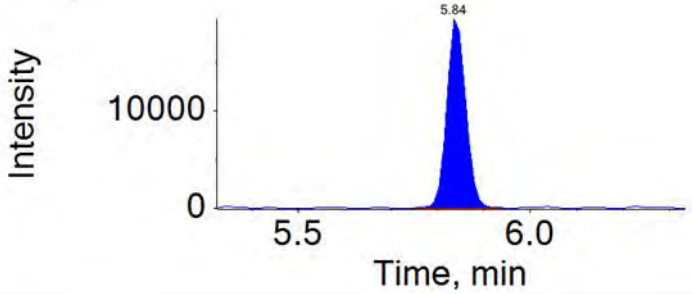
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



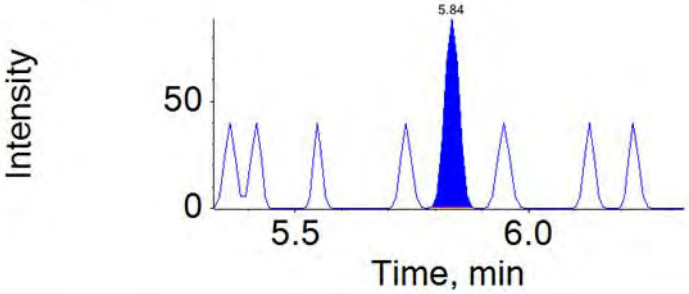
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

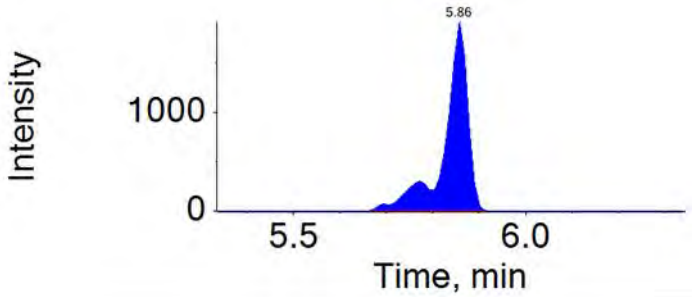
Component: PFUnDA
Primary Mass: 563.0 / 519.0



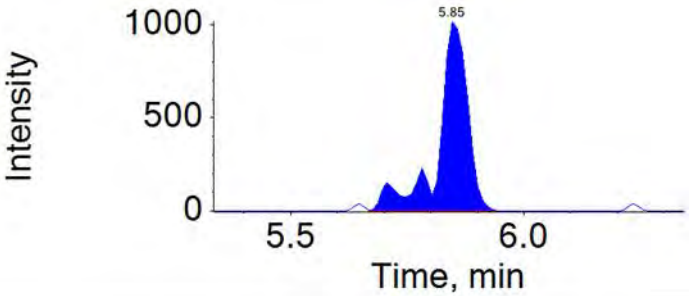
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



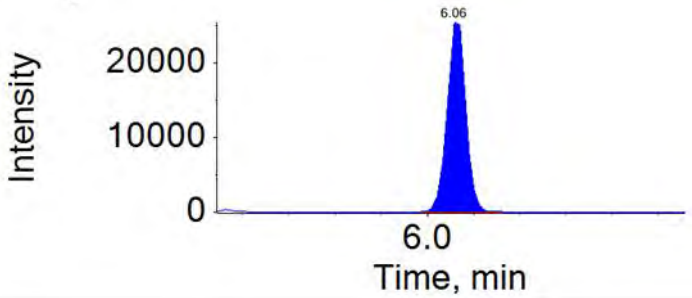
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



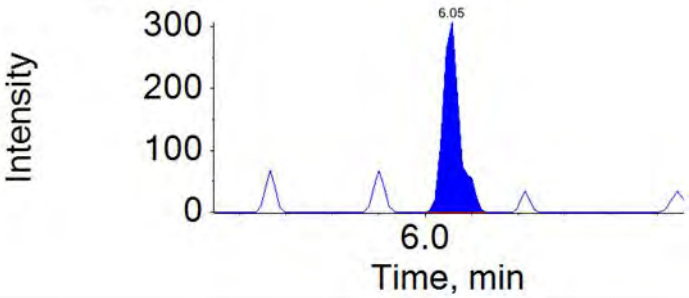
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



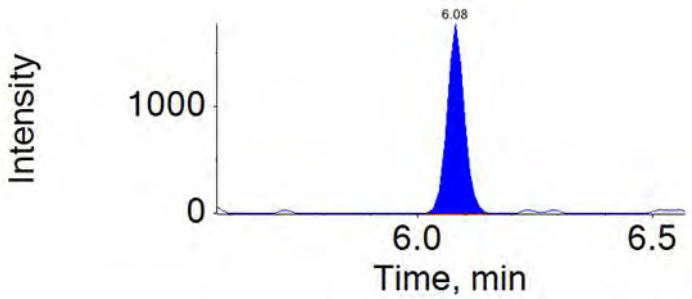
Component: PFDoDA
Primary Mass: 613.0 / 569.0



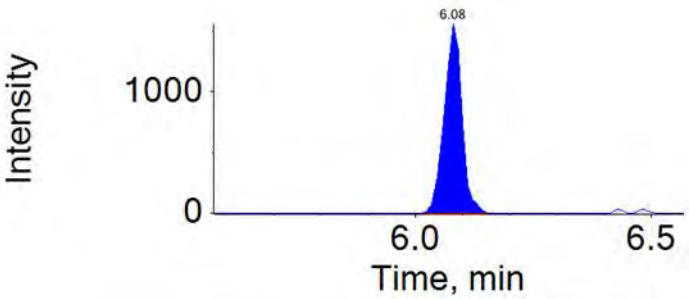
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



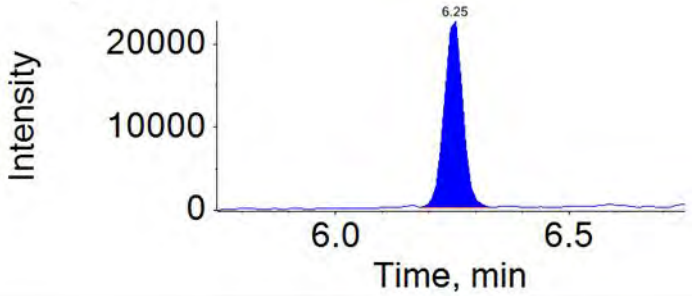
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



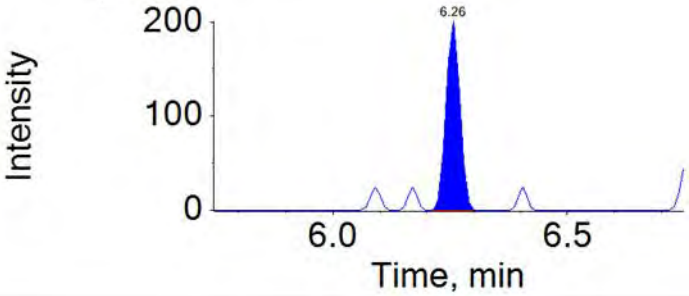
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

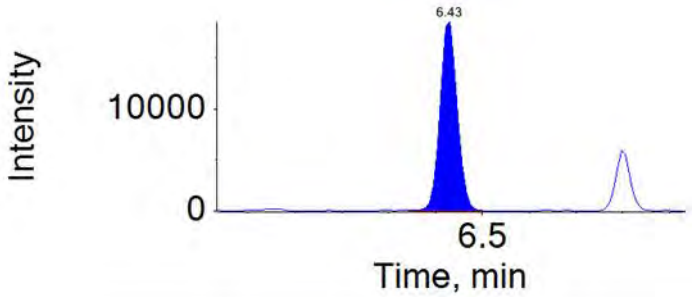
Component: PFTrDA
Primary Mass: 663.0 / 619.0



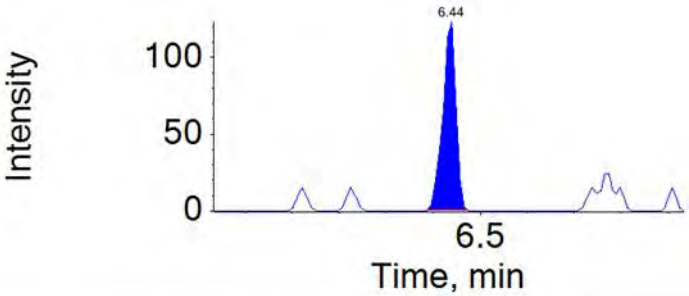
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



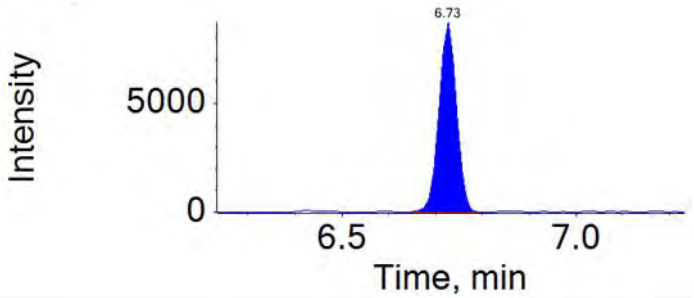
Component: PFTeDA
Primary Mass: 713.0 / 669.0



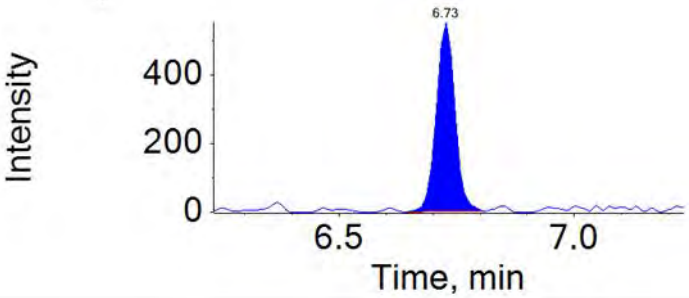
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



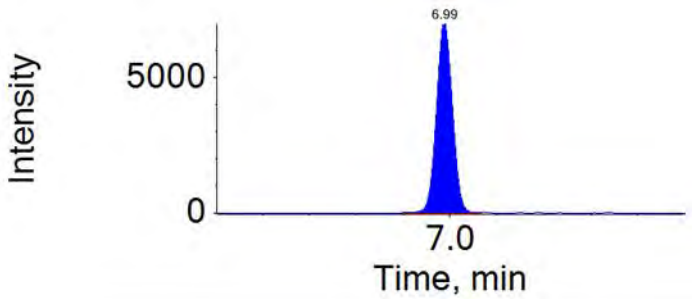
Component: PFHxDA
Primary Mass: 813.0 / 769.0



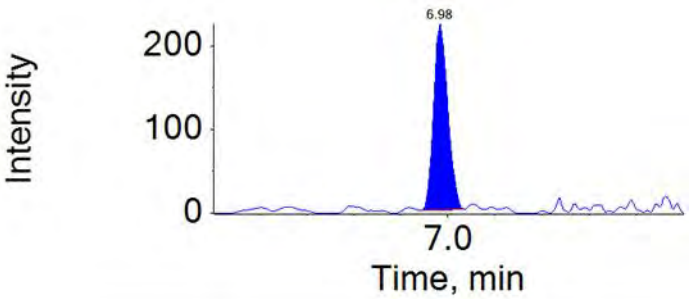
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM

Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank			**Data File:**		18DEC05D-06.wiff
Sample ID:	methanol + labels			**Acquis Date:**		2018-12-05T12:17:26
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	1			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC05DCCV1-8
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
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: 18DEC05D-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	1016155.4	850136.0	20	50	
13C2-PFOA	5.0	546892.5	429843.2	27	50	
13C4-PFOS	4.8	318493.3	272032.6	17	50	
13C2-PFDA	5.0	316016.3	291183.9	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1072922.5	13C3-PFBA	1016155.4	1.056	5.000	4.686	94	70-130	
E13C5-PFPeA	946752.6	13C3-PFBA	1016155.4	0.932	5.000	4.496	90	70-130	
E13C3-PFBS	448484.4	13C3-PFBA	1016155.4	0.441	4.650	3.439	74	70-130	
E13C2-4:2-FTS	63248.7	13C2-PFOA	546892.5	0.116	4.670	4.757	102	70-130	
E13C5-PFHxA	706689.5	13C2-PFOA	546892.5	1.292	5.000	4.376	88	70-130	
E13C3-PFHxS	363017.0	13C2-PFOA	546892.5	0.664	4.730	4.197	89	70-130	
E13C4-PFHpA	565424.4	13C2-PFOA	546892.5	1.034	5.000	4.511	90	70-130	
E13C2-6:2-FTS	43761.2	13C2-PFOA	546892.5	0.080	4.750	5.303	112	70-130	
E13C8-PFOA	878512.8	13C2-PFOA	546892.5	1.606	5.000	4.465	89	70-130	
E13C8-PFOS	328480.7	13C4-PFOS	318493.3	1.031	4.780	4.581	96	70-130	
E13C9-PFNA	527390.1	13C4-PFOS	318493.3	1.656	5.000	4.847	97	70-130	
E13C6-PFDA	602487.6	13C2-PFDA	316016.3	1.907	5.000	4.959	99	70-130	
E13C2-8:2-FTS	27664.3	13C2-PFDA	316016.3	0.088	4.790	5.629	118	70-130	
E13C8-PFOSA	738969.5	13C2-PFDA	316016.3	2.338	5.000	5.234	105	70-130	
Ed3-NMeFOSAA	112945.4	13C2-PFDA	316016.3	0.357	5.000	6.244	125	70-130	
E13C7-PFUnDA	351254.3	13C2-PFDA	316016.3	1.112	5.000	5.536	111	70-130	
Ed5-NEtFOSAA	71205.6	13C2-PFDA	316016.3	0.225	5.000	5.140	103	70-130	
E13C2-PFDoDA	727838.7	13C2-PFDA	316016.3	2.303	5.000	4.932	99	70-130	
Ed7-NMePFOSAE	284968.5	13C2-PFDA	316016.3	0.902	5.000	4.889	98	70-130	
Ed3-NMePFOSA	95161.1	13C2-PFDA	316016.3	0.301	5.000	5.584	112	70-130	
Ed9-NEtPFOSAE	230374.1	13C2-PFDA	316016.3	0.729	5.000	4.702	94	70-130	
Ed5-NEtPFOSA	78235.7	13C2-PFDA	316016.3	0.248	5.000	5.840	117	70-130	
E13C2-PFTeDA	541935.8	13C2-PFDA	316016.3	1.715	5.000	4.834	97	70-130	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

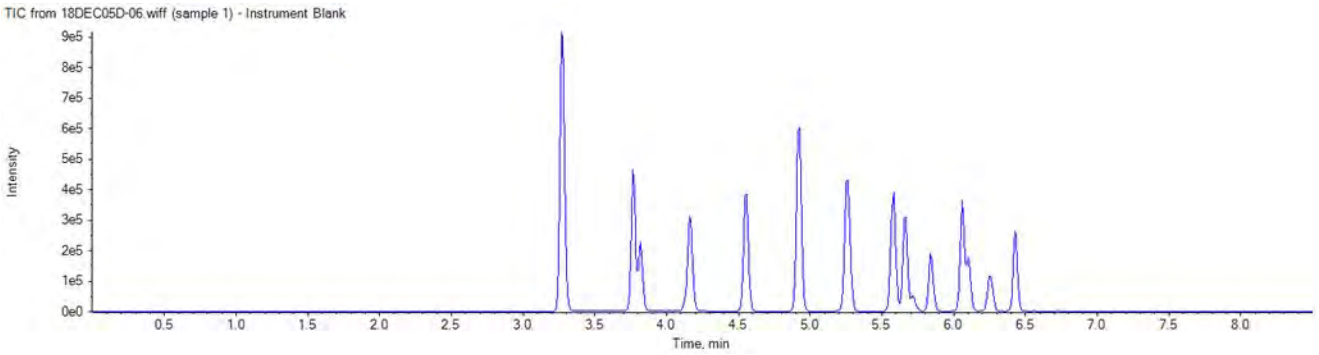
Analyte Quantitation Peak Table

Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18DEC05D-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1072922.5	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.77	946752.6	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.82	448484.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	63248.7	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	706689.5	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.82	448484.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	565424.4	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363017.0	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	43761.2	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363017.0	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	878512.8	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	328480.7	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	527390.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	328480.7	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.58	602487.6	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	27664.3	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.66	738969.5	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.72	112945.4	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	328480.7	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.84	351254.3	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.85	71205.6	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	727838.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	27664.3	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.10	284968.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.11	95161.1	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	328480.7	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	230374.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.27	78235.7	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	727838.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	541935.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	541935.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	541935.8	N/A	

Total Ion Chromatogram

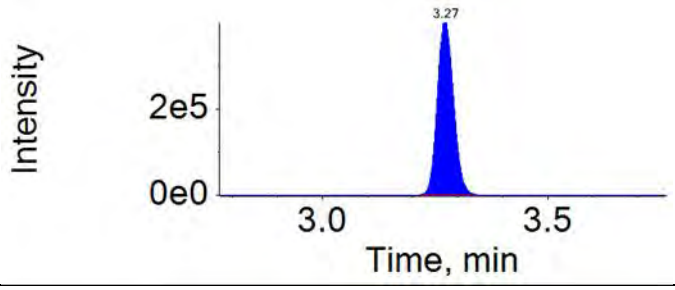


APPROVED
By JPT at 9:26 am, 12/10/18

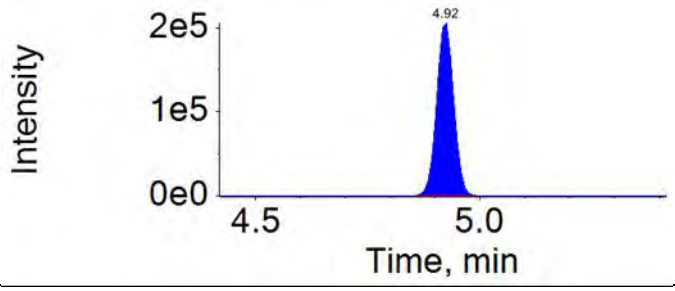
REVIEWED
By UMJS at 1:59 pm, 12/14/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

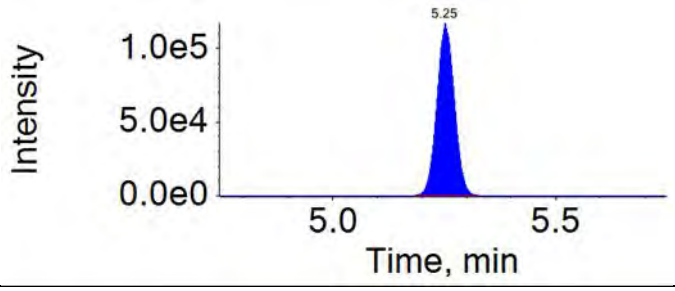
Injection Standard: 13C3-PFBA
216.0 / 172.0



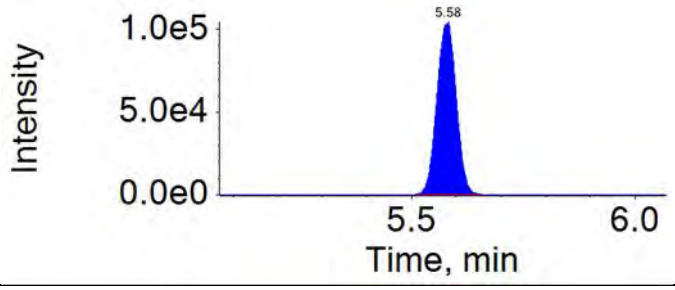
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

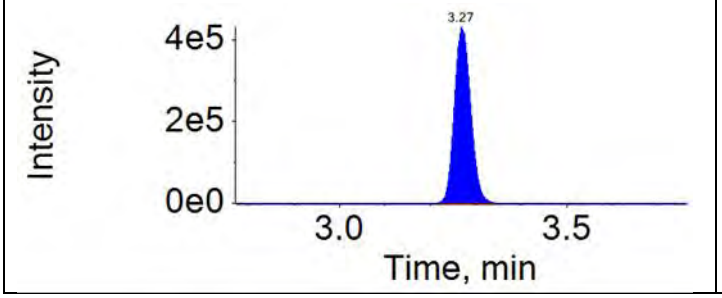


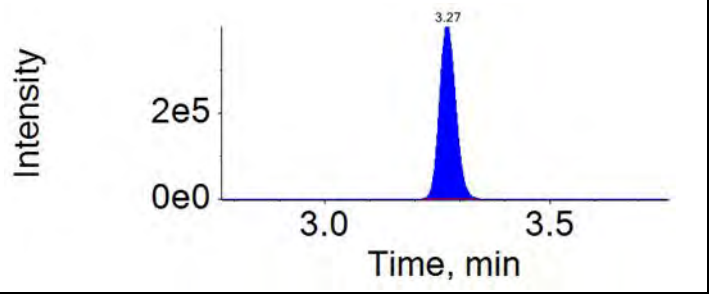
Injection Standard: 13C2-PFDA
515.0 / 470.0



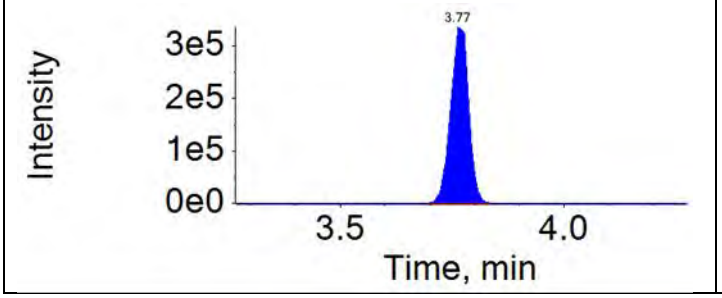
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

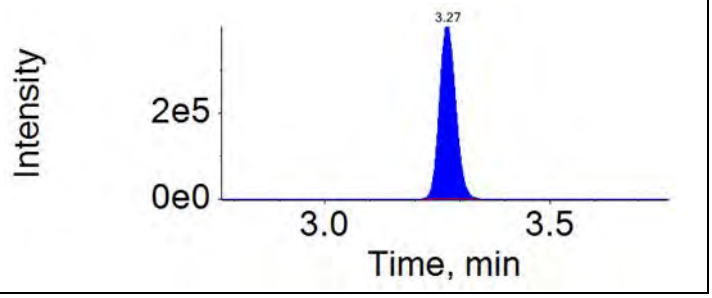
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



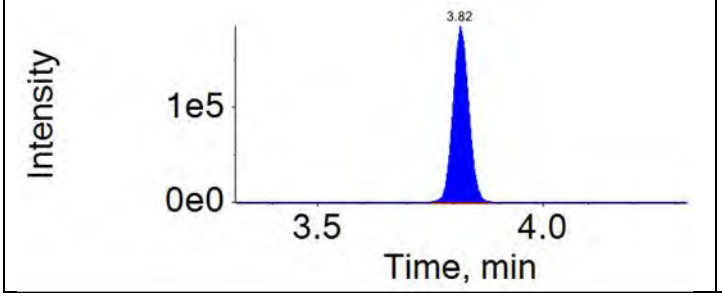


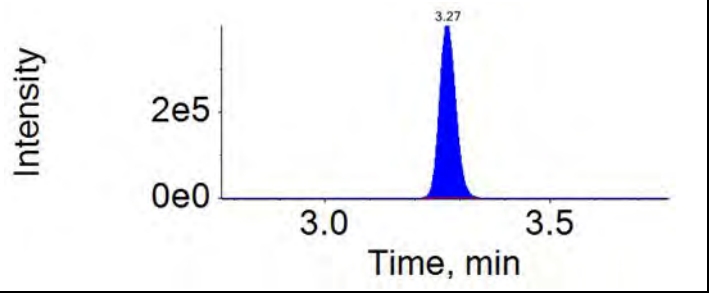
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



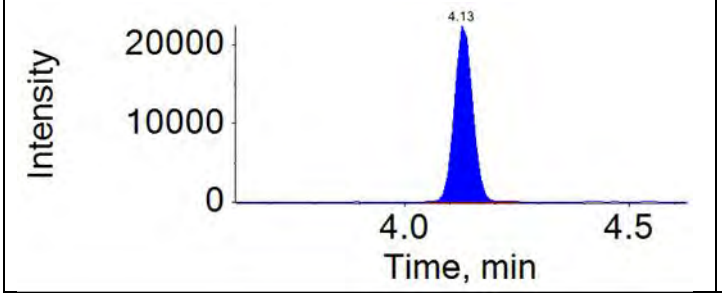


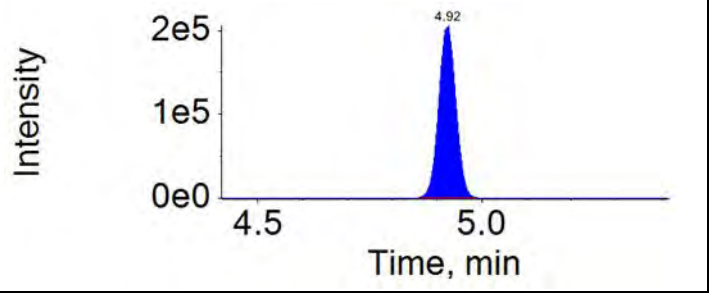
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



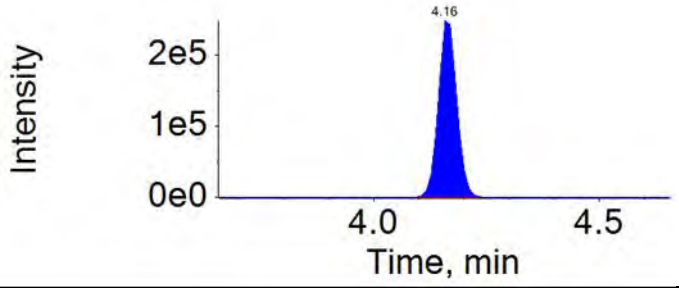
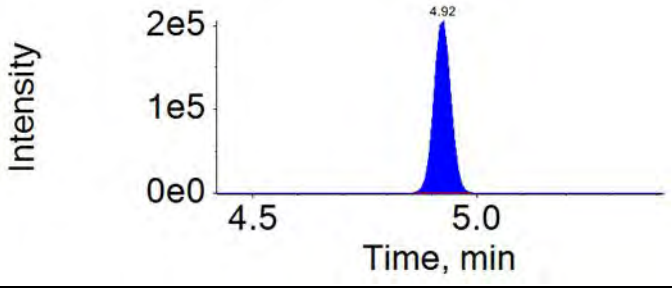


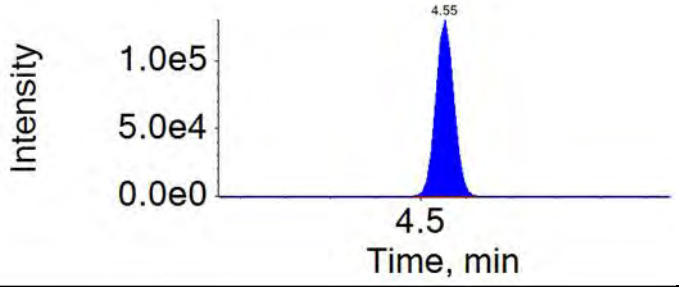
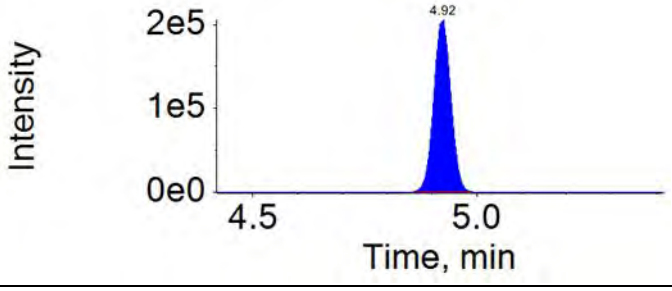
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

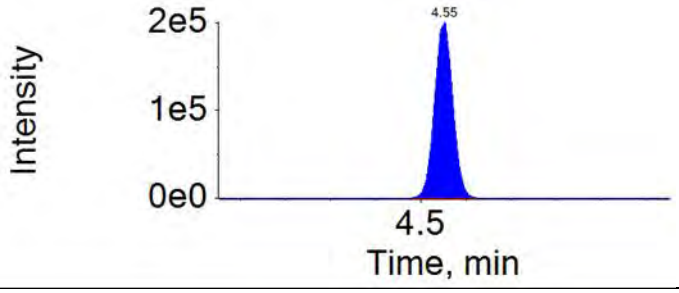
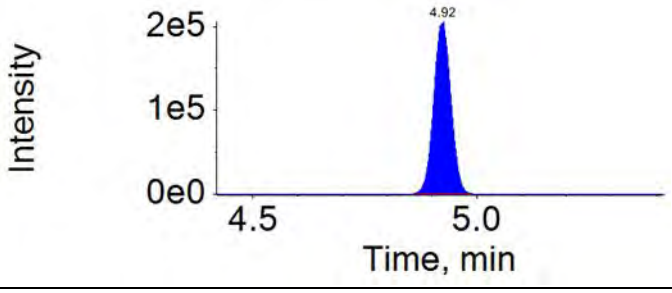


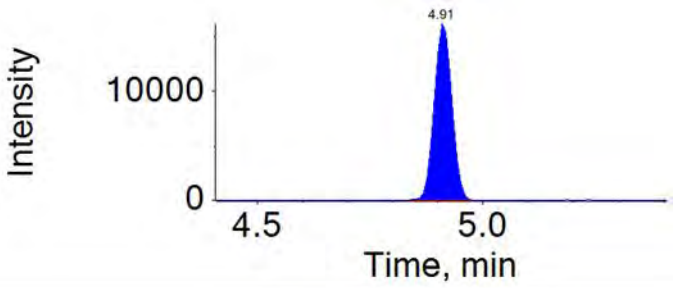
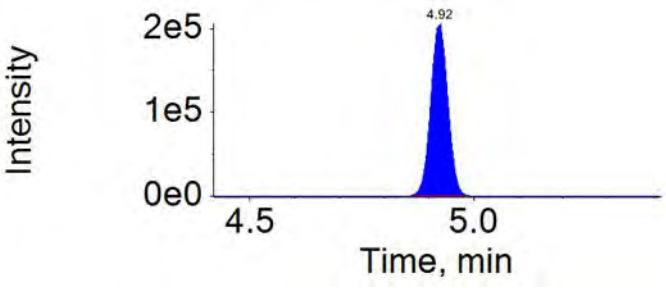


ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

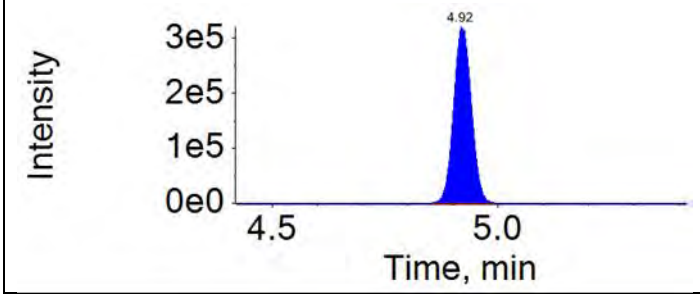
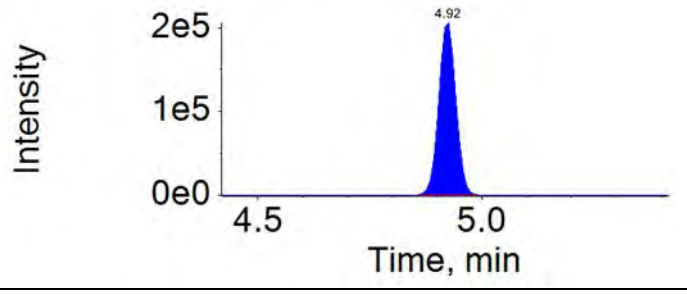
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

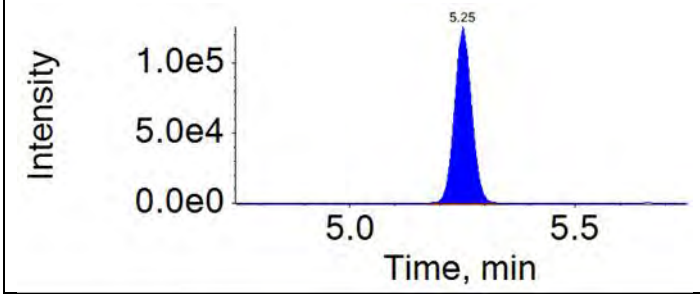
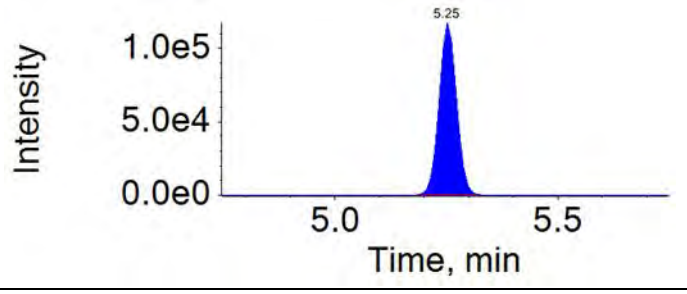
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

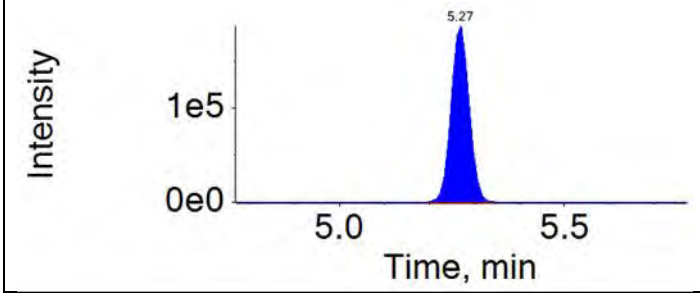
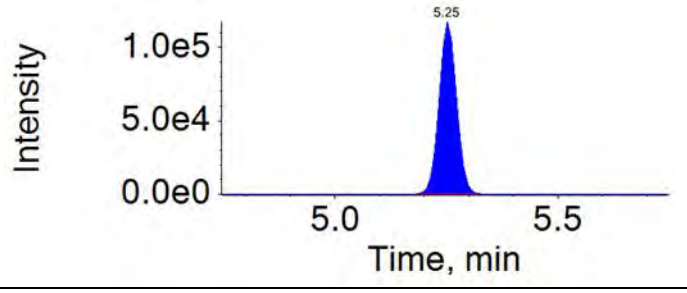
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

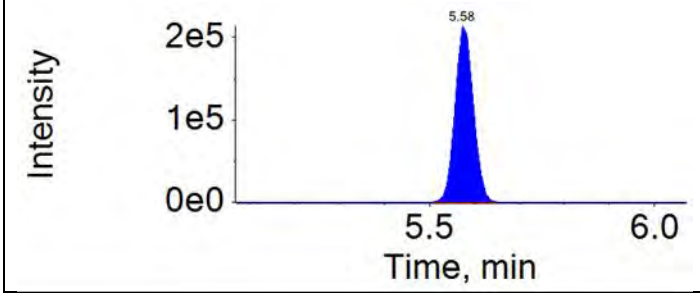
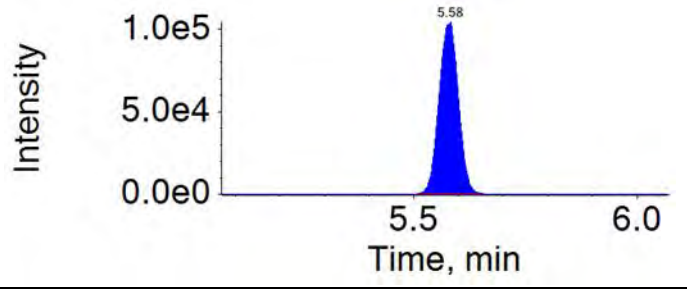
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

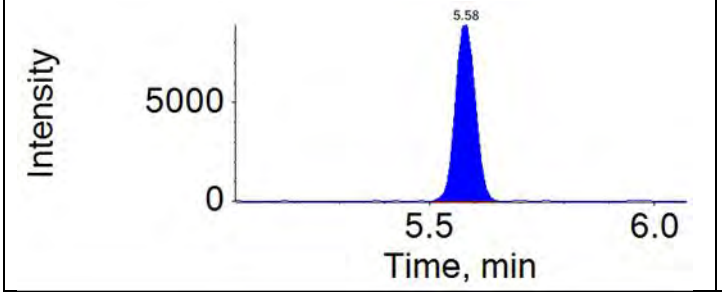
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

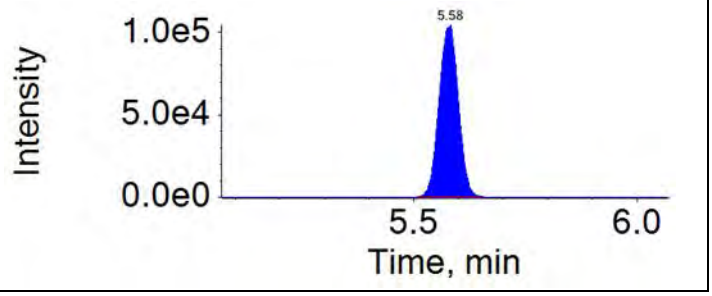
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

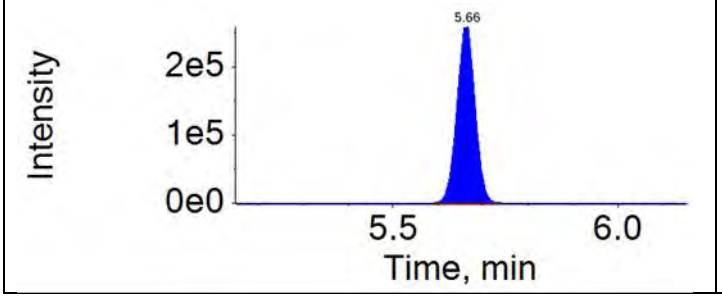
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

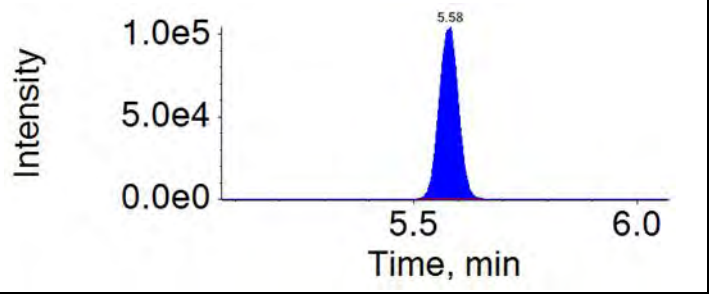
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



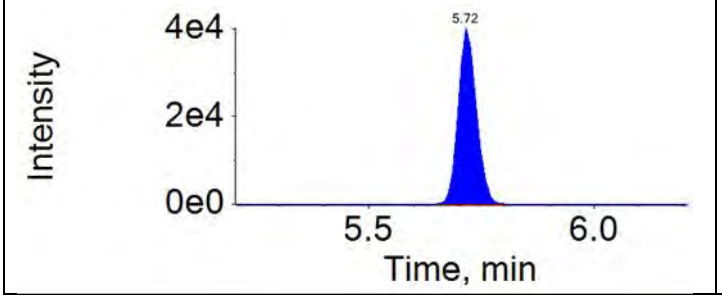


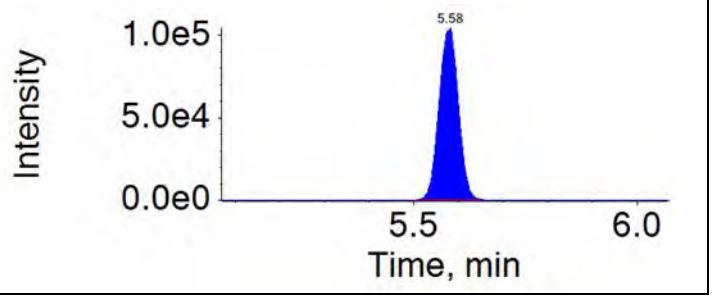
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



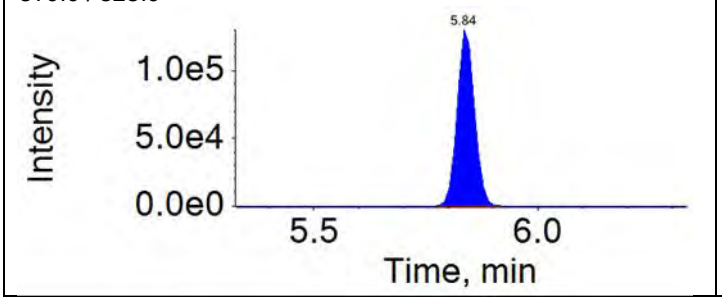


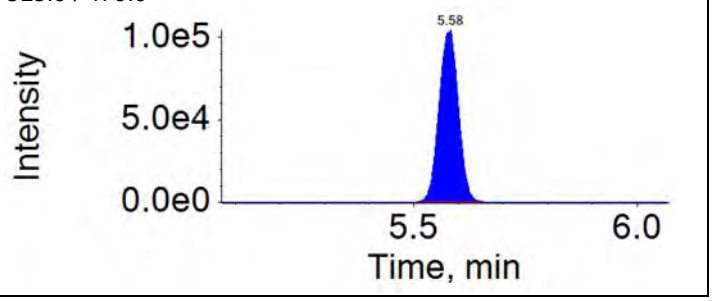
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





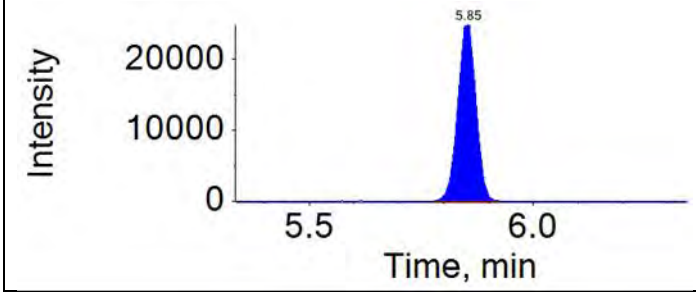
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

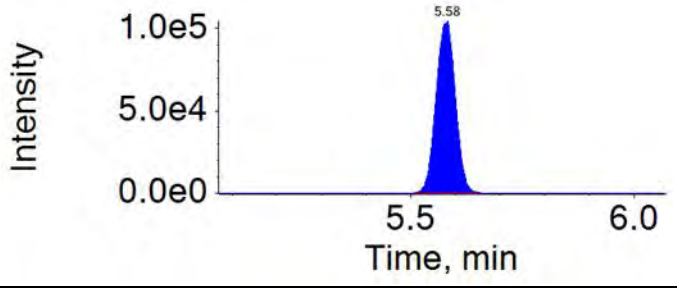




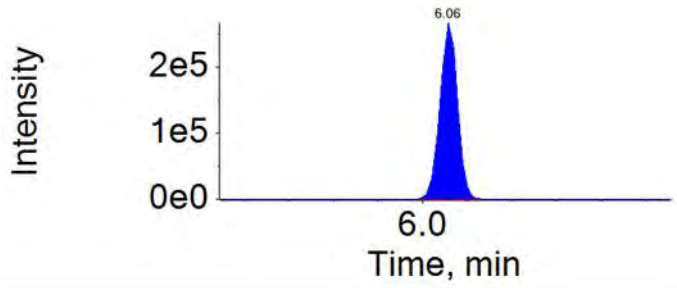
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

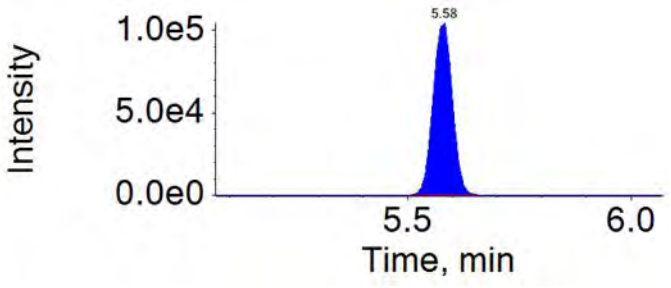
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



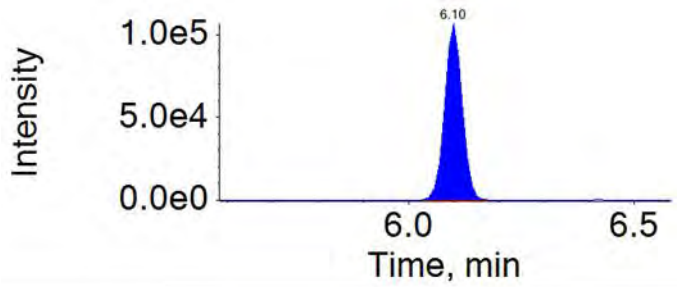


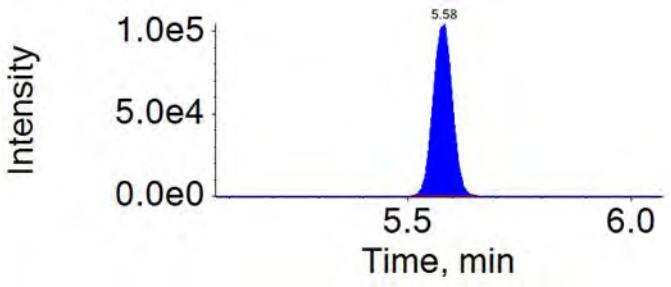
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



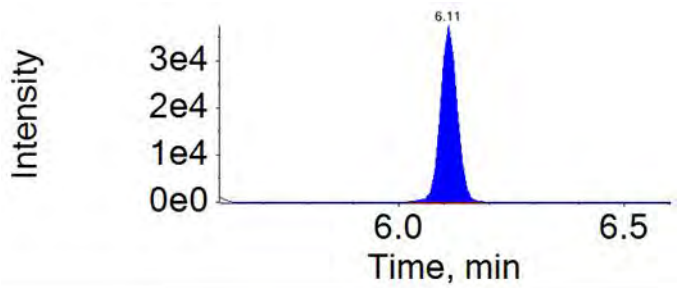


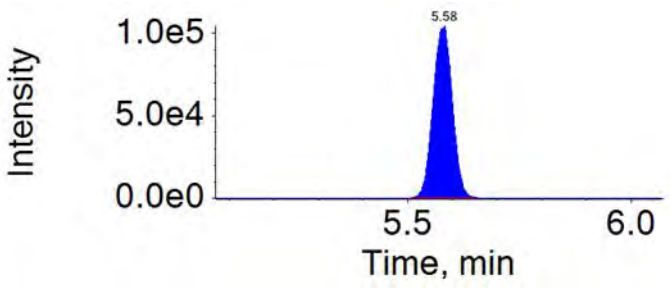
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





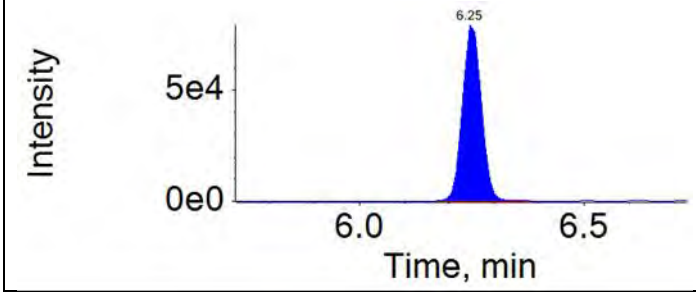
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

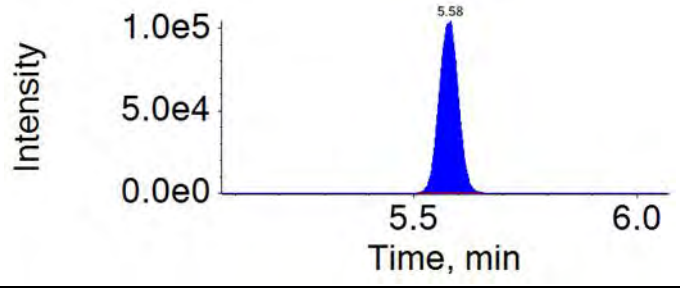




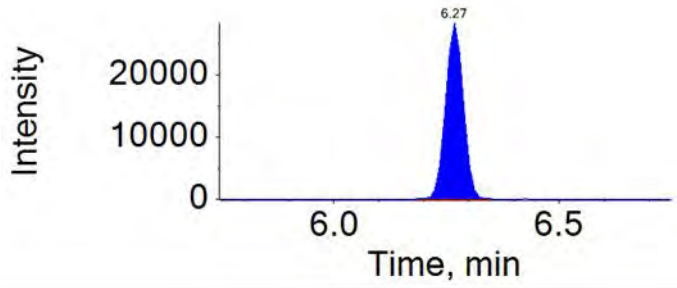
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

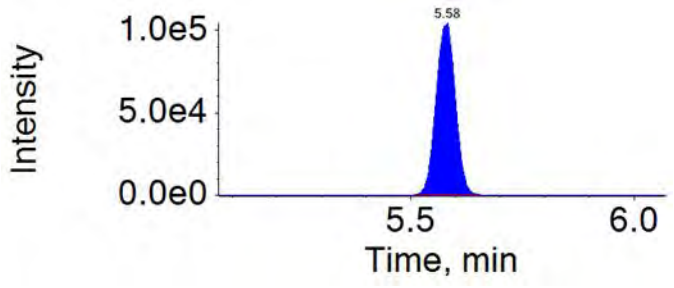
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



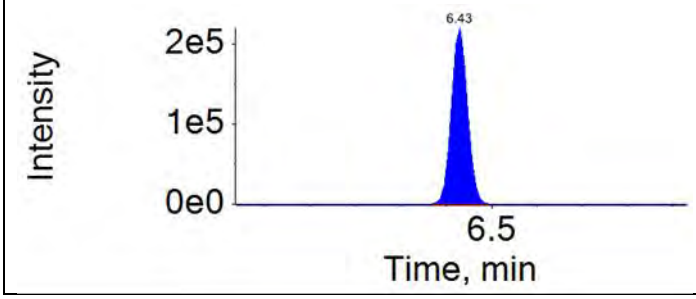


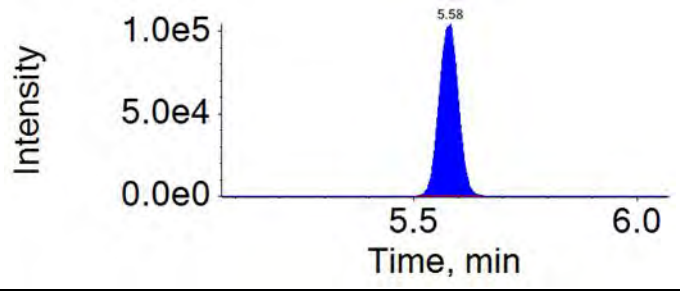
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





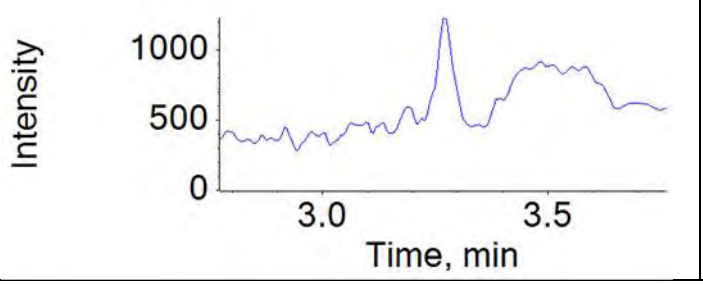
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

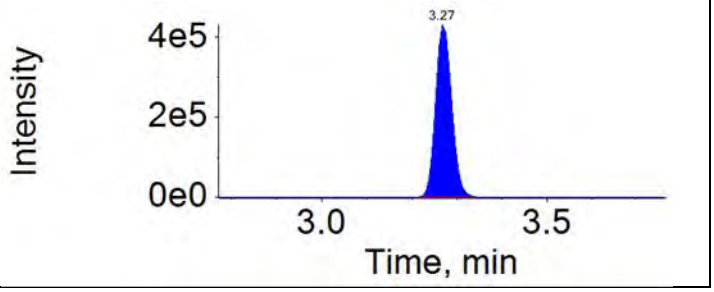




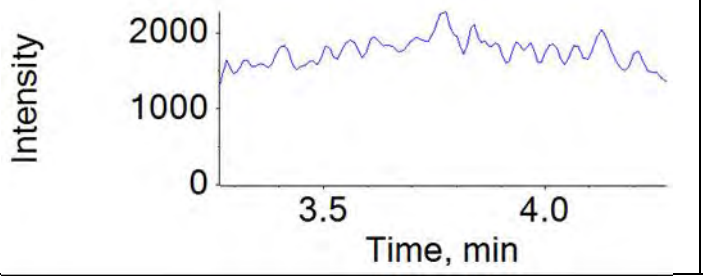
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

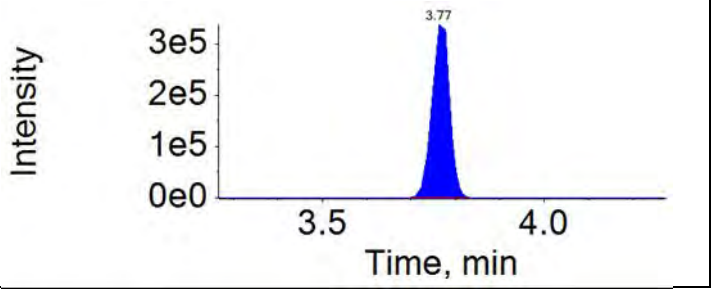
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



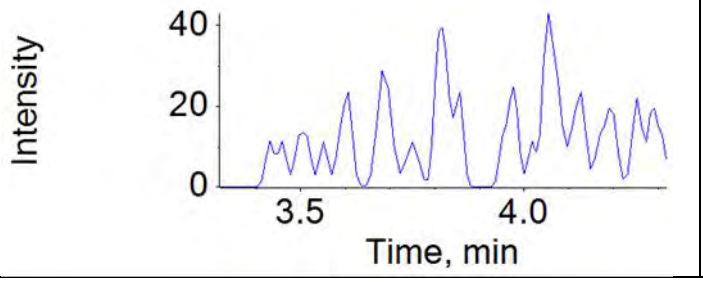


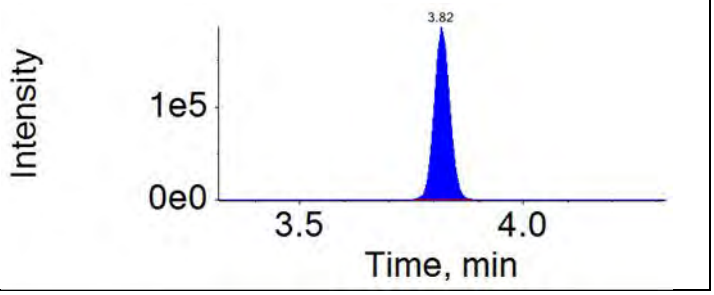
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



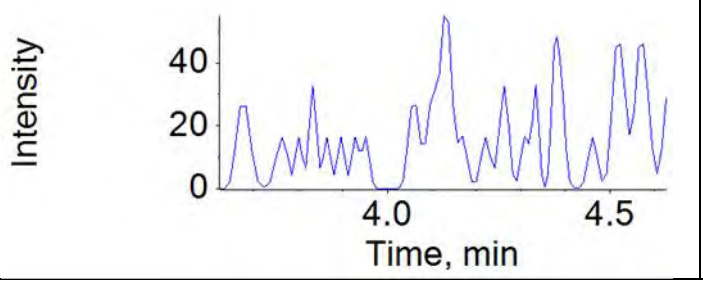


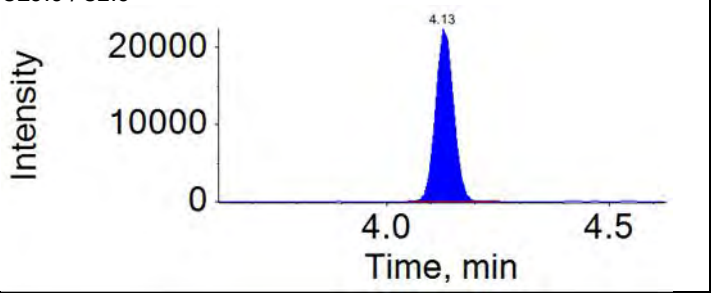
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



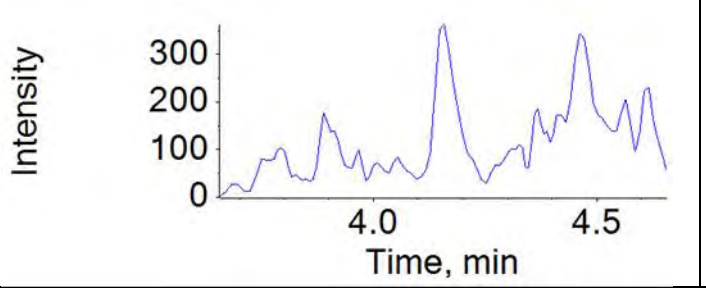


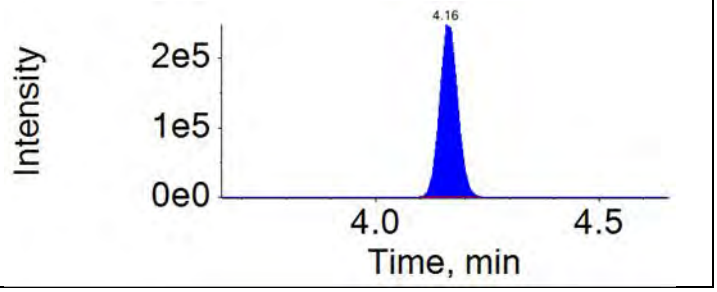
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

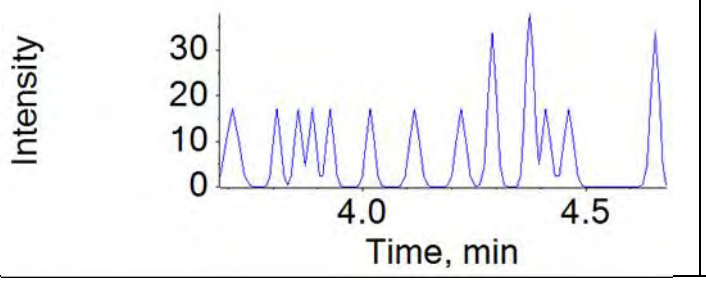
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

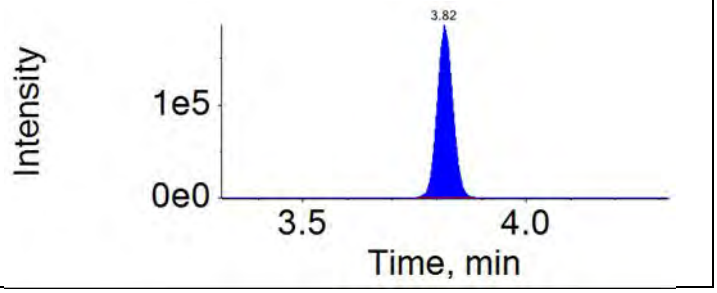
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



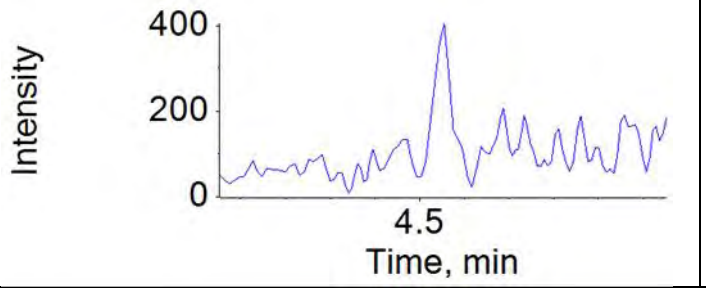


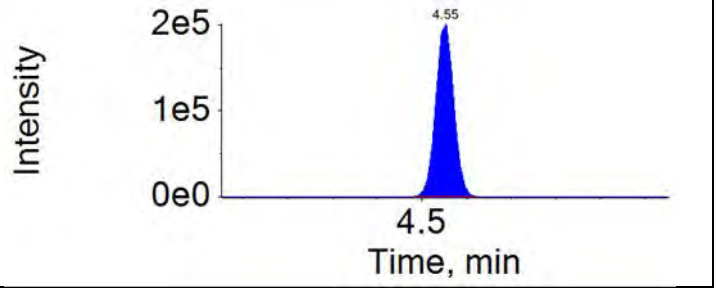
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



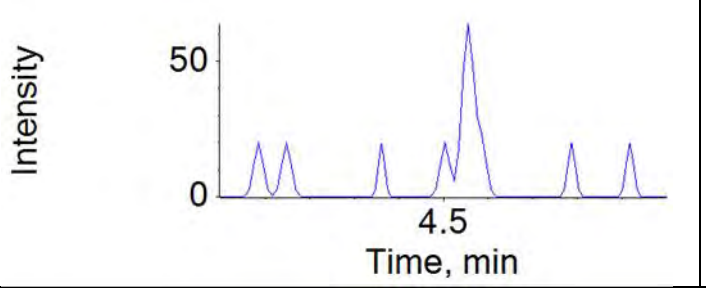


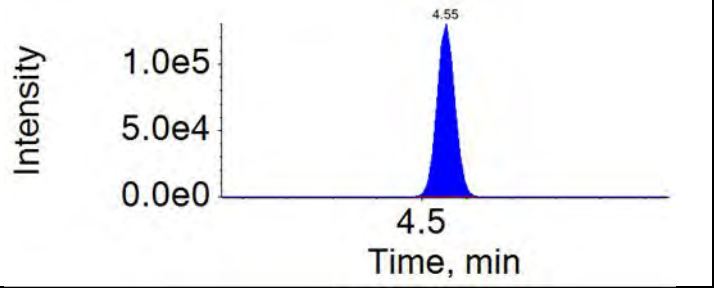
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





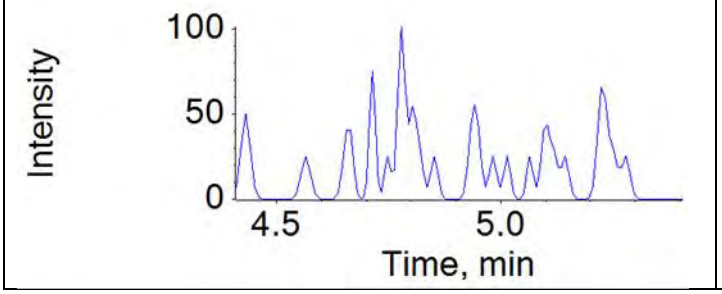
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

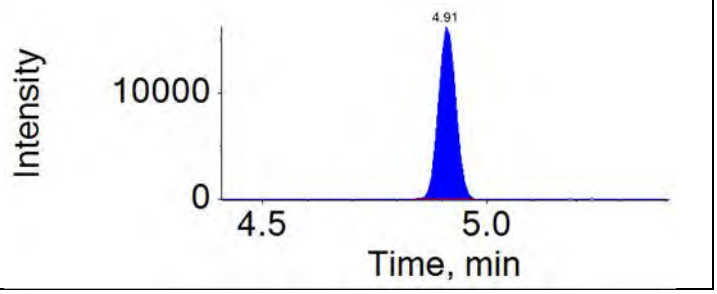




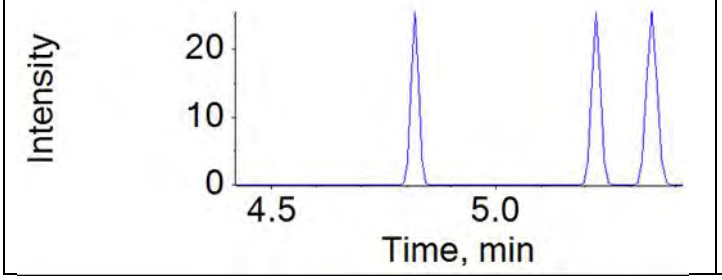
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

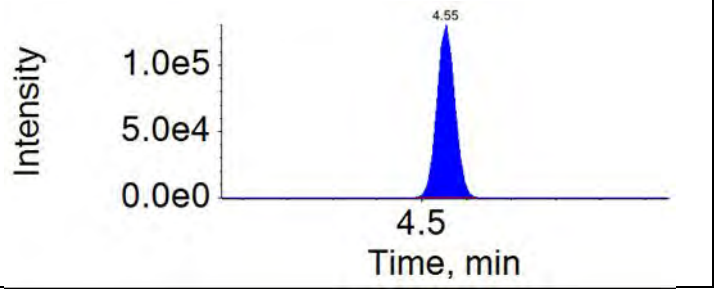
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



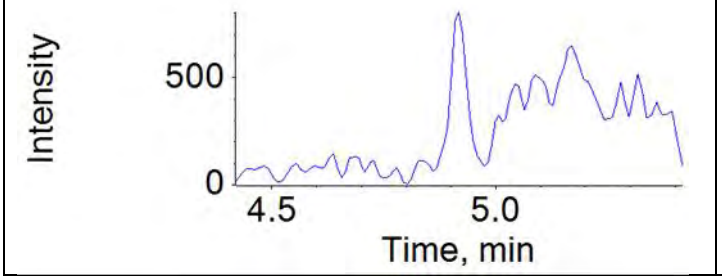


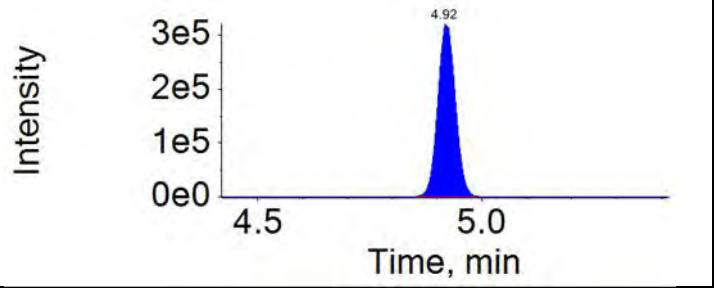
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



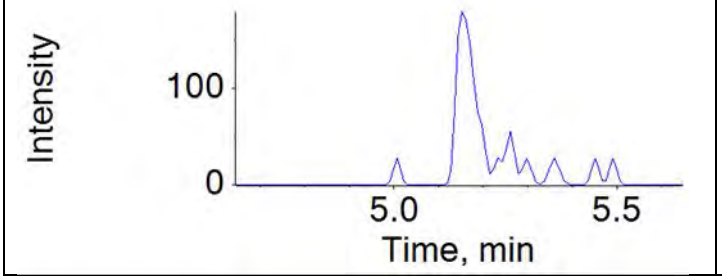


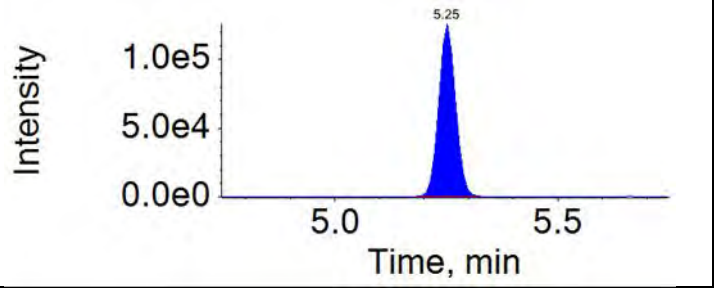
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





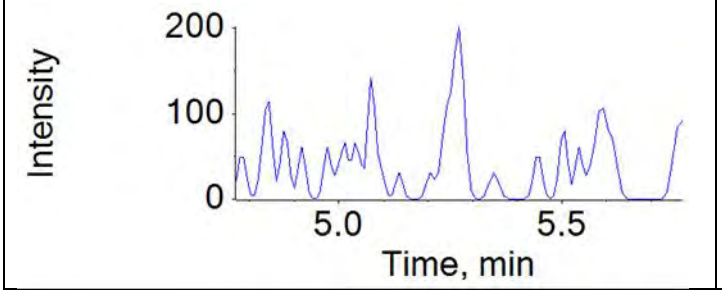
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

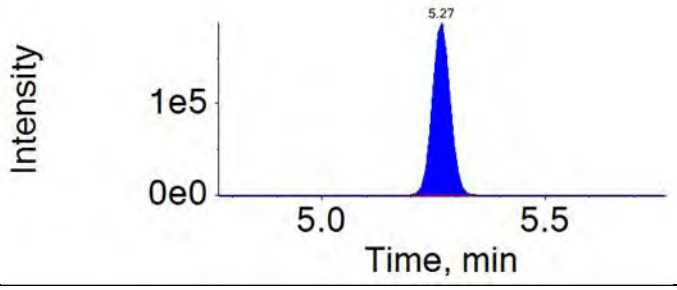




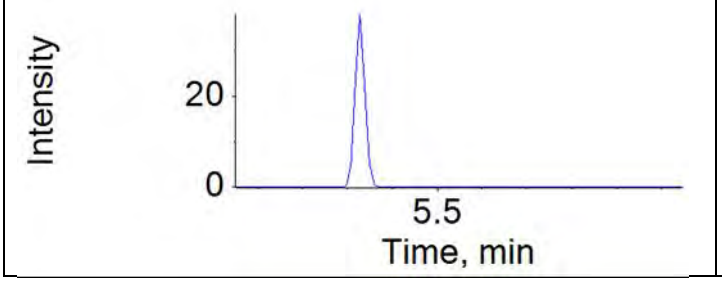
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

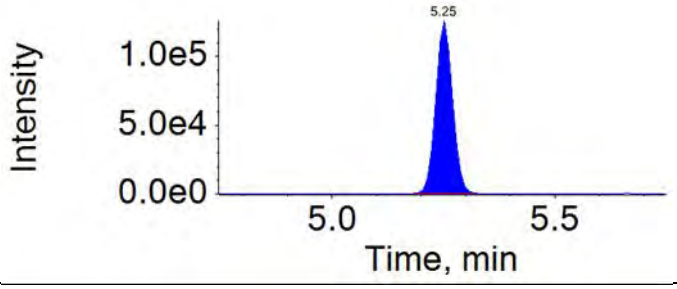
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



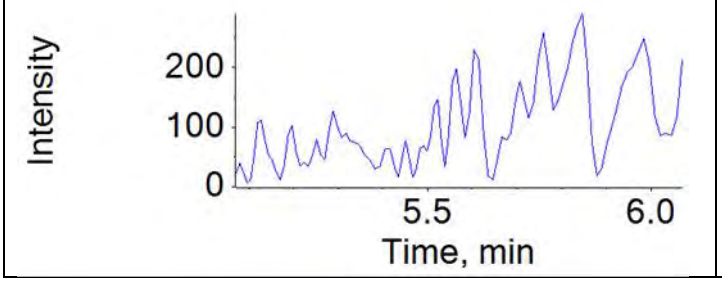


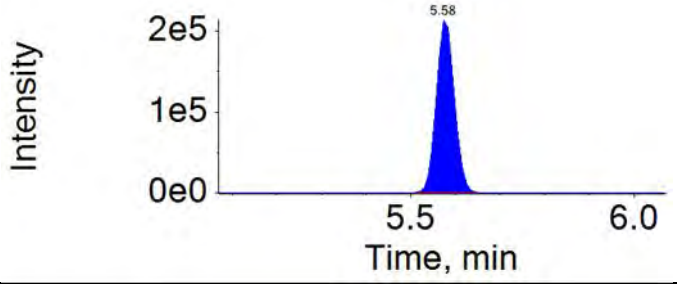
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



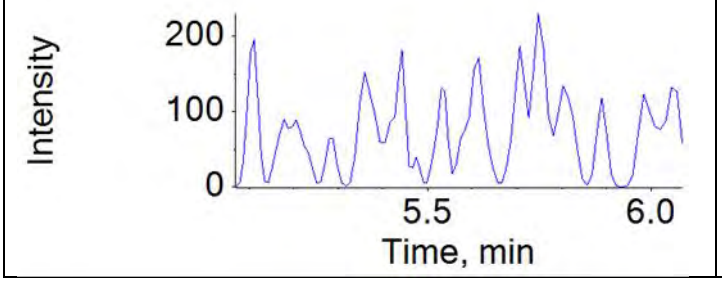


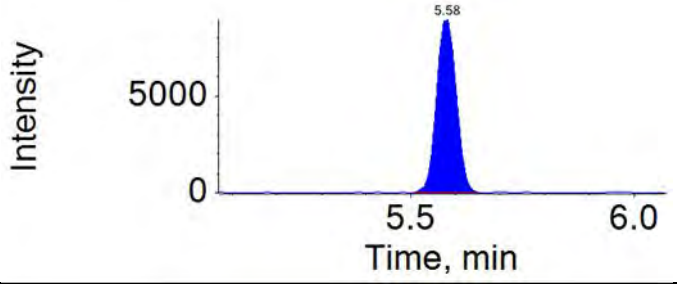
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





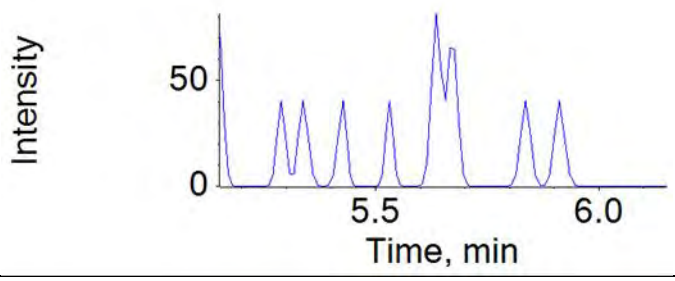
Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

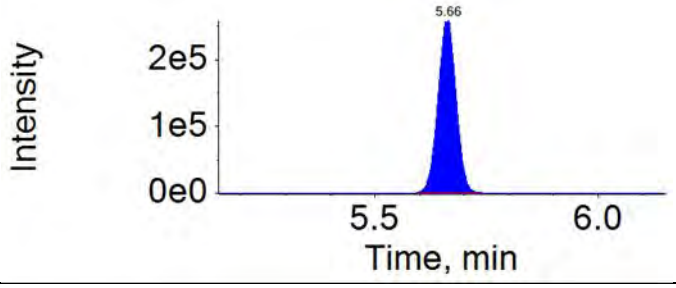




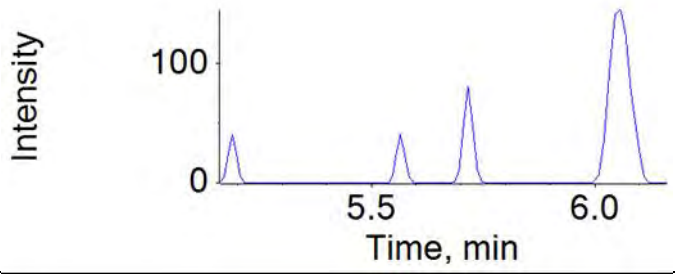
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

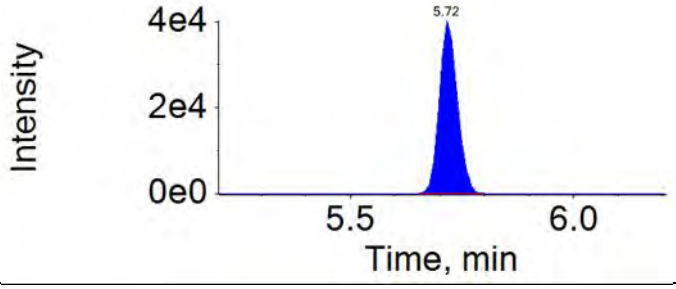
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



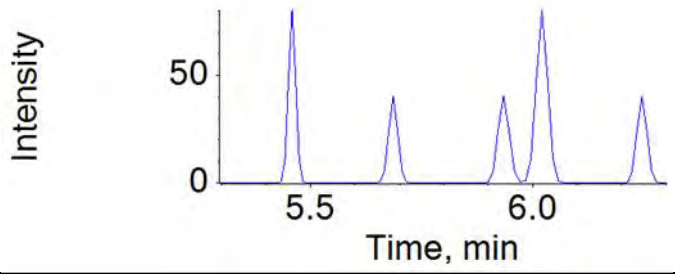


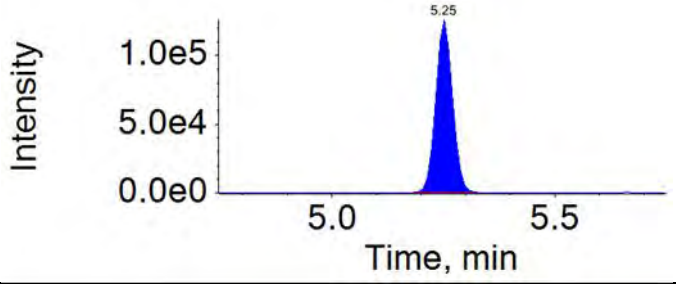
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



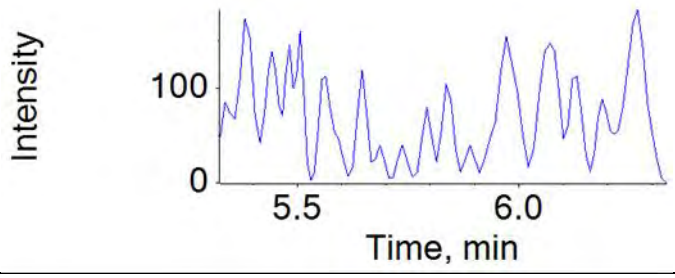


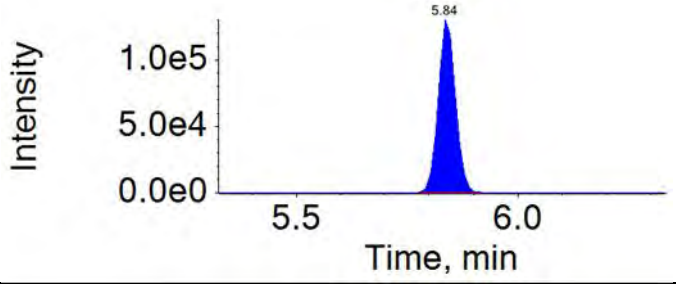
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



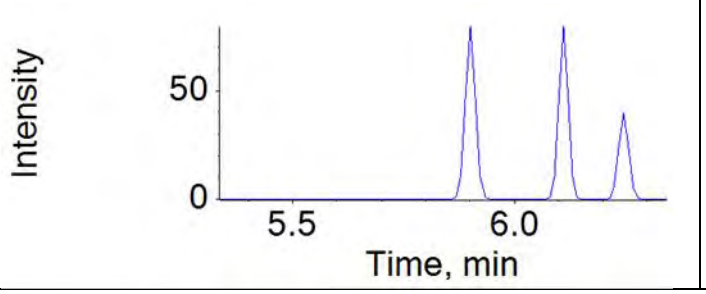


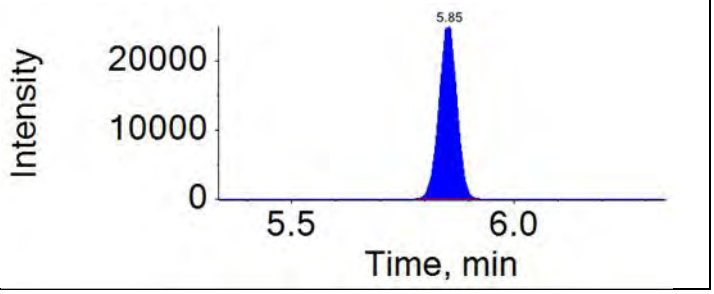
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

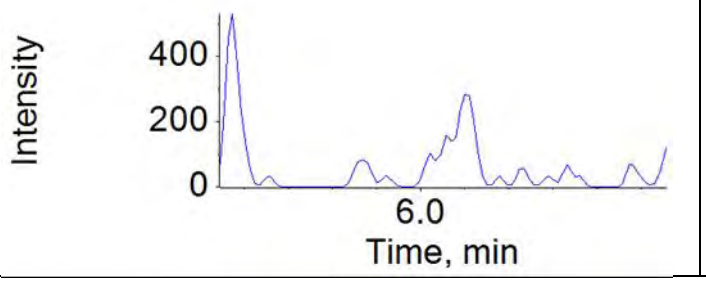
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

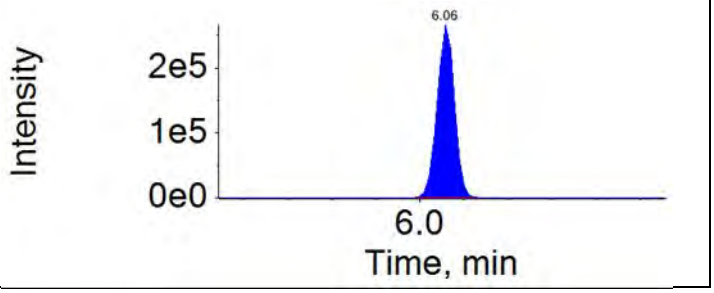
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



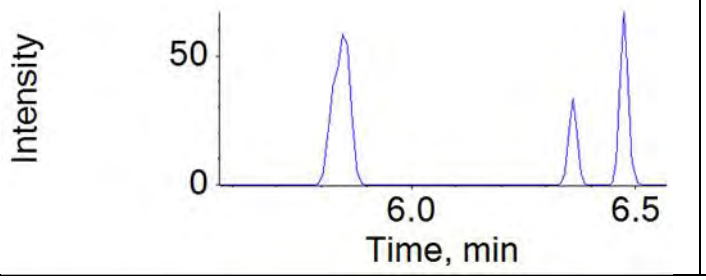


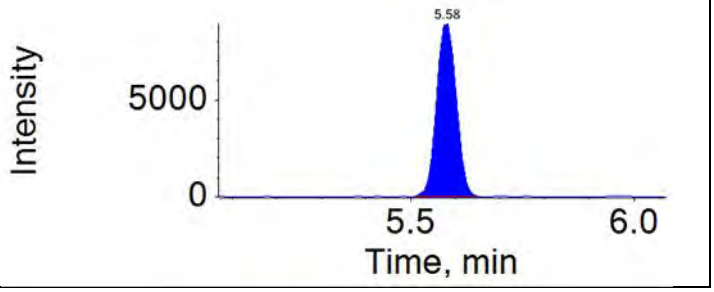
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



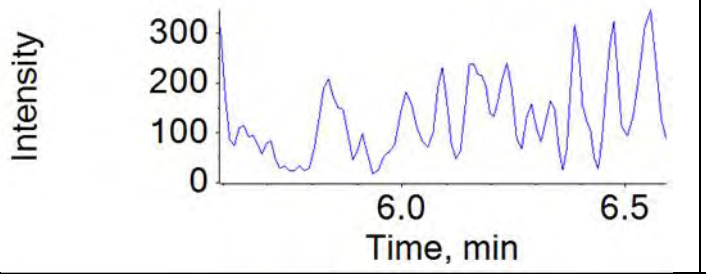


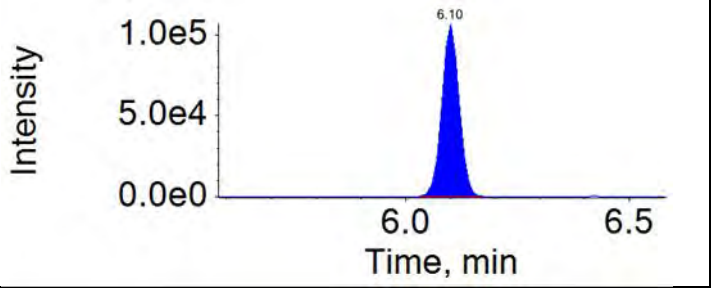
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



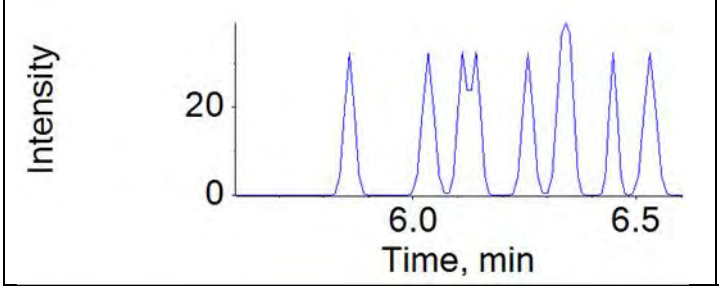


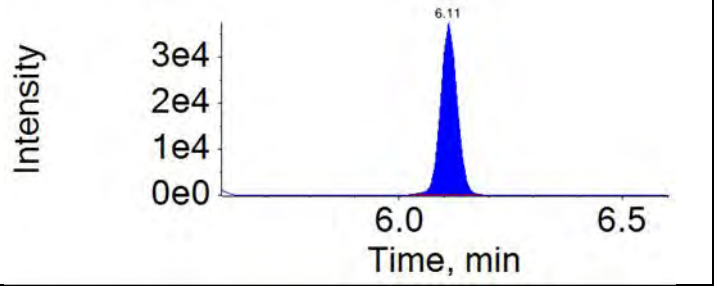
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

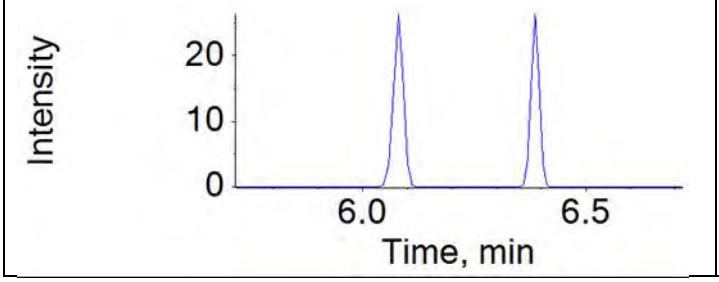
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

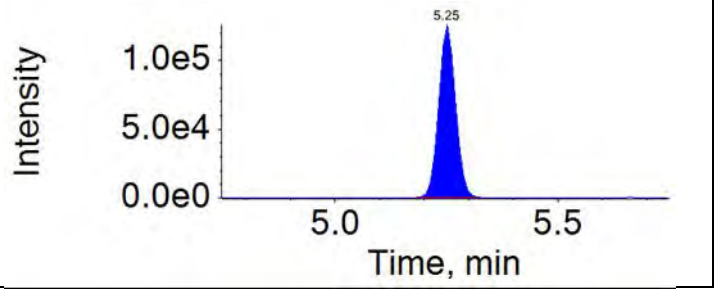
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



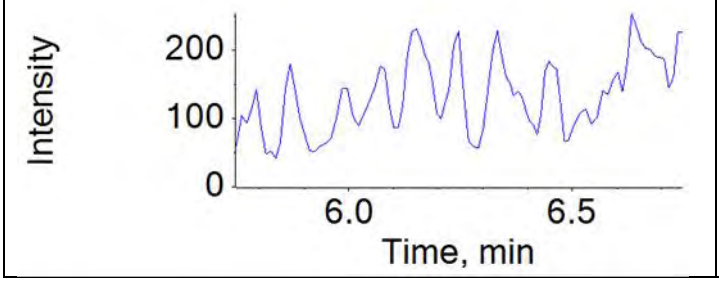


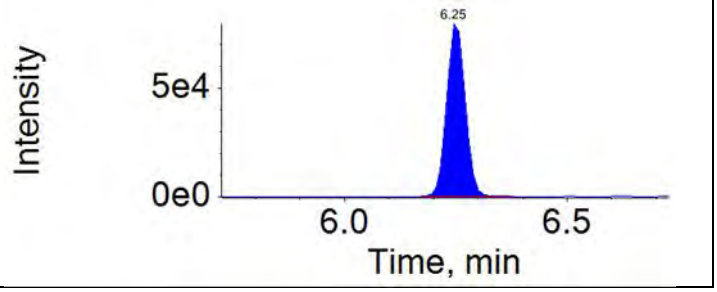
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



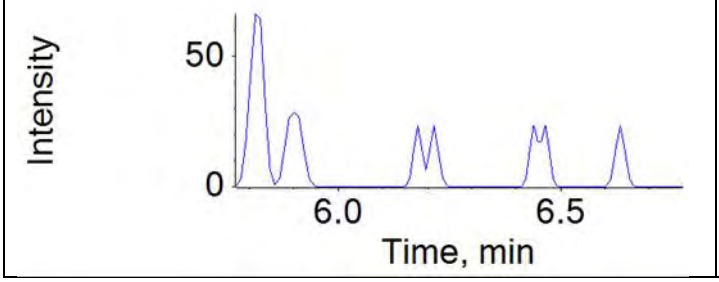


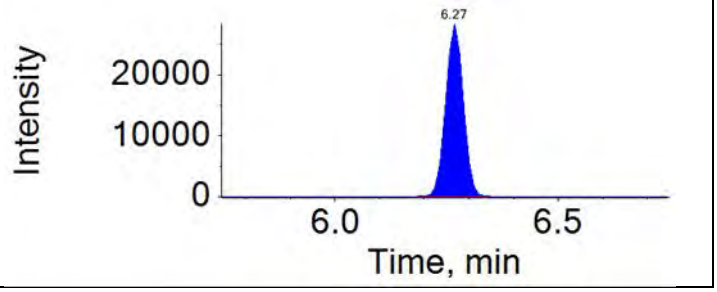
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





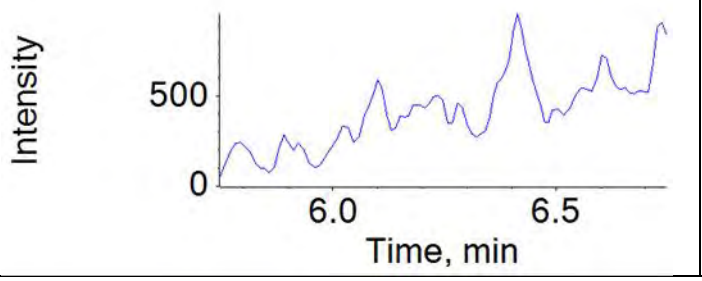
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

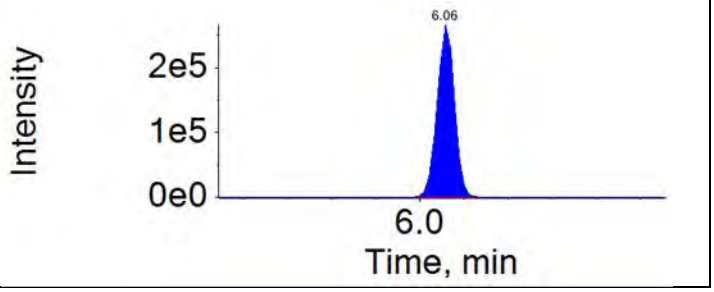




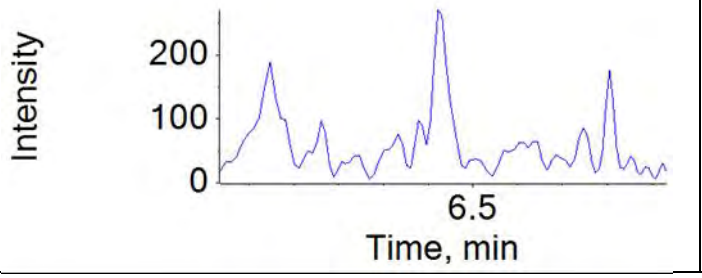
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

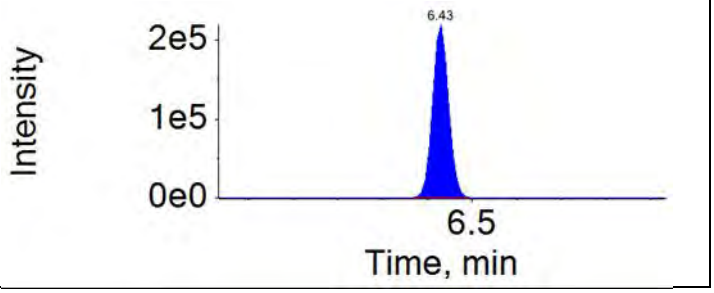
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



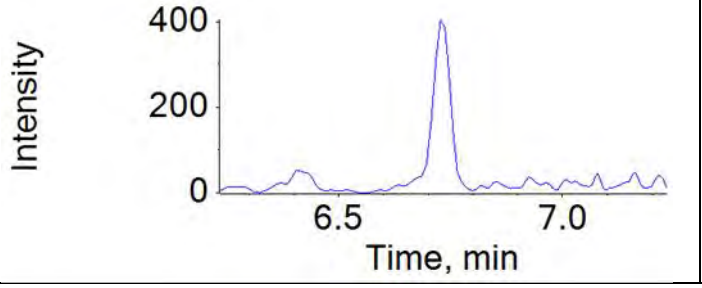


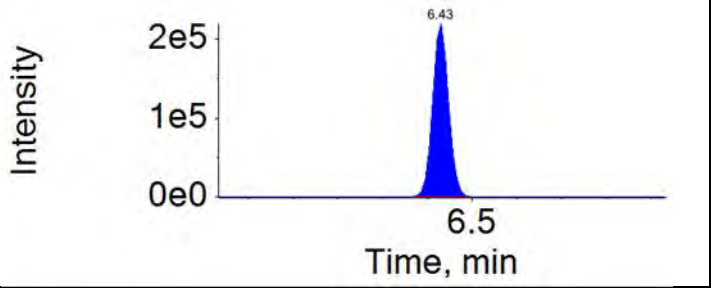
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



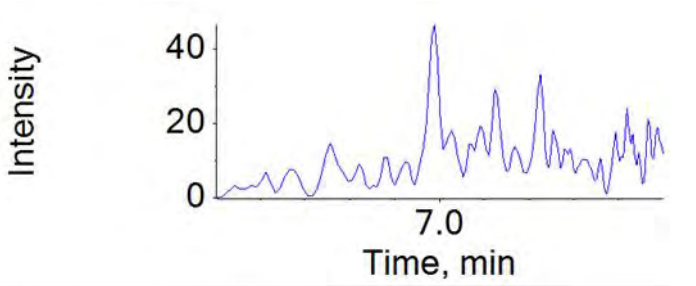


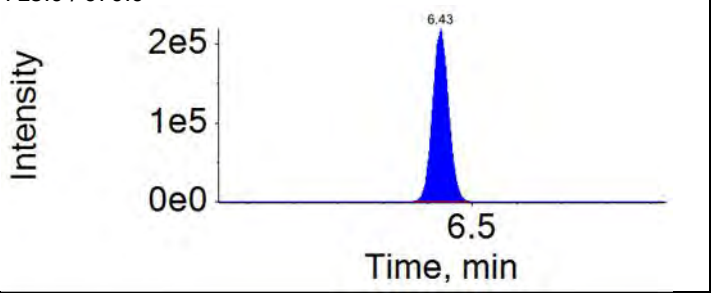
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

Ion Ratio Report

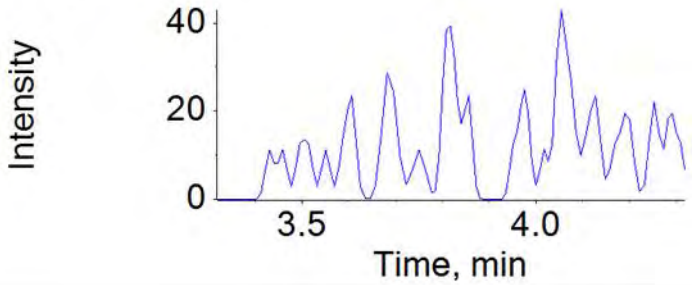
Sample Name: Instrument Blank **Instrument Name:** LM27631 **File Name:** 18DEC05D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

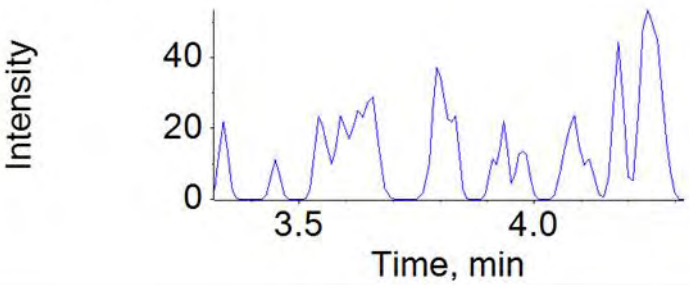
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

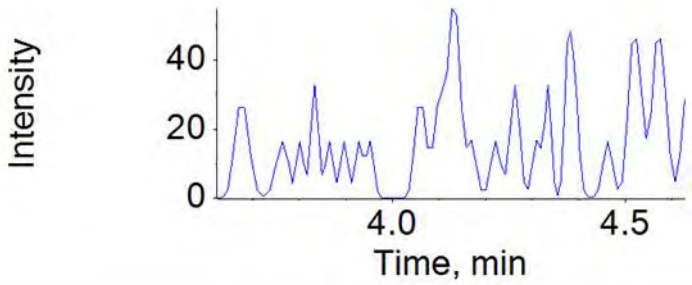
Component: PFBS
Primary Mass: 299.0 / 80.0



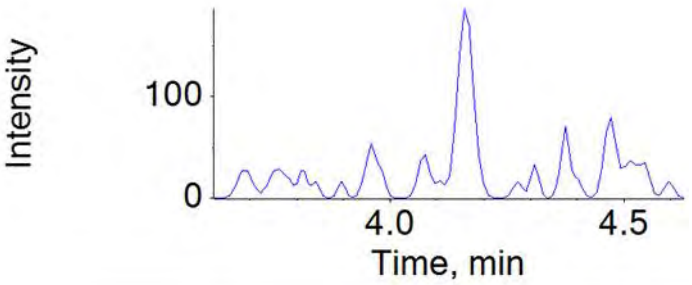
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



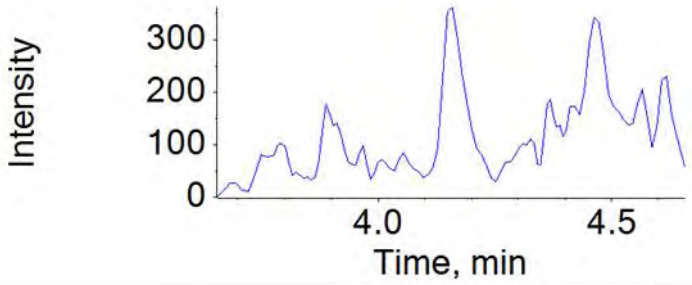
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



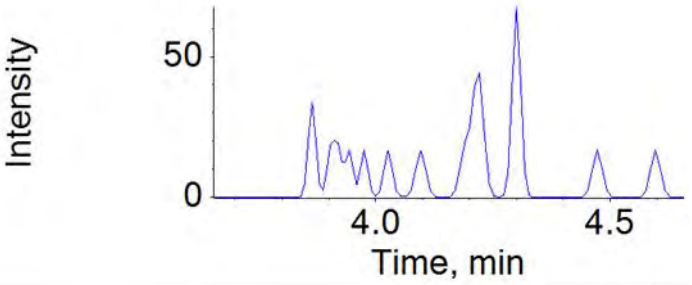
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



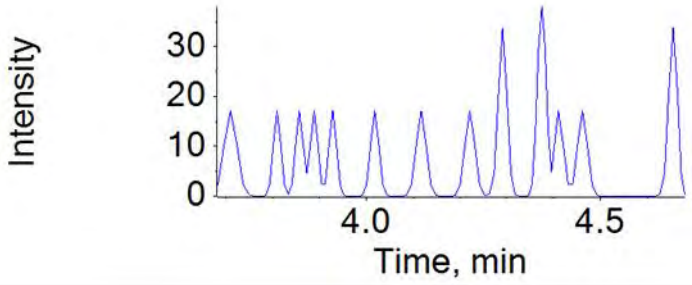
Component: PFHxA
Primary Mass: 313.0 / 269.0



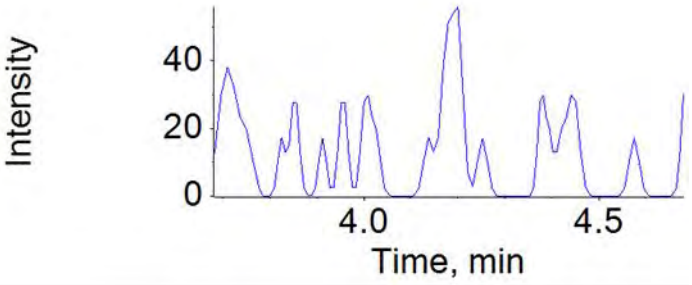
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



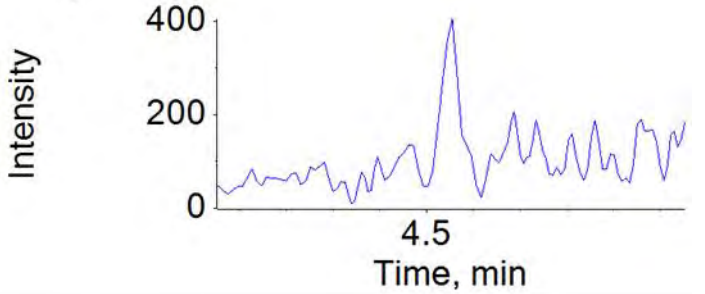
Component: PFPeS
Primary Mass: 349.0 / 80.0



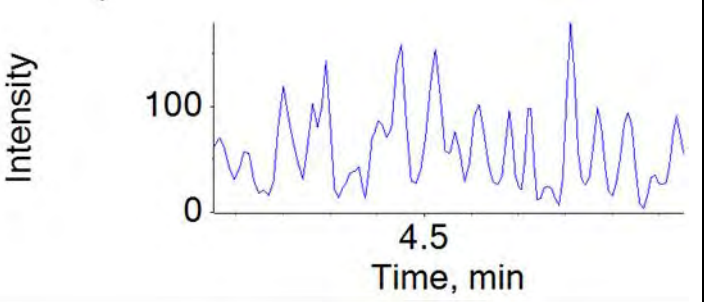
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



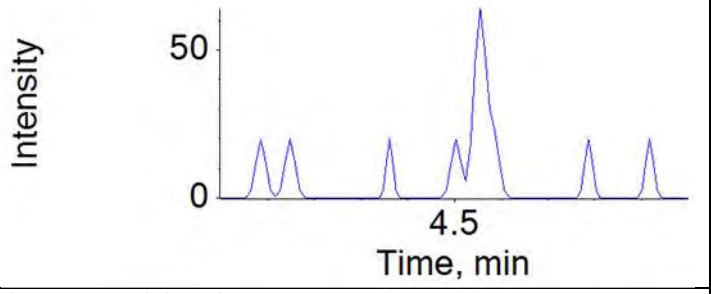
Component: PFHpA
Primary Mass: 363.0 / 319.0



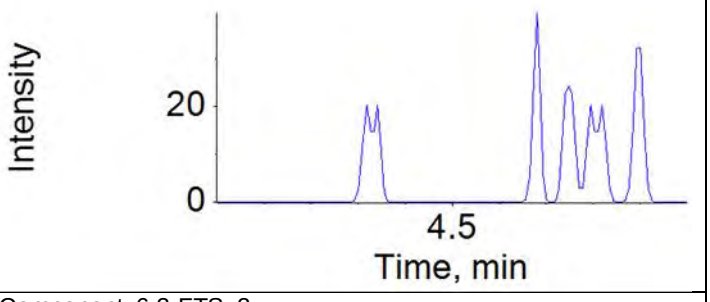
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



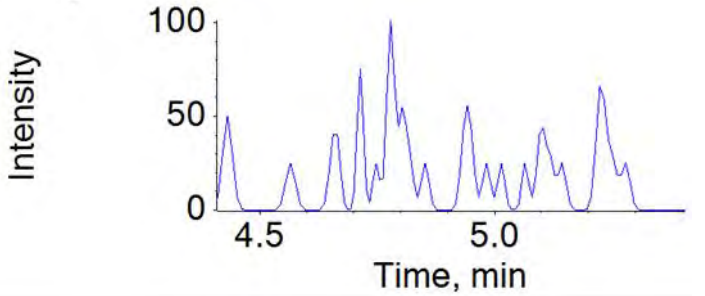
Component: PFHxS
Primary Mass: 399.0 / 80.0



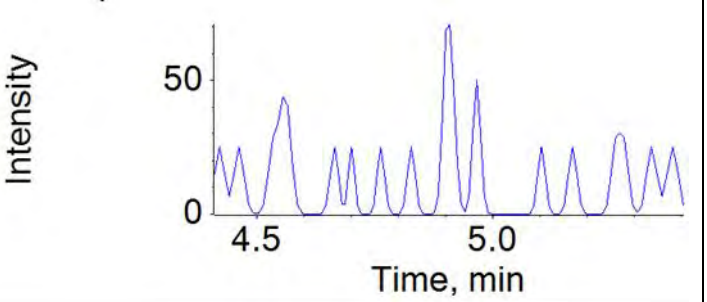
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



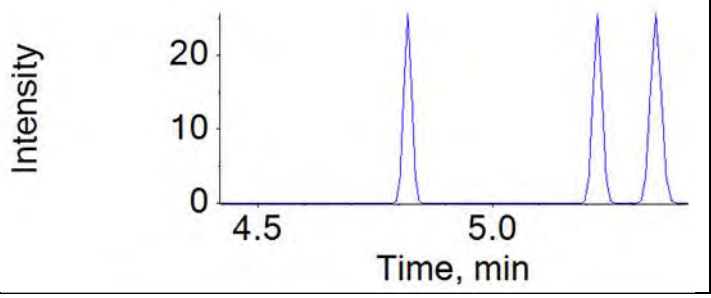
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



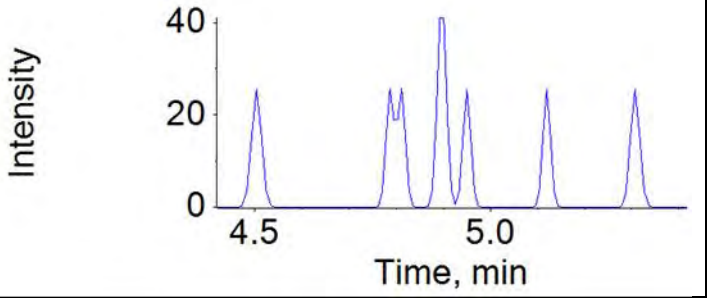
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



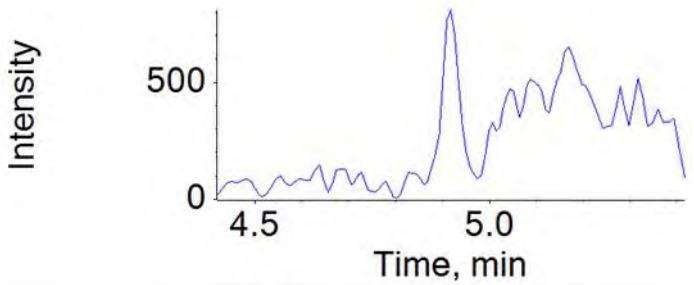
Component: PFHpS
Primary Mass: 449.0 / 80.0



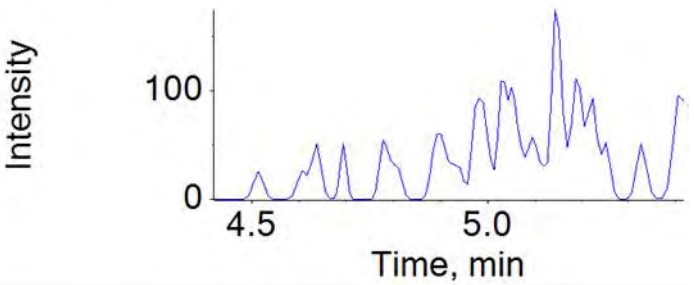
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



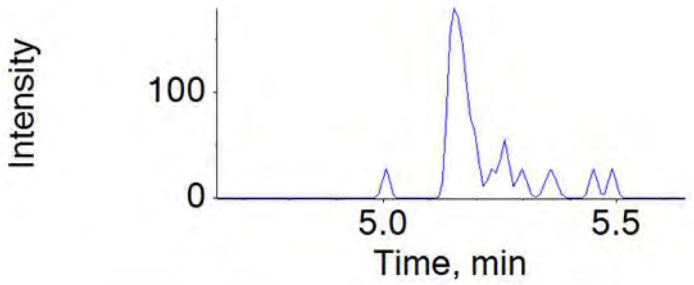
Component: PFOA
Primary Mass: 413.0 / 369.0



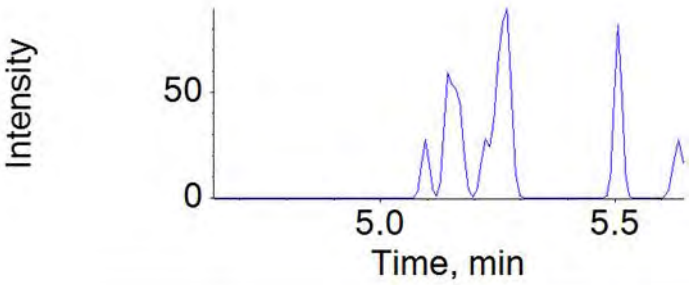
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



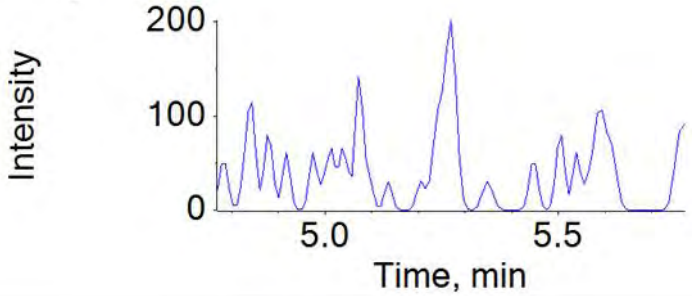
Component: PFOS
Primary Mass: 499.0 / 80.0



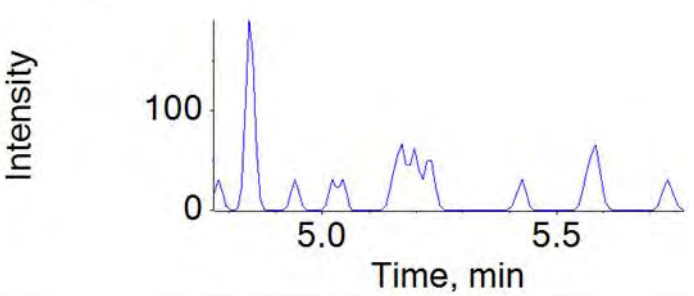
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



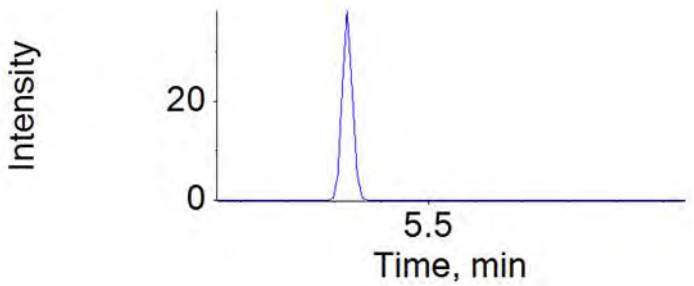
Component: PFNA
Primary Mass: 463.0 / 419.0



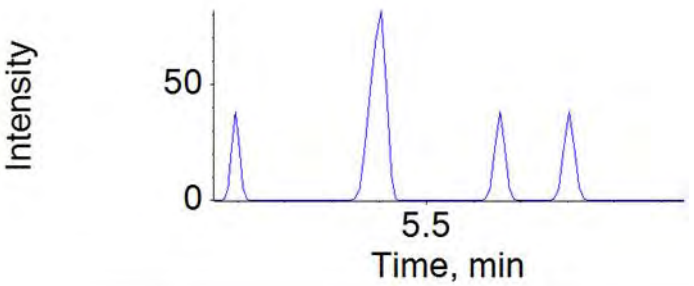
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



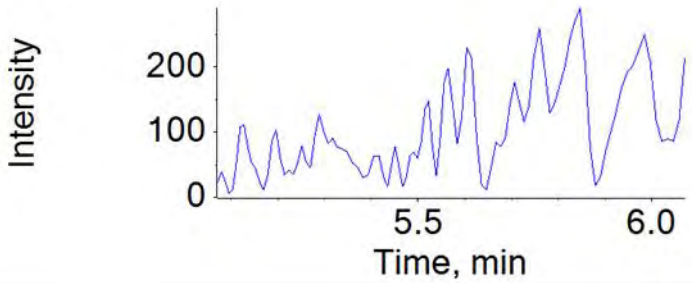
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



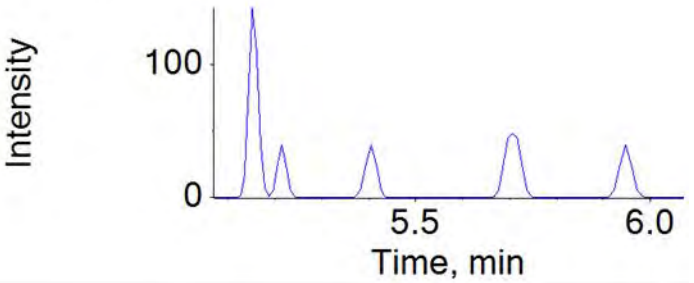
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

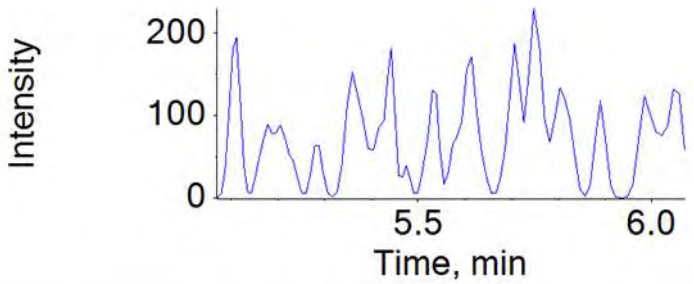
Component: PFDA
Primary Mass: 513.0 / 469.0



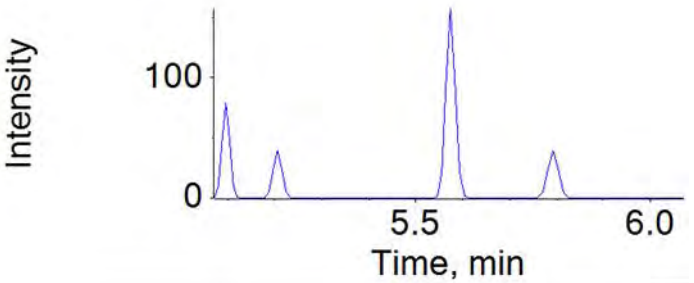
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



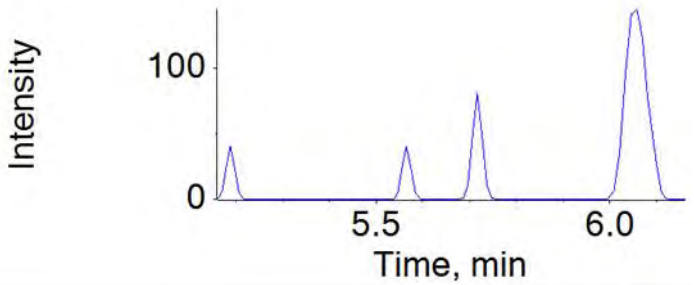
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



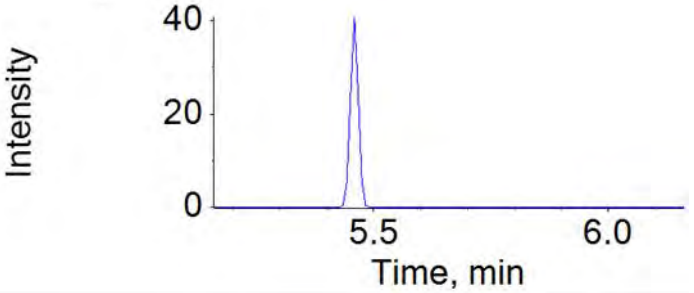
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



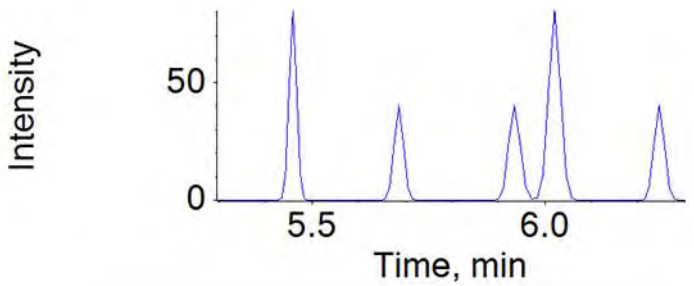
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



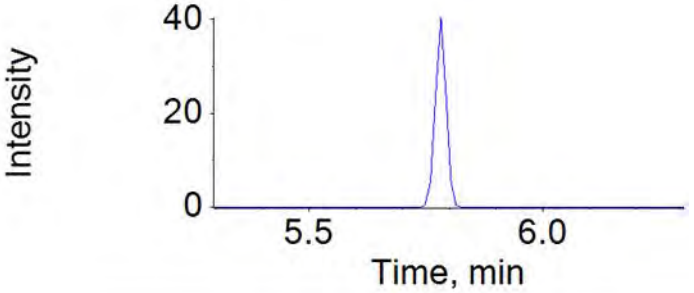
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



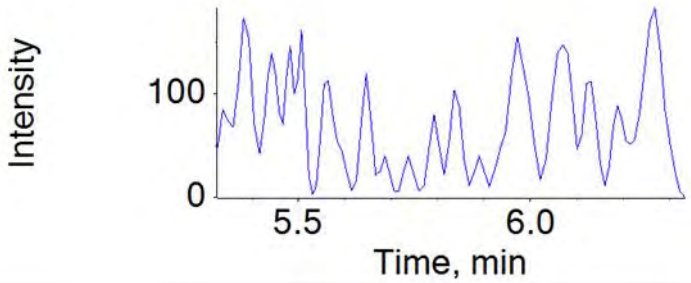
Component: PFDS
Primary Mass: 599.0 / 80.0



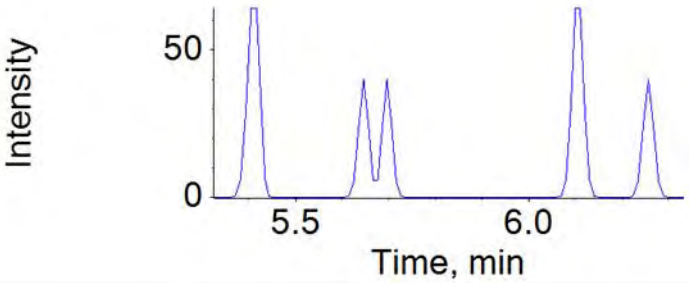
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



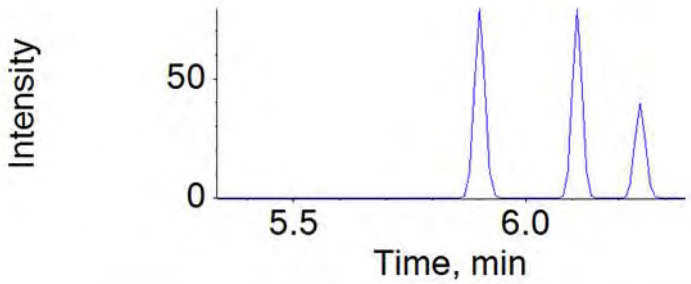
Component: PFUnDA
Primary Mass: 563.0 / 519.0



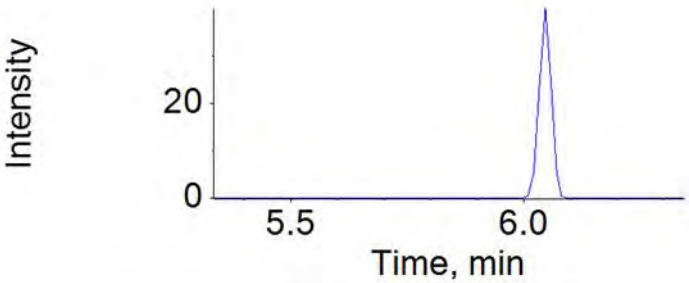
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



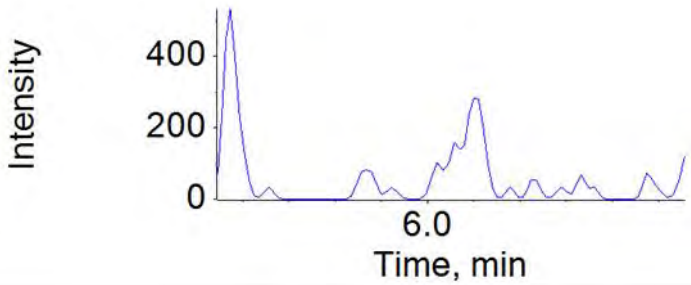
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



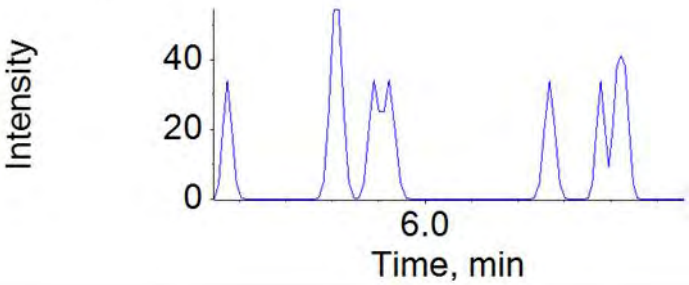
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



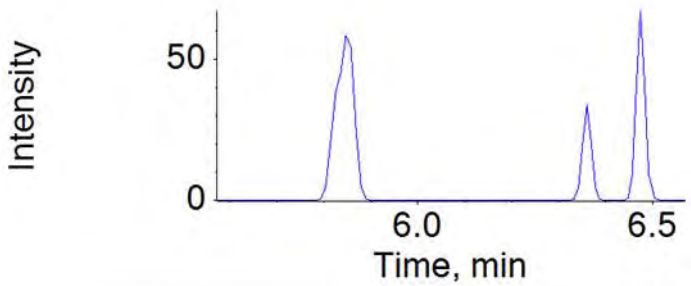
Component: PFDoDA
Primary Mass: 613.0 / 569.0



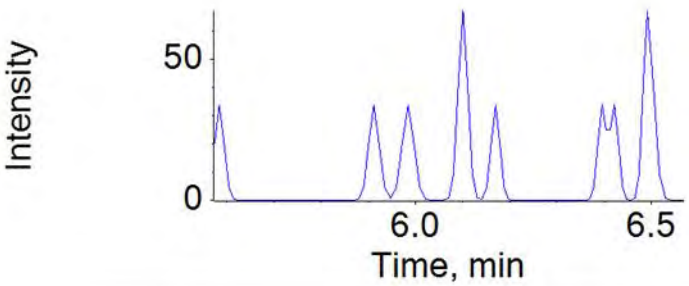
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



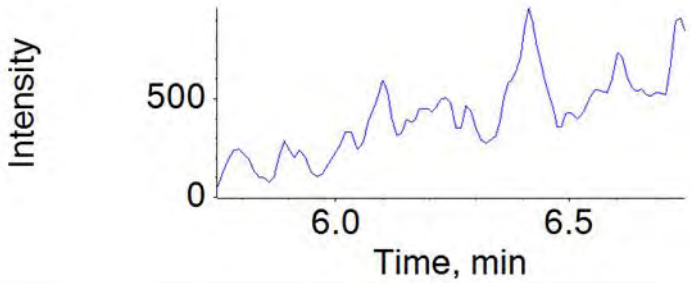
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



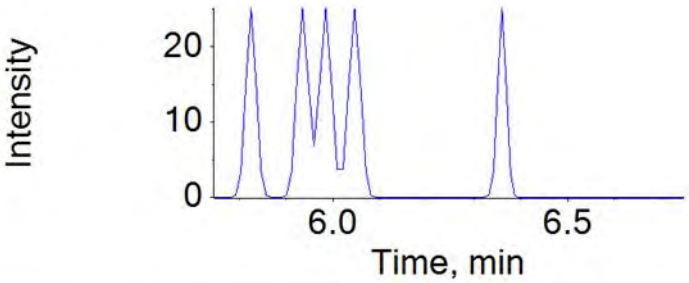
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



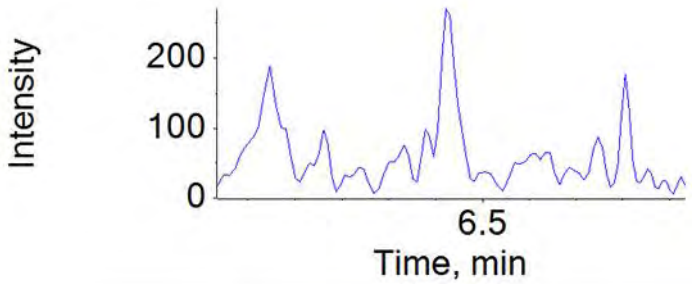
Component: PFTrDA
Primary Mass: 663.0 / 619.0



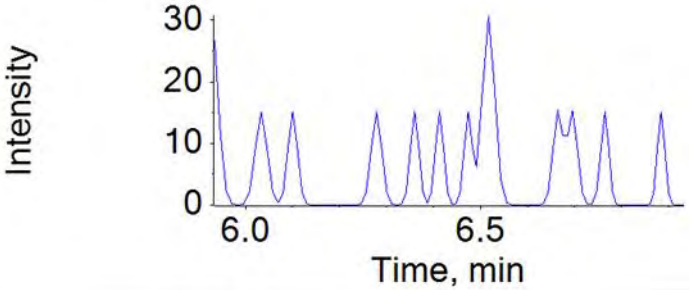
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



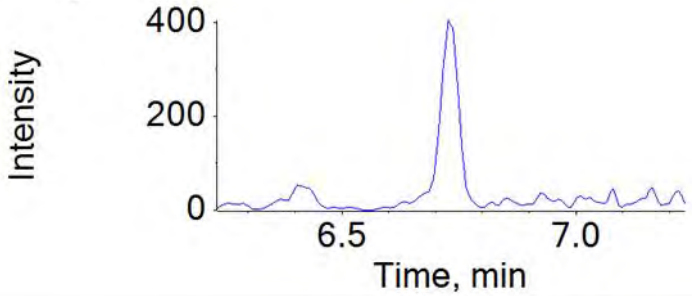
Component: PFTeDA
Primary Mass: 713.0 / 669.0



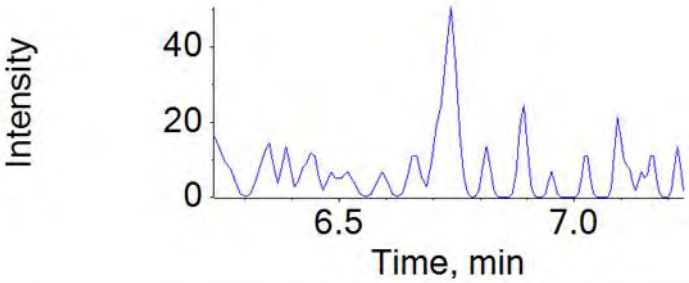
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



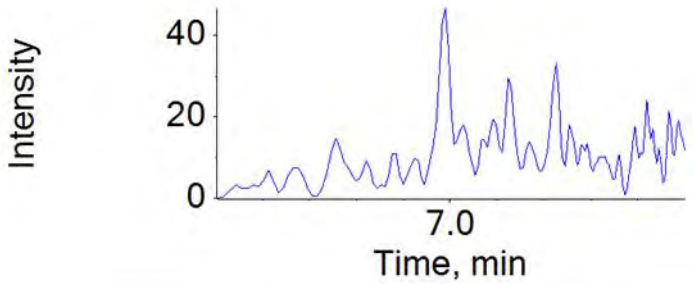
Component: PFHxDA
Primary Mass: 813.0 / 769.0



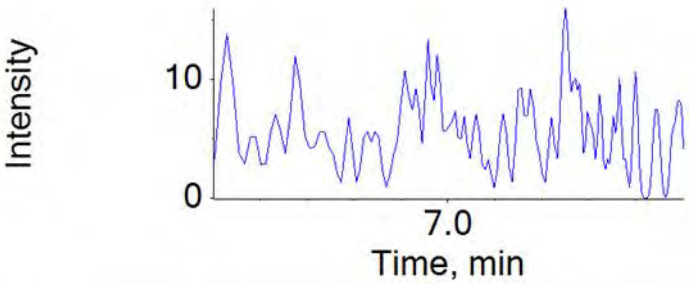
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



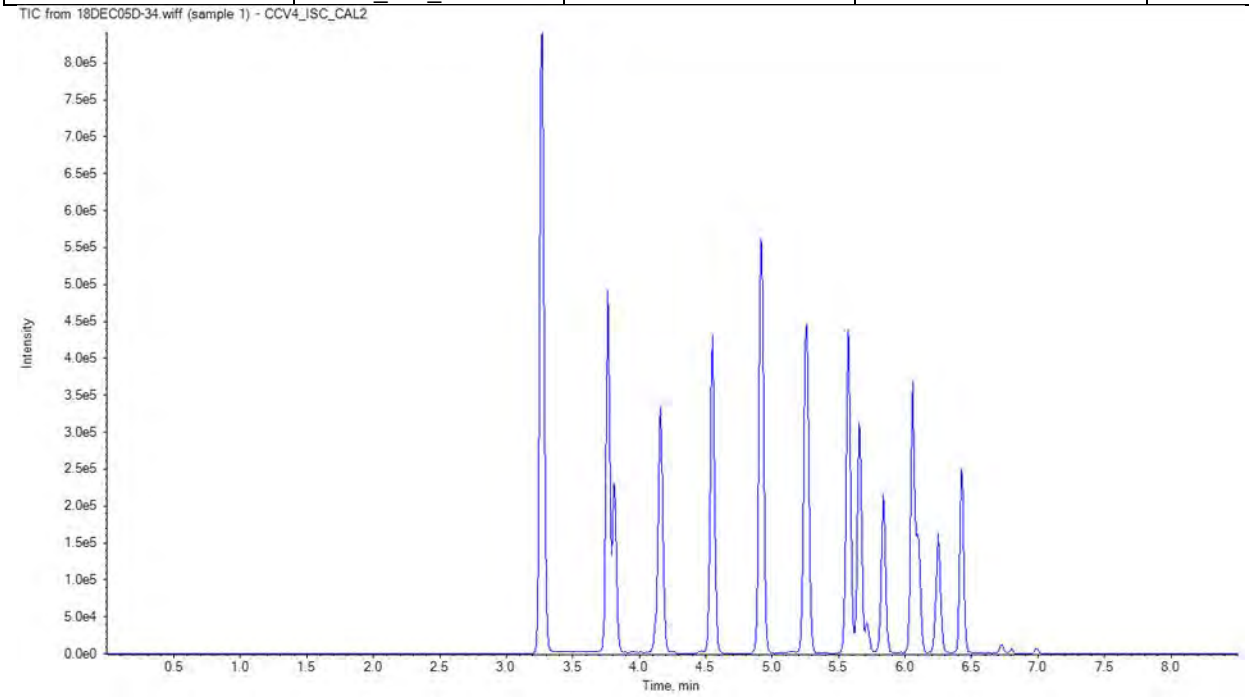
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By UMJS at 1:59 pm, 12/14/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18DEC05D-34.wiff	2018-12-05T17:09:11



Injection Standard Area Reference File: 18DEC05D-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	847666.3	850136.0	0	50	
13C2-PFOA	5.0	407235.5	429843.2	-5	50	
13C4-PFOS	4.8	276791.0	272032.6	2	50	
13C2-PFDA	5.0	292905.7	291183.9	1	50	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALBRN21833C	18DEC05D-34.wiff	2018-12-05T17:09:11

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	102421.1	10	13C4-PFBA	974183.5	5.0	0.105	3.26	1.000	0.600	0.595	-1	30	
PFPeA	91559.1	11	13C5-PFPeA	873483.9	5.0	0.105	3.77	1.000	0.600	0.525	-13	30	
PFBS	41409.7	10	13C3-PFBS	421352.7	4.7	0.098	3.81	1.000	0.531	0.479	-10	30	
4:2-FTS	9788.9	11	13C2-4:2-FTS	53689.5	4.7	0.182	4.12	1.000	0.560	0.460	-18	30	
PFHxA	86922.1	12	13C5-PFHxA	642041.9	5.0	0.135	4.16	1.000	0.600	0.577	-4	30	
PFPeS	23003.3	12	13C3-PFBS	421352.7	4.7	0.055	4.18	1.100	0.563	0.524	-7	30	
PFHpA	90339.7	12	13C4-PFHpA	513379.6	5.0	0.176	4.55	1.000	0.600	0.568	-5	30	
PFHxS	31807.1	18	13C3-PFHxS	324752.0	4.7	0.098	4.55	1.000	0.547	0.461	-16	30	
6:2-FTS	7197.7	11	13C2-6:2-FTS	35695.3	4.8	0.202	4.90	1.000	0.569	0.489	-14	30	
PFHpS	32375.9	11	13C3-PFHxS	324752.0	4.7	0.100	4.91	1.080	0.571	0.519	-9	30	
PFOA	85299.2	11	13C8-PFOA	807068.9	5.0	0.106	4.92	1.000	0.600	0.559	-7	30	
PFOS	33666.0	22	13C8-PFOS	308442.4	4.8	0.109	5.25	1.000	0.555	0.463	-17	30	
PFNA	76340.8	11	13C9-PFNA	516600.4	5.0	0.148	5.27	1.000	0.600	0.554	-8	30	
PFNS	25984.1	11	13C8-PFOS	308442.4	4.8	0.084	5.55	1.060	0.576	0.568	-1	30	
PFDA	63390.1	12	13C6-PFDA	586348.0	5.0	0.108	5.57	1.000	0.600	0.593	-1	30	
8:2-FTS	6025.5	11	13C2-8:2-FTS	22794.3	4.8	0.264	5.58	1.000	0.575	0.568	-1	30	
PFOSA	66745.0	11	13C8-PFOSA	638387.9	5.0	0.105	5.66	1.000	0.600	0.548	-9	30	
NMeFOSAA	9178.1	15	d3-NMeFOSAA	79842.4	5.0	0.115	5.72	1.000	0.600	0.761	27	30	
PFDS	16282.1	11	13C8-PFOS	308442.4	4.8	0.053	5.81	1.110	0.578	0.452	-22	30	
PFUnDA	61704.5	11	13C7-PFUnDA	319185.8	5.0	0.193	5.84	1.000	0.600	0.589	-2	30	
NEtFOSAA	6168.5	18	d5-NEtFOSAA	66042.8	5.0	0.093	5.85	1.000	0.600	0.472	-21	30	
PFDoDA	68152.0	11	13C2-PFDoDA	656546.3	5.0	0.104	6.06	1.000	0.600	0.592	-1	30	
10:2-FTS	4149.9	11	13C2-8:2-FTS	22794.3	4.8	0.182	6.07	1.090	0.578	0.454	-22	30	
NMePFOSAE	31105.0	11	d7-NMePFOSAE	245366.5	5.0	0.127	6.11	1.000	0.600	0.537	-11	30	
NMePFOSA	9563.9	12	d3-NMePFOSA	78560.0	5.0	0.122	6.11	1.000	0.600	0.642	7	30	
PFDoS	9123.7	11	13C8-PFOS	308442.4	4.8	0.030	6.22	1.180	0.581	0.463	-20	30	
NEtPFOSAE	34712.5	11	d9-NEtPFOSAE	205514.6	5.0	0.169	6.26	1.000	0.600	0.582	-3	30	
NEtPFOSA	6925.9	12	d5-NEtPFOSA	61180.5	5.0	0.113	6.27	1.000	0.600	0.527	-12	30	
PFTrDA	64230.6	11	13C2-PFDoDA	656546.3	5.0	0.098	6.25	1.030	0.600	0.576	-4	30	
PFTeDA	47809.7	11	13C2-PFTeDA	476388.5	5.0	0.100	6.43	1.000	0.600	0.594	-1	30	
PFHxDA	22724.5	11	13C2-PFTeDA	476388.5	5.0	0.048	6.72	1.050	0.600	0.612	2	30	
PFODA	15282.8	10	13C2-PFTeDA	476388.5	5.0	0.032	6.99	1.090	0.600	0.510	-15	30	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Instrument Sensitivity Check/ Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM

Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV4_ISC_CAL2			**Data File:**		18DEC05D-34.wiff
Sample ID:	CALBRN21833C			**Acquis Date:**		2018-12-05T17:09:11
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	4			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC05DCCV1-8
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
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: 18DEC05D-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	847666.3	850136.0	0	50	
13C2-PFOA	5.0	407235.5	429843.2	-5	50	
13C4-PFOS	4.8	276791.0	272032.6	2	50	
13C2-PFDA	5.0	292905.7	291183.9	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	974183.5	13C3-PFBA	847666.3	1.149	5.000	5.100	102	70-130	
E13C5-PFPeA	873483.9	13C3-PFBA	847666.3	1.030	5.000	4.972	99	70-130	
E13C3-PFBS	421352.7	13C3-PFBA	847666.3	0.497	4.650	3.874	83	70-130	
E13C2-4:2-FTS	53689.5	13C2-PFOA	407235.5	0.132	4.670	5.423	116	70-130	
E13C5-PFHxA	642041.9	13C2-PFOA	407235.5	1.577	5.000	5.339	107	70-130	
E13C3-PFHxS	324752.0	13C2-PFOA	407235.5	0.797	4.730	5.042	107	70-130	
E13C4-PFHpA	513379.6	13C2-PFOA	407235.5	1.261	5.000	5.500	110	70-130	
E13C2-6:2-FTS	35695.3	13C2-PFOA	407235.5	0.088	4.750	5.809	122	70-130	
E13C8-PFOA	807068.9	13C2-PFOA	407235.5	1.982	5.000	5.509	110	70-130	
E13C8-PFOS	308442.4	13C4-PFOS	276791.0	1.114	4.780	4.949	104	70-130	
E13C9-PFNA	516600.4	13C4-PFOS	276791.0	1.866	5.000	5.463	109	70-130	
E13C6-PFDA	586348.0	13C2-PFDA	292905.7	2.002	5.000	5.207	104	70-130	
E13C2-8:2-FTS	22794.3	13C2-PFDA	292905.7	0.078	4.790	5.004	104	70-130	
E13C8-PFOSA	638387.9	13C2-PFDA	292905.7	2.179	5.000	4.879	98	70-130	
Ed3-NMeFOSAA	79842.4	13C2-PFDA	292905.7	0.273	5.000	4.762	95	70-130	
E13C7-PFUnDA	319185.8	13C2-PFDA	292905.7	1.090	5.000	5.427	109	70-130	
Ed5-NEtFOSAA	66042.8	13C2-PFDA	292905.7	0.225	5.000	5.144	103	70-130	
E13C2-PFDoDA	656546.3	13C2-PFDA	292905.7	2.241	5.000	4.800	96	70-130	
Ed7-NMePFOSAE	245366.5	13C2-PFDA	292905.7	0.838	5.000	4.542	91	70-130	
Ed3-NMePFOSA	78560.0	13C2-PFDA	292905.7	0.268	5.000	4.973	99	70-130	
Ed9-NEtPFOSAE	205514.6	13C2-PFDA	292905.7	0.702	5.000	4.525	91	70-130	
Ed5-NEtPFOSA	61180.5	13C2-PFDA	292905.7	0.209	5.000	4.928	99	70-130	
E13C2-PFTeDA	476388.5	13C2-PFDA	292905.7	1.626	5.000	4.585	92	70-130	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

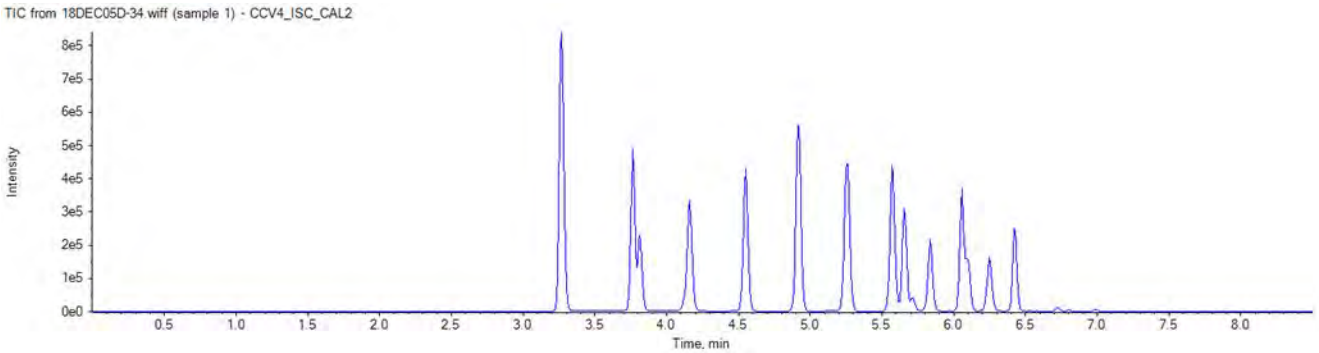
Analyte Quantitation Peak Table

Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC05D-34.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	102421.1		A	13C4-PFBA	3.26	974183.5	0.105	0.595
PFPeA	3.77	1.000	91559.1		A	13C5-PFPeA	3.76	873483.9	0.105	0.525
PFBS	3.81	1.000	41409.7		A	13C3-PFBS	3.81	421352.7	0.098	0.479
4:2-FTS	4.12	1.000	9788.9		A	13C2-4:2-FTS	4.13	53689.5	0.182	0.460
PFHxA	4.16	1.000	86922.1		A	13C5-PFHxA	4.16	642041.9	0.135	0.577
PFPeS	4.18	1.100	23003.3		A	13C3-PFBS	3.81	421352.7	0.055	0.524
PFHpA	4.55	1.000	90339.7		A	13C4-PFHpA	4.55	513379.6	0.176	0.568
PFHxS	4.55	1.000	31807.1		M	13C3-PFHxS	4.55	324752.0	0.098	0.461
6:2-FTS	4.90	1.000	7197.7		A	13C2-6:2-FTS	4.90	35695.3	0.202	0.489
PFHpS	4.91	1.080	32375.9		A	13C3-PFHxS	4.55	324752.0	0.100	0.519
PFOA	4.92	1.000	85299.2		A	13C8-PFOA	4.92	807068.9	0.106	0.559
PFOS	5.25	1.000	33666.0		M	13C8-PFOS	5.25	308442.4	0.109	0.463
PFNA	5.27	1.000	76340.8		A	13C9-PFNA	5.26	516600.4	0.148	0.554
PFNS	5.55	1.060	25984.1		A	13C8-PFOS	5.25	308442.4	0.084	0.568
PFDA	5.57	1.000	63390.1		A	13C6-PFDA	5.57	586348.0	0.108	0.593
8:2-FTS	5.58	1.000	6025.5		A	13C2-8:2-FTS	5.58	22794.3	0.264	0.568
PFOSA	5.66	1.000	66745.0		A	13C8-PFOSA	5.66	638387.9	0.105	0.548
NMeFOSAA	5.72	1.000	9178.1		A	d3-NMeFOSAA	5.71	79842.4	0.115	0.761
PFDS	5.81	1.110	16282.1		A	13C8-PFOS	5.25	308442.4	0.053	0.452
PFUnDA	5.84	1.000	61704.5		A	13C7-PFUnDA	5.83	319185.8	0.193	0.589
NEtFOSAA	5.85	1.000	6168.5		M	d5-NEtFOSAA	5.85	66042.8	0.093	0.472
PFDoDA	6.06	1.000	68152.0		A	13C2-PFDoDA	6.06	656546.3	0.104	0.592
10:2-FTS	6.07	1.090	4149.9		A	13C2-8:2-FTS	5.58	22794.3	0.182	0.454
NMePFOSAE	6.11	1.000	31105.0		A	d7-NMePFOSAE	6.10	245366.5	0.127	0.537
NMePFOSA	6.11	1.000	9563.9		A	d3-NMePFOSA	6.11	78560.0	0.122	0.642
PFDoS	6.22	1.180	9123.7		A	13C8-PFOS	5.25	308442.4	0.030	0.463
NEtPFOSAE	6.26	1.000	34712.5		A	d9-NEtPFOSAE	6.24	205514.6	0.169	0.582
NEtPFOSA	6.27	1.000	6925.9		A	d5-NEtPFOSA	6.26	61180.5	0.113	0.527
PFTrDA	6.25	1.030	64230.6		A	13C2-PFDoDA	6.06	656546.3	0.098	0.576
PFTeDA	6.43	1.000	47809.7		A	13C2-PFTeDA	6.43	476388.5	0.100	0.594
PFHxDA	6.72	1.050	22724.5		A	13C2-PFTeDA	6.43	476388.5	0.048	0.612
PFODA	6.99	1.090	15282.8		A	13C2-PFTeDA	6.43	476388.5	0.032	0.510

Total Ion Chromatogram

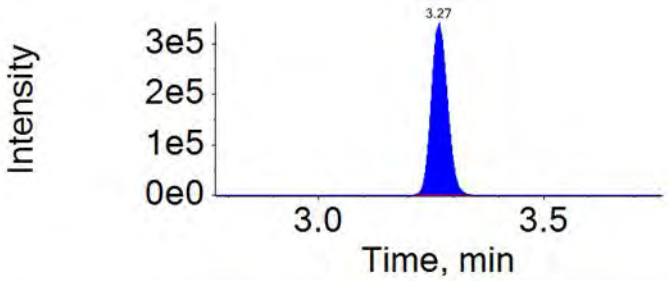


APPROVED
By JPT at 9:26 am, 12/10/18

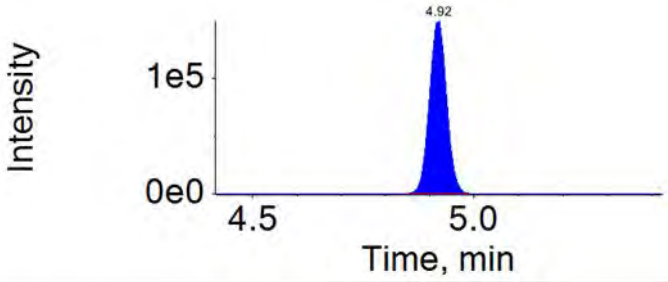
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

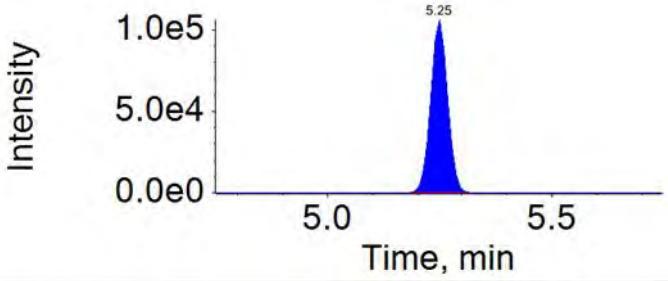
Injection Standard: 13C3-PFBA
216.0 / 172.0



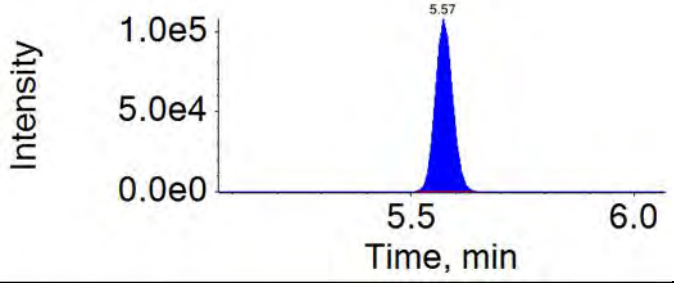
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0



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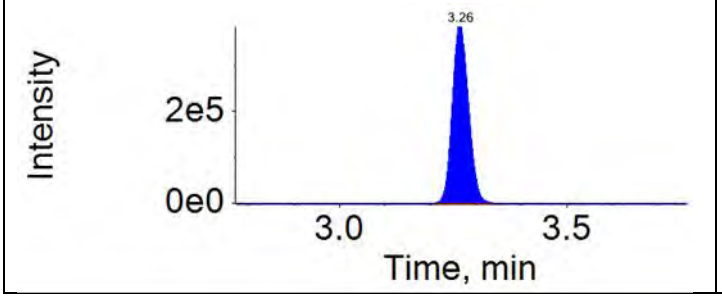
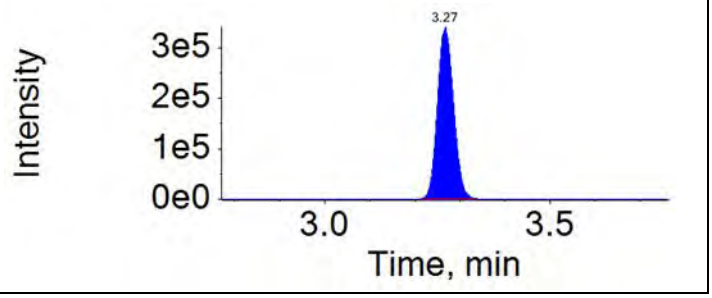
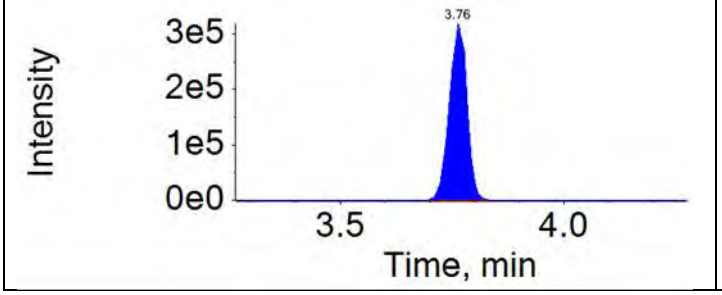
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

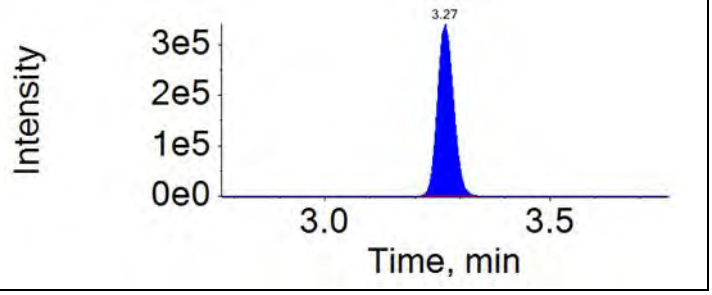
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



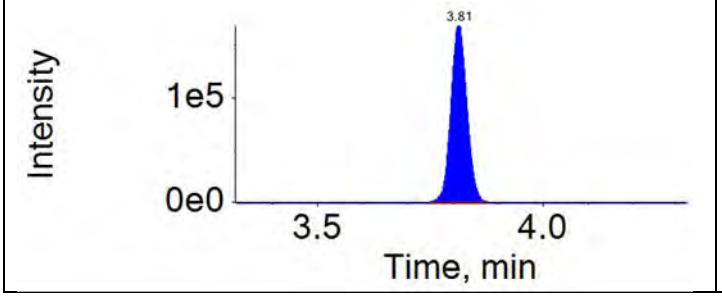


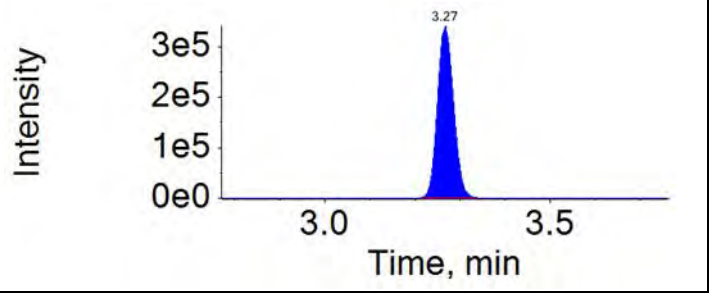
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



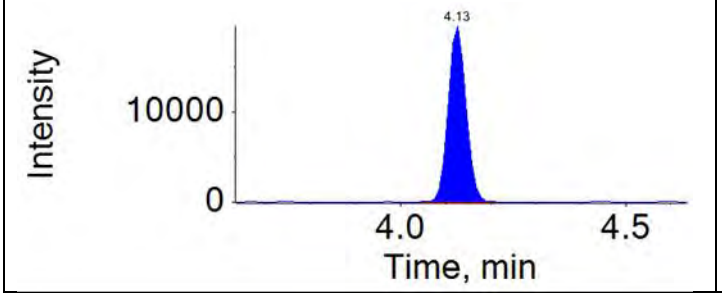


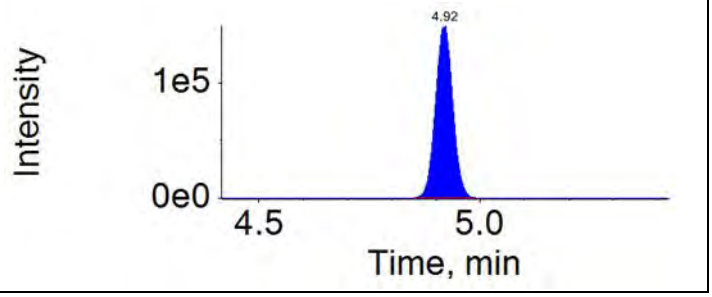
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



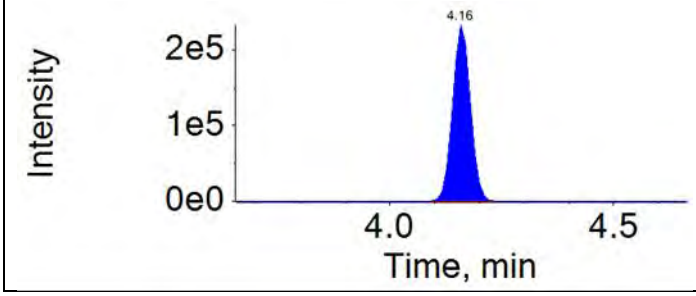


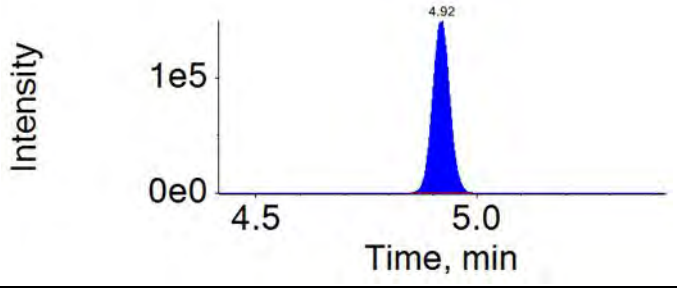
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

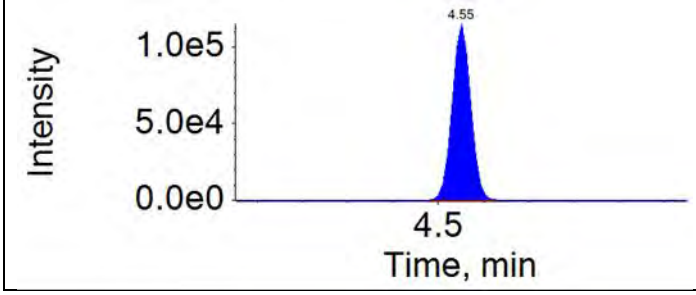
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

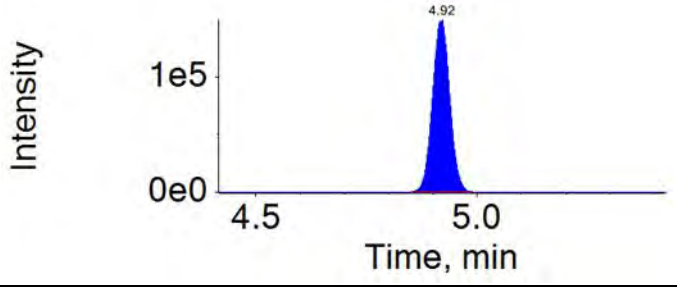
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



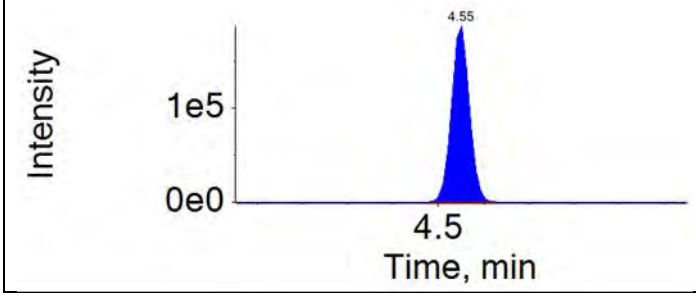


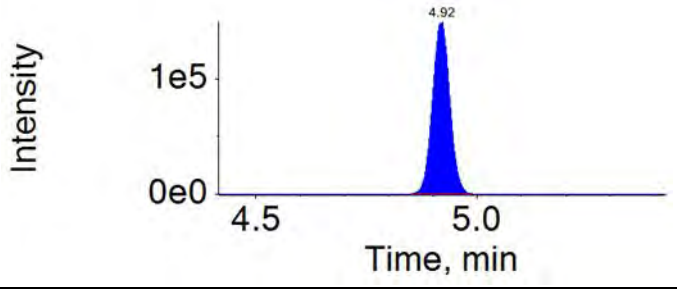
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



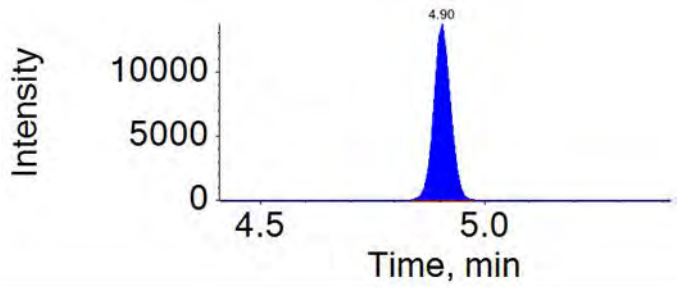


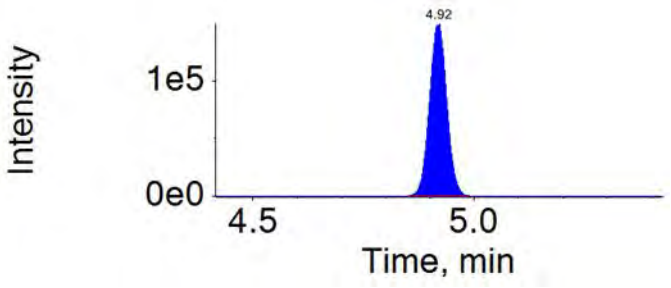
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0





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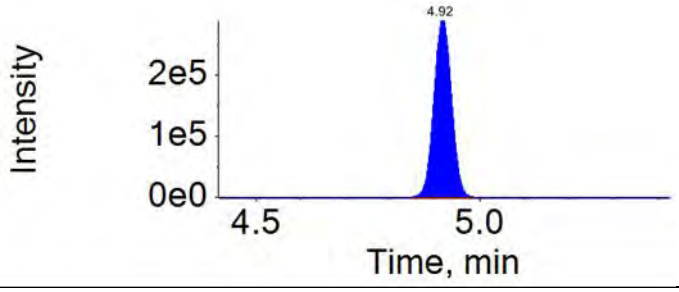
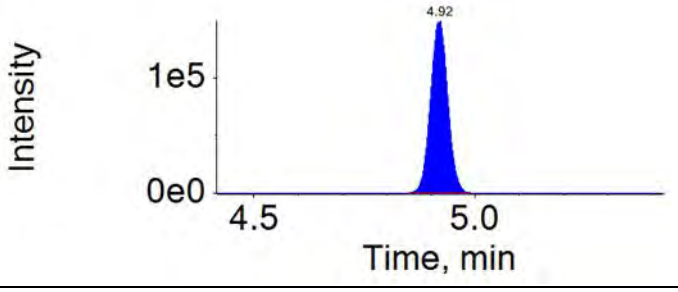
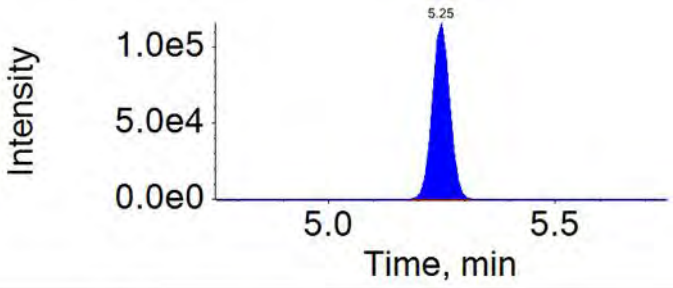
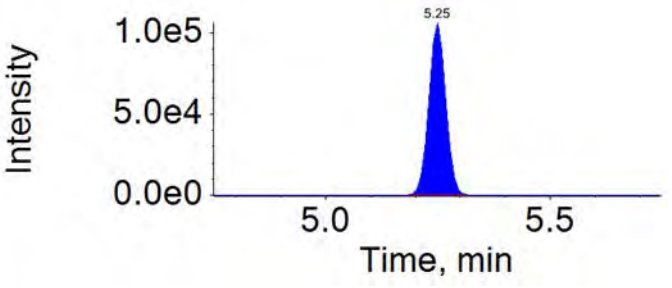
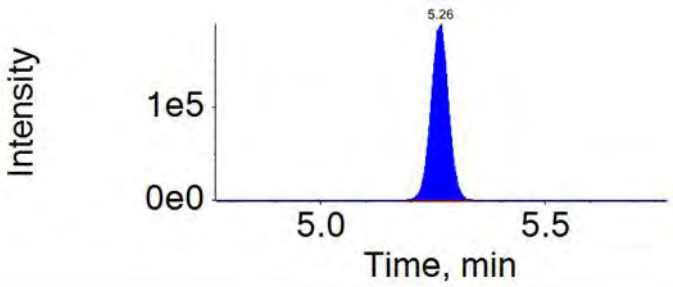
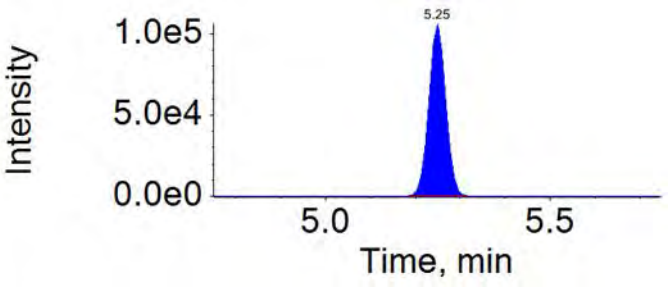
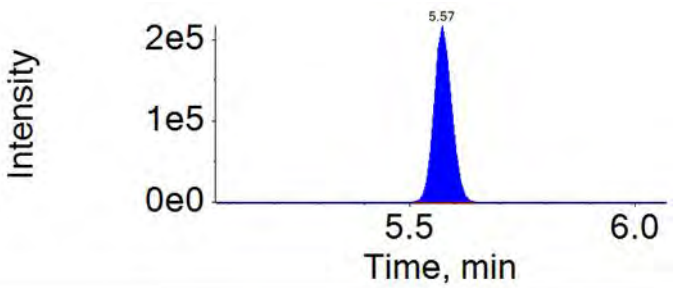
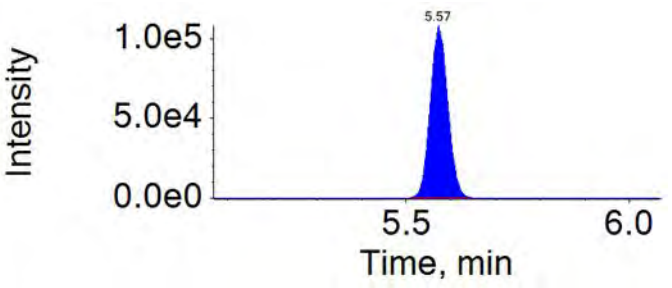
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

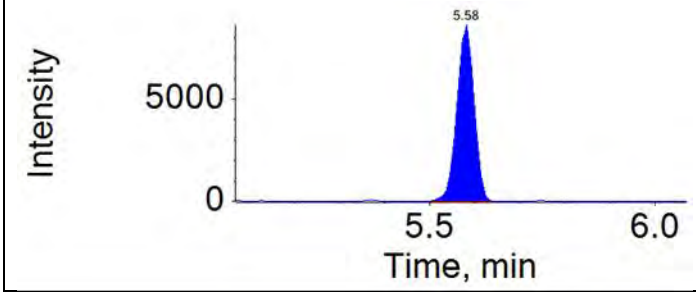
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

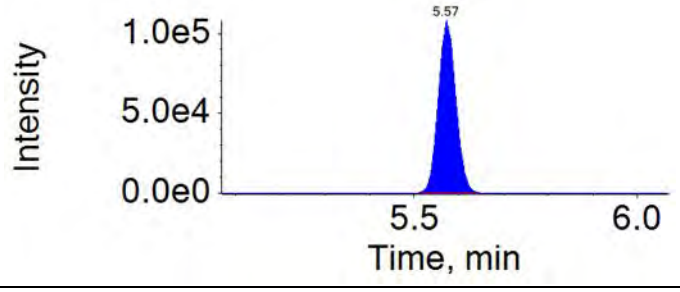
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

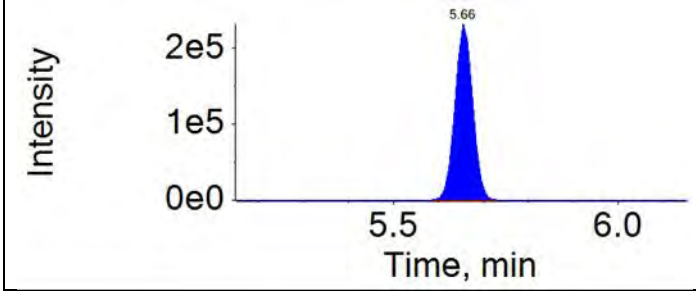
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

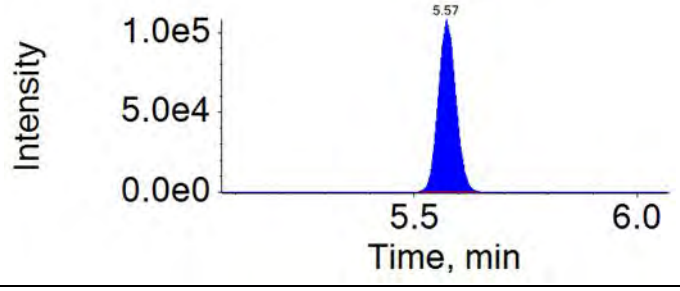
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



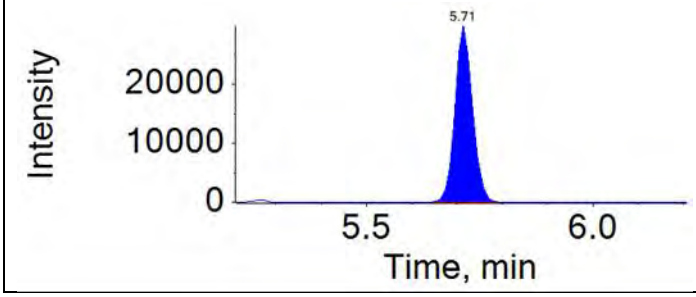


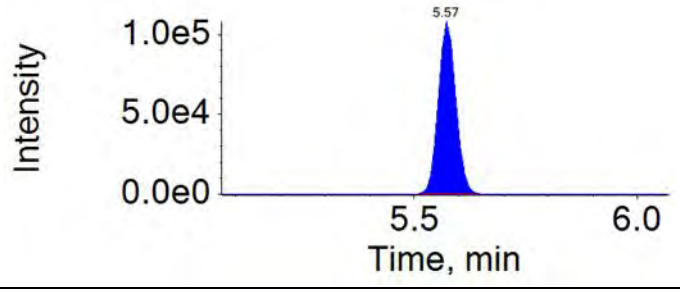
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



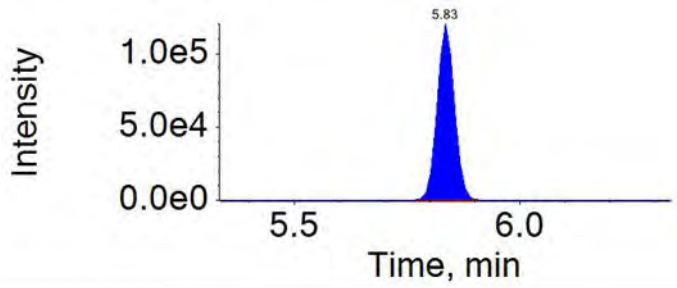


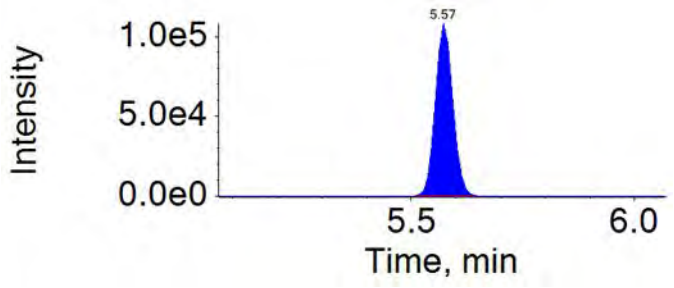
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0





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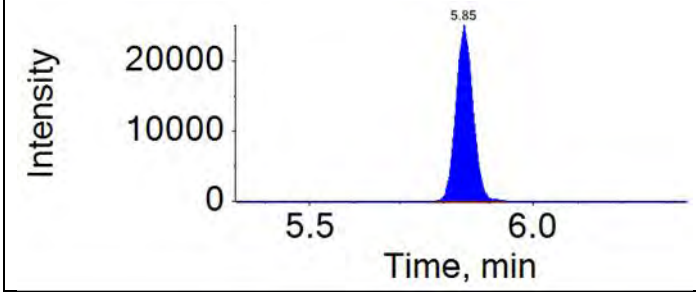
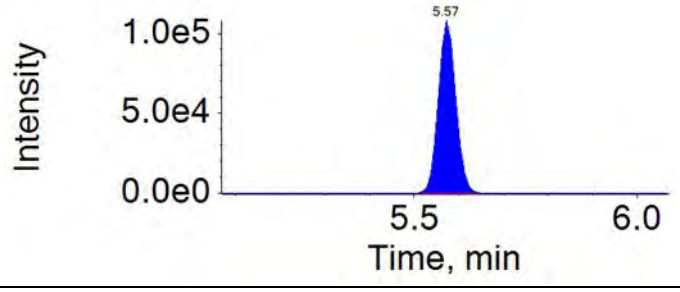
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

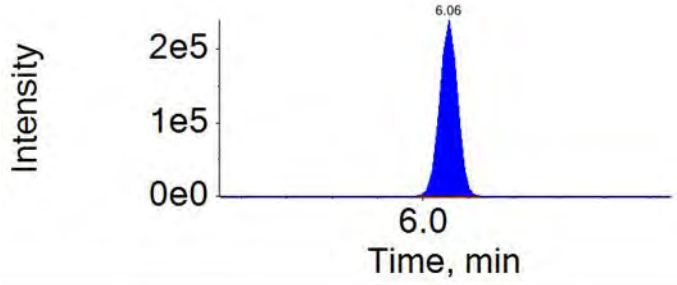
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

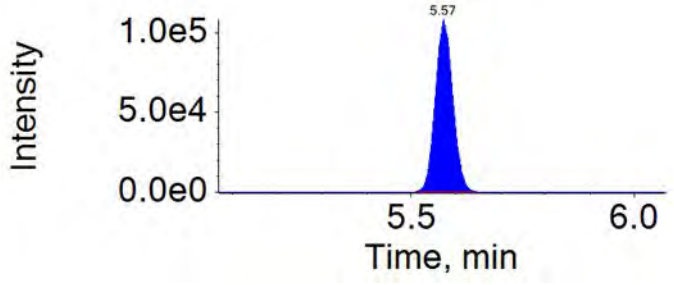
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



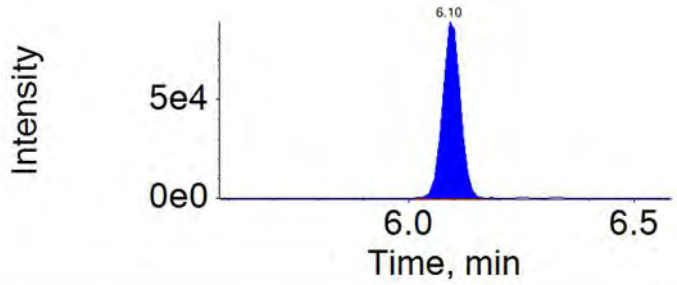


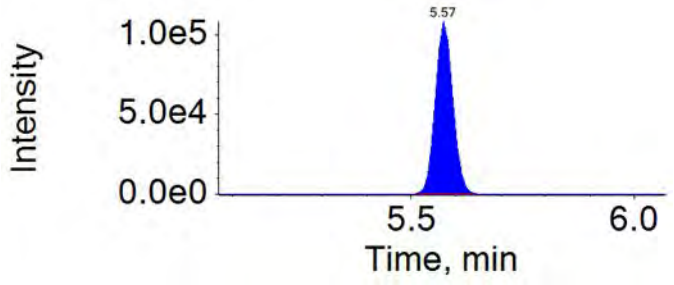
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



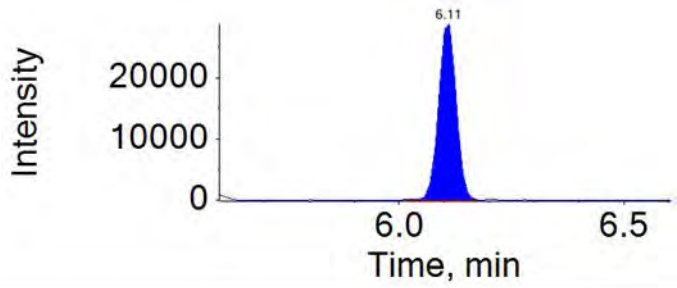


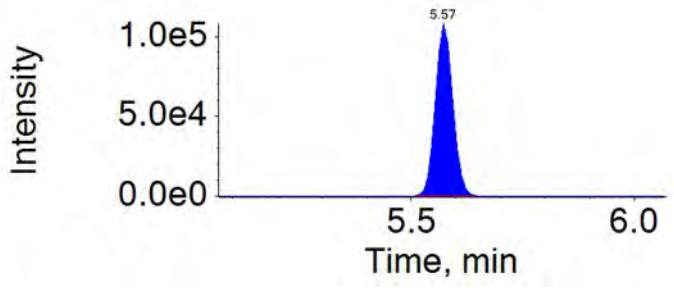
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



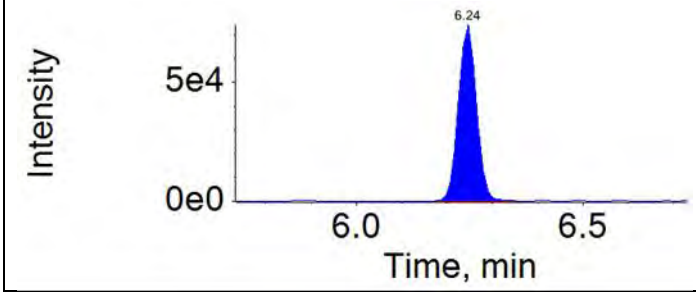


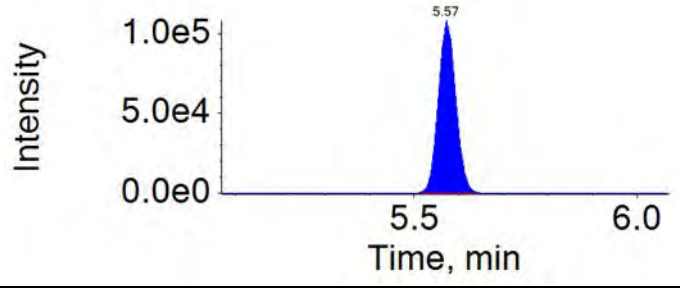
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

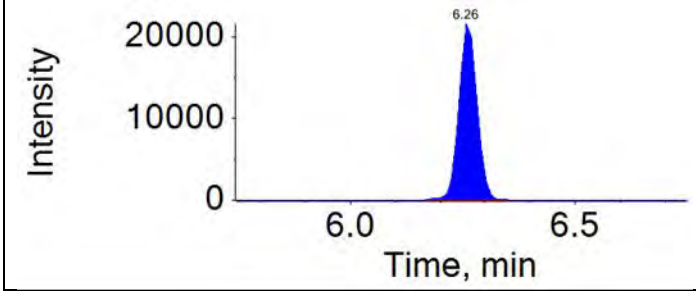
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

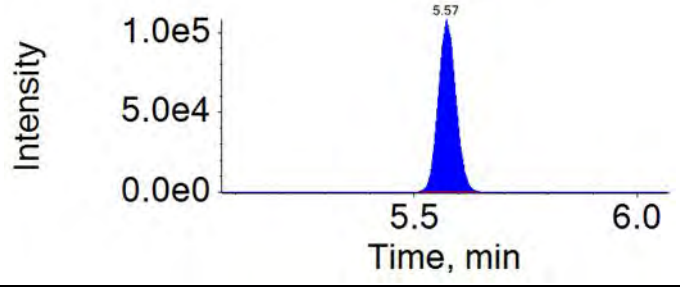
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



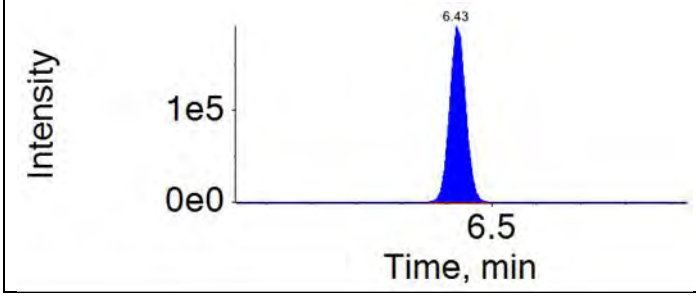


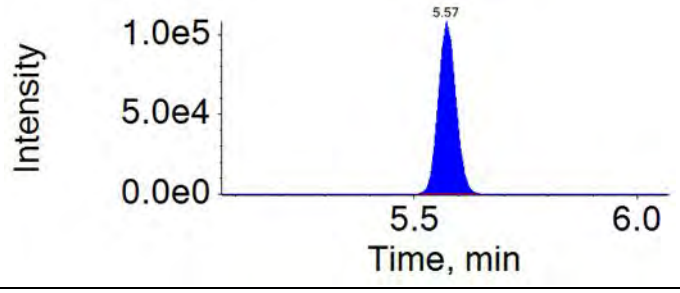
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





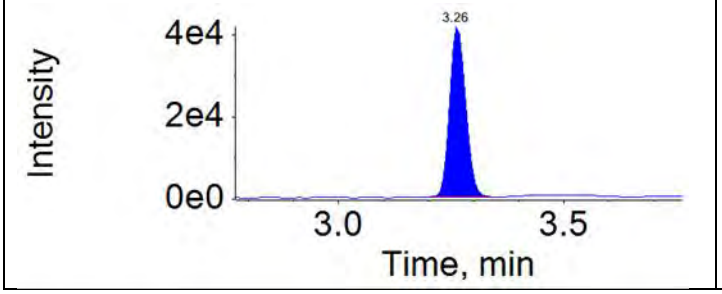
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

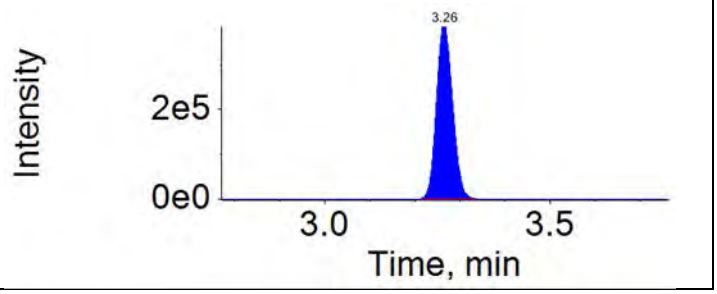




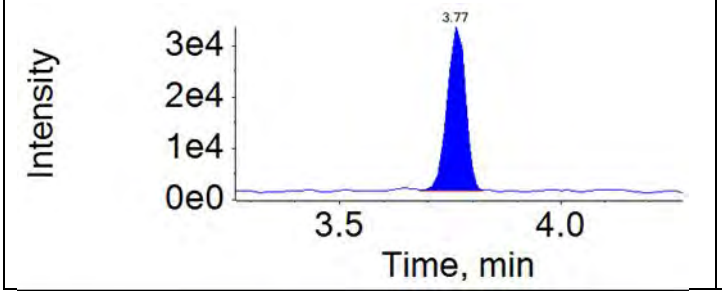
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

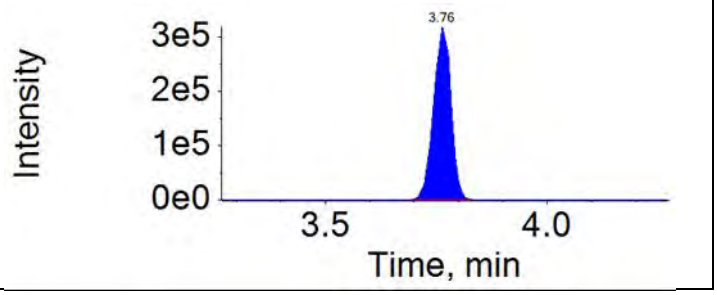
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



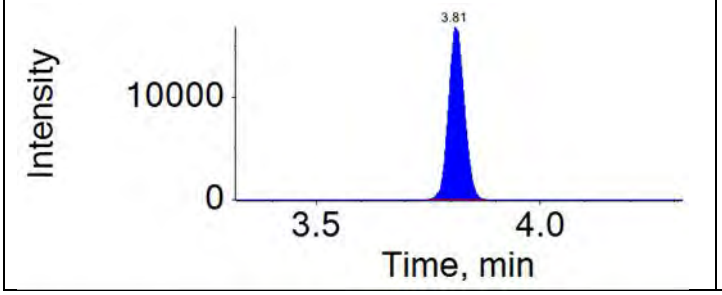


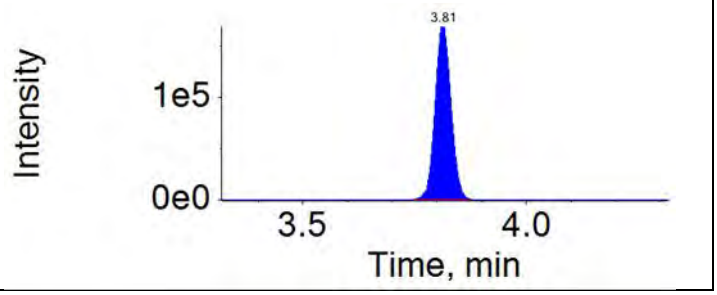
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



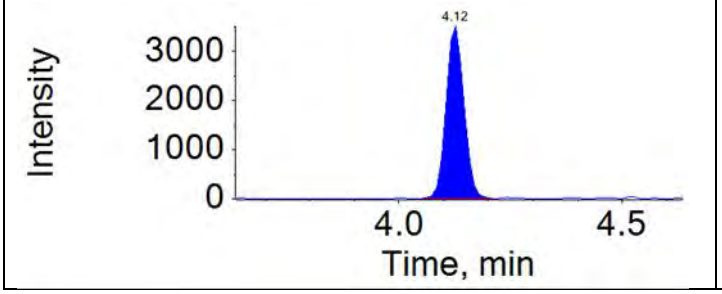


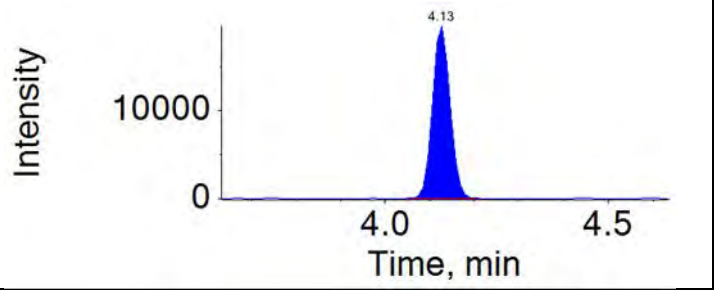
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



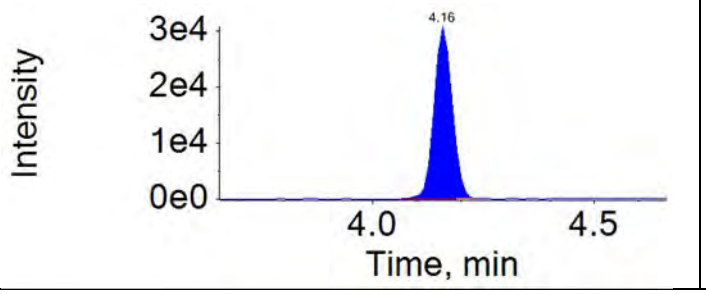


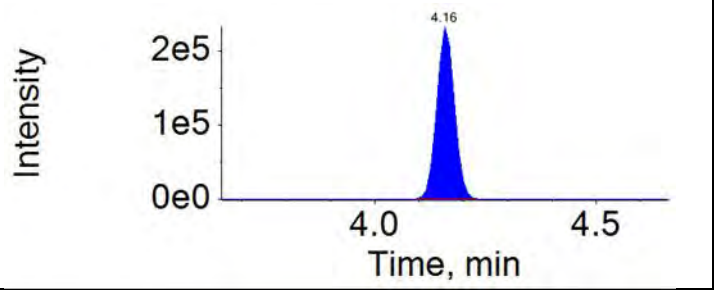
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

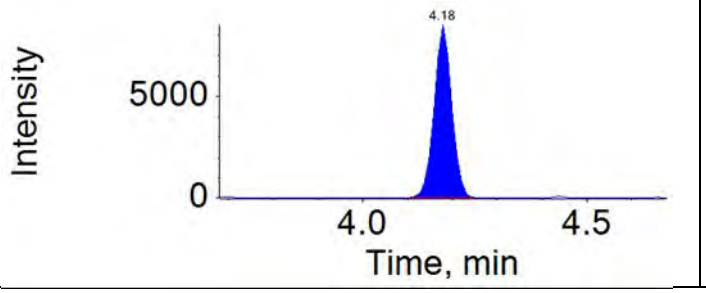
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

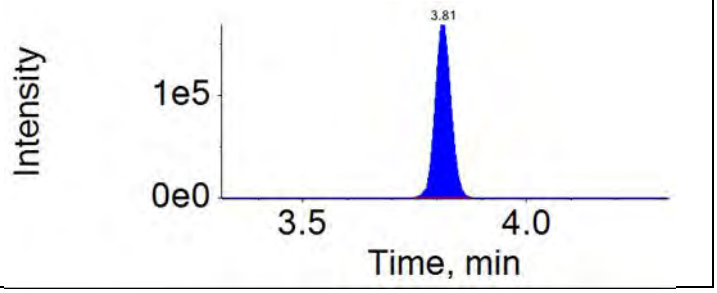
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



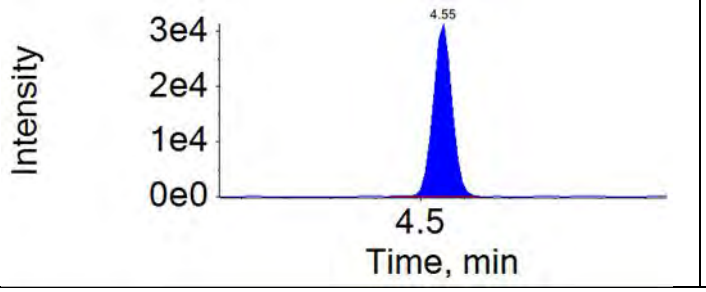


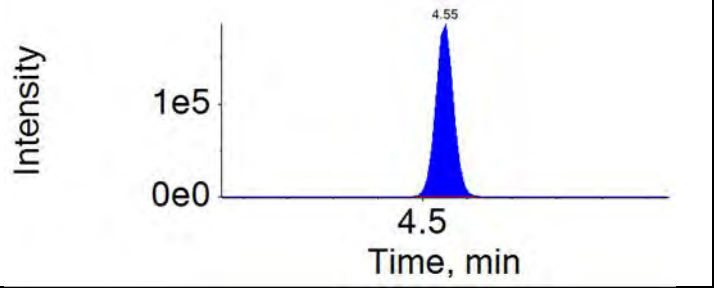
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



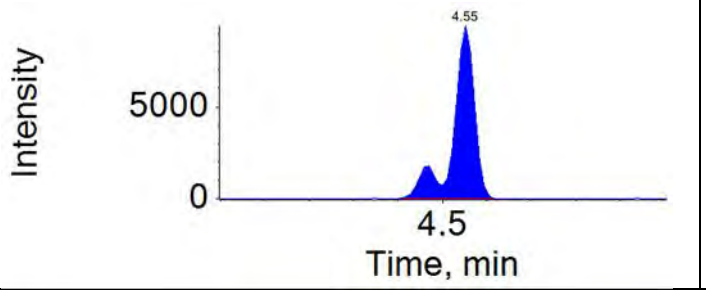


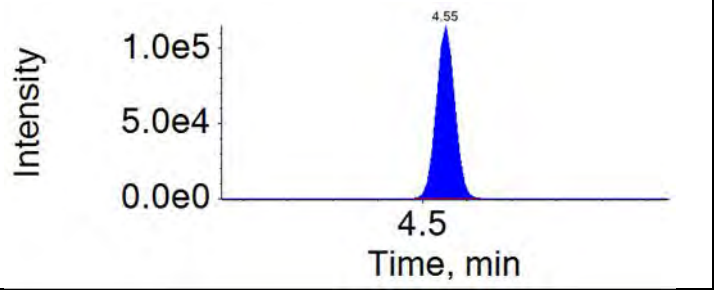
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



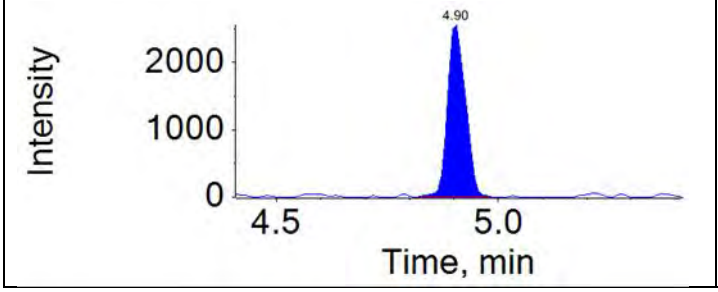


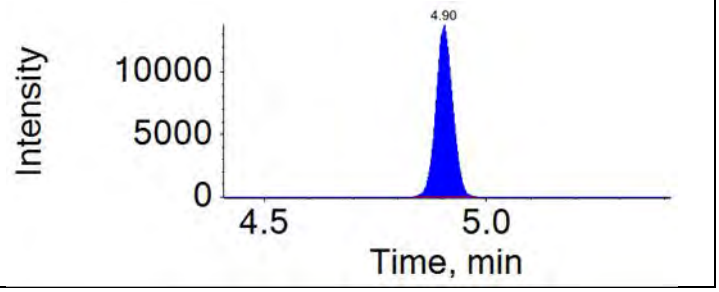
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

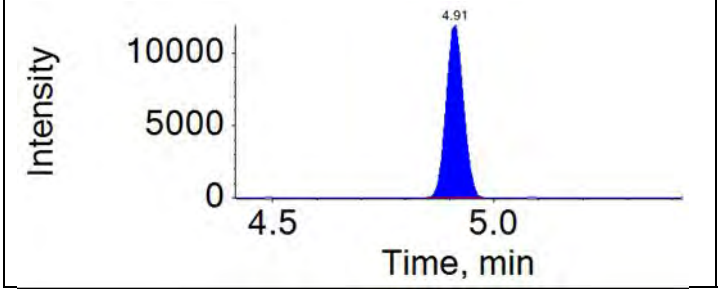
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

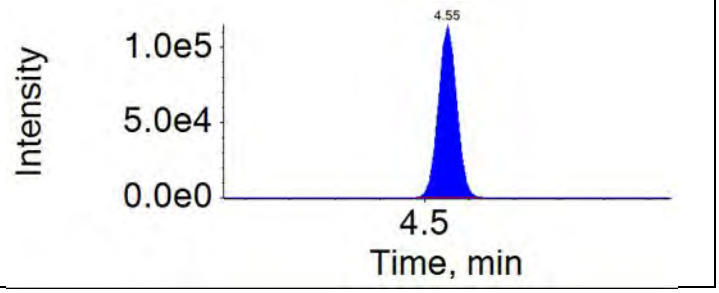
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



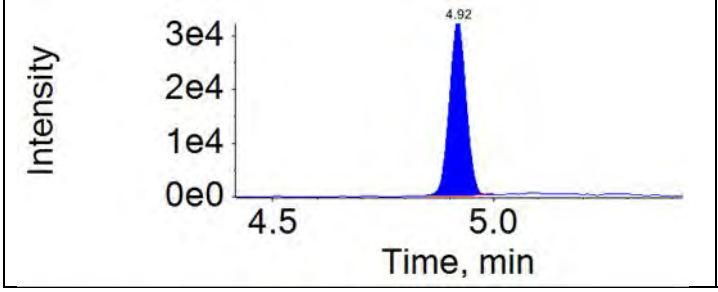


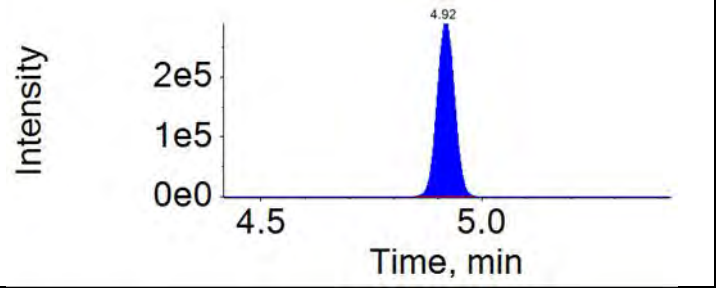
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



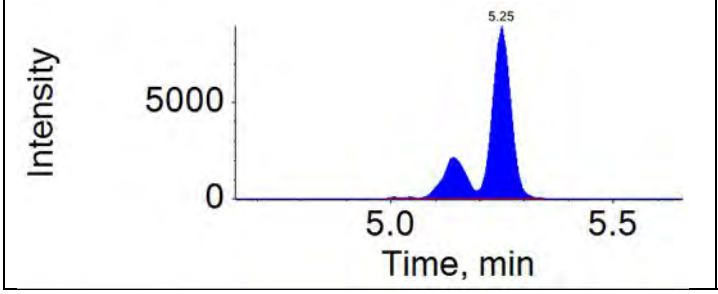


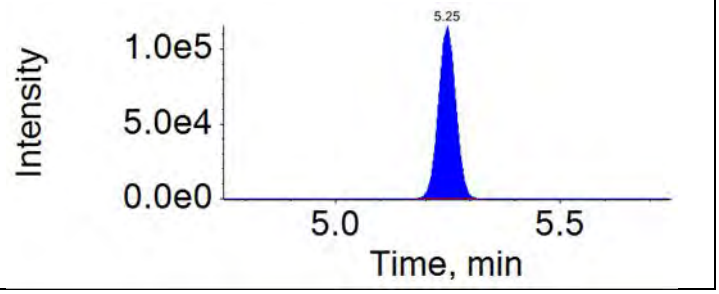
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



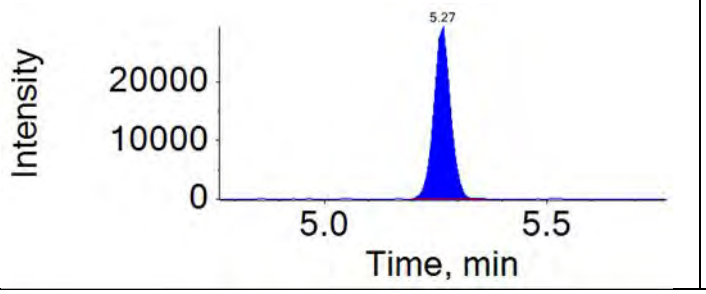


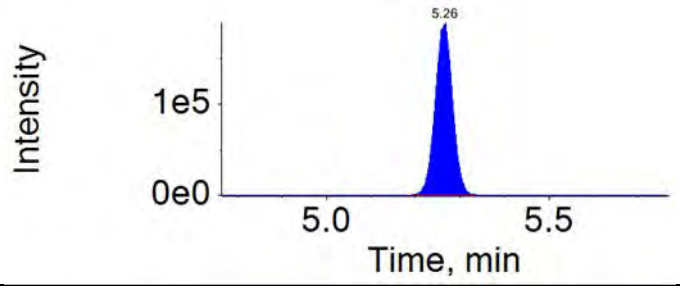
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

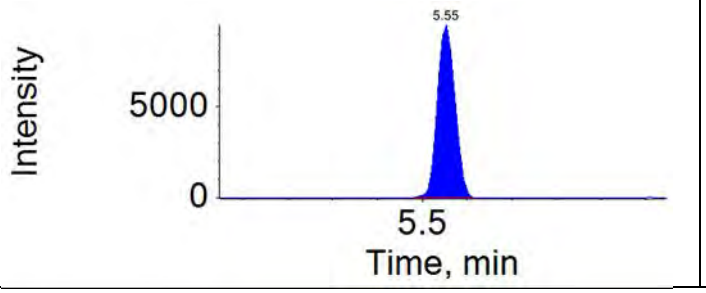
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

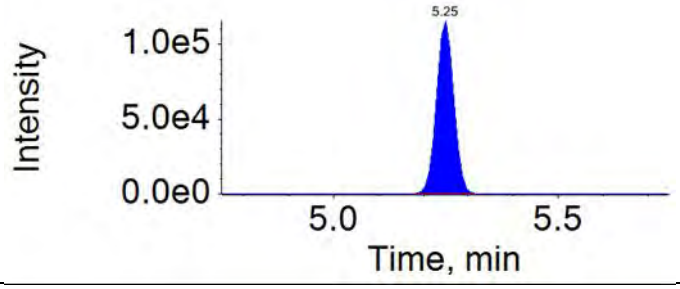
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



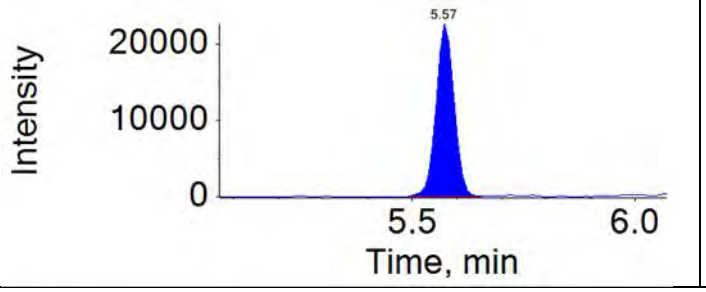


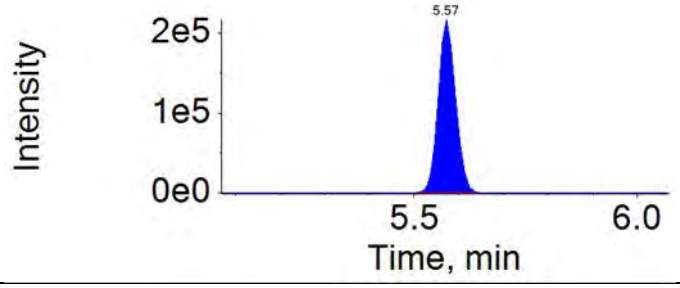
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



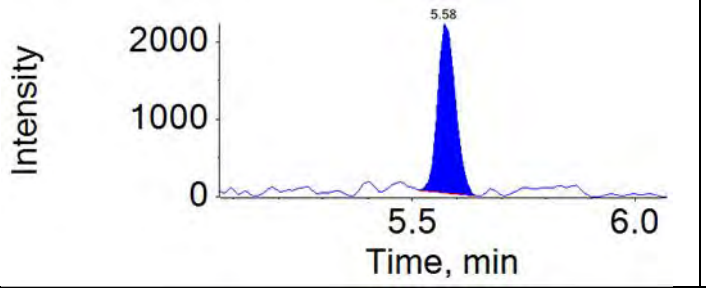


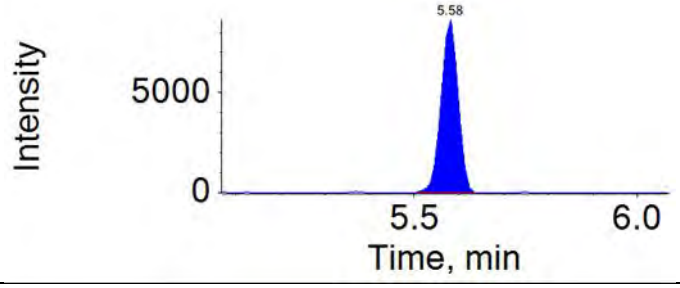
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

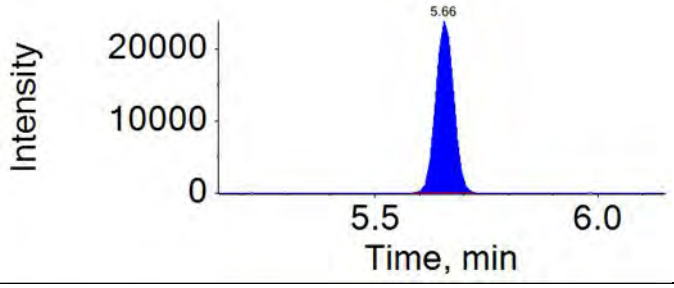
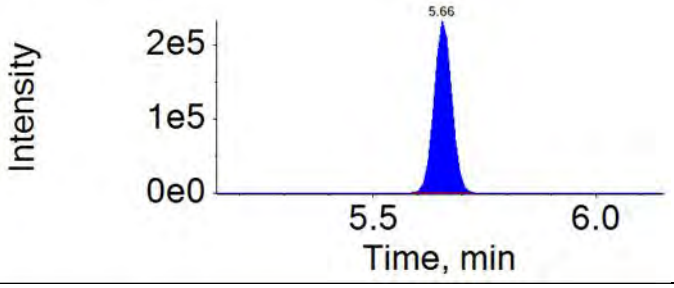


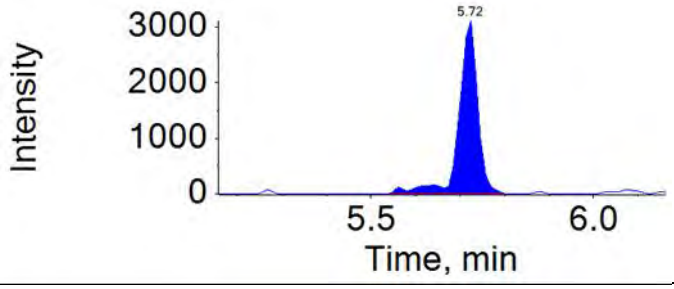
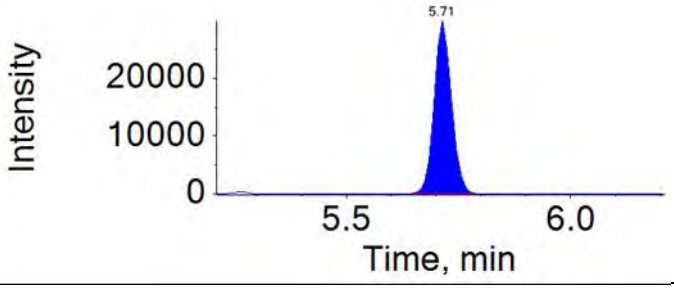


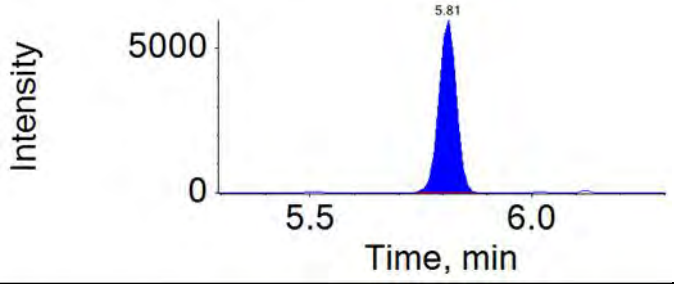
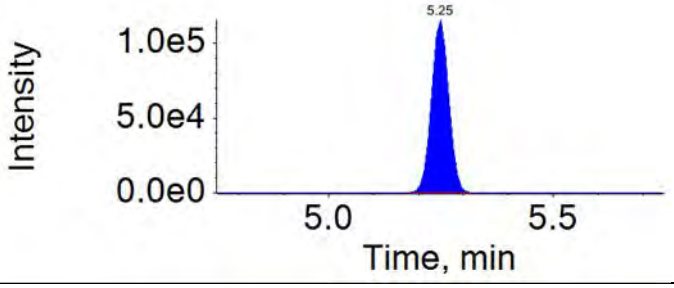
APPROVED
By JPT at 9:26 am, 12/10/18

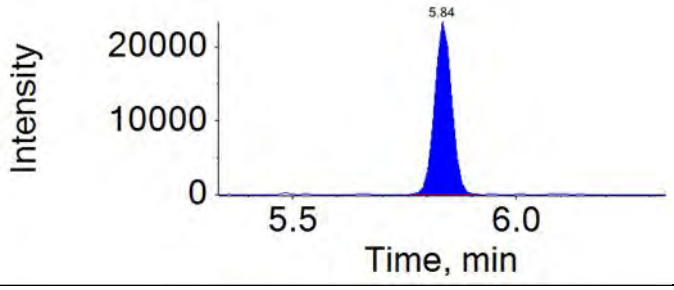
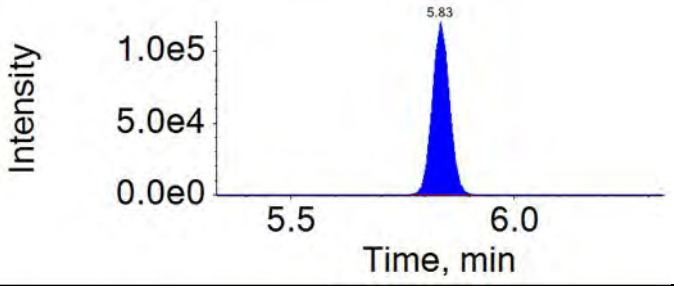
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

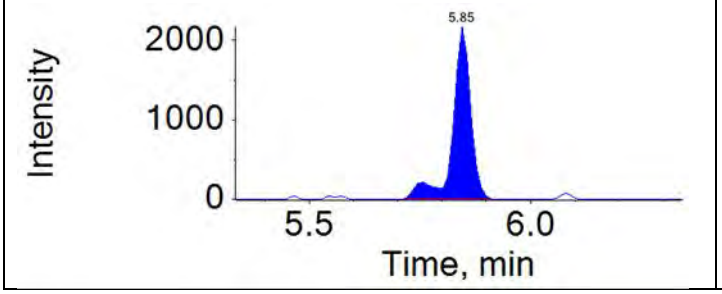
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

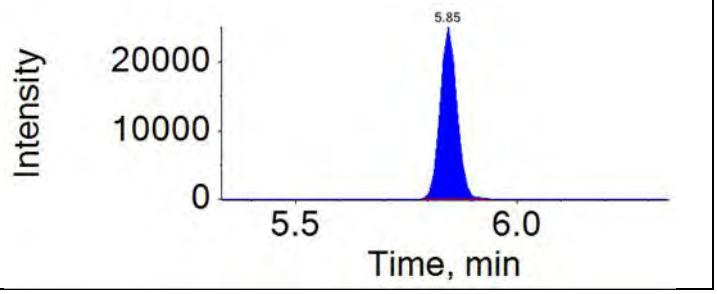
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

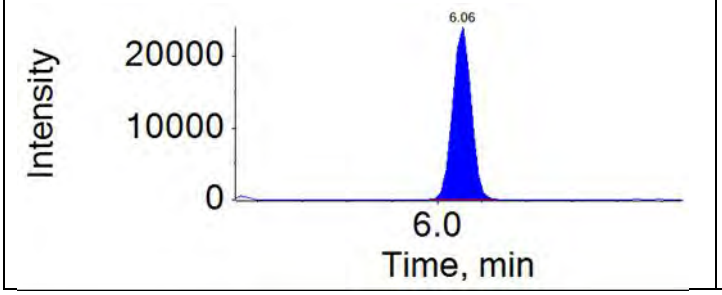
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

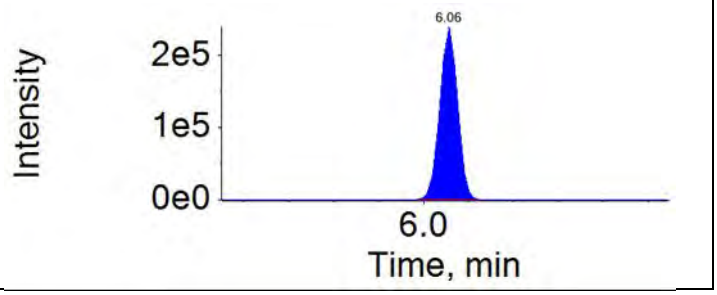
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



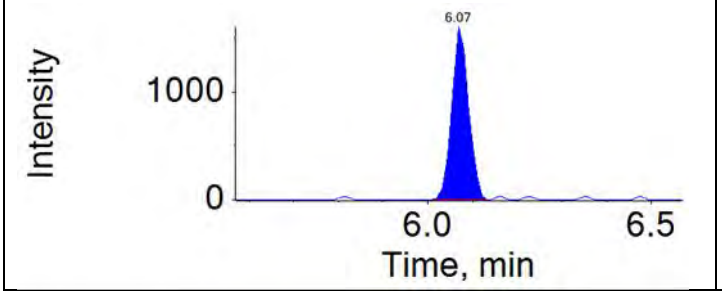


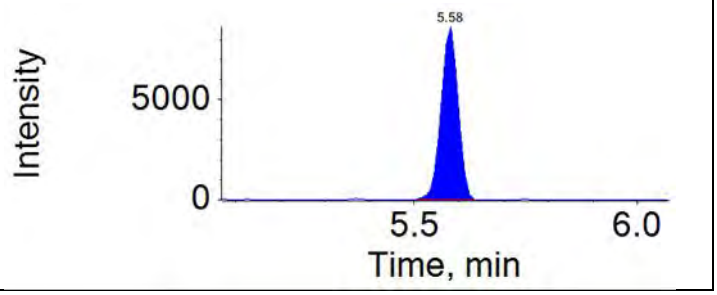
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



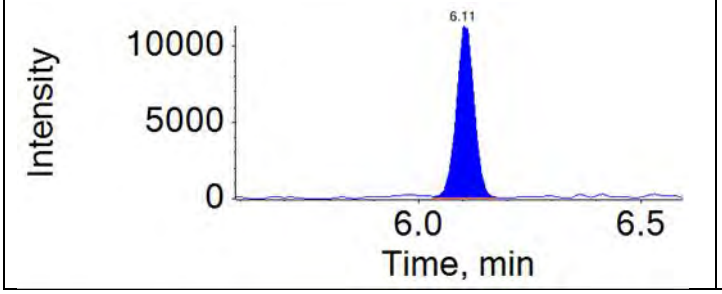


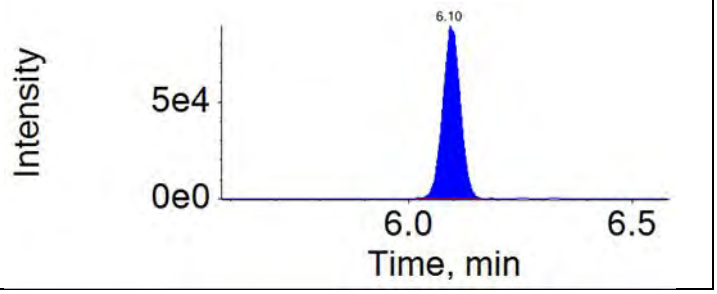
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



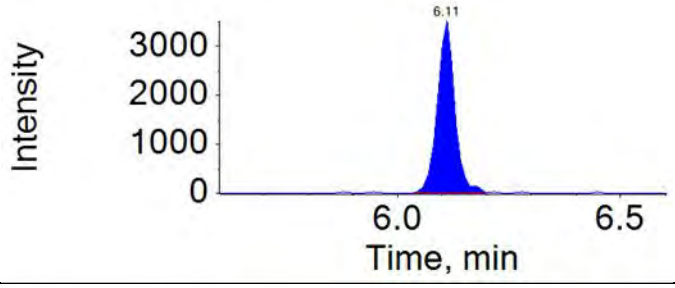


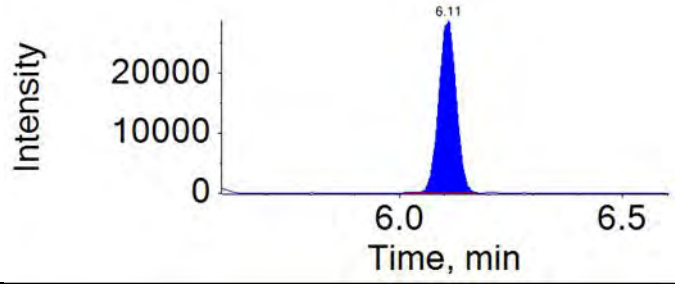
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

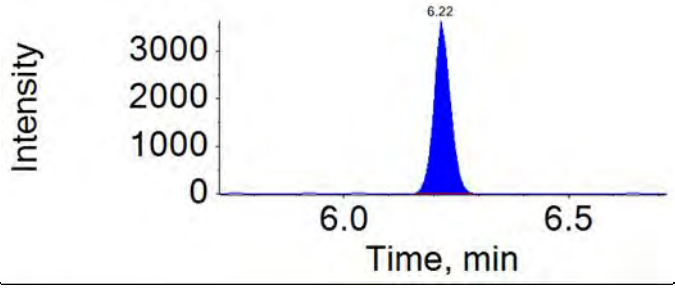
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

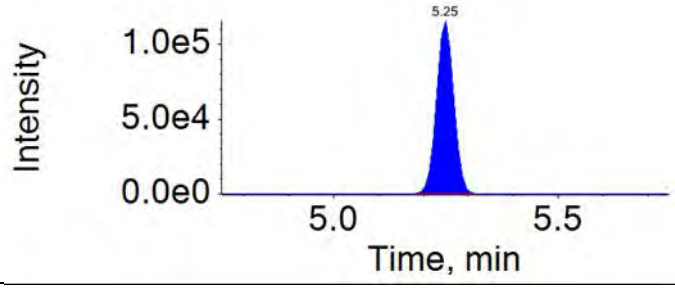
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



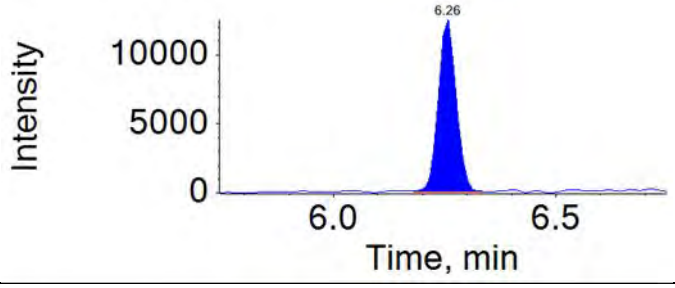


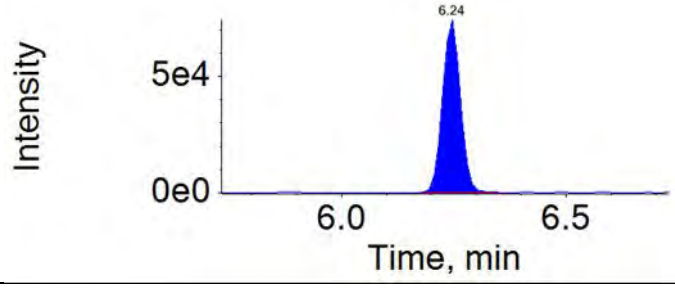
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



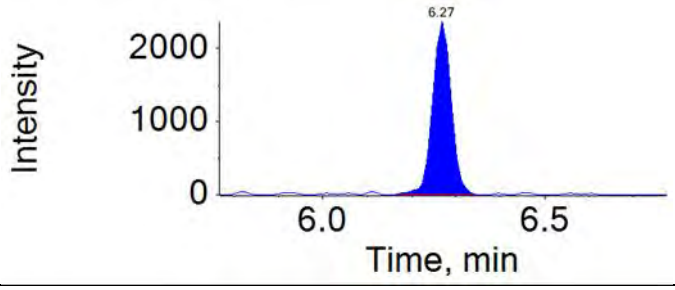


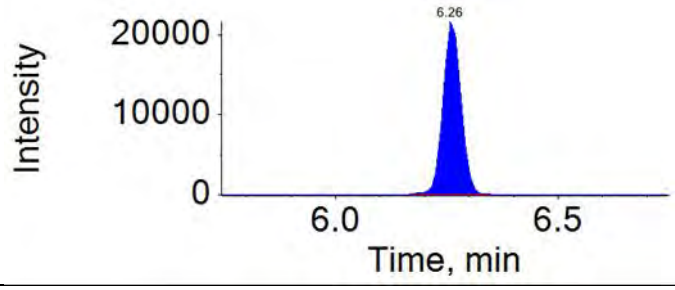
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

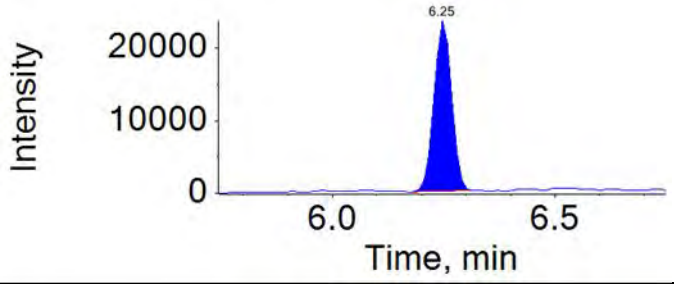
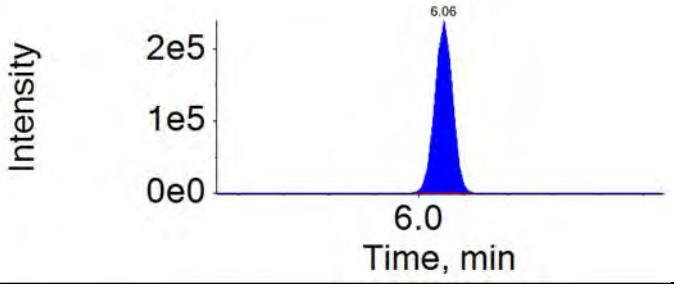


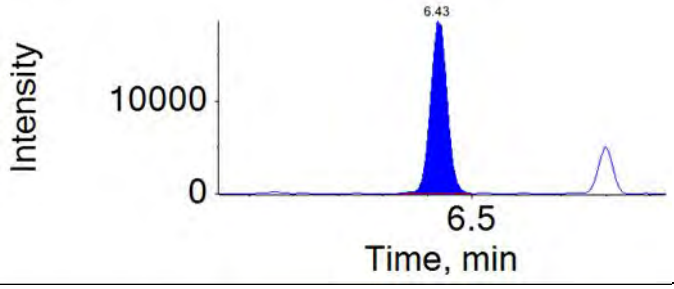
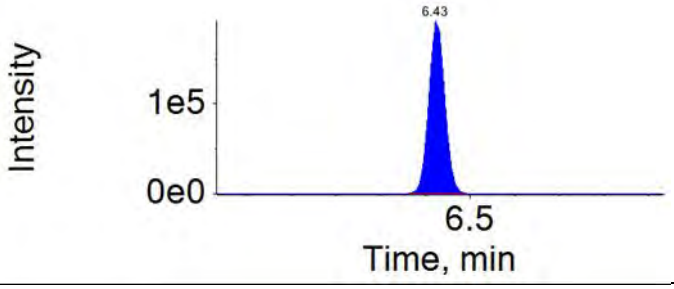


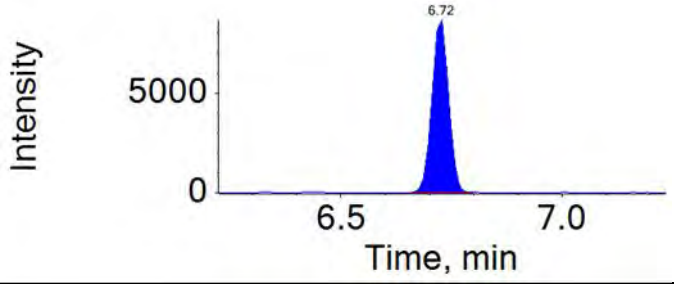
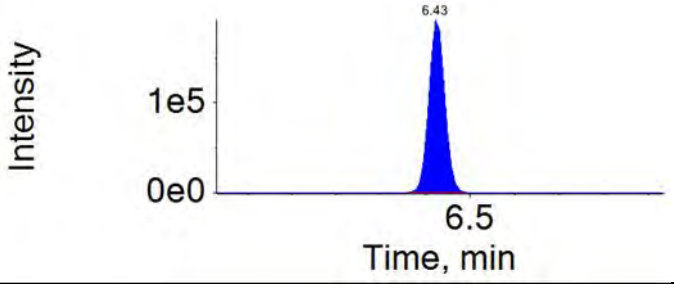
APPROVED
By JPT at 9:26 am, 12/10/18

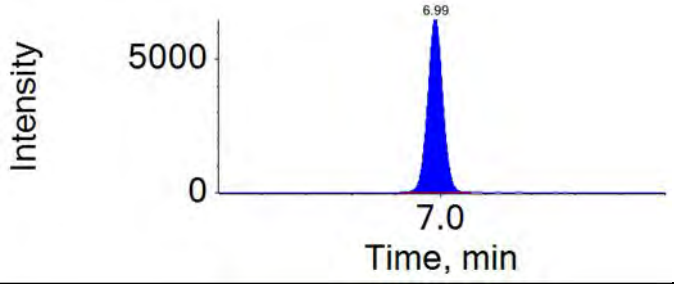
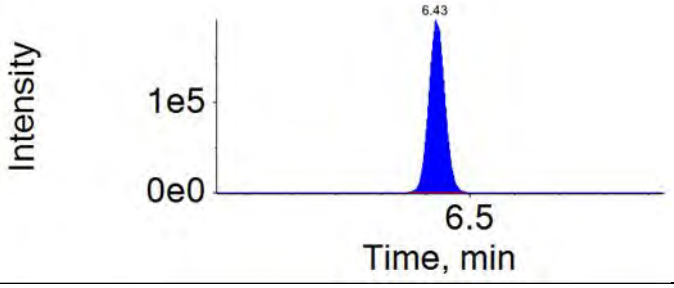
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

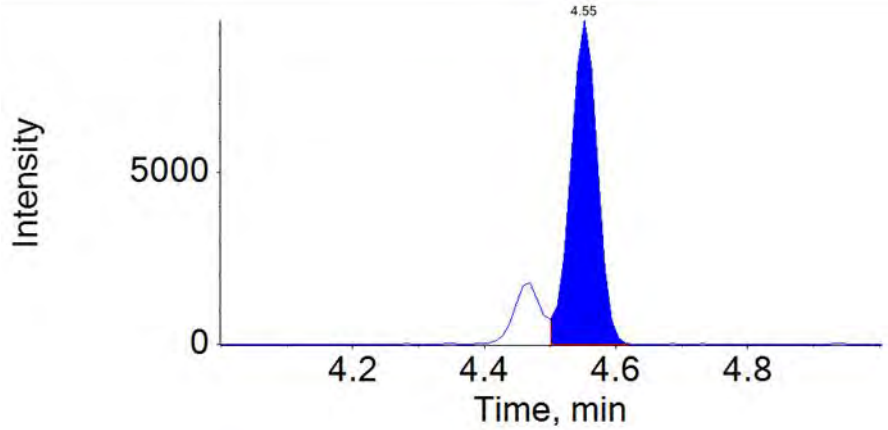
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

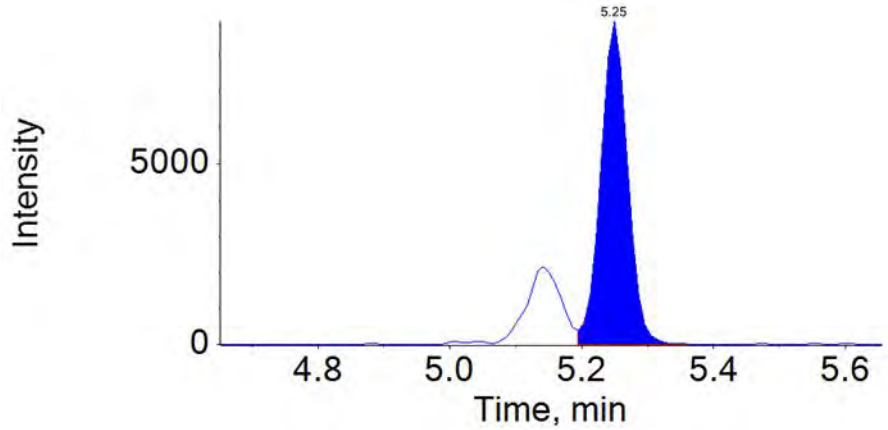
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
26643.8
Mass Range:
399.0 / 80.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



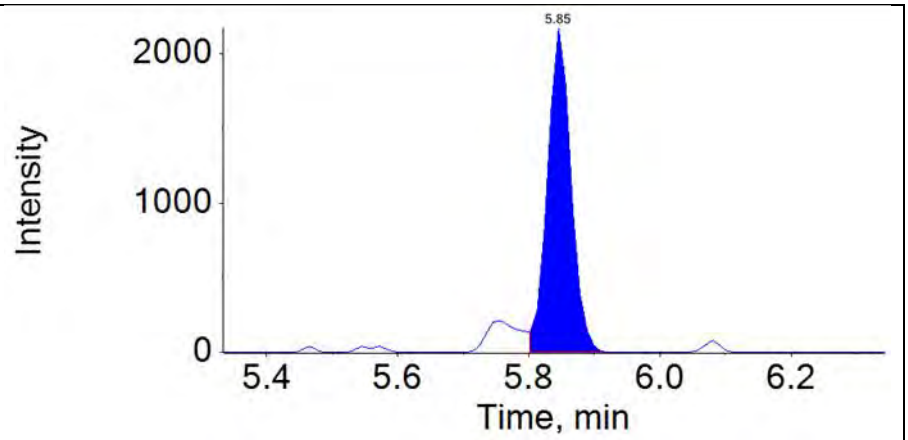
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
25479.6
Mass Range:
499.0 / 80.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
5410.0
Mass Range:
584.0 / 419.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



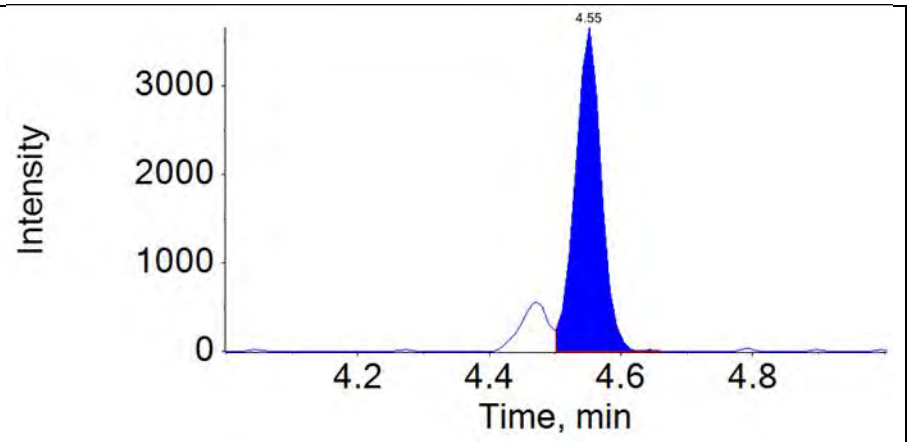
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

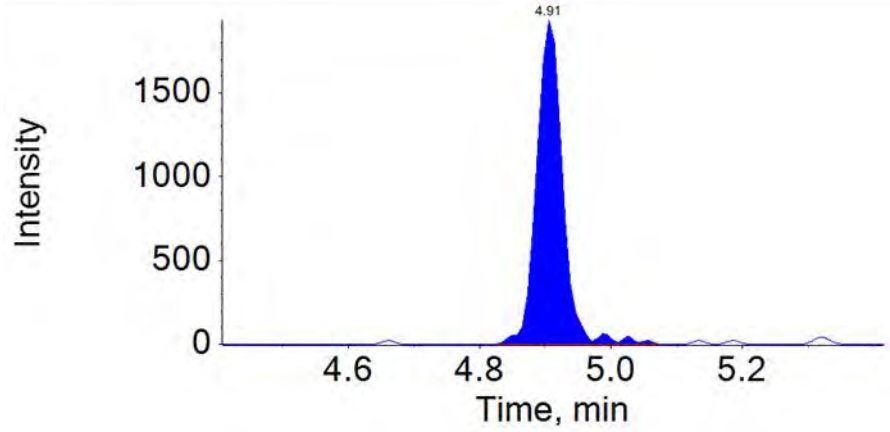
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
10081.6
Mass Range:
399.0 / 99.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



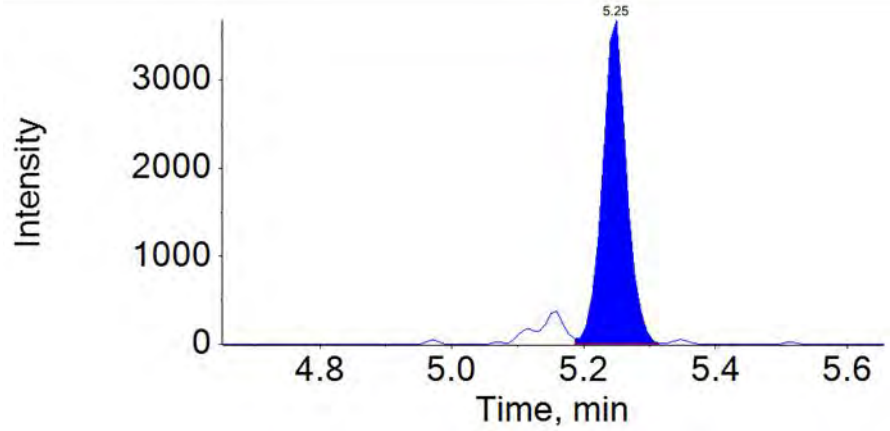
Integration Comment: incorrect integration

Component Name:
6:2-FTS_2
RT (min.):
4.91
Peak Area:
5388.4
Mass Range:
427.0 / 81.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
9384.9
Mass Range:
499.0 / 99.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



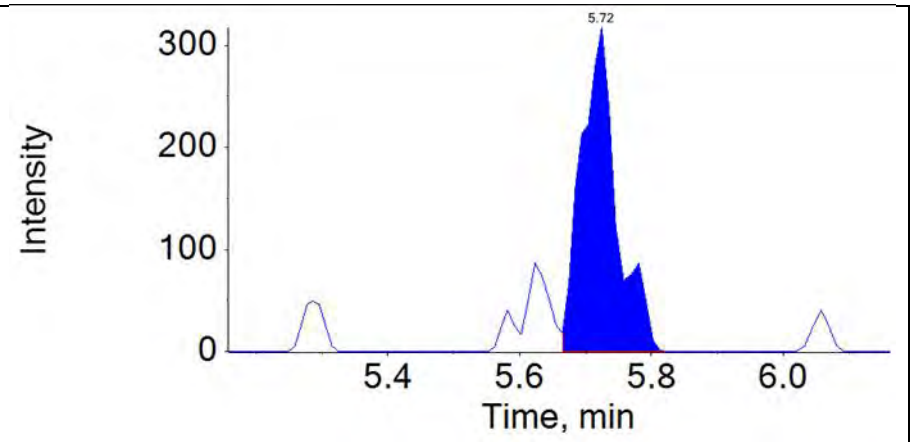
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

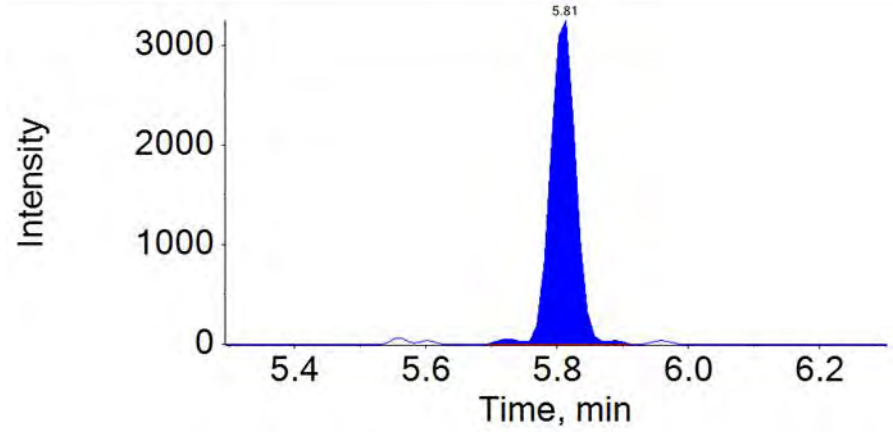
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMeFOSAA_2
RT (min.): 5.72
Peak Area: 1202.1
Mass Range: 570.0 / 483.0
File Name: 18DEC05D-34.wiff
Sample Name: CCV4_ISC_CAL2



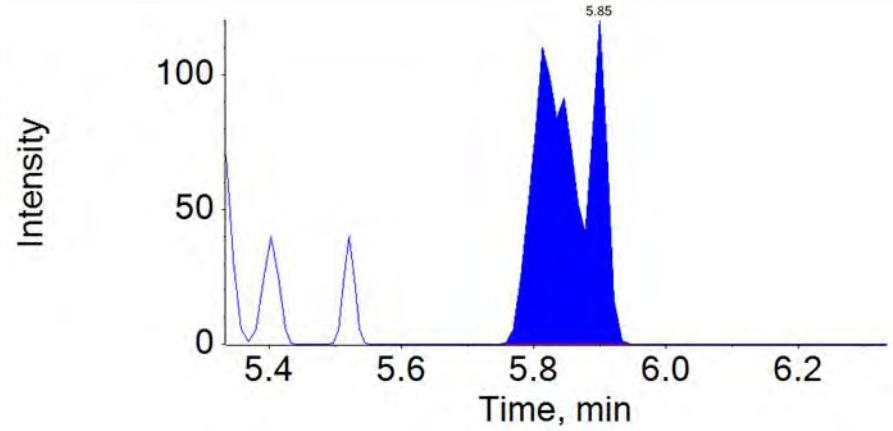
Integration Comment: incorrect integration

Component Name: PFDS_2
RT (min.): 5.81
Peak Area: 8789.7
Mass Range: 599.0 / 99.0
File Name: 18DEC05D-34.wiff
Sample Name: CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name: PFUnDA_2
RT (min.): 5.85
Peak Area: 650.8
Mass Range: 563.0 / 169.0
File Name: 18DEC05D-34.wiff
Sample Name: CCV4_ISC_CAL2



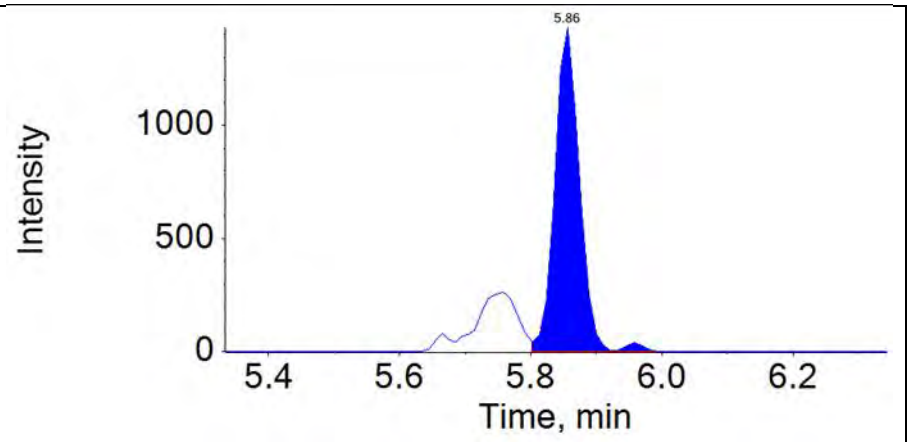
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

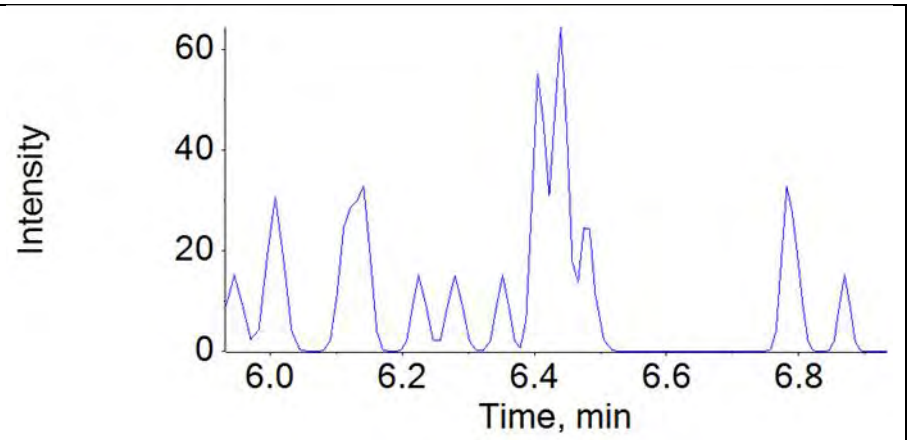
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.86
Peak Area:
3769.9
Mass Range:
584.0 / 526.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



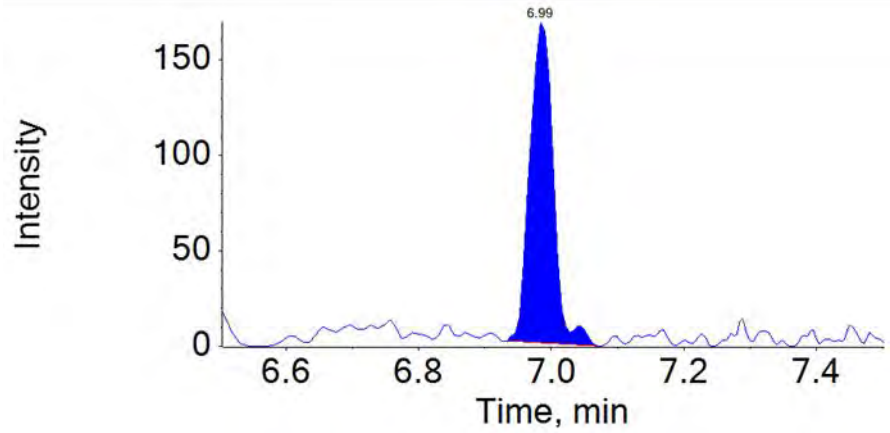
Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFODA_2
RT (min.):
6.99
Peak Area:
414.9
Mass Range:
913.0 / 169.0
File Name:
18DEC05D-34.wiff
Sample Name:
CCV4_ISC_CAL2



Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

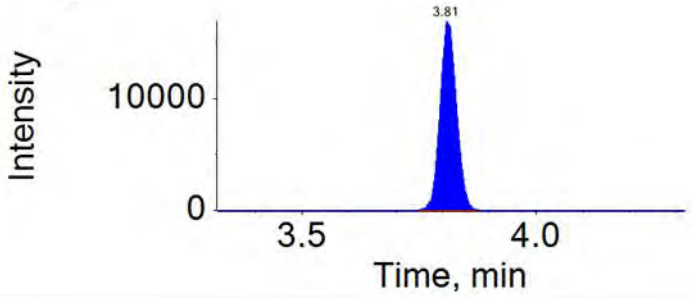
Sample Name: CCV4_ISC_CAL2 **Instrument Name:** LM27631 **File Name:** 18DEC05D-34.wiff

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	41409.7	A	N/A	1.0000			
PFBS_2	3.81	1.00	15936.7	A	N/A	0.3849	4	50	
4:2-FTS	4.12	1.00	9788.9	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	6699.0	A	N/A	0.6844	5	50	
PFHxA	4.16	1.00	86922.1	A	N/A	1.0000			
PFHxA_2	4.16	1.00	1186.1	A	N/A	0.0136	18	50	
PFPeS	4.18	1.10	23003.3	A	N/A	1.0000			
PFPeS_2	4.18	1.10	12123.6	A	N/A	0.5270	5	50	
PFHpA	4.55	1.00	90339.7	A	N/A	1.0000			
PFHpA_2	4.55	1.00	5234.2	A	N/A	0.0579	10	50	
PFHxS	4.55	1.00	31807.1	M	N/A	1.0000			
PFHxS_2	4.55	1.00	11641.6	M	N/A	0.3660	1	50	
6:2-FTS	4.90	1.00	7197.7	A	N/A	1.0000			
6:2-FTS_2	4.91	1.00	5211.9	M	N/A	0.7241	14	50	
PFHpS	4.91	1.08	32375.9	A	N/A	1.0000			
PFHpS_2	4.91	1.08	11078.3	A	N/A	0.3422	-14	50	
PFOA	4.92	1.00	85299.2	A	N/A	1.0000			
PFOA_2	4.92	1.00	3998.7	A	N/A	0.0469	-24	50	
PFOS	5.25	1.00	33666.0	M	N/A	1.0000			
PFOS_2	5.25	1.00	10584.5	M	N/A	0.3144	7	50	
PFNA	5.27	1.00	76340.8	A	N/A	1.0000			
PFNA_2	5.26	1.00	2130.0	A	N/A	0.0279	42	50	
PFNS	5.55	1.06	25984.1	A	N/A	1.0000			
PFNS_2	5.55	1.06	9198.2	A	N/A	0.3540	-24	50	
PFDA	5.57	1.00	63390.1	A	N/A	1.0000			
PFDA_2	5.59	1.00	570.0	A	N/A	0.0090	23	50	
8:2-FTS	5.58	1.00	6025.5	A	N/A	1.0000			
8:2-FTS_2	5.57	1.00	3383.9	A	N/A	0.5616	-7	50	
NMeFOSAA	5.72	1.00	9178.1	A	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	1456.5	M	N/A	0.1587	-40	50	
PFDS	5.81	1.11	16282.1	A	N/A	1.0000			
PFDS_2	5.81	1.11	8603.7	M	N/A	0.5284	7	50	
PFUnDA	5.84	1.00	61704.5	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	452.8	M	N/A	0.0073	61	50	OOS
NEtFOSAA	5.85	1.00	6168.5	M	N/A	1.0000			
NEtFOSAA_2	5.86	1.00	4920.5	M	N/A	0.7977	6	50	
PFDoDA	6.06	1.00	68152.0	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	1346.7	A	N/A	0.0198	39	50	
10:2-FTS	6.07	1.09	4149.9	A	N/A	1.0000			
10:2-FTS_2	6.07	1.09	2872.3	A	N/A	0.6921	-1	50	
PFTrDA	6.25	1.03	64230.6	A	N/A	1.0000			
PFTrDA_2	6.24	1.03	663.9	A	N/A	0.0103	4	50	
PFTeDA	6.43	1.00	47809.7	A	N/A	1.0000			
PFTeDA_2	6.43	1.00	220.1	M	N/A	0.0046	-20	50	
PFHxDA	6.72	1.05	22724.5	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1041.1	A	N/A	0.0458	-26	50	
PFODA	6.99	1.09	15282.8	A	N/A	1.0000			
PFODA_2	6.99	1.09	403.8	M	N/A	0.0264	-1	50	

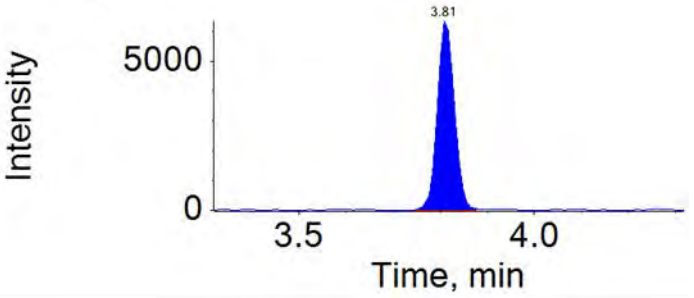
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

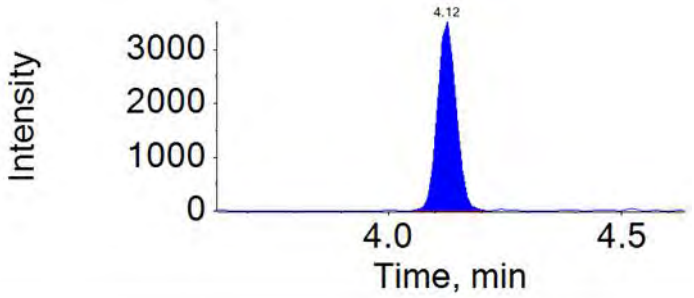
Component: PFBS
Primary Mass: 299.0 / 80.0



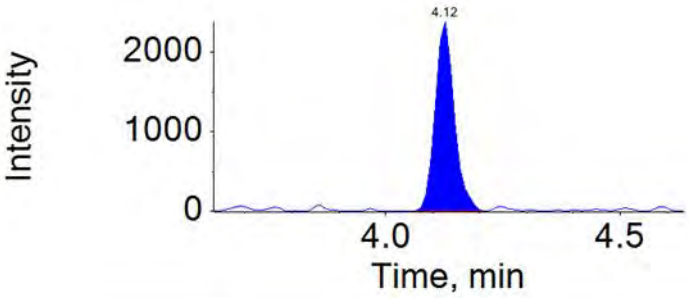
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



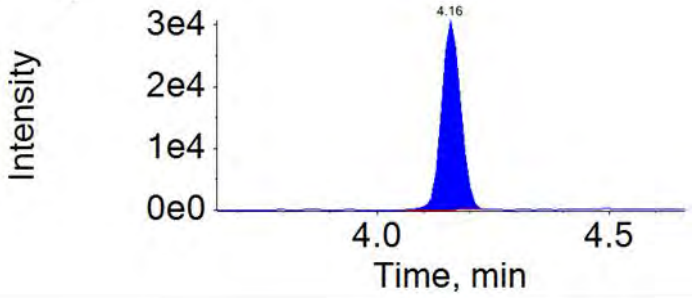
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



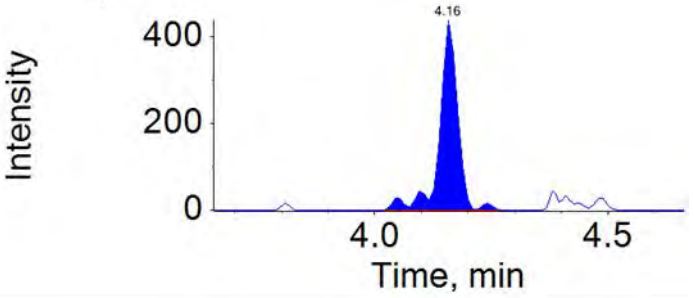
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



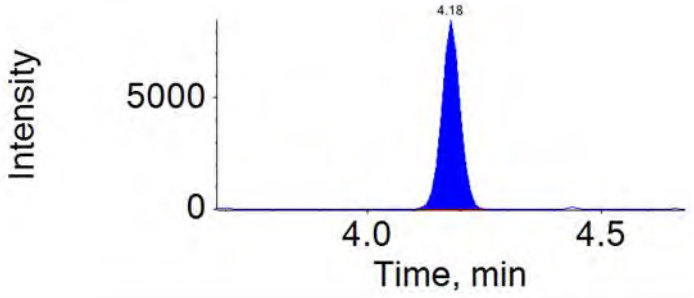
Component: PFHxA
Primary Mass: 313.0 / 269.0



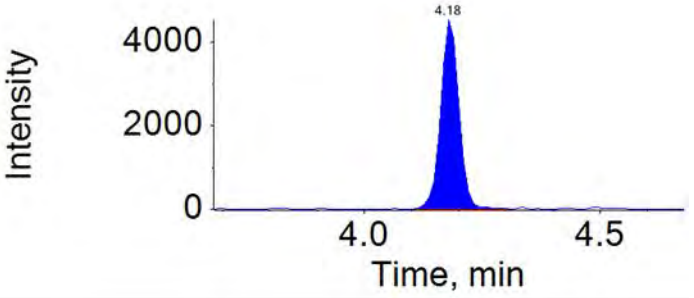
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



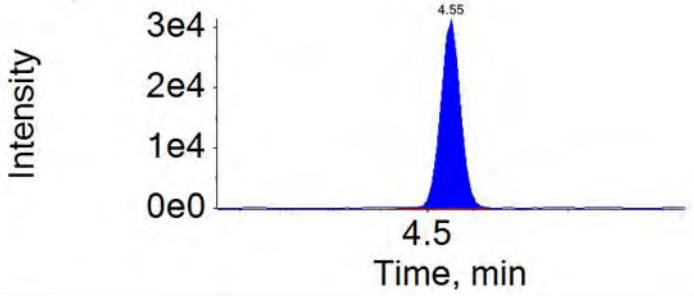
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



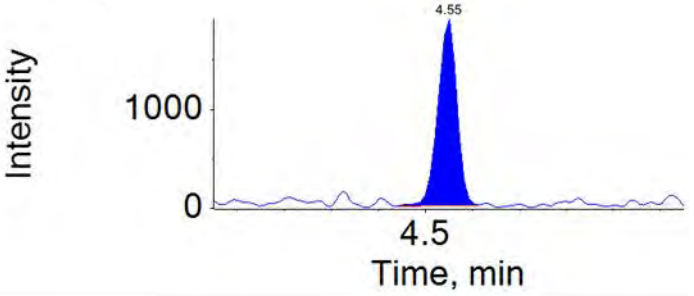
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

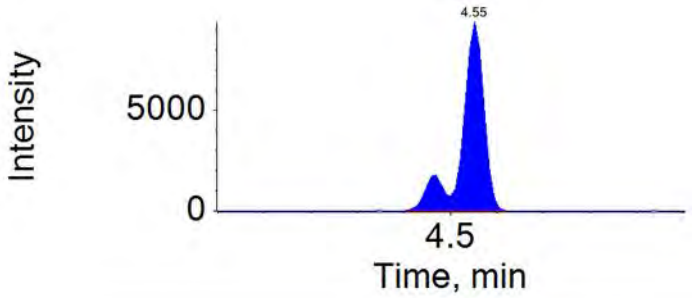
Component: PFHpA
Primary Mass: 363.0 / 319.0



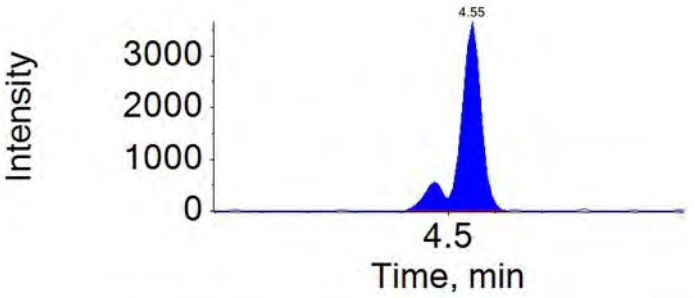
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



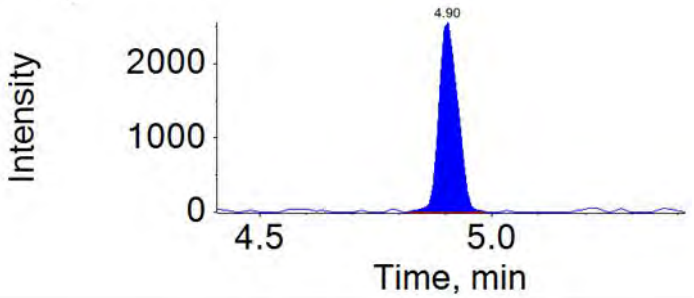
Component: PFHxS
Primary Mass: 399.0 / 80.0



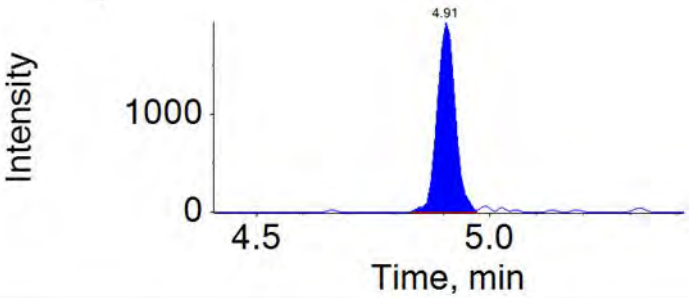
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



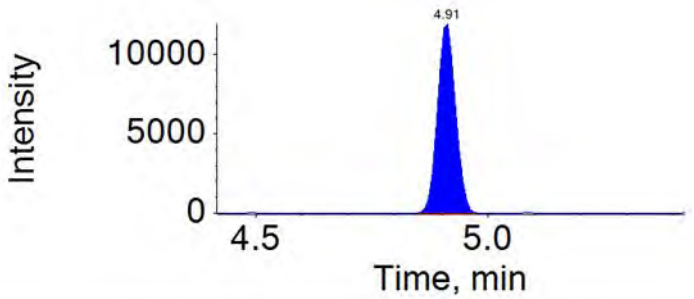
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



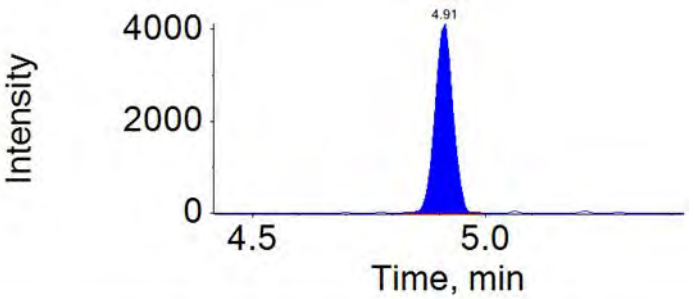
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



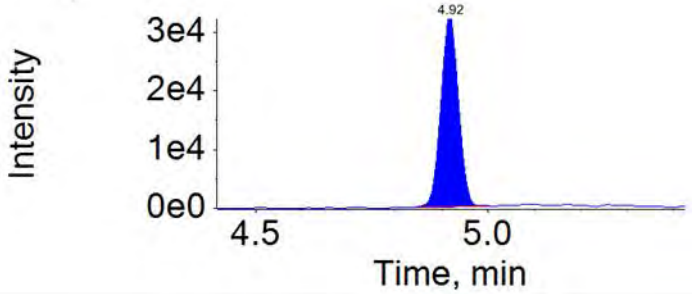
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



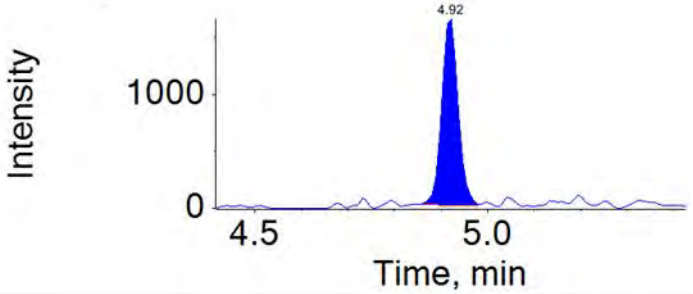
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

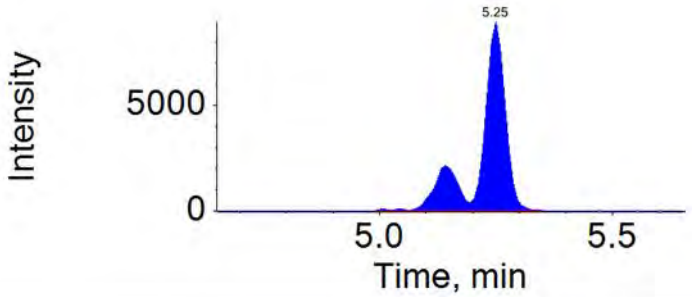
Component: PFOA
Primary Mass: 413.0 / 369.0



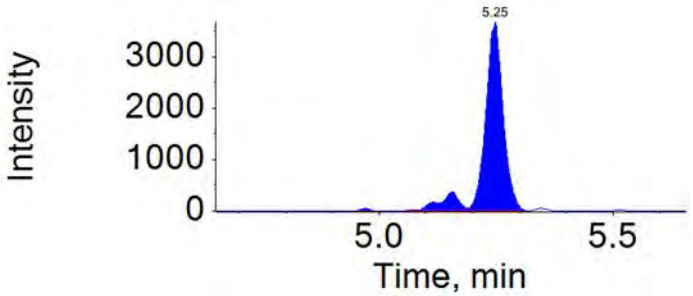
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



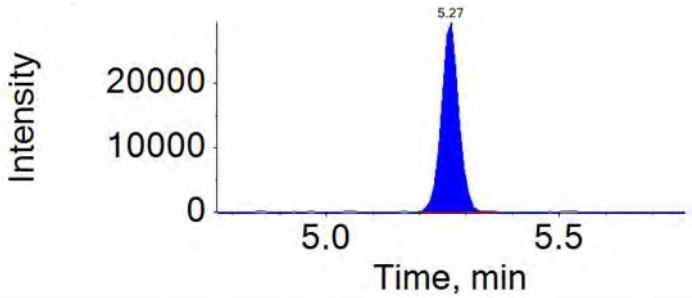
Component: PFOS
Primary Mass: 499.0 / 80.0



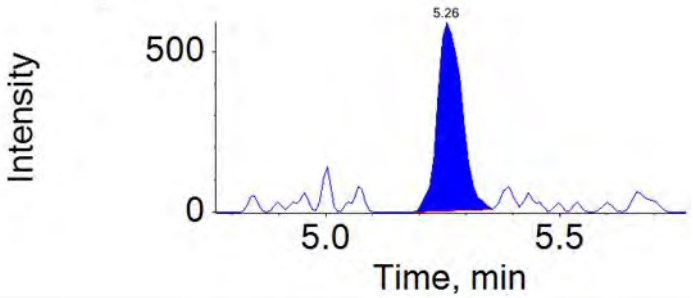
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



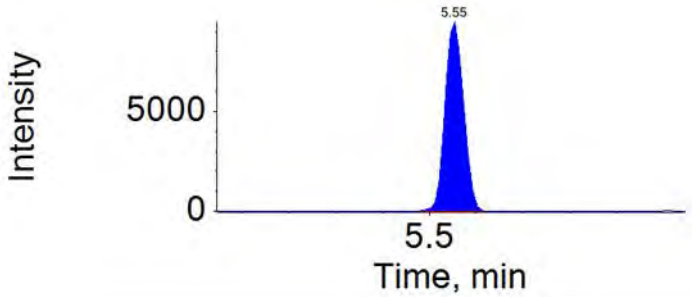
Component: PFNA
Primary Mass: 463.0 / 419.0



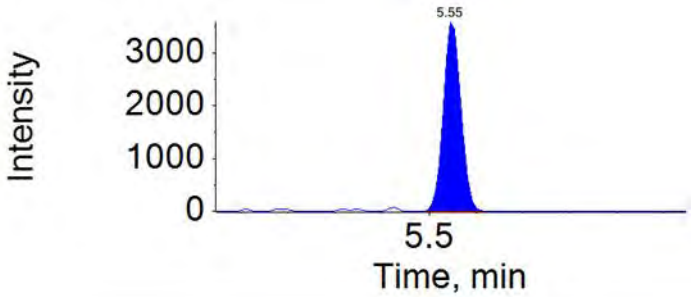
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



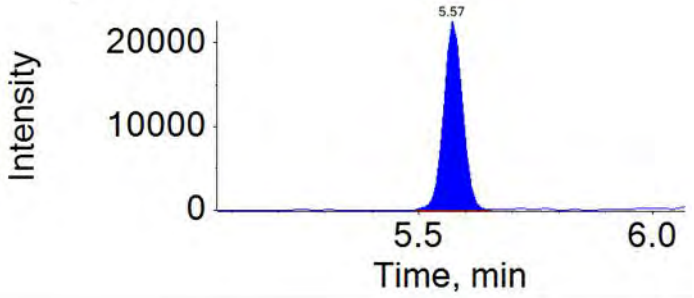
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



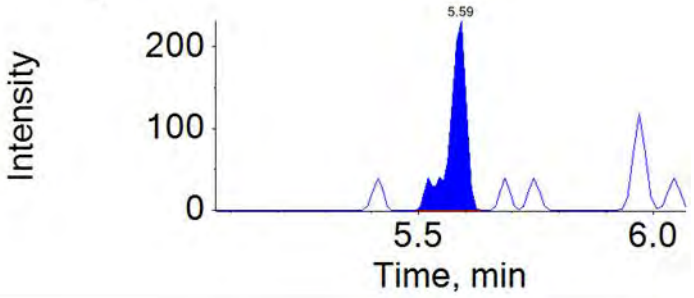
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

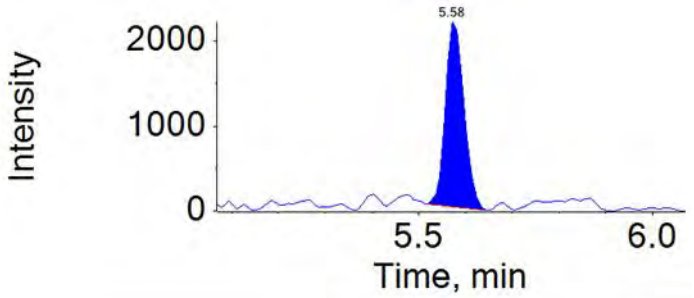
Component: PFDA
Primary Mass: 513.0 / 469.0



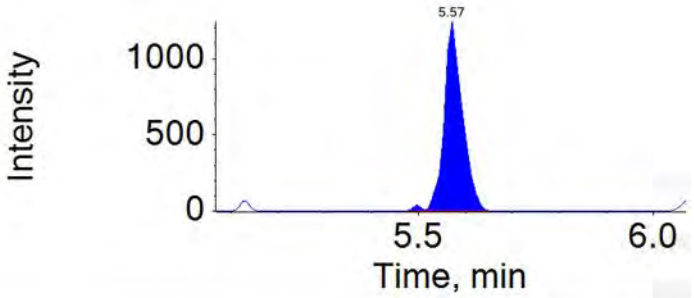
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



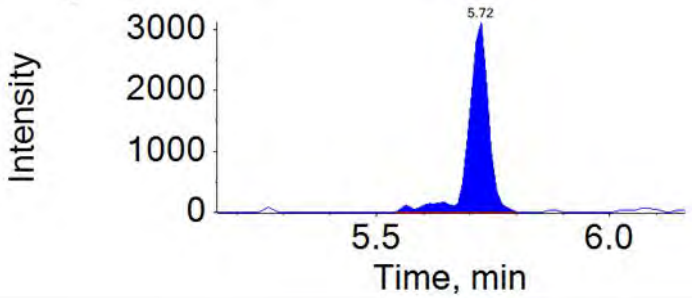
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



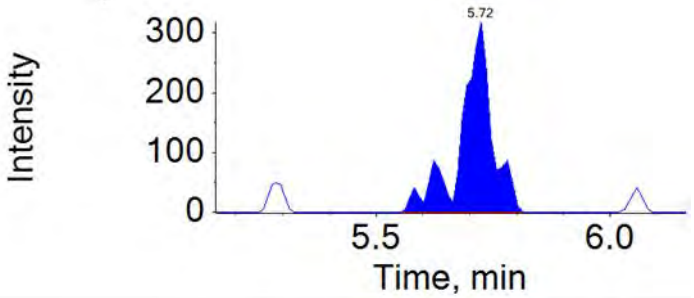
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



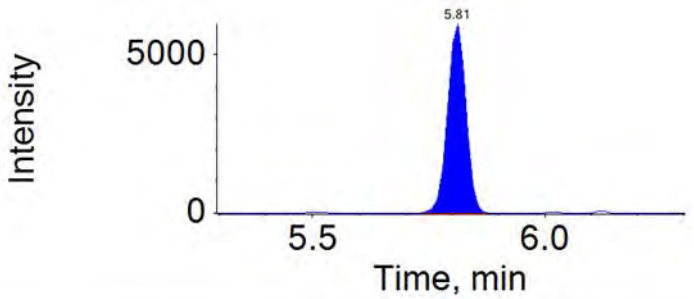
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



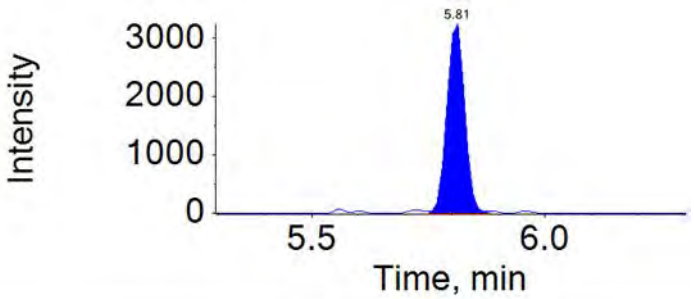
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



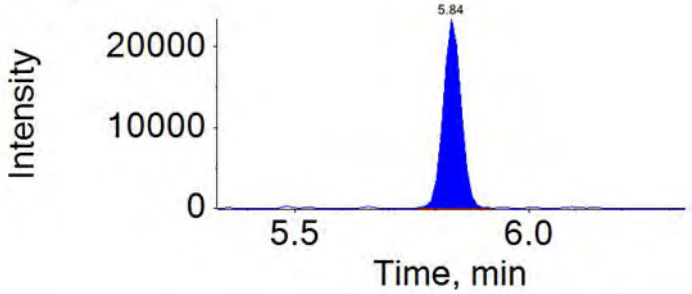
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



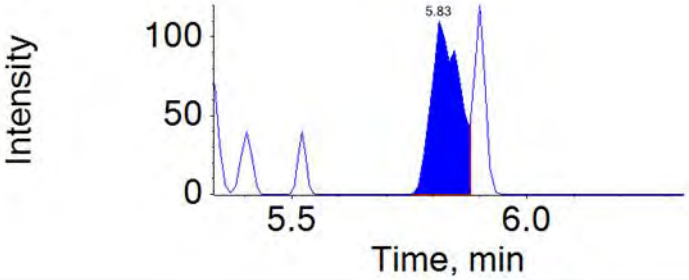
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

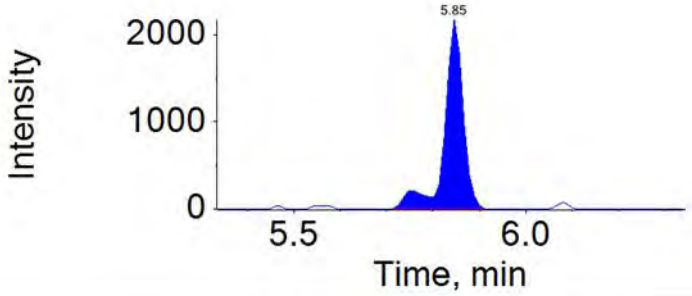
Component: PFUnDA
Primary Mass: 563.0 / 519.0



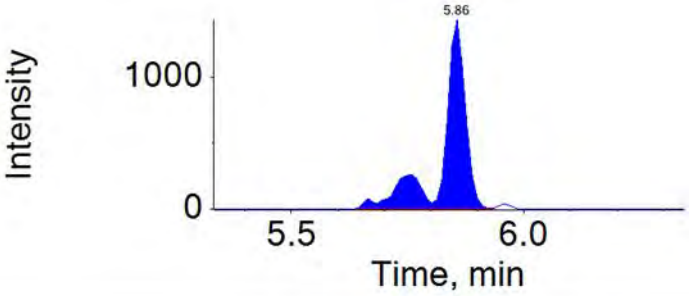
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



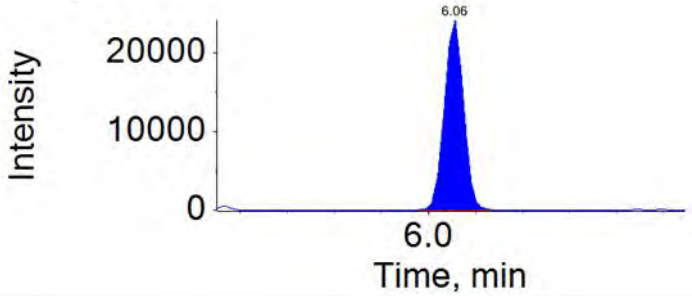
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



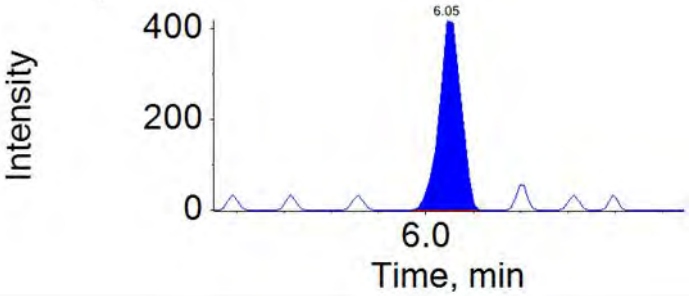
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



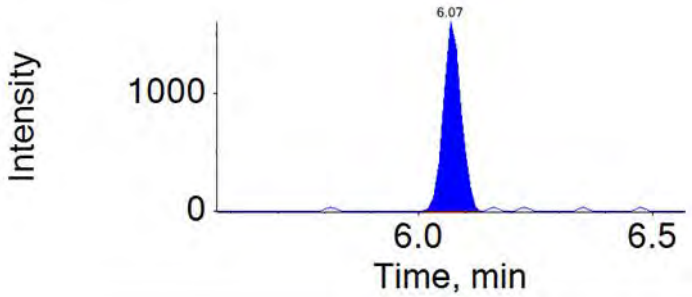
Component: PFDoDA
Primary Mass: 613.0 / 569.0



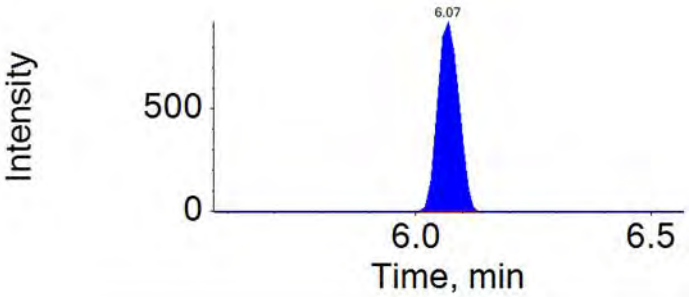
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



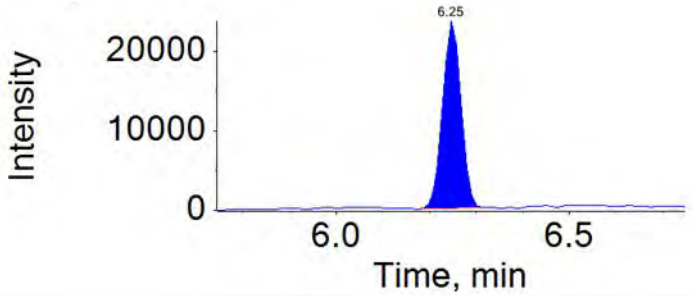
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



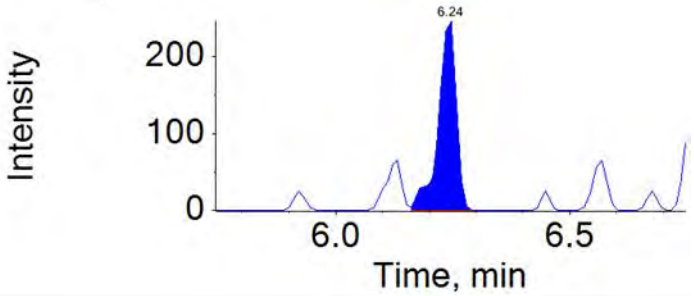
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

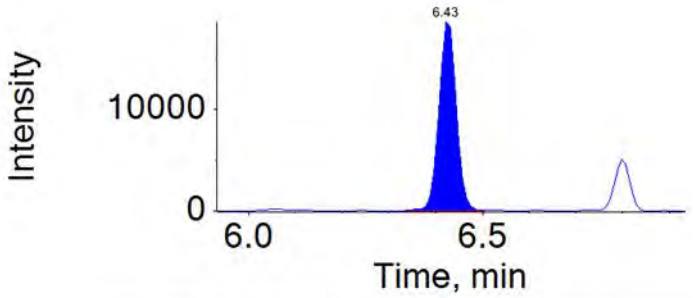
Component: PFTrDA
Primary Mass: 663.0 / 619.0



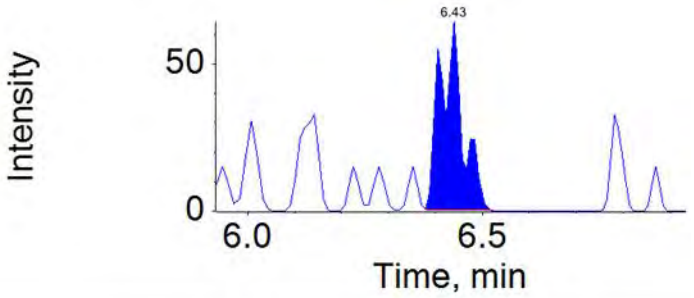
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



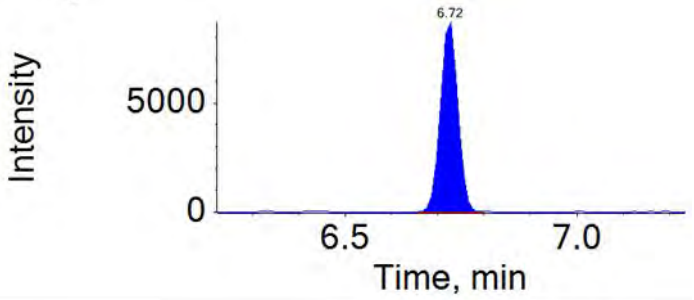
Component: PFTeDA
Primary Mass: 713.0 / 669.0



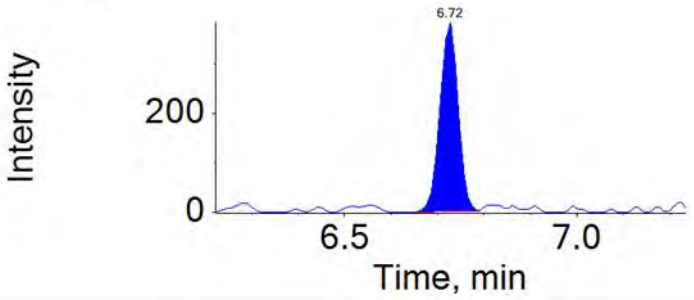
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



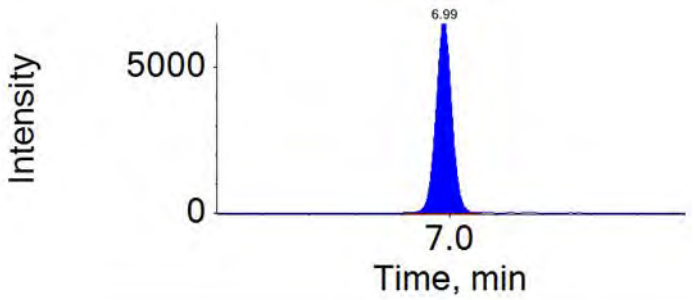
Component: PFHxDA
Primary Mass: 813.0 / 769.0



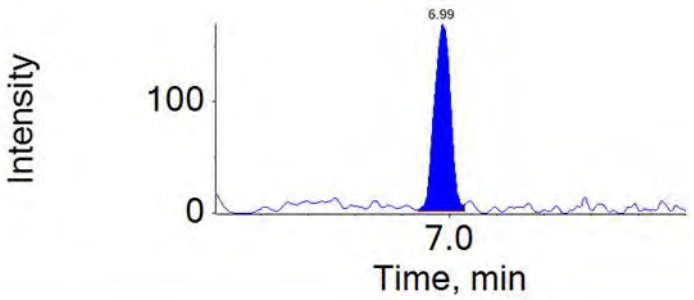
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



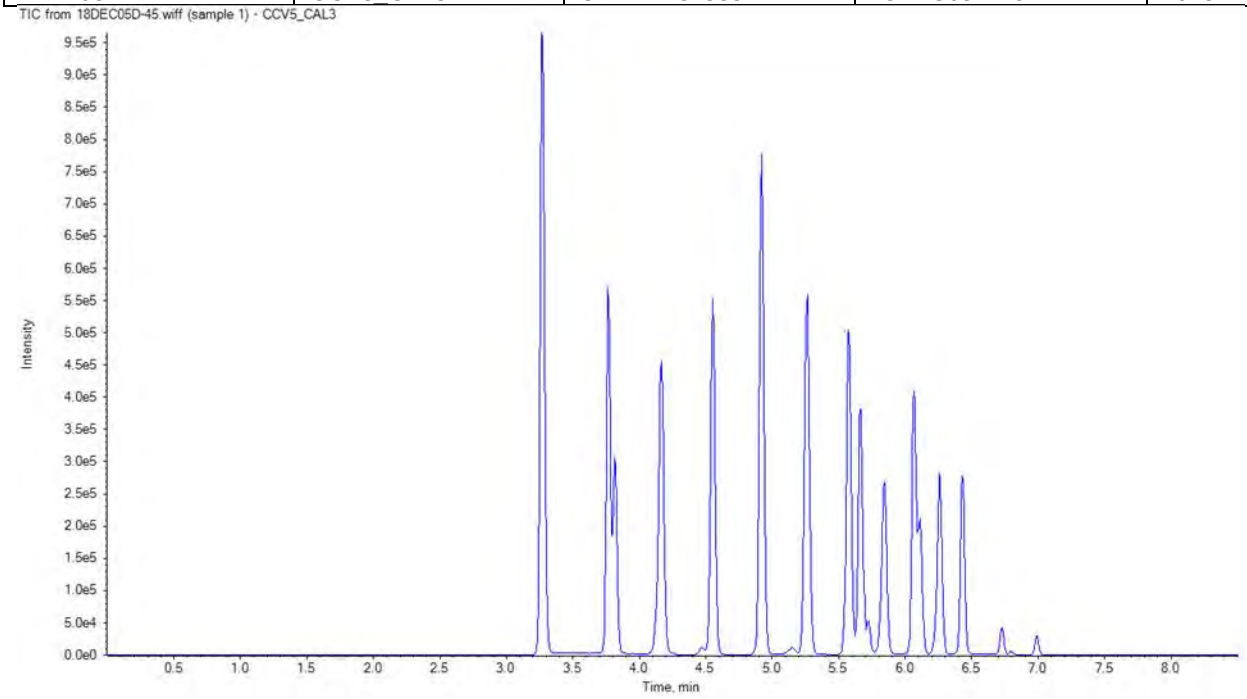
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18DEC05D-45.wiff	2018-12-05T18:48:38



Injection Standard Area Reference File: 18DEC05D-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	838357.2	850136.0	-1	50	
13C2-PFOA	5.0	419402.4	429843.2	-2	50	
13C4-PFOS	4.8	277399.5	272032.6	2	50	
13C2-PFDA	5.0	289478.2	291183.9	-1	50	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18DEC05D-45.wiff	2018-12-05T18:48:38

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	390383.4	10	13C4-PFBA	958504.9	5.0	0.407	3.27	1.000	2.000	2.307	15	30	
PFPeA	361988.9	11	13C5-PFPeA	833101.6	5.0	0.435	3.77	1.000	2.000	2.176	9	30	
PFBS	166529.5	10	13C3-PFBS	412615.7	4.7	0.404	3.82	1.000	1.770	1.968	11	30	
4:2-FTS	38062.5	11	13C2-4:2-FTS	49795.0	4.7	0.764	4.13	1.000	1.870	1.931	3	30	
PFHxA	350055.8	12	13C5-PFHxA	666073.8	5.0	0.526	4.16	1.000	2.000	2.240	12	30	
PFPeS	86456.5	11	13C3-PFBS	412615.7	4.7	0.210	4.18	1.100	1.880	2.011	7	30	
PFHpA	337953.2	12	13C4-PFHpA	500318.5	5.0	0.675	4.55	1.000	2.000	2.180	9	30	
PFHxS	121962.4	18	13C3-PFHxS	308382.2	4.7	0.395	4.55	1.000	1.820	1.863	2	30	
6:2-FTS	31565.8	11	13C2-6:2-FTS	36213.2	4.8	0.872	4.91	1.000	1.900	2.114	11	30	
PFHpS	124027.9	11	13C3-PFHxS	308382.2	4.7	0.402	4.91	1.080	1.900	2.094	10	30	
PFOA	350150.0	11	13C8-PFOA	777580.2	5.0	0.450	4.92	1.000	2.000	2.384	19	30	
PFOS	138603.7	22	13C8-PFOS	291877.5	4.8	0.475	5.25	1.000	1.850	2.013	9	30	
PFNA	294039.6	11	13C9-PFNA	485788.2	5.0	0.605	5.27	1.000	2.000	2.268	13	30	
PFNS	92188.7	11	13C8-PFOS	291877.5	4.8	0.316	5.56	1.060	1.920	2.130	11	30	
PFDA	237739.8	11	13C6-PFDA	553886.6	5.0	0.429	5.58	1.000	2.000	2.354	18	30	
8:2-FTS	21167.3	11	13C2-8:2-FTS	23582.3	4.8	0.898	5.58	1.000	1.920	1.928	0	30	
PFOSA	257669.5	11	13C8-PFOSA	659587.5	5.0	0.391	5.66	1.000	2.000	2.046	2	30	
NMeFOSAA	29260.8	18	d3-NMeFOSAA	84579.5	5.0	0.346	5.73	1.000	2.000	2.290	14	30	
PFDS	73064.5	11	13C8-PFOS	291877.5	4.8	0.250	5.82	1.110	1.930	2.143	11	30	
PFUnDA	213464.9	11	13C7-PFUnDA	315307.6	5.0	0.677	5.84	1.000	2.000	2.061	3	30	
NEtFOSAA	23870.4	17	d5-NEtFOSAA	61403.0	5.0	0.389	5.86	1.000	2.000	1.966	-2	30	
PFDoDA	271724.2	11	13C2-PFDoDA	635884.7	5.0	0.427	6.07	1.000	2.000	2.436	22	30	
10:2-FTS	20117.5	11	13C2-8:2-FTS	23582.3	4.8	0.853	6.08	1.090	1.930	2.126	10	30	
NMePFOSAE	121865.3	11	d7-NMePFOSAE	245382.2	5.0	0.497	6.12	1.000	2.000	2.103	5	30	
NMePFOSA	31395.9	11	d3-NMePFOSA	73178.1	5.0	0.429	6.12	1.000	2.000	2.262	13	30	
PFDoS	38395.1	11	13C8-PFOS	291877.5	4.8	0.132	6.22	1.190	1.940	2.061	6	30	
NEtPFOSAE	140897.3	11	d9-NEtPFOSAE	200229.2	5.0	0.704	6.27	1.000	2.000	2.424	21	30	
NEtPFOSA	29562.6	11	d5-NEtPFOSA	60362.6	5.0	0.490	6.28	1.000	2.000	2.279	14	30	
PFTrDA	228236.3	11	13C2-PFDoDA	635884.7	5.0	0.359	6.26	1.030	2.000	2.113	6	30	
PFTeDA	171240.7	11	13C2-PFTeDA	444078.9	5.0	0.386	6.43	1.000	2.000	2.282	14	30	
PFHxDA	81469.0	11	13C2-PFTeDA	444078.9	5.0	0.183	6.73	1.050	2.000	2.355	18	30	
PFODA	60287.7	10	13C2-PFTeDA	444078.9	5.0	0.136	6.99	1.090	2.000	2.157	8	30	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Continuing Calibration Verfication

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV5_CAL3			**Data File:**		18DEC05D-45.wiff
Sample ID:	CALBRN31833B			**Acquis Date:**		2018-12-05T18:48:38
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	5			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18DEC05DCCV1-8
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
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: 18DEC05D-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	838357.2	850136.0	-1	50	
13C2-PFOA	5.0	419402.4	429843.2	-2	50	
13C4-PFOS	4.8	277399.5	272032.6	2	50	
13C2-PFDA	5.0	289478.2	291183.9	-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	958504.9	13C3-PFBA	838357.2	1.143	5.000	5.074	101	70-130	
E13C5-PFPeA	833101.6	13C3-PFBA	838357.2	0.994	5.000	4.795	96	70-130	
E13C3-PFBS	412615.7	13C3-PFBA	838357.2	0.492	4.650	3.835	82	70-130	
E13C2-4:2-FTS	49795.0	13C2-PFOA	419402.4	0.119	4.670	4.884	105	70-130	
E13C5-PFHxA	666073.8	13C2-PFOA	419402.4	1.588	5.000	5.378	108	70-130	
E13C3-PFHxS	308382.2	13C2-PFOA	419402.4	0.735	4.730	4.649	98	70-130	
E13C4-PFHpA	500318.5	13C2-PFOA	419402.4	1.193	5.000	5.205	104	70-130	
E13C2-6:2-FTS	36213.2	13C2-PFOA	419402.4	0.086	4.750	5.722	120	70-130	
E13C8-PFOA	777580.2	13C2-PFOA	419402.4	1.854	5.000	5.153	103	70-130	
E13C8-PFOS	291877.5	13C4-PFOS	277399.5	1.052	4.780	4.673	98	70-130	
E13C9-PFNA	485788.2	13C4-PFOS	277399.5	1.751	5.000	5.126	103	70-130	
E13C6-PFDA	553886.6	13C2-PFDA	289478.2	1.913	5.000	4.977	100	70-130	
E13C2-8:2-FTS	23582.3	13C2-PFDA	289478.2	0.081	4.790	5.238	109	70-130	
E13C8-PFOSA	659587.5	13C2-PFDA	289478.2	2.279	5.000	5.100	102	70-130	
Ed3-NMeFOSAA	84579.5	13C2-PFDA	289478.2	0.292	5.000	5.104	102	70-130	
E13C7-PFUnDA	315307.6	13C2-PFDA	289478.2	1.089	5.000	5.425	108	70-130	
Ed5-NEtFOSAA	61403.0	13C2-PFDA	289478.2	0.212	5.000	4.839	97	70-130	
E13C2-PFDoDA	635884.7	13C2-PFDA	289478.2	2.197	5.000	4.704	94	70-130	
Ed7-NMePFOSAE	245382.2	13C2-PFDA	289478.2	0.848	5.000	4.596	92	70-130	
Ed3-NMePFOSA	73178.1	13C2-PFDA	289478.2	0.253	5.000	4.687	94	70-130	
Ed9-NEtPFOSAE	200229.2	13C2-PFDA	289478.2	0.692	5.000	4.461	89	70-130	
Ed5-NEtPFOSA	60362.6	13C2-PFDA	289478.2	0.209	5.000	4.919	98	70-130	
E13C2-PFTeDA	444078.9	13C2-PFDA	289478.2	1.534	5.000	4.324	86	70-130	

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

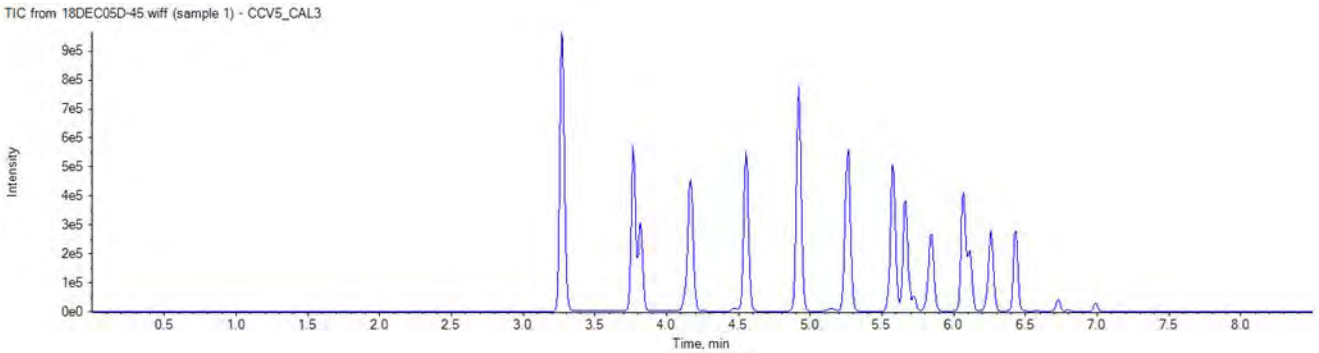
Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC05D-45.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	390383.4		A	13C4-PFBA	3.27	958504.9	0.407	2.307
PFPeA	3.77	1.000	361988.9		A	13C5-PFPeA	3.77	833101.6	0.435	2.176
PFBS	3.82	1.000	166529.5		A	13C3-PFBS	3.82	412615.7	0.404	1.968
4:2-FTS	4.13	1.000	38062.5		A	13C2-4:2-FTS	4.13	49795.0	0.764	1.931
PFHxA	4.16	1.000	350055.8		A	13C5-PFHxA	4.16	666073.8	0.526	2.240
PFPeS	4.18	1.100	86456.5		A	13C3-PFBS	3.82	412615.7	0.210	2.011
PFHpA	4.55	1.000	337953.2		A	13C4-PFHpA	4.55	500318.5	0.675	2.180
PFHxS	4.55	1.000	121962.4		M	13C3-PFHxS	4.56	308382.2	0.395	1.863
6:2-FTS	4.91	1.000	31565.8		A	13C2-6:2-FTS	4.91	36213.2	0.872	2.114
PFHpS	4.91	1.080	124027.9		A	13C3-PFHxS	4.56	308382.2	0.402	2.094
PFOA	4.92	1.000	350150.0		A	13C8-PFOA	4.92	777580.2	0.450	2.384
PFOS	5.25	1.000	138603.7		M	13C8-PFOS	5.25	291877.5	0.475	2.013
PFNA	5.27	1.000	294039.6		A	13C9-PFNA	5.27	485788.2	0.605	2.268
PFNS	5.56	1.060	92188.7		A	13C8-PFOS	5.25	291877.5	0.316	2.130
PFDA	5.58	1.000	237739.8		A	13C6-PFDA	5.58	553886.6	0.429	2.354
8:2-FTS	5.58	1.000	21167.3		A	13C2-8:2-FTS	5.58	23582.3	0.898	1.928
PFOSA	5.66	1.000	257669.5		A	13C8-PFOSA	5.66	659587.5	0.391	2.046
NMeFOSAA	5.73	1.000	29260.8		M	d3-NMeFOSAA	5.72	84579.5	0.346	2.290
PFDS	5.82	1.110	73064.5		A	13C8-PFOS	5.25	291877.5	0.250	2.143
PFUnDA	5.84	1.000	213464.9		A	13C7-PFUnDA	5.84	315307.6	0.677	2.061
NEtFOSAA	5.86	1.000	23870.4		A	d5-NEtFOSAA	5.85	61403.0	0.389	1.966
PFDoDA	6.07	1.000	271724.2		A	13C2-PFDoDA	6.07	635884.7	0.427	2.436
10:2-FTS	6.08	1.090	20117.5		A	13C2-8:2-FTS	5.58	23582.3	0.853	2.126
NMePFOSAE	6.12	1.000	121865.3		A	d7-NMePFOSAE	6.11	245382.2	0.497	2.103
NMePFOSA	6.12	1.000	31395.9		A	d3-NMePFOSA	6.12	73178.1	0.429	2.262
PFDoS	6.22	1.190	38395.1		A	13C8-PFOS	5.25	291877.5	0.132	2.061
NEtPFOSAE	6.27	1.000	140897.3		A	d9-NEtPFOSAE	6.26	200229.2	0.704	2.424
NEtPFOSA	6.28	1.000	29562.6		A	d5-NEtPFOSA	6.27	60362.6	0.490	2.279
PFTrDA	6.26	1.030	228236.3		A	13C2-PFDoDA	6.07	635884.7	0.359	2.113
PFTeDA	6.43	1.000	171240.7		A	13C2-PFTeDA	6.43	444078.9	0.386	2.282
PFHxDA	6.73	1.050	81469.0		A	13C2-PFTeDA	6.43	444078.9	0.183	2.355
PFODA	6.99	1.090	60287.7		A	13C2-PFTeDA	6.43	444078.9	0.136	2.157

Total Ion Chromatogram

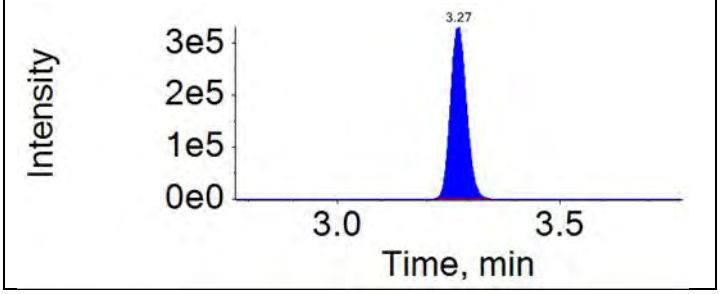


APPROVED
By JPT at 9:26 am, 12/10/18

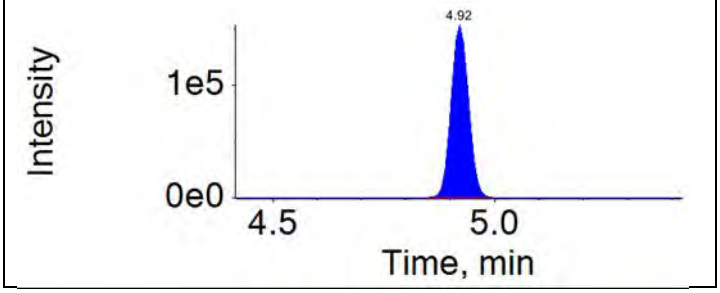
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

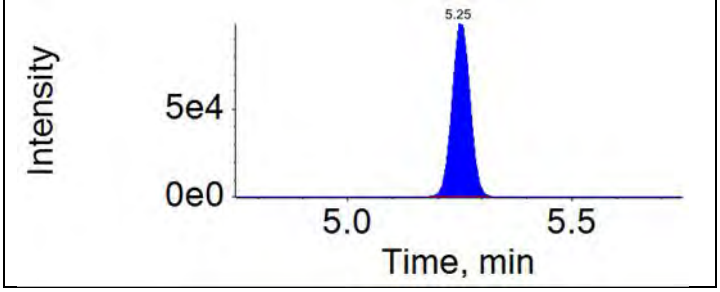
Injection Standard: 13C3-PFBA
216.0 / 172.0



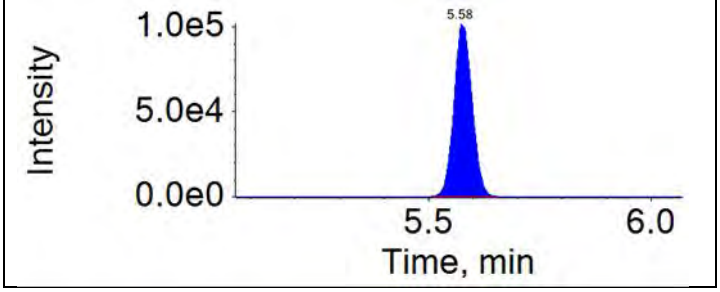
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



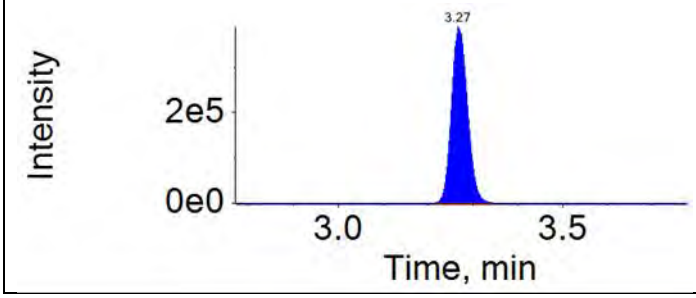
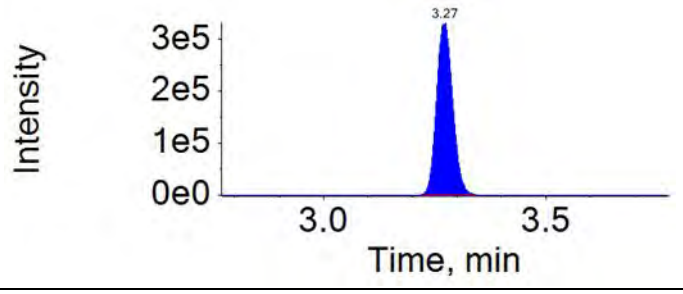
Injection Standard: 13C2-PFDA
515.0 / 470.0

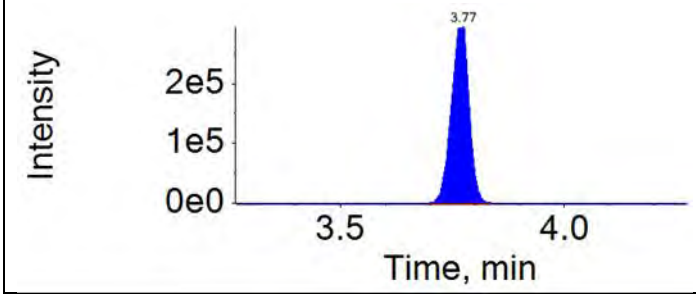
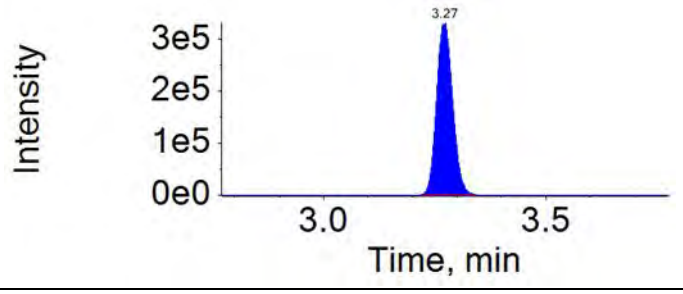


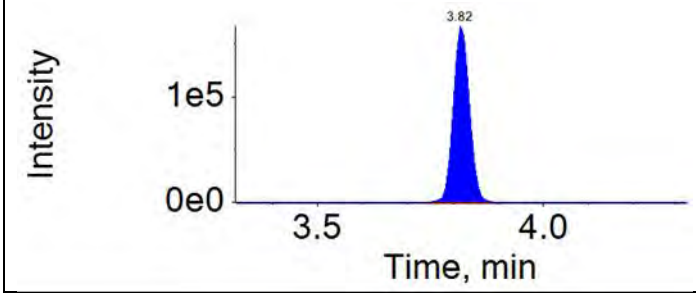
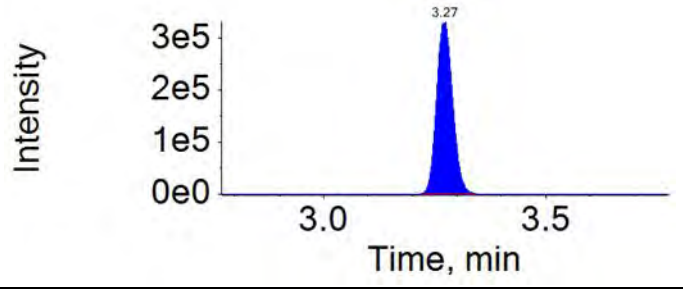
APPROVED
By JPT at 9:26 am, 12/10/18

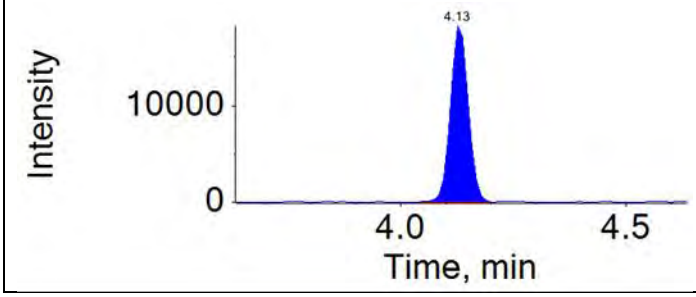
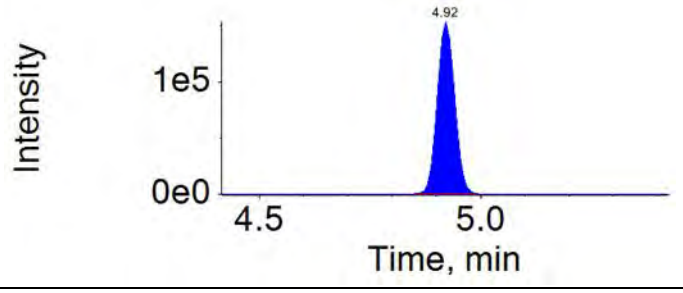
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

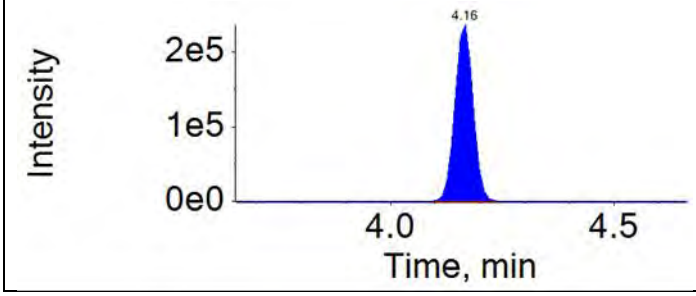
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

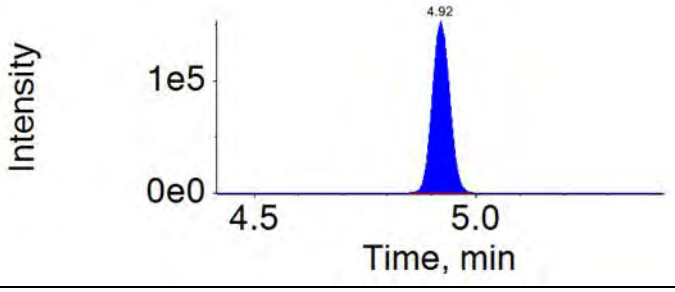
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

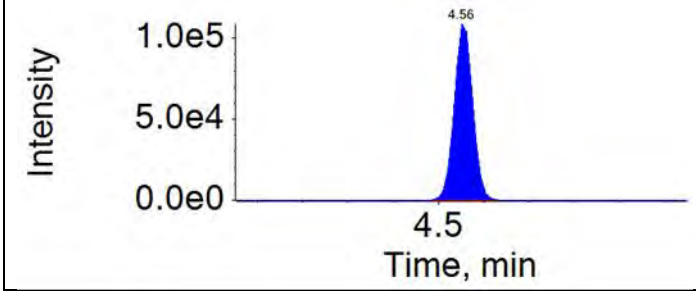
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

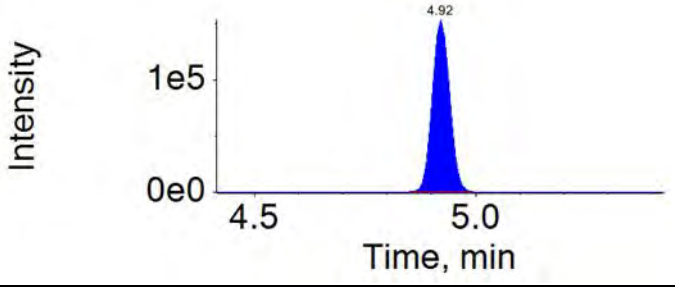
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



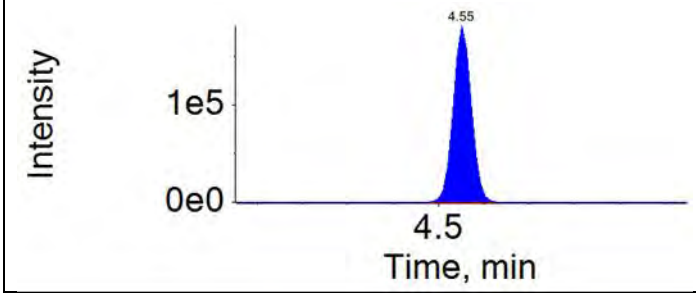


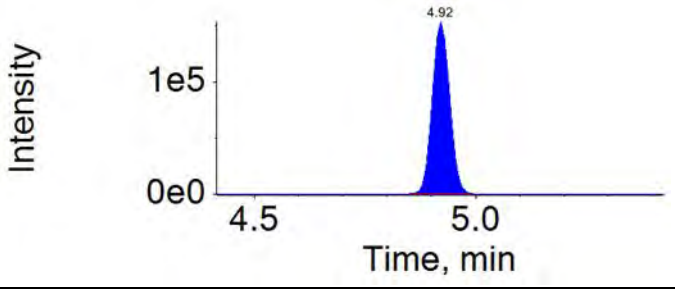
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



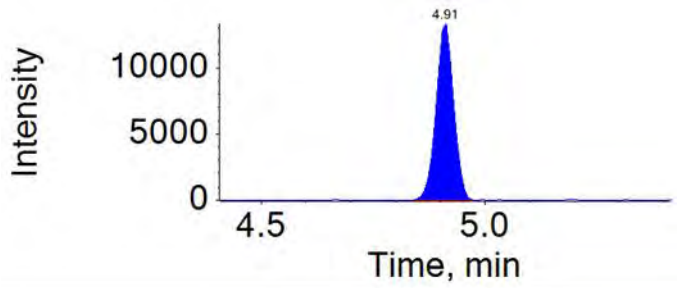


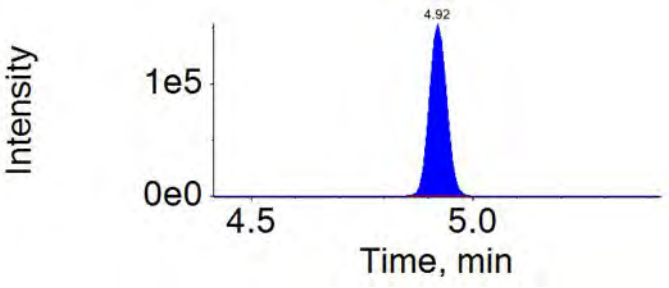
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

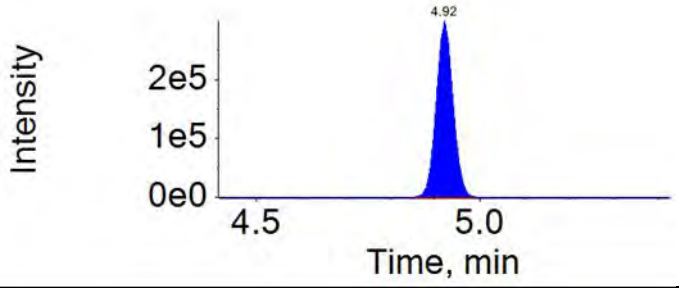
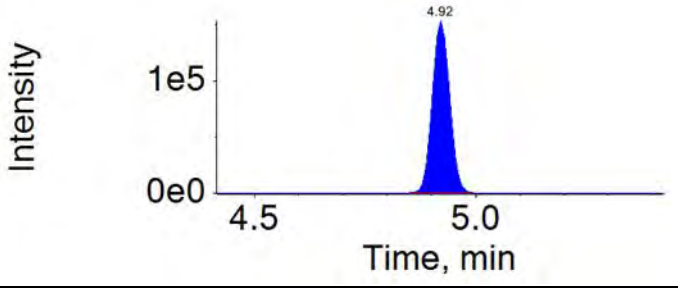


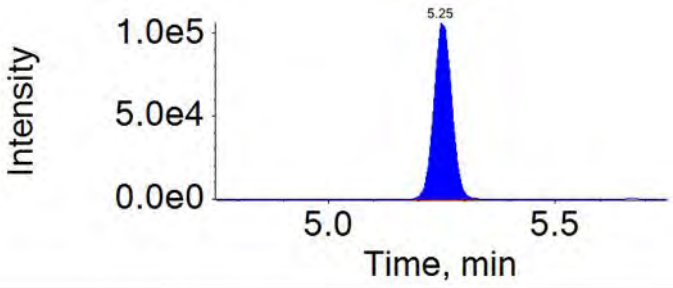
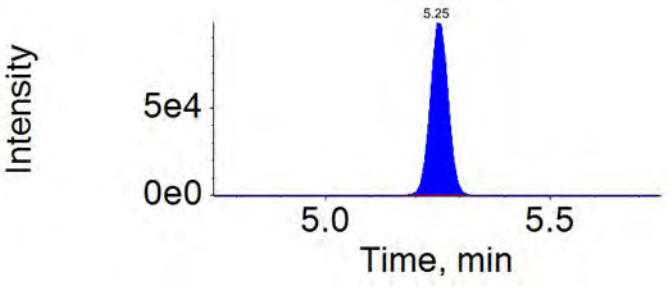


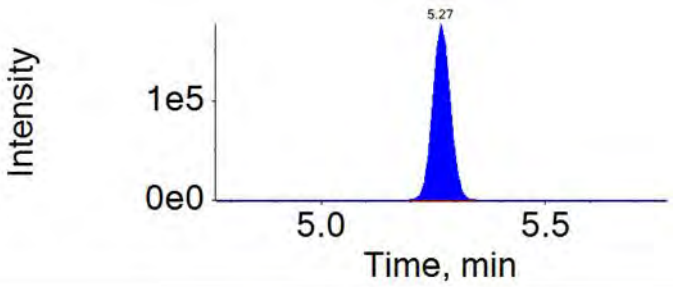
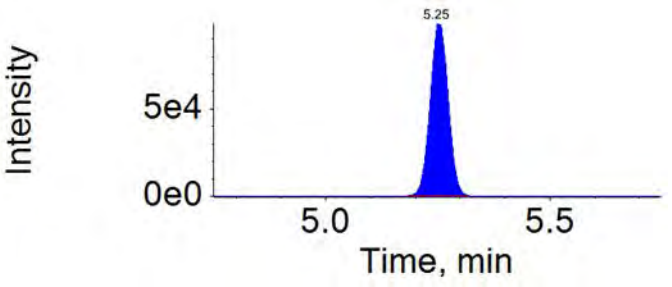
APPROVED
By JPT at 9:26 am, 12/10/18

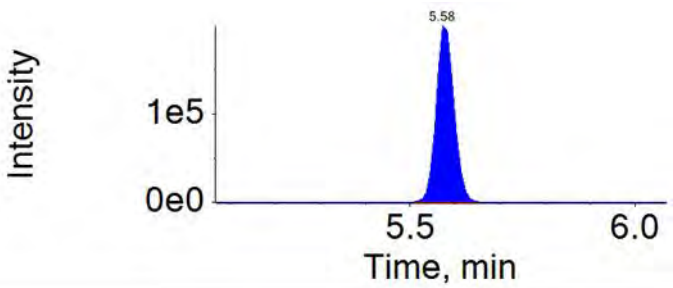
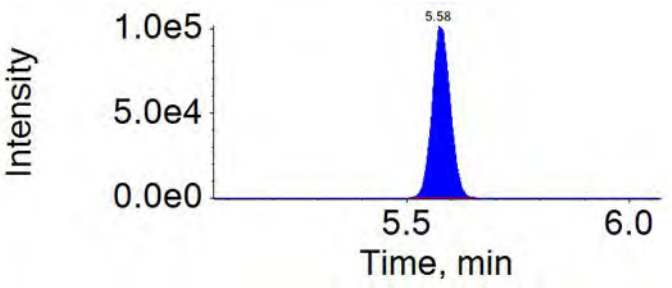
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

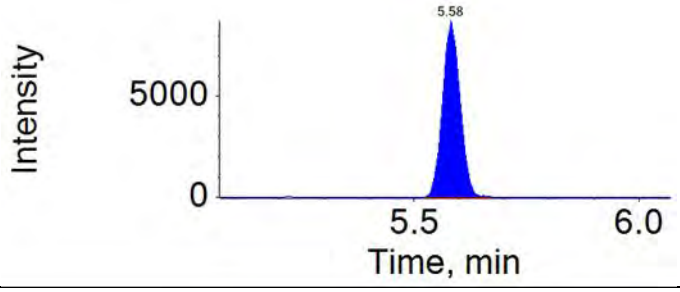
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

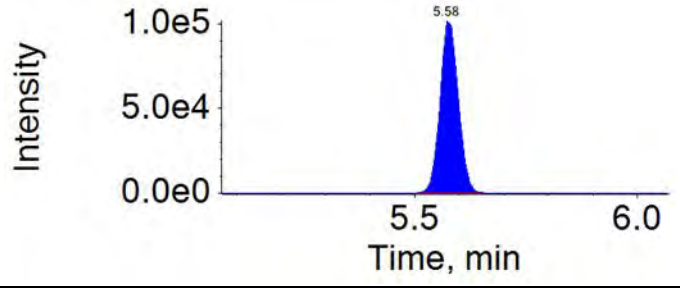
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

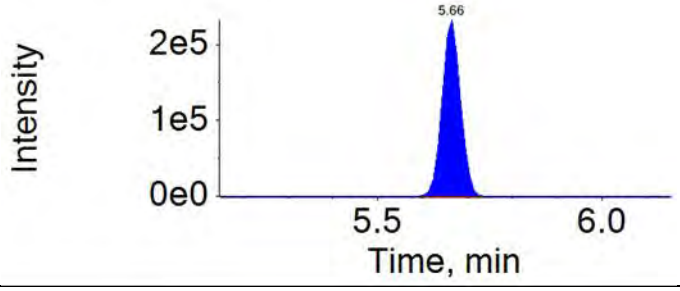
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

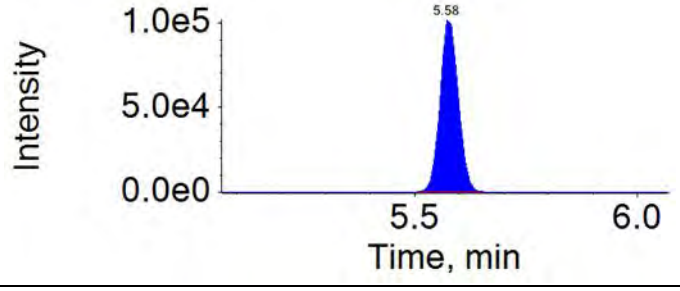
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



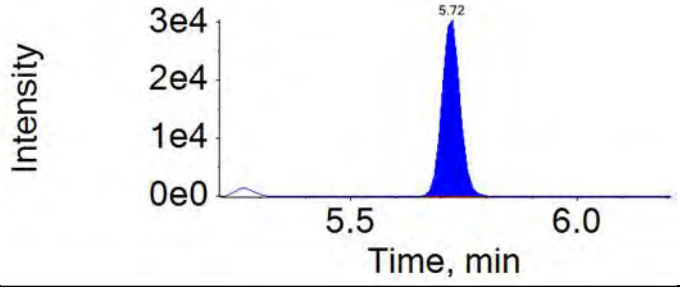


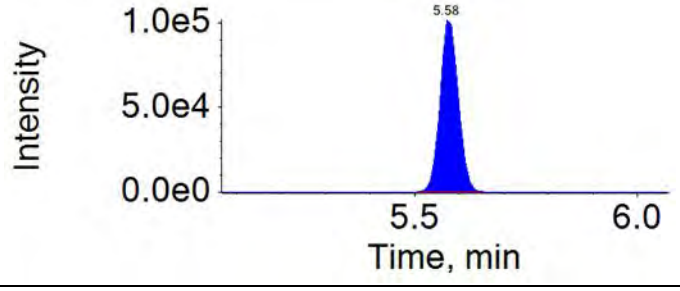
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



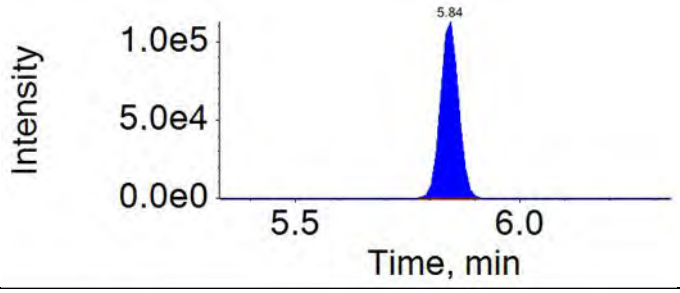


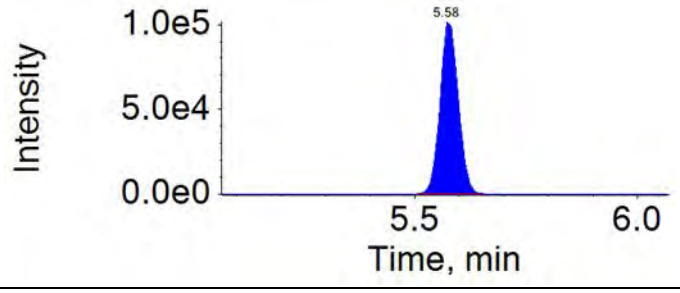
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0



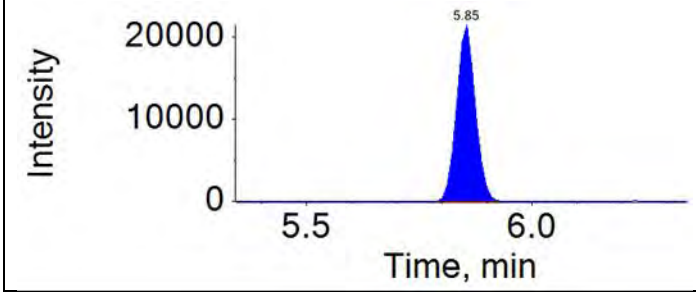


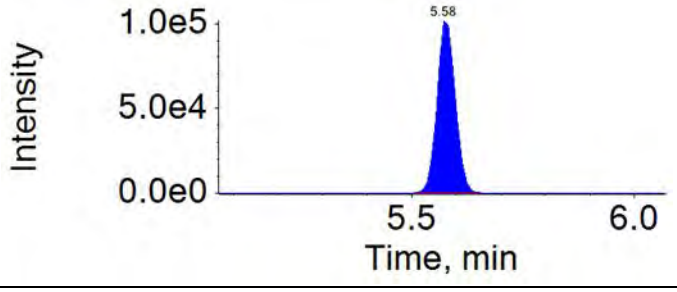
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

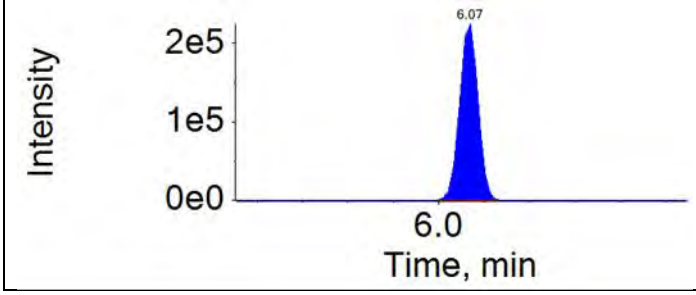
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

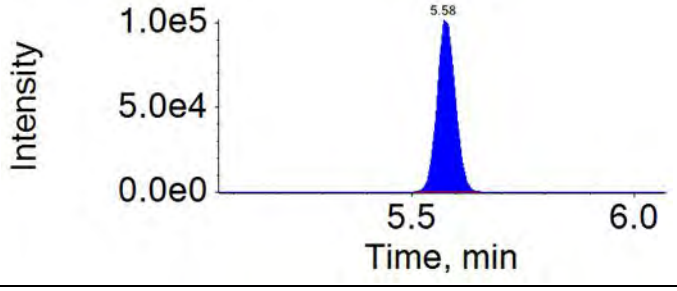
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



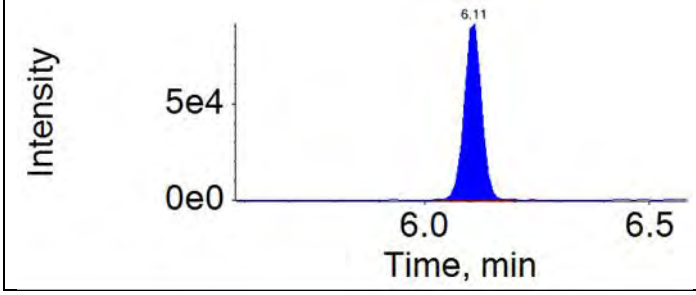


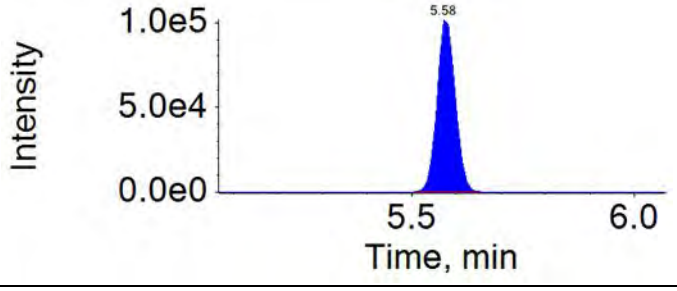
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



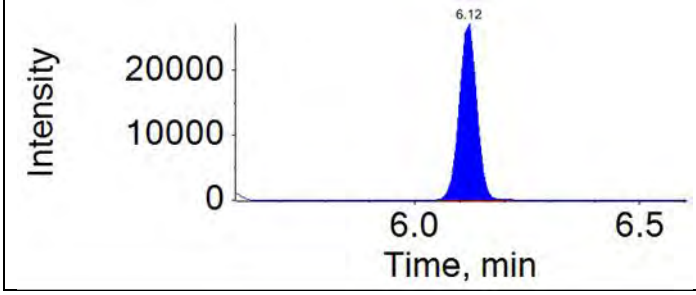


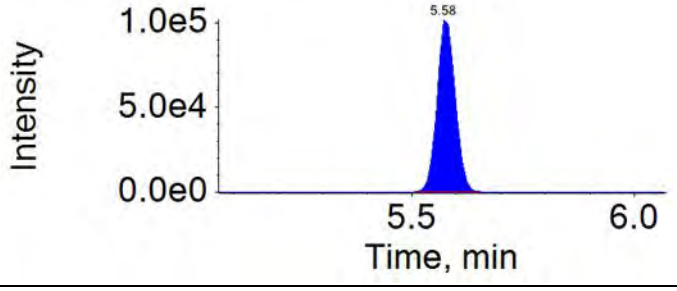
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



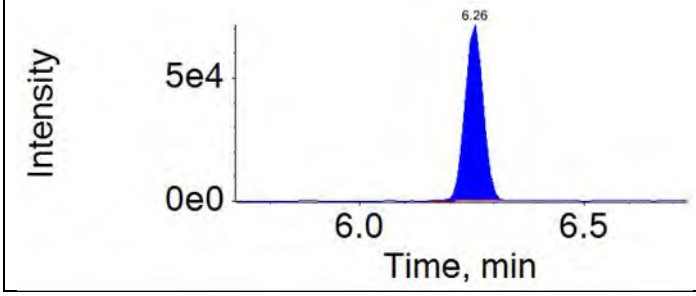


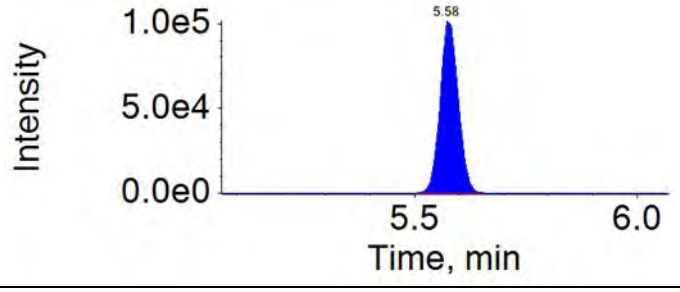
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

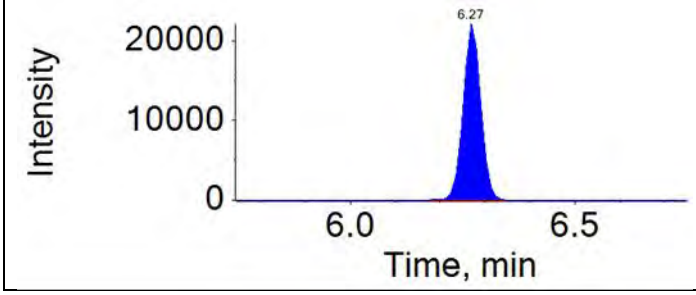
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

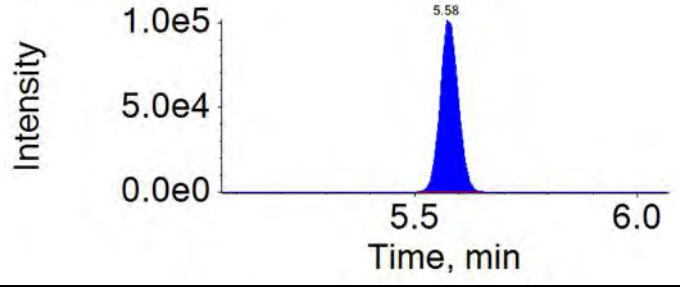
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



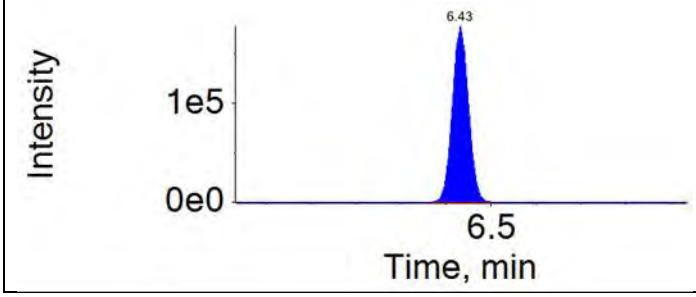


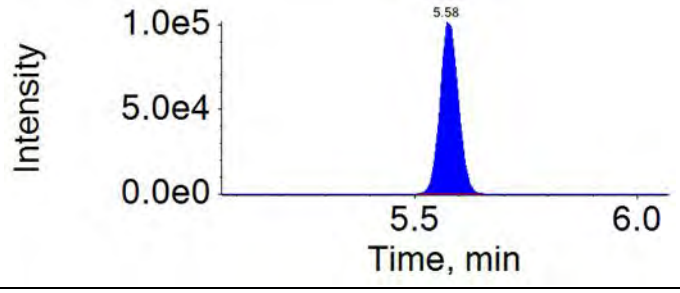
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



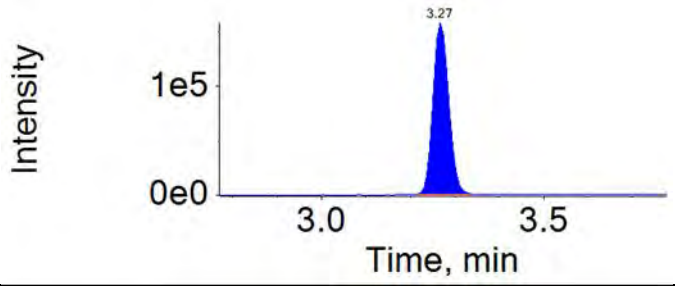


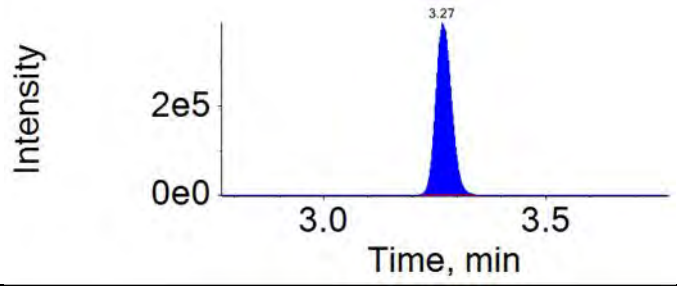
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

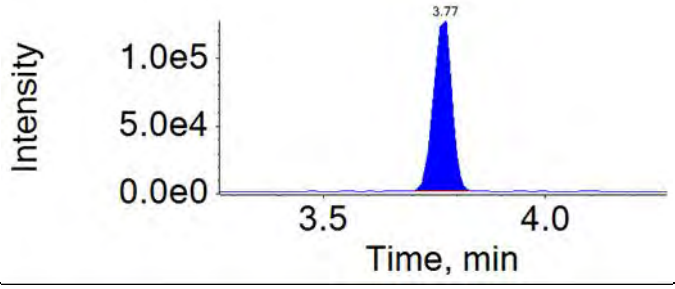
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

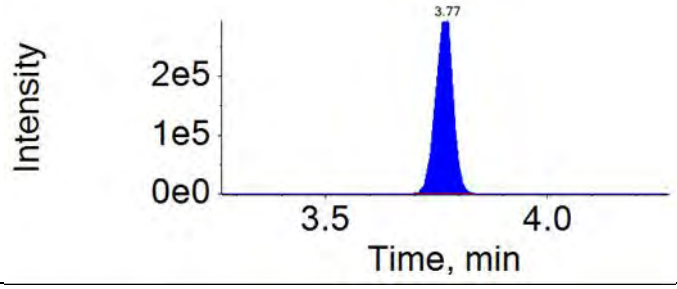
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



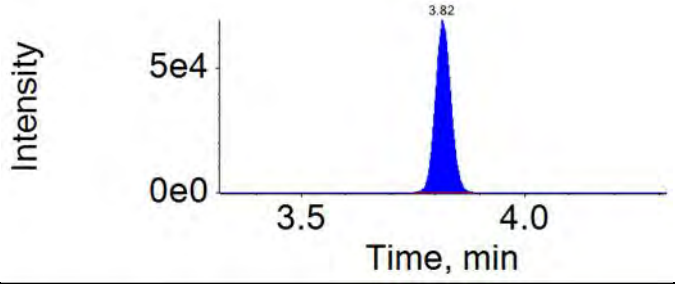


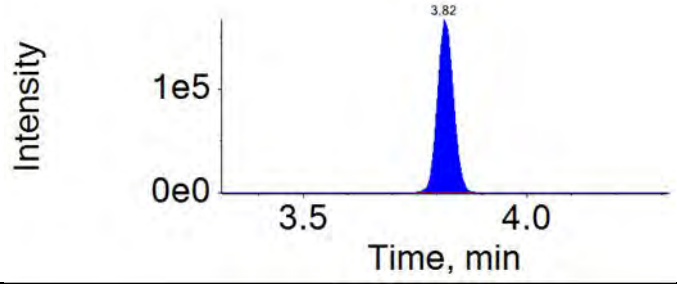
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



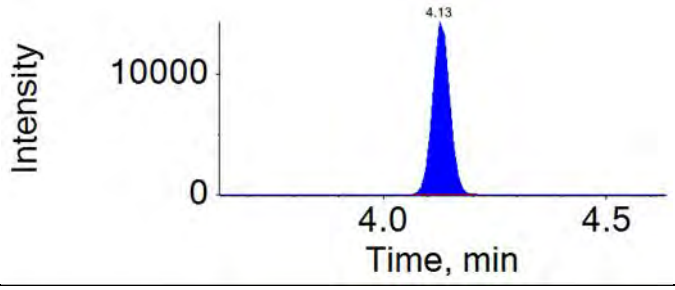


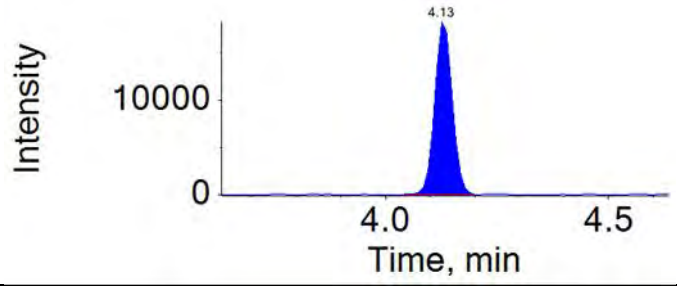
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0

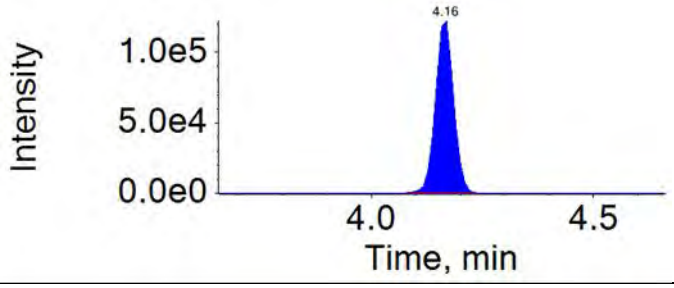
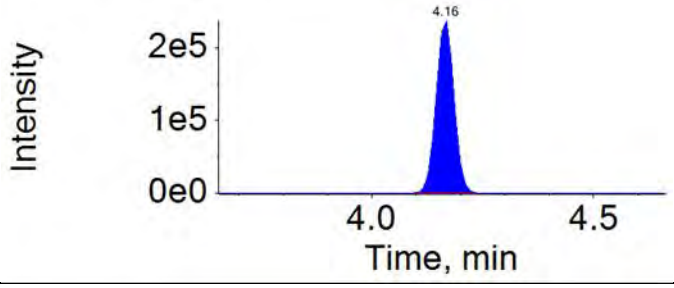


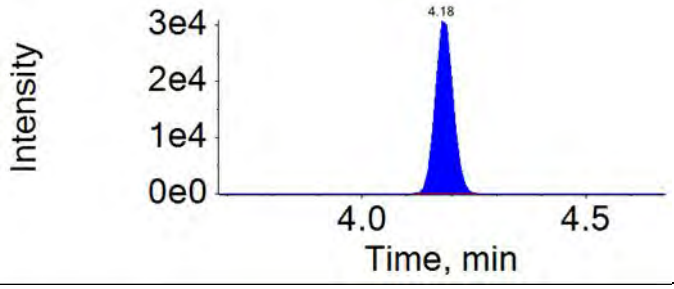
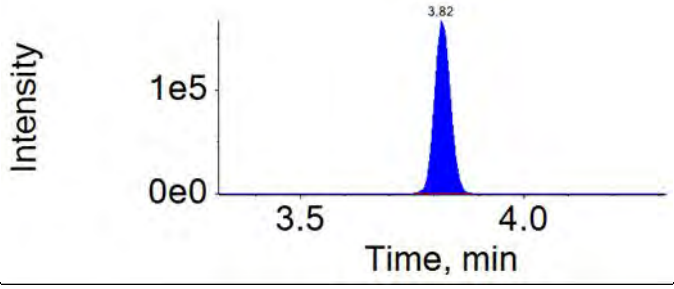


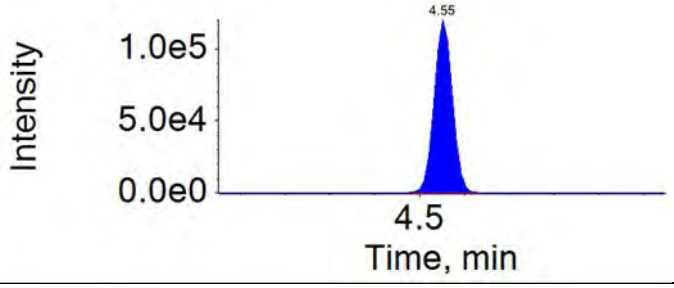
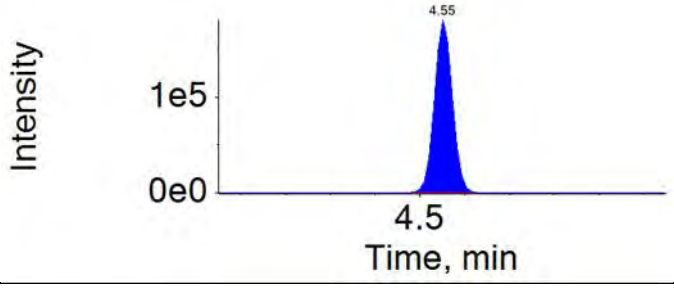
APPROVED
By JPT at 9:26 am, 12/10/18

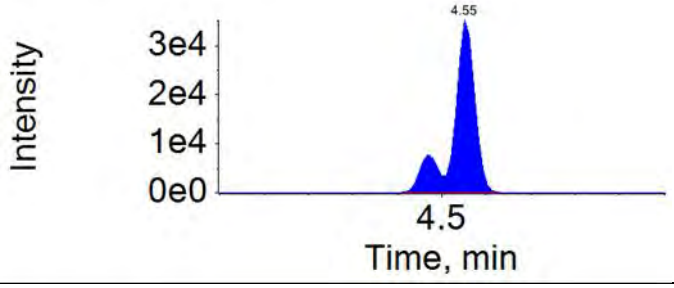
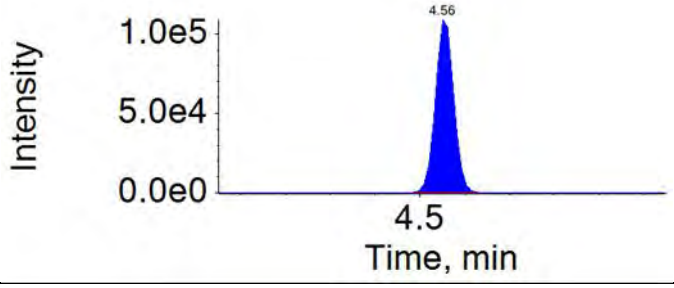
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

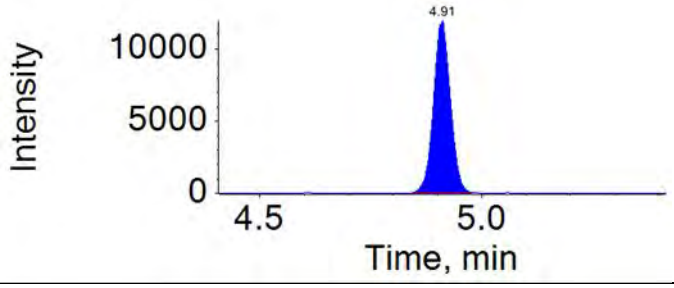
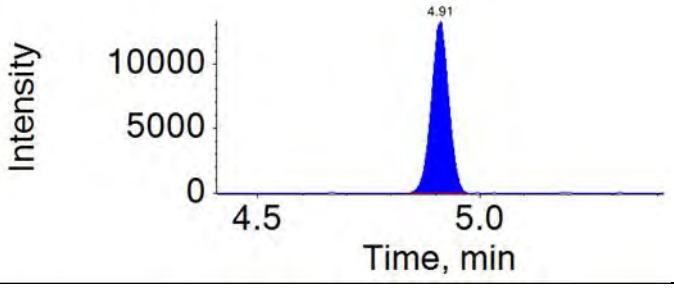
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

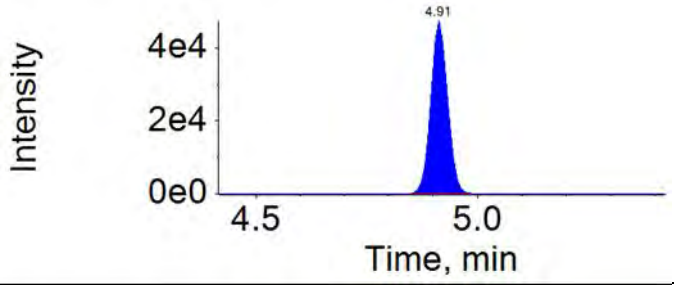
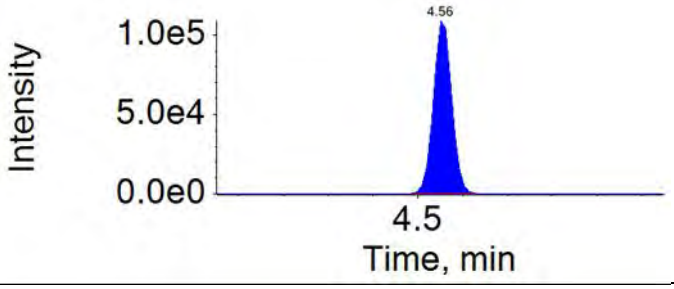
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

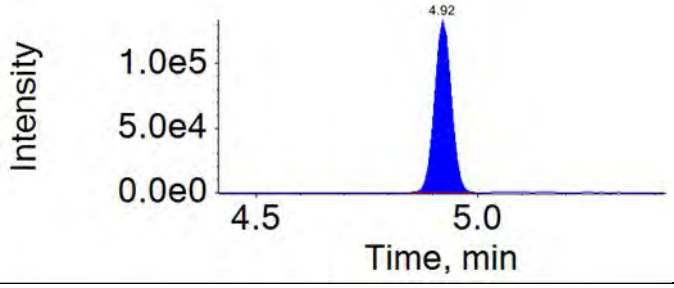
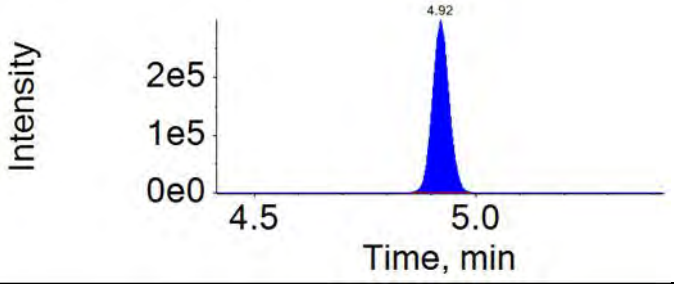
APPROVED
By JPT at 9:26 am, 12/10/18

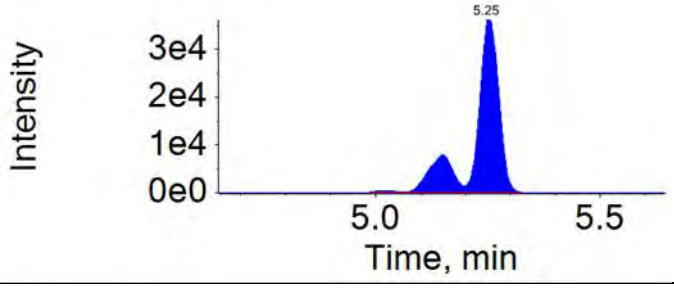
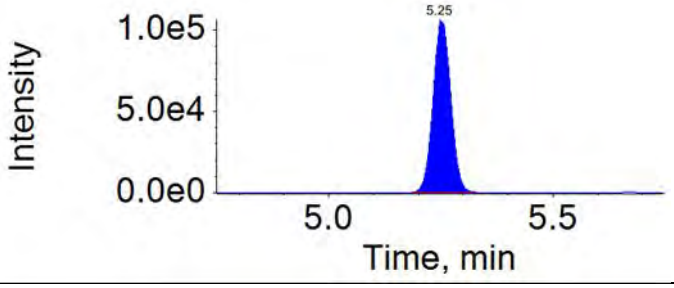
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

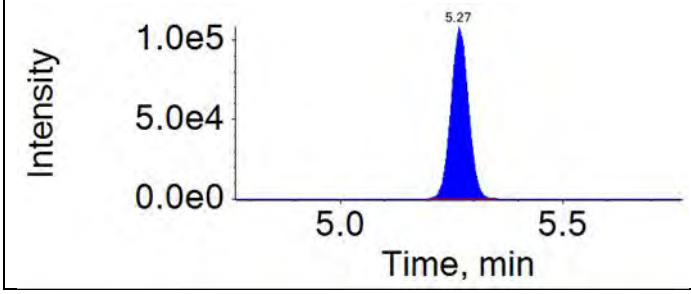
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

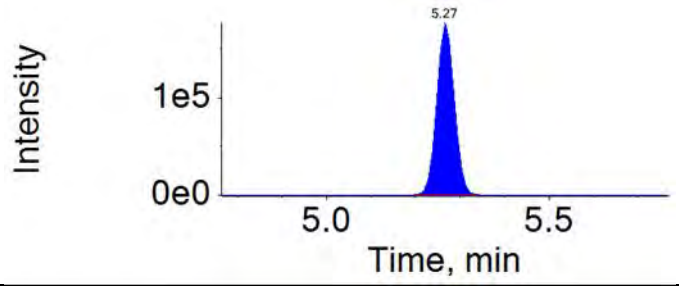
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

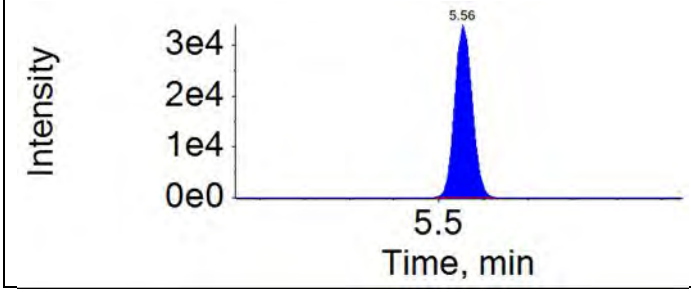
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

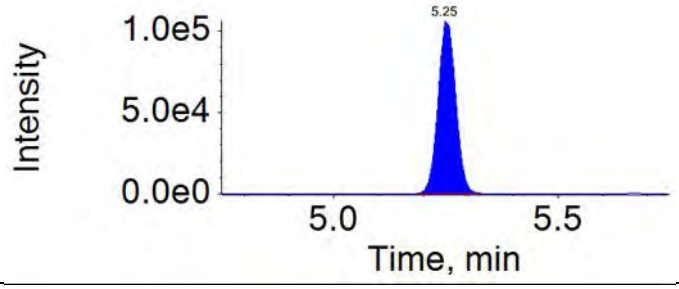
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



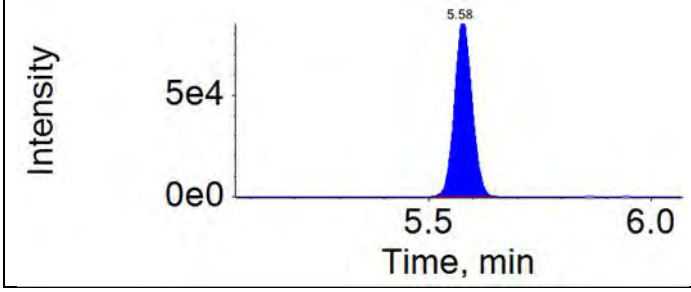


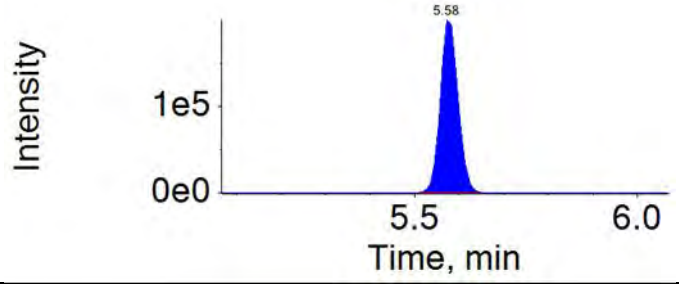
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



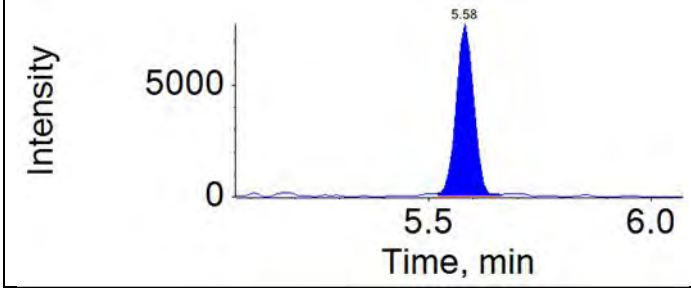


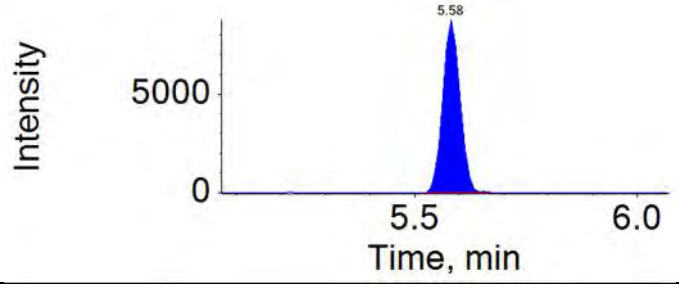
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

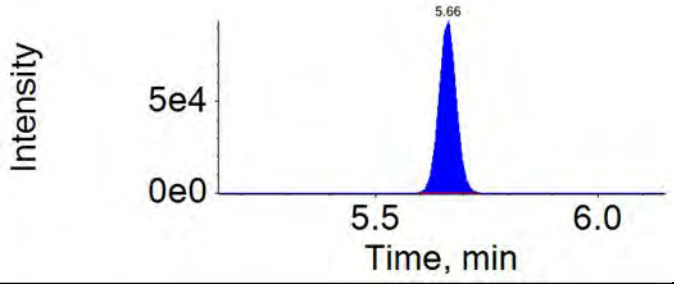
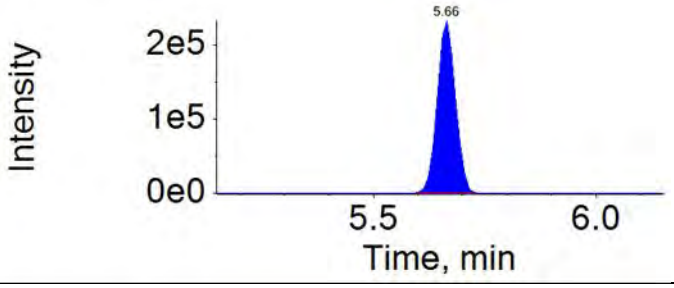


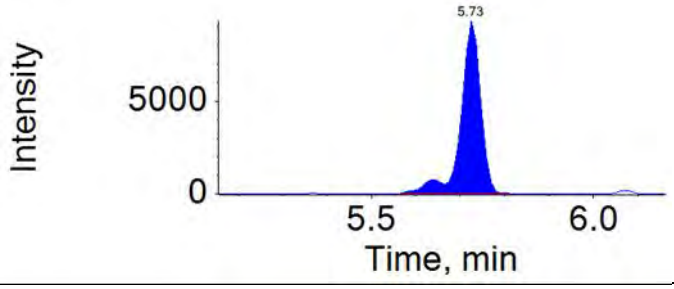
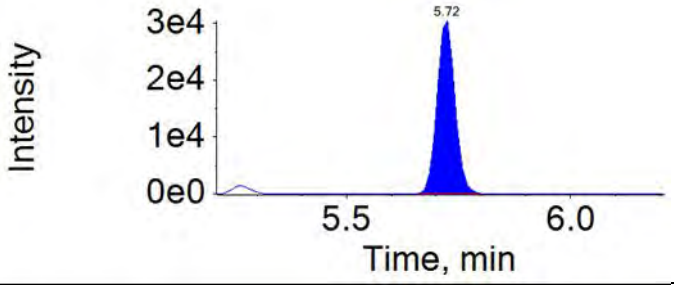


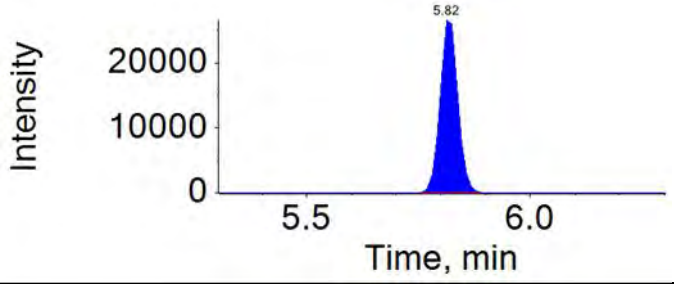
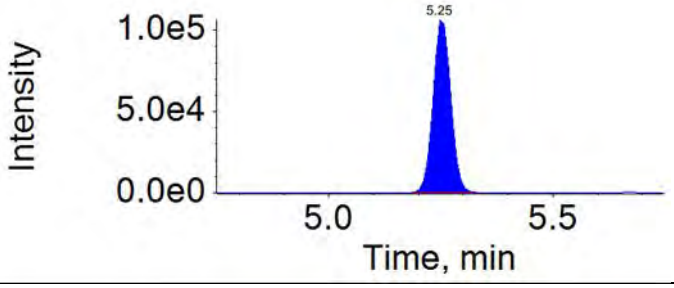
APPROVED
By JPT at 9:26 am, 12/10/18

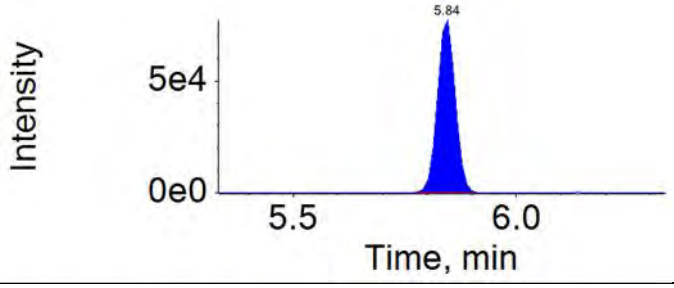
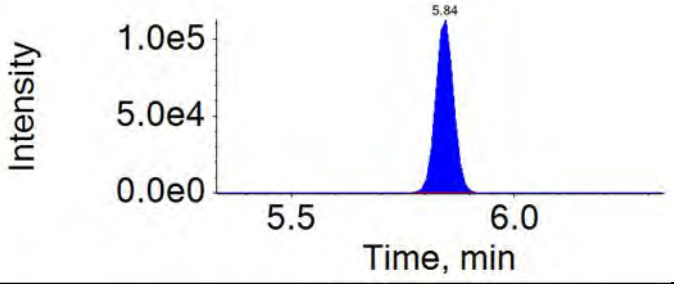
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

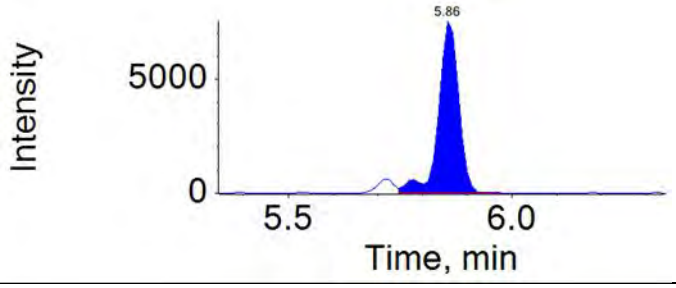
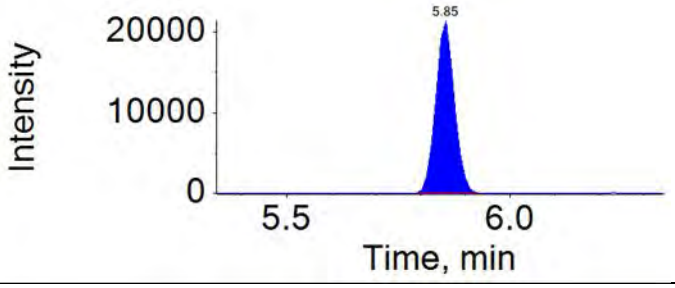
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

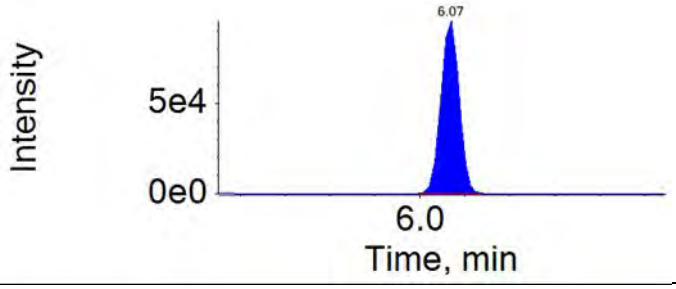
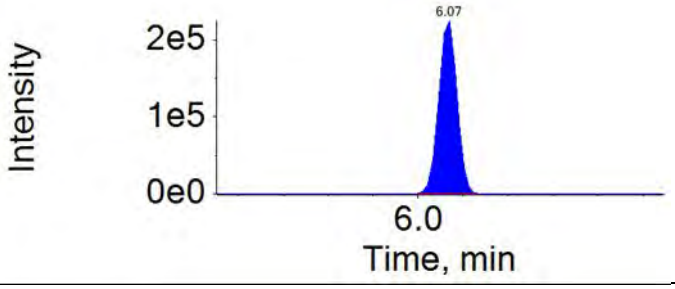
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

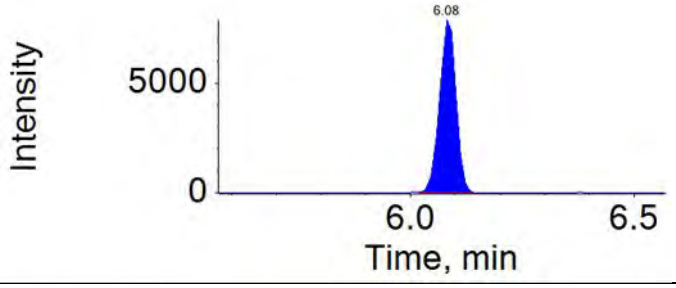
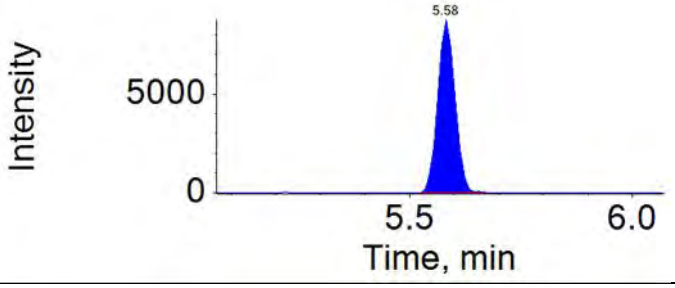
APPROVED
By JPT at 9:26 am, 12/10/18

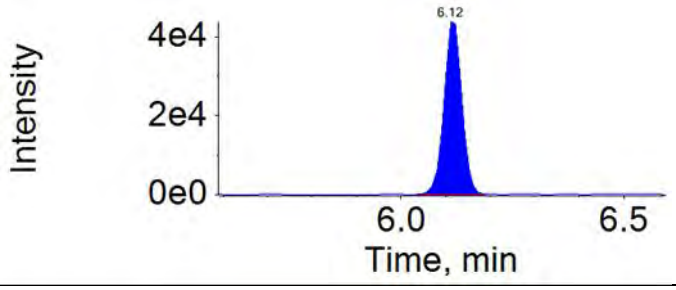
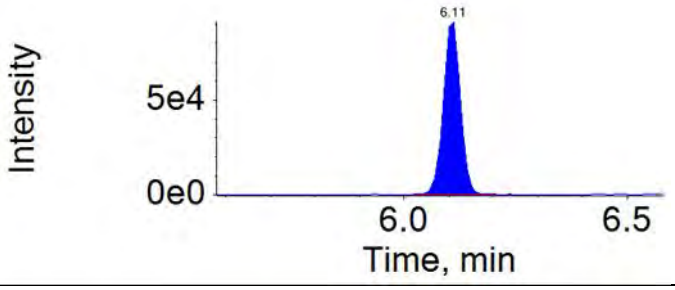
REVIEWED
By HMK at 10:48 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 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
	

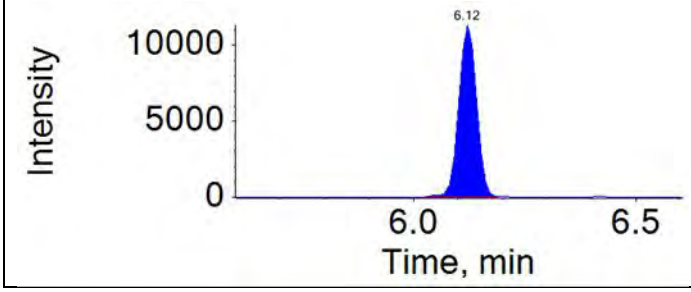
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

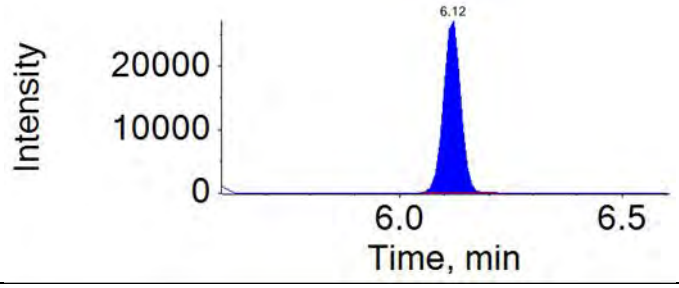
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

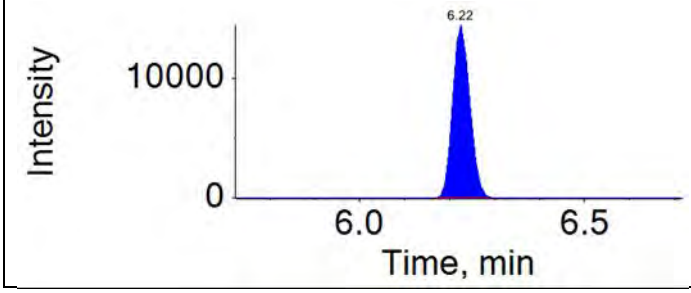
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

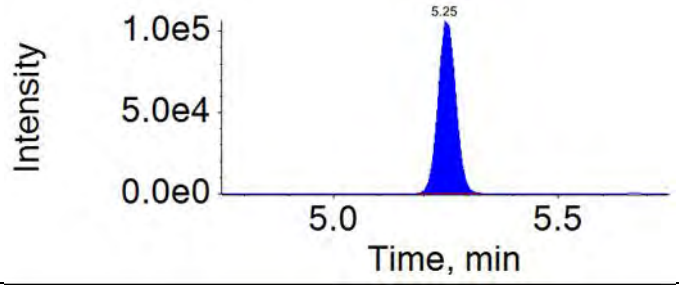
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



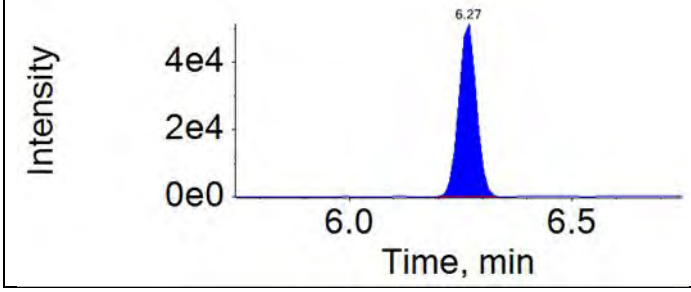


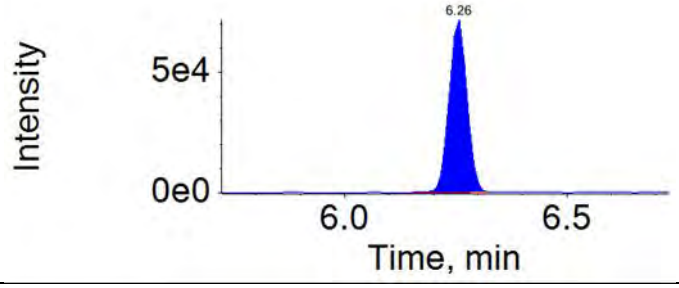
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



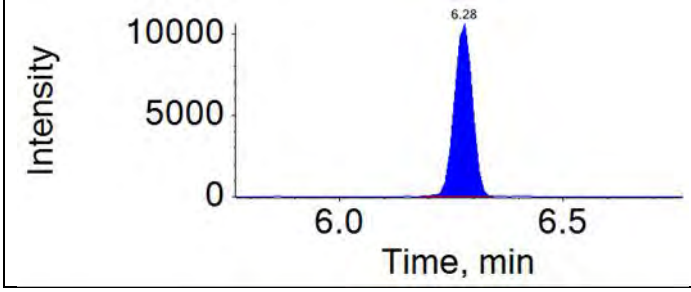


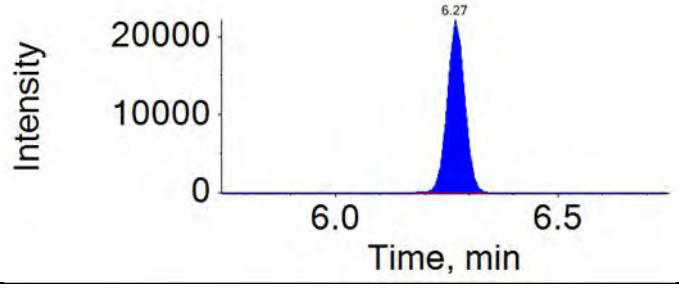
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



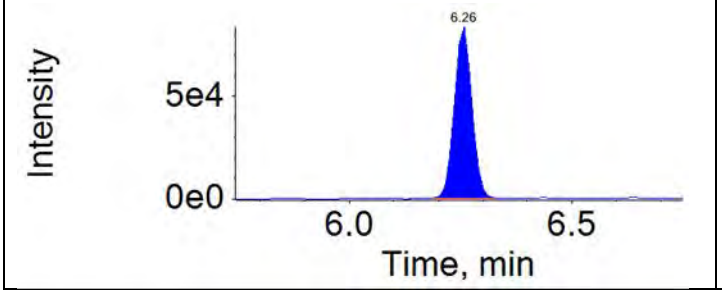


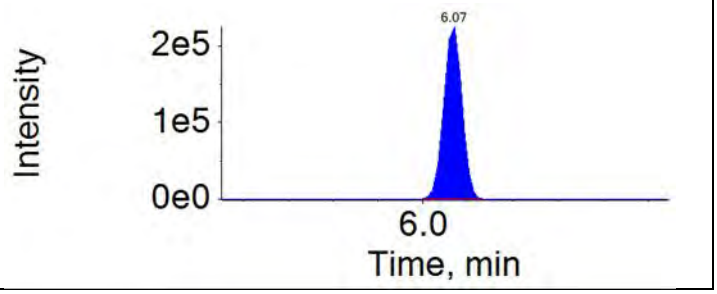
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

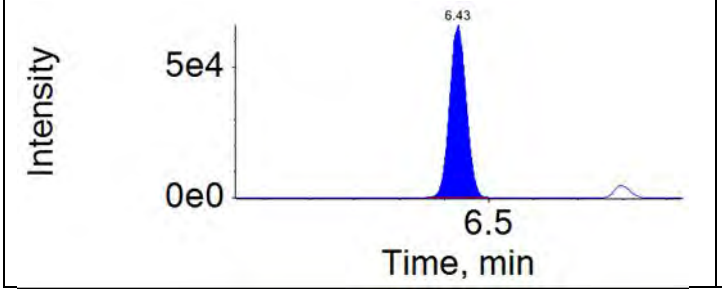
ICAL Name: 18DEC03DCAL **Result Table:** 18DEC05DCCV1-8 12/10/2018 8:40:06 AM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

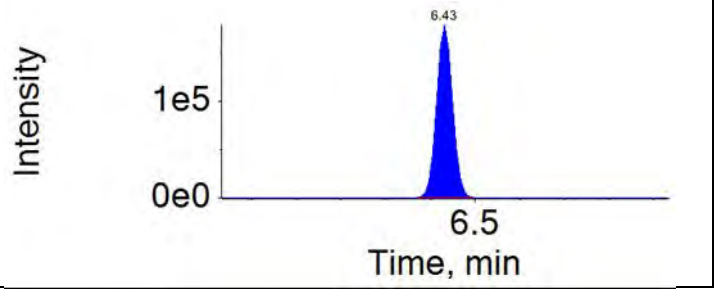
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



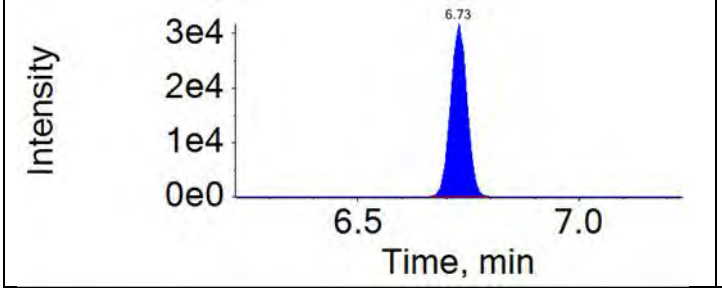


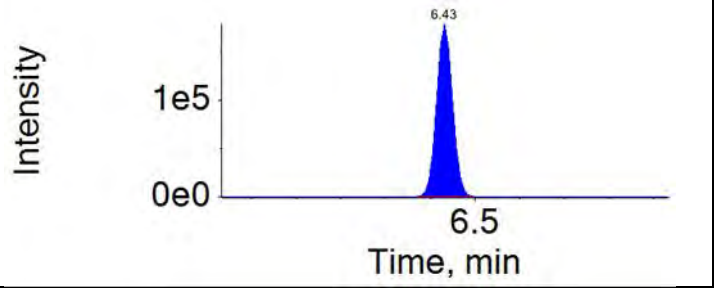
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



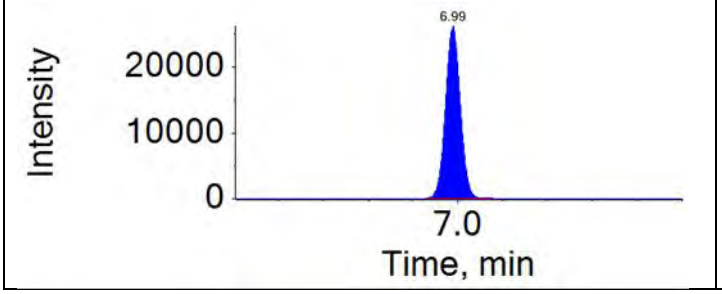


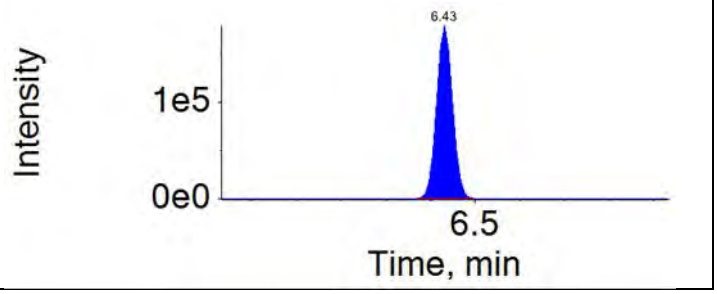
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



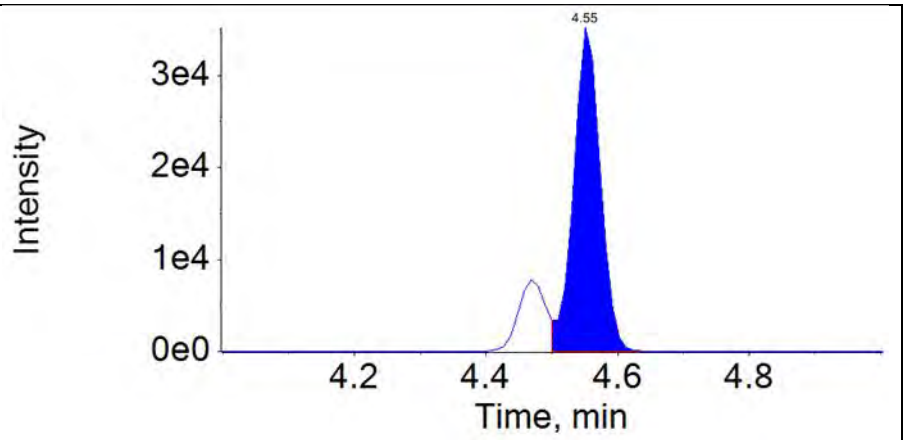


APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

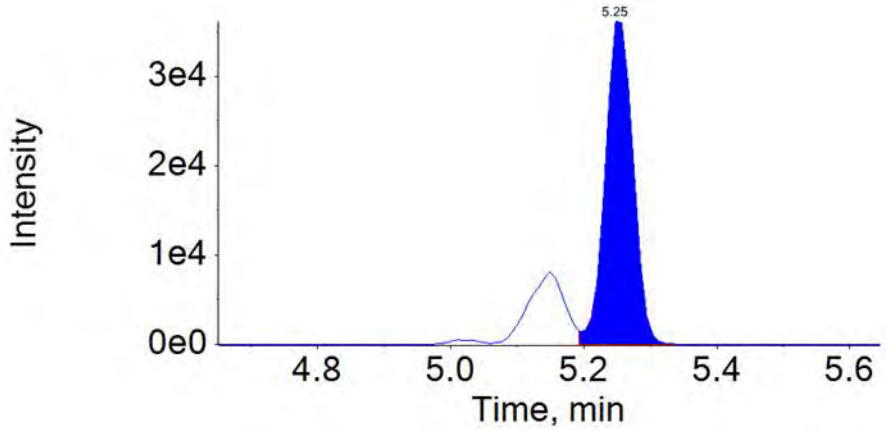
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
100354.5
Mass Range:
399.0 / 80.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3



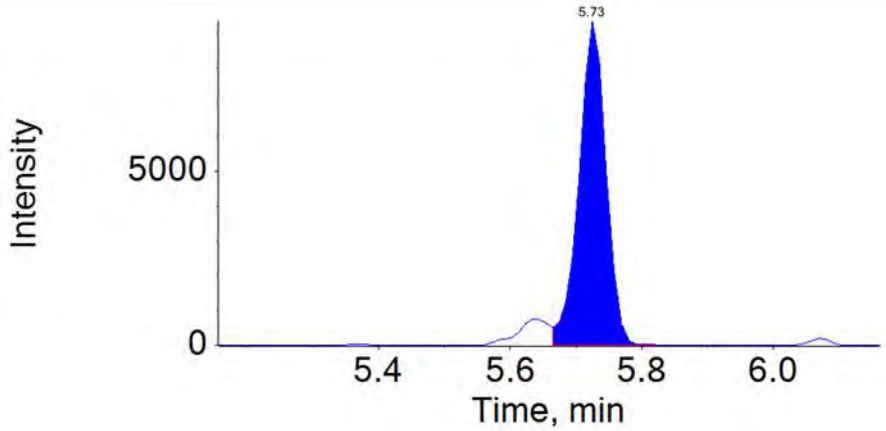
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
106408.4
Mass Range:
499.0 / 80.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.73
Peak Area:
26759.8
Mass Range:
570.0 / 419.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3



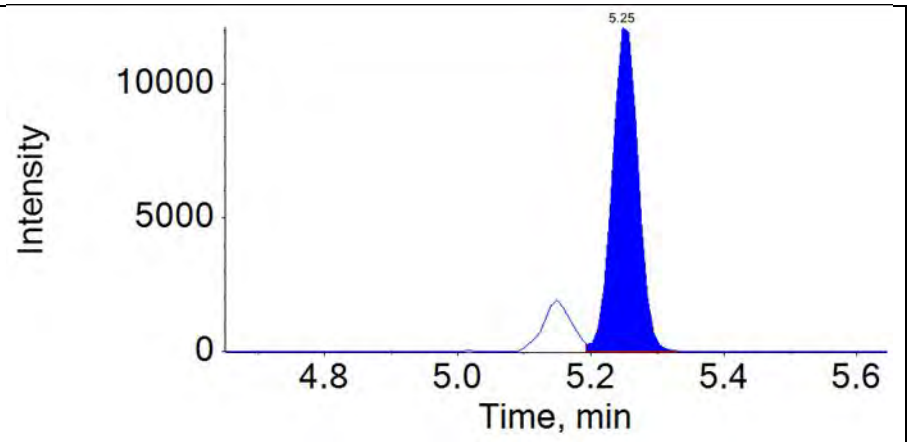
Integration Comment: incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

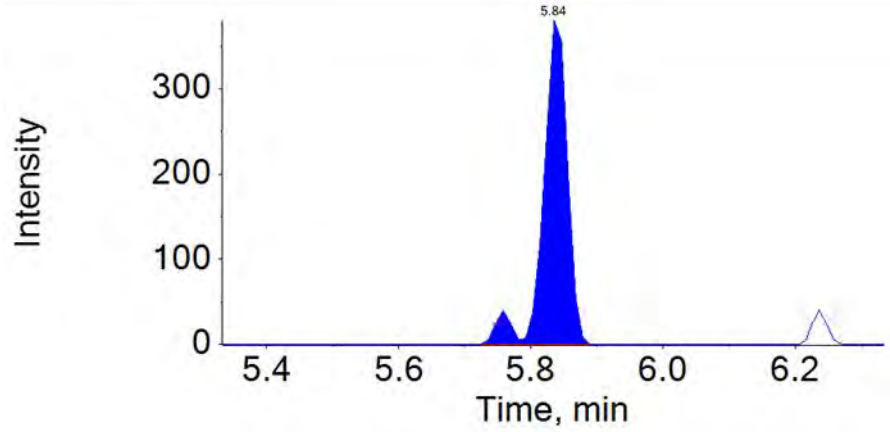
Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
33091.4
Mass Range:
499.0 / 99.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3



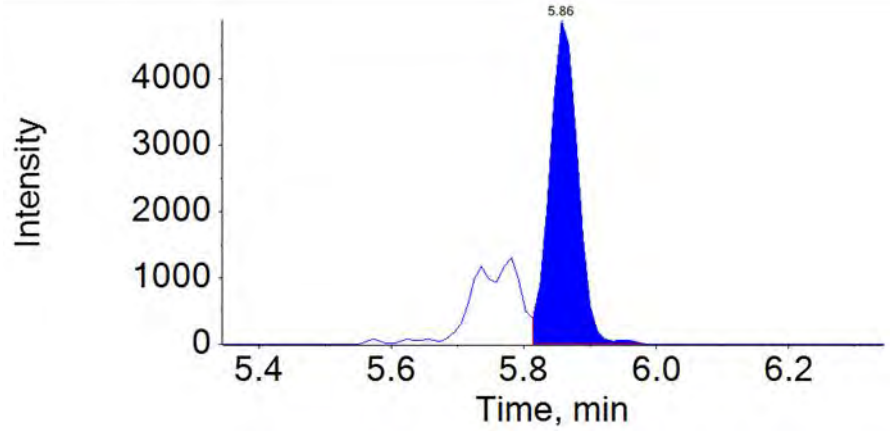
Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
5.84
Peak Area:
978.4
Mass Range:
563.0 / 169.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.86
Peak Area:
14354.7
Mass Range:
584.0 / 526.0
File Name:
18DEC05D-45.wiff
Sample Name:
CCV5_CAL3

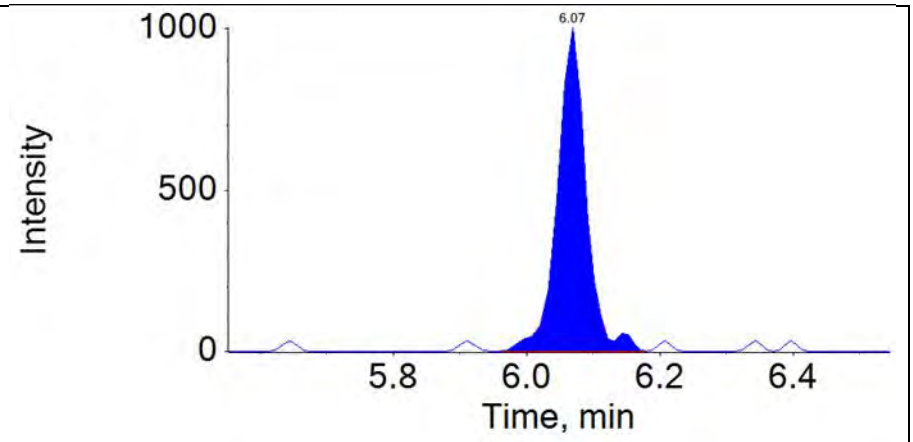


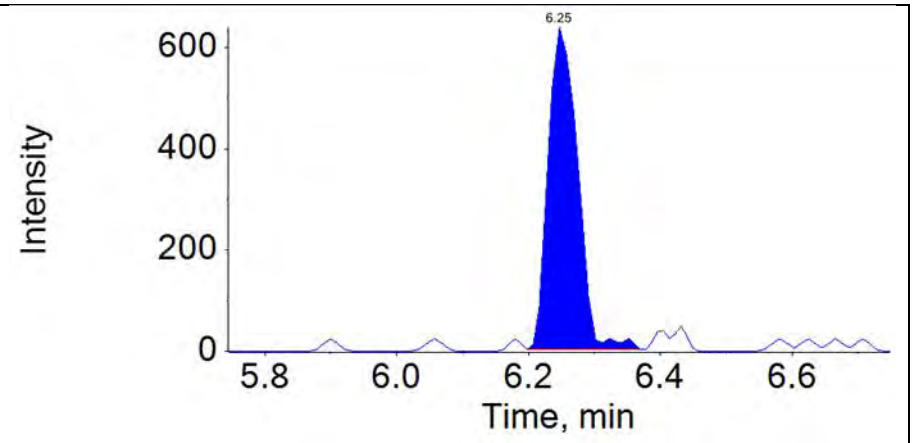
Integration Comment: incorrect integration

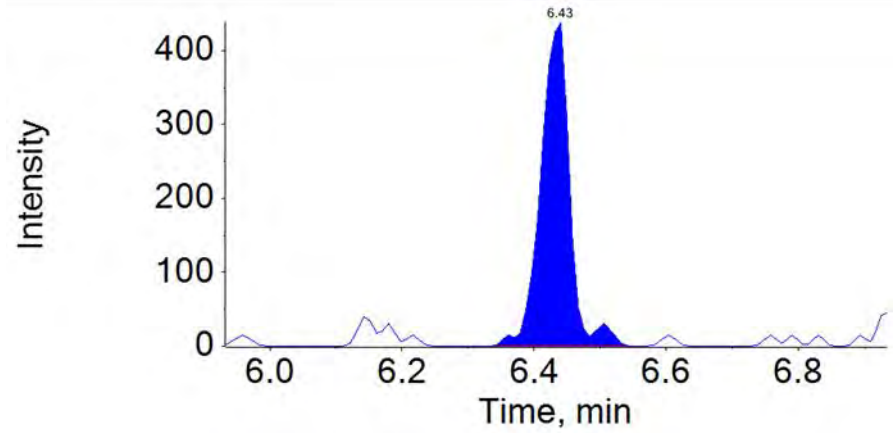
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFDoDA_2 **RT (min.):** 6.07 **Peak Area:** 3032.4 **Mass Range:** 613.0 / 169.0 **File Name:** 18DEC05D-45.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTrDA_2 **RT (min.):** 6.25 **Peak Area:** 1984.4 **Mass Range:** 663.0 / 169.0 **File Name:** 18DEC05D-45.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** 6.43 **Peak Area:** 1346.3 **Mass Range:** 713.0 / 169.0 **File Name:** 18DEC05D-45.wiff **Sample Name:** CCV5_CAL3	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

Results Table Name: 18DEC05DCCV1-8
Results Table Date: 12/10/2018 8:40:06 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Ion Ratio Report

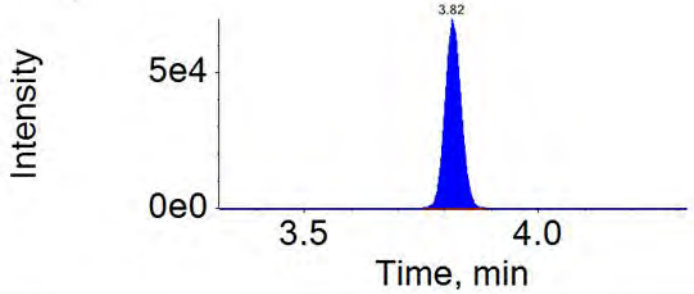
Sample Name: CCV5_CAL3 **Instrument Name:** LM27631 **File Name:** 18DEC05D-45.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	166529.5	A	N/A	1.0000			
PFBS_2	3.82	1.00	59473.1	A	N/A	0.3571	-3	50	
4:2-FTS	4.13	1.00	38062.5	A	N/A	1.0000			
4:2-FTS_2	4.13	1.00	26322.2	A	N/A	0.6916	6	50	
PFHxA	4.16	1.00	350055.8	A	N/A	1.0000			
PFHxA_2	4.16	1.00	3405.6	A	N/A	0.0097	-16	50	
PFPeS	4.18	1.10	86456.5	A	N/A	1.0000			
PFPeS_2	4.18	1.10	47969.6	A	N/A	0.5548	11	50	
PFHpA	4.55	1.00	337953.2	A	N/A	1.0000			
PFHpA_2	4.55	1.00	17820.4	A	N/A	0.0527	0	50	
PFHxS	4.55	1.00	121962.4	M	N/A	1.0000			
PFHxS_2	4.55	1.00	46609.4	A	N/A	0.3822	5	50	
6:2-FTS	4.91	1.00	31565.8	A	N/A	1.0000			
6:2-FTS_2	4.91	1.00	20919.1	A	N/A	0.6627	4	50	
PFHpS	4.91	1.08	124027.9	A	N/A	1.0000			
PFHpS_2	4.91	1.08	48553.3	A	N/A	0.3915	-1	50	
PFOA	4.92	1.00	350150.0	A	N/A	1.0000			
PFOA_2	4.92	1.00	18086.7	A	N/A	0.0517	-16	50	
PFOS	5.25	1.00	138603.7	M	N/A	1.0000			
PFOS_2	5.25	1.00	38813.8	M	N/A	0.2800	-5	50	
PFNA	5.27	1.00	294039.6	A	N/A	1.0000			
PFNA_2	5.27	1.00	6159.4	A	N/A	0.0209	7	50	
PFNS	5.56	1.06	92188.7	A	N/A	1.0000			
PFNS_2	5.56	1.06	42203.8	A	N/A	0.4578	-2	50	
PFDA	5.58	1.00	237739.8	A	N/A	1.0000			
PFDA_2	5.57	1.00	1890.2	A	N/A	0.0080	9	50	
8:2-FTS	5.58	1.00	21167.3	A	N/A	1.0000			
8:2-FTS_2	5.58	1.00	11725.2	A	N/A	0.5539	-8	50	
NMeFOSAA	5.73	1.00	29260.8	M	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	8126.3	A	N/A	0.2777	5	50	
PFDS	5.82	1.11	73064.5	A	N/A	1.0000			
PFDS_2	5.82	1.11	36025.7	A	N/A	0.4931	0	50	
PFUnDA	5.84	1.00	213464.9	A	N/A	1.0000			
PFUnDA_2	5.84	1.00	911.0	M	N/A	0.0043	-7	50	
NEtFOSAA	5.86	1.00	23870.4	A	N/A	1.0000			
NEtFOSAA_2	5.86	1.00	20391.0	M	N/A	0.8542	14	50	
PFDoDA	6.07	1.00	271724.2	A	N/A	1.0000			
PFDoDA_2	6.07	1.00	2946.2	M	N/A	0.0108	-24	50	
10:2-FTS	6.08	1.09	20117.5	A	N/A	1.0000			
10:2-FTS_2	6.08	1.09	11806.2	A	N/A	0.5869	-16	50	
PFTrDA	6.26	1.03	228236.3	A	N/A	1.0000			
PFTrDA_2	6.25	1.03	1952.8	M	N/A	0.0086	-14	50	
PFTeDA	6.43	1.00	171240.7	A	N/A	1.0000			
PFTeDA_2	6.43	1.00	1270.0	M	N/A	0.0074	30	50	
PFHxDA	6.73	1.05	81469.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4414.0	A	N/A	0.0542	-12	50	
PFODA	6.99	1.09	60287.7	A	N/A	1.0000			
PFODA_2	6.99	1.09	1572.9	A	N/A	0.0261	-2	50	

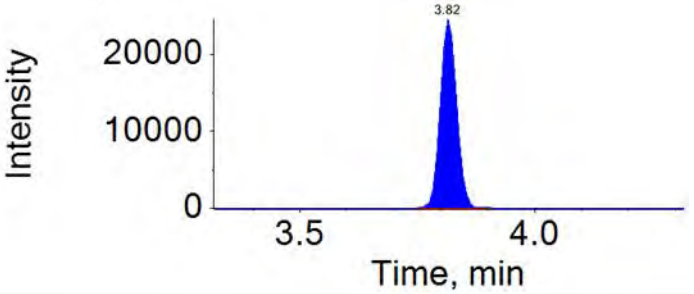
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

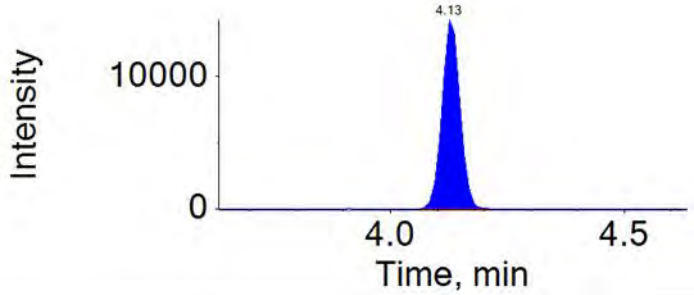
Component: PFBS
Primary Mass: 299.0 / 80.0



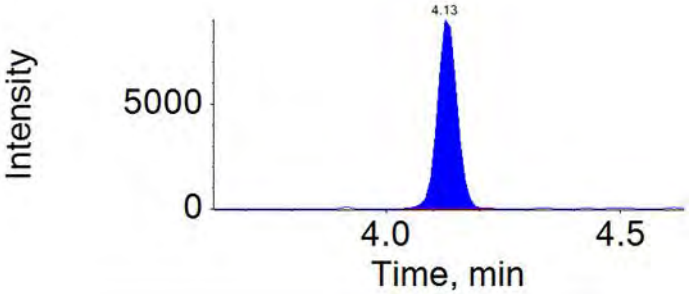
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



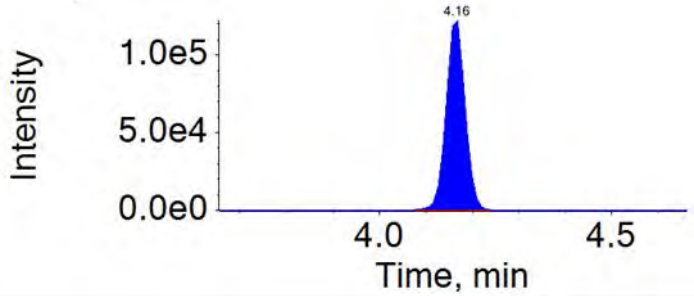
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



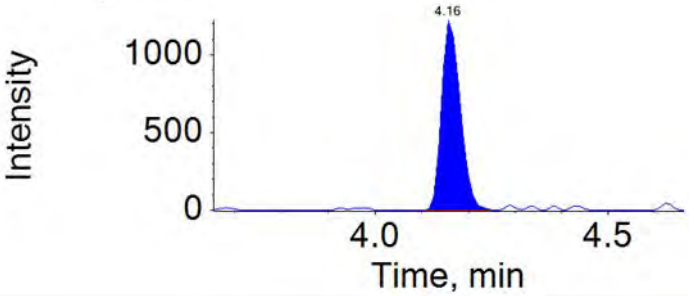
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



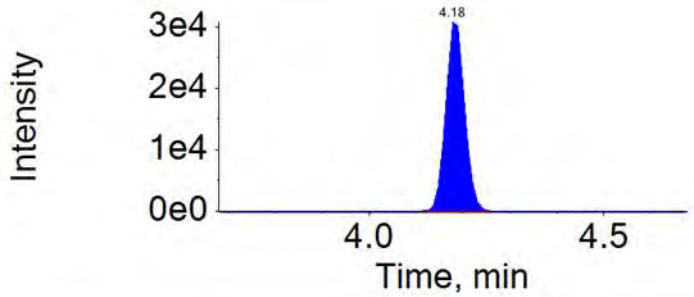
Component: PFHxA
Primary Mass: 313.0 / 269.0



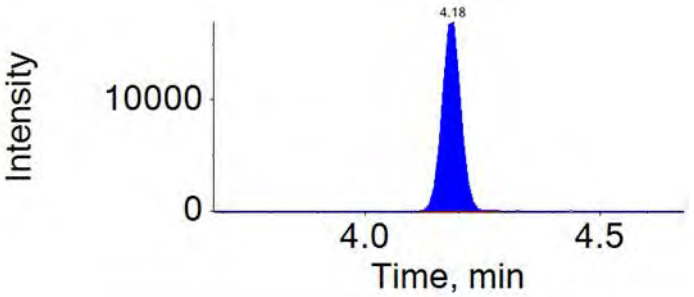
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



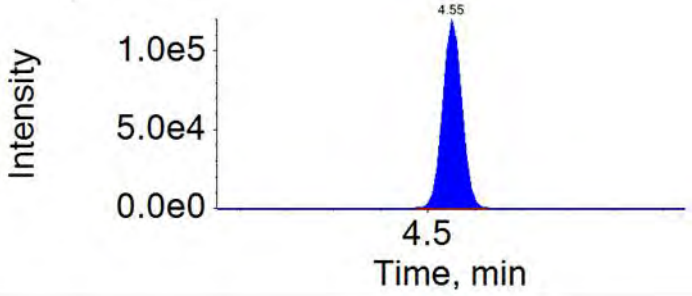
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



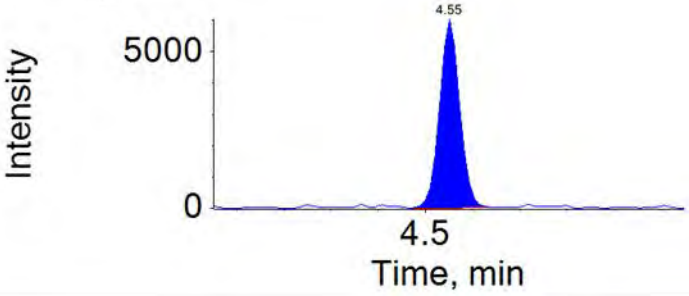
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

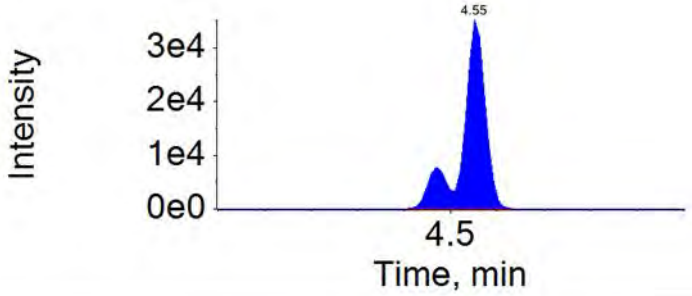
Component: PFHpA
Primary Mass: 363.0 / 319.0



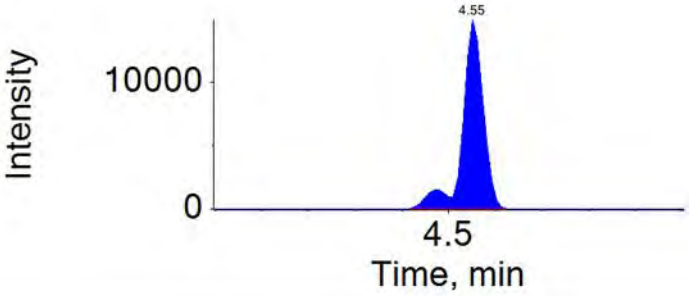
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



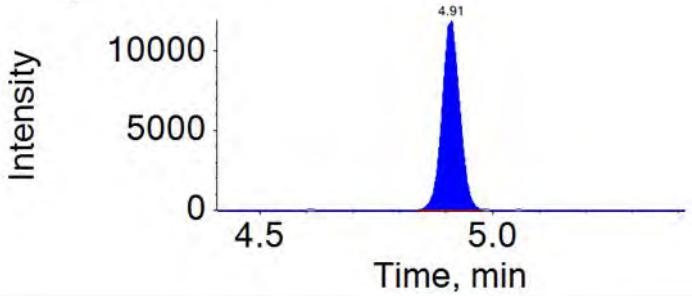
Component: PFHxS
Primary Mass: 399.0 / 80.0



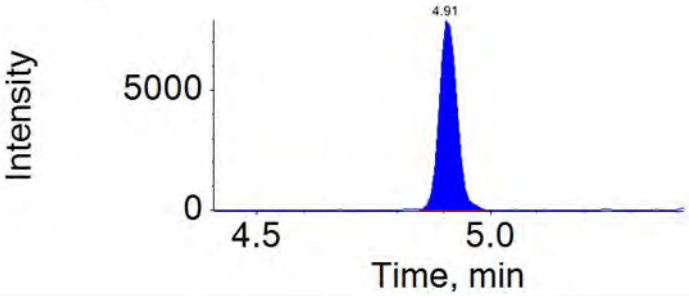
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



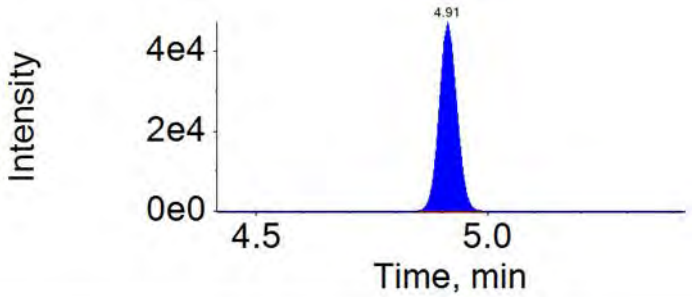
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



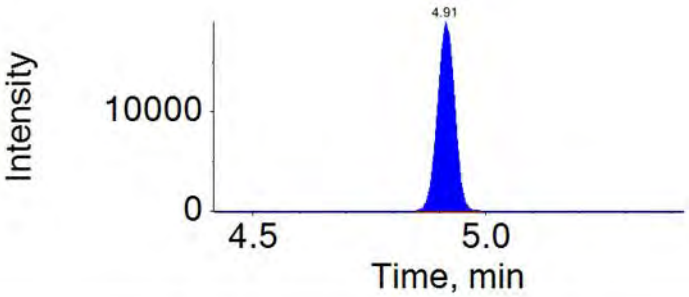
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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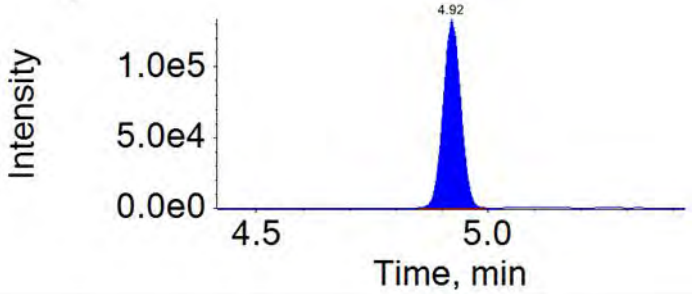
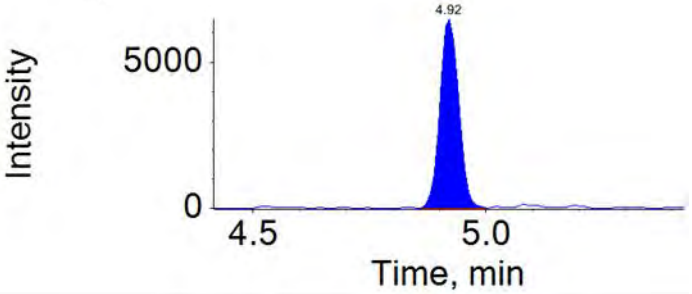
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

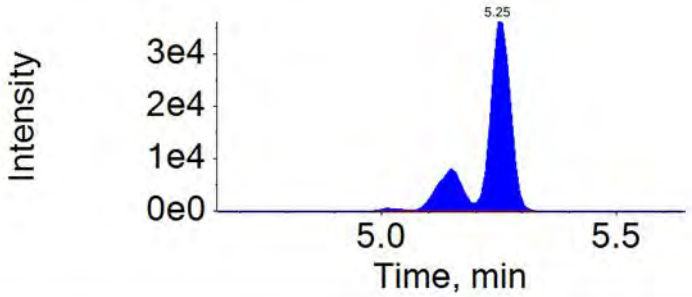
Component: PFOA
Primary Mass: 413.0 / 369.0



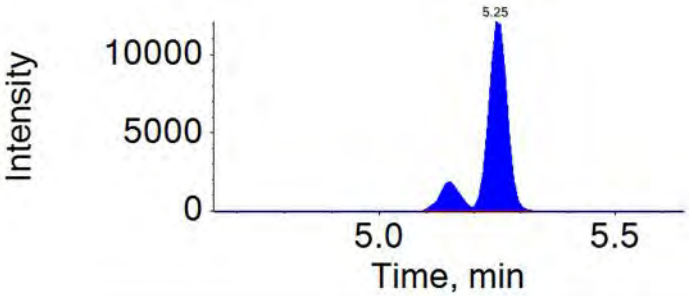
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



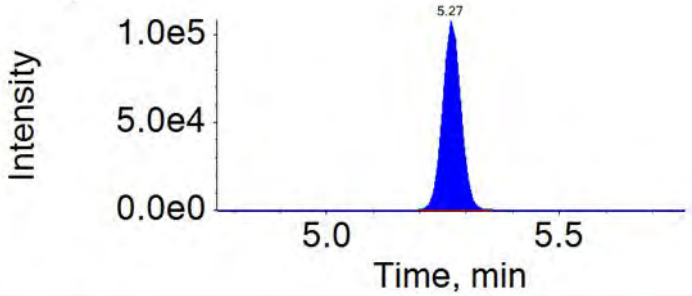
Component: PFOS
Primary Mass: 499.0 / 80.0



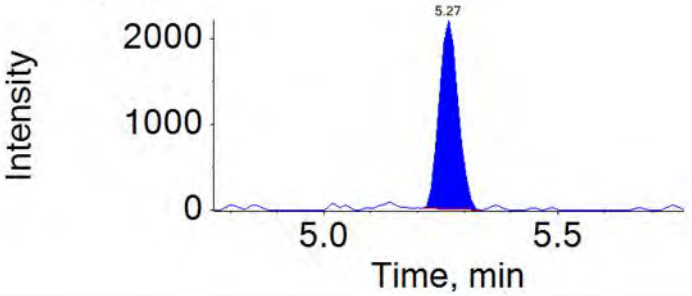
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



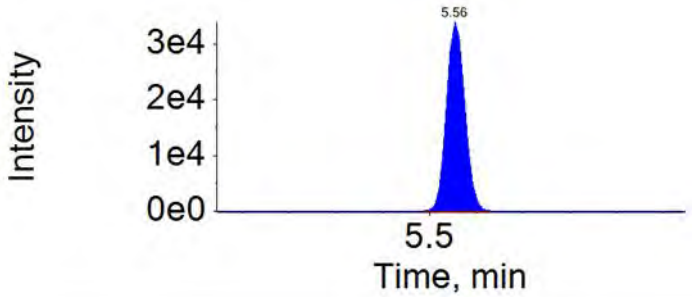
Component: PFNA
Primary Mass: 463.0 / 419.0



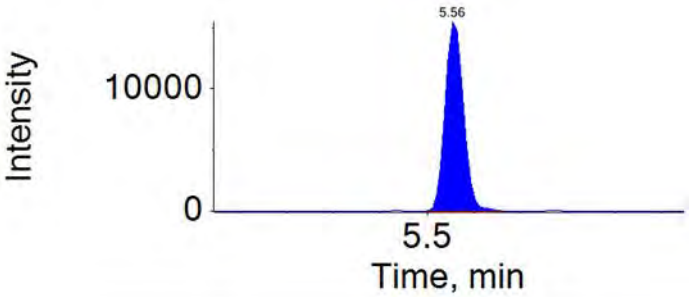
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



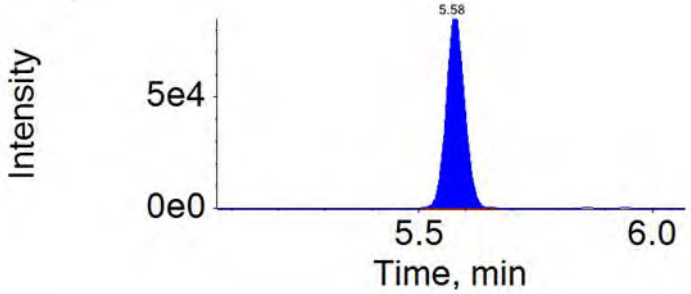
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



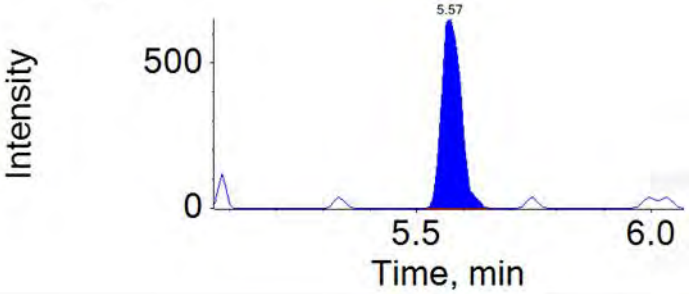
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

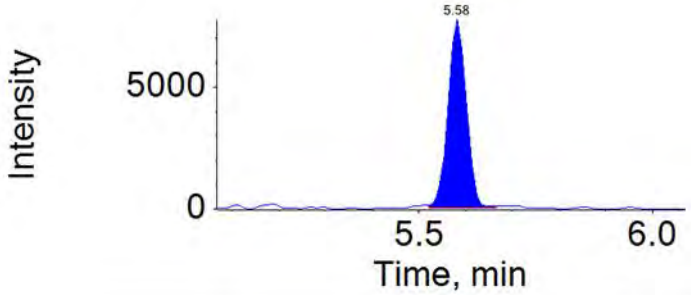
Component: PFDA
Primary Mass: 513.0 / 469.0



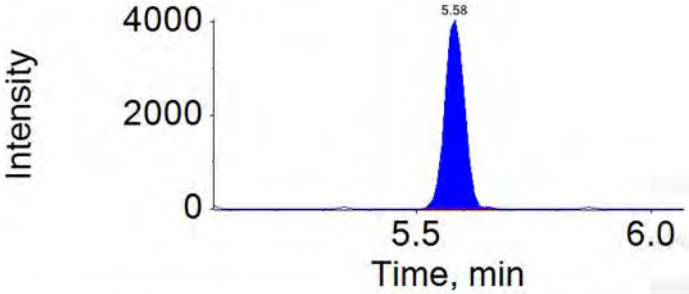
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



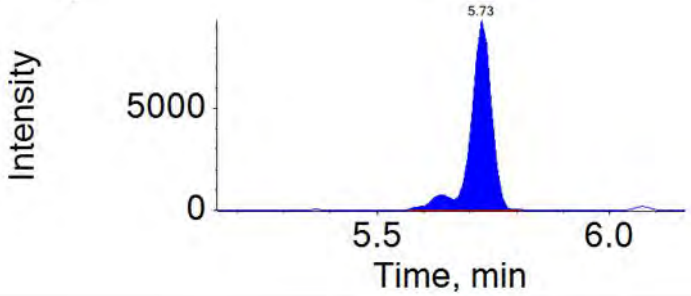
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



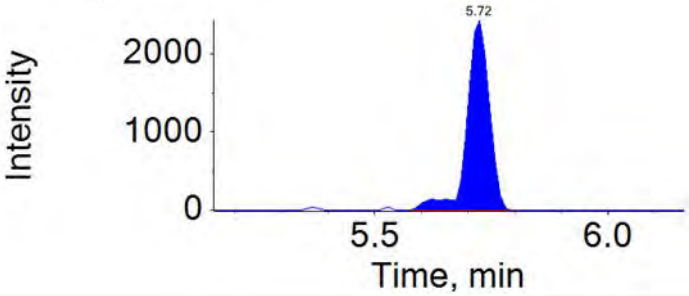
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



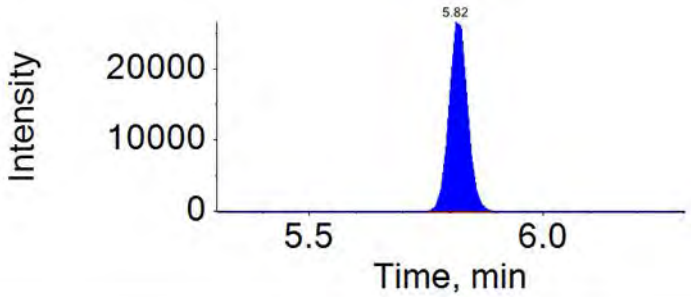
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



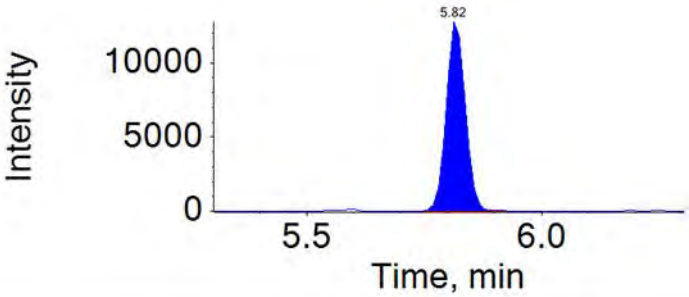
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



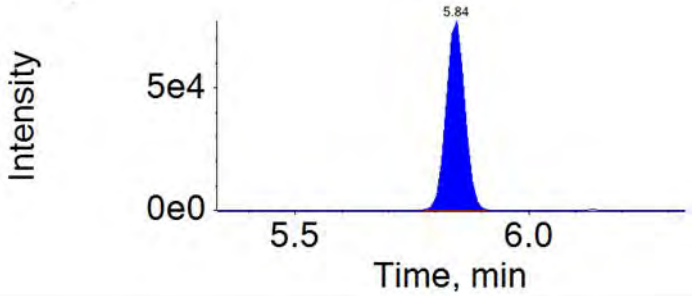
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



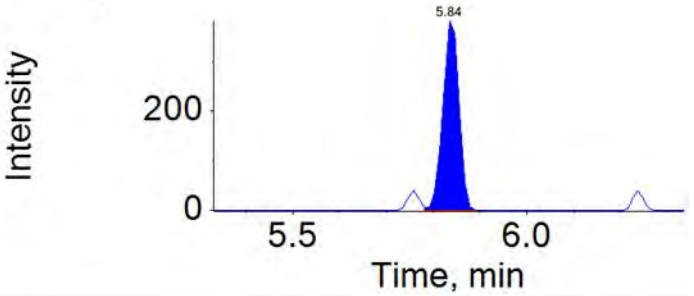
APPROVED
By JPT at 9:26 am, 12/10/18

REVIEWED
By HMK at 10:48 am, 12/10/18

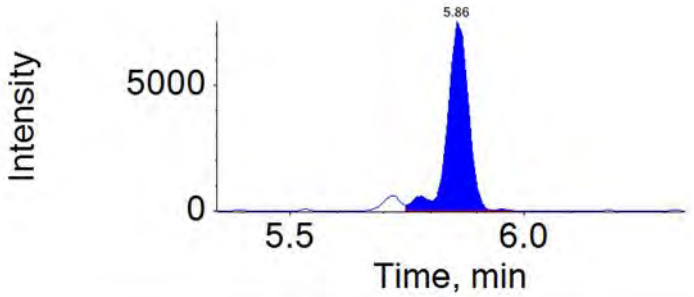
Component: PFUnDA
Primary Mass: 563.0 / 519.0



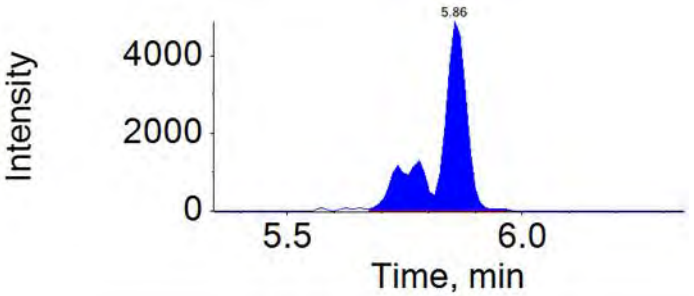
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



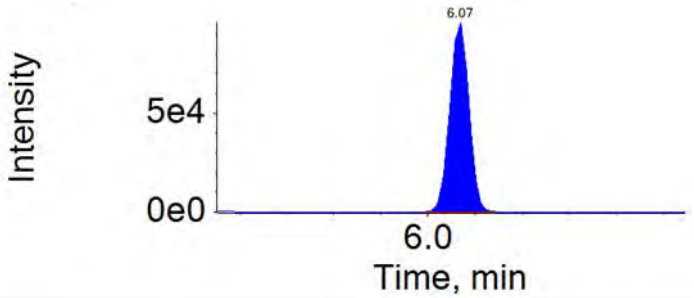
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



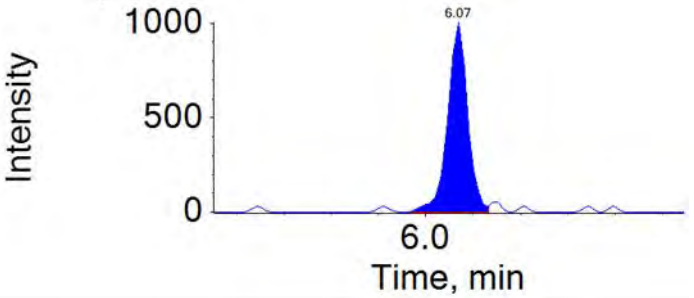
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



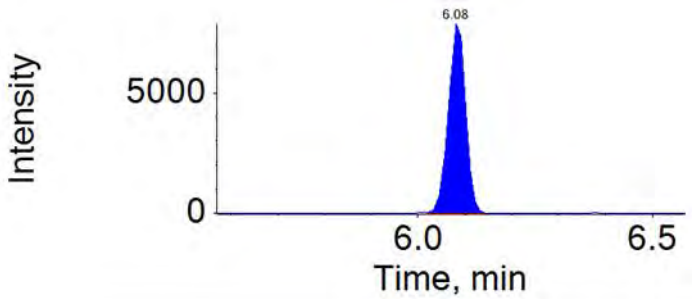
Component: PFDoDA
Primary Mass: 613.0 / 569.0



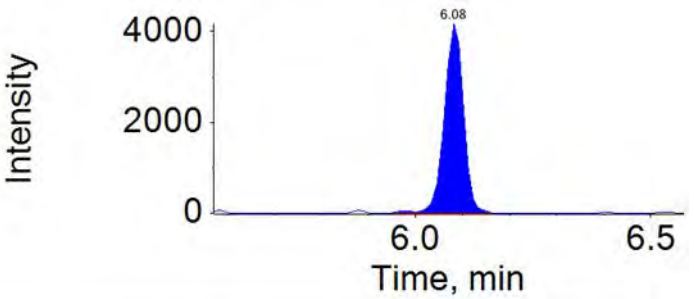
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



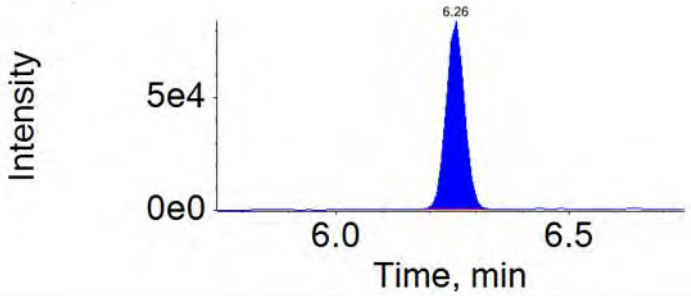
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



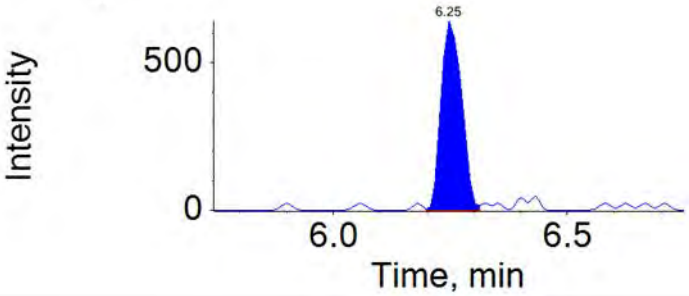
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



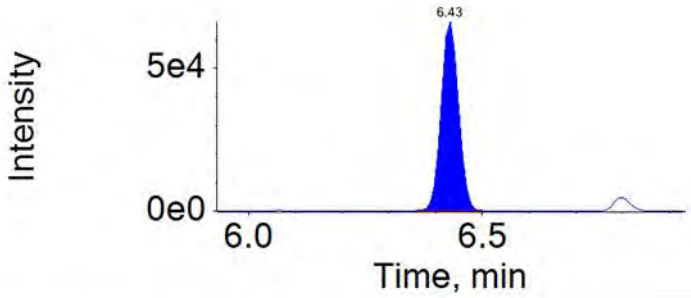
Component: PFTrDA
Primary Mass: 663.0 / 619.0



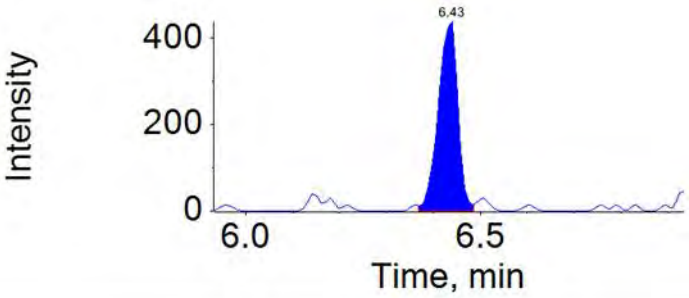
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



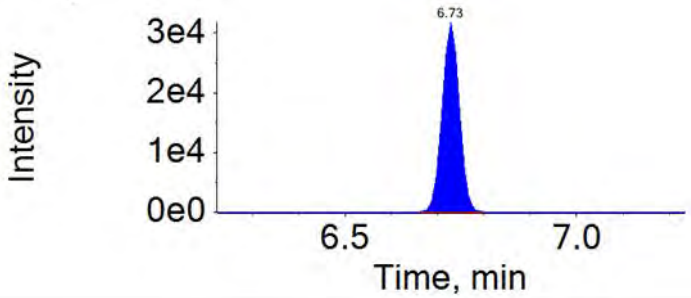
Component: PFTeDA
Primary Mass: 713.0 / 669.0



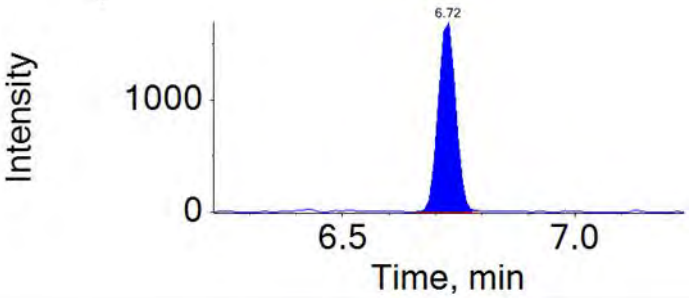
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



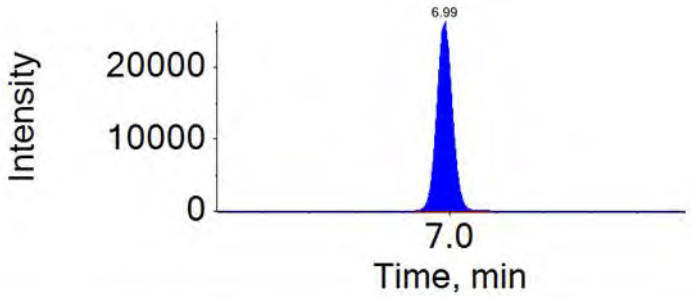
Component: PFHxDA
Primary Mass: 813.0 / 769.0



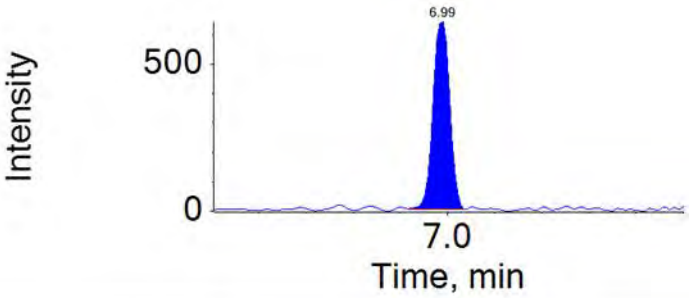
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



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By JPT at 9:26 am, 12/10/18

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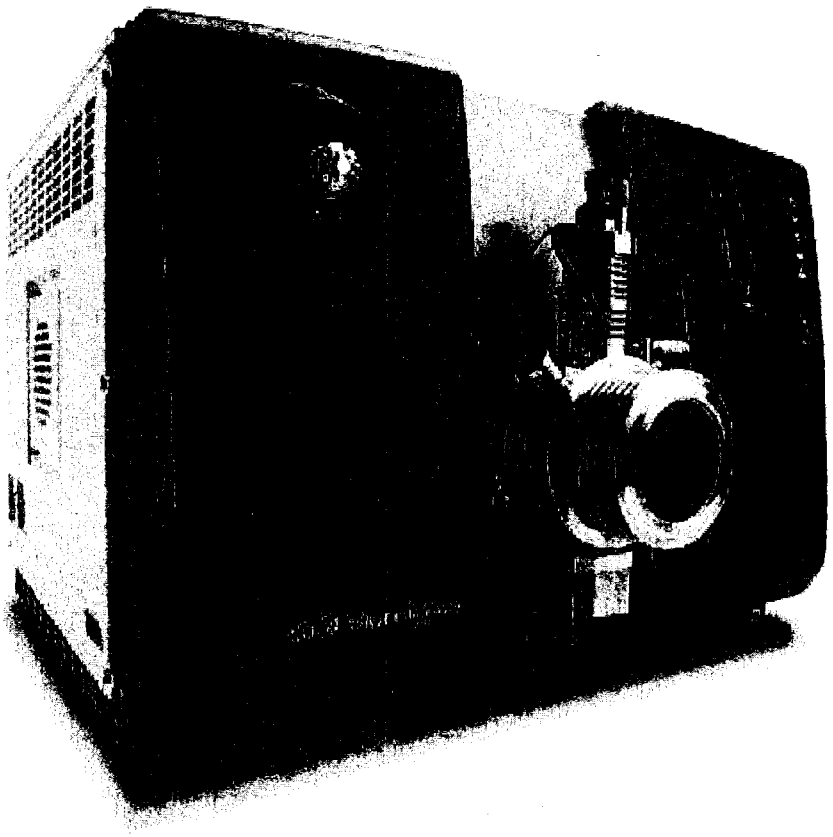
By HMK at 10:48 am, 12/10/18

LM27631

SCIEX

Triple Quad™ 4500 and Triple Quad™ 4500MD Systems

Installation Checklist and Data Log



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October 2016

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Contents

Chapter 1 Installation Preparation 4
Customer Information 4
System Information 4

Chapter 2 Installation Checklist 6
Unpacking and Inspection 6
Hardware Installation 7
Acquisition Computer Installation 8
Initialization and Verification 9
Wrap-up 9

Chapter 3 Data Log 11

Chapter 4 Signoff 21
Comments and Exceptions 21

Revision History 22

Installation Preparation 1

Note: For regulatory and safety information for the mass spectrometer, refer to the *System User Guide*.

Note: Before starting the installation, verify that the customer has completed the checklist in the *Site Planning Guide*.

Customer Information

Organization	Eurofins		
Address	2425 New Holland Pike Lancaster, PA 17601		
Telephone	717-556-7231	Fax	N/A
Contact name	Charles Neslund		
E-mail address	CharlesNeslund@eurofinsUS.com		

System Information

Table 1-1 Mass Spectrometer Information

Mass spectrometer location	A-223
Mass Spectrometer model name	4500QQQ
Mass spectrometer serial number	EB220251804
Firmware version	PIL1801
Roughing pump serial number	31001702300

Table 1-2 Acquisition Computer Information

Model	XE2	Service tag	5L3QLN2
OS version	Win7 64bit	OS service pack	SP1
Analyst® or Analyst® MD software version	1.7.0	Analyst® or Analyst® MD software hotfix	HF2
Cliquid® MD software version (4500MD systems only)	N/A		
MultiQuant™ or MultiQuant™ MD software version	3.0.3		

Table 1-3 Ion Source Information

Component	Serial Number
Turbo V™ ion source • TurboIonSpray® probe • APCI probe (if applicable)	2001171218 20380180321 20252180221
NanoSpray® ion source (if applicable, non-MD systems only)	N/A
DuoSpray™ ion source (if applicable, non-MD systems only) • TurboIonSpray® probe • APCI probe (if applicable)	N/A N/A N/A
Other/Third-party ion source (if applicable, non-MD systems only)	N/A

Table 1-4 System Components and Peripherals

Component	Serial Number
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

Installation Checklist 2

The Field Service Employee (FSE) must complete this checklist to make sure that every step in the installation procedure is completed. The checklist also contains an installation acceptance form for the customer representative and the FSE to sign when the work is complete. Refer to Signoff on page 21.

Unpacking and Inspection

Task	Complete	N/A
Inspect the packaging: • Inspect all tip and shock indicators for signs of excessive shock or tilting. • Inspect the boxes for exterior damage.	☑	
Unpack and inspect all of the components.	☑	
(Optional) Unpack, inspect, and install the bench. 1. Inspect the packaging for exterior damage. 2. Unpack the bench and then inspect for damage. 3. Install the bench.	◉	◉

BSI11 Page 2612 of 3000

Hardware Installation

Task	Complete	N/A
Install the mass spectrometer on the bench.	☑	
Affix the name plate on the front cover of the mass spectrometer (only applies to mass spectrometer with the prefix 'CJ' in the serial number).	☑	
Verify that the mains supply outlets for the roughing pump and the mass spectrometer deliver stable output voltages that meet the specified electrical requirements.	☑	
(Optional) Install the SCIEX-supplied UPS.	○	○
Install the roughing pump, connecting it to the mass spectrometer and the vent. Make sure that the roughing pump contains sufficient oil.	☑	
(Optional) Install the SCIEX-supplied gas generator.	○	○
Connect the gas lines.	☑	
Install and connect the drain bottle.	☑	
Install the Turbo V™ ion source. Refer to the *Turbo V™ Ion Source Operator Guide*. For 4500MD systems, refer to the *System User Guide*. For other systems, refer to the *Turbo V™ Ion Source Operator Guide*.	☑	
Adjust the stopper on the integrated syringe pump.	☑	
WARNING! Electrical Shock Hazard. Make sure that the system can be disconnected from the mains supply outlet in an emergency. Do not block the mains supply outlet. Plug in and turn on the roughing pump, and then plug in and turn on the mass spectrometer.	☑	

BSI11 Page 2613 of 3000

Acquisition Computer Installation

Task	Complete	N/A
Install the computer and monitor on the computer table.	☑	
Connect the Ethernet cable from the computer to the mass spectrometer.	☑	
Turn on the computer.	☑	
Configure IP addresses for communication with the mass spectrometer.	☑	
(Optional) Connect the computer to the customer network.	◉	◉
Install the Analyst® or Analyst® MD software.	☑	
Install any applicable Analyst® or Analyst® MD software hotfixes.	◉	◉
(4500MD systems) Install the Cliquid® MD software.	◉	◉
Install the MultiQuant™ or MultiQuant™ MD software.	☑	
(If applicable, not for use with 4500MD systems) Install the StatusScope® agent on the acquisition computer, and then perform these tasks: • Discuss warranty coverage for the StatusScope® software. • If the customer wants the StatusScope® software installed, then complete the StatusScope® user access form. • If the customer does not want theStatusScope® software installed, then remove the StatusScope® software.	◉	◉
(Optional) Install and license any add-on software purchased and shipped with the system. • (Non-MD systems) If applicable, Cliquid® software has been installed. • Other Analyst® or Analyst® MD compatible add-on software shipped with the system has been installed.	◉	◉

BSI11 Page 2614 of 3000

Task	Complete	N/A
Verify and update the firmware and configuration files.	☑	
Install the factory files.	☑	

Initialization and Verification

Note: Perform these tasks after the mass spectrometer reaches operating vacuum.

Task	Complete	N/A
Perform the high pressure source and blocked exhaust flow tests.		
Measure and tune the Q1, Q3, and QJet® coil boxes.	◉	◉
Perform all installation tests, print out the test results, and complete the Data Log.	☑	

Wrap-up

Task	Complete	N/A
Delete unnecessary files from the computers.	☑	
Back up the computer file systems, including the Analyst Data folder.	☑	
Create a computer image using the image utility.	☑	
Apply the biohazard labels included in the install kit. Apply one label to the ion source, and the other to the waste bottle. Find a vacant space that is clearly visible to affix the labels.	☑	

BSI11 Page 2615 of 3000

Task	Complete	N/A
Complete all of the sections in the *Customer Familiarization Checklist*. Make a copy of the completed checklist and then give the original to the customer.	☑	
Inform the customer about the continuous improvement telephone surveys, and then advise the customer that a third party will call to obtain feedback.	☑	
Complete the *Installation Checklist and Data Log*: • Obtain customer acceptance. • Make a copy of the form and the test results. • Provide the customer with the originals. • (For MD systems only) E-mail this completed document and the test result files to servicedata@sciex.com.	☑	

BSI11 Page 2616 of 3000

Data Log

3

Use this log to record the test data obtained during performance of the system verification tests during installation.

Note: Perform all procedures with the Turbo V™ ion source, unless otherwise specified.

Pre-test Pressure Verification is Complete	☑

Perform this test with the Analyst® or Analyst® MD software.

Test	Specification	Result
Vacuum chamber pressure with CAD gas off	0.4×10^{-5} torr ≤ $P_{CAD\ 0}$ ≤ 1.1×10^{-5} torr	0.7 x 10e-5 torr
Vacuum chamber pressure with CAD gas set to Full	1.8×10^{-5} torr ≤ ($P_{CAD\ 12} - P_{CAD\ 0}$) ≤ 2.8×10^{-5} torr	2.1 x 10e-5 torr

BSI11 Page 2617 of 3000

Q1 Positive PPGs Test is Complete: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10)	☑

- **Test solution:** POS PPG, 2e-6 M
- **Flow rate:** 5 µL/min
- **MCA:** On
- **Printouts required:** Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427, with peak intensities, peak width, and mass shift results, complete with method file information.

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
175.133	$\geq 8.0 \times 10^6$	1.6298e7	0.6 to 0.8	0.7105
500.380	$\geq 8.0 \times 10^6$	2.4240e7	0.6 to 0.8	0.6995
906.673	$\geq 2.0 \times 10^7$	3.2349e7	0.6 to 0.8	0.7151
1952.427	$\geq 8.8 \times 10^5$	1.8122e6	0.6 to 0.8	0.7423

BSI11 Page 2618 of 3000

Q1 Positive PPGs Test is Complete: Peak Width for Identified Masses ☑

Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427	10	10	0.6 to 0.8	☑
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

BSI11 Page 2619 of 3000

Q3 Positive PPGs Test is Complete: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10)	☑

- **Test solution:** POS PPG, 2e-6 M
- **Flow rate:** 5 µL/min
- **MCA:** On
- **Printouts required:** Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427, with peak intensities, peak width, and mass shift results, complete with method file information.

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
175.133	≥ 8.0×10^6	1.950[illegible]	0.6 to 0.8	0.6916
500.380	≥ 8.0×10^6	1.925[illegible]	0.6 to 0.8	0.7278
906.673	≥ 2.0×10^7	3.1634[illegible]	0.6 to 0.8	0.7403
1952.427	≥ 8.8×10^5	2.4968[illegible]	0.6 to 0.8	0.7828

BSI11 Page 2620 of 3000

Q3 Positive PPGs Test is Complete: Peak Width for Identified Masses				☑
Mass (Da)	**Scan Rate (Da/s)**	**Cycles**	**Specification (Da)**	**Result (Passed)**
59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427	10	10	0.6 to 0.8	☑
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

BSI11 Page 2621 of 3000

Q1 Negative PPGs Test is Complete ☑

- **Test solution:** NEG PPG, 3e-4 M
- **Flow rate:** 10 µL/min
- **MCA:** On
- **Printouts required:** Spectra for masses 44.998, 411.259, 585.385, 933.636, 1223.845, 1572.097, 1863.306, 1979.389, with peak intensities, peak width, and mass shift results, complete with method file information.

Table 3-1 Verification: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10) for the Q1 Negative PPGs Tests

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
933.636	≥ 1.8×10^7	2.23786e7	0.6 to 0.8	0.6638
1863.306	≥ 1.4×10^6	2.11046e6	0.6 to 0.8	0.7369

Table 3-2 Verification: Peak Width for Identified Masses for the Q1 Negative PPGs Tests

Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636 1223.845, 1572.097, 1863.306, 1979.389	10	10	0.6 to 0.8	☑
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

BSI11 Page 2622 of 3000

Q3 Negative PPGs Test is Complete ☑

- **Test solution:** NEG PPG, 3e-4 M
- **Flow rate:** 10 µL/min
- **MCA:** On
- **Printouts required:** Spectra for masses 44.998, 411.259, 585.385, 933.636, 1223.845, 1572.097, 1863.306, 1979.389, with peak intensities, peak width, and mass shift results, complete with method file information.

Table 3-3 Verification: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10) for the Q3 Negative PPGs Tests

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
933.636	≥ 1.8×10^7	2.6621e7	0.6 to 0.8	0.7288
1863.306	≥ 2.0×10^6	3.5734e6	0.6 to 0.8	0.7033

Table 3-4 Verification: Peak Width for Identified Masses for the Q3 Negative PPGs Tests

Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636 1223.845, 1572.097, 1863.306 1979.389	10	10	0.6 to 0.8	☑
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

BSI11 Page 2623 of 3000

Reserpine MS/MS Test is Complete	☑

- **Test solution:** Reserpine solution 0.167 pmol/µL
- **Flow rate:** 5 µL/min
- **Scan rate:** 10 Da/s (both MS and MS/MS)
- **Scan mode:** Product Ion (MS2)
- **Product Of:** 609.3 (or as calibrated)
- **Product Ion:** 195.1
- **Cycles:** 10
- **MCA:** On
- **Printouts required:** Spectra for masses 609.3 and 195.1, with peak intensities, peak width, and mass shift results, complete with method file information.

Table 3-5 Verification for the Reserpine MS/MS Test

Specification	Result
Transmission efficiency $\frac{Intensity\ for\ ion\ at\ m/z\ 195.1}{Intensity\ for\ ion\ at\ m/z\ 609.2\ (or\ as\ calibrated)} \times 100 \geq 10\%$	[redacted]

BSI11 Page 2624 of 3000

Turbo V™ Ion Source Acceptance Test is Complete	☑

Table 3-6 Verification for the Turbo V™ Ion Source Acceptance Test

Probe	Test	Specification	Result (Passed)
TurboIonSpray®	Set the temperature parameter to 500 °C.	The Analyst® or Analyst® MD software reports that the temperature is reached.	☑
APCI	Set the temperature parameter to 400 °C.	The Analyst® or Analyst® MD software reports that the temperature is reached.	☑

BSI11 Page 2625 of 3000

Post-test Pressure Verification is Complete	☑

Perform this test with the Analyst® or Analyst® MD software.

Test	Specification	Result
Vacuum chamber pressure with CAD gas off	0.4×10^{-5} torr ≤ $P_{CAD\ 0}$ ≤ 1.1×10^{-5} torr	0.4x10e-5torr
Vacuum chamber pressure with CAD gas set to Full	1.8×10^{-5} torr ≤ ($P_{CAD\ 12} - P_{CAD\ 0}$) ≤ 2.8×10^{-5} torr	2.1x10e-5torr

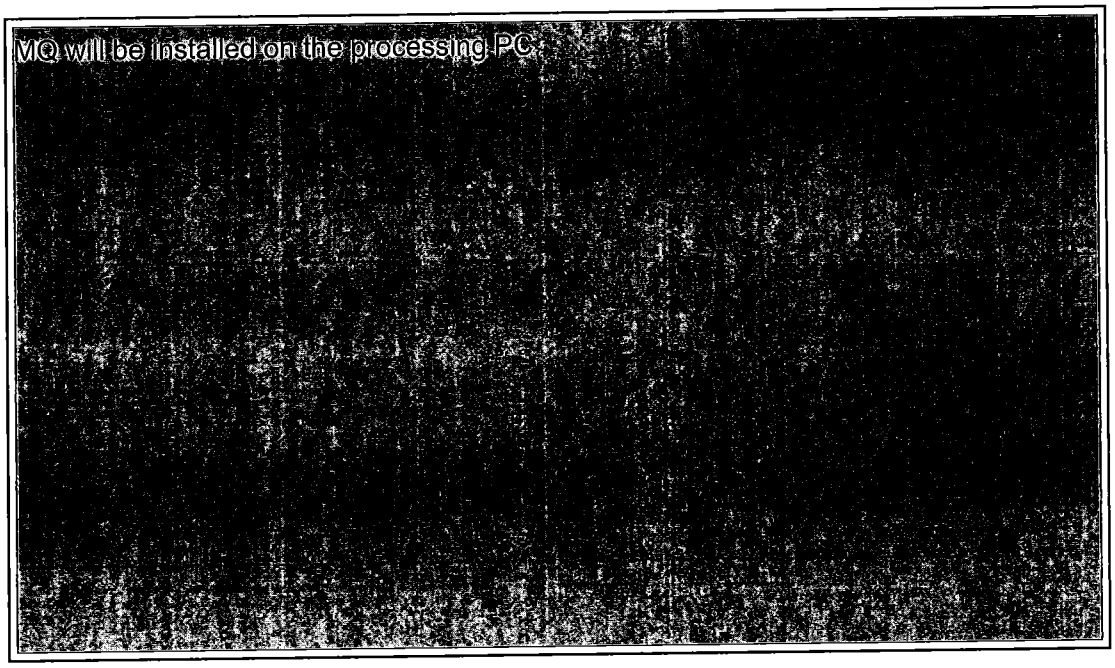
BSI11 Page 2626 of 3000

Signoff 4

Organization	Eurofins		
Customer contact name		Date (yyyy-mm-dd)	
Customer contact signature*			
FSE name	Michael F Pennell	Date (yyyy-mm-dd)	2018-05-29
FSE signature			

* Signature required on hard copy only.

Comments and Exceptions



Revision History

Revision	Reason for Change	Date
A	First release of the combined *SCIEX Triple Quad™ 4500 and 4500MD System Installation Checklist and Data Log.* Replaces D5028556 E.	May 2014
B	Updated the installation test data.	December 2014
C	• Applied new template. • Updated the System Information, Acquisition Computer Installation, and Data Log sections.	October 2016

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

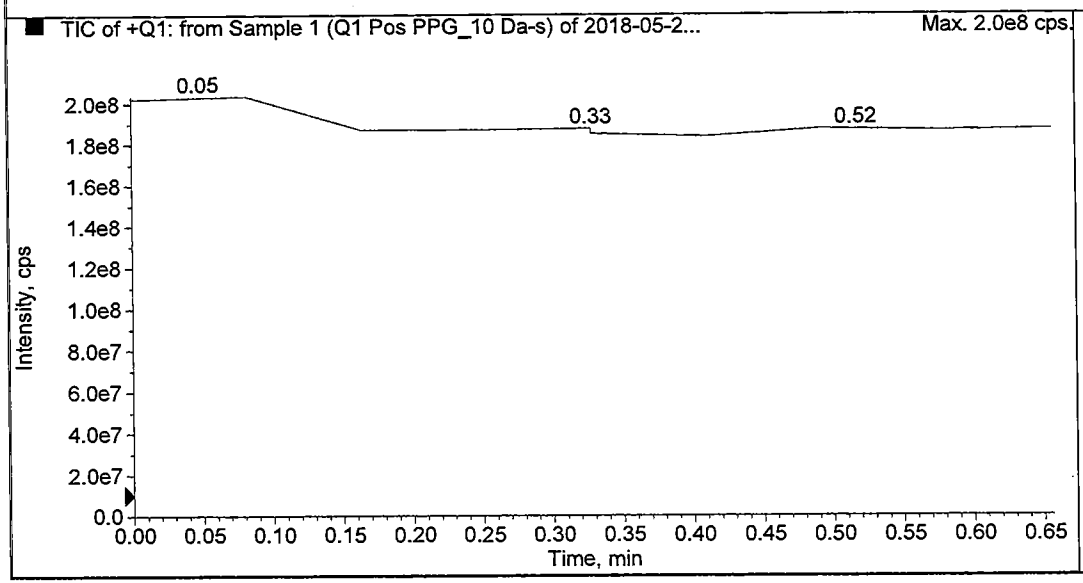
Mass Spectrometer Method Properties

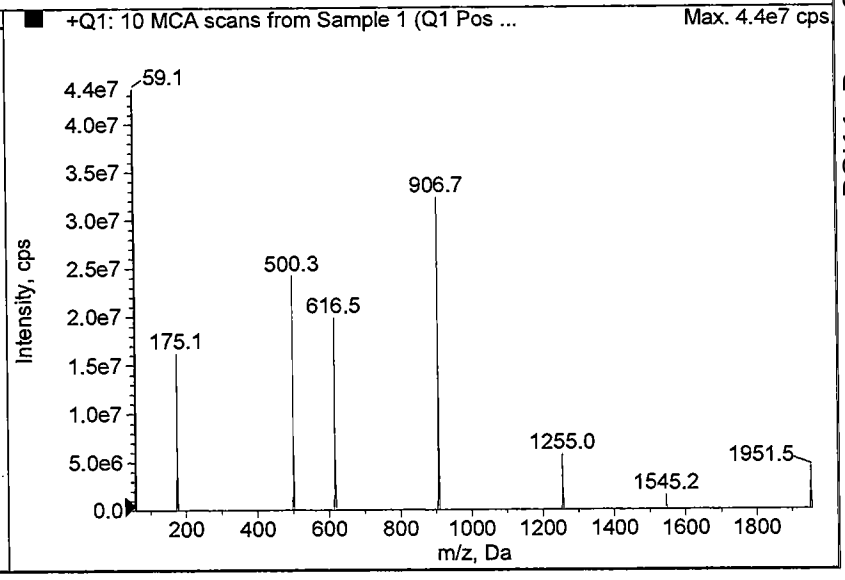
Period 1:

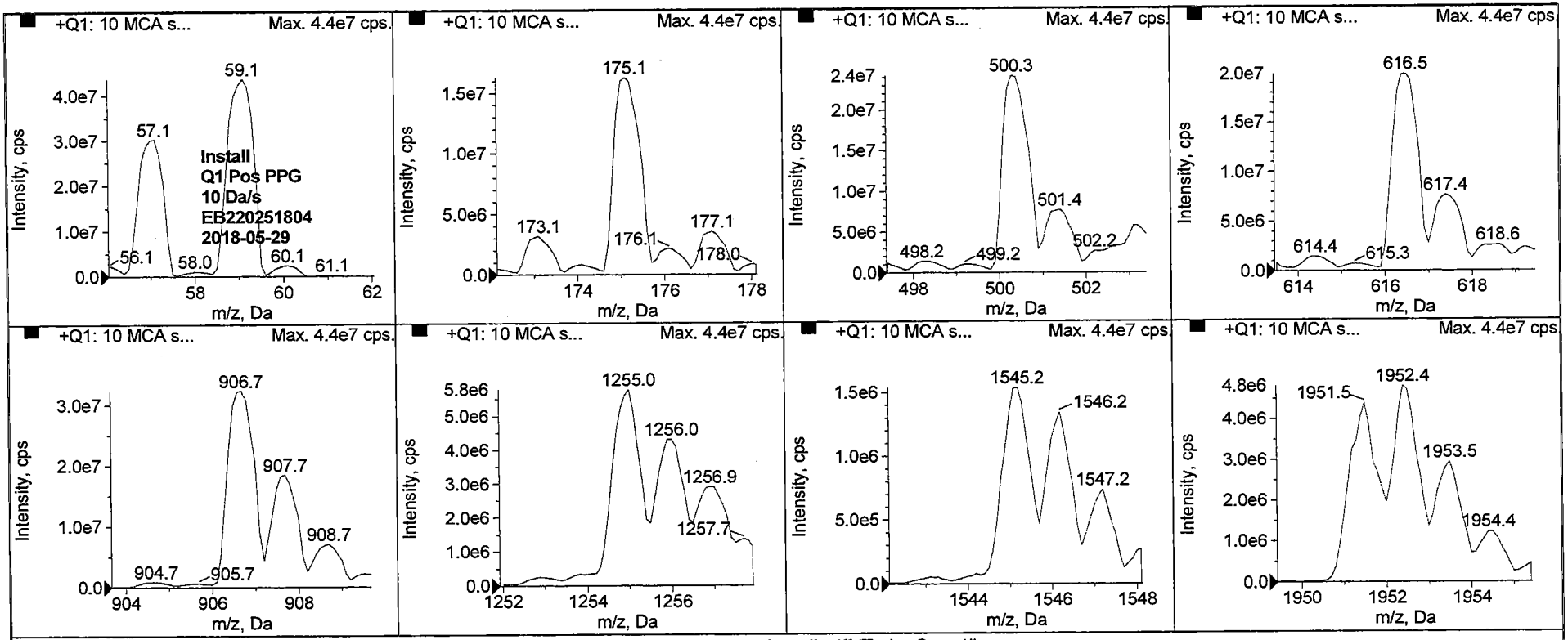
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 10 MCA scans from Sample 1 (Q1 Pos PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0559	4.3682e7	0.6931	-5.8810e-3
2	175.1330	175.1423	1.6298e7	0.7105	-9.3008e-3
3	500.3800	500.3732	2.4240e7	0.6995	6.8010e-3
4	616.4640	616.4825	1.9901e7	0.6890	-0.0185
5	906.6730	906.6804	3.2349e7	0.7151	-7.3891e-3
6	1254.9250	1254.9327	5.7895e6	0.7632	-7.6510e-3
7	1545.1340	1545.1665	1.5381e6	0.7694	-0.0325
8	1952.4270	1952.4521	4.8122e6	0.7423	-0.0251

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

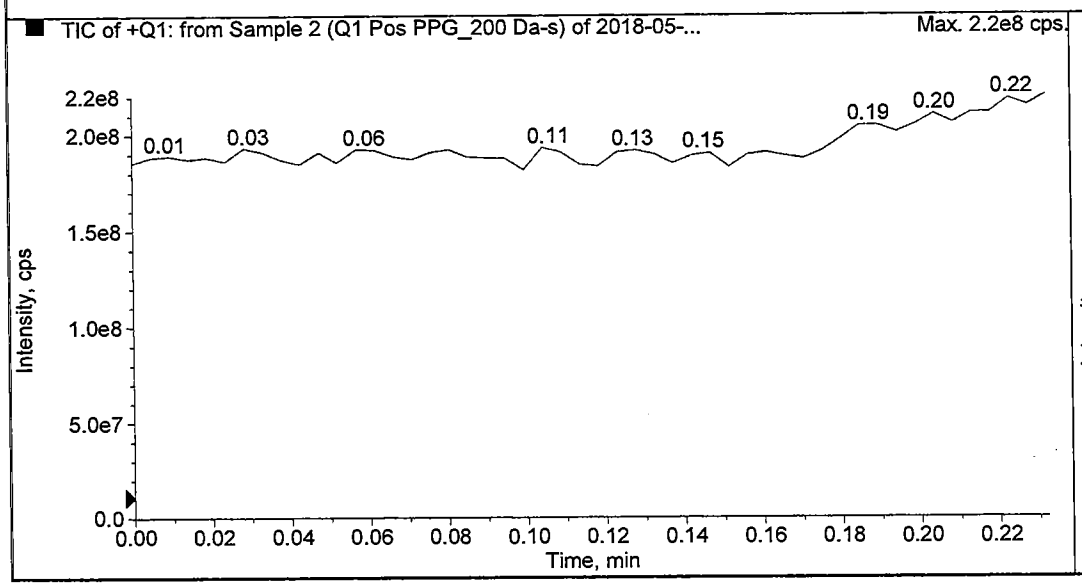
Mass Spectrometer Method Properties

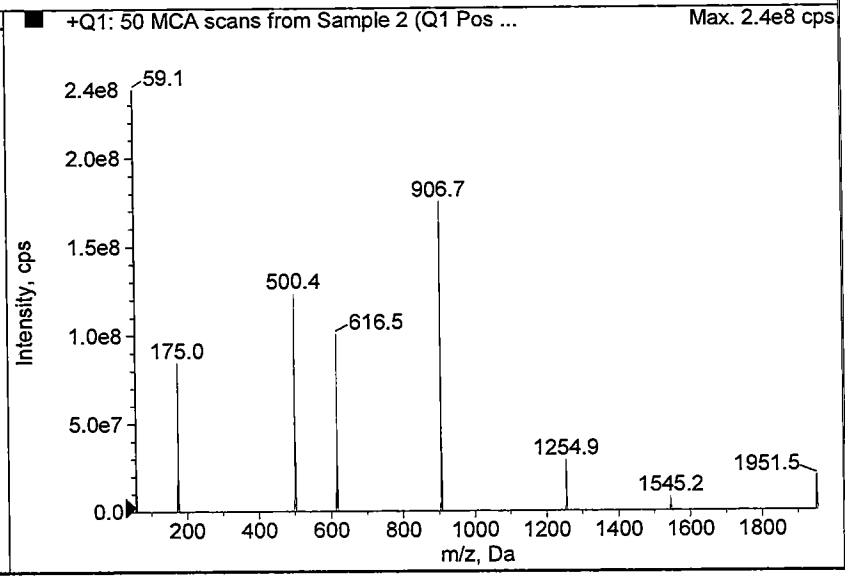
Period 1:

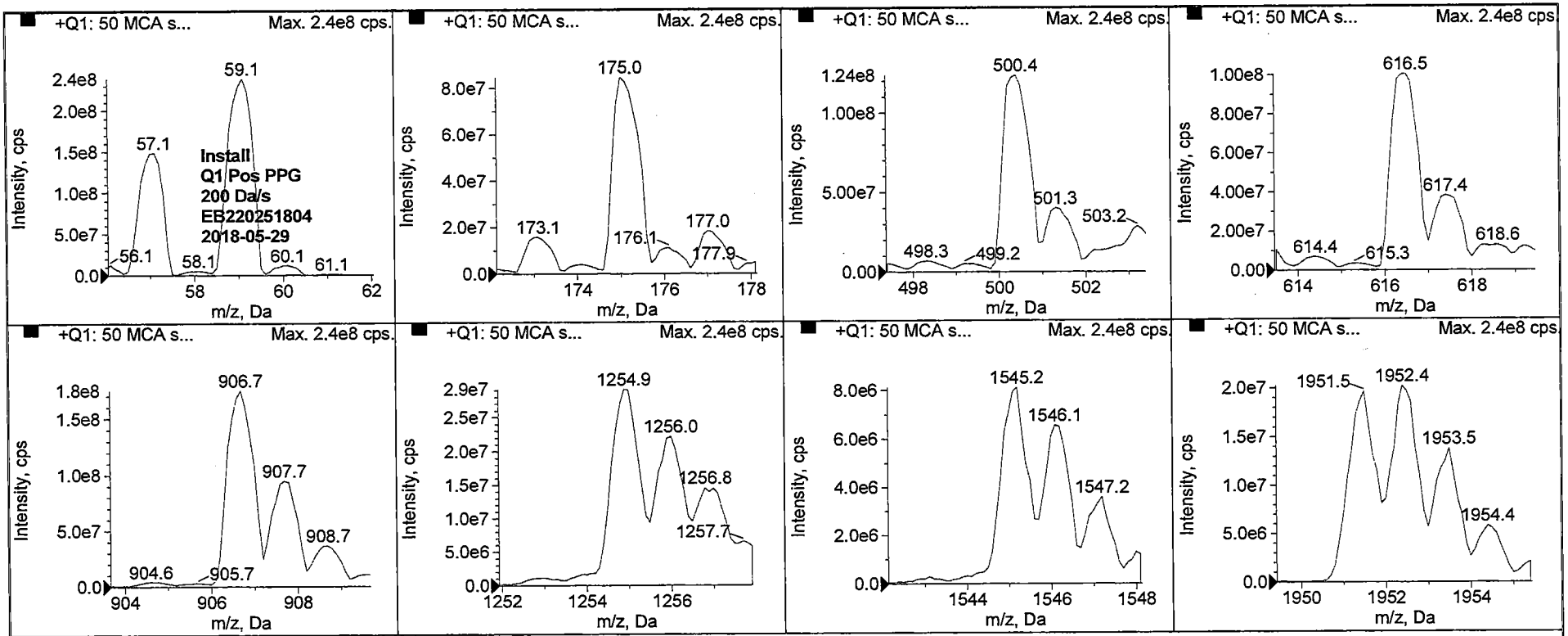
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 50 MCA scans from Sample 2 (Q1 Pos PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0570	2.3875e8	0.6632	-6.9868e-3
2	175.1330	175.1204	8.4656e7	0.7253	0.0126
3	500.3800	500.3915	1.2366e8	0.7160	-0.0115
4	616.4640	616.4631	1.0058e8	0.7191	9.0862e-4
5	906.6730	906.6801	1.7505e8	0.7187	-7.0740e-3
6	1254.9250	1254.9211	2.9174e7	0.7662	3.8790e-3
7	1545.1340	1545.1254	8.1140e6	0.7324	8.6264e-3
8	1952.4270	1952.4458	2.0214e7	0.7760	-0.0188

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

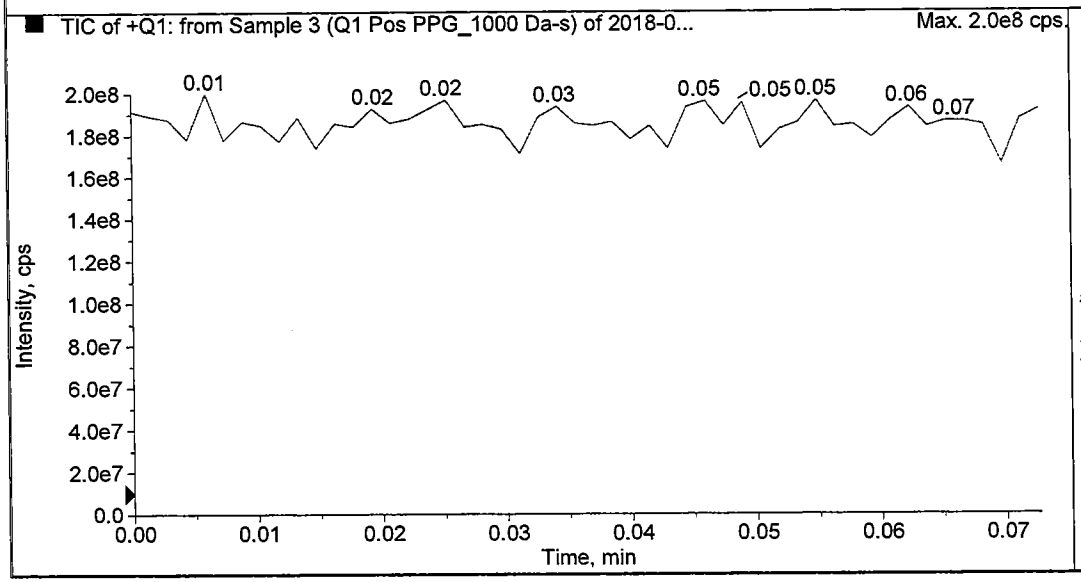
Mass Spectrometer Method Properties

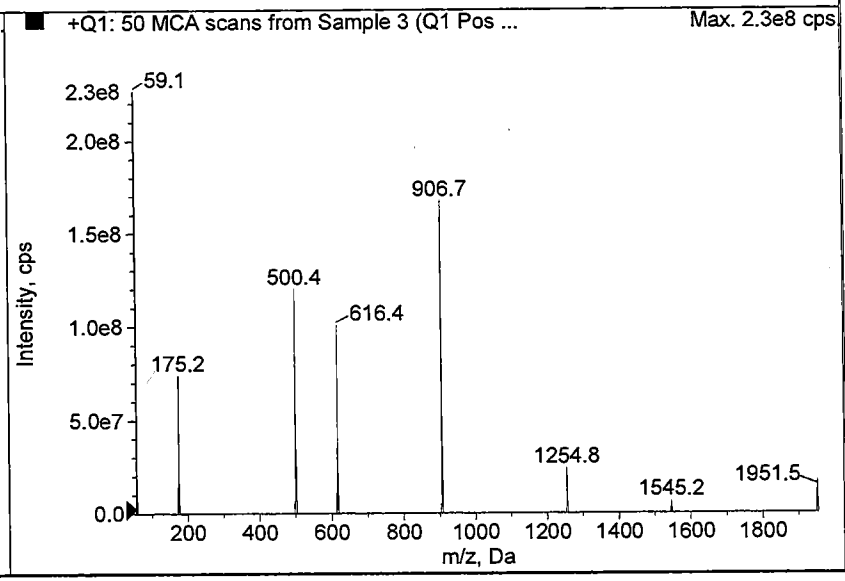
Period 1:

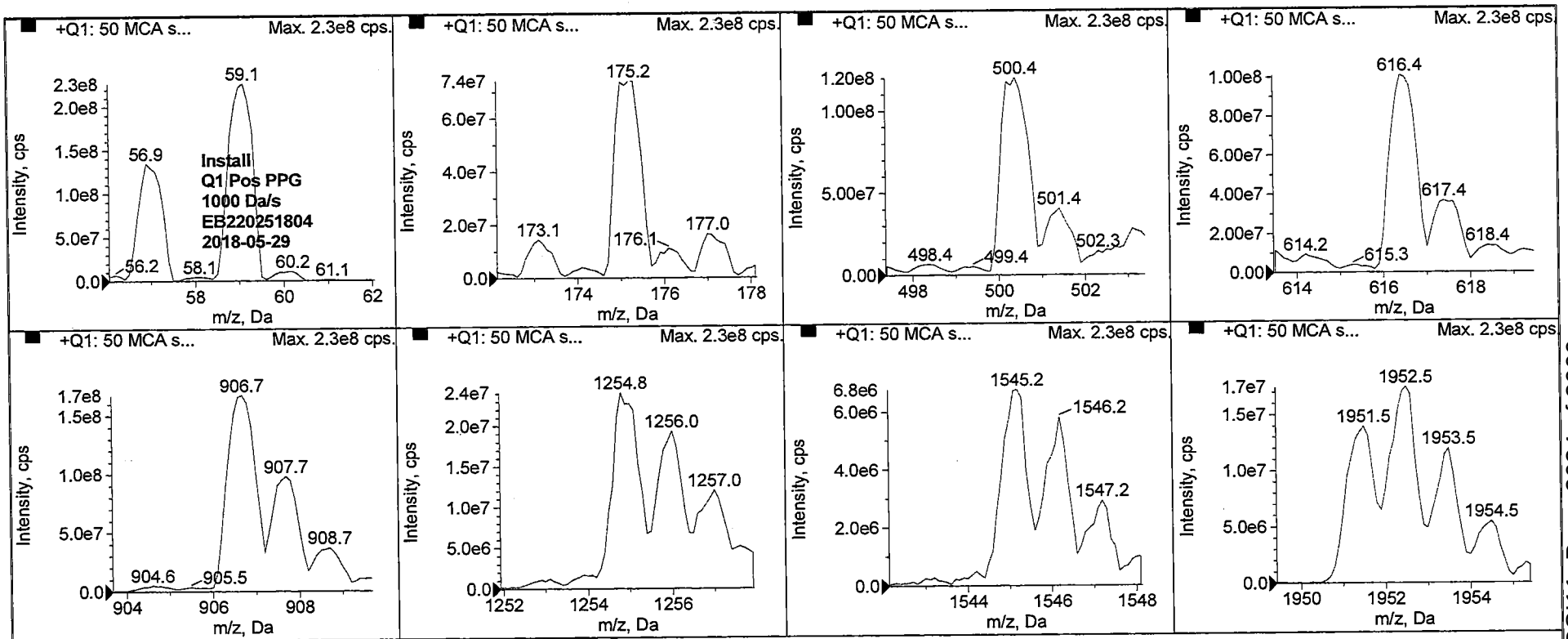
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 50 MCA scans from Sample 3 (Q1 Pos PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0540	2.2668e8	0.6411	-4.0020e-3
2	175.1330	175.1630	7.4160e7	0.7037	-0.0300
3	500.3800	500.3767	1.2013e8	0.7536	3.3425e-3
4	616.4640	616.4720	1.0080e8	0.7224	-8.0022e-3
5	906.6730	906.6738	1.6743e8	0.7638	-8.2831e-4
6	1254.9250	1254.9160	2.4100e7	0.7104	9.0009e-3
7	1545.1340	1545.1314	6.7600e6	0.6758	2.5866e-3
8	1952.4270	1952.4259	1.7440e7	0.7572	1.0770e-3

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

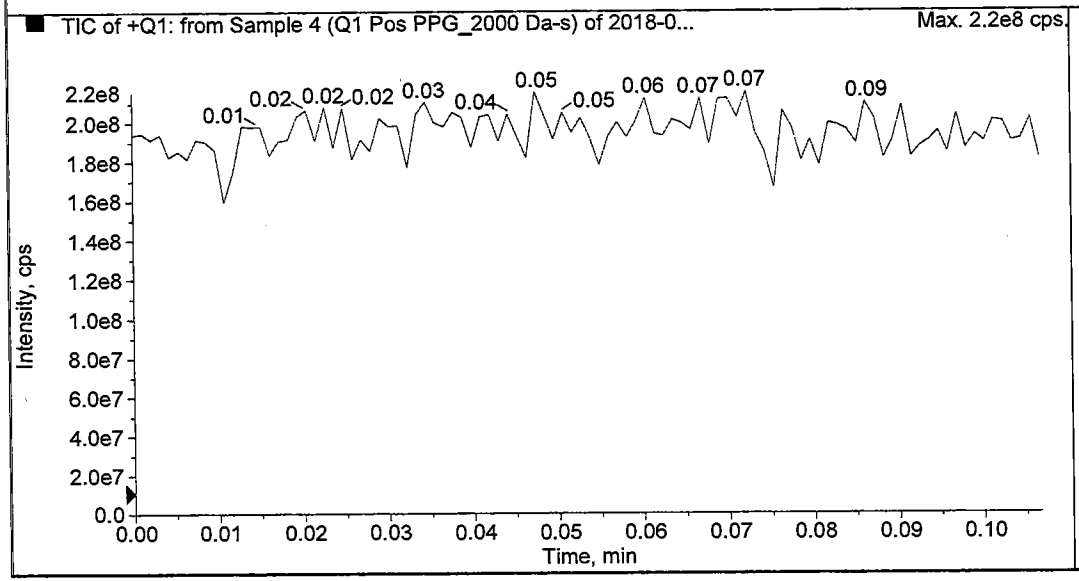
Mass Spectrometer Method Properties

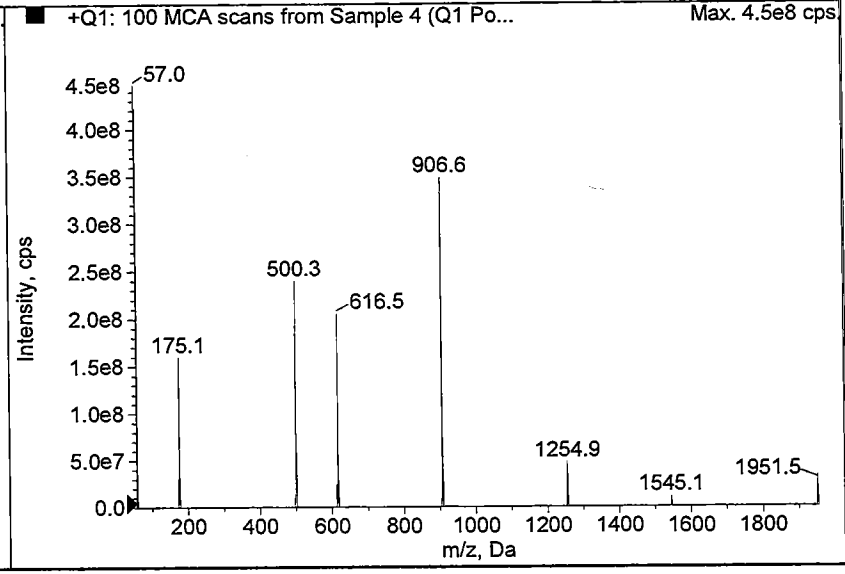
Period 1:

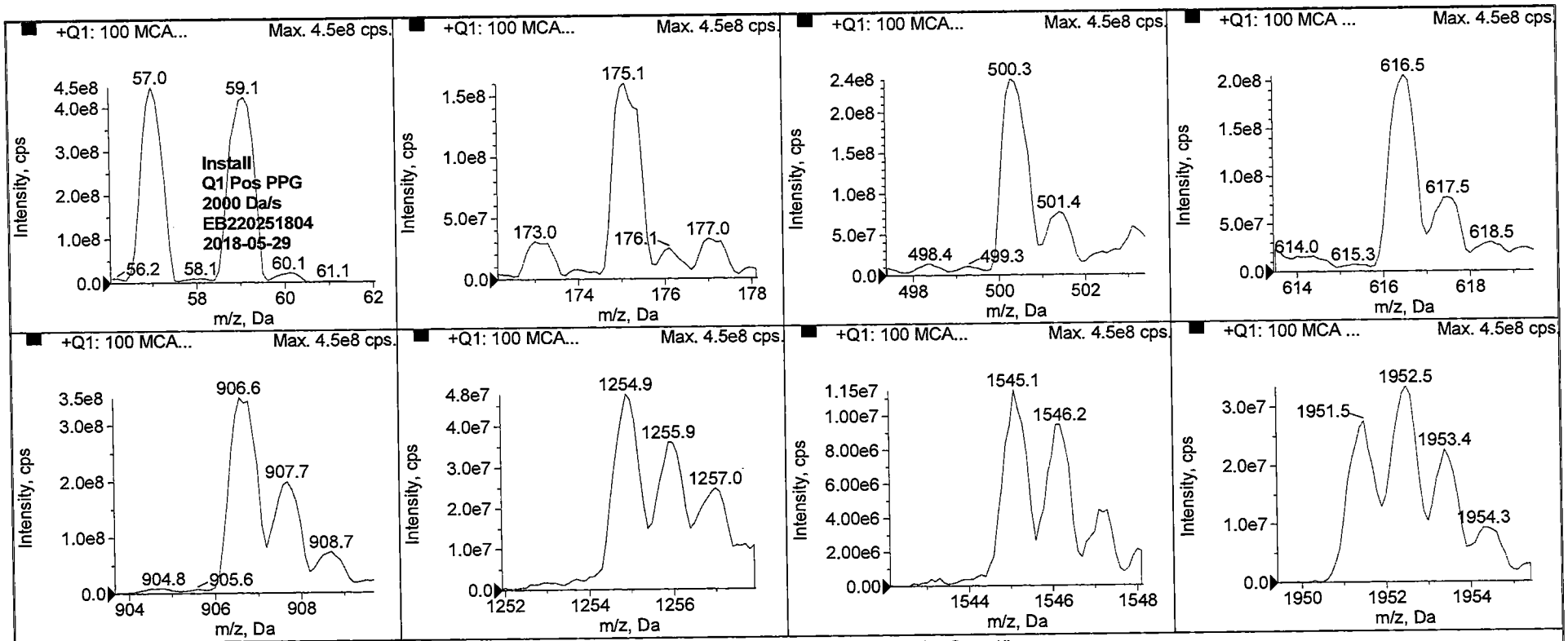
Scans in Period: 100
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 100 MCA scans from Sample 4 (Q1 Pos PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0541	4.2264e8	0.6747	-4.1197e-3
2	175.1330	175.1367	1.6034e8	0.7378	-3.7421e-3
3	500.3800	500.3744	2.4052e8	0.6995	5.5649e-3
4	616.4640	616.4767	2.0538e8	0.7070	-0.0127
5	906.6730	906.6844	3.4888e8	0.7414	-0.0114
6	1254.9250	1254.9130	4.7800e7	0.7332	0.0120
7	1545.1340	1545.1396	1.1460e7	0.6649	-5.5517e-3
8	1952.4270	1952.4475	3.3400e7	0.7743	-0.0205

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): 1.1

CEM (CEM): 1800.0

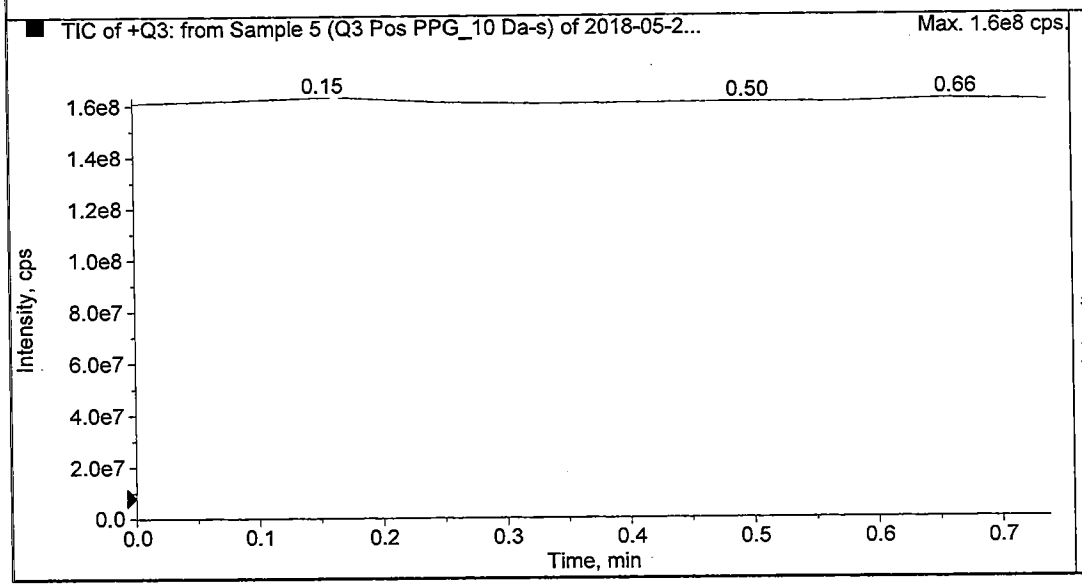
Mass Spectrometer Method Properties

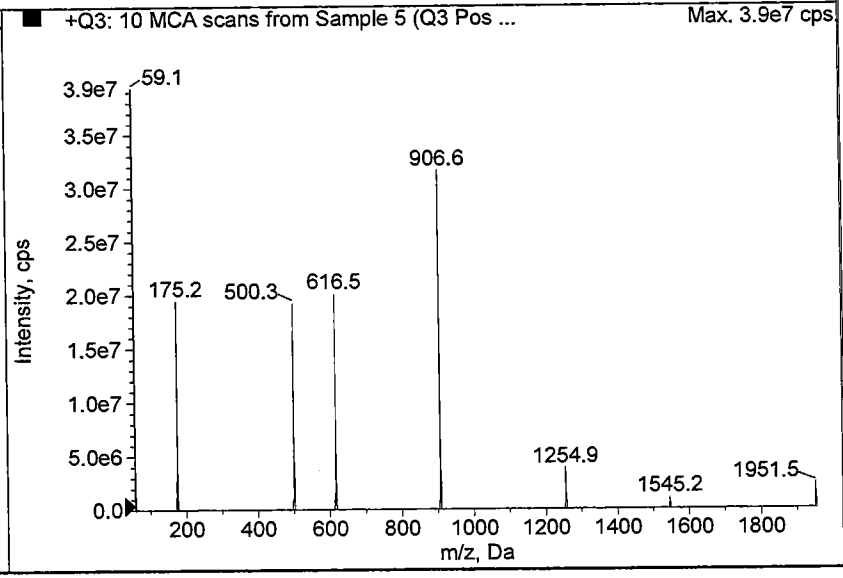
Period 1:

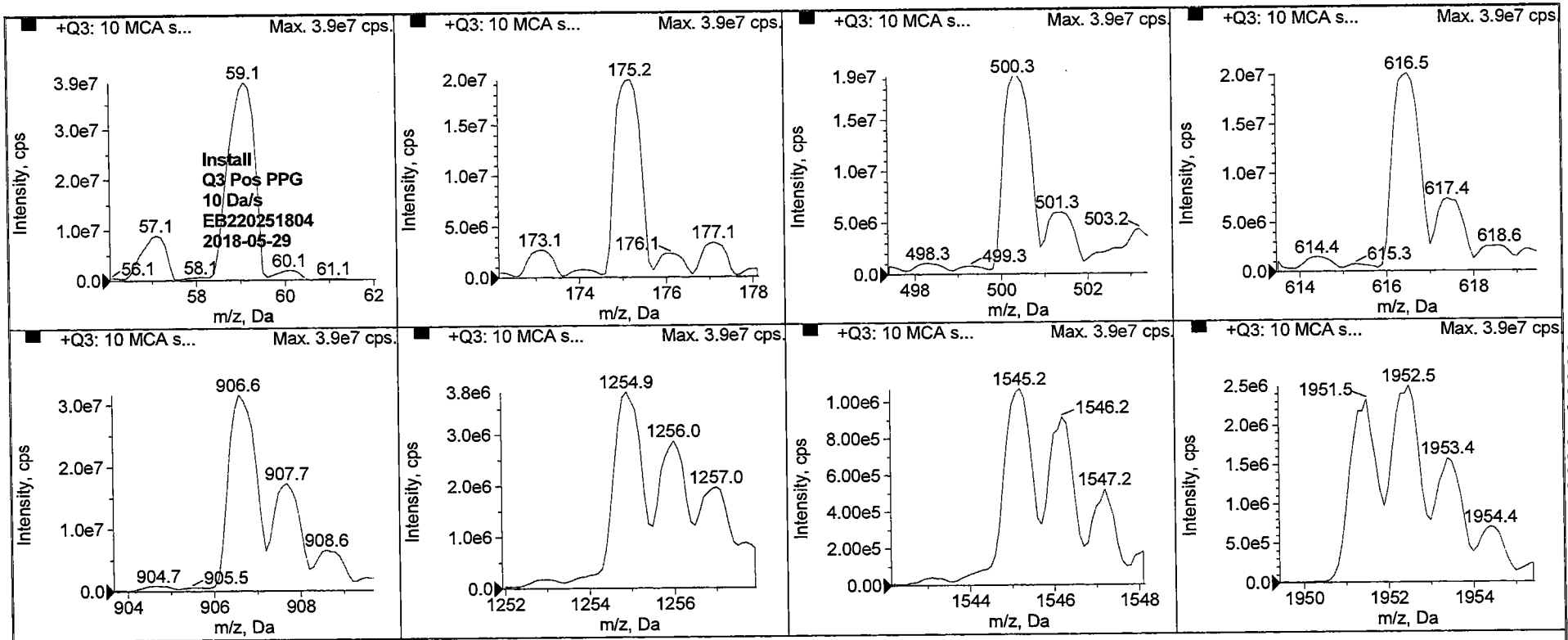
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for "+Q3: 10 MCA scans from Sample 5 (Q3 Pos PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0600	3.9407e7	0.7175	-9.9728e-3
2	175.1330	175.1331	1.9501e7	0.6916	-1.2286e-4
3	500.3800	500.3823	1.9253e7	0.7278	-2.2612e-3
4	616.4640	616.4685	2.0128e7	0.7214	-4.5095e-3
5	906.6730	906.6736	3.1634e7	0.7403	-6.1273e-4
6	1254.9250	1254.9230	3.8338e6	0.7464	2.0449e-3
7	1545.1340	1545.1599	1.0717e6	0.7475	-0.0259
8	1952.4270	1952.4105	2.4968e6	0.7828	0.0165

Sate Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): 1.0

CEM (CEM): 1800.0

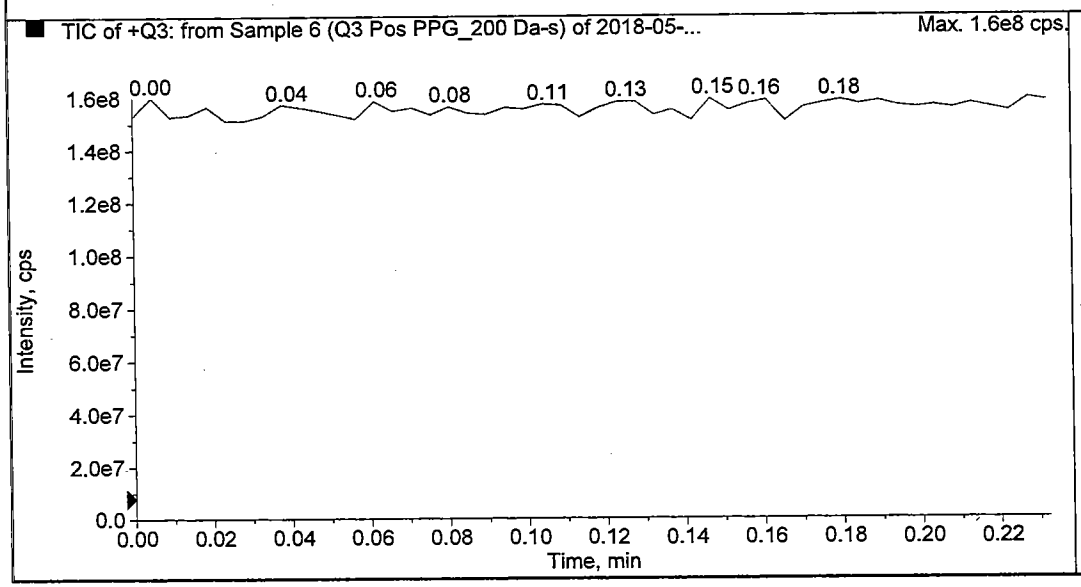
Mass Spectrometer Method Properties

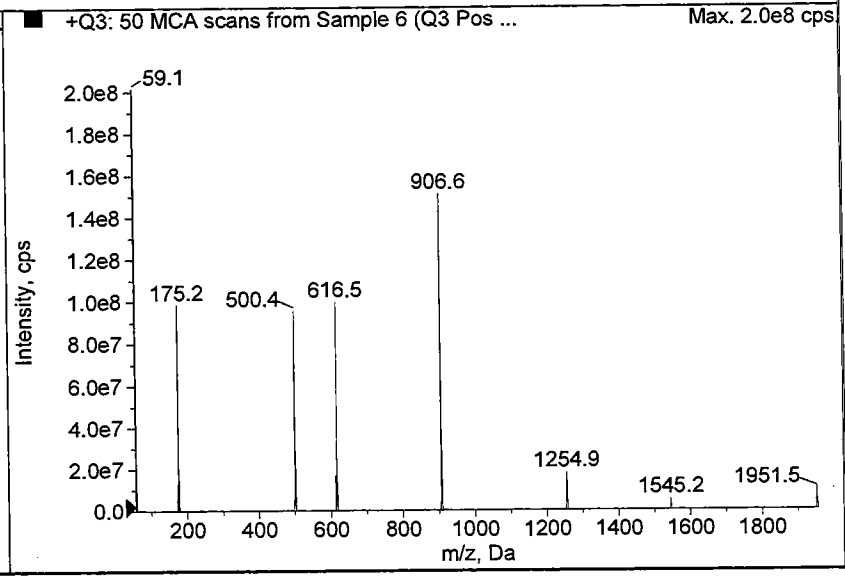
Period 1:

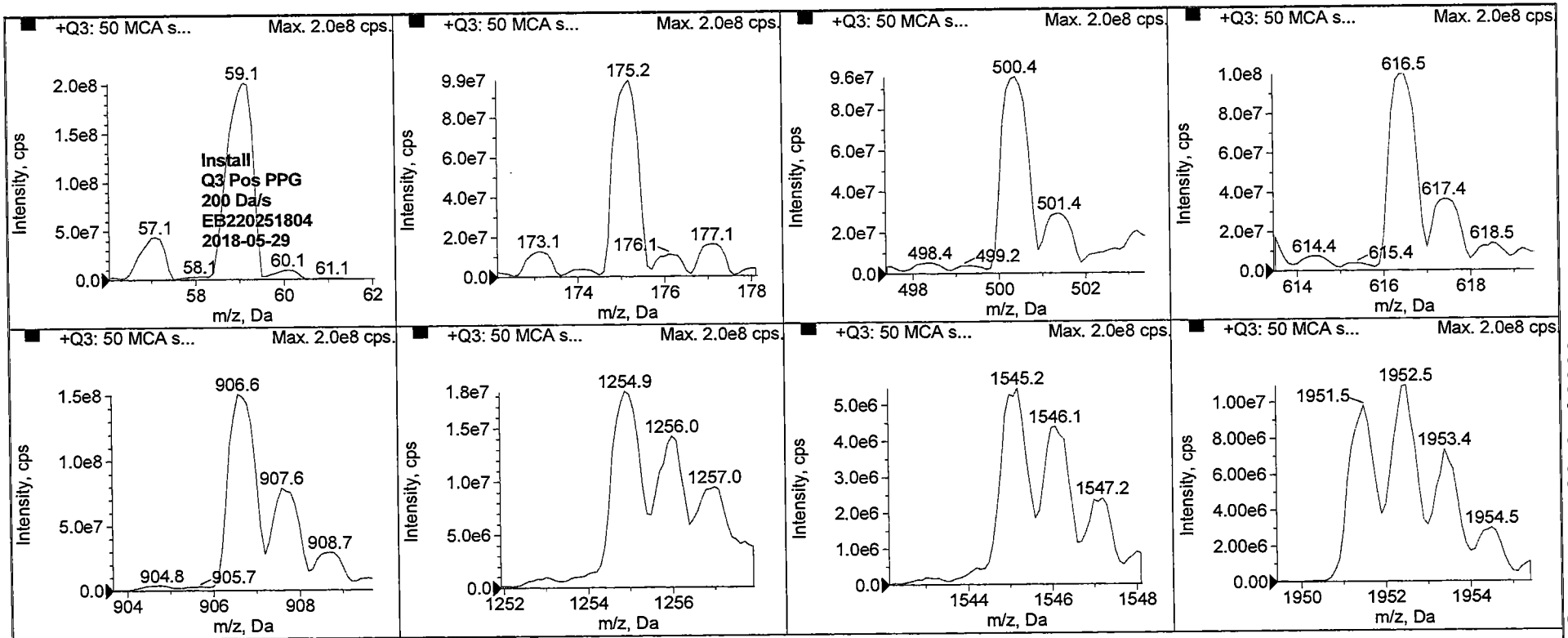
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for " +Q3: 50 MCA scans from Sample 6 (Q3 Pos PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0535	2.0159e8	0.6898	-3.5186e-3
2	175.1330	175.1234	9.8734e7	0.6779	9.5931e-3
3	500.3800	500.3781	9.5670e7	0.7134	1.9254e-3
4	616.4640	616.4537	9.9852e7	0.7073	0.0103
5	906.6730	906.6796	1.5094e8	0.7211	-6.5779e-3
6	1254.9250	1254.9165	1.8432e7	0.7818	8.4504e-3
7	1545.1340	1545.1060	5.4540e6	0.7324	0.0280
8	1952.4270	1952.4363	1.0900e7	0.7220	-9.3366e-3

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): 1.0

CEM (CEM): 1800.0

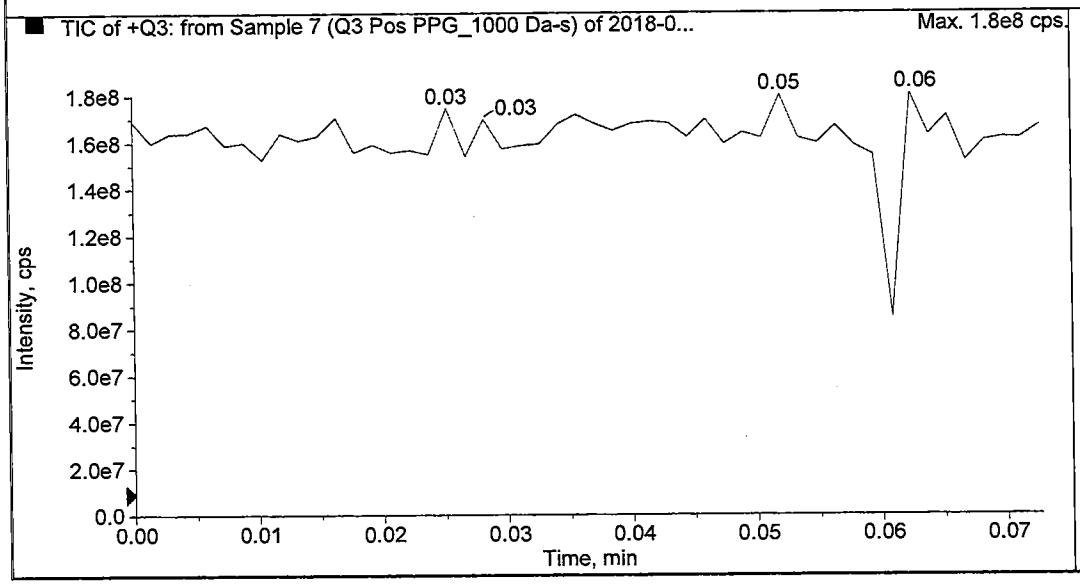
Mass Spectrometer Method Properties

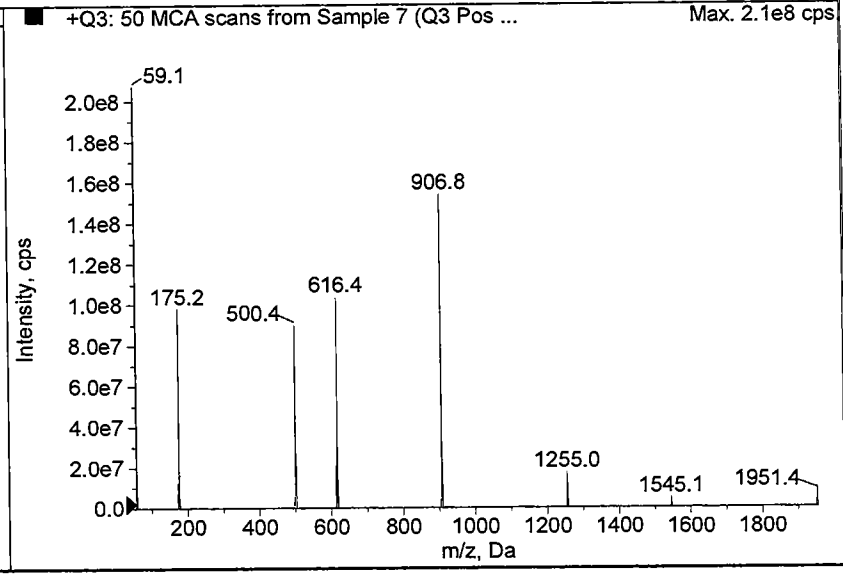
Period 1:

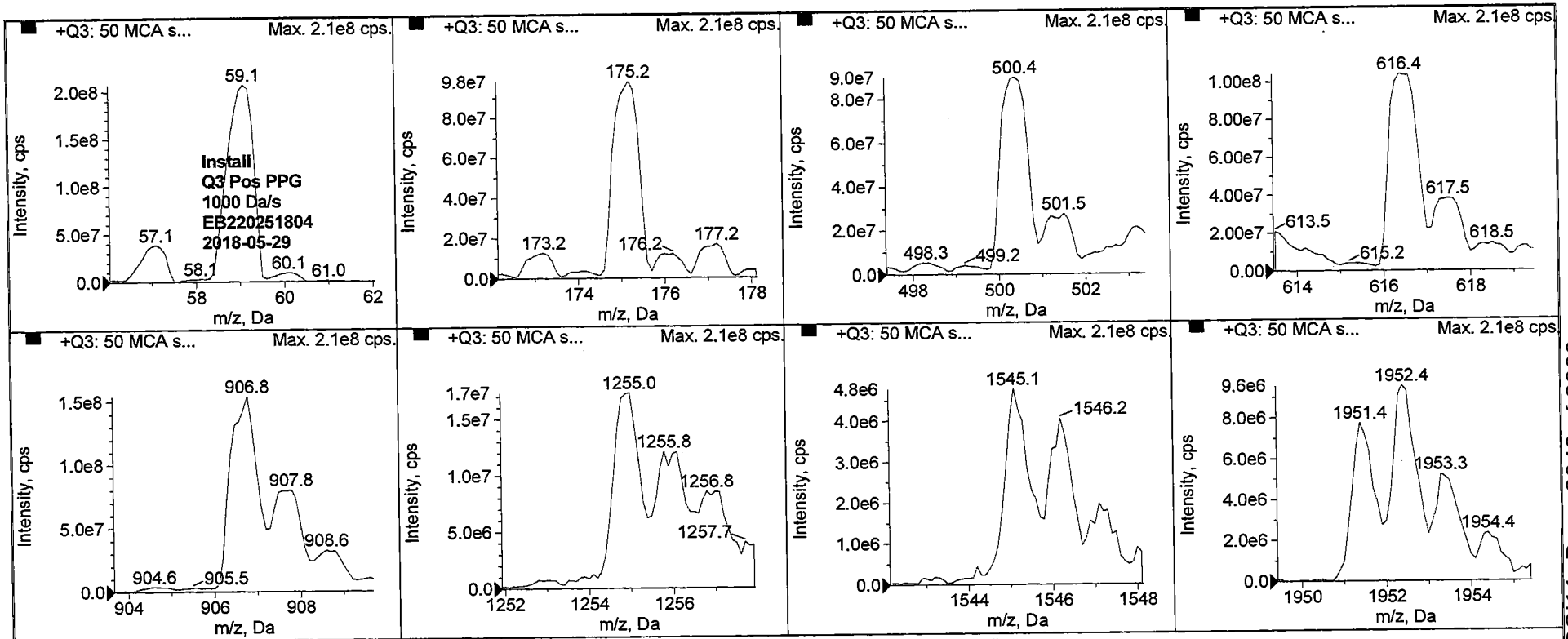
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for " +Q3: 50 MCA scans from Sample 7 (Q3 Pos PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0525	2.0725e8	0.7070	-2.4950e-3
2	175.1330	175.1317	9.8190e7	0.6991	1.2969e-3
3	500.3800	500.3731	8.9990e7	0.7222	6.9400e-3
4	616.4640	616.4761	1.0393e8	0.7599	-0.0121
5	906.6730	906.6936	1.5407e8	0.7541	-0.0206
6	1254.9250	1254.9120	1.7310e7	0.7068	0.0130
7	1545.1340	1545.1453	4.7800e6	0.6227	-0.0113
8	1952.4270	1952.4249	9.5700e6	0.6631	2.0854e-3

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): 10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): 1.2

CEM (CEM): 1800.0

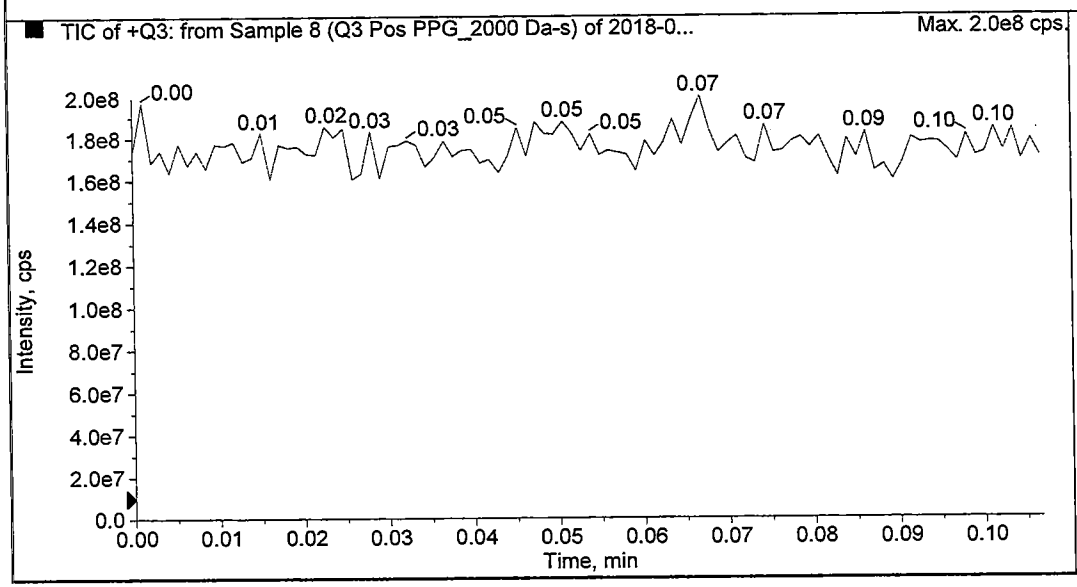
Mass Spectrometer Method Properties

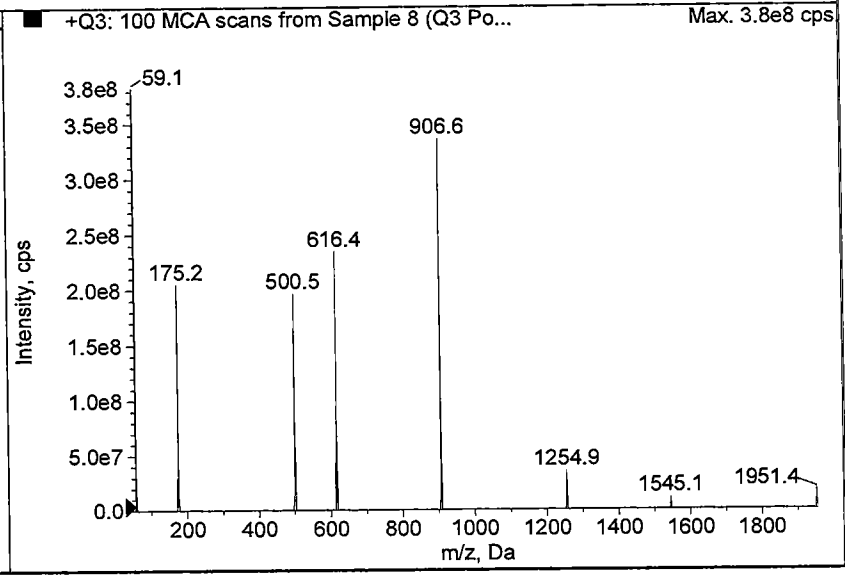
Period 1:

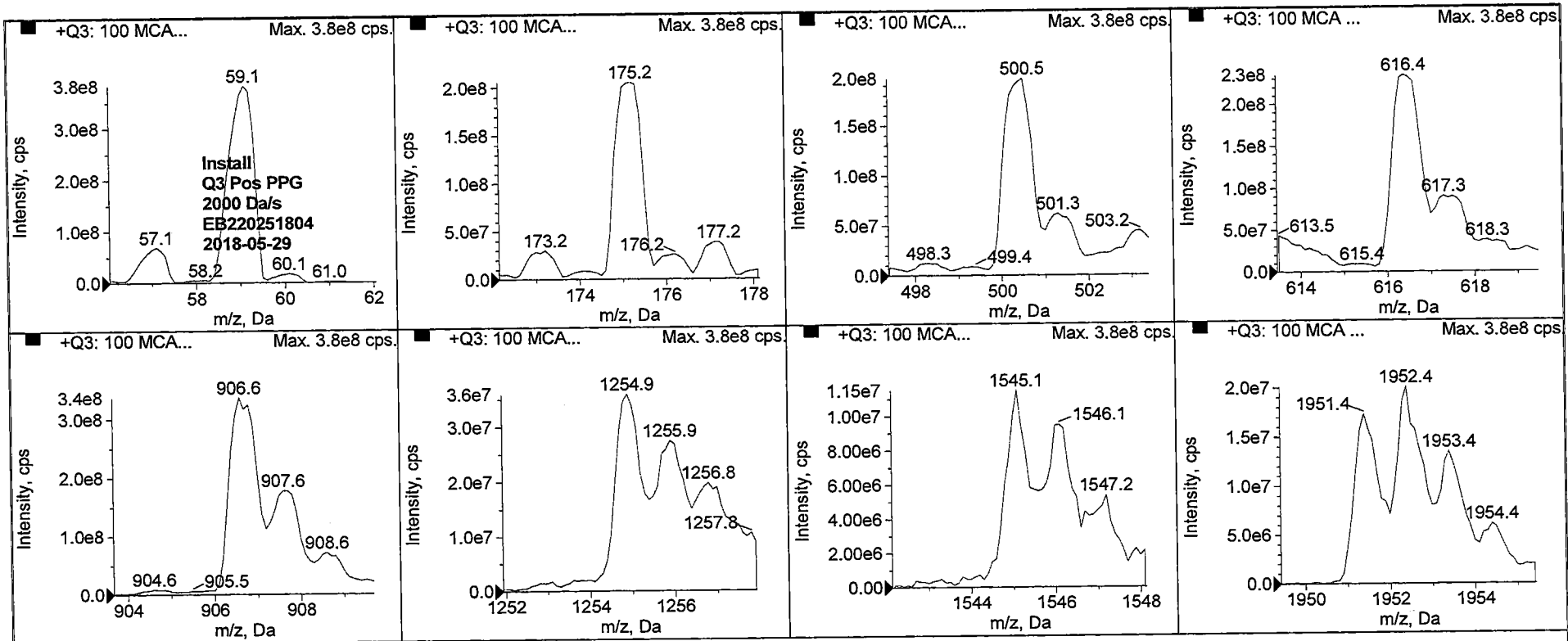
Scans in Period: 100
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for " +Q3: 100 MCA scans from Sample 8 (Q3 Pos PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	59.0500	59.0613	3.8304e8	0.6857	-0.0113
2	175.1330	175.1384	2.0544e8	0.7196	-5.4303e-3
3	500.3800	500.3896	1.9692e8	0.7603	-9.6113e-3
4	616.4640	616.4545	2.3484e8	0.7563	9.5275e-3
5	906.6730	906.6804	3.3638e8	0.7428	-7.4202e-3
6	1254.9250	1254.9055	3.5980e7	0.7182	0.0195
7	1545.1340	1545.0988	1.1500e7	0.6834	0.0352
8	1952.4270	1952.4546	2.0100e7	0.7640	-0.0276

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

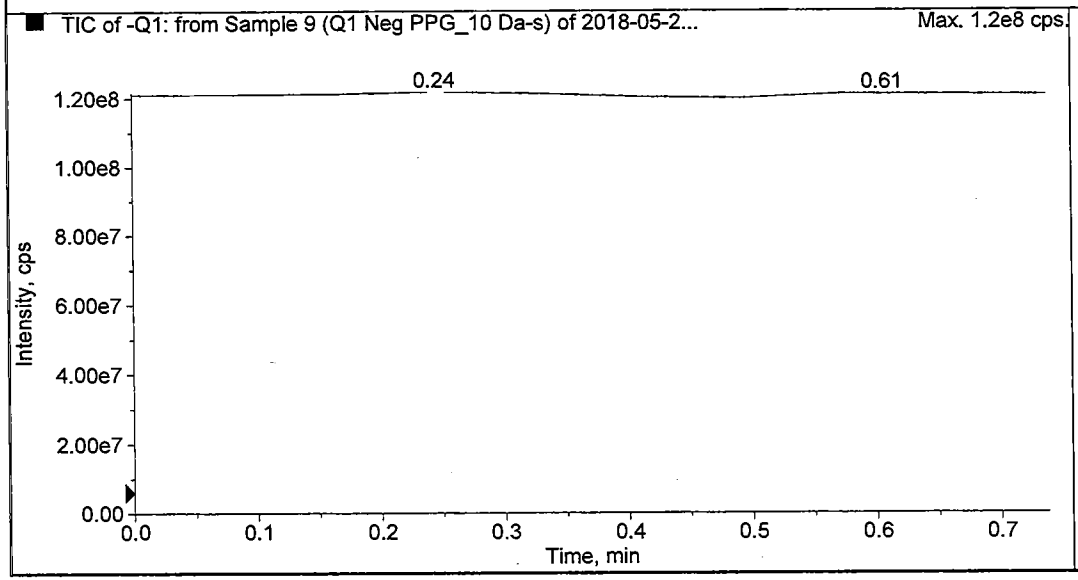
Mass Spectrometer Method Properties

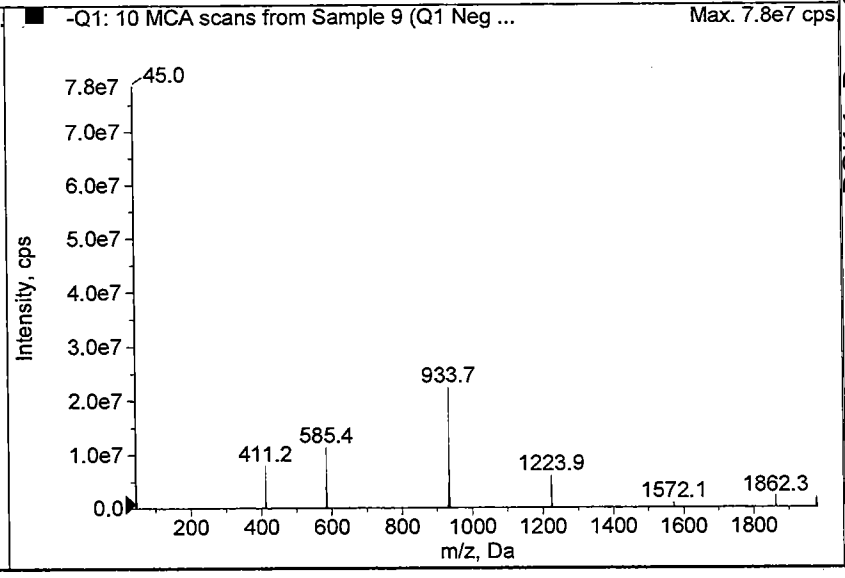
Period 1:

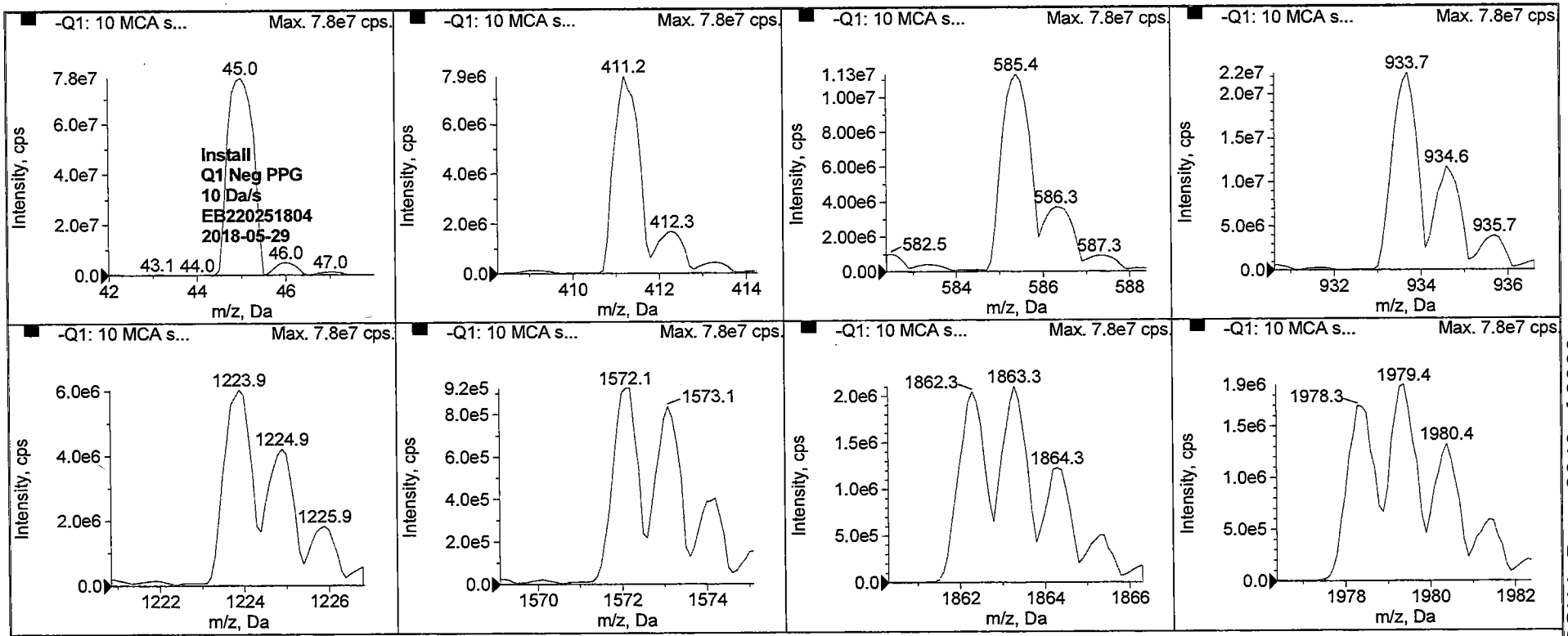
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for "-Q1: 10 MCA scans from Sample 9 (Q1 Neg PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9947	7.8484e7	0.6977	3.3302e-3
2	411.2590	411.2640	7.9184e6	0.7009	-4.9843e-3
3	585.3850	585.3944	1.1318e7	0.7674	-9.3834e-3
4	933.6360	933.6513	2.2378e7	0.6638	-0.0153
5	1223.8450	1223.8605	6.0413e6	0.7621	-0.0155
6	1572.0970	1572.0967	9.2320e5	0.6727	2.8078e-4
7	1863.3060	1863.2949	2.1046e6	0.7369	0.0111
8	1979.3890	1979.3655	1.8985e6	0.7323	0.0235

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

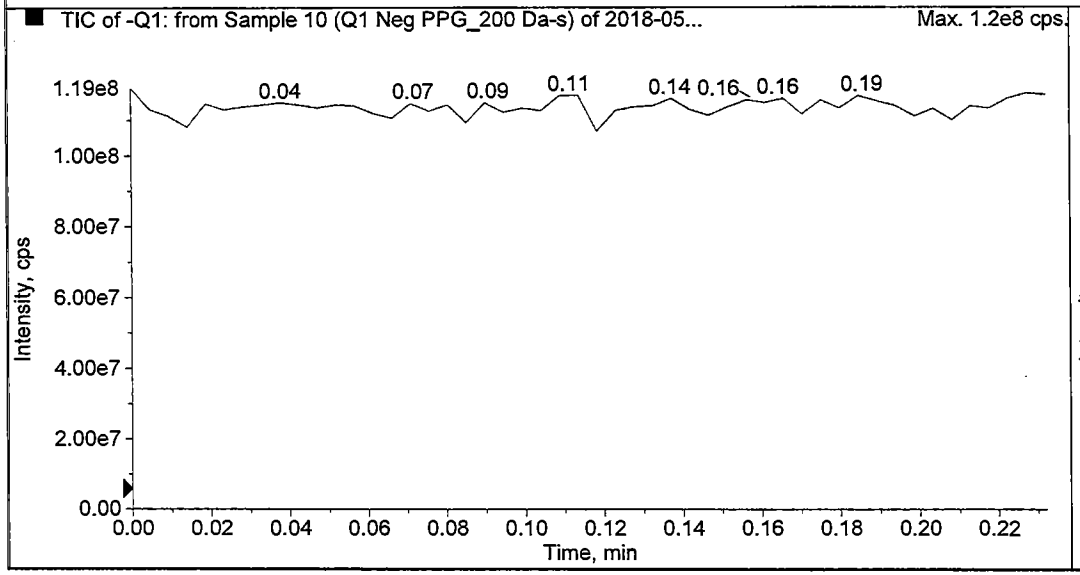
Mass Spectrometer Method Properties

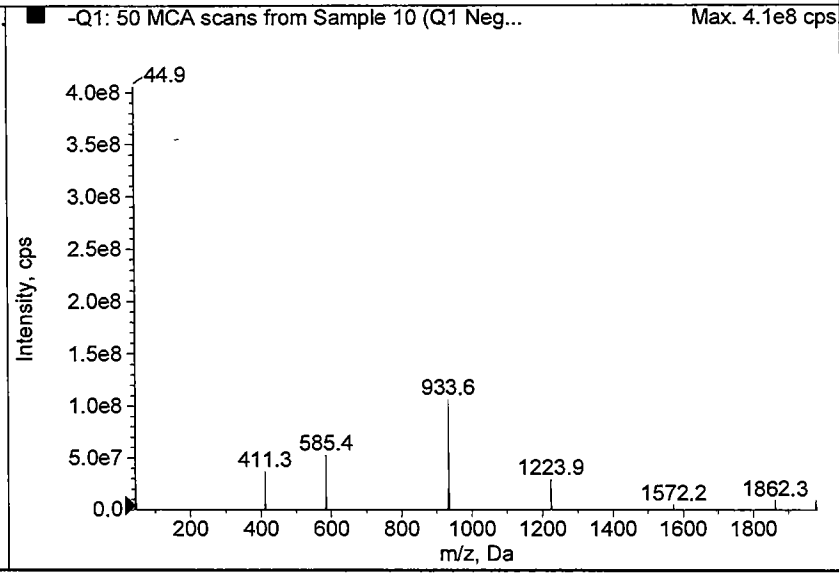
Period 1:

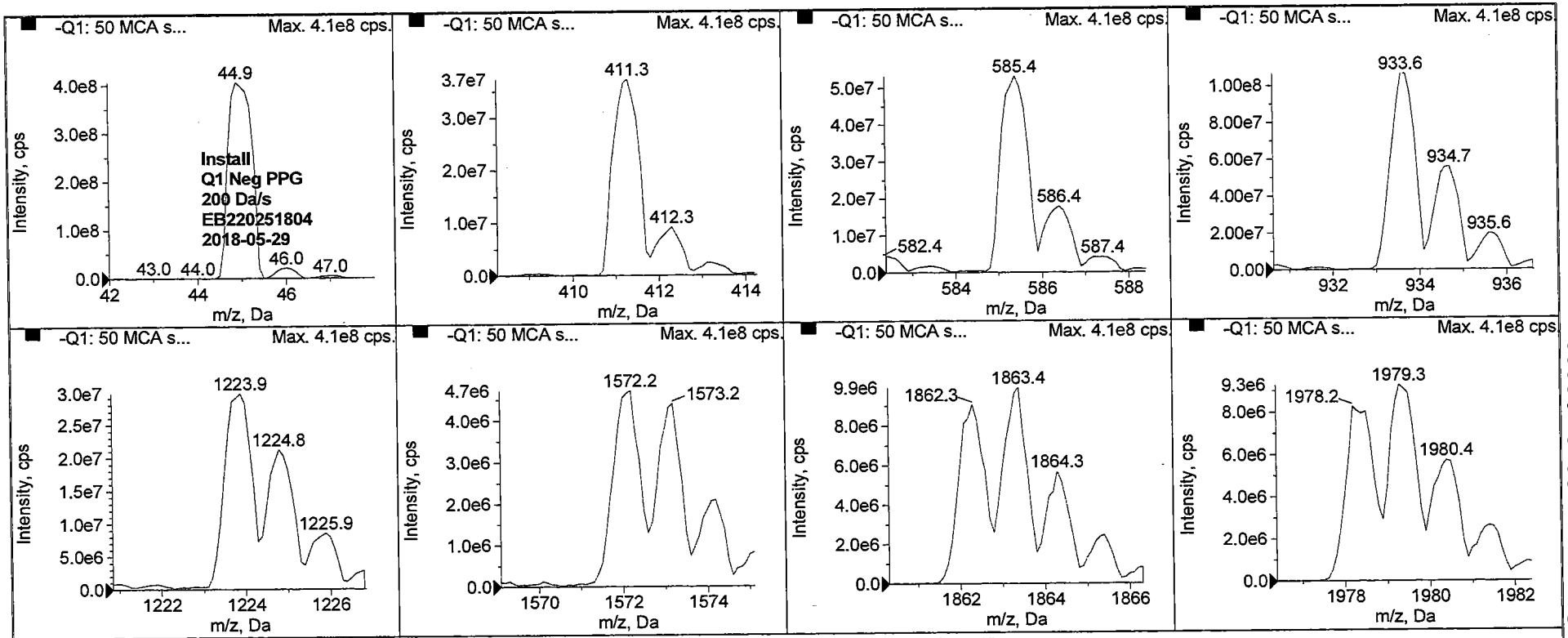
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for "-Q1: 50 MCA scans from Sample 10 (Q1 Neg PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9900	4.0582e8	0.6493	8.0001e-3
2	411.2590	411.2621	3.7274e7	0.7276	-3.1008e-3
3	585.3850	585.3787	5.3084e7	0.7168	6.3372e-3
4	933.6360	933.6551	1.0649e8	0.6450	-0.0191
5	1223.8450	1223.8398	2.9712e7	0.7456	5.1659e-3
6	1572.0970	1572.1026	4.7160e6	0.7330	-5.5764e-3
7	1863.3060	1863.3085	9.9060e6	0.6832	-2.5396e-3
8	1979.3890	1979.3715	9.2680e6	0.7385	0.0175

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): -1.0

CEM (CEM): 1900.0

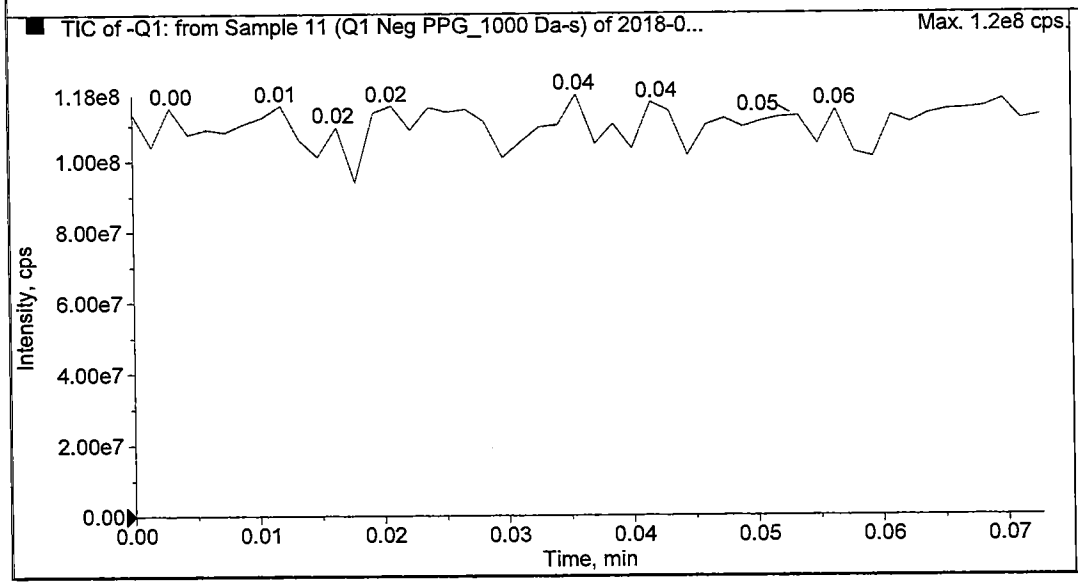
Mass Spectrometer Method Properties

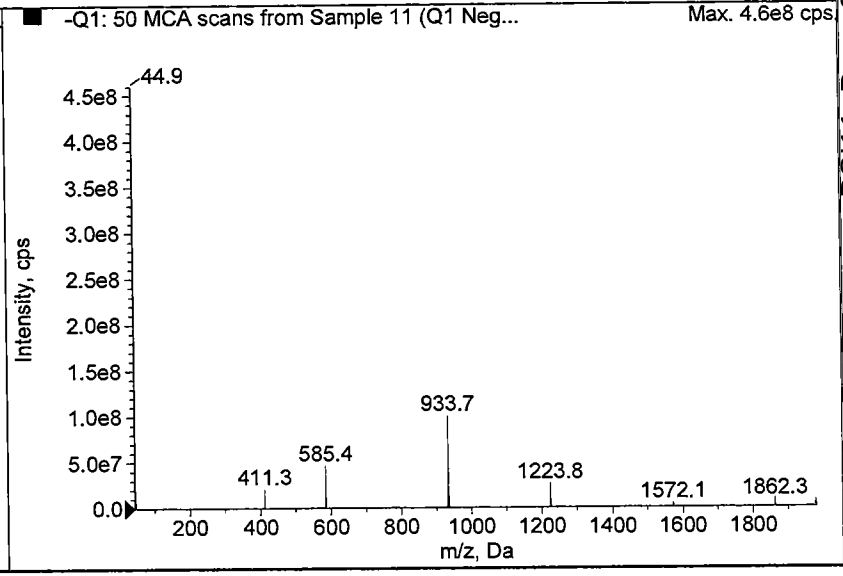
Period 1:

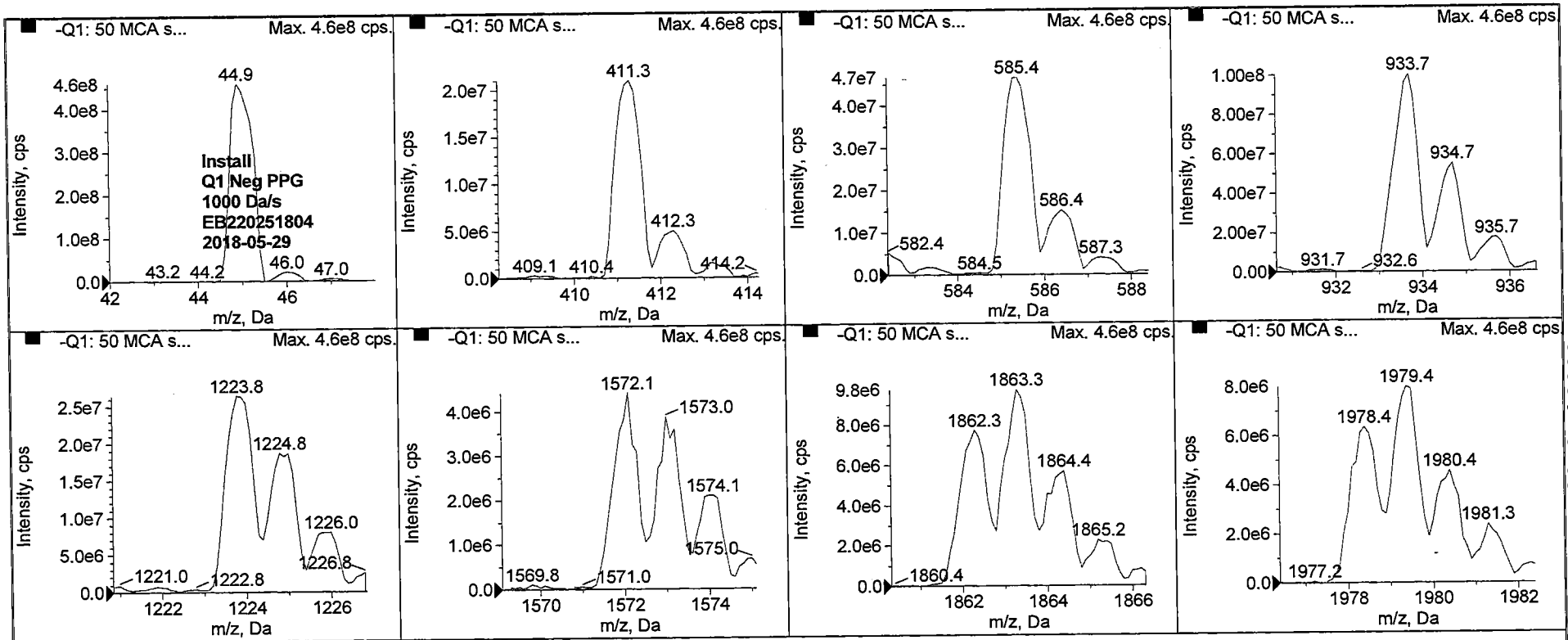
Scans in Period: 50
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for "-Q1: 50 MCA scans from Sample 11 (Q1 Neg PPG_1000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0048	4.6001e8	0.6178	-6.8036e-3
2	411.2590	411.2622	2.1000e7	0.6966	-3.2270e-3
3	585.3850	585.3835	4.6680e7	0.7152	1.4984e-3
4	933.6360	933.6542	1.0040e8	0.6380	-0.0182
5	1223.8450	1223.8506	2.6440e7	0.7474	-5.6084e-3
6	1572.0970	1572.0547	4.4200e6	0.6569	0.0423
7	1863.3060	1863.3097	9.7600e6	0.7294	-3.6879e-3
8	1979.3890	1979.3736	7.9900e6	0.7077	0.0154

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	-4500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	-10.0
Q1 Resolution:	Unit
Ion Energy 1 (IE1):	-1.0
CEM (CEM):	1900.0

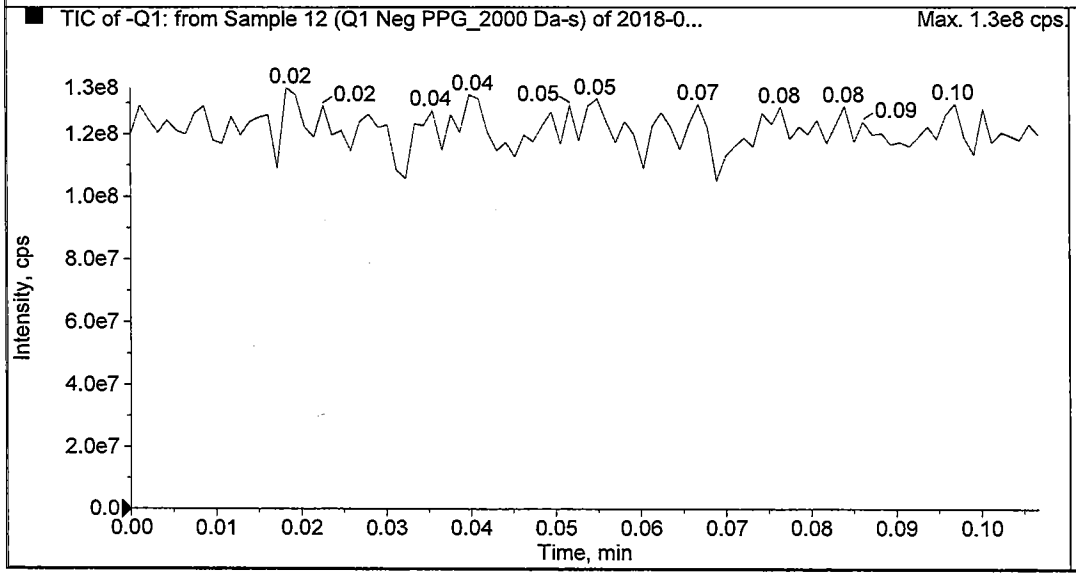
Mass Spectrometer Method Properties

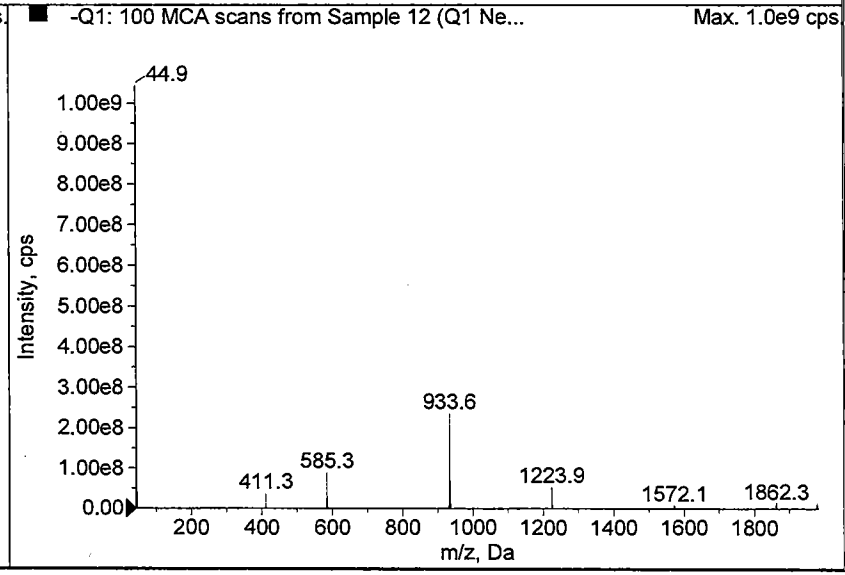
Period 1:

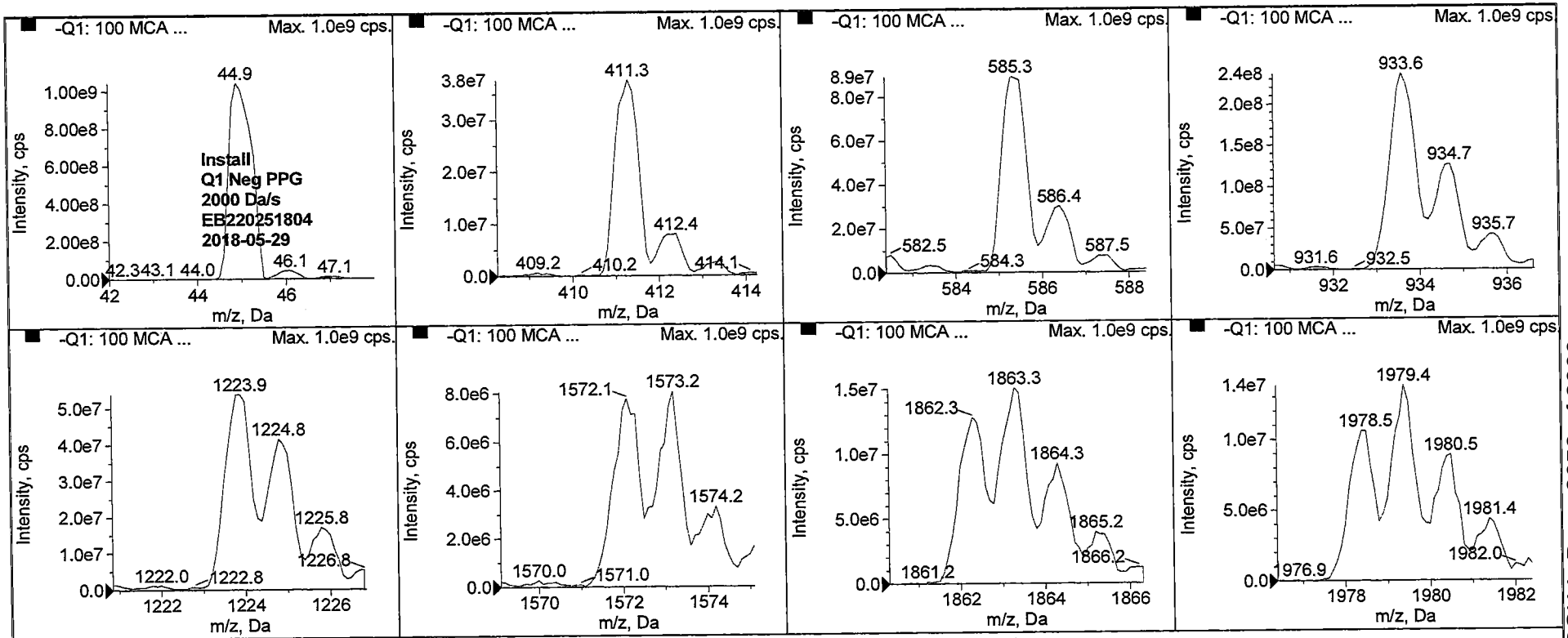
Scans in Period:	100
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

Period 1 Experiment 1:

Scan Type:	Q1 MS (Q1)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q1:	Unit







Peak List for "-Q1: 100 MCA scans from Sample 12 (Q1 Neg PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9988	1.0432e9	0.6290	-7.8776e-4
2	411.2590	411.2681	3.7700e7	0.6335	-9.0706e-3
3	585.3850	585.3670	8.9260e7	0.6465	0.0180
4	933.6360	933.6310	2.3632e8	0.6639	4.9633e-3
5	1223.8450	1223.8469	5.3740e7	0.7138	-1.8551e-3
6	1572.0970	1572.1139	7.7800e6	0.7223	-0.0169
7	1863.3060	1863.2638	1.5060e7	0.7553	0.0422
8	1979.3890	1979.3750	1.3800e7	0.6556	0.0140

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): -1.5

CEM (CEM): 1900.0

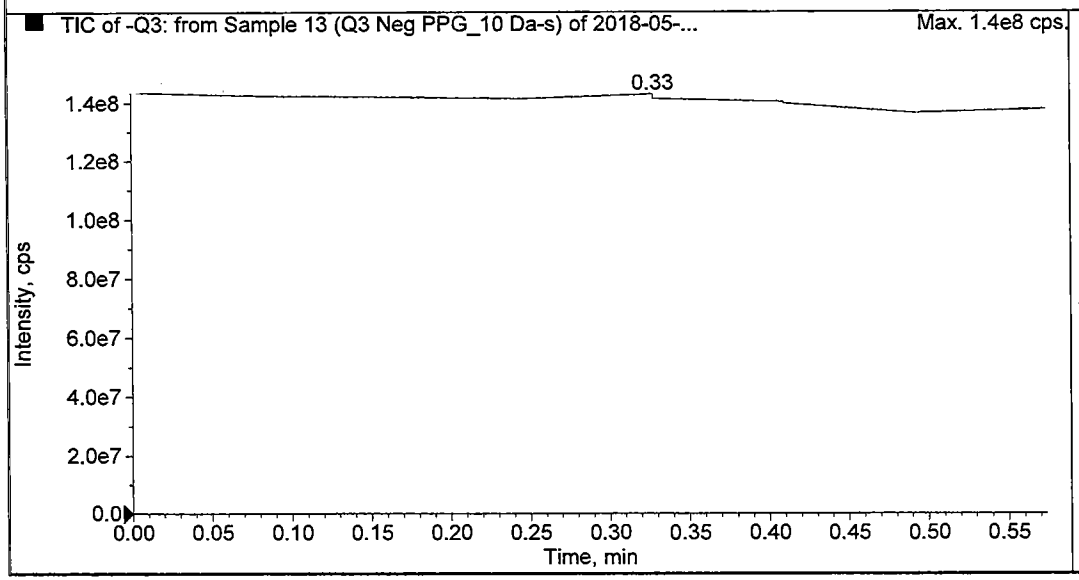
Mass Spectrometer Method Properties

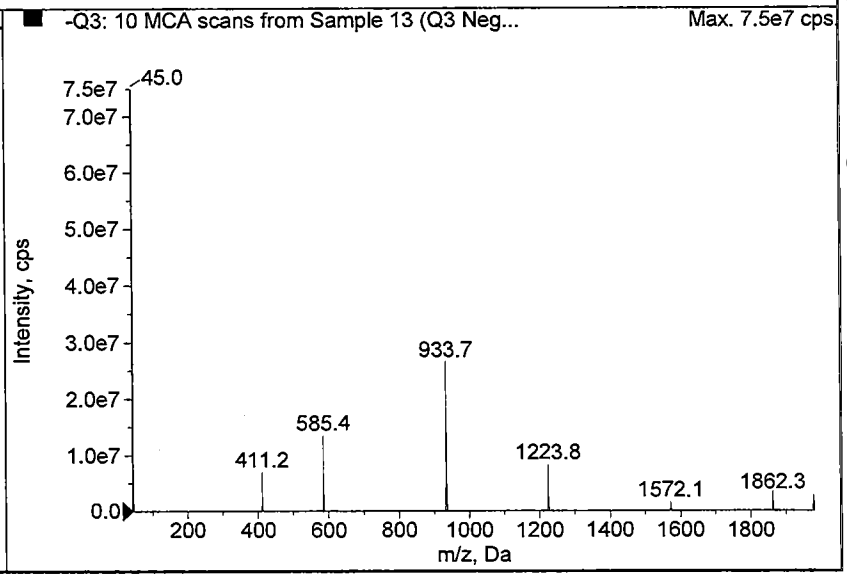
Period 1:

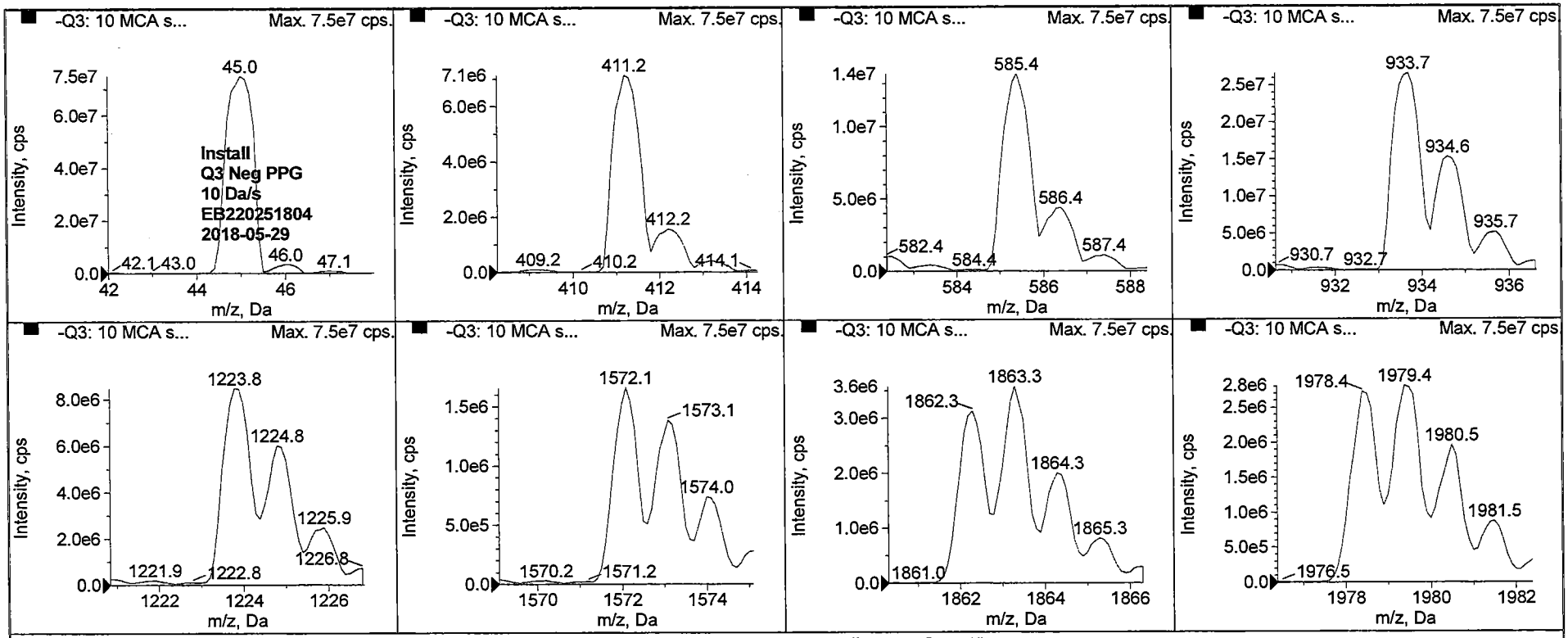
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for "-Q3: 10 MCA scans from Sample 13 (Q3 Neg PPG_10 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9972	7.5007e7	0.7320	7.7711e-4
2	411.2590	411.2344	7.1361e6	0.7370	0.0246
3	585.3850	585.3868	1.3657e7	0.7362	-1.8161e-3
4	933.6360	933.6384	2.6621e7	0.7288	-2.4244e-3
5	1223.8450	1223.8430	8.4746e6	0.7528	1.9856e-3
6	1572.0970	1572.0927	1.6606e6	0.6651	4.2840e-3
7	1863.3060	1863.3066	3.5734e6	0.7033	-6.4400e-4
8	1979.3890	1979.4384	2.8091e6	0.7513	-0.0494

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	-4500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	-10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	-1.5
CEM (CEM):	1900.0

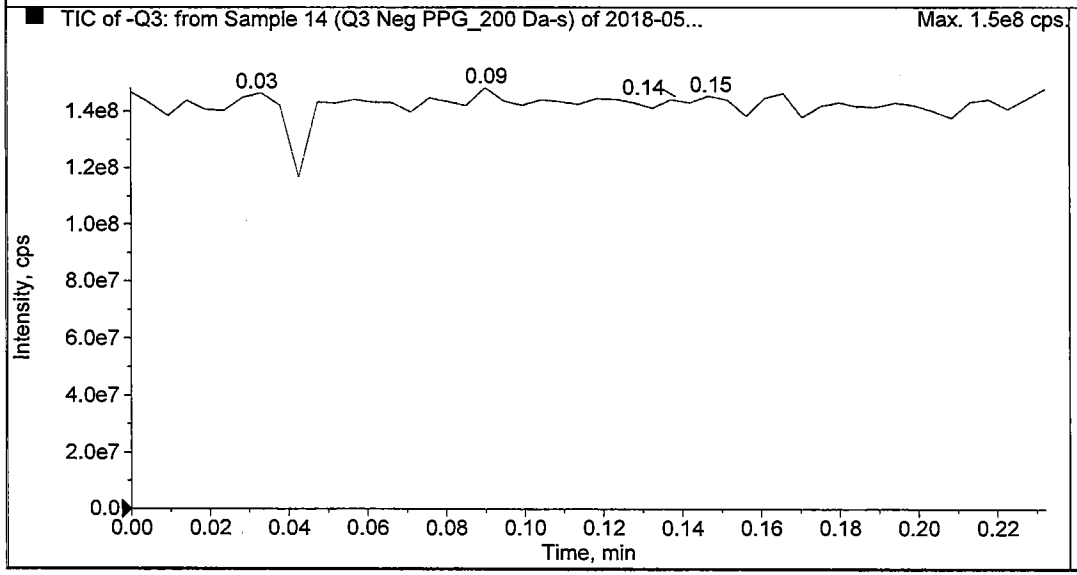
Mass Spectrometer Method Properties

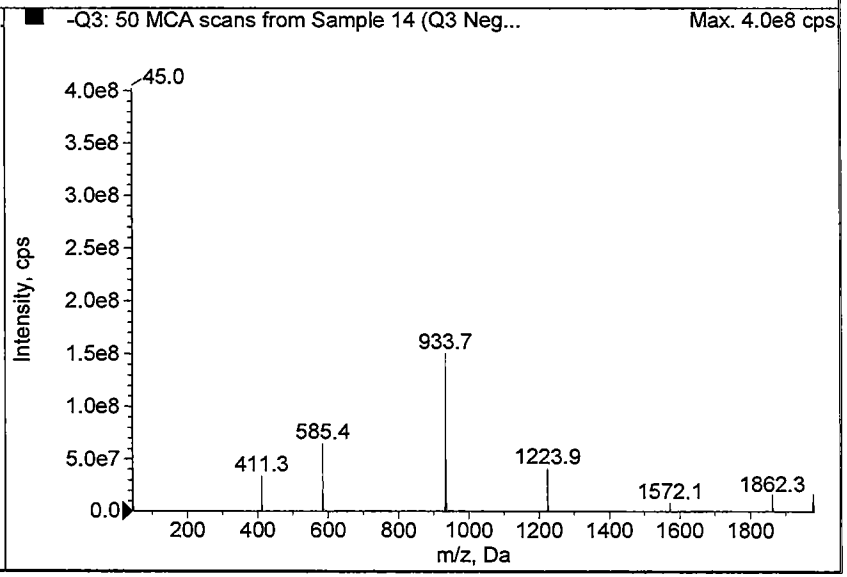
Period 1:

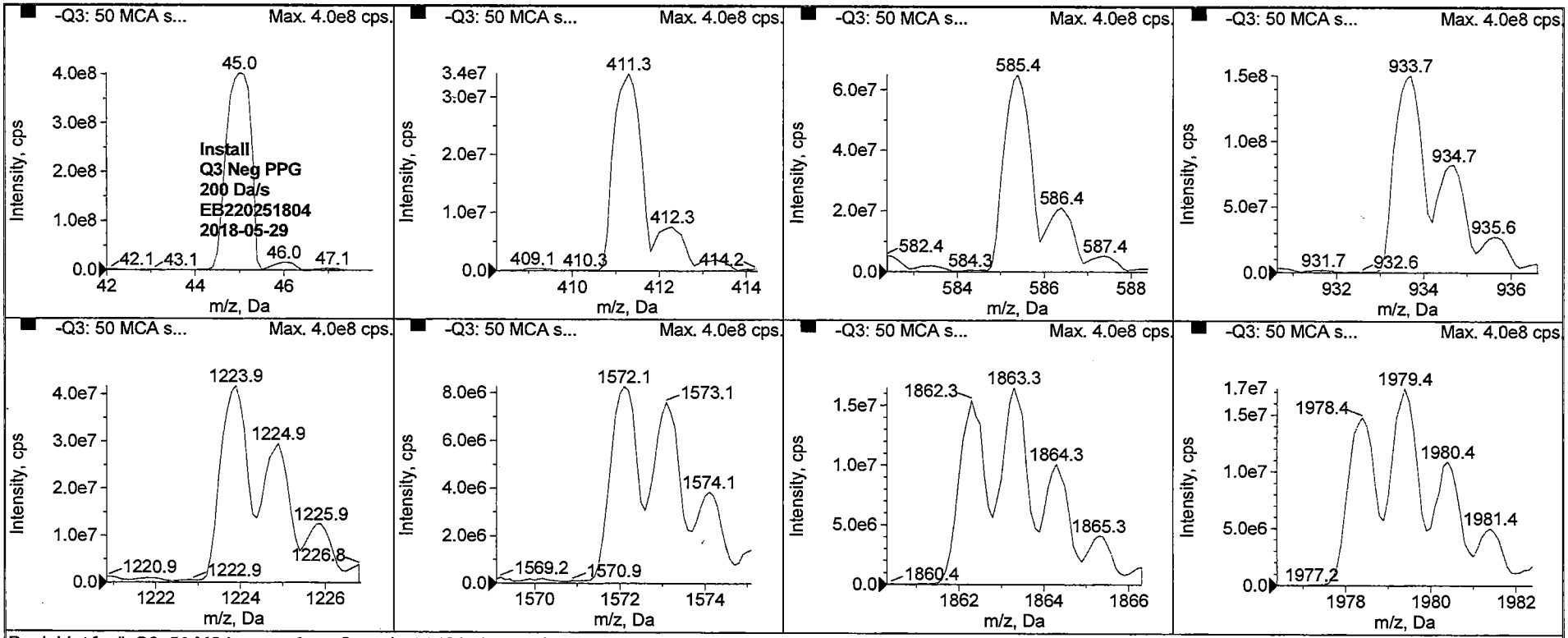
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

Period 1 Experiment 1:

Scan Type:	Q3 MS (Q3)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit







Peak List for "-Q3: 50 MCA scans from Sample 14 (Q3 Neg PPG_200 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9962	4.0241e8	0.6638	1.8369e-3
2	411.2590	411.2556	3.4052e7	0.7417	3.4492e-3
3	585.3850	585.3842	6.5036e7	0.7136	7.7195e-4
4	933.6360	933.6363	1.5056e8	0.7374	-3.0811e-4
5	1223.8450	1223.8530	4.1810e7	0.7279	-7.9656e-3
6	1572.0970	1572.1021	8.2680e6	0.7241	-5.0694e-3
7	1863.3060	1863.3199	1.6482e7	0.6755	-0.0139
8	1979.3890	1979.3879	1.7328e7	0.7116	1.1118e-3

State Parameter Editor

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Curtain Gas (CUR):	10.0
IonSpray Voltage (IS):	-4500.0
Temperature (TEM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Entrance Potential (EP):	-10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	-1.5
CEM (CEM):	1900.0

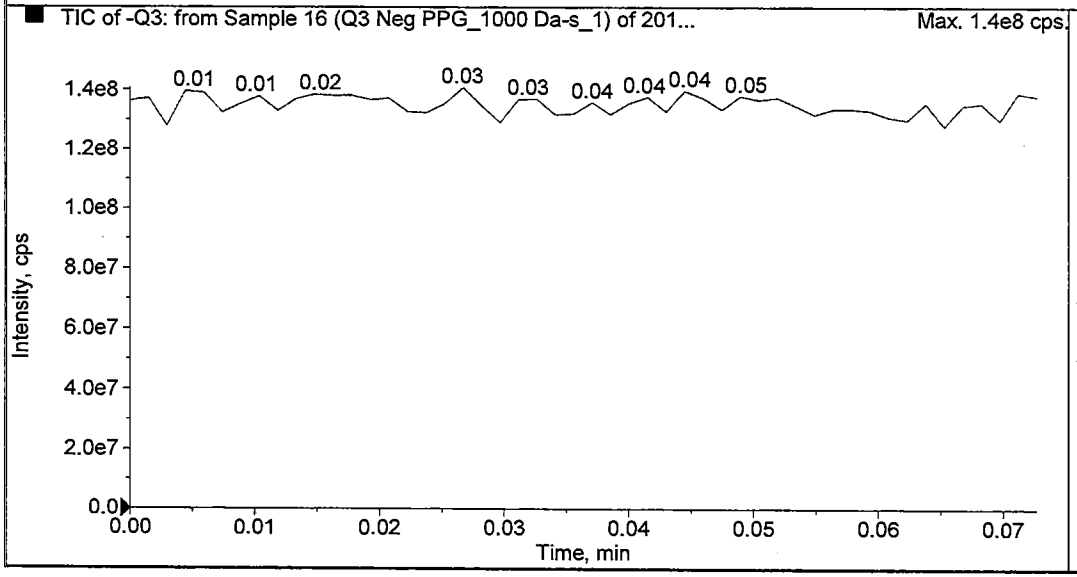
Mass Spectrometer Method Properties

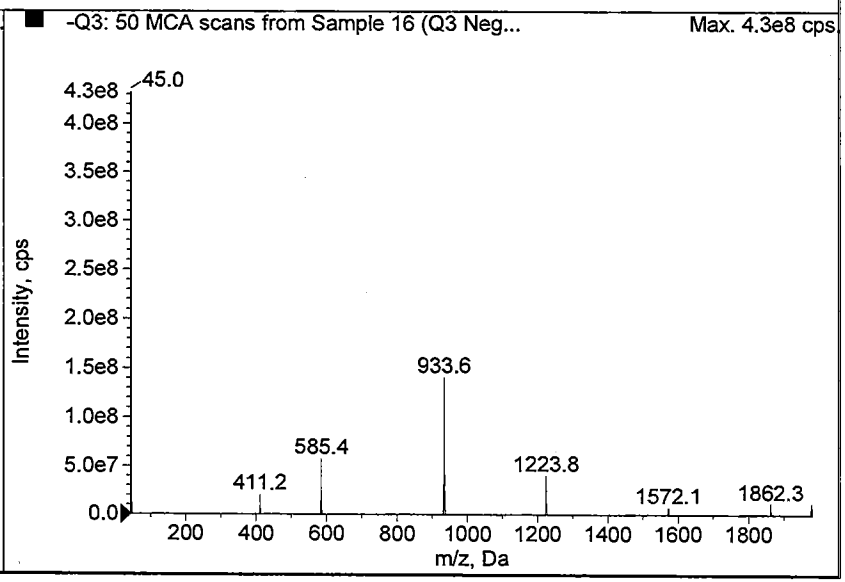
Period 1:

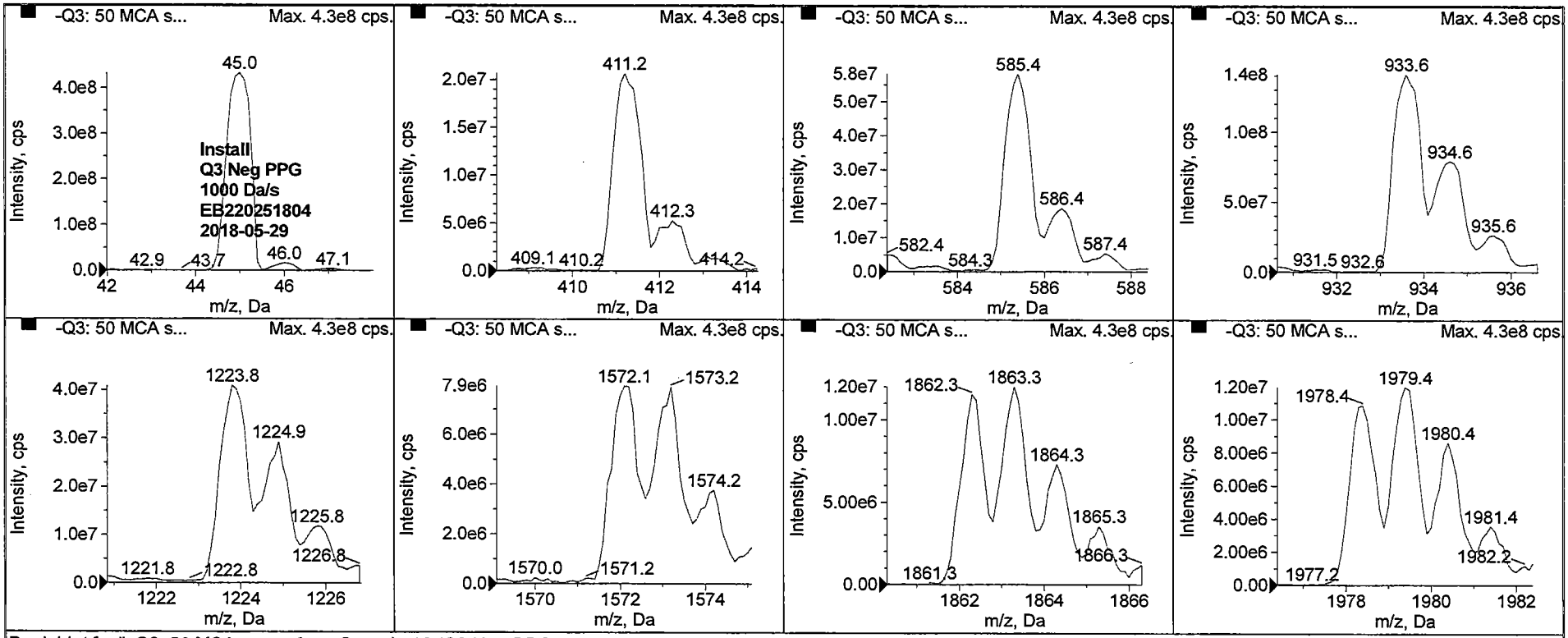
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1

Period 1 Experiment 1:

Scan Type:	Q3 MS (Q3)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit







Peak List for "-Q3: 50 MCA scans from Sample 16 (Q3 Neg PPG_1000 Da-s_1) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9825	4.3310e8	0.6384	0.0155
2	411.2590	411.2576	2.0660e7	0.7352	1.4357e-3
3	585.3850	585.3827	5.8190e7	0.6719	2.2702e-3
4	933.6360	933.6150	1.4107e8	0.7226	0.0210
5	1223.8450	1223.8394	4.0960e7	0.7336	5.6019e-3
6	1572.0970	1572.1001	7.9400e6	0.7950	-3.0523e-3
7	1863.3060	1863.2902	1.2010e7	0.6806	0.0158
8	1979.3890	1979.4012	1.1960e7	0.7138	-0.0122

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 10.0
IonSpray Voltage (IS): -4500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Entrance Potential (EP): -10.0

Q3 Resolution: Unit
Ion Energy 3 (IE3): -1.5

CEM (CEM): 1900.0

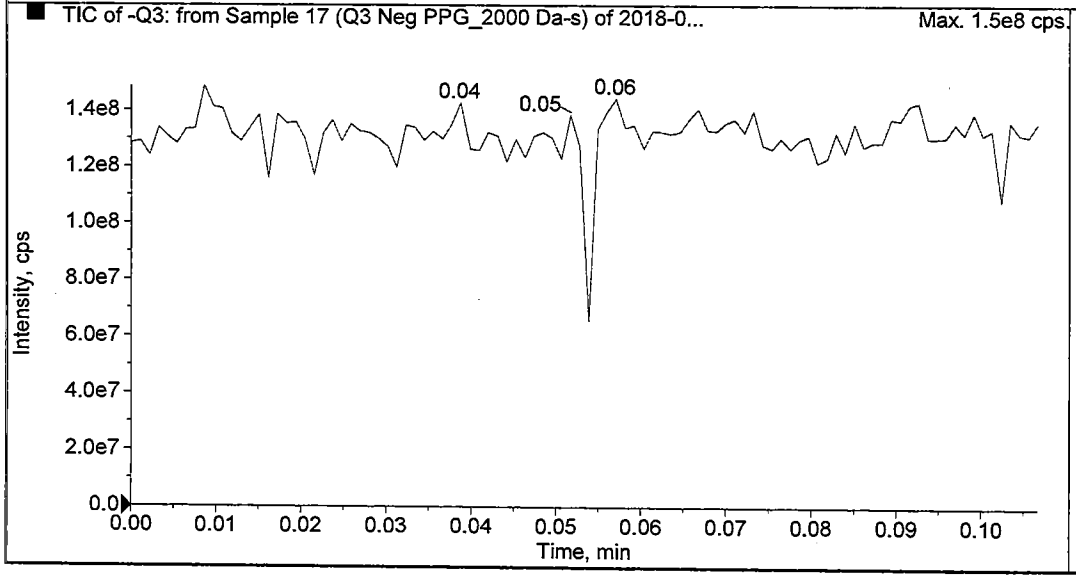
Mass Spectrometer Method Properties

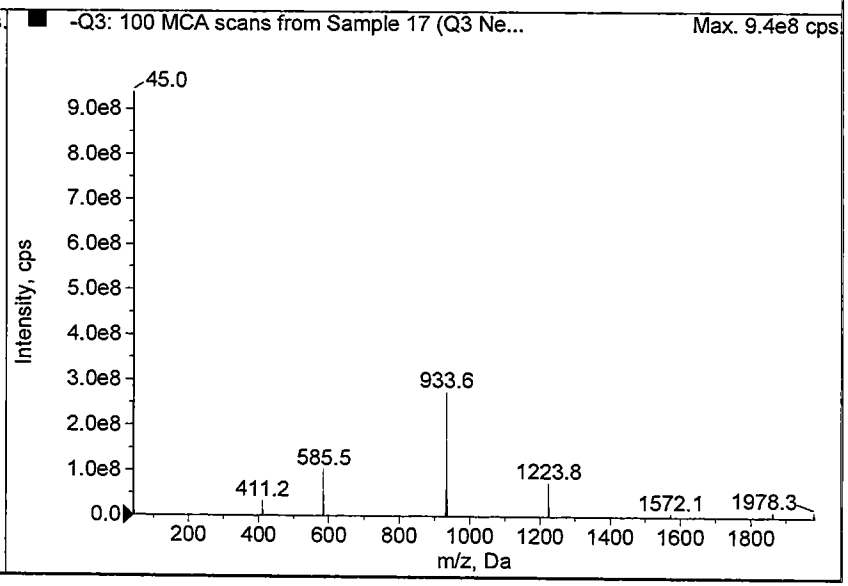
Period 1:

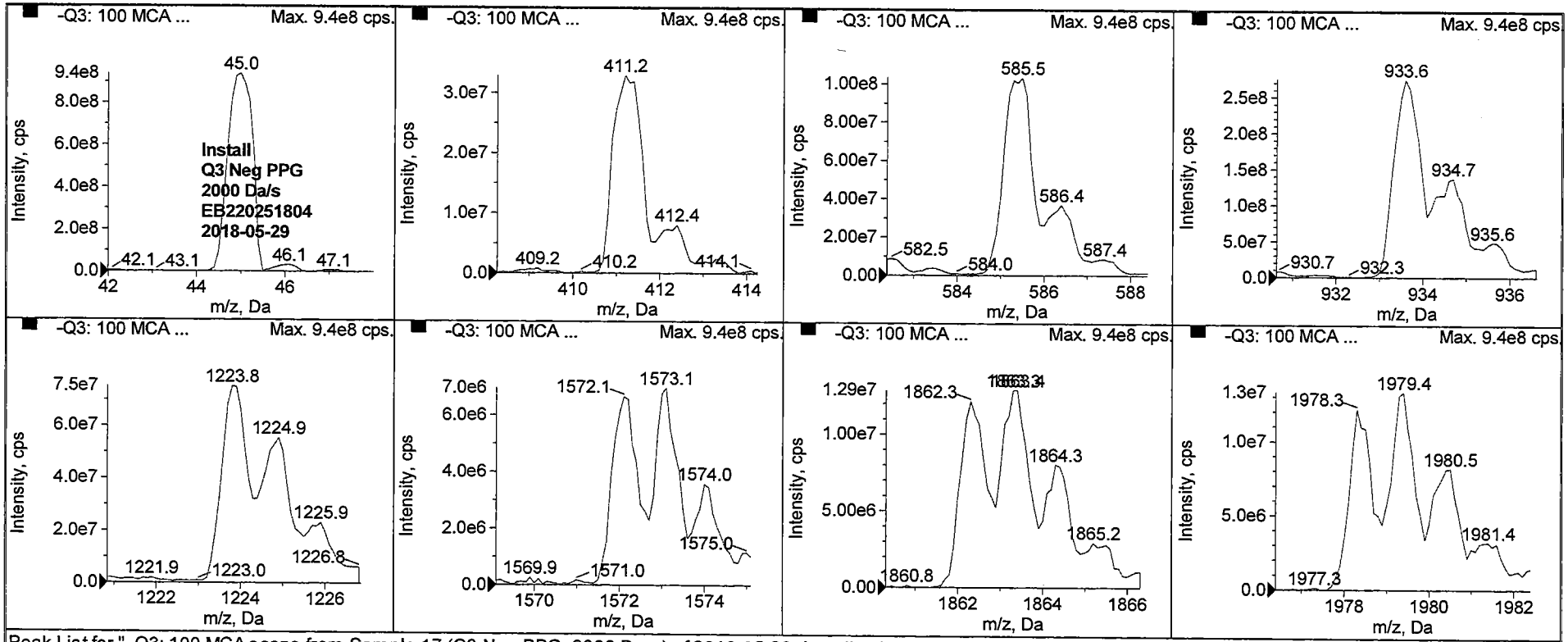
Scans in Period: 100
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q3 MS (Q3)
Polarity: Negative
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q3: Unit







Peak List for "-Q3: 100 MCA scans from Sample 17 (Q3 Neg PPG_2000 Da-s) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9950	9.3786e8	0.6643	2.9882e-3
2	411.2590	411.2370	3.2920e7	0.7732	0.0220
3	585.3850	585.3850	1.0332e8	0.6994	-4.8105e-6
4	933.6360	933.6288	2.7486e8	0.7105	7.2155e-3
5	1223.8450	1223.8546	7.5140e7	0.6946	-9.5568e-3
6	1572.0970	1572.1115	6.6600e6	0.6890	-0.0145
7	1863.3060	1863.3250	1.2880e7	0.7704	-0.0190
8	1979.3890	1979.3741	1.3320e7	0.6259	0.0149

Sate Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 28.0
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Declustering Potential (DP): 135.0
Entrance Potential (EP): 10.0

Q1 Resolution: Unit
Ion Energy 1 (IE1): 1.2

CEM (CEM): 1800.0

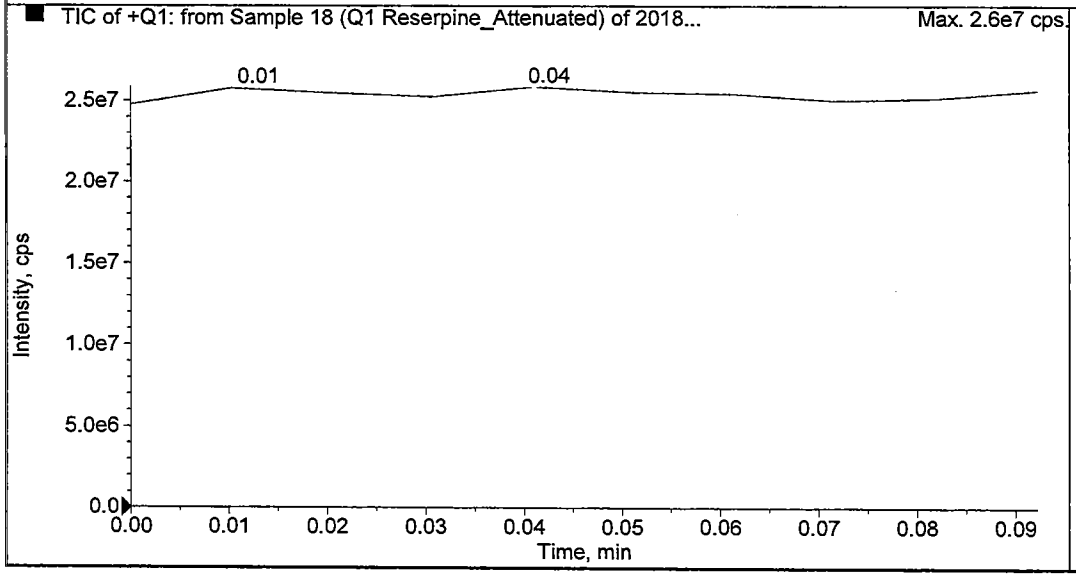
Mass Spectrometer Method Properties

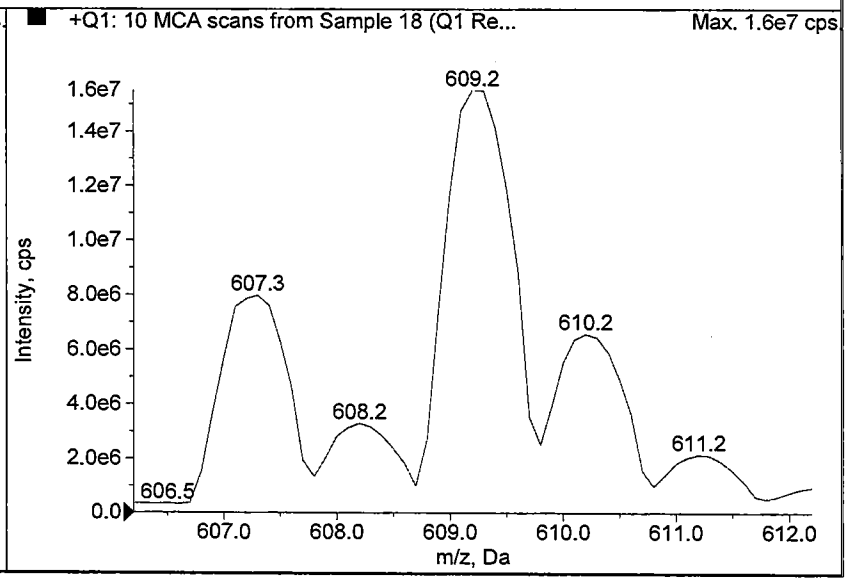
Period 1:

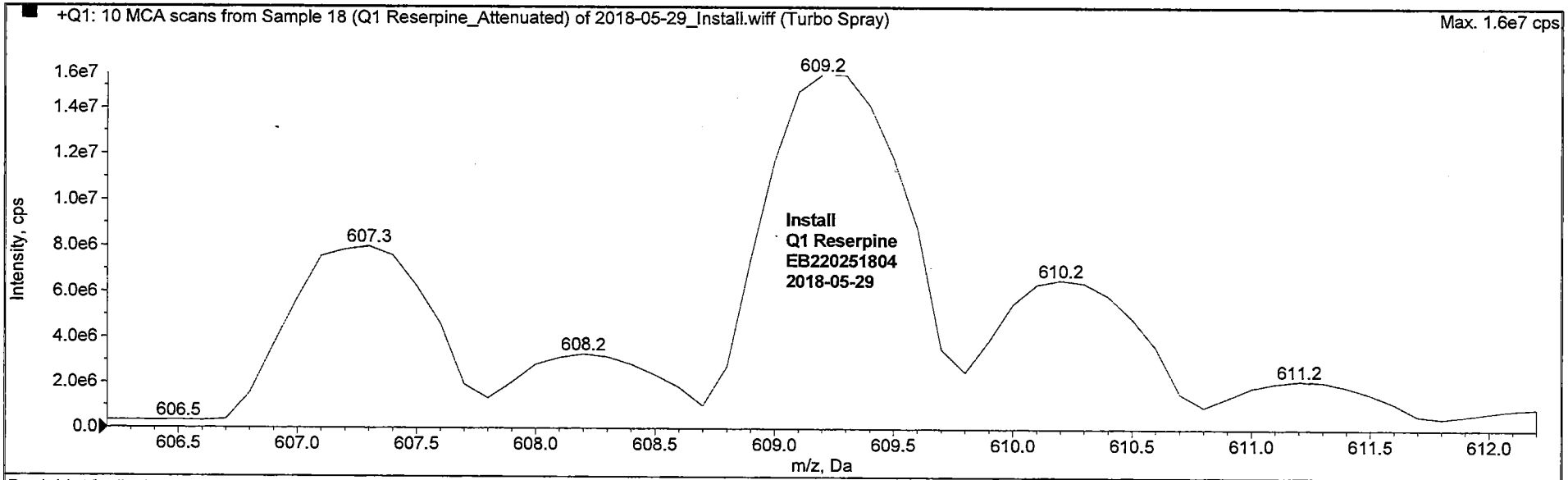
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Q1 MS (Q1)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Resolution Q1: Unit







Peak List for " +Q1: 10 MCA scans from Sample 18 (Q1 Reserpine_Attenuated) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	195.1000	n/a	n/a	n/a	n/a
2	609.2810	609.2580	1.5520e7	0.7138	0.0230

State Parameter Editor

Ion Source: Turbo Spray
Ion Source Temperature Reached
Curtain Gas (CUR): 28.0
Collision Gas (CAD): 9
IonSpray Voltage (IS): 5500.0
Temperature (TEM): 0.0
Ion Source Gas 1 (GS1): 17.0
Ion Source Gas 2 (GS2): 0.0

Declustering Potential (DP): 135.0
Entrance Potential (EP): 10.0
Collision Energy (CE): 44.5
Collision Cell Exit Potential (CXP): 6.2

Q1 Resolution: Unit Q3 Resolution: Unit
Ion Energy 1 (IE1): 1.2

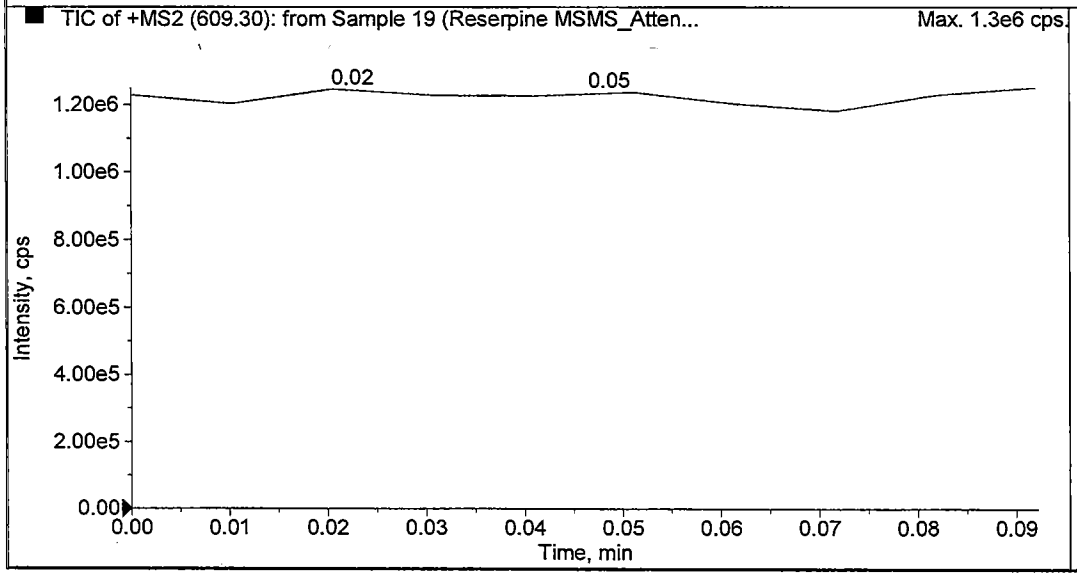
Mass Spectrometer Method Properties

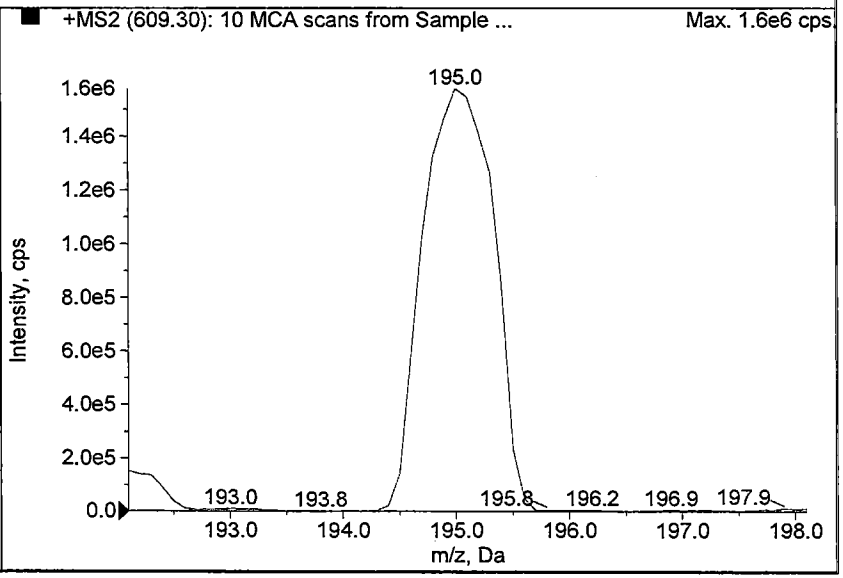
Period 1:

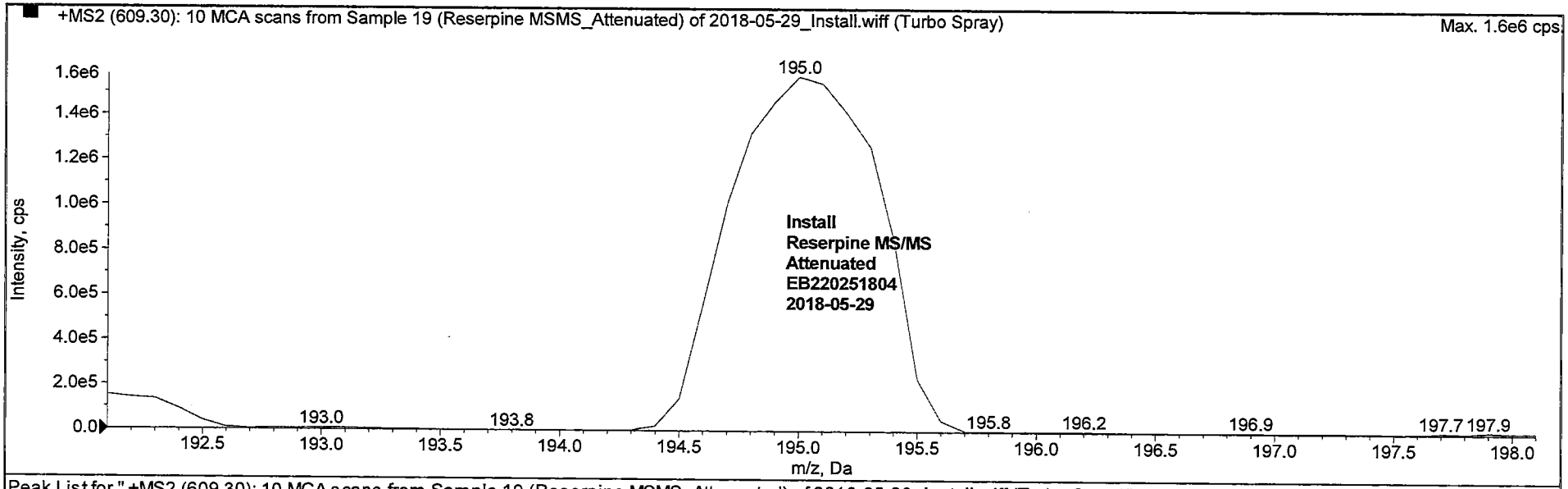
Scans in Period: 10
Relative Start Time: 0.00 msec
Scheduled Ionization: Off
Experiments in Period: 1

Period 1 Experiment 1:

Scan Type: Product Ion (MS2)
Polarity: Positive
Scan Mode: Profile
Ion Source: Turbo Spray
Scans to Sum: 1
Product Of: 609.30 Da







Peak List for "+MS2 (609.30): 10 MCA scans from Sample 19 (Reserpine MSMS_Attenuated) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	195.1000	195.0306	1.5772e6	0.7615	0.0694
2	609.2810	n/a	n/a	n/a	n/a

Raw QC Data

PFAS by LC/MS/MS

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK311004			**Data File:**		18NOV08D-88.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311004			**Acquis Date:**		2018-11-09T00:53:31
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	29			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311004			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	896330.7	728839.7	23	50	
13C2-PFOA	5.0	611088.1	491983.1	24	50	
13C4-PFOS	4.8	350046.5	255568.1	37	50	
13C2-PFDA	5.0	385799.5	315407.5	22	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	691646.8	13C3-PFBA	896330.7	0.772	10.000	7.142	71	50-150	
E13C5-PFPeA	727029.0	13C3-PFBA	896330.7	0.811	10.000	7.067	71	50-150	
E13C3-PFBS	355533.3	13C3-PFBA	896330.7	0.397	9.300	5.822	63	50-150	
E13C2-4:2-FTS	46555.3	13C2-PFOA	611088.1	0.076	9.340	6.875	74	50-150	
E13C5-PFHxA	598683.6	13C2-PFOA	611088.1	0.980	10.000	7.208	72	50-150	
E13C3-PFHxS	286358.1	13C2-PFOA	611088.1	0.469	9.460	6.728	71	50-150	
E13C4-PFHpA	462963.1	13C2-PFOA	611088.1	0.758	10.000	6.893	69	50-150	
E13C2-6:2-FTS	30191.7	13C2-PFOA	611088.1	0.049	9.500	6.589	69	50-150	
E13C8-PFOA	813053.6	13C2-PFOA	611088.1	1.331	10.000	7.421	74	50-150	
E13C8-PFOS	257738.8	13C4-PFOS	350046.5	0.736	9.560	6.512	68	50-150	
E13C9-PFNA	433281.5	13C4-PFOS	350046.5	1.238	10.000	6.762	68	50-150	
E13C6-PFDA	549439.6	13C2-PFDA	385799.5	1.424	10.000	7.163	72	50-150	
E13C2-8:2-FTS	20533.5	13C2-PFDA	385799.5	0.053	9.580	5.633	59	50-150	
E13C8-PFOSA	620659.9	13C2-PFDA	385799.5	1.609	10.000	7.021	70	50-150	
Ed3-NMeFOSAA	74733.6	13C2-PFDA	385799.5	0.194	10.000	7.204	72	50-150	
E13C7-PFUnDA	257410.6	13C2-PFDA	385799.5	0.667	10.000	7.698	77	50-150	
Ed5-NEtFOSAA	55117.7	13C2-PFDA	385799.5	0.143	10.000	6.612	66	50-150	
E13C2-PFDoDA	492972.3	13C2-PFDA	385799.5	1.278	10.000	6.889	69	50-150	
Ed7-NMePFOSAE	301531.0	13C2-PFDA	385799.5	0.782	10.000	7.269	73	50-150	
Ed3-NMePFOSA	68351.0	13C2-PFDA	385799.5	0.177	10.000	6.487	65	50-150	
Ed9-NEtPFOSAE	247133.5	13C2-PFDA	385799.5	0.641	10.000	7.316	73	50-150	
Ed5-NEtPFOSA	60591.0	13C2-PFDA	385799.5	0.157	10.000	7.273	73	50-150	
E13C2-PFTeDA	334763.8	13C2-PFDA	385799.5	0.868	10.000	6.248	62	50-150	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

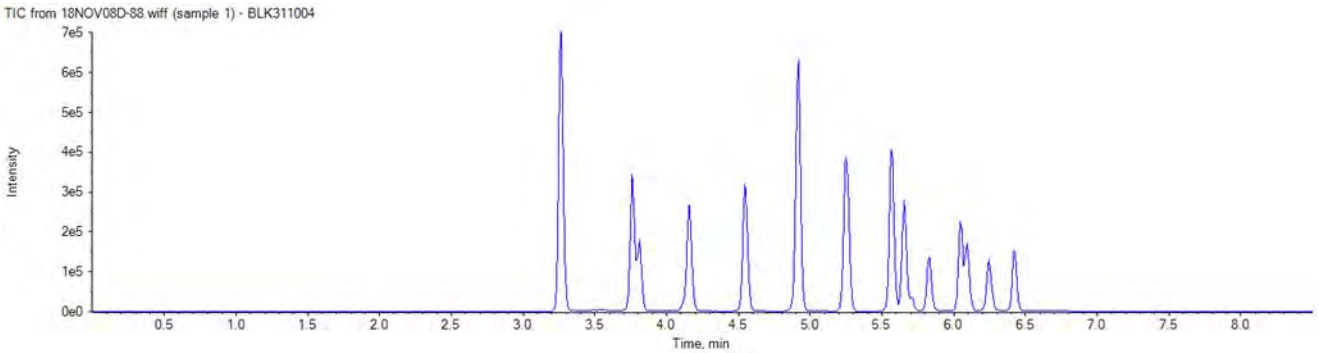
Analyte Quantitation Peak Table

Sample Name: BLK311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-88.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	691646.8	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	727029.0	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	355533.3	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	46555.3	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	598683.6	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	355533.3	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	286358.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	462963.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	30191.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	286358.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	813053.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	433281.5	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	549439.6	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	20533.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	620659.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	74733.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	257410.6	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	55117.7	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	492972.3	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	20533.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	301531.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	68351.0	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257738.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	247133.5	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	60591.0	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.05	492972.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	334763.8	N/A	

Total Ion Chromatogram

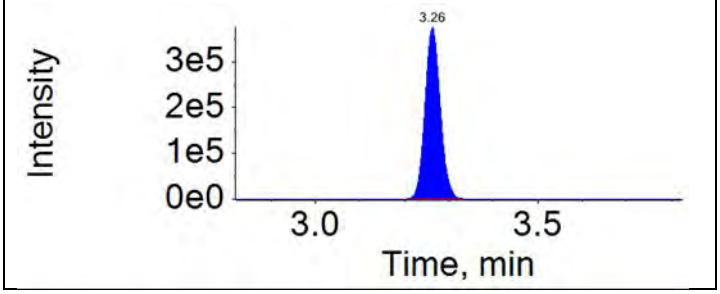


APPROVED
By JPT at 5:18 pm, 11/9/18

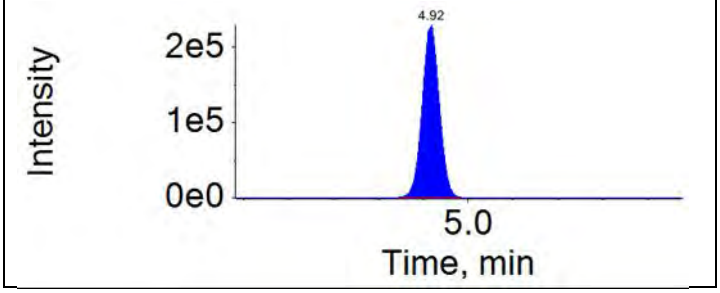
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

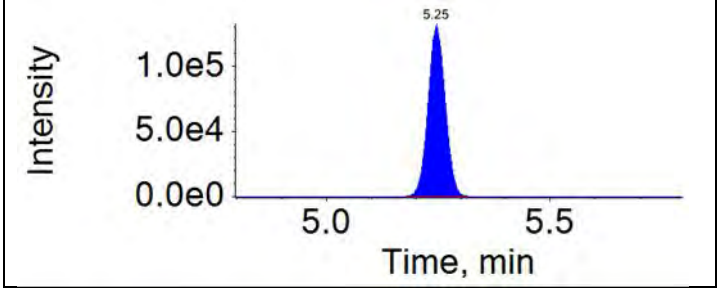
Injection Standard: 13C3-PFBA
216.0 / 172.0



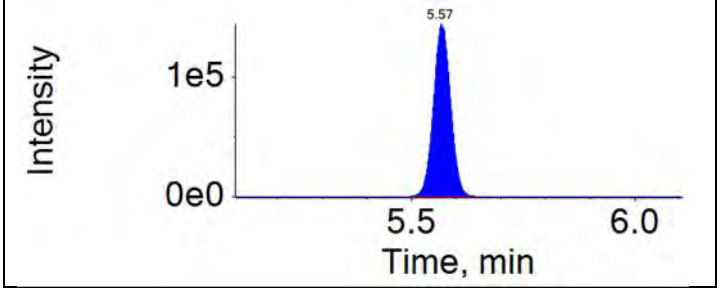
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

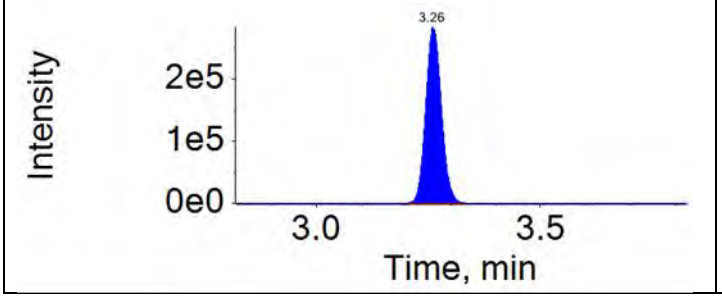


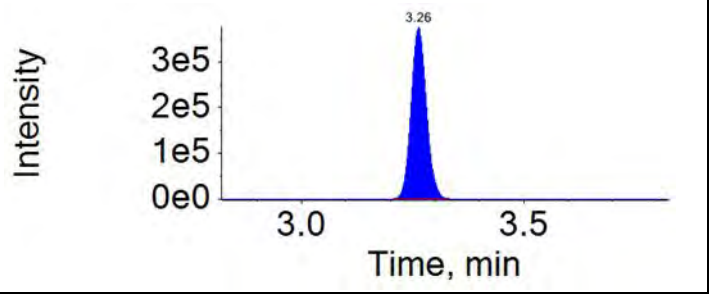
Injection Standard: 13C2-PFDA
515.0 / 470.0



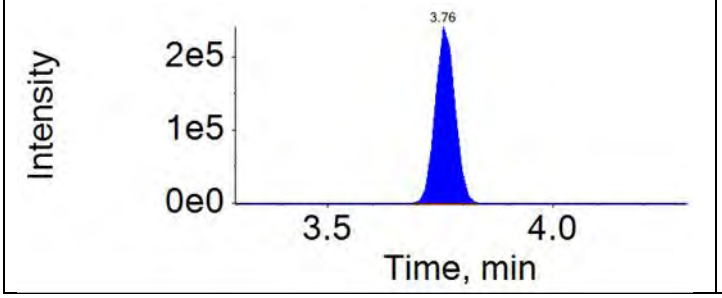
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

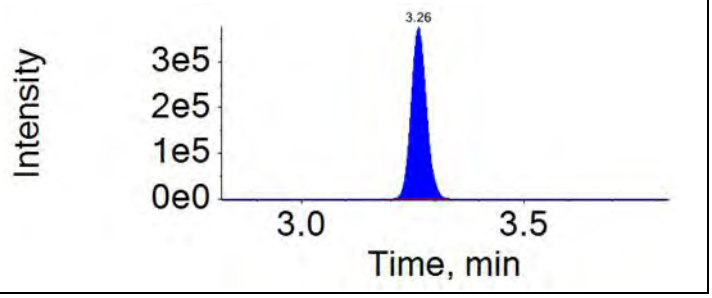
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



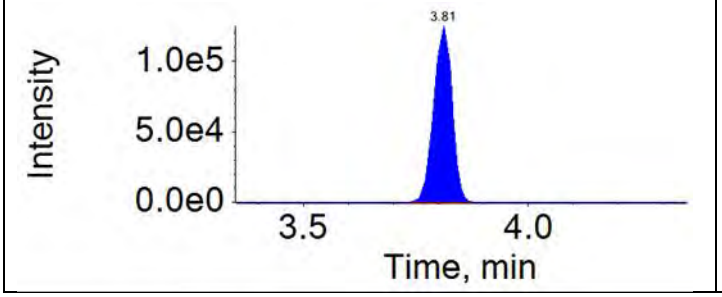


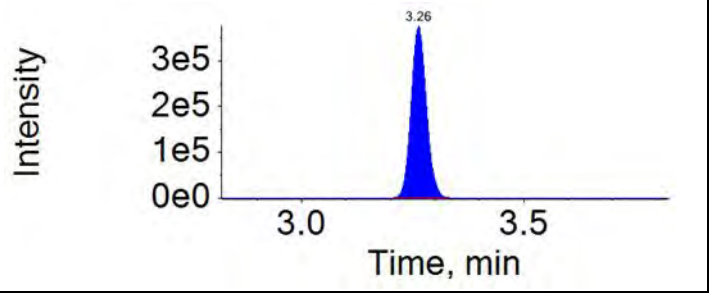
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



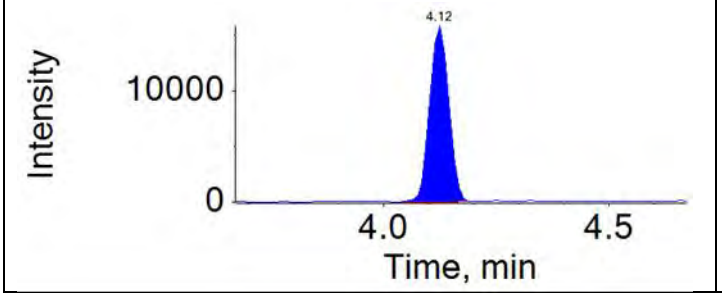


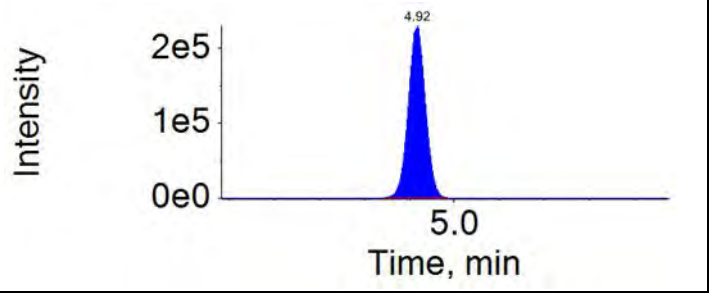
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



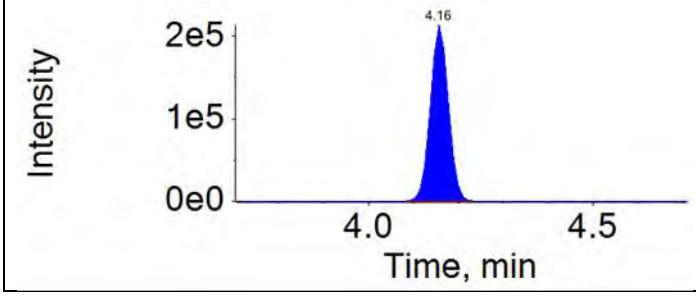


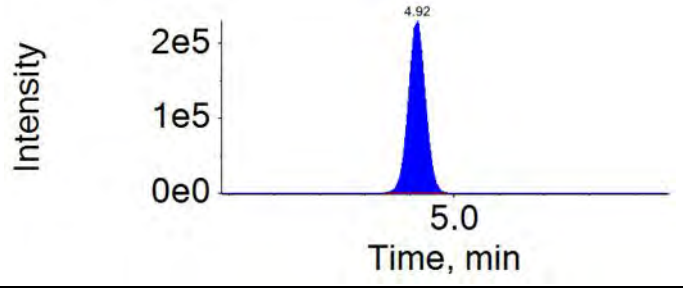
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

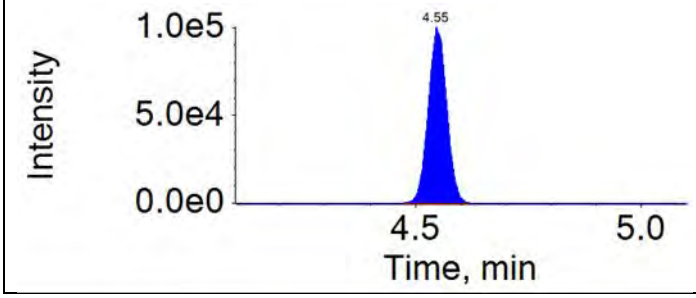
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

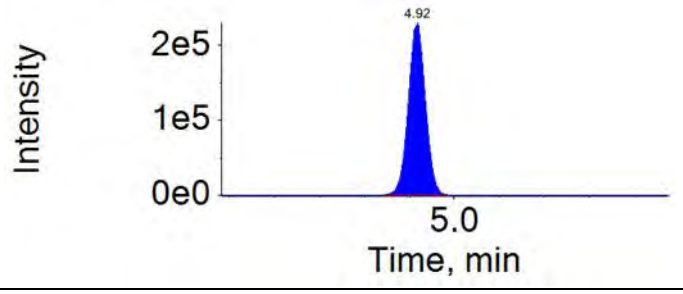
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



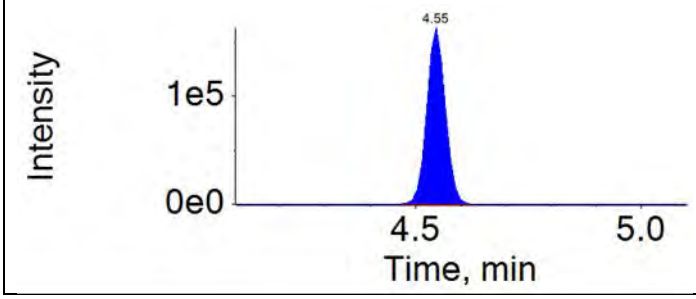


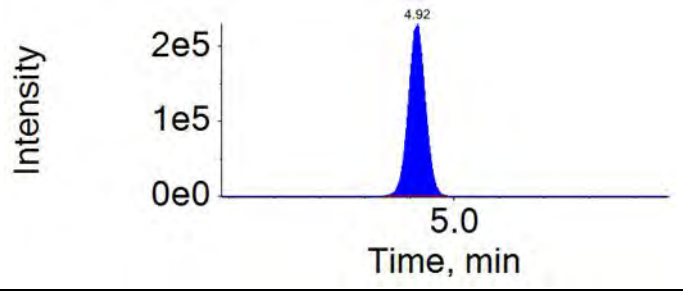
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



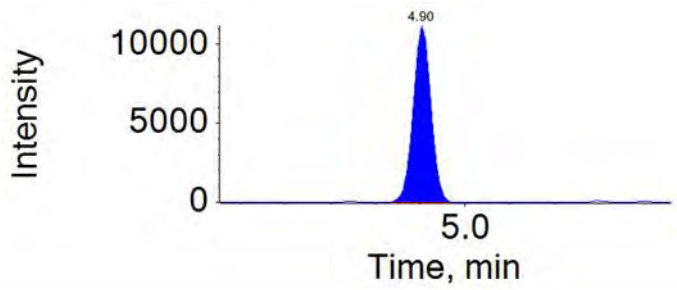


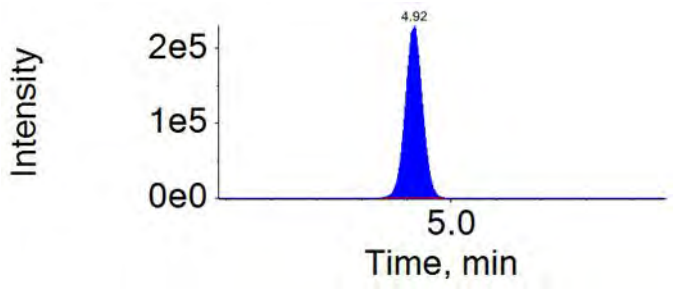
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

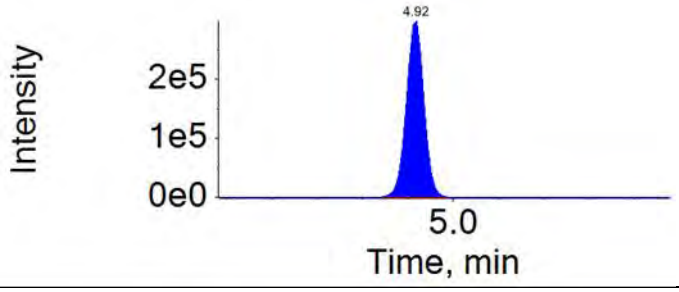
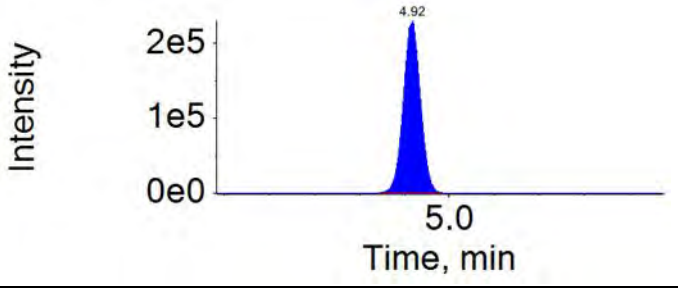


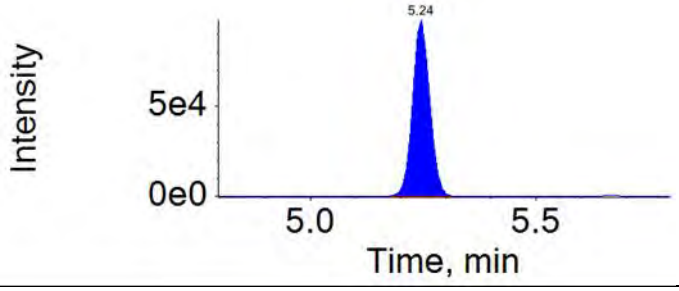
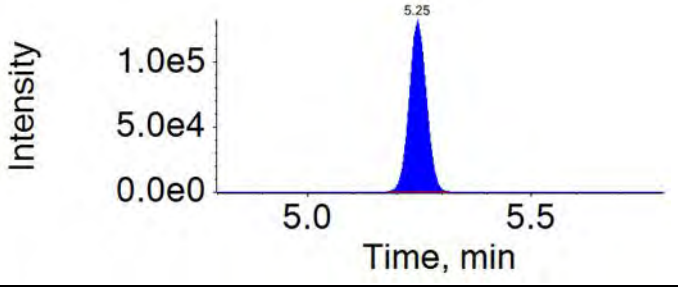


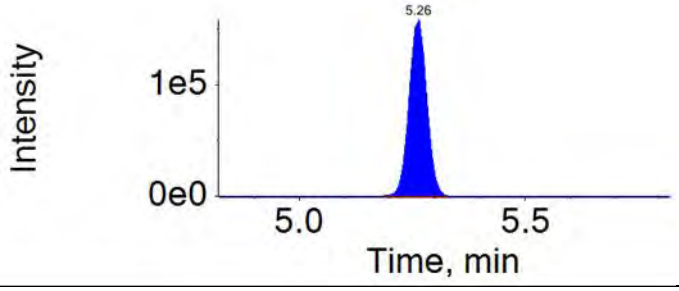
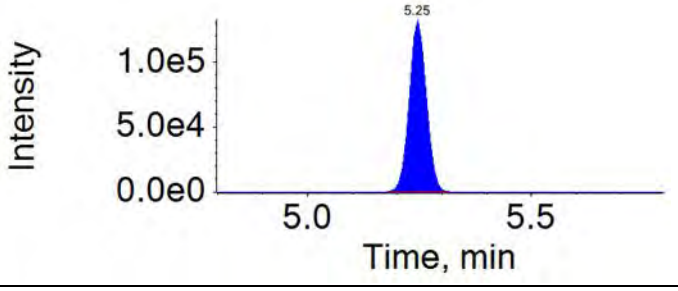
APPROVED
By JPT at 5:18 pm, 11/9/18

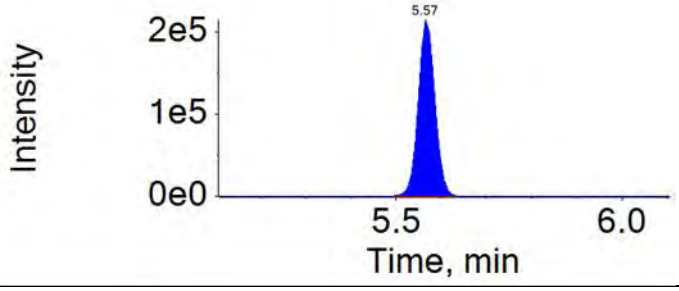
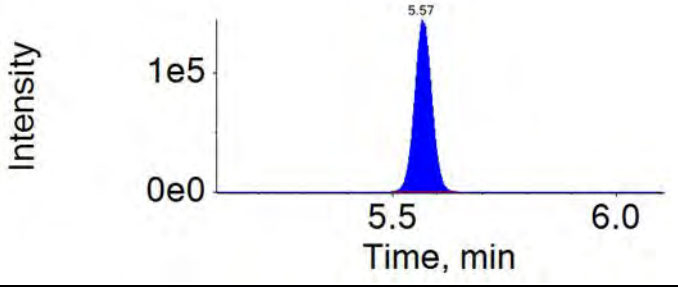
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

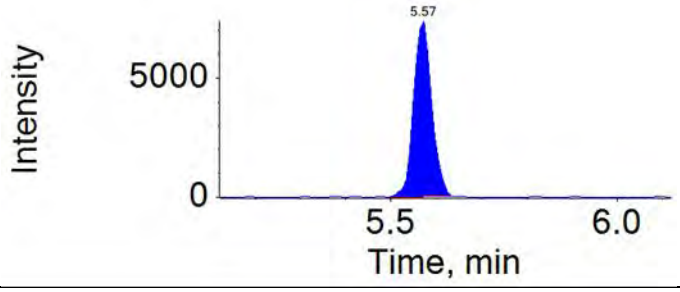
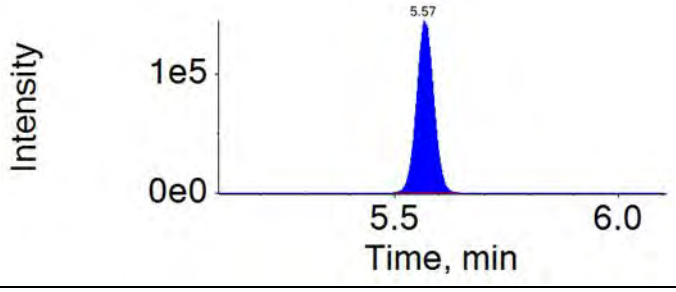
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

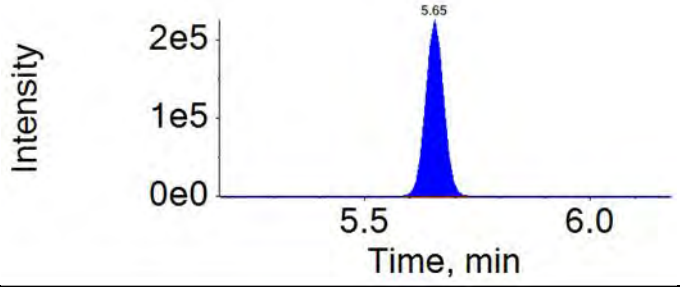
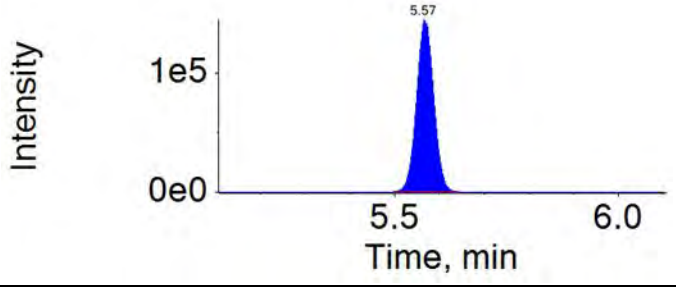
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

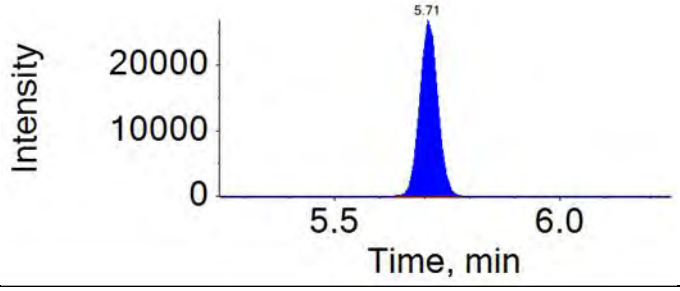
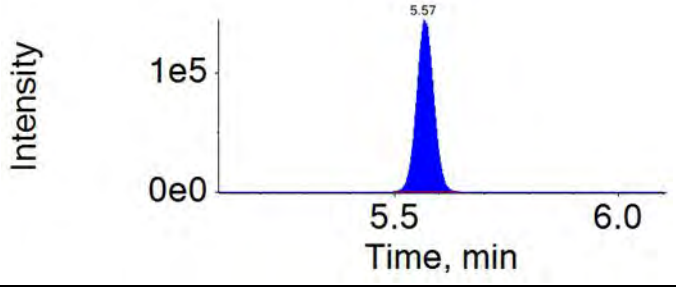
APPROVED
By JPT at 5:18 pm, 11/9/18

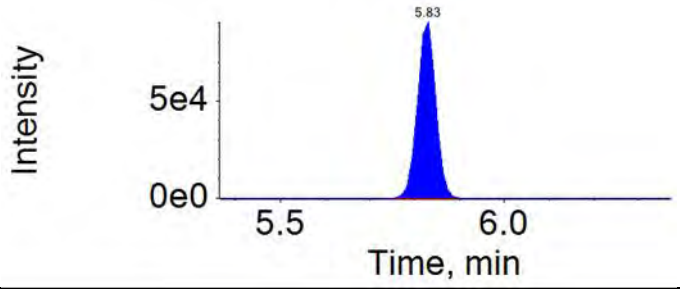
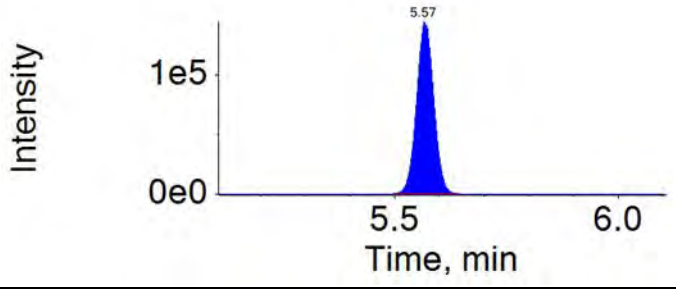
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

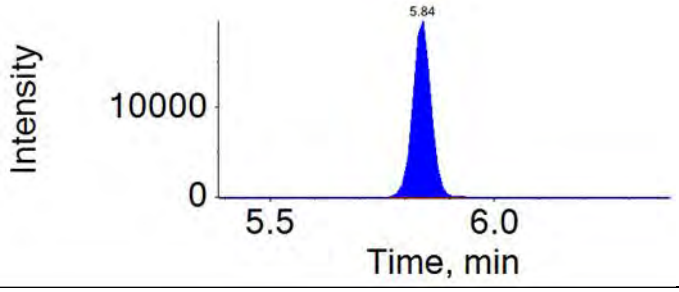
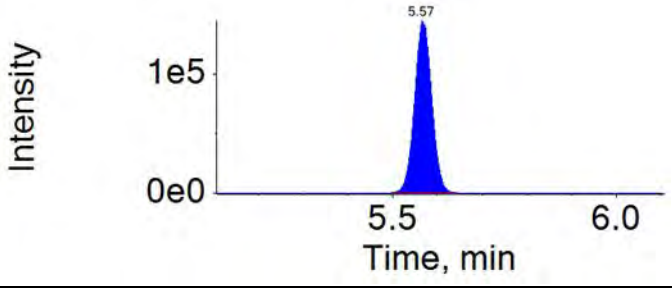
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

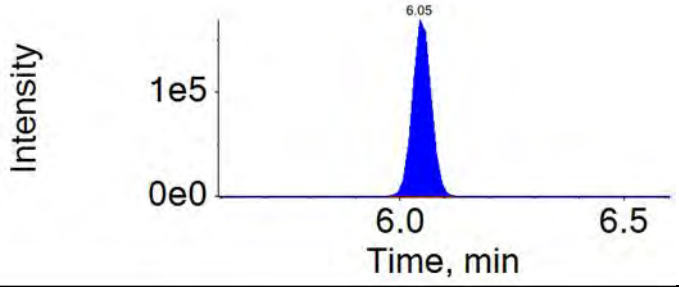
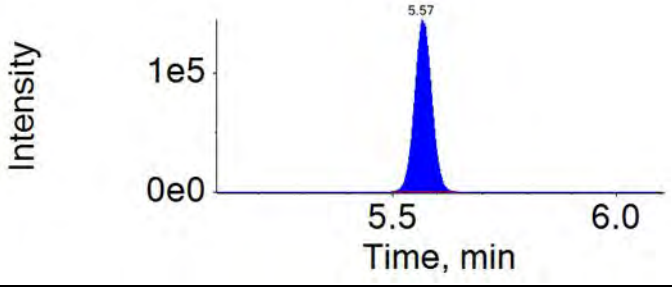
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

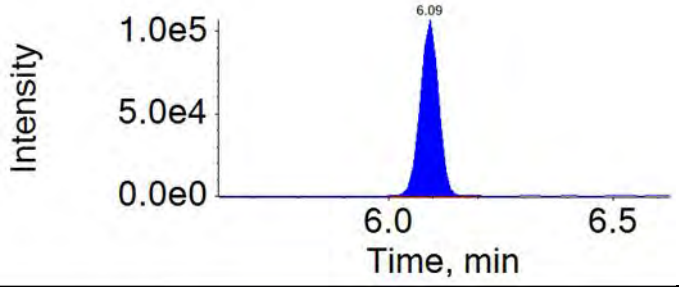
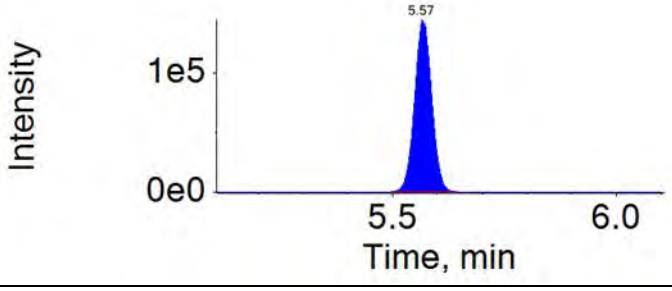
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

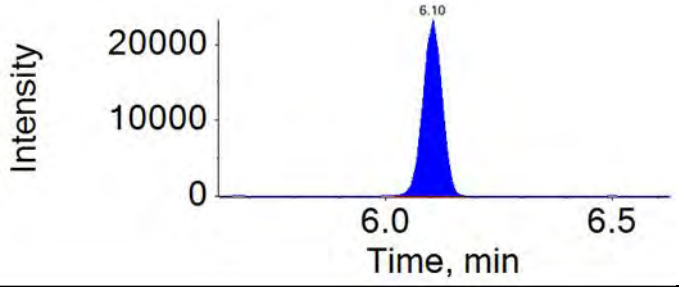
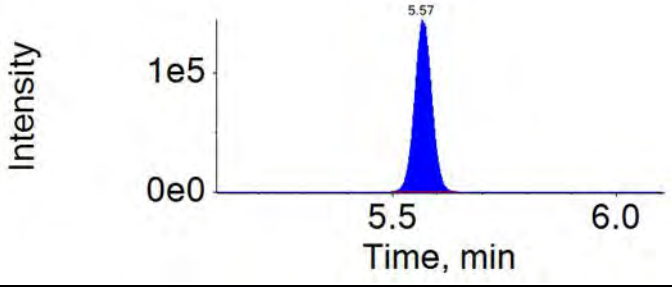
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

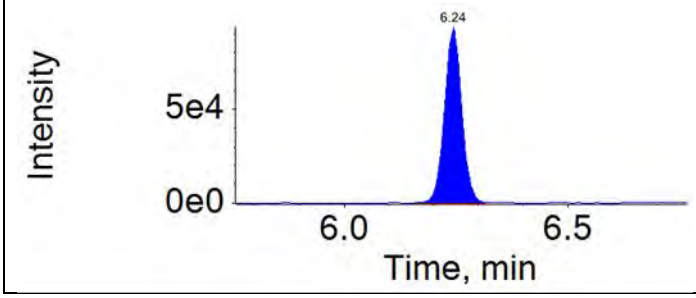
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

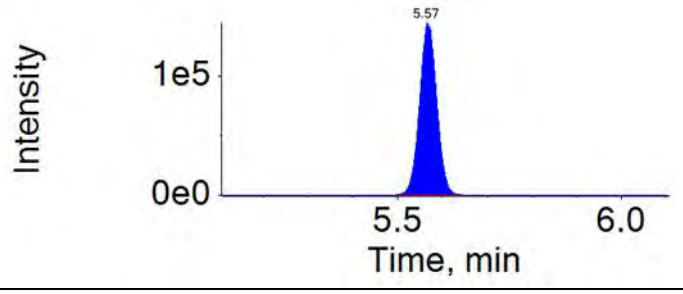
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

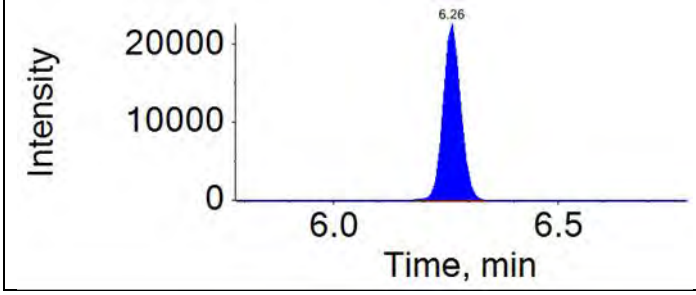
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

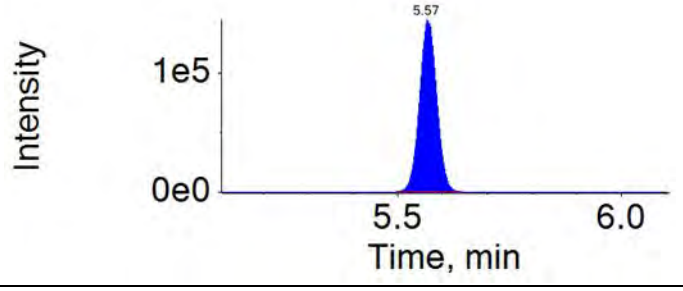
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



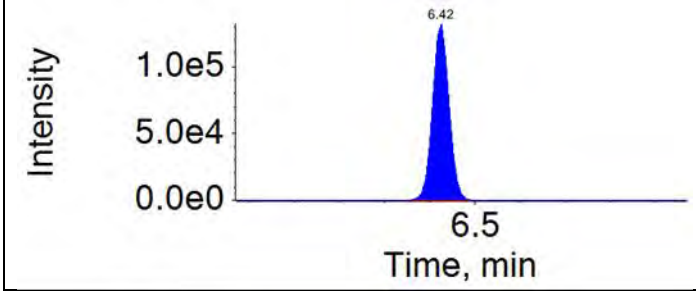


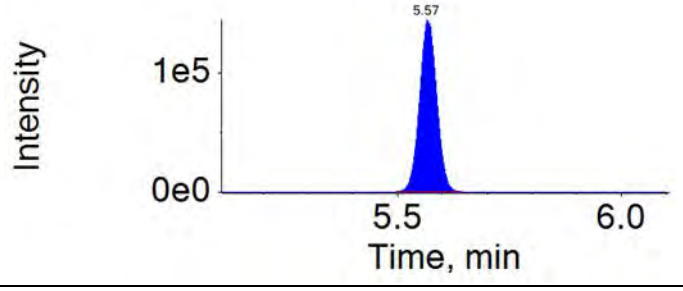
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



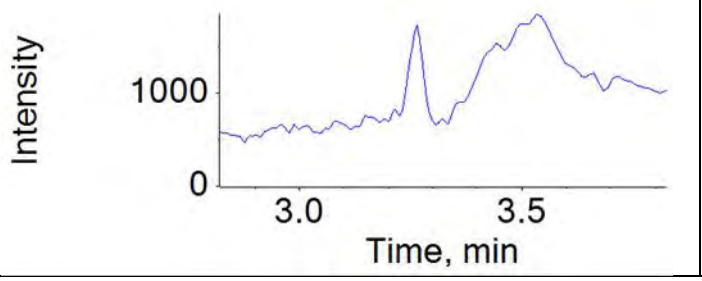


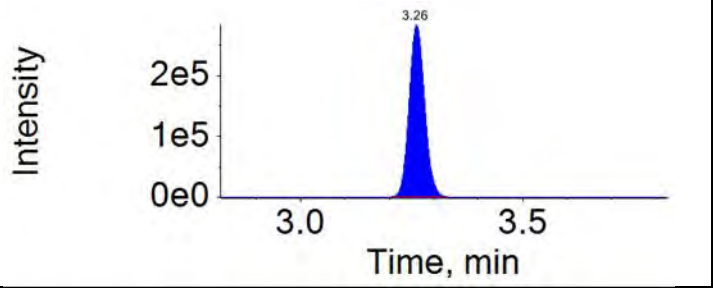
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

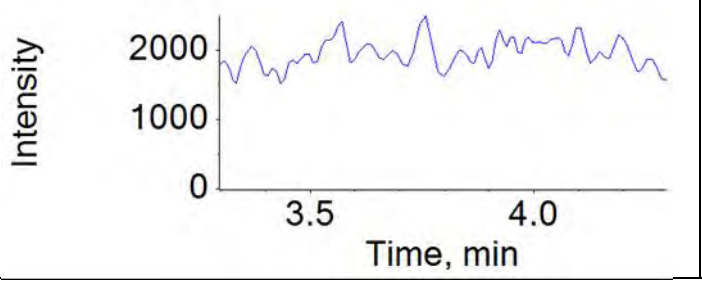
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

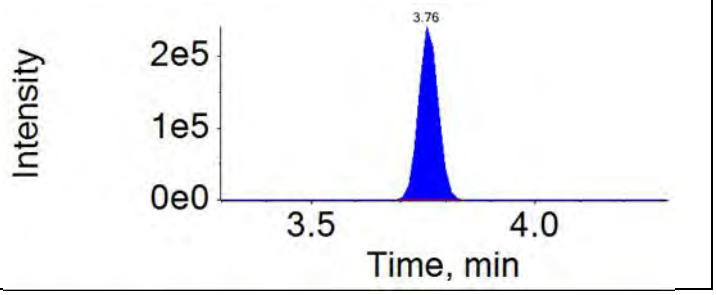
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



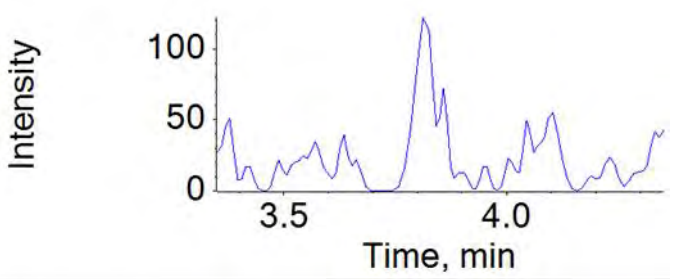


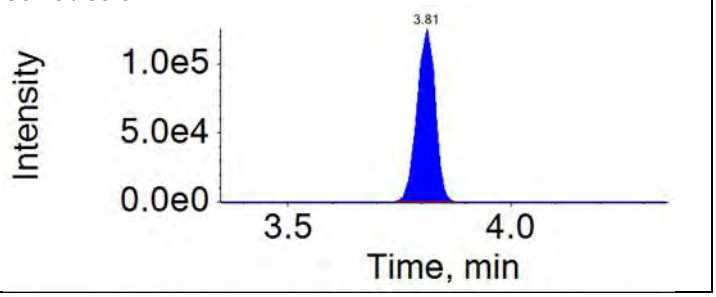
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



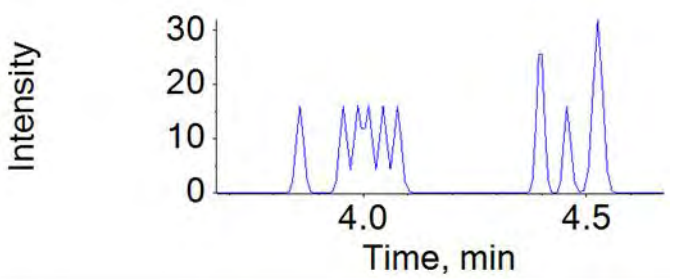


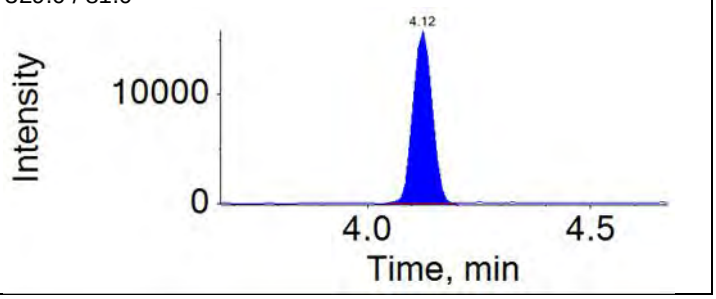
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



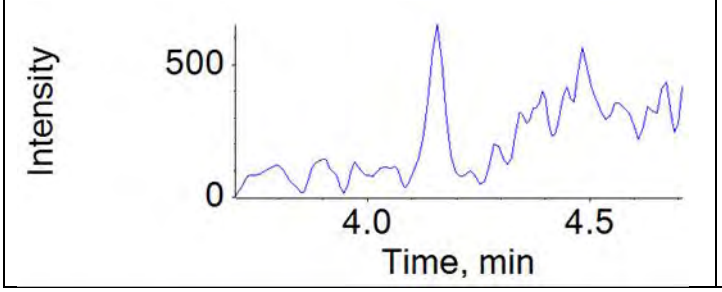


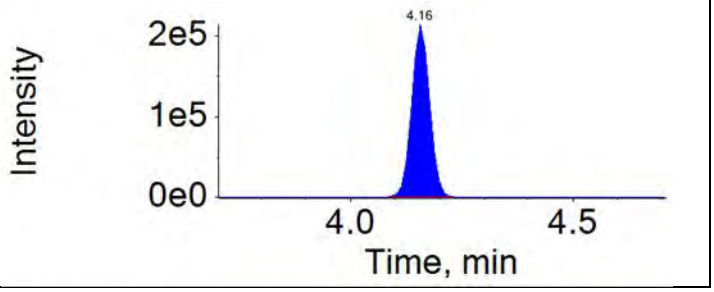
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

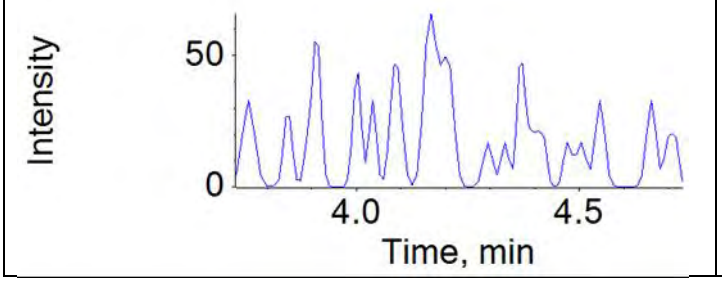
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

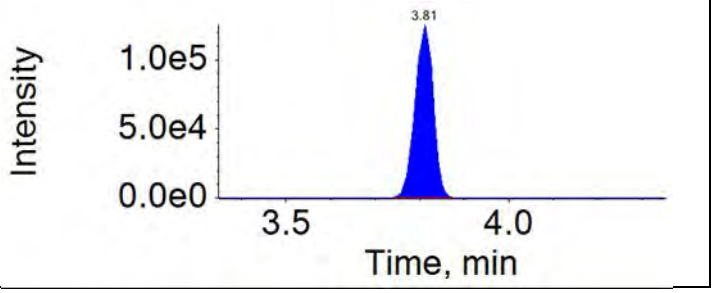
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



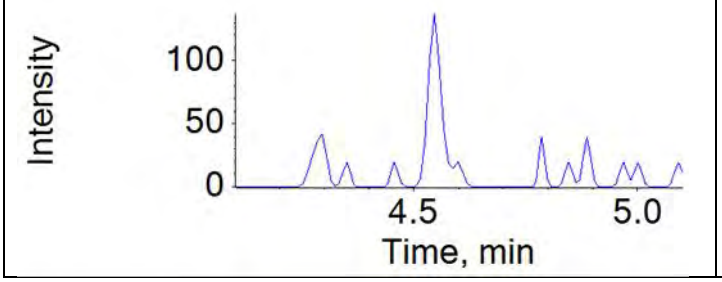


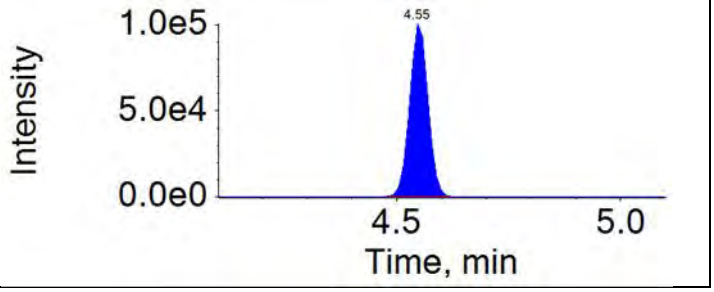
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



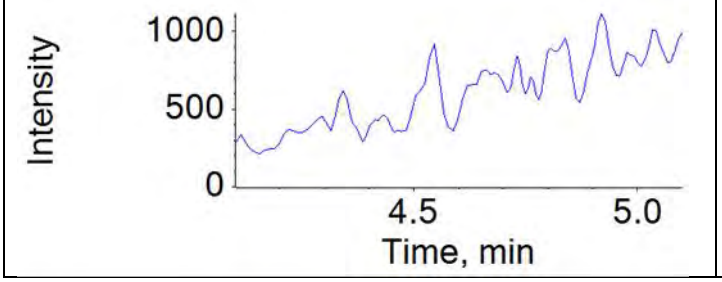


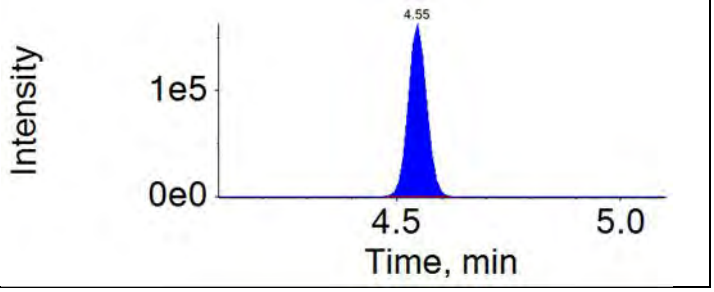
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





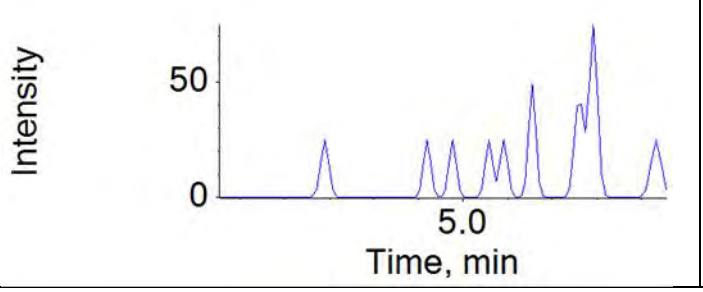
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

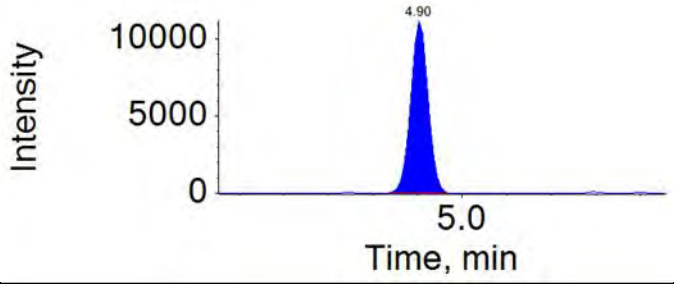




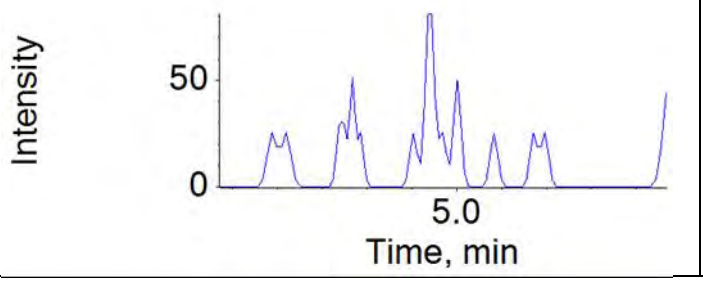
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

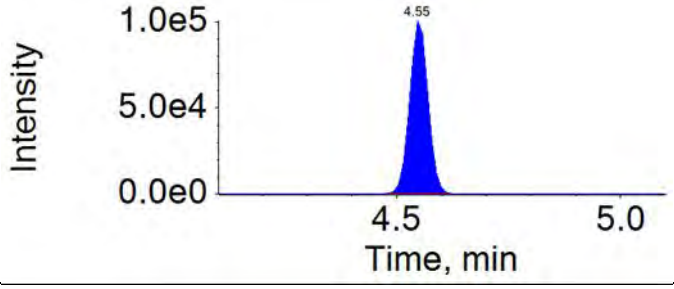
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



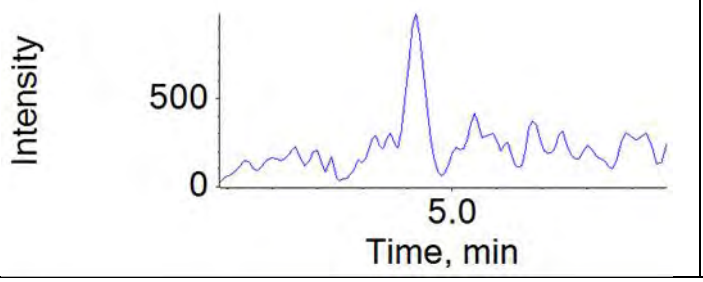


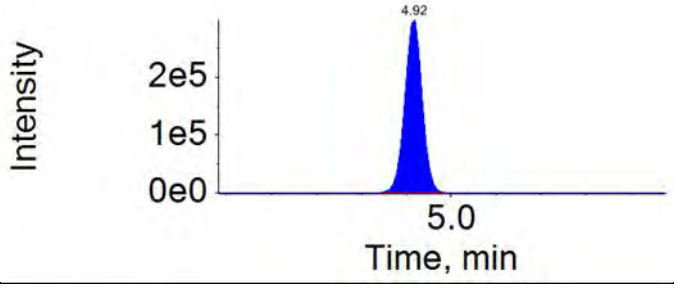
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



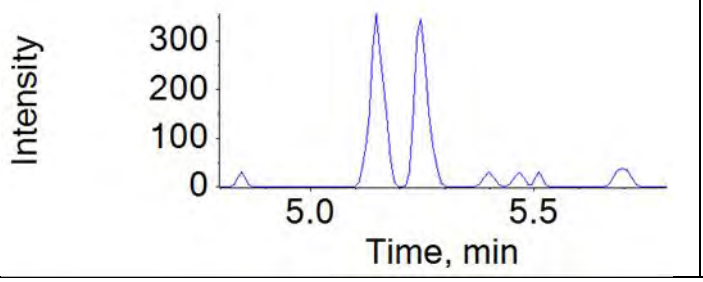


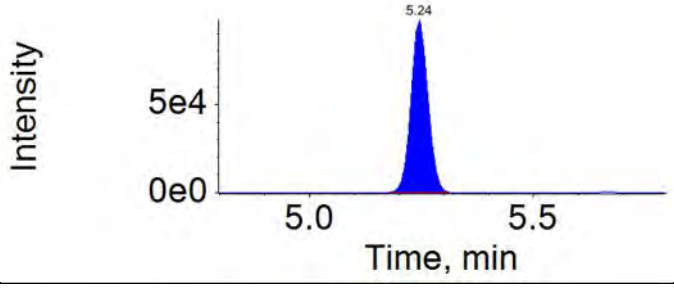
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



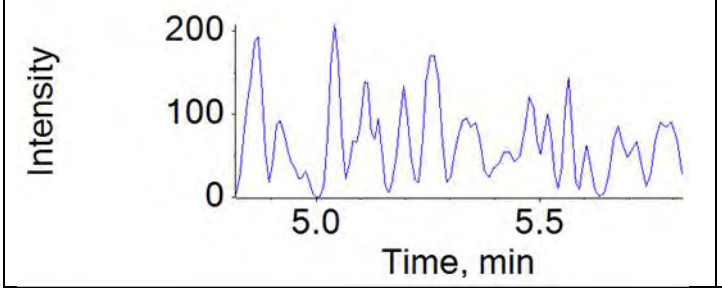


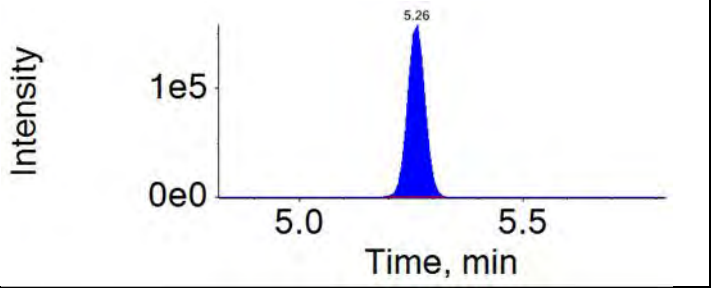
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

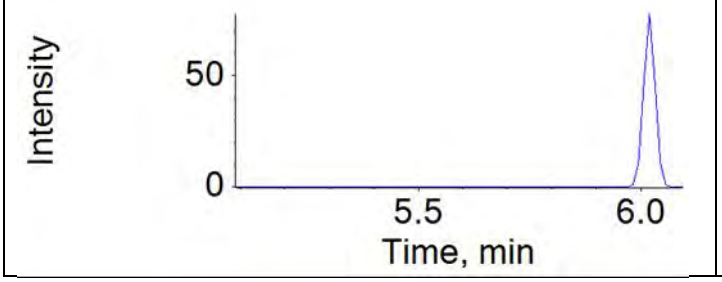
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

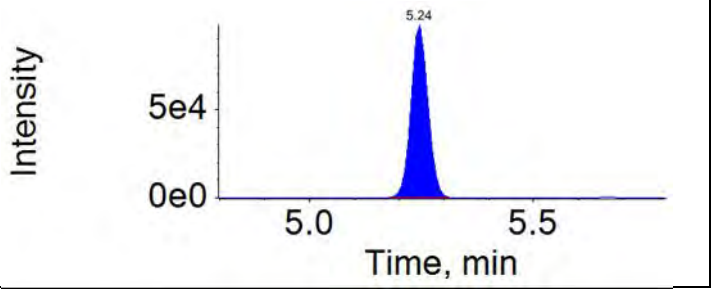
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



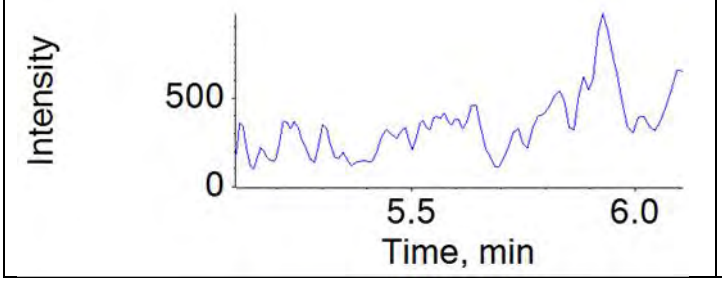


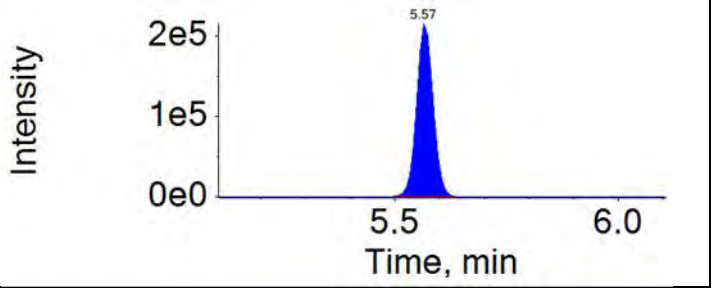
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



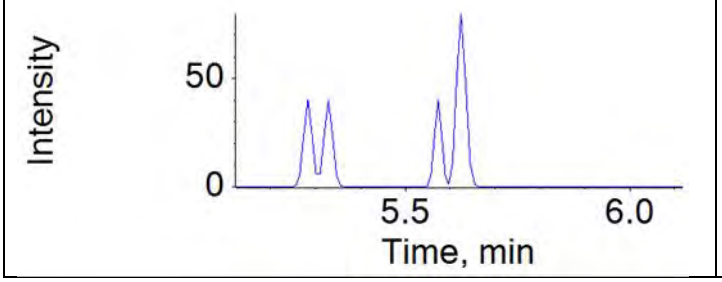


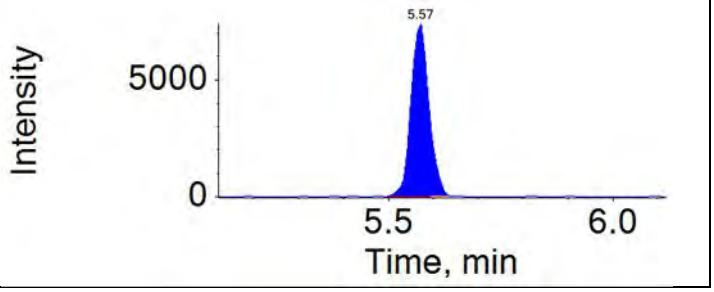
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

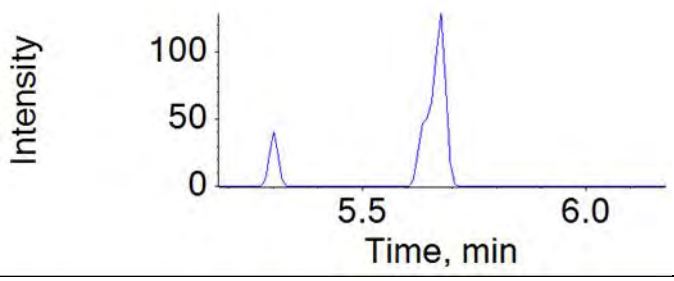
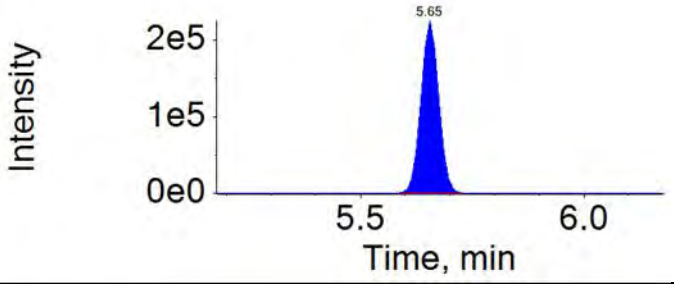


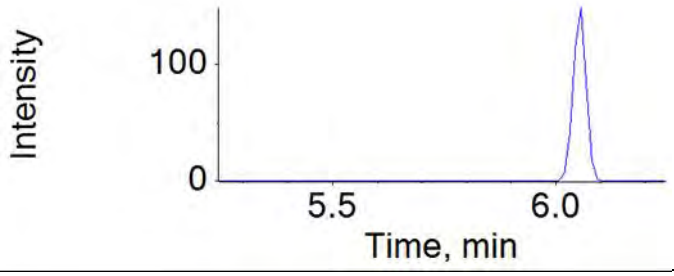
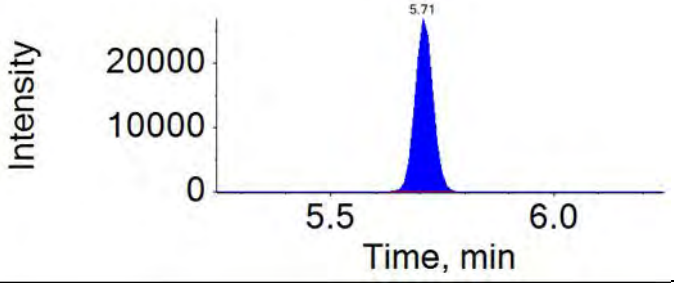


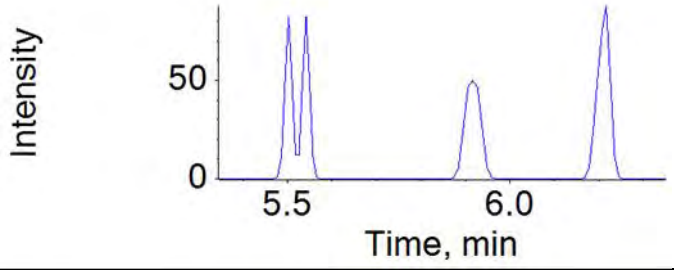
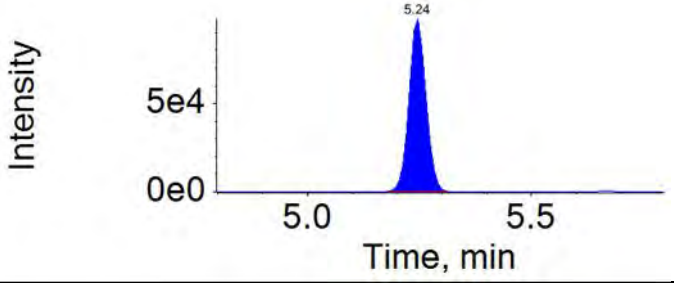
APPROVED
By JPT at 5:18 pm, 11/9/18

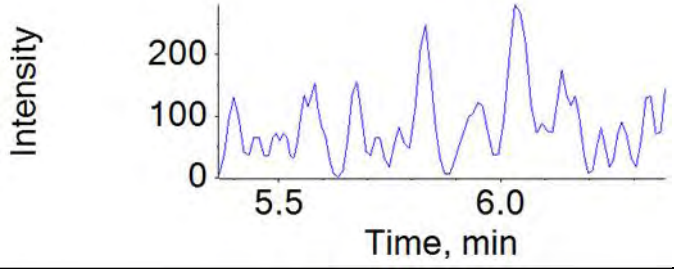
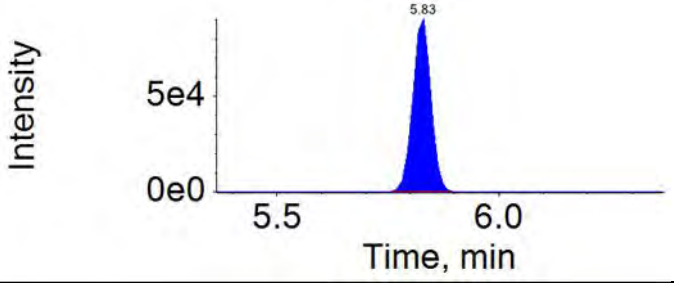
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

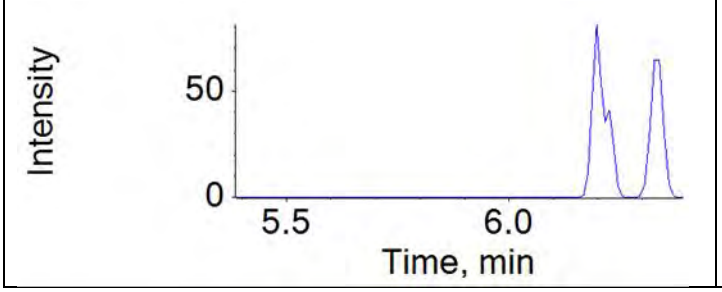
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

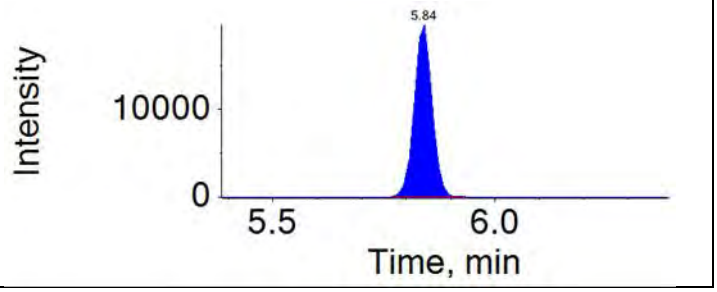
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

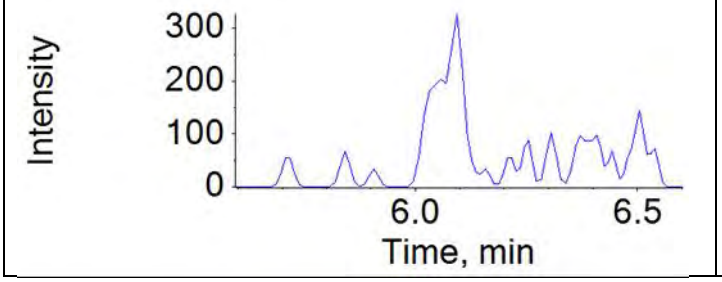
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

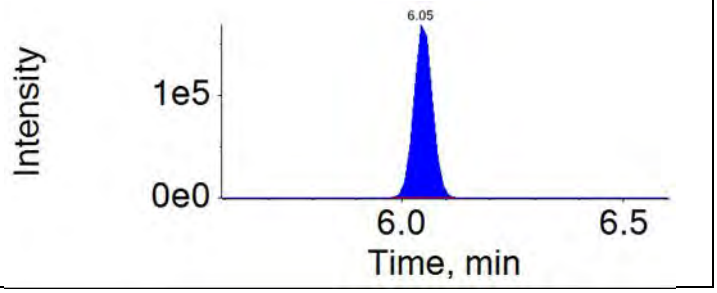
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



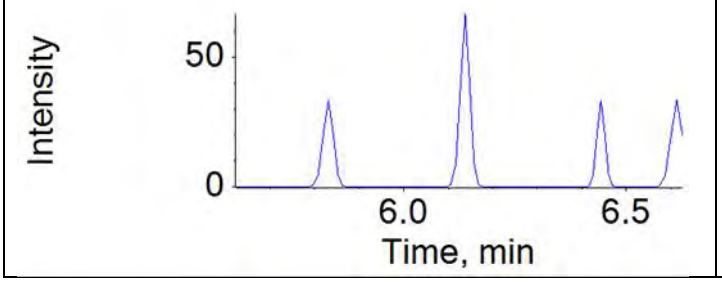


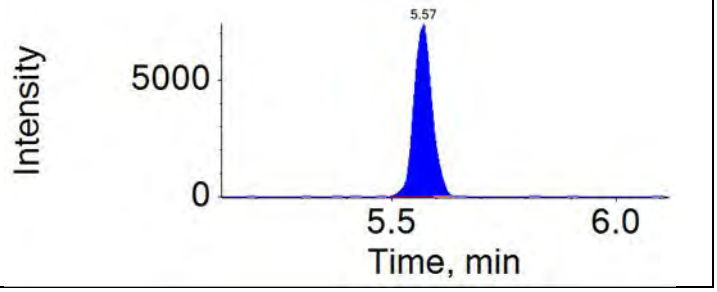
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



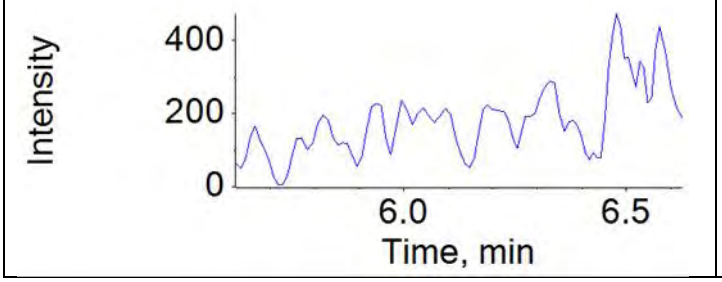


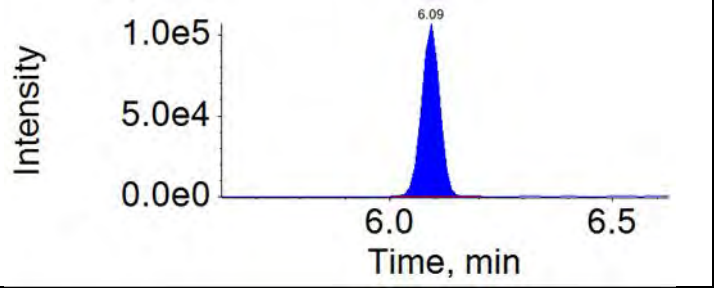
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





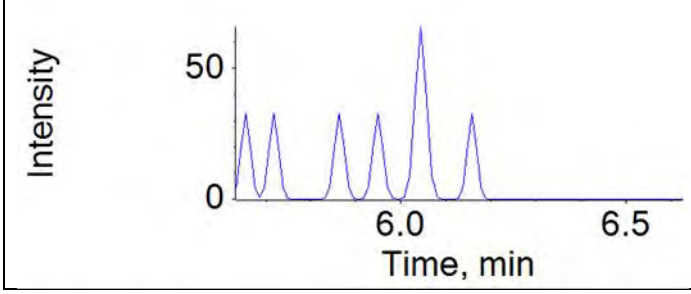
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0

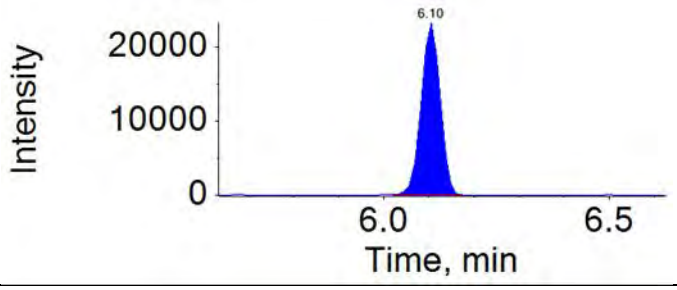




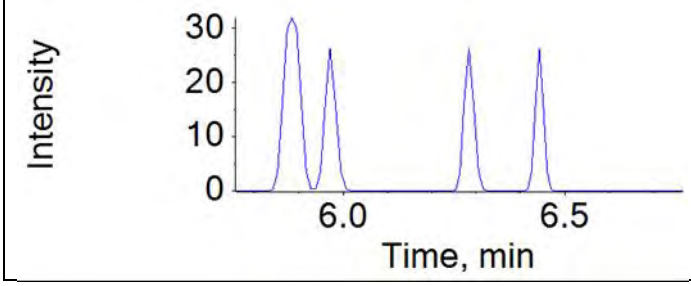
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

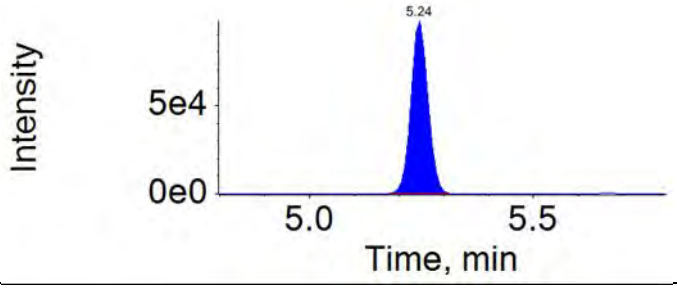
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



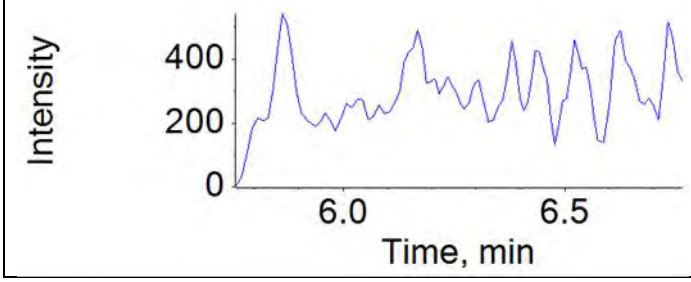


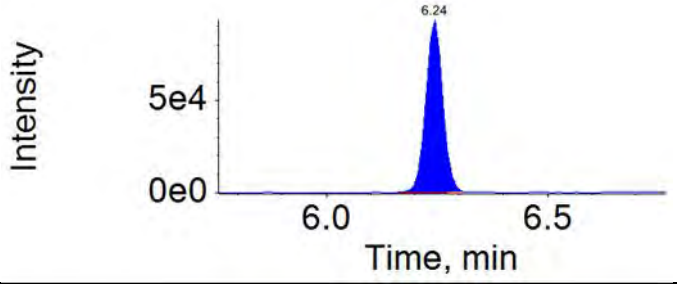
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



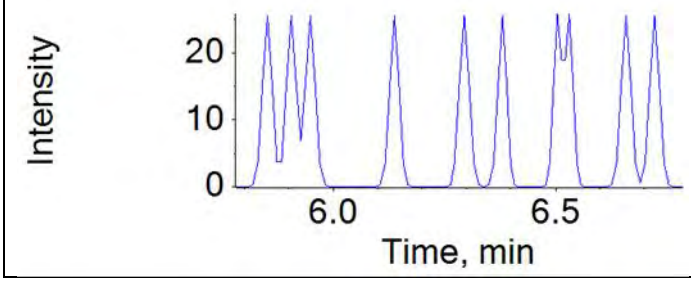


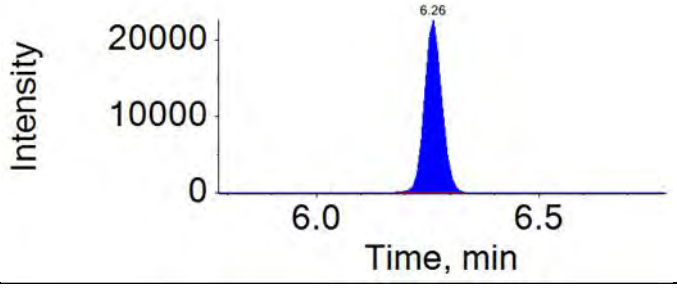
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

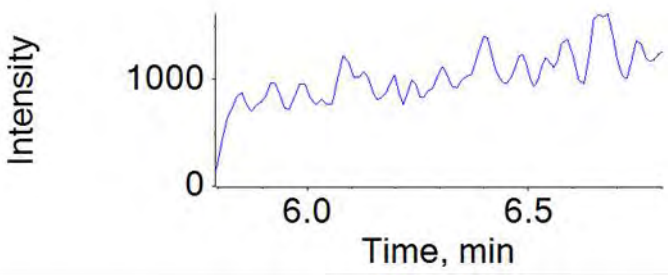
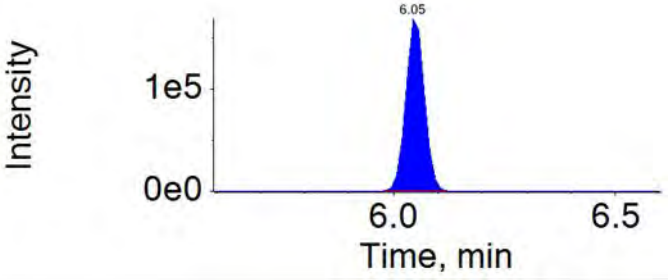


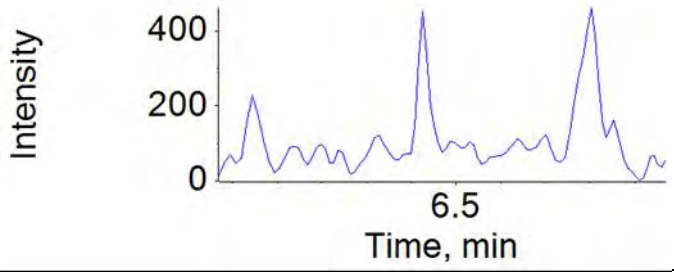
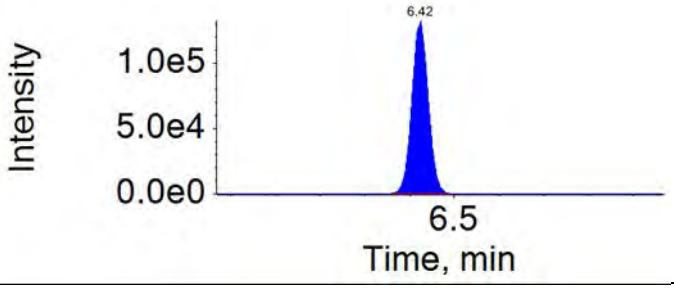


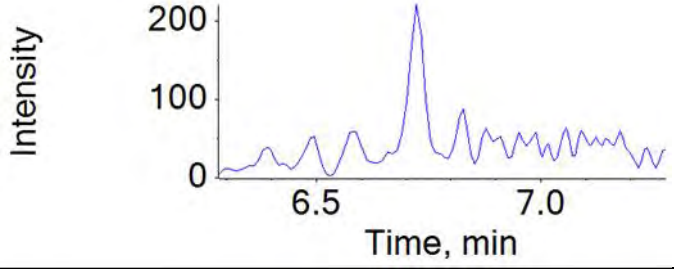
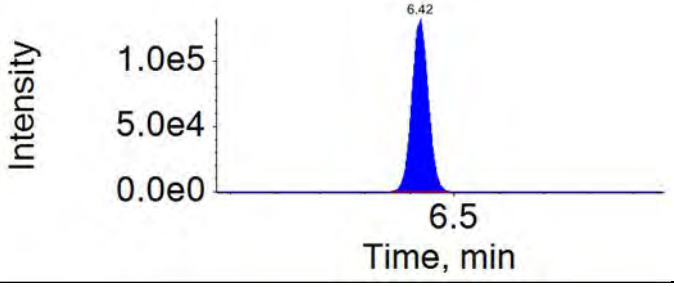
APPROVED
By JPT at 5:18 pm, 11/9/18

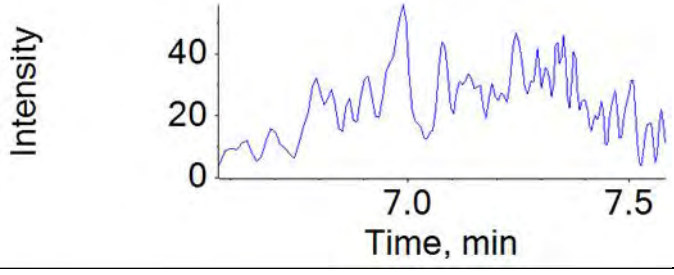
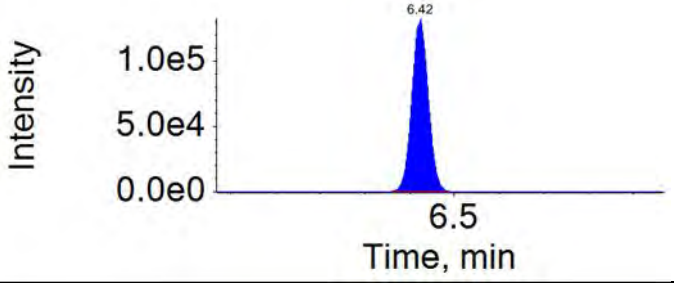
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Ion Ratio Report

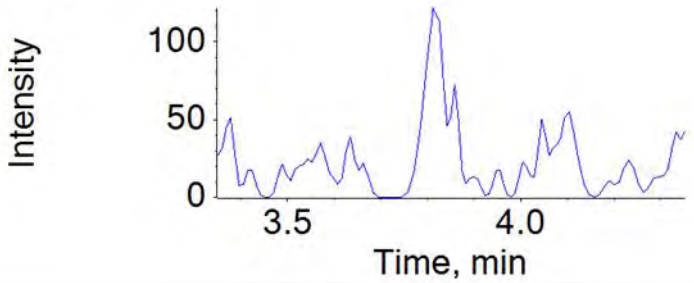
Sample Name: BLK311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-88.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

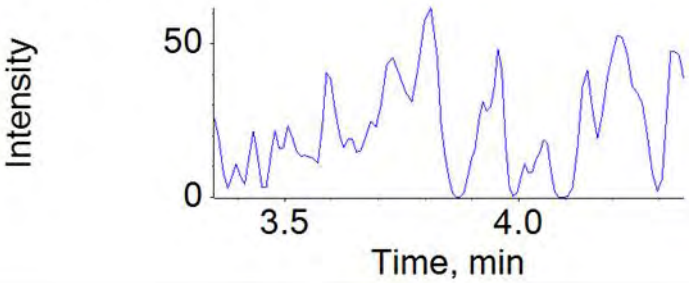
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

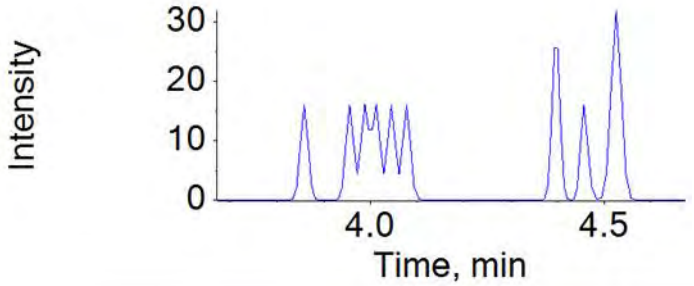
Component: PFBS
Primary Mass: 299.0 / 80.0



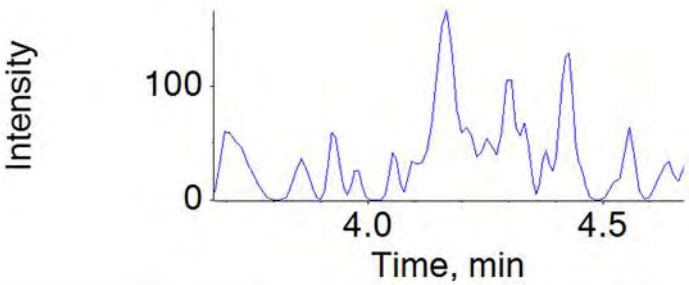
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



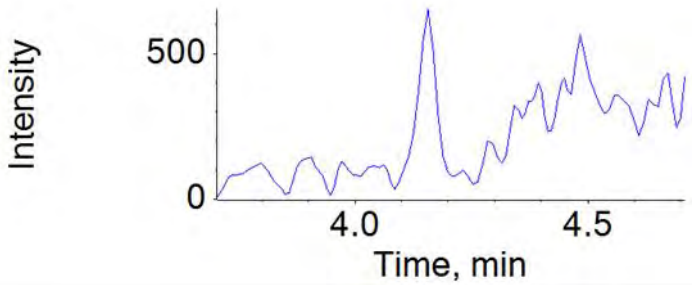
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



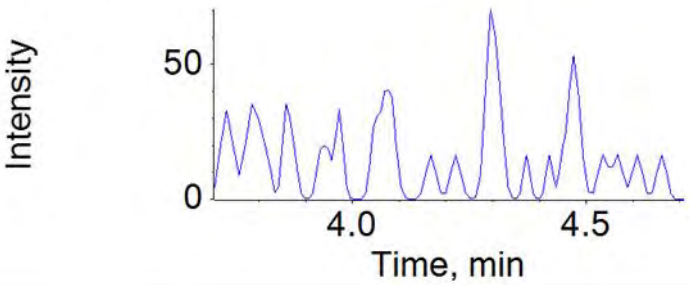
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



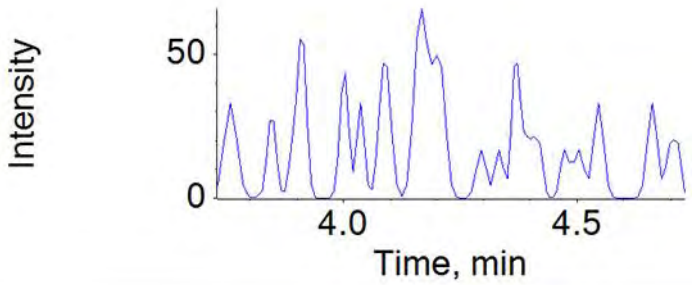
Component: PFHxA
Primary Mass: 313.0 / 269.0



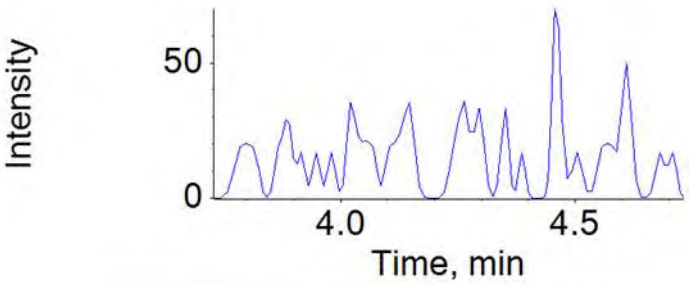
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



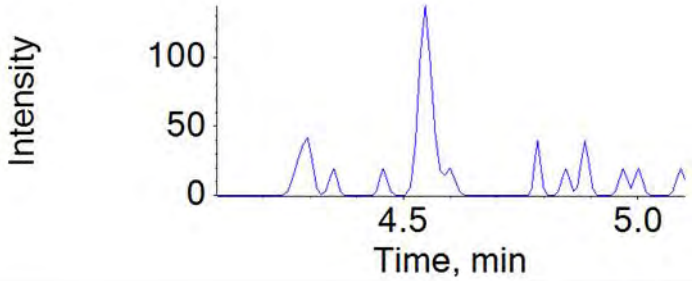
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



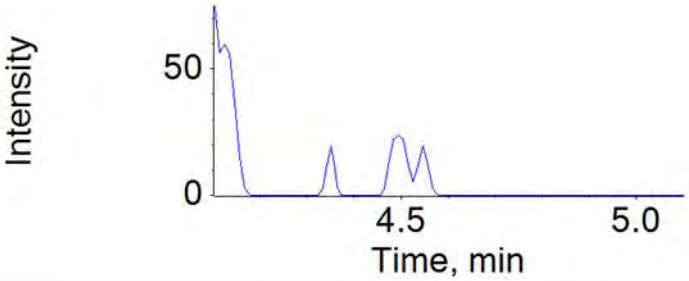
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

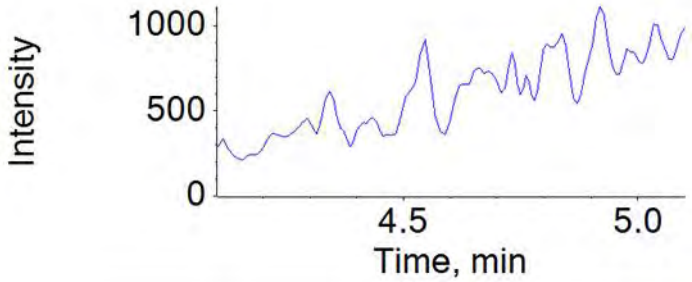
Component: PFHxS
Primary Mass: 399.0 / 80.0



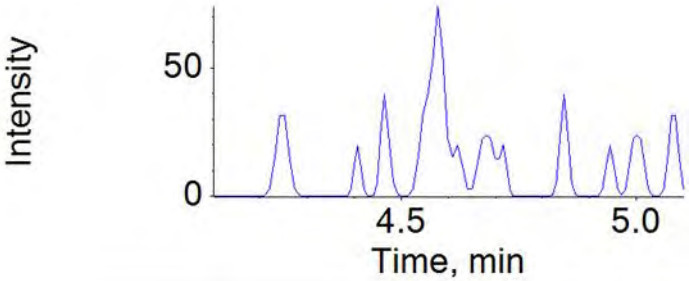
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



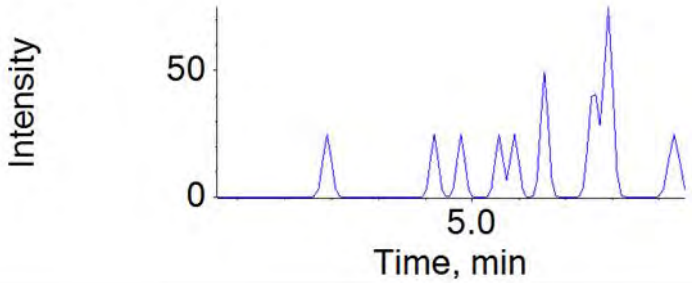
Component: PFHpA
Primary Mass: 363.0 / 319.0



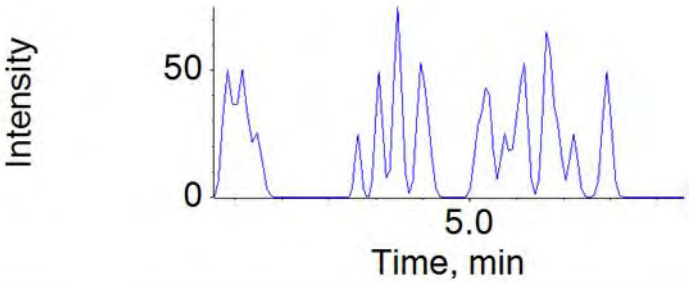
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



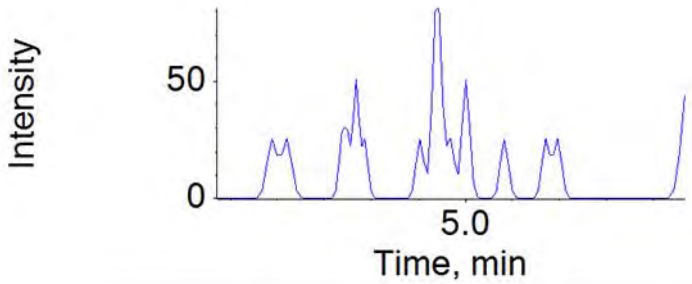
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



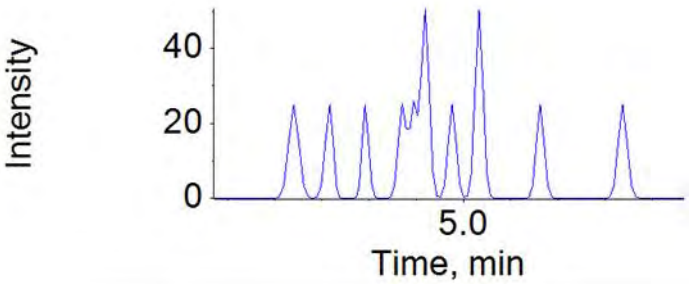
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



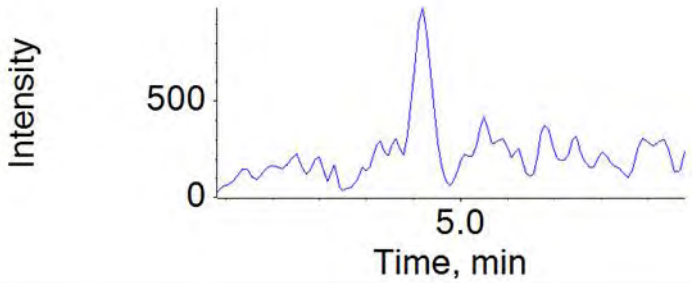
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



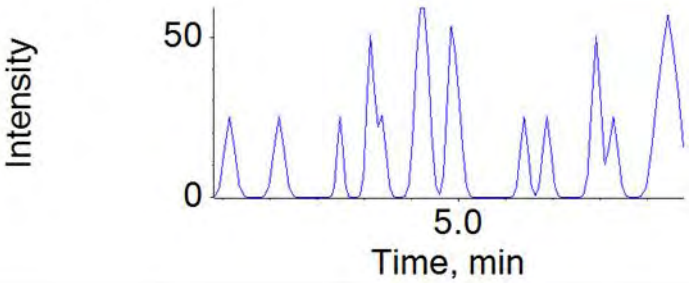
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

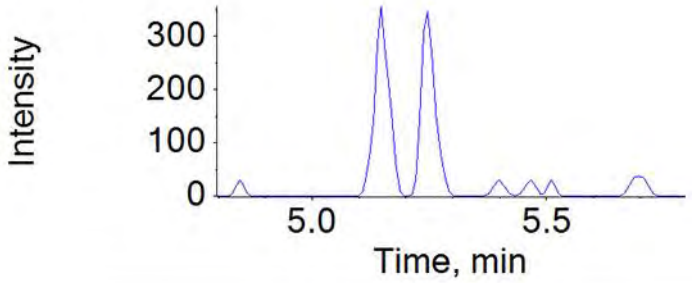
Component: PFOA
Primary Mass: 413.0 / 369.0



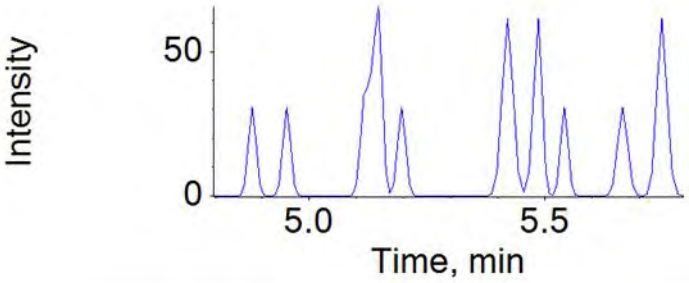
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



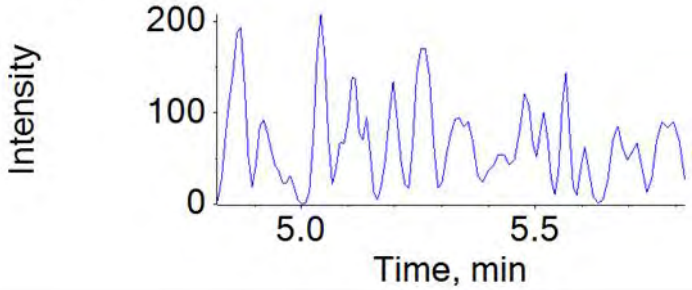
Component: PFOS
Primary Mass: 499.0 / 80.0



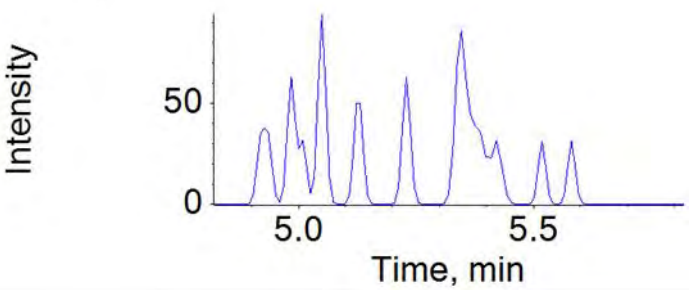
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



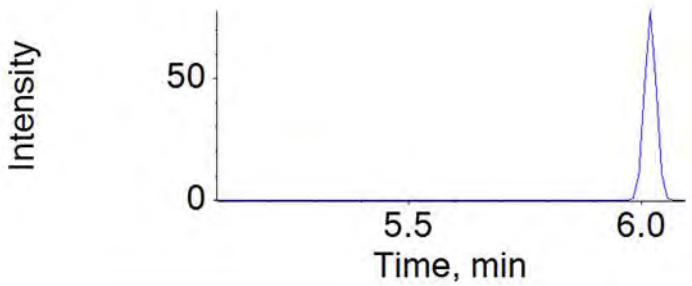
Component: PFNA
Primary Mass: 463.0 / 419.0



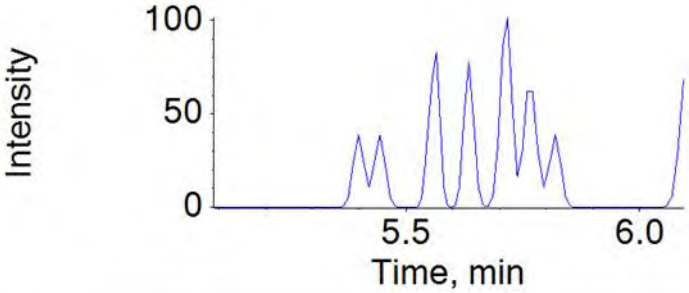
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



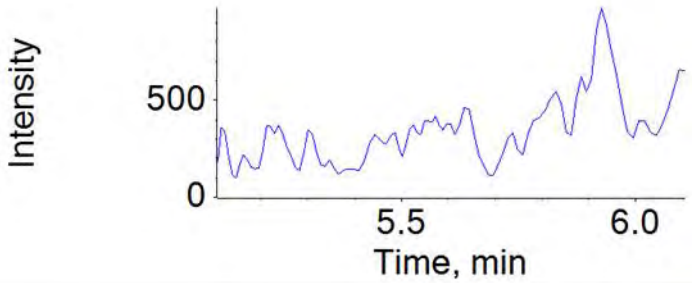
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



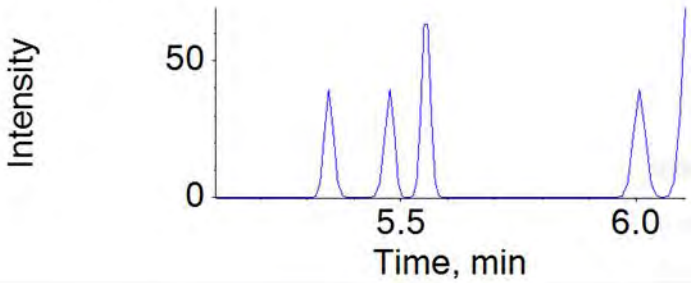
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

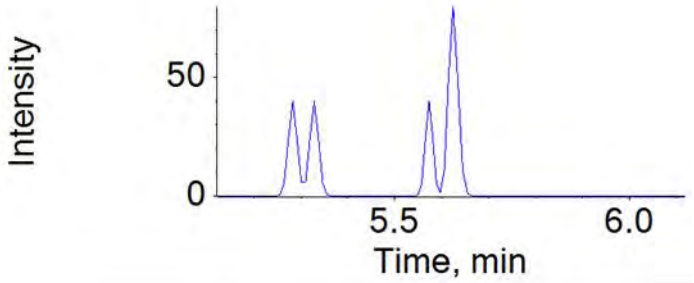
Component: PFDA
Primary Mass: 513.0 / 469.0



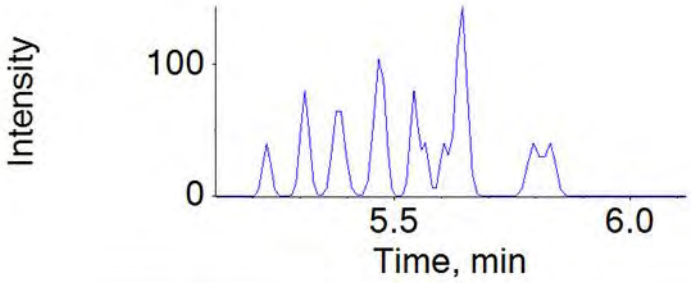
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



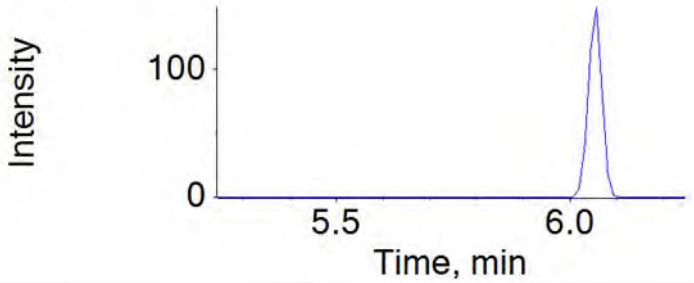
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



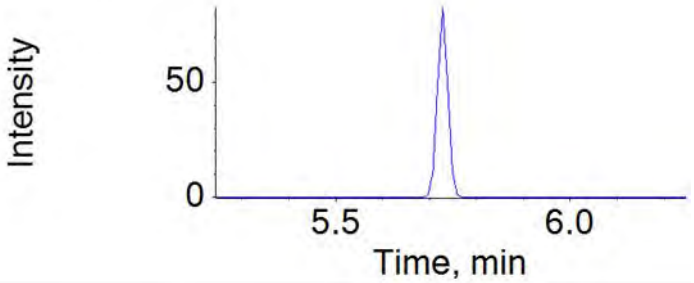
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



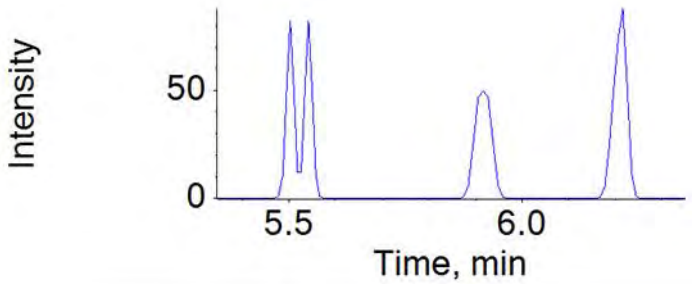
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



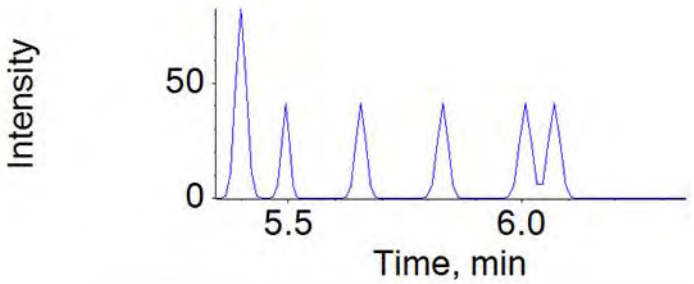
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



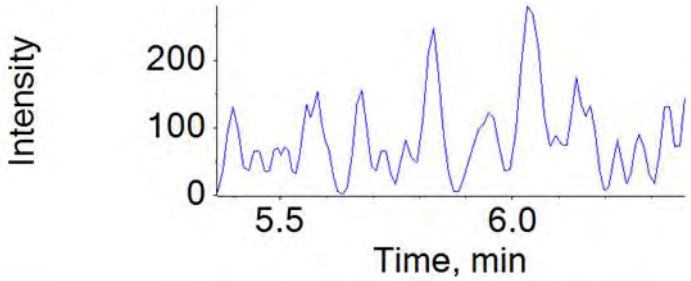
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



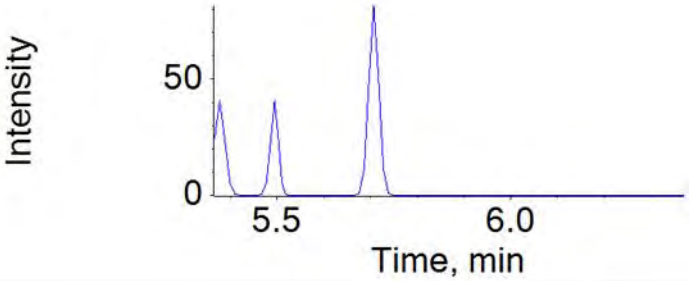
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

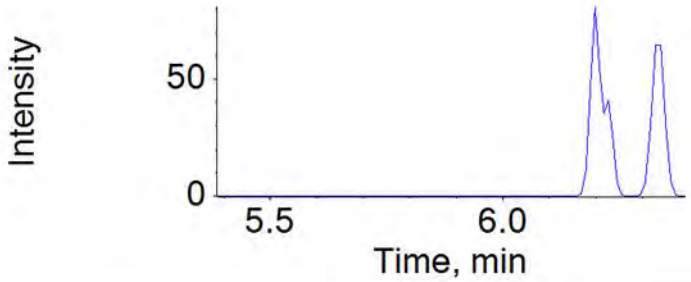
Component: PFUnDA
Primary Mass: 563.0 / 519.0



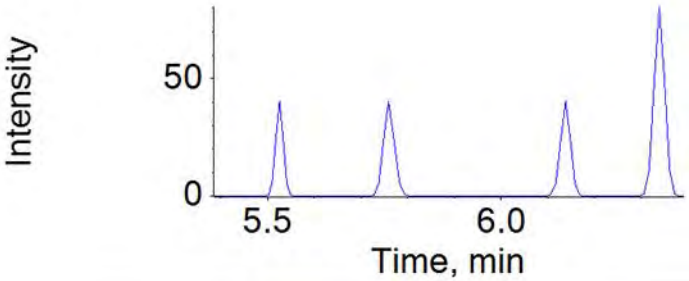
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



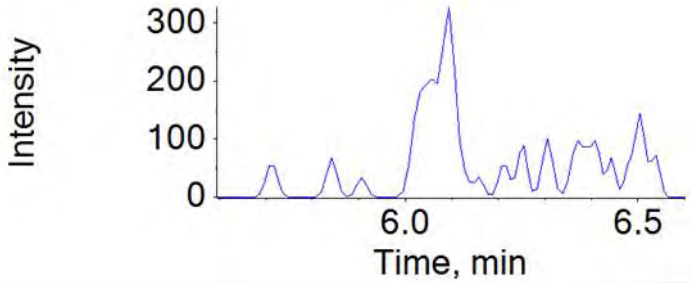
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



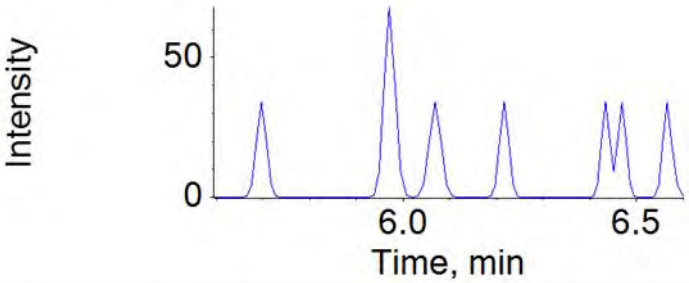
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



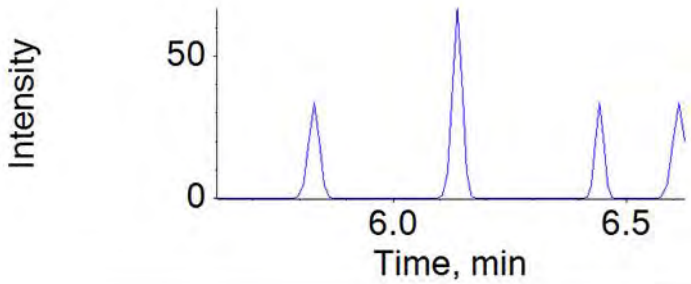
Component: PFDoDA
Primary Mass: 613.0 / 569.0



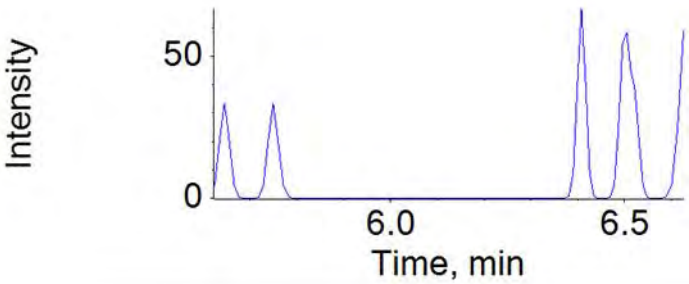
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



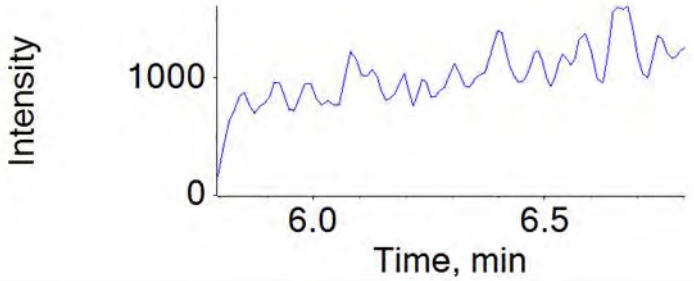
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



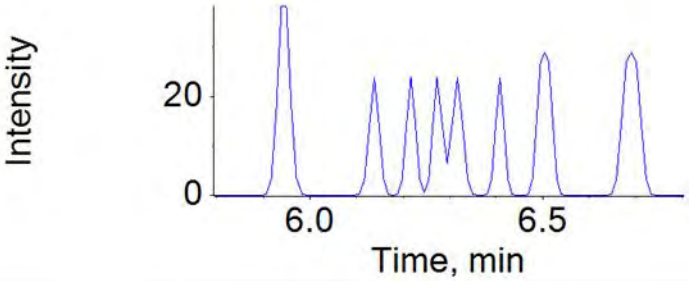
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

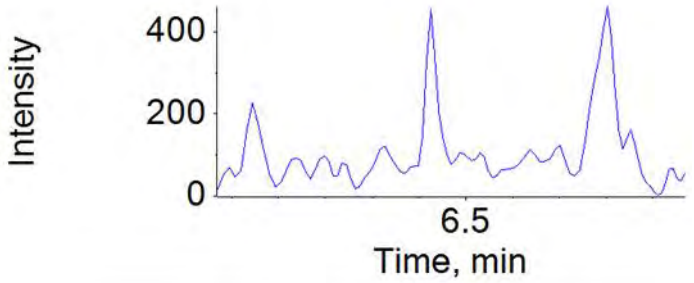
Component: PFTrDA
Primary Mass: 663.0 / 619.0



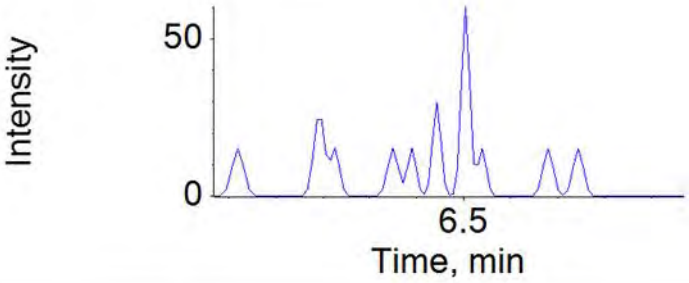
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



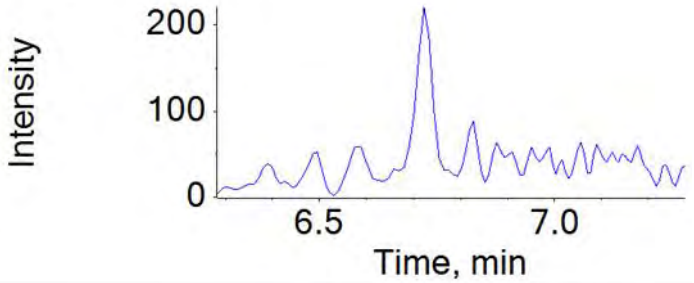
Component: PFTeDA
Primary Mass: 713.0 / 669.0



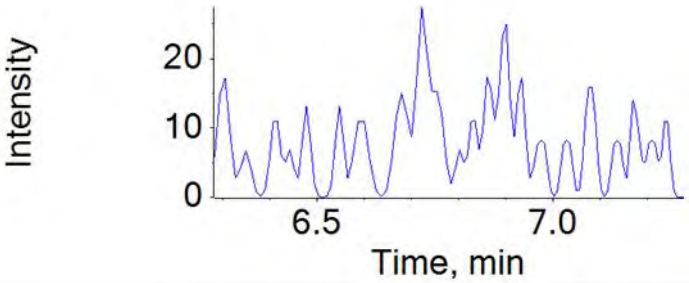
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



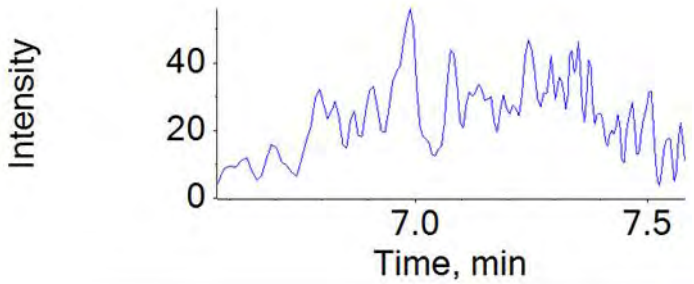
Component: PFHxDA
Primary Mass: 813.0 / 769.0



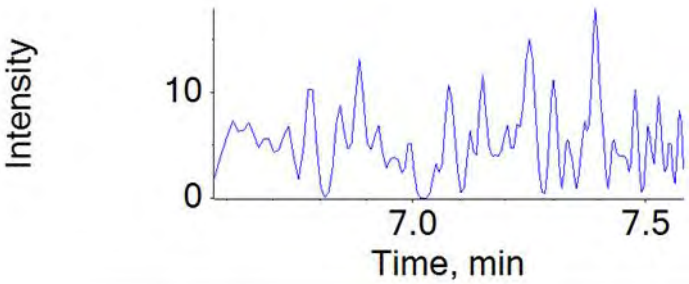
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 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

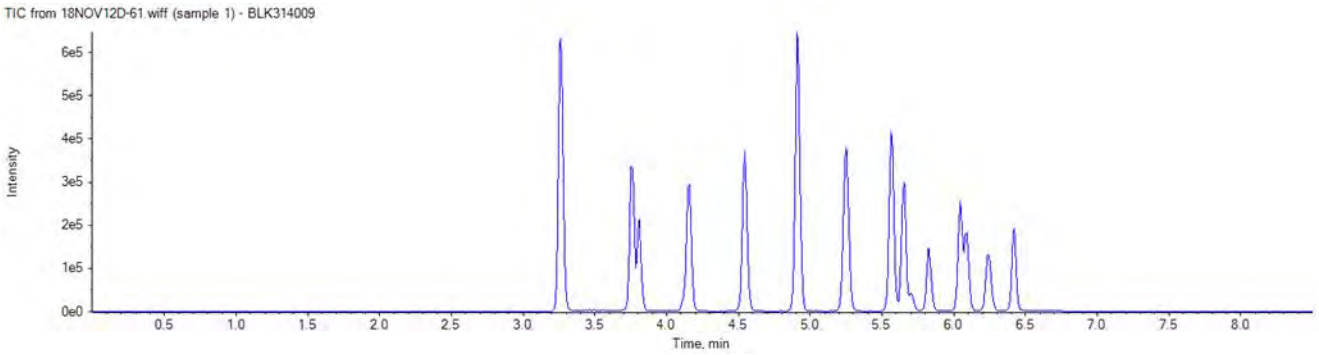
Analyte Quantitation Peak Table

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

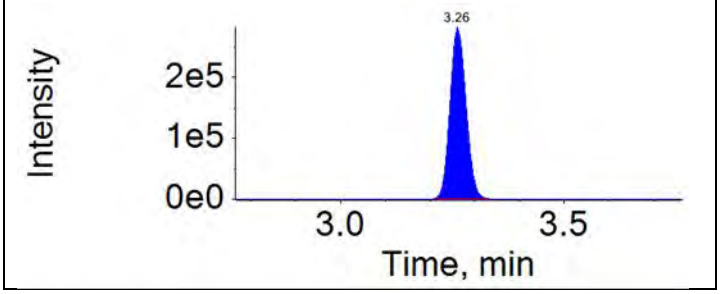


APPROVED
By JPT at 4:11 pm, 11/13/18

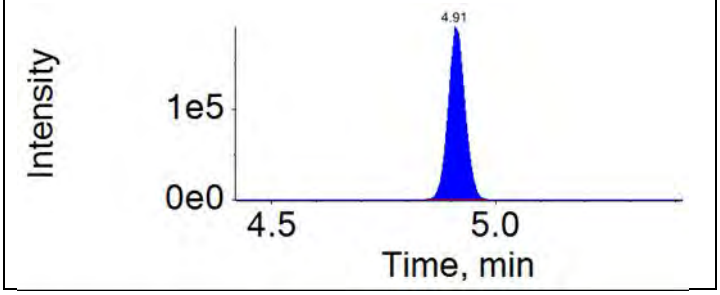
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

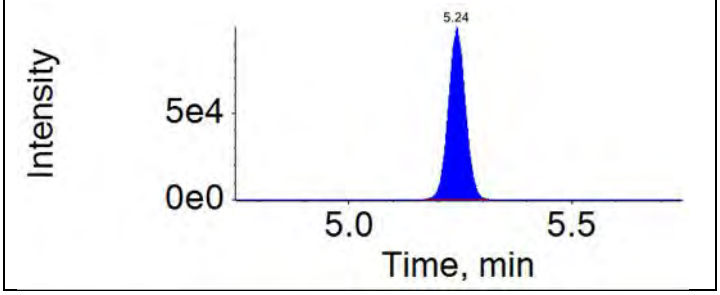
Injection Standard: 13C3-PFBA
216.0 / 172.0



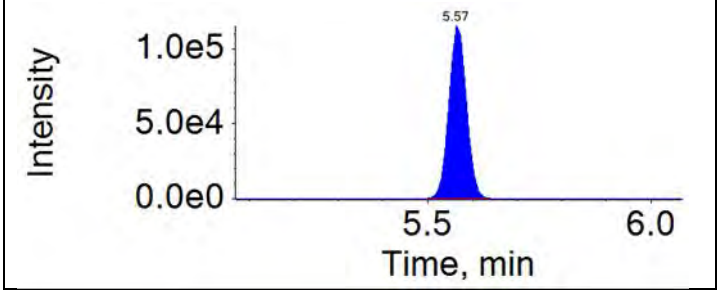
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

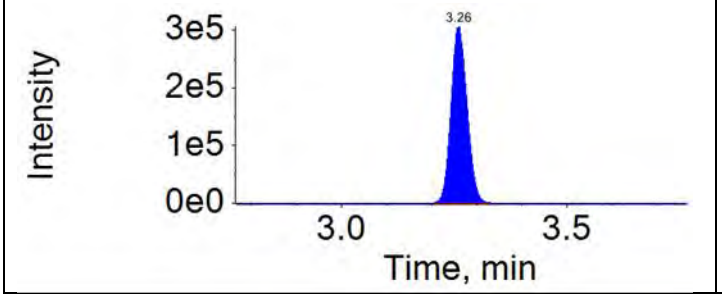


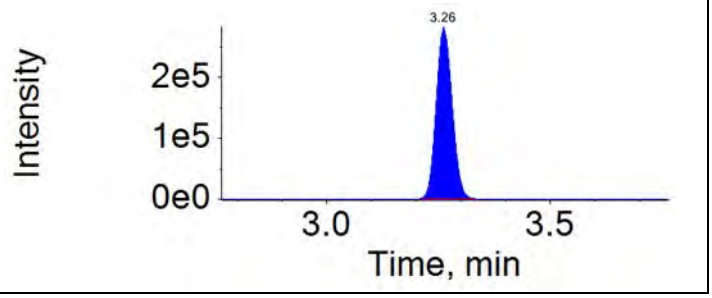
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

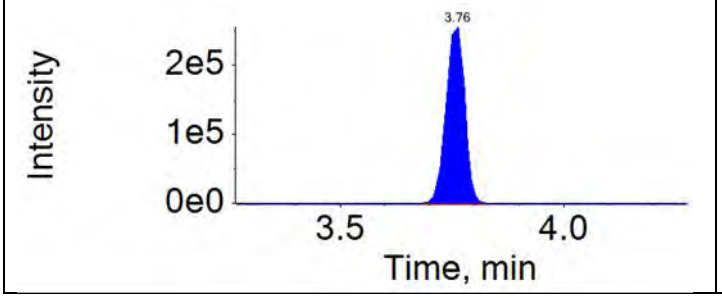
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

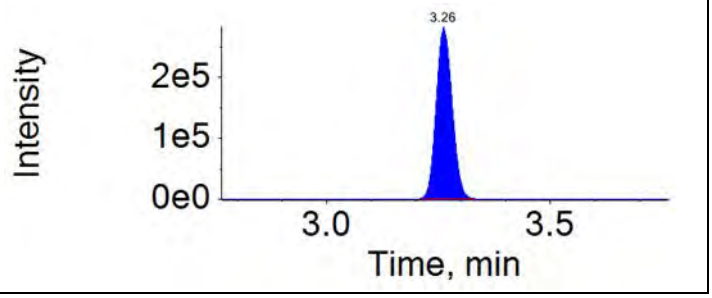
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



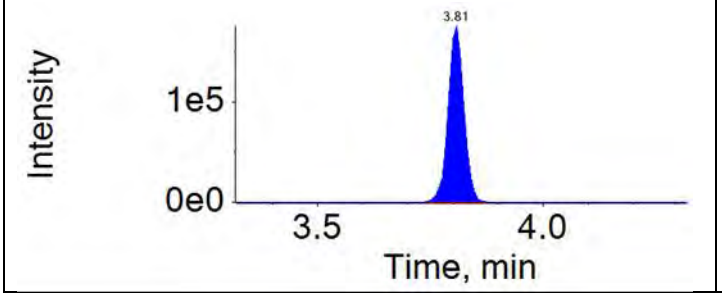


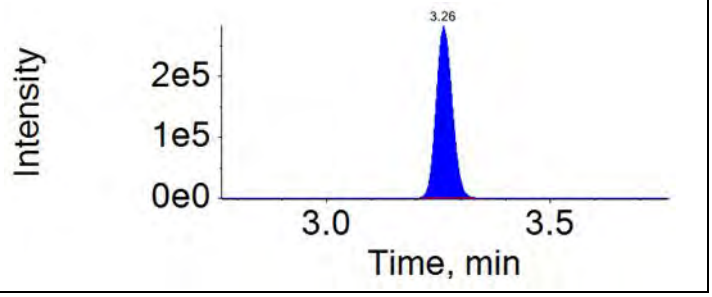
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



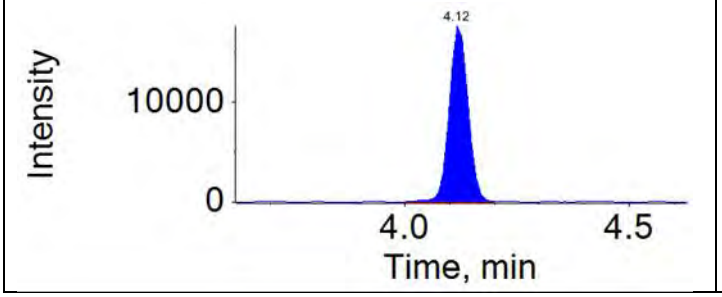


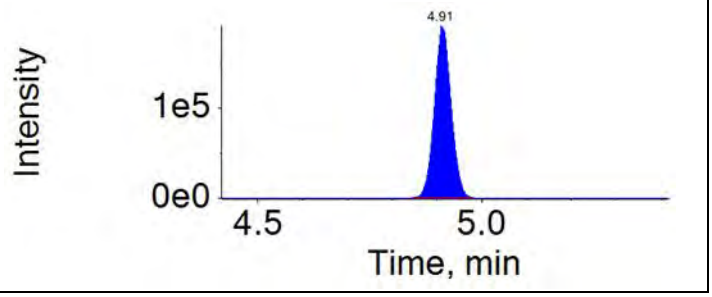
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





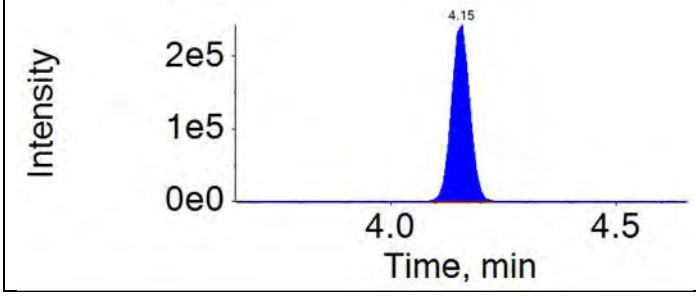
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

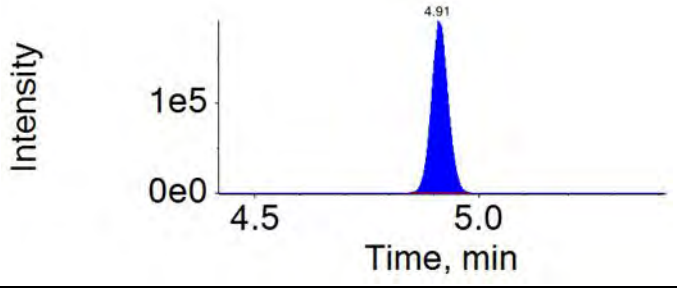




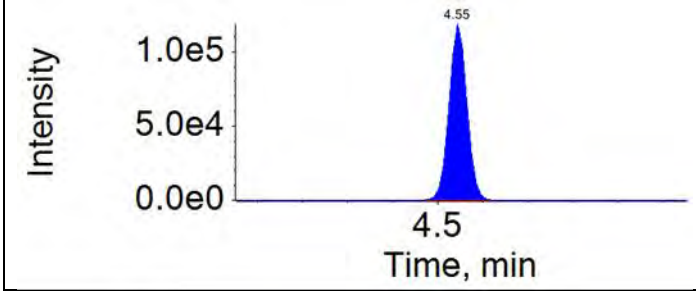
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

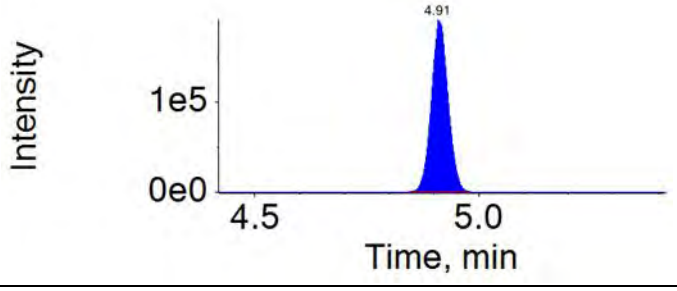
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



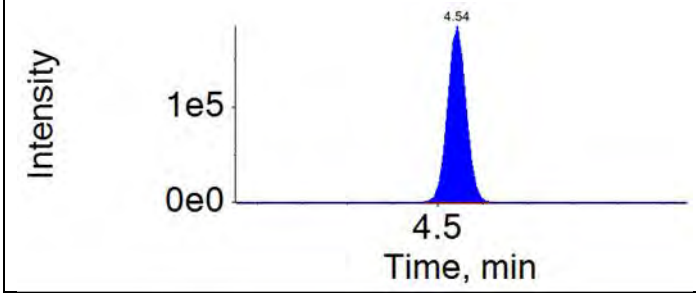


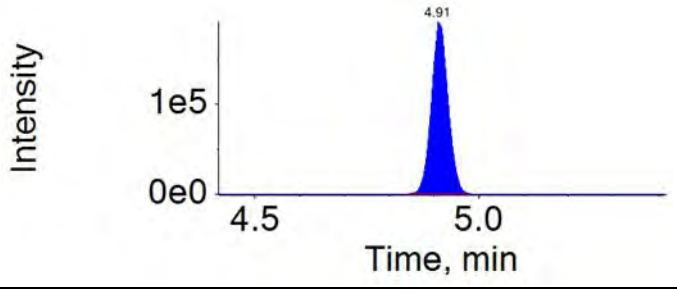
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



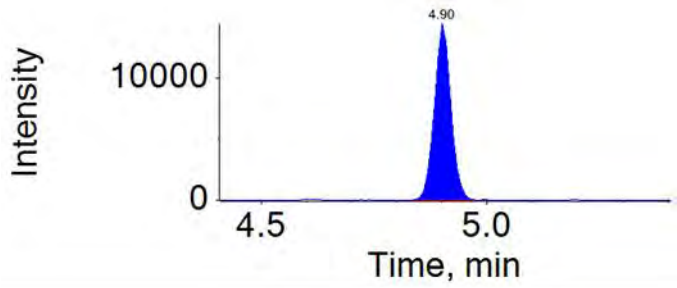


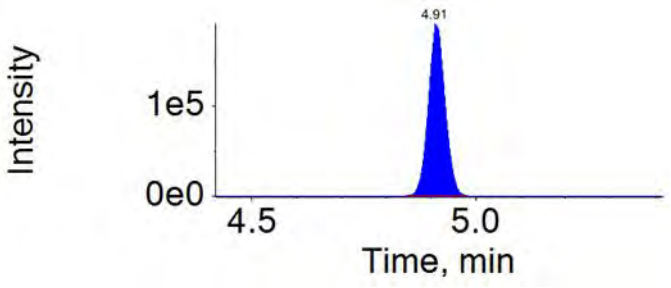
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

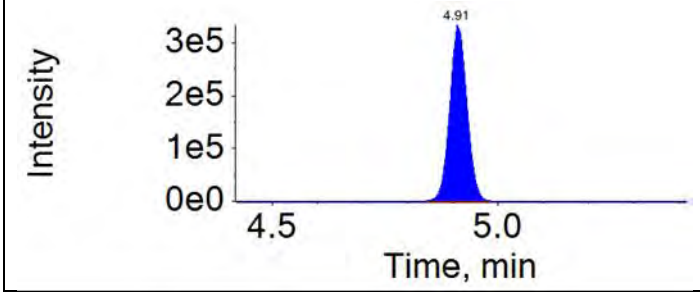
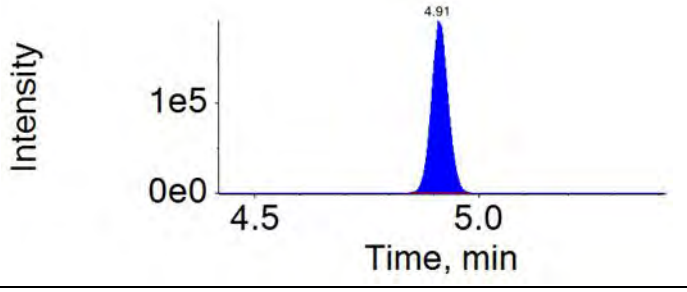


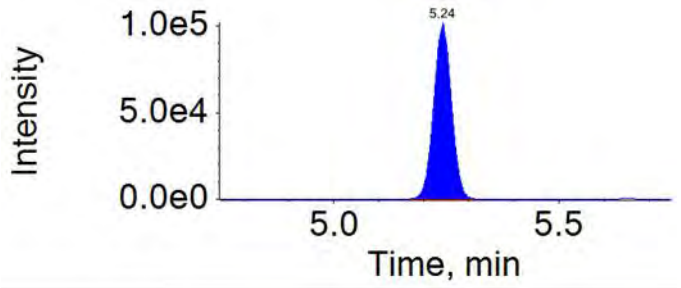
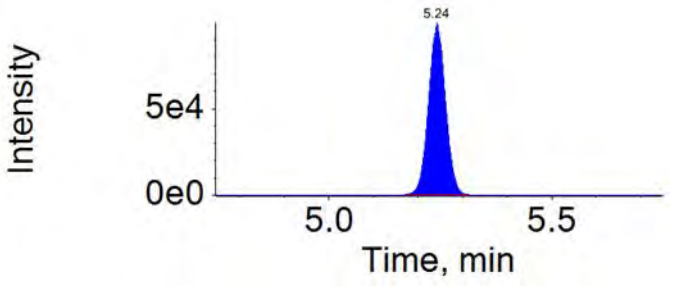


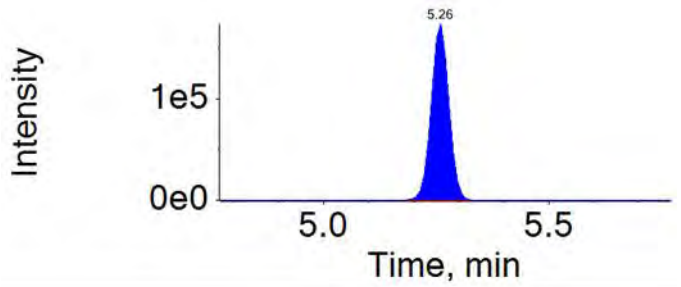
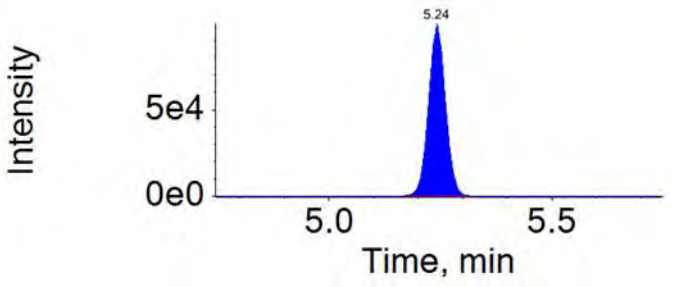
APPROVED
By JPT at 4:11 pm, 11/13/18

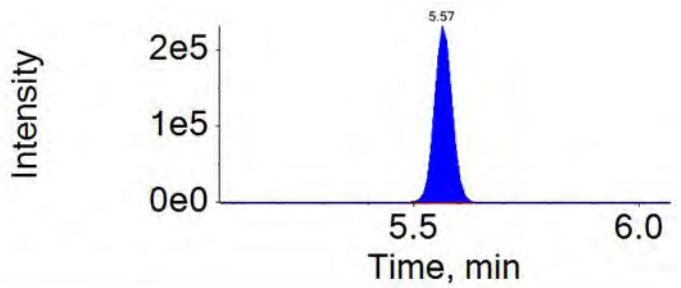
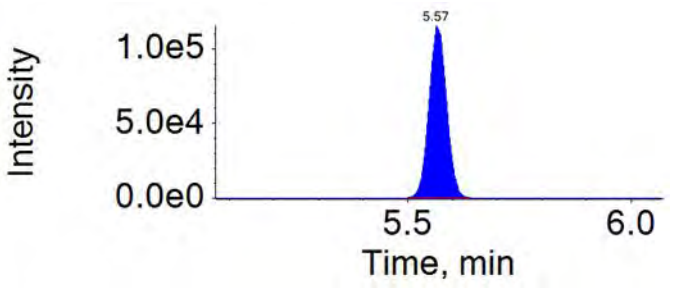
REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

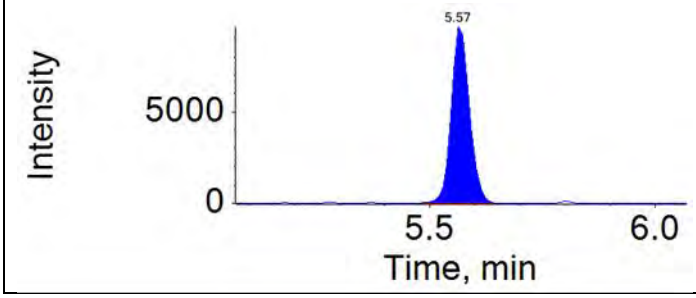
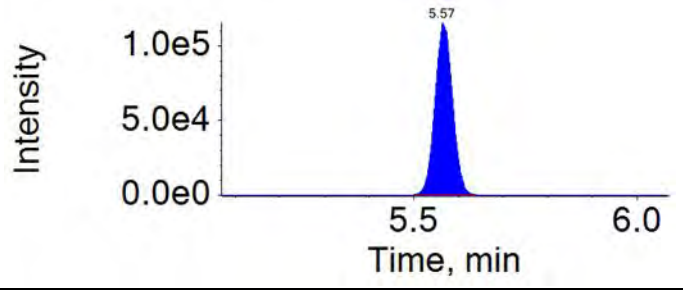
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

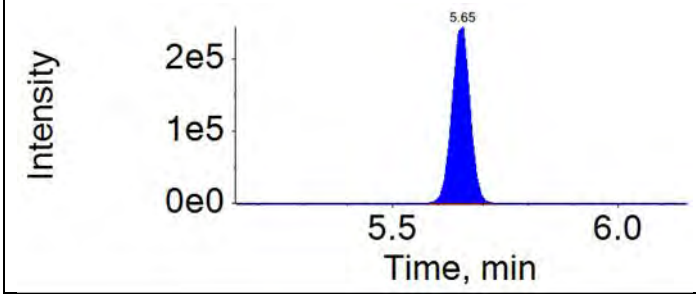
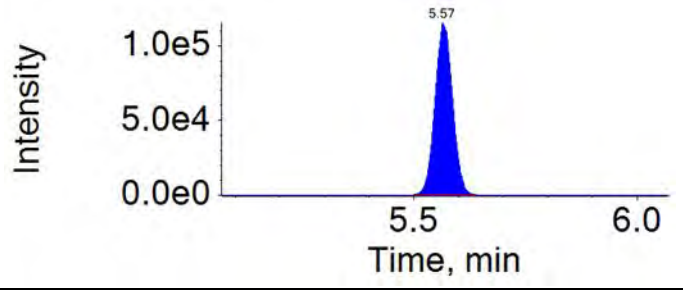
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

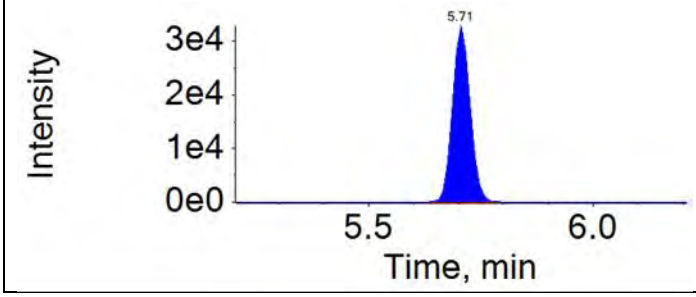
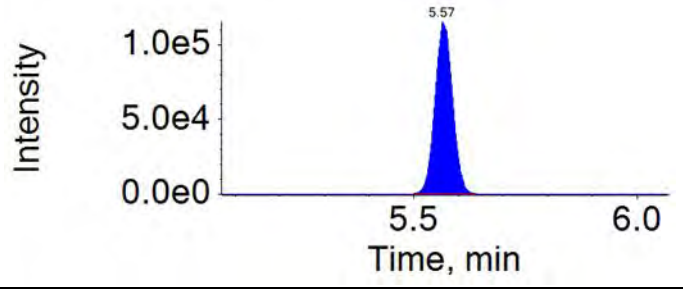
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

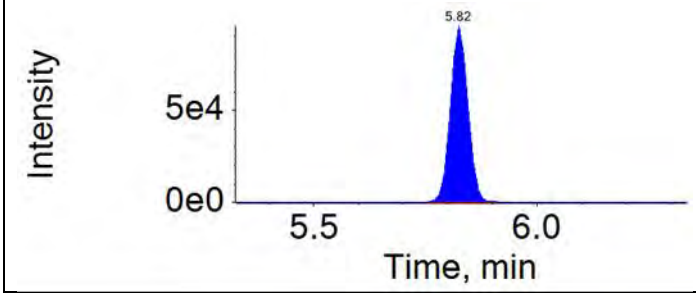
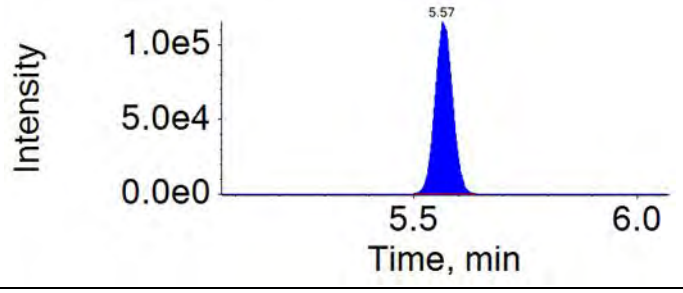
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

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
	

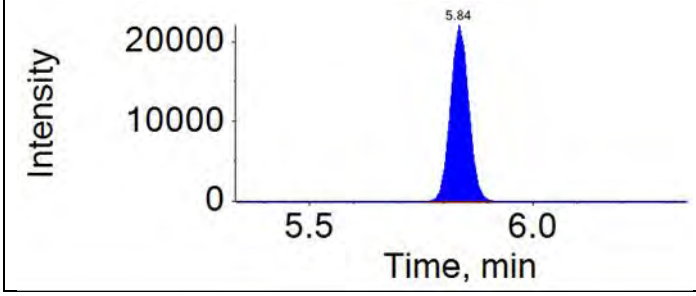
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

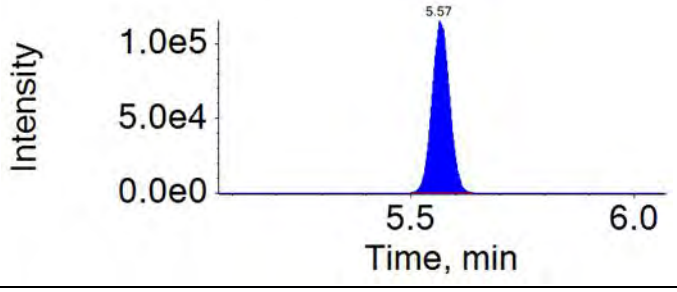
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

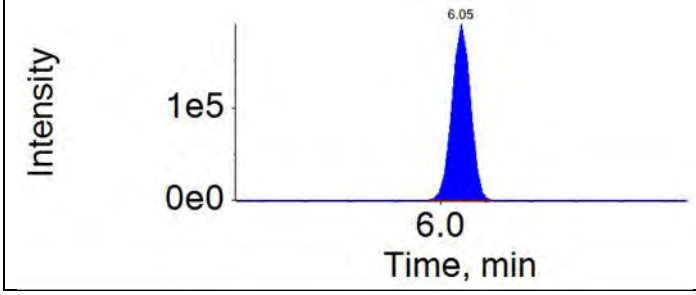
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

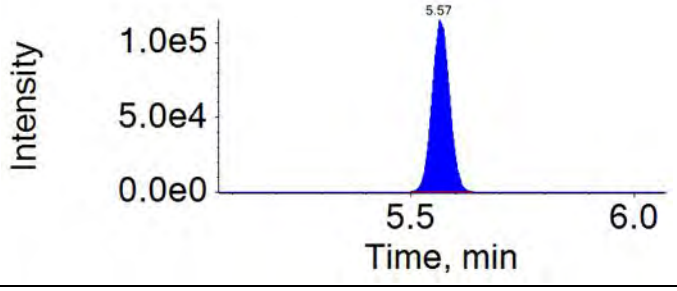
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



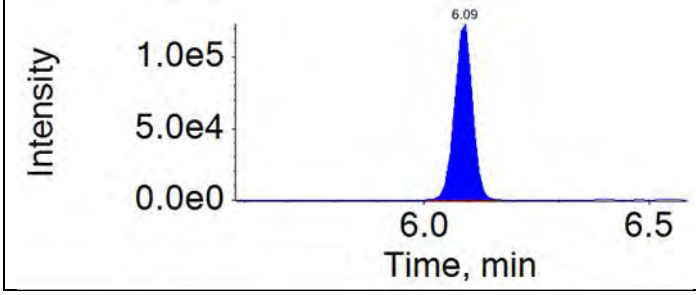


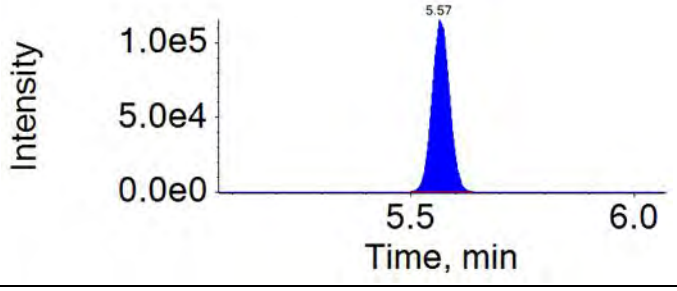
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



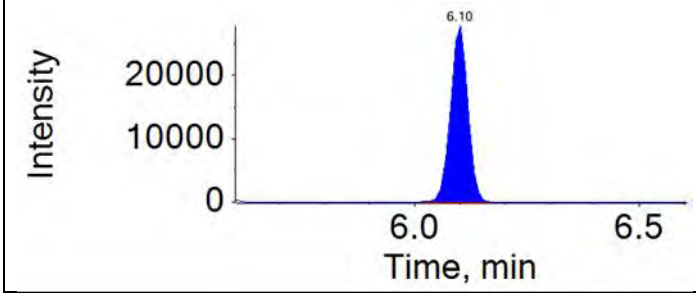


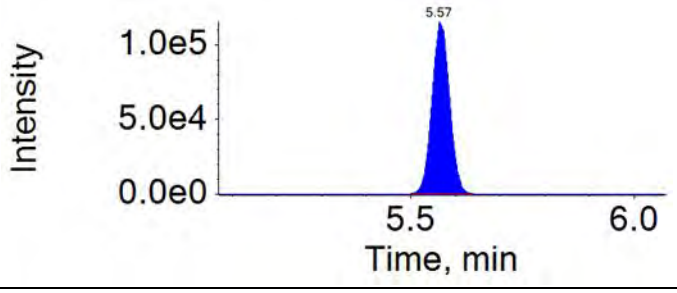
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



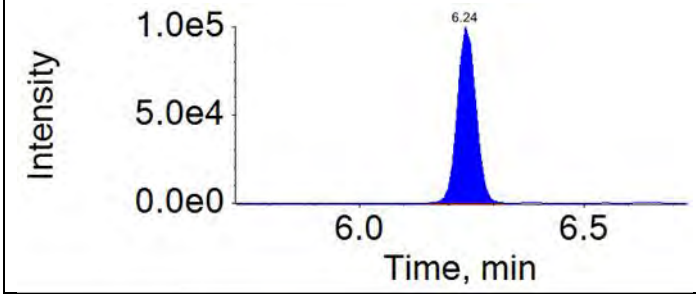


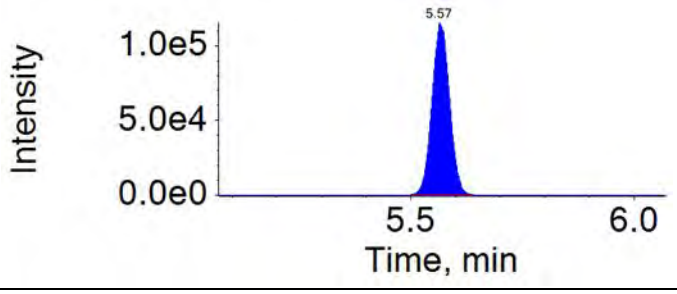
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

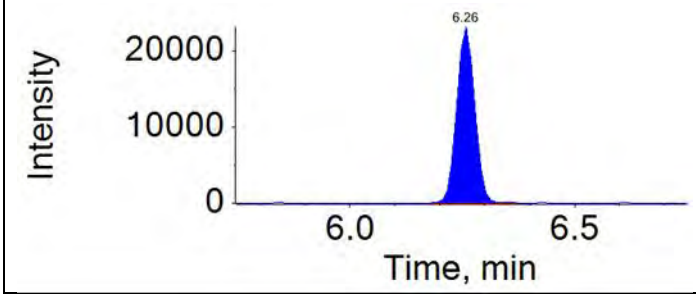
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

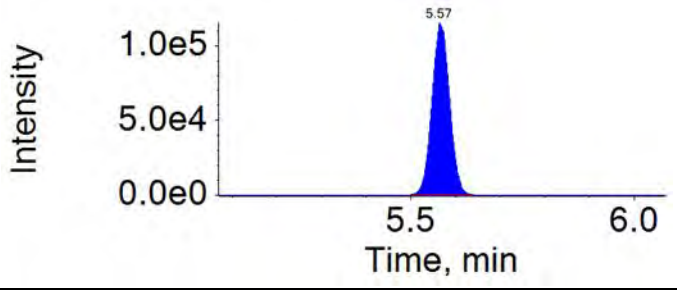
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



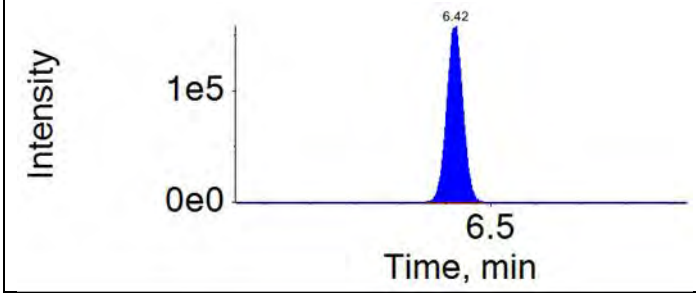


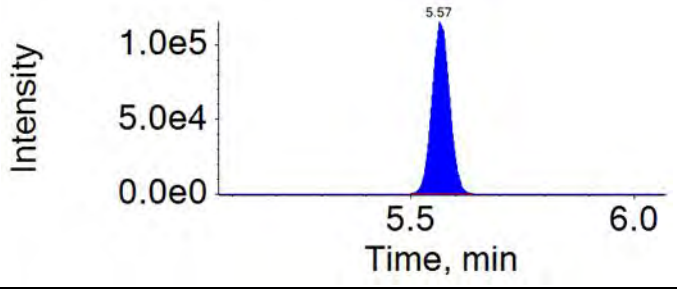
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



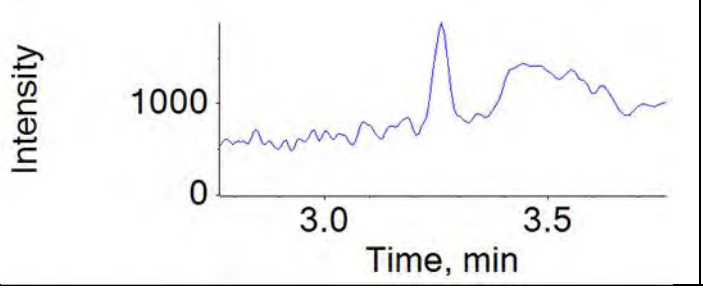


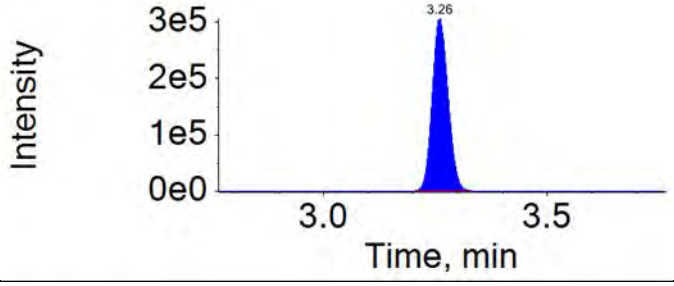
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

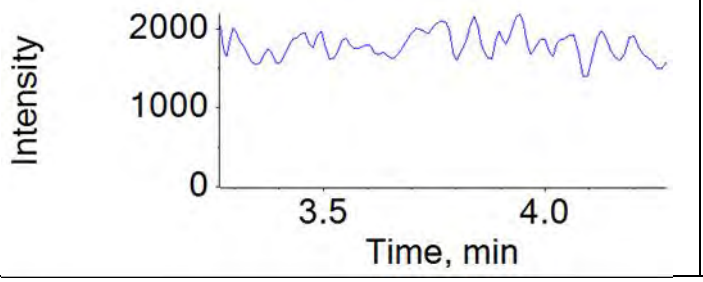
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

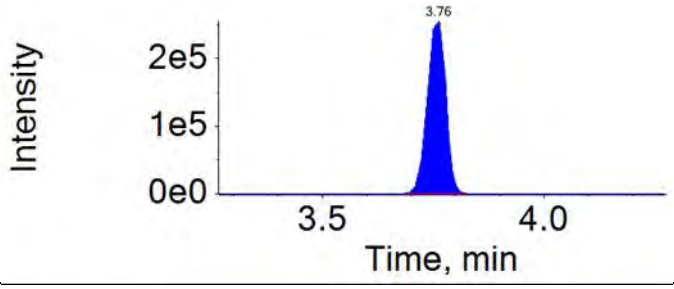
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



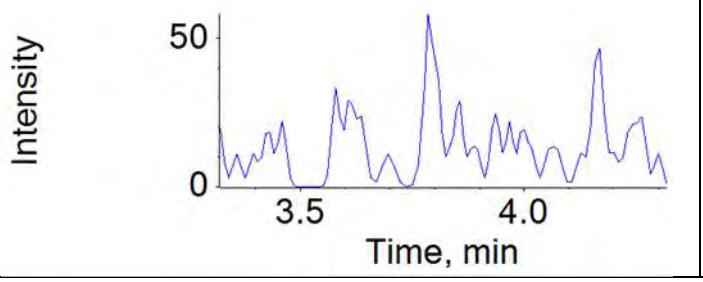


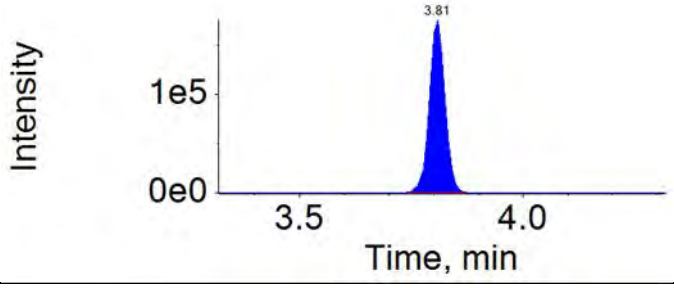
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



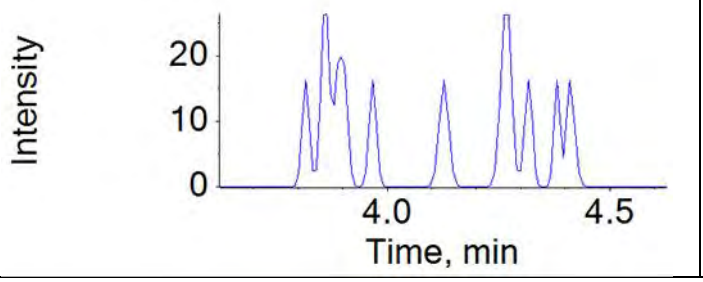


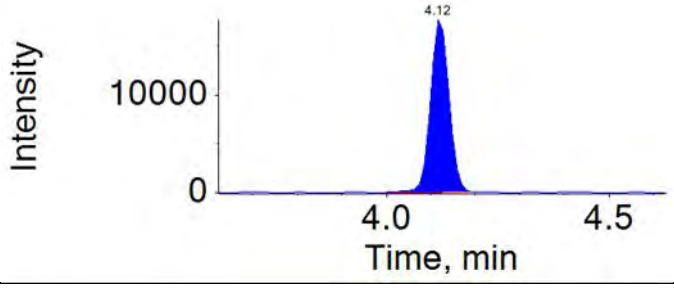
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



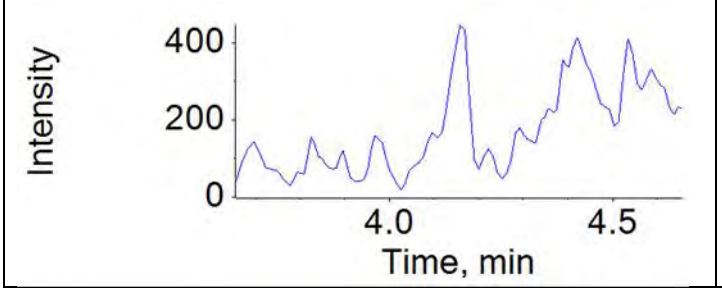


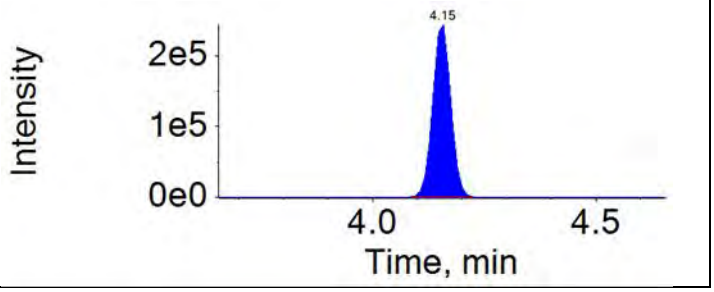
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

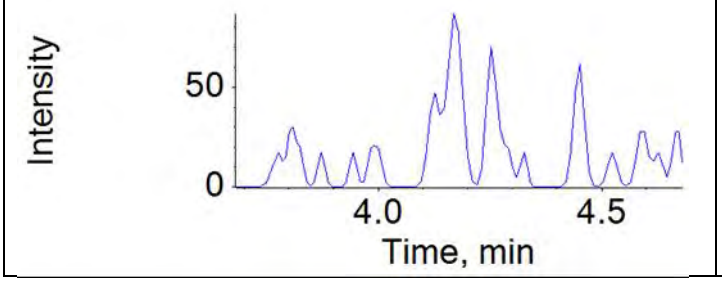
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

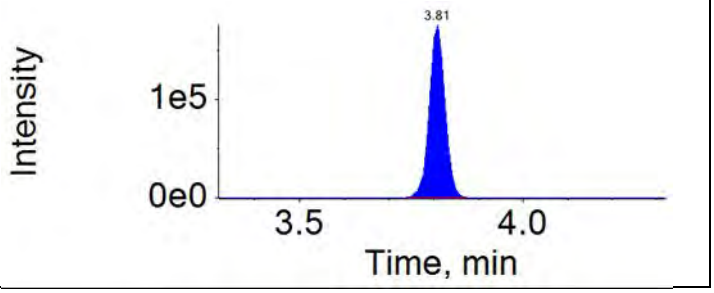
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



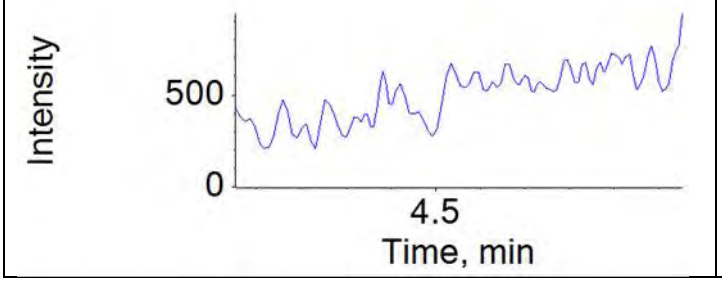


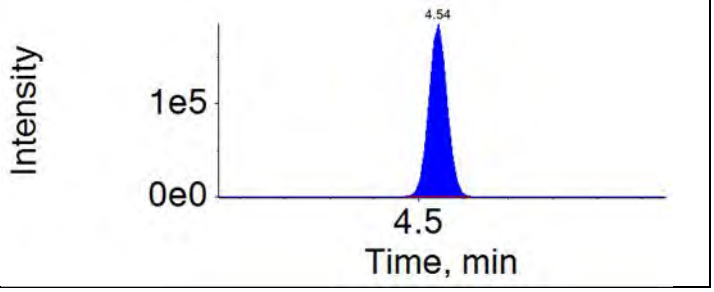
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



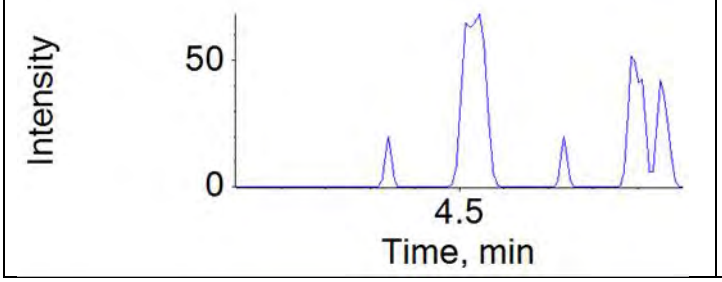


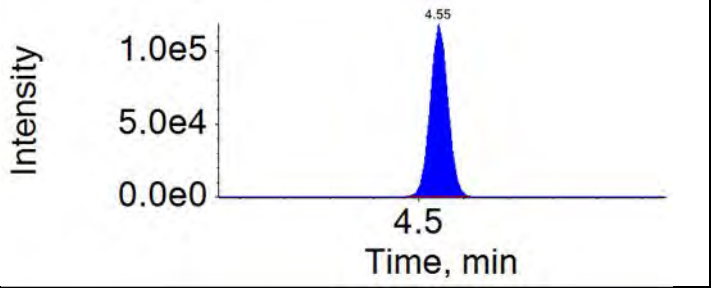
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0



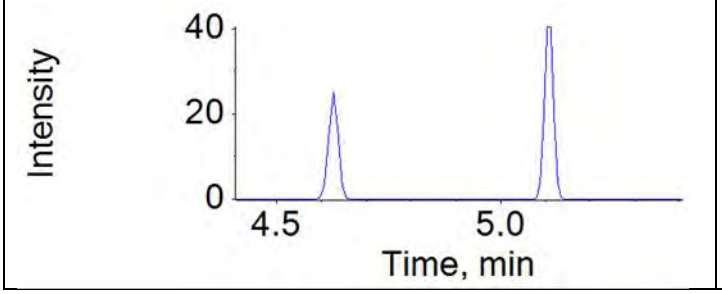


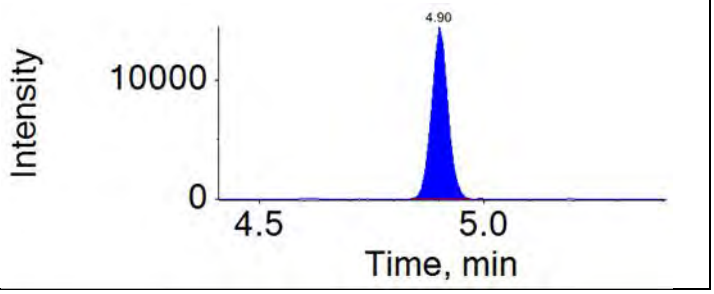
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

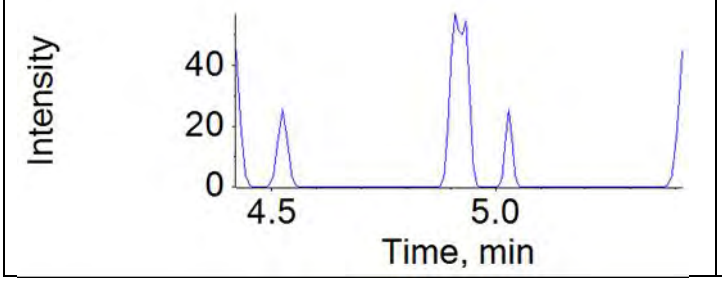
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

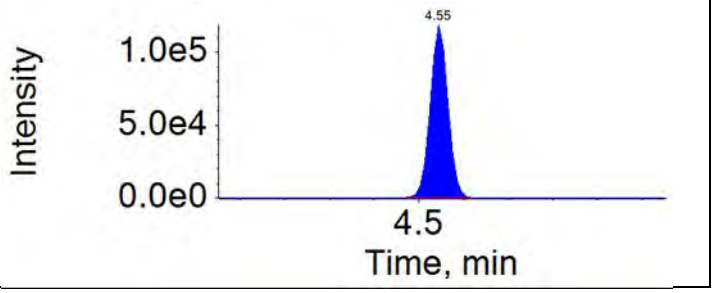
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



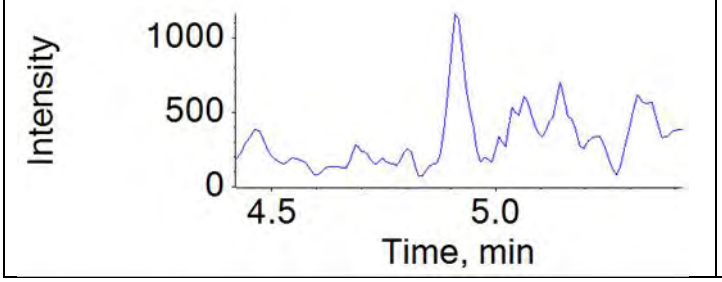


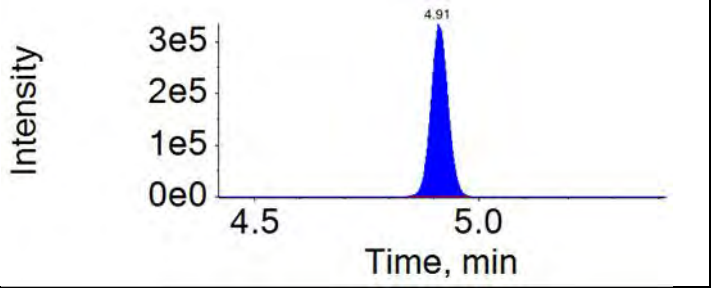
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



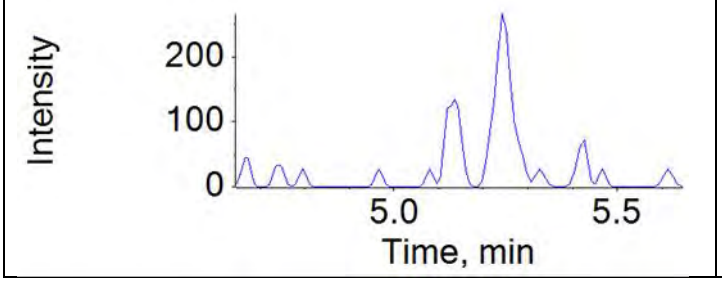


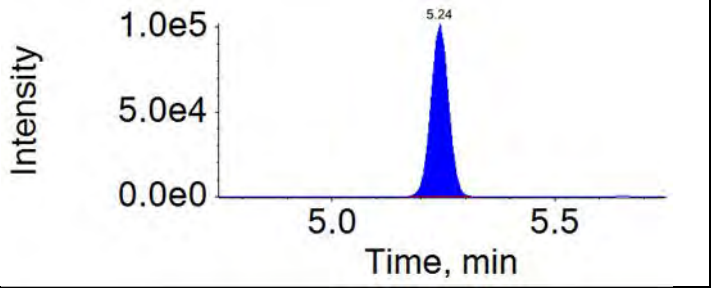
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





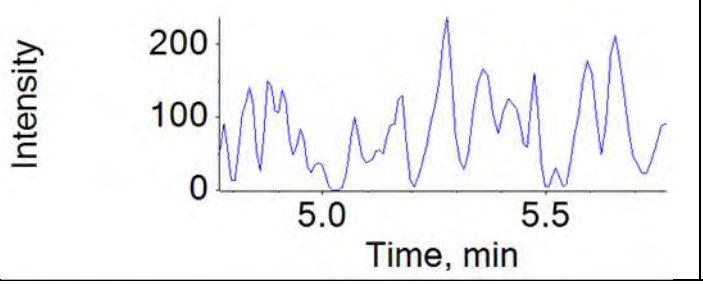
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

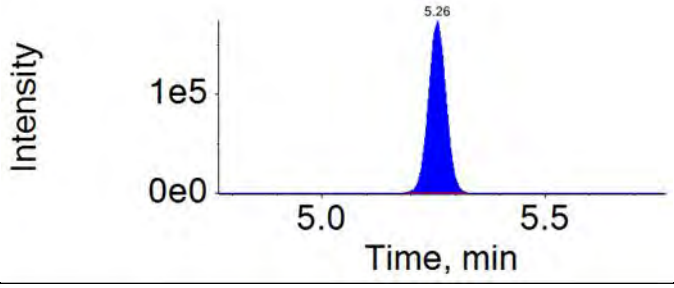




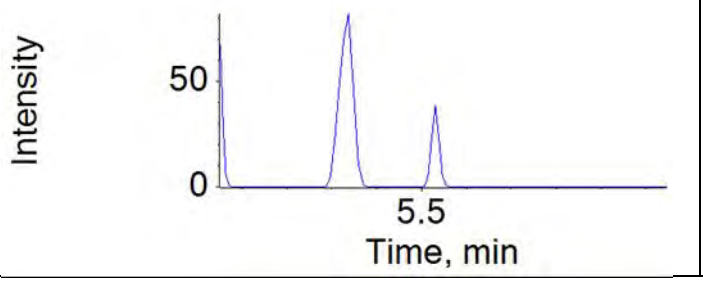
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

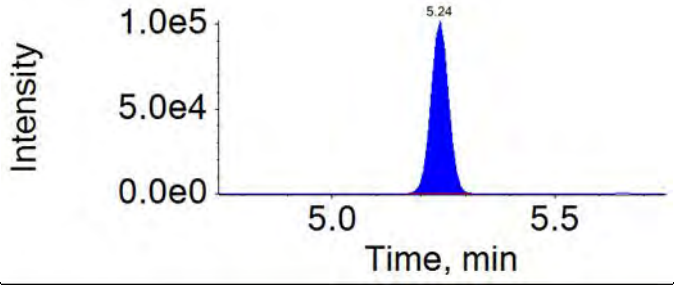
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



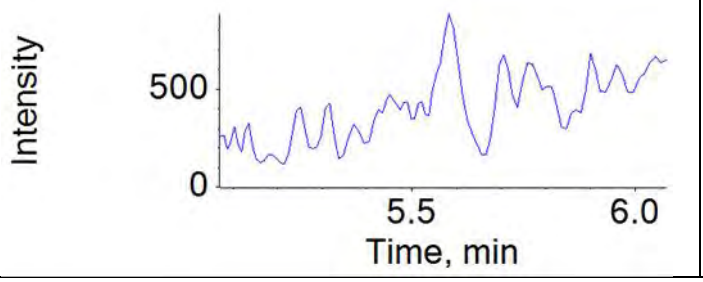


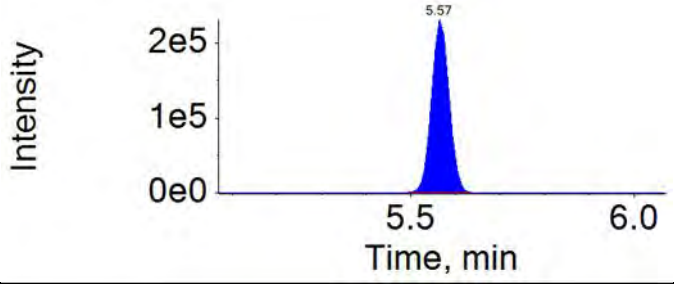
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



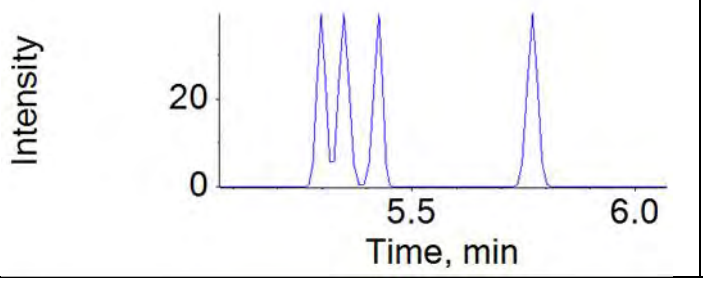


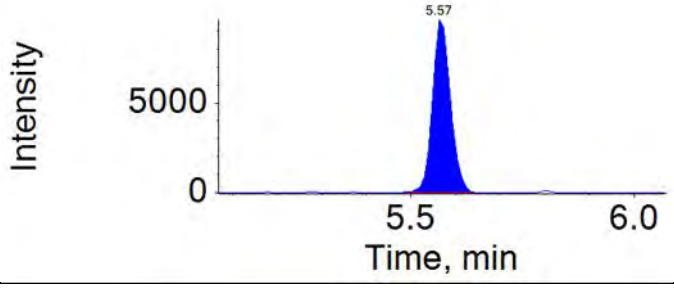
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



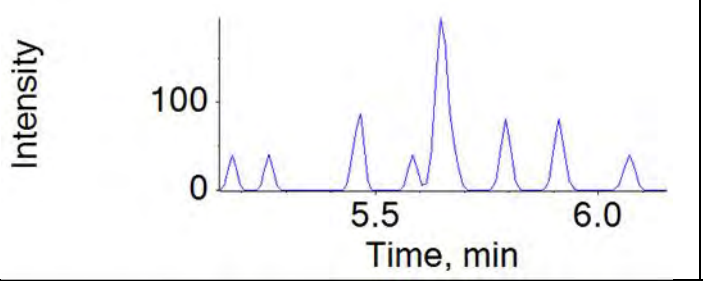


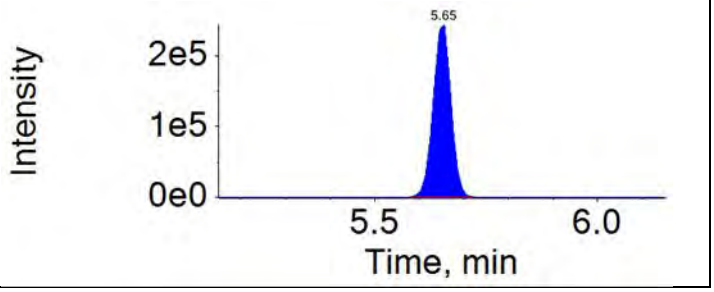
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

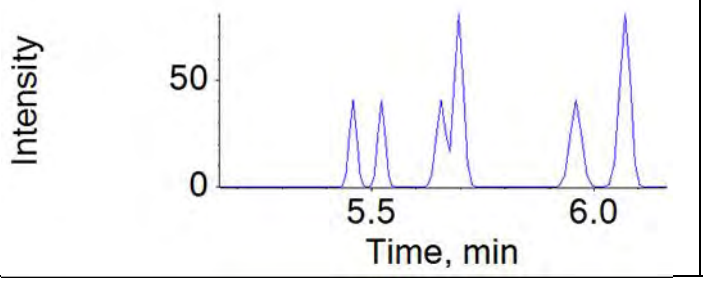
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

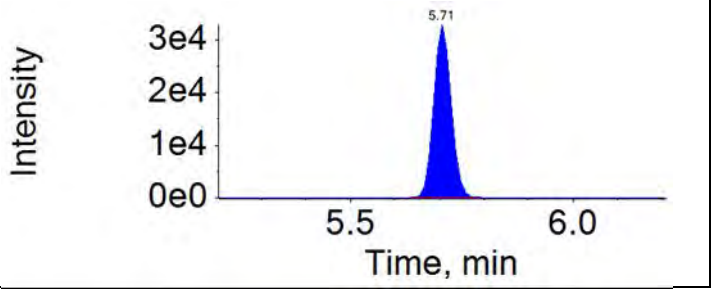
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



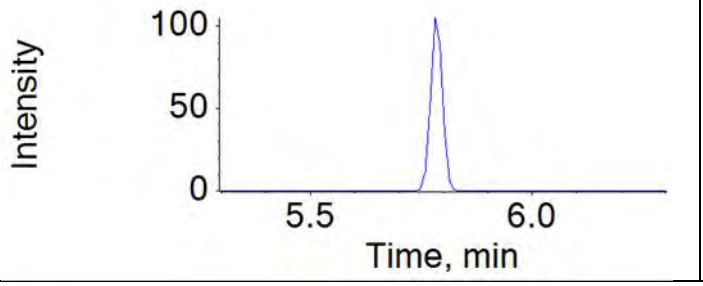


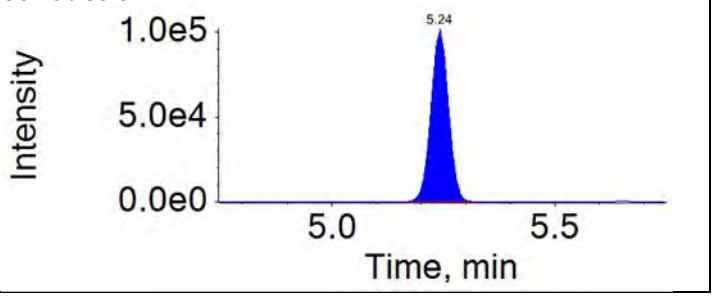
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



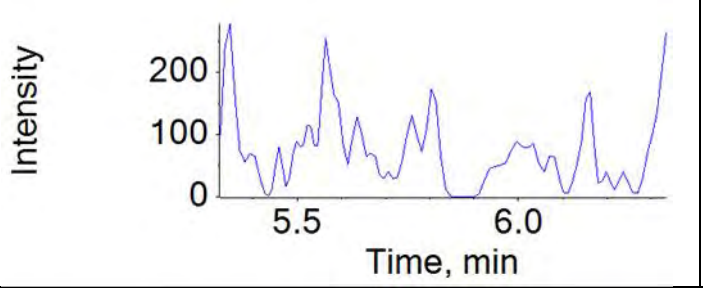


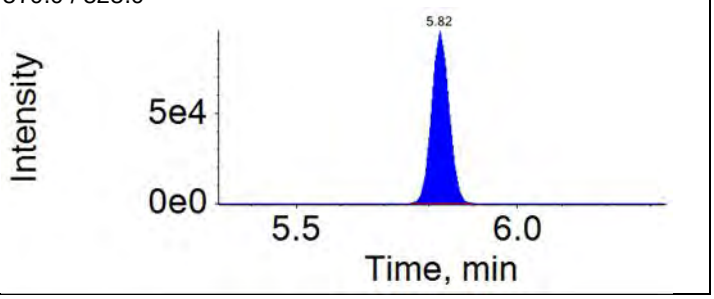
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



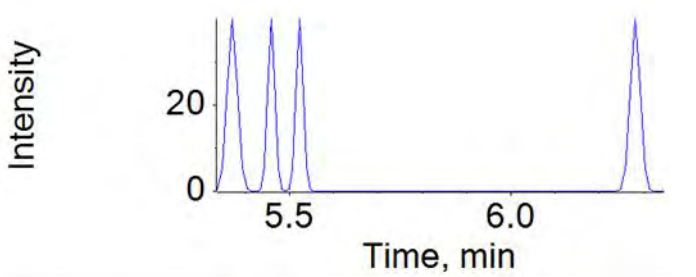


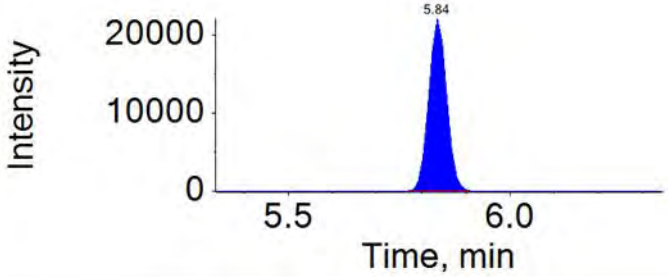
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

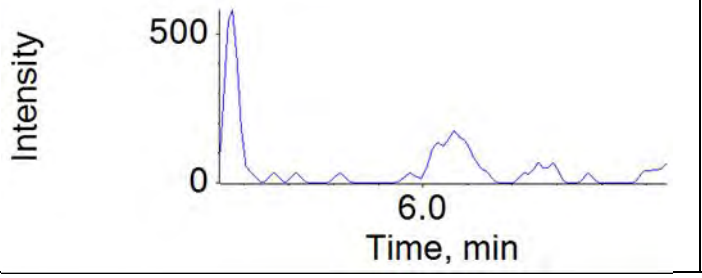
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

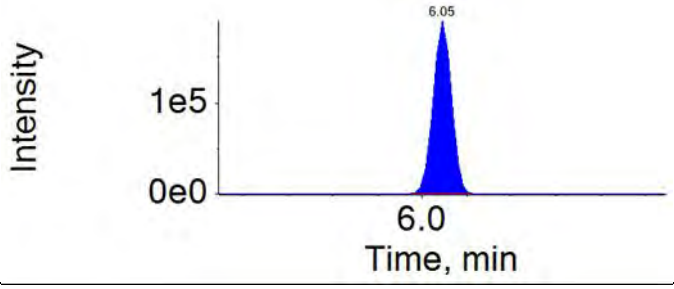
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



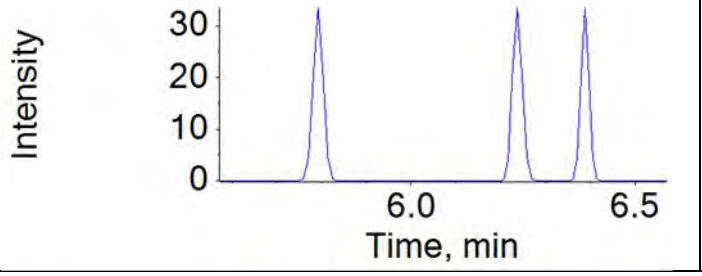


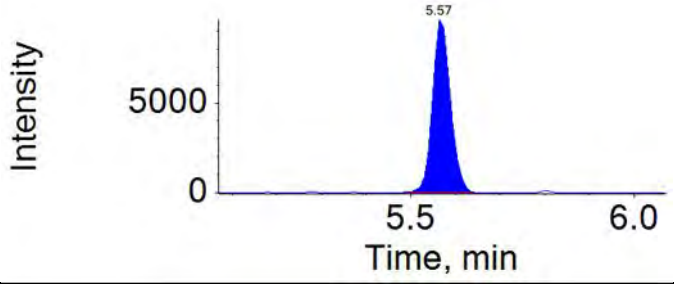
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



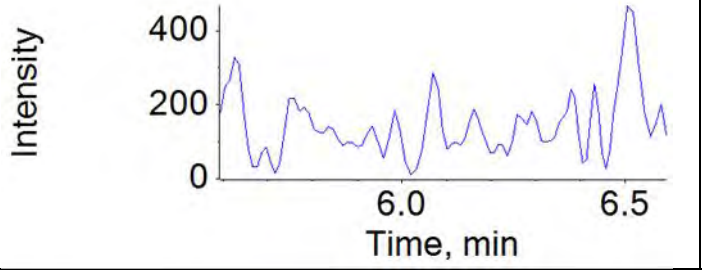


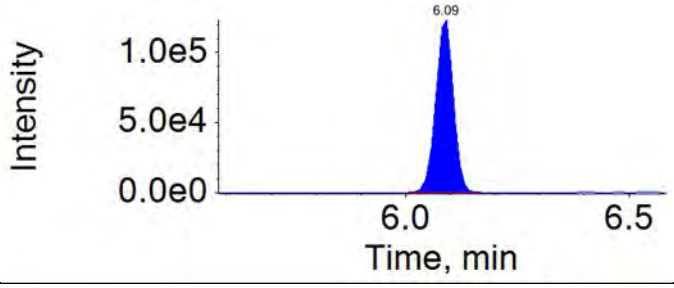
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



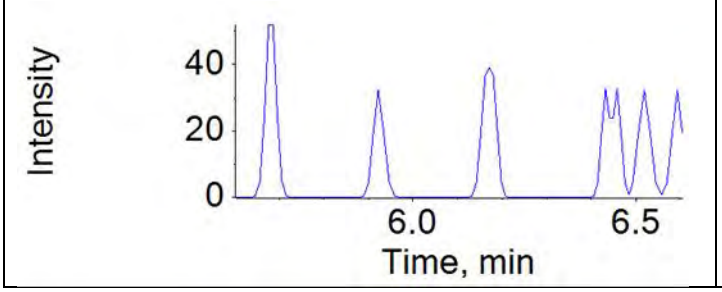


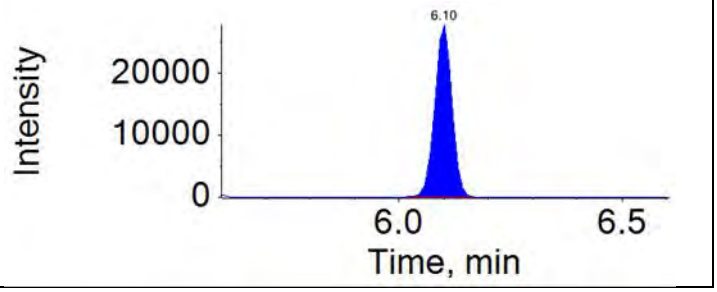
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

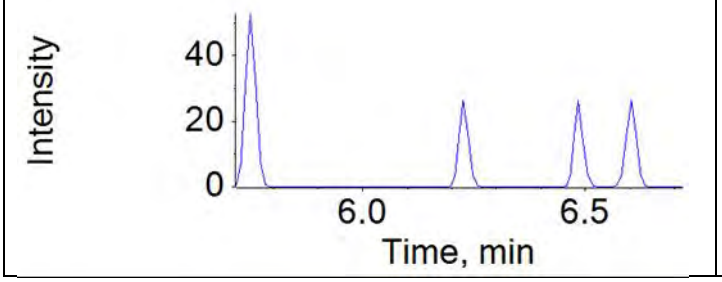
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

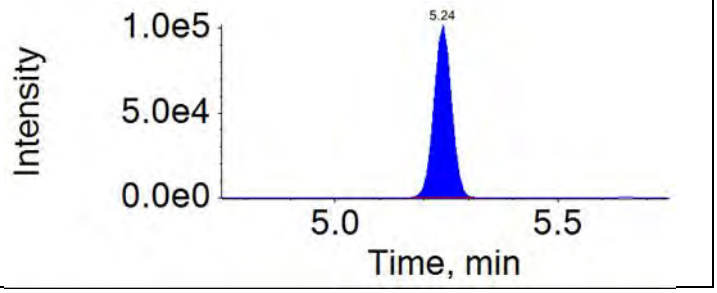
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



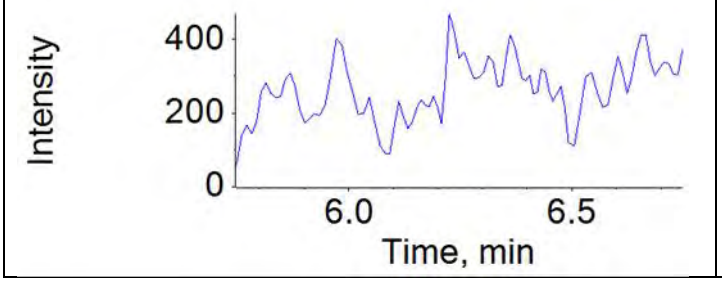


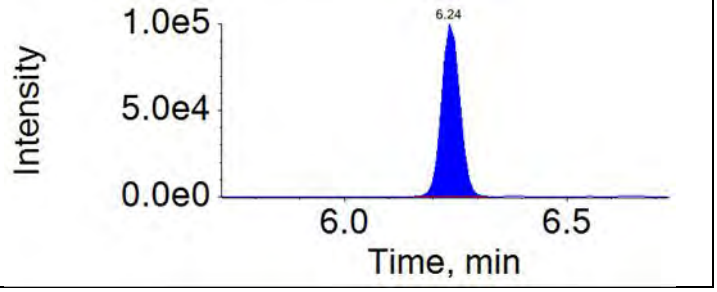
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



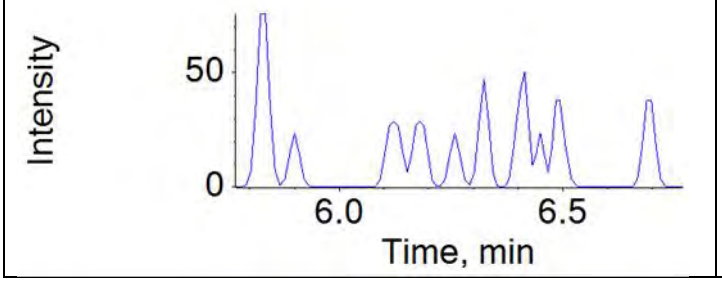


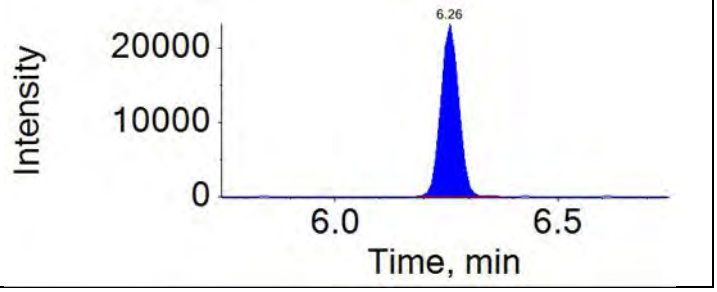
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



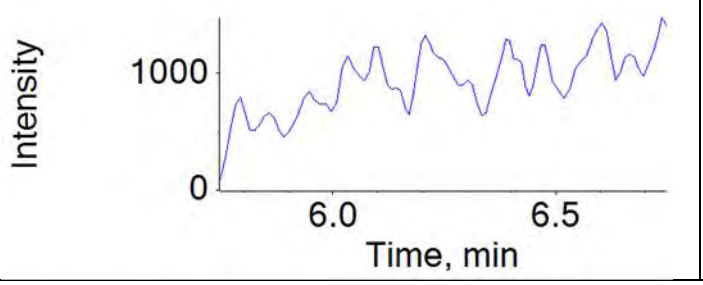


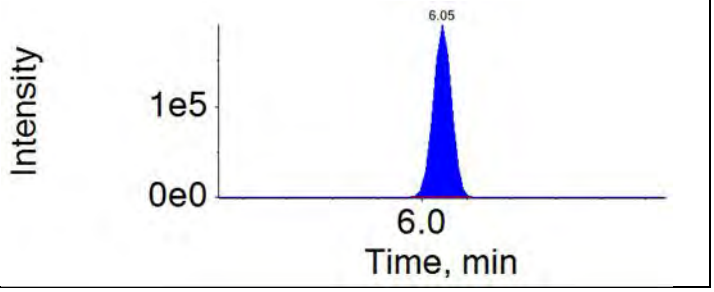
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

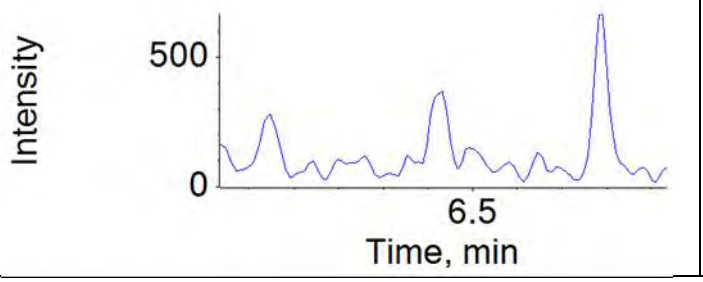
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

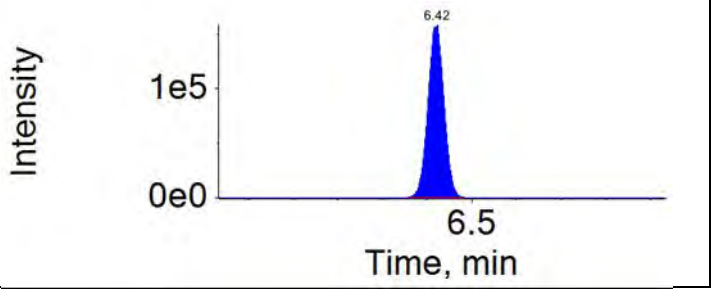
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



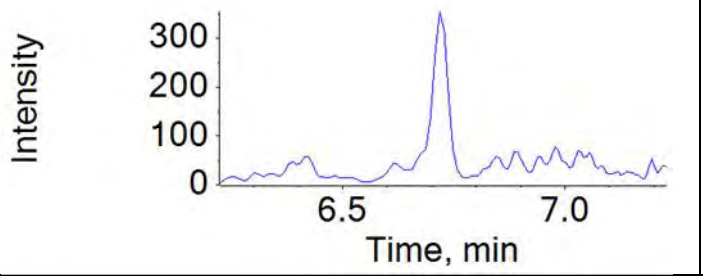


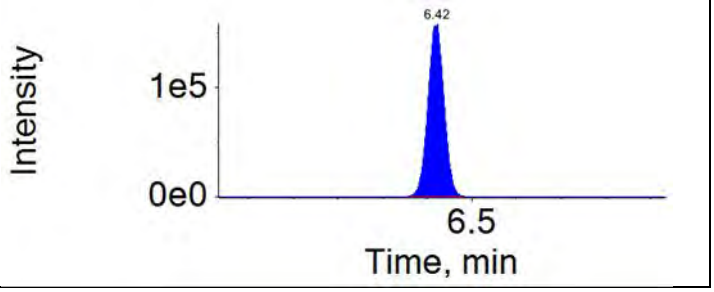
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



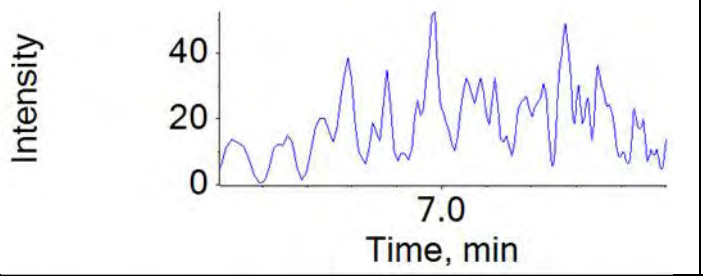


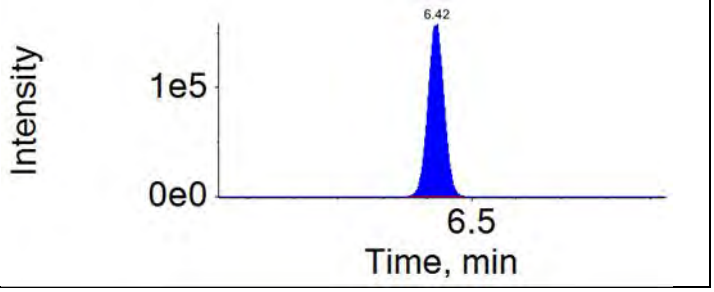
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

Ion Ratio Report

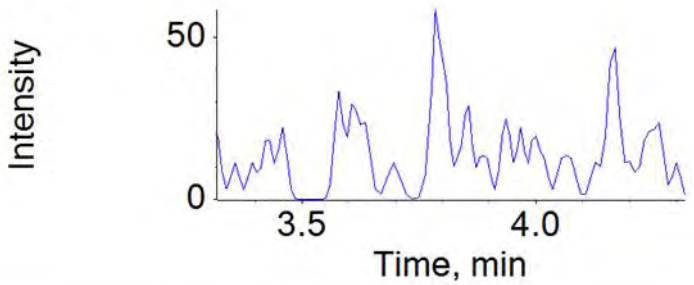
Sample Name: BLK314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-61.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

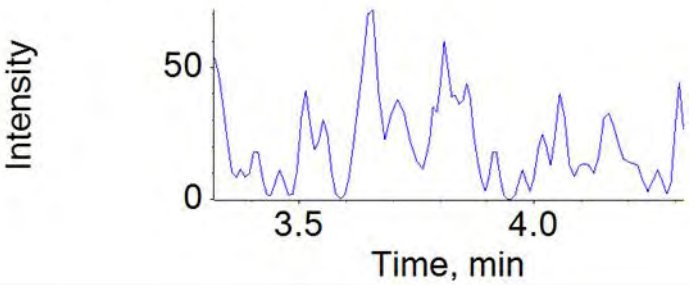
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

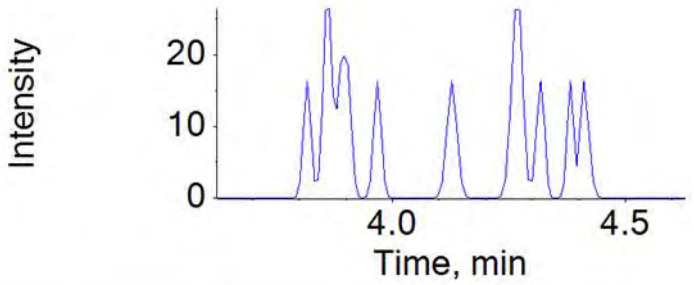
Component: PFBS
Primary Mass: 299.0 / 80.0



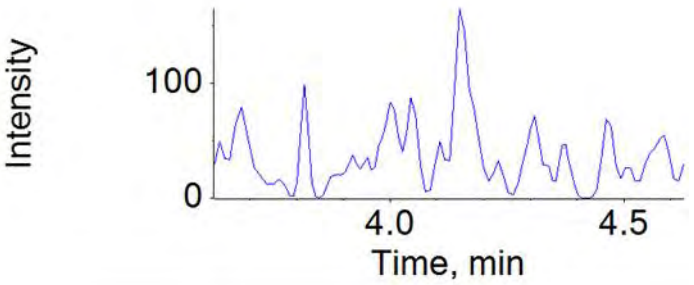
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



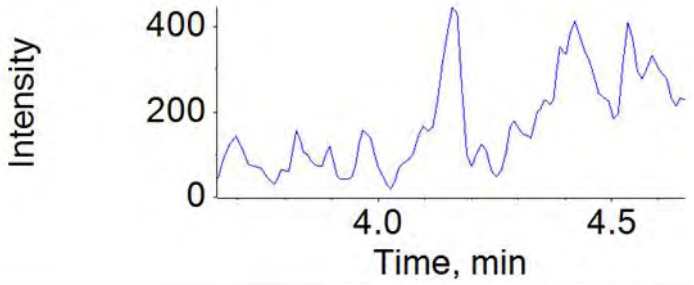
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



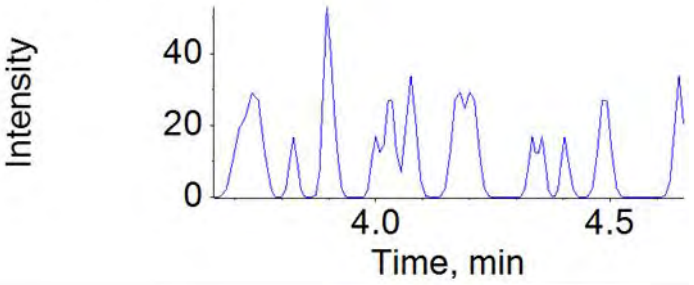
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



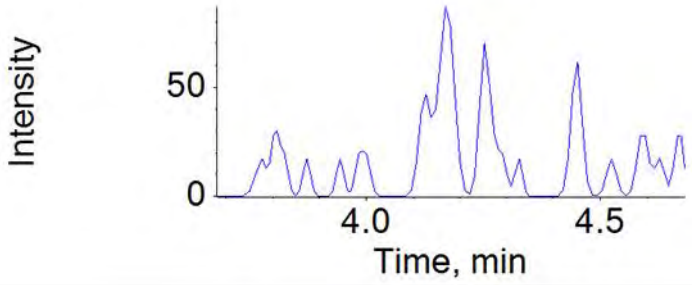
Component: PFHxA
Primary Mass: 313.0 / 269.0



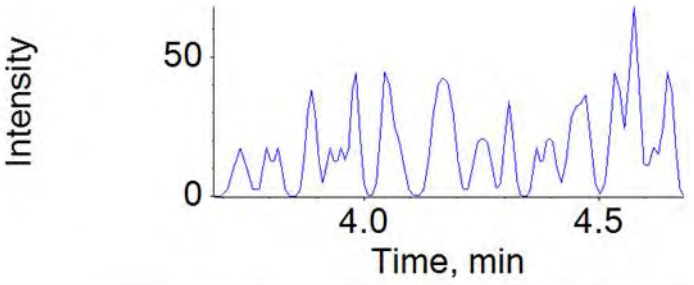
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



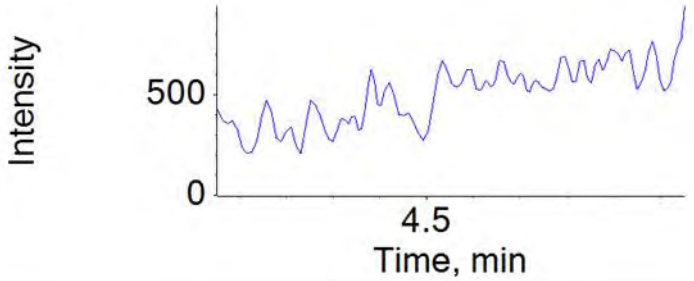
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



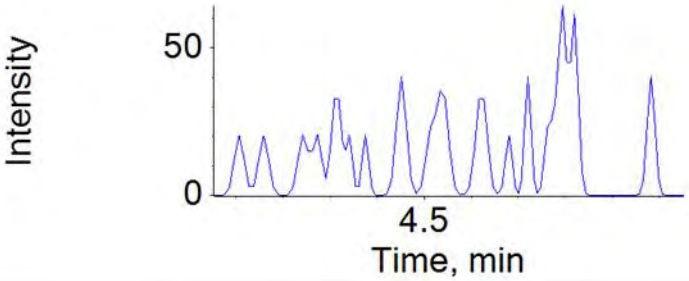
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

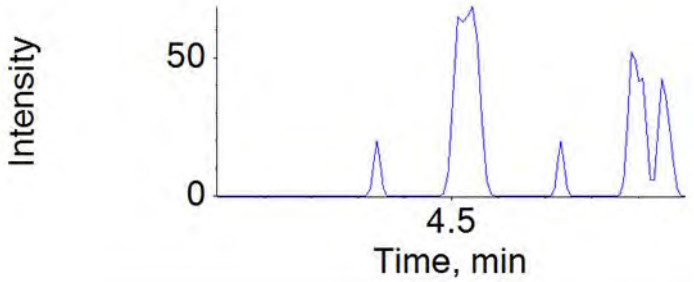
Component: PFHpA
Primary Mass: 363.0 / 319.0



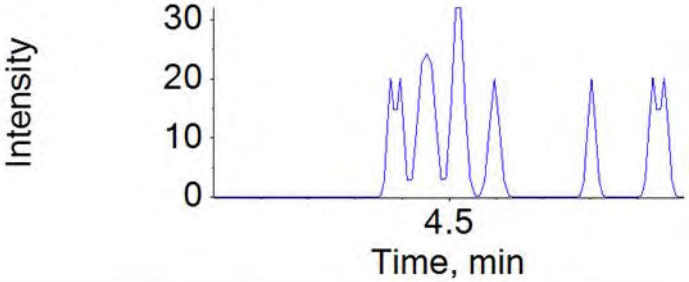
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



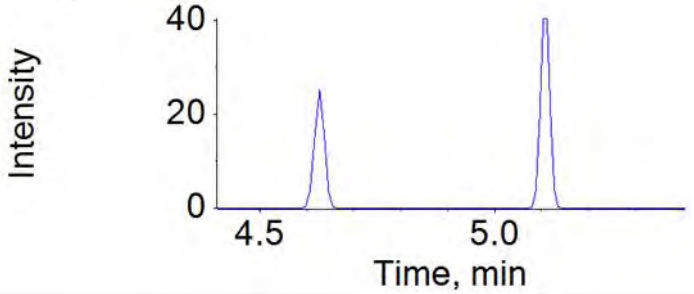
Component: PFHxS
Primary Mass: 399.0 / 80.0



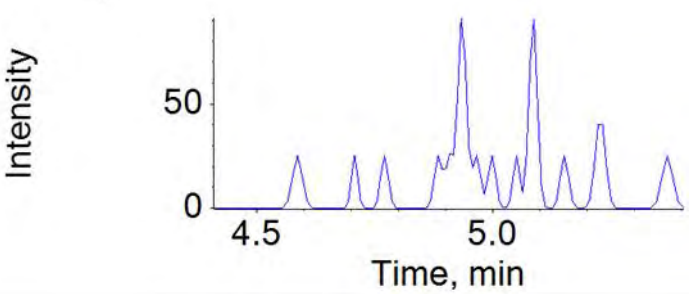
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



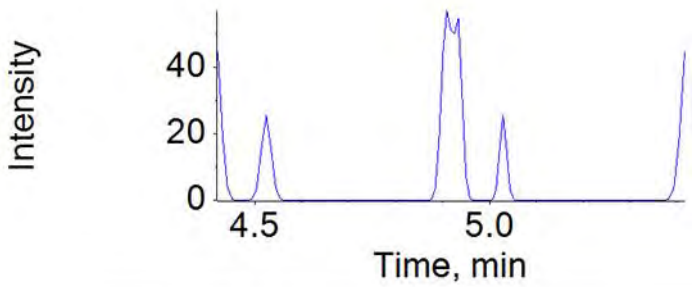
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



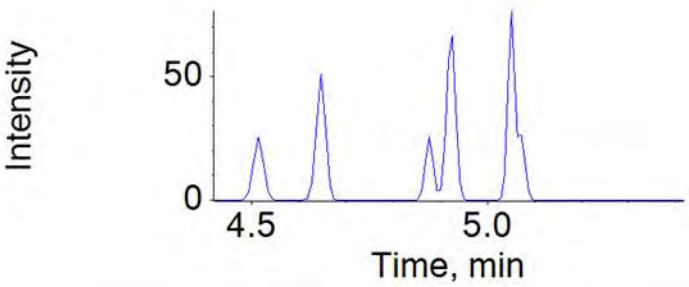
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



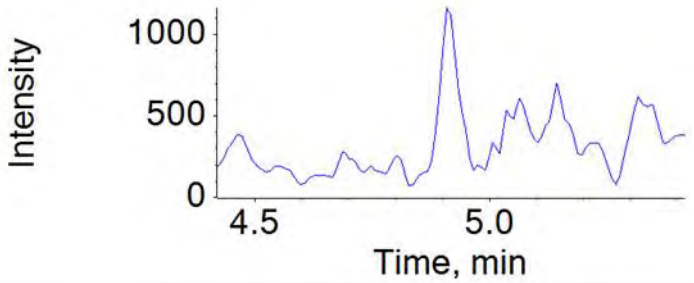
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



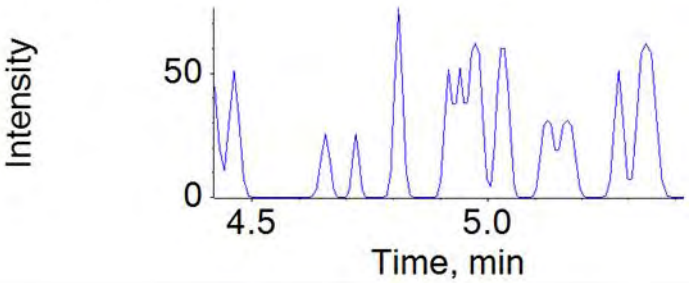
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

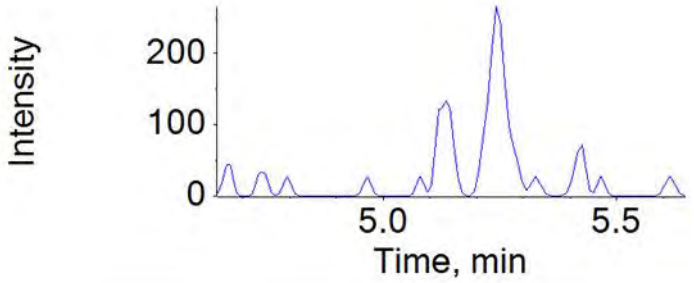
Component: PFOA
Primary Mass: 413.0 / 369.0



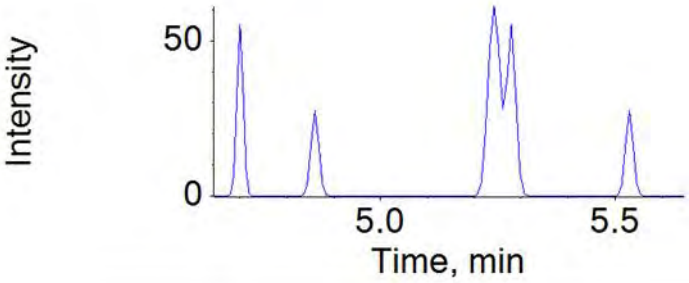
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



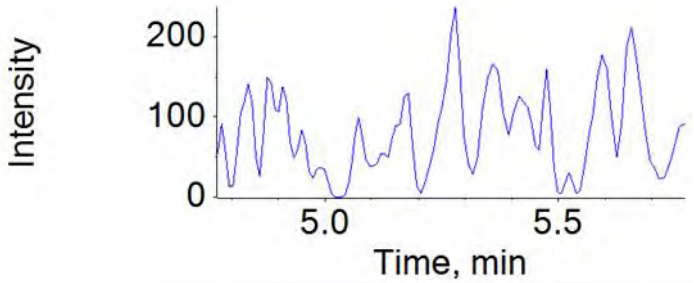
Component: PFOS
Primary Mass: 499.0 / 80.0



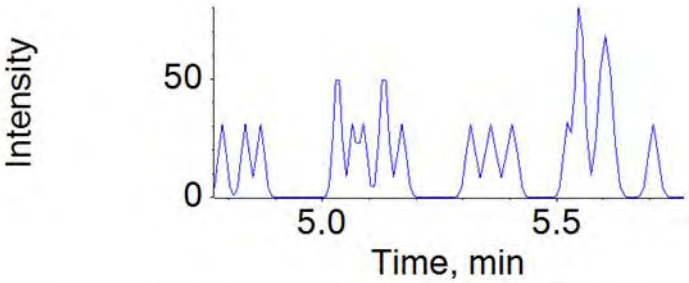
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



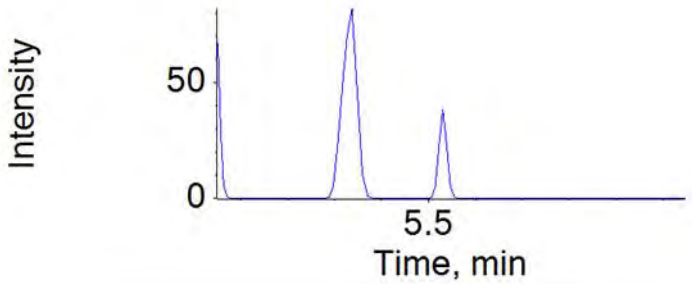
Component: PFNA
Primary Mass: 463.0 / 419.0



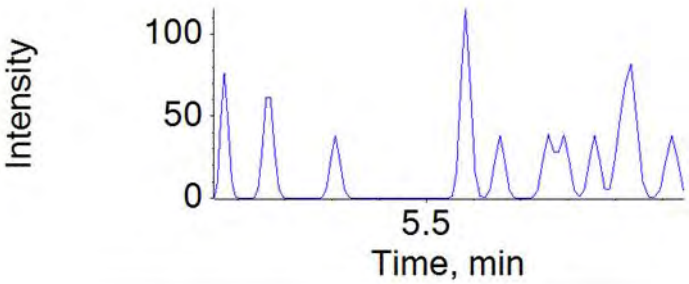
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



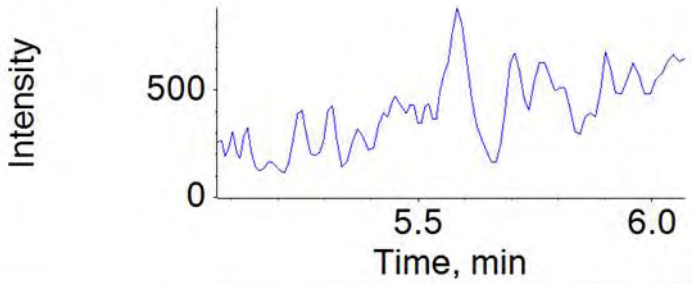
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



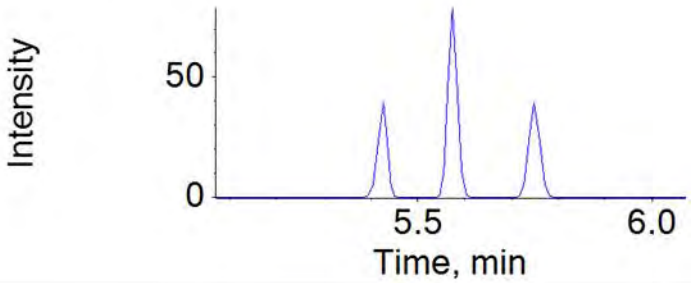
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

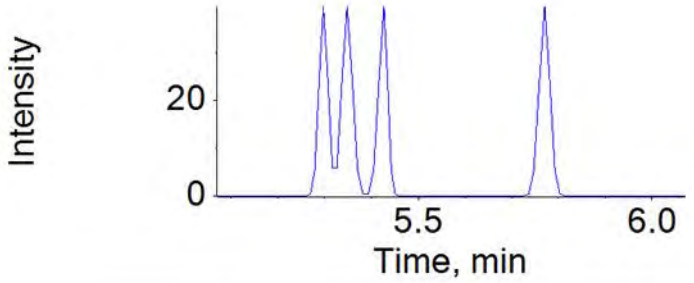
Component: PFDA
Primary Mass: 513.0 / 469.0



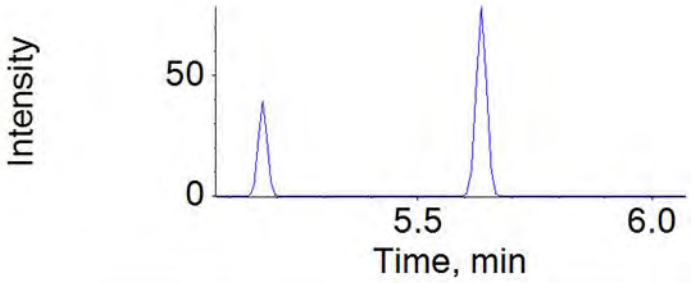
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



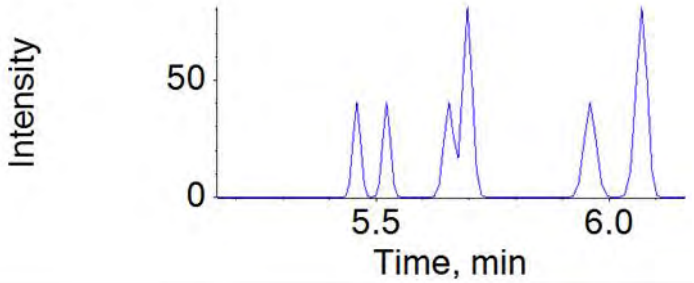
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



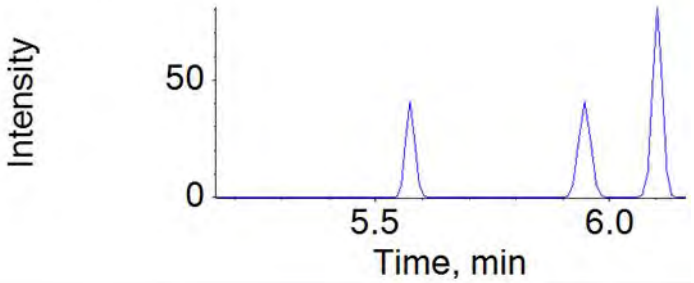
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



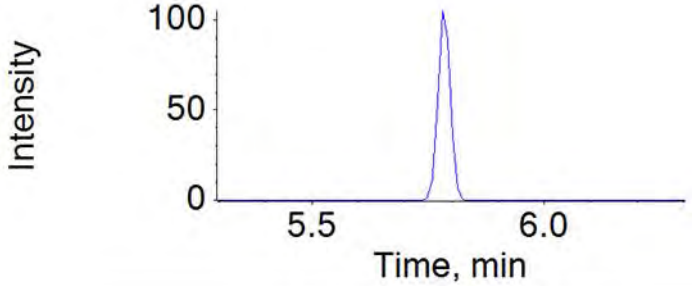
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



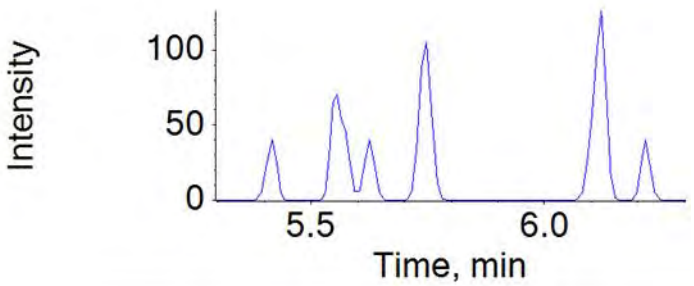
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



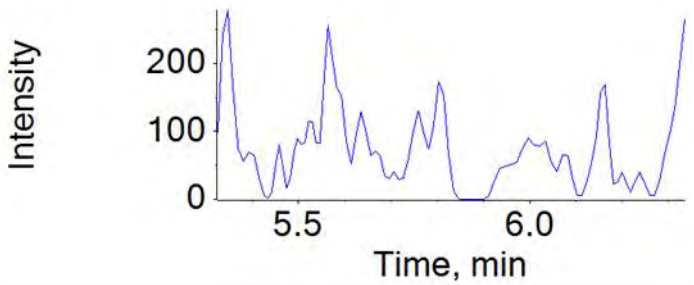
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



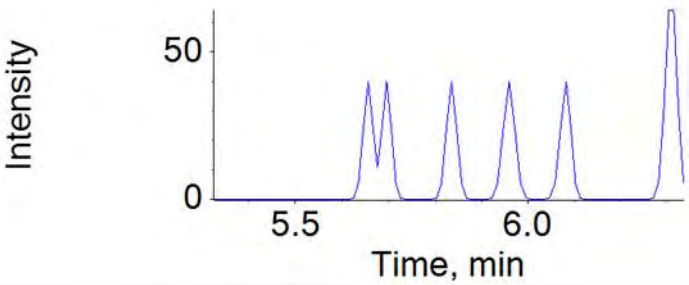
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

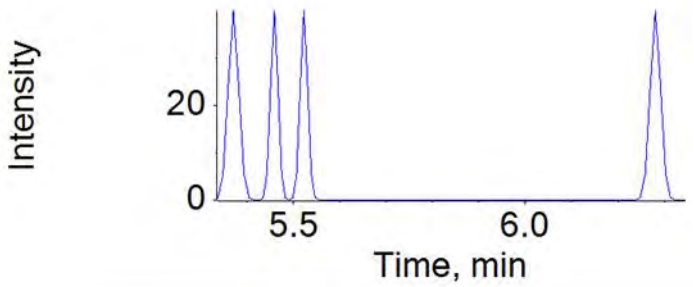
Component: PFUnDA
Primary Mass: 563.0 / 519.0



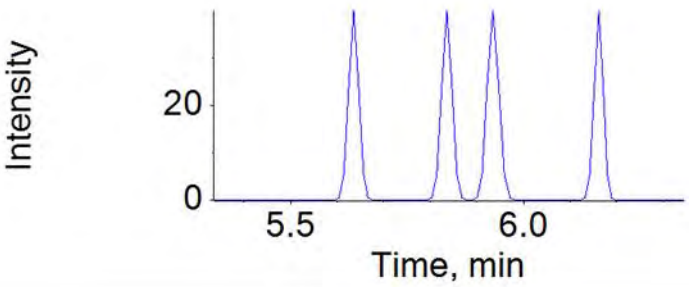
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



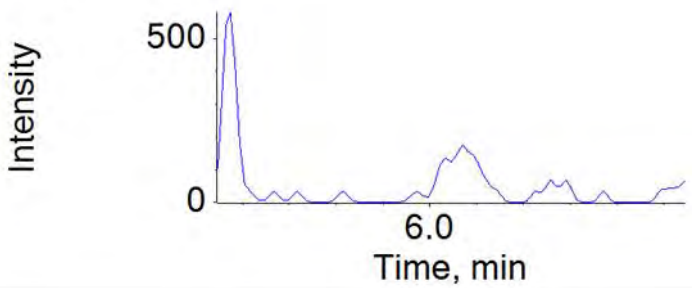
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



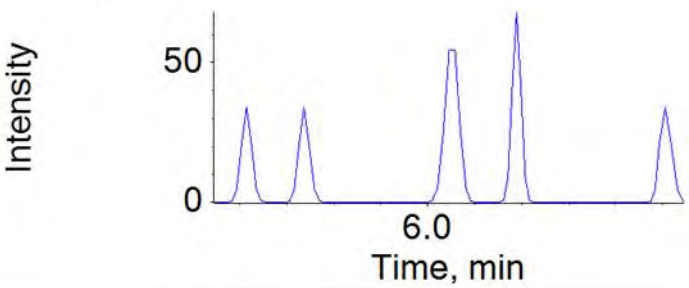
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



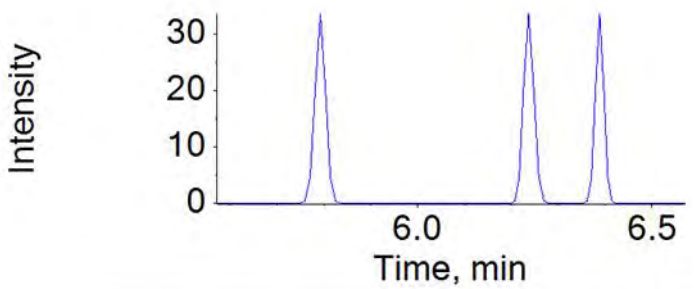
Component: PFDoDA
Primary Mass: 613.0 / 569.0



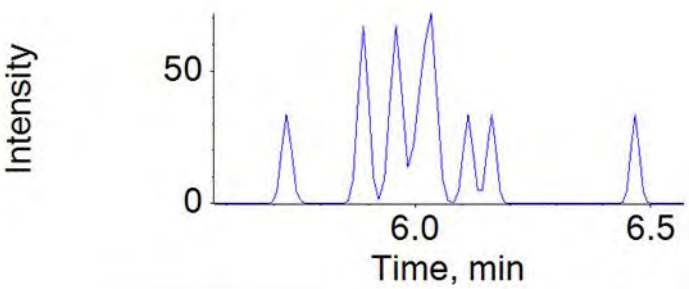
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



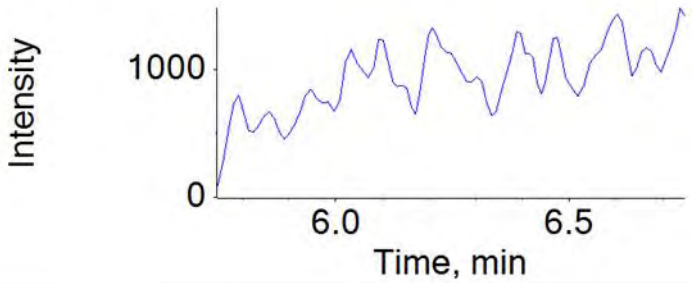
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



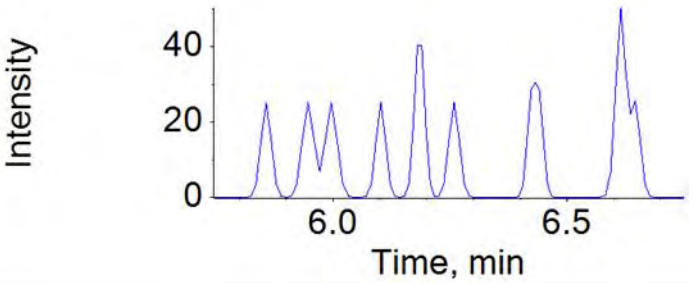
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

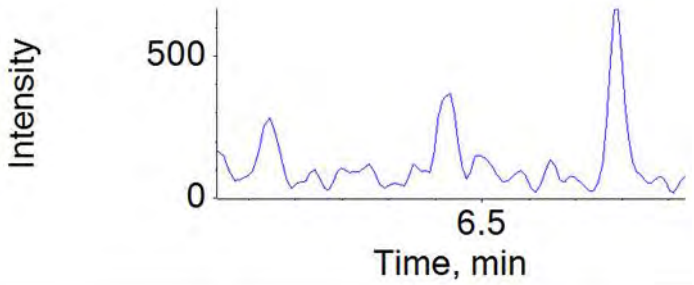
Component: PFTrDA
Primary Mass: 663.0 / 619.0



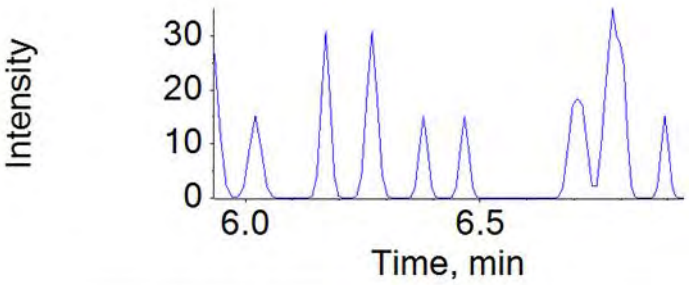
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



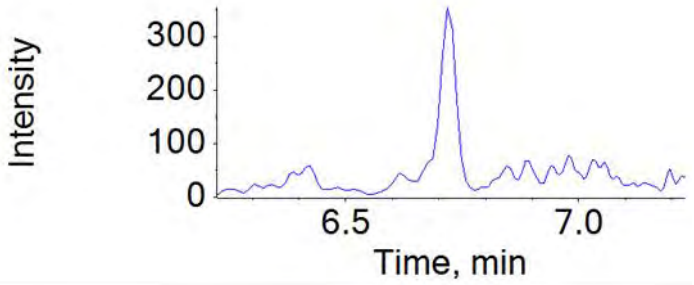
Component: PFTeDA
Primary Mass: 713.0 / 669.0



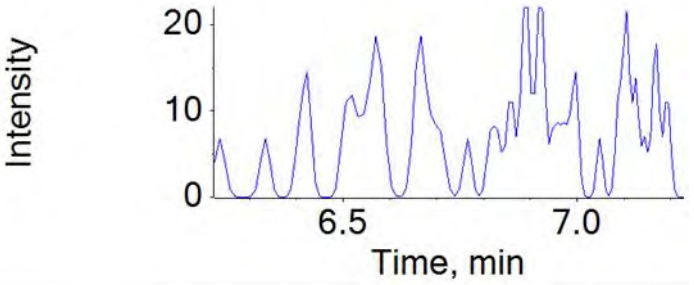
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



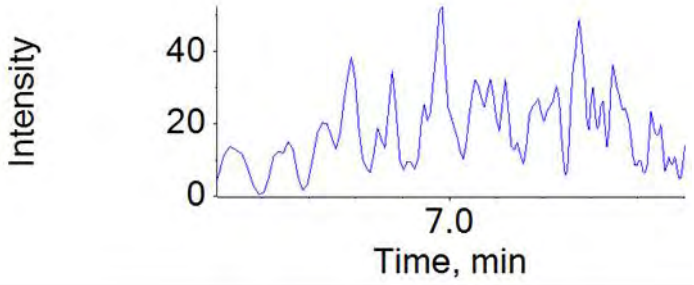
Component: PFHxDA
Primary Mass: 813.0 / 769.0



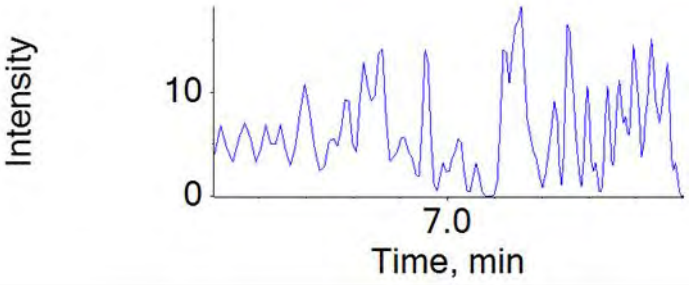
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:37 pm, 11/13/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	BLK332003			**Data File:**		18NOV29D-55.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003			**Acquis Date:**		2018-11-29T18:04:39
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	35			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18332003
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	18332003			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1052098.8	906425.4	16	50	
13C2-PFOA	5.0	583595.2	495984.0	18	50	
13C4-PFOS	4.8	370221.3	296261.8	25	50	
13C2-PFDA	5.0	538785.8	451203.0	19	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1166068.6	13C3-PFBA	1052098.8	1.108	10.000	9.890	99	50-150	
E13C5-PFPeA	1140810.2	13C3-PFBA	1052098.8	1.084	10.000	10.127	101	50-150	
E13C3-PFBS	483273.6	13C3-PFBA	1052098.8	0.459	9.300	8.765	94	50-150	
E13C2-4:2-FTS	88299.6	13C2-PFOA	583595.2	0.151	9.340	10.428	112	50-150	
E13C5-PFHxA	810532.0	13C2-PFOA	583595.2	1.389	10.000	10.203	102	50-150	
E13C3-PFHxS	390556.7	13C2-PFOA	583595.2	0.669	9.460	10.490	111	50-150	
E13C4-PFHpA	638162.6	13C2-PFOA	583595.2	1.094	10.000	10.049	100	50-150	
E13C2-6:2-FTS	85768.5	13C2-PFOA	583595.2	0.147	9.500	12.304	130	50-150	
E13C8-PFOA	1115290.8	13C2-PFOA	583595.2	1.911	10.000	10.520	105	50-150	
E13C8-PFOS	380904.6	13C4-PFOS	370221.3	1.029	9.560	9.289	97	50-150	
E13C9-PFNA	767466.6	13C4-PFOS	370221.3	2.073	10.000	9.106	91	50-150	
E13C6-PFDA	985084.0	13C2-PFDA	538785.8	1.828	10.000	10.310	103	50-150	
E13C2-8:2-FTS	68023.4	13C2-PFDA	538785.8	0.126	9.580	10.853	113	50-150	
E13C8-PFOSA	779450.6	13C2-PFDA	538785.8	1.447	10.000	10.617	106	50-150	
Ed3-NMeFOSAA	278947.3	13C2-PFDA	538785.8	0.518	10.000	13.147	131	50-150	
E13C7-PFUnDA	661426.3	13C2-PFDA	538785.8	1.228	10.000	10.377	104	50-150	
Ed5-NEtFOSAA	157048.2	13C2-PFDA	538785.8	0.291	10.000	10.386	104	50-150	
E13C2-PFDoDA	1314480.9	13C2-PFDA	538785.8	2.440	10.000	10.252	103	50-150	
Ed7-NMePFOSAE	315785.5	13C2-PFDA	538785.8	0.586	10.000	10.131	101	50-150	
Ed3-NMePFOSA	100147.5	13C2-PFDA	538785.8	0.186	10.000	10.061	101	50-150	
Ed9-NEtPFOSAE	274958.1	13C2-PFDA	538785.8	0.510	10.000	10.348	103	50-150	
Ed5-NEtPFOSA	88626.3	13C2-PFDA	538785.8	0.164	10.000	11.431	114	50-150	
E13C2-PFTeDA	925597.8	13C2-PFDA	538785.8	1.718	10.000	9.507	95	50-150	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

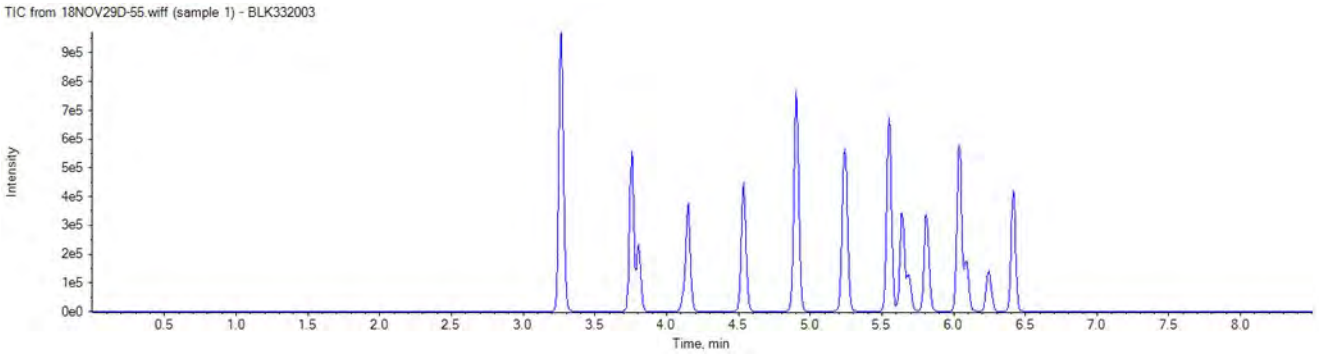
Analyte Quantitation Peak Table

Sample Name: BLK332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-55.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	1166068.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1140810.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	483273.6	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	88299.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	810532.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	483273.6	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.53	638162.6	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	390556.7	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.89	85768.5	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	390556.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.90	1115290.8	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	767466.6	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.55	985084.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	68023.4	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	779450.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.69	278947.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.81	661426.3	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.82	157048.2	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1314480.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	68023.4	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	315785.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	100147.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	274958.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	88626.3	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.04	1314480.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	

Total Ion Chromatogram

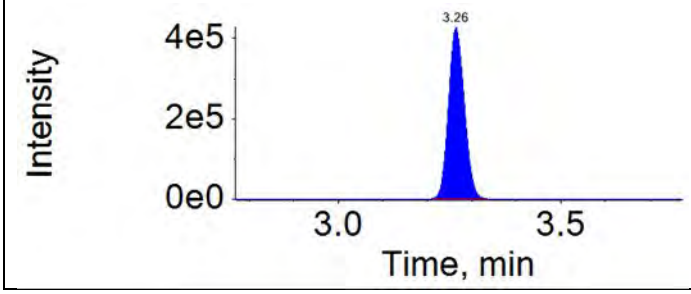


APPROVED
By MCD at 10:13 pm, 11/30/18

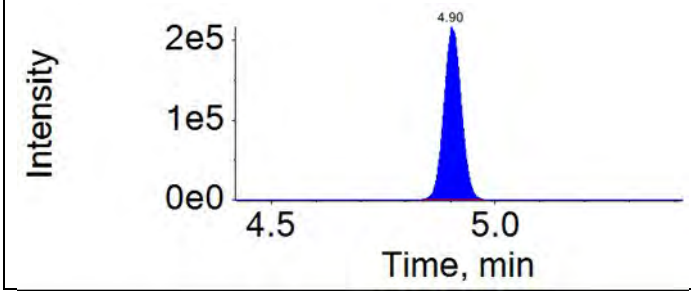
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

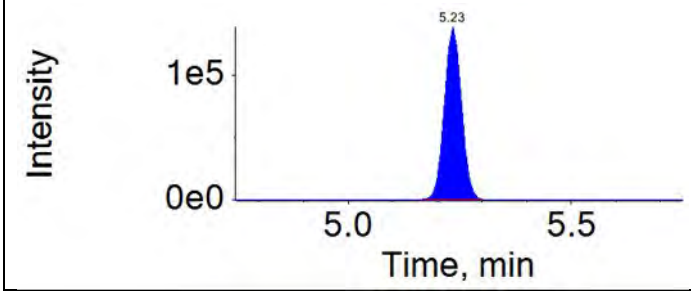
Injection Standard: 13C3-PFBA
216.0 / 172.0



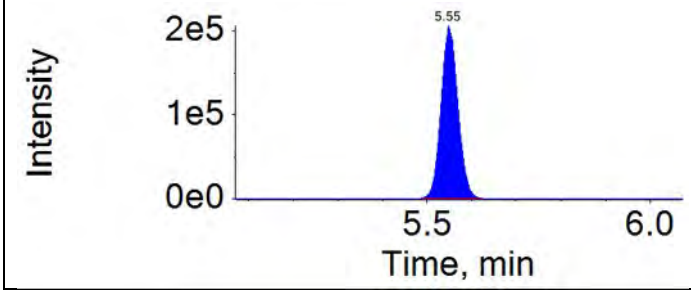
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



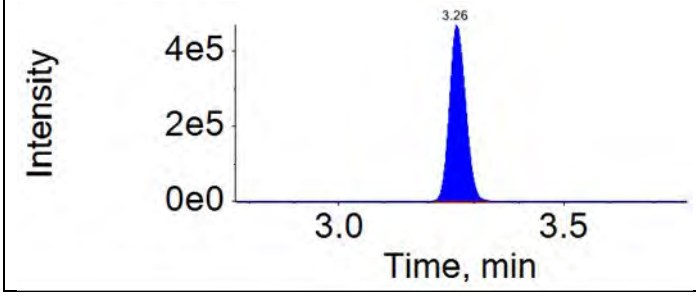
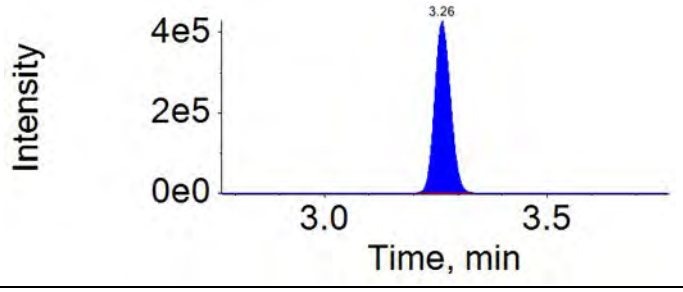
Injection Standard: 13C2-PFDA
515.0 / 470.0

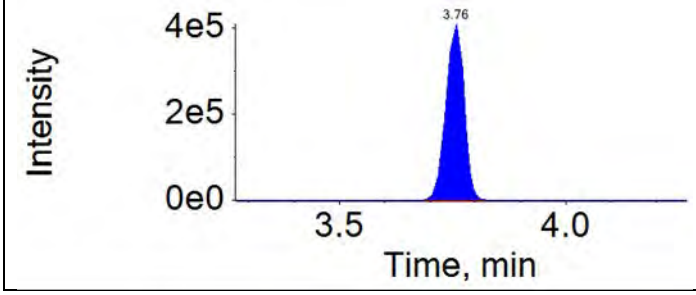
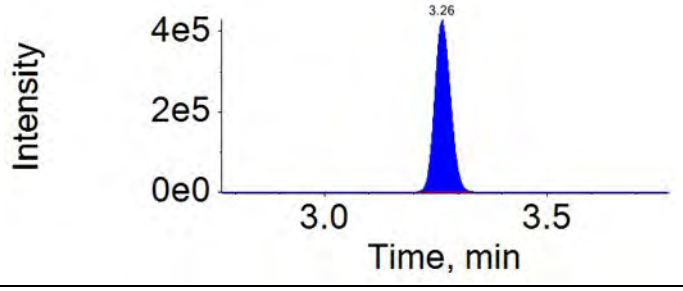


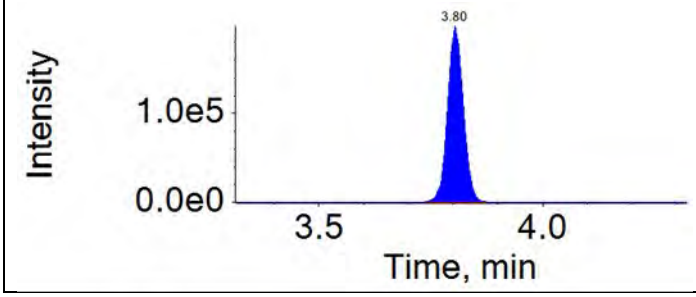
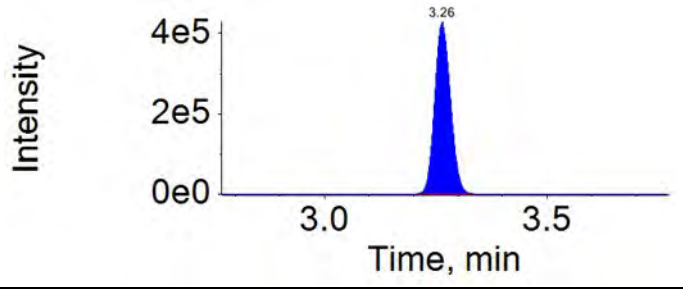
APPROVED
By MCD at 10:13 pm, 11/30/18

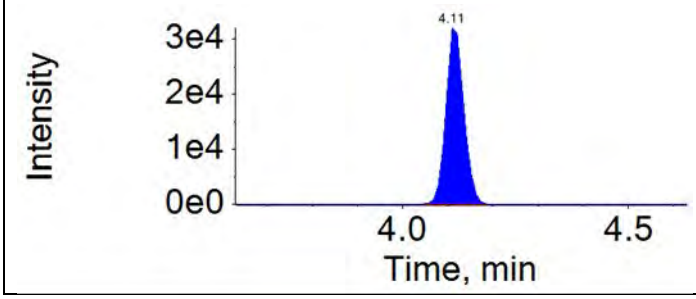
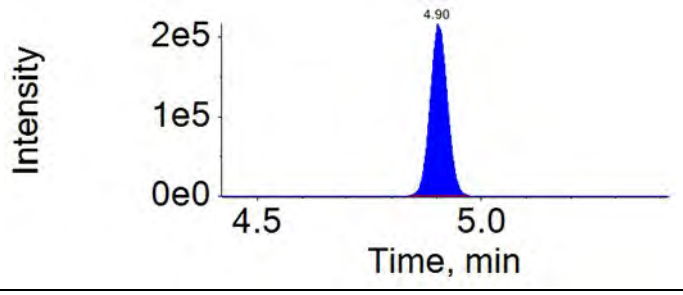
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

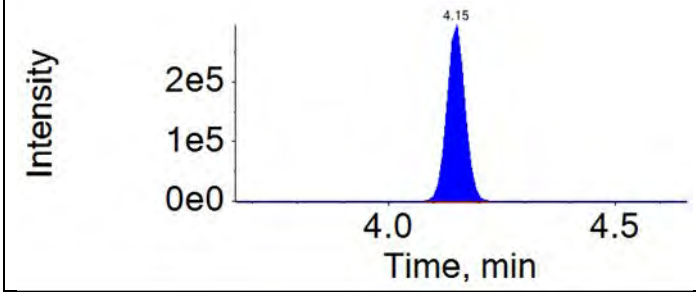
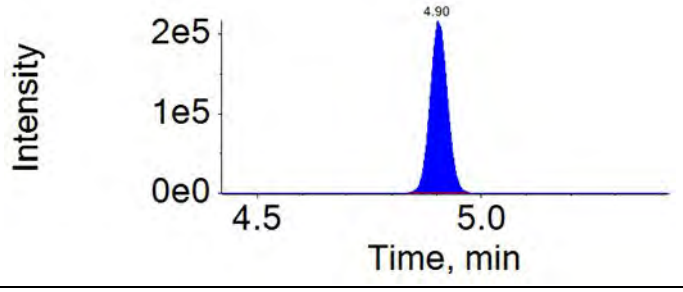
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

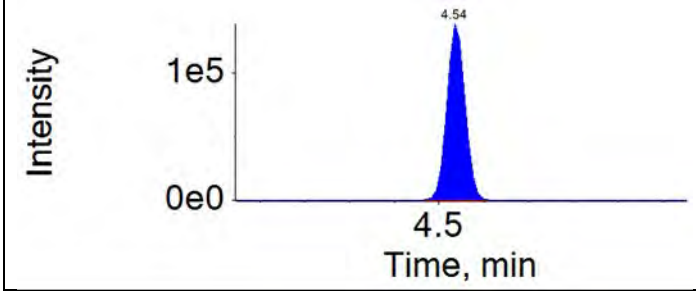
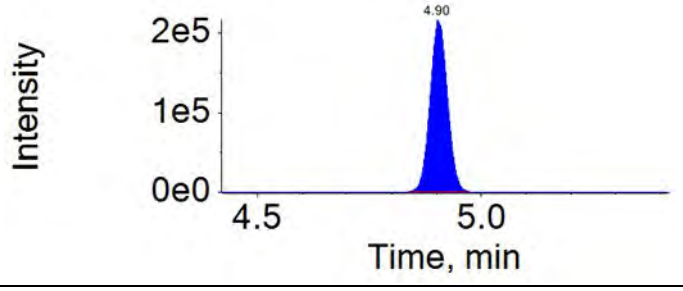
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

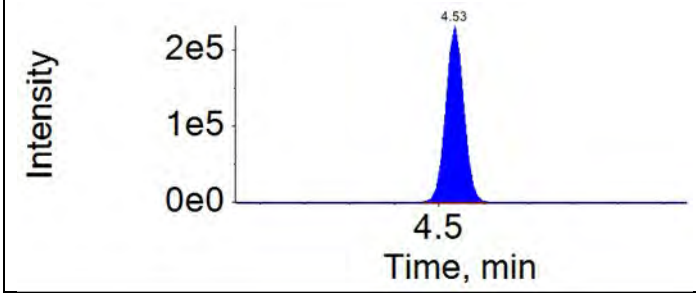
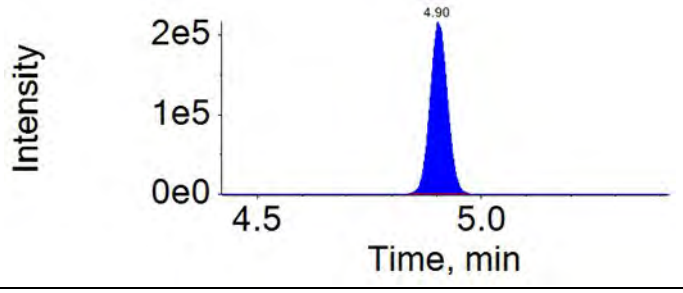
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

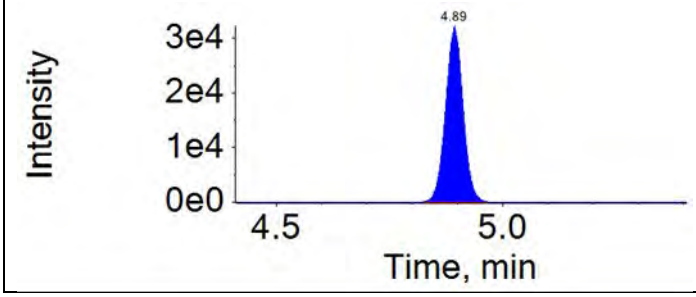
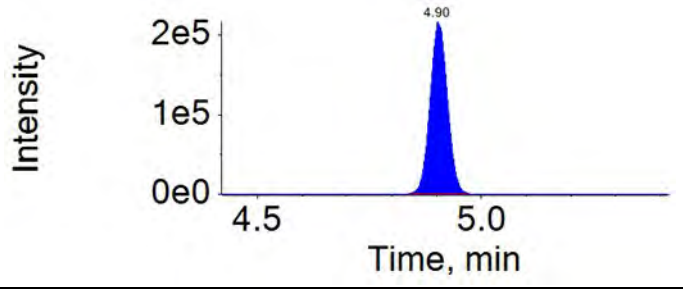
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

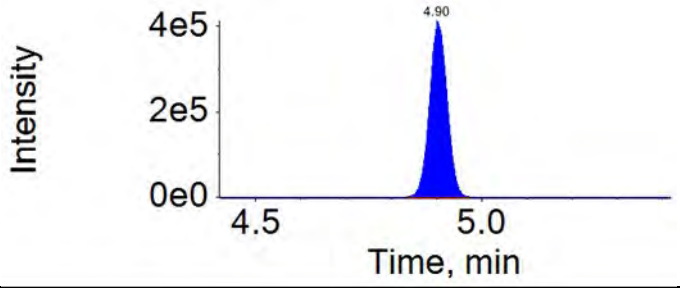
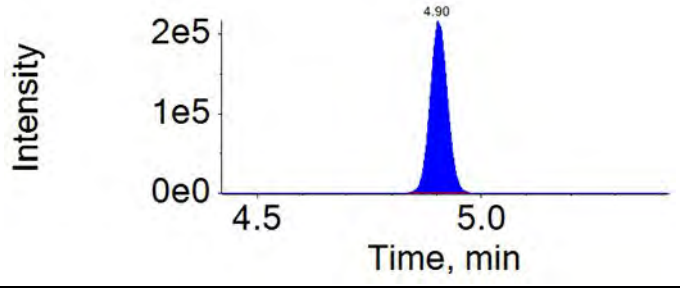
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

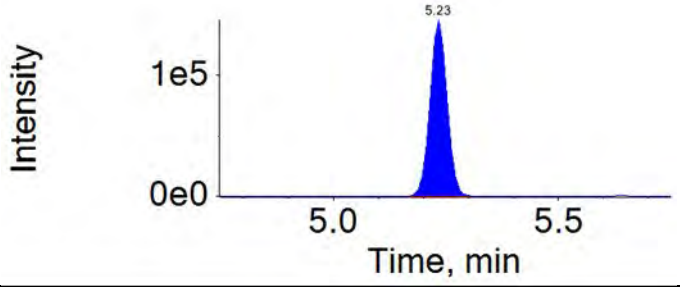
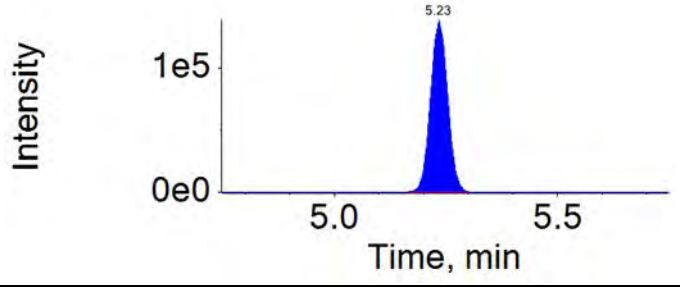
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

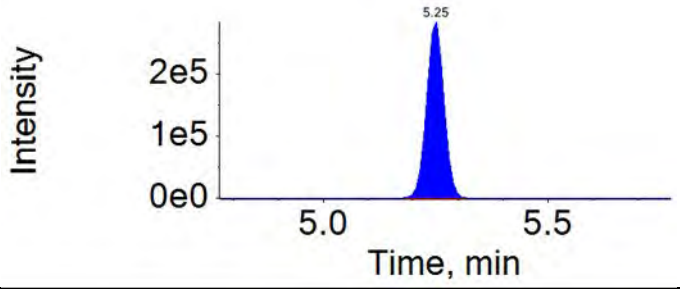
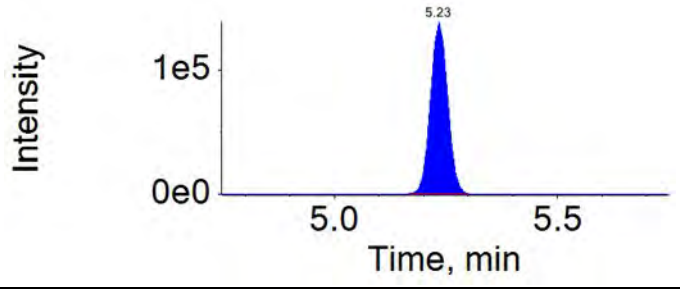
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

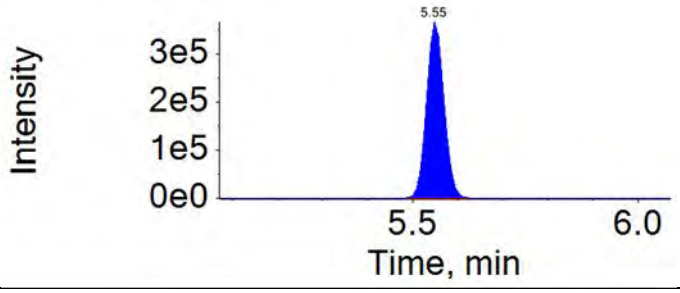
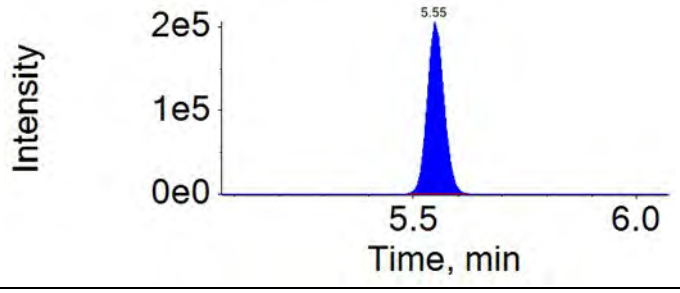
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

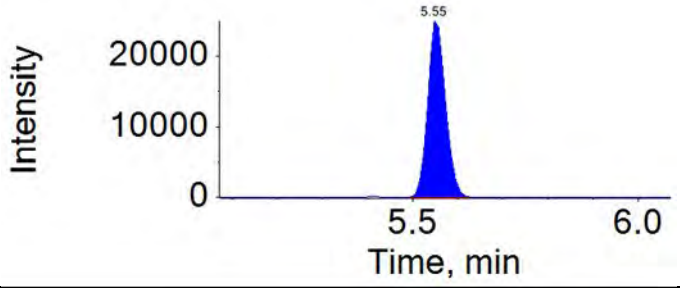
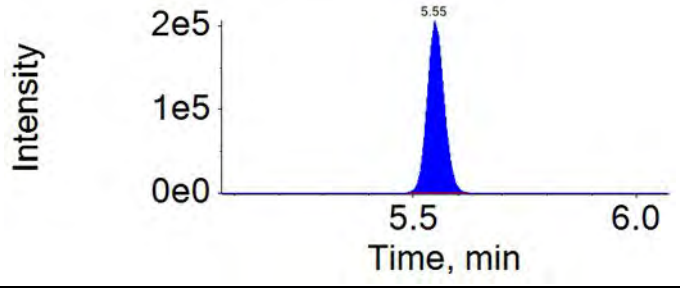
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

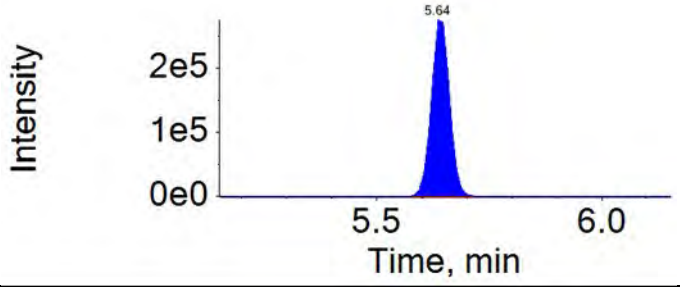
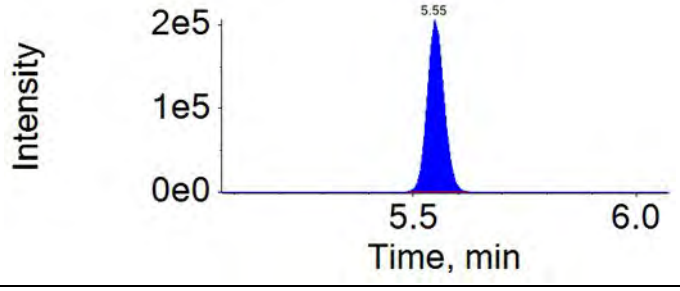
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

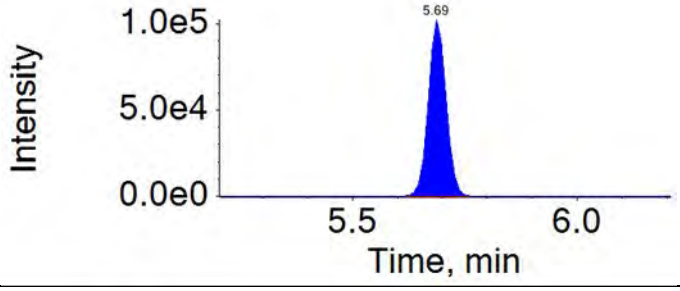
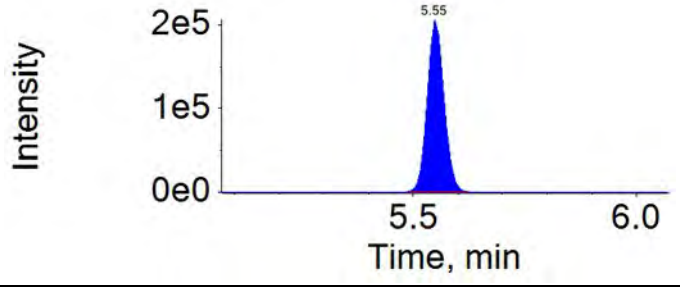
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

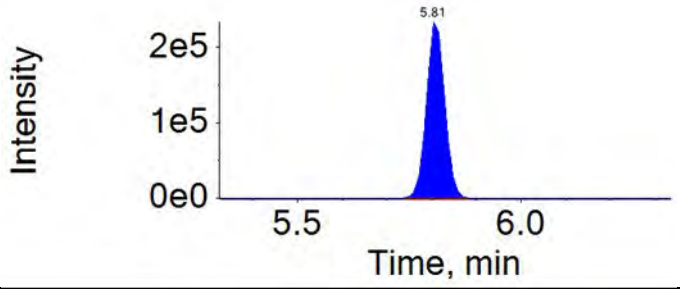
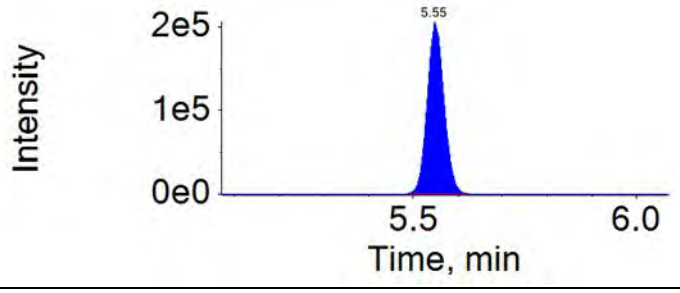
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

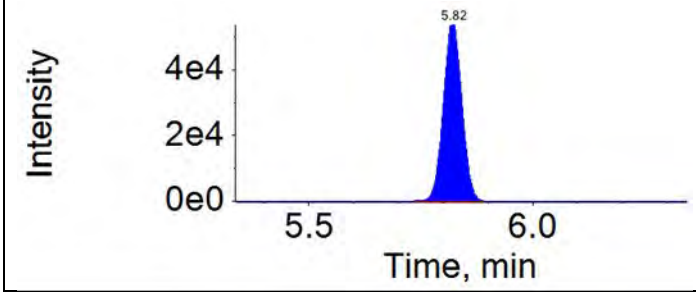
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

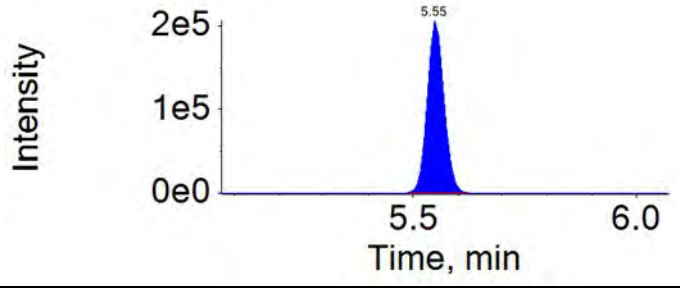
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

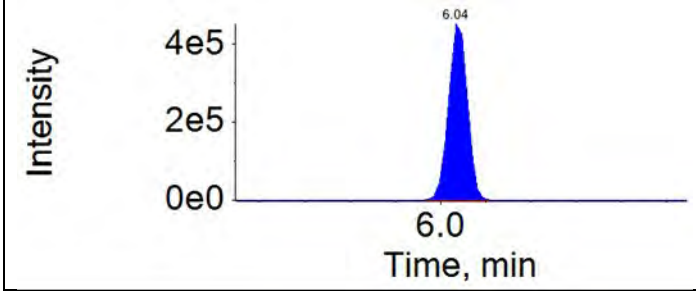
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

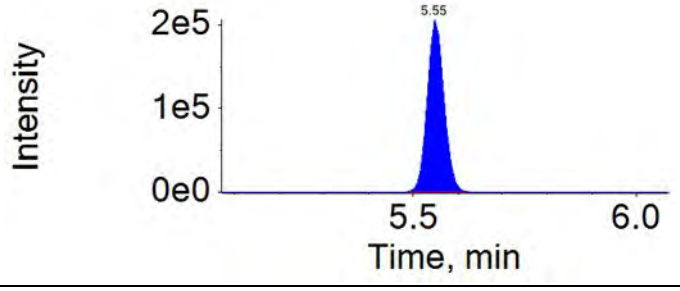
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



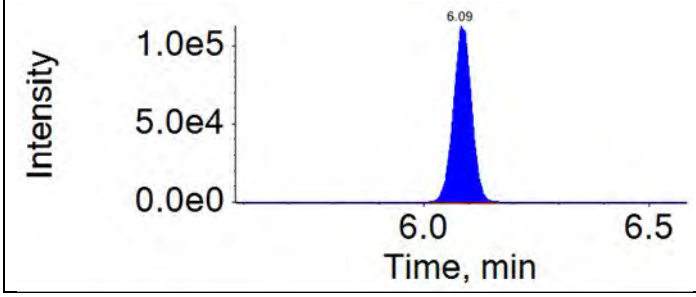


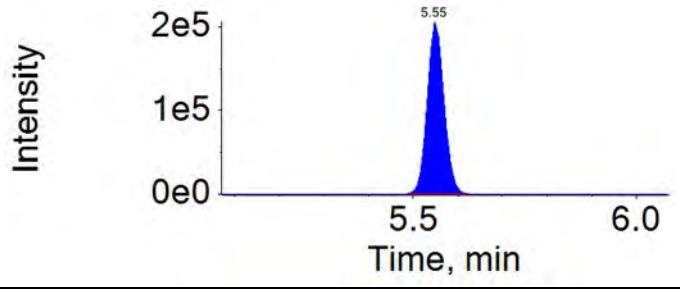
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



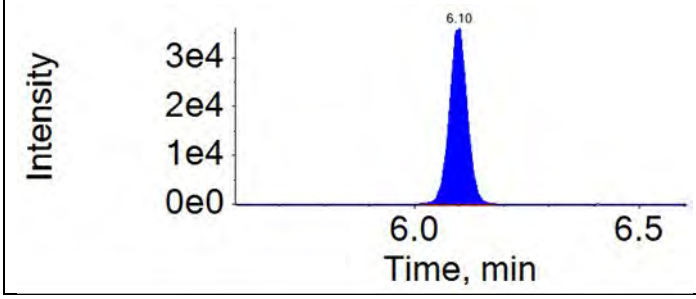


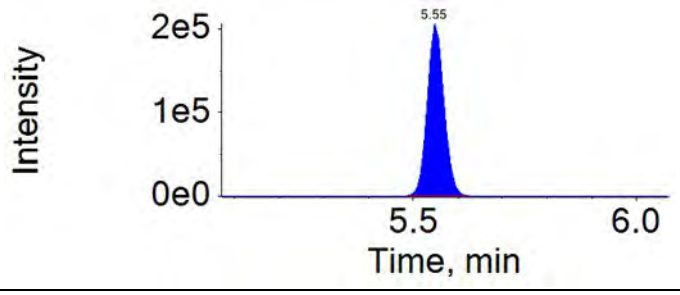
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



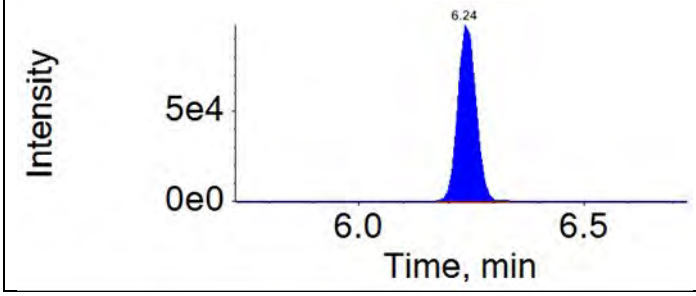


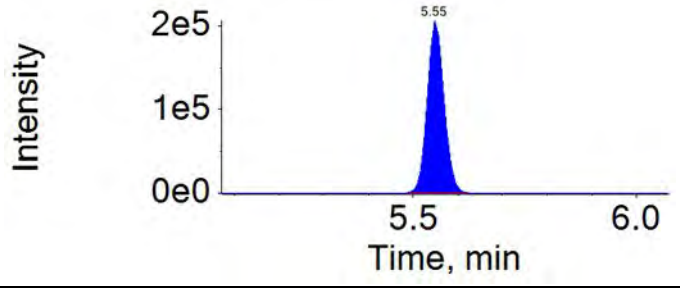
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

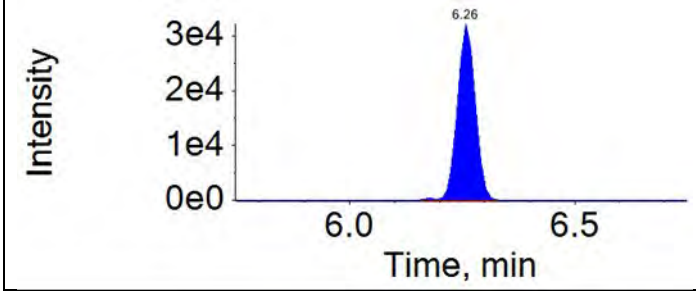
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

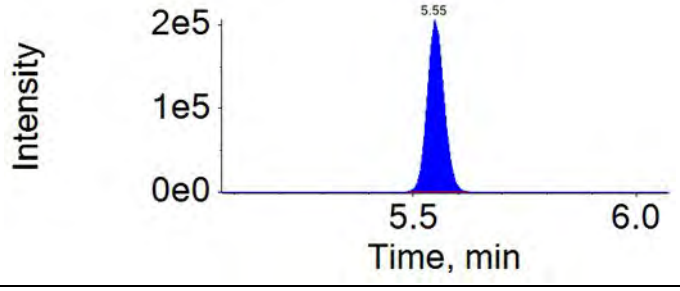
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



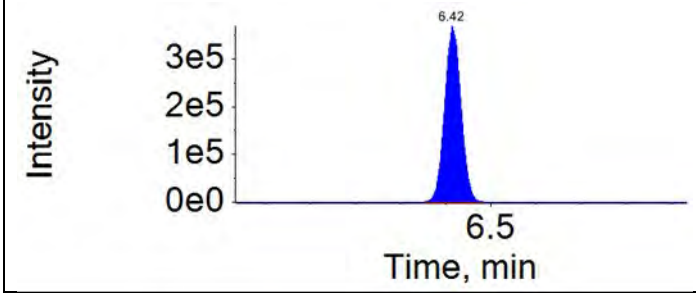


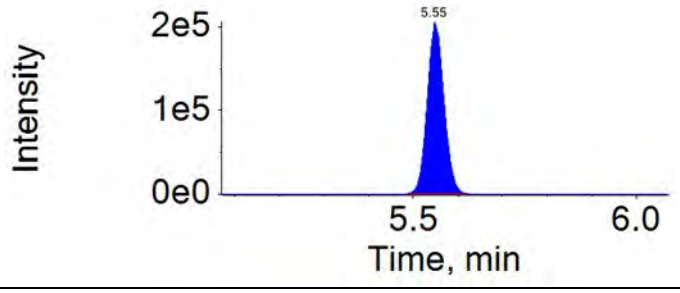
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



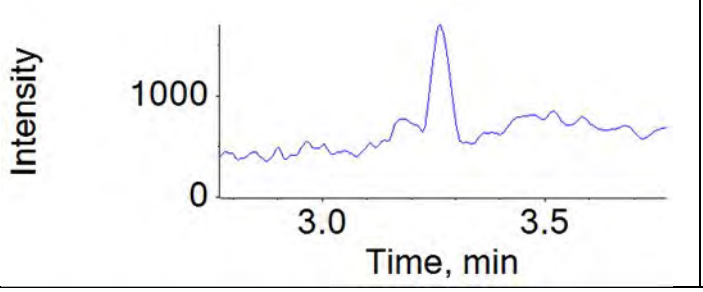


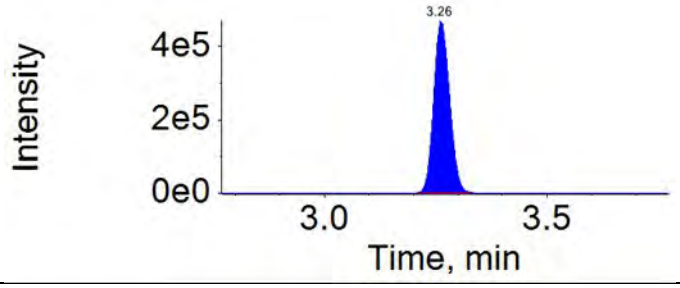
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

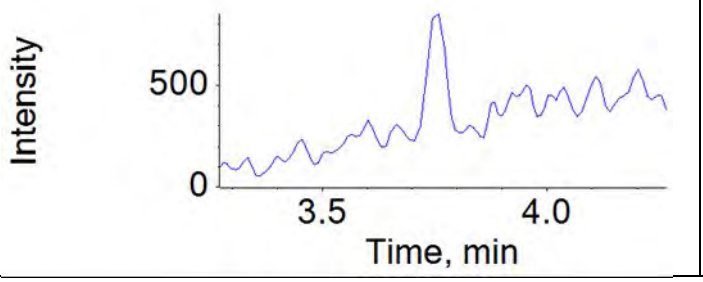
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

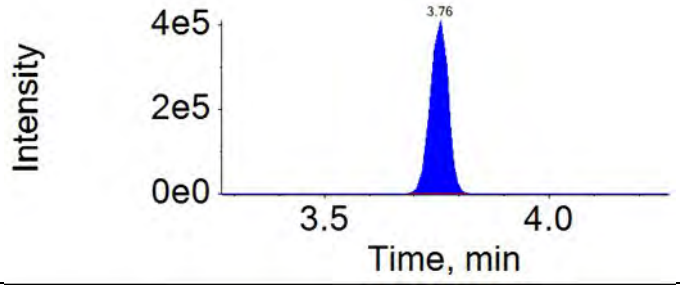
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



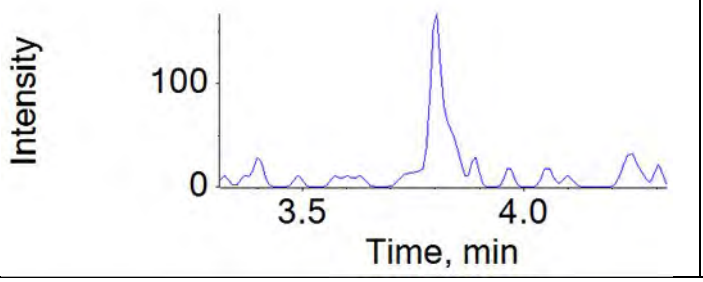


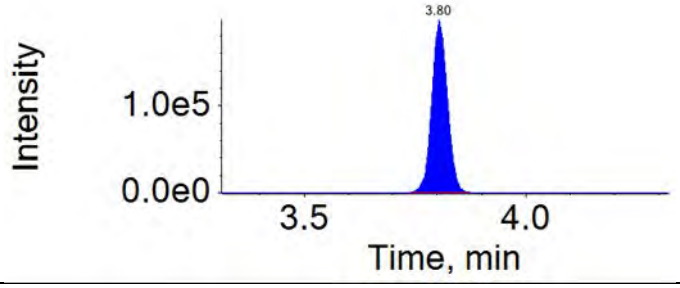
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



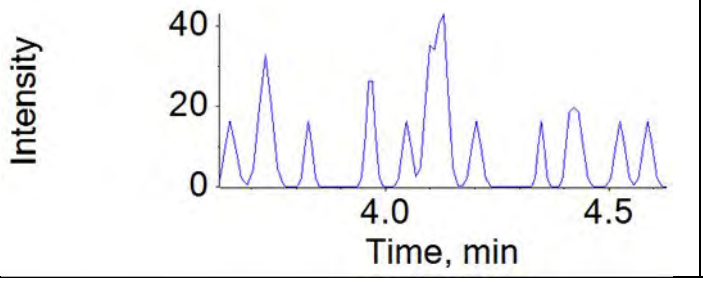


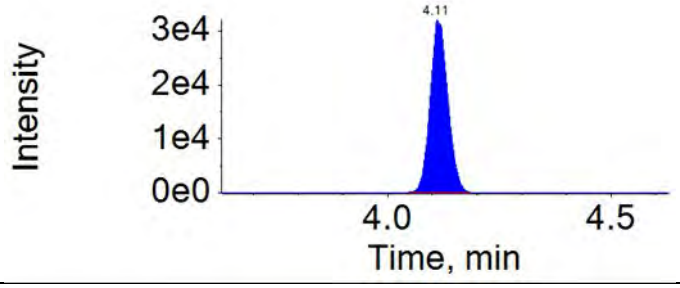
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



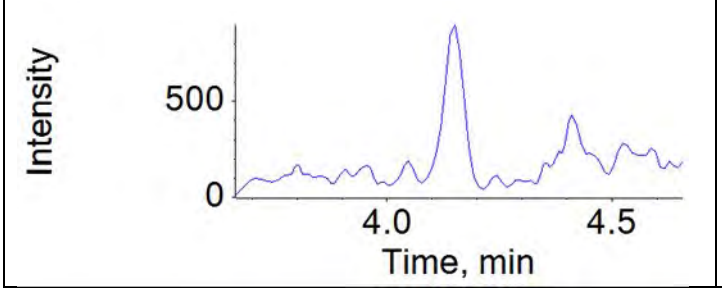


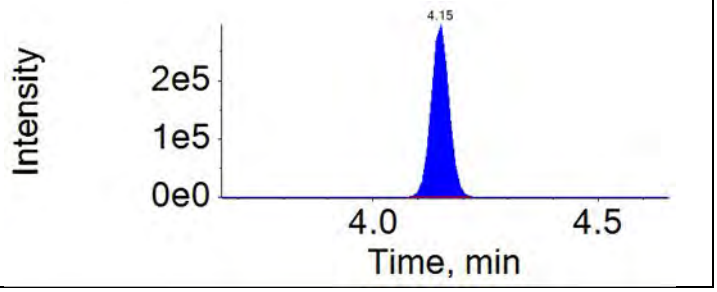
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

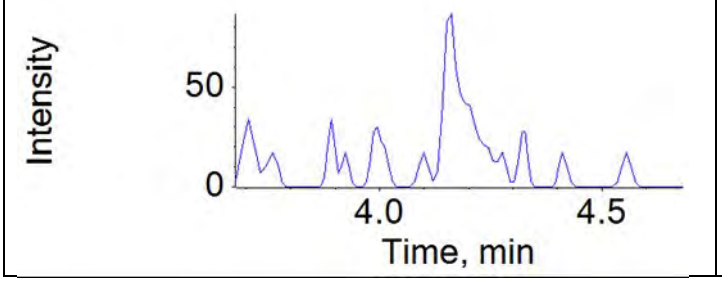
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

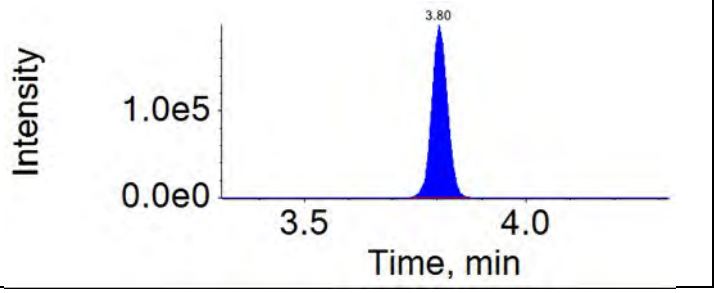
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



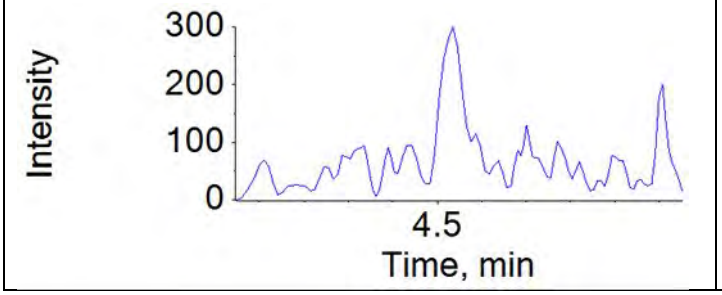


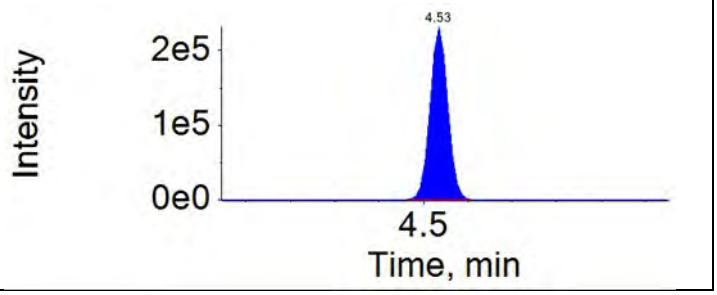
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



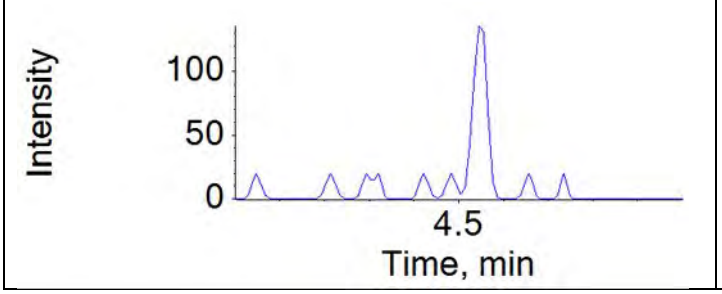


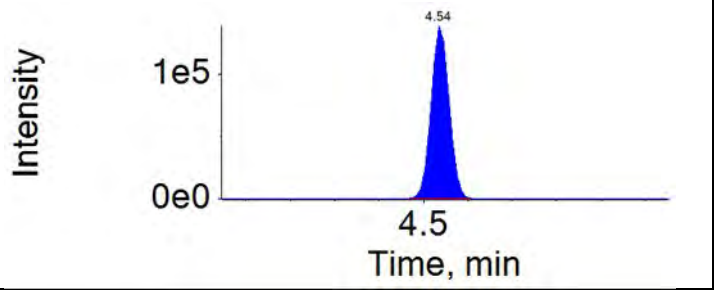
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

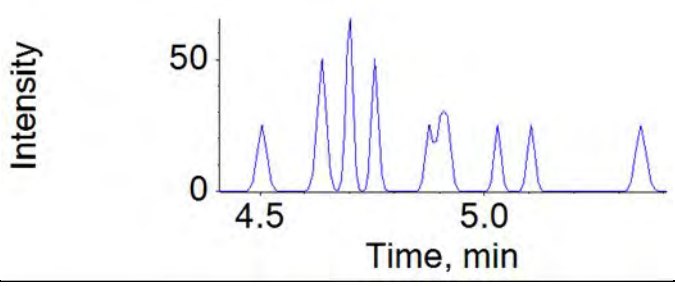
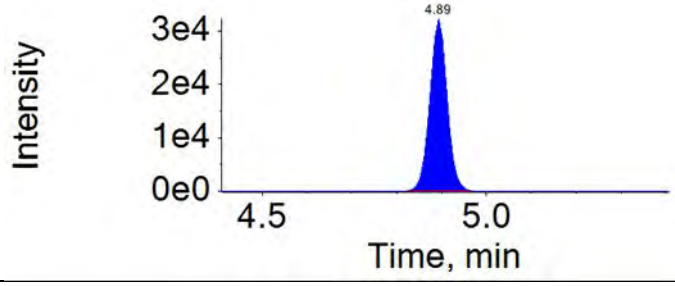


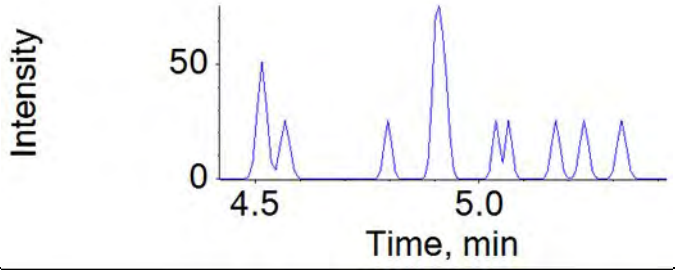
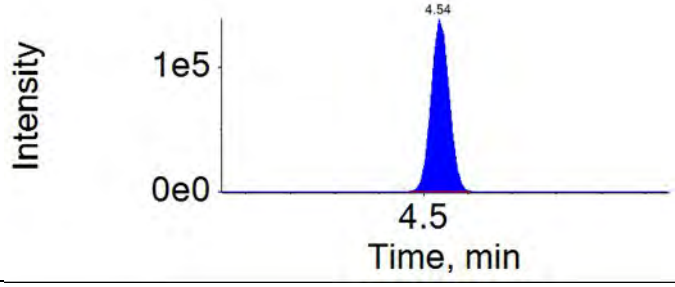


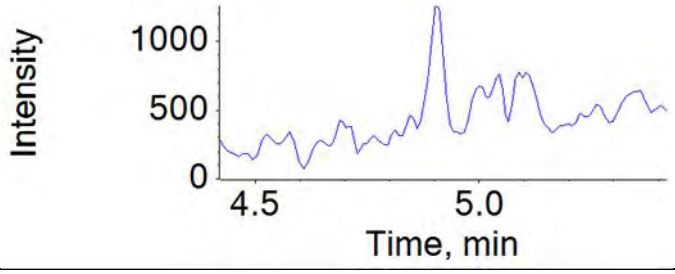
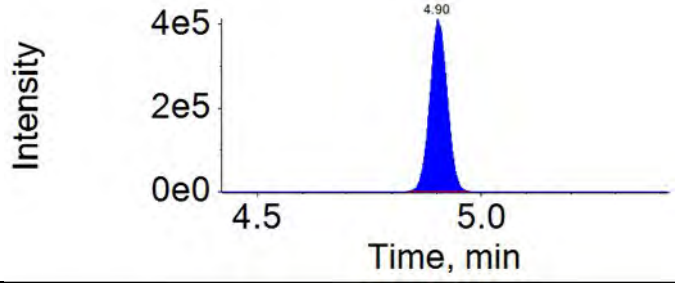
APPROVED
By MCD at 10:13 pm, 11/30/18

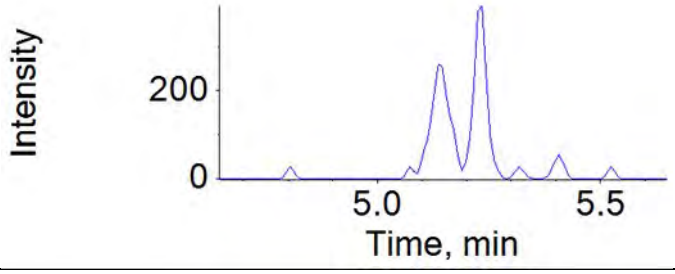
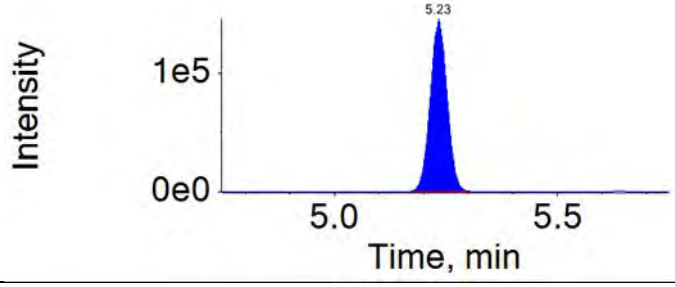
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

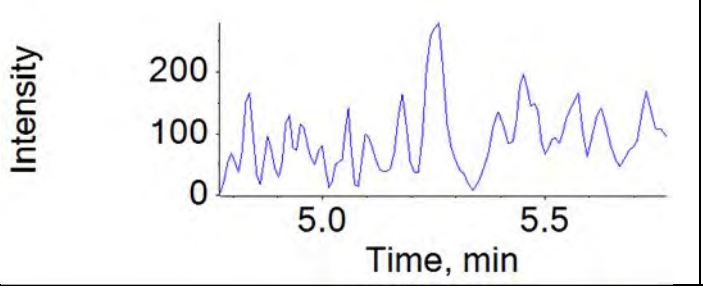
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

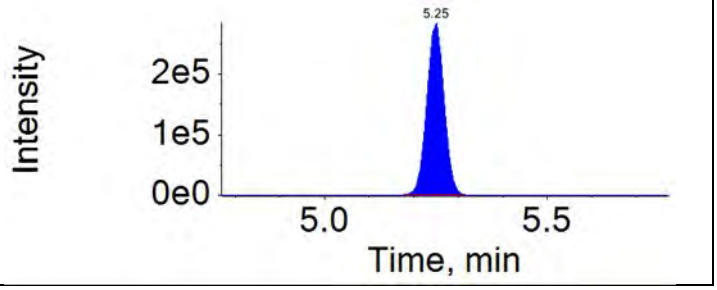
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

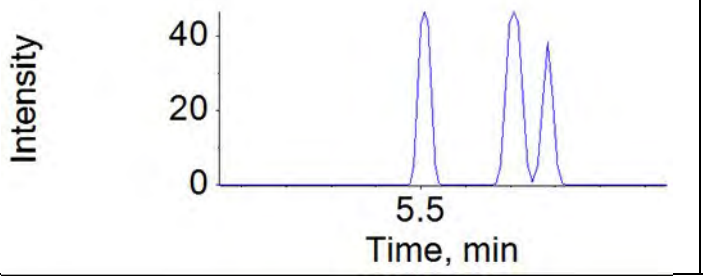
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

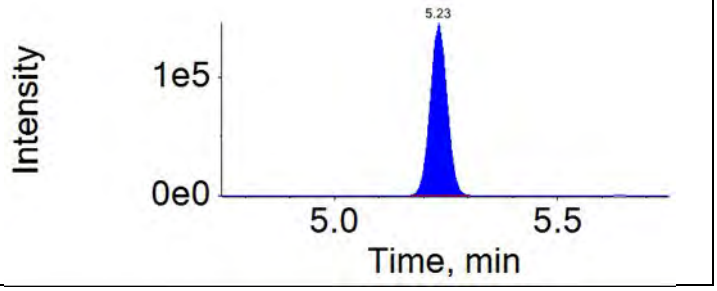
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



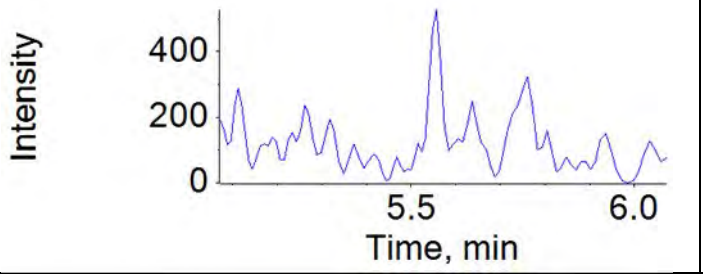


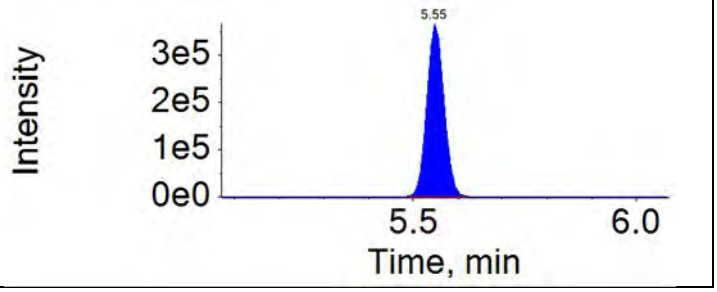
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



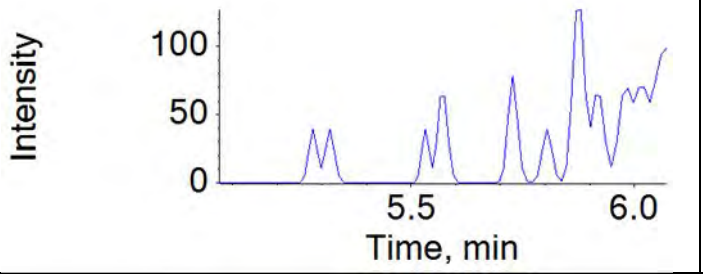


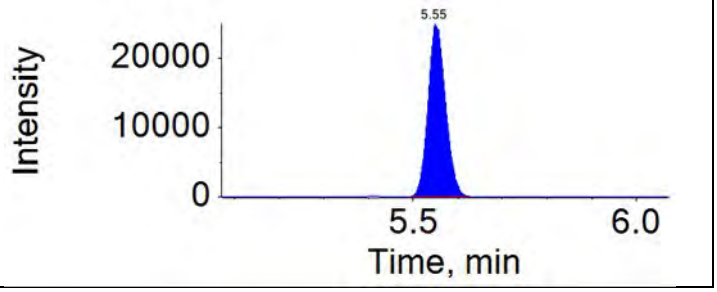
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



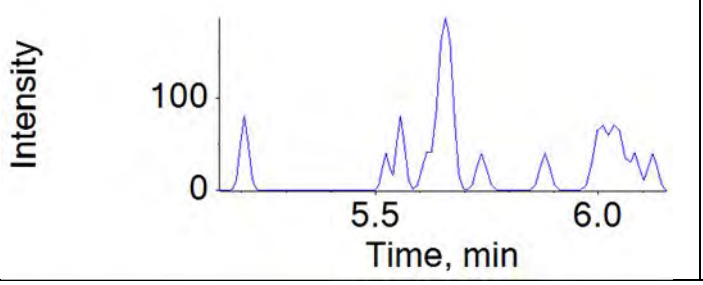


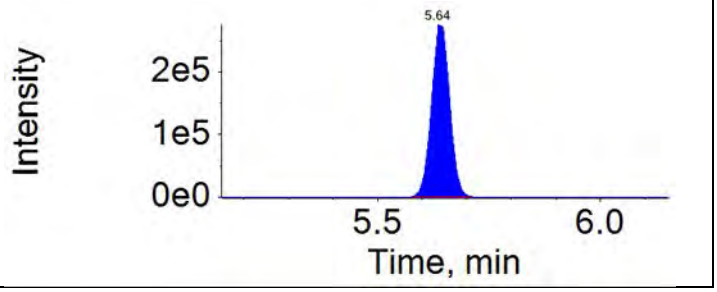
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

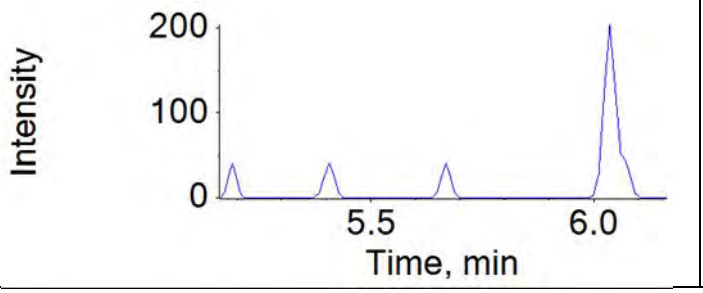
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

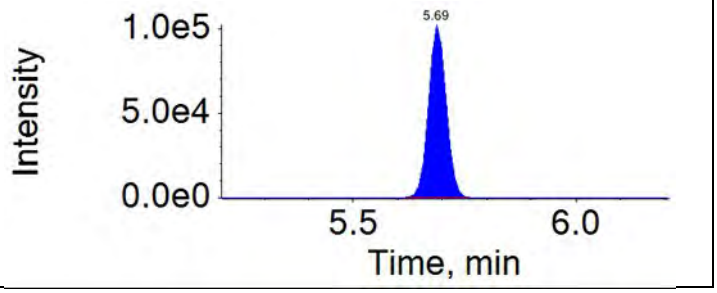
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



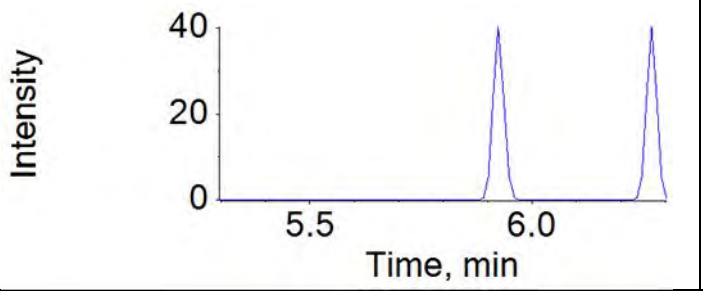


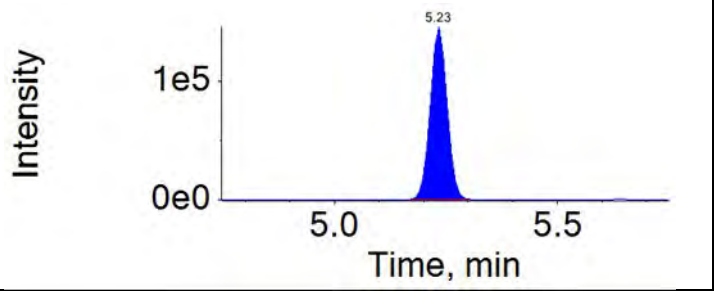
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



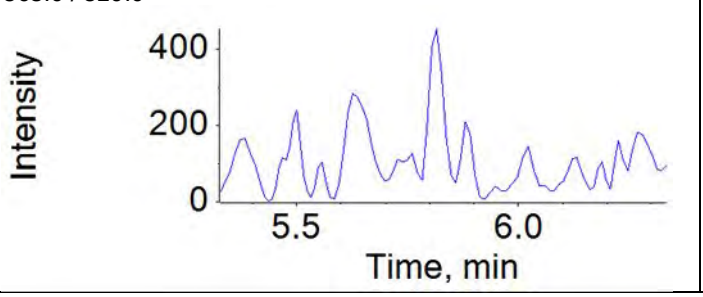


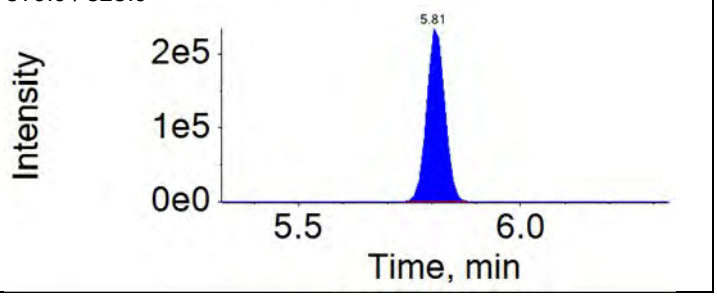
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



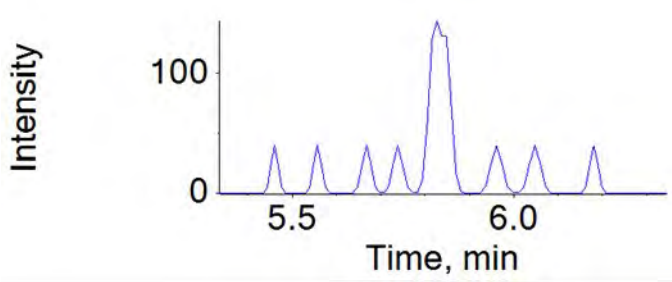


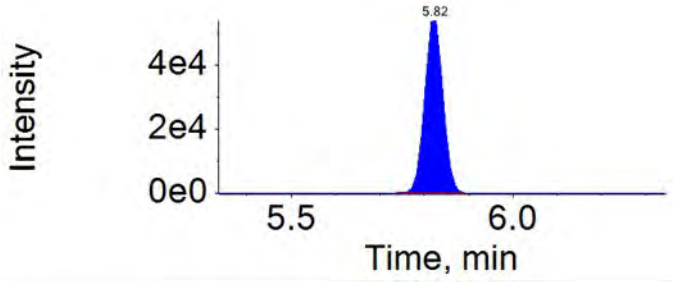
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

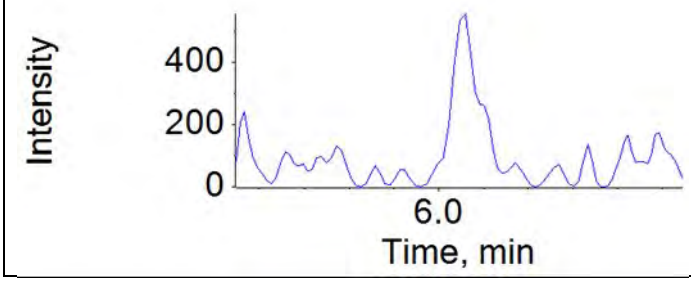
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

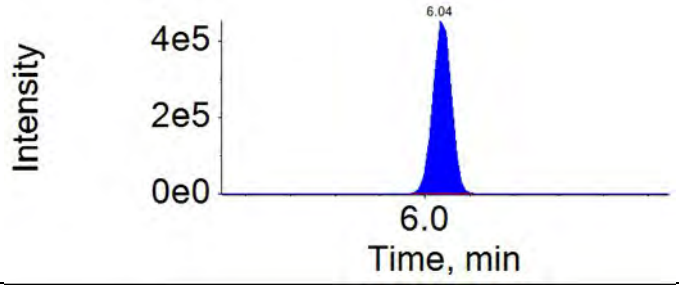
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



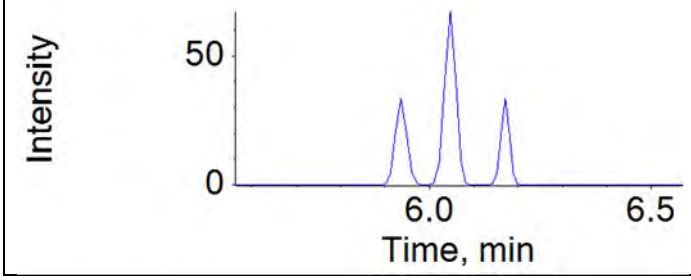


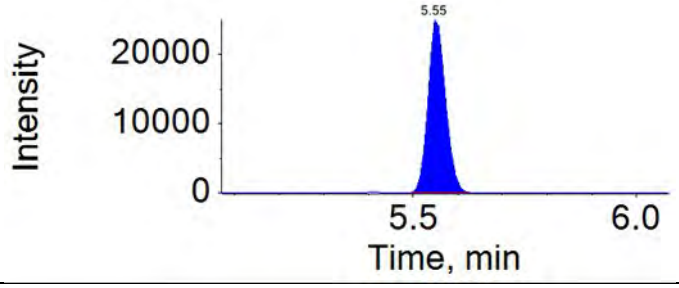
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



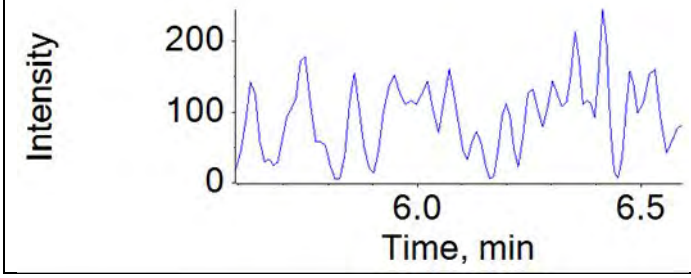


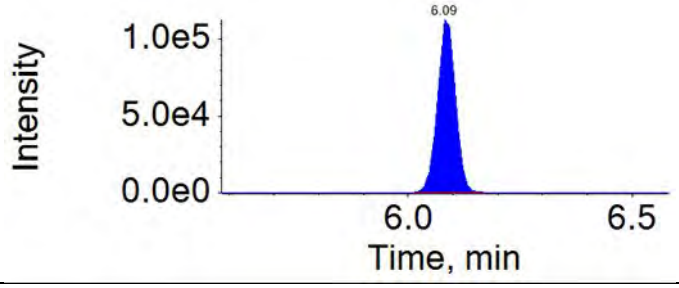
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



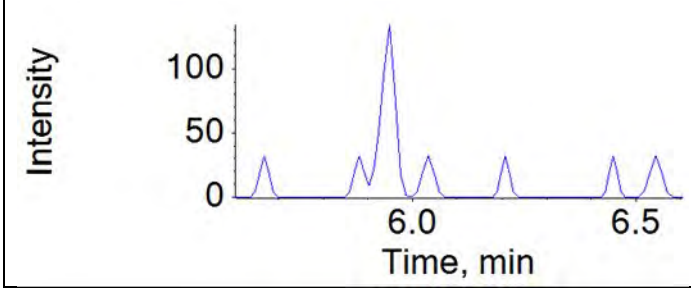


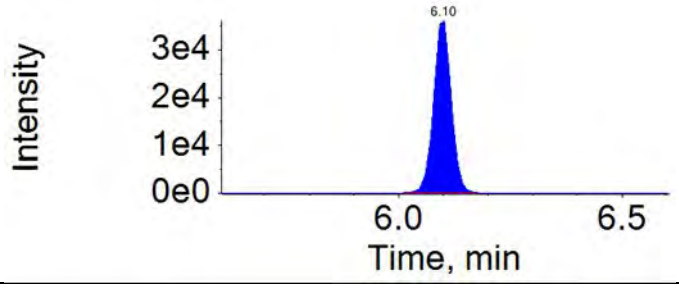
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

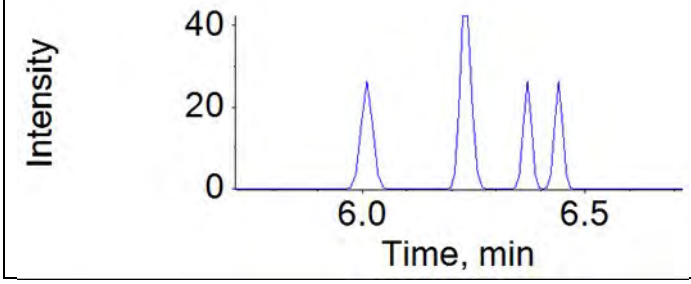
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

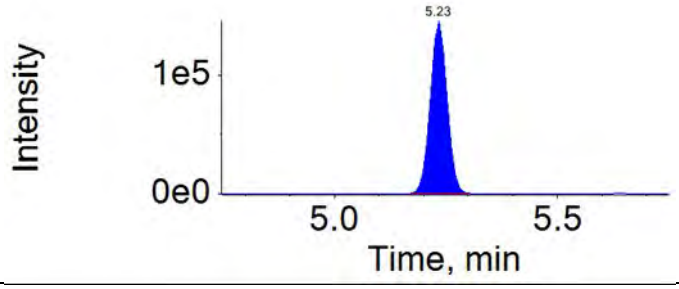
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



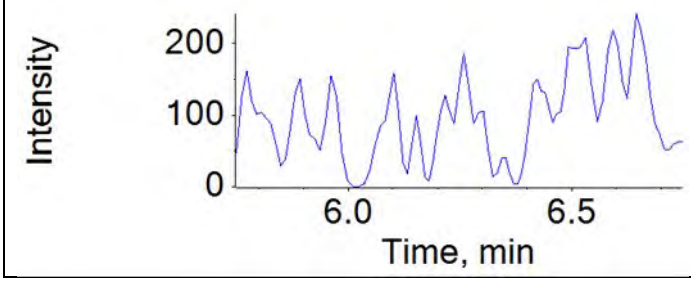


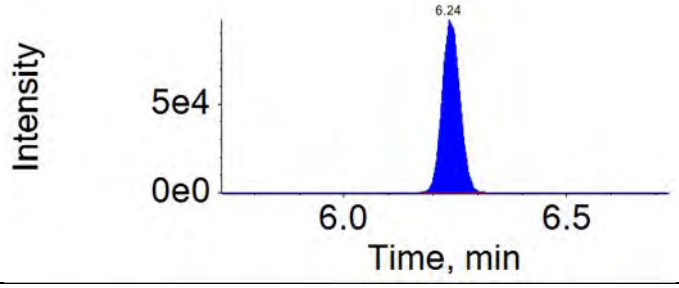
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



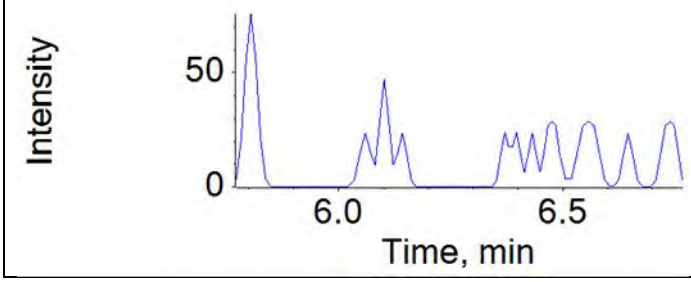


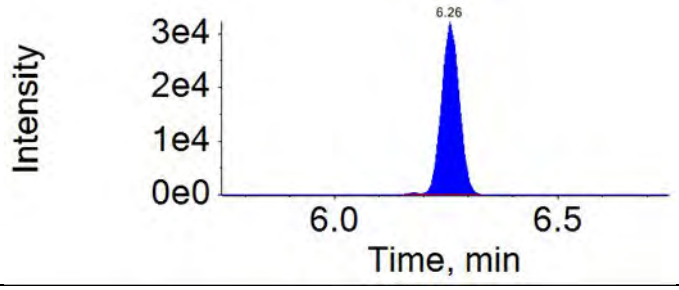
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



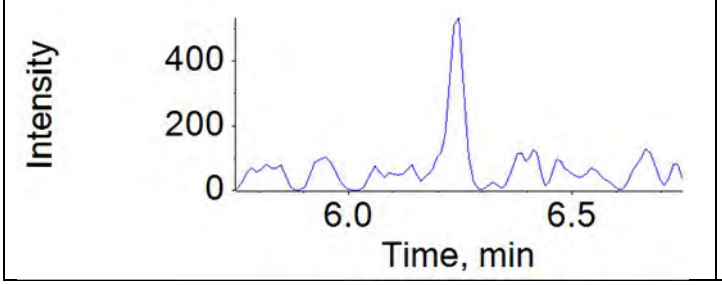


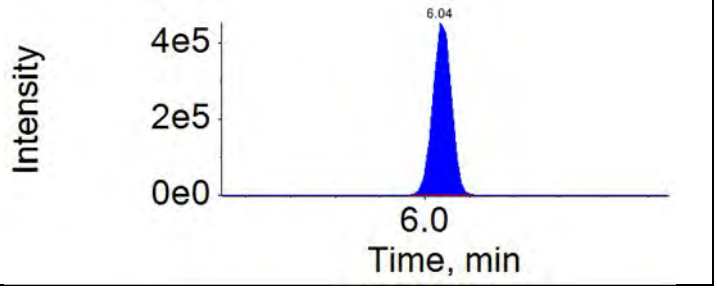
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

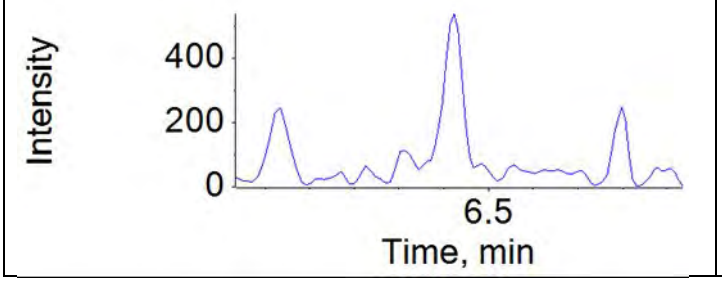
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

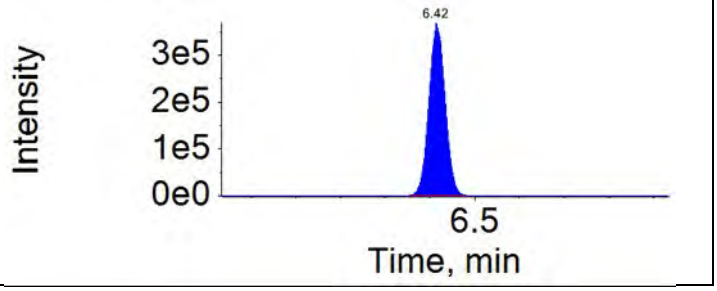
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



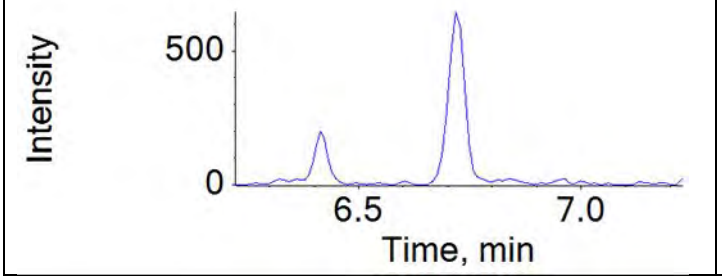


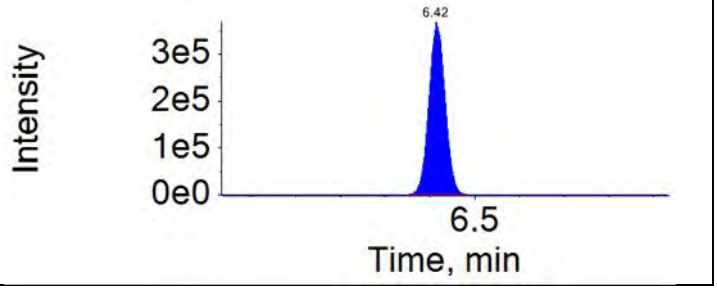
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



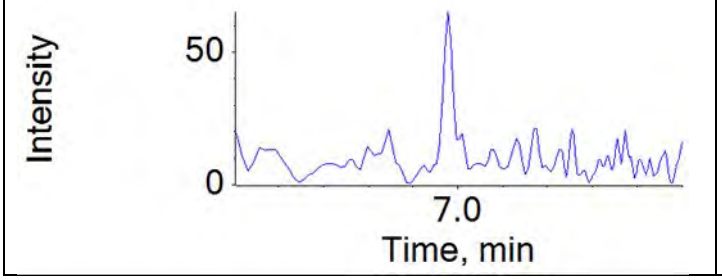


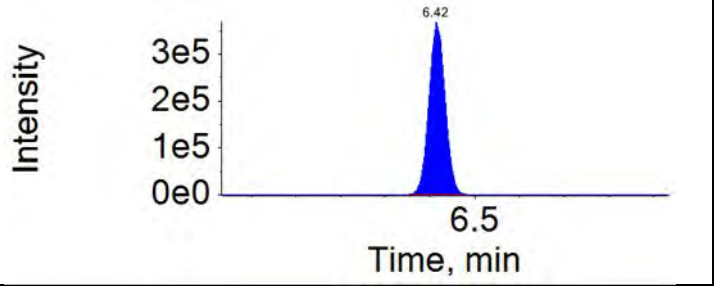
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Ion Ratio Report

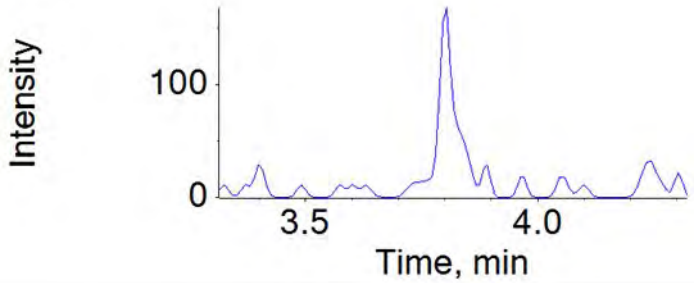
Sample Name: BLK332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-55.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

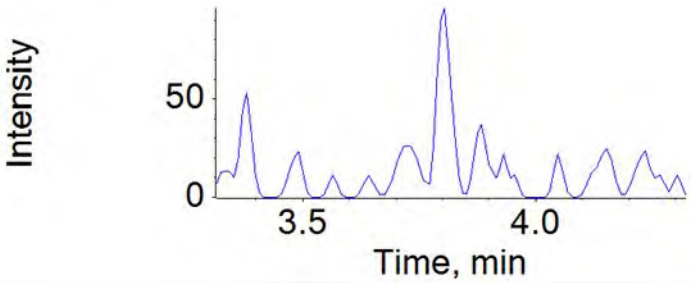
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

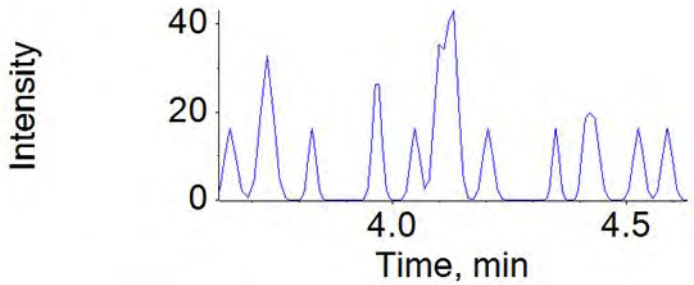
Component: PFBS
Primary Mass: 299.0 / 80.0



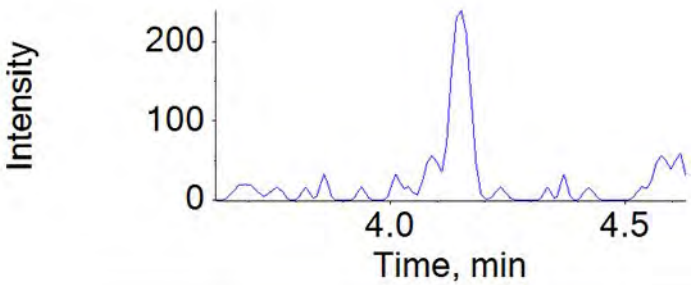
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



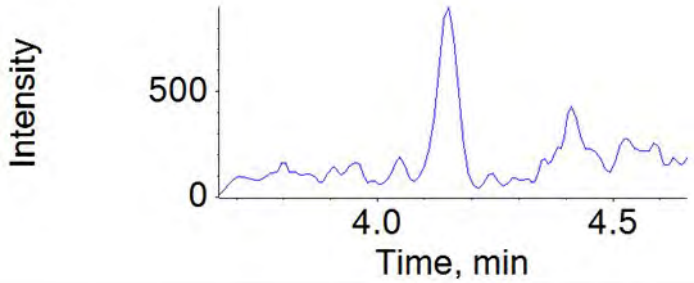
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



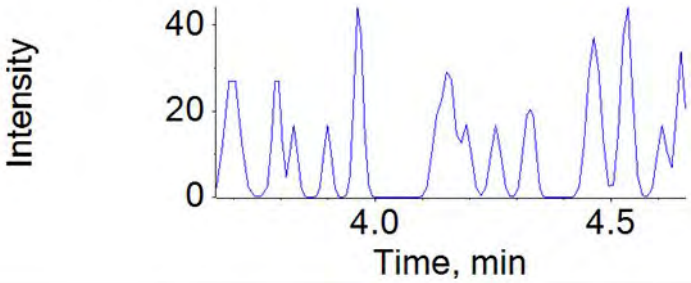
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



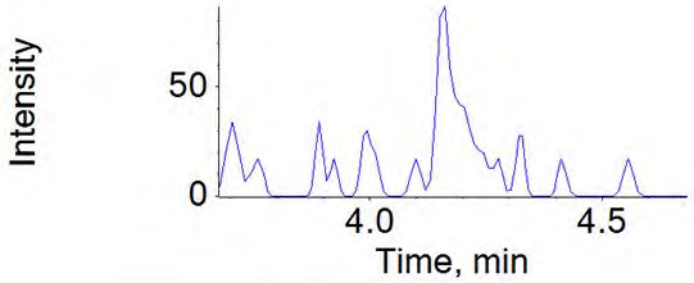
Component: PFHxA
Primary Mass: 313.0 / 269.0



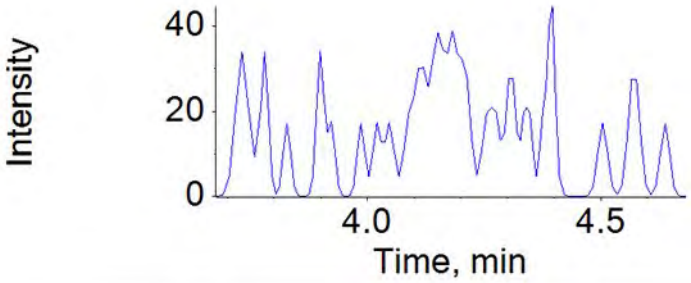
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



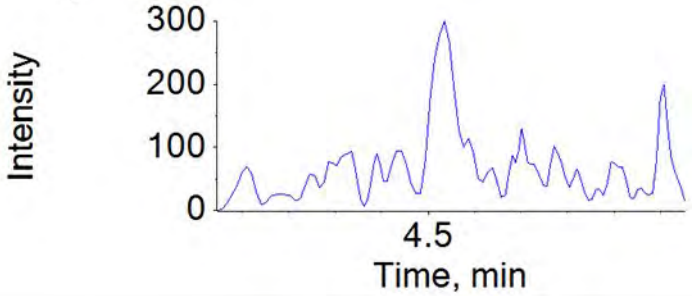
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



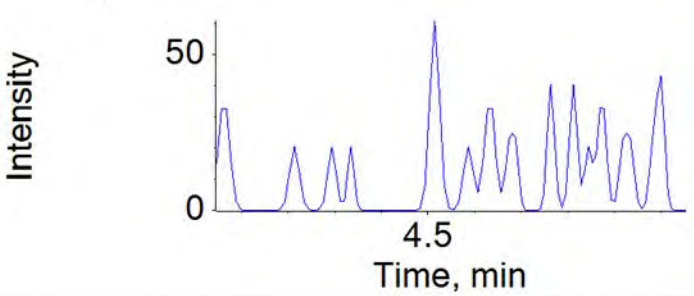
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

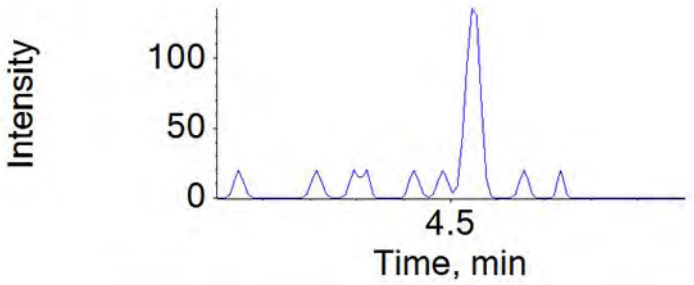
Component: PFHpA
Primary Mass: 363.0 / 319.0



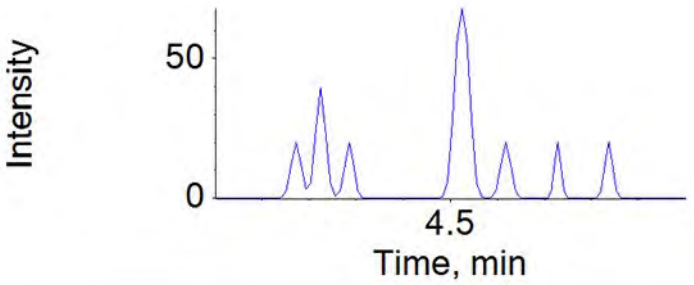
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



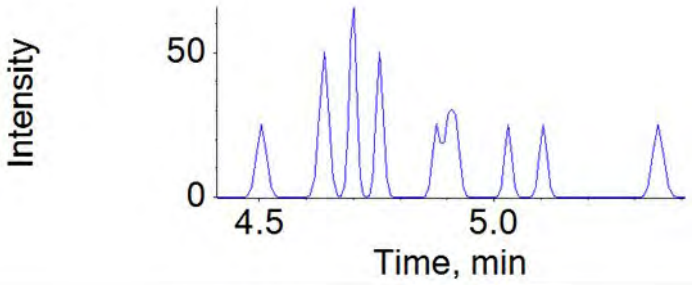
Component: PFHxS
Primary Mass: 399.0 / 80.0



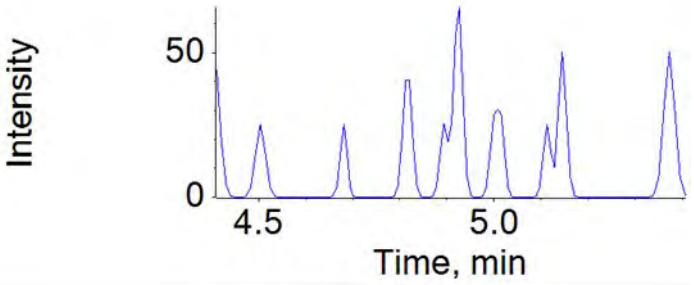
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



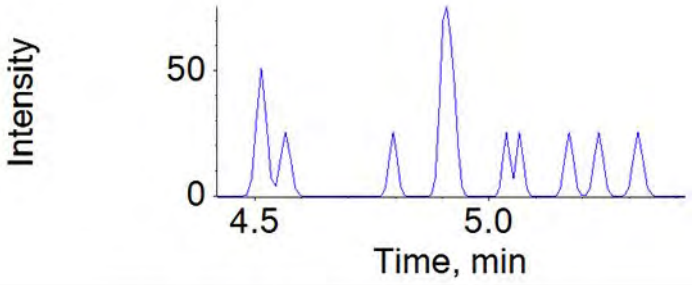
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



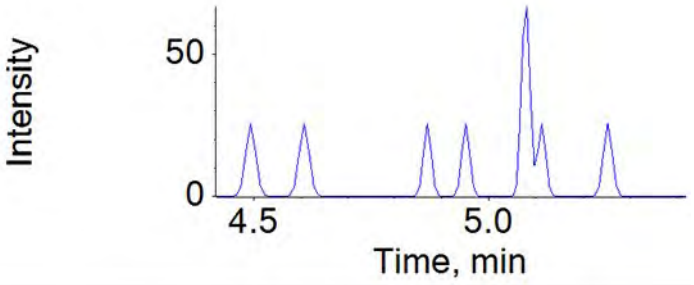
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



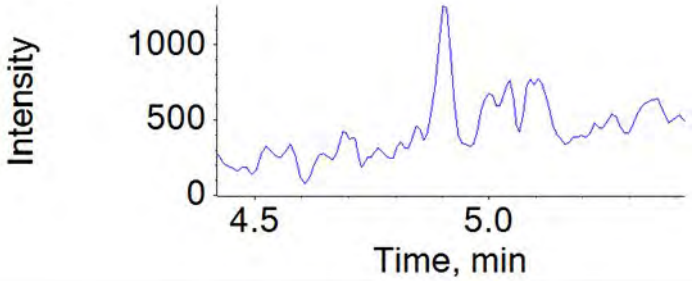
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



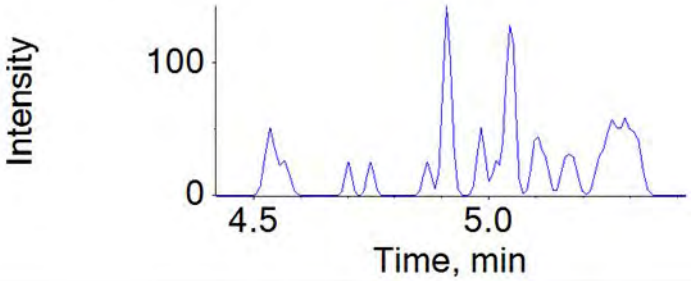
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

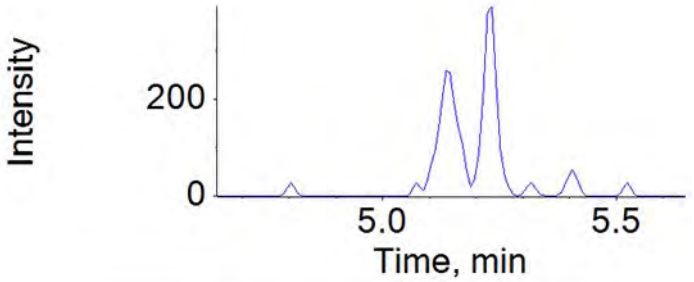
Component: PFOA
Primary Mass: 413.0 / 369.0



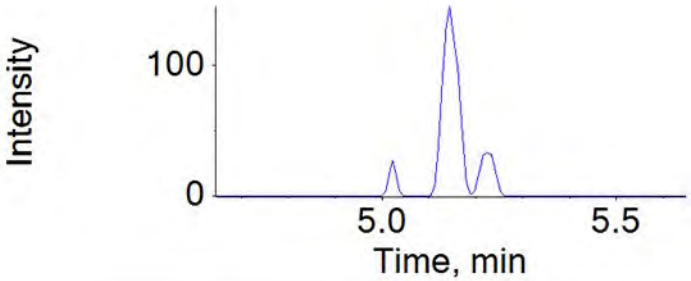
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



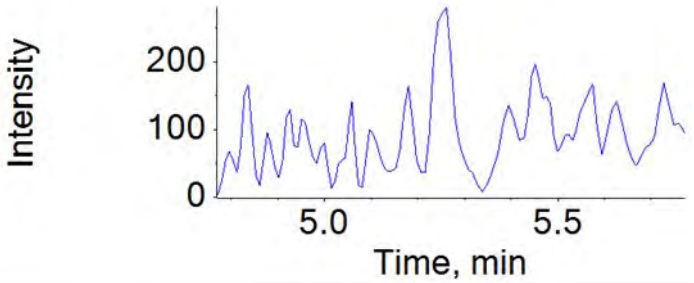
Component: PFOS
Primary Mass: 499.0 / 80.0



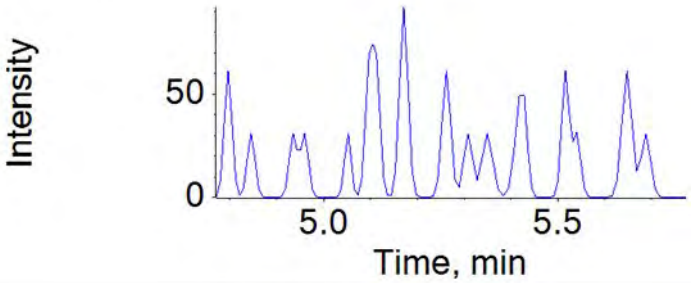
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



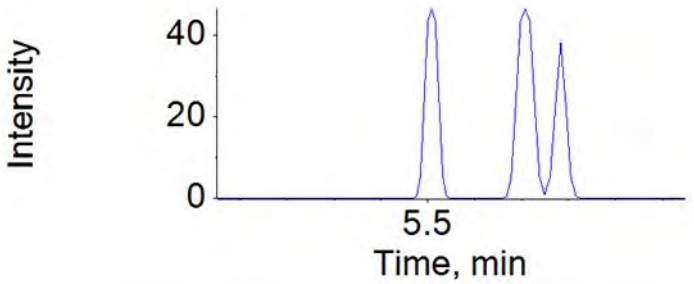
Component: PFNA
Primary Mass: 463.0 / 419.0



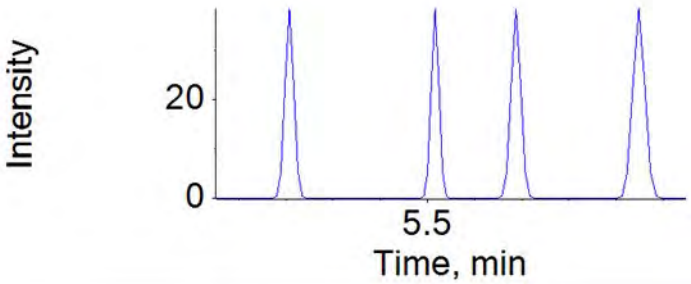
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



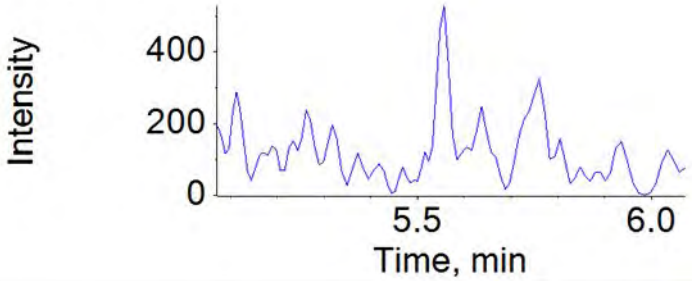
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



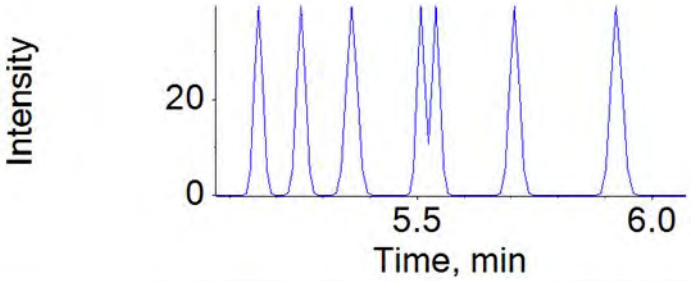
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

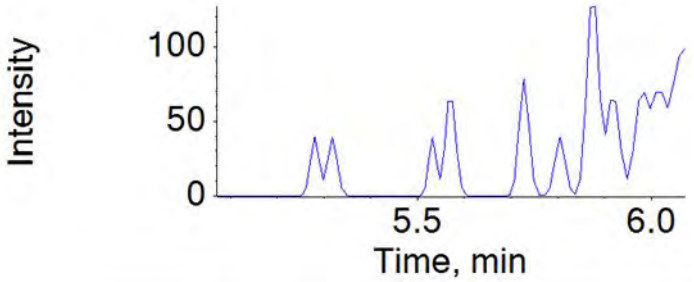
Component: PFDA
Primary Mass: 513.0 / 469.0



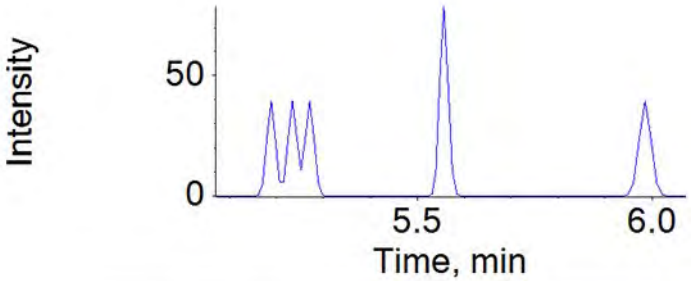
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



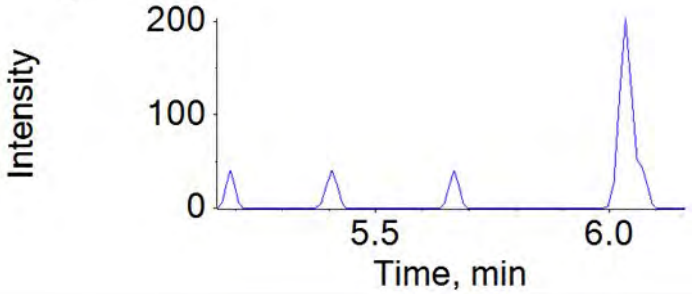
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



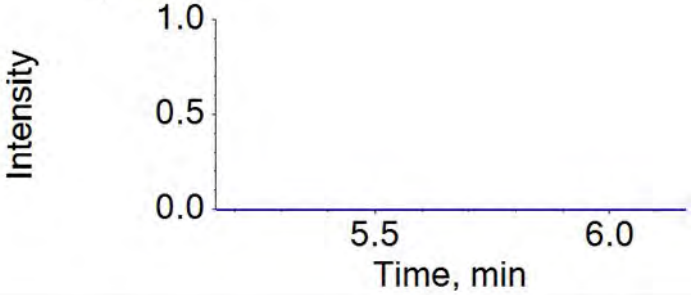
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



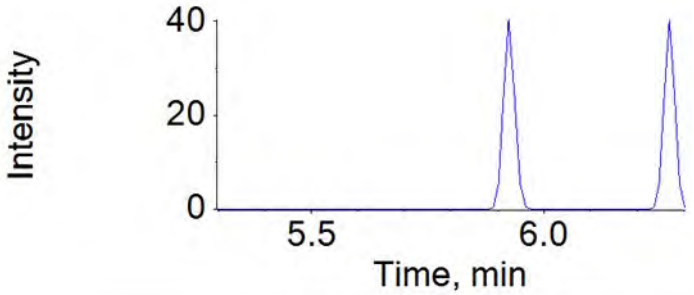
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



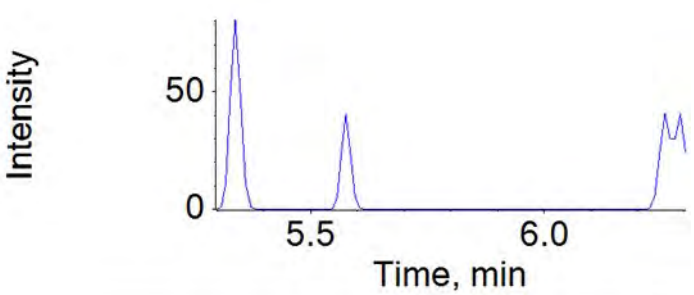
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



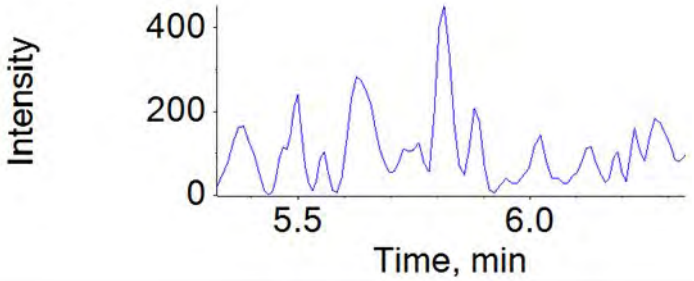
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



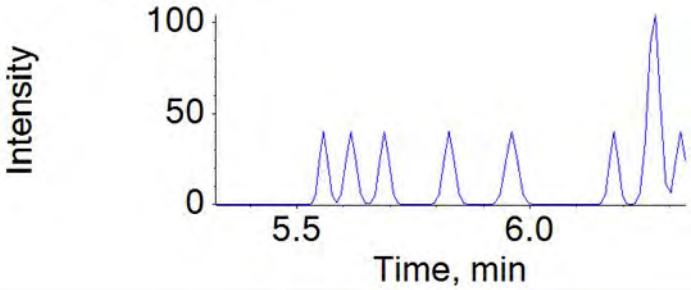
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

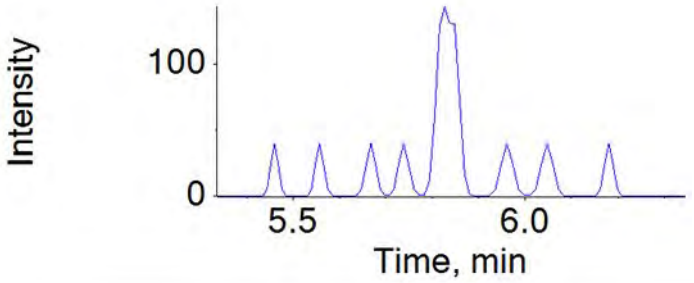
Component: PFUnDA
Primary Mass: 563.0 / 519.0



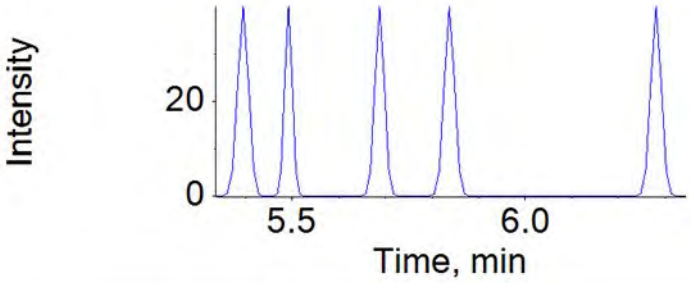
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



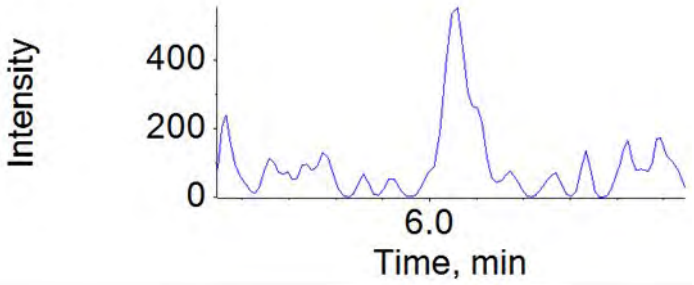
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



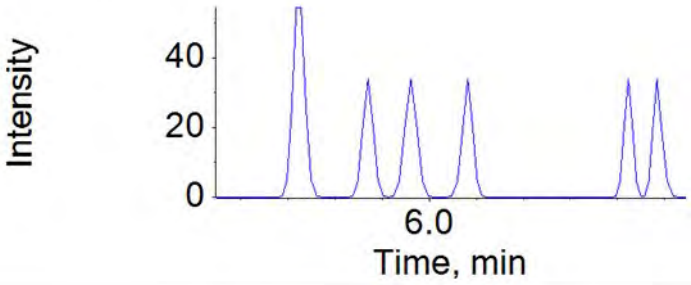
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



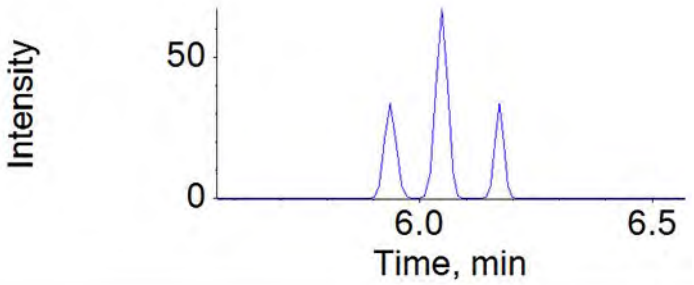
Component: PFDoDA
Primary Mass: 613.0 / 569.0



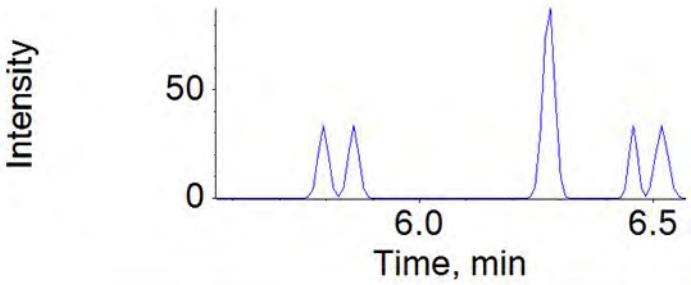
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



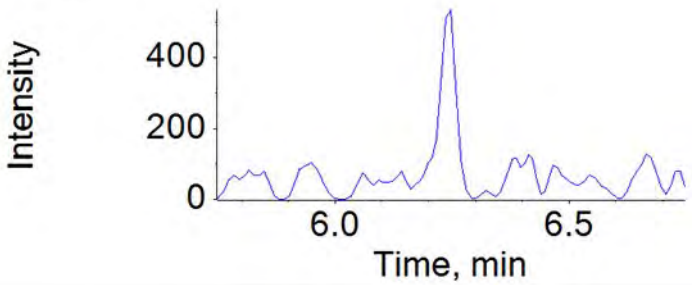
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



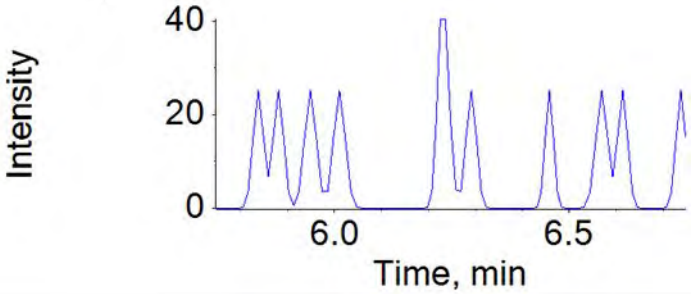
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

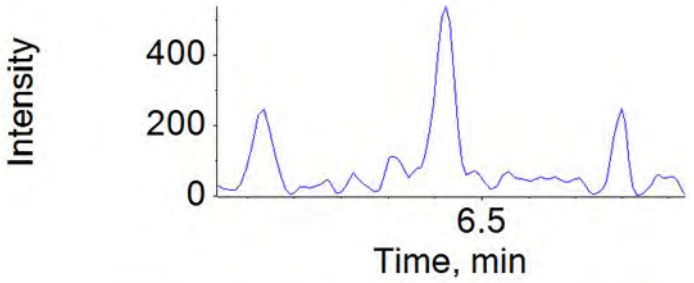
Component: PFTrDA
Primary Mass: 663.0 / 619.0



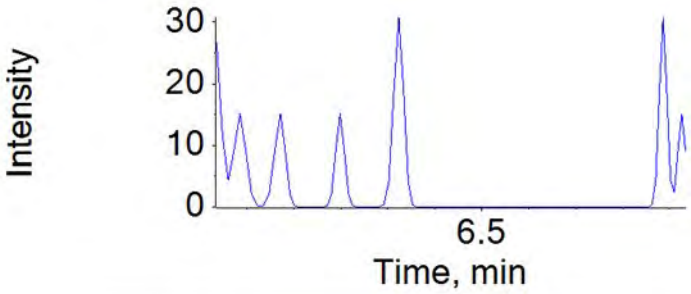
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



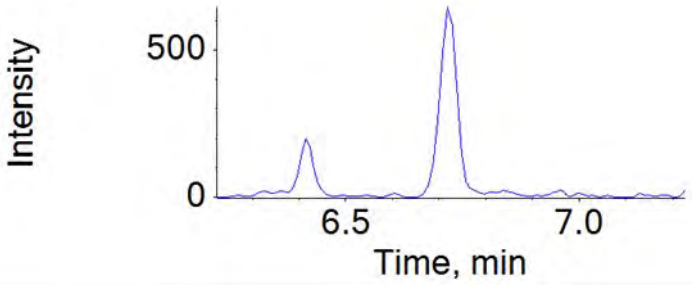
Component: PFTeDA
Primary Mass: 713.0 / 669.0



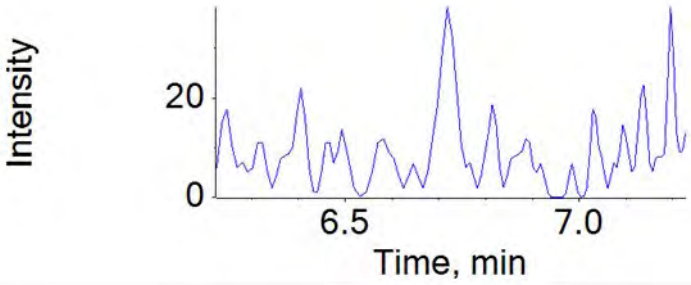
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



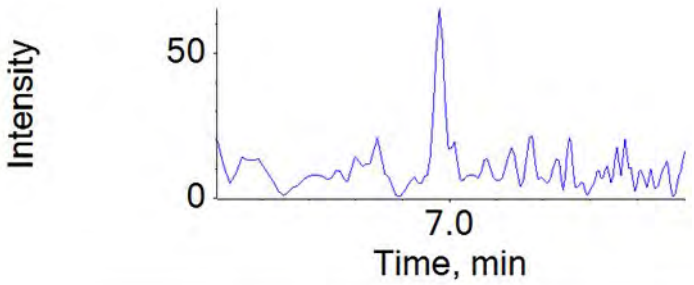
Component: PFHxDA
Primary Mass: 813.0 / 769.0



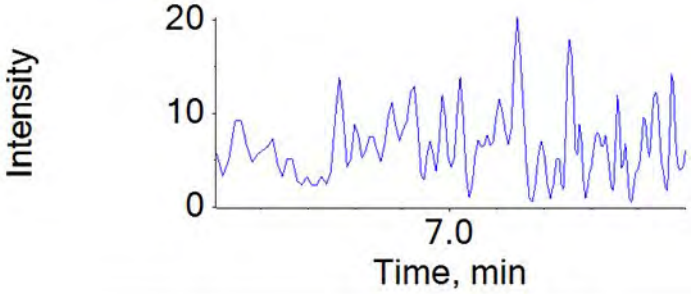
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK338017			**Data File:**		18DEC05D-35.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18338017			**Acquis Date:**		2018-12-05T17:18:14
Sample Type:	Unknown			**Instrument:**		LM27631
Vial Position:	24			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18338017
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	18338017			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18DEC05D-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	939383.5	850136.0	10	50	
13C2-PFOA	5.0	491329.0	429843.2	14	50	
13C4-PFOS	4.8	295961.3	272032.6	9	50	
13C2-PFDA	5.0	323657.4	291183.9	11	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	849856.3	13C3-PFBA	939383.5	0.905	10.000	8.030	80	50-150	
E13C5-PFPeA	750577.5	13C3-PFBA	939383.5	0.799	10.000	7.711	77	50-150	
E13C3-PFBS	351764.1	13C3-PFBA	939383.5	0.374	9.300	5.836	63	50-150	
E13C2-4:2-FTS	53137.2	13C2-PFOA	491329.0	0.108	9.340	8.898	95	50-150	
E13C5-PFHxA	548564.2	13C2-PFOA	491329.0	1.116	10.000	7.562	76	50-150	
E13C3-PFHxS	280200.8	13C2-PFOA	491329.0	0.570	9.460	7.211	76	50-150	
E13C4-PFHpA	445355.7	13C2-PFOA	491329.0	0.906	10.000	7.910	79	50-150	
E13C2-6:2-FTS	46407.7	13C2-PFOA	491329.0	0.094	9.500	12.519	132	50-150	
E13C8-PFOA	697649.0	13C2-PFOA	491329.0	1.420	10.000	7.894	79	50-150	
E13C8-PFOS	273383.9	13C4-PFOS	295961.3	0.924	9.560	8.205	86	50-150	
E13C9-PFNA	427072.7	13C4-PFOS	295961.3	1.443	10.000	8.447	84	50-150	
E13C6-PFDA	464919.8	13C2-PFDA	323657.4	1.436	10.000	7.472	75	50-150	
E13C2-8:2-FTS	22424.8	13C2-PFDA	323657.4	0.069	9.580	8.910	93	50-150	
E13C8-PFOSA	643347.6	13C2-PFDA	323657.4	1.988	10.000	8.899	89	50-150	
Ed3-NMeFOSAA	93227.0	13C2-PFDA	323657.4	0.288	10.000	10.064	101	50-150	
E13C7-PFUnDA	275388.4	13C2-PFDA	323657.4	0.851	10.000	8.475	85	50-150	
Ed5-NEtFOSAA	60600.9	13C2-PFDA	323657.4	0.187	10.000	8.543	85	50-150	
E13C2-PFDoDA	563266.4	13C2-PFDA	323657.4	1.740	10.000	7.453	75	50-150	
Ed7-NMePFOSAE	257712.0	13C2-PFDA	323657.4	0.796	10.000	8.634	86	50-150	
Ed3-NMePFOSA	87126.0	13C2-PFDA	323657.4	0.269	10.000	9.983	100	50-150	
Ed9-NEtPFOSAE	213421.6	13C2-PFDA	323657.4	0.659	10.000	8.506	85	50-150	
Ed5-NEtPFOSA	72939.6	13C2-PFDA	323657.4	0.225	10.000	10.633	106	50-150	
E13C2-PFTeDA	391591.4	13C2-PFDA	323657.4	1.210	10.000	6.821	68	50-150	

APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

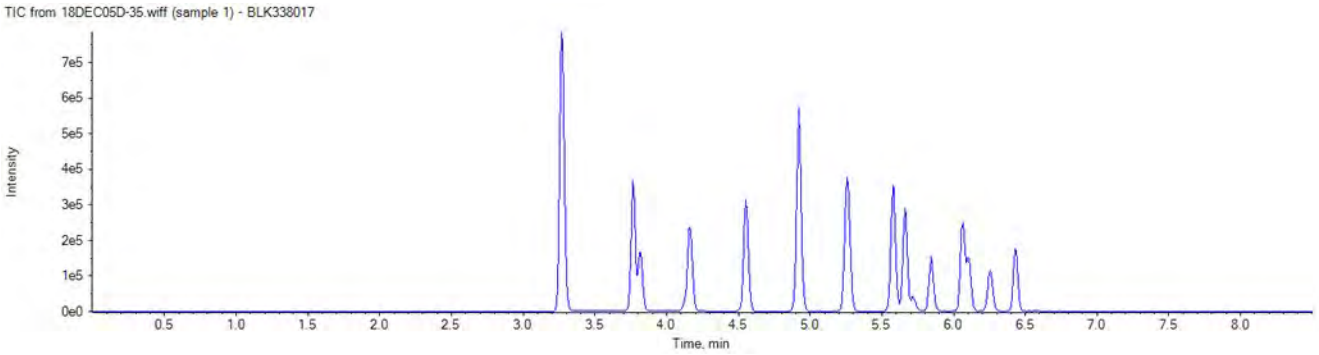
Analyte Quantitation Peak Table

Sample Name: BLK338017 **Instrument Name:** LM27631 **File Name:** 18DEC05D-35.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	849856.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.77	750577.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.82	351764.1	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	53137.2	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	548564.2	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.82	351764.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	445355.7	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.56	280200.8	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	46407.7	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.56	280200.8	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	697649.0	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	273383.9	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	427072.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	273383.9	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.58	464919.8	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	22424.8	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.66	643347.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.72	93227.0	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	273383.9	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.84	275388.4	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.85	60600.9	N/A	
PFDoDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	563266.4	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	22424.8	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.10	257712.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.11	87126.0	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	273383.9	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	213421.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.27	72939.6	N/A	
PFTrDA	N/A	N/A	N/A		A	13C2-PFDoDA	6.06	563266.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	391591.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	391591.4	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	391591.4	N/A	

Total Ion Chromatogram

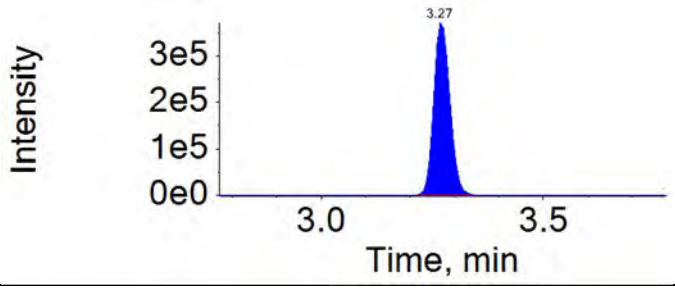


APPROVED
By MCD at 4:12 pm, 12/6/18

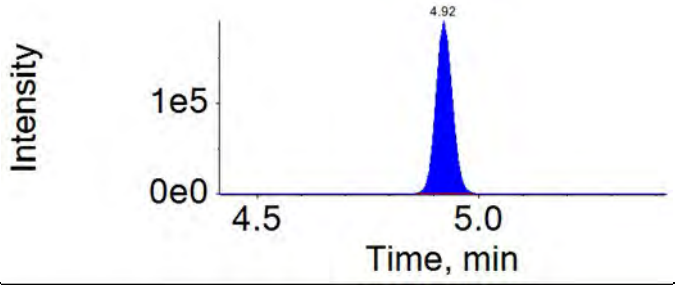
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

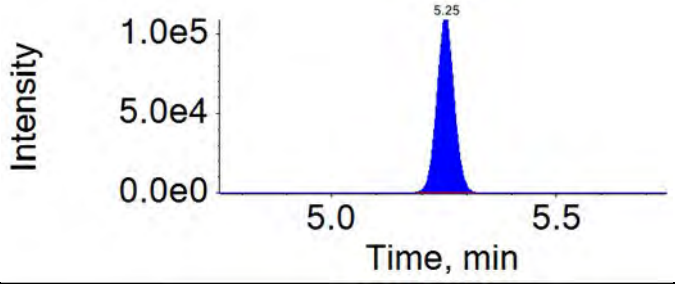
Injection Standard: 13C3-PFBA
216.0 / 172.0



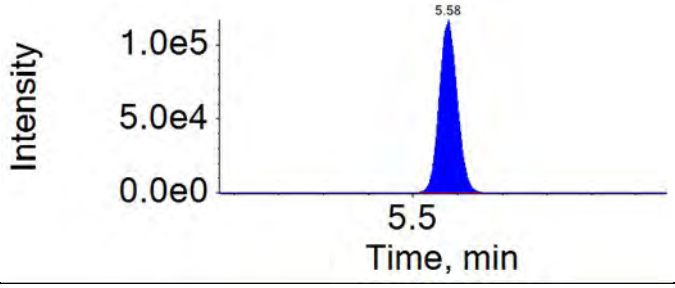
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

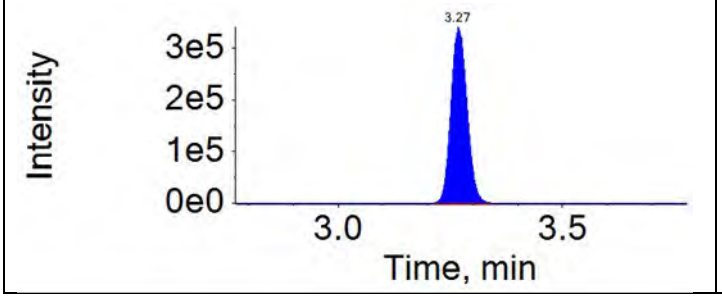


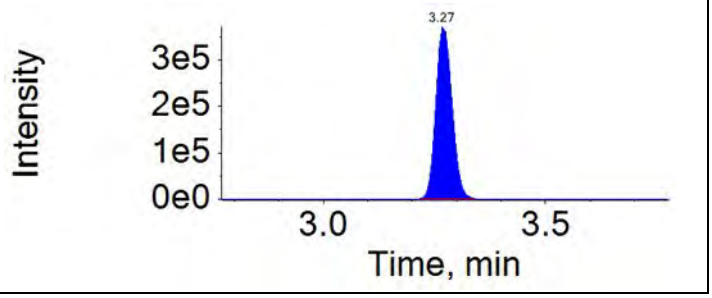
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

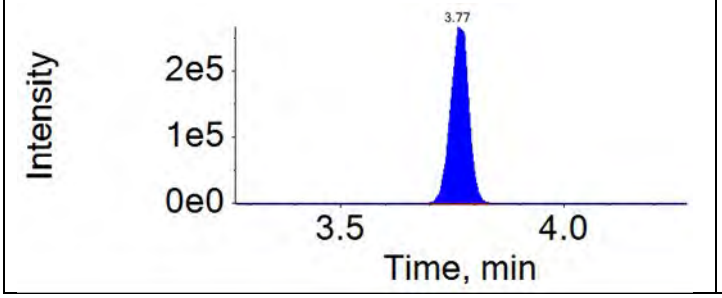
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

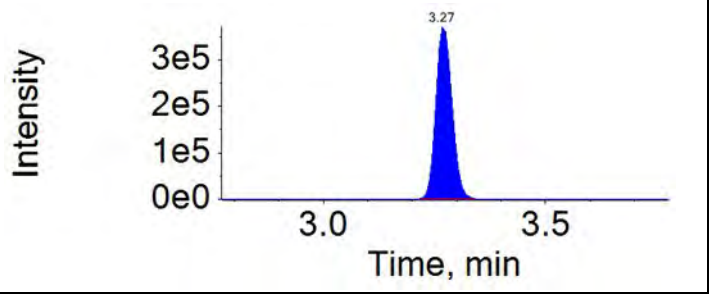
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



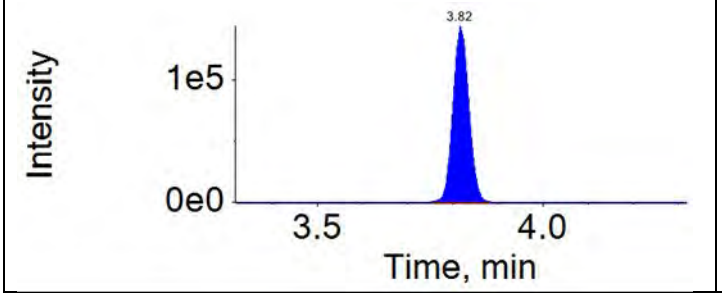


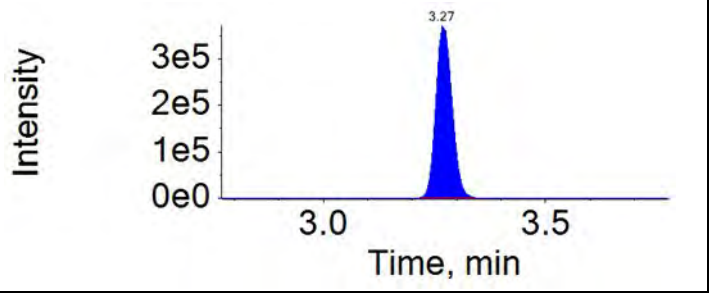
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



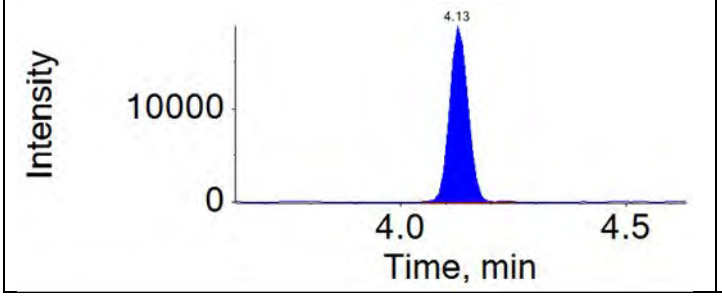


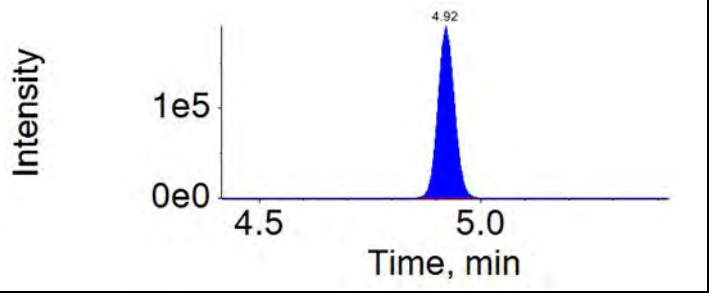
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

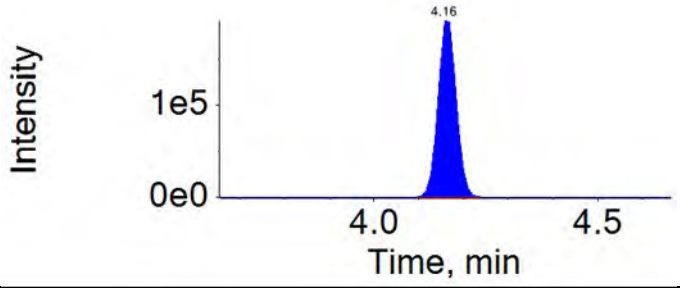
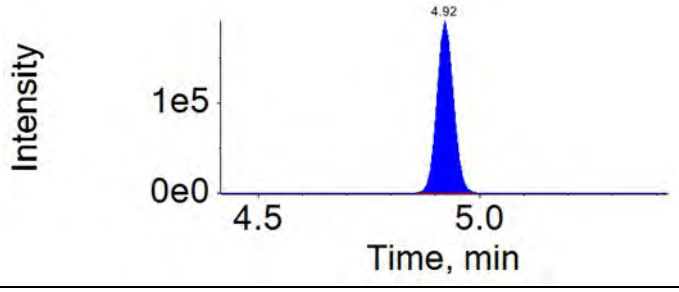


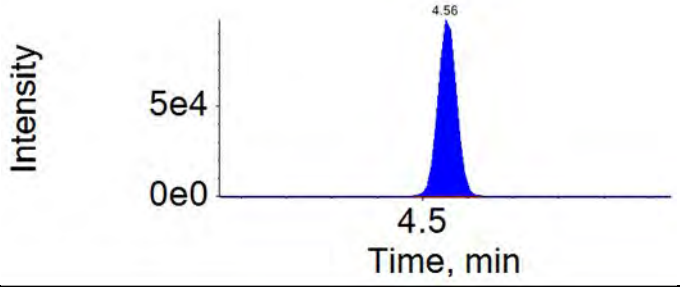
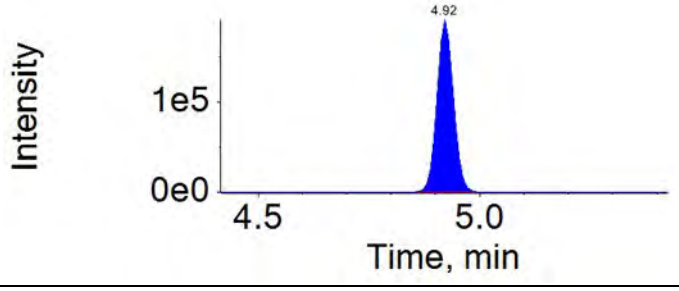


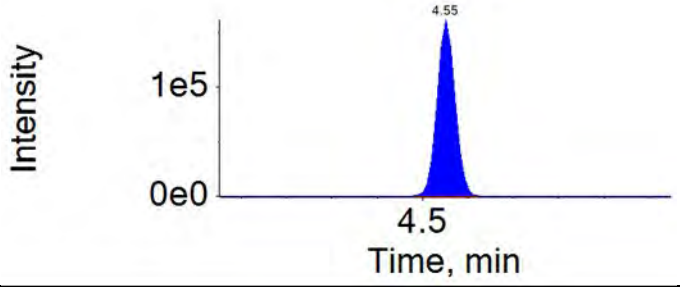
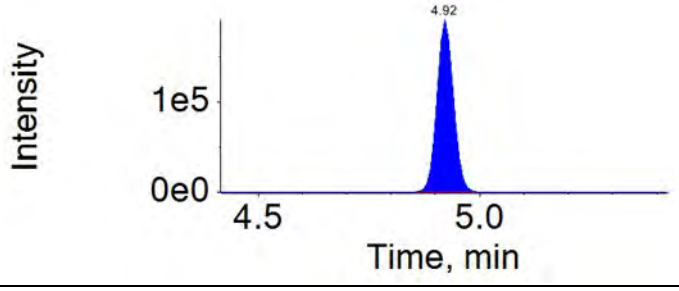
APPROVED
By MCD at 4:12 pm, 12/6/18

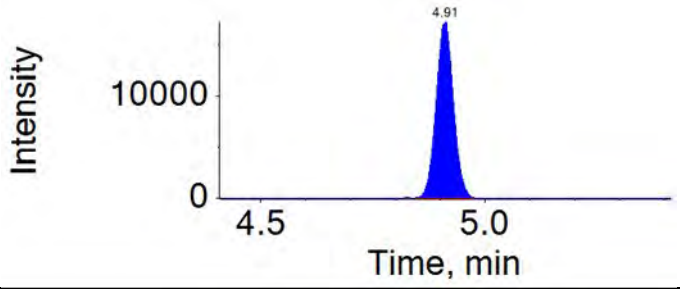
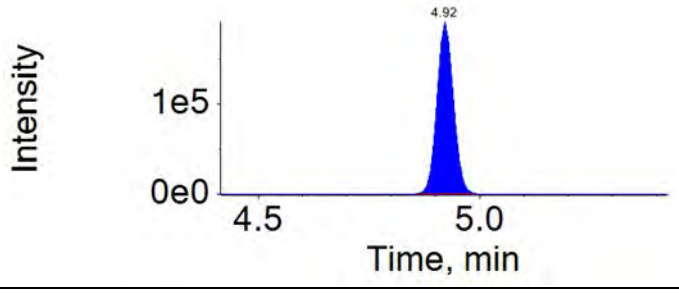
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

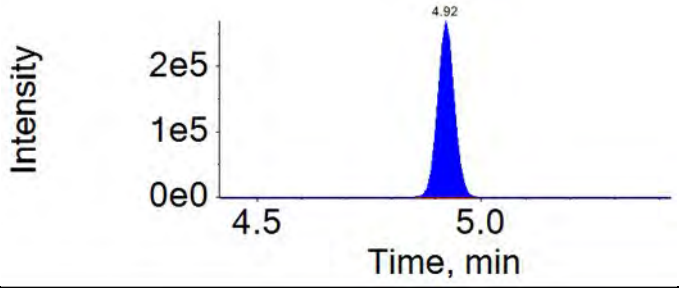
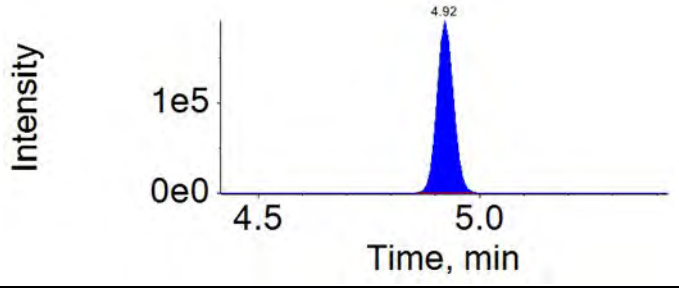
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

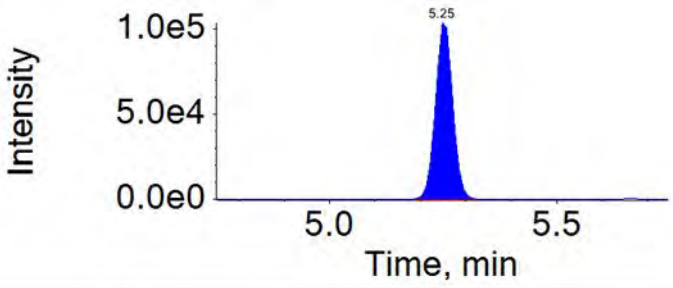
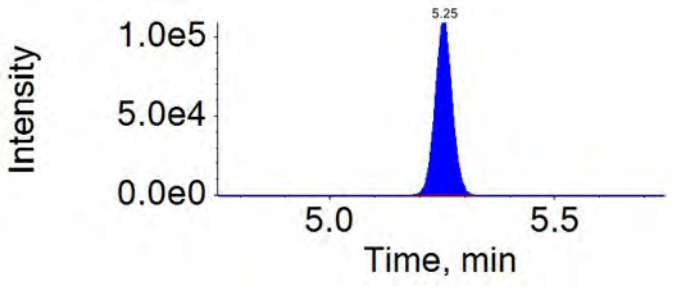
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

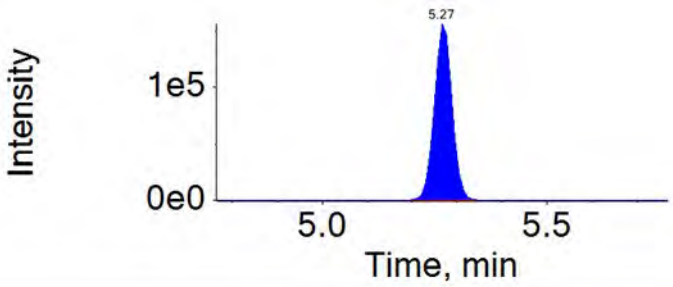
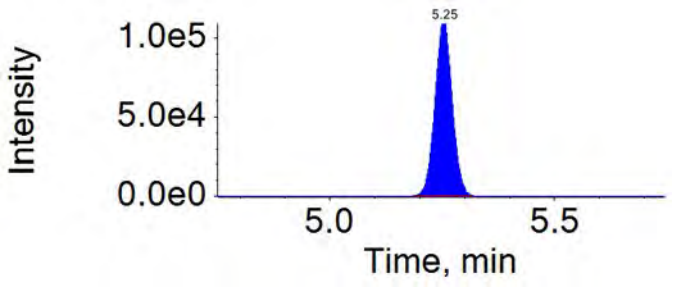
APPROVED
By MCD at 4:12 pm, 12/6/18

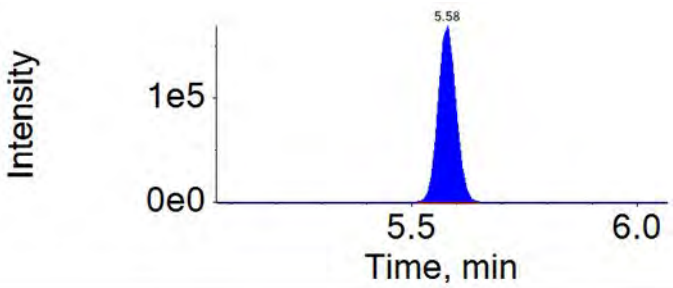
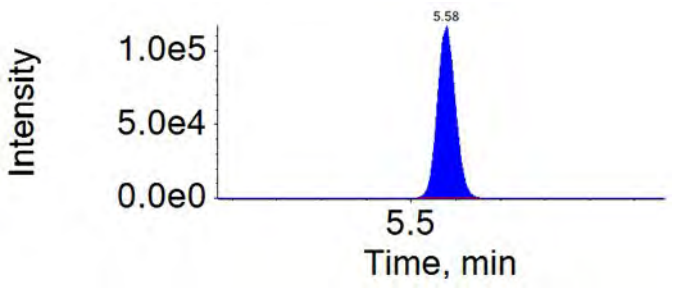
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

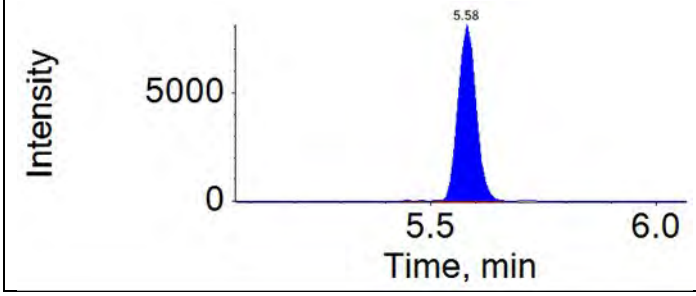
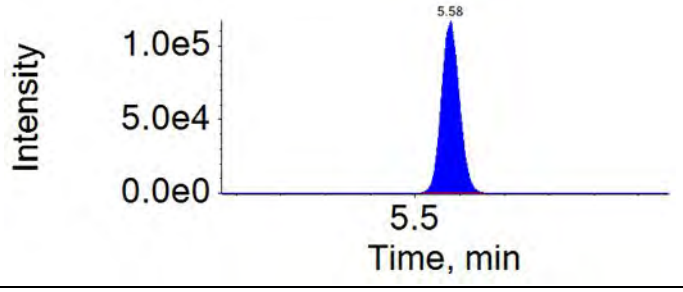
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

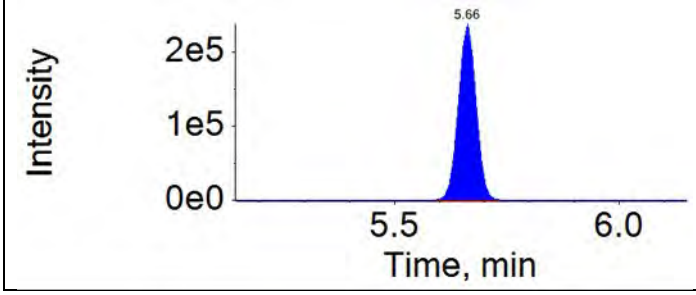
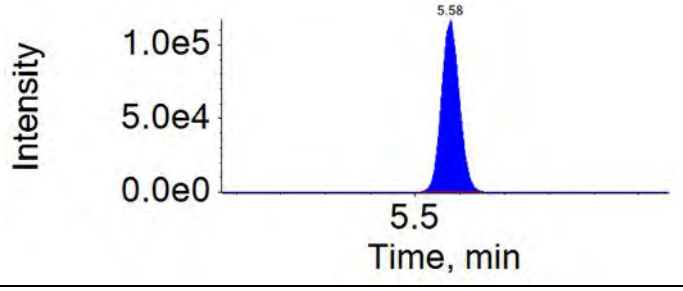
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

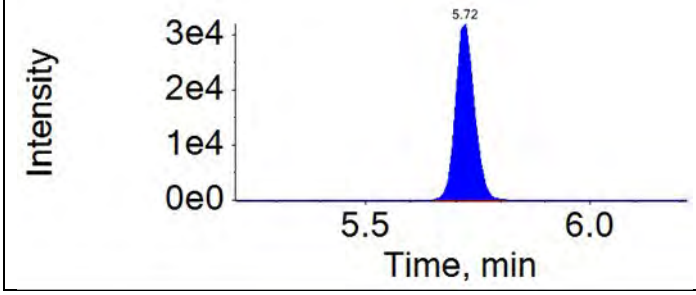
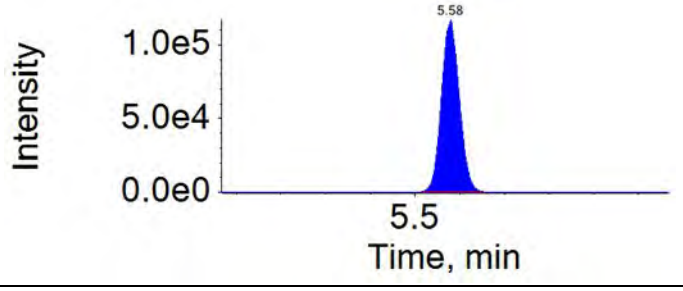
APPROVED
By MCD at 4:12 pm, 12/6/18

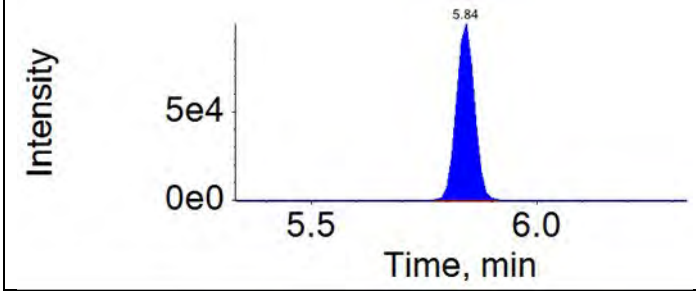
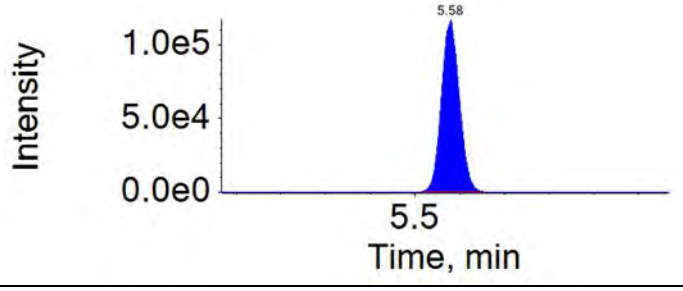
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

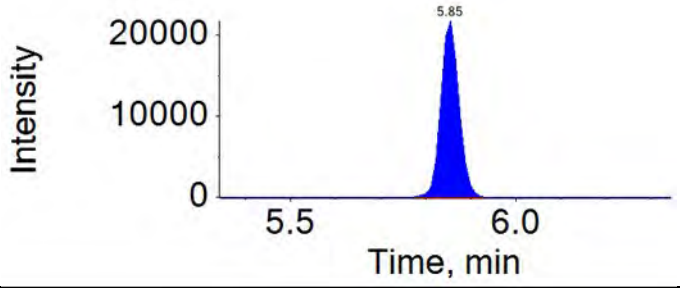
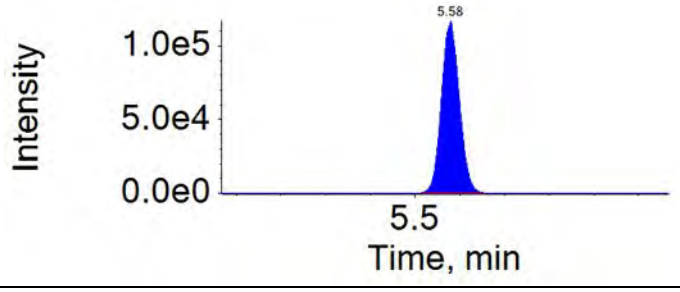
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

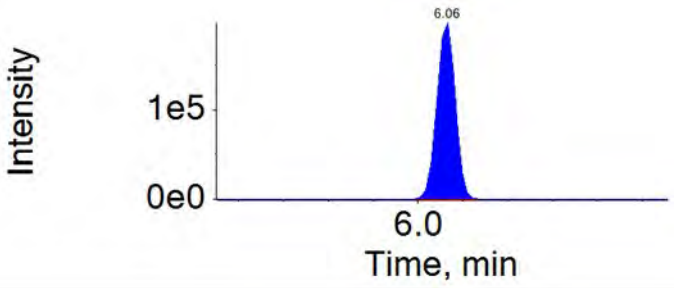
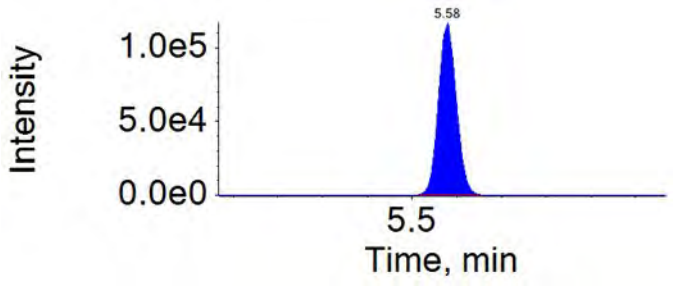
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

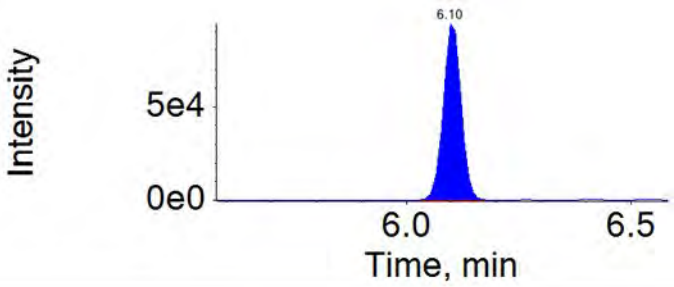
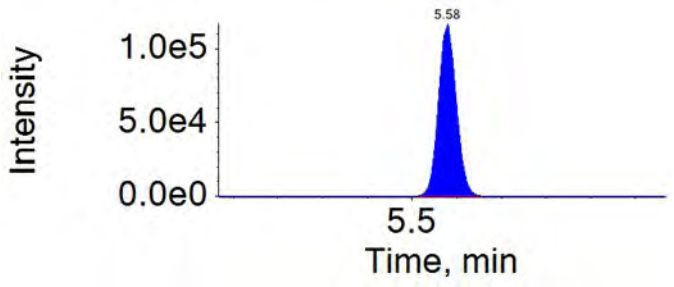
APPROVED
By MCD at 4:12 pm, 12/6/18

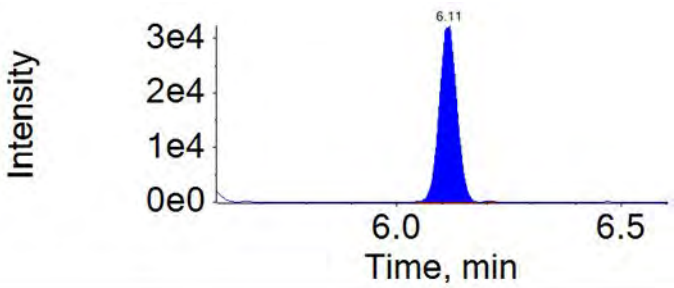
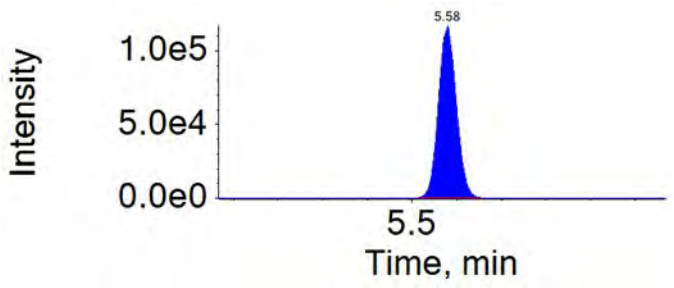
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

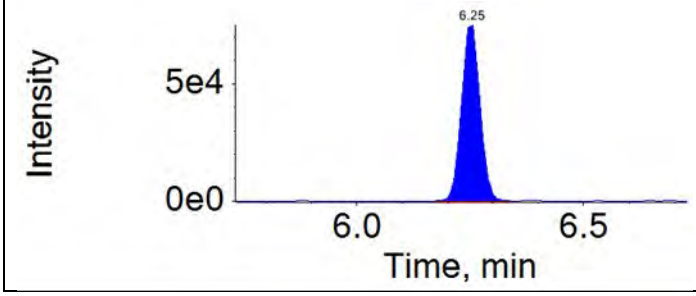
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

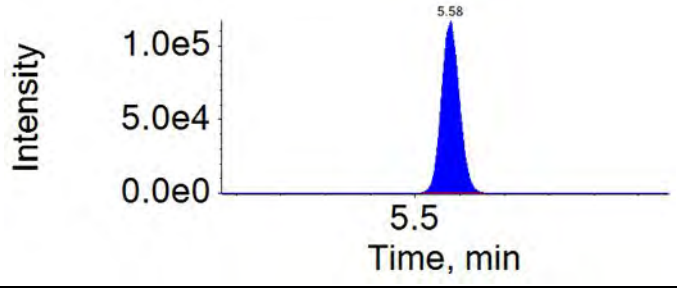
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

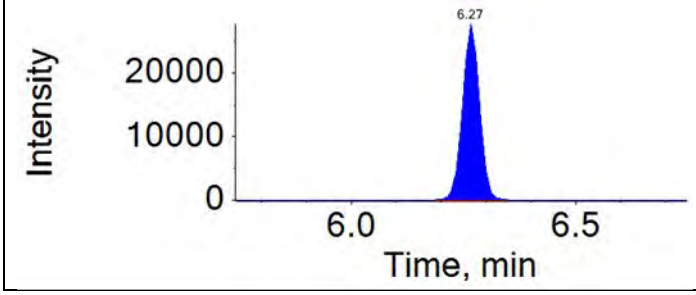
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

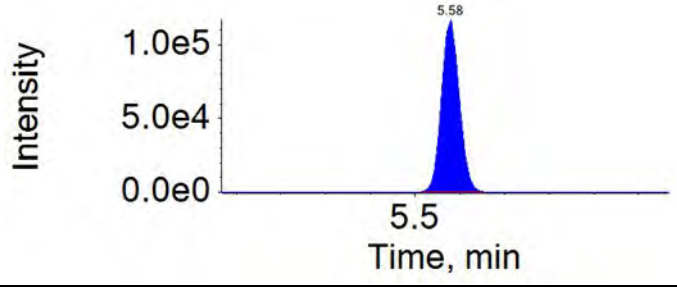
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



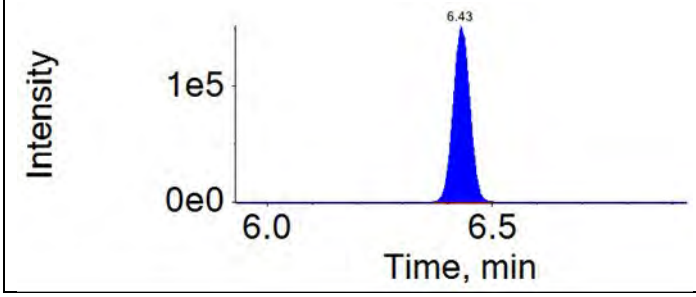


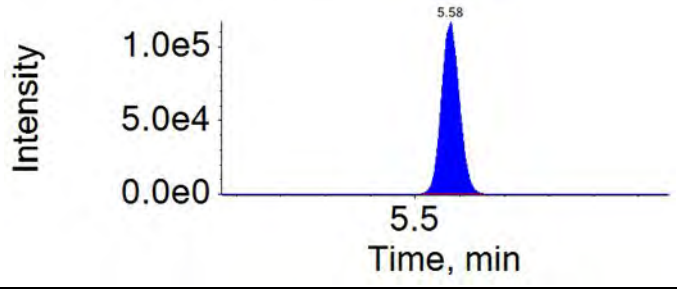
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



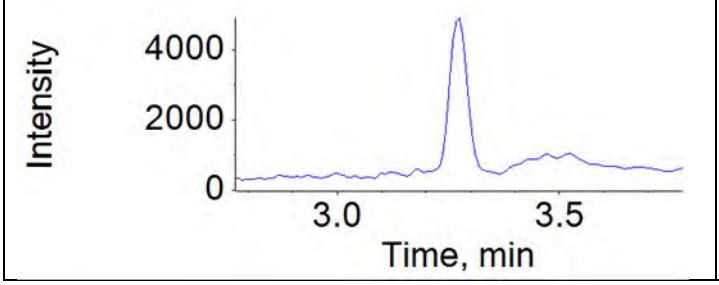


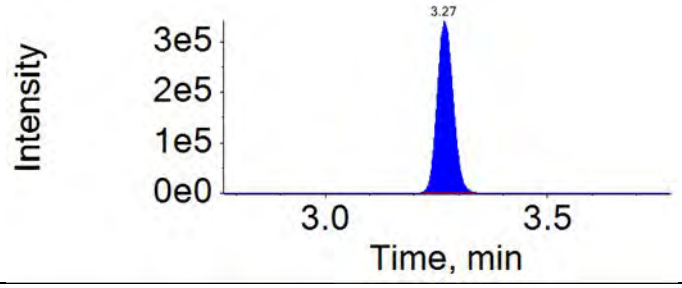
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

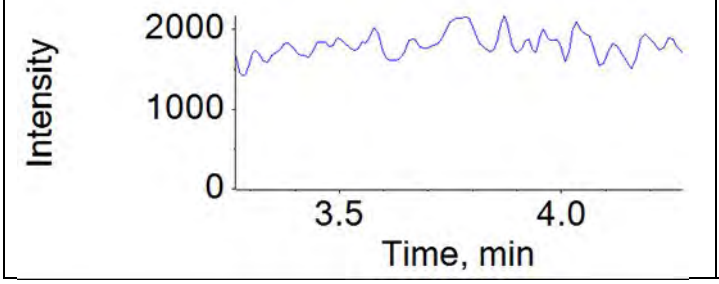
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

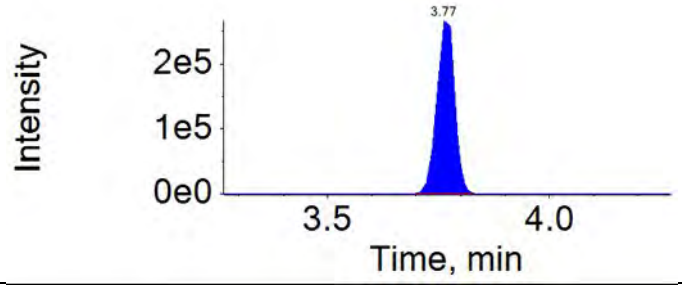
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



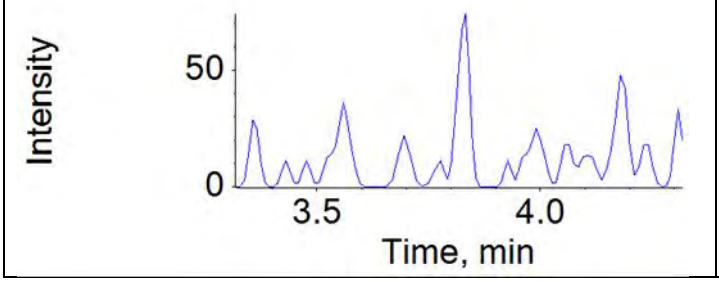


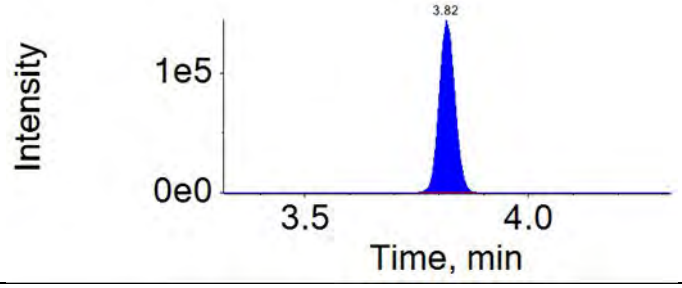
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



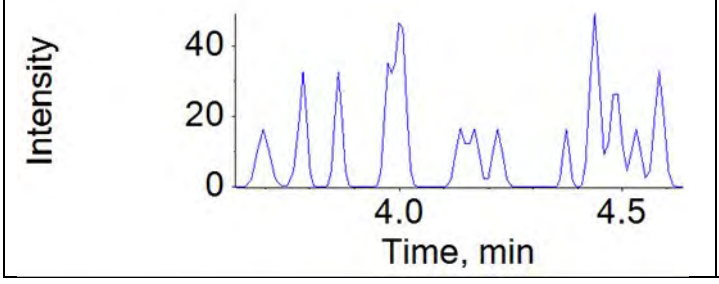


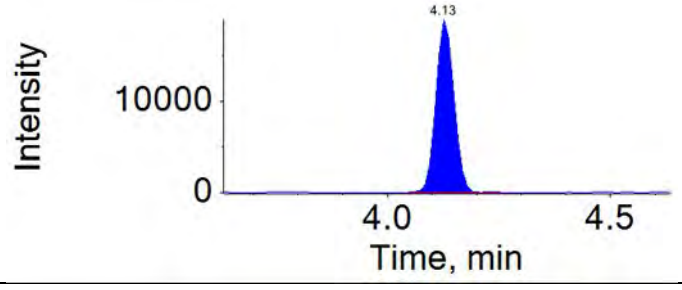
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



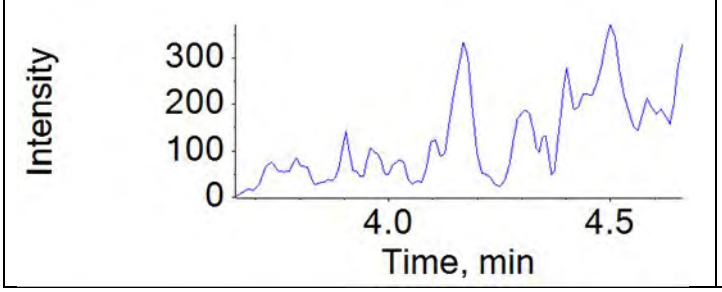


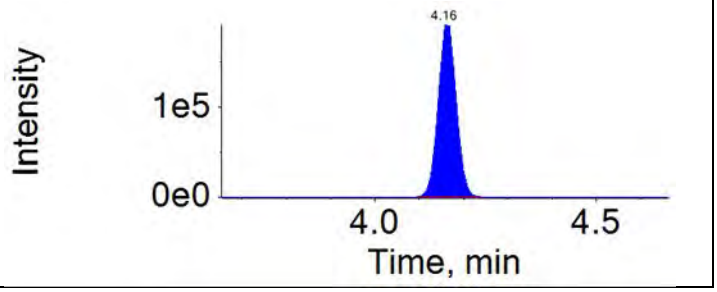
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

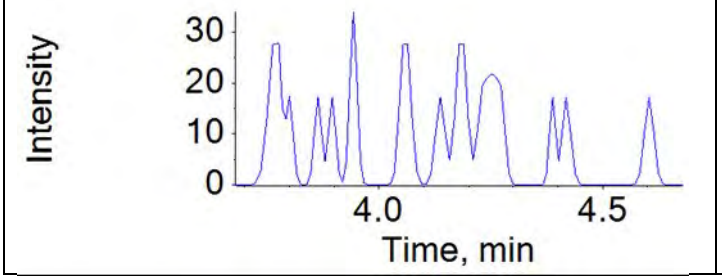
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

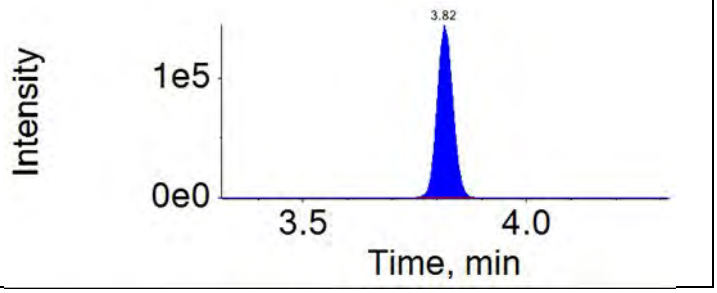
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



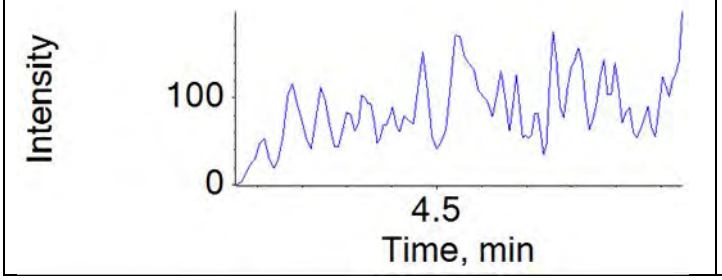


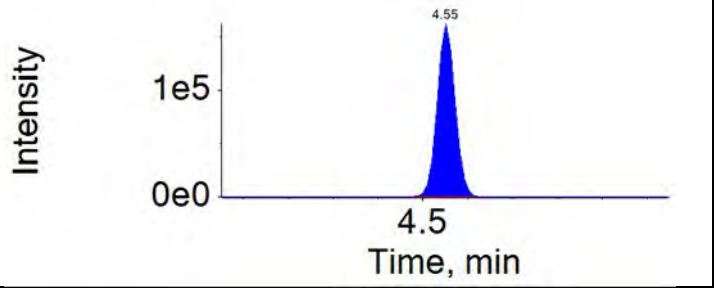
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



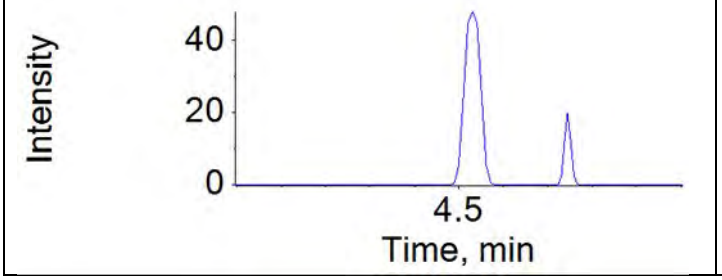


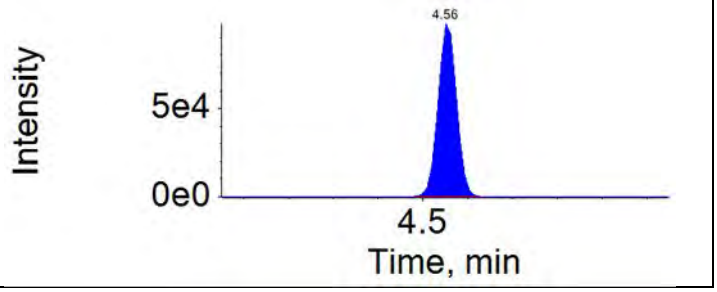
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





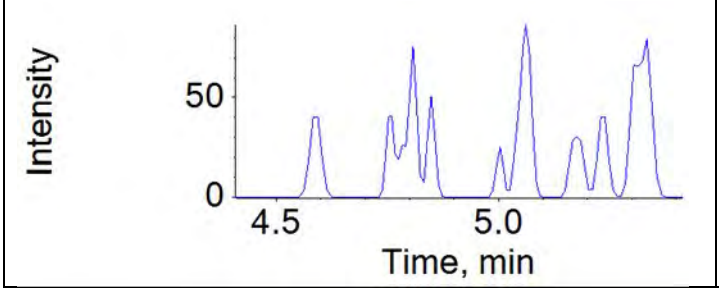
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

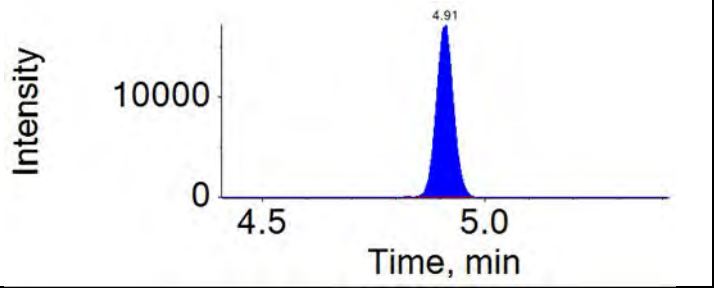




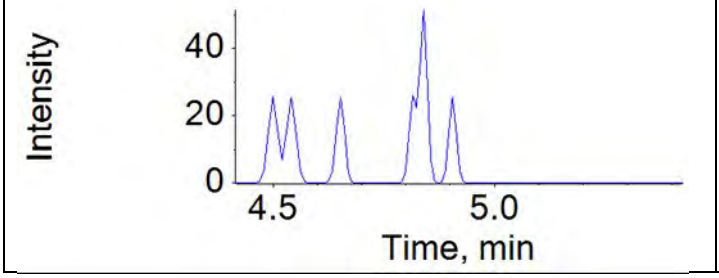
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

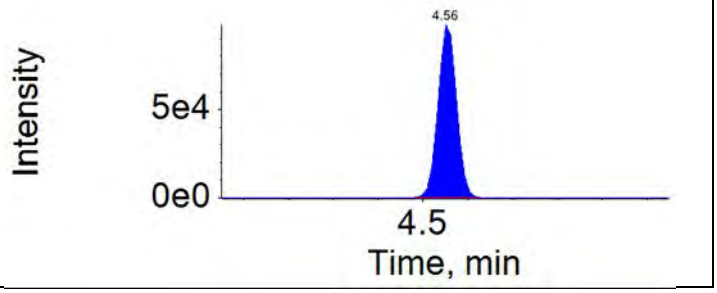
Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0



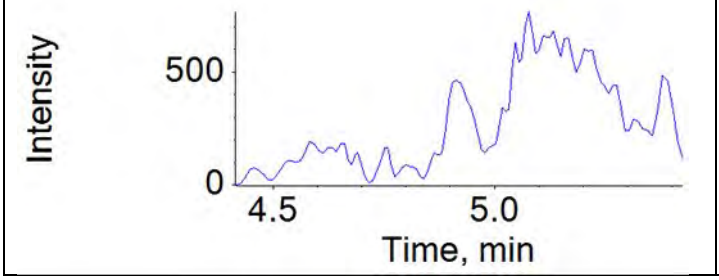


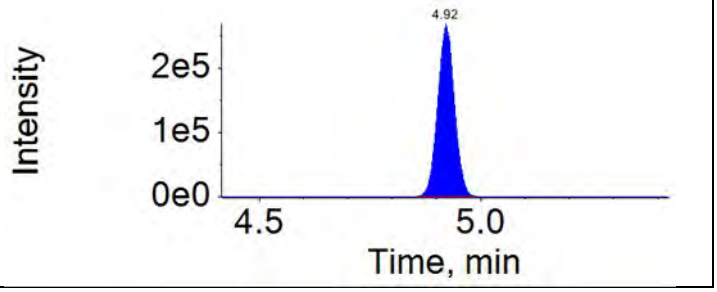
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0



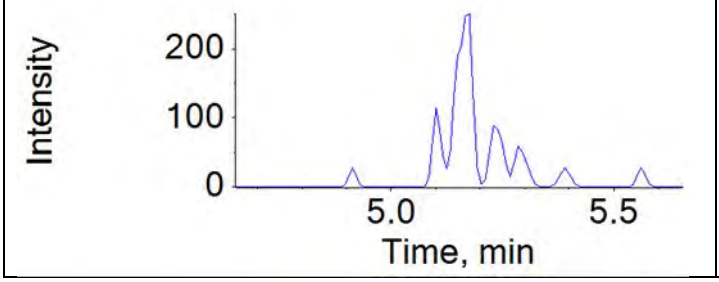


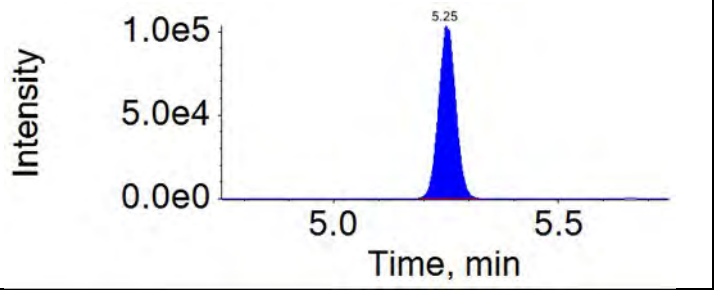
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0





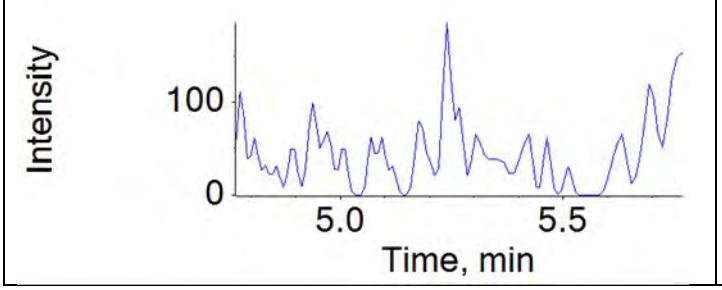
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0

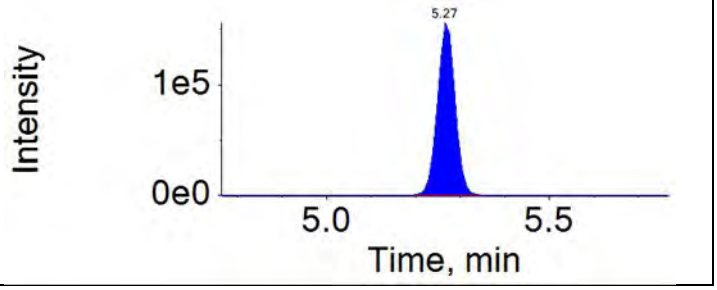




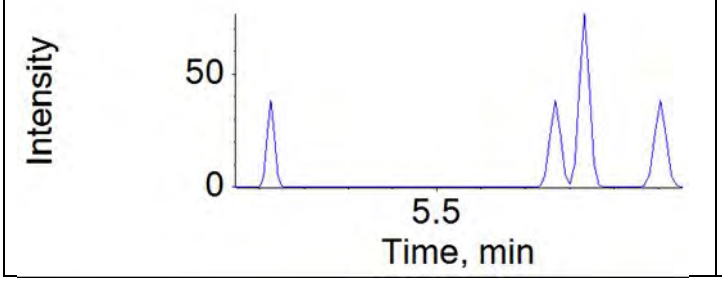
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

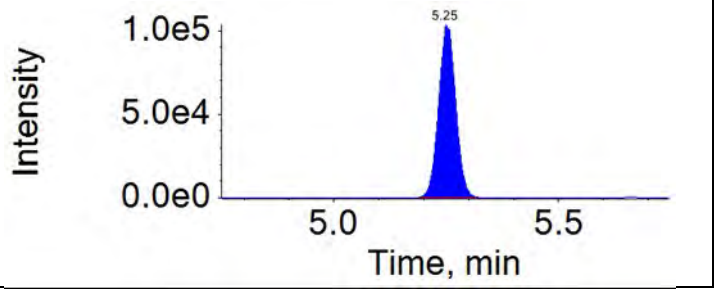
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



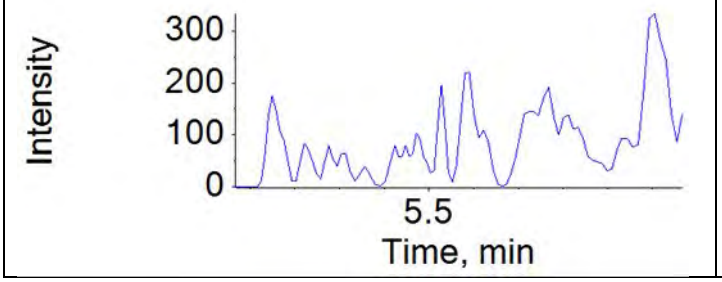


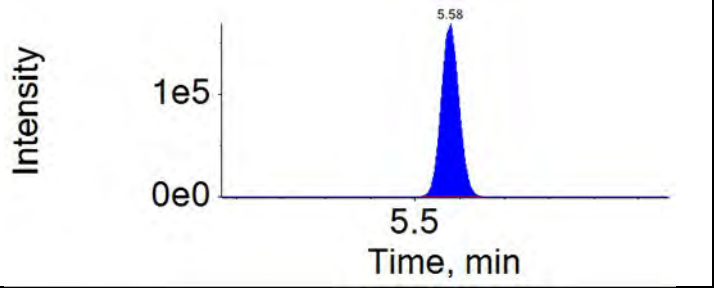
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



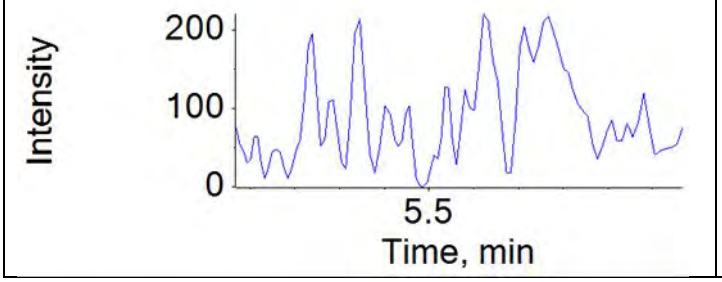


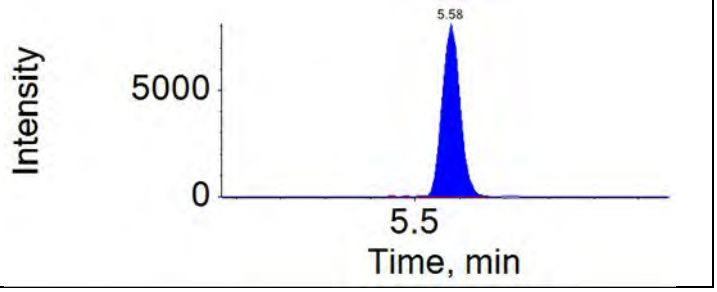
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



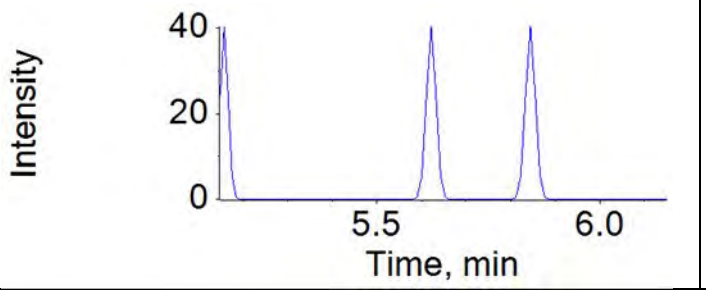


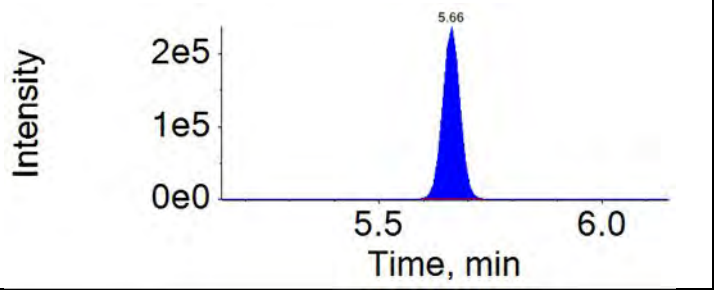
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

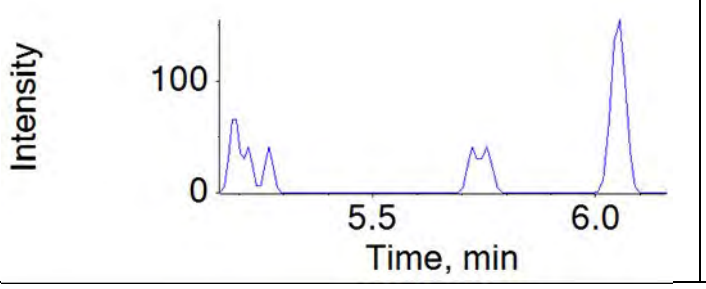
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

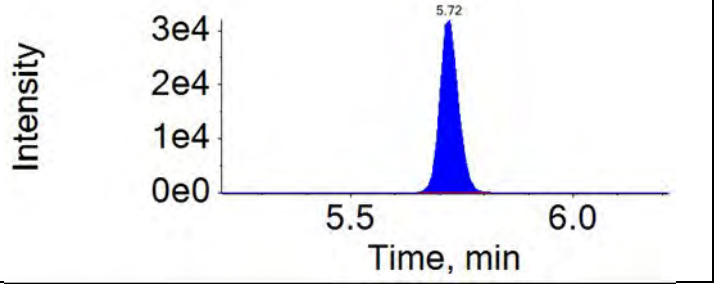
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



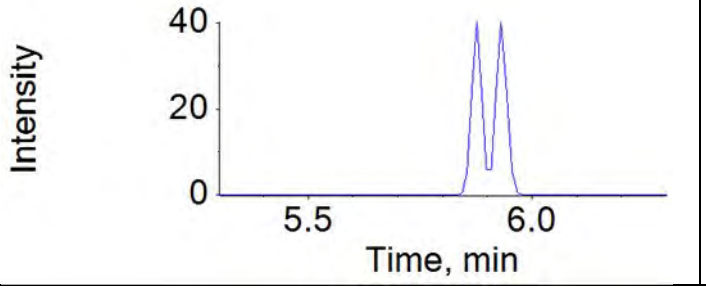


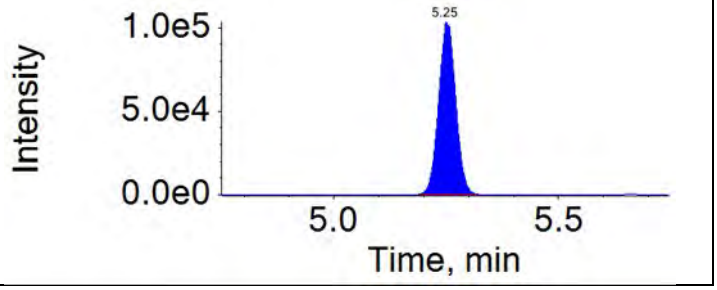
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



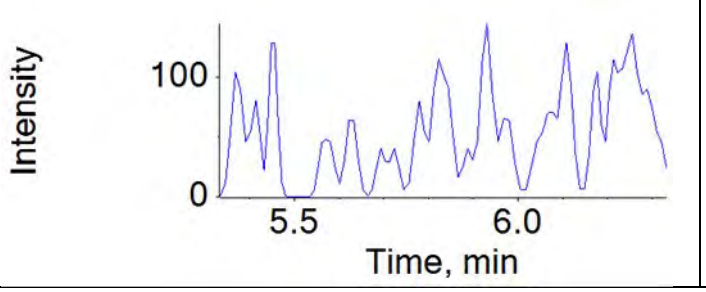


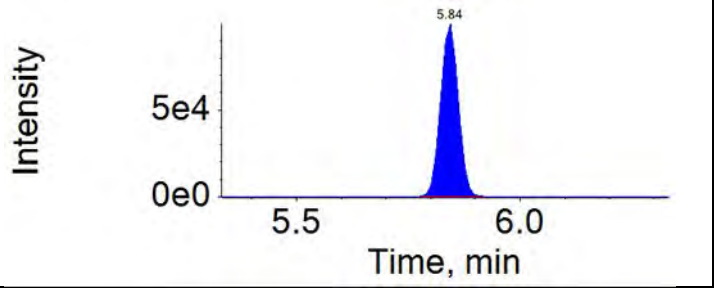
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



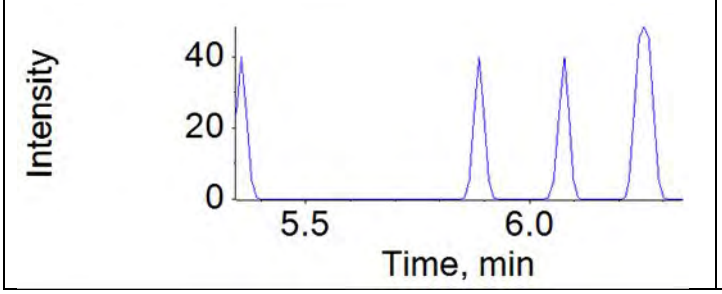


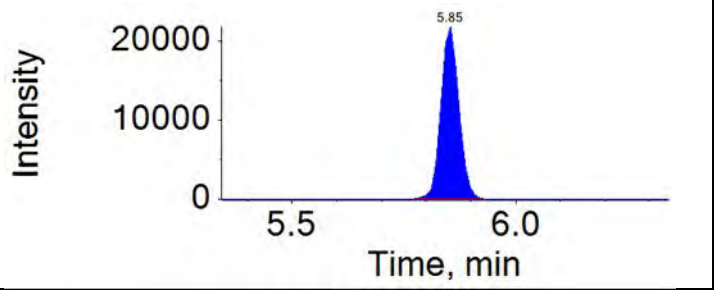
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

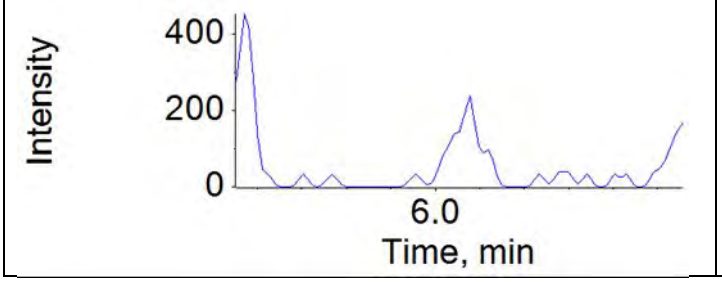
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

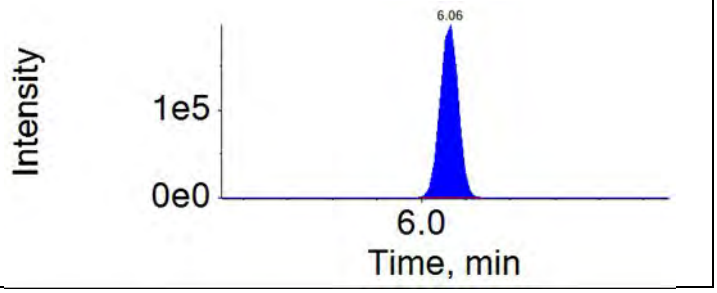
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



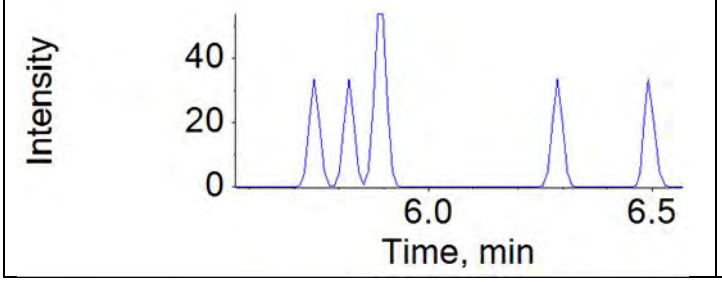


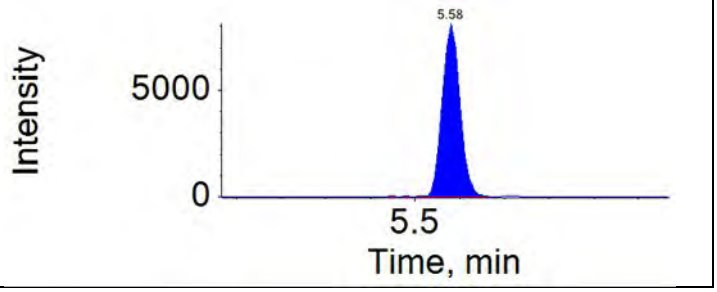
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



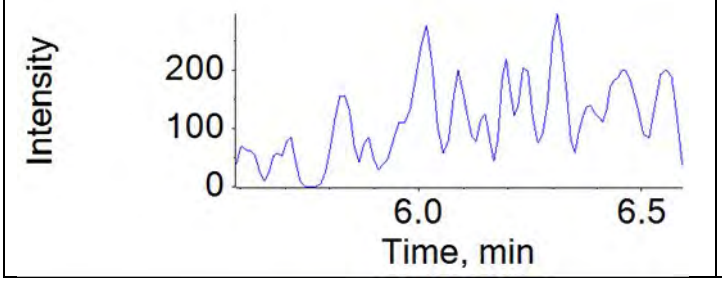


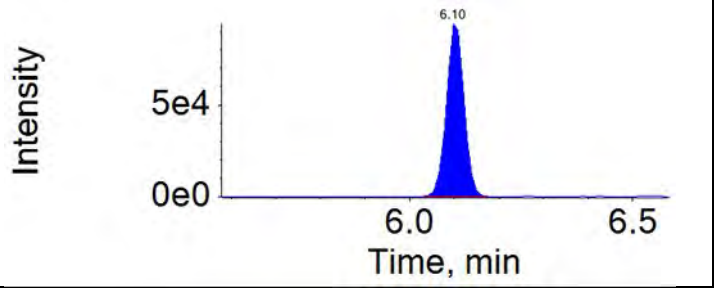
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



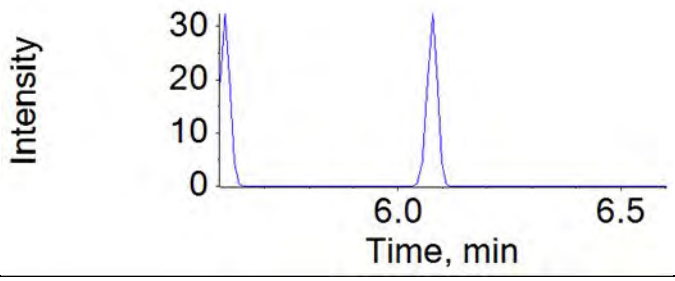


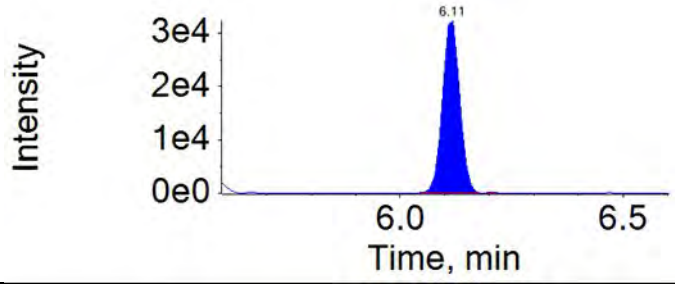
APPROVED
By MCD at 4:12 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

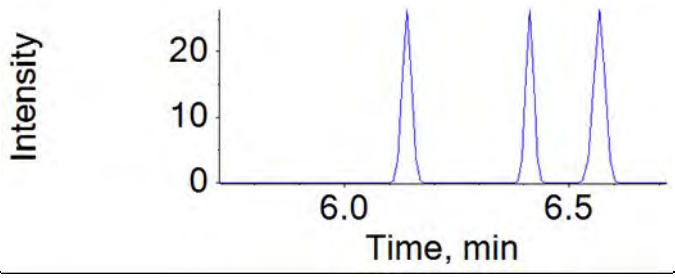
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

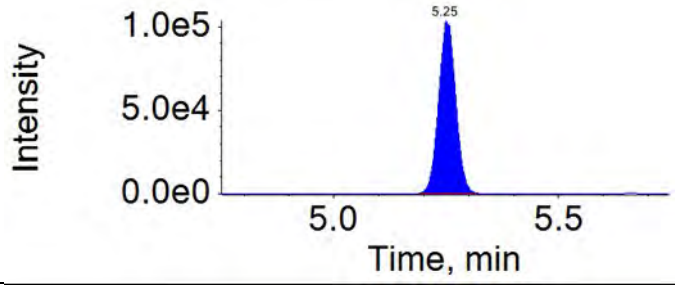
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



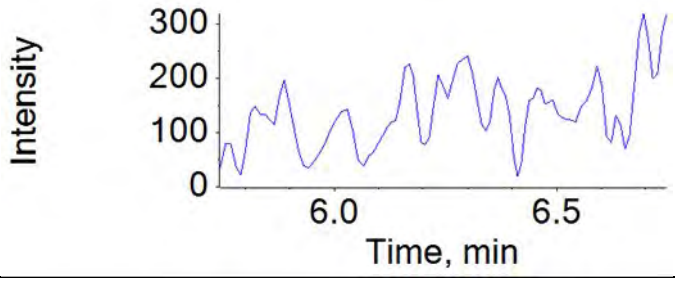


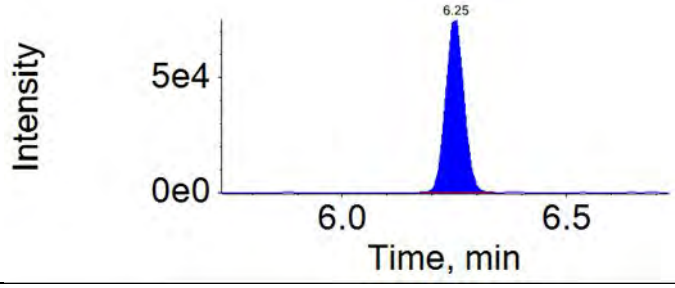
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



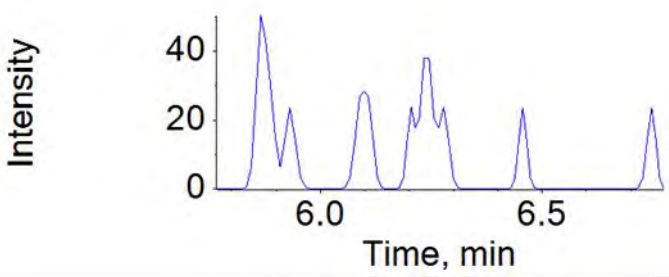


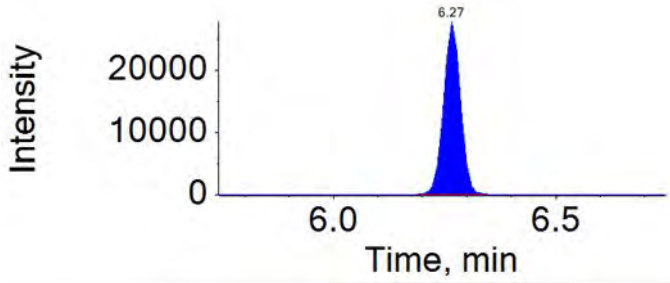
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



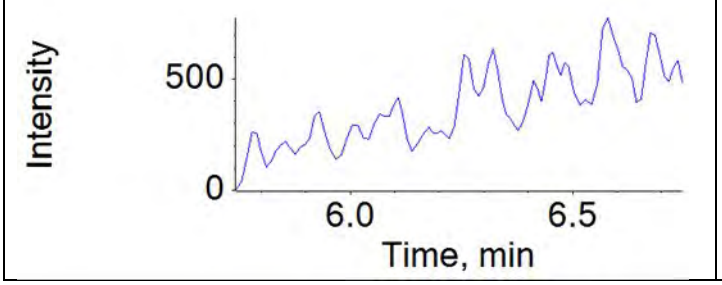


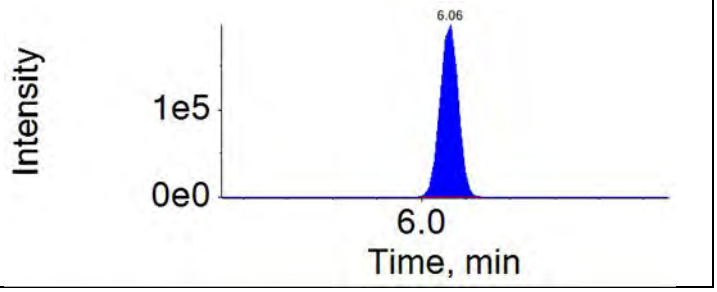
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

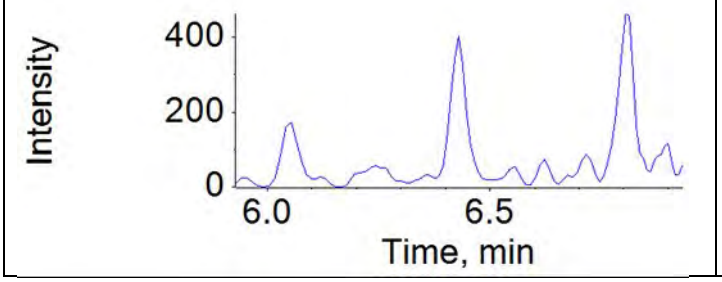
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

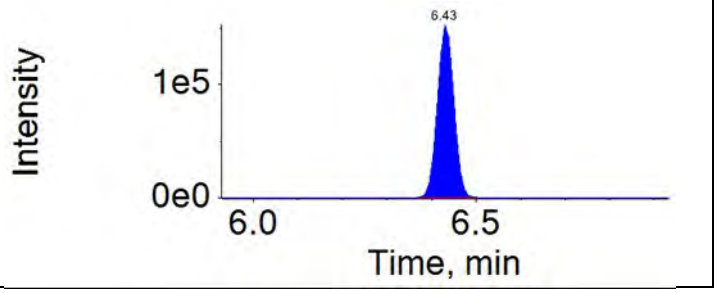
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



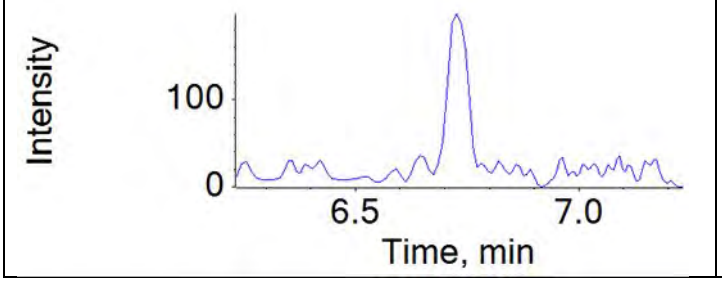


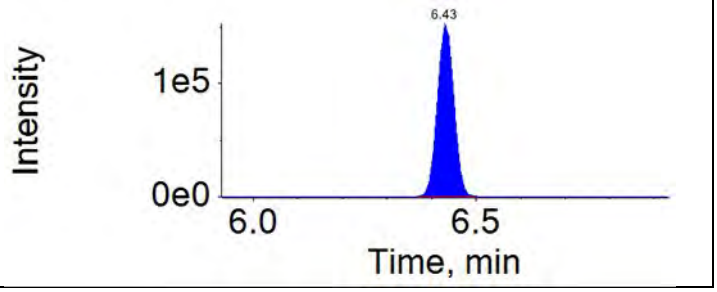
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



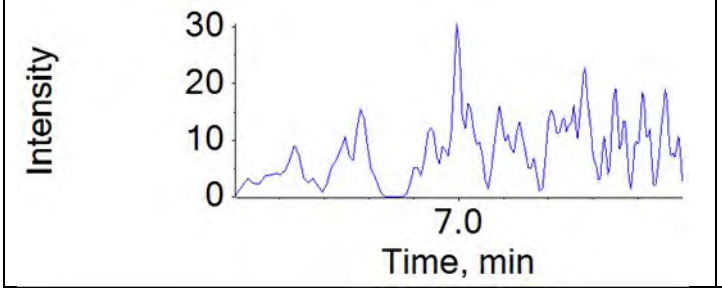


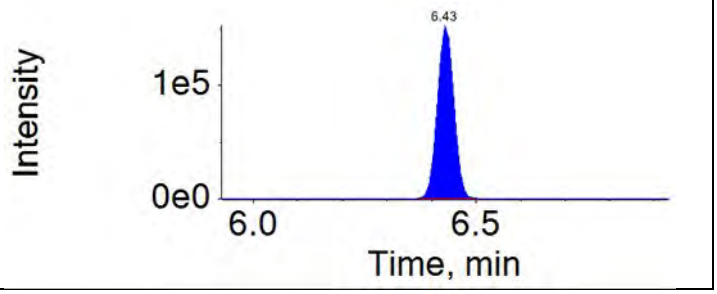
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0





APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

Ion Ratio Report

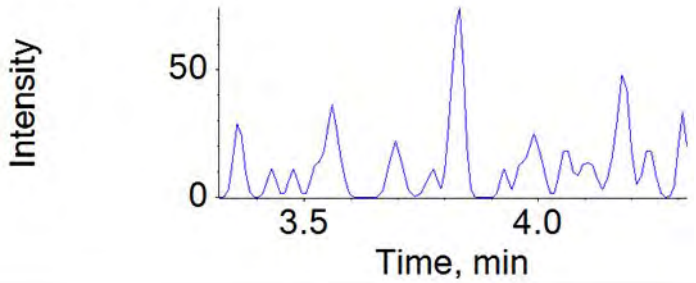
Sample Name: BLK338017 **Instrument Name:** LM27631 **File Name:** 18DEC05D-35.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

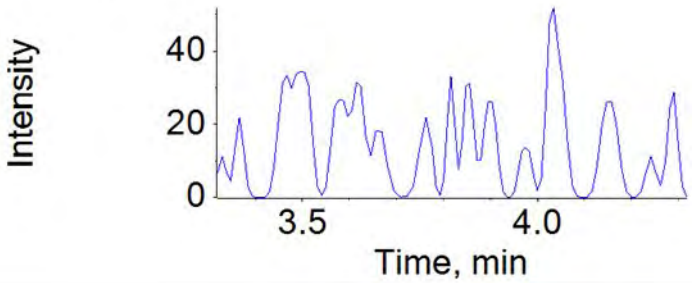
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

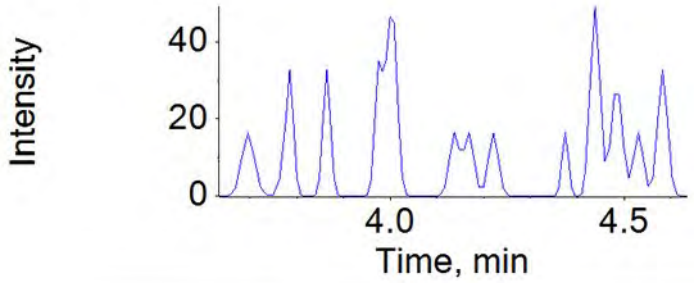
Component: PFBS
Primary Mass: 299.0 / 80.0



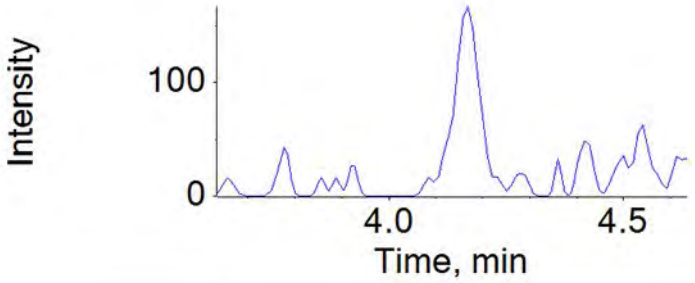
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



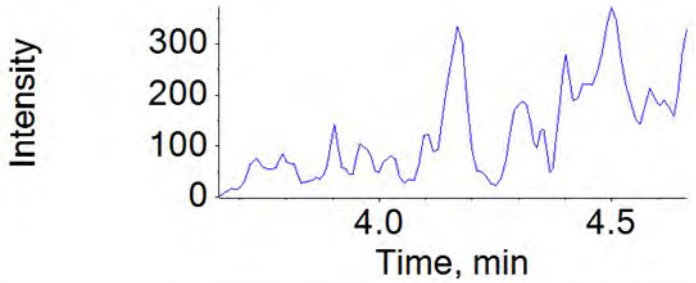
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



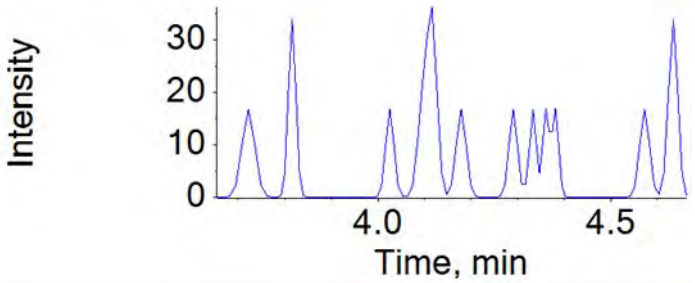
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



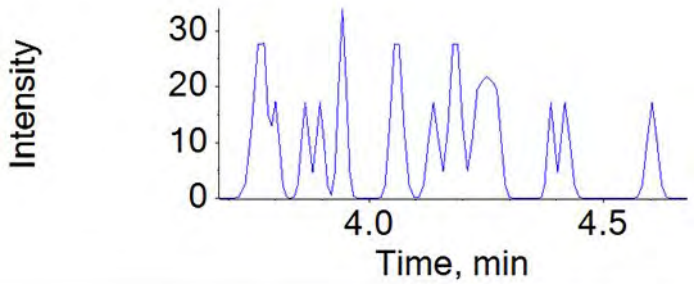
Component: PFHxA
Primary Mass: 313.0 / 269.0



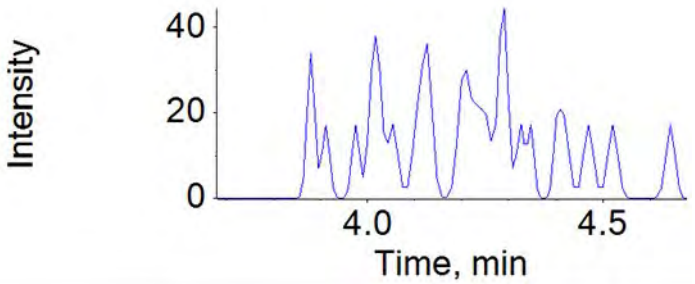
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



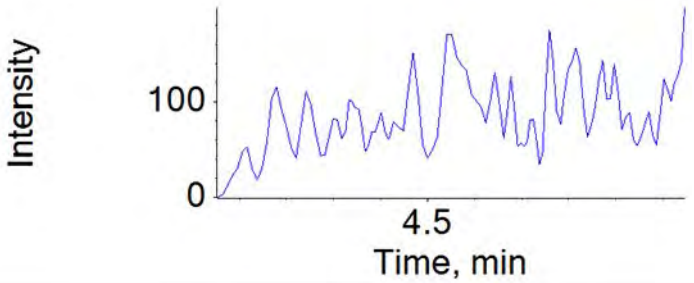
Component: PFPeS
Primary Mass: 349.0 / 80.0



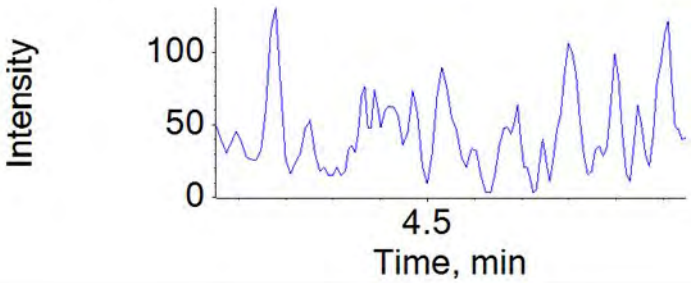
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



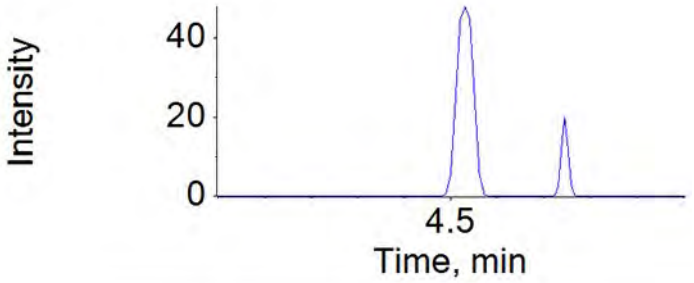
Component: PFHpA
Primary Mass: 363.0 / 319.0



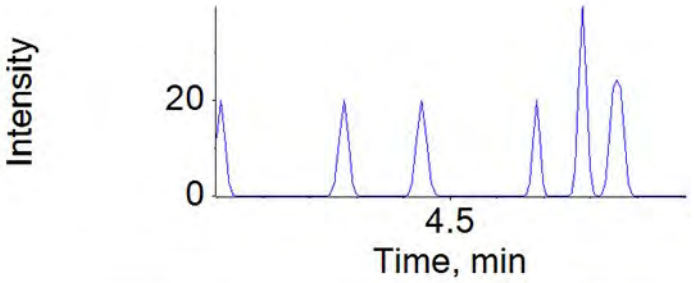
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



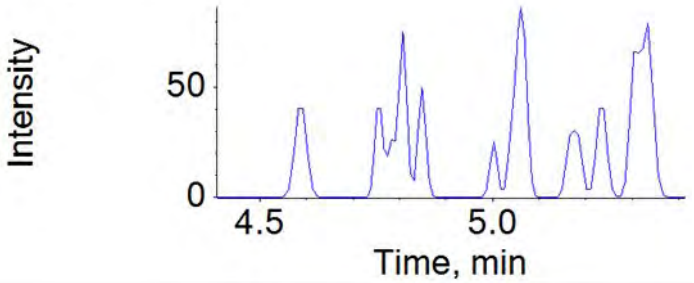
Component: PFHxS
Primary Mass: 399.0 / 80.0



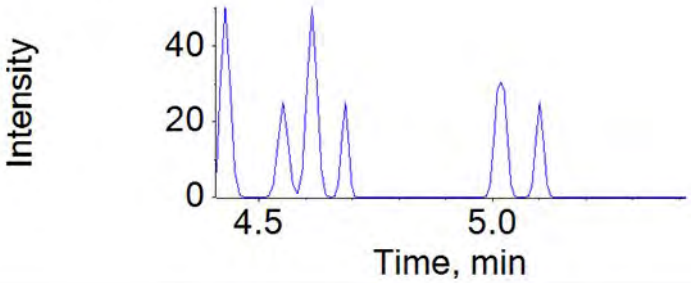
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



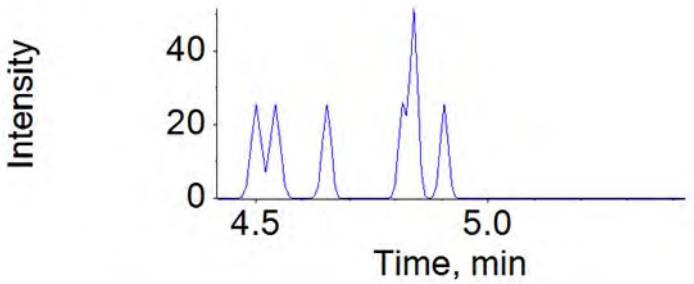
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



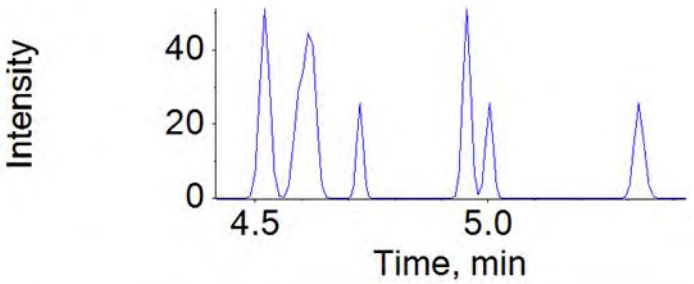
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



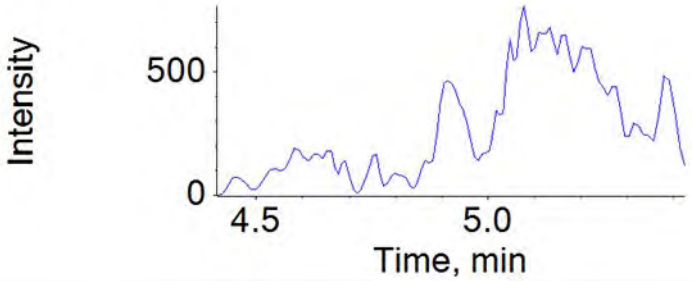
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



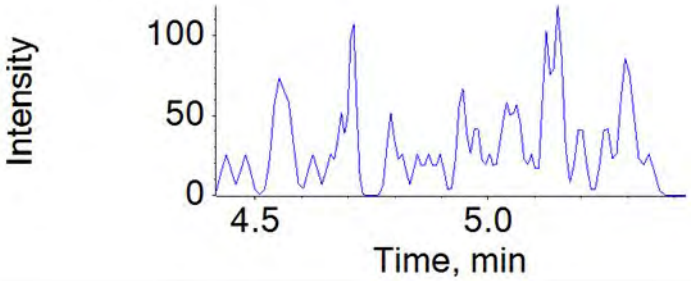
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

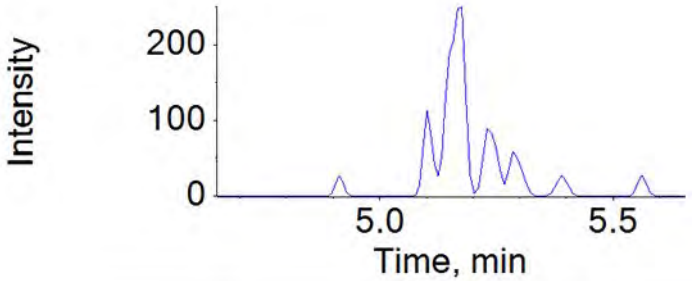
Component: PFOA
Primary Mass: 413.0 / 369.0



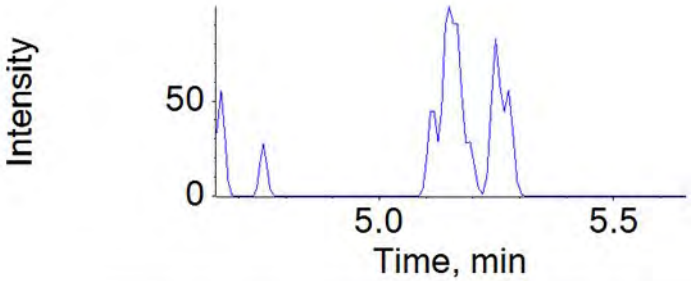
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



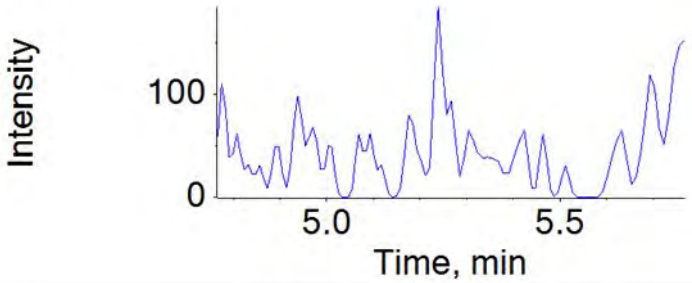
Component: PFOS
Primary Mass: 499.0 / 80.0



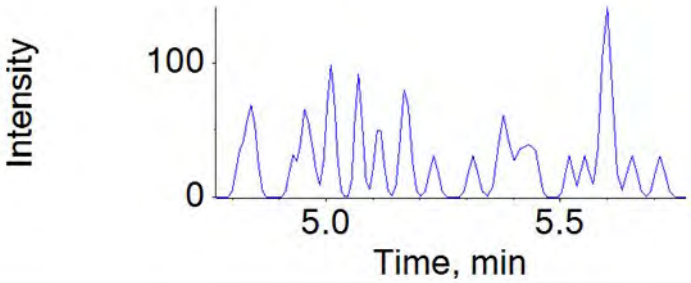
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



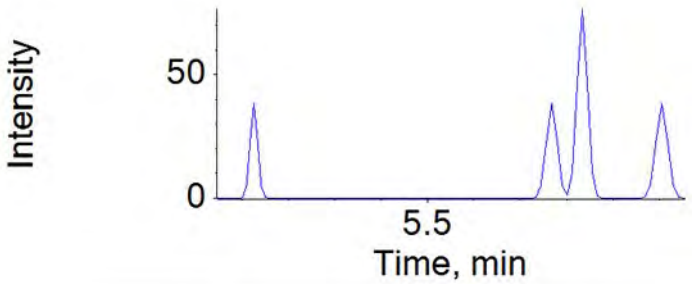
Component: PFNA
Primary Mass: 463.0 / 419.0



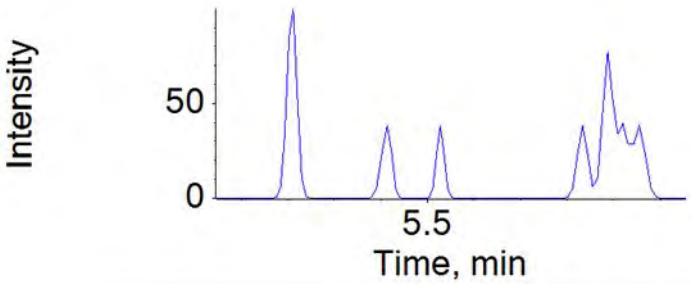
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



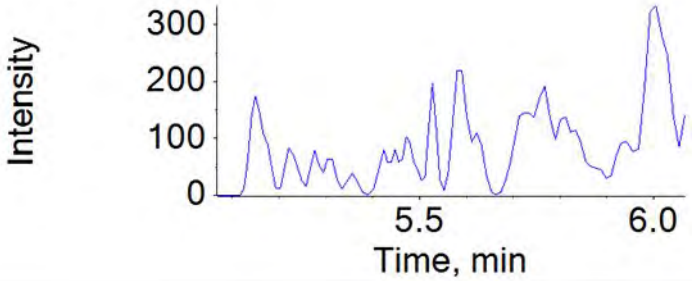
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



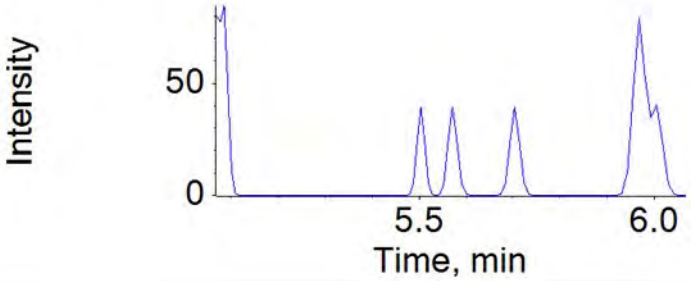
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

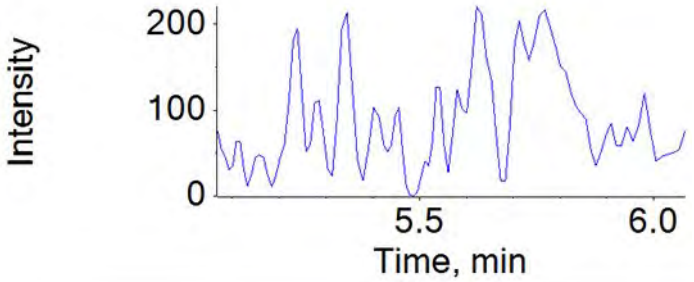
Component: PFDA
Primary Mass: 513.0 / 469.0



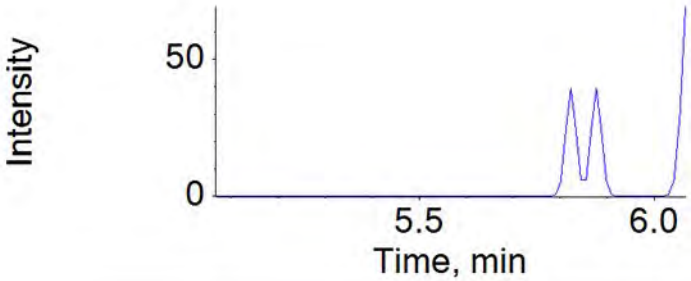
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



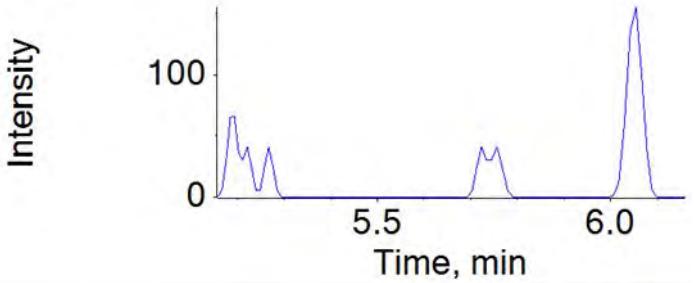
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



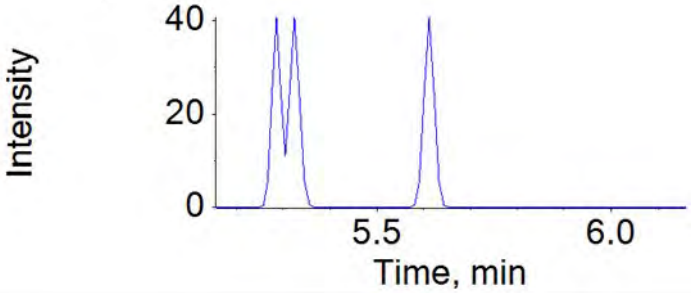
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



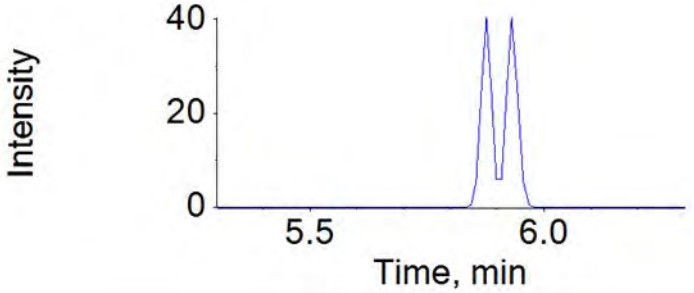
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



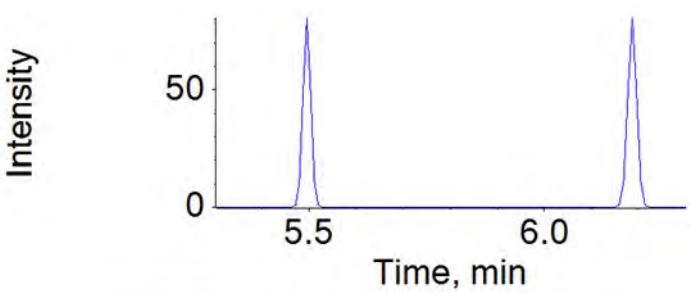
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



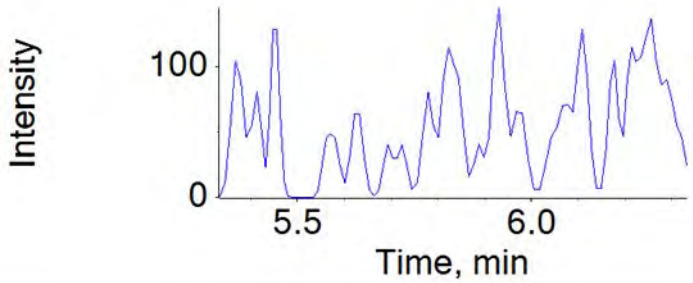
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



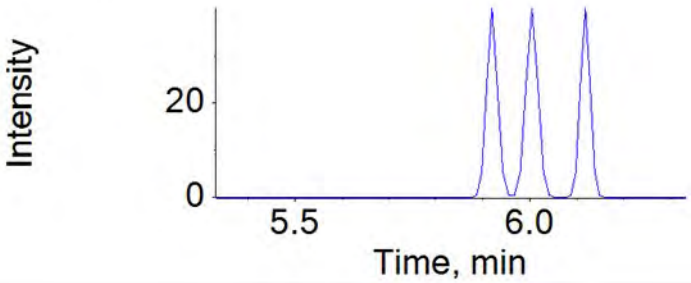
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

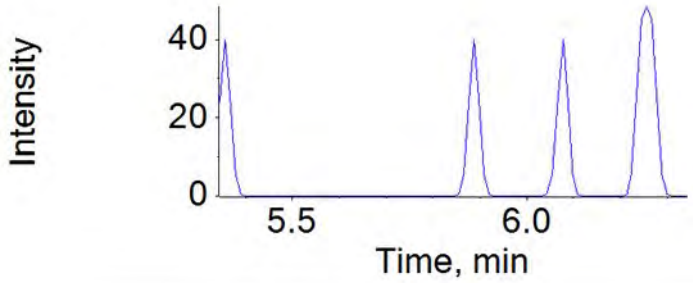
Component: PFUnDA
Primary Mass: 563.0 / 519.0



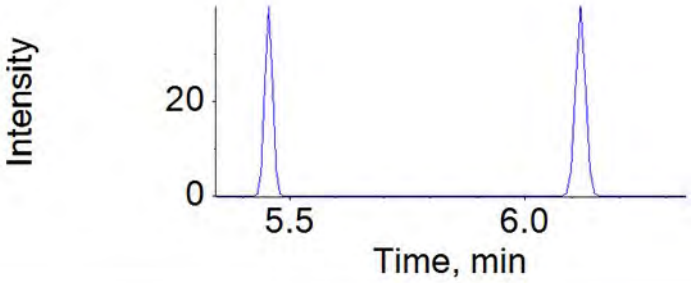
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



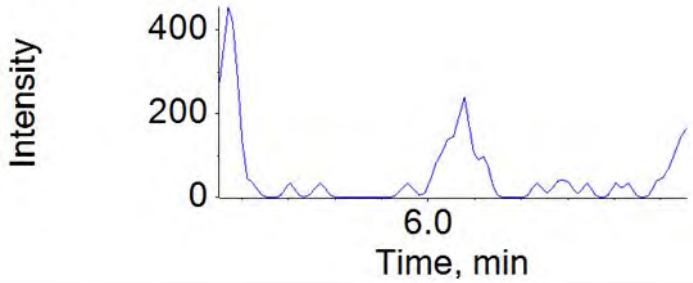
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



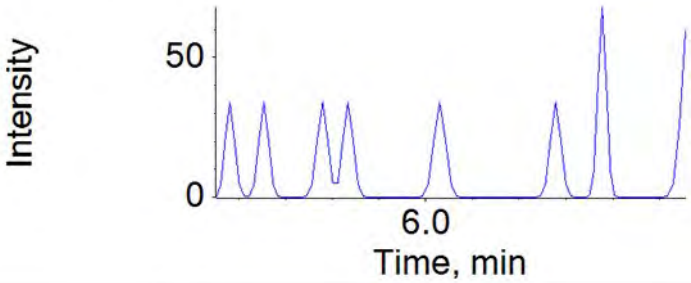
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



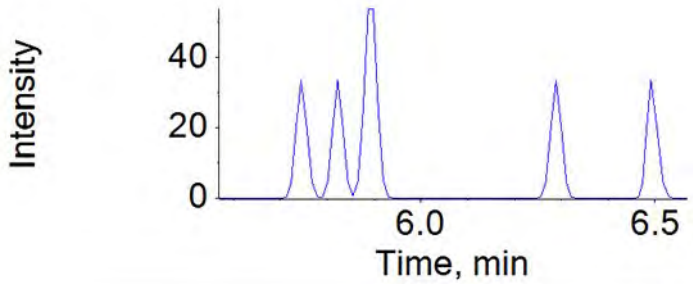
Component: PFDoDA
Primary Mass: 613.0 / 569.0



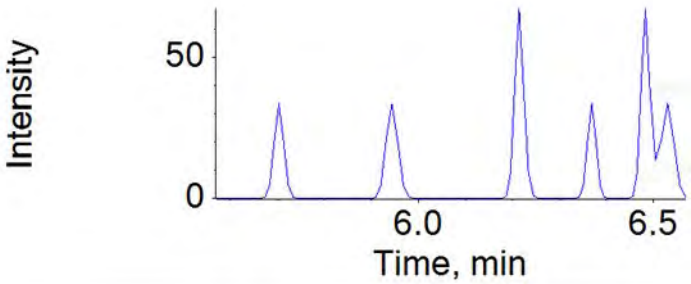
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



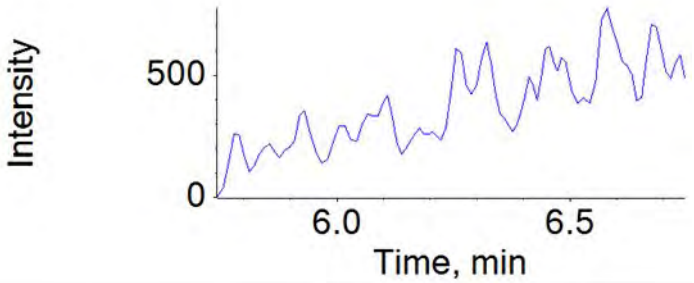
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



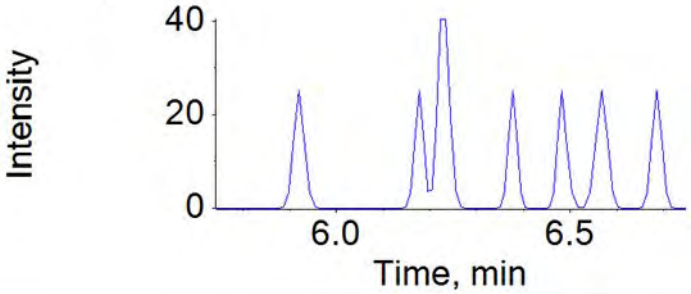
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

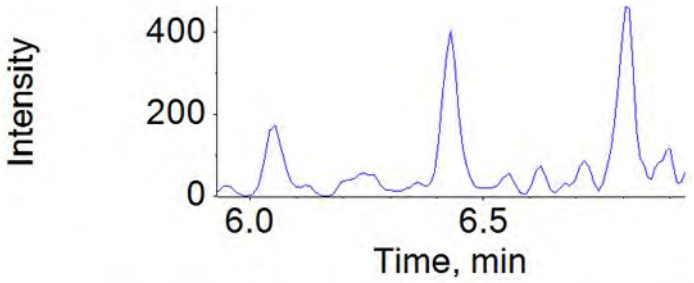
Component: PFTrDA
Primary Mass: 663.0 / 619.0



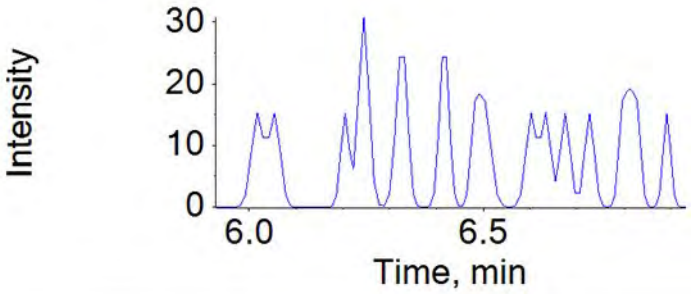
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



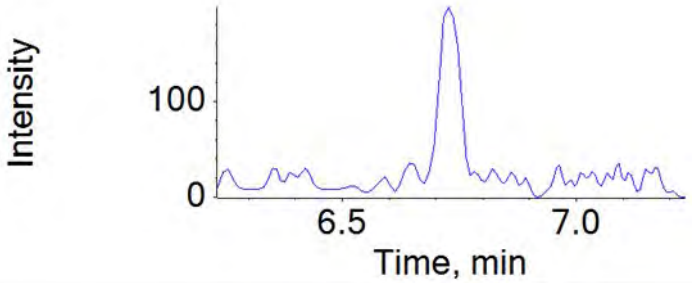
Component: PFTeDA
Primary Mass: 713.0 / 669.0



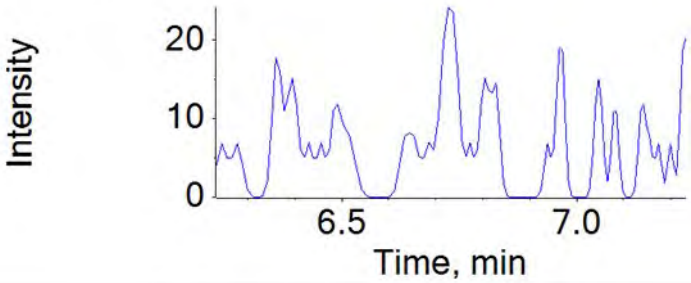
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



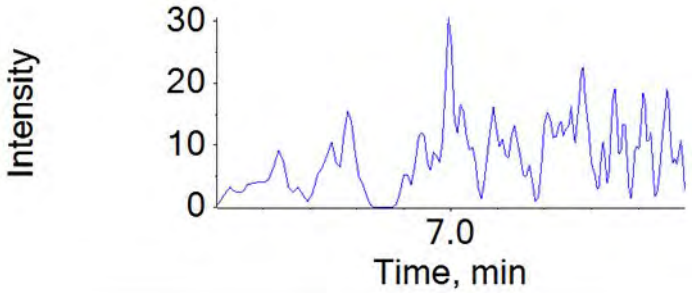
Component: PFHxDA
Primary Mass: 813.0 / 769.0



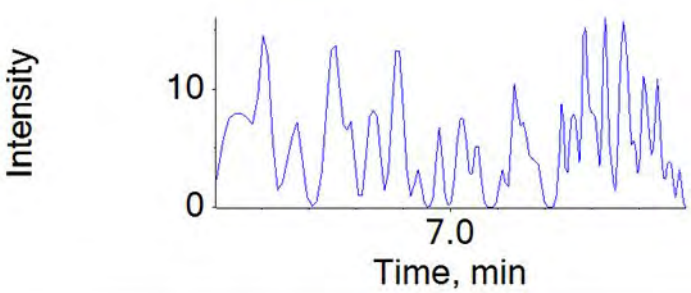
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



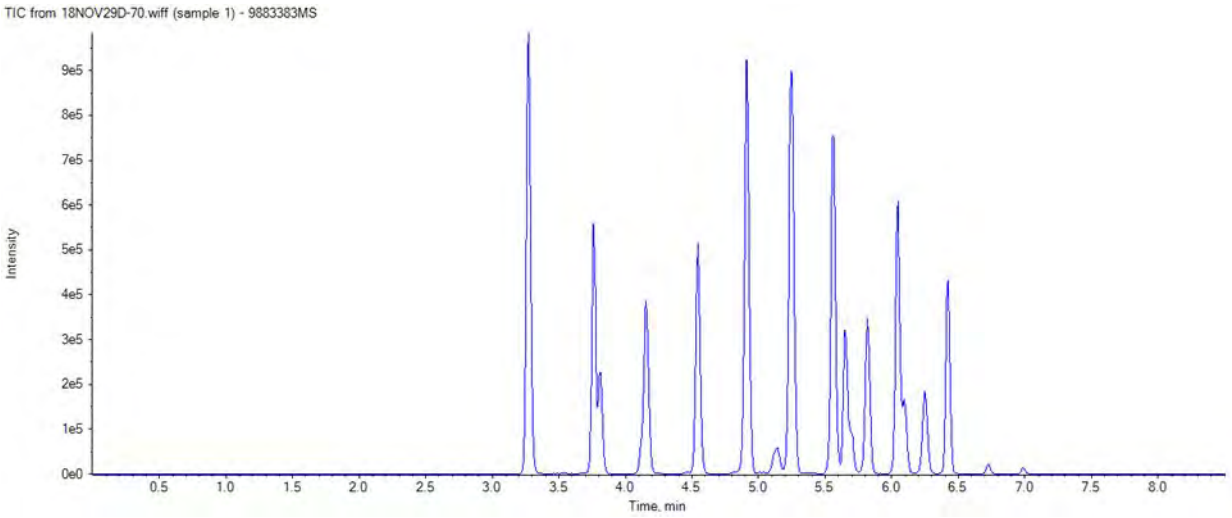
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9883383MS	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MS Grab Soil	18NOV29D-70.wiff	2018-11-29T20:20:03



Injection Standard Area Reference File**:** 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	1082523.2	906425.4	19	50	
13C2-PFOA	5.00	597173.6	495984.0	20	50	
13C4-PFOS	4.78	374960.5	296261.8	27	50	
13C2-PFDA	5.00	592357.3	451203.0	31	50	

APPROVED
By MCD at 10:12 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:52:39 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9883383MS	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MS Grab Soil	18NOV29D-70.wiff	2018-11-29T20:20:03

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	51198.3	415761.6	0.123	1.095	1.087	99	70-130	
PFHxA	167805.3	690435.4	0.243	1.236	1.774	143	70-130	OOS
PFHpA	156164.4	541073.0	0.289	1.236	1.620	131	70-130	OOS
PFHxS	104319.2	332996.5	0.313	1.169	2.667	228	70-130	OOS
PFOA	338759.4	973156.8	0.348	1.236	3.270	265	70-130	OOS
PFOS	837793.1	329173.8	2.545	1.182	19.411	1642	70-130	OOS
PFNA	166919.0	646285.2	0.258	1.236	1.800	146	70-130	OOS
PFDA	109557.7	902417.2	0.121	1.236	1.249	101	70-130	
NMeFOSAA	13851.4	183855.3	0.075	1.236	0.874	71	70-130	
PFUnDA	102937.4	565298.3	0.182	1.236	1.183	96	70-130	
NEtFOSAA	14874.2	128305.1	0.116	1.236	1.027	83	70-130	
PFDoDA	126086.9	1146586.7	0.110	1.236	1.095	89	70-130	
PFTrDA	130156.0	1146586.7	0.114	1.236	1.244	101	70-130	
PFTeDA	93310.7	843623.8	0.111	1.236	1.139	92	70-130	

APPROVED
By MCD at 10:12 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 10:12 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	9883383MS			**Data File:**		18NOV29D-70.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MS Grab Soil			**Acquis Date:**		2018-11-29T20:20:03
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	49			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18332003
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	18332003			**Operator:**		MCD7824
Sample Wt.:	1.10000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1082523.2	906425.4	19	50	
13C2-PFOA	5.0	597173.6	495984.0	20	50	
13C4-PFOS	4.8	374960.5	296261.8	27	50	
13C2-PFDA	5.0	592357.3	451203.0	31	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	415761.6	13C3-PFBA	1082523.2	0.384	8.455	6.662	79	50-150	
E13C5-PFHxA	690435.4	13C2-PFOA	597173.6	1.156	9.091	7.721	85	50-150	
E13C3-PFHxS	332996.5	13C2-PFOA	597173.6	0.558	8.600	7.946	92	50-150	
E13C4-PFHpA	541073.0	13C2-PFOA	597173.6	0.906	9.091	7.569	83	50-150	
E13C8-PFOA	973156.8	13C2-PFOA	597173.6	1.630	9.091	8.155	90	50-150	
E13C8-PFOS	329173.8	13C4-PFOS	374960.5	0.878	8.691	7.205	83	50-150	
E13C9-PFNA	646285.2	13C4-PFOS	374960.5	1.724	9.091	6.883	76	50-150	
E13C6-PFDA	902417.2	13C2-PFDA	592357.3	1.523	9.091	7.810	86	50-150	
Ed3-NMeFOSAA	183855.3	13C2-PFDA	592357.3	0.310	9.091	7.165	79	50-150	
E13C7-PFUnDA	565298.3	13C2-PFDA	592357.3	0.954	9.091	7.333	81	50-150	
Ed5-NEtFOSAA	128305.1	13C2-PFDA	592357.3	0.217	9.091	7.016	77	50-150	
E13C2-PFDoDA	1146586.7	13C2-PFDA	592357.3	1.936	9.091	7.394	81	50-150	
E13C2-PFTeDA	843623.8	13C2-PFDA	592357.3	1.424	9.091	7.165	79	50-150	

APPROVED
By MCD at 10:12 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

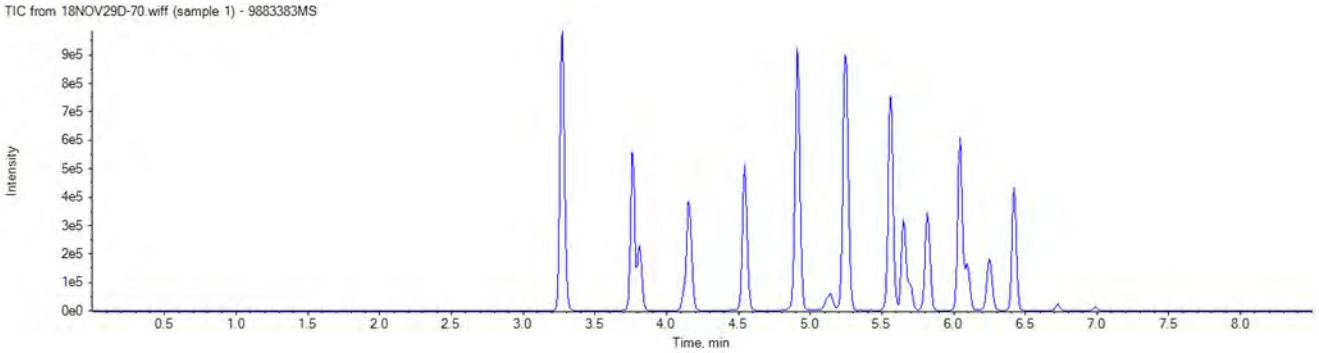
Analyte Quantitation Peak Table

Sample Name: 9883383MS **Instrument Name:** LM27631 **File Name:** 18NOV29D-70.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.10000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.81	1.000	51198.3		A	13C3-PFBS	3.81	415761.6	0.123	1.087
PFHxA	4.16	1.000	167805.3		A	13C5-PFHxA	4.16	690435.4	0.243	1.774
PFHpA	4.54	1.000	156164.4		A	13C4-PFHpA	4.54	541073.0	0.289	1.620
PFHxS	4.55	1.000	104319.2		A	13C3-PFHxS	4.55	332996.5	0.313	2.667
PFOA	4.91	1.000	338759.4		A	13C8-PFOA	4.91	973156.8	0.348	3.270
PFOS	5.24	1.000	837793.1		M	13C8-PFOS	5.24	329173.8	2.545	19.411
PFNA	5.26	1.000	166919.0		A	13C9-PFNA	5.26	646285.2	0.258	1.800
PFDA	5.56	1.000	109557.7		A	13C6-PFDA	5.56	902417.2	0.121	1.249
NMeFOSAA	5.70	1.000	13851.4		M	d3-NMeFOSAA	5.70	183855.3	0.075	0.874
PFUnDA	5.82	1.000	102937.4		A	13C7-PFUnDA	5.82	565298.3	0.182	1.183
NEtFOSAA	5.83	1.000	14874.2		A	d5-NEtFOSAA	5.83	128305.1	0.116	1.027
PFDoDA	6.05	1.000	126086.9		A	13C2-PFDoDA	6.04	1146586.7	0.110	1.095
PFTrDA	6.24	1.030	130156.0		A	13C2-PFDoDA	6.04	1146586.7	0.114	1.244
PFTeDA	6.42	1.000	93310.7		A	13C2-PFTeDA	6.42	843623.8	0.111	1.139

Total Ion Chromatogram

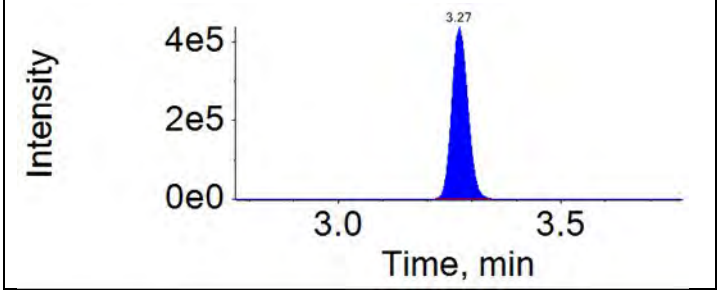


APPROVED
By MCD at 10:12 pm, 11/30/18

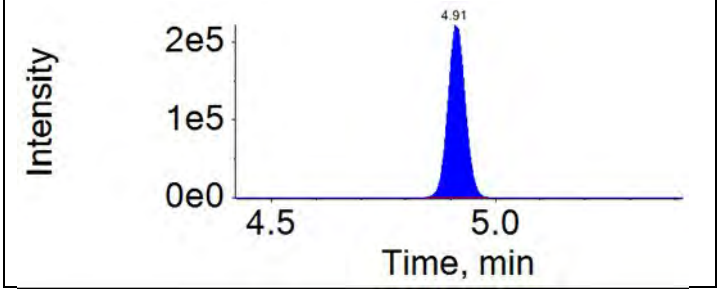
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

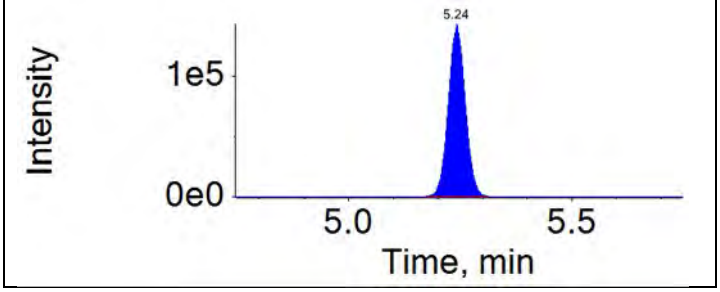
Injection Standard: 13C3-PFBA
216.0 / 172.0



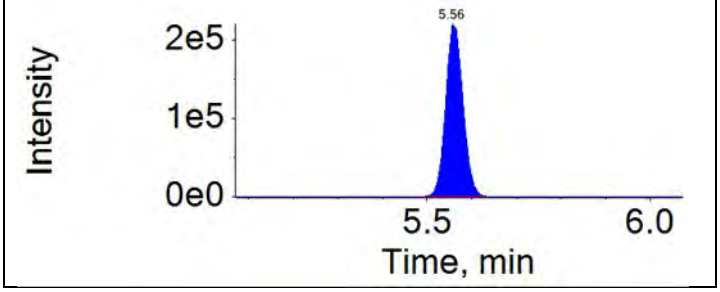
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



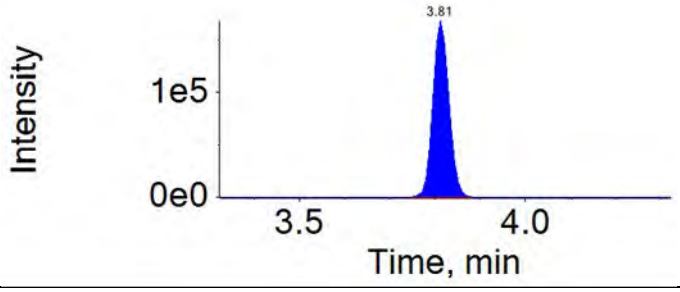
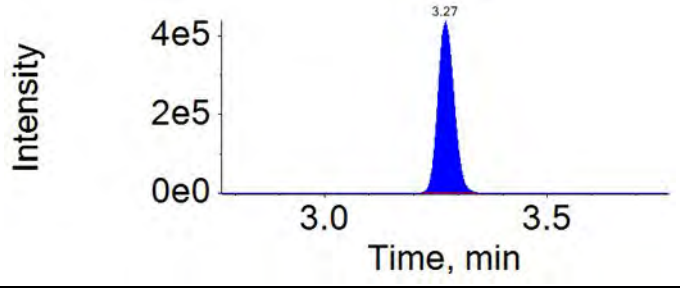
Injection Standard: 13C2-PFDA
515.0 / 470.0

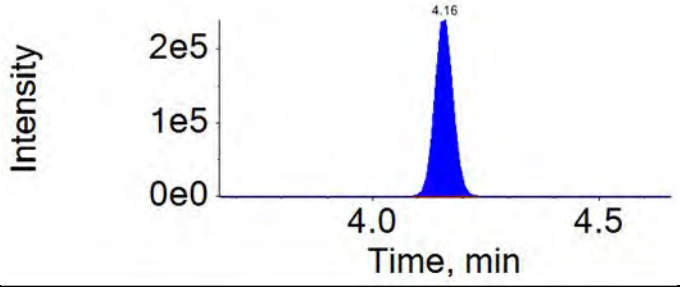
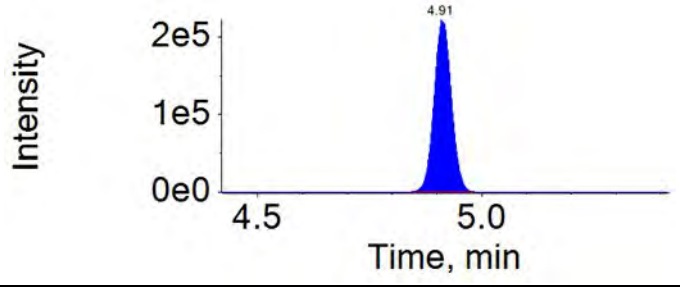


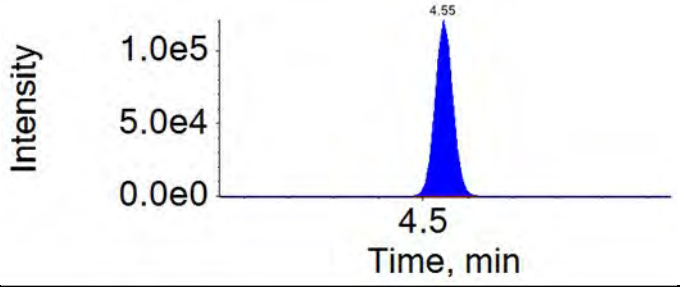
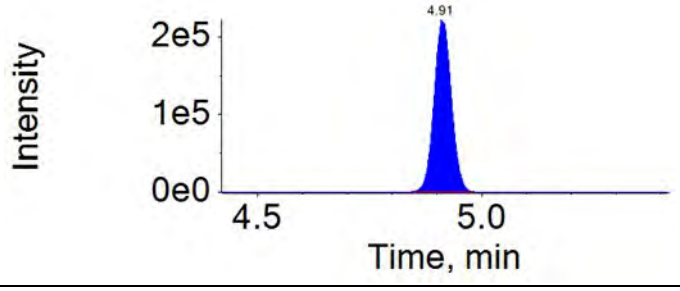
APPROVED
By MCD at 10:12 pm, 11/30/18

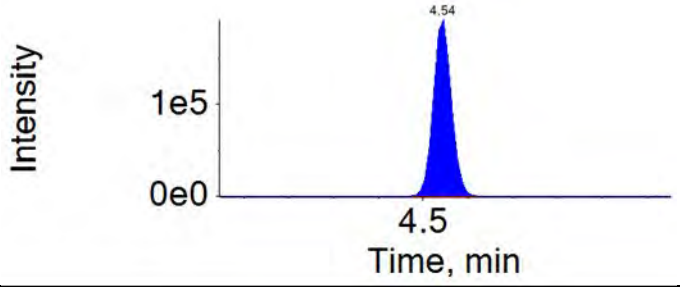
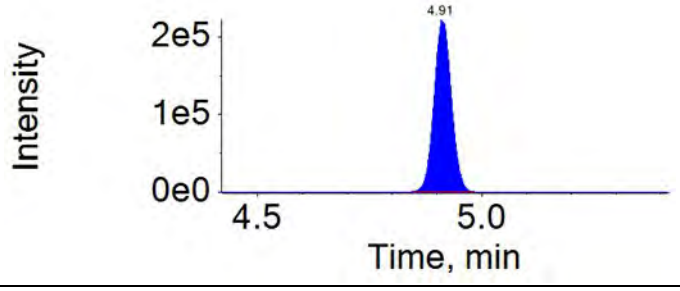
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: 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
	

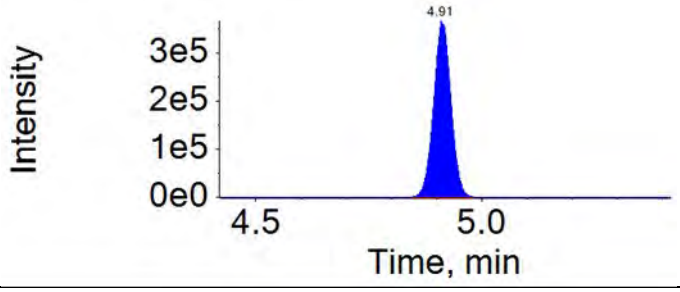
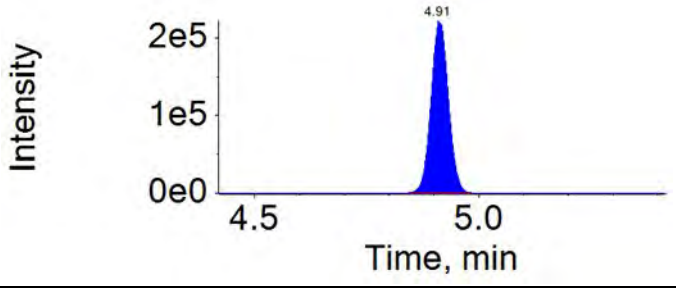
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

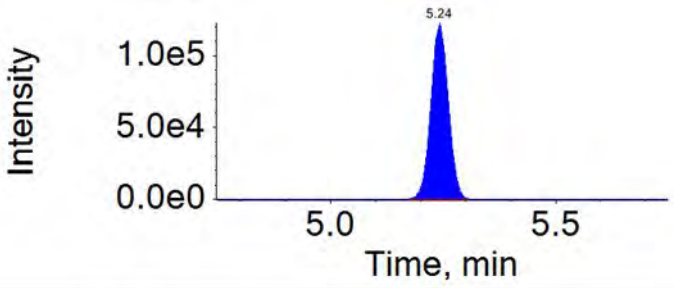
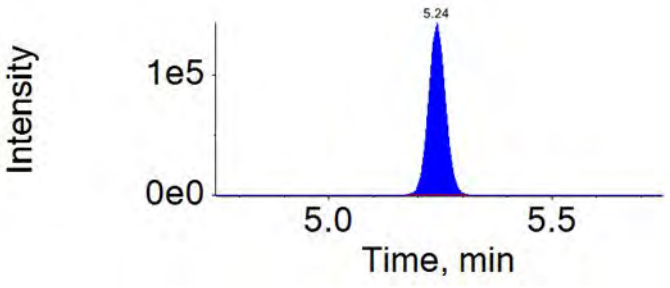
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

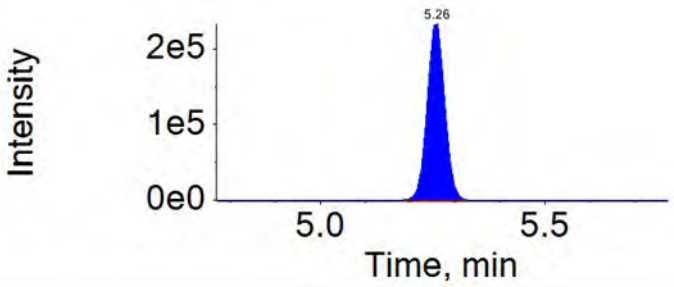
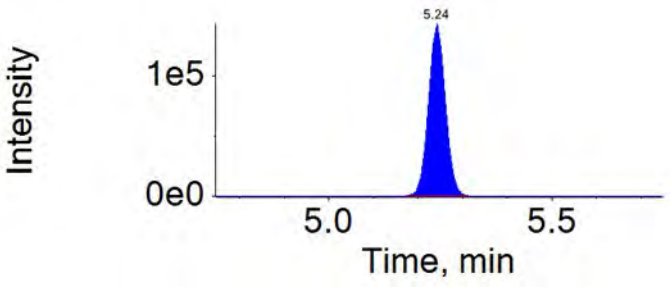
APPROVED
By MCD at 10:12 pm, 11/30/18

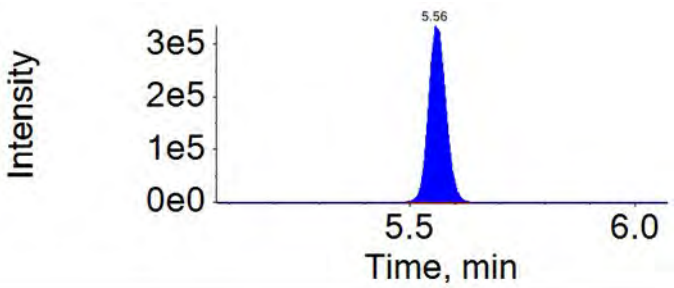
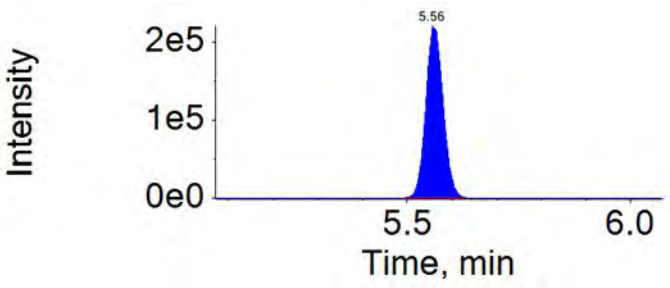
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

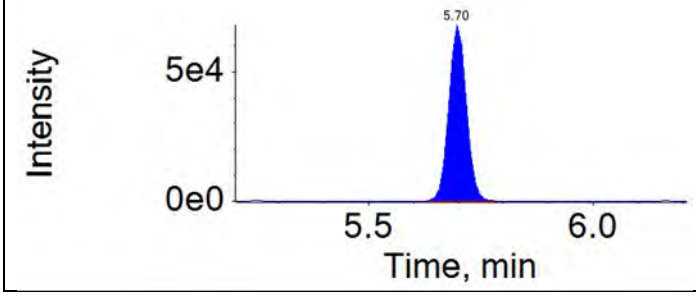
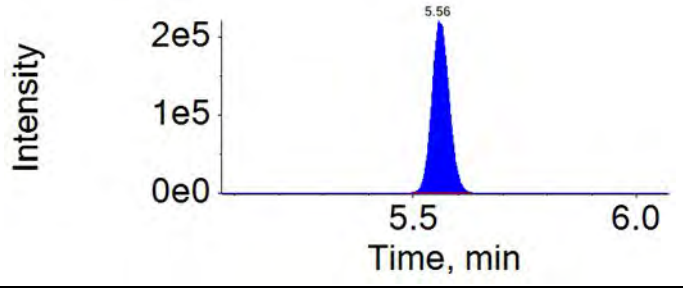
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

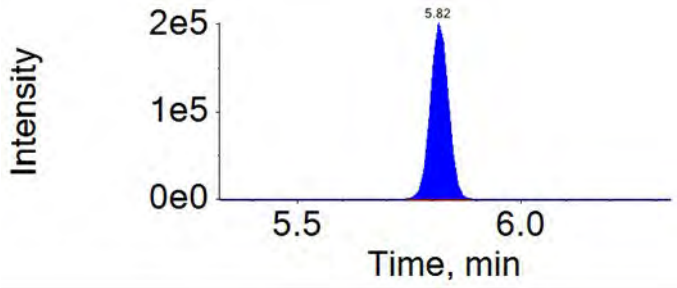
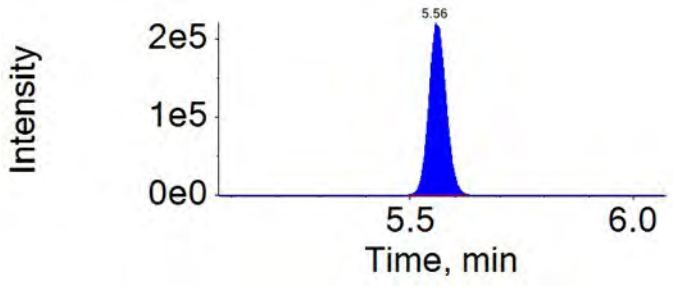
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

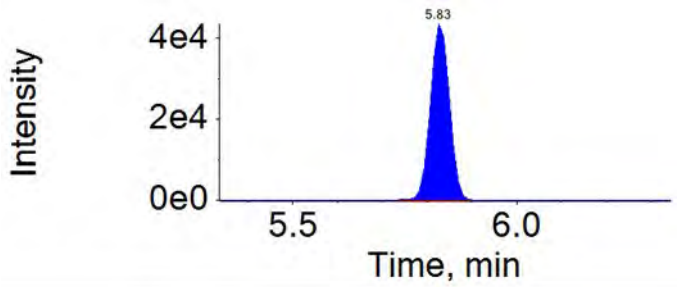
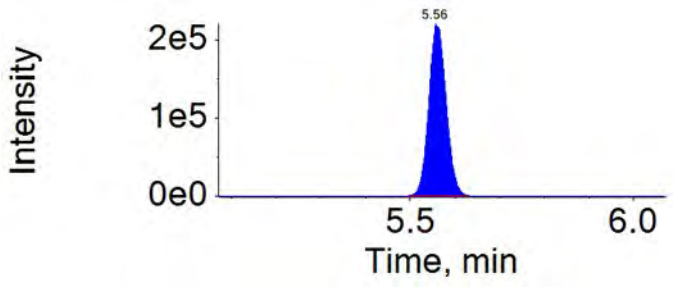
APPROVED
By MCD at 10:13 pm, 11/30/18

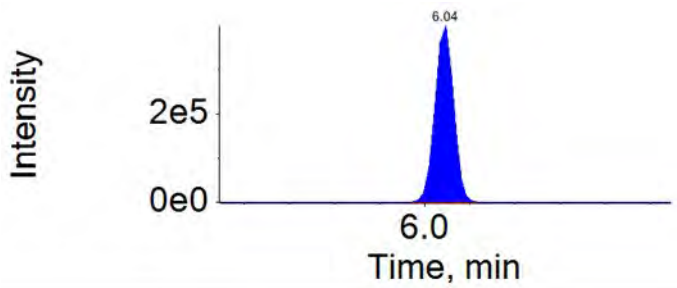
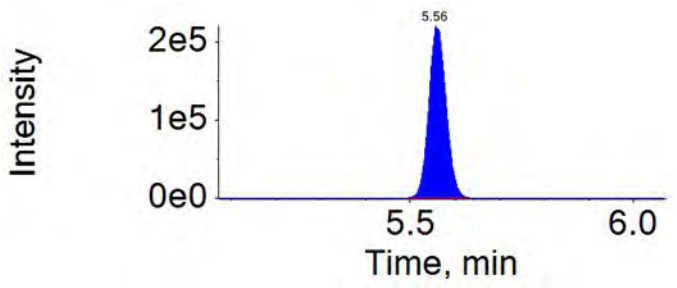
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

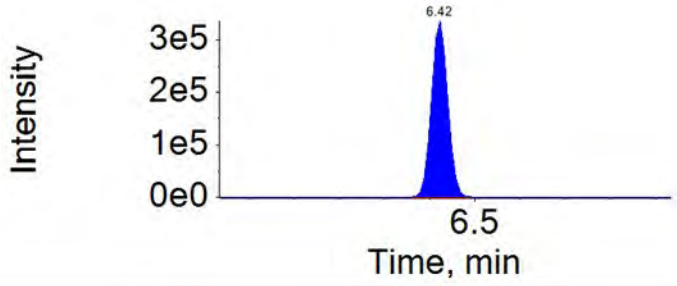
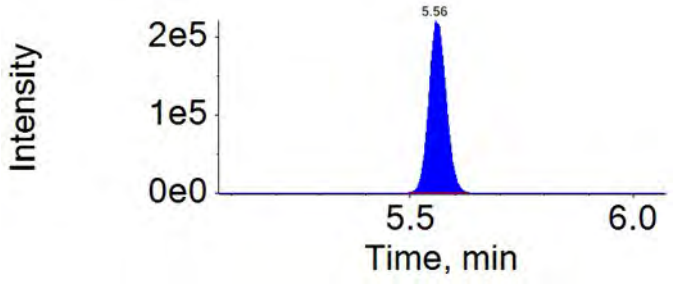
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

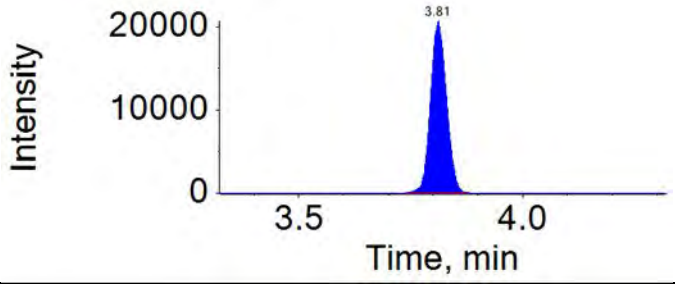
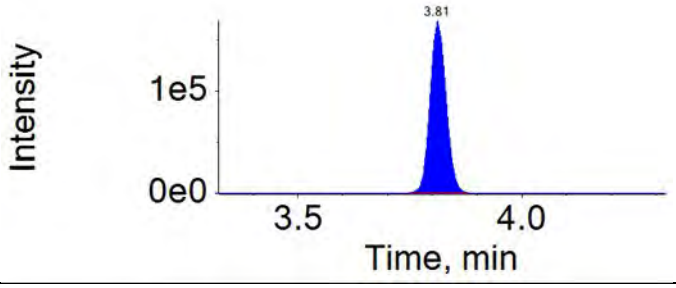
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

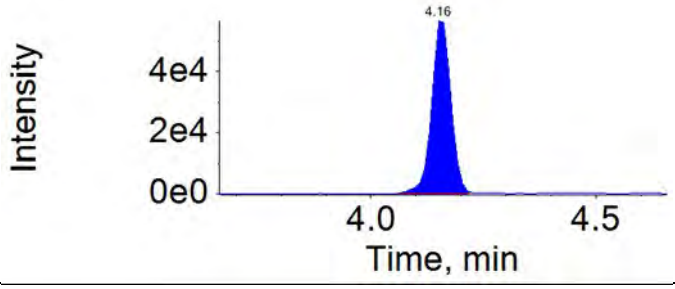
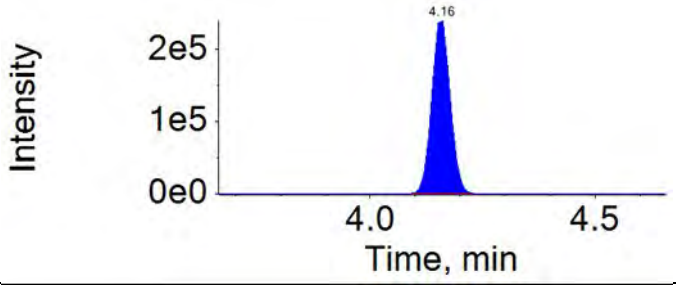
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

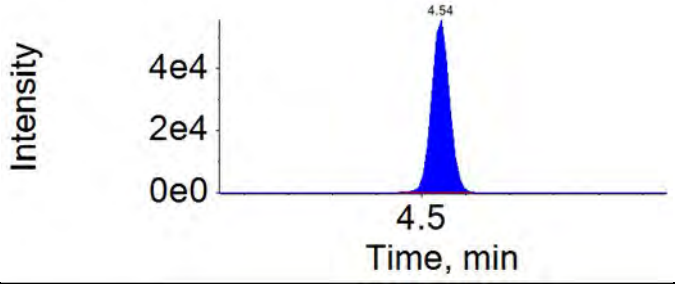
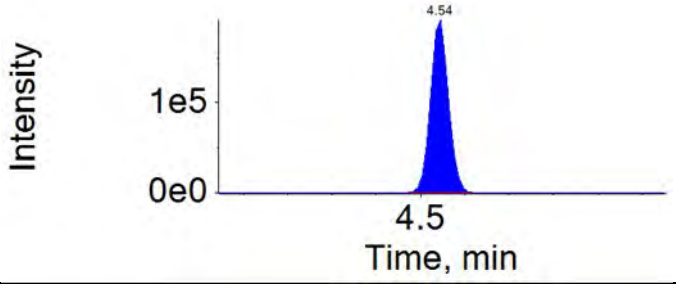
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

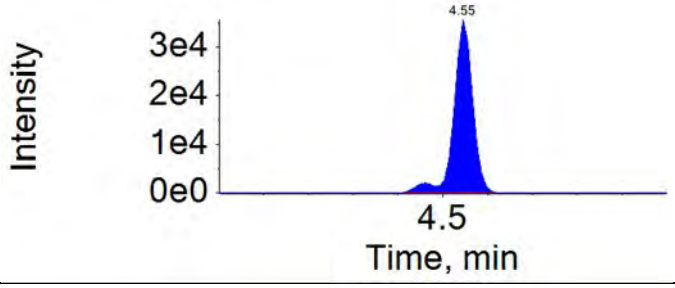
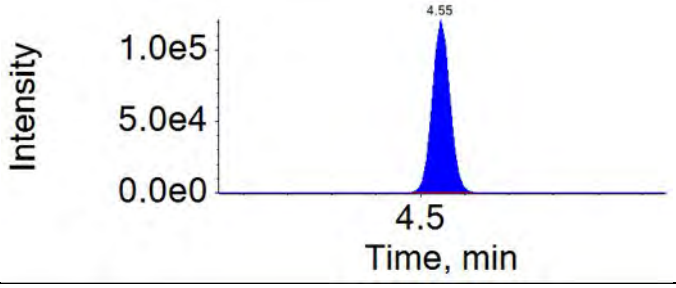
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

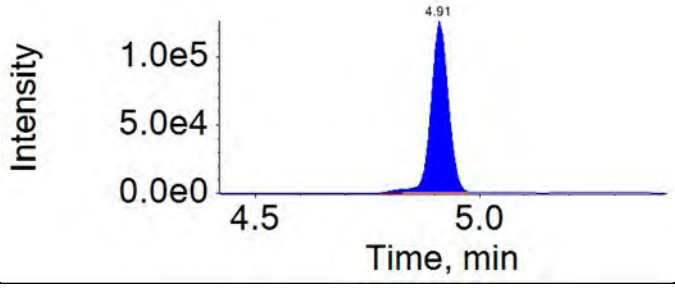
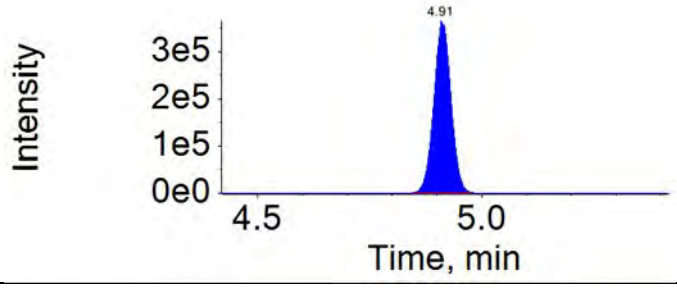
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

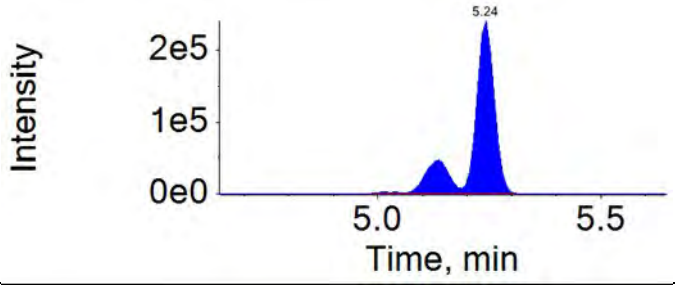
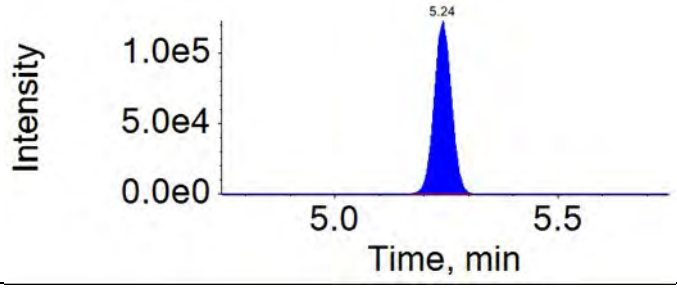
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

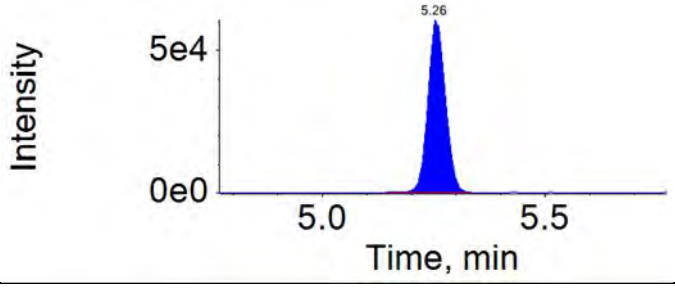
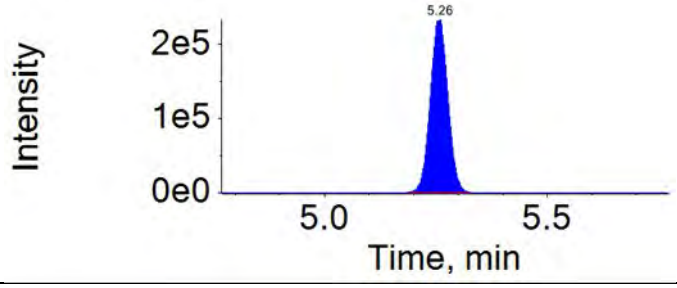
APPROVED
By MCD at 10:13 pm, 11/30/18

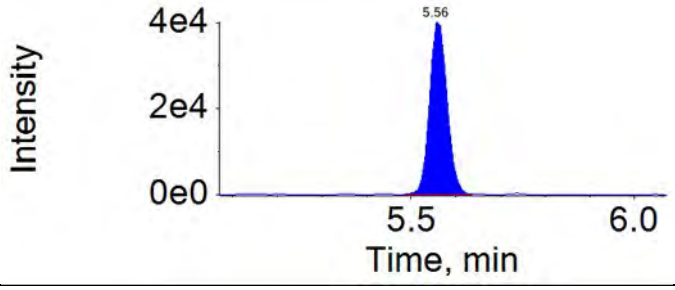
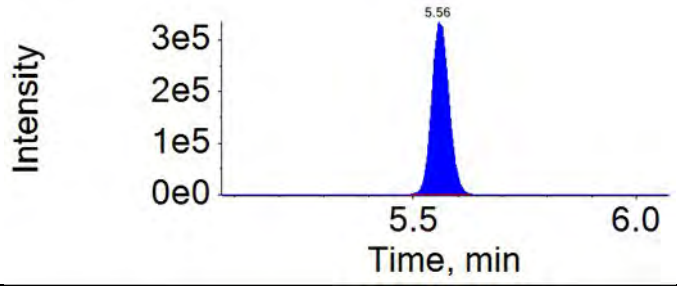
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 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
	

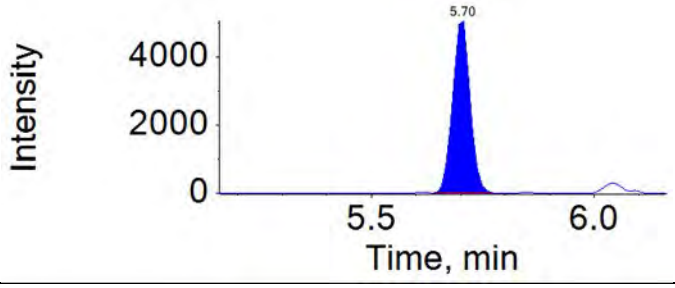
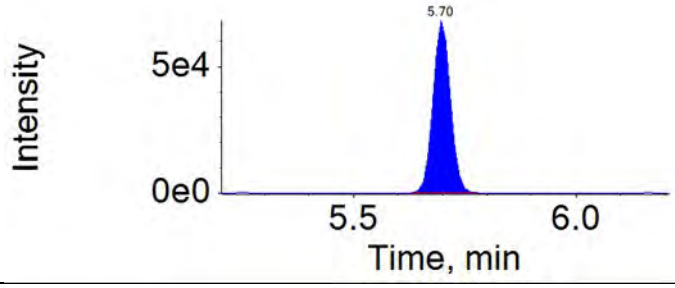
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0
	

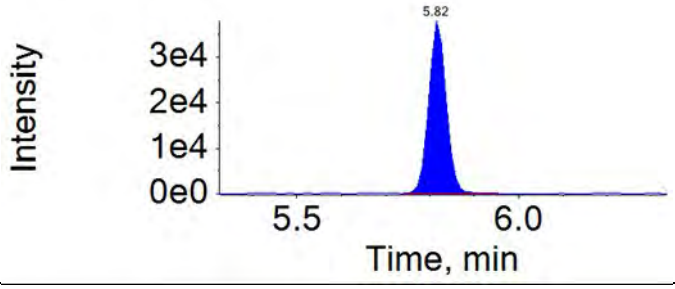
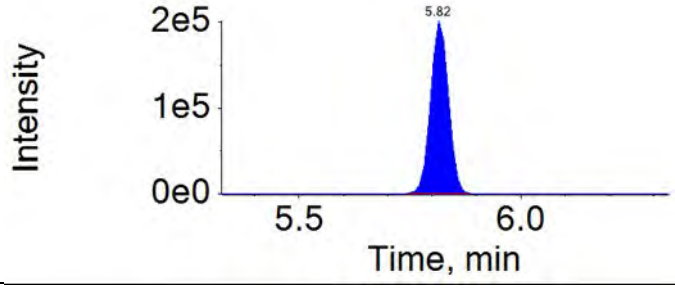
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0
	

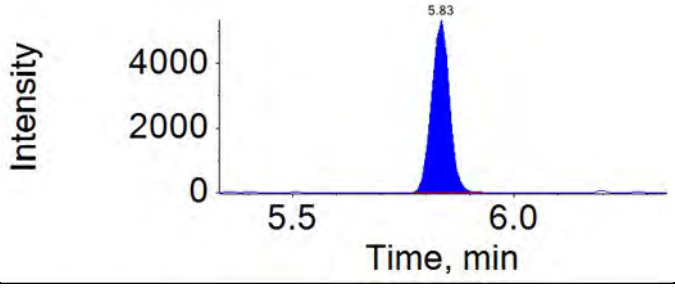
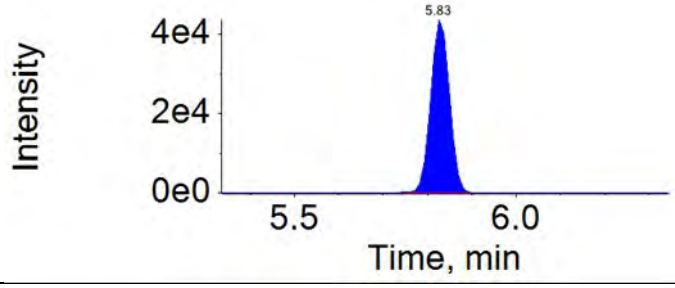
APPROVED
By MCD at 10:13 pm, 11/30/18

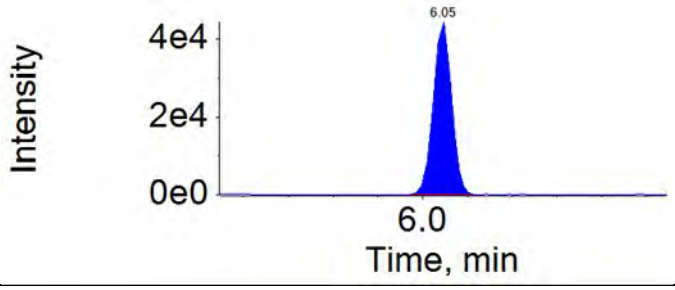
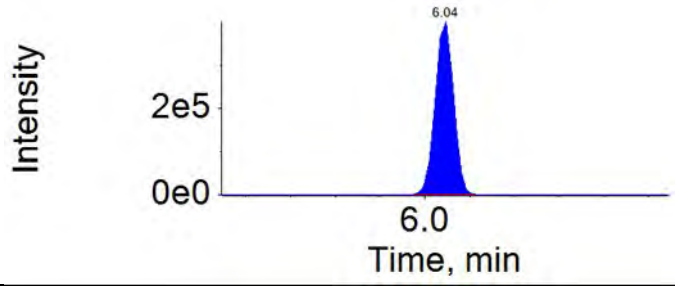
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 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
	

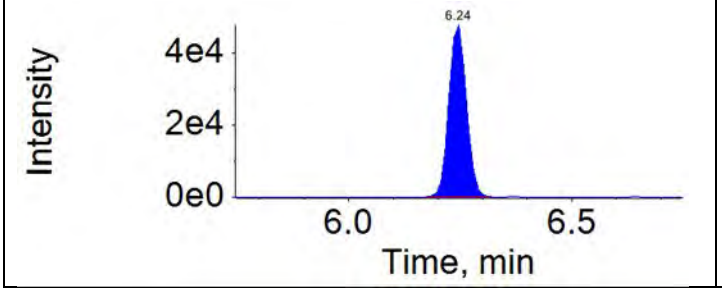
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

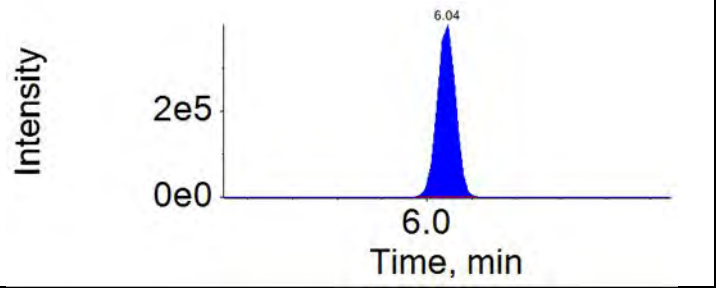
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

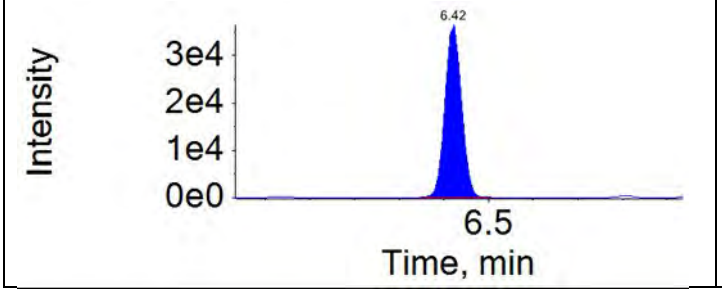
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

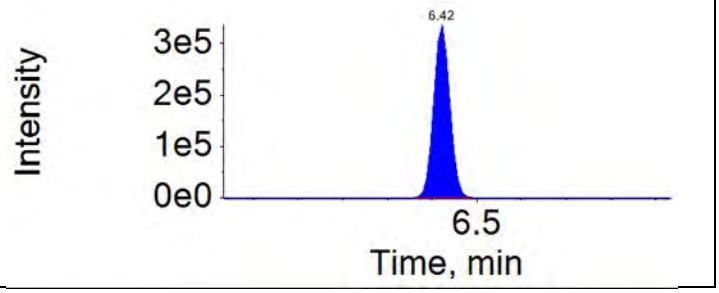
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0





Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



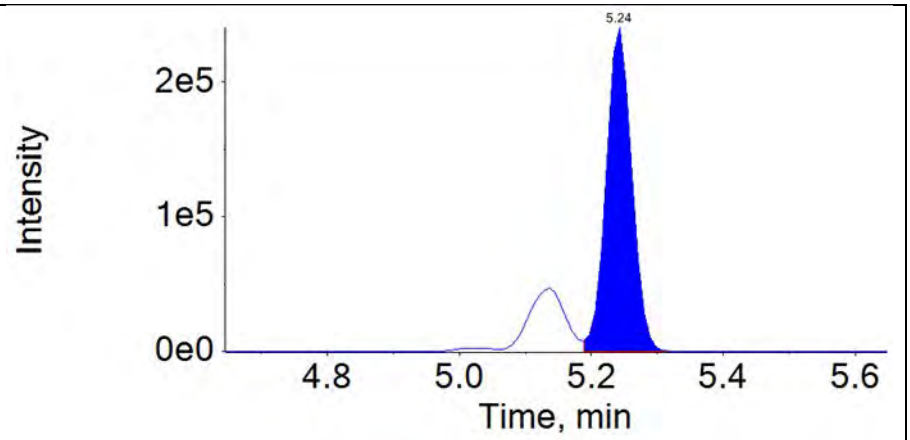


APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

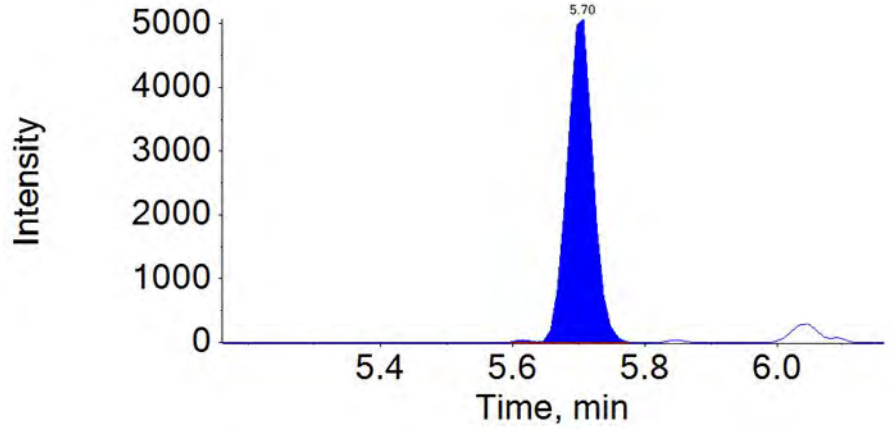
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
650513.4
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-70.wiff
Sample Name:
9883383MS



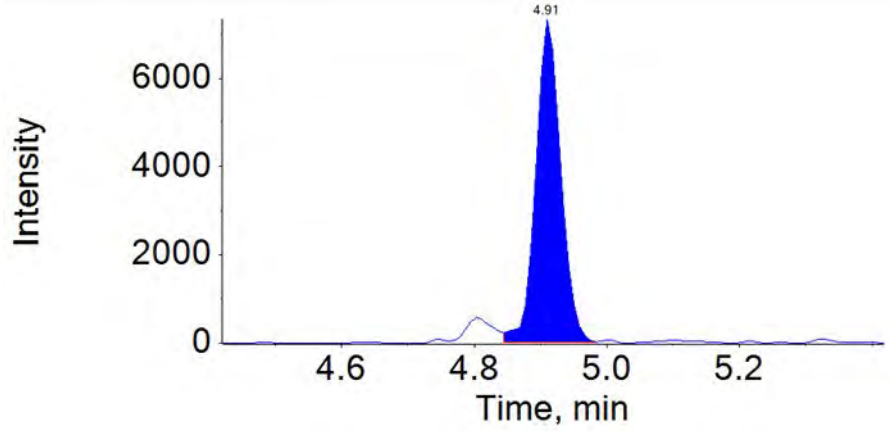
Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
13912.8
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-70.wiff
Sample Name:
9883383MS



Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
19135.7
Mass Range:
413.0 / 169.0
File Name:
18NOV29D-70.wiff
Sample Name:
9883383MS



Integration Comment: incorrect integration

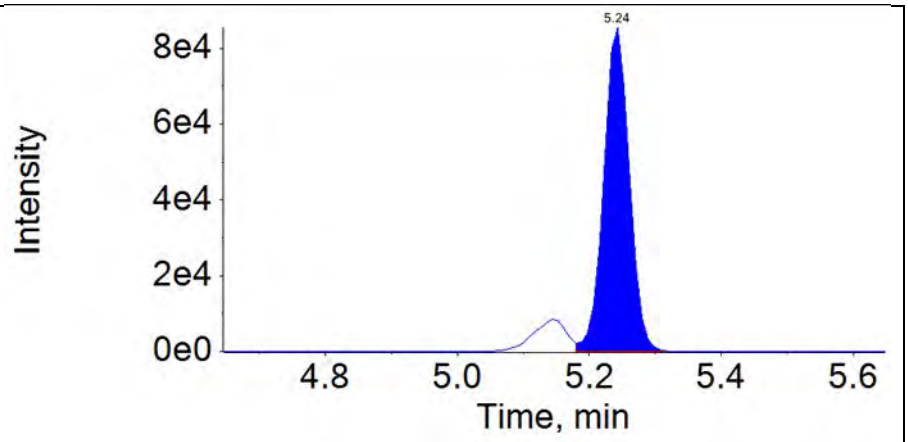
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
231724.1
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-70.wiff
Sample Name:
9883383MS



Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Ion Ratio Report

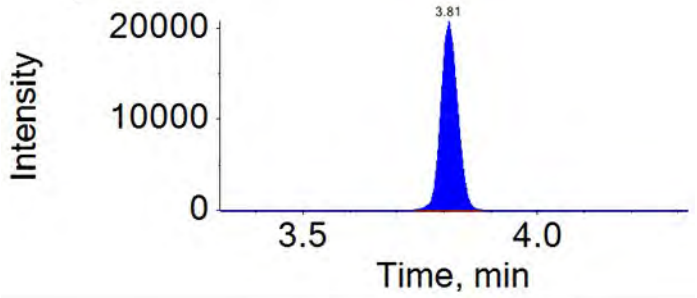
Sample Name: 9883383MS **Instrument Name:** LM27631 **File Name:** 18NOV29D-70.wiff

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	51198.3	A	N/A	0.3451			
PFBS_2	3.81	1.00	17667.5	A	N/A	0.3451	-6	50	
PFHxA	4.16	1.00	167805.3	A	N/A	0.0125			
PFHxA_2	4.15	1.00	2091.2	A	N/A	0.0125	21	50	
PFHpA	4.54	1.00	156164.4	A	N/A	0.0441			
PFHpA_2	4.54	1.00	6883.0	A	N/A	0.0441	-21	50	
PFHxS	4.55	1.00	104319.2	A	N/A	0.3274			
PFHxS_2	4.55	1.00	34157.4	A	N/A	0.3274	-11	50	
PFOA	4.91	1.00	338759.4	A	N/A	0.0620			
PFOA_2	4.91	1.00	21010.3	M	N/A	0.0620	8	50	
PFOS	5.24	1.00	837793.1	M	N/A	0.3121			
PFOS_2	5.24	1.00	261490.4	M	N/A	0.3121	5	50	
PFNA	5.26	1.00	166919.0	A	N/A	0.0176			
PFNA_2	5.26	1.00	2939.7	A	N/A	0.0176	-12	50	
PFDA	5.56	1.00	109557.7	A	N/A	0.0081			
PFDA_2	5.56	1.00	891.0	A	N/A	0.0081	9	50	
NMeFOSAA	5.70	1.00	13851.4	M	N/A	0.2331			
NMeFOSAA_2	5.70	1.00	3229.4	A	N/A	0.2331	1	50	
PFUnDA	5.82	1.00	102937.4	A	N/A	0.0032			
PFUnDA_2	5.82	1.00	324.6	A	N/A	0.0032	-17	50	
NEtFOSAA	5.83	1.00	14874.2	A	N/A	0.8002			
NEtFOSAA_2	5.83	1.00	11902.2	A	N/A	0.8002	9	50	
PFDoDA	6.05	1.00	126086.9	A	N/A	0.0104			
PFDoDA_2	6.03	1.00	1306.9	A	N/A	0.0104	-20	50	
PFTrDA	6.24	1.03	130156.0	A	N/A	0.0066			
PFTrDA_2	6.25	1.03	857.0	A	N/A	0.0066	-27	50	
PFTeDA	6.42	1.00	93310.7	A	N/A	0.0062			
PFTeDA_2	6.42	1.00	582.8	A	N/A	0.0062	11	50	

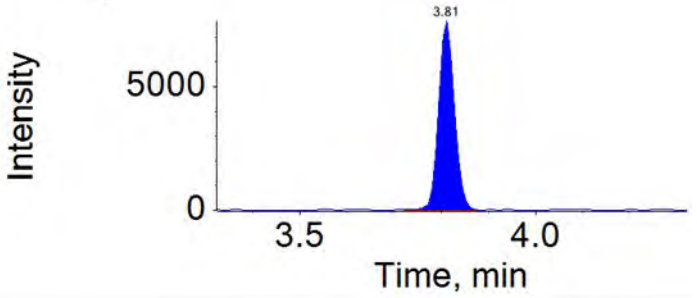
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

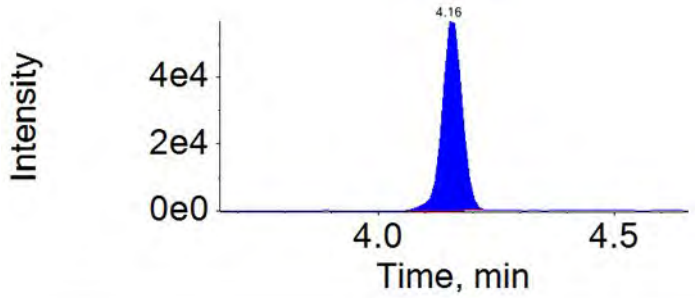
Component: PFBS
Primary Mass: 299.0 / 80.0



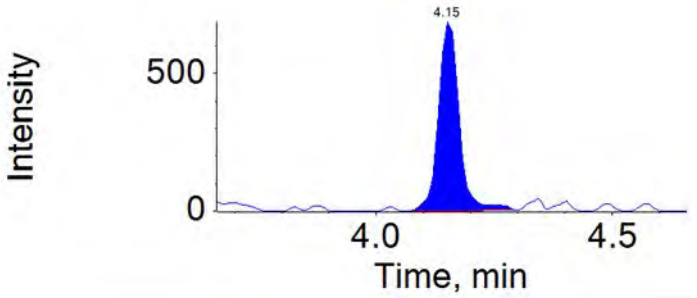
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



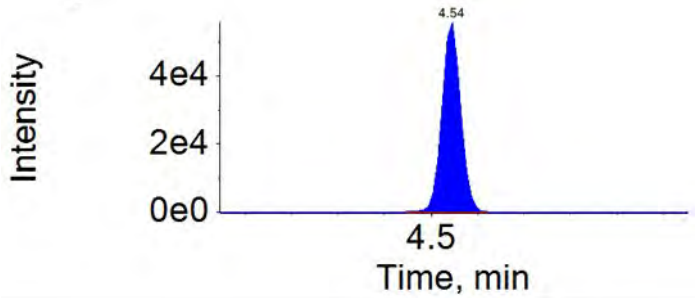
Component: PFHxA
Primary Mass: 313.0 / 269.0



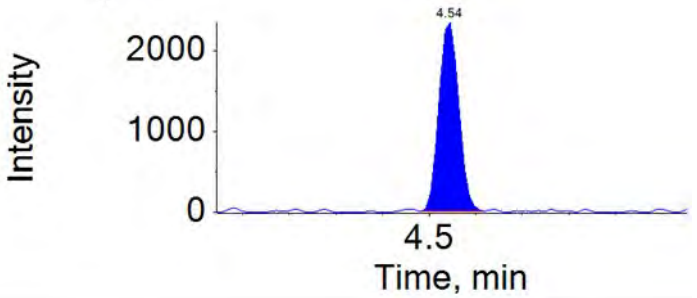
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



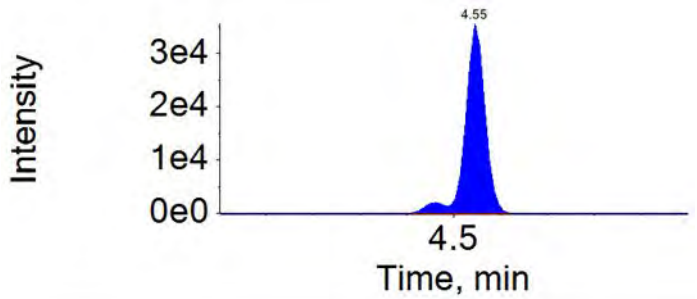
Component: PFHpA
Primary Mass: 363.0 / 319.0



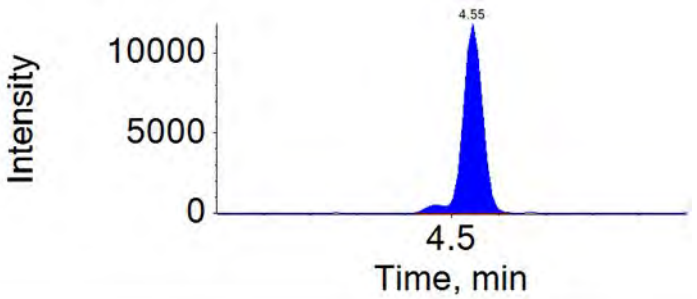
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



Component: PFHxS
Primary Mass: 399.0 / 80.0



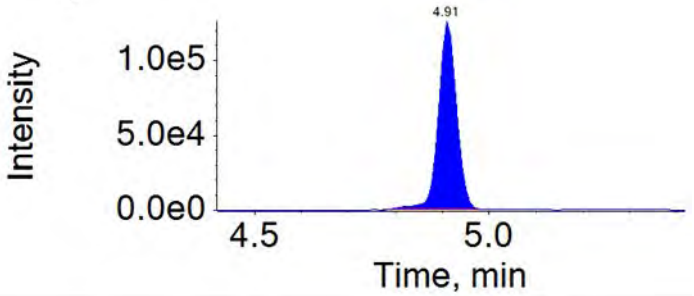
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



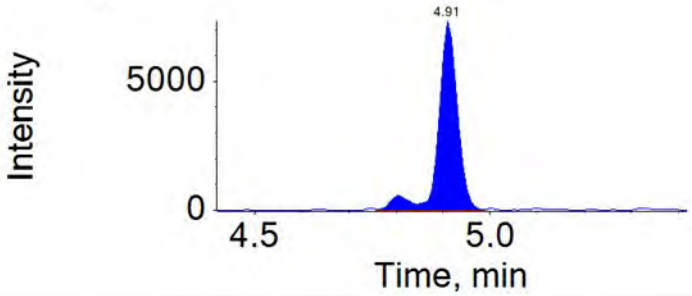
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

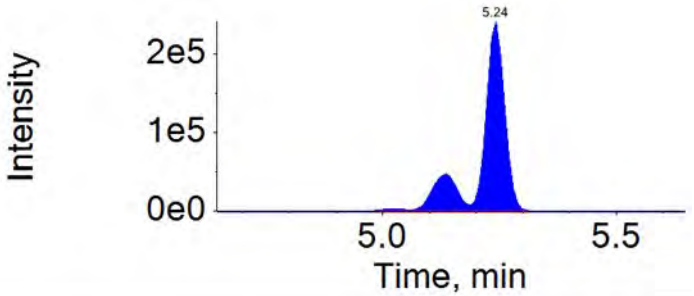
Component: PFOA
Primary Mass: 413.0 / 369.0



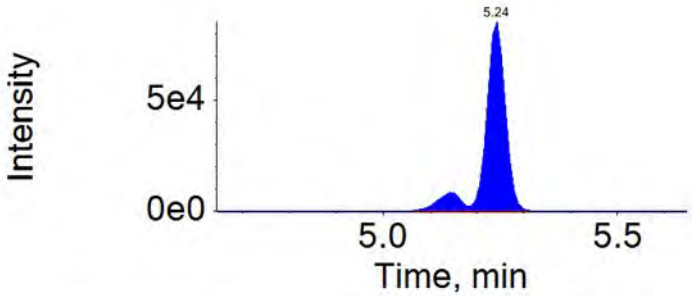
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



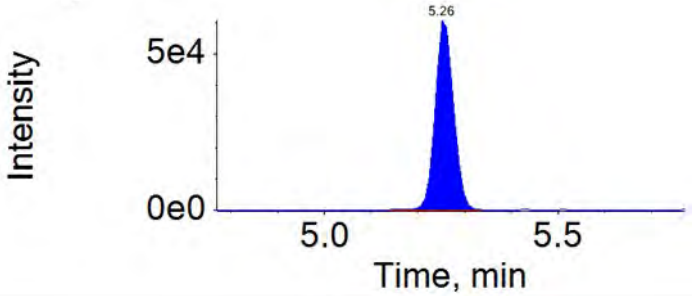
Component: PFOS
Primary Mass: 499.0 / 80.0



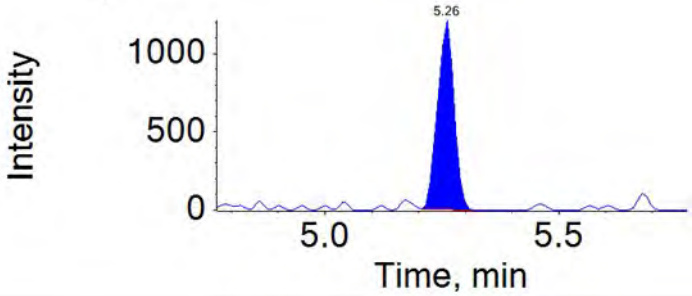
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



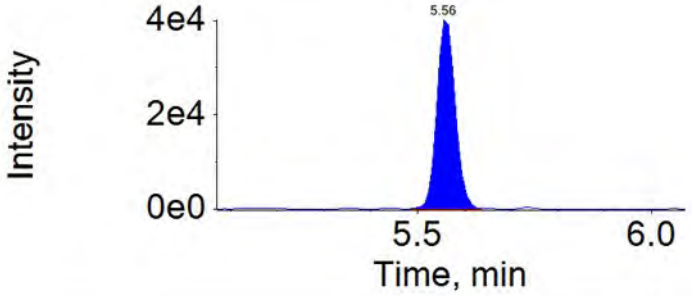
Component: PFNA
Primary Mass: 463.0 / 419.0



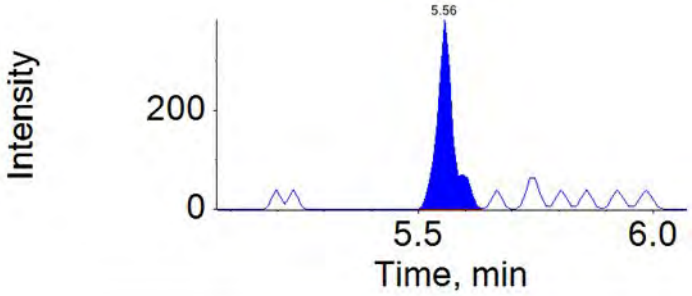
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



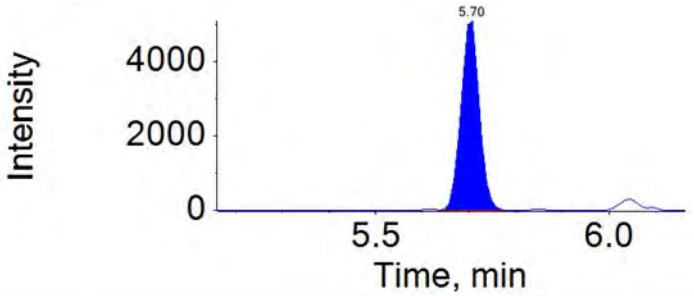
Component: PFDA
Primary Mass: 513.0 / 469.0



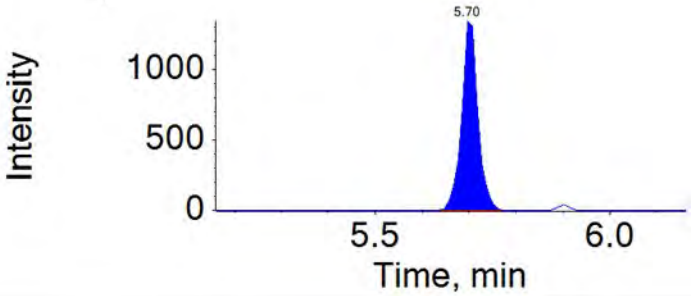
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



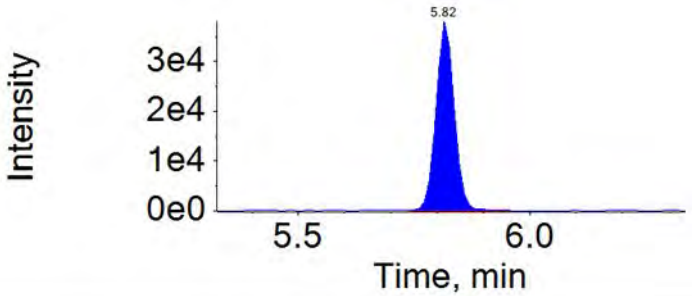
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



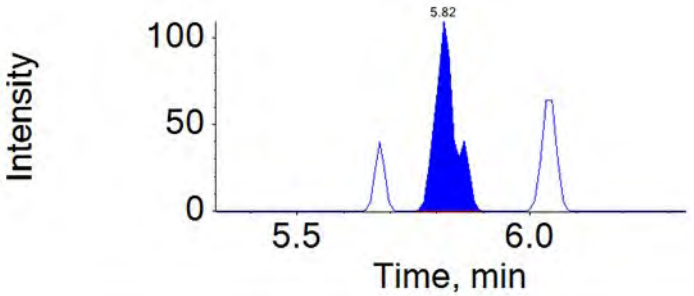
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



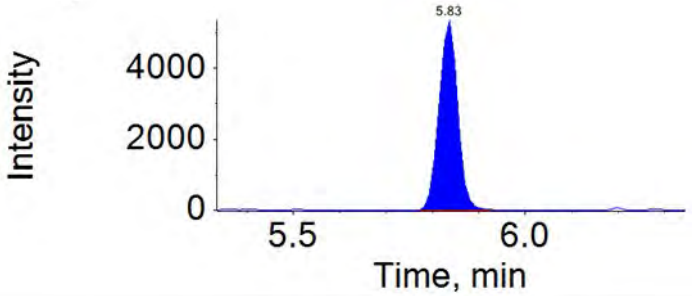
Component: PFUnDA
Primary Mass: 563.0 / 519.0



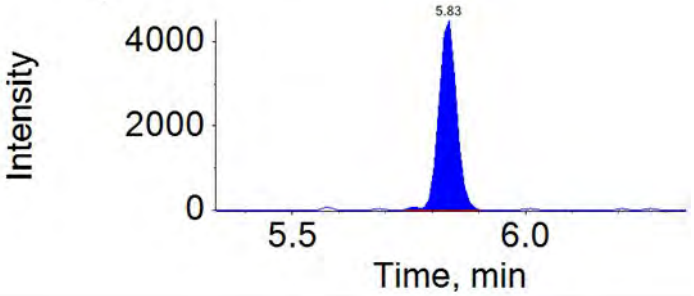
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



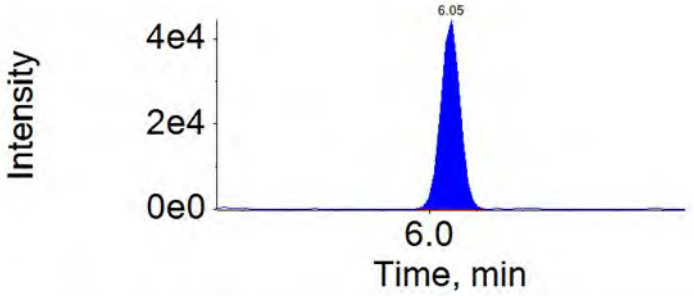
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



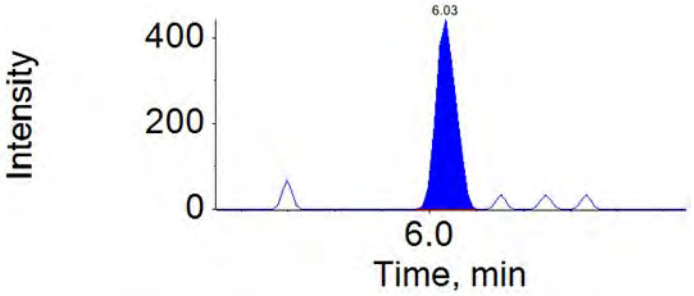
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



Component: PFDoDA
Primary Mass: 613.0 / 569.0



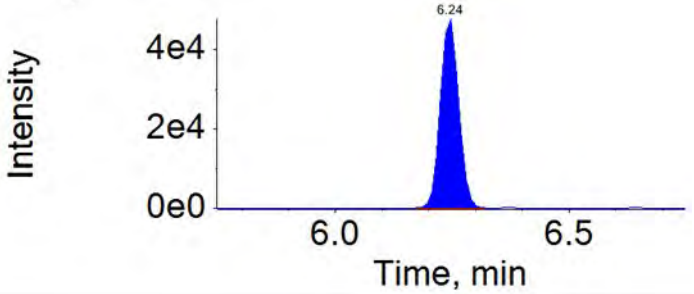
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



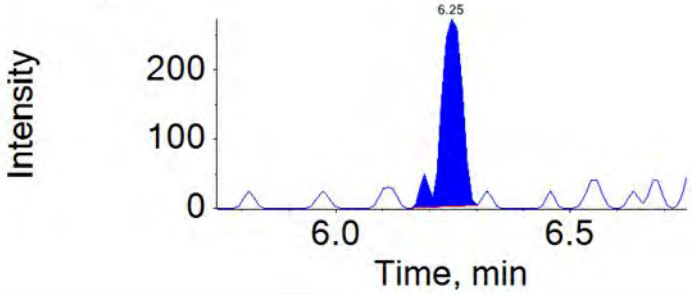
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

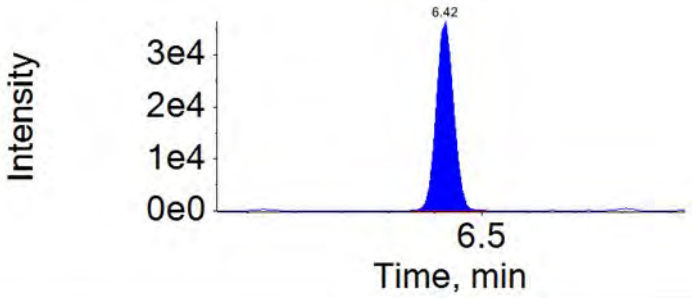
Component: PFTrDA
Primary Mass: 663.0 / 619.0



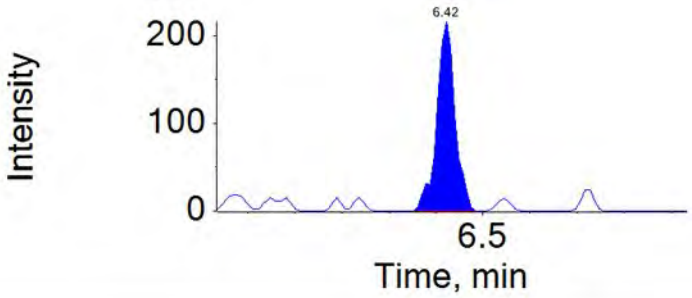
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



Component: PFTeDA
Primary Mass: 713.0 / 669.0



Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



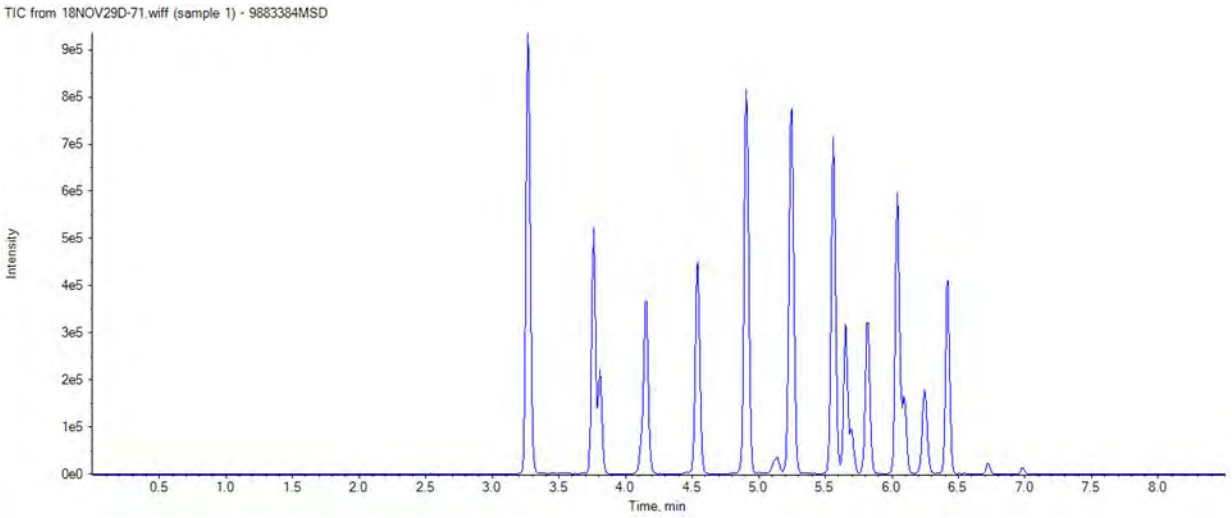
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9883384MSD	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MSD Grab Soil	18NOV29D-71.wiff	2018-11-29T20:29:03



Injection Standard Area Reference File**:** 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	1055794.5	906425.4	16	50	
13C2-PFOA	5.00	613600.5	495984.0	24	50	
13C4-PFOS	4.78	352306.3	296261.8	19	50	
13C2-PFDA	5.00	558073.9	451203.0	24	50	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:52:39 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9883384MSD	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MSD Grab Soil	18NOV29D-71.wiff	2018-11-29T20:29:03

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	51676.6	380225.5	0.136	1.125	1.233	110	70-130	
PFHxA	168315.9	644025.9	0.261	1.271	1.961	154	70-130	OOS
PFHpA	140164.0	516286.5	0.271	1.271	1.566	123	70-130	
PFHxS	74865.5	314203.0	0.238	1.202	2.085	174	70-130	OOS
PFOA	256642.5	898591.2	0.286	1.271	2.759	217	70-130	OOS
PFOS	532816.9	306128.7	1.740	1.215	13.647	1123	70-130	OOS
PFNA	135802.9	621723.4	0.218	1.271	1.565	123	70-130	
PFDA	99337.6	781265.4	0.127	1.271	1.345	106	70-130	
NMeFOSAA	16870.1	178284.2	0.095	1.271	1.128	89	70-130	
PFUnDA	102291.9	520455.4	0.197	1.271	1.313	103	70-130	
NEtFOSAA	14626.3	114910.9	0.127	1.271	1.159	91	70-130	
PFDoDA	137764.7	1110511.8	0.124	1.271	1.270	100	70-130	
PFTrDA	126796.2	1110511.8	0.114	1.271	1.286	101	70-130	
PFTeDA	94639.1	781318.1	0.121	1.271	1.283	101	70-130	

Matrix Spike Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	9883384MSD			**Data File:**		18NOV29D-71.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-Bldg371-S-02-10 MSD Grab Soil			**Acquis Date:**		2018-11-29T20:29:03
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	50			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18332003
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	18332003			**Operator:**		MCD7824
Sample Wt.:	1.07000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1055794.5	906425.4	16	50	
13C2-PFOA	5.0	613600.5	495984.0	24	50	
13C4-PFOS	4.8	352306.3	296261.8	19	50	
13C2-PFDA	5.0	558073.9	451203.0	24	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	380225.5	13C3-PFBA	1055794.5	0.360	8.692	6.422	74	50-150	
E13C5-PFHxA	644025.9	13C2-PFOA	613600.5	1.050	9.346	7.206	77	50-150	
E13C3-PFHxS	314203.0	13C2-PFOA	613600.5	0.512	8.841	7.502	85	50-150	
E13C4-PFHpA	516286.5	13C2-PFOA	613600.5	0.841	9.346	7.226	77	50-150	
E13C8-PFOA	898591.2	13C2-PFOA	613600.5	1.464	9.346	7.534	81	50-150	
E13C8-PFOS	306128.7	13C4-PFOS	352306.3	0.869	8.935	7.332	82	50-150	
E13C9-PFNA	621723.4	13C4-PFOS	352306.3	1.765	9.346	7.245	78	50-150	
E13C6-PFDA	781265.4	13C2-PFDA	558073.9	1.400	9.346	7.378	79	50-150	
Ed3-NMeFOSAA	178284.2	13C2-PFDA	558073.9	0.319	9.346	7.582	81	50-150	
E13C7-PFUnDA	520455.4	13C2-PFDA	558073.9	0.933	9.346	7.367	79	50-150	
Ed5-NEtFOSAA	114910.9	13C2-PFDA	558073.9	0.206	9.346	6.857	73	50-150	
E13C2-PFDoDA	1110511.8	13C2-PFDA	558073.9	1.990	9.346	7.815	84	50-150	
E13C2-PFTeDA	781318.1	13C2-PFDA	558073.9	1.400	9.346	7.241	77	50-150	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

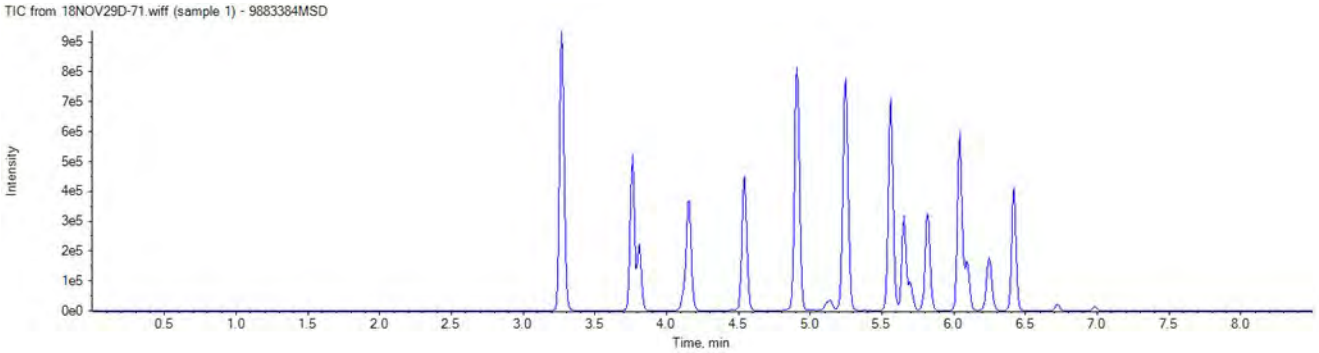
Analyte Quantitation Peak Table

Sample Name: 9883384MSD **Instrument Name:** LM27631 **File Name:** 18NOV29D-71.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.07000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.81	1.000	51676.6		A	13C3-PFBS	3.81	380225.5	0.136	1.233
PFHxA	4.15	1.000	168315.9		A	13C5-PFHxA	4.15	644025.9	0.261	1.961
PFHpA	4.54	1.000	140164.0		M	13C4-PFHpA	4.54	516286.5	0.271	1.566
PFHxS	4.54	1.000	74865.5		M	13C3-PFHxS	4.54	314203.0	0.238	2.085
PFOA	4.91	1.000	256642.5		A	13C8-PFOA	4.91	898591.2	0.286	2.759
PFOS	5.24	1.000	532816.9		M	13C8-PFOS	5.24	306128.7	1.740	13.647
PFNA	5.25	1.000	135802.9		A	13C9-PFNA	5.25	621723.4	0.218	1.565
PFDA	5.56	1.000	99337.6		A	13C6-PFDA	5.56	781265.4	0.127	1.345
NMeFOSAA	5.70	1.000	16870.1		M	d3-NMeFOSAA	5.70	178284.2	0.095	1.128
PFUnDA	5.82	1.000	102291.9		A	13C7-PFUnDA	5.82	520455.4	0.197	1.313
NEtFOSAA	5.83	1.000	14626.3		A	d5-NEtFOSAA	5.83	114910.9	0.127	1.159
PFDoDA	6.04	1.000	137764.7		A	13C2-PFDoDA	6.04	1110511.8	0.124	1.270
PFTrDA	6.24	1.030	126796.2		A	13C2-PFDoDA	6.04	1110511.8	0.114	1.286
PFTeDA	6.42	1.000	94639.1		A	13C2-PFTeDA	6.42	781318.1	0.121	1.283

Total Ion Chromatogram

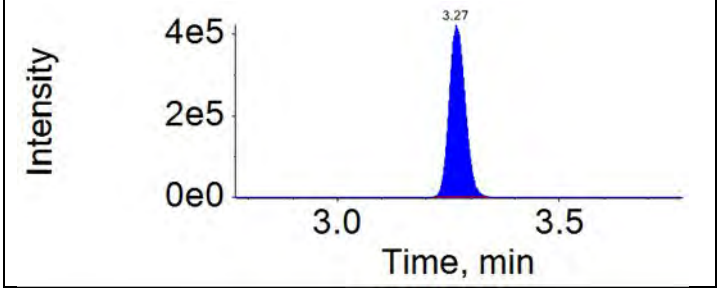


APPROVED
By MCD at 10:13 pm, 11/30/18

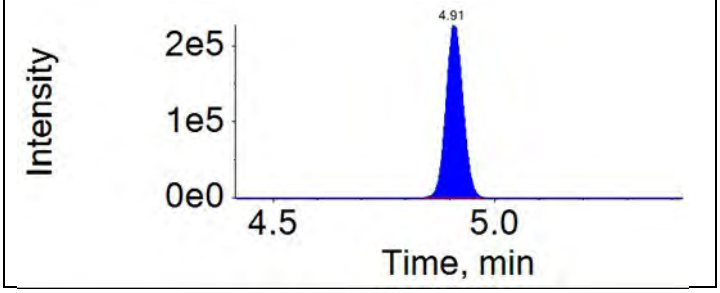
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

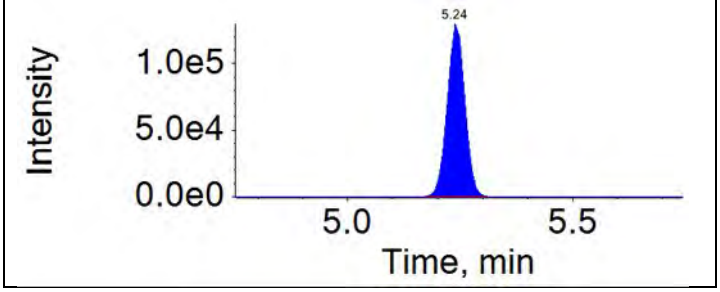
Injection Standard: 13C3-PFBA
216.0 / 172.0



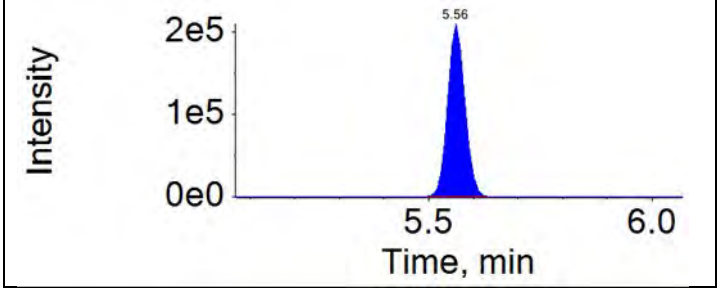
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



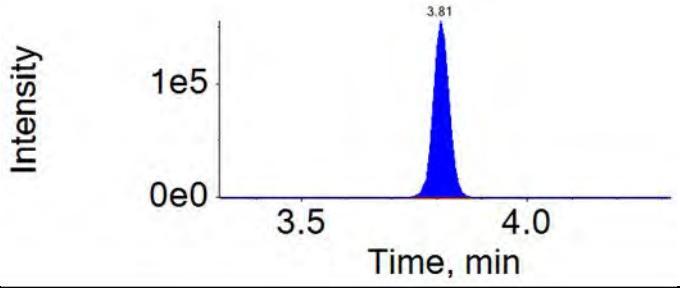
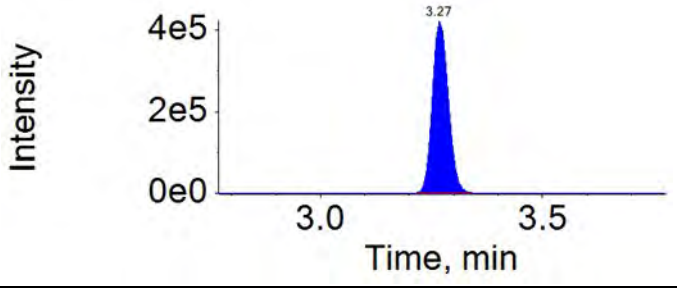
Injection Standard: 13C2-PFDA
515.0 / 470.0

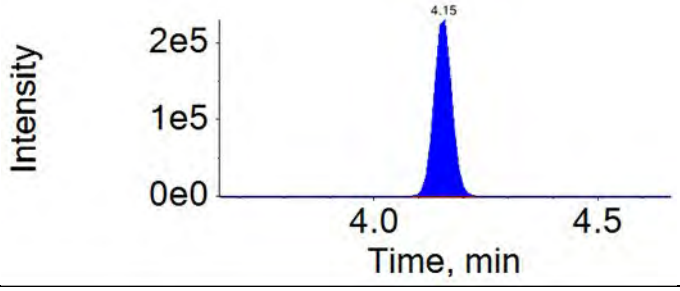
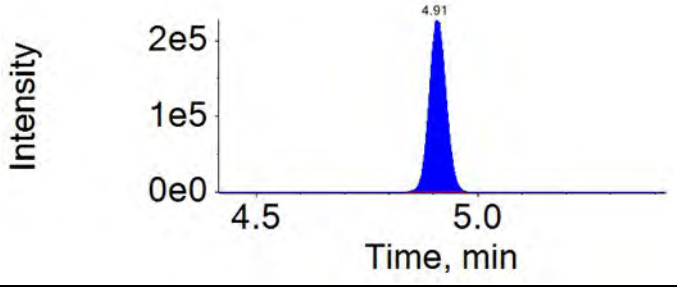


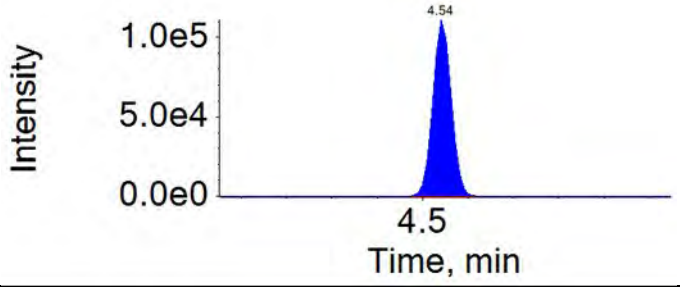
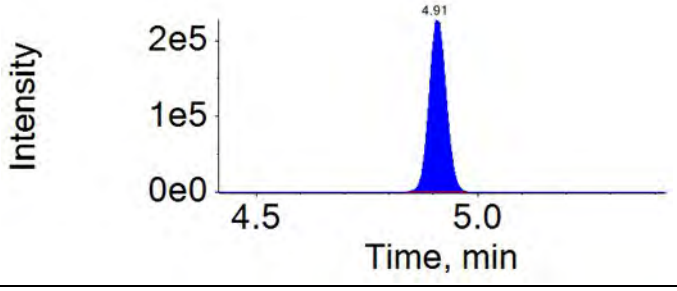
APPROVED
By MCD at 10:13 pm, 11/30/18

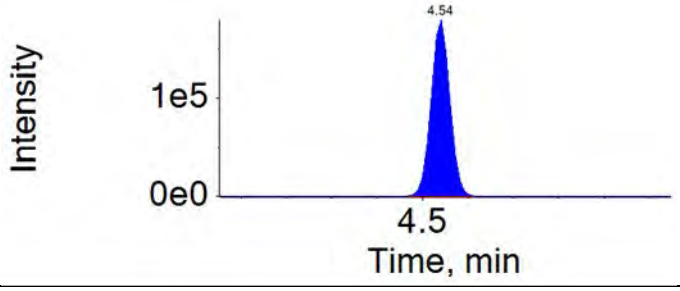
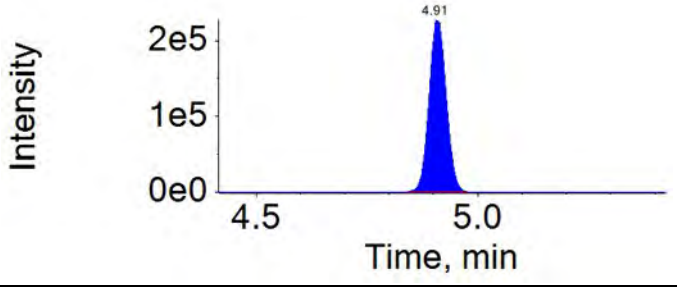
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: 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
	

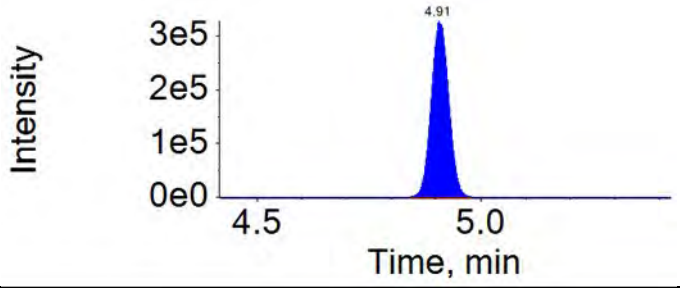
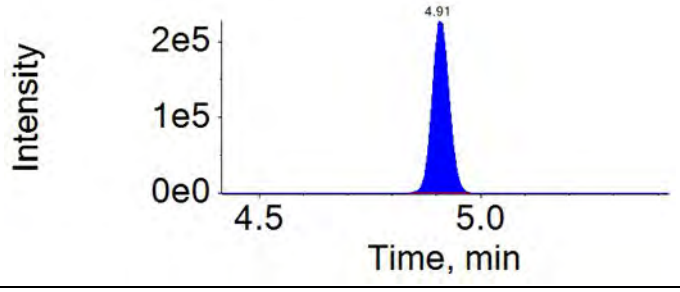
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

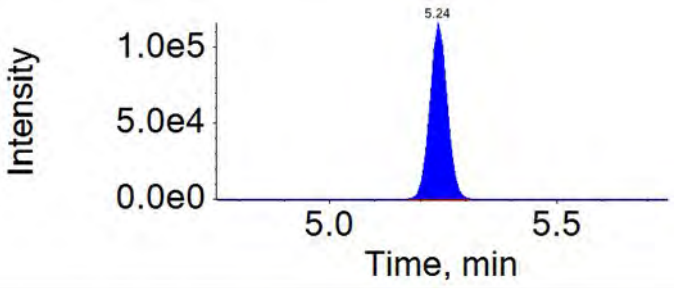
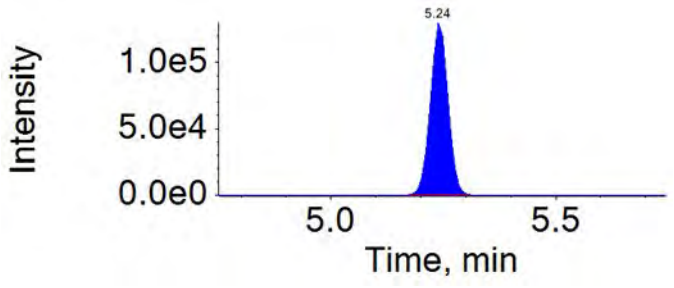
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

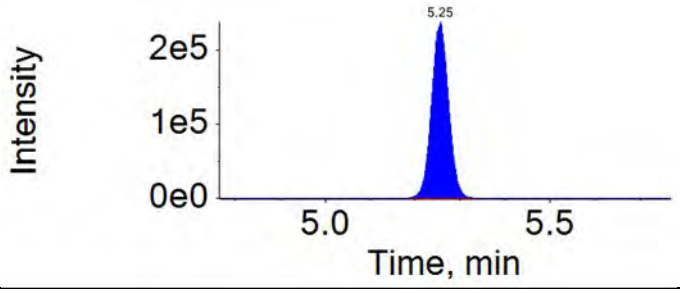
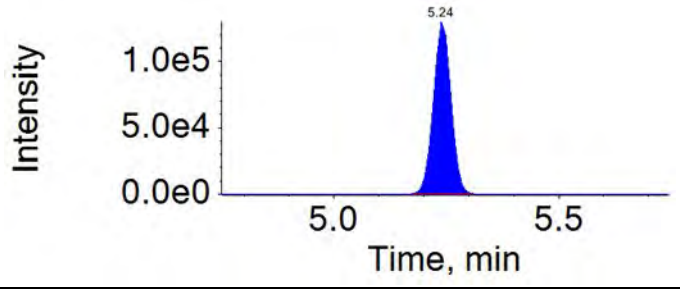
APPROVED
By MCD at 10:13 pm, 11/30/18

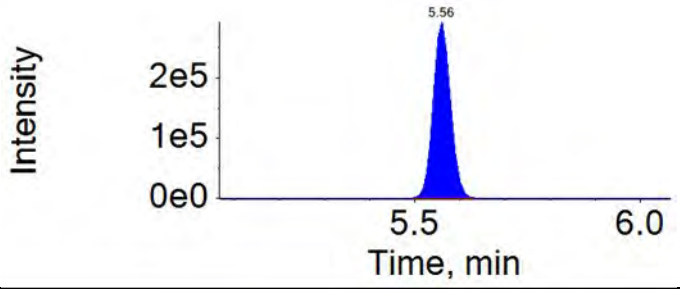
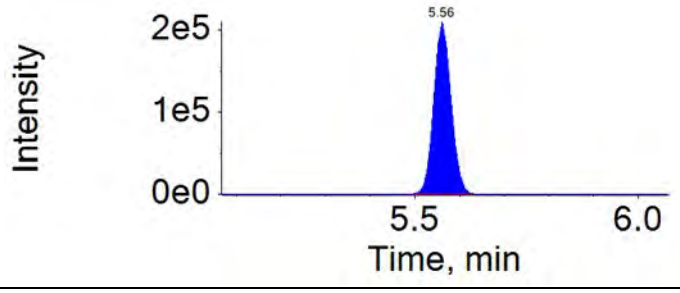
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

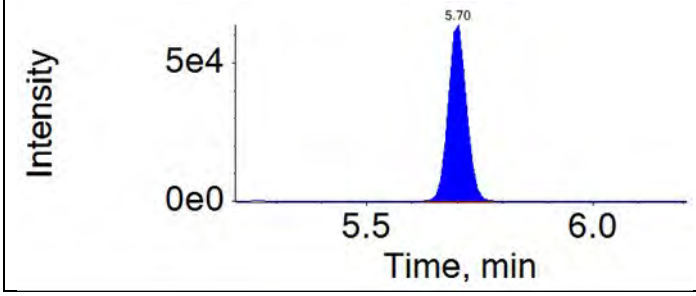
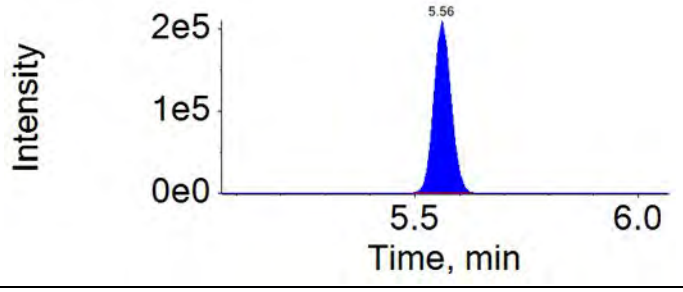
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

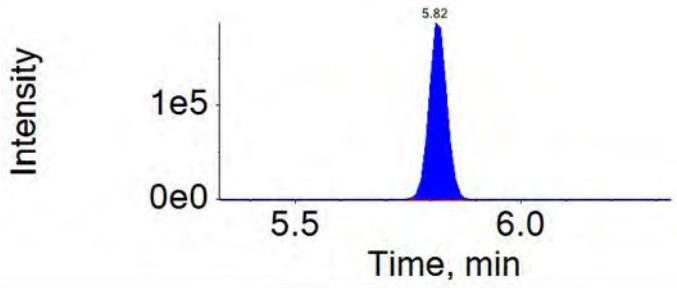
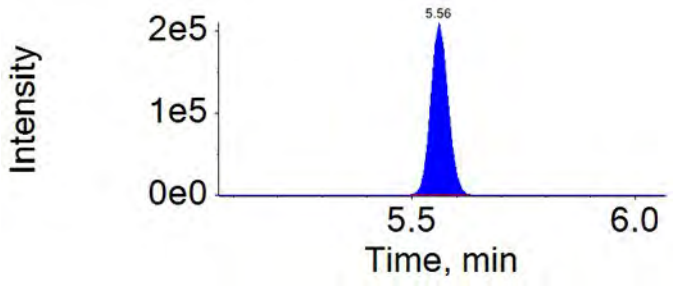
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

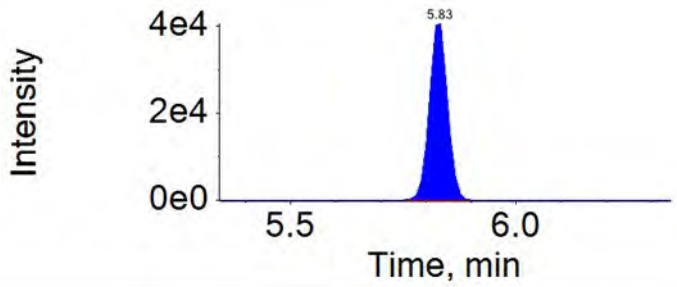
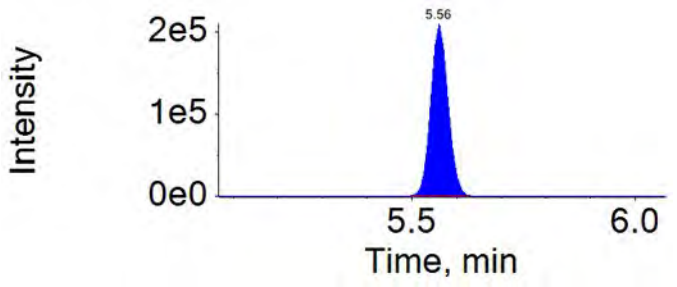
APPROVED
By MCD at 10:13 pm, 11/30/18

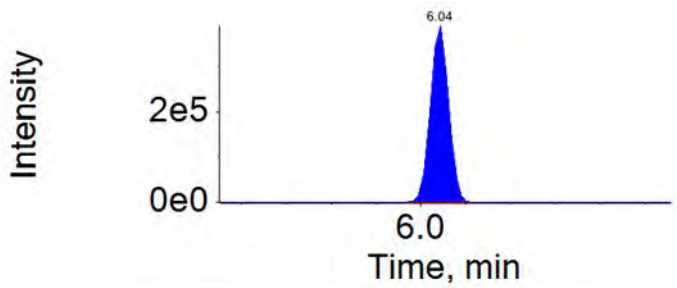
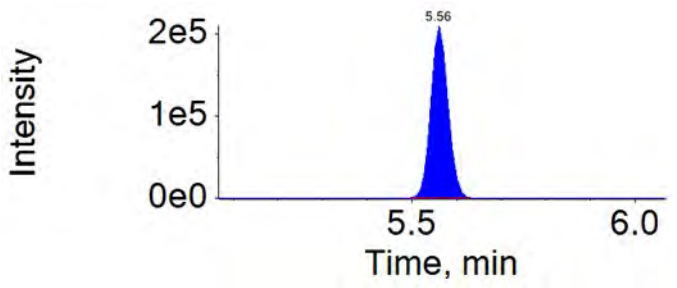
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

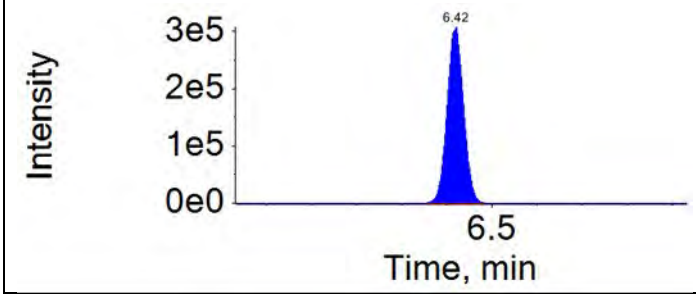
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

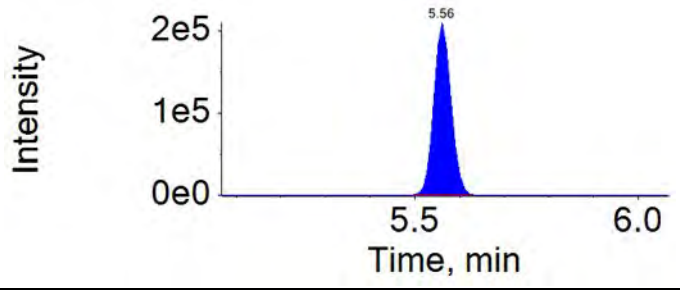
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

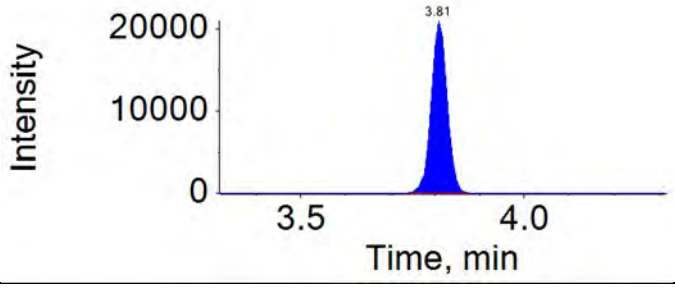
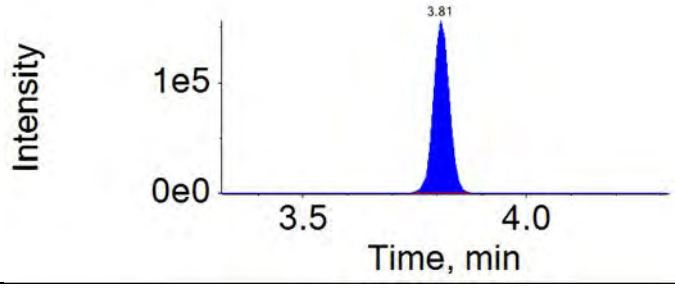


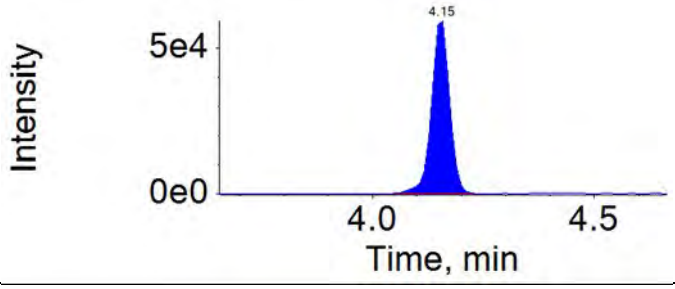
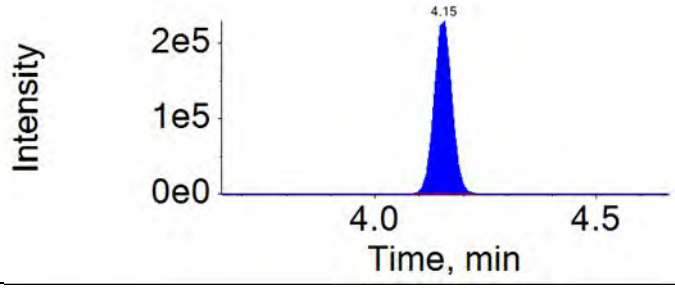


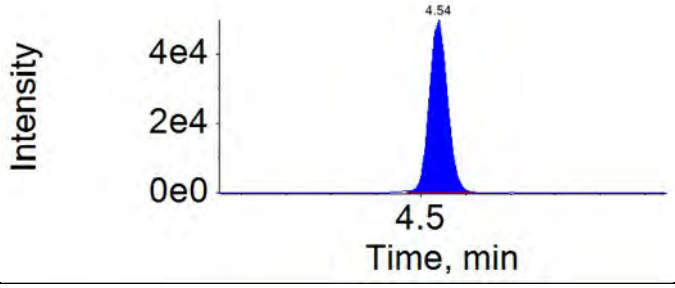
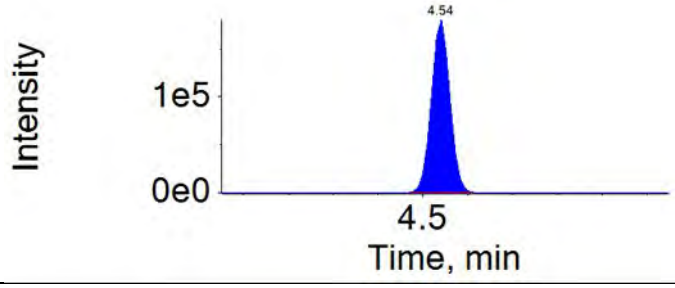
APPROVED
By MCD at 10:13 pm, 11/30/18

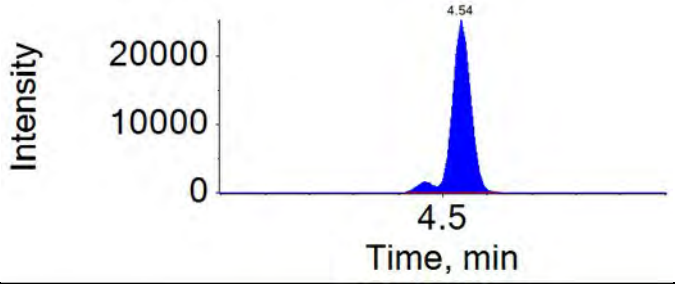
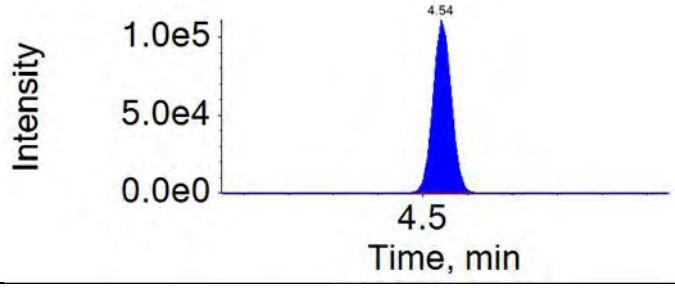
REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

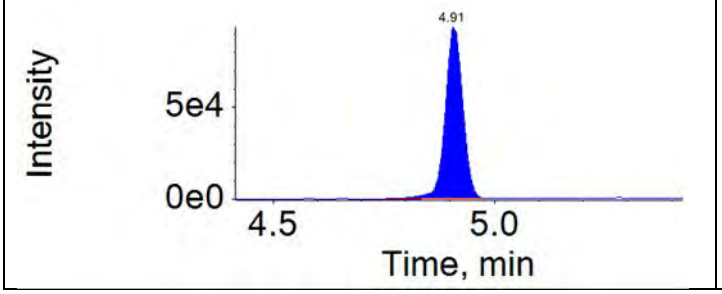
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0
	

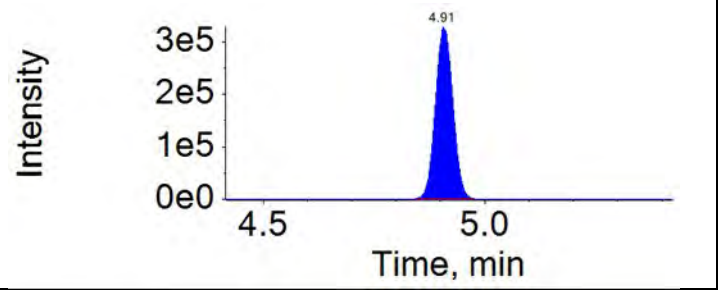
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0
	

Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0
	

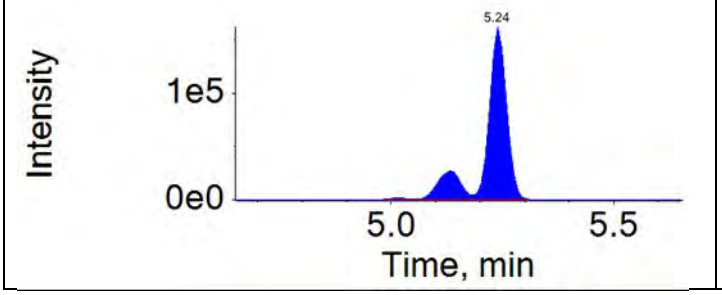
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

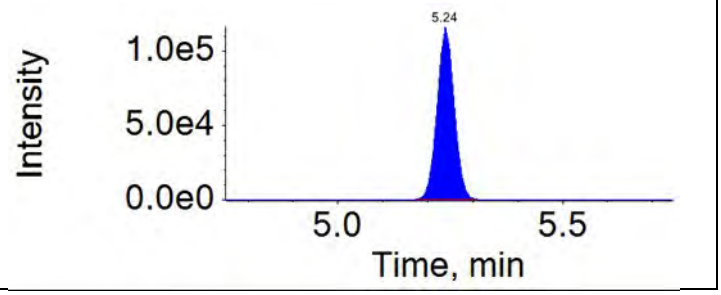
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0



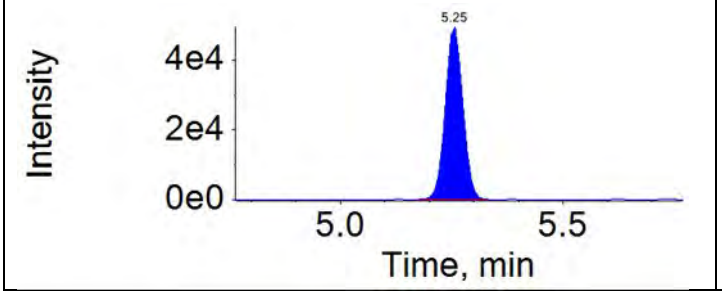


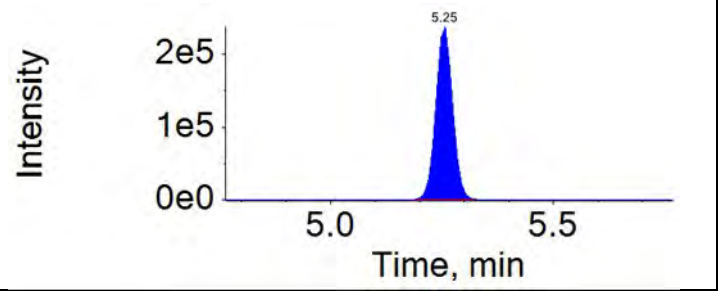
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0



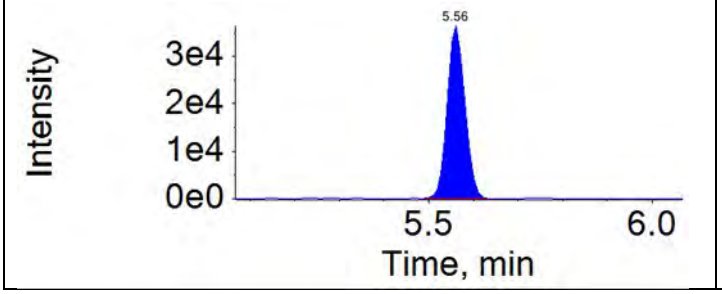


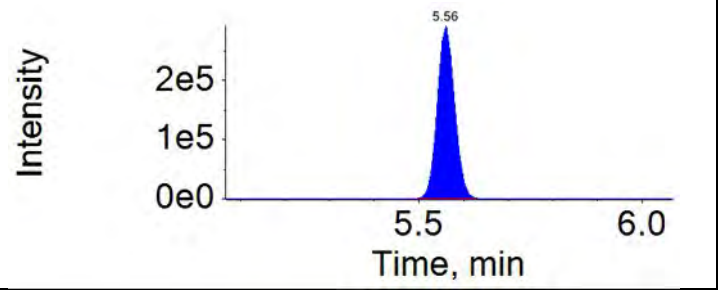
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0





Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0



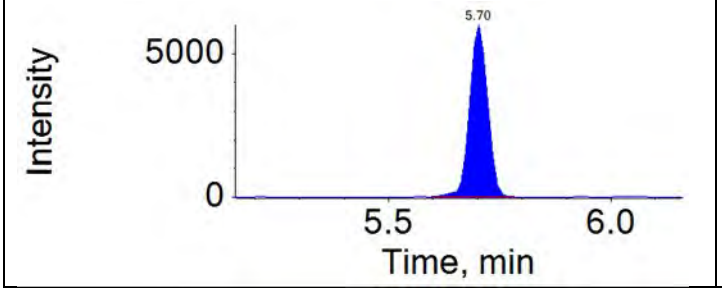


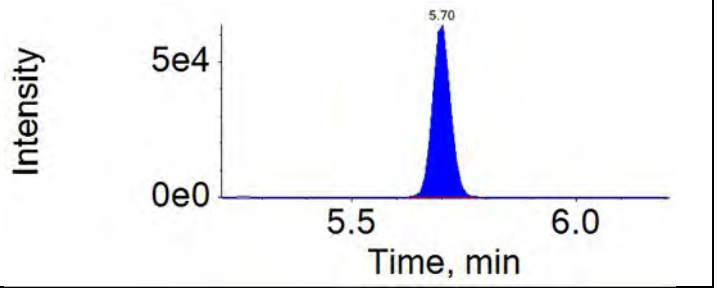
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

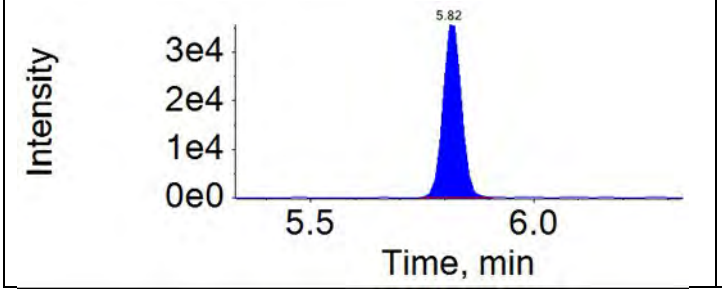
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

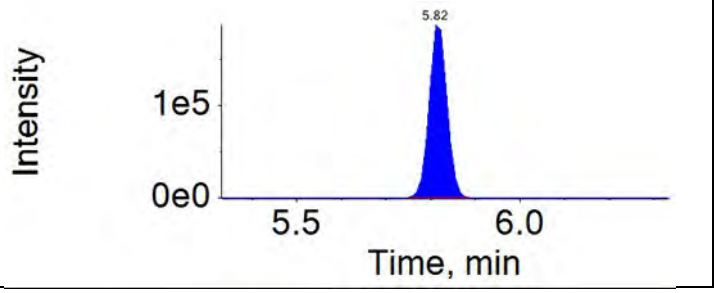
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



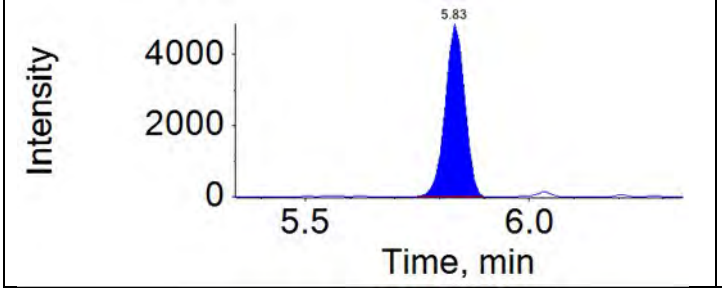


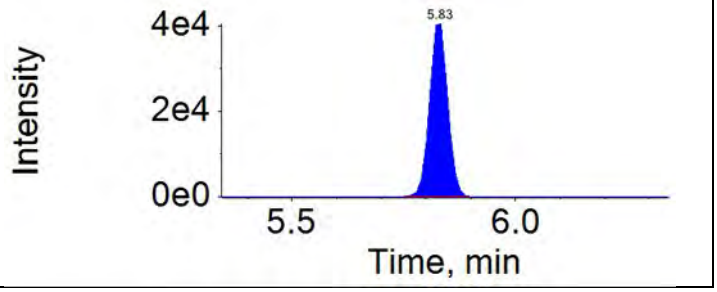
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



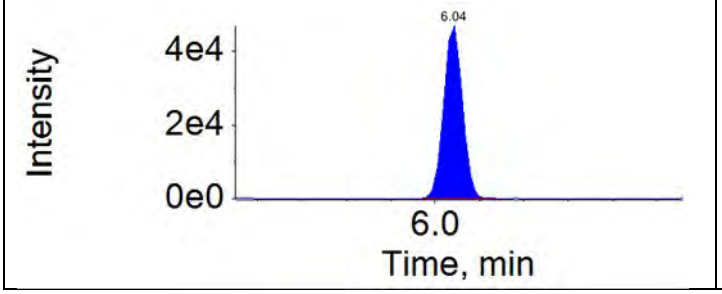


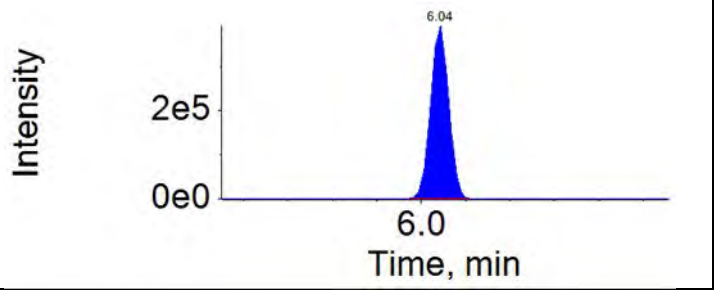
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0





Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0

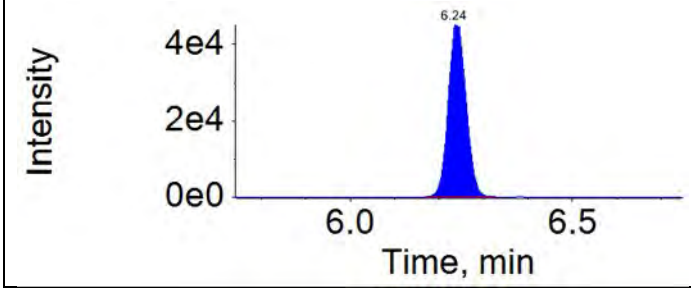
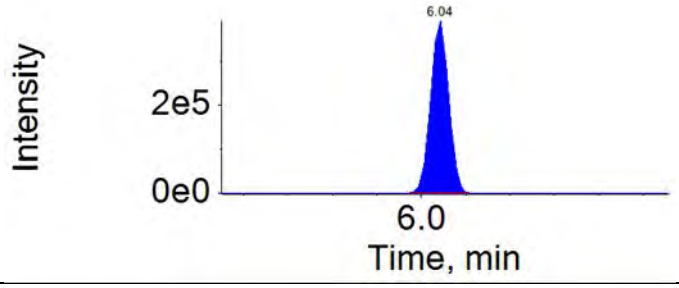


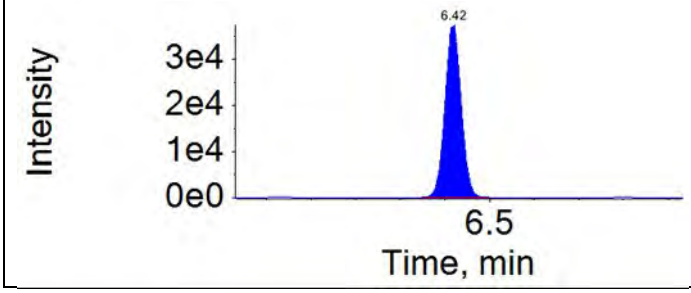
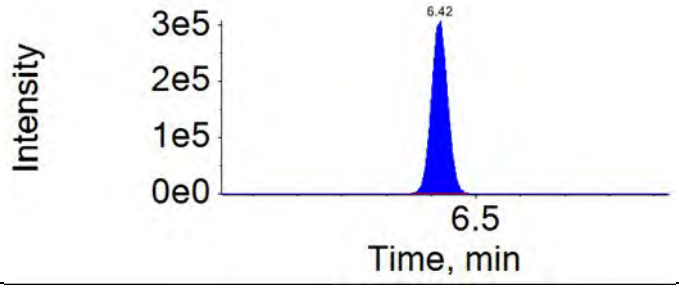


APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

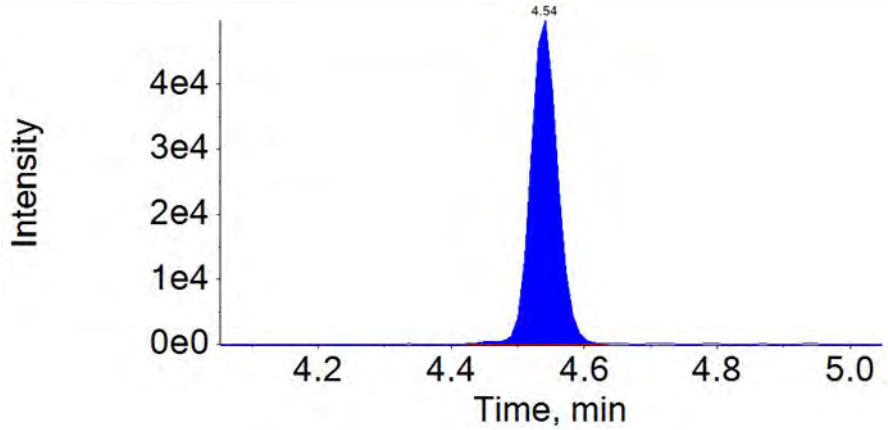
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

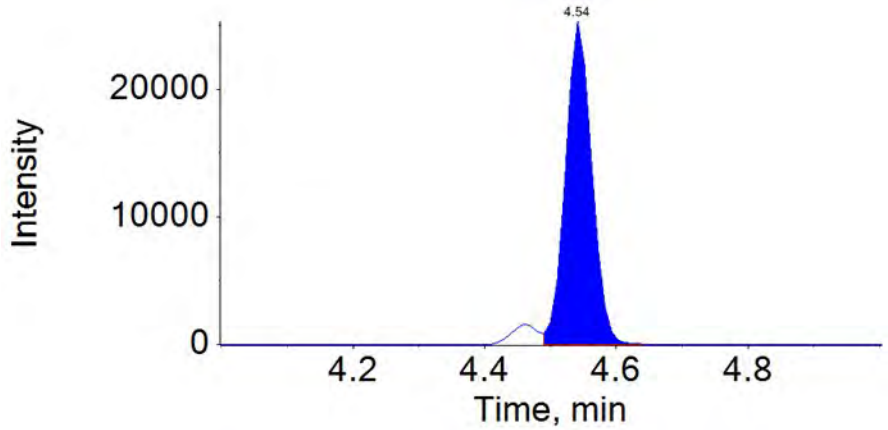
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA
RT (min.):
4.54
Peak Area:
140989.5
Mass Range:
363.0 / 319.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



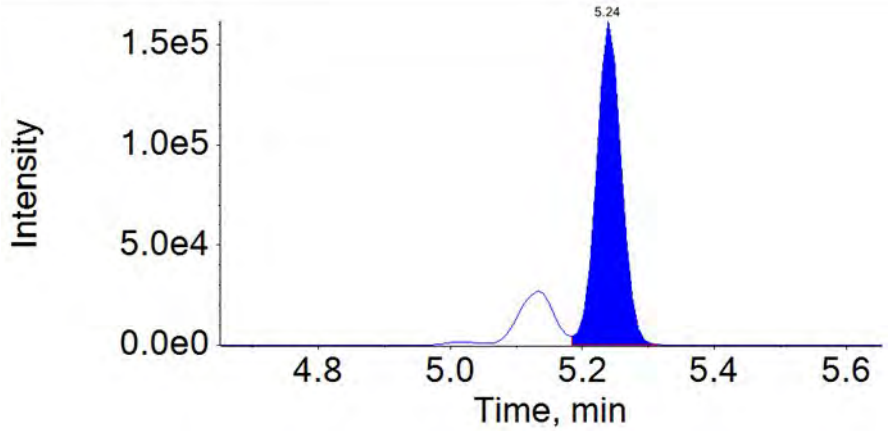
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
70503.3
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
425495.4
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



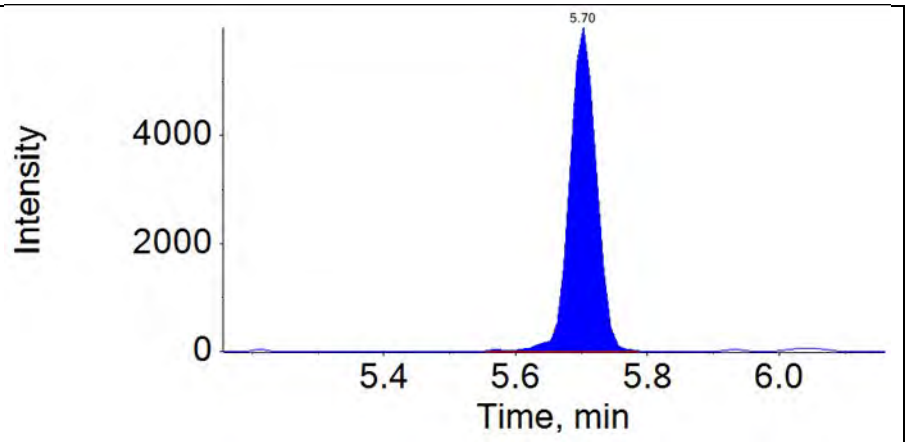
Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

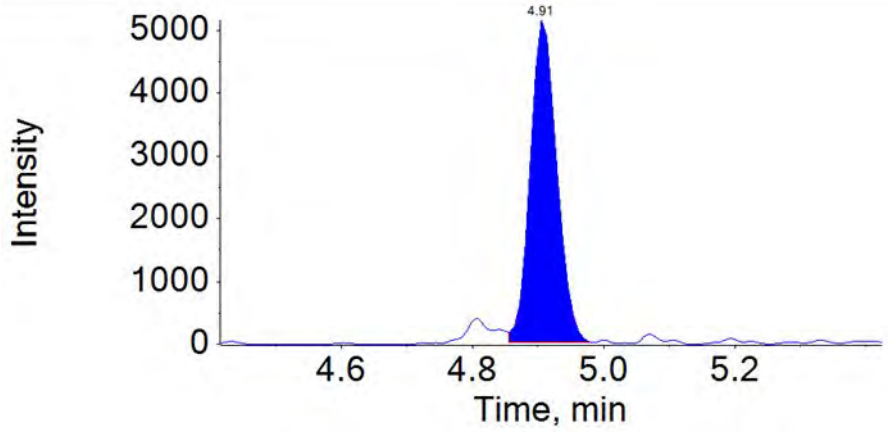
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
16928.2
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



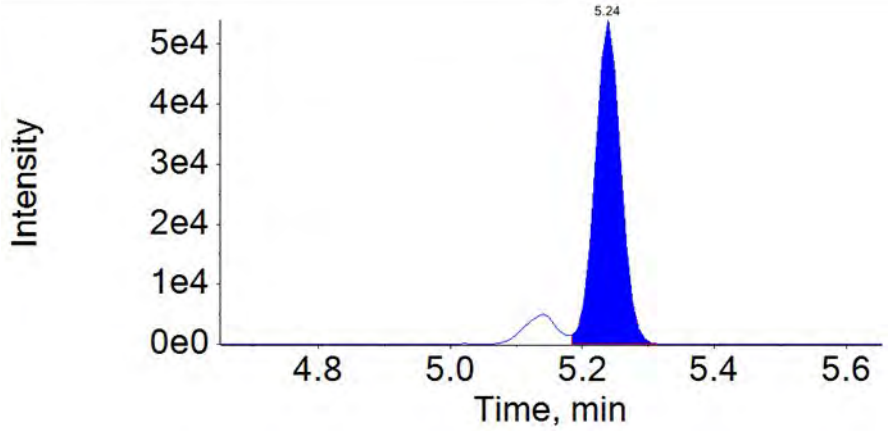
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
14449.9
Mass Range:
413.0 / 169.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
146063.0
Mass Range:
499.0 / 99.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



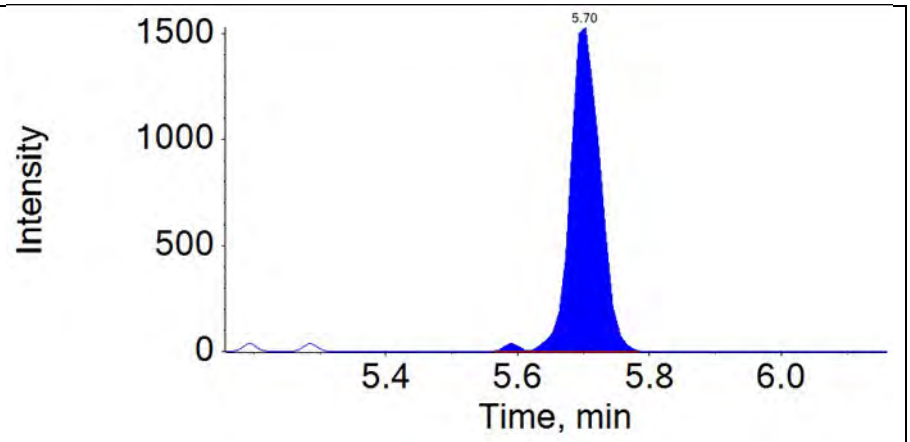
Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

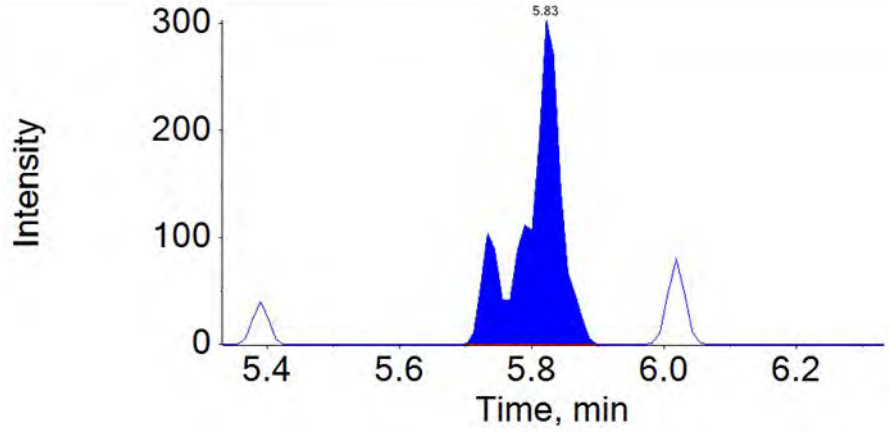
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
4864.6
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



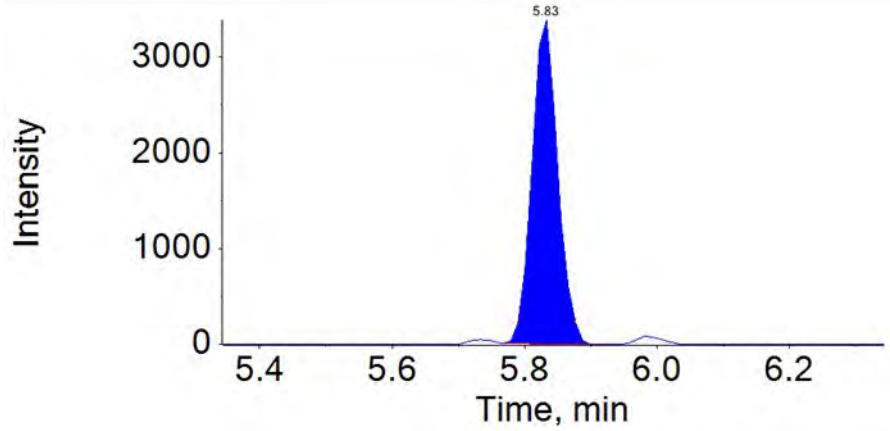
Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
5.83
Peak Area:
1109.2
Mass Range:
563.0 / 169.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
9150.0
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



Integration Comment: incorrect integration

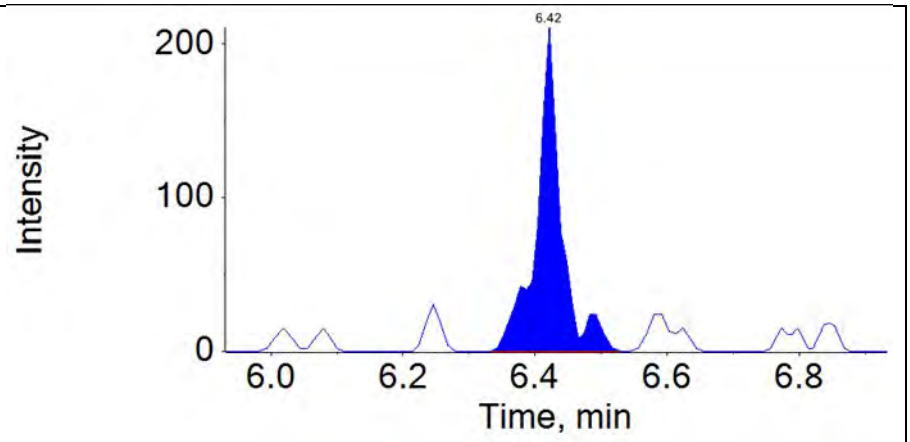
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTeDA_2
RT (min.):
6.42
Peak Area:
548.0
Mass Range:
713.0 / 169.0
File Name:
18NOV29D-71.wiff
Sample Name:
9883384MSD



Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Ion Ratio Report

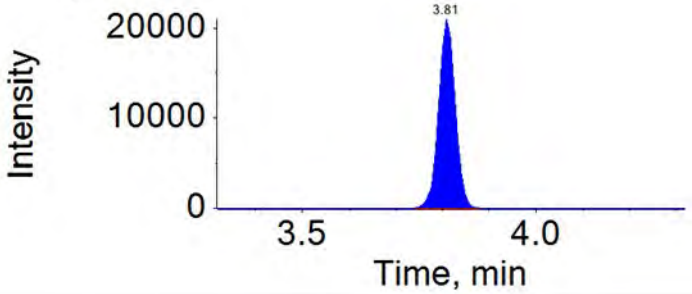
Sample Name: 9883384MSD **Instrument Name:** LM27631 **File Name:** 18NOV29D-71.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	51676.6	A	N/A	0.3532			
PFBS_2	3.81	1.00	18250.7	A	N/A	0.3532	-3	50	
PFHxA	4.15	1.00	168315.9	A	N/A	0.0125			
PFHxA_2	4.15	1.00	2095.9	A	N/A	0.0125	20	50	
PFHpA	4.54	1.00	140164.0	M	N/A	0.0523			
PFHpA_2	4.54	1.00	7330.7	A	N/A	0.0523	-6	50	
PFHxS	4.54	1.00	74865.5	M	N/A	0.3605			
PFHxS_2	4.54	1.00	26991.9	A	N/A	0.3605	-2	50	
PFOA	4.91	1.00	256642.5	A	N/A	0.0610			
PFOA_2	4.91	1.00	15662.3	M	N/A	0.0610	7	50	
PFOS	5.24	1.00	532816.9	M	N/A	0.3073			
PFOS_2	5.24	1.00	163744.8	M	N/A	0.3073	4	50	
PFNA	5.25	1.00	135802.9	A	N/A	0.0209			
PFNA_2	5.26	1.00	2838.1	A	N/A	0.0209	4	50	
PFDA	5.56	1.00	99337.6	A	N/A	0.0112			
PFDA_2	5.56	1.00	1109.6	A	N/A	0.0112	49	50	
NMeFOSAA	5.70	1.00	16870.1	M	N/A	0.2848			
NMeFOSAA_2	5.70	1.00	4804.7	M	N/A	0.2848	24	50	
PFUnDA	5.82	1.00	102291.9	A	N/A	0.0091			
PFUnDA_2	5.83	1.00	930.5	M	N/A	0.0091	139	50	OOS
NEtFOSAA	5.83	1.00	14626.3	A	N/A	0.6366			
NEtFOSAA_2	5.83	1.00	9311.5	M	N/A	0.6366	-13	50	
PFDoDA	6.04	1.00	137764.7	A	N/A	0.0131			
PFDoDA_2	6.04	1.00	1800.3	A	N/A	0.0131	0	50	
PFTrDA	6.24	1.03	126796.2	A	N/A	0.0091			
PFTrDA_2	6.24	1.03	1150.1	A	N/A	0.0091	1	50	
PFTeDA	6.42	1.00	94639.1	A	N/A	0.0053			
PFTeDA_2	6.42	1.00	502.7	M	N/A	0.0053	-5	50	

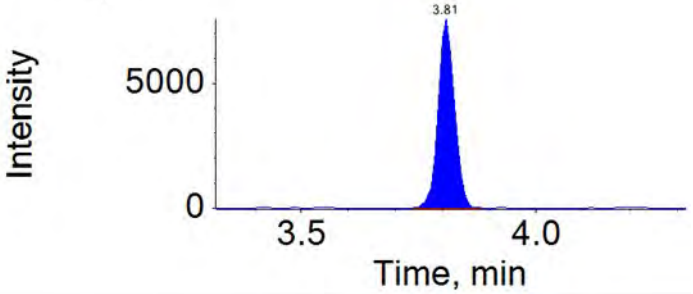
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

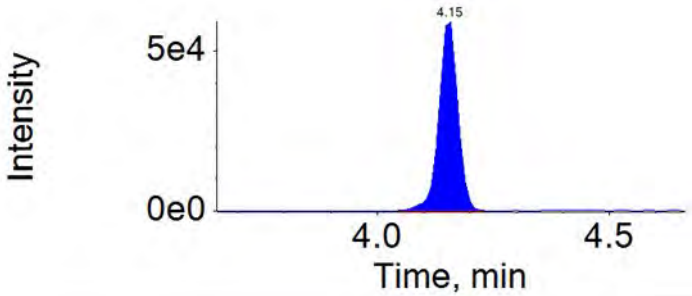
Component: PFBS
Primary Mass: 299.0 / 80.0



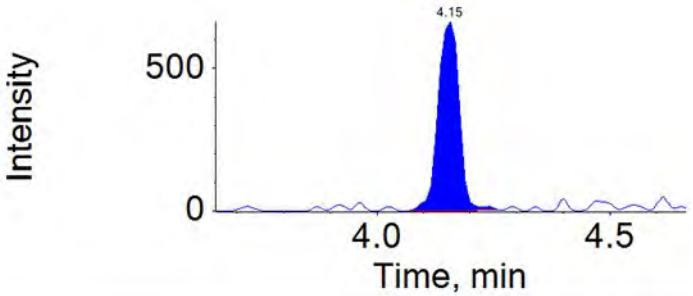
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



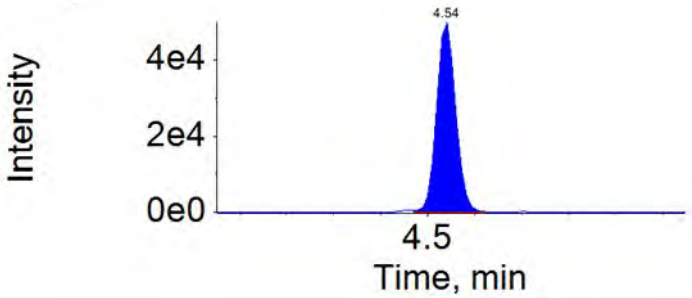
Component: PFHxA
Primary Mass: 313.0 / 269.0



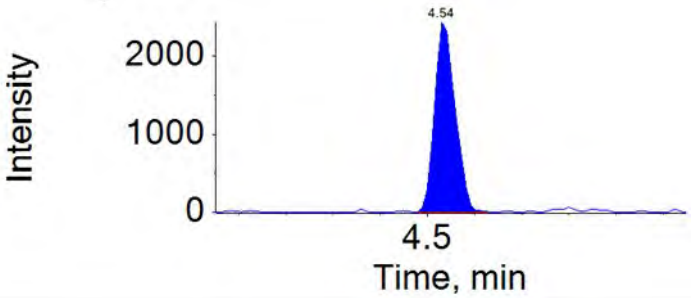
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



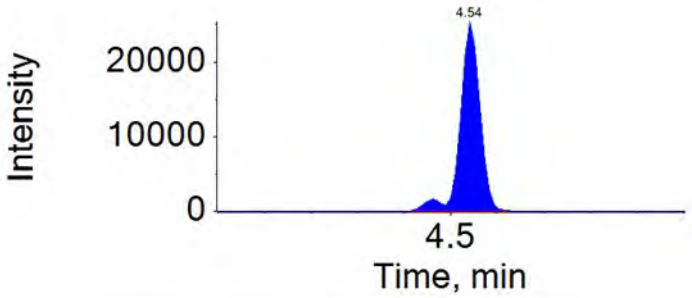
Component: PFHpA
Primary Mass: 363.0 / 319.0



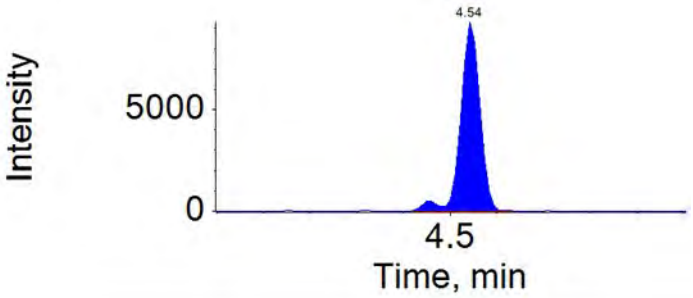
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



Component: PFHxS
Primary Mass: 399.0 / 80.0



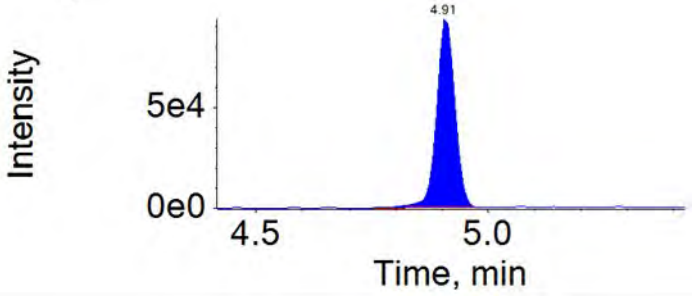
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



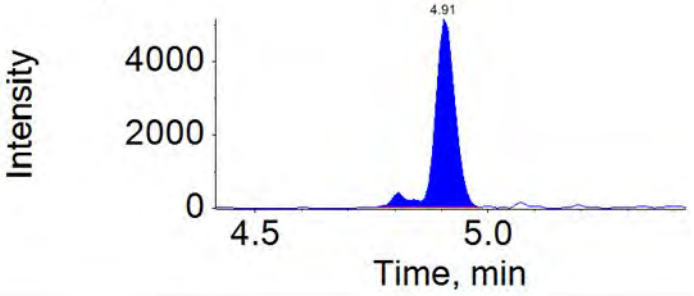
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

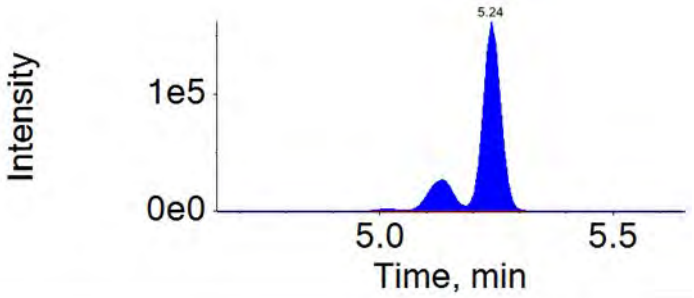
Component: PFOA
Primary Mass: 413.0 / 369.0



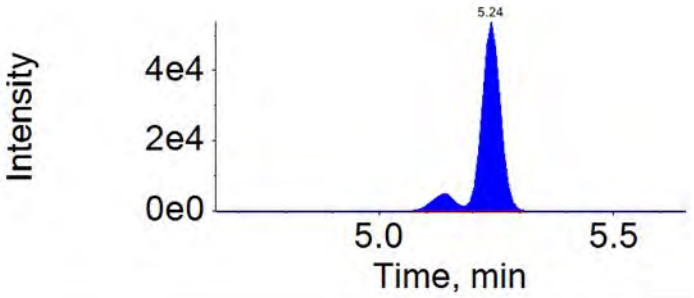
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



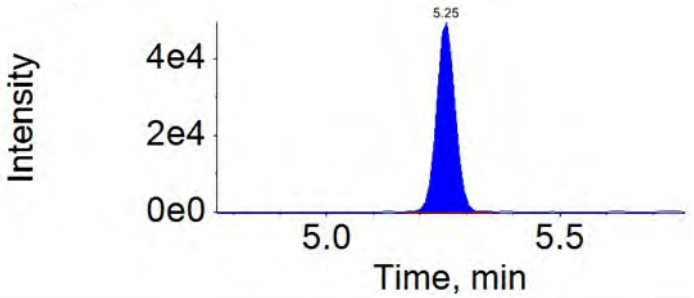
Component: PFOS
Primary Mass: 499.0 / 80.0



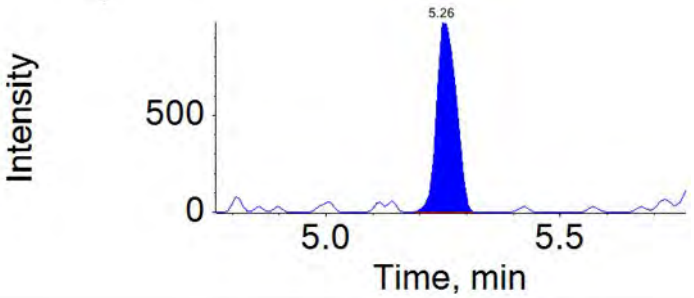
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



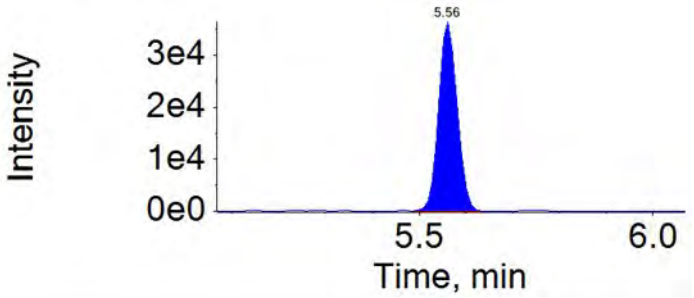
Component: PFNA
Primary Mass: 463.0 / 419.0



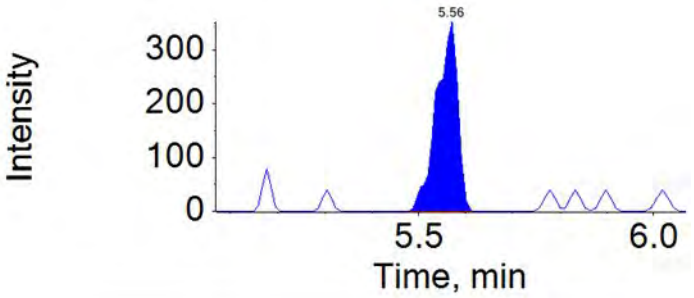
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFDA
Primary Mass: 513.0 / 469.0



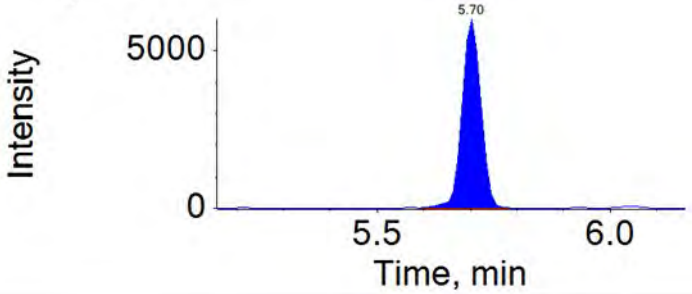
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



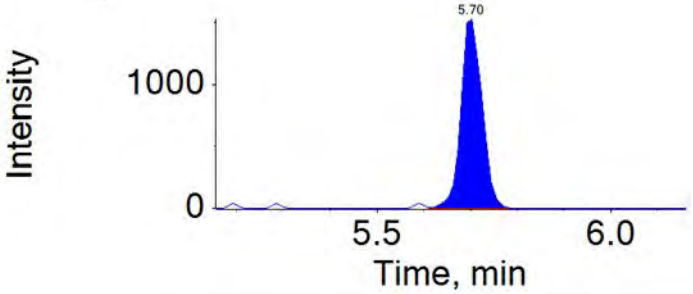
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

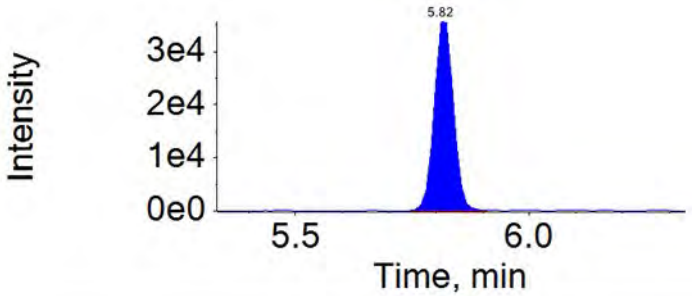
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



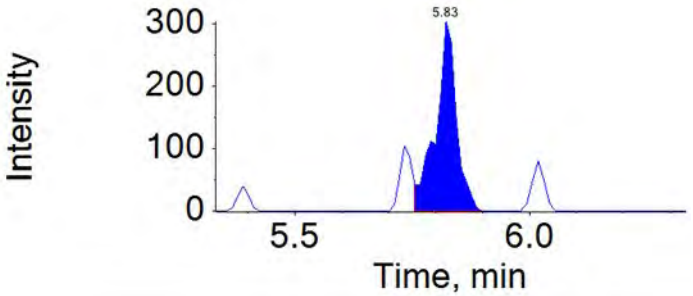
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



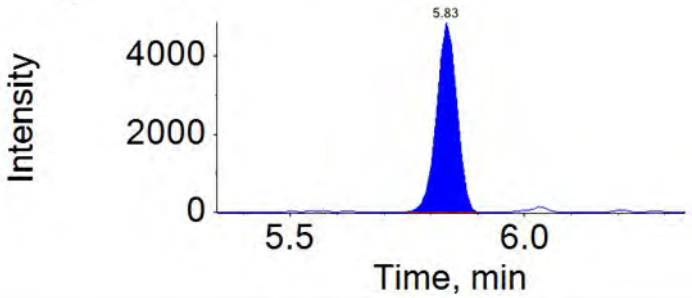
Component: PFUnDA
Primary Mass: 563.0 / 519.0



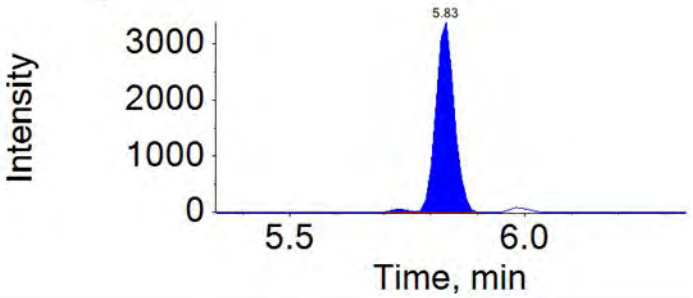
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



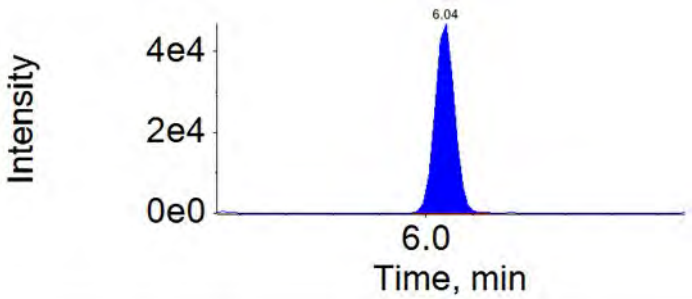
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



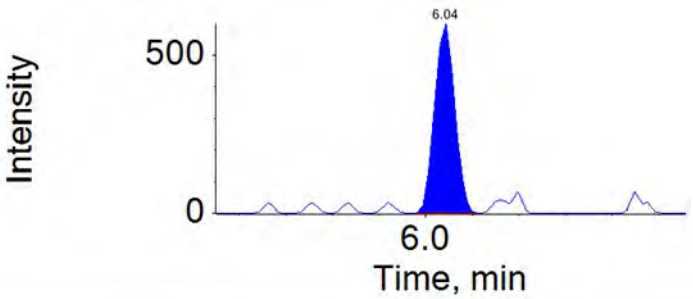
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



Component: PFDoDA
Primary Mass: 613.0 / 569.0



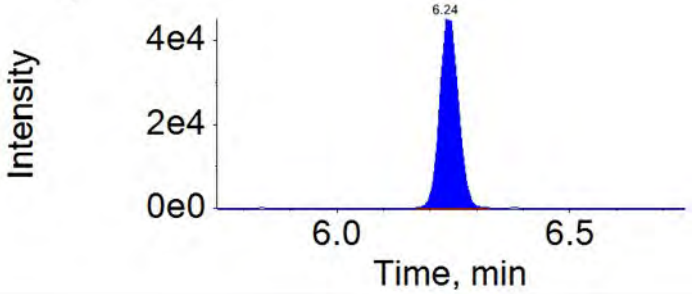
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



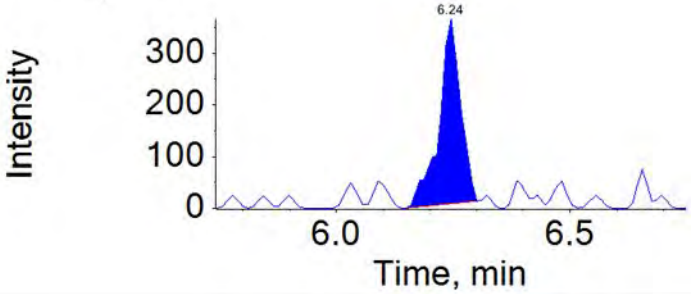
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

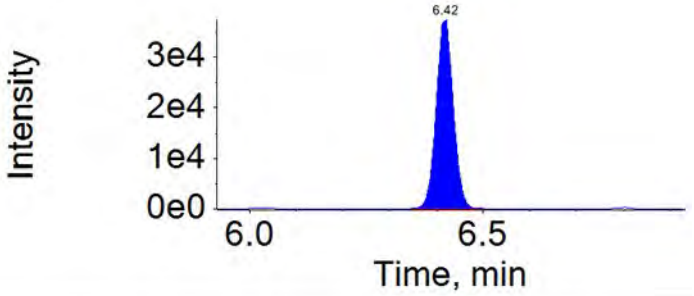
Component: PFTrDA
Primary Mass: 663.0 / 619.0



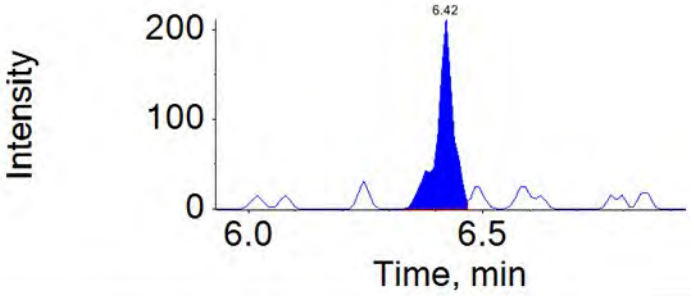
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



Component: PFTeDA
Primary Mass: 713.0 / 669.0



Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



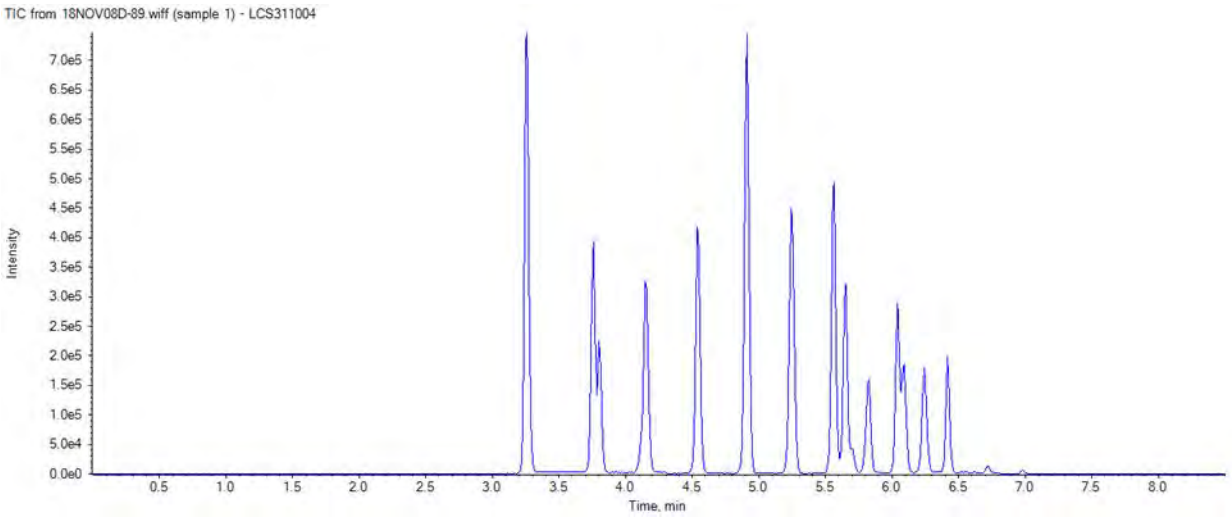
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311004	EPA 537 mod QSM 5.1 table B-15 18311004	18NOV08D-89.wiff	2018-11-09T01:02:32



Injection Standard Area Reference File**:** 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	889938.1	728839.7	22	50	
13C2-PFOA	5.00	606974.4	491983.1	23	50	
13C4-PFOS	4.78	335742.2	255568.1	31	50	
13C2-PFDA	5.00	396694.2	315407.5	26	50	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS311004	EPA 537 mod QSM 5.1 table B-15 18311004	18NOV08D-89.wiff	2018-11-09T01:02:32

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	101749.7	705313.0	0.144	1.360	1.689	124	70-130	
PFPeA	102423.0	747418.0	0.137	1.360	1.629	120	70-130	
PFBS	53410.9	368225.8	0.145	1.202	1.463	122	70-130	
4:2-FTS	33742.6	47717.4	0.707	3.736	3.802	102	70-130	
PFHxA	120680.5	617795.1	0.195	1.360	1.675	123	70-130	
PFPeS	27393.4	368225.8	0.074	1.276	1.467	115	70-130	
PFHxS	46193.6	291018.8	0.159	1.286	1.609	125	70-130	
PFHpA	126951.4	504254.3	0.252	1.360	1.693	125	70-130	
6:2-FTS	31393.1	35884.7	0.875	3.792	4.365	115	70-130	
PFHpS	40276.5	291018.8	0.138	1.294	1.448	112	70-130	
PFOA	120216.0	845285.4	0.142	1.360	1.602	118	70-130	
PFOS	36585.5	250670.6	0.146	1.300	1.514	116	70-130	
PFNA	95446.4	445603.1	0.214	1.360	1.601	118	70-130	
PFNS	24310.9	250670.6	0.097	1.306	1.538	118	70-130	
PFDA	82291.8	563539.3	0.146	1.360	1.607	118	70-130	
8:2-FTS	22496.8	22942.9	0.981	3.832	4.420	115	70-130	
PFOSA	89767.1	645085.9	0.139	1.360	1.504	111	70-130	
NMeFOSAA	8023.1	80073.2	0.100	1.360	1.031	76	70-130	
PFDS	21977.8	250670.6	0.088	1.310	1.675	128	70-130	
PFUnDA	69235.5	232579.4	0.298	1.360	1.707	126	70-130	
NEtFOSAA	9098.1	56032.2	0.162	1.360	1.396	103	70-130	
PFDoDA	74292.6	514522.9	0.144	1.360	1.565	115	70-130	
10:2-FTS	14347.7	22942.9	0.625	3.856	3.895	101	70-130	
NMePFOSAE	48919.1	300135.0	0.163	1.360	1.461	107	70-130	
NMePFOSA	8051.1	68264.5	0.118	1.360	1.320	97	70-130	
PFDoS	9515.4	250670.6	0.038	1.316	1.465	111	70-130	
NEtPFOSAE	63998.8	241236.3	0.265	1.360	1.701	125	70-130	
NEtPFOSA	9276.8	59547.9	0.156	1.360	1.372	101	70-130	
PFTrDA	61292.4	514522.9	0.119	1.360	1.502	110	70-130	
PFTeDA	47159.9	341302.2	0.138	1.360	1.623	119	70-130	
PFHxDA	22665.7	341302.2	0.066	1.360	1.649	121	70-130	
PFODA	13228.2	341302.2	0.039	1.360	1.111	82	70-130	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13
Result Table: 18311004 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS311004			**Data File:**		18NOV08D-89.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18311004			**Acquis Date:**		2018-11-09T01:02:32
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	30			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18311004
QMethod File:	MQ4-18AUG13			**ICAL Name:**		18NOV07DCAL
Batch Number:	18311004			**Operator:**		JPT12262
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	889938.1	728839.7	22	50	
13C2-PFOA	5.0	606974.4	491983.1	23	50	
13C4-PFOS	4.8	335742.2	255568.1	31	50	
13C2-PFDA	5.0	396694.2	315407.5	26	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	705313.0	13C3-PFBA	889938.1	0.793	10.000	7.335	73	50-150	
E13C5-PFPeA	747418.0	13C3-PFBA	889938.1	0.840	10.000	7.317	73	50-150	
E13C3-PFBS	368225.8	13C3-PFBA	889938.1	0.414	9.300	6.073	65	50-150	
E13C2-4:2-FTS	47717.4	13C2-PFOA	606974.4	0.079	9.340	7.095	76	50-150	
E13C5-PFHxA	617795.1	13C2-PFOA	606974.4	1.018	10.000	7.488	75	50-150	
E13C3-PFHxS	291018.8	13C2-PFOA	606974.4	0.479	9.460	6.884	73	50-150	
E13C4-PFHpA	504254.3	13C2-PFOA	606974.4	0.831	10.000	7.559	76	50-150	
E13C2-6:2-FTS	35884.7	13C2-PFOA	606974.4	0.059	9.500	7.885	83	50-150	
E13C8-PFOA	845285.4	13C2-PFOA	606974.4	1.393	10.000	7.767	78	50-150	
E13C8-PFOS	250670.6	13C4-PFOS	335742.2	0.747	9.560	6.603	69	50-150	
E13C9-PFNA	445603.1	13C4-PFOS	335742.2	1.327	10.000	7.251	73	50-150	
E13C6-PFDA	563539.3	13C2-PFDA	396694.2	1.421	10.000	7.145	71	50-150	
E13C2-8:2-FTS	22942.9	13C2-PFDA	396694.2	0.058	9.580	6.121	64	50-150	
E13C8-PFOSA	645085.9	13C2-PFDA	396694.2	1.626	10.000	7.097	71	50-150	
Ed3-NMeFOSAA	80073.2	13C2-PFDA	396694.2	0.202	10.000	7.507	75	50-150	
E13C7-PFUnDA	232579.4	13C2-PFDA	396694.2	0.586	10.000	6.764	68	50-150	
Ed5-NEtFOSAA	56032.2	13C2-PFDA	396694.2	0.141	10.000	6.538	65	50-150	
E13C2-PFDoDA	514522.9	13C2-PFDA	396694.2	1.297	10.000	6.993	70	50-150	
Ed7-NMePFOSAE	300135.0	13C2-PFDA	396694.2	0.757	10.000	7.037	70	50-150	
Ed3-NMePFOSA	68264.5	13C2-PFDA	396694.2	0.172	10.000	6.301	63	50-150	
Ed9-NEtPFOSAE	241236.3	13C2-PFDA	396694.2	0.608	10.000	6.946	69	50-150	
Ed5-NEtPFOSA	59547.9	13C2-PFDA	396694.2	0.150	10.000	6.951	70	50-150	
E13C2-PFTeDA	341302.2	13C2-PFDA	396694.2	0.860	10.000	6.195	62	50-150	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

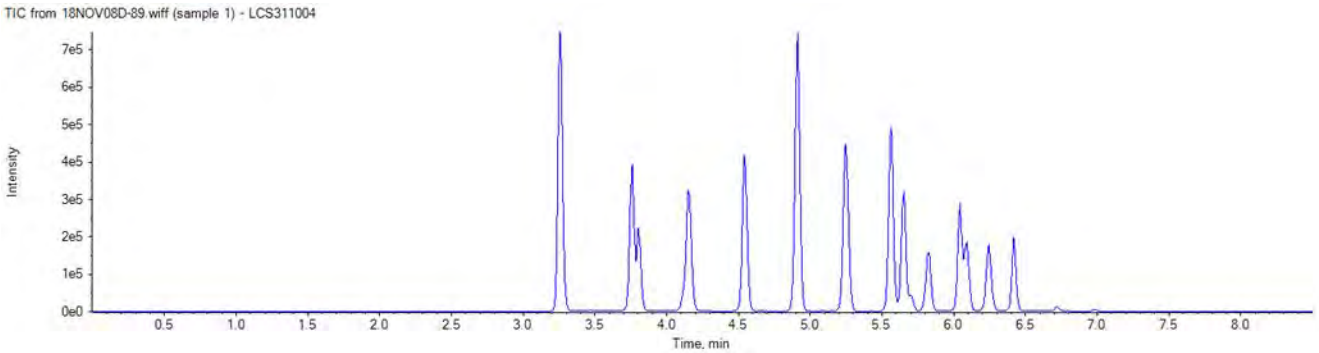
Analyte Quantitation Peak Table

Sample Name: LCS311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-89.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	101749.7		A	13C4-PFBA	3.26	705313.0	0.144	1.689
PFPeA	3.76	1.000	102423.0		A	13C5-PFPeA	3.76	747418.0	0.137	1.629
PFBS	3.81	1.000	53410.9		A	13C3-PFBS	3.81	368225.8	0.145	1.463
4:2-FTS	4.12	1.000	33742.6		A	13C2-4:2-FTS	4.12	47717.4	0.707	3.802
PFHxA	4.15	1.000	120680.5		A	13C5-PFHxA	4.15	617795.1	0.195	1.675
PFPeS	4.17	1.100	27393.4		A	13C3-PFBS	3.81	368225.8	0.074	1.467
PFHxS	4.54	1.000	46193.6		A	13C3-PFHxS	4.54	291018.8	0.159	1.609
PFHpA	4.54	1.000	126951.4		A	13C4-PFHpA	4.54	504254.3	0.252	1.693
6:2-FTS	4.90	1.000	31393.1		A	13C2-6:2-FTS	4.90	35884.7	0.875	4.365
PFHpS	4.90	1.080	40276.5		A	13C3-PFHxS	4.54	291018.8	0.138	1.448
PFOA	4.91	1.000	120216.0		A	13C8-PFOA	4.91	845285.4	0.142	1.602
PFOS	5.24	1.000	36585.5		M	13C8-PFOS	5.24	250670.6	0.146	1.514
PFNA	5.26	1.000	95446.4		A	13C9-PFNA	5.26	445603.1	0.214	1.601
PFNS	5.54	1.060	24310.9		A	13C8-PFOS	5.24	250670.6	0.097	1.538
PFDA	5.56	1.000	82291.8		A	13C6-PFDA	5.56	563539.3	0.146	1.607
8:2-FTS	5.57	1.000	22496.8		A	13C2-8:2-FTS	5.56	22942.9	0.981	4.420
PFOSA	5.65	1.000	89767.1		A	13C8-PFOSA	5.65	645085.9	0.139	1.504
NMeFOSAA	5.71	1.000	8023.1		M	d3-NMeFOSAA	5.70	80073.2	0.100	1.031
PFDS	5.80	1.110	21977.8		A	13C8-PFOS	5.24	250670.6	0.088	1.675
PFUnDA	5.82	1.000	69235.5		A	13C7-PFUnDA	5.82	232579.4	0.298	1.707
NEtFOSAA	5.84	1.000	9098.1		A	d5-NEtFOSAA	5.83	56032.2	0.162	1.396
PFDoDA	6.04	1.000	74292.6		A	13C2-PFDoDA	6.04	514522.9	0.144	1.565
10:2-FTS	6.06	1.090	14347.7		A	13C2-8:2-FTS	5.56	22942.9	0.625	3.895
NMePFOSAE	6.10	1.000	48919.1		A	d7-NMePFOSAE	6.09	300135.0	0.163	1.461
NMePFOSA	6.10	1.000	8051.1		M	d3-NMePFOSA	6.10	68264.5	0.118	1.320
PFDoS	6.21	1.190	9515.4		A	13C8-PFOS	5.24	250670.6	0.038	1.465
NEtPFOSAE	6.25	1.000	63998.8		A	d9-NEtPFOSAE	6.24	241236.3	0.265	1.701
NEtPFOSA	6.26	1.000	9276.8		A	d5-NEtPFOSA	6.26	59547.9	0.156	1.372
PFTrDA	6.24	1.030	61292.4		A	13C2-PFDoDA	6.04	514522.9	0.119	1.502
PFTeDA	6.42	1.000	47159.9		A	13C2-PFTeDA	6.42	341302.2	0.138	1.623
PFHxDA	6.72	1.050	22665.7		A	13C2-PFTeDA	6.42	341302.2	0.066	1.649
PFODA	6.98	1.090	13228.2		A	13C2-PFTeDA	6.42	341302.2	0.039	1.111

Total Ion Chromatogram

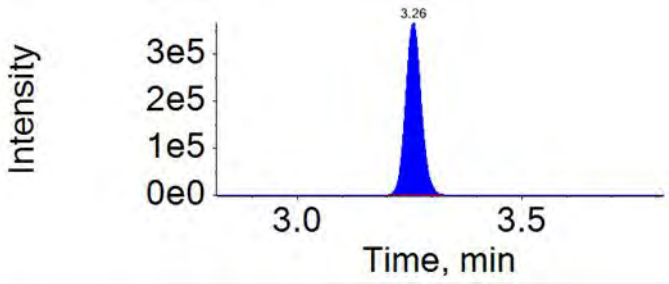


APPROVED
By JPT at 5:18 pm, 11/9/18

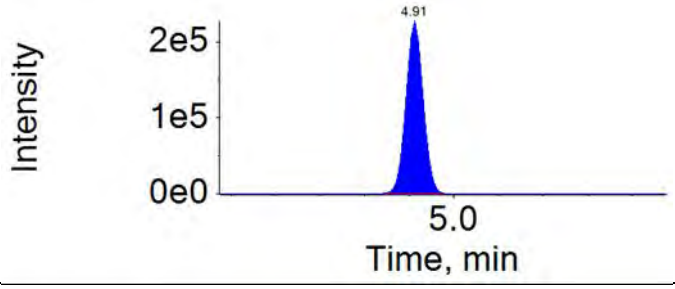
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

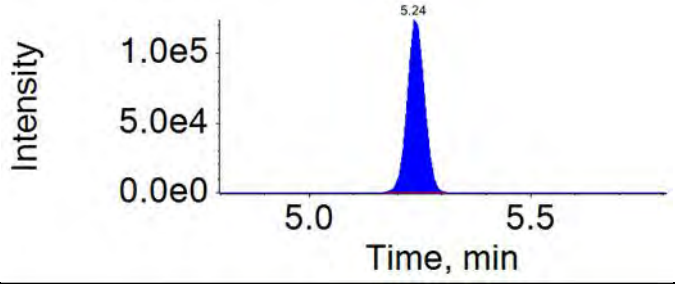
Injection Standard: 13C3-PFBA
216.0 / 172.0



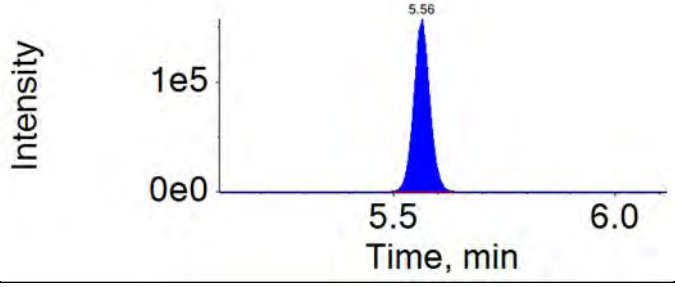
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0

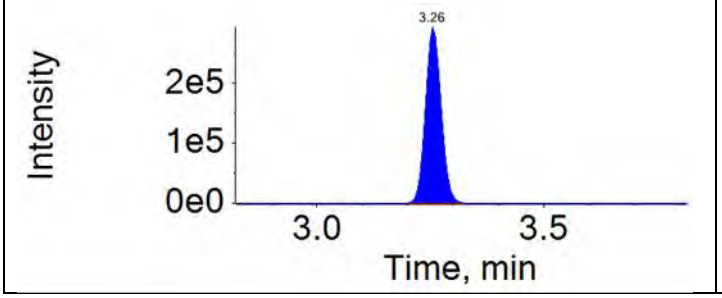


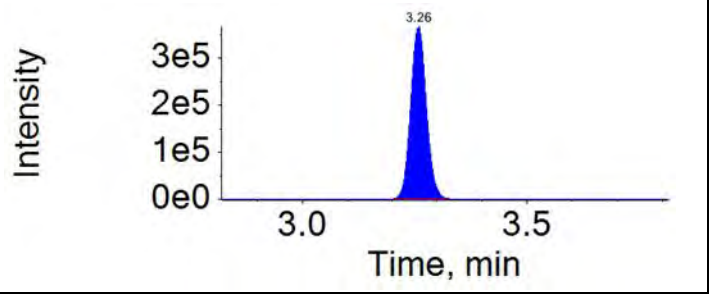
Injection Standard: 13C2-PFDA
515.0 / 470.0



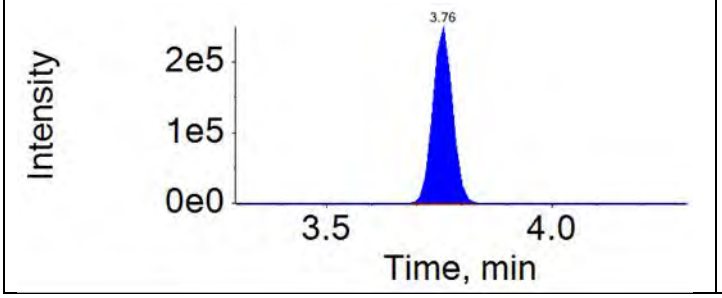
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

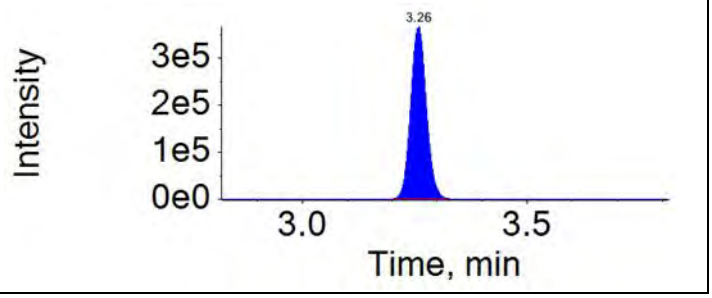
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



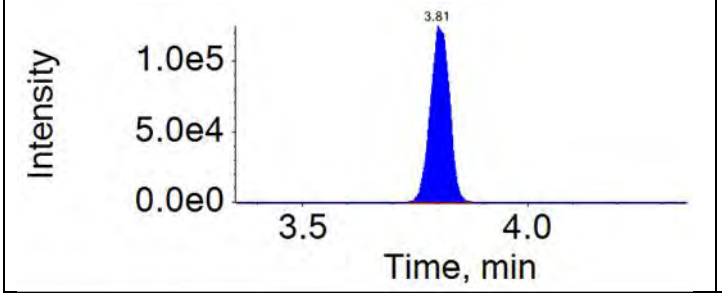


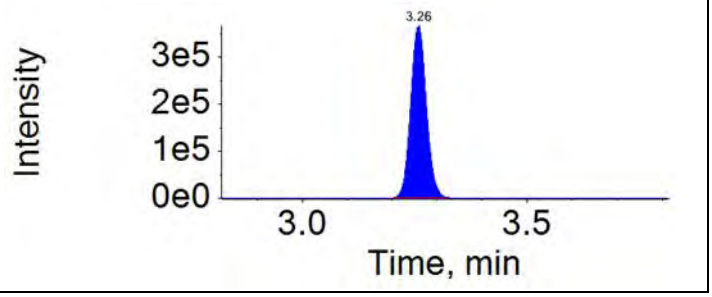
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



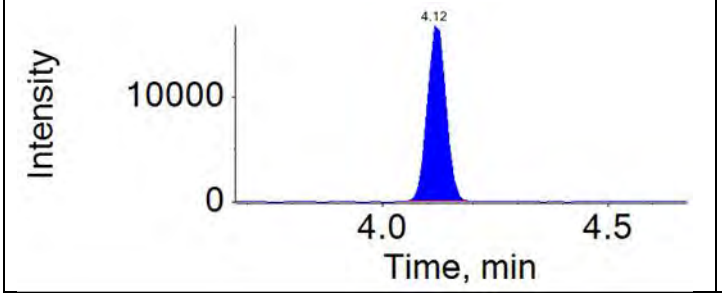


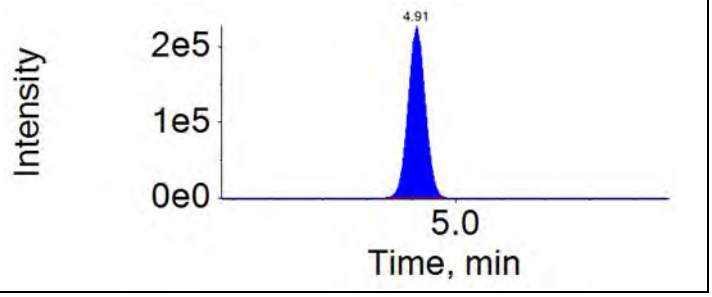
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





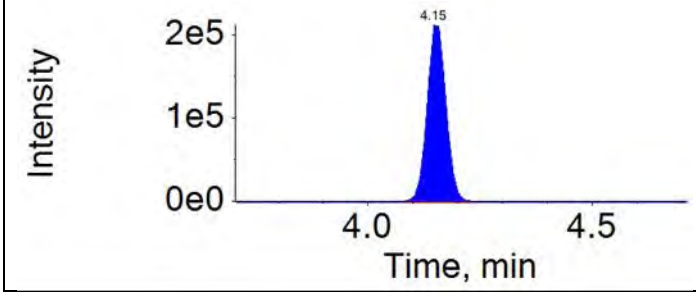
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

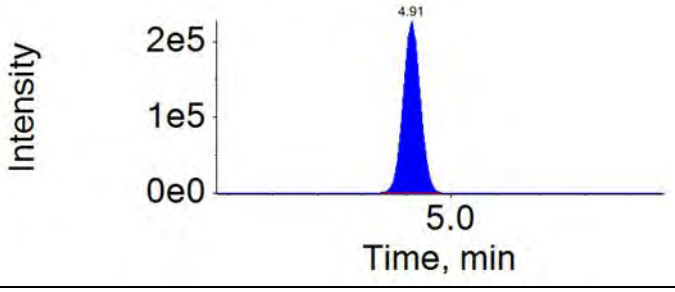




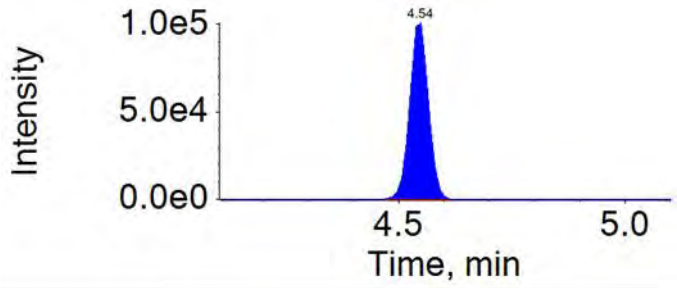
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

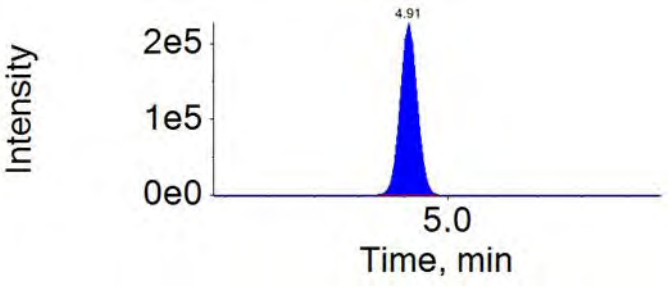
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



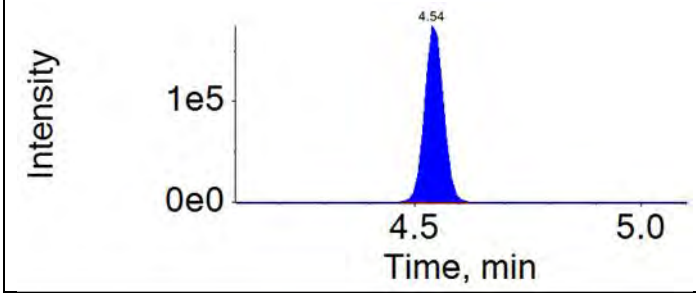


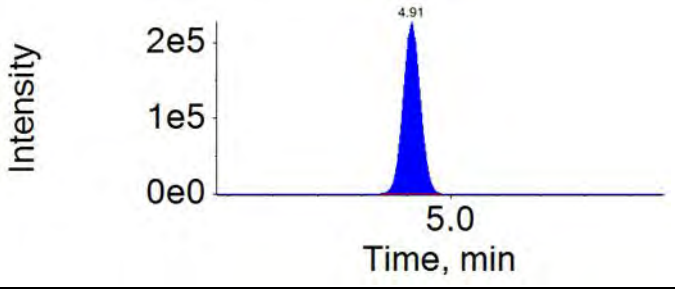
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



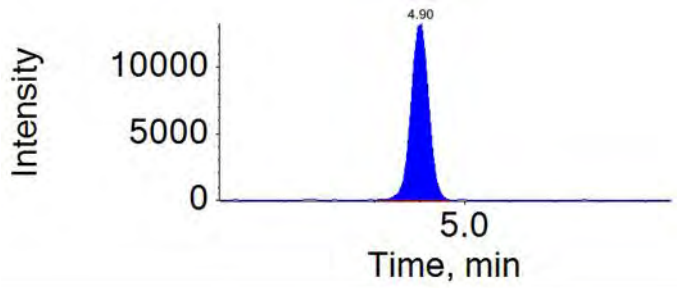


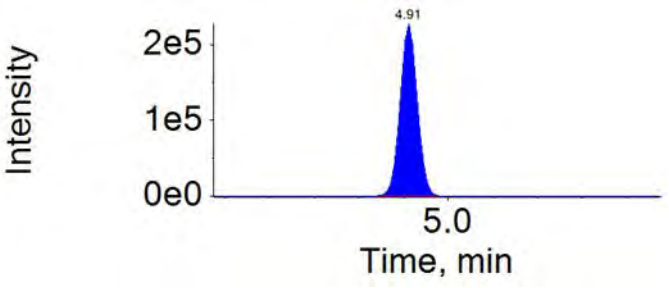
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

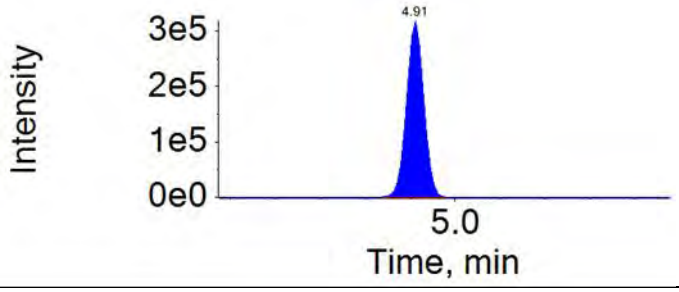
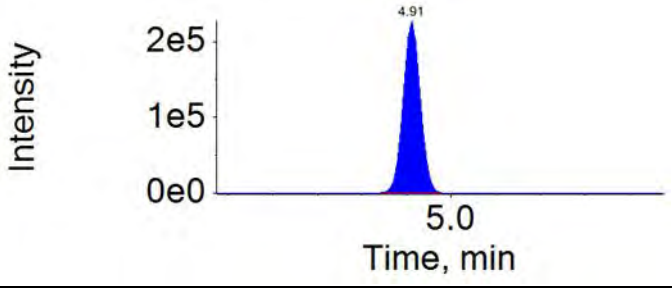


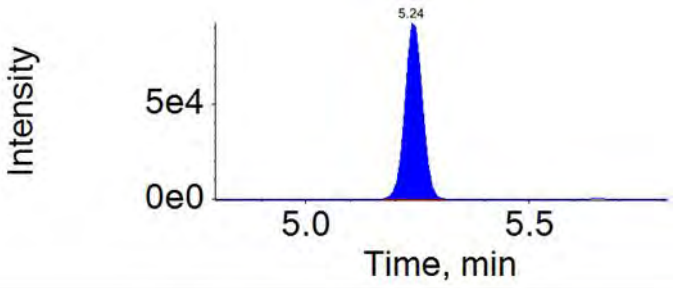
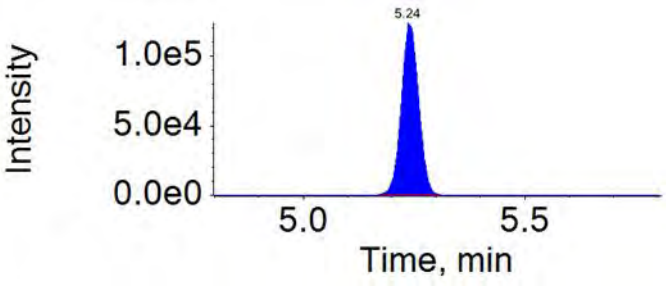


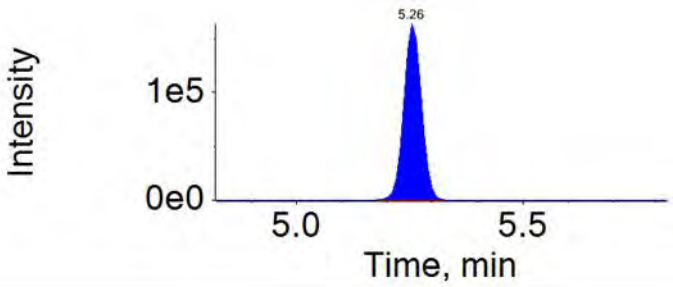
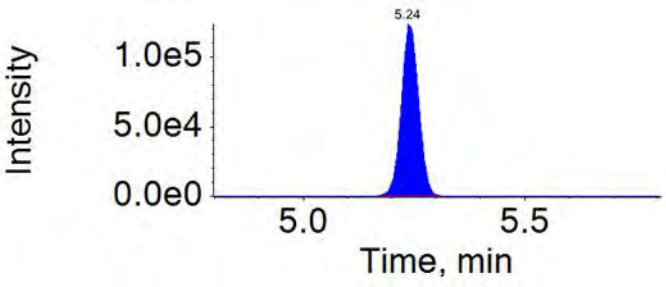
APPROVED
By JPT at 5:18 pm, 11/9/18

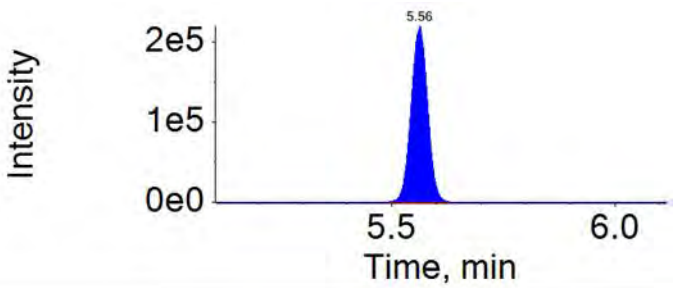
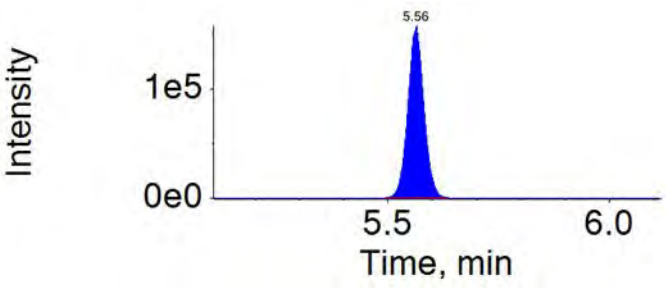
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

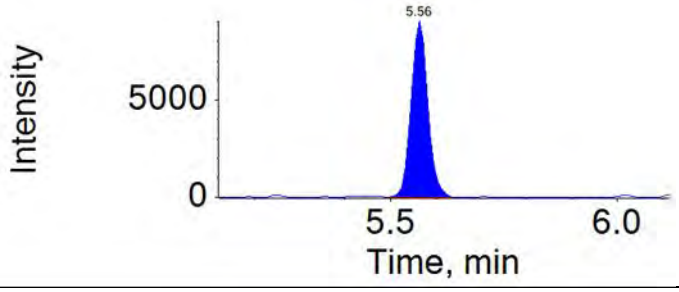
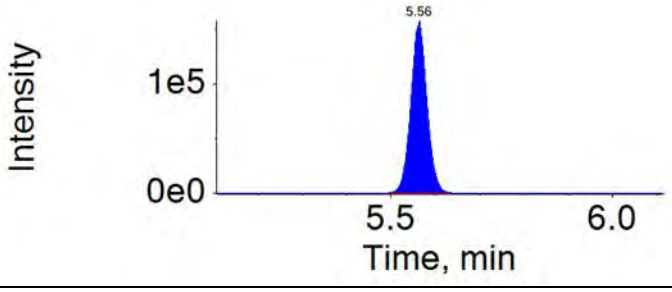
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

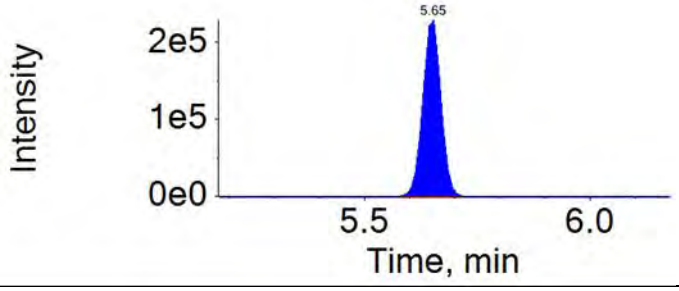
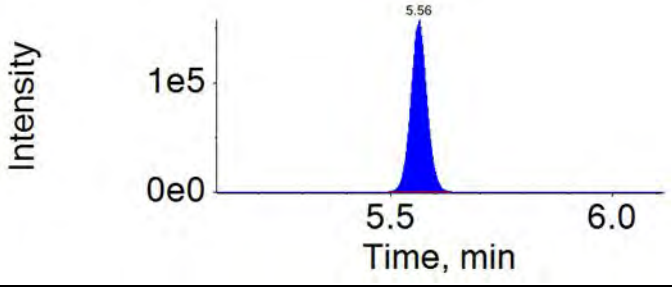
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

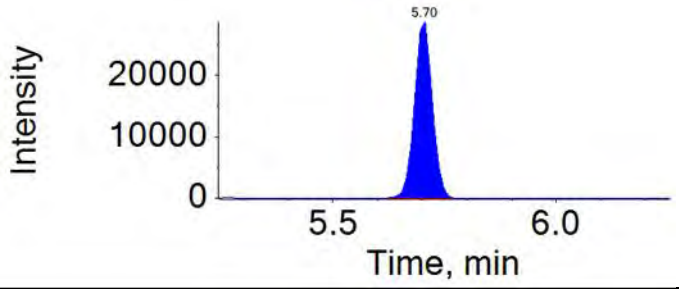
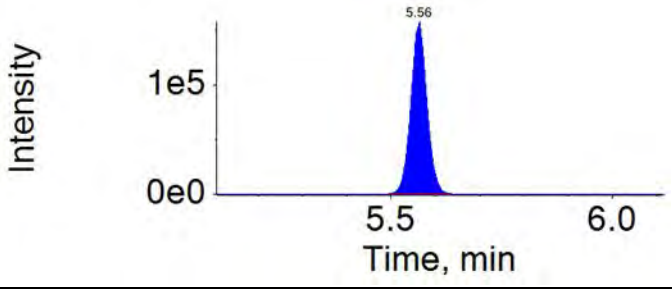
APPROVED
By JPT at 5:18 pm, 11/9/18

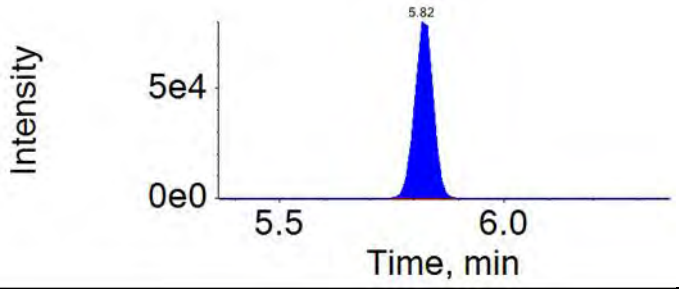
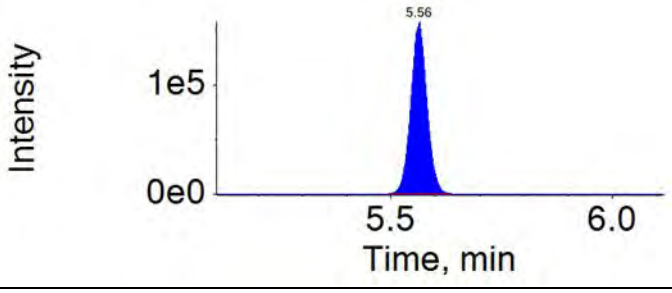
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

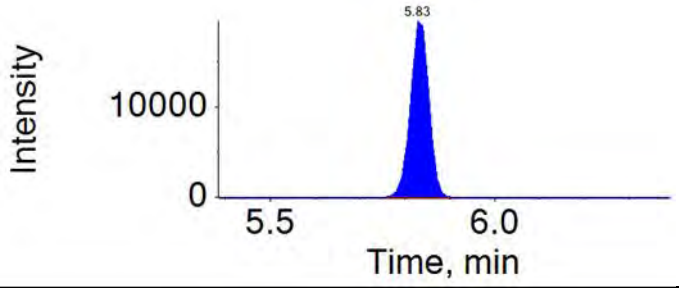
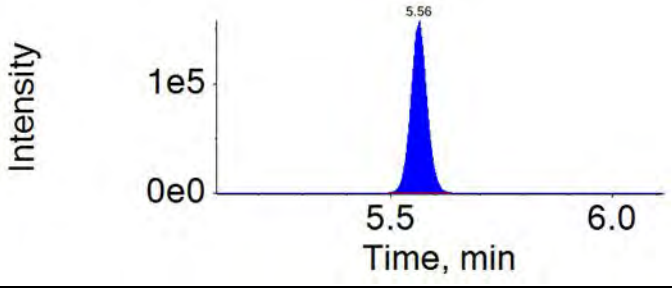
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

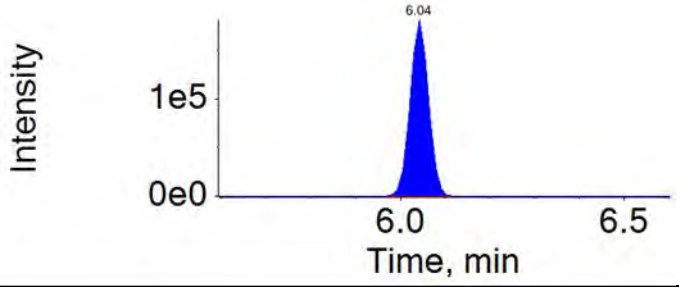
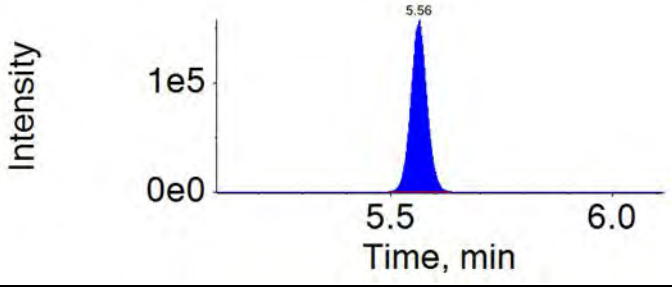
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

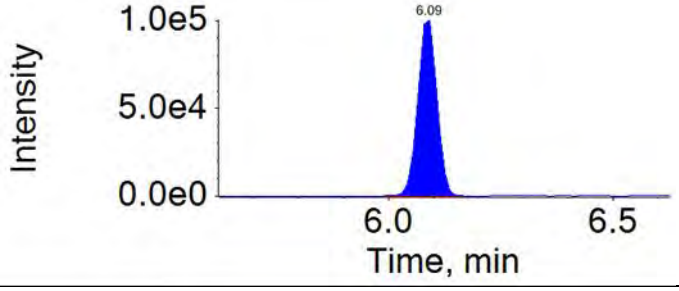
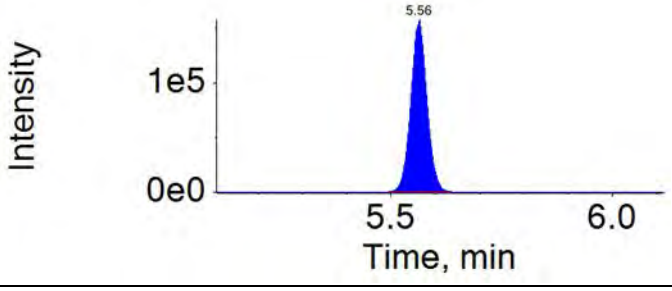
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

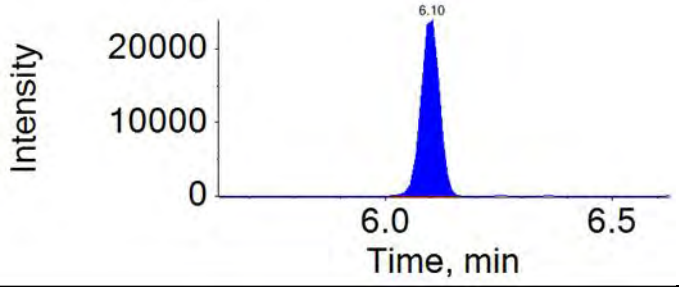
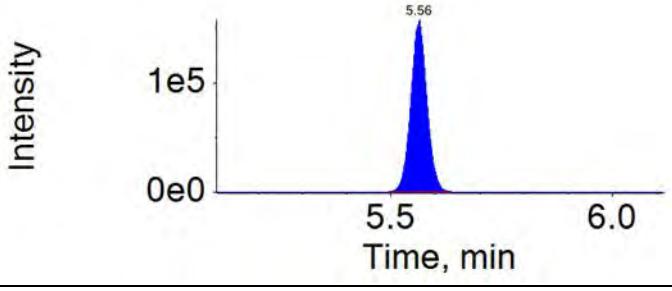
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

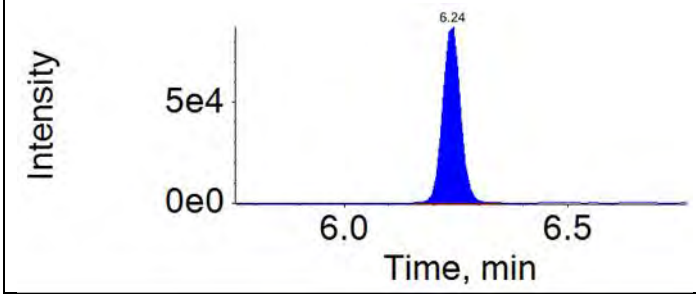
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

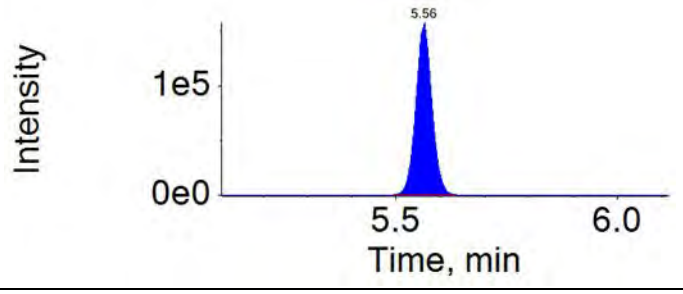
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

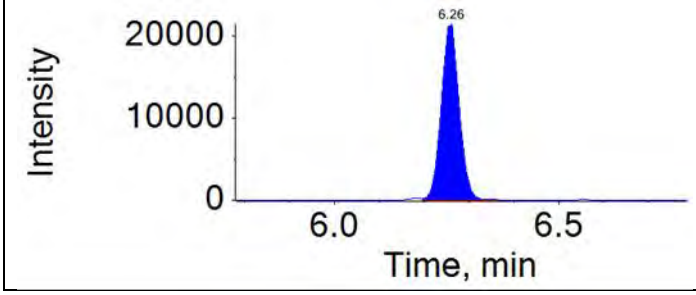
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

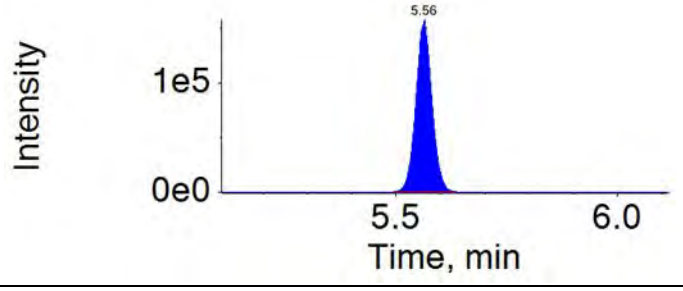
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



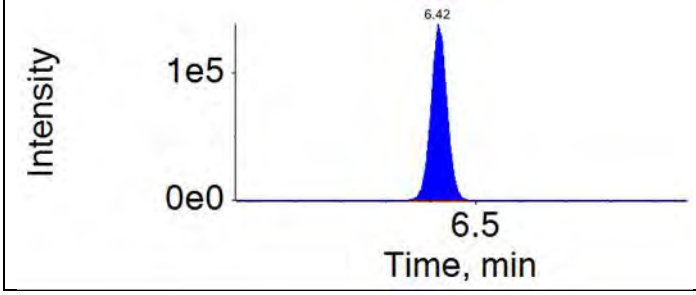


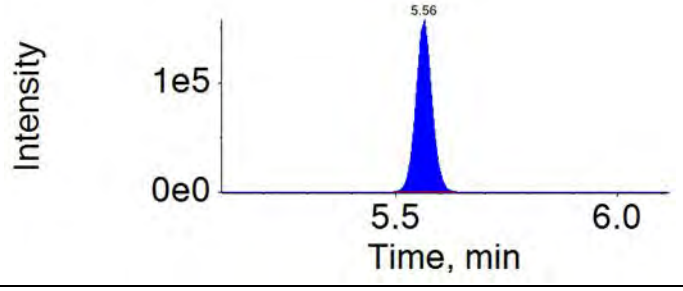
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

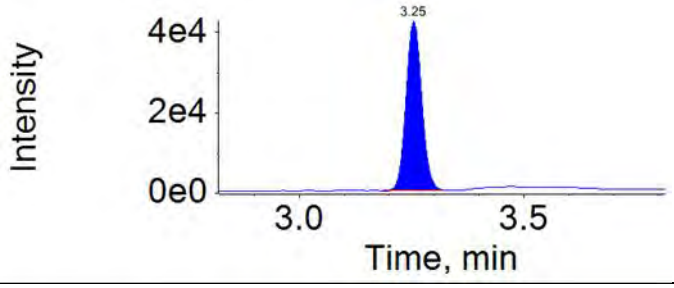
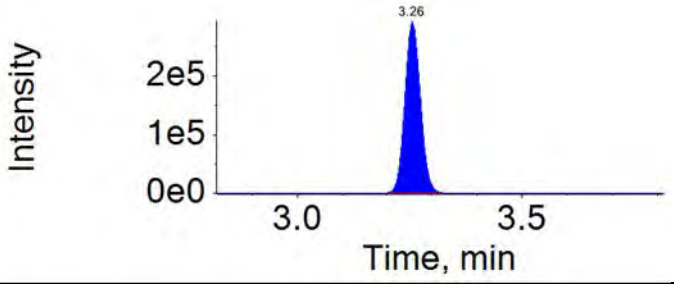


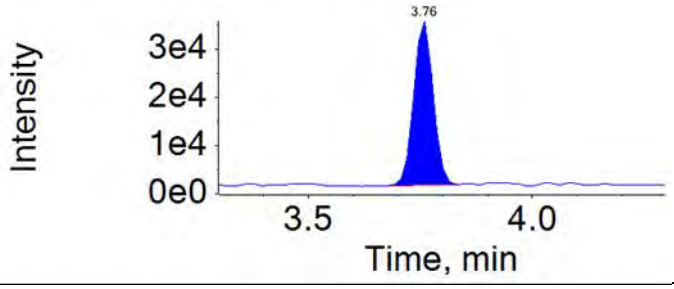
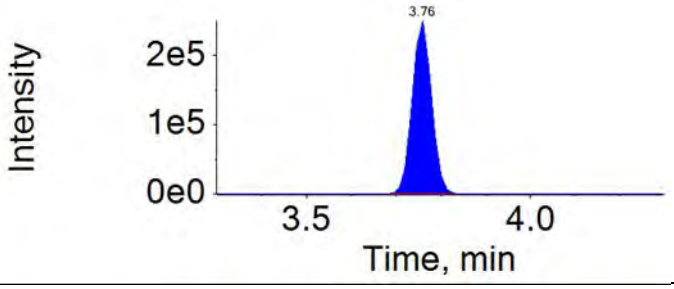


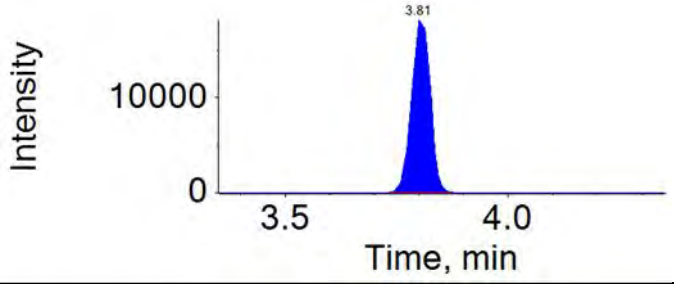
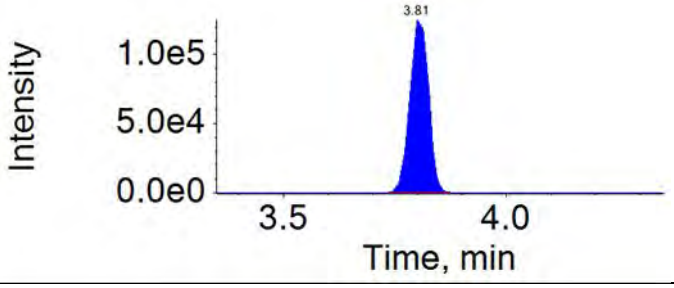
APPROVED
By JPT at 5:18 pm, 11/9/18

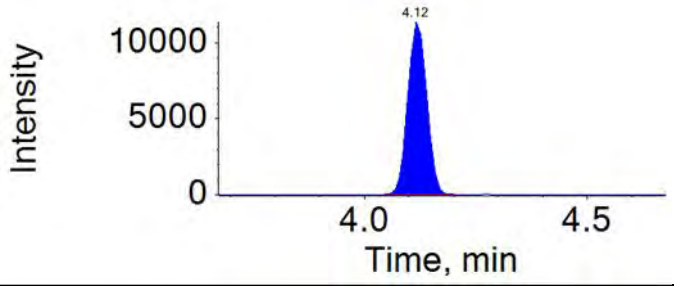
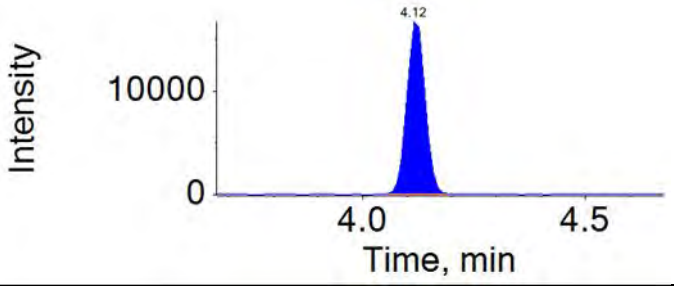
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

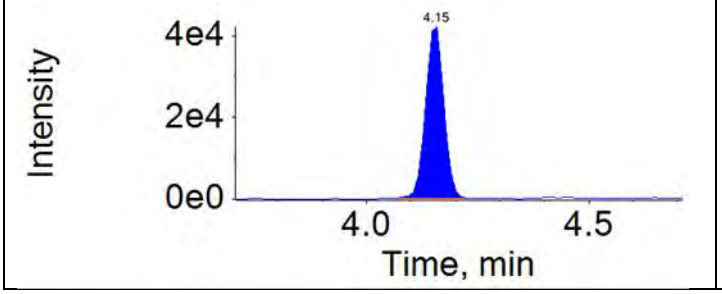
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

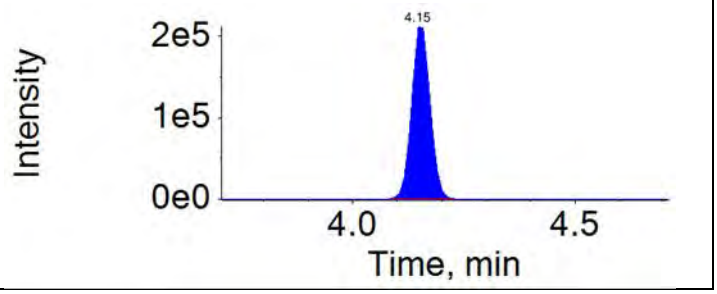
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

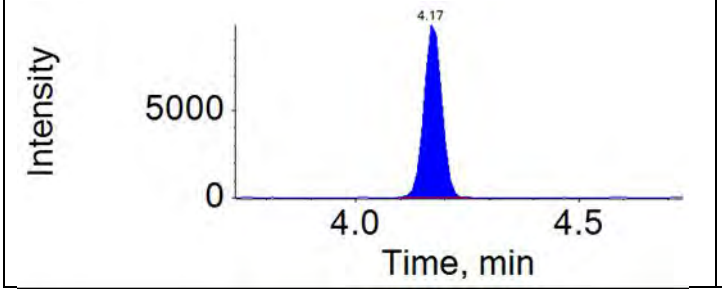
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

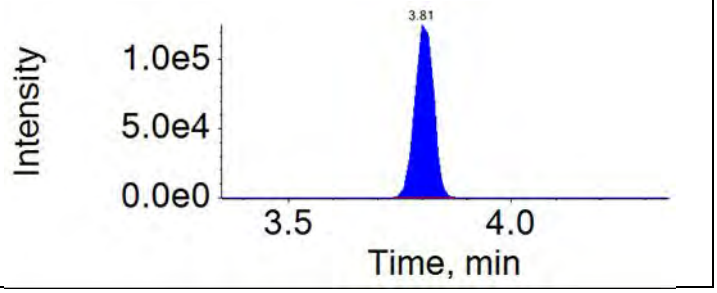
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



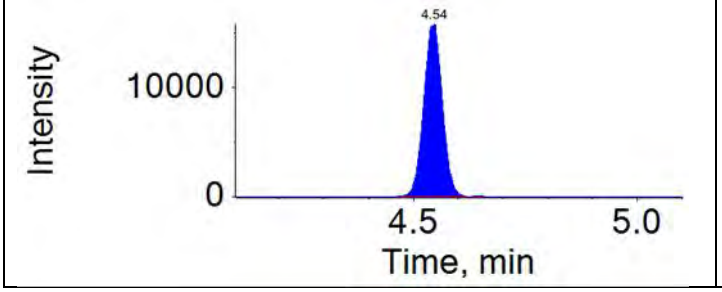


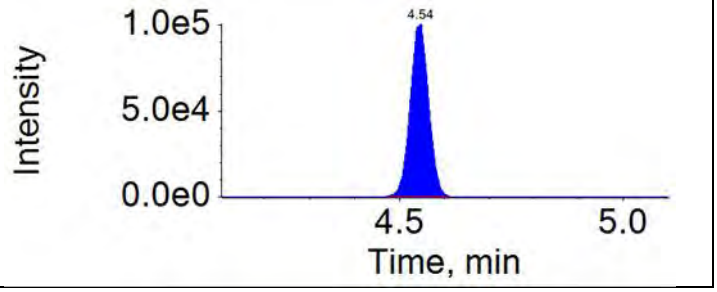
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



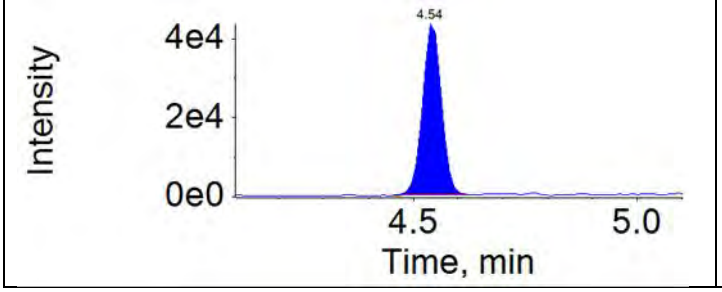


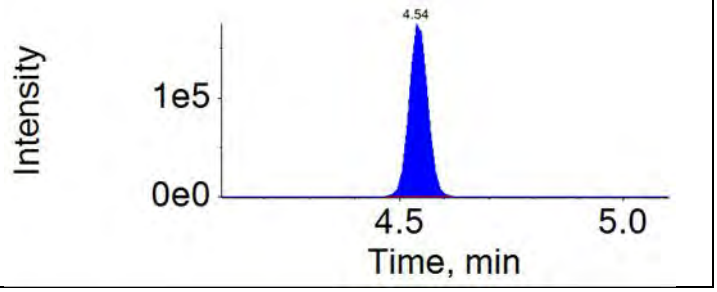
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0





Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0

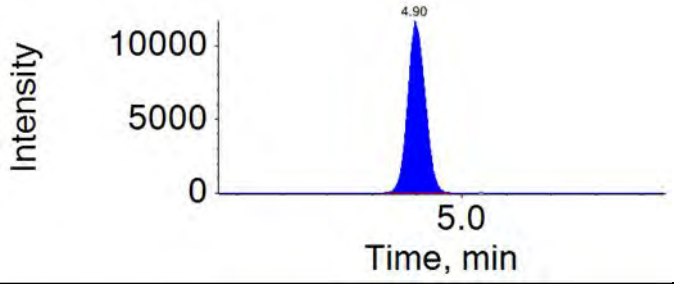
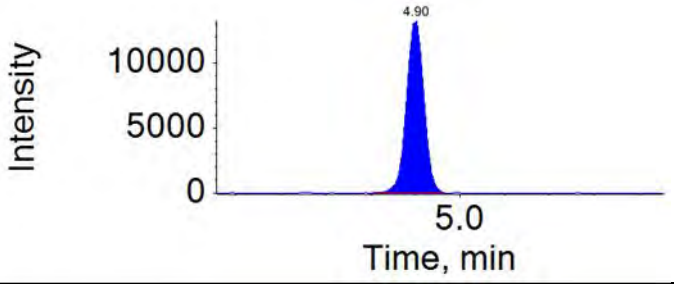


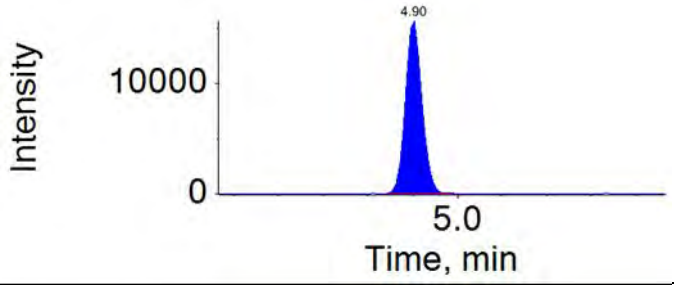
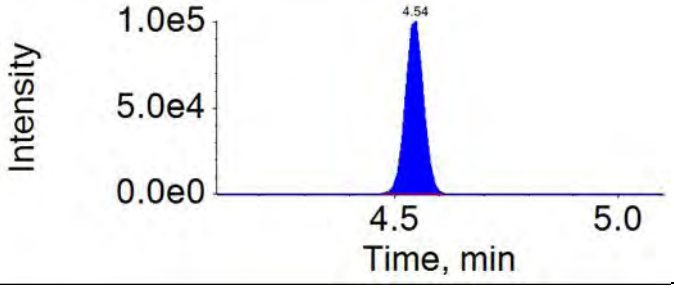


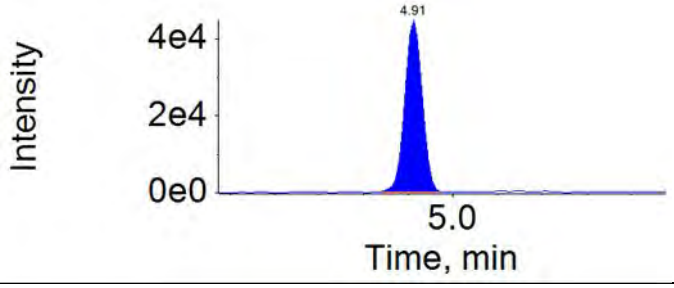
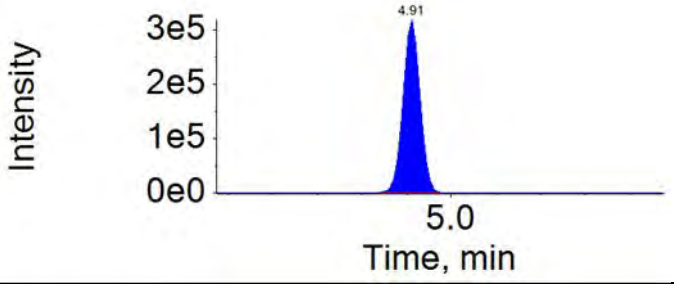
APPROVED
By JPT at 5:18 pm, 11/9/18

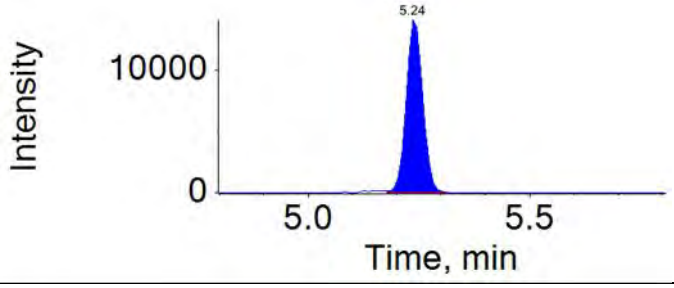
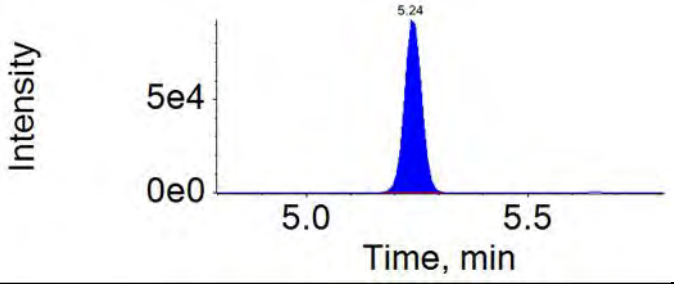
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

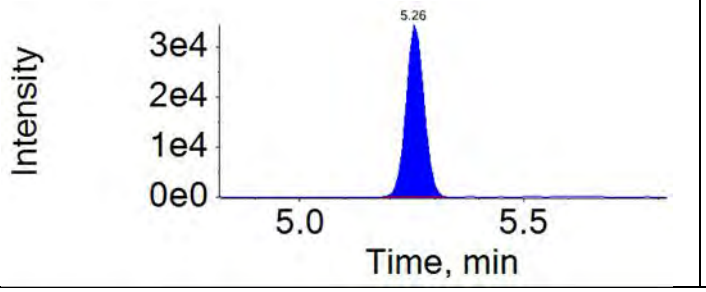
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

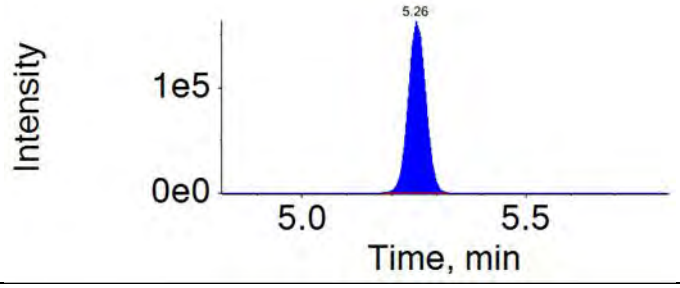
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

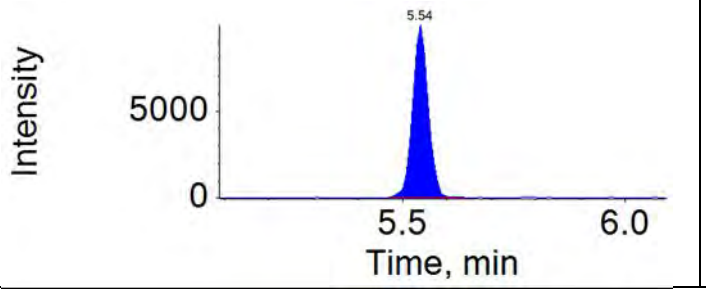
ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

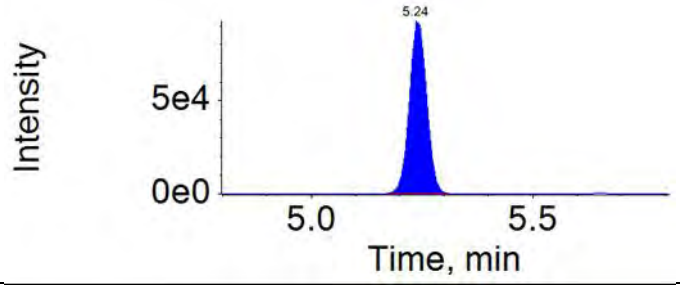
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



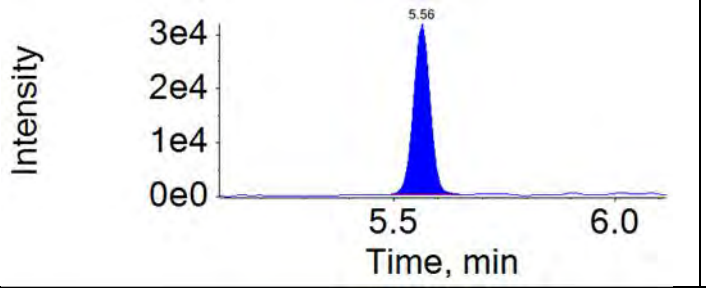


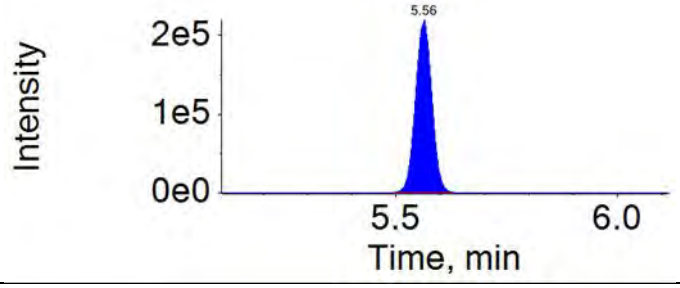
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



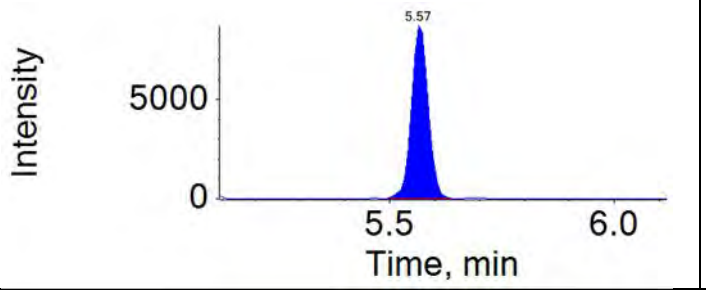


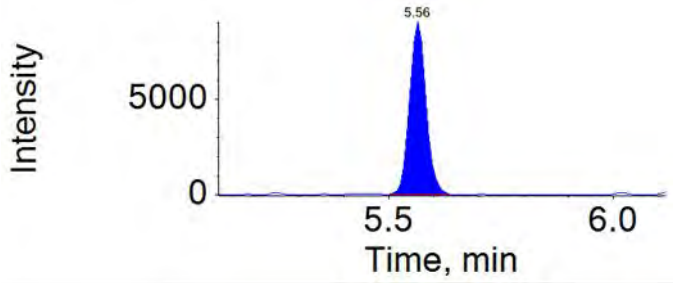
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

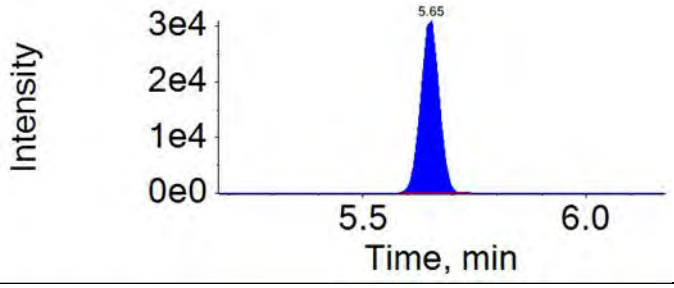
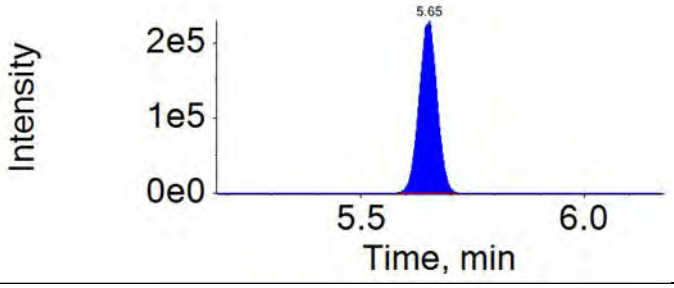


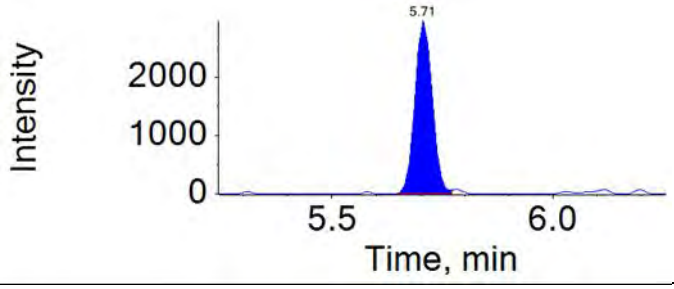
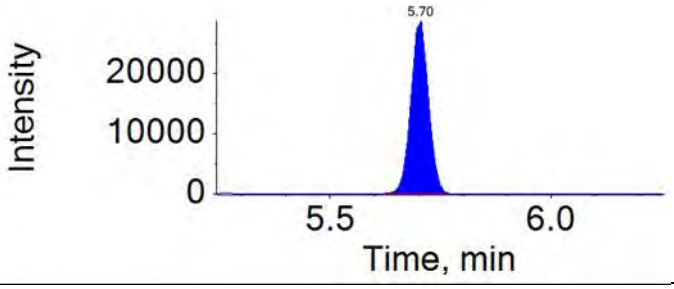


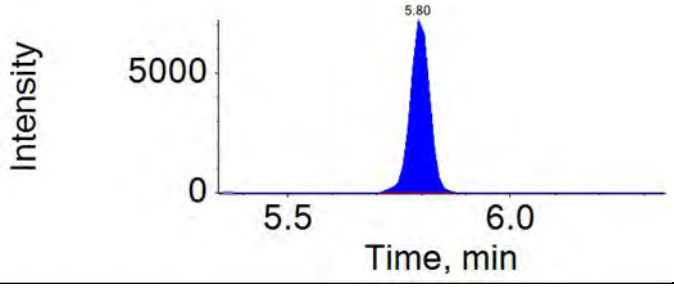
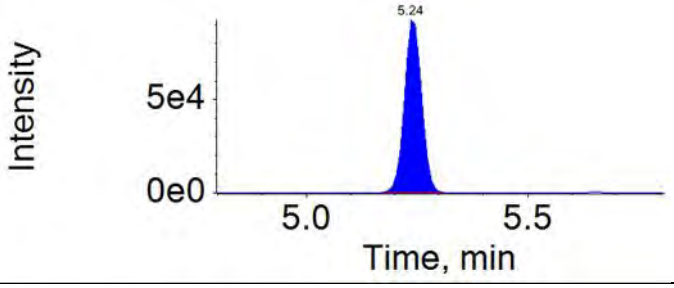
APPROVED
By JPT at 5:18 pm, 11/9/18

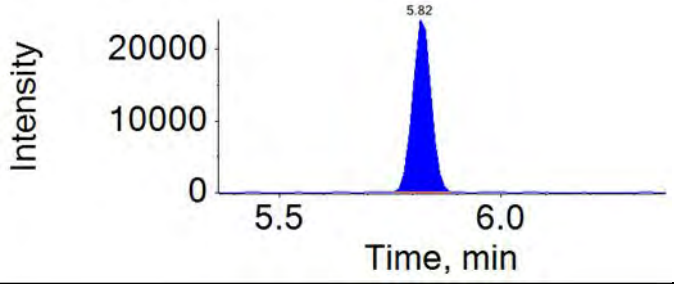
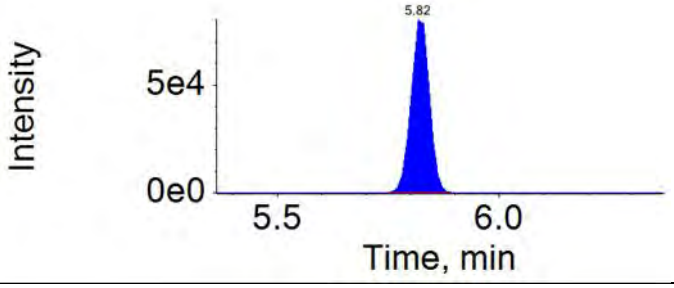
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

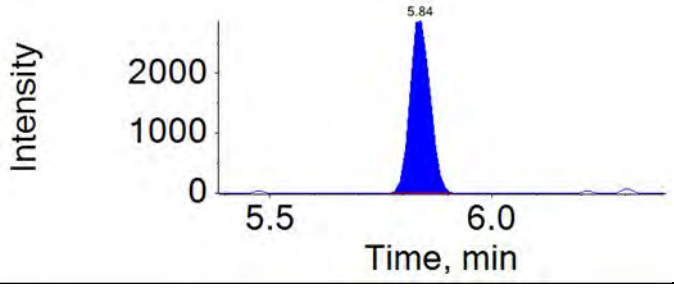
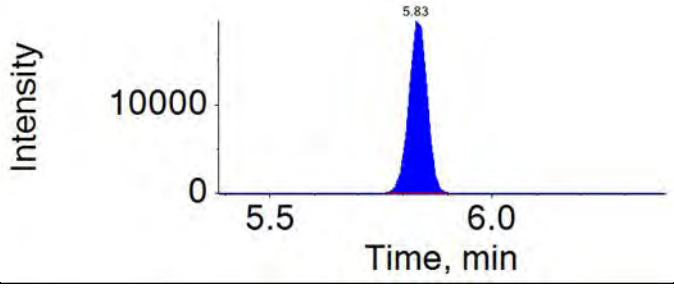
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

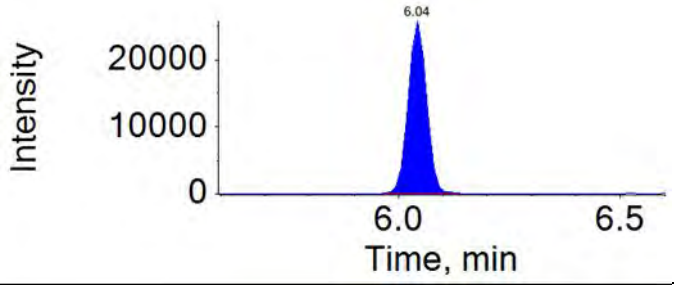
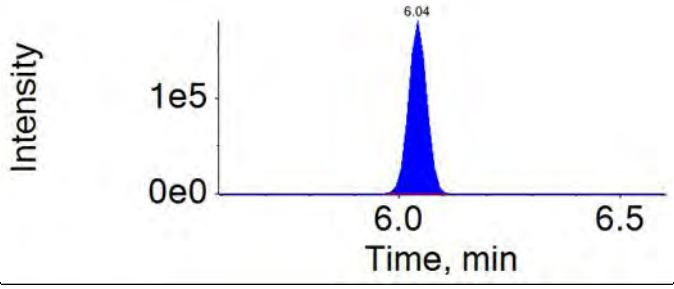
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

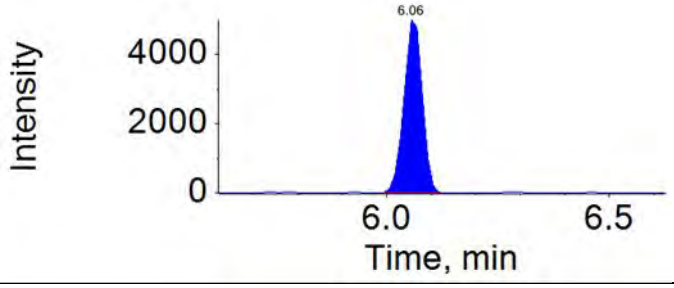
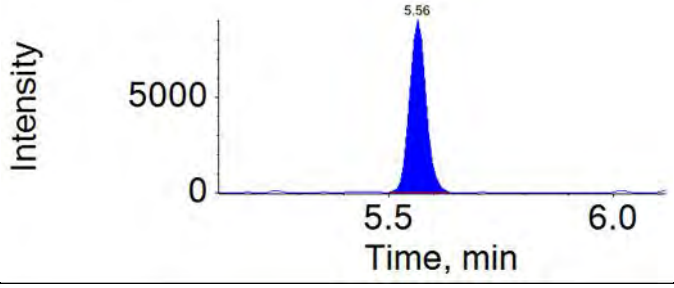
APPROVED
By JPT at 5:18 pm, 11/9/18

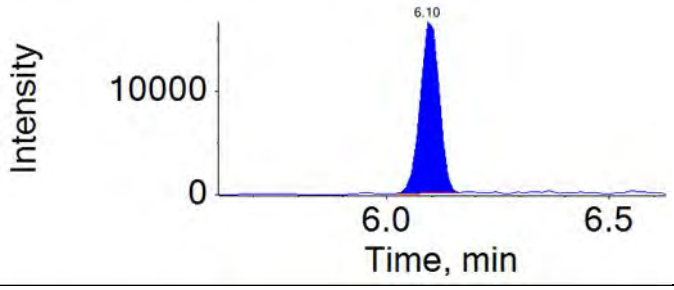
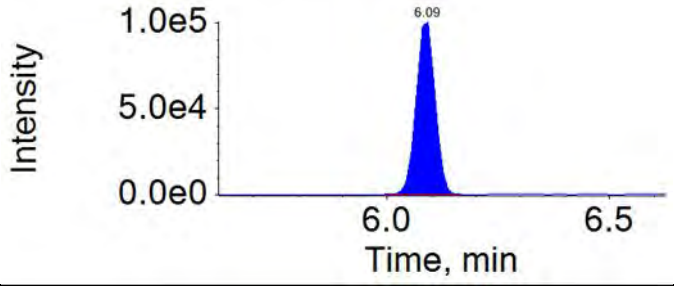
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

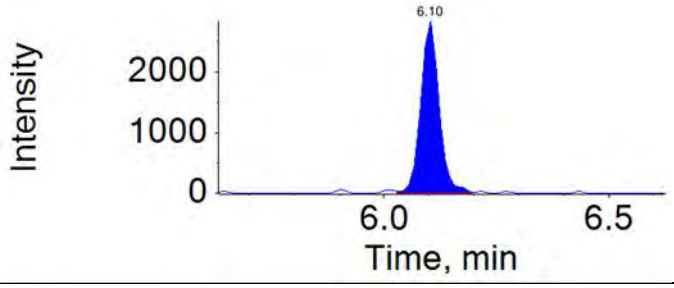
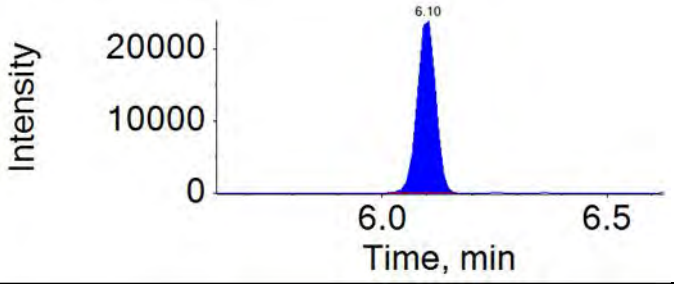
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

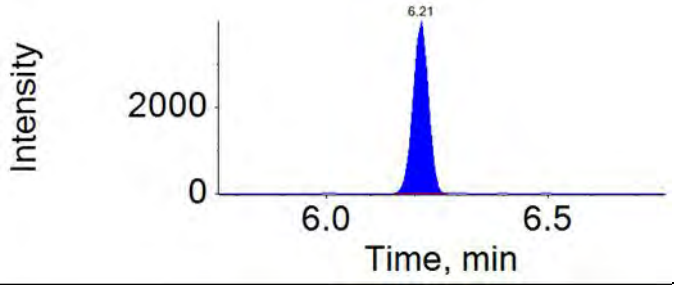
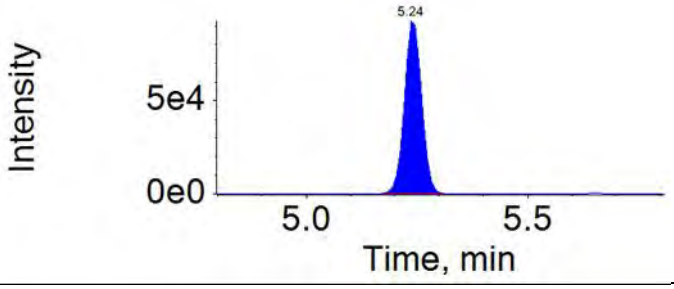
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

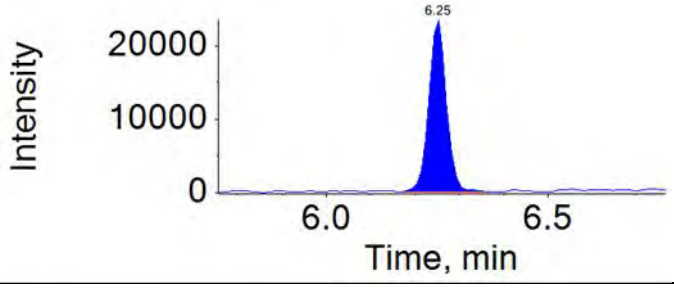
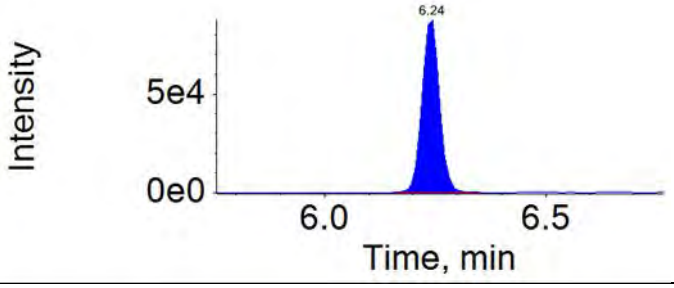
APPROVED
By JPT at 5:18 pm, 11/9/18

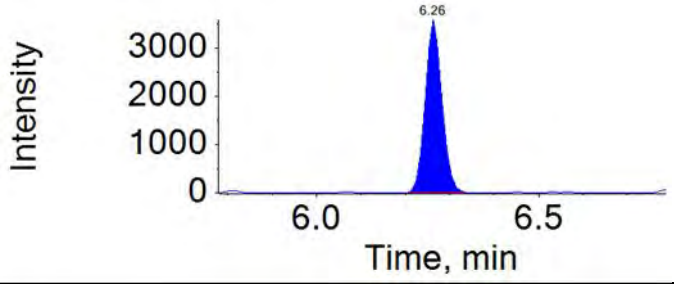
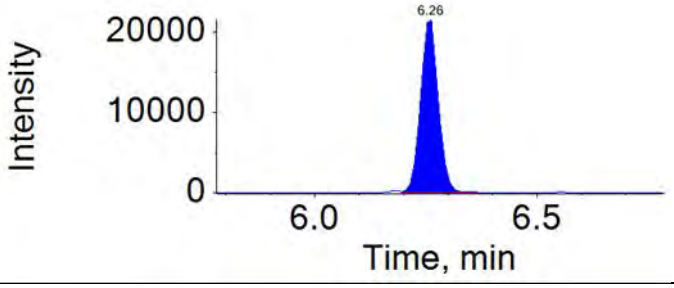
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0
	

Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0
	

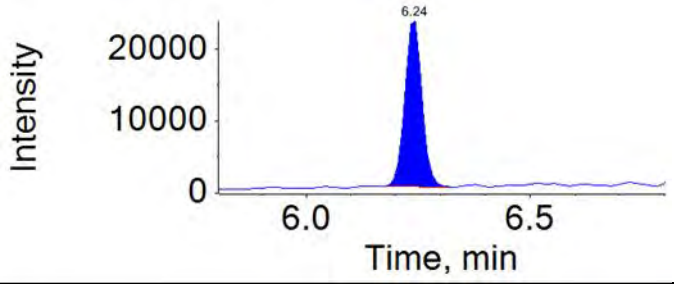
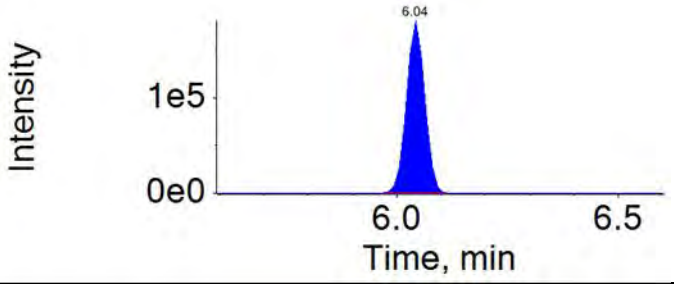
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0
	

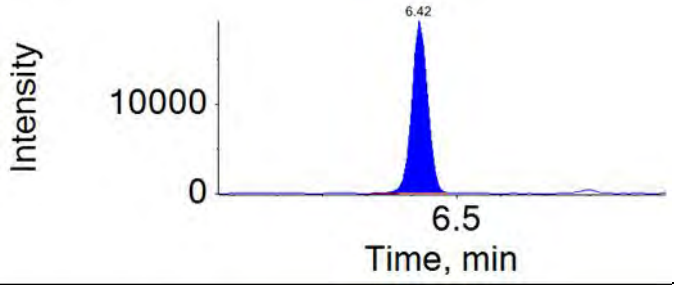
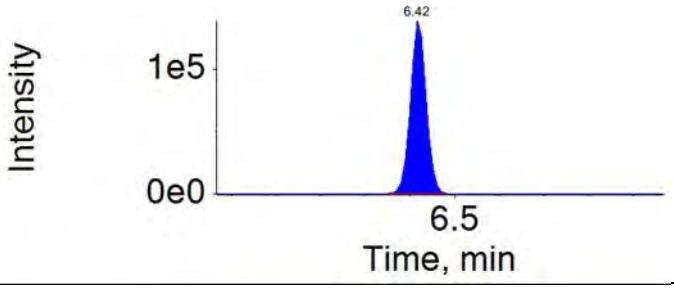
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0
	

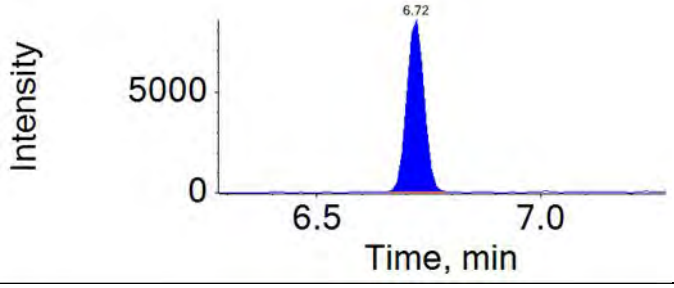
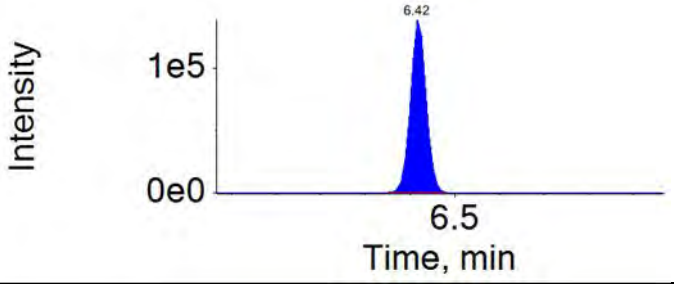
APPROVED
By JPT at 5:18 pm, 11/9/18

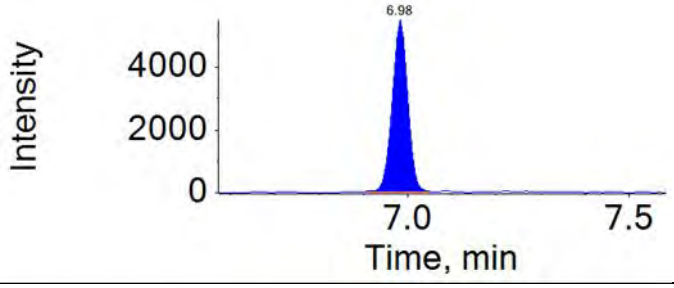
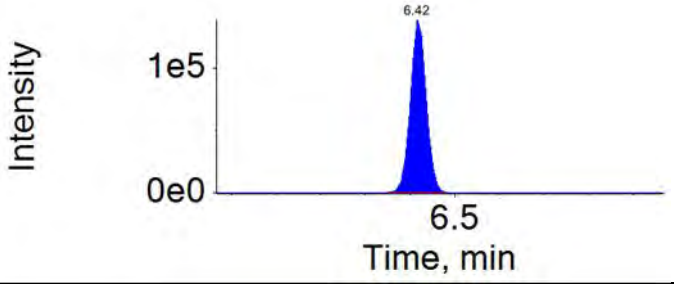
REVIEWED
By umar at 4:05 pm, 11/12/18

ICAL Name: 18NOV07DCAL **Result Table:** 18311004 11/9/2018 4:24:53 PM
QMethod Name: MQ4-18AUG13 **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

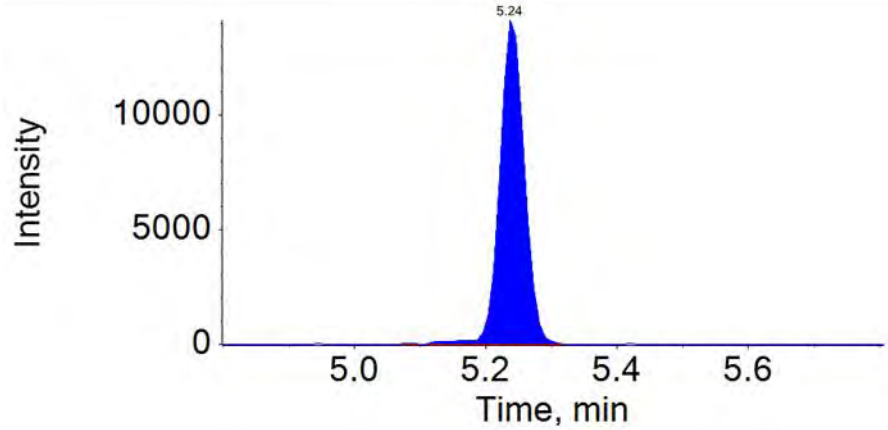
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

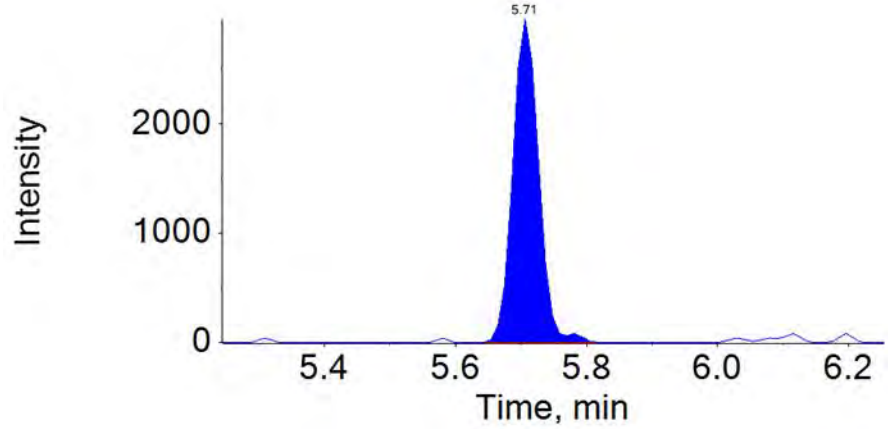
Results Table Name: 18311004
Results Table Date: 11/9/2018 4:24:53 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
37201.4
Mass Range:
499.0 / 80.0
File Name:
18NOV08D-89.wiff
Sample Name:
LCS311004



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
8148.5
Mass Range:
570.0 / 419.0
File Name:
18NOV08D-89.wiff
Sample Name:
LCS311004



Integration Comment: incorrect integration

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
8074.2
Mass Range:
512.0 / 169.0
File Name:
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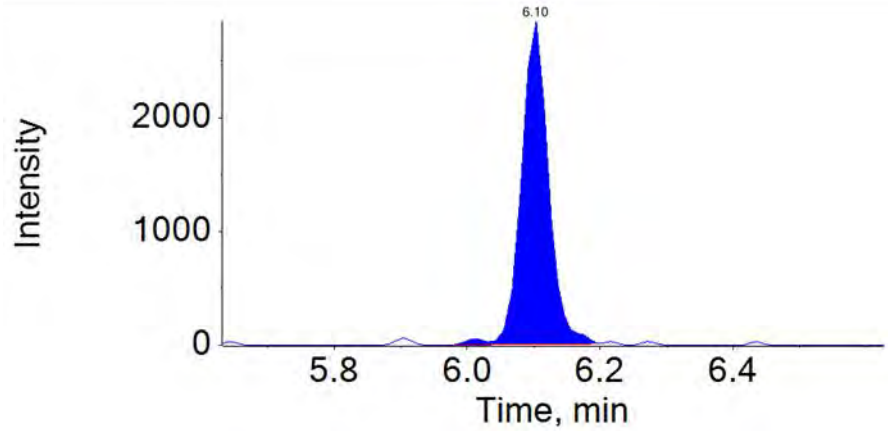
Sample Name:
LCS311004



Integration Comment: incorrect integration

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Results Table Name: 18311004
Results Table Date: 11/9/2018 4:24:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Ion Ratio Report

Sample Name: LCS311004 **Instrument Name:** LM27631 **File Name:** 18NOV08D-89.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	53410.9	A	N/A	1.0000			
PFBS_2	3.80	1.00	20485.4	A	N/A	0.3835	7	50	
4:2-FTS	4.12	1.00	33742.6	A	N/A	1.0000			
4:2-FTS_2	4.12	1.00	23759.2	A	N/A	0.7041	11	50	
PFHxA	4.15	1.00	120680.5	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1252.7	A	N/A	0.0104	-10	50	
PFPeS	4.17	1.10	27393.4	A	N/A	1.0000			
PFPeS_2	4.17	1.10	14860.9	A	N/A	0.5425	1	50	
PFHxS	4.54	1.00	46193.6	A	N/A	1.0000			
PFHxS_2	4.54	1.00	15449.0	A	N/A	0.3344	-6	50	
PFHpA	4.54	1.00	126951.4	A	N/A	1.0000			
PFHpA_2	4.54	1.00	6448.2	A	N/A	0.0508	-12	50	
6:2-FTS	4.90	1.00	31393.1	A	N/A	1.0000			
6:2-FTS_2	4.90	1.00	18704.9	A	N/A	0.5958	-12	50	
PFHpS	4.90	1.08	40276.5	A	N/A	1.0000			
PFHpS_2	4.90	1.08	16829.2	A	N/A	0.4178	6	50	
PFOA	4.91	1.00	120216.0	A	N/A	1.0000			
PFOA_2	4.91	1.00	5578.8	A	N/A	0.0464	-27	50	
PFOS	5.24	1.00	36585.5	M	N/A	1.0000			
PFOS_2	5.24	1.00	14567.7	A	N/A	0.3982	14	50	
PFNA	5.26	1.00	95446.4	A	N/A	1.0000			
PFNA_2	5.25	1.00	1916.1	A	N/A	0.0201	-3	50	
PFNS	5.54	1.06	24310.9	A	N/A	1.0000			
PFNS_2	5.54	1.06	12423.6	A	N/A	0.5110	5	50	
PFDA	5.56	1.00	82291.8	A	N/A	1.0000			
PFDA_2	5.56	1.00	465.0	A	N/A	0.0057	0	50	
8:2-FTS	5.57	1.00	22496.8	A	N/A	1.0000			
8:2-FTS_2	5.56	1.00	13628.5	A	N/A	0.6058	-2	50	
NMeFOSAA	5.71	1.00	8023.1	M	N/A	1.0000			
NMeFOSAA_2	5.70	1.00	2646.7	A	N/A	0.3299	50	50	
PFDS	5.80	1.11	21977.8	A	N/A	1.0000			
PFDS_2	5.79	1.11	8736.0	A	N/A	0.3975	-14	50	
PFUnDA	5.82	1.00	69235.5	A	N/A	1.0000			
PFUnDA_2	5.82	1.00	140.0	A	N/A	0.0020	-36	50	
NEtFOSAA	5.84	1.00	9098.1	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	5814.7	A	N/A	0.6391	5	50	
PFDoDA	6.04	1.00	74292.6	A	N/A	1.0000			
PFDoDA_2	6.04	1.00	1066.3	A	N/A	0.0144	31	50	
10:2-FTS	6.06	1.09	14347.7	A	N/A	1.0000			
10:2-FTS_2	6.06	1.09	10279.5	A	N/A	0.7165	1	50	
PFTrDA	6.24	1.03	61292.4	A	N/A	1.0000			
PFTrDA_2	6.26	1.04	170.2	A	N/A	0.0028	-71	50	OOS
PFTeDA	6.42	1.00	47159.9	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	236.5	A	N/A	0.0050	-9	50	
PFHxDA	6.72	1.05	22665.7	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1176.2	A	N/A	0.0519	-13	50	
PFODA	6.98	1.09	13228.2	A	N/A	1.0000			
PFODA_2	6.98	1.09	381.3	A	N/A	0.0288	12	50	

APPROVED
By JPT at 5:18 pm, 11/9/18

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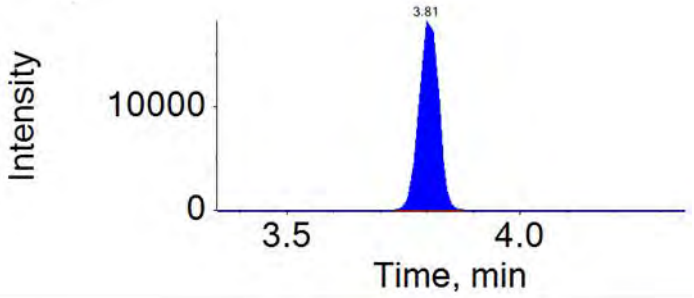
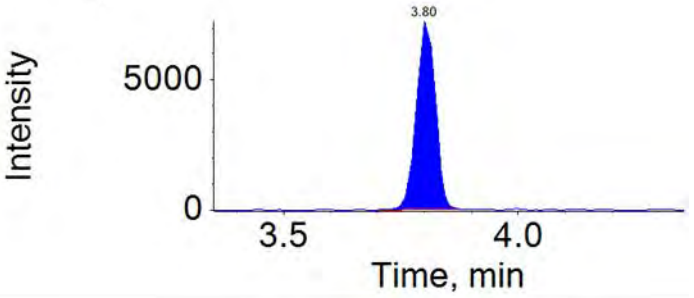
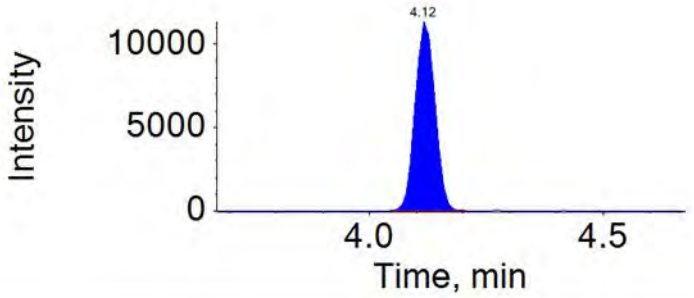
Component: PFBS
Primary Mass: 299.0 / 80.0



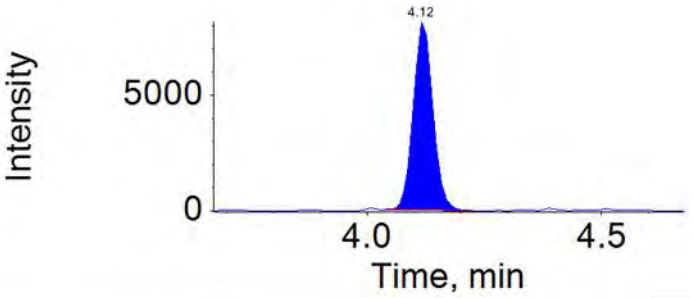
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



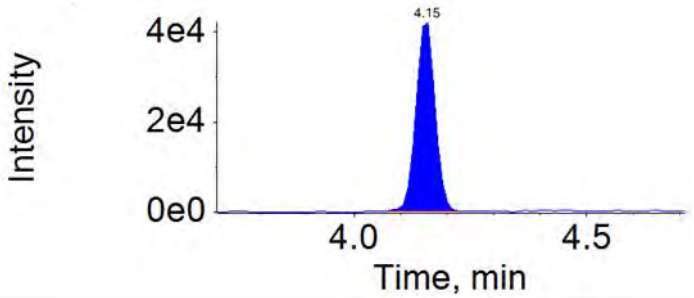
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



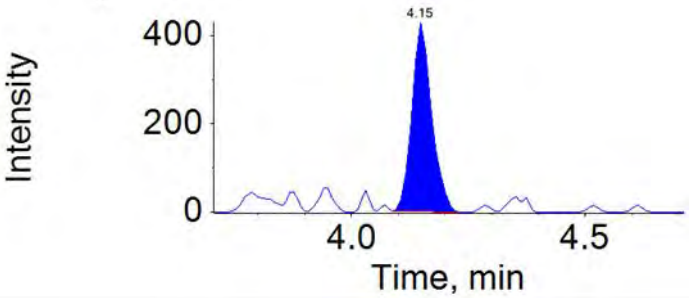
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



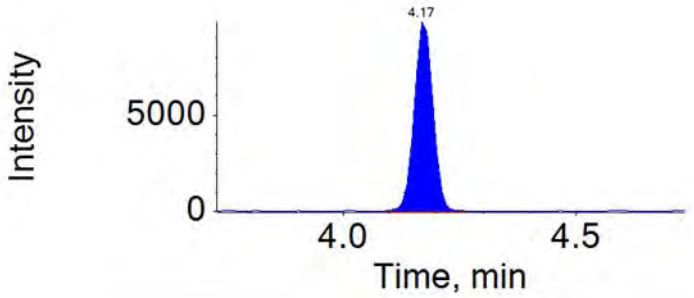
Component: PFHxA
Primary Mass: 313.0 / 269.0



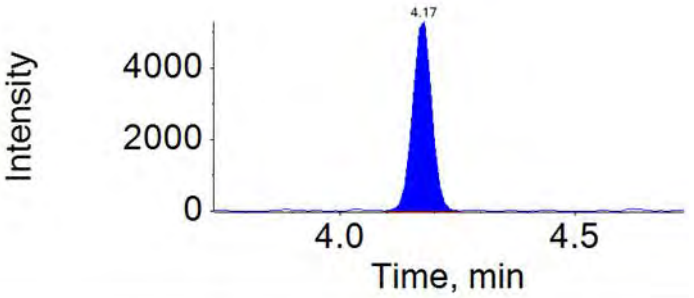
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



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By JPT at 5:18 pm, 11/9/18

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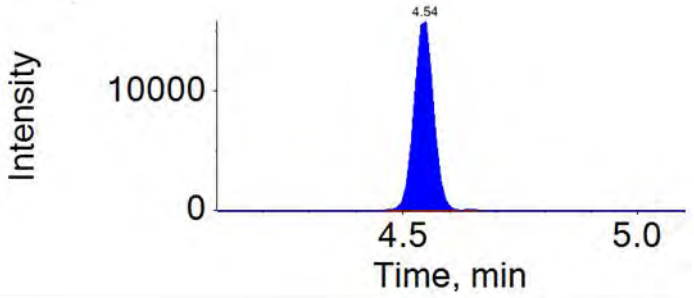
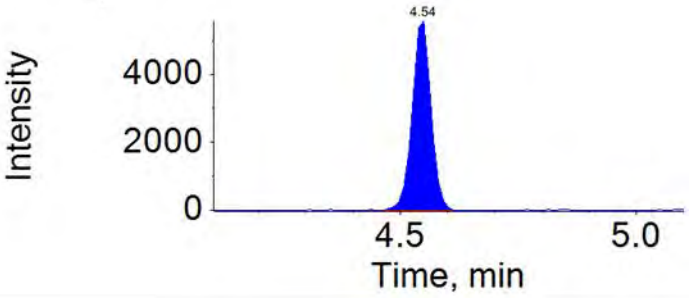
By umar at 4:05 pm, 11/12/18

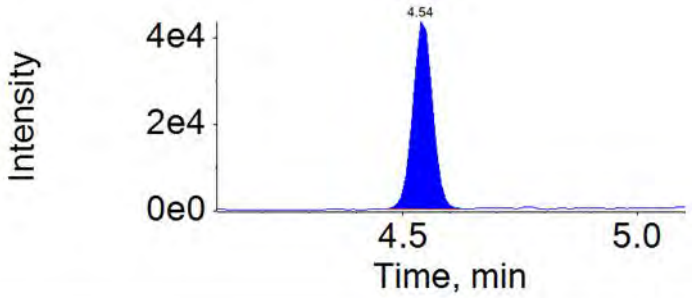
Component: PFHxS
Primary Mass: 399.0 / 80.0



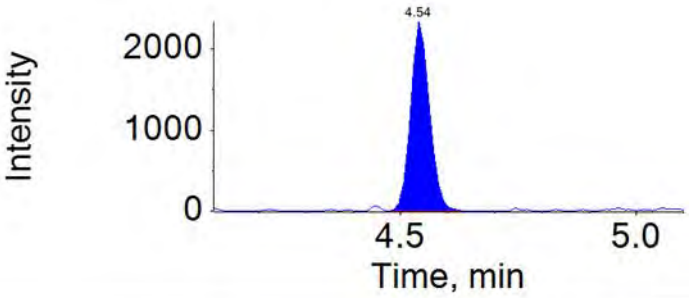
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



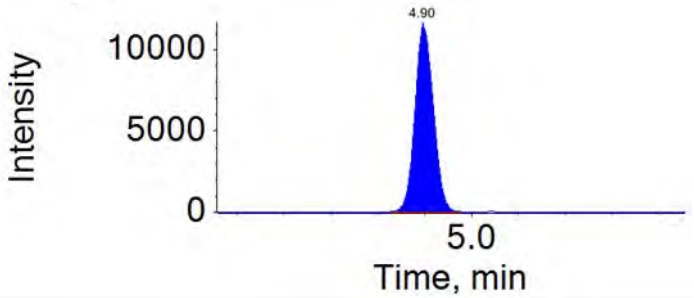
Component: PFHpA
Primary Mass: 363.0 / 319.0



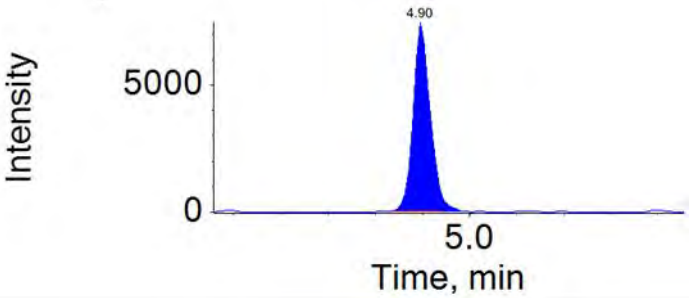
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



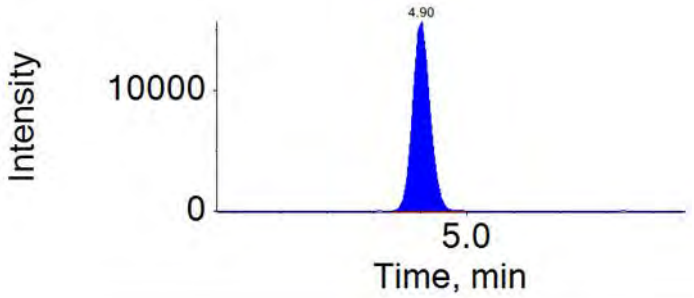
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



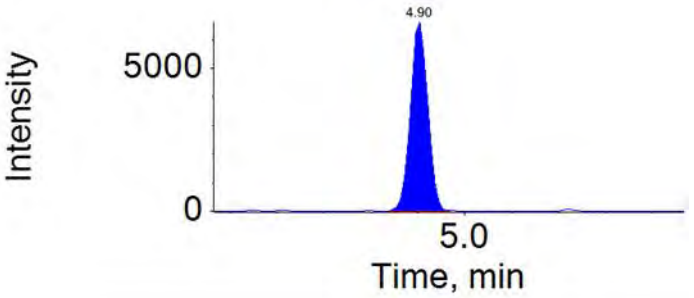
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



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By JPT at 5:18 pm, 11/9/18

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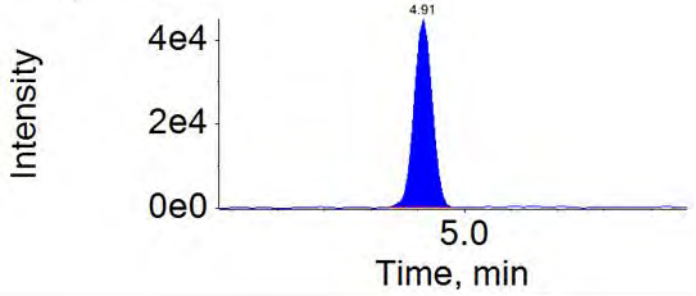
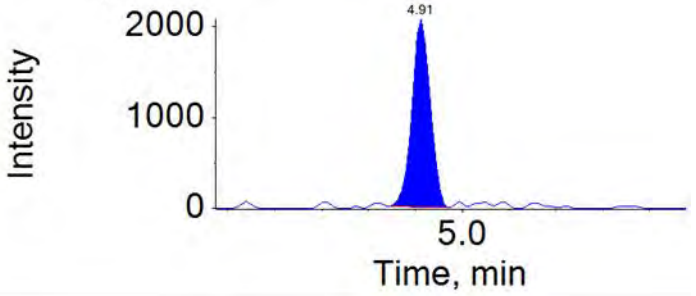
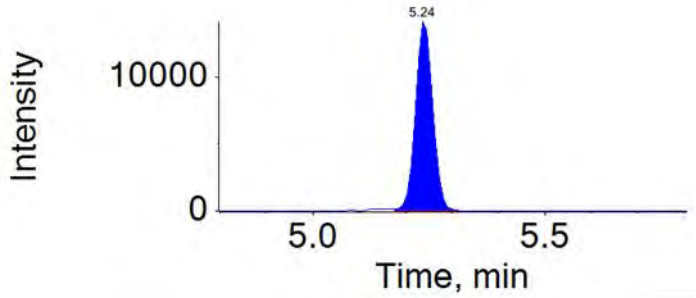
Component: PFOA
Primary Mass: 413.0 / 369.0



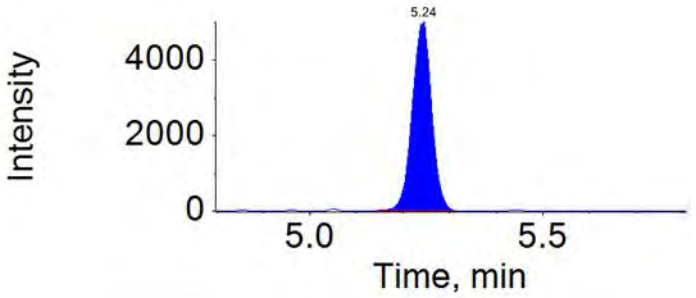
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



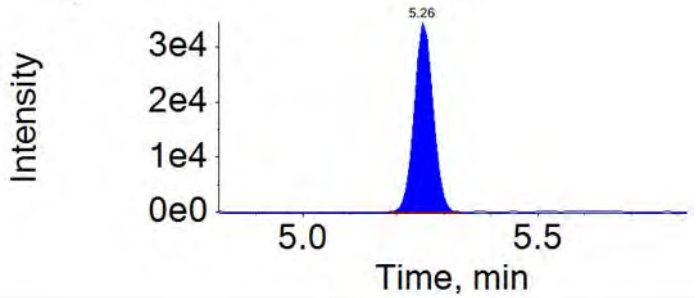
Component: PFOS
Primary Mass: 499.0 / 80.0



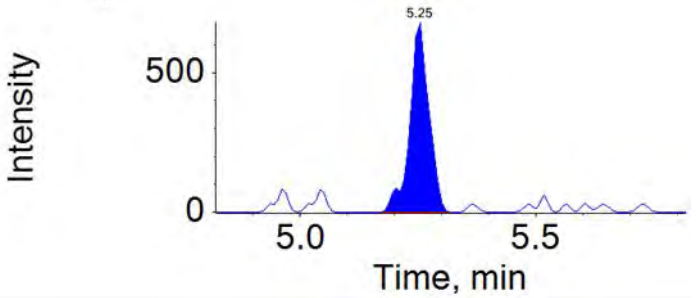
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



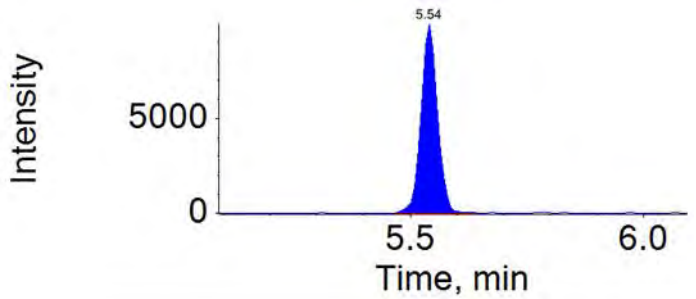
Component: PFNA
Primary Mass: 463.0 / 419.0



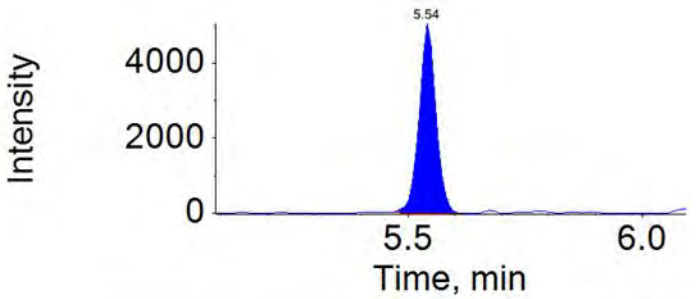
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



Component: PFNS_2
Secondary Mass: 549.0 / 99.0



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By JPT at 5:18 pm, 11/9/18

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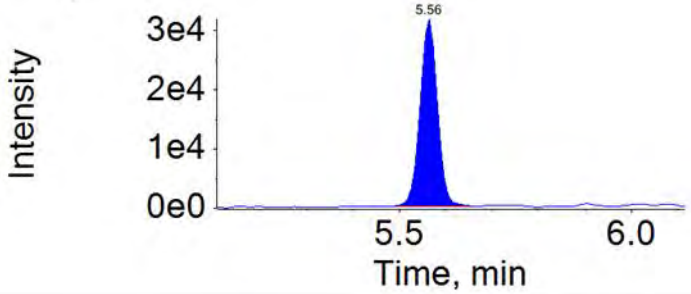
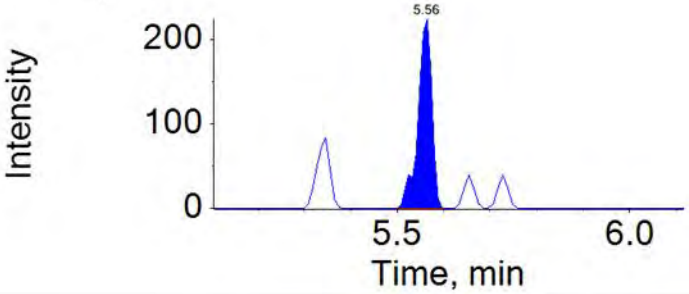
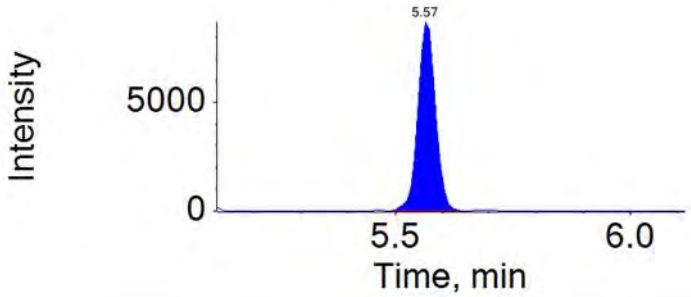
Component: PFDA
Primary Mass: 513.0 / 469.0



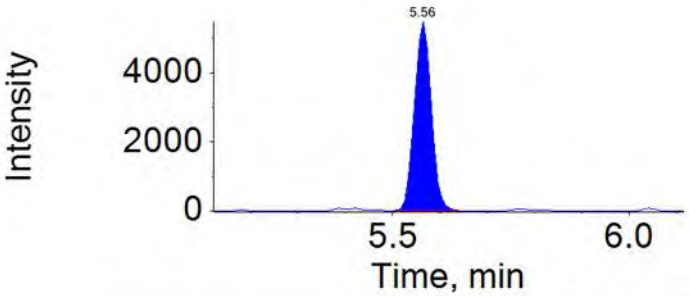
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



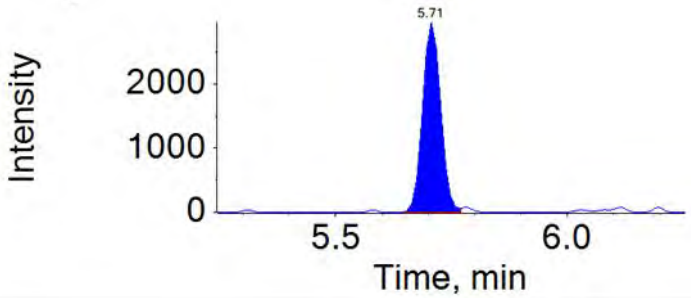
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



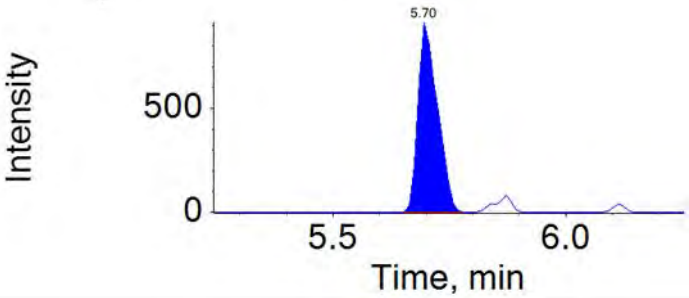
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



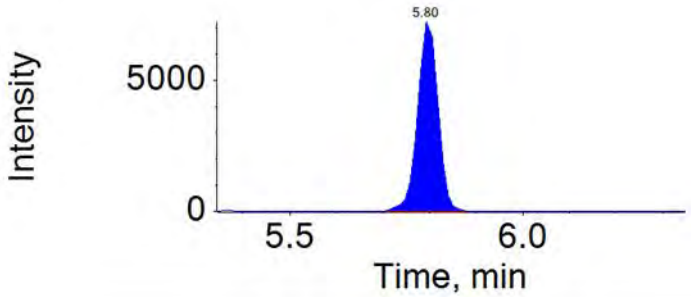
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



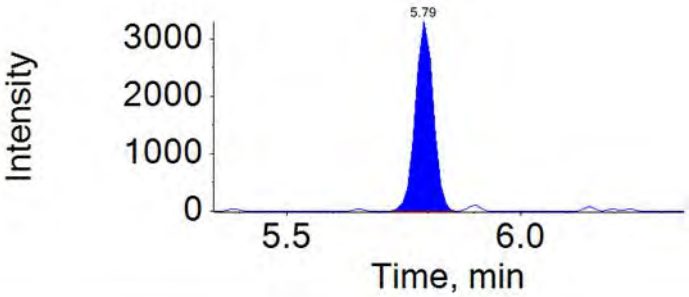
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



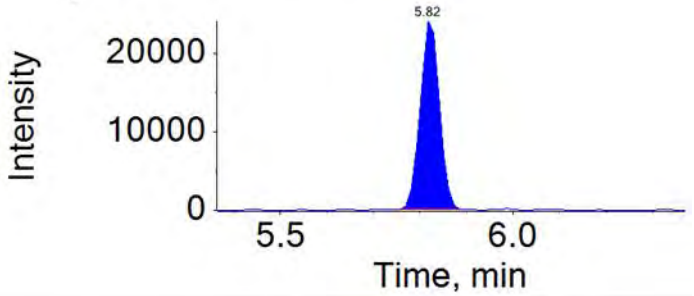
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



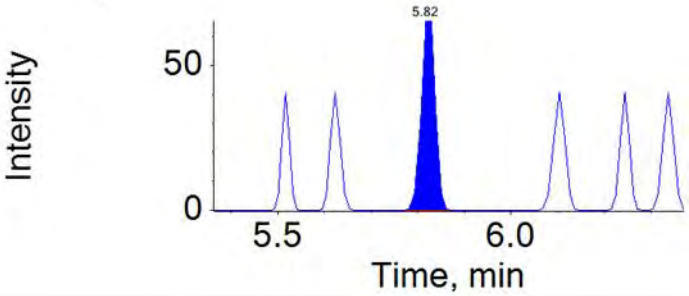
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

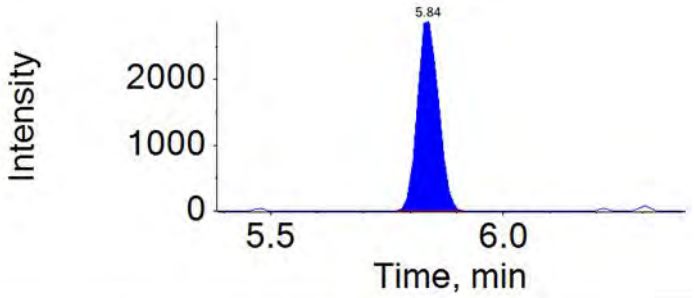
Component: PFUnDA
Primary Mass: 563.0 / 519.0



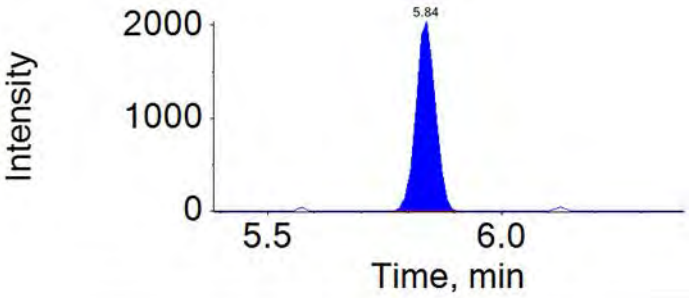
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



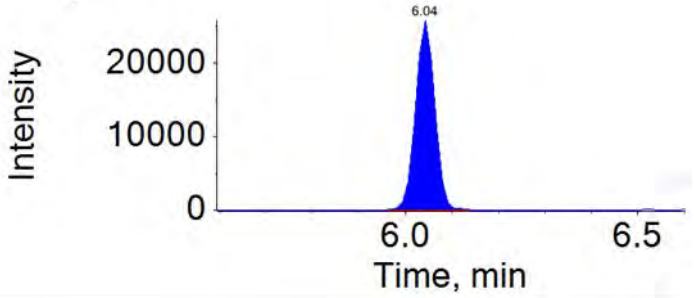
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



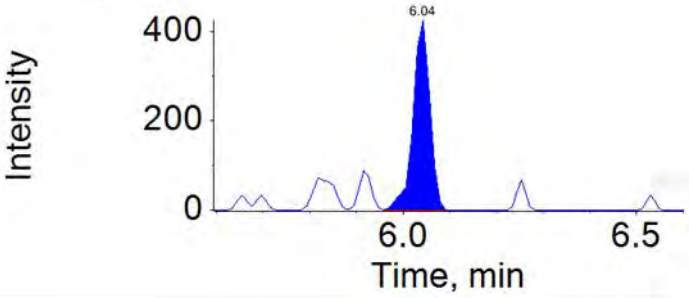
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



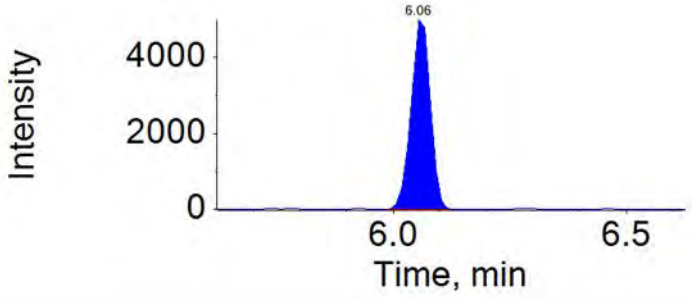
Component: PFDoDA
Primary Mass: 613.0 / 569.0



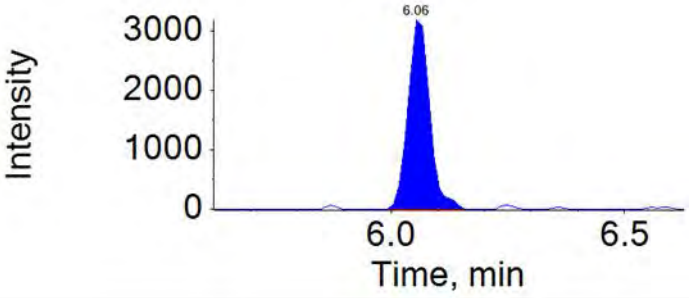
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



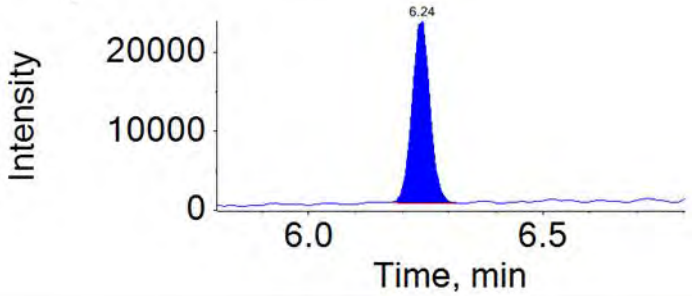
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



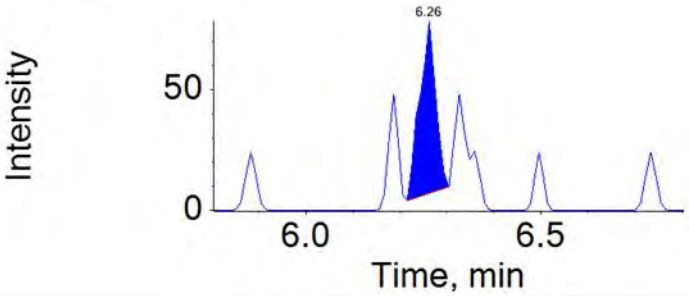
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

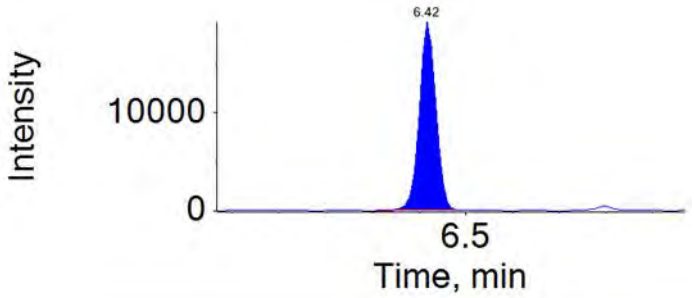
Component: PFTrDA
Primary Mass: 663.0 / 619.0



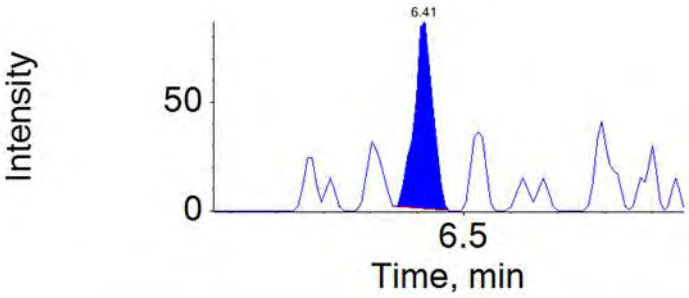
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



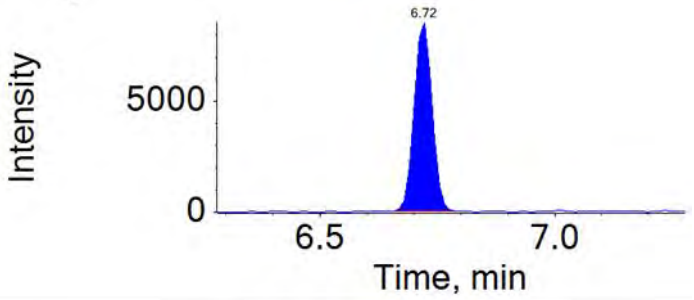
Component: PFTeDA
Primary Mass: 713.0 / 669.0



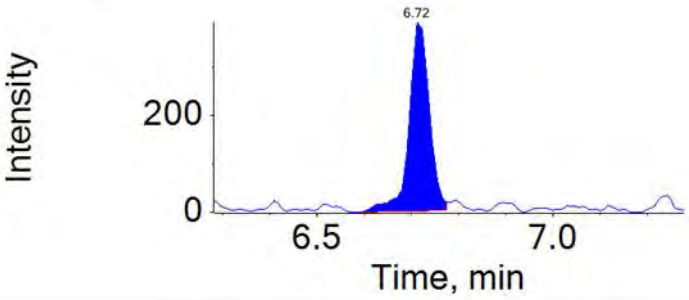
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



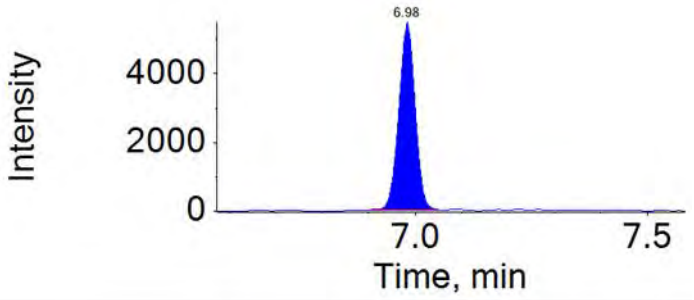
Component: PFHxDA
Primary Mass: 813.0 / 769.0



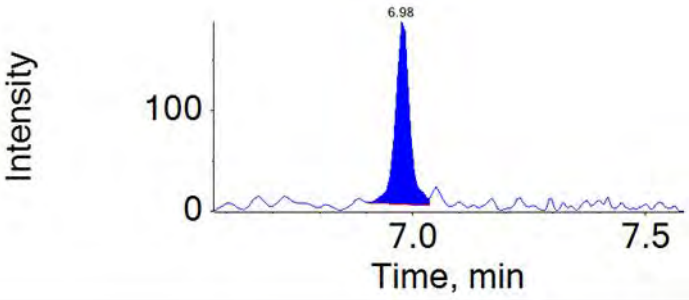
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



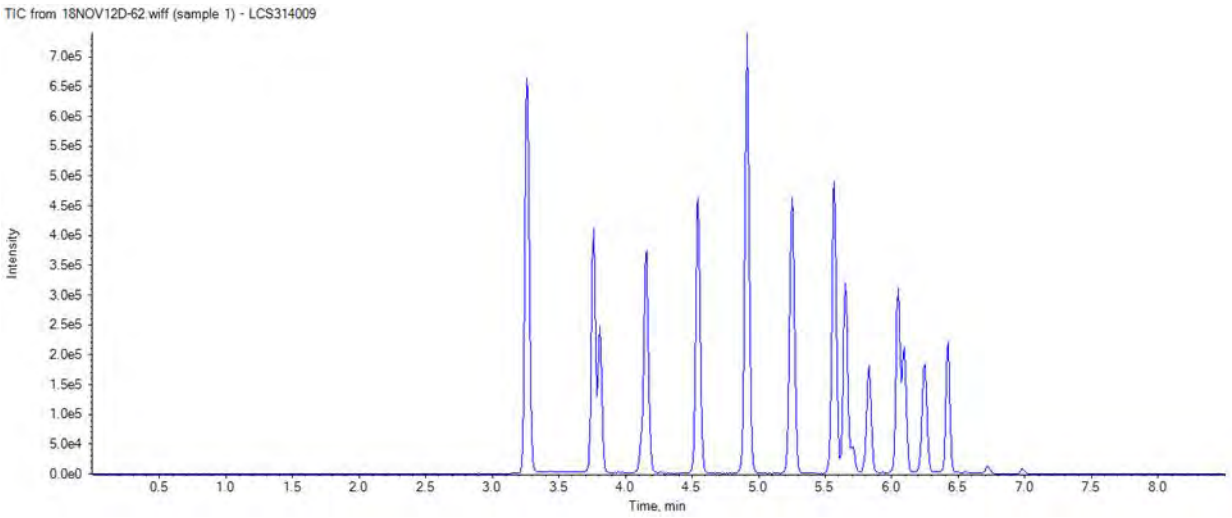
APPROVED
By JPT at 5:18 pm, 11/9/18

REVIEWED
By umar at 4:05 pm, 11/12/18

Lab Control Sample Recovery

ICAL Name: 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

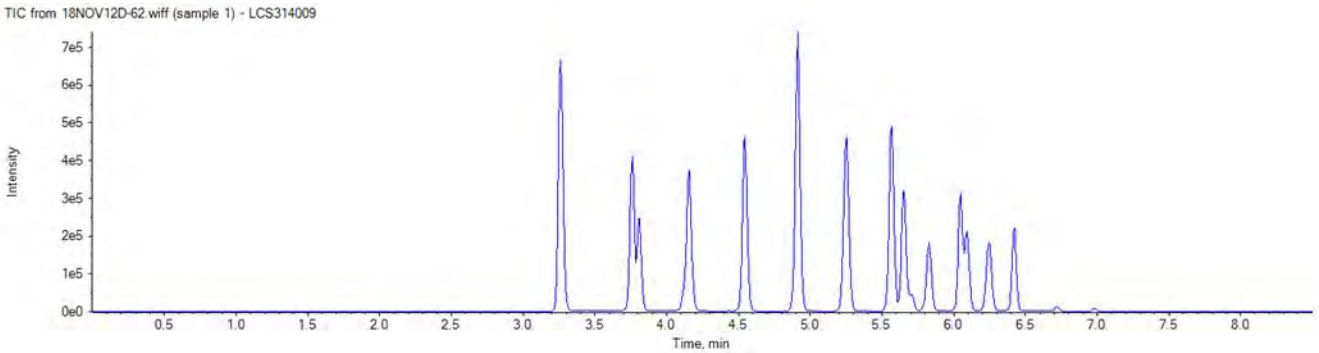
Analyte Quantitation Peak Table

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

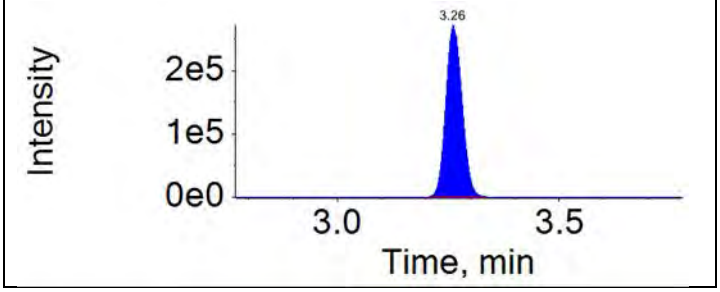


APPROVED
By JPT at 4:11 pm, 11/13/18

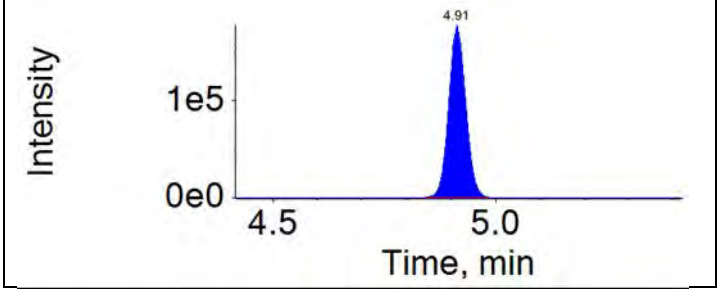
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

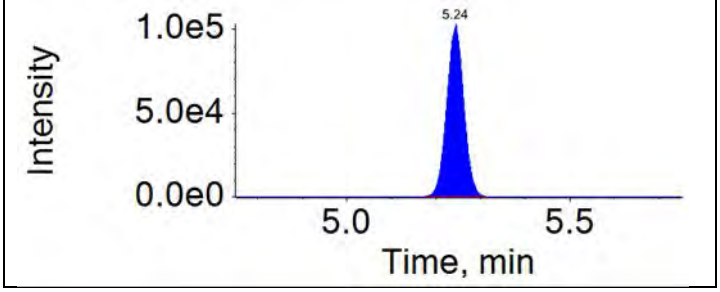
Injection Standard: 13C3-PFBA
216.0 / 172.0



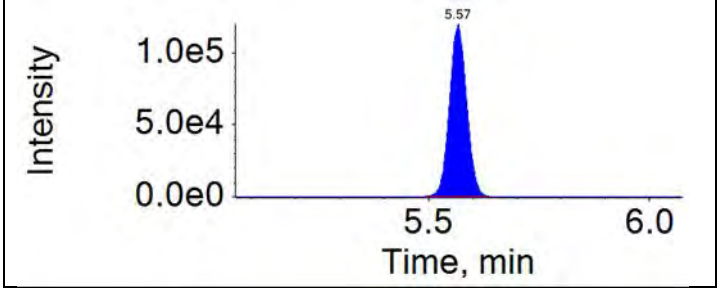
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

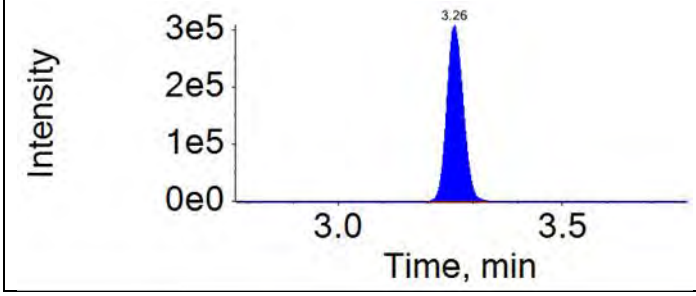


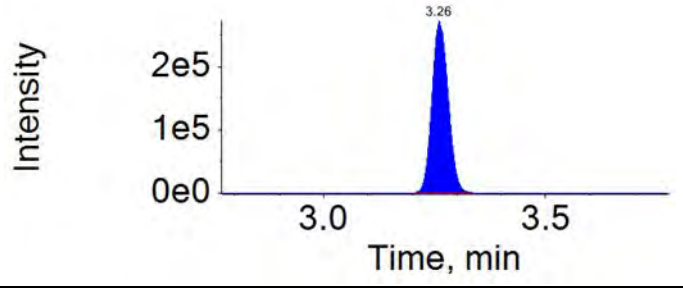
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

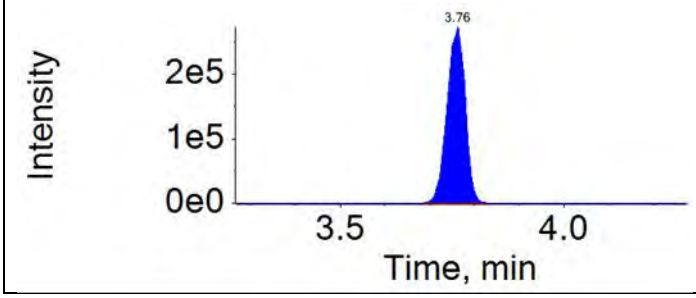
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

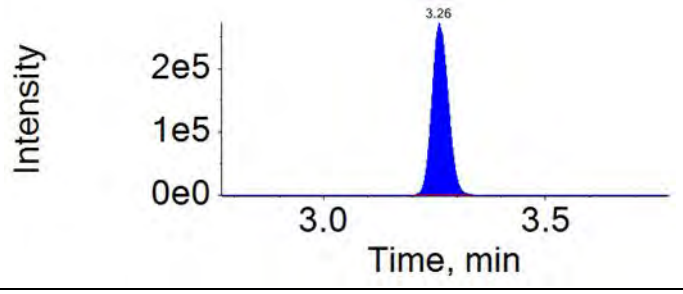
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



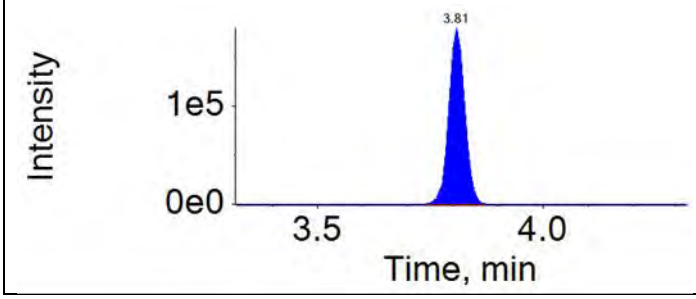


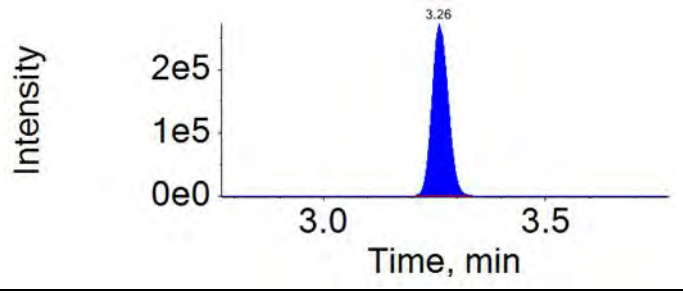
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



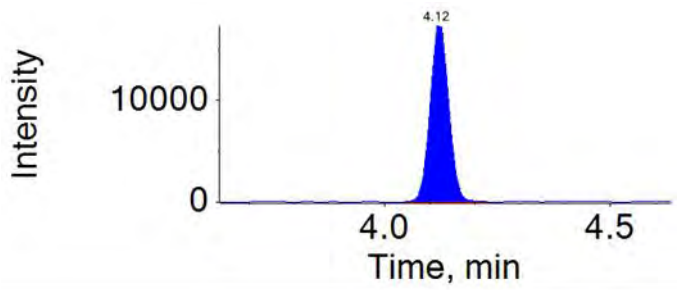


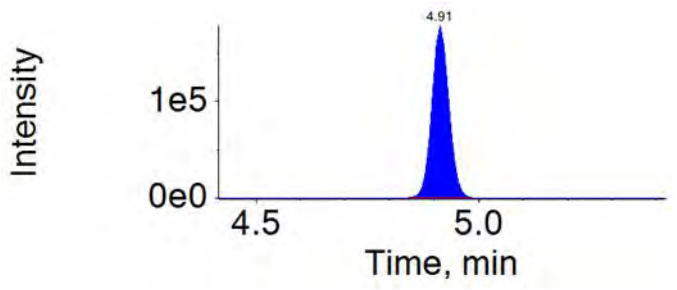
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0



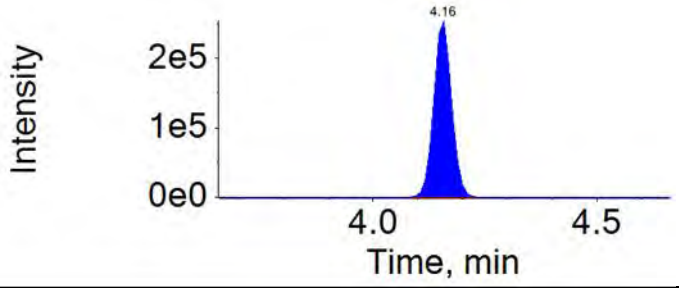
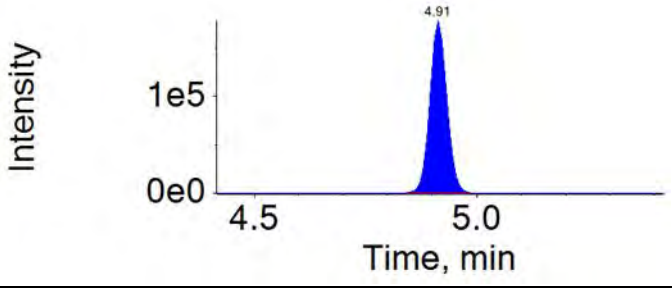


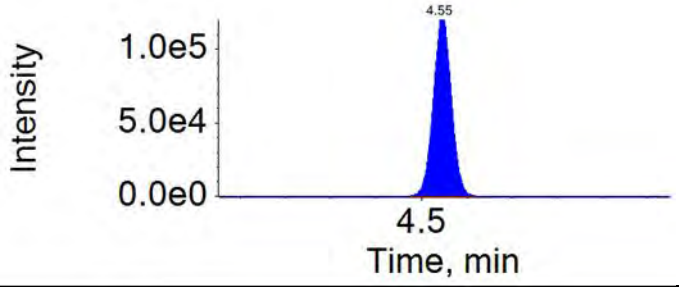
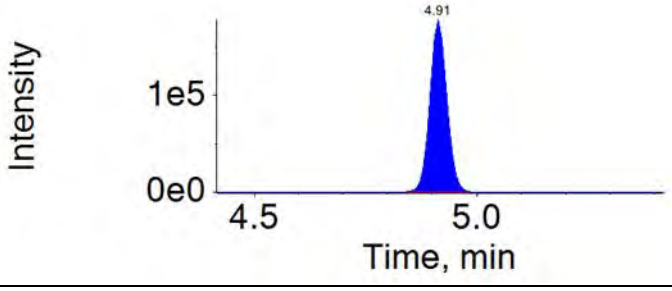
Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

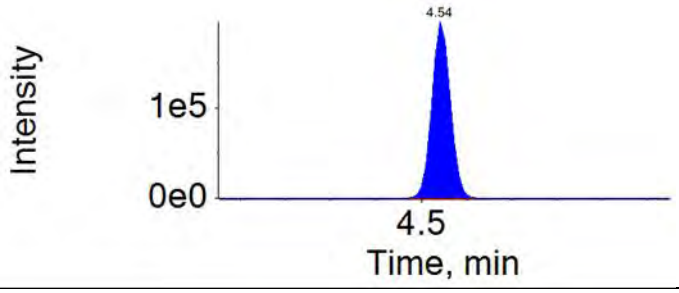
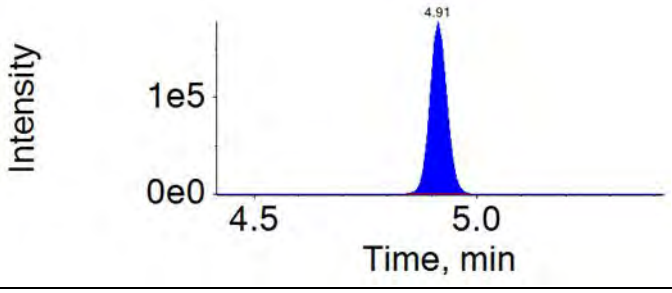


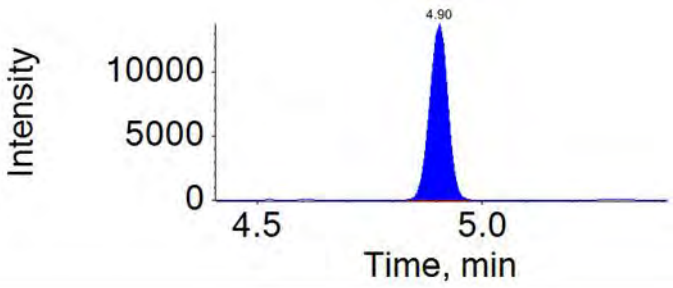
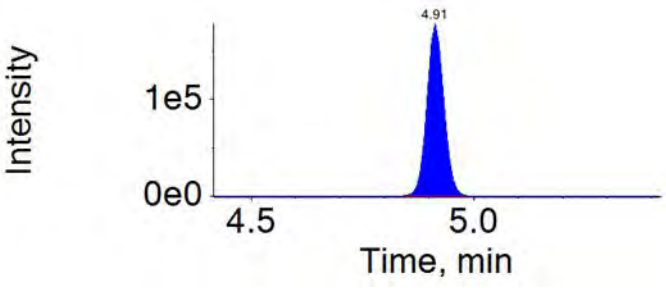


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

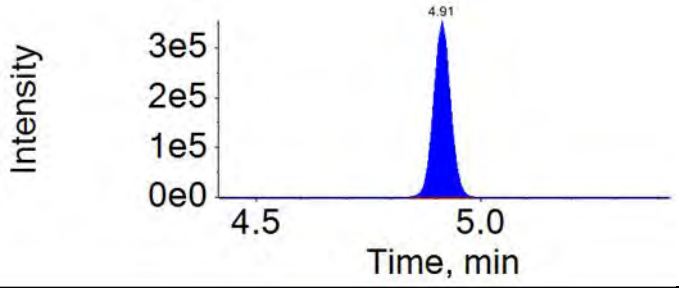
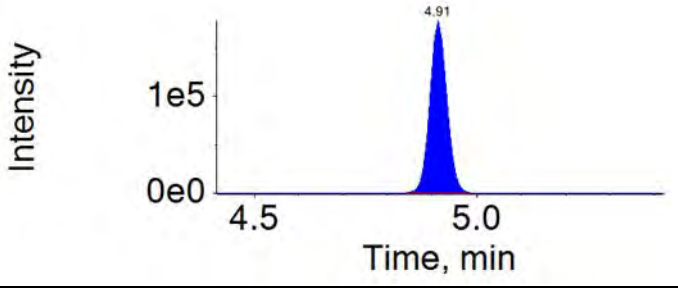
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

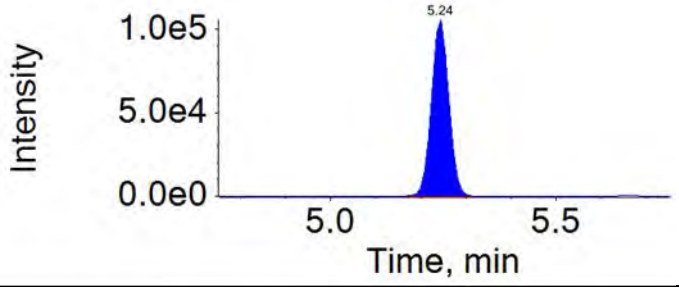
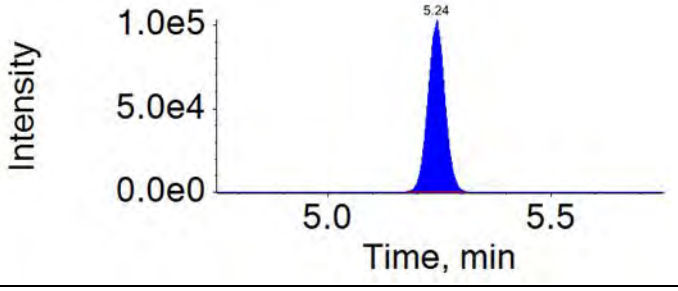
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

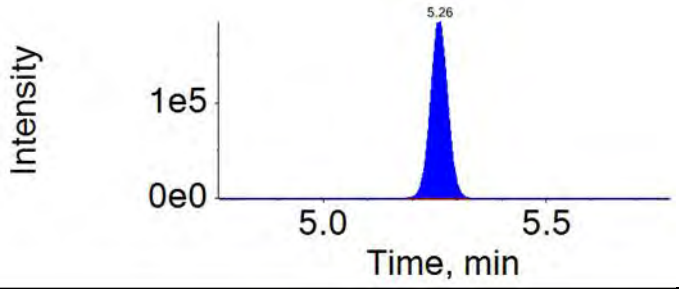
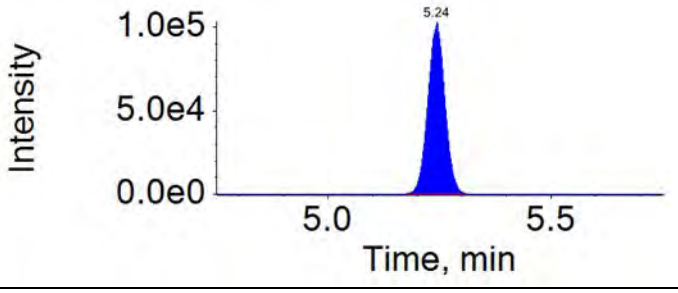
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

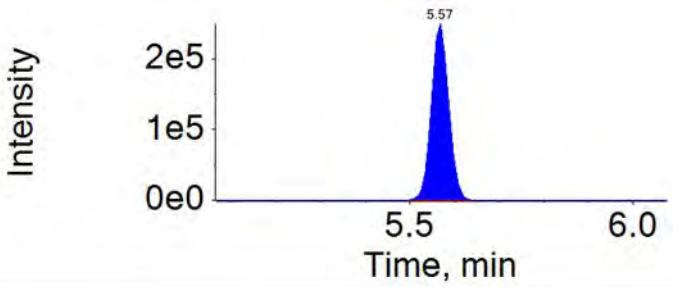
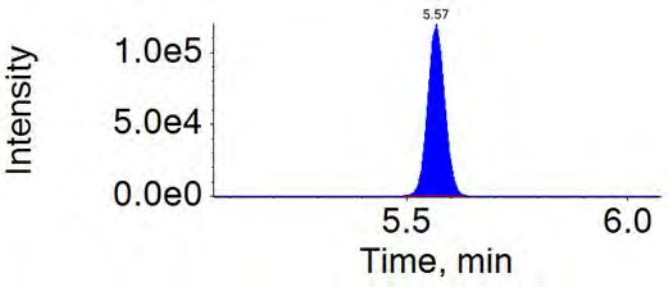
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

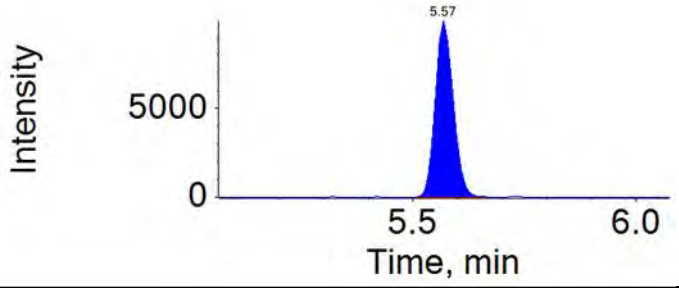
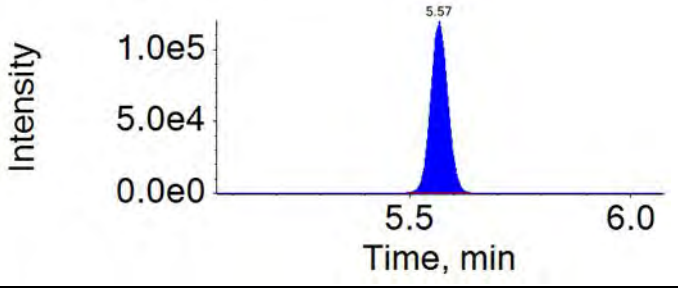
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

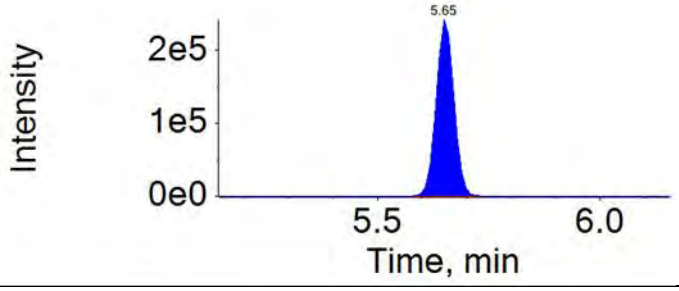
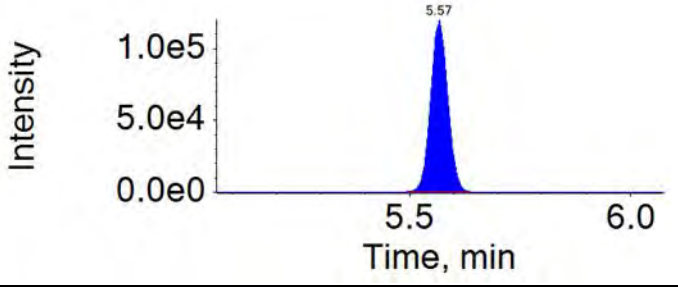
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

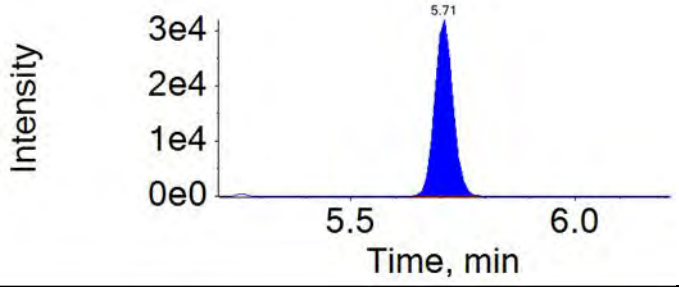
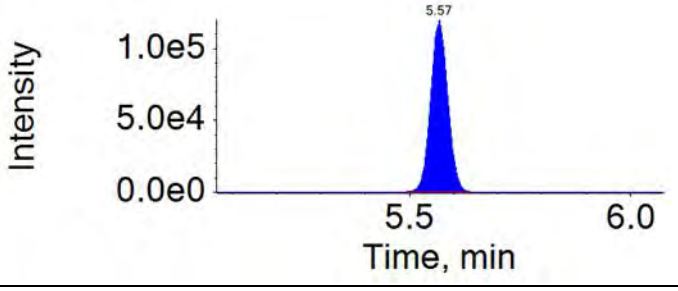
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

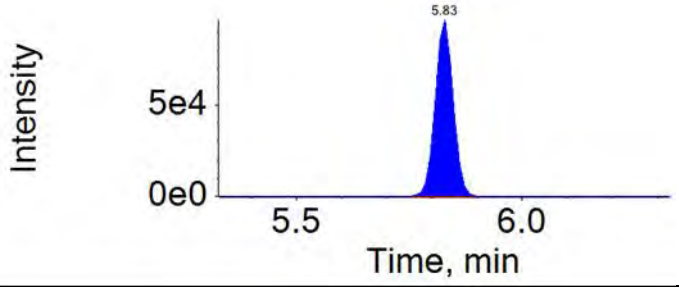
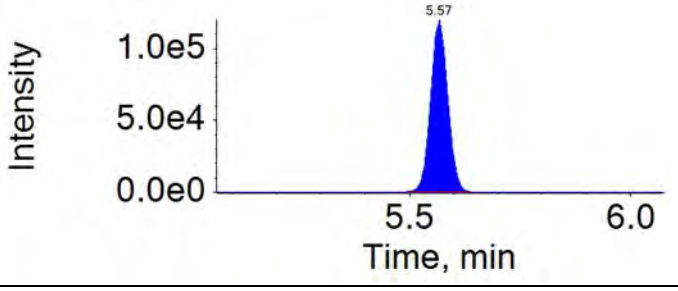
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

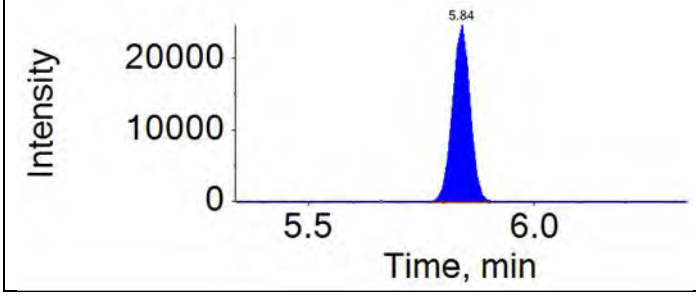
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

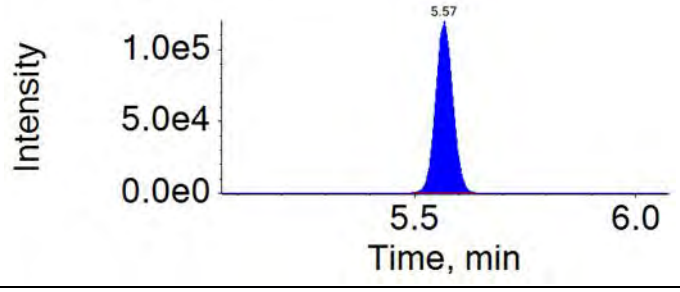
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

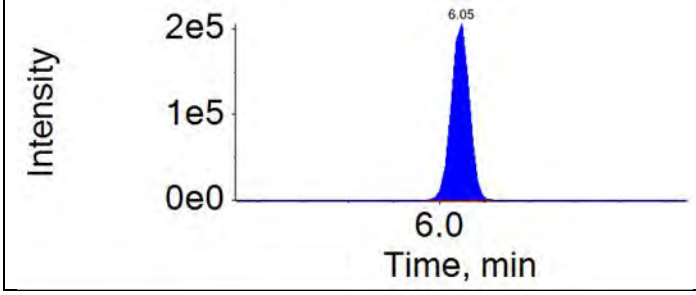
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

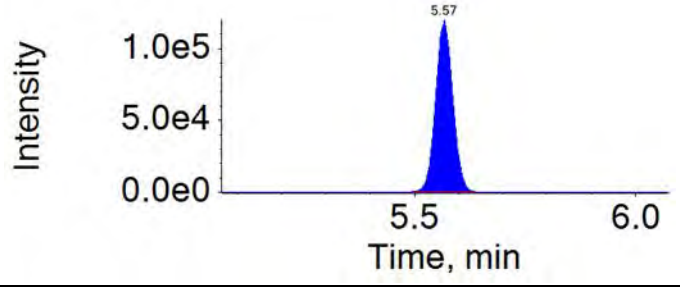
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



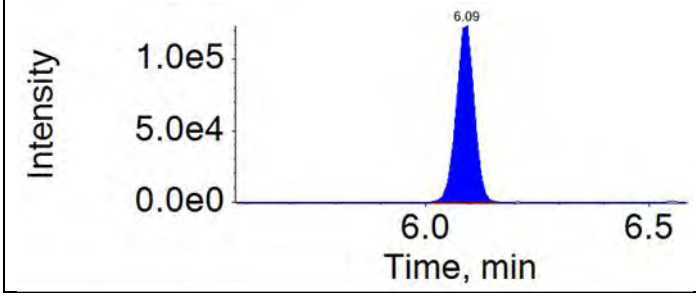


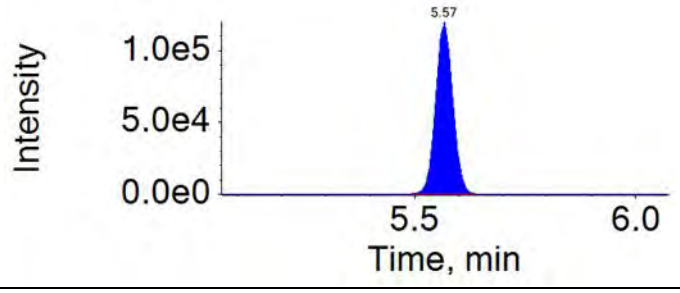
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



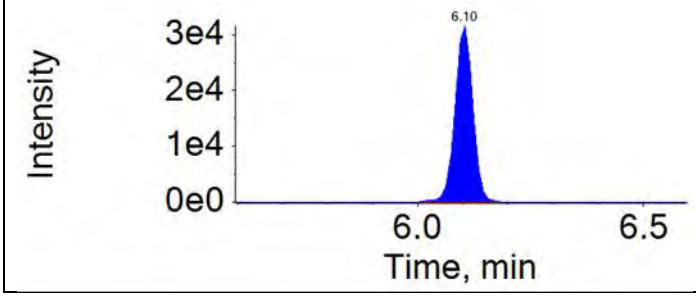


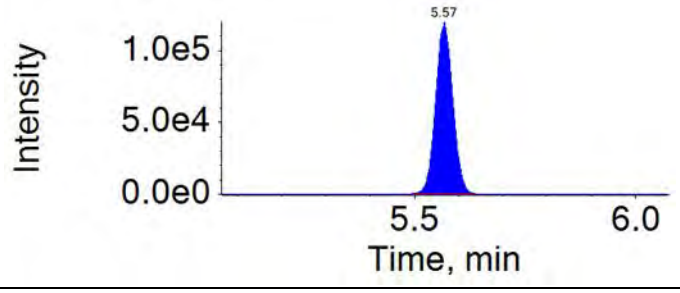
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





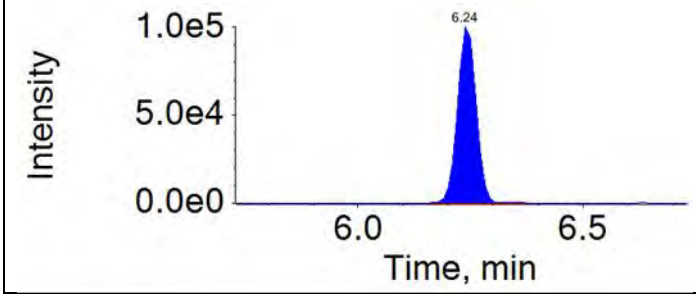
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0

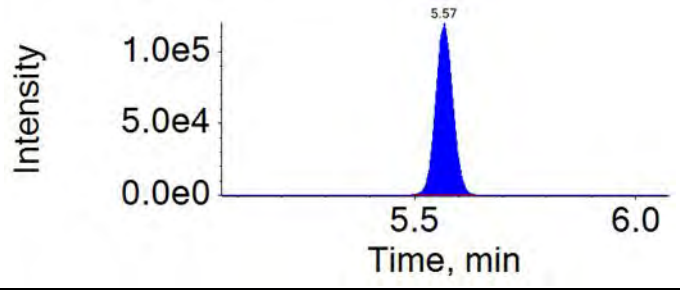




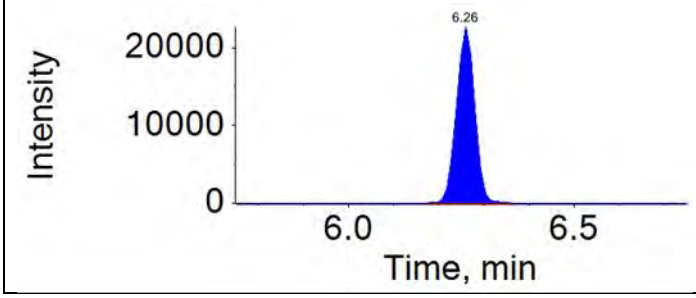
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

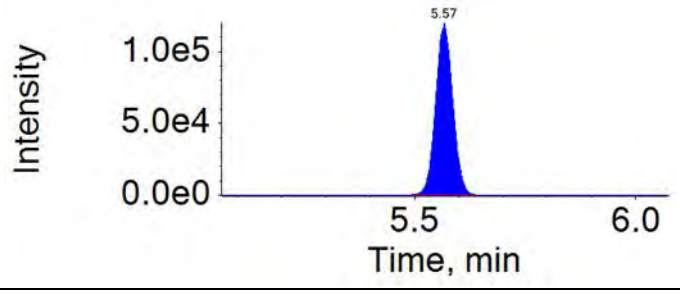
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



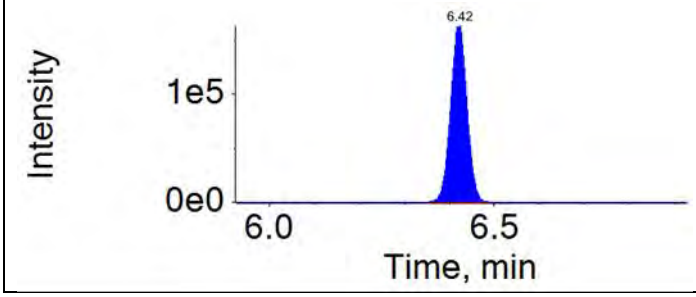


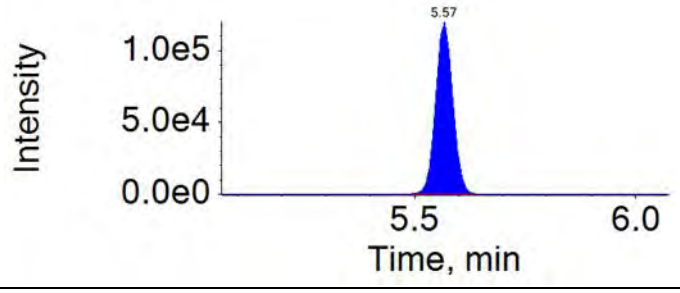
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



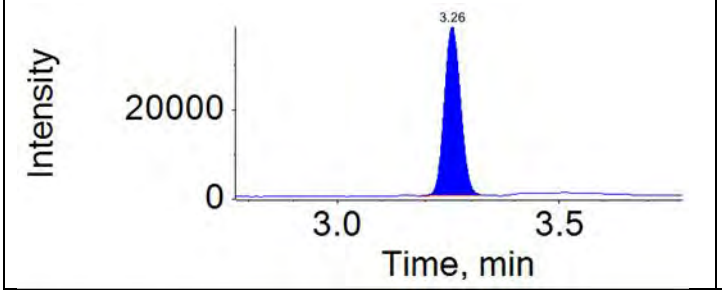


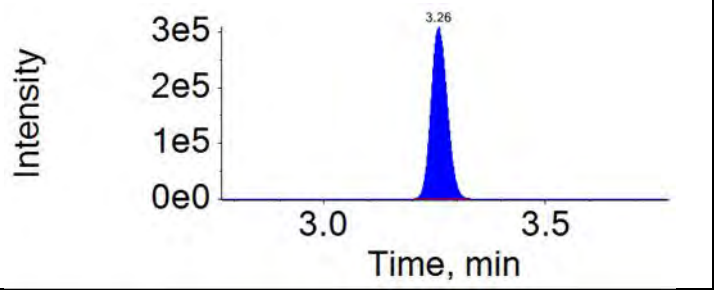
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

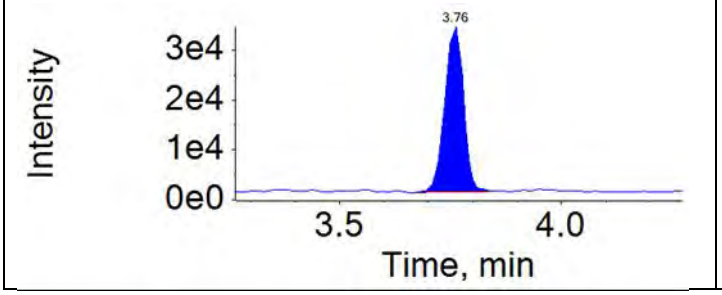
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

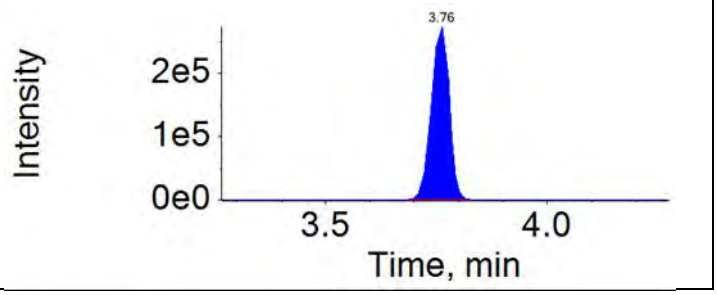
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



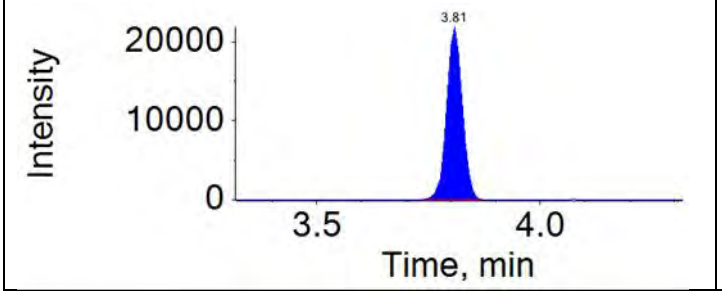


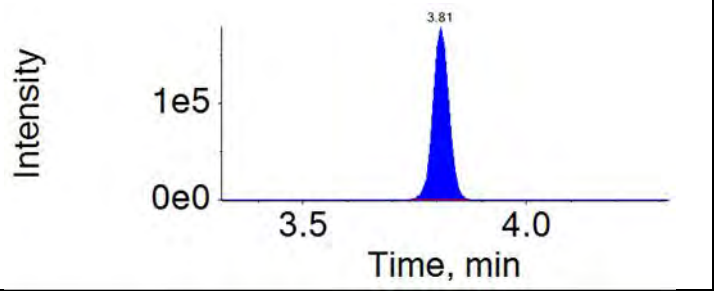
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



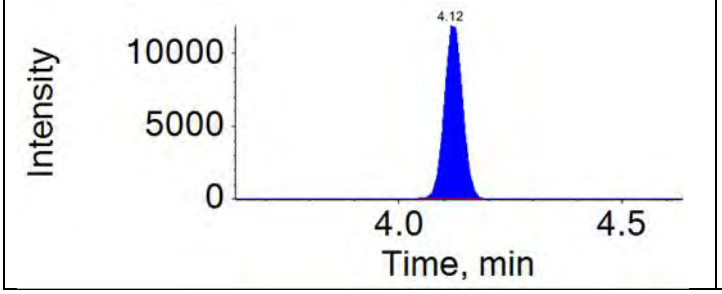


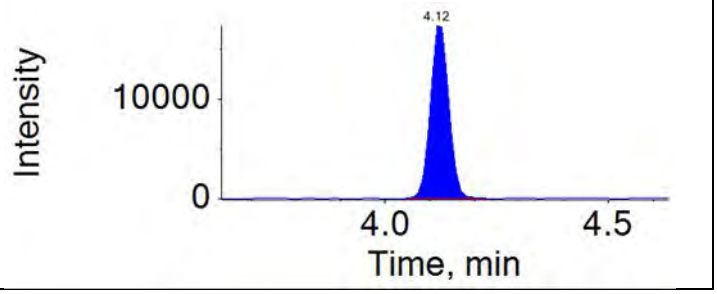
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



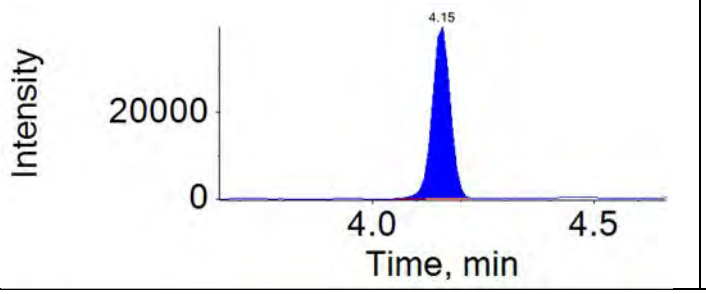


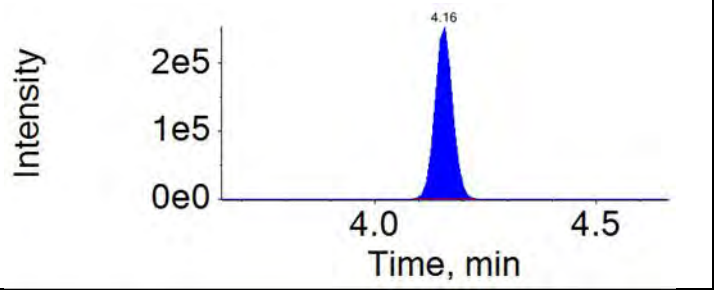
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

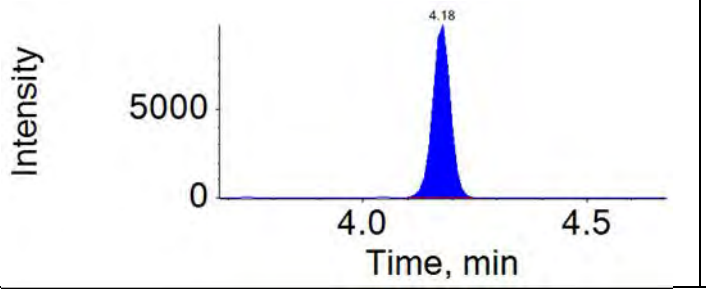
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

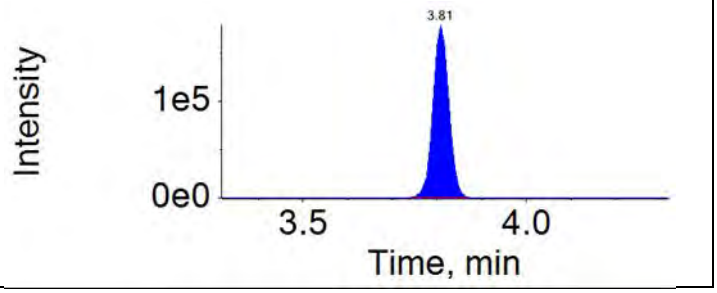
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



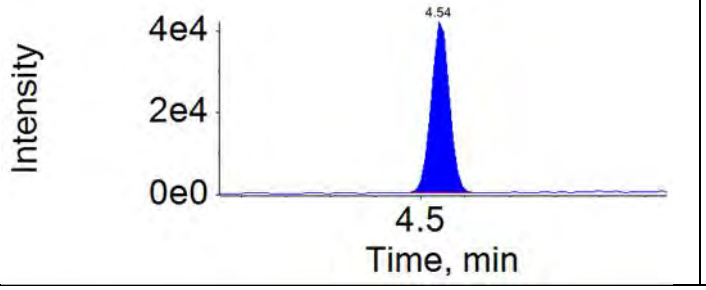


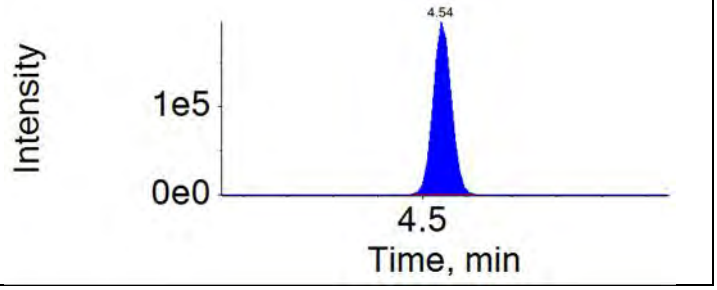
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



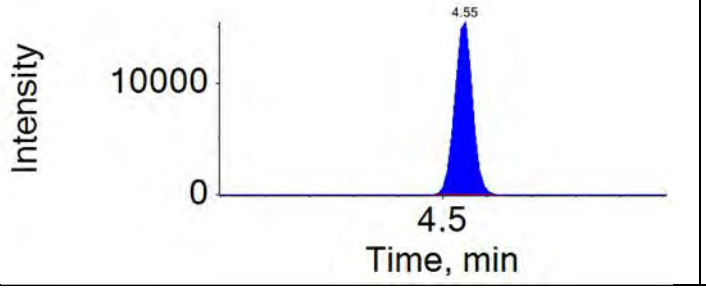


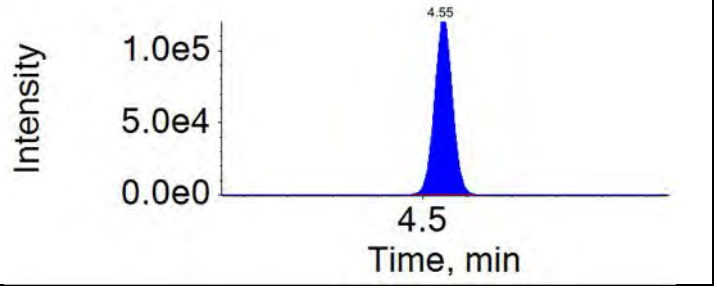
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



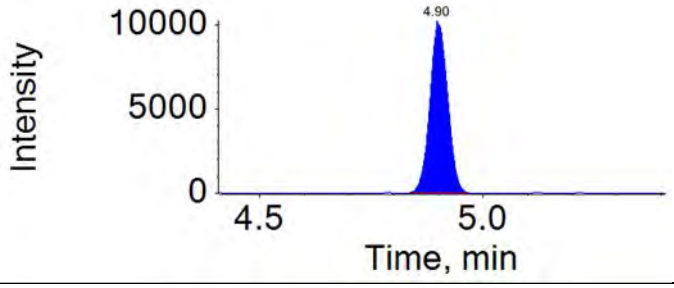
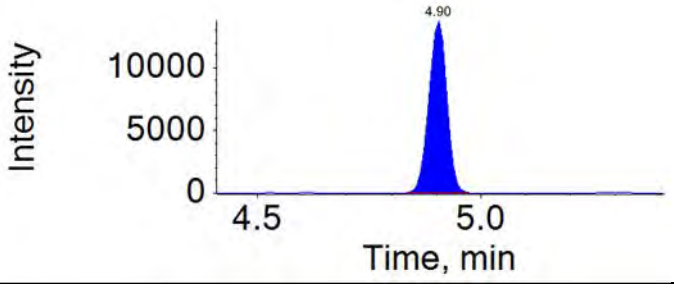


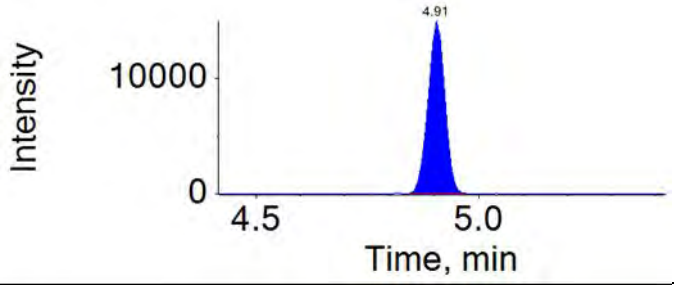
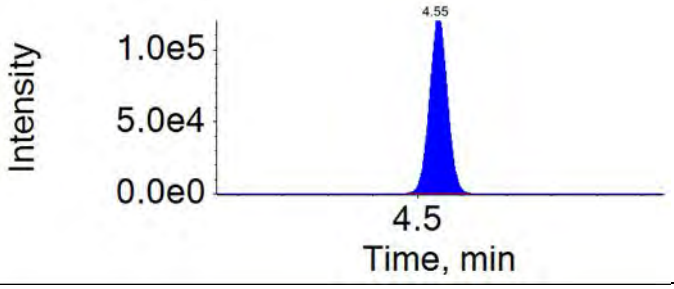
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

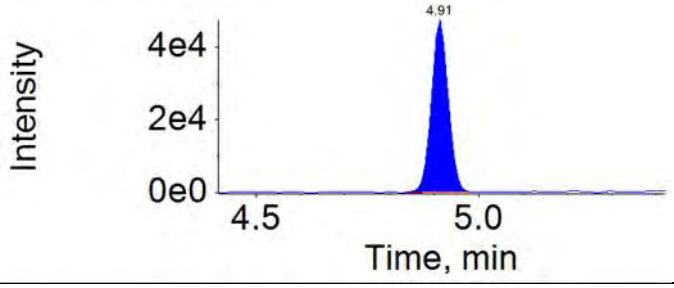
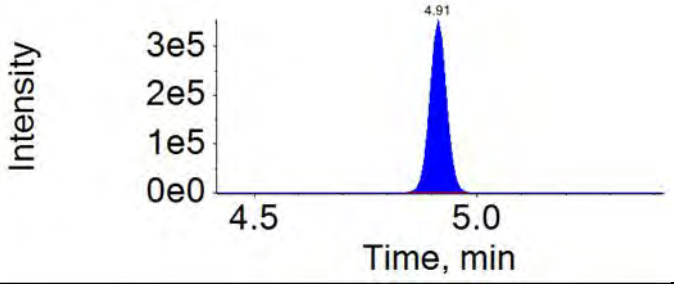


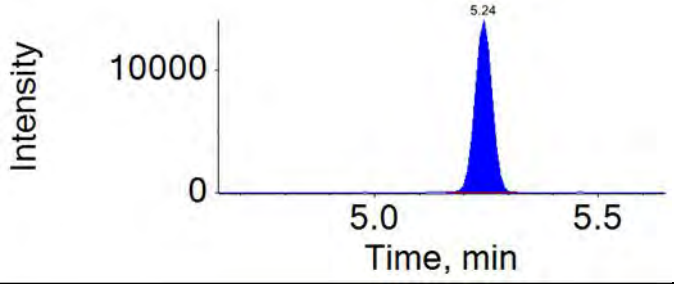
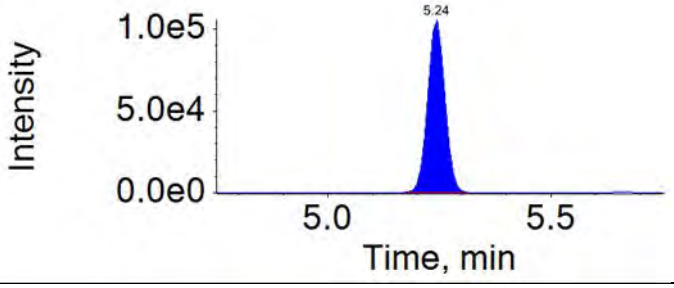


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

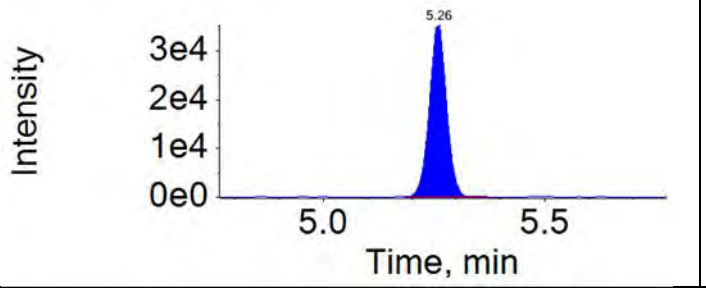
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

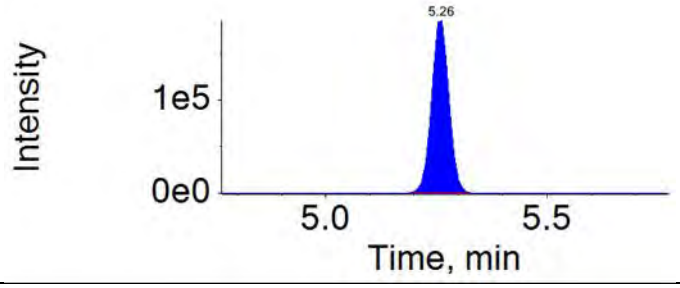
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

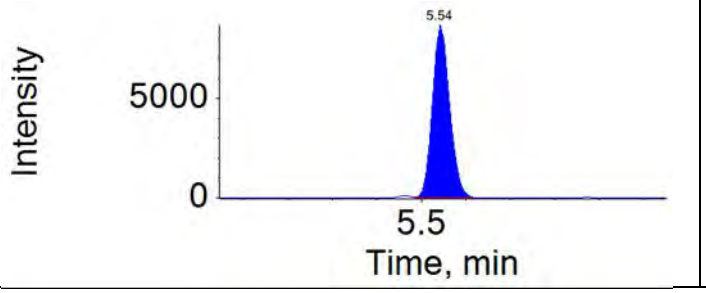
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

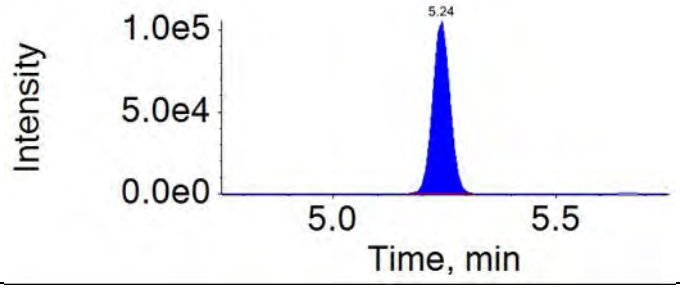
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



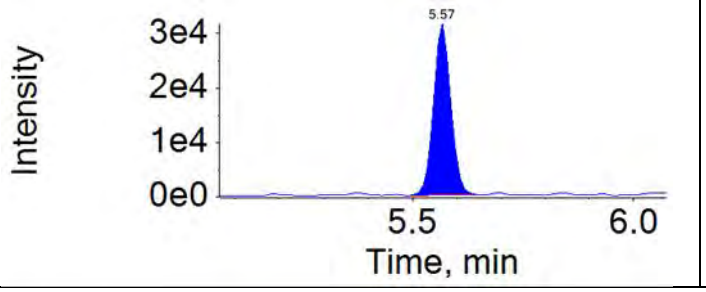


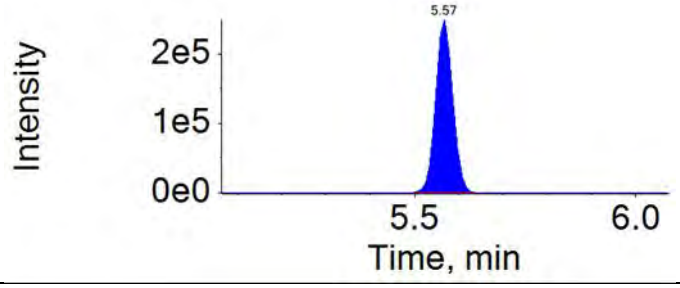
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



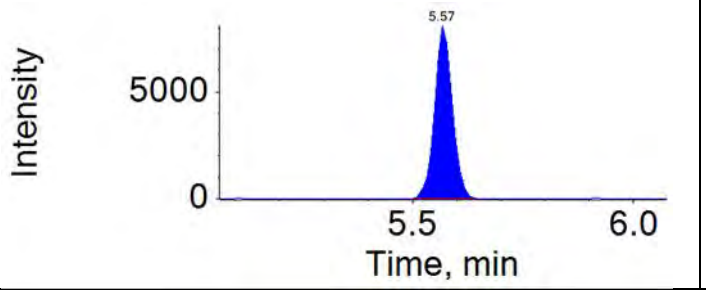


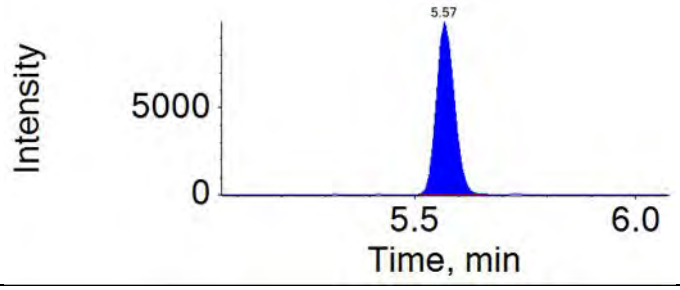
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



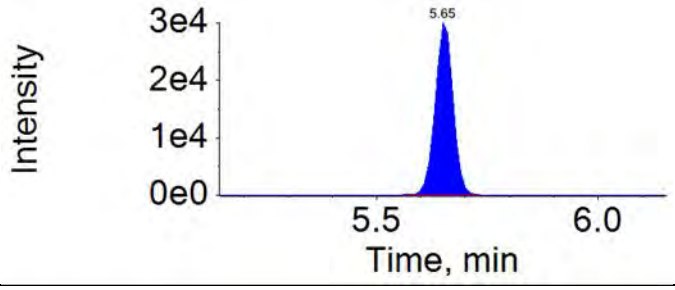


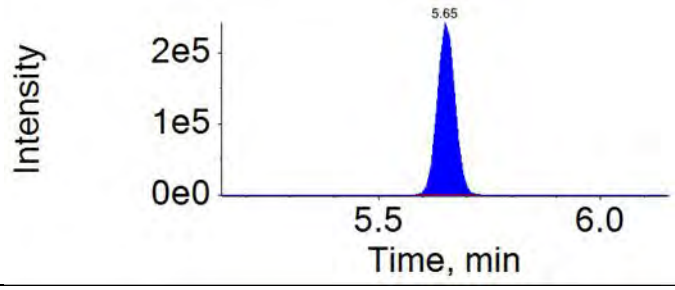
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

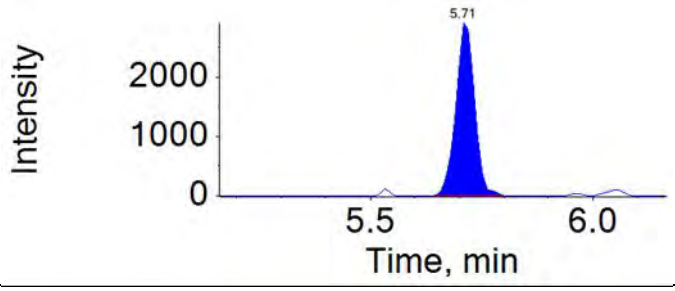
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

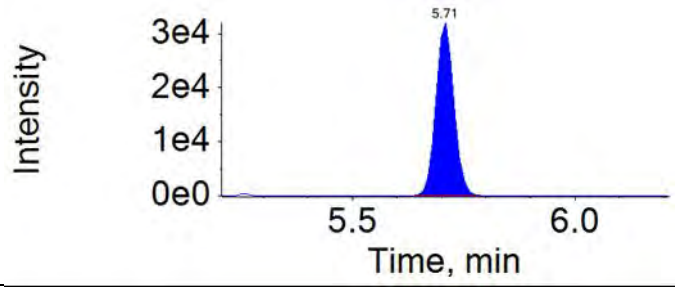
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



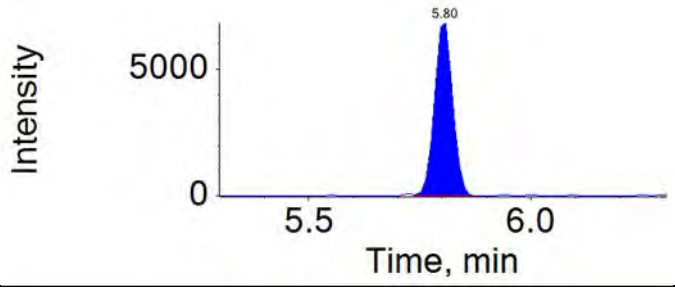


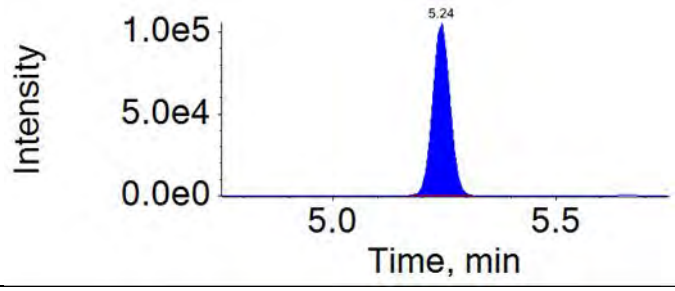
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



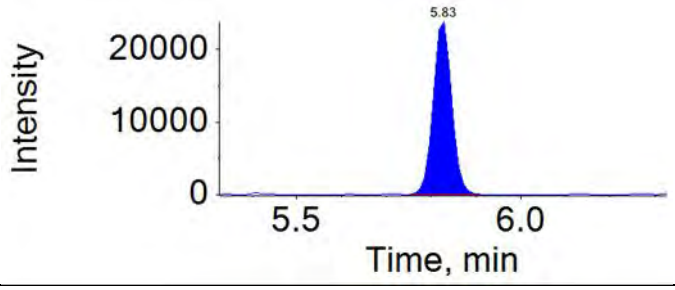


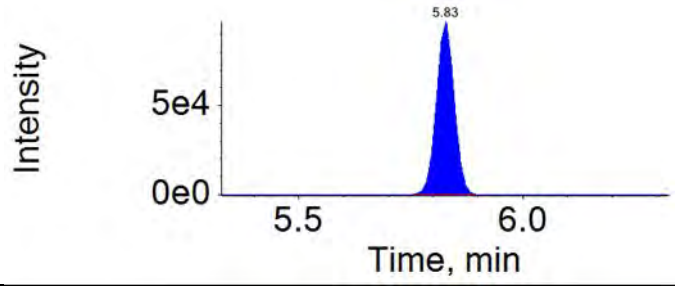
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0



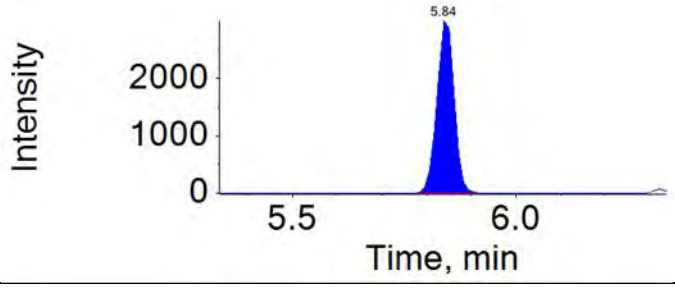


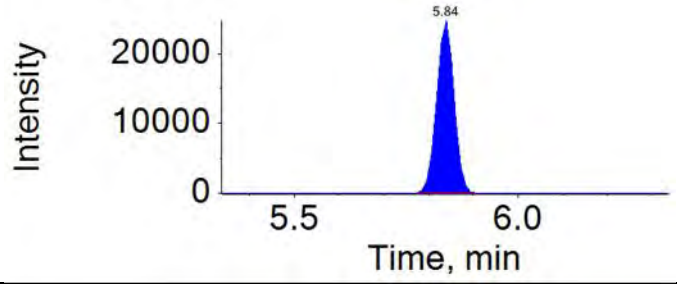
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

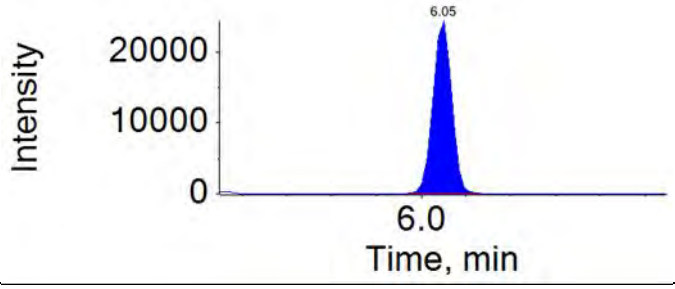
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

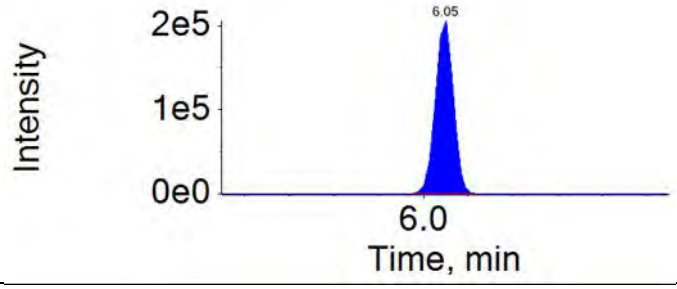
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



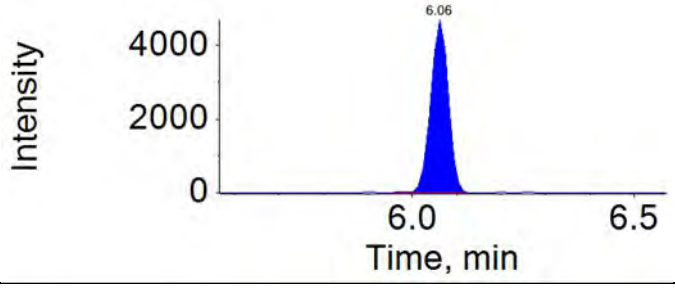


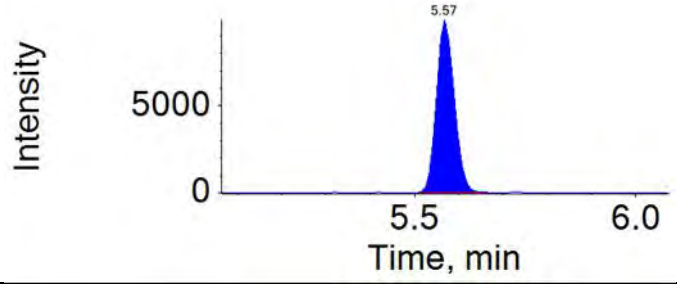
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



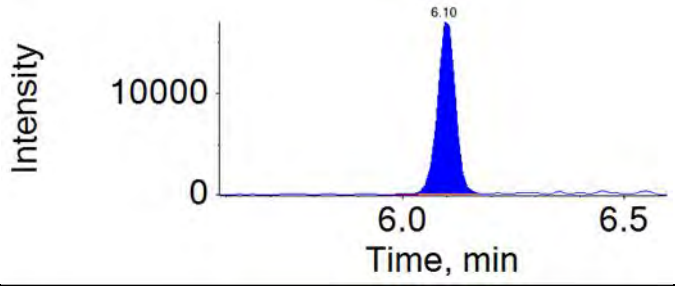


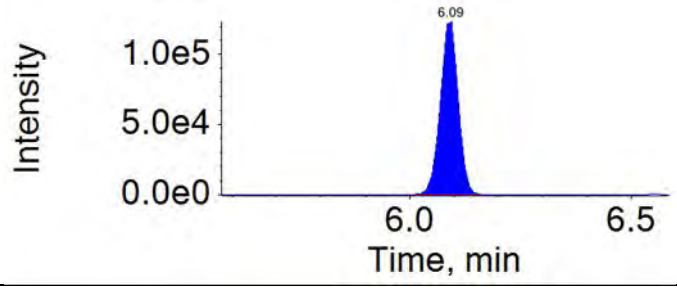
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



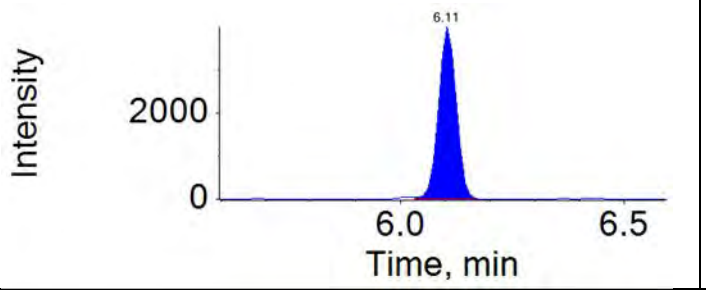


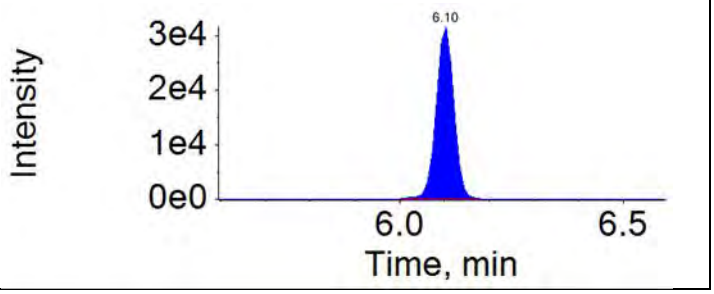
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

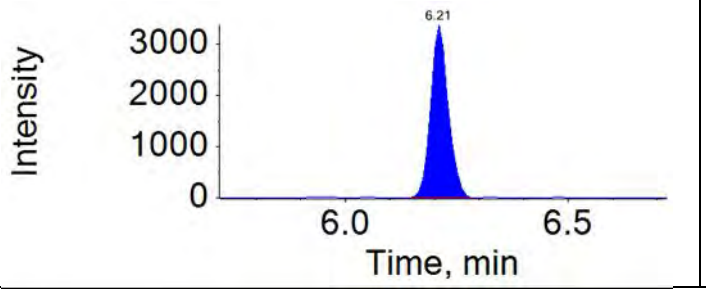
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

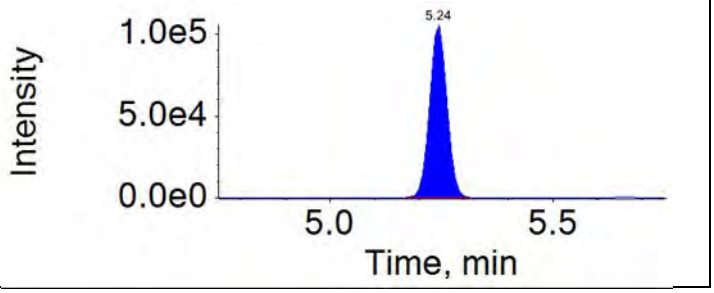
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



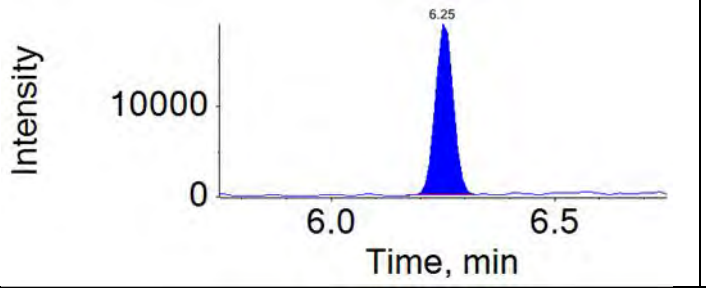


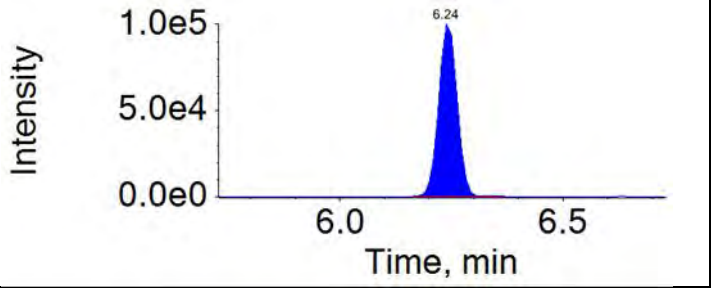
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



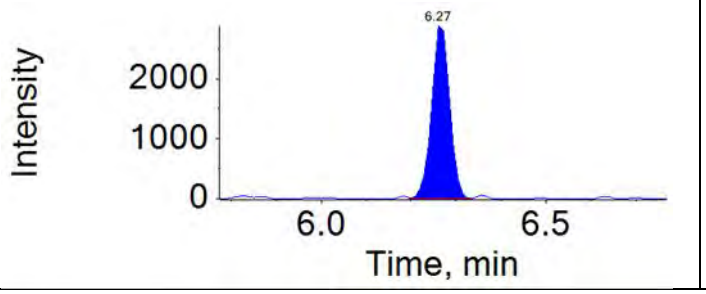


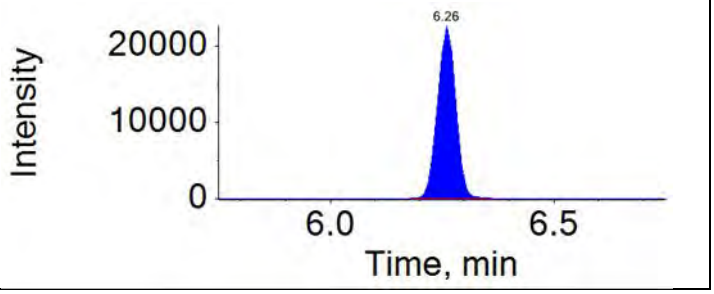
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

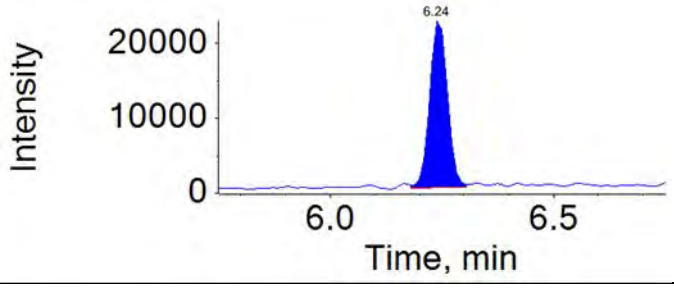
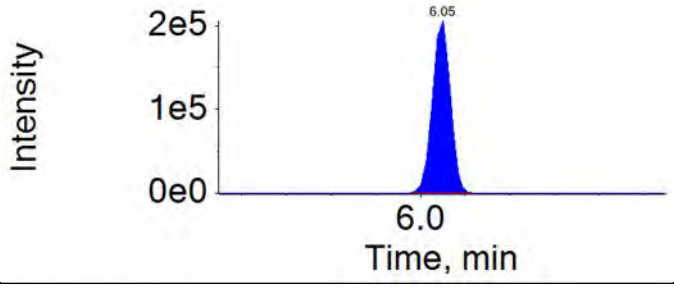


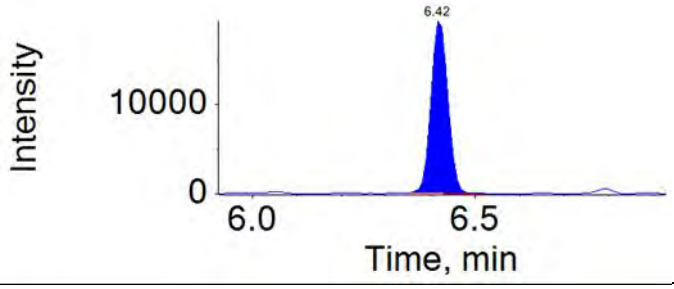
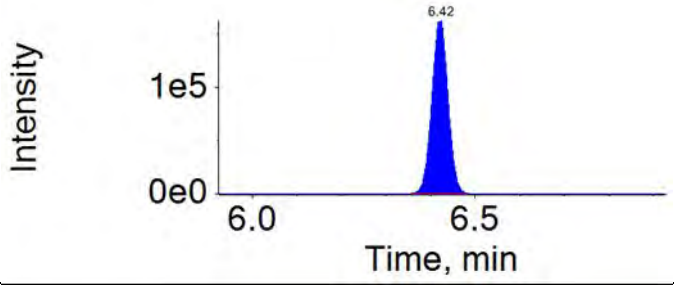


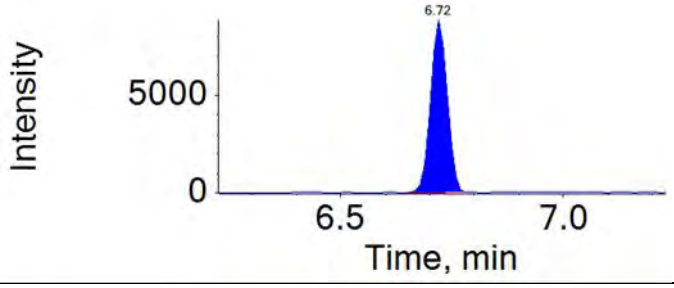
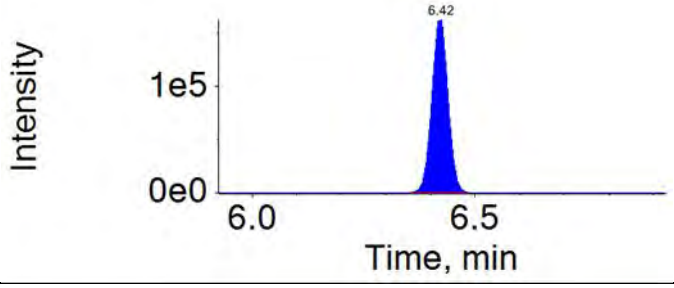
APPROVED
By JPT at 4:11 pm, 11/13/18

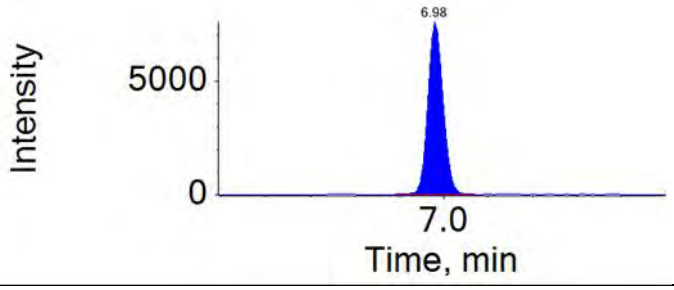
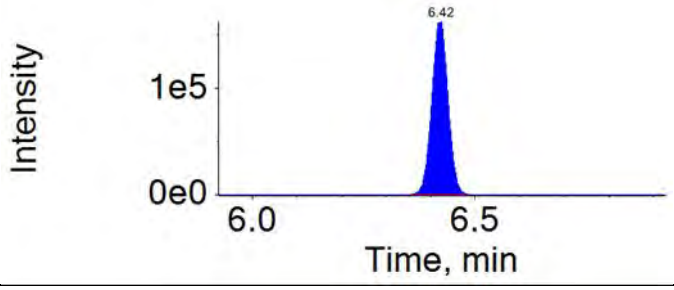
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

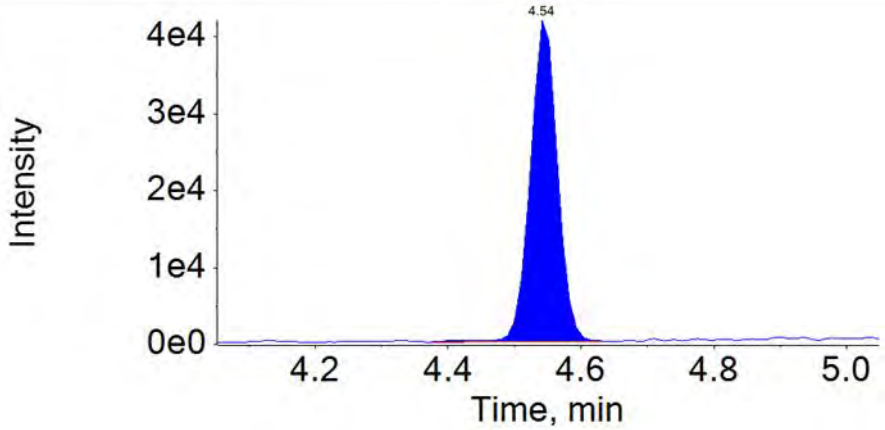
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

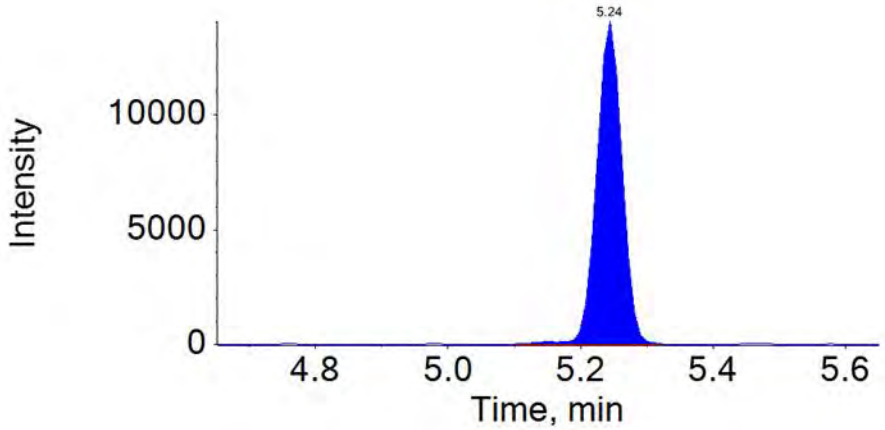
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

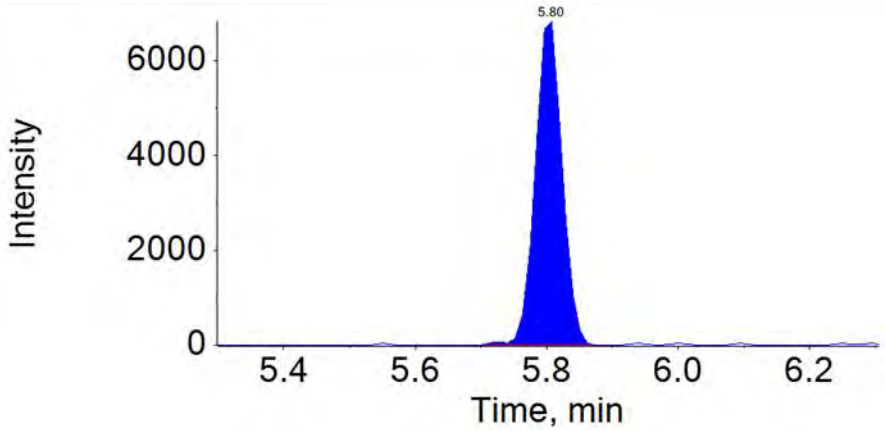
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFHpA **RT (min.):** 4.54 **Peak Area:** 118852.3 **Mass Range:** 363.0 / 319.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

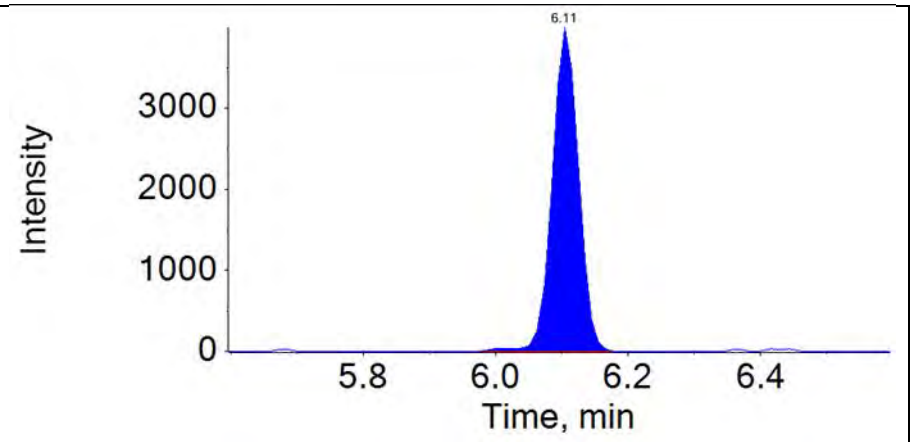
Component Name: PFOS **RT (min.):** 5.24 **Peak Area:** 37646.3 **Mass Range:** 499.0 / 80.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

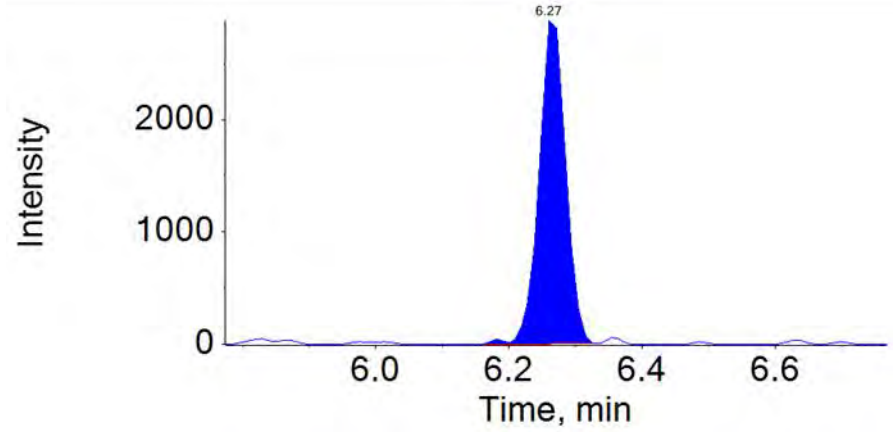
Component Name: PFDS **RT (min.):** 5.80 **Peak Area:** 19571.7 **Mass Range:** 599.0 / 80.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

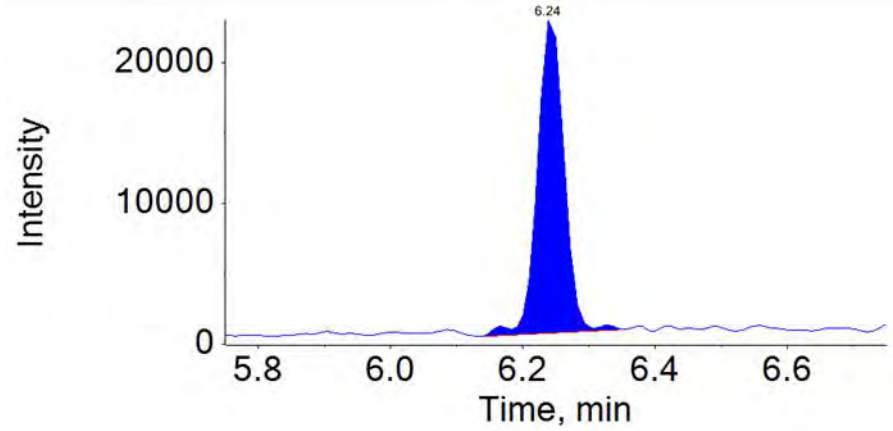
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: NMePFOSA **RT (min.):** 6.11 **Peak Area:** 11062.3 **Mass Range:** 512.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

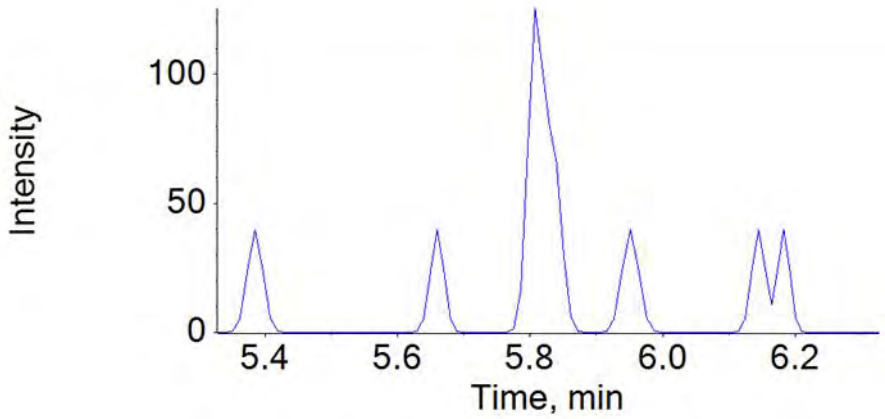
Component Name: NEtPFOSA **RT (min.):** 6.27 **Peak Area:** 8047.3 **Mass Range:** 526.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

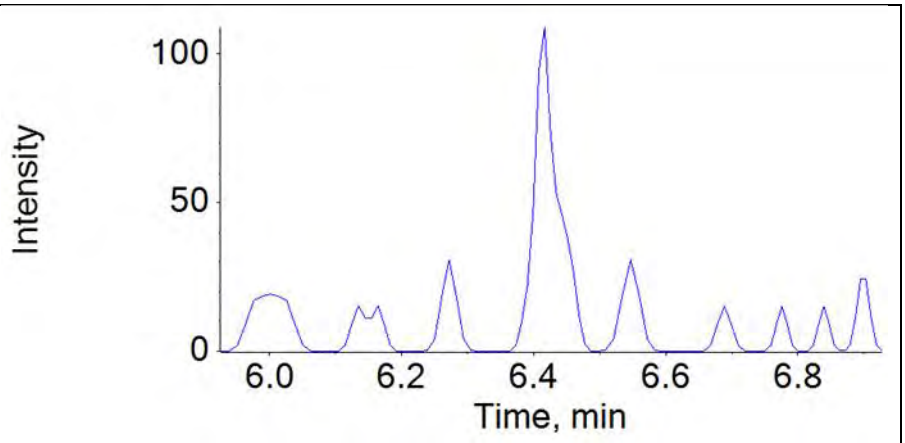
Component Name: PFTrDA **RT (min.):** 6.24 **Peak Area:** 62913.4 **Mass Range:** 663.0 / 619.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name: PFUnDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 563.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

Component Name: PFTeDA_2 **RT (min.):** N/A **Peak Area:** N/A **Mass Range:** 713.0 / 169.0 **File Name:** 18NOV12D-62.wiff **Sample Name:** LCS314009	 **Integration Comment:** incorrect integration

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Ion Ratio Report

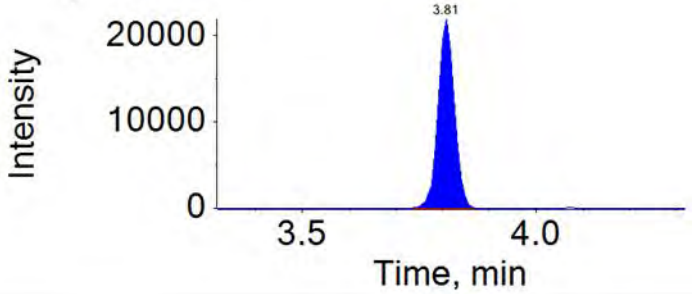
Sample Name: LCS314009 **Instrument Name:** LM27631 **File Name:** 18NOV12D-62.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	52824.5	A	N/A	1.0000			
PFBS_2	3.81	1.00	19292.7	A	N/A	0.3652	0	50	
4:2-FTS	4.12	1.00	34074.2	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	20953.9	A	N/A	0.6149		#NA!	
PFHxA	4.15	1.00	112260.1	A	N/A	1.0000			
PFHxA_2	4.15	1.00	1791.7	A	N/A	0.0160	36	50	
PFPeS	4.18	1.10	27021.9	A	N/A	1.0000			
PFPeS_2	4.17	1.10	14650.5	A	N/A	0.5422	4	50	
PFHpA	4.54	1.00	117697.1	M	N/A	1.0000			
PFHpA_2	4.54	1.00	6215.0	A	N/A	0.0528	-6	50	
PFHxS	4.55	1.00	43072.0	A	N/A	1.0000			
PFHxS_2	4.54	1.00	13904.6	A	N/A	0.3228	6	50	
6:2-FTS	4.90	1.00	28133.1	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	17739.6	A	N/A	0.6306		#NA!	
PFHpS	4.91	1.08	39257.0	A	N/A	1.0000			
PFHpS_2	4.91	1.08	15979.1	A	N/A	0.4070	0	50	
PFOA	4.91	1.00	122414.3	A	N/A	1.0000			
PFOA_2	4.91	1.00	6597.6	A	N/A	0.0539	-5	50	
PFOS	5.24	1.00	37351.3	M	N/A	1.0000			
PFOS_2	5.24	1.00	12702.0	A	N/A	0.3401	32	50	
PFNA	5.26	1.00	95349.1	A	N/A	1.0000			
PFNA_2	5.26	1.00	1773.6	A	N/A	0.0186	-19	50	
PFNS	5.54	1.06	23252.6	A	N/A	1.0000			
PFNS_2	5.54	1.06	11892.7	A	N/A	0.5115	7	50	
PFDA	5.57	1.00	85091.1	A	N/A	1.0000			
PFDA_2	5.56	1.00	719.0	A	N/A	0.0084	6	50	
8:2-FTS	5.57	1.00	22504.4	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	12699.0	A	N/A	0.5643		#NA!	
NMeFOSAA	5.71	1.00	8497.5	A	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	2190.9	A	N/A	0.2578	21	50	
PFDS	5.80	1.11	19464.8	M	N/A	1.0000			
PFDS_2	5.80	1.11	8927.9	A	N/A	0.4587	-10	50	
PFUnDA	5.83	1.00	68284.8	A	N/A	1.0000			
PFUnDA_2	5.81	1.00	321.8	M	N/A	0.0047	13	50	
NEtFOSAA	5.84	1.00	8018.0	A	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	5238.8	A	N/A	0.6534	13	50	
PFDoDA	6.05	1.00	70529.8	A	N/A	1.0000			
PFDoDA_2	6.05	1.00	611.1	A	N/A	0.0087	-47	50	
10:2-FTS	6.06	1.09	12936.4	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	9955.4	A	N/A	0.7696		#NA!	
PFTrDA	6.24	1.03	61457.0	M	N/A	1.0000			
PFTrDA_2	6.24	1.03	619.6	A	N/A	0.0101	9	50	
PFTeDA	6.42	1.00	50632.5	A	N/A	1.0000			
PFTeDA_2	6.41	1.00	278.3	M	N/A	0.0055	-14	50	
PFHxDA	6.72	1.05	22738.0	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	1517.3	A	N/A	0.0667	-1	50	
PFODA	6.98	1.09	17951.0	A	N/A	1.0000			
PFODA_2	6.98	1.09	452.9	A	N/A	0.0252	-7	50	

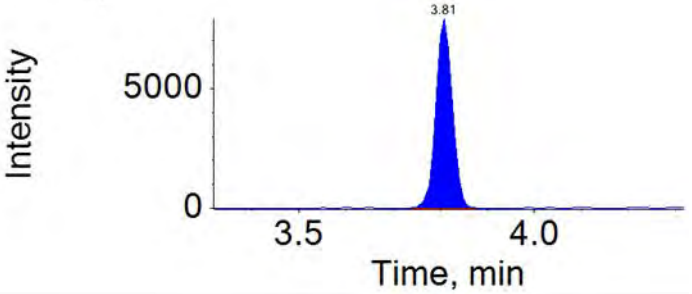
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

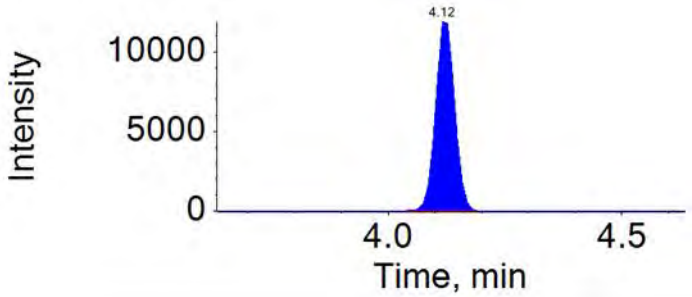
Component: PFBS
Primary Mass: 299.0 / 80.0



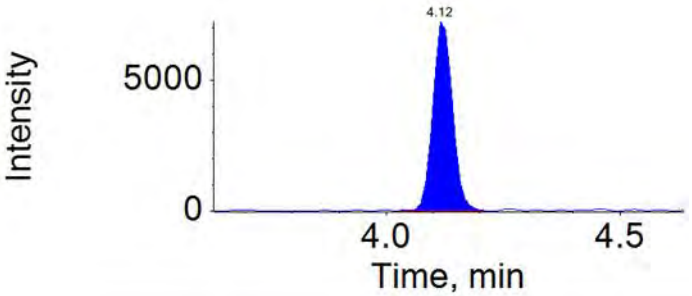
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



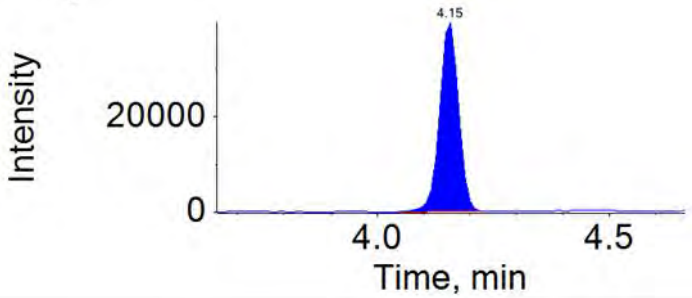
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



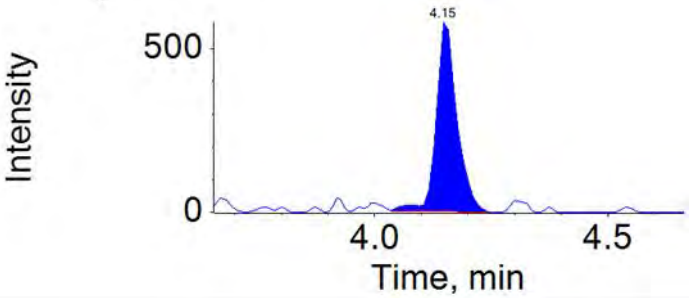
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



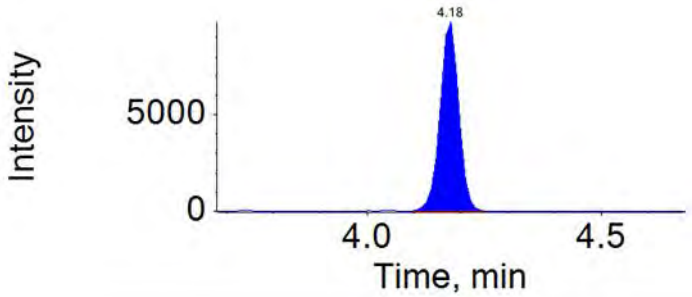
Component: PFHxA
Primary Mass: 313.0 / 269.0



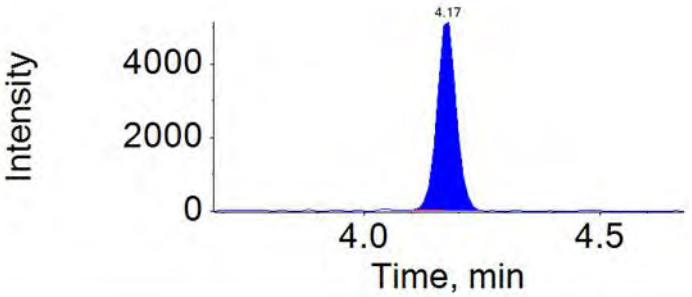
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



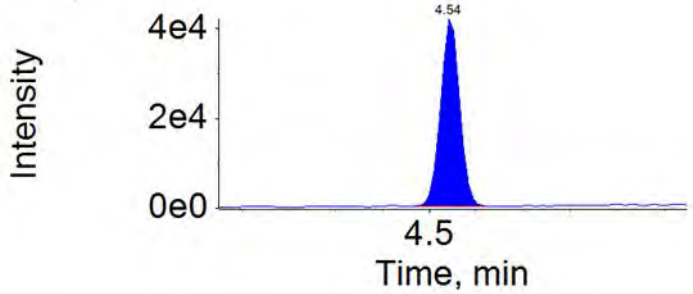
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



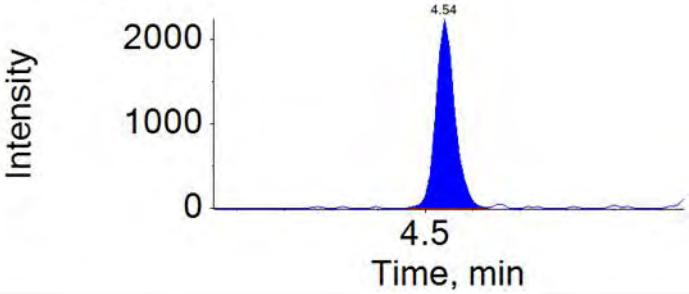
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

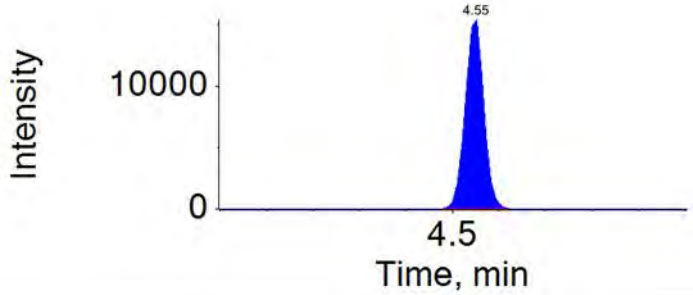
Component: PFHpA
Primary Mass: 363.0 / 319.0



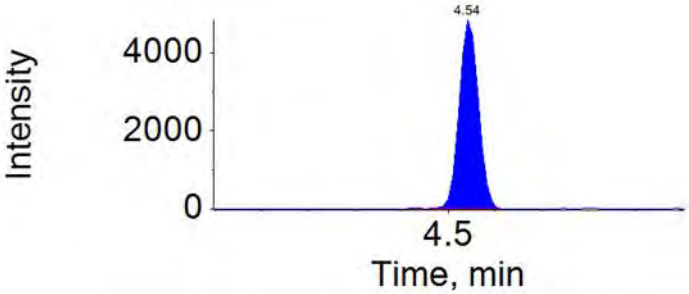
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



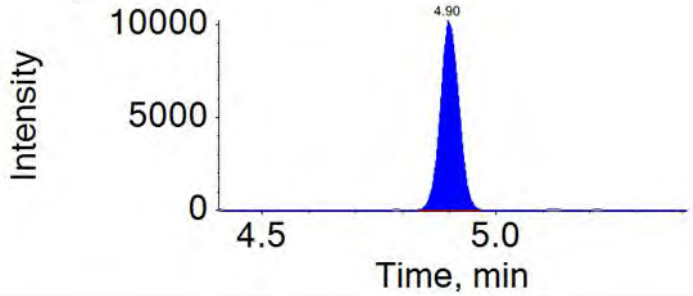
Component: PFHxS
Primary Mass: 399.0 / 80.0



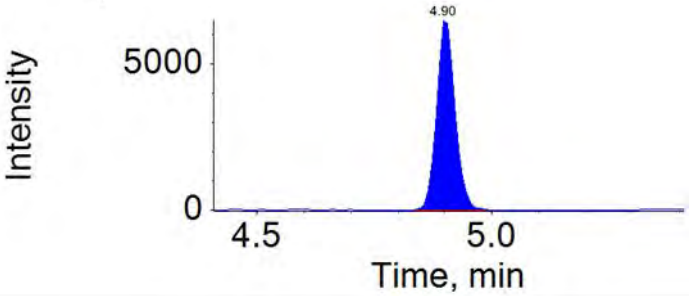
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



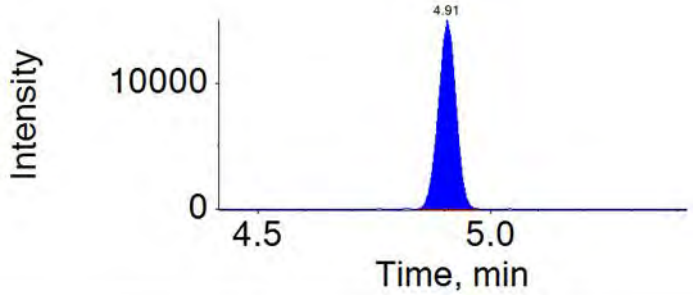
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



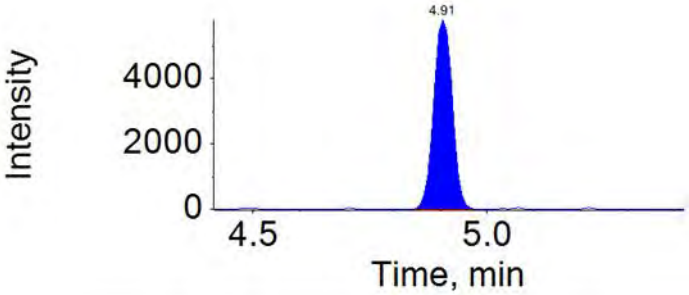
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



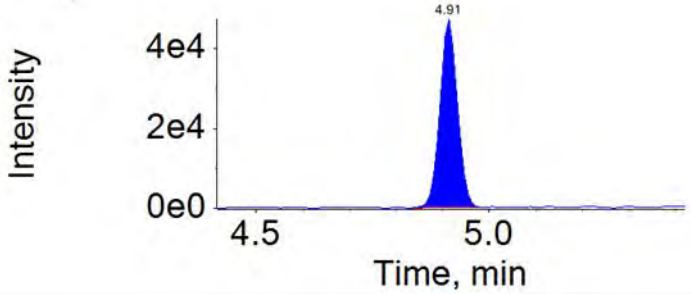
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



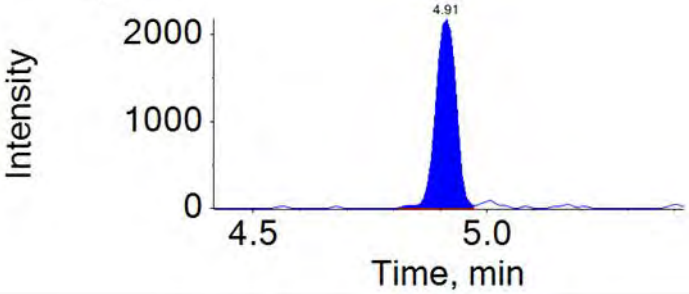
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

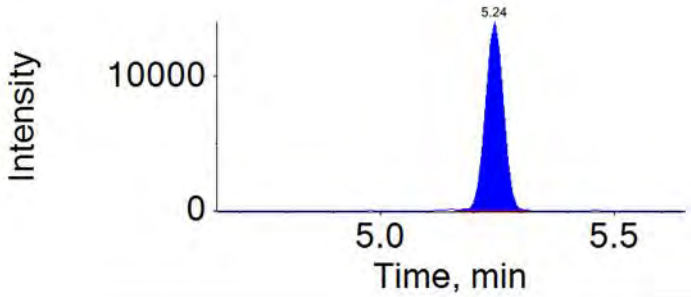
Component: PFOA
Primary Mass: 413.0 / 369.0



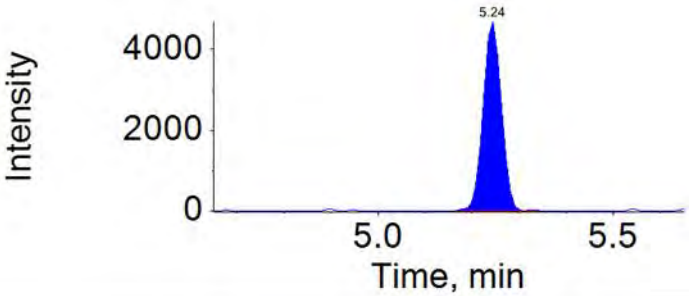
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



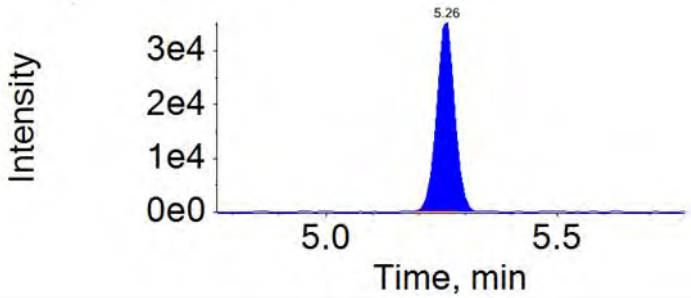
Component: PFOS
Primary Mass: 499.0 / 80.0



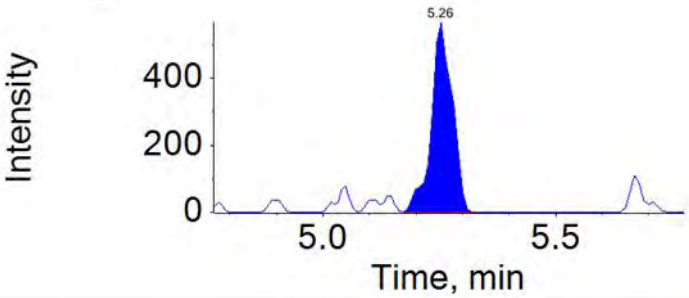
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



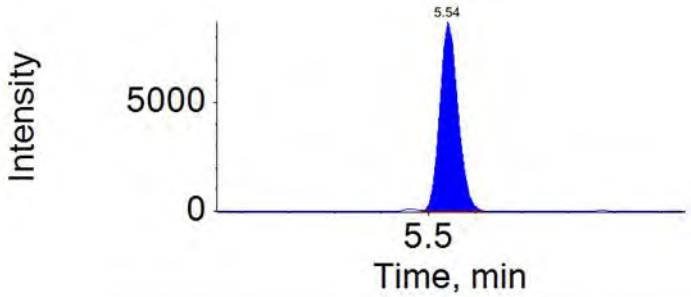
Component: PFNA
Primary Mass: 463.0 / 419.0



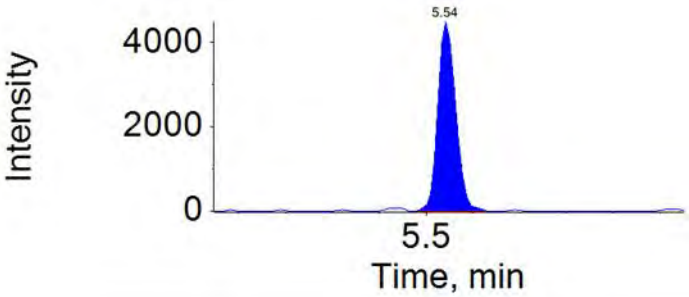
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



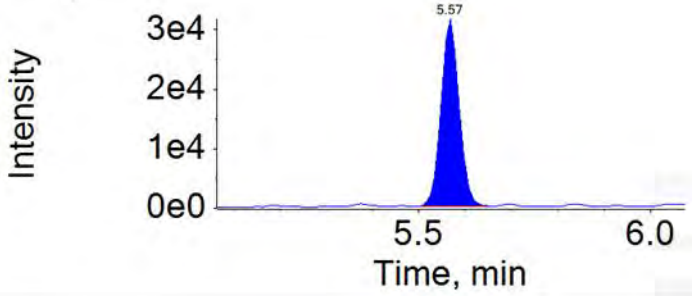
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



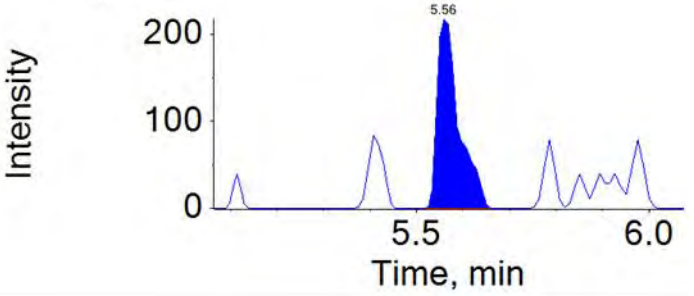
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

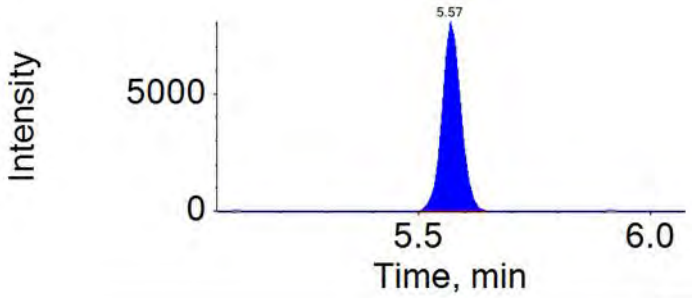
Component: PFDA
Primary Mass: 513.0 / 469.0



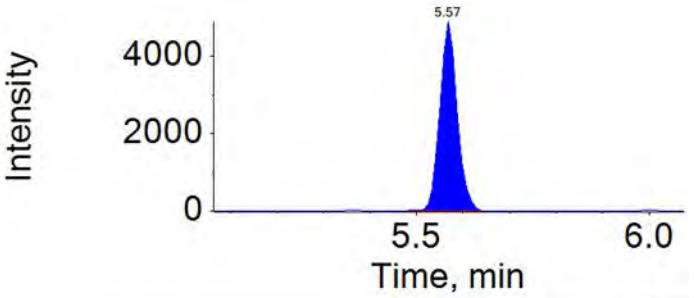
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



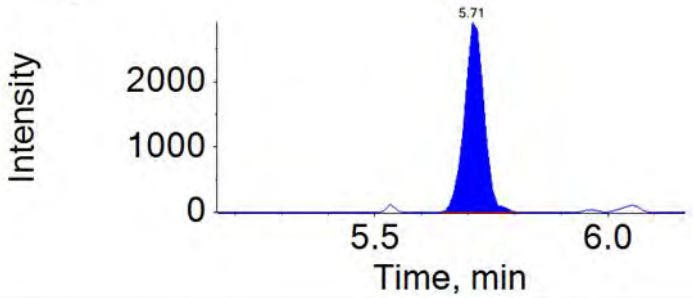
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



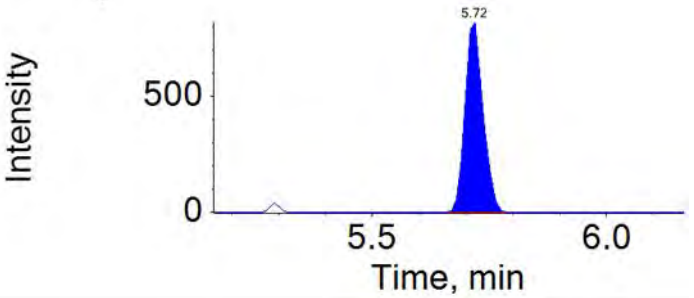
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



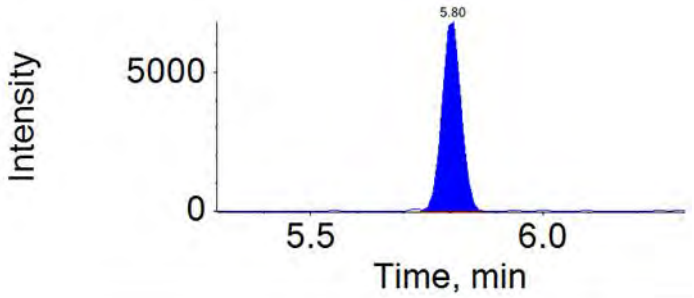
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



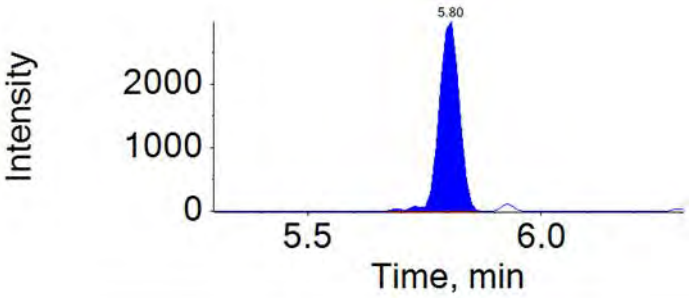
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



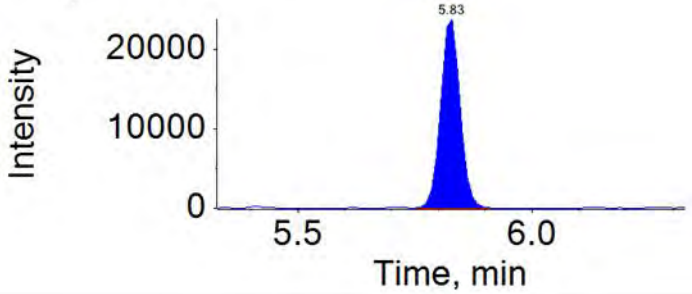
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



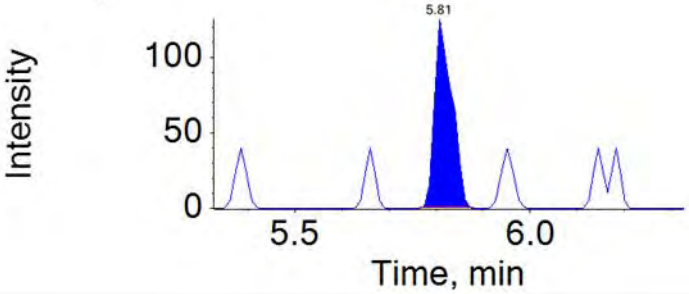
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

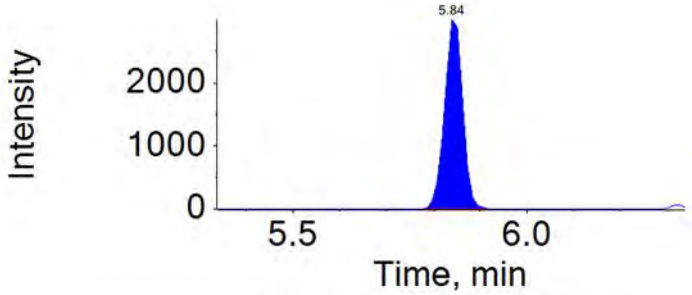
Component: PFUnDA
Primary Mass: 563.0 / 519.0



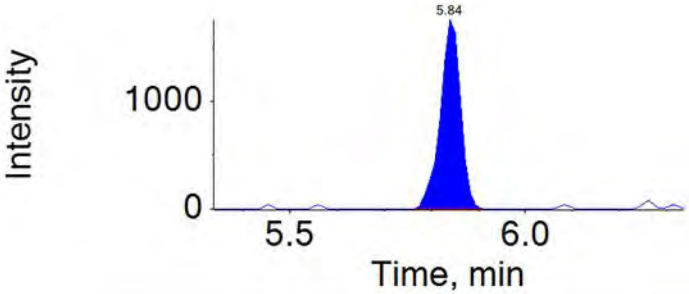
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



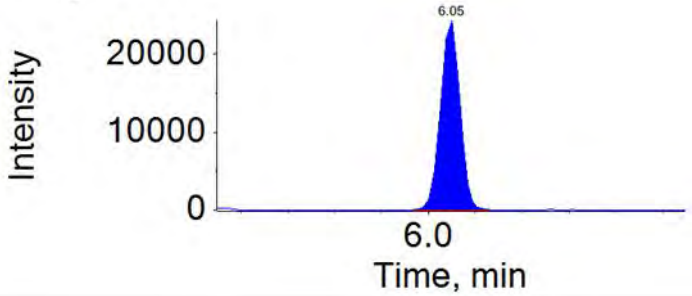
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



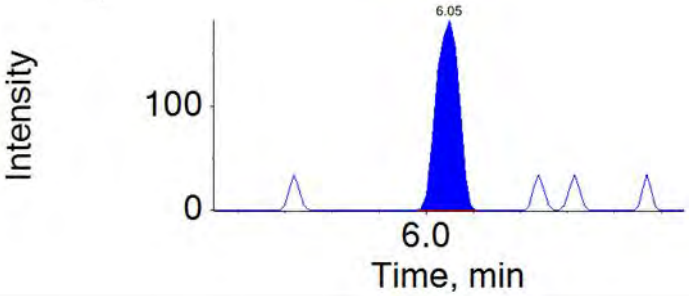
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



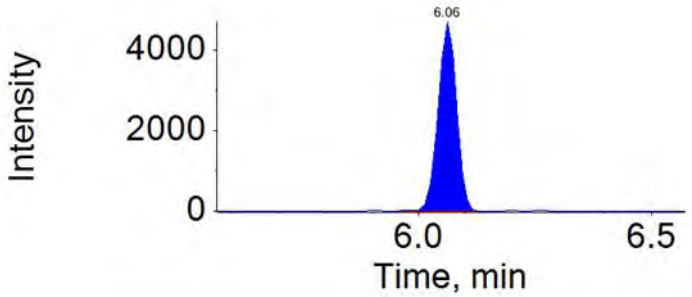
Component: PFDoDA
Primary Mass: 613.0 / 569.0



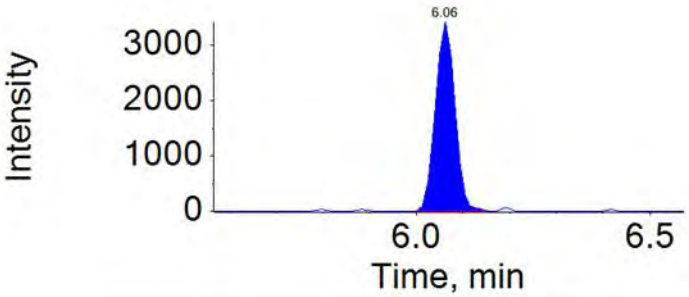
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



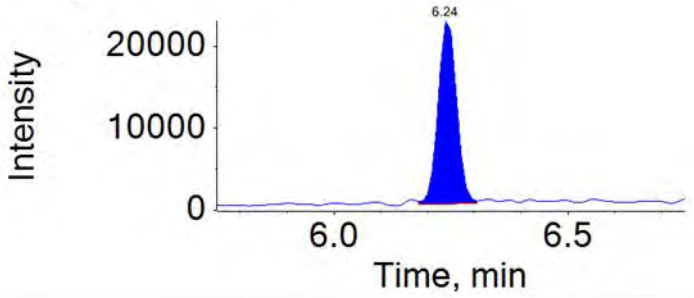
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



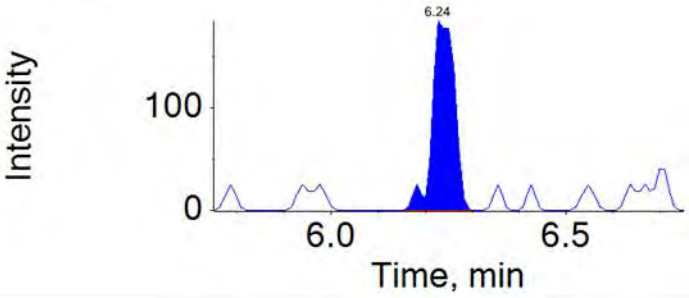
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

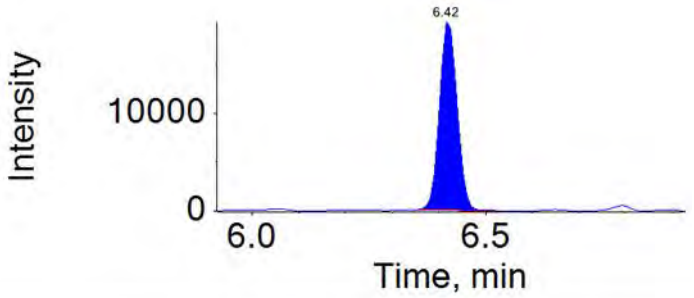
Component: PFTrDA
Primary Mass: 663.0 / 619.0



Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



Component: PFTeDA
Primary Mass: 713.0 / 669.0



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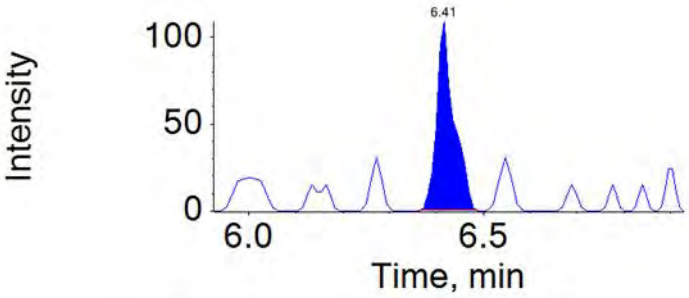
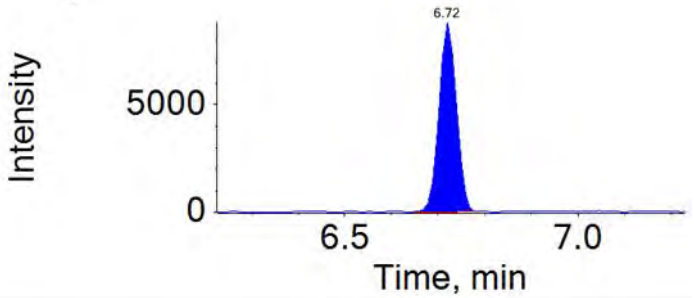
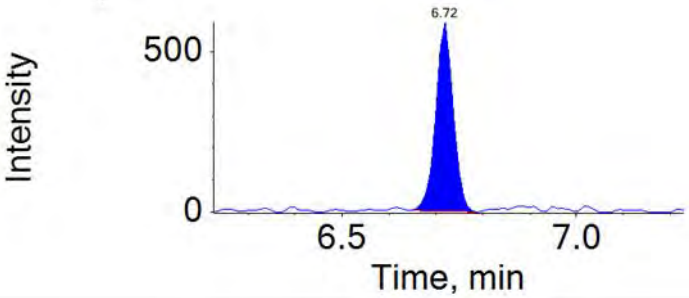
Secondary Mass: 713.0 / 169.0



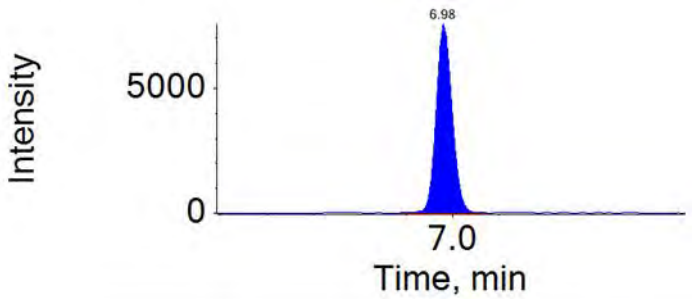
Component: PFHxDA
Primary Mass: 813.0 / 769.0



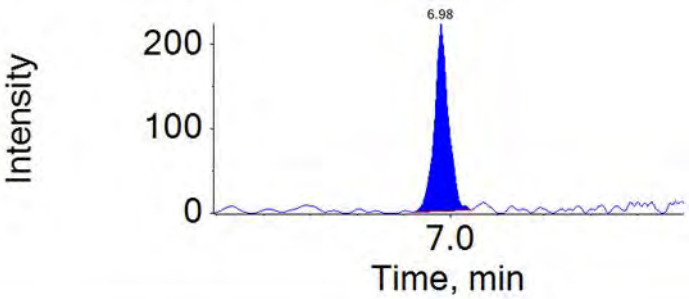
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



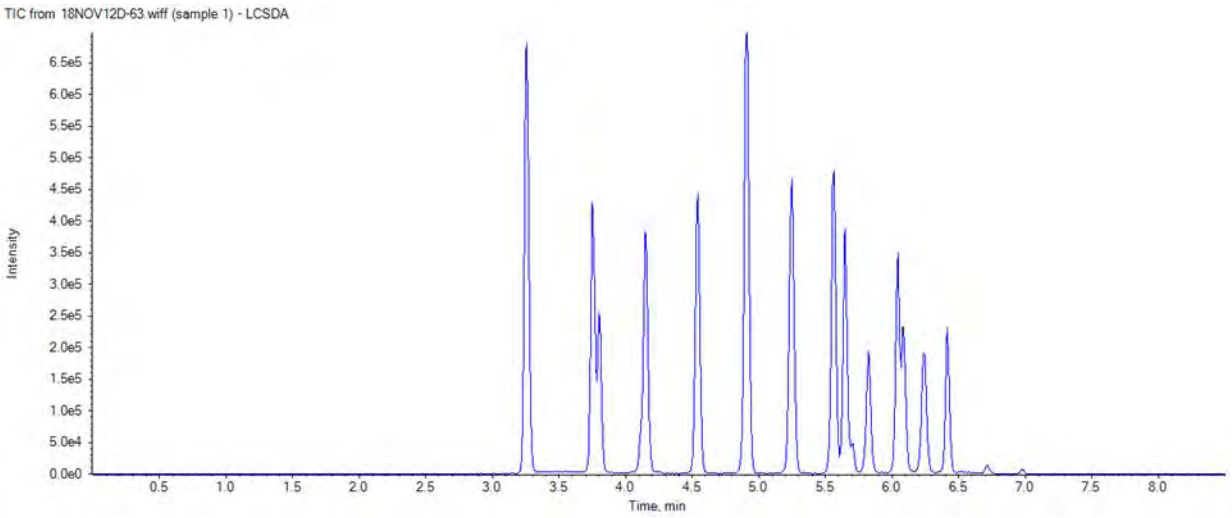
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL **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



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	

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

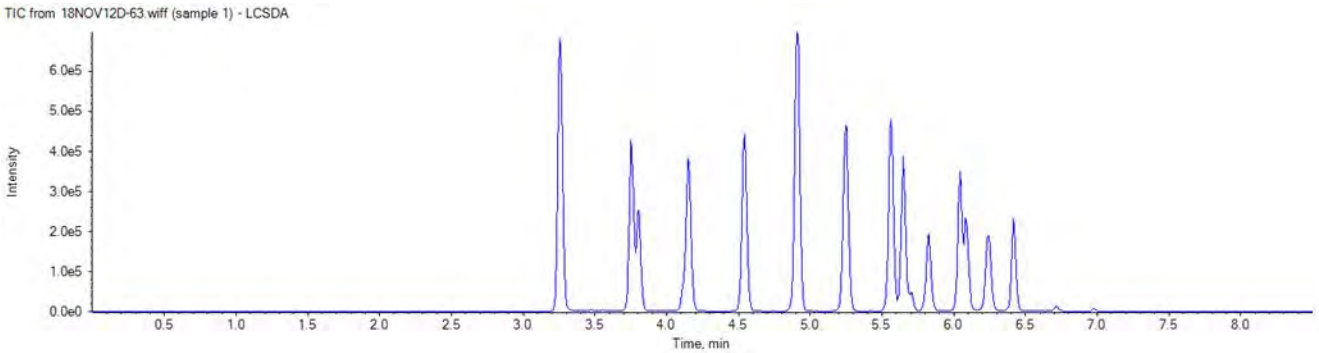
Analyte Quantitation Peak Table

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

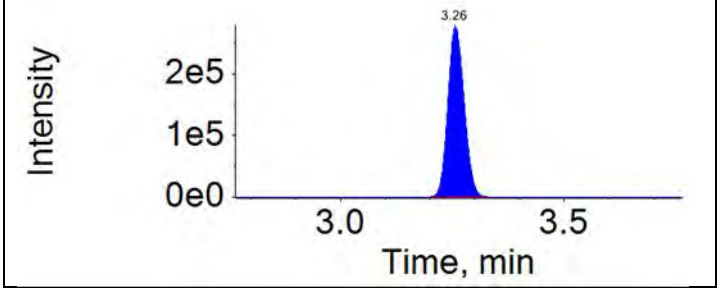


APPROVED
By JPT at 4:11 pm, 11/13/18

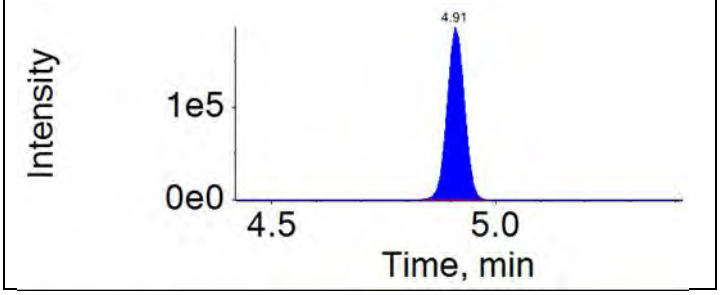
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

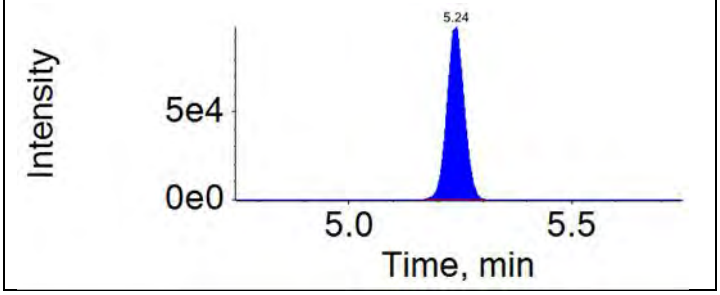
Injection Standard: 13C3-PFBA
216.0 / 172.0



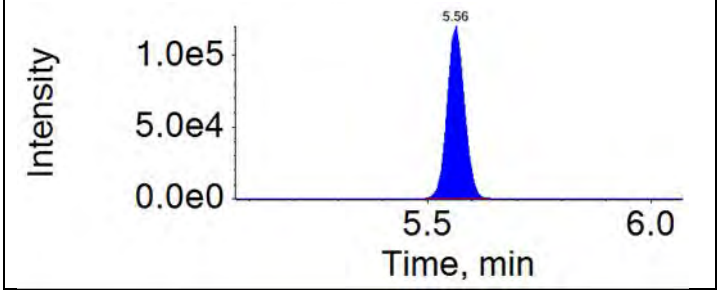
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

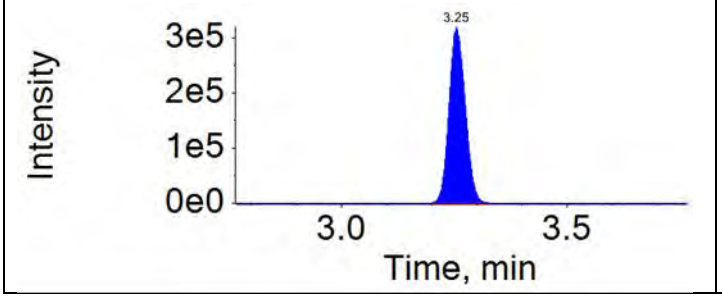


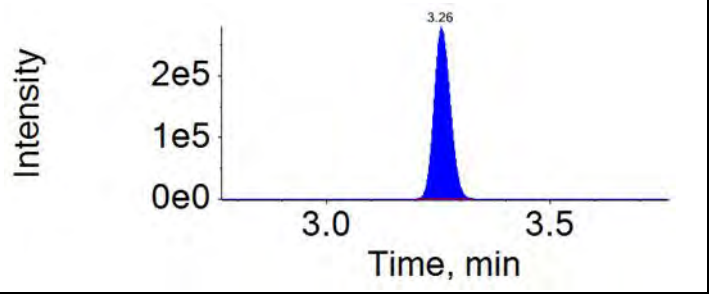
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

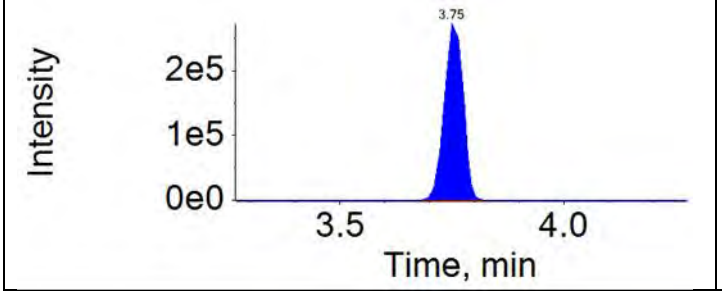
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

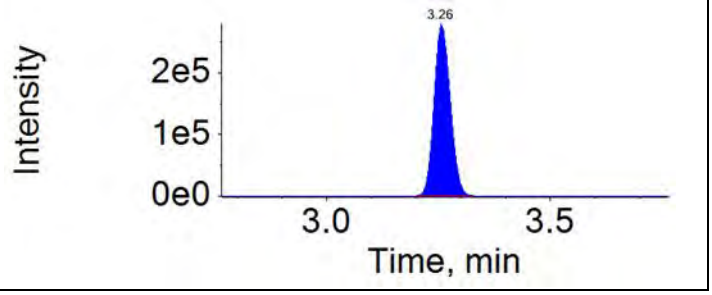
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



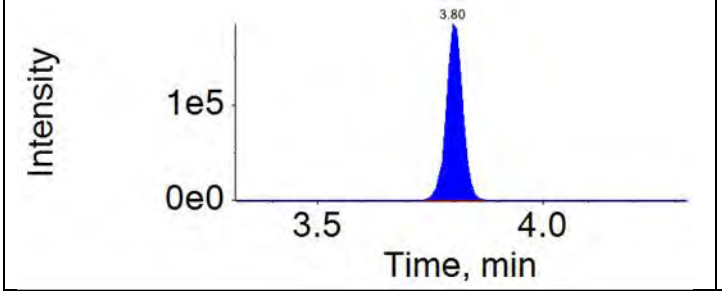


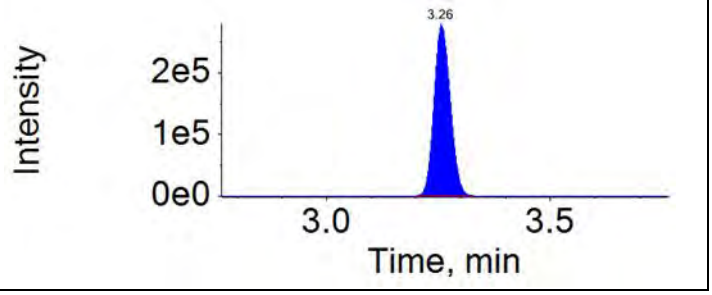
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



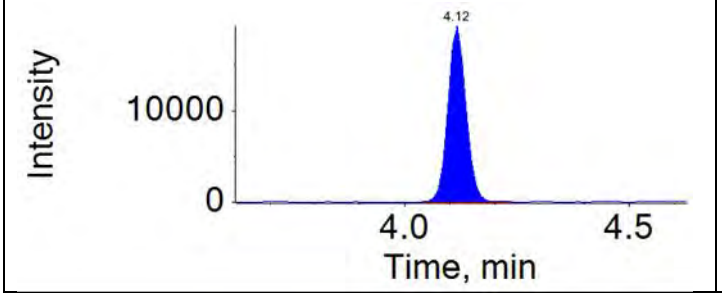


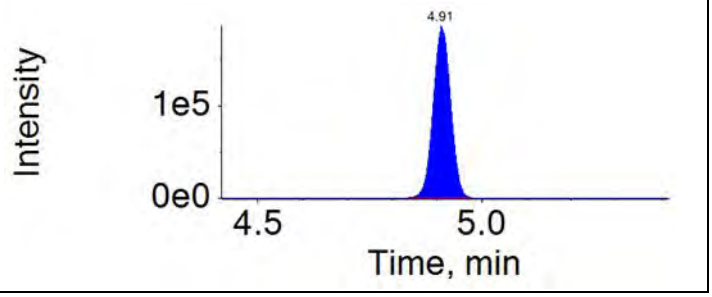
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



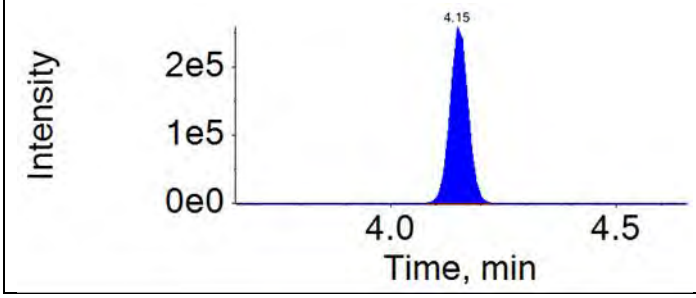


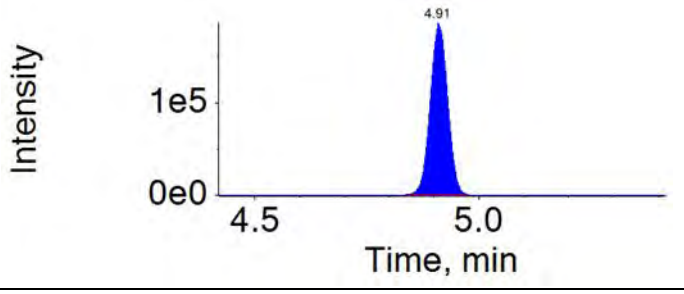
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

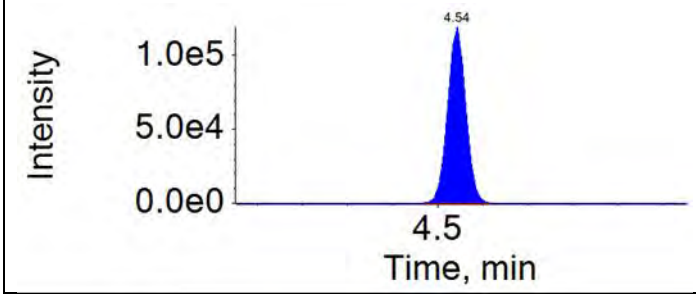
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

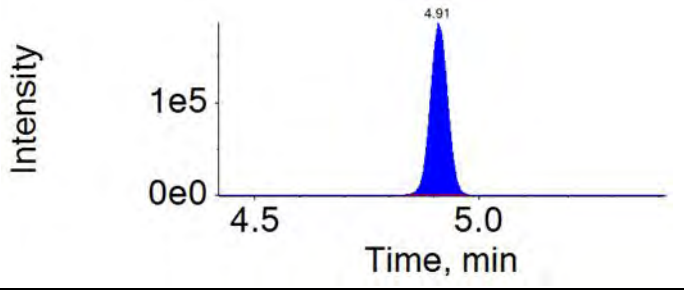
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



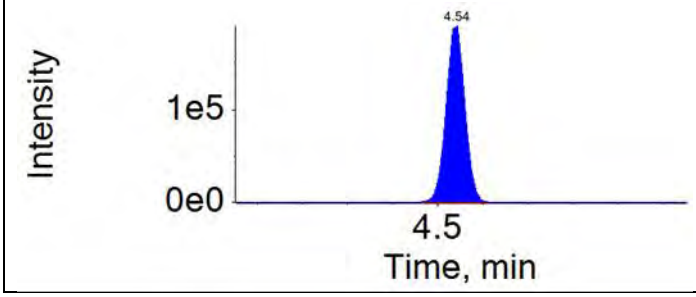


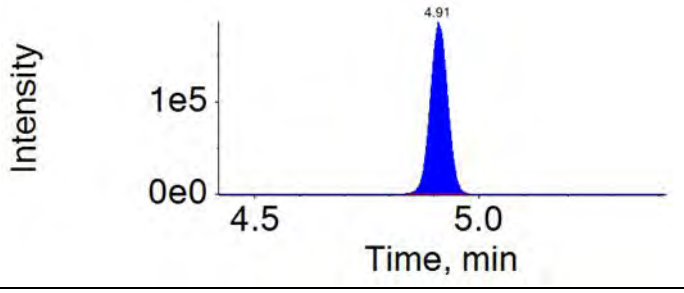
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



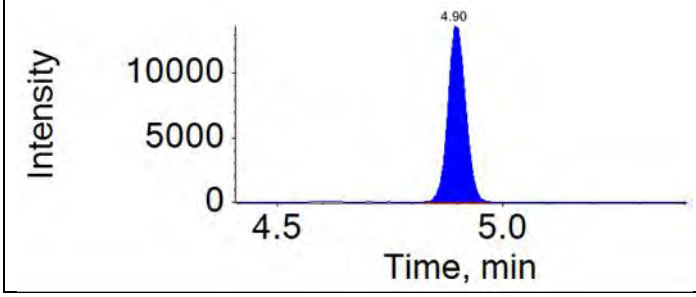


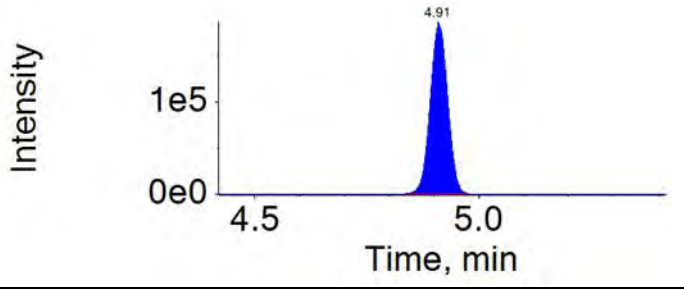
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

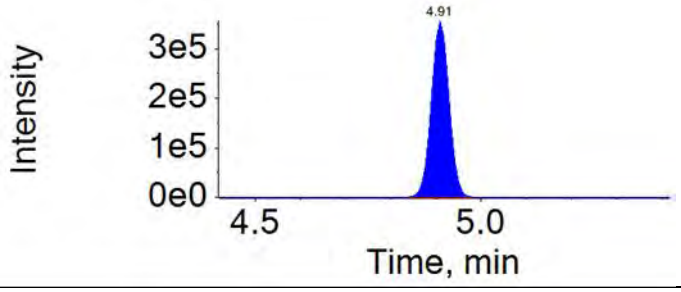
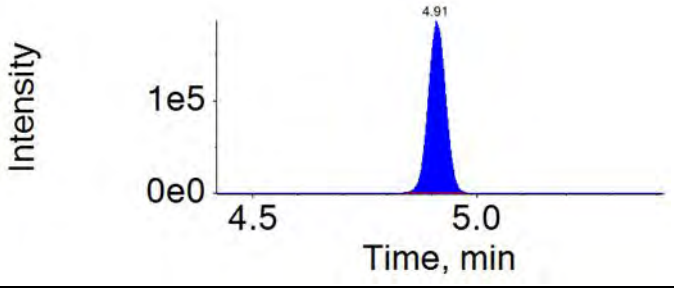


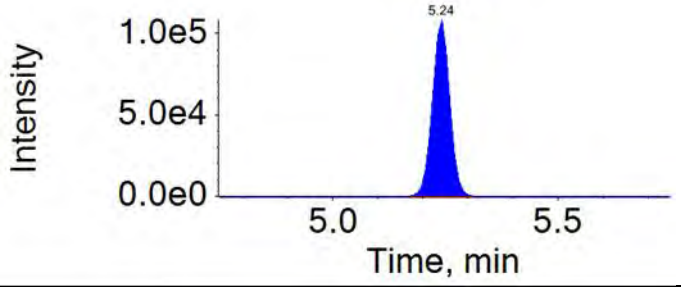
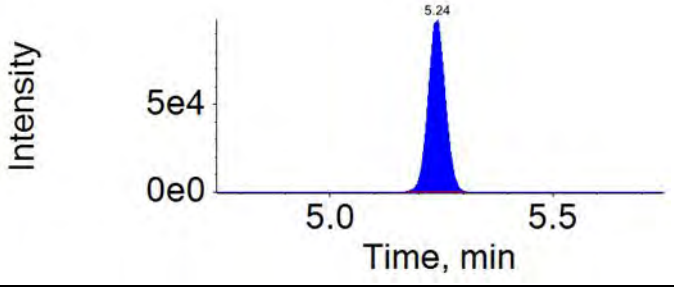


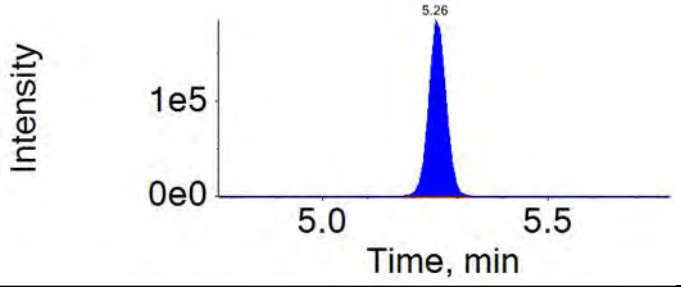
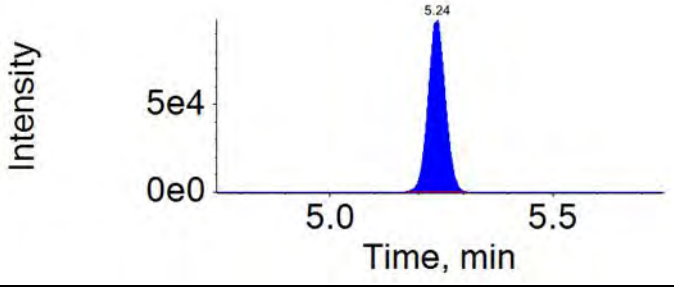
APPROVED
By JPT at 4:11 pm, 11/13/18

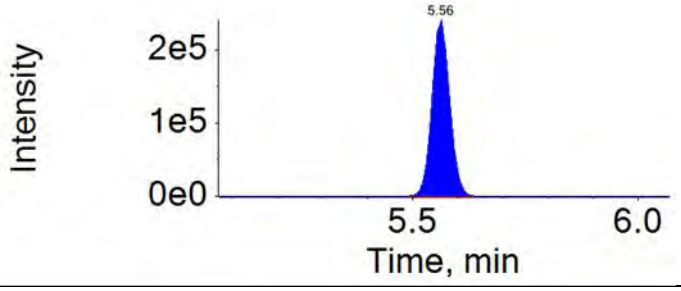
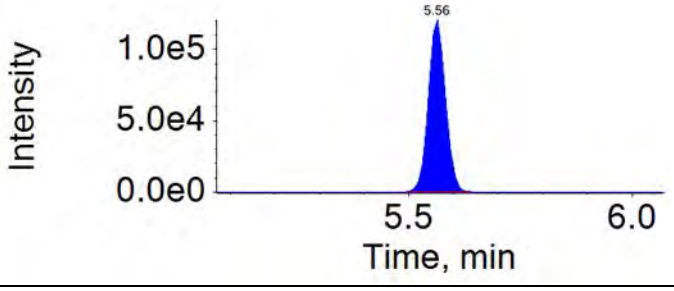
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

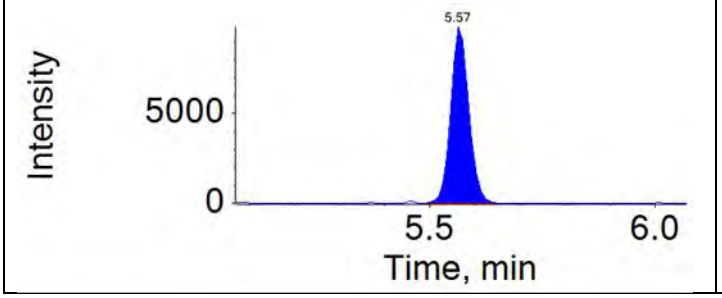
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

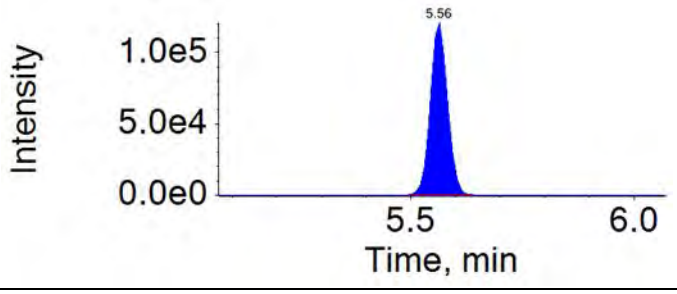
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

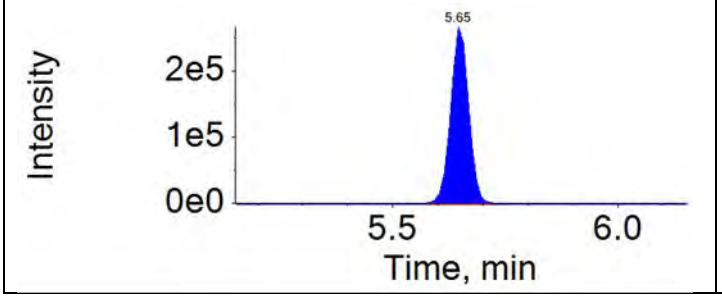
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

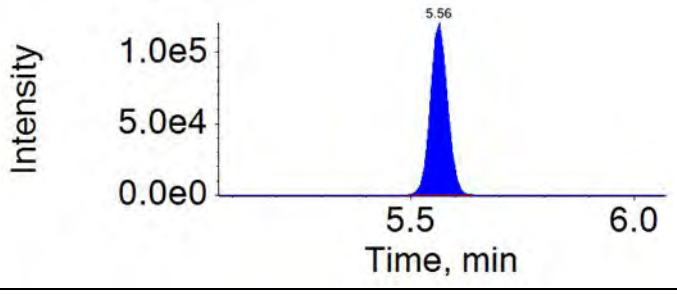
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



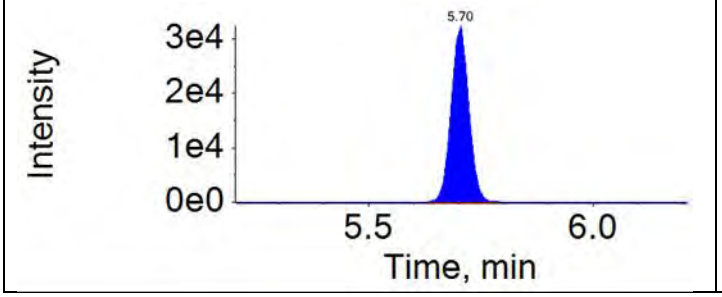


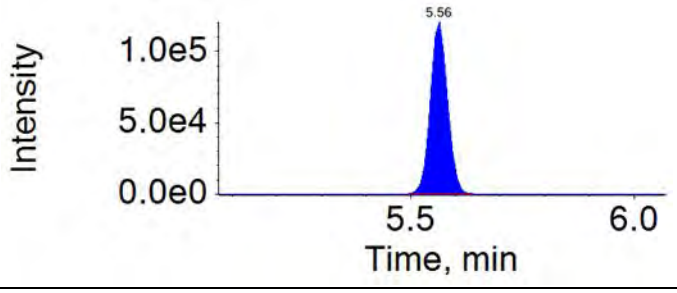
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



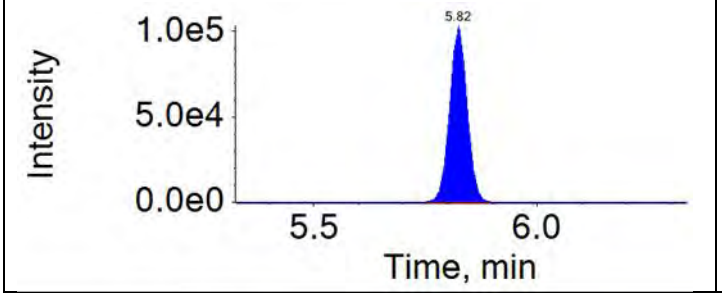


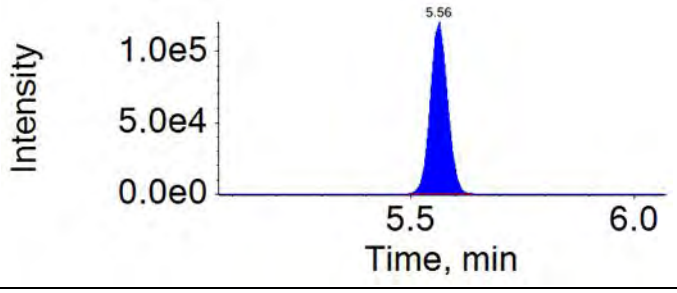
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

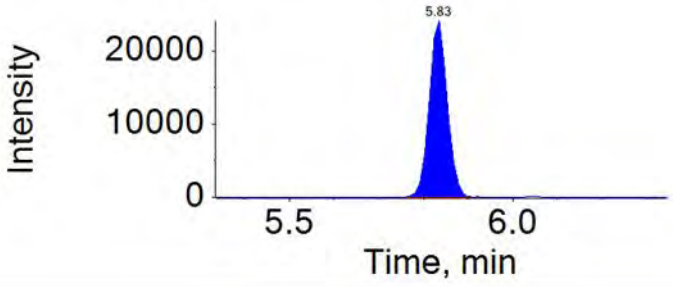
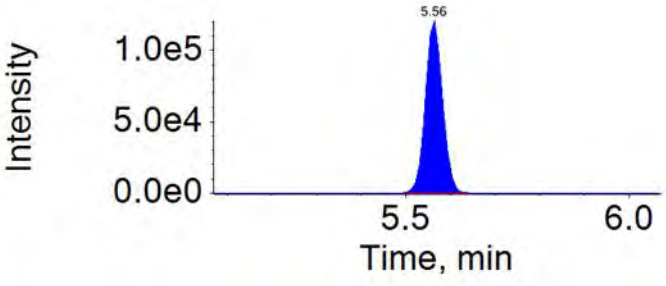


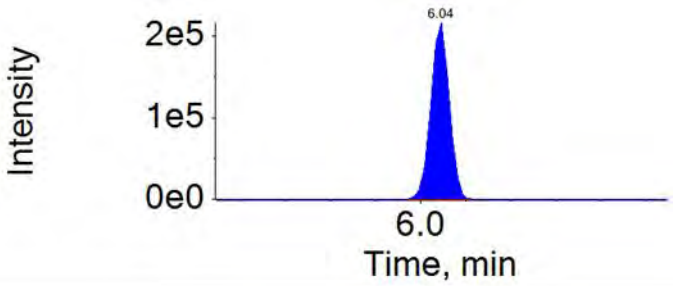
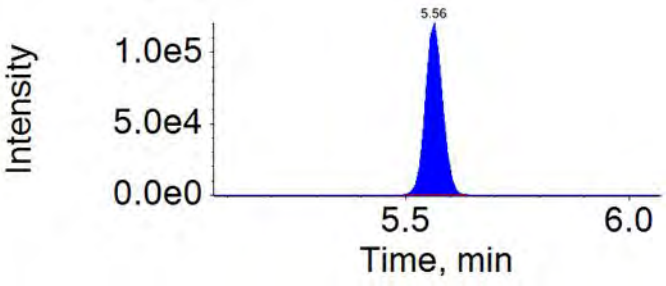


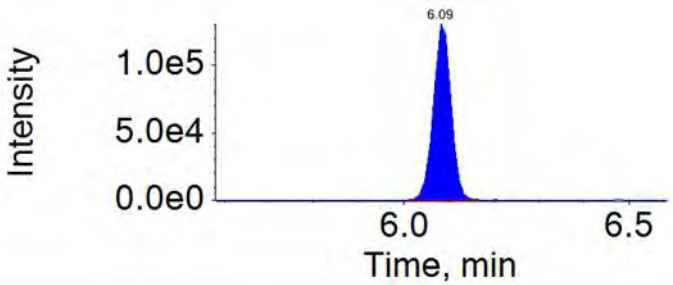
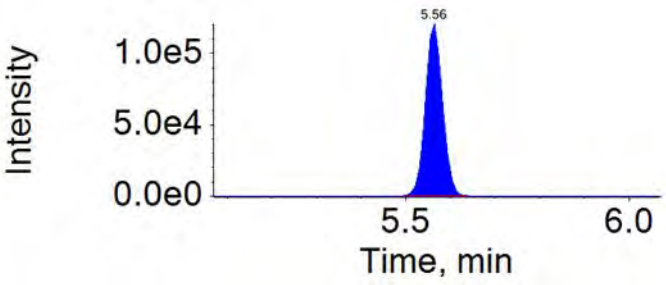
APPROVED
By JPT at 4:11 pm, 11/13/18

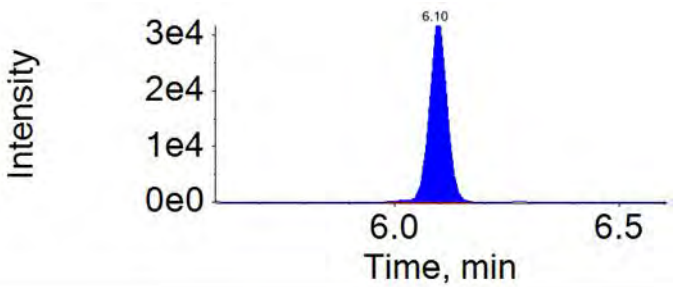
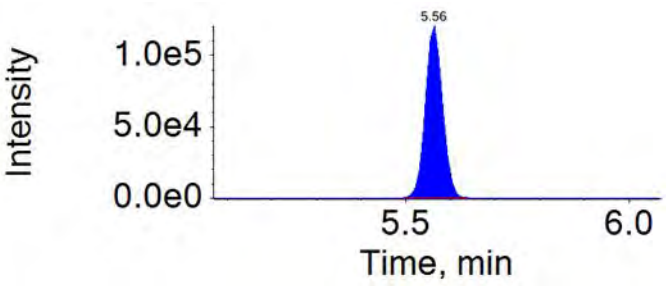
REVIEWED
By umar at 5:38 pm, 11/13/18

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
	

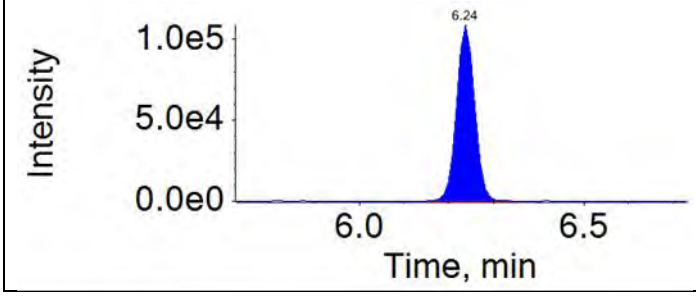
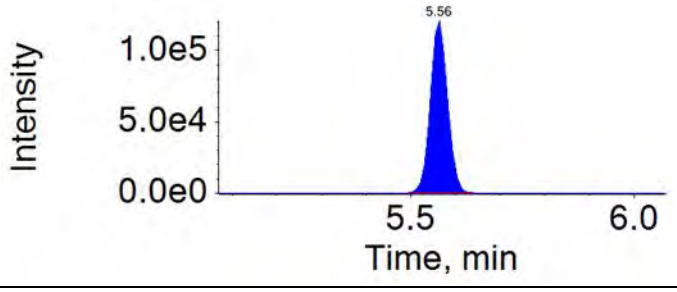
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

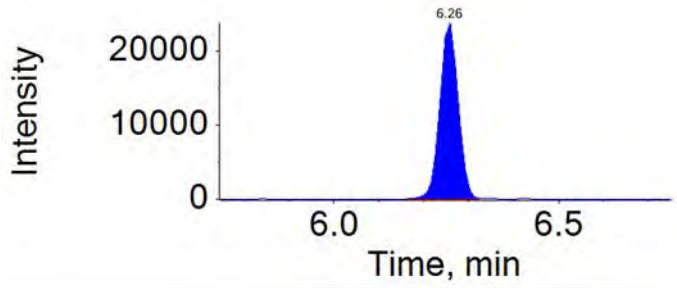
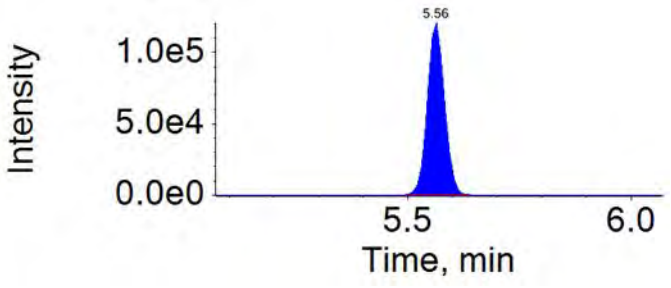
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

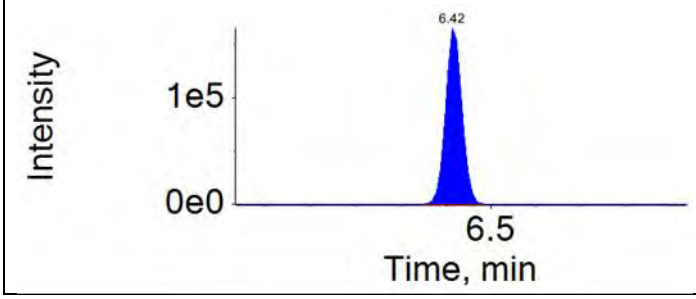
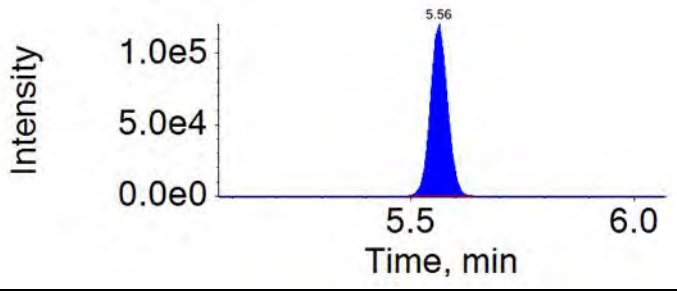
APPROVED
By JPT at 4:11 pm, 11/13/18

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
	

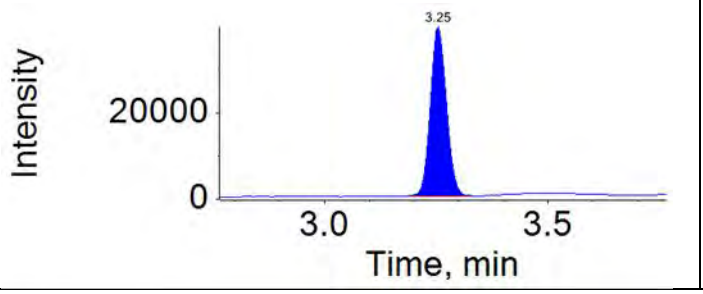
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0
	

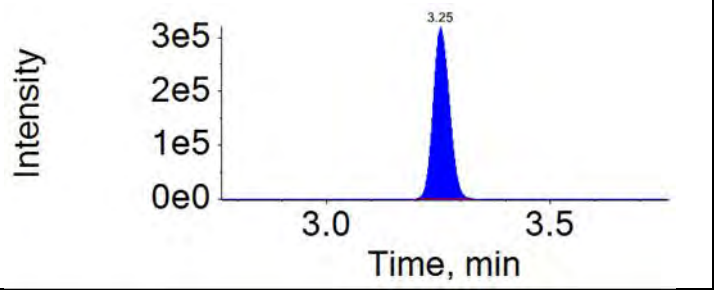
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

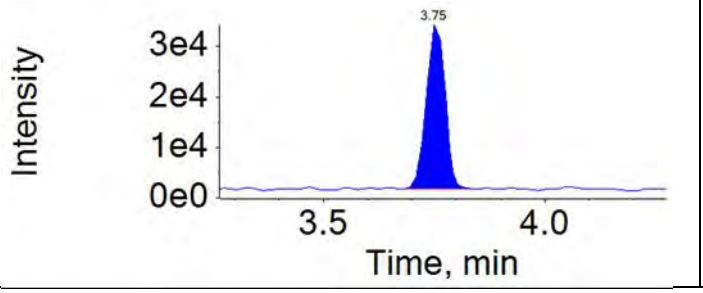
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

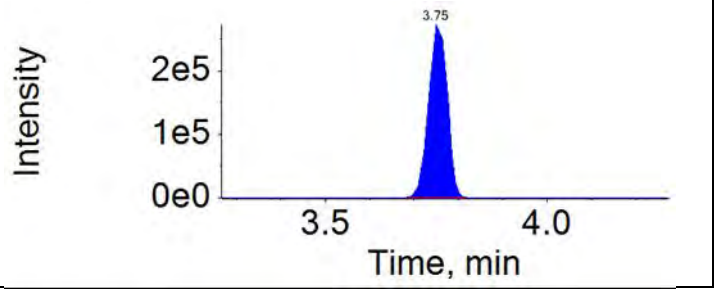
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



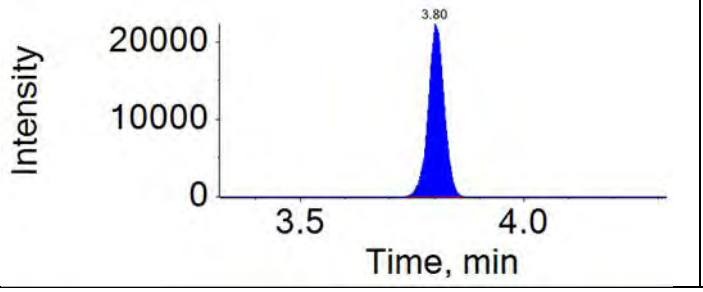


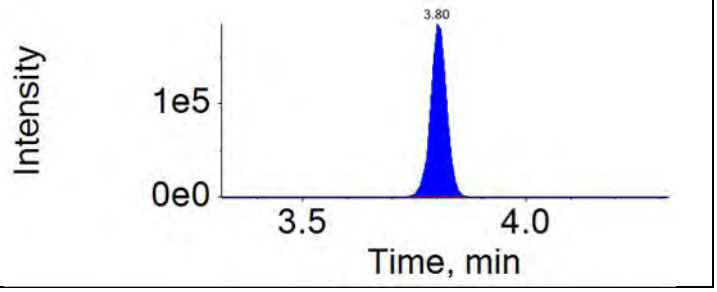
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



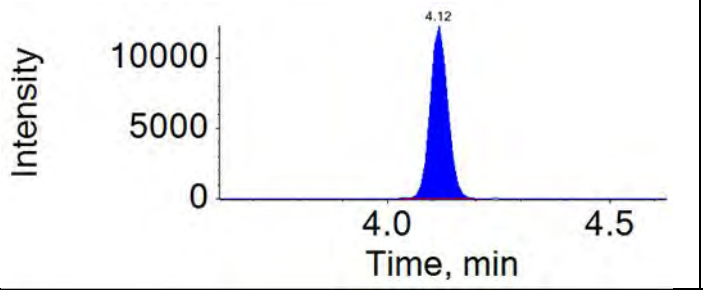


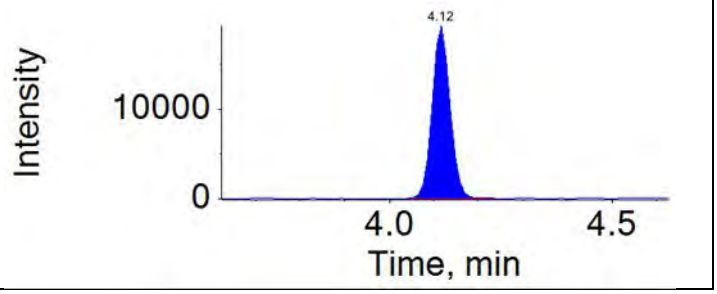
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



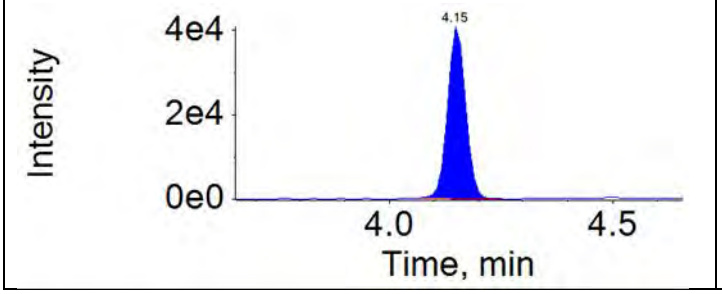


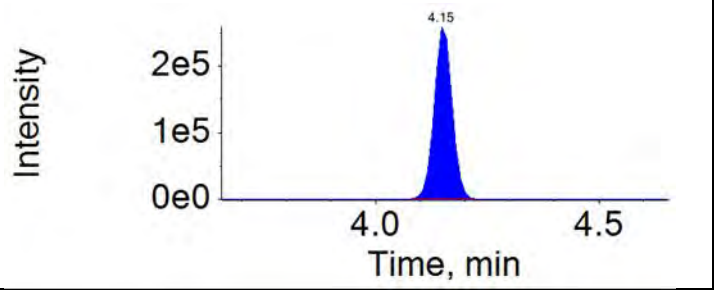
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

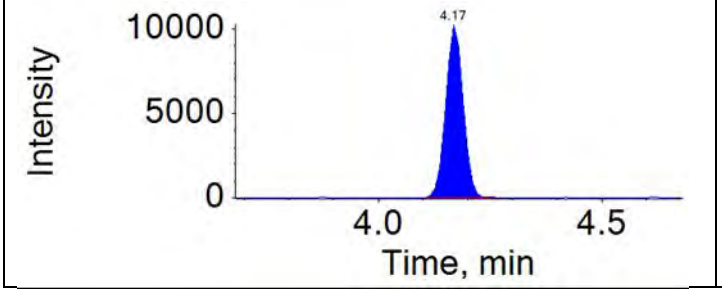
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

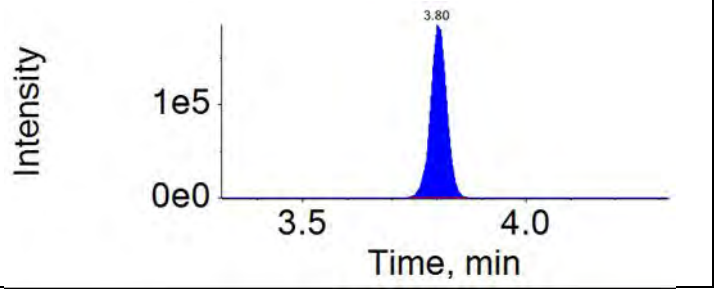
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



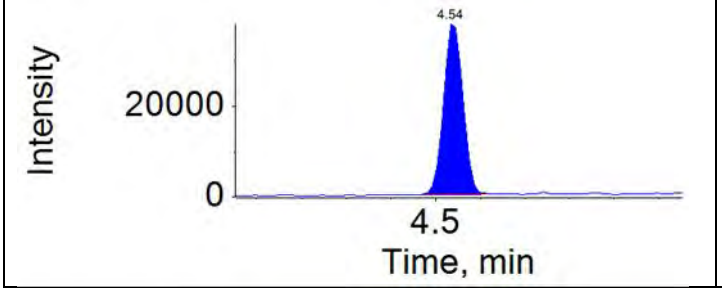


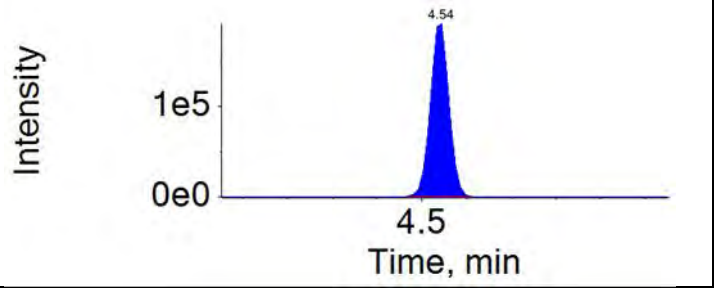
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



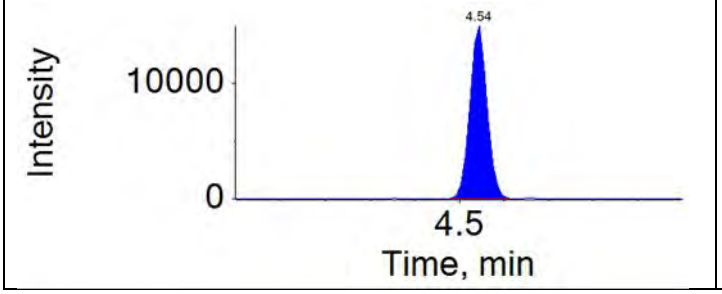


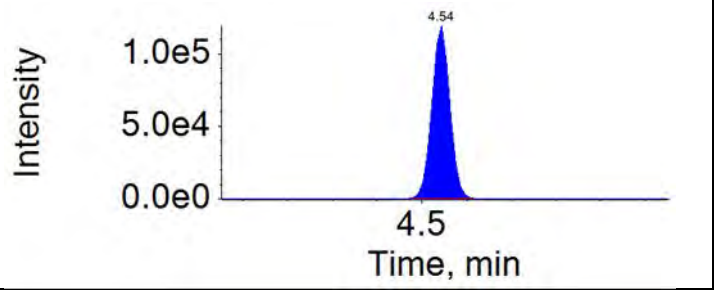
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



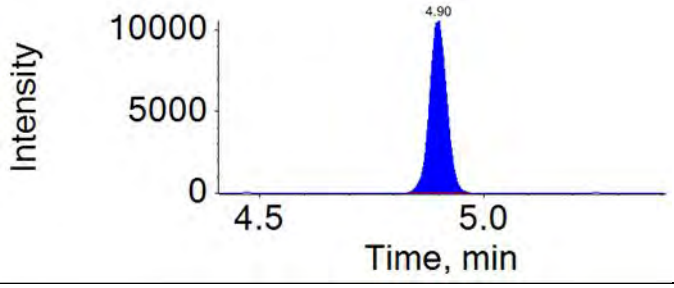
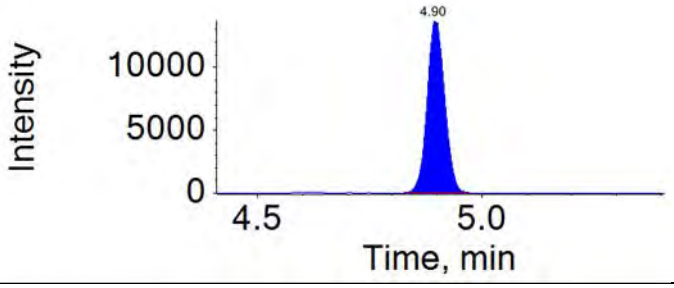


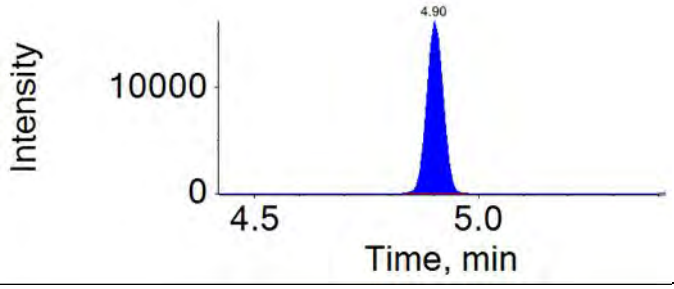
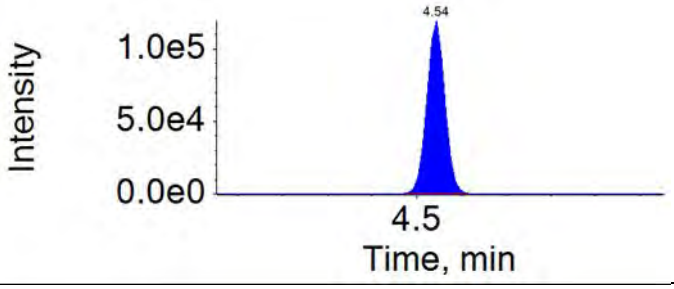
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

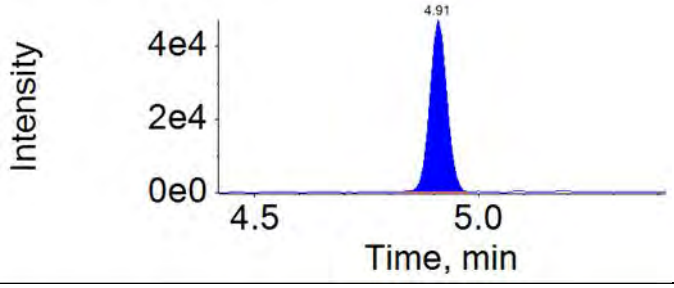
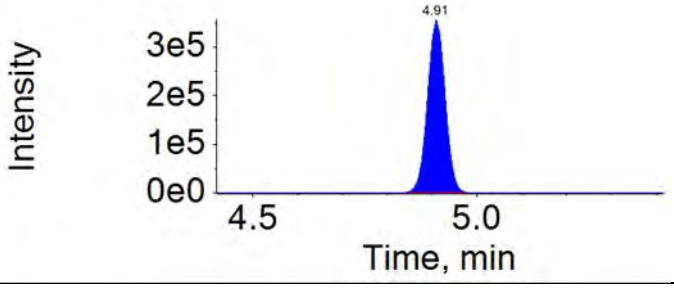


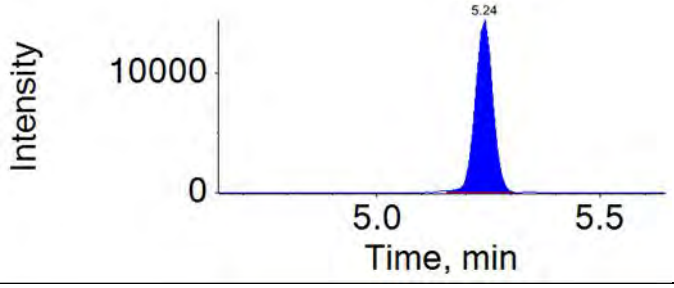
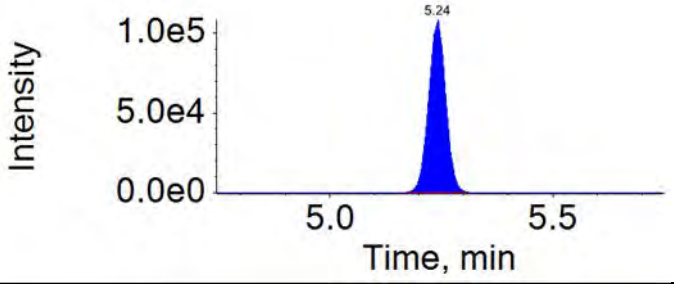


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

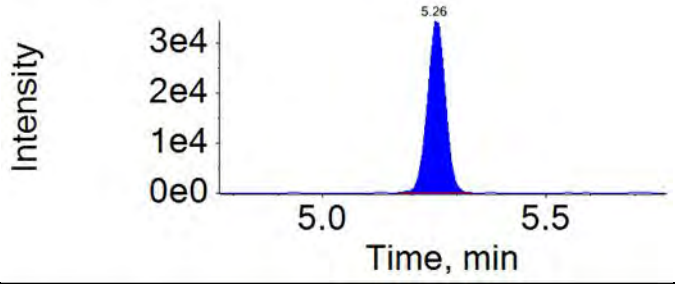
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

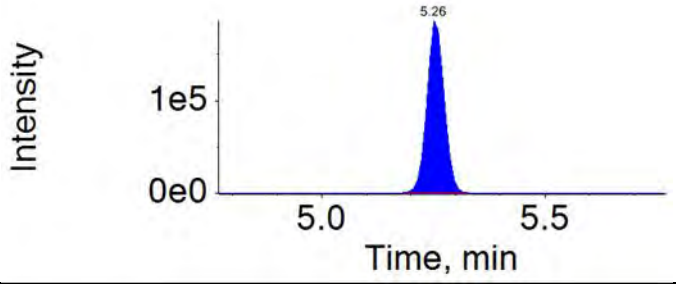
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

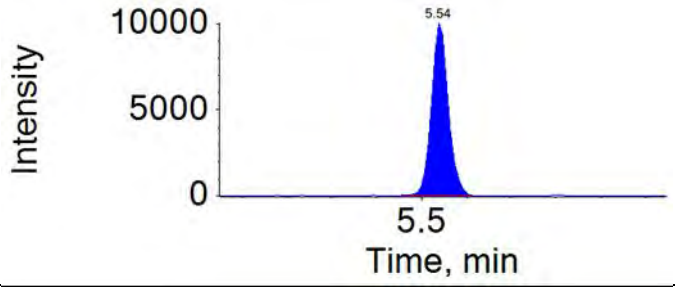
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

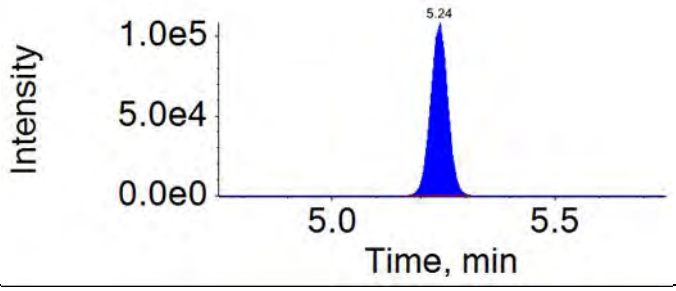
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



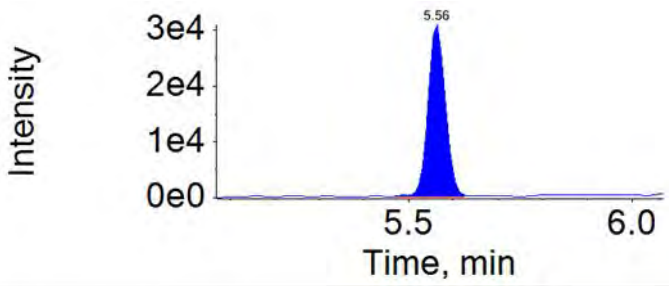


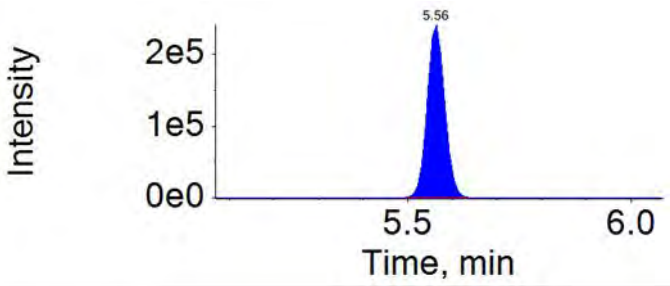
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



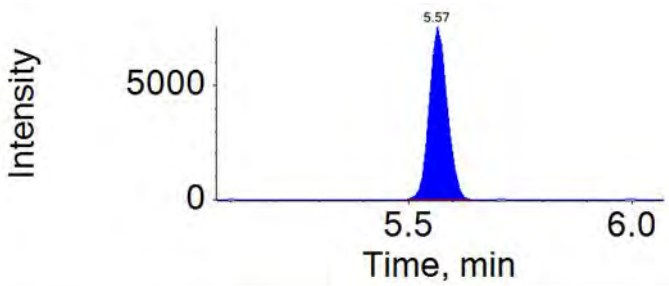


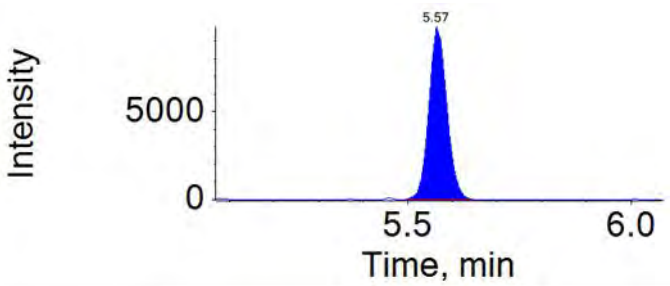
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



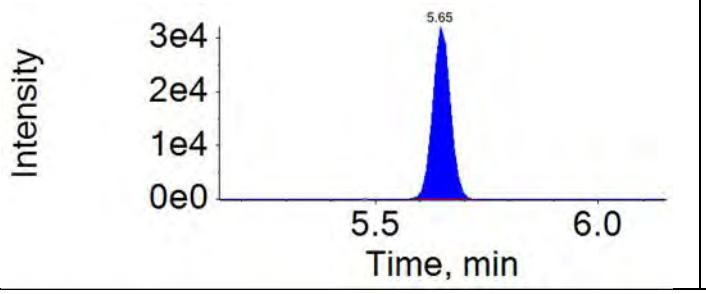


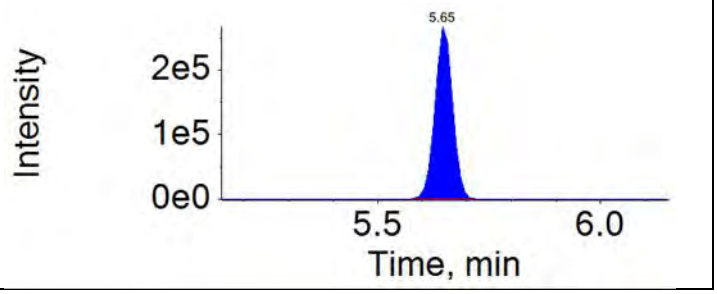
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

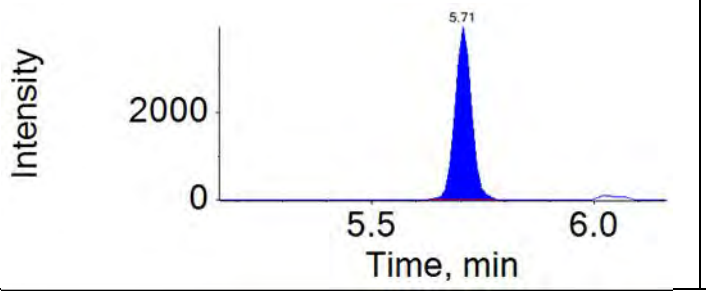
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

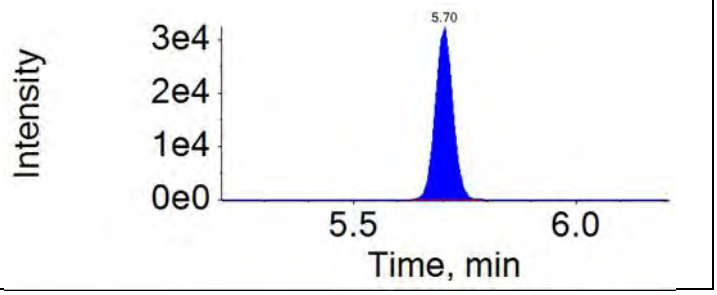
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



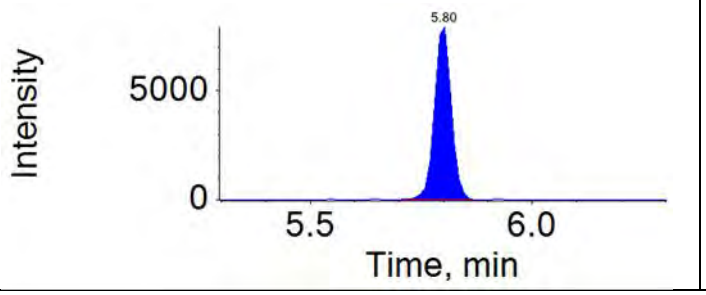


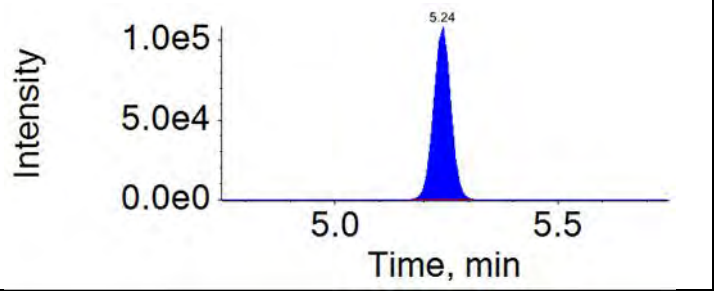
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



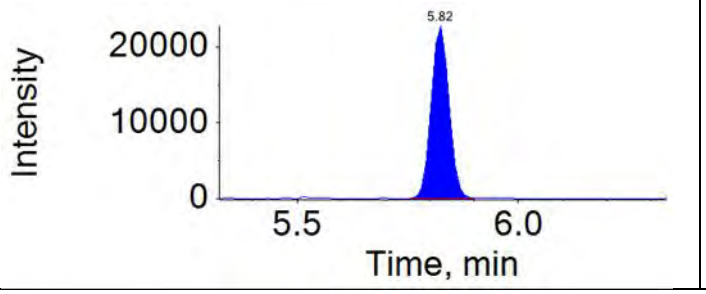


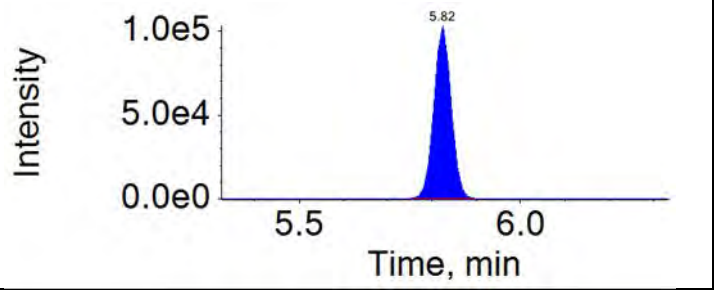
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0

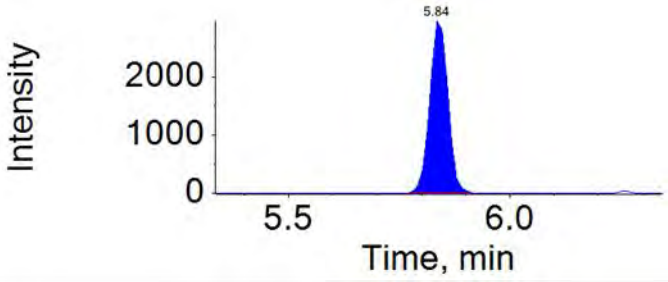
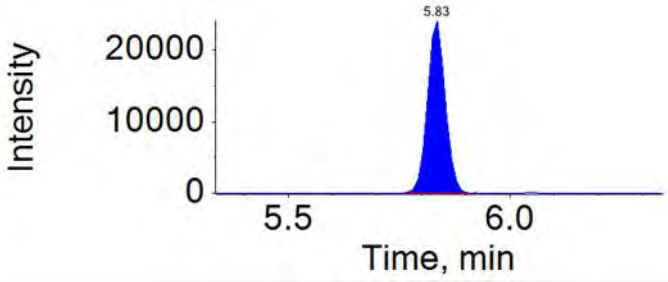


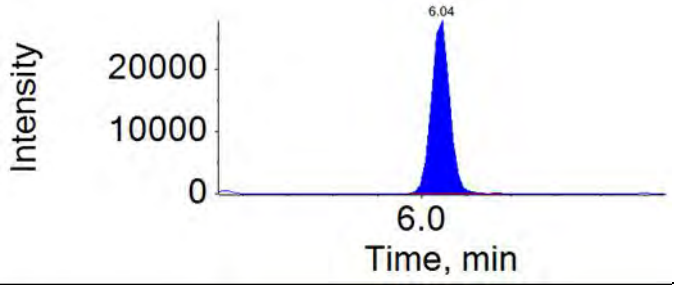
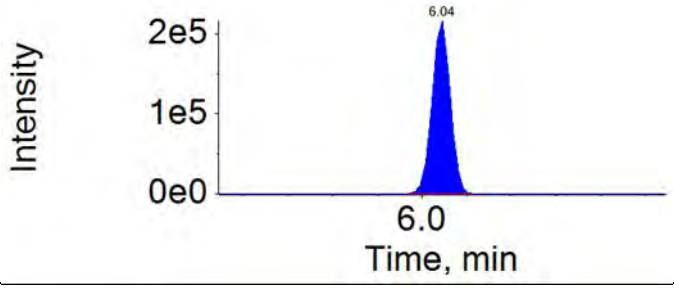


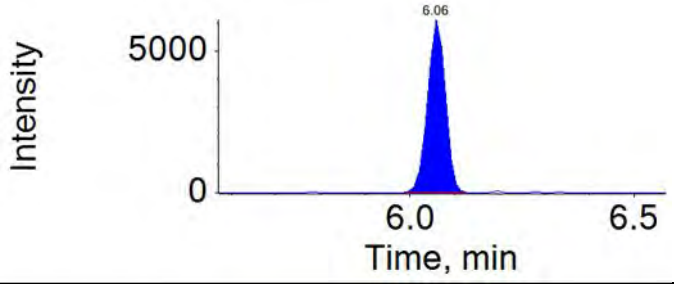
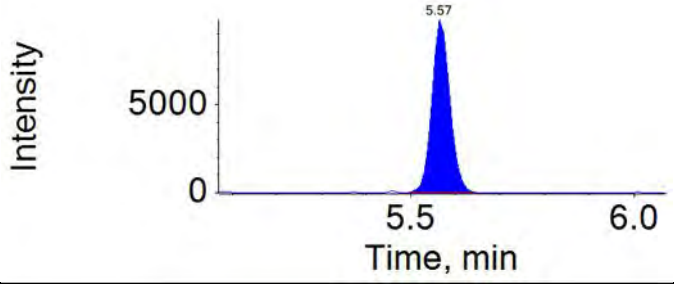
APPROVED
By JPT at 4:11 pm, 11/13/18

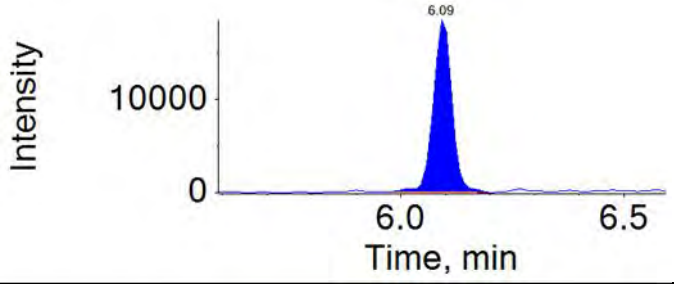
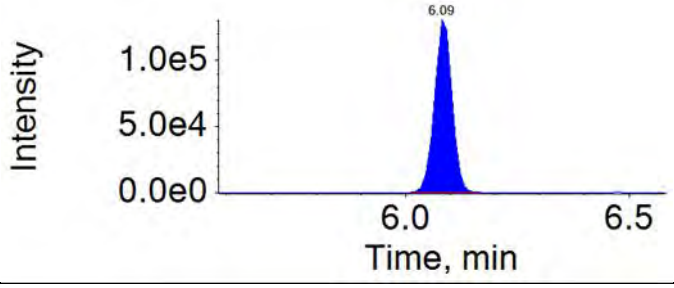
REVIEWED
By umar at 5:38 pm, 11/13/18

ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

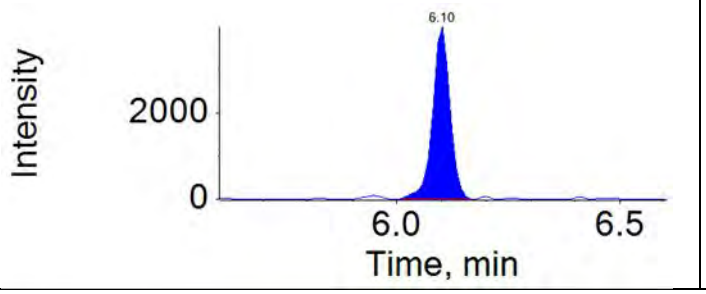
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

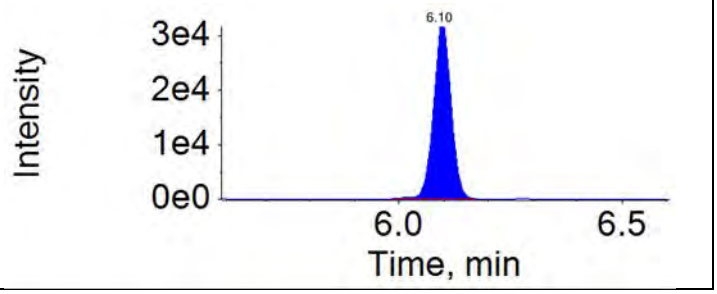
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

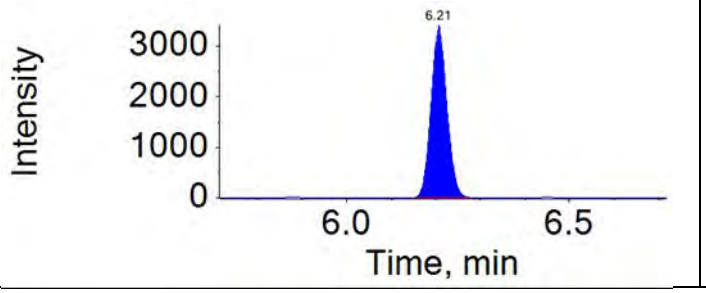
ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

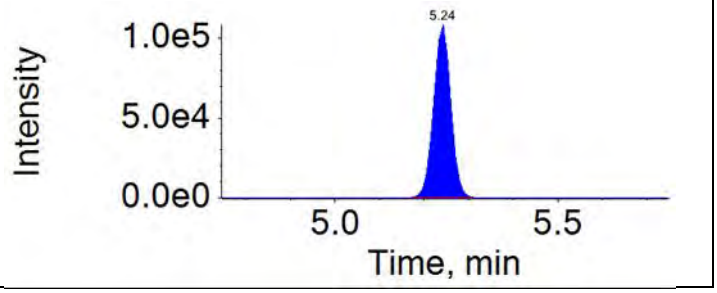
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



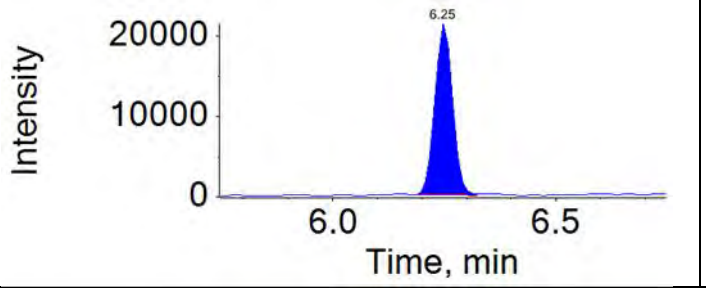


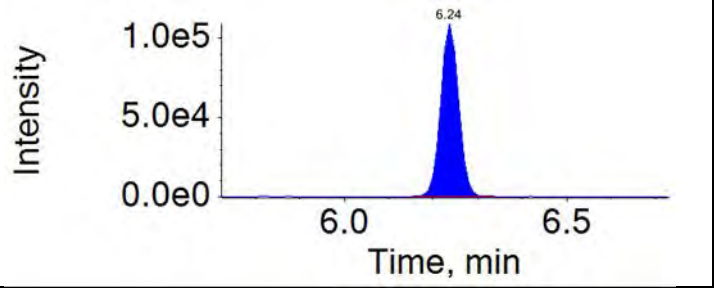
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



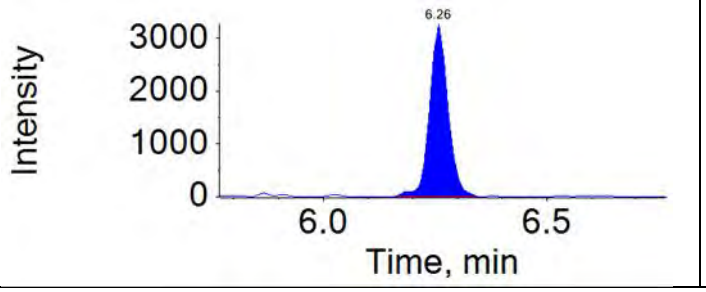


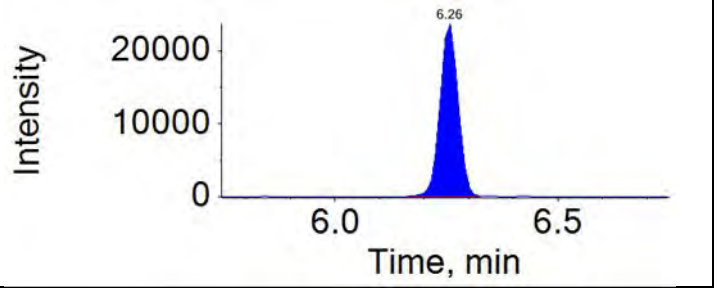
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0



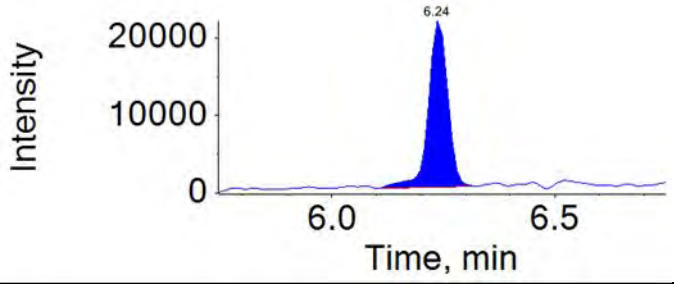
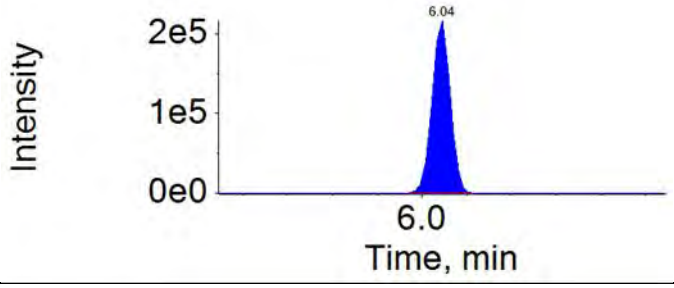


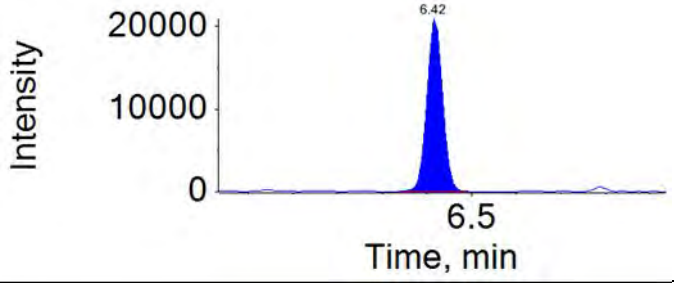
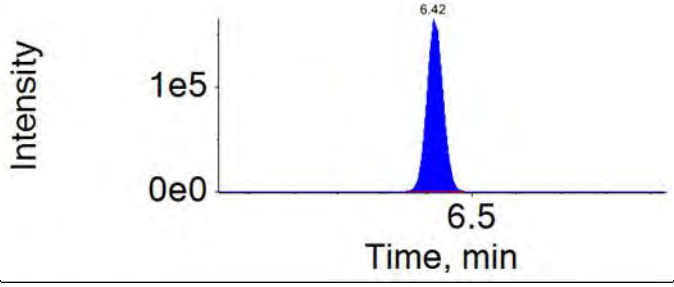
Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

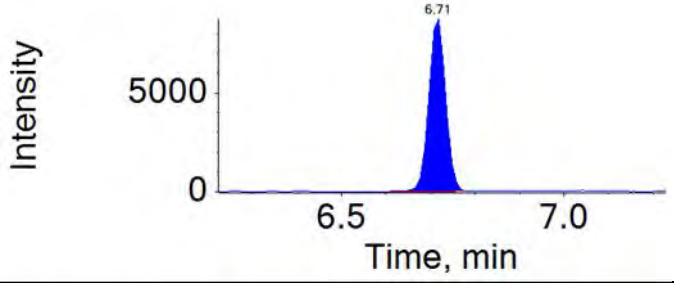
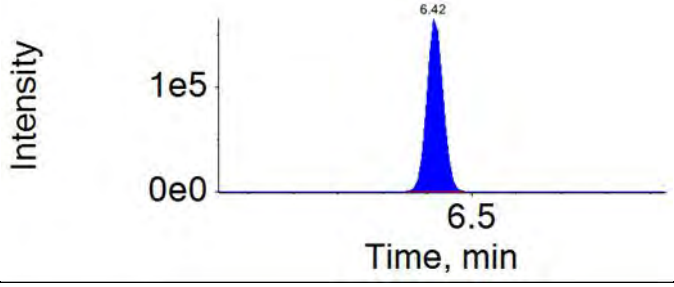


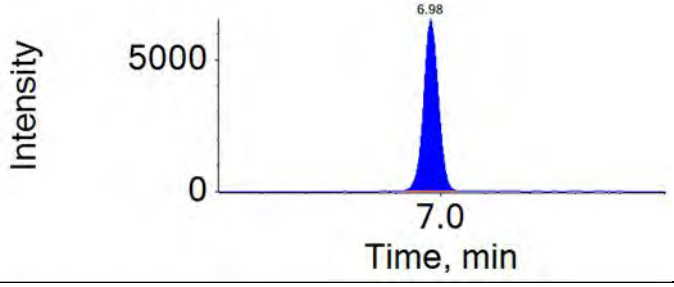
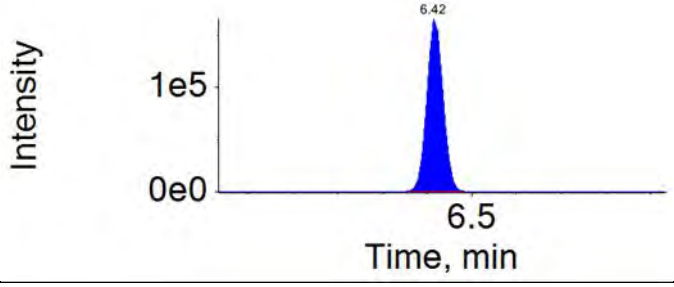


ICAL Name: 18NOV12DCAL **Result Table:** 18314009 11/13/2018 3:55:38 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

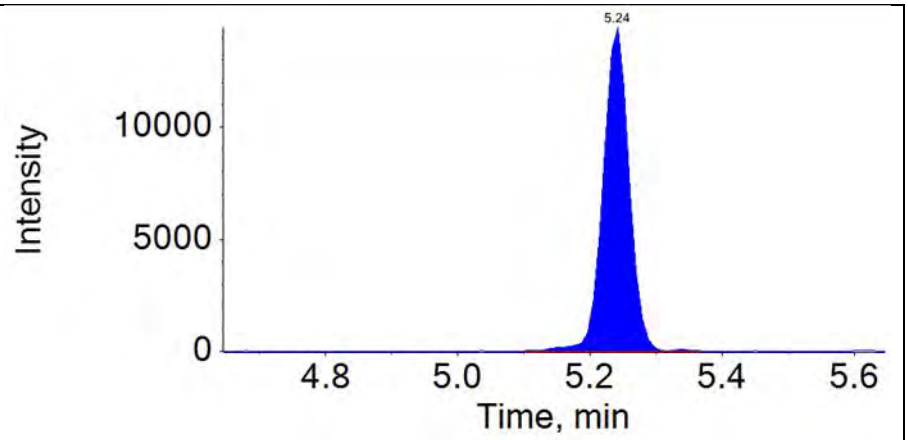
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

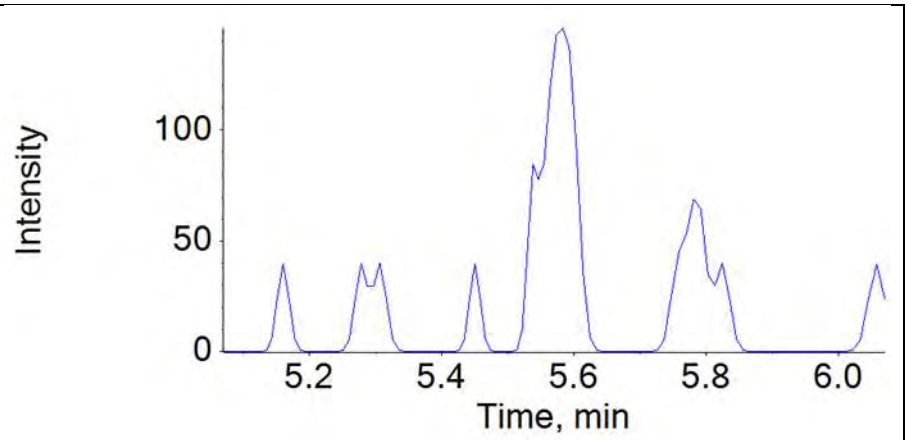
Results Table Name: 18314009
Results Table Date: 11/13/2018 3:55:38 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
39962.8
Mass Range:
499.0 / 80.0
File Name:
18NOV12D-63.wiff
Sample Name:
LCSDA



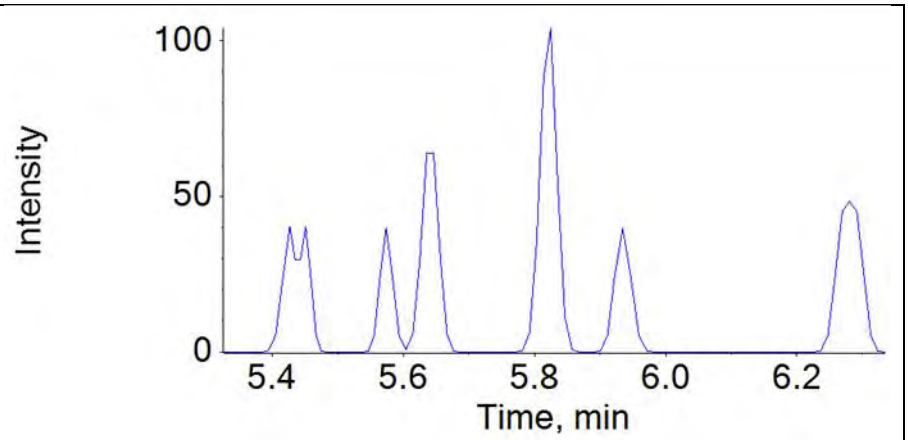
Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
513.0 / 169.0
File Name:
18NOV12D-63.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
563.0 / 169.0
File Name:
18NOV12D-63.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

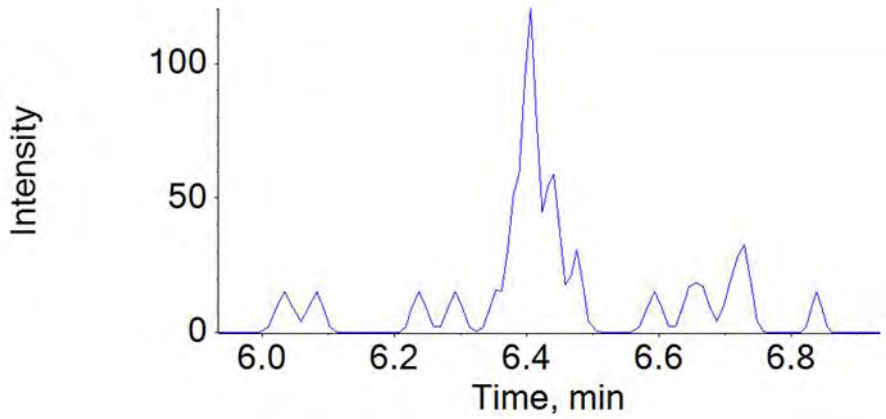
APPROVED
By JPT at 4:11 pm, 11/13/18

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

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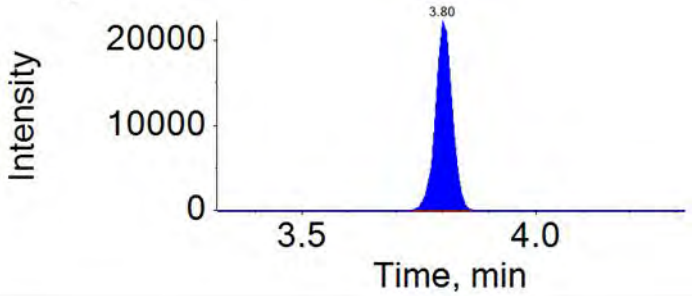
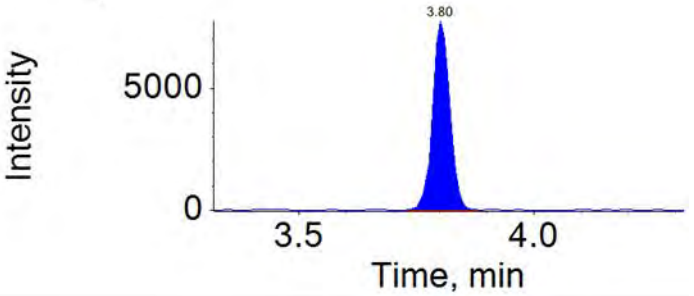
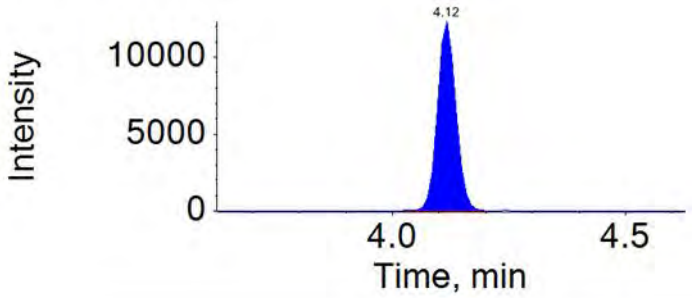
Component: PFBS
Primary Mass: 299.0 / 80.0



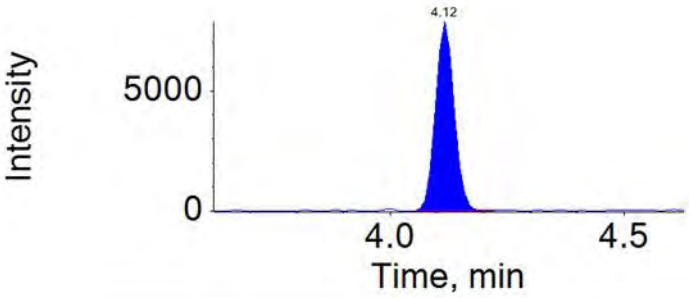
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



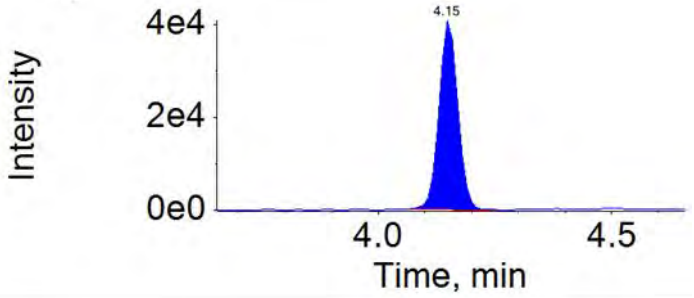
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



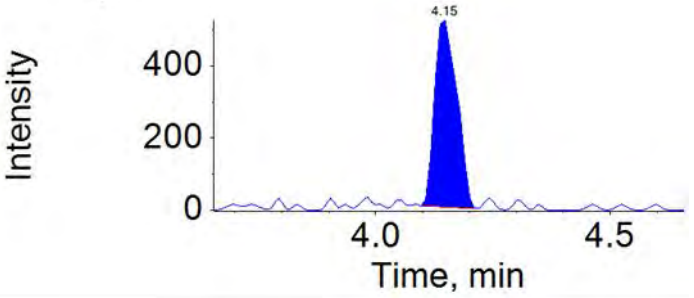
Component: 4:2 FTS_2
Secondary Mass: 327.0 / 81.0



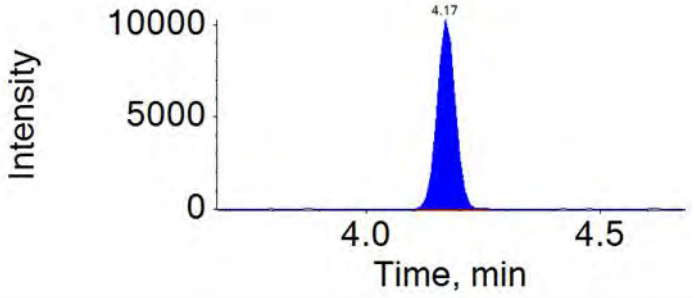
Component: PFHxA
Primary Mass: 313.0 / 269.0



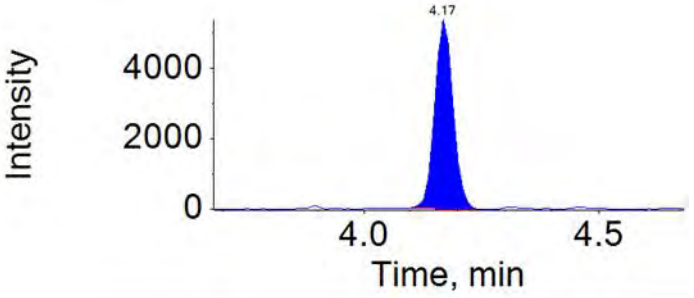
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



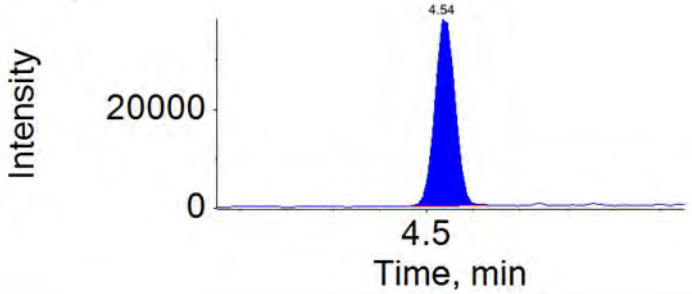
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



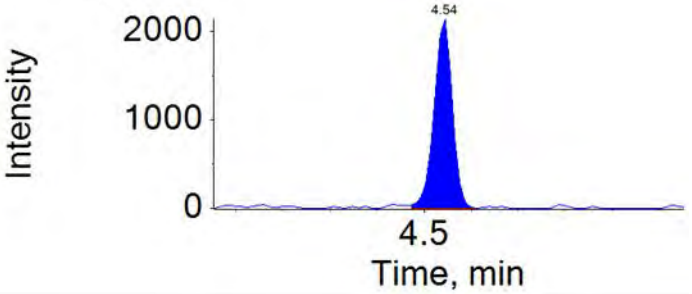
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

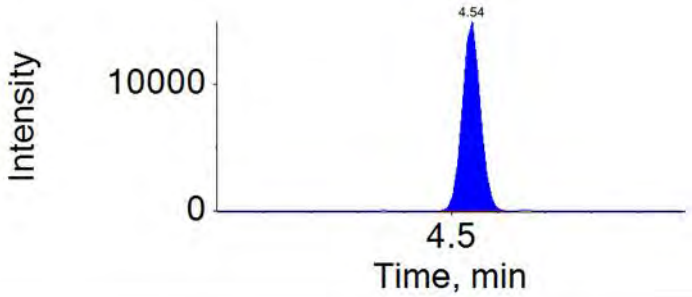
Component: PFHpA
Primary Mass: 363.0 / 319.0



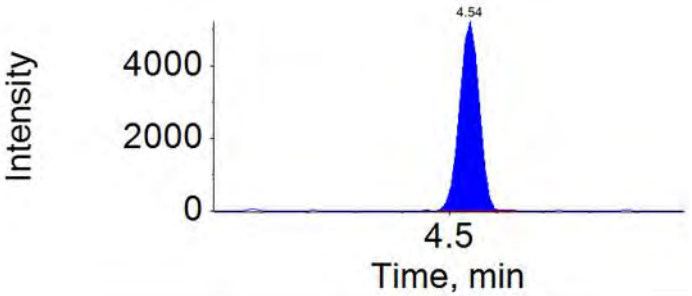
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



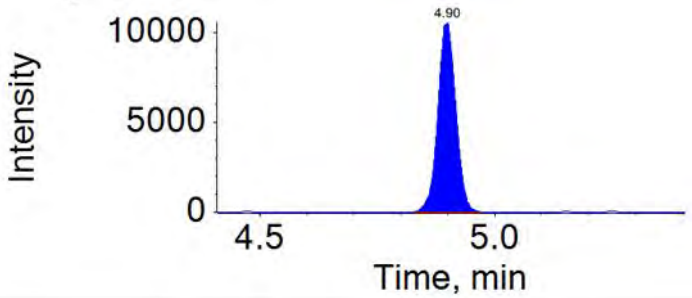
Component: PFHxS
Primary Mass: 399.0 / 80.0



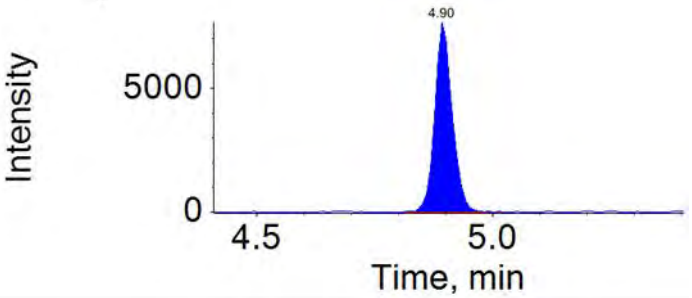
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



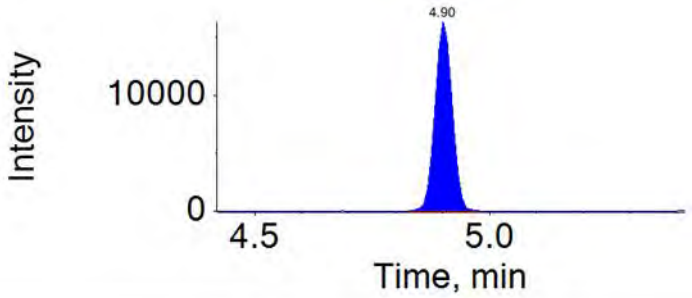
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



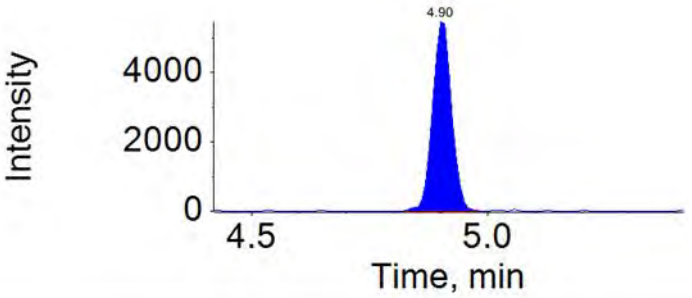
Component: 6:2 FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



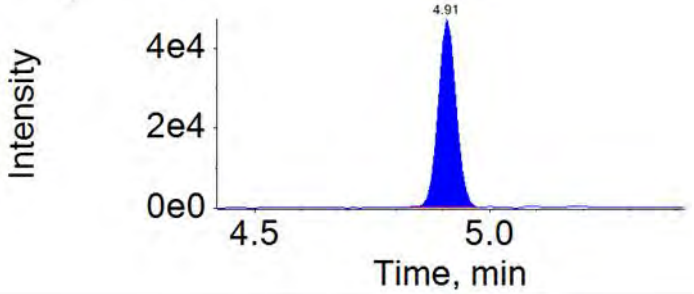
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



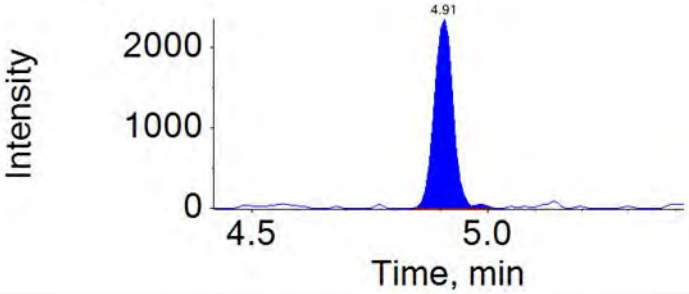
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

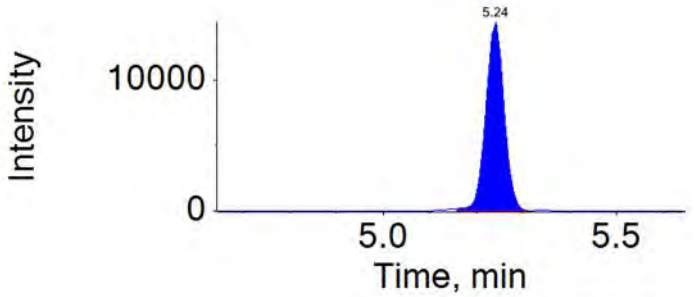
Component: PFOA
Primary Mass: 413.0 / 369.0



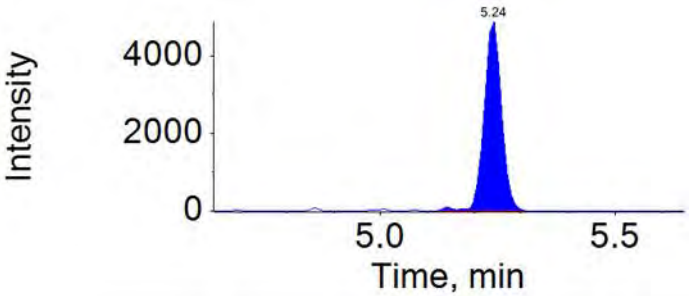
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



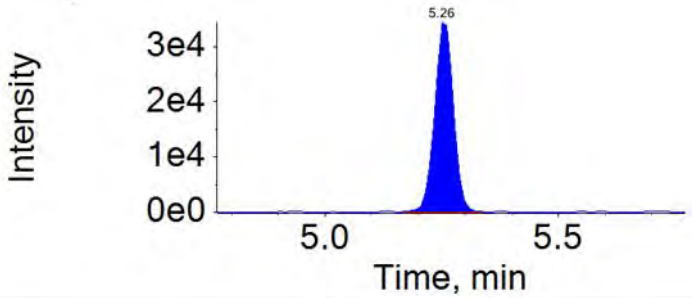
Component: PFOS
Primary Mass: 499.0 / 80.0



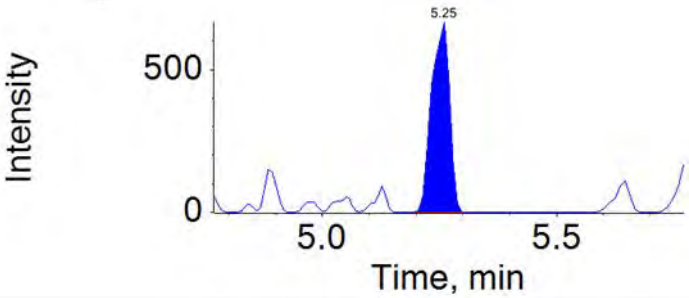
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



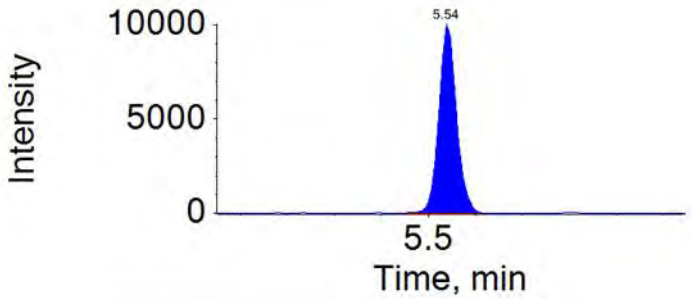
Component: PFNA
Primary Mass: 463.0 / 419.0



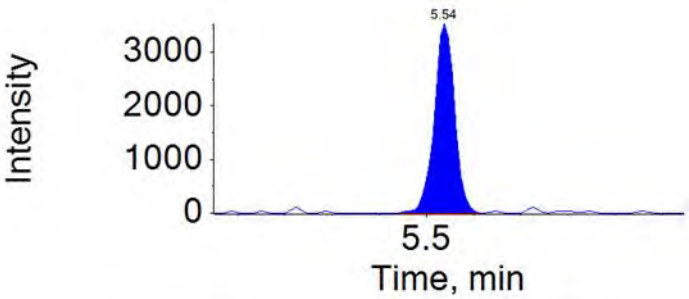
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



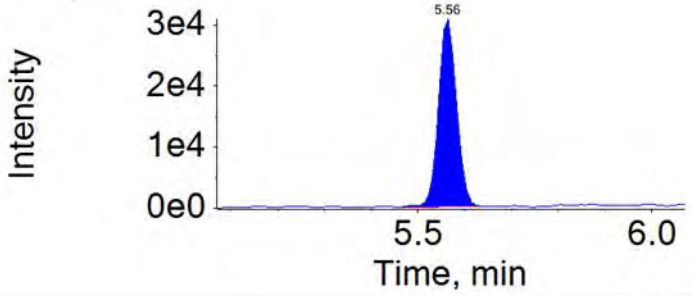
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



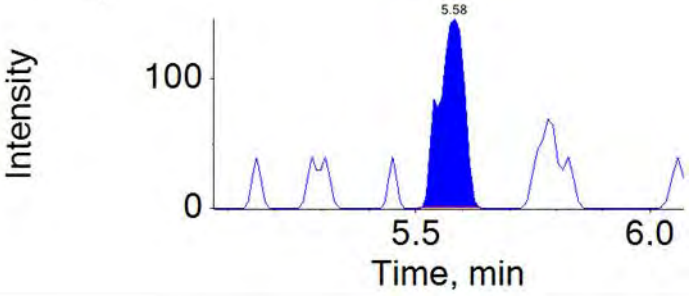
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

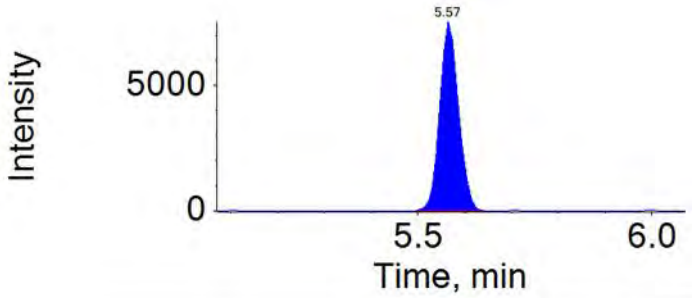
Component: PFDA
Primary Mass: 513.0 / 469.0



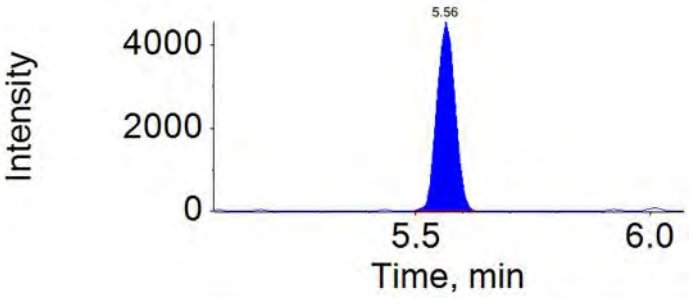
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



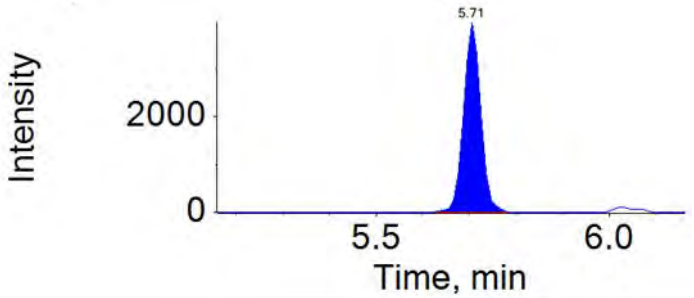
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



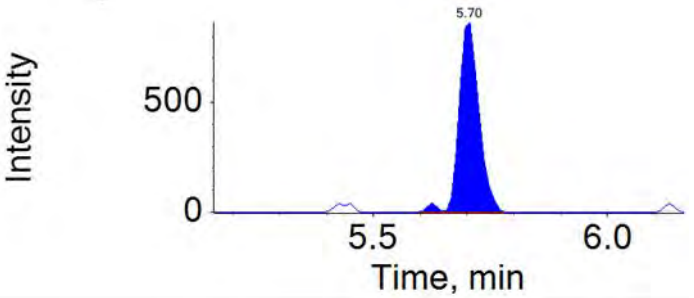
Component: 8:2 FTS_2
Secondary Mass: 527.0 / 81.0



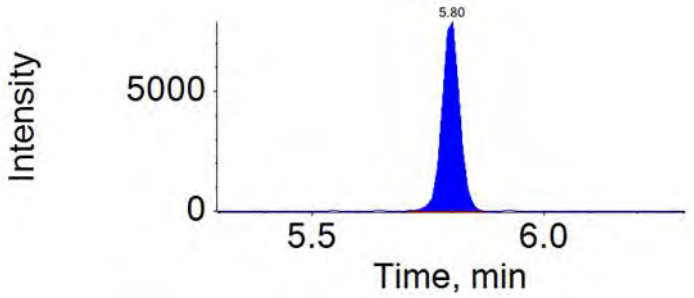
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



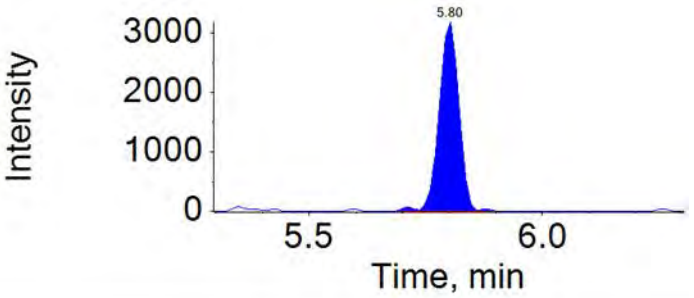
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



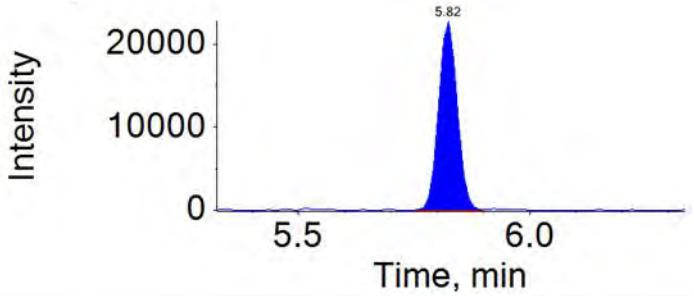
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



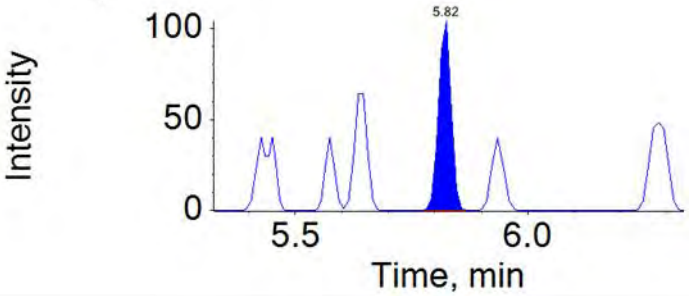
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

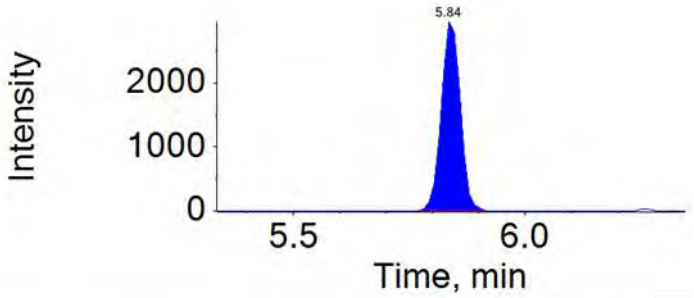
Component: PFUnDA
Primary Mass: 563.0 / 519.0



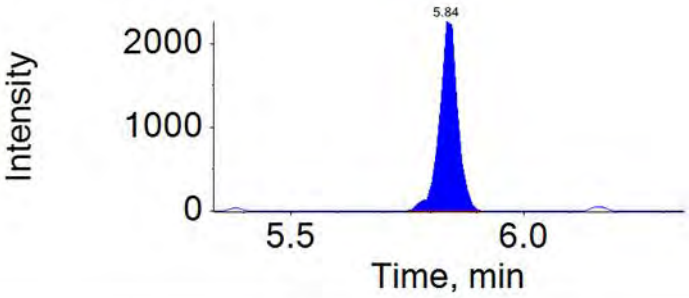
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



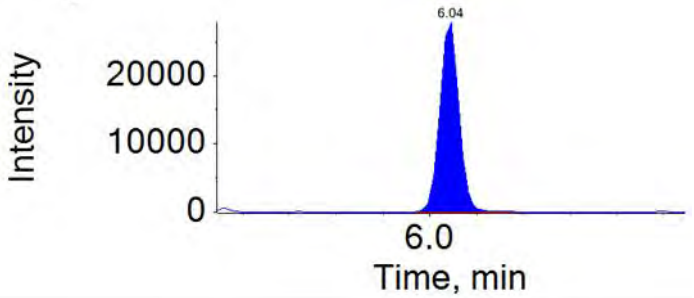
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



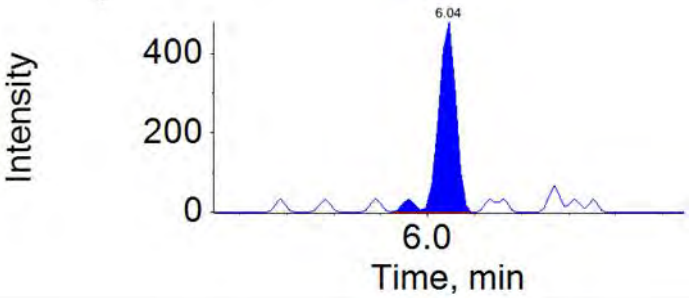
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



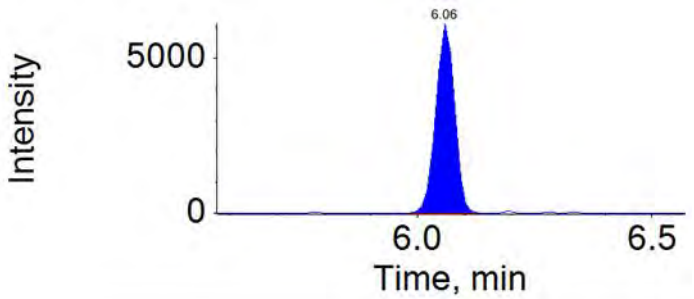
Component: PFDoDA
Primary Mass: 613.0 / 569.0



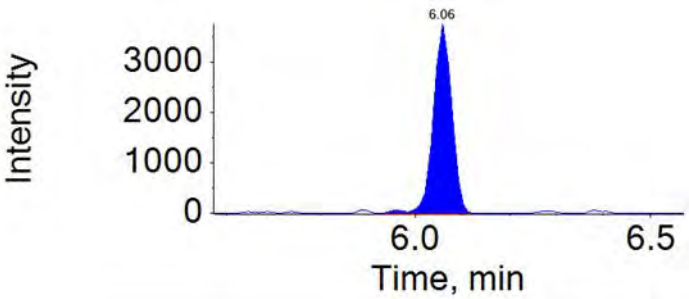
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



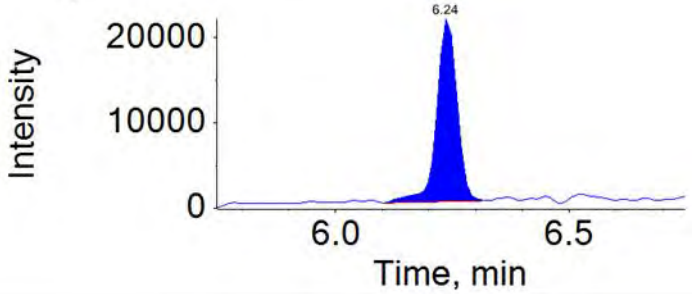
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



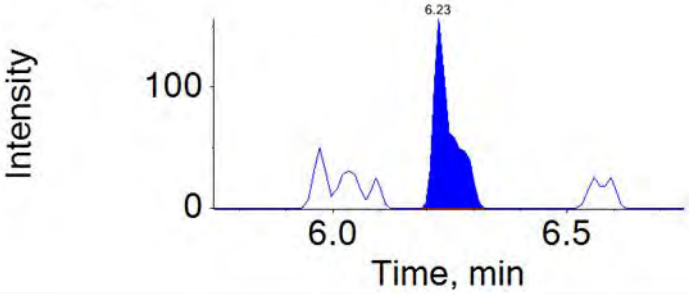
Component: 10:2 FTS_2
Secondary Mass: 627.0 / 81.0



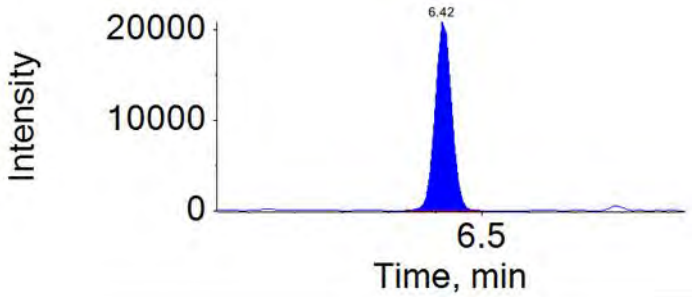
Component: PFTrDA
Primary Mass: 663.0 / 619.0



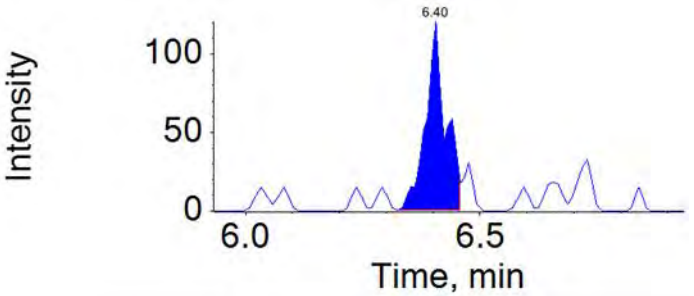
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



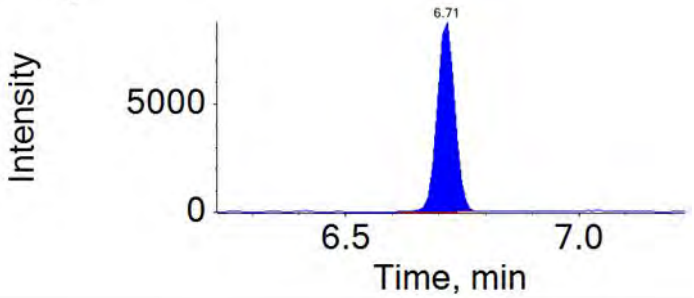
Component: PFTeDA
Primary Mass: 713.0 / 669.0



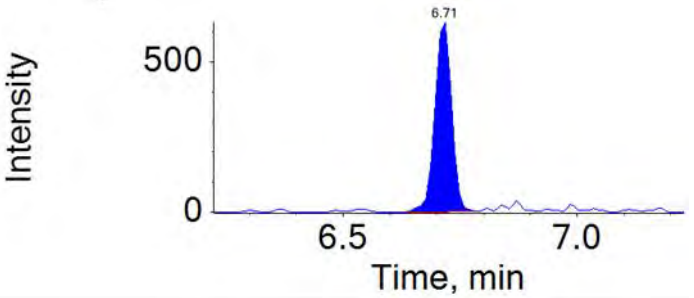
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



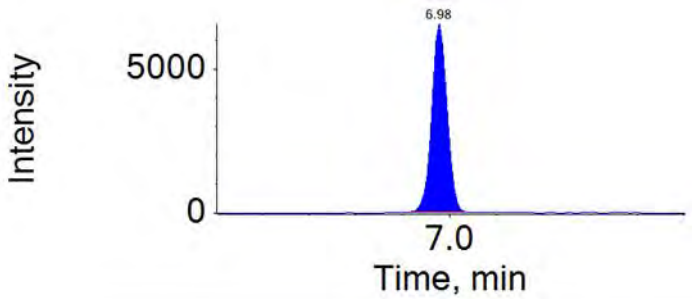
Component: PFHxDA
Primary Mass: 813.0 / 769.0



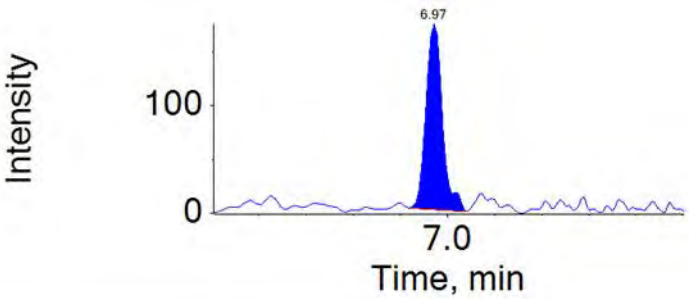
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



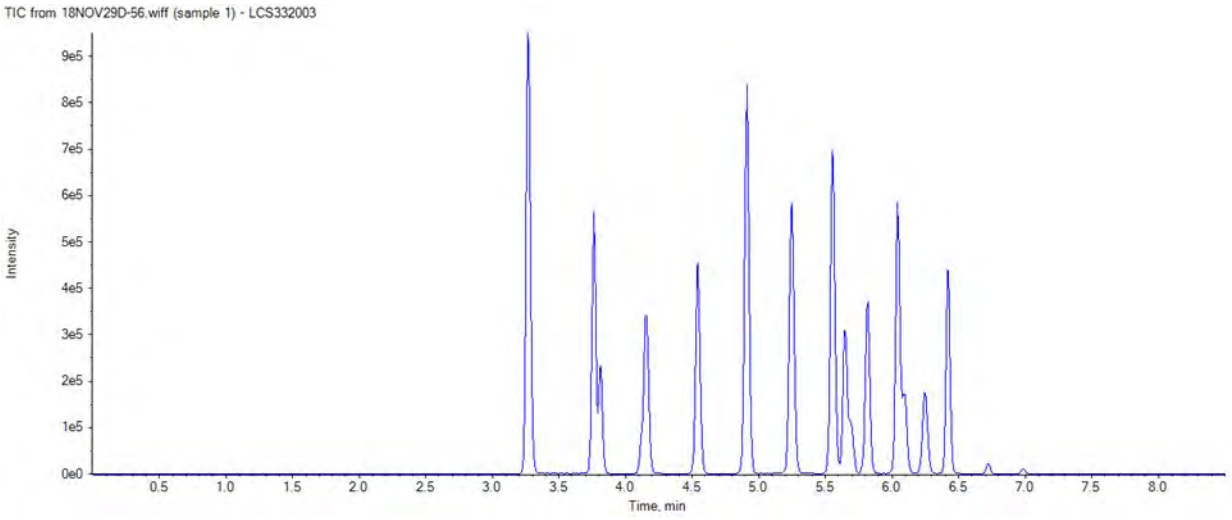
APPROVED
By JPT at 4:11 pm, 11/13/18

REVIEWED
By umar at 5:38 pm, 11/13/18

Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS332003	EPA 537 mod QSM 5.1 table B-15 18332003	18NOV29D-56.wiff	2018-11-29T18:13:39



Injection Standard Area Reference File**:** 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	1066376.9	906425.4	18	50	
13C2-PFOA	5.00	600874.3	495984.0	21	50	
13C4-PFOS	4.78	371548.8	296261.8	25	50	
13C2-PFDA	5.00	557509.7	451203.0	24	50	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:52:39 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS332003	EPA 537 mod QSM 5.1 table B-15 18332003	18NOV29D-56.wiff	2018-11-29T18:13:39

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	115213.7	1010092.5	0.114	1.360	1.251	92	70-130	
PFPeA	108769.2	993629.3	0.109	1.360	1.074	79	70-130	
PFBS	47400.8	411158.2	0.115	1.204	1.119	93	70-130	
4:2-FTS	44925.4	83476.3	0.538	3.736	2.881	77	70-130	
PFHxA	108517.0	673048.2	0.161	1.360	1.294	95	70-130	
PFPeS	25275.2	411158.2	0.061	1.276	1.244	97	70-130	
PFHpA	111132.4	537048.3	0.207	1.360	1.277	94	70-130	
PFHxS	38520.3	340075.1	0.113	1.286	1.061	82	70-130	
6:2-FTS	43250.5	75006.8	0.577	3.792	3.009	79	70-130	
PFHpS	39014.5	340075.1	0.115	1.294	1.145	88	70-130	
PFOA	111412.0	997849.3	0.112	1.360	1.154	85	70-130	
PFOS	36350.5	335227.0	0.108	1.300	0.910	70	70-130	
PFNA	107498.4	627256.0	0.171	1.360	1.314	97	70-130	
PFNS	25510.1	335227.0	0.076	1.306	0.961	74	70-130	
PFDA	91367.7	841987.6	0.109	1.360	1.228	90	70-130	
8:2-FTS	47406.4	58620.1	0.809	3.832	3.050	80	70-130	
PFOSA	71087.0	662825.4	0.107	1.360	1.087	80	70-130	
NMeFOSAA	20635.0	232183.4	0.089	1.360	1.134	83	70-130	
PFDS	22691.0	335227.0	0.068	1.310	1.073	82	70-130	
PFUnDA	109727.5	579460.2	0.189	1.360	1.354	100	70-130	
NEtFOSAA	18556.9	146322.6	0.127	1.360	1.235	91	70-130	
PFDoDA	127385.4	1116373.7	0.114	1.360	1.250	92	70-130	
10:2-FTS	43892.0	58620.1	0.749	3.856	3.302	86	70-130	
NMePFOSAE	37415.4	275450.0	0.136	1.360	1.143	84	70-130	
NMePFOSA	9167.5	93937.0	0.098	1.360	1.035	76	70-130	
PFDoS	12671.5	335227.0	0.038	1.316	1.086	83	70-130	
NEtPFOSAE	38059.3	218517.0	0.174	1.360	1.253	92	70-130	
NEtPFOSA	8729.3	72668.5	0.120	1.360	1.077	79	70-130	
PFTrDA	125876.8	1116373.7	0.113	1.360	1.359	100	70-130	
PFTeDA	91923.0	824972.6	0.111	1.360	1.263	93	70-130	
PFHxDA	44242.6	824972.6	0.054	1.360	1.226	90	70-130	
PFODA	24810.3	824972.6	0.030	1.360	0.801	59	70-130	OOS

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM
Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Sample Name:	LCS332003			**Data File:**		18NOV29D-56.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003			**Acquis Date:**		2018-11-29T18:13:39
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	36			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18332003
QMethod File:	18AUG20QM			**ICAL Name:**		18NOV28DCAL
Batch Number:	18332003			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1066376.9	906425.4	18	50	
13C2-PFOA	5.0	600874.3	495984.0	21	50	
13C4-PFOS	4.8	371548.8	296261.8	25	50	
13C2-PFDA	5.0	557509.7	451203.0	24	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1010092.5	13C3-PFBA	1066376.9	0.947	10.000	8.452	85	50-150	
E13C5-PFPeA	993629.3	13C3-PFBA	1066376.9	0.932	10.000	8.702	87	50-150	
E13C3-PFBS	411158.2	13C3-PFBA	1066376.9	0.386	9.300	7.357	79	50-150	
E13C2-4:2-FTS	83476.3	13C2-PFOA	600874.3	0.139	9.340	9.575	103	50-150	
E13C5-PFHxA	673048.2	13C2-PFOA	600874.3	1.120	10.000	8.228	82	50-150	
E13C3-PFHxS	340075.1	13C2-PFOA	600874.3	0.566	9.460	8.872	94	50-150	
E13C4-PFHpA	537048.3	13C2-PFOA	600874.3	0.894	10.000	8.214	82	50-150	
E13C2-6:2-FTS	75006.8	13C2-PFOA	600874.3	0.125	9.500	10.451	110	50-150	
E13C8-PFOA	997849.3	13C2-PFOA	600874.3	1.661	10.000	9.142	91	50-150	
E13C8-PFOS	335227.0	13C4-PFOS	371548.8	0.902	9.560	8.146	85	50-150	
E13C9-PFNA	627256.0	13C4-PFOS	371548.8	1.688	10.000	7.416	74	50-150	
E13C6-PFDA	841987.6	13C2-PFDA	557509.7	1.510	10.000	8.516	85	50-150	
E13C2-8:2-FTS	58620.1	13C2-PFDA	557509.7	0.105	9.580	9.038	94	50-150	
E13C8-PFOSA	662825.4	13C2-PFDA	557509.7	1.189	10.000	8.725	87	50-150	
Ed3-NMeFOSAA	232183.4	13C2-PFDA	557509.7	0.416	10.000	10.575	106	50-150	
E13C7-PFUnDA	579460.2	13C2-PFDA	557509.7	1.039	10.000	8.786	88	50-150	
Ed5-NEtFOSAA	146322.6	13C2-PFDA	557509.7	0.262	10.000	9.352	94	50-150	
E13C2-PFDoDA	1116373.7	13C2-PFDA	557509.7	2.002	10.000	8.414	84	50-150	
Ed7-NMePFOSAE	275450.0	13C2-PFDA	557509.7	0.494	10.000	8.540	85	50-150	
Ed3-NMePFOSA	93937.0	13C2-PFDA	557509.7	0.168	10.000	9.120	91	50-150	
Ed9-NEtPFOSAE	218517.0	13C2-PFDA	557509.7	0.392	10.000	7.947	79	50-150	
Ed5-NEtPFOSA	72668.5	13C2-PFDA	557509.7	0.130	10.000	9.058	91	50-150	
E13C2-PFTeDA	824972.6	13C2-PFDA	557509.7	1.480	10.000	8.189	82	50-150	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

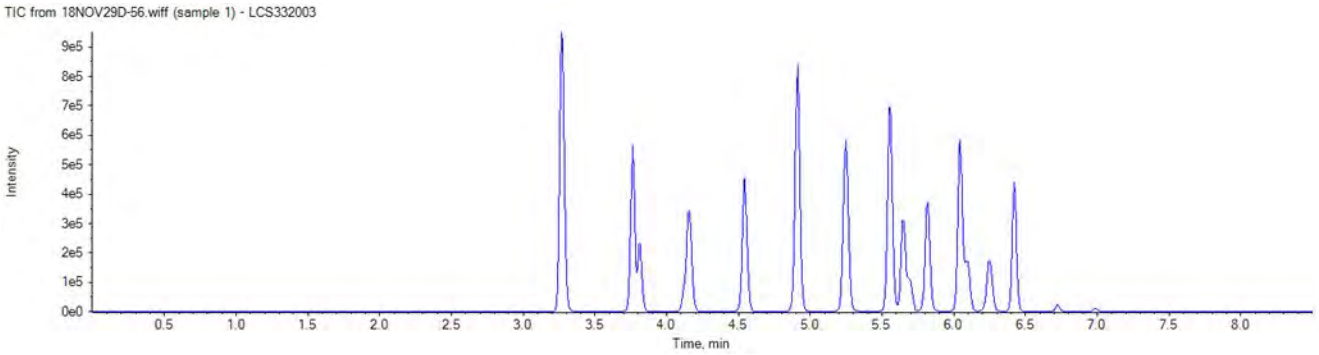
Analyte Quantitation Peak Table

Sample Name: LCS332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-56.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	115213.7		A	13C4-PFBA	3.27	1010092.5	0.114	1.251
PFPeA	3.76	1.000	108769.2		A	13C5-PFPeA	3.76	993629.3	0.109	1.074
PFBS	3.81	1.000	47400.8		A	13C3-PFBS	3.81	411158.2	0.115	1.119
4:2-FTS	4.12	1.000	44925.4		A	13C2-4:2-FTS	4.12	83476.3	0.538	2.881
PFHxA	4.15	1.000	108517.0		A	13C5-PFHxA	4.16	673048.2	0.161	1.294
PFPeS	4.18	1.100	25275.2		A	13C3-PFBS	3.81	411158.2	0.061	1.244
PFHpA	4.54	1.000	111132.4		A	13C4-PFHpA	4.54	537048.3	0.207	1.277
PFHxS	4.54	1.000	38520.3		A	13C3-PFHxS	4.55	340075.1	0.113	1.061
6:2-FTS	4.90	1.000	43250.5		A	13C2-6:2-FTS	4.90	75006.8	0.577	3.009
PFHpS	4.91	1.080	39014.5		A	13C3-PFHxS	4.55	340075.1	0.115	1.145
PFOA	4.91	1.000	111412.0		A	13C8-PFOA	4.91	997849.3	0.112	1.154
PFOS	5.24	1.000	36350.5		M	13C8-PFOS	5.24	335227.0	0.108	0.910
PFNA	5.26	1.000	107498.4		A	13C9-PFNA	5.25	627256.0	0.171	1.314
PFNS	5.53	1.060	25510.1		A	13C8-PFOS	5.24	335227.0	0.076	0.961
PFDA	5.56	1.000	91367.7		A	13C6-PFDA	5.55	841987.6	0.109	1.228
8:2-FTS	5.56	1.000	47406.4		A	13C2-8:2-FTS	5.56	58620.1	0.809	3.050
PFOSA	5.65	1.000	71087.0		A	13C8-PFOSA	5.65	662825.4	0.107	1.087
NMeFOSAA	5.70	1.000	20635.0		M	d3-NMeFOSAA	5.69	232183.4	0.089	1.134
PFDS	5.79	1.100	22691.0		A	13C8-PFOS	5.24	335227.0	0.068	1.073
PFUnDA	5.81	1.000	109727.5		A	13C7-PFUnDA	5.82	579460.2	0.189	1.354
NEtFOSAA	5.83	1.000	18556.9		A	d5-NEtFOSAA	5.83	146322.6	0.127	1.235
PFDoDA	6.04	1.000	127385.4		A	13C2-PFDoDA	6.04	1116373.7	0.114	1.250
10:2-FTS	6.06	1.090	43892.0		A	13C2-8:2-FTS	5.56	58620.1	0.749	3.302
NMePFOSAE	6.10	1.000	37415.4		A	d7-NMePFOSAE	6.09	275450.0	0.136	1.143
NMePFOSA	6.11	1.000	9167.5		A	d3-NMePFOSA	6.10	93937.0	0.098	1.035
PFDoS	6.21	1.190	12671.5		A	13C8-PFOS	5.24	335227.0	0.038	1.086
NEtPFOSAE	6.26	1.000	38059.3		A	d9-NEtPFOSAE	6.25	218517.0	0.174	1.253
NEtPFOSA	6.27	1.000	8729.3		A	d5-NEtPFOSA	6.27	72668.5	0.120	1.077
PFTrDA	6.24	1.030	125876.8		A	13C2-PFDoDA	6.04	1116373.7	0.113	1.359
PFTeDA	6.42	1.000	91923.0		A	13C2-PFTeDA	6.42	824972.6	0.111	1.263
PFHxDA	6.72	1.050	44242.6		A	13C2-PFTeDA	6.42	824972.6	0.054	1.226
PFODA	6.99	1.090	24810.3		A	13C2-PFTeDA	6.42	824972.6	0.030	0.801

Total Ion Chromatogram

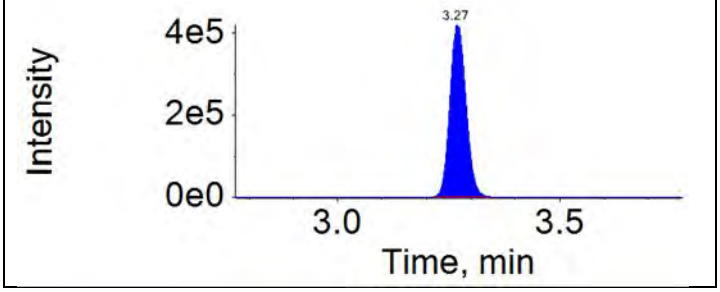


APPROVED
By MCD at 10:13 pm, 11/30/18

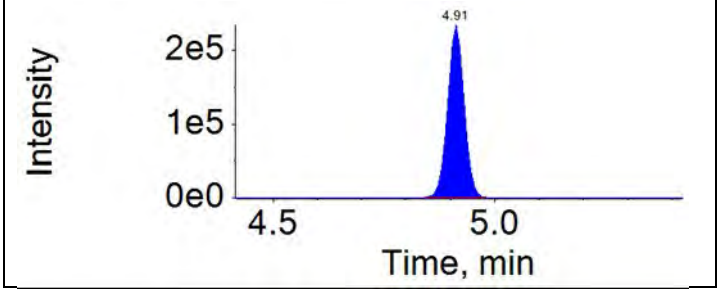
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

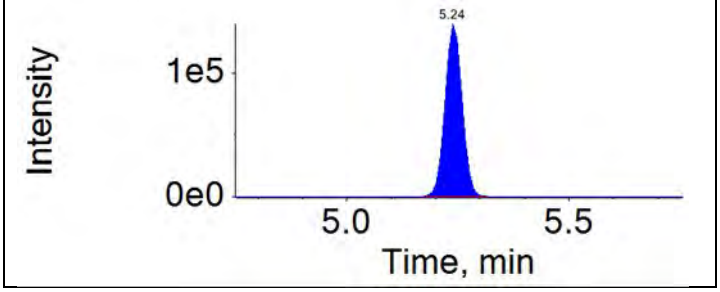
Injection Standard: 13C3-PFBA
216.0 / 172.0



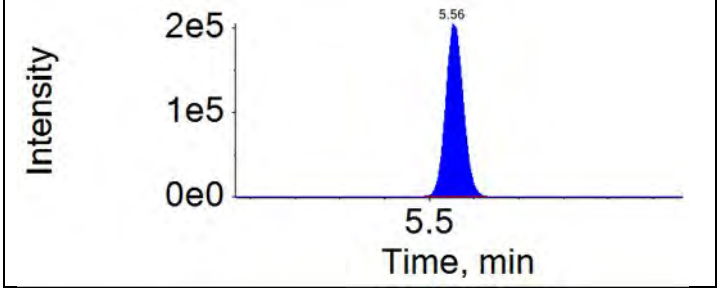
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

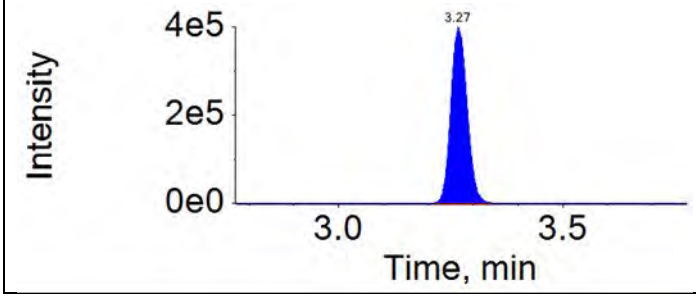


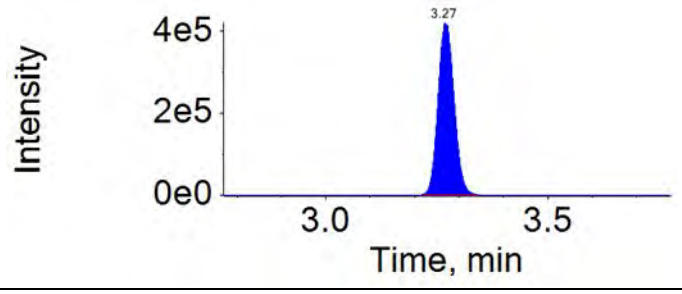
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

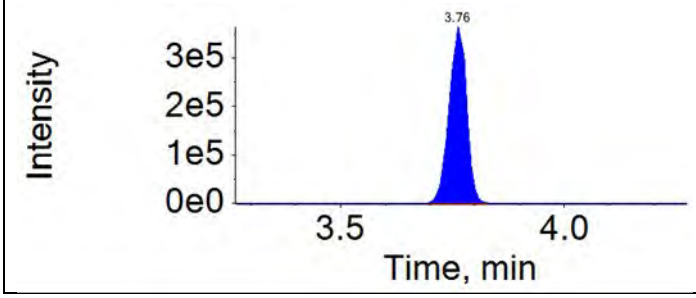
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

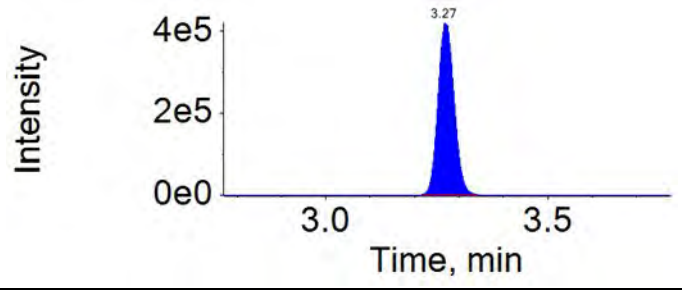
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



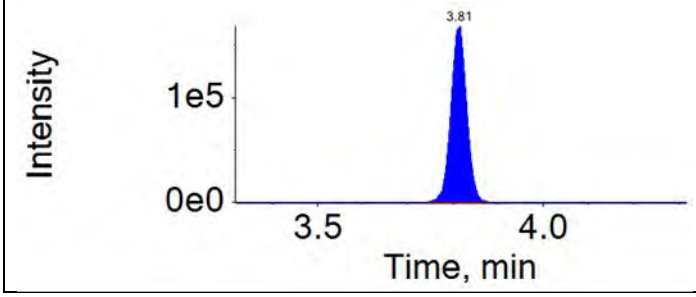


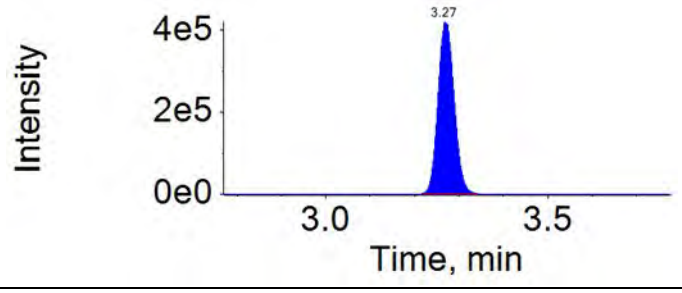
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



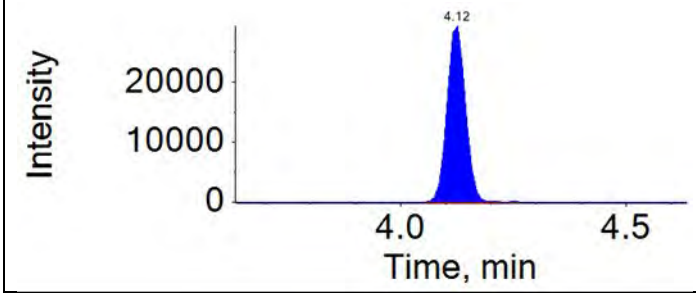


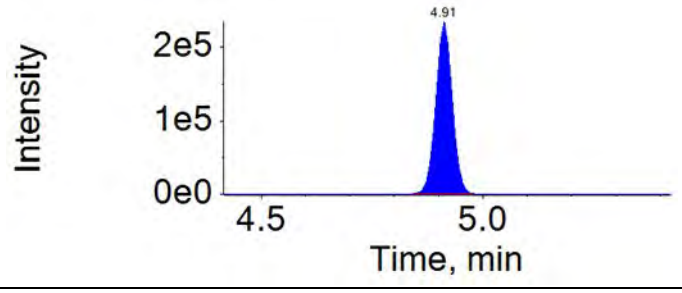
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0

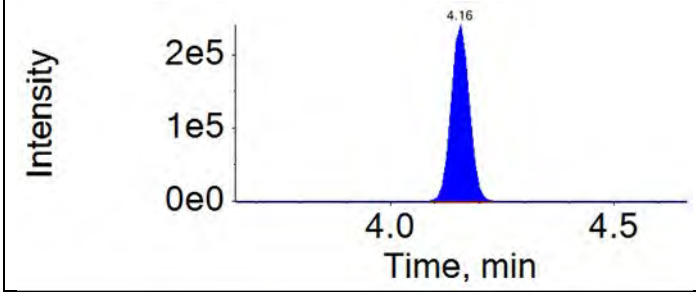
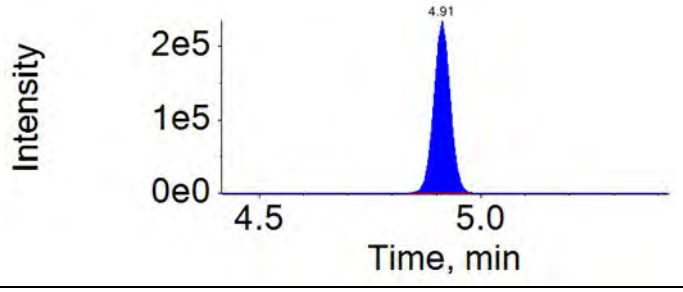


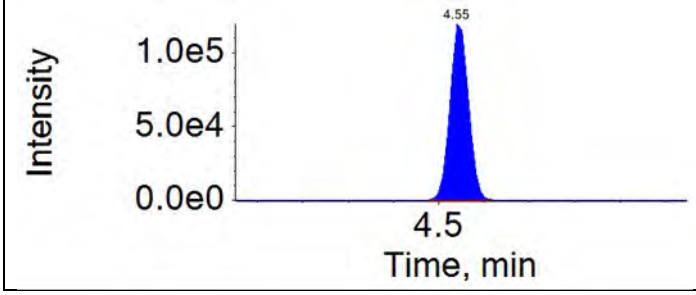
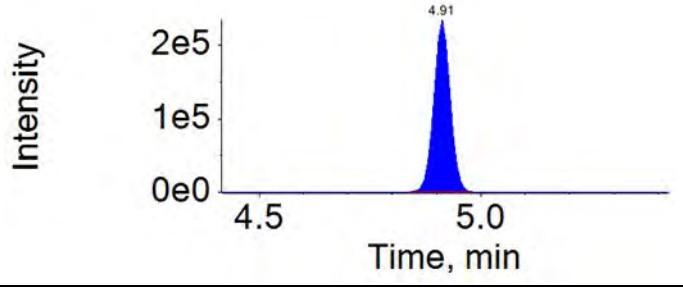


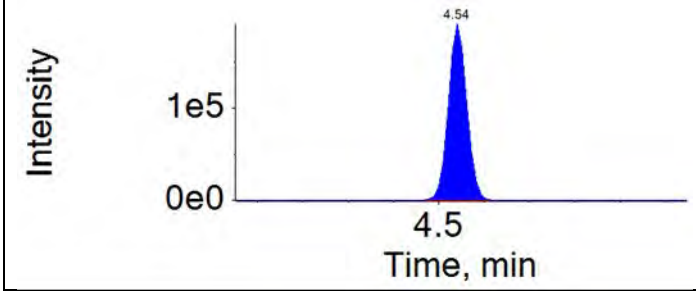
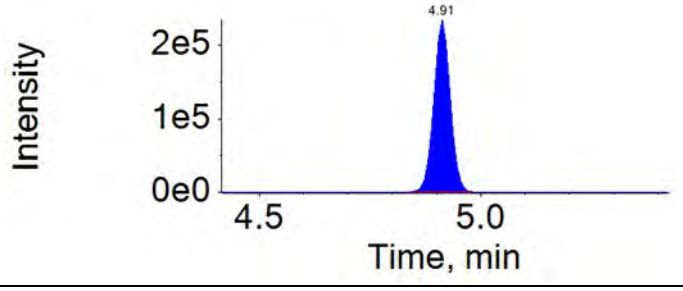
APPROVED
By MCD at 10:13 pm, 11/30/18

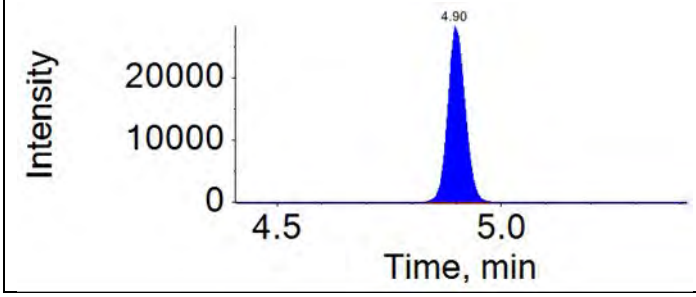
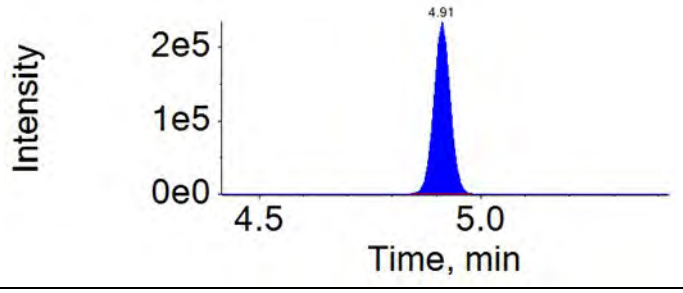
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

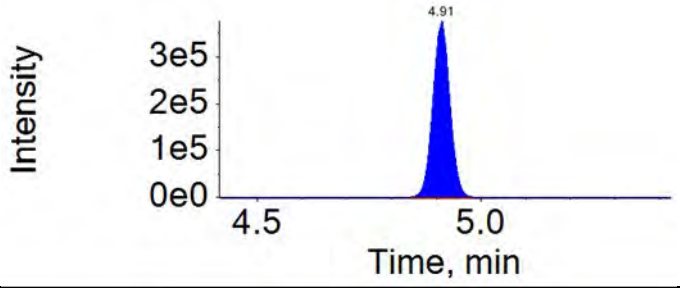
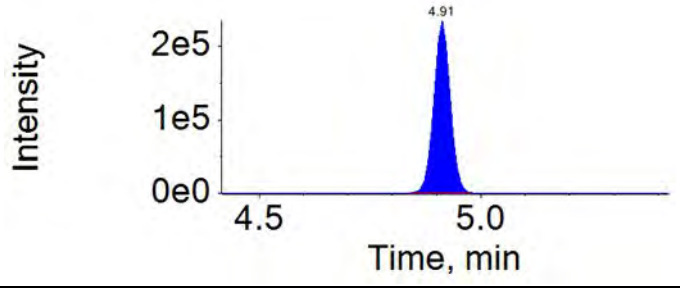
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0
	

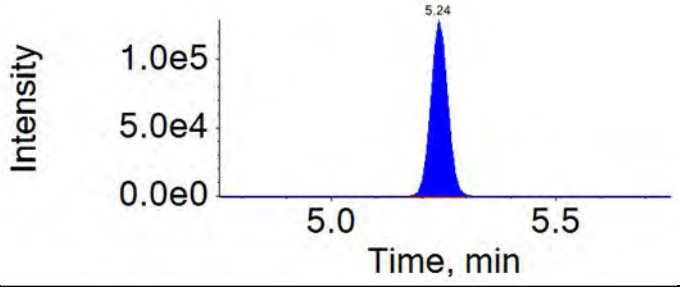
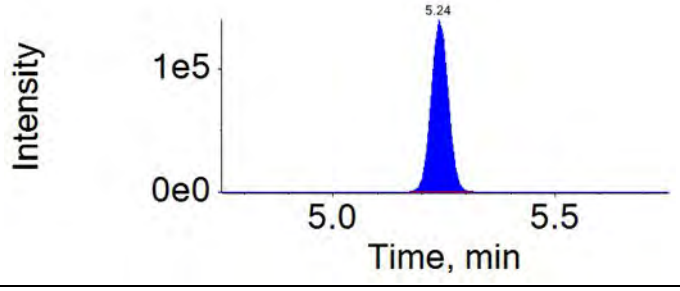
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0
	

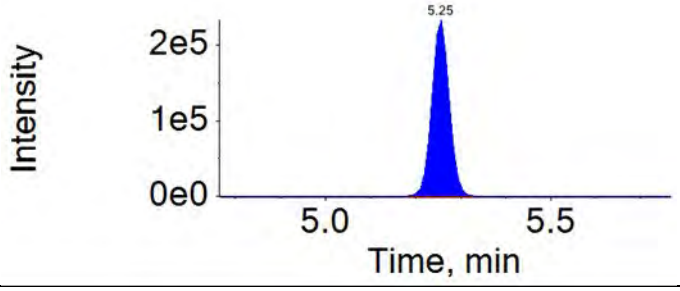
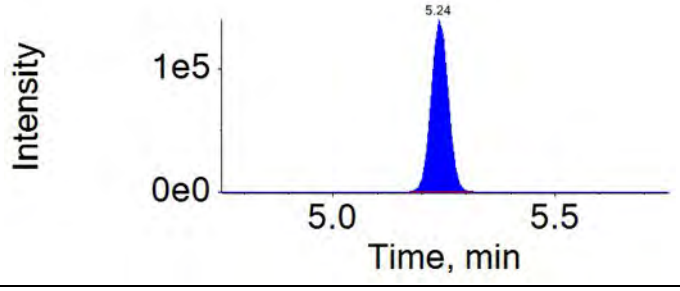
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0
	

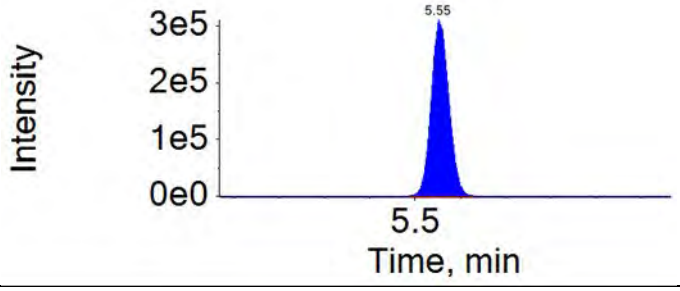
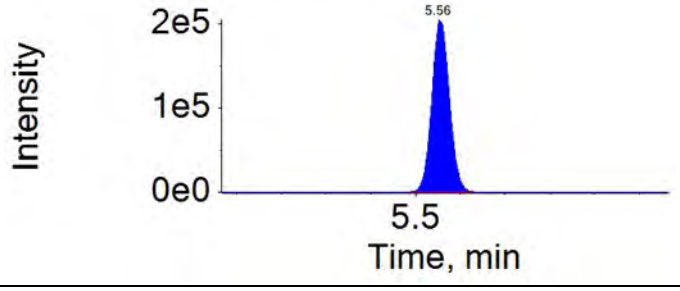
Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

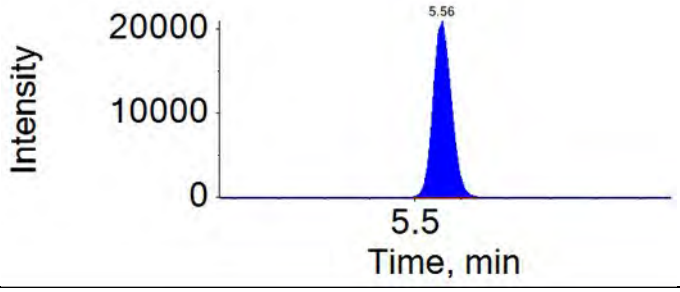
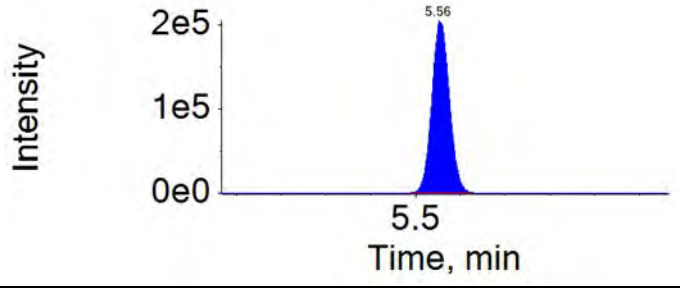
Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

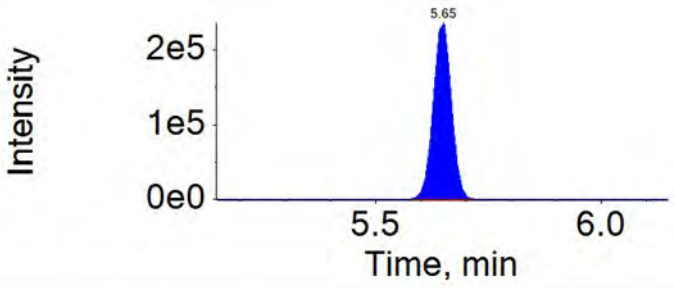
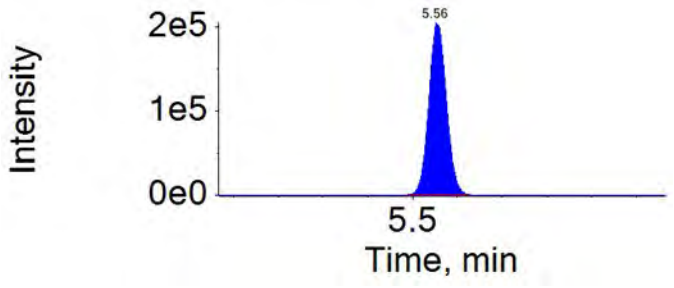
Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

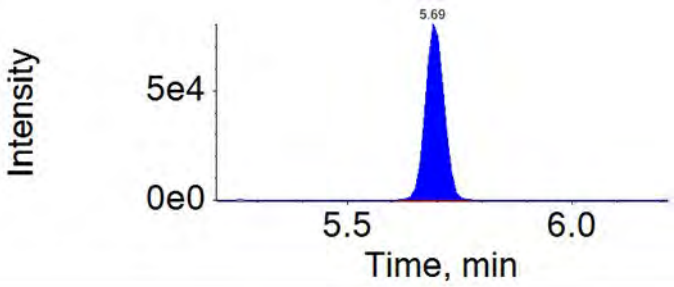
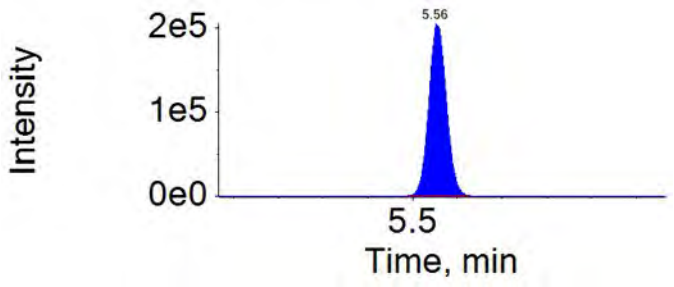
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

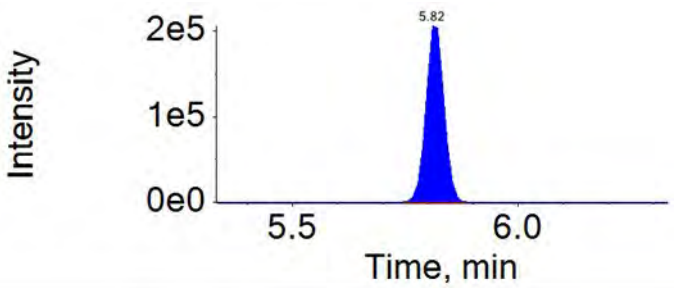
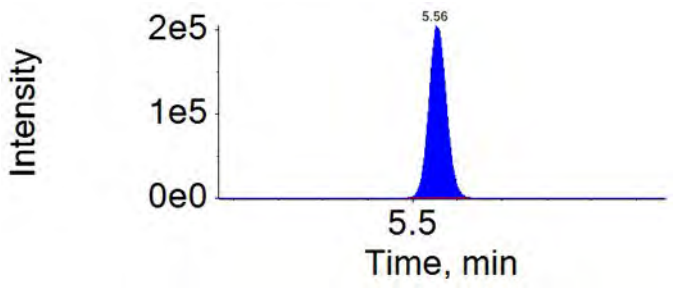
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

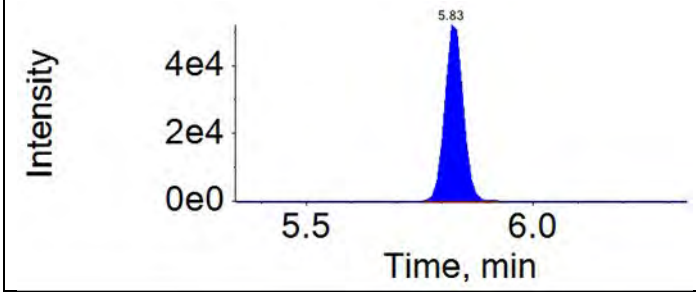
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

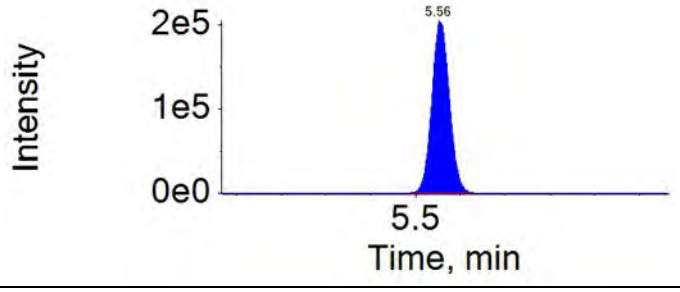
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

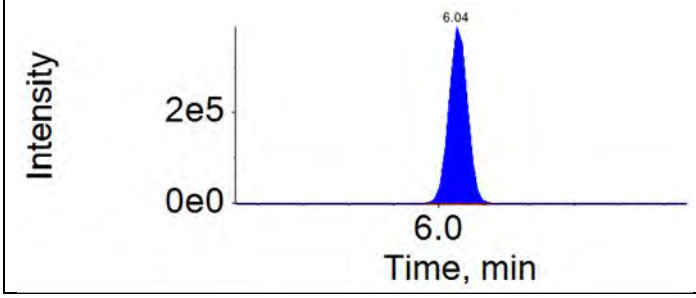
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

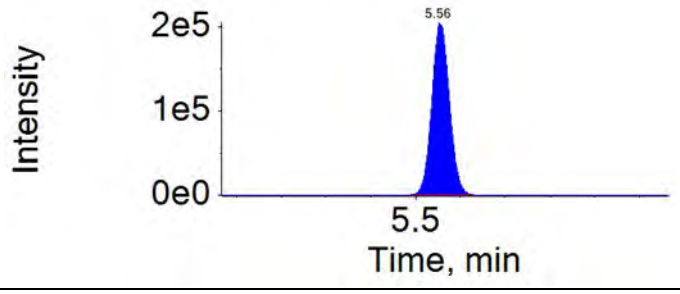
Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0



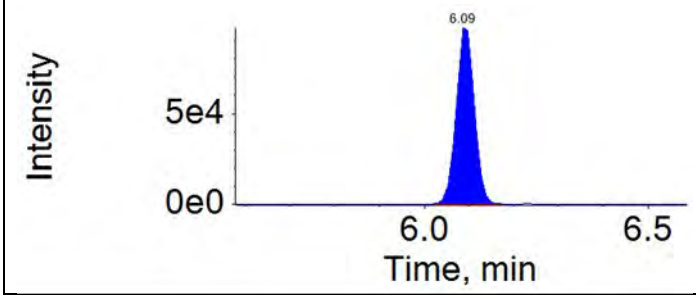


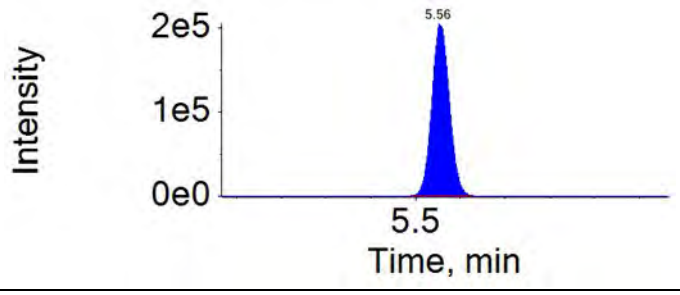
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0



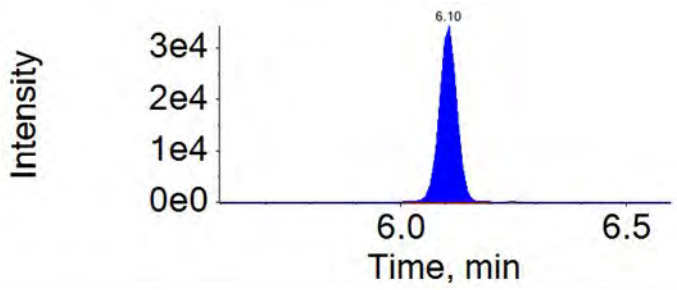


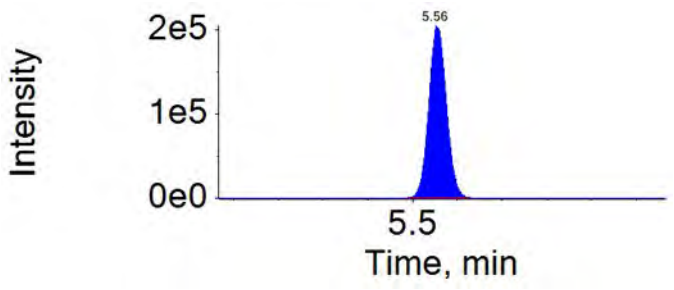
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0





Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0



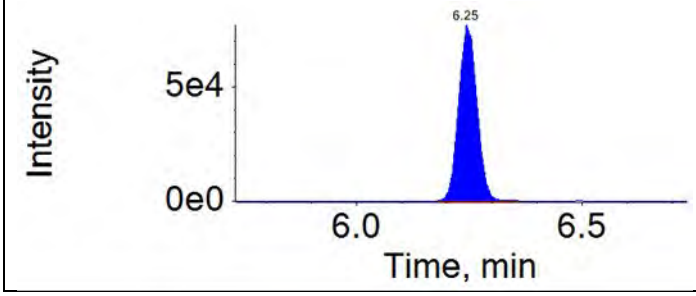


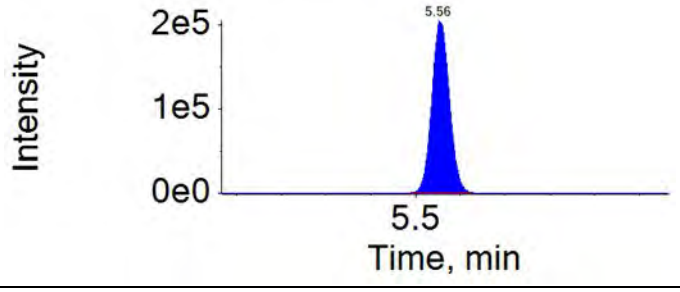
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

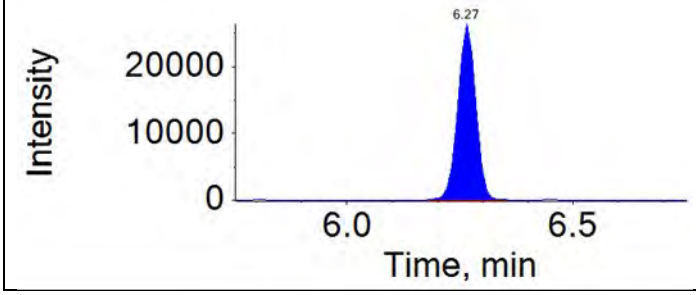
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

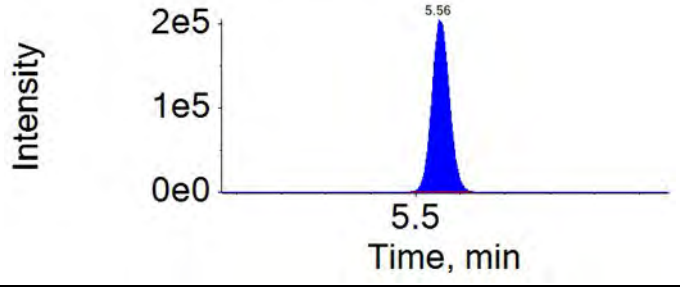
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



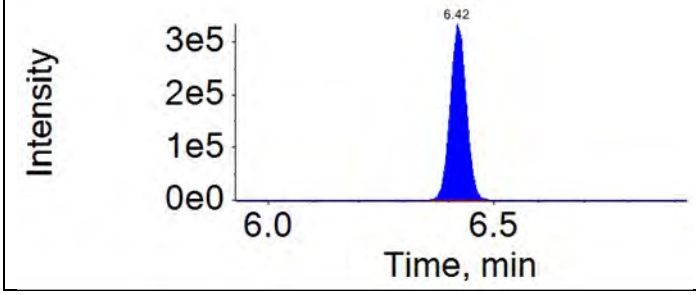


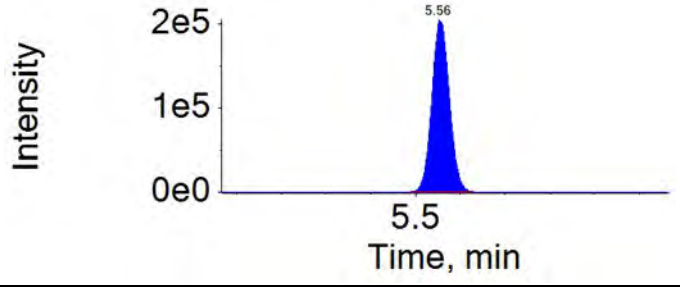
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

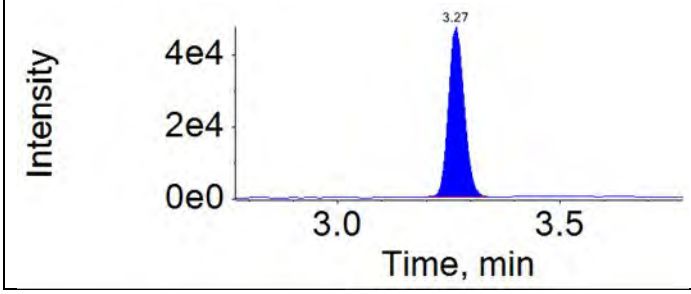
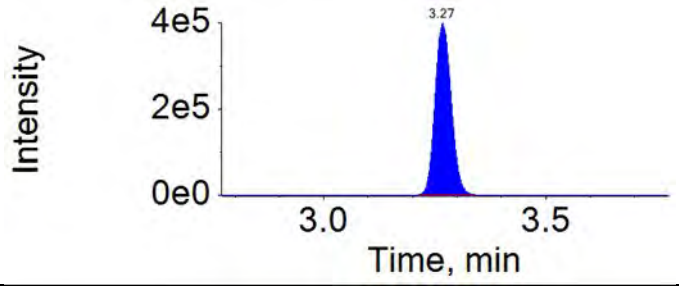


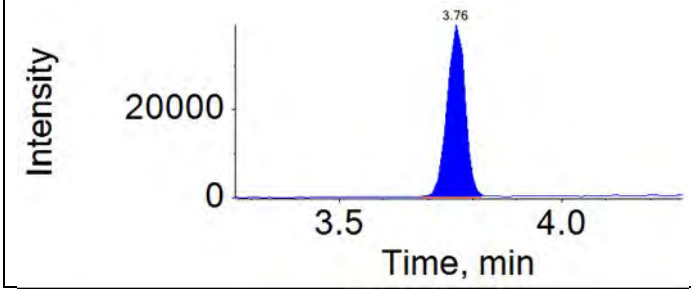
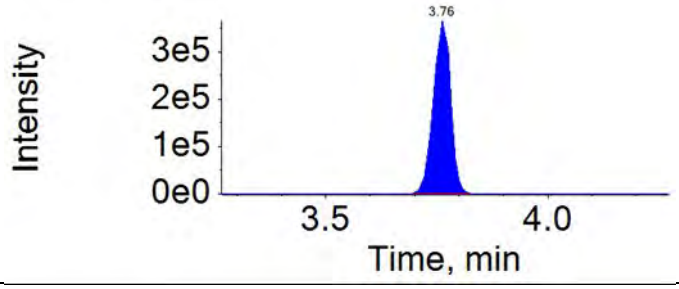


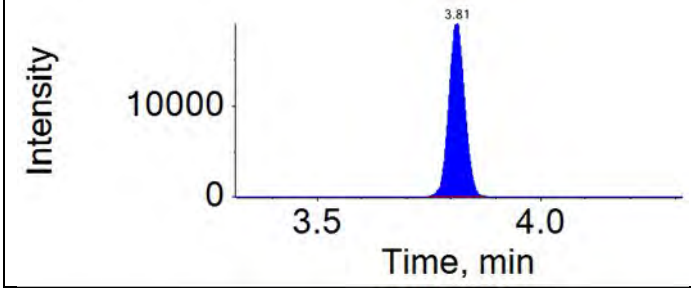
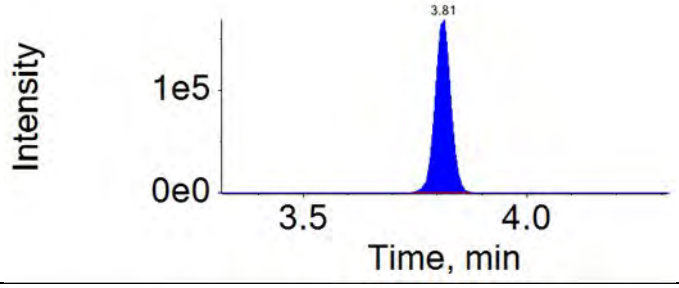
APPROVED
By MCD at 10:13 pm, 11/30/18

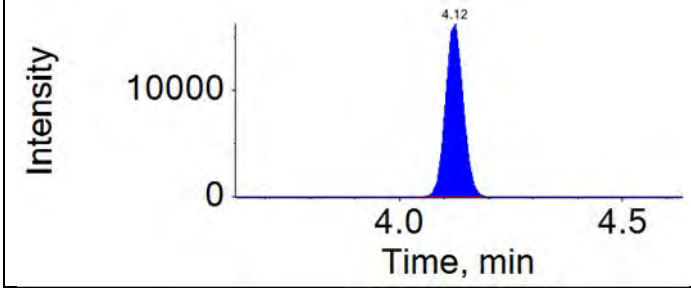
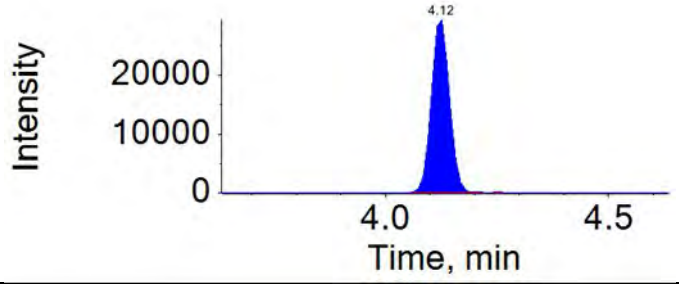
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

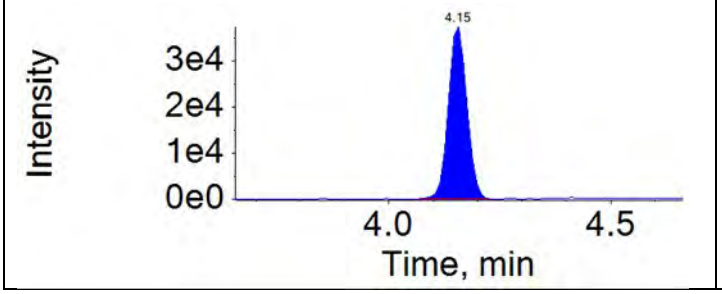
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

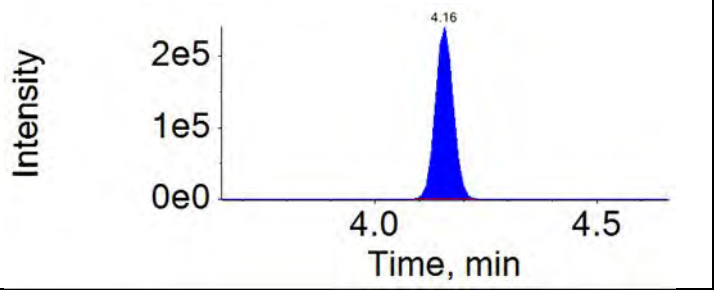
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

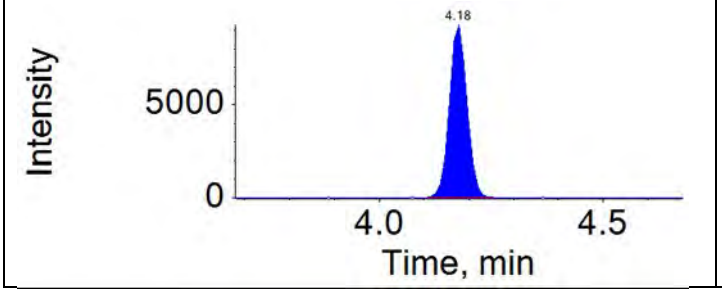
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

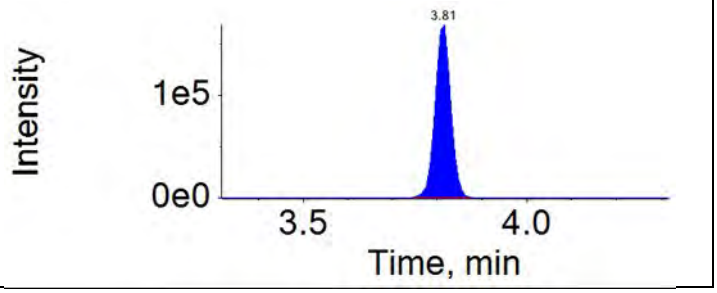
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



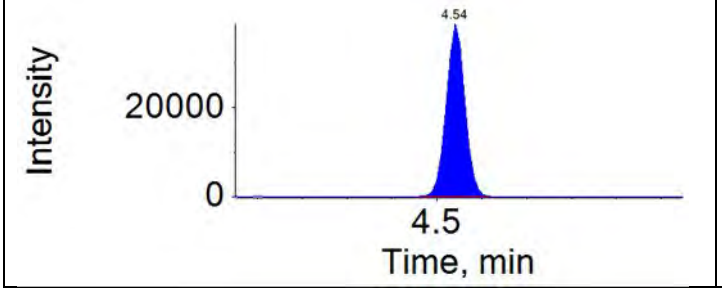


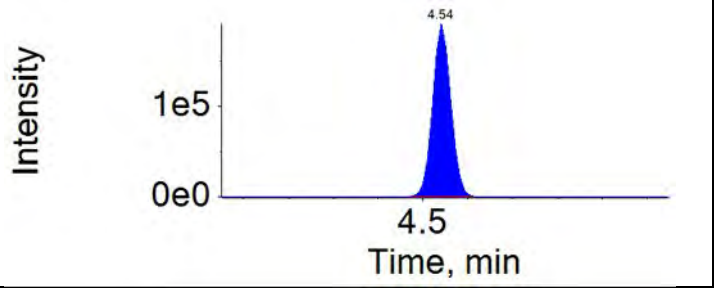
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



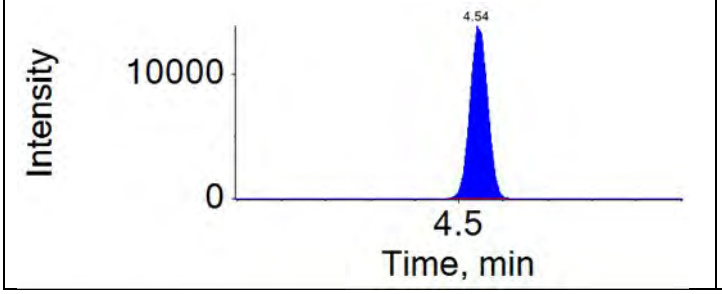


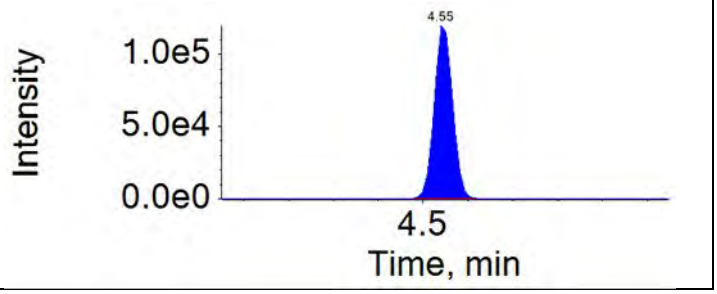
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

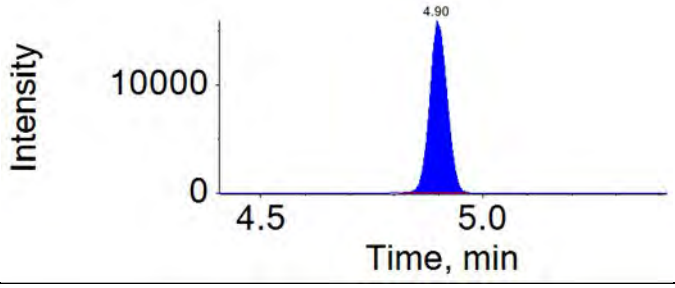
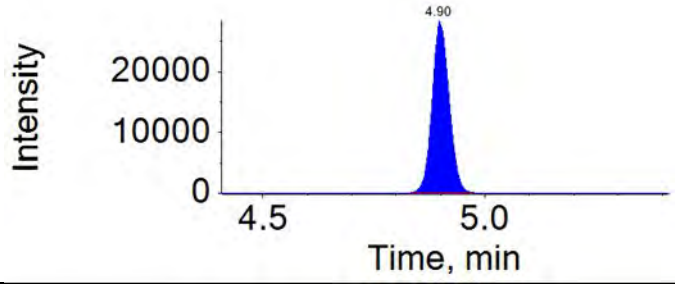


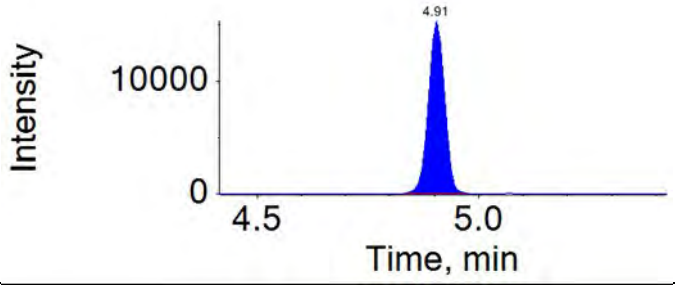
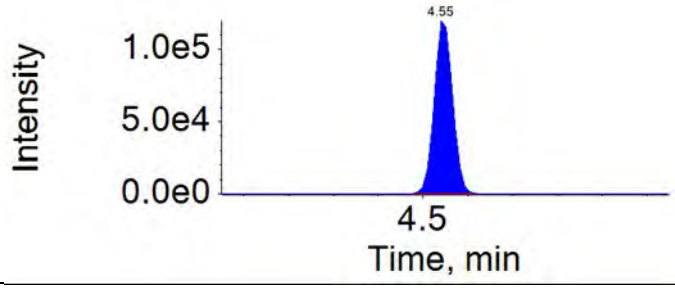


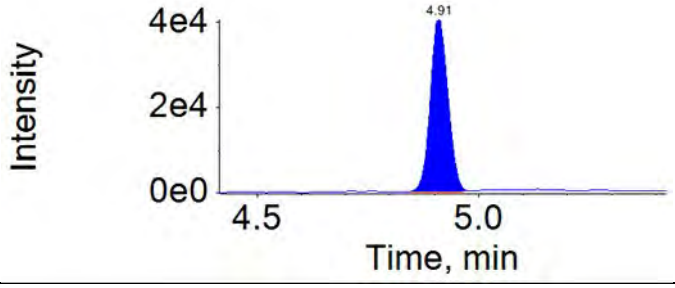
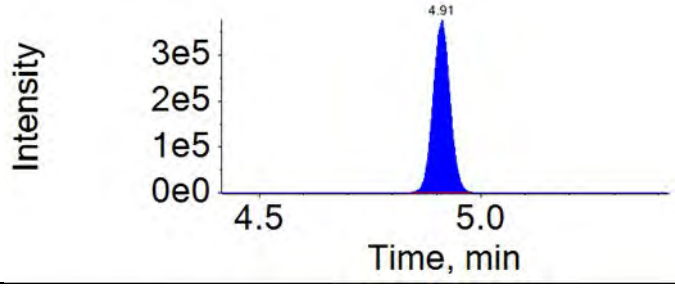
APPROVED
By MCD at 10:13 pm, 11/30/18

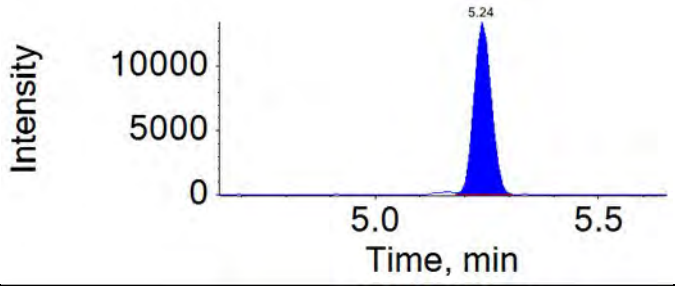
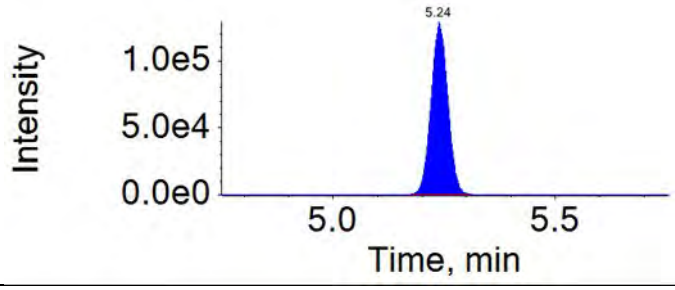
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: 6:2-FTS	Extraction Standard: 13C2-6:2-FTS
427.0 / 407.0	429.0 / 81.0
	

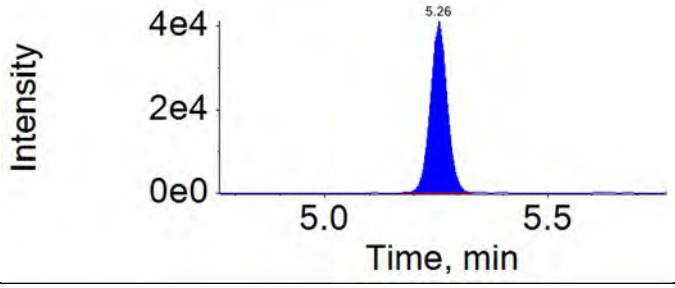
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

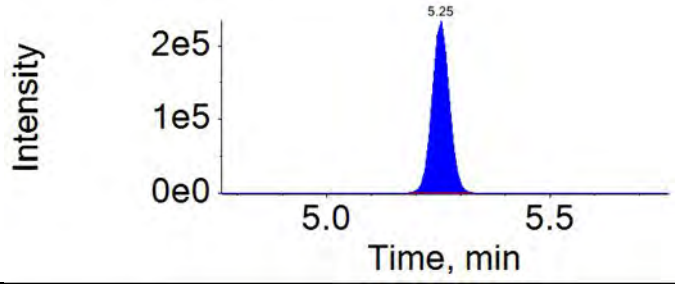
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

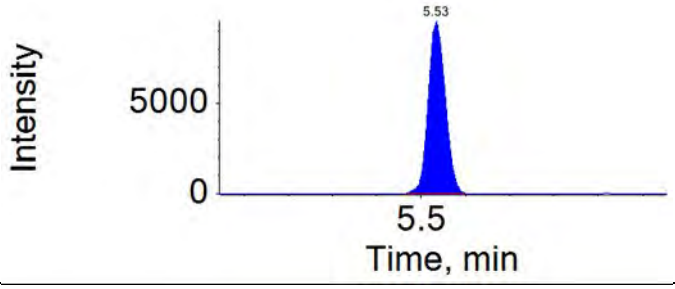
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

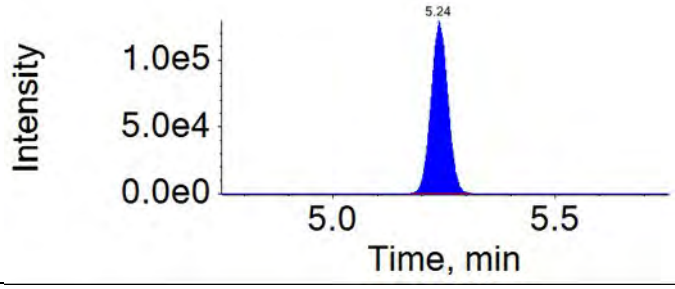
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



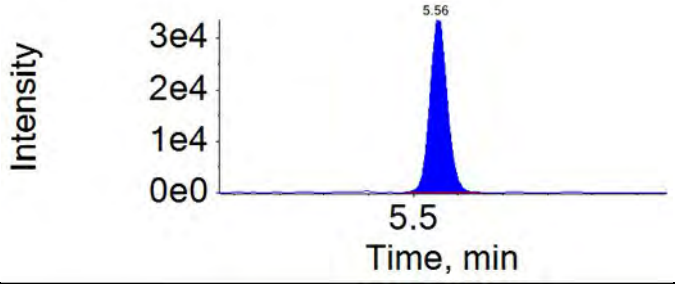


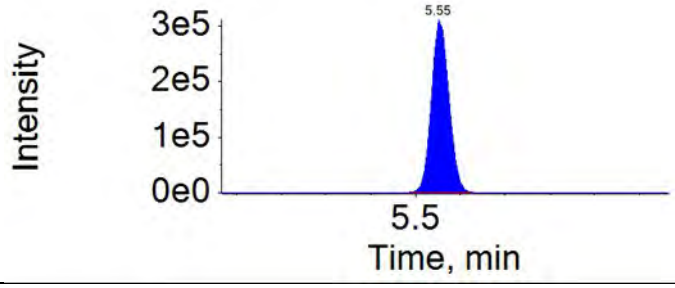
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



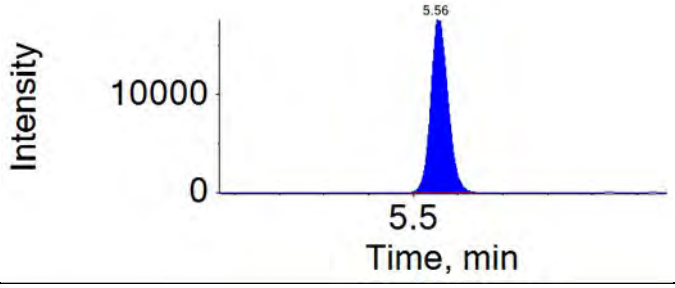


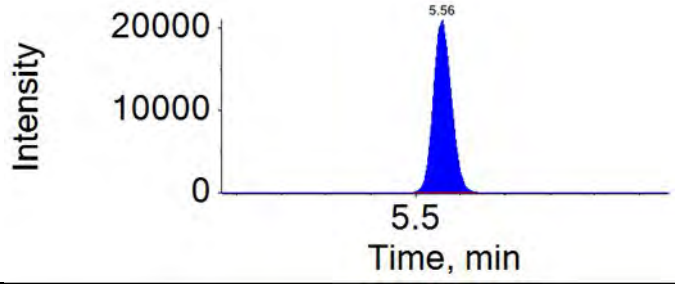
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0



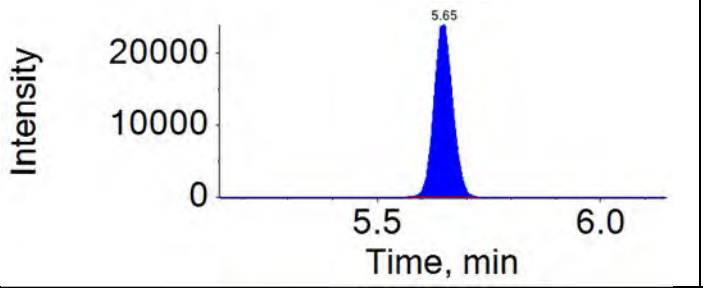


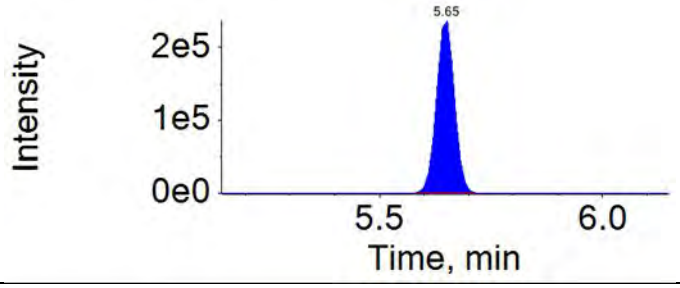
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

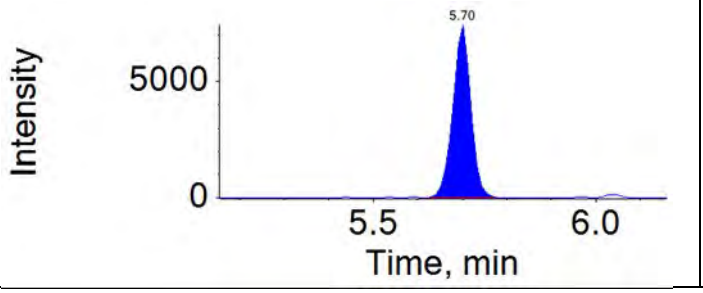
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

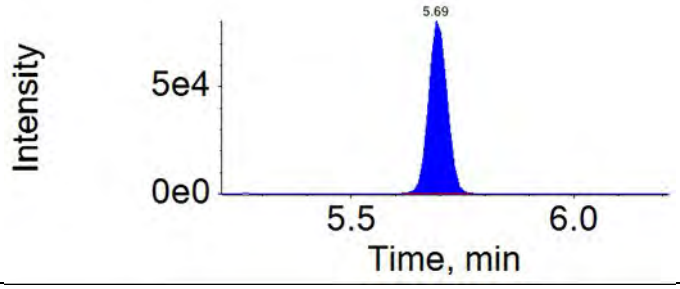
Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0



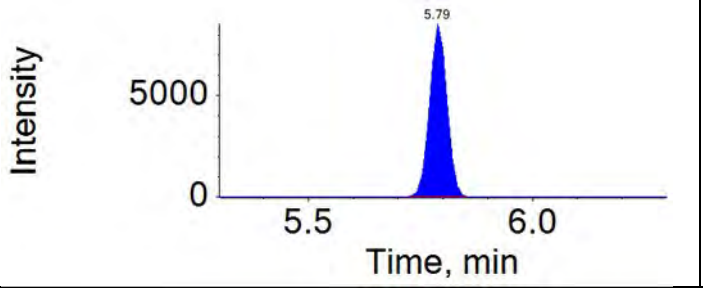


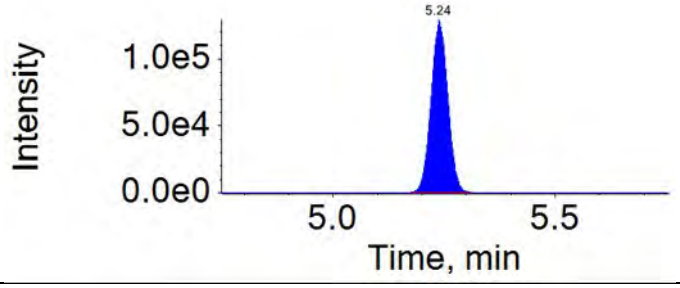
Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0



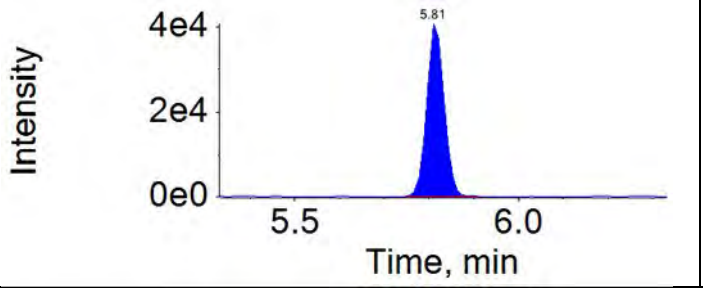


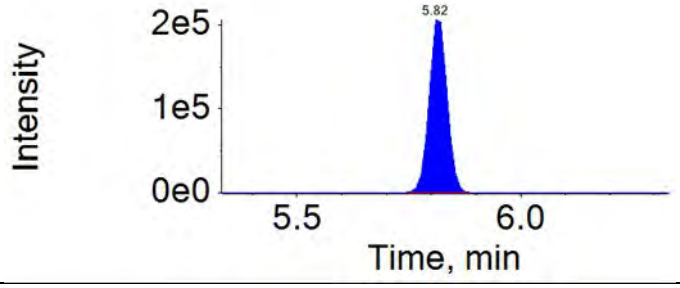
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0





Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0





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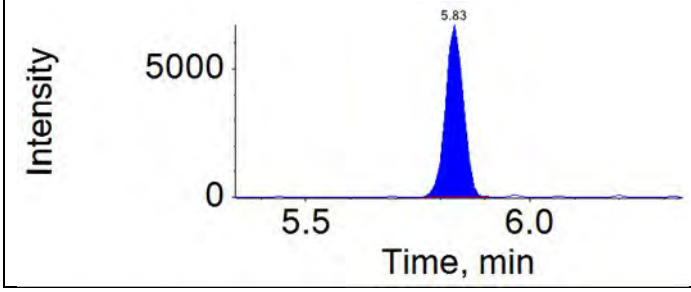
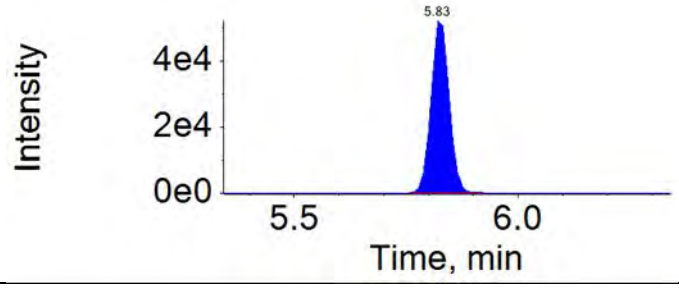
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

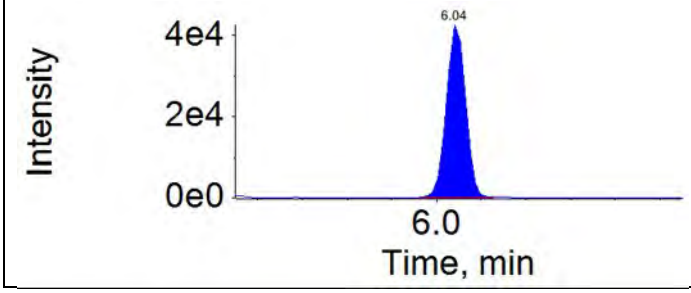
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

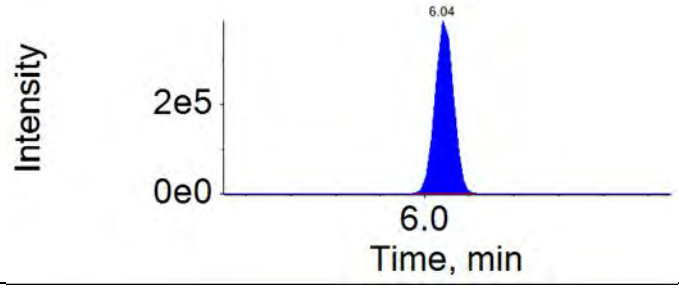
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



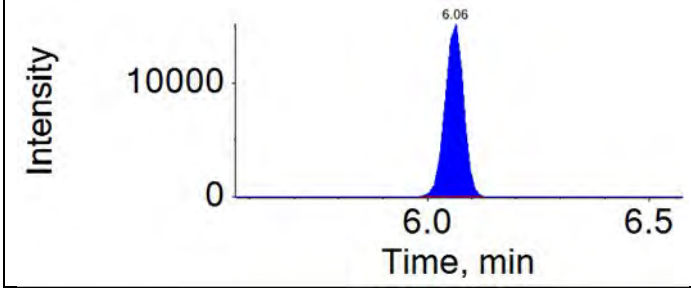


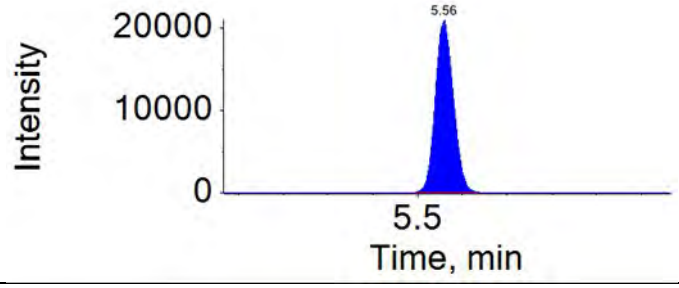
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



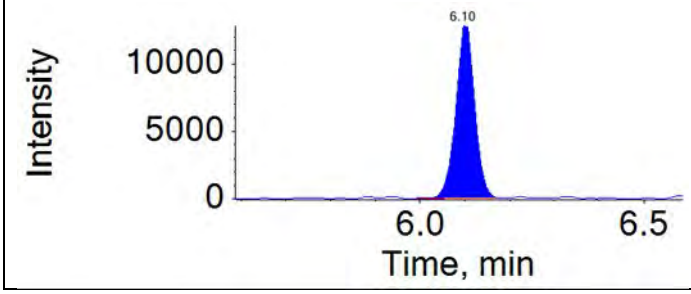


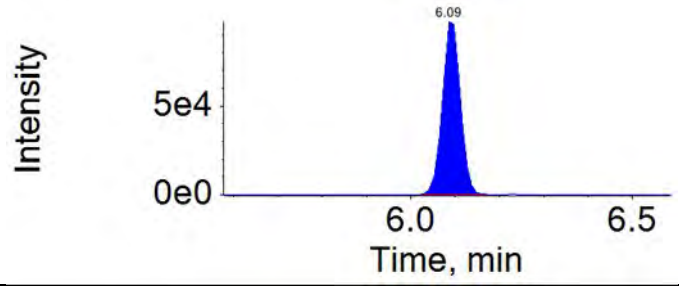
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



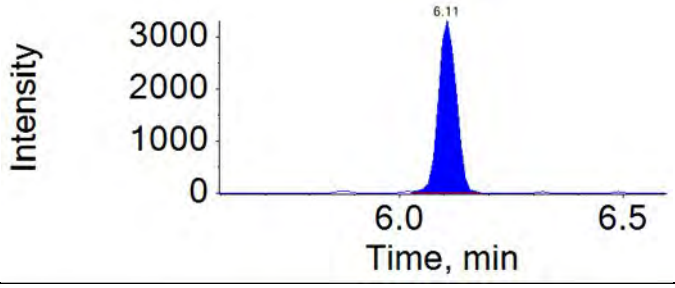


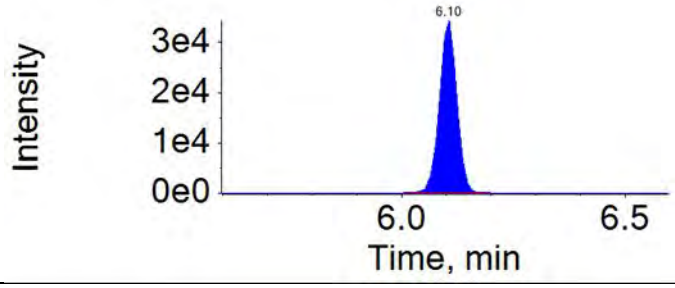
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

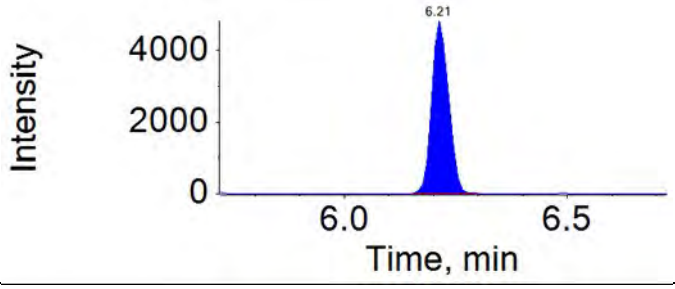
ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

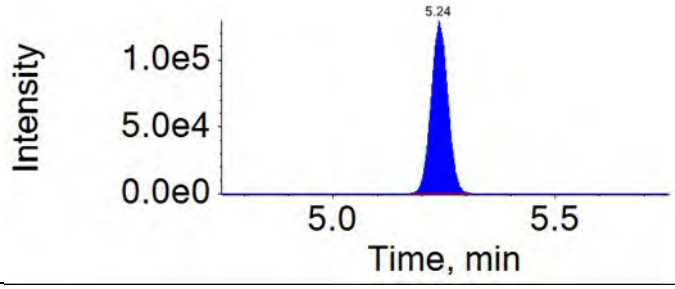
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



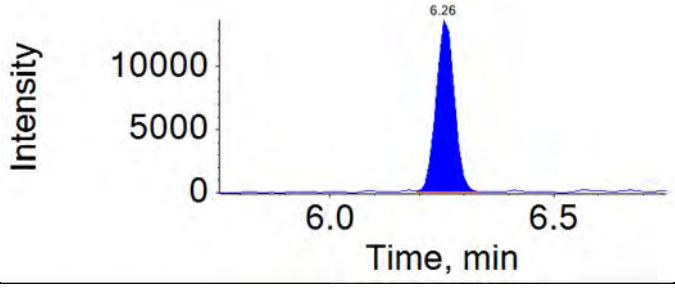


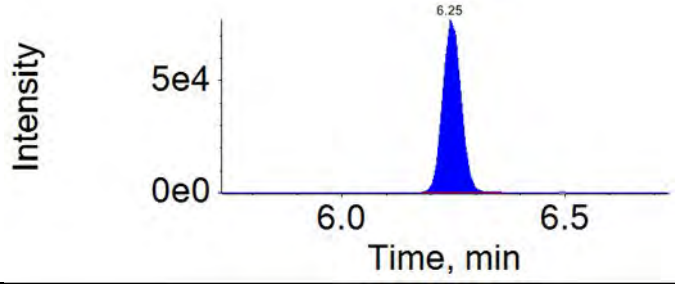
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



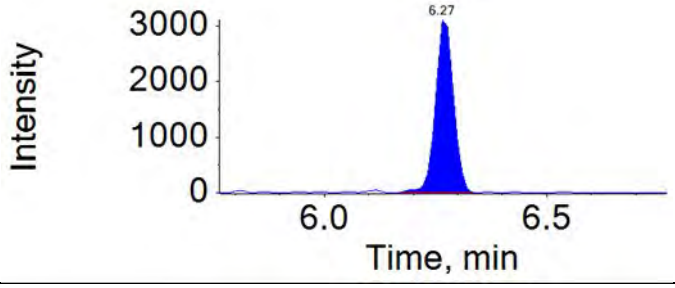


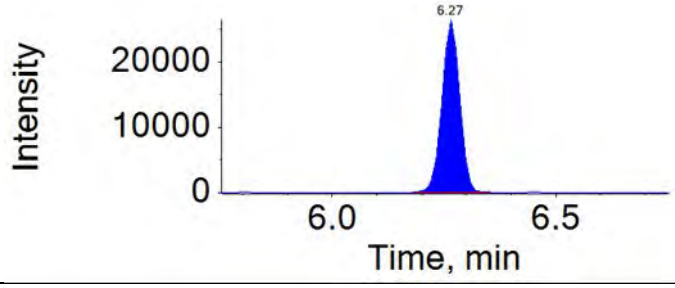
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0

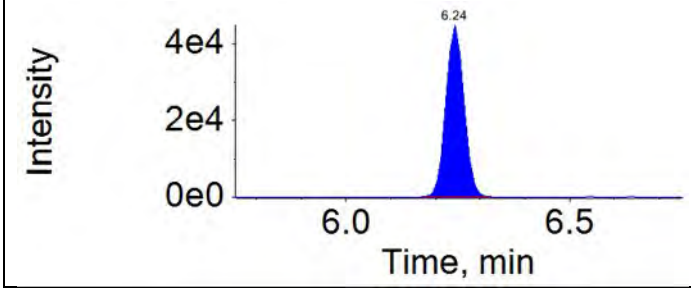
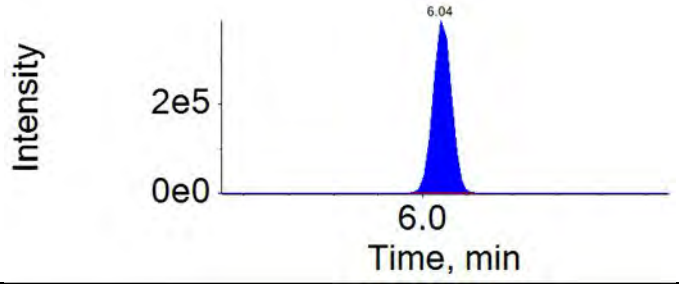


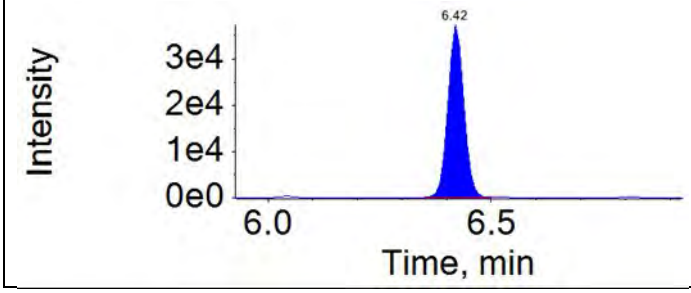
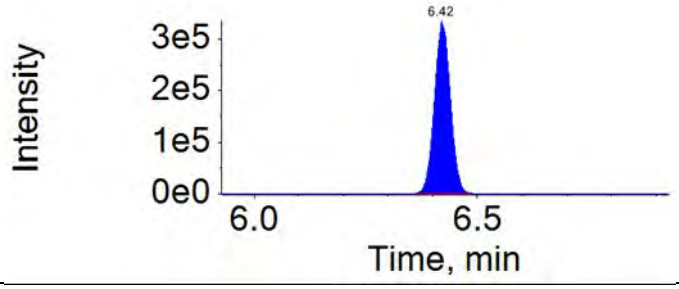


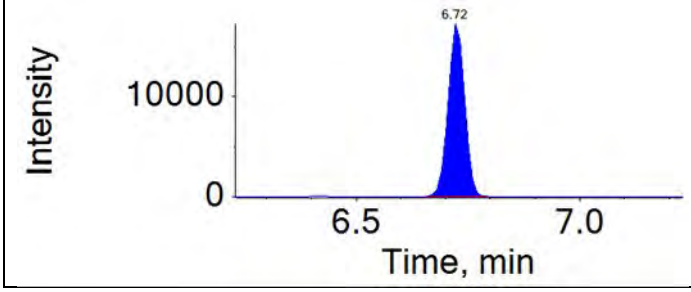
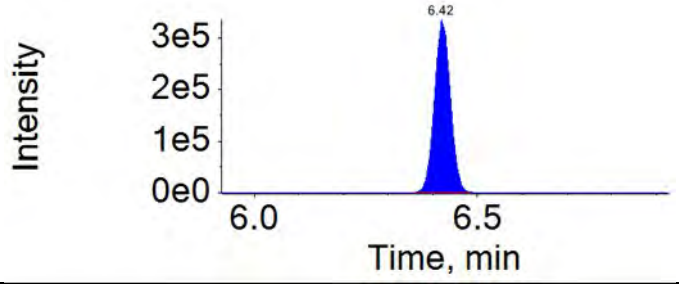
APPROVED
By MCD at 10:13 pm, 11/30/18

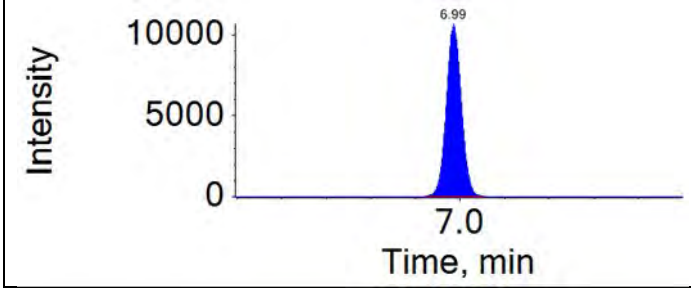
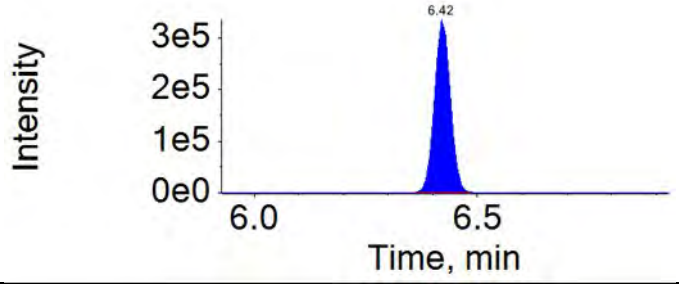
REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL **Result Table:** 18332003 11/30/2018 9:58:40 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0
	

Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0
	

Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0
	

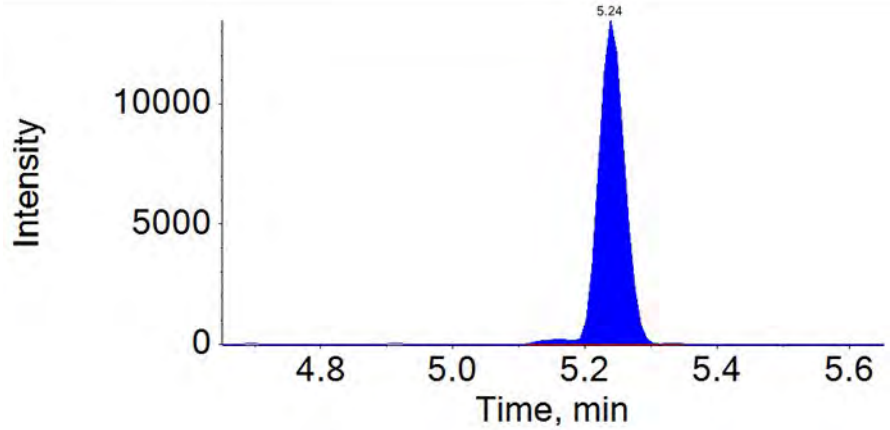
Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0
	

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

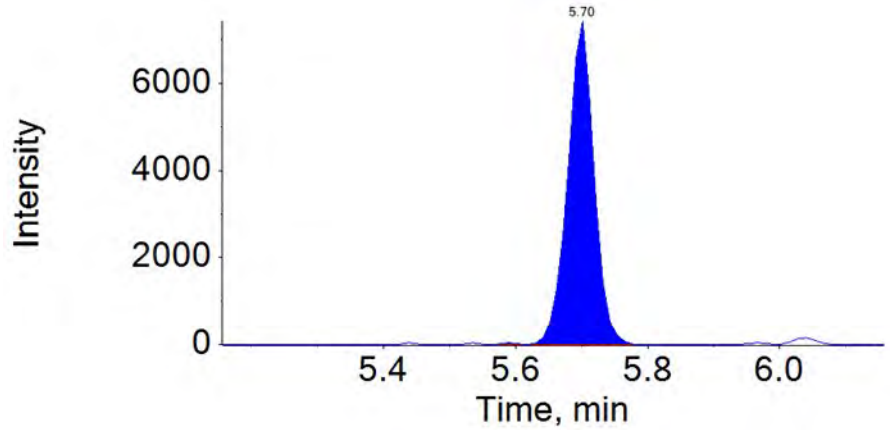
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
37087.7
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



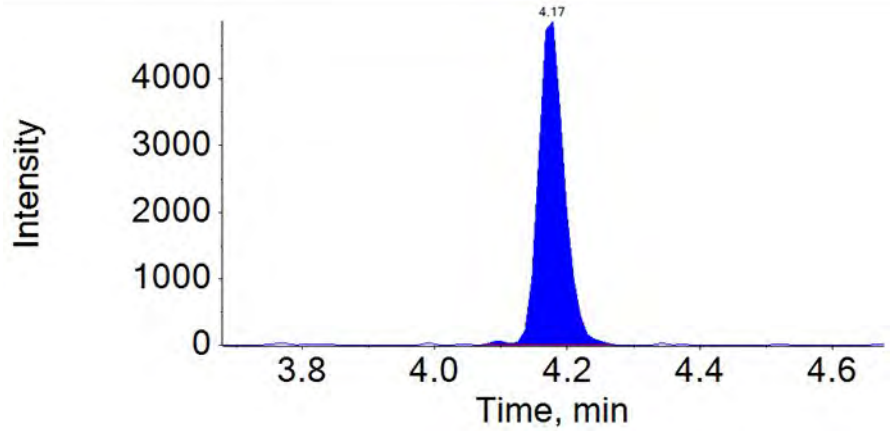
Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
20685.4
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

Component Name:
PFPeS_2
RT (min.):
4.17
Peak Area:
13270.2
Mass Range:
349.0 / 99.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



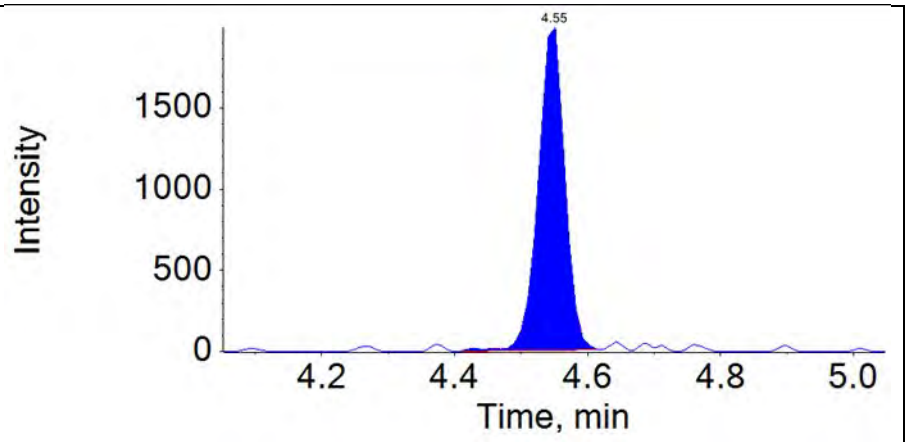
Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

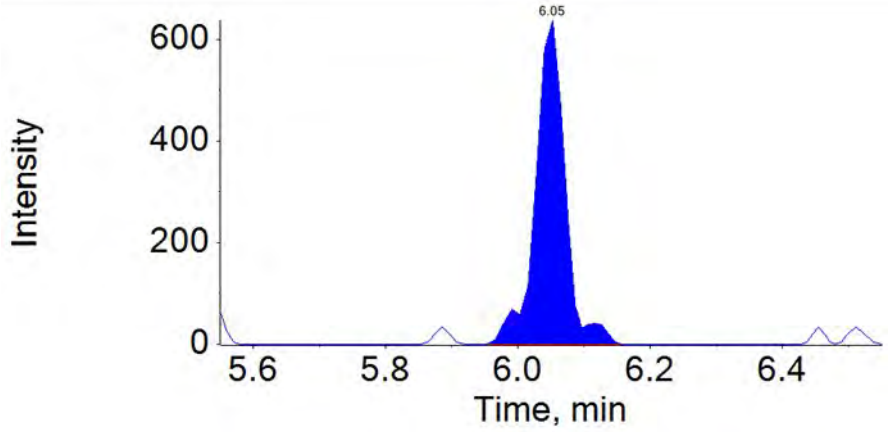
Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
5542.7
Mass Range:
363.0 / 169.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
2003.3
Mass Range:
613.0 / 169.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Ion Ratio Report

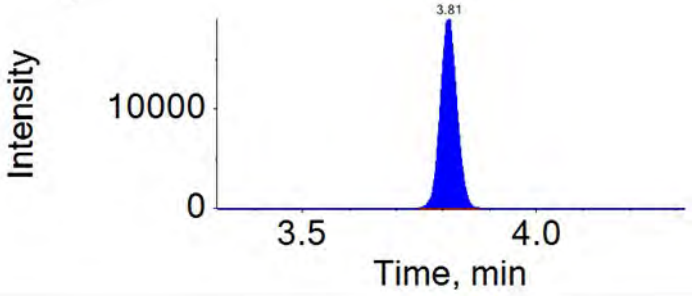
Sample Name: LCS332003 **Instrument Name:** LM27631 **File Name:** 18NOV29D-56.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	47400.8	A	N/A	0.3586			
PFBS_2	3.81	1.00	16997.3	A	N/A	0.3586	-2	50	
4:2-FTS	4.12	1.00	44925.4	A	N/A	0.6447			
4:2-FTS_2	4.12	1.00	28964.9	A	N/A	0.6447	1	50	
PFHxA	4.15	1.00	108517.0	A	N/A	0.0183			
PFHxA_2	4.16	1.00	1982.3	A	N/A	0.0183	77	50	OOS
PFPeS	4.18	1.10	25275.2	A	N/A	0.5216			
PFPeS_2	4.17	1.10	13184.7	M	N/A	0.5216	5	50	
PFHpA	4.54	1.00	111132.4	A	N/A	0.0494			
PFHpA_2	4.55	1.00	5494.8	M	N/A	0.0494	-11	50	
PFHxS	4.54	1.00	38520.3	A	N/A	0.3690			
PFHxS_2	4.55	1.00	14213.1	A	N/A	0.3690	0	50	
6:2-FTS	4.90	1.00	43250.5	A	N/A	0.6442			
6:2-FTS_2	4.90	1.00	27861.0	A	N/A	0.6442	-3	50	
PFHpS	4.91	1.08	39014.5	A	N/A	0.3626			
PFHpS_2	4.90	1.08	14147.9	A	N/A	0.3626	-7	50	
PFOA	4.91	1.00	111412.0	A	N/A	0.0686			
PFOA_2	4.91	1.00	7643.3	A	N/A	0.0686	20	50	
PFOS	5.24	1.00	36350.5	M	N/A	0.3412			
PFOS_2	5.24	1.00	12401.6	A	N/A	0.3412	15	50	
PFNA	5.26	1.00	107498.4	A	N/A	0.0199			
PFNA_2	5.26	1.00	2137.9	A	N/A	0.0199	-1	50	
PFNS	5.53	1.06	25510.1	A	N/A	0.3980			
PFNS_2	5.54	1.06	10154.2	A	N/A	0.3980	-17	50	
PFDA	5.56	1.00	91367.7	A	N/A	0.0045			
PFDA_2	5.55	1.00	409.3	A	N/A	0.0045	-40	50	
8:2-FTS	5.56	1.00	47406.4	A	N/A	0.5834			
8:2-FTS_2	5.56	1.00	27658.0	A	N/A	0.5834	8	50	
NMeFOSAA	5.70	1.00	20635.0	M	N/A	0.2227			
NMeFOSAA_2	5.70	1.00	4596.1	A	N/A	0.2227	-3	50	
PFDS	5.79	1.10	22691.0	A	N/A	0.4089			
PFDS_2	5.79	1.10	9278.1	A	N/A	0.4089	-24	50	
PFUnDA	5.81	1.00	109727.5	A	N/A	0.0036			
PFUnDA_2	5.82	1.00	389.8	A	N/A	0.0036	-7	50	
NEtFOSAA	5.83	1.00	18556.9	A	N/A	0.5890			
NEtFOSAA_2	5.83	1.00	10930.7	A	N/A	0.5890	-20	50	
PFDoDA	6.04	1.00	127385.4	A	N/A	0.0150			
PFDoDA_2	6.05	1.00	1913.0	M	N/A	0.0150	15	50	
10:2-FTS	6.06	1.09	43892.0	A	N/A	0.7222			
10:2-FTS_2	6.06	1.09	31697.5	A	N/A	0.7222	3	50	
PFTrDA	6.24	1.03	125876.8	A	N/A	0.0108			
PFTrDA_2	6.25	1.03	1361.5	A	N/A	0.0108	20	50	
PFTeDA	6.42	1.00	91923.0	A	N/A	0.0066			
PFTeDA_2	6.41	1.00	603.6	A	N/A	0.0066	17	50	
PFHxDA	6.72	1.05	44242.6	A	N/A	0.0632			
PFHxDA_2	6.72	1.05	2795.6	A	N/A	0.0632	-2	50	
PFODA	6.99	1.09	24810.3	A	N/A	0.0237			
PFODA_2	6.98	1.09	588.6	A	N/A	0.0237	-10	50	

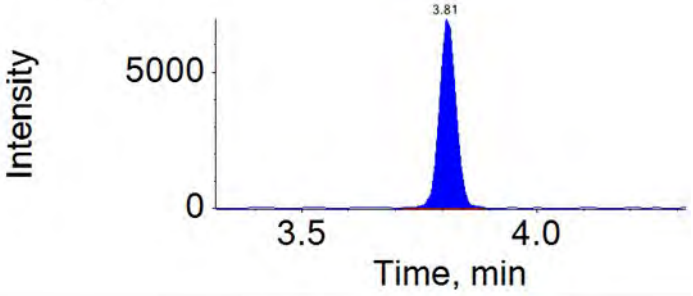
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

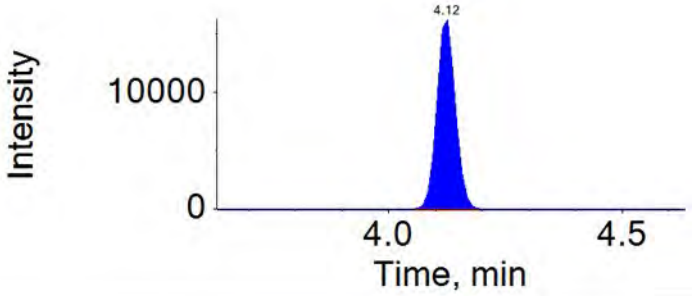
Component: PFBS
Primary Mass: 299.0 / 80.0



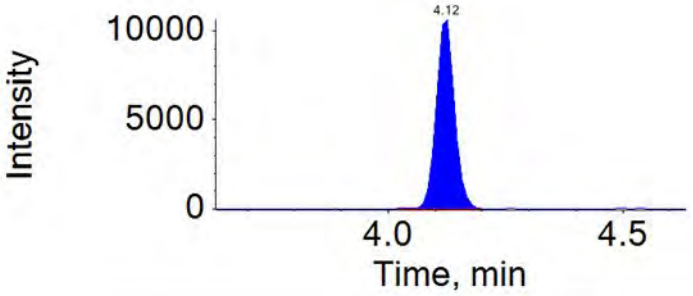
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



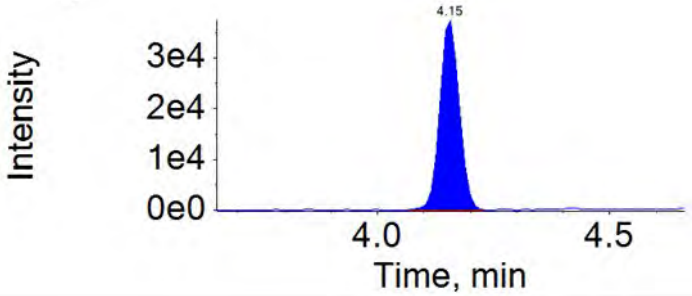
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



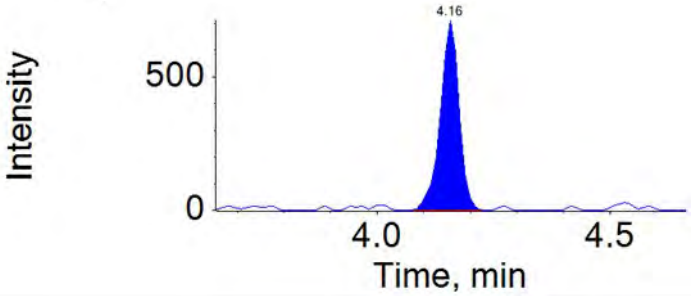
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



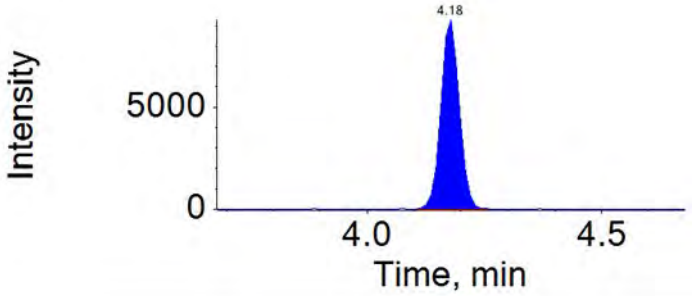
Component: PFHxA
Primary Mass: 313.0 / 269.0



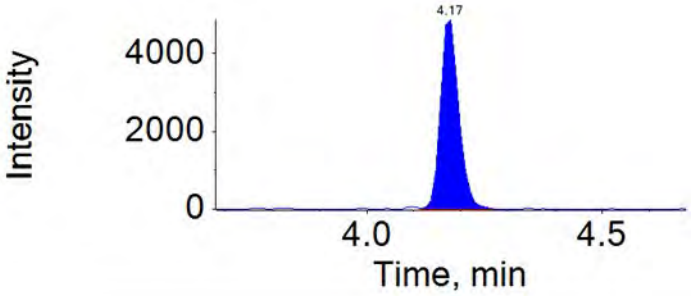
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



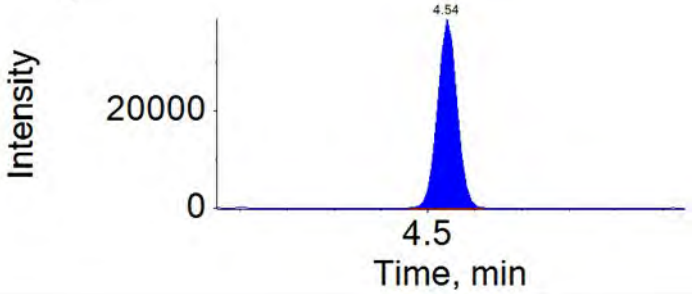
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



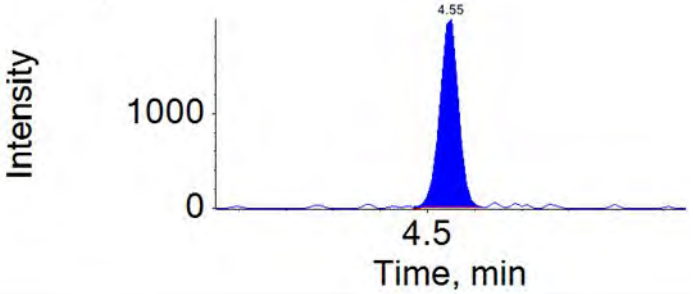
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

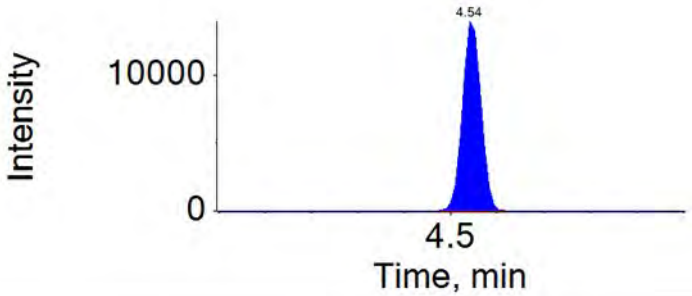
Component: PFHpA
Primary Mass: 363.0 / 319.0



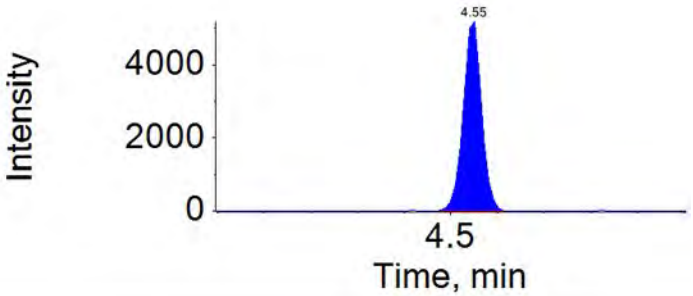
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



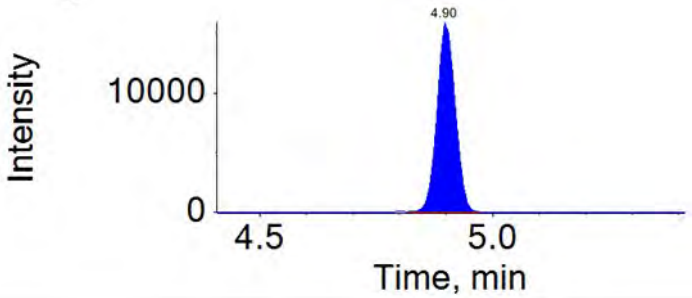
Component: PFHxS
Primary Mass: 399.0 / 80.0



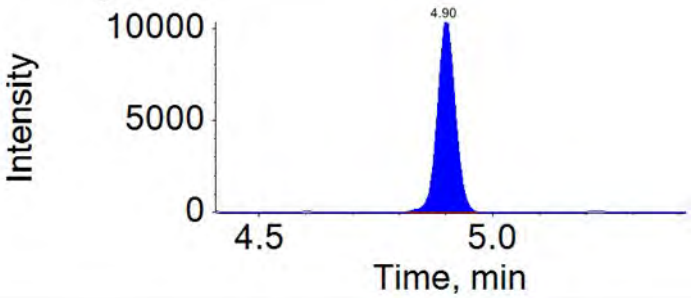
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



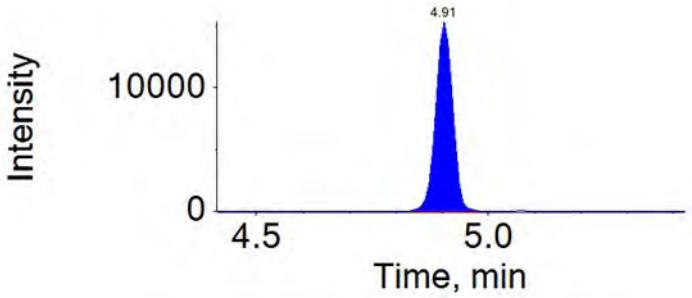
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



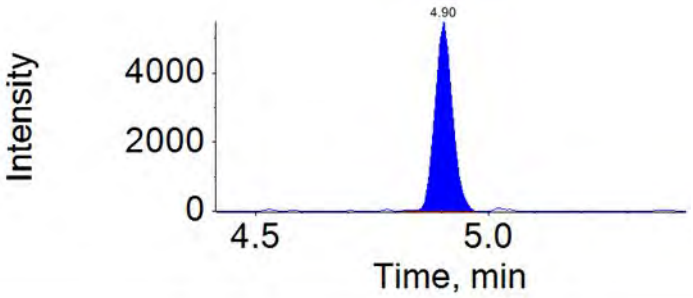
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



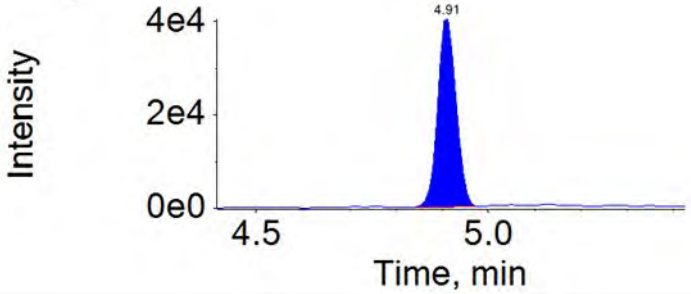
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



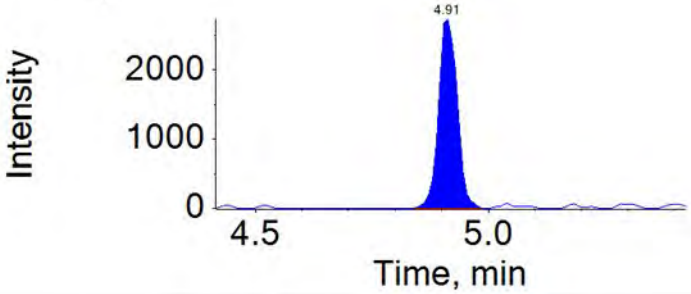
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

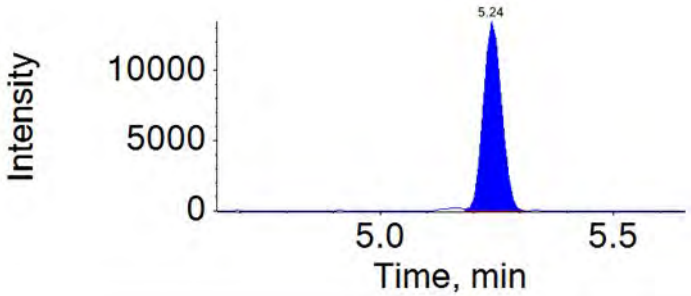
Component: PFOA
Primary Mass: 413.0 / 369.0



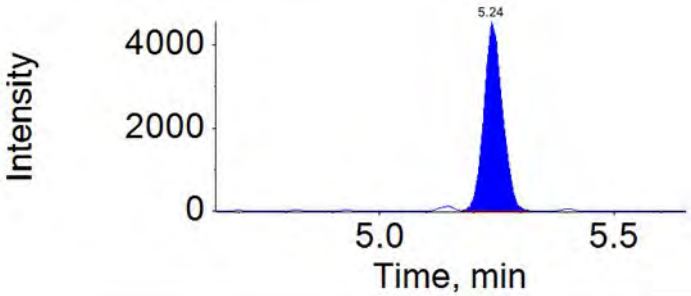
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



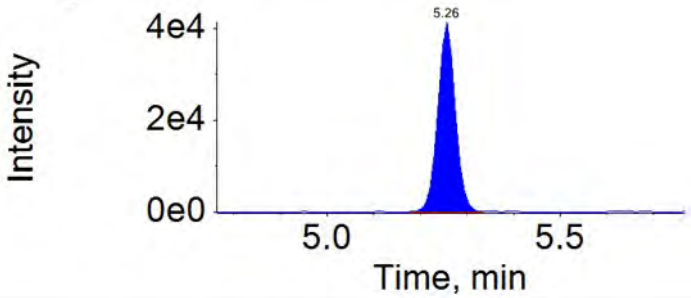
Component: PFOS
Primary Mass: 499.0 / 80.0



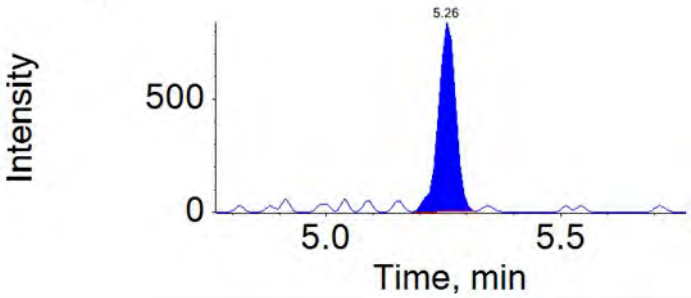
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



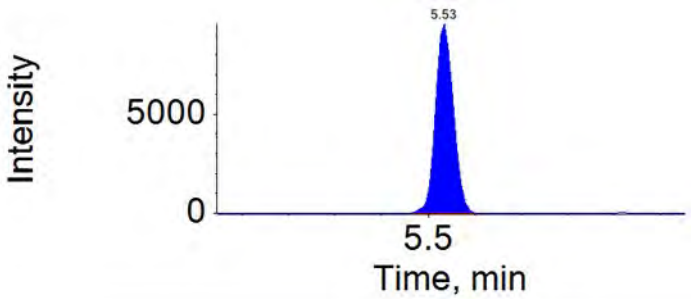
Component: PFNA
Primary Mass: 463.0 / 419.0



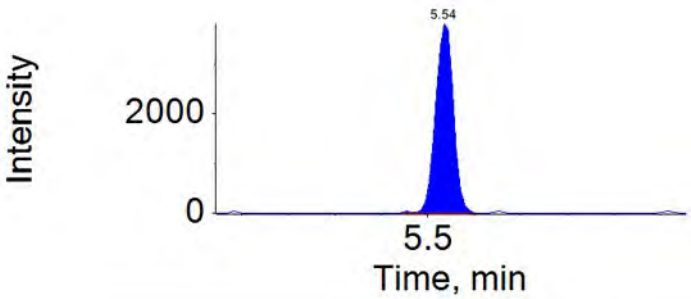
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



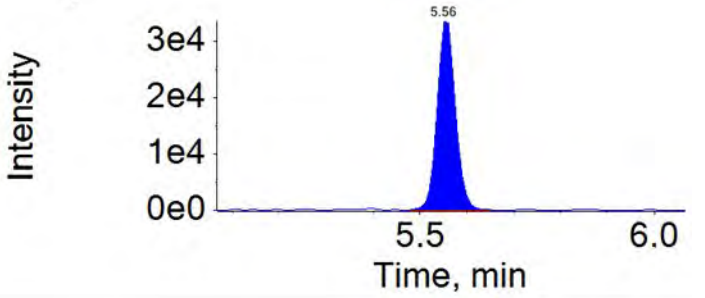
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



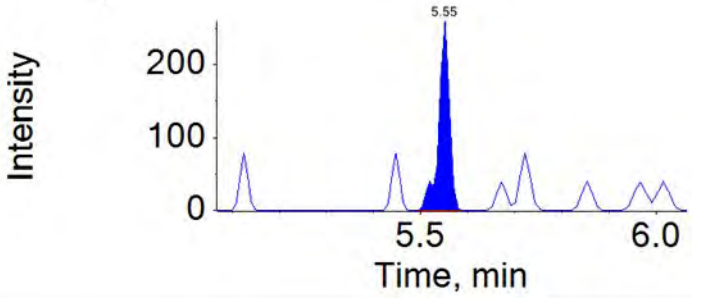
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

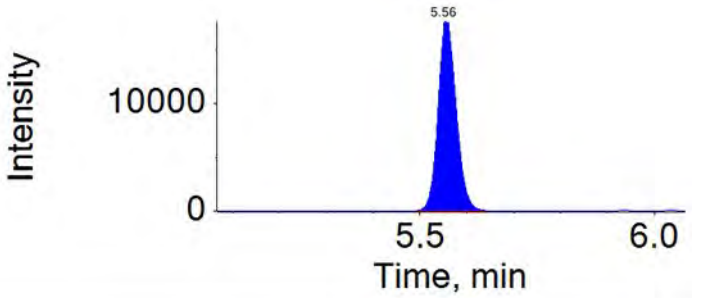
Component: PFDA
Primary Mass: 513.0 / 469.0



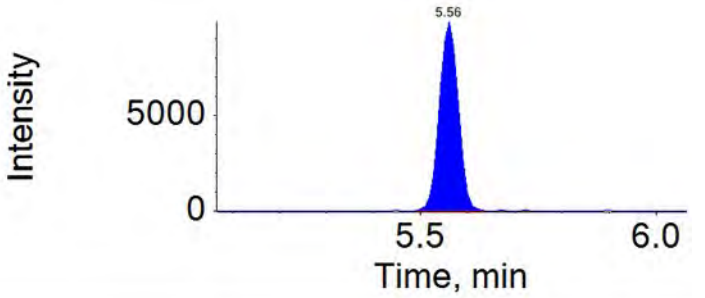
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



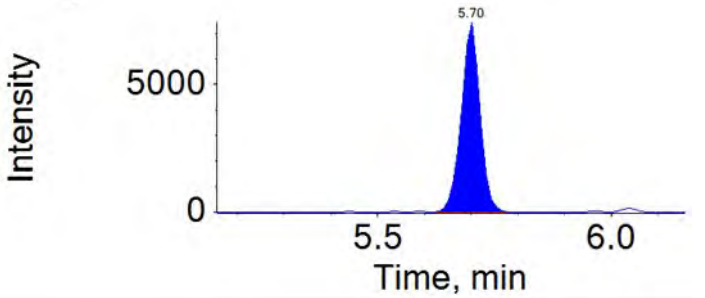
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



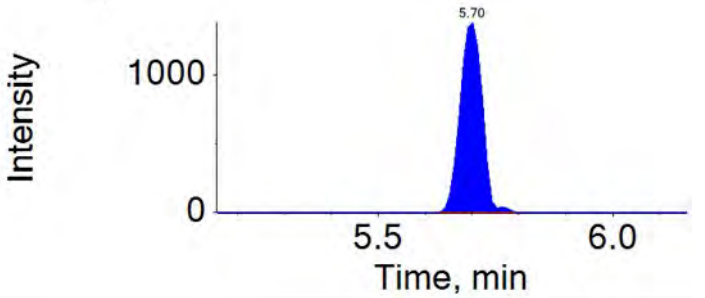
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



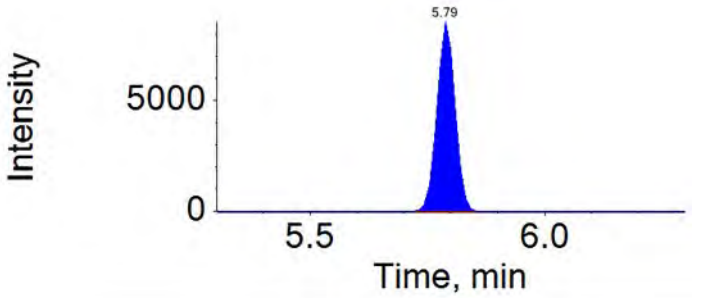
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



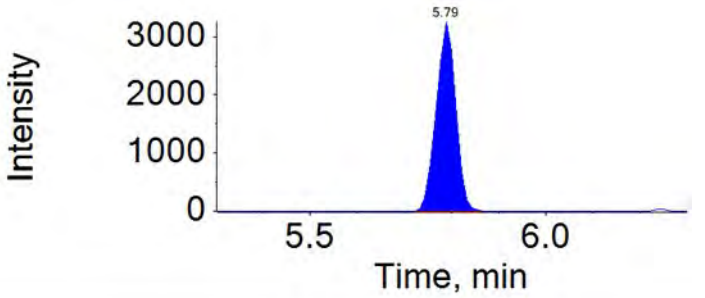
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



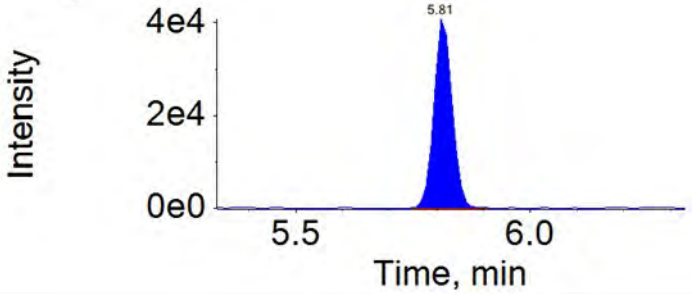
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



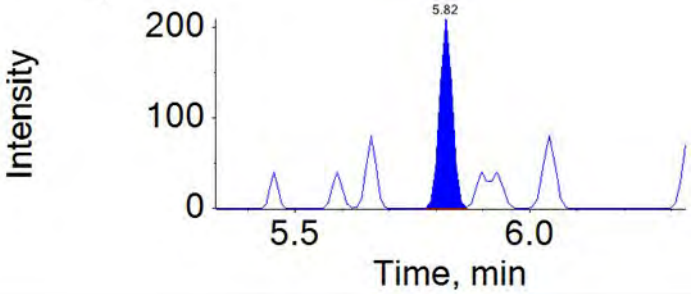
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

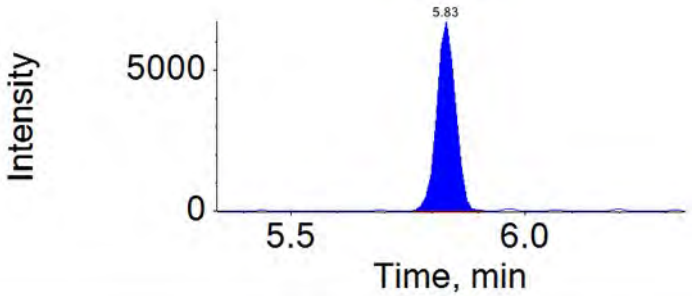
Component: PFUnDA
Primary Mass: 563.0 / 519.0



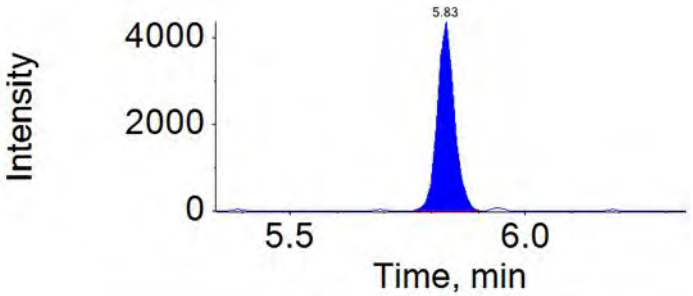
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



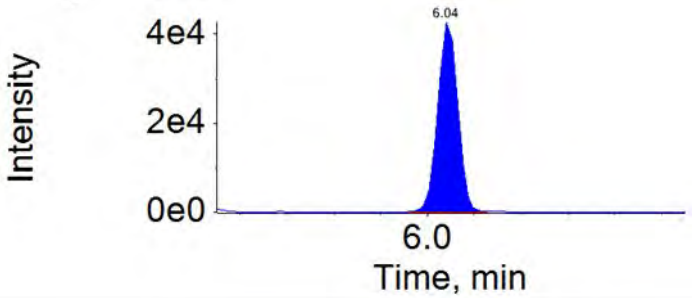
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



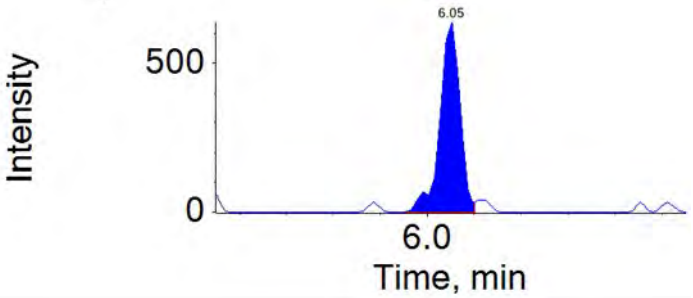
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



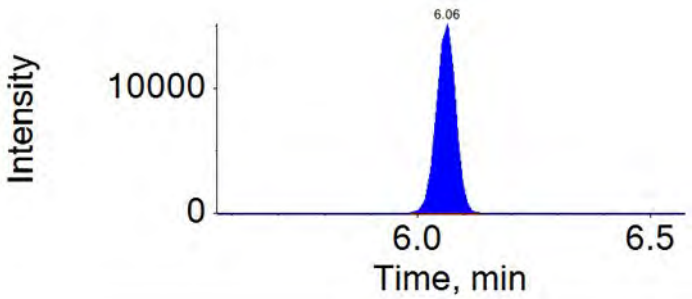
Component: PFDoDA
Primary Mass: 613.0 / 569.0



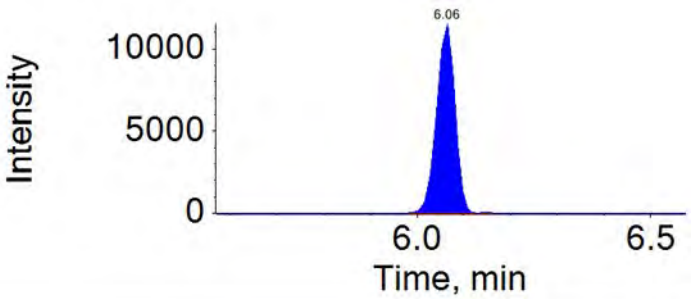
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



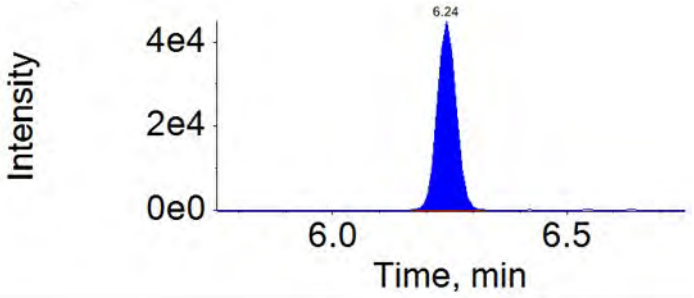
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



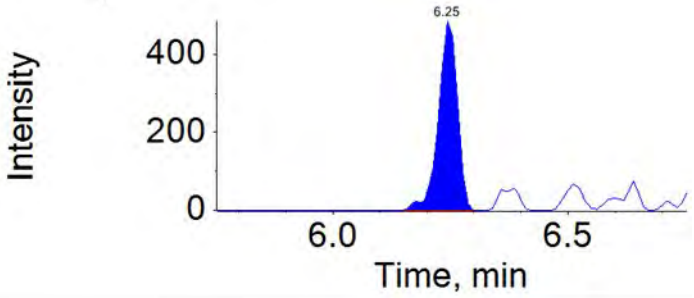
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

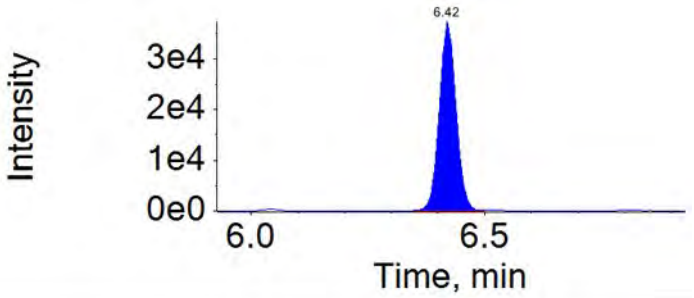
Component: PFTrDA
Primary Mass: 663.0 / 619.0



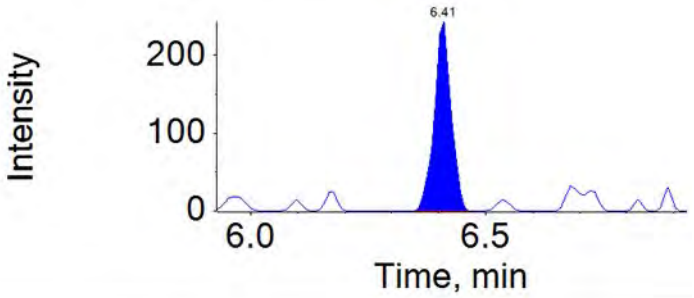
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



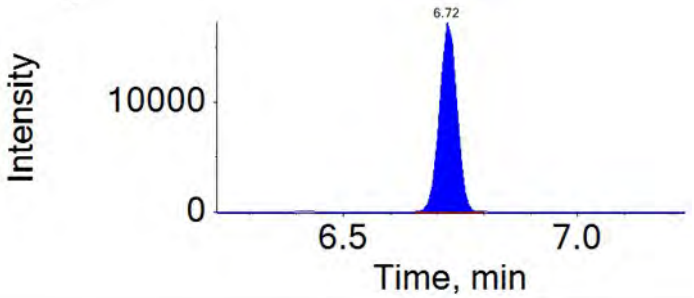
Component: PFTeDA
Primary Mass: 713.0 / 669.0



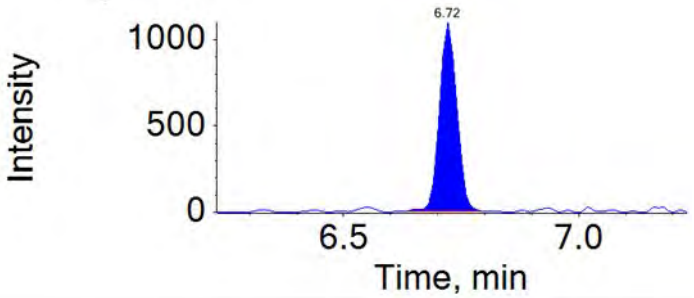
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



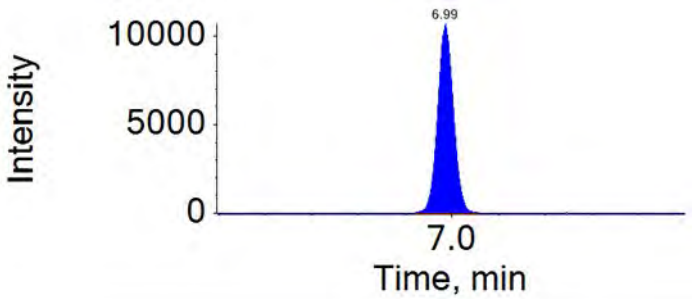
Component: PFHxDA
Primary Mass: 813.0 / 769.0



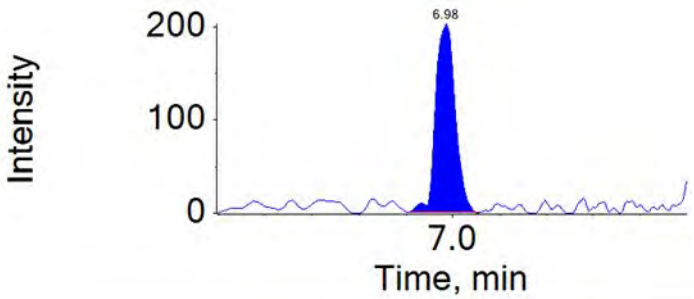
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



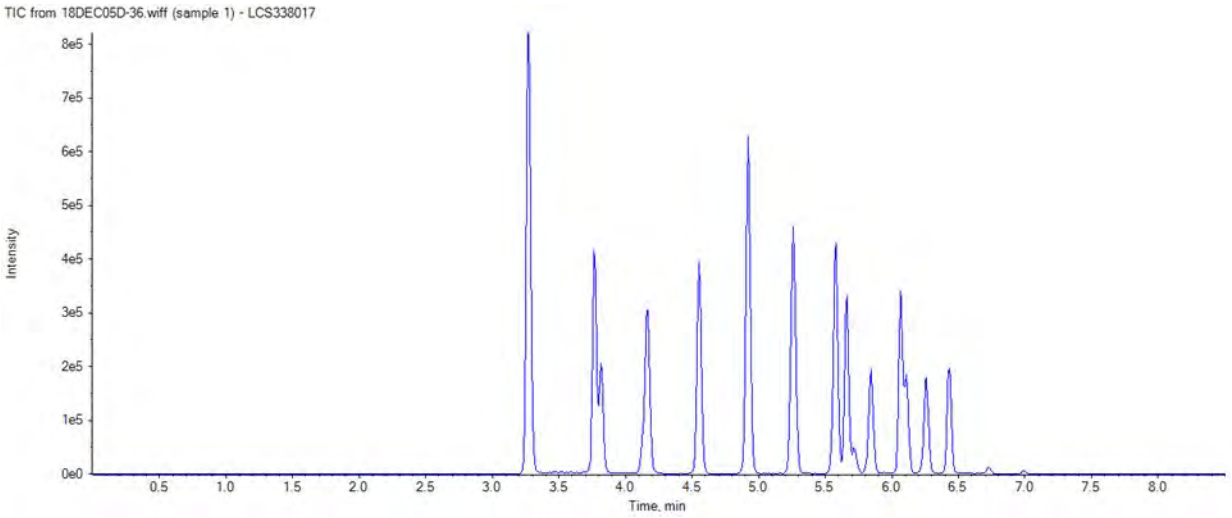
APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:56:53 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS338017	EPA 537 mod QSM 5.1 table B-15 18338017	18DEC05D-36.wiff	2018-12-05T17:27:14



Injection Standard Area Reference File**:** 18DEC05D-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	932897.0	850136.0	10	50	
13C2-PFOA	5.00	468210.0	429843.2	9	50	
13C4-PFOS	4.78	298097.5	272032.6	10	50	
13C2-PFDA	5.00	340565.4	291183.9	17	50	

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:56:53 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS338017	EPA 537 mod QSM 5.1 table B-15 18338017	18DEC05D-36.wiff	2018-12-05T17:27:14

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	133246.5	867709.1	0.154	1.360	1.739	128	70-130	
PFPeA	114813.9	765139.8	0.150	1.360	1.503	110	70-130	
PFBS	50232.2	356595.2	0.141	1.204	1.374	114	70-130	
4:2-FTS	37218.1	55173.7	0.675	3.736	3.407	91	70-130	
PFHxA	103842.3	597273.5	0.174	1.360	1.482	109	70-130	
PFPeS	25999.7	356595.2	0.073	1.276	1.399	110	70-130	
PFHpA	108288.7	439530.1	0.246	1.360	1.590	117	70-130	
PFHxS	39212.0	295253.9	0.133	1.286	1.251	97	70-130	
6:2-FTS	30277.7	48768.9	0.621	3.792	3.011	79	70-130	
PFHpS	41788.6	295253.9	0.142	1.294	1.474	114	70-130	
PFOA	98417.9	709678.3	0.139	1.360	1.468	108	70-130	
PFOS	40848.0	267619.3	0.153	1.300	1.294	100	70-130	
PFNA	92866.5	443391.6	0.209	1.360	1.570	115	70-130	
PFNS	25797.0	267619.3	0.096	1.306	1.300	100	70-130	
PFDA	68752.9	496745.0	0.138	1.360	1.518	112	70-130	
8:2-FTS	22507.1	23737.2	0.948	3.832	4.073	106	70-130	
PFOSA	80598.7	654467.9	0.123	1.360	1.290	95	70-130	
NMeFOSAA	8960.8	97422.5	0.092	1.360	1.217	90	70-130	
PFDS	23710.3	267619.3	0.089	1.310	1.517	116	70-130	
PFUnDA	66400.4	291270.3	0.228	1.360	1.388	102	70-130	
NEtFOSAA	8481.5	59064.0	0.144	1.360	1.453	107	70-130	
PFDoDA	83982.7	600130.5	0.140	1.360	1.596	117	70-130	
10:2-FTS	14337.9	23737.2	0.604	3.856	3.010	78	70-130	
NMePFOSAE	39176.1	258313.6	0.152	1.360	1.285	94	70-130	
NMePFOSA	9225.4	86370.4	0.107	1.360	1.126	83	70-130	
PFDoS	10913.8	267619.3	0.041	1.316	1.278	97	70-130	
NEtPFOSAE	38560.3	218991.4	0.176	1.360	1.213	89	70-130	
NEtPFOSA	9120.4	78551.8	0.116	1.360	1.081	79	70-130	
PFTrDA	72403.6	600130.5	0.121	1.360	1.420	104	70-130	
PFTeDA	53025.2	399546.9	0.133	1.360	1.571	116	70-130	
PFHxDA	24773.9	399546.9	0.062	1.360	1.592	117	70-130	
PFODA	13144.8	399546.9	0.033	1.360	1.045	77	70-130	

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:56:53 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS338017			**Data File:**		18DEC05D-36.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18338017			**Acquis Date:**		2018-12-05T17:27:14
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	25			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18338017
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	18338017			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18DEC05D-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	932897.0	850136.0	10	50	
13C2-PFOA	5.0	468210.0	429843.2	9	50	
13C4-PFOS	4.8	298097.5	272032.6	10	50	
13C2-PFDA	5.0	340565.4	291183.9	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	867709.1	13C3-PFBA	932897.0	0.930	10.000	8.255	83	50-150	
E13C5-PFPeA	765139.8	13C3-PFBA	932897.0	0.820	10.000	7.915	79	50-150	
E13C3-PFBS	356595.2	13C3-PFBA	932897.0	0.382	9.300	5.957	64	50-150	
E13C2-4:2-FTS	55173.7	13C2-PFOA	468210.0	0.118	9.340	9.695	104	50-150	
E13C5-PFHxA	597273.5	13C2-PFOA	468210.0	1.276	10.000	8.640	86	50-150	
E13C3-PFHxS	295253.9	13C2-PFOA	468210.0	0.631	9.460	7.974	84	50-150	
E13C4-PFHpA	439530.1	13C2-PFOA	468210.0	0.939	10.000	8.192	82	50-150	
E13C2-6:2-FTS	48768.9	13C2-PFOA	468210.0	0.104	9.500	13.806	145	50-150	
E13C8-PFOA	709678.3	13C2-PFOA	468210.0	1.516	10.000	8.426	84	50-150	
E13C8-PFOS	267619.3	13C4-PFOS	298097.5	0.898	9.560	7.975	83	50-150	
E13C9-PFNA	443391.6	13C4-PFOS	298097.5	1.487	10.000	8.707	87	50-150	
E13C6-PFDA	496745.0	13C2-PFDA	340565.4	1.459	10.000	7.587	76	50-150	
E13C2-8:2-FTS	23737.2	13C2-PFDA	340565.4	0.070	9.580	8.963	94	50-150	
E13C8-PFOSA	654467.9	13C2-PFDA	340565.4	1.922	10.000	8.603	86	50-150	
Ed3-NMeFOSAA	97422.5	13C2-PFDA	340565.4	0.286	10.000	9.994	100	50-150	
E13C7-PFUnDA	291270.3	13C2-PFDA	340565.4	0.855	10.000	8.519	85	50-150	
Ed5-NEtFOSAA	59064.0	13C2-PFDA	340565.4	0.173	10.000	7.913	79	50-150	
E13C2-PFDoDA	600130.5	13C2-PFDA	340565.4	1.762	10.000	7.546	75	50-150	
Ed7-NMePFOSAE	258313.6	13C2-PFDA	340565.4	0.758	10.000	8.225	82	50-150	
Ed3-NMePFOSA	86370.4	13C2-PFDA	340565.4	0.254	10.000	9.405	94	50-150	
Ed9-NEtPFOSAE	218991.4	13C2-PFDA	340565.4	0.643	10.000	8.295	83	50-150	
Ed5-NEtPFOSA	78551.8	13C2-PFDA	340565.4	0.231	10.000	10.883	109	50-150	
E13C2-PFTeDA	399546.9	13C2-PFDA	340565.4	1.173	10.000	6.614	66	50-150	

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

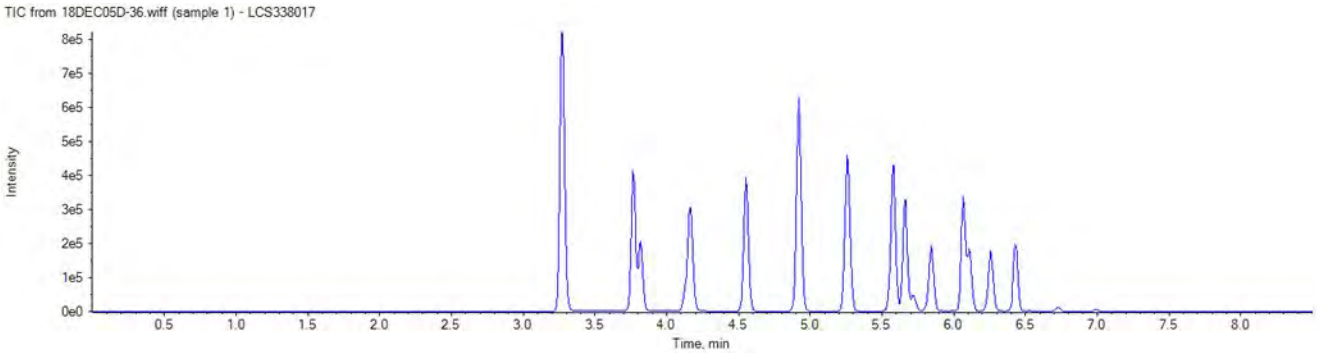
Analyte Quantitation Peak Table

Sample Name: LCS338017 **Instrument Name:** LM27631 **File Name:** 18DEC05D-36.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	133246.5		A	13C4-PFBA	3.27	867709.1	0.154	1.739
PFPeA	3.77	1.000	114813.9		A	13C5-PFPeA	3.77	765139.8	0.150	1.503
PFBS	3.82	1.000	50232.2		A	13C3-PFBS	3.82	356595.2	0.141	1.374
4:2-FTS	4.13	1.000	37218.1		A	13C2-4:2-FTS	4.13	55173.7	0.675	3.407
PFHxA	4.16	1.000	103842.3		A	13C5-PFHxA	4.16	597273.5	0.174	1.482
PFPeS	4.18	1.100	25999.7		A	13C3-PFBS	3.82	356595.2	0.073	1.399
PFHpA	4.55	1.000	108288.7		A	13C4-PFHpA	4.55	439530.1	0.246	1.590
PFHxS	4.56	1.000	39212.0		A	13C3-PFHxS	4.56	295253.9	0.133	1.251
6:2-FTS	4.91	1.000	30277.7		A	13C2-6:2-FTS	4.91	48768.9	0.621	3.011
PFHpS	4.91	1.080	41788.6		A	13C3-PFHxS	4.56	295253.9	0.142	1.474
PFOA	4.92	1.000	98417.9		A	13C8-PFOA	4.92	709678.3	0.139	1.468
PFOS	5.25	1.000	40848.0		M	13C8-PFOS	5.25	267619.3	0.153	1.294
PFNA	5.27	1.000	92866.5		A	13C9-PFNA	5.27	443391.6	0.209	1.570
PFNS	5.55	1.060	25797.0		A	13C8-PFOS	5.25	267619.3	0.096	1.300
PFDA	5.58	1.000	68752.9		A	13C6-PFDA	5.58	496745.0	0.138	1.518
8:2-FTS	5.58	1.000	22507.1		A	13C2-8:2-FTS	5.58	23737.2	0.948	4.073
PFOSA	5.66	1.000	80598.7		A	13C8-PFOSA	5.66	654467.9	0.123	1.290
NMeFOSAA	5.73	1.000	8960.8		A	d3-NMeFOSAA	5.72	97422.5	0.092	1.217
PFDS	5.82	1.110	23710.3		A	13C8-PFOS	5.25	267619.3	0.089	1.517
PFUnDA	5.84	1.000	66400.4		A	13C7-PFUnDA	5.84	291270.3	0.228	1.388
NEtFOSAA	5.86	1.000	8481.5		M	d5-NEtFOSAA	5.85	59064.0	0.144	1.453
PFDoDA	6.07	1.000	83982.7		A	13C2-PFDoDA	6.07	600130.5	0.140	1.596
10:2-FTS	6.08	1.090	14337.9		A	13C2-8:2-FTS	5.58	23737.2	0.604	3.010
NMePFOSAE	6.11	1.000	39176.1		A	d7-NMePFOSAE	6.11	258313.6	0.152	1.285
NMePFOSA	6.12	1.000	9225.4		A	d3-NMePFOSA	6.12	86370.4	0.107	1.126
PFDoS	6.23	1.190	10913.8		A	13C8-PFOS	5.25	267619.3	0.041	1.278
NEtPFOSAE	6.26	1.000	38560.3		A	d9-NEtPFOSAE	6.25	218991.4	0.176	1.213
NEtPFOSA	6.28	1.000	9120.4		A	d5-NEtPFOSA	6.27	78551.8	0.116	1.081
PFTrDA	6.26	1.030	72403.6		A	13C2-PFDoDA	6.07	600130.5	0.121	1.420
PFTeDA	6.43	1.000	53025.2		A	13C2-PFTeDA	6.43	399546.9	0.133	1.571
PFHxDA	6.73	1.050	24773.9		A	13C2-PFTeDA	6.43	399546.9	0.062	1.592
PFODA	6.99	1.090	13144.8		A	13C2-PFTeDA	6.43	399546.9	0.033	1.045

Total Ion Chromatogram

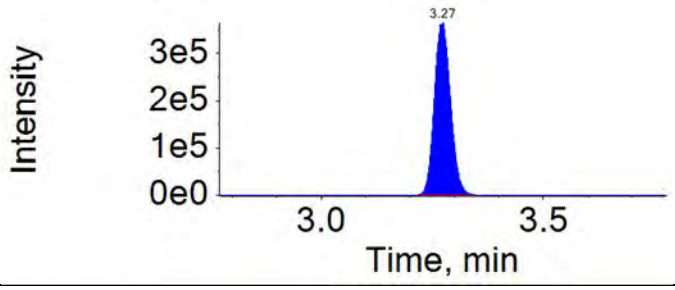


APPROVED
By MCD at 4:13 pm, 12/6/18

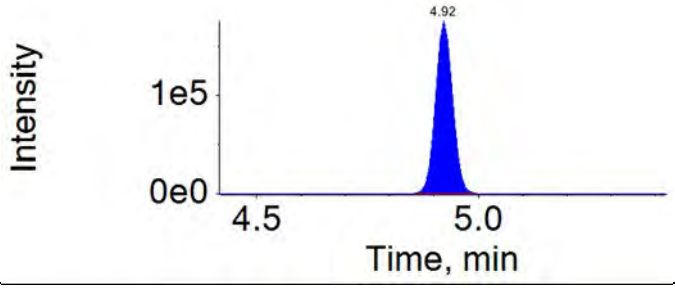
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

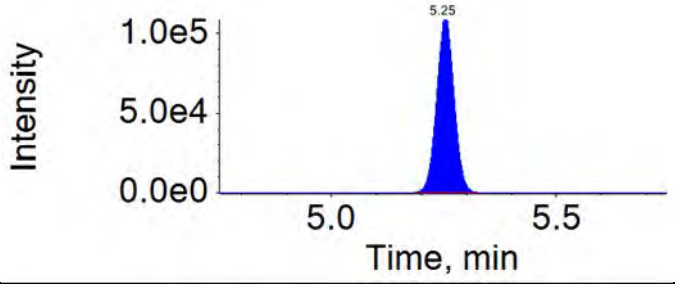
Injection Standard: 13C3-PFBA
216.0 / 172.0



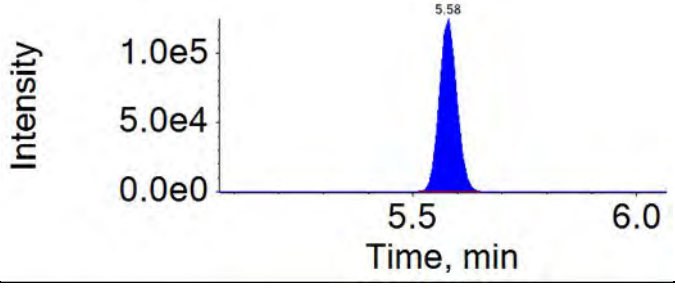
Injection Standard: 13C2-PFOA
415.0 / 370.0



Injection Standard: 13C4-PFOS
503.0 / 80.0



Injection Standard: 13C2-PFDA
515.0 / 470.0

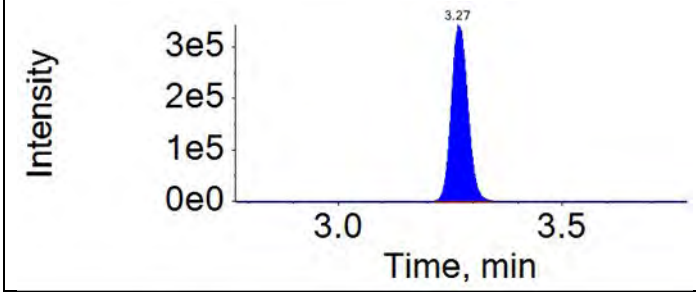


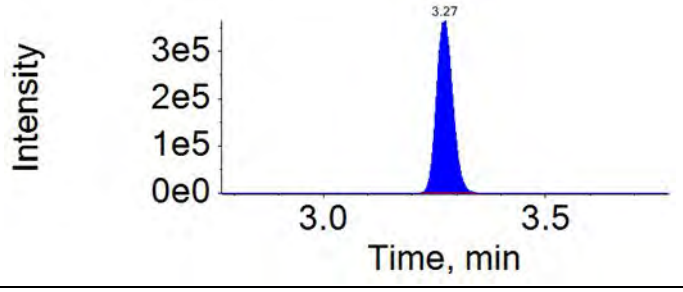
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

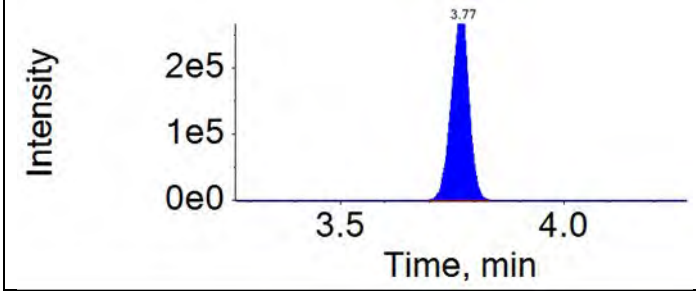
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

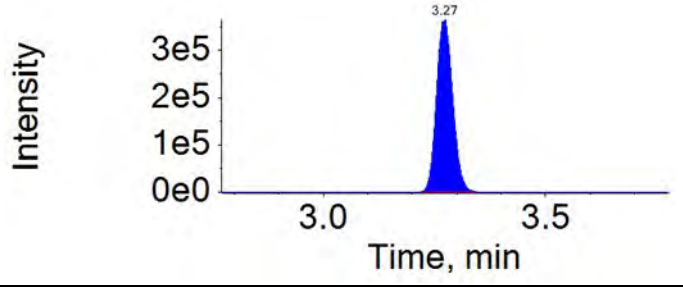
Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0



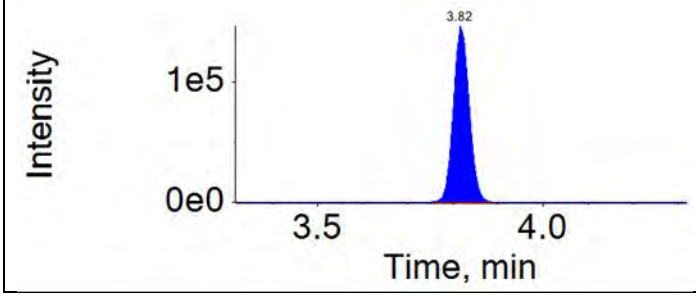


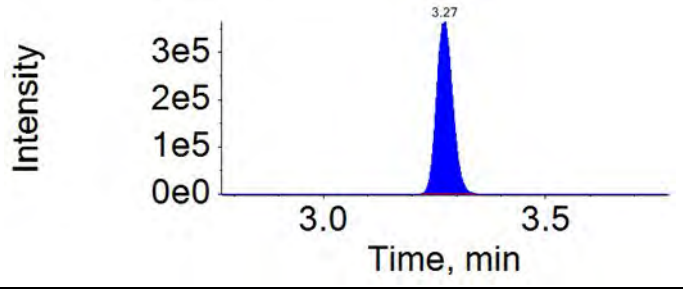
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0



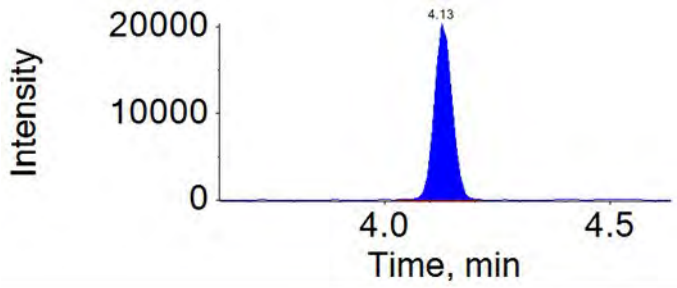


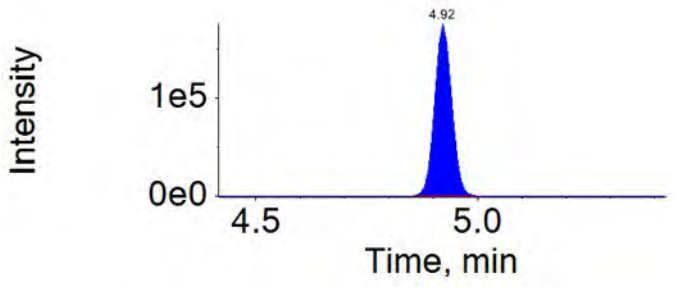
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0





Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0



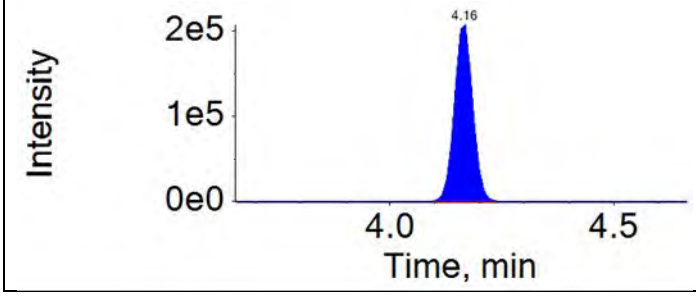


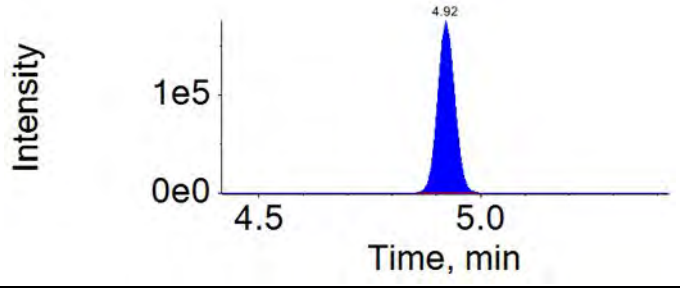
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:35 am, 12/10/18

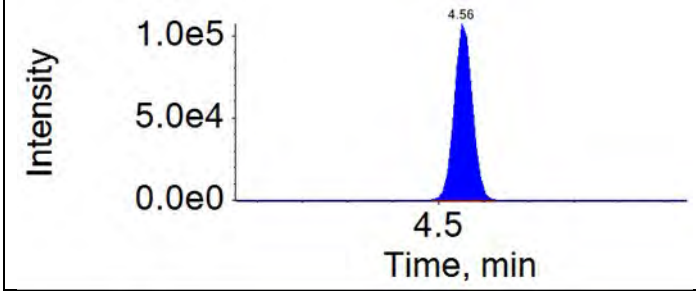
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

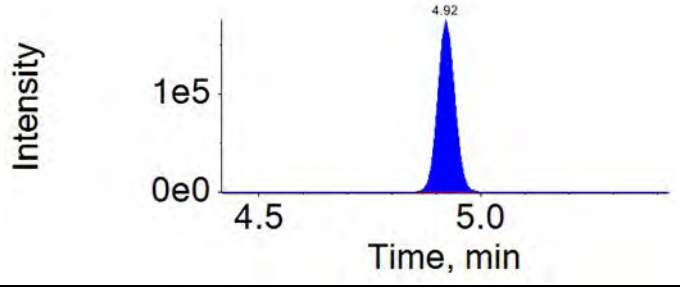
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



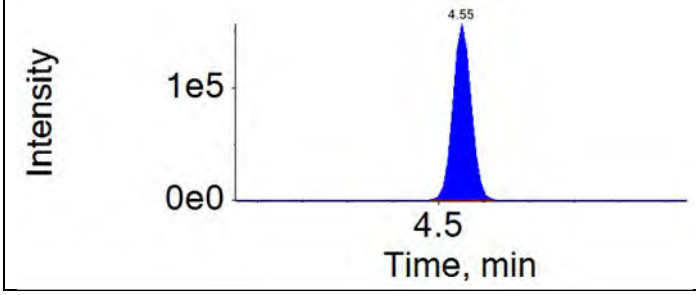


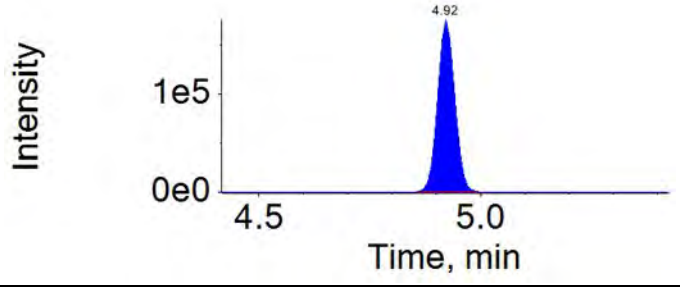
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



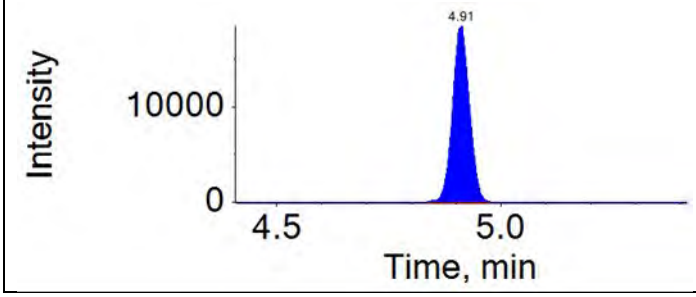


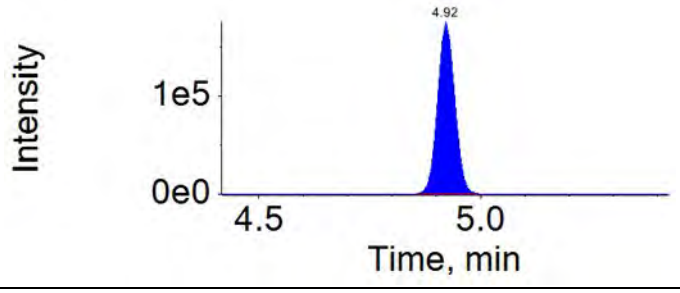
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

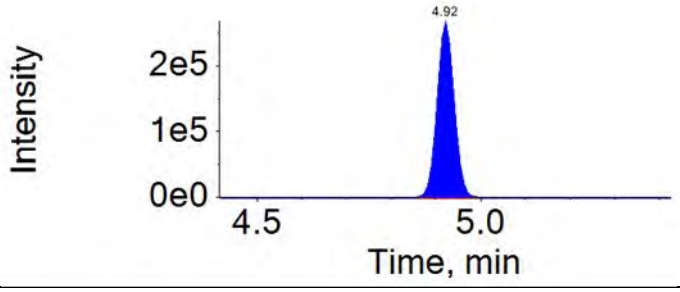
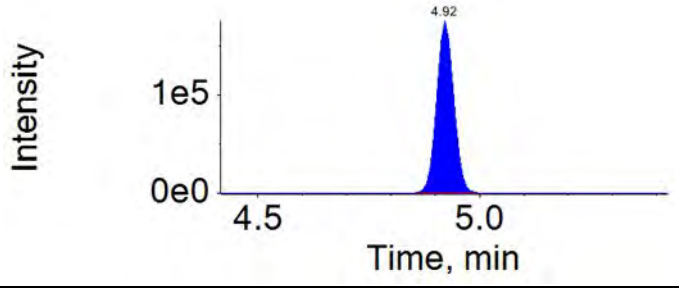


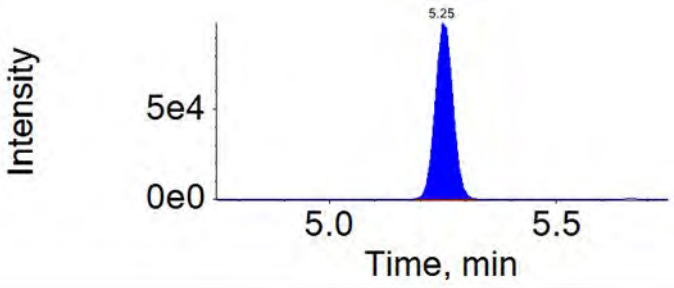
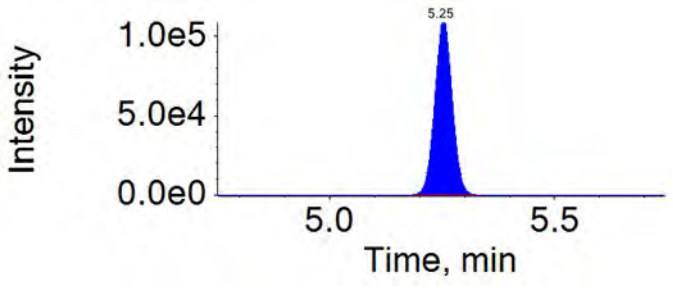


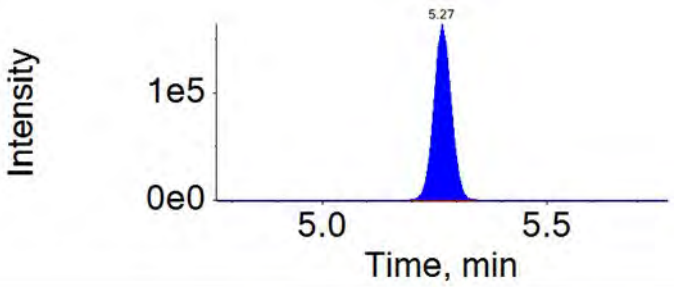
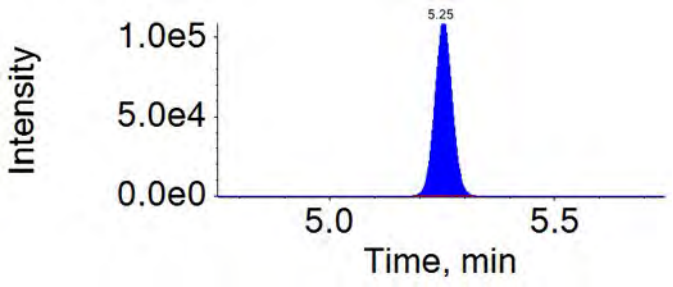
APPROVED
By MCD at 4:13 pm, 12/6/18

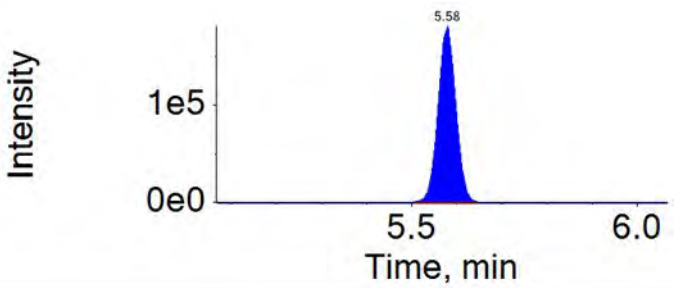
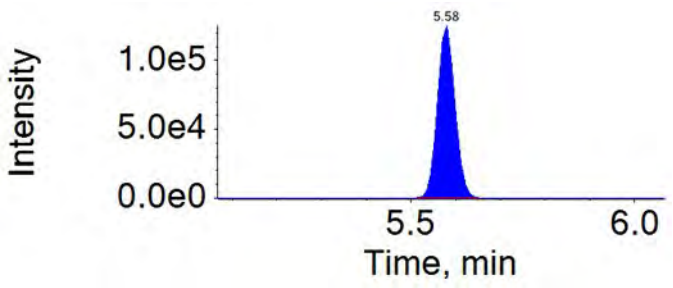
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

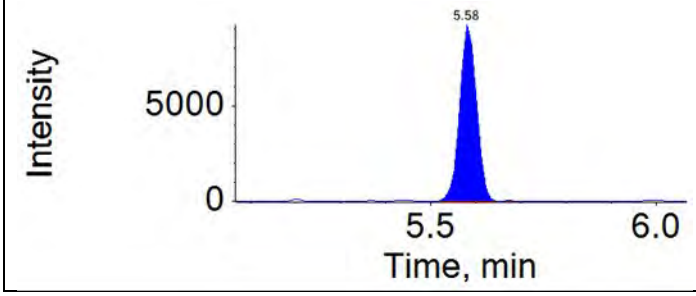
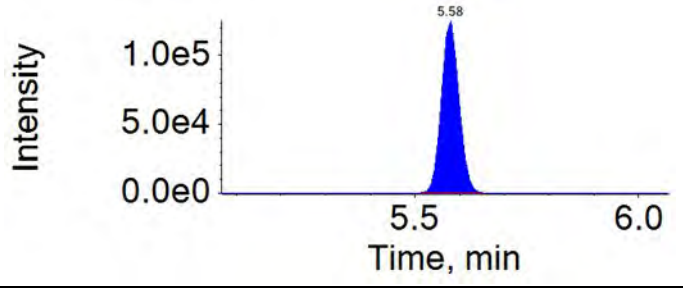
Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

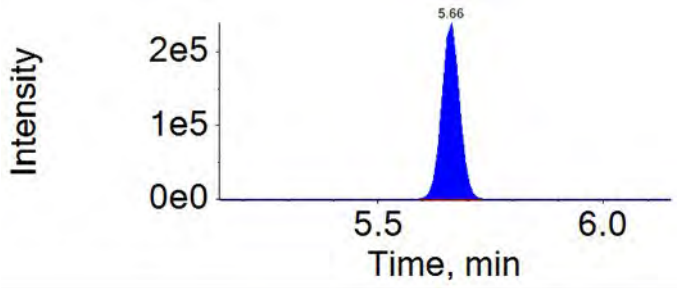
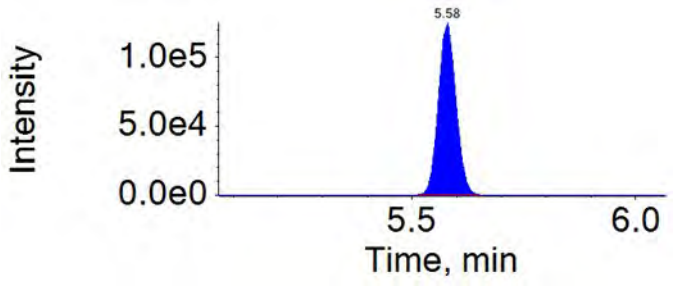
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

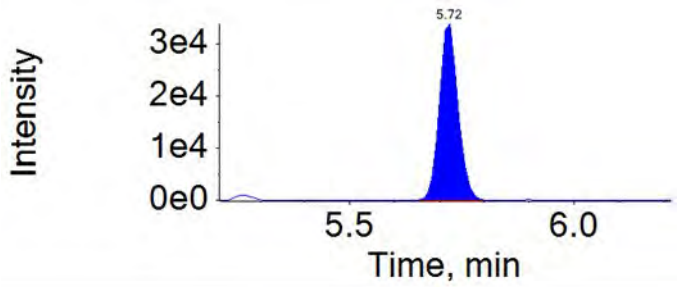
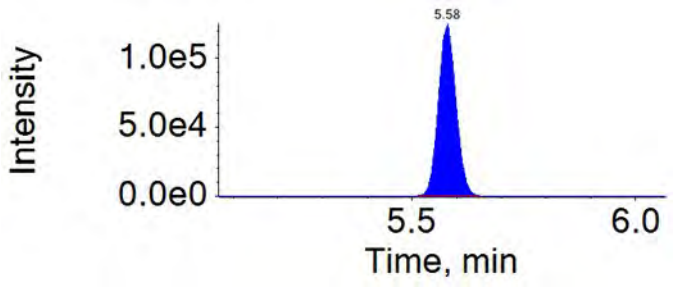
APPROVED
By MCD at 4:13 pm, 12/6/18

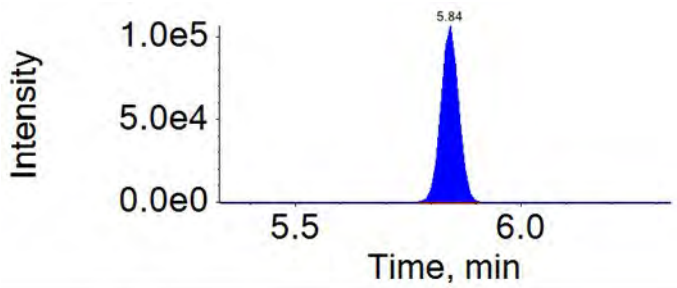
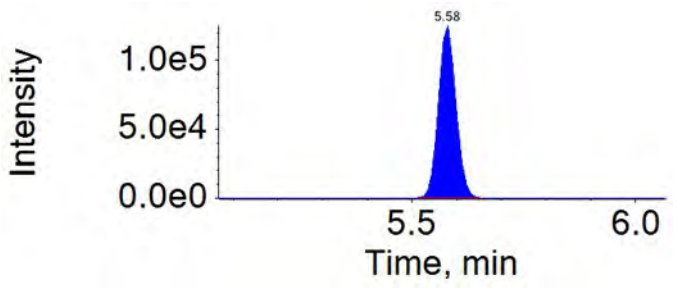
REVIEWED
By HMK at 8:35 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

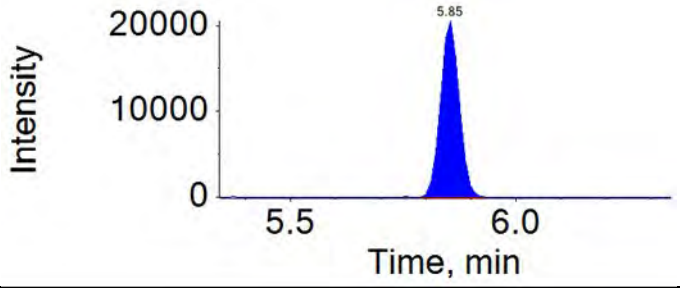
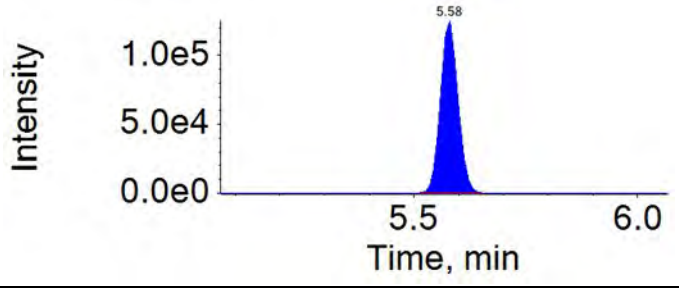
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0
	

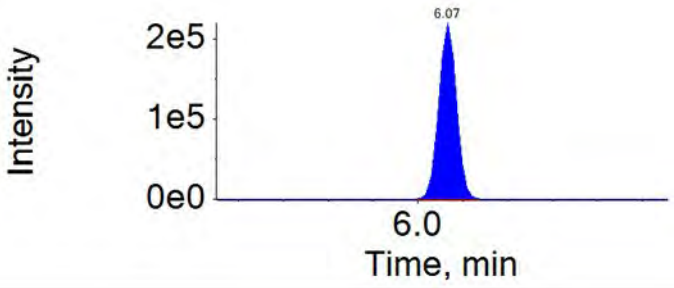
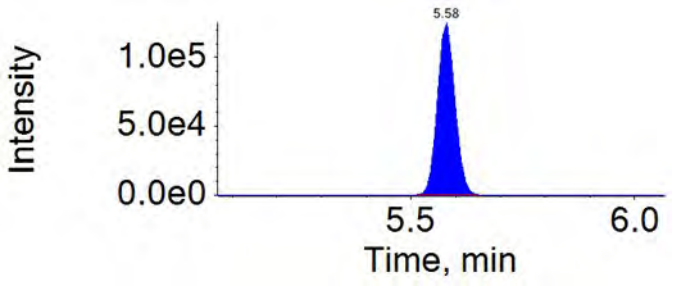
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0
	

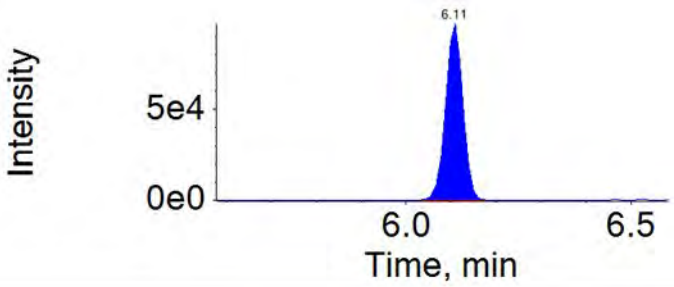
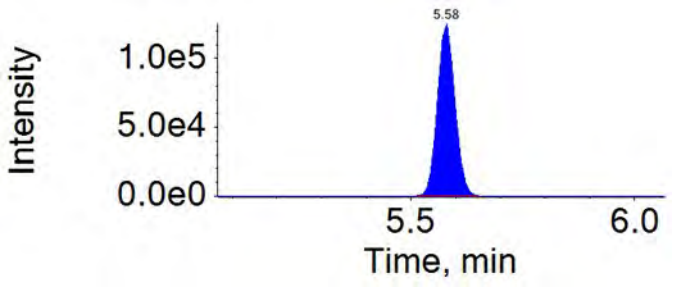
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0
	

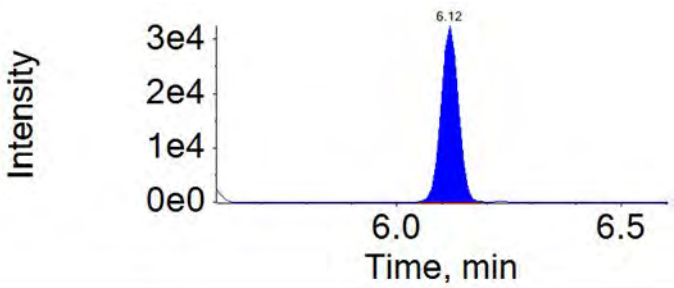
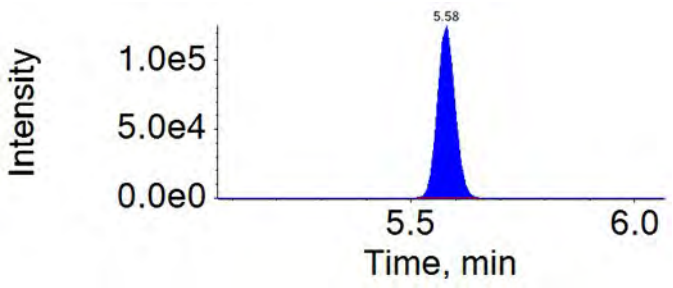
Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0
	

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: Ed5-NEtFOSAA	Injection Standard: 13C2-PFDA
589.0 / 419.0	515.0 / 470.0
	

Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

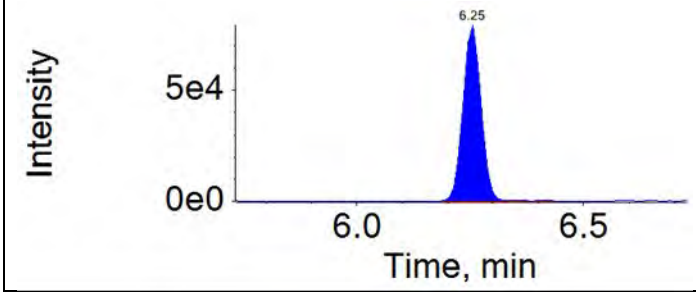
Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

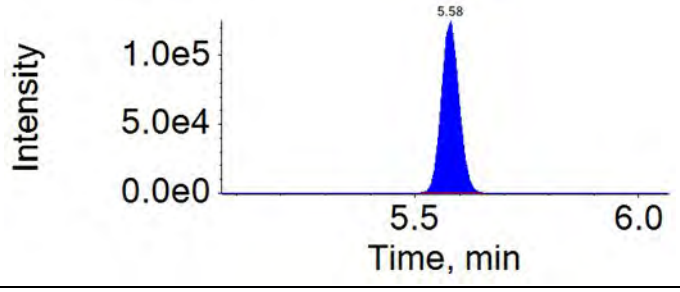
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

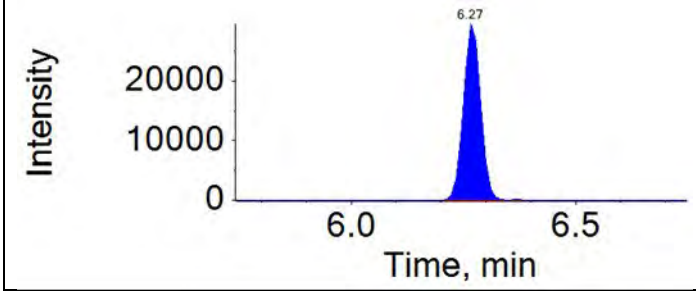
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

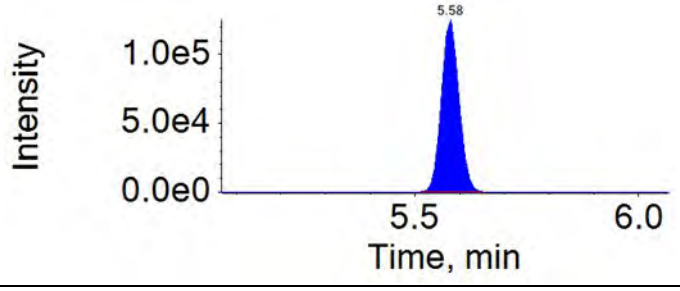
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



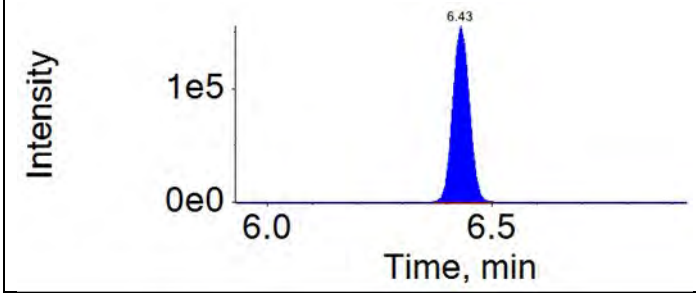


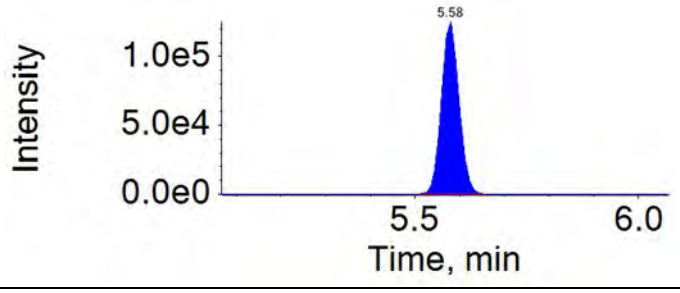
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0





Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0



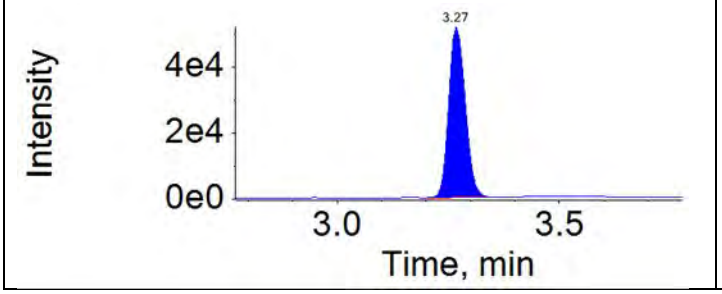


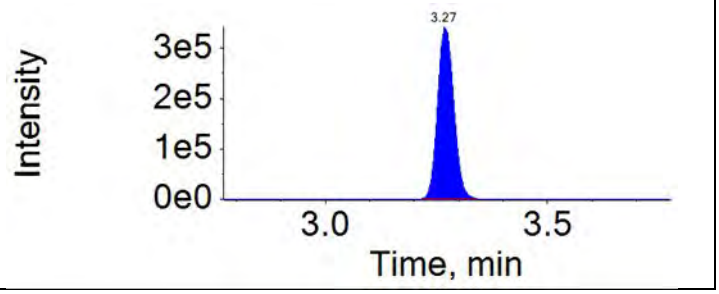
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

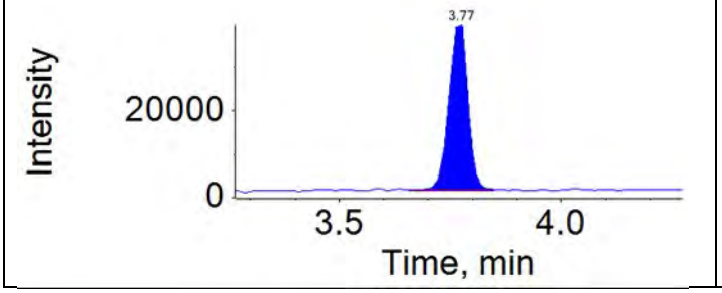
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

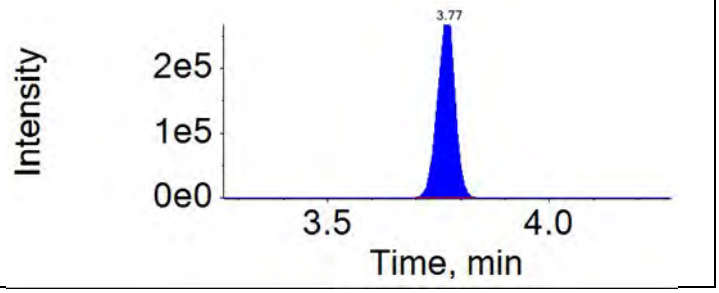
Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0



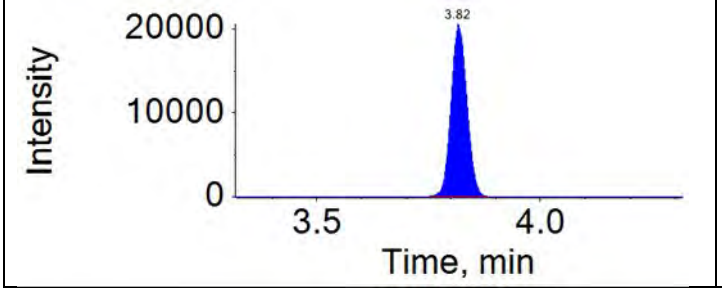


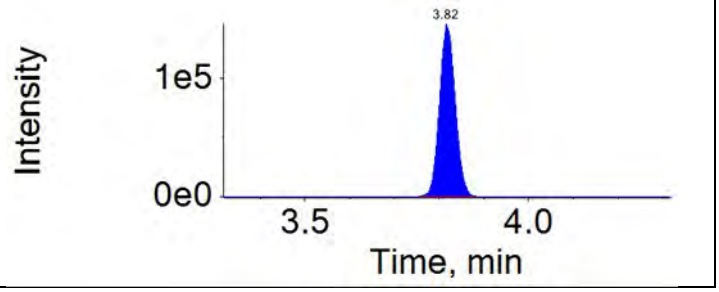
Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0



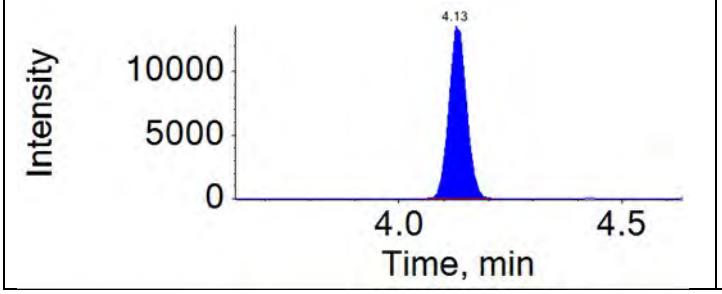


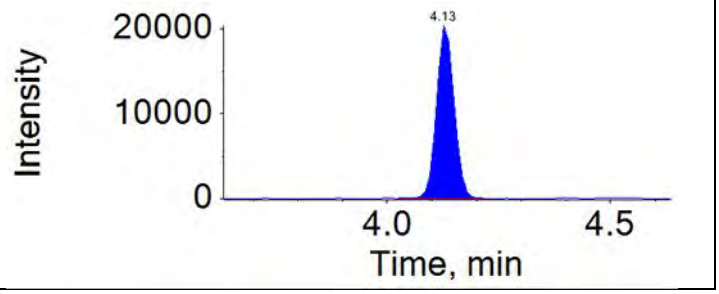
Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0





Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0



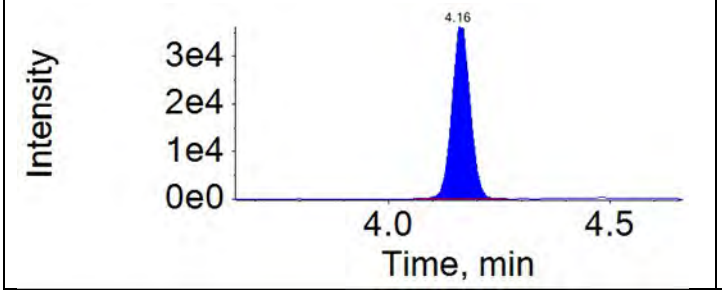


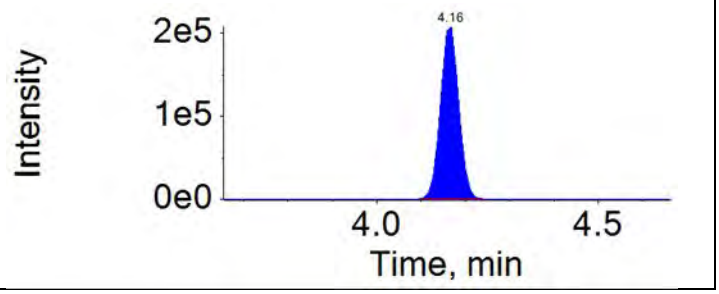
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

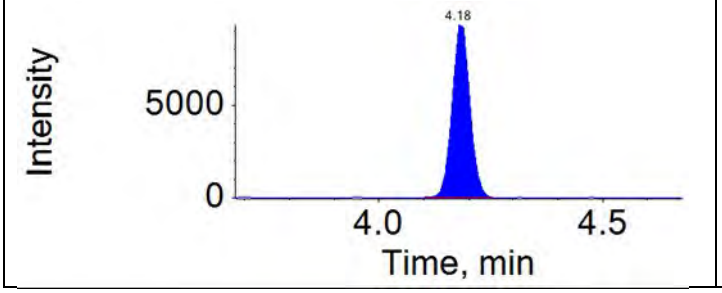
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

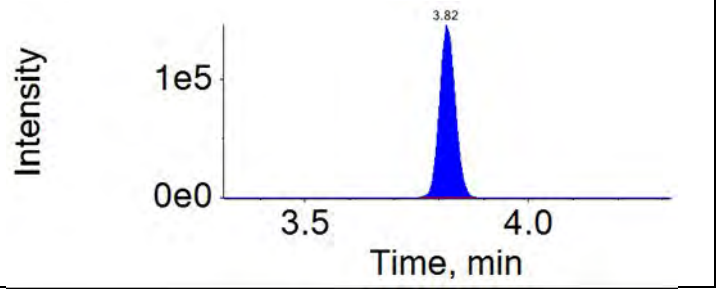
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



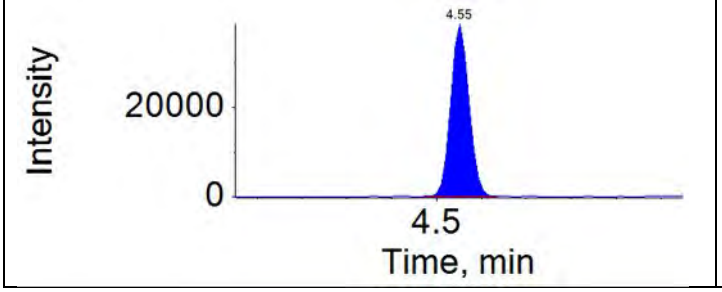


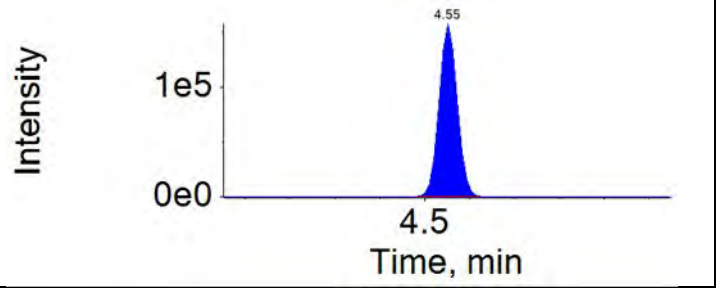
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



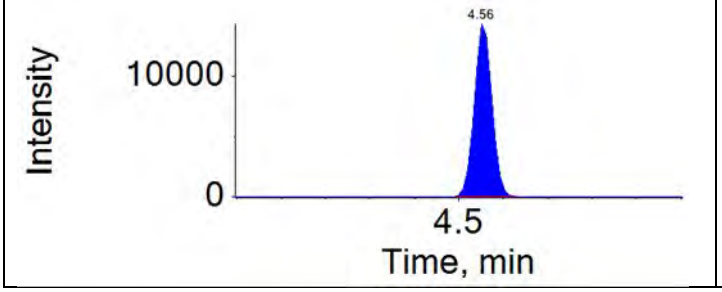


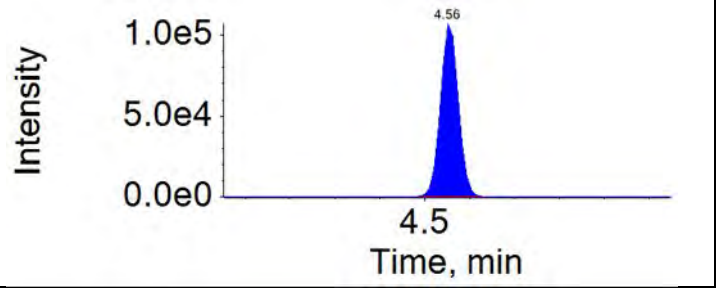
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0



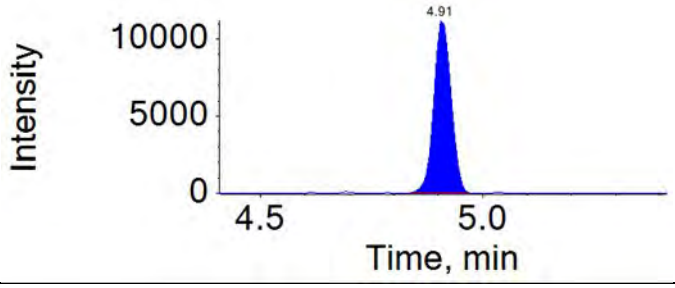
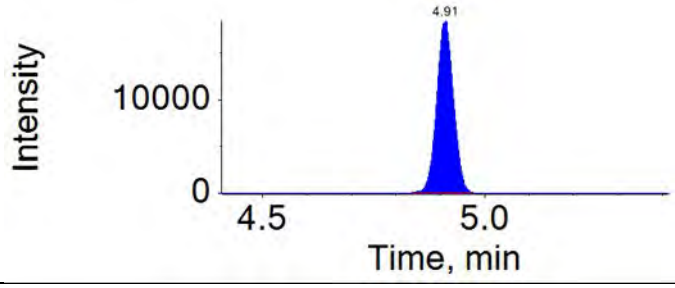


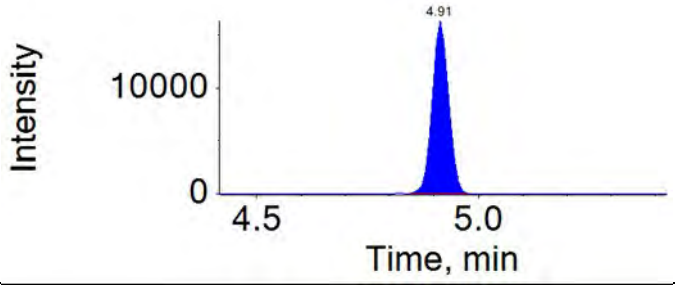
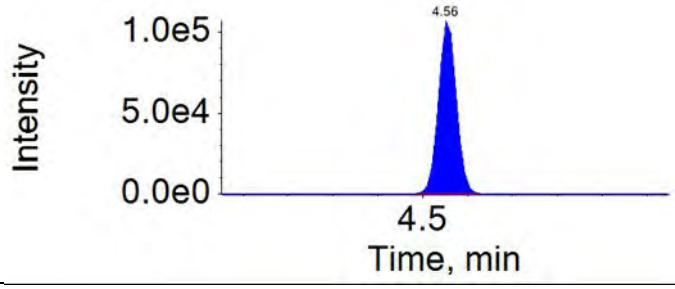
Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

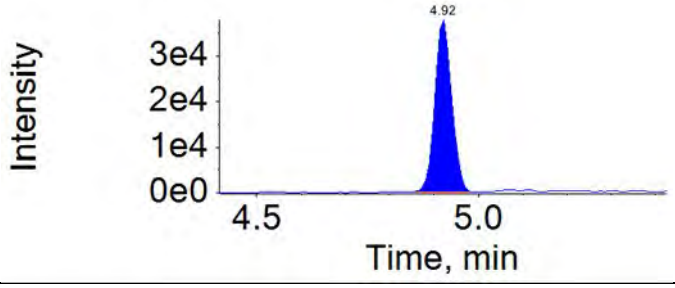
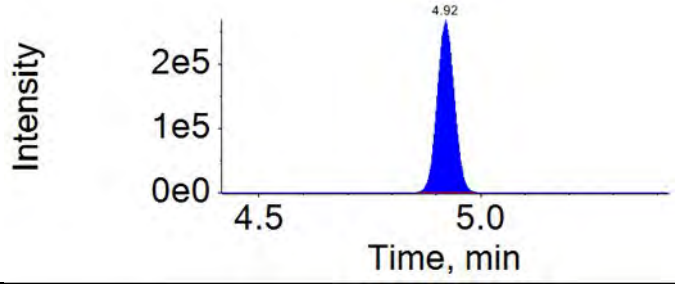


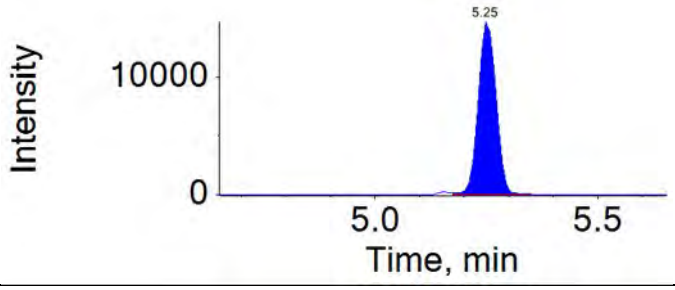
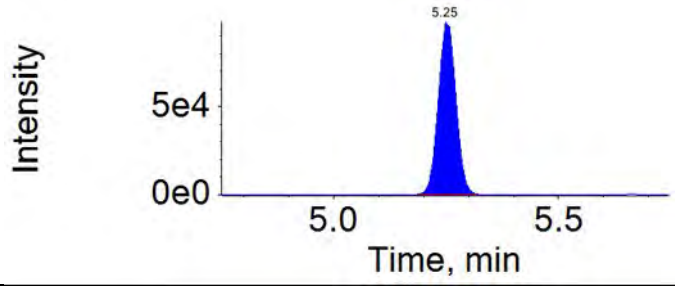


ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

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
	

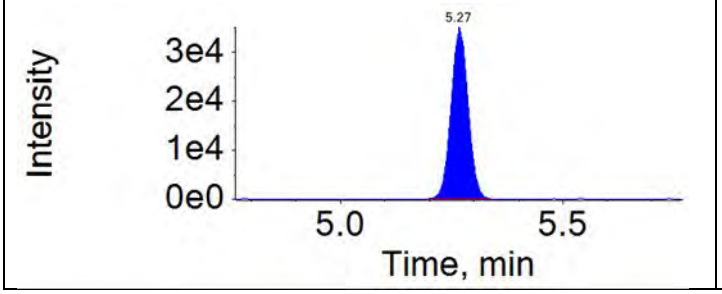
Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

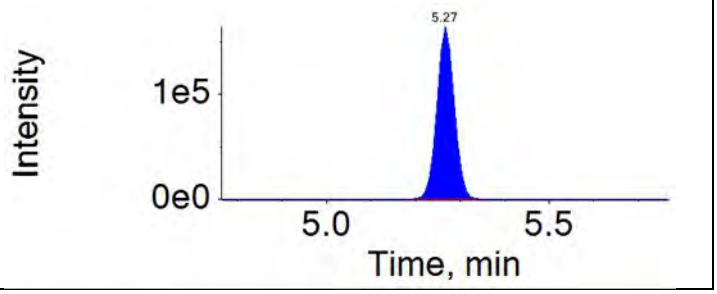
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

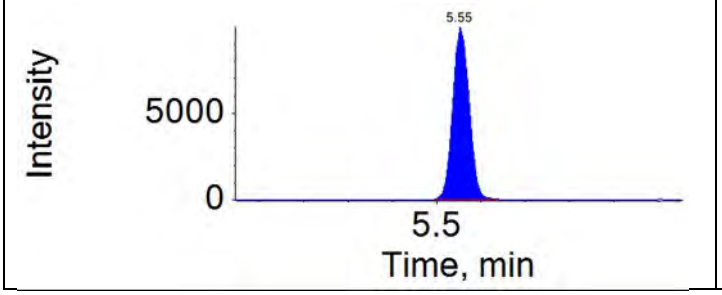
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

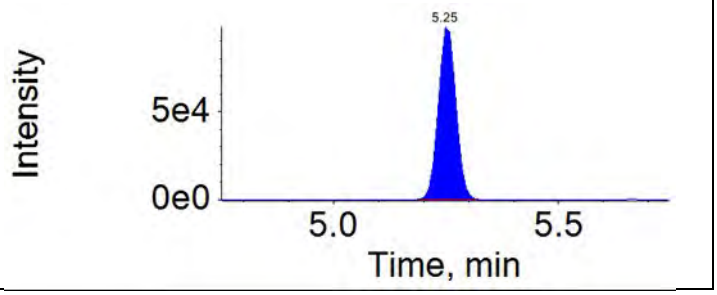
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



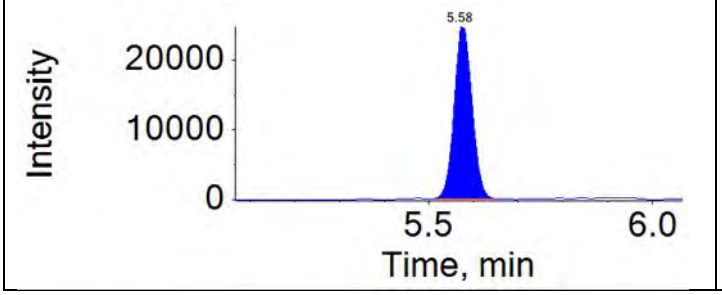


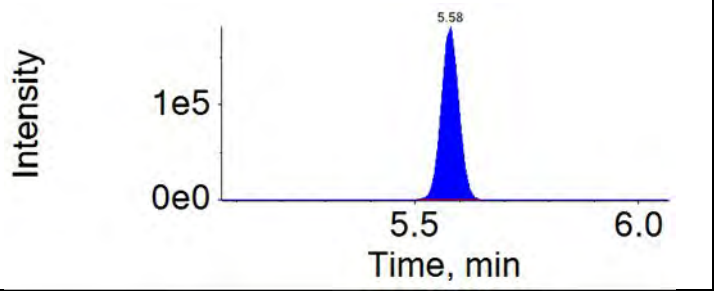
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



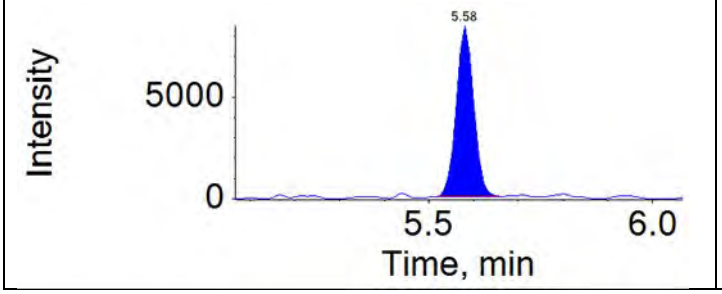


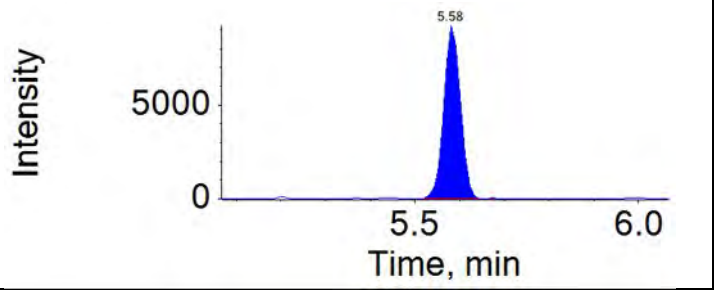
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

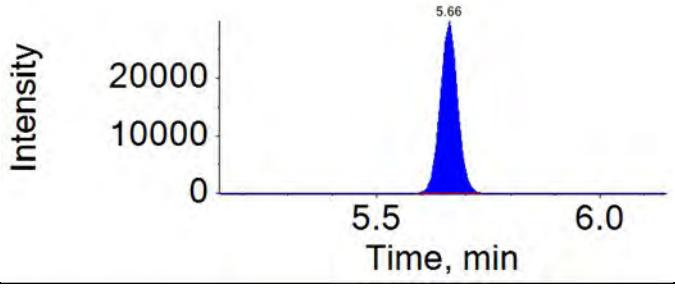
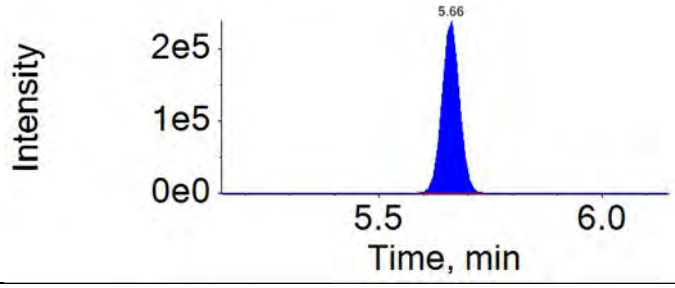


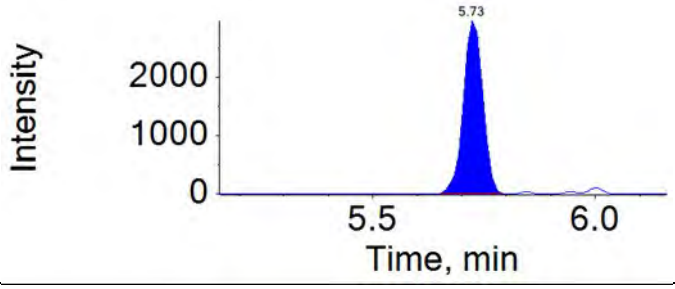
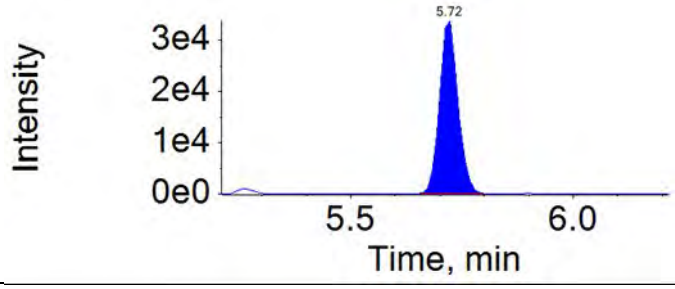


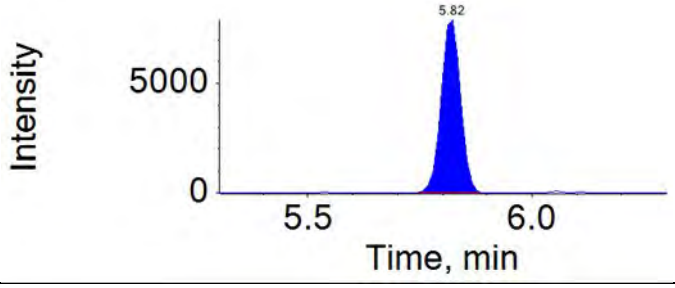
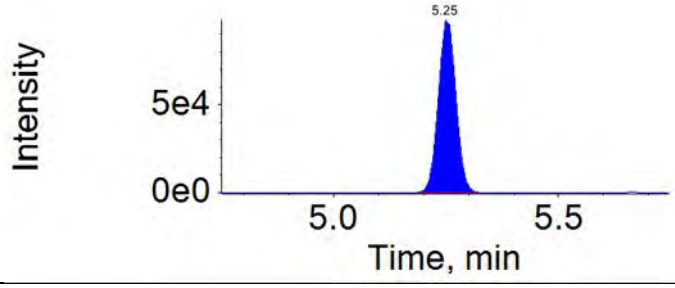
APPROVED
By MCD at 4:13 pm, 12/6/18

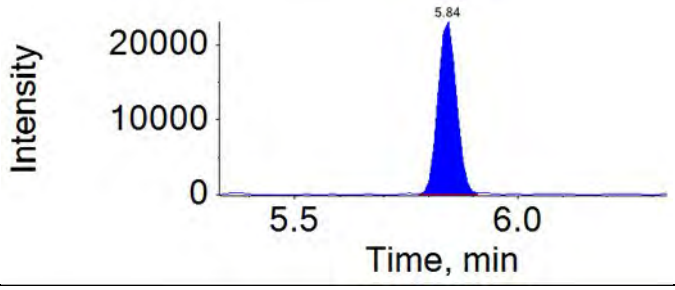
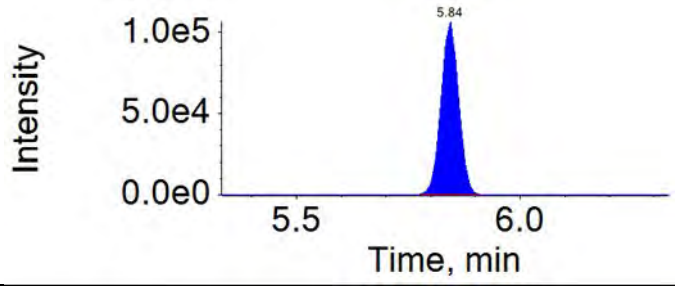
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

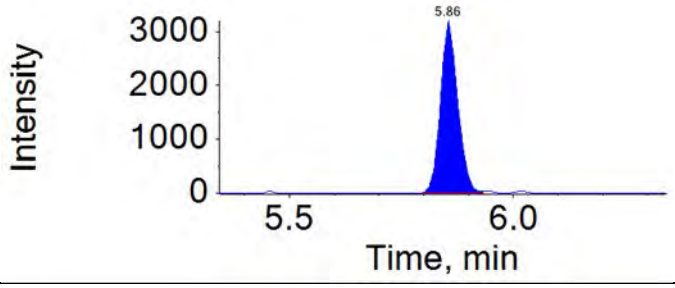
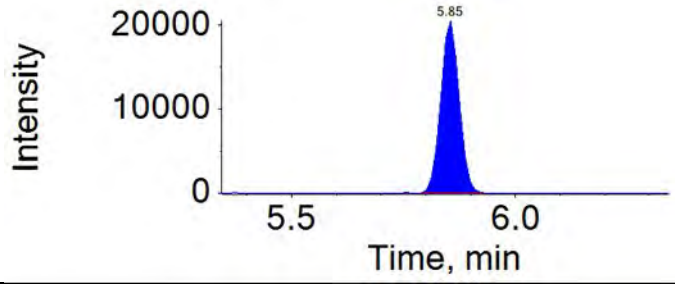
Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

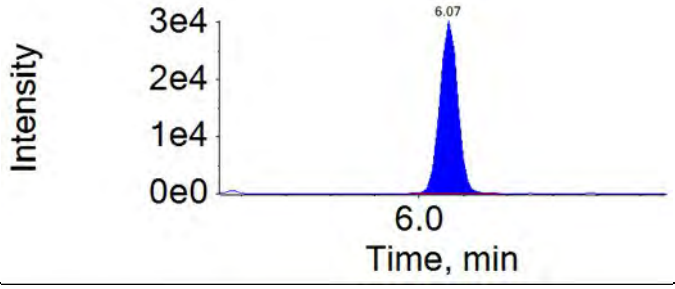
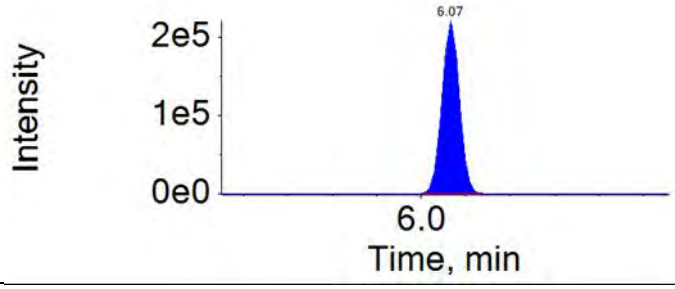
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

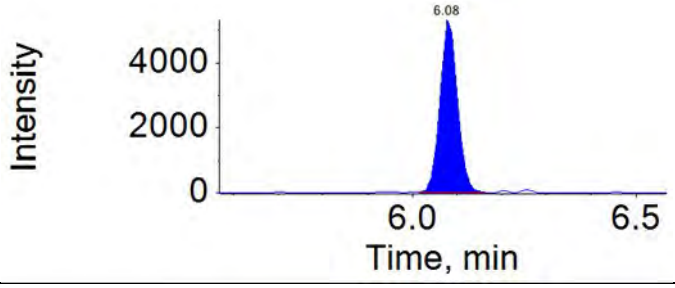
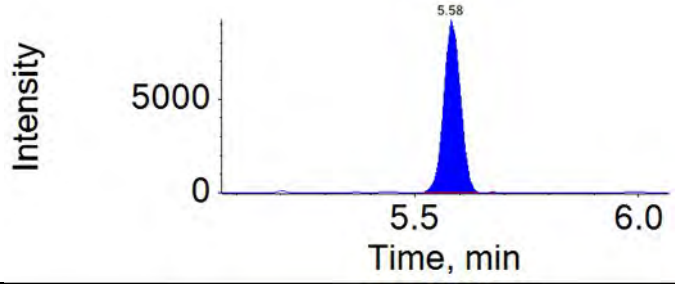
APPROVED
By MCD at 4:13 pm, 12/6/18

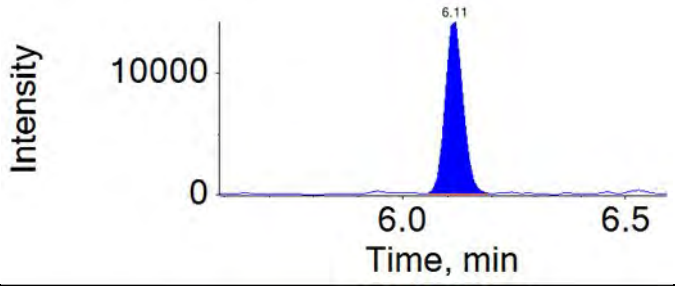
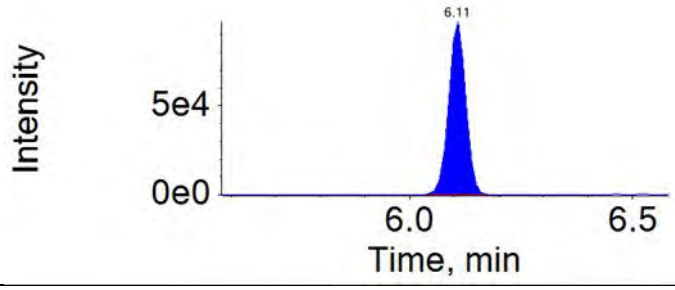
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0
	

Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0
	

Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0
	

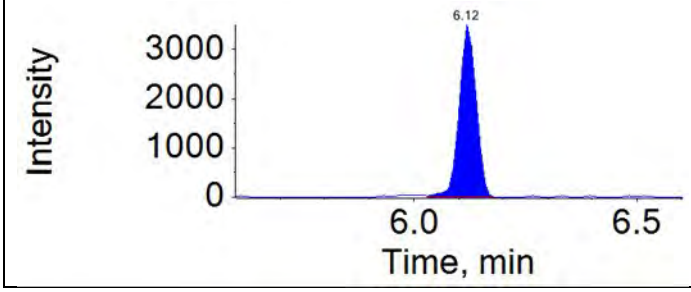
Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0
	

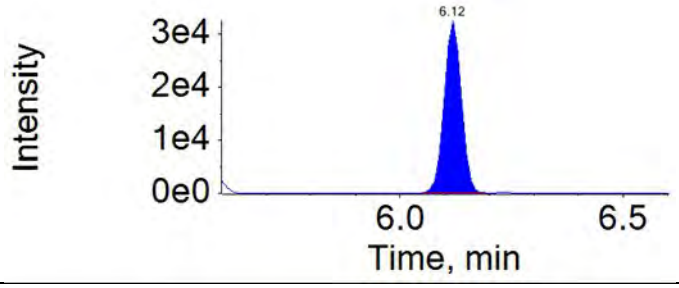
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

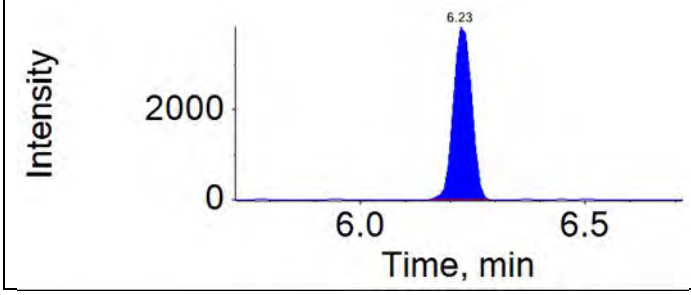
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

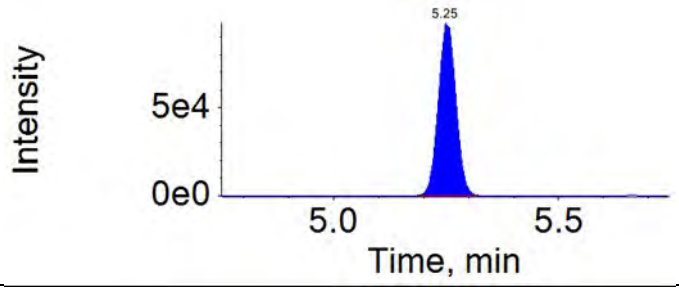
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



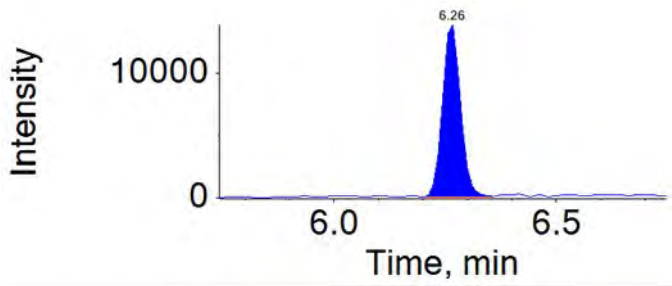


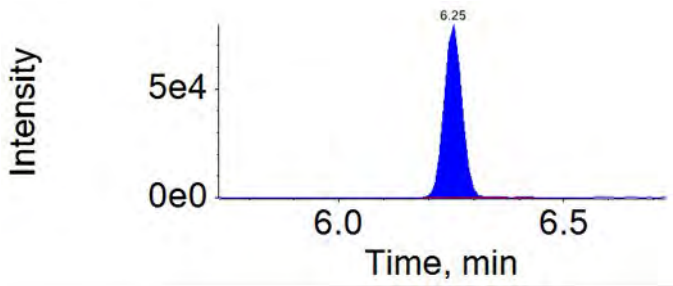
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



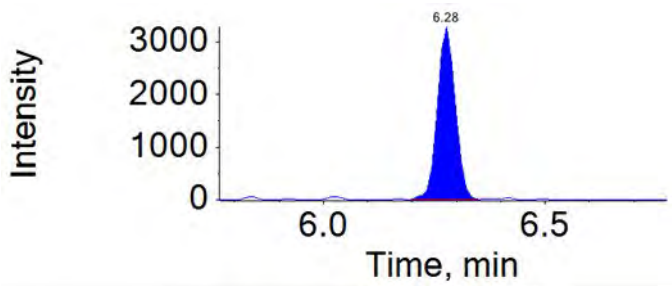


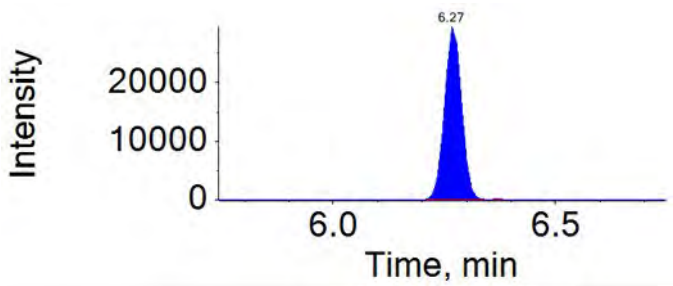
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



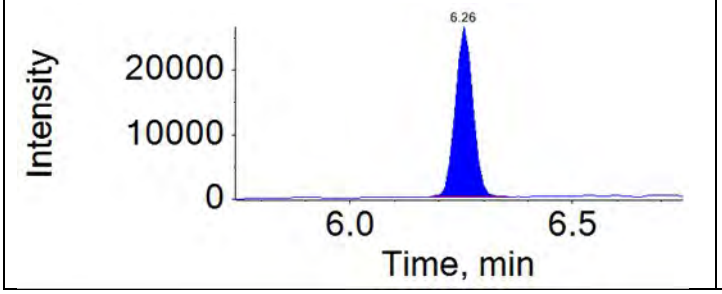


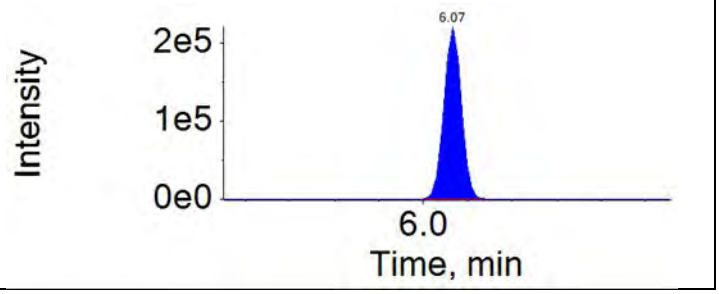
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

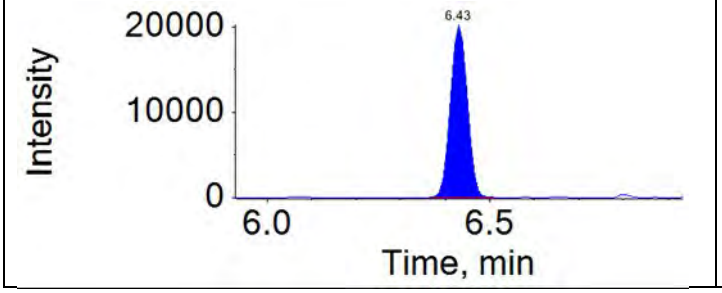
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

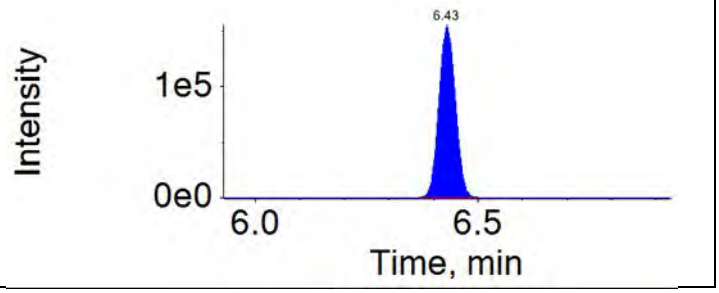
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



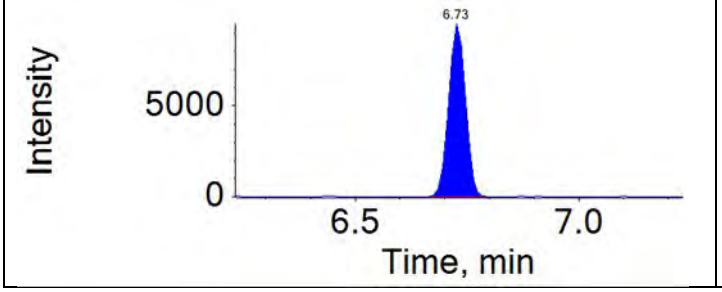


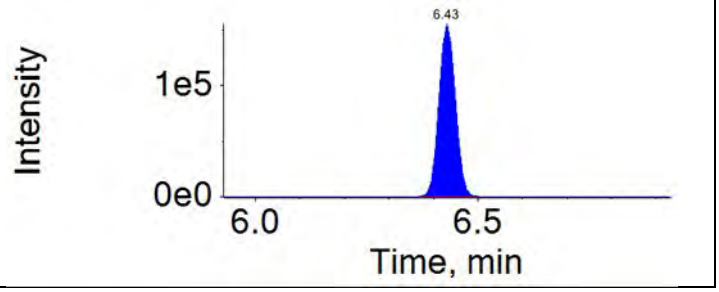
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



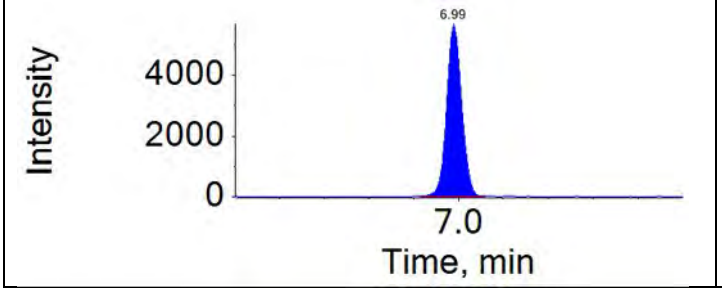


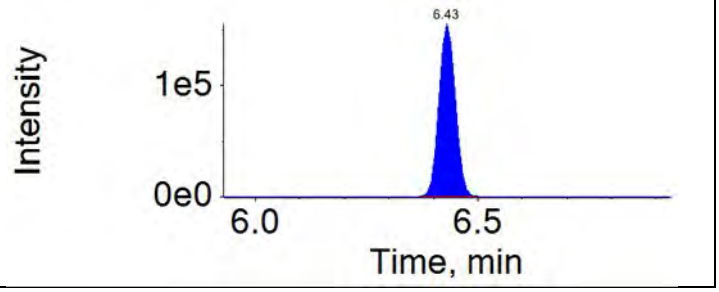
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



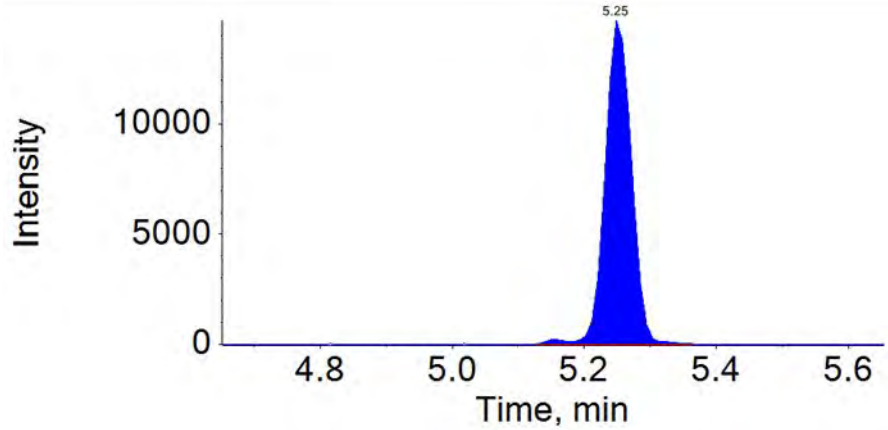


APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

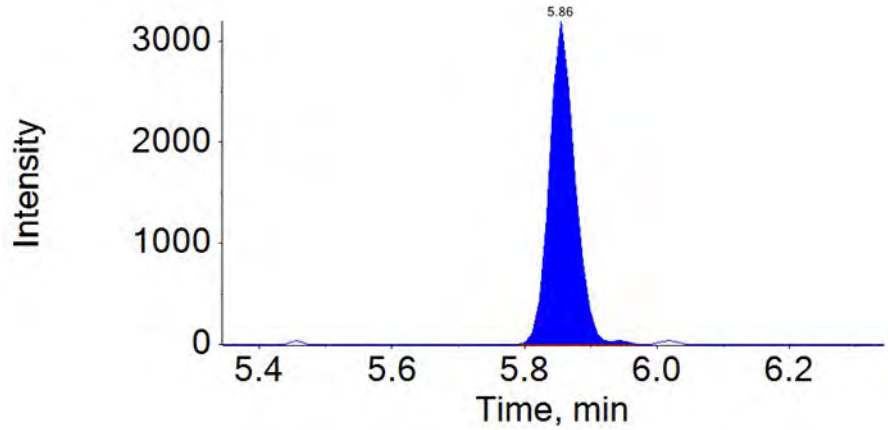
Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
41288.6
Mass Range:
499.0 / 80.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



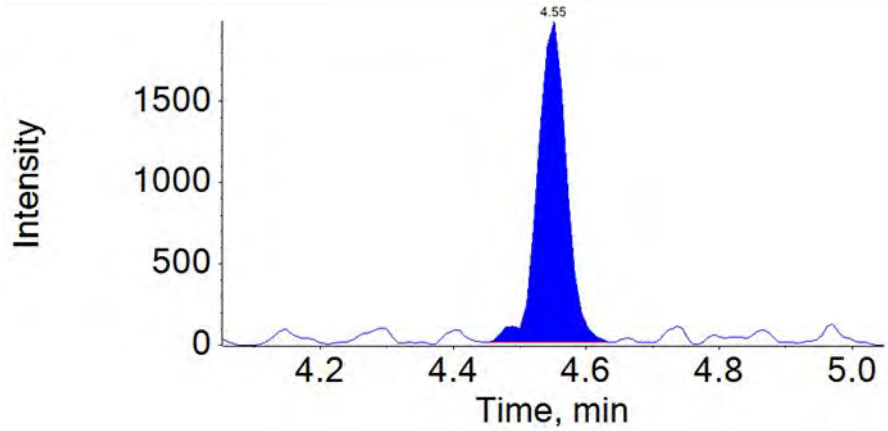
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.86
Peak Area:
8543.5
Mass Range:
584.0 / 419.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
5962.6
Mass Range:
363.0 / 169.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



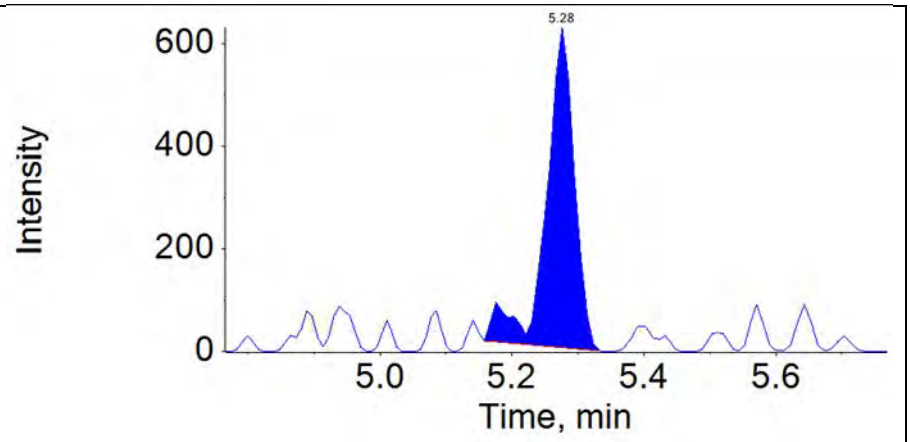
Integration Comment: incorrect integration

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

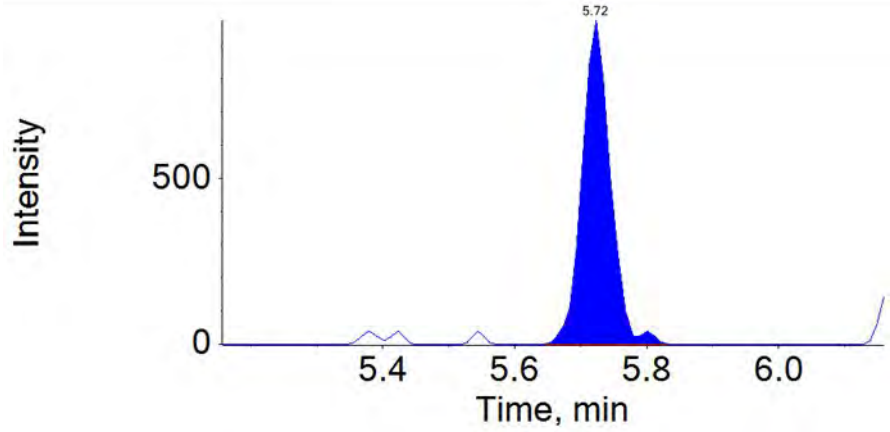
Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFNA_2
RT (min.):
5.28
Peak Area:
1880.8
Mass Range:
463.0 / 169.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.72
Peak Area:
2934.1
Mass Range:
570.0 / 483.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
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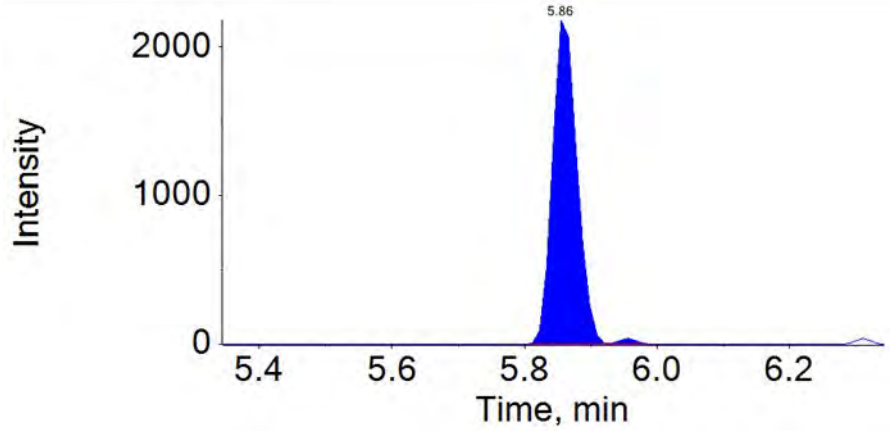
Peak Area:
5699.7
Mass Range:
584.0 / 526.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



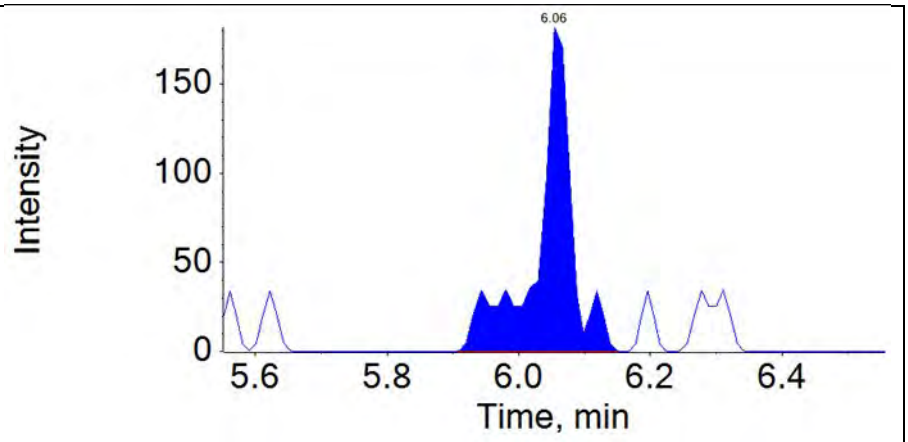
Integration Comment: incorrect integration

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

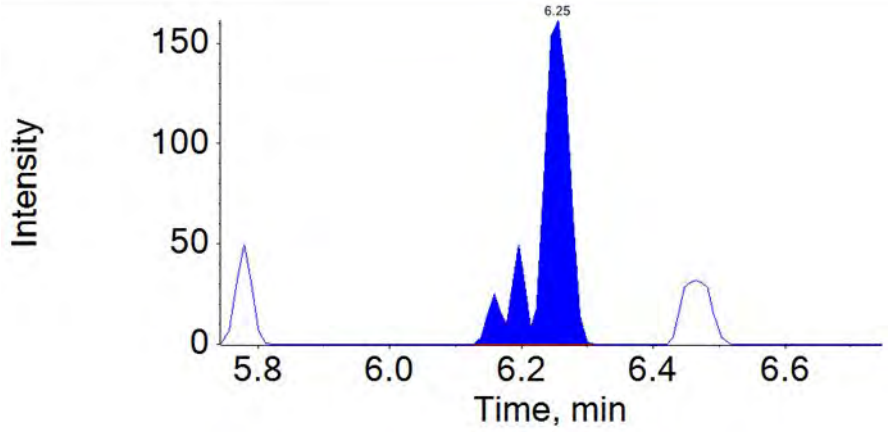
Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDoDA_2
RT (min.):
6.06
Peak Area:
659.9
Mass Range:
613.0 / 169.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.25
Peak Area:
516.5
Mass Range:
663.0 / 169.0
File Name:
18DEC05D-36.wiff
Sample Name:
LCS338017



Integration Comment: incorrect integration

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Ion Ratio Report

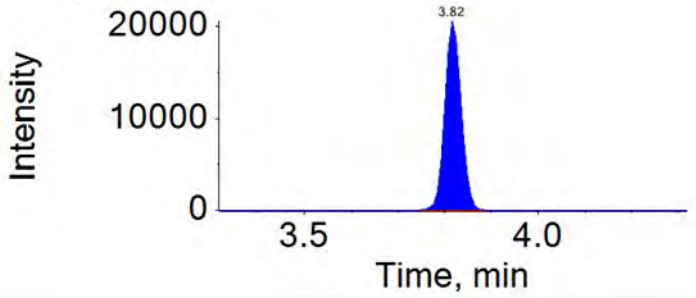
Sample Name: LCS338017 **Instrument Name:** LM27631 **File Name:** 18DEC05D-36.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	50232.2	A	N/A	0.3440			
PFBS_2	3.82	1.00	17281.4	A	N/A	0.3440	-7	50	
4:2-FTS	4.13	1.00	37218.1	A	N/A	0.7206			
4:2-FTS_2	4.13	1.00	26821.0	A	N/A	0.7206	10	50	
PFHxA	4.16	1.00	103842.3	A	N/A	0.0150			
PFHxA_2	4.17	1.00	1558.8	A	N/A	0.0150	31	50	
PFPeS	4.18	1.10	25999.7	A	N/A	0.5300			
PFPeS_2	4.18	1.10	13780.6	A	N/A	0.5300	7	50	
PFHpA	4.55	1.00	108288.7	A	N/A	0.0534			
PFHpA_2	4.55	1.00	5780.6	M	N/A	0.0534	5	50	
PFHxS	4.56	1.00	39212.0	A	N/A	0.3146			
PFHxS_2	4.55	1.00	12338.0	A	N/A	0.3146	-15	50	
6:2-FTS	4.91	1.00	30277.7	A	N/A	0.6552			
6:2-FTS_2	4.91	1.00	19836.7	A	N/A	0.6552	3	50	
PFHpS	4.91	1.08	41788.6	A	N/A	0.4046			
PFHpS_2	4.92	1.08	16908.6	A	N/A	0.4046	3	50	
PFOA	4.92	1.00	98417.9	A	N/A	0.0522			
PFOA_2	4.92	1.00	5134.3	A	N/A	0.0522	-16	50	
PFOS	5.25	1.00	40848.0	M	N/A	0.3124			
PFOS_2	5.25	1.00	12759.3	A	N/A	0.3124	7	50	
PFNA	5.27	1.00	92866.5	A	N/A	0.0189			
PFNA_2	5.28	1.00	1756.8	M	N/A	0.0189	-2	50	
PFNS	5.55	1.06	25797.0	A	N/A	0.5633			
PFNS_2	5.55	1.06	14532.4	A	N/A	0.5633	20	50	
PFDA	5.58	1.00	68752.9	A	N/A	0.0115			
PFDA_2	5.57	1.00	791.0	A	N/A	0.0115	59	50	OOS
8:2-FTS	5.58	1.00	22507.1	A	N/A	0.4546			
8:2-FTS_2	5.58	1.00	10230.9	A	N/A	0.4546	-25	50	
NMeFOSAA	5.73	1.00	8960.8	A	N/A	0.3198			
NMeFOSAA_2	5.72	1.00	2865.5	M	N/A	0.3198	23	50	
PFDS	5.82	1.11	23710.3	A	N/A	0.4339			
PFDS_2	5.82	1.11	10288.8	A	N/A	0.4339	-14	50	
PFUnDA	5.84	1.00	66400.4	A	N/A	0.0059			
PFUnDA_2	5.85	1.00	389.3	A	N/A	0.0059	21	50	
NEtFOSAA	5.86	1.00	8481.5	M	N/A	0.6636			
NEtFOSAA_2	5.86	1.00	5628.1	M	N/A	0.6636	-15	50	
PFDoDA	6.07	1.00	83982.7	A	N/A	0.0057			
PFDoDA_2	6.06	1.00	476.7	M	N/A	0.0057	-61	50	OOS
10:2-FTS	6.08	1.09	14337.9	A	N/A	0.7715			
10:2-FTS_2	6.08	1.09	11062.3	A	N/A	0.7715	9	50	
PFTrDA	6.26	1.03	72403.6	A	N/A	0.0057			
PFTrDA_2	6.25	1.03	413.2	M	N/A	0.0057	-43	50	
PFTeDA	6.43	1.00	53025.2	A	N/A	0.0072			
PFTeDA_2	6.43	1.00	382.8	A	N/A	0.0072	33	50	
PFHxDA	6.73	1.05	24773.9	A	N/A	0.0527			
PFHxDA_2	6.73	1.05	1305.4	A	N/A	0.0527	-14	50	
PFODA	6.99	1.09	13144.8	A	N/A	0.0266			
PFODA_2	6.99	1.09	349.8	A	N/A	0.0266	-1	50	

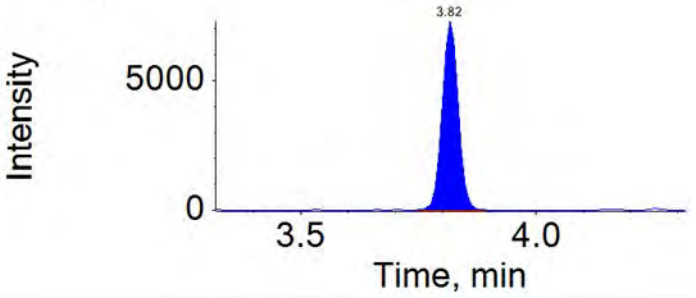
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

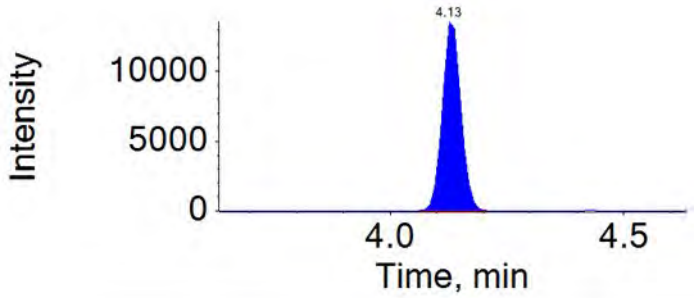
Component: PFBS
Primary Mass: 299.0 / 80.0



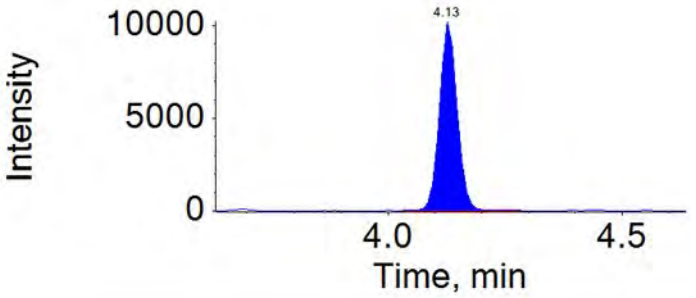
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



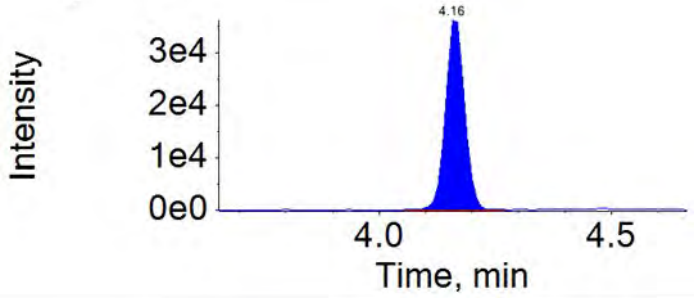
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



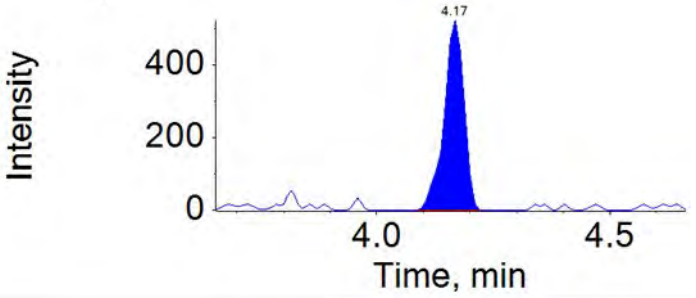
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



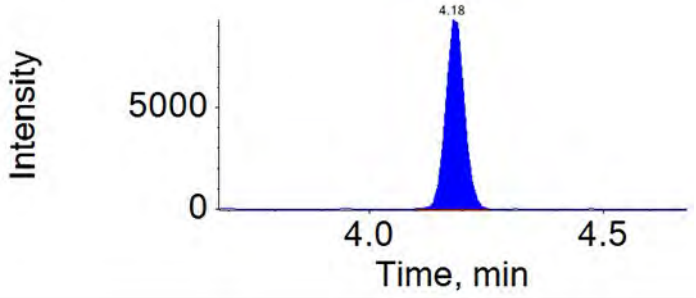
Component: PFHxA
Primary Mass: 313.0 / 269.0



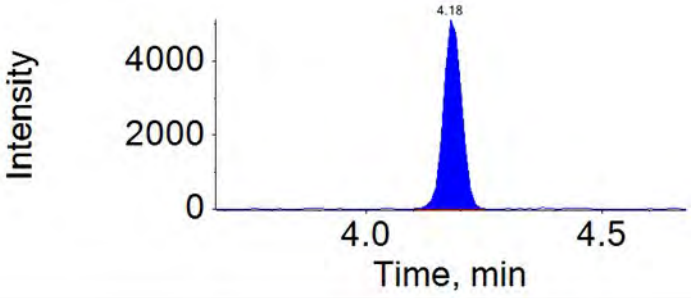
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



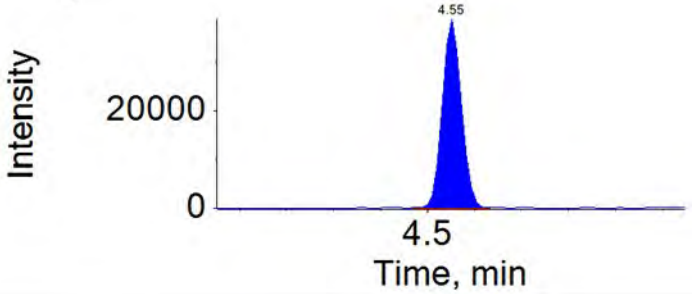
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



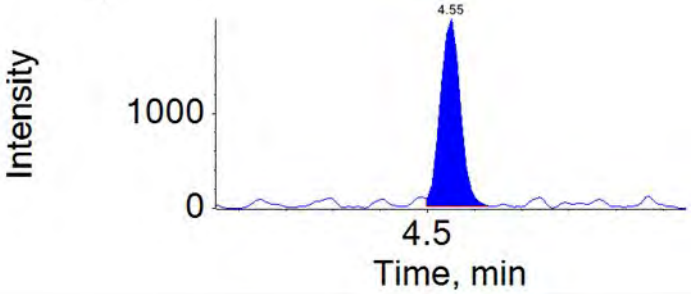
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

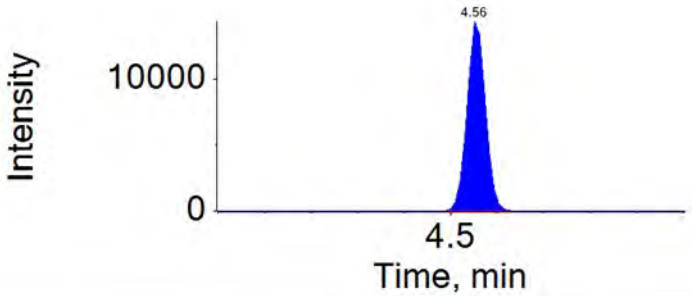
Component: PFHpA
Primary Mass: 363.0 / 319.0



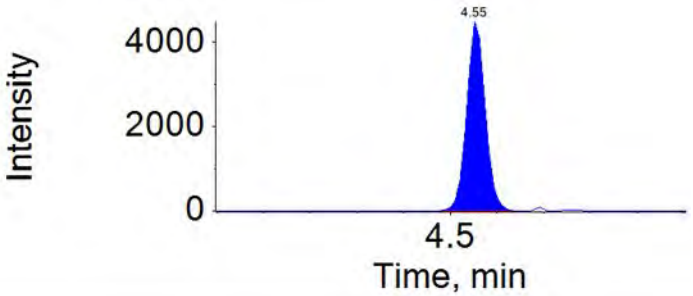
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



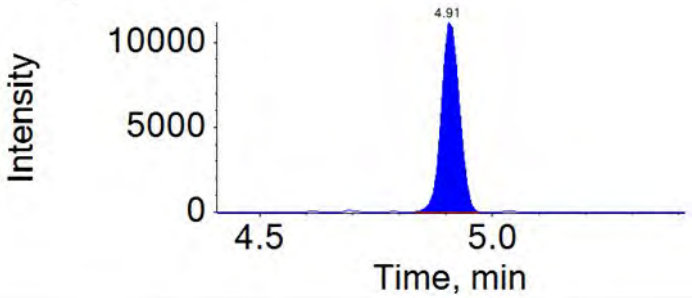
Component: PFHxS
Primary Mass: 399.0 / 80.0



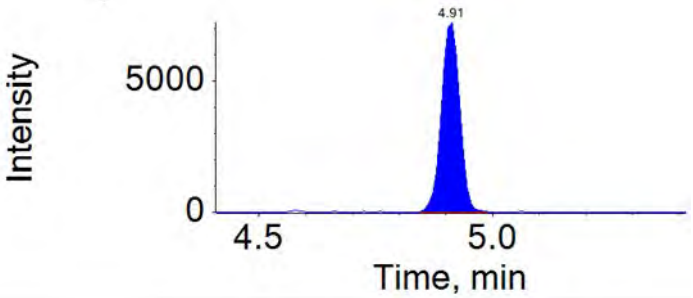
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



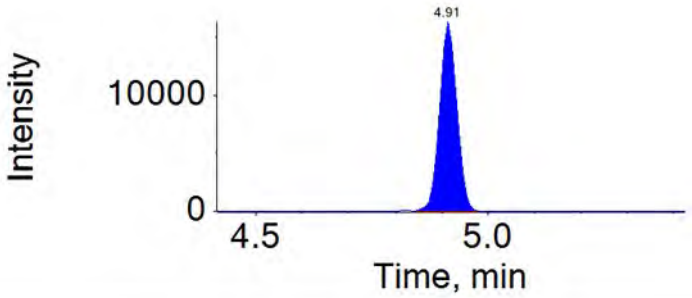
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



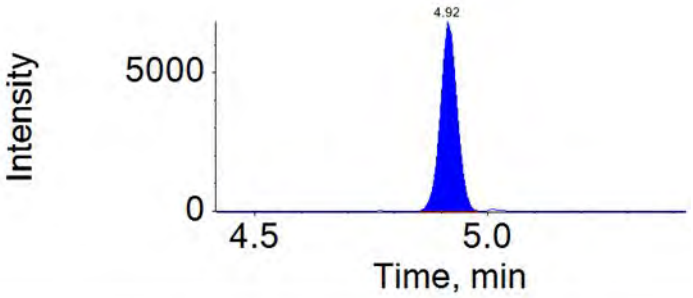
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



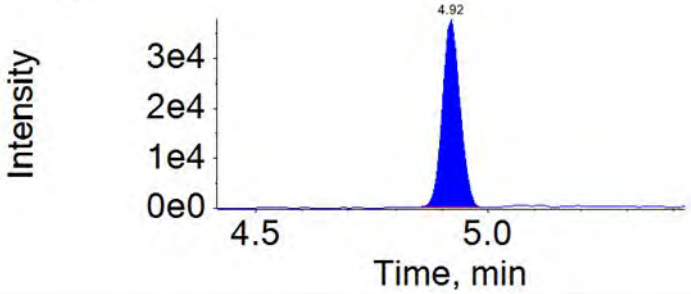
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



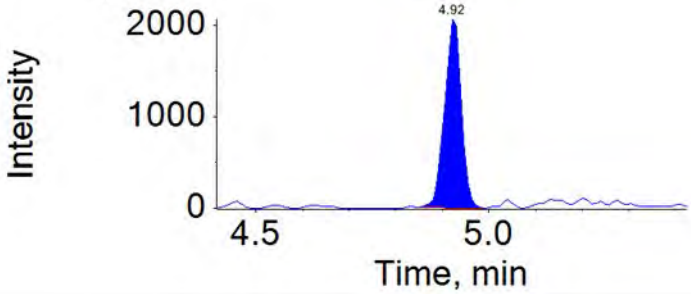
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

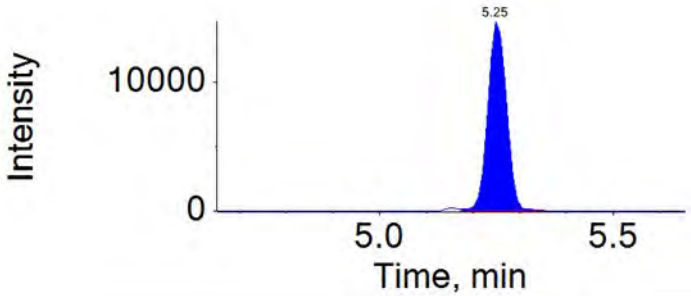
Component: PFOA
Primary Mass: 413.0 / 369.0



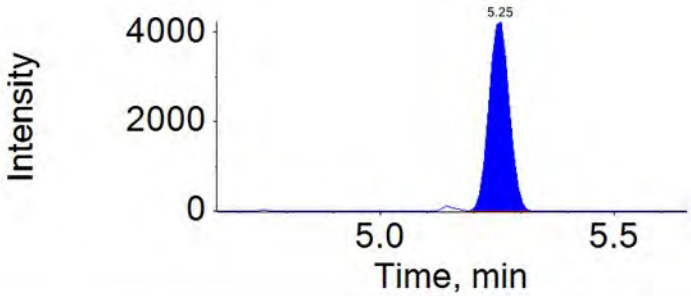
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



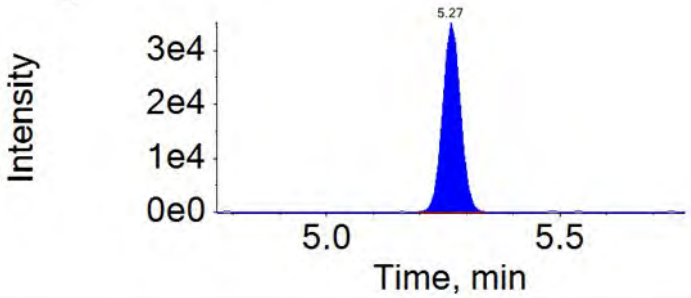
Component: PFOS
Primary Mass: 499.0 / 80.0



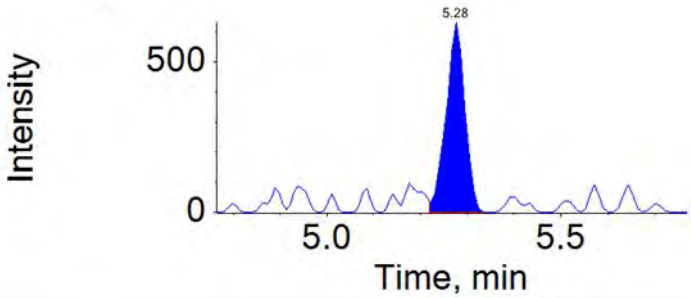
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



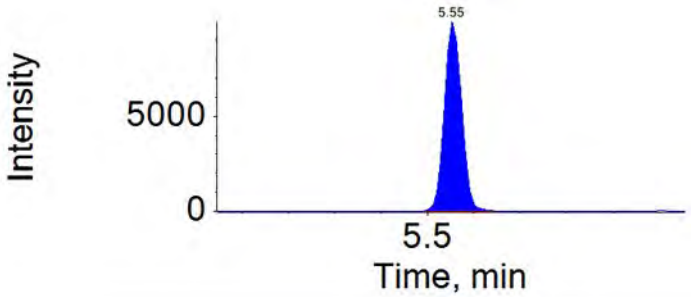
Component: PFNA
Primary Mass: 463.0 / 419.0



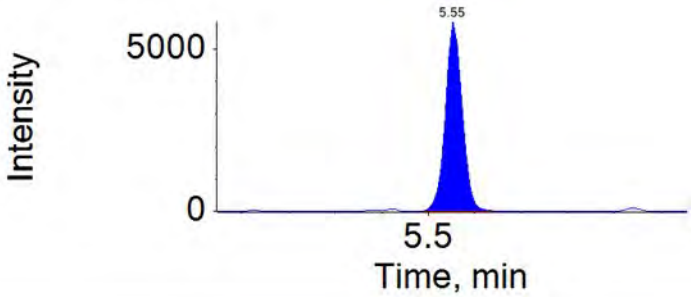
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



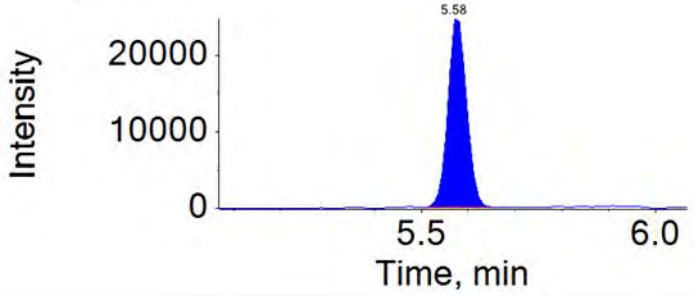
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



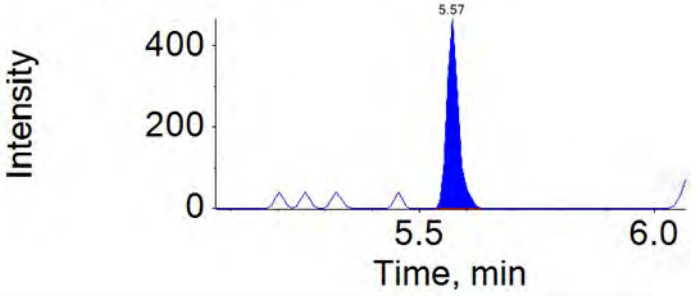
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

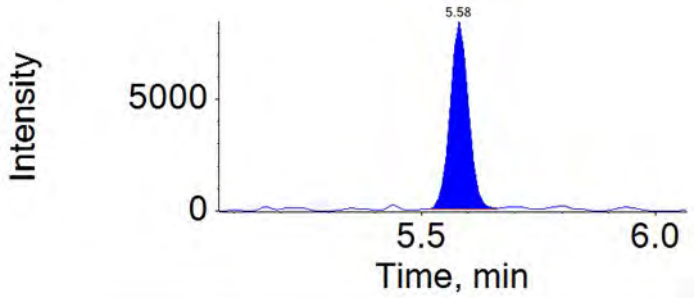
Component: PFDA
Primary Mass: 513.0 / 469.0



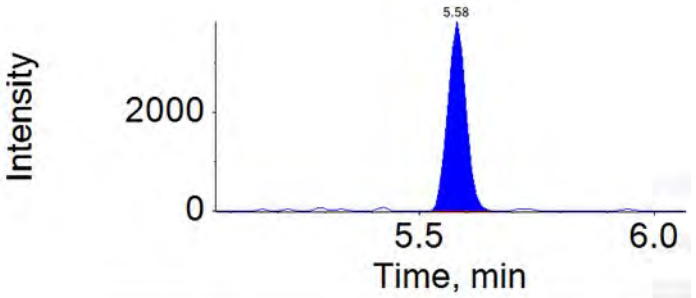
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



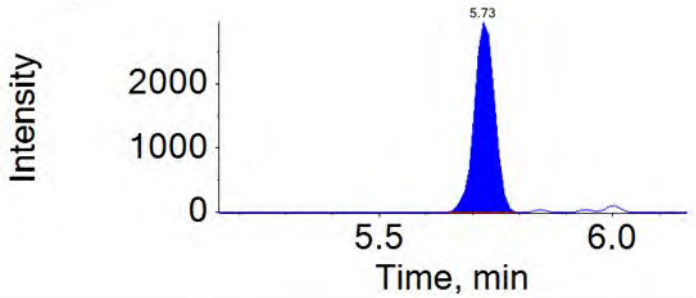
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



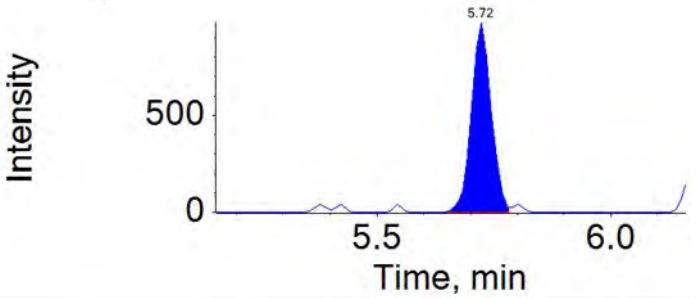
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



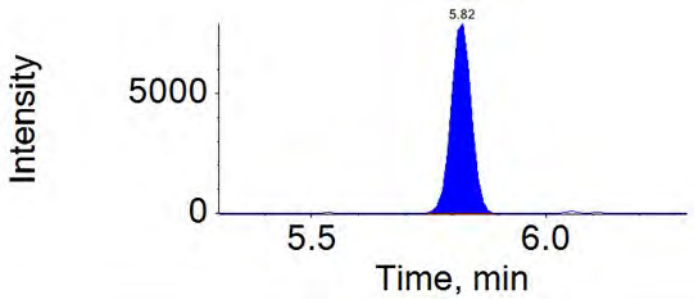
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



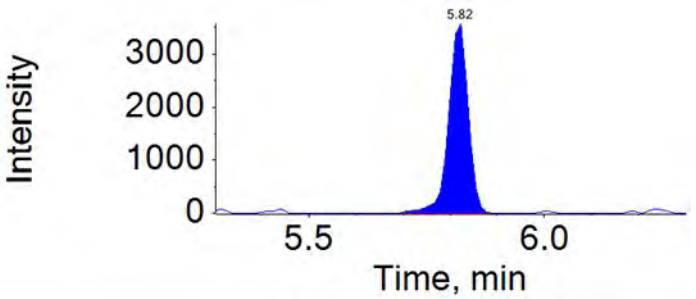
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



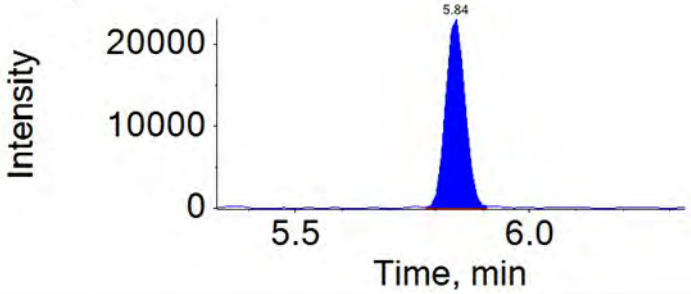
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



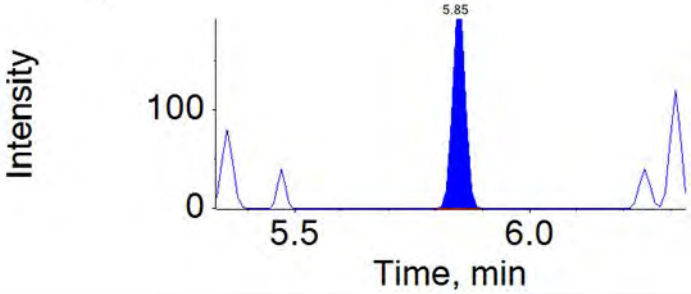
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

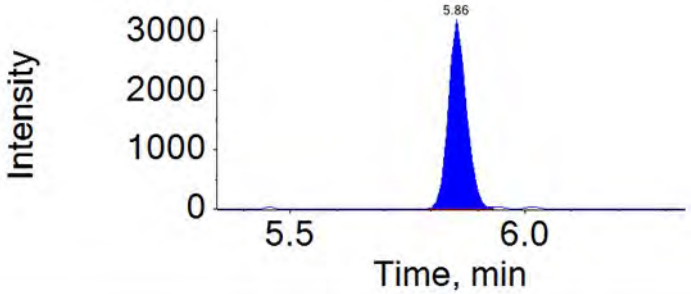
Component: PFUnDA
Primary Mass: 563.0 / 519.0



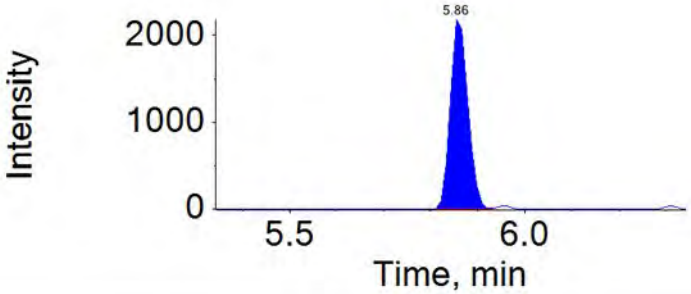
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



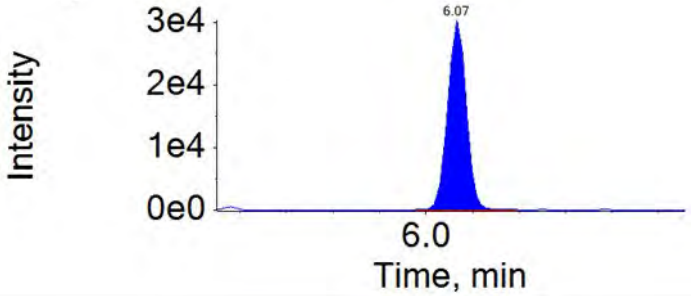
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



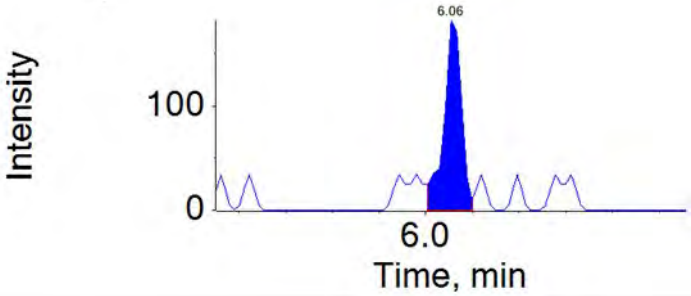
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



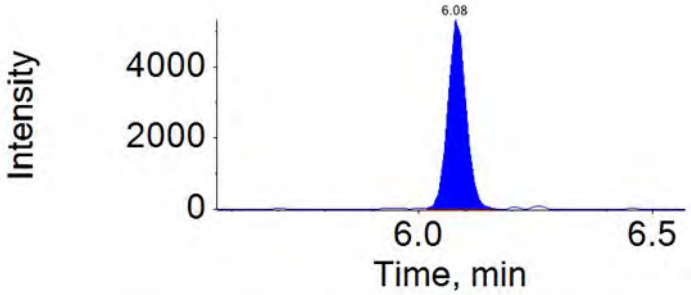
Component: PFDoDA
Primary Mass: 613.0 / 569.0



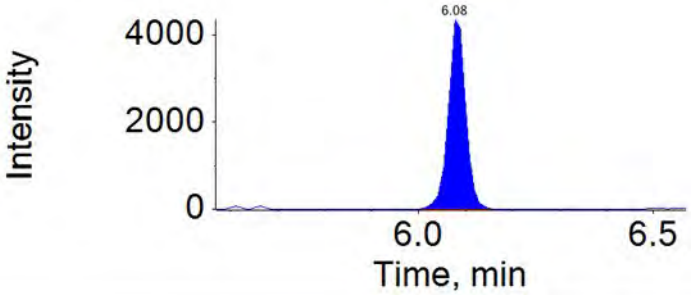
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



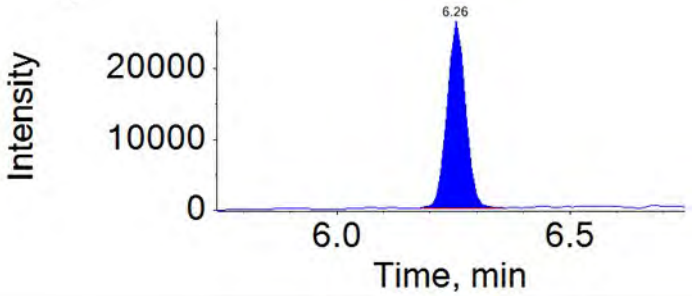
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



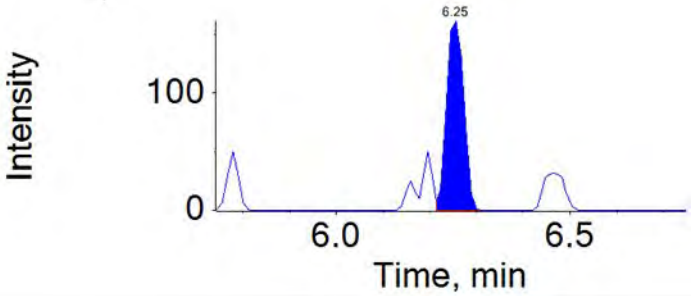
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

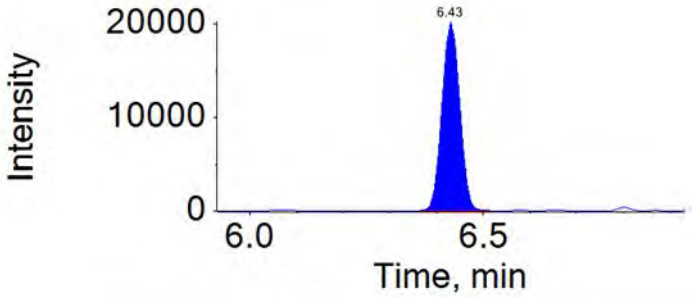
Component: PFTrDA
Primary Mass: 663.0 / 619.0



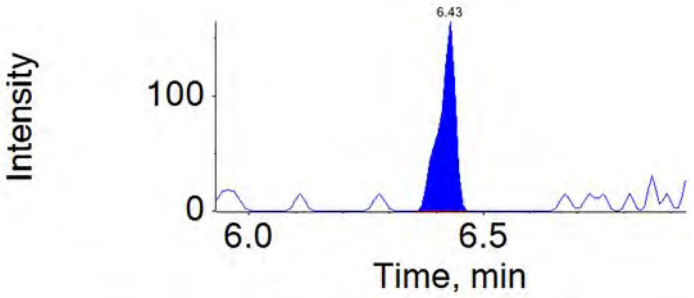
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



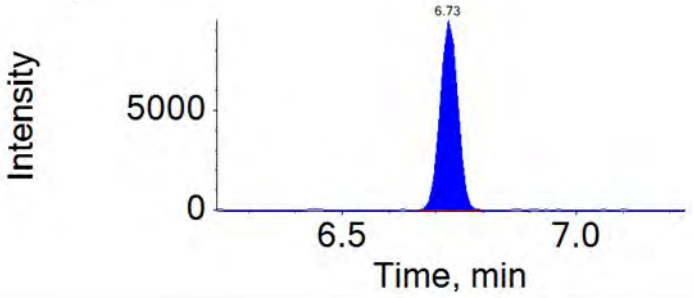
Component: PFTeDA
Primary Mass: 713.0 / 669.0



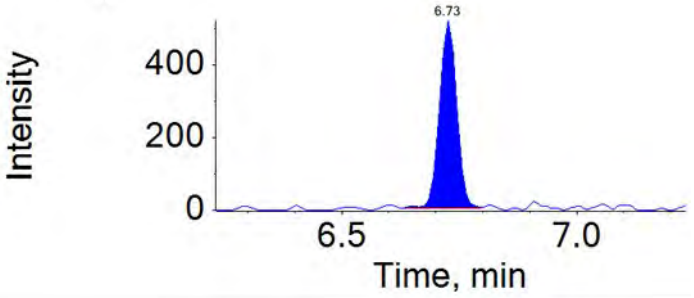
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



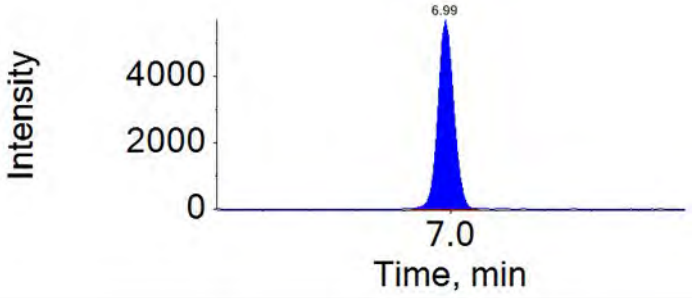
Component: PFHxDA
Primary Mass: 813.0 / 769.0



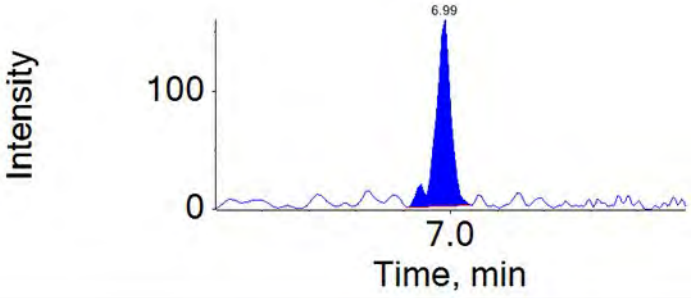
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



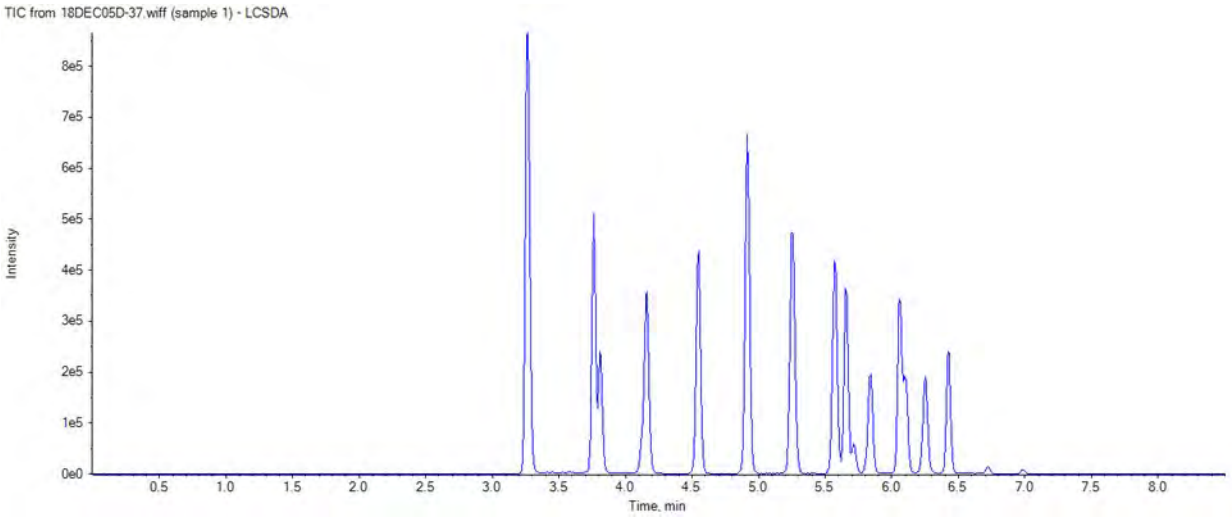
APPROVED
By MCD at 4:13 pm, 12/6/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:56:53 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 18338017	18DEC05D-37.wiff	2018-12-05T17:36:17



Injection Standard Area Reference File**:** 18DEC05D-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	931064.8	850136.0	10	50	
13C2-PFOA	5.00	478699.7	429843.2	11	50	
13C4-PFOS	4.78	307907.0	272032.6	13	50	
13C2-PFDA	5.00	317202.9	291183.9	9	50	

APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:56:53 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 18338017	18DEC05D-37.wiff	2018-12-05T17:36:17

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	145693.0	953484.8	0.153	1.360	1.731	127	70-130	
PFPeA	123781.2	878577.1	0.141	1.360	1.411	104	70-130	
PFBS	57410.0	407487.6	0.141	1.204	1.374	114	70-130	
4:2-FTS	42744.4	63126.4	0.677	3.736	3.420	92	70-130	
PFHxA	114640.4	644703.8	0.178	1.360	1.516	111	70-130	
PFPeS	31975.4	407487.6	0.078	1.276	1.506	118	70-130	
PFHpA	118147.0	513653.4	0.230	1.360	1.485	109	70-130	
PFHxS	46954.2	323489.1	0.145	1.286	1.368	106	70-130	
6:2-FTS	33694.2	54162.2	0.622	3.792	3.017	80	70-130	
PFHpS	44785.7	323489.1	0.138	1.294	1.441	111	70-130	
PFOA	113923.0	783088.9	0.145	1.360	1.540	113	70-130	
PFOS	45507.2	306482.0	0.148	1.300	1.259	97	70-130	
PFNA	98630.1	484266.7	0.204	1.360	1.527	112	70-130	
PFNS	30062.3	306482.0	0.098	1.306	1.323	101	70-130	
PFDA	80228.8	538407.3	0.149	1.360	1.634	120	70-130	
8:2-FTS	21330.3	26650.9	0.800	3.832	3.438	90	70-130	
PFOSA	89982.4	735401.3	0.122	1.360	1.282	94	70-130	
NMeFOSAA	10868.3	115035.4	0.094	1.360	1.251	92	70-130	
PFDS	25552.0	306482.0	0.083	1.310	1.428	109	70-130	
PFUnDA	76241.5	314260.3	0.243	1.360	1.477	109	70-130	
NEtFOSAA	11250.2	68042.6	0.165	1.360	1.673	123	70-130	
PFDoDA	91740.9	661543.8	0.139	1.360	1.581	116	70-130	
10:2-FTS	19484.8	26650.9	0.731	3.856	3.643	94	70-130	
NMePFOSAE	41996.8	292095.1	0.144	1.360	1.218	90	70-130	
NMePFOSA	11547.2	95734.2	0.121	1.360	1.272	94	70-130	
PFDoS	13542.3	306482.0	0.044	1.316	1.384	105	70-130	
NEtPFOSAE	43018.0	245256.9	0.175	1.360	1.208	89	70-130	
NEtPFOSA	9915.5	83705.5	0.118	1.360	1.103	81	70-130	
PFTrDA	82782.5	661543.8	0.125	1.360	1.473	108	70-130	
PFTeDA	61468.5	455085.5	0.135	1.360	1.599	118	70-130	
PFHxDA	28157.4	455085.5	0.062	1.360	1.588	117	70-130	
PFODA	18236.6	455085.5	0.040	1.360	1.273	94	70-130	

APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Lab Control Sample Recovery

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:56:53 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18DEC03DCAL
QMethod Name: 18AUG20QM
Result Table: 18338017 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCSDA			**Data File:**		18DEC05D-37.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18338017			**Acquis Date:**		2018-12-05T17:36:17
Sample Type:	Quality Control			**Instrument:**		LM27631
Vial Position:	26			**Acquis Method:**		18AUG13_3uL.dam
Injection Vol:	3.00			**Result Table:**		18338017
QMethod File:	18AUG20QM			**ICAL Name:**		18DEC03DCAL
Batch Number:	18338017			**Operator:**		MCD7824
Sample Wt.:	1.00000			**Dilution Factor:**		1.00
Sample Vol.:	1.000			**Prep Factor:**		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18DEC05D-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	931064.8	850136.0	10	50	
13C2-PFOA	5.0	478699.7	429843.2	11	50	
13C4-PFOS	4.8	307907.0	272032.6	13	50	
13C2-PFDA	5.0	317202.9	291183.9	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	953484.8	13C3-PFBA	931064.8	1.024	10.000	9.089	91	50-150	
E13C5-PFPeA	878577.1	13C3-PFBA	931064.8	0.944	10.000	9.106	91	50-150	
E13C3-PFBS	407487.6	13C3-PFBA	931064.8	0.438	9.300	6.821	73	50-150	
E13C2-4:2-FTS	63126.4	13C2-PFOA	478699.7	0.132	9.340	10.849	116	50-150	
E13C5-PFHxA	644703.8	13C2-PFOA	478699.7	1.347	10.000	9.122	91	50-150	
E13C3-PFHxS	323489.1	13C2-PFOA	478699.7	0.676	9.460	8.545	90	50-150	
E13C4-PFHpA	513653.4	13C2-PFOA	478699.7	1.073	10.000	9.363	94	50-150	
E13C2-6:2-FTS	54162.2	13C2-PFOA	478699.7	0.113	9.500	14.997	158	50-150	OOS
E13C8-PFOA	783088.9	13C2-PFOA	478699.7	1.636	10.000	9.094	91	50-150	
E13C8-PFOS	306482.0	13C4-PFOS	307907.0	0.995	9.560	8.842	92	50-150	
E13C9-PFNA	484266.7	13C4-PFOS	307907.0	1.573	10.000	9.207	92	50-150	
E13C6-PFDA	538407.3	13C2-PFDA	317202.9	1.697	10.000	8.829	88	50-150	
E13C2-8:2-FTS	26650.9	13C2-PFDA	317202.9	0.084	9.580	10.804	113	50-150	
E13C8-PFOSA	735401.3	13C2-PFDA	317202.9	2.318	10.000	10.379	104	50-150	
Ed3-NMeFOSAA	115035.4	13C2-PFDA	317202.9	0.363	10.000	12.671	127	50-150	
E13C7-PFUnDA	314260.3	13C2-PFDA	317202.9	0.991	10.000	9.868	99	50-150	
Ed5-NEtFOSAA	68042.6	13C2-PFDA	317202.9	0.215	10.000	9.787	98	50-150	
E13C2-PFDoDA	661543.8	13C2-PFDA	317202.9	2.086	10.000	8.931	89	50-150	
Ed7-NMePFOSAE	292095.1	13C2-PFDA	317202.9	0.921	10.000	9.986	100	50-150	
Ed3-NMePFOSA	95734.2	13C2-PFDA	317202.9	0.302	10.000	11.193	112	50-150	
Ed9-NEtPFOSAE	245256.9	13C2-PFDA	317202.9	0.773	10.000	9.974	100	50-150	
Ed5-NEtPFOSA	83705.5	13C2-PFDA	317202.9	0.264	10.000	12.451	125	50-150	
E13C2-PFTeDA	455085.5	13C2-PFDA	317202.9	1.435	10.000	8.088	81	50-150	

APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

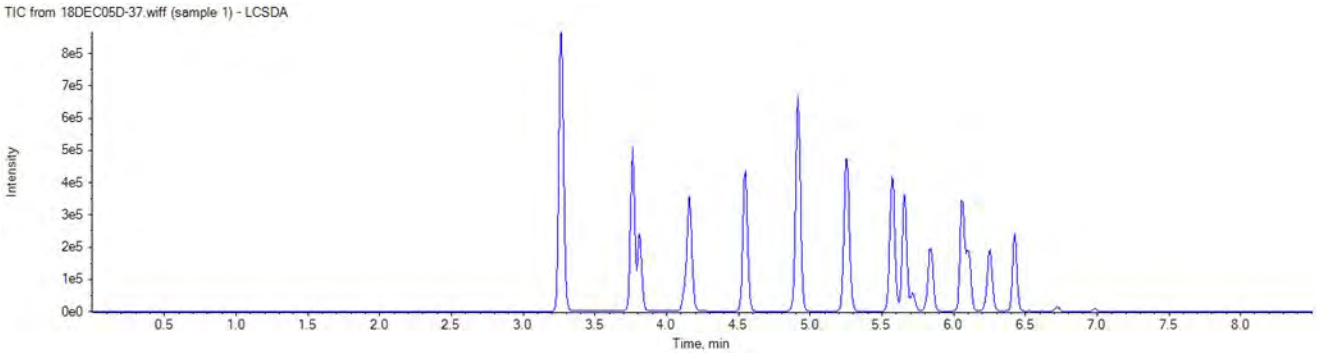
Analyte Quantitation Peak Table

Sample Name: LCSDA **Instrument Name:** LM27631 **File Name:** 18DEC05D-37.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	145693.0		A	13C4-PFBA	3.26	953484.8	0.153	1.731
PFPeA	3.76	1.000	123781.2		A	13C5-PFPeA	3.76	878577.1	0.141	1.411
PFBS	3.81	1.000	57410.0		A	13C3-PFBS	3.81	407487.6	0.141	1.374
4:2-FTS	4.12	1.000	42744.4		A	13C2-4:2-FTS	4.12	63126.4	0.677	3.420
PFHxA	4.16	1.000	114640.4		A	13C5-PFHxA	4.16	644703.8	0.178	1.516
PFPeS	4.18	1.100	31975.4		A	13C3-PFBS	3.81	407487.6	0.078	1.506
PFHpA	4.55	1.000	118147.0		A	13C4-PFHpA	4.55	513653.4	0.230	1.485
PFHxS	4.55	1.000	46954.2		A	13C3-PFHxS	4.55	323489.1	0.145	1.368
6:2-FTS	4.90	1.000	33694.2		A	13C2-6:2-FTS	4.91	54162.2	0.622	3.017
PFHpS	4.91	1.080	44785.7		A	13C3-PFHxS	4.55	323489.1	0.138	1.441
PFOA	4.92	1.000	113923.0		A	13C8-PFOA	4.92	783088.9	0.145	1.540
PFOS	5.25	1.000	45507.2		M	13C8-PFOS	5.25	306482.0	0.148	1.259
PFNA	5.26	1.000	98630.1		A	13C9-PFNA	5.26	484266.7	0.204	1.527
PFNS	5.55	1.060	30062.3		A	13C8-PFOS	5.25	306482.0	0.098	1.323
PFDA	5.57	1.000	80228.8		A	13C6-PFDA	5.57	538407.3	0.149	1.634
8:2-FTS	5.57	1.000	21330.3		A	13C2-8:2-FTS	5.58	26650.9	0.800	3.438
PFOSA	5.66	1.000	89982.4		A	13C8-PFOSA	5.66	735401.3	0.122	1.282
NMeFOSAA	5.72	1.000	10868.3		A	d3-NMeFOSAA	5.72	115035.4	0.094	1.251
PFDS	5.81	1.110	25552.0		A	13C8-PFOS	5.25	306482.0	0.083	1.428
PFUnDA	5.84	1.000	76241.5		A	13C7-PFUnDA	5.84	314260.3	0.243	1.477
NEtFOSAA	5.85	1.000	11250.2		M	d5-NEtFOSAA	5.85	68042.6	0.165	1.673
PFDoDA	6.06	1.000	91740.9		A	13C2-PFDoDA	6.06	661543.8	0.139	1.581
10:2-FTS	6.08	1.090	19484.8		A	13C2-8:2-FTS	5.58	26650.9	0.731	3.643
NMePFOSAE	6.11	1.000	41996.8		A	d7-NMePFOSAE	6.10	292095.1	0.144	1.218
NMePFOSA	6.12	1.000	11547.2		A	d3-NMePFOSA	6.11	95734.2	0.121	1.272
PFDoS	6.22	1.190	13542.3		A	13C8-PFOS	5.25	306482.0	0.044	1.384
NEtPFOSAE	6.26	1.000	43018.0		A	d9-NEtPFOSAE	6.25	245256.9	0.175	1.208
NEtPFOSA	6.27	1.000	9915.5		A	d5-NEtPFOSA	6.26	83705.5	0.118	1.103
PFTrDA	6.25	1.030	82782.5		A	13C2-PFDoDA	6.06	661543.8	0.125	1.473
PFTeDA	6.42	1.000	61468.5		A	13C2-PFTeDA	6.43	455085.5	0.135	1.599
PFHxDA	6.72	1.050	28157.4		A	13C2-PFTeDA	6.43	455085.5	0.062	1.588
PFODA	6.98	1.090	18236.6		A	13C2-PFTeDA	6.43	455085.5	0.040	1.273

Total Ion Chromatogram

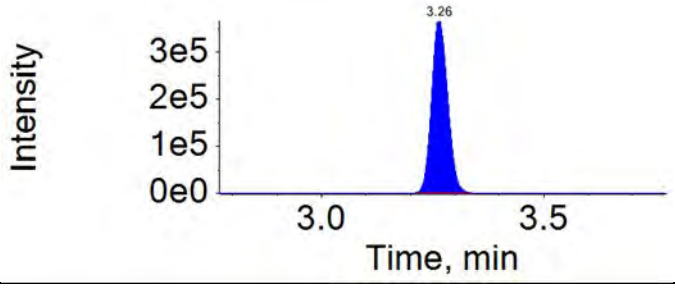


APPROVED
By MCD at 3:17 pm, 12/7/18

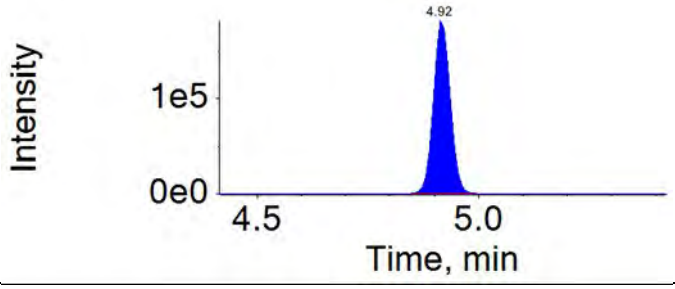
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

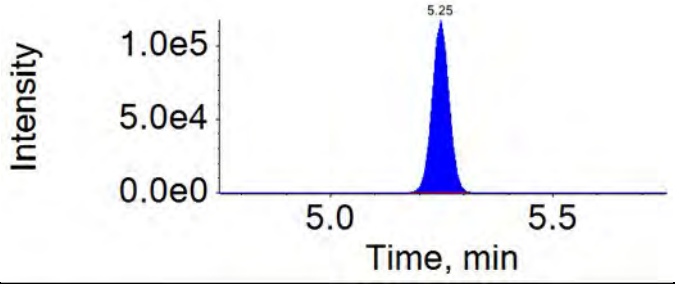
Injection Standard: 13C3-PFBA
216.0 / 172.0



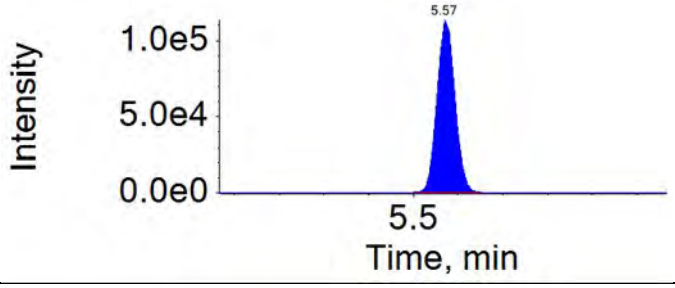
Injection Standard: 13C2-PFOA
415.0 / 370.0



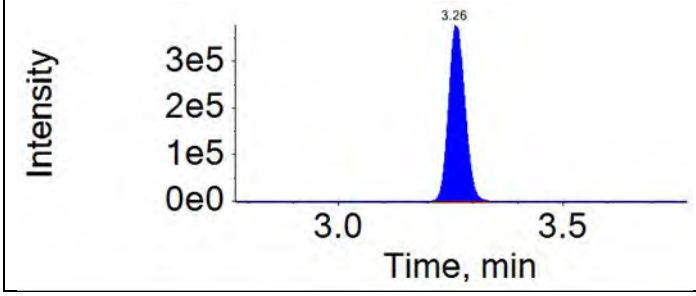
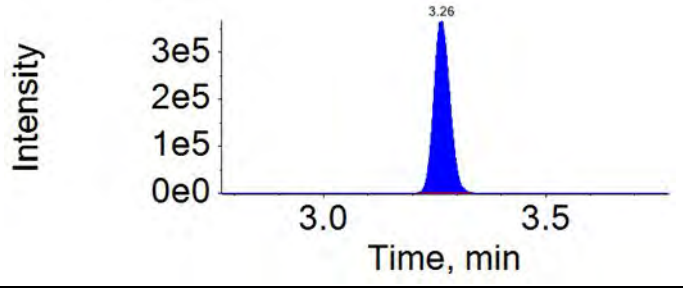
Injection Standard: 13C4-PFOS
503.0 / 80.0

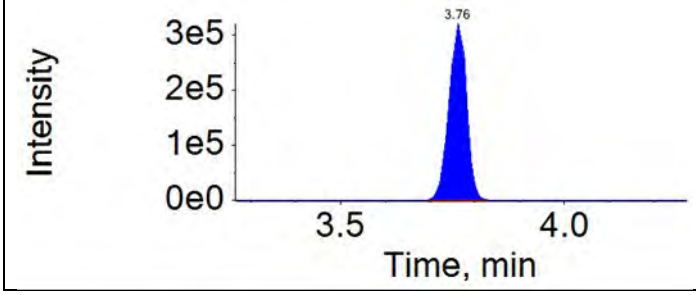
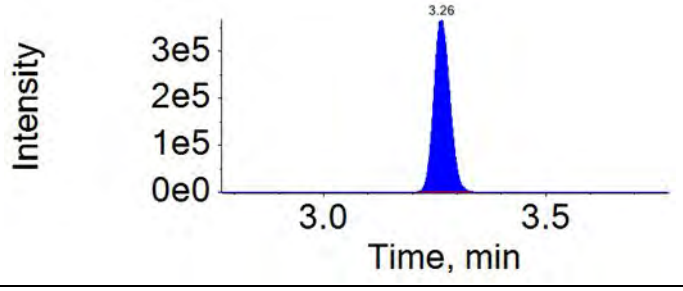


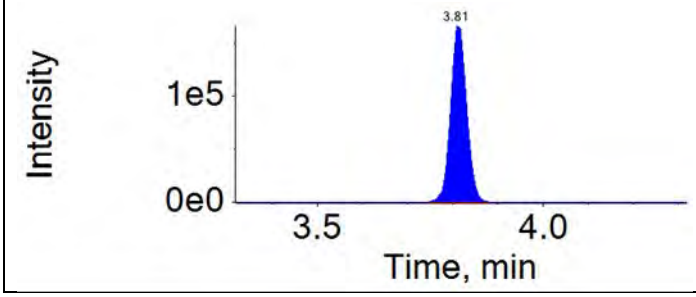
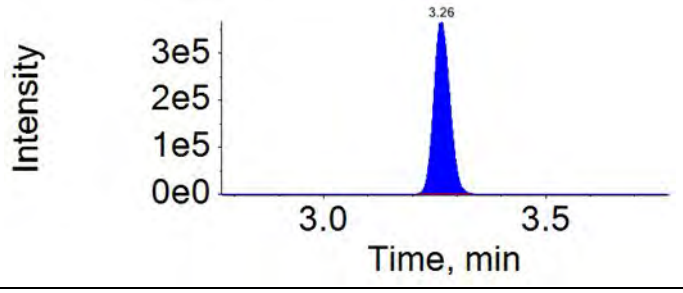
Injection Standard: 13C2-PFDA
515.0 / 470.0

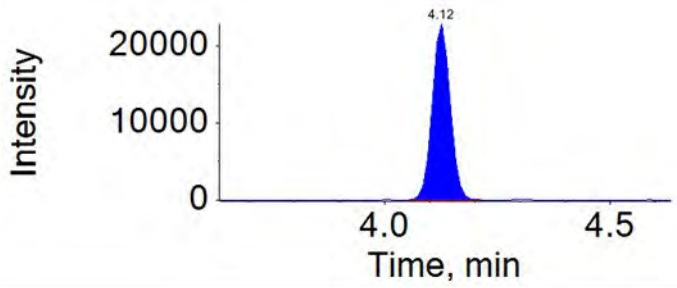
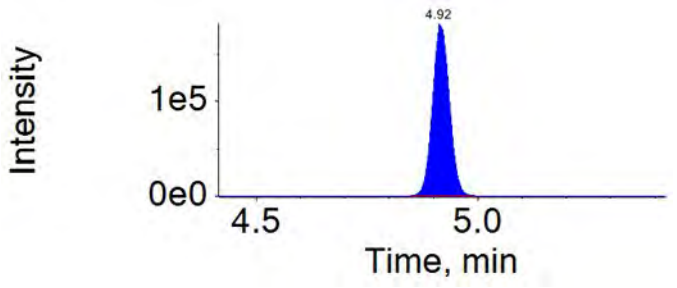


ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C4-PFBA	Injection Standard: 13C3-PFBA
217.0 / 172.0	216.0 / 172.0
	

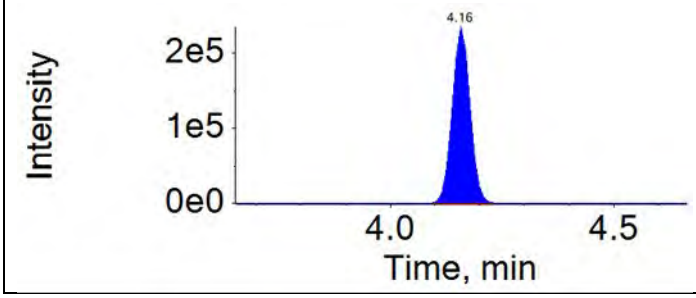
Extraction Standard: E13C5-PFPeA	Injection Standard: 13C3-PFBA
268.0 / 223.0	216.0 / 172.0
	

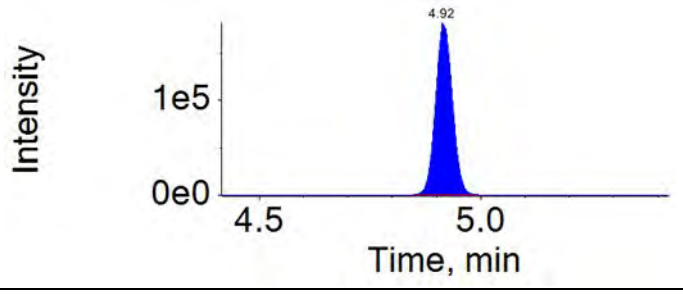
Extraction Standard: E13C3-PFBS	Injection Standard: 13C3-PFBA
302.0 / 80.0	216.0 / 172.0
	

Extraction Standard: E13C2-4:2-FTS	Injection Standard: 13C2-PFOA
329.0 / 81.0	415.0 / 370.0
	

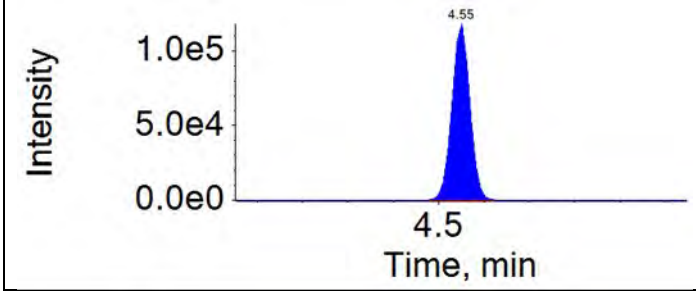
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

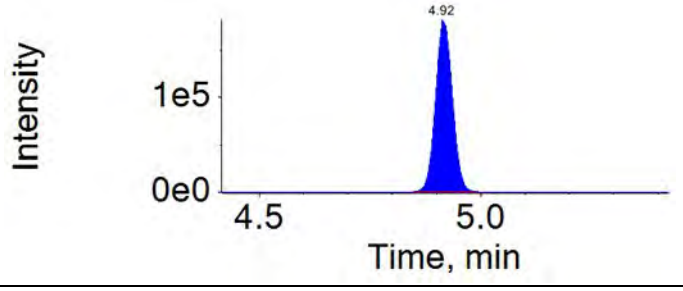
Extraction Standard: E13C5-PFHxA	Injection Standard: 13C2-PFOA
318.0 / 273.0	415.0 / 370.0



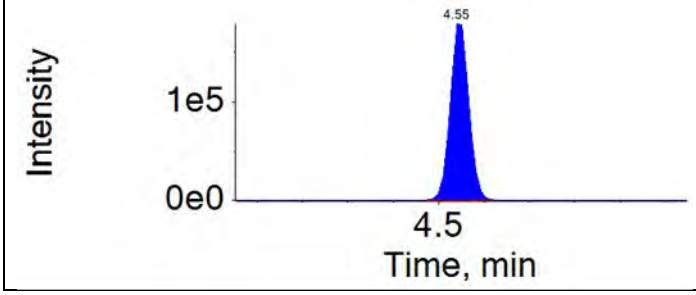


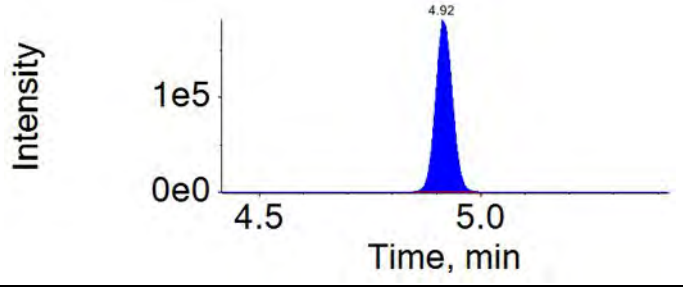
Extraction Standard: E13C3-PFHxS	Injection Standard: 13C2-PFOA
402.0 / 80.0	415.0 / 370.0



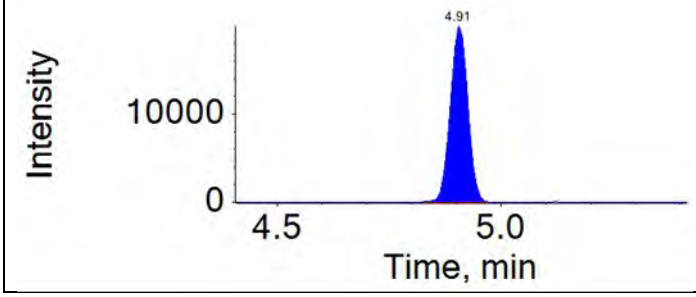


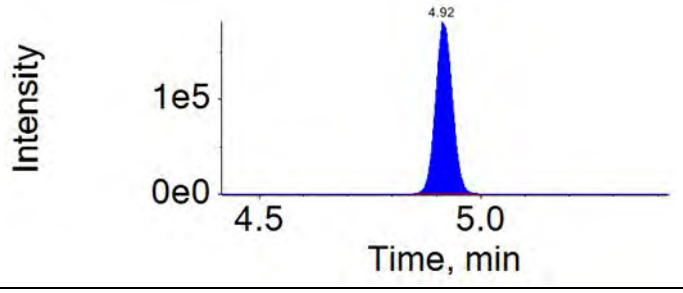
Extraction Standard: E13C4-PFHpA	Injection Standard: 13C2-PFOA
367.0 / 322.0	415.0 / 370.0





Extraction Standard: E13C2-6:2-FTS	Injection Standard: 13C2-PFOA
429.0 / 81.0	415.0 / 370.0

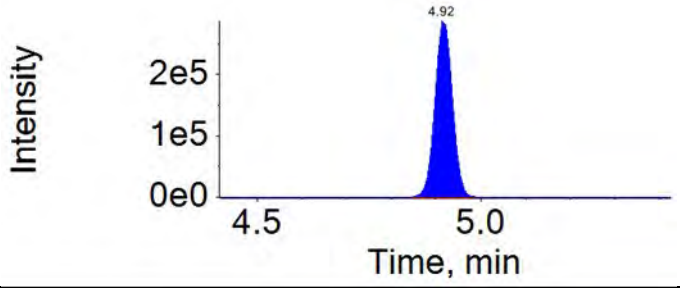
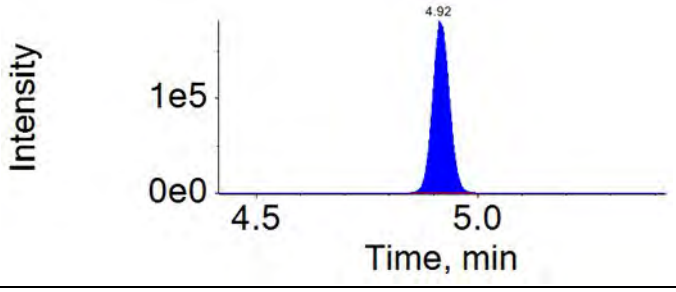


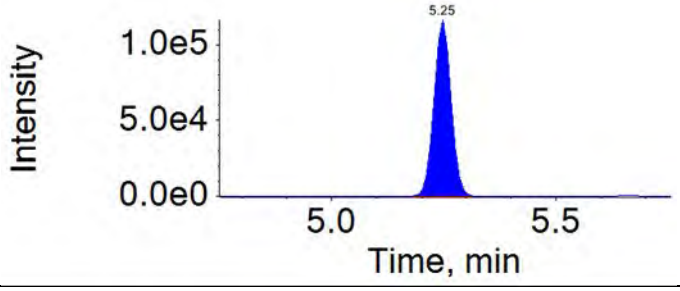
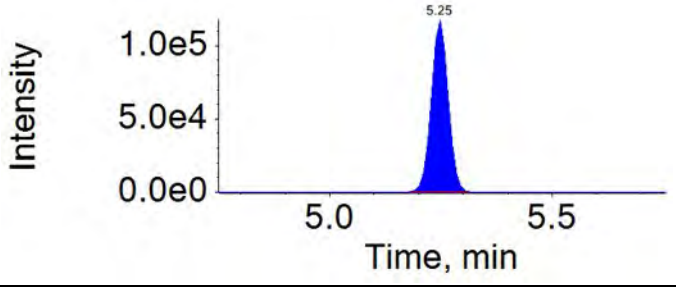


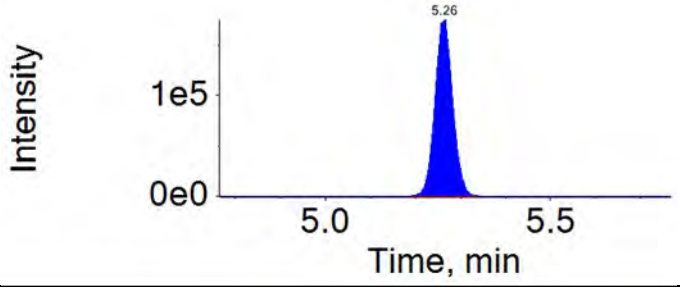
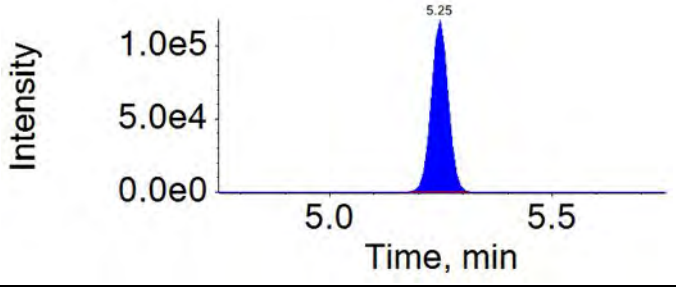
APPROVED
By MCD at 3:17 pm, 12/7/18

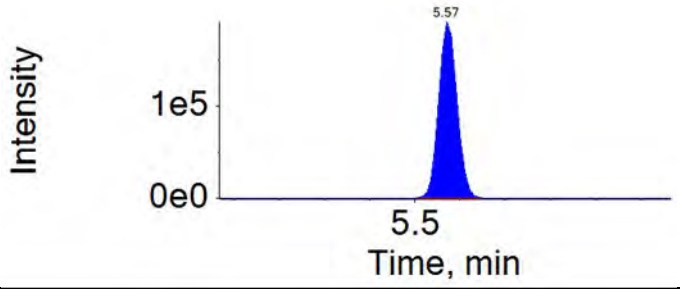
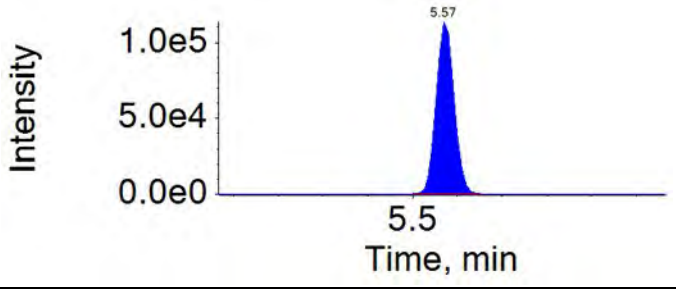
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Extraction Standard: E13C8-PFOA	Injection Standard: 13C2-PFOA
421.0 / 376.0	415.0 / 370.0
	

Extraction Standard: E13C8-PFOS	Injection Standard: 13C4-PFOS
507.0 / 80.0	503.0 / 80.0
	

Extraction Standard: E13C9-PFNA	Injection Standard: 13C4-PFOS
472.0 / 427.0	503.0 / 80.0
	

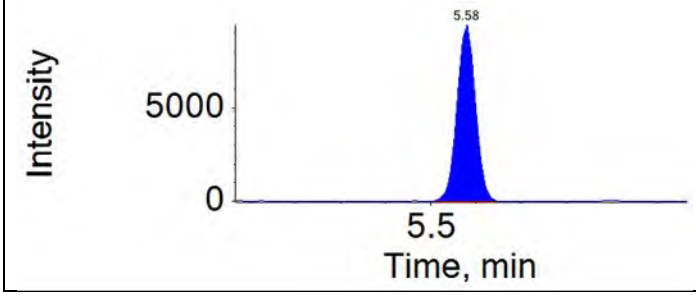
Extraction Standard: E13C6-PFDA	Injection Standard: 13C2-PFDA
519.0 / 474.0	515.0 / 470.0
	

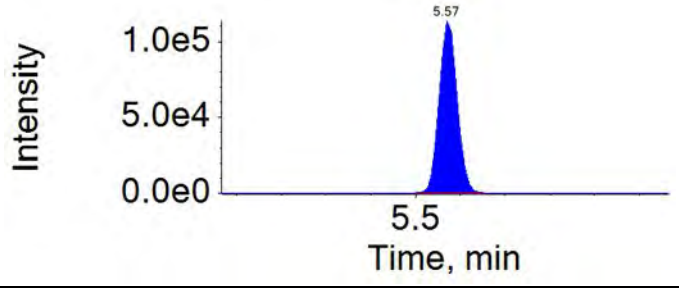
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

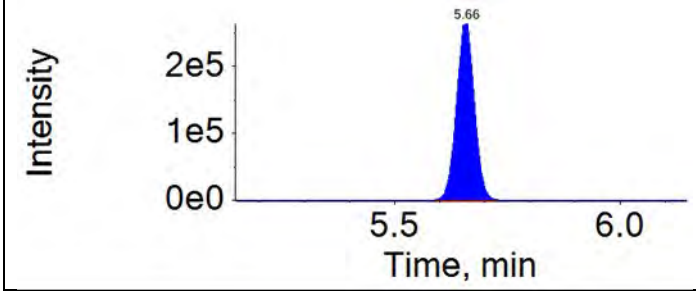
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

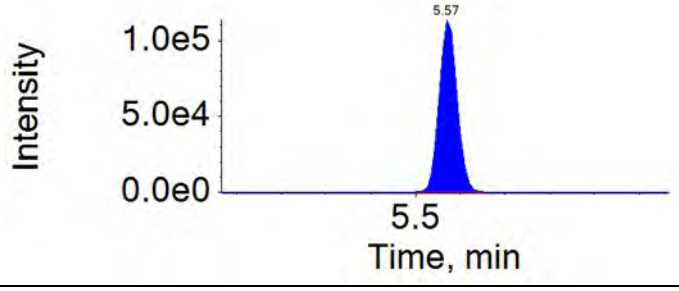
Extraction Standard: E13C2-8:2-FTS	Injection Standard: 13C2-PFDA
529.0 / 81.0	515.0 / 470.0



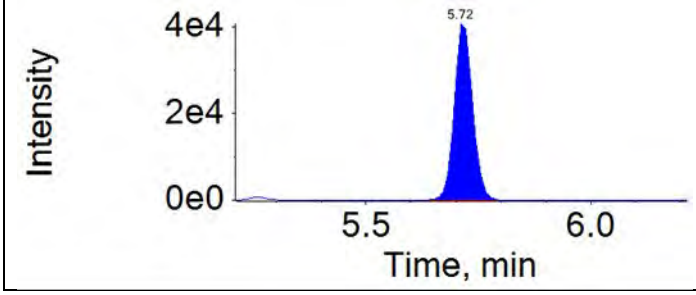


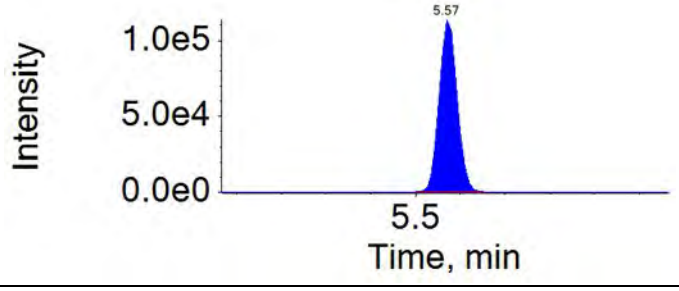
Extraction Standard: E13C8-PFOSA	Injection Standard: 13C2-PFDA
506.0 / 78.0	515.0 / 470.0



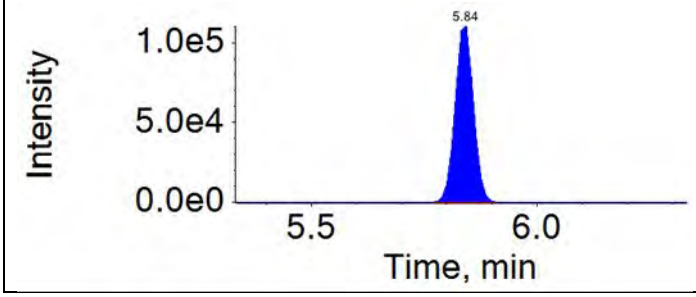


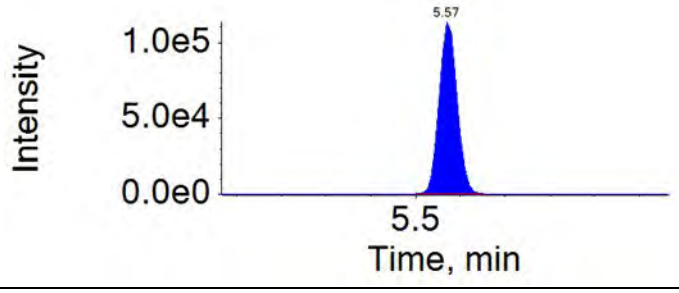
Extraction Standard: Ed3-NMeFOSAA	Injection Standard: 13C2-PFDA
573.0 / 419.0	515.0 / 470.0





Extraction Standard: E13C7-PFUnDA	Injection Standard: 13C2-PFDA
570.0 / 525.0	515.0 / 470.0

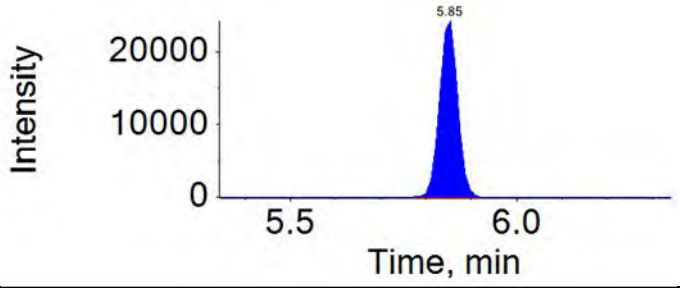
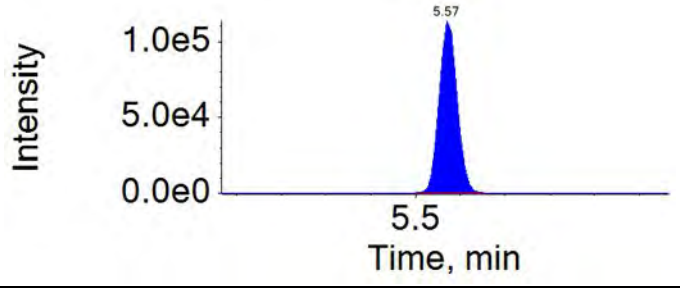


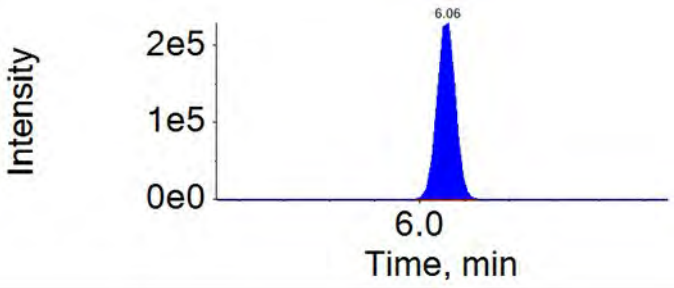
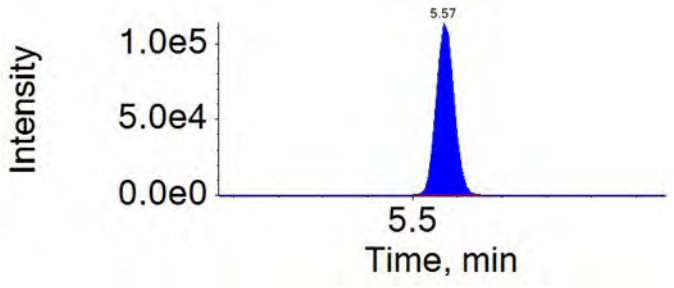


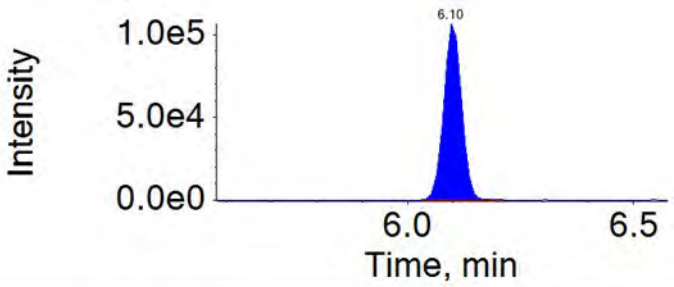
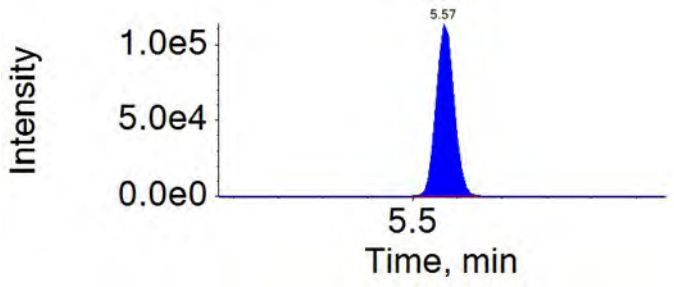
APPROVED
By MCD at 3:17 pm, 12/7/18

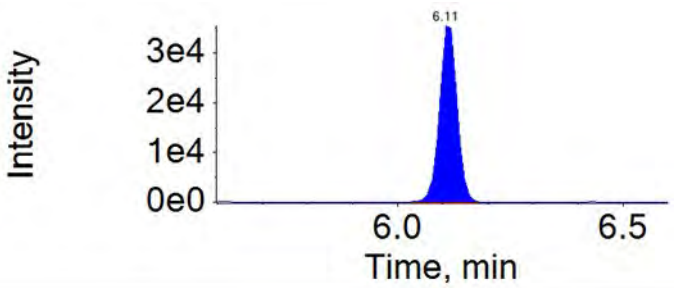
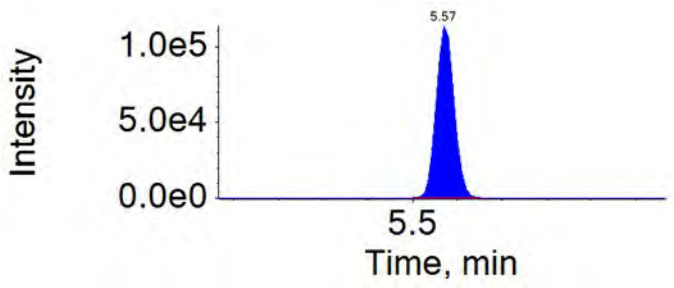
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 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
	

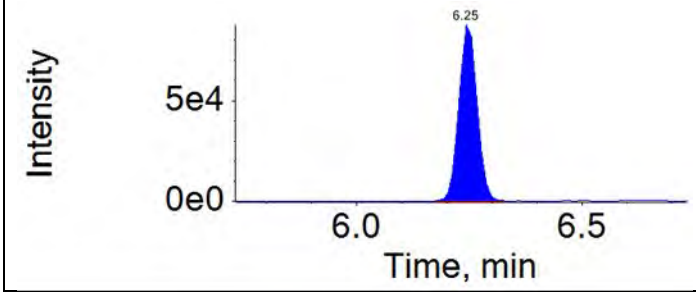
Extraction Standard: E13C2-PFDoDA	Injection Standard: 13C2-PFDA
615.0 / 570.0	515.0 / 470.0
	

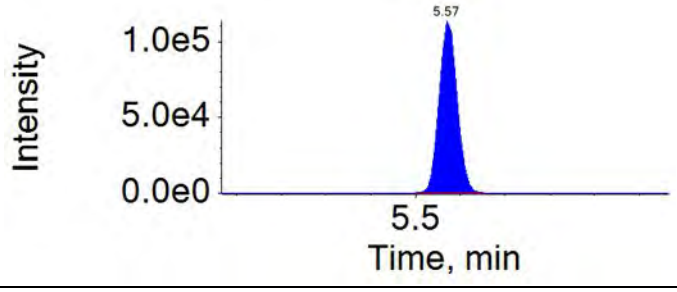
Extraction Standard: Ed7-NMePFOSAE	Injection Standard: 13C2-PFDA
623.0 / 59.0	515.0 / 470.0
	

Extraction Standard: Ed3-NMePFOSA	Injection Standard: 13C2-PFDA
515.0 / 169.0	515.0 / 470.0
	

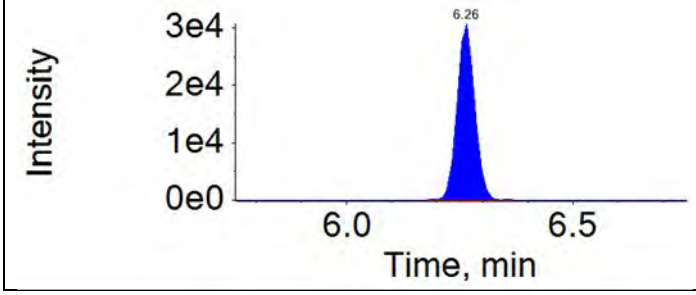
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

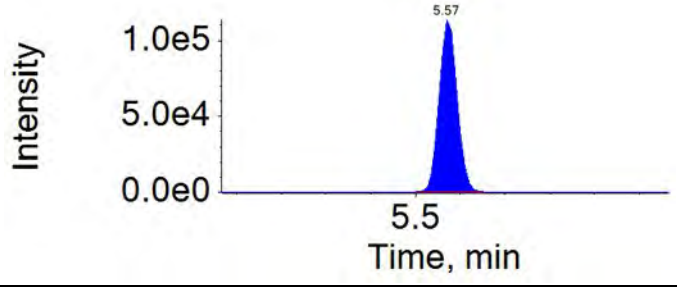
Extraction Standard: Ed9-NEtPFOSAE	Injection Standard: 13C2-PFDA
639.0 / 59.0	515.0 / 470.0



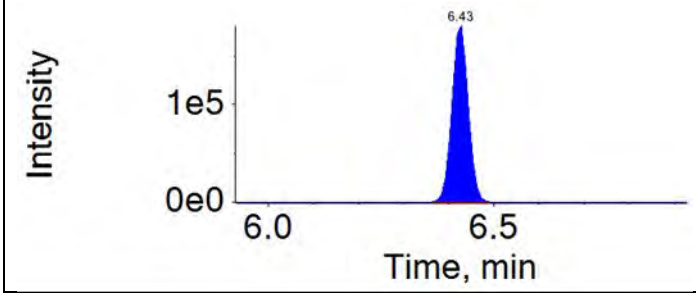


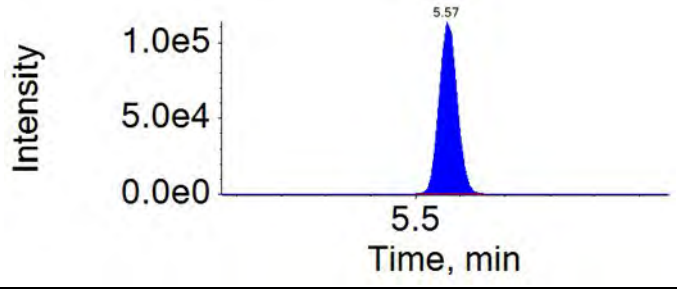
Extraction Standard: Ed5-NEtPFOSA	Injection Standard: 13C2-PFDA
531.0 / 169.0	515.0 / 470.0



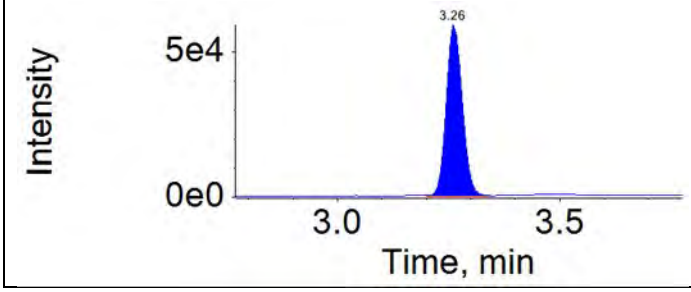
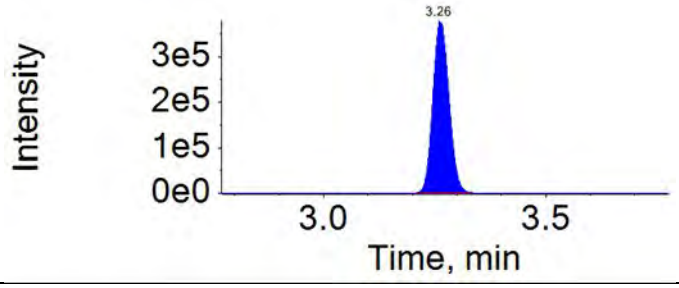


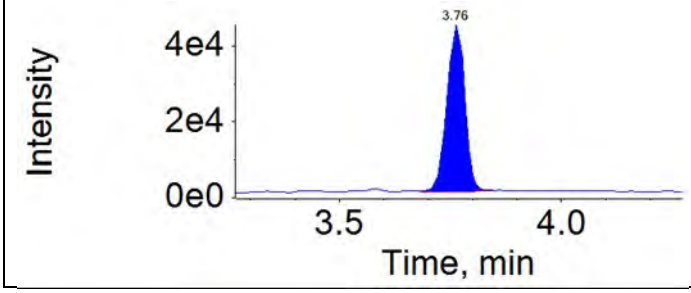
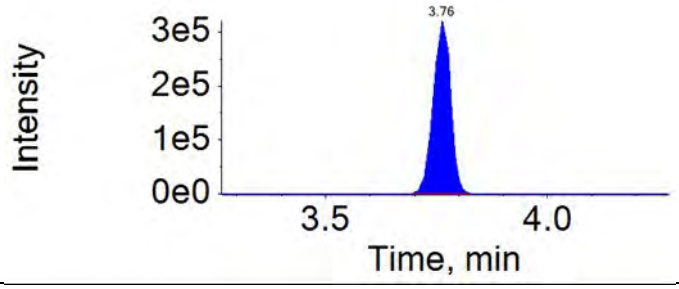
Extraction Standard: E13C2-PFTeDA	Injection Standard: 13C2-PFDA
715.0 / 670.0	515.0 / 470.0

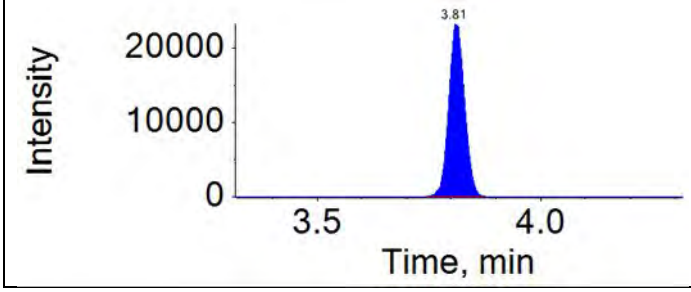
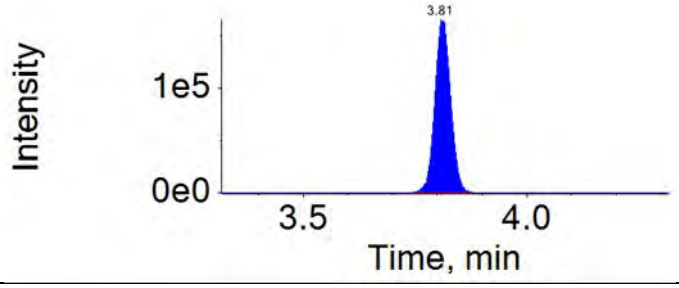


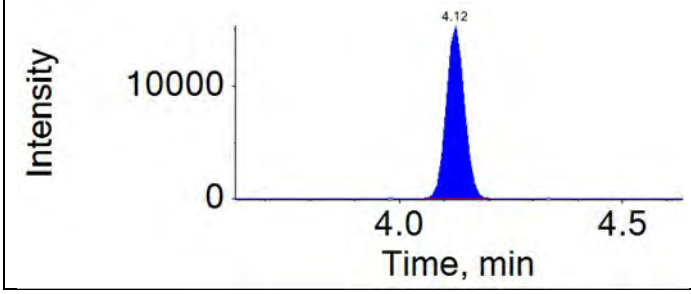
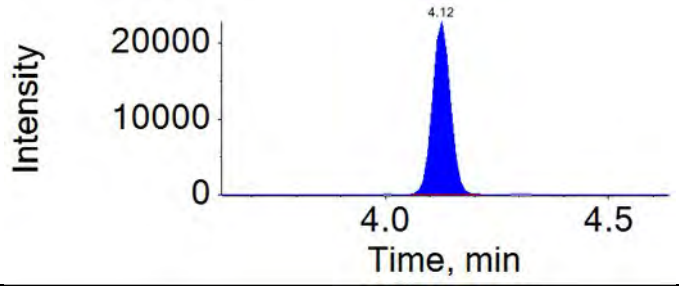


ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFBA	Extraction Standard: 13C4-PFBA
213.0 / 169.0	217.0 / 172.0
	

Analyte: PFPeA	Extraction Standard: 13C5-PFPeA
263.0 / 219.0	268.0 / 223.0
	

Analyte: PFBS	Extraction Standard: 13C3-PFBS
299.0 / 80.0	302.0 / 80.0
	

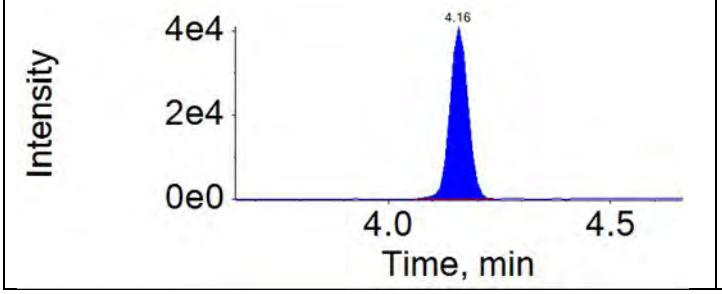
Analyte: 4:2-FTS	Extraction Standard: 13C2-4:2-FTS
327.0 / 307.0	329.0 / 81.0
	

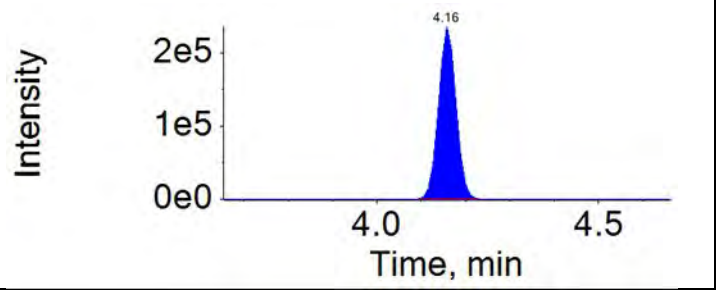
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

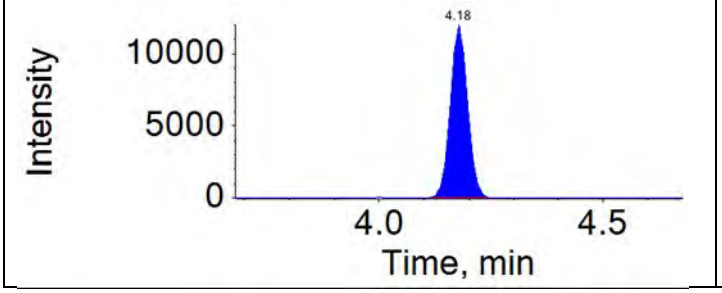
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

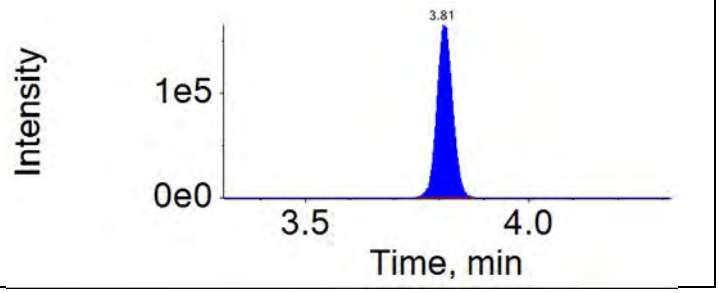
Analyte: PFHxA	Extraction Standard: 13C5-PFHxA
313.0 / 269.0	318.0 / 273.0



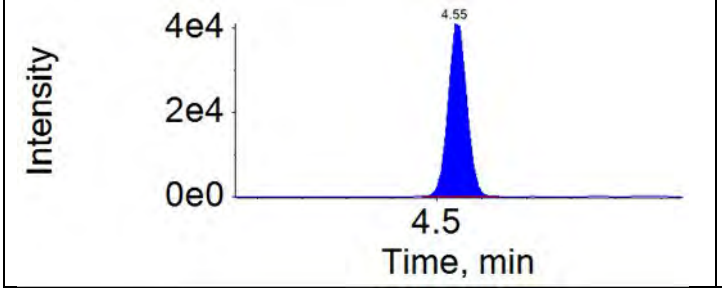


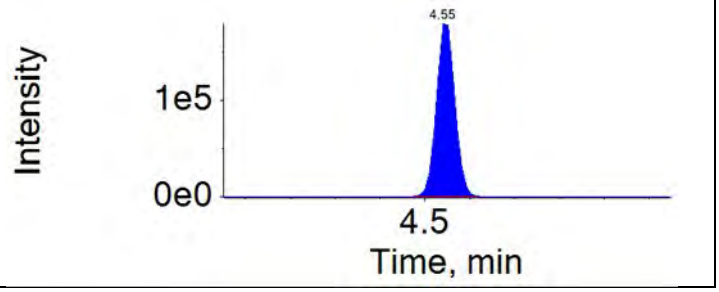
Analyte: PFPeS	Extraction Standard: 13C3-PFBS
349.0 / 80.0	302.0 / 80.0



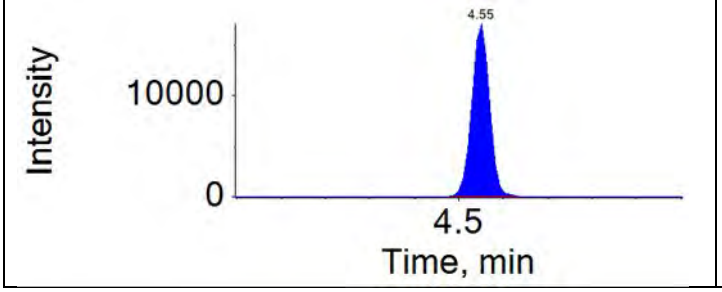


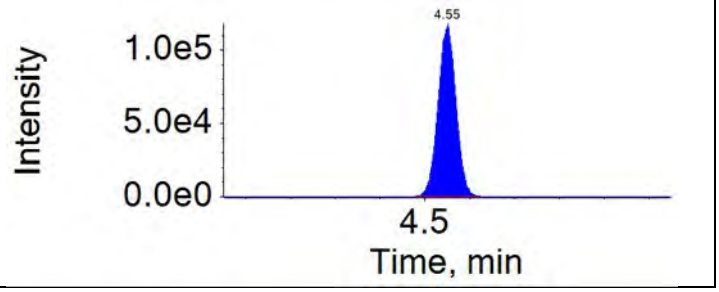
Analyte: PFHpA	Extraction Standard: 13C4-PFHpA
363.0 / 319.0	367.0 / 322.0





Analyte: PFHxS	Extraction Standard: 13C3-PFHxS
399.0 / 80.0	402.0 / 80.0

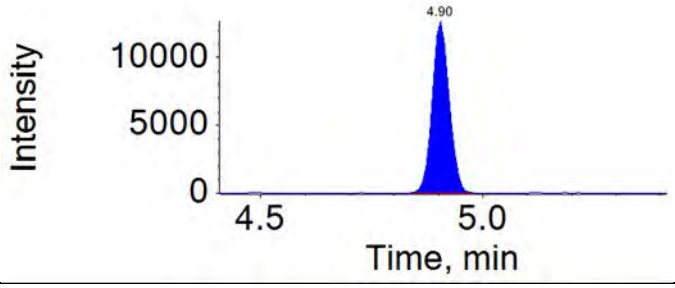
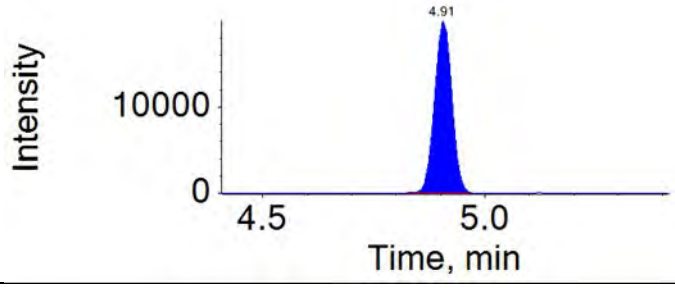


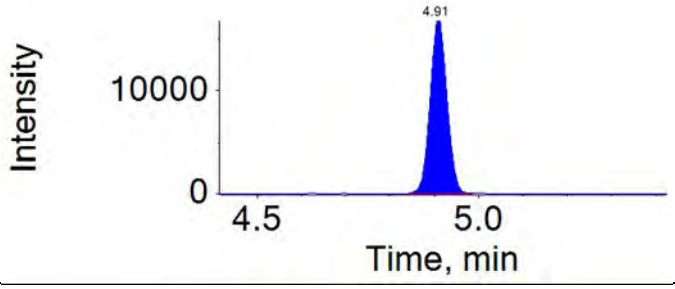
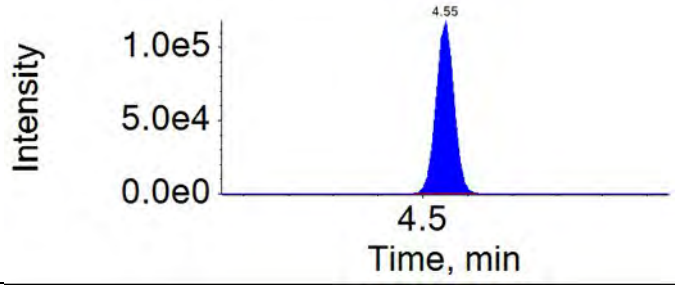


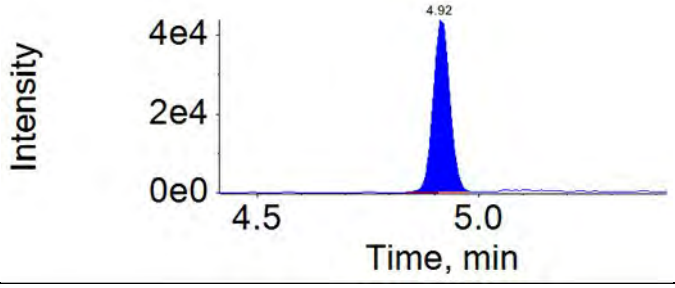
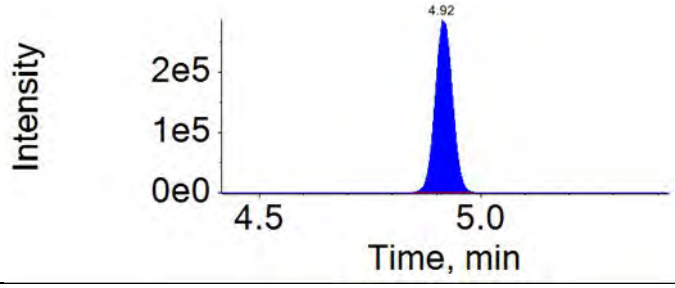
APPROVED
By MCD at 3:17 pm, 12/7/18

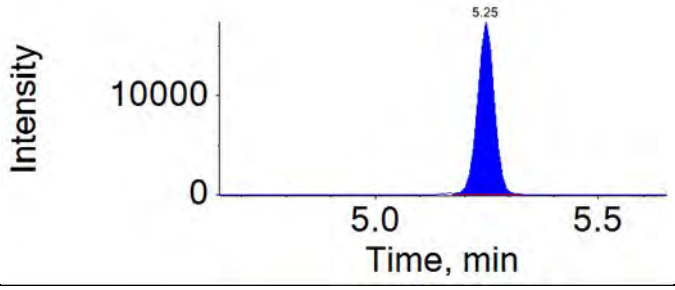
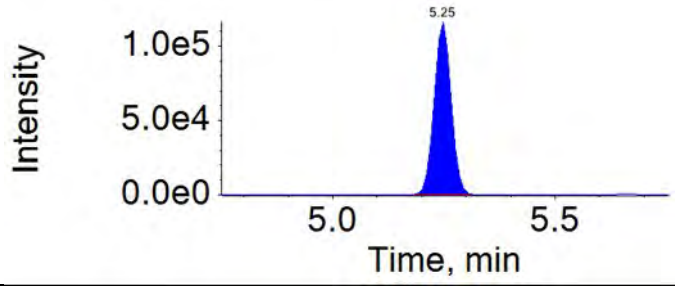
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 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
	

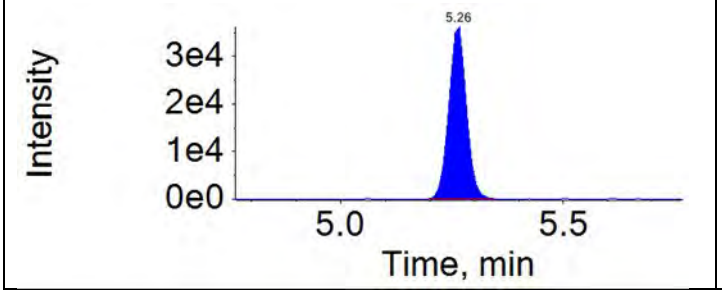
Analyte: PFHpS	Extraction Standard: 13C3-PFHxS
449.0 / 80.0	402.0 / 80.0
	

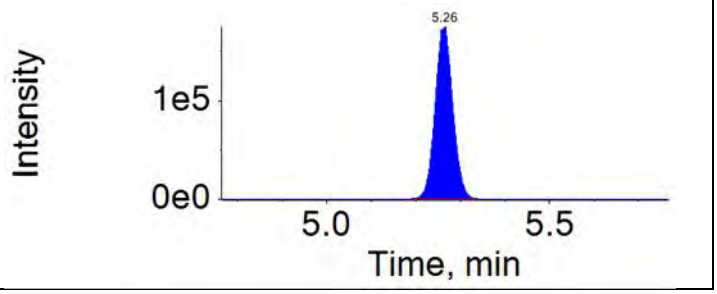
Analyte: PFOA	Extraction Standard: 13C8-PFOA
413.0 / 369.0	421.0 / 376.0
	

Analyte: PFOS	Extraction Standard: 13C8-PFOS
499.0 / 80.0	507.0 / 80.0
	

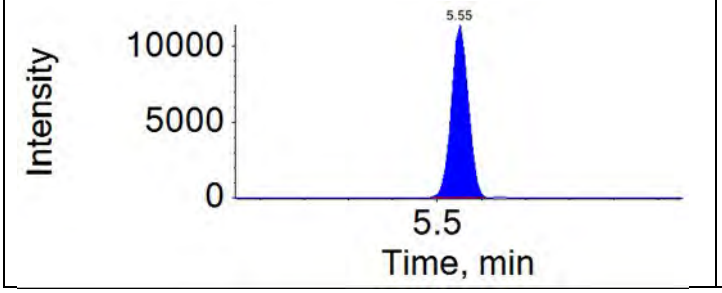
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

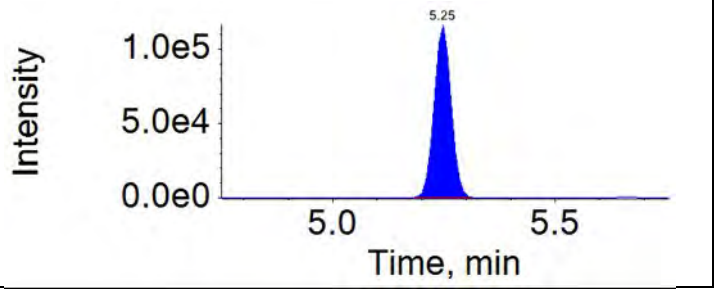
Analyte: PFNA	Extraction Standard: 13C9-PFNA
463.0 / 419.0	472.0 / 427.0



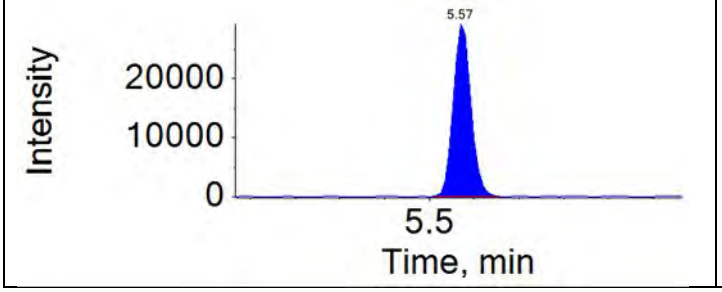


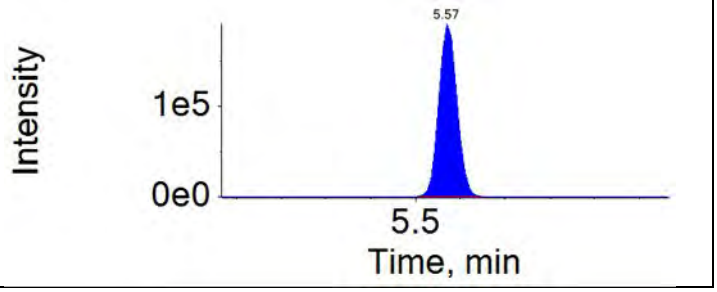
Analyte: PFNS	Extraction Standard: 13C8-PFOS
549.0 / 80.0	507.0 / 80.0



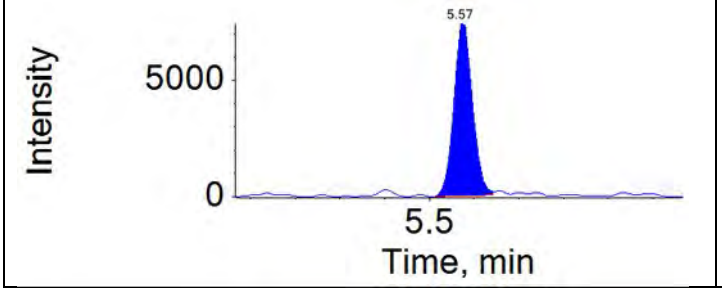


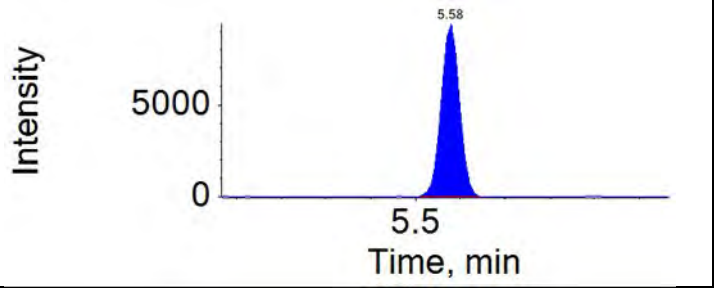
Analyte: PFDA	Extraction Standard: 13C6-PFDA
513.0 / 469.0	519.0 / 474.0





Analyte: 8:2-FTS	Extraction Standard: 13C2-8:2-FTS
527.0 / 507.0	529.0 / 81.0

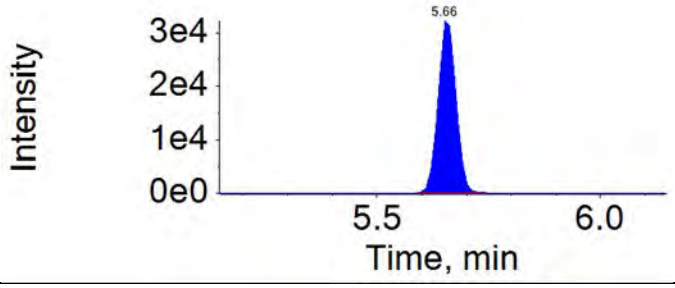
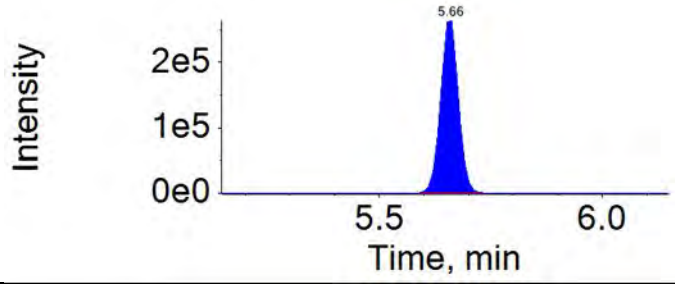


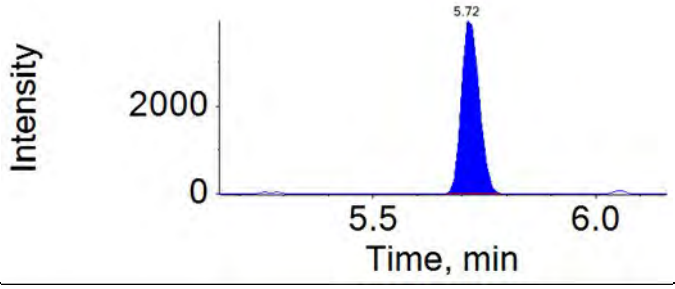
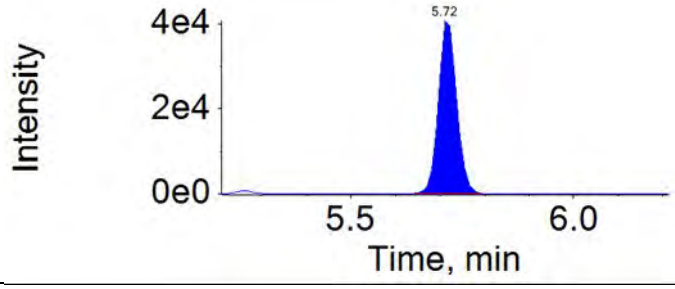


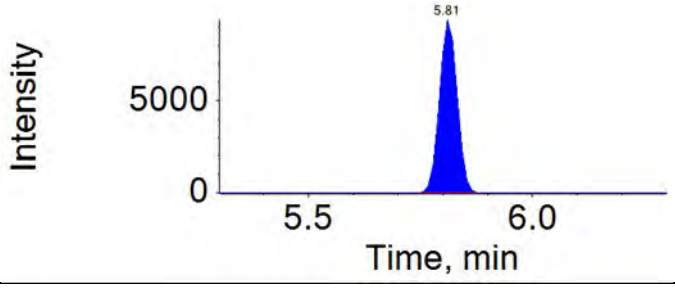
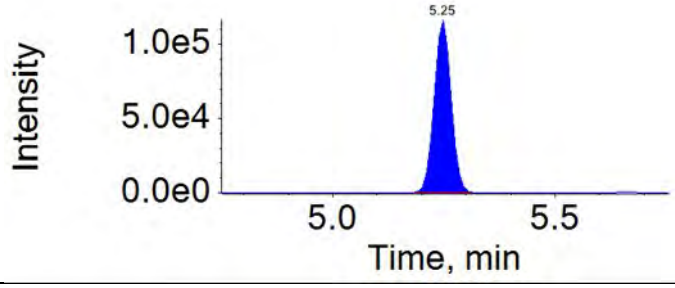
APPROVED
By MCD at 3:17 pm, 12/7/18

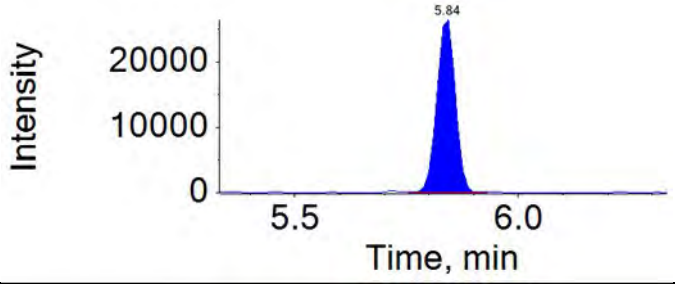
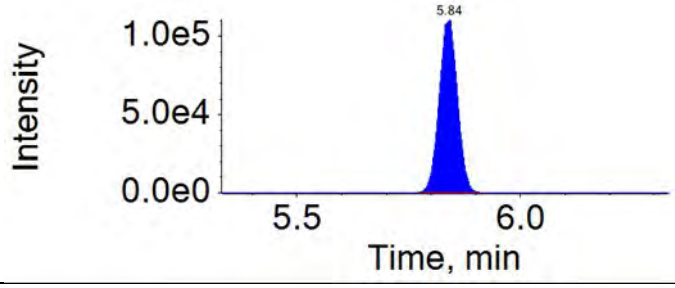
REVIEWED
By HMK at 8:36 am, 12/10/18

ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

Analyte: PFOSA	Extraction Standard: 13C8-PFOSA
498.0 / 78.0	506.0 / 78.0
	

Analyte: NMeFOSAA	Extraction Standard: d3-NMeFOSAA
570.0 / 419.0	573.0 / 419.0
	

Analyte: PFDS	Extraction Standard: 13C8-PFOS
599.0 / 80.0	507.0 / 80.0
	

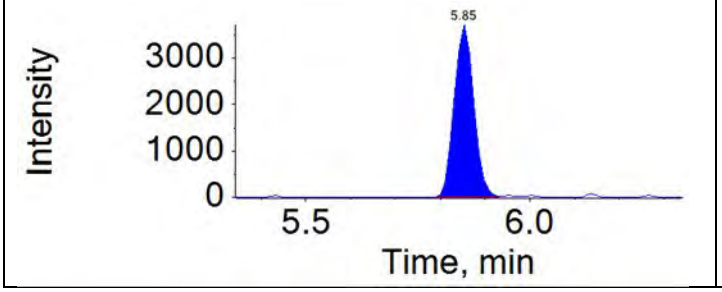
Analyte: PFUnDA	Extraction Standard: 13C7-PFUnDA
563.0 / 519.0	570.0 / 525.0
	

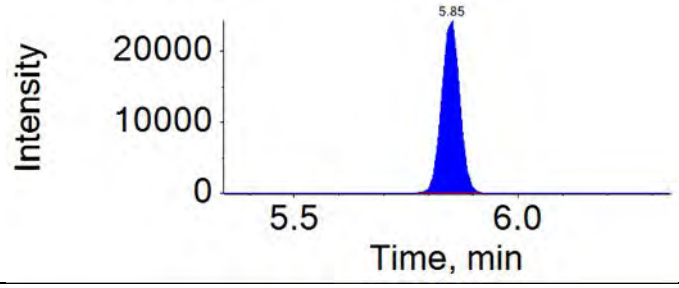
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

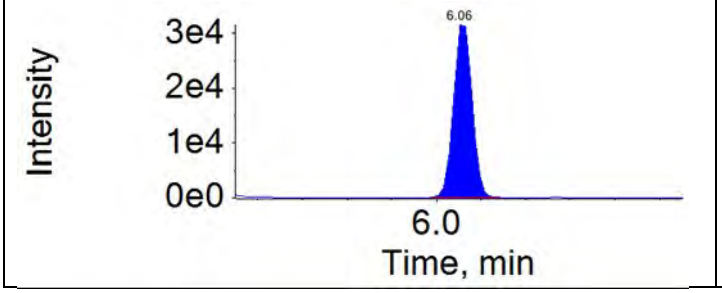
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

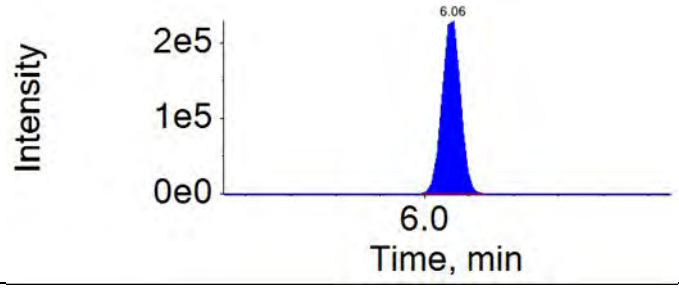
Analyte: NEtFOSAA	Extraction Standard: d5-NEtFOSAA
584.0 / 419.0	589.0 / 419.0



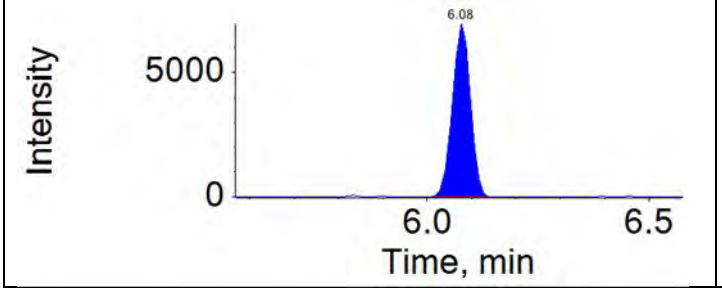


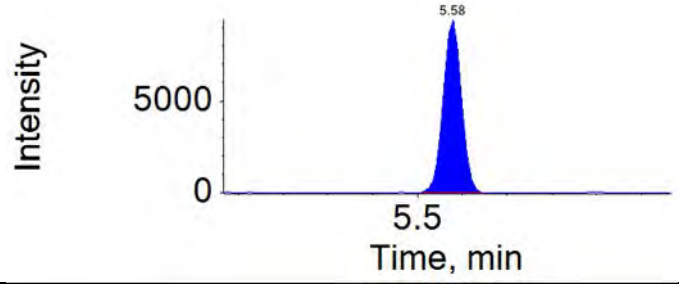
Analyte: PFDoDA	Extraction Standard: 13C2-PFDoDA
613.0 / 569.0	615.0 / 570.0



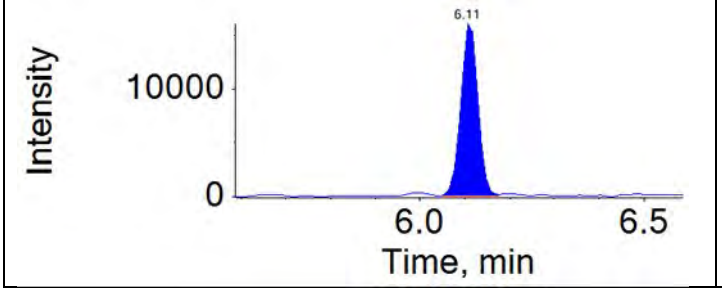


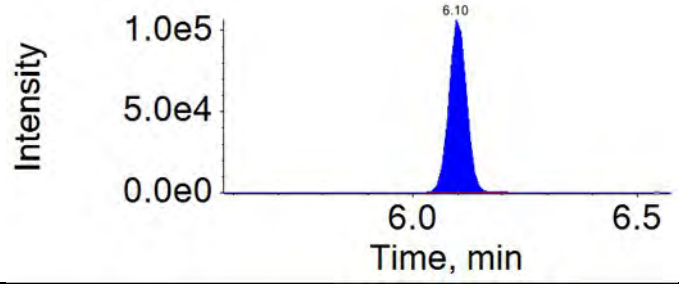
Analyte: 10:2-FTS	Extraction Standard: 13C2-8:2-FTS
627.0 / 607.0	529.0 / 81.0





Analyte: NMePFOSAE	Extraction Standard: d7-NMePFOSAE
616.0 / 59.0	623.0 / 59.0



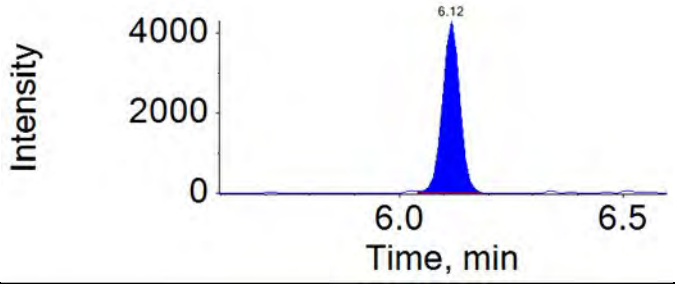


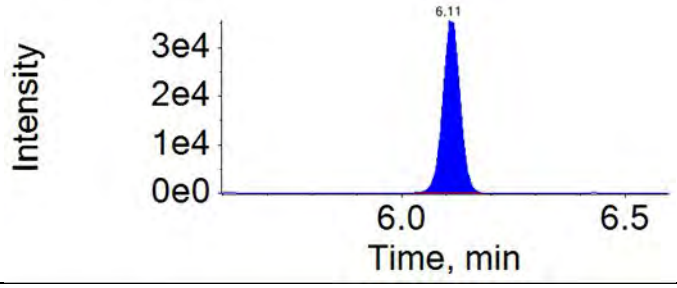
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

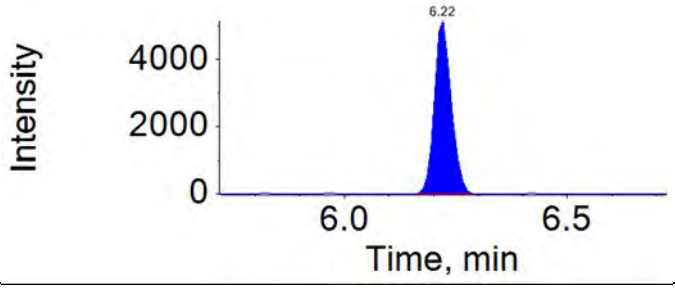
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

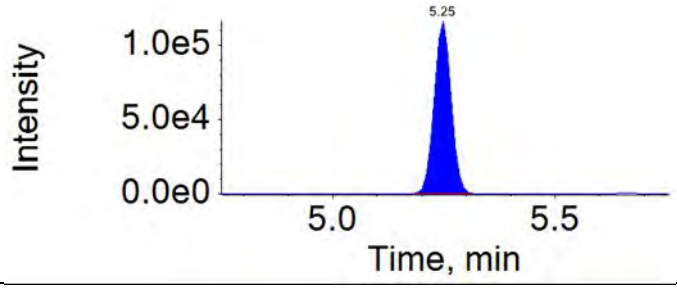
Analyte: NMePFOSA	Extraction Standard: d3-NMePFOSA
512.0 / 169.0	515.0 / 169.0



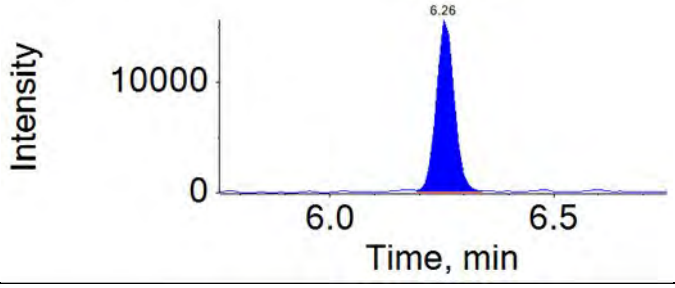


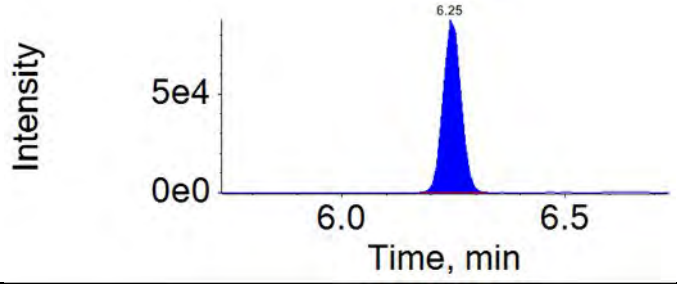
Analyte: PFDoS	Extraction Standard: 13C8-PFOS
699.0 / 80.0	507.0 / 80.0



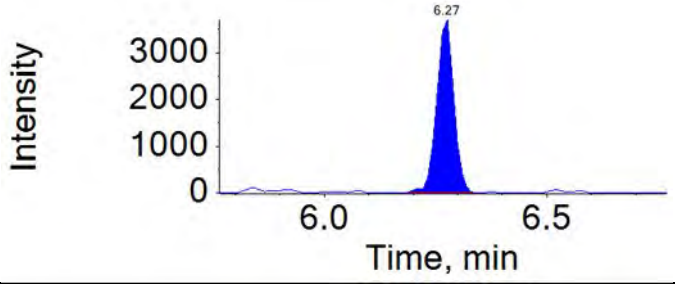


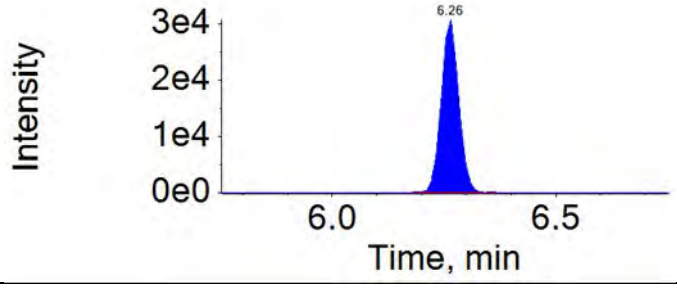
Analyte: NEtPFOSAE	Extraction Standard: d9-NEtPFOSAE
630.0 / 59.0	639.0 / 59.0





Analyte: NEtPFOSA	Extraction Standard: d5-NEtPFOSA
526.0 / 169.0	531.0 / 169.0



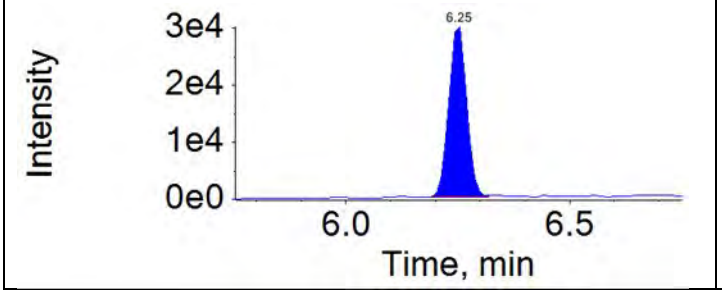


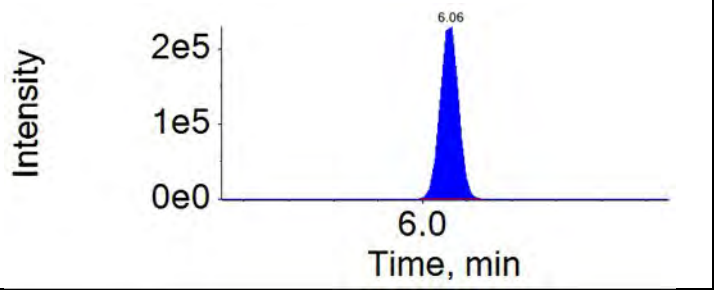
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

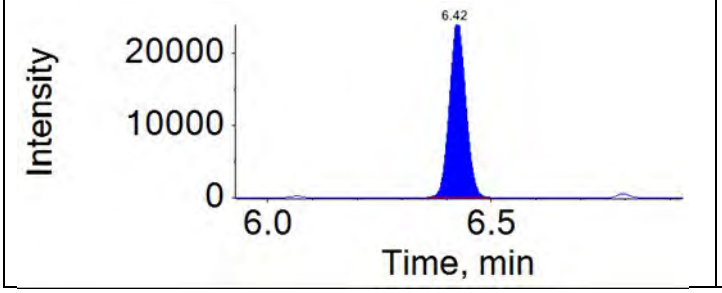
ICAL Name: 18DEC03DCAL **Result Table:** 18338017 12/6/2018 3:58:49 PM
QMethod Name: 18AUG20QM **Acquisition Method:** 18AUG13_3uL.dam

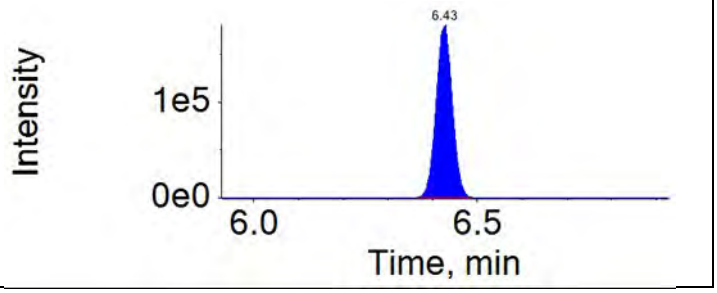
Analyte: PFTrDA	Extraction Standard: 13C2-PFDoDA
663.0 / 619.0	615.0 / 570.0



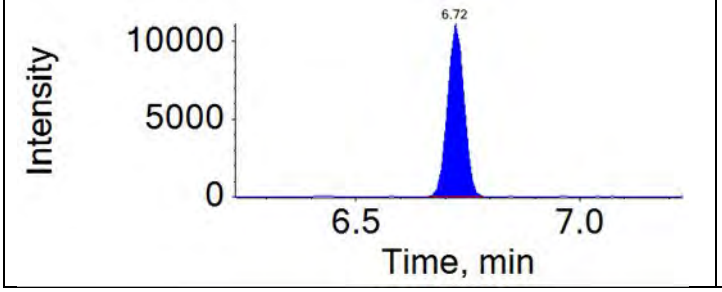


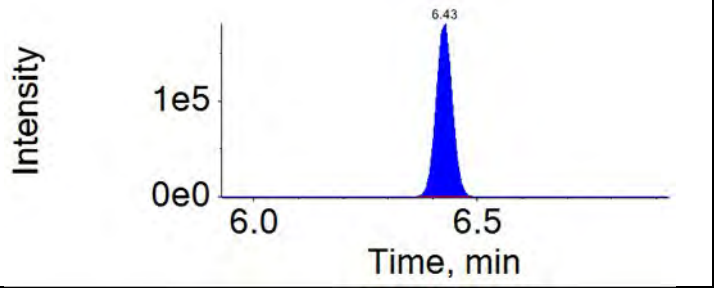
Analyte: PFTeDA	Extraction Standard: 13C2-PFTeDA
713.0 / 669.0	715.0 / 670.0



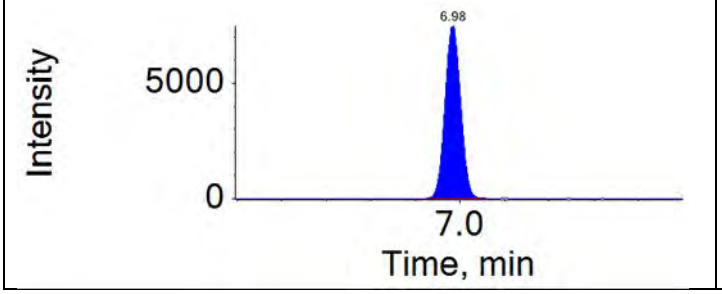


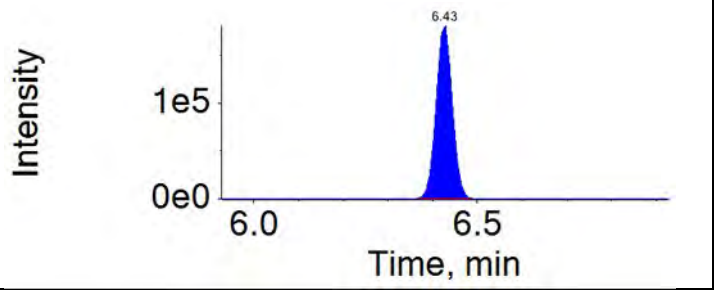
Analyte: PFHxDA	Extraction Standard: 13C2-PFTeDA
813.0 / 769.0	715.0 / 670.0





Analyte: PFODA	Extraction Standard: 13C2-PFTeDA
913.0 / 869.0	715.0 / 670.0



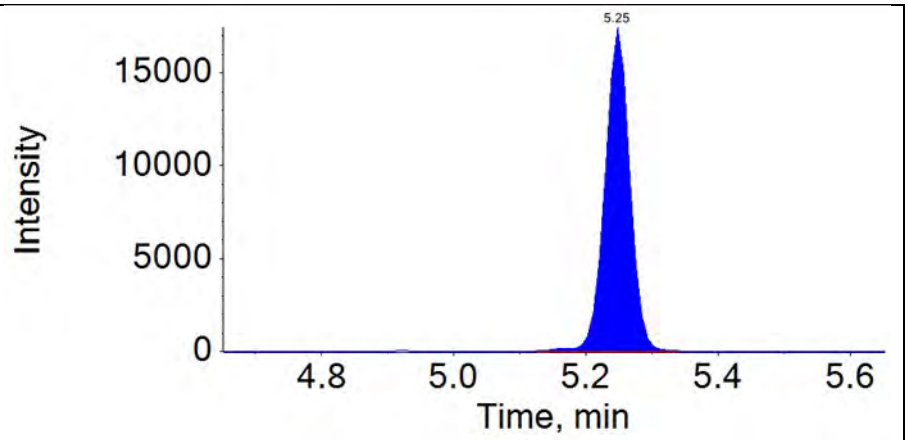


APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

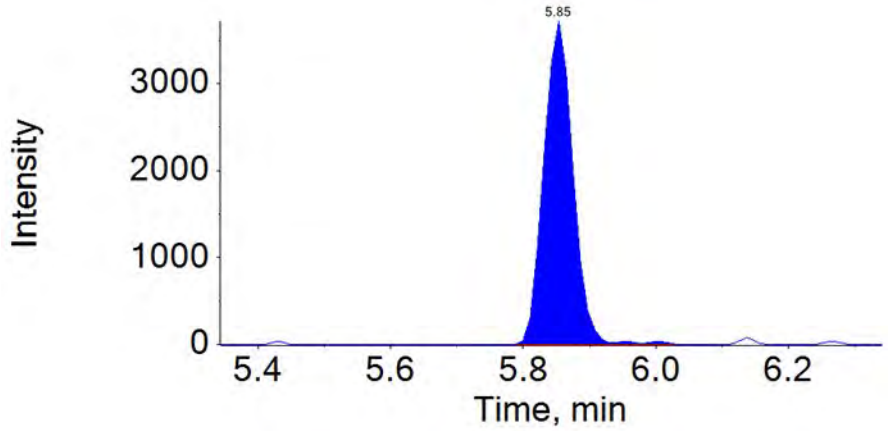
Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
45846.2
Mass Range:
499.0 / 80.0
File Name:
18DEC05D-37.wiff
Sample Name:
LCSDA



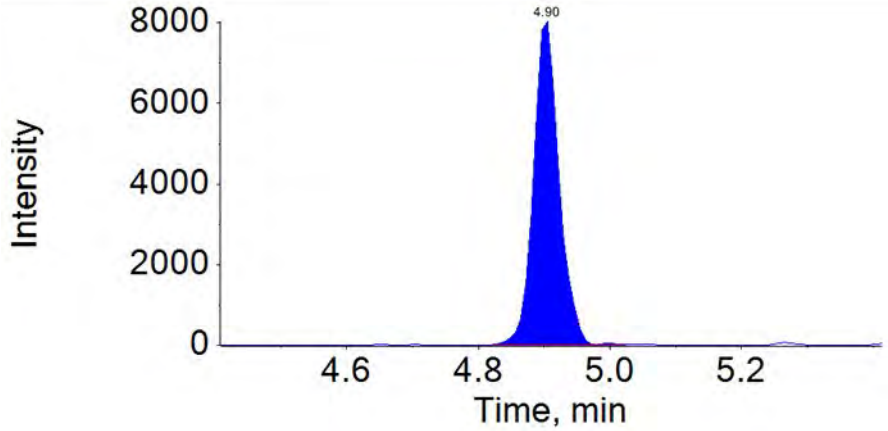
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
11400.1
Mass Range:
584.0 / 419.0
File Name:
18DEC05D-37.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

Component Name:
6:2-FTS_2
RT (min.):
4.90
Peak Area:
21844.5
Mass Range:
427.0 / 81.0
File Name:
18DEC05D-37.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

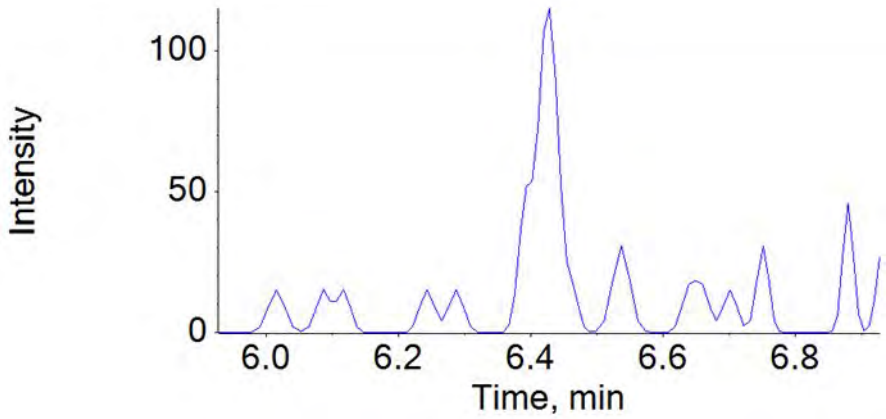
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 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:
18DEC05D-37.wiff
Sample Name:
LCSDA



Integration Comment: incorrect integration

APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Results Table Name: 18338017
Results Table Date: 12/6/2018 3:58:49 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Ion Ratio Report

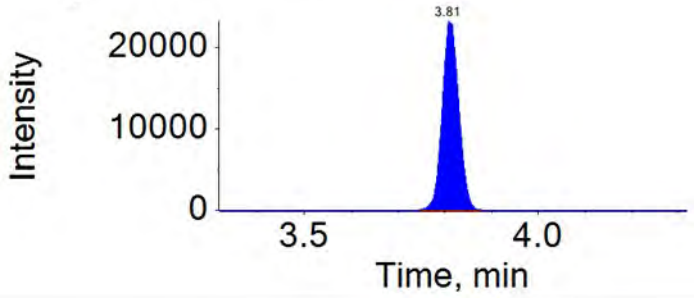
Sample Name: LCSDA **Instrument Name:** LM27631 **File Name:** 18DEC05D-37.wiff

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	57410.0	A	N/A	0.3605			
PFBS_2	3.81	1.00	20698.8	A	N/A	0.3605	-2	50	
4:2-FTS	4.12	1.00	42744.4	A	N/A	0.6282			
4:2-FTS_2	4.12	1.00	26850.7	A	N/A	0.6282	-4	50	
PFHxA	4.16	1.00	114640.4	A	N/A	0.0137			
PFHxA_2	4.16	1.00	1573.8	A	N/A	0.0137	19	50	
PFPeS	4.18	1.10	31975.4	A	N/A	0.5435			
PFPeS_2	4.18	1.10	17379.2	A	N/A	0.5435	10	50	
PFHpA	4.55	1.00	118147.0	A	N/A	0.0507			
PFHpA_2	4.54	1.00	5995.6	A	N/A	0.0507	0	50	
PFHxS	4.55	1.00	46954.2	A	N/A	0.3532			
PFHxS_2	4.55	1.00	16585.8	A	N/A	0.3532	-4	50	
6:2-FTS	4.90	1.00	33694.2	A	N/A	0.6456			
6:2-FTS_2	4.90	1.00	21753.3	M	N/A	0.6456	1	50	
PFHpS	4.91	1.08	44785.7	A	N/A	0.4042			
PFHpS_2	4.91	1.08	18101.9	A	N/A	0.4042	3	50	
PFOA	4.92	1.00	113923.0	A	N/A	0.0654			
PFOA_2	4.92	1.00	7451.3	A	N/A	0.0654	6	50	
PFOS	5.25	1.00	45507.2	M	N/A	0.3360			
PFOS_2	5.25	1.00	15290.4	A	N/A	0.3360	15	50	
PFNA	5.26	1.00	98630.1	A	N/A	0.0301			
PFNA_2	5.27	1.00	2966.3	A	N/A	0.0301	57	50	OOS
PFNS	5.55	1.06	30062.3	A	N/A	0.4758			
PFNS_2	5.55	1.06	14302.8	A	N/A	0.4758	1	50	
PFDA	5.57	1.00	80228.8	A	N/A	0.0111			
PFDA_2	5.62	1.01	890.3	A	N/A	0.0111	53	50	OOS
8:2-FTS	5.57	1.00	21330.3	A	N/A	0.6998			
8:2-FTS_2	5.57	1.00	14927.3	A	N/A	0.6998	15	50	
NMeFOSAA	5.72	1.00	10868.3	A	N/A	0.1639			
NMeFOSAA_2	5.72	1.00	1781.2	A	N/A	0.1639	-37	50	
PFDS	5.81	1.11	25552.0	A	N/A	0.4282			
PFDS_2	5.81	1.11	10942.1	A	N/A	0.4282	-15	50	
PFUnDA	5.84	1.00	76241.5	A	N/A	0.0051			
PFUnDA_2	5.84	1.00	389.3	A	N/A	0.0051	6	50	
NEtFOSAA	5.85	1.00	11250.2	M	N/A	0.4254			
NEtFOSAA_2	5.85	1.00	4786.0	A	N/A	0.4254	-46	50	
PFDoDA	6.06	1.00	91740.9	A	N/A	0.0161			
PFDoDA_2	6.06	1.00	1477.1	A	N/A	0.0161	11	50	
10:2-FTS	6.08	1.09	19484.8	A	N/A	0.5327			
10:2-FTS_2	6.08	1.09	10378.9	A	N/A	0.5327	-25	50	
PFTrDA	6.25	1.03	82782.5	A	N/A	0.0083			
PFTrDA_2	6.25	1.03	684.2	A	N/A	0.0083	-18	50	
PFTeDA	6.42	1.00	61468.5	A	N/A	0.0055			
PFTeDA_2	6.43	1.00	340.7	M	N/A	0.0055	2	50	
PFHxDA	6.72	1.05	28157.4	A	N/A	0.0523			
PFHxDA_2	6.72	1.05	1471.4	A	N/A	0.0523	-15	50	
PFODA	6.98	1.09	18236.6	A	N/A	0.0325			
PFODA_2	6.98	1.09	591.9	A	N/A	0.0325	20	50	

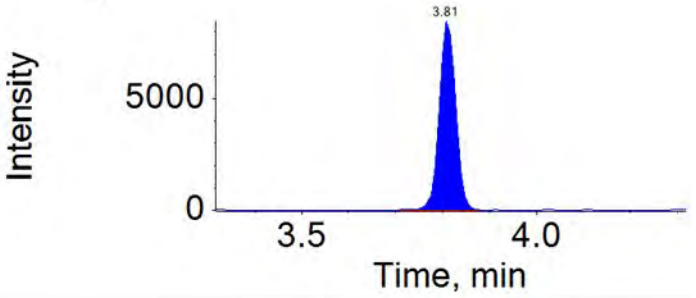
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

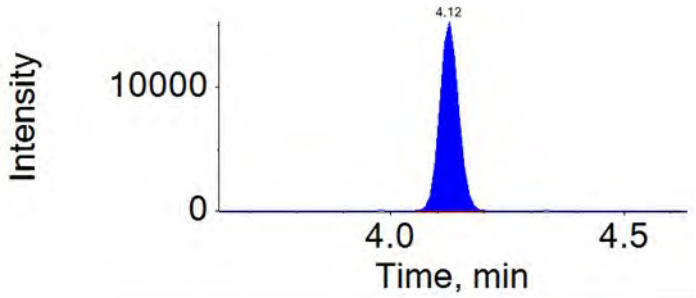
Component: PFBS
Primary Mass: 299.0 / 80.0



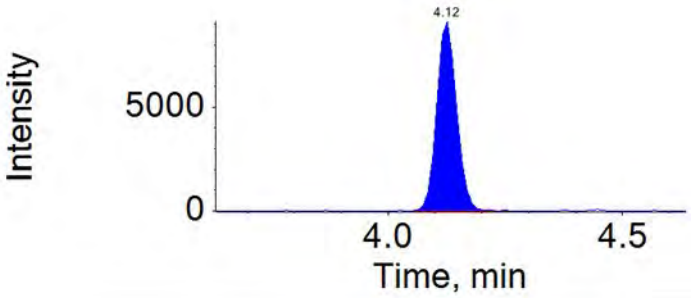
Component: PFBS_2
Secondary Mass: 299.0 / 99.0



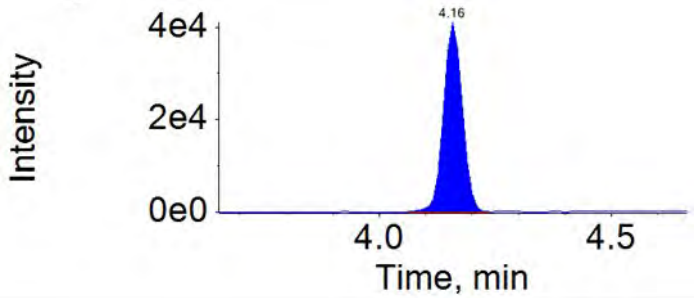
Component: 4:2-FTS
Primary Mass: 327.0 / 307.0



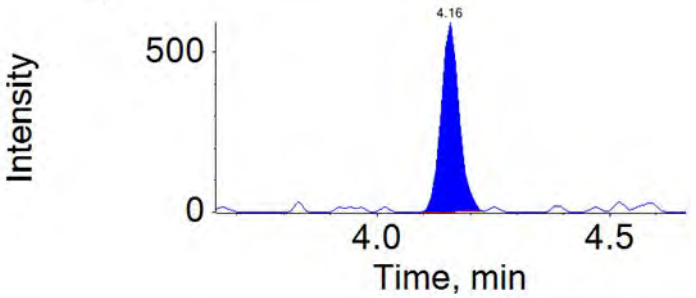
Component: 4:2-FTS_2
Secondary Mass: 327.0 / 81.0



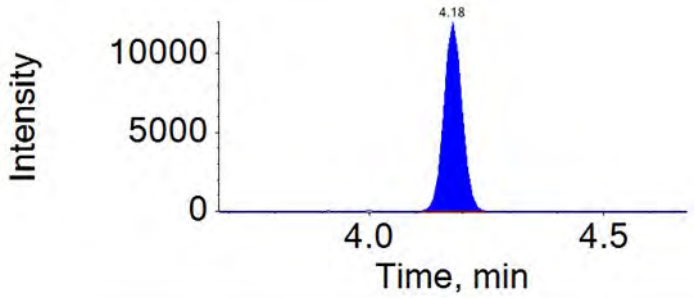
Component: PFHxA
Primary Mass: 313.0 / 269.0



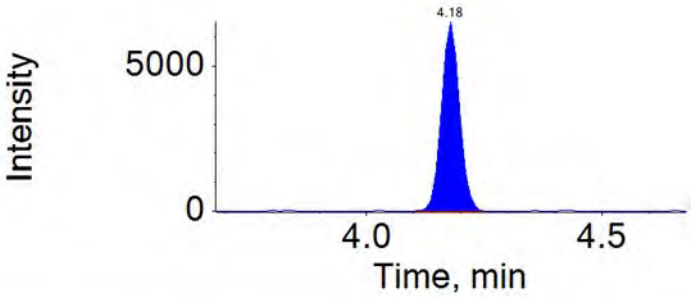
Component: PFHxA_2
Secondary Mass: 313.0 / 119.0



Component: PFPeS
Primary Mass: 349.0 / 80.0



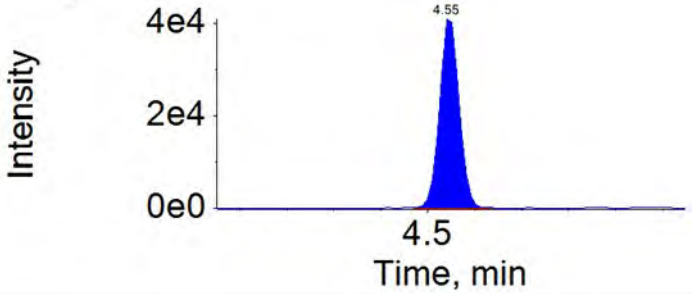
Component: PFPeS_2
Secondary Mass: 349.0 / 99.0



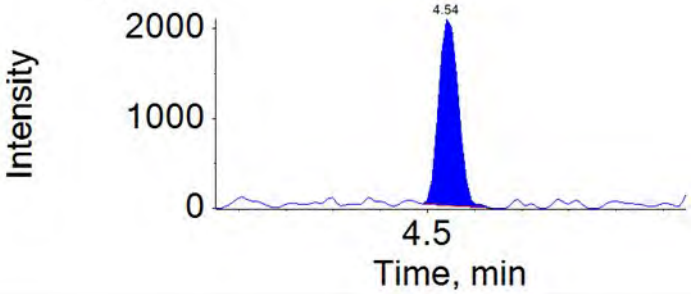
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

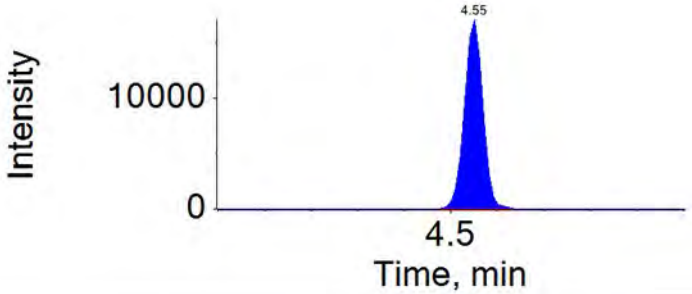
Component: PFHpA
Primary Mass: 363.0 / 319.0



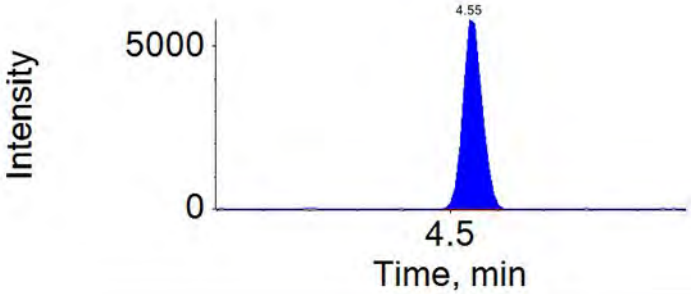
Component: PFHpA_2
Secondary Mass: 363.0 / 169.0



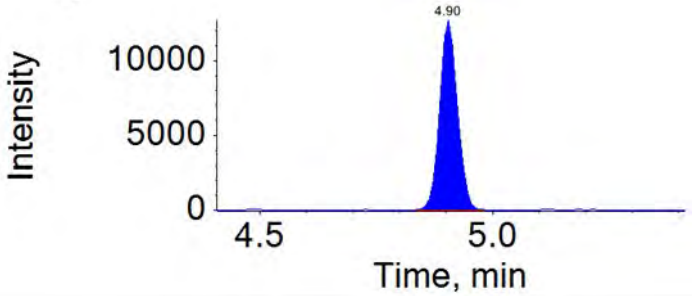
Component: PFHxS
Primary Mass: 399.0 / 80.0



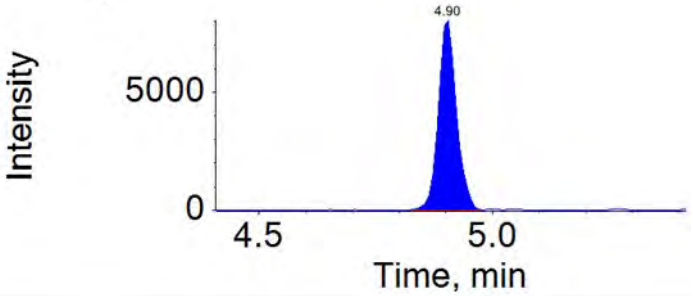
Component: PFHxS_2
Secondary Mass: 399.0 / 99.0



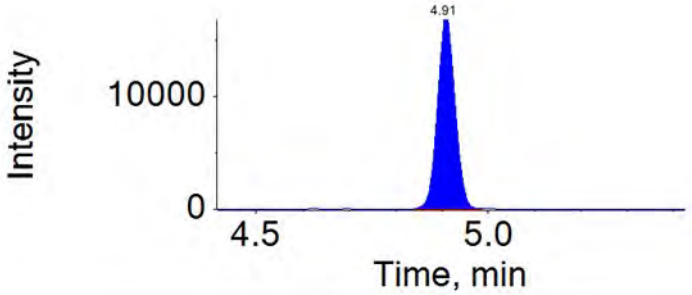
Component: 6:2-FTS
Primary Mass: 427.0 / 407.0



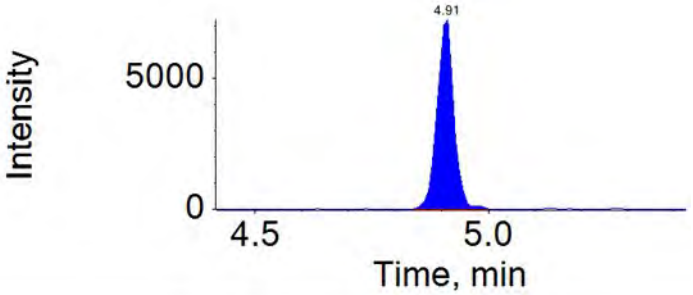
Component: 6:2-FTS_2
Secondary Mass: 427.0 / 81.0



Component: PFHpS
Primary Mass: 449.0 / 80.0



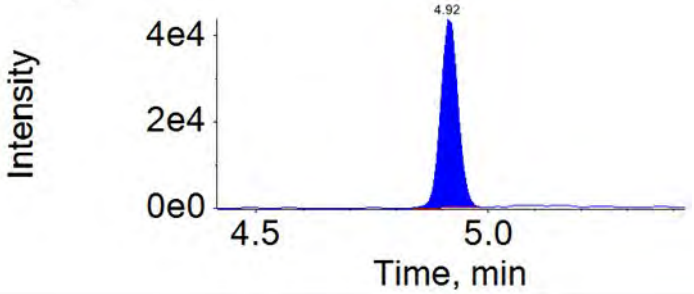
Component: PFHpS_2
Secondary Mass: 449.0 / 99.0



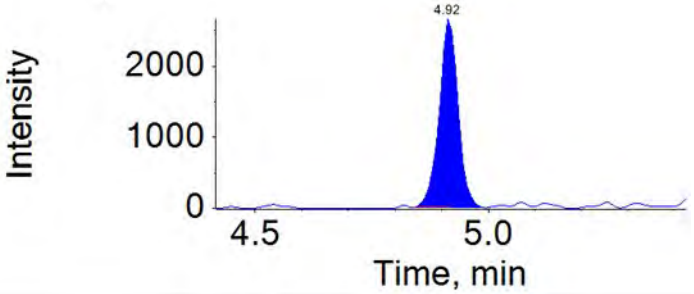
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

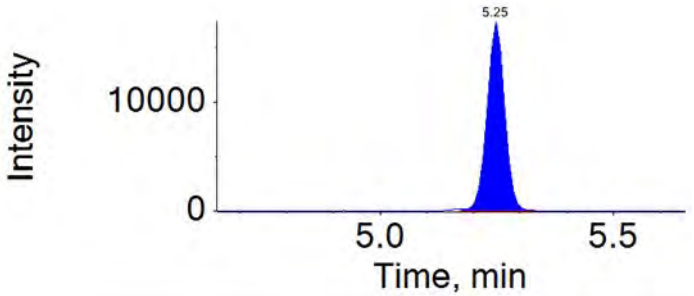
Component: PFOA
Primary Mass: 413.0 / 369.0



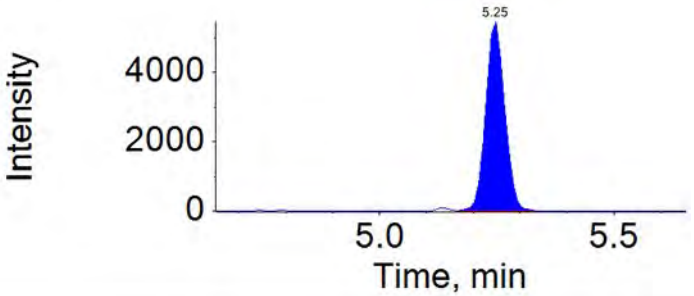
Component: PFOA_2
Secondary Mass: 413.0 / 169.0



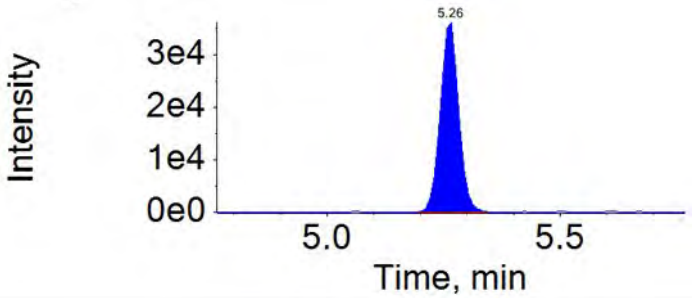
Component: PFOS
Primary Mass: 499.0 / 80.0



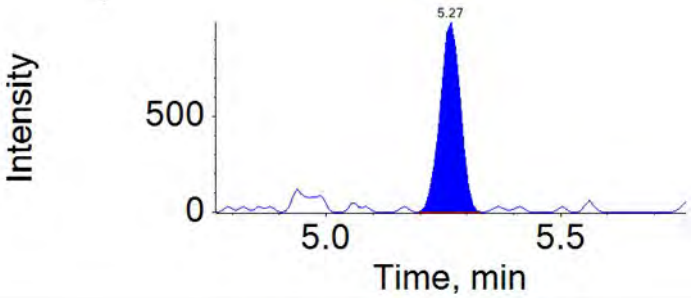
Component: PFOS_2
Secondary Mass: 499.0 / 99.0



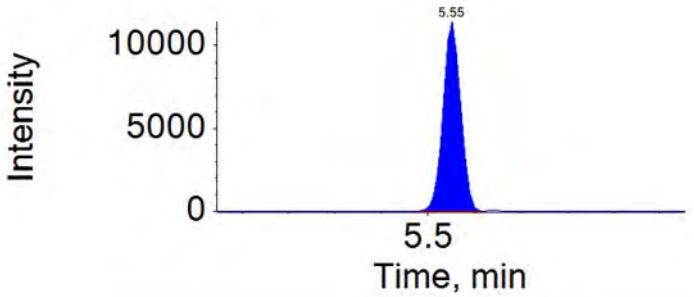
Component: PFNA
Primary Mass: 463.0 / 419.0



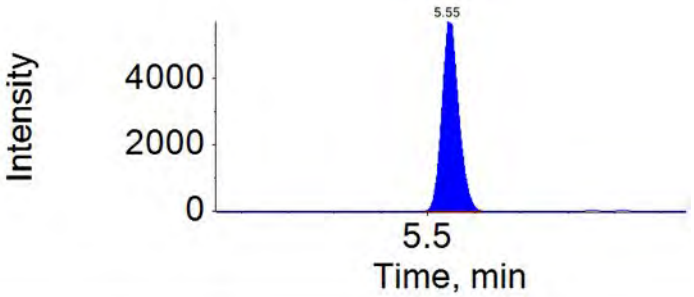
Component: PFNA_2
Secondary Mass: 463.0 / 169.0



Component: PFNS
Primary Mass: 549.0 / 80.0



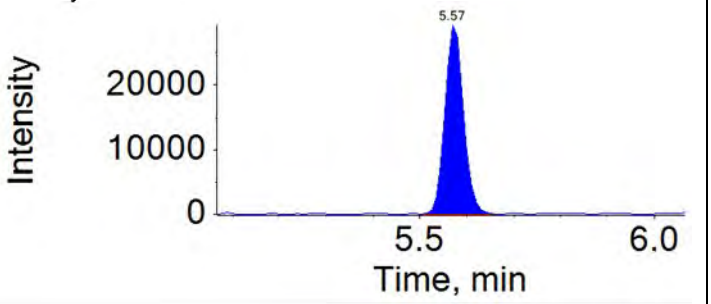
Component: PFNS_2
Secondary Mass: 549.0 / 99.0



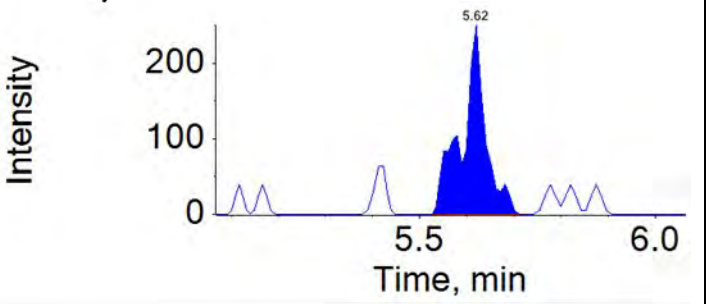
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

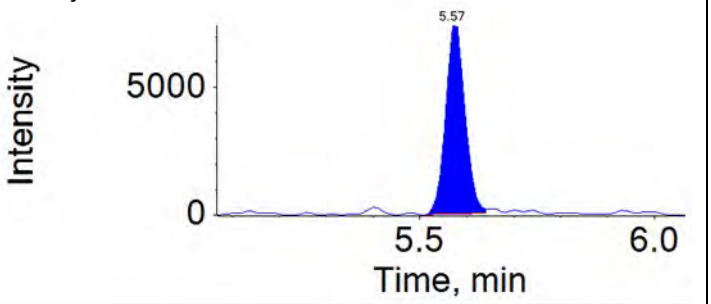
Component: PFDA
Primary Mass: 513.0 / 469.0



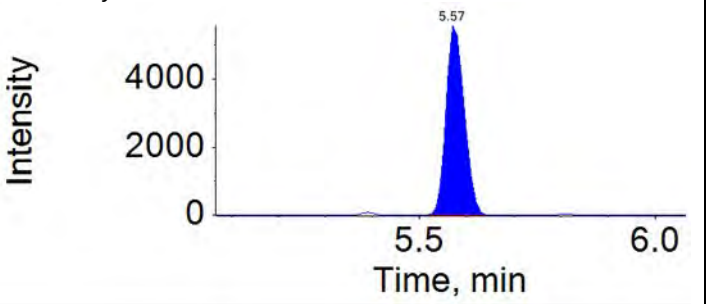
Component: PFDA_2
Secondary Mass: 513.0 / 169.0



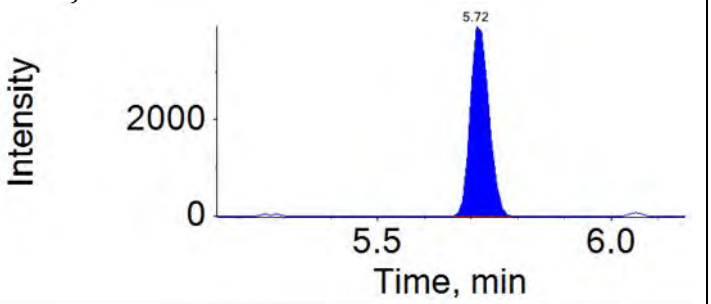
Component: 8:2-FTS
Primary Mass: 527.0 / 507.0



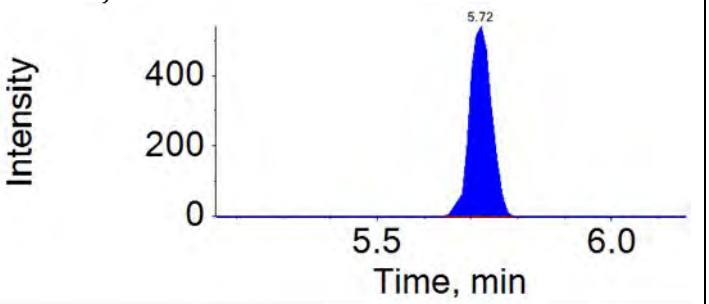
Component: 8:2-FTS_2
Secondary Mass: 527.0 / 81.0



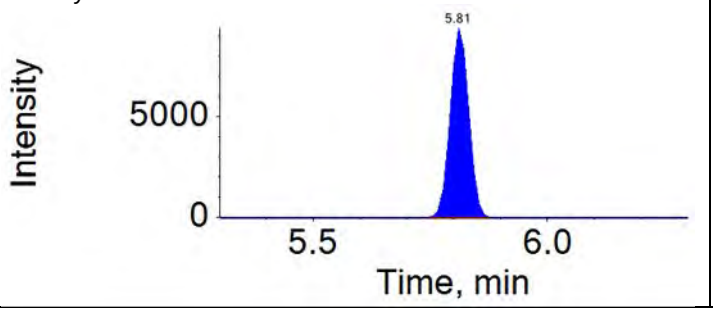
Component: NMeFOSAA
Primary Mass: 570.0 / 419.0



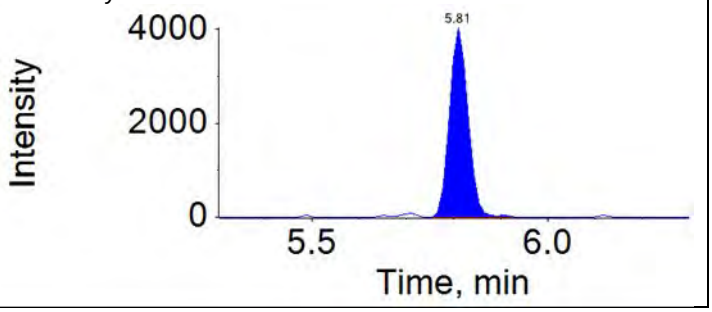
Component: NMeFOSAA_2
Secondary Mass: 570.0 / 483.0



Component: PFDS
Primary Mass: 599.0 / 80.0



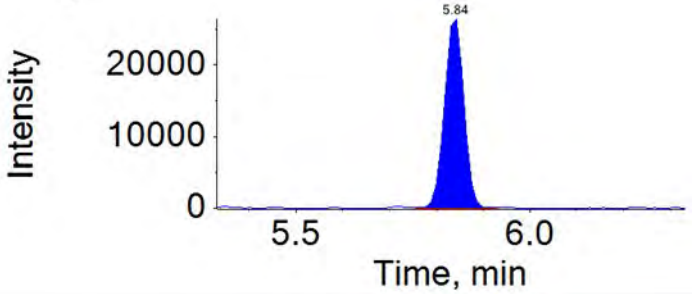
Component: PFDS_2
Secondary Mass: 599.0 / 99.0



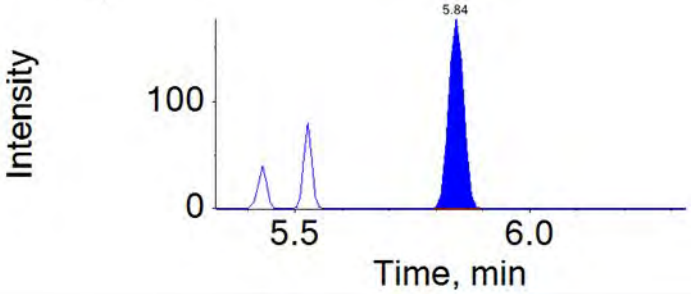
APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

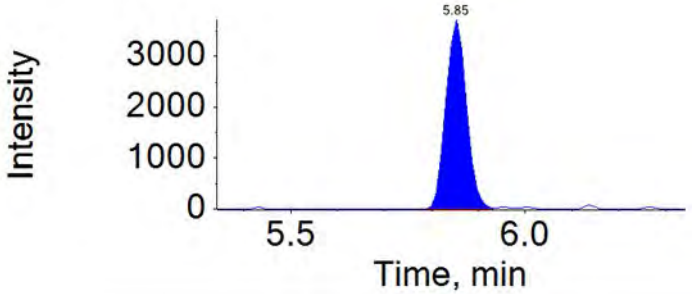
Component: PFUnDA
Primary Mass: 563.0 / 519.0



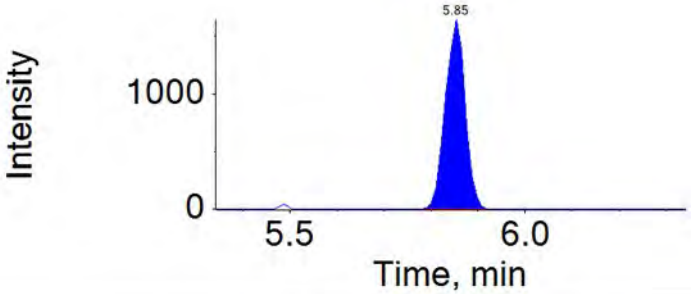
Component: PFUnDA_2
Secondary Mass: 563.0 / 169.0



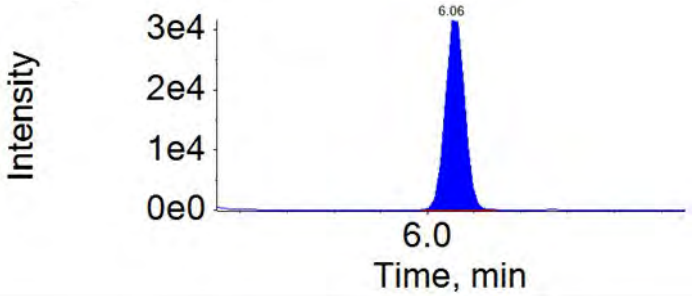
Component: NEtFOSAA
Primary Mass: 584.0 / 419.0



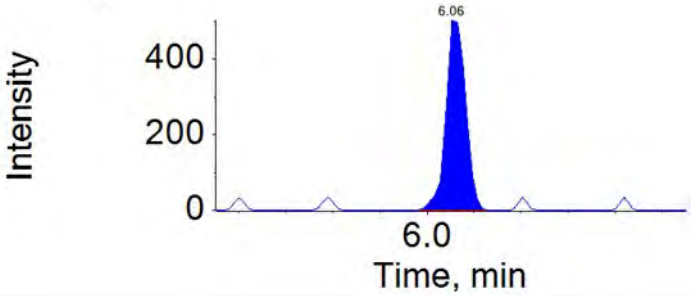
Component: NEtFOSAA_2
Secondary Mass: 584.0 / 526.0



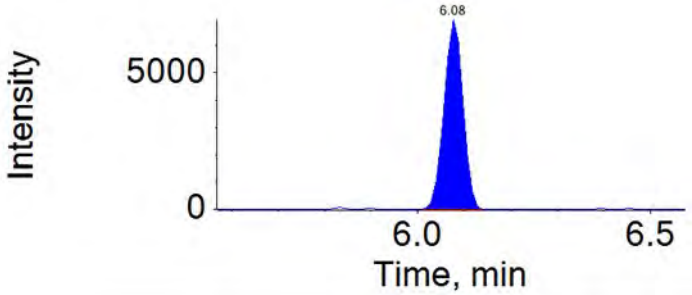
Component: PFDoDA
Primary Mass: 613.0 / 569.0



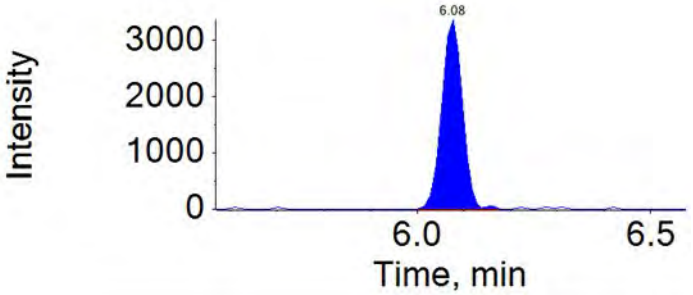
Component: PFDoDA_2
Secondary Mass: 613.0 / 169.0



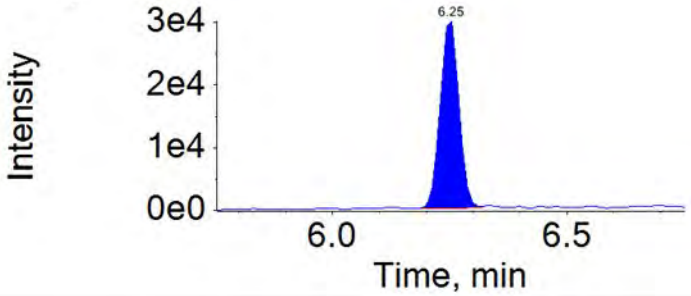
Component: 10:2-FTS
Primary Mass: 627.0 / 607.0



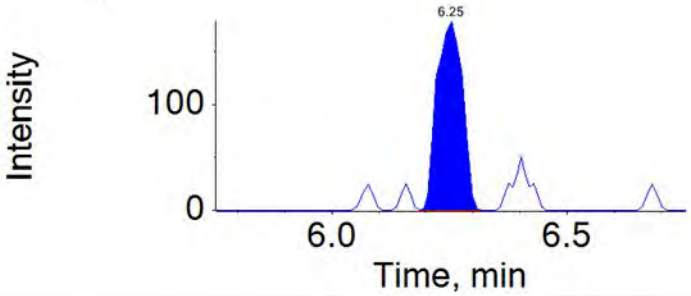
Component: 10:2-FTS_2
Secondary Mass: 627.0 / 81.0



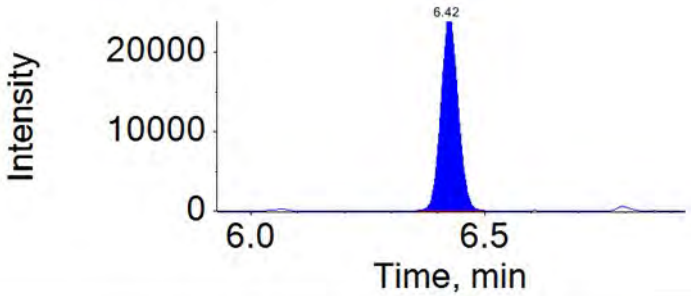
Component: PFTrDA
Primary Mass: 663.0 / 619.0



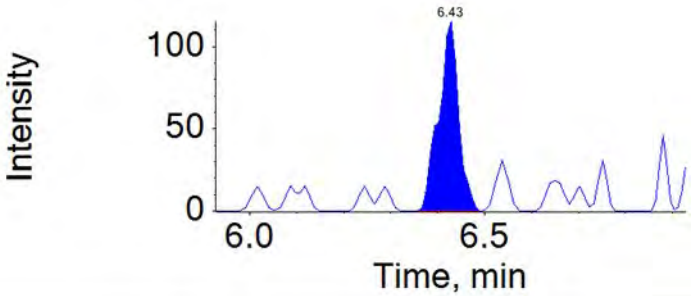
Component: PFTrDA_2
Secondary Mass: 663.0 / 169.0



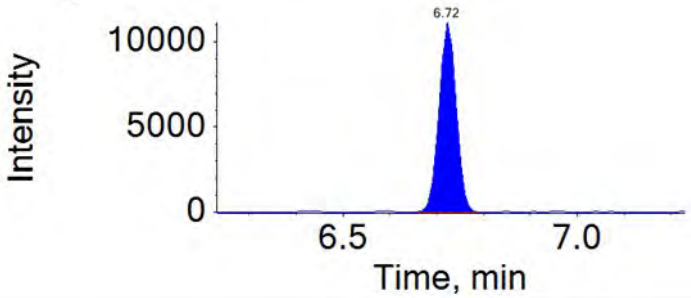
Component: PFTeDA
Primary Mass: 713.0 / 669.0



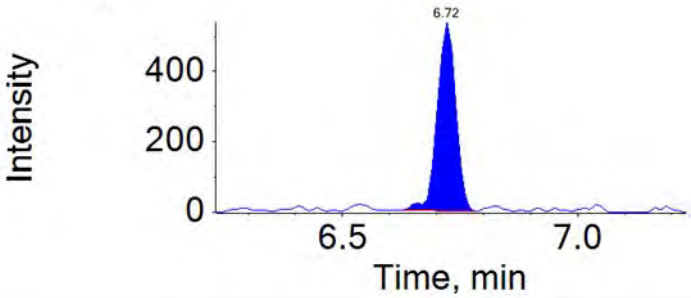
Component: PFTeDA_2
Secondary Mass: 713.0 / 169.0



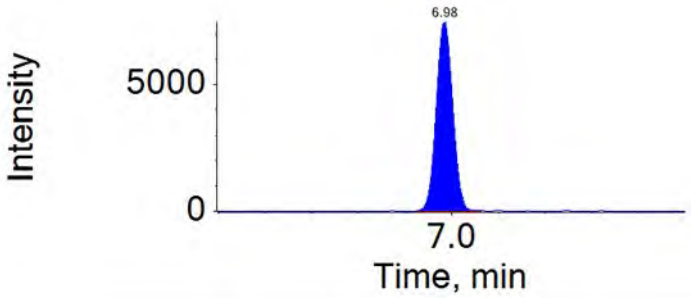
Component: PFHxDA
Primary Mass: 813.0 / 769.0



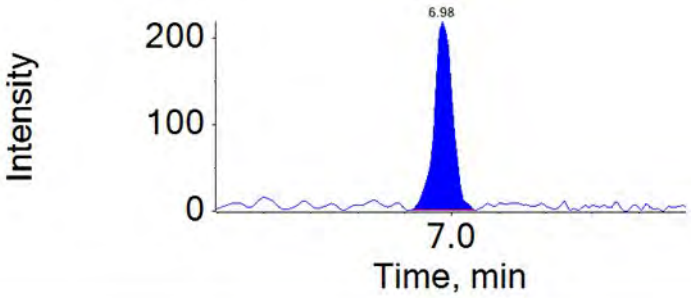
Component: PFHxDA_2
Secondary Mass: 813.0 / 169.0



Component: PFODA
Primary Mass: 913.0 / 869.0



Component: PFODA_2
Secondary Mass: 913.0 / 169.0



APPROVED
By MCD at 3:17 pm, 12/7/18

REVIEWED
By HMK at 8:36 am, 12/10/18

Preparation Logs

PFAS by LC/MS/MS

Organic Extraction Batchlog

18311004

Assigned to: 9213 Pamela Rothharpt Reviewed by: JDT12262 Start Date: 11/7/18 Start time: 7:35

Tech 1: PJR9213 Tech 2: —

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD ③mL PJR9213 11/7/18

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ③ (uL)	IS Amt (uL)	BC	Comments
1	9881538MS	MCLB4	1.05	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00	20	170a	gravel
	9881539MSD	MCLB4	1.10	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00	↓	170a	gravel
	BLANKA	BLK311004	1.00	SSMODX1833BY	0.05	—	—	1.00	↓	Z	
L	LCSA	LCS311004	↓	SSMODX1833BY	0.05	MSMODX1833AP	0.04	1.00	↓	Z	

Spike Solutions: Witness: CF12698 Instrument: LM27631

MSMODX1833AP PFAS 537 Native Spike

SSMODX1833BY PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV07SOD - 18NOV08D + 18NOV09D

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ③ (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
1	1	9881536	MCLB3	1.08	SSMODX1833BY	0.05	1.00	20	170a	gravel	14478	11/13/2018	N
	2	9881537	BKG MCLB4	1.04	SSMODX1833BY	0.05	1.00		170a	gravel	14478	11/13/2018	N
	3	9881540	MCLB5	1.05	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	4	9881541	MCLB6	1.01	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	5	9881544	MCLB9	1.03	SSMODX1833BY	0.05	1.00		170a	wet stones ⑧DIO	14478	11/13/2018	N
	6	9881545	MCLB0	1.10	SSMODX1833BY	0.05	1.00		170a	gravel	14478	11/13/2018	N
	7	9883380	SI111	1.02	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
	8	9883381	SI112	1.02	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
	9	9883386	SI115	1.06	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	10	9883387	SI116	1.02	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	11	9883388	SI117	1.10	SSMODX1833BY	0.05	1.00		170a	stones	14478	11/13/2018	N
	12	9883389	SI118	1.03	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	13	9883392	I1111	1.01	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	14	9883393	I1112	1.08	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
	15	9883394	I1113	1.05	SSMODX1833BY	0.05	1.00		170a		14478	11/13/2018	N
L	16	9883395	I1114	1.04	SSMODX1833BY	0.05	1.00	↓	170a		14478	11/13/2018	N

⑧ DIO: combined 877µL MeOH (D1401-US) w/ 22.5µL surrogate (SSMODX1833BX) and 100µL sample extract; vortexed. Dilution internalized w/ 50µL IS1831233A; vortexed. JDT12262 11/9/18

18311004

Organic Extraction Batchlog **18311004**

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~ (3)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
7	17	9885114	82255	1.06	SSMODX1833BY	0.05	1.00	20	170a	pebbles	14478	11/15/2018	N
7	18	9885117	82258	1.01	SSMODX1833BY	0.05	1.00	↓	170a		14478	11/15/2018	N

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	254781105183 3A
Auto-pipette (dilutions)	P1000-1 + P100-1
Auto-pipette (extract vialin	P1000-1
Envi-Carb	107563
Internal Standard	IS1830933A
Methanol	DV013-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 11/9/18

PJR9213 11/7/18

Balance #	B629764122	Sonic Bath ID	3800 A	N-evap C	38 C	SPE Manifold	—

18311004

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 11/9/18

Organic Extraction Batchlog Assigned to: 25478 Danielle McCully Reviewed by: JPT12262 Start Date: 11/11/18 Start time: 16:30

18314009 Tech 1: DDM25478 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 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
	9881540MS	MCLB5MS	1.05	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00	20	170a	
	BLANKA	BLK314009	1.00	SSMODX1833BZ	.05	N/A	-	1.00		JP*	
JA	LCSA	LCS314009	1.00	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00			
	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

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (3) (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9881540 R	MCLB5	1.07	SSMODX1833BZ	.05	1.00	20	170a		14478	11/13/2018	N
	2	9881573 R	OU101	1.08	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	3	9881575 R	OU103	1.04	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	4	9881576 R	OU104	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	5	9881589 R	OU115	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	6	9881595 R	OU121	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	7	9883388 R	SI117	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	8	9883389 R	SI118	1.03	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
	9	9883393 R	I1112	1.07	SSMODX1833BZ	.05	1.00		170a		14478	11/13/2018	N
N/A	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

BSI11 Page 2992 of 3000

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	2654311021833A
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~~ ③ MKBW3749V DAM2T478 11/11/18
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

N/A JPT12262 11/13/18

11/11/18 DAM2T478

Balance #	B62976412	Sonic Bath ID	3800a	N-evap B	30C	SPE Manifold	N/A

18314009

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

N/A JPT12262 11/13/18

Organic Extraction Batchlog

18332003

Assigned to: 12698 Courtney Fatta Reviewed by: MC07824 Start Date: 11/28/18 Start time: 9:45

Tech 1: CF12698 Tech 2: —

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

mL CF12698 11/28/18

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD (3)

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments
	9883383MS	SI113	1.10	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	20	170A	pebbles
	9883384MSD	SI113	1.07	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	↓	170A	pebbles
	BLANKA	BLK332003	1.0	SSMODX1833CE	.05	N/A	N/A	1.0	↓	Z	
Z	LCSA	LCS332003	1.0	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	↓		

Spike Solutions: Witness: PJR9213 Instrument: LM27631

MSMODX1833AU PFAS 537 Native Spike

SSMODX1833CE PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18NOV28POD/18NOV29D

(3) mL

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
	1	9881542	MCLB7	1.02	SSMODX1833CE	.05	1.0	20	170a		14478	12/06/2018	N
	2	9881543	MCLB8	1.04	SSMODX1833CE	.05	1.0	↓	170a		14478	12/06/2018	N
	3	9883382	BKG SI113	1.05	SSMODX1833CE	.05	1.0	↓	170a	pebbles	14478	12/06/2018	N
	4	9883385	SI114	1.01	SSMODX1833CE	.05	1.0	↓	170a	pebbles	14478	12/06/2018	N
	5	9883396	I1115	1.05	SSMODX1833CE	.05	1.0	↓	170a		14478	12/06/2018	N
	6	9883397	I1116	1.08	SSMODX1833CE	.05	1.0	↓	170a		14478	12/06/2018	N
	7	9885076	22050	1.07	SSMODX1833CE	.05	1.0	↓	170a	Sand	14478	12/06/2018	N
	8	9885077	22051	1.07	SSMODX1833CE	.05	1.0	↓	170a	Sand	14478	12/06/2018	N
	9	9885091	82215	1.10	SSMODX1833CE	.05	1.0	↓	170a		14478	12/06/2018	N
	10	9885133	82274	1.04	SSMODX1833CE	.05	1.0	↓	170a	Sand	14478	12/06/2018	N
	11	9885134	82275	1.02	SSMODX1833CE	.05	1.0	↓	170a	Sand	14478	12/06/2018	N
Z	12	9885151	82292	1.03	SSMODX1833CE	.05	1.0	↓	170a		14478	12/06/2018	N

BSI11 Page 2994 of 3000

MA MC07824 11/30/18

18332003

Organic Extraction Batchlog **18332003**

Port#	Sample #	Sample Code	Amt ( )	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri

Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MEOH	176981127183 3A
Auto-pipette (dilutions)	
Auto-pipette (extract vialin	P1000-3
Envi-Carb	107563
Internal Standard	IS18331337A
Methanol	DV136-US
Sand	MKBW7349V
Syringe (IS)	PFAS 11
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 11/30/18

CF12698 11/28/18

Balance #	B629764127	Sonic Bath ID	3800A	N-evap	A	30°C	SPE Manifold	N/A

18332003

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 11/30/18

Organic Extraction Batchlog Assigned to: 26543 Anthony Polaski Reviewed by: MCD7824 Start Date: 12/4/18 Start time: 19:06

18338017 Tech 1: ACP26543 Tech 2: ——

Analyses on Batch: PFAS in Soil by LC/MS/MS-DoD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DoD (3) ml. ACP26543 12/4/18

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV ~~(uL)~~	IS Amt (uL)	BC	Comments
7	9918958MS	EIE01MS	1.04	SSMODX1833CH	.05	MSMODX1833AV	.04	1ml.	20	170a	
	BLANKA	BLK338017	1.00	SSMODX1833CH	.05	N/A	N/A	1ml.		7	
	LCSA	LCS338017	↓	SSMODX1833CH	.05	MSMODX1833AV	.04	1ml.	↓		
L	LCSDA	LCSD338017	↓	SSMODX1833CH	.05	MSMODX1833AV	.04	1ml.	↓	L	

Spike Solutions: Witness: DDM254PR Instrument: LM27631

MSMODX1833AV PFAS 537 Native Spike

SSMODX1833CH PFAS 537 Modified Extraction/Surrogate Spik Sequence: 18DEC03D00/18DEC05D

Port#		Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV ~~(uL)~~ (3)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
7	1	9883396 R	I1115	1.08	SSMODX1833CH	.05	1ml.	20	170a		14478	12/06/2018	N
	2	9883397 R	I1116	1.06	SSMODX1833CH	.05	1ml.	↓	170a		14478	12/06/2018	N
	3	9918958	EIE01	1.02	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	4	9918959	EIE02	1.04	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	5	9918960	EIE03	1.02	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	6	9918961	EIE04	1.05	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	7	9918962	EIE05	1.18	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	8	9918963	EIE06	1.01	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	9	9918964	EIE07	1.02	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	10	9918965	EIE08	1.10	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	11	9918966	EIE09	1.09	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	12	9918967	EIE10	1.10	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	13	9918968	EIE11	1.08	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
	14	9918969	EIE12	1.02	SSMODX1833CH	.05	1ml.		170a		14478	12/11/2018	N
L	15	9920476	VAP51	1.00	SSMODX1833CH	.05	1ml.	↓	170a		14478	12/12/2018	N

BSI11 Page 2996 of 3000

18338017

Organic Extraction Batchlog **18338017**

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	265431127183 3A
Auto-pipette (dilutions)	
Auto-pipette (extract vialin	P1000-3
Envi-Carb	107563
Internal Standard	IS1833833A
Methanol	DU136-US
Sand	MKBW7349V
Syringe (IS)	PFAS 12
Syringe (MS)	PFAS 10
Syringe (SS)	PFAS 13

NA MCD7824 12/6/18

ACP26543 12/4/18

Balance #	BG29764122	Sonic Bath ID	3800A	N-evap A	33C	SPE Manifold	NA

18338017

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

NA MCD7824 12/6/18

Moisture Data

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
9883380	SI111
9883381	SI112
9883382	SI113BKG
9883383	SI113MS
9883384	SI113MSD
9883385	SI114
9883386	SI115
9883387	SI116
9883388	SI117
9883389	SI118
9883392	I1111
9883393	I1112
9883394	I1113
9883395	I1114
9883396	I1115
9883397	I1116

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: 18311820008B	Sample number(s): 9883380-9883381, 9883386-9883389, 9883392-9883395				
Moisture	100		99-101		
Batch number: 18337820002B	Sample number(s): 9883382-9883385, 9883396-9883397				
Moisture	100		99-101		
Moisture	100		99-101		
Moisture Duplicate	100		99-101		

Sample Matrix Quality Control

Analysis Name	BKG Conc	DUP Conc	RPD	RPD Max
Batch number: 18311820008B	Sample number(s): 9883380-9883381, 9883386-9883389, 9883392-9883395			
Moisture	1.6	1.8	13* (1)	5
Batch number: 18337820002B	Sample number(s): 9883382-9883385, 9883396-9883397			
Moisture	0.77	0.74	3 (1)	5
Moisture	0.77	0.74	3 (1)	5
Moisture Duplicate	0.77	0.74	3 (1)	5

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

Moisture Data Report

Batch #: 18311820008

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9883380	B	00111	1.1568	7.1216	8.2176	0.85	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883381	B	00111	1.1682	7.6869	8.8026	0.68	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883386	B	00111	1.1688	7.7262	8.4973	5.15	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883387BKG	B	00111	1.1424	7.4958	8.5189	1.59	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883387DUP	B	00111	1.1553	7.4671	8.4868	1.82	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883388	B	00111	1.1399	6.3522	7.4178	1.17	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883389	B	00111	1.1416	7.9316	8.9455	1.61	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883392	B	00111	1.1232	7.8629	8.9176	0.87	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883393	B	00111	1.1146	7.0190	8.0001	1.90	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883394	B	00111	1.1660	7.4326	8.5018	1.30	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
9883395	B	00111	1.1666	8.4925	9.4424	2.55	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)
LCS 89.5% Std.		00111	1.1288	5.0221	1.6625	89.37	11/ 7/18 (1201/SWF)	11/ 8/18 (236/CW)

Batch #: 18337820002

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
9883382BKG	B	00111	1.0911	5.6597	6.7075	0.77	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883383MS	B	00118				0.77	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883384MSD	B	00118				0.77	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883384MSD	B	00121	1.0647	5.6624	6.6852	0.74	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883385	B	00111	1.0700	5.1320	6.1415	1.18	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883396	B	00111	1.0775	5.8872	6.9357	0.49	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9883397	B	00111	1.0877	5.5431	6.5928	0.69	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
LCS 89.5% Std.		00111	1.0740	5.0698	1.6127	89.37	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)

CONTRACT_ID DO_CTO_NUMBER PHASE INSTALLATION_ID SAMPLE_NAME ANALYTICAL_METHOD LAB_NAME CONTRACTOR_NAME LEACHATE_METHOD SAMPLE_BASIS EXTRACTION_METHOD RESULT_TYPE SAMPLE_MEDIUM CLEANUP_METHOD QC_LEVEL LEACHATE_DATE LEACHATE_TIME EXTRACTION_DATE EXTRACTION_TIME ANALYSIS_DATE ANALYSIS_TIME LAB_SAMPLE_ID LAB_REPORT_DATE LAB_REPORT_NUMBER FILTER_SIZE DILUTION RUN_NUMBER PERCENT_MOISTURE PERCENT_LIPID ANALYTE_ID ANALYTE_VALUE ORIGINAL_ANALYTE_VALUE RESULT_UNITS LAB_QUALIFIER VALIDATOR_QUALIFIER FINAL_QUALIFIER DETECTED GC_COLUMN_TYPE ANALYSIS_RESULT_TYPE RADIOLOGICAL_ERROR RESULT_NARRATIVE RETENTION_TIME QC_CONTROL_LIMIT_CODE QC_ACCURACY_UPPER QC_ACCURACY_LOWER CONTROL_LIMIT_DATE RELATIVE_PCT_DIFF QC_NARRATIVE MDL CDL IDL PQL CRQL DETECTION_LIMIT VALIDATOR_DET_LIMIT VALIDATOR_MDL DL LOD LOQ SDG LEACH_LOT METHOD_BATCH PREP_BATCH RUN_BATCH ANALYSIS_BATCH VALIDATOR_NAME VALIDATION_QC VAL_DATE REPORTABLE_RESULT

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 Calculation EUROFINS BRADY GCE II NONE Wet NONE 000 S UNK 20181107 23:11:00 9883380 20190118 2005701 0.00 1 1 0.85 -86 0.85 0.85 PCT Y TRG 0.50 0.50 0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 335-67-1 0.40 0.40 NG_G J Y TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 375-95-1 0.67 0 NG_G U N TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 335-76-2 0.67 0 NG_G U N TRG 0.30 0.30 0.30 0.67 0.99 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 2058-94-8 0.67 0 NG_G U N TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 307-55-1 0.67 0 NG_G U N TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 72629-94-8 0.67 0 NG_G U N TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 376-06-7 0.67 0 NG_G U N TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 307-24-4 2.4 2.4 NG_G Y TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 375-85-9 1.4 1.4 NG_G Y TRG 0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004 Y

N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118 2005701 0.00 1 1 0.85 375-73-5 0.28 0.28 NG_G J Y TRG

0.20 0.20 0.20 0.59 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118
2005701 0.00 1 1 0.85 355-46-4 2.8 2.8 NG_G Y TRG
0.20 0.20 0.20 0.63 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118
2005701 0.00 1 1 0.85 1763-23-1 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118
2005701 0.00 1 1 0.85 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:32:00 9883380 20190118
2005701 0.00 1 1 0.85 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 Calculation EUROFINS BRADY GCE
II NONE Wet NONE 000 S UNK 20181107 23:11:00 9883381 20190118 2005701 0.00
1 1 0.68 -86 0.68 0.68 PCT Y TRG 0.50
0.50 0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 335-67-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 375-95-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 335-76-2 0.67 0 NG_G U N TRG
0.30 0.30 0.30 0.67 0.99 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 2058-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 307-55-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 72629-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 376-06-7 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 307-24-4 1.5 1.5 NG_G Y TRG

0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 375-85-9 0.22 0.22 NG_G J Y TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 375-73-5 0.21 0.21 NG_G J Y TRG
0.20 0.20 0.20 0.59 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 355-46-4 0.36 0.36 NG_G J Y TRG
0.20 0.20 0.20 0.63 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 1763-23-1 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:41:00 9883381 20190118
2005701 0.00 1 1 0.68 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 Calculation EUROFINS BRADY GCE
II NONE Wet NONE 000 S UNK 20181203 10:37:00 9883382 20190118 2005701 0.00
1 1 0.77 -86 0.77 0.77 PCT Y TRG 0.50
0.50 0.50 0.50 0.50 BSI11 18337820002B 18337820002B 18337820002B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 335-67-1 2.0 2.0 NG_G Y TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 375-95-1 0.52 0.52 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 335-76-2 0.65 0 NG_G U N TRG
0.29 0.29 0.29 0.65 0.96 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 2058-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 307-55-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 72629-94-8 0.65 0 NG_G U N TRG

0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 376-06-7 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 307-24-4 0.71 0.71 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 375-85-9 0.43 0.43 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 375-73-5 0.58 0 NG_G U N TRG
0.19 0.19 0.19 0.58 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 355-46-4 1.2 1.2 NG_G Y TRG
0.19 0.19 0.19 0.61 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 1763-23-1 16 16 NG_G Y TRG
0.19 0.19 0.19 0.62 0.77 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 2991-50-6 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:40:00 9883382 20190118
2005701 0.00 1 1 0.77 2355-31-9 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 Calculation EUROFINS BRADY GCE
II NONE Wet NONE 000 S UNK 20181203 10:37:00 9883385 20190118 2005701 0.00
1 1 1.2 -86 1.2 1.2 PCT Y TRG 0.50
0.50 0.50 0.50 0.50 BSI11 18337820002B 18337820002B 18337820002B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 335-67-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 375-95-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 2058-94-8 0.68 0 NG_G U N TRG

0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 307-24-4 0.72 0.72 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 355-46-4 0.20 0.20 NG_G J Y TRG
0.20 0.20 0.20 0.64 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 1763-23-1 0.65 0 NG_G U N TRG
0.20 0.20 0.20 0.65 0.80 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 2991-50-6 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-02-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:49:00 9883385 20190118
2005701 0.00 1 1 1.2 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883386 20190118 2005701 0.00 1 1
5.1 -86 5.1 5.1 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 335-67-1 0.30 0.30 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 375-95-1 0.61 0.61 NG_G J Y TRG

0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 335-76-2 1.7 1.7 NG_G Y TRG
0.30 0.30 0.30 0.68 0.99 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 307-24-4 0.29 0.29 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 375-85-9 0.36 0.36 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 355-46-4 0.81 0.81 NG_G Y TRG
0.20 0.20 0.20 0.64 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 1763-23-1 6.7 6.7 NG_G Y TRG
0.20 0.20 0.20 0.65 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
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0.50 0.50 0.50 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:50:00 9883386 20190118
2005701 0.00 1 1 5.1 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883387 20190118 2005701 0.00 1 1

1.6 -86 1.6 1.6 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 335-67-1 0.23 0.23 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 375-95-1 0.21 0.21 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 307-24-4 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 375-85-9 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 355-46-4 0.27 0.27 NG_G J Y TRG
0.20 0.20 0.20 0.64 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 1763-23-1 11 11 NG_G Y TRG
0.20 0.20 0.20 0.65 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118

2005701 0.00 1 1 1.6 2991-50-6 2.0 0 NG_G U N TRG
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Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 02:59:00 9883387 20190118
2005701 0.00 1 1 1.6 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883388 20190118 2005701 0.00 1 1
1.2 -86 1.2 1.2 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 335-67-1 0.29 0.29 NG_G J Y TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 375-95-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 335-76-2 0.67 0 NG_G U N TRG
0.29 0.29 0.29 0.67 0.98 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 2058-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 307-55-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 72629-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 376-06-7 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 307-24-4 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 375-85-9 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 375-73-5 0.59 0 NG_G U N TRG
0.20 0.20 0.20 0.59 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118

2005701 0.00 1 1 1.2 355-46-4 0.28 0.28 NG_G J Y TRG
0.20 0.20 0.20 0.63 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 1763-23-1 22 22 NG_G Y TRG
0.20 0.20 0.20 0.64 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-05 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:26:00 9883388 20190118
2005701 0.00 1 1 1.2 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883389 20190118 2005701 0.00 1 1
1.6 -86 1.6 1.6 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 335-67-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 375-95-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 335-76-2 0.67 0 NG_G U N TRG
0.30 0.30 0.30 0.67 0.99 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 2058-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 307-55-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 72629-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 376-06-7 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 307-24-4 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118

2005701 0.00 1 1 1.6 375-85-9 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 375-73-5 0.59 0 NG_G U N TRG
0.20 0.20 0.20 0.59 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 355-46-4 0.63 0 NG_G U N TRG
0.20 0.20 0.20 0.63 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 1763-23-1 0.64 0 NG_G U N TRG
0.20 0.20 0.20 0.64 0.79 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-03-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:35:00 9883389 20190118
2005701 0.00 1 1 1.6 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883392 20190118 2005701 0.00 1 1
0.87 -86 0.87 0.87 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 335-67-1 13 13 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 375-95-1 0.30 0.30 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 335-76-2 0.68 0 NG_G U N TRG
0.30 0.30 0.30 0.68 1.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 2058-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 307-55-1 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 72629-94-8 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118

2005701 0.00 1 1 0.87 376-06-7 0.68 0 NG_G U N TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 307-24-4 0.92 0.92 NG_G Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 375-85-9 0.62 0.62 NG_G J Y TRG
0.20 0.20 0.20 0.68 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 375-73-5 0.60 0 NG_G U N TRG
0.20 0.20 0.20 0.60 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 355-46-4 22 22 NG_G Y TRG
0.20 0.20 0.20 0.64 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 1763-23-1 28 28 NG_G Y TRG
0.20 0.20 0.20 0.65 0.80 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 2991-50-6 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-01 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:26:00 9883392 20190118
2005701 0.00 1 1 0.87 2355-31-9 2.0 0 NG_G U N TRG
0.50 0.50 0.50 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883393 20190118 2005701 0.00 1 1
1.9 -86 1.9 1.9 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 335-67-1 1.8 1.8 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 375-95-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 335-76-2 0.65 0 NG_G U N TRG
0.29 0.29 0.29 0.65 0.95 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 2058-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118

2005701 0.00 1 1 1.9 307-55-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 72629-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 376-06-7 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 307-24-4 1.3 1.3 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 375-85-9 0.56 0.56 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 375-73-5 0.25 0.25 NG_G J Y TRG
0.19 0.19 0.19 0.57 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 355-46-4 8.4 8.4 NG_G Y TRG
0.19 0.19 0.19 0.61 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 1763-23-1 0.83 0.83 NG_G Y TRG
0.19 0.19 0.19 0.62 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 2991-50-6 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-03 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:44:00 9883393 20190118
2005701 0.00 1 1 1.9 2355-31-9 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 Calculation EUROFINS BRADY GCE II NONE Wet NONE 000 S UNK 20181107 23:11:00 9883394 20190118 2005701 0.00 1 1 1.3 -86 1.3 1.3 PCT Y TRG 0.50
0.50 0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 335-67-1 0.88 0.88 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 375-95-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118

2005701 0.00 1 1 1.3 335-76-2 0.65 0 NG_G U N TRG
0.29 0.29 0.29 0.65 0.96 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 2058-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 307-55-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 72629-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 376-06-7 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 307-24-4 1.3 1.3 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 375-85-9 0.36 0.36 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 375-73-5 0.31 0.31 NG_G J Y TRG
0.19 0.19 0.19 0.57 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 355-46-4 2.9 2.9 NG_G Y TRG
0.19 0.19 0.19 0.61 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 1763-23-1 0.39 0.39 NG_G J Y TRG
0.19 0.19 0.19 0.62 0.76 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 2991-50-6 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-06 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181111 16:30:00 20181113 03:53:00 9883394 20190118
2005701 0.00 1 1 1.3 2355-31-9 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18314009 18314009 18314009 18314009
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181107 23:11:00 9883395 20190118 2005701 0.00 1 1
2.6 -86 2.6 2.6 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18311820008B 18311820008B 18311820008B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118

2005701 0.00 1 1 2.6 335-67-1 1.3 1.3 NG_G Y TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 375-95-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 335-76-2 0.67 0 NG_G U N TRG
0.30 0.30 0.30 0.67 0.99 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 2058-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 307-55-1 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 72629-94-8 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 376-06-7 0.67 0 NG_G U N TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 307-24-4 2.1 2.1 NG_G Y TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 375-85-9 0.42 0.42 NG_G J Y TRG
0.20 0.20 0.20 0.67 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 375-73-5 0.55 0.55 NG_G J Y TRG
0.20 0.20 0.20 0.59 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 355-46-4 3.8 3.8 NG_G Y TRG
0.20 0.20 0.20 0.63 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 1763-23-1 0.57 0.57 NG_G J Y TRG
0.20 0.20 0.20 0.64 0.79 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 2991-50-6 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-08 537_MOD EUROFINS BRADY GCE II

NONE Dry METHOD 000 S UNK 20181107 07:35:00 20181109 03:53:00 9883395 20190118
2005701 0.00 1 1 2.6 2355-31-9 2.0 0 NG_G U N TRG
0.49 0.49 0.49 2.0 3.0 BSI11 18311004 18311004 18311004 18311004
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181203 10:37:00 9883396 20190118 2005701 0.00 1 1
0 -86 0.50 0.492594102459573 PCT U N TRG 0.50
0.50 0.50 0.50 0.50 BSI11 18337820002B 18337820002B 18337820002B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 335-67-1 6.4 6.4 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 375-95-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 335-76-2 0.65 0 NG_G U N TRG
0.29 0.29 0.29 0.65 0.95 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 2058-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 307-55-1 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 72629-94-8 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 376-06-7 0.65 0 NG_G U N TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 307-24-4 0.77 0.77 NG_G Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 375-85-9 0.49 0.49 NG_G J Y TRG
0.19 0.19 0.19 0.65 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 375-73-5 0.57 0 NG_G U N TRG
0.19 0.19 0.19 0.57 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 355-46-4 17 17 NG_G Y TRG
0.19 0.19 0.19 0.61 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II

NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 1763-23-1 10 10 NG_G Y TRG
0.19 0.19 0.19 0.62 0.76 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 2991-50-6 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-10 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 18:58:00 9883396 20190118
2005701 0.00 1 1 0 2355-31-9 1.9 0 NG_G U N TRG
0.48 0.48 0.48 1.9 2.9 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 Calculation EUROFINS BRADY GCE II
NONE Wet NONE 000 S UNK 20181203 10:37:00 9883397 20190118 2005701 0.00 1 1
0.69 -86 0.69 0.69 PCT Y TRG 0.50 0.50
0.50 0.50 0.50 BSI11 18337820002B 18337820002B 18337820002B Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 335-67-1 6.1 6.1 NG_G Y TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 375-95-1 0.63 0 NG_G U N TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 335-76-2 0.63 0 NG_G U N TRG
0.28 0.28 0.28 0.63 0.93 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 2058-94-8 0.63 0 NG_G U N TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 307-55-1 0.63 0 NG_G U N TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 72629-94-8 0.63 0 NG_G U N TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 376-06-7 0.63 0 NG_G U N TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 307-24-4 0.95 0.95 NG_G Y TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 375-85-9 0.47 0.47 NG_G J Y TRG
0.19 0.19 0.19 0.63 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II

NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 375-73-5 0.56 0 NG_G U N TRG
0.19 0.19 0.19 0.56 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 355-46-4 15 15 NG_G Y TRG
0.19 0.19 0.19 0.60 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 1763-23-1 9.9 9.9 NG_G Y TRG
0.19 0.19 0.19 0.61 0.75 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 2991-50-6 1.9 0 NG_G U N TRG
0.47 0.47 0.47 1.9 2.8 BSI11 18332003 18332003 18332003 18332003
Y
N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB OU1-Bldg371-S-04-12 537_MOD EUROFINS BRADY GCE II
NONE Dry METHOD 000 S UNK 20181128 09:45:00 20181129 19:07:00 9883397 20190118
2005701 0.00 1 1 0.69 2355-31-9 1.9 0 NG_G U N TRG
0.47 0.47 0.47 1.9 2.8 BSI11 18332003 18332003 18332003 18332003
Y
SAMPLE_NAME CONTRACT_ID DO_CTO_NUMBER PHASE INSTALLATION_ID SITE_NAME LOCATION_NAME
SPECIMEN_NAME BIOLOGICAL_CLASS SEX AGE_CLASS EXCAVATION_NAME PARENT_SAMPLE_NAME
SAMPLE_MATRIX SAMPLE_TYPE SAMPLING_EQUIPMENT PROJECT_PHASE COMPOSITE WATER_COLUMN
COLLECT_DATE COLLECT_TIME DATUM_ELEV ELEV_UNITS DATUM_MLLW DATUM_DESC START_DEPTH
END_DEPTH DEPTH_UNITS REMOVED REMOVED_DATE AMBIENT_BLANK EQUIPMENT_BLANK
SOURCE_BLANK TRIP_BLANK SAMPLE_NARRATIVE
OU1-Bldg371-S-02-05 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
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OU1-Bldg371-S-02-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
N N 20181031 12:25:00 08
OU1-Bldg371-S-02-10 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
N N 20181031 12:50:00 10
OU1-Bldg371-S-02-10 MS N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
OU1-Bldg371-S-02-10 SO MS N 20181031 12:50:00 10
OU1-Bldg371-S-02-10 MSD N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000
OU1-Bldg371-S-02-10 SO SD N 20181031 12:50:00 10
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N N 20181031 12:52:00 12
OU1-Bldg371-S-03-01 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
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OU1-Bldg371-S-03-05 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
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OU1-Bldg371-S-03-08 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
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OU1-Bldg371-S-04-10 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO
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N N 20181031 16:35:00 12
BLK18311004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO LB
N

LCS18311004 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO BS N
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LCS18314009 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO BS N
LCSD18314009 N62473-14-D-1405 N6247317F4100 BARSTOW_MCLB 00000 SO BD N
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